

Twelve new species and four new subspecies within the Australian skink genus *Menetia* Gray, 1845, *sensu-lato.*

LSIDURN:LSID:ZOOBANK.ORG:PUB:BE40D53B-97E6-4B2B-B5C4-6ED95BD68C77

RAYMOND T. HOSER

LSIDurn:Isid: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 20 August 2023, Accepted 30 August 2023, Published 12 February 2024.

ABSTRACT

An ongoing audit of the Australian herpetofauna has confirmed the existence of some obviously unnamed forms within the putative genus *Menetia* Gray, 1845, *sensu-lato*.

Rather than risk these taxa expiring through benign neglect, they are formally identified and named herein. The relevant taxonomic and nomenclatural actions are as follows:

The genus Menetia (sensu Wilson and Swan, 2021) is divided into three divergent subgenera.

One includes the species *Menetia maini* Storr, 1976, *Menetia surda* Storr, 1976 and newly named forms that have until now been treated as within one of these species. This action is supported by an estimated divergence between the relevant two groups of species being more than 10 MYA.

Three new subspecies of *M. surda* are formally named for the first time.

M. maini Storr, 1976 is split into six species, with four formally named for the first time.

The other newly named subgenus includes *M. alanae* Rankin, 1979 and *M. concinna* Sadlier, 1984.

Menetia greyii Gray, 1845 is divided into multiple species. Three, including the nominate form from Western

Australia already have available names and the other new forms are formally named for the first time.

Adams et al. (2003) recorded that some of the relevant forms "are distinct biological and evolutionary

species" and yet more than 20 years later they have remained unnamed.

A divergent population of *Pygmaescincus timlowi* (Ingram, 1977) from the NSW / Qld border area is formally named as a new subspecies *Pygmaescincus timlowi geynyon subsp. nov.*.

This species was transferred out of *Menetia* to the newly erected *Pygmaescincus* Couper and Hoskin, 2015 as a type species for the new genus on the basis of significant divergence from the type species within *Menetia*.

Some of the preceding named divergent forms have been conservatively named herein as subspecies in the absence of molecular confirmation of timeline of divergence.

While in no way repairing the ongoing multi-generational damages perpetrated by British invaders on the original Aboriginal inhabitants of Australia caused by the heinous crimes of the past, this paper continues previous actions by myself in that a number of etymologies for newly named taxa honour the original

Aboriginal inhabitants of Australia.

Keywords: Taxonomy; nomenclature; Australia; skink; lizard; *Menetia; Pygmaescincus; timlowi; greyii; maini; surda; microscincus, reidi, zynja;* new subgenus; *Pertenuisscincus; Ignobilisscincus;* new species; *admodumparva; perexiguus; perpusillus; pertenuis; tanyadayae; kullilli; bibbulmun; dhuae; dungayi; langdoni; anindilyakwa; yidinji;* new subspecies; *perparvus; praemitis; facileoccultatur; geynyon.*

INTRODUCTION

An ongoing audit of the Australian herpetofauna has confirmed the existence of some obviously unnamed species within the putative genus *Menetia* Gray, 1845, *sensu-lato*.

Rather than risk these taxa expiring through benign neglect, it was decided that it was expedient to have them formally

identified and named. This has been done as required within this paper in accordance with the rules of the International Code of Zoological Nomenclature (Ride *et al.* 1999).

MATERIALS AND METHODS

Gene sequences with Genbank were checked to see if any sequences attributed to given putative species flagged one or

more potential species. That is, were they sufficiently divergent? These were then cross-checked against known populations of the same species to see if there were morphologically divergent forms that corresponded to potentially unnamed species.

This was done by inspecting specimens of each putative species from the relevant parts of their ranges, including all areas they were known to occur.

These newly identified forms were then checked against various synonyms lists (e.g. Cogger *et al.* 1983, Wells and Wellington 1984 and 1985), as well as against more recently named species within *Menetia* or the associated genus *Pygmaescincus* Couper and Hoskin, 2015, to confirm that they were in fact unnamed species or subspecies.

A number of species identified did already have available names or had been recently named by others and for the purpose of this paper, those ones have been ignored, unless relevant to those that are named herein.

There is nothing to be gained by breaching Copyright laws, such as the *Australian Copyright Act* (1968) or the *International Code of Zoological Nomenclature* (Ride *et al.* 1999) by renaming species already formally named.

Relevant references to the audit of the genus *Menetia sensu lato*, confirmation of the relevant hitherto unnamed forms and the taxonomic and nomenclatural decisions within this paper were the following:

Adams *et al.* (2003), Aplin and Adams (1998), Aplin and Smith (2001), Bush (1981), Cogger (2014), Cogger *et al.* (1983), Couper and Hoskin (2014), Covacevich *et al.* (1988), Duméril and Bibron (1839), Ford (1963), Gray (1845), Greer (1974, 1991, 2001), Horner (1992), Hoser (2018), How *et al.* (2020), Ingram (1977), Ingram and Covacevich (1988), Maryan *et al.* (2002), McCooey (1895), Peterson *et al.* (2018), Pianka (1969, 2011), Rankin (1979), Ride *et al.* (1995), Sadlier (1984), Smyth and Smith (1974), Storr (1976, 1978), Storr, Smith and Johnstone (1981), Swan *et al.* (2022), Wells and Wellington (1984, 1985), Wilson (2022), Wilson and Knowles (1988), Wilson and Swan (2021), and sources cited therein.

RESULTS

The relevant newly named forms in accordance with the rules of the *International Code of Zoological Nomenclature* (Ride *et al.* 1999) as amended (ICZN 2012) are as follows:

The genus *Menetia* (*sensu* Wilson and Swan, 2021) is divided into three divergent subgenera.

One includes the species *Menetia maini* Storr, 1976, *Menetia surda* Storr, 1976 and newly named forms that have until now been treated as within one of these species.

This action is supported by an estimated divergence between the two groups of species being more than 10 MYA (Chapple *et al.* 2013).

Three new allopatric subspecies of *M. surda* are formally named for the first time.

They were originally identified by Storr in 1976, again by Aplin and Adams (1998) and quite surprisingly remain unnamed to the date of preparing this paper in 2023.

M. maini Storr, 1976 is split into six species, with four formally named for the first time.

The six regionally allopatric forms are morphologically divergent from one another.

Furthermore, they are rock-dwelling or rock associated taxa, separated from one another by known biogeographic barriers of known antiquity, giving rise to the concept that all are well separated from one another and evolving as separate species.

The intervening areas between populations are either of unsuitable habitat or not inhabited habitat and/or occupied by one or more species that preclude the newly divided putative taxon or taxa from occupying the relevant areas.

The other newly named subgenus includes *M. alanae* Rankin, 1979 and *M. concinna* Sadlier, 1984.

Menetia greyii Gray, 1845 is divided into species. Three,

including the nominate form from Western Australia already have available names and the other new forms are formally named for the first time.

Regional variation in this wide-ranging putative taxon has been known for many years and phylogenetic studies have also identified a number of different lineages within the "species". Taxonomic recognition of these entities is inevitable and so has been done herein.

Adams *et al.* (2003) recorded that some of the relevant forms *"are distinct biological and evolutionary species"* and yet 20 years later they have remained unnamed.

The following important points in relation to *M. greyii* are noted. The type locality is given as "Western Australia" and that is a very big place.

As a result it has been problematic for anyone to name new forms in the complex due to uncertainty as to the provenance of the type material.

Storr designated a lectotype in 1976 and inspection of this material has confirmed it matches specimens from the general region of Mount Magnet / Yalgoo in appearance and morphology, which in turn is the main form of the species throughout most of the southern two thirds of Western Australia.

Another form from near Dubbo in western New South Wales was named by McCooey in 1895 as *Menetia reidi*, thereby making that name available for the eastern Australian population.

That form in turn occurs throughout the Murray/Darling basin and proximal parts of southern Queensland.

With two forms in the complex having been named and these at the eastern and western extremities of the distribution, the small diminutive size of the lizards and other "more interesting" things to look at, it is not surprising that the *M. greyii* complex has been largely neglected by Australian herpetologists for most of the last 100 years.

Wells and Wellington (1985) followed on from relevant comments by Storr (1976) and named the divergent form from the cooler parts of South Australia as *M. microscincus.*

That this taxon requires some form of taxonomic recognition was confirmed by Adams *et al.* (2003), in their molecular results.

However these authors, in particular co-authors Mark Hutchinson and Steven Donnellan are sworn enemies of Richard Wells and Ross Wellington and would rather walk on hot coals than recognize any works of Wells and Wellington.

As a result, neither name, *M. reidi* or *M. microscincus* have appeared in the herpetological literature as valid species since being formally introduced by their relevant authors.

However, both forms are clearly valid species, as are others in the complex and so these and the newly named ones herein are recognized as valid.

The phylogeny of Adams *et al.* (2003) indicated that at least four forms in South Australia appeared to represent valid and distinct species.

One of these carried into New South Wales and western Victoria and has been tentatively assigned to *M. reidi*. Only one of the others appears to have a distribution range approaching Western Australia, but this conforms to the Centralian form from the central Australian deserts and ranges, including deserts to the north, identified by having 20 midbody rows, a brown body with scattered dark spots on the back and a greyish tail, which is quite divergent from the type form from inland western Western Australia, (22 midbody rows and different colouration) and so cannot be assigned to any named species. The same applies for a third form from the mid north of and far north-east of South Australia and nearby south-west Queensland, similar to the Centralian form and largely corresponding to the Lake Eyre basin, but with three times as many dark spots on the dorsum, these forming rows, as well as a thinner dark stripe on the neck and flank, being medium in thickness rather than wide. Both these taxa are formally named for the first time as new species.

Available online at www.herp.net Copyright- Kotabi Publishing - All rights reserved

Other divergent forms formally named for the first time as new diagnosable species within the *M. greyii* complex are the following:

3/ A relatively dark form from Perth and environs, West Australia, with 22-24 midbody rows.

4/ A white spotted or cream spotted form from Shark Bay, Western Australia, with 22 midbody rows.

 $5/\,A$ reddish form from the east Pilbara, Western Australia with 22 midbody rows.

6/ A form with 22 midbody rows, a very light dorsum, thick black stripe on the flank and scattered large spots on the back from Kakadu and nearby parts of the Northern Territory,

7/ A form similar to the preceding Kakadu-type form, but with 20 mid-body rows, a thinner black stripe on the flank, less distinct than seen in the Kakadu-type form and endemic to Groote Eylandt, Northern Territory,

8/ A form with a thin white line on the far lower flank from far north-east Queensland, west of the Great Dividing Range also with 22 midbody rows.

A divergent population of *Pygmaescincus timlowi* (Ingram, 1977) from the NSW / Qld border area is formally named as a new subspecies.

This species was transferred out of *Menetia* to the newly erected *Pygmaescincus* Couper and Hoskin, 2015 as a type species for the new genus on the basis of significant divergence from the type species within *Menetia*.

Some of the preceding named divergent forms have been conservatively named herein as subspecies in the absence of molecular confirmation of depth of divergence. Further studies may warrant elevation to full species.

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.

Material downloaded from the internet and cited anywhere in this paper was downloaded and checked most recently as of 28 August 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. It should be noted that in skinks in particular, juveniles can often appear quite different in colour to mature adults, as can be each sex in adults, including within some of the species described herein.

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.

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.

Displacement of small skink species by one or more others is ongoing in Australia and has evidently accelerated since European invasion in the 1700's. A few so-called "weedy species" have expanded in number and distributions, usually at the corresponding expense of more specialized forms.

The conservation implications of this phenomenon is effectively

unrecognized in Australian herpetology, even though alluded to as far back as 1991 by Hoser (1991).

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. Dubois *et al.* 2019 and Ceriaco *et al.* 2023).

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, (2007, 2009a, 2012a-b, 2013, 2015a-f, 2019a-b), 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).

In terms of the conservation of the relevant taxa formally dealt with in this paper, as well as extinction threats, none are believed to be under immediate threat of extinction or even decline. However most have not been studied in any meaningful way, so should be deemed "insufficiently known" to make any realistic conservation assessment at the present time.

Therefore the relevant comments of Hoser (1989, 1991, 1993, 1996, 2007, 2019a, 2019b) all apply.

PERTENUISSCINCUS SUBGEN. NOV.

LSIDurn:Isid:zoobank.org:act:0C9AB302-DA0F-41C0-A460-2B4E1A8F6ECE

Type species: Menetia surda Storr, 1976.

Diagnosis: Until now, the seven species (four formally named in this paper) within the subgenus *Pertenuisscincus subgen. nov.* have been treated as ordinary members of the genus *Menetia* Gray, 1845, type species *Menetia greyii* Gray, 1845 by all publishing Australian herpetologists.

However the species within the subgenus *Pertenuisscincus subgen. nov.* are a morphologically divergent species group, sympatric to the other species and warrant subgenus-level recognition at least.

Chapple *et al.* (2023) also found a divergence between the two groups of over 10 MYA (see Fig. 2. on page 186), supporting the preceding contention.

Species within *Pertenuisscincus subgen. nov.* are separated from those within the nominate subgenus *Menetia* Gray, 1845 and the subgenus *Ignobilisscincus subgen. nov.* as diagnosed in this paper, by the fact that the second supraciliary is either smaller than, or roughly the same size as the first and does not contact the prefrontal. The first supraciliary and first supracular are in contact. There is one presubocular, versus 2 in some of the other species.

In the subgenus *Menetia* Gray, 1845, the second supraciliary is much larger than the first, it contacts the prefrontal and separates the first supraciliary from the first supracular.

The two species within the other subgenus *Ignobilisscincus subgen. nov.* are separated from other species within *Menetia*, including within the subgenus *Pertenuisscincus subgen. nov.* by the following unique combination of characters: the presence of two presuboculars; the second supraciliary is much larger than the first, it contacts the prefrontal and separates the first supraciliary from the first supraocular.

Skinks within the genus *Menetia* Gray, 1845 are separated from all other Australian skinks by the following unique combination of characters: Tiny lizards, characterised by short limbs that fail to overlap by at least several rows when adpressed; fingers four and toes five; no supranasals; parietal shields are in contact behind the interparietal and usually fused to it; prefrontals are large and usually narrowly separated, but sometimes in contact; lower eyelid immovable, fixed above to form a permanent transparent spectacle; ear opening is small but distinct (absent in some members of the subgenus *Pertenuisscincus subgen. nov.*); preanals are slightly enlarged (modified from Cogger 2014). The placement of the species associated with *M. maini* Storr, 1976 into this new subgenus is tentative.

Distribution: Broadly including the drier parts of tropical Australia, excluding eastern Queensland and including the

Pilbara region. **Etymology:** The subgenus name "*Pertenuisscincus*" comes from the Latin word "*pertenuis*" which means "very thin" in reference to the tiny and diminutive form of the species in the subgenus, which is then used as a prefix to the word "*scincus*" which obviously describes the lizard as a skink.

Content: *M.* (*Pertenuisscincus*) *surda* Storr, 1976 (including subspecies) (type species); *M.* (*Pertenuisscincus*) *admodumparva sp. nov.; M.* (*Pertenuisscincus*) *maini* Storr, 1976; *M.* (*Pertenuisscincus*) *perexiguus sp. nov.; M.* (*Pertenuisscincus*) *perpusillus sp. nov.; Menetia* (*Pertenuisscincus*) *pertenuis sp. nov.; M.* (*Pertenuisscincus*) *zynja* Ingram, 1977.

IGNOBILISSCINCUS SUBGEN. NOV.

LSIDurn:lsid:zoobank.org:act:57DC1061-DC18-427F-8899-5B336D6D1761

Type species: Menetia alanae Rankin, 1979.

Diagnosis: Until now *Menetia alanae* Rankin, 1979 and *M. concinna* Sadlier, 1984 have been treated as divergent members of the genus *Menetia* Gray, 1845, with a type species of *M. greyii* Gray, 1845, *sensu* Wilson and Swan (2021).

However they clearly form a divergent lineage to the core group in the genus and so are formally placed within the newly named subgenus *Ignobilisscincus subgen. nov.*

The two species within *Ignobilisscincus subgen. nov.* are separated from other species within *Menetia*, including within the subgenus *Pertenuisscincus subgen. nov.* by the following unique combination of characters: the presence of two presuboculars; the second supraciliary is much larger than the first, it contacts the prefrontal and separates the first supraciliary from the first supraocular.

