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CONTENTS PAGE 2

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Contents

Photo: Raymond Hoser.
(100 km south of Coober Pedy, SA)

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A further break-up of the Australian gecko genus *Oedura* Gray, 1842 *sensu lato* as currently recognized, from four to seven genera, with two new subgenera defined, description of fourteen new species, four new subspecies and formalising of one tribe and five subtribes.

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ABSTRACT

The genus *Oedura* Gray, 1842 *sensu lato* has been the subject of numerous taxonomic reviews in recent years.

These have resulted in division of the genus into deeply divergent, but distantly related groups at the genus level as well as numerous new species being formally named.

In light of the preceding and including results of molecular studies indicating significant divergence between species groups within *Oedura* as recognized in 2012 and 2016, the genus as recognized prior to 2012 is further divided to become seven (from four in 2016). These all have known divergences well in excess of 15 MYA, making genus-level subdivision inevitable.

Divergent subgenera with divergences in the order of 13-15 MYA are also formally named for the first time.

Within this new generic arrangement, fourteen new species are formally described for the first time in accordance with the *International Code of Zoological Nomenclature* (Ride *et al*. 1999) on the basis of obvious morphological differences from similar species, which they have been treated as until now and also based on the known genetic divergences ascertained from earlier cited literature, all of which are measured in the millions of years (2.5 MYA or more).

Four distinctive and allopatric populations of widespread species are also given formal subspecies-level recognition for the first time.

There is no doubt that many more species await formal description, even after the publication of this paper naming fourteen.

The genus *Oedura*, as most commonly defined prior to the publication of Wells and Wellington (1985) is herein placed in a tribe with five defined subtribes, including genera defined here and the species within *Strophurus* Fitzinger, 1843 as generally defined to date.

Keywords: Taxonomy; lizards; Australia; Gecko; *Oedura*; *Hesperoedura*; *Nebulifera*; *Amalosia*; new tribe; Fiacumminggeckoini; new subtribe; Fiacumminggeckoina; Celertenuina; Hesperoedurina; Nebuliferina; Strophuriina; new genus; *Marlenegecko*; *Fiacumminggecko*; *Celertenues*; new subgenus *Fereoedura;* *Robwatsongecko*; new species; *bulliardi*; *rentonorum*; *fiacummingae*; *richardwellsi*; *rosswellingtoni*; *charlespiersoni*; *matteoae*; *dorisioi*; *julianfordi*; *shireenhoserae*; *bobbottomi*; *evanwhittoni*; *helengrasswillae*; *alexanderdudleyi*; new subspecies; *whartoni*; *eungellaensis*; *davidcharitoni*; *merceicai*; Warrumbungle Ranges; NSW; New South Wales; Pilbara; Groote Eylandt; Northern Territory; Western Australia; Kimberley Ranges; Fortescue River, Queensland.

INTRODUCTION

The genus *Oedura* Gray, 1842 as recognized for most of the past 150 years has long been viewed as containing so-called cryptic species.

In modern herpetology, cryptic species are usually not so much defined as being hard to find or distinguish, so much as being overlooked or not found due to simple disinterest by zoologists rather than any innate difficulty in defining such species.

In the case of the genus *Oedura sensu lato* new species have been described at an accelerating pace since the mid 1980's as a result of renewed interest in the taxonomy of Australian lizards combined with better forensic methods (read molecular methods), leading to 20 species being reported on Peter Uetz's "The Reptile Database" as of 1 May 2017, within four genera (all formerly *Oedura*), these being, *Oedura* Gray, 1842, *Amalosia* Wells and Wellington, 1984, *Hesperoedura* Oliver, Bauer, Greenbaum, Jackman and Hobbie, 2012, and *Nebulifera* Oliver, Bauer, Greenbaum, Jackman and Hobbie, 2012.

That list apparently ignores three apparently valid taxa described by Wells and Wellington, 1984 namely "*Amalosia phillipsi*" Wells and Wellington, 1984, "*Oedura attenboroughi*" and "*Oedura derilecta*", while a fourth "*Oedura greeri*" is in fact a subjective senior synonym of Uetz's "*Oedura luritja* Oliver and McDonald, 2016".

Of the 23 validly named species recognized by most competent authorities to date (2017), no less than five have been described and named for the first time in the period from 2000 to 2017, none were named in the 1990's and 7 in the 1980's.

Having inspected in the field and elsewhere many hundreds of living, dead and photographs of specimens within *Oedura sensu lato* over a period in excess of three decades, I had intended publishing descriptions of several species in the period postdating mid 2011. However this project was effectively scuttled when Glenn Sharp and Emily Gibson of the Victorian Department of Sustainability and Environment (DSE) conducted a violent illegal armed raid on my facility at Park Orchards, Melbourne, Victoria, Australia, unlawfully stealing files, disks and the like containing irreplaceable data.

Ultimately some material was returned, but degraded and unusuable.

While some of the taxa I had intended naming have since been formally described by other people, some others remain unnamed.

As failure to describe unnamed taxa may lead to them being potentially threatened with extinction due to benign neglect by wildlife agencies, I have made the decision to publish descriptions of the more obvious unnamed species for which there is already extensive data and easily verifiable corroborating material in the public domain.

As a result, some further species I am aware of are not formally named in this paper, even though fourteen are formally named in this paper, as are four subspecies.

The most important results published herein as formal descriptions have arisen from an audit of all relevant published literature, including molecular data that has come to hand over the last decade via the published literature.

In combination it has shown that the genus level and species level diversity of *Oedura sensu lato* has been grossly underestimated.

Combination of the published record with inspections of specimens of relevant taxa have shown fourteen easily identified and unnamed species level taxa, all of which are formally named below.

In terms of the genus level classification, the dismemberment of the genus *Oedura* was commenced by Wells and Wellington in 1984 who split it two ways (excluding *Strophurus* Fitzinger, 1843, also recognized as distinct by them). Two further (currently monotypic) genera were also created by Oliver *et al.* (2012).

However a review of their data and that published in 2016 by Oliver and Doughty (2016) shows that the Oliver *et al.* (2012) taxonomy is too conservative and that *Oedura* as recognized by them contains other species groups worthy of recognition at the genus level.

To that effect, three new genera are named, as well as subgenera.

Strophurus Fitzinger, 1843 is not dealt with by this paper, but is covered in another paper published at the same time as this one (Hoser, 2017a).

(*Strophurus* Fitzinger, 1843 is in that paper divided four ways, with three genus names available and a fourth erected for a single divergent taxon, which diverged about 20 MYA from its nearest relative and that paper also defines, diagnoses and names two new subgenera, nine new species, two new subspecies as well as resurrecting some other previously little used names for taxon groups).

Hoser (2017b) deals with the genus *Diplodactylus* Gray 1832 *sensu lato*, with the formal naming of a new subgenus for the *Diplodactylus byrnei* Lucas and Frost, 1896 species group and two new species within this subgenus.

Having worked with large numbers of the subject taxa within *Oedura sensu lato* over more than three decades, the results as published herein are a mere formalisation of what is already shown in the evidence of the publications of Oliver *et al.* (2012), Oliver and Doughty (2016) and other recent publications on this genus as cited herein.

Hence it is not necessary for me to separately quantify in detail the evidentiary basis for the taxonomy and nomenclature within this paper as this has previously been done and is in turn self evident in the formal descriptions in any event.

In terms of the nomenclature used, it all follows on from the well-established rules of the *International Code for Zoological Nomenclature* Fourth Edition (Ride *et al.* 1999).

The most significant feature of this paper is in fact the quantification by description of the (in hindsight obvious) differences between species formally named for the first time in this paper as compared to their closest already named congeners.

Information relevant to specific taxonomic and nomenclatural judgements that may not be self-evident, is given after the materials and methods, in the results section.

MATERIALS AND METHODS

The identification of the relevant genus and species groups was easily achieved by simple inspection of relevant specimens, live in the field, in museums and via images sent to me by others with accurate locality and other data. In terms of species level groups, biological barriers were identified by combining known locality data with known geographical barriers, most of which have become well known to myself in my various researches on other reptile groups inhabiting the same regions.

The formal naming exercises are a direct result of a review of the relevant literature to identify all previously named groups at both species and genus level, including known synonyms and potentially available names according to the rules of the *International Code of Zoological Nomenclature* (Ride *et al.* 1999).

As mentioned already, names coined in non peer reviewed or PRINO (peer reviewed in name only) online journals (e.g. *Zootaxa*) are available under the relevant rules of the *International Code of Zoological Nomenclature* and so are treated as valid and used when appropriate herein.

This assumes that the names are not junior synonyms of earlier properly proposed names, which also happens to be a common problem in online PRINO journals such as *Zootaxa* (as detailed by Hoser 2015a-f and this paper).

Available names are used as appropriate (in the paper below) and where none was available the relevant entities are named

according to the provisions of the *International Code of Zoological Nomenclature.*

While the species, genera and subgenera diagnosed herein are done so on the basis of their own physical characters, it is important to note the guidance given by relevant earlier publications (quoted herein), which in combination show that the taxonomic conclusions within this paper are not only logical, but are in fact a mere statement of the obvious.

Divergence times of species or genus level groups are taken from the published literature as cited herein.

How long it will take other herpetologists to adopt and use the taxonomy within this paper will not depend on the merits of what is published herein, so much as how willing they are to brave the hatred and harassment from a group known as the Wüster gang, who will seek to do all they can to stop others from using any taxonomy or nomenclature formally proposed by myself as detailed by Hoser (2015a-f and sources cited therein).

Their actions are dictated by personal hatred and an illegal desire to steal the intellectual property of others rather than any scientific arguments they may allege.

The unscientific and highly illegal actions of this group have been documented in detail in the papers of Hoser (2015a-f) and sources cited therein and even publicly condemned by judges in law courts (Court of Appeal 2014, Victorian Civil and Administrative Tribunal (VCAT) 2015).

Key publications relevant to the genus *Oedura* Gray, 1842 *sensu lato*, and all the taxonomic judgements and conclusions herein as well as the legal nomenclature that follows on from this, include: Bauer (1994), Bauer and Henle (1994), Bedford and Christian (1998), Boulenger (1885), Bourke *et al.* (2016), Broom (1898), Brown *et al.* (2014), Bustard (1966, 1969, 1970a, 1970b, 1971), Cogger (1975, 1983, 2000, 2014), Cogger *et al.* (1983), Colgan *et al.* (2009), Cope (1869), Couper *et al.* (2017), De Vis (1884a, 1884b, 1888), Duméril and Bibron (1836), Fallend (2007), Ford (1983), Fry (1915), Garman (1901), Gray (1842, 1845, 1867), Han *et al.* (2004), Hoehn and Sarre (2005), Holfert (1996), Hoser (1989, 2007, 2017a, 2017b), Hoskin and Higgie (2008), ICZN (1991), Kay *et al.* (2013), King (1985), King and Gow (1983), Kluge (1967), Laube (1994, 2001), Laube and Langner (2007a, 2007b), Longman (1915), Maryan *et al.* (2014), Nielsen *et al.* (2016), Oliver and Bauer (2011), Oliver and Doughty (2016), Oliver and McDonald (2016), Oliver *et al.* (2010, 2012, 2014a, 2014b), Pianka (1986), Porter (2002), Ride *et al.* (1999), Rosauer *et al.* (2016), Rösler (1995, 2000), Sarre (1996), Schmida (2000, 2007), Shea and Sadlier (1999), Sistrom *et al.* (2013), Smith and Johnstone (1981), Thominot (1889), Ulber and Ulber (1987), Wilson and Knowles (1988), Wells and Wellington (1984, 1985), Wilson and Knowles (1988), Wilson and Swan (2013) and sources cited therein.

Some material within descriptions below may be repeated for different described taxa and this is in accordance with the provisions of the *International Code of Zoological Nomenclature* and the legal requirements for each description. I make no apologies for this.

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

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.

This comment is made noting the extensive increase in human population in Australia and the general environmental destruction across the continent 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 Australian region over the past 200 years as detailed by Hoser (1989, 1991, 1993 and 1996).

RESULTS

An audit of the relevant literature identified well over a dozen unnamed species within *Oedura sensu lato*, of which fourteen are formally named for the first time herein.

These fourteen were selected on the basis of material available to me and general ease with which each taxon could be identified and separated from similar species as done within this paper.

With both a molecular and morphological basis to identify each species as separate from congeners, one assumes recognition of each by other herpetologists will be immediate.

The unnamed species identified in the literature cited herein will no doubt be formally named by others at some stage in the future.

At the genus level, it seems that in herpetology groups diverged more than ten million years before present are being regularly placed in their own genus groupings.

With species groups within *Oedura sensu lato* shown to have diverged well prior to the ten million year level as detailed by Oliver *et al.* (2012), it made sense to formalise this separation by naming the relevant groups for the first time.

New genera named for the first time in this paper diverged from other related groups from 15-20 MYA (Oliver *et al.* 2012) and subgeneric groupings from 13-15 MYA (Oliver *et al.* 2012).

As the genus level groupings are based simply on monophyly of each group relevant to the time period, not much more needs to be said and for the purposes of the immediately following discussion on species there are some points that need to be raised or explained, and these will be discussed on the basis that all are within *Oedura sensu lato*, so that readers familiar with the taxa will not be confused by the new generic placements, made later in this paper.

A logical question to be asked by readers is how as of 2017, some fourteen (in hindsight obvious) unnamed species can be undescribed?

The answer appears to be a general apathy among a number of herpetologists and/or an overly conservative view taken by the limited number of taxonomists who have worked with the relevant species.

Other issues arose in terms of the species involved which are explained below.

The wide-ranging northern Australian species "*Amalosia rhombifer* Gray, 1845" was first recognized as a species complex by two pioneers of Australian herpetology, Wells and Wellington, (1985) at page 10.

Folowing on from this view, Couper, Keim and Hoskin (2007) named a south-east Queensland population *Amalosia jacovae.*

I should also note that the divergent genus *Amalosia* was also a Wells and Wellington creation a year earlier, the type species being *Phyllodactylus lesueurii* Duméril and Bibron, 1836.

The molecular data of Oliver *et al.* (2012) clearly showed that *O. rhombifer* as recognized then to be a complex of several species, but in spite of this, nothing further progressed.

An explanation may be that there was doubt as to the exact provenance of the holotype (see for example Cogger *et al.* 1983) and quite simply, as of 2012, no one had set about either working out from where the holotype came from, working out how to separate the regional forms identified in the molecular analysis of Oliver *et al.* (2012) or somehow marrying the two together.

In terms of this paper, I did all the above.

In the first instance, I inspected hundreds of specimens, live, dead and in photos to ascertain consistent differences between the regional populations identified by the molecular analysis of

Oliver *et al.* (2012).

This was a simple exercise and one that can be easily duplicated (in part and yet sufficiently to establish obvious facts) by anyone as the website "Flickr.com" has images of all the relevant taxa and large numbers of them.

In terms of the provenance of the original holotype, this was easily ascertained by reading Gray (1854) and matching it with the available animals from across the range.

Gray 1845 wrote for the species he first described as *O. rhombifer*.

"The Lozenge-spotted Oedura. *Oedura rhombifer*. Gray,

Zool. Erebus and Terror, I. Phyllodactylus Lesueurii, Dum. *et* Bib. E. G. iii. 392??

Pale brown, back and tail paler, with a zigzag brown line on each side, as if formed by a series of pale confluent rhombic spots, a brown streak on the temple from the back of the eye; tail as long as the body, cylindrical, tapering or fusiform.

a-c. In spirits. W. Australia."

The pattern described does not match any form of "*Oedura rhombifer*" except for the North Kimberley population, thereby confirming its provenance.

The "pale confluent rhombic spots" is only found in this population. The "brown streak on the temple from the back of the eye" is absent from the top end of the Northern Territory population, while the species described as "Oedura *obscura* King, 1984", is chararacterised by dorsal cross bands and not the "zigzag brown line on each side".

Queensland animals also lack "pale confluent rhombic spots" or anthing like them.

With the type form now identified, the remainder became available to formally name and so this is what is done herein.

For the widespread taxon, "*O. monilis* De Vis, 1888", it has been long accepted that there are several forms. These however have not been generally confirmed by any molecular data.

Again provenance of the type specimen (reported merely as "Queensland" in Cogger *et al.* 1983) has caused issues for taxonomists and made them reluctant to name new forms.

There appears to be a difference between north and south Queensland animals, with the exact boundary of difference not known, however this did not stop Wells and Wellington (1985) naming the northern form as "*Oedura attenboroughi*", which is provisionally recognized herein as distinct from "*O. monilis*".

Of course there remains a possibility that the taxon "*Oedura attenboroughi*" is a junior synonym of "*O. monilis*".

I also note that Oliver and Doughty (2016) were correct when they wrote:

"*Oedura attenboroughi* Wells & Wellington, 1985 (holotype: NTM R4816) has been referred to *O. marmorata* by Shea & Sadlier (1999), however, the type specimen has distinctive dark-edged dorsal

ocelli and is relatively small, indicating that it is part of the *O. monilis* de Vis, 1888 species complex from eastern Australia."

This is confirmed in the original description of Wells and Wellington (for those who have bothered to read it, before launching into a criticism of it) and further confirmed by its habit as being tree dwelling and not saxicoline.

Oliver *et al.* (2014) showed quite emphatically, that the taxon identified as "*O. monilis*" from the Warrumbungle Mountains of New South Wales, were a different species to that from south-east Queensland, but with the issue of provenance of the holotype not known, they made a point of not attempting to describe either as a new species.

These authors obviously did not know if their Warrambungle specimen was of a form that had a range that potentially went into southern Queensland and therefore may have been the same species as the holotype.

This is where being a field herpetologist with hands-on experience with the relevant taxa does become a significant advantage when it comes to identifying and naming potentially unnamed species.

I have known for more than three decades that the population of "*O. monilis*" from the Warrumbungles in New South Wales is disjunct from that from southern Queensland and that this disjuncture is from absence of animals and not a lack of collecting.

This immediately made it likely that the Warrumbungles lizards were not of the type form of "*O. monilis*".

Significantly and even more importantly, a read of the original description by De Vis (1888) described an animal with 8 or more ocelli or pairs on the back of body. While such a description conforms to specimens from many parts of Queensland, it does not conform to the Warrumbungle Ranges animals which have far less ocelli or pairs, the maximum number seen by myself being (rarely) seven.

Hence it became clear that the Warrumbungle Ranges "*O. monilis*" were the undescribed species and so they are formally named herein.

The numerous lineages of "*Oedura gracilis*" identified by Oliver *et al.* (2014) are easily separated by distribution (various separated mountain ranges or outcrops or islands or island groups, isolated by flat rockless terrain) and colouration (when specimens are actually examined) and so seven most obvious and divergent forms are herein named as new species, noting that all have divergences from one another of well over 4 mya and that all are herein placed in a new genus (*Fiacumminggecko gen. nov.*) on the basis of an 18 MYA divergence from others within the type *Oedura marmorata* group.

A number of other obvious island forms remain unnamed and await formal description.

The original description of *Oedura fimbria* Oliver and Doughty, 2016 notes colouration differences in populations, in fact mirrored in the molecular results of Oliver *et al.* (2014), indicative of two species not one.

The obvious barrier involved is the Fortescue River basin which also features ingression of numerous non-saxicoline species, which as a barrier also appears to have separated a number of similarly confined rock-dwelling species as seen for example in *Odatria* (*Pilbaravaranus*) *hamersleyensis* Maryan, Oliver, Fitch and O'Connell, 2014. Hence the unnamed northern taxon is named herein.

The molecular results of Oliver *et al.* (2014) also confirm the existence of two taxa within the group later described as *Oedura bella* Oliver and Doughty, 2016. Analysis of available specimens showed two very different colour morphs corresponding to the molecular differences.

These in turn conformed to distinct and separated regions, divided by a riverine biogeographical barrier. As a result the northern taxon is formally named herein.

In both the preceding cases, we are talking about evolutionary units with a divergence of 2.5 MYA or more and therefore obviously both groups being different species.

The species described as *Oedura luritja* Oliver and McDonald, 2016, is a junior subjective synonym of *Oedura greeri* Wells and Wellington, 1985. In their 2016 paper, Oliver and McDonald allege that the Wells and Wellington name is "*nomen nudem*".

The basis for this claim is an uncritical rehash of what was written by Shea and Sadlier (1999).

Oliver and McDonald alleged "*Oedura greeri* Wells & Wellington [37] (holotype: AMS R87677, Mt Doreen) was described without diagnosis and is regarded as a *nomen nudum* [38].

Repeating the same claim in 2016, Oliver and Doughty wrote: "*Oedura greeri* Wells & Wellington, 1985 (holotype: AMS R87677) was described without diagnosis and is regarded as a *nomen nudum*

(Shea & Sadlier 1999)."

A read of the original Wells and Wellington (1985) description confirms that this is not the case.

This remains so, whether one relies on the conditions set by the second or third editions of the *International Code of Zoological Nomenclature*, or for that matter the currently applicable fourth edition!

So while three separate publications by a small group of authors has repeated the claim that "*Oedura greeri* Wells & Wellington, 1985 (holotype: AMS R87677) was described without diagnosis and is regarded as a *nomen nudum*" the claim quite simply is not true.

For what it is worth, Wells and Wellington (1985) directs readers to a photo of their species *O. greeri* at "Cogger (1983 plate 461, cited as *Oedura marmorata*)". On the same page of this publication by Wells and Wellington (at page 14) they also refer to comparative photos of others in what they describe as the "*Oedura marmorata* complex", including "Cogger (1983: plate 460" which they cite as its "congener *Oedura marmorata*", and Bustard (1970: plate 24), which is cited as their species *Oedura derelicta*.

While it is entirely reasonable to argue that the original descriptions of all the relevant geckos by Wells and Wellington are lousy and ambiguous, there is no doubt at all that they identify specific taxa (or alleged taxa) and by way of comparison with others.

Therefore the names are not *nomen nudem* as defined in the current or past editions of the *International Code of Zoological Nomenclature* and like it or not are "available" within the meaning of every relevant edition of the *International Code of Zoological Nomenclature*.

I need not mention that Doughty at least is a card-carrying member of the Wüster gang of thieves, who also recently attempted to steal name authority for another Wells and Wellington species, this one being *Acanthophis lancasteri* Wells and Wellington (1985), by falsely claiming it too was a *nomen nudem*. Their allegedly newly discovered species was named by them in the online PRINO journal *Zootaxa* as *Acanthophis cryptamydros* Maddock, Ellis, Doughty, Smith and Wüster, 2015, which they then advertised to a global audience online and elsewhere as some kind of amazing new scientific discovery by the gang (e.g. Arnold 2015, Fang 2015, Mundy 2015).

This big lie was refuted in the first instance by Hoser (2016a) and then in more detail later in 2016 by Wellington (2016).

I needn't mention the time-wasting and instability of nomenclature caused by the introduction of an illegal dual nomenclature by Wüster, Doughty and others in their gang of thieves.

Now if one were to (validly) accuse Wells and Welington of having (at times) substandard scientific descriptions, the same could be said for many other "great" herpetologists including such names as Cope, Storr, Gray and Fitzinger, but if their names are available under to rules of the ICZN, they are used and no matter how "unscientific" their first descriptions were.

In terms of the preceding, this is why in this paper, the correct nomen, *Oedura greeri* Wells and Wellington, 1985 is used instead of the junior synonym *O. luritja* Oliver and McDonald, 2016, although I should make it clear I have no vested interest in terms of these or any other authors, my only concern being that the correct names are used.

I must also mention the species described as *Amalosia phillipsi* Wells and Wellington, 1985, one of the many dozens of ICZN code compliant and valid species and genera named in the publication of Wells and Wellington (1985), that has without a single valid scientific reason been effectively ignored by all published herpetologists since!

As one who is familiar with both *A. lesueurii* Duméril and Bibron, 1836 from the Sydney basin, this being the species *A. phillipsi* has always been treated as being, and living *A. phillipsi* from far northern New South Wales, having caught and inspected hundreds of each in the 1970's and 1980's I am astounded at the reckless ignoring of the latter described taxon.

Both are morphologically very different as inferred by the description of Wells and Wellington and although they did not directly quantify the differences between each species, the differences are self-evident to anyone who looks where they directed.

In any event, anyone who tries to allege that description is a *nomen nudem* is either delusional or a fraud!

Just so that no one can have a shred of doubt that the two species are different taxa, I make mention of a few obvious points. There is no sympatry between either form and both are distributionally disjunct, with one in northern NSW and the other around Sydney and nearby escarpments.

Significantly, the molecular results of Oliver *et al.* (2012) not only confirmed the existence of *A. phillipsi* as a valid taxon, but their results also showed that the New England population, until now treated as synonymous with *A. lesueurii*, are in fact two separate species.

The divergence between the two is measurable at several millions of years!

Furthermore all three species are easily distinguished from one another on the basis of appearance as well!

Museum records indicate a significant gap in the distribution of "*Amalosa lesueurii*", in a general line across the New England region of NSW between the towns of Inverell and Glen Innes (running west to east), of a distance of at least 25 km north-south in a straight line at the narrowest point, across a zone of flattish and apparently unsuitable, unrocky habitat, confirming that *A. phillipsi* is the name assignable to the northern population, while the unnamed southern population is formally named for the first time herein as *A. alexanderdudleyi sp. nov.*.

It is significant to note that this same barrier also affects other reptile genera and species.

Molecular evidence showed the until recently monotypic genus *Uvidicolus* Oliver and Bauer, 2011 previously treated as a single species with a similar distribution to both *A. phillipsi* and *A. alexanderdudleyi sp. nov.* was in fact two species (Hoser 2016b).

These are now known as *U. sphyrurus* (Ogilby, 1892) for the southern population and *U. covacevichae* Hoser, 2016 for the northern population.

In terms of Eastern Australian species within *Oedura sensu lato* with disjunct populations, two regionally variable taxa have until now been treated as single species. These are "*Oedura tryoni* De Vis, 1888" and "*Oedura robusta* Boulenger, 1885".

For these species I make the following comments.

The holotype of the species until now known as *O. tryoni* comes from Stanthorpe in Queensland, which is regarded herein as the typical form of the lizard.

It ranges from North of the Hunter Valley in New South Wales, into southern Queensland, and is characterised by numerous small yellow spots on the neck, body and limbs. Molecular data also implies minimal divergence between relevant populations in New South Wales and southern Queensland and that no populations within this zone need any form of taxonomic recognition.

In terms of the species described as *Oedura ocellata*, by Boulenger (1885), which had a given type locality of "Australia", I can say that based on the nature of the yellow spots depicted on the body and limbs and their relative size in the image with the description (plate ix Fig. 1), it is clear that it is a specimen of the typical form of *O. tryoni.*

Hence "*O. ocellata*" is a subjective junior synonym of "*O. tryoni*" and therefore at the present time not an available name for other morphologically divergent populations.

The two divergent populations are those north in the range of

Hoser 2017 - Australasian Journal of Herpetology 34:3-35.

the species, being that from the region of Mackay in Queensland and the other from south-west of Rockhampton.

Both populations have lizards that are reddish brown in dorsal colour as opposed to mainly greyish brown.

Both populations are also readily distinguished from other "*O. tryoni*" by the relatively larger light spots or ocelli on the upper body, these being by far the largest in the Eungella (Mackay) population.

The Eungella (Mackay) specimens are also readily separated from the other two populations by a general absence of whitish spots or ocelli on any of the limbs, which is the standard condition in all other populations, being most prevalent on the limbs in New South Wales lizards.

In the absence of any molecular data or comparative molecular data from other species affected by similar distributional factors that could be readily transposed to this species, I do not have the confidence to describe these forms as full species and so instead give them taxonomic recognition at the subspecies level.

Similar applies in terms of the north-western population of the species originally described as "*Oedura robusta*" by Boulenger (1885).

While no exact type locality is given for the species other than "Australia", the lizard depicted with the original description is of the typical form and most readily aligned with those specimens from the south of the range in near coastal New South Wales (Wattagan Ranges area north to about Grafton). That is the mid dorsal surface is characterised by large irregular and ovoid light coloured blotches, surrounded by a tight, narrow and well defined area of dark pigment, in turn surrounded by a reasonably well defined lighter area on the flanks.

Specimens from south-east Queensland are more variable in terms of dorsal colouration, with the ovoid blotches becoming irregular in shape (but of similar general size and shape), often merging to form either a continuous or broken light zone running down the centre of the back.

There is significant variation between regions and within regions to assume that all form a single population and gene pool.

However in the northwest of the range of the species, most notably in the Blackdown Tableland National Park specimens assigned to this species are of significantly different appearance.

Instead of a preponderance of light blotching on the middle of the back as seen in other specimens, there is an even amount of dark, blackish pigment between the very well separated smaller light blotches running down the back.

In the typical form of the species, the lighter blotches are only tightly separated by very thin darker sections (as depicted in the original description by Boulenger in 1885), if at all.

Furthermore, the flanks of Blackdown Tableland National Park specimens are characterised by a gradual zone where the darker dorsal pigment fades to the lighter ventral pigment.

On the basis of these differences and disjunct distribution, these specimens are formally named below as a new subspecies.

At the genus level, as already mentioned, the divisions follow on from those invoked by Oliver *et al*. (2012) and before them Wells and Wellington (1985), in that all four genera recognized and/or erected by these authors are recognized herein as valid.

The currently monotypic genera of Oliver *et al.* (2012) *Hesperoedura* and *Nebulifera* are obviously not touched in any way in terms of genus level divisions.

However as just mentioned the species *Nebulifera robusta* (Boulenger, 1885) is divided into two easily separated subspecies.

However both *Oedura* Gray, 1842 and *Amalosia* Wells and Wellington, 1985 are divided.

Oedura is divided into three genera.

The divergent species *O. gracilis* King, 1985 and seven similar and newly described species are placed in a new genus *Fiacumminggecko gen. nov.*. I note that these lizards diverged from the main *Oedura marmorata* Gray, 1842 lineage about 15 MYA.

Description of seven new species associated with *F. gracilis* (King, 1985), all from the Kimberley region of Western Australia and not including all within this complex, underlines the significant as yet largely underestimated herpetological biodiversity of this region.

The East Australian grouping consisting of the better known *O. monilis* De Vis, 1888, *O. castlenaui* (Thominot, 1889) and closely related species is placed in the new genus *Marlenegecko gen. nov*..

These species have a divergence of about 20 MYA from both other genera (*Fiacumminggecko gen. nov.* and *Oedura*).

Amalosia Wells and Wellington, 1985 is divided into two along obvious phlogenetic and morphological lines.

The eastern Australian species complex until now lumped within *Oedura lesueurii* (Duméril and Bibron, 1836), and defined by a noticeably flattened tail remains as *Amalosia*. In this paper, the type species *O. lesueurii* is formally divided into three well defined species, using one available name and assigning a new one to the third species.

Amalosia jacovae (Couper, Keim and Hoskin, 2007) is also treated as being within this genus.

The various species from northern Australia with tails that are essentially rounded in cross section, generally typically until now assigned to the species *A. rhombifer* Gray, 1845 are herein placed in the new genus *Celertenues gen. nov.*. The two species groups diverged from one another more than 20 MYA making a genus-level split well overdue.

Beyond these genus level splits, two additional subgenera are also erected, (as separate from the nominate groups).

The two divergent West Australian species *Oedura filicipoda* King, 1985 and *O. murrumanu* Oliver, Laver, Melville and Doughty, 2014 are placed in a new subgenus *Fereoedura subgen. nov.*.

The east Australian genus *Marlenegecko gen. nov.* is further subdivided along obvious phylogenetic and morphological lines. The forms with a distribution centred on northern New South Wales and southern Queensland remain in the genus, while the north Queensland forms *M. castelnaui* (Thominot, 1889), *M. coggeri* (Bustard, 1966) and *M. jowalbinna* (Hoskin and Higgie, 2008) are all placed in a new subgenus *Robwatsongecko subgen. nov.*. The two species groups diverged more than 13 MYA.

All relevant species groups (genera) are in turn placed in an appropriate tribe and subtribe arrangement as detailed below. This incorporates species within the genus group *Strophurus* Fitzinger, 1843, as generally recognized in texts such as Cogger (2014), which is otherwise ignored for the purposes of this paper, but dealt with in detail in another paper published at the same time as this one (Hoser 2017a).

That paper formally names for the first time, one new genus (and resurrecting two others), two new subgenera, nine new easily defined species and two new subspecies.

NOTES ON THE DESCRIPTIONS FOR ANY POTENTIAL REVISORS

Unless mandated by the rules of the *International Code of Zoological Nomenclature*, none of the spellings of the newly proposed names should be altered in any way. The names created herein have also been created with a view to avoiding any potential homonymy with earlier established names. Should one or more newly named taxa be merged by later authors to be treated as a single entity, the order of priority of retention of names should be the order (page priority) of the descriptions within this text (which is the same as that listed in the abstract).

Below are the appropriate tribe, then subtribe, genus (and subgenus) level descriptions followed by the (new) species and subspecies descriptions.

In terms of the latter, they are placed within the genera as outlined in the following section of this paper, this being the new taxonomy and nomenclature for the relevant group/s of reptiles.

Characters used to identify each genus described below are largely derived from the standardized accounts given in Cogger (2014) or Oliver *et al.* (2012, 2014b) as they are all simple and can be employed easily in the field.

Latitude and Longitude information is given in degrees (first two digits) and minutes (second two digits after the period).

Immediately below are descriptions (or redescriptions) of all now recognized genera within what used to be *Oedura sensu lato*, now formally named as the tribe Fiacumminggeckoini tribe nov. This includes the four groups identified by Oliver *et al.* (2012), excluding the fifth group known widely as *Strophurus* Fitzinger, 1843 and in general usage since that date as well as those formally named and identified within this paper.

A total of three new genera and four new subgenera (including nominate ones) are formally defined within this paper. All are herein placed in the new tribe named Fiacumminggeckoini tribe nov. defined first, in turn subdivided into five subtribes.

These subtribes correspond to Lineages A-D in Oliver *et al.* (2012), and *Strophurus* Fitzinger, 1843 as generally defined in texts such as Cogger (2014) although the component genera of two subtribes is enlarged to accommodate the newly named genera within this paper.

TRIBE FIACUMMINGGECKOINI TRIBE NOV.

(Terminal taxon: *Fiacumminggecko fiacummingae sp. nov.*) (this paper).

Diagnosis: The tribe Fiacumminggeckoini tribe nov. is the group of species that was interpreted as the genus *Oedura* Gray, 1842 in texts such as Cogger (1975) and other texts of that time as well as the group of lizards more recently placed in the genus *Strophurus* Fitzinger, 1843.

The genus *Oedura* as now recognized is one of the component genera in this newly erected tribe.

While the number of recognized species has greatly increased since the 1970's, the diagnosis of the group of species as a means to separate them from other Australian Diplodactylidae remains the same.

Fiacumminggeckoini tribe nov. can therefore all be readily diagnosed from all other genera in the Diplodactylidae by the following diagnostic features: A combination of greatly enlarged apical plates and enlarged transverse lamellae, paired distally and single proximally. They can be specifically diagnosed from *Diplodactylus* Gray, 1832, *Lucasium* Wermuth, 1965 and *Rhynchoedura* Günther, 1867 by the presence of greatly enlarged subdigital lamellae and apical plates, and an absence of medial cloacal bones in males.

The subtribe Strophuriina subtribe nov. is separated from the other four subtribes by presence of caudal glands and associated ejection mechanisms, and transversely enlarged (as opposed to rounded and paired) proximal subdigital lamellae.

All species within Fiacumminggeckoini tribe nov. have an average adult SVL of between 60 to over 100 mm.

Distribution: Found throughout most parts of continental Australia.

Content: *Fiacumminggecko gen. nov.*; *Amalosia* Wells and Wellington, 1984; *Celertenues gen. nov.*; *Hesperoedura* Oliver, Bauer, Greenbaum, Jackman and Hobbie, 2012; *Marlenegecko gen. nov.*; *Nebulifera* Oliver, Bauer, Greenbaum, Jackman and Hobbie, 2012; *Oedura* Gray, 1842; *Strophurus* Fitzinger, 1843 (as defined in Cogger, 2014, but split into four genera (one named as new) in a paper published simultaneous to this one) (Hoser 2017a).

SUBTRIBE FIACUMMINGGECKOINA SUBTRIBE NOV.

(Terminal taxon: *Fiacumminggecko fiacummingae sp. nov.*) (this paper).

Diagnosis: Fiacumminggeckoina subtribe nov. is a subtribe within the Diplodactylidae (*sensu* Han *et al.* 2004) and is distinguished from all related genera within Fiacumminggeckoini tribe nov. by the possession of enlarged juxtaposed dorsal scales approximately the same size as the ventrals (versus much smaller in related genera). Further distinguished from the other taxa now placed in one of three other subtribes by the combination of:

1/ moderate to large size (60-110 + mm),

2/ karyotypic complement of 2n = 38,

3/ possession of one or more cloacal spurs, and,

4/ a dorsal pattern generally including a weak to bold series of transverse bands or disjunct blotches or spots with no evidence of a single well-defined vertebral stripe.

Distribution: Most parts of continental Australia except for the coldest and wettest parts of the south-east and the most arid areas of inland Australia away from hills or rocky areas.

Content: *Fiacumminggecko gen. nov.*; *Marlenegecko gen. nov.*; *Oedura* Gray, 1842.

SUBTRIBE CELERTENUINA SUBTRIBE NOV.

(Terminal taxon: *Celertenues bobbottomi sp. nov.*) (this paper).

Diagnosis: Celertenuina subtribe nov. is a subtribe within the Diplodactylidae (sensu Han *et al.* 2004) that is distinguished from all other genera within Fiacumminggeckoini tribe nov. by the combination of:

1/ an adult size of less than 62 mm (snout-vent),

2/ dorsal scales that are minute, granular and much smaller than the ventrals,

3/ karyotype of 2n = 36,

4/ a dorsal pattern generally including at least a broken vertebral stripe or similar, and,

5/ more than one enlarged cloacal spur,

The first four characters all separate this subtribe from Fiacumminggeckoina subtribe nov..

Distribution: Coastal and near coastal parts of northern and eastern Australia.

Content: *Celertenues* gen. nov.; *Amalosia* Wells and Wellington, 1984.

SUBTRIBE HESPEROEDURINA SUBTRIBE NOV.

(Terminal taxon: *Oedura reticulata* Bustard, 1969)

Diagnosis: Hesperoedurina subtribe nov. is a subtribe within the Diplodactylidae (*sensu* Han *et al.* 2004) and is distinguished from all related genera within Fiacumminggeckoini tribe nov. by the combination of;

1/ minute granular dorsal scales much smaller than ventrals,

2/ dorsal pattern consisting of a broad brown pale edged vertebral stripe,

3/ up to 70 mm SVL,

4/ single cloacal spur, and,

5/ a long, slender and only slightly horizontally flattened tail.

Characters 1-2 specifically separate this subtribe from Fiacumminggeckoina subtribe nov., characters 3-4 separate this subtribe from Celertenuina subtribe nov., and characters 3-5 separate this subtribe from the genus *Nebulifera* Oliver, Bauer, Greenbaum, Jackman and Hobbie, 2012, which is monotypic within the subtribe Nebuliferina subtribe nov..

The tribe Hesperoedurina subtribe nov. is monotypic for the genus *Hesperoedura* Oliver, Bauer, Greenbaum, Jackman and Hobbie, 2012, which in turn is monotypic for the species currently known as *Hesperoedura reticulata* (Bustard, 1969).

Distribution: South-western Western Australia.

Content: *Hesperoedura* Oliver, Bauer, Greenbaum, Jackman and Hobbie, 2012.

SUBTRIBE NEBULIFERINA SUBTRIBE NOV.

(Terminal taxon: *Oedura robusta* Boulenger, 1885)

Diagnosis: Nebuliferina subtribe nov. is a monotypic subtribe, for the genus *Nebulifera* Oliver, Bauer, Greenbaum, Jackman and Hobbie, 2012. It is within the Diplodactylidae (*sensu* Han *et al*. 2004) and is distinguished from all related genera within Fiacumminggeckoini tribe nov. by the combination of;

1/ minute granular dorsal scales much smaller than the ventrals,

2/ a relatively simple dorsal pattern consisting of large light grey botches on a dark brown background or variations of this,

3/ two to five cloacal spurs,

4/ no evidence of a well defined vertebral stripe,

5/ up to 80 mm snout-vent, and,

6/ a strongly horizontally flattened and widened tail (as opposed to being relatively narrow and more-or-less round in cross section.

Characters 1-2 specifically separate this subtribe from Fiacumminggeckoina subtribe nov., while characters 4-6 specifically separate this subtribe from Celertenuina subtribe nov..

Distribution: North-east New South Wales and south-east Queensland generally near the coast and nearby uplands and slopes.

Content: *Nebulifera* Oliver, Bauer, Greenbaum, Jackman and Hobbie, 2012.

SUBTRIBE STROPHURIINA SUBTRIBE NOV.

(Terminal taxon: *Phyllodactylus strophurus* Duméril and Bibron. 1836).

Diagnosis: The tribe Fiacumminggeckoini tribe nov. is the group of species that was interpreted as the genus *Oedura* Gray, 1842 in texts such as Cogger (1975) and other texts of that time as well as the group of lizards more recently placed in the genus *Strophurus* Fitzinger, 1843.

The genus *Oedura* as now recognized is one of the component genera in this newly erected tribe.

While the number of recognized species has greatly increased since the 1970's, the diagnosis of the group of species as a means to separate them from other Australian Diplodactylidae remains the same.

Fiacumminggeckoini tribe nov. can therefore all be readily diagnosed and separated from all other genera in the Diplodactylidae by the following diagnostic features: A combination of greatly enlarged apical plates and enlarged transverse lamellae, paired distally and single proximally. They can be specifically diagnosed and separated from *Diplodactylus* Gray, 1832, *Lucasium* Wermuth, 1965 and *Rhynchoedura* Günther, 1867 by the presence of greatly enlarged subdigital lamellae and apical plates, absence of medial cloacal bones in males,

The subtribe Strophuriini subtribe nov. is separated from the other four subtribes by presence of caudal glands and associated ejection mechanisms, and transversely enlarged (as opposed to rounded and paired) proximal subdigital lamellae.

