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Before they get wiped out! Formal descriptions of 15 new species of Monitor Lizard in the *Euprepiosaurus* (AKA *Varanus*) *indicus* (Daudin, 1802) and the *Shireenhosersaurea* (AKA *Varanus*) *prasinus* (Schlegel, 1839) species groups.

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ABSTRACT

The Mangrove Monitor "*Varanus indicus*" (Daudin, 1802) and Green Monitor "*Varanus prasinus*" (Schlegel, 1839) were each long thought of as being single widespread species *sensu* Cogger *et al*. (1983) within the genus *Varanus* Merrem, 1820.

In 2013, Hoser resurrected the name *Euprepiosaurus* Fitzinger, 1843 as a full genus for the *Tupinambis indicus* Daudin, 1802 species group, excluding *Varanus indicus spinulosus* Mertens, 1941, in turn placed in the genus *Oxysaurus* Hoser, 2013 and the group including *Monitor prasinus* Schlegel, 1839, was placed in the new genus *Shireenhosersaurea* Hoser, 2013.

A group known as the Wolfgang Wüster gang of thieves, did via Kaiser *et al*. (2013) falsely accuse Hoser of "taxonomic vandalism".

They then themselves committed a despicable act of taxonomic vandalism when via Bucklitsch, Böhme and Koch, (2016) they illegally coined new names in the PRINO (peer reviewed in name only) onlne journal *Zootaxa* for exactly the same genera. Lifting material directly from the Hoser (2013) paper, Bucklitsch *et al*. coined unlawful new names, *Solomonsaurus* and *Hapturosaurus* for the same genera in order to clutter zoology with unnecessary objective synonyms.

As of 2020 about 17 distinctive forms previously associated with the putative taxon *Euprepiosaurus indicus* are widely recognized within herpetology as being separate species and have been formally named.

Following an audit of the species complex, this paper formally names twelve other hitherto unnamed forms from Australia, New Guinea and the Solomon Islands as new species on the basis of morphological and reproductive divergence from the 17 forms currently as of 2020 recognized as species.

In terms of the genus *Shireenhosersaurea.* three populations of putative *S. prasinus* (Schlegel, 1839) are also formally named for the first time. This makes 12 recognized species in the genus.

All species within the genera *Oxysaurus* and *Shireenhosersaurea* are probably in decline and some may be in imminent danger of extinction.

Formally naming new species is the critically important first step in their conservation as outlined by Hoser (2019a, 2019b).

Keywords: Herpetology; taxonomy; nomenclature; Varanidae; *Varanus*; *Euprepiosaurus*; *Oxysaurus*; *Shireenhosersaurea*; taxonomic vandalism; *Hapturosaurus*; *Solomonsaurus*; Monitor Lizards; Mangrove monitors; New Guinea; Australia; Solomon Islands; Papua; ICZN; *indicus*; *jobiensis*; *doreanus*; *finschi*; *semotus*; *spinulosus*; *prasinus*; new species; *oxyi*; *adelynhoserae*; *jackyhoserae*; *lenhoseri*; *matteoae*; *elfakhariorum*; *allengreeri; dorisioi*; *paulwoolfi*; *sloppi*; *powi*; *scottgranti*; *shireenhoserae*; *satis*; *clara*.

INTRODUCTION

The Iconic Mangrove Monitor "*Varanus indicus*" (Daudin, 1802) has been a popular reptile among reptile keepers and reptile scientists since it was first formally named back in 1802.

This is on account of its large size, spectacular colouration, often being dark grey or black and with sometimes bright yellow spots, combined with a generally docile temperament in captivity.

While various forms were described over the following 200 years, putative "*Varanus indicus*" was for many years thought of as a single widespread species *sensu* Cogger *et al.* (1983) within the genus *Varanus* Merrem, 1820.

At the time Cogger *et al.* (1983) synonymised no less than nine other previously named forms. They also omitted at least one other (*Varanus karlschmidti* Mertens, 1951).

That taxon has been treated by most authors, including myself as a junior subjective synonym of "*Varanus indicus jobiensis* Ahl 1932", which remained the case as of the completion of the current audit.

As of 2020, most of the described putative taxa synonymised by Cogger *et al.* (1983) have been resurrected from synonymy as full species and others formally named, meaning that as of 2020 about 17 distinctive forms previously associated with the putative taxon *Euprepiosaurus indicus sensu lato* are widely recognized within herpetology as being separate species.

In 2013, Hoser resurrected the name *Euprepiosaurus* Fitzinger, 1843 as a full genus for the "*Varanus indicus*" *sensu lato* species group, excluding *Varanus indicus spinulosus* Mertens, 1941, in turn placed in the genus *Oxysaurus* Hoser, 2013 and the group including *Monitor prasinus* Schlegel, 1839, placed in the new genus *Shireenhosersaurea* Hoser, 2013.

Notwithstanding theft of a draft paper in 2011 on the same subject but of far wider scope and detail, (see below), this paper has arisen as a result of an audit of the *Euprepiosaurus* Fitzinger, 1843 and *Shireenhosersaurea* Hoser, 2013 genera with a view to formally naming a sizeable number of obviously unnamed forms.

Post-dating 2011 and predating 2020, at least two further forms have been formally named, these being "*Varanus semotus* Weijola, Donnellan and Lindqvist, 2016" and "*Varanus bennetti* Weijola, Vahtera, Koch, Schmitz and Kraus, 2020".

Notwithstanding this, it has been well-known for many years that putative *Euprepiosaurus indicus* (Daudin, 1802) and consists of several more obviously unnamed species level taxa (e.g. Sprackland 1995, Ziegler *et al.* 2007a, Weijola 2017).

With some of these species-taxa confined to relatively small islands and currently being mis-labelled as populations of a widespread species, it is important that they be named before any risk of local extinction occurs.

It appears that some of these species may have already declined.

See for example Hoser (1995), McCoid *et al.* (1994), McCreless *et al.* (2015), Pianka (2012) and Pimm *et al.* (2006). However sometimes for a given species of large monitor, human activity may see an increase in numbers as detailed by Soler (2013).

A similar audit was conducted with respect of the species within the *Shireenhosersaurea prasinus* (Schlegel, 1839) species complex, a group which as of 2020 had nine widely recognized species. Putative *S. prasinus* in particular were inspected in order to identify any potentially unnamed forms and three were readily identified as unnamed species.

NOTES ON THE NOMENCLATURE OF THE RELEVANT GENERA AND SPECIES

A group known as the Wolfgang Wüster gang of thieves, did via Kaiser *et al.* (2013) falsely accuse myself, Raymond Hoser of "taxonomic vandalism".

Taxonomic vandalism is the deliberate act of renaming a biological entity that one knows is already named (usually species or genus) combined with the reckless and deliberate promotion of the incorrect "synonym" name in favour of the earlier name that is known to be correct and in accordance with the *International Code of Zoological Nomenclature.* Taxonomic Vandalism is anti-science and a direct attack on the *International Code of Zoological Nomenclature*. It also has serious negative consequences for wildlife conservation and public safety as detailed by Hoser (2015a-f) and Hoser (2019a-b).

I can state as a matter of fact, that I have never engaged in taxonomic vandalism in any way, shape or form, and thoroughly detest the act and any person who engages in it.

The Wolfgang Wüster gang of thieves, did after falsely accusing myself of taxonomic vandalism did then themselves commit a despicable act of taxonomic vandalism.

This was when via Bucklitsch, Böhme and Koch, (2016) they illegally coined new names for exactly the same varanid genera *Shireenhosersaurea* Hoser, 2013 and *Oxysaurus* Hoser, 2913 in a PRINO (peer reviewed in name only) online journal *Zootaxa*. Lifting material directly from the Hoser (2013) paper, in an act of theft or plagiarisation, Bucklitsch *et al.* coined illegal new names, *Solomonsaurus* and *Hapturosaurus* for the same genera in order to clutter zoology with unnecessary objective synonyms.

Overuse of these illegal names and self-citation by the Wolfgang Wüster gang of thieves in the online PRINO (Peer reviewed in name only) journal "*Zootaxa*" that they control, led to that journal being blackballed by Clarivate, the company behind the widely touted "Impact Factor", widely used by academics to measure credibility of scientific journals (Oransky, 2020).

The Wolfgang Wüster gang of thieves have been at war against the rules of the *International Code of Zoological Nomenclature* (Ride *et al.* 1999) for decades (see Hoser 2007).

Their more recent war cry manifesto known as "Kaiser *et al.* (2013)", although in fact written by Wolfgang Wüster (see Kaiser 2012a) as frequently amended (see also Kaiser 2012, 2012b, 2013, 2014a and 2014b) has been discredited numerous times (e.g. Cogger (2014), Dubois (2014), Dubois *et al.* (2019), Eipper (2013), Hoser (2009a, 2012a, 2012b, 2015a-f, 2019a-b), Mutton (2014a, 2014b), Shea (2013a-d), Thorpe (2013, 2014a, 2014b), Wellington (2013, 2014a, 2014b), Wells (2013, 2014) and sources cited therein).

Notwithstanding these setbacks the Wolfgang Wüster gang remain undeterred and continue to commit acts of internet trolling, running countless fake accounts online for peddling hatred and lies, as well as engaging in overt scientific fraud, property theft, assault, vandalism, money fraud, money laundering, rapes, child sex offences, trafficking of amphetamines, animal abuse and cruelty, wildlife smuggling, shooting people (yes, two of the group have been convicted of this) and other serious crimes (Supreme Court of Western Australia 2009, Hobbs 2010, Goodman 2019).

Some members of the group have been charged and jailed for various crimes, including for example David John Williams, convicted and fined $7,500 for animal cruelty and wildlife smuggling at the Cairns Magistrates Court, Damien Mark Harding jailed for child sex offences, Seth Pywell fined for his role in the shooting two people, Matthew Gatt fined $8,000 for the theft of a snake and Andrew Browne jailed for child sex offences, but the group ring leaders Wolfgang Wüster, Mark O'Shea and Wulf Schleip have managed to avoid criminal sanctions to date.

Wolfgang Wüster and Mark O'Shea even post images of themselves committing crimes online, but have somehow managed to avoid criminal sanctions.

As of 2020, members of the Wolfgang Wüster gang of thieves had plagiarised works of other scientists and in breach of the *International Code of Zoological Nomenclature* illegally renamed nearly 100 species and genera previously formally named by other ethical scientists.

Keeping count of their acts of taxonomic vandalism and theft is an extremely difficult task, but lists of these acts are regularly published!

The gang have then by use of countless false accounts and false identities, created a false veneer online that their illegal names are the correct names and that the earlier proper names should not be used.

Noting that Wolfgang Wüster gang of thieves members Bucklitsch, Böhme and Koch did in 2016 illegally create objective junior synonyms of *Oxysaurus* Hoser, 2013 and *Shireenhosersaurea* Hoser, 2013, people should be mindful of almost certain further acts of taxonomic vandalism by this gang of thieves in PRINO journals they control, including the PRINO Online *Zootaxa*, in terms of new names erected in this paper.

PRINO is an acronym for "Peer reviewed in name only" which is the term best described for the online journals that that Wolfgang Wüster gang of thieves members publish their fraudulent papers in.

The journals such as the predatory PRINO journal "*Zootaxa*" have near zero respect for the principles of science, or ethics and significantly papers published in them are either not peer reviewed in any way, or alternatively the process is shambolic as to be non-existent in any meaningful way.

See also Oransky (2020).

While peer review is not a mandatory requirement of the *International Code of Zoological Nomenclature*, it is regarded as the gold standard in scientific publishing and therefore is generally expected in such publications.

I (Raymond Hoser) have worked with the Varanidae for decades and was due to publish a major monograph on the entire Family Varanidae in 2010. It and a number of other major publications constituting the major part of three decades of full-time work was delayed due to several factors.

On 17 August 2011, our facility was subjected to an illegal armed raid by the Australian State Police (Victoria) and the State Wildlife Department. This raid was initiated by a cohort including members of the Wolfgang Wüster gang of thieves.

The draft manuscript of the Varanidae monograph, dozens of drafts of other major papers, three near comple book manuscripts, production materials for a series of wildlife documentaries, data, slides and almost all other relevant materials were stolen.

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

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

This comment is made noting the extensive increase in human population in Australia, New Guinea and the Solomon Islands, with a conservative forecast of a four-fold increase in human population in the next 100 years, being from 25 million to 100 million in Australia and an even more dramatic increase in New Guinea (both sides) and the Solomon Islands.

This is coupled with the general environmental destruction across the continental region as documented by Hoser (1991), including low density areas without a large permanent human population.

I also note the abysmal environmental record of various Australian National, State and Local governments in the relevant part of the Australasian region over the past 200 years as detailed by Hoser (1989, 1991, 1993 and 1996) and a record no better in other nearby countries, which without exception are promoting policies of rapid human population growth.

MATERIALS AND METHODS

Specimens of most species were inspected either live or dead as was all relevant and available literature. This included all previous descriptions of taxa, including known synonyms as cited at the end of this paper. This is an expanded list over and above that published by Cogger *et al.* (1983), that also includes most recently described forms.

Of particular relevance to this review, were phylogenetic and morphological studies that helped identify morphologically similar species and/or those most closely related.

Significantly phylogenetic studies that identified species level taxa within *Euprepiosaurus* Fitzinger, 1843 showed lineages separated by well-known biogeographical barriers, such as the New Guinea central Cordillera and sea barriers present in the Solomon Islands at the height of recent glacial maxima.

These same barriers were relevant to species of snakes, lizards, crocodiles, frogs and mammals that were formally identified and named by myself in northern Australia, New Guinea and the Solomon Islands in the following 22 papers: Hoser (1998a, 2000a, 2000b, 2013a, 2013c, 2014, 2015g, 2016a-g, 2018, 2019c-f, 2020).

The following is noted in as much as the morphological and biogeographical evidence on its own and in the absence of molecular studies would have inevitably led to the same species concepts.

Included in the audit were photos of species with good locality data and distribution maps from State Museums, based on specimens in their collections, noting that for some species, the historical distributions were very different to the extant distributions.

Where available and applicable, fossil specimens and records were also reviewed.

Past descriptions and synonymies were reviewed with a view to using available names for species identified herein if they had been properly proposed in the past.

Publications relevant to the taxonomic and nomenclatural conclusions in terms of the genus *Euprepiosaurus* in this paper are as follows: Ahl (1932), Allison (1996, 2007a, 2007b), Allison and Leisz (2009), Amer and Kumazawa (2008), Ast (2001), Barts *et al.* (2006), Ávalos and Martínez Carrión (1997), Bayless and Dwer (1997), Bennett (1995, 1998, 2017), Böhme (1991a, 1991b, 2003, 2014), Böhme and Koch (2010), Böhme and Ziegler (1997, 2005, 2007), Böhme *et al.* (1994, 2004, 2016, 2009), Boulenger (1885, 1886), Brandenburg (1983), Brongersma (1948), Brown (2014), Brygoo (1987), Buden (2015a, 2015b), Buden and Taboroši (2016), Bucklitsch *et al.* (2016), Cogger (2014), Cogger *et al.* (1983), Cota (2008), Daudin (1802), De Lisle (1996, 2009), De Rooij (1915), Dryden (1965), Dubois *et al.* (2019), Earley *et al.* (2002), Eidenmüller and Philippen (2007), Ellis (2018), Emerson (2008), Fitch *et al.* (2006), Frydlova and Frynta (2010), Frýdlová *et al.* (2011, 2013), Good et al. (1993), Grabbe (2014), Grabbe and Koch (2014), Gray (1831), Gregorovicova *et al.* (2012), Günther (1879), Hagen *et al.* (2012), Harvey and Barker (1998), Hediger (1934), Holmes (2010), Horn (1977), Hoser (1989, 1998, 2007, 2012b, 2013c, 2014, 2015g, 2016a-g, 2018, 2019c-f, 2020a-b), How and Kitchener (1997), Ianucci *et al.* (2019), ICZN (2020), Kirschner and Koschorke (1998), Kishida (1929), Koch (2012), Koch and Böhme (2005), Koch *et al.* (2007, 2009, 2010a, 2010b, 2013), Kok (1995), Kraus (2013), Lesson (1830), McCoid *et al.* (1994), McCreless *et al.* (2015), McCoy (1980, 2015), Merrem (1820), Mertens (1924, 1941, 1942, 1951, 1963), Meyer (1874), Milenkaya and Lindley McKay (2016), Natusch and Lyons (2017), Oliver *et al.* (2016), Oliver *et al.* (2017), Peters and Doria (1878), Philipp (1999), Philipp *et al.* (1999, 2007), Pianka (2012), Pianka and King (2004), Pianka and Sweet (2016), Pianka and Vitt (2003), Pimm *et al.* (2006), Rese (1988), Ride *et al.* (1999), Rowe *et al.* (2011), Schmidt (1932), Setiadi and Hamidy (2006), Smith and Filiardi (2007), Soler (2013),

Somma and Koch (2012), Sprackland (1993, 1994, 1995, 2004, 2007), Steadman (1995), Steadman *et al.* (1999), Stefani (2008), Strickland *et al.* (2016), Sweet and Pianka (2003, 2007), Switak (2006), Toussaint *et al.* (2016), Vidal *et al.* (2012), Voris (2000), Wallace (1858, 1876, 1881), Wells and Wellington (1984, 1985), Weijola (2010, 2015, 2017), Weijola and Sweet (2010, 2015), Weijola *et al.* (2016, 2019, 2020), Welton *et al.* (2014), Werning (2010), Wesiak (2009), Wesiak and Koch (2009), Wilson (2015), Wilson and Swan (2017), Woods (2007), Ziegler and Minh (2018), Ziegler *et al.* (1999, 2001, 2007a, 2007b, 2016), and sources cited therein.

These papers as a group also effectively include and contain a near complete summary of all that is currently known to science of the ecology, captive husbandry and conservation status of the relevant species (the entirety of the genus *Euprepiosaurus*) and to that extent form an important and near complete bibliography as of 2020.

As already stated, a similar audit was conducted with respect of the species within the *Shireenhosersaurea prasinus* (Schlegel, 1839) species complex, a group which as of 2020 had nine widely recognized species. Putative *S. prasinus* in particular were inspected in order to identify any potentially unnamed forms and all specimens were reconciled with existing species allocations based on current taxonomy.

Publications relevant to the taxonomic and nomenclatural conclusions in terms of the genus *Shireenhosersaurea* Hoser, 2013 in this paper are as follows: Akeret (2014), Ávalos and Martínez Carrión (1997), Bennett (1995, 1998, 2015), Bleeker (1856), Böhme (2003, 2014), Böhme and Jacobs (2001), Böhme and Koch (2010), Bosch (1996), Boulenger (1885, 1895), Brown (2014), Bucklitsch *et al.* (2016), Canto (2013), Cogger (2014), Cogger *et al.* (1983), Cooper *et al.* (2019), Czechura (1980), Davis (2014), Dawson (2018), De Lisle (1996, 2009), Dedlmar (2007a, 2007b, 2008), De Rooij (1915), De Vis (1887), Doria (1875), Eidenmüller (2007a, 2007b), Eidenmüller and Philippen (2007), Eidenmüller and Wicker (1992, 2005), Eidenmüller *et al.* (2017), Frýdlová and Frynta (2010), Good *et al.* (1993), Gray (1831), Hartdegen *et al.* (1999), Hörenberg and Koch (2013), Hoser (1989, 1998, 2007, 2012b, 2013c, 2014, 2015g, 2016a-g, 2018, 2019c-f, 2020a-b), Iannucci *et al.* (2019), ICZN (2001), Jacobs (2002, 2003, 2008), Koch (2016, 2018), Koch and Eidenmüller (2019), Koch *et al.* (2010a, 2010b, 2013, 2014), LiVigni (2013), Mann (1976), McCurry *et al.* (2015), Mendyk (2007, 2011, 2015), Mendyk and Horn (2011), Mertens (1941, 1942, 1950, 1959, 1963), Meyer (1874), Moldovan (2009), Mundhenk (2008), O'Shea (1991), Pianka (2012), Pianka and King (2004), Polleck (2004), Rauhaus et al. (2014), Reisinger (2014), Reisinger and Reisinger-Raweyai (2007a, 2007b), Schlegel (1839), Schneider (2016a, 2016b, 2016c), Shuter (2014), Sprackland (1991, 1995, 2010), Spranger (2012), Switak (2006), Weijola *et al.* (2019), Werning and Lutzmann (2014), Whittier and Moeller (1993), Wilson (2015), Wilson and Swan (2017), Ziegler and Böhme (1996, 1998), Ziegler (2012), Ziegler *et al.* (2007, 2009, 2016), including sources cited therein. These papers as a group also effectively include and contain a near complete summary of all that is currently known to science of the ecology, captive husbandry and conservation status of the relevant species (being the entirety of the genus *Shireenhosersaurea*) and to that extent form an important and near complete bibliography as of 2020.

