

Issue 65, 9 August 2023

ISSN 1836-5698 (Print)
ISSN 1836-5779 (Online)

Australasian Journal of Herpetology

Contents on page 2

***Australasian Journal of Herpetology*®**

Issue 65, 9 August 2023.

Contents

Microhabitat partitioning between three invasive Australian skink lizard species.

... [Raymond T. Hoser, 3-4.](#)

A further dismemberment of the skink genus *Sphenomorphus* Fitzinger, 1843 (Squamata: Sauria: Scincomorpha) including the formal descriptions of 22 new genera, 5 new subgenera, 21 new species and 4 new subspecies.

... [Raymond T. Hoser, 5-50.](#)

The further division of the *Nodorha bougainvillii* (AKA *Lerista bougainvillii*) *sensu lato* species complex, including formal descriptions of five new species and a new subspecies.

... [Raymond T. Hoser, 51-63.](#)

Front cover and this image: *Allengreerus jackyhoserae* (Hoser, 2012)
Back Cover: *Saproscincus sonderi* (Peters, 1878)
All from Crib Point, Victoria.



ISSN 1836-5698 (Print)
ISSN 1836-5779 (Online)

***Australasian Journal of Herpetology*®**

Publishes original research in printed form in relation to reptiles, other fauna and related matters, including classification, ecology, public interest, legal, captivity, “academic misconduct”, etc. It is a peer reviewed printed journal published in hard copy for permanent public scientific record in accordance with the *International Code of Zoological Nomenclature* (Ride *et al.* 1999 as amended online since), with sizeable print run and global audience and high impact.

Full details at: <http://www.herp.net>

Copyright. All rights reserved.

Online journals (this issue) do not appear for a month after the actual and listed publication date of the printed journals. Minimum print run of first printings is at least fifty hard copies.

Microhabitat partitioning between three invasive Australian skink lizard species.

LSIDURN:LSID:ZOOBANK.ORG:PUB:D46FBBF0-1013-460F-805D-BCFA6408E12B

RAYMOND T. HOSER

LSIDurn:lsid:zoobank.org:author:F9D74EB5-CFB5-49A0-8C7C-9F993B8504AE

488 Park Road, Park Orchards, Victoria, 3134, Australia.

Phone: +61 3 9812 3322 Fax: 9812 3355 E-mail: snakeman (at) snakeman.com.au

Received 29 July 2023, Accepted 2 August 2023, Published 9 August 2023.

ABSTRACT

While habitat and microhabitat preferences of reptile species are well-known, specific instances of microhabitat partitioning in morphologically similar species are not commonly documented. Detailed here are two examples of microhabitat partitioning involving invasive native skink species in southern Victoria, Australia, two of which have only been shown to be distinctive species in the past 2 decades (*sensu* Hoser 2009, 2012, 2022b, 2022c).

The relevant taxa are *Allengreerus jackyhoserae* (Hoser, 2012) (locally in southern Victoria often misidentified under the name "*Lampropholis delicata* (De Vis, 1888)", *Lampropholis guichenoti* (Duméril and Bibron, 1839) and *Saproscincus sonderi* (Peters, 1878) (locally in southern Victoria often misidentified under the name "*Saproscincus mustelina* (O'Shaughnessy, 1874)").

With an increasing number of wide-ranging putative reptile species being shown to be composite and many, it is important that biological observations are attributed to the correct species-level taxon.

Keywords: Australia; skink; lizard; *Lampropholis*; *Allengreerus*; *Saproscincus*; *guichenoti*; *mustelinae*; *jackyhoserae*; *delicata*; microhabitat; partitioning; invasive species; Victoria; Melbourne, Park Orchards, Crib Point.

INTRODUCTION

Small innocuous and common reptiles are often ignored and overlooked with respect of important aspects of their biology.

To partially correct this anomaly, I report on two cases of habitat partitioning among three invasive species of native Australian skink lizard.

The cases detailed below are typical of similar observations made over many decades in the same part of Australia (Melbourne, Victoria and environs) and go some way to explaining how morphologically similar species complexes can avoid direct competition and confrontation in areas they co-exist, enabling them to have parallel distributions across a wide band of south-east Australia (*sensu* Hoser, 1989).

The relevant locations of the observations are in South-east Australia (being east and south-east of Melbourne, Victoria) and involve three common and invasive species, being *Allengreerus jackyhoserae* (Hoser, 2012) (locally in southern Victoria often misidentified under the name "*Lampropholis delicata* (De Vis, 1888)", *Lampropholis guichenoti* (Duméril and Bibron, 1839) and *Saproscincus sonderi* (Peters, 1878) (locally in southern Victoria often misidentified under the name "*Saproscincus mustelina* (O'Shaughnessy, 1874)").

All three species are each a part of a complex, being within 1/ The so-called "*Lampropholis guichenoti* complex" since shown by Hoser (2022c) to be complex of 5 morphologically similar

species, distributed allopatrically of one another in eastern Australia, 2/ The so called "*Lampropholis delicata*" complex, since shown by Hoser (2022c) to be complex of 19 species, and also transferred to the genus *Allengreerus* Hoser, 2009, and 3/ The so called "*Saproscincus mustelina*" complex, since shown to be a complex of 4 species by Hoser (2022b).

With morphologically similar species within each preceding complex being with divergences measured in millions of years (Hoser 2022b-c), it is self evident that different species will differ in biology and so should be therefore be treated as separate entities in terms of studies and publications.

MATERIALS AND METHODS

The observations made and reported herein were done in the context of being made while "on the job", either as a government-licensed snake catcher, reptile displayer or working with a dog trainer.

However they were not wholly observational in that I also actively sought out lizards at the relevant venues in the context of seeking species to observe, photograph and in the case of insects, snails and other invertebrates to take as food for lizards and frogs I maintained for my live reptile displays business (Reptile Party®).

The observations reported here are in line with others not reported by me, but of similar nature.

RESULTS

OBSERVATION ONE

In 27 January 2021 I was called to a home at 109 Arundel Road, Park Orchards, Victoria, about a half hour's drive east of Melbourne, Victoria, to locate an adult male Copperhead *Austrelaps superbus* Günther, 1858 seen moving across the front and then back yard earlier the same day.

The weather was warm (mid 20's Celsius) and I attended the venue at about 5 PM.

No snake was located, but at the rear of the back yard (north-facing yard), amongst vegetation and rocks, adjacent to mowed lawns and in dappled sunlight filtering through deciduous trees, I noticed three *Allengreerus jakyhoserae* (Hoser, 2012) moving amongst the vegetation and caught one.

In the front yard on the south-east corner and under a sheet of thick bark beneath a dense low pine tree I found an adult *Saproscincus sonderi* resting. It was cool and moist under the sheet of bark.

This section of the yard was wholly shaded on all sides and very cool by comparison with the back yard where the *A. jakyhoserae* had been seen.

In my searching for the Copperhead, I entered the reserve at the north boundary of the property (known as the 100 Acres Reserve), which is a mosaic of mainly open grassy areas on the perimeter and then becoming open wooded bushland (but with minimal low vegetation) beyond. That is the reserve has mainly small, medium and large trees, but not much vegetation or grasses covering the ground as such.

Scuttling under a fallen log I noticed an adult *Lampropholis guichenoti*, which I was able to capture and to confirm the ID of the lizard.

This area was also warm as compared to the other mentioned sites, but differed from the area the *A. jakyhoserae* were found in that there were no succulent green trees (European kinds) overhead, or mowed and well-watered lawns in the same area, as had been the case for where the *A. jakyhoserae* were found.

This microhabitat partitioning between the three skinks of the three genera in terms of *Saproscincus* taking the cooler/coolest microhabitat and *Lampropholis* taking the warmer/warmest is something I have observed throughout south-east Queensland, New South Wales and Victoria, wherever I have found more than one species in these genera present at any location.

However I am unaware of this being documented in this exact form to this date and hence the reporting of this observation.

OBSERVATION TWO

On Saturday 29 July 2023, I visited Jack's Beach reserve at Crib Point, about an hour's drive south east of Melbourne, Victoria. The foreshore bushland was moderately dense scrubby forest habitat with scattered fallen logs. Under these I located several specimens of *A. Jakyhoserae*, and no other species. Next to the immediately adjacent Woolley's Road, was a ditch (on the south side) and behind that a wall of dense tea-tree like vegetation. A log well embedded log was seen under this vegetation. It was lifted and yielded an adult *S. Sonderi*. This again was a location far more shaded and cooler than from where the located proximally *A. Jakyhoserae* had been found.

DISCUSSION

Why or how the relevant species chose their preferred microhabitat is not known.

Whether this preference is driven by competition from one or other species, or is simply an artefact of built in preferences is not known and should be investigated.

Furthermore it is not known why in south-east Australia, skinks in the three preceding named species complexes seem to do well around human habitation in large cities (see also Hoser 2022a), whereas other native skink species do not seem to do well and often die out in these areas, even if common prior to urbanisation.

By way of example, in areas of St. Ives South, (New South Wales) before urbanisation (in the 1960's), Copper-tailed skinks *Ctenotus taeniolatus* White, 1790 were common, but within a few years of housing development, they effectively disappeared (although they remain common in undisturbed national parks nearby). The three preceding named genera (but not *Ctenotus taeniolatus* White, 1790) continue to occupy the built up area and in greater numbers than preceding the urbanisation.

In Melbourne's suburbs, small skinks of other genera tend to expire from heavily urbanised areas, but the those of the genera *Allengreerus* Hoser, 2009, *Saproscincus* Wells and Wellington, 1984 and *Lampropholis* Fitzinger, 1843 not only survive, but generally increase in number.

Hence I have described them as "invasive species" in the context of this paper.

Furthermore, while they are native to the areas they are currently invasive to, the risks these lizards pose to other ecosystems if translocated by people should not be underestimated and governments should prepare for risks these species may pose, if and when they are translocated and manage to invade new areas.

REFERENCES CITED

- De Vis, C. W. 1888. A contribution to the herpetology of Queensland. *Proceedings of the Linnaean Society of New South Wales* (2):2:811-826 [1887].
- Fitzinger, L. J. F. J. 1843. *Systema Reptilium. Fasciculus Primus*. Wien: Braumüller et Seidel.
- Günther, A. 1858. *Catalogue of Colubrine snakes of the British Museum*. London, UK:I-XVI, 1-281.
- Hoser, R. T. 1989. *Australian Reptiles and Frogs*. Pierson and Co., Mosman, New South Wales, Australia:238 pp.
- Hoser, R. T. 2009. A new genus and a new species of skink from Victoria. *Australasian Journal of Herpetology* 3:1-6.
- Hoser, R. T. 2012. A New Genus and new species and new subspecies of skink from Victoria (Squamata:Scincidae). *Australasian Journal of Herpetology* 12:63-64.
- Hoser, R. T. 2022a. Dumped rubbish! Is a lack of oviposition sites a potential population limiting factor for southern Australian skinks? *Australasian Journal of Herpetology* 58:3-5.
- Hoser, R. T. 2022b. The inevitable further break up of the skink genus *Saproscincus* Wells and Wellington (1984) into two genera, each split to subgenera and the formal description of a new species from North Queensland, Australia. *Australasian Journal of Herpetology* 57:53-64.
- Hoser, R. T. 2022c. The inevitable split up of the common Australian skink lizard *Allengreerus delicata* AKA *Lampropholis delicata* into resurrected and new species (Reptilia: Squamata: Scincidae). *Australasian Journal of Herpetology* 57:28-52.
- O'Shaughnessy, A. W. E. 1874. A description of a new species of Scincidae in the collection of the British Museum. *Annals and Magazine of Natural History* (4)13:298-301.
- Peters, W. C. H. 1878. Über zwei Scincoiden aus Australien und eine neue Amphisbaena von Westafrika. *Sitzungsberichte der Gesellschaft Naturforschender Freunde zu Berlin*. 1878 (November):191-192.
- Wells, R. W. and Wellington, C. R. 1984. A synopsis of the class Reptilia in Australia. *Australian Journal of Herpetology* 1(3-4):73-129.
- White, J. 1790. *Journal of a voyage to new South Wales, with sixty-five plates of non descript animals, birds, lizards, serpents, curious cones of trees and other natural productions*. Debrett, London, UK:229 pp.
- Cover photo of this issue of *Australasian Journal of Herpetology* is an adult *A. jakyhoserae* from Crib Point, Victoria.

CONFLICT OF INTEREST

None.

A further dismemberment of the skink genus *Sphenomorphus* Fitzinger, 1843 (Squamata: Sauria: Scincomorpha) including the formal descriptions of 22 new genera, 5 new subgenera, 21 new species and 4 new subspecies.

LSIDurn:lsid:zoobank.org:pub:635F4A52-6146-4A9B-83AC-0156CFBD907B

RAYMOND T. HOSER

LSID urn:lsid:zoobank.org:author:F9D74EB5-CFB5-49A0-8C7C-9F993B8504AE

488 Park Road, Park Orchards, Victoria, 3134, Australia.

Phone: +61 3 9812 3322 Fax: 9812 3355 E-mail: snakeman (at) snakeman.com.au

Received 3 August 2019, Accepted 22 June 2022, Published 9 August 2023.

ABSTRACT

A review of the lizard genus *Sphenomorphus* Fitzinger, 1843 as currently recognized has confirmed the obvious in that the putative genus consisting well over 100 recognized species is polyphyletic.

While in the twenty years preceding 2019, numerous species placed within *Sphenomorphus* have been assigned to other genera, either existing or newly created, as of 2023 there remained numerous species groups for which generic assignment within *Sphenomorphus* is not appropriate.

Obviously divergent groups for which generic names are not available are formally placed in newly named genera and subgenera for the first time in accordance with the rules of the *International Code of Zoological Nomenclature* (Ride *et al.* 1999).

Other “unassigned” members of *Sphenomorphus sensu lato*, and species yet to be named, will need to have their genus level assignment re-assessed in light of this new taxonomy.

The recent indiscriminate placement of clearly divergent newly described species in the genus *Sphenomorphus* because they are shiny Asian skinks, like it is some kind of “rubbish tip for taxonomists and nomenclature” is neither sensible nor scientific.

Relevant herpetologists need to take greater care when assigning a genus to a newly discovered or described taxon and if available evidence shows clear divergence (as seen in examples within this paper), then erection of a new genus should not be something to unreasonably delay.

For the first time ever, this paper provides working genus level diagnoses for most species until now previously placed within *Sphenomorphus*.

Keywords: Lizard; skink; taxonomy; Asia; Solomon Islands; New Guinea; Thailand; Malaysia; Indonesia; nomenclature; *Sphenomorphus*; *Lissonata*; *Elenia*; *Parotosaurus*; *Otosaurus*; *Crottysaurus*; *Shireenhoserscincus*; new genus; *Longumdigitos*; *Brunneisstellio*; *Paratythoscincus*; *Plenusstellio*; *Redactasquamae*; *Marmoratastellio*; *Brevicurastellio*; *Quasipisciscincus*; *Ofilllabiireatum*; *Arietesvarious*; *Brevinnaribussuis*; *Silvalizard*; *Invalueruntscincus*; *Piersonstellio*; *Lineaatro*; *Brunneismaculis*; *Albummentum*; *Tenebrisspina*; *Tenuisfodiens*; *Tumessuperoculum*; *Dumpedes*; *Absconditaareum*; new subgenus; *Cryptozoscincus*; *Minimascinkus*; *Caudadensissima*; *Fortiscrurascincus*; *Macrocular*; new species; *allengreeri*; *glennsheai*; *kenaplina*; *richardwellsi*; *rosswellingtoni*; *paulwoolfi*; *fauciummaculosus*; *levis*; *piscissimilis*; *fortees*; *brunneiscorpus*; *neglectus*; *utrimquepunctata*; *funibus*; *nonvidetur*; *abscondeetus*; *lovelinayi*; *charlespiersoni*; *lateribusfulvis*; *cinereocauda*; *patrickdavid*; new subspecies; *divergans*; *lineatenebrica*; *veloxmovens*; *currax*.

INTRODUCTION

As part of an ongoing review of the genus-level classification of the world's lizards, the genus *Sphenomorphus* Fitzinger, 1843, type species *Scincus muelleri* has been scrutinized by this author.

To that extent, some clearly divergent lineages previously placed in this genus have already been assigned to newly named genera.

One recent example was that of *Crottysaurus* Hoser, 2019, including the two species *C. crottyi* Hoser, 2019 as the type species and *C. buenloicus* (Darevsky and Nguyen, 1983) being the sole members of the genus, although a third species *Crottysaurus yersini* (Nguyen, Nguyen, Nguyen, Orlov and Murphy, 2018) was overlooked by Hoser in 2019 and should also have been assigned to the same genus.

Another genus *Shireenhoserscincus* Hoser, 2019, included four divergent species.

Other genera either recently named or resurrected from synonymy to include species previously placed within *Sphenomorphus* include *Pinoyscincus* Linkem *et al.* 2011, *Tythoscincus* Linkem *et al.* 2011, *Insulasaurus* Taylor, 1922, *Otosaurus* Gray, 1845, *Parvosincus* Ferner, Brown and Greer, 1997, *Scincella* Mittleman, 1950 and *Glaphyromorphus* Wells and Wellington, 1984 although this list is far from complete.

The purpose of the study forming the basis of this paper was to audit literature, specimens and other relevant material to find other species groups putatively placed within *Sphenomorphus* that clearly should not be placed in that genus and for which there are presently no available names, with a view to placing them in appropriate genera.

Prior to the publication of this paper, the genus *Sphenomorphus* Fitzinger, 1843 *sensu lato* consisted of well over 100 recognized species, many not even closely related to one another. This fact has been known for decades and so it was a matter of when, not if, these species would be more correctly assigned at the genus-level.

Hence the formulation of this paper.

Sphenomorphus Fitzinger, 1843 *sensu lato* as used in this paper, is in reference to all species referred to the genus in the literature cited herein, with an emphasis on the more recent publications, post-dating year 1980, as in the past 4 decades.

DELAY IN PUBLICATION

The beginnings of this paper were in 2014, and by mid 2015, the main part of what follows was pretty much done.

Several important and informative phylogenies had been published, including that of Pyron *et al.* (2013), which flagged most of the main species groups within *Sphenomorphus* Fitzinger, 1843 *sensu lato*.

However on 9 July 2015, I received an unsolicited email from Glenn Shea in Sydney asking me not to publish on the group until he published "his" big work on the complex, which he said he expected to be by end of that year.

Miffed that Shea was asking me to effectively ditch my own work, I did the ethical thing and agreed to Shea's request on his stated basis that he said he was about to name some 50 species and several new genera, which in terms of the species at least, indicated he had made significantly greater progress on this group than myself and therefore quite appropriately should have priority in opportunity to name the relevant taxa.

Shea wrote of his imminent paper that:

"About 50 new species and several new genera will result from this work."

My own investigations had also shown well over 50 species unnamed in this assemblage and at least a 12 way split of *Sphenomorphus sensu lato* and so Shea's claim was plausible to me and I accepted it on face value.

Being a reasonable person, I immediately replied by email on the same day and then in a later email, even went so far as to tell him I'd give him 2 years to get his act into gear and publish, after

which, I'd return to my manuscript and publish names for those he either missed or if he did not publish at all, the lot of them.

By 2019, it was clear that Shea's alleged 50 species and several new genera were not going to materialize, even though in my reply email of 2015, I also noted that I was about to name several genera within that very assemblage.

In 2015, I'd emailed him saying:

"I had already looked at *Sphenomorphus* and see it being split more than 12 ways (including resurrecting a few synonyms) ... and that's before dealing with associated genera..."

By 2019, being four years later, it was self-evident that Shea's alleged paper was not going to happen.

I noted in 2019 that Shea had been able to spend vast amounts of time trawling Facebook and harassing people, in what was largely time-wasting activities.

Unexpectedly he had also published a few rambling papers dealing with matters way out of his depth, including his unsolicited incursion into the world of turtle taxonomy (Shea *et al.* 2020), which is an area he has never had any professed expertise in.

This is significant as in 2015, he'd given me a list of the taxa he was ostensibly working on, so I would keep my hands off them and not publish on them. Turtles of any kind were not on his long list.

His first taxonomic act in the area of turtles was a diatribe of a "paper" that served no purpose other than to rename *Supremechelys* Hoser, 2014 as *Chelydora* Shea, Thomson and Georges, 2020.

It was simply an act of egregious taxonomic vandalism that created (by his own stated taxonomy) a junior (subjective) synonym to clutter up reptile synonyms lists for years to come.

In fairness to Glenn Shea, he was probably roped into that effort of taxonomic vandalism by listed co-authors Scott Thomson and Arthur Georges, who had by that stage developed a reputation of trying to rename species or genera to steal "name authority" from the earlier authors.

Think for example about the genus *Wollumbinia* Wells, 2007, (see also Wells 2009) and the illegally coined objective junior synonym *Myuchelys* Thomson and Georges, 2009, that they published in the notorious online (PRINO = peer reviewed in name only) "journal" *Zootaxa*.

Since then, the same cohort have been illegally plastering their *Myuchelys* name all over the world-wide-web (of deceit?!)

Shea also published a rubbish paper in the same notorious online (PRINO = peer reviewed in name only) "journal" *Zootaxa* (Shea 2020) that served no effective purpose but to disparage my own earlier reclassification of the Acontinae (Hoser, 2015g). Again this is one group of reptiles that Shea has no prior known history or expertise in.

Without a shred of evidence, he asserted that most, if not all the names I'd proposed in that massive two volume monograph (Hoser, 2015g), that had followed extensive fieldwork in Africa and North America (which is where these reptiles actually occur ... they are not in Australia) were unavailable according to the rules of the *International Code of Zoological Nomenclature* (Ride *et al.* 1999) as amended (ICZN 2012).

That claim was subsequently systematically destroyed by the ICZN in their formal ruling dated 30 April 2021 (ICZN 2021).

In the same 2020 paper Shea had also declared, most, if not all names proposed by myself were "synonyms" without stating whether they were "objective" (then they would be unavailable) or "subjective", which meant they were synonyms in his opinion only.

Of course the latter was the correct situation, meaning the entire ramble was a complete waste of time and space, because he'd not presented a shred of evidence to support his allegations or taxonomic decisions.

That was of course at variance to my original work that was largely based on peer reviewed studies, molecular phylogenies

and the like and therefore was a sound scientific work backed by a verifiable body of evidence.

In other words Shea's 2020 paper made no meaningful contribution to herpetology.

But calling Shea's previously referred to "paper" a "paper" is also a bit of a stretch of the imagination.

After all, it was as far as can be ascertained only published online in the notorious PRINO online "journal" *Zootaxa*, which at least means no trees were killed to produce that "work".

Now I don't want to disparage Glenn Shea too much.

He has published some excellent herpetological works in his time and he has definitely made a contribution to herpetology.

This even includes with respect of *Sphenomorphus* Fitzinger, 1843 *sensu lato*.

As of 2023, he has named two species within *Sphenomorphus* Fitzinger, 1843 *sensu lato* since 2015, that is, just two of his purported 50 species, which I had made a point of not interfering with for no less than 8 years.

He also named two others prior to 2015.

For the record these four taxa were,

"*Sphenomorphus capitolythos* Shea and Michaels, 2008"

"*Sphenomorphus dekkeræ* Shea, 2017"

"*Sphenomorphus fuscolineatus* Greer and Shea, 2004"

"*Sphenomorphus wau* Shea and Allison, 2021"

All herein are placed in *Ofillabireatum* *gen. nov.*

That is of course a useful contribution to herpetology and cannot be denied.

I used Shea's papers when preparing this and related works, cite them appropriately (see for example the formal descriptions of *Longumdigitos* *gen. nov.* and *Invalueruntscincus* *gen. nov.*) and in this paper I even name a species in his honour in recognition of his works in herpetology.

This is the second such species in *Sphenomorphus* Fitzinger, 1843 *sensu lato* formally named in his honour.

Please note that I used Shea's first and last names as the species name, to avoid creating a potential homonym with earlier named form.

In recognition of Glenn Shea's contributions to herpetology, I have also quite appropriately previously named three other reptiles in his honour, being:

Cacophis sheai Hoser, 2014.

Tiliqua glennsheai Hoser, 2014.

Extensudigituscolotes glennsheai Hoser, 2018.

I also noted that Shea's apparent abandonment of the idea he was going to do a large-scale genus splitting, is not altogether unexpected.

Splitting genera is never a way to win friends and influence people in zoology as Richard Wells and Ross Wellington learnt the hard way in 1985 after they split dozens of overloaded Australian genera (Wells and Wellington, 1984, 1985).

They copped a case before the ICZN, brought on by the envious Richard Shine, who with the equally envious Glenn Shea led the charge and separately asked the ICZN to squash their works in another of his long winded diatribes.

That one was published in the ICZN's own *Bulletin of Zoological Nomenclature* (BZN) (Shea 1987).

Shea ended his rant with: "*I therefore support the proposal (1) (b) in BZN 44:121 to suppress Wells & Wellington (1985) for nomenclatural purposes.*"

Much to Shea's disgust, Wells and Wellington ultimately won the case (ICZN 1991) because contrary to the claims of Shine, Shea, the notorious Wolfgang Wüster and others in the cohort, the majority of scientists actually accepted the validity of most of the taxonomy and nomenclature of Wells and Wellington (1984, 1985) as well as the fact that the rules should not be dispensed with to allow the Shine, Shea, Wüster cohort to burn the historical record and claim for themselves the discoveries of Wells and Wellington.

The ICZN made similar rulings against the Shine, Shea, Wüster cohort again in 2001 and 2021 (ICZN 2001, 2021).

As a result of the first of three ICZN rulings against the Shine, Shea and Wüster cohort in 1991, Wells and Wellington "names" now appear in all contemporary books and relevant papers on Australian reptiles (e.g. *Antaresia*, *Carinascincus*, *Intellagama*, *Acritoscincus*, etc).

But this current position was not before Wells and Wellington lost a lot of friends and their reputations were trashed by jealous "herpetologists" within Australia.

Glenn Shea had another go at getting the dozens of Wells and Wellington genus and species names squashed as far as herpetology was concerned when he published Shea and Sadlier (1999) in a non peer reviewed publication.

In that document, the most important part was another alleged forensic assessment by him of the works of Wells and Wellington (1984, 1985) over and above that he sent to the ICZN in 1987.

This time he misquoted the rules of the *International Code of Zoological Nomenclature* to declare most of the hundreds of Wells and Wellington names from Wells and Wellington (1984, 1985) as "probably a *nomen nudem*".

However when I was forced in later years to check the relevant names and scientific descriptions against the prevailing second, third or fourth editions of the *International Code of Zoological Nomenclature* they simply were not *nomen nudem*. The Wells and Wellington names were in every case valid and did not fit the definition within each code of the words "*nomen nudem*" as defined by the ICZN themselves.

Surely Shea could have eliminated any element of doubt with respect of the works of Wells and Wellington and making it clear whether or not the names were or were not, *nomen nudem* as I ended up doing, before deciding whether or not to use them as valid.

The exercise of doing so is not hard in that it merely involved lining up the works of Wells and Wellington with the relevant edition/s of the *International Code of Zoological Nomenclature*. For the record, the publications of Wells and Wellington (1984, 1985) do have shortcomings and while most of the genera and species named by them for the first time are valid and properly named, some are not.

I have dealt with those errors, oversights and the like in other papers.

It is not to be held against Wells and Wellington that some of their taxonomic decisions and even nomenclature are in error, noting the sheer size and scale of their works.

No one is perfect!

However, one thing is abundantly clear.

The ambit claim that most of their names were "probably *nomen nudem*" is patently false.

Glenn Shea also engaged in reckless taxonomic vandalism by synonymising the species "*Cannia weigeli* Wells and Wellington, 1987" with the very different *Cannia australis* (Gray, 1842) immediately after the pair had formally described the very divergent species from north-west Australia (Shea *et al.* 1987). Shea did this with the very unscientific argument that the two purported species were of the same general size and therefore the same thing.

Using the same warped logic, one could treat a large dog and a human as the same species.

Notwithstanding Shea's act of egregious taxonomic vandalism, the Wells and Wellington species "*Cannia weigeli* Wells and Wellington, 1987" has been recognized as distinct for years (see for example Hoser, 2001a-b, the first to publish the validity of the taxon), has long since been validated with numerous molecular studies (e.g. Kuch *et al.* 2005, Maddock *et al.* 2016) and is seen in all contemporary books on Australian venomous snakes including for example Cogger (2014).

For further detail of these actions by Shea with respect of "*Cannia weigeli*", see in this paper, under the etymology for

Brunneisstellio glennshei sp. nov.

More recently, Shea *et al.* (2011) engaged in yet more taxonomic vandalism against Wells and Wellington, by overwriting “*Cyrtodactylus abrae* Wells, 2002” by naming it *Cyrtodactylus hoskini* Shea, Couper, Wilmer and Amey, 2011.

Perhaps not by coincidence, they significantly named the taxon in honour of a notorious copyright infringing liar and taxonomic vandal named Conrad Hoskin, from Queensland, Australia.

The action was in breach of numerous mandatory parts of the *International Code of Zoological Nomenclature* (Ride *et al.* 1999), the non-mandatory ethical guidelines of the same code as well as the Australian Copyright Act 1968.

In sequence, the details of the action with regards to “*Cyrtodactylus abrae* Wells, 2002” was played out via the publications of Wells and Wellington (1984, 1985), Shine *et al.* (1987), Shea (1987), ICZN (1991), Shea and Sadlier (1999), ICZN (2001), Wells (2002), Couper *et al.* (2004), Shea *et al.* (2011) all distilled in summary form in Hoser (2021) on pages 9-10.

Conrad Hoskin is the guy who most recently got himself onto the Australian Broadcasting Corporation (ABC) online in a fake news story at:

<https://www.abc.net.au/news/science/2023-05-08/gecko-david-attenborough-oedura-monilis-wells-wellington-affair/101509040> claiming to have discovered a new species of gecko in southern Queensland.

In fact his *Oedura elegans* Hoskin, 2019 was an illegally coined junior synonym of *Marlenegecko* (*Marlenegecko*) *shireenhoserae* Hoser, 2017 also known as “*Oedura shireenhoserae* (Hoser, 2017)”.

When the ABC were alerted to the misinformation in their fake news report that had been fed to them directly by Hoskin, they agreed to delete the story from their website as part of wider settlement of a defamation matter (see below).

The fact that a large part of the Hoskin fake news story included an unprovoked Hoskin initiated barrage of unsubstantiated invective against Wells and Wellington, including labelling them as a pair of “terrorists” wasn’t relevant to the reason the fake news story was ultimately removed.

I note also that even as of 2022 and 2023, Shea is not averse to ongoing acts of taxonomic vandalism in direct breach of the rules of the *International Code of Zoological Nomenclature*.

In his book “*A Field Guide to Reptiles of New South Wales*” (Forth edition), (Swan, Sadlier and Shea 2022), included was *Oedura shireenhoserae* (Hoser, 2017). However Shea and coauthors deliberately listed the species incorrectly as “*Oedura elegans*” on pages 37 and 335, which besides being incorrect, is significant as publicly when disparaging my works, Shea had repeatedly publicly stated that he’d use “Hoser names” if and when he accepted the taxonomy and the “Hoser names” had date priority over any others.

The deliberate use of the junior synonym of his mate Conrad Hoskin, instead of the correct ICZN name *Oedura shireenhoserae* (Hoser, 2017) confirms the ongoing contempt for the rules of the ICZN by Glenn Shea.

Recently as curator of a so-called “List of official names for Australian reptiles and frogs” that Shea has co-published online, Shea has overseen the large scale overwriting of dozens of correct ICZN names with illegally coined junior synonyms and made things worse by pretending that the correct ICZN names do not even exist!

Shine, Shea, the notorious Wolfgang Wüster have done the same nefarious taxonomic vandalism to lists of scientific names in a variety of places including “Wikipedia”, and Peter Uetz’s so-called Reptile Database.

That web domain marketing itself is a complete repository of reptile scientific names, synonyms and papers has thousands of missing and incorrect entries in what is perhaps the most serious attempt at taxonomic vandalism in herpetology ever executed.

Most recently in 2022, webmaster Peter Uetz, permanently deleted over 1,000 names and papers on the basis that they were authored by Russians.

This was done in protest at the Russian invasion of Ukraine in 2022, not that the relevant scientists and their works, had anything to do with the Russian government’s decision to invade Ukraine.

Uetz described the removal of non-Russian co-authors works and names as mere “collateral damage”.

Self evidently, shortly after Glenn Shea sent his email to me in 2015, Shea probably abandoned the idea of a big split of *Sphenomorphus* Fitzinger, 1843 *sensu lato* into multiple genera, and the mass naming of unnamed species.

The reason was probably simply that he did not want to put in the work to publish the paper he’d mooted.

However he may have also been worried about getting a number of his associates offside, noting that this included the same cohort who led the charge against Wells and Wellington three decades ago.

One may recall that his good friends, Wolfgang Wüster and Hinrich Kaiser, responded to my earlier works of splitting up snake genera in 2012, creating dozens more and naming what they thought was too many species by publishing various versions of Wüster (2012), later rebadged as Kaiser *et al.* (2013) (as cited herein), Kaiser (2014), Rhodin *et al.* (2015) and so on.

These widely circulated manifesto’s all sought to simply synonymise genera and species I’d erected or named. This often included moving the relevant taxa into completely unrelated groups into which the species had never been placed previously. They did all this without having or needing any proper scientific reason to do so.

When questioned on these egregious acts of taxonomic vandalism, Hinrich Kaiser later admitted in writing that he had no direct knowledge of most of the taxa involved.

In the face of the preceding and a host of other time competing matters, in 2019, I recommenced working on the reclassification of *Sphenomorphus* Fitzinger, 1843 *sensu lato*, including a series of papers on similar and associated genera.

This included the following four major papers, all of which were published in succession in 2019.

Hoser (2019c) reclassified *Emoia* Gray, 1845 *sensu lato* naming 8 new genera and 45 new species.

Hoser (2019d) reclassified *Tropidophorus* Duméril and Bibron, 1839 *sensu lato* naming 4 new genera and 3 new species, noting that quite a few component species had been moved in and out of *Sphenomorphus* by various authors over previous decades.

Hoser (2019e) reclassified *Scincella* Mittleman, 1950 *sensu lato* naming 4 new genera and 6 new species.

Hoser (2019f) reclassified *Lipinia* Gray, 1845, *sensu lato* naming 6 new genera and 27 new species.

You will see that from those four papers alone, and that if ignoring the formally resurrected names, I was able to formally name for the first time ever, 22 new genera and 81 new species.

This is also noting that I chose not to name many other species.

Furthermore, this was before I even dealt with the core of *Sphenomorphus* Fitzinger, 1843 *sensu lato* (this paper), to which I have added another 22 genera and 21 species (totals now being 44 and 102 for the cluster). This is noted to clearly show that Shea’s 2015 claims of being about to name several genera and about 50 new species was on the face of it, completely within reason and believable.

However, the final part of this project, that is, being to deal with that core of species still placed in *Sphenomorphus* as of 2019, ended up taking far longer than expected.

This was in the face of countless competing matters, including unexpected police raids and seizures of relevant materials, which were initiated by business competitors in our wildlife displays domain who sought to attack our successful business to shore

up their own enterprises of lower standard.

A barrage of bizarre court proceedings initiated by some business competitors, resulted in long months on end dealing with gruelling civil trials, many still ongoing as of 2023.

A business rival also got almost the entirety of the Australian media to defame me, in print, on TV and online with claims including I had killed people (I have not), raped ex-wives (I have no ex-wives to rape), had numerous people die at wildlife displays from venomoid (devenomized) snakes regenerating venom and then biting them (never happened or possible), I was planting dangerous snakes in people's homes to get them to call me to catch them and get paid and then admitted to the scam (neither in fact happened), I was a court convicted paedophile (not so) and so on.

That caused no fewer than 4 extremely long, civil defamation matters, involving dozens of publications and the cases spanned 4 years.

All have recently settled by agreement (2023) with the result I was to be paid a small amount of money, to cover my legal bills and a bit extra, and more importantly the relevant "news" reports were to be removed from the world-wide web.

This settlement with multiple media outlets included the removal from the internet of fake news stories initiated by members of the Shine, Shea and Wüster cohort claiming to have discovered and named new species or genera, when in fact they had not. All they had done was cut and pasted from my earlier papers or those of others and rebadged the earlier discoveries as their own in online "papers", usually appearing in the notorious online "journal" *Zootaxa*.

Zootaxa is a preferred vehicle of publication by the Shine, Shea and Wüster cohort because it allows them to bypass any credible form of peer review which would otherwise block their material from publication.

In terms of *Sphenomorphus* Fitzinger, 1843 *sensu lato*, most important is that unnamed groups be named and this be sooner, rather than later.

Furthermore the genus or species diagnoses need to be accurate and sufficient to allow third parties to also be able to easily identify the relevant taxa.

In terms of some genera and species, there are also conservation implications for them if they are not properly identified.

Without knowing the relevant species exist, relevant governments cannot manage them (*sensu* Hoser 2019a, 2019b). Without correct genus-level assignment of species, governments are less able to make informed choices as to what species have greater conservation value, if and when competing interests, such as a lack of funds or resources mean only some can be saved from extinction.

It is also trite to say that this paper will most certainly not be the last work on *Sphenomorphus* Fitzinger, 1843 *sensu lato*.

MATERIALS, METHODS AND RESULTS

These are inferred in both the abstract and introduction, but as a matter of formality I spell them out in a little more explicit detail. The available literature was examined relevant to the genus *Sphenomorphus* Fitzinger, 1843 *sensu lato* and other phylogenetically close taxa.

Additional to this has been inspection of specimens as required and possible in order to ascertain the classification of the genera or species within the genera, both as defined or including unnamed taxa when they are evident.

Available information in the form of photos of specimens with good available locality data and other information was also utilized in this study.

I also note that, notwithstanding the theft of relevant materials from this author in an illegal armed raid on 17 August 2011, which were not returned in breach of undertakings to the court (Court of Appeal Victoria 2014 and VCAT 2015), I have made a decision to publish this paper, even though it would be

clearly improved if I took some further years to get further data (assuming I don't die of old age in the meantime).

This is in view of the conservation significance attached to the formal recognition of unnamed taxa at all levels and on the basis that further delays may in fact put these presently unnamed or potentially improperly assigned taxa at greater risk of extinction (as outlined by Hoser 2019a, 2019b).

This comment is made noting the extensive increase in human population in the relevant region and the general environmental destruction across the planet as documented by Hoser (1991), including low density areas without a large permanent human population.

I also note the abysmal environmental record of various National, State and Local governments in the relevant region over the past 200 years as detailed by Hoser (1989, 1991, 1993, 1996, 2010 and 2019a-b) in the face of ongoing threats as diverse as introduced species, habitat destruction and modification, introduced pathogens and other factors and combinations thereof.

See also Diesmos (2008).

It is also noteworthy that I cannot guarantee another illegal armed raid on our facility, involving theft of materials and data again at some unspecified date in the future, noting we had to endure a heavily armed raid and seizure of material as recently as this year (2013). Therefore it is important that the taxonomy of this group be largely resolved herein, rather than be potentially delayed indefinitely and run the risk of taxon extinctions being caused by taxa not being properly recognized as detailed by Hoser (2019a, 2019b).

Published literature relevant to the taxonomy and nomenclature adopted within this paper includes the following: Adler *et al.* (1995), Ahl (1933), Allison and Bigilale (2001), Allison *et al.* (1998), Ang and Ng (2016), Annandale (1905, 1909, 1912), Aplin *et al.* (1993), Auffenberg (1980), Auliya (2006), Austin (1995, 1998, 2006), Bacon (1967), Baker (2016, 2017), Barabanov and Milto (2017), Barbour (1909, 1912, 1921), Bartlett (1895), Bauer and Gunther (1992), Bauer *et al.* (2013), Beddome (1870), Beukema (2011), Blackburn (1999), Blyth (1853), Bobrov (1983a, 1983b), Bobrov and Semenov (2006), Boettger (1893, 1895, 1901), Böhme (2014), Boulenger (1887a, 1887b, 1887c, 1890a, 1890b, 1893, 1894, 1895, 1897a, 1897b, 1897c, 1897d, 1898a, 1898c, 1900a, 1900b, 1900c, 1903a, 1903b, 1914), Bourret (1937, 1939), Brongersma (1942a, 1942b, 1948), Brown *et al.* (1995a, 1995b, 2010, 2013), Brown and Alcalá (1980), Brown and Rabor (1967), Brygoo (1985), Bulian (2013), Burt and Burt (1932), Capocaccia (1961), Chan-ard *et al.* (1999, 2015), Chen and Lin (2016), Chen and Lue (1987), Cochran (1927), Cogger (2014), Cox *et al.* (1998), Crombie and Peggil (1999), Currin (2016), Daan and Hillenius (1966), Dammerman (1929), Daniel (2002), Darevsky (1964a, 1964b, 1964c), Darevsky and Nguyen (1983), Darevsky and Orlov (2005), Darevsky *et al.* (1986, 2004), Das (2016), Das *et al.* (2009), Das (2004), Das and Palden (2000), Das and Yaakob (2007), Datta-Roy *et al.* (2013), De Jong (1927), De Lisle *et al.* (2013), de Rooij (1915, 1919), Donnellan and Aplin (1989), Doria (1875, 1888), Dring (1979), Duméril and Bibron (1839), Dunn (1927), Eremchenko (2003), Ferner *et al.* (1997), Fitch (1981), Fitzinger (1843), Galoyan (2017), Galoyan and Geissler (2013), Gawor *et al.* (2016), Geissler *et al.* (2019), Gibson-Hill (1947), Goldberg (2013, 2015a, 2015b, 2016), Goldberg and Grismer (2014a, 2014b), Goldberg and Kraus (2008), Goldberg *et al.* (2017), Grandison (1972), Gray (1845, 1853), Greer (1973, 1974, 1977, 1979, 1982, 1990a, 1990b, 1991a, 1991b, 1997, 2001), Greer and Parker (1967a, 1967b, 1971, 1979), Greer and Shea (2003, 2004), Greer *et al.* (2006), Grismer (2006, 2007, 2008, 2011a-b), Grismer and Quah (2015, 2019), Grismer *et al.* (2008, 2009a, 2009b, 2010, 2013, 2016), Grossmann (2006), Grossmann and Tillack (2005), Günther (1873), Hartmann *et al.* (2010), Hecht *et al.* (2013), Hediger (1934), Honda *et al.* (2000), Hoser (2019c-f), Inger (1958, 1961), Inger and Hosmer (1965), Inger *et al.* (1984, 1990,

2001), Iskandar (1994), Iskandar and Erdelen (2006), Iskandar and Mumpuni (2002), Islam and Saikia (2013), Jayakumar and Nameer (2018), Jestrzanski *et al.* (2013), Kästle and Schleich (2013), Khan (2007), Kinghorn (1928a-b), Koch (2011, 2012), Köhler (2000, 2008), Kopstein (1926, 1938), Kramer (1979), Kraus and Allison (2004), Laidlaw (1901), Lalremsanga *et al.* (2010), Lazell *et al.* (1999), Le *et al.* (2020), Lenz (2012), Leong *et al.* (2002), Li *et al.* (2003), Lidth De Juede (1897, 1905), Lim (1998), Lim and Ng (1999), Linh *et al.* (2019), Linkem *et al.* (2010, 2011), Liu-Yu (1970), Loveridge (1945, 1948), Ma *et al.* (2018), Macleay (1877), Mahony and Ali Reza (2008), Mahony *et al.* (2009), Majumder *et al.* (2013), Malkmus (1985, 1993, 2000), Malkmus *et al.* (2002), Manthey (1983), Manthey and Denzer (1982), Manthey and Grossmann (1997), Manthey and Manthey (2017a, 2017b), McCoy (2000, 2006, 2015), McClure *et al.* (1967), Meiri (2008), Meiri *et al.* (2017), Mell (1922), Mertens (1924, 1930, 1957), Meyer (1874), Mittleman (1950, 1952), Mocquard (1890), Monk *et al.* (1997), Müller (1894, 1895), Murthy (2010), Myers and Donnelly (1991), Mys (1988), Naming and Das (2004), Nanhoe and Ouboter (1987), Nguyen *et al.* (2013, 2018), Nguyen *et al.* (2009), Nguyen *et al.* (2010, 2011, 2012, 2018), Onn *et al.* (2010), Ota and Lue (1994), Palot (2015), Pauwels *et al.* (2000, 2003), Peters (1966), Peters (1867a, 1867b, 1872), Peters and Doria (1878), Pham *et al.* (2015), Pope (1935), Purkayastha and Das (2010), Purkayastha *et al.* (2011), Pyron and Burbrink (2013), Pyron *et al.* (2013), Read (1998), Reeder (2003), Relox *et al.* (2011), Rendahl (1937), Ride *et al.* (1999), Rodriguez *et al.* (2018), Romer (1956), Roux (1910, 1911, 1927), Sacha (2015), Sanguila *et al.* (2016), Sauvage (1879), Schlegel (1837), Schmidler (2013), Sengupta *et al.* (2019), Schmidt (1924, 1925, 1928, 1930, 1932), Setiadi and Hamidy (2006), Shea (2012, 2017a, 2017b), Shea and Allison (2021), Shea and Greer (1998, 1999a, 1999b), Shea and Michels (2008), Siler and Brown (2010), Shrestha (2017), Shreve (1940), Sind (2017), Skinner *et al.* (2013), Slevin and Leviton (1956), Smedley (1932), Smith (1916a, 1916b, 1924, 1925, 1930, 1935, 1937), Stejneger (1907, 1910), Stermfeld (1918), Stoll *et al.* (1964), Stirling and Zietz (1893), Stoliczka (1870, 1872), Stuart and Emmett (2006), Stuart *et al.* (2006), Sumarli and Grismer (2016), Sumarli *et al.* (2016), Tan (1993), Tanner (1951), Taylor (1917, 1922, 1953, 1962, 1963), ter Borg (2005), Teynié *et al.* (2010), Thompson (1912a, 1912b), Treitschke (1839), Tshewang and Letro (2018), Van Denburgh (1912), Venugopal (2010), Vogt (1911, 1912, 1928, 1932), Walker (1894), Wall (1908), Welch *et al.* (1990), Werner (1896, 1901, 1913, 1922), Whitaker *et al.* (1982), Whiting *et al.* (2003), Wanger *et al.* (2011), Weber (1890), Wu (2015), Yamasaki *et al.* (2001), Yang *et al.* (1989), Zhao and Adler (1993), Ziegler (2002), Ziegler *et al.* (2015), Zug and Allison (2006), Zug *et al.* (1998), Zweifel (1980) and sources cited therein. These scientific publications constitute a body of evidence to support the taxonomic conclusions within this paper and the nomenclature that follows.

I note that a blog war cry known as Kaiser *et al.* (2013) has alleged that a massive body of evidence from thousands of herpetologists, similar to that cited herein does not constitute scientific evidence on the basis that himself and his non-scientist mates, including Wulf Schleip, Wolfgang Wüster and Mark O'Shea did not write the relevant peer reviewed scientific papers.

In reviewing the relevant literature, it became apparent that many species have been described more than once and names commonly synonymised.

This paper does not list synonymies as they have been previously published within the references just cited.

All species recognized herein are done so on the basis of morphological differences and usually biogeographical divergence from nearest relatives. Most but not all have also been subject of molecular studies that have also flagged the herein formally named taxa.

Therefore, included herein are 21 newly described species and 4 subspecies for which there are no previously available names.

SOME KEY POINTS ON THE TAXONOMIC DECISIONS MADE HEREIN

While the genus and species descriptions below effectively summarize the results of the audit of *Sphenomorphus sensu lato*, it is important that relevant considerations in terms of most of the decisions is spelt out first.

Without exception, each newly named species is allopatric to their nearest congener and without known gene flow. Each is also morphologically and reproductively divergent and therefore fits the general diagnosis of being different species.

Most of the taxa named as new species have also been separated from one another by significant divergence in molecular studies as cited above.

Where there has been an absence of molecular evidence, biogeographical evidence also makes the same case for division, especially when matched with similarly separated forms with molecular evidence available. The alternative evidence may include isolation by water bodies, including at times of glacial maxima, competing species and other potential barriers or eliminating factors.

Divergent, newly named and resurrected from synonymy genera can be seen appropriately placed in the published molecular phylogenies of Honda *et al.* (2000), Skinner *et al.* (2013), Pyron *et al.* (2013) and Rodriguez *et al.* (2018) and others including earlier phylogenies published by Greer and others, where the relevant species groups are usually listed as "*Sphenomorphus*". As a rule, the divergent species or groups simply match the new genus level entities.

I note that the previously cited peer reviewed studies Honda *et al.* (2000), Skinner *et al.* (2013), Pyron *et al.* (2013) and Rodriguez *et al.* (2018) and others like them have been labelled "unscientific" and "not peer reviewed" by the ratbag bunch known as the Wüster gang, via their war cry manifesto Kaiser *et al.* (2013).

Wüster has decided that he alone shall usurp the authority of the International Commission of Zoological Nomenclature as stated explicitly in Kaiser *et al.* (2013).

In terms of the following formal descriptions in accordance with the rules of the *International Code of Zoological Nomenclature* (Ride *et al.* 1999) the following points should be noted:

1/ All descriptions of specimens of typical form and colour relate to normal adult male specimens of typical form for each taxon and with original (non regenerated tails) unless otherwise stated.

2/ Spellings of names assigned to taxa should not be altered in any way unless mandated by the *International Code of Zoological Nomenclature* (Ride *et al.* 1999) or superseding nomenclatural rules.

3/ In the unlikely event a first reviser seeks to merge any taxa formally named herein, the name to be used is that of the first name used in terms of page priority, also as listed in the abstract keywords.

4/ There is no conflict of interest in terms of this paper or the conclusions arrived at herein.

5/ The following taxa are formally named in accordance with the rules of ICZN as published in the *International Code of Zoological Nomenclature* (Ride *et al.* 1999). I do not use the alternative illegal nomenclature of the ever changing rules of the Wolfgang Wüster gang, as detailed in a blog document known as Wüster (2012), rebadged as Kaiser *et al.* (2013) (cited herein), as frequently amended since.

I also do not support the other illegal actions of the cohort, including thefts of live reptiles from wildlife displays, attempted theft of ICZN name authority by way of plagiarism of earlier papers and acts of taxonomic vandalism, unlawful telephone threats to kill (as confirmed in the law courts), physical and sexual violence against vulnerable women and children (as confirmed in the law courts), scientific fraud, running thousands of fake social media accounts for the purposes of spreading hate and lies (as confirmed in the law courts), scamming money from funding bodies on false pretexts and other unlawful activity, as

detailed by Goodman (2019), Hoser (2009, 2012a-b, 2013a-b, 2015a-f, 2016a, 2016b, 2019a-b) and sources cited therein. In case it has not already been made clear, I note that in the 5 years preceding this publication, Australian law courts have found against members of the Wolfgang Wüster gang for acts of theft of snakes, criminal damage to property, intellectual property theft, trademark infringement, copyright infringement, making false complaints to government authorities to instigate illegal armed raids, running thousands of fake social media accounts for illegal activities, an unlawful attempt to defraud the Accor Hotels Group, shooting native aboriginals, supporting international terrorist groups including ISIS, perjury and other serious criminal actions. Penalties have included fines, jail, numerous court restraining orders, as well as payment of damages and restitution (e.g. Goodman 2019).

6/ Reference in the following descriptions to *Sphenomorphus* Fitzinger, 1843 *sensu lato* is to all species referred to the genus in the literature cited herein, with an emphasis on the more recent publications, post-dating year 1980 as in the past 4 decades, these being the relevant concepts of the genus *Sphenomorphus* by other publishing herpetologists at the present time.

7/ Until the time this paper's writing was commenced (year 2019), all species within *Sphenomorphus* Fitzinger, 1843 *sensu lato* have been defined as follows: Shiny, smooth-scaled skink lizards with prefrontals present, parietals in contact behind the interparietal, supranasals absent, lower eyelid scaly, medial pair of preloacals enlarged, the inner preloacals overlapping the outer ones, hindlimbs with five digits, scales on dorsal surface of fourth toe in two or more rows over at least half of digit (Taylor 1963; Greer 1979, 1990; Shea and Greer 2002; Greer *et al.* 2006; Grismer 2008; Nguyen *et al.* 2011).

These traits remain diagnostic for all genera defined within this paper in addition to those specific to each newly erected genus and the preceding paragraph applies to each description herein and should be treated as part of each formal description, even if not formally cited, used, or referred to within any.

8/ Notwithstanding dates cited in the text of this paper, all online citations and references within this paper, were most recently checked as still online "as cited" on 6 May 2023.

A SUMMARY OF THE TAXONOMIC ACTIONS HEREIN

Due to the large number of species within *Sphenomorphus*, including dozens of undescribed forms, this paper will not represent the last word on the taxonomy and nomenclature of this group of lizards.

As a result of the actions herein, the genus *Sphenomorphus* Fitzinger, 1843, believed for some time to have a type species *Gongylus (Lygosoma) melanopogon* Duméril and Bibron, 1839 was to be herein restricted to that type species group only.

However it has recently been shown that the type species for the genus is in fact *Scincus muelleri* Schlegel, 1837 (see Schmidler 2013). This means that the genus name *Elania* Gray, 1845, type species *Scincus muelleri* Schlegel, 1837 is an objective junior synonym for the name *Sphenomorphus* and is therefore effectively unavailable.

In terms of other species and groups found mainly east of Weber's Line, (generally including all the Moluccas and east of there including New Guinea, islands to the north and immediate south and east to include the Solomon Islands, the following general actions have been taken.

Sphenomorphus Fitzinger, 1843, as above, is retained as a valid genus.

The genus *Elania* Gray, 1845, type species *Scincus muelleri* Schlegel, 1837 was to be resurrected from synonymy of *Sphenomorphus* due to the depth of divergence of the type species from what was thought to be the nominate *Sphenomorphus* species being *Lygosoma melanopogon* Duméril and Bibron, 1839, estimated by Skinner *et al.* (2013) at Fig. 1. at over 20 MYA.

Relevant species in the "corrected" genus *Sphenomorphus* therefore includes the following New Guinean taxa:

Sphenomorphus muelleri (Schlegel, 1837),
S.pratti (Boulenger, 1903),
S. neuhaussi (Vogt, 1911),
S. latifasciatus (Meyer, 1874),
S. wollastoni (Boulenger, 1914).

An allied species group is placed in a newly named genus on the basis of depth of divergence between the previous two genera. This is the group with the type species *Lygosoma (Hinulia) jobiense* Meyer, 1874, herein named according to the rules of the *International Code of Zoological Nomenclature* as *Brunneisstellio gen. nov.*. That group diverged from *Elania* more than 15 MYA according to Skinner *et al.* (2013) at Fig. 1. It has long been recognized as a species complex (Austin, 2006, Donnellan and Aplin 1989) and this paper formally names six readily diagnosed species for the first time as well as resurrecting two others from synonymy.