All species within Fiacumminggeckoini tribe nov. have an average adult SVL of between 60 to over 100 mm.

Distribution: Found throughout most parts of continental Australia, except extremely cold parts and Tasmania.

Content: *Strophurus* Fitzinger, 1843 (as defined in Cogger, 2014, but split into four genera in a paper published simultaneous to this one) (Hoser 2017a).

GENUS *FIACUMMINGGECKO GEN. NOV.*

Type species: *Fiacumminggecko fiacummingae sp. nov.* (this paper).

Diagnosis: All species within the genus *Fiacumminggecko gen. nov*. have until now been treated as the single species *Oedura gracilis* King, 1984 and until now treated as *Oedura* Gray, 1842. However several species have been lumped within the single taxonomic entity and therefore seven more are formerly named in this paper.

They are sufficiently differentiated from all other *Oedura* Gray, 1842, and the divergent eastern Australian species, herein placed in a new genus (*Marlenegecko gen. nov*.) to warrant being placed in their own genus.

Fiacumminggecko gen. nov. as defined and diagnosed herein are separated from all other geckos in *Oedura sensu lato* as in all species in the tribe Fiacumminggeckoini tribe nov. by the following suite of characters:

The hind limbs are mottled, spotted or variegated above, but without regular pale dark-edged ocelli; the dorsal pattern consists of cross-bands, irregular mottling or ocelli; the latter if present are larger than the eye and tend to occur in pairs; the digits lack conspicuous fringes; the enlarged apical lamellae of the fourth toe are followed by only two pairs of large divided lamellae.

Oliver *et al*. (2014b) give a divergence of this genus from its nearest relatives (*Oedura* Gray, 1842 as defined herein) at about 18 MYA making generic division of the two a common sense proposition.

Distribution: Restricted to the Kimberley Ranges in north-west Western Australia to adjacent hilly and rocky parts of the Northern Territory, near the West Australian border.

Etymology: Named in honour of the investigative journalist Fia Cumming, of Lyons, ACT, Australia in recognition of her services to wildlife conservation in Australia. For details of some of her stellar work, see the account of her role in getting the book *Smuggled: The Underground Trade in Australia's Wildlife* (Hoser, 1993) unbanned in May/June 1993 and how the publication of that book in 1993, which ultimately became a best seller, led to a rewrite of Australia's anti-conservation wildlife laws shortly thereafter as outlined in detail in the book *Smuggled-2: Wildlife trafficking, crime and corruption in Australia* (Hoser, 1996).

Content: *Fiacumminggecko fiacummingae sp. nov*. (Type species); *F. dorisioi sp. nov*.; *F. gracilis* (King, 1985); *F. julianfordi sp. nov*.; *F. matteoae sp. nov*.; *F. richardwellsi sp. nov*.; *F. rosswellingtoni sp. nov*.; *F. charlespiersoni sp. nov*..

GENUS *MARLENEGECKO GEN. NOV.*

Type species: *Marlenegecko shireenhoserae sp. nov.* (Described in this paper).

Diagnosis: *Marlenegecko gen. nov.* is an assemblage of species restricted to the east coast of Australia and nearby areas in New South Wales and Queensland, but not extending to arid areas. They are sufficiently divergent from other species placed in *Oedura* Gray, 1842, including *Fiacumminggecko gen. nov.* as described within this paper to warrant being placed in their own genus. This assemblage of species diverged from their nearest relatives (*Oedura* and *Fiacumminggecko gen. nov*.) about 20 MYA according to Oliver *et al*. (2014b).

Marlenegecko gen. nov. are readily separated from both *Fiacumminggecko gen. nov.* and *Oedura* Gray, 1842 by one or other of the following four suites of characters:

1/ Digits do not have conspicuous lateral fringes; the hindlimbs usually but not always have regular small, pale, dark edged ocelli; the dorsal pattern consists of regular small spots or ocelli, each smaller than the eye or at most the same size as the eye, with ocelli that may coalesce to form rectangular spots or irregular broken cross bands, or rarely smallish blotches, (*M. tryoni*, *M. coggeri*), or:

2/ Digits do not have conspicuous lateral fringes; the hind limbs are mottled, spotted or variegated above, but lack regular pale, dark edged ocelli or dots; the enlarged apical lamellae of the fourth toes is followed by three or more pairs of large, divided lamellae; body with three to 10 (usually 6 to 9) pairs of dark

ocellate markings having a dark edge and being noticeably larger than the eye; some specimens may have odd numbers of ocelli or with pairs of ocelli coalescing; the dark streaks through each eye never meet on the nape to form an occipital band, (*M. shireenhoserae sp. nov.*, *M. attenboroughi*, *M. monilis*),

or:

3/ Digits do not have conspicuous lateral fringes; the hind limbs are mottled, spotted or variegated above, but lack regular pale, dark edged ocelli or dots; the enlarged apical lamellae of the fourth toe is followed by three or more pairs of large, divided lamellae; body with a series of five pale cross-bands between the snout and the vent; the bands are almost invariably sharp in outline and almost as wide as the darker interspaces; the bands extend to the white ventral surface on each side, where they are broken up and the resulting patches having no regular shape or size; the head lacks numerous white flecks and the dark streak through each eye tends to meet on the nape to form a dark collar, (*M. castelnaui*) or:

4/ The dorsal surface of the body, head and limbs are pale pinkish grey with faint freckling, and the only distinct markings are two pale, dark-edged bands, one across the neck, the other across the base of the tail. The original tail is yellow with small dark spots (*M. jowalbinna*).

Distribution: The genus *Marlenegecko gen. nov.* is restricted to the east coast of Australia and nearby areas in New South Wales and Queensland, from the Hunter region in the south to most of Cape York in the north.

Etymology: Named in honour of Marlene Swile of Mitchell's Plain, Cape Town, South Africa, mother of my wife, Shireen, in recognition for her services to wildlife conservation in Africa.

Content: *Marlenegecko shireenhoserae sp. nov.* (Type species); *M. attenboroughi* (Wells and Wellington, 1985); *M. castelnaui* (Thominot, 1889); *M. coggeri* (Bustard, 1966); *M. jowalbinna* (Hoskin and Higgie, 2008); *M. monilis* (De Vis, 1888); *M. tryoni* (De Vis, 1884).

SUBGENUS *ROBWATSONGECKO SUBGEN. NOV.*

Type species: *Phyllodactylus* (*Oedura*) *castelnaui* Thominot, 1889.

Diagnosis: The genus *Marlenegecko gen. nov.* consists of two distinct species groups. One has a centre of distribution in northern New South Wales and South-east Queensland (this being the nominate group), while the other group consists of a cluster of three species whose distribution is centred on Cape York, Queensland and nearby areas. This latter group is the subgenus *Robwatsongecko subgen. nov.*. The two subgenera diverged some 13 MYA according to Oliver *et al.* (2014b).

The subgenus *Robwatsongecko subgen. nov.* is diagnosed and separated from the nominate subgenus and also *Fiacumminggecko gen. nov.* and *Oedura* Gray, 1842 by one or other of the following three suites of characters:

1/ Digits do not have conspicuous lateral fringes; the hind limbs are mottled, spotted or variegated above, but lack regular pale, dark edged ocelli or dots; the enlarged apical lamellae of the fourth toe is followed by three or more pairs of large, divided lamellae; body with a series of five pale cross-bands between the snout and the vent; the bands are almost invariably sharp in outline and almost as wide as the darker interspaces; the bands extend to the white ventral surface on each side, where they are broken up and the resulting patches having no regular shape or size; the head lacks numerous white flecks and the dark streak through each eye tends to meet on the nape to form a dark collar, (*M. castelnaui*) or:

2/ Digits do not have conspicuous lateral fringes; the dorsal surface of the body, head and limbs are pale pinkish grey with faint freckling, and the only distinct markings are two pale, dark-edged bands, one across the neck, the other across the base of the tail. The original tail is yellow with small dark spots (*M. jowalbinna*), or:

3/ Digits do not have conspicuous lateral fringes; the hindlimbs usually but not always have regular small, pale, dark edged ocelli; the dorsal pattern consists of regular small spots or ocelli, each smaller than the eye or at most the same size as the eye, with ocelli that may coalesce to form rectangular spots or irregular broken cross bands, or rarely smallish blotches; interorbitals 18 or less and there are less than 95 mid body scale rows and only rarely will one or other of the counts exceed those cited (*M. coggeri*).

Distribution: Cape York Queensland, south to approximately a line extending from Townsville to Charters Towers.

Etymology: Named in honour of Rob Watson a snake catcher from Stafford, Brisbane, Queensland, Australia, running a business called South-eastern Reptiles, Brisbane Northside, who over many years has saved the lives of many snakes and potentially a few people as well.

Content: *Marlenegecko* (*Robwatsongecko*) *castelnaui* (Thominot, 1889) (Type species); *M.* (*Robwatsongecko*) *coggeri* (Bustard, 1966); *M.* (*Robwatsongecko*) *jowalbinna* (Hoskin and Higgie, 2008).

SUBGENUS *MARLENEGECKO SUBGEN. NOV.*

Type species: *Marlenegecko shireenhoserae sp. nov.* (This paper).

Diagnosis: *Marlenegecko gen. nov.* is an assemblage of species restricted to the east coast of Australia and nearby areas in New South Wales and Queensland, but not extending to arid areas. They are sufficiently divergent from other species placed in *Oedura* Gray, 1842, including *Fiacumminggecko gen. nov.* as described within this paper to warrant being placed in their own genus. This assemblage of species diverged from their nearest relatives (*Oedura* and *Fiacumminggecko gen. nov.*) about 20 MYA according to Oliver *et al.* (2014b).

The subgenus *Marlenegecko subgen. nov.* diverged from the other subgenus *Robwatsongecko subgen. nov.* some 13 MYA according to Oliver *et al.* (2014).

The subgenus *Marlenegecko subgen. nov.* is diagnosed and separated from the other subgenus *Robwatsongecko subgen. nov.* and also *Fiacumminggecko gen. nov.* and *Oedura* Gray, 1842 by one or other of the following two suites of characters:

1/ Digits do not have conspicuous lateral fringes; the hind limbs usually but not always have regular small, pale, dark edged ocelli; the dorsal pattern consists of regular small spots or ocelli, each smaller than the eye or at most the same size as the eye, with ocelli that may coalesce to form rectangular spots or irregular broken cross bands, or rarely smallish blotches; 18-19 or more interorbitals and 95 or more mid body scale rows and only rarely will one or other count be lower than those cited (*M. tryoni*), or:

2/ Digits do not have conspicuous lateral fringes; the hind limbs are mottled, spotted or variegated above, but lack regular pale, dark edged ocelli or dots; the enlarged apical lamellae of the fourth toes is followed by three or more pairs of large, divided lamellae; body with three to 10 (usually 6 to 9) pairs of dark ocellate markings having a dark edge and being noticeably larger than the eye; some specimens may have odd numbers of ocelli or with pairs of ocelli coalescing; the dark streaks through each eye never meet on the nape to form an occipital band, (*M. shireenhoserae sp. nov.*, *M. attenboroughi*, *M. monilis*).

Distribution: The subgenus *Marlenegecko subgen. nov.* is restricted to north-east New South Wales and South-east Queensland, extending north near the coast to around Mackay.

Etymology: Named in honour of Marlene Swile of Mitchell's Plain, Cape Town, South Africa, mother of my wife, Shireen, in recognition for her services to wildlife conservation in Africa.

Content: *Marlenegecko shireenhoserae sp. nov.* (Type species); *M. attenboroughi* (Wells and Wellington, 1985); *M. castelnaui* (Thominot, 1889); *M. coggeri* (Bustard, 1966); *M. jowalbinna* (Hoskin and Higgie, 2008); *M. monilis* (De Vis, 1888); *M. tryoni* (De Vis, 1884).

GENUS *OEDURA* GRAY, 1842

Type species: *Oedura marmorata* Gray, 1842 (Type species).

Diagnosis: The genus *Oedura* is similar in many respects to the genera *Fiacumminggecko gen. nov.* and *Marlenegecko subgen. nov.,* both split from this genus in this paper.

All three genera share the following suite of characters:

They are a group of Diplodactylidae lizards (*sensu* Han *et al.* 2004) distinguished from all related genera by the possession of enlarged juxtaposed dorsal scales approximately the same size as the ventrals (versus much smaller in related genera). Further distinguished from other taxa formerly placed in *Oedura* by the combination of:

1/ Karyotypic complement of 2n = 38:

2/ Possession of one or more cloacal spurs:

3/ Dorsal pattern generally including a weak to bold series of transverse bands or disjunct blotches with no evidence of a well defined vertebral stripe.

4/ 60-110 + mm snout-vent.

The genus *Oedura* is best defined by diagnosing and defining each species or species groups as is done here. The genus is therefore defined and diagnosed as being one or other of the following two suites of characters:

1/ Digits do not have conspicuous lateral fringes; the hind limbs are mottled, spotted or variegated above, but lack regular pale, dark edged ocelli or dots; the enlarged apical lamellae of the fourth toes is followed by three or more pairs of large, divided lamellae; body with a series of five or six pale cross-bands between the snout and the vent; the bands are either sharp and regular in outline, or may be broken up into a series of spots in a curved line, but are only about a quarter of the width of the darker interspaces; or alternatively with white or yellow flecks over the back and no dark bars over the occiput and nape; the head is usually peppered with numerous white specks (*O. marmorata*, *O. bella*, *O. bulliardi sp. nov.*, *O. cincta*, *O. derelicta*, *O. fimbria*, *O. gemmata*, *O. greeri, O. rentonorum sp. nov.*) (subgenus *Oedura*) or:

2/ Digits have conspicuous lateral fringes caused by laterally expanded subdigital lamellae, (O. *filicipoda*, *O. murrumanu*) (subgenus *Fereoedura subgen. nov.*).

According to Oliver *et al.* (2014) the two subgenera as defined herein diverged about 15 MYA.

Distribution: Most of continental Australia except for the far south-east and east.

Content: *Oedura marmorata* Gray, 1842 (Type species); *O. bella* Oliver and Doughty, 2016; *O. bulliardi sp. nov.*; *O. cincta* De Vis, 1888; *O. derelicta* Wells and Wellington, 1985; *O. filicipoda* King, 1985; *O. fimbria* Oliver and Doughty, 2016; *O. gemmata* King and Gow, 1983; *O. greeri* Wells and Wellington, 1985 (*Oedura luritja* Oliver and McDonald, 2016 is a junior synonym of this); *O. murrumanu* Oliver, Laver, Melville and Doughty, 2014; *O. rentonorum sp. nov.*.

SUBGENUS *FEREOEDURA SUBGEN. NOV.*

Type species: *Oedura filicipoda* King, 1985.

Diagnosis: This subgenus within *Oedura* Gray, 1842 contains the two most divergent species from the Kimberley region in Western Australia that are readily separated from all others in the genus by the presence of digits with conspicuous lateral fringes caused by laterally expanded subdigital lamellae. This feature alone separates and diagnoses these two species as being within this genus.

The genus *Oedura* is similar in many respects to the genera *Fiacumminggecko gen. nov.* and *Marlenegecko subgen. nov.,* both split from this genus in this paper.

All three genera share the following suite of characters:

They are a group of Diplodactylidae lizards (*sensu* Han *et al.* 2004) distinguished from all related genera by the possession of enlarged juxtaposed dorsal scales approximately the same size as the ventrals (versus much smaller in related genera). Further distinguished from other taxa formerly placed in *Oedura* by the combination of:

1/ Karyotypic complement of 2n = 38:

2/ Possession of one or more cloacal spurs:

3/ Dorsal pattern generally including a weak to bold series of transverse bands or disjunct blotches with no evidence of a well defined vertebral stripe.

4/ 60-110 + mm snout-vent.

The genus *Oedura* is best defined by diagnosing and defining each species or species groups as is done here. The genus is therefore defined and diagnosed as being one or other of the following two suites of characters:

1/ Digits do not have conspicuous lateral fringes; the hind limbs are mottled, spotted or variegated above, but lack regular pale, dark edged ocelli or dots; the enlarged apical lamellae of the fourth toes is followed by three or more pairs of large, divided lamellae; body with a series of five or six pale cross-bands between the snout and the vent; the bands are either sharp and regular in outline, or may be broken up into a series of spots in a curved line, but are only about a quarter of the width of the darker interspaces; or alternatively with white or yellow flecks over the back and no dark bars over the occiput and nape; the head is usually peppered with numerous white specks (*O. marmorata*, *O. bella*, *O. bulliardi sp. nov.*, *O. cincta*, *O. derelicta*, *O. fimbria*, *O. gemmata*, *O. greeri, O. rentonorum sp. nov.*) (subgenus *Oedura*) or:

2/ Digits have conspicuous lateral fringes caused by laterally expanded subdigital lamellae, (O. *filicipoda*, *O. murrumanu*) (subgenus *Fereoedura subgen. nov.*).

According to Oliver *et al.* (2014) the two subgenera as defined herein diverged about 15 MYA.

Distribution: Known only from the West Kimberley region in Western Australia.

Etymology: *Fere* means “not quite” or “almost” in Latin and so *Fereoedura* effectively means, “not quite an *Oedura*”, which accurately sums up these lizards and their taxonomic status.

Content: *Oedura* (*Fereoedura*) *filicipoda* King, 1985 (Type species); *O.* (*Fereoedura*) *murrumanu* Oliver, Laver, Melville and Doughty, 2014.

SUBGENUS *OEDURA* GRAY, 1842

Type species: *Oedura marmorata* Gray, 1842 (Type species).

Diagnosis: The genus *Oedura* is similar in many respects to the genera *Fiacumminggecko gen. nov.* and *Marlenegecko subgen. nov.,* both split from this genus in this paper.

All three genera share the following suite of characters:

They are a group of Diplodactylidae lizards (*sensu* Han *et al.* 2004) distinguished from all related genera by the possession of enlarged juxtaposed dorsal scales approximately the same size as the ventrals (versus much smaller in related genera). Further distinguished from other taxa formerly placed in *Oedura* by the combination of:

1/ Karyotypic complement of 2n = 38:

2/ Possession of one or more cloacal spurs:

3/ Dorsal pattern generally including a weak to bold series of transverse bands or disjunct blotches with no evidence of a well defined vertebral stripe.

4/ 60-110 + mm snout-vent.

The genus *Oedura* is best defined by diagnosing and defining each species or species groups as is done here. The genus is therefore defined and diagnosed as being one or other of the following two suites of characters, each representing and diagnosing one of the two subgenera:

1/ Digits do not have conspicuous lateral fringes; the hind limbs are mottled, spotted or variegated above, but lack regular pale, dark edged ocelli or dots; the enlarged apical lamellae of the

fourth toes is followed by three or more pairs of large, divided lamellae; body with a series of five or six pale cross-bands between the snout and the vent; the bands are either sharp and regular in outline, or may be broken up into a series of spots in a curved line, but are only about a quarter of the width of the darker interspaces; or alternatively with white or yellow flecks over the back and no dark bars over the occiput and nape; the head is usually peppered with numerous white specks (*O. marmorata*, *O. bella*, *O. bulliardi sp. nov.*, *O. cincta*, *O. derelicta*, *O. fimbria*, *O. gemmata*, *O. greeri, O. rentonorum sp. nov.*) (subgenus *Oedura*) or:

2/ Digits have conspicuous lateral fringes caused by laterally expanded subdigital lamellae, (O. *filicipoda*, *O. murrumanu*) (subgenus *Fereoedura subgen. nov.*).

According to Oliver *et al.* (2014) the two subgenera as defined herein diverged about 15 MYA.

Distribution: Most of continental Australia except for the far south-east and east.

Content: *Oedura marmorata* Gray, 1842 (Type species); *O. bella* Oliver and Doughty, 2016; *O. bulliardi sp. nov.*; *O. cincta* De Vis, 1888; *O. derelicta* Wells and Wellington, 1985; *O. fimbria* Oliver and Doughty, 2016; *O. gemmata* King and Gow, 1983; *O. greeri* Wells and Wellington, 1985 (*Oedura luritja* Oliver and McDonald, 2016 is a junior synonym of this); *O. rentonorum sp. nov.*.

GENUS *HESPEROEDURA* OLIVER, BAUER, GREENBAUM, JACKMAN AND HOBBIE, 2012.

Type species: *Oedura reticulata* Bustard, 1969.

Diagnosis: The genus *Hesperoedura* as diagnosed by Oliver *et al*. 2012 is the same as for the monotypic subtribe Hesperoedurina subtribe nov. as formally named in this paper.

Hesperoedura is diagnosed and defined as follows: *Hesperoedura* is a monotypic genus within the Diplodactylidae (*sensu* Han *et al.* 2004) and is distinguished from all related genera within Fiacumminggeckoini tribe nov. by the combination of;

1/ minute granular dorsal scales much smaller than ventrals,

2/ dorsal pattern consisting of a broad brown pale edged vertebral stripe,

3/ up to 70 mm SVL,

4/ single cloacal spur, and,

5/ a long, slender and only slightly horizontally flattened tail.

Characters 1-2 specifically separate this subtribe from Fiacumminggeckoina subtribe nov., characters

3-4 separate this subtribe from Celertenuina subtribe nov., and characters 3-5 separate this genus from the genus *Nebulifera* Oliver, Bauer, Greenbaum, Jackman and Hobbie, 2012, which is monotypic within the subtribe Nebuliferina subtribe nov..

Distribution: South-western Western Australia.

Content: *Hesperoedura* Oliver, Bauer, Greenbaum, Jackman and Hobbie, 2012.

GENUS *NEBULIFERA* OLIVER, BAUER, GREENBAUM, JACKMAN AND HOBBIE, 2012.

Type species: *Oedura robusta* Boulenger, 1885.

Diagnosis: *Nebulifera* Oliver, Bauer, Greenbaum, Jackman and Hobbie, 2012 is a monotypic genus and subtribe within the Diplodactylidae (*sensu* Han *et al.* 2004) and is distinguished from all related genera within Fiacumminggeckoini tribe nov. by the combination of;

1/ minute granular dorsal scales much smaller than the ventrals,

2/ a relatively simple dorsal pattern consisting of large light grey botches on a dark brown background or variations of this,

3/ two to five cloacal spurs,

4/ no evidence of a well defined vertebral stripe,

5/ up to 80 mm snout-vent, and,

6/ a strongly horizontally flattened and widened tail (as opposed to being relatively narrow and more-or-less round in cross section).

Characters 1-2 specifically separate this genus from Fiacumminggeckoina subtribe nov., while characters 4-6 specifically separate this genus from Celertenuina subtribe nov..

Distribution: North-east New South Wales and south-east Queensland generally near the coast and nearby uplands and slopes.

Content: *Nebulifera* Oliver, Bauer, Greenbaum, Jackman and Hobbie, 2012.

GENUS *AMALOSIA* WELLS AND WELLINGTON, 1984.

Type species: *Phyllodactylus lesueurii* Duméril and Bibron, 1836.

Diagnosis: The diagnosis for the genus *Amalosia* Wells and Wellington, 1984 within the subtribe Celertenuina subtribe nov. is as follows: It is a genus of the Diplodactylidae (sensu Han *et al.* 2004) distinguished from all genera in the tribe Fiacumminggeckoini tribe nov. (these being: *Fiacumminggecko gen. nov.*; *Celertenues gen. nov.*; *Hesperoedura* Oliver, Bauer, Greenbaum, Jackman and Hobbie, 2012; *Marlenegecko gen. nov.*; *Nebulifera* Oliver, Bauer, Greenbaum, Jackman and Hobbie, 2012; *Oedura* Gray, 1842), by the following combination of characters:

1/ size of less than 62 mm snout-vent,

2/ dorsal scales are minute, granular and much smaller than the ventrals,

3/ more than one enlarged cloacal spur,

4/ karyotype of 2n = 36,

5/ dorsal pattern generally including at least a broken vertebral stripe or similar, and,

6/ base of tail is strongly horizontally flattened.

Characters 1-2 and 4-5 all specifically diagnose this genus from all others within Fiacumminggeckoini tribe nov., except for the newly named genus *Celertenues gen. nov.* which is separated from *Amalosia* by having a tail that is either not strongly horizontally flattened or only slightly so.

Distribution: Eastern New South Wales and Southern Queensland, Australia.

Content: *Amalosia lesueurii* (Duméril and Bibron, 1836) (Type species); *A. alexanderdudleyi sp. nov.*; *A. jacovae* (Couper, Keim and Hoskin, 2007); *A. phillipsi* Wells and Wellington, 1984.

GENUS *CELERTENUES GEN. NOV.*

Type species: *Celertenues bobbottomi sp. nov.* (described in this paper).

Diagnosis: The diagnosis for the genus *Celertenues gen. nov.* within the subtribe Celertenuina subtribe nov. is as follows: It is a genus of the Diplodactylidae (sensu Han *et al*. 2004) distinguished from all genera in the tribe Fiacumminggeckoini tribe nov. (these being: *Amalosia* Wells and Wellington, 1984; *Fiacumminggecko gen. nov.*; *Hesperoedura* Oliver, Bauer, Greenbaum, Jackman and Hobbie, 2012; *Marlenegecko gen. nov.*; *Nebulifera* Oliver, Bauer, Greenbaum, Jackman and Hobbie, 2012; *Oedura* Gray, 1842), by the following combination of characters;

1/ size of less than 60 mm snout-vent,

2/ dorsal scales are minute, granular and much smaller than the ventrals,

3/ more than one enlarged cloacal spur,

4/ karyotype of 2n = 36,

5/ dorsal pattern generally including at least a broken vertebral stripe or similar, and,

6/ base of tail is generally circular in cross section, or only slightly flattened.

Characters 1-2 and 4-5 all specifically diagnose this genus from all others within Fiacumminggeckoini tribe nov., except for *Amalosia* Wells and Wellington, 1984 which is separated from

Celertenues gen. nov. by having a tail that is strongly horizontally flattened as opposed to not being flattened, or only slightly so in *Celertenues gen. nov.*.

Distribution: Tropical Australia from the Kimberley district in Western Australia, across Australia's top end to Queensland and south along the east coast of that State.

Etymology: The genus is named in reflection of the Latin words "Celer" which means quick or swift and the word "Tenues" which means fine or thin, (a variant of "Tenuis"), both of which is the general nature of the species within this genus.

Content: *Celertenues bobbottomi sp. nov.* (Type species); *C. evanwhittoni sp. nov.*; *C. helengrasswillae sp. nov.*; *C. obscura* (King, 1984); *C. rhombifer* (Gray, 1845).

OEDURA BULLIARDI SP. NOV.

Holotype: A preserved specimen at the Australian Museum, Sydney, New South Wales, Australia, specimen number: R.138727, collected from Groote Eylandt, Northern Territory, Australia, Latitude -13.83 S., Longitude 136.42 E.

The Australian Museum in Sydney, Australia is a government-owned facility that allows access to its holdings.

Paratype: A preserved specimen at the Northern Territory Museum, Northern Territory, Australia, specimen number R7494, collected at Umbakumba Road, Groote Eylandt, Northern Territory, Australia, Latitude -13.88 S., Longitude 136.50 E.

Diagnosis: *Oedura bulliardi sp. nov*. has until now been treated as am isolated population of *O. bella* Oliver and McDonald, 2016. Before this, it was treated as a population of *O. marmorata* Gray, 1842.

However the species *Oedura bulliardi sp. nov*., while similar in most respects to *O. bella* can be readily separated from it by the following suite of characters: *Oedura bulliardi sp. nov*. has scattered spots on the limbs or alternatively large well defined patches, or even bands, versus numerous well-defined spots on the limbs in *O. bella* which is seen as a pattern of spotting on the limbs.

Oedura bulliardi sp. nov. is further separated from *O. bella* by having very well-defined and distinct cross bands on the tail (original tails), versus one in *O. bella* that is flecked or spotted or with indistinct alternating dark and light crossbands created by spotting and flecking.

The entire dorsal surface of the head in *O. bella* is covered with well-defined yellow spots, including anterior to the eyes. This contrasts with *O. bulliardi sp. nov.* which while having yellow pigment on the head, is mainly purplish anterior to the eyes (the yellow being in indistinct patches) and only having well-defined yellow spots at the rear of the crown.

The subspecies *O. bulliardi whartoni subsp. nov*. from the general region north-west of the Gregory River, Queensland, including those populations from Lawn Hill in Queensland and the McCarthur River in the Northern Territory are separated from the nominate form *O. bulliardi bulliardi sp. nov*. by the configuration of dark and light cross-bands on the dorsal surface of the back. In both subspecies there are four well-defined and reasonably well defined thick light crossbands, edged with yellow, running across the back between the front and hind limbs. Between these are indistinct crossbands of similar diameter. In *O. bulliardi bulliardi subsp. nov.* these crossbands are formed by irregular patches of merged flecks, intersperced slightly with otherwise darker pigment. By contrast in *O. bulliardi whartoni subsp. nov*. the same less distinct crossbands are formed by distinct pattern of relatively even spots or spot-like flecks.

In terms of the light dorsal crossband between that of the back of the head and that between the front limbs, this is largely absent in *O. bulliardi whartoni subsp. nov.*, at best appearing as irregular and scattered small spots, in a somewhat linear fashion. By contrast in *O. bulliardi bulliardi subsp. nov.* this crossband is either continuous or nearly so, and when not so, by being formed by large patches of lighter pigment, with minor intrusions of dark from surrounding parts of the dorsum.

Both *O. bulliardi sp. nov*. and *O. bella* are separated from all other *Oedura* (including *Cumminggecko gen. nov*. by the following suite of characters: These two species are medium in size (SVL: mean 78 mm, max 92 mm) species in the *O. marmorata* Gray, 1842 complex with a wide (HW/SVL 0.19-0.23) and moderately deep head (HD/SVL 0.10-0.12), short body (Trk/SVL 0.41-0.49), short original tail (TL/SVL 0.49-0.65) that is narrower than the head and slightly depressed; rostral usually less than half divided, terminal lamellae moderately wide (ToeW/SVL 0.021-0.030), proximal subdigital lamellae of all fingers not wider than apical pair, 12-17 precloacal pores in males and base colouration usually dark purplish brown with 5 distinct to faint light dorsal bands from nape to hindlimbs, sometimes as spots.

O. bulliardi sp. nov. and *O. bella* differ in external morphology to *O. marmorata* by possessing an original or regrown tail that is much narrower (TW/SVL 0.10-0.15 versus 0.19-0.24) and generally less than the width of head, and *O. bulliardi sp. nov*. and *O. bella* also reaches a smaller maximum size, although adult sizes overlap (adult SVL usually 77-92 mm versus 77-97 mm).

O. bulliardi sp. nov. and *O. bella* differs from *O. cincta* De Vis, 1888, *O. greeri* Wells and Wellington, 1985 and *O. derelicta* Wells and Wellington, 1985 by the combination of its smaller maximum size (SVL 64-92 mm versus 77-106 mm), shorter original tail (TL/SVL 0.49-0.65 versus 0.58-0.80), and its narrower terminal lamellae (0.21-0.30 versus 0.23-0.36) and narrower lamellae series on the fingers (not wider than terminal lamellae versus wider on digits 3 and 4). It further differs from the geographically proximate *O. cincta*, *O. fimbria* Oliver and Doughty, 2016 and *O. rentonorum sp. nov*. by generally having a rostral partially divided by a crease (versus usually fully divided).

O. bulliardi sp. nov. and *O. bella* can be distinguished from the species of *Oedura* and *Fiacumminggecko gen. nov.* in the Kimberley region in Western Australia by having subdigital lamellae that are slightly expanded around the midpoint of the digit (versus strongly tapering in *F. gracilis* (King, 1984), *F. fiacummingae sp. nov*., *F. dorisioi sp. nov*., *F. richardwellsi sp. nov*., *F. julianfordi sp. nov*., *F. matteoae sp. nov*., *F. rosswellingtoni sp. nov*. and *F. charlespiersoni sp. nov*.), or obviously flared and often as wider or wider than the apical lamellae in *O. filicipoda* King, 1984 and *O. murrumanu* Oliver, Laver, Melville and Doughty, 2014), and its moderately long and slightly swollen tail (versus very long [approaching length of body] and tapering in *F. gracilis* (King, 1984), *F. fiacummingae sp. nov*., *F. dorisioi sp. nov*., *F. richardwellsi sp. nov*., *F. julianfordi sp. nov*., *F. matteoae sp. nov*., *F. rosswellingtoni sp. nov*. and *F. charlespiersoni sp. nov*., or greatly flattened and wider than body in *O. filicipoda* and *O. murrumanu*). With a maximum SVL of 92 mm, *O. bulliardi sp. nov*. and *O. bella* is also smaller than *O. filicipoda* and *O. murrumanu* (which both regularly exceed 100 mm).

O. bulliardi sp. nov. and *O. bella* differs from all *Marlenegecko gen. nov.* in eastern Australia by possessing more than one postcloacal tubercle and in having a base colouration of five relatively thin dorsal bands. The latter character distinguishes it from two other small saxicoline *Marlenegecko gen. nov.* in eastern Australia: *M. coggeri* has large ocelli on limbs and torso and the similar *M. jowalbinna* has a pale pinkish gray dorsum with distinct dark-edged bands across the neck and base of tail and a plain yellow original tail (Hoskin and Higgie, 2008). All other *Marlenegecko gen. nov.* in eastern Australia tend to be larger (SVL > 90 mm) and also have dorsal patterns that do not feature thin light bands; specifically, *M. castelnaui* has wide bands, *M. monilis* and *M. shireenhoserae sp. nov*. has blotches or ocelli, and *M. tryoni* has dense small spots (adapted and modified from Oliver and Doughty, 2016).

Distribution: Known only from the sandstone rock formations of Groote Eylandt, Northern Territory, as well as the rocky areas

around the south-west edge of the Gulf of Carpentaria, generally north and west of the Gregory River and Lawn Hill Creek, including Lawn Hill (Queensland) and the McCarthur River (Northern Territory). South of here in the main Selwyn Range (Queensland), one finds the similar and related species, *O. bella.*

Etymology: Named in honour of Kaj-Erik (Kai) Bulliard of Perth, Western Australia, formerly of Sydney, New South Wales, for his contributions to herpetology in Australia.

OEDURA BULLIARDI WHARTONI SUBSP. NOV.

Holotype: A preserved specimen at the South Australian Museum, Adelaide, South Australia, Australia, specimen number: R34188, collected from the Mcarthur River Station, Northern Territory, Australia, Latitude 16.40 S., Longitude 135.51 E. The South Australian Museum, Adelaide, South Australia, Australia, is a government-owned facility that allows access to its holdings.

Paratypes: Two preserved specimens at the Australian Museum in Sydney, Australia, specimen numbers: R.53437 and R53438 collected at 37km north of the Mcarthur River Camp on Borroloola Road, Northern Territory, Australia, Latitude 16.10 S., Longitude 136.12 E.

Diagnosis: *Oedura bulliardi sp. nov*. has until now been treated as am isolated population of *O. bella* Oliver and McDonald, 2016. Before this, it was treated as a population of *O. marmorata* Gray, 1842.

However the species *Oedura bulliardi sp. nov*., while similar in most respects to *O. bella* can be readily separated from it by the following suite of characters: *Oedura bulliardi sp. nov*. has scattered spots on the limbs or alternatively large well defined patches, or even bands, versus numerous well-defined spots on the limbs in *O. bella* which is seen as a pattern of dense spotting on the limbs. *Oedura bulliardi sp. nov*. is further separated from *O. bella* by having very well-defined and distinct cross bands on the tail (original tails), versus a tail in *O. bella* that is flecked or spotted or with indistinct alternating dark and light crossbands created by spotting and flecking as opposed to well defined bands of alternating darker and lighter pigment.

The entire dorsal surface of the head in *O. bella* is covered with well-defined yellow spots, including anterior to the eyes. This contrasts with *O. bulliardi sp. nov.* which while having yellow pigment on the head, is mainly purplish anterior to the eyes (the yellow being in indistinct patches) and only having well-defined yellow spots at the rear of the crown.

The subspecies *O. bulliardi whartoni subsp. nov*. from the general region north-west of the Gregory River, and Lawn Hill Creek, Queensland, including those populations from Lawn Hill in Queensland and the McCarthur River in the Northern Territory are separated from the nominate form *O. bulliardi bulliardi sp. nov*. by the configuration of dark and light cross-bands on the dorsal surface of the back. In both subspecies there are four well-defined and reasonably well defined thick light crossbands, edged with yellow, running across the back between the front and hind limbs. Between these are indistinct crossbands of similar diameter. In *O. bulliardi bulliardi subsp. nov.* these crossbands are formed by irregular patches of merged flecks, intersperced slightly with otherwise darker pigment. By contrast in *O. bulliardi whartoni subsp. nov*. the same less distinct crossbands are formed by distinct pattern of relatively even spots or spot-like flecks.

In terms of the light dorsal crossband between that of the back of the head and that between the front limbs, this is largely absent in *O. bulliardi whartoni subsp. nov.*, at best appearing as irregular and scattered small spots, in a somewhat linear fashion. By contrast in *O. bulliardi bulliardi subsp. nov.* this crossband is either continuous or nearly so, (and immediately obvious as such) and when not continuous is formed by large patches of lighter pigment, with minor intrusions of dark from surrounding parts of the dorsum.

Distribution: *O. bulliardi whartoni subsp. nov* is known only rocky areas around the south-west edge of the Gulf of Carpentaria, generally north and west of the Gregory River and Lawn Hill Creek, including Lawn Hill (Queensland) and the McCarthur River (Northern Territory). The subspecies *O. bulliardi bulliardi subsp. nov.* is from the sandstone rock formations of Groote Eylandt, Northern Territory.

Etymology: Named in honour of Shannon Wharton of Sydney, New South Wales, for his contributions to herpetology in Australia.

OEDURA BULLIARDI BULLIARDI SUBSP. NOV.

Holotype: A preserved specimen at the Australian Museum, Sydney, New South Wales, Australia, specimen number: R.138727, collected from Groote Eylandt, Northern Territory, Australia, Latitude -13.83 S., Longitude 136.42 E.

The Australian Museum in Sydney, Australia is a government-owned facility that allows access to its holdings.

Paratype: A preserved specimen at the Northern Territory Museum, Northern Territory, Australia, specimen number R7494, collected at Umbakumba Road, Groote Eylandt, Northern Territory, Australia, Latitude -13.88 S., Longitude 136.50 E.

Diagnosis: *Oedura bulliardi sp. nov*. has until now been treated as am isolated population of *O. bella* Oliver and McDonald, 2016. Before this, it was treated as a population of *O. marmorata* Gray, 1842.

However the species *Oedura bulliardi sp. nov*., while similar in most respects to *O. bella* can be readily separated from it by the following suite of characters: *Oedura bulliardi sp. nov*. has scattered spots on the limbs or alternatively large well defined patches, or even bands, versus numerous well-defined spots on the limbs in *O. bella* which is seen as a pattern of spotting on the limbs.
Oedura bulliardi sp. nov. is further separated from *O. bella* by having very well-defined and distinct cross bands on the tail (original tails), versus one in *O. bella* that is flecked or spotted or with indistinct alternating dark and light crossbands created by spotting and flecking.

The entire dorsal surface of the head in *O. bella* is covered with well-defined yellow spots, including anterior to the eyes. This contrasts with *O. bulliardi sp. nov.* which while having yellow pigment on the head, is mainly purplish anterior to the eyes (the yellow being in indistinct patches) and only having well-defined yellow spots at the rear of the crown.

The subspecies *O. bulliardi whartoni subsp. nov*. from the general region north-west of the Gregory River, and Lawn Hill Creek, Queensland, including those populations from Lawn Hill in Queensland and the McCarthur River in the Northern Territory are separated from the nominate form *O. bulliardi bulliardi sp. nov*. by the configuration of dark and light cross-bands on the dorsal surface of the back. In both subspecies there are four well-defined and reasonably well defined thick light crossbands, edged with yellow, running across the back between the front and hind limbs. Between these are indistinct crossbands of similar diameter. In *O. bulliardi bulliardi subsp. nov.* these crossbands are formed by irregular patches of merged flecks, intersperced slightly with otherwise darker pigment. By contrast in *O. bulliardi whartoni subsp. nov*. the same less distinct crossbands are formed by distinct pattern of relatively even spots or spot-like flecks.

In terms of the light dorsal crossband between that of the back of the head and that between the front limbs, this is largely absent in *O. bulliardi whartoni subsp. nov.*, at best appearing as irregular and scattered small spots, in a somewhat linear fashion. By contrast in *O. bulliardi bulliardi subsp. nov.* this crossband is either continuous or nearly so, (and immediately obvious as such) and when not continuous is formed by large patches of lighter pigment, with minor intrusions of dark from surrounding parts of the dorsum.

Distribution: *O. bulliardi bulliardi subsp. nov.* is known only from

the sandstone rock formations of Groote Eylandt, Northern Territory.

The subspecies *O. bulliardi whartoni subsp. nov*., is found in the rocky areas around the south-west edge of the Gulf of Carpentaria, generally north and west of the Gregory River and Lawn Hill Creek, including Lawn Hill (Queensland) and the McCarthur River (Northern Territory).

Etymology: Named in honour of Kaj-Erik (Kai) Bulliard of Perth, Western Australia, formerly of Sydney, New South Wales, for his contributions to herpetology in Australia.

OEDURA RENTONORUM SP. NOV.

Holotype: A preserved specimen in the Western Australian Museum, Perth, Western Australia, specimen number: R160074 collected at 32.5 KM, East South-east of Meetheena Outcamp, Western Australia, Australia. Latitude -21.33 S., Longitude 120.75 E. The Western Australian Museum is a government-owned facility that allows access to its holdings.

