

Issue 71, 12 June 2024

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

Australasian Journal of Herpetology



Hoser, R. T. 2024. The inevitable split-up. *Carlia sensu-lato* (Scincidae), from Australia and New Guinea formally divided, including 15 new genera, 35 new species and 4 new subspecies. *Australasian Journal of Herpetology* 71:1-64.

Hoser, 2024.



***Fortitercarinata tastywhencrispy* sp. nov.**
from south of Darwin, NT, Australia.

The inevitable split-up. *Carlia sensu-lato* (Scincidae), from Australia and New Guinea formally divided, including 15 new genera, 35 new species and 4 new subspecies.

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Received 18 January 2024, Accepted 28 May 2024, Published 12 June 2024.

ABSTRACT

An ongoing audit of the Australian and New Guinean herpetofauna revisited the genus *Carlia sensu lato* in light of several recent morphological and molecular studies combined with my own in-depth genus-wide study.

15 obvious genus-level assemblages that are unnamed are identified and formally named.

35 previously unnamed species and 4 previously unnamed subspecies are also formally named for the first time.

A number of the newly identified and named species are range restricted and in the face of increased and exploding human populations in the relevant areas, may be under long term threat of extinction.

It is important that these taxa are formally recognized and named rather than letting them expire through benign neglect.

Naming of species is the critically important first step to ensuring their ultimate conservation as identified by Hoser (1998, 2007, 2019a, 2019b), McKinney (1999) and Liu *et al.* (2022).

Keywords: Taxonomy; nomenclature; Australia; skink; lizard; *Carlia*; *Liburnascincus*; *Protervascincus*; *Lygisaurus*; *Myophila*; Queensland; Northern Territory; new genus; *Neglectscincus*; *Caudabrunneis*; *Striatacorpus*; *Orangedemale Caudaclara*; *Aurantiacolateri*; *Celerscincus*; *Veloxscincus*; *Circularisauris*; *Jacky*; *Fasciststatescincus*; *Triacarinae*; *Parvabrunneis*; *Whittonscincus*; *Fortitercarinata*; new species; *nonvidetur*; *alotauensis*; *chimbuensis*; *praecipuus*; *tiwi*; *parvus*; *arukidding*; *accretio*; *maculanigrae*; *tenebricephalus*; *abababa*; *albae*; *taediosus*; *thisisserious*; *tastesterribleyes*; *aruserious*; *crurascabra*; *closetonoweherensis*; *orainsignis*; *barelyedible*; *donoteatit*; *aeriscorpus*; *ferrugineis*; *luxbrunneislineam*; *itishere*; *wereisdat*; *hoserae*; *tastywhencrispy*; *tasteslikesheet*; *faark*; *wow*; *itis*; *adina*; *unt*; *michaelmatheri*; new subspecies; *languidafemina*; *obscuralineae*; *blacki*; *mmm*.

INTRODUCTION

In line with the paper of Hoser (2024a), an ongoing audit of the Australasian herpetofauna has confirmed the existence of 35 further obviously unnamed species within *Carlia* Gray, 1845 *sensu lato* in Australia, New Guinea and Indonesia.

Rather than risk these taxa expiring through benign neglect, they are formally identified and named herein. Besides furthering the science of herpetology, this action of naming the relevant species will also reduce the extinction risk for each of them (Hoser 1998, 2007, 2019a, 2019b, McKinney 1999, Liu *et al.* 2022).

At the genus level it is also self-evident that the assemblage of *Carlia sensu-lato* as defined until the current time includes a number of genus-level groups more than 10 MYA divergent from one another.

These groups are also well-defined both geographically and morphologically as well.

At the time of publishing Hoser (2024a) it was considered that the groups were best regarded as subgenera based on morphological convergence.

However, a reconsideration of the data suggests that:

- 1/ Genus level recognition is best in order to maintain consistency with other Australian reptile groups and,
- 2/ Even if subgenus level recognition is ultimately deemed the proper way to group the relevant species, they do at present not have a genus-level name and so it is important to assign them as soon as practicable.

Hence these genus-level groups are formally named in this paper. None are less than 8 MYA divergent from nearest named generic groupings.

Almost all are over 10 MYA divergent from nearest relatives.

As already mentioned, candidate species were also audited. If and when they were identified as legitimate species-level entities, they were then formally named.

MATERIALS AND METHODS

Gene sequences with Genbank were checked to see if any sequences attributed to given putative species flagged one or more potential "other" species. That is, were they sufficiently divergent from the type form/s.

These were then cross-checked against known populations of the same species to see if there were morphologically divergent forms that corresponded to potentially unnamed species.

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

These newly identified forms were then checked against various synonyms lists (e.g. Cogger *et al.* 1983, Wells and Wellington 1984 and 1985, *Zoological Record*, etc), as well as against more recently named species within *Carlia* or associated genera to confirm that they were in fact unnamed species.

Numerous putative species were identified in the sweep of taxa which included species groups where one or more was not yet named.

These are in addition to those taxa identified and named in Hoser (2024a).

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

I do note some resurrection of taxon names as required later in this paper, including as component species within newly named genera.

It should be noted that each taxon and name resurrected from synonymy has been done on the basis of a full and original morphological and (usually) molecular analysis of the said taxon, including in combination with the known biogeographical history

of where they occur.

That is, my decision on the validity or otherwise of the putative taxon has been made on the basis of this study and not by way of reference to the original published description/s or similar being taken on face value.

No prior publications were taken on face value. The lizards themselves were checked and re-assessed.

There is nothing to be gained by breaching Copyright laws or the *International Code of Zoological Nomenclature* (Ride *et al.* 1999) by renaming species already formally named as advocated by Kaiser *et al.* (2012), Rhodin *et al.* (2016) and associated invective-filled rants.

In other words only previously unnamed species are formally named in this paper.

These newly identified species are listed below (and the abstract keywords).

MATERIALS AND METHODS

Preceding this paper and as a methodology, all the relevant published literature, including as cited in detail in Hoser (2024a) was reviewed to:

- 1/ Confirm that the previously named taxa in *Carlia sensu lato* were valid species. This audit included previously synonymised forms.
- 2/ Confirm the correct genus-level assignment of each form, and by validating that they:
 - A/ Conformed to an obvious species group and that,
 - B/ Based on publicly available sequence data they had diverged less than 10 MYA from their other nearest common ancestor (with a few exceptions between 8 and 10 MYA) and,
 - 3/ In light of the preceding things to flag any potentially unnamed forms at genus or species levels, including subgenera or subspecies.

This was backed up by way of inspection of specimens, alive, dead, in photos and preserved in museums. I have inspected specimens in the State Museums of New South Wales, Victoria, Queensland and the Northern Territory as well as the "Australian National Wildlife Collection" in Canberra, Australian Capital Territory.

Inspection of specimens from the relevant areas was done to confirm what was mooted by way of literature review and the unnamed taxa flagged in any available relatively recent molecular studies.

Publicly available sequences available at Genbank were downloaded and analysed using Mega11 (Tamura *et al.* 2021) and checked against previously published phylogenies using the same data.

Similar to the methodology employed by Colgan *et al.* (2009) and Sadlier *et al.* (2019), MEGA version 11 (Tamura *et al.* 2021) was downloaded from the web and used to calculate Kimura 2-parameter (K2P) genetic distances with pairwise deletion of missing data and assuming a discrete approximation to the gamma distribution for modelling rate variation between sites (a shape parameter set to 1.0). Standard errors of the distances were estimated by a bootstrap analysis with 500 replicates.