While a case could be made to place all three of the preceding genera (including *Sphenomorphus sensu stricto*) into one single entity on the basis that all do form a monophyletic group, I have not done this on the basis that the divergence between each is great and beyond that seen in other genus level splits in skink lizards (quite often less than 10 MYA). On that basis one could and should define the three groups as paraphyletic at the genus level of division as done herein for the first time.

For each group the time of divergence from common ancestor is estimated to be in excess of 15 MYA. Furthermore the species-level diversity of each of the three genera has been clearly under-estimated in the past, with at least two widespread putative species (one per separate genus) being composite.

As, has been already noted, the *Gongylus (Lygosoma) melanopogon* Duméril and Bibron, 1839 species group no longer has a correct generic assignment, the relevant species are herein placed into the newly erected genus *Longumdigitos gen. nov.*

The generic name *Parotosaurus* Boulenger, 1914 is herein resurrected for the three relevant New Guinea species identified by Boulenger (1914).

The relevant species in that genus are:

Parotosaurus mimikanus Boulenger, 1914 (type species),
P. annectens (Boulenger, 1897).
P. granulatus (Boulenger, 1903).

The genus *Plenusstellio gen. nov.* is formally erected to accommodate the species *Lygosoma concinnatus* Boulenger, 1887 and associated species.

Two morphologically similar species to the preceding are herein placed in the new genus *Terilibraetfatua gen. nov.*

The genus *Marmoratstellio gen. nov.* type species *Lygosoma (Hinulia) sima* Sauvage, 1879 (AKA *Sphenomorphus simus*) is formally erected to accommodate three (and possibly more) divergent New Guinea species, for which names may already be available.

The genus *Brevicrurastellio gen. nov.* type species *Sphenomorphus transversus* Greer and Parker, 1971 is formally erected to accommodate three relevant divergent species from the Solomon Islands, one of which is formally named for the first time.

The genus *Quasipisciscincus gen. nov.* type species *Sphenomorphus bignelli* Schmidt, 1932 is erected to accommodate diminutive forms from the Solomon Islands and nearby New Guinea, two of which are formally named for the first time.

The genus *Ofillabiireatum gen. nov.* type species *Ofillabiireatum abscondeetus sp. nov.* is formally erected to accommodate a large assemblage of skinks in the so-called "maindroni group" or *Lygosoma (Hinulia) maindroni* Sauvage, 1879 species complex, which is an assemblage with a centre of origin apparently in the

New Guinea region, but including species from the Solomon Islands and Indonesia.

A subgenus *Cryptozoscincus subgen. nov.* type species *Lygosoma solomonis* Boulenger, 1887 includes a divergent assemblage, largely allopatric to the above nominate subgenus, also occurring throughout the Solomons and New Guinea and including numerous species.

Another subgenus *Minimascinkus subgen. nov.* type species *Lygosoma (Hinulia) consobrinum* Peters and Doria, 1878 includes species found mainly south and west of New Guinea.

The genus *Arietesvarious gen. nov.* type species *Tropidophorus darlingtoni* Loveridge, 1945 includes an assemblage generally found in and near the central New Guinea Cordillera. This genus also includes the newly named subgenus, namely, *Arietesvarious subgen. nov.* with type species *Lygosoma (Hinulia) schultzei* Vogt, 1911.

The new genus *Brevinnaribussuis subgen. nov.* with type species *Lygosoma louisiadense* Boulenger, 1903 and new subgenus *Fortiscrurascincus subgen. nov.* with a type species *Lygosoma aignanus* Boulenger, 1898 include east New Guinean taxa.

All other species formerly placed within *Sphenomorphus* generally occur west of Wallace's Line, with a few outliers in Sulawesi, Indonesia, these other species being found in south-east Asia, including as far north as China and as far west as India, also including Sundaland and Indo-China.

They are also divided into a number of genera for which some names are available and others need to be erected as done herein.

The genus *Lissonata* Blyth, 1853, type species *Lissonata maculatus* Blyth, 1853 with a distribution centred on Indochina is resurrected from the synonymy of *Sphenomorphus* in an action that should have been done decades ago.

The genus *Silvalizard gen. nov.* type species *Hinulia Indica* Gray, 1853 with a distribution centred on Indochina and the Malay Peninsula includes an assemblage closely related to *Lissonata*, Blyth, 1853, but sufficiently divergent from this group to be treated as a full genus.

A new species, from Trang, southern Thailand, closely related to *S. scotophilus* (Boulenger, 1900)

is formally named as *S. lovelinayi sp. nov.*

Within *Lissonata*, Blyth, 1853, two new subspecies are formally named.

Slightly more divergent again from both preceding genera is the newly erected genus *Invalueruntscincus gen. nov.* type species *Lygosoma (Hinulia) variegatum* Peters, 1867 consisting mainly of Sundaland / Philippine species. The newly erected subgenus in this genus *Macrocular subgen. nov.* includes two divergent species from Borneo.

A new genus *Piersonstellio gen. nov.* type species *Piersonstellio charlespiersoni sp. nov.* is erected to accommodate divergent species from the Malay Peninsula region, that have been shown in various phylogenetic studies, including Honda *et al.* (2000) and Pyron *et al.* (2013) to not be a part of other putative *Sphenomorphus* groups.

Two divergent Philippines species placed within the putative genus *Sphenomorphus*, but with close affinities to *Parvosincus* Ferner, Brown and Greer, 1997 would if a choice were to be made, be placed within *Parvosincus*. In any event the published molecular phylogenies including those of Linkem *et al.* (2011), and Pyron *et al.* (2013), make their placement in *Sphenomorphus* untenable.

Instead, and based on divergences in molecular studies summarized by Pyron *et al.* (2013), both are herein placed in their own newly named genera.

These are *Lineatro gen. nov.* to accommodate the species "*Sphenomorphus diwata* Brown and Rabor, 1967" and *Brunneismaculis gen. nov.* to accommodate the species "*Lygosoma (Hinulia) acutum* Peters, 1864".

Both genera are monotypic and in each case, detailed investigations have shown neither putative species to be composite.

The genus *Tyttthoscincus* Linkem *et al.* 2011, type species *Lygosoma hallieri* Lidth De Juede, 1905 (comprising species formerly included in *Sphenomorphus*) is split along phylogenetic lines, with the most divergent members of the group, being placed in a new genus. This is the species originally described as *Sphenomorphus aesculeticola* Inger, Lian, Lakim and Yambun, 2001, and a closely related similar form from Mt. Kinabulu, Borneo, the latter of which is morphologically divergent from the former and apparently separated by a low elevation region of apparently unsuitable habitat.

A new genus *Paratyttthoscincus gen. nov.* is erected to accommodate these two species.

Otosaurus cumingi Gray, 1845, currently treated as monotypic for the genus *Otosaurus* Gray, 1845 is herein split into three morphologically distinct species, two formally named for the first time, noting there may be further undescribed species within the genus.

The two new species appear to have been isolated from one another in line with known biogeographical barriers and bioregions in the Philippines as outlined in Linkem *et al.* (2011). The type form as described by Gray (1845), Peters (1867) and Boulenger (1887) conforms with southern Philippines (Mindanao) specimens as described by Taylor (1922).

Some other clearly divergent Asian forms, improperly placed in the genus *Sphenomorphus* are reassigned to newly erected genera.

"*Sphenomorphus apalpebratus* Datta-Roy, Das, Bauer, Lyngdoh-Tron and Karanth, 2013" from India should never have been placed in *Sphenomorphus*. The original authors had compelling molecular and morphological evidence not to do so.

Therefore the species is placed in the new genus *Albummentum gen. nov.*

"*Sphenomorphus cryptotis* Darevsky, Orlov and Cuc, 2004" of northern Vietnam is herein placed in the new genus *Tenebrisspina gen. nov.*

"*Sphenomorphus sheai* Nguyen, Nguyen, Van Devender, Bonkowski and Ziegler, 2013" from central / southern Vietnam in the region of the Kontum Plateau is placed in the new genus *Tenuisfodiens gen. nov.*

"*Leptoseps tetradactylus* Darevsky and Orlov, 2005", more recently placed in *Sphenomorphus* by

Nguyen *et al.* (2009) and later authors is also assigned to a new genus. It clearly fits in neither preceding genera.

The new genus is *Absconditaurem gen. nov.*

The divergent "*Siaphos tridigitus* Bourett, 1939", assigned to *Sphenomorphus* by Greer *et al.* (2006) is assigned to the new genus *Tumessuperoculum gen. nov.*, with the population from Bolovens Plateau in Laos being formally described as a new species, *Tumessuperoculum patrickdavidi sp. nov.*, based on consistent morphological divergence and disjunct distribution from the type population of "*Siaphos tridigitus* Bourett, 1939", this being a zone of lower elevation and habitat not suitable for the relevant species.

This new genus differs from most species of so-called "*Sphenomorphus*" by having the upper temporal scale overlapping the lower one (as a rule, that is occasionally broken) (instead of the opposite condition).

I should note here that the Bolovens Plateau in Laos is likely an area of high endemism and to date has not been heavily studied by herpetologists. This is of major concern in view of the rapid rate of habitat destruction going on there in the face of a massively increasing human population.

The long-legged and active species "*Sphenomorphus dussumieri* (Duméril and Bibron, 1839)" originally described as "*Lygosoma dussumieri*" from south-west peninsula India is assigned to the new genus *Dumpedes gen. nov.*

LONGUMDIGITOS GEN. NOV.

LSIDurn:lsid:zoobank.org:act:5B5ED322-0DE5-4651-B327-8FF13376FAB9

Type species: *Gongylus (Lygosoma) melanopogon* Duméril and Bibron, 1839.

Diagnosis: Until the time this paper's writing was commenced (year 2019), all species within *Sphenomorphus* Fitzinger, 1843 *sensu lato* have been defined as follows: Shiny, smooth-scaled skink lizards with prefrontals present, parietals in contact behind the interparietal, supranasals absent, lower eyelid scaly, medial pair of preloacals enlarged, the inner preloacals overlapping the outer ones, hindlimbs with five digits, scales on dorsal surface of fourth toe in two or more rows over at least half of digit (Taylor 1963; Greer 1979, 1990; Shea and Greer 2002; Greer *et al.* 2006; Grismer 2008; Nguyen *et al.* 2011).

These traits remain diagnostic for all genera defined within this paper in addition to those specific to each newly erected genus and the preceding applies to each description herein.

Longumdigitos gen. nov. (this genus as newly defined), are separated from all other similar species by having the combination of finely striate dorsal scales, the imbricate scales on the dorsal surface of the pes extending onto the plantar surface between the fourth and fifth digits, and three or more supraoculars contacting the frontal. It can be further differentiated from species within *Invalueruntscincus gen. nov.* (better known as the "*variegatus*" group) also with these preceding character states by the combination of smoothly rounded subdigital lamellae, presence of auricular lobules and the postmental modally only contacting a single infralabial on each side. When present, the black throat is also a useful diagnostic character (modified from Shea, 2012).

The entirety of this genus has in the past been synonymised within the type species. Based on obvious morphological divergences across known biogeographical barriers, forms from North New Guinea, South New Guinea and Flores are recognized as full species. The forms from the Kei and Aru Islands are also tentatively recognized as separate species, but this may be in error.

Forms from generally west of Flores as described by Dunn (1927) are herein treated as synonymous with *L. florense* (Weber, 1890), but this placement is also tentative.

Distribution: Indonesia (Java eastwards on most larger islands due east, to include New Guinea, both north and south of the main cordillera).

Etymology: The Latin "*Longumdigitos*" means long toes, which is an accurate portrayal of all species in the newly named genus.

Content: *Longumdigitos melanopogon* (Duméril and Bibron, 1839) (type species); *L. florense* (Weber, 1890); *L. kühnei* (Roux, 1910); *L. meyeri* (Doria, 1875); *L. papuensis* Macleay, 1877.

BRUNNEISSTELLIO GEN. NOV.

LSIDurn:lsid:zoobank.org:act:50E62C23-0778-43C5-9C08-B00F049C4A28

Type species: *Lygosoma (Hinulia) jobiense* Meyer, 1874.

Diagnosis: The genus *Brunneisstellio gen. nov.* is separated from species in all other genera previously treated as being within *Sphenomorphus* Fitzinger, 1843 *sensu lato* by the following suite of characters: Rostral in contact with a divided or undivided frontonasal and sometimes an additional azygous shield; no supranasal; nasal entire; upper and lower loreal; 5-8 supraoculars, the anterior ones in contact with the frontal (nos. 3-4); 37-48 midbody scale rows, 23-29 lamellae under fourth toe.

Until now (year 2019), all species within *Sphenomorphus* Fitzinger, 1843 *sensu lato* including species within this genus, have been defined as follows: Shiny, smooth-scaled skink lizards with prefrontals present, parietals in contact behind the interparietal, supranasals absent, lower eyelid scaly, medial pair of preloacals enlarged, the inner preloacals overlapping the outer ones, hindlimbs with five digits, scales on dorsal surface of fourth toe in two or more rows over at least half of digit (Taylor

1963; Greer 1979, 1990; Shea and Greer 2002; Greer *et al.* 2006; Grismer 2008; Nguyen *et al.* 2011).

These traits remain diagnostic for all genera defined within this paper in addition to those specific to this newly erected genus given above.

The entirety of this genus has in the past been synonymised within the type species. Based on obvious morphological divergences across known biogeographical barriers, previously described forms from North-east New Guinea, islands south of New Guinea and the Duke of York Island, north of New Britain are recognized as full species. Other authors who have recognized the putative taxon *B. jobiensis* as a species complex include Donnellan and Aplin (1989), Allison, Bickford, Richards and Torr (1998) and Allison and Bigilale (2001).

Donnellan and Aplin (1989) provided a molecular and morphological basis to separate a further five species within the so-called "*jobiensis*" complex deferring naming them on the basis of a need to obtain further material. Noting the haste at which humans are destroying habitat in the said region, it is untenable that known species remain undescribed and at heightened risk of extinction, which is why all are formally named within this paper.

I also note that one of the authors of Donnellan and Aplin (1989), Ken Aplin, died in January 2019, meaning that failure to formally name the relevant taxa now could lead to this important conservation act being further delayed indefinitely and by which stage, one or more may become extinct (see Hoser 2019a, 2019b).

A sixth unnamed taxon from the Milne Bay area is also formally named for the first time.

Distribution: New Guinea, including offshore islands both north and south of the main cordillera as well as the Admiralty Islands and the Bismarck Archipelago.

Etymology: In Latin, the name "*Brunneisstellio*" means "brown skink" or "brown lizard".

Content: *Brunneisstellio jobiensis* (Meyer, 1874) (type species); *B. allengreeri sp. nov.*; *B. glennsheai sp. nov.*; *B. kenaplina sp. nov.*; *B. megaspila* (Günther 1877); *B. paulwoolfi sp. nov.*; *B. richardwellsi sp. nov.*; *B. rosswellingtoni sp. nov.*; *B. rufum* (Boulenger, 1887).

BRUNNEISSTELLIO ALLENGREERI SP. NOV.

LSIDurn:lsid:zoobank.org:act:6E045B22-DEE6-4F53-B7F7-A089BACB8B69

Holotype: A preserved specimen at the Australian Museum in Sydney, New South Wales, Australia, specimen number R118742 collected from near the near Apia River, in the Southern Highlands Province, Papua New Guinea, Latitude 6.09 S., Longitude 142.46 E.

This government-owned facility allows access to their holdings.

Paratypes: 7 preserved specimens at the Australian Museum in Sydney, New South Wales, Australia, specimen numbers R118743-745, R118747-748, R118751-752 all collected at Bobole in the Southern Highlands Province, Papua New Guinea, Latitude 6.12 S., Longitude 142.46 E. at about 1100 metres elevation about 7.5 km south of the type locality.

Diagnosis: The putative taxon, *Brunneisstellio jobiensis* (Meyer, 1874), the type species for the genus has long been recognized as a composite species (e.g. Donnellan and Aplin 1989).

Nine species are recognized herein and separated from one another in this description.

All otherwise conform to the genus diagnosis in this paper.

All are separated from one another by the following unique suites of characters:

B. jobiensis with a type locality of Jobi (AKA Yapen) Island, West Papua, Indonesia, is separated from the other eight species by having 38 mid-body rows and 20-27 lamellae under toe 4 and a dorsal colouration that is generally light yellowish-brown with irregular and broken darker reddish brown crossbands and large dark brownish-black patches behind the eye and onto the sides

of the neck to above the front legs.

B. rufum (Boulenger, 1887), with a type locality of Wokam Island, Aru Islands, Indonesia, is separated from the other eight species by having 32-36 midbody rows, 7-8 upper labials, 6-7 lower labials and 19-22 lamellae under the fourth toe and is of similar colouration to *B. jobiensis*.

B. megaspila (Günther, 1877) with a type locality of Duke of York Island, East New Britain Province, Papua New Guinea is separated from the other eight species by having 44-48 midbody rows.

B. allengreeri sp. nov., *B. glennsheai* sp. nov., *B. kenaplina* sp. nov., *B. richardwellsi* sp. nov. and *B. rosswellingtoni* sp. nov. all from New Guinea in a region generally bounded by Morobe province in the east, Jayapura in the West and also south of the central Cordillera in hilly regions, including near the southern coastline are all readily separated from the other four species (3 above and *B. paulwoolffi* sp. nov. described below) by colouration.

All except *B. rosswellingtoni* sp. nov. have a reduced amount of dark pigment behind the eye and above the front leg as compared to the other four species. While this varies between the relevant species and individual specimens, invariably the dark markings range from nothing, to (most commonly) a squareish black patch behind the eye and another smaller patch around and above the tympanum with no significant black patches above the front legs. Exceptional to the preceding is the species, *B. rosswellingtoni* sp. nov. which is unique among all nine species in having a well-defined uninterrupted black dorsolateral stripe running down either side of the body.

The dorsal colouration of the five species *B. allengreeri* sp. nov., *B. glennsheai* sp. nov., *B. kenaplina* sp. nov., *B. richardwellsi* sp. nov. and *B. rosswellingtoni* sp. nov., as well as a sixth species, *B. megaspila* while variable, is generally chocolate brown with ill-defined darker and/or lighter crossbands, depending on the species, separating these species from both *B. jobiensis* and *B. rufum* whose colour is already described above.

In all species, crossbands are usually of ill-defined blackish or yellowish bands, also being flecked and of ill-defined shape.

The five species *B. allengreeri* sp. nov., *B. glennsheai* sp. nov., *B. kenaplina* sp. nov., *B. richardwellsi* sp. nov. and *B. rosswellingtoni* sp. nov. are identified by Donnellan and Aplin (1989) as being within four groups of species.

Group one conforms with *B. allengreeri* sp. nov., group 2 with *B. glennsheai* sp. nov., group 3 with *B. kenaplina* sp. nov. and group 4 with *B. richardwellsi* sp. nov. and *B. rosswellingtoni* sp. nov..

Their group 4 specimens in turn fitted two clades, clade K being that of *B. richardwellsi* sp. nov. and clade L, M, and N being that of *B. rosswellingtoni* sp. nov..

For further detail or explanation, refer to Donnellan and Aplin (1989), in particular Fig 2. at page 86.

The authors stated that from morphological data presented they were either unable to or had difficulty in differentiating the relevant taxa. However a simple cross-checking of non-overlapping traits and those which did between certain groups, showed it was easily possible to differentiate all five species from one another on the basis of each character suite as given in the relevant table in Donnellan and Aplin (1989), and no other detail was in fact required.

The descriptions below do have some added diagnostic information to make separation of the relevant species even easier.

In turn those species are separated from the other four on the basis on the information given herein.

B. allengreeri sp. nov. from the Southern Highlands and Chimbu Provinces, of Papua New Guinea is separated from all of *B. glennsheai* sp. nov., *B. kenaplina* sp. nov., *B. richardwellsi* sp. nov. and *B. rosswellingtoni* sp. nov. by the following suite of characters: 37-41 midbody scale rows, 85-98 paravertebral scales, 23-30 subdigital lamellae, 9-11 supralabials, 4-5 presuboculars, 10-12 supraciliaries.

B. glennsheai sp. nov. from the Southern Highlands and Chimbu Provinces, of Papua New Guinea and sympatric with *B. rosswellingtoni* sp. nov. is separated from the four species *B. allengreeri* sp. nov., *B. kenaplina* sp. nov., *B. richardwellsi* sp. nov. and *B. rosswellingtoni* sp. nov. by the following suite of characters: 37-39 midbody scale rows, 74-78 paravertebral scales (alone separating this species from the other four), 27-28 subdigital lamellae, 9-10 supralabials, 3 presuboculars, 9-10 supraciliaries.

B. kenaplina sp. nov. from Morobe Province, of Papua New Guinea is readily separated from the four species *B. allengreeri* sp. nov., *B. glennsheai* sp. nov., *B. richardwellsi* sp. nov. and *B. rosswellingtoni* sp. nov. by the following suite of characters: 40 midbody scale rows, 84 paravertebral scales, 23 subdigital lamellae, 9 supralabials, 3 presuboculars, 10 supraciliaries.

B. kenaplina sp. nov. is further separated from all other eight species by colouration. In this species the dorsum is a deep chocolate brown with reasonably well-defined black crossbands on the anterior half of the body. The flanks have scattered tiny white spots that are bright and distinct and well spaced, that do not merge to form any sort of markings or bands, or are otherwise marbled in colouration as seen in the other species. In common with *B. paulwoolffi* sp. nov. this species is separated from the other seven by having a particularly strong demarcation between the brown colouration of the upper labials, flanks of neck and upper forelimb, when contrasted with the whitish lower surfaces. *B. kenaplina* sp. nov. is also separated from all other 8 species by having a series of closely spaced black spots running along the upper labials, in a line and running continuously onto the upper flank of the forelimb, terminating at the elbow, whereupon the limb is brownish in colour with small black flecks.

B. richardwellsi sp. nov. from the Torricelli Mountains, Sandaun Province (formerly West Sepik), north-western Papua New Guinea is readily separated from the four species *B. allengreeri* sp. nov., *B. glennsheai* sp. nov., *B. kenaplina* sp. nov. and *B. rosswellingtoni* sp. nov. by the following suite of characters: 40 midbody scale rows, 83-88 paravertebral scales, 25-28 subdigital lamellae, 8 supralabials, 3 presuboculars, 9-10 supraciliaries. The species is also characterised and separated from all others by having an orangeish head with pink upper labials and no obvious spot or bar under the eye, the upper labials being generally peppered as opposed to being punctuated with darker spots or blotches as seen in all the other species. The dorsum and flanks of the body is dark brown with irregular yellow crossbands which become broken near the venter. The dorsum of the (original) tail is brown with well-defined yellow cross bands of irregular shape.

B. rosswellingtoni sp. nov. from the Southern Highlands and Chimbu Provinces, of Papua New Guinea and sympatric with *B. glennsheai* sp. nov. is readily separated from the four species *B. allengreeri* sp. nov., *B. glennsheai* sp. nov., *B. kenaplina* sp. nov. and *B. richardwellsi* sp. nov. as well as the other four species in the genus by the presence of an uninterrupted black dorsolateral stripe running down either side of the flanks. *B. rosswellingtoni* sp. nov. is further identified by the following suite of characters: 40-41 midbody scale rows, 80-90 paravertebral scales, 28-30 subdigital lamellae, 9 supralabials, 3-4 presuboculars, 9-10 supraciliaries, giving it a scalation similar to that of the geographically divergent *B. richardwellsi* sp. nov., that also being the species it is most phylogenetically closest to.

B. paulwoolffi sp. nov. from the Milne Bay area of Papua New Guinea is separated from all other species by the presence of a significant amount of black behind the eye, around and above the ear and further including a large black square immediately above the front leg on the upper flank, followed by smaller black triangles on the upper flanks, which in some specimens sometimes coalesces with triangles on the sides of the back giving an appearance of having cross-bands centred over the dorsolateral lines. The dorsal colouration is otherwise dark brown and the (original) tail is different in that it is characterised by large but irregular dark blackish or greyish spots or blotches along the

top and sides of the anterior half. The upper labials have large areas of black or dark grey, including on the lower parts of the anterior upper labials, separated by light pigment, but not in any even or spotted configuration, the only consistency being that there is invariably a large dark rectangle running from the bottom of an upper labial to the lower part of the eye, the vertical sides being the longer part of the rectangle.

Distribution: *B. allengreeri* sp. nov. is known only from the Southern Highlands and Chimbu Provinces of Papua New Guinea, south of the main central cordillera. Exact (known) distribution information can be found on page 82 of Donnellan and Aplin (1989).

Etymology: Named in honour of Allen E. Greer of Mudgee, New South Wales, Australia, formerly curator of herpetology at the Australian Museum in Sydney, Australia, in recognition of his work on skinks worldwide and other significant contributions to herpetology in Australia, including successfully petitioning the ICZN to stand up against taxonomic vandalism by Richard Shine, Glenn Shea and their cohort (Greer 1987).

BRUNNEISSTELLIO GLENNISHEAI SP. NOV.

LSIDDurn:lsid:zoobank.org:act:370D00E4-12E8-4973-BFEF-8DB5C8C46F99

Holotype: A preserved specimen at the Australian Museum in Sydney, New South Wales, Australia, specimen number R115388 collected from Haia, in the Chimbu Province, Papua New Guinea, Latitude 6.42 S., Longitude 145.00 E.

This government-owned facility allows access to their holdings.

Paratypes: 1/ A preserved specimen at the Australian Museum in Sydney, New South Wales, Australia, specimen number R115390 collected from Haia, in the Chimbu Province, Papua New Guinea, Latitude 6.42 S., Longitude 145.00 E.

2/ A preserved specimen at the Australian Museum in Sydney, New South Wales, Australia, specimen number R118757 collected from Waro, in the Southern Highlands Province, Papua New Guinea, Latitude 6.32 S., Longitude 143.11 E.

Diagnosis: The putative taxon, *Brunneisstellio jobiensis* (Meyer, 1874), the type species for the genus has long been recognized as a composite species (e.g. Donnellan and Aplin 1989).

Nine species are recognized herein and separated from one another in this description.

All otherwise conform to the genus diagnosis in this paper.

All are separated from one another by the following unique suites of characters:

B. jobiensis with a type locality of Jobi (AKA Yapen) Island, West Papua, Indonesia, is separated from the other eight species by having 38 mid-body rows and 20-27 lamellae under toe 4 and a dorsal colouration that is generally light yellowish-brown with irregular and broken darker reddish brown crossbands and large dark brownish-black patches behind the eye and onto the sides of the neck to above the front legs.

B. rufum (Boulenger, 1887), with a type locality of Wokam Island, Aru Islands, Indonesia, is separated from the other eight species by having 32-36 midbody rows, 7-8 upper labials, 6-7 lower labials and 19-22 lamellae under the fourth toe and is of similar colouration to *B. jobiensis*.

B. megaspila (Günther, 1877) with a type locality of Duke of York Island, East New Britain Province, Papua New Guinea is separated from the other eight species by having 44-48 midbody rows.

B. allengreeri sp. nov., *B. glennsheai* sp. nov., *B. kenaplina* sp. nov., *B. richardwellsi* sp. nov. and *B. rosswellingtoni* sp. nov. all from New Guinea in a region generally bounded by Morobe province in the east, Jayapura in the West and also south of the central Cordillera in hilly regions, including near the southern coastline are all readily separated from the other four species (3 above and *B. paulwoolfi* sp. nov. described below) by colouration.

All except *B. rosswellingtoni* sp. nov. have a reduced amount of dark pigment behind the eye and above the front leg as

compared to the other four species. While this varies between the relevant species and individual specimens, invariably the dark markings range from nothing, to (most commonly) a squareish black patch behind the eye and another smaller patch around and above the tympanum with no significant black patches above the front legs. Exceptional to the preceding is the species, *B. rosswellingtoni* sp. nov. which is unique among all nine species in having a well-defined uninterrupted black dorsolateral stripe running down either side of the body.

The dorsal colouration of the five species *B. allengreeri* sp. nov., *B. glennsheai* sp. nov., *B. kenaplina* sp. nov., *B. richardwellsi* sp. nov. and *B. rosswellingtoni* sp. nov., as well as a sixth species, *B. megaspila* while variable, is generally chocolate brown with ill-defined darker and/or lighter crossbands, depending on the species, separating these species from both *B. jobiensis* and *B. rufum* whose colour is already described above.

In all species, crossbands are usually of ill-defined blackish or yellowish bands, also being flecked and of ill-defined shape.

The five species *B. allengreeri* sp. nov., *B. glennsheai* sp. nov., *B. kenaplina* sp. nov., *B. richardwellsi* sp. nov. and *B. rosswellingtoni* sp. nov. are identified by Donnellan and Aplin (1989) as being within four groups of species.

Group one conforms with *B. allengreeri* sp. nov., group 2 with *B. glennsheai* sp. nov., group 3 with *B. kenaplina* sp. nov. and group 4 with *B. richardwellsi* sp. nov. and *B. rosswellingtoni* sp. nov.. Their group 4 specimens in turn fitted two clades, clade K being that of *B. richardwellsi* sp. nov. and clade L, M, and N being that of *B. rosswellingtoni* sp. nov..

For further detail or explanation, refer to Donnellan and Aplin (1989), in particular Fig 2. at page 86.

The authors stated that from morphological data presented they were either unable to or had difficulty in differentiating the relevant taxa. However a simple cross-checking of non-overlapping traits and those which did between certain groups, showed it was easily possible to differentiate all five species from one another on the basis of each character suite as given in the relevant table in Donnellan and Aplin (1989), and no other detail was in fact required.

The descriptions below do have some added diagnostic information to make separation of the relevant species even easier.

In turn those species are separated from the other four on the basis on the information given herein.

B. allengreeri sp. nov. from the Southern Highlands and Chimbu Provinces, of Papua New Guinea is separated from all of *B. glennsheai* sp. nov., *B. kenaplina* sp. nov., *B. richardwellsi* sp. nov. and *B. rosswellingtoni* sp. nov. by the following suite of characters: 37-41 midbody scale rows, 85-98 paravertebral scales, 23-30 subdigital lamellae, 9-11 supralabials, 4-5 presuboculars, 10-12 supraciliaries.

B. glennsheai sp. nov. from the Southern Highlands and Chimbu Provinces, of Papua New Guinea and sympatric with *B. rosswellingtoni* sp. nov. is separated from the four species *B. allengreeri* sp. nov., *B. kenaplina* sp. nov., *B. richardwellsi* sp. nov. and *B. rosswellingtoni* sp. nov. by the following suite of characters: 37-39 midbody scale rows, 74-78 paravertebral scales (alone separating this species from the other four), 27-28 subdigital lamellae, 9-10 supralabials, 3 presuboculars, 9-10 supraciliaries.

B. kenaplina sp. nov. from Morobe Province, of Papua New Guinea is readily separated from the four species *B. allengreeri* sp. nov., *B. glennsheai* sp. nov., *B. richardwellsi* sp. nov. and *B. rosswellingtoni* sp. nov. by the following suite of characters: 40 midbody scale rows, 84 paravertebral scales, 23 subdigital lamellae, 9 supralabials, 3 presuboculars, 10 supraciliaries.

B. kenaplina sp. nov. is further separated from all other eight species by colouration. In this species the dorsum is a deep chocolate brown with reasonably well-defined black crossbands on the anterior half of the body. The flanks have scattered tiny white spots that are bright and distinct and well spaced, that

do not merge to form any sort of markings or bands, or are otherwise marbled in colouration as seen in the other species. In common with *B. paulwoolffi* sp. nov. this species is separated from the other seven by having a particularly strong demarcation between the brown colouration of the upper labials, flanks of neck and upper forelimb, when contrasted with the whitish lower surfaces. *B. kenaplina* sp. nov. is also separated from all other 8 species by having a series of closely spaced black spots running along the upper labials, in a line and running continuously onto the upper flank of the forelimb, terminating at the elbow, whereupon the limb is brownish in colour with small black flecks. *B. richardwellsi* sp. nov. from the Torricelli Mountains, Sandaun Province (formerly West Sepik), north-western Papua New Guinea is readily separated from the four species *B. allengreeri* sp. nov., *B. glennsheai* sp. nov., *B. kenaplina* sp. nov. and *B. rosswellingtoni* sp. nov. by the following suite of characters: 40 midbody scale rows, 83-88 paravertebral scales, 25-28 subdigital lamellae, 8 supralabials, 3 presuboculars, 9-10 supraciliaries. The species is also characterised and separated from all others by having an orangeish head with pink upper labials and no obvious spot or bar under the eye, the upper labials being generally peppered as opposed to being punctuated with darker spots or blotches as seen in all the other species. The dorsum and flanks of the body is dark brown with irregular yellow crossbands which become broken near the venter. The dorsum of the (original) tail is brown with well-defined yellow cross bands of irregular shape.

B. rosswellingtoni sp. nov. from the Southern Highlands and Chimbu Provinces, of Papua New Guinea and sympatric with *B. glennsheai* sp. nov. is readily separated from the four species *B. allengreeri* sp. nov., *B. glennsheai* sp. nov., *B. kenaplina* sp. nov. and *B. richardwellsi* sp. nov. as well as the other four species in the genus by the presence of an uninterrupted black dorsolateral stripe running down either side of the flanks. *B. rosswellingtoni* sp. nov. is further identified by the following suite of characters: 40-41 midbody scale rows, 80-90 paravertebral scales, 28-30 subdigital lamellae, 9 supralabials, 3-4 presuboculars, 9-10 supraciliaries, giving it a scalation similar to that of the geographically divergent *B. richardwellsi* sp. nov., that also being the species it is most phylogenetically closest to.

B. paulwoolffi sp. nov. from the Milne Bay area of Papua New Guinea is separated from all other species by the presence of a significant amount of black behind the eye, around and above the ear and further including a large black square immediately above the front leg on the upper flank, followed by smaller black triangles on the upper flanks, which in some specimens sometimes coalesces with triangles on the sides of the back giving an appearance of having cross-bands centred over the dorsolateral lines. The dorsal colouration is otherwise dark brown and the (original) tail is different in that it is characterised by large but irregular dark blackish or greyish spots or blotches along the top and sides of the anterior half. The upper labials have large areas of black or dark grey, including on the lower parts of the anterior upper labials, separated by light pigment, but not in any even or spotted configuration, the only consistency being that there is invariably a large dark rectangle running from the bottom of an upper labial to the lower part of the eye, the vertical sides being the longer part of the rectangle.

Distribution: *B. glennsheai* sp. nov. is known only from the Southern Highlands and Chimbu Provinces of Papua New Guinea, south of the main central cordillera. Exact (known) distribution information can be found on page 82 of Donnellan and Aplin (1989).

Etymology: Named in honour of Glenn Shea of Rozelle, Sydney, New South Wales, Australia, in recognition of his work on skinks worldwide and other significant contributions to herpetology in Australia, including those relevant papers cited herein.

I note that in naming this species in honour of Glenn Shea, the second *Sphenomorphus*-type skink named in his honour (the first being "*Sphenomorphus sheai* Nguyen, Nguyen, Devender,

Bonkowski and Ziegler, 2013"), I am highlighting his positive work spanning decades and ignoring his negative actions, some of which were potentially very damaging to herpetology and wildlife conservation worldwide (outlined earlier in this paper) and which if successful could have caused far more negative outcomes than all his positive actions combined.

These negative actions included petitioning the ICZN in December 1987 to formally suppress the works of Richard Wells and Ross Wellington (Shea, 1987) so that himself and others could steal name authority from them.

Shea, young at the time and aspiring to a career in herpetological taxonomy, clearly saw the attempt to squash the works of Wells and Wellington (1983, 1985a, 1985b) as an opportunity for himself and others in a cohort now known as Wolfgang Wüster gang of thieves to steal the work of Wells and Wellington and appropriate themselves the credit for ostensibly "discovering" species in what can only be described as a brazen attempt at theft (see Greer 1987).

Fortuitously the ICZN ruled against the thieves and taxonomic vandals in 1991 (ICZN 1991), by ruling against Shea (1987) and similar submissions that group carpet-bombed the ICZN with at the time.

This meant that Wells and Wellington's names were the valid ones under the rules of the ICZN (as they always had been) and these two men got appropriate historical credit for their works. In a similar vein, Shea improperly hastily synonymised the species *Cannia weigeli* Wells and Wellington, 1987 with the better known "*Pseudechis australis* (Gray, 1842)" (Shea et al. 1988) on totally dubious and improper grounds, noting that in reality he had not a single shred of scientific evidence to refute the excellent work of Wells and Wellington (1987) in any way, shape or form, in act that in fact put the survival of the entire species at risk.

While many of the scientific descriptions of Wells and Wellington (1985 in particular) were charged by many others as being vague or too brief, a criticism that did have some validity in some cases (see Hoser 2016a for detail), this was certainly not the case for the formal description of *Cannia weigeli* Wells and Wellington, 1987, which stands as one of the most detailed and accurate scientific descriptions of any Australian reptile species up to that date (1987), clearly cross-referencing all similar species and explaining obvious differences between them.

The action by Shea to pretend that *Cannia weigeli* did not exist and the associated aggressive cross-marketing of the synonymy by the pseudoscientists in the Wolfgang Wüster gang of thieves effectively meant that this species became effectively lost to science, until Hoser (2001a-b) published detailed and independent confirmation of the validity of the taxon.

This was at a critically important time when the invasive Cane Toads *Rhinella marina* (Linnaeus, 1758), were about to overrun the Kimberley District in Western Australia. This was where the snake occurred, putting the entire population at risk. This was due to the inability of native Australian elapid species, including this species, to survive after feeding on the poisonous toads.

By good luck and not good management, the species did fortuitously survive the toads until Hoser (2001a-b) resurrected the species *Cannia weigeli* Wells and Wellington, 1987 (albeit after the population took a major thumping), allowing other scientists to study the taxon and plan ways to ensure the ongoing survival of the species in the face of yet more human created threats.

Hoser (2019a, 2019b) detailed the probable extinction of an Australian Lizard as a result of a similar act of improper synonymisation of a species-level taxon first properly identified by Wells and Wellington in 1985, by the same Wolfgang Wüster gang of thieves.

The Victorian species *Tympanocryptis pinguicollis* (Mitchell, 1948), was not so lucky and was thought to be almost certainly extinct in 1999 due to the reckless actions of the Wolfgang Wüster gang of thieves. (An extant population of *T. pinguicollis*

west of Melbourne was formally identified by way of media release in early 2023).

To Glenn Shea's credit, he has at times in the post year 2000 period, made a point of not supporting attempts to steal the works of Hoser, Wells and others in the Wolfgang Wüster gang of thieves via their acts of extremist taxonomic vandalism, although more recently (2022), he seems to have decided to join them in stealing works of others (see earlier in this paper).

He has not always supported the gang's more recent war cry known as Kaiser *et al.* (2013) as amended.

He also recommended against publication of one or more works of taxonomic vandalism by the Wolfgang Wüster gang of thieves in the relevant PRINO journals (e.g. the so-called paper of Wulf Schleip 2014, that merely stole without attribution the work of Hoser, 2000, in breach of ICZN rules and copyright laws), but Shea's "expert advice" in this matter was ignored by both authors and publishers, leading to yet more negative science and wildlife conservation outcomes.

It is notable that while publicly claiming to be champions of the scientific principle of peer review, the Wolfgang Wüster gang of thieves (AKA Kaiser *et al.*) in fact avoid peer review for all their own publications and invariably only publish their acts of pseudo-science and taxonomic vandalism in their own in house "journals" or others in which they are able to actively bypass any form of credible peer review.

Their main vehicle of publication of their acts of taxonomic vandalism has been the PRINO online "journal" *Zootaxa*, which holds the rules of the ICZN in complete contempt (see Hoser 2015a-f for examples and detail).

BRUNNEISSTELLIO KENAPLINI SP. NOV.

LSIDDurn:lsid:zoobank.org:act:EE0887F5-B2B5-46A5-8941-E8AA74F3CFC9

Holotype: A preserved specimen at the Australian Museum in Sydney, New South Wales, Australia, specimen number R118758 collected from Wau, in the Morobe Province, Papua New Guinea, Latitude 7.20 S., Longitude 146.43 E. This facility allows access to their holdings.

Diagnosis: The putative taxon, *Brunneisstellio jobiensis* (Meyer, 1874), the type species for the genus has long been recognized as a composite species (e.g. Donnellan and Aplin 1989).

Nine species are recognized herein and separated from one another in this description.

All otherwise conform to the genus diagnosis in this paper.

All are separated from one another by the following unique suites of characters:

B. jobiensis with a type locality of Jobi (AKA Yapen) Island, West Papua, Indonesia, is separated from the other eight species by having 38 mid-body rows and 20-27 lamellae under toe 4 and a dorsal colouration that is generally light yellowish-brown with irregular and broken darker reddish brown crossbands and large dark brownish-black patches behind the eye and onto the sides of the neck to above the front legs.

B. rufum (Boulenger, 1887), with a type locality of Wokam Island, Aru Islands, Indonesia, is separated from the other eight species by having 32-36 midbody rows, 7-8 upper labials, 6-7 lower labials and 19-22 lamellae under the fourth toe and is of similar colouration to *B. jobiensis*.

B. megaspila (Günther, 1877) with a type locality of Duke of York Island, East New Britain Province, Papua New Guinea is separated from the other eight species by having 44-48 midbody rows.

B. allengreeri sp. nov., *B. glennsheai sp. nov.*, *B. kenaplina sp. nov.*, *B. richardwellsi sp. nov.* and *B. rosswellingtoni sp. nov.* all from New Guinea in a region generally bounded by Morobe province in the east, Jayapura in the West and also south of the central Cordillera in hilly regions, including near the southern coastline are all readily separated from the other four species (3 above and *B. paulwoolfi sp. nov.* described below) by colouration.

All except *B. rosswellingtoni sp. nov.* have a reduced amount of dark pigment behind the eye and above the front leg as compared to the other four species. While this varies between the relevant species and individual specimens, invariably the dark markings range from nothing, to (most commonly) a squareish black patch behind the eye and another smaller patch around and above the tympanum with no significant black patches above the front legs. Exceptional to the preceding is the species, *B. rosswellingtoni sp. nov.* which is unique among all nine species in having a well-defined uninterrupted black dorsolateral stripe running down either side of the body.

The dorsal colouration of the five species *B. allengreeri sp. nov.*, *B. glennsheai sp. nov.*, *B. kenaplina sp. nov.*, *B. richardwellsi sp. nov.* and *B. rosswellingtoni sp. nov.*, as well as a sixth species, *B. megaspila* while variable, is generally chocolate brown with ill-defined darker and/or lighter crossbands, depending on the species, separating these species from both *B. jobiensis* and *B. rufum* whose colour is already described above.

In all species, crossbands are usually of ill-defined blackish or yellowish bands, also being flecked and of ill-defined shape.

The five species *B. allengreeri sp. nov.*, *B. glennsheai sp. nov.*, *B. kenaplina sp. nov.*, *B. richardwellsi sp. nov.* and *B. rosswellingtoni sp. nov.* are identified by Donnellan and Aplin (1989) as being within four groups of species.

Group one conforms with *B. allengreeri sp. nov.*, group 2 with *B. glennsheai sp. nov.*, group 3 with *B. kenaplina sp. nov.* and group 4 with *B. richardwellsi sp. nov.* and *B. rosswellingtoni sp. nov.* Their group 4 specimens in turn fitted two clades, clade K being that of *B. richardwellsi sp. nov.* and clade L, M, and N being that of *B. rosswellingtoni sp. nov.*

For further detail or explanation, refer to Donnellan and Aplin (1989), in particular Fig 2. at page 86.

The authors stated that from morphological data presented they were either unable to or had difficulty in differentiating the relevant taxa. However a simple cross-checking of non-overlapping traits and those which did between certain groups, showed it was easily possible to differentiate all five species from one another on the basis of each character suite as given in the relevant table in Donnellan and Aplin (1989), and no other detail was in fact required.

The descriptions below do have some added diagnostic information to make separation of the relevant species even easier.

In turn those species are separated from the other four on the basis on the information given herein.

B. allengreeri sp. nov. from the Southern Highlands and Chimbu Provinces, of Papua New Guinea is separated from all of *B. glennsheai sp. nov.*, *B. kenaplina sp. nov.*, *B. richardwellsi sp. nov.* and *B. rosswellingtoni sp. nov.* by the following suite of characters: 37-41 midbody scale rows, 85-98 paravertebral scales, 23-30 subdigital lamellae, 9-11 supralabials, 4-5 presuboculars, 10-12 supraciliaries.

B. glennsheai sp. nov. from the Southern Highlands and Chimbu Provinces, of Papua New Guinea and sympatric with *B. rosswellingtoni sp. nov.* is separated from the four species *B. allengreeri sp. nov.*, *B. kenaplina sp. nov.*, *B. richardwellsi sp. nov.* and *B. rosswellingtoni sp. nov.* by the following suite of characters: 37-39 midbody scale rows, 74-78 paravertebral scales (alone separating this species from the other four), 27-28 subdigital lamellae, 9-10 supralabials, 3 presuboculars, 9-10 supraciliaries.

B. kenaplina sp. nov. from Morobe Province, of Papua New Guinea is readily separated from the four species *B. allengreeri sp. nov.*, *B. glennsheai sp. nov.*, *B. richardwellsi sp. nov.* and *B. rosswellingtoni sp. nov.* by the following suite of characters: 40 midbody scale rows, 84 paravertebral scales, 23 subdigital lamellae, 9 supralabials, 3 presuboculars, 10 supraciliaries.

B. kenaplina sp. nov. is further separated from all other eight species by colouration. In this species the dorsum is a deep chocolate brown with reasonably well-defined black crossbands

on the anterior half of the body. The flanks have scattered tiny white spots that are bright and distinct and well spaced, that do not merge to form any sort of markings or bands, or are otherwise marbled in colouration as seen in the other species. In common with *B. paulwoolffi* sp. nov. this species is separated from the other seven by having a particularly strong demarcation between the brown colouration of the upper labials, flanks of neck and upper forelimb, when contrasted with the whitish lower surfaces. *B. kenaplina* sp. nov. is also separated from all other 8 species by having a series of closely spaced black spots running along the upper labials, in a line and running continuously onto the upper flank of the forelimb, terminating at the elbow, whereupon the limb is brownish in colour with small black flecks. The distribution of *B. kenaplina* sp. nov. presumably extends some distance east of the type locality, but the extent is as yet not known.

B. richardwellsi sp. nov. from the Torricelli Mountains, Sandaun Province (formerly West Sepik), north-western Papua New Guinea is readily separated from the four species *B. allengreeri* sp. nov., *B. glennsheai* sp. nov., *B. kenaplina* sp. nov. and *B. rosswellingtoni* sp. nov. by the following suite of characters: 40 midbody scale rows, 83-88 paravertebral scales, 25-28 subdigital lamellae, 8 supralabials, 3 presuboculars, 9-10 supraciliaries. The species is also characterised and separated from all others by having an orangeish head with pink upper labials and no obvious spot or bar under the eye, the upper labials being generally peppered as opposed to being punctuated with darker spots or blotches as seen in all the other species. The dorsum and flanks of the body is dark brown with irregular yellow crossbands which become broken near the venter. The dorsum of the (original) tail is brown with well-defined yellow cross bands of irregular shape.

B. rosswellingtoni sp. nov. from the Southern Highlands and Chimbu Provinces, of Papua New Guinea and sympatric with *B. glennsheai* sp. nov. is readily separated from the four species *B. allengreeri* sp. nov., *B. glennsheai* sp. nov., *B. kenaplina* sp. nov. and *B. richardwellsi* sp. nov. as well as the other four species in the genus by the presence of an uninterrupted black dorsolateral stripe running down either side of the flanks. *B. rosswellingtoni* sp. nov. is further identified by the following suite of characters: 40-41 midbody scale rows, 80-90 paravertebral scales, 28-30 subdigital lamellae, 9 supralabials, 3-4 presuboculars, 9-10 supraciliaries, giving it a scalation similar to that of the geographically divergent *B. richardwellsi* sp. nov., that also being the species it is most phylogenetically closest to.

B. paulwoolffi sp. nov. from the Milne Bay area of Papua New Guinea is separated from all other species by the presence of a significant amount of black behind the eye, around and above the ear and further including a large black square immediately above the front leg on the upper flank, followed by smaller black triangles on the upper flanks, which in some specimens sometimes coalesces with triangles on the sides of the back giving an appearance of having cross-bands centred over the dorsolateral lines. The dorsal colouration is otherwise dark brown and the (original) tail is different in that it is characterised by large but irregular dark blackish or greyish spots or blotches along the top and sides of the anterior half. The upper labials have large areas of black or dark grey, including on the lower parts of the anterior upper labials, separated by light pigment, but not in any even or spotted configuration, the only consistency being that there is invariably a large dark rectangle running from the bottom of an upper labial to the lower part of the eye, the vertical sides being the longer part of the rectangle.

Distribution: *B. kenaplina* sp. nov. is known only from the region near the type locality in Morobe Province, Papua New Guinea, north of the main central cordillera. Exact (known) distribution information can be found on page 82 of Donnellan and Aplin (1989).

Etymology: Named in honour of Ken Aplin (died 2018) of Australia, in recognition of his significant contributions in

Zoology, in particular with reference to reptiles in Australia and New Guinea and Mammals in New Guinea and nearby regions. Significantly, he was approached by Wolfgang Wüster in 1998 and again a few years later, who begged him to publish a paper renaming the Pilbara Death Adder species *Acanthophis wellsei* Hoser, 1998, with a newly coined name with Wüster to be listed as a co-author. According to Aplin, Wüster told Aplin he would write the entire paper and that he would also shop for and get other co-authors to list on the paper in order to make it harder for myself (Raymond Hoser) to finger blame for the action on any single person as the perpetrator of the act of taxonomic vandalism.

Instead of agreeing to Wüster's nefarious request, Aplin instead phoned myself and told me the details of Wüster's actions. Over a number of years, Aplin also provided myself with access to specimens in his care at both the Western Australian Museum in Perth, Western Australia and again at the Australian National Wildlife Collection in Canberra, ACT, while curator of herpetological collections at both facilities.

Significantly as of 2019, Wüster is still trying to convince people that I, Raymond Hoser am a taxonomic vandal and that the species *Acanthophis wellsei* Hoser, 1998, is nothing more than a mutant Desert Death Adder *Acanthophis pyrrhus* Boulenger, 1898.

This is in spite of significant published genetic work by Aplin and Donnellan and others, dating as far back as 1999 confirming the extreme divergence of the two species.

On the website controlled by his close mate, Peter Uetz, known as "The Reptile Database" at:

<http://reptile-database.reptarium.cz/species?genus=Acanthophis&species=wellsi>

Wüster has made Uetz write the following:

"Synonymy: Not listed by COGGER 2000. The name was emended to wellsii as the species was described in honor of Richard Wells. *Acanthophis wellsii* donnellani HOSER 2002 may be a synonym of *A. wellsii* (WÜSTER, pers. comm. 15 Dec 2010)."

This was the exact text on the Uetz site as recently as 22 August 2019, which when it was last checked.

It may be trite to note that five years prior, Cogger (2014) at page 859 not only chose to list *Acanthophis wellsei* Hoser, 1998 as a valid species (and with the scientific name spelt correctly! ... unlike Wüster, who chose to use an incorrect spelling so as to disrupt scientific databases and the like), but Cogger (2014) also made it clear at page 978, that he did not agree with Wüster's improper actions in terms of disrupting the science of herpetology with his Kaiser *et al.* (2013) war cry and their associated acts of taxonomic vandalism.

To that end, Cogger (2014) used the correct ICZN names for relevant reptile species and not those later illegally coined names by Wüster's gang of thieves that they had created in breach of the rules of the ICZN, in breaches of copyright laws and in breach of scientific ethics as well.

In passing, I note that "*Acanthophis wellsii* donnellani HOSER 2002" is also a valid species level taxon in spite of the incessant protestations to the contrary by Wüster, whom it is likely will one day in the future publish *his* alleged discovery of this fact, by once again stealing the work of myself and/or others.

See also Hoser (2016a) in terms of Wüster's illegal renaming of *Acanthophis lancasteri* Wells and Wellington, 1985. Obviously the correct ICZN name *A. lancasteri* Wells and Wellington, 1985 should be used for that taxon.

BRUNNEISSTELLIO RICHARDWELLSII SP. NOV.

LSIDurn:lsid:zoobank.org:act:A5F01B07-A972-4D4D-9337-33119185A4F

Holotype: A preserved specimen at the Australian Museum in Sydney, New South Wales, Australia, specimen number R119537 collected from Wigote, in the Sandaun Province (formerly the West Sepik Province), Papua New Guinea, Latitude 3.27 S.,

Longitude 142.09 E.

This government owned facility allows access to their holdings.

Paratypes: Two preserved specimens at the Australian Museum in Sydney, New South Wales, Australia, specimen numbers R119538 and R119539 collected from Wigote, in the Sandaun Province (formerly the West Sepik Province), Papua New Guinea, Latitude 3.27 S., Longitude 142.09 E.

Diagnosis: The putative taxon, *Brunneisstellio jobiensis* (Meyer, 1874), the type species for the genus has long been recognized as a composite species (e.g. Donnellan and Aplin 1989).

Nine species are recognized herein and separated from one another in this description.

All otherwise conform to the genus diagnosis in this paper.

All are separated from one another by the following unique suites of characters:

B. jobiensis with a type locality of Jobi (AKA Yapen) Island, West Papua, Indonesia, is separated from the other eight species by having 38 mid-body rows and 20-27 lamellae under toe 4 and a dorsal colouration that is generally light yellowish-brown with irregular and broken darker reddish brown crossbands and large dark brownish-black patches behind the eye and onto the sides of the neck to above the front legs.

B. rufum (Boulenger, 1887), with a type locality of Wokam Island, Aru Islands, Indonesia, is separated from the other eight species by having 32-36 midbody rows, 7-8 upper labials, 6-7 lower labials and 19-22 lamellae under the fourth toe and is of similar colouration to *B. jobiensis*.

B. megaspila (Günther, 1877) with a type locality of Duke of York Island, East New Britain Province, Papua New Guinea is separated from the other eight species by having 44-48 midbody rows.

B. allengreeri sp. nov., *B. glennsheai sp. nov.*, *B. kenaplina sp. nov.*, *B. richardwellsi sp. nov.* and *B. rosswellingtoni sp. nov.* all from New Guinea in a region generally bounded by Morobe province in the east, Jayapura in the West and also south of the central Cordillera in hilly regions, including near the southern coastline are all readily separated from the other four species (3 above and *B. paulwoolffi sp. nov.* described below) by colouration.

All except *B. rosswellingtoni sp. nov.* have a reduced amount of dark pigment behind the eye and above the front leg as compared to the other four species. While this varies between the relevant species and individual specimens, invariably the dark markings range from nothing, to (most commonly) a squareish black patch behind the eye and another smaller patch around and above the tympanum with no significant black patches above the front legs. Exceptional to the preceding is the species, *B. rosswellingtoni sp. nov.* which is unique among all nine species in having a well-defined uninterrupted black dorsolateral stripe running down either side of the body.