RESULTS

The morphological and molecular evidence based on the literature combined with the inspection of specimens tended to match to seventeen readily identifiable named and unnamed species within the genus *Euprepiosaurus*.

As mentioned previously, phylogenetic studies that identified species level taxa within *Euprepiosaurus* Fitzinger, 1843 showed hitherto unnamed lineages separated by well-known biogeographical barriers, such as the New Guinea central Cordillera and sea barriers present in the Solomon Islands at the height of recent glacial maxima.

These same barriers were relevant to taxa of snakes, lizards, crocodiles, frogs and mammals that were formally identified and named by myself in northern Australia, New Guinea and the Solomons in the 22 following papers: Hoser (1998a, 2000a, 2000b, 2013a, 2013c, 2014, 2015g, 2016a-g, 2018, 2019c-f, 2020).

In those papers, single putative species were split along near identical lines to the splits proposed herein for *Euprepiosaurus* (and *Shireenhosersaurea* Hoser, 2013) or accepted herein from previous species divisions. See for example Hoser (2016e), that separated one putative species within the putatively monotypic genus *Corucia* Gray, 1855, (the Giant Skink, from the Solomon Islands), into five geographically separated species. That division coincided entirely with sea barriers during glacial maxima in recent geological times. That division also wholly matched the molecular data of Hagen *et al.* (2012).

The preceding is noted, because in the case of *Euprepiosaurus*, the morphological and biogeographical evidence on its own and in the absence of molecular studies would have inevitably led to the same species concepts for the genus *Euprepiosaurus.*

Twelve hitherto unnamed species of *Euprepiosaurus* are formally named for the first time within this paper.

These are in addition to the seventeen currently (as of 2020) recognized species.

In terms of the genus *Shireenhosersaurea* Hoser, 2013, three new species were identified and are named herein.

Putative *S. prasinus* (Schlegel, 1839) from northern New Guinea, were very different to the nominate form from west New Guinea.

This taxon appears to be found at least in the region generally east of Teba and the Mamberano River in Irian Jaya at least as far east as the Huon Peninsula in Papua New Guinea. It is herein formally named as a new species.

A population centred around the Popondetta/Mount Victory area of Papua New Guinea was also found to be divergent and distinctive and is herein named as a new species, being morphologically most similar to *S. bogerti* (Mertens, 1950).

Specimens from Papua New Guinea, extending from the Milne Bay region of south-east New Guinea to the east of the Trans-Fly region of New Guinea, generally south of the central cordillera, were also found to be distinct and are also formally named herein as a new species. While generally green in colour, this taxon shares morphological traits with *S. keithhornei* (Wells and Wellington, 1985) and *S. beccari* (Doria, 1874).

In early 2020, an Opinion was published by the International Commission of Zoological Nomenclature, following a successful and unopposed application by Wiejola (2015) seeking to replace the (then) current neotype of *Varanus indicus* to one originating from the type locality Ambon.

This action resulted in two nomenclatural changes which were as follows: the name *E. cerambonensis* (Philipp *et al.*, 1999) was effectively synonymised with *E. indicus* (Daudin, 1802) and also *E. chlorostigma* (Gray, 1831) becomes the valid name for the species previously known as *E. indicus* from the Arafura Region. The genus name of the *E. indicus* Group (*Euprepiosaurus*) remains unchanged.

The diagnostic material within this paper incorporates this nomenclatural action and so effectively post dates that.

The 17 currently recognized species within *Euprepiosaurus* excluding those formally named within this paper are as follows: *E. bennetti* Weijola *et al.* (2020), *E. caerulivirens* (Philipp, Böhme and Ziegler, 1999), *E. chlorostigma* (Gray, 1831) (*sensu* ICZN 2020), *E. doreanus* (Meyer, 1874), *E. douarrha* (Lesson, 1830), *E. finschi* (Böhme, Horn and Ziegler, 1994), *E. indicus* (Daudin, 1802) (type species) (*sensu* ICZN 2020), *E. jobiensis* (Ahl, 1932), *E. juxtindicus* (Böhme, Phillip, and Ziegler, 2002), *E. lirungensis* (Koch, Arida, Schmitz, Böhme and Ziegler, 2009), *E.*

melinus (Böhme and Ziegler, 1997), *E. obor* (Weijola and Sweet, 2010), *E. rainerguentheri* (Ziegler, Böhme and Schmitz, 2007), *E. semotus* (Weijola, Donnellan and Lindqvist 2016), *E. tsukamotoi* (Kishida, 1929), *E. yuwonoi* (Harvey and Barker, 1998) and *E. zugorum* (Böhme and Ziegler, 2005).

Photos of live specimens of all seventeen previously named species (prior to this paper) within the genus *Euprepiosaurus* (AKA the *E. indicus* Group) are in the literature, including as follows:

Weijola (2017) in Fig. 2, contains photos of living *Euprepiosaurus caerulivirens* (A), *E. indicus* (as *E. cerambonensis*) (B), *E. doreanus* (C), *E. douarrha* (D), *E. finschi* (E), *E. chlorostigma* (*sensu* ICZN 2020) (listed as *E. indicus*) (F), *E. jobiensis* (G), *E. juxtindicus* (H), *E. melinus* (I), *E. obor* (J), *E. rainerguentheri* (K), *E. semotus* (L), *E. yuwonoi* (M) (and *E. lenhoseri sp. nov.* (as *V. sp.*) from Misima (N)). Weijola (2020), contains photos of living *E. tsukamotoi* in Figs. 6 and 7 and *E. bennetti* in Figs 9-12. Hoser (1989) on page 117 has a photo of *E. chlorostigma* (Gray, 1831) (*sensu* ICZN 2020) from Australia, treated herein as two subspecies of the type form from Ambon (*sensu* ICZN 2020), namely *E. indicus wellsi* Hoser, 2013 and *E. indicus wellingtoni* Hoser, 2013.

E. lirungensis (Koch *et al.* 2009) is seen in life in (Koch *et al.* 2009), on page 33, Fig 4.

E. zugorum (Böhme and Ziegler, 2005) is depicted online at: https://www.reptilefact.com/zugs-monitor.html

All the preceding specimens in images are identified in the relevant publications as being of the genus "*Varanus*".

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, spellings 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 (ICZN).

In the unlikely event two or more newly named taxa are deemed to be the same by a first reviser, then the name to be used and retained is that which first appears in this paper by way of page priority and as listed in the abstract keywords.

Some material in descriptions for taxa may be repeated for other taxa in this paper and this is necessary to ensure each fully complies with the provisions of the *International Code of Zoological Nomenclature* (Fourth edition) (Ride *et al.* 1999) as amended online since.

Material downloaded from the internet and cited anywhere in this paper was downloaded and checked most recently as of 4 July 2020 (including if also viewed prior), unless otherwise stated and was accurate in terms of the content cited herein as of that date.

Unless otherwise stated explicitly, colour and other descriptions apply to living adult specimens of generally good health and not under any form of stress by means such as excessive cool, heat, dehydration, excessive ageing, abnormal skin or reaction to chemical or other input.

While numerous texts and references were consulted prior to publication of this paper, the criteria used to separate the relevant species or subspecies 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.

CONSERVATION

In terms of conservation of each population of each species as described in this paper, the relevant comments in Hoser (1989, 1991, 1993, 1995, 1996, 2019a and 2019b) apply.

Several of the previously cited publications cited in the "Materials and Methods" section of this paper talk extensively about declines in relevant species caused by human factors.

Wildlife laws as currently enforced in Australia, Indonesia, Papua New Guinea and the Solomon Islands are not in a materially significant way enhancing the long-term survival prospects of any of the relevant species.

Over breeding of humans, wholly in line with government policy and the environmental problems associated with this overpopulation are by far the greatest long term threat to each and every relevant species, noting that already liberated feral pest species continue to cause ongoing stress and decline of some relevant species as explicitly detailed in Hoser (1991).

In line with the Australian Federal Government's "Big Australia" policy, that being to increase the human population of 25 million (2020), from 13 million in around 1970, to over 100 million within 100 years "so that we can tell China what to do", as stated by the former Prime Minister, Kevin Rudd in 2019 (Zaczek 2019), the human pressure on the relevant ecosystems has increased in line with the human populations nearby and will clearly continue to do so.

This paper formally names a total of 15 hitherto unnamed forms from Australia, New Guinea and the Solomon Islands as new species on the basis of morphological and reproductive divergence.

All forms are probably in decline and some may be in imminent danger of extinction caused by imported pest species.

See for example Hoser (1995), McCoid *et al.* (1994), McCreless *et al.* (2015), Pianka (2012) and Pimm *et al.* (2006). However sometimes for a given species of large monitor, human activity may see an increase in numbers as detailed by Soler (2013).

Formally naming new species is the critically important first step in their conservation as outlined by Hoser (2019a, 2019b).

In accordance with the recommendations in the *International Code of Zoological Nomenclature* (Ride *et al.* 1999), this is being done as soon as is practicable.

EUPREPIOSAURUS OXYI SP. NOV.

LSIDurn:lsid:zoobank.org:act:7BD0940B-4D14-415F-B0DD-6364F46AA8F1

Holotype: A preserved specimen at the Queensland Museum in Brisbane, Queensland, Australia, specimen number J18103 collected from Claudie River, Cape York, Queensland, Australia, Latitude -12.7667 S., Longitude 143.2833 E. This government-owned facility allows access to its holdings.

Paratype: A preserved specimen at the Queensland Museum in Brisbane, Queensland, Australia, specimen number J32020 collected at 10 km from the mouth of the Pascoe River, far North Queensland, Australia, Latitude -12.5667 S., Longitude 143.2167 E.

Diagnosis: Until now, *Euprepiosaurus oxyi sp. nov.* has been treated as an Australian population of *E. doreanus* (Meyer, 1874), with a type locality of Doreh, Berou peninsula, northwestern New Guinea and until now would key out as that species using the key in Ziegler *et al.* (2007a).

However *E. doreanus* from north and west of the central cordillera of New Guinea are significantly different to those putative lizards from northern Australia and nearby parts of southern New Guinea.

Euprepiosaurus oxyi sp. nov. is readily separated from all other species within the genus *Euprepiosaurus* Fitzinger, 1843 (named previously and those named within this paper) by the following unique suite of characters: Entire tongue light, pinkish and without with an ill-defined dark pigmentation in the anteriormost part; Temporal band absent; Dorsum may range from nearly black to dark greyish-brown to blue-grey, with a dorsum covered with well-spaced tiny spots or dots on a dark background. Less than thirteen well defined light cross bands across the posterior part of the (full) tail. There is a strong bluish

tinge to the posterior part of the tail, extending towards the anterior and losing intensity as it progresses forewards, the bluish tinge sometimes including the rear of the body and hind feet.

E. oxyi sp. nov. is only likely to be confused with *E. doreanus*, but can be separated from that species by having less than 13 well defined light cross bands on the posterior part of the tail, versus more than 14 in *E. doreanus.*
The dorsal colouration of both *E. oxyi sp. nov.* and *E. doreanus* also differs. Adult *E. oxyi sp. nov.* are dark and blackish on the dorsal surface of the body, with numerous discrete small, evenly spaced bright yellow spots that are circular in nature and well separated from one another by the blackish background.

By contrast *E. doreanus* have a dorsum where the yellow spots join one another to form a pattern of irregular shapes and broken lines, but not one of discrete yellow spots on black background and evenly spaced from one another as seen in *E. oxyi sp. nov.*

Juvenile *E. oxyi sp. nov.* are generally blackish in colour with evenly spaced yellow spots, whereas juvenile *E. doreanus* are of dark but uneven colouration with a pattern of small ocelli along with other lighter markings across the dorsum, forming an indistinct reticulum.

Adult *E. oxyi sp. nov.* in life is depicted in Wilson (2015) on page 211, on left; Wilson and Swan (2017) at page 463, middle left, or online at:
https://spinelesswonders.smugmug.com/Reps-Aust-N-Guinea-SE-Asia/New-Guinea-Reptiles/New-Guinea-Lizards-Varanidae/

Young *E. oxyi sp. nov.* in life is depicted in Brown (2014) on page 903 bottom right.

Adult *E. doreanus* in life is depicted in Cogger (2014) on page 768.

Young *E. doreanus* in life is depicted in Bennett (1998) on page 103 at top of page.

The 17 Currently recognized species within *Euprepiosaurus* excluding those formally named within this paper are as follows: *E. bennetti* Weijola *et al.* (2020), *E. caerulivirens* (Philipp, Böhme and Ziegler, 1999), *E. chlorostigma* (Gray, 1831) (*sensu* ICZN 2020), *E. doreanus* (Meyer, 1874), *E. douarrha* (Lesson, 1830), *E. finschi* (Böhme, Horn and Ziegler, 1994), *E. indicus* (Daudin, 1802) (type species) (*sensu* ICZN 2020), *E. jobiensis* (Ahl, 1932), *E. juxtindicus* (Böhme, Phillip, and Ziegler, 2002), *E. lirungensis* (Koch, Arida, Schmitz, Böhme and Ziegler, 2009), *E. melinus* (Böhme and Ziegler, 1997), *E. obor* (Weijola and Sweet, 2010), *E. rainerguentheri* (Ziegler, Böhme and Schmitz, 2007), *E. semotus* (Weijola, Donnellan and Lindqvist 2016), *E. tsukamotoi* (Kishida, 1929), *E. yuwonoi* (Harvey and Barker, 1998), *E. zugorum* (Böhme and Ziegler, 2005).

Photos of live specimens of all seventeen previously named species (prior to this paper) within the genus *Euprepiosaurus* (AKA the *E. indicus* Group) are in the literature, including as follows:

Weijola (2017) in Fig. 2, contains photos of living *Euprepiosaurus caerulivirens* (A), *E. indicus* (as *E. cerambonensis*) (B), *E. doreanus* (C), *E. douarrha* (D), *E. finschi* (E), *E. chlorostigma* (*sensu* ICZN 2020) (listed as *E. indicus*) (F), *E. jobiensis* (G), *E. juxtindicus* (H), *E. melinus* (I), *E. obor* (J), *E. rainerguentheri* (K), *E. semotus* (L), *E. yuwonoi* (M) (and *E. lenhoseri sp. nov.* (as *V. sp.*) from Misima (N)). Weijola (2020), contains photos of living *E. tsukamotoi* in Figs. 6 and 7 and *E. bennetti* in Figs 9-12. Hoser (1989) on page 117 has a photo of *E. chlorostigma* (Gray, 1831) (*sensu* ICZN 2020) from Australia, treated herein as two subspecies of the type form from Ambon (*sensu* ICZN 2020), namely *E. indicus wellsi* Hoser, 2013 and *E. indicus wellingtoni* Hoser, 2013.

E. lirungensis (Koch *et al.* 2009) is seen in life in (Koch *et al.* 2009), on page 33, Fig 4.

E. zugorum (Böhme and Ziegler, 2005) is depicted online at:
https://www.reptilefact.com/zugs-monitor.html

All the preceding specimens in images are identified in the relevant publications as being of the genus "*Varanus*".

Species within the genus *Euprepiosaurus* Fitzinger, 1843 are readily separated from all other Varanids by the following suite of characters: At least the last two thirds of tail are strongly laterally compressed, not prehensile; mid-body scale count usually distinctly higher than 106; unilaterally built hemipenial and hemiclitorial paryphasma rows, which are also developed as weakly hardened ridges (the weakly hardened ridges separating *Euprepiosaurus* from *Shireenhosersaurea* Hoser, 2013).

Distribution: *Euprepiosaurus oxyi sp. nov.* occurs on the northern parts of Cape York, Queensland as well as proximal parts of southern New Guinea.

Etymology: The new species *Euprepiosaurus oxyi sp. nov.* is named in honour of a (now deceased) Great Dane, dog, owned by the author for eight years who guarded the research facility and reptile education reptile display business Snakebusters: Australia's best reptiles, from acts of theft and other potential attacks (e.g. Goodman 2019). The species name is short and easy to remember.

EUPREPIOSAURUS ADELYNHOSERAE SP. NOV.

LSIDurn:lsid:zoobank.org:act:40642E86-21D8-46B4-801B-1CF0F33D7161
Holotype: A preserved specimen at the Australian Museum in Sydney, New South Wales, Australia, specimen number R115341 collected at Diodo, Chimbu Province, Papua New Guinea, Latitude 6.55 S., Longitude 144.833 E. This government-owned facility allows access to its holdings.

Paratype: A preserved specimen at the Australian Museum in Sydney, New South Wales, Australia, specimen number R.122689, collected from Namosado, Southern Highlands District, Papua New Guinea, Latitude -6.250 S., Longitude 142.783 E.

Diagnosis: *Euprepiosaurus adelynhoserae sp. nov.* from south of the central cordillera in New Guinea has until now been treated as putative *E. jobiensis* (Ahl, 1932) with a type locality from north of the central cordillera.

However *E. jobiensis* with a type locality of Jobi Island (= Japen = Yapen), Irian Jaya, Indonesia, and including specimens from north and west of the central cordillera of New Guinea are significantly different to lizards of the same putative species from nearby parts of southern New Guinea, south of the main central cordillera.

Likewise for specimens assigned to *E. jobiensis* from the Milne Bay and Central Province region of Papua New Guinea, which are herein described as *E. jackyhoserae sp. nov.*.

E. adelynhoserae sp. nov. is readily separated from all other species within the genus *Euprepiosaurus* Fitzinger, 1843 (including those named previously and those named within this paper) by the following unique suite of characters: Entire tongue light, pinkish; temporal band present; throat whitish yellow, with a pinkish, reddish or orange tinge (hence the name, "peach-throated monitor lizard"), the light colouring extending to the rear upper labial area and to the side of the head posterior to the eye; anterior labial scales are purple in colour and etched with white, but fading somewhat with age; a distinct pointed, angular head that is blackish in colour with numerous well-defined yellow spots; it is a slender species with a long neck; dark brownish dorsum with dense dark yellow transversal spotting to form a distinctive banding pattern (7-8 bands); limbs are densely spotted with yellow; posterior of tail is a blue-turquoise in colour and banded.

E. jackyhoserae sp. nov. is similar in most respects to *E. adelynhoserae sp. nov.* as described above, but is readily separated from that species by having pale whitish-yellow on the throat and without an obvious pink or red tinge, spots on the back tending to form small occeli, limbs that are spotted with tiny occeli that are well scattered or spaced (as opposed to spots in both *E. adelynhoserae sp. nov.* and *E. jobiensis*) and minimal if

any blueing of colour at the posterior end of the banded tail in mature adults.

The only species likely to be confused with *E. adelynhoserae sp. nov.* or *E. jackyhoserae sp. nov.* is *E. jobiensis* and that species is readily separated from both *E. adelynhoserae sp. nov.* and *E. jackyhoserae sp. nov.* by having a greyish dorsum (not dark brown), with dense white (not yellow) spotting on the dorsum forming the distinctive banding pattern (7-8 bands); legs while spotted with white, are not densely spotted as in *E. adelynhoserae sp. nov.* or *E. jackyhoserae sp. nov.*.