Species within Pertenuisscincus subgen. nov. are separated from those within the nominate subgenus Menetia Gray, 1845 and the subgenus Ignobilisscincus subgen. nov. as diagnosed in this paper, by the fact that the second supraciliary is either smaller than, or roughly the same size as the first and does not contact the prefrontal. The first supraciliary and first supraocular are in contact. In the subgenus Menetia Gray, 1845, the second supraciliary is much larger than the first, it contacts the prefrontal and separates the first supraciliary from the first supraocular. Skinks within the genus Menetia Gray, 1845 are separated from all other Australian skinks by the following unique combination of characters: Tiny lizards, characterised by short limbs that fail to overlap by at least several rows when adpressed; fingers four and toes five; no supranasals; parietal shields are in contact behind the interparietal and usually fused to it; prefrontals are large and usually narrowly separated, but sometimes in contact; lower eyelid immovable, fixed above to form a permanent transparent spectacle; ear opening is small but distinct (absent in some members of the subgenus Pertenuisscincus subgen. nov.); preanals are slightly enlarged (modified from Cogger 2014). Distribution: Only known from hillier parts of the top end of the Northern Territory, Australia.

Etymology: The first part of the subgenus name "*Ignobilis*" in Latin refers to the small and insignificant nature of this lizard, with the second part "*scincus*" referring to the type of lizard, being a skink.

Content: *Menetia* (*Ignobilisscincus*) *alanae* Rankin, 1979 (type species); *M. concinna* (*Ignobilisscincus*) Sadlier, 1984.

MENETIA (PERTENUISSCINCUS) SURDA PERPARVUS SUBSP. NOV.

LSIDurn:lsid:zoobank.org:act:6D42D325-C89F-4A47-871F-337F1DDCC8A4

Holotype: A preserved specimen at the Western Australian Museum, Perth, Western Australia, Australia, specimen number R61491 collected at the mouth of Yardie Creek, Western Australia, Australia, Latitude -22.333333 S., Longitude 113.8 E.

This government-owned facility allows access to its holdings. **Paratypes:** Eight preserved specimens at the Western Australian Museum, Perth, Western Australia, Australia, specimen numbers R61455-61462 collected at the mouth of Yardie Creek, Western Australia, Australia, Latitude -22.333333 S., Longitude 113.8 E.

Diagnosis: The west Australian taxon *Menetia surda* Storr, 1976, with a type locality of "*Budjan Creek, Corunna Downs, Western Australia, in -21.42'S, 119.50'E.*" was formally split into two subspecies by Aplin and Adams (1998), with the southernmost population, found generally in the Shark Bay region of Western Australia formally identified as *M. surda creswelli* Aplin and Adams (1998). That taxon had a type locality of "*19 km N Yuna, WA, in -28.10' S, 115.03' E.*" However their paper indicated three other allopatric subspecies, that have until now been unnamed. These are formally named herein as:

M. surda perparvus subsp. nov. from the Cape Range area of Western Australia;

M. surda praemitis subsp. nov. from Mardathuna/Kennedy Range, Western Australia;

M. surda facileoccultatur subsp. nov. from the Pilbara region of Western Australia, generally south of the Fortescue River basin. The five subspecies are separated from one another as follows: Nominate *M. surda* is, as was broadly defined by Storr (1976), separated from the other four subspecies by the following suite of characters:

A dark *Menetia* Gray, 1845 with only one supraciliary. Further distinguishable from *M. greyii* by 5 (rather than 4) small scales in outer arc between largest supraciliary and penultimate labial, lack of obvious ear aperture, and absence of lateral stripes, and from *M. greyii* by single presubocular (rather than 2), longer first supraocular, and no enlarged upper circumocular granule. This form has a well-defined dark brown stripe on the dorsolateral line on the upper flank, running from eye to hind limb, and then less distinct on the tail, bound below with white anteriorly and grey posteriorly, versus not so or barely distinct in *M. surda cresswelli*. Surda cresswelli.

(Storr's original 1976 description had errors of transcription in names that were not corrected in the final publication).

M. surda cresswelli besides being separated from *M. surda* by colour as just outlined, is also separated from *M. surda* by having a slightly smaller eye; in having fewer scales along paravertebral series; paravertebral scale series wider than more lateral scales along entire length of body (posterior paravertebrals not widened in nominate *M. surda*); claws on manus and pes shorter and recurved (essentially modified from Aplin and Adams (1998). *M. surda perparvus subsp. nov.* is in many ways intermediate in form to the two preceding subspecies and separated from both as follows:

It is relatively small, with low paravertebral counts and relatively short claws in line with *M. surda cresswelli*, however it's dorsal body pattern as more consistent with that of *M. surda surda* as described above, except that the dorsolateral line is divided in the midbody region and the dorsal colouration includes a distinct darkening along the vertebral line of moderate thickness, forming a semi-distinct line.

The posterior paravertebral scales are not widened as seen in *M* surda surda but they are broader than the second row scales as seen in *M*. surda cresswelli.

M. surda perparvus subsp. nov. has an unusually high incidence of moderate to broad contact between the prefrontal scales (38%), accentuating the trend for medial contact observed in *M.*

20

surda cresswelli.

M. surda praemitis subsp. nov. is similar in most respects to *M. surda perparvus subsp. nov.* but is separated from that subspecies by the dark brown, rather than light brownish-grey dorsum, and further by the fact that the dorsolateral line becomes less distinct towards the rear end of the body. Furthermore the lower edge of this line on the body is not well-defined.

M. surda facileoccultatur subsp. nov. is similar in most respects to the type form of *M. surda surda*, but is separated from that form by being slightly smaller in adult size and with higher paravertebral counts.

Type *M. surda surda* have well-defined partially divided (by narrow separation) dorsolateral lines on the midbody, whereas this is usually not present in *M. surda facileoccultatur subsp. nov.* or otherwise not well-defined or separated in the mid-section. All subspecies of *M. surda* are separated from the closely related *M. maini* Storr, 1976 by the absence of an external ear opening and the fact that the first supraocular is about twice as long as wide, versus a tiny ear opening present and the first supraocular is at least 2.5 times as long as wide.

Until now, the seven species (four formally named in this paper) within the subgenus *Pertenuisscincus subgen. nov.* have been treated as ordinary members of the genus *Menetia* Gray, 1845, type species *Menetia greyii* Gray, 1845 by all publishing Australian herpetologists.

However the species within the subgenus *Pertenuisscincus subgen. nov.* are a morphologically divergent species group, sympatric to the other species and warrant subgenus-level recognition at least.

Chapple *et al.* (2023) also found a divergence between the two groups of over 10 MYA (see Fig. 2. on page 186), supporting the preceding contention.

Species within *Pertenuisscincus subgen. nov.* are separated from those within the nominate subgenus *Menetia* Gray, 1845 and the subgenus *Ignobilisscincus subgen. nov.* as diagnosed in this paper, by the fact that the second supraciliary is either smaller than, or roughly the same size as the first and does not contact the prefrontal. The first supraciliary and first supracular are in contact. There is one presubocular, versus 2 in some of the other species.

In the subgenus *Menetia* Gray, 1845, the second supraciliary is much larger than the first, it contacts the prefrontal and separates the first supraciliary from the first supracular.

The two species within the other subgenus *Ignobilisscincus subgen. nov.* are separated from other species within *Menetia*, including within the subgenus *Pertenuisscincus subgen. nov.* by the following unique combination of characters: the presence of two presuboculars; the second supraciliary is much larger than the first, it contacts the prefrontal and separates the first supraciliary from the first supraocular.

Skinks within the genus *Menetia* Gray, 1845 are separated from all other Australian skinks by the following unique combination of characters: Tiny lizards, characterised by short limbs that fail to overlap by at least several rows when adpressed; fingers four and toes five; no supranasals; parietal shields are in contact behind the interparietal and usually fused to it; prefrontals are large and usually narrowly separated, but sometimes in contact; lower eyelid immovable, fixed above to form a permanent transparent spectacle; ear opening is small but distinct (absent in some members of the subgenus *Pertenuisscincus subgen. nov.*);

preanals are slightly enlarged (modified from Cogger 2014). *M. surda facileoccultatur subsp. nov*. is depicted in life in Wilson and Swan (2021) on page 411 middle right.

M. surda cresswelli is depicted in life in Wilson and Swan (2021) on page 411, middle left and Cogger (2014) on page 657 at bottom.

M. surda perparvus subsp. nov. is depicted in life in Storr, Smith and Johnstone (1981) on plate 17, third picture from bottom on the right.

Distribution: M. surda perparvus subsp. nov. is endemic to the

Cape Range area of Western Australia. It is a range-restricted endemic.

Etymology: The Latin word "*perparvus*" means "very small" which is in line with this skink species.

MENETIA (PERTENUISSCINCUS) SURDA PRAEMITIS SUBSP. NOV.

LSIDurn:Isid:zoobank.org:act:751CE032-EAA0-470A-8D44-0D88FB4E0B0A

Holotype: A preserved specimen at the Western Australian Museum, Perth, Western Australia, Australia, specimen number R120724 collected from 11.8 km west of the Mardathuna homestead, Western Australia, Australia, Latitude -24.2426 S., Longitude 114.2824 E.

This government-owned facility allows access to its holdings. **Paratypes:** Two preserved specimens at the Western Australian Museum, Perth, Western Australia, Australia, specimen numbers R120680 collected from 7.7. km west of the Mardathuna homestead, Western Australia, Australia, Latitude -24.2544 S., Longitude 114.2960 E., and 41 km from the Binthalya homestead, in the Kennedy Range district, Western Australia, Australia, Latitude -24.2936 S., Longitude 151.0151 E.

Diagnosis: The west Australian taxon *Menetia surda* Storr, 1976, with a type locality of "*Budjan Creek, Corunna Downs, Western Australia, in 210 42'S, 1190 50'E.*" was formally split into two subspecies by Aplin and Adams (1998), with the southernmost population, found generally in the Shark Bay region of Western Australia formally identified as *M. surda creswelli* Aplin and Adams (1998).

That taxon had a type locality of "19 km N Yuna, WA, in -28.10' S, 115.03' E."

However their paper indicated three other allopatric subspecies, that have until now been unnamed.

These are formally named herein as:

M. surda perparvus subsp. nov. from the Cape Range area of Western Australia;

M. surda praemitis subsp. nov. from Mardathuna/Kennedy Range, Western Australia;

M. surda facileoccultatur subsp. nov. from the Pilbara region of Western Australia, generally south of the Fortescue River basin. The five subspecies are separated from one another as follows: Nominate *M. surda* is, as was broadly defined by Storr (1976), separated from the other four subspecies by the following suite of characters:

A dark *Menetia* Gray, 1845 with only one supraciliary. Further distinguishable from *M. greyii* by 5 (rather than 4) small scales in outer arc between largest supraciliary and penultimate labial, lack of obvious ear aperture, and absence of lateral stripes, and from *M. greyii* by single presubocular (rather than 2), longer first supraocular, and no enlarged upper circumocular granule. This form has a well-defined dark brown stripe on the dorsolateral line on the upper flank, running from eye to hind limb, and then less distinct on the tail, bound below with white anteriorly and grey posteriorly, versus not so or barely distinct in *M. surda cresswelli*. The thin black lines on the tail are distinct, versus not so in *M. surda cresswelli*.

M. surda cresswelli besides being separated from *M. surda* by colour as just outlined, is also separated from *M. surda* by having a slightly smaller eye; in having fewer scales along paravertebral series; paravertebral scale series wider than more lateral scales along entire length of body (posterior paravertebrals not widened in nominate *M. surda*); claws on manus and pes shorter and recurved (essentially modified from Aplin and Adams (1998). *M. surda perparvus subsp. nov.* is in many ways intermediate in form to the two preceding subspecies and separated from both as follows:

It is relatively small, with low paravertebral counts and relatively short claws in line with *M. surda cresswelli*, however it's dorsal body pattern as more consistent with that of *M. surda surda* as described above, except that the dorsolateral line is divided in

the midbody region and the dorsal colouration includes a distinct darkening along the vertebral line of moderate thickness, forming a semi-distinct line.

The posterior paravertebral scales are not widened as seen in *M. surda surda* but they are broader than the second row scales as seen in *M. surda cresswelli.*

M. surda perparvus subsp. nov. has an unusually high incidence of moderate to broad contact between the prefrontal scales (38%), accentuating the trend for medial contact observed in *M. surda cresswelli.*

M. surda praemitis subsp. nov. is similar in most respects to *M. surda perparvus subsp. nov.* but is separated from that subspecies by the dark brown, rather than light brownish-grey dorsum, and further by the fact that the dorsolateral line becomes less distinct towards the rear end of the body. Furthermore the lower edge of this line on the body is not well-defined.

M. surda facileoccultatur subsp. nov. is similar in most respects to the type form of *M. surda surda*, but is separated from that form by being slightly smaller in adult size and with higher paravertebral counts.

Type *M. surda surda* have well-defined partially divided (by narrow separation) dorsolateral lines on the midbody, whereas this is usually not present in *M. surda facileoccultatur subsp. nov.* or otherwise not well-defined or separated in the mid-section. All subspecies of *M. surda* are separated from the closely related *M. maini* Storr, 1976 by the absence of an external ear opening and the fact that the first supraocular is about twice as long as wide, versus a tiny ear opening present and the first supraocular is at least 2.5 times as long as wide.

Until now, the seven species (four formally named in this paper) within the subgenus *Pertenuisscincus subgen. nov.* have been treated as ordinary members of the genus *Menetia* Gray, 1845, type species *Menetia greyii* Gray, 1845 by all publishing Australian herpetologists.

However the species within the subgenus *Pertenuisscincus subgen. nov.* are a morphologically divergent species group, sympatric to the other species and warrant subgenus-level recognition at least.

Chapple *et al.* (2023) also found a divergence between the two groups of over 10 MYA (see Fig. 2. on page 186), supporting the preceding contention.

Species within *Pertenuisscincus subgen. nov.* are separated from those within the nominate subgenus *Menetia* Gray, 1845 and the subgenus *Ignobilisscincus subgen. nov.* as diagnosed in this paper, by the fact that the second supraciliary is either smaller than, or roughly the same size as the first and does not contact the prefrontal. The first supraciliary and first supracular are in contact. There is one presubocular, versus 2 in some of the other species.

In the subgenus *Menetia* Gray, 1845, the second supraciliary is much larger than the first, it contacts the prefrontal and separates the first supraciliary from the first supracular.

The two species within the other subgenus *Ignobilisscincus subgen. nov.* are separated from other species within *Menetia*, including within the subgenus *Pertenuisscincus subgen. nov.* by the following unique combination of characters: the presence of two presuboculars; the second supraciliary is much larger than the first, it contacts the prefrontal and separates the first supraciliary from the first supracular.

Skinks within the genus *Menetia* Gray, 1845 are separated from all other Australian skinks by the following unique combination of characters: Tiny lizards, characterised by short limbs that fail to overlap by at least several rows when adpressed; fingers four and toes five; no supranasals; parietal shields are in contact behind the interparietal and usually fused to it; prefrontals are large and usually narrowly separated, but sometimes in contact; lower eyelid immovable, fixed above to form a permanent transparent spectacle; ear opening is small but distinct (absent in some members of the subgenus *Pertenuisscincus subgen. nov.*); preanals are slightly enlarged (modified from Cogger 2014). *M. surda facileoccultatur subsp. nov.* is depicted in life in Wilson and Swan (2021) on page 411 middle right.

M. surda cresswelli is depicted in life in Wilson and Swan (2021) on page 411, middle left and Cogger (2014) on page 657 at bottom.

M. surda perparvus subsp. nov. is depicted in life in Storr, Smith and Johnstone (1981) on plate 17, third picture from bottom on the right.

Distribution: *M. surda praemitis subsp. nov.* is endemic to the Mardathuna/Kennedy Range area, area of Western Australia. It is a range-restricted endemic.

Etymology: The Latin word "*praemitis*" means "tiny" which is in line with this skink species.

MENETIA (PERTENUISSCINCUS) SURDA FACILEOCCULTATUR SUBSP. NOV.

LSIDurn:lsid:zoobank.org:act:B5B0D56A-89A1-4510-A91C-E5EEB5D46E1A

Holotype: A preserved specimen at the Western Australian Museum, Perth, Western Australia, Australia, specimen number R119917 collected from 3.5 km northeast of Mount Brockman, Western Australia, Australia, Latitude -22.466667 S., Longitude 117.3 E.

This government-owned facility allows access to its holdings. **Paratype:** A preserved specimen at the Western Australian Museum, Perth, Western Australia, Australia, specimen number R119911 collected from 3.5 km northeast of Mount Brockman, Western Australia, Australia, Latitude -22.466667 S., Longitude 117.3 E.

Diagnosis: The west Australian taxon *Menetia surda* Storr, 1976, with a type locality of "*Budjan Creek, Corunna Downs, Western Australia, in -21.42' S, 119.50' E.*" was formally split into two subspecies by Aplin and Adams (1998), with the southernmost population, found generally in the Shark Bay region of Western Australia formally identified as *M. surda creswelli* Aplin and Adams (1998).