The dorsal colouration of the five species *B. allengreeri sp. nov.*, *B. glennsheai sp. nov.*, *B. kenaplina sp. nov.*, *B. richardwellsi sp. nov.* and *B. rosswellingtoni sp. nov.*, as well as a sixth species, *B. megaspila* while variable, is generally chocolate brown with ill-defined darker and/or lighter crossbands, depending on the species, separating these species from both *B. jobiensis* and *B. rufum* whose colour is already described above.

In all species, crossbands are usually of ill-defined blackish or yellowish bands, also being flecked and of ill-defined shape.

The five species *B. allengreeri sp. nov.*, *B. glennsheai sp. nov.*, *B. kenaplina sp. nov.*, *B. richardwellsi sp. nov.* and *B. rosswellingtoni sp. nov.* are identified by Donnellan and Aplin (1989) as being within four groups of species.

Group one conforms with *B. allengreeri sp. nov.*, group 2 with *B. glennsheai sp. nov.*, group 3 with *B. kenaplina sp. nov.* and group 4 with *B. richardwellsi sp. nov.* and *B. rosswellingtoni sp. nov.*

Their group 4 specimens in turn fitted two clades, clade K being that of *B. richardwellsi sp. nov.* and clade L, M, and N being that of *B. rosswellingtoni sp. nov.*

For further detail or explanation, refer to Donnellan and Aplin (1989), in particular Fig 2. at page 86.

The authors stated that from morphological data presented they were either unable to or had difficulty in differentiating the relevant taxa. However a simple cross-checking of non-overlapping traits and those which did between certain groups, showed it was easily possible to differentiate all five species from one another on the basis of each character suite as given in the relevant table in Donnellan and Aplin (1989), and no other detail was in fact required.

The descriptions below do have some added diagnostic information to make separation of the relevant species even easier.

In turn those species are separated from the other four on the basis on the information given herein.

B. allengreeri sp. nov. from the Southern Highlands and Chimbu Provinces, of Papua New Guinea is separated from all of *B. glennsheai sp. nov.*, *B. kenaplina sp. nov.*, *B. richardwellsi sp. nov.* and *B. rosswellingtoni sp. nov.* by the following suite of characters: 37-41 midbody scale rows, 85-98 paravertebral scales, 23-30 subdigital lamellae, 9-11 supralabials, 4-5 presuboculars, 10-12 supraciliaries.

B. glennsheai sp. nov. from the Southern Highlands and Chimbu Provinces, of Papua New Guinea and sympatric with *B. rosswellingtoni sp. nov.* is separated from the four species *B. allengreeri sp. nov.*, *B. kenaplina sp. nov.*, *B. richardwellsi sp. nov.* and *B. rosswellingtoni sp. nov.* by the following suite of characters: 37-39 midbody scale rows, 74-78 paravertebral scales (alone separating this species from the other four), 27-28 subdigital lamellae, 9-10 supralabials, 3 presuboculars, 9-10 supraciliaries.

B. kenaplina sp. nov. from Morobe Province, of Papua New Guinea is readily separated from the four species *B. allengreeri sp. nov.*, *B. glennsheai sp. nov.*, *B. richardwellsi sp. nov.* and *B. rosswellingtoni sp. nov.* by the following suite of characters: 40 midbody scale rows, 84 paravertebral scales, 23 subdigital lamellae, 9 supralabials, 3 presuboculars, 10 supraciliaries.

B. kenaplina sp. nov. is further separated from all other eight species by colouration. In this species the dorsum is a deep chocolate brown with reasonably well-defined black crossbands on the anterior half of the body. The flanks have scattered tiny white spots that are bright and distinct and well spaced, that do not merge to form any sort of markings or bands, or are otherwise marbled in colouration as seen in the other species. In common with *B. paulwoolffi sp. nov.* this species is separated from the other seven by having a particularly strong demarcation between the brown colouration of the upper labials, flanks of neck and upper forelimb, when contrasted with the whitish lower surfaces. *B. kenaplina sp. nov.* is also separated from all other 8 species by having a series of closely spaced black spots running along the upper labials, in a line and running continuously onto the upper flank of the forelimb, terminating at the elbow, whereupon the limb is brownish in colour with small black flecks. The distribution of *B. kenaplina sp. nov.* presumably extends some distance east of the type locality, but the extent is as yet not known.

B. richardwellsi sp. nov. from the Torricelli Mountains, Sandaun Province (formerly West Sepik Province), north-western Papua New Guinea is readily separated from the four species *B. allengreeri sp. nov.*, *B. glennsheai sp. nov.*, *B. kenaplina sp. nov.* and *B. rosswellingtoni sp. nov.* by the following suite of characters: 40 midbody scale rows, 83-88 paravertebral scales, 25-28 subdigital lamellae, 8 supralabials, 3 presuboculars, 9-10 supraciliaries. The species is also characterised and separated from all others by having an orangeish head with pink upper labials and no obvious spot or bar under the eye, the upper labials being generally peppered as opposed to being punctuated with darker spots or blotches as seen in all the other species. The dorsum and flanks of the body is dark brown with irregular yellow crossbands which become broken near the venter. The

dorsum of the (original) tail is brown with well-defined yellow cross bands of irregular shape.

B. rosswellingtoni sp. nov. from the Southern Highlands and Chimbu Provinces, of Papua New Guinea and sympatric with *B. glennsheai* sp. nov. is readily separated from the four species *B. allengreeri* sp. nov., *B. glennsheai* sp. nov., *B. kenaplina* sp. nov. and *B. richardwellsi* sp. nov. as well as the other four species in the genus by the presence of an uninterrupted black dorsolateral stripe running down either side of the flanks. *B. rosswellingtoni* sp. nov. is further identified by the following suite of characters: 40-41 midbody scale rows, 80-90 paravertebral scales, 28-30 subdigital lamellae, 9 supralabials, 3-4 presuboculars, 9-10 supraciliaries, giving it a scalation similar to that of the geographically divergent *B. richardwellsi* sp. nov., that also being the species it is most phylogenetically closest to.

B. paulwoolffi sp. nov. from the Milne Bay area of Papua New Guinea is separated from all other species by the presence of a significant amount of black behind the eye, around and above the ear and further including a large black square immediately above the front leg on the upper flank, followed by smaller black triangles on the upper flanks, which in some specimens sometimes coalesces with triangles on the sides of the back giving an appearance of having cross-bands centred over the dorsolateral lines. The dorsal colouration is otherwise dark brown and the (original) tail is different in that it is characterised by large but irregular dark blackish or greyish spots or blotches along the top and sides of the anterior half. The upper labials have large areas of black or dark grey, including on the lower parts of the anterior upper labials, separated by light pigment, but not in any even or spotted configuration, the only consistency being that there is invariably a large dark rectangle running from the bottom of an upper labial to the lower part of the eye, the vertical sides being the longer part of the rectangle.

Distribution: Known only from the region of the Torricelli Mountains in Sandaun Province, north-western Papua New Guinea.

Etymology: Named in honour of Richard Wells of Lismore, New South Wales, Australia in recognition of his significant contributions to herpetology in Australia, being best known for the publications Wells and Wellington (1983, 1985a, 1985b), but with numerous major positive contributions in other ways in herpetology in Australia both pre-dating those publications and also post-dating them and continuously to the year 2019.

BRUNNEISSTELLIO ROSSWELLINGTONI SP. NOV.

LSIDurn:lsid:zoobank.org:act:C45E87D7-6562-4583-A201-587CD3B48FDB

Holotype: A preserved specimen at the Australian Museum in Sydney, New South Wales, Australia, specimen number R115391 collected from Haia, in the Chimbu Province, Papua New Guinea, Latitude 6.42 S., Longitude 145.00 E. This facility allows access to their holdings.

Paratypes: 1/ A preserved specimen at the Australian Museum in Sydney, New South Wales, Australia, specimen number R118761 collected from Namasado, in the Southern Highlands Province, Papua New Guinea, Latitude 6.15 S., Longitude 142.17 E.

2/ A preserved specimen at the Australian Museum in Sydney, New South Wales, Australia, specimen number R118760 collected from Waro, in the Southern Highlands Province, Papua New Guinea, Latitude 6.32 S., Longitude 143.11 E.

Diagnosis: The putative taxon, *Brunneisstellio jobiensis* (Meyer, 1874), the type species for the genus has long been recognized as a composite species (e.g. Donnellan and Aplin 1989).

Nine species are recognized herein and separated from one another in this description.

All otherwise conform to the genus diagnosis in this paper.

All are separated from one another by the following unique suites of characters:

B. jobiensis with a type locality of Jobi (AKA Yapen) Island, West

Papua, Indonesia, is separated from the other eight species by having 38 mid-body rows and 20-27 lamellae under toe 4 and a dorsal colouration that is generally light yellowish-brown with irregular and broken darker reddish brown crossbands and large dark brownish-black patches behind the eye and onto the sides of the neck to above the front legs.

B. rufum (Boulenger, 1887), with a type locality of Wokam Island, Aru Islands, Indonesia, is separated from the other eight species by having 32-36 midbody rows, 7-8 upper labials, 6-7 lower labials and 19-22 lamellae under the fourth toe and is of similar colouration to *B. jobiensis*.

B. megaspila (Günther, 1877) with a type locality of Duke of York Island, East New Britain Province, Papua New Guinea is separated from the other eight species by having 44-48 midbody rows.

B. allengreeri sp. nov., *B. glennsheai* sp. nov., *B. kenaplina* sp. nov., *B. richardwellsi* sp. nov. and *B. rosswellingtoni* sp. nov. all from New Guinea in a region generally bounded by Morobe province in the east, Jayapura in the West and also south of the central Cordillera in hilly regions, including near the southern coastline are all readily separated from the other four species (3 above and *B. paulwoolffi* sp. nov. described below) by colouration.

All except *B. rosswellingtoni* sp. nov. have a reduced amount of dark pigment behind the eye and above the front leg as compared to the other four species. While this varies between the relevant species and individual specimens, invariably the dark markings range from nothing, to (most commonly) a squareish black patch behind the eye and another smaller patch around and above the tympanum with no significant black patches above the front legs. Exceptional to the preceding is the species, *B. rosswellingtoni* sp. nov. which is unique among all nine species in having a well-defined uninterrupted black dorsolateral stripe running down either side of the body.

The dorsal colouration of the five species *B. allengreeri* sp. nov., *B. glennsheai* sp. nov., *B. kenaplina* sp. nov., *B. richardwellsi* sp. nov. and *B. rosswellingtoni* sp. nov., as well as a sixth species, *B. megaspila* while variable, is generally chocolate brown with ill-defined darker and/or lighter crossbands, depending on the species, separating these species from both *B. jobiensis* and *B. rufum* whose colour is already described above.

In all species, crossbands are usually of ill-defined blackish or yellowish bands, also being flecked and of ill-defined shape.

The five species *B. allengreeri* sp. nov., *B. glennsheai* sp. nov., *B. kenaplina* sp. nov., *B. richardwellsi* sp. nov. and *B. rosswellingtoni* sp. nov. are identified by Donnellan and Aplin (1989) as being within four groups of species.

Group one conforms with *B. allengreeri* sp. nov., group 2 with *B. glennsheai* sp. nov., group 3 with *B. kenaplina* sp. nov. and group 4 with *B. richardwellsi* sp. nov. and *B. rosswellingtoni* sp. nov..

Their group 4 specimens in turn fitted two clades, clade K being that of *B. richardwellsi* sp. nov. and clade L, M, and N being that of *B. rosswellingtoni* sp. nov..

For further detail or explanation, refer to Donnellan and Aplin (1989), in particular Fig 2. at page 86.

The authors stated that from morphological data presented they were either unable to or had difficulty in differentiating the relevant taxa. However a simple cross-checking of non-overlapping traits and those which did between certain groups, showed it was easily possible to differentiate all five species from one another on the basis of each character suite as given in the relevant table in Donnellan and Aplin (1989), and no other detail was in fact required.

The descriptions below do have some added diagnostic information to make separation of the relevant species even easier.

In turn those species are separated from the other four on the basis on the information given herein.

B. allengreeri sp. nov. from the Southern Highlands and Chimbu Provinces, of Papua New Guinea is separated from all of *B.*

glennsheai sp. nov., *B. kenaplina* sp. nov., *B. richardwellsi* sp. nov. and *B. rosswellingtoni* sp. nov. by the following suite of characters: 37-41 midbody scale rows, 85-98 paravertebral scales, 23-30 subdigital lamellae, 9-11 supralabials, 4-5 presuboculars, 10-12 supraciliaries.

B. glennsheai sp. nov. from the Southern Highlands and Chimbu Provinces, of Papua New Guinea and sympatric with *B. rosswellingtoni* sp. nov. is separated from the four species *B. allengreeri* sp. nov., *B. kenaplina* sp. nov., *B. richardwellsi* sp. nov. and *B. rosswellingtoni* sp. nov. by the following suite of characters: 37-39 midbody scale rows, 74-78 paravertebral scales (alone separating this species from the other four), 27-28 subdigital lamellae, 9-10 supralabials, 3 presuboculars, 9-10 supraciliaries.

B. kenaplina sp. nov. from Morobe Province, of Papua New Guinea is readily separated from the four species *B. allengreeri* sp. nov., *B. glennsheai* sp. nov., *B. richardwellsi* sp. nov. and *B. rosswellingtoni* sp. nov. by the following suite of characters: 40 midbody scale rows, 84 paravertebral scales, 23 subdigital lamellae, 9 supralabials, 3 presuboculars, 10 supraciliaries.

B. kenaplina sp. nov. is further separated from all other eight species by colouration. In this species the dorsum is a deep chocolate brown with reasonably well-defined black crossbands on the anterior half of the body. The flanks have scattered tiny white spots that are bright and distinct and well spaced, that do not merge to form any sort of markings or bands, or are otherwise marbled in colouration as seen in the other species. In common with *B. paulwoolfi* sp. nov. this species is separated from the other seven by having a particularly strong demarcation between the brown colouration of the upper labials, flanks of neck and upper forelimb, when contrasted with the whitish lower surfaces. *B. kenaplina* sp. nov. is also separated from all other 8 species by having a series of closely spaced black spots running along the upper labials, in a line and running continuously onto the upper flank of the forelimb, terminating at the elbow, whereupon the limb is brownish in colour with small black flecks. The distribution of *B. kenaplina* sp. nov. presumably extends some distance east of the type locality, but the extent is as yet not known.

B. richardwellsi sp. nov. from the Torricelli Mountains, Sandaun Province (formerly West Sepik Province), north-western Papua New Guinea is readily separated from the four species *B. allengreeri* sp. nov., *B. glennsheai* sp. nov., *B. kenaplina* sp. nov. and *B. rosswellingtoni* sp. nov. by the following suite of characters: 40 midbody scale rows, 83-88 paravertebral scales, 25-28 subdigital lamellae, 8 supralabials, 3 presuboculars, 9-10 supraciliaries. The species is also characterised and separated from all others by having an orangeish head with pink upper labials and no obvious spot or bar under the eye, the upper labials being generally peppered as opposed to being punctuated with darker spots or blotches as seen in all the other species. The dorsum and flanks of the body is dark brown with irregular yellow crossbands which become broken near the venter. The dorsum of the (original) tail is brown with well-defined yellow cross bands of irregular shape.

B. rosswellingtoni sp. nov. from the Southern Highlands and Chimbu Provinces, of Papua New Guinea and sympatric with *B. glennsheai* sp. nov. is readily separated from the four species *B. allengreeri* sp. nov., *B. glennsheai* sp. nov., *B. kenaplina* sp. nov. and *B. richardwellsi* sp. nov. as well as the other four species in the genus by the presence of an uninterrupted black dorsolateral stripe running down either side of the flanks. *B. rosswellingtoni* sp. nov. is further identified by the following suite of characters: 40-41 midbody scale rows, 80-90 paravertebral scales, 28-30 subdigital lamellae, 9 supralabials, 3-4 presuboculars, 9-10 supraciliaries, giving it a scalation similar to that of the geographically divergent *B. richardwellsi* sp. nov., that also being the species it is most phylogenetically closest to.

B. paulwoolfi sp. nov. from the Milne Bay area of Papua New Guinea is separated from all other species by the presence of a

significant amount of black behind the eye, around and above the ear and further including a large black square immediately above the front leg on the upper flank, followed by smaller black triangles on the upper flanks, which in some specimens sometimes coalesces with triangles on the sides of the back giving an appearance of having cross-bands centred over the dorsolateral lines. The dorsal colouration is otherwise dark brown and the (original) tail is different in that it is characterised by large but irregular dark blackish or greyish spots or blotches along the top and sides of the anterior half. The upper labials have large areas of black or dark grey, including on the lower parts of the anterior upper labials, separated by light pigment, but not in any even or spotted configuration, the only consistency being that there is invariably a large dark rectangle running from the bottom of an upper labial to the lower part of the eye, the vertical sides being the longer part of the rectangle.

Distribution: Known only from the type localities in Chimbu and Southern Highlands Provinces, Papua New Guinea, but presumably more widespread south of the central cordillera in New Guinea.

Etymology: Named in honour of Cliff Ross Wellington of Ramornie, northern New South Wales, Australia in recognition of his significant contributions to herpetology in Australia, being best known for the publications Wells and Wellington (1983, 1985a, 1985b), in which he was very much an equal partner and contributor, even though listed as second author, but with numerous major positive contributions in other ways in herpetology in Australia both pre-dating those publications and also post-dating them and continuously to the year 2019.

BRUNNEISSTELLIO PAULWOOLFI SP. NOV.

LSIDurn:lsid:zoobank.org:act:DACC3083-BDA8-419F-BC04-7420E38B9107

Holotype: A preserved specimen at the Bernice P. Bishop Museum, Hawaii, USA, specimen number BPBM 16017, collected from Fergusson Island, Milne Bay Province, Papua New Guinea.

This facility allows access to their holdings.

Paratypes: Two preserved specimens at the Bernice P. Bishop Museum, Hawaii, USA, specimen numbers BPBM16020 and BPBM 16022, collected from Fergusson Island, Milne Bay Province, Papua New Guinea.

Diagnosis: The putative taxon, *Brunneisstellio jobiensis* (Meyer, 1874), the type species for the genus has long been recognized as a composite species (e.g. Donnellan and Aplin 1989).

Nine species are recognized herein and separated from one another in this description.

All otherwise conform to the genus diagnosis in this paper.

All are separated from one another by the following unique suites of characters:

B. jobiensis with a type locality of Jobi (AKA Yapen) Island, West Papua, Indonesia, is separated from the other eight species by having 38 mid-body rows and 20-27 lamellae under toe 4 and a dorsal colouration that is generally light yellowish-brown with irregular and broken darker reddish brown crossbands and large dark brownish-black patches behind the eye and onto the sides of the neck to above the front legs.

B. rufum (Boulenger, 1887), with a type locality of Wokam Island, Aru Islands, Indonesia, is separated from the other eight species by having 32-36 midbody rows, 7-8 upper labials, 6-7 lower labials and 19-22 lamellae under the fourth toe and is of similar colouration to *B. jobiensis*.

B. megaspila (Günther, 1877) with a type locality of Duke of York Island, East New Britain Province, Papua New Guinea is separated from the other eight species by having 44-48 midbody rows.

B. allengreeri sp. nov., *B. glennsheai* sp. nov., *B. kenaplina* sp. nov., *B. richardwellsi* sp. nov. and *B. rosswellingtoni* sp. nov. all from New Guinea in a region generally bounded by Morobe province in the east, Jayapura in the West and also south of the

central Cordillera in hilly regions, including near the southern coastline are all readily separated from the other four species (3 above and *B. paulwoolffi* sp. nov. described below) by colouration.

All except *B. rosswellingtoni* sp. nov. have a reduced amount of dark pigment behind the eye and above the front leg as compared to the other four species. While this varies between the relevant species and individual specimens, invariably the dark markings range from nothing, to (most commonly) a squareish black patch behind the eye and another smaller patch around and above the tympanum with no significant black patches above the front legs. Exceptional to the preceding is the species, *B. rosswellingtoni* sp. nov. which is unique among all nine species in having a well-defined uninterrupted black dorsolateral stripe running down either side of the body.

The dorsal colouration of the five species *B. allengreeri* sp. nov., *B. glennsheai* sp. nov., *B. kenaplina* sp. nov., *B. richardwellsi* sp. nov. and *B. rosswellingtoni* sp. nov., as well as a sixth species, *B. megaspila* while variable, is generally chocolate brown with ill-defined darker and/or lighter crossbands, depending on the species, separating these species from both *B. jobiensis* and *B. rufum* whose colour is already described above.

In all species, crossbands are usually of ill-defined blackish or yellowish bands, also being flecked and of ill-defined shape.

The five species *B. allengreeri* sp. nov., *B. glennsheai* sp. nov., *B. kenaplina* sp. nov., *B. richardwellsi* sp. nov. and *B. rosswellingtoni* sp. nov. are identified by Donnellan and Aplin (1989) as being within four groups of species.

Group one conforms with *B. allengreeri* sp. nov., group 2 with *B. glennsheai* sp. nov., group 3 with *B. kenaplina* sp. nov. and group 4 with *B. richardwellsi* sp. nov. and *B. rosswellingtoni* sp. nov.. Their group 4 specimens in turn fitted two clades, clade K being that of *B. richardwellsi* sp. nov. and clade L, M, and N being that of *B. rosswellingtoni* sp. nov..

For further detail or explanation, refer to Donnellan and Aplin (1989), in particular Fig 2. at page 86.

The authors stated that from morphological data presented they were either unable to or had difficulty in differentiating the relevant taxa. However a simple cross-checking of non-overlapping traits and those which did between certain groups, showed it was easily possible to differentiate all five species from one another on the basis of each character suite as given in the relevant table in Donnellan and Aplin (1989), and no other detail was in fact required.

The descriptions below do have some added diagnostic information to make separation of the relevant species even easier.

In turn those species are separated from the other four on the basis on the information given herein.

B. allengreeri sp. nov. from the Southern Highlands and Chimbu Provinces, of Papua New Guinea is separated from all of *B. glennsheai* sp. nov., *B. kenaplina* sp. nov., *B. richardwellsi* sp. nov. and *B. rosswellingtoni* sp. nov. by the following suite of characters: 37-41 midbody scale rows, 85-98 paravertebral scales, 23-30 subdigital lamellae, 9-11 supralabials, 4-5 presuboculars, 10-12 supraciliaries.

B. glennsheai sp. nov. from the Southern Highlands and Chimbu Provinces, of Papua New Guinea and sympatric with *B. rosswellingtoni* sp. nov. is separated from the four species *B. allengreeri* sp. nov., *B. kenaplina* sp. nov., *B. richardwellsi* sp. nov. and *B. rosswellingtoni* sp. nov. by the following suite of characters: 37-39 midbody scale rows, 74-78 paravertebral scales (alone separating this species from the other four), 27-28 subdigital lamellae, 9-10 supralabials, 3 presuboculars, 9-10 supraciliaries.

B. kenaplina sp. nov. from Morobe Province, of Papua New Guinea is readily separated from the four species *B. allengreeri* sp. nov., *B. glennsheai* sp. nov., *B. richardwellsi* sp. nov. and *B. rosswellingtoni* sp. nov. by the following suite of characters: 40 midbody scale rows, 84 paravertebral scales, 23 subdigital

lamellae, 9 supralabials, 3 presuboculars, 10 supraciliaries.

B. kenaplina sp. nov. is further separated from all other eight species by colouration. In this species the dorsum is a deep chocolate brown with reasonably well-defined black crossbands on the anterior half of the body. The flanks have scattered tiny white spots that are bright and distinct and well spaced, that do not merge to form any sort of markings or bands, or are otherwise marbled in colouration as seen in the other species. In common with *B. paulwoolffi* sp. nov. this species is separated from the other seven by having a particularly strong demarcation between the brown colouration of the upper labials, flanks of neck and upper forelimb, when contrasted with the whitish lower surfaces. *B. kenaplina* sp. nov. is also separated from all other 8 species by having a series of closely spaced black spots running along the upper labials, in a line and running continuously onto the upper flank of the forelimb, terminating at the elbow, whereupon the limb is brownish in colour with small black flecks. The distribution of *B. kenaplina* sp. nov. presumably extends some distance east of the type locality, but the extent is as yet not known.

B. richardwellsi sp. nov. from the Torricelli Mountains, Sandaun Province (formerly West Sepik Province), north-western Papua New Guinea is readily separated from the four species *B. allengreeri* sp. nov., *B. glennsheai* sp. nov., *B. kenaplina* sp. nov. and *B. rosswellingtoni* sp. nov. by the following suite of characters: 40 midbody scale rows, 83-88 paravertebral scales, 25-28 subdigital lamellae, 8 supralabials, 3 presuboculars, 9-10 supraciliaries. The species is also characterised and separated from all others by having an orangeish head with pink upper labials and no obvious spot or bar under the eye, the upper labials being generally peppered as opposed to being punctuated with darker spots or blotches as seen in all the other species.

The dorsum and flanks of the body is dark brown with irregular yellow crossbands which become broken near the venter. The dorsum of the (original) tail is brown with well-defined yellow cross bands of irregular shape.

B. rosswellingtoni sp. nov. from the Southern Highlands and Chimbu Provinces, of Papua New Guinea and sympatric with *B. glennsheai* sp. nov. is readily separated from the four species *B. allengreeri* sp. nov., *B. glennsheai* sp. nov., *B. kenaplina* sp. nov. and *B. richardwellsi* sp. nov. as well as the other four species in the genus by the presence of an uninterrupted black dorsolateral stripe running down either side of the flanks. *B. rosswellingtoni* sp. nov. is further identified by the following suite of characters: 40-41 midbody scale rows, 80-90 paravertebral scales, 28-30 subdigital lamellae, 9 supralabials, 3-4 presuboculars, 9-10 supraciliaries, giving it a scalation similar to that of the geographically divergent *B. richardwellsi* sp. nov., that also being the species it is most phylogenetically closest to.

B. paulwoolffi sp. nov. from the Milne Bay area of Papua New Guinea is separated from all other species by the presence of a significant amount of black behind the eye, around and above the ear and further including a large black square immediately above the front leg on the upper flank, followed by smaller black triangles on the upper flanks, which in some specimens sometimes coalesces with triangles on the sides of the back giving an appearance of having cross-bands centred over the dorsolateral lines.

The dorsal colouration is otherwise dark brown and the (original) tail is different in that it is characterised by large but irregular dark blackish or greyish spots or blotches along the top and sides of the anterior half. The upper labials have large areas of black or dark grey, including on the lower parts of the anterior upper labials, separated by light pigment, but not in any even or spotted configuration, the only consistency being that there is invariably a large dark rectangle running from the bottom of an upper labial to the lower part of the eye, the vertical sides being the longer part of the rectangle.

Distribution: Known only from Fergusson Island and nearby parts of the Milne Bay Province in Papua New Guinea.

Etymology: Named in honour of Paul Woolf of Walloon, Queensland, Australia, foundation president of the Herpetological Society of Queensland Incorporated in recognition for his many contributions to herpetology in Australia spanning more than three decades. In 2015, the Society passed a resolution condemning the acts of taxonomic vandalism by the Wolfgang Wüster gang of thieves and their use of false claims against proper scientists to justify their illegal and unethical acts. This was one of a number of similar resolutions passed by herpetological societies in Australia and elsewhere.

PARATYTTOSCINCUS GEN. NOV.

LSIDurn:lsid:zoobank.org:act:57EDD86A-F9B7-4D28-89A9-76D40498C53E

Type species: *Sphenomorphus aesculeticola* Inger, Lian, Lakim and Yambun, 2001.

Diagnosis: *Tyttoscincus* Linkem *et al.* 2011 and the new genus *Paratyttoscincus gen. nov.*, can be separated from other similar species, being those species within *Sphenomorphus sensu lato* by the following unique suite of characters: (1) body size diminutive, usually less than 45 mm snout-vent; (2) temporal scales small, same size and shape as the lateral body scales; and (3) digits small, toe four slightly longer than, or equal to toe three (modified from Linkem *et al.* 2011).

Paratyttoscincus gen. nov. is in turn separated from *Tyttoscincus* by having short-legs, four supraoculars, fewer than 10 lamellae under the fourth toe; scale rows usually 28-30, and prefrontals not meeting in the midline.

The genus *Paratyttoscincus gen. nov.* is further defined as follows: A small, slender skink, 35-42 mm snout-vent; head not wider than neck or trunk; tail thick, round in cross section; snout obtusely pointed, shorter than eye diameter; lower eyelid scaly; tympanum in shallow, round depression, about

one half area of eye, no lobules; limbs pentadactyl, short, not or barely overlapping; axilla to tip of longest finger about half snout-axilla distance and about one-third axilla-groin distance; hind limb only slightly longer than forelimb.

No frontonasal; rostral wider than tall, dorsal margin convex; frontonasal trapezoidal, in broad contact with nasal, rostral, first loreal, and prefrontal, in narrow contact with frontal; prefrontals separated, in wide contact with frontal, both loreals, and first supraocular; four supraoculars, second largest in transverse axis and first largest in longitudinal axis, first two bordering frontal, second to fourth touching frontoparietal, last touching both frontoparietal and parietal; frontal longer than its distance from tip of snout, longer than frontoparietals; frontoparietals not fused; interparietal shorter than frontoparietals; parietals meeting behind interparietal except in one animal in which they are separated by the first vertebral; parietal bordered laterally by 4-6 scales; no nuchals; nostril in a single nasal; loreals 1+1, first taller than second; second loreal rectangular or subtriangular; two enlarged preoculars, lower one larger; six supralabials, fourth below center of eye; a row of small suboculars above supralabials; 8-10 supraciliaries; two small temporals followed by a large one lateral to the parietal. Five infralabials; mental as wide as rostral; postmental pentagonal, bordering first infralabial; three pairs of enlarged chin shields, the first pair meeting behind postmental. Scales smooth, dorsals slightly smaller than ventrals; 26-32 mid-body scale rows, 60-68 scales from vent to mental; preanals only slightly larger than adjacent ventrals; subcaudals only slightly larger than dorsal caudal scales.

All digits with three dorsolateral scale rows; scales of palm and sole slightly raised, relatively large, subequal, lacking "heel" scale; lamellae smooth, relatively undifferentiated; order of size of fingers 3>4>2>5>1, toes 4=3>5>2>1; fourth finger with 5 or 6 lamellae, rarely 4; fourth toe with 7-10 lamellae, rarely 6.

Males: SVL 34.0-38.9 mm (n=16), axilla-groin (AG) 0.480.60 of SVL (median 0.521, n=13); snout to arm insertion (SNA) 0.33-0.39 of SVL (median 0.365, n=13); snout to ear opening (SNE) 0.17-0.21 of SVL (median 0.189, n=9). Females: SVL 33.3-42.0 (n=20); AG/SVL 0.47-0.59 (median 0.529, n=16); SNA/SVL 0.33-

0.38 (median 0.367, n=16); SNE/SVL 0.17-0.20 (median 0.182, n=14). Seven gravid females measured 37.5-40.0 mm.

Colour (in preservative) top of head and back medium to dark brown; dark spots in centers of many scales, forming an irregular series of thin dark lines or a checkered pattern or no distinct pattern; side of snout and lips dark brown, labial scales with light centers; a dark lateral band beginning as a stripe behind eye and over tympanum, continuing along trunk as a stripe on two or three scale rows, regularly interrupted by small light spots; sides below dark stripe lighter than back, many scales with small, black centers; dorsally limbs spotted black and light tan; pattern of trunk continued on tail;

ventrally head, trunk, and limbs whitish; subcaudal scales with small, dark, centers (the preceding diagnostic information was taken from Inger *et al.* (2001).

Distribution: Restricted to higher elevation areas in Sabah, Malaysia.

Content: *Paratyttoscincus aesculeticola* (Inger, Lian, Lakim and Yambun, 2001) (type species); *P. fauciummaculosus sp. nov.*

PARATYTTOSCINCUS FAUCIUMMACULOSUS SP. NOV.

LSIDurn:lsid:zoobank.org:act:C2DFFB71-BE1F-4578-83C0-1A3EF564E9C0

Holotype: A preserved specimen at the Field Museum of Natural History, Chicago, Illinois, USA, specimen number: FMNH 152224, collected from Mesilau at an elevation of 1650 metres, Kinabalu Park, Ranau District, Sabah, Malaysia, Latitude 5.59 N., Longitude 116.36 E.

This facility allows access to its holdings.

Paratypes: Two preserved specimens at the Field Museum of Natural History, Chicago, Illinois, USA, specimen number: FMNH 152225 and 152226, collected from Mesilau at an elevation of 1650 metres, Kinabalu Park, Ranau District, Sabah, Malaysia, Latitude 5.59 N., Longitude 116.36 E.

Diagnosis: *Paratyttoscincus fauciummaculosus sp. nov.* is similar in most respects to *P. aesculeticola* (Inger, Lian, Lakim and Yambun, 2001) and until now has been treated as a northern population of that species. Males of *P. fauciummaculosus sp. nov.* have throats that are heavily spotted with numerous dark spots, whereas in *P. aesculeticola* these spots are scattered and this is a reliable way to separate either species.

P. fauciummaculosus sp. nov. is separated from *P. aesculeticola* by having 26-31 midbody rows, versus 29-32 in *P. aesculeticola*. *P. fauciummaculosus sp. nov.* has 3-6 lamellae under the fourth finger, versus 5-6 in *P. aesculeticola*. *P. fauciummaculosus sp. nov.* has 6-8 lamellae under the fourth toes, versus 8-10 (rarely 7), in *P. aesculeticola*.

The two species are geographically disjunct, with *P. fauciummaculosus sp. nov.* occurring on Mount Kinabalu, whereas *P. aesculeticola* is known from Mount Lumaku and Mount Trus Madi further south, with lower elevation hills (below 1000 metres elevation) in the intermediate region.

Distribution: *P. fauciummaculosus sp. nov.* is known only from the type locality at Mount Kinabalu, Ranau District, Sabah, Malaysia.

Etymology: In Latin "*fauciummaculosus*" means spotted neck, as seen in males of this species.

GENUS PLENUSSTELLIO GEN. NOV.

LSIDurn:lsid:zoobank.org:act:5638F6D4-87B0-41ED-846B-EBFDDB8E40A6

Type species: *Lygosoma concinnatus* Boulenger, 1887.

Diagnosis: Species within the genus *Plenusstellio gen. nov.* are separated from all other species within *Sphenomorphus* Fitzinger, 1843 *sensu lato*, by the following combination of characters:

Somewhat stout in build, and tail more-or-less rounded in cross section.

Head shields are not fragmented or partially so.

The distance from the end of the snout to the fore limb is equal to about one and one-fifth to one and one-fourth the distance between the axilla and the groin. Snout is short, obtuse. Supraocular regions swollen. Lower eyelid scaly. Nostril pierced in a single nasal; no supranasal, a single anterior loreal, or a very small shield above it. Rostral forming a broad, straight suture with the frontonasal, which is much broader than long. Prefrontals forming a median suture (in contact). Frontal noticeably narrowed posteriorly, as long as, or shorter than the frontoparietals and interparietal together, in contact with the first and second supraoculars. Four supraoculars, the first is longest. Eight or nine supraciliaries, first largest. Frontoparietals and interparietal distinct, the former longer than the latter. Parietals forming a suture behind the interparietal. No enlarged nuchals. Fifth upper labial largest and situated below the orbit. Ear opening oval, nearly as large as the eye opening, no auricular lobules. Scales smooth, or dorsals and laterals indistinctly pluricarinate (keeled edges), laterals smallest, disposed in 36-47 mid-body rows. A pair of enlarged preanals. The hind limb reaches to the elbow or the axilla of the adpressed fore limb. Digits rather elongate, slightly compressed, subdigital lamellae smooth, 22 to 25 under the fourth toe. Tail about 1.5 times the snout-vent length (averaging 70 mm).

Dark glossy brown dorsum. Back sometimes spotted with black and whitish spots elegantly arranged and othertimes only with indistinct or semi-distinct markings. There is some form of a black band on each side of the head, passing through the eye and sometimes becoming diffused behind the eye or alternatively the reverse, as in diffuse anterior to it. A large and conspicuous white-edged black spot is present on the sides of the neck in some populations of some species. Lower surfaces are brownish white, clouded, or longitudinally streaked with a darker colour. Original tail is not obviously marked, being brownish in colour flecked and mottled with black (modified from Kinghorn 1928a and McCoy 2006 and based on inspection of (live and dead) specimens).

Distribution: Islands of the Solomons group bound by Malaita in the east, the Bougainville Group of Islands in the west, New Georgia group in the south-west and Guadalcanal in the south east.

Etymology: The name "*Plenusstellio*" in Latin means "stout lizard" and is given with reference to the relative build of the lizard.

Content: *Plenusstellio concinnatus* (Boulenger, 1887); *P. fortees* sp. nov.; *Plenusstellio levis* sp. nov.; *P. piscissimilis* sp. nov.; *Plenusstellio wolfi* (Greer and Parker, 1967).

PLENUSSTELLIO LEVIS SP. NOV.

LSIDurn:lsid:zoobank.org:act:F3179D28-A7E5-4147-A3FE-4D25CB87E402

Holotype: A preserved specimen at the Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts, USA, specimen number MCZ Herp R-113492, collected from a small stream on the route to Popomaneseu, Guadalcanal Province, Guadalcanal Island, Solomon Islands.

This facility allows access to its holdings.

Paratypes: Five preserved specimens at the Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts, USA, specimen numbers MCZ Herp R-113493, 113494, 113495, 113496 and 113497, collected from a small stream on the route to Popomaneseu, Guadalcanal Province, Guadalcanal Island, Solomon Islands.

Diagnosis: *Plenusstellio levis* sp. nov. of Guadalcanal Island, Solomon Islands has until now been treated as a population of *P. concinnatus* (Boulenger, 1887), with a type locality of Faro Island. However it is readily separated from *P. concinnatus* (Boulenger, 1887) by having a dorsum that is a light golden brown with indistinct blackish blotches running down the midline and other even less distinct blotches along either dorso-lateral edge, versus a dorsum that is a more dark or chocolate brown and with a more well-defined pattern of dark blotches and each

also having a whitish spot anterior to the darker one. It also has white spots on the flanks arranged into a series of wavy rows to form variegations.

The species *P. piscissimilis* sp. nov. from the New Georgia Group of islands, Solomon Islands, also until now treated as a population of *P. concinnatus* is separated from both preceding species by being similar in overall dorsal colour and appearance to *P. levis* sp. nov. but with a relatively small or ill-defined black spot on the neck anterior to the front limb axial, versus well-defined and bounded by obvious light flushes in *P. levis* sp. nov. and *P. concinnatus*.

The species *P. fortees* sp. nov. from Malaita Island, Solomon Islands, also previously treated as a population of *P. concinnatus* (Boulenger, 1887), is separated from the three preceding species by being a golden green brown on the dorsum, barely marked on the dorsum or flanks with any black spots or markings and if present, only tiny, and side spotting of white or yellow, that is so faint and diffuse as to be barely noticeable. The spotting is at the centre of most scales on the flanks, but shows faint signs of variegations at the posterior part of the flank only, being caused by a reduced number of scales with a whitish bit in the centre. The dark patch on the neck, anterior to the front limb is faded and relatively indistinct. Light brown spots on the upper surfaces of the limbs are small in this species, versus relatively large in the other three species.

The four preceding species form the entirety of the genus *Plenusstellio* gen. nov. as previously defined in this paper.

Distribution: *Plenusstellio levis* sp. nov. appears to be confined to Guadalcanal Island, Solomon Islands.

Etymology: The name "*levis*" refers to the relatively light colour of specimens of this species, including those specimens from relatively high altitudes, which for congeners on other islands typically become quite dark in dorsal colouration.

PLENUSSTELLIO PISCISSIMILIS SP. NOV.

LSIDurn:lsid:zoobank.org:act:395DF6B-B539-4127-9EC6-6C990148D553

Holotype: A preserved specimen at the Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts, USA, specimen number MCZ Herp R-113881 collected from Lambete, New Georgia, Solomon Islands, Latitude -8.3167 S., Longitude 157.2667 E.

This facility allows access to its holdings.

Paratypes: 64 preserved specimens at the Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts, USA, specimen numbers MCZ Herp 113883, 113886, 113887, 118934, 113889, 113891, 113892, 113894, 113900, 113901, 113906, 113908, 113913, 113915, 113916, 113922, 113925, 113927, 113928, 113934, 113935, 113938, 113939, 113941, 118942, 118944, 118945, 118946, 118947, 118949, 118952, 118953, 118957, 118958, 118961, 118962, 118963, 118967, 118968, 118971, 118972, 118973, 118974, 118975, 118977, 118978, 118979, 118980, 118981, 118982, 118983, 118986, 118987, 118988, 118989, 118990, 118991, 118998, 119000, 119001, 119004, 119007, 119009 and 119011 all collected from Lambete, New Georgia, Solomon Islands, Latitude -8.3167 S., Longitude 157.2667 E.

Diagnosis: *Plenusstellio levis* sp. nov. of Guadalcanal Island, Solomon Islands has until now been treated as a population of *P. concinnatus* (Boulenger, 1887), with a type locality of Faro Island. However it is readily separated from *P. concinnatus* (Boulenger, 1887) by having a dorsum that is a light golden brown with indistinct blackish blotches running down the midline and other even less distinct blotches along either dorso-lateral edge, versus a dorsum that is a more dark or chocolate brown and with a more well-defined pattern of dark blotches and each also having a whitish spot anterior to the darker one. It also has white spots on the flanks arranged into a series of wavy rows to form variegations.

The species *P. piscissimilis* sp. nov. from the New Georgia Group of islands, Solomon Islands, also until now treated as a

population of *P. concinnatus* is separated from both preceding species by being similar in overall dorsal colour and appearance to *P. levis* sp. nov. but with a relatively small or ill-defined black spot on the neck anterior to the front limb axial, versus well-defined and bounded by obvious light flushes in *P. levis* sp. nov. and *P. concinnatus*.

The species *P. fortees* sp. nov. from Malaita Island, Solomon Islands, also previously treated as a population of *P. concinnatus* (Boulenger, 1887), is separated from the three preceding species by being a golden green brown on the dorsum, barely marked on the dorsum or flanks with any black spots or markings and if present, only tiny, and side spotting of white or yellow, that is so faint and diffuse as to be barely noticeable. The spotting is at the centre of most scales on the flanks, but shows faint signs of variegations at the posterior part of the flank only, being caused by a reduced number of scales with a whitish bit in the centre. The dark patch on the neck, anterior to the front limb is faded and relatively indistinct. Light brown spots on the upper surfaces of the limbs are small in this species, versus relatively large in the other three species.

The four preceding species form the entirety of the genus *Plenusstellio* gen. nov. as previously defined in this paper.

Distribution: *P. piscissimilis* sp. nov. is confined to the New Georgia Group of islands, Solomon Islands, including Vella Lavella, Mbava, Ranongga and Simbo and otherwise bound by the 200 metre bathymetric (sea depth) contour line.

Etymology: The name "*piscissimilis*" refers to the "fish like" appearance of the lizard as it squirms through the ground litter, caused in part by the fish-like shiny scales on the dorsum.

PLENUSSTELLIO FORTEES SP. NOV.

LSIDurn:lsid:zoobank.org:act:8ECB9D6F-C239-4169-842F-6E0A0BC2054E

Holotype: A preserved specimen at the Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts, USA, specimen number MCZ Herp R-113682 collected from Langwata, Malaita, Solomon Islands, Latitude -9 S., Longitude 161 E.

This facility allows access to its holdings.

Paratypes: 28 preserved specimens at the Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts, USA, specimen numbers MCZ Herp R-113684, 113691, 113693, 113694, 113699, 113700, 113702, 113704, 113705, 113706, 113710, 113711, 113719, 113720, 113721, 113724, 13725, 13726, 13728, 13729, 13734, 113737, 113738, 113741, 113742, 113743, 113744 and 113747 all collected from Langwata, Malaita, Solomon Islands, Latitude -9 S., Longitude 161 E.

Diagnosis: *Plenusstellio levis* sp. nov. of Guadalcanal Island, Solomon Islands has until now been treated as a population of *P. concinnatus* (Boulenger, 1887), with a type locality of Faro Island. However it is readily separated from *P. concinnatus* (Boulenger, 1887) by having a dorsum that is a light golden brown with indistinct blackish blotches running down the midline and other even less distinct blotches along either dorso-lateral edge, versus a dorsum that is a more dark or chocolate brown and with a more well-defined pattern of dark blotches and each also having a whitish spot anterior to the darker one. It also has white spots on the flanks arranged into a series of wavy rows to form variegations.

The species *P. piscissimilis* sp. nov. from the New Georgia Group of islands, Solomon Islands, also until now treated as a population of *P. concinnatus* is separated from both preceding species by being similar in overall dorsal colour and appearance to *P. levis* sp. nov. but with a relatively small or ill-defined black spot on the neck anterior to the front limb axial, versus well-defined and bounded by obvious light flushes in *P. levis* sp. nov. and *P. concinnatus*.

The species *P. fortees* sp. nov. from Malaita Island, Solomon Islands, also previously treated as a population of *P. concinnatus* (Boulenger, 1887), is separated from the three preceding species

by being a golden green brown on the dorsum, barely marked on the dorsum or flanks with any black spots or markings and if present, only tiny, and side spotting of white or yellow, that is so faint and diffuse as to be barely noticeable. The spotting is at the centre of most scales on the flanks, but shows faint signs of variegations at the posterior part of the flank only, being caused by a reduced number of scales with a whitish bit in the centre. The dark patch on the neck, anterior to the front limb is faded and relatively indistinct. Light brown spots on the upper surfaces of the limbs are small in this species, versus relatively large in the other three species.

The four preceding species form the entirety of the genus *Plenusstellio* gen. nov. as previously defined in this paper.

Distribution: *P. fortees* sp. nov. is confined Malaita including Masramasike Island, Solomon Islands

and is otherwise bound by the 200 metre bathymetric (sea depth) contour line.

Etymology: The name "*fortees*" comes from the Latin word "fortis" that means sturdy in reflection of the build of the lizard.

The misspelling as "*fortees*" is deliberate so as to remove risk of inadvertently creating a homonym and therefore should not be changed.

REDACTASQUAMAE GEN. NOV.

LSIDurn:lsid:zoobank.org:act:546C8C63-92F2-4E26-81C3-FD001703BA61

Type species: *Sphenomorphus fragosus* Greer and Parker, 1967.

Diagnosis: The two formally named species in this newly named genus *Redactasquamae* gen. nov. are readily separated from all other species within *Sphenomorphus* Fitzinger, 1843 *sensu lato* by the presence of partially fragmented head shields. That is that they are unique in having many of the normally large and symmetrical head scales broken up into a less ordered array of smaller scales, this being most obvious on the dorsal and lateral surfaces of the snout.

Further diagnostic detail for the two relevant species is provided by Greer and Parker, 1967.

Distribution: Presently only known from the main island of Bougainville.

Etymology: In Latin, "*Redactasquamae*" means "fragmented scales" which is a unique diagnostic trait of the species in this genus.

Content: *Redactasquamae fragosus* (Greer and Parker, 1967) (type species); *R. taylori* (Burt, 1930).

REDACTASQUAMAE FRAGOSUS LINEATENEBRICA SUBSP. NOV.

LSIDurn:lsid:zoobank.org:act:1C815F4D-EA6F-43F8-8251-9B11BD8F38C4

Holotype: A preserved specimen at the Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts, USA, specimen number MCZ Herp R-92268 collected from the Mutahi area (4000 feet ASL), Bougainville, Papua New Guinea, Latitude -5.6659011 S., Longitude 154.9637659 E.

This facility allows access to its holdings.

Diagnosis: Until now, *Redactasquamae fragosus lineatenebrica* subsp. nov. has been treated as a northern population of *Redactasquamae fragosus* (Greer and Parker, 1967), (previously *Sphenomorphus fragosus*).

The subspecies is separated from the nominate form by the following suite of unique characters:

46 midbody rows, the black dorsolateral band becomes less distinct on the posterior half of the body and the light throat and chest are reticulated with black. In addition there is a dark midventral line (Greer and Parker, 1967).

The two preceding taxa are separated from the morphologically similar, closely related and sympatric *R. taylori* (Burt, 1930) by having no enlarged paired nuchals, 42-46 mid-body rows; and a snout-vent length to 72 mm, versus 1 or 2 pairs of enlarged

nuchals; 53-60 mid-body rows and up to 160 mm in snout-vent length.

The preceding two species and single subspecies form the entirety of the genus *Redactasquamae* gen. nov. and are easily separated from all other species within *Sphenomorphus* Fitzinger, 1843 *sensu lato* by the presence of partially fragmented head shields. That is that they are unique in having many of the normally large and symmetrical head scales broken up into a less ordered array of smaller scales, this being most obvious on the dorsal and lateral surfaces of the snout.

Further diagnostic detail for the two relevant species is provided by Greer and Parker, 1967.

Distribution: This subspecies is presently only known from the type locality of the Mutahi area (4000 feet ASL), Bougainville Island, Papua New Guinea

Etymology: In Latin "*lineatenebrica*" means "dark line" in reflection of the dark midventral line which appears to be unique to this subspecies.

MARMORATASTELLIO GEN. NOV.

LSIDurn:lsid:zoobank.org:act:9F0D57AF-4853-4DBD-AC83-791E451BA0F8

Type species: *Lygosoma (Hinulia) sima* Sauvage, 1879.

Diagnosis: The genus *Marmoratastellio* gen. nov. type species *Lygosoma (Hinulia) sima* Sauvage, 1879 is formally erected to accommodate three (and possibly more) divergent New Guinea species, for which names may already be available. These species are readily separated from all other species (and genera) within of *Sphenomorphus* Fitzinger, 1843 *sensu lato* by the following unique suite of characters:

No conspicuous black patch on the nape; lamellae under fourth toe 23-29; back rarely bordered by a conspicuous, cream-colored, dorso-lateral line; size small being under 50-80 mm snout-vent; midbody scale rows 42-46; two superposed loreals; 6-8 supraoculars, the first three or four in contact with the frontal. There is very little black on the flanks.

Distribution: West New Guinea region, including near islands.

Etymology: *Marmoratastellio* gen. nov. is named in reflection of the Latin words "*marmorata stellio*" meaning marbled lizard, in reflection of the colouration of specimens.

Content: *Marmoratastellio sima* (Sauvage, 1879) (type species); *M. Stickeli* (Loveridge, 1948); *M. totocarينات* (Mittleman, 1952).

BREVICURASTELLIO GEN. NOV.

LSIDurn:lsid:zoobank.org:act:E0F4AFFA-BE8E-46A7-8584-9258ADDDAE5B

Type species: *Lygosoma woodfordii* Boulenger, 1887.

Diagnosis: The four species in the genus *Brevicurastellio* gen. nov., are separated from all other species within *Sphenomorphus* Fitzinger, 1843 *sensu lato* by the following unique combination of characters:

Smooth shiny scales; body elongate, with original tail being longer than the body; limbs rather short; the distance between the end of the snout and the fore limb is contained once and three fifths in the distance between axilla and groin. Snout moderately elongate, truncate. Lower eyelid scaly. Nostril pierced in a single nasal; no supranasal; a single anterior loreal; rostral forms a broad straight suture with the frontonasal, which is broader than long; prefrontals forming a short median suture; frontal as long as frontoparietals and interparietal together, in contact with the first supraciliary and the two anterior supraoculars; four supraoculars, followed by a very small fifth, first is longest; about ten supraciliaries, first largest; frontoparietals and interparietal distinct, former much larger than latter; parietals forming a suture behind the interparietal; no nuchals; nine upper labials, seventh below the centre of the eye; a series of rather large suborbitals separates the orbit from the labials. Ear-opening oval, a little smaller than the eye-opening; no auricular lobules. 33-38 mid-body rows; dorsals largest, laterals very small. A pair of enlarged preanals. The adpressed limbs just meet. Digits rather short, sometimes

slightly compressed; 15-20 smooth lamellae under the fourth toe. Colouration ranges from banded to unbanded above, with strong metallic gloss; sides with or without curved or oblique black bars; lower surfaces yellowish (modified from Boulenger 1897).

Distribution: Solomon Islands including the islands of Bougainville, Shortland, Fauro; Choiseul, Nggela and San Cristobal.

Etymology: The Latin words "*Brevi crura stellio*" means "short legged lizard", which, relatively speaking in terms of other species within *Sphenomorphus* Fitzinger, 1843 *sensu lato* is descriptive of the species in this newly named genus.

Content: *Brevicurastellio woodfordii* (Boulenger, 1887) (type species); *B. brunneiscorpus* sp. nov.; *B. neglectus* sp. nov.; *B. transversus* (Greer and Parker, 1971).

BREVICURASTELLIO BRUNNEISCORPUS SP. NOV.

LSIDurn:lsid:zoobank.org:act:3F5E3C0E-4A11-4327-A1C7-037CC74111E8

Holotype: A preserved specimen at the Australian Museum in Sydney, New South Wales, Australia, specimen number R.93032 collected from Boromole, Nggela, Solomon Islands, Latitude -9.05 S., Longitude 160.3 E.

This government-owned facility allows access to its holdings.

Diagnosis: Previously treated as a population of *Brevicurastellio woodfordii* (Boulenger, 1887), type locality of Fauro Island, Solomon Islands and also common on nearby Bougainville, *B. brunneiscorpus* sp. nov. of the Nggela Islands is readily separated from *B. woodfordii* by colouration. *B. woodfordii* is dark brown above with curved or oblique black bars on the flanks. By contrast *B. brunneiscorpus* sp. nov. is medium brown on top and flanks, with barely distinct darker brown flecks on both top and sides of the body. There is no obvious bars on the flanks. It also has obvious darkening on the dorsal surface of the head and area around the dorsum at the pelvis and upper surface of the anterior tail.

B. neglectus sp. nov. a taxon confined to San Cristobal Island, is similar in most respects to *B. brunneiscorpus* sp. nov. but is separated from that species by having a light brownish-grey dorsum, slight greying of the head and no obvious darkening at the upper pelvic region.

The other species in the genus, *B. transversus* (Greer and Parker, 1971), is readily separated by its strongly contrasting dorsal colouration incorporating near black and near white on the dorsum and flanks and an obvious transverse barred pattern across the body.