Paratype: A preserved specimen in the Western Australian Museum, Perth, Western Australia, specimen number: R160066 collected at 58 KM, East South-east of Meetheena Outcamp, Western Australia, Australia. Latitude -21.19 S., Longitude 120.00 E.

Diagnosis: Allthough *Oedura fimbria* Oliver and Doughty, 2016 is recently described, it has been evident for some time that this species as recognized by Oliver and Doughty, 2016 consists of two morphologically and specifically distinct populations.

These are separated by the Fortescue River basin, in line with other splits in similarly confined species across this barrier (as seen for example in *Odatria* (*Pilbaravaranus*) *hamersleyensis* Maryan, Oliver, Fitch and O'Connell, 2014).

As *Oedura fimbria* Oliver and Doughty, 2016 comes from south of this basin, it is the northern population, until now treated as *O. fimbria* which is formally described herein as *O. rentonorum sp. nov.*.

O. rentonorum sp. nov. are most easily separated from *O. fimbria* by colouration.

Adult *O. fimbria* have 5-6 distinct to somewhat indistinct pale light transverse dorsal bands with wide brown central regions, with a further 5-8 similar bands on the tail. The anterior (nuchal) light band generally joins or approaches a light lateral stripe that extends from the labial scales and above the tympanum.

However in *O. rentonorum sp. nov*. the bands are typically very faded and indistinct on adults, and this contrasts with the more conspicuous ibanding in specimens of all sizes of *O. fimbria*.

In both *O. rentonorum sp. nov*. and *O. fimbria* there is extensive further light flecking and blotches present between the bands and elsewhere on the dorsal and lateral surfaces of the head, torso and limbs.

O. rentonorum sp. nov. has many smaller flecks, while *O. fimbria* have fewer larger flecks or reticulate blotches. In both *O. rentonorum sp. nov*. and *O. fimbria* the venter is plain light buff, sometimes with faint brownish tinge on the throat and the terminal lamellae. Regrown tails are dark brown with varying amounts of light flecking, but no clear bands.

O. fimbria and *O. rentonorum* are most similar to *O. cincta* De Vis, 1888, *O. derelicta* Wells and Wellington, 1985 and *O. greeri* Wells and Wellington, 1985, and shares a moderately large size (SVL > 100 mm) and a moderately long tail which tends towards rounded in cross-section and is not wider than the head, wide flared subdigital lamellae, dorsal pattern usually consisting of numerous poorly-defined light flecks and blotches and often thin light bands. The most obvious diagnostic morphological character between the two groups of speices are an incomplete rostral crease on *Oedura fimbria* and *O. rentonorum* (25-60% versus 60 [rarely]-100% [usually] of the rostral height in the other species (Oliver and Doughty 2016).

Oliver and Doughty (2016) also provide a diagnosis to separate *Oedura fimbria* and *O. rentonorum* (which they treat as the single species *O. fimbria*), from all other species of *Oedura*, therein including species herein treated as being within the genera *Fiacumminggecko gen. nov*. and *Marlenegecko gen. nov.*.

Distribution: The Pilbara Region of Western Australia, north of the Fortescue River drainage. Populations south of this basin are referred to *O. fimbria* Oliver and Doughty, 2016.

Etymology: Named in honour of Ian Renton and his son Corey Renton of Snake-away services, Adelaide, South Australia in recognition of their services to herpetology and public safety spanning some decades.

FIACUMMINGGECKO FIACUMMINGAE SP. NOV.

Holotype: A preserved specimen at the Western Australian Museum, Perth Western Australia, specimen number: R171670, collected from Lachlan Island, Western Australia, Latitude -16.62 S., Longitude 123.47 E.

The Western Australian Museum is a government-owned facility that allows access to its holdings.

Paratype: A preserved specimen at the Western Australian Museum, Perth Western Australia, specimen number: R171673, collected from Long Island, Western Australia, Latitude -16.56 S., Longitude 123.36 E.

Diagnosis: *Fiacumminggecko fiacummingae sp. nov*. has until now been treated as a population of *F. gracilis* King, 1985 (until now known as *Oedura gracilis*). Because seven new species similar to and closely related to *F. gracilis* are described within this paper (making a total of eight), with all until now having been treated as being of the taxon *F. gracilis*, all eight are separated from one another in each description by the suites of characters described below.

All eight species are from the Kimberley district in north-west Western Australia, including immediately adjacent islands or just across the Northern Territory border, in adjacent hilly country.

F. gracilis from the west Kimberley in the Mitchell Plateau area is readily separated from the other seven species by the fact that the latter part of the tail (original tail) in specimens is not characterised by alternating dark and light crossbands, instead consisting of lighter pigment only (which in other species would otherwise be at least six alternating crossbands, except in *F. fiacummingae sp. nov*. which effectively lacks any crossbands on any part of the tail). The second half of the tail in *F. gracilis* does not have any crossbands on it. The dorsal pattern of *F. gracilis* also has a faded whitish sheen (not just the pre-slough or night-time colouration) versus a darker and better defined colouration in all the other seven species. In *F. gracilis*, yellow dorsal crossbands do not have any darker or purplish pigment within, although they are moderately thick and up to two-thirds the thickness of the darker yellowish purple pigment between these bands. There is limited purplish pigment anterior to the eye in the upper labial area.

F. gracilis are the only species in the complex that lacks any distinctive spots, obvious flecks or markings on the limbs.

F. fiacummingae sp. nov. from the near coastal region of Walcott Inlet and further south in Western Australia in the hills and islets along the coast in the lower Kimberley is characterised by a generally dark purple dorsal colouration (as opposed to purple and yellow), characterised by very thin yellow dorsal crossbands, better described as thin, well defined lines (as opposed to bands), rather than the moderately thick dorsal crossbands seen in all other species in the complex (none of which are narrow enough to be classed as "lines").

The tail of the species *F. fiacummingae sp. nov*. is unusual in not having any crossbands, best described instead as having an irregular reticulated or somewhat mottled pattern of purple and yellow in similar amounts and for the entire length of the tail (original tails). *F. fiacummingae sp. nov*. differs from *F. gracilis*, *F. richardwellsi sp. nov*., *F. rosswellingtoni sp. nov*. and *F. charlespiersoni sp. nov*. by having a generally dark purple dorsal

surface of the head with a few distinct and well-defined yellow lines or spots, versus a mottled purplish yellow head on all other species except for *F. julianfordi sp. nov*. which also has a generally mottled head, except for the rear of the head and crown, which is characterised by being brown in colour with a series of well-defined bold yellow spots, which may or may not be merged.

In terms of dorsal colouration, *F. fiacummingae sp. nov*. is by far the most distinct species in the complex.

F. matteoae sp. nov. is similar in most respects to *F. fiacummingae sp. nov*. and would be separated from the other six species in the genus by the same criteria. However it differs from *F. fiacummingae sp. nov*. by having slightly wider light dorsal crossbands and some of these are irregular as in either broken at the middle, or run into the other side off centre, which is not seen in *F. fiacummingae sp. nov*..

F. matteoae sp. nov. also differs from the other species in having significant whitening on the end of the tail to an extent not seen in the other named species in this genus, except for *F. julianfordi sp. nov.* which unlike all others in the genus has over 50% of the tail (the posterior end) all white in colour.

F. julianfordi sp. nov. from Bigge Island and Prudhoe Island, is similar in many respects to *F. matteoae sp. nov.* (generally fitting the diagnostic features of that species just given), except for the obvious differences that follow below.

F. julianfordi sp. nov. differs from all seven other species by having an all white end of the tail, being more than 50% of the length, but also differs from *F. matteoae sp. nov.* in particular by having well-defined yellow crossbands on the upper part of each limb, versus indistinct in *F. matteoae sp. nov.*.

F. julianfordi sp. nov. is the only species in the genus with dark grey toes on all (four) feet. These are dark purple in *F. fiacummingae sp. nov*. and whitish purple in all the other species.

F. fiacummingae sp. nov. also has well-defined yellow crossbands on the upper part of each limb, but additionally has well-defined yellow blotches on the purple lower limbs, the latter of which is not the case in any of the other seven species. *F. fiacummingae sp. nov*. has pink as opposed to white, flecks or small blotches on the toes.

F. julianfordi sp. nov. is also further separated from all other species in the genus by having brown as opposed to purple (darker) dorsal crossbands (purple being the all-over dominant colouration for *F. fiacummingae sp. nov*.), with the yellow crossbands in *F. julianfordi sp. nov.* not having any dark pigment, shading or flecks within them. These yellow crossbands are narrower for this species than in all others except for *F. fiacummingae sp. nov*. and *F. matteoae sp. nov.* as described above.

F. julianfordi sp. nov. also differs from the other seven species in the genus in that the darker dorsal crossbands have obvious black pigment at the boundaries to the yellow cross-bands.

F. richardwellsi sp. nov. from the Carr Boyd and nearby ranges in the East Kimberley differs from *F. gracilis*, *F. julianfordi sp. nov*., *F. matteoae sp. nov.* and *F. fiacummingae sp. nov*. by having yellow dorsal crossbands of similar thickness to the intervening purplish coloured ones (as opposed to narrower yellow bands). The yellow crossbands have some purple pigment within and the reverse applies to the purplish crossbands. This is not the case in *F. gracilis*, and *F. fiacummingae sp. nov*. and while a similar colouration configuration is seen on the dorsal surface of *F. rosswellingtoni sp. nov*., the intermingling of purple and yellow pigment in the crossbands is not seen to the same obvious extent.

F. rosswellingtoni sp. nov. from the south-west Kimberley also has yellow dorsal crossbands of similar thickness to the intervening purplish coloured ones, but unlike *F. richardwellsi sp. nov*., this taxon's bands are well defined and the yellow bands in particular are a rich yellow with no or very little purple pigment within these bands.

Both *F. richardwellsi sp. nov*. and *F. rosswellingtoni sp. nov*. are characterised by regular well-defined alternating dark and light crossbands running to the end of the tail. This is not the case in *F. gracilis*, *F. julianfordi sp. nov.*, *F. matteoae sp. nov.* and *F. fiacummingae sp. nov*..

F. richardwellsi sp. nov. has limbs characterised by a mottled or spotted pattern, whereas the limbs in *F. rosswellingtoni sp. nov*. has upper limbs characterised by dark flecks concentrated to form obvious bands across otherwise lighter pigment.

F. charlespiersoni sp. nov. of the hills in the Bullo River area in the Northern Territory (mainly those immediately to the south-west) is similar in most respects to *F. richardwellsi sp. nov*. as described herein and separated from the other species by the same criteria.

F. charlespiersoni sp. nov. is separated from *F. richardwellsi sp. nov*. by a preponderance of yellow on the dorsal surface of the head, versus an approximately equal amount of purple and yellow in *F. richardwellsi sp. nov*.. *F. charlespiersoni sp. nov.* is further separated from *F. richardwellsi sp. nov*. by the flecks on the front limbs, versus a more-or-less mottled appearance in *F. richardwellsi sp. nov*..

F. dorisioi sp. nov. can be separated from the other species as for *F. rosswellingtoni sp. nov*.. However *F. dorisioi sp. nov.* can be separated from *F. rosswellingtoni sp. nov*. by the fact that the lighter crossbands are a rich dark yellow, as opposed to a light yellow. Furthermore *F. dorisioi sp. nov.* has nine or less well defined light crossbands on the body from the back of the neck to the hindlimbs versus eleven or more well-defined light crossbands on the body from the back of the neck to the hindlimbs in *F. rosswellingtoni sp. nov*..

The yellow line running from the top of the eye to the tip of the snout, along the dorsolateral ridge of the snout is completely broken in *F. dorisioi sp. nov.* but this is not the case in *F. rosswellingtoni sp. nov*. or any other species except for *F. fiacummingae sp. nov*..

In the other six species besides *F. dorisioi sp. nov.* and *F. fiacummingae sp. nov*. the yellow line running from the top of the eye to the tip of the snout fades anteriorly, sometimes appearing as a yellow smudge, but is not obviously broken.

As already inferred, for all other species besides *F. dorisioi sp. nov.* and *F. fiacummingae sp. nov*. this line while reducing near the snout, remains (but fades somewhat) and does not break to form a distinctive purplish gap.

There are numerous photos of each of the above species on the internet on sites such as "Flickr", clearly identifiable as the relevant species based on the descriptions above and the location information given.

All of *F. fiacummingae sp. nov*., *F. gracilis*, *F. richardwellsi sp. nov*., *F. rosswellingtoni sp. nov*., *F. matteoae sp. nov*., *F. julianfordi sp. nov*., *F. dorisioi sp. nov*. and *F. charlespiersoni sp. nov*. form the total of *Fiacumminggecko gen. nov*.. These eight species are readily separated from both *Marlenegecko gen. nov.* and *Oedura* Gray, 1842 by the following suite of characters: The hindlimbs are mottled, spotted or variegated above, but not having any regular pale, dark edged ocelli; the dorsal pattern consists of some sort of cross bands or similar, but not ocelli of any form; the digits lack conspicuous lateral fringes (as seen in the subgenus of *Oedura*, *Fereoedura subgen. nov.*); the enlarged apical lamellae of the fourth toe are followed by only two pairs of large divided lamellae.

Distribution: *F. fiacummingae sp. nov*. is known only from the near coastal region of Walcott Inlet and further south in Western Australia in the lower Kimberley, including adjacent offshore islands, one of which is the type locality.

Etymology: Named in honour of leading Australian journalist Fia Cumming, who over a 20 year period through the 1980's and 1990's was often the only news reporter employed with the mainstream media with the courage to take on the corruption

and lies from government officials who had at the time successfully sought to outlaw all private ownership of reptiles in Australia.

Without her efforts, including her being the first and main reporter to break the news story of the illegal banning of the book *Smuggled: The Underground Trade in Australia's Wildlife* (Hoser 1993) in May 1993, there would be no person in Australia allowed to have contact with reptiles in any way, save for a handful of privileged and corruptly protected persons, most often within the domain of government run zoos and the like.

That was the legal situation in most of Australia before the publication of the *Smuggled* books in 1993 and 1996 (Hoser 1993, 1996).

Every man, woman and child in Australia who in 2017 enjoys the legal right to keep live reptiles as pets in their home, or who sees a mobile reptile or wildlife display at their school, event or party owes Fia Cumming an eternal debt of gratitude, as without her courageous efforts, that right would not exist in Australia.

FIACUMMINGGECKO RICHARDWELLSI SP. NOV.

Holotype: A preserved specimen at the Western Australian Museum, Perth, Western Australia, specimen number: R156724 collected at Piccaninny Massif, Western Australia, Latitude -17.40 S., Longitude 128.41 E.

The Western Australian Museum is a government-owned facility that allows access to its holdings.

Paratype: A preserved specimen at the Western Australian Museum, Perth, Western Australia, specimen number: R151005 collected at Warmun, Western Australia Latitude -16.75 S., Longitude 128.29 E.

Diagnosis: *Fiacumminggecko richardwellsi sp. nov.* has until now been treated as a population of *F. gracilis* King, 1985 (until now known as *Oedura gracilis*). Because seven new species similar to and closely related to *F. gracilis* are described within this paper (making a total of eight), with all until now having been treated as being of the taxon *F. gracilis*, all eight are separated from one another in each description by the suites of characters described below.

All eight species are from the Kimberley district in north-west Western Australia, including immediately adjacent islands or just across the Northern Territory border, in adjacent hilly country.

F. gracilis from the west Kimberley in the Mitchell Plateau area is readily separated from the other seven species by the fact that the latter part of the tail (original tail) in specimens is not characterised by alternating dark and light crossbands, instead consisting of lighter pigment only (which in other species would otherwise be at least six alternating crossbands, except in *F. fiacummingae sp. nov.* which effectively lacks any crossbands on any part of the tail). The second half of the tail in *F. gracilis* does not have any crossbands on it. The dorsal pattern of *F. gracilis* also has a faded whitish sheen (not just the pre-slough colouration) versus a darker and better defined colouration in all the other seven species. In *F. gracilis*, yellow dorsal crossbands do not have any darker or purplish pigment within, although they are moderately thick and up to two-thirds the thickness of the darker yellowish purple pigment between these bands. There is limited purplish pigment anterior to the eye in the upper labial area.

F. gracilis are the only species in the complex that lacks any distinctive spots, obvious flecks or markings on the limbs.

F. fiacummingae sp. nov. from the near coastal region of Walcott Inlet and further south in Western Australia in the hills and islets along the coast in the lower Kimberley is characterised by a generally dark purple dorsal colouration (as opposed to purple and yellow), characterised by very thin yellow dorsal crossbands, better described as thin, well defined lines (as opposed to bands), rather than the moderately thick dorsal crossbands seen in all other species in the complex (none of which are narrow enough to be classed as "lines").

The tail of the species *F. fiacummingae sp. nov.* is unusual in not having any crossbands, best described instead as having an irregular reticulated or somewhat mottled pattern of purple and yellow in similar amounts and for the entire length of the tail (original tails). *F. fiacummingae sp. nov.* differs from *F. gracilis*, *F. richardwellsi sp. nov.*, *F. rosswellingtoni sp. nov.* and *F. charlespiersoni sp. nov.* by having a generally dark purple dorsal surface of the head with a few distinct and well-defined yellow lines or spots, versus a mottled purplish yellow head on all other species except for *F. julianfordi sp. nov.* which also has a generally mottled head, except for the rear of the head and crown, which is characterised by being brown in colour with a series of well-defined bold yellow spots, which may or may not be merged.

In terms of dorsal colouration, *F. fiacummingae sp. nov.* is by far the most distinct species in the complex.

F. matteoae sp. nov. is similar in most respects to *F. fiacummingae sp. nov.* and would be separated from the other six species in the genus by the same criteria. However it differs from *F. fiacummingae sp. nov.* by having slightly wider light dorsal crossbands and some of these are irregular as in either broken at the middle, or run into the other side off centre, which is not seen in *F. fiacummingae sp. nov.*.

F. matteoae sp. nov. also differs from the other species in having significant whitening on the end of the tail to an extent not seen in the other named species in this genus, except for *F. julianfordi sp. nov.* which unlike all others in the genus has over 50% of the tail (the posterior end) all white in colour.

F. julianfordi sp. nov. from Bigge Island and Prudhoe Island, is similar in many respects to *F. matteoae sp. nov.* (generally fitting the diagnostic features of that species just given), except for the obvious differences that follow below.

F. julianfordi sp. nov. differs from all seven other species by having an all white end of the tail, being more than 50% of the length, but also differs from *F. matteoae sp. nov.* in particular by having well-defined yellow crossbands on the upper part of each limb, versus indistinct in *F. matteoae sp. nov.*.

F. julianfordi sp. nov. is the only species in the genus with dark grey toes on all (four) feet. These are dark purple in *F. fiacummingae sp. nov.* and whitish purple in all the other species.

F. fiacummingae sp. nov. also has well-defined yellow crossbands on the upper part of each limb, but additionally has well-defined yellow blotches on the purple lower limbs, the latter of which is not the case in any of the other seven species. *F. fiacummingae sp. nov.* has pink as opposed to white, flecks or small blotches on the toes.

F. julianfordi sp. nov. is also further separated from all other species in the genus by having brown as opposed to purple (darker) dorsal crossbands (purple being the all-over dominant colouration for *F. fiacummingae sp. nov.*), with the yellow crossbands in *F. julianfordi sp. nov.* not having any dark pigment, shading or flecks within them. These yellow crossbands are narrower for this species than in all others except for *F. fiacummingae sp. nov.* and *F. matteoae sp. nov.* as described above.

F. julianfordi sp. nov. also differs from the other seven species in the genus in that the darker dorsal crossbands have obvious black pigment at the boundaries to the yellow cross-bands.

F. richardwellsi sp. nov. from the Carr Boyd and nearby ranges in the East Kimberley differs from *F. gracilis*, *F. julianfordi sp. nov.*, *F. matteoae sp. nov.* and *F. fiacummingae sp. nov.* by having yellow dorsal crossbands of similar thickness to the intervening purplish coloured ones (as opposed to narrower yellow bands). The yellow crossbands have some purple pigment within and the reverse applies to the purplish crossbands. This is not the case in *F. gracilis*, and *F. fiacummingae sp. nov.* and while a similar colouration configuration is seen on the dorsal surface of *F. rosswellingtoni*

sp. nov., the intermingling of purple and yellow pigment in the crossbands is not seen to the same obvious extent.

F. rosswellingtoni sp. nov. from the south-west Kimberley also has yellow dorsal crossbands of similar thickness to the intervening purplish coloured ones, but unlike *F. richardwellsi sp. nov.*, this taxon's bands are well defined and the yellow bands in particular are a rich yellow with no or very little purple pigment within these bands.

Both *F. richardwellsi sp. nov.* and *F. rosswellingtoni sp. nov.* are characterised by regular well-defined alternating dark and light crossbands running to the end of the tail. This is not the case in *F. gracilis*, *F. julianfordi sp. nov.*, *F. matteoae sp. nov.* and *F. fiacummingae sp. nov.*.

F. richardwellsi sp. nov. has limbs characterised by a mottled or spotted pattern, whereas the limbs in *F. rosswellingtoni sp. nov.* has upper limbs characterised by dark flecks concentrated to form obvious bands across otherwise lighter pigment.

F. charlespiersoni sp. nov. of the hills in the Bullo River area in the Northern Territory (mainly those immediately to the south-west) is similar in most respects to *F. richardwellsi sp. nov.* as described herein and separated from the other species by the same criteria.
F. charlespiersoni sp. nov. is separated from *F. richardwellsi sp. nov.* by a preponderance of yellow on the dorsal surface of the head, versus an approximately equal amount of purple and yellow in *F. richardwellsi sp. nov.*. *F. charlespiersoni sp. nov.* is further separated from *F. richardwellsi sp. nov.* by the flecks on the front limbs, versus a more-or-less mottled appearance in *F. richardwellsi sp. nov.*.

F. dorisioi sp. nov. can be separated from the other species as for *F. rosswellingtoni sp. nov.*. However *F. dorisioi sp. nov.* can be separated from *F. rosswellingtoni sp. nov.* by the fact that the lighter crossbands are a rich dark yellow, as opposed to a light yellow. Furthermore *F. dorisioi sp. nov.* has nine or less well defined light crossbands on the body from the back of the neck to the hindlimbs versus eleven or more well-defined light crossbands on the body from the back of the neck to the hindlimbs in *F. rosswellingtoni sp. nov.*.

The yellow line running from the top of the eye to the tip of the snout, along the dorsolateral ridge of the snout is completely broken in *F. dorisioi sp. nov.* but this is not the case in *F. rosswellingtoni sp. nov.* or any other species except for *F. fiacummingae sp. nov.*.

In the other six species besides *F. dorisioi sp. nov.* and *F. fiacummingae sp. nov.* the yellow line running from the top of the eye to the tip of the snout fades anteriorly, sometimes appearing as a yellow smudge, but is not obviously broken.

As already inferred, for all other species besides *F. dorisioi sp. nov.* and *F. fiacummingae sp. nov.* this line while reducing near the snout, remains (but fades somewhat) and does not break to form a distinctive purplish gap.

There are numerous photos of each of the above species on the internet on sites such as "Flickr", clearly identifiable as the relevant species based on the descriptions above and the location information given.

All of *F. fiacummingae sp. nov.*, *F. gracilis*, *F. richardwellsi sp. nov.*, *F. rosswellingtoni sp. nov.*, *F. matteoae sp. nov.*, *F. julianfordi sp. nov.*, *F. dorisioi sp. nov.* and *F. charlespiersoni sp. nov.* form the total of *Fiacumminggecko gen. nov.*. These eight species are readily separated from both *Marlenegecko gen. nov.* and *Oedura* Gray, 1842 by the following suite of characters: The hindlimbs are mottled, spotted or variegated above, but not having any regular pale, dark edged ocelli; the dorsal pattern consists of some sort of cross bands or similar, but not ocelli of any form; the digits lack conspicuous lateral fringes (as seen in the subgenus of *Oedura*, *Fereoedura subgen. nov.*); the enlarged apical lamellae of the fourth toe are followed by only two pairs of large divided lamellae.

Distribution: *F. richardwellsi sp. nov.* has a distribution centred in the various major hills near Turkey Creek in Western Australia, including the Durack Range, Carr Boyd Range and outliers.

Etymology: Named in honour of Richard Wells of New South Wales, Australia and who is one of the leading lights in Australian herpetology spanning many decades. He is best known to many as a co-author of papers with Cliff Ross Wellington, but whose massive contributions to herpetology go well beyond this.

FIACUMMINGGECKO ROSSWELLINGTONI SP. NOV.

Holotype: A preserved specimen at the Western Australian Museum, Perth, Western Australia, specimen number: R156728 collected at Tunnel Creek, Oscar Range, in the King Leopold Ranges, Western Australia Latitude -17.64 S., Longitude 125.17 E.

The Western Australian Museum is a government-owned facility that allows access to its holdings.

Paratype: A preserved specimen at the Museum of Victoria, Melbourne, Australia, specimen number: D77024, collected at McSherry Gap, Western Australia, Latitude -17.56 S., Longitude 125.10 E.

Diagnosis: *Fiacumminggecko rosswellingtoni sp. nov.* has until now been treated as a population of *F. gracilis* King, 1985 (until now known as *Oedura gracilis*). Because seven new species similar to and closely related to *F. gracilis* are described within this paper (making a total of eight), with all until now having been treated as being of the taxon *F. gracilis*, all eight are separated from one another in each description by the suites of characters described below.

All eight species are from the Kimberley district in north-west Western Australia, including immediately adjacent islands or just across the Northern Territory border, in adjacent hilly country.

F. gracilis from the west Kimberley in the Mitchell Plateau area is readily separated from the other seven species by the fact that the latter part of the tail (original tail) in specimens is not characterised by alternating dark and light crossbands, instead consisting of lighter pigment only (which in other species would otherwise be at least six alternating crossbands, except in *F. fiacummingae sp. nov.* which effectively lacks any crossbands on any part of the tail). The second half of the tail in *F. gracilis* does not have any crossbands on it. The dorsal pattern of *F. gracilis* also has a faded whitish sheen (not just the pre-slough colouration) versus a darker and better defined colouration in all the other seven species. In *F. gracilis*, yellow dorsal crossbands do not have any darker or purplish pigment within, although they are moderately thick and up to two-thirds the thickness of the darker yellowish purple pigment between these bands. There is limited purplish pigment anterior to the eye in the upper labial area.

F. gracilis are the only species in the complex that lacks any distinctive spots, obvious flecks or markings on the limbs.

F. fiacummingae sp. nov. from the near coastal region of Walcott Inlet and further south in Western Australia in the hills and islets along the coast in the lower Kimberley is characterised by a generally dark purple dorsal colouration (as opposed to purple and yellow), characterised by very thin yellow dorsal crossbands, better described as thin, well defined lines (as opposed to bands), rather than the moderately thick dorsal crossbands seen in all other species in the complex (none of which are narrow enough to be classed as "lines").

The tail of the species *F. fiacummingae sp. nov.* is unusual in not having any crossbands, best described instead as having an irregular reticulated or somewhat mottled pattern of purple and yellow in similar amounts and for the entire length of the tail (original tails). *F. fiacummingae sp. nov.* differs from *F. gracilis*, *F. richardwellsi sp. nov.*, *F. rosswellingtoni sp. nov.* and *F. charlespiersoni sp. nov.* by having a generally dark purple dorsal surface of the head with a few distinct and well-defined yellow lines or spots, versus a mottled purplish yellow head on all other

species except for *F. julianfordi sp. nov*. which also has a generally mottled head, except for the rear of the head and crown, which is characterised by being brown in colour with a series of well-defined bold yellow spots, which may or may not be merged.

In terms of dorsal colouration, *F. fiacummingae sp. nov*. is by far the most distinct species in the complex.

F. matteoae sp. nov. is similar in most respects to *F. fiacummingae sp. nov*. and would be separated from the other six species in the genus by the same criteria. However it differs from *F. fiacummingae sp. nov*. by having slightly wider light dorsal crossbands and some of these are irregular as in either broken at the middle, or run into the other side off centre, which is not seen in *F. fiacummingae sp. nov.*.

F. matteoae sp. nov. also differs from the other species in having significant whitening on the end of the tail to an extent not seen in the other named species in this genus, except for *F. julianfordi sp. nov.* which unlike all others in the genus has over 50% of the tail (the posterior end) all white in colour.

F. julianfordi sp. nov. from Bigge Island and Prudhoe Island, is similar in many respects to *F. matteoae sp. nov.* (generally fitting the diagnostic features of that species just given), except for the obvious differences that follow below.

F. julianfordi sp. nov. differs from all seven other species by having an all white end of the tail, being more than 50% of the length, but also differs from *F. matteoae sp. nov.* in particular by having well-defined yellow crossbands on the upper part of each limb, versus indistinct in *F. matteoae sp. nov.*.

F. julianfordi sp. nov. is the only species in the genus with dark grey toes on all (four) feet. These are dark purple in *F. fiacummingae sp. nov*. and whitish purple in all the other species.

F. fiacummingae sp. nov. also has well-defined yellow crossbands on the upper part of each limb, but additionally has well-defined yellow blotches on the purple lower limbs, the latter of which is not the case in any of the other seven species. *F. fiacummingae sp. nov*. has pink as opposed to white, flecks or small blotches on the toes.

F. julianfordi sp. nov. is also further separated from all other species in the genus by having brown as opposed to purple (darker) dorsal crossbands (purple being the all-over dominant colouration for *F. fiacummingae sp. nov.*), with the yellow crossbands in *F. julianfordi sp. nov.* not having any dark pigment, shading or flecks within them. These yellow crossbands are narrower for this species than in all others except for *F. fiacummingae sp. nov*. and *F. matteoae sp. nov.* as described above.

F. julianfordi sp. nov. also differs from the other seven species in the genus in that the darker dorsal crossbands have obvious black pigment at the boundaries to the yellow cross-bands.

F. richardwellsi sp. nov. from the Carr Boyd and nearby ranges in the East Kimberley differs from *F. gracilis*, *F. julianfordi sp. nov.*, *F. matteoae sp. nov.* and *F. fiacummingae sp. nov*. by having yellow dorsal crossbands of similar thickness to the intervening purplish coloured ones (as opposed to narrower yellow bands). The yellow crossbands have some purple pigment within and the reverse applies to the purplish crossbands. This is not the case in *F. gracilis*, and *F. fiacummingae sp. nov*. and while a similar colouration configuration is seen on the dorsal surface of *F. rosswellingtoni sp. nov.*, the intermingling of purple and yellow pigment in the crossbands is not seen to the same obvious extent.

F. rosswellingtoni sp. nov. from the south-west Kimberley also has yellow dorsal crossbands of similar thickness to the intervening purplish coloured ones, but unlike *F. richardwellsi sp. nov.*, this taxon's bands are well defined and the yellow bands in particular are a rich yellow with no or very little purple pigment within these bands.

Both *F. richardwellsi sp. nov*. and *F. rosswellingtoni sp. nov*. are characterised by regular well-defined alternating dark and light crossbands running to the end of the tail. This is not the case in *F. gracilis*, *F. julianfordi sp. nov.*, *F. matteoae sp. nov.* and *F. fiacummingae sp. nov.*. *F. richardwellsi sp. nov*. has limbs characterised by a mottled or spotted pattern, whereas the limbs in *F. rosswellingtoni sp. nov*. has upper limbs characterised by dark flecks concentrated to form obvious bands across otherwise lighter pigment.

F. charlespiersoni sp. nov. of the hills in the Bullo River area in the Northern Territory (mainly those immediately to the south-west) is similar in most respects to *F. richardwellsi sp. nov*. as described herein and separated from the other species by the same criteria. *F. charlespiersoni sp. nov*. is separated from *F. richardwellsi sp. nov*. by a preponderance of yellow on the dorsal surface of the head, versus an approximately equal amount of purple and yellow in *F. richardwellsi sp. nov.*. *F. charlespiersoni sp. nov*. is further separated from *F. richardwellsi sp. nov*. by the flecks on the front limbs, versus a more-or-less mottled appearance in *F. richardwellsi sp. nov.*.

F. dorisioi sp. nov. can be separated from the other species as for *F. rosswellingtoni sp. nov.*. However *F. dorisioi sp. nov.* can be separated from *F. rosswellingtoni sp. nov*. by the fact that the lighter crossbands are a rich dark yellow, as opposed to a light yellow. Furthermore *F. dorisioi sp. nov.* has nine or less well defined light crossbands on the body from the back of the neck to the hindlimbs versus eleven or more well-defined light crossbands on the body from the back of the neck to the hindlimbs in *F. rosswellingtoni sp. nov.*.

The yellow line running from the top of the eye to the tip of the snout, along the dorsolateral ridge of the snout is completely broken in *F. dorisioi sp. nov.* but this is not the case in *F. rosswellingtoni sp. nov*. or any other species except for *F. fiacummingae sp. nov.*.

In the other six species besides *F. dorisioi sp. nov.* and *F. fiacummingae sp. nov*. the yellow line running from the top of the eye to the tip of the snout fades anteriorly, sometimes appearing as a yellow smudge, but is not obviously broken.

As already inferred, for all other species besides *F. dorisioi sp. nov.* and *F. fiacummingae sp. nov*. this line while reducing near the snout, remains (but fades somewhat) and does not break to form a distinctive purplish gap.

There are numerous photos of each of the above species on the internet on sites such as "Flickr", clearly identifiable as the relevant species based on the descriptions above and the location information given.

All of *F. fiacummingae sp. nov.*, *F. gracilis*, *F. richardwellsi sp. nov.*, *F. rosswellingtoni sp. nov.*, *F. matteoae sp. nov.*, *F. julianfordi sp. nov.*, *F. dorisioi sp. nov*. and *F. charlespiersoni sp. nov*. form the total of *Fiacumminggecko gen. nov.*. These eight species are readily separated from both *Marlenegecko gen. nov*. and *Oedura* Gray, 1842 by the following suite of characters: The hindlimbs are mottled, spotted or variegated above, but not having any regular pale, dark edged ocelli; the dorsal pattern consists of some sort of cross bands or similar, but not ocelli of any form; the digits lack conspicuous lateral fringes (as seen in the subgenus of *Oedura*, *Fereoedura subgen. nov.*); the enlarged apical lamellae of the fourth toe are followed by only two pairs of large divided lamellae.

Distribution: *F. rosswellingtoni sp. nov*. has a distribution centred on the south eastern King Leopold Ranges of Western Australia, away from the coast.

Etymology: Named in honour of Cliff Ross Wellington of New South Wales, Australia and who is one of the leading lights in Australian herpetology spanning many decades. He is best known to many as a co-author of papers with Richard Wells also of New South Wales, but whose massive contributions to herpetology go well beyond this and are ongoing, including defending the science of herpetology from the unscientific and unlawful taxonomic vandalism of Wolfgang Wüster and his gang of thieves.

FIACUMMINGGECKO CHARLESPIERSONI SP. NOV.

Holotype: A preserved specimen at the Australian Museum, Sydney, New South Wales, Australia, specimen number: R75096, collected at Bullo River, Northern Territory, Australia, Latitude -15.42 S., Longitude 129.38 E.

The Australian Museum in Sydney is a government-owned facility that allows access to its holdings.

Paratype: A preserved specimen at the Western Australian Museum, Perth, Western Australia, specimen number: R60329, collected at Bullo River, Northern Territory, Australia, Latitude -15.37 S., Longitude 129.40 E.

Diagnosis: *Fiacumminggecko charlespiersoni sp. nov*. has until now been treated as a population of *F. gracilis* King, 1985 (until now known as *Oedura gracilis*). Because seven new species similar to and closely related to *F. gracilis* are described within this paper (making a total of eight), with all until now having been treated as being of the taxon *F. gracilis*, all eight are separated from one another in each description by the suites of characters described below.

All eight species are from the Kimberley district in north-west Western Australia, including immediately adjacent islands or just across the Northern Territory border, in adjacent hilly country.

F. gracilis from the west Kimberley in the Mitchell Plateau area is readily separated from the other seven species by the fact that the latter part of the tail (original tail) in specimens is not characterised by alternating dark and light crossbands, instead consisting of lighter pigment only (which in other species would otherwise be at least six alternating crossbands, except in *F. fiacummingae sp. nov*. which effectively lacks any crossbands on any part of the tail). The second half of the tail in *F. gracilis* does not have any crossbands on it. The dorsal pattern of *F. gracilis* also has a faded whitish sheen (not just the pre-slough colouration) versus a darker and better defined colouration in all the other seven species. In *F. gracilis*, yellow dorsal crossbands do not have any darker or purplish pigment within, although they are moderately thick and up to two-thirds the thickness of the darker yellowish purple pigment between these bands. There is limited purplish pigment anterior to the eye in the upper labial area.

F. gracilis are the only species in the complex that lacks any distinctive spots, obvious flecks or markings on the limbs.

F. fiacummingae sp. nov. from the near coastal region of Walcott Inlet and further south in Western Australia in the hills and islets along the coast in the lower Kimberley is characterised by a generally dark purple dorsal colouration (as opposed to purple and yellow), characterised by very thin yellow dorsal crossbands, better described as thin, well defined lines (as opposed to bands), rather than the moderately thick dorsal crossbands seen in all other species in the complex (none of which are narrow enough to be classed as “lines”).

The tail of the species *F. fiacummingae sp. nov*. is unusual in not having any crossbands, best described instead as having an irregular reticulated or somewhat mottled pattern of purple and yellow in similar amounts and for the entire length of the tail (original tails). *F. fiacummingae sp. nov*. differs from *F. gracilis*, *F. richardwellsi sp. nov*., *F. rosswellingtoni sp. nov*. and *F. charlespiersoni sp. nov*. by having a generally dark purple dorsal surface of the head with a few distinct and well-defined yellow lines or spots, versus a mottled purplish yellow head on all other species except for *F. julianfordi sp. nov*. which also has a generally mottled head, except for the rear of the head and crown, which is characterised by being brown in colour with a series of well-defined bold yellow spots, which may or may not be merged.

In terms of dorsal colouration, *F. fiacummingae sp. nov*. is by far the most distinct species in the complex.

F. matteoae sp. nov. is similar in most respects to *F. fiacummingae sp. nov*. and would be separated from the other six species in the genus by the same criteria. However it differs from *F. fiacummingae sp. nov*. by having slightly wider light dorsal crossbands and some of these are irregular as in either broken at the middle, or run into the other side off centre, which is not seen in *F. fiacummingae sp. nov*..

F. matteoae sp. nov. also differs from the other species in having significant whitening on the end of the tail to an extent not seen in the other named species in this genus, except for *F. julianfordi sp. nov.* which unlike all others in the genus has over 50% of the tail (the posterior end) all white in colour.

F. julianfordi sp. nov. from Bigge Island and Prudhoe Island, is similar in many respects to *F. matteoae sp. nov.* (generally fitting the diagnostic features of that species just given), except for the obvious differences that follow below.

F. julianfordi sp. nov. differs from all seven other species by having an all white end of the tail, being more than 50% of the length, but also differs from *F. matteoae sp. nov.* in particular by having well-defined yellow crossbands on the upper part of each limb, versus indistinct in *F. matteoae sp. nov.*.

F. julianfordi sp. nov. is the only species in the genus with dark grey toes on all (four) feet. These are dark purple in *F. fiacummingae sp. nov*. and whitish purple in all the other species.

F. fiacummingae sp. nov. also has well-defined yellow crossbands on the upper part of each limb, but additionally has well-defined yellow blotches on the purple lower limbs, the latter of which is not the case in any of the other seven species. *F. fiacummingae sp. nov*. has pink as opposed to white, flecks or small blotches on the toes.

F. julianfordi sp. nov. is also further separated from all other species in the genus by having brown as opposed to purple (darker) dorsal crossbands (purple being the all-over dominant colouration for *F. fiacummingae sp. nov*.), with the yellow crossbands in *F. julianfordi sp. nov.* not having any dark pigment, shading or flecks within them. These yellow crossbands are narrower for this species than in all others except for *F. fiacummingae sp. nov*. and *F. matteoae sp. nov.* as described above.

F. julianfordi sp. nov. also differs from the other seven species in the genus in that the darker dorsal crossbands have obvious black pigment at the boundaries to the yellow cross-bands.

F. richardwellsi sp. nov. from the Carr Boyd and nearby ranges in the East Kimberley differs from *F. gracilis*, *F. julianfordi sp. nov.*, *F. matteoae sp. nov.* and *F. fiacummingae sp. nov.* by having yellow dorsal crossbands of similar thickness to the intervening purplish coloured ones (as opposed to narrower yellow bands). The yellow crossbands have some purple pigment within and the reverse applies to the purplish crossbands. This is not the case in *F. gracilis*, and *F. fiacummingae sp. nov*. and while a similar colouration configuration is seen on the dorsal surface of *F. rosswellingtoni sp. nov*., the intermingling of purple and yellow pigment in the crossbands is not seen to the same obvious extent.

F. rosswellingtoni sp. nov. from the south-west Kimberley also has yellow dorsal crossbands of similar thickness to the intervening purplish coloured ones, but unlike *F. richardwellsi sp. nov*., this taxon’s bands are well defined and the yellow bands in particular are a rich yellow with no or very little purple pigment within these bands.

Both *F. richardwellsi sp. nov*. and *F. rosswellingtoni sp. nov*. are characterised by regular well-defined alternating dark and light crossbands running to the end of the tail. This is not the case in *F. gracilis*, *F. julianfordi sp. nov.*, *F. matteoae sp. nov.* and *F. fiacummingae sp. nov*..

F. richardwellsi sp. nov. has limbs characterised by a mottled or spotted pattern, whereas the limbs in *F. rosswellingtoni sp. nov*. has upper limbs characterised by dark flecks concentrated to form obvious bands across otherwise lighter pigment.