That taxon had a type locality of "19 km N Yuna, WA, in -28.10' S, 115.03' E."

However their paper indicated three other allopatric subspecies, that have until now been unnamed.

These are formally named herein as:

M. surda perparvus subsp. nov. from the Cape Range area of Western Australia;

M. surda praemitis subsp. nov. from Mardathuna/Kennedy Range, Western Australia;

M. surda facileoccultatur subsp. nov. from the Pilbara region of Western Australia, generally south of the Fortescue River basin. The five subspecies are separated from one another as follows: Nominate *M. surda* is, as was broadly defined by Storr (1976), separated from the other four subspecies by the following suite of characters:

A dark *Menetia* with only one supraciliary. Further distinguishable from *M. greyii* by 5 (rather than 4) small scales in outer arc between largest supraciliary and penultimate labial, lack of obvious ear aperture, and absence of lateral stripes, and from *M. greyii* by single presubocular (rather than 2),

longer first supraocular, and no enlarged upper circumocular granule. This form has a well-defined dark brown stripe on the dorsolateral line on the upper flank, running from eye to hind limb, and then less distinct on the tail, bound below with white anteriorly and grey posteriorly, versus not so or barely distinct in *M. surda cresswelli*. The thin black lines on the tail are distinct, versus not so in *M. surda cresswelli*.

M. surda cresswelli besides being separated from *M. surda* by colour as just outlined, is also separated from *M. surda* by having a slightly smaller eye; in having fewer scales along paravertebral series; paravertebral scale series wider than more lateral scales along entire length of body (posterior paravertebrals not widened in nominate *M. surda*); claws on manus and pes shorter and recurved (essentially modified from Aplin and Adams (1998).

M. surda perparvus subsp. nov. is in many ways intermediate in form to the two preceding subspecies and separated from both as follows:

It is relatively small, with low paravertebral counts and relatively short claws in line with *M. surda cresswelli*, however it's dorsal body pattern as more consistent with that of *M. surda surda* as described above, except that the dorsolateral line is divided in the midbody region and the dorsal colouration includes a distinct darkening along the vertebral line of moderate thickness, forming a semi-distinct line.

The posterior paravertebral scales are not widened as seen in *M. surda surda* but they are broader than the second row scales as seen in *M. surda cresswelli.*

M. surda perparvus subsp. nov. has an unusually high incidence of moderate to broad contact between the prefrontal scales (38%), accentuating the trend for medial contact observed in *M. surda cresswelli.*

M. surda praemitis subsp. nov. is similar in most respects to *M. surda perparvus subsp. nov.* but is separated from that subspecies by the dark brown, rather than light brownish-grey dorsum, and further by the fact that the dorsolateral line becomes less distinct towards the rear end of the body. Furthermore the lower edge of this line on the body is not well-defined.

M. surda facileoccultatur subsp. nov. is similar in most respects to the type form of *M. surda surda*, but is separated from that form by being slightly smaller in adult size and with higher paravertebral counts.

Type *M. surda surda* have well-defined partially divided (by narrow separation) dorsolateral lines on the midbody, whereas this is usually not present in *M. surda facileoccultatur subsp. nov.* or otherwise not well-defined or separated in the mid-section. *M. surda facileoccultatur subsp. nov.* is depicted in life in Wilson and Swan (2021) on page 411 middle right.

M. surda cresswelli is depicted in life in Wilson and Swan (2021) on page 411, middle left and Cogger (2014) on page 657 at bottom.

M. surda perparvus subsp. nov. is depicted in life in Storr, Smith and Johnstone (1981) on plate 17, third picture from bottom on the right.

All subspecies of *M. surda* are separated from the closely related *M. maini* Storr, 1976 by the absence of an external ear opening and the fact that the first supraocular is about twice as long as wide, versus a tiny ear opening present and the first supraocular is at least 2.5 times as long as wide.

Until now, the seven species (four formally named in this paper) within the subgenus *Pertenuisscincus subgen. nov.* have been treated as ordinary members of the genus *Menetia* Gray, 1845, type species *Menetia greyii* Gray, 1845 by all publishing Australian herpetologists.

However the species within the subgenus *Pertenuisscincus subgen. nov.* are a morphologically divergent species group, sympatric to the other species and warrant subgenus-level recognition at least.

Chapple *et al.* (2023) also found a divergence between the two groups of over 10 MYA (see Fig. 2. on page 186), supporting the preceding contention.

Species within *Pertenuisscincus subgen. nov.* are separated from those within the nominate subgenus *Menetia* Gray, 1845 and the subgenus *Ignobilisscincus subgen. nov.* as diagnosed in this paper, by the fact that the second supraciliary is either smaller than, or roughly the same size as the first and does not contact the prefrontal. The first supraciliary and first supracular are in contact. There is one presubocular, versus 2 in some of the other species.

In the subgenus *Menetia* Gray, 1845, the second supraciliary is much larger than the first, it contacts the prefrontal and separates the first supraciliary from the first supracular.

The two species within the other subgenus *Ignobilisscincus* subgen. nov. are separated from other species within Menetia,

including within the subgenus *Pertenuisscincus subgen. nov.* by the following unique combination of characters: the presence of two presuboculars; the second supraciliary is much larger than the first, it contacts the prefrontal and separates the first supraciliary from the first supraocular.

Skinks within the genus *Menetia* Gray, 1845 are separated from all other Australian skinks by the following unique combination of characters: Tiny lizards, characterised by short limbs that fail to overlap by at least several rows when adpressed; fingers four and toes five; no supranasals; parietal shields are in contact behind the interparietal and usually fused to it; prefrontals are large and usually nerrowly separated, but sometimes in contact; lower eyelid immovable, fixed above to form a permanent transparent spectacle; ear opening is small but distinct (absent in some members of the subgenus *Pertenuisscincus subgen. nov.*); preanals are slightly enlarged (modified from Cogger 2014). **Distribution:** *M. surda facileoccultatur subsp. nov.* is endemic to the Pilbara Region of Western Australia, Australia, generally south of the Fortescue River.

Etymology: The Latin word "*facileoccultatur*" means "easily hidden" which is in line with this skink species being of small size and easily missed. It was easily hidden from science in terms of its formal classification.

MENETIA (PERTENUISSCINCUS) ADMODUMPARVA SP. NOV. LSIDurn:lsid:zoobank.org:act:85A9A8DE-CEE2-4B63-A660-28025C90BC7B

Holotype: A preserved specimen at the Western Australian Museum, Perth, Western Australia, Australia, specimen number R46945 collected from the Prince Regent River Reserve, Kimberley District, Western Australia, Australia, Latitude -15.28 S., Longitude 125.40 E.

This government-owned facility allows access to its holdings. **Paratype:** A preserved male specimen at the Australian National Wildlife Collection, owned by the Commonwealth Scientific and Industrial Research Organisation (CSIRO), in Canberra, ACT, Australia, specimen number R10070 collected from "Potts riparian", Western Australia, Australia, Latitude -16.4897 S., Longitude 125.3575 E.

Diagnosis: Until now, *Menetia maini* Storr, 1976, with a type locality of 23 km south, south-east of Derby, Western Australia, Australia, Latitude -17.29 S., Longitude 123.43 E, has been treated as a wide-ranging taxon with a distribution stretching from broadly from Coulomp Point, Western Australia, being west of Derby, just south of the elevated parts of the west Kimberley District, through the Kimberley District, into the top end of the Northern Territory and across to parts of adjacent north-west Queensland.

Ingram (1977) formally named the west Queensland population as *M. zynja* Ingram, 1977 with a type locality of Mount Unbunmaroo, 90 km north-west of Boulia, Western Queensland, Australia, Latitude -22.32 S., Longitude 140.18 E.

However, Cogger *et al.* (1983) synonymised this taxon with *M. maini*, as have all other publishing authors since, except for Wells and Wellington (1984 and 1985).

Besides formally resurrecting *M. zynja* from synonymy, four other divergent species are also formally named for the first time. The six species within, what is called herein the *M. maini* complex are as follows:

M. maini from the region of Derby, Western Australia, generally south of the main Kimberley ranges in north-west Australia. *M. zynja* from the Selwyn Ranges and outliers in north-west Queensland.

M. admodumparva sp. nov. from the west Kimberley district in northern Western Australia.

M. perexiguus sp. nov. from the East Kimberley district and nearby parts of the north-west Northern Territory, generally west of the Victoria River system.

M. perpusillus sp. nov. from the hilly parts of the top end of the Northern Territory.

Available online at www.herp.net Copyright- Kotabi Publishing - All rights reserved

23

M. pertenuis sp. nov. from the Tawallah Range, southern Gulf of Carpentaria, Northern Territory.

The six species are separated from one another by the following unique combinations of characters:

 $\it M.\ maini$ has the first (and only) supraocular much more than twice as long as wide, and

in contact with first supraciliary. Uppermost circumocular granule is not enlarged. Ear aperture is small. There is no indication of lateral stripes on the body. It has 22-24 midbody rows, 16-19 subdigital lamellae under the fourth toe, one nuchal on either side of the neck and a snout vent length of less than 27 mm. Dorsum is a dark brown, with a greyish-black undertone, dorsal scales sometimes have a few indistinct flecks that may join at times to form sections of unbroken thin and indistinct lines, either down the midline, or otherwise on other parts of the back. These do not extend to the tail, which is in effect uni-colour brown or slightly reddish-brown.

There are few if any darker flecks on the upper surfaces or flanks of the tail.

Upper flanks are slightly darker than the dorsum, but there is no obvious demarcation along the dorsolateral line.

Belly is generally pale, but scales (especially of throat and under tail) are often edged with greyish brown. Upper labials are bold ivory-white in colour with moderately thick dark etchings on the side borders giving a slightly barred appearance. Iris in this and all other related species is a light orange colour.

M. admodumparva sp. nov. is similar to *M. maini* in most respects including in terms of colouration, but is separated from that taxon by having 26 midbody rows, 21 subdigital lamellae under the fourth toe, one or zero nuchals on either side of the neck and a snout vent length of more than 27 mm.

M. perexiguus sp. nov. is similar to *M. admodumparva sp. nov.*, but with 22-26 midbody rows and white upper labials that are heavily peppered dark or tinged dark.

On the upper surfaces of the tail, are widely scattered, but obvious dark flecks, so far apart that no obvious patterning is seen.

The demarcation between the brownish dorsum and the flank is well-defined, as is the similar demarcation at the bottom of the black on the lower flank, which also forms a thin white line, giving the appearance of a thick black line down the flank.

M. perpusillus sp. nov. is separated from the preceding taxa by the combination of white upper labials that are heavily peppered dark or tinged dark; a dull orange tail at the anterior half, with a well-defined series of paired dark grey flecks running down the upper surface. There is little obvious demarcation on the dorsolateral line between the brownish upper body and darker flanks.

M. pertenuis sp. nov. is readily separated from the other species by the reduction in colour pigment on the body, leading to light-edged scales on the dorsum and even more-so on the flanks, where each scale is white edged and dark centred. This gives the appearance of there being three semi-distinct white lines running along either flank.

This configuration starts on the neck, runs past the forelimb onto the flank, but terminates at the hind limb. On the upper surfaces of the tail, the scales are light brown with black in the centre of each, this fading in intensity towards the distal end. There are 20-24 midbody rows.

M. zynja is of significantly different appearance to the preceding species.

Dorsally and on the flanks, the lizard is a light brown colour and although the flanks are darker than the dorsum, this is of a similar colour and not greyish or blackish as in the other species. In some specimens, so dark peppering is within the scales on the dorso-lateral edge, but even in these lizards, the demarcation is only slight. The mainly white labials are heavily washed-out brown, as are the lighter scales on the lower parts of the sides of the neck. On the tail dark peppering forms a series of three stripes, one running down the midline of the top and one on either flank, this being most prominent on the distal end. Unlike the other five species, the anterior of the tail is not a different base colour to the body, or if so, then imperceptibly. In some specimens, the tail may be orange at the anterior end, but this same orange is on the upper surface of the body as well. The side of the lower (posterior) neck is darker in colour than above, but this rapidly fades past the forelimb.

This species has 18-22 mid-body rows

M. admodumparva sp. nov. is depicted in life online at: https://www.flickr.com/photos/zimny_anders/42069351381/ and

https://www.flickr.com/photos/reptileshots/50362618148/ and

https://www.flickr.com/photos/reptileshots/51313252199/ *M. perexiguus sp. nov.* is depicted in life in Wilson and Swan (2021) on page 411 at top left.

M. perpusillus sp. nov. is depicted in life online at: https://www.flickr.com/photos/reptileshots/52077683280/ and

https://www.flickr.com/photos/zimny_anders/51388425155/ and

https://www.flickr.com/photos/zimny_anders/51319004286/ and

https://www.flickr.com/photos/euprepiosaur/7531633402/ and

https://www.flickr.com/photos/euprepiosaur/7531634086/ *M. zynja* is depicted in life online at:

https://www.flickr.com/photos/jaricornelis/40252026435/ and

https://www.flickr.com/photos/ryanfrancis/12510164115/ and

https://www.flickr.com/photos/elliotbudd/40457718034/ The six preceding species are separated from all others in *Menetia* Gray, 1845 *sensu lato* by the following unique combination of characters:

The second supraciliary is either smaller than, or roughly the same size as the first and does not contact the prefrontal. The first supraciliary and first supraocular are in contact. There is one presubocular, versus 2 in some of the other species; there is an external ear opening, albeit a tiny one and the first supraocular is at least 2.5 times as long as it is wide.

Skinks within the genus *Menetia* Gray, 1845 are separated from all other Australian skinks by the following unique combination of characters: Tiny lizards, characterised by short limbs that fail to overlap by at least several rows when adpressed; fingers four and toes five; no supranasals; parietal shields are in contact behind the interparietal and usually fused to it; prefrontals are large and usually narrowly separated, but sometimes in contact; lower eyelid immovable, fixed above to form a permanent transparent spectacle; ear opening is small but distinct (absent in some members of the subgenus *Pertenuisscincus subgen. nov.*); preanals are slightly enlarged (modified from Cogger 2014). **Distribution:** *M. admodumparva sp. nov.* appears to be confined to the west Kimberley Region of Western Australia, from at least the Prince Regent River in the south to Mitchell Plateau in the north.

Etymology: The Latin words "admodum parva" means "very small" which is in line with this skink species being of small size MENETIA (PERTENUISSCINCUS) PEREXIGUUS SP. NOV. LSIDurn:Isid:zoobank.org:act:7F277323-90B6-4F92-BDF7-0D9CF1428BFD

Holotype: A preserved specimen at the Western Australian Museum, Perth, Western Australia, Australia, specimen number R75494 collected from 11 km northwest of the New Lissadell Homestead, Western Australia, Australia, Latitude -16.65 S., Longitude 128.466667 E.

This government-owned facility allows access to its holdings. **Paratypes:** Two preserved specimens at the Western Australian Museum, Perth, Western Australia, Australia, specimen numbers R75530 and R70271, both collected from 12 to 12.1 km northwest of the New Lissadell Homestead, Western Australia, Australia, Latitude -16.616667 S., Longitude 128.466667 E. **Diagnosis:** Until now, *Menetia maini* Storr, 1976, with a type locality of 23 km south, south-east of Derby, Western Australia, Australia, Latitude -17.29 S., Longitude 123.43 E, has been treated as a wide-ranging taxon with a distribution stretching from broadly from Coulomp Point, Western Australia, being west of Derby, just south of the elevated parts of the west Kimberley District, through the Kimberley District, into the top end of the Northern Territory and across to parts of adjacent north-west Queensland.

Ingram (1977) formally named the west Queensland population as *M. zynja* Ingram, 1977 with a type locality of Mount Unbunmaroo, 90 km north-west of Boulia, Western Queensland, Australia, Latitude -22.32 S., Longitude 140.18' E. However, Cogger *et al.* (1983) synonymised this taxon with *M. maini*, as have all other publishing authors since, except for Wells and Wellington (1984 and 1985).

Besides formally resurrecting *M. zynja* from synonymy, four other divergent species are also formally named for the first time. The six species within, what is called herein the *M. maini* Gray, 1845 complex are as follows:

M. maini from the region of Derby, Western Australia, generally south of the main Kimberley ranges in north-west Australia. *M. zynja* from the Selwyn Ranges and outliers in north-west Queensland.

M. admodumparva sp. nov. from the west Kimberley district in northern Western Australia.

M. perexiguus sp. nov. from the East Kimberley district and nearby parts of the north-west Northern Territory, generally west of the Victoria River system.