The upper limit of the divergence rate generally assumed for substitution in cytochrome b in reptiles

is 2.5% per million years (Crochet *et al.* 2004).

Assuming this rate as correct, as was done by Colgan *et al.* (2009), it was decided that where *Carlia* clades had apparently diverged beyond 1.75 MYA, the relevant lizard groups were assessed to see whether or not they were:

- 1/ Morphologically diagnosable as separate species and
- 2/ If a likely or logical biogeographic factor causing isolation of populations could be identified.

The latter may be:

A/ Habitat barrier/s (e.g. soil type, vegetation type, rock type, etc),

B/ Competing, predatory or relatively newly invasive species in an area or,

C/ Presumed past climatic events that may have facilitated either of the prior types of factor.

Where applicable, if a case for separation of populations was made out, due to morphological divergence, but date of divergence was not believed to be great, then I opted to make the relevant taxa subspecies.

Alternatively, where no sequence data was available, but other factors such as significant morphological divergence had occurred, especially if connected to a well-known or obvious biogeographical barrier, then the decision would be made to determine the relevant form as a separate species or subspecies.

Publications relevant to the taxonomy and nomenclature of the species within *Carlia sensu lato* and the final decisions made herein are listed below.

References that relate to other aspects of the relevant species not required for taxonomic assessment or are in the genre of field surveys and reports of taxa in which "*Carlia*" species were mentioned as caught in a given place, but with little if any meaningful information beyond that, are as a rule, not cited or referred to herein.

This is especially if and when the relevant species were being seen or caught in places they were either known to occur or expected to occur already.

As much as possible, I have tried to rely on the original sources of information, including for citation purposes, rather than secondary materials.

To that end, I read (as far as I am aware) every single formal description of every putative or mooted species within the *Carlia sensu lato* group and all are cited below.

In terms of genus-level assignments, relevant published phylogenies were reviewed.

Papers on other groups of skinks or small reptiles and the like that were likely to have been involved in similar diversification patterns were also reviewed and the important ones are also cited below.

Publications relevant to the taxonomic conclusions made within this paper included the following: Adler *et al.* (1995), Afonso Silva (2018), Afonso Silva *et al.* (2017a, 2017b), Austin *et al.* (2011), Barbour (1911, 1912, 1914), Bleeker (1860), Boulenger (1887, 1895, 1897, 1898), Bragg *et al.* (2018), Brongersma (1942, 1948), Broom (1898), Brown (2014), Buden (2009), Buden and Taboroši (2016), Burt and Burt (1932), Capocaccia (1961), Chapple *et al.* (2022), Cogger (2014), Cogger *et al.* (1983), Colgan *et al.* (2009), Copland (1949), Conroy (1999), Couper (1993), Couper *et al.* (1994, 2005, 2006, 2016), Covacevich (1971), Covacevich and Ingram (1975), Crochet *et al.* (2004), Daan and Hillenius (1966), de Rooij (1915), De Vis (1884, 1885, 1888), Dolman and Hugall (2008), Donnellan *et al.* (2009), Doody and Schembri (2014), Dryden and Taylor (1969), Duméril and Bibron (1839), Dunn (1927), Edwards *et al.* (2016), Fenker *et al.* (2020), Fitzsimons (2023), Fitzinger (1843),

Garman (1901), Gemel *et al.* (2019), Glässer-Trobisch and Trobisch (2021), Goldberg (2018, 2019, 2020), Goldberg and Bursley (2019, 2020), Goldberg and Kraus (2012), Goldberg *et al.* (2019), Goodman (2006), Goodman *et al.* (2013), Gray (1845), Greenbaum (2000), Greer (1974, 1975, 1976, 1982, 1983), Günther (1877), Hediger (1934), Hileman *et al.* (2022), Hoser (1989, 2019c, 2020a, 2020b, 2021, 2022a, 2022b, 2022c, 2023a, 2023b, 2023c, 2023d, 2023e, 2023f, 2024a, 2024b, 2024c), Hoskin (2014), Hoskin and Couper (2012, 2015), Ingram and Covacevich (1980, 1988, 1989), Ivan *et al.* (2021), Kaiser *et al.* (2011), Karin *et al.* (2018), Kluge (1963), Kopstein (1926), Kraus (2007, 2015), Langkilde and Schwarzkopf (2003), Langkilde *et*

al. (2005), LiVigni (2013), Loveridge (1948), Lucas and Frost (1894), Macleay (1877), McCoy (2006, 2015), Meyer (1874), Mitchell (1953), Muñoz *et al.* (2016), Murphy (2016), Mys (1988), Neave (1939), Ogilby (1890), O'Shaughnessy (1879), O'Shea and Paiva (2014), O'Shea *et al.* (2012, 2015), Oudemans (1894), Parker (1936), Peters (1864, 1867, 1869), Peters and Doria (1878), Pianka and Vitt (2003), Potter *et al.* (2016), Prates *et al.* (2021, 2022a, 2022b, 2023), Punzo and Madragon (2022), Pyron *et al.* (2013), Ramsay and Ogilby (1890), Rittmeyer (2014), Rodda *et al.* (2015a, 2015b), Schmida (2000), Setiadi and Hamidy (2006), Shea and Sadlier (1999), Singhal *et al.* (2018), Smith (1927, 1937), Sternfeld (1918), Storr (1974), Storr *et al.* (1981, 1999), Stuart-Fox *et al.* (2002), Swan *et al.* (2017), Tadevosyan and Lardner (2016), Tamura *et al.* (2021), Tanner (1950), Tiedemann *et al.* (1994), Turner (1995), Walker (1894), Wells and Wellington (1984, 1985), Whiting *et al.* (2003), Wilhoft (1961), Wilson (2022), Wilson and Knowles (1988), Wilson and Swan (2010, 2021), Zietz (1920), Zug (2004, 2010, 2013), Zug and Allison (2006), Zug and Kaiser (2014), Zug *et al.* (1982) and sources cited therein.

RESULTS

At the genus level, *Carlia* Gray, 1845 *sensu lato* type species *Mococa melanopogon* Gray, 1845 has been in a state of confusion since not much beyond 1845.

Cogger *et al.* (1983) as part of their government-funded wide-ranging treatise of Australia's herpetofauna synonymised the available names *Myophila* De Vis, 1884, type species *Myophila vivax* De Vis, 1884 as well as *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884.

The result was the bundling of a quite diverse assemblage of species into a single large genus.

Wells and Wellington (1984 and 1985) had a serious attempt at resolving matters and did in fact split the genus *Carlia* as defined by Cogger *et al.* (1983) into the three main species groups.

To do this, they erected two genera, one being *Liburnascincus* Wells and Wellington, 1984, type species *Leiolopisma coense* Mitchell, 1953 and *Protervascincus* Wells and Wellington, 1984, type species *Ablepharus burnetti* Oudemans, 1894.

As recorded elsewhere (e.g. ICZN 1991), there was a strong desire by powerful cohort to suppress and stop any uptake and use of the Wells and Wellington names and this push has had zero evidentiary or scientific basis.

Ultimately *Liburnascincus* was widely adopted and *Protervascincus* was not.

By way of a series of taxonomic and nomenclatural gymnastics, the enemies of Wells and Wellington, successfully pushed the name *Lygisaurus* over *Protervascincus* and the former is now most widely used.