F. charlespiersoni sp. nov. of the hills in the Bullo River area in the Northern Territory (mainly those immediately to the south-

west) is similar in most respects to *F. richardwellsi sp. nov*. as described herein and separated from the other species by the same criteria.
F. charlespiersoni sp. nov. is separated from *F. richardwellsi sp. nov*. by a preponderance of yellow on the dorsal surface of the head, versus an approximately equal amount of purple and yellow in *F. richardwellsi sp. nov*.. *F. charlespiersoni sp. nov*. is further separated from *F. richardwellsi sp. nov*. by the flecks on the front limbs, versus a more-or-less mottled appearance in *F. richardwellsi sp. nov*..

F. dorisioi sp. nov. can be separated from the other species as for *F. rosswellingtoni sp. nov*.. However *F. dorisioi sp. nov.* can be separated from *F. rosswellingtoni sp. nov*. by the fact that the lighter crossbands are a rich dark yellow, as opposed to a light yellow. Furthermore *F. dorisioi sp. nov.* has nine or less well defined light crossbands on the body from the back of the neck to the hindlimbs versus eleven or more well-defined light crossbands on the body from the back of the neck to the hindlimbs in *F. rosswellingtoni sp. nov*..

The yellow line running from the top of the eye to the tip of the snout, along the dorsolateral ridge of the snout is completely broken in *F. dorisioi sp. nov.* but this is not the case in *F. rosswellingtoni sp. nov*. or any other species except for *F. fiacummingae sp. nov*..

In the other six species besides *F. dorisioi sp. nov.* and *F. fiacummingae sp. nov*. the yellow line running from the top of the eye to the tip of the snout fades anteriorly, sometimes appearing as a yellow smudge, but is not obviously broken.

As already inferred, for all other species besides *F. dorisioi sp. nov.* and *F. fiacummingae sp. nov*. this line while reducing near the snout, remains (but fades somewhat) and does not break to form a distinctive purplish gap.

There are numerous photos of each of the above species on the internet on sites such as “Flickr”, clearly identifiable as the relevant species based on the descriptions above and the location information given.

All of *F. fiacummingae sp. nov*., *F. gracilis*, *F. richardwellsi sp. nov*., *F. rosswellingtoni sp. nov*., *F. matteoae sp. nov*., *F. julianfordi sp. nov*., *F. dorisioi sp. nov*. and *F. charlespiersoni sp. nov*. form the total of *Fiacumminggecko gen. nov*..

These eight species are readily separated from both *Marlenegecko gen. nov*. and *Oedura* Gray, 1842 by the following suite of characters: The hindlimbs are mottled, spotted or variegated above, but not having any regular pale, dark edged ocelli; the dorsal pattern consists of some sort of cross bands or similar, but not ocelli of any form; the digits lack conspicuous lateral fringes (as seen in the subgenus of *Oedura*, *Fereoedura subgen. nov.*); the enlarged apical lamellae of the fourth toe are followed by only two pairs of large divided lamellae.

Distribution: *F. charlespiersoni sp. nov*. is known only from the Bullo River area in the Northern Territory, in particular the large rock formation immediately to the south-west of the drainage (including the Keep River area).

Etymology: Named in honour of book publisher, Charles Pierson of Moss Vale, in New South Wales, Australia in recognition of his massive contribution to herpetology and wildlife conservation in Australia for courageously publishing numerous titles on herpetology and wildlife conservation in the 1980’s and 1990’s which was at a time when neither was of concern to the Australian public.

He also aggressively lobbied politicians on both sides of politics, including Ian McLachlan (Liberals) and Graeme Richardson (Labor Party) about the importance of the environment and wildlife conservation in particular, the result being that for the first time ever, governments in Australia began to take environmental management and wildlife conservation seriously.

Notwithstanding Pierson’s successes, the ongoing environmental destruction within Australia continues.

FIACUMMINGGECKO MATTEOAE SP. NOV.

Holotype: A preserved specimen at the Western Australian Museum, Perth, Western Australia, Australia, specimen number: R168565, collected at Augustus Island, West Kimberley Region, Western Australia, Australia, Latitude, -15.35 S., Longitude 124.53 E.

The Western Australian Museum, Perth, Western Australia, Australia is a government-owned facility that allows access to its holdings.

Paratypes: Four preserved specimens at the Western Australian Museum, Perth, Western Australia, specimen numbers: R168566, R171205, R40403, R40442 all collected at Augustus Island, West Kimberley Region, Western Australia, Australia, Latitude, -15.35 S., Longitude 124.53 E.

Diagnosis: *Fiacumminggecko matteoae sp. nov*. has until now been treated as a population of *F. gracilis* King, 1985 (until now known as *Oedura gracilis*). Because seven new species similar to and closely related to *F. gracilis* are described within this paper (making a total of eight), with all until now having been treated as being of the taxon *F. gracilis*, all eight are separated from one another in each description by the suites of characters described below.

All eight species are from the Kimberley district in north-west Western Australia, including immediately adjacent islands or just across the Northern Territory border, in adjacent hilly country.

F. gracilis from the west Kimberley in the Mitchell Plateau area is readily separated from the other seven species by the fact that the latter part of the tail (original tail) in specimens is not characterised by alternating dark and light crossbands, instead consisting of lighter pigment only (which in other species would otherwise be at least six alternating crossbands, except in *F. fiacummingae sp. nov*. which effectively lacks any crossbands on any part of the tail). The second half of the tail in *F. gracilis* does not have any crossbands on it. The dorsal pattern of *F. gracilis* also has a faded whitish sheen (not just the pre-slough colouration) versus a darker and better defined colouration in all the other seven species. In *F. gracilis*, yellow dorsal crossbands do not have any darker or purplish pigment within, although they are moderately thick and up to two-thirds the thickness of the darker yellowish purple pigment between these bands. There is limited purplish pigment anterior to the eye in the upper labial area.

F. gracilis are the only species in the complex that lacks any distinctive spots, obvious flecks or markings on the limbs.

F. fiacummingae sp. nov. from the near coastal region of Walcott Inlet and further south in Western Australia in the hills and islets along the coast in the lower Kimberley is characterised by a generally dark purple dorsal colouration (as opposed to purple and yellow), characterised by very thin yellow dorsal crossbands, better described as thin, well defined lines (as opposed to bands), rather than the moderately thick dorsal crossbands seen in all other species in the complex (none of which are narrow enough to be classed as “lines”).

The tail of the species *F. fiacummingae sp. nov*. is unusual in not having any crossbands, best described instead as having an irregular reticulated or somewhat mottled pattern of purple and yellow in similar amounts and for the entire length of the tail (original tails). *F. fiacummingae sp. nov*. differs from *F. gracilis*, *F. richardwellsi sp. nov*., *F. rosswellingtoni sp. nov*. and *F. charlespiersoni sp. nov*. by having a generally dark purple dorsal surface of the head with a few distinct and well-defined yellow lines or spots, versus a mottled purplish yellow head on all other species except for *F. julianfordi sp. nov*. which also has a generally mottled head, except for the rear of the head and crown, which is characterised by being brown in colour with a series of well-defined bold yellow spots, which may or may not be merged.

In terms of dorsal colouration, *F. fiacummingae sp. nov*. is by far the most distinct species in the complex.

F. matteoae sp. nov. is similar in most respects to *F. fiacummingae sp. nov*. and would be separated from the other six species in the genus by the same criteria. However it differs from *F. fiacummingae sp. nov.* by having slightly wider light dorsal crossbands and some of these are irregular as in either broken at the middle, or run into the other side off centre, which is not seen in *F. fiacummingae sp. nov.*.

F. matteoae sp. nov. also differs from the other species in having significant whitening on the end of the tail to an extent not seen in the other named species in this genus, except for *F. julianfordi sp. nov.* which unlike all others in the genus has over 50% of the tail (the posterior end) all white in colour.

F. julianfordi sp. nov. from Bigge Island and Prudhoe Island, is similar in many respects to *F. matteoae sp. nov.* (generally fitting the diagnostic features of that species just given), except for the obvious differences that follow below.

F. julianfordi sp. nov. differs from all seven other species by having an all white end of the tail, being more than 50% of the length, but also differs from *F. matteoae sp. nov.* in particular by having well-defined yellow crossbands on the upper part of each limb, versus indistinct in *F. matteoae sp. nov.*.

F. julianfordi sp. nov. is the only species in the genus with dark grey toes on all (four) feet. These are dark purple in *F. fiacummingae sp. nov*. and whitish purple in all the other species.

F. fiacummingae sp. nov. also has well-defined yellow crossbands on the upper part of each limb, but additionally has well-defined yellow blotches on the purple lower limbs, the latter of which is not the case in any of the other seven species. *F. fiacummingae sp. nov*. has pink as opposed to white, flecks or small blotches on the toes.

F. julianfordi sp. nov. is also further separated from all other species in the genus by having brown as opposed to purple (darker) dorsal crossbands (purple being the all-over dominant colouration for *F. fiacummingae sp. nov*.), with the yellow crossbands in *F. julianfordi sp. nov.* not having any dark pigment, shading or flecks within them. These yellow crossbands are narrower for this species than in all others except for *F. fiacummingae sp. nov*. and *F. matteoae sp. nov.* as described above.

F. julianfordi sp. nov. also differs from the other seven species in the genus in that the darker dorsal crossbands have obvious black pigment at the boundaries to the yellow cross-bands.

F. richardwellsi sp. nov. from the Carr Boyd and nearby ranges in the East Kimberley differs from *F. gracilis*, *F. julianfordi sp. nov.*, *F. matteoae sp. nov.* and *F. fiacummingae sp. nov*. by having yellow dorsal crossbands of similar thickness to the intervening purplish coloured ones (as opposed to narrower yellow bands). The yellow crossbands have some purple pigment within and the reverse applies to the purplish crossbands. This is not the case in *F. gracilis*, and *F. fiacummingae sp. nov*. and while a similar colouration configuration is seen on the dorsal surface of *F. rosswellingtoni sp. nov.*, the intermingling of purple and yellow pigment in the crossbands is not seen to the same obvious extent.

F. rosswellingtoni sp. nov. from the south-west Kimberley also has yellow dorsal crossbands of similar thickness to the intervening purplish coloured ones, but unlike *F. richardwellsi sp. nov.*, this taxon's bands are well defined and the yellow bands in particular are a rich yellow with no or very little purple pigment within these bands.

Both *F. richardwellsi sp. nov*. and *F. rosswellingtoni sp. nov*. are characterised by regular well-defined alternating dark and light crossbands running to the end of the tail. This is not the case in *F. gracilis*, *F. julianfordi sp. nov.*, *F. matteoae sp. nov.* and *F. fiacummingae sp. nov.*.

F. richardwellsi sp. nov. has limbs characterised by a mottled or spotted pattern, whereas the limbs in *F. rosswellingtoni sp. nov*. has upper limbs characterised by dark flecks concentrated to form obvious bands across otherwise lighter pigment.

F. charlespiersoni sp. nov. of the hills in the Bullo River area in the Northern Territory (mainly those immediately to the south-west) is similar in most respects to *F. richardwellsi sp. nov*. as described herein and separated from the other species by the same criteria.

F. charlespiersoni sp. nov. is separated from *F. richardwellsi sp. nov*. by a preponderance of yellow on the dorsal surface of the head, versus an approximately equal amount of purple and yellow in *F. richardwellsi sp. nov.*. *F. charlespiersoni sp. nov*. is further separated from *F. richardwellsi sp. nov*. by the flecks on the front limbs, versus a more-or-less mottled appearance in *F. richardwellsi sp. nov.*.

F. dorisioi sp. nov. can be separated from the other species as for *F. rosswellingtoni sp. nov.*. However *F. dorisioi sp. nov.* can be separated from *F. rosswellingtoni sp. nov*. by the fact that the lighter crossbands are a rich dark yellow, as opposed to a light yellow. Furthermore *F. dorisioi sp. nov.* has nine or less well defined light crossbands on the body from the back of the neck to the hindlimbs versus eleven or more well-defined light crossbands on the body from the back of the neck to the hindlimbs in *F. rosswellingtoni sp. nov.*.

The yellow line running from the top of the eye to the tip of the snout, along the dorsolateral ridge of the snout is completely broken in *F. dorisioi sp. nov.* but this is not the case in *F. rosswellingtoni sp. nov*. or any other species except for *F. fiacummingae sp. nov.*.

In the other six species besides *F. dorisioi sp. nov.* and *F. fiacummingae sp. nov*. the yellow line running from the top of the eye to the tip of the snout fades anteriorly, sometimes appearing as a yellow smudge, but is not obviously broken.

As already inferred, for all other species besides *F. dorisioi sp. nov.* and *F. fiacummingae sp. nov*. this line while reducing near the snout, remains (but fades somewhat) and does not break to form a distinctive purplish gap.

There are numerous photos of each of the above species on the internet on sites such as "Flickr", clearly identifiable as the relevant species based on the descriptions above and the location information given.

All of *F. fiacummingae sp. nov.*, *F. gracilis*, *F. richardwellsi sp. nov.*, *F. rosswellingtoni sp. nov.*, *F. matteoae sp. nov.*, *F. julianfordi sp. nov.*, *F. dorisioi sp. nov*. and *F. charlespiersoni sp. nov*. form the total of *Fiacumminggecko gen. nov.*. These eight species are readily separated from both *Marlenegecko gen. nov*. and *Oedura* Gray, 1842 by the following suite of characters: The hindlimbs are mottled, spotted or variegated above, but not having any regular pale, dark edged ocelli; the dorsal pattern consists of some sort of cross bands or similar, but not ocelli of any form; the digits lack conspicuous lateral fringes (as seen in the subgenus of *Oedura*, *Fereoedura subgen. nov.*); the enlarged apical lamellae of the fourth toe are followed by only two pairs of large divided lamellae.

Distribution: *F. matteroae sp. nov*. is known only from Augustus Island in the Kimberley District of Western Australia.

Etymology: Named in honour of Cathryn Matteo of Hawthorn, (Melbourne), Victoria, Australia who has assisted this author with various research and successful wildlife conservation projects over some decades, including through assistances with computers, IT and the like and other important logistical work.

FIACUMMINGGECKO DORISIOI SP. NOV.

Holotype: A preserved specimen at the Western Australian Museum, Perth, Western Australia, Australia, specimen number: R172341, collected at Theda Station, in the North Kimberley Region of Western Australia, Australia, Latitude -14.81 S., Longitude 126.51 E.

The Western Australian Museum, Perth, Western Australia, Australia is a government-owned facility that allows access to its holdings.

Paratype: A preserved specimen at the Australian National Willdlife Collection in Canberra, ACT, Australia, owned by the (Commonwealth Scientific and Industrial Research Organisation AKA CSIRO), specimen number: R10209 collected at Monorromboora Hill, Theda in the North Kimberley Region of Western Australia, Australia, Latitude -14.77 S., Longitude 126.58 E.

Diagnosis: *Fiacumminggecko dorisioi sp. nov.* has until now been treated as a population of *F. gracilis* King, 1985 (until now known as *Oedura gracilis*). Because seven new species similar to and closely related to *F. gracilis* are described within this paper (making a total of eight), with all until now having been treated as being of the taxon *F. gracilis*, all eight are separated from one another in each description by the suites of characters described below.

All eight species are from the Kimberley district in north-west Western Australia, including immediately adjacent islands or just across the Northern Territory border, in adjacent hilly country.

F. gracilis from the west Kimberley in the Mitchell Plateau area is readily separated from the other seven species by the fact that the latter part of the tail (original tail) in specimens is not characterised by alternating dark and light crossbands, instead consisting of lighter pigment only (which in other species would otherwise be at least six alternating crossbands, except in *F. fiacummingae sp. nov*. which effectively lacks any crossbands on any part of the tail). The second half of the tail in *F. gracilis* does not have any crossbands on it. The dorsal pattern of *F. gracilis* also has a faded whitish sheen (not just the pre-slough colouration) versus a darker and better defined colouration in all the other seven species. In *F. gracilis*, yellow dorsal crossbands do not have any darker or purplish pigment within, although they are moderately thick and up to two-thirds the thickness of the darker yellowish purple pigment between these bands. There is limited purplish pigment anterior to the eye in the upper labial area.

F. gracilis are the only species in the complex that lacks any distinctive spots, obvious flecks or markings on the limbs.

F. fiacummingae sp. nov. from the near coastal region of Walcott Inlet and further south in Western Australia in the hills and islets along the coast in the lower Kimberley is characterised by a generally dark purple dorsal colouration (as opposed to purple and yellow), characterised by very thin yellow dorsal crossbands, better described as thin, well defined lines (as opposed to bands), rather than the moderately thick dorsal crossbands seen in all other species in the complex (none of which are narrow enough to be classed as “lines”).

The tail of the species *F. fiacummingae sp. nov*. is unusual in not having any crossbands, best described instead as having an irregular reticulated or somewhat mottled pattern of purple and yellow in similar amounts and for the entire length of the tail (original tails). *F. fiacummingae sp. nov*. differs from *F. gracilis*, *F. richardwellsi sp. nov*., *F. rosswellingtoni sp. nov*. and *F. charlespiersoni sp. nov*. by having a generally dark purple dorsal surface of the head with a few distinct and well-defined yellow lines or spots, versus a mottled purplish yellow head on all other species except for *F. julianfordi sp. nov*. which also has a generally mottled head, except for the rear of the head and crown, which is characterised by being brown in colour with a series of well-defined bold yellow spots, which may or may not be merged.

In terms of dorsal colouration, *F. fiacummingae sp. nov*. is by far the most distinct species in the complex.

F. matteoae sp. nov. is similar in most respects to *F. fiacummingae sp. nov*. and would be separated from the other six species in the genus by the same criteria. However it differs from *F. fiacummingae sp. nov*. by having slightly wider light dorsal crossbands and some of these are irregular as in either broken at the middle, or run into the other side off centre, which is not seen in *F. fiacummingae sp. nov*..

F. matteoae sp. nov. also differs from the other species in having significant whitening on the end of the tail to an extent not seen in the other named species in this genus, except for *F. julianfordi sp. nov.* which unlike all others in the genus has over 50% of the tail (the posterior end) all white in colour.

F. julianfordi sp. nov. from Bigge Island and Prudhoe Island, is similar in many respects to *F. matteoae sp. nov.* (generally fitting the diagnostic features of that species just given), except for the obvious differences that follow below.

F. julianfordi sp. nov. differs from all seven other species by having an all white end of the tail, being more than 50% of the length, but also differs from *F. matteoae sp. nov.* in particular by having well-defined yellow crossbands on the upper part of each limb, versus indistinct in *F. matteoae sp. nov.*.

F. julianfordi sp. nov. is the only species in the genus with dark grey toes on all (four) feet. These are dark purple in *F. fiacummingae sp. nov*. and whitish purple in all the other species.

F. fiacummingae sp. nov. also has well-defined yellow crossbands on the upper part of each limb, but additionally has well-defined yellow blotches on the purple lower limbs, the latter of which is not the case in any of the other seven species. *F. fiacummingae sp. nov*. has pink as opposed to white, flecks or small blotches on the toes.

F. julianfordi sp. nov. is also further separated from all other species in the genus by having brown as opposed to purple (darker) dorsal crossbands (purple being the all-over dominant colouration for *F. fiacummingae sp. nov*.), with the yellow crossbands in *F. julianfordi sp. nov.* not having any dark pigment, shading or flecks within them. These yellow crossbands are narrower for this species than in all others except for *F. fiacummingae sp. nov*. and *F. matteoae sp. nov.* as described above.

F. julianfordi sp. nov. also differs from the other seven species in the genus in that the darker dorsal crossbands have obvious black pigment at the boundaries to the yellow cross-bands.

F. richardwellsi sp. nov. from the Carr Boyd and nearby ranges in the East Kimberley differs from *F. gracilis*, *F. julianfordi sp. nov.*, *F. matteoae sp. nov.* and *F. fiacummingae sp. nov*. by having yellow dorsal crossbands of similar thickness to the intervening purplish coloured ones (as opposed to narrower yellow bands). The yellow crossbands have some purple pigment within and the reverse applies to the purplish crossbands. This is not the case in *F. gracilis*, and *F. fiacummingae sp. nov*. and while a similar colouration configuration is seen on the dorsal surface of *F. rosswellingtoni sp. nov*., the intermingling of purple and yellow pigment in the crossbands is not seen to the same obvious extent.

F. rosswellingtoni sp. nov. from the south-west Kimberley also has yellow dorsal crossbands of similar thickness to the intervening purplish coloured ones, but unlike *F. richardwellsi sp. nov.*, this taxon’s bands are well defined and the yellow bands in particular are a rich yellow with no or very little purple pigment within these bands.

Both *F. richardwellsi sp. nov*. and *F. rosswellingtoni sp. nov*. are characterised by regular well-defined alternating dark and light crossbands running to the end of the tail. This is not the case in *F. gracilis*, *F. julianfordi sp. nov.*, *F. matteoae sp. nov.* and *F. fiacummingae sp. nov*..

F. richardwellsi sp. nov. has limbs characterised by a mottled or spotted pattern, whereas the limbs in *F. rosswellingtoni sp. nov*. has upper limbs characterised by dark flecks concentrated to form obvious bands across otherwise lighter pigment.

F. charlespiersoni sp. nov. of the hills in the Bullo River area in the Northern Territory (mainly those immediately to the south-west) is similar in most respects to *F. richardwellsi sp. nov*. as described herein and separated from the other species by the same criteria.

F. charlespiersoni sp. nov. is separated from *F. richardwellsi sp.*

nov. by a preponderance of yellow on the dorsal surface of the head, versus an approximately equal amount of purple and yellow in *F. richardwellsi sp. nov*.. *F. charlespiersoni sp. nov*. is further separated from *F. richardwellsi sp. nov*. by the flecks on the front limbs, versus a more-or-less mottled appearance in *F. richardwellsi sp. nov*..

F. dorisioi sp. nov. can be separated from the other species as for *F. rosswellingtoni sp. nov*.. However *F. dorisioi sp. nov.* can be separated from *F. rosswellingtoni sp. nov*. by the fact that the lighter crossbands are a rich dark yellow, as opposed to a light yellow. Furthermore *F. dorisioi sp. nov.* has nine or less well defined light crossbands on the body from the back of the neck to the hindlimbs versus eleven or more well-defined light crossbands on the body from the back of the neck to the hindlimbs in *F. rosswellingtoni sp. nov*..

The yellow line running from the top of the eye to the tip of the snout, along the dorsolateral ridge of the snout is completely broken in *F. dorisioi sp. nov.* but this is not the case in *F. rosswellingtoni sp. nov*. or any other species except for *F. fiacummingae sp. nov*..

In the other six species besides *F. dorisioi sp. nov.* and *F. fiacummingae sp. nov*. the yellow line running from the top of the eye to the tip of the snout fades anteriorly, sometimes appearing as a yellow smudge, but is not obviously broken.

As already inferred, with all other species besides *F. dorisioi sp. nov.* and *F. fiacummingae sp. nov*. this line while reducing near the snout, remains (but fades somewhat) and does not break to form a distinctive purplish gap.

There are numerous photos of each of the above species on the internet on sites such as “Flickr”, clearly identifiable as the relevant species based on the descriptions above and the location information given.

All of *F. fiacummingae sp. nov*., *F. gracilis*, *F. richardwellsi sp. nov*., *F. rosswellingtoni sp. nov*., *F. matteoae sp. nov*., *F. julianfordi sp. nov*., *F. dorisioi sp. nov.* and *F. charlespiersoni sp. nov*. form the total of *Fiacumminggecko gen. nov*.. These eight species are readily separated from both *Marlenegecko gen. nov*. and *Oedura* Gray, 1842 by the following suite of characters: The hindlimbs are mottled, spotted or variegated above, but not having any regular pale, dark edged ocelli; the dorsal pattern consists of some sort of cross bands or similar, but not ocelli of any form; the digits lack conspicuous lateral fringes (as seen in the subgenus of *Oedura*, *Fereoedura subgen. nov.*); the enlarged apical lamellae of the fourth toe are followed by only two pairs of large divided lamellae.

Distribution: *F. dorisioi sp. nov*. is known only from the general vicinity of Theda Station in the Kimberley District of Western Australia.

Etymology: Named in honour of Morrie Dorisio of Bulleen, (Melbourne), Victoria, Australia (most recently of Reservoir, Victoria) who has assisted this author with various scientific research projects and successful wildlife conservation initiatives over some decades, including through assistances with computers, IT and the like and other important logistical work.

FIACUMMINGGECKO JULIANFORDI SP. NOV.

Holotype: A preserved specimen at the Western Australian Museum, Perth, Western Australia, Australia, specimen number: R168903, collected at Bigge Island, in the Kimberley Region of Western Australia, Australia, Latitude -14.60 S., Longitude 125.12 E.

The Western Australian Museum, Perth, Western Australia, Australia is a government-owned facility that allows access to its holdings.

Paratype: A preserved specimen at the Western Australian Museum, Perth, Western Australia, Australia, specimen number: R168904, collected at Bigge Island, in the Kimberley Region of Western Australia, Australia, Latitude -14.60 S., Longitude 125.12 E.

Diagnosis: *Fiacumminggecko julianfordi sp. nov.* has until now been treated as a population of *F. gracilis* King, 1985 (until now known as *Oedura gracilis*). Because seven new species similar to and closely related to *F. gracilis* are described within this paper (making a total of eight), with all until now having been treated as being of the taxon *F. gracilis*, all eight are separated from one another in each description by the suites of characters described below.

All eight species are from the Kimberley district in north-west Western Australia, including immediately adjacent islands or just across the Northern Territory border, in adjacent hilly country.

F. gracilis from the west Kimberley in the Mitchell Plateau area is readily separated from the other seven species by the fact that the latter part of the tail (original tail) in specimens is not characterised by alternating dark and light crossbands, instead consisting of lighter pigment only (which in other species would otherwise be at least six alternating crossbands, except in *F. fiacummingae sp. nov*. which effectively lacks any crossbands on any part of the tail). The second half of the tail in *F. gracilis* does not have any crossbands on it. The dorsal pattern of *F. gracilis* also has a faded whitish sheen (not just the pre-slough colouration) versus a darker and better defined colouration in all the other seven species. In *F. gracilis*, yellow dorsal crossbands do not have any darker or purplish pigment within, although they are moderately thick and up to two-thirds the thickness of the darker yellowish purple pigment between these bands. There is limited purplish pigment anterior to the eye in the upper labial area.

F. gracilis are the only species in the complex that lacks any distinctive spots, obvious flecks or markings on the limbs.

F. fiacummingae sp. nov. from the near coastal region of Walcott Inlet and further south in Western Australia in the hills and islets along the coast in the lower Kimberley is characterised by a generally dark purple dorsal colouration (as opposed to purple and yellow), characterised by very thin yellow dorsal crossbands, better described as thin, well defined lines (as opposed to bands), rather than the moderately thick dorsal crossbands seen in all other species in the complex (none of which are narrow enough to be classed as “lines”).

The tail of the species *F. fiacummingae sp. nov*. is unusual in not having any crossbands, best described instead as having an irregular reticulated or somewhat mottled pattern of purple and yellow in similar amounts and for the entire length of the tail (original tails). *F. fiacummingae sp. nov*. differs from *F. gracilis*, *F. richardwellsi sp. nov*., *F. rosswellingtoni sp. nov*. and *F. charlespiersoni sp. nov*. by having a generally dark purple dorsal surface of the head with a few distinct and well-defined yellow lines or spots, versus a mottled purplish yellow head on all other species except for *F. julianfordi sp. nov*. which also has a generally mottled head, except for the rear of the head and crown, which is characterised by being brown in colour with a series of well-defined bold yellow spots, which may or may not be merged.

In terms of dorsal colouration, *F. fiacummingae sp. nov*. is by far the most distinct species in the complex.

F. matteoae sp. nov. is similar in most respects to *F. fiacummingae sp. nov*. and would be separated from the other six species in the genus by the same criteria. However it differs from *F. fiacummingae sp. nov*. by having slightly wider light dorsal crossbands and some of these are irregular as in either broken at the middle, or run into the other side off centre, which is not seen in *F. fiacummingae sp. nov*..

F. matteoae sp. nov. also differs from the other species in having significant whitening on the end of the tail to an extent not seen in the other named species in this genus, except for *F. julianfordi sp. nov.* which unlike all others in the genus has over 50% of the tail (the posterior end) all white in colour.

F. julianfordi sp. nov. from Bigge Island and Prudhoe Island, is similar in many respects to *F. matteoae sp. nov.* (generally fitting

the diagnostic features of that species just given), except for the obvious differences that follow below.

F. julianfordi sp. nov. differs from all seven other species by having an all white end of the tail, being more than 50% of the length, but also differs from *F. matteoae sp. nov.* in particular by having well-defined yellow crossbands on the upper part of each limb, versus indistinct in *F. matteoae sp. nov.*.

F. julianfordi sp. nov. is the only species in the genus with dark grey toes on all (four) feet. These are dark purple in *F. fiacummingae sp. nov*. and whitish purple in all the other species.

F. fiacummingae sp. nov. also has well-defined yellow crossbands on the upper part of each limb, but additionally has well-defined yellow blotches on the purple lower limbs, the latter of which is not the case in any of the other seven species. *F. fiacummingae sp. nov*. has pink as opposed to white, flecks or small blotches on the toes.

F. julianfordi sp. nov. is also further separated from all other species in the genus by having brown as opposed to purple (darker) dorsal crossbands (purple being the all-over dominant colouration for *F. fiacummingae sp. nov*.), with the yellow crossbands in *F. julianfordi sp. nov.* not having any dark pigment, shading or flecks within them. These yellow crossbands are narrower for this species than in all others except for *F. fiacummingae sp. nov*. and *F. matteoae sp. nov.* as described above.

F. julianfordi sp. nov. also differs from the other seven species in the genus in that the darker dorsal crossbands have obvious black pigment at the boundaries to the yellow cross-bands.

F. richardwellsi sp. nov. from the Carr Boyd and nearby ranges in the East Kimberley differs from *F. gracilis*, *F. julianfordi sp. nov.*, *F. matteoae sp. nov.* and *F. fiacummingae sp. nov*. by having yellow dorsal crossbands of similar thickness to the intervening purplish coloured ones (as opposed to narrower yellow bands). The yellow crossbands have some purple pigment within and the reverse applies to the purplish crossbands. This is not the case in *F. gracilis*, and *F. fiacummingae sp. nov*. and while a similar colouration configuration is seen on the dorsal surface of *F. rosswellingtoni sp. nov.*, the intermingling of purple and yellow pigment in the crossbands is not seen to the same obvious extent.

F. rosswellingtoni sp. nov. from the south-west Kimberley also has yellow dorsal crossbands of similar thickness to the intervening purplish coloured ones, but unlike *F. richardwellsi sp. nov.*, this taxon's bands are well defined and the yellow bands in particular are a rich yellow with no or very little purple pigment within these bands.

Both *F. richardwellsi sp. nov*. and *F. rosswellingtoni sp. nov*. are characterised by regular well-defined alternating dark and light crossbands running to the end of the tail. This is not the case in *F. gracilis*, *F. julianfordi sp. nov.*, *F. matteoae sp. nov.* and *F. fiacummingae sp. nov*..

F. richardwellsi sp. nov. has limbs characterised by a mottled or spotted pattern, whereas the limbs in *F. rosswellingtoni sp. nov*. has upper limbs characterised by dark flecks concentrated to form obvious bands across otherwise lighter pigment.

F. charlespiersoni sp. nov. of the hills in the Bullo River area in the Northern Territory (mainly those immediately to the south-west) is similar in most respects to *F. richardwellsi sp. nov*. as described herein and separated from the other species by the same criteria.

F. charlespiersoni sp. nov. is separated from *F. richardwellsi sp. nov*. by a preponderance of yellow on the dorsal surface of the head, versus an approximately equal amount of purple and yellow in *F. richardwellsi sp. nov*.. *F. charlespiersoni sp. nov*. is further separated from *F. richardwellsi sp. nov*. by the flecks on the front limbs, versus a more-or-less mottled appearance in *F. richardwellsi sp. nov*..

F. dorisioi sp. nov. can be separated from the other species as for *F. rosswellingtoni sp. nov*.. However *F. dorisioi sp. nov.* can be separated from *F. rosswellingtoni sp. nov*. by the fact that the lighter crossbands are a rich dark yellow, as opposed to a light yellow. Furthermore *F. dorisioi sp. nov.* has nine or less well defined light crossbands on the body from the back of the neck to the hindlimbs versus eleven or more well-defined light crossbands on the body from the back of the neck to the hindlimbs in *F. rosswellingtoni sp. nov*..

The yellow line running from the top of the eye to the tip of the snout, along the dorsolateral ridge of the snout is completely broken in *F. dorisioi sp. nov.* but this is not the case in *F. rosswellingtoni sp. nov*. or any other species except for *F. fiacummingae sp. nov*..

In the other six species besides *F. dorisioi sp. nov.* and *F. fiacummingae sp. nov*. the yellow line running from the top of the eye to the tip of the snout fades anteriorly, sometimes appearing as a yellow smudge, but is not obviously broken.

As already inferred, for all other species besides *F. dorisioi sp. nov.* and *F. fiacummingae sp. nov*. this line while reducing near the snout, remains (but fades somewhat) and does not break to form a distinctive purplish gap.

There are numerous photos of each of the above species on the internet on sites such as "Flickr", clearly identifiable as the relevant species based on the descriptions above and the location information given.

All of *F. fiacummingae sp. nov*., *F. gracilis*, *F. richardwellsi sp. nov*., *F. rosswellingtoni sp. nov*., *F. matteoae sp. nov*., *F. julianfordi sp. nov*., *F. dorisioi sp. nov*. and *F. charlespiersoni sp. nov*. form the total of *Fiacumminggecko gen. nov*.. These eight species are readily separated from both *Marlenegecko gen. nov*. and *Oedura* Gray, 1842 by the following suite of characters: The hindlimbs are mottled, spotted or variegated above, but not having any regular pale, dark edged ocelli; the dorsal pattern consists of some sort of cross bands or similar, but not ocelli of any form; the digits lack conspicuous lateral fringes (as seen in the subgenus of *Oedura*, *Fereoedura subgen. nov*.); the enlarged apical lamellae of the fourth toe are followed by only two pairs of large divided lamellae.

Distribution: *Fiacumminggecko julianfordi sp. nov.* is known only from Bigge Island and Prudhoe Island in the west Kimberley district of Western Australia.

Etymology: Named in honour of the late Dr. Julian Ford of the Western Australian Museum for services to Orinithology. Since his untimely death caused by a corrupt wildlife department in Australia (Queensland) in the 1980's, not much has changed in the following 3 decades, with recent wildlife department caused deaths including that of Nathan Garrod, also in Queensland, who committed suicide in April 2015 following a raid by the QNPWS and unlawful attacks and harassment by ruthless money-hungry rivals in the "reptile business", Mike Cermac and Tony Harrison.

The following is taken from the book *Smuggled: The Underground Trade in Australia's Wildlife* (Hoser, 1993):

"THE CASE OF JULIAN FORD

Perhaps the most widely publicised case occurred in 1985-87. Perth scientist and ornithologist, Dr Julian Ford, applied for a permit to collect native birds in North Queensland as part of a federally funded research project. He lodged a 13-page application with the Queensland N.P.W.S. in November 1985 and also paid them the relevant fee for the permit. In due course Ford's cheque was cashed by the N.P.WS. and he believed that the relevant permit had been issued.

The following October, while completing his field trip in North Queensland, he was raided by N.P.W.S. officials and all his collected birds were confiscated. What N.P.W.S. officials actually did with those birds after their seizure was never revealed to the public.

When Ford complained to the media about what had happened,

Queensland N.P.W.S. repeatedly denied ever receiving an application from him. Ford then faced some 60 separate charges laid by N.P.W.S. officials for illegally capturing fauna, which carried possible fines totaling $100,000. The Ford case attracted attention but not because Ford was wrongly charged or unduly harassed by fauna authorities. The case received nation-wide media attention, including a feature story on *60 Minutes* only after he died of a massive heart attack early in 1987, which his wife said was caused by the incident with N.P.W.S.

After Ford's widow, Jennifer, produced evidence in her dead husband's favor, the N.P.W.S. admitted that in fact they had acknowledged his licence application and cashed his cheque.

60 Minutes alleged corruption within the Queensland N.P.WS., but this was denied by the director. (Don't they always?)

It also became clear that the pattern of wildlife permit being granted, followed by a raid and seizure of wildlife and a denial by officials of a permit having been issued, was not the first such case to occur in Queensland.

Fauna researchers, breeders and others, in particular bird and reptile keepers, have had so much trouble with belligerent wildlife authority officials that numerous submissions, some longer than 100 pages, have been made to these departments to try and change the prevailing attitudes of enforcement officials and in some cases the laws themselves. These lengthy submissions are produced only at great cost, using funds that otherwise would have been spent on the animals themselves."

MARLENEGECKO SHIREENHOSERAE SP. NOV.

Holotype: A preserved specimen in the Australian Museum in Sydney, New South Wales, Australia, specimen number: R.15180, collected at the Warrumbungle Ranges, NSW, Australia, Latitude -31.43 S., Longitude 149.60 E.

The Australian Museum in Sydney, New South Wales, Australia is a government-owned facility that allows access to its holdings.

Paratype: A preserved specimen in the Australian Museum in Sydney, New South Wales, Australia, specimen number: R.18925, also collected at the Warrumbungle Ranges, NSW, Australia.

Diagnosis: *Marlenegecko shireenhoserae sp. nov*. from the Warrumbungle Ranges, NSW are readily separated from *M. monilis* (De Vis, 1888) and *M. attenboroughi* (Wells and Wellington, 1985), the latter being tentatively treated as a separate and valid species-level taxon to *M. monilis*, by the presence of 7 (rarely), six or less large ocelli or pairs of smaller (sometimes merged) ocelli running down the mid body, versus 8 or more in *M. monilis* and *M. attenboroughi.*

M. shireenhoserae sp. nov. is characterised by limited flecking on the front limbs, versus lots of flecking on the limbs of *M. monilis* and *M. attenboroughi.*

The description of De Vis (1888) for the taxon "*Oedura monilis*" matches that of the south Queensland taxon in that it has "eight pairs of large round well-defined paler spots on the vertebral line".

This confirms that until now the Warrumbungles population was the unnamed taxon within the species complex.

Distribution: *Marlenegecko shireenhoserae sp. nov*. is restricted to the Warrambungle Ranges of New South Wales, Australia and immediately adjacent localities in New South Wales. *M. monilis* De Vis, 1888 is herein treated as being restricted to Queensland, from the far south-east and south and north of there. This paper makes the provisional belief that *M. attenboroughi* constitutes a distinctive more northern species found west of Rockhampton, Queensland and further north based based on colour differences, which is a similar view to that of Dr. Danny Brown of Queensland (see for example his webpage at: http://www.geckodan.com/reptiles/geckos-and-pygopods/).
I further note an apparent break in the distribution between the south Queensland and Capricornia/Townsville populations until now assigned to *M. monilis*.
Speculation that *M. attenboroughi* is a variant of *O. marmorata* is largely refuted by the tree-dwelling as opposed to saxicoline habit of the holotype as detailed by Wells and Wellington in 1985.

CELERTUNUES BOBBOTTOMI SP. NOV.

Holotype: A specimen in the Northern Territory Museum at Darwin, NT, Australia, specimen number: 22222 collected at Litchfield National Park, Latitude -13.40 S., Longitude 130.89 E. The Northern Territory Museum at Darwin, NT, Australia is a government-owned facility that allows access to its holdings.

Paratype: A specimen in the Northern Territory Museum at Darwin, NT, Australia, specimen number: R37097, collected at Dorat Road, some 6 km from the Stuart Hwy, Adelaide River region, Northern Territory, Australia, Latitude -13.28 S., Longitude 131.12 E.

Diagnosis: The species *Celertenues bobbottomi sp. nov*. has until now been treated as a regional population of *C. rhombifer* (Gray, 1854) and the proper diagnosis of this taxon must be in the context of separating all five relevant species as formally defined within this paper.

These are species all formerly treated as being within the genus *Oedura* Gray, 1842, or more recently, *Amalosia* Wells and Wellington, 1984. Prior to this date, two were formally named and recognized, while three new to science are formally named herein.

In total the five species are: *Celertenues rhombifer* (Gray, 1845), *C. bobbottomi sp. nov.*, *C. evanwhittoni sp. nov.*, *C. helengrasswillae sp. nov.* and *C. obscura* (King, 1984).

From Gray's original description of *C. rhombifer* (Gray, 1854) it is self-evident that the specimen's provinence was the Kimberley division of Western Australia as this population alone fits the description.

All five species of *Celertenues* can be readily separated from one another on the basis of consistent colour differences, even though otherwise all are morphologically similar and otherwise hard to separate from one another based on hasty external observation without knowledge of the various forms.

C. rhombifer (Gray, 1845) as defined herein and generally confined to Kimberley division of Western Australia is readily separated from all other taxa in the genus by a distinct pattern of large light coloured rhomboidal blotches running down the middle of the back. With the exception of *C. obscura* (King, 1984), and (the morphologically similar) *Amalosia jacovae* (Couper, Keim and Hoskin, 2007), in all other species in this genus lighter blotches down the back are always joined to become merged. In *C. rhombifer* (Gray, 1845) at least some of the blotches in the middle of the back are separated by thin sections of darkened pigment, this being unique to the species.

Celertenues obscura (King, 1984) from north-west Western Australia is the only taxon in the genus with a dorsal pattern of alternating dark and light cross bands that are distinct and well-defined. The (original) tail of *C. obscura* is unique among the species in that it is brilliant deep yellow in colour with limited darker flecks or patches of small size.