M. perpusillus sp. nov. from the hilly parts of the top end of the Northern Territory.

M. pertenuis sp. nov. from the Tawallah Range, southern Gulf of Carpentaria, Northern Territory.

The six species are separated from one another by the following unique combinations of characters:

M. maini has the first (and only) supraocular much more than twice as long as wide, and

in contact with first supraciliary. Uppermost circumocular granule is not enlarged. Ear aperture is small. There is no indication of lateral stripes on the body. It has 22-24 midbody rows, 16-19 subdigital lamellae under the fourth toe, one nuchal on either side of the neck and a snout vent length of less than 27 mm. Dorsum is a dark brown, with a greyish-black undertone, dorsal scales sometimes have a few indistinct flecks that may join at times to form sections of unbroken thin and indistinct lines, either

down the midline, or otherwise on other parts of the back.

These do not extend to the tail, which is in effect uni-colour

brown or slightly reddish-brown.

There are few if any darker flecks on the upper surfaces or flanks of the tail.

Upper flanks are slightly darker than the dorsum, but there is no obvious demarcation along the dorsolateral line.

Belly is generally pale, but scales (especially of throat and under tail) are often edged with greyish brown. Upper labials are bold ivory-white in colour with moderately thick dark etchings on the side borders giving a slightly barred appearance. Iris in this and all other related species is a light orange colour.

M. admodumparva sp. nov. is similar to *M. maini* in most respects including in terms of colouration, but is separated from that taxon by having 26 midbody rows, 21 subdigital lamellae under the fourth toe, one or zero nuchals on either side of the neck and a snout vent length of more than 27 mm.

M. perexiguus sp. nov. is similar to M. admodumparva sp. nov.,

but with 22-26 midbody rows and white upper labials that are heavily peppered dark or tinged dark.

On the upper surfaces of the tail, are widely scattered, but obvious dark flecks, so far apart that no obvious patterning is seen.

The demarcation between the brownish dorsum and the flank is well-defined, as is the similar demarcation at the bottom of the black on the lower flank, which also forms a thin white line, giving the appearance of a thick black line down the flank.

M. perpusillus sp. nov. is separated from the preceding taxa by the combination of white upper labials that are heavily peppered dark or tinged dark; a dull orange tail at the anterior half, with a well-defined series of paired dark grey flecks running down the upper surface. There is little obvious demarcation on the dorsolateral line between the brownish upper body and darker flanks.

M. pertenuis sp. nov. is readily separated from the other species by the reduction in colour pigment on the body, leading to light-edged scales on the dorsum and even more-so on the flanks, where each scale is white edged and dark centred. This gives the appearance of there being three semi-distinct white lines running along either flank.

This configuration starts on the neck, runs past the forelimb onto the flank, but terminates at the hind limb. On the upper surfaces of the tail, the scales are light brown with black in the centre of each, this fading in intensity towards the distal end.

There are 20-24 midbody rows.

M. zynja is of significantly different appearance to the preceding species.

Dorsally and on the flanks, the lizard is a light brown colour and although the flanks are darker than the dorsum, this is of a similar colour and not greyish or blackish as in the other species. In some specimens, so dark peppering is within the scales on the dorso-lateral edge, but even in these lizards, the demarcation is only slight. The mainly white labials are heavily washed-out brown, as are the lighter scales on the lower parts of the sides of the neck. On the tail dark peppering forms a series of three stripes, one running down the midline of the top and one on either flank, this being most prominent on the distal end. Unlike the other five species, the anterior of the tail is not a different base colour to the body, or if so, then imperceptibly. In some specimens, the tail may be orange at the anterior end, but this same orange is on the upper surface of the body as well. The side of the lower (posterior) neck is darker in colour than above, but this rapidly fades past the forelimb.

There are 18-22 midbody rows.

M. admodumparva sp. nov. is depicted in life online at: https://www.flickr.com/photos/zimny_anders/42069351381/ and

https://www.flickr.com/photos/reptileshots/50362618148/ and

https://www.flickr.com/photos/reptileshots/51313252199/ *M. perexiguus sp. nov.* is depicted in life in Wilson and Swan (2021) on page 411 at top left.

M. perpusillus sp. nov. is depicted in life online at: https://www.flickr.com/photos/reptileshots/52077683280/ and

https://www.flickr.com/photos/zimny_anders/51388425155/ and

https://www.flickr.com/photos/zimny_anders/51319004286/ and

https://www.flickr.com/photos/euprepiosaur/7531633402/ and

https://www.flickr.com/photos/euprepiosaur/7531634086/ *M. zynja* is depicted in life online at:

https://www.flickr.com/photos/jaricornelis/40252026435/ and

https://www.flickr.com/photos/ryanfrancis/12510164115/

and

https://www.flickr.com/photos/elliotbudd/40457718034/ The six preceding species are separated from all others in *Menetia* Gray, 1845 *sensu lato* by the following unique combination of characters:

The second supraciliary is either smaller than, or roughly the same size as the first and does not contact the prefrontal. The first supraciliary and first supraocular are in contact. There is one presubocular, versus 2 in some of the other species; there is an external ear opening, albeit a tiny one and the first supraocular is at least 2.5 times as long as it is wide.

Skinks within the genus *Menetia* Gray, 1845 are separated from all other Australian skinks by the following unique combination of characters: Tiny lizards, characterised by short limbs that fail to overlap by at least several rows when adpressed; fingers four and toes five; no supranasals; parietal shields are in contact behind the interparietal and usually fused to it; prefrontals are large and usually narrowly separated, but sometimes in contact; lower eyelid immovable, fixed above to form a permanent transparent spectacle; ear opening is small but distinct (absent in some members of the subgenus *Pertenuisscincus subgen. nov.*); preanals are slightly enlarged (modified from Cogger 2014). **Distribution:** *M. perexiguus sp. nov.* from the East Kimberley

district and nearby parts of the north-west Northern Territory, generally west of the Victoria River system.

Etymology: The Latin word "*perexiguus*" means "very tiny" which is in line with this skink species being of small size. MENETIA (PERTENUISSCINCUS) PERPUSILLUS SP. NOV.

LSIDurn:Isid:zoobank.org:act:9EA1E607-6AB0-4EB8-ADC6-E7BB2BB85671

Holotype: A preserved specimen at the Museum and Art Gallery of the Northern Territory, Darwin, Northern Territory, Australia, specimen number R24694 collected from the Mount Harris Mine, Upper Mary River, Northern Territory, Australia, Latitude -13.272 S., Longitude 131.906 E.

This government-owned facility allows access to its holdings. **Paratype:** A preserved specimen at the Museum and Art Gallery of the Northern Territory, Darwin, Northern Territory, Australia, specimen number R24696 collected from the Mount Harris Mine, Upper Mary River, Northern Territory, Australia, Latitude -13.272 S., Longitude 131.906 E.

Diagnosis: Until now, *Menetia maini* Storr, 1976, with a type locality of 23 km south, south-east of Derby, Western Australia, Australia, Latitude -17.29 S., Longitude 123.43 E, has been treated as a wide-ranging taxon with a distribution stretching from broadly from Coulomp Point, Western Australia, being west of Derby, just south of the elevated parts of the west Kimberley District, through the Kimberley District, into the top end of the Northern Territory and across to parts of adjacent north-west Queensland.

Ingram (1977) formally named the west Queensland population as *M. zynja* Ingram, 1977 with a type locality of Mount Unbunmaroo, 90 km north-west of Boulia, Western Queensland, Australia, Latitude -22.32 S., Longitude 140.18' E. However, Cogger *et al.* (1983) synonymised this taxon with *M. maini*, as have all other publishing authors since, except for Wells and Wellington (1984 and 1985).

Besides formally resurrecting *M. zynja* from synonymy, four other divergent species are also formally named for the first time. The six species within, what is called herein the *M. maini* Gray.

1845 complex are as follows:

M. maini from the region of Derby, Western Australia, generally south of the main Kimberley ranges in north-west Australia. *M. zynja* from the Selwyn Ranges and outliers in north-west Queensland.

M. admodumparva sp. nov. from the west Kimberley district in northern Western Australia.

M. perexiguus sp. nov. from the East Kimberley district and nearby parts of the north-west Northern Territory, generally west

of the Victoria River system.

M. perpusillus sp. nov. from the hilly parts of the top end of the Northern Territory.

M. pertenuis sp. nov. from the Tawallah Range, southern Gulf of Carpentaria, Northern Territory.

The six species are separated from one another by the following unique combinations of characters:

M. maini has the first (and only) supraocular much more than twice as long as wide, and

in contact with first supraciliary. Uppermost circumocular granule is not enlarged. Ear aperture is small. There is no indication of lateral stripes on the body. It has 22-24 midbody rows, 16-19 subdigital lamellae under the fourth toe, one nuchal on either side of the neck and a snout vent length of less than 27 mm. Dorsum is a dark brown, with a greyish-black undertone, dorsal scales sometimes have a few indistinct flecks that may join at times to form sections of unbroken thin and indistinct lines, either down the midline, or otherwise on other parts of the back.

These do not extend to the tail, which is in effect uni-colour brown or slightly reddish-brown.

There are few if any darker flecks on the upper surfaces or flanks of the tail.

Upper flanks are slightly darker than the dorsum, but there is no obvious demarcation along the dorsolateral line.

Belly is generally pale, but scales (especially of throat and under tail) are often edged with greyish brown. Upper labials are bold ivory-white in colour with moderately thick dark etchings on the side borders giving a slightly barred appearance. Iris in this and all other related species is a light orange colour.

M. admodumparva sp. nov. is similar to *M. maini* in most respects including in terms of colouration, but is separated from that taxon by having 26 midbody rows, 21 subdigital lamellae under the fourth toe, one or zero nuchals on either side of the neck and a snout vent length of more than 27 mm.

M. perexiguus sp. nov. is similar to *M. admodumparva sp. nov.*, but with 22-26 midbody rows and white upper labials that are heavily peppered dark or tinged dark.

On the upper surfaces of the tail, are widely scattered, but obvious dark flecks, so far apart that no obvious patterning is seen.

The demarcation between the brownish dorsum and the flank is well-defined, as is the similar demarcation at the bottom of the black on the lower flank, which also forms a thin white line, giving the appearance of a thick black line down the flank.

M. perpusillus sp. nov. is separated from the preceding taxa by the combination of white upper labials that are heavily peppered dark or tinged dark; a dull orange tail at the anterior half, with a well-defined series of paired dark grey flecks running down the upper surface. There is little obvious demarcation on the dorsolateral line between the brownish upper body and darker flanks.

M. pertenuis sp. nov. is readily separated from the other species by the reduction in colour pigment on the body, leading to light-edged scales on the dorsum and even more-so on the flanks, where each scale is white edged and dark centred. This gives the appearance of there being three semi-distinct white lines running along either flank.

This configuration starts on the neck, runs past the forelimb onto the flank, but terminates at the hind limb. On the upper surfaces of the tail, the scales are light brown with black in the centre of each, this fading in intensity towards the distal end. There are 20-24 midbody rows.

M. zynja is of significantly different appearance to the preceding species.

Dorsally and on the flanks, the lizard is a light brown colour and although the flanks are darker than the dorsum, this is of a similar colour and not greyish or blackish as in the other species. In some specimens, so dark peppering is within the scales on the dorso-lateral edge, but even in these lizards, the demarcation

Available online at www.herp.net Copyright- Kotabi Publishing - All rights reserved

26

is only slight. The mainly white labials are heavily washed-out brown, as are the lighter scales on the lower parts of the sides of the neck. On the tail dark peppering forms a series of three stripes, one running down the midline of the top and one on either flank, this being most prominent on the distal end. Unlike the other five species, the anterior of the tail is not a different base colour to the body, or if so, then imperceptibly. In some specimens, the tail may be orange at the anterior end, but this same orange is on the upper surface of the body as well. The side of the lower (posterior) neck is darker in colour than above, but this rapidly fades past the forelimb.

There are 18-22 midbody rows.

M. admodumparva sp. nov. is depicted in life online at: https://www.flickr.com/photos/zimny_anders/42069351381/ and

https://www.flickr.com/photos/reptileshots/50362618148/ and

https://www.flickr.com/photos/reptileshots/51313252199/ *M. perexiguus sp. nov.* is depicted in life in Wilson and Swan (2021) on page 411 at top left.

M. perpusillus sp. nov. is depicted in life online at:

https://www.flickr.com/photos/reptileshots/52077683280/ and

https://www.flickr.com/photos/zimny_anders/51388425155/ and

https://www.flickr.com/photos/zimny_anders/51319004286/ and

https://www.flickr.com/photos/euprepiosaur/7531633402/ and

https://www.flickr.com/photos/euprepiosaur/7531634086/ *M. zynja* is depicted in life online at:

https://www.flickr.com/photos/jaricornelis/40252026435/ and

https://www.flickr.com/photos/ryanfrancis/12510164115/ and

https://www.flickr.com/photos/elliotbudd/40457718034/ The six preceding species are separated from all others in *Menetia* Gray, 1845 *sensu lato* by the following unique

combination of characters:

The second supraciliary is either smaller than, or roughly the same size as the first and does not contact the prefrontal. The first supraciliary and first supraocular are in contact. There is one presubocular, versus 2 in some of the other species; there is an external ear opening, albeit a tiny one and the first supraocular is at least 2.5 times as long as it is wide.

Skinks within the genus Menetia Gray, 1845 are separated from all other Australian skinks by the following unique combination of characters: Tiny lizards, characterised by short limbs that fail to overlap by at least several rows when adpressed: fingers four and toes five; no supranasals; parietal shields are in contact behind the interparietal and usually fused to it; prefrontals are large and usually narrowly separated, but sometimes in contact; lower eyelid immovable, fixed above to form a permanent transparent spectacle; ear opening is small but distinct (absent in some members of the subgenus Pertenuisscincus subgen. nov.); preanals are slightly enlarged (modified from Cogger 2014). Distribution: M. perpusillus sp. nov. occurs in the hilly parts of the tropical top end of the Northern Territory, west of the Gulf of Carpentaria and north-east of the Victoria River system. Etymology: The Latin word "perpusillus" means "dwarf like" which is in line with this skink species being of very small size. MENETIA (PERTENUISSCINCUS) PERTENUIS SP. NOV.

LSIDurn:lsid:zoobank.org:act:59BE656C-D77F-4BB1-85D3-FCF5A9FE5DF2

Holotype: A preserved specimen at the Museum and Art Gallery of the Northern Territory, Darwin, Northern Territory, Australia, specimen number R36328 collected from the Upper Karn's Creek, Pungalina Station, Gulf of Carpentaria, Northern Territory, Australia, Latitude -16.867 S., Longitude 137.55 E. This government-owned facility allows access to its holdings. **Paratype:** A preserved specimen at the Museum and Art Gallery of the Northern Territory, Darwin, Northern Territory, Australia, specimen number R36329 collected from the Upper Karn's Creek, Pungalina Station, Gulf of Carpentaria, Northern Territory, Australia, Latitude -16.867 S., Longitude 137.55 E.

Diagnosis: Until now, *Menetia maini* Storr, 1976, with a type locality of 23 km south, south-east of Derby, Western Australia, Australia, Latitude -17.29 S., Longitude 123.43 E, has been treated as a wide-ranging taxon with a distribution stretching from broadly from Coulomp Point, Western Australia, being west of Derby, just south of the elevated parts of the west Kimberley District, through the Kimberley District, into the top end of the Northern Territory and across to parts of adjacent north-west Queensland.

Ingram (1977) formally named the west Queensland population as *M. zynja* Ingram, 1977 with a type locality of Mount Unbunmaroo, 90 km north-west of Boulia, Western Queensland, Australia, Latitude -22.32 S., Longitude 140.18' E. However, Cogger *et al.* (1983) synonymised this taxon with *M. maini*, as have all other publishing authors since, except for Wells and Wellington (1984 and 1985).

Besides formally resurrecting *M. zynja* from synonymy, four other divergent species are also formally named for the first time. The six species within, what is called herein the *M. maini* Gray, 1845 complex are as follows:

M. maini from the region of Derby, Western Australia, generally south of the main Kimberley ranges in north-west Australia. *M. zynja* from the Selwyn Ranges and outliers in north-west Queensland.

M. admodumparva sp. nov. from the west Kimberley district in northern Western Australia.

M. perexiguus sp. nov. from the East Kimberley district and nearby parts of the north-west Northern Territory, generally west of the Victoria River system.

M. perpusillus sp. nov. from the hilly parts of the top end of the Northern Territory.

M. pertenuis sp. nov. from the Tawallah Range, southern Gulf of Carpentaria, Northern Territory.

The six species are separated from one another by the following unique combinations of characters:

M. maini has the first (and only) supraocular much more than twice as long as wide, and

in contact with first supraciliary. Uppermost circumocular granule is not enlarged. Ear aperture is small. There is no indication of lateral stripes on the body. It has 22-24 midbody rows, 16-19 subdigital lamellae under the fourth toe, one nuchal on either side of the neck and a snout vent length of less than 27 mm. Dorsum is a dark brown, with a greyish-black undertone, dorsal scales sometimes have a few indistinct flecks that may join at times to form sections of unbroken thin and indistinct lines, either down the midline, or otherwise on other parts of the back.