What seems to have been missed by everyone however is that the type species for *Carlia* may be *Mococa melanopogon* Gray, 1845, which is an alternative (and unavailable) name for *Lygisaurus foliorum* De Vis, 1884.

However, Kraus (2007) said *Mococa melanopogon* Gray, 1845 was now *Carlia munda* (De Vis, 1885).

The genus name *Protervascincus* was squashed by proponents of *Lygisaurus* on the basis that *Ablepharus burnetti* Oudemans, 1894 is (according to them) a junior synonym of *Lygisaurus foliorum* De Vis, 1884 and therefore an objective synonym (but see comments in Wells and Wellington 1985 on page 36 in second column).

If *Mococa melanopogon* Gray, 1845 attaches to *Lygisaurus foliorum* De Vis, 1884 each type species is either same or similar and in the same species group. This would also be true for all of *Carlia*, *Lygisaurus*, and *Protervascincus*, in effect meaning the only proper name to use for the relevant group is *Carlia*!

However, noting the comments of Kraus (2007) and the adoption of this by most recent authors, including Cogger (2014) and more

recently Wilson and Swan (2021) it is clear that these authors continue to treat *Carlia* as a separate genus to *Lygisaurus*, in line with Kraus (2007).

There is however an available name for *Carlia sensu lato* species as generally interpreted in texts like Wilson and Swan (2021) and that is the name *Myophila* De Vis, 1884, type species *Myophila vivax* De Vis, 1884.

Based on the recent phylogeny of Bragg *et al.* (2018) as seen in Figs 1 and 2, and the preceding it is a perfectly reasonable classification of the assemblage to recognize the three main and well-defined clades as *Carlia* (most species), *Lygisaurus* (tentatively) and *Liburnascincus*.

On the existing taxonomy (e.g. Wilson and Swan 2021) that is the only available nomenclature save for a potential switch between *Lygisaurus* and *Protervascincus*.

However, the phylogeny of Bragg *et al.* (2018) as seen in Figs 1 and 2, also reveals several highly divergent subgroups of species, which when reconciled with other phylogenies such as that of Chapple *et al.* (2022) leads to reason to split these groups further.

At Fig 1, in Chapple *et al.* (2022) the authors found that *Carlia* (as defined by them) diverged from *Lygisaurus* and *Liburnascincus* (as defined by them) 21.8 MYA and the latter two genera diverged 18.9 MYA from each other.

While no timelines are given for divergences between all major species groups beneath this level in either of Bragg *et al.* (2018) or Pyron *et al.* (2013), other phylogenies such as Afonso-Silva (2018) do and based on that paper (a PhD thesis) and others flowing from that, it is reasonable to expect the relevant divergences to be in excess of 10 MYA for all but a few and those all in excess of 8 MYA.

In any event Chapple *et al.* (2022) do also give date divergences of 10 or more MYA for a number of relevant species groups in their Fig 2, allowing me to infer relevant divergences for all major groups accordingly, noting that more divergent groups not assessed by Chapple *et al.* (2022) would obviously have greater date divergences than those given for less divergent assemblages.

With this being sufficient for genus-level divergences in other reptile groups (10 MYA or more), it is perfectly reasonable to identify these species groups as separate genera.

This logic is added to, when one realises that the alternative is a massive "super genus" of "*Carlia*" including dozens of at times quite divergent species.

Zug (2010) also wrote:

"Comparison of *Carlia* species is aided by the establishment of groups of presumed related species."

Therefore, in addition to recognising the available genus groups *Carlia*, *Lygisaurus* and *Liburnascincus* other genera are herein identified.

All are believed to be about 10 MYA or more than 10 MYA divergent from nearest relatives, save for a few exceptions that are more than 8 MYA divergent.

The genus *Myophila* De Vis, 1884 is also resurrected from synonymy and herein includes, *Myophila vivax* De Vis, 1884 as the type species, as well as *Carlia decora* Hoskin and Couper, 2012 and *Carlia dogare* Covacevich and Ingram, 1975.

Diagnostic information for each of the 15 newly named genera is in the formal descriptions below.

Therefore, I do not summarise them in the results here.

The fifteen newly named genera are also listed in the abstract keywords.

35 newly identified species and 4 identified subspecies beyond those named in Hoser (2024a) and named herein include:

In the genus *Striatacorpis gen. nov.*, *S. rimula* (Ingram and Covacevich, 1980) from the Iron Range of north Queensland

is split with the new species from south of the type form in the Mcllwraith Range being formally named as *Striatacorpis nonvidetur sp. nov.*. *S. nonvidetur sp. nov.* is the type for a new genus *Striatacorpis gen. nov.* as well that additionally includes the species *S. parrhasius* (Couper, Covacevich and Lethbridge, 1994).

The so-called *Carlia novaeguineae* (Meyer, 1874) complex which is herein placed in a new genus *Caudaclara gen. nov.* has two species subdivided.

Putative *Carlia curta* Boulenger, 1897 is split three ways.

The type form is restricted to the Owen Stanley Range in New Guinea and the forms from the south face of the central highlands and the Milne Bay area are herein formally described as new species.

Putative "*Carlia macfarlani* Günther, 1877", has a type locality of "Islands of Torres Straits, Qld."

The population from the top end of the Northern Territory in East Arnhem Land is of a separate species and so is formally named as new herein. Likewise for the disjunct Tiwi Islands population.

A species associated with the *Carlia novaeguineae* (Meyer, 1874) complex from the biogeographically isolated Kei Islands is formally named for the first time.

Two subspecies in the "*Carlia schmeltzii* (Peters, 1867)" complex are also formally named.

Those species and another, originally described as *Carlia prava* Covacevich and Ingram, 1975 are placed in the new genus *Aurantiacolateri gen. nov.*

The subspecies are one each within *A. schmeltzii* and *A. prava*.

A northern subspecies of *Heteropus rostralis* De Vis, 1885, better known as *Carlia rostralis* with a type locality of Cardwell in Queensland is formally named.

This morphologically divergent form is from the northern wet tropics.

The species is also sufficiently divergent to warrant being placed in a genus apart from the rest of the so-called "*Carlia fusca* group" of species, which is also placed in a separate and newly named genus.

The two genera are *Celerscincus gen. nov.* for *Heteropus rostralis* De Vis, 1885 and *Veloxscincus gen. nov.* for the bulk of the so-called "*Carlia fusca* group" of species.

Within *Veloxscincus gen. nov.* numerous new species from mainly the eastern parts of Papua New Guinea are formally named for the first time.

This underscores the extreme biodiversity of this region, noting the significant number of *Veloxscincus gen. nov.* species known from there already and preceding the publication of this paper.

This also implies the centre of origin for most of the genus is in south-east New Guinea, even though the genus-level centre of origin may have been somewhat closer to the north of Australia, or within continental Australia south of Torres Strait.

Orangedemale gen. nov. is the newly named generic grouping for the divergent group including the species named as *Carlia caitlinmoranae* Hoser, 2024 from the Wet Tropics of Queensland and associated taxa.

This includes two putative species in Australia, the other being currently known as "*Carlia storri* Ingram and Covacevich", 1989 which occurs on the northern part of Cape York, Torres Strait and nearby southern Papua New Guinea. Numerous published phylogenies as cited by Hoser (2024a) have supported the concept of those two species.