The four species in the genus *Brevicurastellio*, are separated from all other species within *Sphenomorphus* Fitzinger, 1843 *sensu lato* by the following unique combination of characters: Smooth shiny scales; body elongate, with original tail being longer than the body; limbs rather short; the distance between the end of the snout and the fore limb is contained once and three fifths in the distance between axilla and groin. Snout moderately elongate, truncate. Lower eyelid scaly. Nostril pierced in a single nasal; no supranasal; a single anterior loreal; rostral forms a broad straight suture with the frontonasal, which is broader than long; prefrontals forming a short median suture; frontal as long as frontoparietals and interparietal together, in contact with the first supraciliary and the two anterior supraoculars; four supraoculars, followed by a very small fifth, first is longest; about ten supraciliaries, first largest; frontoparietals and interparietal distinct, former much larger than latter; parietals forming a suture behind the interparietal; no nuchals; nine upper labials, seventh below the centre of the eye; a series of rather large suborbitals separates the orbit from the labials. Ear-opening oval, a little smaller than the eye-opening; no auricular lobules. 33-38 mid-body rows; dorsals largest, laterals very small. A pair of enlarged preanals. The adpressed limbs just meet. Digits rather short, sometimes slightly compressed; 15-20 smooth lamellae under the fourth toe. Colouration ranges from banded to unbanded above, with strong

metallic gloss; sides with or without curved or oblique black bars; lower surfaces yellowish (modified from Boulenger 1897).

B. brunneiscorpus sp. nov. is depicted in life in McCoy (2006) in plate 84.

Distribution: Only known from the Nggela Island group in the Solomon Islands.

Etymology: The Latin words "*brunneis corpus*" means "brown bodied", which, relatively speaking in terms of other species within this genus, aptly describes adults of this species.

BREVICRURASTELLIO NEGLECTUS SP. NOV.

LSIDurn:lsid:zoobank.org:act:F26188E3-39BB-40AB-BBFB-2CAB16D73A7A

Holotype: A preserved specimen at the Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts, USA, specimen number MCZ Herp R-14357 collected from Waimone Bay, San Cristobal Island, Solomon Islands, Latitude -10.4667 S., Longitude 162 E.

This facility allows access to their holdings.

Paratypes: Four preserved specimens at the Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts, USA, specimen numbers MCZ Herp R-14353, R-14355, R-14356 and 14358 all collected from Waimone Bay, San Cristobal Island, Solomon Islands, Latitude -10.4667 S., Longitude 162 E.

Diagnosis: Previously treated as a population of *Brevicrurastellio woodfordii* (Boulenger, 1887), type locality of Fauro Island, Solomon Islands and also common on nearby Bougainville, *B. brunneiscorpus* sp. nov. of the Nggela Islands is readily separated from *B. woodfordi* by colouration. *B. woodfordi* is dark brown above with curved or oblique black bars on the flanks. By contrast *B. brunneiscorpus* sp. nov. is medium brown on top and flanks, with barely distinct darker brown flecks on both top and sides of the body. There is no obvious bars on the flanks. It also has obvious darkening on the dorsal surface of the head and area around the dorsum at the pelvis and upper surface of the anterior tail.

B. neglectus sp. nov. a taxon confined to San Cristobal Island, is similar in most respects to *B. brunneiscorpus* sp. nov. but is separated from that species by having a light brownish-grey dorsum, slight greying of the head and no obvious darkening at the upper pelvic region.

The other species in the genus, *B. transversus* (Greer and Parker, 1971), is readily separated by its strongly contrasting dorsal colouration incorporating near black and near white on the dorsum and flanks and an obvious transverse barred pattern across the body.

The four species in the genus *Brevicrurastellio*, are separated from all other species within *Sphenomorphus* Fitzinger, 1843 *sensu lato* by the following unique combination of characters: Smooth shiny scales; body elongate, with original tail being longer than the body; limbs rather short; the distance between the end of the snout and the fore limb is contained once and three fifths in the distance between axilla and groin. Snout moderately elongate, truncate. Lower eyelid scaly. Nostril pierced in a single nasal; no supranasal; a single anterior loreal; rostral forms a broad straight suture with the frontonasal, which is broader than long; prefrontals forming a short median suture; frontal as long as frontoparietals and interparietal together, in contact with the first supraciliary and the two anterior supraoculars; four supraoculars, followed by a very small fifth, first is longest; about ten supraciliaries, first largest; frontoparietals and interparietal distinct, former much larger than latter; parietals forming a suture behind the interparietal; no nuchals; nine upper labials, seventh below the centre of the eye; a series of rather large suborbitals separates the orbit from the labials. Ear-opening oval, a little smaller than the eye-opening; no auricular lobules. 33-38 mid-body rows; dorsals largest, laterals very small. A pair of enlarged preanals. The adpressed limbs just meet. Digits rather short, sometimes

slightly compressed; 15-20 smooth lamellae under the fourth toe. Colouration ranges from banded to unbanded above, with strong metallic gloss; sides with or without curved or oblique black bars; lower surfaces yellowish (modified from Boulenger 1897).

B. brunneiscorpus sp. nov. is depicted in life in McCoy (2006) in plate 84.

Distribution: Only known from San Cristobal Island in the Solomon Islands.

Etymology: The Latin word "*neglectus*" refers to the species being overlooked by science, or "neglected" in that specimens have been in the custody of scientists for over a century (Barbour, 1921) and yet have managed to evade being formally named as a new taxon.

QUASIPISCISSCINCUS GEN. NOV.

LSIDurn:lsid:zoobank.org:act:132635B3-E07E-4733-BFB9-7096896F2E09

Type species: *Sphenomorphus bignelli* Schmidt, 1932

Diagnosis: The species in the genus *Quasipiscisscincus* gen. nov. are readily separated from all other species within *Sphenomorphus* Fitzinger, 1843 *sensu lato* by the following unique combination of characters: no fragmented head shields, fish-like scales; body is only slightly elongated; tail slightly flattened anteriorly, vertically flattened further down and about the same as the snout-vent length (original tails) or slightly longer; supranasals absent; a single anterior and posterior loreal; enlarged paired nuchal scales; prefrontals are well developed, usually separated, but sometimes in narrow contact; prefrontals are about twice as long as wide and in contact with the first and second of four supraoculars; scaly lower eyelid; interparietal is distinct; limbs are moderate and only just meet when adpressed; 18-25 midbody scale rows; 18-25 lamellae under the fourth toes; preloacal slightly enlarged; small size with an average adult snout vent length of just 35 mm.

Colour is earthy (brown to black), with flecks and spots, blotches or lines, but rarely giving the appearance of having distinctive pattern or markings. There is a border between the dorsal and lateral surface, sometimes well defined, other times not.

Eye is orange. Flanks are typically spotted, blotched or even with semi-distinct darker lines created by strokes of dark pigment over a light background. Venter is grey to cream. Darker spots may be present under the tail (largely modified from McCoy 2006).

Distribution: Native to the main Solomon Island groups of New Georgia, Russell Islands, Guadalcanal, Nggela and Malaita as well as New Guinea and potentially intervening areas.

Etymology: The genus name "*Quasipiscisscincus*" is Latin for "fish like skink".

Content: *Quasipiscisscincus bignelli* (Schmidt, 1932) (type species); *Q. funibus* sp. nov.; *Q. minutus* (Meyer, 1874); *Q. utrimquepunctata* sp. nov..

QUASIPISCISSCINCUS UTRIMQUEPUNCTATA SP. NOV.

LSIDurn:lsid:zoobank.org:act:9DEA6B83-974A-4417-89BB-97696B912938

Holotype: A preserved specimen at the Australian Museum in Sydney, New South Wales, Australia, specimen number R.81774 collected from Mboromole Village, Nggela Sule (Big Gela), Florida Gap, Solomon Islands, Latitude 9.05 S., Longitude 160.15 E.

This government-owned facility allows access to its holdings.

Paratype: A preserved specimen at the Australian Museum in Sydney, New South Wales, Australia, specimen number R.91237 collected from Mboromole Village, Nggela Sule (Big Gela), Florida Gap, Solomon Islands, Latitude 9.03 S., Longitude 160.18 E.

Diagnosis: *Quasipiscisscincus utrimquepunctata* sp. nov. from Nggela Sule (Big Gela), Florida Gap, Solomon Islands and *Q. funibus* sp. nov. from Guadalcanal, Solomon Islands, have until now been treated as populations of *Quasipiscisscincus bignelli* (Schmidt, 1932) (previously placed in the genus *Sphenomorphus*

Fitzinger, 1843), with a type locality of Kulambangara in the New Georgia group of the Solomon Islands.

The three species are readily separated from one another by the following unique character combinations:

Q. bignelli has a general color of a dark reddish brown above, pale yellow beneath; a somewhat ill-defined narrow black dorsolateral line that is bordered above between the hind limbs by a sharply defined lighter band, as wide as a scale-row (this not being seen in either of the other species); the flanks below the dorsolateral band have scattered light spots occupying, usually, a single scale (seen also in *Q. utrimquepunctata* sp. nov.); the labial border has alternate brown and pale yellow spots; a fairly well-defined brown latero-ventral line separates the pale under side of the tail from the spotted sides.

Q. utrimquepunctata sp. nov. is a very dark brown to blackish coloured lizard with no well defined dorso-lateral line, but a series of about ten small white spots along the line between fore and hind limbs, these spots continuing to run in the line down the upper flanks of the original tail.

The flanks below the dorsolateral band have scattered light spots occupying, usually, a single scale; head is mainly an even black colour; upper labials are also mainly dark, only being punctuated by small triangular intrusions from the base and below the eye that are a dull cream in colour.

Q. funibus sp. nov. is a reddish brown lizard, notable for an absence of obvious white spots or specks on the flanks. If present in some specimens, they are invariably dulled and barely noticeable.

Q. funibus sp. nov. has a dorsum with two semi-broken but reasonably thick, dark lines running down either side of the mid-dorsal line. On the dorsolateral line on each side is another similar line, which may or may not be brown. There are 3 to 4 thinner semi-broken brown lines running along either flank over a lighter brown surface. Anterior of the head is mainly dark blackish in colour and the upper labials are also mainly dark blackish in colour and the two triangular intrusions below the eye are brown and not cream or white. Tail has striping at the anterior end only. The related species *S. minutus* (Meyer, 1874) from New Guinea is separated from the preceding three species by having fewer mid-body rows (18-20, versus 21-25), a more pointed snout, larger prefrontals, and a larger number of subdigital lamellae (23-25 versus 18-22).

The preceding four species in the genus *Quasipisciscincus* gen. nov. being the entirety of the genus are readily separated from all other species within *Sphenomorphus* Fitzinger, 1843 *sensu lato* by the following unique combination of characters: no fragmented head shields, fish-like scales; body is only slightly elongated; tail slightly flattened anteriorly, vertically flattened further down and about the same as the snout-vent length (original tails) or slightly longer; supranasals absent; a single anterior and posterior loreal; enlarged paired nuchal scales; prefrontals are well developed, usually separated, but sometimes in narrow contact; prefrontals are about twice as long as wide and in contact with the first and second of four supraoculars; scaly lower eyelid; interparietal is distinct; limbs are moderate and only just meet when adpressed; 18-25 midbody scale rows; 18-25 lamellae under the fourth toes; precloacal slightly enlarged; small size with an average adult snout vent length of just 35 mm.

Colour is earthy (brown to black), with flecks and spots, blotches or lines, but rarely giving the appearance of having distinctive pattern or markings. There is a border between the dorsal and lateral surface, sometimes well defined, other times not.

Eye is orange. Flanks are typically spotted, blotched or even with semi-distinct darker lines created by strokes of dark pigment over a light background. Venter is grey to cream. Darker spots may be present under the tail (largely modified from McCoy 2006).

Q. utrimquepunctata sp. nov. is depicted in life in plate 72 of McCoy (2006).

Q. funibus sp. nov. is depicted in life in plate 71 of McCoy (2006).

Distribution: *Q. utrimquepunctata* sp. nov. is restricted to the Nggela Island group in the Solomon Islands.

Etmology: The Latin word "*utrimquepunctata*" means "specked sides".

QUASIPISCISCINCUS FUNIBUS SP. NOV.

LSIDurn:lsid:zoobank.org:act:79520FA4-3FC5-4608-8E99-A13B8D9CED54

Holotype: A preserved specimen at the Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts, USA, specimen number MCZ Herp R-112808 collected from Mbuluminjua, Guadalcanal, Solomon Islands, Latitude -9.5167 S. Longitude 160.0667 E.

This facility allows access to its holdings.

Paratype: A preserved specimen at the Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts, USA, specimen number MCZ Herp R-104560 collected from Mataruka, Guadalcanal Province, Solomon Islands, Latitude -9.5 S., Longitude 160.0667 E.

Diagnosis: *Quasipisciscincus utrimquepunctata* sp. nov. from Nggela Sule (Big Gela), Florida Gap, Solomon Islands and *Q. funibus* sp. nov. from Guadalcanal, Solomon Islands, have until now been treated as populations of *Quasipisciscincus bignelli* (Schmidt, 1932) (previously placed in the genus *Sphenomorphus* Fitzinger, 1843), with a type locality of Kulambangara in the New Georgia group of the Solomon Islands.

The three species are readily separated from one another by the following unique character combinations:

Q. bignelli has a general color of a dark reddish brown above, pale yellow beneath; a somewhat ill-defined narrow black dorsolateral line that is bordered above between the hind limbs by a sharply defined lighter band, as wide as a scale-row (this not being seen in either of the other species); the flanks below the dorsolateral band have scattered light spots occupying, usually, a single scale (seen also in *Q. utrimquepunctata* sp. nov.); the labial border has alternate brown and pale yellow spots; a fairly well-defined brown latero-ventral line separates the pale under side of the tail from the spotted sides.

Q. utrimquepunctata sp. nov. is a very dark brown to blackish coloured lizard with no well defined dorso-lateral line, but a series of about ten small white spots along the line between fore and hind limbs, these spots continuing to run in the line down the upper flanks of the original tail.

The flanks below the dorsolateral band have scattered light spots occupying, usually, a single scale; head is mainly an even black colour; upper labials are also mainly dark, only being punctuated by small triangular intrusions from the base and below the eye that are a dull cream in colour.

Q. funibus sp. nov. is a reddish brown lizard, notable for an absence of obvious white spots or specks on the flanks. If present in some specimens, they are invariably dulled and barely noticeable.

Q. funibus sp. nov. has a dorsum with two semi-broken but reasonably thick, dark lines running down either side of the mid-dorsal line. On the dorsolateral line on each side is another similar line, which may or may not be brown. There are 3 to 4 thinner semi-broken brown lines running along either flank over a lighter brown surface. Anterior of the head is mainly dark blackish in colour and the upper labials are also mainly dark blackish in colour and the two triangular intrusions below the eye are brown and not cream or white. Tail has striping at the anterior end only.

The related species *S. minutus* (Meyer, 1874) from New Guinea is separated from the preceding three species by having fewer mid-body rows (18-20, versus 21-25), a more pointed snout, larger prefrontals, and a larger number of subdigital lamellae (23-25 versus 18-22).

The preceding four species in the genus *Quasipisciscincus* gen. nov. being the entirety of the genus are readily separated from all other species within *Sphenomorphus* Fitzinger, 1843 *sensu lato* by the following unique combination of characters: no fragmented

head shields, fish-like scales; body is only slightly elongated; tail slightly flattened anteriorly, vertically flattened further down and about the same as the snout-vent length (original tails) or slightly longer; supranasals absent; a single anterior and posterior loreal; enlarged paired nuchal scales; prefrontals are well developed, usually separated, but sometimes in narrow contact; prefrontals are about twice as long as wide and in contact with the first and second of four supraoculars; scaly lower eyelid; interparietal is distinct; limbs are moderate and only just meet when adpressed; 18-25 midbody scale rows; 18-25 lamellae under the fourth toes; precloacal slightly enlarged; small size with an average adult snout vent length of just 35 mm.

Colour is earthy (brown to black), with flecks and spots, blotches or lines, but rarely giving the appearance of having distinctive pattern or markings. There is a border between the dorsal and lateral surface, sometimes well defined, other times not.

Eye is orange. Flanks are typically spotted, blotched or even with semi-distinct darker lines created by strokes of dark pigment over a light background. Venter is grey to cream. Darker spots may be present under the tail (largely modified from McCoy 2006).

Q. utrimquepunctata sp. nov. is depicted in life in plate 72 of McCoy (2006).

Q. funibus sp. nov. is depicted in life in plate 71 of McCoy (2006).

Distribution: *Q. funibus* sp. nov. is restricted to Guadalcanal in the Solomon Islands.

Etymology: The Latin word “*funibus*” means “cords” in reflection of the subtle cord like markings on the flanks.

OFILLABIIREATUM GEN. NOV.

LSIDurn:lsid:zoobank.org:act:E9E45CD1-B9E8-457C-8B63-51CD04402572

Type species: *Ofillabiireatum abscondeetus* sp. nov. (this paper).

Diagnosis: Treated as the so-called “*Sphenomorphus maindroni* group” by Greer and Shea (2004) and flagged as genus-level distinct by numerous authors, including Pyron *et al.* (2013), species within this new genus *Ofillabiireatum* gen. nov. are readily separated from all other species within *Sphenomorphus* Fitzinger, 1843 *sensu lato* by the presence of “a postsupraocular”, being a small oblique scale just posterior to the supraoculars and medial to the pretemporal scales (Greer and Shea 2004).

Alternatively it can be described as the presence of a small scale just posterior to the supraocular scales and just medial to the two pretemporal scales and which from its position can be called the postsupraocular scale.

Species groups within this assemblage are placed within subgenera as detailed below.

The species within the subgenus *Cryptozoscincus* subgen. nov. are readily separated from those in the nominate subgenus of *Ofillabiireatum* gen. nov. by the following unique combination of characters:

Prefrontals separated; supralabials seven, fifth is subocular; at most a dark aggregation of pigment in upper the lateral area of the shoulder, but not an obvious dark lateral stripe; subdigital lamellae 12-20; size is relatively large (maximum snout-vent length of smallest species is 79 mm).

The species within the subgenus *Minimascincus* subgen. nov. are readily separated from the other subgenera within *Ofillabiireatum* gen. nov. (being the nominate genus and subgenus) and the subgenus *Cryptozoscincus* subgen. nov. by the following unique combination of characters:

The species have similar body proportions, including relatively longer limbs and a shorter trunk than those in the other subgenera; they also have seven supralabials, grooved subdigital lamellae (in line with others in the same genus); undivided temporal scales and modally lack nuchal scales (occasionally having one nuchal unilaterally); numerous subdigital lamellae (20-24); and midbody scales (30-35), paravertebral scales (50-60); no division of either of the last two

supralabials, 10-11 supraciliaries; a more strongly and evenly defined dorsal pattern of dark markings on the body and flanks, with a generally transverse orientation (adapted from Shea, 2017 and inspection of specimens of the relevant species).

Distribution: *Ofillabiireatum* gen. nov. occur from the southern Philippine Islands, through Borneo and east Indonesia, New Guinea to the Solomon Islands, with the bulk of species within the Papuan realm.

Etymology: In Latin “*Ofillabiireatum*” sometimes refers to the white-spotted lips (or labial scales in the case of these lizards), which is a common character state in many species in the genus.

Content: *Ofillabiireatum abscondeetus* sp. nov. (type species); *O. anotus* (Greer, 1973); *O. brunneus* (Greer and Parker, 1974); *O. buettikoferi* (Lidth de Jeude, 1905); *O. capitolythos* (Shea and Michels, 2009); *O. cinereus* (Greer and Parker, 1974); *O. consobrinus* (Peters and Doria, 1878); *O. cranei* (Schmidt, 1932); *O. dekkerae* (Shea, 2017); *O. derooyae* (De Jong, 1927); *O. fasciatus* (Gray, 1845); *O. forbesi* (Boulenger, 1888); *O. fragilis* (Macleay, 1877); *O. fuscolineatus* (Greer and Shea, 2004); *O. leptofasciatus* (Greer and Parker, 1974); *O. longicaudatus* (De Rooij, 1915); *O. lorae* (Boulenger, 1897); *O. maindroni* (Sauvage, 1879) *O. microtympanus* (Greer, 1973); *O. nigriventris* (De Rooij, 1915); *O. nigrolineatus* (Boulenger, 1897); *O. nonvidetur* sp. nov.; *O. oligolepis* (Boulenger, 1914); *O. tanneri* (Greer and Parker, 1967); *O. papuae* (Kinghorn, 1928); *O. rufus* (Boulenger, 1887); *O. sanana* (Kopstein, 1926); *O. scutatus* (Peters, 1867); *O. solomonis* (Boulenger, 1887); *O. undulatus* (Peters and Doria, 1878).

OFILLABIIREATUM ABSCONDEETUS SP. NOV.

LSIDurn:lsid:zoobank.org:act:CBEFBC7A-9E29-4C36-B835-F03E17B4AC97

Holotype: A preserved specimen, Benoit Mys specimen 9298 (see Mys, 1988:143, as *Latiscincus fuscolineatus*) deposited in the Institut Royal des Sciences Naturelles de Belgique, Brussels, Belgique, collected from Miringi (400-480 m ASL), East Sepik Province, Papua New Guinea.

Diagnosis: Until now *Ofillabiireatum abscondeetus* sp. nov. from north of the New Guinea central cordillera, has been treated as a population of putative “*Sphenomorphus fuscolineatus* Greer and Shea, 2004”, with a type locality of Tifalmin, West Sepik Province, Papua New Guinea, Latitude -5.8079 S., Longitude 141.8249 E, being a taxon from basins flowing south of the main central cordillera in the central highlands region of the island of New Guinea.

O. abscondeetus sp. nov. is readily separated from the species now known as *O. fuscolineatus* (Greer and Shea, 2004) by having more midbody scale rows (35 versus 28-32) and more subdigital lamellae (20 versus 13-18) (Greer and Shea 2004).

The other newly named species in the group, *O. nonvidetur* sp. nov. from Efogi in the Central Province of Papua New Guinea is separated from both preceding species by the fact that it lacks the dark dorsolateral stripe of the other two species and has the pale and dark markings of the dorsum orientated linearly over the anterior part of the body.

The three species *O. nonvidetur* sp. nov., *O. abscondeetus* sp. nov. and *O. fuscolineatus* are separated from all other species in the genus *Ofillabiireatum* gen. nov. by the following unique characters: longitudinal scale rows at midbody 28-35; only the anteriormost pair of chin scales in medial contact; presuboculars modally three; supralabials seven, fifth below center of eye; paravertebrals 59-74; size small to medium (snout-vent is 59 mm).

In addition, the dorsal coloration is brown and in two of three species, with a dark brown dorsolateral stripe extending from snout to the posterior trunk.

Treated as the so-called “*Sphenomorphus maindroni* group” by Greer and Shea (2004) and flagged as genus-level distinct by numerous authors, including Pyron *et al.* (2013), species within this new genus *Ofillabiireatum* gen. nov. are readily separated

from all other species within *Sphenomorphus* Fitzinger, 1843 *sensu lato* by the presence of “a postsupraocular”, being a small oblique scale just posterior to the supraoculars and medial to the pretemporal scales (Greer and Shea 2004).

Alternatively it can be described as the presence of a small scale just posterior to the supraocular scales and just medial to the two pretemporal scales and which from its position can be called the postsupraocular scale.

Species groups within this assemblage are placed within subgenera, although the three species *O. nonvidetur sp. nov.*, *O. abscondeetus sp. nov.* and *O. fuscolineatus* are all within the nominate subgenus.

Distribution: *O. abscondeetus sp. nov.* is only known from the type locality being Miringi (400-480 m ASL), East Sepik Province, Papua New Guinea.

Etymology: The Latin “*absconditus*” means “hidden”, which refers to this species not being visible as a species, when first inspected by herpetologists Allen Greer and Glenn Shea of Australia. The spelling used for this description “*abscondeetus*” is deliberate and not to be changed as it has been done to avoid any potential homonymy.

OFILLABIIREATUM NONVIDETUR SP. NOV.

LSIDurn:lsid:zoobank.org:act:050F1DBD-39F4-490F-9DC8-341363CE9D59

Holotype: A preserved specimen at the University of Papua New Guinea, Papua New Guinea, specimen number UPNG 1033 collected from Efogi, Central Province, Papua New Guinea.

Diagnosis: Until now *Ofillabiireatum abscondeetus sp. nov.* from north of the New Guinea central cordillera, has been treated as a population of putative “*Sphenomorphus fuscolineatus* Greer and Shea, 2004”, with a type locality of Tifalmin, West Sepik Province, Papua New Guinea, Latitude -5.8079 S., Longitude 141.8249 E, being a taxon from basins flowing south of the main central cordillera in the central highlands region of the island of New Guinea.

O. abscondeetus sp. nov. is readily separated from the species now known as *O. fuscolineatus* (Greer and Shea, 2004) by having more midbody scale rows (35 versus 28-32) and more subdigital lamellae (20 versus 13-18) (Greer and Shea 2004).

The other newly named species in the group, *O. nonvidetur sp. nov.* from Efogi in the Central Province of Papua New Guinea is separated from both preceding species by the fact that it lacks the dark dorsolateral stripe of the other two species and has the pale and dark markings of the

dorsum orientated laterally over the anterior part of the body.

The three species *O. nonvidetur sp. nov.*, *O. abscondeetus sp. nov.* and *O. fuscolineatus* are separated from all other species in the genus *Ofillabiireatum gen. nov.* by the following unique characters: longitudinal scale rows at midbody 28-35; only the anteriormost pair of chin scales in medial contact; presuboculars modally three; supralabials seven, fifth below center of eye; paravertebrals 59-74; size small to medium (snout-vent is 59 mm).

In addition, the dorsal coloration is brown and in two of three species, with a dark brown dorsolateral stripe extending from snout to the posterior trunk.

Treated as the so-called “*Sphenomorphus maindroni* group” by Greer and Shea (2004) and flagged as genus-level distinct by numerous authors, including Pyron *et al.* (2013), species within this new genus *Ofillabiireatum gen. nov.* are readily separated from all other species within *Sphenomorphus* Fitzinger, 1843 *sensu lato* by the presence of “a postsupraocular”, being a small oblique scale just posterior to the supraoculars and medial to the pretemporal scales (Greer and Shea 2004).

Alternatively it can be described as the presence of a small scale just posterior to the supraocular scales and just medial to the two pretemporal scales and which from its position can be called the postsupraocular scale.

Species groups within this assemblage are placed within subgenera, although the three species *O. nonvidetur sp. nov.*, *O. abscondeetus sp. nov.* and *O. fuscolineatus* are all within the nominate subgenus.

Distribution: *O. nonvidetur sp. nov.* is only known from the type locality being Efogi in the Central Province of Papua New Guinea.

Etymology: The Latin “*nonvidetur*” means “hidden”, which refers to this species not being visible as a species or “hidden”, when first inspected by herpetologists Allen Greer and Glenn Shea of Australia.

CRYPTOZOSCINCUS SUBGEN. NOV.

LSIDurn:lsid:zoobank.org:act:81D21736-0D3B-47BC-B1F6-B268FAAA6D97

Type species: *Lygosoma solomonis* Boulenger, 1887.

Diagnosis: The species within the subgenus *Cryptozoscincus subgen. nov.* are readily separated from those in the nominate subgenus of *Ofillabiireatum gen. nov.* by the following unique combination of characters:

Prefrontals separated; supralabials seven, fifth is subocular; at most a dark aggregation of pigment in upper the lateral area of the shoulder, but not an obvious dark lateral stripe; subdigital lamellae 12-20; size is relatively large (maximum snout-vent length of smallest species is 79 mm).

The species within the subgenus *Minimascincus subgen. nov.* are readily separated from the other subgenera within *Ofillabiireatum gen. nov.* (being the nominate genus and subgenus) and the subgenus *Cryptozoscincus subgen. nov.* by the following unique combination of characters:

The species have similar body proportions, including relatively longer limbs and a shorter trunk than those in the the other subgenera; they also have seven supralabials, grooved subdigital lamellae (in line with others in the same genus); undivided temporal scales and modally lack nuchal scales (occasionally having one nuchal unilaterally); numerous subdigital lamellae (20-24); and midbody scales (30-35), paravertebral scales (50-60); no division of either of the last two supralabials, 10-11 supraciliaries; a more strongly and evenly defined dorsal pattern of dark markings on the body and flanks, with a generally transverse orientation (adapted from Shea, 2017 and inspection of specimens of the relevant species).

Treated as the so-called “*Sphenomorphus maindroni* group” by Greer and Shea (2004) and flagged as genus-level distinct by numerous authors, including Pyron *et al.* (2013), species within this new genus *Ofillabiireatum gen. nov.* are readily separated from all other species within *Sphenomorphus* Fitzinger, 1843 *sensu lato* by the presence of “a postsupraocular”, being a small oblique scale just posterior to the supraoculars and medial to the pretemporal scales (Greer and Shea 2004).

Alternatively it can be described as the presence of a small scale just posterior to the supraocular scales and just medial to the two pretemporal scales and which from its position can be called the postsupraocular scale.

Distribution: New Guinea and Solomon Islands groups.

Etymology: The Latin name “*Cryptozoscincus*” literally means “cryptozoic skink”, thereby describing the species.

Content: *Ofillabiireatum (Cryptozoscincus) solomonis* (Boulenger, 1887) (type species); *O. (Cryptozoscincus) anotus* (Greer, 1973); *O. (Cryptozoscincus) brunneus* (Greer and Parker, 1974); *O. (Cryptozoscincus) forbesi* (Boulenger, 1888); *O. (Cryptozoscincus) fragilis* (Macleay, 1877); *O. (Cryptozoscincus) lorae* (Boulenger, 1897); *O. (Cryptozoscincus) microtympanus* (Greer, 1973); *O. (Cryptozoscincus) nigrolineatus* (Boulenger, 1897); *O. (Cryptozoscincus) oligolepis* (Boulenger, 1914); *O. (Cryptozoscincus) scutatus* (Peters, 1867); *O. (Cryptozoscincus) tanneri* (Greer and Parker, 1967).

MINIMASCINKUS SUBGEN. NOV.

LSIDurn:lsid:zoobank.org:act:8136FFF7-AF74-4055-9FE0-F989FE8B0E1B

Type species: *Lygosoma (Hinulia) consobrinum* Peters and Doria, 1878.

Diagnosis: The species within the subgenus *Minimascinkus subgen. nov.* are readily separated from the other subgenera within *Ofillabiireatum gen. nov.* (being the nominate genus and subgenus) and the subgenus *Cryptozoscincus subgen. nov.* by the following unique combination of characters:

The species have similar body proportions, including relatively longer limbs and a shorter trunk than those in the other subgenera; they also have seven supralabials, grooved subdigital lamellae (in line with others in the same genus); undivided temporal scales and modally lack nuchal scales (occasionally having one nuchal unilaterally); numerous subdigital lamellae (20-24); and midbody scales (30-35), paravertebral scales (50-60); no division of either of the last two supralabials, 10-11 supraciliaries; a more strongly and evenly defined dorsal pattern of dark markings on the body and flanks, with a generally transverse orientation (adapted from Shea, 2017 and inspection of specimens of the relevant species).

The species within the subgenus *Cryptozoscincus subgen. nov.* are readily separated from those in the nominate subgenus of *Ofillabiireatum gen. nov.* by the following unique combination of characters: Prefrontals separated; supralabials seven, fifth is subocular; at most a dark aggregation of pigment in upper the lateral area of the shoulder, but not an obvious dark lateral stripe; subdigital lamellae 12-20; size is relatively large (maximum snout-vent length of smallest species is 79 mm).

Treated as the so-called "Sphenomorphus maindroni group" by Greer and Shea (2004) and flagged as genus-level distinct by numerous authors, including Pyron *et al.* (2013), species within this new genus *Ofillabiireatum gen. nov.* are readily separated from all other species within *Sphenomorphus* Fitzinger, 1843 *sensu lato* by the presence of "a postsupraocular", being a small oblique scale just posterior to the supraoculars and medial to the pretemporal scales (Greer and Shea 2004).

Alternatively it can be described as the presence of a small scale just posterior to the supraocular scales and just medial to the two pretemporal scales and which from its position can be called the postsupraocular scale.

Distribution: West New Guinea and islands generally west of there to Borneo (essentially East Indonesia).

Etymology: In Latin, "*Minimascinkus*" literally means "small skink", as befits the size of the species in the subgenus.

Content: *Ofillabiireatum (Minimascinkus) consobrinus* (Peters and Doria, 1878) (type species); *O. (Minimascinkus) buettikoferi* (Lidth De Juede, 1905); *O. (Minimascinkus) capitolythos* (Shea and Michels, 2009); *O. (Minimascinkus) dekckeræ* (Shea, 2017); *O. (Minimascinkus) sanana* (Kopstein, 1926).

ARIETESVARIOSUS GEN. NOV.

LSIDurn:lsid:zoobank.org:act:3E658907-637F-4F33-8FA7-36F2C3090EFA

Type species: *Tropidophorus darlingtoni* Loveridge, 1945.

Diagnosis: Species within *Arietesvariosus gen. nov.* are readily separated from all other species within *Sphenomorphus* Fitzinger, 1843 *sensu lato* by the following unique combination of characters: Prefrontals meet medially; supralabials modally six, fourth is subocular.

Distribution: Central highlands of New Guinea and north of there on the main island.

Etymology: In Latin "*Arietesvariosus*" means "speckled" which refers to the colouration on the relevant species. The "*variosus*" part of the name is deliberately misspelt as "*variosus*" to ensure that the subgenus has no potential homonym issues and so the spelling of "*Arietesvariosus*" should not be changed.

Content: *Arietesvariosus darlingtoni* (Loveridge, 1945) (type species); *A. schultzei* (Vogt, 1911).

CAUDADENSISSIMA SUBGEN. NOV.

LSIDurn:lsid:zoobank.org:act:73C5C902-9286-454C-B0BA-87B2B48DA975

Type species: *Lygosoma (Hinulia) schultzei* Vogt, 1911.

Diagnosis: The sole species within the monotypic subgenus *Caudadensissima subgen. nov.* is defined and separated from the sole species within the nominate and monotypic subgenus *Arietesvariosus gen. nov.*, (AKA in this instance as *subgen. nov.*) by having the nasal scale and first supralabial fused, as well as having 20-26 dorsal midbody rows, versus nasal and first supralabial being separate and distinct and 33-36 dorsal midbody scale rows in the nominate subgenus of *Arietesvariosus gen. nov.* The species within the subgenus *Caudadensissima subgen. nov.*, being *A. schultzei* (Vogt, 1911) is further defined and diagnosed by the following characters:

Snout pointed; lower eyelid scaly; ear-opening almost as large as the eye, no lobules. Nostril in the nasal; no supranasals; a single anterior loreal; frontonasal broadly in contact with the rostral, which reaches far posteriorly; praefrontals forming a suture; frontal longer than the interparietal, pointed posteriorly; five supraoculars; seven supraciliaries; frontoparietals a little shorter than the interparietal; parietals in contact; four pair of nuchals; six upper labials, fourth below the eye, five lower labials. Body slender, with 20-26 dorsal midbody scale rows, the two vertebral series largest; praeanal scales strongly enlarged. Tail thick, a little longer than the head and body. Limbs short, not meeting when adpressed; digits well developed; fourth toe with 12 lamellae below (modified from de Rooij 1915). Species within *Arietesvariosus gen. nov.* are readily separated from all other species within *Sphenomorphus* Fitzinger, 1843 *sensu lato* by the following unique combination of characters:

Prefrontals meet medially; supralabials modally six, fourth is subocular.

Distribution: *A. schultzei* (Vogt, 1911) the sole member of the subgenus is known only from northern New Guinea including both Papua New Guinea (Sepik Basin) and also Irian Jaya further west. The Irian Jaya form described as *Lygosoma beauforti* De Jong, 1927 is herein regarded as a junior subjective synonym of *A. schultzei* (Vogt, 1911).

Etymology: In Latin, the words "*cauda densissima*" means "thick tail" with reference to the relatively thick tail seen in this species as compared to near relatives.

Content: *Arietesvariosus (Caudadensissima) schultzei* (Vogt, 1911) (type species) (monotypic).

BREVINNARIBUSSIUS GEN. NOV.

LSIDurn:lsid:zoobank.org:act:9AED767F-63D1-43DE-9548-0B82D14EE3A2

Type species: *Lygosoma louisadense* Boulenger, 1903.

Diagnosis: The species within the subgenus *Brevinnaribussius subgen. nov.* are readily separated from all other species within *Sphenomorphus* Fitzinger, 1843 *sensu lato* by the following unique combination/s of characters:

No auricular lobules; five or more supraoculars; one anterior loreal and one or other of:

24-26 mid-body scale rows; three or four pairs of nuchals; 36-39 lamellae under the fourth toe; no enlarged preanals (nominate subgenus) or:

30-32 mid-body scale rows; no nuchals; five supraoculars; 30-42 lamellae under the fourth toe; preanals enlarged (*Fortiscurascincus subgen. nov.*).

Distribution: East New Guinea including offshore islands.

Etymology: In Latin "*Brevi naribussius*" means "short snout". The extra "n" has been added to the genus name "*Brevinnaribussius*" to ensure that there are no homonyms and so the spelling should not be altered.

Content: *Brevinnaribussius louisadense* (Boulenger, 1903) (type species); *B. aignanus* (Boulenger, 1898); *B. milnense* (Boulenger, 1903).

FORTISCRURASCINCUS SUBGEN. NOV.

LSIDurn:lsid:zoobank.org:act:FB2203B2-1B75-4315-9EB1-10883633BD70

Type species: *Lygosoma aignanum* Boulenger, 1898.

Diagnosis: The species within the subgenus *Fortiscurascincus* subgen. nov. are separated from those within the nominate subgenus *Brevinnaribussuis* gen. nov. (subgen. nov. in this case by direct inference), by the following suite of characters:

30-32 mid-body scale rows; no nuchals; five supraoculars; 30-42 lamellae under the fourth toe; preanals enlarged, versus

24-26 mid-body scale rows; three or four pairs of nuchals; 36-39 lamellae under the fourth toe; no enlarged preanals in the nominate subgenus.

In addition to the preceding character suites, the relevant species are separated from all others within *Sphenomorphus* Fitzinger, 1843 *sensu lato* by the following combination of characters:

No auricular lobules; five or more supraoculars; one anterior loreal.

Distribution: East New Guinea (Papua New Guinea in the far south-east).

Etymology: In Latin the words "*Fortiscurra scincus*" means "strong limbed skink" in reflection of the physical form of the relevant species.

Content: *Brevinnaribussuis* (*Fortiscurascincus*) *aignanus* (Boulenger, 1898) (type species); *B.* (*Fortiscurascincus*) *milnense* (Boulenger, 1903).

SILVALIZARD GEN. NOV.

LSIDurn:lsid:zoobank.org:act:AA076E7C-F2D9-4EA5-829E-DE4CD9F46217

Type species: *Hinulia indica* Gray, 1853.

Diagnosis: The species within the genus *Silvalizard* gen. nov. are separated from all other species within *Sphenomorphus* Fitzinger, 1843 *sensu lato* by the following suite of characters:

Limbs well developed, pentadactyle; the length of the hind limb exceeds the distance between the centre of the eye and the fore limb. Lower eyelid scaly. Tympanum distinct.

No supranasals. Frontal not broader than the supraocular region. Frontoparietals distinct. A pair of enlarged preanals. Habit lacertiform and scales smooth; the distance between the end of the snout and the fore limb is contained once and two fifths to once and three fifths in the distance between axilla and groin. Snout short, obtuse; loreal region nearly vertical. Lower eyelid scaly. Nostril pierced in a single nasal, or between a nasal and a postnasal; no supranasal; rostral convex, largely in contact with the frontonasal, which is broader than long, and forms a narrow suture with the frontal; latter as long as the frontoparietal and parietals together, in contact with the first, second, and third supraoculars; four large supraoculars, followed by two very small ones; first supraocular not much longer than second; nine or ten supraciliaries, first largest; frontoparietals and interparietal distinct, former a little longer than latter; parietals forming a short suture behind the interparietal; no nuchals; fifth and sixth upper labials largest and below the eye. Ear-opening oval, smaller than the eye-opening; no auricular lobules. 30 to 38 midbody scale rows, laterals are the smallest. A pair of large preanals. When the limbs are adpressed against the body, the hind limb reaches the elbow or not quite as far. Digits rather elongate, compressed; subdigital lamellae smooth or obtusely keeled, 17 to 20 under the fourth toe (largely derived from Boulenger, 1887).

The species within this genus can be separated from species within the closely related and morphologically similar genus *Lissonota*, Blyth, 1853 (type species, *Lissonota maculata* Blyth, 1853) by the fact that that species complex have the alternative suite of characters of:

38 to 40 midbody scale rows; rostral is flat or concave above (versus convex); the hind limb

does not reach beyond the axilla; five or more supraoculars and a single anterior loreal.

Distribution: Southern Asia, including India, China, the Himalayas, Indochina and Peninsula Malaysia.

Etymology: In Latin, the words "*Silva lizard*" means "forest lizard" which accurately sums up where most species are found.

Content: *Silvalizard indicus* (Gray, 1853) (type species); *S. formosensis* (Thompson, 1912); *S. lineopunctulatus* (Taylor, 1962); *S. lovelinayi* sp. nov.; *S. scotophilus* (Boulenger, 1900); *S. sungaicolus* (Sumarli, Grismer, Wood, Ahmad, Rizal, Ismail, Izam, Ahmad and Linkem, 2016); *S. tersus* (Smith, 1916).

SILVALIZARD LOVELINAYI SP. NOV.

LSIDurn:lsid:zoobank.org:act:52497DEE-F6EE-4745-95DD-E61E58DC6BF2

Holotype: A preserved specimen at the National Museum of Natural History, Smithsonian Institution, Washington, DC, USA, specimen number USNM Amphibians and Reptiles 24031 collected from Trang, Thailand, Latitude 7.5645 N., Longitude 99.6239 E.

This facility allows access to its holdings.

Diagnosis: The species *S. lovelinayi* sp. nov. was originally identified by Taylor (1963) as being of the species "*Sphenomorphus scotophilus* (Boulenger, 1900)". However, the specimen in question is clearly of a separate species.

S. lovelinayi sp. nov. is separated from *S. scotophilus* by the following characters:

1/ Four (instead of five) supraoculars.

2/ Frontal is shorter than the combined parietals versus same length in *S. scotophilus*.

3/ 34 midbody rows versus 30-32 in *S. scotophilus*.

4/ 19 lamellae under the fourth toe, versus 22-23 in *S. scotophilus*.

On the dorsum of *S. scotophilus* are moderately sized and moderately defined blackish spots or smudges running (mainly) along the midline. These are reduced to smallish spots in *S. lovelinayi* sp. nov. as depicted in the photo of the holotype in Taylor (1963).

The holotype of *S. lovelinayi* sp. nov. also appears to be a more stoutly built lizard than type *S. scotophilus*, which may also explain the greater number of mid-body rows, assuming that there has been no other relative expansion in size of the scales.

The two preceding species are separated from all others within *Silvalizard* gen. nov. by the following unique character suite: Four or five supraoculars; no supranasals; lower eyelid scaly; limbs well developed; leg reaching between elbow and axilla when limbs are adpressed; frontal is distinctly shorter than combined

parietals or equal to it, not especially narrowed posteriorly; no nuchals; 30-34 midbody rows; subcaudals widened.

The species within the genus *Silvalizard* gen. nov. are separated from all other species within *Sphenomorphus* Fitzinger, 1843 *sensu lato* by the following suite of characters:

Limbs well developed, pentadactyle; the length of the hind limb exceeds the distance between the centre of the eye and the fore limb. Lower eyelid scaly. Tympanum distinct. No supranasals. Frontal not broader than the supraocular region. Frontoparietals distinct. A pair of enlarged preanals. Habit lacertiform and scales smooth; the distance between the end of the snout and the fore limb is contained once and two fifths to once and three fifths in the distance between axilla and groin.

Snout short, obtuse; loreal region nearly vertical. Lower eyelid scaly. Nostril pierced in a single nasal, or between a nasal and a postnasal; no supranasal; rostral convex, largely in contact with the frontonasal, which is broader than long, and forms a narrow suture with the frontal; latter as long as the frontoparietal and parietals together, in contact with the first, second, and third supraoculars; four large supraoculars, followed by two very small ones; first supraocular not much longer than second; nine or ten supraciliaries, first largest; frontoparietals and interparietal distinct, former a little longer than latter; parietals forming a short

suture behind the interparietal; no nuchals; fifth and sixth upper labials largest and below the eye. Ear-opening oval, smaller than the eye-opening; no auricular lobules. 30 to 38 midbody scale rows, laterals are the smallest. A pair of large preanals. When the limbs are adpressed against the body, the hind limb reaches the elbow or not quite as far. Digits rather elongate, compressed; subdigital lamellae smooth or obtusely keeled, 17 to 20 under the fourth toe (largely derived from Boulenger, 1887).

suture behind the interparietal; no nuchals; fifth and sixth upper labials largest and below the eye. Ear-opening oval, smaller than the eye-opening; no auricular lobules. 30 to 38 midbody scale rows, laterals are the smallest. A pair of large preanals. When the limbs are adpressed against the body, the hind limb reaches the elbow or not quite as far. Digits rather elongate, compressed; subdigital lamellae smooth or obtusely keeled, 17 to 20 under the fourth toe (largely derived from Boulenger, 1887).

The species within this genus can be separated from species within the closely related and morphologically similar genus *Lissonata*, Blyth, 1853 (type species, *Lissonata maculata* Blyth, 1853) by the fact that that species complex have the alternative suite of characters of:

38 to 40 midbody scale rows; rostral is flat or concave above (versus convex); the hind limb

does not reach beyond the axilla; five or more supraoculars and a single anterior loreal.

Distribution: *S. lovelinayi* sp. nov. is known only from the holotype collected at or near to Trang, southern Thailand.

Etymology: Named in honour of Tony Love-Linay, owner of Reconnect communications, NSW and Victoria, Australia (a highly successful mobile phone retail outlet with multiple store locations) in recognition of his enormous amount of charitable work in relieving the crushing poverty seen in parts of Thailand, as well as for his services to herpetology over some decades, including the urgent rebuilding of dead motor vehicles and providing logistical support for various important fieldwork projects.

LISSONATA MACULATA VELOXMOVENS SUBSP. NOV.

LSIDurn:lsid:zoobank.org:act:EA7FFE0C-8BCA-451C-94AE-5CD9424EA66C

Holotype: A preserved specimen at the Museum of Vertebrate Zoology, University of California, Berkeley, California, USA, specimen number MVZ:Herp:258402 collected from Koh Khlee-ay Island, Mekong River, Sambour District, Kratie Province, Cambodia, Latitude 13.196325 N., Longitude 106.028915 E.

This facility allows access to its holdings.

Paratype: A preserved specimen at the Museum of Vertebrate Zoology, University of California, Berkeley, California, USA, specimen number MVZ:Herp:258403 collected from Koh Khlee-ay Island, Mekong River, Sambour District, Kratie Province, Cambodia, Latitude 13.196325 N., Longitude 106.028915 E.

Diagnosis: The distribution of *Lissonata maculata* Blyth, 1853 appears to be tied to the major river basins in south-east Asia, although the species is evidently adept at expanding distribution through man-made habitats.

Notwithstanding this recent expansion in the distribution of this common species, it became evident on inspection of specimens from across the known natural range, that morphologically divergent specimens appeared to occupy the main drainage basins.

The form from the Mekong drainage is herein formally named as *Lissonata maculata veloxmovens* subsp. nov., while the divergent form from the drainages of Central, southern Thailand is herein formally named as *Lissonata maculata currax* subsp. nov.

"*Sphenomorphus maculatus mitanensis* Annandale, 1905", with a type locality of Meetan, South Burma (now Myanmar), is also herein resurrected from synonymy as a valid subspecies occupying the Irawaddy River basin.

The four forms are separated from one another as follows:

Lissonata maculata veloxmovens subsp. nov. is separated from the nominate form of the species with a type locality of India and divergent specimens herein identified as *L. maculata currax* subsp. nov. by having a dorsum consisting of a light golden coloured back with one or two rows of well-defined roundish black spots, no stripe anterior to the nose from the snout, or if well defined, it is not distinct, and well-spaced but distinctive white dots or spots on the dark black coloured upper flank, this

band also being wide. At the lower edge of the black of the flank is a thick whitish-cream bar without dark intrusions, below that being an area of white with black mottling.

By contrast, specimens of *L. maculata currax* subsp. nov. from southern Thailand have a narrower black band along the upper flank, without distinctive white dots or spots on the dark black coloured upper flank.

The immaculate cream or white bar on the lower edge of the black of the flank is either thin or absent and the blackish spots on the dorsum are more obviously squarish in shape. It also has a distinctive black bar running from snout, through the eye and this is the stripe that runs along the upper flank.

In *L. maculata veloxmovens* subsp. nov., this black band invariably forms posterior to the eye and sometimes even posterior to the ear.

In the nominate form of *L. maculata*, from Assam in eastern India, while distributionally distant from *L. maculata veloxmovens* subsp. nov., it is morphologically more similar to it than the southern Thailand specimens (*L. maculata currax* subsp. nov.). However it is separated from *L. maculata veloxmovens* subsp. nov. by having semi-distinct spots on the back as opposed to distinct ones, faded white or yellow spots on the black of the flank (versus obvious in *L. maculata veloxmovens* subsp. nov.) and a prominent black bar running from the snout, through the eye and along the upper flank.

L. maculata mitanensis is readily separated from the three above-named subspecies by having lighter as well as darker spots, specks or markings on the dorsum of the back, this being a unique identifier of this taxon. Otherwise it is in many ways intermediate in appearance between nominate *L. maculata* and *L. maculata currax* subsp. nov.

The four preceding subspecies, as *L. maculata sensu lato* are readily separated from all other species within *Sphenomorphus* Fitzinger, 1843 *sensu lato*, by the following unique combination of characters:

Habit lacertiform; dorsal scales small and smooth, the distance between the end of the snout and the forelimb equals once and one fifth to once and a half the distance between axilla and groin. Snout short, obtuse; loreal region nearly vertical. Lower eyelid scaly; nostril pierced in a single nasal; no supranasal; rostral perfectly flat or a little concave above, largely in contact with the frontonasal, which is broader than long, and forms a narrow suture with the frontal latter shield as long as frontoparietals and parietals together, in contact with the two or three anterior supraoculars; five large supraoculars, first much longer than second, fifth smallest; nine or ten supraciliaries, first and last largest; frontoparietals and interparietal distinct, former a little longer than latter; parietals forming a short suture behind the interparietal; no nuchals; fifth and sixth upper labials largest and below the eye. Ear-opening oval, smaller than the eye-opening; no auricular lobules. 38 to 40 mid-body rows; dorsals largest, laterals smallest. A pair of large preanals. The hind limb reaches the elbow or the axilla. Digits long, compressed; subdigital lamellae feebly uncarinate, 16 to 21 under the fourth toe.

Tail is almost twice as long as head and body, more-or less round in cross section although vertically flattened slightly on the sides of the base. Brown or olive-brown dorsally, usually with two dorsal series of small dark brown or black spots; a dark brown/black lateral band, sometimes spotted with whitish and edged below with white, extending from the snout, nostril, or just posterior to the eye to the tail, passing through the eye and above the ear; lower surfaces usually white (modified from Boulenger, 1887).

Distribution: *Lissonata maculata veloxmovens* subsp. nov. is apparently confined to the lower Mekong River drainage basin, including Vietnam, Cambodia, Thailand and Laos.

Etymology: In Latin, the words "*velox movens*" means fast moving, which accurately describes the movement of these lizards in warm weather when approached by humans.

LISSONATA MACULATA CURRAX SUBSP. NOV.

LSIDurn:lsid:zoobank.org:act:C9D3386C-54A3-4258-BCA2-0AA5E4F13CDB

Holotype: A preserved specimen at the National Museum of Natural History, Smithsonian Institution, Washington, DC, USA, specimen number USNM Amphibians and Reptiles 70259 collected from Lam Ton Lang (= Ban Lam Thong Lang), west north-west of Pak Chong, Nakhon Ratchasima Province, Thailand, Latitude 14.74 N, Longitude 101.304 E.

This facility allows access to its holdings.

Paratype: A preserved specimen at the National Museum of Natural History, Smithsonian Institution, Washington, DC, USA, specimen number USNM Amphibians and Reptiles 72170 collected from Pak Chong, Nakhon Ratchasima Province, Thailand, Latitude 14.7125 N, Longitude 101.422 E.

Diagnosis: The distribution of *Lissonata maculata* Blyth, 1853 appears to be tied to the major river basins in south-east Asia, although the species is evidently adept at expanding distribution through man-made habitats.

Notwithstanding this recent expansion in the distribution of this common species, it became evident on inspection of specimens from across the known natural range, that morphologically divergent specimens appeared to occupy the main drainage basins.

The form from the Mekong drainage is herein formally named as *Lissonata maculata veloxmovens subsp. nov.*, while the divergent form from the drainages of Central, southern Thailand is herein formally named as *Lissonata maculata currax subsp. nov.*

"*Sphenomorphus maculatus mitanensis* Annandale, 1905", with a type locality of Meetan, South Burma (now Myanmar), is also herein resurrected from synonymy as a valid subspecies occupying the Irawaddy River basin.

The four forms are separated from one another as follows:

Lissonata maculata veloxmovens subsp. nov. is separated from the nominate form of the species with a type locality of India and divergent specimens herein identified as *L. maculata currax subsp. nov.* by having a dorsum consisting of a light golden coloured back with one or two rows of well-defined roundish black spots, no stripe anterior to the nose from the snout, or if well defined, it is not distinct, and well-spaced but distinctive white dots or spots on the dark black coloured upper flank, this band also being wide. At the lower edge of the black of the flank is a thick whitish-cream bar without dark intrusions, below that being an area of white with black mottling.

By contrast, specimens of *L. maculata currax subsp. nov.* from southern Thailand have a narrower black band along the upper flank, without distinctive white dots or spots on the dark black coloured upper flank. The immaculate cream or white bar on the lower edge of the black of the flank is either thin or absent and the blackish spots on the dorsum are more obviously squarish in shape. It also has a distinctive black bar running from snout, through the eye and this is the stripe that runs along the upper flank.

In *L. maculata veloxmovens subsp. nov.*, this black band invariably forms posterior to the eye and sometimes even posterior to the ear.

In the nominate form of *L. maculata*, from Assam in eastern India, while distributionally distant from *L. maculata veloxmovens subsp. nov.*, it is morphologically more similar to it than the southern Thailand specimens (*L. maculata currax subsp. nov.*). However it is separated from *L. maculata veloxmovens subsp. nov.* by having semi-distinct spots on the back as opposed to distinct ones, faded white or yellow spots on the black of the flank (versus obvious in *L. maculata veloxmovens subsp. nov.*) and a prominent black bar running from the snout, through the eye and along the upper flank.