These do not extend to the tail, which is in effect uni-colour brown or slightly reddish-brown.

There are few if any darker flecks on the upper surfaces or flanks of the tail.

Upper flanks are slightly darker than the dorsum, but there is no obvious demarcation along the dorsolateral line.

Belly is generally pale, but scales (especially of throat and under tail) are often edged with greyish brown. Upper labials are bold ivory-white in colour with moderately thick dark etchings on the side borders giving a slightly barred appearance. Iris in this and all other related species is a light orange colour.

M. admodumparva sp. nov. is similar to *M. maini* in most respects including in terms of colouration, but is separated from that taxon by having 26 midbody rows, 21 subdigital lamellae under the fourth toe, one or zero nuchals on either side of the neck and a snout vent length of more than 27 mm.

M. perexiguus sp. nov. is similar to *M. admodumparva sp. nov.*, but with 22-26 midbody rows and white upper labials that are heavily peppered dark or tinged dark.

On the upper surfaces of the tail, are widely scattered, but obvious dark flecks, so far apart that no obvious patterning is seen.

The demarcation between the brownish dorsum and the flank is well-defined, as is the similar demarcation at the bottom of the black on the lower flank, which also forms a thin white line, giving the appearance of a thick black line down the flank.

M. perpusillus sp. nov. is separated from the preceding taxa by the combination of white upper labials that are heavily peppered dark or tinged dark; a dull orange tail at the anterior half, with a well-defined series of paired dark grey flecks running down the upper surface. There is little obvious demarcation on the dorsolateral line between the brownish upper body and darker flanks.

M. pertenuis sp. nov. is readily separated from the other species by the reduction in colour pigment on the body, leading to light-edged scales on the dorsum and even more-so on the flanks, where each scale is white edged and dark centred. This gives the appearance of there being three semi-distinct white lines running along either flank.

This configuration starts on the neck, runs past the forelimb onto the flank, but terminates at the hind limb. On the upper surfaces of the tail, the scales are light brown with black in the centre of each, this fading in intensity towards the distal end.

There are 20-24 midbody rows.

M. zynja is of significantly different appearance to the preceding species.

Dorsally and on the flanks, the lizard is a light brown colour and although the flanks are darker than the dorsum, this is of a similar colour and not greyish or blackish as in the other species. In some specimens, so dark peppering is within the scales on the dorso-lateral edge, but even in these lizards, the demarcation is only slight. The mainly white labials are heavily washed-out brown, as are the lighter scales on the lower parts of the sides of the neck. On the tail dark peppering forms a series of three stripes, one running down the midline of the top and one on either flank, this being most prominent on the distal end. Unlike the other five species, the anterior of the tail is not a different base colour to the body, or if so, then imperceptibly. In some specimens, the tail may be orange at the anterior end, but this same orange is on the upper surface of the body as well. The side of the lower (posterior) neck is darker in colour than above, but this rapidly fades past the forelimb.

There are 18-22 midbody rows.

M. admodumparva sp. nov. is depicted in life online at: https://www.flickr.com/photos/zimny_anders/42069351381/ and

https://www.flickr.com/photos/reptileshots/50362618148/ and

https://www.flickr.com/photos/reptileshots/51313252199/ *M. perexiguus sp. nov.* is depicted in life in Wilson and Swan (2021) on page 411 at top left.

M. perpusillus sp. nov. is depicted in life online at:

https://www.flickr.com/photos/reptileshots/52077683280/ and

https://www.flickr.com/photos/zimny_anders/51388425155/ and

https://www.flickr.com/photos/zimny_anders/51319004286/ and

https://www.flickr.com/photos/euprepiosaur/7531633402/ and

https://www.flickr.com/photos/euprepiosaur/7531634086/ *M. zynja* is depicted in life online at:

 $https://www.flickr.com/photos/jaricornelis/40252026435/\\and$

https://www.flickr.com/photos/ryanfrancis/12510164115/ and

https://www.flickr.com/photos/elliotbudd/40457718034/ The six preceding species are separated from all others in *Menetia* Gray, 1845 *sensu lato* by the following unique combination of characters:

The second supraciliary is either smaller than, or roughly the same size as the first and does not contact the prefrontal. The first supraciliary and first supracular are in contact. There is one presubocular, versus 2 in some of the other species; there is an external ear opening, albeit a tiny one and the first supraocular is at least 2.5 times as long as it is wide.

Skinks within the genus *Menetia* Gray, 1845 are separated from all other Australian skinks by the following unique combination of characters: Tiny lizards, characterised by short limbs that fail to overlap by at least several rows when adpressed; fingers four and toes five; no supranasals; parietal shields are in contact behind the interparietal and usually fused to it; prefrontals are large and usually narrowly separated, but sometimes in contact; lower eyelid immovable, fixed above to form a permanent transparent spectacle; ear opening is small but distinct (absent in some members of the subgenus *Pertenuisscincus subgen. nov.*); preanals are slightly enlarged (modified from Cogger 2014).

Distribution: *M. pertenuis sp. nov.* occurs in the area of the Tawallah Range, southern Gulf of Carpentaria, Northern Territory. It is assumed to be a range-restricted endemic in line with some other recently described taxa from this area, like *Silubosaurus hoserae maxinehoserae* Hoser, 2018.

Etymology: The Latin word "*pertenuis*" means "very thin" or "very small" which is in line with this skink species being of very small size and thin build.

MENETIA (MENETIA) TANYADAYAE SP. NOV. LSIDurn:Isid:zoobank.org:act:788A8B7E-7F43-4D80-AF5B-5AAAAF92F7D0

Holotype: A preserved specimen at the Museum and Art Gallery of the Northern Territory, Darwin, Northern Territory, Australia, specimen number R01670 collected from Armstrong Creek, 100km west of Ayers Rock (Uluru), Central Australia, Northern Territory, Australia, Latitude -25.083 S., Longitude 130.05 E. This government-owned facility allows access to its holdings. **Paratypes:** Two preserved specimens at the Museum and Art Gallery of the Northern Territory, Darwin, Northern Territory, Australia, specimen numbers R01693 and R01694 both collected from Armstrong Creek, 100km west of Ayers Rock (Uluru), Central Australia, Northern Territory, Australia, Latitude -25.083 S., Longitude 130.05 E.

Diagnosis: Until now, *Menetia greyii* Gray, 1845 has been treated as a single pan Australian species with a distribution extending from east coast to west coast of continental Australia, as well as north and south coasts, occupying pretty much the entire continental landmass except for the coldest and wettest parts of the south and east, including Tasmania, as well as a tiny section of far south-west, Western Australia.

However published molecular data, including Adams *et al.* (2003) have confirmed that the putative taxon is a complex of morphologically similar species.

Besides the nominate form, with a type locality of "Western Australia", but believed to be of the form found in most of the southern two-thirds of that state, two other forms have also been named previously as species.

These are *M. reidi* McCooey, 1895 with a type locality of Dubbo, New South Wales, and being of the form found in most of the Murray/Darling basin of New South Wales and southern Queensland as well as *M. microscincus* Wells and Wellington, 1985 with a type locality of Kangaroo Island, South Australia and being of the form from the Eyre Peninsula, south-east South Australia and nearby parts of north-east Victoria and far southwest New South Wales.

Both are herein recognized as valid species.

Eight other divergent forms are formally named herein, including two with distributions including the far north of South Australia, that were flagged as distinct species by Adams *et al.* (2003), being to date the only other identified species within this species complex.

These eight hitherto unnamed species are as follows:

1/ *M. tanyadayae sp. nov.* from the central Australian deserts and ranges, of the Northern Territory, extending into South Australia in the far north and north-west (flagged by Adams *et al.* in 2003). 2/ *M. kullilli sp. nov.* from northeast South Australia and nearby south-west Queensland, generally conforming to the lower Lake

Eyre basin (flagged by Adams *et al.* in 2003).

3/ *M. bibbulmun sp. nov.* from Perth and environs, Western Australia.

4/ M. dhuae sp. nov. from Shark Bay, Western Australia.

5/ *M. dungayi sp. nov.* from the east Pilbara, Western Australia. 6/ *M. langdoni sp. nov.* from Kakadu and nearby parts of the Northern Territory.

7/ *M. anindilyakwa sp. nov.* endemic to Groote Eylandt, Northern Territory.

8/ *M. yidinji sp. nov.* from far north-east Queensland, west of the Great Dividing Range.

Each of the eight species and the three previously described species are readily separated from one another by the following unique combinations of characters:

M. tanyadayae sp. nov. is separated from the other 10 species in the *M. greyii* complex by the unique combination of:

20 midbody rows, a thick blackish stripe on the neck and flank; a brown dorsum with scattered dark spots on the back and a greyish tail. The upper surfaces of the hind limbs are light brown and with a small amount of indistinct dark spotting on the medial line. On the neck to just past the forelimb and below the dark lateral stripe is a well-defined immaculate white line, bordered below by a well-defined area of dark purplish-grey. This terminates on the forebody and does not extend down the flank. *M. tanyadayae sp. nov.* is depicted in life online at:

https://www.inaturalist.org/observations/1258099 and

https://www.inaturalist.org/observations/171513172

M. kullilli sp. nov. is similar in most respects to *M. tanyadayae sp. nov.*, as detailed above, which it is evidently closely related to, but differs from that species in that it has numerous dark spots on the dorsum, these forming rows, especially towards the base of the tail, as well as a thinner dark blackish stripe on the neck and flank, being medium in thickness rather than wide.

The upper surfaces of the hind limbs are blackish in colour, this being the obvious colouration, but also including limited amounts of brown spots or markings.

On the neck to just past the forelimb and below the dark lateral stripe is a poorly defined and very thin white line, bordered below by indistinct peppering of dark purplish-grey. This terminates on the forebody and does not extend down the flank.

Perhaps the easiest way to separate *M. tanyadayae sp. nov.* from *M. kullilli sp. nov.* is by the fact that in *M. tanyadayae sp. nov.* the dark lateral stripe is wide anterior to the forelimb and then effectively disintegrates posteriorly, so that along the body there is a dark edge only along the dorso-lateral line, but no welldefined dark line along the upper flank, versus a well-defined thin dark brown (rather than blackish) line of even thickness running along the lateral edge, being thin from eye to forelimb and remaining of the same thickness and intensity along the length of the body to the hind limb, so that there remains a well-defined line along the upper flank and not just a dark edge.

M. kullilli sp. nov. is depicted in life online at:

https://www.inaturalist.org/observations/69755051

M. bibbulmun sp. nov. is a dark blackish to chocolate brown form (on the dorsum), with 22-24 midbody rows. It also has mainly dark (black or blackish) upper labials; no obvious line separating the dark upper flank from the slightly less dark outer dorsum and

no obvious line demarcating the dark upper flank with the slightly lighter lower flank. Any dark specks or flecks on the dorsum are of similar colour to the rest of the dorsum and so are barely noticeable.

Upper surfaces of the limbs are a dark greyish-black and without any obvious spots, flecks, or other markings. Top of the head is mainly unicolour, but with some slightly darker marbling present. Tail is dark with barely distinct markings and of similar colour to the upper body.

Lighter coloured specimens, being either brown or grey on the dorsum, which are also found in the same populations still have the same colour configurations as outlined above.

M. bibbulmun sp. nov. is depicted in life online at: https://www.flickr.com/photos/reptileshots/15348493575/

and

https://www.flickr.com/photos/chrisjcooper/9659975699/ and

https://www.inaturalist.org/observations/141493196 and

https://www.inaturalist.org/observations/139108032 *M. dhuae sp. nov.* is separated from the other species as follows: The dorsum and flanks are peppered heavily with small cream or white spots, giving the lizard a sandy appearance. The white spotting continues onto the anterior tail where they tend to form two obvious rows on either side of the mid-dorsal line.

The dark of the upper flank is faded to a slightly more greyishbrown than that of the dorsum and due to the white spotting, is barely noticeable in any way. Upper surfaces of the limbs also have the same white spotting as seen on the rest of the upper body, but the spots on the limbs are well scattered. Spotting tends to marbling on the upper surfaces of the head, especially anteriorly, where the white spotting disappears.

Upper labials are white and with dark bars, but otherwise forming a well-defined white line from snout to ear. The white line seen on the lower flank of other species in the complex is not present in this species. There are 22 midbody rows.

M. dhuae sp. nov. is depicted in life in Wilson and Swan (2021) on page 409 at bottom.

M. dungayi sp. nov. is separated from the other species as follows:

Most noticeably by its distinctive orange-red dorsum, which is almost immaculate in colour save for some indistinct peppering on the neck and darker brown mottling on the head. The dark brown stripe from the snout to the top of the forelimb is extremely wide and well-defined between the eye and forelimb, being well-defined on the upper edge and bound by white on the lower edge. On the flank and anterior tail, the line is a thin blackish-brown, well-defined line, bound on either side (top and below) with immaculate orange.

About half-way down the flank, this colouration tends to fade, but not suddenly and with orange continuing to the ventral surface. Upper surfaces of the limbs are orange, but heavily marked with dark purplish-brown spots. The dorsal surface of the tail has either no spots, or at best barely distinct peppering.

Anterior upper labials are mainly dark and posterior upper labials are immaculate white. There are 22 midbody rows.

M. dungayi sp. nov. is depicted in life online at:

https://www.flickr.com/photos/54876436@N08/6966016226/ *M. langdoni sp. nov.* is readily separated from the other species in the complex by having 22 midbody rows, a very light dorsum, a very thick black stripe on the flank, being thick along the entire side of the flank and scattered large spots on the back. The stripe on the flank has a well-defined border on the upper edge (on the dorso-lateral edge), where it is prominent because

the dorsum lightens markedly at the outer edge. On the lower edge of the dark flank line, is a thin well-defined immaculate white line, bounded by a thin black line underneath, blow which is the immaculate white of the far lower flank and belly. The light brown dorsum has scattered blackish spots, which are

sparse anteriorly and become more prevalent towards the tail and remaining moderately spaced on the anterior end of the upper surface of the tail. The spots are rectangular shaped, the longer edge being on the snout-tail edge, rather than crossways. The black line of the flank continues onto the lateral edges of the tail, where it remains distinct for most of the length of the tail. The latter half of the upper surface of the tail has no obvious blackish flecks or markings and is of the same colour as the upper surface of the dorsum.

The upper surfaces of the limbs are marked blackish on the medial line and light brown on the sides.

M. langdoni sp. nov. is depicted in life in Horner (1992) on page 119 in Fig. 105.

M. anindilyakwa sp. nov. is diagnosed as for *M. langdoni sp. nov.* but is readily separated from that species by having 20 mid-body rows (not 22) and a thinner black stripe on the flank as well as by having a significant number of indistinct flecks on the upper surface of the dorsum.

M. yidinji sp. nov. is separated from the other species in the complex by the following combination of characters: A dusty brown coloured dorsum and similar on the sides, with semidistinct scattered dark flecks of irregular, but generally circular shape. This means that the dark side band is not distinct, being of similar colour to the dorsum and therefore with an indistinct upper border.

On the lower part of the flank, the dark fades to brown, but at the far bottom of the lower flank and where the colour is light brown, there is a well-defined and thin white line, sometimes broken with brown and also without border. The upper labials (front and back) are immaculate white and without etching or bars. The rest of the side of the head is dark in colour, this being an artefact of heavy peppering on white.

Upper surfaces of the limbs are dark grey brown, with light edges on the scales, but otherwise no obvious markings. The tail is a light brown on top, being significantly lighter in colour than the body.

There are 22 midbody rows.

M. yidinji sp. nov. is depicted in life online at:

https://www.inaturalist.org/observations/136993916

M. greyii of the nominate form from inland parts of the southern two thirds of Western Australia are separated from the preceding species by the following character suite:

The dark band from eye to top of forelimb is distinct, but relatively thin. Along the body the line is thin, with a distinct upper edge and a faded lower edge. The dorsum itself has indistinct flecks of slightly darker colour than the surrounding scales. Most of the flank is whitish brown or grey, but slightly lighter at the bottom than on the mid flank. The dorsolateral line continues onto the anterior part of the tail whereupon it breaks up.

Upper surfaces of the limbs are light brown, but heavily marked dark purplish-brown, especially on the uppermost parts. Anterior upper labials are mainly dark. Rear upper labials are mainly white or creamish-white.

There are 22 midbody rows.