In *E. jobiensis* the upper labials both anterior to and posterior to the eye, including the temporal region are grey. Underneath the jaw and throat, the colouration is generally an intense dark yellow, with slight red tinge, versus whitish yellow in *E. adelynhoserae sp. nov.* and *E. jackyhoserae sp. nov.*.

E. jobiensis E. adelynhoserae sp. nov. and *E. jackyhoserae sp. nov.* are separated from all other species of *Euprepiosaurus* by the following unique suite of characters: Entire tongue light, pinkish; Temporal band present; Throat whitish-yellow or intense dark yellow, with a pinkish, reddish or orange tinge ("peach-throated monitor lizard"); angular head; slender species with long neck and distinct pointed head; dark grey or brown dorsum with dark transversal banding and numerous tiny light spots (white or yellow), potentially forming tiny occeli, forming a distinctive pattern of 7-8 crossbands across the body; posterior of tail is usually blue-turquoise in colour and banded.
The 17 Currently recognized species within *Euprepiosaurus* excluding those formally named within this paper are as follows: *E. bennetti* Weijola *et al.* (2020), *E. caerulivirens* (Philipp, Böhme and Ziegler, 1999), *E. chlorostigma* (Gray, 1831) (*sensu* ICZN 2020), *E. doreanus* (Meyer, 1874), *E. douarrha* (Lesson, 1830), *E. finschi* (Böhme, Horn and Ziegler, 1994), *E. indicus* (Daudin, 1802) (type species) (*sensu* ICZN 2020), *E. jobiensis* (Ahl, 1932), *E. juxtindicus* (Böhme, Phillip, and Ziegler, 2002), *E. lirungensis* (Koch, Arida, Schmitz, Böhme and Ziegler, 2009), *E. melinus* (Böhme and Ziegler, 1997), *E. obor* (Weijola and Sweet, 2010), *E. rainerguentheri* (Ziegler, Böhme and Schmitz, 2007), *E. semotus* (Weijola, Donnellan and Lindqvist 2016), *E. tsukamotoi* (Kishida, 1929), *E. yuwonoi* (Harvey and Barker, 1998), *E. zugorum* (Böhme and Ziegler, 2005).

Photos of live specimens of all seventeen previously named species (prior to this paper) within the genus *Euprepiosaurus* (AKA the *E. indicus* Group) are in the literature, including as follows:

Weijola (2017) in Fig. 2, contains photos of living *Euprepiosaurus caerulivirens* (A), *E. indicus* (as *E. cerambonensis*) (B), *E. doreanus* (C), *E. douarrha* (D), *E. finschi* (E), *E. chlorostigma* (*sensu* ICZN 2020) (listed as *E. indicus*) (F), *E. jobiensis* (G), *E. juxtindicus* (H), *E. melinus* (I), *E. obor* (J), *E. rainerguentheri* (K), *E. semotus* (L), *E. yuwonoi* (M) (and *E. lenhoseri sp. nov.* (as *V. sp.*) from Misima (N)). Weijola (2020), contains photos of living *E. tsukamotoi* in Figs. 6 and 7 and *E. bennetti* in Figs 9-12. Hoser (1989) on page 117 has a photo of *E. chlorostigma* (Gray, 1831) (*sensu* ICZN 2020) from Australia, treated herein as two subspecies of the type form from Ambon (*sensu* ICZN 2020), namely *E. indicus wellsi* Hoser, 2013 and *E. indicus wellingtoni* Hoser, 2013.

E. lirungensis (Koch *et al.* 2009) is seen in life in (Koch *et al.* 2009), on page 33, Fig 4.

E. zugorum (Böhme and Ziegler, 2005) is depicted online at: https://www.reptilefact.com/zugs-monitor.html

All the preceding specimens in images are identified in the relevant publications as being of the genus "*Varanus*".

Species within the genus *Euprepiosaurus* Fitzinger, 1843 are readily separated from all other Varanids by the following suite of characters: At least the last two thirds of tail are strongly laterally compressed, not prehensile; mid-body scale count usually distinctly higher than 106; unilaterally built hemipenial and hemiclitorial paryphasma rows, which are also developed as weakly hardened ridges (the weakly hardened ridges separating *Euprepiosaurus* from *Shireenhosersaurea* Hoser, 2013).

Distribution: *E. adelynhoserae sp. nov.* appears to be restricted to the mainland of New Guinea south of the central cordillera, generally in the region between the generalized Trans Fly area of PNG, commencing near the type locality, west to about the Lorentz River System area, Irian Jaya.

E. jackyhoserae sp. nov. is confined to the Milne Bay and Central Provinces region of Papua New Guinea, mainly south of the Owen Stanley Range, but apparently extending north as far west as Popondetta.

E. jobiensis is restricted to New Guinea and Irian Jaya, north of the central Cordillera and west of the Huon Peninsula and includes the form originally described as *Varanus karlschmidti* Mertens, 1951, occurring within this range.

Etymology: The new species *E. adelynhoserae sp. nov.* is named in honour of my eldest daughter, Adelyn Hoser, aged 21 in 2020 in recognition of a lifetime's work involved in wildlife research, conservation and education via Snakebusters:Australia's best reptile shows and other associated activities.

EUPREPIOSAURUS JACKYHOSERAE SP. NOV.

LSIDurn:lsid:zoobank.org:act:316EC905-16A1-4ACD-BEA4-E3AB148D4A52

Holotype: A preserved specimen at the Bernice P. Bishop Museum, Honolulu, Hawaii, USA, specimen number BPBM 17250 collected at Omunsa, Milne Bay Province, Papua New Guinea. This facility allows access to its holdings.

Paratype: A preserved specimen at the Bernice P. Bishop Museum, Honolulu, Hawaii, USA, specimen number BPBM 19510 collected from Dorobisoro, Central Province, Papua New Guinea.

Diagnosis: Specimens assigned to *Euprepiosaurus jobiensis* from the Milne Bay and Central Province region of Papua New Guinea, are herein described as *E. jackyhoserae sp. nov.*.

E. adelynhoserae sp. nov. from south of the central cordillera in New Guinea has until now been treated as putative *E. jobiensis* (Ahl, 1932) with a type locality from north of the central cordillera.

However *E. jobiensis* with a type locality of Jobi Island (= Japen = Yapen), Irian Jaya, Indonesia, and including specimens from north and west of the central cordillera of New Guinea are significantly different to lizards of the same putative species from nearby parts of southern New Guinea, south of the main central cordillera and the Milne Bay/Central Province animals, which are different again.

E. adelynhoserae sp. nov. is readily separated from all other species within the genus *Euprepiosaurus* Fitzinger, 1843 (including those named previously and those named within this paper) by the following unique suite of characters: Entire tongue light, pinkish; temporal band present; throat whitish yellow, with a pinkish, reddish or orange tinge (hence the name, "peach-throated monitor lizard"), the light colouring extending to the rear upper labial area and to the side of the head posterior to the eye; anterior labial scales are purple in colour and etched with white, but fading somewhat with age; a distinct pointed, angular head that is blackish in colour with numerous well-defined yellow spots; it is a slender species with a long neck; dark brownish dorsum with dense dark yellow transversal spotting to form a distinctive banding pattern (7-8 bands); limbs are densely spotted with yellow; posterior of tail is a blue-turquoise in colour and banded.

E. jackyhoserae sp. nov. is similar in most respects to *E. adelynhoserae sp. nov.* as described above, but is readily separated from that species by having pale whitish-yellow on the throat and without an obvious pink or red tinge, spots on the back tending to form small occeli, limbs that are spotted with tiny occeli that are well scattered or spaced (as opposed to spots in

both *E. adelynhoserae sp. nov.* and *E. jobiensis*) and minimal if any blueing of colour at the posterior end of the banded tail in mature adults.

The only species likely to be confused with *E. adelynhoserae sp. nov.* or *E. jackyhoserae sp. nov.* is *E. jobiensis* and that species is readily separated from both *E. adelynhoserae sp. nov.* and *E. jackyhoserae sp. nov.* by having a greyish dorsum (not dark brown), with dense white (not yellow) spotting on the dorsum forming the distinctive banding pattern (7-8 bands); legs while spotted with white, are not densely spotted as in *E. adelynhoserae sp. nov.* or *E. jackyhoserae sp. nov.*.

In *E. jobiensis* the upper labials both anterior to and posterior to the eye, including the temporal region are grey. Underneath the jaw and throat, the colouration is generally an intense dark yellow, with slight red tinge, versus whitish yellow in *E. adelynhoserae sp. nov.* and *E. jackyhoserae sp. nov.*.

E. jobiensis E. adelynhoserae sp. nov. and *E. jackyhoserae sp. nov.* are separated from all other species of *Euprepiosaurus* by the following unique suite of characters: Entire tongue light, pinkish; Temporal band present; Throat whitish-yellow or intense dark yellow, with a pinkish, reddish or orange tinge ("peach-throated monitor lizard"); angular head; slender species with long neck and distinct pointed head; dark grey or brown dorsum with dark transversal banding and numerous tiny light spots (white or yellow), potentially forming tiny occeli, forming a distinctive pattern of 7-8 crossbands across the body; posterior of tail is usually blue-turquoise in colour and banded.
The 17 Currently recognized species within *Euprepiosaurus* excluding those formally named within this paper are as follows: *E. bennetti* Weijola *et al.* (2020), *E. caerulivirens* (Philipp, Böhme and Ziegler, 1999), *E. chlorostigma* (Gray, 1831) (*sensu* ICZN 2020), *E. doreanus* (Meyer, 1874), *E. douarrha* (Lesson, 1830), *E. finschi* (Böhme, Horn and Ziegler, 1994), *E. indicus* (Daudin, 1802) (type species) (*sensu* ICZN 2020), *E. jobiensis* (Ahl, 1932), *E. juxtindicus* (Böhme, Phillip, and Ziegler, 2002), *E. lirungensis* (Koch, Arida, Schmitz, Böhme and Ziegler, 2009), *E. melinus* (Böhme and Ziegler, 1997), *E. obor* (Weijola and Sweet, 2010), *E. rainerguentheri* (Ziegler, Böhme and Schmitz, 2007), *E. semotus* (Weijola, Donnellan and Lindqvist 2016), *E. tsukamotoi* (Kishida, 1929), *E. yuwonoi* (Harvey and Barker, 1998), *E. zugorum* (Böhme and Ziegler, 2005).

Photos of live specimens of all seventeen previously named species (prior to this paper) within the genus *Euprepiosaurus* (AKA the *E. indicus* Group) are in the literature, including as follows:

Weijola (2017) in Fig. 2, contains photos of living *Euprepiosaurus caerulivirens* (A), *E. indicus* (as *E. cerambonensis*) (B), *E. doreanus* (C), *E. douarrha* (D), *E. finschi* (E), *E. chlorostigma* (*sensu* ICZN 2020) (listed as *E. indicus*) (F), *E. jobiensis* (G), *E. juxtindicus* (H), *E. melinus* (I), *E. obor* (J), *E. rainerguentheri* (K), *E. semotus* (L), *E. yuwonoi* (M) (and *E. lenhoseri sp. nov.* (as *V. sp.*) from Misima (N)). Weijola (2020), contains photos of living *E. tsukamotoi* in Figs. 6 and 7 and *E. bennetti* in Figs 9-12. Hoser (1989) on page 117 has a photo of *E. chlorostigma* (Gray, 1831) (*sensu* ICZN 2020) from Australia, treated herein as two subspecies of the type form from Ambon (*sensu* ICZN 2020), namely *E. indicus wellsi* Hoser, 2013 and *E. indicus wellingtoni* Hoser, 2013.

E. lirungensis (Koch *et al.* 2009) is seen in life in (Koch *et al.* 2009), on page 33, Fig 4.

E. zugorum (Böhme and Ziegler, 2005) is depicted online at: https://www.reptilefact.com/zugs-monitor.html

All the preceding specimens in images are identified in the relevant publications as being of the genus "*Varanus*".

Species within the genus *Euprepiosaurus* Fitzinger, 1843 are readily separated from all other Varanids by the following suite of characters: At least the last two thirds of tail are strongly laterally compressed, not prehensile; mid-body scale count usually distinctly higher than 106; unilaterally built hemipenial and hemiclitorial paryphasma rows, which are also developed as weakly hardened ridges (the weakly hardened ridges separating *Euprepiosaurus* from *Shireenhosersaurea* Hoser, 2013).

Distribution: *E. adelynhoserae sp. nov.* appears to be restricted to the mainland of New Guinea south of the central cordillera, generally in the region between the generalized Trans Fly area of PNG, commencing near the type locality, west to about the Lorentz River System area, Irian Jaya.

E. jackyhoserae sp. nov. is confined to the Milne Bay and Central Provinces region of Papua New Guinea, mainly south of the Owen Stanley Range, but extending on the north side about as far west as Popondetta.

E. jobiensis is restricted to New Guinea and Irian Jaya, north of the central Cordillera and west of the Huon Peninsula and includes the form originally described as *Varanus karlschmidti* Mertens, 1951, which was sourced from within this range.

Etymology: The new species *E. jackyhoserae sp. nov.* is named in honour of my youngest daughter, Jacky Hoser, aged 19 in 2020 in recognition of a lifetime's work involved in wildlife research, conservation and education at Snakebusters: Australia's best reptile shows and other associated activities.

EUPREPIOSAURUS LENHOSERI SP. NOV.

LSIDurn:lsid:zoobank.org:act:21D81D7B-EFF2-4A20-9AFA-DEDDDA971750

Holotype: A preserved specimen at the Zoological Museum of the University of Turku, Finland, specimen number: ZMUTSa197 from Misima Island, Louisiades Islands, Milne Bay Province, Papua New Guinea. This facility allows access to its holdings.

Paratype: A preserved specimen at the Zoological Museum of the University of Turku, Finland, specimen number: ZMUTSa200 from Sudest Island, Louisiades Islands, Milne Bay Province, Papua New Guinea.

Diagnosis: *Euprepiosaurus lenhoseri sp. nov.* from the Louisiades islands, Milne Bay Province, Papua New Guinea, is quite unlike any other species in the genus *Euprepiosaurus* Fitzinger, 1843 and no others are likely to be confused with it. *E. lenhoseri sp. nov.* is readily separated from all other species in the genus *Euprepiosaurus* by the following unique suite of characters:

An appearance in many ways reminiscent of a Perentie *Titanzius giganteus* Gray, 1845 in that in this species the dorsum of the body and hind limbs has a well defined pattern of yellow occeli in cross-bands running across the body, separated by wider areas of yellow-grey, which at the centre have a semiformed line of similar occeli creating a mid-space line. Each row of (full) ocelli across the body contains about 6 fully formed dark centred occeli and there are between 6-10 such rows across the body from neck to pelvic region. Yellow spotting on forelimbs is dense, prominent and tending towards forming crossbands on the upper parts and closely spaced large yellow spots on the top of the hands, with fingers mainly yellow.

On the hind limbs spots are larger, more widely spaced and tending towards forming occeli with dark centres, with the toes having a black and yellow banded appearance.

Upper labials from snout to below eye are yellow, then brownish after that. Upper surface of head is brownish with a few scattered and irregularly shaped spots.

There is a distinctive elongate patch of yellow anterior to the ear (length being vertically orientated), the rest of the back of the side of the head being generally brownish grey in colour. Chin and gular region yellow with scattered grey spots. There is an indistinct light streak running from behind the eye to the mid-ear.

Iris is dark orange.

A photo of *E. lenhoseri sp. nov.* in life can be found in Weijola (2017), page 14 at bottom right.

Weijola (2017) also carries images of 13 other (then recognized) species of *Euprepiosaurus* on pages 13 and 14 and none look anything remotely like *E. lenhoseri sp. nov.* (and same applies

for the other taxa depicted in images listed below, or formally named in this paper) and none have characters (in total) in any way like the suite for *E. lenhoseri sp. nov.* as described herein.

The 17 Currently recognized species within *Euprepiosaurus* excluding those formally named within this paper are as follows: *E. bennetti* Weijola *et al.* (2020), *E. caerulivirens* (Philipp, Böhme and Ziegler, 1999), *E. chlorostigma* (Gray, 1831) (*sensu* ICZN 2020), *E. doreanus* (Meyer, 1874), *E. douarrha* (Lesson, 1830), *E. finschi* (Böhme, Horn and Ziegler, 1994), *E. indicus* (Daudin, 1802) (type species) (*sensu* ICZN 2020), *E. jobiensis* (Ahl, 1932), *E. juxtindicus* (Böhme, Phillip, and Ziegler, 2002), *E. lirungensis* (Koch, Arida, Schmitz, Böhme and Ziegler, 2009), *E. melinus* (Böhme and Ziegler, 1997), *E. obor* (Weijola and Sweet, 2010), *E. rainerguentheri* (Ziegler, Böhme and Schmitz, 2007), *E. semotus* (Weijola, Donnellan and Lindqvist 2016), *E. tsukamotoi* (Kishida, 1929), *E. yuwonoi* (Harvey and Barker, 1998), *E. zugorum* (Böhme and Ziegler, 2005).

Photos of live specimens of all seventeen previously named species (prior to this paper) within the genus *Euprepiosaurus* (AKA the *E. indicus* Group) are in the literature, including as follows:

Weijola (2017) in Fig. 2, contains photos of living *Euprepiosaurus caerulivirens* (A), *E. indicus* (as *E. cerambonensis*) (B), *E. doreanus* (C), *E. douarrha* (D), *E. finschi* (E), *E. chlorostigma* (*sensu* ICZN 2020) (listed as *E. indicus*) (F), *E. jobiensis* (G), *E. juxtindicus* (H), *E. melinus* (I), *E. obor* (J), *E. rainerguentheri* (K), *E. semotus* (L), *E. yuwonoi* (M) (and *E. lenhoseri sp. nov.* (as *V. sp.*) from Misima (N)). Weijola (2020), contains photos of living *E. tsukamotoi* in Figs. 6 and 7 and *E. bennetti* in Figs 9-12. Hoser (1989) on page 117 has a photo of *E. chlorostigma* (Gray, 1831) (*sensu* ICZN 2020) from Australia, treated herein as two subspecies of the type form from Ambon (*sensu* ICZN 2020), namely *E. indicus wellsi* Hoser, 2013 and *E. indicus wellingtoni* Hoser, 2013.

E. lirungensis (Koch *et al.* 2009) is seen in life in (Koch *et al.* 2009), on page 33, Fig 4.

E. zugorum (Böhme and Ziegler, 2005) is depicted online at: https://www.reptilefact.com/zugs-monitor.html

All the preceding specimens in images are identified in the relevant publications as being of the genus "*Varanus*".

Species within the genus *Euprepiosaurus* Fitzinger, 1843 are readily separated from all other Varanids by the following suite of characters: At least the last two thirds of tail are strongly laterally compressed, not prehensile; mid-body scale count usually distinctly higher than 106; unilaterally built hemipenial and hemiclitorial paryphasma rows, which are also developed as weakly hardened ridges (the weakly hardened ridges separating *Euprepiosaurus* from *Shireenhosersaurea* Hoser, 2013).

Distribution: *Euprepiosaurus lenhoseri sp. nov.* is evidently restricted to the Louisiades islands, Milne Bay Province, Papua New Guinea, including Misima, Sudest and Rossell islands.

The Rossell Island form is divergent and may even warrant subspecies-level designation: (Also see Hoser (2020) on pages 81-82).

Etymology: The new species *E. lenhoseri sp. nov.* is named in honour of my now deceased father, Leonard (Len) Donald Hoser, born in the United Kingdom of England, Scotland and Wales, being the former British Empire, but mainly living in one of the Royal Family's colonies, best known as Australia, in recognition of his many contributions to herpetology in his 69 years of life.

EUPREPIOSAURUS MATTEOAE SP. NOV.