L. maculata mitanensis is readily separated from the three above-named subspecies by having lighter as well as darker

spots, specks or markings on the dorsum of the back, this being a unique identifier of this taxon. Otherwise it is in many ways intermediate in appearance between nominate *L. maculata* and *L. maculata currax subsp. nov.*

The four preceding subspecies, as *L. maculata sensu lato* are readily separated from all other species within *Sphenomorphus* Fitzinger, 1843 *sensu lato*, by the following unique combination of characters:

Habit lacertiform; dorsal scales small and smooth, the distance between the end of the snout and the forelimb equals once and one fifth to once and a half the distance between axilla and groin. Snout short, obtuse; loreal region nearly vertical. Lower eyelid scaly; nostril pierced in a single nasal; no supranasal; rostral perfectly flat or a little concave above, largely in contact with the frontonasal, which is broader than long, and forms a narrow suture with the frontal latter shield as long as frontoparietals and parietals together, in contact with the two or three anterior supraoculars; five large supraoculars, first much longer than second, fifth smallest; nine or ten supraciliaries, first and last largest; frontoparietals and interparietal distinct, former a little longer than latter; parietals forming a short suture behind the interparietal; no nuchals; fifth and sixth upper labials largest and below the eye. Ear-opening oval, smaller than the eye-opening; no auricular lobules. 38 to 40 mid-body rows; dorsals largest, laterals smallest. A pair of large preanals. The hind limb reaches the elbow or the axilla. Digits long, compressed; subdigital lamellae feebly uncarinate, 16 to 21 under the fourth toe. Tail is almost twice as long as head and body, more-or less round in cross section although vertically flattened slightly on the sides of the base. Brown or olive-brown dorsally, usually with two dorsal series of small dark brown or black spots; a dark brown/black lateral band, sometimes spotted with whitish and edged below with white, extending from the snout, nostril, or just posterior to the eye to the tail, passing through the eye and above the ear; lower surfaces usually white (modified from Boulenger, 1887).

Distribution: *Lissonata currax subsp. nov.* is apparently confined to the drainages of the main central Thailand basin that ultimately flow through the Bangkok area to the upper Gulf of Thailand.

Etymology: In Latin, the word "*currax*" means "rapid" or "fast", which usually accurately describes the movement of these lizards in warm weather when approached by humans.

INVALUERUNTSCINCUS GEN. NOV.

LSIDurn:lsid:zoobank.org:act:F656F424-3A19-4900-BAA8-15EA4E33898B

Type species: *Lygosoma (Hinulia) variegatum* Peters, 1867.

Diagnosis: Species within the genus *Invalueruntscincus gen. nov.* are separated from all other species within *Sphenomorphus* Fitzinger, 1843 *sensu lato* by the following unique suite of characters: Frontoparietal double; nostril pierced in a single nasal; no supranasal; two superimposed loreal shields behind the nasal; 5-7 supraoculars; 10-16 supraciliaries, usually the first is largest; 38-40 midbody rows, dorsals larger than laterals; a pair of enlarged pre-anal scales; The hind limb reaches the axilla or a little beyond the shoulder. Ear-opening large, oval, smaller than the eye opening; no auricular lobules. Digits elongate, compressed; 18 to 25 smooth or feebly carinate lamellae under the fourth toe. Snout short, obtuse; supraocular region much swollen.

Colouration brownish on the dorsum, variously spotted or marbled with darker colours; frequently a dorso-lateral series of light spots; sides of neck sometimes with a large black spot; sides of body are light-spotted; lower surfaces brownish white. Tail (original) is about 1.5 times the length of the snout-vent (modified from Boulenger 1887 and inspection of further specimens).

Distribution: Southern Philippines, Borneo and Sulawesi.

A specimen ostensibly from Mindoro Oriental Province, Philippines held at the California Academy of Sciences, lodged as CAS SUR 25754 is out of the expected range for the genus

and biogeographically unlikely, though not impossible and should be investigated. If it is in fact a wild specimen from a functioning indigenous population at that location, it will almost certainly represent an undescribed species.

Etiology: In Latin, the words “*invaluerunt scincus*” means “stout skink” in reflection of the relative build of adults of these lizards.

Content: *Invalueruntscincus variegatus* (Peters, 1867); (type species); *I. cyanolaemus* (Inger and Hosmer); *I. multisquamatus* (Inger, 1958); *I. sabanus* (Inger, 1958); *I. sarasinorum* (Boulenger, 1897); *I. zimmeri* (Ahl, 1933).

MACROULAR SUBGEN. NOV.

LSIDurn:lsid:zoobank.org:act:0DCC4AF0-E1A5-4E59-9A2E-A6F6F65359D3

Type species: *Sphenomorphus sabanus* Inger, 1958.

Diagnosis: The species within *Macrocular subgen. nov.* are readily separated from those in the nominate subgenus of *Invalueruntscincus gen. nov.* by the following unique combination of characters:

- 1/ The absence of a black spot on the side of the neck and extending from behind the upper corner of the tympanum to above the insertion of the arm.
- 2/ 15-16 supraciliaries (versus 10-13 in the nominate subgenus).
- 3/ 18-22 lamellae under toe four (versus 18-25 in the nominate subgenus).
- 4/ 7 supraoculars (versus 5 in the nominate subgenus).

Species within the genus *Invalueruntscincus gen. nov.* are separated from all other species within *Sphenomorphus* Fitzinger, 1843 *sensu lato* by the following unique suite of characters: Frontoparietal double; nostril pierced in a single nasal; no supranasal; two superimposed loreal shields behind the nasal; 5-7 supraoculars; 10-16 supraciliaries, usually the first is largest; 38-40 midbody rows, dorsals larger than laterals; a pair of enlarged pre-anal scales; The hind limb reaches the axila or a little beyond the shoulder. Ear-opening large, oval, smaller than the eye opening; no auricular lobules. Digits elongate, compressed; 18 to 25 smooth or feebly carinate lamellae under the fourth toe.

Snout short, obtuse; supraocular region much swollen.

Colouration brownish on the dorsum, variously spotted or marbled with darker colours; frequently a dorso-lateral series of light spots; sides of neck sometimes with a large black spot; sides of body are light-spotted; lower surfaces brownish white. Tail (original) is about 1.5 times the length of the snout-vent (modified from Boulenger 1887 and inspection of further specimens).

Distribution: *Macrocular subgen. nov.* species occur in Borneo only.

Etiology: In Latin the words “*macro ocular*” means large eye, which reflects the state in juveniles within this subgenus. An “o” has been removed from the subgenus name and this is deliberate, to make it “*Macrocular*” and so should not be changed.

Content: *Invalueruntscincus (Macrocular) sabanus* (Inger, 1958) (type species); *I. (Macrocular) cyanolaemus* (Inger and Hosmer, 1965).

GENUS PIERSONSTELLIO GEN. NOV.

LSIDurn:lsid:zoobank.org:act:220A1C7A-BB1E-4971-8841-D7B754D94A2C

Type species: *Piersonstellio charlespiersoni sp. nov.* (this paper).

Diagnosis: The two species in this genus are separated from all other species within *Sphenomorphus* Fitzinger, 1843 *sensu lato* by the following unique suite of characters: Scales smooth; no supranasals present; lower eyelid scaly; parietals form suture behind interparietal; three pairs of nuchals; auricular opening nearly as large as eye-opening, without lobules; a pair of enlarged preanals; 20 lamellae under the fourth toe.

Further diagnostic characters for this genus are found in Taylor (1963) pages 1005-1007 under the heading “*Sphenomorphus praesignis* (Boulenger)”.

These divergent species from the Malay Peninsula region, have been shown in various phylogenetic studies, including Honda *et al.* (2000) and Pyron *et al.* (2013) to be not a part of other putative “*Sphenomorphus*” Fitzinger, 1843 species groups.

Distribution: Mountainous parts of the Malay Peninsula from the vicinity of Fraser’s Hill, Malaysia in the south to the Tamarat Mountains, Peninsula Thailand.

Etiology: Both genus and species, *Piersonstellio charlespiersoni sp. nov.* are named in honour of Charles Pierson, book publisher of Moss Vale, New South Wales, Australia. For detail see Hoser (1996).

Content: *Piersonstellio charlespiersoni sp. nov.* (type species) (this paper); *P. praesignis* (Boulenger, 1900).

PIERSONSTELLIO CHARLESPIERSONI SP. NOV.

LSIDurn:lsid:zoobank.org:act:2B019DA7-97F9-43D3-B61E-E32DD5F3CCC1

Holotype: A preserved specimen at the Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts, USA, specimen number MCZ Herp R-39310 collected from Khao Wang Hip, Nakhon, Nakron Sri, Tamarat Mountains, Peninsula Thailand, Asia,

Diagnosis: *Piersonstellio charlespiersoni sp. nov.* is readily separated from the morphologically similar species *P. praesignis* (Boulenger, 1900) by the presence of a small extra shield interposed between the frontals and frontoparietals, this condition not present in specimens of *P. praesignis* of the type form and subspecies *P. praesignis divergens subsp. nov.* from Fraser’s Hill, Malaysia.

The two species in this genus are separated from all other species within *Sphenomorphus* Fitzinger, 1843 *sensu lato* by the following unique suite of characters: Scales smooth; no supranasals present; lower eyelid scaly; parietals form suture behind interparietal; three pairs of nuchals; auricular opening nearly as large as eye-opening, without lobules; a pair of enlarged preanals; 20 lamellae under the fourth toe.

Further diagnostic characters for this genus are found in Taylor (1963) pages 1005-1007 under the heading “*Sphenomorphus praesignis* (Boulenger)”.

These divergent species from the Malay Peninsula region, have been shown in various phylogenetic studies, including Honda *et al.* (2000) and Pyron *et al.* (2013) to be not a part of other putative “*Sphenomorphus*” Fitzinger, 1843 species groups.

Distribution: *Piersonstellio charlespiersoni sp. nov.* is endemic to the Tamarat Mountains, Peninsula Thailand, Asia.

Etiology: Both genus and species, *Piersonstellio charlespiersoni sp. nov.* are named in honour of Charles Pierson, book publisher of Moss Vale, New South Wales, Australia. For detail see Hoser (1996).

PIERSONSTELLIO PRAESIGNIS DIVERGANS SUBSP. NOV.

LSIDurn:lsid:zoobank.org:act:FE28340B-91F5-4236-8496-6816AA71C2C8

Holotype: A preserved specimen at the La Sierra University, Department of Biology, Riverside, California, USA, specimen number LSUHC 9095 collected from Fraser’s Hill, 1456 M ASL, Pahang, Peninsula Malaysia, Asia, Latitude 3.7119 N. Longitude 101.7366 E.

This facility allows access to its holdings.

Diagnosis: *P. praesignis divergens subsp. nov.* from the Fraser’s Hill area of Pahang, Malaysia is separated from the nominate form of *P. praesignis* (Boulenger, 1900), with a type locality of Larut Hills, 4000 ft. [= 1312 m elevation], Perak, Malaya [West Malaysia], by the absence of a large rectangular shaped (long side running anterior-posterior) black patch on the neck, anterior to the axial of the front limb, the similar marking/s in *P. praesignis divergens subsp. nov.* being wider than long or

alternatively more-or-less square only; *P. praesignis divergens* subsp. nov. also lacks the distinctive white spotting on a brown background seen in the nominate form of *P. praesignis divergens* subsp. nov., which is either absent or faded in *P. praesignis divergens* subsp. nov. (note that we are talking about mature adult specimens here).

Piersonstellio charlespiersoni sp. nov. is readily separated from the morphologically similar species *P. praesignis* (Boulenger, 1900) by the presence of a small extra shield interposed between the frontals and frontoparietals, this condition not present in specimens of *P. Praesignis* of the type form and the subspecies *P. praesignis divergens* subsp. nov. from Fraser's Hill, Pahang, Malaysia.

The two species in this genus are separated from all other species within *Sphenomorphus* Fitzinger, 1843 *sensu lato* by the following unique suite of characters: Scales smooth; no supranasals present; lower eyelid scaly; parietals form suture behind interparietal; three pairs of nuchals; auricular opening nearly as large as eye-opening, without lobules; a pair of enlarged preanals; 20 lamellae under the fourth toe.

Further diagnostic characters for this genus are found in Taylor (1963) pages 1005-1007 under the heading "*Sphenomorphus praesignis* (Boulenger)".

These divergent species from the Malay Peninsula region, have been shown in various phylogenetic studies, including Honda *et al.* (2000) and Pyron *et al.* (2013) to be not a part of other putative "*Sphenomorphus*" Fitzinger, 1843 species groups.

Distribution: *P. praesignis divergens* subsp. nov. is only known from Fraser's Hill, Pahang, Malaysia.

Etymology: The subspecies is named in reflection of the fact it is divergent from the nominate form.

LINEAATRO GEN. NOV.

LSIDurn:lsid:zoobank.org:act:E4D28FAD-D058-4F41-957E-066E6A1C0568

Type species: *Sphenomorphus diwata* Brown and Rabor, 1967.

Diagnosis: The genus, *Lineaatro* gen. nov. monotypic for the species originally described as "*Sphenomorphus diwata* Brown and Rabor, 1967" from north Mindanao Island, Philippines, is readily separated from all other species within *Sphenomorphus* Fitzinger, 1843 *sensu lato* by the following unique suite of characters:

A moderate-sized (snout-vent about 54 mm) smooth skink with 40 midbody scale rows; about 93 middorsal scale rows between parietals and tail base about; 15 lamellae beneath the fourth toe; 5 supraoculars, plus a small, divided scale posteriorly, anterior 2 supraoculars in contact with frontal; an irregularly margined, blackish band from ear to basal part of the tail.

The genus and species within it are further defined as follows: Slender build, head not strongly depressed; head and snout tapering; snout round, pointed, its length about half the head length; rostral narrowly in contact with prefrontal; frontonasals narrowly in contact; frontal tapering to a sharp point posteriorly; frontoparietals not fused; interparietal large but not completely separating parietals; anterior frontal reduced to small triangular shield widely separated from upper labials; fifth upper labial beneath center of the orbit; 5 elongate supraoculars, followed by sixth, which is transversely divided; no nuchals; eye moderate, its diameter about 75 percent snout length and 37 percent head breadth; ear large, its diameter about 75 percent eye diameter; 40 midbody scale rows; 93 scale rows along middorsal line between parietals and tail base; 15 lamellae beneath the fourth toe on the hind limb; limbs pentadactyl, well developed, length of hind limb about 37 percent of the snout-vent length and a slightly greater than distance from fore limb to snout tip.

Color (in preservative): Dorsum dark reddish brown blotched or suffused with blackish-brown, but lacking one or more rows of distinct blackish spots typical of other morphologically similar and sympatric taxa; dorsolateral region with an irregularly margined, broad, blackish band or series of blotches from region of the

ear to basal half of the tail; lower lateral surfaces and under surface of the head and throat are marked by blackish, broken, longitudinal lines; rest of venter uniformly light; limbs heavily mottled with blackish brown (taken from Brown and Rabor, 1967).

Distribution: *Lineaatro* gen. nov. is restricted to the hilly areas north and east of Batuan City, north Mindanao, Philippines, is range restricted and must therefore be regarded as vulnerable.

Etymology: In Latin, the genus name "*Lineaatro*" means "blackish line" in reflection of the ones running down each flank from the eye to the tail.

Content: *Lineaatro diwata* (Brown and Rabor, 1967) (monotypic).

BRUNNEISMACULIS GEN. NOV.

LSIDurn:lsid:zoobank.org:act:F09DAC85-49F3-4B95-87E2-103A7A5E51BD

Type species: *Lygosoma (Hinulia) acutum* Peters, 1864.

Diagnosis: *Brunneismaculis* gen. nov. monotypic for the Philippine species *B. acutus* (Peters, 1864), is readily separated from all other species within *Sphenomorphus* Fitzinger, 1843 *sensu lato* by the following unique suite of characters:

1/ Frontoparietal single.

2/ Two loreals superimposed.

3/ Six supraoculars.

4/ 26 to 30 midbody scale rows.

5/ 32 to 34 subdigital lamellae on the fourth toe.

6/ Adult size averages about 180 millimeters in length and tail is about two thirds of that.

Distribution: Mindanao and immediately north small islands in the Philippines, in a relatively small area, but where they occur they are in massive numbers.

Etymology: In Latin, the words "*Brunneismaculis*" means brown spots on dorsum, effectively describing the colouration of the species as detailed by Taylor (1922).

Content: *Brunneismaculis acutus* (Peters, 1864) (monotypic).

OTOSAURUS LATERIBUSFULVIS SP. NOV.

LSIDurn:lsid:zoobank.org:act:86E3015E-CD1D-45E1-A9E4-062B8D79EBCC

Holotype: A preserved specimen at the United States National Museum (now National Museum of Natural History; Smithsonian Institution; Washington, DC), USA, specimen number USNM 498904, collected at Cagayan Province, Luzon Island, Philippines. This facility allows access to its holdings.

Paratype: A preserved specimen at the University of Texas at Austin, Texas, USA, Texas Natural History Collection, specimen number TNHC Herpetology 62749, collected from Zambales Province, Luzon Island, Philippines.

Diagnosis: Until now the genus *Otosaurus* Gray, 1845 has been treated as monotypic for the species *O. cumingi* Gray, 1845, herein regarded as a species complex, restricted to the Philippines. Two species are formally named for the first time in this paper.

O. cumingi Gray, 1845 is diagnosed as for the genus in both Gray (1845) and Boulenger (1887), and this definition applies to all three species, except where otherwise indicated herein (as below).

O. cumingi Gray, 1845 from Mindanao and nearby islands is separated from the two newly described species *O. lateribusfulvis* sp. nov. and *O. cinereocauda* sp. nov. by having 46-56 midbody rows, 12-14 supraciliaries and a small triangular interparietal.

O. lateribusfulvis sp. nov. from Luzon Island is separated from *O. cinereocauda* sp. nov. and *O. cumingi* by having sixteen to eighteen superciliaries, small interparietal and 58-60 midbody rows.

O. cinereocauda sp. nov. from Mindoro is separated from *O. lateribusfulvis* sp. nov. and *O. cumingi* by having a very large

interparietal, the parietals form no suture; eight upper labials; 46-56 midbody rows; and the prefrontal and supraocular are in contact.

O. lateribusfulvis sp. nov. in life is depicted in Brown *et al.* (2013) at page 64 bottom (juvenile) and page 65 top, (adult male).

The three described species in the genus *Otosaurus* are further defined and diagnosed as follows:

Habit lacertiform; the distance between the end of the snout and the fore limb equals, or nearly equals, the distance between axilla and groin. Snout short, obtuse. Lower eyelid scaly. Nostril pierced in a single nasal; a large supranasal, forming a suture with its fellow; frontonasal very small, scarcely broader than long, and forming a suture with the frontal; latter as long as or slightly shorter than the frontoparietals and parietals together, in contact with the four anterior supraoculars; eight supraoculars, last very small, first twice as long as second; 12 to 18 supraciliaries; frontoparietals and interparietal distinct, subequal in length; parietals forming a very short suture behind the interparietal; no nuchals; sixth and seventh labials below the eye. Ear-opening very large,

oval, nearly as large as the eye-opening; tympanum scarcely sunk; no auricular lobules. Scales smooth, with 46 to 60 midbody rows, laterals smallest. A pair of enlarged preanals. The hind limb reaches the shoulder or halfway between the latter and the ear. Digits elongate, compressed; subdigital lamellae uncarinate, divided, 22 to 24 under the fourth toe. Tail about one and a half times the length of head and body. Reddish brown to chocolate brown above, spotted with semidistinct and regular black blotches; upper half of the lateral surface is black, or with blackish spots, bordered with small white or yellowish spots, which in some specimens are larger on the sides of the neck; lips light in colour with small dark brown spots; lower surfaces yellowish white, throat sometimes with small brown spots (modified from Boulenger 1887).

Distribution: *O. lateribusfulvis* sp. nov. is known only from Luzon Island, Philippines.

Etiology: In Latin, "*lateribus fulvis*" means, yellow spots on side, in reflection of the yellow spots arranged in about six bands on the upper flanks of this species.

OTOSAURUS CINEREOCAUDA SP. NOV.

LSIDurn:lsid:zoobank.org:act:2D657F61-BCE4-4DA7-BA13-4874480C0DEC

Holotype: A preserved specimen at the University of Kansas Biodiversity Institute, Kansas, USA, . specimen number KU KUH 335924, collected at an elevation of 2000-2200 metres on forest floor adjacent to a steep, rocky stream in the Municipality of Sablayan, Occidental Mindoro Province, Mindoro Island, Philippines. This facility allows access to its holdings.

Diagnosis: Until now the genus *Otosaurus* Gray, 1845 has been treated as monotypic for the species *O. cumingi* Gray, 1845, herein regarded as a species complex, restricted to the Philippines. Two species are formally named for the first time in this paper.

O. cumingi Gray, 1845 is diagnosed as for the genus in both Gray (1845) and Boulenger (1887), and this definition applies to all three species, except where otherwise indicated herein (as below).

O. cumingi Gray, 1845 from Mindanao and nearby islands is separated from the two newly described species *O. lateribusfulvis* sp. nov. and *O. cinereocauda* sp. nov. by having 46-56 midbody rows and a small triangular interparietal.

O. cinereocauda sp. nov. from Mindoro is separated from *O. lateribusfulvis* sp. nov. and *O. cumingi* by having a very large interparietal, the parietals form no suture; eight upper labials; 46-56 midbody rows; and the prefrontal and supraocular are in contact.

O. lateribusfulvis sp. nov. from Luzon Island is separated from *O. cinereocauda* sp. nov. and *O. cumingi* by having sixteen to eighteen superciliaries, small interparietal and 58-60 midbody

rows.

The three described species in the genus *Otosaurus* are further defined and diagnosed as follows:

Habit lacertiform; the distance between the end of the snout and the fore limb equals, or nearly equals, the distance between axilla and groin. Snout short, obtuse. Lower eyelid scaly. Nostril pierced in a single nasal; a large supranasal, forming a suture with its fellow; frontonasal very small, scarcely broader than long, and forming a suture with the frontal; latter as long as or slightly shorter than the frontoparietals and parietals together, in contact with the four anterior supraoculars; eight supraoculars, last very small, first twice as long as second; 12 to 18 supraciliaries; frontoparietals and interparietal distinct, subequal in length; parietals forming a very short suture behind the interparietal; no nuchals; sixth and seventh labials below the eye. Ear-opening very large,

oval, nearly as large as the eye-opening; tympanum scarcely sunk; no auricular lobules. Scales smooth, with 46 to 60 midbody rows, laterals smallest. A pair of enlarged preanals. The hind limb reaches the shoulder or halfway between the latter and the ear. Digits elongate, compressed; subdigital lamellae uncarinate, divided, 22 to 24 under the fourth toe. Tail about one and a half times the length of head and body. Reddish brown to chocolate brown above, spotted with semidistinct and regular black blotches; upper half of the lateral surface is black, or with blackish spots, bordered with small white or yellowish spots, which in some specimens are larger on the sides of the neck; lips light in colour with small dark brown spots; lower surfaces yellowish white, throat sometimes with small brown spots (modified from Boulenger 1887).

Distribution: *O. cinereocauda* sp. nov. is known only from Mindoro Island, Philippines.

Etiology: In Latin, "*cinereocauda*" means, greyish tail, in reflection of greyish or brown markings on tails of the species.

ALBUMMENTUM GEN. NOV.

LSIDurn:lsid:zoobank.org:act:DBF7EAC1-E555-47E9-A8A5-EE29D6DCA172

Type species: *Sphenomorphus apalpebratus* Datta-Roy, Das, Bauer, Lyngdoh-Tron and Karanth, 2013.

Diagnosis: Lizards in the genus *Albummentum* gen. nov. are separated from all other species within *Sphenomorphus* Fitzinger, 1834 *sensu lato* and other related Asian skink genera by the following unique combination of characters:

Small body size (anout-vent to 42.0 mm); moveable eyelids absent; an immovable clear spectacle permanently covers the eye, and no palpebral slit is evident; auricular opening is scaleless, situated in a shallow depression; dorsal scales show a line of demarcation along the posterior edge of ventral pes; 27-28 midbody scale rows; 62-64 longitudinal scale rows between the parietals and base of tail; 8-9 lamellae under the fourth toe; 5 supraoculars; 5-6 supralabials; 4-5 infralabials; about 92 subcaudals; dorsum golden brown, except at the dorsal margin of the lateral line, which is lighter, with four faintly spotted lines, two along each side of the vertebral row of scales, that extend to the tail base.

In common with other species within *Sphenomorphus* Fitzinger, 1834 *sensu lato* this genus and species has the following traits: parietals meet behind interparietals; median preanals overlap outer preanals; and iris is dark as the pupil, no supranasals; five digits on fore and hindlimbs, limbs well developed, and body is elongated, but non-vermiform (modified from Datta Roy *et al.* 2013).

Disribution: Known only from the sacred forests of Mawphlang, in Meghalaya, northeastern India.

Etiology: In Latin, the words "*Album mentum*" means "white chin" in reflection of the character state of the adults in this species in that the underside of the anterior of the head is white.

Content: *Albummentum apalpebratus* (Datta-Roy, Das, Bauer, Lyngdoh-Tron and Karanth, 2013) (monotypic).

TENEBRISSPINA GEN. NOV.

LSIDurn:lsid:zoobank.org:act:563025CF-3854-4168-AEE3-5978868B8A1B

Type species: *Sphenomorphus cryptotis* Darevsky, Orlov and Cuc, 2004.

Diagnosis: The distinctive species in the new genus *Tenebrisspina gen. nov.* is readily separated from all other species within *Sphenomorphus* Fitzinger, 1843 *sensu lato* by the following unique combination of characters:

Moderate-sized *Sphenomorphus*, male snout-vent about 66 mm, Tail length (original tail) about 166 mm; female snout-vent about 51-69 mm, tail length 147-166 mm; head longer than wide; rostral wider than high; supranasals absent; prefrontals in contact with each other; parietals in contact posteriorly; 2 loreals; 3 supraoculars, anterior one divided; 1 or 2 primary temporals; 2 secondary temporals, upper very large and overlapped by lower one; lower eyelid scaly; 7 supralabials, the fifth and sixth below the eye, separated from the eye by one row of small scales; external ear openings superficial, without lobules; mental wider than long; 7 infralabials; postmental undivided; 32-34 midbody scale rows; 73-80 paravertebral scales; 72-78 transverse rows of ventrals; 2 preloacals, enlarged; medial subcaudals widened; limbs short, pentadactyl; fingers and toes meeting when adpressed; subdigital lamellae smooth, numbering 12-13 under the fourth finger and 18-19 under the fourth toe.

Coloration in life: Dorsum and tail base yellowish brown with a vertebral row of large black spots; numerous indistinct white spots on the labials; lateral zone with a distinct dark stripe from behind the eye to tail base, with white spots; neck and throat white, with black dots; venter and underside anterior part of tail white, posterior part of tail yellowish brown (Modified from Darevsky *et al.* 2004 and Linh *et al.* 2019).

Distribution: *Tenebrisspina gen. nov.* are known from northern Vietnam only.

Etymology: In Latin, the words "*tenebris spina*" means black spine, which refers to the blackish darkening along the spinal area of the dorsum in adult lizards.

Content: *Tenebrisspina cryptotis* (Darevsky, Orlov and Cuc, 2004) (monotypic).

TENUISFODIENS GEN. NOV.

LSIDurn:lsid:zoobank.org:act:863593A3-2A33-4CAA-B2FC-21B3138D5043

Type species: *Sphenomorphus sheai* Nguyen, Nguyen, Van Devender, Bonkowski and Ziegler, 2013.

Diagnosis: The distinctive species in the new genus *Tenuisfodiens gen. nov.* is readily separated from all other species within *Sphenomorphus* Fitzinger, 1843 *sensu lato* by the following unique combination of characters: An extremely elongated head, neck and body, with a moderate-sized bulge in the head immediately above the eye; size small (snout-vent length 35.2 mm); prefrontals separated from each other; four supraoculars; two pairs of enlarged nuchals; lower eyelid scaly; six supralabials, first fused with the nasal; one or two primary temporals; one or two loreals; external ear openings absent; 20 midbody scale rows; dorsal scales smooth, 53-38 paravertebral scales, not widened; pentadactyl limbs short, scales on the dorsal surface of the base of fourth toe are in three rows; 6-9 lamellae under the fourth toe; free margins of upper and lower eyelids are not edged in white; dorsum and tail base bronze brown with dark dots; dorsolateral light stripe present on neck, shoulder and anterior part of dorsum; upper zone of lateral head and flank is with a narrow black stripe (Modified from Darevsky *et al.* 2004 and Le *et al.* 2020).

Further descriptive detail relevant to the monotypic genus is within Nguyen *et al.* (2013).

Distribution: Known only from the general region of the type locality being the Kontum Plateau, south-central Vietnam.

Etymology: In Latin, the words "*Tenuis fodiens*" means "*slender burrower*", which fits the habits of this monotypic genus.

Content: *Tenuisfodiens cryptotis* (Darevsky, Orlov and Cuc, 2004 (monotypic).

ABSCONDITAAUREM GEN. NOV.

LSIDurn:lsid:zoobank.org:act:3179F4CF-3FD1-42B2-9291-06F8F414B8DB

Type species: *Leptoseps tetradactylus* Darevsky and Orlov, 2005.

Diagnosis: The species within *Absconditaaurem gen. nov.* is readily separated from all other species within *Sphenomorphus* Fitzinger, 1843 *sensu lato* and *Leptoseps* Greer, 1997 by the following unique combination of characters:

Parietal eye spot absent; supranasals absent; prefrontals weakly marked; loreal single; frontal somewhat larger than the interparietal; nuchals present; four supraoculars; lower eyelid scaly; ear opening secretive; dorsal scales smooth in 20 longitudinal rows at midbody; four fingers and five toes (modified from Darevsky and Orlov, 2005).

Distribution: A Vietnam endemic.

Etymology: The Latin words "*abscondita aurem*" means "hidden ear", which refers to the effectively concealed ear opening in the species in this genus.

Content: *Absconditaaurem tetradactylus* (Darevsky and Orlov, 2005) (monotypic).

TUMESSUPEROCULUM GEN. NOV.

LSIDurn:lsid:zoobank.org:act:DCDAE431-7F34-4AF0-A9E3-018EC723E105

Type species: *Siaphos tridigitus* Bourett, 1939.

Diagnosis: The divergent taxon "*Siaphos tridigitus* Bourett, 1939" of Vietnam, assigned to *Sphenomorphus* by Greer *et al.* (2006) is herein assigned to the new genus *Tumessuperoculum gen. nov.* along with a second species *T. patrickdavidii sp. nov.*, being a population from the Bolovens Plateau, until now treated as conspecific.

This taxon differs from all other species within *Sphenomorphus* Fitzinger, 1843 *sensu lato* by having the upper temporal scale overlapping the lower one (instead of the opposite condition).

Rare exceptions to this condition in some Vietnamese specimens is known.

The two species in the genus *Tumessuperoculum gen. nov.* are readily separated from all other species within *Sphenomorphus* Fitzinger, 1843 *sensu lato* by the following unique combination of characters: Small-sized skink (snout-vent length up to 47.2 mm); limbs short, adpressed limbs separated, hindlimb pentadactyl, forelimb tridactyl; rostral concave, in broad contact with the frontonasal; prefrontals separated from one another; enlarged nuchals in two or three pairs; four supraoculars; six supralabials, the sixth largest, the first fused with nasal; five infralabials; one or two primary temporals; two secondary temporals, the lower scale overlapping or overlapped by the upper one; external ear openings absent; 20 mid-body scale rows, all smooth; 51-63 paravertebral scales, slightly larger than the lateral ones; two enlarged preloacal shields; six to nine lamellae beneath the fourth toe; tail longer than the snout-vent length (Tail (original)/SVL = 1.6), 87 transversally enlarged subcaudals; a dorsolateral black stripe extending continuously from posterior margin of the eye to tail base (modified from Le *et al.* 2020 and Bourett, 1939).

Distribution: Thua Thien-Hue Province, Central Vietnam and Boloven Highlands, southern Laos.

Etymology: In Latin the words "*Tumessuperoculum*" means "*bulging above the eye*" with reference to the slight but still noticeable bulge under the scales immediately above the eye.

Content: *Tumessuperoculum tridigitus* (Bourett, 1939) (type species). *T. patrickdavidii sp. nov.* (this paper).

TUMESSUPEROCULUM PATRICKDAVIDI SP. NOV.

LSIDurn:lsid:zoobank.org:act:B41E12C7-6397-4A51-BAE5-DE06D5B3F782

Holotype: A preserved specimen at the French National Museum of Natural History, known in French as the Muséum national d'histoire naturelle, Paris, France, specimen number MNHN 2003.3367 collected from Sepian, Boloven Highlands, Champasak Province, Laos, at about 1200-1250 metres above sea level.

This facility allows access to its holdings.

Diagnosis: *Tumessuperoculum patrickdavidii* sp. nov. from the Boloven Highlands, southern Laos, has until now been treated as a western population of *T. tridigitus* (Bourett, 1939) from elevated locations within the Thua Thien-Hue Province, Central Vietnam. However it is morphologically divergent and separated by a zone of relatively low altitude east of Saravan Laos, effectively cutting the Boloven Highlands animals off from those to the nearest and most closely connected hills to the north east.

T. patrickdavidii sp. nov. is readily separated from *T. tridigitus* by the following character combination: Having six pairs of subcaudals basally (versus 1-2 in *T. tridigitus*); 50 paravertebral scale rows (versus 51-56); 18 midbody scale rows (versus 20 in *T. tridigitus*).

Le *et al.* (2020) noted the invariability of midbody scale rows as a character in similar taxa.

The two species in the genus *Tumessuperoculum* gen. nov. (*T. tridigitus* and *T. patrickdavidii* sp. nov.) are readily separated from all other species within *Sphenomorphus* Fitzinger, 1843 *sensu lato* by the following unique combination of characters: Small-sized skink (snout-vent length up to 47.2 mm); limbs short, adpressed limbs separated, hindlimb pentadactyl, forelimb tridactyl; rostral concave, in broad contact with the frontonasal; prefrontals separated from one another; enlarged nuchals in two or three pairs; four supraoculars; six supralabials, the sixth largest, the first fused with nasal; five infralabials; one or two primary temporals; two secondary temporals, the lower scale overlapping or overlapped by the upper one; external ear openings absent; 20 mid-body scale rows, all smooth; 51-63 paravertebral scales, slightly larger than the lateral ones; two enlarged preloacal shields; six to nine lamellae beneath the fourth toe; tail longer than the snout-vent length (Tail (original)/SVL = 1.6), 87 transversally enlarged subcaudals; a dorsolateral black stripe extending continuously from posterior margin of the eye to tail base (modified from Le *et al.* 2020 and Bourett, 1939).

Distribution: *T. patrickdavidii* sp. nov. is presumed to be endemic to the Boloven Highlands, southern Laos. Based on this finding and the description of this new species, it is reasonable to infer a high level of endemism in similar kinds of small upland vertebrate species around the same eco-zone.

T. tridigitus in turn is restricted to the Mountains that straddle the Vietnam border with Laos and Thailand.

Etymology: Named in honour of Patric David at the Muséum national d'histoire naturelle, Paris, France in recognition of his contributions to herpetology.

DUMPEDES GEN. NOV.

LSIDurn:lsid:zoobank.org:act:63DE668E-D6F2-4937-B346-8037A79D913C

Type species: *Lygosoma dussumieri* Duméril and Bibron, 1839.

Diagnosis: The species in the genus *Dumpepes* gen. nov. is readily separated from all other species within *Sphenomorphus* Fitzinger, 1843 *sensu lato* by the following unique combination of characters:

- 1/ Body not elongate, limbs well developed.
- 2/ The adpressed limbs easily overlap. The leg reaches to the shoulder or beyond.
- 3/ Rostral flat or concave.
- 4/ 38 to 42 midbody scale rows.

The species in the genus *Dumpepes* gen. nov. are further

separated from other species within *Sphenomorphus* Fitzinger, 1843 *sensu lato* by the following combination of characters:

Prefrontals often in good contact with one another; 4 or 5 supraoculars, when only four it is due to fusion of the first and second shields; ear-opening smaller, with a few granules on its anterior margin; dorsal scales only a little larger than the lateral, 38 to 42 midbody scale rows, the dorsals very finely striated; the leg reaches to the shoulder or nearly to the tympanum; 20 to 25 lamellae beneath the fourth toe. Pale olive or bronzy green on the dorsum, with a light dorso-lateral streak starting from above the eye and edged on its inner side with a dark brown streak spotted with white; a broad dark brown lateral stripe edged below with white, which in its turn is edged with brown; throat and belly white; tail yellowish-brown. Fully-grown individuals have the dorsal markings much less distinct, and may be of an almost uniform colour above, with or without small light spots. The tail of adult males is bright orange-red in life, while that of females is usually brownish (adapted mainly from Smith 1935).

Distribution: South-west India, as in coastal Kerala, where the sole species in the genus is very common.

Etymology: In Latin, the words "*dum pedes*" means "long legs".

Content: *Dumpepes dussumieri* (Duméril and Bibron, 1839) (monotypic).

REFERENCES CITED

- Adler, G. H., Austin, C. C. and Dudley, R. 1995. Dispersal and speciation of skinks among archipelagos in the tropical Pacific Ocean. *Evolutionary Ecology* 9:529-541.
- Ahl, E. 1933. Ergebnisse der Celebes und Halmahera Expedition Heinrich 1930-32. Reptilien und Amphibien. *Mitteilungen aus dem Museum für Naturkunde in Berlin* 19:577-583.
- Allison, A. and Bigilale, I. H. 2001. The herpetofauna of southern New Ireland. *RAP Bulletin of Biological Assessment* 21:50-60, 90-91.
- Allison, A., Bickford, D., Richards, S. and Torr, G. 1998. Herpetofauna. pp. 58-62, 156-172. in: Mack, A. L. (ed.), *A biological assessment of the Lakekamu Basin, Papua New Guinea*. RAP Working Papers 9, Conservation International, Washington, DC, USA.
- Ang, A. and Ng, D. 2016. Sub-adult Blotched Forest Skink *Sphenomorphus praesignus* at Fraser's Hill, Peninsular Malaysia. *SEAVR* 2016:63-64.
- Annandale, N. 1905. Contributions to Oriental Herpetology. Suppl. III. Notes on the Oriental lizards in the Indian Museum, with a list of the species recorded from British India and Ceylon. *Journal of the Asiatic Society of Bengal* (2):139-151.
- Annandale, N. 1909. Report on a small collection of lizards from Travancore. *Records of the Indian Museum* 3:253-257.
- Annandale, N. 1912. Zoological results of the Abor Expedition, 1911-1912. *Records of the Indian Museum* 8(1):7-59 [Reptilia, pages 37-59] (supplement in same journal), 8(4):357-358.
- Aplin, K. P., How, R. and Boeadi 1993. A New Species of the *Glaphyromorphus-solepis* species group (Lacertilia Scincidae) From Sumba Island, Indonesia. *Records of the Western Australian Museum* 16(2):235-242.
- Auffenberg, W. 1980. The herpetofauna of Komodo, with notes on adjacent areas. *Bulletin of the Florida State Museum* 25(2):39-156.
- Auliya, M. 2006. *Taxonomy, Life History, and conservation of giant reptiles in west Kalimantan*. Natur und Tier Verlag, Münster, Germany:432 pp.
- Austin, C. C. 1995. Molecular and morphological evolution in South Pacific scincid lizards: morphological conservatism and phylogenetic relationships of Papuan *Lipinia* (Scincidae). *Herpetologica* 51(3):291-300.
- Austin, C. C. 1998. Phylogenetic relationships of *Lipinia* (Scincidae) from New Guinea based on DNA sequence variation from the mitochondrial 12S rRNA and Nuclear C-MOS genes. *Hamadryad* 23(2):93-102.

- Austin, C. 2006. Checklist and Comments on the Terrestrial Reptile Fauna of Kau Wildlife Area, Papua New Guinea. *Herpetological Review*, 37(2):167-170.
- Bacon, J. P. 1967. Systematic status of three scincid lizards (genus *Sphenomorphus*) from Borneo. *Fieldiana Zoology* 51:63-76.
- Baker, N. 2016. Blue-headed Forest Skink *Sphenomorphus cyanolaemus* at Sungai Bantang, Johor, Peninsular Malaysia. *SEAVR* 2016:11.
- Baker, N. 2017. *Sphenomorphus* sp. ('*S. maindroni*') from Gobe, Southern Highlands Province, Papua New Guinea. *SEAVR* 2017:46-47.
- Barabanov, A. and Milto, K. 2017. An annotated type catalogue of the anguid, dibamid, scincid and varanid lizards in the Department of Herpetology, Zoological Institute, Russian Academy of Sciences, St. Petersburg, Russia (Reptilia: Sauria: Anguidae, Dibamidae, Scincidae and Varanidae. *Zootaxa* (PRINO) (online) 4244(1):065-078.
- Barbour, T. 1909. Notes on Amphibia and Reptilia from Eastern Asia. *Proceedings of the New England Zoological Club* 4:53-78, 2 plates.
- Barbour, T. 1912. A Contribution to the Zoögeography of the East Indian Islands. *Memoirs of the Museum of Comparative Zoology* 44(1):1-203.
- Barbour, T. 1921. Reptiles and Amphibians from the British Solomon Islands. *Proceedings of the New England Zoological Club* 7:91-112, Pls. ii-vi.
- Bartlett, E. 1895. The crocodiles and lizards of Borneo in the Sarawak Museum, with descriptions of supposed new species, and the variation of colours in the several species during life. *Journal of the Straits Branch Royal Asiatic Society Singapore*, 28:73-96.
- Bauer, A. M. and Gunther, R. 1992. A preliminary report on the reptile fauna of the Kingdom of Bhutan with the description of a new species of scincid lizard (Reptilia: Scincidae). *Asiatic Herpetological Research* 4:23-36.
- Bauer, A. M., Shea, G. M., and Günther, R. 2003. An annotated catalogue of the types of scincid lizards (Reptilia: Squamata: Scincidae) in the collection of the Museum für Naturkunde der Humboldt-Universität zu Berlin (ZMB). *Zoologische Reihe. Mitteilungen aus dem Museum für Naturkunde in Berlin* 79:253-321.
- Beddome, R. H. 1870. Descriptions of new reptiles from the Madras Presidency. *Madras Monthly Journal of Medical Science*, 2:169-176.
- Beukema, W. 2011. Herpetofauna of disturbed forest fragments on the lower Mt. Kitanglad Range, Mindanao Island, Philippines. *Salamandra* 47(2):90-98.
- Blackburn, D. G. 1999. Are viviparity and egg-guarding evolutionarily labile in squamates?. *Herpetologica* 55(4):556-573.
- Blyth, E. 1853. Notices and descriptions of various reptiles, new or little-known. Part I. *Journal of the Asiatic Society Bengal* 22:639-655.
- Bobrov, V. V. 1993a. Zoogeographic Analysis of the Lizard Fauna (Reptilia, Sauria) of Vietnam. *Zoologicheskii Zhurnal* 72(8):70-79.
- Bobrov, V. V. 1993b. A report on a collection of lizards (Reptilia, Sauria) from Son La Province (Northern Vietnam). *Journal of Bengal Natural History Society*, new ser., 12(1):5-10.
- Bobrov, V. V. and Semenov, D. V. 2008. *Lizards of Vietnam* [in Russian]. Moscow:236 pp.
- Boettger, O. 1893. *Katalog der Reptilien-Sammlung im Museum der Senckenbergischen Naturforschenden Gesellschaft in Frankfurt am Main. I. Teil (Rhynchocephalen, Schildkröten, Krokodile, Eidechsen, Chamäleons)*. [type catalogue] Gebrüder Knauer, Frankfurt a. M., Germany:x+140 pp.
- Boettger, O. 1895. Liste der Amphibien und Batrachier des Insel Halmaheira nach den Sammlungen Prof. Dr. W. Kükenthal's. *Zoologischer Anzeiger* 18:116-121, 129-138.
- Boettger, O. 1901. Aufzählung einer Liste von Reptilien und Batrachiern aus Annam. *Ber. Senck. Ges., Senckenbergiana* 1901:45-53.
- Böhme, W. 2014. Herpetology in Bonn. *Mertensiella* 21. vi+256 pp.
- Boulenger, G. A. 1895. On a collection of reptiles and batrachians from Ferguson Island, D'Entrecasteaux group British New Guinea. *Annals and magazine of natural history* (6)16:28-32.
- Boulenger, G. A. 1887a. *Catalogue of the lizards in the British Museum (Nat. Hist.) III. Lacertidae, Gerrhosauridae, Scincidae, Anelytropsidae, Dibamidae, Chamaeleontidae*. London:575pp.
- Boulenger, G. A. 1887b. Second contribution to the herpetology of the Solomon islands. *Proceedings of the Zoological Society of London* 1887:333-340.
- Boulenger, G. A. 1887c. An account of the reptiles and batrachians obtained in Tenasserim by M. L. Fea, of the Genova Civic Museum. *Annali del Museo civico di storia naturale di Genova*, 2. Ser. 5:474-486.
- Boulenger, G. A. 1888. Descriptions of new reptiles and batrachians obtained by Mr. H. O. Forbes in New Guinea. *Annals and magazine of natural history* (6)1(5):343-346.
- Boulenger, G. A. 1890a. *The Fauna of British India, Including Ceylon and Burma. Reptilia and Batrachia*. Taylor and Francis, London, xviii+541 pp.
- Boulenger, G. A. 1890b. First report on additions to the lizard collection in the British Museum (Natural History). *Proceedings of the Zoological Society of London* 1890:77-86.
- Boulenger, G. A. 1893. Concluding report on the reptiles and batrachians obtained in Burma by Signor L. Fea, dealing with a collection made in Pegu and Karin Hills in 1887-1888. *Annali del Museo civico di storia naturale di Genova*, 2. Ser. 8:303-347.
- Boulenger, G. A. 1894. A list of reptiles and batrachians collected by Dr. E. Modigliani on Sereinu (Sipora), Mentawai Islands. *Annali del Museo civico di storia naturale di Genova*: 613-618.
- Boulenger, G. A. 1897a. An account of the reptiles and batrachians collected by Dr. L. Loria in British New Guinea. *Annali del Museo Civico di Storia Naturale di Genova*, 18:694-710.
- Boulenger, G. A. 1897b. Descriptions of new lizards and frogs from Mount Victoria, Owen Stanley Range, New Guinea, collected by Mr A. S. Anthony. *Annals and magazine of natural history* (6)19:6-13.
- Boulenger, G. A. 1897c. List of the reptiles and batrachians collected by Mr. Alfred Everett in Lombok, Flores, Sumba and Saru, with descriptions of new species. *Annals and magazine of natural history* (6)19:503-509.
- Boulenger, G. A. 1897d. A catalogue of the reptiles and batrachians of Celebes with special reference to the collections made by Drs P and F Sarasin in 1893-1896. *Proceedings of the Zoological Society of London* 1897:193-237.
- Boulenger, G. A. 1898a. Third report on additions to the lizard collection in the Natural History Museum. *Proceedings of the Zoological Society of London* 1898:912-923.
- Boulenger, G. A. 1898b. Description of a new death adder (*Acanthophis*) from central Australia. *Annals and magazine of natural history* (7)2:75.
- Boulenger, G. A. 1898c. A list of reptiles and batrachians from Ombai, East Indian Archipelago. *Annals and magazine of natural history* (7)1:122-124.
- Boulenger, G. A. 1900. Description of new batrachians and reptiles from Larut Hills, Perak. *Annals and magazine of natural history* (6)7:186-193.
- Boulenger, G. A. 1900b. Description of a new lizard from the Batu Caves, Selangor. *Journal of the Bombay Natural History Society* 13:335.
- Boulenger, G. A. 1900c. Description of new reptiles and batrachians from Borneo. *Proceedings of the Zoological Society*

of London:182-187.

Boulenger, G. A. 1903a. Descriptions of new reptiles from British New Guinea. *Proceedings of the Zoological Society of London* 1:125-129.

Boulenger, G. A. 1903b. Descriptions of new lizards in the collection of the British Museum. *Annals and magazine of natural history* (7)12:429-435.

Boulenger, G. A. 1914. An annotated list of the batrachians and reptiles collected by the British Ornithologists' Union Expedition and the Wollaston Expedition in Dutch New Guinea. *Trans. Zool. Soc. London* 20(5):247-275.

Bourret, R. 1937. Notes herpétologiques sur l'Indochine française. XII. Les lézards de la collection du Laboratoire des Sciences Naturelles de l'Université. Descriptions de cinq espèces nouvelles. XIII. Serpents... *Bull. Gén. Instr. Pub. Hanoi* (May 1937):1-22; 23-39.

Bourret, R. 1939. Notes herpétologiques sur l'Indochine française. XVIII. Reptiles et batraciens reçus au Laboratoire des Sciences Naturelle de l'Université au cours de l'année 1939. Descriptions de quatre espèces et d'une variété nouvelles. *Bulletin Général de l'Instruction Publique*. Hanoi. 19(4, Décembre):5-39.

Brongersma, L. D. 1942a. Notes on scincid lizards. *Zoologische Mededelingen* 24(1-2):125-152.

Brongersma, L. D. 1942b. On the arrangement of the scales on the dorsal surface of the digits in *Lygosoma* and allied genera. *Zoologische Mededelingen* 24(1-2):153-158.

Brongersma, L. D. 1948. Lizards from the island of Morotai (Moluccas). *Proceedings of the Koninklijke Nederlandse Akademie van Wetenschappen Ser. C*. 51:486-495.

Brown, R. M., Ferner, J. W. and Sison, R. V. 1995a. Rediscovery and redescription of *Sphenomorphus beyeri* Taylor (Reptilia: Lacertilia: Scincidae) from the Zambales Mountains of Luzon, Philippines. *Proceedings of the Biological Society of Washington* 108(1): 6-17.

Brown, R. M., Ferner, J. W. and Ruedas, L. A. 1995b. A new species of lygosomine lizard (Reptilia: Lacertilia: Scincidae; *Sphenomorphus*) from Mt. Isarog, Luzon Island, Philippines. *Proceedings of the Biological Society of Washington* 108(1):18-28.

Brown, R. M., Linkem, C. W. Diesmos, A. C., Balete, D. S., Duya, M. V. and Ferner, J. W. 2010. Species boundaries in Philippine montane forest skinks (Genus *Sphenomorphus*): three new species from the mountains of Luzon and clarification of the status of the poorly known *S. beyeri*, *S. knollmanae*, and *S. laterimaculatus*. *Scientific Papers of the Natural History Museum, University of Kansas* (42):1-27.

Brown, R. M., Siler, C. D., Oliveros, C. H., Welton, L. J., Rock, A., Swab, J., Van Weerd, M., van Beijnen, J., Jose, E., Rodriguez, D., Jose, E. and Diesmos, A. C. 2013. The amphibians and reptiles of Luzon Island, Philippines, VIII: the herpetofauna of Cagayan and Isabela Provinces, northern Sierra Madre Mountain Range. *ZooKeys* (online) 266:1-120. doi: 10.3897/zookeys.266.3982.

Brown, W. C. and Alcalá, A. C. 1980. *Philippine Lizards of the family Scincidae*. Silliman Univ. Nat. Sci., Dumaguete City, Mon., Ser. 2: i-xi + 1-246.

Brown, W. C. and Rabor, D. S. 1967. A new sphenomorphid lizard (Scincidae) from the Philippine islands. *Proceedings of the Biological Society of Washington* 80:69-72.

Brygoo, E. R. 1985. Les types des scincidés (Reptiles, Sauriens) du Muséum National d'Histoire Naturelle, catalogue critique. *Bulletin du Muséum national d'histoire naturelle* (4e sér.) 7 (sect. A 3), suppl.:1-126.

Bulian, J. 2013. Reptiliensuche mit Hindernissen - Teil 1. *Terraria-Elaphe* 2013(2):44-45.

Burt, C. E. and Burt, M. D. 1932. Herpetological results of the Whitney South Sea Expedition. VI. Pacific island amphibians

and reptiles in the collection of the American Museum of Natural History. *Bulletin of the American Museum of Natural History* 63(5):461-597.

Chan-ard, T., Grossmann, W., Gumprecht, A. and Schulz, K. D. 1999. *Amphibians and reptiles of peninsular Malaysia and Thailand - an illustrated checklist*. Bushmaster Publications, Würselen, Germany:240 pp.

Chan-ard, T., Parr, J. W. K. and Nabhitabhata, J. 2015. *A field guide to the reptiles of Thailand*. Oxford University Press, NY, USA:352 pp.

Chen, H. and Lin, S. 2016. *Sphenomorphus indicus* (Indian Forest Skink) Predation. *Herpetological Review* 47(2):304.

Chen, S. H. and Lue, K. Y. 1987. A new species of skink, *Sphenomorphus taiwanensis*, from Taiwan (Sauria, Scincidae). *Bulletin of the Institute of Zoology, Academia Sinica* 26:115-121.

Cochran, D. M. 1927. New reptiles and batrachians collected by Dr. Hugh M. Smith in Siam. *Proceedings of the Biological Society of Washington* 40:179-192.

Cogger, H. G. 2014. *Reptiles and Amphibians of Australia*, 7th ed. CSIRO Publishing, xxx+1033 pp.

Capocaccia, L. 1961. Catalogo dei tipi di Rettili del Museo Civico di Storia Naturale di Genova [MSNG]. *Annali del Museo civico di storia naturale Giacomo Doria* 72:86-111.

Couper, P. J., Amey, A. and Shea, G. M. 2004. Comments on the taxonomic status of *Cyrtodactylus abrae* Wells, 2002. *Memoirs of the Queensland Museum* 49(2):648.

Court of Appeal Victoria. 2014. *Hoser v Department of Sustainability and Environment* [2014] VSCA 206 (5 September 2014).

Cox, M. J., Van Dijk, P. P., Nabhitabhata, J. and Thirakhupt, K. 1998. *A Photographic Guide to Snakes and Other Reptiles of Peninsular Malaysia, Singapore and Thailand*. Ralph Curtis Publishing:144 pp.

Crombie, R. I. and Pregill, G. K. 1999. A Checklist of the Herpetofauna of the Palau Islands (Republic of Belau), Oceania. *Herpetological Monographs* 13:29-80.

Currin, C. 2016. Recent reptiles records from Kaeng Krachan National Park, Thailand. *SEAVR* 2016:117-120.

Daan, S. and Hillenius, D. 1966. Catalogue of the type specimens of amphibians and reptiles in the Zoological Museum, Amsterdam. *Beaufortia* 13:117-144.

Dammerman, K. W. 1929. On the zoogeography of Java. *Treubia* 11:1-88.

Daniel, J. C. 2002. *The Book of Indian Reptiles and Amphibians*. Bombay Natural History Society and Oxford University Press, Mumbai, India.

Darevsky, I. S. 1964a. Two new species of gekkonid lizards from the Komodo island in Lesser Sundas Archipelago. *Zoologischer Anzeiger* 173:169-174.

Darevsky, I. S. 1964b. New species of scincoid lizards from the islands of Lesser Sundas Archipelago, East Indonesia [in Russian]. [Translated from Russian for the National Science Foundation Office of Science Information Services, ed. James A. Peters]. *Zool. J. (Moscow)* 43(1):80-88.