M. greyii of the nominate form is depicted in life online at: https://www.inaturalist.org/observations/24643408 and

https://www.inaturalist.org/observations/154926326 *M. microscincus* is as described for *M. bibbulmun sp. nov.* above, but separated from that taxon by having a well-defined thick black line along the flank and the length of the tail on either side. This black line is bordered below by a thin white line, below which is peppered grey on white.

There are 22-24 midbody rows.

Head is heavily peppered.

M. microscincus is depicted in life online at:

https://www.inaturalist.org/observations/13060357

M. reidi is readily separated from the other (preceding) species as follows:

Heavy flecking or peppering on the dorsum, these forming into well-defined longitudinal lines, that extend onto the upper surface of the tail, at which point they become more dense and defined and then continue as bold thin lines down the anterior half of the tail.

Dorsum is otherwise a light brown colour, or grey-brown and the head is usually completely or near completely immaculate and without spots, flecks or mottling.

Upper surfaces of the limbs are darker than the dorsum, that is they are dark in colour and essentially unicolour as in no obvious markings.

The dark blackish stripe down the side is distinctly bordered on the upper surface and also below where greyish-white forms the border.

Upper labials are white but with obvious darker brown or grey markings.

22 midbody rows.

M. reidi is depicted in life online at:

https://www.flickr.com/photos/23031163@N03/7033164119/ and

https://www.inaturalist.org/observations/42666397 and

https://www.inaturalist.org/observations/151188381

The eleven preceding species are separated from all others in the genus *Menetia* Gray, 1845 *sensu lato* by the following unique combination of characters:

The interparietal is fused with the frontoparietal to form a single shield, distinct from the small interparietal. The second supraciliary is much larger than the first, contacts the prefrontal and separates the first supraciliary from the first supraocular. The two large and elongated supraoculars are distinctively oblique and the first is nearly three times longer than wide.

There is one presubocular, versus 2 in some of the other species. There is a dark stripe on the upper flank, with an illdefined to well-defined pale stripe below, at least in the anterior of body. 12-23 lamellae under fourth toe; 20-24 midbody rows. Skinks within the genus Menetia Gray, 1845 are separated from all other Australian skinks by the following unique combination of characters: Tiny lizards, characterised by short limbs that fail to overlap by at least several rows when adpressed; fingers four and toes five; no supranasals; parietal shields are in contact behind the interparietal and usually fused to it; prefrontals are large and usually narrowly separated, but sometimes in contact; lower evelid immovable fixed above to form a permanent transparent spectacle; ear opening is small but distinct (absent in some members of the subgenus Pertenuisscincus subgen. nov.); preanals are slightly enlarged (modified from Cogger 2014). Skinks of the genus Pygmaescincus Couper and Hoskin, 2014, formerly treated as being within Menetia Gray, 1845, are separated from that genus by the fact that the interparietal scale is distinct and not fused to the fronto-parietals, versus the opposite condition in to at least some degree in all Menetia. Distribution: M. tanyadayae sp. nov. appears to be confined the

Distribution: *M. tanyadayae sp. nov.* appears to be confined the coastal region immediately surrounding the city of Perth in and around the nearby coastal plain and adjacent hills.

Etymology: *M. tanyadayae sp. nov.* is named in recognition of a Yorta Yorta (Australian Aboriginal) woman named Tanya Day. In December 2017 she was attacked by corrupt Victorian Police (aren't most of them corrupt?) while unlawfully detained at the Castlemaine police station. She died shortly after.

More details of this and the other Aboriginal killings at the hands of Australian police referred to in this paper can be found online at: https://antar.org.au/issues/justice/deaths-custody/

MENETIA (MENETIA) KULLILLI SP. NOV.

LSIDurn:Isid:zoobank.org:act:FADCBE3A-9E74-4110-AB90-A62C6C766F26

Holotype: A preserved specimen at the South Australian Museum, Adelaide, South Australia, Australia, specimen number R45768 collected from 3.7 km southwest of Frew Well, South

Australia, Australia, Latitude -26.0564 S., Longitude 140-0692 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

R44971 collected from 4.7 km northeast of Mount Gow, South Australia, Australia, Latitude -26.525 S., Longitude 140.7375 E. **Diagnosis:** Until now, *Menetia greyii* Gray, 1845 has been treated as a single pan Australian species with a distribution extending from east coast to west coast of continental Australia, as well as north and south coasts, occupying pretty much the entire continental landmass except for the coldest and wettest parts of the south and east, including Tasmania, as well as a tiny section of far south-west, Western Australia.

However, published molecular data, including Adams *et al.* (2003) have confirmed that the putative taxon is a complex of morphologically similar species.

Besides the nominate form, with a type locality of "Western Australia", but believed to be of the form found in most of the southern two-thirds of that state, two other forms have also been named previously as species.

These are *M. reidi* McCooey, 1895 with a type locality of Dubbo, New South Wales, and being of the form found in most of the Murray/Darling basin of New South Wales and southern Queensland as well as *M. microscincus* Wells and Wellington, 1985 with a type locality of Kangaroo Island, South Australia and being of the form from the Eyre Peninsula, south-east South Australia and nearby parts of north-east Victoria and far southwest New South Wales.

Both are herein recognized as valid species.

Eight other divergent forms are formally named within this paper as detailed in the preceding formal description of *M. tanyadayae sp. nov.* which is relied upon explicitly as part of this formal description.

M. kullilli sp. nov. is found in the general region of northeast South Australia and nearby south-west Queensland, generally conforming to the lower Lake Eyre basin (and was a taxon flagged as a species by Adams *et al.* in 2003).

A morphologically similar species *M. tanyadayae sp. nov.* occurs in the deserts of Central Australia, including the central Australian Ranges and Tanami desert to the north. It also occurs in the far north-west of South Australia.

The two species *M. tanyadayae sp. nov.* and *M. kullilli sp.*

nov. are readily separated from all other species within the *M. greyii* species complex by the following unique combinations of characters;

M. tanyadayae sp. nov. is separated from the other 10 species in the *M. greyii* complex by the unique combination of: 20 midbody rows, a thick blackish stripe on the neck and flank; a brown dorsum with scattered dark spots on the back and a greyish tail. The upper surfaces of the hind limbs are light brown and with a small amount of indistinct dark spotting on the medial line. On the neck to just past the forelimb and below the dark lateral stripe is a well-defined immaculate white line, bordered below by a well-defined area of dark purplish-grey. This terminates on the forebody and does not extend down the flank.

M. tanyadayae sp. nov. is depicted in life online at: https://www.inaturalist.org/observations/1258099

and

https://www.inaturalist.org/observations/171513172 *M. kullilli sp. nov.* is similar in most respects to *M. tanyadayae sp. nov.*, as detailed above, which it is evidently closely related to, but differs from that species in that it has numerous dark spots on the dorsum, these forming rows, especially towards the base of the tail, as well as a thinner dark blackish stripe on the neck and flank, being medium in thickness rather than wide. The upper surfaces of the hind limbs are blackish in colour, this

being the obvious colouration, but also including limited amounts of brown spots or markings.

On the neck to just past the forelimb and below the dark lateral

stripe is a poorly defined and very thin white line, bordered below by indistinct peppering of dark purplish-grey. This terminates on the forebody and does not extend down the flank.

Perhaps the easiest way to separate *M. tanyadayae sp. nov.* from *M. kullilli sp. nov.* is by the fact that in *M. tanyadayae sp. nov.* the dark lateral stripe is wide anterior to the forelimb and then effectively disintegrates posteriorly, so that along the body there is a dark edge only along the dorso-lateral line, but no welldefined dark line along the upper flank, versus a well-defined thin dark brown (rather than blackish) line of even thickness running along the lateral edge, being thin from eye to forelimb and remaining of the same thickness and intensity along the length of the body to the hind limb, so that there remains a well-defined line along the upper flank and not just a dark edge.

M. kullilli sp. nov. is depicted in life online at:

https://www.inaturalist.org/observations/69755051

The eleven species in the *M. greyii* complex are separated from all others in the genus *Menetia* Gray, 1845 *sensu lato* by the following unique combination of characters:

The interparietal is fused with the frontoparietal to form a single shield, distinct from the small interparietal. The second supraciliary is much larger than the first, contacts the prefrontal and separates the first supraciliary from the first supraocular. The two large and elongated supraoculars are distinctively oblique and the first is nearly three times longer than wide.

There is one presubocular, versus 2 in some of the other species. There is a dark stripe on the upper flank, with an ill-defined to well-defined pale stripe below, at least in the anterior part of the body.

12-23 lamellae under the fourth toe; 20-24 midbody rows. Skinks within the genus *Menetia* Gray, 1845 are separated from all other Australian skinks by the following unique combination of characters: Tiny lizards, characterised by short limbs that fail to overlap by at least several rows when adpressed; fingers four and toes five; no supranasals; parietal shields are in contact behind the interparietal and usually fused to it; prefrontals are large and usually narrowly separated, but sometimes in contact; lower eyelid immovable, fixed above to form a permanent transparent spectacle; ear opening is small but distinct (absent in some members of the subgenus *Pertenuisscincus subgen. nov.*); preanals are slightly enlarged (modified from Cogger 2014).

Distribution: *M. kullilli sp. nov.* is a taxon found generally in the lower Lake Eyre basin of northern South Australia and immediately adjacent parts of south-west Queensland.

Etymology: *M. kullilli sp. nov.* is named in recognition of the Kullilli people, being the Aboriginal Australians who inhabited the part of Australia from where this species occurs, that being the Channel Country of south-west Queensland and nearby parts of north-east South Australia.

The spelling of the species name is deliberate and should not be altered or emended to the form of "orum" as may be contemplated by a first reviser, to potentially correct the Latinisation of the name. The same applies to any other species name in honour of an Aboriginal tribe or group of peoples that I have named either in this paper, any earlier papers, or others published in 2024, unless already named in such a format (e.g. as "orum").

MENETIA (MENETIA) BIBBULMUN SP. NOV. LSIDurn:lsid:zoobank.org:act:E3A87B89-FF3A-4428-81F1-3CEB2FD5A56A

Holotype: A preserved specimen at the Western Australian Museum, Perth, Western Australia, Australia, specimen number R118197 collected from Bold Park, Perth, Western Australia, Australia, Latitude -31.941389 S., Longitude 115.766944 E.

This government-owned facility allows access to its holdings. **Paratype:** A preserved specimen at the Western Australian Museum, Perth, Western Australia, Australia, specimen number R62707 collected from Jandakot, Western Australia, Australia, Latitude -32.15 S., Longitude 115.833333 E.

Diagnosis: Until now, Menetia greyii Gray, 1845 has been

treated as a single pan Australian species with a distribution extending from east coast to west coast of continental Australia, as well as north and south coasts, occupying pretty much the entire continental landmass except for the coldest and wettest parts of the south and east, including Tasmania, as well as a tiny section of far south-west, Western Australia.

However, published molecular data, including Adams *et al.* (2003) have confirmed that the putative taxon is a complex of morphologically similar species.

Besides the nominate form, with a type locality of "Western Australia", but believed to be of the form found in most of the southern two-thirds of that state, two other forms have also been named previously as species.

These are *M. reidi* McCooey, 1895 with a type locality of Dubbo, New South Wales, and being of the form found in most of the Murray/Darling basin of New South Wales and southern Queensland as well as *M. microscincus* Wells and Wellington, 1985 with a type locality of Kangaroo Island, South Australia and being of the form from the Eyre Peninsula, south-east South Australia and nearby parts of north-east Victoria and far southwest New South Wales.

Both are herein recognized as valid species.

Eight other divergent forms are formally named within this paper as detailed in the preceding formal description of *M. tanyadayae sp. nov.* which is relied upon explicitly as part of this formal description.

M. bibbulmun sp. nov. appears to be confined to Perth and environs, Western Australia, including the hilly areas to the east of the city.

M. bibbulmun sp. nov. is separated from the other ten species in the *M. greyii* species complex by the following unique combination of characters:

It is a dark blackish to chocolate brown form (on the dorsum), with 22-24 midbody rows. It also has mainly dark (black or blackish) upper labials; no obvious line separating the dark upper flank from the slightly less dark outer dorsum and no obvious line demarcating the dark upper flank with the slightly lighter lower flank. Any dark specks or flecks on the dorsum are of similar colour to the rest of the dorsum and so are barely noticeable.

Upper surfaces of the limbs are a dark greyish-black and without any obvious spots, flecks, or other markings. Top of the head is mainly unicolour, but with some slightly darker marbling present. Tail is dark with barely distinct markings and of similar colour to the upper body.

Lighter coloured specimens, being either brown or grey on the dorsum, which are also found in the same populations still have the same colour configurations as outlined above.

M. bibbulmun sp. nov. is depicted in life online at:

https://www.flickr.com/photos/reptileshots/15348493575/ and

https://www.flickr.com/photos/chrisjcooper/9659975699/ and

https://www.inaturalist.org/observations/141493196 and

https://www.inaturalist.org/observations/139108032 The eleven species in the *M. greyii* species complex are separated from all others in the genus *Menetia* Gray, 1845 *sensu lato* by the following unique combination of characters: The interparietal is fused with the frontoparietal to form a single shield, distinct from the small interparietal. The second supraciliary is much larger than the first, contacts the prefrontal and separates the first supraciliary from the first supraocular. The two large and elongated supraoculars are distinctively oblique and the first is nearly three times longer than wide.

There is one presubocular, versus 2 in some of the other species. There is a dark stripe on the upper flank, with an ill-defined to well-defined pale stripe below, at least in the anterior part of the body.

12-23 lamellae under the fourth toe; 20-24 midbody rows.

Skinks within the genus *Menetia* Gray, 1845 are separated from all other Australian skinks by the following unique combination of characters: Tiny lizards, characterised by short limbs that fail to overlap by at least several rows when adpressed; fingers four and toes five; no supranasals; parietal shields are in contact behind the interparietal and usually fused to it; prefrontals are large and usually nerrowly separated, but sometimes in contact; lower eyelid immovable, fixed above to form a permanent transparent spectacle; ear opening is small but distinct (absent in some members of the subgenus *Pertenuisscincus subgen. nov.*); preanals are slightly enlarged (modified from Cogger 2014). **Distribution:** *M. bibbulmun sp. nov.* appears to be confined to Perth and environs, Western Australia, including the hilly areas to the east of the city.

Etymology: *M. bibbulmun sp. nov.* is named in recognition of the Noongar/Bibbulmun people, who are the traditional (Aboriginal) owners of the southwest of Western Australia, prior to the European invasion, being where this species occurs. The spelling of this name should not be emended by any first reviser. **MENETIA (MENETIA) DHUAE SP. NOV.**

LSIDurn:Isid:zoobank.org:act:5B423C0F-F8F2-4347-BB56-1277BC973B2A

Holotype: A preserved specimen at the Western Australian Museum, Perth, Western Australia, Australia, specimen number R135528 collected from 4 km north-west of Tamala Homestead, Western Australia, Australia, Latitude -26.65 S., Longitude 113.666667 E.

This government-owned facility allows access to its holdings. **Paratype:** A preserved specimen at the Western Australian Museum, Perth, Western Australia, Australia, specimen number R135529 collected from 4 km north-west of Tamala Homestead, Western Australia, Australia, Latitude -26.65 S., Longitude 113.666667 E.

Diagnosis: Until now, *Menetia greyii* Gray, 1845 has been treated as a single pan Australian species with a distribution extending from east coast to west coast of continental Australia, as well as north and south coasts, occupying pretty much the entire continental landmass except for the coldest and wettest parts of the south and east, including Tasmania, as well as a tiny section of far south-west, Western Australia.

However published molecular data, including Adams *et al.* (2003) have confirmed that the putative taxon is a complex of morphologically similar species.

Besides the nominate form, with a type locality of "Western Australia", but believed to be of the form found in most of the southern two-thirds of that state, two other forms have also been named previously as species.

These are *M. reidi* McCooey, 1895 with a type locality of Dubbo, New South Wales, and being of the form found in most of the Murray/Darling basin of New South Wales and southern Queensland as well as *M. microscincus* Wells and Wellington, 1985 with a type locality of Kangaroo Island, South Australia and being of the form from the Eyre Peninsula, south-east South Australia and nearby parts of north-east Victoria and far southwest New South Wales.

Both are herein recognized as valid species.

Eight other divergent forms are formally named within this paper as detailed in the preceding formal description of *M. tanyadayae sp. nov.* which is relied upon explicitly as part of this formal description.

M. dhuae sp. nov. is a taxon apparently confined to the lower Shark Bay region in Western Australia and it is separated from the other species in the *M. greyii* species complex as follows: The dorsum and flanks are peppered heavily with small cream or white spots, giving the lizard a sandy appearance. The white spotting continues onto the anterior tail where they tend to form two obvious rows on either side of the mid-dorsal line.