Celertenues helengrasswillae sp. nov. from Queensland in the coastal and near coastal region south of the Paluma Range in the North to Kroombit Tops in the south is readily separated from the other five species by the following combination of traits: A lighter mid dorsal stripe bounded by dark pigment and with regular jagged edges, dark coloured (blackish) limbs with irregular brown and/or light brown flecks or patches and a distinctive characteristic dark patch of large size surrounded by pale pigment at the rear of the crown, not seen in any other species with the occasional exception of some specimens of *Amalosia jacovae* (Couper, Keim and Hoskin, 2007), being a species morphologically similar to this genus.

Amalosia jacovae (Couper, Keim and Hoskin, 2007) from south-east Queensland, generally south of Fraser Island is readily separated from all other species in *Celertenues gen. nov.* by the presence of broken light coloured spots on the dorsal surface of the back with obscure boundaries.

Celertenues evanwhittoni sp. nov. found generally from the Atherton Tableland and north in far north Queensland, is readily separated from the other five species by the following suite of characters: A continuous jagged lighter line running down the middle of the back with obvious white spots on the jagged edges; an absence of a conspicuous dark patch posterior to the crown, dense and even spotting or flecks on the limbs, mild yellowing in the colour of the tail (original tails).

Celertenues bobbottomi sp. nov. from the tropical top end of the Northern Territory, is readily separated from the five other species by the following suite of characters: The jagged light line running down the centre of the back is punctuated by strong darker intrusions, the tail has a weak yellowish tinge, and in common with *C. obscura* but no other species, the dark line running from the eye along the back of the head and neck, is not distinct and well defined, but instead is an obscure and irregular zone of mottled dark and light pigment.

C. obscura is readily separated from *C. bobbottomi sp. nov*. by dorsal pattern, the former having a pattern of distinctive dorsal crossbands, not seen in the latter.

The other species formerly placed in the genus *Amalosia*, that are all now placed in the genus *Celertenues gen. nov.* are all readily separated from *Amalosia* including *A. jacovae* by having a tail that is cylindrical in cross section as opposed to being noticeably depressed.

Distribution: *Celertenues bobbottomi sp. nov*. occurs in the tropical top end of the Northern Territory, Australia.

Etymology: Named in honour of crime journalist, Bob Bottom, formerly of New South Wales, and more recently of Queensland, Australia, who has authored more than 30 definitive books detailing organised crime and corruption in Australia, including such titles as the following:

Behind the Barrier. Gareth Powell Associates, Gladesville, N.S.W. in 1969.

The Godfather in Australia: Organised Crime's Australian Connections. A. H. and A. W. Reed, Terrey Hills, N.S.W. in 1979.

Without Fear or Favour. Sun Books South Melbourne, in 1984.

Connections: Crime Rackets and Networks of Influence Down-Under. Sun Books, South Melbourne in 1985.

Connections II: Crime Rackets and Networks of Influence in Australia. Sun Books, South Melbourne in 1987.

Shadow of Shame: How the Mafia Got Away with the Murder of Donald Mackay. Sun Books, South Melbourne, 1988.

Bugged! Legal Police Telephone Taps Expose the Mr Bigs of Australia's Drug Trade. Sun Books, South Melbourne, in 1989.

Inside Victoria: A chronicle of scandal. Pan Macmillian, Sydney, NSW, Australia, in 1991.

Fighting Organised Crime: Triumph and Betrayal in a Lifelong Campaign. BBP, Nelson Bay, published in 2009.

CELERTUNUES EVANWHITTONI SP. NOV.

Holotype: A preserved specimen in the Australian Museum, Sydney, New South Wales, Australia specimen number: R142587 collected at: Lamb Range, North Queensland, Australia, Latitude -17.11 S., Longitude 145.54 E. The Australian Museum, Sydney, New South Wales, Australia is a government-owned facility that allows access to its holdings.

Paratype: A preserved specimen in the Australian Museum, Sydney, New South Wales, Australia specimen number: R80530, collected at: between Walkamin and Rocky Creek on the Atherton Tablelands, North Queensland, Australia. Latitude -17.15 S., Longitude 145.45 E.

Diagnosis: The species *Celertenues evanwhittoni sp. nov*. has until now been treated as a regional population of *C. rhombifer* (Gray, 1854) and the proper diagnosis of this taxon must be in the context of separating all five relevant species as formally defined within this paper.

These are species all formerly treated as being within the genus *Oedura* Gray, 1842, or more recently, *Amalosia* Wells and Wellington, 1984. Prior to this date, two were formally named and recognized, while three new to science are formally named herein.

In total the five species are: *Celertenues rhombifer* (Gray, 1845), *C. bobbottomi sp. nov.*, *C. evanwhittoni sp. nov.*, *C. helengrasswillae sp. nov.* and *C. obscura* (King, 1984).

From Gray's original description of *C. rhombifer* (Gray, 1845), it is self-evident that the specimen's provinence was the Kimberley division of Western Australia as this population alone fits the description.

All five species of *Celertenues* can be readily separated from one another on the basis of consistent colour differences, even though otherwise all are morphologically similar and otherwise hard to separate from one another based on hasty external observation.

C. rhombifer (Gray, 1845) as defined herein and generally confined to Kimberley division of Western Australia is readily separated from all other taxa in the genus by a distinct pattern of large light coloured rhomboidal blotches running down the middle of the back. With the exception of *C. obscura* (King, 1984), and the morphologically similar *Amalosia jacovae* (Couper, Keim and Hoskin, 2007), in all other species in this genus lighter blotches down the back are always joined to become merged. In *C. rhombifer* (Gray, 1845) at least some of the blotches in the middle of the back are separated by thin sections of darkened pigment, this being unique to the species.

Celertenues obscura (King, 1984) from north-west Western Australia is the only taxon in the genus with a dorsal pattern of alternating dark and light cross bands that are distinct and well-defined. The (original) tail of *C. obscura* is unique among the species in that it is brilliant deep yellow in colour with limited darker flecks or patches of small size.

Celertenues helengrasswillae sp. nov. from Queensland in the coastal and near coastal region south of the Paluma Range in the North to Kroombit Tops in the south is readily separated from the other five species by the following combination of traits: A lighter mid dorsal stripe bounded by dark pigment and with regular jagged edges, dark coloured (blackish) limbs with irregular brown and/or light brown flecks or patches and a distinctive characteristic dark patch of large size surrounded by pale pigment at the rear of the crown, not seen in any other species with the occasional exception of some specimens of *Amalosia jacovae* (Couper, Keim and Hoskin, 2007), being a species morphologically similar to this genus.

Amalosia jacovae (Couper, Keim and Hoskin, 2007) from south-east Queensland, generally south of Fraser Island is readily separated from all other species in *Celertenues gen. nov.* by the presence of broken light coloured spots on the dorsal surface of the back with obscure boundaries.

Celertenues evanwhittoni sp. nov. found generally from the Atherton Tableland and north in far north Queensland, is readily separated from the other five species by the following suite of characters: A continuous jagged lighter line running down the middle of the back with obvious white spots on the jagged edges; an absence of a conspicuous dark patch posterior to the crown, dense and even spotting or flecks on the limbs, mild yellowing in the colour of the tail (original tails).

Celertenues bobbottomi sp. nov. from the tropical top end of the Northern Territory, is readily separated from the five other species by the following suite of characters: The jagged light line running down the centre of the back is punctuated by strong darker intrusions, the tail has a weak yellowish tinge, and in

common with *C. obscura* but no other species, the dark line running from the eye along the back of the head and neck, is not distinct and well defined, but instead is an obscure and irregular zone of mottled dark and light pigment.

C. obscura is readily separated from *C. bobbottomi sp. nov*. by dorsal pattern, the former having a pattern of distinctive dorsal crossbands, not seen in the latter.

The other species formerly placed in the genus *Amalosia*, that are all now placed in the genus *Celertenues gen. nov.* are all readily separated from *Amalosia* including *A. jacovae* by having a tail that is cylindrical in cross section as opposed to being noticeably depressed.

Distribution: *Celertenues evanwhittoni sp. nov.* is found from the Atherton Tableland in the south northwards to far north Queensland

Etymology: Named in honour of Evan Whitton of Sydney, New South Wales, Australia in recognition of his significant contributions to the exposure of organised crime in Australia, including through his many definitive books. As of early 2017, he is a columnist with the online legal journal *Justinian.* A summary of his books and other relevant publications (many of which can be downloaded in full), can be found at: http://netk.net.au/whittonhome.asp.

CELERTUNUES HELENGRASSWILLAE SP. NOV.

Holotype: A preserved specimen in the South Australian Museum in Adelaide, South Australia, Australia, specimen number: R55604 collected at Gladstone in Eastern Queensland, Australia, Latitude -24.33 S., Longitude 150.94 E. The South Australian Museum in Adelaide, South Australia, Australia is a government-owned facility that allows access to its holdings.

Paratype: A preserved specimen in the South Australian Museum in Adelaide, South Australia, Australia, specimen number: R34513 collected at James Cook University, Townsville, Queensland, Australia, Latitude -19.27 S., Longitude 146.82 E.

Diagnosis: The species *Celertenues helengrasswillae sp. nov.* has until now been treated as a regional population of *C. rhombifer* (Gray, 1854) and the proper diagnosis of this taxon must be in the context of separating all five relevant species as formally defined within this paper.

These are species all formerly treated as being within the genus *Oedura* Gray, 1842, or more recently, *Amalosia* Wells and Wellington, 1984. Prior to this date, two were formally named and recognized, while three new to science are formally named herein.

In total the five species are: *Celertenues rhombifer* (Gray, 1845), *C. bobbottomi sp. nov.*, *C. evanwhittoni sp. nov.*, *C. helengrasswillae sp. nov.* and *C. obscura* (King, 1984).

From Gray's original description of *C. rhombifer* (Gray, 1845), it is self-evident that the specimen's provinence was the Kimberley division of Western Australia as this population alone fits the description.

All five species of *Celertenues* can be readily separated from one another on the basis of consistent colour differences, even though otherwise all are morphologically similar and otherwise hard to separate from one another based on hasty external observation.

C. rhombifer (Gray, 1845) as defined herein and generally confined to Kimberley division of Western Australia is readily separated from all other taxa in the genus by a distinct pattern of large light coloured rhomboidal blotches running down the middle of the back. With the exception of *C. obscura* (King, 1984), and the morphologically similar *Amalosia jacovae* (Couper, Keim and Hoskin, 2007), in all other species in this genus lighter blotches down the back are always joined to become merged. In *C. rhombifer* (Gray, 1845) at least some of the blotches in the middle of the back are separated by thin sections of darkened pigment, this being unique to the species.

Celertenues obscura (King, 1984) from north-west Western Australia is the only taxon in the genus with a dorsal pattern of alternating dark and light cross bands that are distinct and well-defined. The (original) tail of *C. obscura* is unique among the species in that it is brilliant deep yellow in colour with limited darker flecks or patches of small size.

Celertenues helengrasswillae sp. nov. from Queensland in the coastal and near coastal region south of the Paluma Range in the North to Kroombit Tops in the south is readily separated from the other five species by the following combination of traits: A lighter mid dorsal stripe bounded by dark pigment and with regular jagged edges, dark coloured (blackish) limbs with irregular brown and/or light brown flecks or patches and a distinctive characteristic dark patch of large size surrounded by pale pigment at the rear of the crown, not seen in any other species with the occasional exception of some specimens of the morphologically similar *Amalosia jacovae* (Couper, Keim and Hoskin, 2007).

The morphologically similar *Amalosia jacovae* (Couper, Keim and Hoskin, 2007) from south-east Queensland, generally south of Fraser Island is readily separated from all other species in *Celertenues gen. nov.* by the presence of broken light coloured spots on the dorsal surface of the back with obscure boundaries.

Celertenues evanwhittoni sp. nov. found generally from the Atherton Tableland and north in far north Queensland, is readily separated from the other five species by the following suite of characters: A continuous jagged lighter line running down the middle of the back with obvious white spots on the jagged edges; an absence of a conspicuous dark patch posterior to the crown, dense and even spotting or flecks on the limbs, mild yellowing in the colour of the tail (original tails).

Celertenues bobbottomi sp. nov. from the tropical top end of the Northern Territory, is readily separated from the five other species by the following suite of characters: The jagged light line running down the centre of the back is punctuated by strong darker intrusions, the tail has a weak yellowish tinge, and in common with *C. obscura* but no other species, the dark line running from the eye along the back of the head and neck, is not distinct and well defined, but instead is an obscure and irregular zone of mottled dark and light pigment.

C. obscura is readily separated from *C. bobbottomi sp. nov*. by dorsal pattern, the former having a pattern of distinctive dorsal crossbands, not seen in the latter.

The other species formerly placed in the genus *Amalosia*, that are all now placed in the genus *Celertenues gen. nov.* are all readily separated from *Amalosia* including *A. jacovae* by having a tail that is cylindrical in cross section as opposed to being noticeably depressed.

Distribution: *Celertenues helengrasswillae sp. nov.* is found in Queensland, Australia in the coastal and near coastal region south of the Paluma Range in the North to Kroombit Tops in the south.

Etymology: Named in honour of Helen Grasswill, of Sydney, New South Wales, Australia, being ABC TV journalist with a career spanning four decades in honour of her significant contributions to wildlife conservation and journalism as outlined in the book *Smuggled-2: Wildlife Trafficking, Crime and Corruption in Australia* (Hoser, 1996).

AMALOSIA ALEXANDERDUDLEYI SP. NOV.

Holotype: A preserved specimen in the Australian Museum, Sydney, NSW, Australia, specimen number: R.159546, collected at the Moonbi Lookout, Moonbi Ranges, New South Wales, Australia, Latitude -30.99 S., Longitude 151.08 E.

The Australian Museum, Sydney, NSW, Australia is a government-owned facility that allows access its holdings.

Paratype: A preserved specimen in the Australian Museum, Sydney, NSW, Australia, specimen number: R.159547, collected at the Moonbi Lookout, Moonbi Ranges, New South Wales, Australia, Latitude -30.99 S., Longitude 151.08 E.

Diagnosis: Until now, all of *Amalosia alexanderdudleyi sp. nov.*, *A. phillipsi* Wells and Wellington, 1984 and *A. lesueurii* Duméril and Bibron, 1836 have been treated as being of the one species by all authors except for Wells and Wellington, who recognized two of the three species.

All are separated by allopatric distributions and can be differentiated by their DNA.

All can be readily separated from one another the following suites of characters: *A. lesueurii* Duméril and Bibron, 1836 has a generally greyish ground colour as opposed to brownish grey in both *A. phillipsi* and *A. alexanderdudleyi sp. nov.. A. alexanderdudleyi sp. nov.* and *A. lesueurii* have distinctive white patches on the upper labials which are absent in *A. phillipsi. A. phillipsi* is characterised by a dorsal pattern of large pale heart shaped blotches running down the middle of the back, most if not all separated from one another and prominently bounded by dark pigment. By contrast in *A. alexanderdudleyi sp. nov.* these mid-dorsal blotches are shrunken in size, being medium, with distinct brownish centres and all or mainly joined to give a distinct vertebral zig-zag pattern. In *A. lesueurii* the dorsal blotches are small to medium and lack any brown in the centres of them.

The flanks of *A. phillipsi* are characterised by a noticeable pattern of irregular whiteish squares or whitish blotches or large spots and without dark centres. In *A. alexanderdudleyi sp. nov.* the flanks are characterised by white ocelli with some or most being characterised by dark blackish-grey spots of varying size in the centre of each, as in one dark spot in the centre of the relevant ocelli. In *A. lesueurii* the flanks consist of a relatively indistinct flecked appearance being composed of dark grey and light grey flecking but without any obvious pattern.

Most of the upper surface of the head of *A. phillipsi* is covered in lighter pigment, even when including dark pigment concentrated near the centre of the dorsal surface. *A. alexanderdudleyi sp. nov.* has more dark pigment than light on the upper surface of the head. In *A. lesueurii* pigment on the head varies widely with locality and within locality, but usually hovers in the range of about half dark and half light pigment.

All three species are characterised as having vertebral zone characterised by pale blotches, zig-zag or similar, edged with dark brown or black running in combination more or less continuously. The tail is noticeably depressed. The species *A. jacovae* Couper, Keim and Hoskin, 2007 is most similar to *A. phillipsi* for which there has been speculation that it may be conspecific, but it is separated from the latter taxon by an absence of irregular whiteish squares or whitish blotches or large spots, being without dark centres on the flanks. The flanks of *A. jacovae* merely grade from dark grey to light and without any obvious spots or markings. The other species formerly placed in the genus *Amalosia*, that are all now placed in the genus *Celertenues gen. nov.* are all readily separated from *Amalosia* including *A. jacovae* by having a tail that is cylindrical in cross section as opposed to being noticeably depressed.

In the unlikely event that a later author finds *A. phillipsi* Wells and Wellington, 1984 and *A. jacovae* Couper, Keim and Hoskin, 2007 to be conspecific, it is the earlier name that takes priority and must be used.

Distribution: *Amalosia alexanderdudleyi sp. nov.* is found in the lower New England Tableland in New South Wales, Australia in a region generally bounded by the Hunter Valley in the south and a broad line running from Inverell in the West, across to Glen Innes in the east. The uplands region north of here has the morphologically similar *A. phillipsi* Wells and Wellington, 1985, while *A. lesueurii* is confined to the sandstone regions of Sydney, including the mountains to the west and south of Sydney.

Etymology: The taxon *Amalosia alexanderdudleyi sp. nov.* is named after Alexander Dudley, originally of Kenthurst, NSW, Australia but who has since moved to various locations, in recognition of more than 4 decades of herpetological work across Australia, including significant fieldwork on geckos within *Oedura sensu lato*.

MARLENEGECKO TRYONI EUNGELLAENSIS SUBSP. NOV.

Holotype: A preserved specimen in the Queensland Museum, Brisbane, Queensland, Australia, specimen number: J60613, collected at the Eungella township, Queensland, Australia, Latitude -21.13 S., Longitude 148.48 E.

The Queensland Museum, Brisbane, Queensland, Australia, is a government-owned facility that allows access to its holdings by scientists.

Paratypes: 1/ A preserved specimen in the Queensland Museum, Brisbane, Queensland, Australia, specimen number: J71507, collected at the picnic ground shed at Eungella National Park, Queensland, Australia, Latitude -21.17 S., Longitude 148.50 E.

2/ A preserved specimen in the Queensland Museum, Brisbane, Queensland, Australia, specimen number: J71216, collected at the Eungella National Park, Queensland, Australia, Latitude -21.17 S., Longitude 148.50 E.

Diagnosis: Until now *Marlenegecko tryoni eungellaensis subsp. nov.* from the Mackay region in north Queensland has been treated as an outlier population of the species *Marlenegecko tryoni* (De Vis, 1884) (formerly known as *Oedura tryoni* De Vis, 1884), as has another subspecies described herein, namely *Marlenegecko tryoni davidcharitoni subsp. nov.* from the escarpments west and south-west of Rockhampton, Queensland.

The nominate form of the species, namely *Marlenegecko tryoni tryoni* comes from Stanthorpe in Queensland, which is regarded herein as the typical form of the species.

This form ranges from North of the Hunter Valley in New South Wales, into southern Queensland, north to about Pine Creek and Bilolela and in various other locations southwest of Bilolela.

Morpologically specimens throughout this range share a number of consistent traits.

Molecular data also implies minimal divergence between relevant populations in New South Wales and southern Queensland (Moonbi Range and Tenterfield diverged at less than 2 MYA) and that in the absence of an obvious barrier between those populations, none within this zone currently require any form of taxonomic recognition.

In terms of the species described as *Oedura ocellata*, by Boulenger (1885), which had a given type locality of “Australia”, I can say that based on the nature of the yellow spots depicted on the body and limbs and their relative size in the image with the description (plate ix Fig. 1), it is clear that it is a specimen of the typical form of *M. tryoni tryoni.*

Hence “*O. ocellata*” is a subjective junior synonym of “*O.* (or *M.*) *tryoni*” and therefore at the present time is not an available name for other morphologically divergent populations described herein.

In terms of separating the three relevant taxa, the following traits are relevant.

Nominate *M. tryoni tryoni* is readily characterised by having numerous small yellow or white spots on the neck, body and limbs. The dorsal colour is mainly greyish brown.

By contrast both *M. tryoni eungellaensis subsp. nov.* and *Marlenegecko tryoni davidcharitoni subsp. nov.* are characterised by being reddish brown in dorsal colour as opposed to mainly greyish brown.

Both populations are also readily distinguished from *M. tryoni tryoni* by the relatively larger light spots or ocelli on the upper body, these being by far the largest in the Eungella (Mackay) population, herein identified as *M. tryoni eungellaensis subsp. nov..*

M. tryoni eungellaensis subsp. nov. specimens are also readily separated from the other two populations by a general absence

of whitish spots or ocelli on the any of the limbs, which is the standard condition in all other populations, being most prevalent on the limbs in New South Wales lizards.

M. tryoni eungellaensis subsp. nov. is unique among the trio in having the region between the eye and the nostril on each side being a uniform dark brown colour as opposed to light brown or mottled in the other two subspecies.

In *M. tryoni eungellaensis subsp. nov.* the oversized light ocelli adorning the dorsal surface, besides being large as opposed to smaller in both other subspecies are invariably a feint greyish-salmon-yellow colour as opposed to being bright yellow or cream in the other subspecies. The limbs of *M. tryoni eungellaensis subsp. nov.* have dark brown and light brown pigment on them, but no white or yellow spots or ocelli as seen in the other subspecies.

In both *M. tryoni eungellaensis subsp. nov.* and *M. tryoni davidcharitoni subsp. nov.* more than half the bright spots or ocelli on the back merge in some way, versus less than half in *M. tryoni tryoni.*

While *M. tryoni eungellaensis subsp. nov.* lacks white or yellow spots or ocelli on any of the limbs, in *M. tryoni davidcharitoni subsp. nov.* there are a small number of such spots on the forelimbs and they are numerous on the hindlimbs. These spots are numerous on both fore and hindlimbs in nominate *M. tryoni tryoni.*

Both *M. tryoni eungellaensis subsp. nov.* and *M. tryoni davidcharitoni subsp. nov.* are characterised by significant whitening of the toes, versus purplish brown toes in *M. tryoni tryoni.*

The general nature of the lighter spotting on the back of each subspecies readily separates them. While these are variable in all subspecies, in *M. tryoni tryoni* the majority present as small white spots, with a significant number either merged or presenting as oval shaped or vaguely rectangular. In *M. tryoni davidcharitoni subsp. nov.*, besides being larger than mere "dots" most dots or ocelli are joined to be either rectangular or ovoid. In *M. tryoni eungellaensis subsp. nov.* the same pale spots are enlarged to be of generally ovoid, but irregular shape and unlike the other two subspecies, in this subspecies light dorsal patches are of similar size (surface area) to the eye.

The species *M. tryoni* is readily separated from all other *Oedura*, *Fiacumminggecko gen. nov.* and *Marlenegecko gen. nov.* species by the following characters: Dorsal pattern of ocelli, these being generally smaller than the eye or if the same size as the eye, not noticeably larger than the eye, and not in a paired configuration down the back, although sometimes spots or ocelli may form broken crossbands, interorbitals 18-19 or more and mid body scale rows exceed 95, and while rarely one or other count may be lower than these, the other will not be.

Distribution: *Marlenegecko tryoni eungellaensis subsp. nov.* is found within the Eungella National Park, Queensland, Australia and immediately adjacent areas, near the township of Mackay in Queensland, Australia only. The known southern limit for this taxon is Cameron Ck, South-west of Sarina, Queensland, Latitude -21.59 S., Longitude 149.18 E.

Etymology: Named in reflection of where the holotype was collected and in recognition of the relatively restricted range of this taxon in that it is found within the Eungella National Park, Queensland, Australia and immediately adjacent areas, near the township of Mackay in Queensland, Australia only.

MARLENEGECKO TRYONI DAVIDCHARITONI SUBSP. NOV.

Holotype: A preserved specimen in the Queensland Museum, Brisbane, Queensland, Australia, specimen number: J38742, collected at Mimosa at the Blackdown Tableland, Queensland, Australia, Latitude -23.80 S., Longitude 149.13 E.

The Queensland Museum, Brisbane, Queensland, Australia, is a government-owned facility that allows access to its holdings by scientists.

Paratypes: Three more preserved specimens in the Queensland Museum, Brisbane, Queensland, Australia, specimen numbers: J34211, J28499 and J65591 also collected at the Blackdown Tableland, Queensland, Australia, Latitude -23.80 S., Longitude 149.13 E.

Diagnosis: Until now *Marlenegecko tryoni davidcharitoni subsp. nov.* from the escarpments west and south-west of Rockhampton, Queensland has been treated as an outlier population of the species *Marlenegecko tryoni* (De Vis, 1884) (formerly known as *Oedura tryoni* De Vis, 1884), as has another subspecies described herein, namely *Marlenegecko tryoni eungellaensis subsp. nov.* from the Mackay region in north Queensland.

The nominate form of the species, namely *Marlenegecko tryoni tryoni* comes from Stanthorpe in Queensland, which is regarded herein as the typical form of the species.

This form ranges from North of the Hunter Valley in New South Wales, into southern Queensland, north to about Pine Creek and Bilolela and in various other locations southwest of Bilolela.

Morpologically specimens throughout this range share a number of consistent traits and so are treated herein as a single subspecies level taxon.

Nominate *M. tryoni tryoni* is readily characterised by having numerous small yellow or white spots on the neck, body and limbs. The dorsal colour is mainly greyish brown.

By contrast both *M. tryoni eungellaensis subsp. nov.* and *Marlenegecko tryoni davidcharitoni subsp. nov.* are characterised by being reddish brown in dorsal colour as opposed to mainly greyish brown.

Both populations are also readily distinguished from *M. tryoni tryoni* by the relatively larger light spots or ocelli on the upper body, these being by far the largest in the Eungella (Mackay) population, herein identified as *M. tryoni eungellaensis subsp. nov..*

M. tryoni eungellaensis subsp. nov. specimens are also readily separated from the other two populations by a general absence of whitish spots or ocelli on the any of the limbs, which is the standard condition in all other populations, being most prevalent on the limbs in New South Wales lizards.

M. tryoni eungellaensis subsp. nov. is unique among the trio in having the region between the eye and the nostril on each side being a uniform dark brown colour as opposed to light brown or mottled in the other two subspecies.

In *M. tryoni eungellaensis subsp. nov.* the oversized light ocelli adorning the dorsal surface, besides being large as opposed to smaller in both other subspecies are invariably a feint greyish-salmon-yellow colour as opposed to being bright yellow or cream in the other subspecies. The limbs of *M. tryoni eungellaensis subsp. nov.* have dark brown and light brown pigment on them, but no white or yellow spots or ocelli as seen in the other subspecies.

In both *M. tryoni eungellaensis subsp. nov.* and *M. tryoni davidcharitoni subsp. nov.* more than half the bright spots or ocelli on the back merge in some way, versus less than half in *M. tryoni tryoni.*

While *M. tryoni eungellaensis subsp. nov.* lacks white or yellow spots or ocelli on any of the limbs, in *M. tryoni davidcharitoni subsp. nov.* there are a small number of such spots on the forelimbs and they are numerous on the hindlimbs. These spots are numerous on both fore and hindlimbs in nominate *M. tryoni tryoni.*

Both *M. tryoni eungellaensis subsp. nov.* and *M. tryoni davidcharitoni subsp. nov.* are characterised by significant whitening of the toes, versus purplish brown toes in *M. tryoni tryoni.*

The general nature of the lighter spotting on the back of each subspecies readily separates them. While these are variable in all subspecies, in *M. tryoni tryoni* the majority present as small

white spots, with a significant number either merged or presenting as oval shaped or vaguely rectangular. In *M. tryoni davidcharitoni subsp. nov.*, besides being larger than mere "dots" most dots or ocelli are joined to be either rectangular or ovoid. In *M. tryoni eungellaensis subsp. nov.* the same pale spots are further enlarged to be of generally ovoid, but irregular in shape and unlike the other two subspecies, in this subspecies numerous light dorsal patches are of similar size (surface area) to the eye (which incidentally contradicts the diagnosis for the species "*Oedura tryoni*" in Cogger (2014).

The species *M. tryoni* is readily separated from all other *Oedura*, *Fiacumminggecko gen. nov.* and *Marlenegecko gen. nov.* species by the following characters: Dorsal pattern of ocelli, these being generally smaller than the eye or if the same size as the eye, not noticeably larger than the eye, and not in a paired configuration down the back, although sometimes spots or ocelli may form broken crossbands, interorbitals 18-19 or more and mid body scale rows exceed 95, and while rarely one or other count may be lower than these, the other will not be (adapted and modified from Cogger (2014).

Distribution: *Marlenegecko tryoni davidcharitoni subsp. nov.* is found within the region encompassed by the escarpments west and south-west of Rockhampton, Queensland, in particular the Blackdown Tableland about 50 km in a straight line west, south-west of Rockhampton.

Specimens from north of Cameron Ck, South-west of Sarina, Queensland, Latitude -21.59 S., Longitude 149.18 E. are referrable to the subspecies *M. tryoni eungellaensis subsp. nov.* while those found south of Pine Creek and Bilolela and through south-east Queensland and into northern New South Wales, north of the Hunter River Valley are referrable to the subspecies *M. tryoni tryoni.*

Etymology: Named in honour of David Chariton of Sydney, New South Wales, Australia who in the 1970's and early 1980's assisted me with some very intensive herpetological fieldwork in the greater Sydney region.

NEBULIFERA ROBUSTA MERCEICAI SUBSP. NOV.

Holotype: A preserved specimen in the Queensland Museum, Brisbane, Queensland, Australia, specimen number: J44338, collected at the Blackdown Tableland, Queensland, Australia, Latitude -23.80 S., Longitude 149.13 E.

The Queensland Museum, Brisbane, Queensland, Australia, is a government-owned facility that allows access to its holdings by scientists.

Paratypes: Three more preserved specimens in the Queensland Museum, Brisbane, Queensland, Australia, specimen numbers: J44339, J80446, J34210, all collected in the same general vicinity of the Blackdown Tableland, Queensland, Australia, Latitude -23.80 S., Longitude 149.13 E.

Diagnosis: *Nebulifera robusta merceicai subsp. nov.* has until now been treated as a population of *Nebulifera robusta* (Boulenger, 1885), which it would otherwise be identified as.

N. robusta merceicai subsp. nov. is separated from *N. robusta robusta* by the following characters: In *N. robusta merceicai subsp. nov.* the dorsal pattern is one of largeish creamy blotches separated by large areas of dark brown pigment. The light blotches of irregular shape are well separated by darker pigment, with dark pigment occupying about half the upper surface of the medial line of the back. By contrast in *N. robusta robusta* the pattern along the medial line of the back is one of very large irregular ovoid blotches tightly bounded by dark brown or blackish pigment. In some specimens of *N. robusta robusta* these blotches merge to give a zig-zag appearance, this trait being most common in specimens from near the coast in south-east Queensland and far northern New South Wales, but is seen throughout much of the range of the nominate subspecies.

In *N. robusta robusta* the mid and lower flanks of the body are generally whiteish, with the boundary from the dark pigment completely surrounding the lighter blotches on the upper body (as a thickened line) being well defined. By contrast in *N. robusta merceicai subsp. nov.* the transition from the dark pigment on the upper surface to the lighter flanks is not well defined or obvious. Furthermore, in *N. robusta merceicai subsp. nov.* the middle and lower flanks are strongly peppered, pretty much to the belly and with occasional dark flecks or spots, neither trait of which is seen in the nominate subspecies.

N. robusta robusta has minimal dark or dark brown pigment on the dorsal surface of the snout anterior to the eyes, whereas the reverse is the case in *N. robusta merceicai subsp. nov.* which has 50 per cent or more dark brown pigment in that area.

The dark streak running from the eye to the back of the head is usually straight in *N. robusta robusta* and invariably of even thickness along its length, even if interrupted or bent. By contrast the same line in *N. robusta merceicai subsp. nov.* is punctuated by indentations of light pigment or general inflections and is of uneven thickness along its length, becoming wider posteriorly, and this widening is before this streak joins and merges with a dark crossband running across the back of the skull (an occipital band).

The genus *Nebulifera* Oliver, Bauer, Greenbaum, Jackman and Hobbie, 2012 which includes only the species *N. robusta* is separated from all other Australian geckos by the following suite of characters: The digits have two pairs on enlarged subdigital lamellae (excluding enlarged apical plates); at least some digits have claws, a distal pair of enlarged plates on the lower surface of each digit, quite distinct from and discontinuous with the remaining subdigital lamellae or tubercles; dorsal scales are minute, granular and noticeably smaller than the ventrals; two or more enlarged post-anal tubercles on each side; A dark dorsolateral zone or band on each side of the body commencing as a line from the rear of the eye, extending to the beginning of the tail, forming a distinctive zone of dark pigment on the upper flanks, the two bands more-or less joined by a series of partial or complete transverse bars (the first usually complete across the occiput), so as to enclose a series of irregular greyish pale coloured dorsal blotches that may be rhomboidal, ovoid or irregular in shape and are usually large with their boundaries either close to one another and sometimes connecting or fusing to merge; there is a usually complete dark occipital band; the tail is depressed being noticeably wider than deep and the size attained is up to about 110 mm snout vent length and the build is stout making the lizards appear larger and more robust than their snout-vent measurements would indicate.

Distribution: *Nebulifera robusta merceicai subsp. nov.* is apparently restricted to the Blackdown Tableland National Park situated about 80 km straight line west, south west of Rockhampton in Queensland and areas immediately to the south in nearby parts of Queensland, Australia.

Etymology: Named in honour of David Merceica, formerly of Victoria and now of the Sunshine Coast in Queensland, Australia in recognition of some decades of excellent captive breeding work with Australian reptiles.

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CONFLICT OF INTEREST

The author has no known conflicts of interest in terms of this paper and conclusions within.

New arrangement in tribe Fiacumminggeckoini tribe nov.

Genus *Oedura* Gray, 1842

Oedura marmorata Gray, 1842 (Type species)
Oedura bella Oliver and Doughty, 2016
Oedura bulliardi sp. nov.
Oedura cincta De Vis, 1888
Oedura derelicta Wells and Wellington, 1985
Oedura fimbria Oliver and Doughty, 2016
Oedura gemmata King and Gow, 1983
Oedura greeri Wells and Wellington, 1985 (*Oedura luritja* Oliver and McDonald, 2016 is an illegally coined junior synonym of this)
Oedura rentonorum sp. nov.

Subgenus *Fereoedura subgen. nov.*

Oedura (*Fereoedura*) *filicipoda* King, 1985 (Type species)
Oedura (*Fereoedura*) *murrumanu* Oliver, Laver, Melville and Doughty, 2014

Genus *Fiacumminggecko gen. nov.*

Fiacumminggecko fiacummingae sp. nov. (Type species)
Fiacumminggecko charlespiersoni sp. nov.
Fiacumminggecko dorisioi sp. nov.
Fiacumminggecko gracilis (King, 1985)
Fiacumminggecko julianfordi sp. nov.
Fiacumminggecko matteoae sp. nov.
Fiacumminggecko richardwellsi sp. nov.
Fiacumminggecko rosswellingtoni sp. nov.

Genus *Marlenegecko gen. nov.*

Marlenegecko shireenhoserae sp. nov. (Type species)
Marlenegecko attenboroughi (Wells and Wellington, 1985)
Marlenegecko monilis (De Vis, 1888)
Marlenegecko tryoni (De Vis, 1884)

Subgenus *Robwatsongecko subgen. nov.*

Marlenegecko (*Robwatsongecko*) *castelnaui* (Thominot, 1889) (Type species)
Marlenegecko (*Robwatsongecko*) *coggeri* (Bustard, 1966)
Marlenegecko (*Robwatsongecko*) *jowalbinna* (Hoskin and Higgie, 2008)

Genus *Amalosia* Wells and Wellington, 1984.

Amalosia lesueurii (Duméril and Bibron, 1836) (Type species)
Amalosia alexanderdudleyi sp. nov.
Amalosia jacovae (Couper, Keim and Hoskin, 2007)
Amalosia phillipsi Wells and Wellington, 1984

***Celertenues gen. nov.* (Fast and thin in latin)**

Celertenues bobbottomi sp. nov. (Type species)
Celertenues evanwhittoni sp. nov.
Celertenues helengrasswillae sp. nov.
Celertenues obscura (King, 1984)
Celertenues rhombifer (Gray, 1845)

Genus *Hesperoedura* Oliver, Bauer, Greenbaum, Jackman and Hobbie, 2012.

Hesperoedura reticulata (Bustard, 1969) (Monotypic)

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A break-up of the Australian gecko genus *Strophurus* Fitzinger, 1843 *sensu lato* as currently recognized, from one to four genera, with two new subgenera defined, description of nine new species and two new subspecies.

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ABSTRACT

The genus *Strophurus* Fitzinger, 1843 *sensu lato* has been the subject of numerous taxonomic reviews in recent years.

With the exception of Wells and Wellington (1985), no recently publishing herpetologists have broken up the genus beyond that defined by Cogger (2014), which sums up the current position in Australian herpetology.

Recognizing recent molecular work on the assemblage (e.g. Sadlier, Omeally and Shea (2005) or Nielsen *et al*. 2016), *Strophurus* is herein divided into four obvious and divergent genera. One is formally named for the first time.

One of these genera is subdivided three ways into subgenera, two being named for the first time.

In spite of four species being named in the past three years (two as subspecies, but elevated herein to species status on the basis of time of divergence), molecular evidence clearly shows numerous unnamed forms.

To partially correct this situation, nine new easily diagnosed species and two new subspecies are formally named for the first time.

A complete list of recognized and valid species, confirmed by published molecular data is also provided.

Keywords: Taxonomy; lizards; Australia; Western Australia; Northern Territory; Queensland; Gecko; *Strophurus*; *Eremiastrophrurus*; *Oedurella*; new genus; *Adelyndactylus*; new subgenus; *Graciledactylus*; *Parvusdactylus*; new species; *jackyae*; *dannybrowni*; *gedyei*; *chriswilliamsi*; *jenandersonae*; *alba*; *jamielindi*; *garystephensoni*; *sonnemanni*; new subspecies; *obscurum*; *minima*.

INTRODUCTION

The genus *Strophurus* Fitzinger, 1843 more recently applied to the so-called spiny tailed geckos, was effectively ignored by most herpetologists until resurrected by Wells and Wellington in their major work of 1985 (Wells and Wellington, 1985).

Since then the genus has been widely recognized in Australian herpetology as being separate from other species within the genus *Oedura* Gray, 1842 *sensu lato* with this group (*Strophurus*) including all the species with caudal mucous glands and associated ejection mechanisms, and transversely enlarged (as opposed to rounded and paired) proximal subdigital lamellae.

The rest of *Oedura* Gray, 1842 *sensu lato* is dealt with in a separate paper published at the same time as this (Hoser, 2017a) and is therefore ignored for the purposes of this paper.

In terms of *Strophurus sensu lato*, while all species are united by caudal mucous glands and associated ejection mechanisms, and transversely enlarged (as opposed to rounded and paired) proximal subdigital lamellae, the individual species form distinct morphologically distinct groups.

On this basis, Wells and Wellington (1985) resurrected the genus *Oedurella* Lönnberg and Andersson, 1913, for the divergent and small so-called "phasmid gecko", originally described as "*Oedurella taeniata* Lönnberg and Andersson, 1913", and also created a new genus, *Eremiastrophrurus*

Wells and Wellington, 1985, for the divergent species described as "*Diplodactylus elderi* Stirling and Zeitz, 1893".

At the same time, they divided the two main populations of the species "*Diplodactylus elderi*" as then recognized into two.

In spite of overwhelming evidence accumulating in favour of the Wells and Wellington actions in the three decades since their publication of 1985, spearheaded by a gang of thieves known as the Wüster gang as described by Hoser (2015a-f), not one single publishing herpetologist has used either the Wells and Wellington genus name or recognized the species *Eremiastrophrurus manhoodi* as originally described by them.

This attests to the power of threats of violence and other forms of personal harm made on herpetologists by members of the Wüster gang over the three decades since publication of Wells and Wellington (1985) and the immense damage done to the science of herpetology by this gang.

In terms of overwhelming evidence in favour of the taxonomy and nomenclature of Wells and Wellington with regards to the genus *Eremiastrophrurus*, or the formal recognition of the species *Eremiastrophrurus manhoodi*, one need look no further than the publication of Nielsen *et al.* (2016) at Fig. 1, page 486, which shows a significant divergence at both genus and species levels for the relevant taxa. Alternatively, one may look at the very animals themselves, or for those who prefer not to leave the comfort of their own armchair, merely take a look at page 355 of Brown (2014) and one sees pictures of both taxa, side by side at the bottom of the page (*Eremiastrophrurus elderi* on the left and *Eremiastrophrurus manhoodi* to the right), with all their obvious differences, including those identified and spelt out by Wells and Wellington in 1985.

On this basis, the very valid and properly identified Wells and Wellington taxa are herein formally recognized and their nomenclaturally available names are used in accordance with the rules of the *International Code of Zoological Nomenclature* (Ride *et al*. 1999).

Illegal names for these or other taxa coined by the Wüster gang in online PRINO (peer reviewed in name only) journals they have hijacked, such as *Zootaxa*, should be ignored and not used under any circumstance.

However, I recognize the ongoing threats and harassment of scientists who go against the terrorist like edicts and demands of Wolfgang Wüster and his associated band of thugs and thieves.

It is also a matter of public record that illegal actions of the Wüster gang and associates have caused deaths of a number of very competent herpetologists, including for example Luke Yeomans in the UK and Nathan Garrod in Queensland, Australia.

For defying the demands of the Wüster gang, myself and my family have been subject of criminal attacks to both our persons and property, as have many of my co-workers and it is the fear of such occurring that has been forcing many competent herpetologists to bow down to the illegal demands of the Wüster gang and using the illegal nomenclature (coined in breach of the *International Code of Zoological Nomenclature*) instead of the legal nomenclature.