Darevsky, I. S. 1964c. Die Reptilien der Inseln Komodo, Padar und Rintja im Kleinen Sunda-Archipel, Indonesien. *Senckenbergiana biologica* 43(3/5):563-576.

Darevsky, I. S. and Nguyen, V. S. 1983. New and little known lizard species from Vietnam [in Russian]. *Zoologicheskii Zhurnal* 62(12):1827-1837.

Darevsky, I. S. and Orlov, N. L. 2005. New species of limb-reduced lygosomine skink genus *Leptoseps* Greer, 1997 (Sauria, Scincidae) from Vietnam. *Russian Journal of Herpetology* 12(1):65-68.

Darevsky, I. S., Nguyen, V. S. and Kien, T. 1986. [Materials on the herpetology of North Vietnam]. *Instit. Zool., AN SSSR, Leningrad, Trudy* 157:62-68

- Darevsky, I. S., Orlov, N. L. and Cuc, T. H. 2004. Two new lygosomine skinks of the genus *Sphenomorphus* Fitzinger, 1843 (Sauria, Scincidae) from northern Vietnam. *Russian Journal of Herpetology* 11(2):111-120.
- Das, A. 2016. Addition to the Herpetofauna of Royal Manas National Park, Bhutan, with six new country records. *Herpetology Notes* 9:261-278.
- Das, A., Saikia, U., Murthy, B. H. C. K., Dey, S. and Dutta, S. K. 2009. A herpetofaunal inventory of Barail Wildlife Sanctuary and adjacent regions, Assam, north-eastern India. *Hamadryad* 34(1):117-134.
- Das, I. 2004. *Lizards of Borneo*. Natural History Publications, Kota Kinabalu, Borneo.
- Das, I. and Palden, J. 2000. A herpetological collection from Bhutan, with new country records. *Herpetological Review* 31(4):256-258.
- Das, I. and Yaakob, N. 2007. Status of knowledge of the Malaysian herpetofauna. pp. 31-81 in: Chua, L. S. L., Kirton, L. G. and Saw, L. G. (eds.), *Status of biological diversity in Malaysia and threat assessment of plant species in Malaysia*. Forest Research Institute Malaysia, Kepong.
- Datta-Roy, A., Das, I., Bauer, A. M., Lyngdoh Tron, R. K. and Karanth, P. 2013. Lizard Wears Shades. A Spectacled *Sphenomorphus* (Squamata: Scincidae), from the Sacred Forests of Mawphlang, Meghalaya, North-east India. *Zootaxa* (PRINO) (online) 3701(2):257-276.
- De Jong, J. K. 1927. Reptiles from Dutch New Guinea. *Nova Guinea* 15(3):296-318.
- De Lisle, H. F., Nazarov, R. A., Raw, L. R. G. and Grathwohl, J. 2013. Gekkota: a catalogue of recent species. Privately published:387 pp.
- de Rooij, N. 1915. *The Reptiles of the Indo-Australian Archipelago. I. Lacertilia, Chelonia, Emydosauria*. Leiden (E. J. Brill):xiv+384 pp.
- de Rooij, N. 1919. Reptiles (Lacertilia, Chelonia, Emydosauria). *Nova Guinea* 13:133-153.
- Diesmos, A. C. 2008. *Ecology and diversity of herpetofaunal communities in fragmented lowland rainforests in the Philippines*. PhD Thesis, National University of Singapore:144 pp.
- Donnellan, S. C. and Aplin, K. P. 1989. Resolution of cryptic species in the New Guinea lizard, *Sphenomorphus jobiensis* (Scincidae) by electrophoresis. *Copeia* 1989(1):81-88.
- Doria, G. 1875. Enumerazione dei rettili raccolti dal Dott. O. Beccari in Amboina alle Isole Aru ed alle Isole Kei durante gli anni 1872-73. *Annali del Museo civico di storia naturale di Genova* 6:325-357.
- Doria, G. 1888. Note Erpetologiche - Alcuni nuovi Sauri raccolti in Sumatra dal Dr. O. Beccari. *Annali del Museo civico di storia naturale di Genova* 2(ser. 6):646-652.
- Dring, J. C. M. 1979. Amphibians and reptiles from northern Trengganu, Malaysia, with descriptions of two new geckos: *Cnemaspis* and *Cyrtodactylus*. *Bulletin of the British Museum (Natural History)* Zoology 34(5):181-241.
- Duméril, A. M. C. and Bibron, G. 1839. *Erpétologie Générale ou Histoire Naturelle Complète des Reptiles. Vol.5*. Roret/Fain et Thunot, Paris:871 pp.
- Dunn, E. R. 1927. Results of the Douglas Burden Expedition to the Island of Komodo. III. Lizards from the East Indies. *American Museum Novitates* (288):1-13.
- Eremchenko, V. K. 2003. Generic and specific redefinition and redescription of the North-Vietnam skink (*Scincella melanosticta* (Boulenger, 1887)). *Izvestiya Vuzov* (= Proceedings of Universities and Institutes), Bishkek, (1-2):20-28.
- Ferner, J. W., Brown, R. M. and Greer, A. E. 1997. A new genus and species of moist closed canopy forest skinks from the Philippines. *Journal of Herpetology* 31(2):187-192.
- Fitch, H. S. 1981. Sexual size differences in Reptiles. *Miscellaneous publication (University of Kansas. Museum of Natural History)* 70:1-72.
- Fitzinger, L. J. F. J. 1843. *Systema Reptilium*. Braumüller et Seidel, Vindobonae.:106 pp.
- Galoyan, E. A. 2017. Unstable social structure indicates low diversity of relationships in the spotted forest skink *Sphenomorphus maculatus*. *Amphibia-Reptilia* 38(3):381-393.
- Galoyan, E. A. and Geissler, P. 2013. Autecology and mating behaviour of the spotted forest skink, *Sphenomorphus maculatus* (Blyth, 1853) in the monsoon forest of Cat Tien National Park, southern Vietnam. *The Herpetological Journal* 23(3):139-144.
- Gawor, A., Pham, C. T., Nguyen, T. Q., Nguyen, T. T., Schmitz, A. and Ziegler, T. 2016. The herpetofauna of the Bai Tu Long National Park, northeastern Vietnam. *Salamandra* 52(1):23-41.
- Geissler, P., Hartmann, T., Ihlow, F., Neang T., Seng, R., Wagner, P. and Böhme, W. 2019. Herpetofauna of the Phnom Kulen National Park, northern Cambodia: An annotated checklist. *Cambodian Journal of Natural History* 2019(1):40-63.
- Gibson-Hill, C. A. 1947. The terrestrial reptiles [of the Christmas Islands]. *Bulletin of the Raffles Museum* 18:81-86.
- Goldberg, S. R. 2013. *Sphenomorphus maculatus* (spotted forest skink) reproduction. *Herpetological Review* 44(4):684-685.
- Goldberg, S. R. 2015a. *Sphenomorphus multisquamatus* reproduction. *Herpetological Review* 46(3):438-439.
- Goldberg, S. R. 2015b. *Sphenomorphus sabanus* (Sabah slender skink) reproduction. *Herpetological Review* 46(4):635.
- Goldberg, S. R. 2016. *Sphenomorphus cyanolaemus* (Blue-headed Forest Skink) reproduction. *Herpetological Review* 47(3):469-470.
- Goldberg, S. R. and Grismer, L. L. 2014a. *Sphenomorphus praesignis* (blotched forest skink) reproduction. *Herpetological Review* 45(1):135.
- Goldberg, S. R. and Grismer, L. L. 2014b. *Sphenomorphus scotophilus* (spotted forest skink) reproduction. *Herpetological Review* 45(3):508.
- Goldberg, S. R. and Kraus, F. 2008. Notes on reproduction in three species of *Sphenomorphus*. *Herpetological Bulletin* 104:33-36.
- Goldberg, S. R., Bursey, C. R. and Grismer, L. L. 2017. *Sphenomorphus praesignis* (Blotched Forest Skink) Endoparasites. *Herpetological Review* 48(1):201.
- Goodman, R. 2019. Snake snatcher cops hefty fine for taking the python. *The Age* 21 March, also published online at <https://www.theage.com.au/national/victoria/snake-snatcher-cops-hefty-fine-for-taking-the-python-20190321-p51696.html> (downloaded on 6 June 2019).
- Grandison, A. G. C. 1972. The Gunong Benom Expedition 1967. 5. Reptiles and amphibians of Gunong Benom with a description of a new species of *Macrocalamus*. *Bulletin of the British Museum (Natural History)* Zoology, London, 23:45-101.
- Gray, J. E. 1842. Description of some hitherto unrecorded species of Australian reptiles and batrachians. *Zoological Miscellany* 2:51-57. (London: Treuttel, Würtz and Co)
- Gray, J. E. 1845. *Catalogue of the specimens of lizards in the collection of the British Museum*. Trustees of die British Museum/Edward Newman, London:xxvii+289 pp.
- Gray, J. E. 1853. Descriptions of some undescribed species of reptiles collected by Dr. Joseph Hooker in the Khassia Mountains, East Bengal, and Sikkim Himalaya. *Annals and magazine of natural history* (2)12:386-392.
- Greer, A. E. 1973. Two new lygosomine skinks from New Guinea with comments on the loss of the external ear in lygosomines and observations on previously described species. *Breviora* (406):1-25.
- Greer, A. E. 1974. The generic relationships of the scincid lizard genus *Leiolopisma* and its relatives. *Australian Journal of Zoology* 31:1-67.
- Greer, A. E. 1977. On the adaptive significance of the loss of an

- oviduct in reptiles. *Proceedings of the Linnean Society of New South Wales* 101(4):242-249.
- Greer, A. E. 1979. A phylogenetic subdivision of Australian skinks. *Records of the Australian Museum* 32:339-371.
- Greer, A. E. 1982. A new species of *Geomyersia* (Scincidae) from the Admiralty Islands, with a summary of the genus. *Journal of Herpetology* 16(1):61-66.
- Greer, A. E. 1987. Comment on the proposed suppression for nomenclatural purposes of three works by Richard W. Wells and C. Ross Wellington (Case 2531, see BZN 44, 116-121, 44(4):257-261). *Bulletin of Zoological Nomenclature* 45(1):53.
- Greer, A. E. 1990a. The *Glaphyromorphus isolepis* species group (Lacertilia: Scincidae): diagnosis of the taxon and description of a new species from Timor. *Journal of Herpetology* 24(4):372-377.
- Greer, A. E. 1990b. Overlap pattern in the preanal scale row: an important systematic character in skinks. *Journal of Herpetology* 24(3):328-330.
- Greer, A. E. 1991a. *Lankascincus*, a new genus of scincid lizards from Sri Lanka, with descriptions of three new species. *Journal of Herpetology* 25(1):59-64.
- Greer, A. E. 1991b. Limb reduction in Squamates: identification of the lineages and discussion of the trends. *Journal of Herpetology* 25(2):166-173.
- Greer, A. E. 1997. *Leptosepis*: A New Genus of Scincid Lizards from Southeast Asia. *Journal of Herpetology* 31(3):393-398.
- Greer, A. E. 2001. Distribution of maximum snout-vent length among species of Scincid lizards. *Journal of Herpetology* 35(3):383-395.
- Greer, A. E. and Parker, F. 1967a. A new scincid lizard from the northern Solomon Islands. *Breviora* (275):1-20.
- Greer, A. E. and Parker, F. 1967b. A second skink with fragmented head scales from Bougainville, Solomon Islands. *Breviora* (279):1-12.
- Greer, A. E. and Parker, F. 1971. A new scincid lizard from Bougainville, Solomon Islands. *Breviora* (364):1-11.
- Greer, A. E. and Parker, F. 1974. The *fasciatus* group of *Sphenomorphus* (Lacertilia: Scincidae): notes on eight previously described species and description of three new species. *Proceedings (Papua and New Guinea Scientific Society)* [1973] 25:31-61.
- Greer, A. E. and Parker, F. 1979. On the identity of the New Guinea scincid lizard *Lygosoma fragile* Macleay 1877 with notes on its natural history. *Journal of Herpetology* 13(3):221-225.
- Greer, A. E. and Shea, G. M. 2003. Secondary temporal scale overlap pattern: A character of possible broad systematics importance in Sphenomorphine skinks. *Journal of Herpetology* 37(3):545-549.
- Greer, A. E. and Shea, G. 2004. A new character within the taxonomically difficult *Sphenomorphus* group of Lygosomine skinks, with a description of a new species from New Guinea. *Journal of Herpetology* 38(1):79-87.
- Greer, A. E., David, P. and Tejnyé, A. 2006. The Southeast Asian scincid lizard *Siaphos tridigitus* Bourret, 1939 (Reptilia, Scincidae): a second specimen. *Zoosystema* 28(3):785-790.
- Grismer, L. L. 2006. Two new species of skinks (Genus *Sphenomorphus* Fitzinger 1843) from the Seribuat Archipelago, West Malaysia. *Herpetological Natural History* 9(2):151-162.
- Grismer, L. L. 2007. A new species of small montane forest floor skink (genus *Sphenomorphus* Fitzinger 1843) from Southern peninsular Malaysia. *Herpetologica* 63(4):544-551.
- Grismer, L. L. 2008. A new species of insular skink (Genus *Sphenomorphus* Fitzinger 1843) from the Langkawi Archipelago, Kedah, West Malaysia with the first report of the herpetofauna of Pulau Singa Besar and an updated checklist of the herpetofauna of Pulau Langkawi. *Zootaxa* (PRINO) (online) 1691:53-66.
- Grismer, L. L. 2011a. *Lizards of Peninsular Malaysia, Singapore and their adjacent archipelagos*. Edition Chimaira, Frankfurt:728 pp.
- Grismer, L. L. 2011b. *Amphibians and reptiles of the Seribuat Archipelago*. Edition Chimaira, Frankfurt, Germany:239 pp.
- Grismer, L. L. and Quah, E. S. 2015. The Rediscovery of *Sphenomorphus malayanus* Doria, 1888 (Squamata: Scincidae) from the Titiwangsa Mountain Range of Peninsular Malaysia and its re-description as *S. senja* sp. nov. *Zootaxa* (online) 3931(1):63-70.
- Grismer, L. L. and Quah, E. S. 2019. An updated and annotated checklist of the lizards of Peninsular Malaysia, Singapore, and their adjacent archipelagos. *Zootaxa* (PRINO) (online) 4545(2):230-248.
- Grismer, L. L., Neang, T., Chav, T. and Grismer, J. L. 2008. Checklist of the amphibians and reptiles of the Cardamom region of Southwestern Cambodia. *Cambodian Journal of Natural History* 2008(1):12-28.
- Grismer, L. L., Wood, P. L. Jr. and Grismer, J. L. 2009a. A New Insular Species of Skink of The Genus *Sphenomorphus* Strauch 1887 (Squamata: Scincidae) from Pulau Perhentian Besar, Terengganu, Peninsular Malaysia. *Tropical Life Sciences Research*, 20(1):51-69.
- Grismer, L. L., Ahmad, N. and Kin Onn, C. 2009a. A new, diminutive, upland *Sphenomorphus* Fitzinger 1843 (Squamata: Scincidae) from the Belum-Temengor Forest Complex, Peninsular Malaysia. *Zootaxa* (PRINO) (online) 2312:27-38.
- Grismer, L. L., Chan, K. O., Grismer, J. L. Wood, P. L. Jnr. and Norhayati, A. 2010. A checklist of the herpetofauna of the Banjaran Bintang, Peninsular Malaysia. *Russian Journal of Herpetology* 17(2):147-160.
- Grismer, L. L., Wood, P. L. Jnr., Anuar, S., Muin, M. A., Quah, M. A., McGuire, J. A., Brown, R. M., Tri, N. V. and Thai, P. H. 2013. Integrative taxonomy uncovers high levels of cryptic species diversity in *Hemiphyllodactylus* Bleeker, 1860 (Squamata: Gekkonidae) and the description of a new species from Peninsular Malaysia. *Zoological Journal of the Linnean Society* 169:849-880.
- Grismer, L. L., Muin, M. A., Wood, P. L., Anuar, S. and Linkem, C. W. 2016. The transfer of two clades of Malaysian *Sphenomorphus* Fitzinger (Squamata: Scincidae) into the genus *Tytthoscincus* Linkem, Diesmos, and Brown and the description of a new Malaysian swamp-dwelling species. *Zootaxa* (PRINO) (online) 4092(2):231-242.
- Grossmann, W. 2006. *Sphenomorphus praesignis* (BOULENGER 1900): Der Larut-Waldskink im Biotop und im Terrarium (Squamata: Scincomorpha: Scincidae). *Sauria* 28(3):33-49.
- Grossmann, W. and Tillack, F. 2005. Pulau Tioman - Perle im Südchinesischen Meer, Teil 2. *Reptilia* (Münster), 10(51):56-64.
- Günther, A. 1873. Notes on some reptiles and batrachians obtained by Dr. Bernhard Meyer in Celebes and the Philippine Islands. *Proceedings of the Zoological Society of London* 1873:165-172.
- Hartmann, T., Nguyen, Q. T., Ohler, A., Chippich, H., Handschuh, M. and Böhme, W. 2010. Rediscovery of the rare Thai scincid lizard *Sphenomorphus lineopunctulatus* Taylor 1962: New country records from Cambodia and Laos and a redescription. *Russian Journal of Herpetology* 17(2):105-109.
- Hecht, V. L., Cuong, T. P., Nguyen, T. T., Nguyen, T. Q., Bonkowski, M. and Ziegler, T. 2013. First report on the herpetofauna of Tay Yen Tu Nature Reserve, northeastern Vietnam. *Biodiversity Journal* 4(4):507-552.
- Hediger, H. 1934. Beitrag zur Herpetologie und Zoogeographie Neu-Britanniens und einiger umliegender Gebiete. *Zoologische Jahrbucher* (Syst.) 65:441-582.
- Honda, M., Ota, H., Kobayashi, M., Nabhitabhata, J., Yong, H.-S. and Hikida, T. 2000. Phylogenetic relationships, character evolution, and biogeography of the subfamily Lygosominae (Reptilia: Scincidae) inferred from mitochondrial DNA sequences. *Molecular Phylogenetics and Evolution* 15(3):452-461.
- Hoser, R. T. 1989. *Australian Reptiles and Frogs*. Pierson and

- Co., Mosman, NSW, 2088, Australia:238 pp.
- Hoser, R. T. 1991. *Endangered Animals of Australia*. Pierson Publishing, Mosman, NSW, 2088, Australia:240 pp.
- Hoser, R. T. 1993. *Smuggled: The Underground Trade in Australia's Wildlife*. Apollo Publishing, Moss Vale, NSW, Australia:160 pp.
- Hoser, R. T. 1996. *Smuggled-2: Wildlife Trafficking, Crime and Corruption in Australia*. Kotabi Publishing. Doncaster, Victoria, Australia:280 pp.
- Hoser, R. T. 1998. Death Adders (Genus *Acanthophis*): An overview, including descriptions of Five new species and One subspecies. *Monitor: Journal of the Victorian Herpetological Society Incorporated* 9(2):Front Cover, 20-41.
- Hoser, R. T. 2000. A revision of the Australasian pythons. *Ophidia Review* 1:7-27.
- Hoser, R. T. 2001a. A current assessment of the status of the snakes of the genera *Cannia* and *Pailsus*, including descriptions of three new subspecies from the Northern Territory and Western Australia, Australia. *Boydii - Journal of the Herpetological Society of Queensland Incorporated* - July 2001:26-60.
- Hoser, R. T. 2001b. *Pailsus* - a story of herpetology, science, politics, pseudoscience, more politics and scientific fraud. *Crocodilian: Journal of the Victorian Association of Amateur Herpetologists* 2(10):18-31.
- Hoser, R. 2002. Death adders (genus *Acanthophis*): an updated overview, including description of 3 new island species and 2 new Australian suspecies. *Crocodilian*, 4(1):5-7, 9-11, 14, 16-22, 24-30.
- Hoser, R. T. 2009. Creationism and contrived science: a review of recent python systematics papers and the resolution of issues of taxonomy and nomenclature. *Australasian Journal of Herpetology* 2:1-34.
- Hoser, R. T. 2012a. Exposing a fraud! *Afronaja* Wallach, Wüster and Broadley is a junior synonym of *Spracklandus* Hoser, 2009. *Australasian Journal of Herpetology* 9:1-64.
- Hoser, R. T. 2012b. Robust taxonomy and nomenclature based on good science escapes harsh fact-based criticism, but remains unable to escape an attack of lies and deception. *Australasian Journal of Herpetology* 14:37-64.
- Hoser, R. T. 2013a. The science of herpetology is built on evidence, ethics, quality publications and strict compliance with the rules of nomenclature. *Australasian Journal of Herpetology* 18:2-79.
- Hoser, R. T. 2013b. Case 3601: *Spracklandus* Hoser, 2009 (Reptilia, Serpentes, Elapidae): request for confirmation of the availability of the generic name and for the nomenclatural validation of the journal in which it was published. *Bulletin of Zoological Nomenclature* 70(4):234-237.
- Hoser, R. T. 2014 New snake taxa from Australasia, Asia and Africa. *Australasian Journal of Herpetology* 23:13-21.
- Hoser, R. T. 2014 New Bluetongue Lizard and Sailfin Dragon Lizard taxa from Indonesia (Squamata:Sauria). *Australasian Journal of Herpetology* 24:12-15.
- Hoser, R. T. 2015a. Dealing with the "truth haters" ... a summary! Introduction to Issues 25 and 26 of *Australasian Journal of Herpetology*. Including "A timeline of relevant key publishing and other events relevant to Wolfgang Wüster and his gang of thieves." and a "Synonyms list". *Australasian Journal of Herpetology* 25:3-13.
- Hoser, R. T. 2015b. The Wüster gang and their proposed "Taxon Filter": How they are knowingly publishing false information, recklessly engaging in taxonomic vandalism and directly attacking the rules and stability of zoological nomenclature. *Australasian Journal of Herpetology* 25:14-38.
- Hoser, R. T. 2015c. Best Practices in herpetology: Hinrich Kaiser's claims are unsubstantiated. *Australasian Journal of Herpetology* 25:39-52.
- Hoser, R. T. 2015d. Comments on *Spracklandus* Hoser, 2009 (Reptilia, Serpentes, Elapidae): request for confirmation of the availability of the generic name and for the nomenclatural validation of the journal in which it was published (Case 3601; see BZN 70: 234-237; comments BZN 71:30-38, 133-135). (unedited version) *Australasian Journal of Herpetology* 27:37-42.
- Hoser, R. T. 2015e. PRINO (Peer reviewed in name only) journals: When quality control in scientific publication fails. *Australasian Journal of Herpetology* 26:3-64.
- Hoser, R. T. 2015f. Rhodin *et al.* 2015, Yet more lies, misrepresentations and falsehoods by a band of thieves intent on stealing credit for the scientific works of others. *Australasian Journal of Herpetology* 27:3-36.
- Hoser, R. T. 2015g. A revision of the genus level taxonomy of the Acontinae and Scincinae, with the creation of new genera, subgenera, tribes and subtribes. *Australasian Journal of Herpetology* 28:1-64 and 29:65-128.
- Hoser, R. T. 2015h. Email to Glenn Shea. Sent Thursday, 9 July 2015 9:20 PM.
- Hoser, R. T. 2016a. *Acanthophis lancasteri* Wells and Wellington, 1985 gets hit with a dose of Crypto! ... this is not the last word on Death Adder taxonomy and nomenclature. *Australasian Journal of Herpetology* 31:3-11.
- Hoser, R. T. 2016b. A new subspecies of *Daraninagama robinsonii* (Boulenger, 1908) from the Cameron Highlands, Malaysia (Squamata: Sauria: Agamidae) and a critical review of a critical review. *Australasian Journal of Herpetology* 32:53-60.
- Hoser, R. T. 2017. A further break-up of the Australian gecko genus *Oedura* Gray, 1842 *sensu lato* as currently recognized, from four to seven genera, with two new subgenera defined, description of fourteen new species, four new subspecies and formalising of one tribe and five subtribes. *Australasian Journal of Herpetology* 34:3-35.
- Hoser, R. T. 2018. A divided *Gehyra* makes sense! Assigning available and new names to recognize all major species groups within *Gehyra* Gray, 1834 *sensu lato* (Squamata: Gekkonidae) and the formal description of nine new species. *Australasian Journal of Herpetology* 37:48-64.
- Hoser, R. T. 2019a. 11 new species, 4 new subspecies and a subgenus of Australian Dragon Lizard in the genus *Tympanocryptis* Peters, 1863, with a warning on the conservation status and long-term survival prospects of some newly named taxa. *Australasian Journal of Herpetology* 39:23-52.
- Hoser, R. T. 2019b. Richard Shine *et al.* (1987), Hinrich Kaiser *et al.* (2013), Jane Melville *et al.* (2018 and 2019): Australian Agamids and how rule breakers, liars, thieves, taxonomic vandals and law breaking copyright infringers are causing reptile species to become extinct. *Australasian Journal of Herpetology* 39:53-63.
- Hoser, R. T. 2019c. Hoser, Raymond. 2019. Eight new skink genera and 45 newly named species associated with *Emoia* Gray, 1845 *sensu lato* that reflects ancient divergence and recent speciation within the assemblage (Reptilia: Squamata). *Australasian Journal of Herpetology* 40:3-49.
- Hoser, R. T. 2019d. Asiatic Waterside Skinks, *Tropidophorus* Duméril and Bibron, 1839. A long overdue break up of the archaic genus *sensu-lato*, resulting in a total of eight genera, three resurrected from synonymy, four named for the first time and the additional descriptions of three new species. *Australasian Journal of Herpetology* 41:5-17.
- Hoser, R. T. 2019e. Further dismemberment of the pan-continental Lizard genus *Scincella* Mittleman, 1950 with the creation of four new genera to accommodate divergent species and the formal descriptions of six new species. *Australasian Journal of Herpetology* 41:18-28.
- Hoser, R. T. 2019f. Six new genera of skinks associated with *Lipinia* Gray, 1845 based on morphological and evolutionary divergence as well as twenty seven previously undiagnosed species within the same assemblage. *Australasian Journal of Herpetology* 41:29-61.

- Hoser, R. T. 2021. Clawing their way out of synonymy! *Cyrtodactylus* Gray, 1827 sensu lato: The overdue break up of a large assemblage of pan-Asian geckos. *Australasian Journal of Herpetology* 54:1-64.
- Hoskin, C. J. 2019. Description of three new velvet geckos (Diplodactylidae: *Oedura*) from inland eastern Australia, and redescription of *Oedura monillis* De Vis. *Zootoxic* (PRINO) (online) 4683 (2): 242-270.
- International Commission of Zoological Nomenclature (ICZN) 1991. Decision of the commission. Three works by Richard W. Wells and C. Ross Wellington: proposed suppression for nomenclatural purposes. *Bulletin of Zoological Nomenclature* 48(4):337-338.
- Available online at: <http://biostor.org/reference/51691.text> (as of March 2019).
- International Commission of Zoological Nomenclature (ICZN) 2001. Opinion 1970. *Bulletin of Zoological Nomenclature* 58(1):74, (30 March 2001).
- International Commission of Zoological Nomenclature (ICZN) 2012. Amendment of Articles 8, 9, 10, 21 and 78 of the *International Code of Zoological Nomenclature* to expand and refine methods of publication. *Zootaxa* (PRINO) (Online) 3450:1-7.
- International Commission of Zoological Nomenclature (ICZN) 2021. Opinion 2468 (Case 3601) - *Spracklandus* Hoser, 2009 (Reptilia, Serpentes, Elapidae) and *Australasian Journal of Herpetology* issues 1-24: confirmation of availability declined; Appendix A (Code of Ethics): not adopted as a formal criterion for ruling on Cases. *Bulletin of Zoological Nomenclature* 78 (30 April 2021):42-45.
- Inger, R. F. 1958. Three new skinks related to *Sphenomorphus variegatus* (PETERS). *Fieldiana Zoology* 39(24):257-268.
- Inger, R. F. 1961. Notes on two New Guinean lizards of the genus *Sphenomorphus*. *Fieldiana Zoology* 39:539-542.
- Inger, R. F. and Hosmer, W. 1965. New species of scincid lizard of the genus *Sphenomorphus*. *Israel Journal of Zoology* 14:134-140.
- Inger, R. F., Shaffer, H. B., Koshy, M. and Bakde, R. 1984. A report on a collection of amphibians and reptiles from the Ponmudi, Kerala, South India. *Journal of the Bombay Natural History Society* 81(3):551-570.
- Inger, R. F., Zhao, E., Bradley Shaffer, H. and Guanfu, W. 1990. Report on a collection of amphibians and reptiles from Sichuan, China. *Fieldiana Zoology* 58:i-iii+1-24.
- Inger, R. F., Lian, R. F., Lakim, M. and Yambun, P. 2001. New species of the lizard genus *Sphenomorphus* (Lacertilia: Scincidae), with notes on ecological and geographic distribution of species in Sabah, Malaysia. *Bulletin of the Raffles Museum* 49(2):181-189.
- Iskandar, D. T. 1994. New scincid lizard of the genus *Sphenomorphus* (Reptilia, Scincidae), from Java *Treubia* 31(1):25-30.
- Iskandar, D. T. and Erdelen, W. R. 2006. Conservation of amphibians and reptiles in Indonesia: issues and problems. *Amphibian and Reptile Conservation* 4(1):60-87.
- Iskandar, D. T. and Mumpuni 2002. The herpetological type specimens in the Museum Zoologicum Bogoriense Collection. *Hamadryad* 27(1):123-135.
- Islam, M. and Saikia, P. K. 2013. Inventory and Natural History of Lizards in Jeypore Reserve Forest, Assam. *Reptile Rap* (15):16-26.
- Jayakumar, A. M. and Nameer, P. O. 2018. Species composition and abundance estimates of reptiles in selected agroecosystems in southern Western Ghats, India. *Journal of Threatened Taxa* 10(10):12328-12336.
- Jestrzemska, D., Schütz, S., Nguyen, T. Q. and Ziegler, T. 2013. A survey of amphibians and reptiles in Chu Mom Ray National Park, Vietnam, with implications for herpetofaunal conservation. *Asian Journal of Conservation Biology*, 2(2):88-110.
- Kaiser, H., Crother, B. L., Kelly, C. M. R., Luiselli, L., O'Shea, M., Ota, H., Passos, P., Schleip, W. D. and Wüster, W. 2013. Best practices: In the 21st Century, Taxonomic Decisions in Herpetology are Acceptable Only When supported by a body of Evidence and Published via Peer-Review. *Herpetological Review* 44(1):8-23.
- Kästle, W., Rai, K. and Schleich, H. H. 2013. *Field Guide to Amphibians and Reptiles of Nepal*. ARCO-Nepal e.V.:625 pp.
- Khan, M. M. H. 2007. First report of Reeve's Ground Skink *Scincella reevesi* and Himalayan Litter Skink *Sphenomorphus indicus* from Bangladesh. *Zoo's Print Journal* 22(1):25-45.
- Kinghorn, J. R. 1928a. Notes on Some Reptiles and Batrachians from the Northern Division of Papua, With Descriptions of New Species of *Apisthocalamus* and *Lygosoma*. *Records of the Australian Museum* 16:289-293.
- Kinghorn, J. R. 1928b. Herpetology of the Solomon Islands. *Records of the Australian Museum* 16(3): 123-178, plates xiii-xv. [28 February 1928].
- Koch, A. 2011. The Amphibians and Reptiles of Sulawesi: Underestimated Diversity in a Dynamic Environment. pp. 383-404 in: Zachos, F. E. and Habel, J. C. (eds.), *Biodiversity Hotspots*. Springer, Berlin.
- Koch, A. 2012. *Discovery, Diversity, and Distribution of the Amphibians and Reptiles of Sulawesi and its offshore islands*. Edition Chimaira, Germany:374 pp.
- Köhler, G. 2000. *Reptilien und Amphibien Mittelamerikas, Bd 1: Krokodile, Schildkröten, Echsen*. Herpeton Verlag, Offenbach, Germany:158 pp.
- Köhler, G. 2008. *Reptiles of Central America*. 2nd Ed. Herpeton-Verlag, Germany:400 pp.
- Kopstein, P. F. 1926. Reptilien von den Molukken und den benachbarten Inseln. *Zoologische Mededelingen* 1:71-112.
- Kopstein, P. F. 1938. Ein Beitrag zur Eierkunde und zur Fortpflanzung der Malaiischen Reptilien. *Bulletin of the Raffles Museum* 14:81-167.
- Kramer, E. 1979. Typenkatalog der Echsen im Naturhistorischen Museum Basel (BM), Stand 1978. [type catalogue] *Revue Suisse de Zoologie* 86(1):159-166.
- Kraus, F. and Allison, A. 2004. New records of reptiles and amphibians from Milne Bay Province, Papua New Guinea. *Herpetological Review* 35:413-418.
- Kuch, U., Scott Keogh, J., Weigel, J., Smith, L. A. and Mebs, D. 2005. Phylogeography of Australia's king brown snake (*Pseudechis australis*) reveals Pliocene divergence and Pleistocene dispersal of a top predator. *Naturwissenschaften* 92:121-127.
- Laidlaw, F. 1901. On a collection of lizards from the Malay Peninsula, made by members of the "Skeat Expedition," 1899-1900. *Proceedings of the Zoological Society of London* 1901(I):301-311.
- Lalremasanga, H. T., Khawlhing, L. and Lalrotluanga 2010. Three additional lizard (Squamata: Sauria) records for Mizoram, India. *Journal of Threatened Taxa* 2(2):718-720.
- Lazell, J., Kolby, J., Lin, Y. M., Zhuang, D. H. and Lu, W. 1999. Reptiles and amphibians from Nan Ao Island, China. *Postilla* 217:1-18.
- Le, M. V., Nguyen, L. T., Vo, B. D., Murphy, R. W., Nguyen, V. D. H. and Nguyen, S. N. 2020. A review of the genus *Sphenomorphus* Fitzinger, 1843 (Squamata: Scincidae) in southern Vietnam, with additional data on *S. sheai* and *S. tridigitus*. *Science and Technology Development Journal*, 23(1):470-478.
- Lenz, N. 2012. *Von Schmetterlingen und Donnerdrachen - Natur und Kultur in Bhutan*. Karlsruhe Naturhefte 4, Naturkundemuseum Karlsruhe:124 pp.
- Leong, T. M., Yaakob, N. S. and Das, I. 2002. Geographic distribution. *Sphenomorphus tersus*. *Herpetological Review*

- 33(2):149.
- Li, Y., Xue, X., Li, X. and Liu, H. 2003. Additional notes of the [tooth] characteristics of some modern lizards. *Acta zoologica Sinica* 49(4):547-550.
- Lidde de Jeude, T. W. Van 1897. Reptiles and batrachians from New Guinea. *Notes from the Leyden Museum* 18: 249-257
- Lidde De Juede, T.W. Van 1905. Zoological results of the Dutch Scientific Expedition to Central-Borneo. The reptiles. *Notes from the Leyden Museum* 25(4):187-202.
- Lim, L. J. 1998. *The taxonomy of West Malaysian and Singapore Scincidae (Reptilia: Sauria)*. Masters Thesis, National University of Singapore.
- Lim, K. K. P. and Ng, H. H. 1999. The terrestrial herpetofauna of Pulau Tioman, Peninsular Malaysia. *Raffles Bulletin of Zoology*, Suppl. No. 6:131-155.
- Linh, L. K. Vinh, L. Q. and Truong, N. Q. 2019. New records of skinks (Squamata: Scincidae) from Nam Dong valuable Gymnosperm conservation area, Thanh Hoa Province. *Journal of Forestry Science and Technology* 8:109-116.
- Linkem, C. W., Diesmos, A. C. and Brown, R. M. 2010. A New species of scincid lizard (Genus *Sphenomorphus*) from Palawan Island, Philippines. *Herpetologica* 66(1):67-79.
- Linkem, C. W., Diesmos, A. C. and Brown, R. M. 2011. Molecular systematics of the Philippine forest skinks (Squamata: Scincidae: *Sphenomorphus*): testing morphological hypotheses of interspecific relationships. *Zoological Journal of the Linnean Society* 163:1217-1243.
- Linnaeus, C. 1758. *Systema naturae per regna tria naturae, secundum classes, ordines, genera, species cum characteribus, differentiis, synonymis, locis*. Laurentii Salvii, Stockholm.
- Liu-Yu, M. C. 1970. Studies on Taiwan lizards. *Biological bulletin of National Taiwan Normal University* 5:51-93.
- Loveridge, A. 1945. New scincid lizards of the genera *Tropidophorus* and *Lygosoma* from New Guinea. *Proceedings of the Biological Society of Washington* 58:47-52.
- Loveridge, A. 1948. New Guinean reptiles and amphibians in the Museum of Comparative Zoology and United States National Museum. *Bulletin of the Museum of Comparative Zoology Harvard* 101(2):305-430.
- Ma, L., Pei, J., Zhou, C., Du, Y., Ji, X. et al. 2018. Sexual Dimorphism, Female Reproductive Characteristics and Egg Incubation in an Oviparous Forest Skink (*Sphenomorphus incognitus*) from South China. *Asian Herpetological Research*; Sichuan 9(2):119-128.
- Macleay, W. 1877. The lizards of the Chevert Expedition. *Proceedings of the Linnean Society of New South Wales*, 2:60-69; 97-104.
- Maddock, S. T., Childerstone, A., Fry, B. G., Williams, D. J., Barlow, A. and Wüster, W. 2016. Multi-locus phylogeny and species delimitation of Australo-Papuan blacksnakes (*Pseudechis* Wagler, 1830: Elapidae: Serpentes). *Molecular Phylogenetics and Evolution* 107:48-55 (has date of 2017 on the paper, but it was in fact published online in 2016).
- Mahony, S. and Ali Reza, A. H. M. 2008. A herpetofaunal collection from the Chittagong Hill Tracts, Bangladesh, with two new species records for the country. *Hamadryad* 32(1):34-45.
- Mahony, S., Hasan, K., Kabir, M., Ahmed, M. and Hossain, K. 2009. A catalogue of amphibians and reptiles in the collection of Jahangirnagar University, Dhaka, Bangladesh. *Hamadryad* 34(1):80-94.
- Majumder, J., Bhattacharjee, P. P., Majumdar, K., Debnath, C. and Agarwala, B. K. 2012. Documentation of herpetofaunal species richness in Tripura, northeast India. *NeBio* 3(1):60-70.
- Malkmus, R. 1985. Amphibien und Reptilien vom Mount Kinabalu (4101 m), Nordborneo. *Herpetofauna* (Münster: Germany):7(35):6-13.
- Malkmus, R. 1993. Bemerkungen zu einer kleinen Sammlung von Amphibien und Reptilien aus Nordost-Sulawesi. *Mitteilungen aus dem Zoologischen Museum in Berlin* 69:175-184.
- Malkmus, R. 2000. Herpetologische Beobachtungen auf Sulawesi. *Sauria* 22(2):11-17.
- Malkmus, R., Manthey, U., Vogel, G., Hoffmann, P. and Kosuch, J. 2002. *Amphibians and reptiles of Mount Kinabalu* (North Borneo). A. R. G. Ganther Verlag, Rugell:404 pp.
- Manthey, U. 1983. Exkursion am Mt. Kinabalu (4101 m), Nordborneo, Teil 3: Checkliste der Herpetofauna oberhalb 600 m ü. NN. *Herpetofauna* (Germany) 5(23):20-31.
- Manthey, U. and Denzer, W. 1982. Exkursion am Mt. Kinabalu (4101 m), Nordborneo, Teil 2: Herpetologische Eindrücke. *Herpetofauna* (Münster: Germany) 4(21):11-19.
- Manthey, U. and Grossmann, W. 1997. *Amphibien und Reptilien Südostasiens*. Natur und Tier Verlag, Münster, Germany:512 pp.
- Manthey, U. and Manthey, S. 2017a. Amphibien und Reptilien von Laos - Ein Reisebericht - Teil 1: Phou Khao Khouay NBCA (Februar 1998) *Sauria* 39(2):35-55.
- Manthey, U. and Manthey, S. 2017b. Amphibien und Reptilien von Laos - ein Reisebericht Teil 2: Lao Pako und Luang Namtha mit einem Abstecher nach Xishuangbanna, China (Feb./März 2003). *Sauria* 39(3):3-24.
- McClure, H. E., Lim, B. and Winn, S. E. 1967. Fauna of the Dark Cave, Batu Caves, Kuala Lumpur, Malaysia. *Pacific Insects* 9(3):399-428.
- McCoy, M. 2000. *Reptiles of the Solomon Islands*. ZooGraphics, Kuranda (Australia), CD-ROM.
- McCoy, M. 2006. *Reptiles of the Solomon Islands*. Pensoft Series Faunistica 57:212 pp.
- McCoy, M. 2015. *A Field Guide to the Reptiles of the Solomon Islands*. Michael McCoy, Kuranda, Queensland, Australia:147 pp.
- Meiri, S. 2008. Evolution and ecology of lizard body sizes. *Global Ecology and Biogeography*, DOI: 10.1111/j.1466-8238.2008.00414.x
- Meiri, S., Bauer, A. M., Allison, A., Castro-Herrera, F., Chirio, L., Colli, G., Das, I., Doan, T. M., Glaw, F., Grismer, L. L., Hoogmoed, M., Kraus, F., LeBreton, M., Meirte, D., Nagy, Z. T. and Cristiano, D. 2017. *Extinct, obscure or imaginary: the lizard species with the smallest ranges*. Shai Meiri, School of Zoology, Tel Aviv University, Tel Aviv, Israel.
- Mell, R. 1922. Beiträge zur Fauna Sinica. i. Die Vertebraten Südchinas; Feldlisten und Feldnoten der Säuger, Vögel, Reptilien, Batrachier. *Archiv für Naturgeschichte* 88(10):1-134.
- Mertens, R. 1924. Herpetologische Mitteilungen. III. Zur Nomenklatur einiger Scinciden. *Senckenbergiana* 6:180-181.
- Mertens, R. 1930. Die Amphibien und Reptilien der Inseln Bali, Lombok, Sumbawa und Flores. *Senck. Naturf. Gesell., Frankfurt am Main, Abhandl.* 42(3):117-344.
- Mertens, R. 1957. Zur Herpetofauna von Ostjava und Bali. *Senckenbergiana biologica* 38:23-31.
- Meyer, A. B. 1874. Übersicht über die von mir auf Neu-Guinea und den Inseln Jobi, Mysore und Mafoor im Jahre 1873 gesammelten Amphibien. *Monatsber. K. Preuss. Akademie der Wissenschaften zu Berlin* 1874:128-140.
- Mitchell, F. J. 1948. A revision of the lacertilian genus *Tympanocryptis*. *Records of the South Australian Museum* 9:57-86.
- Mittleman, M. B. 1950. The generic status of *Scincus lateralis* Say, 1823. *Herpetologica* 6(2):17-24.
- Mittleman, M. B. 1952. A generic synopsis of the Lizards of the Subfamily Lygosominae. *Smithsonian miscellaneous collections* 117:1-35.
- Mocquard, F. 1890. Recherches sur la faune herpétologique des îles de Bornéo et de Palawan. *Nouvelles annales du Muséum d'histoire naturelle*, Paris, 3(2):115-168.
- Monk, K. A., De Fretes, Y. and Reksodiharjo-Lilley, G. 1997. *The Ecology of Nusa Tenggara and Maluku*. *The Ecology of Indonesia Series*, Vol. V. Periplus Editions, Hong Kong, i-xvii,

966 pp.

Müller, F. 1894. Reptilien und Amphibien aus Celebes.

Verhandlungen der Naturforschenden Gesellschaft in Basel 10(3):825-843.

Müller, F. 1895. Reptilien und Amphibien aus Celebes. (II. Bericht). *Verhandlungen der Naturforschenden Gesellschaft in Basel* 10(4): 862-869.

Murthy, T. S. N. 2010. *The reptile fauna of India*. B.R. Publishing, New Delhi, India:332 pp.

Myers, C. W. and Donnelly, M. A. 1991. The lizard genus *Sphenomorphus* (Scincidae) in Panama with description of a new species. *American Museum Novitates* (3027):1-12.

Mys, B. 1988. The zoogeography of the scincid lizards from North Papua New Guinea (Reptilia: Scincidae). I. The distribution of the species. *Bulletin de l'Institut royal des sciences naturelles de Belgique* (Biologie) 58:127-183.

Naming, M. and Das, I. 2004. Herpetofauna. pp. 251-265 in: *Sarawak Bau Limestone Biodiversity* (Yong, H.S., Ng, F.S.P. and Yen, E.E. L. eds.). *Sarawak Museum Journal* LIX (No. 80; special issue 6).

Nanhoe, L. M. R. and Ouboter, P. E. 1987. The distribution of reptiles and amphibians in the Annapurna-Dhaulagiri region (Nepal). *Zoologische Verhandlungen* (240):1-105.

Nguyen, S. N., Nguyen, L. T., Nguyen, V. D. H., Orlov, N. L. and Murphy, R. W. 2018. A new skink of the genus *Sphenomorphus* Fitzinger, 1843 (Squamata: Scincidae) from Hon Ba Nature Reserve, southern Vietnam. *Zootaxa* (PRINO) (online) 4438(2):313-326.

Nguyen, S. V., Ho, C. T. and Nguyen, T. Q. 2009. *Herpetofauna of Vietnam*. Chimaira, Frankfurt, Germany:768 pp.

Nguyen, T. Q., Nguyen, V. S., Böhme, W. and Ziegler, T. 2010. A new species of *Scincella* (Squamata: Scincidae) from Vietnam. *Folia Zoologica* 59(2):115-121.

Nguyen, T. Q., Schmitz, A., Nguyen, T. T., Orlov, N. L., Böhme, W. and Ziegler, T. 2011. Review of the Genus *Sphenomorphus* Fitzinger, 1843 (Squamata: Sauria: Scincidae) in Vietnam, with Description of a New Species from Northern Vietnam and Southern China and the First Record of *Sphenomorphus mimicus* Taylor, 1962 from Vietnam. *Journal of Herpetology* 45(2):145-154.

Nguyen, T. Q., Tran, T. T., Nguyen, T. T., Böhme, W. and Ziegler, T. 2012. First Record of *Sphenomorphus incognitus* (Thompson, 1912) (Squamata: Scincidae) from Vietnam with Some Notes on Natural History. *Asian Herpetological Research* 3(2):147-150.

Nguyen, T. Q., Van Devender, R. W., Bonkowski, M. and Ziegler, T. 2013. A new species of *Sphenomorphus* Fitzinger, 1843 (Squamata: Sauria: Scincidae) from Vietnam. *Zootaxa* (PRINO) (online) 3734(1):56-62.

Nguyen, T. Q., Pham, A. V., Tu, H. V., Nguyen, T. V. and Ziegler, T. 2018. New records and an updated list of lizards from Son La Province, Vietnam. *Herpetology Notes* 11:209-216.

Onn, C. K., van Rooijen, J., Grismer, L. L., Belabut, D., Md. A. M., Jamaludin, H., Gregory, R. and Ahmad, N. 2010. First report on the herpetofauna of Pulau Pangkor, Perak, Malaysia. *Russian Journal of Herpetology* 17(2):139-146.

Ota, H. and Lue, K. Y. 1994. Karyotypes of two lygosomine skinks of the genus *Sphenomorphus* from Taiwan. *Journal of Herpetology* 28(2):253-255.

Palot, M. J. 2015. A checklist of reptiles of Kerala, India. *Journal of Threatened Taxa* 7(13):8010-8022.

Pauwels, O. S. G., Laohawat, O. -A., David, P., Bour, R., Dangsee, P., Puangjit, C. and Chimsunchart, C. 2000. Herpetological investigations in Phang-Nga Province, southern Peninsular Thailand, with a list of reptile species and notes on their biology. *Dumerilia* 4(2):123-154.

Pauwels, O. S. G., David, P., Chimsunchart, C. and Thirakhupt, K. 2003. Reptiles of Phetchaburi Province, Western Thailand: a list of species, with natural history notes, and a discussion on the

biogeography at the Isthmus of Kra. *Natural History Journal of Chulalongkorn University* 3(1):23-53.

Peters, J. A. (Ed.) 1966. New species of scincid lizards from the Islands of the Lesser Sunda Archipelago (East Indonesia) by I. S. Darevskii. *Smithsonian Herpetological Information Service* (7):1-8.

Peters, W. C. H. 1867a. Herpetologische Notizen. *Monatsberichte der Königlichen Preussische Akademie des Wissenschaften zu Berlin* 1867 (January):13-37.

Peters, W. C. H. 1867b. Über Flederthiere (*Pteropus gouldii*, *Rhinolophus deckenii*, *Vespertilio lobipes*, *Vesperugo temminckii*) und Amphibien (*Hypsilurus godeffroyi*, *Lygosoma scutatum*, *Stenostoma narirostre*, *Onychocephalus unguirostris*, *Ahaetulla poylepis*, *Pseudechis scutella*). *Monatsberichte der Königlichen Preussische Akademie des Wissenschaften zu Berlin* 1867 (November):703-712.

Peters, W. C. H. 1872. Über einige von Hrn. Dr. A. B. Meyer bei Gorontalo und Auf den Togian-Inseln gesammelte Amphibien. *Monatsberichte der Königlichen Preussische Akademie des Wissenschaften zu Berlin* 1872 (Juli):581-585.

Peters, W. C. H. and Doria, G. 1878. Catalogo dei rettili e dei batraci raccolti da O. Beccari, L. M. D'Alberts e A. A. Bruijn. nella sotto-regione Austro-Malese. *Annali del Museo Civico de Storia Naturale di Genova*. ser. 1, 13:323-450.

Pham, A., Nguyen, S., Ziegler, T. and Nguyen, T. 2015. New provincial records of skinks (Squamata: Scincidae) from northwestern Vietnam. *Biodiversity Data Journal* 3: e4284; doi: 10.3897/BDJ.3.e4284

Pope, C. H. 1935. *The Reptiles of China. Turtles, Crocodilians, Snakes, Lizards*. American Museum of Natural History, New York, USA: 604 pp.

Purkayastha, J. and Das, M. 2010. *Sphenomorphus maculatus* (Sauria: Scincidae): a case of death-feigning. *Herpetology Notes* 3:285-287.

Purkayastha, J., Das, M. and Sengupta, S. 2011. Urban herpetofauna: a case study in Guwahati City of Assam, India. *Herpetology Notes* 4:195-202.

Pyron, R. A. and Burbrink, F. T. 2013. Early origin of viviparity and multiple reversions to oviparity in squamate reptiles. *Ecology Letters* 17(1):13-21 (published online 2013, in print 2014), DOI: 10.1111/ele.12168

Pyron, R. A., Burbrink, F. T. and Weins, J. J. 2013. A phylogeny and revised classification of Squamata, including 4161 species of lizards and snakes. Published online at: <http://www.biomedcentral.com/1471-2148/13/93>. (54 pp.)

Read, J. L. 1998. Reptiles and amphibians of the Kau Wildlife Area near Madang: a valuable conservation resource. *Science in New Guinea* 23(3):145-152.

Reeder, T. W. 2003. A phylogeny of the Australian *Sphenomorphus* group (Scincidae: Squamata) and the phylogenetic placement of the crocodile skinks (*Tribolonotus*): Bayesian approaches to assessing congruence and obtaining confidence in maximum likelihood inferred relationships. *Molecular Phylogenetics and Evolution* 27:384-397.

Relox, R. E., Leaño, E. P. and Ates-Camino, F. B. 2011. Herpetofaunal Endemism And Diversity in Tropical Forests of Mt. Hamiguitan in the Philippines. *Herpetological Conservation and Biology* 6(1):107-113.

Rendahl, H. 1937. Beiträge zur Herpetologie von Birma. *Arkiv för Zoologi* 29A(10):1-29.

Ride, W. D. L. (ed.) et. al. (on behalf of the International Commission on Zoological Nomenclature) 1999. *International code of Zoological Nomenclature*. The Natural History Museum - Cromwell Road, London SW7 5BD, UK (also commonly cited as "ICZN 1999").