The dark of the upper flank is faded to a slightly more greyishbrown than that of the dorsum and due to the white spotting, is barely noticeable in any way. Upper surfaces of the limbs also

have the same white spotting as seen on the rest of the upper body, but the spots on the limbs are well scattered. Spotting tends to marbling on the upper surfaces of the head, especially anteriorly, where the white spotting disappears.

Upper labials are white and with dark bars, but otherwise forming a well-defined white line from snout to ear. The white line seen on the lower flank of other species in the complex is not present in this species. There are 22 midbody rows.

M. dhuae sp. nov. is depicted in life in Wilson and Swan (2021) on page 409 at bottom.

The eleven species in the *M. greyii* species complex are separated from all others in the genus *Menetia* Gray, 1845 *sensu lato* by the following unique combination of characters: The interparietal is fused with the frontoparietal to form a single shield, distinct from the small interparietal. The second supraciliary is much larger than the first, contacts the prefrontal and separates the first supraciliary from the first supraocular. The two large and elongated supraoculars are distinctively oblique and the first is nearly three times longer than wide.

There is one presubocular, versus 2 in some of the other species. There is a dark stripe on the upper flank, with an ill-defined to well-defined pale stripe below, at least in the anterior part of the body.

12-23 lamellae under the fourth toe; 20-24 midbody rows. Skinks within the genus *Menetia* Gray, 1845 are separated from all other Australian skinks by the following unique combination of characters: Tiny lizards, characterised by short limbs that fail to overlap by at least several rows when adpressed; fingers four and toes five; no supranasals; parietal shields are in contact behind the interparietal and usually fused to it; prefrontals are large and usually narrowly separated, but sometimes in contact; lower eyelid immovable, fixed above to form a permanent transparent spectacle; ear opening is small but distinct (absent in some members of the subgenus *Pertenuisscincus subgen. nov.*); preanals are slightly enlarged (modified from Cogger 2014).

Distribution: *M. dhuae sp. nov.* appears to be confined to coastal areas of the lower Shark Bay Region in western Western Australia, Australia.

Etymology: *M. dhuae sp. nov.* is named in honour of Julieka Ivanna Dhu. She was a 22-year-old Aboriginal Australian woman who died after being unlawfully bashed by racist police in South Hedland, Western Australia, in 2014.

Her stature in Australian society was small, as is the stature of the skink named in her honour. However her murder by corrupt police should not go unnoticed.

It is fitting that a species be named in honour of an oppressed, rather than an oppressor as has been the case all too often in recent history in Australia.

MENETIA (MENETIA) DUNGAYI SP. NOV.

LSIDurn:lsid:zoobank.org:act:E63FAB88-910F-45BC-936B-02585017D74B

Holotype: A preserved specimen at the Western Australian Museum, Perth, Western Australia, Australia, specimen number R125483 collected from 30 km east of Newman, Western Australia, Australia, Latitude -23.316667 S., Longitude 120 E. This government-owned facility allows access to its holdings. Paratype: A preserved specimen at the Western Australian Museum, Perth, Western Australia, Australia, specimen number R125090 collected from 30 km east of Newman, Western Australia, Australia, Latitude -23.316667 S., Longitude 120 E. Diagnosis: Until now, Menetia greyii Gray, 1845 has been treated as a single pan Australian species with a distribution extending from east coast to west coast of continental Australia, as well as north and south coasts, occupying pretty much the entire continental landmass except for the coldest and wettest parts of the south and east, including Tasmania, as well as a tiny section of far south-west, Western Australia.

However published molecular data, including Adams *et al.* (2003) have confirmed that the putative taxon is a complex of

morphologically similar species.

Besides the nominate form, with a type locality of "Western Australia", but believed to be of the form found in most of the southern two-thirds of that state, two other forms have also been named previously as species.

These are *M. reidi* McCooey, 1895 with a type locality of Dubbo, New South Wales, and being of the form found in most of the Murray/Darling basin of New South Wales and southern Queensland as well as *M. microscincus* Wells and Wellington, 1985 with a type locality of Kangaroo Island, South Australia and being of the form from the Eyre Peninsula, south-east South Australia and nearby parts of north-east Victoria and far southwest New South Wales.

Both are herein recognized as valid species.

Eight other divergent forms are formally named within this paper as detailed in the preceding formal description of *M. tanyadayae sp. nov.* which is relied upon explicitly as part of this formal description.

M. dungayi sp. nov. a taxon apparently confined to the Pilbara region of Western Australia, is separated from the other species in the *M. greyii* species complex by the following unique combination of characters:

Most noticeably by its distinctive orange-red dorsum, which is almost immaculate in colour save for some indistinct peppering on the neck and darker brown mottling on the head.

The dark brown stripe from the snout to the top of the forelimb is extremely wide and well-defined between the eye and forelimb, being well-defined on the upper edge and bound by white on the lower edge. On the flank and anterior tail, the line is a thin blackish-brown, well-defined line, bound on either side (top and below) with immaculate orange.

About half-way down the flank, this colouration tends to fade, but not suddenly and with orange continuing to the ventral surface. Upper surfaces of the limbs are orange, but heavily marked with dark purplish-brown spots. The dorsal surface of the tail has either no spots, or at best barely distinct peppering.

Anterior upper labials are mainly dark and posterior upper labials are immaculate white. There are 22 midbody rows.

M. dungayi sp. nov. is depicted in life online at:

https://www.flickr.com/photos/54876436@N08/6966016226/ The eleven species in the *M. greyii* species complex are separated from all others in the genus *Menetia* Gray, 1845 *sensu lato* by the following unique combination of characters: The interparietal is fused with the frontoparietal to form a single shield, distinct from the small interparietal. The second supraciliary is much larger than the first, contacts the prefrontal

and separates the first supraciliary from the first supraocular. The two large and elongated supraoculars are distinctively oblique and the first is nearly three times longer than wide.

There is one presubocular, versus 2 in some of the other species. There is a dark stripe on the upper flank, with an ill-defined to well-defined pale stripe below, at least in the anterior part of the body.

12-23 lamellae under the fourth toe; 20-24 midbody rows. Skinks within the genus *Menetia* Gray, 1845 are separated from all other Australian skinks by the following unique combination of characters: Tiny lizards, characterised by short limbs that fail to overlap by at least several rows when adpressed; fingers four and toes five; no supranasals; parietal shields are in contact behind the interparietal and usually fused to it; prefrontals are large and usually narrowly separated, but sometimes in contact; lower eyelid immovable, fixed above to form a permanent transparent spectacle; ear opening is small but distinct (absent in some members of the subgenus *Pertenuisscincus subgen. nov.*); preanals are slightly enlarged (modified from Cogger 2014). **Distribution:** *M. dungayi sp. nov.* is a taxon apparently confined to the Pilbara region of Western Australia.

Etymology: *M. dungayi sp. nov.* is named in honour of David Dungay Junior.

This 26 year old Dunghgutti man (native Aboriginal Australian) was attacked and killed by prison officers in Sydney in 2015. David's family are still fighting for justice, which in reality is a fight they will never win in a country as racist and corrupt as Australia. *MENETIA (MENETIA) LANGDONI SP. NOV.*

LSIDurn:lsid:zoobank.org:act:92962C03-6C9E-4F70-88B6-FD8A144779BE

Holotype: A preserved specimen at the Museum and Art Gallery of the Northern Territory, Darwin, Northern Territory, Australia, specimen number R13839 collected from Kakadu National Park, Northern Territory, Australia, Latitude -13.483 S., Longitude 132.25 E.

This government-owned facility allows access to its holdings. **Paratypes:** Two preserved specimens at the Museum and Art Gallery of the Northern Territory, Darwin, Northern Territory, Australia, specimen numbers R13840 and R13841, both collected from Kakadu National Park, Northern Territory, Australia, Latitude -13.483 S., Longitude 132.25 E.

Diagnosis: Until now, *Menetia greyii* Gray, 1845 has been treated as a single pan Australian species with a distribution extending from east coast to west coast of continental Australia, as well as north and south coasts, occupying pretty much the entire continental landmass except for the coldest and wettest parts of the south and east, including Tasmania, as well as a tiny section of far south-west, Western Australia.

However published molecular data, including Adams *et al.* (2003) have confirmed that the putative taxon is a complex of morphologically similar species.

Besides the nominate form, with a type locality of "Western Australia", but believed to be of the form found in most of the southern two-thirds of that state, two other forms have also been named previously as species.

These are *M. reidi* McCooey, 1895 with a type locality of Dubbo, New South Wales, and being of the form found in most of the Murray/Darling basin of New South Wales and southern Queensland as well as *M. microscincus* Wells and Wellington, 1985 with a type locality of Kangaroo Island, South Australia and being of the form from the Eyre Peninsula, south-east South Australia and nearby parts of north-east Victoria and far southwest New South Wales.

Both are herein recognized as valid species.

Eight other divergent forms are formally named within this paper as detailed in the preceding formal description of *M. tanyadayae sp. nov.* which is relied upon explicitly as part of this formal description.

M. langdoni sp. nov. is a species apparently confined to the Kakadu National Park escarpment and associated hilly areas to the south, extending almost to the Tanami Desert to the southwest.

M. langdoni sp. nov. readily separated from the other species in the *Menetia greyii* Gray, 1845 complex by having 22 midbody rows, a very light dorsum, a very thick black stripe on the flank, being thick along the entire side of the flank and scattered large spots on the back.

The stripe on the flank has a well-defined border on the upper edge (on the dorso-lateral edge), where it is prominent because the dorsum lightens markedly at the outer edge. On the lower edge of the dark flank line, is a thin well-defined immaculate white line, bounded by a thin black line underneath, blow which is the immaculate white of the far lower flank and belly.

The light brown dorsum has scattered blackish spots, which are sparse anteriorly and become more prevalent towards the tail and remaining moderately spaced on the anterior end of the upper surface of the tail. The spots are rectangular shaped, the longer edge being on the snout-tail edge, rather than crossways. The black line of the flank continues onto the lateral edges of the tail, where it remains distinct for most of the length of the tail. The latter half of the upper surface of the tail has no obvious blackish flecks or markings and is of the same colour as the upper surface of the dorsum. The upper surfaces of the limbs are marked blackish on the medial line and light brown on the sides.

M. langdoni sp. nov. is depicted in life in Horner (1992) on page 119 in Fig. 105.

The eleven species in the *M. greyii* species complex are separated from all others in the genus *Menetia* Gray, 1845 *sensu lato* by the following unique combination of characters:

The interparietal is fused with the frontoparietal to form a single shield, distinct from the small interparietal. The second supraciliary is much larger than the first, contacts the prefrontal and separates the first supraciliary from the first supraocular. The two large and elongated supraoculars are distinctively oblique and the first is nearly three times longer than wide.

There is one presubocular, versus 2 in some of the other species. There is a dark stripe on the upper flank, with an ill-defined to well-defined pale stripe below, at least in the anterior part of the body.

12-23 lamellae under the fourth toe; 20-24 midbody rows. Skinks within the genus Menetia Gray, 1845 are separated from all other Australian skinks by the following unique combination of characters: Tiny lizards, characterised by short limbs that fail to overlap by at least several rows when adpressed: fingers four and toes five; no supranasals; parietal shields are in contact behind the interparietal and usually fused to it; prefrontals are large and usually narrowly separated, but sometimes in contact; lower eyelid immovable, fixed above to form a permanent transparent spectacle: ear opening is small but distinct (absent in some members of the subgenus Pertenuisscincus subgen. nov.); preanals are slightly enlarged (modified from Cogger 2014). Distribution: M. langdoni sp. nov. is a species apparently confined to the Kakadu National Park escarpment and associated hilly areas to the south, extending almost to the Tanami Desert to the south-west.

Etymology: *M. langdoni sp. nov.* is named in honour of Kumanjayi or Kwementyaye Langdon, known in life as Perry Jabanangka Langdon.

He was an acclaimed Warlpiri (Aboriginal) artist whose work is held by the National Gallery of Victoria.

He died on 21 May 2015 of heart failure in Darwin Watch House, around three hours after being bashed senseless by corrupt, racist Northern Territory (NT) Police in one of their regular "*boong bashings*".

The racist NT police call Aboriginals "*boong*" or "*boongs*" because that is the sound they make when they run them over in their police vehicles.

See also for Kumanjayi Walker in Hoser (2020).

MENETIA (MENETIA) ANINDILYAKWA SP. NOV.

LSIDurn:Isid:zoobank.org:act:958B287A-4E91-47A9-AEDB-7D3E0E43F51E

Holotype: A preserved specimen at the Museum and Art Gallery of the Northern Territory, Darwin, Northern Territory, Australia, specimen number R38402 collected from Groote Eylandt, Gulf of Carpentaria, Northern Territory, Australia, Latitude 13.83442 S., Longitude 136.5133 E.

This government-owned facility allows access to its holdings. **Paratypes:** Two preserved specimens at the Museum and Art Gallery of the Northern Territory, Darwin, Northern Territory, Australia, specimen numbers R38403 and R33713 collected from Groote Eylandt, Gulf of Carpentaria, Northern Territory, Australia, Latitude 13.83442 S., Longitude 136.5133 E.

Diagnosis: Until now, *Menetia greyii* Gray, 1845 has been treated as a single pan Australian species with a distribution extending from east coast to west coast of continental Australia, as well as north and south coasts, occupying pretty much the entire continental landmass except for the coldest and wettest parts of the south and east, including Tasmania, as well as a tiny section of far south-west, Western Australia.

However, published molecular data, including Adams *et al.* (2003) have confirmed that the putative taxon is a complex of

morphologically similar species.

Besides the nominate form, with a type locality of "Western Australia", but believed to be of the form found in most of the southern two-thirds of that state, two other forms have also been named previously as species.

These are *M. reidi* McCooey, 1895 with a type locality of Dubbo, New South Wales, and being of the form found in most of the Murray/Darling basin of New South Wales and southern Queensland as well as *M. microscincus* Wells and Wellington, 1985 with a type locality of Kangaroo Island, South Australia and being of the form from the Eyre Peninsula, south-east South Australia and nearby parts of north-east Victoria and far southwest New South Wales.

Both are herein recognized as valid species.

Eight other divergent forms are formally named within this paper as detailed in the preceding formal description of *M. tanyadayae sp. nov.* which is relied upon explicitly as part of this formal description.

M. langdoni sp. nov. is a species apparently confined to the Kakadu National Park escarpment and associated hilly areas to the south, extending almost to the Tanami Desert to the southwest. It is morphologically similar to *M. anindilyakwa sp. nov.* from Groote Eylandt in the Gulf of Carpentaria and so it is also described within this formal description of *M. anindilyakwa sp. nov. nov.*

Notable is that *M. langdoni sp. nov.* is not known from the Northern Territory coast immediately adjacent to Groote Eylandt. *M. langdoni sp. nov.* is readily separated from the other species in the *M. greyii* species complex by having 22 midbody rows, a very light dorsum, a very thick black stripe on the flank, being thick along the entire side of the flank and scattered large spots on the back.

The stripe on the flank has a well-defined border on the upper edge (on the dorso-lateral edge), where it is prominent because the dorsum lightens markedly at the outer edge. On the lower edge of the dark flank line, is a thin well-defined immaculate white line, bounded by a thin black line underneath, blow which is the immaculate white of the far lower flank and belly.

The light brown dorsum has scattered blackish spots, which are sparse anteriorly and become more prevalent towards the tail and remaining moderately spaced on the anterior end of the upper surface of the tail. The spots are rectangular shaped, the longer edge being on the snout-tail edge, rather than crossways. The black line of the flank continues onto the lateral edges of the tail, where it remains distinct for most of the length of the tail. The latter half of the upper surface of the tail has no obvious blackish flecks or markings and is of the same colour as the upper surface of the dorsum.

The upper surfaces of the limbs are marked blackish on the medial line and light brown on the sides.

M. langdoni sp. nov. is depicted in life in Horner (1992) on page 119 in Fig. 105.

M. anindilyakwa sp. nov. is diagnosed as for *M. langdoni sp. nov.*, save the following: It is readily separated from that species by having 20 mid-body rows (not 22) and a thinner black stripe on the flank as well as by having a significant number of indistinct flecks on the upper surface of the dorsum.

The eleven species in the *M. greyii* species complex are separated from all others in the genus *Menetia* Gray, 1845 *sensu lato* by the following unique combination of characters: The interparietal is fused with the frontoparietal to form a

single shield, distinct from the small interparietal. The second supraciliary is much larger than the first, contacts the prefrontal and separates the first supraciliary from the first supraocular. The two large and elongated supraoculars are distinctively oblique and the first is nearly three times longer than wide.

There is one presubocular, versus 2 in some of the other species. There is a dark stripe on the upper flank, with an ill-defined to well-defined pale stripe below, at least in the anterior part of the body.