LSIDurn:lsid:zoobank.org:act:26C199B7-7978-4DEB-9C15-B74621C94A44

Holotype: A preserved specimen at the Museum of Natural History, London, United Kingdom, specimen number 83.6.28.24 collected from Santa Ana Island, Solomon Islands, Latitude -10.8833 S. Longitude 162.4666 E. This facility allows access to its holdings.

Paratype: A preserved specimen at the Queensland Museum, Brisbane, Queensland, Australia, specimen number J2148 collected from Santa Ana Island, Solomon Islands, Latitude -10.8833 S. Longitude 162.4666 E.

Diagnosis: The following eight species, *Euprepiosaurus matteoae sp. nov.* from Santa Ana and San Cristobal (Solomon Islands), *E. elfakhariorum sp. nov.* from Malaita (Solomon Islands), *E. allengreeri sp. nov.* from Guadalcanal (Solomon Islands), *E. dorisioi sp. nov.* from the New Georgia group of islands (Solomon Islands), *E. paulwoolfi sp. nov.* from Santa Isabel (Solomon Islands), *E. sloppi* from Shortland Island (Solomon Islands), *E. powi sp. nov.* from Manus Island (Papua New Guinea) and *E. scottgranti sp. nov.* from Tanimbar Island (West Maluku Tenggara Regency, Maluku, Indonesia) have until now all been treated as populations of putative *E. indicus* (Daudin, 1802).

In his PhD Thesis in 1995, Robert George Sprackland headed his account of the putative taxon as "Mangrove Monitor, metaspecies", knowing that several species-level taxa were within this group (Sprackland 1995). Similar views have been expressed by other authors since 1995 including most recently (Ziegler *et al.* 2007a, Weijola 2017).
Both before and since 1995, various species have been formally described.

Prior to the publication of this paper 17 were recognized as being specifically distinct (excluding the descriptions of forms synonymised, which has been agreed by myself).

Species including *E. doreanus* (Meyer, 1874), *E. finschi* (Böhme, Horn and Ziegler, 1994), and *E. jobiensis* (Ahl, 1932), and associated species including *E. semotus* (Weijola, Donnellan and Lindqvist 2016), *E. yuwonoi* (Harvey and Barker, 1998), *E. oxyi sp. nov.*, *E. adelynhoserae sp. nov.* and *E. jackyhoserae sp. nov.*, all of a divergent lineage and separated from the *E. indicus* group *sensu-stricto* by not having a mainly dark bluish-grey tongue and some obvious bluish colour on the tail are excluded from the diagnosis that follows.

The eight new species formally described herein continue this process of the break up of this species complex.

All are reproductively, genetically and morphologically divergent from one another. All are clearly evolving as separate biological entities and therefore all warrant treatment as full species.

Due to confusion relating to type specimens and a ruling by the ICZN in 2020 (ICZN 2020), the description for the species complex immediately below is based on the nominate taxon, *E. chlorostigma* (Gray, 1831) as the standard form and not *E. indicus.*

The putative species, *E. chlorostigma* including the eight species formally named herein, do unless specified otherwise conform to the following unique diagnosis: Entirely dark tongue (blueish or dark purple), except for the rear which is purple or pink. Dorsum dark brownish-black, with small whitish-yellow spots, mostly smaller than an area covered by five scales; lack of blue pigmentation, even on the tail of juveniles; light, patternless throat; absence of a well-defined light, dark-bordered postocular/supratemporal stripe; snout flat dorsally, scales smooth or very slightly keeled, very low midbody scale counts usually within the range of 106-137.

All other species within the genus *Euprepiosaurus* Fitzinger, 1843 are separated from *E. chlorostigma* and the eight new species named above by having one or other of the four character states:

1/ Tongue dark violet, with light lines, or:

2/ Tongue dark bluish or greyish pigmented anteriorly, becoming distinctly lighter laterally and posteriorly, or:

3/ Light coloured tongue, with an ill-defined dark pigmentation in the anteriormost part, or:

4/ Entire tongue light, pinkish in colour.

Exceptional to the preceding is the following two taxa.

E. tsukamotoi Kishida, 1929, which also has a dark bluish-grey tongue, is separated from the preceding species by the following suite of characters: (i) dorsum black and covered with evenly distributed yellow scales, (ii) yellow temporal stripe usually absent, (iii) low scale counts around the head (P: 31-40), tail base (Q: 54-74) and midbody (S: 101-126), and (iv) usually prominent dark pigmentation in the gular region (derived from Weijola *et al.* 2020).

E. bennetti (Weijola *et al.* 2020), which also has a dark bluish-grey tongue, is separated from the preceding species by the following suite of characters: (i) dorsum black and evenly speckled with yellow scales, sometimes arranged in small groups of yellow scales, (ii) venter cream coloured with pale grey crossbands, (iii) tail exceptionally long (F/SVL mean = 1.76, range = 1.60-1.89), high XY scale counts (148-160), (iv) a clear yellow temporal stripe present in about half of the studied specimens, and (v), in life, peach colouring on the throat (derived from Weijola *et al.* 2020).

For the record as a result of the ICZN ruling of 2020, *E. indicus* of the type form from the Mollucas, Indonesia is characterised by a tongue that is entirely pink.

E. matteoae sp. nov. is readily separated from all other species within *Euprepiosaurus* by the following suite of characters: Those mentioned previously for the putative species, *E. chlorostigma* and: Dark, black coloured head with well spaced scattered yellow circular spots on the upper surface; dark yellow upper labials (broken by black at the rear) and yellow tip of snout. Nostrils yellow. The dorsum of the body is greyish-black with a semi-distinct pattern of yellow markings consisting of broken rows of single yellow scales running across the body, usually 2-3 scales for each row before being broken by dark scales and usually no more than one scale wide (in an anterior-posterior direction), but with about 11 sections where the broken rows of yellow scales are 2 scales wide, giving an appearance of semi-distinct cross-bands. This condition amplifies on the anterior 25 per cent of the tail, with the latter two thirds of the tail being obviously well banded with blackish and yellowish cross-bands. The darker bands are strongly peppered with yellow and the lighter ones with blackish-grey. Iris yellowish.

There are more than ten (usually 12) well defined light bands on the posterior end of the tail. Upper surfaces of limbs are greyish-black with numerous tiny yellow spots, almost all being formed by a single yellow scale, surrounded by dark ones. Exceptionally clusters of 2 or 3 joined yellow scales may occur. Beneath the yellow labials, the throat is peppered with grey. Between the eye and ear, there are two broken lines of yellow spotted scales, which may appear as an indistinct temporal streak from a distance, but nothing of the sort either posterior to the ear or anterior to the eye. Iris is yellow.

A photo of *E. matteoae sp. nov.* in life can be found in McCoy (2006) plate 94 (adult) and plate 95 (juvenile).

The 17 Currently recognized species within *Euprepiosaurus* excluding those formally named within this paper are as follows: *E. bennetti* Weijola *et al.* (2020), *E. caerulivirens* (Philipp, Böhme and Ziegler, 1999), *E. chlorostigma* (Gray, 1831) (*sensu* ICZN 2020), *E. doreanus* (Meyer, 1874), *E. douarrha* (Lesson, 1830), *E. finschi* (Böhme, Horn and Ziegler, 1994), *E. indicus* (Daudin, 1802) (type species) (*sensu* ICZN 2020), *E. jobiensis* (Ahl, 1932), *E. juxtindicus* (Böhme, Phillip, and Ziegler, 2002), *E. lirungensis* (Koch, Arida, Schmitz, Böhme and Ziegler, 2009), *E. melinus* (Böhme and Ziegler, 1997), *E. obor* (Weijola and Sweet, 2010), *E. rainerguentheri* (Ziegler, Böhme and Schmitz, 2007), *E. semotus* (Weijola, Donnellan and Lindqvist 2016), *E. tsukamotoi* (Kishida, 1929), *E. yuwonoi* (Harvey and Barker, 1998), *E. zugorum* (Böhme and Ziegler, 2005).

Photos of live specimens of all seventeen previously named species (prior to this paper) within the genus *Euprepiosaurus* (AKA the *E. indicus* Group) are in the literature, including as follows:

Weijola (2017) in Fig. 2, contains photos of living *Euprepiosaurus caerulivirens* (A), *E. indicus* (as *E. cerambonensis*) (B), *E. doreanus* (C), *E. douarrha* (D), *E. finschi* (E), *E. chlorostigma* (*sensu* ICZN 2020) (listed as *E. indicus*) (F), *E. jobiensis* (G), *E. juxtindicus* (H), *E. melinus* (I), *E. obor* (J), *E. rainerguentheri* (K), *E. semotus* (L), *E. yuwonoi* (M) (and *E. lenhoseri sp. nov.* (as *V. sp.*) from Misima (N)). Weijola (2020), contains photos of living *E. tsukamotoi* in Figs. 6 and 7 and *E. bennetti* in Figs 9-12. Hoser (1989) on page 117 has a photo of *E. chlorostigma* (Gray, 1831) (*sensu* ICZN 2020) from Australia, treated herein as two subspecies of the type form from Ambon (*sensu* ICZN 2020), namely *E. indicus wellsi* Hoser, 2013 and *E. indicus wellingtoni* Hoser, 2013.

E. lirungensis (Koch *et al.* 2009) is seen in life in (Koch *et al.* 2009), on page 33, Fig 4.

E. zugorum (Böhme and Ziegler, 2005) is depicted online at: https://www.reptilefact.com/zugs-monitor.html

All the preceding specimens in images are identified in the relevant publications as being of the genus "*Varanus*".

The morphologically similar species *Oxysaurus spinulosus* (Mertens, 1941) is depicted in life in plate 96 of McCoy (2006).

Species within the genus *Euprepiosaurus* Fitzinger, 1843 are readily separated from all other Varanids by the following suite of characters: At least the last two thirds of tail are strongly laterally compressed, not prehensile; mid-body scale count usually distinctly higher than 106; unilaterally built hemipenial and hemiclitorial paryphasma rows, which are also developed as weakly hardened ridges (the weakly hardened ridges separating *Euprepiosaurus* from *Shireenhosersaurea* Hoser, 2013).

Distribution: *E. matteoae sp. nov.* occurs on Santa Ana and nearby mainland island San Cristobal in the Solomon Islands.

Etymology: Named in honour of Cathryn Matteo of Hawthorn, Victoria, Australia in recognition of services to herpetology.

EUPREPIOSAURUS ELFAKHARIORUM SP. NOV.

LSIDurn:lsid:zoobank.org:act:57E8AC66-9E8A-48B2-931F-299765912C75

Holotype: A preserved specimen at the California Academy of Sciences, San Francisco, California, 94118, USA, specimen number CAS 72046 collected from Malaita Island, Solomon Islands. This facility allows access to its holdings.

Diagnosis: The following eight species, *Euprepiosaurus matteoae sp. nov.* from Santa Ana and San Cristobal (Solomon Islands), *E. elfakhariorum sp. nov.* from Malaita (Solomon Islands), *E. allengreeri sp. nov.* from Guadalcanal (Solomon Islands), *E. dorisioi sp. nov.* from the New Georgia group of islands (Solomon Islands), *E. paulwoolfi sp. nov.* from Santa Isabel (Solomon Islands), *E. sloppi* from Shortland Island (Solomon Islands), *E. powi sp. nov.* from Manus Island (Papua New Guinea) and *E. scottgranti sp. nov.* from Tanimbar Island (West Maluku Tenggara Regency, Maluku, Indonesia) have until now all been treated as populations of putative *E. indicus* (Daudin, 1802).

In his PhD Thesis in 1995, Robert George Sprackland headed his account of the putative taxon as "Mangrove Monitor, metaspecies", knowing that several species-level taxa were within this group (Sprackland 1995). Similar views have been expressed by other authors since 1995 including most recently (Ziegler *et al.* 2007a, Weijola 2017).
Both before and since 1995, various species have been formally described. Prior to the publication of this paper 17 were recognized as being specifically distinct (excluding the synonymised forms, which has been agreed by myself).

Species including *E. doreanus* (Meyer, 1874), *E. finschi* (Böhme, Horn and Ziegler, 1994), and *E. jobiensis* (Ahl, 1932), and associated species including *E. semotus* (Weijola, Donnellan and Lindqvist 2016), *E. yuwonoi* (Harvey and Barker, 1998), *E. oxyi sp. nov.*, *E. adelynhoserae sp. nov.* and *E. jackyhoserae sp. nov.*, all of a divergent lineage and separated from the *E. indicus* group *sensu-stricto* by not having a mainly dark bluish-grey

tongue and usually having blue colour on the posterior tail, are excluded from the diagnosis that follows.

The eight new species formally described herein continue this process of the break up of this species complex.

All are reproductively, genetically and morphologically divergent from one another. All are clearly evolving as separate biological entities and therefore all warrant treatment as full species.

Due to confusion relating to type specimens and a ruling by the ICZN in 2020 (ICZN 2020), the description for the species complex immediately below is based on the nominate taxon, *E. chlorostigma* (Gray, 1831) as the standard form and not *E. indicus.*

The putative species, *E. chlorostigma* including the eight species formally named herein, do unless specified otherwise conform to the following unique diagnosis: Entirely dark tongue (blueish or dark purple), except for the rear which is purple or pink. Dorsum dark brownish-black, with small whitish-yellow spots, mostly smaller than an area covered by five scales; lack of blue pigmentation, even on the tail of juveniles; light, patternless throat; absence of a well-defined light, dark-bordered postocular/supratemporal stripe; snout flat dorsally, scales smooth or very slightly keeled, very low midbody scale counts usually within the range of 106-137.

All other species within the genus *Euprepiosaurus* Fitzinger, 1843 are separated from *E. chlorostigma* and the eight new species named above by having one or other of the four character states:

1/ Tongue dark violet, with light lines, or:

2/ Tongue dark bluish or greyish pigmented anteriorly, becoming distinctly lighter laterally and posteriorly, or:

3/ Light coloured tongue, with an ill-defined dark pigmentation in the anteriormost part, or:

4/ Entire tongue light, pinkish in colour.

Exceptional to this is the following two taxa.

E. tsukamotoi Kishida, 1929, which also has a dark bluish-grey tongue, is separated from the preceding species by the following suite of characters: (i) dorsum black and covered with evenly distributed yellow scales, (ii) yellow temporal stripe usually absent, (iii) low scale counts around the head (P: 31-40), tail base (Q: 54-74) and midbody (S: 101-126), and (iv) usually prominent dark pigmentation in the gular region (derived from Weijola *et al.* 2020).

E. bennetti (Weijola *et al.* 2020), which also has a dark bluish-grey tongue, is separated from the preceding species by the following suite of characters: (i) dorsum black and evenly speckled with yellow scales, sometimes arranged in small groups of yellow scales, (ii) venter cream coloured with pale grey crossbands, (iii) tail exceptionally long (F/SVL mean = 1.76, range = 1.60-1.89), high XY scale counts (148-160), (iv) a clear yellow temporal stripe present in about half of the studied specimens, and (v), in life, peach colouring on the throat (derived from Weijola *et al.* 2020).

For the record as a result of the ICZN ruling of 2020, *E. indicus* of the type form from the Mollucas, Indonesia is characterised by a tongue that is entirely pink.

E. elfakhariorum sp. nov. is readily separated from all other species within *Euprepiosaurus* by the following suite of characters: Those mentioned previously for the putative species, *E. chlorostigma* and: Dark, black coloured head with well spaced scattered yellow circular spots on the upper surface; dark yellow upper labials (broken by black at the rear) and yellow tip of snout. Light bluish, pink nostrils and immediately posterior to them. The dorsum of the body is greyish-black with a semi-distinct pattern of yellow markings consisting of broken rows of single yellow scales running across the body, usually 2-3 scales for each row before being broken by dark scales and usually no more than one scale wide (in an anterior-posterior direction), but with about 11 sections where the broken rows of yellow scales are 2 scales wide, giving an appearance of semi-distinct cross-bands. This condition amplifies on the anterior 25 per cent of the tail, with the latter two thirds of the tail being obviously well banded with blackish and yellowish cross-bands. The darker bands are strongly peppered with yellow and the lighter ones with blackish-grey. A line of yellow scales runs across the upper eye, forming a supraciliary band. Iris yellowish.

There are more than ten (usually 12) well defined light bands on the posterior end of the tail. Upper surfaces of limbs are greyish-black with numerous tiny yellow spots, almost all being formed by a single yellow scale, surrounded by dark ones. Exceptionally clusters of 2 or 3 joined yellow scales may occur. Beneath the yellow labials, the throat is peppered with grey. Between the eye and ear, there are two broken lines of yellow spotted scales, which may appear as an indistinct temporal streak from a distance, but nothing of the sort either posterior to the ear or anterior to the eye.

The 17 Currently recognized species within *Euprepiosaurus* excluding those formally named within this paper are as follows: *E. bennetti* Weijola *et al.* (2020), *E. caerulivirens* (Philipp, Böhme and Ziegler, 1999), *E. chlorostigma* (Gray, 1831) (*sensu* ICZN 2020), *E. doreanus* (Meyer, 1874), *E. douarrha* (Lesson, 1830), *E. finschi* (Böhme, Horn and Ziegler, 1994), *E. indicus* (Daudin, 1802) (type species) (*sensu* ICZN 2020), *E. jobiensis* (Ahl, 1932), *E. juxtindicus* (Böhme, Phillip, and Ziegler, 2002), *E. lirungensis* (Koch, Arida, Schmitz, Böhme and Ziegler, 2009), *E. melinus* (Böhme and Ziegler, 1997), *E. obor* (Weijola and Sweet, 2010), *E. rainerguentheri* (Ziegler, Böhme and Schmitz, 2007), *E. semotus* (Weijola, Donnellan and Lindqvist 2016), *E. tsukamotoi* (Kishida, 1929), *E. yuwonoi* (Harvey and Barker, 1998), *E. zugorum* (Böhme and Ziegler, 2005).

Photos of live specimens of all seventeen previously named species (prior to this paper) within the genus *Euprepiosaurus* (AKA the *E. indicus* Group) are in the literature, including as follows:

Weijola (2017) in Fig. 2, contains photos of living *Euprepiosaurus caerulivirens* (A), *E. indicus* (as *E. cerambonensis*) (B), *E. doreanus* (C), *E. douarrha* (D), *E. finschi* (E), *E. chlorostigma* (*sensu* ICZN 2020) (listed as *E. indicus*) (F), *E. jobiensis* (G), *E. juxtindicus* (H), *E. melinus* (I), *E. obor* (J), *E. rainerguentheri* (K), *E. semotus* (L), *E. yuwonoi* (M) (and *E. lenhoseri sp. nov.* (as *V. sp.*) from Misima (N)). Weijola (2020), contains photos of living *E. tsukamotoi* in Figs. 6 and 7 and *E. bennetti* in Figs 9-12. Hoser (1989) on page 117 has a photo of *E. chlorostigma* (Gray, 1831) (*sensu* ICZN 2020) from Australia, treated herein as two subspecies of the type form from Ambon (*sensu* ICZN 2020), namely *E. indicus wellsi* Hoser, 2013 and *E. indicus wellingtoni* Hoser, 2013.

E. lirungensis (Koch *et al.* 2009) is seen in life in (Koch *et al.* 2009), on page 33, Fig 4.

E. zugorum (Böhme and Ziegler, 2005) is depicted online at: https://www.reptilefact.com/zugs-monitor.html

All the preceding specimens in images are identified in the relevant publications as being of the genus "*Varanus*".

The morphologically similar species *Oxysaurus spinulosus* (Mertens, 1941) is depicted in life in plate 96 of McCoy (2006).

Species within the genus *Euprepiosaurus* Fitzinger, 1843 are readily separated from all other Varanids by the following suite of characters: At least the last two thirds of tail are strongly laterally compressed, not prehensile; mid-body scale count usually distinctly higher than 106; unilaterally built hemipenial and hemiclitorial paryphasma rows, which are also developed as weakly hardened ridges (the weakly hardened ridges separating *Euprepiosaurus* from *Shireenhosersaurea* Hoser, 2013).