The Aru Islands population also treated as "*Carlia storri* Ingram and Covacevich" is herein formally named as a new species due to genetic, morphological and distributional divergence as is the "*Carlia fusca* group" species on the same islands.

A morphologically and genetically divergent population of

putative "*Carlia bicarinata* (Macleay, 1877)" is also formally named for the first time.

This means *Orangedemale* gen. nov. contains five well-defined separate species, with a centre of distribution on Torres Strait, extending to nearby southern New Guinea and Cape York, Australia, including what are now islands in the intervening seas.

The associated group of species, closely allied with *Veloxscincus* gen. nov. from the region of Timor, Java and proximal islands, sometimes called the "*Carlia peronii* Duméril and Bibron, 1839 group" is placed in the new genus *Circularisauris* gen. nov..

Five additional species in that group are formally named herein, these being the divergent populations from Pulau Wetar, Pulau Kisar, Alor Island, Sumbawa Island and the Banda Islands.

None of these locations are known to have land bridges to other places with known populations of skinks in the genus *Circularisauris* gen. nov. in the recent geological past meaning that all initially colonised these places by over water means.

Notorious trolls and amateur reptile hobbyists, Hinrich Kaiser and Mark O'Shea have made a lot of "noise" claiming to have "discovered" four new species of "*Carlia*" in Timor. This was seen in an online "paper" in 2011 (Kaiser *et al.* 2011), repeated in another online "paper" in O'Shea *et al.* (2012).

The following year also, the same authors in Kaiser *et al.* (2012) published a long-winded highly defamatory diatribe alleging among other things that I had discovered and named so many species that there were not any left for them and their cohort, (including the noisy Mark O'Shea) to name.

13 years is more than enough time to allow a person or cohort to name a taxon they have published an intent to name, such as their four alleged species in Timor.

I note that in their earlier online "publications" they argued that they had molecular proof of their being separate "*Carlia*" species from Timor. The *International Code of Zoological Nomenclature* says species identified as new should be formally named as soon as practicable and certainly within the 1-year limit given in the Code.

In the past 13 years, Kaiser and O'Shea have in terms of their (alleged) God given right to name the four (alleged) species they have identified in Timor, made no effective progress.

I flag the fact that in 13 years of non-stop trolling online, committing serious indictable criminal offences and the like (see below), this cohort have not yet managed to find the time to formally describe a single *Carlia* species from Timor!

Quite appropriately other herpetologists have had a "hands off" approach to these species to allow Kaiser, O'Shea and their cohort to monopolize the taxa.

But that can only last so long ... and hopefully before any go extinct in a place with a human population explosion coinciding with habitat destruction on a huge scale.

This monopolization of species by a gang who then do nothing constructive with them is both detrimental to science and wildlife conservation.

It would be a pity if any of these alleged new species expired while Kaiser, O'Shea and their cohort noisily keep others from working on them or to conserve them.

Rather than being seen to have "gazumped" Kaiser, O'Shea and the cohort with regards to the Timor species (one of which at least does appear to be an unnamed taxon), I simply ask that they stop trying to rename species named by others (as flagged in the Kaiser *et al.* 2012 rant) and simply name those that they have flagged as unnamed and publicly said that they wanted to name!

In other words, no new "*Carlia*" species are named in this paper from Timor to allow Kaiser, O'Shea and their cohort the "right" to do so, even though they first flagged this intent 13 long years ago!

Under the direction of his master in crime Wolfgang Wüster, Peter Uetz regularly erases scientific names and authors from his "The reptile database" and recently removed over 1000 Russian names and papers from his database in protest at the Ukrainian war.

He called the taxonomic and nomenclatural chaos he created "*collateral damage*" (Uetz 2022a-b).

More recently in March 2024, it was suggested Uetz was intending to remove all names and publications of, or honouring Jewish scientists on his database, being a few thousand more entries, this time in protest of the Israeli Defence Forces (IDF) bombing kidnappers hiding in hospitals, schools and Mosques in

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What's new? (March 2022)

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10 March 2022 -- New Release!

Usually we don't get political in this newsletter, but with the invasion of Ukraine we feel we should. We have an estimated 50-100 Russians on this mailing list and we very much respect them as colleagues. However, Vladimir Putin and the Kremlin have gone too far with the invasion of Ukraine. **As sign of protest, we have removed more than 1000 Russian papers from this release of the Reptile Database, mostly papers by Russian authors and publishers** (there will be some collateral damage to people outside Russia who co-authored these papers, sorry). No, we don't want to "punish" our fellow Russian colleagues, but we want to remind them that this war may only be stopped from within Russia. All the boycotts world-wide make it clear that Russia is rapidly isolating itself on the world stage.

Banning papers will be highly controversial and the scientific community is divided about which actions should be taken. See these reports in [Nature](#) (or [this](#)), in [Science](#), [The Times of Higher Education](#), [Science Business](#), and many others.

However, please consider that the world is mostly united in the opposition to Russia's invasion: **141 countries have opposed the Russian war in the UN General Assembly** (with only 5 countries supporting Russia, including North Korea and Belarus). Nevertheless, **60-70% of Russians appear to support the invasion** (which is neither called "invasion" nor "war" in Russian media). These numbers prove that Putin is running a massive mis-information campaign to mislead his own fellow countrymen and -women. Accordingly, protests within Russia are swiftly put down by the police, with over 13,000 protesters reportedly arrested just over the past few weeks. Hence we don't blame anybody who does not take to the streets. However, we do hope that the Russian intelligentsia (including their herpetologists) will communicate to their fellow Russians and the political elite that this invasion is causing global Russophobia and thus will backfire on a massive scale. Russia must retreat from Ukraine. (If you want to comment on this please see our [Facebook page](#)).

Taxonomic news

Given the global turmoil, we may have missed a few taxonomic papers and data points, but we still have a pretty long list of updates as far as reptile taxonomy is concerned. With this release, we have reached 11,733 reptile species (up from 11,690 in our last release, Nov. 2021). In fact, we have 134 changes on the level of species, with 41 new species, 12 species revalidated from synonymy and 23 species elevated from subspecies level. Somewhat unusually, we also have 31 synonymized or downgraded species, which has become less common, given the unabated species splitting in the reptile world. A third of those cases involves Galapagos tortoises of the genus *Chelonoidis*, most of which have been downgraded to subspecies level based on recent genetic studies ([Kehlmair et al. 2021](#), [Poulakakis et al. 2021](#)) that showed their close relationship.

Overall, we have updated about 3000 species with new information during the past year. Nevertheless, there are a number of placeholder entries in the database, representing new species that still need to have details added. We will fill them in until our next release. In any case, you can [download the latest checklist](#) with all changes since the last release (as Excel spreadsheet) from our website.

Turtle update

That said, we have used the latest (2021) checklist of the [Turtle Taxonomy Working Group \(TTWG\)](#) to update all turtle names in the database (thanks to Anders Rhodin and colleagues). The two lists should now be identical, except for the few extinct species v

Network 3
Internet access

the Gaza Strip.

To get a general idea of the kind of people who are in the Wolfgang Wüster gang of thieves, see Mackay (2024) who details the unlawful actions of gang member Adam Britton.

Among other things, Britton in 2023 pled guilty in the Supreme Court of Darwin, Australia to raping people's pet dogs and after anal intercourse with the animals, posting the videos on the internet. He was also dealing in child pornography.