12-23 lamellae under the fourth toe; 20-24 midbody rows. Skinks within the genus *Menetia* Gray, 1845 are separated from all other Australian skinks by the following unique combination of characters: Tiny lizards, characterised by short limbs that fail to overlap by at least several rows when adpressed; fingers four and toes five; no supranasals; parietal shields are in contact behind the interparietal and usually fused to it; prefrontals are large and usually narrowly separated, but sometimes in contact; lower eyelid immovable, fixed above to form a permanent transparent spectacle; ear opening is small but distinct (absent in some members of the subgenus *Pertenuisscincus subgen. nov.*); preanals are slightly enlarged (modified from Cogger 2014).

Distribution: *M. anindilyakwa sp. nov.* is known only from Groote Eylandt in the Gulf of Carpentaria and is presumed to be endemic to the island.

Etymology: *M. anindilyakwa sp. nov.* is named in recognition of the Anindilyakwa people, being the original native Australian inhabitants of Groote Eylandt in the Gulf of Carpentaria. The spelling of the species name should not be altered by any first reviser.

MENETIA (MENETIA) YIDNINJI SP. NOV.

LSIDurn:Isid:zoobank.org:act:B2087ACA-1481-41F9-937D-9328E6230D51

Holotype: A preserved specimen at the Australian Museum, Sydney, New South Wales, Australia, specimen number R.113828 collected from the south-west side of Chillagoe, Queensland, Australia, Latitude -17.15 S., Longitude 144.516 E. This government-owned facility allows access to its holdings.
Paratype: A preserved specimen at the Queensland Museum, Brisbane, Queensland, Australia, specimen number J31228 collected from Chillagoe, Queensland, Australia, Latitude Latitude -17.15 S., Longitude 144.516667 E.

Diagnosis: Until now, *Menetia greyii* Gray, 1845 has been treated as a single pan Australian species with a distribution extending from east coast to west coast of continental Australia, as well as north and south coasts, occupying pretty much the entire continental landmass except for the coldest and wettest parts of the south and east, including Tasmania, as well as a tiny section of far south-west, Western Australia.

However published molecular data, including Adams *et al.* (2003) have confirmed that the putative taxon is a complex of morphologically similar species.

Besides the nominate form, with a type locality of "Western Australia", but believed to be of the form found in most of the southern two-thirds of that state, two other forms have also been named previously as species.

These are *M. reidi* McCooey, 1895 with a type locality of Dubbo, New South Wales, and being of the form found in most of the Murray/Darling basin of New South Wales and southern Queensland as well as *M. microscincus* Wells and Wellington, 1985 with a type locality of Kangaroo Island, South Australia and being of the form from the Eyre Peninsula, south-east South Australia and nearby parts of north-east Victoria and far southwest New South Wales.

Both are herein recognized as valid species.

Eight other divergent forms are formally named within this paper as detailed in the preceding formal description of *M. tanyadayae sp. nov.* which is relied upon explicitly as part of this formal description.

M. yidinji sp. nov. is a species known only from the lower Cape York area of far north Queensland, generally west of the wetter parts of the Great Dividing Range in the northern wet tropics. *M. yidinji sp. nov.* is separated from the other species in the *M. greyii* species complex by the following unique combination of characters:

A dusty brown coloured dorsum and similar on the sides, with semi-distinct scattered dark flecks of irregular, but generally circular shape. This means that the dark side band is not distinct, being of similar colour to the dorsum and therefore with an indistinct upper border.

On the lower part of the flank, the dark fades to brown, but at the far bottom of the lower flank and where the colour is light brown, there is a well-defined and thin white line, sometimes broken with brown and also without border. The upper labials (front and back) are immaculate white and without etching or bars. The rest of the side of the head is dark in colour, this being an artefact of heavy peppering on white.

Upper surfaces of the limbs are dark grey brown, with light edges on the scales, but otherwise no obvious markings. The tail is a light brown on top, being significantly lighter in colour than the body.

There are 22 midbody rows.

M. yidinji sp. nov. is depicted in life online at:

https://www.inaturalist.org/observations/136993916 The eleven species in the *M. greyii* species complex are separated from all others in the genus *Menetia* Gray, 1845 *sensu lato* by the following unique combination of characters: The interparietal is fused with the frontoparietal to form a single shield, distinct from the small interparietal. The second supraciliary is much larger than the first, contacts the prefrontal and separates the first supraciliary from the first supraocular. The two large and elongated supraoculars are distinctively oblique and the first is nearly three times longer than wide.

There is one presubocular, versus 2 in some of the other species. There is a dark stripe on the upper flank, with an ill-defined to well-defined pale stripe below, at least in the anterior part of the body.

12-23 lamellae under the fourth toe; 20-24 midbody rows. Skinks within the genus Menetia Gray, 1845 are separated from all other Australian skinks by the following unique combination of characters: Tiny lizards, characterised by short limbs that fail to overlap by at least several rows when adpressed; fingers four and toes five; no supranasals; parietal shields are in contact behind the interparietal and usually fused to it; prefrontals are large and usually narrowly separated, but sometimes in contact; lower eyelid immovable, fixed above to form a permanent transparent spectacle; ear opening is small but distinct (absent in some members of the subgenus Pertenuisscincus subgen. nov.); preanals are slightly enlarged (modified from Cogger 2014). Distribution: M. vidinji sp. nov. is a species known only from the lower Cape York area of far north Queensland, generally west of the wetter parts of the Great Dividing Range in the northern wet tropics.

Etymology: *M. yidinji sp. nov.* is named in recognition of the Yidinji peoples, being one of the largest groups of indigenous Australians from the region where this species occurs in far north-east Queensland, generally west of Cairns in Queensland, Australia. The spelling of the species name should not be emended by any first reviser.

PYGMAESCINCUS TIMLOWI GEYNYON SUBSP. NOV. LSIDurn:lsid:zoobank.org:act:DC093DB9-3770-4F9B-9027-3BD82FFF2B56

Holotype: A preserved specimen at the Queensland, Museum, Brisbane, Queensland, Australia, specimen number J59546 collected from the Inglewood State Forest, Queensland, Australia, Latitude -28.334167 S., Longitude 151.143056 E. This government-owned facility allows access to its holdings. **Paratype:** Two preserved specimens at the Queensland, Museum, Brisbane, Queensland, Australia, being specimen number J62658 collected from the Eena State Forest, Queensland, Australia, Latitude -28.338889 S., Longitude 150.855278 E. and specimen number J66815 collected from "State Forest 189" via Millmerran, Queensland, Australia, Latitude -28.083056 S., Longitude 150.9575 E.

Diagnosis: The subspecies *Pygmaescincus timlowi geynyon subsp. nov*. occurs near the New South Wales and Queensland border near the coast in far southern Queensland. Nominate *P. timlowi* (Ingram, 1977), with a type locality of 80 km north-west of

Marlborough, Queensland, Australia, occurs further north in mideastern Queensland.

Pygmaescincus timlowi geynyon subsp. nov. is most readily separated from the nominate subspecies by colouration, being a very dark chocolate brown on the dorsum, versus dark brown in the nominate form. The tiny dark and light flecks that are prominent on the dorsum in the nominate form are not so in *P. timlowi geynyon subsp. nov.* The upper surfaces of the hind limbs in *P. timlowi geynyon subsp. nov.* are blackish in colour with scattered well-defined small white spots. By contrast, the upper surfaces of the hind limbs in nominate *P. timlowi timlowi* are a light whitish-grey colour, over which are smallish dark or light blotches.

The dark stripe on the flank that is reasonably distinct in *P. timlowi timlowi* is indistinct in *P. timlowi geynyon subsp. nov.*. Dark barring of the white upper labials in *P. timlowi timlowi* is thick (at the anterior edge), versus a thin etching only in *P. timlowi geynyon subsp. nov.*.

P. timlowi geynyon subsp. nov. in life is depicted online at: https://www.inaturalist.org/observations/155993255 The nominate form of *P. timlowi timlowi* (Ingram, 1977) is depicted online at:

https://www.inaturalist.org/observations/161522965 *P. timlowi* of both subspecies are separated from the other two species within the genus *Pygmaescincus* Couper and Hoskin, 2014 by the presence of a single pretemporal scale, versus two in the other two species, both being from north Queensland. Those species are *P. koshlandae* (Greer, 1991) and *P. sadlieri* (Greer, 1991).

Skinks of the genus *Pygmaescincus* Couper and Hoskin, 2014, formerly treated as being within *Menetia* Gray, 1845, are separated from that genus by the fact that the interparietal scale is distinct and not fused to the fronto-parietals, versus the opposite condition in to at least some degree in all *Menetia*. Both *Menetia* and *Pygmaescincus* are separated from all other Australian skinks by the following unique combination of

characters: Tiny lizards, characterised by short limbs that fail to overlap by at least several rows when adpressed; fingers four and toes five; no supranasals; parietal shields are in contact behind the interparietal and may or may not be fused to it; prefrontals are large and usually narrowly separated, but sometimes in contact; lower eyelid immovable, fixed above to form a permanent transparent spectacle; ear opening is small but distinct (absent in some members of the subgenus *Pertenuisscincus subgen. nov.* being within *Menetia*); preanals are slightly enlarged (modified from Cogger 2014).

Distribution: The subspecies *P. timlowi geynyon subsp. nov.* occurs near the New South Wales and Queensland border near the coast in far southern Queensland. Nominate *P. timlowi* (Ingram, 1977), with a type locality of 80 km north-west of Marlborough, Queensland, Australia, occurs further north in mideastern Queensland.

Etymology: *P. timlowi geynyon subsp. nov.* is named in recognition of the Geynyon people, sometimes also written as Keinjan, being the original (Aboriginal) inhabitants of the region this species occurs. The spelling of the species name should not be emended by any first reviser.

REFERENCES CITED

Adams, M., Foster, R., Hutchinson, M. N., Hutchinson, R. G. and Donnellan, S. C. 2003. The Australian scincid lizard *Menetia greyii*: an new instance of widespread vertebrate parthenogenesis. *Evolution: An International Journal of Organic Evolution* 57 (11): 2619-2627.

Aplin, K. P. and Adams, M. 1998. Morphological and genetic discrimination of new species and subspecies of gekkonid and scincid lizards (Squamata: Lacertilia) from the Carnarvon Basin of Western Australia. *Journal of the Royal Society of Western Australia* 81:201-223.

Aplin, K. P. and Smith, L. A. 2001. Checklist of the frogs and



reptiles of Western Australia. *Records of the Western Australian Museum* Supplement 63:51-74.

Bush, B. 1981. *Reptiles of the Kalgoorlie-Esperance Region*.
Brian Bush, Perth, Western Australia, Australia:46 pp
Ceraico, L. M. P., Aescht, E., Ahyong, S. T., Ballerio, A.,
Bouchard, P., Bourgoin, 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.

Couper, P. J. and Hoskin, C. J. 2014. A new genus to accommodate three skinks currently assigned to *Menetia* (Lacertilia: Scincidae). *Zootaxa* (PRINO) (online) 3884(6):597-599.

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.

Covacevich, J. A., Couper, P. J. and McDonald, K. R. 1998. Reptile diversity at risk in the Brigalow Belt, Queensland. *Memoirs of the Queensland Museum* 42(2):475-486.

Dubois, A., Bauer, A. M., Ceriaco, L. M. P., Dusouler, F., Fretey, T., Lobl, I., Lorvelec, O., Ohler, A., Stopiglia, R. and Aescht, 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 G. Bibron. 1839. *Erpétologie Générale on Histoire Naturelle Complète des Reptiles*. Vol. 5. Roret/Fain et Thunot, Paris, France:871 pp.

Ford, J. 1963. The Reptilian Fauna of the Islands between

Dongara and Lancelin, Western Australia. *Western Australian Naturalist* 8(6):135-142.

Gray, J. E. 1845. Catalogue of the specimens of lizards in the collection of the British Museum. Trustees of the British Museum/ Edward Newman, London, UK:xxvii+289 pp.

Glauert, L. 1960. Herpetological miscellanea. XII. The family Scincidae in Western Australia. Part 3. The genus *Ablepharus*. *Western Australian Naturalist* 7: 115-122

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. 1991. Two new species of *Menetia* from northeastern Queensland, with comments on the generic diagnoses of *Lygisaurus* and *Menetia. Journal of Herpetology* 25(3):268-272. Greer, A. E. 2001. Distribution of maximum snout-vent length

among species of Scincid lizards. *Journal of Herpetology* 35(3):383-395.

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 Wuster *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. Horner, P. 1992. *Skinks of the Northern Territory*. Northern Territory Museum Handbook, Series Number 2:174 pp. Hoser, R. T. 1989. *Australian Reptiles and Frogs*. Pierson and Co., Mosman, NSW, 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. 2007. Wells and Wellington - It's time to bury the hatchet. *Calodema Supplementary Paper* (2007)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. 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. 2018. New Australian lizard taxa within the greater *Egernia* Gray, 1838 genus group of lizards and the division of *Egernia sensu lato* into 13 separate genera. *Australasian Journal of Herpetology*, 36:49-64.

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. 2020 For the first time ever! An overdue review and reclassification of the Australasian Tree Frogs (Amphibia: Anura: Pelodryadidae), including formal descriptions of 12 tribes, 11 subtribes, 34 genera, 26 subgenera, 62 species and 12 subspecies new to science. *Australasian Journal of Herpetology* 44-46:1-192.

How, R. A., Cowan, M. A., Teale, R. J., Schmitt, L. H. 2020. Environmental correlates of reptile variation on the Houtman Abrolhos archipelago, eastern Indian Ocean. *Journal of Biogeography* 47: 2017-2028.

Ingram, G. J. 1977. Three species of small lizards - two of them new. Genus *Menetia* (Lacertilia, Scincidae) in Queensland. *Victorian Naturalist* 94:184-187.

Ingram, G. and Covacevich, J. 1988. Revision of the genus *Lygisaurus* de Vis (Scincidae: Reptilia) in Australia. *Memoirs of the Queensland Museum* 25(2):335-354.

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.

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.

Maryan, B., Browne-Cooper, R. and Bush, B. 2002. Herpetofauna Survey of the Maralla Road Bushland. *Western Australian Naturalist* 23:197-205.

McCooey, H. J. 1985. Letter. *Dubbo Dispatch and Wellington Independent* 30(84):4.

Mosyakin, S. L. 2022. If "Rhodes-" must fall, who shall fall next? *Taxon* 71:49-255.

Peterson, M. and Metcalfe, D C. 2015. *Menetia greyii* (Grey's skink) diet. *Herpetological Review* 46(4):631-632. Pianka, E. R. 1969. Habitat specificity, speciation, and species density in Australian desert lizards. *Ecology* 50(3):498-502.

Pianka, E. R. 2011. Notes on the natural history of the tiny skink *Menetia greyi. Western Australian Naturalist* 28:12-17. Rankin, P. R. 1979. A taxonomic revision of the genus *Menetia*

(Lacertilia, Scincidae) in the Northern Territory. *Records of the Australian Museum* 32(14):491-499.

Rhodin, A. *et al.* (70 listed authors, with some later publishing that they had never read the document they allegedly coauthored) 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").

Smyth, M. and Smith, M. J. 1974. Aspects of the natural history of three Australian skinks, *Morethia boulengeri, Menetia greyii* and *Lerista bougainvillii. Journal of Herpetology* 8(3):329-336. Sadlier, R. A. 1984. A new Australian scincid lizard, *Menetia concinna*, from the Alligator Rivers region, Northern Territory. *Records of the Australian Museum* 36(2):45-49.

Storr, G. M. 1976. The genus *Menetia* (Lacertilia: Scincidae) in Western Australia. *Records of the Western Australian Museum* 4:189-200.

Storr, G. M. 1978. Taxonomic notes on the reptiles of the Shark Bay region, Western Australia. *Records of the Western Australian Museum* 6(3):303-318.

Storr, G. M., Smith, L. A. and Johnstone, R. E. 1981. *Lizards of Western Australia. I. Skinks*. University of Western Australia Press and Western Australian Museum, Perth, Western Australia, Australia:200 pp.

Swan, G., Sadlier, R. and Shea, G. 2022. *A field guide to reptiles of New South Wales*. Fourth edition. Reed New Holland, Sydney, 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.

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 Journ. of Herp.* 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. 2022. A field guide to Reptiles of Queensland. Reed new Holland Publishers, Wahroonga, NSW, Australia:335 pages Wilson, S. and Knowles, D. 1988. Australia's Reptiles: A Photographic Reference to the Terrestrial Reptiles of Australia. Collins Publishers, Sydney, New South Wales, Australia:447 pp. Wilson, S. and Swan, G. 2021. A complete guide to the reptiles of Australia. Reed / New Holland, Wahroonga (Sydney), New South Wales, Australia:688 pages.

CONFLICT OF INTEREST - NONE.