Distribution: *E. elfakhariorum sp. nov.* occurs on Malaita Island, Solomon Islands.

Etymology: Named in honour of Daniel, Akram and Moses El-Fakhari of Northcote, Victoria, Australia and their magnificent wives and children for many services to the Taxi Industry of

Victoria for many decades, services to wildlife conservation in Australia for many decades and services in the fight against police and judicial corruption in Victoria for many decades.

EUPREPIOSAURUS ALLENGREERI SP. NOV.

LSIDurn:lsid:zoobank.org:act:41DDCD3C-2E87-48EF-BA49-9168ED656040

Holotype: A preserved specimen at the Museum of Natural History, London, United Kingdom, specimen number 88.1.7.1 collected from Guadalcanal, Solomon Islands. This facility allows access to its holdings.

Paratype: A preserved specimen at the Zoologisches Forschungsmuseum Alexander Koenig, Bonn, Germany, specimen number ZMFK 52818 collected from Guadalcanal, Solomon Islands.

Diagnosis: The following eight species, *Euprepiosaurus matteoae sp. nov.* from Santa Ana and San Cristobal (Solomon Islands), *E. elfakhariorum sp. nov.* from Malaita (Solomon Islands), *E. allengreeri sp. nov.* from Guadalcanal (Solomon Islands), *E. dorisioi sp. nov.* from the New Georgia group of islands (Solomon Islands), *E. paulwoolfi sp. nov.* from Santa Isabel (Solomon Islands), *E. sloppi* from Shortland Island (Solomon Islands), *E. powi sp. nov.* from Manus Island (Papua New Guinea) and *E. scottgranti sp. nov*. from Tanimbar Island (West Maluku Tenggara Regency, Maluku, Indonesia) have until now all been treated as populations of putative *E. indicus* (Daudin, 1802).

In his PhD Thesis in 1995, Robert George Sprackland headed his account of the putative taxon as “Mangrove Monitor, metaspecies”, knowing that several species-level taxa were within this group (Sprackland 1995). Similar views have been expressed by other authors since 1995 including most recently (Ziegler *et al*. 2007a, Weijola 2017).
Both before and since 1995, various species have been formally described. Prior to the publication of this paper 17 were recognized as being specifically distinct (excluding the descriptions of forms synonymised, which has been agreed by myself).

Species including *E. doreanus* (Meyer, 1874), *E. finschi* (Böhme, Horn and Ziegler, 1994), and *E. jobiensis* (Ahl, 1932), and associated species including *E. semotus* (Weijola, Donnellan and Lindqvist 2016), *E. yuwonoi* (Harvey and Barker, 1998), *E. oxyi sp. nov.*, *E. adelynhoserae sp. nov.* and *E. jackyhoserae sp. nov.*, all of a divergent lineage and separated from the *E. indicus* group *sensu-stricto* by not having a mainly dark bluish-grey tongue and usually having blue colour on the posterior tail, are excluded from the diagnosis that follows.

The eight new species formally described herein continue this process of the break up of this species complex.

All are reproductively, genetically and morphologically divergent from one another. All are clearly evolving as separate biological entities and therefore all warrant treatment as full species.

Due to confusion relating to type specimens and a ruling by the ICZN in 2020 (ICZN 2020), the description for the species complex immediately below is based on the nominate taxon, *E. chlorostigma* (Gray, 1831) as the standard form and not *E. indicus.*

The putative species, *E. chlorostigma* including the eight species formally named herein, do unless specified otherwise conform to the following unique diagnosis: Entirely dark tongue (blueish or dark purple), except for the rear which is purple or pink. Dorsum dark brownish-black, with small whitish-yellow spots, mostly smaller than an area covered by five scales; lack of blue pigmentation, even on the tail of juveniles; light, patternless throat; absence of a well-defined light, dark-bordered postocular/supratemporal stripe; snout flat dorsally, scales smooth or very slightly keeled, very low midbody scale counts usually within the range of 106-137.

All other species within the genus *Euprepiosaurus* Fitzinger, 1843 are separated from *E. chlorostigma* and the eight new species named above by having one or other of the four character states:

1/ Tongue dark violet, with light lines, or:

2/ Tongue dark bluish or greyish pigmented anteriorly, becoming distinctly lighter laterally and posteriorly, or:

3/ Light coloured tongue, with an ill-defined dark pigmentation in the anteriormost part, or:

4/ Entire tongue light, pinkish in colour.

Exceptional to this is the following two taxa.

E. tsukamotoi Kishida, 1929, which also has a dark bluish-grey tongue, is separated from the preceding species by the following suite of characters: (i) dorsum black and covered with evenly distributed yellow scales, (ii) yellow temporal stripe usually absent, (iii) low scale counts around the head (P: 31-40), tail base (Q: 54-74) and midbody (S: 101-126), and (iv) usually prominent dark pigmentation in the gular region (derived from Weijola *et al*. 2020).

E. bennetti (Weijola *et al*. 2020), which also has a dark bluish-grey tongue, is separated from the preceding species by the following suite of characters: (i) dorsum black and evenly speckled with yellow scales, sometimes arranged in small groups of yellow scales, (ii) venter cream coloured with pale grey crossbands, (iii) tail exceptionally long (F/SVL mean = 1.76, range = 1.60-1.89), high XY scale counts (148-160), (iv) a clear yellow temporal stripe present in about half of the studied specimens, and (v), in life, peach colouring on the throat (derived from Weijola *et al*. 2020).

For the record as a result of the ICZN ruling of 2020, *E. indicus* of the type form from the Mollucas, Indonesia is characterised by a tongue that is entirely pink.

E. allengreeri sp. nov. is readily separated from all other species within *Euprepiosaurus* by the following suite of characters: Those mentioned previously for the putative species, *E. chlorostigma* and: Dark, black coloured head with well spaced scattered yellow circular spots on the upper surface; dark yellow upper labials and tip of snout. The yellow of the upper labials forms a distinctive unbroken yellow line running the entire length of the upper lip (versus broken by black in both *E. matteroae sp. nov*. and *E. elfakhariorum sp. nov*.). Light bluish, pinkish-yellow nostrils and immediately posterior to them. The dorsum of the body is greyish-black with a semi-distinct pattern of yellow markings consisting of broken rows of single yellow scales running across the body, usually 2-3 scales for each row before being broken by dark scales and usually no more than one scale wide (in an anterior-posterior direction), but with about 11 sections where the broken rows of yellow scales are 2 scales wide, giving an appearance of semi-distinct cross-bands. This condition amplifies on the anterior 25 per cent of the tail, with the latter two thirds of the tail being obviously well banded with blackish and yellowish cross-bands. The darker bands are strongly peppered with yellow and the lighter ones with blackish-grey. A line of yellow scales runs across the upper eye, forming a supraciliary band. Iris yellowish-orange.

There are more than ten (usually 12) well defined light bands on the posterior end of the tail. Upper surfaces of limbs are greyish-black with numerous tiny yellow spots, almost all being formed by a single yellow scale, surrounded by dark ones. Exceptionally clusters of 2 or 3 joined yellow scales may occur. Beneath the yellow labials, the throat is peppered with grey. Between the eye and ear, there are two broken lines of yellow spotted scales, which may appear as an indistinct temporal streak from a distance, but nothing of the sort either posterior to the ear or anterior to the eye.

The 17 Currently recognized species within *Euprepiosaurus* excluding those formally named within this paper are as follows: *E. bennetti* Weijola *et al.* (2020), *E. caerulivirens* (Philipp, Böhme and Ziegler, 1999), *E. chlorostigma* (Gray, 1831) (*sensu* ICZN 2020), *E. doreanus* (Meyer, 1874), *E. douarrha* (Lesson, 1830), *E. finschi* (Böhme, Horn and Ziegler, 1994), *E. indicus*

(Daudin, 1802) (type species) (*sensu* ICZN 2020), *E. jobiensis* (Ahl, 1932), *E. juxtindicus* (Böhme, Phillip, and Ziegler, 2002), *E. lirungensis* (Koch, Arida, Schmitz, Böhme and Ziegler, 2009), *E. melinus* (Böhme and Ziegler, 1997), *E. obor* (Weijola and Sweet, 2010), *E. rainerguentheri* (Ziegler, Böhme and Schmitz, 2007), *E. semotus* (Weijola, Donnellan and Lindqvist 2016), *E. tsukamotoi* (Kishida, 1929), *E. yuwonoi* (Harvey and Barker, 1998), *E. zugorum* (Böhme and Ziegler, 2005).

Photos of live specimens of all seventeen previously named species (prior to this paper) within the genus *Euprepiosaurus* (AKA the *E. indicus* Group) are in the literature, including as follows:

Weijola (2017) in Fig. 2, contains photos of living *Euprepiosaurus caerulivirens* (A), *E. indicus* (as *E. cerambonensis*) (B), *E. doreanus* (C), *E. douarrha* (D), *E. finschi* (E), *E. chlorostigma* (*sensu* ICZN 2020) (listed as *E. indicus*) (F), *E. jobiensis* (G), *E. juxtindicus* (H), *E. melinus* (I), *E. obor* (J), *E. rainerguentheri* (K), *E. semotus* (L), *E. yuwonoi* (M) (and *E. lenhoseri sp. nov.* (as *V. sp.*) from Misima (N)). Weijola (2020), contains photos of living *E. tsukamotoi* in Figs. 6 and 7 and *E. bennetti* in Figs 9-12. Hoser (1989) on page 117 has a photo of *E. chlorostigma* (Gray, 1831) (*sensu* ICZN 2020) from Australia, treated herein as two subspecies of the type form from Ambon (*sensu* ICZN 2020), namely *E. indicus wellsi* Hoser, 2013 and *E. indicus wellingtoni* Hoser, 2013.

E. lirungensis (Koch *et al.* 2009) is seen in life in (Koch *et al.* 2009), on page 33, Fig 4.

E. zugorum (Böhme and Ziegler, 2005) is depicted online at: https://www.reptilefact.com/zugs-monitor.html

All the preceding specimens in images are identified in the relevant publications as being of the genus "*Varanus*".

The morphologically similar species *Oxysaurus spinulosus* (Mertens, 1941) is depicted in life in plate 96 of McCoy (2006).

Species within the genus *Euprepiosaurus* Fitzinger, 1843 are readily separated from all other Varanids by the following suite of characters: At least the last two thirds of tail are strongly laterally compressed, not prehensile; mid-body scale count usually distinctly higher than 106; unilaterally built hemipenial and hemiclitorial paryphasma rows, which are also developed as weakly hardened ridges (the weakly hardened ridges separating *Euprepiosaurus* from *Shireenhosersaurea* Hoser, 2013).

Distribution: *E. allengreeri sp. nov.* occurs on Guadalcanal, Solomon Islands.

Etymology: Named in honour of Allen E. Greer, of Mudgee, New South Wales, Australia, formerly of Sydney, Australia, where he worked for many years as curator of herpetology at the Australian Museum. He is recognized also for fighting taxonomic vandalism by the Wolfgang Wüster gang of thieves in the 1980's through his ultimately successful petition to the ICZN to stop their actions.

The Wolfgang Wüster gang of thieves had applied to the ICZN to formally suppress all nomenclatural actions by Richard Wells and Cliff Ross Wellington (including Wells and Wellington, 1984, 1985), in order to enable their cohort to steal their works and rename hundreds of species and genera of reptile and frog. In 1991 the ICZN formally squashed the application by the Wolfgang Wüster gang of thieves.

EUPREPIOSAURUS DORISIOI SP. NOV.

LSIDurn:lsid:zoobank.org:act:A1FFD7B0-42DE-4100-B582-45046D756DA3

Holotype: A preserved specimen at the Australian Museum, Sydney, New South Wales, Australia, specimen number: R.134949 collected from Marovo Lagoon, Tamaneke Village, New Georgia, Solomon Islands, Latitude -8.316 S., Longitude 157.816 E.

This government-owned facility allows access to its holdings.

Paratypes: Three preserved specimens at the Australian Museum, Sydney, New South Wales, Australia, specimen numbers: R.134950, R.134953 and R.134954 all collected from Marovo Lagoon, Tamaneke Village, New Georgia, Solomon Islands, Latitude -8.316 S., Longitude 157.816 E, and:
Two preserved specimens at the the Field Museum of Natural History, Chicago, Illinois, USA, specimen numbers FMNH 41315 and FMNH 41316 both collected from New Georgia, Solomon Islands.

Diagnosis: The following eight species, *Euprepiosaurus matteoae sp. nov.* from Santa Ana and San Cristobal (Solomon Islands), *E. elfakhariorum sp. nov.* from Malaita (Solomon Islands), *E. allengreeri sp. nov.* from Guadalcanal (Solomon Islands), *E. dorisioi sp. nov.* from the New Georgia group of islands (Solomon Islands), *E. paulwoolfi sp. nov.* from Santa Isabel (AKA Ysabel) (Solomon Islands), *E. sloppi* from Shortland Island (Solomon Islands), *E. powi sp. nov.* from Manus Island (Papua New Guinea) and *E. scottgranti sp. nov*. from Tanimbar Island (West Maluku Tenggara Regency, Maluku, Indonesia) have until now all been treated as populations of putative *E. indicus* (Daudin, 1802).

In his PhD Thesis in 1995, Robert George Sprackland headed his account of the putative taxon as "Mangrove Monitor, metaspecies", knowing that several species-level taxa were within this group (Sprackland 1995). Similar views have been expressed by other authors since 1995 including most recently (Ziegler *et al.* 2007a, Weijola 2017).
Both before and since 1995, various species have been formally described. Prior to the publication of this paper 17 were recognized as being specifically distinct (excluding the descriptions of forms synonymised, which has been agreed by myself).

Species including *E. doreanus* (Meyer, 1874), *E. finschi* (Böhme, Horn and Ziegler, 1994), and *E. jobiensis* (Ahl, 1932), and associated species including *E. semotus* (Weijola, Donnellan and Lindqvist 2016), *E. yuwonoi* (Harvey and Barker, 1998), *E. oxyi sp. nov.*, *E. adelynhoserae sp. nov.* and *E. jackyhoserae sp. nov.*, all of a divergent lineage and separated from the *E. indicus* group *sensu-stricto* by not having a mainly dark bluish-grey tongue and usually having blue colour on the posterior tail, are excluded from the diagnosis that follows.

The eight new species formally described herein continue this process of the break up of this species complex.

All are reproductively, genetically and morphologically divergent from one another. All are clearly evolving as separate biological entities and therefore all warrant treatment as full species.

Due to confusion relating to type specimens and a ruling by the ICZN in 2020 (ICZN 2020), the description for the species complex immediately below is based on the nominate taxon, *E. chlorostigma* (Gray, 1831) as the standard form and not *E. indicus.*

The putative species, *E. chlorostigma* including the eight species formally named herein, do unless specified otherwise conform to the following unique diagnosis: Entirely dark tongue (blueish or dark purple), except for the rear which is purple or pink. Dorsum dark brownish-black, with small whitish-yellow spots, mostly smaller than an area covered by five scales; lack of blue pigmentation, even on the tail of juveniles; light, patternless throat; absence of a well-defined light, dark-bordered postocular/supratemporal stripe; snout flat dorsally, scales smooth or very slightly keeled, very low midbody scale counts usually within the range of 106-137.

All other species within the genus *Euprepiosaurus* Fitzinger, 1843 are separated from *E. chlorostigma* and the eight new species named above by having one or other of the four character states:

1/ Tongue dark violet, with light lines, or:

2/ Tongue dark bluish or greyish pigmented anteriorly, becoming distinctly lighter laterally and posteriorly, or:

3/ Light coloured tongue, with an ill-defined dark pigmentation in the anteriormost part, or:

4/ Entire tongue light, pinkish in colour.

Exceptional to this is the following two taxa.

E. tsukamotoi Kishida, 1929, which also has a dark bluish-grey tongue, is separated from the preceding species by the following suite of characters: (i) dorsum black and covered with evenly distributed yellow scales, (ii) yellow temporal stripe usually absent, (iii) low scale counts around the head (P: 31-40), tail base (Q: 54-74) and midbody (S: 101-126), and (iv) usually prominent dark pigmentation in the gular region (derived from Weijola *et al.* 2020).

E. bennetti (Weijola *et al.* 2020), which also has a dark bluish-grey tongue, is separated from the preceding species by the following suite of characters: (i) dorsum black and evenly speckled with yellow scales, sometimes arranged in small groups of yellow scales, (ii) venter cream coloured with pale grey crossbands, (iii) tail exceptionally long (F/SVL mean = 1.76, range = 1.60-1.89), high XY scale counts (148-160), (iv) a clear yellow temporal stripe present in about half of the studied specimens, and (v), in life, peach colouring on the throat (derived from Weijola *et al.* 2020).

For the record as a result of the ICZN ruling of 2020, *E. indicus* of the type form from the Mollucas, Indonesia is characterised by a tongue that is entirely pink.

E. dorisioi sp. nov. is readily separated from all other species within *Euprepiosaurus* by the following suite of characters: Those mentioned previously for the putative species, *E. chlorostigma* and: Dark black coloured neck and body with numerous scattered single yellow scales giving a speckled appearance on the dorsum and flanks. Exceptional to this are widely scattered clusters of 1-4 scales, either in circular arangement or similar (not as short bars). On the anterior tail the yellow spots coalesce to form numerous short yellow bars running cross ways of 2-4 scales in width. While juveniles have obvious banding on the tail, this is not the case in adults, with the entire length of the tail having a black and yellow speckled appearance.

The top of the head is brown, with orange-yellow spotting, the head becoming pink anteriorly from the nostrils to give a pink snout and labial region (upper and lower), extending back to roughly below the eye. Inner nostrils are pink. Tongue is pink with a line of blue on top, except the rear, which is all pink. Iris is bright orange.

Lower jaw is pink and the gular pouch is yellow, overlain with grey reticulations formed by joined single grey scales.

Behind the eye and anterior to the ear in the temporal region are scattered orange or yellow spots without any indication of any sort of a temporal streak, lines, broken lines, or similar.

Limbs densely spotted with yellow (single scales surrounded by black).

Photos of live adult *E. dorisioi sp. nov.* in life can be found online at:

https://www.alamy.com/stock-photo-mangrove-monitor-lizard-or-goanna-varanus-indicus-uepi-island-solomon-28841387.html

and

https://www.flickr.com/photos/waterdragon62/4233538386/in/photolist-2aDg2hb-7s6Zt9

The 17 Currently recognized species within *Euprepiosaurus* excluding those formally named within this paper are as follows: *E. bennetti* Weijola *et al.* (2020), *E. caerulivirens* (Philipp, Böhme and Ziegler, 1999), *E. chlorostigma* (Gray, 1831) (*sensu* ICZN 2020), *E. doreanus* (Meyer, 1874), *E. douarrha* (Lesson, 1830), *E. finschi* (Böhme, Horn and Ziegler, 1994), *E. indicus* (Daudin, 1802) (type species) (*sensu* ICZN 2020), *E. jobiensis* (Ahl, 1932), *E. juxtindicus* (Böhme, Phillip, and Ziegler, 2002), *E. lirungensis* (Koch, Arida, Schmitz, Böhme and Ziegler, 2009), *E. melinus* (Böhme and Ziegler, 1997), *E. obor* (Weijola and Sweet, 2010), *E. rainerguentheri* (Ziegler, Böhme and Schmitz, 2007), *E. semotus* (Weijola, Donnellan and Lindqvist 2016), *E. tsukamotoi* (Kishida, 1929), *E. yuwonoi* (Harvey and Barker, 1998), *E. zugorum* (Böhme and Ziegler, 2005).