Another member of the Wüster cohort was found by a judge in Australia to have raped and bashed women and children more than 1,000 times, plotting to kill people and so on, but his name has been suppressed by a later judge on application for a suppression order by the same person.

Another member of the cohort, Jamie Benbow, has been convicted of large-scale drug trafficking, committed wildlife crime and after a stint in jail is now back on the streets and out at large creating more yet more damage.

Two other members of the gang, Don Broadley and Bill Branch procured little black African boys in Zimbabwe for anal sex for years.

David John Williams, another Wüster gang member, now with a well-paid gig at the "United Nations" has a sordid past including being convicted and fined \$7500 for egregious acts of wildlife trafficking and animal abuse in the Cairns Magistrate's Court (see also Hoser, 1993, 1994, 1996, 1999a-b).

Another gang member and professional con-man Seth Pywell was convicted of shooting an aboriginal, which is rare in Australia.

The act of shooting an aboriginal is not uncommon in Australia. It is being convicted of shooting one that is.

Then there are the other law-breakers in the gang like Con Man Conrad Hoskin, Jodie Rowley, Grant Webster, Scott Thomson, Arthur Georges, Graham Reynolds, Wulf Schleip, James Nankivell, Paul Oliver and Jane Melville, who spend too much of their time reading papers of others in order to rename species and then breach copyright laws by trying to claim to have made the "discovery" themselves.

Fortunately, the reckless unscientific and illegal actions of the Wolfgang Wüster gang will not stop the progress of science, even if takes longer to get the results of genuine research out to the wider scientific community.

Putative "*Carlia jarnoldae* Covacevich and Ingram, 1975" with a type locality of Wakooka Outstation, Starcke Station, Queensland, (Latitude -14.33 S., Longitude 144.33 E.) is subdivided.

The southern population from south of about Cape Tribulation to near Bowen, Queensland is clearly of a separate species and so is formally named herein as a new species. The two divergent species are also placed in a newly named genus, *Jacky gen. nov.*

The new species is called *Jacky hoseræ sp. nov.*

The so-called "*Carlia gracilis* Storr, 1974" group is put into the new genus *Triacarinae gen. nov.*

Besides recognition of the "*Carlia gracilis* Storr, 1974" as the type species of the genus, "*Carlia arafuræ* Wells and Wellington, 1985" is recognised. Their other named "species" "*Carlia boltoni* Wells and Wellington, 1985", is treated as a valid subspecies of *C. gracilis*, on the basis of a divergence of less than 1 MYA.

The basis of the preceding taxonomic judgment is Fig 6.1 in the PhD thesis of Afonso Silva (2018).

For the record at Fig. 6.1., Afonso Silva (2018) found a 1.52 MYA divergence between putative "*Carlia gracilis*" from the eastern top end ("*Carlia arafuræ* Wells and Wellington, 1985") versus the rest (west top end, Melville Island and Western Australia). None of the others diverged more than 1 MYA.

The genus itself diverged about 9.5 MYA from nearest relatives.

Within the newly named genus *Fortitercarinata gen. nov.* this being an assemblage of mainly north-west Australian species, five species are formally named for the first time.

These arise from divisions of putative "*Carlia amax* Storr, 1974" for three new species and putative "*Carlia johnstonei* Storr, 1974" from the north west Kimberley district for two other species.

Within "*Carlia amax* Storr, 1974", six species are formally recognised, with "*Carlia instantanea* Wells and Wellington, 1985" from Arnhem Land, Northern Territory, resurrected from synonymy, a position it should never have been placed in ever, as well as "*Carlia johnstonei grandensis* Storr, 1974" from Groote Eylandt and herein treated as occupying a wide part of the top end of the Northern Territory.

I note that the much lampooned and vilified Wells and Wellington (1985) are the only people in the past 39 years to have correctly recognised either taxon as full species.

This is also in spite of Potter *et al.* (2016) confirming the existence of both by molecular means, 8 years ago.

Named for the first time as new species are the three other populations identified as unnamed species by Potter *et al.* (2016) being:

- 1/ From the south Gulf of Carpentaria region,
- 2/ From the west part of the top end of the Northern Territory and,
- 3/ The population from the English Company Islands in the far northeast of the Northern Territory.

Two divergent Kimberley populations of "*Carlia johnstonei* Storr, 1974" are formally named for the first time. These are populations from the lower Drysdale River area about 50 km southeast of Kalumburu, extending north and north-east to the coast, and a divergent population from the Prince Regent area.

Within the genus *Carlia* Gray, 1845 (*sensu stricto*), three species are formally named for the first time.

The first of these is a population of putative "*Carlia rufilatus* Storr, 1974" from the Wessel and English Company's Islands in the north-east Northern Territory, which was shown by Afonso Silva (2018) and Afonso Silva *et al.* (2017a, 2017b) to have diverged from the other populations of the same putative taxon 5.39 MYA.

The phylogenies of Afonso Silva (2018) and Afonso Silva *et al.* (2017a, 2017b) also confirmed the validity of *Carlia boustedi* Wells and Wellington, 1985 (type locality from Derby, WA) by effectively showing a divergence of at least 2.4 MYA from the nominate form of *Carlia rufilatus* Storr, 1974 from Arnhem Land.

As no publishing author has formally resurrected that Wells and Wellington species from synonymy in the following 6 years, I do this herein.

The east Kimberley population of *Carlia boustedi* is also formally named as a new subspecies *Carlia boustedi mmm subsp. nov.*

The second relevant taxon divided is putative *Heteropus munda* De Vis, 1885, better known as *Carlia munda*. Besides resurrecting from synonymy *Carlia springelli* Wells and Wellington, 1985 from the Pilbara district, three other species are formally recognised.

The type form of "*Carlia munda*", being from coastal Queensland, is herein treated as occupying most of north-east Queensland, Northern Territory in areas south of the top end and north of the arid zone and including adjacent parts of north-west Australia.

The divergent reddish-coloured Pilbara form is *Carlia springelli*. The two newly named forms are as follows: One is from the Arnhem Land area of the Northern Territory, while the other form is from Melville Island, Northern Territory and quite significantly appears to be endemic to that island.

Unnamed Centralian specimens of putative "*Carlia munda*" are morphologically similar to those of the Pilbara and are not named in this paper. There is a significant disjunction in distribution and it is quite likely that they will need to be formally named at some stage in the future.

INFORMATION RELEVANT TO THE FORMAL DESCRIPTIONS THAT FOLLOW

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

Several people including anonymous peer reviewers who revised the manuscript prior to publication are also thanked as are relevant staff at museums who made specimens and records available in line with international obligations.

In terms of the following formal descriptions, spelling of new names should not be altered in any way for any purpose unless expressly and exclusively called for by the rules governing Zoological Nomenclature as administered by the International Commission of Zoological Nomenclature.

Material downloaded from the internet and cited anywhere in this paper was downloaded and checked most recently as of 28 May 2024, unless otherwise stated and were accurate in terms of the context cited herein as of that date.

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

It should be noted that in skinks in particular, juveniles can often appear quite different in colour to mature adults, as can be each sex in adults, including within most if not all of the species described herein, especially at breeding season.

Snout-vent length or adult snout vent length, is unless otherwise stated referable to the average size of non-growing adult males. Size differences between the sexes, when it occurs in *Carlia sensu lato* species is not significant.