The publication of the paper by Nielsen *et al*. (2016) coincided with an audit of *Strophurus sensu lato* (as defined by Cogger (2014) and similar texts) by myself, with a view to dividing the genus along obvious morphological and phylogenetic lines.

At the same time I audited the known species within the group to see if there were any unrecognized groups in need of either being formally recognized and/or formally named for the first time.

Long aware of the illegal suppression of the works of Wells and Wellington by the Wüster gang and long aware of the fact that valid and appropriate Wells and Wellington names for taxa were not being used, this paper already had a reason for publication on that basis alone.

Also having spent more than 30 years active across Australia catching and observing relevant species, I was well aware that the recognized species diversity of the group as listed in Cogger (2014) or the Wüster gang controlled "The Reptile Database" managed by Peter Uetz, listing just 19 species as at end 2016, was an understatement of the total, so I decided to identify and name obvious unnamed taxa, which is done in this paper.

MATERIALS AND METHODS

The identification of the relevant genus and species groups was easily achieved by simple inspection of relevant specimens, live in the field, in museums and via images sent to me by others with accurate locaility and/or other data. In terms of species level groups, biological barriers were identified by combining known locality data with known geographical barriers, most of which have become well known to myself in my various researches on other reptile groups inhabiting the same regions.

The formal naming exercises are a direct result of a review of the relevant literature to identify all previously named groups at both species and genus level, including known synonyms and potentially available names according to the rules of the *International Code of Zoological Nomenclature* (Ride *et al*. 1999).

I should mention that any names coined in online non peer reviewed or PRINO (peer reviewed in name only) journals like *Zootaxa* are usually available under the current and relevant rules of the *International Code of Zoological Nomenclature* as amended online and so are treated as valid and used when appropriate herein.

This assumes that the names are not junior synonyms of earlier properly proposed names.

Available names are used as appropriate (in the paper below) and where none was available the relevant entities are named according to the provisions of the *International Code of Zoological Nomenclature.*

While the species, genera and subgenera diagnosed herein are done so on the basis of their own physical characters, it is important to note the guidance given by relevant earlier publications (quoted herein), which in combination show that the taxonomic conclusions within this paper are not only logical, but are in fact a mere statement of the obvious.

Divergence times of species or genus level groups are taken from the published literature as cited herein.

How long it will take other herpetologists to adopt and use the taxonomy within this paper will not depend on the merits of what is published herein, so much as how willing they are to brave the hatred and harassment from a group known as the Wüster gang, who will seek to do all they can

to stop others from using any taxonomy or nomenclature formally proposed by myself (see Hoser 2015a-f).

Their actions are dictated by personal hatred and an illegal desire to steal the intellectual property of others rather than any scientific arguments they may allege.

The unscientific and highly illegal actions of this group have been documented in detail in the papers of Hoser (2015a-f) and sources cited therein and even publicly condemned by judges in law courts (Court of Appeal 2014, Victorian Civil and Administrative Tribunal (VCAT) 2015).

Key publications relevant to the genus *Strophurus* Fitzinger, 1843 *sensu lato*, and all the taxonomic judgements and conclusions herein as well as the legal nomenclature that follows on from this, include: Andrews *et al.* (2013), Barts and Hulbert (2004), Bauer (2013), Bauer *et al.* (1989), Böhme and Sering (1997), Boulenger (1885, 1887), Brown (2014), Brown *et al.* (2012), Cogger (1975, 1983, 2000, 2014), Cogger *et al.* (1983), Colgan *et al.* (2009), Covacevich *et al.* (1998), De Vis (1886), Doody *et al.* (2013), Duméril and Bibron (1836), Escoriza Boj (2005), Even (2005), Fallend (2007), Fitzinger (1843), Glauert (1952, 1956), Gray (1842), Greer (1989), Han *et al.* (2004), Hoser (1989, 2005, 2007, 2015a-f, 2016a-b, 2017a-b), ICZN (1991), Kay *et al.* (2013), Kinghorn (1924, 1929), Kluge (1963), Laube (1993, 1997), Laube and Langner (2007), Laube and Seipp (1998), Longman (1916), Lönnberg and Andersson (1913), Loveridge (1934), Maryan (2005), Mayer (2014), Michael *et al.* (2011), Mitchell (1955), Nielsen *et al.* (2016), Ogilby (1892), Oliver and Bauer (2011), Oliver and Doughty (2016), Oliver and McDonald (2016), Oliver and Parkin (2014), Oliver *et al.* (2010, 2012, 2014a, 2014b), Pavey *et al.* (2016), Pianka (1969, 1986), Pianka and Pianka (1976), Pianka and Vitt (2003), Porter (2001, 2002), Ride *et al.* (1999), Rosauer *et al.* (2016), Rosenberg and Russell (1980), Rösler (1995, 2000a, 2000b), Sadlier *et al.* (2015), Shea and Wells (1984), Smith (1995), Stirling and Zietz (1893), Storr (1978, 1979, 1983, 1988a, 1988b, 1988c), Storr, Smith and Johnstone (1990), Tremper Jr (1999), Vanderduys (2016), Wellington (2016), Wells and Wellington (1984, 1985), Werner (1910), Wilson and Knowles (1988), Wilson and Swan (2010, 2013) and sources cited therein.

Some material within descriptions below may be repeated for different described taxa and this is in accordance with the provisions of the *International Code of Zoological Nomenclature* and the legal requirements for each description. I make no apologies for this.

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

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.

This comment is made noting the extensive increase in human population in Australia and the general environmental destruction across the continent as documented by Hoser (1991, 1993, 1996), 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 Australian region over the past 200 years as detailed by Hoser (1989, 1991, 1993 and 1996).

RESULTS

An audit of the relevant literature identified significant and compelling reasons to divide the genus *Strophurus sensu lato* into four genera, for which names are available for three genera. The fourth is formally named for the first time herein.

One of these generic groupings also has a basis for a three-way division at the genus level, but the morphological similarity of all species, best known as the "Phasmid Geckos" has led me to define each of the three relevant groups as subgenera within the resurrected genus *Oedurella* Lönnberg and Andersson, 1913.

While numerous papers provide a molecular basis for the preceding, Nielsen *et al.* (2016) at Fig. 1, page 486 provides a recent basis for this.

The morphological basis for the four-way division of the genera defined herein is seen by inspection of the lizards themselves, or for that matter perusal of an identification manual such as Cogger (2014), or earlier texts such as Wilson and Knowles (1988) of Wilson and Swan (2013).

I should note that the newly created genus has a divergence of about 15 MYA from common ancestors of other genera and that the relevant named subgenera all diverged from one another about 10 MYA according to the data provided by Nielsen *et al.* (2016).

At the species and subspecies level, Nielsen *et al.* (2016) also identify numerous potential species in the phylogeny presented at Fig. 1, page 486.

Following on from that and from direct inspection of relevant specimens, in life, in museums and by way of locality based images, I was able to identify nine taxa worthy of full species level recognition.

And two more as subspecies. All taxa appear to be allopatric with respect to the species they have until now been classified as.

I note that as per the edicts of the Wüster gang, Nielsen *et al.* (2016) failed to recognize Wells and Wellington named taxa at either the genus or species level, even though their molecular results clearly confirmed both.

Therefore on the basis of the evidence of Nielsen *et al.* (2016) all relevant taxonomic and nomenclatural actions by Wells and Wellington are adopted in this paper.

This includes for example recognition of the genera *Oedurella* Lönnberg and Andersson, 1913 for the so-called Phasmid geckos and also *Eremiastrophrurus* Wells and Wellington, 1985 for the "*Diplodactylus elderi* Stirling and Zietz, 1893" group of species.

Also recognized is the taxon *Eremiastrophrurus mahoodi* Wells and Wellington, 1985 based on the unequivocal molecular evidence provided by Nielsen *et al.* (2016).

The divergent species currently known as *Strophurus wilsoni* (Storr, 1983) is herein placed in the monotypic genus *Adelyndactylus gen. nov.*.

At the time Brown *et al.* (2012) divided the species *Strophurus taenicauda* (De Vis, 1886) into three subspecies, I was of the view that the three taxa should be treated as full species.

Their own molecular data supported that contention, as does that of Nielsen *et al.* (2016) and so I have elevated

the trio of taxa to full species for the first time.

Species level taxa clearly warranting splits as identified in the results of Nielsen *et al.* (2016) and Sadlier, Omeally and Shea (2005), include *Strophurus intermedius* (Ogilby, 1892), *Strophurus krisalys* Sadlier, Omeally and Shea, 2005, *Strophurus williamsi* (Kluge, 1963) and *Strophurus wellingtonae* (Storr, 1988). In terms of the first two, and the fourth, these species are split two ways with a new species formally named in each case. *S. williamsi* is split three ways with two new species formally named for the first time.

For *Strophurus intermedius* (Ogilby, 1892), the south-west Australian population is also formally named herein as a subspecies.

Another taxon conservatively described herein as a subspecies is the eastern population of the species identified herein as *Oedurella taeniata* Lönnberg and Andersson, 1913.

Two other related and similar north-west Australian species, *Oedurella mcmillani* (Storr, 1978) and *Oedurella robinsoni* (Smith, 1995) are divided into a total of six morphologically and genetically divergent species, four being formally named for the first time. The new species have at times been treated as both *O. mcmillani* and *O. robinsoni.*

The species described as *Strophurus congoo* Vanderduys, 2016 is left in that genus on the basis of morphological similarity to others within *Strophurus* as defined in this paper, as well as the molecular evidence cited by Vanderduys (2016).

NOTES ON THE DESCRIPTIONS FOR ANY POTENTIAL REVISORS

Unless mandated by the rules of the *International Code of Zoological Nomenclature*, none of the spellings of the newly proposed names should be altered in any way. The names created herein have also been created with a view to avoiding any potential homonymy with earlier established names.

Should one or more newly named taxa be merged by later authors to be treated as a single entity, the order of priority of retention of names should be the order (page priority) of the descriptions within this text (which is the same as that listed in the abstract).

Below are the appropriate genus (and subgenus) level descriptions followed by the (new) species and subspecies descriptions. In terms of the latter, they are placed within the genera as outlined in the following section of this paper, this being the new taxonomy and nomenclature for the relevant group/s of reptiles.

Characters used to identify each genus described below are largely derived from the standardized accounts given in Cogger (2014) and Wilson and Swan (2013) as they are all simple and can be employed easily in the field.

Latitude and Longitude information is given in degrees (first two digits) and minutes (second two digits after the period).

Below I also define and diagnose for the first time the four relevant genera formerly included within *Strophurus sensu lato.*

The only species and subspecies taxon levels defined herein are those newly named for the first time.

For the other relevant species (as appears in the species list with this paper), diagnostic information can be found in the relevant descriptions.

In terms of all previously named species, one should note that except for *Strophurus aberrans* Glauert, 1952, *Strophurus albiocularis* Brown, Worthington, Wilmer and Macdonald, 2012, *Strophurus congoo* Vanderduys, 2016, *Strophurus triaureus* Brown, Worthington, Wilmer and Macdonald, 2012, *Eremiastrophrurus mahoodi* Wells and Wellington, 1985 and *Oedurella horneri* (Oliver and Parkin, 2014), comparative descriptive and diagnostic information can be found in Cogger (2014) at pages 332 to 344.

For the other six (just listed) species, diagnostic information separating them from their nearest congeners can be found in the original descriptions.

I note in passing that this also includes for the formal description of *Eremiastrophrurus mahoodi* Wells and Wellington, 1985, which does properly differentiate this taxon from the similar *Eremiastrophrurus elderi* (Stirling and Zeitz, 1893) and is therefore NOT a "*nomen nudem*" as defined in the *International Code of Zoological Nomenclature*, as has been unlawfully alleged by members of the Wüster gang.

GENUS *STROPHURUS* FITZINGER, 1843

Type species: *Diplodactylus* (*Strophurus*) *dumerilii* Fitzinger, 1843.

Diagnosis: The genus *Strophurus* Fitzinger, 1843 is within a tribe that was included with

the genus *Oedura* Gray, 1842 as defined in another paper published at the same time as this one (Hoser 2017a).

The subtribe is separated from the other four subtribes by presence of caudal glands and associated ejection mechanisms, and transversely enlarged (as opposed to rounded and paired) proximal subdigital lamellae.

Strophurus species are further characterised and diagnosed by having labials that are larger than the other adjacent scales on the snout. Postmentals are usually enlarged. Digits are relatively short, wide and obviously horizontally flattened. Apical plates are greatly enlarged. Undivided secondary lamellae are broad. Primary, secondary and tertiary lamellae are distinct. A lateral pair of cloacal bones are absent in the males. Scales above the distal expansions are more or less equal in size to those above the basal parts of the digits. Digits lie flat to the surface when viewed laterally (i.e. through glass). All digits have claws that are small, retractile and lie in a groove between the distal lamellae.

The preceding is in effect the diagnosis of the genus *Strophurus* as defined in Cogger (2014) and similar contemporary texts which included all species in the relevant subtribe herein included in four newly defined and separated genera.

In terms of the four newly separated and defined genera, *Strophurus* is alone in having males with pre-anal pores, readily separating it from the three others.

The genus *Eremiastrophrurus* Wells and Wellington, 1985 is separated from other genera by the following suite of characters: no pre-anal pores in males; vertical rostral crease is incomplete, extending only half way down the rostral; the body is of a moderate build, nostril surrounded by fewer than seven scales, no ventral stripe; there are scattered enlarged tubercles along the body.

The genus *Oedurella* Lönnberg and Andersson, 1913 is separated from other genera by the following suite of characters: no pre-anal pores in males; vertical rostral crease is almost complete or complete, the body is of a

slight and slender build and there is a ventral stripe.

Within *Oedurella* there are three subgenera. The nominate subgenus *Oedurella subgen. nov*. is separated from the subgenus *Graciledactylus gen. nov*. by having a rostral excluded from the nostril, versus one contacting the nostril in the subgenus *Graciledactylus gen. nov.*. Both these subgenera are separated from the subgenus *Parvusdactylus subgen. nov.* by having less than seven scales surrounding the nostril, versus more than seven in *Parvusdactylus subgen. nov.*.

The genus *Adelyndactylus gen. nov.* is separated from other genera by the following suite of characters: no pre-anal pores in males; no enlarged dorso-lateral or scattered tubercles along the body, tail only about 50% of the snout-vent length; dorsal colour pattern of faint longitudinal stripes and body of moderate build.

Distribution: Most of continental Australia, except for the coldest parts including Tasmania.

Content: *Strophurus strophurus* (Duméril and Bibron, 1836) (Type species);

S. aberrans (Glauert, 1952); *S. albiocularis* Brown, Worthington, Wilmer and Macdonald, 2012; *S. assimilis* (Storr, 1988); *S. ciliaris* (Boulenger, 1885); *S. congoo* Vanderduys, 2016; *S. chriswilliamsi sp. nov.*; *S. dannybrowni sp. nov.*; *S. gedyei sp. nov.*; *S. jackyae sp. nov.*; *S. jenandersonae sp. nov.; S. intermedius* (Ogilby, 1892); *S. krisalys* Sadlier, Omeally and Shea, 2005; *S. rankini* (Storr, 1979); *S. spinigerus* (Gray, 1842); *S. taenicauda* (De Vis, 1886); *S. triaureus* Brown, Worthington, Wilmer and Macdonald, 2012; *S. wellingtonae* (Storr, 1988); *S. williamsi* (Kluge, 1963).

GENUS *EREMIASTROPHURUS* WELLS AND WELLINGTON, 1985

Type species: *Diplodactylus elderi* Stirling and Zeitz, 1893.

Diagnosis: The genus *Eremiastrophrurus* Wells and Wellington, 1985, has until now been treated by publishing authors as being a synonym of *Strophurus* Fitzinger, 1843, even though molecular data shows that the assemblage identified by this name is worthy of genus level recognition. Hence this diagnosis.

The genus *Eremiastrophrurus* Wells and Wellington, 1985 is separated from all species in other genera previously included within *Strophurus*, namely *Strophurus*, *Oedurella* Lönnberg and Andersson, 1913 and *Adelyndactylus gen. nov.* by the following suite of characters: no pre-anal pores in males; vertical rostral crease is incomplete, extending only half way down the rostral; the body is of a moderate build, nostril surrounded by fewer than seven scales, no ventral stripe and scattered enlarged tubercles along the body.

The subtribe including these four genera are separated from the other four subtribes in the species grouping by presence of caudal glands and associated ejection mechanisms, and transversely enlarged (as opposed to rounded and paired) proximal subdigital lamellae.

Eremiastrophrurus, *Strophurus*, *Oedurella* and *Adelyndactylus gen. nov* species are further characterised and diagnosed by having labials that are larger than the other adjacent scales on the snout. Postmentals are usually enlarged. Digits are relatively short, wide and obviously horizontally flattened. Apical plates are greatly enlarged. Undivided secondary lamellae are broad. Primary, secondary and tertiary lamellae are distinct. Lateral pair of cloacal bones are absent in the males. Scales above the distal expansions are more or less equal in size to those above the basal parts of the digits. Digits lie flat to the surface when viewed laterally (i.e. through glass). All digits have claws that are small, retractile and lie in a groove between the distal lamellae.

The preceding is in effect the diagnosis of the genus *Strophurus* as defined in Cogger (2014) and similar contemporary texts which included all species in the relevant subtribe herein included in four newly defined and separated genera.

In terms of the four newly separated and defined genera, *Strophurus* is alone in having males with pre-anal pores, readily separating it from the three others.

The genus *Oedurella* Lönnberg and Andersson, 1913 is separated from other genera by the following suite of characters: no pre-anal pores in males; vertical rostral crease is almost complete or complete, the body is of a slight and slender build and there is a ventral stripe.

Within *Oedurella* there are three subgenera. The nominate subgenus *Oedurella subgen. nov*. is separated from the subgenus *Graciledactylus gen. nov*. by having a rostral excluded from the nostril, versus one contacting the nostril in the subgenus *Graciledactylus gen. nov.*. Both these subgenera are separated from the subgenus *Parvusdactylus subgen. nov.* by having less than seven scales surrounding the nostril, versus more than seven in *Parvusdactylus subgen. nov.*.

The genus *Adelyndactylus gen. nov.* is separated from other genera by the following suite of characters: no pre-anal pores in males; no enlarged dorso-lateral or scattered tubercles along the body, tail is only about 50% of the snout-vent length; dorsal colour pattern of faint longitudinal stripes and a body of moderate build.

Distribution: Drier parts of central, southern and Western Australia, excluding the farthest south and tropical areas.

Content: *Eremiastrophrurus elderi* (Stirling and Zeitz, 1893) (Type species); *E. mahoodi* Wells and Wellington, 1985; *E. michaelseni* (Werner, 1910).

GENUS *OEDURELLA* LÖNNBERG AND ANDERSSON, 1913

Type species: *Oedurella taeniata* Lönnberg and Andersson, 1913.

Diagnosis: The genus *Oedurella* Lönnberg and Andersson, 1913, has until now been treated by publishing authors as being a synonym of *Strophurus* Fitzinger, 1843, even though molecular data shows that the assemblage identified by this name is worthy of genus level recognition. Hence this diagnosis.

The genus *Oedurella* Lönnberg and Andersson, 1913 is separated from all species in other genera previously included within *Strophurus*, namely *Strophurus*, *Eremiastrophrurus* Wells and Wellington, 1985 and *Adelyndactylus gen. nov.* by the following suite of characters: No pre-anal pores in males; vertical rostral crease is almost complete or complete, the body is of a slight and slender build and there is a ventral stripe.

Within *Oedurella* there are three subgenera. The nominate subgenus *Oedurella subgen. nov*. is separated from the subgenus *Graciledactylus subgen. nov.* by having a rostral excluded from the nostril, versus one contacting the nostril in the subgenus *Graciledactylus subgen. nov.*. Both these subgenera are separated from the subgenus

Parvusdactylus subgen. nov. by having less than seven scales surrounding the nostril, versus more than seven in *Parvusdactylus subgen. nov.*.

Lizards in the subtribe containing the four genera *Oedurella*, *Strophurus*, *Eremiastrophrurus* and *Adelyndactylus gen. nov.* are separated from the other four subtribes of Australian gecko by the presence of caudal glands and associated ejection mechanisms, and transversely enlarged (as opposed to rounded and paired) proximal subdigital lamellae.

Oedurella, *Strophurus*, *Eremiastrophrurus* and *Adelyndactylus gen. nov.* species are further characterised and diagnosed by having labials that are larger than the other adjacent scales on the snout. Postmentals are usually enlarged. Digits are relatively short, wide and obviously horizontally flattened. Apical plates are greatly enlarged. Undivided secondary lamellae are broad. Primary, secondary and tertiary lamellae are distinct. A lateral pair of cloacal bones are absent in the males. Scales above the distal expansions are more or less equal in size to those above the basal parts of the digits. Digits lie flat to the surface when viewed laterally (i.e. through glass). All digits have claws that are small, retractile and lie in a groove between the distal lamellae.

The preceding is in effect the diagnosis of the genus *Strophurus* as defined in Cogger (2014) and similar contemporary texts which included all species in the relevant subtribe herein included in four newly defined and separated genera (*Oedurella*, *Strophurus*, *Eremiastrophrurus* and *Adelyndactylus gen. nov.*).

In terms of the four newly separated and defined genera, *Strophurus* is alone in having males with pre-anal pores, readily separating it from the three others.

The genus *Eremiastrophrurus* Wells and Wellington, 1985 is separated from other genera by the following suite of characters: no pre-anal pores in males; vertical rostral crease is incomplete, extending only half way down the rostral; the body is of a moderate build, nostril surrounded by fewer than seven scales, no ventral stripe and scattered enlarged tubercles along the body.

The genus *Adelyndactylus gen. nov.* is separated from other genera by the following suite of characters: no pre-anal pores in males; no enlarged dorso-lateral or scattered tubercles along the body, tail is only about 50% of the snout-vent length; dorsal colour pattern of faint longitudinal stripes and the body is of a moderate build.

Distribution: North-west Australia, mainly in Spinifex covered hills and dunes.

Content: *Oedurella taeniata* Lönnberg and Andersson, 1913 (Type species); *O. alba sp. nov.*; *O. garystephensoni sp. nov.*; *O. horneri* (Oliver and Parkin, 2014); *O. jamielindi sp. nov.*; *O. jeanae* (Storr, 1988); *O. mcmillani* (Storr, 1978); *O. robinsoni* (Smith, 1995); *O. sonnemanni sp. nov.*.

SUBGENUS *GRACILEDACTYLUS SUBGEN. NOV.*

Type species: *Diplodactylus jeanae* Storr, 1988.

Diagnosis: Within *Oedurella* there are three subgenera. The nominate subgenus *Oedurella subgen. nov.* is separated from the subgenus *Graciledactylus subgen. nov.* by having a rostral excluded from the nostril, versus one contacting the nostril in the subgenus *Graciledactylus subgen. nov.*. Both these subgenera are separated from the subgenus *Parvusdactylus subgen. nov.* by having less than seven scales surrounding the nostril, versus more than seven in *Parvusdactylus subgen. nov.*.

The genus *Oedurella* Lönnberg and Andersson, 1913, has until now been treated by publishing authors as being a synonym of *Strophurus* Fitzinger, 1843, even though molecular data shows that the assemblage identified by this name is worthy of genus level recognition. Hence this diagnosis.

The genus *Oedurella* Lönnberg and Andersson, 1913 is separated from all species in other genera previously included within *Strophurus*, namely *Strophurus*, *Eremiastrophrurus* Wells and Wellington, 1985 and *Adelyndactylus gen. nov.* by the following suite of characters: No pre-anal pores in males; vertical rostral crease is almost complete or complete, the body is of a slight and slender build and there is a ventral stripe.

Lizards in the subtribe containing the four genera *Oedurella*, *Strophurus*, *Eremiastrophrurus* and *Adelyndactylus gen. nov.* are separated from the other four subtribes of Australian gecko by the presence of caudal glands and associated ejection mechanisms, and transversely enlarged (as opposed to rounded and paired) proximal subdigital lamellae.

Oedurella, *Strophurus*, *Eremiastrophrurus* and *Adelyndactylus gen. nov.* species are further characterised and diagnosed by having labials that are larger than the other adjacent scales on the snout. Postmentals are usually enlarged. Digits are relatively short, wide and obviously horizontally flattened. Apical plates are greatly enlarged. Undivided secondary lamellae are broad. Primary, secondary and tertiary lamellae are distinct. A lateral pair of cloacal bones are absent in the males. Scales above the distal expansions are more or less equal in size to those above the basal parts of the digits. Digits lie flat to the surface when viewed laterally (i.e. through glass). All digits have claws that are small, retractile and lie in a groove between the distal lamellae.

The preceding is in effect the diagnosis of the genus *Strophurus* as defined in Cogger (2014) and similar contemporary texts which included all species in the relevant subtribe herein included in four newly defined and separated genera (*Oedurella*, *Strophurus*, *Eremiastrophrurus* and *Adelyndactylus gen. nov.*).

In terms of the four newly separated and defined genera, *Strophurus* is alone in having males with pre-anal pores, readily separating it from the three others.

The genus *Eremiastrophrurus* Wells and Wellington, 1985 is separated from other genera by the following suite of characters: no pre-anal pores in males; vertical rostral crease is incomplete, extending only half way down the rostral; the body is of a moderate build, nostril surrounded by fewer than seven scales, no ventral stripe and scattered enlarged tubercles along the body.

The genus *Adelyndactylus gen. nov.* is separated from other genera by the following suite of characters: no pre-anal pores in males; no enlarged dorso-lateral or scattered tubercles along the body, tail is only about 50% of the snout-vent length; dorsal colour pattern of faint longitudinal stripes and the body is of a moderate build.

Distribution: Arid areas from the Pilbara in Western Australia to Central parts of the Northern Territory.

Etymology: The subgenus name is taken from the Latin “Gracile” meaning thin and “Dactylus” for the fact the lizards have claws on each digit.

Content: *Oedurella* (*Graciledactylus*) *jeanae* (Storr, 1988) (Monotypic).

SUBGENUS *PARVUSDACTYLUS SUBGEN. NOV.*

Type species: *Oedurella alba sp. nov.* (this paper).
Diagnosis: Within *Oedurella* there are three subgenera. The nominate subgenus *Oedurella subgen. nov.* is separated from the subgenus *Graciledactylus subgen. nov.* by having a rostral excluded from the nostril, versus one contacting the nostril in the subgenus *Graciledactylus subgen. nov.*. Both these subgenera are separated from the subgenus *Parvusdactylus subgen. nov.* by having less than seven scales surrounding the nostril, versus more than seven in *Parvusdactylus subgen. nov.*.

The genus *Oedurella* Lönnberg and Andersson, 1913, has until now been treated by publishing authors as being a synonym of *Strophurus* Fitzinger, 1843, even though molecular data shows that the assemblage identified by this name is worthy of genus level recognition. Hence this diagnosis.

The genus *Oedurella* Lönnberg and Andersson, 1913 is separated from all species in other genera previously included within *Strophurus*, namely *Strophurus*, *Eremiastrophrurus* Wells and Wellington, 1985 and *Adelyndactylus gen. nov.* by the following suite of characters: No pre-anal pores in males; vertical rostral crease is almost complete or complete, the body is of a slight and slender build and there is a ventral stripe.

Lizards in the subtribe containing the four genera *Oedurella*, *Strophurus*, *Eremiastrophrurus* and *Adelyndactylus gen. nov.* are separated from the other four subtribes of Australian gecko by the presence of caudal glands and associated ejection mechanisms, and transversely enlarged (as opposed to rounded and paired) proximal subdigital lamellae.

Oedurella, *Strophurus*, *Eremiastrophrurus* and *Adelyndactylus gen. nov.* species are further characterised and diagnosed by having labials that are larger than the other adjacent scales on the snout. Postmentals are usually enlarged. Digits are relatively short, wide and obviously horizontally flattened. Apical plates are greatly enlarged. Undivided secondary lamellae are broad. Primary, secondary and tertiary lamellae are distinct. A lateral pair of cloacal bones are absent in the males. Scales above the distal expansions are more or less equal in size to those above the basal parts of the digits. Digits lie flat to the surface when viewed laterally (i.e. through glass). All digits have claws that are small, retractile and lie in a groove between the distal lamellae.

The preceding is in effect the diagnosis of the genus *Strophurus* as defined in Cogger (2014) and similar contemporary texts which included all species in the relevant subtribe herein included in four newly defined and separated genera (*Oedurella*, *Strophurus*, *Eremiastrophrurus* and *Adelyndactylus gen. nov.*).

In terms of the four newly separated and defined genera, *Strophurus* is alone in having males with pre-anal pores, readily separating it from the three others.

The genus *Eremiastrophrurus* Wells and Wellington, 1985 is separated from other genera by the following suite of characters: no pre-anal pores in males; vertical rostral crease is incomplete, extending only half way down the rostral; the body is of a moderate build, nostril surrounded by fewer than seven scales, no ventral stripe and there are scattered enlarged tubercles along the body.

The genus *Adelyndactylus gen. nov.* is separated from other genera by the following suite of characters: no pre-anal pores in males; no enlarged dorso-lateral or scattered tubercles along the body, the tail is only about 50% of the snout-vent length; dorsal colour pattern of faint longitudinal stripes and the body is of a moderate build.

Distribution: North Kimberley Region of Western Australia extending to the Keep River area in the Northern Territory, near the WA border.

Etymology: The subgenus name is taken from the Latin “Parvus” meaning small and “Dactylus” for the fact the lizards have claws on each digit.

Content: *Oedurella* (*Parvusdactylus*) *alba sp. nov.* (Type species); *O.* (*Parvusdactylus*) *garystephensoni sp. nov.*; *O.* (*Parvusdactylus*) *jamielindi sp. nov.*; *O.* (*Parvusdactylus*) *mcmillani* (Storr, 1978); *O.* (*Parvusdactylus*) *robinsoni* (Smith, 1995); *O.* (*Parvusdactylus*) *sonnemanni sp. nov.*.

SUBGENUS *OEDURELLA* LÖNNBERG AND ANDERSSON, 1913

Type species: *Oedurella taeniata* Lönnberg and Andersson, 1913.

Diagnosis: The genus *Oedurella* Lönnberg and Andersson, 1913, has until now been treated by most or all publishing authors except for Wells and Wellington (1985) as being a synonym of *Strophurus* Fitzinger, 1843, even though molecular data shows that the assemblage identified by this name is worthy of genus level recognition. Hence this diagnosis.

The genus *Oedurella* Lönnberg and Andersson, 1913 is separated from all species in other genera previously included within *Strophurus*, namely *Strophurus*, *Eremiastrophrurus* Wells and Wellington, 1985 and *Adelyndactylus gen. nov.* by the following suite of characters: No pre-anal pores in males; vertical rostral crease is almost complete or complete, the body is of a slight and slender build and there is a ventral stripe.

Within *Oedurella* there are three subgenera. The nominate subgenus *Oedurella subgen. nov.* is separated from the subgenus *Graciledactylus subgen. nov.* by having a rostral excluded from the nostril, versus one contacting the nostril in the subgenus *Graciledactylus subgen. nov.*. Both these subgenera are separated from the subgenus *Parvusdactylus subgen. nov.* by having less than seven scales surrounding the nostril, versus more than seven in *Parvusdactylus subgen. nov.*.

For more detail see for the genus (previous in this paper).

Distribution: Seasonally dry areas of tropical north-west and northern Australia, mainly away from the humid coasts and arid areas to the south, although also in dry hilly areas of the top end.

Content: *Oedurella taeniata* Lönnberg and Andersson, 1913 (Type species); *O. horneri* (Oliver and Parkin, 2014).

GENUS *ADELYNDACTYLUS GEN. NOV.*

Type species: *Diplodactylus wilsoni* Storr, 1983.

Diagnosis: The lizard species in the genus *Adelyndactylus gen. nov.* has until now been treated by publishing authors as being within *Strophurus* Fitzinger, 1843, even though molecular data shows that the species identified by this name is worthy of genus level recognition due to its morphological divergence from other species and time of divergence ascertained by molecular studies. Hence this diagnosis.

The genus *Adelyndactylus gen. nov.* is separated from all species in other genera previously included within *Strophurus*, namely *Strophurus*, *Oedurella* Lönnberg and Andersson, 1913 and *Eremiastrophrurus* Wells and Wellington, 1985 and by the following suite of characters: no pre-anal pores in males; no enlarged dorso-lateral or scattered tubercles or spines along the body, tail only about 50% of the snout-vent length; dorsal colour pattern of faint longitudinal stripes and the body is of a moderate build.

These are small, short-snouted, short-tailed, semi-arboreal lizards (up to 8 cm long) with scales on top of the tail much larger and higher than others.

The genus *Strophurus* Fitzinger, 1843 is within a tribe that was included with the genus *Oedura* Gray, 1842 as defined in another paper published at the same time as this one (Hoser 2017a).

The subtribe is separated from the other four subtribes by presence of caudal glands and associated ejection mechanisms, and transversely enlarged (as opposed to rounded and paired) proximal subdigital lamellae.

Strophurus, *Adelyndactylus gen. nov*, *Oedurella* Lönnberg and Andersson, 1913 and *Eremiastrophrurus* Wells and Wellington, 1985 are further characterised and diagnosed by having labials that are larger than the other adjacent scales on the snout. Postmentals are usually enlarged. Digits are relatively short, wide and obviously horizontally flattened. Apical plates are greatly enlarged. Undivided secondary lamellae are broad. Primary, secondary and tertiary lamellae are distinct. Lateral pair of cloacal bones are absent in the males. Scales above the distal expansions are more or less equal in size to those above the basal parts of the digits. Digits lie flat to the surface when viewed laterally (i.e. through glass). All digits have claws that are small, retractile and lie in a groove between the distal lamellae.

The preceding is in effect the diagnosis of the genus *Strophurus* as defined in Cogger (2014) and similar contemporary texts which included all species in the relevant subtribe herein included in four newly defined and separated genera (namely *Strophurus*, *Adelyndactylus gen. nov*, *Oedurella* Lönnberg and Andersson, 1913 and *Eremiastrophrurus* Wells and Wellington, 1985).

In terms of the four newly separated and defined genera, *Strophurus* is alone in having males with pre-anal pores, readily separating it from the three others.

The genus *Eremiastrophrurus* Wells and Wellington, 1985 is separated from other genera by the following suite of characters: no pre-anal pores in males; vertical rostral crease is incomplete, extending only half way down the rostral; the body is of a moderate build, nostril surrounded by fewer than seven scales, no ventral stripe and there are scattered enlarged tubercles along the body.

The genus *Oedurella* Lönnberg and Andersson, 1913 is separated from other genera by the following suite of characters: no pre-anal pores in males; vertical rostral crease is almost complete or complete, the body is of a slight and slender build and there is a ventral stripe.

Within *Oedurella* there are three subgenera. The nominate subgenus *Oedurella subgen. nov.* is separated from the subgenus *Graciledactylus gen. nov*. by having a rostral excluded from the nostril, versus one contacting the nostril in the subgenus *Graciledactylus gen. nov.*. Both these subgenera are separated from the subgenus *Parvusdactylus subgen. nov.* by having less than seven scales surrounding the nostril, versus more than seven in *Parvusdactylus subgen. nov.*.

Distribution: Arid mid western interior of Western Australia.

Etymology: Named in honour of my (now) 18 year old daughter, Adelyn Hoser in recognition of a lifetime's dedicated work in wildlife conservation and "Dactylus" for the fact the lizards have claws on each digit. May I add that the hate statements about her posted on Wikipedia by Mark O'Shea and others in the Wüster gang stating as a "fact" that I killed my 10 Year old daughter (Adelyn Hoser) testing surgically devenomized snakes on her in 2011, is a complete fabrication by them (Wüster *et al.* 2012).

Their associated claims that the snakes had regenerated venom were also fabricated and found to be such in courts of law in 2012, 2013, 2014 (twice) and 2015 (see Court of Appeal 2014 and VCAT 2015).

Content: *Adelyndactylus wilsoni* (Storr, 1983) (Monotypic).

STROPHURUS JACKYAE SP. NOV.

Holotype: A preserved specimen in the South Australian Museum, Adelaide, South Australia, Australia, specimen number: R25518 collected from the southern boundary of the Dangalli Conservation Park, South Australia (near the New South Wales border), Latitude -33.36 S., Longitude 140.53 E.

The South Australian Museum, Adelaide, South Australia, Australia is a government-owned facility that allows access to its holdings.

Paratypes: 1/ A preserved specimen in the South Australian Museum, Adelaide, South Australia, Australia, specimen number: R41425, collected at 4.4 km South South-east of 9 Mile Tank, South Australia, Latitude -33.41 S., Longitude 140.25 E.

2/ A preserved specimen in the South Australian Museum, Adelaide, South Australia, Australia, specimen number: R53808, collected at Gluepot Reserve, 64 km north of Waikerie, South Australia, Latitude -33.45 S., Longitude 140.11 E.

Diagnosis: The species *Strophurus jackyae sp. nov.* has until now been treated as a regional population of the widespread species, *Strophurus williamsi* (Kluge, 1963).

Strophurus jackyae sp. nov. is restricted to the Victorian Mallee and adjacent parts of South Australia and nearby New South Wales, the type form of *S. williamsi* from the Warrumbungle Ranges in New South Wales, is found throughout north-west New South Wales and into adjacent dry parts of south-east Queensland, Australia.

S. jackyae sp. nov. is readily separated from *S. williamsi* by having few if any well defined black spots on the toes, versus a moderate to dense number in *S. williamsi.*

S. dannybrowni sp. nov., previously regarded as the North Queensland population of this species also lacks prominent black spotting on the limbs.

S. jackyae sp. nov. is also characterised by having light orange spines on the lower back and tail, versus dark orange spines on the back and tail in *S. williamsi* and *S. dannybrowni sp. nov.*.
When all three species of adult size are lined up next to one another, *S. williamsi* has noticeably larger coloured spines on the body and tail.

S. williamsi has a reddish brown iris. By contrast both *S. jackyae sp. nov.* and *S. dannybrowni sp. nov.*. have an

orange iris.

S. dannybrowni sp. nov. is differentiated from the other two species by having dense flecking on the forebody configured to form a reticulated pattern including two or more wavy lines running anterior from the head. This is not seen in the other species. The dorsal pattern of *S. williamsi* is generally grey, but dominated by scattered black spots. This is not the case in the other two species.

In *S. dannybrowni sp. nov*. the dorsal pattern consists of dark brown (as opposed to black) spots or flecks merging to form an indistinct reticulated pattern. The dorsal pattern of *S. jackyae sp. nov.* is a combination of spots and flecks, both black and greyish brown, forming both a spotted and slightly reticulated pattern.

The head of *S. dannybrowni sp. nov*. has an obvious pattern, whereas this is not the case in *S. jackyae sp. nov.*.

Diagnostic information for both *S. jackyae sp. nov.*, *S. dannybrowni sp. nov*. and *S. williamsi* treated as one species (*S. williamsi*) is found on pages 343 and 344 of Cogger (2014). On page 344 of Cogger (2014) is depicted a photo of a typical *S. williamsi* showing the scattered well-defined black spots on the toes, a feature that readily differentiates that taxon from *S. jackyae sp. nov.*.

Distribution: *S. jackyae sp. nov.* is found in the general region of the border of Victoria, South Australia and New South Wales. This population is divided in far western New South Wales from the population of *S. williamsi* which is found throughout most of north-west New South Wales and nearby Queensland, excluding the most arid areas, the wetter south-east and the region generally near Mackay, Townsville and drier areas further north, where *S. dannybrowni sp. nov*. occurs.

Etymology: Named in honour of my (now) 16 year old daughter, Jacky Hoser in recognition of a lifetime's dedicated work in wildlife conservation.

May I add that the hate statements about her posted on Wikipedia by Mark O'Shea and others in the Wolfgang Wüster gang (of thieves and law-breakers) stating as a "fact" that I killed my 10 Year old daughter are false (Wüster *et al.* 2012).

Adelyn Hoser the subject of the original claim was 12 at the time (but misreported in the media reports they incited as being ten) and so it was then claimed by O'Shea and their gang that Jacky was the one killed, as she was in fact the ten year old daughter.

The claim that I had killed them was part of a concocted story that I (Raymond Hoser) had tested surgically devenomized snakes on her in 2011 and killed her.

The story was a complete fabrication by them which they peddled to a global audience, including on hate pages they created on "Wikipedia".

They then put "robots" on the pages to ensure that the obvious lies could not be corrected by anyone else.

Their associated claims that the devenomized (venomoid) snakes had regenerated venom were also fabricated and found to be such in courts of law in 2012, 2013, 2014 (twice) and 2015 (see Court of Appeal 2014 and VCAT 2015).

The claims of venom regeneration were also scientifically disproven as far back as 2006, but that hasn't stopped the Wüster gang (of thieves and law-breakers) repeating the lies of venom regeneration beyond that time and including 2017.

As of 2017, Mark O'Shea still posting on Wikipedia as "Papblak" still makes these ridiculous claims in order to incite hatred against myself and the dedicated team at Snakebusters Reptile Shows as part of his self-serving anti-conservation agenda.

The Wüster gang (of thieves and law-breakers) also create hatred against myself, my vulnerable young children and others they seek to steal from as a basis to justify illegal theft of works that their gang of thieves rebadge as "new science", published in predatory online PRINO (peer reviewed in name only) journals like *Zootaxa* that the gang have a despotic control over (Hoser 2015a-f).

STROPHURUS DANNYBROWNI SP. NOV.

Holotype: A preserved specimen in the Queensland Museum, Brisbane, Queensland, Australia,

specimen number: J48398, collected at Townsville, Queensland, Australia, Latitude -19.27 S., Longitude 146.82 E.

The Queensland Museum, Brisbane, Queensland, Australia Australia, is a government-owned facility that allows access to its holdings.

Paratypes: Two preserved specimens in the Queensland Museum, Brisbane, Queensland, Australia,

Specimen numbers: J75529 and J75530, collected at Bluewater Creek Road, 2 km south-west of Bluewater, Queensland, Latitude -19.19 S., Longitude 146.54 E.