Photos of live specimens of all seventeen previously named species (prior to this paper) within the genus *Euprepiosaurus* (AKA the *E. indicus* Group) are in the literature, including as follows:

Weijola (2017) in Fig. 2, contains photos of living *Euprepiosaurus caerulivirens* (A), *E. indicus* (as *E. cerambonensis*) (B), *E. doreanus* (C), *E. douarrha* (D), *E. finschi* (E), *E. chlorostigma* (*sensu* ICZN 2020) (listed as *E. indicus*) (F), *E. jobiensis* (G), *E. juxtindicus* (H), *E. melinus* (I), *E. obor* (J), *E. rainerguentheri* (K), *E. semotus* (L), *E. yuwonoi* (M) (and *E. lenhoseri sp. nov.* (as *V. sp.*) from Misima (N)). Weijola (2020), contains photos of living *E. tsukamotoi* in Figs. 6 and 7 and *E. bennetti* in Figs 9-12. Hoser (1989) on page 117 has a photo of *E. chlorostigma* (Gray, 1831) (*sensu* ICZN 2020) from Australia, treated herein as two subspecies of the type form from Ambon (*sensu* ICZN 2020), namely *E. indicus wellsi* Hoser, 2013 and *E. indicus wellingtoni* Hoser, 2013.

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E. zugorum (Böhme and Ziegler, 2005) is depicted online at: https://www.reptilefact.com/zugs-monitor.html

All the preceding specimens in images are identified in the relevant publications as being of the genus "*Varanus*".

The morphologically similar species *Oxysaurus spinulosus* (Mertens, 1941) is depicted in life in plate 96 of McCoy (2006).

Species within the genus *Euprepiosaurus* Fitzinger, 1843 are readily separated from all other Varanids by the following suite of characters: At least the last two thirds of tail are strongly laterally compressed, not prehensile; mid-body scale count usually distinctly higher than 106; unilaterally built hemipenial and hemiclitorial paryphasma rows, which are also developed as weakly hardened ridges (the weakly hardened ridges separating *Euprepiosaurus* from *Shireenhosersaurea* Hoser, 2013).

Distribution: *E. dorisioi sp. nov.* is restricted to the New Georgia group of islands, including outliers.

Etymology: The new species is named in honour of Morrie Dorisio of Bulleen, Victoria, (more recently of Reservoir, Victoria), Australia in recognition of his many hours of logistical assistances helping Snakebusters: Australia's best reptile shows with wildlife conservation and education activities, as well as numerous scientific research projects, including publication of papers, monographs and books.

EUPREPIOSAURUS PAULWOOLFI SP. NOV.

LSIDurn:lsid:zoobank.org:act:C1D47722-84C6-4FFE-B16A-F1CDDB3EB823

Holotype: A preserved specimen at the Field Museum of Natural History, Chicago, Illinois, USA, specimen number FMNH 13805 collected from Ysabel Island (AKA Isabel Island), Solomon Islands. This facility allows access to its holdings.

Paratypes: Two preserved specimens at the Australian Museum, Sydney, New South Wales, Australia, specimen numbers R8614 and R9298 collected from Tunabuli Harbour, Ysabel Island, Solomon Islands. Latitude -8.383 S., Longitude 159.800 E.

Diagnosis: The following eight species, *Euprepiosaurus matteoae sp. nov.* from Santa Ana and San Cristobal (Solomon Islands), *E. elfakhariorum sp. nov.* from Malaita (Solomon Islands), *E. allengreeri sp. nov.* from Guadalcanal (Solomon Islands), *E. dorisioi sp. nov.* from the New Georgia group of islands (Solomon Islands), *E. paulwoolfi sp. nov.* from Santa Isabel (AKA Ysabel) (Solomon Islands), *E. sloppi* from Shortland Island (Solomon Islands), *E. powi sp. nov.* from Manus Island (Papua New Guinea) and *E. scottgranti sp. nov.* from Tanimbar Island (West Maluku Tenggara Regency, Maluku, Indonesia) have until now all been treated as populations of putative *E. indicus* (Daudin, 1802).

In his PhD Thesis in 1995, Robert George Sprackland headed his account of the putative taxon as "Mangrove Monitor, metaspecies", knowing that several species-level taxa were within this group (Sprackland 1995). Similar views have been expressed by other authors since 1995 including most recently (Ziegler *et al.* 2007a, Weijola 2017).
Both before and since 1995, various species have been formally described. Prior to the publication of this paper 17 were recognized as being specifically distinct (excluding the descriptions of forms synonymised, which has been agreed by myself).

Species including *E. doreanus* (Meyer, 1874), *E. finschi* (Böhme, Horn and Ziegler, 1994), and *E. jobiensis* (Ahl, 1932), and associated species including *E. semotus* (Weijola, Donnellan and Lindqvist 2016), *E. yuwonoi* (Harvey and Barker, 1998), *E. oxyi sp. nov.*, *E. adelynhoserae sp. nov.* and *E. jackyhoserae sp. nov.*, all of a divergent lineage and separated from the *E. indicus* group *sensu-stricto* by not having a mainly dark bluish-grey tongue and usually having blue colour on the posterior tail, are excluded from the diagnosis that follows.

The eight new species formally described herein continue this process of the break up of this species complex.

All are reproductively, genetically and morphologically divergent from one another. All are clearly evolving as separate biological entities and therefore all warrant treatment as full species.

Due to confusion relating to type specimens and a ruling by the ICZN in 2020 (ICZN 2020), the description for the species complex immediately below is based on the nominate taxon, *E. chlorostigma* (Gray, 1831) as the standard form and not *E. indicus.*

The putative species, *E. chlorostigma* including the eight species formally named herein, do unless specified otherwise conform to the following unique diagnosis: Entirely dark tongue (blueish or dark purple), except for the rear which is purple or pink. Dorsum dark brownish-black, with small whitish-yellow spots, mostly smaller than an area covered by five scales; lack of blue pigmentation, even on the tail of juveniles; light, patternless throat; absence of a well-defined light, dark-bordered postocular/supratemporal stripe; snout flat dorsally, scales smooth or very slightly keeled, very low midbody scale counts usually within the range of 106-137.

All other species within the genus *Euprepiosaurus* Fitzinger, 1843 are separated from *E. chlorostigma* and the eight new species named above by having one or other of the four character states:

1/ Tongue dark violet, with light lines, or:

2/ Tongue dark bluish or greyish pigmented anteriorly, becoming distinctly lighter laterally and posteriorly, or:

3/ Light coloured tongue, with an ill-defined dark pigmentation in the anteriormost part, or:

4/ Entire tongue light, pinkish in colour.

Exceptional to this is the following two taxa.

E. tsukamotoi Kishida, 1929, which also has a dark bluish-grey tongue, is separated from the preceding species by the following suite of characters: (i) dorsum black and covered with evenly distributed yellow scales, (ii) yellow temporal stripe usually absent, (iii) low scale counts around the head (P: 31-40), tail base (Q: 54-74) and midbody (S: 101-126), and (iv) usually prominent dark pigmentation in the gular region (derived from Weijola *et al.* 2020).

E. bennetti (Weijola *et al.* 2020), which also has a dark bluish-grey tongue, is separated from the preceding species by the following suite of characters: (i) dorsum black and evenly speckled with yellow scales, sometimes arranged in small groups of yellow scales, (ii) venter cream coloured with pale grey crossbands, (iii) tail exceptionally long (F/SVL mean = 1.76, range = 1.60-1.89), high XY scale counts (148-160), (iv) a clear yellow temporal stripe present in about half of the studied specimens, and (v), in life, peach colouring on the throat (derived from Weijola *et al.* 2020).

For the record as a result of the ICZN ruling of 2020, *E. indicus* of the type form from the Mollucas, Indonesia is characterised by a tongue that is entirely pink.

E. paulwoolfi sp. nov. is readily separated from all other species within *Euprepiosaurus* by the following suite of characters: Those mentioned previously for the putative species, *E. chlorostigma* and: Dark black coloured neck and body with numerous scattered single yellow scales giving a speckled appearance on the dorsum and flanks. Exceptional to this are widely scattered clusters of 1-4 scales, either in circular arangement or similar (not as short bars). On the anterior tail the yellow spots coalesce to form numerous short yellow bars running cross ways of 2-4 scales in width. While juveniles have obvious banding on the tail, this only remains the case for the posterior half of the tail in adults with banding being semi-distinct only.

The terminal part of the tail is mainly black, with a few yellow flecks.

The top of the head is blackish, with limited scattered indistinct tiny yellow spots.
The front of the head becomes a lighter faded brownish pink colour, becoming light greyish pink around the anterior lips to give a pinkish snout and anterior labial region (upper and lower), extending back to roughly below the eye. Inner nostrils are greyish pink. Tongue is pink with a line of blue on top (all blue at the tip), except the rear, which is all pink. Iris is dull brown orange.

Lower jaw is yellowish rather than pink, except the line of the lower labials and the gular pouch is yellow, overlain with grey ill-defined reticulations formed by joined single grey scales.

Behind the eye and anterior to the ear in the temporal region are scattered orange or yellow spots arranged in a more-or-less linear manner which give a pair of ill-defined lines containing a generally dark temporal line.

Upper surfaces of fore and hind limbs are densely spotted with yellow (single scales surrounded by black).

The 17 Currently recognized species within *Euprepiosaurus* excluding those formally named within this paper are as follows: *E. bennetti* Weijola *et al.* (2020), *E. caerulivirens* (Philipp, Böhme and Ziegler, 1999), *E. chlorostigma* (Gray, 1831) (*sensu* ICZN 2020), *E. doreanus* (Meyer, 1874), *E. douarrha* (Lesson, 1830), *E. finschi* (Böhme, Horn and Ziegler, 1994), *E. indicus* (Daudin, 1802) (type species) (*sensu* ICZN 2020), *E. jobiensis* (Ahl, 1932), *E. juxtindicus* (Böhme, Phillip, and Ziegler, 2002), *E. lirungensis* (Koch, Arida, Schmitz, Böhme and Ziegler, 2009), *E. melinus* (Böhme and Ziegler, 1997), *E. obor* (Weijola and Sweet, 2010), *E. rainerguentheri* (Ziegler, Böhme and Schmitz, 2007), *E. semotus* (Weijola, Donnellan and Lindqvist 2016), *E. tsukamotoi* (Kishida, 1929), *E. yuwonoi* (Harvey and Barker, 1998), *E. zugorum* (Böhme and Ziegler, 2005).

Photos of live specimens of all seventeen previously named species (prior to this paper) within the genus *Euprepiosaurus* (AKA the *E. indicus* Group) are in the literature, including as follows:

Weijola (2017) in Fig. 2, contains photos of living *Euprepiosaurus caerulivirens* (A), *E. indicus* (as *E. cerambonensis*) (B), *E. doreanus* (C), *E. douarrha* (D), *E. finschi* (E), *E. chlorostigma* (*sensu* ICZN 2020) (listed as *E. indicus*) (F), *E. jobiensis* (G), *E. juxtindicus* (H), *E. melinus* (I), *E. obor* (J), *E. rainerguentheri* (K), *E. semotus* (L), *E. yuwonoi* (M) (and *E. lenhoseri sp. nov.* (as *V. sp.*) from Misima (N)). Weijola (2020), contains photos of living *E. tsukamotoi* in Figs. 6 and 7 and *E. bennetti* in Figs 9-12. Hoser (1989) on page 117 has a photo of *E. chlorostigma* (Gray, 1831) (*sensu* ICZN 2020) from Australia, treated herein as two subspecies of the type form from Ambon (*sensu* ICZN 2020), namely *E. indicus wellsi* Hoser, 2013 and *E. indicus wellingtoni* Hoser, 2013.

Hoser 2020 - Australasian Journal of Herpetology 47:3-31.

E. lirungensis (Koch *et al.* 2009) is seen in life in (Koch *et al.* 2009), on page 33, Fig 4.

E. zugorum (Böhme and Ziegler, 2005) is depicted online at: https://www.reptilefact.com/zugs-monitor.html

All the preceding specimens in images are identified in the relevant publications as being of the genus "*Varanus*".

The morphologically similar species *Oxysaurus spinulosus* (Mertens, 1941) is depicted in life in plate 96 of McCoy (2006).

Species within the genus *Euprepiosaurus* Fitzinger, 1843 are readily separated from all other Varanids by the following suite of characters: At least the last two thirds of tail are strongly laterally compressed, not prehensile; mid-body scale count usually distinctly higher than 106; unilaterally built hemipenial and hemiclitorial paryphasma rows, which are also developed as weakly hardened ridges (the weakly hardened ridges separating *Euprepiosaurus* from *Shireenhosersaurea* Hoser, 2013).

Distribution: *E. paulwoolfi sp. nov*. is known from the type locality, Ysabel Island in the Solomon Islands, but is believed to also be the taxon found on the islands extending in a linear manner to Bougainville, all of which were connected by land bridges in the most recent glacial minima.

Etymology: The new species *E. paulwoolfi sp. nov*. is named in honour of Paul Woolf of Walloon, west of Brisbane, Queensland, Australia, the foundation president of the Herpetological Society of Queensland Incorporated, Australia, in recognition of many decades of important contributions to herpetology in Australia.

EUPREPIOSAURUS SLOPPI SP. NOV.

LSIDurn:lsid:zoobank.org:act:6850CFF7-4D79-4A45-8BF6-44789616B7B9

Holotype: A preserved specimen at the Australian Museum, Sydney, New South Wales, Australia, specimen number: R121569 collected from Shortland Island, Western Province, Solomon Islands, Latitude -7.0452 S., Longitude 155.7372 E. This government-owned facility allows access to its holdings.

Paratype: A preserved specimen at the Museum of Natural History, London, UK, specimen number 84.3.24.77-78 collected at Shortland Island, Western Province, Solomon Islands, Latitude -7.0452 S., Longitude 155.7372 E.

Diagnosis: The following eight species, *Euprepiosaurus sloppi* from Shortland Island (Solomon Islands), *E. elfakhariorum sp. nov.* from Malaita (Solomon Islands), *E. allengreeri sp. nov.* from Guadalcanal (Solomon Islands), *E. dorisioi sp. nov.* from the New Georgia group of islands (Solomon Islands), *E. paulwoolfi sp. nov.* from Santa Isabel (AKA Ysabel) (Solomon Islands), *E. matteoae sp. nov.* from Santa Ana and San Cristobal (Solomon Islands), *E. powi sp. nov.* from Manus Island (Papua New Guinea) and *E. scottgranti sp. nov*. from Tanimbar Island (West Maluku Tenggara Regency, Maluku, Indonesia) have until now all been treated as populations of putative *E. indicus* (Daudin, 1802).

In his PhD Thesis in 1995, Robert George Sprackland headed his account of the putative taxon as "Mangrove Monitor, metaspecies", knowing that several species-level taxa were within this group (Sprackland 1995). Similar views have been expressed by other authors since 1995 including most recently (Ziegler *et al*. 2007a, Weijola 2017).
Both before and since 1995, various species have been formally described. Prior to the publication of this paper 17 were recognized as being specifically distinct (excluding the descriptions of forms synonymised, which has been agreed by myself).

Species including *E. doreanus* (Meyer, 1874), *E. finschi* (Böhme, Horn and Ziegler, 1994), and *E. jobiensis* (Ahl, 1932), and associated species including *E. semotus* (Weijola, Donnellan and Lindqvist 2016), *E. yuwonoi* (Harvey and Barker, 1998), *E. oxyi sp. nov.*, *E. adelynhoserae sp. nov.* and *E. jackyhoserae sp. nov.*, all of a divergent lineage and separated from the *E. indicus* group *sensu-stricto* by not having a mainly dark bluish-grey tongue and usually having blue colour on the posterior tail, are excluded from the diagnosis that follows.

The eight new species formally described herein continue this process of the break up of this species complex.

All are reproductively, genetically and morphologically divergent from one another. All are clearly evolving as separate biological entities and therefore all warrant treatment as full species.

Due to confusion relating to type specimens and a ruling by the ICZN in 2020 (ICZN 2020), the description for the species complex immediately below is based on the nominate taxon, *E. chlorostigma* (Gray, 1831) as the standard form and not *E. indicus.*

The putative species, *E. chlorostigma* including the eight species formally named herein, do unless specified otherwise conform to the following unique diagnosis: Entirely dark tongue (blueish or dark purple), except for the rear which is purple or pink. Dorsum dark brownish-black, with small whitish-yellow spots, mostly smaller than an area covered by five scales; lack of blue pigmentation, even on the tail of juveniles; light, patternless throat; absence of a well-defined light, dark-bordered postocular/supratemporal stripe; snout flat dorsally, scales smooth or very slightly keeled, very low midbody scale counts usually within the range of 106-137.

All other species within the genus *Euprepiosaurus* Fitzinger, 1843 are separated from *E. chlorostigma* and the eight new species named above by having one or other of the four character states:

1/ Tongue dark violet, with light lines, or:

2/ Tongue dark bluish or greyish pigmented anteriorly, becoming distinctly lighter laterally and posteriorly, or:

3/ Light coloured tongue, with an ill-defined dark pigmentation in the anteriormost part, or:

4/ Entire tongue light, pinkish in colour.

Exceptional to this is the following two taxa.

E. tsukamotoi Kishida, 1929, which also has a dark bluish-grey tongue, is separated from the preceding species by the following suite of characters: (i) dorsum black and covered with evenly distributed yellow scales, (ii) yellow temporal stripe usually absent, (iii) low scale counts around the head (P: 31-40), tail base (Q: 54-74) and midbody (S: 101-126), and (iv) usually prominent dark pigmentation in the gular region (derived from Weijola *et al*. 2020).

E. bennetti (Weijola *et al*. 2020), which also has a dark bluish-grey tongue, is separated from the preceding species by the following suite of characters: (i) dorsum black and evenly speckled with yellow scales, sometimes arranged in small groups of yellow scales, (ii) venter cream coloured with pale grey crossbands, (iii) tail exceptionally long (F/SVL mean = 1.76, range = 1.60-1.89), high XY scale counts (148-160), (iv) a clear yellow temporal stripe present in about half of the studied specimens, and (v), in life, peach colouring on the throat (derived from Weijola *et al*. 2020).

For the record as a result of the ICZN ruling of 2020, *E. indicus* of the type form from the Mollucas, Indonesia is characterised by a tongue that is entirely pink.

E. sloppi sp. nov. is readily separated from all other species within *Euprepiosaurus* by the following suite of characters: Those mentioned previously for the putative species, *E. chlorostigma* and: Dark black coloured neck and body with numerous scattered single yellow scales giving a speckled appearance on the dorsum and flanks. Exceptional to this are widely scattered clusters of 1-4 scales, either in circular arangement or similar (not as short bars). On the anterior tail the yellow spots coalesce to form numerous short yellow bars running cross ways of 2-4 scales in width. While juveniles have obvious banding on the tail, the banding is less obvious in adults, but still clearly visible on the posterior half of the tail.

The top of the head is brownish-black, with very sparse and

indistinct orange-brown spots. The dorsum of the head becomes yellowish-pink anteriorly from the nostrils to give a pink snout and labial region (upper and lower), extending back to roughly below the eye. Inner nostrils are yellowish-pink. Tongue is pink with a line of blue on top, except the rear, which is all pink. Iris is dull reddish brown.

Lower jaw is yellow and the gular pouch is also yellow, overlain with dull grey reticulations formed by joined single grey scales. The rear lower labials are heavily peppered brown, separating this taxon from others in the Solomons.

Behind the eye and anterior to the ear in the temporal region are scattered orange or yellow spots which combined show a broken outline of two lines, creating a semblance of a temporal streak as the intervening area is black.

Upper surfaces of the fore-limbs are densely spotted with yellow (single scales surrounded by black) and spotted with white on the hind-limbs, versus yellow on surfaces of fore and hind limbs in both *E. dorisioi sp. nov.* from New Georgia and *E. paulwoolfi sp. nov.* from Isabel Island.