While numerous texts and references were consulted prior to publication of this paper, the criteria used to separate the relevant species has already been spelt out and/or is done so within each formal description and does not rely on material within publications not explicitly cited herein.

In the event a "first revisor" decides that more than one species named herein are conspecific, the name to be used is that which is first by way or page priority or order as listed in the abstract keywords.

Delays in recognition of these species and subspecies could jeopardise the long-term survival of the taxa as outlined by Hoser (2019a, 2019b) and sources cited therein.

Therefore attempts by taxonomic vandals like the Wolfgang Wüster gang via Kaiser (2012a, 2012b, 2013, 2014a, 2014b) and Kaiser *et al.* (2013) (as frequently amended and embellished, e.g Rhodin *et al.* 2015, Thiele *et al.* 2020, Hammer and Thiele 2021) to unlawfully suppress the recognition of these taxa on the basis they have a personal dislike for the person who formally named it should be resisted (e.g. Dubois *et al.* 2019 and Ceriaco *et al.* 2023).

Claims by the Wüster gang against this paper and the descriptions herein will no doubt be no different to those the gang have made previously, all of which were discredited long ago as outlined by Ceriaco *et al.* (2023), Cogger (2014), Cotton (2014), Dubois *et al.* (2019), Hawkeswood (2021), Hoser, (2007, 2009a, 2012a, 2012b, 2013, 2015a-f, 2019a, 2019b), ICZN (1991, 2001, 2012, 2021), Mosyakin (2022), Wellington (2015) and sources cited therein.

Some material within descriptions is repeated to ensure each fully complies with the *International Code of Zoological Nomenclature* (Ride *et al.* 1999. ICZN 2012).

CONSERVATION

In terms of conservation of the newly described genera and species, the comments in Hoser (1989, 1991, 1993, 1996, 2007, 2019a, 2019b and 2024a-c) are relevant.

As small innocuous lizards, *Carlia sensu lato* species are easily overlooked and ignored.

Because they are often extremely abundant when seen in a

location, perceived risk of extinction of species is low.

However, with drastic alterations to ecosystems and habitats by humans and human activity, the balance of power between *Carlia sensu lato* species and other small skinks may shift in ways not yet determined, meaning that some small skink species, now seen as abundant, may in fact be headed for terminal decline.

Some of the newly named species are evidently very range restricted and so must be treated at least as vulnerable to extinction.

To stem this possibility, naming relevant species is the first and most important step that needs to be done to ensure proper policies and actions for the conservation of all *Carlia sensu lato* species.

It is also an established scientific fact that undescribed species have a higher extinction rate and so I make no apologies here for choosing to describe some 35 species and note that this simple act alone will decrease the extinction rate or likelihood of extinction for each and every one of them (Liu *et al.* 2022).

The same applies to the over 1,000 other species-level taxa that I have formally named for the first time in the last 2 decades.

Because there is a sameness to lay people and even herpetologists in terms of small lizards and even their scientific names, I have made an express point of having some relatively novel and unusual etymologies and names.

This is to draw attention to the species, the *Carlia sensu lato* group at large and by use of "interesting" scientific names, drawing public attention to the relevant species and their long-term conservation.

I make no apologies for the creation of unusual scientific nomenclature.

I note that I am not the first to do this. Nor will I be the last to do so (Antonelli *et al.* 2023, Heard 2014, Heard and Mlynarek 2023).

Habitat protection *per se*, may not be the most important thing a lot of species in *Carlia sensu lato* actually require to survive in the long term.

I say this noting that many species seem to do quite well in human modified habitats, including in particular areas used for grazing of livestock.

As mentioned already, short term gains through habitat modification, may ultimately cause the demise of species if a competing species does better or swamps the population/s from outside.

Because small skinks are not highly mobile, the long-term shift towards extinction for species of *Carlia sensu lato* could run over tens or hundreds of years and it would be a travesty if such was to happen simply because people have overlooked the said species because when last checked it was "common".

Of course, with species names like "*Orangedemale arukidding sp. nov.*", perhaps people will check in on the species and make sure it is doing OK a little more often than may otherwise be the case if the taxon had some boring name that fewer people may relate to or find "interesting".

Examples along this line are referred to by Mlynarek *et al.* (2023).

But when all is said and done, the most useful thing that can be done to afford the long-term protection of all or most *Carlia sensu lato* species is to reduce human population and associated pressures on the habitats and species.

All of Australia, New Guinea and Indonesia have government policies seeking to dramatically increase human populations in the three respective countries.

At the present time, populations in all three countries are doubling every 25 to 50 years, making the human numbers and damage caused rise on an exponential scale

These policies need to be urgently reversed (Hoser 1991).

NEGLECTSCINCUS GEN. NOV.

LSIDurn:lsid:zoobank.org:act:F741943F-BA2B-4808-9B3D-663418133EA3

Type species: *Liburnascincus gregwallisi* Hoser, 2024.

Diagnosis: Until now, species in this genus have been treated as being within the genus *Liburnascincus* Wells and Wellington, 1984, type species *Leiopisma coense* Mitchell, 1953.

At the time they described this species in 1984, they left a morphologically similar species in the genus *Carlia* Gray, 1845, namely *Lygosoma mundivensis* Broom, 1898.

That species was transferred to *Liburnascincus* by later authors and as recently as 2021 (Wilson and Swan 2021) that remained the placement.

Hoser (2024a) split the putative species *Liburnascincus mundivensis* into three and it is those species that form the new genus *Neglectscincus gen. nov.*

The three species *Neglectscincus mundivensis* (Broom, 1898), *L. bradcrossmani* (Hoser, 2024) and *L. gregwallisi* (Hoser, 2024) are separated from all other species in the genus *Liburnascincus* Wells and Wellington (1984), by having dorsal scales that are six-sided, each usually with an angular posterior or free edge and being moderately to strongly keeled, (versus four-sided, each with a normally curved posterior edge, with smooth, striated or weakly keeled dorsals only in the other species being retained in *Liburnascincus*).

Skinks within the genus *Liburnascincus* Wells and Wellington, 1984 and *Neglectscincus gen. nov.* are defined herein as follows:

A pair of genera of the *Carlia* Gray, 1854 *sensu lato* group of skinks, maximum adult snout-vent length ranging from 56 to 68 mm; body robust to dorsoventrally flattened; limbs long and sprawling. Parietal shields contact posterior to a distinct interparietal; dorsal scales either four-sided with a smooth curve to the posterior edge, or 6-sided with each usually with an angular posterior or free edge; being smooth, weakly or strongly keeled; each dorsal with longitudinal rows of low, rounded tubercles; ear opening round or vertically elliptic, about equal in size to the palpebral disk; usually 7 supralabials, sexes similar in colour and pattern, males without bright colours, usually 13 premaxillary teeth (derived from Ingram and Covacevich, 1989, Wells and Wellington, 1984 and Cogger 2014).

The species *L. mundivensis* (Broome, 1898) and associated species, were not included in the original genus *Liburnascincus* by Wells and Wellington (1984) but have been more recently treated as part of the genus by most authors, including for example Cogger (2014), due to the obviously close relationship and form, confirmed by molecular studies such as that of Bragg *et al.* (2018).

Molecular phylogenies of Bragg *et al.* (2018) and Chapple *et al.* (2022) indicate a 10 MYA or more divergence for the two genera (*Liburnascincus* and *Neglectscincus gen. nov.*).