Diagnosis: Like the species *Strophurus jackyae sp. nov.*, *S. dannybrowni sp. nov.* has also until now been treated as a regional population of the widespread species, *Strophurus williamsi* (Kluge, 1963).

S. dannybrowni sp. nov. is found in dry near coastal areas north of about Mackay in Queensland, including drier parts of Cape York.

Strophurus jackyae sp. nov. is restricted to the Victorian Mallee and adjacent parts of South Australia and nearby New South Wales. The type form of *S. williamsi* with a type locality of the Warrumbungle Ranges in New South Wales, is found throughout north-west New South Wales and into adjacent dry parts of south-east Queensland, Australia.

S. jackyae sp. nov. is readily separated from *S. williamsi* by having few if any well defined black spots on the toes, versus a moderate to dense number in *S. williamsi.*

S. dannybrowni sp. nov., previously regarded as the North Queensland population of *S. williamsi* also lacks prominent black spotting on the limbs.

S. jackyae sp. nov. is also characterised by having light orange spines on the lower back and tail, versus dark orange spines on the back and tail in *S. williamsi* and *S. dannybrowni sp. nov.*.
When all three species of adult size are lined up next to one another, *S. williamsi* has noticeably larger coloured spines on the body and tail.

S. williamsi has a reddish brown iris. By contrast both *S. jackyae sp. nov.* and *S. dannybrowni sp. nov.*. have an orange iris.

S. dannybrowni sp. nov. is differentiated from the other two species by having dense flecking on the fore-body configured to form a reticulated pattern including two or more wavy lines running anterior from the head. This is not seen in the other species. The dorsal pattern of *S. williamsi* is generally grey, but dominated by scattered black spots. This is not the case in the other two species.

In *S. dannybrowni sp. nov*. the dorsal pattern consists of dark brown (as opposed to black) spots or flecks merging to form an indistinct reticulated pattern. The dorsal pattern of *S. jackyae sp. nov.* is a combination of spots and flecks, both black and greyish brown, forming both a spotted and slightly reticulated pattern.

The head of *S. dannybrowni sp. nov*. has an obvious pattern, whereas this is not the case in *S. jackyae sp. nov.*.

Diagnostic information for both *S. jackyae sp. nov.*, *S. dannybrowni sp. nov*. and *S. williamsi* treated as one species (*S. williamsi*) is found on pages 343 and 344 of Cogger (2014). On page 344 of Cogger (2014) is depicted a photo of a typical *S. williamsi* showing the scattered well-defined black spots on the toes, a feature that readily differentiates that taxon from *S. jackyae sp. nov.*.

Distribution: *S. dannybrowni sp. nov*. occurs in the region of Queensland generally near Mackay, Townsville and drier areas further north.

S. jackyae sp. nov. is found in the general region of the border of Victoria, South Australia and New South Wales. This population is divided in far western New South Wales from the population of *S. williamsi* which is found throughout most of north-west New South Wales and nearby Queensland, excluding the most arid areas and the wetter parts of the south-east.

Etymology: Named in honour of Veterinary Surgeon, Danny Brown of Deception Bay Queensland, who over some decades has published some of the most fantastic and in depth books on Australian reptiles and their captive husbandry, many of which by any reasonable and objective analysis must be regarded as being “best in class”.

STROPHURUS GEDYEI SP. NOV.

Holotype: A preserved specimen in the Australian Museum in Sydney, New South Wales, Australia,

Specimen number: R.143866 collected at 27.8km south-west of the Landsborough Highway on Boulia Rd, near Winton, Queensland, Australia, Latitude -22.19 S., Longitude 142.43 E.

The Australian Museum in Sydney, New South Wales, Australia, is a government-owned facility that allows access to its holdings.

Paratype: 2/ A preserved specimen in the Australian Museum in Sydney, New South Wales, Australia

Specimen number: R.143867 collected at 27.8km south-west of the Landsborough Highway on Boulia Rd, near Winton, Queensland, Australia, Latitude -22.19 S., Longitude 142.43 E.

Diagnosis: Until now, *Strophurus gedyei sp. nov.* has been treated as a southern population of the recently described species *Strophurus krisalys* Sadlier, Omeally and Shea, 2005. However the differences between the nominate population from further north and north-west and this newly described taxon have been known for some time (see Brown 2014, p. 344, in image at bottom right of the page, who provides comparative photos of both taxa, listed as the “northern” (nominate) and “southern” form), or the molecular results of Nielsen *et al.* (2016) as well as the original molecular results of Sadlier, Omeally and Shea, (2005).

S. krisalys is readily separated from *S. gedyei sp. nov*. by having an obviously mottled pattern on the limbs (front and back) versus none in *S. krisalys.* By contrast, the limbs in *S. gedyei sp. nov*. are grey with black flecks in young specimens, becoming plain grey with some indistinct flecks in adults.

S. gedyei sp. nov. has a lightish zig-zag running down the back bounded by a line of closely placed black dots, versus no such dots bordering the zig-zag in the northern specimens (being *S. krisalys*).
S. krisalys have significant patches of dark and light pigment on the head forming a well defined pattern, versus a whitish head with numerous black specks in *S. gedyei sp. nov.*.

Original tails of *S. krisalys* are patterned with lightish beige blotches surrounded by darker grey pigment as roughly 50:50 dark and light, versus a generally light grey tail in *S. gedyei sp. nov*. with joined blackish flecks forming broken and indistinct markings on the tail. Side by side, the tail spines of *S. krisalys* are relatively larger and longer than seen in *S. gedyei sp. nov*. as depicted in the image at the bottom right of page 344 of Brown (2014).

Cogger (2014) at pages 337-338 provides a diagnosis of both species (separating them from congeners) as *S. krisalys.* At the bottom of p. 337, Cogger (2014) provides an image of an adult *S. gedyei sp. nov.*, from Winton in Queensland. Brown (2014) at p. 355 provides an image of a young *S. krisalys* from Lake Moondarah in Queensland and *S. gedyei sp. nov*. from Croydon, Queensland, side by side, from which clear differences can be seen, including the somewhat larger and more prominent orange tubercles and more spinose tail in *S. gedyei sp. nov.*.

Distribution: *S. gedyei sp. nov.* is found in the driest parts of Western Queensland, generally south of Winton and almost as far south as the New South Wales border.

S. krisalys is found generally north and west of here, commencing in a broad line from about Hughenden in the east and Camooweal in the west and north to the Gulf of Carpentaria and the drier parts of the western side of lower Cape York.

Etymology: Named in honour of Andrew Gedye, formerly of Cheltenham, Victoria and now of the Cairns district in far north Queensland, Australia, in recognition of many years valuable work breeding rare and potentially threatened reptile species and for other important contributions to Australian herpetology.

STROPHURUS CHRISWILLIAMSI SP. NOV.

Holotype: A preserved specimen at the Western Australian Museum in Perth, Western Australia, Australia, specimen number: R127476 collected at the Munjina Roadhouse, Western Australia, Australia, Latitude -22.55 S., Longitude 118.65 E.

The Western Australian Museum in Perth, Western Australia, Australia is a government-owned facility that allows access to its holdings.

Paratype: A preserved specimen at the Western Australian Museum in Perth, Western Australia, Australia, specimen number: R127477 collected at the Munjina Roadhouse, Western Australia, Australia, Latitude -22.55 S., Longitude 118.65 E.

Diagnosis: *Strophurus chriswilliamsi sp. nov.* has until now been treated as a northern population of *S. wellingtonae* (Storr, 1988).

Strophurus chriswilliamsi sp. nov. is found in the Pilbara region of Western Australia, whereas *S. wellingtonae* is found in the drier areas to the south and south-west, excluding the far south and generally away from the coast.

Strophurus chriswilliamsi sp. nov. is characterised by having 15 or more orange spots in each of the two rows (main row of spots) running down the back versus usually less than 15 in *S. wellingtonae.*

Strophurus chriswilliamsi sp. nov. is readily distinguished from *S. wellingtonae* by having three rows of orange spines at base of the tail, or what can be described as odd spines away from the two dorsal rows running from the base of the tail to the end, versus only spines in 2 well defined rows in *S. wellingtonae* and no odd spines away from these. These descriptions are taken from "original" tails.

Strophurus chriswilliamsi sp. nov. has little if any black spotting on the snout, versus a lot of black spotting on the snout in *S. wellingtonae*.

Distribution: *Strophurus chriswilliamsi sp. nov.* is found in the Pilbara region of Western Australia, whereas *S. wellingtonae* is found in the drier areas to the south and south-west, excluding the far south and generally away from the coast.

Etymology: Named in honour of Chris Williams of New South Wales, Australia who has worked at a live reptile sales business called "The Snake Ranch" and also previously at Taronga Park Zoo in Sydney and also a past president of the Australian Herpetological Society in Sydney, in recognition of his contributions to herpetology in Australia.

STROPHURUS JENANDERSONAE SP. NOV.

Holotype: A preserved specimen in the Northern Territory Museum, Darwin, Northern Territory, Australia, specimen number: R17753, collected from Namatjira Drive, 2 km east of the Ormiston Gorge turn off, Northern Territory (central Australia), Australia, Latitude -23.68 S., Longitude 132.72 E.

The Northern Territory Museum, Darwin, Northern Territory Australia is a government-owned facility that allows access to its holdings.

Paratypes: 1/ A preserved specimen in the Northern Territory Museum, Darwin, Northern Territory, Australia, specimen number: R21148 collected at Sadadeen, Alice Springs, Northern Territory (central Australia), Australia, Latitude -23.70 S., Longitude 133.87 E.

2/ A preserved specimen in the Northern Territory Museum, Darwin, Northern Territory, Australia, specimen number: R00747, collected from 27 km north of Alice Springs, Northern Territory (central Australia), Australia, Latitude -23.43 S., Longitude 133.82 E.

Diagnosis: The species *Strophurus jenandersonae sp. nov*. has until now been treated as a central Australian population of *S. intermedius*, the species which it is clearly most closely related to.

The diagnosis for *S. intermedius* at page 336 of Cogger (2014) applies to all of *S. jenandersonae sp. nov*. and *S. intermedius* including all subspecies, these being *S. intermedius burrelli* Hoser, 2005 and *S. intermedius obscurum subsp. nov*. as formally described and named in this paper.

S. jenandersonae sp. nov. is readily separated from all forms and subspecies of *S. intermedius* by the general absence of an indistinct grey pattern on the body (as seen in others from NSW and nearby SA) (nominate form and *S. intermedius burrelli*), instead being covered more-or-less evenly with dense grey flecks to give a greyish pattern only punctuated with light orange spines, versus an indistinct grey pattern, especially on the upper flanks with dark edged white patches obvious on the upper body in NSW and nearby SA *S. intermedius*.

S. intermedius obscurum subsp. nov. is readily separated from all other *S. intermedius* (nominate form and *S. intermedius burrelli*) by having a well defined dorsal pattern consisting of a zig-zag light zone running down either side of the upper flanks, bounded by dark zoned pigment, with a similar zig-zag running along the midline of the (original) tail. *S. intermedius obscurum subsp. nov*. also has well marked limbs and toes, versus speckling on legs in *S. jenandersonae sp. nov*. from the Northern Territory and indistinct markings on legs in other forms (nominate form and *S. intermedius burrelli*).

For further diagnostic information separating *S. intermedius burrelli* from *S. intermedius intermedius*, (the typical east Australian form, with which it is most similar and would otherwise key as on the basis of information herein) refer to the original description in Hoser (2005).

Brown (2014) at p. 357 provides an image of *S. jenandersonae sp. nov*. from Alice Springs in the Northern Territory, identified as "*Strophurus intermedius*, Alice Springs, Northern Territory".

Distribution: *S. jenandersonae sp. nov.* is confined to the MacDonnell Ranges bioregion of the Northern Territory, Australia, more-or-less centred on the town of Alice Springs.

Etymology: Named in honour of Jen Anderson of Ringwood, Victoria, Australia in recognition for her excellent work with reptiles and wildlife conservation through her ongoing services with Snakebusters: Australia's best wildlife displays, being the only wildlife displays in Australia that let people hold the animals at our displays and/or without charging them an extortionate fee for the right to do so.

STROPHURUS INTERMEDIUS OBSCURUM SUBSP. NOV.

Holotype: A preserved specimen in the Western Australian Museum, Perth, Western Australia, Australia, specimen number: R157858 collected at the Balladonia Roadhouse, western side of the Nullarbor Plain, Western Australia, Latitude -32.28 S., Longitude 123.48 E.

The Western Australian Museum, Perth, Western Australia, Australia is a government-owned facility that allows access to its holdings.

Paratypes: 1/ A preserved specimen in the Western Australian Museum, Perth, Western Australia, Australia, specimen number: R127888 collected at Arubiddy, Western Australia, Australia, Latitude -31.48 S., Longitude 125.55 E.

2/ A preserved specimen in the Western Australian Museum, Perth, Western Australia, Australia, specimen number: R91350 collected 4 km south-west of Haig, Western Australia, Australia, Latitude -31.03 S., Longitude 126.05 E.

Diagnosis: The subspecies *Strophurus intermedius obscurum subsp. nov*. has until now been treated as a western Australian population of *S. intermedius*, the taxon which it is clearly most closely related to. However it is readily separated from that taxon (the nominate subspecies) by morphological differences.

S. intermedius obscurum subsp. nov. is readily separated from all other *S. intermedius* (nominate form and *S.*

intermedius burrelli) by having a very well defined dorsal pattern consisting of a zig-zag light zone running down either side of the upper flanks, bounded by dark zoned pigment, with a similar zig-zag running along the midline of the (original) tail. *S. intermedius obscurum subsp. nov*. also has well marked limbs and toes, versus speckling on legs in *S. jenandersonae sp. nov*. (described as a new species in this paper) from the Northern Territory and indistinct markings on legs in other forms (nominate form and *S. intermedius burrelli*).

For further diagnostic information separating *S. intermedius burrelli* from *S. intermedius intermedius*, (the typical east Australian form, with which it is most similar and would otherwise key as on the basis of information herein) refer to the original description in Hoser (2005).

The diagnosis for *S. intermedius* at page 336 of Cogger (2014) applies to all of *S. jenandersonae sp. nov*. and *S. intermedius* including all subspecies, these being *S. intermedius burrelli* Hoser, 2005 and *S. intermedius obscurum subsp. nov*. as formally described and named in this paper.

S. jenandersonae sp. nov. is readily separated from all forms and subspecies of *S. intermedius* by the general absence of an indistinct grey pattern on the body (as seen in others from NSW and nearby SA) (nominate form and *S. intermedius burrelli*), instead being covered more-or-less evenly with dense grey flecks to give a greyish pattern only punctuated with light orange spines, versus an indistinct grey pattern, especially on the upper flanks with dark edged white patches obvious on the upper body in NSW and nearby SA *S. intermedius*.

S. intermedius obscurum subsp. nov. is also characterised by a large whiteish triangle formed under the eye, between the eye and the labial line of the mouth as well as extremely prominent dark and light markings on the upper parts of the head. These features are not seen in any of *S. intermedius burrelli*, *S. intermedius intermedius* or *S. jenandersonae sp. nov*..

Storr, Smith and Johnstone (1990) at p. 72, image 3, have a photo of *S. intermedius obscurum subsp. nov*. identified as "*Diplodactylus intermedius*".

Distribution: *S. intermedius obscurum subsp. nov*. occurs in the general region west of about Kimba in South Australia westwards across the Nullarbor into nearby parts of southern Western Australia.

S. intermedius burrelli appears to be restricted to the Yorke Peninsula in South Australia and immediately adjacent areas and *S. intermedius intermedius* occurs in South Australia in the general region west of Whyalla, into northern western Victoria, most of New South Wales and drier parts of far south-east Queensland.

S. jenandersonae sp. nov. is confined to the MacDonnell Ranges bioregion of the Northern Territory, Australia, more-or-less centred on the town of Alice Springs.

Etymology: The name obscurum (Latin for hidden) reflects the fact that this taxon has been effectively hidden from herpetologists as a unique biological entity until now.

OEDURELLA* (*OEDURELLA*) *TAENIATA MINIMA SUBSP. NOV.

Holotype: A preserved specimen in the South Australian Museum, Adelaide, South Australia, Australia, specimen number: R55298 collected from Phosphate Hill in North Queensland, Australia, Latitude -21.48 S., Longitude 139.54 E.

The South Australian Museum, Adelaide, South Australia, Australia is a government-owned facility that allows access to its holdings.

Paratypes: 1/ A preserved specimen in the Queensland Museum, Brisbane, Queensland, Australia, specimen number: J89557, collected from 150 km South East of Mount Isa, Queensland, Latitude -21.94. S., Longitude 140.45 E.

2/ A preserved specimen in the Queensland Museum, Brisbane, Queensland, Australia, specimen number: J39029 collected from 30.5 km east of Mount Isa, Queensland on the Barkly Highway, Latitude -20.72 S., Longitude 139.77 E.

Diagnosis: *Oedurella taeniata minima subsp. nov*. has until now been regarded as an eastern population of *Oedurella taeniata* Lönnberg and Andersson, 1913, the type species for the genus and subgenus *Oedurella* Lönnberg and Andersson, 1913. Molecular evidence of Nielsen *et al.* (2016) places this eastern taxon at the cusp between species and subspecies and so it is herein conservatively named and diagnosed at the subspecies level.

Oedurella taeniata from north-west Australia and immediately adjacent parts of the north-west Northern Territory, this being the nominate subspecies *O. taeniata taeniata* is characterised by having two orange stripes down each side, versus at least one of these being yellow (usually both) in *O. taeniata minima subsp. nov*. from north-west Queensland and the north-east of the Northern Territory.

There is usually some whitening of the pigment posterior to the eye in *O. taeniata minima subsp. nov*. that is not seen in *O. taeniata taeniata..*

Both *O. taeniata minima subsp. nov*. and *O. taeniata taeniata* have some pattern or dark and light markings on the limbs, but these are prominent in *O. taeniata minima subsp. nov*. and indistinct in *O. taeniata taeniata.*

O. taeniata minima subsp. nov. also has obvious dark flecks on the forelimbs and these are not seen in *O. taeniata taeniata.*

O. taeniata taeniata has an obvious black boundary on the dark side stripe which is either absent or barely visible in *O. taeniata minima subsp. nov*..

In *O. taeniata minima subsp. nov*. there are two semi-distinct whitish stripes that run into the eye from the snout (one on top of the eye and one to the lower eye) versus just one to the top of the eye in *O. taeniata taeniata.*
Diagnosis for both taxa, treated as "*Strophurus taeniatus*" separating them from all other species in *Strophurus* as defined by Cogger (2014) is on pages 341 and 342 of Cogger (2014).

On page 342 of Cogger (2014) and page 357 of Brown (2014) are images in life of typical *O. taeniata minima subsp. nov*. showing yellow (not orange) side stripes on the body and two white stripes running from the snout to the eye.

Distribution: *Oedurella taeniata minima subsp. nov*. is found in the Selwyn Range and nearby parts of Queensland and the Northern Territory extending to the eastern half of the top-end including the Arnhem Land Escarpment. The nominate subspecies *O. taeniata taeniata* is confined to the Kimberley district of Western Australia

and nearby parts of the Northern Territory, including and west of the Victoria River district.

Etymology: Named after the Latin word “Minima” meaning very small, in reflection of the physical size of the taxon.

OEDURELLA* (*PARVUSDACTYLUS*) *ALBA SP. NOV.

Holotype: A preserved specimen in the Western Australian Museum, Perth, Western Australia, Australia, specimen number: R172333 collected at Theda Station, North Kimberley, Western Australia, Australia, Latitude -14.81 S., Longitude 126.51 E.

The Western Australian Museum, Perth, Western Australia, Australia is a government-owned facility that allows access to its holdings.

Paratype: A preserved specimen in the Western Australian Museum, Perth, Western Australia, Australia, specimen number: R57323 collected at the Old Theda Homestead, North Kimberley, Western Australia, Australia, Latitude -14.82 S., Longitude 126.72 E.

Diagnosis: *Oedurella* (*Parvusdactylus*) *alba sp. nov*. has until now been regarded as a population of the *Oedurella* (*Parvusdactylus*) *mcmillani* (Storr, 1978) or more recently *Oedurella* (*Parvusdactylus*) *robinsoni* (Smith, 1995). Molecular evidence of Neilsen *et al.* (2016) indicates that the divergence between this morphologically distinct population and those from the type localities of each other species (and the others formally named in this paper) is sufficient to warrant recognition at the species level.

The subgenus *Parvusdactylus subgen. nov.* includes six species, although until now, only two of these have been generally recognized (*Oedurella* (*Parvusdactylus*) *mcmillani* (Storr, 1978) and *Oedurella* (*Parvusdactylus*) *robinsoni* (Smith, 1995)). The other four are formally described within this paper and have until now been treated as populations of one or other or sometimes both the other two species. Therefore this diagnosis effectively separates out each species from one another.

O. alba sp. nov. from the area around Theda Station in the North Kimberley in Western Australia, is readily separated from *O. mcmillani* by the presence of four prominent rows of small black spots running from the snout to the eye, which is not seen in the nominate form (although sometimes appears as faint rows). *O. alba sp. nov*. is further differentiated by the presence of obvious specks on forelimbs versus none in *O. mcmillani*.

O. alba sp. nov. has a distinctive white stripe running from the eye along the mid flank of either side of the body. Less distinct longitudinal white stripes also run down the back. In *O. mcmillani* the white lateral stripe is yellowish brown in colour as opposed to white.

In terms of dorsal pattern, *O. alba sp. nov*. is clearly the most brilliant and well-marked species in the subgenus.

The similar species *O. jamielindi sp. nov*. from Bigge Island, West Kimberley District, Australia, is readily separated from the similar species *O. alba sp. nov.*, *O. garystephensoni sp. nov.*, *O. mcmillani* (Storr, 1978), *O. robinsoni* (Smith, 1995) and *O. sonnemanni sp. nov.* by the presence of a whitish line running from the eye to the tail that is noticeably wider on the body than adjacent darker (brownish) lines, versus same width or narrower, or absent in all other species.

In contrast to *O. mcmillani* the relevant lateral stripe is bright and distinctive, as opposed to being faded, the bright and distinct lateral stripe also being the case in *O. alba sp. nov*. However overall, the general dorsal pattern of *O. jamielindi sp. nov*. is otherwise dull as for *O. mcmillani.*

The species *O. sonnemanni sp. nov*. known only from the Keep River drainage in the Northern Territory, immediately adjacent to the Western Australian border is separated from *O. alba sp. nov.*, *O. garystephensoni sp. nov.*, *O. jamielindi sp. nov.*, *O. mcmillani* (Storr, 1978), and *O. robinsoni* (Smith, 1995) by its dorsal colouration, being essentially unmarked save for a single thin noticeable, but very faded yellowish line running along the mid flank of the body, and no other lines on the body or tail.

All of *O. alba sp. nov.*, *O. garystephensoni sp. nov.*, *O. jamielindi sp. nov.*, and *O. mcmillani* (Storr, 1978) also have lateral running lines on either side of the tail, which is not the case for *O. sonnemanni sp. nov.*. *O. robinsoni* differs from the other species by having a general body colour of greyish or brownish with numerous tightly joined black flecks, forming a series of narrow reticulations or very thin lines running down the body with all adjoining areas being of a similar greyish or brown colour, as opposed to being of different shades of brown in the other species forming dorsolateral lines). In the four species *O. alba sp. nov.*, *O. garystephensoni sp. nov.*, *O. jamielindi sp. nov.*, and *O. mcmillani* (Storr, 1978), any dark flecks forming lines or boundaries, separate areas of pigment of different colour giving the lizard a pattern of indistinct stripes. As mentioned already, dorsally at least *O. sonnemanni sp. nov.* is essentially unmarked, or any markings present are extremely indistinct and barely noticeable, which is not the case in the four species *O. alba sp. nov.*, *O. garystephensoni sp. nov.*, *O. jamielindi sp. nov.*, and *O. mcmillani* (Storr, 1978).

In line with *O. alba sp. nov.*, *O. sonnemanni sp. nov*. is distinctive in the subgenus by having a well defined boundary between the darker upper body and the light venter at the lower flanks, as opposed to a gradual fading in the other four species (*O. garystephensoni sp. nov.*, *O. jamielindi sp. nov.*, *O. mcmillani* and *O. robinsoni*).

Both *O. robinsoni* and *O. sonnemani sp. nov*. lack any well defined head markings or a well defined temporal streak as seen in the other four species in the subgenus.

The species *O. garystephensoni sp. nov.* from the southern Kimberley District in Western Australia has been confused with both *O. mcmillani* and *O. robinsoni*, and is separated from all five other species in the subgenus by its dorsal colouration and pattern, consisting of a semi-distinct pattern of longitudinal lines of similar brownish grey colours, with some black flecking and lines running down the tail (original tails).

O. alba sp. nov., *O. jamielindi sp. nov*. and *O. mcmillani* are characterised by having limbs that have a semidistinct pattern of linked black flecks forming stripes running down the limbs. *O. jamielindi sp. nov*. and *O. mcmillani* also have black flecks separate from these scattered over the limbs.

O. garystephensoni sp. nov., *O. robinsoni* and *O. sonnemani sp. nov*. only have scattered black flecks on the limbs.

The dorsal pattern of *O. garystephensoni sp. nov.* as just described, contrasts with the largely unmarked dorsum of *O. sonnemani sp. nov.*, save for the indistinct stripe on the flanks, and the one colour body of *O. robinsoni* overlain with the joined black flecks forming a series of narrow thin blackish lines running down the body, but with all adjacent areas being effectively one colour.

Within *Oedurella* there are three subgenera. The nominate subgenus *Oedurella subgen. nov*. is separated from the subgenus *Graciledactylus subgen. nov.* by having a rostral excluded from the nostril, versus one contacting the nostril in the subgenus *Graciledactylus subgen. nov.*. Both these subgenera are separated from the subgenus *Parvusdactylus subgen. nov.* (including the six species in this subgenus) by having less than seven scales surrounding the nostril, versus more than seven in *Parvusdactylus subgen. nov.*.

The genus *Oedurella* Lönnberg and Andersson, 1913, has until now been treated by publishing authors as being a synonym of *Strophurus* Fitzinger, 1843, even though molecular data shows that the assemblage identified by this name is worthy of genus level recognition. Hence this diagnosis.

The genus *Oedurella* Lönnberg and Andersson, 1913 is separated from all species in other genera previously included within *Strophurus*, namely *Strophurus*, *Eremiastrophrurus* Wells and Wellington, 1985 and *Adelyndactylus gen. nov.* by the following suite of characters: No pre-anal pores in males; vertical rostral crease is almost complete or complete, the body is of a slight and slender build, there is a ventral stripe.

Distribution: *Oedurella* (*Parvusdactylus*) *alba sp. nov*. is known only from the vicinity of Theda Station in the North Kimberley district of Western Australia.

Etymology: Named after the Latin word “Alba”, which means striped in reflection of the colouration of the taxon.

OEDURELLA* (*PARVUSDACTYLUS*) *GARYSTEPHENSONI SP. NOV.

Holotype: A preserved specimen in the Western Australian Museum, Perth, Western Australia, Australia, specimen number: R172795 collected at Manning Gorge, on Mount Barnett Station, Kimberley District, Western Australia, Australia, Latitude -16.39 S., Longitude 125.55 E.

The Western Australian Museum, Perth, Western Australia, Australia is a government-owned facility that allows access to its holdings.

Paratype: A preserved specimen in the Western Australian Museum, Perth, Western Australia, Australia, specimen number: R172855 collected at Manning Gorge, South-west Kimberley District, Western Australia, Australia, Latitude -16.39 S., Longitude 125.55 E.

Diagnosis: *Oedurella* (*Parvusdactylus*) *garystephensoni sp. nov*. has until now been regarded as a population of the *Oedurella* (*Parvusdactylus*) *mcmillani* (Storr, 1978) or more recently *Oedurella* (*Parvusdactylus*) *robinsoni* (Smith, 1995). Molecular evidence of Neilsen *et al.* (2016) indicates that the divergence between this morphologically distinct population and those from the type localities of each other species (and the others formally named in this paper) is sufficient to warrant recognition at the species level.

The subgenus *Parvusdactylus subgen. nov.* includes six species, although until now, only two of these have been generally recognized (*Oedurella* (*Parvusdactylus*) *mcmillani* (Storr, 1978) and *Oedurella* (*Parvusdactylus*) *robinsoni* (Smith, 1995)). The other four are formally described within this paper and have until now been treated as populations of one or other or sometimes both the other two species. Therefore this diagnosis effectively separates out each species from one another.

O. alba sp. nov. from the area around Theda Station in the North Kimberley in Western Australia, is readily separated from *O. mcmillani* by the presence of four prominent rows of small black spots running from the snout to the eye, which is not seen in the nominate form (although sometimes appears as faint rows). *O. alba sp. nov*. is further differentiated by the presence of obvious specks on forelimbs versus none in *O. mcmillani*.

O. alba sp. nov. has a distinctive white stripe running from the eye along the mid flank of either side of the body. Less distinct longitudinal white stripes also run down the back. In *O. mcmillani* the white lateral stripe is yellowish brown in colour as opposed to white.

In terms of dorsal pattern, *O. alba sp. nov*. is clearly the most brilliant and well-marked species in the subgenus.

The similar species *O. jamielindi sp. nov*. from Bigge Island, West Kimberley District, Australia, is readily separated from the similar species *O. alba sp. nov.*, *O. garystephensoni sp. nov.*, *O. mcmillani* (Storr, 1978), *O. robinsoni* (Smith, 1995) and *O. sonnemanni sp. nov.* by the presence of a whitish line running from the eye to the tail that is noticeably wider on the body than adjacent darker (brownish) lines, versus same width or narrower, or absent in all other species.

In contrast to *O. mcmillani* the relevant lateral stripe is bright and distinctive, as opposed to being faded, the bright and distinct lateral stripe also being the case in *O. alba sp. nov*. However overall, the general dorsal pattern of *O. jamielindi sp. nov*. is otherwise dull as for *O. mcmillani.*

The species *O. sonnemanni sp. nov*. known only from the Keep River drainage in the Northern Territory, immediately adjacent to the Western Australian border is separated from *O. alba sp. nov.*, *O. garystephensoni sp. nov.*, *O. jamielindi sp. nov.*, *O. mcmillani* (Storr, 1978), and *O. robinsoni* (Smith, 1995) by its dorsal colouration, being essentially unmarked save for a single thin noticeable, but very faded yellowish line running along the mid flank of the body, and no other lines on the body or tail.

All of *O. alba sp. nov.*, *O. garystephensoni sp. nov.*, *O. jamielindi sp. nov.*, and *O. mcmillani* (Storr, 1978) also have lateral running lines on either side of the tail, which is not the case for *O. sonnemanni sp. nov.*. *O. robinsoni* differs from the other species by having a general body colour of greyish or brownish with numerous tightly joined black flecks, forming a series of narrow reticulations or very thin lines running down the body with all adjoining areas being of a similar greyish or brown colour, as opposed to being of different shades of brown in the other species forming dorsolateral lines). In the four species *O. alba sp. nov.*, *O. garystephensoni sp. nov.*, *O. jamielindi sp. nov.*, and *O. mcmillani* (Storr, 1978), any dark flecks forming lines or boundaries, separate areas of pigment of different colour giving the lizard a pattern of indistinct stripes. As mentioned already, dorsally at least *O. sonnemanni sp. nov.* is essentially unmarked, or any markings present are extremely indistinct and barely noticeable, which is not the case in the four species *O. alba sp. nov.*, *O. garystephensoni sp. nov.*, *O. jamielindi sp. nov.*, and *O. mcmillani* (Storr, 1978).

In line with *O. alba sp. nov.*, *O. sonnemanni sp. nov*. is distinctive in the subgenus by having a well defined boundary between the darker upper body and the light venter at the lower flanks, as opposed to a gradual fading in the other four species (*O. garystephensoni sp. nov.*, *O. jamielindi sp. nov.*, *O. mcmillani* and *O. robinsoni*).

Both *O. robinsoni* and *O. sonnemani sp. nov*. lack any well defined head markings or a well defined temporal streak as seen in the other four species in the subgenus.

The species *O. garystephensoni sp. nov.* from the southern Kimberley District in Western Australia has been confused with both *O. mcmillani* and *O. robinsoni*, and is separated from all five other species in the subgenus by its dorsal colouration and pattern, consisting of a semi-distinct pattern of longitudinal lines of similar brownish grey colours, with some black flecking and lines running down the tail (original tails).

O. alba sp. nov., *O. jamielindi sp. nov*. and *O. mcmillani* are characterised by having limbs that have a semidistinct pattern of linked black flecks forming stripes running down the limbs. *O. jamielindi sp. nov*. and *O. mcmillani* also have black flecks separate from these scattered over the limbs.

O. garystephensoni sp. nov., *O. robinsoni* and *O. sonnemani sp. nov*. only have scattered black flecks on the limbs.

The dorsal pattern of *O. garystephensoni sp. nov.* as just described, contrasts with the largely unmarked dorsum of *O. sonnemani sp. nov.*, save for the indistinct stripe on the flanks, and the one colour body of *O. robinsoni* overlain with the joined black flecks forming a series of narrow thin blackish lines running down the body, but with all adjacent areas being effectively one colour.

Within *Oedurella* there are three subgenera. The nominate subgenus *Oedurella subgen. nov*. is separated from the subgenus *Graciledactylus subgen. nov.* by having a rostral excluded from the nostril, versus one contacting the nostril in the subgenus *Graciledactylus subgen. nov.*. Both these subgenera are separated from the subgenus *Parvusdactylus subgen. nov.* (including the six species in this subgenus) by having less than seven scales surrounding the nostril, versus more than seven in *Parvusdactylus subgen. nov.*.

The genus *Oedurella* Lönnberg and Andersson, 1913, has until now been treated by publishing authors as being a synonym of *Strophurus* Fitzinger, 1843, even though molecular data shows that the assemblage identified by this name is worthy of genus level recognition. Hence this diagnosis.

The genus *Oedurella* Lönnberg and Andersson, 1913 is separated from all species in other genera previously included within *Strophurus*, namely *Strophurus*, *Eremiastrophrurus* Wells and Wellington, 1985 and *Adelyndactylus gen. nov.* by the following suite of characters: No pre-anal pores in males; vertical rostral crease is almost complete or complete, the body is of a slight and slender build, there is a ventral stripe.

Distribution: *Oedurella* (*Parvusdactylus*) *garystephensoni sp. nov*. is known only from the vicinity of the type locality in the south-west Kimberley district of Western Australia including at least one immediately adjacent offshore island.

Etymology: Named in honour of Gary Stephenson, originally from Bondi Junction in Sydney, New South Wales, Australia in recognition of a lifelong contribution to herpetology in Australia.

When reptiles were effectively “banned” by the New South Wales government entities, the National Parks and Wildlife Service (NPWS) and their business entity, Taronga Zoo, in the 1970’s Gary Stephenson was one of the first casualties.

His home was raided in the 1970’s and 1980’s and he was treated as a criminal by thug wildlife officers, who were in the main disgraced ex-cops.

This effectively ended his pursuit of an academic career in herpetology, much to the detriment of wildlife conservation in Australia.

OEDURELLA* (*PARVUSDACTYLUS*) *JAMIELINDI SP. NOV.

Holotype: A preserved specimen in the Western Australian Museum, Perth, Western Australia, Australia, specimen number: R168892 collected at Bigge Island, Kimberley District, Western Australia, Australia, Latitude -14.60 S., Longitude 125.17 E.

The Western Australian Museum, Perth, Western Australia, Australia is a government-owned facility that allows access to its holdings.

Diagnosis: *Oedurella* (*Parvusdactylus*) *jamielindi sp. nov*. has until now been regarded as a population of *Oedurella* (*Parvusdactylus*) *mcmillani* (Storr, 1978). Molecular evidence of Neilsen *et al.* (2016) indicates that the divergence between this morphologically distinct population and those from the type localities of other species in the subgenus (and the others formally named in this paper) is sufficient to warrant recognition at the species level.

The subgenus *Parvusdactylus subgen. nov.* includes six species, although until now, only two of these have been generally recognized (*Oedurella* (*Parvusdactylus*) *mcmillani* (Storr, 1978) and *Oedurella* (*Parvusdactylus*) *robinsoni* (Smith, 1995)). The other four are formally described within this paper and have until now been treated as populations of one or other or sometimes both the other two species. Therefore this diagnosis effectively separates out each species from one another.

O. alba sp. nov. from the area around Theda Station in the North Kimberley in Western Australia, is readily separated from *O. mcmillani* by the presence of four prominent rows of small black spots running from the snout to the eye, which is not seen in the nominate form (although sometimes appears as faint rows). *O. alba sp. nov*. is further differentiated by the presence of obvious specks on forelimbs versus none in *O. mcmillani*.

O. alba sp. nov. has a distinctive white stripe running from the eye along the mid flank of either side of the body. Less distinct longitudinal white stripes also run down the back. In *O. mcmillani* the white lateral stripe is yellowish brown in colour as opposed to white.

In terms of dorsal pattern, *O. alba sp. nov*. is clearly the most brilliant and well-marked species in the subgenus.

The similar species *O. jamielindi sp. nov*. from Bigge Island, West Kimberley District, Australia, is readily separated from the similar species *O. alba sp. nov.*, *O. garystephensoni sp. nov.*, *O. mcmillani* (Storr, 1978), *O. robinsoni* (Smith, 1995) and *O. sonnemanni sp. nov.* by the presence of a whitish line running from the eye to the tail that is noticeably wider on the body than adjacent darker (brownish) lines, versus same width or narrower, or absent in all other species.

In contrast to *O. mcmillani* the relevant lateral stripe is bright and distinctive, as opposed to being faded, the bright and distinct lateral stripe also being the case in *O. alba sp. nov*. However overall, the general dorsal pattern of *O. jamielindi sp. nov*. is otherwise dull as for *O. mcmillani.*

The species *O. sonnemanni sp. nov*. known only from the

Keep River drainage in the Northern Territory, immediately adjacent to the Western Australian border is separated from *O. alba sp. nov.*, *O. garystephensoni sp. nov.*, *O. jamielindi sp. nov.*, *O. mcmillani* (Storr, 1978), and *O. robinsoni* (Smith, 1995) by its dorsal colouration, being essentially unmarked save for a single thin noticeable, but very faded yellowish line running along the mid flank of the body, and no other lines on the body or tail.

All of *O. alba sp. nov.*, *O. garystephensoni sp. nov.*, *O. jamielindi sp. nov.*, and *O. mcmillani* (Storr, 1978) also have lateral running lines on either side of the tail, which is not the case for *O. sonnemanni sp. nov.*. *O. robinsoni* differs from the other species by having a general body colour of greyish or brownish with numerous tightly joined black flecks, forming a series of narrow reticulations or very thin lines running down the body with all adjoining areas being of a similar greyish or brown colour, as opposed to being of different shades of brown in the other species forming dorsolateral lines). In the four species *O. alba sp. nov.*, *O. garystephensoni sp. nov.*, *O. jamielindi sp. nov.*, and *O. mcmillani* (Storr, 1978), any dark flecks forming lines or boundaries, separate areas of pigment of different colour giving the lizard a pattern of indistinct stripes. As mentioned already, dorsally at least *O. sonnemanni sp. nov.* is essentially unmarked, or any markings present are extremely indistinct and barely noticeable, which is not the case in the four species *O. alba sp. nov.*, *O. garystephensoni sp. nov.*, *O. jamielindi sp. nov.*, and *O. mcmillani* (Storr, 1978).

In line with *O. alba sp. nov.*, *O. sonnemanni sp. nov.* is distinctive in the subgenus by having a well defined boundary between the darker upper body and the light venter at the lower flanks, as opposed to a gradual fading in the other four species (*O. garystephensoni sp. nov.*, *O. jamielindi sp. nov.*, *O. mcmillani* and *O. robinsoni*).

Both *O. robinsoni* and *O. sonnemani sp. nov.* lack any well defined head markings or a well defined temporal streak as seen in the other four species in the subgenus.

The species *O. garystephensoni sp. nov.* from the southern Kimberley District in Western Australia has been confused with both *O. mcmillani* and *O. robinsoni*, and is separated from all five other species in the subgenus by its dorsal colouration and pattern, consisting of a semi-distinct pattern of longitudinal lines of similar brownish grey colours, with some black flecking and lines running down the tail (original tails).

O. alba sp. nov., *O. jamielindi sp. nov.* and *O. mcmillani* are characterised by having limbs that have a semidistinct pattern of linked black flecks forming stripes running down the limbs. *O. jamielindi sp. nov.* and *O. mcmillani* also have black flecks separate from these scattered over the limbs.

O. garystephensoni sp. nov., *O. robinsoni* and *O. sonnemani sp. nov.* only have scattered black flecks on the limbs.

The dorsal pattern of *O. garystephensoni sp. nov.* as just described, contrasts with the largely unmarked dorsum of *O. sonnemani sp. nov.*, save for the indistinct stripe on the flanks, and the one colour body of *O. robinsoni* overlain with the joined black flecks forming a series of narrow thin blackish lines running down the body, but with all adjacent areas being effectively one colour.

Within *Oedurella* there are three subgenera. The nominate subgenus *Oedurella subgen. nov.* is separated from the subgenus *Graciledactylus subgen. nov.* by having a rostral excluded from the nostril, versus one contacting the nostril in the subgenus *Graciledactylus subgen. nov.*. Both these subgenera are separated from the subgenus *Parvusdactylus subgen. nov.* (including the six species in this subgenus) by having less than seven scales surrounding the nostril, versus more than seven in *Parvusdactylus subgen. nov.*.