The 17 Currently recognized species within *Euprepiosaurus* excluding those formally named within this paper are as follows: *E. bennetti* Weijola *et al.* (2020), *E. caerulivirens* (Philipp, Böhme and Ziegler, 1999), *E. chlorostigma* (Gray, 1831) (*sensu* ICZN 2020), *E. doreanus* (Meyer, 1874), *E. douarrha* (Lesson, 1830), *E. finschi* (Böhme, Horn and Ziegler, 1994), *E. indicus* (Daudin, 1802) (type species) (*sensu* ICZN 2020), *E. jobiensis* (Ahl, 1932), *E. juxtindicus* (Böhme, Phillip, and Ziegler, 2002), *E. lirungensis* (Koch, Arida, Schmitz, Böhme and Ziegler, 2009), *E. melinus* (Böhme and Ziegler, 1997), *E. obor* (Weijola and Sweet, 2010), *E. rainerguentheri* (Ziegler, Böhme and Schmitz, 2007), *E. semotus* (Weijola, Donnellan and Lindqvist 2016), *E. tsukamotoi* (Kishida, 1929), *E. yuwonoi* (Harvey and Barker, 1998), *E. zugorum* (Böhme and Ziegler, 2005).

Photos of live specimens of all seventeen previously named species (prior to this paper) within the genus *Euprepiosaurus* (AKA the *E. indicus* Group) are in the literature, including as follows:

Weijola (2017) in Fig. 2, contains photos of living *Euprepiosaurus caerulivirens* (A), *E. indicus* (as *E. cerambonensis*) (B), *E. doreanus* (C), *E. douarrha* (D), *E. finschi* (E), *E. chlorostigma* (*sensu* ICZN 2020) (listed as *E. indicus*) (F), *E. jobiensis* (G), *E. juxtindicus* (H), *E. melinus* (I), *E. obor* (J), *E. rainerguentheri* (K), *E. semotus* (L), *E. yuwonoi* (M) (and *E. lenhoseri sp. nov.* (as *V. sp.*) from Misima (N)). Weijola (2020), contains photos of living *E. tsukamotoi* in Figs. 6 and 7 and *E. bennetti* in Figs 9-12. Hoser (1989) on page 117 has a photo of *E. chlorostigma* (Gray, 1831) (*sensu* ICZN 2020) from Australia, treated herein as two subspecies of the type form from Ambon (*sensu* ICZN 2020), namely *E. indicus wellsi* Hoser, 2013 and *E. indicus wellingtoni* Hoser, 2013.

E. lirungensis (Koch *et al.* 2009) is seen in life in (Koch *et al.* 2009), on page 33, Fig 4.

E. zugorum (Böhme and Ziegler, 2005) is depicted online at: https://www.reptilefact.com/zugs-monitor.html

All the preceding specimens in images are identified in the relevant publications as being of the genus "*Varanus*".

The morphologically similar species *Oxysaurus spinulosus* (Mertens, 1941) is depicted in life in plate 96 of McCoy (2006).

Species within the genus *Euprepiosaurus* Fitzinger, 1843 are readily separated from all other Varanids by the following suite of characters: At least the last two thirds of tail are strongly laterally compressed, not prehensile; mid-body scale count usually distinctly higher than 106; unilaterally built hemipenial and hemiclitorial paryphasma rows, which are also developed as weakly hardened ridges (the weakly hardened ridges separating *Euprepiosaurus* from *Shireenhosersaurea* Hoser, 2013).

Distribution: *E. sloppi sp. nov.* is as far as is known restricted to Shortland Island, Solomon Islands.

Etymology: Slop (AKA Slopp) was the name of the author's Great Dane dog (aged 8 in 2020) that protected this author's scientific research facility from thieves for 8 years. It is appropriate that a species (formally described above) is formally named in his honour.

EUPREPIOSAURUS POWI SP. NOV.

LSIDurn:lsid:zoobank.org:act:19002E65-59C7-4002-B78E-D8F968E54136

Holotype: A preserved specimen at the Australian Museum, Sydney, New South Wales, Australia, specimen number: R.129067 collected from Los Negros Island, Admiralty Islands, Manus District, Papua New Guinea, Latitude -2.016 S., Longitude 147.416 E.

This government-owned facility allows access to its holdings.

Diagnosis: The following eight species, *Euprepiosaurus sloppi* from Shortland Island (Solomon Islands), *E. elfakhariorum sp. nov.* from Malaita (Solomon Islands), *E. allengreeri sp. nov.* from Guadalcanal (Solomon Islands), *E. dorisioi sp. nov.* from the New Georgia group of islands (Solomon Islands), *E. paulwoolfi sp. nov.* from Santa Isabel (AKA Ysabel) (Solomon Islands), *E. matteoae sp. nov.* from Santa Ana and San Cristobal (Solomon Islands), *E. powi sp. nov.* from Manus Island (Papua New Guinea) and *E. scottgranti sp. nov.* from Tanimbar Island (West Maluku Tenggara Regency, Maluku, Indonesia) have until now all been treated as populations of putative *E. indicus* (Daudin, 1802).

In his PhD Thesis in 1995, Robert George Sprackland headed his account of the putative taxon as "Mangrove Monitor, metaspecies", knowing that several species-level taxa were within this group (Sprackland 1995). Similar views have been expressed by other authors since 1995 including most recently (Ziegler *et al.* 2007a, Weijola 2017).
Both before and since 1995, various species have been formally described. Prior to the publication of this paper 17 were recognized as being specifically distinct (excluding the descriptions of forms synonymised, which has been agreed by myself).

Species including *E. doreanus* (Meyer, 1874), *E. finschi* (Böhme, Horn and Ziegler, 1994), and *E. jobiensis* (Ahl, 1932), and associated species including *E. semotus* (Weijola, Donnellan and Lindqvist 2016), *E. yuwonoi* (Harvey and Barker, 1998), *E. oxyi sp. nov.*, *E. adelynhoserae sp. nov.* and *E. jackyhoserae sp. nov.*, all of a divergent lineage and separated from the *E. indicus* group *sensu-stricto* by not having a mainly dark bluish-grey tongue and usually having blue colour on the posterior tail, are excluded from the diagnosis that follows.

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The putative species, *E. chlorostigma* including the eight species formally named herein, do unless specified otherwise conform to the following unique diagnosis: Entirely dark tongue (blueish or dark purple), except for the rear which is purple or pink. Dorsum dark brownish-black, with small whitish-yellow spots, mostly smaller than an area covered by five scales; lack of blue pigmentation, even on the tail of juveniles; light, patternless throat; absence of a well-defined light, dark-bordered postocular/supratemporal stripe; snout flat dorsally, scales smooth or very slightly keeled, very low midbody scale counts usually within the range of 106-137.

All other species within the genus *Euprepiosaurus* Fitzinger, 1843 are separated from *E. chlorostigma* and the eight new

species named above by having one or other of the four character states:

1/ Tongue dark violet, with light lines, or:

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E. tsukamotoi Kishida, 1929, which also has a dark bluish-grey tongue, is separated from the preceding species by the following suite of characters: (i) dorsum black and covered with evenly distributed yellow scales, (ii) yellow temporal stripe usually absent, (iii) low scale counts around the head (P: 31-40), tail base (Q: 54-74) and midbody (S: 101-126), and (iv) usually prominent dark pigmentation in the gular region (derived from Weijola *et al.* 2020).

E. bennetti (Weijola *et al.* 2020), which also has a dark bluish-grey tongue, is separated from the preceding species by the following suite of characters: (i) dorsum black and evenly speckled with yellow scales, sometimes arranged in small groups of yellow scales, (ii) venter cream coloured with pale grey crossbands, (iii) tail exceptionally long (F/SVL mean = 1.76, range = 1.60-1.89), high XY scale counts (148-160), (iv) a clear yellow temporal stripe present in about half of the studied specimens, and (v), in life, peach colouring on the throat (derived from Weijola *et al.* 2020).

For the record as a result of the ICZN ruling of 2020, *E. indicus* of the type form from the Mollucas, Indonesia is characterised by a tongue that is entirely pink.

E. powi sp. nov. is readily separated from all other species within *Euprepiosaurus* by the following suite of characters: Those mentioned previously for the putative species, *E. chlorostigma* and: Similar in most respects to *E. douarrha* (Lesson, 1830) in that the top of the head, including tip of snout and body are jet black, both being heavily speckled with yellow, the spots not neccessarily coinciding with individual scales. The spots on the head and neck are tiny, circular, discrete and well spaced, but at the rear of the neck and the dorsum of the body they significantly enlarge and become more densely spaced giving the lizard's body a strongly yellowish appearance (faded slightly in very old specimens, to become more a light grey colour). Upper labials are black. Lower labials, chin and throat are generally dark, greyish-black, with yellow peppering, the dark giving way to yellow past the gular pouch and beyond to the venter, which is mainly yellow.

E. powi sp. nov. is separated from *C. douarrha* by the presence of pronounced light temporal streaks, bordered above and below by black lines which are absent in *C. douarrha* and is further separated from *C. douarrha* by the fact that *C. douarrha* has, running across the body a well-defined series of obvious yellow occeli with black centres, forming a series of about 8-10 bands running across the body.

Iris is dark. Upper surfaces of limbs are peppered with large and small yellow spots of uneven size. Inner nostril is yellow.

The 17 Currently recognized species within *Euprepiosaurus* excluding those formally named within this paper are as follows: *E. bennetti* Weijola *et al.* (2020), *E. caerulivirens* (Philipp, Böhme and Ziegler, 1999), *E. chlorostigma* (Gray, 1831) (*sensu* ICZN 2020), *E. doreanus* (Meyer, 1874), *E. douarrha* (Lesson, 1830), *E. finschi* (Böhme, Horn and Ziegler, 1994), *E. indicus* (Daudin, 1802) (type species) (*sensu* ICZN 2020), *E. jobiensis* (Ahl, 1932), *E. juxtindicus* (Böhme, Phillip, and Ziegler, 2002), *E. lirungensis* (Koch, Arida, Schmitz, Böhme and Ziegler, 2009), *E. melinus* (Böhme and Ziegler, 1997), *E. obor* (Weijola and Sweet, 2010), *E. rainerguentheri* (Ziegler, Böhme and Schmitz, 2007), *E. semotus* (Weijola, Donnellan and Lindqvist 2016), *E. tsukamotoi* (Kishida, 1929), *E. yuwonoi* (Harvey and Barker, 1998), *E. zugorum* (Böhme and Ziegler, 2005).

Photos of live specimens of all seventeen previously named species (prior to this paper) within the genus *Euprepiosaurus* (AKA the *E. indicus* Group) are in the literature, including as follows:

Weijola (2017) in Fig. 2, contains photos of living *Euprepiosaurus caerulivirens* (A), *E. indicus* (as *E. cerambonensis*) (B), *E. doreanus* (C), *E. douarrha* (D), *E. finschi* (E), *E. chlorostigma* (*sensu* ICZN 2020) (listed as *E. indicus*) (F), *E. jobiensis* (G), *E. juxtindicus* (H), *E. melinus* (I), *E. obor* (J), *E. rainerguentheri* (K), *E. semotus* (L), *E. yuwonoi* (M) (and *E. lenhoseri sp. nov.* (as *V. sp.*) from Misima (N)). Weijola (2020), contains photos of living *E. tsukamotoi* in Figs. 6 and 7 and *E. bennetti* in Figs 9-12. Hoser (1989) on page 117 has a photo of *E. chlorostigma* (Gray, 1831) (*sensu* ICZN 2020) from Australia, treated herein as two subspecies of the type form from Ambon (*sensu* ICZN 2020), namely *E. indicus wellsi* Hoser, 2013 and *E. indicus wellingtoni* Hoser, 2013.

E. lirungensis (Koch *et al.* 2009) is seen in life in (Koch *et al.* 2009), on page 33, Fig 4.

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Distribution: *E. powi sp. nov.* is as far as is known restricted to Manus Island and ouliers in the Admiralty Islands, Manus District, Papua New Guinea.

Etymology: In 2001 the Australian government set up a notorious concentration camp on Los Negros Island in Manus Province, Papua New Guinea for prisoners of war (POW's) and refugees.

At this concentration camp facility prisoners of war and refugees were subjected to harassment, bashings, rapes and killings (Hill 2016).

The new species name "*powi*" is not intended to honour the reckless illegal action of the Australian government towards prisoners of war and refugees, including pain, suffering and deaths, but rather to draw attention to it so that similar mistakes are not made in the future and so that there is a historical record of these events, noting the propensity for the Australian government to seek to rewrite history to over-write atrocities it commits.

The spelling "powi" is deliberate and should not be amended to "poworum" which would normally be taken as the correct spelling, as more than one person is being remembered.

EUPREPIOSAURUS SCOTTGRANTI SP. NOV.

LSIDurn:lsid:zoobank.org:act:95D13230-3195-48EF-A0D6-3DE635CBB295

Holotype: A preserved specimen at the Western Australian Museum, Perth, Western Australia, Australia, specimen number: R112255 collected from Tanimbar, Indonesia. This government-owned facility allows access to its holdings.

Paratype: A preserved specimen at the Western Australian Museum, Perth, Western Australia, Australia, specimen number: R109969 collected from Tanimbar, Indonesia.

Diagnosis: The following eight species, *Euprepiosaurus sloppi* from Shortland Island (Solomon Islands), *E. elfakhariorum sp. nov.* from Malaita (Solomon Islands), *E. allengreeri sp. nov.* from

Guadalcanal (Solomon Islands), *E. dorisioi sp. nov.* from the New Georgia group of islands (Solomon Islands), *E. paulwoolfi sp. nov.* from Santa Isabel (AKA Ysabel) (Solomon Islands), *E. matteoae sp. nov.* from Santa Ana and San Cristobal (Solomon Islands), *E. powi sp. nov.* from Manus Island (Papua New Guinea) and *E. scottgranti sp. nov*. from Tanimbar Island (West Maluku Tenggara Regency, Maluku, Indonesia) have until now all been treated as populations of putative *E. indicus* (Daudin, 1802).

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Species including *E. doreanus* (Meyer, 1874), *E. finschi* (Böhme, Horn and Ziegler, 1994), and *E. jobiensis* (Ahl, 1932), and associated species including *E. semotus* (Weijola, Donnellan and Lindqvist 2016), *E. yuwonoi* (Harvey and Barker, 1998), *E. oxyi sp. nov.*, *E. adelynhoserae sp. nov.* and *E. jackyhoserae sp. nov.*, all of a divergent lineage and separated from the *E. indicus* group *sensu-stricto* by not having a mainly dark bluish-grey tongue and usually having blue colour on the posterior tail, are excluded from the diagnosis that follows.

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The putative species, *E. chlorostigma* including the eight species formally named herein, do unless specified otherwise conform to the following unique diagnosis: Entirely dark tongue (blueish or dark purple), except for the rear which is purple or pink. Dorsum dark brownish-black, with small whitish-yellow spots, mostly smaller than an area covered by five scales; lack of blue pigmentation, even on the tail of juveniles; light, patternless throat; absence of a well-defined light, dark-bordered postocular/supratemporal stripe; snout flat dorsally, scales smooth or very slightly keeled, very low midbody scale counts usually within the range of 106-137.

All other species within the genus *Euprepiosaurus* Fitzinger, 1843 are separated from *E. chlorostigma* and the eight new species named above by having one or other of the four character states:

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4/ Entire tongue light, pinkish in colour.

Exceptional to this is the following two taxa.

E. tsukamotoi Kishida, 1929, which also has a dark bluish-grey tongue, is separated from the preceding species by the following suite of characters: (i) dorsum black and covered with evenly distributed yellow scales, (ii) yellow temporal stripe usually absent, (iii) low scale counts around the head (P: 31-40), tail base (Q: 54-74) and midbody (S: 101-126), and (iv) usually prominent dark pigmentation in the gular region (derived from Weijola *et al.* 2020).

E. bennetti (Weijola *et al.* 2020), which also has a dark bluish-grey tongue, is separated from the preceding species by the following suite of characters: (i) dorsum black and evenly speckled with yellow scales, sometimes arranged in small groups of yellow scales, (ii) venter cream coloured with pale grey crossbands, (iii) tail exceptionally long (F/SVL mean = 1.76, range = 1.60-1.89), high XY scale counts (148-160), (iv) a clear yellow temporal stripe present in about half of the studied specimens, and (v), in life, peach colouring on the throat (derived from Weijola *et al.* 2020).

For the record as a result of the ICZN ruling of 2020, *E. indicus* of the type form from the Mollucas, Indonesia is characterised by a tongue that is entirely pink.

E. scottgranti sp. nov. is readily separated from all other species within *Euprepiosaurus* by the following suite of characters: Those mentioned previously for the putative species, *E. chlorostigma* and: Body dark, with light spots made of 2-6 scales in irregular pattern. Also on the body are 5-6 rows between neck and hind limbs, of spots that are larger and each forming a hexagonal shape running in a banded formation across the body with about ten such hexagons in each cross band running from either side of the flanks. A well defined, single light temporal streak is present, becoming irregular and often interrupted in larger specimens. The anterior half of the tail has irregular bands made of light spots forming oval clusters, most hollow in the center. These become prominent dark and light cross bands on the posterior half of the visible surfaces of the tail. Dorsum of head, including tip of snout is greyish with scattered light yellow flecks only. Inner ear black. Iris dark brownish red. Upper surfaces of limbs are greyish-black with numerous scattered white flecks or spots of various size and shape, not in any obvious pattern or configuration. Fingers and toes are heavily banded black and yellow. Gular region is whitish-yellow, generally unmarked or with limited peppering only.

The 17 Currently recognized species within *Euprepiosaurus* excluding those formally named within this paper are as follows: *E. bennetti* Weijola *et al.* (2020), *E. caerulivirens* (Philipp, Böhme and Ziegler, 1999), *E. chlorostigma* (Gray, 1831) (*sensu* ICZN 2020), *E. doreanus* (Meyer, 1874), *E. douarrha* (Lesson, 1830), *E. finschi* (Böhme, Horn and Ziegler, 1994), *E. indicus* (Daudin, 1802) (type species) (*sensu* ICZN 2020), *E. jobiensis* (Ahl, 1932), *E. juxtindicus* (Böhme, Phillip, and Ziegler, 2002), *E. lirungensis* (Koch, Arida, Schmitz, Böhme and Ziegler, 2009), *E. melinus* (Böhme and Ziegler, 1997), *E. obor* (Weijola and Sweet, 2010), *E. rainerguentheri* (Ziegler, Böhme and Schmitz, 2007), *E. semotus* (Weijola, Donnellan and Lindqvist 2016), *E. tsukamotoi* (Kishida, 1929), *E. yuwonoi* (Harvey and Barker, 1998), *E. zugorum* (Böhme and Ziegler, 2005).

Photos of live specimens of all seventeen previously named species (prior to this paper) within the genus *Euprepiosaurus* (AKA the *E. indicus* Group) are in the literature, including as follows:

Weijola (2017) in Fig. 2, contains photos of living *Euprepiosaurus caerulivirens* (A), *E. indicus* (as *E. cerambonensis*) (B), *E. doreanus* (C), *E. douarrha* (D), *E. finschi* (E), *E. chlorostigma* (*sensu* ICZN 2020) (listed as *E. indicus*) (F), *E. jobiensis* (G), *E. juxtindicus* (H), *E. melinus* (I), *E. obor* (J), *E. rainerguentheri* (K), *E. semotus* (L), *E. yuwonoi* (M) (and *E. lenhoseri sp. nov.* (as *V. sp.*) from Misima (N)). Weijola (2020), contains photos of living *E. tsukamotoi* in Figs. 6 and 7 and *E. bennetti* in Figs 9-12. Hoser (1989) on page 117 has a photo of *E. chlorostigma* (Gray, 1831) (*sensu* ICZN 2020) from Australia, treated herein as two subspecies of the type form from Ambon (*sensu* ICZN 2020), namely *E. indicus wellsi* Hoser, 2013 and *E. indicus wellingtoni* Hoser, 2013.

E. lirungensis (Koch *et al.* 2009) is seen in life in (Koch *et al.* 2009), on page 33, Fig 4.

E. zugorum (Böhme and Ziegler, 2005) is depicted online at: https://www.reptilefact.com/zugs-monitor.html

All the preceding specimens in images are identified in the relevant publications as being of the genus "*Varanus*".