Distribution: Hillier parts of north-east Queensland from between Laura and Cooktown south to inland from Gladstone.

Etymology: *Neglectscincus gen. nov.* is named in reflection of the fact that the relevant species have been largely overlooked by herpetologists, both at the species and genus levels.

The adjective "neglect" is in apposition to the noun "scincus".

Content: *Neglectscincus gregwallisi* (Hoser, 2024) (type species); *N. bradcrossmani* (Hoser, 2024); *N. mundivensis* (Broom, 1898).

CAUDABRUNNEIS GEN. NOV.

LSIDurn:lsid:zoobank.org:act:58D845B3-9180-4327-944D-DB7C7352C7B5

Type species: *Lygosoma aeratum* Garman, 1901.

Diagnosis: Until now, species within the genus *Caudabrunneis gen. nov.* have been treated by most others as being within the genera *Carlia* Gray, 1845 type species *Mococa melanopogon*

Gray, 1845 or *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884.

The species within *Caudabrunneis gen. nov.* are separated from species in the other two genera as defined by Cogger (2014) by the following unique combination of characters:

Lower eyelid movable; usually six supralabials with fourth and fifth entering the eye; 6 supraciliaries; 19-24 midbody rows; number of scales between the chin and vent is 43-54; the longer axis of the ear aperture is horizontal and there are sharp ear lobules around the margins.

"*Lygisaurus aeratum* Garman, 1901" as defined by Ingram and Covacevich (1988) is a composite of two species. The northern population was named by Garman (1901). The southern population may have also been named by Garman (1901) in the same paper as "*Ablepharus heteropus* Garman, 1901" (page 9, versus page 7 for *Lygosoma aeratum* Garman, 1901).

However, the type locality was merely given as the "Great Barrier Reef, Queensland", meaning it may be of either northern, southern or other species.

The latter name has been synonymised with the former by most authors since.

However, the phylogeny of Bragg *et al.* (2014) confirmed that there were two species involved.

Wells and Wellington (1985) described in southern species as *Protervascincus kuranda* and the holotype (Australian Museum Sydney specimen number R.94502) was confirmed by Ingram and Covacevich (1988) as putative "*Lygisaurus aeratum*" by their definition and has been registered as such till 2024 at least.

On the provisional basis the Wells and Wellington (1985) species is not a junior synonym of "*Ablepharus heteropus* Garman, 1901", "*Protervascincus kuranda*" as *Caudabrunneis kuranda* is recognized herein as a valid species.

The phylogeny of Bragg *et al.* (2018) implies a divergence of more than 10 MYA for the species within

Caudabrunneis gen. nov. versus the type forms for the other genera *Carlia* and *Lygisaurus*.

Distribution: *Caudabrunneis gen. nov.* occurs from Rokeby Station, Cape York, south to about Townsville, on and near the coast, in far north-east Queensland, Australia.

Etymology: *Caudabrunneis gen. nov.* is named in reflection of the brown coloured tail in the species in this genus, contrasting with often orange in some other species of putative *Carlia* or *Lygisaurus*.

The genus name is composed of adjectives in apposition.

Content: *Caudabrunneis aeratum* (Garman, 1901) (type species); *C. kuranda* (Wells and Wellington, 1985).

STRIATACORPUS GEN. NOV.

LSIDurn:lsid:zoobank.org:act:1403ABAD-E18D-49DD-AEA6-8DE0D000EE8F

Type species: *Striatacorpus nonvidetur sp. nov.* (this paper).

Diagnosis: The species in this genus have been variously placed in the genera *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 or more recently *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884.

The species within *Striatacorpus gen. nov.* are separated from species in the other two genera, *Carlia* and *Lygisaurus* as defined by Cogger (2014) by the following unique combinations of characters:

One or other of:

1/ A body that is boldly black and white striped with a fire-red tail which is a unique colour pattern in all *Carlia sensu lato* species. Dorsal scales have weak carinations made up of a series of points and the lizard has long, acute ear lobules (*S. parthasius* (Couper, Covacevich and Lethbridge, 1994)), or:

2/ A small, short-legged, dorsoventrally depressed, rock-dwelling

Carlia sensu lato species distinguished from all other species with the combination of having smoothly curved posterior edges to the mid-dorsal scales, weakly quadricarinate (occasionally with five carinations) dorsal scales; carinations composed of 2-5 small points, 26-30 midbody rows, and a colour pattern being dark brown with gold/silver dorsolateral lines and a midlateral line (*S. nonvidetur* sp. nov. and *S. rimula* (Ingram and Covacevich, 1980)).

Distribution: Rocky hills in northern Cape York of Queensland only, being found from Glennie Tableland in the north to Mcllwraith Range in the south.

Etymology: The Latin words "*striata corpus*" literally means striped body, which is an unusual feature of species in this genus as compared to other species of *Carlia sensu lato*.

The words are an adjective and a noun in apposition.

Content: *Striatacorpus nonvidetur* sp. nov. (type species); *S. parrhasius* (Couper, Covacevich and Lethbridge, 1994); *S. rimula* (Ingram and Covacevich, 1980).

STRIATACORPUS NONVIDETUR SP. NOV.

LSIDurn:lsid:zoobank.org:act:6420C835-65F7-43DF-ADF3-D05575DEA4C3

Holotype: A preserved specimen at the Australian Museum, Sydney, New South Wales, Australia, specimen number R.16527 collected from Coen, Cape York, Queensland, Australia, Latitude -13.95 S., Longitude 143.2 E.

This government-owned facility allows access to its holdings.

Paratypes: 1/ A preserved specimen at the Australian Museum, Sydney, New South Wales, Australia, specimen number R.16528 collected from Coen, Cape York, Queensland, Australia, Latitude -13.95 S., Longitude 143.2 E., 2/ A preserved specimen at the Australian Museum, Sydney, New South Wales, Australia, specimen number R.47138 collected 10 miles East of Coen, Cape York Peninsula, Queensland, Australia, Latitude 13.95 S., Longitude 143.333 E., 3/ Seven preserved specimens at the Queensland Museum, Brisbane, Queensland, Australia, specimen numbers J78350, J78357, J78358, J60359, J78366, J78367 and J78403 all collected from Station Creek at Klondyle Mine in the Mcllwraith Range, North Queensland, Australia, Latitude -13.975278 S., Longitude 143.332778 E.

Diagnosis: Until now *Striatacorpus nonvidetur* sp. nov. has been treated as a southern population of

Striatacorpus rimula (Ingram and Covacevich, 1980) with a type locality of the second Claudie River crossing, Iron Range road, via Coen, Queensland (Latitude 12.44 S., Longitude 143.13 E.).

S. nonvidetur sp. nov. is readily separated from *S. rimula* by being brownish in dorsal colouration versus greyish and black in *S. rimula*; having semidistinct white stripes running down the dorsolateral edge, versus bold yellow in *S. rimula*, scattered white spots on the mid and lower flank, versus a well-defined white stripe on the mid-flank in *S. rimula*; the dorsolateral stripe or light spots do not run down the top of the tail, versus the dorsolateral stripes run down most or all of the tail where they eventually merge on the top in *S. rimula*. Furthermore, there is a strong contrast in colour change from brownish body to grey tail in *S. nonvidetur* sp. nov., versus not such a strong contrast in *S. rimula*.