The genus *Oedurella* Lönnberg and Andersson, 1913, has until now been treated by publishing authors as being a synonym of *Strophurus* Fitzinger, 1843, even though molecular data shows that the assemblage identified by this name is worthy of genus level recognition. Hence this diagnosis.

The genus *Oedurella* Lönnberg and Andersson, 1913 is separated from all species in other genera previously included within *Strophurus*, namely *Strophurus*, *Eremiastrophrurus* Wells and Wellington, 1985 and *Adelyndactylus gen. nov.* by the following suite of characters: No pre-anal pores in males; vertical rostral crease is almost complete or complete, the body is of a slight and slender build, there is a ventral stripe.

Distribution: *Oedurella* (*Parvusdactylus*) *jamielindi sp. nov.* is known only from Bigge Island in the Kimberley district of Western Australia and the immediately adjacent mainland.

Etymology: Named in honour of Jamie Lind of Ararat, Victoria, who does wildlife displays under the moniker of Jamie and Kim's Mobile Zoo, whose educational wildlife displays have aided in public awareness and conservation of native animals.

OEDURELLA* (*PARVUSDACTYLUS*) *SONNEMANNI SP. NOV.

Holotype: A preserved specimen in the Western Australian Museum, Perth, Western Australia, Australia, specimen number: R67960 collected at "7 km 143 Degree Mount Septimus" (Keep River area), Northern Territory, about 30 km east of Kunnunurra, Western Australia, Australia, Latitude -15.77 S., Longitude 129.02 E.

The Western Australian Museum, Perth, Western Australia, Australia is a government-owned facility that allows access to its holdings.

Diagnosis: *Oedurella* (*Parvusdactylus*) *sonnemanni sp. nov.* has until now been regarded as a population of *Oedurella* (*Parvusdactylus*) *robinsoni* (Smith, 1995) or *Oedurella* (*Parvusdactylus*) *mcmillani* (Storr, 1978). Molecular evidence of Neilsen *et al.* (2016) indicates that the divergence between this morphologically distinct population and those from the type localities of other species in the subgenus (and the others formally named in this paper) is sufficient to warrant recognition at the species level.

The subgenus *Parvusdactylus subgen. nov.* includes six species, although until now, only two of these have been generally recognized (*Oedurella* (*Parvusdactylus*) *mcmillani* (Storr, 1978) and *Oedurella* (*Parvusdactylus*) *robinsoni* (Smith, 1995)). The other four are formally described within this paper and have until now been treated as populations of one or other or sometimes both the other two species. Therefore this diagnosis effectively separates out each species from one another.

O. alba sp. nov. from the area around Theda Station in the North Kimberley in Western Australia, is readily separated from *O. mcmillani* by the presence of four prominent rows

of small black spots running from the snout to the eye, which is not seen in the nominate form (although sometimes appears as faint rows). *O. alba sp. nov*. is further differentiated by the presence of obvious specks on forelimbs versus none in *O. mcmillani*.

O. alba sp. nov. has a distinctive white stripe running from the eye along the mid flank of either side of the body. Less distinct longitudinal white stripes also run down the back. In *O. mcmillani* the white lateral stripe is yellowish brown in colour as opposed to white.

In terms of dorsal pattern, *O. alba sp. nov*. is clearly the most brilliant and well-marked species in the subgenus.

The similar species *O. jamielindi sp. nov*. from Bigge Island, West Kimberley District, Australia, is readily separated from the similar species *O. alba sp. nov.*, *O. garystephensoni sp. nov.*, *O. mcmillani* (Storr, 1978), *O. robinsoni* (Smith, 1995) and *O. sonnemanni sp. nov.* by the presence of a whitish line running from the eye to the tail that is noticeably wider on the body than adjacent darker (brownish) lines, versus same width or narrower, or absent in all other species.

In contrast to *O. mcmillani* the relevant lateral stripe is bright and distinctive, as opposed to being faded, the bright and distinct lateral stripe also being the case in *O. alba sp. nov*. However overall, the general dorsal pattern of *O. jamielindi sp. nov*. is otherwise dull as for *O. mcmillani.*

The species *O. sonnemanni sp. nov*. known only from the Keep River drainage in the Northern Territory, immediately adjacent to the Western Australian border is separated from *O. alba sp. nov.*, *O. garystephensoni sp. nov.*, *O. jamielindi sp. nov.*, *O. mcmillani* (Storr, 1978), and *O. robinsoni* (Smith, 1995) by its dorsal colouration, being essentially unmarked save for a single thin noticeable, but very faded yellowish line running along the mid flank of the body, and no other lines on the body or tail.

All of *O. alba sp. nov.*, *O. garystephensoni sp. nov.*, *O. jamielindi sp. nov*., and *O. mcmillani* (Storr, 1978) also have lateral running lines on either side of the tail, which is not the case for *O. sonnemanni sp. nov.*. *O. robinsoni* differs from the other species by having a general body colour of greyish or brownish with numerous tightly joined black flecks, forming a series of narrow reticulations or very thin lines running down the body with all adjoining areas being of a similar greyish or brown colour, as opposed to being of different shades of brown in the other species forming dorsolateral lines). In the four species *O. alba sp. nov.*, *O. garystephensoni sp. nov.*, *O. jamielindi sp. nov.*, and *O. mcmillani* (Storr, 1978), any dark flecks forming lines or boundaries, separate areas of pigment of different colour giving the lizard a pattern of indistinct stripes. As mentioned already, dorsally at least *O. sonnemanni sp. nov.* is essentially unmarked, or any markings present are extremely indistinct and barely noticeable, which is not the case in the four species *O. alba sp. nov.*, *O. garystephensoni sp. nov.*, *O. jamielindi sp. nov.*, and *O. mcmillani* (Storr, 1978).

In line with *O. alba sp. nov.*, *O. sonnemanni sp. nov*. is distinctive in the subgenus by having a well defined boundary between the darker upper body and the light venter at the lower flanks, as opposed to a gradual fading in the other four species (*O. garystephensoni sp. nov.*, *O. jamielindi sp. nov.*, *O. mcmillani* and *O. robinsoni*).

Both *O. robinsoni* and *O. sonnemani sp. nov*. lack any well defined head markings or a well defined temporal streak as seen in the other four species in the subgenus.

The species *O. garystephensoni sp. nov.* from the southern Kimberley District in Western Australia has been confused with both *O. mcmillani* and *O. robinsoni*, and is separated from all five other species in the subgenus by its dorsal colouration and pattern, consisting of a semi-distinct pattern of longitudinal lines of similar brownish grey colours, with some black flecking and lines running down the tail (original tails).

O. alba sp. nov., *O. jamielindi sp. nov*. and *O. mcmillani* are characterised by having limbs that have a semidistinct pattern of linked black flecks forming stripes running down the limbs. *O. jamielindi sp. nov*. and *O. mcmillani* also have black flecks separate from these scattered over the limbs.

O. garystephensoni sp. nov., *O. robinsoni* and *O. sonnemani sp. nov*. only have scattered black flecks on the limbs.

The dorsal pattern of *O. garystephensoni sp. nov.* as just described, contrasts with the largely unmarked dorsum of *O. sonnemani sp. nov.*, save for the indistinct stripe on the flanks, and the one colour body of *O. robinsoni* overlain with the joined black flecks forming a series of narrow thin blackish lines running down the body, but with all adjacent areas being effectively one colour.

Within *Oedurella* there are three subgenera. The nominate subgenus *Oedurella subgen. nov*. is separated from the subgenus *Graciledactylus subgen. nov.* by having a rostral excluded from the nostril, versus one contacting the nostril in the subgenus *Graciledactylus subgen. nov.*. Both these subgenera are separated from the subgenus *Parvusdactylus subgen. nov.* (including the six species in this subgenus) by having less than seven scales surrounding the nostril, versus more than seven in *Parvusdactylus subgen. nov.*.

The genus *Oedurella* Lönnberg and Andersson, 1913, has until now been treated by publishing authors as being a synonym of *Strophurus* Fitzinger, 1843, even though molecular data shows that the assemblage identified by this name is worthy of genus level recognition. Hence this diagnosis.

The genus *Oedurella* Lönnberg and Andersson, 1913 is separated from all species in other genera previously included within *Strophurus*, namely *Strophurus*, *Eremiastrophrurus* Wells and Wellington, 1985 and *Adelyndactylus gen. nov.* by the following suite of characters: No pre-anal pores in males; vertical rostral crease is almost complete or complete, the body is of a slight and slender build, there is a ventral stripe.

Distribution: The species *O. sonnemanni sp. nov*. is known only from the type locality, being the Keep River drainage in the Northern Territory, immediately adjacent to the Western Australian border, about 30 km east of Kunnunurra, East Kimberley District, Western Australia.

Etymology: Named in honour of Neil Sonnemann of Murmungee, south of Beechworth in North-east Victoria, in recognition of a lifetime's dedicated work in herpetology in Australia. While he is best known for his fantastic captive breeding of rare and sought after reptiles for the pet trade over many decades, he has also conducted significantly important fieldwork on numerous little-known reptile species, including on this very taxon.

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CONFLICT OF INTEREST

The author has no known conflicts of interest in terms of this paper and conclusions within.

NEW ARRANGEMENT FOR THE SPECIES FORMERLY PLACED WITHIN *STROPHURUS* FITZINGER, 1843

Genus *Strophurus* Fitzinger, 1843

Strophurus strophurus **(Duméril and Bibron, 1836) (Type species)**
Strophurus aberrans **(Glauert, 1952)**
Strophurus albiocularis **Brown, Worthington, Wilmer and Macdonald, 2012**
Strophurus assimilis **(Storr, 1988)**
Strophurus ciliaris **(Boulenger, 1885)**
Strophurus chriswilliamsi sp. nov.
Strophurus congoo **Vanderduys, 2016**
Strophurus dannybrowni sp. nov.
Strophurus jackyae sp. nov.
Strophurus jenandersonae sp. nov.
Strophurus gedyei sp. nov.
Strophurus intermedius **(Ogilby, 1892)**
Strophurus krisalys **Sadlier, Omeally and Shea, 2005**
Strophurus rankini **(Storr, 1979)**
Strophurus spinigerus **(Gray, 1842)**
Strophurus taenicauda **(De Vis, 1886)**
Strophurus triaureus **Brown, Worthington, Wilmer and Macdonald, 2012.**
Strophurus wellingtonae **(Storr, 1988)**
Strophurus williamsi **(Kluge, 1963)**

Genus *Eremiastrophrurus* Wells and Wellington, 1985.

Eremiastrophrurus elderi **(Stirling and Zeitz, 1893) (Type species)**
Eremiastrophrurus mahoodi **Wells and Wellington, 1985.**
Eremiastrophrurus michaelseni **(Werner, 1910)**

Genus *Oedurella* Lönnberg and Andersson, 1913

Oedurella taeniata **Lönnberg and Andersson, 1913 (Type species)**
Oedurella horneri **(Oliver and Parkin, 2014)**

Subgenus *Graciledactylus gen. nov.*

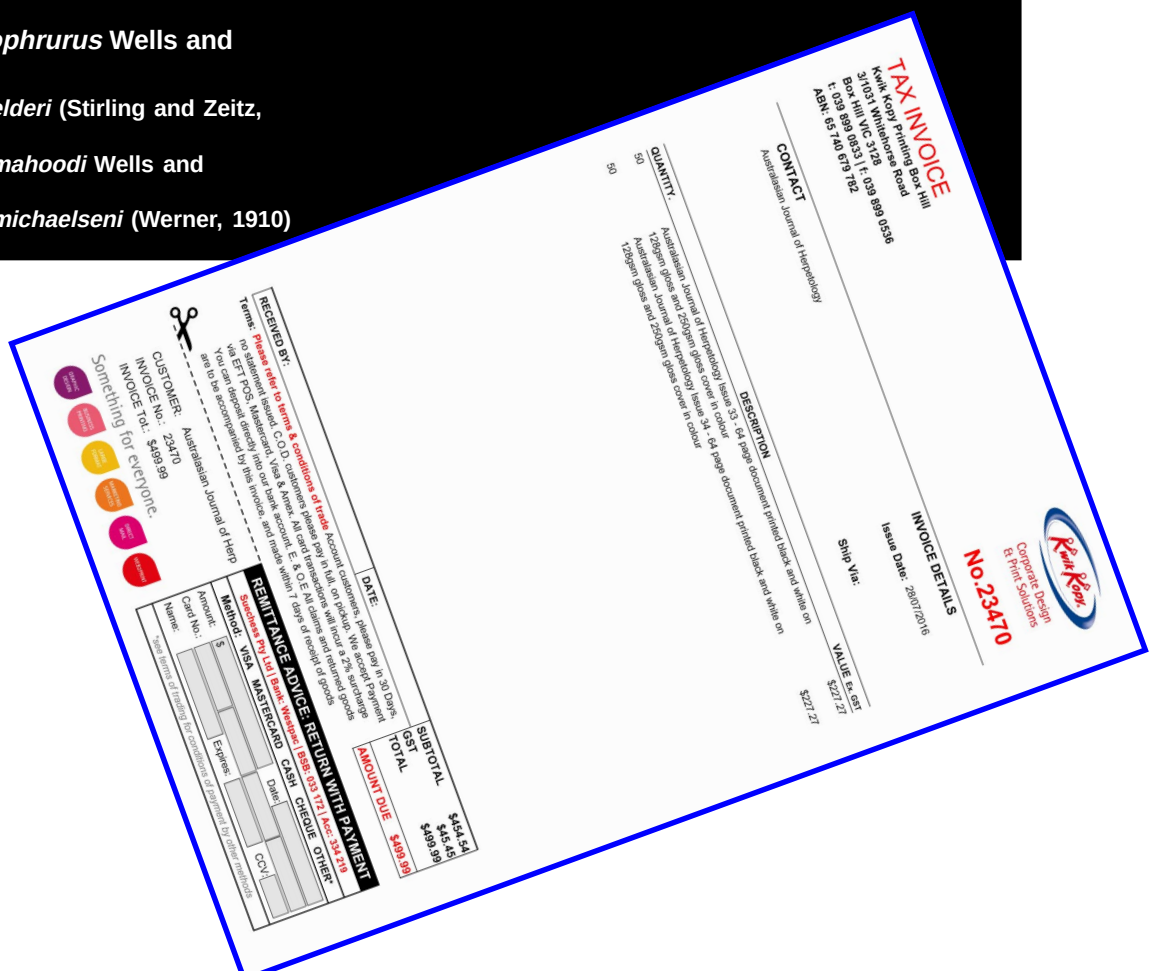
Oedurella* (*Graciledactylus*) *jeanae **(Storr, 1988)**

Subgenus *Parvusdactylus gen. nov.*

Oedurella* (*Parvusdactylus*) *alba sp. nov. **(Type species)**
Oedurella* (*Parvusdactylus*) *garystephensoni sp. nov.
Oedurella* (*Parvusdactylus*) *jamielindi sp. nov.
Oedurella* (*Parvusdactylus*) *mcmillani **(Storr, 1978)**
Oedurella* (*Parvusdactylus*) *robinsoni **(Smith, 1995)**
Oedurella* (*Parvusdactylus*) *sonnemanni sp. nov.

Genus *Adelyndactylus gen. nov.*

Adelyndactylus wilsoni **(Storr, 1983) (Monotypic)**



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A brief overview of the taxonomy and nomenclature of the genus *Diplodactylus* Gray 1832 *sensu lato*, with the formal naming of a new subgenus for the *Diplodactylus byrnei* Lucas and Frost, 1896 species group and two new species within this subgenus.

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ABSTRACT

The taxonomy of the genus *Diplodactylus* Gray 1832 *sensu lato* was well resolved at the genus level by Oliver *et al*. (2007) and to a lesser extent other authors over the past 30 years to 2017. However a group known as the Wüster gang as detailed by Hoser (2015a-f) have unlawfully stopped most herpetologists from using taxonomy and nomenclature proposed by authors outside of their mob.

As a result names formally proposed by Wells and Wellington (1989) for obvious species groups have been forcibly suppressed in herpetology since they were first published.

This has remained the case even after Oliver *et al*. (2007) confirmed the validity of their genus-level classification in terms of three names they proposed.

Taking an ultra-conservative position, Oliver *et al*. (2007) split *Diplodactylus* Gray 1832 *sensu lato* into three genera, using the first available names of *Diplodactylus* Gray 1832, *Lucasium* Wermuth, 1965 and *Rhynchoedura* Günther, 1867 for three main groups that diverged from one another in excess of 20 MYA.

However if one divided the genus groups at 10-15 MYA, there would in fact be 8 well-defined species groups, for which seven have available names.

In order to maintain stability of taxonomy and nomenclature, this paper formally resurrects four available names and assigns another for five subgenera, within the three genera identified by Oliver *et al*. (2007). The species group currently referred to the species *Diplodactylus byrnei* Lucas and Frost, 1896, including this and three other closely related species, that as a group, diverged from congeners an estimated 15-20 MYA is herein placed in the newly named subgenus *Crottyoides gen. nov.*.

The other formally resurrected genus names, herein applied as subgenera are: *Stenodactylopsis* Steindachner, 1870, *Manwellisaurus* Wells and Wellington, 1989, *Ozziedactylus* Wells and Wellington, 1989 and *Turnerdactylus* Wells and Wellington, 1989. This paper also presents a genus and subgenus list with component species.

Keywords: Taxonomy; nomenclature; lizards; Australia; Gecko; Genus; *Diplodactylus*; *Lucasium*; *Rhynchoedura*; resurrected names; available names; *International Code of Zoological Nomenclature*; Subgenus; *Stenodactylopsis*; *Manwellisaurus*; *Ozziedactylus*; *Turnerdactylus*; New subgenus; *Crottyoides*; new species; *rosssadlieri*; *allengreeri*.

INTRODUCTION

This paper is the result of an review of the taxonomy and nomenclature of the genus *Diplodactylus* Gray 1832 *sensu lato*.

An audit of relevant species and the scientific literature found that the taxonomy of the group was well resolved at the genus level by Oliver *et al*. (2007) and various other studies by other authors over the past 30 years to 2017. However a group known as the Wüster gang as detailed by Hoser (2015a-f) have unlawfully stopped most herpetologists from using taxonomy and nomenclature proposed by authors outside of their mob.

As a result names formally proposed in Wells and Wellington (1989), by Richard Wells and Cliff Ross Wellington for obvious species groups have been forcibly suppressed in herpetology since they were first published.

This has remained the case even after Oliver *et al.* (2007) *prima facie* confirmed the validity of their genus-level classification using molecular methods technology not available to Wells and Wellington two decades earlier.

Taking an ultra-conservative position, Oliver *et al.* (2007) split *Diplodactylus* Gray 1832 *sensu lato* into three genera, using the first available names of *Diplodactylus* Gray 1832, *Lucasium* Wermuth, 1965 and *Rhynchoedura* Günther, 1867 for three main groups that diverged from one another in excess of 20 MYA.

However if one divided the genus groups at 10-15 MYA, which is line with other reptile genera in Australia, there would in fact be 8 well-defined species groups requiring genus-level names, for which seven have available names.

In the long term it is clearly not tenable to informally describe groups of taxa as vaguely defined (or more often than not, undefined) "species groups" and so it is only appropriate that previously assigned names compliant with the rules of the *International Code of Zoological Nomenclature* (Ride *et al.* 1999) be used.

In order to maintain stability of taxonomy and nomenclature, this paper formally resurrects four available names, beyond those used by Oliver *et al*. (2007) and assigns another for a total five subgenera, within the three genera identified by Oliver *et al.* (2007). The species group currently referred to the species originally named as *Diplodactylus byrnei* Lucas and Frost, 1896, including this and three other closely related species, that diverged from congeners an estimated 15-20 MYA are herein placed in the newly named subgenus *Crottyoides gen. nov..*

The other formally resurrected genus names, herein applied as subgenera are: *Stenodactylopsis* Steindachner, 1870, *Manwellisaurus* Wells and Wellington, 1989, *Ozziedactylus* Wells and Wellington, 1989 and *Turnerdactylus* Wells and Wellington, 1989. This paper also presents a genus and subgenus list with component species.

The methodology of this paper's preparation was simple in that it involved a mere review of the existing literature combined with a hands-on knowledge of the relevant species gathered over more than 40 years of intensive survey work across Australia as well as viewing numerous specimens in Museums and elsewhere.

The final result has already been outlined above and in the abstract.

As the morphological differences between the relevant species groups are well established in the literature, it is not necessary for me to detail this in terms of the relevant species beyond that which is needed to formally establish the new name to be defined in this paper.

This is because all other names for the other species groups have been previously established and sufficiently redefined by the paper of Oliver *et al.* (2007) and those papers describing relevant species after that date as cited below.

I do however note the following: Oliver *et al.* (2007) showed that the species they identified as *Diplodactylus byrnei* Lucas and Frost, 1896 diverged from all other species in *Diplodactylus sensu lato* somewhere between 15 and 20 MYA, making it worthy of genus-level recognition. This alone is sufficient basis for the erection of a subgenus to accommodate the taxon.

Having said this, their phylogeny showed two distinct lineages of this putative taxon. There are two available names for this species group, the second being "*Diplodactylus dorotheae* Wells and Wellington, 1985".

The results of Oliver *et al.* (2007) *prima facie* confirm that at least two lineages worthy of genus-level recognition exist and because of the sampling locations used, that both available names can be assigned to given taxa.

Therefore the Wells and Wellington name is resurrected from synonymy to be treated as a valid species level taxon in the new subgenus erected to accommodate "*Diplodactylus byrnei* Lucas and Frost, 1896".

Having said this, I have had the good fortune to inspect several populations of putative "*Diplodactylus byrnei* Lucas and Frost, 1896" in recent years with a view to ascertaining their relationships to one another, including substantial time in the field at Leigh Creek and south of Coober Pedy in South Australia.

As a result of relevant fieldwork and inspection of other specimens from across the range of putative "*Diplodactylus byrnei* Lucas and Frost, 1896" this paper subdivides the putative species "*Diplodactylus byrnei* Lucas and Frost, 1896" four ways based on obvious and consistent morphological differences between populations.

The differences include such things as iris colour and dorsal body pattern, which were also matched up with apparent geographical barriers between the populations, these being areas of evidently uninhabited terrain.

A fifth population with a distribution centred in south-west Queensland near Birdsville, may also represent an undescribed species, although it is herein treated as being of "*Diplodactylus byrnei* Lucas and Frost, 1896". This is because an inspection of the holotype for "*Diplodactylus byrnei* Lucas and Frost, 1896" at the Museum of Victoria and other live specimens from the same part of the Northern Territory show them to have several similarities to the Birdsville (and nearby) animals, including the configuration of dark colouration posterior to the eye, the shape of the lighter dorsal cross band-type markings and the colour patterning of the flanks.

Literature relevant to the taxonomic and nomenclatural conclusions and actions herein includes the following:

Aplin and Adams (1998), Boulenger (1885, 1896), Brown *et al.* (2014), Cogger (1975, 1983, 2000, 2014), Cogger *et al.* (1983), Couper and Oliver (2016), Couper *et al.* (2007), Doughty and Hutchinson (2008), Doughty and Oliver (2013), Doughty *et al.* (2008, 2010), Duméril and Bibron (1836), Fry (1914), Glauert (1956), Gray (1832, 1842, 1845, 1867), Günther (1867), Han *et al.* (2004), Hoser (1989, 2007, 2015a-f, 2016a-b, 2017a-b), Hutchinson *et al.* (2009), King *et al.* (1982), King (1985), King and Gow (1983), Kluge (1967), Laube (2002), Laube and Langner (2007), Longman (1915), Loveridge (1934), Lucas and Frost (1896), Nielsen *et al.* (2016), Oliver and Bauer (2010), Oliver and Doughty (2016), Oliver and McDonald (2016), Oliver *et al.* (2007, 2010, 2012, 2014a-c), Pepper *et al.* (2006, 2011), Ride *et al.* (1999), Rosauer *et al.* (2016), Rösler (1995, 2000), Storr (1978), Underwood (1954), Wells and Wellington (1984, 1985, 1989), Werner (1910), Wilson and Knowles (1988), Wilson and Swan (2010), Zietz (1920) and sources cited therein.

It should also be noted that the spelling of the new subgenus or two species named should not be altered in any way unless mandated by the rules of the "in force" *International Code of Zoological Nomenclature*, or equivalent publication or set of rules. This remains the case if the names are applied at the genus as opposed to subgenus level or subspecies as opposed to species level. Gender, spelling and the like should not be amended in any way unless mandated by the rules applicable.

If a later author seeks to merge taxa named for the first time herein, the name to be used should be in page priority order as published within this paper.

Latitude and Longitude information is given in degrees (first two digits) and minutes (second two digits after the period).

SUBGENUS *CROTTYOIDES SUBGEN. NOV.*

Type species: *Lucasium* (*Crottyoides*) *rosssadlieri sp. nov*. (as described in this paper below).

Diagnosis: *Crottyoides subgen. nov.* is separated from all other species within *Lucasium* Wermuth, 1965 as defined by Oliver *et al.* (2007) by having heterogenous body scalation, relatively large terminal scansors and unusual bodily proportions, this being with a relatively large head, a sharply pointed snout and a disproportionately skinny (original) tail.

The four (defined in this paper) species in this subgenus are further defined (as one species) on page 310 of Cogger (2014). On the same page, Cogger (2014) shows an image of the species *L.* (*Crottyoides*) *dorotheae* (Wells and Wellington, 1985), which is identified as "*Lucasium byrnei*, Roto, NSW", showing well-defined yellow spots on the flanks that are diagnostic for that particular species.

The species *Lucasium* (*Crottyoides*) *byrnei* (Lucas and Frost, 1896) has a centre of distribution in Northern South Australia and the southern Northern Territory.

The diagnosis of all other species within *Lucasium* and *Crottyoides subgen. nov.* (as if within *Lucasium*) is as follows:

A genus of the Diplodactylidae (*sensu* Han *et al.* 2004) distinguished from all but *Diplodactylus* and *Rhynchoedura* Günther, 1867 by having both lateral and medial pairs of cloacal bones present.

Distinguished from *Diplodactylus* and *Rhynchoedura* by the reduced or vestigial jugal and medial expansion of the suborbital portion of the maxilla. Further distinguished from *Diplodactylus* by low numbers of preanal spinose scales (generally 2-5), the presence of preanal pores (usually one left and one right) in males (absent in *L. maini*) and by more gracile, elongate proportions of the body, limbs and tail (fourth toe of hind foot approximately seven times as long as wide, tail narrow and moderate to long (80-110% of SVL)). Further distinguished from *Rhynchoedura* by the more robust skull, the absence of

beak-like projecting mental and rostral scales, the modal presacral vertebral count of 26 (versus 27) and the absence of distinctive enlarged preanal pores (Greer 1989).

Distribution: Central and southern interior of New South Wales extending to nearby parts of South Australia, extending towards the centre of that state, and including the far south-west of Queensland and immediately adjacent parts of the Northern Territory.

Etymology: Named in honour of a Great Dane / Rottweiller cross dog that I owned for 13 years from 1989 to 2002, in recognition of his services in protecting our herpetological research facility from thieves and other undesireables. The dog's name was "*Crotalus*" as in the Pitviper genus, but we called him "Crotty" as an abbreviation. "Oides" in Latin means "son of". Hence the subgenus name is in memory of this dog as would be a son.

Content: *Lucasium* (*Crottyoides*) *rosssadlieri sp. nov.* (Type species); *L.* (*Crottyoides*) *allengreeri sp. nov.*; *L.* (*Crottyoides*) *byrnei* (Lucas and Frost, 1896); *L.* (*Crottyoides*) *dorotheae* (Wells and Wellington, 1985).

LUCASIUM* (*CROTTYOIDES*) *ROSSSADLIERI SP. NOV.

Holotype: A preserved specimen in the South Australian Museum, Adelaide, South Australia, Australia, specimen number: R52296, collected in a pit trap at Camel Yard Spring Station, Flinders Ranges, South Australia, Australia, Latitude -30.73 S., Longitude 139.07 E.

The South Australian Museum, Adelaide, South Australia, Australia, allows access to its holdings.

Paratypes: 1/ A preserved specimen in the South Australian Museum, Adelaide, South Australia, Australia, specimen number: R52297, collected at Camel Yard Spring Station, Flinders Ranges, South Australia, Australia, Latitude -30.73 S., Longitude 139.07 E.

2/ A preserved specimen in the South Australian Museum, Adelaide, South Australia, Australia, specimen number: R52302 collected at Camel Yard Spring Station, Flinders Ranges, South Australia, Australia, Latitude -30.73 S., Longitude 139.07 E.

Diagnosis: *Lucasium* (*Crottyoides*) *rosssadlieri sp. nov.* from East of Lake Eyre and north of the lower Flinders Ranges is characterised and separated from the other three species in the subgenus *Crottyoides subgen. nov.* by a strongly banded tail which is such for all or most of its length, (versus not so in all other species) as well as a light orange iris and indistinct markings on the head of even proportions of dark and light. Spots on the flanks merge to give a mottled appearance.

L. byrnei (Lucas and Frost, 1896) with a centre of distribution near the Northern Territory, South Australia border is characterised and separated from the other three species in the subgenus *Crottyoides subgen. nov.* by the following suite of characters: A very strongly orange iris that is orangeish throughout, indistinct dark and light markings on the head, in even proportion of dark and light, and a mainly light tail with lots of scattered mid-sized darker blotches. There are no obvious or indistinct yellow spots on the flanks, or spots that appear to have merged. Instead the flanks are characterised by areas of dark and light pigment in no particular order or pattern, giving a marbled appearance at a distance.

L. dorotheae (Wells and Wellington, 1985), from drier western New South Wales, generally south of about White Cliffs and nearby parts of South Australia, including the Riverland is characterised and separated from the other three species in the subgenus *Crottyoides subgen. nov.* by having an obviously greyish yellow iris, and strong yellow markings on a darker background on the head, neck and flanks, including well-defined bright yellow spots on the mid to lower flanks.

L. allengreeri sp. nov. from central South Australia, generally west of Lake Eyre is characterised and separated from the other three species in the subgenus *Crottyoides subgen. nov.* by orange or reddish labials (as opposed to whitish in the other species), no large yellowish areas on the head, instead being mainly dark in colour with scattered small indistinct yellow flecks on top and indistinct yellow spots on the sides and nape, the snout noticeably darkens at the tip (unlike the other species), the iris is deep orange in the centre and yellow at the edges. The flanks have indistinct yellow spots on a reddish brown background.

Crottyoides subgen. nov. is separated from all other species within *Lucasium* Wermuth, 1965 as defined by Oliver *et al.* (2007) by having heterogenous body scalation, relatively large terminal scansors and unusual bodily proportions, this being with a relatively large head, a sharply pointed snout and a disproportionately skinny (original) tail.

The four (defined in this paper) species in this subgenus are further defined (as one species) on page 310 of Cogger (2014). On the same page, Cogger (2014) shows an image of the species *L.* (*Crottyoides*) *dorotheae* (Wells and Wellington, 1985), which is identified as "*Lucasium byrnei*, Roto, NSW", showing well-defined yellow spots on the flanks that are diagnostic for this species.

The species *Lucasium* (*Crottyoides*) *byrnei* (Lucas and Frost, 1896) has a centre of distribution in Northern South Australia and the southern Northern Territory.

The diagnosis of all other species within *Lucasium* and *Crottyoides subgen. nov.* (as if within *Lucasium*) is as follows:

A genus of the Diplodactylidae (*sensu* Han *et al.* 2004) distinguished from all but *Diplodactylus* and *Rhynchoedura* Günther, 1867 by having both lateral and medial pairs of cloacal bones present.

Distinguished from *Diplodactylus* and *Rhynchoedura* by the reduced or vestigial jugal and medial expansion of the suborbital portion of the maxilla. Further distinguished from *Diplodactylus* by low numbers of preanal spinose scales (generally 2-5), the presence of preanal pores (usually one left and one right) in males (absent in *L. maini*) and by more gracile, elongate proportions of the body, limbs and tail (fourth toe of hind foot approximately seven times as long as wide, tail narrow and moderate to long (80-110% of SVL)). Further distinguished from *Rhynchoedura* by the more robust skull, the absence of

beak-like projecting mental and rostral scales, the modal presacral vertebral count of 26 (versus 27) and the absence of distinctive enlarged preanal pores (Greer 1989).

Distribution: *Lucasium rosssadlieri sp. nov.* is found in South Australia generally east of Lake Eyre, north of Lake Torrens and north-east in a region generally south of the Coopers Creek drainage system, including far south-west Queensland and nearby parts of North-west New South Wales.

Etymology: Named in honour of Ross Sadlier, former collections manager for herpetology at the Australian Museum in Sydney, New South Wales, Australia in recognition of his many contributions to herpetology in Australia and places outside Australia.

LUCASIUM* (*CROTTYOIDES*) *ALLENGREERI SP. NOV.

Holotype: A preserved specimen in the South Australian Museum, Adelaide, South Australia, Australia, specimen number: R65650, collected 16.9 km North-east of Bon Bon Homestead, South Australia, Australia, Latitude -30.32 S., Longitude 135.61 E.

The South Australian Museum, Adelaide, South Australia, Australia, allows access to its holdings.

Paratype: A preserved specimen in the South Australian Museum, Adelaide, South Australia, Australia, specimen number: R23871, collected 2 miles south of Black Oak Bore, South Australia, Australia, Latitude -29.98 S., Longitude 135.25 E.

Diagnosis: *Lucasium* (*Crottyoides*) *allengreeri sp. nov*. from central South Australia, generally west of Lake Eyre is characterised and separated from the other three species in the subgenus *Crottyoides subgen. nov*. by orange or reddish labials (as opposed to whitish in the other species), no large yellowish areas on the head, instead being mainly dark in colour with scattered small indistinct yellow flecks on top and indistinct yellow spots on the sides and nape, the snout noticeably darkens at the tip (unlike the other species), the iris is deep orange in the centre and yellow at the edges. The flanks have indistinct yellow spots on a reddish brown background.

L. rosssadlieri sp. nov. from East of Lake Eyre and north of the lower Flinders Ranges is characterised and separated from the other three species in the subgenus *Crottyoides subgen. nov.* by a strongly banded tail which is such for all or most of its length, (versus not so in all other species) as well as a light orange iris and indistinct markings on the head of even proportions of dark and light. Spots on the flanks merge to give a mottled appearance.

L. byrnei (Lucas and Frost, 1896) with a centre of distribution near the Northern Territory, South Australia border is characterised and separated from the other three species in the subgenus *Crottyoides subgen. nov*. by the following suite of characters: A very strongly orange iris that is orangeish throughout, indistinct dark and light markings on the head, in even proportion of dark and light, and a mainly light tail with lots of scattered mid-sized darker blotches. There are no obvious or indistinct yellow spots on the flanks, or spots that appear to have merged. Instead the flanks are characterised by areas of dark and light pigment in no particular order or pattern, giving a marbled appearance at a distance.

L. dorotheae (Wells and Wellington, 1985), from drier western New South Wales, generally south of about White Cliffs and nearby parts of South Australia, including the Riverland is characterised and separated from the other three species in the subgenus *Crottyoides subgen. nov*. by having an obviously greyish yellow iris, and strong yellow markings on a darker background on the head, neck and flanks, including well-defined bright yellow spots on the mid to lower flanks.

Crottyoides subgen. nov. is separated from all other species within *Lucasium* Wermuth, 1965 as defined by Oliver *et al.* (2007) by having heterogenous body scalation, relatively large terminal scansors and unusual bodily proportions, this being with a relatively large head, a sharply pointed snout and a disproportionately skinny (original) tail.

The four (defined in this paper) species in this subgenus are further defined (as one species) on page 310 of Cogger (2014). On the same page, Cogger (2014) shows an image of the species *L.* (*Crottyoides*) *dorotheae* (Wells and Wellington, 1985), which is identified as "*Lucasium byrnei*, Roto, NSW", showing well-defined yellow spots on the flanks that are diagnostic for this species.

The species *Lucasium* (*Crottyoides*) *byrnei* (Lucas and Frost, 1896) has a centre of distribution in far Northern South Australia and the southern Northern Territory.

The diagnosis of all other species within *Lucasium* and *Crottyoides subgen. nov.* (as if within *Lucasium*) is as follows:

A genus of the Diplodactylidae (*sensu* Han *et al*. 2004) distinguished from all but *Diplodactylus* and *Rhynchoedura* Günther, 1867 by having both lateral and medial pairs of cloacal bones present.

Distinguished from *Diplodactylus* and *Rhynchoedura* by the reduced or vestigial jugal and medial expansion of the suborbital portion of the maxilla. Further distinguished from *Diplodactylus* by low numbers of preanal spinose scales (generally 2-5), the presence of preanal pores (usually one left and one right) in males (absent in *L. maini*) and by more gracile, elongate proportions of the body, limbs and tail (fourth toe of hind foot approximately seven times as long as wide, tail narrow and moderate to long (80-110% of SVL)). Further distinguished from *Rhynchoedura* by the more robust skull, the absence of beak-like projecting mental and rostral scales, the modal presacral vertebral count of 26 (versus 27) and the absence of distinctive enlarged preanal pores (Greer 1989).

Distribution: *Lucasium allengreeri sp. nov.* is found in South Australia generally west and south-west of Lake Eyre and generally south of Marla and Oodnadatta in the north.

Etymology: Named in honour of Allen E. Greer, former curator for herpetology at the Australian Museum in Sydney, New South Wales, Australia in recognition of his many contributions to herpetology in Australia and elsewhere.

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CONFLICT OF INTEREST

The author has no known conflicts of interest in terms of this paper and conclusions within.

Diplodactylus Gray 1832 *sensu lato* genus, subgenus, species list.

Diplodactylus Gray 1832

Diplodactylus vittatus Gray, 1832 (Type species)
Diplodactylus fulleri Storr, 1978
Diplodactylus furcosus Peters, 1863
Diplodactylus galeatus Kluge, 1963
Diplodactylus tessellatus (Günther, 1875)
Diplodactylus wiru Hutchinson, Doughty and Oliver, 2009

Subgenus *Stenodactylopsis* Steindachner, 1870

Diplodactylus (*Stenodactylopsis*) *pulcher* (Steindachner, 1870) (Type species)
Diplodactylus (*Stenodactylopsis*) *capensis* Doughty, Oliver and Adams, 2008
Diplodactylus (*Stenodactylopsis*) *galaxias* Doughty, Pepper and Keogh, 2010
Diplodactylus (*Stenodactylopsis*) *granariensis* Storr, 1979
Diplodactylus (*Stenodactylopsis*) *klugei* Aplin and Adams, 1998
Diplodactylus (*Stenodactylopsis*) *savagei* Kluge, 1963
Diplodactylus (*Stenodactylopsis*) *mitchelli* Kluge, 1963

Subgenus *Manwellisaurus* Wells and Wellington, 1989

Diplodactylus (*Manwellisaurus*) *conspicillatus* Lucas and Frost, 1897 (Type species)
Diplodactylus (*Manwellisaurus*) *ameyi* Couper and Oliver, 2016
Diplodactylus (*Manwellisaurus*) *barraganae* Couper, Oliver and Pepper, 2014
Diplodactylus (*Manwellisaurus*) *bilybara* Couper, Pepper and Oliver, 2014
Diplodactylus (*Manwellisaurus*) *calcicolus* Hutchinson, Doughty and Oliver, 2009
Diplodactylus (*Manwellisaurus*) *custos* Couper, Oliver and Pepper, 2014
Diplodactylus (*Manwellisaurus*) *hillii* Longmann, 1915
Diplodactylus (*Manwellisaurus*) *kenneallyi* Storr, 1988
Diplodactylus (*Manwellisaurus*) *laevis* Sternfeld, 1925
Diplodactylus (*Manwellisaurus*) *lateroides* Doughty and Oliver, 2013
Diplodactylus (*Manwellisaurus*) *nebulosus* Doughty and Oliver, 2013
Diplodactylus (*Manwellisaurus*) *ornatus* Gray, 1845
Diplodactylus (*Manwellisaurus*) *platyurus* Parker, 1926
Diplodactylus (*Manwellisaurus*) *polyophthalmus* Günther, 1867

Lucasium Wermuth, 1965

Lucasium damaeum (Lucas and Frost, 1896) (Type species)
Lucasium alboguttatum (Werner, 1910)
Lucasium maini (Kluge, 1962)

Subgenus *Ozziedactylus* Wells and Wellington, 1989

Lucasium (*Ozziedactylus*) *steindachneri* (Boulenger, 1885) (Type species)
Lucasium (*Ozziedactylus*) *immaculatum* (Storr, 1988)

Subgenus *Turnerdactylus* Wells and Wellington, 1989

Lucasium (*Turnerdactylus*) *stenodactylum* (Boulenger, 1896) (Type species)
Lucasium (*Turnerdactylus*) *bungabinna* Doughty and Hutchinson, 2008
Lucasium (*Turnerdactylus*) *occultum* (King, 1982)
Lucasium (*Turnerdactylus*) *wombeyi* (Storr, 1978)
Lucasium (*Turnerdactylus*) *squarrosum* (Kluge, 1962)

Subgenus Crottyoides subgen. nov.

Lucasium (*Crottyoides*) *allengreeri sp. nov.* (Type species)
Lucasium (*Crottyoides*) *byrnei* (Lucas and Frost, 1896) (Type species)
Lucasium (*Crottyoides*) *dorotheae* (Wells and Wellington, 1985)
Lucasium (*Crottyoides*) *rosssadlieri sp. nov.*

Rhynchoedura Günther, 1867

Rhynchoedura ornata Günther, 1867
Rhynchoedura angusta Pepper, Doughty, Hutchinson and Keogh, 2011
Rhynchoedura eyrensis Pepper, Doughty, Hutchinson and Keogh, 2011
Rhynchoedura mentalis Pepper, Doughty, Hutchinson and Keogh, 2011
Rhynchoedura ormsbyi Wells and Wellington, 1985
Rhynchoedura sexapora Pepper, Doughty, Hutchinson and Keogh, 2011

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