Rodriguez, Z. B., Perkins, S. L. and Austin, C. C. 2018. Multiple origins of green blood in New Guinea lizards. *Science Advances* 16 May, 4(5):eaao5017

- Romer, A. S. 1956. *Osteology of the Reptiles*. Chicago University Press:772 pp
- Roux, J. 1910. Reptilien und Amphibien der Aru- und Kei-Inseln. *Abhandlungen der Senckenbergischen Gesellschaft für Naturforschung* (Frankfurt) 33:211-247.
- Roux, J. 1911. Elbert-Sunda-Expedition des Frankfurter Vereins für Geographie und Statistik. Reptilien und Amphibien. *Zoologische Jahrbücher Syst., Jena*, 30(5):495-508.
- Roux, J. 1927. Addition à la faune erpétologique de la Nouvelle-Guinée. *Revue Suisse de Zoologie* 34:119-125.
- Sacha, M. 2015. Herpetoreisen in Thailand: Erste Eindrücke aus Krabi. *Sauria* 37(3):43-55.
- Sanguila, M. B., Cobb, K. A., Siler, C. D., Diesmos, A. C., Alcalá, A. C. and Brown, R. M. 2016. The amphibians and reptiles of Mindanao Island, southern Philippines, II: the herpetofauna of northeast Mindanao and adjacent islands. *ZooKeys* 624:1-132, doi: 10.3897/zookeys.624.9814
- Sauvage, H. E. 1879. Notice sur quelques reptiles nouveaux ou peu connus de la Nouvelle-Guinée. [*Elania annulata*]. *Bulletin de la Société philomathique de Paris* (7)3:47-61.
- Schlegel, H. 1837. *Abbildungen neuer oder unvollständig bekannter Amphibien, nach der Natur oder dem Leben entworfen*. Düsseldorf (Arnz und Comp.), i-xiv+141 pp.
- Schleip, W. D. 2014. Two New Species of *Leiopython* Hubecht, 1879 (Pythonidae: Serpentes): Non-Compliance with the International Code of Zoological Nomenclature Leads to Unavailable Names in Zoological Nomenclature. *Journal of Herpetology* 48(2):272-275.
- Schmidt, K. P. 1925. New reptiles and a new salamander from China. *American Museum Novitates* (157):1-5.
- Schmidt, K. P. 1928. Notes on the herpetology of Indo-China. *Copeia* 1928:77-80.
- Schmidt, K. P. 1932. Reptiles and Amphibians from the Solomon Islands. *Field Museum of Natural History Zoological Series* 18(9):175-190.
- Schmidtler, J. F. 2013. Wiederentdeckung herpetologischer Beiträge von L. Fitzinger mit Beschreibungen neuer Taxa in F. Treitschkes (1842/1843) populärer Naturgeschichte "naturhistorischer Bildersaal des Tierreiches" (Amphibia, Reptilia). *Herpetozoa* 26(1/2):15-26.
- Sengupta, D., Borah, C. G. and Phukon, J. 2019. Assessment of the Reptilian Fauna in the Brahmaputra Plains of Two Districts in Assam, India. *IRCF* 26(1):65-67.
- Setiadi, M. I. and Hamidy, A. 2006. *Jenis-Jenis Herpetofauna di Pulau Halmahera. Kerjasama antara Pusat Studi Biodiversitas dan Konservasi Universitas Indonesia dan Museum Zoologicum Bogoriense*, Puslit Biologi Lembaga Ilmu Pengetahuan Indonesia.
- Shea, G. M. 1987. Comment on the proposed suppression for nomenclatural purposes of three works by Richard W. Wells and C. Ross Wellington (Case 2531, see BZN 44, 116-121). *Bulletin of Zoological Nomenclature* 44(4):257-261.
- Shea, G. M. 2012. On the identity of the type species of *Sphenomorphus* (Squamata: Scincidae): *Lygosoma melanopogon* Duméril and Bibron 1839, with a note on a new scalation character of the pes in *Sphenomorphus*. *Zootaxa* (PRINO) (online) 3490:1-29.
- Shea, G. M. 2015. Email to Raymond Hoser. Sent on Thursday, 9 July 2015 1:03 AM.
- Shea, G. M. 2017a. The identity of *Lygosoma (Hinulia) misolense* Vogt, 1928 (Squamata: Scincidae). in *Biodiversity, Biogeography and Nature Conservation in Wallacea and New Guinea* 3:21-26.
- Shea, G. M. 2017b. A new species of *Sphenomorphus* (Squamata: Scincidae) from the Doberai Peninsula of New Guinea, with a redescription of *Sphenomorphus consobrinus* (Peters et Doria, 1878). *Biodiversity, Biogeography and Nature Conservation in Wallacea and New Guinea* 3:35-48.
- Shea, G. M. 2020. Nomenclature of supra-generic units within the Family Scincidae (Squamata). *Zootaxa* (PRINO) (Online) 5067(3):301-351.
- Shea, G. M. and Allison, A. 2021. A new species of *Sphenomorphus* (Squamata: Scincidae) from Mount Kaindi, Morobe Province, Papua New Guinea. pp. 49-60 in: Telnov D., Barclay, M. V. L. and Pauwels O. S. G. (eds) 2021. *Biodiversity, biogeography and nature conservation in Wallacea and New Guinea. Volume IV*. The Entomological Society of Latvia, Rīga, Latvia.
- Shea, G. M. and Greer, A. E. 1998. *Sphenomorphus melanochlorus* (Vogt, 1932), a Junior Synonym of *Sphenomorphus maculatus* (Blyth, 1853). *Journal of Herpetology* 32(2):292-294.
- Shea, G. and Greer, A. 1999a. Two senior synonyms and a name change for the New Guinea Skink *Sphenomorphus stickelli* (Loveridge, 1948). *Journal of Herpetology* 33(1):136-141.
- Shea, G. M. and Greer, A. E. 1999b. The identity of two little-known skinks from New Guinea, *Sphenomorphus wirzi* (Roux, 1919) and *Sphenomorphus comtus* (Roux, 1927). *Journal of Herpetology* 33(3):507-511.
- Shea, G. M. and Michels, J. P. 2008. A replacement name for *Sphenomorphus keiensis* (Kopstein, 1926) from the southeastern Moluccas, Indonesia (Reptilia: Squamata: Scincidae) with a redescription of the species. *Zoologische Mededelingen* 82:737-747.
- Shea, G. M. and Sadler, R. A. 1999. *A catalogue of the non-fossil amphibian and reptile type specimens in the collection of the Australian Museum: Types currently, previously and purportedly present*. Technical Reports of the Australian Museum, Australian Museum, Sydney, Australia:91 pp.
- Shea, G., Weigel, J., Harwood, A., Floriani, H. and Hemsley, C. 1988. Notes on the herpetofauna of Mitchell Plateau, Western Australia. Results of the 1987 Australian Herpetological Society Field Trip to the Kimberleys. *Herpetofauna* 18(1):9-20.
- Shea, G. M., Couper, P., Wilmer, J. W. and Amey, A. 2011. Revision of the genus *Cyrtodactylus* Gray, 1827 (Squamata: Gekkonidae) in Australia. *Zootaxa* (PRINO) (online) 3146:1-63.
- Shea, G. M., Thomson, S. and Georges, A. 2020. The identity of *Chelodina oblonga* Gray 1841 (Testudines: Chelidae) reassessed. *Zootaxa* (PRINO) (Online) 4779(3):419-437.
- Shrestha, B. 2017. Reptile Rap: Herpetofauna of Korak Village, Northern Chitwan, Nepal. *Zoo's Print* 32(9):23-30.
- Shreve, B. 1940. Reptiles and amphibians from Burma with descriptions of three new skinks. *Proceedings of the New England Zoologists Club* 18:17-26.
- Siler, C. D. and Brown, R. M. 2010. Phylogeny-based Species Delimitation in Philippine Slender Skinks (Reptilia: Squamata: Scincidae: *Brachymeles*): Taxonomic Revision of Pentadactyl Species Groups and Description of Three New Species. *Herpetological Monographs* 24(1):1-54.
- Sind, L. I. 2017. Cameron Highlands Forest Skink *Sphenomorphus cameronicus* at Fraser's Hill, Peninsular Malaysia. *SEAVR* 2017:29-30.
- Skinner, A., Hutchinson, M. N. and Lee, M. S. Y. 2013. Phylogeny and divergence times of Australian *Sphenomorphus* group skinks (Scincidae, Squamata). *Molecular Phylogenetics and Evolution* 69 (2013) 906-918.
- Slevin, J. R. and Leviton, A. E. 1956. Holotype specimens of reptiles and amphibians in the collection of the California Academy of Sciences. [type catalogue]. *Proceedings of the California Academy of Sciences* 28(14):529-560.
- Smedley, N. 1932. Amphibians and reptiles from the Cameron Highlands, Malay Peninsula. *Bulletin of the Raffles Museum* 6:105-123.
- Smith, M.A. 1916a. Description of three new lizards and a new snake from Siam. *Journal of the Natural History Society of Siam* 2(1) 44-47.
- Smith, M. A. 1916b. A list of the crocodiles, tortoises, turtles, and

- lizards at present known to inhabit Siam. *Journal of the Natural History Society of Siam* 2(1):48-57.
- Smith, M. A. 1924. Two new lizards and a new tree frog from the Malay Peninsula. *Journal of the Federated Malay States Museums*, Singapore, 11:183-186.
- Smith, M. A. 1925. On a collection of reptiles and amphibians from Mt. Murud, Borneo. *Sarawak Museum Journal Kuching*, 8:5-14.
- Smith, M. A. 1930. The Reptilia and Amphibia of the Malay Peninsula from the Isthmus of Kra to Singapore, including the adjacent Islands. A Supplement to G. A. Boulenger's Reptilia and Batrachia 1912. *Bulletin of the Raffles Museum* 3:1-149.
- Smith, M. A. 1935. *The fauna of British India, including Ceylon and Burma. Reptiles and Amphibia, Vol. II. Sauria*. Taylor and Francis, London, UK:440 pp.
- Smith, M. A. 1937. A review of the genus *Lygosoma* (Scincidae: Reptilia) and its allies. *Records of the Indian Museum* 39(3):213-234.
- Stejneger, L. H. 1910. The batrachians and reptiles of Formosa. *Proceedings of the US National Museum* 38:91-114.
- Stejneger, L. H. 1907. Herpetology of Japan and adjacent territory. *Bulletin of the US National Museum* 58: xx+1-577.
- Sternfeld, R. 1918. Zur Tiergeographie Papuasiens und der pazifischen Inselwelt. *Abhandlungen der Senckenbergischen Gesellschaft für Naturforschung* (Frankfurt) 36:375-436.
- Stirling, E. C. and Zietz, A. 1893. Scientific results of the Elder Exploring Expedition. Vertebrata. Mammalia, Reptilia. *Transactions of the Royal Society of South Australia* 16:154-176.
- Stoliczka, F. 1870. Observations on some Indian and Malayan Amphibia and Reptilia. *Journal of the Asiatic Society Bengal* 39:134-228.
- Stoliczka, F. 1872. Notes on various new or little-known Indian lizards. *Journal of the Asiatic Society Bengal* xli (2):86-135.
- Stoll, N. R. et al. (eds.). 1964. *International Code of Zoological Nomenclature* (Second edition) adopted by the XV International Congress of Zoology. London:176 pp.
- Stuart, B. L. and Emmett, D. A. 2006. A Collection of Amphibians and Reptiles from the Cardamom Mountains, Southwestern Cambodia. *Fieldiana Zool. N. S.* (109):1-27.
- Stuart, B., Sok, K. and Neang, T. 2006. A collection of amphibians and reptiles from hilly Eastern Cambodia. *Raffles Bulletin of Zoology* 54(1):129-155.
- Sumarli, A. X. and Grismer, L. L. 2016. *Sphenomorphus praesignis* (Blotched Forest Skink) Reproduction. *Herpetological Review* 47(4):674-675.
- Sumarli, A., Grismer, L. L., Wood, P. L., Ahmad, A. B., Rizal, S., Ismail, L. H., Izam, N. A. M., Ahmad, N. and Linkem, C. W. 2016. The first riparian skink (Genus: *Sphenomorphus* Strauch, 1887) from Peninsular Malaysia and its relationship to other Indochinese and Sundaic species *Zootaxa* (online) 4173(1):029-044.
- Swan, G., Sadlier, R. and Shea, G. 2022. *A Field Guide to Reptiles of New South Wales*. Reed / New Holland, Wahroonga, New South Wales, Australia:336 pp.
- Tan, F. L. 1993. *Checklist of the Lizards of Sabah, Borneo*. Kota Kinabalu (Nat. Hist. Publ.):18pp.
- Tanner, V. M. 1951. Pacific islands herpetology, No. V. Guadalcanal, Solomon Islands: A checklist of species. *Great Basin Naturalist* 11:53-86.
- Taylor, E. H. 1917. Snakes and lizards known from Negros, with descriptions of new species and subspecies. *Philippine Journal of Science* 12:353-381.
- Taylor, E. H. 1922. *The lizards of the Philippine Islands*. Department of Agriculture and Natural Resources, Bureau of Science, Government of the Philippine Islands, Manila, Publication no. 17:269 pp.
- Taylor, E. H. 1953. A review of the lizards of Ceylon. *University of Kansas Sciences Bulletin* 35(12):1525-1585.
- Taylor, E. H. 1962. New oriental reptiles. *University of Kansas Science Bulletin* 43:209-263.
- Taylor, E. H. 1963. The lizards of Thailand. *University of Kansas Science Bulletin* 44:687-1077.
- ter Borg, J. 2005. Mariene herpetologie en enkele andere herpetologische waarnemingen op en rond Bali, Lombok en Komodo (Indonesië). *Lacerta* 63(6):242-256.
- Teynié, A., David, P. and Ohler, A. 2010. Note on a collection of Amphibians and Reptiles from Western Sumatra (Indonesia), with the description of a new species of the genus *Bufo*. *Zootaxa* (PRINO) (online) 2416:1-43.
- Thompson, J. C. 1912a. Herpetological notices, No. 2. *Prodrome of descriptions of new species of Reptilia and Batrachia from the Far East*. Privately published, San Francisco.
- Thompson, J. C. 1912b. Herpetological notices, No. 3. On reptiles new to the island arcs of Asia. Privately published, San Francisco, pp. 1-4.
- Thomson, S. and Georges, A. 2009. *Myuchelys gen. nov.* - a new genus for *Elseya latisternum* and related forms of Australian freshwater turtle (Testudines: Pleurodira: Chelidae). *Zootaxa* (PRINO) (online) 2053:32-42.
- Treitschke, R. (Hrsg.) 1839. *Naturhistorischer Bildersaal des Thierreiches. nach William Jardine bearbeitet, nebst einem Vorworte von Karl Vogel; 4 Bände*. Pesth und Leipzig (C. A. Hartleben), [1839, 1841, 1842, 1843 for the 4 volumes]
- Tshewang, S. and Letro, L. 2018. The herpetofauna of Jigme Singye Wangchuck National Park in central Bhutan: status, distribution and new records. *Journal of Threatened Taxa* 10(11):12489-12498.
- Van Denburgh, J. 1912. Concerning certain species of reptiles and amphibians from China, Japan, the Loo Choo Islands, and Formosa. *Proceedings of the California Academy of Sciences* (Series 4) 3(10):187-258.
- Venugopal, P.D. 2010. An updated and annotated list of Indian lizards (Reptilia: Sauria) based on a review of distribution records and checklists of Indian reptiles. *Journal of Threatened Taxa* 2(3):725-738.
- Victorian Civil and Administrative Tribunal (VCAT). 2015. *Hoser v Department of Environment Land Water and Planning* (Review and Regulation) [2015] VCAT 1147 (30 July 2015, judgment and transcript).
- Vogt, T. 1911. Reptilien und Amphibien aus Kaiser-Wilhelms-Land. *Sitzungsberichte der Gesellschaft Naturforschender Freunde zu Berlin* 1911:420-420.
- Vogt, T. 1912. Reptilien und Amphibien aus Holländisch-Neuguinea. *Sitzungsberichte der Gesellschaft Naturforschender Freunde zu Berlin* 1912:355-359.
- Vogt, T. 1928. Über einige Eidechsen der Molukkeninsel Misol. *Zoologischer Anzeiger* 76(11/12):333-335.
- Vogt, T. 1932. Beitrag zur Reptilienfauna der ehemaligen Kolonie Deutsch-Neuguinea. *Sitzungsberichte der Gesellschaft Naturforschender Freunde zu Berlin* 5-7:281-294.
- Walker, J. 1894. A visit to Damma Island, East Indian Archipelago. *Annals and magazine of natural history* (6)14:49-59.
- Wall, F. 1908. Viviparous habit of the common Indian Skink (*Lygosoma indica*). *Journal of the Bombay Natural History Society* 18:505.
- Wanger, T. C., Motzke, I., Saleh, S. and Iskandar, D. T. 2011. The amphibians and reptiles of the Lore Lindu National Park area, Central Sulawesi, Indonesia. *Salamandra* 47(1):17-29.
- Weber, M. 1890. Reptilia from the Malay Archipelago. 1. Sauria, Crocodyliidae, Chelonia. In: *Zoologische Ergebnisse einer Reise in Niederländisch Ost-Indien 1*: 158-177. M. Weber (Ed.). E. J. Brill, Leiden.
- Welch, K. R. G., Cooke, P. S. and Wright, A. S. 1990. *Lizards of the Orient: a checklist*. Robert E. Krieger Pub. Co., Malabar, Florida, USA:162 pp.

Wells, R. W. 2002. Taxonomic Notes on the Genus *Cyrtodactylus* (Reptilia: Gekkonidae) in Australia. *Australian Biodiversity Record*, 2002(3):1-8.

Wells, R. W. 2007. Some taxonomic and nomenclatural considerations on the class Reptilia in Australia. A new genus of the family Chelidae from eastern Australia. *Australian Biodiversity Record* (3):1-13.

Wells, R. W. 2009. Some Taxonomic and Nomenclatural Considerations on the Class Reptilia in Australia. A New Species of Freshwater Turtle in the Genus *Wollumbinia* Wells 2007 (Reptilia: Chelidae) from Eastern Australia. *Australian Biodiversity Record* (1):1-12.

Wells, R. W. and Wellington, C. R. 1983. A synopsis of the class Reptilia in Australia. *Australian Journal of Herpetology*, 1(3-4):73-129.

Wells, R. W. and Wellington, C. R. 1985a. A classification of the Amphibia and Reptilia of Australia. *Australian Journal of Herpetology*, Supplementary Series, (1):1-61.

Wells, R. W. and Wellington, C. R. 1985b. A synopsis of the Amphibia and Reptilia of New Zealand. *Australian Journal of Herpetology*, Supplementary Series, (1):62-64.

Wells, R. W. and Wellington C. R. 1987. A new species of proteroglyphous snake (Serpentes: Oxyuranidae) from Australia. *Australian Herpetologist* 503:1-8.

Werner, F. 1896. Zweiter Beitrag zur Herpetologie der indo-orientalischen Region. *Verhandlungen der Zoologisch-Botanischen Gesellschaft in Wien* 46:6-24.

Werner, F. 1901. Ueber Reptilien und Batrachier aus Ecuador und Neu-Guinea. *Verhandlungen der Zoologisch-Botanischen Gesellschaft in Wien* 51:593-614.

Werner, F. 1913. Neue oder seltene Reptilien und Frösche des Naturhistorischen Museums in Hamburg. Reptilien der Ostafrika-Expedition der Hamburger Geographischen Gesellschaft 1911/12. Leiter: Dr. E. Obst. Reptilien und Amphibien von Formosa. *Jb. Hamb. wiss. Anst.*, 30 [1912], 2. Beiheft: 1-39, 40-45, 45-51.

Werner, F. 1922. Neue Reptilien aus Süd-China, gesammelt von Dr. H. Handel-Mazzetti. *Anz. Akad. Wissensch. Wien, ser. Mathemat.-Naturwissensch.*, Vienna, 59(24-25):220-222.

Whitaker, R., Whitaker, Z. and Mills, D. 1982. Reptiles of Papua New Guinea. *Wildlife in New Guinea* (82/2):1-53.

Whiting, A. S., Bauer, A. M. and Sites, J. W. 2003. Phylogenetic relationships and limb loss in sub-Saharan African scincine lizards (Squamata: Scincidae). *Molecular Phylogenetics and Evolution* 29(3):582-598.

Wu, J. 2015. Can changes in the distribution of lizard species over the past 50 years be attributed to climate change? *Theoretical and Applied Climatology*, DOI 10.1007/s00704-015-1553.

Yang, Y., Gao, Z. and Zhao, E. 1989. Karyotypic studies of *Sphenomorphus indicus* (Scincidae) and *Takydromus septentrionalis* (Lacertidae). *Chinese Herpetological Research* 2(1):55-59.

Yamasaki, T., Hikida, T., Nabhitabhata, J., Panha, S. and Ota, H. 2001. Geographic variations in the common skink *Sphenomorphus maculatus* (Blyth, 1853) in Thailand, with re-validation of *Lygosoma mitanense* Annandale 1905 as its subspecies. *Natural History Journal of the Chulalongkorn University* 1(1):23-31.

Zhao, E. and Adler, K. 1993. *Herpetology of China*. SSAR, Oxford/Ohio, USA:1-522.

Ziegler, T. 2002. *Die Amphibien und Reptilien eines Tieflandfeuchtwald-Schutzgebietes in Vietnam*. Natur und Tier Verlag, Münster, Germany:342 pp.

Ziegler, T., Rauhaus, A., Tran, T. D., Pham, C. T., Van Schingen, M., Dang, P. H., Le, M. D. and Nguyen, T. Q. 2015. Die Amphibien- und Reptilienfauna der Me-Linh-Biodiversitätsstation in Nordvietnam. *Sauria* 37(4):11-44.

Zug, G. R. and Allison, A. 2006. New *Carlia fusca* complex lizards (Reptilia: Squamata: Scincidae) from New Guinea, Papua-Indonesia. *Zootaxa* (PRINO) (online) 1237:27-44.

Zug, G. R., Win, H., Thin, T., Min, T. Z., Lhon, W. Z. and Kyaw, K. 1998. Herpetofauna of the Chatthin Wildlife Sanctuary, north-central Myanmar with preliminary observations of their Natural History. *Hamadryad* 23(2):111-120.

Zweifel, R. G. 1980. Results of the Archbold Expeditions, No. 103. Frogs and lizards from the Huon Peninsula, Papua New Guinea. *Bulletin of the American Museum of Natural History* 165(5):390-434.

BELOW - Peter Uetz's "The reptile database" deleting over 1,000 scientific papers by Russian authors in a warped form of censorship. Google cache screen shot.

Reptile Database News

Not secure | webcache.googleusercontent.com/search?q=cache:Lf0GeUMB_sJ:www.reptile-database.org/db-info/news.html+&cd=1&hl=en&ct=cnk&gl=au

This is Google's cache of <http://www.reptile-database.org/db-info/news.html>. It is a snapshot of the page as it appeared on 14 Mar 2022 10:48:03 GMT. The current page could have changed in the meantime. [Learn more.](#)

Full version | Text-only version | View source

Tip: To quickly find your search term on this page, press Ctrl+F or ⌘+F (Mac) and use the find bar.

What's new? (March 2022)

Sign up for our mailing list for updates by [clicking here](#) (just send us an empty email).

10 March 2022 -- New Release!

Usually we don't get political in this newsletter, but with the invasion of Ukraine we feel we should. We have an estimated 50-100 Russians on this mailing list and we very much respect them as colleagues. However, Vladimir Putin and the Kremlin have gone too far with the invasion of Ukraine. **As sign of protest, we have removed more than 1000 Russian papers from this release of the Reptile Database, mostly papers by Russian authors and publishers** (there will be some collateral damage to people outside Russia who co-authored these papers, sorry). No, we don't want to "punish" our fellow Russian colleagues, but we want to remind them that this war may only be stopped from within Russia. All the boycotts world-wide make it clear that Russia is rapidly isolating itself on the world stage.

Banning papers will be highly controversial and the scientific community is divided about which actions should be taken. See these reports in [Nature](#) (or [this](#)) in Science, [The Times of Higher Education](#), [Science Business](#), and many others.

However, please consider that the world is mostly united in the opposition to Russia's invasion. **141 countries have opposed the Russian war in the UN General Assembly** (with only 5 countries supporting Russia, including North Korea and Belarus). Nevertheless, **60-70% of Russians appear to support the invasion** (which is neither called "invasion" nor "war" in Russian media). These numbers prove that Putin is running a massive mis-information campaign to mislead his own fellow countrymen and -women. Accordingly, protests within Russia are swiftly put down by the police, with over 13,000 protesters reportedly arrested just over the past few weeks. Hence we don't blame anybody who does not take to the streets. However, we do hope that the Russian intelligentsia (including their herpetologists) will communicate to their fellow Russians and the political elite that this invasion is causing global Russophobia and thus will backfire on a massive scale. Russia must retreat from Ukraine. (If you want to comment on this please see our [Facebook page](#)).

Taxonomic news

Given the global turmoil, we may have missed a few taxonomic papers and data points, but we still have a pretty long list of updates as far as reptile taxonomy is concerned. With this release, we have reached 11,733 reptile species (up from 11,690 in our last release, Nov 2021). In fact, we have 134 changes on the level of species, with 41 new species, 12 species elevated from synonymy and 23 species elevated from subspecies level. Somewhat unusually, we also have 31 synonymized or downgraded species, which has become less common, given the unabated species splitting in the reptile world. A third of those cases involves Galapagos tortoises of the genus *Chelonoidis*, most of which have been downgraded to subspecies level based on recent genetic studies ([Kehlmaier et al. 2021](#), [Poulakakis et al. 2021](#)) that showed their close relationship.

Overall, we have updated about 3000 species with new information during the past year. Nevertheless, there are a number of placeholder entries in the database, representing new species that still need to have details added. We will fill them in until our next release. In any case, you can [download the latest checklist](#) with all changes since the last release (as Excel spreadsheet) from our website.

Turtle update

That said, we have used the latest (2021) checklist of the [Turtle Taxonomy Working Group \(TTWG\)](#) to update all turtle names in the database (thanks to Anders Rhodin and colleagues). The two lists should now be identical, except for the few extinct species. [Internet access](#)

**The further division of the *Nodorha bougainvillii*
(AKA *Lerista bougainvillii*) *sensu lato* species complex, including
formal descriptions of five new species and a new subspecies.**

LSIDURN:LSID:ZOOBANK.ORG:PUB:767CCB97-FEAD-477F-8075-48FD290D06D6

RAYMOND T. HOSER

LSIDurn:lsid:zoobank.org:author:F9D74EB5-CFB5-49A0-8C7C-9F993B8504AE

488 Park Road, Park Orchards, Victoria, 3134, Australia.

Phone: +61 3 9812 3322 Fax: 9812 3355 E-mail: snakeman (at) snakeman.com.au

Received 11 November 2022, Accepted 28 June 2023, Published 9 August 2023.

ABSTRACT

The burrowing skinks of the *Nodorha bougainvillii* (AKA *Lerista bougainvillii*) *sensu lato* species complex from south-east Australia are abundant and well-studied. Yet until now, their taxonomy has not been properly sorted.

The single putative species contains both live-bearing and egg-laying forms, as well as one population that appears intermediate in reproductive mode and is separated from others by well-defined biogeographical barriers.

While earlier studies have shown populations worthy of taxonomic recognition by way of molecular divergence, those authors did not take the logical next step of formally naming the relevant forms.

To correct this omission, previously unnamed forms are herein formally identified and named as new species and subspecies in accordance with the rules of the *International Code of Zoological Nomenclature* (Ride *et al.* 1999).

Keywords: *Lerista*; *Nodorha*; *bougainvillii*; taxonomy; skink; burrowing; nomenclature; New South Wales; Tasmania; Australia; Victoria; South Australia; new species; *hoserae*; *tasmaniensis*; *insularis*; *martinekae*; *absconditus*; new subspecies; *divergans*.

INTRODUCTION

The burrowing skink most widely known as *Lerista bougainvillii* (Gray, 1839) is found throughout many parts of south-east Australia. It is most common in dry, rocky or sandy areas, generally excluding wet areas or excessively dry areas.

The putative species has been placed by most authors in the genus *Lerista* Bell, 1833 (type species *Lerista lineata* Bell, 1833) since the original description.

Günther (1867) formally named the taxon, *Lygosoma laterale*, with a type locality of "South Australia" which was synonymised with *L. bougainvillii* by Cogger *et al.* (1983).

Significantly the following year, Wells and Wellington (1984) published their first of several major publications dealing with the taxonomy of Australian reptiles.

In that paper they formally resurrected the genus *Nodorha* Mittleman, 1952 (type species *Riopa bougainvillii* Duméril and Bibron, 1839). More significantly however, they also resurrected from synonymy *Lygosoma laterale*, renaming it as *Nodorha garymartini* *nom. nov.* which followed Cogger *et al.* (1983) stating

the earlier name was "*non Scincus lateralis* Say, 1823", as well as formally naming the central New South Wales population as *Nodorha cassandrae* Wells and Wellington, 1984.

Post-dating that publication and another in 1985 by the same two authors, Richard Shine of Sydney, New South Wales, Australia petitioned the International Commission of Zoological Nomenclature (ICZN) to formally erase the works of Wells and Wellington from the scientific record to allow their cohort to rename the very same taxa and claim for posterity to be the discoverers.

The plot by Shine and his gang was not unlike that of the Nazi's who burnt books with the aim of fabricating and rewriting the historical record

Ultimately this application by Shine and his cohort of liars and thieves failed in 1991.

However, being sore losers, Shine and the cohort harassed other publishing herpetologists, journal editors and other persons of influence to black-ban and not use any taxonomy and nomenclature of Wells and Wellington.

This has been backed by militarising of police and wildlife department officers to launch armed raids on those who may digress from the various Shine gang mantras.

As a result, no one but Wells and Wellington have recognized or used the name *Nodorha cassandrae* Wells and Wellington, 1984 since original publication.

Notwithstanding the preceding, science is essentially a search for the truth and truth cannot be avoided forever.

Having already been raided by Australian police for thought crimes, I will once again take the risk and use Wells and Wellington names as appropriate and in accordance with the rules of the *International Code of Zoological Nomenclature* (Ride *et al.* 1999) as amended online since.

Fairbairn, Shine, Moritz and Frommer (1998) published a detailed study of various populations of putative "*Lerista bougainvillii*".

Their study included specimens from across the known range of the putative species, with both live-bearing and egg-laying groups studied.

Not surprisingly, the molecular results indicated at least three separate species, with one of these also further dividable into either species or subspecies.

In their results Fairbairn, Shine, Moritz and Frommer (1998) wrote:

"Based on pairwise comparisons, the variation among individuals of *L. bougainvillii* was between 0 and 14%, and hence is comparable to levels of variation found between species in previous studies (Hedges *et al.*, 1991; Moritz *et al.*, 1992a)."

One of those obvious species conformed with the Wells and Wellington taxon "*Nodorha cassandrae*".

There was no way known that the fundamentally evil and ego-driven Richard Shine as a co-author would be the first to recognize that Wells and Wellington were in any way correct, so rather than admitting what was now obvious on their own scientific evidence, the authors of the paper constructed a series of convoluted arguments as to why all populations should still be treated as being of the one species.

Also already stated and for the reasons already given, this position has remained the case among publishing herpetologists other than by Wells and Wellington since then.

In his major monograph on the genus *Lerista sensu lato*, (Wells, 2012), maintained the same taxonomic position of Wells and Wellington (1984, 1985), save for the non-recognition of *Lygosoma laterale*, or *Nodorha garymartini*, which I presume they decided, by way of reconsideration, was a synonym of "*N. bougainvillii*" in line with Cogger *et al.* (1983).

Also of note is that Pyron *et al.* (2013) published a supermatrix phylogeny for about half the world's generally recognized species including numerous within the genus *Lerista* as recognized at the time.

This phylogeny indicated divergence between the type forms of *Lerista* and *Nodorha*, in effect vindication of the actions of Mittleman (1952), Wells and Wellington (1984, 1985) and Wells again in 2012.

So in effect it needs to be noted that the more recently available scientific evidence that has NOT been published by any of Mittleman (1952), Wells and Wellington (1984, 1985) and Wells again in 2012 indicated that the taxonomy and nomenclature of these authors has been generally correct.

SYNONYM NAMES

An issue not mentioned explicitly, but that needed to be dealt with, was the actual origin of the type specimen for Gray's *Riopa bougainvillii* specimen. The type locality was listed by Gray in 1839 as "Australia", but no location was given in the actual description.

However based on the description and other species from Australia he named at the time, it is evident that the specimen came from somewhere north-east of Adelaide, most probably the

Adelaide Hills or nearby to the east or north.

The preceding also applies in terms of "*Lygosoma laterale*" in that a type locality is given as just "South Australia". However that specimen conforms with those from north-east of Adelaide as per Table 1, in Qualls *et al.* (1995) to the exclusion of all other populations, based on the same table (22 midbody rows).

Hence it can be now said with certainty that *Nodorha bougainvillii* is the name to be applied to populations north-east of Adelaide in South Australia and that the names "*Lygosoma laterale*" and "*Nodorha garymartini*" are both junior synonyms of that.

Assuming one recognises the population from central east New South Wales as a different species, as indicated by the phylogenies published by Fairbairn, Shine, Moritz and Frommer (1998) then the first and only available name for this population is *Nodorha cassandrae* Wells and Wellington, 1984 with a type locality of Denman, New South Wales, Australia.

Significantly, I note that Wells (2012) published an extremely detailed diagnosis for this species taxon, which has been derided and disparaged with false and defamatory comments continually by Wolfgang Wüster and his gang of thieves in breach of both the Copyright Act Australia (1968) and parallel laws as per the Berne Convention and the *International Code of Zoological Nomenclature* (Ride *et al.* 1999).

MATERIALS AND METHODS

In light of the preceding, it is noted that putative "*Lerista bougainvillii*" and associated species are better placed in the genus *Nodorha*, where it is from here treated as being within.

Nodorha bougainvillii is treated as the mainland South Australian population from generally north or east of Adelaide.

Nodorha cassandrae Wells and Wellington, 1984 is treated as the form from central New South Wales, with a centre of distribution in the northern Wollemi National Park and extending south along the western edge of the Blue Mountains in New South Wales.

All other populations as identified by Fairbairn, Shine, Moritz and Frommer (1998) and other authors were scrutinized to see if they were morphologically divergent from one another and able to be taxonomically recognized.

This is noting that there were two distinct live-bearing populations (one in Tasmania and another in South Australia), as well egg-layers elsewhere, with one population in south-east Victoria laying thin-shelled eggs that hatch very shortly after being laid.

Within the egg-layers, there also appeared to be regional divergences.

Inspected were live and dead specimens from across the range of the putative species *Nodorha bougainvillii sensu lato*, as well as photos with good quality locality data.

All relevant literature was reviewed as well.

Publications relevant to the ultimate taxonomic conclusions within this paper included Bell (1833), Cogger (2014), Cogger *et al.* (1983), Duméril and Bibron (1839), Fairbairn *et al.* (1998), Gray (1839), Greer (1967, 1990), Günther (1867), Hoser (1989), Hugi *et al.* (2012), Lucas and Frost (1894), Metcalfe and Peterson (2007), Mittleman (1952), Qualls (1997), Qualls and Shine (1998), Qualls *et al.* (1995), Pyron *et al.* (2013), Reeder (2003), Skinner *et al.* (2008), Smith (1937), Swan *et al.* (2022), Turner (2017), Wells (2012), Wells and Wellington (1984, 1985), Wilson and Swan (2017) and sources cited therein.

RESULTS

Inspection of specimens yielded consistent morphological differences between populations.

The phylogenies published by Fairbairn, Shine, Moritz and Frommer (1998) also implied several species.

They wrote:

"*Viviparous and oviparous populations of L. bougainvillii are genetically similar (genetic distance of approximately 5%)*".

Typically with lizards, 1% separation in mtDNA implies 500K

years, meaning that the relevant populations diverged some 2.5 MYA.

This is clearly species-level divergence.

In the absence of any observed introgression, and none likely due to geographical separation of populations, it makes sense to recognize the relevant identified populations as full species.

The Eyre Peninsula, South Australia and Denman, New South Wales populations were shown by Fairbairn, Shine, Moritz and Frommer (1998) to be even more divergent than the other populations as cited above and so must be recognized as full species.

One of course is *Nodorha cassandrae* Wells and Wellington, 1984, while the other from the Eyre Peninsula in South Australia is not yet named and so is formally named herein.

In terms of NSW specimens, those from the New England region are divergent from the specimens further south as in *N. cassandrae* and so are formally named as a new subspecies in the absence of molecular data. There is also a gap in known distribution of over 80 km between the two relevant populations.

I note here that Wells (2012) also stated:

"In my view, the 'variable' reproductive states exhibited likely indicate that 'bougainvillii' is a species-complex of several different taxa that exhibit forms of ovoviviparity, rather than a single species with a highly variable reproductive mode as is usually believed."

The opinion of Wells (2012) is supported by the molecular data of Fairbairn, Shine, Moritz and Frommer (1998) and is quite likely their considered opinion of that work and its results.

In summary the following populations are formally named for the first time in accordance with the International Code of Zoological Nomenclature (Ride *et al.* 1999):

Nodorha hoserae sp. nov. from the Eyre Peninsula in South Australia;

N. tasmaniensis sp. nov. from north-east Tasmania and immediately adjacent islands to the north;

N. insularis sp. nov. from Kangaroo Island in South Australia;

N. martinekae sp. nov. from southern Victoria between about Bairnsdale in the east and the northern slopes of the Otways in the west;

N. absconditus sp. nov. from the arid zone south of the Murray River near the Victorian and South Australian border; and;

N. cassandrae divergens subsp. nov. from the New England region and hillier areas to the west in north-west New South Wales.

INFORMATION RELEVANT TO THE FORMAL DESCRIPTIONS THAT FOLLOW

There is no conflict of interest in terms of this paper or the conclusions arrived at herein.

Several people including anonymous peer reviewers who revised the manuscript prior to publication are also thanked as are relevant staff at museums who made specimens and records available in line with international obligations.

In terms of the following formal descriptions, spelling of names should not be altered in any way for any purpose unless expressly and exclusively called for by the rules governing Zoological Nomenclature as administered by the International Commission of Zoological Nomenclature (Ride *et al.* 1999 and ICZN 2012).

Material downloaded from the internet and cited anywhere in this paper was downloaded and checked most recently as of 24 June 2023, unless otherwise stated and were accurate in terms of the context cited herein as of that date.

Unless otherwise stated explicitly, colour descriptions apply to living adult male specimens of generally good health and not under any form of stress by means such as excessive cool, heat, dehydration or abnormal skin reaction to chemical or other input.

While numerous texts and references were consulted prior to publication of this paper, the criteria used to separate the

relevant species has already been spelt out and/or is done so within each formal description and does not rely on material within publications not explicitly cited herein.

In the unlikely event any "first reviser" seeks to merge two or more newly named taxa into one, then the name to be retained is that which is first by page priority as listed in the abstract keywords.

CONSERVATION

Delays in recognition of these species and subspecies could jeopardise the long-term survival of the taxa as outlined by Hoser (2019a, 2019b) and sources cited therein.

Also refer to the relevant comments within Hoser (1989, 1991, 1993, 1996 and 2007).

Therefore attempts by taxonomic vandals like the Wolfgang Wüster gang via Kaiser (2012a, 2012b, 2013, 2014a, 2014b) and Kaiser *et al.* (2013) (as frequently amended and embellished, e.g. Rhodin *et al.* 2015, Thiele *et al.* 2020, Hammer and Thiele 2021) to unlawfully suppress the recognition of these taxa on the basis they have a personal dislike for the person who formally named it should be resisted (e.g. Ceriaco *et al.* 2023, Cogger 2014, Dubois *et al.* 2019, Mosyakin 2022 and Wellington 2015). Claims by the Wüster gang against this paper and the descriptions herein will no doubt be no different to those the gang have made previously, all of which were discredited long ago as outlined by Ceriaco *et al.* (2023), Cogger (2014), Cotton (2014), Dubois *et al.* (2019), Hawkeswood (2021), Hoser, (2007a-b, 2009, 2012a, 2012b, 2013, 2015a-f, 2019a, 2019b), ICZN (1991, 2001, 2012, 2021), Mosyakin (2022), Wellington (2015) and sources cited therein.

Some material within descriptions is repeated to ensure each fully complies with the *International Code of Zoological Nomenclature* (Ride *et al.* 1999).

NODORHA HOSERAE SP. NOV.

LSIDurn:lsid:zoobank.org:act:B66268B4-8B89-4BF3-BEE0-B93EBC3B564D

Holotype: A preserved adult female specimen at the South Australian Museum, Adelaide South Australia, Australia, specimen number R31140 collected from an islet south of Taylor's Island, South Australia, Australia, Latitude -34.90 S., Longitude 136.02 E.

This government-owned facility allows access to its holdings.

Paratypes: Three preserved specimens at the South Australian Museum, Adelaide South Australia, Australia, specimen numbers R31141-3 collected from an islet south of Taylor's Island, South Australia, Australia, Latitude -34.90 S., Longitude 136.02 E.

Diagnosis: Until now, *Nodorha bougainvillii* (Gray, 1839) has been treated as a single wide-ranging species of small burrowing skink with a distribution extending from northern New South Wales along an arc through Victoria and into south-east South Australia.

That taxon is now broken up into the following species:

N. bougainvillii is confined to the Adelaide Hills area and nearby elevated parts of South-east South Australia;

N. hoserae sp. nov. is from the Eyre Peninsula in South Australia;

N. tasmaniensis sp. nov. is from north-east Tasmania and immediately adjacent islands to the north;

N. insularis sp. nov. is from Kangaroo Island in South Australia;

N. martinekae sp. nov. is from southern Victoria between about Bairnsdale in the east and the northern slopes of the Otways in the west;

N. absconditus sp. nov. is from the arid zone south of the Murray River near the Victorian and South Australian border;

N. cassandrae Wells and Wellington, 1984 is mainly from the western slopes of the Great Dividing Range of central New South Wales, with an eastern infusion along the Hunter Valley and;

N. cassandrae divergens subsp. nov. is from the New England region and hillier areas to the west in north-west New South Wales.

The preceding seven species are all divergent from one another by an estimated 2.5 or more MYA based on the published evidence of Fairbairn, Shine, Moritz and Frommer (1998).

There is no comparative molecular evidence for the form *N. cassandrae divergens subsp. nov.*

The eight preceding taxa are separated from one another by the following unique combinations of characters:

N. bougainvillii has an average of 22 midbody rows; 17-18 subdigital lamellae; 69-78 paravertebrals; 4 rows of well defined small to tiny dark blackish spots running longitudinally down the back of the generally light brown body; lower parts and posterior of the tail are often orange or orangeish in colour. Adult females average 54.5 mm in snout-vent length and adult males 48.5 mm.

N. hoserae sp. nov. has an average of 20-21 midbody rows; 17-19 subdigital lamellae; 69-78 paravertebrals; spots on the back of the dorsum if present are brown, not black or blackish in colour and when present are elongate (longitudinal) and well separated. Lower parts of the tail are yellowish and the dorsum is generally a greyish-brown colour. Adult females average 57.5 mm in snout-vent length and adult males 50.3 mm.

N. tasmaniensis sp. nov. has an average of 20-22 midbody rows; 17-18 subdigital lamellae; 70-80 paravertebrals; spots on the back are elongate, black and somewhat irregularly shaped. Lower parts of the tail and distal end are whitish-cream in colour. The dorsum is medium brown in colour. Heavy black spotting on the white lower flanks is often joined to form lines. Adult females average 68.5 mm in snout-vent length and adult males 59.2 mm making this by far the largest species in the complex.

N. insularis sp. nov. has an average of 21-22 midbody rows; 17-19 subdigital lamellae; 66-79 paravertebrals; spots on the back of the dorsum are either absent or if present, usually only in the middle two rows, where they are tiny, indistinct and blackish in colour. There are only scattered black spots on the white lower flanks. Lower surfaces of the tail are a pale yellowish-orange colour. The dorsum is light brown in colour. Adult females average 58.7 mm in snout-vent length and adult males 47.9 mm.

N. martinekae sp. nov. has an average of 20-22 midbody rows; 17-20 subdigital lamellae; 66-79 paravertebrals; spots on the back of the dorsum are either absent or if present, are distinct in the middle two rows, where they are tiny, and the lines of blackish spots are broken, while on the two side rows, they spotting is blurred and less distinct. There is greyish peppering as opposed to black spots on the pale surfaces of the lower flanks. Lower surfaces of the tail are either whitish, brown or sometimes yellow. The dorsum is a very light brown in colour. This species is characterised further by significant dark spotting on the crown of the upper surface of the head. Adult females average 56.4 mm in snout-vent length and adult males 48.6 mm.

N. absconditus sp. nov. has an average of 20-22 midbody rows; 16-18 subdigital lamellae; 65-77 paravertebrals. Spots on the dorsum along the two midline sets are so prominent as to be joined to form relatively thick lines running down the dorsum. The side rows are only generally visible at the level of the front legs and are absent on the dorsum posterior to this. The upper surfaces of the tail in this species are unusual in that the colouration is one of a dark brownish background with light grey spotting. The dorsum itself is a dark greyish-brown colour. The lighter lower surfaces of the flanks have the outer surfaces of the scales etched dark brown, but there are no black spots or marks on an otherwise white or whitish background. Lower surfaces of the tail are usually whitish. As for *N. martinekae sp. nov.*, this species is characterised further by significant dark spotting on the crown of the upper surface of the head, in this case generally merging to form large blotches and areas of dark. Adult females average 59.5 mm in snout-vent length and adult males 50.1 mm.

N. cassandrae has an average of 20 midbody rows; 16-18 subdigital lamellae; 67-77 paravertebrals.

Adult females average 47.5 mm in snout-vent length and adult males 44.8 mm making this species, including the associated form *N. cassandrae divergens subsp. nov.* by far the smallest

species in the complex. The dorsal base colour is silver-grey or greyish-brown, with the lower surfaces and distal part of the tail usually russet-red or bright orange and usually speckled with darker brown.

There are usually a few tiny dark flecks only on the head and these are indistinct. Rarely are there lines of spots running down the dorsum and is present, they are tiny and indistinct.

The whitish lower flanks are generally immaculate anteriorly and irregularly spotted black posteriorly.

N. cassandrae divergens subsp. nov. is similar in most respects to *N. cassandrae cassandrae* of the type form just described, but is separated from it by complete black barring of the white upper labials, versus incomplete black barring in *N. cassandrae cassandrae* of the type form; less and smaller amounts of black spotting on the white surfaces of the rear lower flanks and two rows of semi-distinct blackish spots running down either side of the mid-dorsal line.

All the preceding species and subspecies forming the entirety of the *N. bougainvillii* complex are separated from all other species within *Nodorha* Mittleman, 1952 and *Lerista* Bell, 1833 *sensu lato* by the following unique combination of characters: Forelimbs and hindlimbs present and all pentadactyle; three supraoculars; five supraciliaries and the hindlimb is shorter than the distance from the snout to forelimb.

Species within *Lerista* Bell, 1833 *sensu lato* (including those above) are separated from all other Australasian skinks by the following unique combination of characters: Parietal shields in contact behind the interparietal; lower eyelid with a transparent disc and either movable or fused to form a permanent spectacle; limbs short and separated by at least several scale lengths when adpressed; ear opening small, minute or hidden; supranasals absent; nasals enlarged, undivided and usually in contact medially.

The preceding description was derived from inspection of specimens and the accounts of Wells (2012), Cogger (2014) and Fairbairn, Shine, Moritz and Frommer (1998).

N. bougainvillii in life is depicted in Wilson and Swan (2021) on page 359 centre left and online at:

<https://www.inaturalist.org/observations/116044074>

N. hoserae sp. nov. in life is depicted online at:

<https://www.inaturalist.org/observations/2392168>

and

<https://www.inaturalist.org/observations/72242636>

N. tasmaniensis sp. nov. in life is depicted online at:

<https://www.inaturalist.org/observations/96864514>

N. insularis sp. nov. in life is depicted online at:

<https://www.inaturalist.org/observations/129802509>

N. martinekae sp. nov. in life is depicted online at:

<https://www.inaturalist.org/observations/138344709>

and

<https://www.inaturalist.org/observations/143329609>

and

<https://www.inaturalist.org/observations/143315333>

N. absconditus sp. nov. in life is depicted online at:

<https://www.inaturalist.org/observations/15715785>

and

<https://www.flickr.com/photos/bassia09/8752272908/>

and

<https://www.flickr.com/photos/126237772@N07/18003872523/>

and

<https://www.flickr.com/photos/126237772@N07/18440600370/>

N. cassandrae in life is depicted in Hoser (1989) on page 104 at top, as well as in Swan, Sadlier and Shea (2022) on page 104 at top.

N. cassandrae divergens subsp. nov. in life is depicted online at: <https://www.inaturalist.org/observations/93144635>

Distribution: *N. hoserae sp. nov.* appears to be restricted to

the lower Eyre Peninsula in South Australia and while not of immediate conservation concern, should be monitored in the event of declines caused by other species, climate change, pathogen or other potentially unforeseen factors.

Etymology: *N. hoserae* sp. nov. is named in honour of my mother, Katrina Hoser, of Lane Cove, New South Wales, Australia, in recognition of her many contributions to herpetology spanning more than 50 years.

NODORHA TASMANIENSIS SP. NOV.

LSIDurn:lsid:zoobank.org:act:41466B15-872D-4B53-8AFF-68D8938E6F86

Holotype: A preserved specimen at the South Australian Museum, Adelaide, South Australia, Australia, specimen number R37506 collected from Cape Portland, Tasmania, Australia, Latitude -40.78 S., Longitude 147.98 E.

This government-owned facility allows access to its holdings.

Paratype: A preserved specimen at the South Australian Museum, Adelaide South Australia, Australia, specimen number R37507 collected from Cape Portland, Tasmania, Australia, Latitude -40.78 S., Longitude 147.98 E.

Diagnosis: Until now, *Nodorha bougainvillii* (Gray, 1839) has been treated as a single wide-ranging species of small burrowing skink with a distribution extending from northern New South Wales along an arc through Victoria and into south-east South Australia.

That taxon is now broken up into the following species:

N. bougainvillii is confined to the Adelaide Hills area and nearby elevated parts of South-east South Australia;

N. hoserae sp. nov. is from the Eyre Peninsula in South Australia;

N. tasmaniensis sp. nov. is from north-east Tasmania and immediately adjacent islands to the north;

N. insularis sp. nov. is from Kangaroo Island in South Australia;

N. martinekae sp. nov. is from southern Victoria between about Bairnsdale in the east and the northern slopes of the Otways in the west;

N. absconditus sp. nov. is from the arid zone south of the Murray River near the Victorian and South Australian border;

N. cassandrae Wells and Wellington, 1984 is mainly from the western slopes of the Great Dividing Range of central New South Wales, with an eastern infusion along the Hunter Valley and;

N. cassandrae divergens subsp. nov. is from the New England region and hillier areas to the west in north-west New South Wales.

The preceding seven species are all divergent from one another by an estimated 2.5 or more MYA based on the published evidence of Fairbairn, Shine, Moritz and Frommer (1998).

There is no comparative molecular evidence for the form *N. cassandrae divergens* subsp. nov..

The eight preceding taxa are separated from one another by the following unique combinations of characters:

N. bougainvillii has an average of 22 midbody rows; 17-18 subdigital lamellae; 69-78 paravertebrals; 4 rows of well defined small to tiny dark blackish spots running longitudinally down the back of the generally light brown body; lower parts and posterior of the tail are often orange or orangeish in colour. Adult females average 54.5 mm in snout-vent length and adult males 48.5 mm.

N. hoserae sp. nov. has an average of 20-21 midbody rows; 17-19 subdigital lamellae; 69-78 paravertebrals; spots on the back of the dorsum if present are brown, not black or blackish in colour and when present are elongate (longitudinal) and well separated. Lower parts of the tail are yellowish and the dorsum is generally a greyish-brown colour. Adult females average 57.5 mm in snout-vent length and adult males 50.3 mm.

N. tasmaniensis sp. nov. has an average of 20-22 midbody rows; 17-18 subdigital lamellae; 70-80 paravertebrals; spots on the back are elongate, black and somewhat irregularly shaped. Lower parts of the tail and distal end are whitish-cream in colour.

The dorsum is medium brown in colour. Heavy black spotting on the white lower flanks is often joined to form lines. Adult females average 68.5 mm in snout-vent length and adult males 59.2 mm making this by far the largest species in the complex.

N. insularis sp. nov. has an average of 21-22 midbody rows; 17-19 subdigital lamellae; 66-79 paravertebrals; spots on the back of the dorsum are either absent or if present, usually only in the middle two rows, where they are tiny, indistinct and blackish in colour. There are only scattered black spots on the white lower flanks. Lower surfaces of the tail are a pale yellowish-orange colour. The dorsum is light brown in colour. Adult females average 58.7 mm in snout-vent length and adult males 47.9 mm.

N. martinekae sp. nov. has an average of 20-22 midbody rows; 17-20 subdigital lamellae; 66-79 paravertebrals; spots on the back of the dorsum are either absent or if present, are distinct in the middle two rows, where they are tiny, and the lines of blackish spots are broken, while on the two side rows, they spotting is blurred and less distinct. There is greyish peppering as opposed to black spots on the pale surfaces of the lower flanks. Lower surfaces of the tail are either whitish, brown or sometimes yellow. The dorsum is a very light brown in colour. This species is characterised further by significant dark spotting on the crown of the upper surface of the head. Adult females average 56.4 mm in snout-vent length and adult males 48.6 mm.

N. absconditus sp. nov. has an average of 20-22 midbody rows; 16-18 subdigital lamellae; 65-77 paravertebrals. Spots on the dorsum along the two midline sets are so prominent as to be joined to form relatively thick lines running down the dorsum. The side rows are only generally visible at the level of the front legs and are absent on the dorsum posterior to this. The upper surfaces of the tail in this species are unusual in that the colouration is one of a dark brownish background with light grey spotting. The dorsum itself is a dark greyish-brown colour. The lighter lower surfaces of the flanks have the outer surfaces of the scales etched dark brown, but there are no black spots or marks on an otherwise white or whitish background. Lower surfaces of the tail are usually whitish. As for *N. martinekae* sp. nov., this species is characterised further by significant dark spotting on the crown of the upper surface of the head, in this case generally merging to form large blotches and areas of dark. Adult females average 59.5 mm in snout-vent length and adult males 50.1 mm. *N. cassandrae* has an average of 20 midbody rows; 16-18 subdigital lamellae; 67-77 paravertebrals.

Adult females average 47.5 mm in snout-vent length and adult males 44.8 mm making this species, including the associated form *N. cassandrae divergens* subsp. nov. by far the smallest species in the complex. The dorsal base colour is silver-grey or greyish-brown, with the lower surfaces and distal part of the tail usually russet-red or bright orange and usually speckled with darker brown.

There are usually a few tiny dark flecks only on the head and these are indistinct. Rarely are there lines of spots running down the dorsum and is present, they are tiny and indistinct.

The whitish lower flanks are generally immaculate anteriorly and irregularly spotted black posteriorly.

N. cassandrae divergens subsp. nov. is similar in most respects to *N. cassandrae cassandrae* of the type form just described, but is separated from it by complete black barring of the white upper labials, versus incomplete black barring in *N. cassandrae cassandrae* of the type form; less and smaller amounts of black spotting on the white surfaces of the rear lower flanks and two rows of semi-distinct blackish spots running down either side of the mid-dorsal line.

All the preceding species and subspecies forming the entirety of the *N. bougainvillii* complex are separated from all other species within *Nodorha* Mittleman, 1952 and *Lerista* Bell, 1833 *sensu lato* by the following unique combination of characters: Forelimbs and hindlimbs present and all pentadactyle; three supraoculars; five supraclaviculars and the hindlimb is shorter than the distance from the snout to forelimb.

Species within *Lerista* Bell, 1833 *sensu lato* are separated from all other Australasian skinks by the following unique combination of characters: Parietal shields in contact behind the interparietal; lower eyelid with a transparent disc and either movable or fused to form a permanent spectacle; limbs short and separated by at least several scale lengths when adpressed; ear opening small, minute or hidden; supranasals absent; nasals enlarged, undivided and usually in contact medially.

The preceding description was derived from inspection of specimens and the accounts of Wells (2012), Cogger (2014) and Fairbairn, Shine, Moritz and Frommer (1998).

N. bougainvillii in life is depicted in Wilson and Swan (2021) on page 359 centre left and online at:

<https://www.inaturalist.org/observations/116044074>

N. hoserae sp. nov. in life is depicted online at:

<https://www.inaturalist.org/observations/2392168>

and

<https://www.inaturalist.org/observations/72242636>

N. tasmaniensis sp. nov. in life is depicted online at:

<https://www.inaturalist.org/observations/96864514>

N. insularis sp. nov. in life is depicted online at:

<https://www.inaturalist.org/observations/129802509>

N. martinekae sp. nov. in life is depicted online at:

<https://www.inaturalist.org/observations/138344709>

and

<https://www.inaturalist.org/observations/143329609>

and

<https://www.inaturalist.org/observations/143315333>

N. absconditus sp. nov. in life is depicted online at:

<https://www.inaturalist.org/observations/15715785>

and

<https://www.flickr.com/photos/bassia09/8752272908/>

and

<https://www.flickr.com/photos/126237772@N07/18003872523/>

and

<https://www.flickr.com/photos/126237772@N07/18440600370/>

N. cassandrae in life is depicted in Hoser (1989) on page 104 at top, Swan, Sadlier and Shea (2022) on page 104 at top.

N. cassandrae divergens subsp. nov. in life is depicted online at:

<https://www.inaturalist.org/observations/93144635>

Distribution: *N. tasmaniensis* sp. nov. occurs from north-east Tasmania and includes the immediately adjacent islands to the north in Bass Strait.