The morphologically similar species *Oxysaurus spinulosus* (Mertens, 1941) is depicted in life in plate 96 of McCoy (2006).

Species within the genus *Euprepiosaurus* Fitzinger, 1843 are readily separated from all other Varanids by the following suite of characters: At least the last two thirds of tail are strongly laterally compressed, not prehensile; mid-body scale count usually distinctly higher than 106; unilaterally built hemipenial and hemiclitorial paryphasma rows, which are also developed as weakly hardened ridges (the weakly hardened ridges separating *Euprepiosaurus* from *Shireenhosersaurea* Hoser, 2013).

Distribution: *E. scottgranti sp. nov*. are restricted to the Tanimbar Islands, West Maluku, Tenggara Regency, Maluku, Indonesia.

Etymology: The new species *E. scottgranti sp. nov*. is named in honour of Scott Grant, who as of 2020 was owner of the Whyalla Fauna Park in South Australia, in recognition of his services to wildlife conservation. His start in the wildlife "business" was somewhat choppy in that he sustained two near fatal bites from Inland Taipans *Parademansia microlepidotus* McCoy, 1879. This arose because he was improperly trained by a Victorian government-licensed trainer who in fact had no meaningful experience with snakes and should never have been licensed to train people in the first place.

Scott Grant's problems arose because he was let loose to catch and handle venomous snakes with so-called Killer Snake TONGS, of the sort aggressively used and marketed by the notorious Mark O'Shea in the UK, (see image at: http://www.markoshea.info/home.php of O'Shea with a set of TONGS ostensibly of "Mark searching for spitting cobras in KwaZulu Natal, S.Africa"), or alternatively, see image of O'Shea, Wolfgang Wüster and other members of the gang of thieves about to engage in a round of extreme animal abuse, armed to the teeth with numerous sets of TONGS at: https://www.markoshea.info/images/safricapix/geogap_teaml.jpg

These TONGS are barbaric devices, that when used on snakes, break bones and internal organs and as a result cause otherwise placid snakes to turn into crazy one-dimensional killing machines (Hoser, 2019b).

Fortunately for Scott Grant, he was retrained by the late Les Williams from Ballan, Victoria and Roy Pails, of Ballarat, Victoria, so now Scott Grant is able to handle venomous snakes without attacking them with TONGS and unecessarily inducing them to bite him.

By the way, the notorious Mark O'Shea rarely goes into the field to handle snakes venomous snakes and does not keep them either, but on the rare occasions he interacts with them, because he invariably uses TONGS, he regularly gets bitten and ends up in a hospital intensive care ward.

SHIREENHOSERSAUREA SHIREENHOSERAE SP. NOV.

LSIDurn:lsid:zoobank.org:act:61D39781-0167-4357-9EED-F669CD60B5BB

Holotype: A preserved specimen at the Australian Museum in Sydney, New South Wales, Australia, specimen number R.129209 collected from Maprik, East Sepik District, Papua New Guinea, Latitude -3.650 S., Longitude 143.033 E. This government-owned facility allows access to its holdings.

Paratypes: Two preserved specimens at the Australian Museum in Sydney, New South Wales, Australia, specimen numbers R.124774 and R.124801 collected at Usino, Madang Province, Papua New Guinea, Latitude -5.5639 S., Longitude 145.3555 E.

Diagnosis: Until now *Shireenhosersaurea shireenhoserae sp. nov*. has been treated as a population of putative *S. prasinus* (Schlegel, 1839), which superficially at least, this species is most similar to.

S. shireenhoserae sp. nov. is separated from all other eleven species in *Shireenhosersaurea* Hoser, 2013 by the following suite of characters: Dorsal ground coloration of body brilliant to dark green, sometimes with V-shaped stripes over the dorsum being either absent or semi-distinct only at the anterior end; nuchals smooth or slightly keeled; ventral side yellow or greenish yellow; throat bright yellow and patternless; palms black or darker; 72-88 transverse rows of slightly keeled ventral scales. Separated from *S. prasinus*, *S. satis* and *S. clara* being the three species superficially most similar, by the following: Absence of a well defined temporal streak from eye to above ear; labials top and bottom are green, not yellow; iris is bright orange, versus yellow or light orange; top of head is without obvious black markings and generally dark green in colour, except nostrils (yellow) and tip of snout (light pinkish-grey), versus yellow in front of eyes in *S. prasinus*, *S. satis* and *S. clara.*

S. prasinus and *S. shireenhoserae sp. nov.* are both readily separated from both *S. satis sp. nov*. and *S. clara sp. nov.* by having black undersides of the feet (particularly the hind ones), versus grey or light in colour in *S. satis sp. nov*. and *S. clara sp. nov.*.

S. shireenhoserae sp. nov. is separated from all of *S. satis sp. nov*., *S. clara sp. nov*. and *S. prasinus* by the absence of an obvious temporal streak running from the eye and above the ear.

S. prasinus is further separated from the other species by having a well defined pattern of distinct black V-shaped stripes on the dorsum of the neck extending down the body at least half way and usually all the way to the hind limbs (see for example the image published with the original description of that taxon) (or alternatively the cross bands are semi-distinct at the posterior end of the body).

The morphologically similar *S. telenesetes* (Sprackland, 1991) is separated from the preceding species by having a mottled venter, banded throat, pale palms and approximately 92 transverse rows of smooth ventral scales.

S. kordensis (Meyer, 1874) is separated from the preceding species by having an olive to bluish-green dorsum with dark ocelli or black reticulation and heavily keeled nuchal scales.

S. reisingeri (Eidenmüller and Wicker, 2005) is separated from the preceding species by having a yellow or greenish-yellow dorsum with transversal dark bands or a dark reticulation and a greenish-yellow throat.

All other species in the genus *Shireenhosersaurea* Hoser, 2013 are either melanistic and patternless or not melanistic, but with a dorsal ground coloration of black, combined with a distinct light pattern and therefore none can be confused with the preceding species.

A photo of *S. shireenhoserae sp. nov*. in life can be seen in O'Shea (1991).

The genus *Shireenhosersaurea gen. nov*. (now) consisting 12 recognized species are separated from all other living varanids by the following suite of characters: The tail is only moderately compressed or not at all; there is no obvious median double keel dorsally along the tail; the tail is round in section or somewhat dorso-ventrally compressed, at the most, very slightly laterally compressed in the last half; there is a median series of transversely enlarged supraocular scales. The genus *Shireenhosersaurea gen. nov*. is further separated from all other living varanids, including the so-called "*indicus* group" (Genus *Euprepiosaurus* Fitzinger, 1843), the group it is most closely related to, by the following suite of characters: a long tail being 1.75 times the snout-vent length, that is unique among the living varanids in being prehensile (and notably not seen in Genus *Euprepiosaurus* Fitzinger, 1843), and a mainly green or black colouration (the green being unique to this genus) and particular specializations of the foot to enable grasping on branches.

In common with *Euprepiosaurus*, *Shireenhosersaurea gen. nov.* species are characterized by having relatively long snouts, tails and legs.

The genus *Shireenhosersaurea* Hoser, 2013 consists the

following 12 species: *Shireenhosersaurea prasinus* (Schlegel, 1839) (type species), *S. beccarii* (Doria, 1874), *S. boehmei* (Jacobs, 2003), *S. bogerti* (Mertens, 1950), *S. clara sp. nov.*, *S. keithhornei* (Wells and Wellington, 1985), *S. kordensis* (Meyer, 1874), *S. macraei* (Böhme and Jacobs, 2001), *S. reisingeri* (Eidenmüller and Wicker, 2005), *S. satis sp. nov.*, *S. shireenhoserae sp. nov*. and *S. telenesetes* (Sprackland, 1991).

Distribution: *S. shireenhoserae sp. nov*. is found in Northern New Guinea, in the general region bounded by Pulau Yapen Irian Jaya (West Papua) in the west, including the Mamberamo River system, along the north coast and nearby ranges, north of the highest parts of the central cordillera to the Huon Peninsula in Papua New Guinea.

Etymology: *S. shireenhoserae sp. nov*. is named in honour of my wife, Shireen Hoser, of Park Orchards, Melbourne, Victoria, Australia, formerly of Africa, in recognition of her services to herpetology and wildlife conservation over more than 20 years.

SHIREENHOSERSAUREA CLARA SP. NOV.

LSIDurn:lsid:zoobank.org:act:F0DB2587-AEE4-4ACA-B790-BDB468B8BD2B

Holotype: A preserved specimen at the Australian Museum in Sydney, New South Wales, Australia, specimen number R.9963 collected from Mt. Lamington, Northern District, Papua New Guinea, Latitude -8.933 S., Longitude 148.166 E. This government-owned facility allows access to its holdings.

Diagnosis: Until now *Shireenhosersaurea clara sp. nov*. has been treated as a population of putative *S. prasinus* (Schlegel, 1839), which superficially at least, this species is most similar to.

S. clara sp. nov. is separated from all other eleven species in *Shireenhosersaurea* Hoser, 2013 by the following suite of characters: Dorsal ground coloration of body green without a pattern of V-shaped stripes being semi-distinct or distinct; a dorsal pattern consisting of small indistinct irregular-shaped ocelli on the dorsum of the upper forebody, becoming indistinct at midbody; scattered dark markings forming a somewhat reticulated pattern under the otherwise yellowish chin and front of undersurface of the head, grading to become a pattern of heavy dark marbling on the neck and continuing in similar form as an indistinct pattern under the belly near the forelimbs, before grading to heavy peppering posteriorly; nuchals are smooth or only very slightly keeled; ventral surface is mainly yellowish or greenish; throat yellowish, palms black or very dark; 72-88 transverse rows of slightly keeled ventral scales.

The three species most similar to *S. clara sp. nov.* are *S. prasinus*, *S. satis sp. nov.* and *S. shireenhoserae sp. nov.*. *S. clara sp. nov.* is separated from these three species by the following: A dorsal pattern consisting of small indistinct irregular-shaped ocelli on the dorsum of the upper forebody, becoming indistinct at midbody; scattered dark markings forming a somewhat reticulated pattern under the otherwise yellowish chin and front of undersurface of the head, grading to become a pattern of heavy dark marbling on the neck and continuing in similar form as an indistinct pattern under the belly near the forelimbs, before grading to heavy peppering posteriorly (versus an absence of this in the other three species). The base colouration of the ventral surface of the body is green. Front of dorsal surface of snout anterior to eyes is yellowish, which separates this species from *S. shireenhoserae sp. nov.* which has a generally green anterior snout.

The morphologically similar *S. satis sp. nov*. is separated from *S. clara sp. nov.* by the small indistinct irregular-shaped ocelli on the dorsum of the upper forebody extending the entire length of the body and an absence of the marbling on the underside of the throat, it being yellow and a green belly without dark peppering.

S. prasinus and *S. shireenhoserae sp. nov.* are readily separated from both *S. satis sp. nov.* and *S. clara sp. nov.* by having black undersides of the feet (particularly the hind ones), versus grey or light in colour in *S. satis sp. nov*. and *S. clara sp. nov.*.

S. shireenhoserae sp. nov. is separated from all of *S. satis sp. nov.*, *S. clara sp. nov*. and *S. prasinus* by the absence of an obvious temporal streak running from the eye and above the ear.

The morphologically similar *S. telenesetes* (Sprackland, 1991) is separated from the preceding species by having a mottled venter, banded throat, pale palms and approximately 92 transverse rows of smooth ventral scales.

S. kordensis (Meyer, 1874) is separated from the preceding species by having an olive to bluish-green dorsum with dark ocelli or black reticulation and heavily keeled nuchal scales.

S. reisingeri (Eidenmüller and Wicker, 2005) is separated from the preceding species by having a yellow or greenish-yellow dorsum with transversal dark bands or a dark reticulation and a greenish-yellow throat.

All other species in the genus *Shireenhosersaurea* Hoser, 2013 are either melanistic and patternless or not melanistic, but with a dorsal ground coloration of black, combined with a distinct light pattern and therefore none can be confused with the preceding species.

The genus *Shireenhosersaurea gen. nov*. consisting 12 species (recognized as of this paper) are separated from all other living varanids by the following suite of characters: The tail is only moderately compressed or not at all; there is no obvious median double keel dorsally along the tail; the tail is round in section or somewhat dorso-ventrally compressed, at the most, very slightly laterally compressed in the last half; there is a median series of transversely enlarged supraocular scales. The genus *Shireenhosersaurea gen. nov*. is further separated from all other living varanids, including the so-called "*indicus* group" (Genus *Euprepiosaurus* Fitzinger, 1843), the group it is most closely related to, by the following suite of characters: a long tail being 1.75 times the snout-vent length, that is unique among the living varanids in being prehensile (and notably not seen in Genus *Euprepiosaurus* Fitzinger, 1843), and a mainly green or black colouration (the green being unique to this genus) and particular specializations of the foot to enable grasping on branches.

In common with *Euprepiosaurus*, *Shireenhosersaurea gen. nov.* species are characterized by having relatively long snouts, tails and legs.

The genus *Shireenhosersaurea* Hoser, 2013 consists the following 12 species: *Shireenhosersaurea prasinus* (Schlegel, 1839) (type species), *S. beccarii* (Doria, 1874), *S. boehmei* (Jacobs, 2003), *S. bogerti* (Mertens, 1950), *S. clara sp. nov.*, *S. keithhornei* (Wells and Wellington, 1985), *S. kordensis* (Meyer, 1874), *S. macraei* (Böhme and Jacobs, 2001), *S. reisingeri* (Eidenmüller and Wicker, 2005), *S. satis sp. nov.*, *S. shireenhoserae sp. nov*. and *S. telenesetes* (Sprackland, 1991).

Distribution: *S. clara sp. nov*. is known only from the Popondetta / Mount Victory region in the Northern District of Papua New Guinea.

It may extend further east or west, north of the central cordillera, to Milne Bay in the east and the Huon Peninsula (Lae area) in the west.

Etymology: The new species name *S. clara sp. nov*. comes from the Latin word "clara", meaning bright, in reflection of the colour of the lizard.

SHIREENHOSERSAUREA SATIS SP. NOV.

LSIDurn:lsid:zoobank.org:act:B2397304-AA76-4068-BFFF-6927FE75A4A2

Holotype: A preserved specimen at the Australian Museum in Sydney, New South Wales, Australia, specimen number R.6495 collected from Fife Bay, Papua New Guinea, Latitude -10.600 S., Longitude 150.016 E.

This government-owned facility allows access to its holdings.

Paratype: A preserved specimen at the Australian Museum in Sydney, New South Wales, Australia, specimen number R.6741 collected from Fife Bay, Papua New Guinea, Latitude -10.600 S., Longitude 150.016 E.

Diagnosis: Until now *Shireenhosersaurea satis sp. nov*. has been treated as a population of putative *S. prasinus* (Schlegel, 1839), which superficially at least, this species is most similar to.

S. satis sp. nov. is separated from all other eleven species in *Shireenhosersaurea* Hoser, 2013 by the following suite of characters: Dorsal ground coloration of body is emerald green with a pattern of distinct black V-shaped stripes on the dorsum of the neck becoming obvious black-edged occeli from the region of the front legs, extending down the entire body to the base of the tail. Posteriorly nuchals are smooth or only very slightly keeled; ventral surface is green; throat yellow and patternless; undersides of all palms and feet are black; 72-88 transverse rows of slightly keeled ventral scales.

S. satis sp. nov. is readily separated from *S. prasinus* by having a green belly, versus yellow in *S. prasinus. S. prasinus* is further separated by having a well defined pattern of distinct black V-shaped stripes on the dorsum of the neck extending down the body at least half way, and usually all the way to the hind limbs (or alternatively semi-distinct at the posterior end of the body) (see for example the drawing that accompanied the original description of *S. prasinus* depicting a fully banded lizard).

S. satis sp. nov. and *S. clara sp. nov*. are readily separated from both of *S. prasinus* and *S. shireenhoserae sp. nov*. by having black undersides of palms and feet, versus grey or light in *S. prasinus* and *S. shireenhoserae sp. nov*..

S. shireenhoserae sp. nov. is separated from all of *S. satis sp. nov*., *S. clara sp. nov*. and *S. prasinus* by the absence of an obvious temporal streak running from the eye and above the ear.

The three species most similar to *S. clara sp. nov.* are *S. prasinus*, *S. satis sp. nov.* and *S. shireenhoserae sp. nov.*. *S. clara sp. nov.* is separated from these three species by the following: A dorsal pattern consisting of small indistinct irregular-shaped ocelli on the dorsum of the upper forebody, becoming indistinct at midbody; scattered dark markings forming a somewhat reticulated pattern under the otherwise yellowish chin and front of undersurface of the head, grading to become a pattern of heavy dark marbling on the neck and continuing in similar form as an indistinct pattern under the belly near the forelimbs, before grading to heavy peppering posteriorly (versus an absence of this in the other three species). The base colouration of the ventral surface of the body is green. Front of dorsal surface of snout anterior to eyes is yellowish, which separates this species from *S. shireenhoserae sp. nov.* which has a generally green anterior snout.

The morphologically similar *S. telenesetes* (Sprackland, 1991) is separated from the preceding species by having a mottled venter, banded throat, pale palms and approximately 92 transverse rows of smooth ventral scales.

S. kordensis (Meyer, 1874) is separated from the preceding species by having an olive to bluish-green dorsum with dark ocelli or black reticulation and heavily keeled nuchal scales.

S. reisingeri (Eidenmüller and Wicker, 2005) is separated from the preceding species by having a yellow or greenish-yellow dorsum with transversal dark bands or a dark reticulation and a greenish-yellow throat.

All other species in the genus *Shireenhosersaurea* Hoser, 2013 are either melanistic and patternless or not melanistic, but with a dorsal ground coloration of black, combined with a distinct light pattern and therefore none can be confused with the preceding species.

The genus *Shireenhosersaurea gen. nov*. consisting 12 species are separated from all other living varanids by the following suite of characters: The tail is only moderately compressed or not at all; there is no obvious median double keel dorsally along the tail; the tail is round in section or somewhat dorso-ventrally compressed, at the most, very slightly laterally compressed in the last half; there is a median series of transversely enlarged supraocular scales. The genus *Shireenhosersaurea gen. nov*. is further separated from all other living varanids, including the so-called "*indicus* group" (Genus *Euprepiosaurus* Fitzinger, 1843), the group it is most closely related to, by the following suite of characters: a long tail being 1.75 times the snout-vent length, that is unique among the living varanids in being prehensile (and notably not seen in Genus *Euprepiosaurus* Fitzinger, 1843), and a mainly green or black colouration (the green being unique to this genus) and particular specializations of the foot to enable grasping on branches.

In common with *Euprepiosaurus*, *Shireenhosersaurea gen. nov.* species are characterized by having relatively long snouts, tails and legs.

The genus *Shireenhosersaurea* Hoser, 2013 consists the following 12 species: *Shireenhosersaurea prasinus* (Schlegel, 1839) (type species), *S. beccarii* (Doria, 1874), *S. boehmei* (Jacobs, 2003), *S. bogerti* (Mertens, 1950), *S. clara sp. nov.*, *S. keithhornei* (Wells and Wellington, 1985), *S. kordensis* (Meyer, 1874), *S. macraei* (Böhme and Jacobs, 2001), *S. reisingeri* (Eidenmüller and Wicker, 2005), *S. satis sp. nov.*, *S. shireenhoserae sp. nov*. and *S. telenesetes* (Sprackland, 1991).

Distribution: *S. satis sp. nov*. is found in Papua New Guinea, extending from the Milne Bay region of south-east New Guinea to the east of the Trans-Fly region of New Guinea, generally south of the central cordillera. Specimens found west of this region (e.g. near Merauke) are morphologically similar and tentatively assigned to this species.

Etymology: The new species name *S. satis sp. nov*. comes from the Latin word "satis", meaning pretty, in reflection of the colour and form of the lizard.

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CONFLICTS OF INTEREST

None.