Etymology: *N. tasmaniensis* sp. nov. is named in reflection of where the taxon occurs.

NODORHA INSULARIS SP. NOV.

LSIDurn:lsid:zoobank.org:act:8783CE62-9319-424C-8C41-FD58D2B90F8E

Holotype: A preserved specimen at the South Australian Museum, Adelaide South Australia, Australia, specimen number R37430 collected from 12 km east of Karatta, Kangaroo Island, South Australia, Australia, Latitude -35.9917 S., Longitude 137.025 E. This government-owned facility allows access to its holdings.

Paratype: A preserved specimen at the South Australian Museum, Adelaide South Australia, Australia, specimen number R37417 collected from 11 km south-east of Karatta, Kangaroo Island, South Australia, Australia, Latitude -36.0067 S., Longitude 137.0183 E.

Diagnosis: Until now, *Nodorha bougainvillii* (Gray, 1839) has been treated as a single wide-ranging species of small burrowing skink with a distribution extending from northern New South Wales along an arc through Victoria and into south-east South Australia.

That taxon is now broken up into the following species:

N. bougainvillii is confined to the Adelaide Hills area and nearby

elevated parts of South-east South Australia;

N. hoserae sp. nov. is from the Eyre Peninsula in South Australia;

N. tasmaniensis sp. nov. is from north-east Tasmania and immediately adjacent islands to the north;

N. insularis sp. nov. is from Kangaroo Island in South Australia;

N. martinekae sp. nov. is from southern Victoria between about Bairnsdale in the east and the northern slopes of the Otways in the west;

N. absconditus sp. nov. is from the arid zone south of the Murray River near the Victorian and South Australian border;

N. cassandrae Wells and Wellington, 1984 is mainly from the western slopes of the Great Dividing Range of central New South Wales, with an eastern infusion along the Hunter Valley and;

N. cassandrae divergens subsp. nov. is from the New England region and hillier areas to the west in north-west New South Wales.

The preceding seven species are all divergent from one another by an estimated 2.5 or more MYA based on the published evidence of Fairbairn, Shine, Moritz and Frommer (1998).

There is no comparative molecular evidence for the form *N. cassandrae divergens* subsp. nov.

The eight preceding taxa are separated from one another by the following unique combinations of characters:

N. bougainvillii has an average of 22 midbody rows; 17-18 subdigital lamellae; 69-78 paravertebrals; 4 rows of well defined small to tiny dark blackish spots running longitudinally down the back of the generally light brown body; lower parts and posterior of the tail are often orange or orangeish in colour. Adult females average 54.5 mm in snout-vent length and adult males 48.5 mm.

N. hoserae sp. nov. has an average of 20-21 midbody rows; 17-19 subdigital lamellae; 69-78 paravertebrals; spots on the back of the dorsum if present are brown, not black or blackish in colour and when present are elongate (longitudinal) and well separated. Lower parts of the tail are yellowish and the dorsum is generally a greyish-brown colour. Adult females average 57.5 mm in snout-vent length and adult males 50.3 mm.

N. tasmaniensis sp. nov. has an average of 20-22 midbody rows; 17-18 subdigital lamellae; 70-80 paravertebrals; spots on the back are elongate, black and somewhat irregularly shaped. Lower parts of the tail and distal end are whitish-cream in colour. The dorsum is medium brown in colour. Heavy black spotting on the white lower flanks is often joined to form lines. Adult females average 68.5 mm in snout-vent length and adult males 59.2 mm making this by far the largest species in the complex.

N. insularis sp. nov. has an average of 21-22 midbody rows; 17-19 subdigital lamellae; 66-79 paravertebrals; spots on the back of the dorsum are either absent or if present, usually only in the middle two rows, where they are tiny, indistinct and blackish in colour. There are only scattered black spots on the white lower flanks. Lower surfaces of the tail are a pale yellowish-orange colour. The dorsum is light brown in colour. Adult females average 58.7 mm in snout-vent length and adult males 47.9 mm.

N. martinekae sp. nov. has an average of 20-22 midbody rows; 17-20 subdigital lamellae; 66-79 paravertebrals; spots on the back of the dorsum are either absent or if present, are distinct in the middle two rows, where they are tiny, and the lines of blackish spots are broken, while on the two side rows, they spotting is blurred and less distinct. There is greyish peppering as opposed to black spots on the pale surfaces of the lower flanks. Lower surfaces of the tail are either whitish, brown or sometimes yellow. The dorsum is a very light brown in colour. This species is characterised further by significant dark spotting on the crown of the upper surface of the head. Adult females average 56.4 mm in snout-vent length and adult males 48.6 mm.

N. absconditus sp. nov. has an average of 20-22 midbody rows; 16-18 subdigital lamellae; 65-77 paravertebrals. Spots on the dorsum along the two midline sets are so prominent as to be joined to form relatively thick lines running down the dorsum. The side rows are only generally visible at the level of the

front legs and are absent on the dorsum posterior to this. The upper surfaces of the tail in this species are unusual in that the colouration is one of a dark brownish background with light grey spotting. The dorsum itself is a dark greyish-brown colour. The lighter lower surfaces of the flanks have the outer surfaces of the scales etched dark brown, but there are no black spots or marks on an otherwise white or whitish background. Lower surfaces of the tail are usually whitish. As for *N. martinekae* sp. nov., this species is characterised further by significant dark spotting on the crown of the upper surface of the head, in this case generally merging to form large blotches and areas of dark. Adult females average 59.5 mm in snout-vent length and adult males 50.1 mm. *N. cassandrae* has an average of 20 midbody rows; 16-18 subdigital lamellae; 67-77 paravertebrals.

Adult females average 47.5 mm in snout-vent length and adult males 44.8 mm making this species, including the associated form *N. cassandrae divergens* subsp. nov. by far the smallest species in the complex. The dorsal base colour is silver-grey or greyish-brown, with the lower surfaces and distal part of the tail usually russet-red or bright orange and usually speckled with darker brown.

There are usually a few tiny dark flecks only on the head and these are indistinct. Rarely are there lines of spots running down the dorsum and is present, they are tiny and indistinct.

The whitish lower flanks are generally immaculate anteriorly and irregularly spotted black posteriorly.

N. cassandrae divergens subsp. nov. is similar in most respects to *N. cassandrae cassandrae* of the type form just described, but is separated from it by complete black barring of the white upper labials, versus incomplete black barring in *N. cassandrae cassandrae* of the type form; less and smaller amounts of black spotting on the white surfaces of the rear lower flanks and two rows of semi-distinct blackish spots running down either side of the mid-dorsal line.

All the preceding species and subspecies forming the entirety of the *N. bougainvillii* complex are separated from all other species within *Nodorha* Mittleman, 1952 and *Lerista* Bell, 1833 *sensu lato* by the following unique combination of characters: Forelimbs and hindlimbs present and all pentadactyle; three supraoculars; five supraciliaries and the hindlimb is shorter than the distance from the snout to forelimb.

Species within *Lerista* Bell, 1833 *sensu lato* are separated from all other Australasian skinks by the following unique combination of characters: Parietal shields in contact behind the interparietal; lower eyelid with a transparent disc and either movable or fused to form a permanent spectacle; limbs short and separated by at least several scale lengths when adpressed; ear opening small, minute or hidden; supranasals absent; nasals enlarged, undivided and usually in contact medially.

The preceding description was derived from inspection of specimens and the accounts of Wells (2012), Cogger (2014) and Fairbairn, Shine, Moritz and Frommer (1998).

N. bougainvillii in life is depicted in Wilson and Swan (2021) on page 359 centre left and online at:

<https://www.inaturalist.org/observations/116044074>

N. hoserae sp. nov. in life is depicted online at:

<https://www.inaturalist.org/observations/2392168>

and

<https://www.inaturalist.org/observations/72242636>

N. tasmaniensis sp. nov. in life is depicted online at:

<https://www.inaturalist.org/observations/96864514>

N. insularis sp. nov. in life is depicted online at:

<https://www.inaturalist.org/observations/129802509>

N. martinekae sp. nov. in life is depicted online at:

<https://www.inaturalist.org/observations/138344709>

and

<https://www.inaturalist.org/observations/143329609>

and

<https://www.inaturalist.org/observations/143315333>

N. absconditus sp. nov. in life is depicted online at:

<https://www.inaturalist.org/observations/15715785>

and

<https://www.flickr.com/photos/bassia09/8752272908/>

and

<https://www.flickr.com/photos/126237772@N07/18003872523/>

and

<https://www.flickr.com/photos/126237772@N07/18440600370/>

N. cassandrae in life is depicted in Hoser (1989) on page 104 at top, Swan, Sadler and Shea (2022) on page 104 at top.

N. cassandrae divergens subsp. nov. in life is depicted online at: <https://www.inaturalist.org/observations/93144635>

Distribution: *N. insularis* sp. nov. occurs only on Kangaroo Island, South Australia, Australia.

Etymology: *N. insularis* sp. nov. is named in reflection of the fact that it appears to be an insular island restricted taxon.

NODORHA MARTINEKAE SP. NOV.

LSIDurn:lsid:zoobank.org:pub:767CCB97-FEAD-477F-8075-48FD290D06D6

Holotype: A preserved specimen at the National Museum of Victoria, Melbourne, Victoria, Australia, specimen number D62024 collected from 4 km south, south-west of Woodside East, Victoria, Australia, Latitude -38.57 S., Longitude 146.85 E. This government-owned facility allows access to its holdings.

Paratypes: Two preserved specimens at the National Museum of Victoria, Melbourne, Victoria, Australia, specimen number D62025-6 collected from 4 km south, south-west of Woodside East, Victoria, Australia, Latitude -38.57 S., Longitude 146.85 E.

Diagnosis: Until now, *Nodorha bougainvillii* (Gray, 1839) has been treated as a single wide-ranging species of small burrowing skink with a distribution extending from northern New South Wales along an arc through Victoria and into south-east South Australia.

That taxon is now broken up into the following species:

N. bougainvillii is confined to the Adelaide Hills area and nearby elevated parts of South-east South Australia;

N. hoserae sp. nov. is from the Eyre Peninsula in South Australia;

N. tasmaniensis sp. nov. is from north-east Tasmania and immediately adjacent islands to the east;

N. insularis sp. nov. is from Kangaroo Island in South Australia;

N. martinekae sp. nov. is from southern Victoria between about Bairnsdale in the east and the northern slopes of the Otways in the west;

N. absconditus sp. nov. is from the arid zone south of the Murray River near the Victorian and South Australian border;

N. cassandrae Wells and Wellington, 1984 is mainly from the western slopes of the Great Dividing Range of central New South Wales, with an eastern infusion along the Hunter Valley and;

N. cassandrae divergens subsp. nov. is from the New England region and hillier areas to the west in north-west New South Wales.

The preceding seven species are all divergent from one another by an estimated 2.5 or more MYA based on the published evidence of Fairbairn, Shine, Moritz and Frommer (1998).

There is no comparative molecular evidence for the form *N. cassandrae divergens* subsp. nov..

The eight preceding taxa are separated from one another by the following unique combinations of characters:

N. bougainvillii has an average of 22 midbody rows; 17-18 subdigital lamellae; 69-78 paravertebrals; 4 rows of well defined small to tiny dark blackish spots running longitudinally down the back of the generally light brown body; lower parts and posterior of the tail are often orange or orangeish in colour. Adult females average 54.5 mm in snout-vent length and adult males 48.5 mm.

N. hoserae sp. nov. has an average of 20-21 midbody rows; 17-

19 subdigital lamellae; 69-78 paravertebrals; spots on the back of the dorsum if present are brown, not black or blackish in colour and when present are elongate (longitudinal) and well separated. Lower parts of the tail are yellowish and the dorsum is generally a greyish-brown colour. Adult females average 57.5 mm in snout-vent length and adult males 50.3 mm.

N. tasmaniensis sp. nov. has an average of 20-22 midbody rows; 17-18 subdigital lamellae; 70-80 paravertebrals; spots on the back are elongate, black and somewhat irregularly shaped. Lower parts of the tail and distal end are whitish-cream in colour. The dorsum is medium brown in colour. Heavy black spotting on the white lower flanks is often joined to form lines. Adult females average 68.5 mm in snout-vent length and adult males 59.2 mm making this by far the largest species in the complex.

N. insularis sp. nov. has an average of 21-22 midbody rows; 17-19 subdigital lamellae; 66-79 paravertebrals; spots on the back of the dorsum are either absent or if present, usually only in the middle two rows, where they are tiny, indistinct and blackish in colour. There are only scattered black spots on the white lower flanks. Lower surfaces of the tail are a pale yellowish-orange colour. The dorsum is light brown in colour. Adult females average 58.7 mm in snout-vent length and adult males 47.9 mm.

N. martinekae sp. nov. has an average of 20-22 midbody rows; 17-20 subdigital lamellae; 66-79 paravertebrals; spots on the back of the dorsum are either absent or if present, are distinct in the middle two rows, where they are tiny, and the lines of blackish spots are broken, while on the two side rows, they spotting is blurred and less distinct. There is greyish peppering as opposed to black spots on the pale surfaces of the lower flanks. Lower surfaces of the tail are either whitish, brown or sometimes yellow. The dorsum is a very light brown in colour. This species is characterised further by significant dark spotting on the crown of the upper surface of the head. Adult females average 56.4 mm in snout-vent length and adult males 48.6 mm.

N. absconditus sp. nov. has an average of 20-22 midbody rows; 16-18 subdigital lamellae; 65-77 paravertebrals. Spots on the dorsum along the two midline sets are so prominent as to be joined to form relatively thick lines running down the dorsum. The side rows are only generally visible at the level of the front legs and are absent on the dorsum posterior to this. The upper surfaces of the tail in this species are unusual in that the colouration is one of a dark brownish background with light grey spotting. The dorsum itself is a dark greyish-brown colour. The lighter lower surfaces of the flanks have the outer surfaces of the scales etched dark brown, but there are no black spots or marks on an otherwise white or whitish background. Lower surfaces of the tail are usually whitish. As for *N. martinekae* sp. nov., this species is characterised further by significant dark spotting on the crown of the upper surface of the head, in this case generally merging to form large blotches and areas of dark. Adult females average 59.5 mm in snout-vent length and adult males 50.1 mm.

N. cassandrae has an average of 20 midbody rows; 16-18 subdigital lamellae; 67-77 paravertebrals.

Adult females average 47.5 mm in snout-vent length and adult males 44.8 mm making this species, including the associated form *N. cassandrae divergens* subsp. nov. by far the smallest species in the complex. The dorsal base colour is silver-grey or greyish-brown, with the lower surfaces and distal part of the tail usually russet-red or bright orange and usually speckled with darker brown.

There are usually a few tiny dark flecks only on the head and these are indistinct. Rarely are there lines of spots running down the dorsum and if present, they are tiny and indistinct.

The whitish lower flanks are generally immaculate anteriorly and irregularly spotted black posteriorly.

N. cassandrae divergens subsp. nov. is similar in most respects to *N. cassandrae cassandrae* of the type form just described, but is separated from it by complete black barring on the white upper labials, versus incomplete black barring in *N. cassandrae cassandrae* of the type form; less and smaller amounts of black

spotting on the white surfaces of the rear lower flanks and two rows of semi-distinct blackish spots running down either side of the mid-dorsal line.

All the preceding species and subspecies forming the entirety of the *N. bougainvillii* complex are separated from all other species within *Nodorha* Mittleman, 1952 and *Lerista* Bell, 1833 *sensu lato* by the following unique combination of characters: Forelimbs and hindlimbs present and all pentadactyle; three supraoculars; five supraciliaries and the hindlimb is shorter than the distance from the snout to forelimb.

Species within *Lerista* Bell, 1833 *sensu lato* are separated from all other Australasian skinks by the following unique combination of characters: Parietal shields in contact behind the interparietal; lower eyelid with a transparent disc and either movable or fused to form a permanent spectacle; limbs short and separated by at least several scale lengths when adpressed; ear opening small, minute or hidden; supranasals absent; nasals enlarged, undivided and usually in contact medially.

The preceding description was derived from inspection of specimens and the accounts of Wells (2012), Cogger (2014) and Fairbairn, Shine, Moritz and Frommer (1998).

N. bougainvillii in life is depicted in Wilson and Swan (2021) on page 359 centre left and online at:

<https://www.inaturalist.org/observations/116044074>

N. hoserae sp. nov. in life is depicted online at:

<https://www.inaturalist.org/observations/2392168>

and

<https://www.inaturalist.org/observations/72242636>

N. tasmaniensis sp. nov. in life is depicted online at:

<https://www.inaturalist.org/observations/96864514>

N. insularis sp. nov. in life is depicted online at:

<https://www.inaturalist.org/observations/129802509>

N. martinekae sp. nov. in life is depicted online at:

<https://www.inaturalist.org/observations/138344709>

and

<https://www.inaturalist.org/observations/143329609>

and

<https://www.inaturalist.org/observations/143315333>

N. absconditus sp. nov. in life is depicted online at:

<https://www.inaturalist.org/observations/15715785>

and

<https://www.flickr.com/photos/bassia09/8752272908/>

and

<https://www.flickr.com/photos/126237772@N07/18003872523/>

and

<https://www.flickr.com/photos/126237772@N07/18440600370/>

N. cassandrae in life is depicted in Hoser (1989) on page 104 at top, Swan, Sadler and Shea (2022) on page 104 at top.

N. cassandrae divergens subsp. nov. in life is depicted online at: <https://www.inaturalist.org/observations/93144635>

Distribution: *N. martinekae* sp. nov. occurs in southern Victoria between about Bairnsdale in the east and the northern slopes of the Otways in the west.

Etymology: *N. martinekae* sp. nov. is named in honour of Maryann Martinek of Bendigo, Victoria, Australia in recognition of her significant contributions to exposing scams in the so-called wildlife conservation business. For further details refer to Hoser (2010).

NODORHA ABSCONDITUS SP. NOV.

LSIDDurn:lsid:zoobank.org:act:66B7651D-AADD-498B-8787-351D1B495140

Holotype: A preserved specimen at the South Australian Museum, Adelaide South Australia, Australia, specimen number R37508 collected from 5 km west of Alawoona, South Australia, Australia, Latitude -34.75 S., Longitude 140.45 E.

This government-owned facility allows access to its holdings.

Paratypes: Two preserved specimens at the South Australian Museum, Adelaide South Australia, Australia, specimen numbers R37509 and R37510 collected from 9.5 km north of Alawoona, South Australia, Australia, Latitude 34.67 S., Longitude 140.52 E.

Diagnosis: Until now, *Nodorha bougainvillii* (Gray, 1839) has been treated as a single wide-ranging species of small burrowing skink with a distribution extending from northern New South Wales along an arc through Victoria and into south-east South Australia.

That taxon is now broken up into the following species:

N. bougainvillii is confined to the Adelaide Hills area and nearby elevated parts of South-east South Australia;

N. hoserae sp. nov. is from the Eyre Peninsula in South Australia;

N. tasmaniensis sp. nov. is from north-east Tasmania and immediately adjacent islands to the north;

N. insularis sp. nov. is from Kangaroo Island in South Australia;

N. martinekae sp. nov. is from southern Victoria between about Bairnsdale in the east and the northern slopes of the Otways in the west;

N. absconditus sp. nov. is from the arid zone south of the Murray River near the Victorian and South Australian border;

N. cassandrae Wells and Wellington, 1984 is mainly from the western slopes of the Great Dividing Range of central New South Wales, with an eastern infusion along the Hunter Valley and;

N. cassandrae divergens subsp. nov. is from the New England region and hillier areas to the west in north-west New South Wales.

The preceding seven species are all divergent from one another by an estimated 2.5 or more MYA based on the published evidence of Fairbairn, Shine, Moritz and Frommer (1998).

There is no comparative molecular evidence for the form *N. cassandrae divergens* subsp. nov..

The eight preceding taxa are separated from one another by the following unique combinations of characters:

N. bougainvillii has an average of 22 midbody rows; 17-18 subdigital lamellae; 69-78 paravertebrals; 4 rows of well defined small to tiny dark blackish spots running longitudinally down the back of the generally light brown body; lower parts and posterior of the tail are often orange or orangeish in colour. Adult females average 54.5 mm in snout-vent length and adult males 48.5 mm.

N. hoserae sp. nov. has an average of 20-21 midbody rows; 17-19 subdigital lamellae; 69-78 paravertebrals; spots on the back of the dorsum if present are brown, not black or blackish in colour and when present are elongate (longitudinal) and well separated. Lower parts of the tail are yellowish and the dorsum is generally a greyish-brown colour. Adult females average 57.5 mm in snout-vent length and adult males 50.3 mm.

N. tasmaniensis sp. nov. has an average of 20-22 midbody rows; 17-18 subdigital lamellae; 70-80 paravertebrals; spots on the back are elongate, black and somewhat irregularly shaped. Lower parts of the tail and distal end are whitish-cream in colour. The dorsum is medium brown in colour. Heavy black spotting on the white lower flanks is often joined to form lines. Adult females average 68.5 mm in snout-vent length and adult males 59.2 mm making this by far the largest species in the complex.

N. insularis sp. nov. has an average of 21-22 midbody rows; 17-19 subdigital lamellae; 66-79 paravertebrals; spots on the back of the dorsum are either absent or if present, usually only in the middle two rows, where they are tiny, indistinct and blackish in colour. There are only scattered black spots on the white lower flanks. Lower surfaces of the tail are a pale yellowish-orange colour. The dorsum is light brown in colour. Adult females average 58.7 mm in snout-vent length and adult males 47.9 mm.

N. martinekae sp. nov. has an average of 20-22 midbody rows; 17-20 subdigital lamellae; 66-79 paravertebrals; spots on the back of the dorsum are either absent or if present, are distinct in the middle two rows, where they are tiny, and the lines of blackish spots are broken, while on the two side rows, they

spotting is blurred and less distinct. There is greyish peppering as opposed to black spots on the pale surfaces of the lower flanks. Lower surfaces of the tail are either whitish, brown or sometimes yellow. The dorsum is a very light brown in colour. This species is characterised further by significant dark spotting on the crown of the upper surface of the head. Adult females average 56.4 mm in snout-vent length and adult males 48.6 mm.

N. absconditus sp. nov. has an average of 20-22 midbody rows; 16-18 subdigital lamellae; 65-77 paravertebrals. Spots on the dorsum along the two midline sets are so prominent as to be joined to form relatively thick lines running down the dorsum.

The side rows are only generally visible at the level of the front legs and are absent on the dorsum posterior to this. The upper surfaces of the tail in this species are unusual in that the colouration is one of a dark brownish background with light grey spotting. The dorsum itself is a dark greyish-brown colour. The lighter lower surfaces of the flanks have the outer surfaces of the scales etched dark brown, but there are no black spots or marks on an otherwise white or whitish background. Lower surfaces of the tail are usually whitish. As for *N. martinekae* sp. nov., this species is characterised further by significant dark spotting on the crown of the upper surface of the head, in this case generally merging to form large blotches and areas of dark. Adult females average 59.5 mm in snout-vent length and adult males 50.1 mm.

N. cassandrae has an average of 20 midbody rows; 16-18 subdigital lamellae; 67-77 paravertebrals.

Adult females average 47.5 mm in snout-vent length and adult males 44.8 mm making this species, including the associated form *N. cassandrae divergens* subsp. nov. by far the smallest species in the complex. The dorsal base colour is silver-grey or greyish-brown, with the lower surfaces and distal part of the tail usually russet-red or bright orange and usually speckled with darker brown.

There are usually a few tiny dark flecks only on the head and these are indistinct. Rarely are there lines of spots running down the dorsum and is present, they are tiny and indistinct.

The whitish lower flanks are generally immaculate anteriorly and irregularly spotted black posteriorly.

N. cassandrae divergens subsp. nov. is similar in most respects to *N. cassandrae cassandrae* of the type form just described, but is separated from it by complete black barring of the white upper labials, versus incomplete black barring in *N. cassandrae cassandrae* of the type form; less and smaller amounts of black spotting on the white surfaces of the rear lower flanks and two rows of semi-distinct blackish spots running down either side of the mid-dorsal line.

All the preceding species and subspecies forming the entirety of the *N. bougainvillii* complex are separated from all other species within *Nodorha* Mittleman, 1952 and *Lerista* Bell, 1833 *sensu lato* by the following unique combination of characters: Forelimbs and hindlimbs present and all pentadactyle; three supraoculars; five supraciliaries and the hindlimb is shorter than the distance from the snout to forelimb.

Species within *Lerista* Bell, 1833 *sensu lato* are separated from all other Australasian skinks by the following unique combination of characters: Parietal shields in contact behind the interparietal; lower eyelid with a transparent disc and either movable or fused to form a permanent spectacle; limbs short and separated by at least several scale lengths when adpressed; ear opening small, minute or hidden; supranasals absent; nasals enlarged, undivided and usually in contact medially.

The preceding description was derived from inspection of specimens and the accounts of Wells (2012), Cogger (2014) and Fairbairn, Shine, Moritz and Frommer (1998).

N. bougainvillii in life is depicted in Wilson and Swan (2021) on page 359 centre left and online at:

<https://www.inaturalist.org/observations/116044074>

N. hoserae sp. nov. in life is depicted online at:

<https://www.inaturalist.org/observations/2392168>

and

<https://www.inaturalist.org/observations/72242636>

N. tasmaniensis sp. nov. in life is depicted online at:

<https://www.inaturalist.org/observations/96864514>

N. insularis sp. nov. in life is depicted online at:

<https://www.inaturalist.org/observations/129802509>

N. martinekae sp. nov. in life is depicted online at:

<https://www.inaturalist.org/observations/138344709>

and

<https://www.inaturalist.org/observations/143329609>

and

<https://www.inaturalist.org/observations/143315333>

N. absconditus sp. nov. in life is depicted online at:

<https://www.inaturalist.org/observations/15715785>

and

<https://www.flickr.com/photos/bassia09/8752272908/>

and

<https://www.flickr.com/photos/126237772@N07/18003872523/>

and

<https://www.flickr.com/photos/126237772@N07/18440600370/>

N. cassandrae in life is depicted in Hoser (1989) on page 104 at top, Swan, Sadler and Shea (2022) on page 104 at top.

N. cassandrae divergens subsp. nov. in life is depicted online at: <https://www.inaturalist.org/observations/93144635>

Distribution: *N. absconditus* sp. nov. occurs in the arid zone south of the Murray River near the Victorian and South Australian border on both sides of the border.

Etymology: *N. absconditus* sp. nov. is named in reflection of the fact that the taxon has been hidden from science until now and yet is found relatively near to two major urban areas in Australia, being Adelaide and Melbourne.

NODORHA CASSANDRAE DIVERGANS SUBSP. NOV.

LSIDDurn:lsid:zoobank.org:act:EA03678F-62AE-4CA4-8D98-A2171571CDC4

Holotype: A preserved specimen at the Australian Museum, Sydney, New South Wales, Australia, specimen number R.161730 collected from Mt. Kaputar National Park (Nandewar Survey Site No. Nba4.21 - Mid Slope), New South Wales, Australia, Latitude -30.36055 S., Longitude 150.15805 E.

This facility allows access to its holdings.

Paratype: A preserved specimen at the Australian Museum, Sydney, New South Wales, Australia, specimen number R.156055 collected from Moema State Forest, East of Bellata, New South Wales, Australia, Latitude -30.05 S., Longitude 149.9411 E.

Diagnosis: Until now, *Nodorha bougainvillii* (Gray, 1839) has been treated as a single wide-ranging species of small burrowing skink with a distribution extending from northern New South Wales along an arc through Victoria and into south-east South Australia.

That taxon is now broken up into the following species:

N. bougainvillii is confined to the Adelaide Hills area and nearby elevated parts of South-east South Australia;

N. hoserae sp. nov. is from the Eyre Peninsula in South Australia;

N. tasmaniensis sp. nov. is from north-east Tasmania and immediately adjacent islands to the north;

N. insularis sp. nov. is from Kangaroo Island in South Australia;

N. martinekae sp. nov. is from southern Victoria between about Bairnsdale in the east and the northern slopes of the Otways in the west;

N. absconditus sp. nov. is from the arid zone south of the Murray River near the Victorian and South Australian border;

N. cassandrae Wells and Wellington, 1984 is mainly from the western slopes of the Great Dividing Range of central New South Wales, with an eastern infusion along the Hunter Valley and;

N. cassandrae divergens subsp. nov. is from the New England region and hillier areas to the west in north-west New South Wales.

The preceding seven species are all divergent from one another by an estimated 2.5 or more MYA based on the published evidence of Fairbairn, Shine, Moritz and Frommer (1998).

There is no comparative molecular evidence for the form *N. cassandrae divergens* subsp. nov..

The eight preceding taxa are separated from one another by the following unique combinations of characters:

N. bougainvillii has an average of 22 midbody rows; 17-18 subdigital lamellae; 69-78 paravertebrals; 4 rows of well defined small to tiny dark blackish spots running longitudinally down the back of the generally light brown body; lower parts and posterior of the tail are often orange or orangeish in colour. Adult females average 54.5 mm in snout-vent length and adult males 48.5 mm.

N. hoserae sp. nov. has an average of 20-21 midbody rows; 17-19 subdigital lamellae; 69-78 paravertebrals; spots on the back of the dorsum if present are brown, not black or blackish in colour and when present are elongate (longitudinal) and well separated. Lower parts of the tail are yellowish and the dorsum is generally a greyish-brown colour. Adult females average 57.5 mm in snout-vent length and adult males 50.3 mm.

N. tasmaniensis sp. nov. has an average of 20-22 midbody rows; 17-18 subdigital lamellae; 70-80 paravertebrals; spots on the back are elongate, black and somewhat irregularly shaped. Lower parts of the tail and distal end are whitish-cream in colour. The dorsum is medium brown in colour. Heavy black spotting on the white lower flanks is often joined to form lines. Adult females average 68.5 mm in snout-vent length and adult males 59.2 mm making this by far the largest species in the complex.

N. insularis sp. nov. has an average of 21-22 midbody rows; 17-19 subdigital lamellae; 66-79 paravertebrals; spots on the back of the dorsum are either absent or if present, usually only in the middle two rows, where they are tiny, indistinct and blackish in colour. There are only scattered black spots on the white lower flanks. Lower surfaces of the tail are a pale yellowish-orange colour. The dorsum is light brown in colour. Adult females average 58.7 mm in snout-vent length and adult males 47.9 mm.

N. martinekae sp. nov. has an average of 20-22 midbody rows; 17-20 subdigital lamellae; 66-79 paravertebrals; spots on the back of the dorsum are either absent or if present, are distinct in the middle two rows, where they are tiny, and the lines of blackish spots are broken, while on the two side rows, they spotting is blurred and less distinct. There is greyish peppering as opposed to black spots on the pale surfaces of the lower flanks. Lower surfaces of the tail are either whitish, brown or sometimes yellow. The dorsum is a very light brown in colour. This species is characterised further by significant dark spotting on the crown of the upper surface of the head. Adult females average 56.4 mm in snout-vent length and adult males 48.6 mm.

N. absconditus sp. nov. has an average of 20-22 midbody rows; 16-18 subdigital lamellae; 65-77 paravertebrals. Spots on the dorsum along the two midline sets are so prominent as to be joined to form relatively thick lines running down the dorsum.

The side rows are only generally visible at the level of the front legs and are absent on the dorsum posterior to this. The upper surfaces of the tail in this species are unusual in that the colouration is one of a dark brownish background with light grey spotting. The dorsum itself is a dark greyish-brown colour. The lighter lower surfaces of the flanks have the outer surfaces of the scales etched dark brown, but there are no black spots or marks on an otherwise white or whitish background. Lower surfaces of the tail are usually whitish. As for *N. martinekae* sp. nov., this species is characterised further by significant dark spotting on the crown of the upper surface of the head, in this case generally merging to form large blotches and areas of dark. Adult females average 59.5 mm in snout-vent length and adult males 50.1 mm.

N. cassandrae has an average of 20 midbody rows; 16-18 subdigital lamellae; 67-77 paravertebrals.

Adult females average 47.5 mm in snout-vent length and adult males 44.8 mm making this species, including the associated form *N. cassandrae divergens subsp. nov.* by far the smallest species in the complex. The dorsal base colour is silver-grey or greyish-brown, with the lower surfaces and distal part of the tail usually russet-red or bright orange and usually speckled with darker brown.

There are usually a few tiny dark flecks only on the head and these are indistinct. Rarely are there lines of spots running down the dorsum and is present, they are tiny and indistinct.

The whitish lower flanks are generally immaculate anteriorly and irregularly spotted black posteriorly.

N. cassandrae divergens subsp. nov. is similar in most respects to *N. cassandrae cassandrae* of the type form just described, but is separated from it by complete black barring of the white upper labials, versus incomplete black barring in *N. cassandrae cassandrae* of the type form; less and smaller amounts of black spotting on the white surfaces of the rear lower flanks and two rows of semi-distinct blackish spots running down either side of the mid-dorsal line.

All the preceding species and subspecies forming the entirety of the *N. bougainvillii* complex are separated from all other species within *Nodorha* Mittleman, 1952 and *Lerista* Bell, 1833 *sensu lato* by the following unique combination of characters: Forelimbs and hindlimbs present and all pentadactyle; three supraoculars; five supraciliaries and the hindlimb is shorter than the distance from the snout to forelimb.

Species within *Lerista* Bell, 1833 *sensu lato* are separated from all other Australasian skinks by the following unique combination of characters: Parietal shields in contact behind the interparietal; lower eyelid with a transparent disc and either movable or fused to form a permanent spectacle; limbs short and separated by at least several scale lengths when adpressed; ear opening small, minute or hidden; supranasals absent; nasals enlarged, undivided and usually in contact medially.

The preceding description was derived from inspection of specimens and the accounts of Wells (2012), Cogger (2014) and Fairbairn, Shine, Moritz and Frommer (1998).

N. bougainvillii in life is depicted in Wilson and Swan (2021) on page 359 centre left and online at:

<https://www.inaturalist.org/observations/116044074>

N. hoseri sp. nov. in life is depicted online at:

<https://www.inaturalist.org/observations/2392168>

and

<https://www.inaturalist.org/observations/72242636>

N. tasmaniensis sp. nov. in life is depicted online at:

<https://www.inaturalist.org/observations/96864514>

N. insularis sp. nov. in life is depicted online at:

<https://www.inaturalist.org/observations/129802509>

N. martinekae sp. nov. in life is depicted online at:

<https://www.inaturalist.org/observations/138344709>

and

<https://www.inaturalist.org/observations/143329609>

and

<https://www.inaturalist.org/observations/143315333>

N. absconditus sp. nov. in life is depicted online at:

<https://www.inaturalist.org/observations/15715785>

and

<https://www.flickr.com/photos/bassia09/8752272908/>

and

<https://www.flickr.com/photos/126237772@N07/18003872523/>

and

<https://www.flickr.com/photos/126237772@N07/18440600370/>

N. cassandrae in life is depicted in Hoser (1989) on page 104 at top, Swan, Sadler and Shea (2022) on page 104 at top.

N. cassandrae divergens subsp. nov. in life is depicted online at: <https://www.inaturalist.org/observations/93144635>

Distribution: *N. cassandrae divergens subsp. nov.* is found in the western part of the New England region and hillier areas to the west in north-west New South Wales, including nearby sandy flatter areas that are elevated above the black soil areas dominating further west.

Etymology: *N. cassandrae divergens subsp. nov.* is named in reflection of the fact that the taxon has diverged from the species *N. cassandrae*.

REFERENCES CITED

- Bell, T. 1833. [Descriptions of] two reptiles [and] the types of two genera hitherto undescribed. Characters of two new genera of reptiles. *Proceedings of the Zoological Society of London* 1833:98-99.
- Ceraico, L. M. P., Aesch, E., Ah Yong, S. T., Ballerio, A., Bouchard, P., Bourgoïn, T., Dmitriev, D., Evenhius, N., Grygier, M. J., Harvey, M. S., Kottelat, M., Kluge, N., Krell, F. T., Kojima, J., Kullander, S. O., Lucinda, P., Lyal, C. H. C., Pyle, R. L., Rheindt, F. E., Scioscia, C. L., Welter-Schultes, F., Whitmore, D., Yanega, D., Zhang, Z. Q., Zhou, H. Z. and Pape, T. (being a unanimous voice of the ICZN) 2023. Renaming taxa on ethical grounds threatens nomenclatural stability and scientific communication. *Zoological Journal of the Linnean Society*, 197, 283-286.
- Cogger, H. G. 2014. *Reptiles and Amphibians of Australia* (Seventh edition), CSIRO. Sydney, Australia:1064 pp.
- Cogger, H. G., Cameron, E. E. and Cogger, H. M. 1983. *Zoological Catalogue of Australia (1): Amphibia and Reptilia*. AGPS, Canberra, ACT, Australia:313 pp.
- Cotton, T. 2014. Comments on *Spracklandus* Hoser, 2009 (Reptilia, Serpentes, Elapidae): request for confirmation of the availability of the generic name and for the nomenclatural validation of the journal in which it was published (Case 3601; see BZN 70: 234-237, 71: 30-38; 133-135). *Bulletin of Zoological Nomenclature* 71(3):181-182.
- Dubois, A., Bauer, A. M., Ceraico, L. M. P., Dusouler, F., Fretey, T., Lobl, I., Lorvelec, O., Ohler, A., Stopiglia, R. and Aesch, E. 2019. The Linz Zoocode project: a set of new proposals regarding the terminology, the Principles and Rules of zoological nomenclature. First report of activities (2014-2019). *Bionomina*, 17:1-111.
- Duméril, A. M. C. and Bibron, G. 1839. *Erpétologie Générale ou Histoire Naturelle Complète des Reptiles*. Vol. 5. Roret/Fain et Thunot, Paris, France:871 pp.
- Fairbairn, J., Shine, R., Moritz, C. and Frommer, M. 1998. Phylogenetic Relationships between Oviparous and Viviparous Populations of an Australian Lizard (*Lerista bougainvillii*, Scincidae). *Molecular Phylogenetics and Evolution* 10(1):95-103.
- Gray, J. E. 1839. Catalogue of the slender-tongued saurians, with descriptions of many new genera and species. *Annals and Magazine of Natural History* 2(11):331-337.
- Greer, A. E. 1967. A new generic arrangement for some Australian scincid lizards. *Breviora* (267):1-19.
- Greer, A. E. 1990. Limb reduction in the scincid lizard genus *Lerista*. 2. Variation in the bone complements of the front and rear limbs and the number of postsacral vertebrae. *Journal of Herpetology* 24(2):142-150.
- Günther, A. 1867. Additions to the knowledge of Australian reptiles and fishes. *Annals and Magazine of natural history* (3)20:45-57.
- Hammer, T. A. and Thiele, K. R. 2021. Proposals to amend Articles 51 and 56 and Division III, to allow the rejection of culturally offensive and inappropriate names. *Taxon* 70(6):1392-1394.
- Hawkeswood, T. J. 2021. Time to end taxonomic vandalism by Wolfgang Wüster *et al.*: The Snakeman, Raymond Hoser's publications are validly published and his names available according to the ICZN: Objective investigation finds Hoser's taxonomic works as scientific best practice and in every relevant

- case identifies valid entities. *Calodema* 860:1-59.
- Hoser, R. T. 1989. *Australian Reptiles and Frogs*. Pierson and Co., Mosman, NSW, 2088, Australia:238 pp.
- Hoser, R. T. 1991. *Endangered animals of Australia*. Pierson Publishing, Moss Vale, NSW, Australia:240 pp.
- Hoser, R. T. 1993. *Smuggled: The Underground Trade in Australia's Wildlife*. Apollo Books, Moss Vale, NSW, Australia:160 pp.
- Hoser, R. T. 1996. *Smuggled-2: Wildlife trafficking, crime and corruption in Australia*. Kotabi Publishing, Doncaster, Victoria, 3108, Australia:280 pp.
- Hoser, R. T. 2007a. Wells and Wellington - It's time to bury the hatchet. *Calodema* Supplementary Paper 1:1-9.
- Hoser, R. T. 2009. Creationism and contrived science: A review of recent python systematics papers and the resolution of issues of taxonomy and nomenclature. *Australasian Journal of Herpetology* 2:1-34. (3 February).
- Hoser, R. T.; 2010. Sam the scam: Sam the Koala is an imposter! *Australasian Journal of Herpetology* 8:1-64.
- Hoser, R. T. 2012a. Exposing a fraud! *Afronaja* Wallach, Wüster and Broadley 2009, is a junior synonym of *Spracklandus* Hoser 2009! *Australasian Journal of Herpetology* 9 (3 April 2012):1-64.
- Hoser, R. T. 2012b. Robust taxonomy and nomenclature based on good science escapes harsh fact-based criticism, but remains unable to escape an attack of lies and deception. *Australasian Journal of Herpetology* 14:37-64.
- Hoser, R. T. 2013. The science of herpetology is built on evidence, ethics, quality publications and strict compliance with the rules of nomenclature. *Australasian Journal of Herpetology* 18:2-79.
- Hoser, R. T. 2015a. Dealing with the "truth haters" ... a summary! Introduction to Issues 25 and 26 of *Australasian Journal of Herpetology*. Including "A timeline of relevant key publishing and other events relevant to Wolfgang Wüster and his gang of thieves." and a "Synonyms list". *Australasian Journal of Herpetology* 25:3-13.
- Hoser, R. T. 2015b. The Wüster gang and their proposed "Taxon Filter": How they are knowingly publishing false information, recklessly engaging in taxonomic vandalism and directly attacking the rules and stability of zoological nomenclature. *Australasian Journal of Herpetology* 25:14-38.
- Hoser, R. T. 2015c. Best Practices in herpetology: Hinrich Kaiser's claims are unsubstantiated. *Australasian Journal of Herpetology* 25:39-64.
- Hoser, R. T. 2015d. PRINO (Peer reviewed in name only) journals: When quality control in scientific publications fails. *Australasian Journal of Herpetology* 26:3-64.
- Hoser, R. T. 2015e. Rhodin *et al.* 2015, Yet more lies, misrepresentations and falsehoods by a band of thieves intent on stealing credit for the scientific works of others. *Australasian Journal of Herpetology* 27:3-36.
- Hoser, R. T. 2015f. Comments on *Spracklandus* Hoser, 2009 (Reptilia, Serpentes, ELAPIDAE): request for confirmation of the availability of the generic name and for the nomenclatural validation of the journal in which it was published (Case 3601; see *BZN* 70: 234-237; comments *BZN* 71:30-38, 133-135). *Australasian Journal of Herpetology* 27:37-54.
- Hoser, R. T. 2019a. 11 new species, 4 new subspecies and a subgenus of Australian Dragon Lizard in the genus *Tympanocryptis* Peters, 1863, with a warning on the conservation status and long-term survival prospects of some newly named taxa. *Australasian Journal of Herpetology* 39:23-52.
- Hoser, R. T. 2019b. Richard Shine *et al.* (1987), Hinrich Kaiser *et al.* (2013), Jane Melville *et al.* (2018 and 2019): Australian Agamids and how rule breakers, liars, thieves, taxonomic vandals and law breaking copyright infringers are causing reptile species to become extinct. *Australasian Journal of Herpetology* 39:53-63.
- Hoser, R. T. 2020. 3 new tribes, 3 new subtribes, 5 new genera, 3 new subgenera, 39 new species and 11 new subspecies of mainly small ground-dwelling frogs from Australia. *Australasian Journal of Herpetology* 50-51: 1-128.
- Hugi, J., Hutchinson, M. N., Koyabu, D. and Sánchez-Villagra, M. R. 2012. Heterochronic shifts in the ossification sequences of surface- and subsurface-dwelling skinks are correlated with the degree of limb reduction. *Zoology* 115(3):188-198.
- International Commission of Zoological Nomenclature (ICZN) 1991b. Decision of the commission. Three works by Richard W. Wells and C. Ross Wellington: proposed suppression for nomenclatural purposes. *Bulletin of Zoological Nomenclature* 48(4):337-338.
- International Commission of Zoological Nomenclature (ICZN) 2001. Opinion 1970. *Bulletin of Zoological Nomenclature* 58(1):74, (30 March 2001).
- International Commission of Zoological Nomenclature (ICZN) 2012. Amendment of Articles 8, 9, 10, 21 and 78 of the *International Code of Zoological Nomenclature* to expand and refine methods of publication. *Zootaxa* (PRINO) (Online) 3450:1-7.
- International Commission of Zoological Nomenclature (ICZN) 2021. Opinion 2468 (Case 3601) - *Spracklandus* Hoser, 2009 (Reptilia, Serpentes, Elapidae) and *Australasian Journal of Herpetology* issues 1-24: confirmation of availability declined; Appendix A (Code of Ethics): not adopted as a formal criterion for ruling on Cases. *Bulletin of Zoological Nomenclature* 78 (30 April 2021):42-45.
- Kaiser, H. 2012a. SPAM email sent out to numerous recipients on 5 June 2012.
- Kaiser, H. 2012b. Point of view. Hate article sent as attachment with SPAM email sent out on 5 June 2012.
- Kaiser, H. 2013. The Taxon Filter, a novel mechanism designed to facilitate the relationship between taxonomy and nomenclature, vis-à-vis the utility of the Code's Article 81 (the Commission's plenary power). *Bulletin of Zoological Nomenclature* 70(4) December 2013:293-302.
- Kaiser, H. 2014a. Comments on *Spracklandus* Hoser, 2009 (Reptilia, Serpentes, Elapidae): request for confirmation of the availability of the generic name and for the nomenclatural validation of the journal in which it was published. *Bulletin of Zoological Nomenclature*, 71(1):30-35.
- Kaiser, H. 2014b. Best Practices in Herpetological Taxonomy: Errata and Addenda. *Herpetological Review*, 45(2):257-268.
- Kaiser, H., Crother, B. L., Kelly, C. M. R., Luiselli, L., O'Shea, M., Ota, H., Passos, P., Schleip, W. D. and Wüster, W. 2013. Best practices: In the 21st Century, Taxonomic Decisions in Herpetology are Acceptable Only When supported by a body of Evidence and Published via Peer-Review. *Herpetological Review* 44(1):8-23.
- Lucas, A. H. S. and Frost, C. 1894. The lizards indigenous to Victoria. *Proceedings of the Royal Society of Victoria* (New series) 6:24-92.
- Metcalfe, D. C. and Peterson, M. 2007. *Lerista bougainvillii* (Bougainville's Skink): predation, diurnal activity. *Herpetological Bulletin* 102:40.
- Mittleman, M. B. 1952. A generic synopsis of the lizards of the subfamily Lygosominae. *Smithsonian Miscellaneous Collections* 117(17):1-35.
- Mosyakin, S. L. 2022. If "Rhodes-" must fall, who shall fall next? *Taxon* 71:49-255.
- Pyron, R. A., Burbrink, F. T. and Weins, J. J. 2013. A phylogeny and revised classification of Squamata, including 4161 species of lizards and snakes. *BMC Evol. Biol.* 13, 93. Published online at: <http://www.biomedcentral.com/1471-2148/13/93>.
- Qualls, C. P. 1997. The Effects of Reproductive Mode and Climate on Reproductive Success in the Australian Lizard, *Lerista bougainvillii*. *Journal of Herpetology* 31(1):60-65.

Qualls, C. P. and Shine, R. 1998. *Lerista bougainvillii*, a case study for the evolution of viviparity in reptiles. *Journal of evolutionary biology* 11:63-78.

Qualls, F. J., Shine, R., Donnellan, S. and Hutchison, M. 1995. The evolution of viviparity within the Australian scincid lizard *Lerista bougainvillii*. *Journal of Zoology* 237:13-26.

Reeder, T. W. 2003. A phylogeny of the Australian *Sphenomorphus* group (Scincidae: Squamata) and the phylogenetic placement of the crocodile skinks (*Tribolonotus*): Bayesian approaches to assessing congruence and obtaining confidence in maximum likelihood inferred relationships. *Molecular Phylogenetics and Evolution* 27:384-397.

Rhodin, A. *et al.* (70 listed authors, with some later publishing that they had never read the document they allegedly co-authored) 2015. Comment on *Spracklandus* Hoser, 2009 (Reptilia, Serpentes, Elapidae): request for confirmation of the availability of the generic name and for the nomenclatural validation of the journal in which it was published (Case 3601; see *BZN* 70: 234-237; 71: 30-38, 133-135, 181-182, 252-253). *Bulletin of Zoological Nomenclature* 72(1)65-78.

Ride, W. D. L. (ed.) *et al.* (on behalf of the International Commission on Zoological Nomenclature) 1999. *International code of Zoological Nomenclature*. The Natural History Museum - Cromwell Road, London SW7 5BD, UK (also commonly cited as "The Rules", "Zoological Rules" or "ICZN 1999").

Skinner, A., Lee, M. S. Y. and Hutchinson, M. N. 2008. Rapid and repeated limb loss in a clade of scincid lizards. *BMC Evolutionary Biology* 8:310:9 pp.

Smith, M. A. 1937. A review of the genus *Lygosoma* (Scincidae: Reptilia) and its allies. *Records of the Indian Museum* 39(3):213-234.

Swan, G., Sadler, R. and Shea, G. 2022. *A field guide to reptiles of New South Wales*. Reed New Holland, Chatswood, NSW, Australia:336 pp.

Thiele, K. R., Oliver, P. M., Bauer, A. M., Doughty, P., Kraus, F., Rix, M. G. and Kaiser, H. 2020. Case 3824 - A special proposal to suppress certain names under the plenary powers of the Commission. *Bulletin of Zoological Nomenclature* 77:78 (title only). The full submission to the ICZN was sent out as a SPAM email to thousands of recipients, is a rambling 71 page pdf and is widely available online.

Turner, G. S. 2017. Notes on the natural history of Bougainville's Skink '*Lerista bougainvillii*' from basalt plains grasslands near Melbourne. *Victorian Naturalist* 134(3):64-75.

Wellington, R. W. 2015. Comment on the proposed confirmation of the availability of the generic name *Spracklandus* Hoser, 2009 (Reptilia, Serpentes, Elapidae) and for the nomenclatural validation of the journal in which it was published. *Bulletin of Zoological Nomenclature* 72(3):222-226.

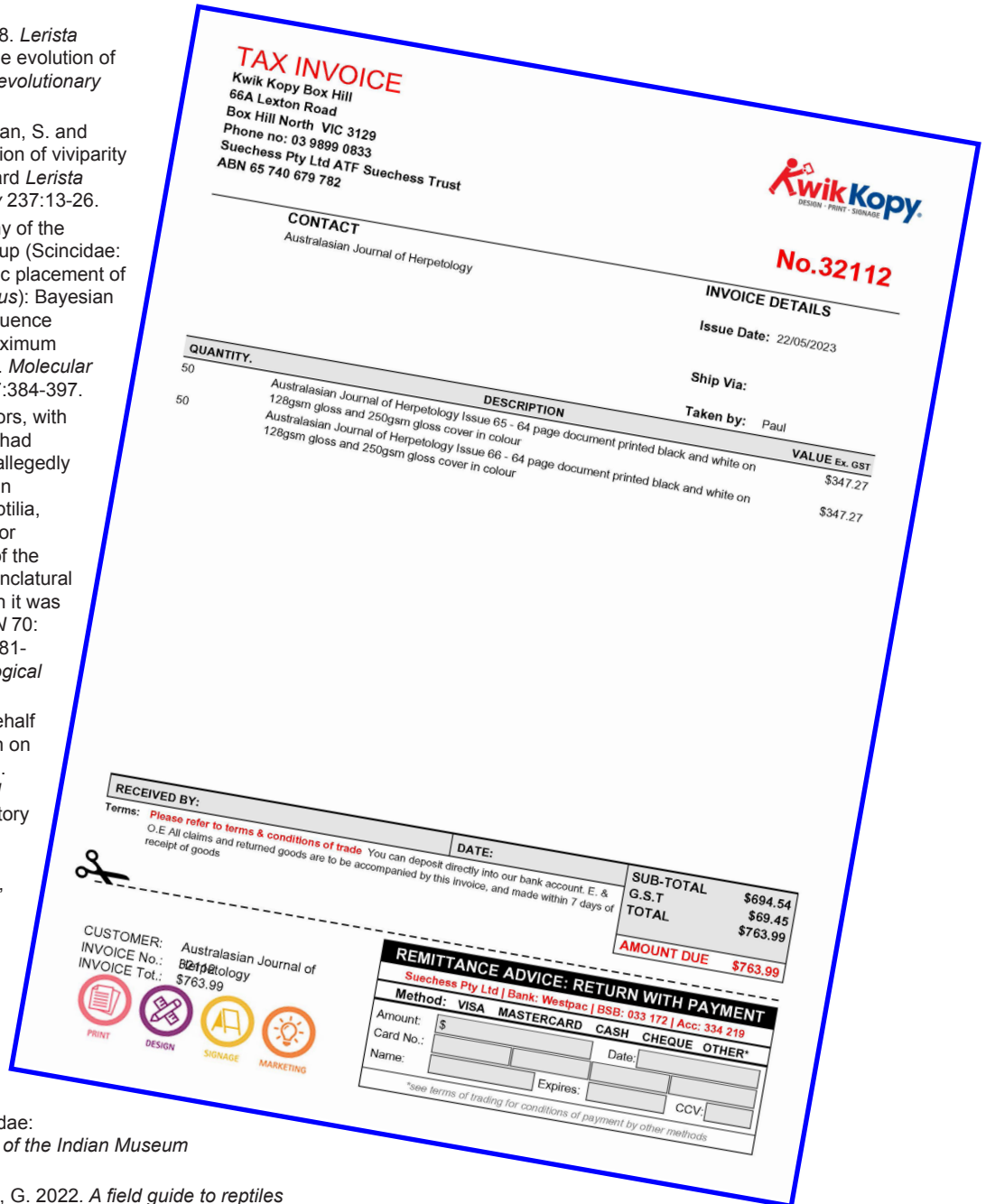
Wells, R. W. and Wellington, C. R. 1984. A synopsis of the class Reptilia in Australia. *Australian Journal of Herpetology* 1(3-4):73-129.

Wells, R. W. and Wellington, C. R. 1985. A classification of the Amphibia and Reptilia of Australia. *Australian Journal of Herpetology Supplementary Series* 1:1-61.

Wilson, S. and Swan, G. 2021. *A complete guide to reptiles of Australia*. (Sixth edition), Reed / New Holland, Sydney, Australia:688 pages.

CONFLICT OF INTEREST

None.



Hoser 2023 - Australasian Journal of Herpetology 65:51-63.

Australasian Journal of Herpetology

Issue 64, 9 August 2023



ISSN 1836-5698 (Print)
ISSN 1836-5779 (Online)