Both *S. nonvidetur* sp. nov., and *S. rimula* are separated from all other species in the genera *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by one or other of the following unique combinations of characters:

1/ A small, short-legged, dorsoventrally depressed, rock-dwelling *Carlia sensu lato* species distinguished from all other species with the combination of having smoothly curved posterior edges to the mid-dorsal scales, weakly quadricarinate (occasionally with five carinations) dorsal scales; carinations composed of 2-5

small points, 26-30 midbody rows, and a colour pattern being dark brown with gold/silver dorsolateral lines and a midlateral line (*S. nonvidetur* sp. nov. and *S. rimula* (Ingram and Covacevich, 1980)), or;

2/ The other species in the genus *Striatacorpus* gen. nov. is *S. parrhasius* (Couper, Covacevich and Lethbridge, 1994) and it is separated from both *S. nonvidetur* sp. nov. and *S. rimula* (Ingram and Covacevich, 1980) as just described above and species in the other two genera, *Carlia* and *Lygisaurus* as defined by Cogger (2014) by the following unique combination of characters:

A body that is boldly black and white striped with a fire-red tail which is a unique colour pattern in all *Carlia sensu lato* species. Dorsal scales have weak carinations made up of a series of points and the lizard has long, acute ear lobules.

S. nonvidetur sp. nov. is depicted in life online at:

https://www.flickr.com/photos/zimny_anders/49172779276/ and

https://www.flickr.com/photos/zimny_anders/49172777611/

S. rimula is depicted in life in Wilson and Swan (2021) on page 405, second from bottom, Wilson (2022) on page 184 on right, Cogger (2014) on page 441 at top and online at:

<https://www.flickr.com/photos/jaricornelis/53668377023/> and

https://www.flickr.com/photos/zimny_anders/32832687886/ and

<https://www.flickr.com/photos/edwardevans/52426895508/>

Distribution: *S. nonvidetur* sp. nov. is endemic to the area bound by the Mcllwraith Range in the south, Toolka Nature Reserve (Latitude -13.546111 S., Longitude 143.150556 E.) in the north-west and Buthen Buthen (Latitude -13.353889 S., Longitude 143.461389 E.) in the north-east.

S. rimula is a taxon from the Iron Range and outliers to the north of where *S. nonvidetur* sp. nov. occurs. *S. parrhasius* occurs immediately north of there on sandstone escarpments of the Glennie Tableland.

Etymology: The Latin words "*non videtur*" means "not seen" which reflects on the taxonomic treatment of this lizard to date, being an adjective in apposition.

CAUDACLARA GEN. NOV.

LSIDurn:lsid:zoobank.org:act:BDC37DB1-9946-41CF-AE17-4084AD4A7797

Type species: *Caudaclara praecipuus* sp. nov. (this paper).

Diagnosis: This genus is the so-called *Carlia novaeguineae* (Meyer, 1874) complex, with most species being from that island and all Australian species in the very far north of Australia in Queensland and the top end of the Northern Territory.

The species in this genus have been variously placed in the genera *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 or more recently *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884.

The species within *Caudaclara* gen. nov. are separated from species in the other two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following unique combination of characters:

Lower eyelid movable; 22-29 midbody rows; usually six supralabials; usually 7 supraciliaries (but sometimes 8-9); 8-9 supradigital scales on the fourth toe; ear aperture is round, with either, A/ Blunt or flat lobules around the margin, B/ A single anterior ear lobule, or, C/ No ear lobule.

Distribution: Top end of Cape York, Queensland and top end of the Northern Territory as well as New Guinea south of the main cordillera, extending to the far south-east and southern parts of the north-west.

Etymology: *Caudaclara* gen. nov. is taken directly from the Latin

words "*cauda clara*" which means "bright tail" in reflection of the bright coloured tails seen in breeding males in this genus, being an adjective and noun in apposition.

Content: *Caudaclara praecipuus* sp. nov. (this paper) (type species); *C. alotauensis* sp. nov.; *C. chimbuenis* sp. nov.; *C. curta* (Boulenger, 1897); *C. macfarlani* (Günther, 1877); *C. novaeguineae* (Meyer, 1874); *C. parvus* sp. nov.; *C. tiwi* sp. nov..

CAUDACLARA ALOTAUENSIS SP. NOV.

LSIDurn:lsid:zoobank.org:act:C06F1BD3-76AB-4B08-8035-D5537796E45B

Holotype: A preserved specimen at the Bernice Pauahi Bishop Museum, Honolulu, Hawaii, USA, specimen number 14916 collected on the southeastern slope Mount Pekopekowane, approximately 20 km west of Alotau, Milne Bay Province, Papua New Guinea (PNG), Latitude -10.2835 S., Longitude 150.1790 E, at between 300-600 metres above sea level.

This facility allows access to its holdings.

Paratypes: 11 preserved specimens at the Bernice Pauahi Bishop Museum, Honolulu, Hawaii, USA, specimen numbers 14917-27 collected on the southeastern slope Mount Pekopekowane, approximately 20 km west of Alotau, Milne Bay Province, PNG, Latitude -10.2835 S., Longitude 150.1790 E, at between 300-600 metres above sea level.

Diagnosis: Until now both *Caudaclara alotauensis* sp. nov. and *C. chimbuenis* sp. nov. have been treated as western and eastern populations of *C. curta* (Boulenger, 1897), better known as *Carlia curta* or *Lygisaurus curta*.

C. curta with a type locality of Mount Victoria, Owen Stanley Range, Papua New Guinea, is herein confined to this general part of the Owen Stanley Range.

C. alotauensis sp. nov. is the taxon from the eastern part of the Milne Bay Province in eastern PNG.

C. chimbuenis sp. nov. is the taxon from the southern slopes of the Central Highlands of PNG.

The three species are separated from one another as follows:

Adult *C. curta* has a dark brown vertebral line approximately four scales in width and a dark brown lateral region, separated by a ragged dorsolateral stripe of light golden-brown. This stripe occupies two adjacent scale rows but only one to two thirds of each scale has the lighter dorsolateral colour. The ragged appearance is created by the fact that no two adjoining scales, in either adjacent rows or serially within a row, contain the same amount of light colour.

By contrast *C. alotauensis* sp. nov. have greater contrast between the dorsal and lateral fields, with the medium brown middorsal region approximately five scales in width, bordered on each side by straight (not ragged) dorsolateral bronze stripes. Below the light dorsolateral stripes, the sides are black or dark-chocolate brown, lightening on the lower sides to the pearl-gray colour of the venter, which normally occupies 4-6 scale rows.

In *C. curta*, the pearl-gray venter is usually 6-8 scale rows wide and is often partially infused with dark brown encroaching from the lower sides.

In *C. curta*, the sides of the neck are adorned with scattered pale white or straw specks; in *C. alotauensis* sp. nov., the lighter adornment on the neck is typically a white stripe or linear series of white spots.

For both *C. curta* and *C. alotauensis* sp. nov., there is a short light stripe one scale in width along the anterior face of the upper forearm. This stripe is white in specimens of *C. alotauensis* sp. nov. but typically dirty white or straw coloured in *C. curta*.

A similar white stripe is present on the anterior face of the thighs in specimens of *C. alotauensis* sp. nov. but is lacking in specimens of *C. curta*.

C. chimbuenis sp. nov. is separated from *C. curta* and *C. alotauensis* sp. nov. by having a pearl grey venter of 4-6 scale

rows versus 6-8 in *C. curta* and both white specks and lines on the neck.

The dorsum of *C. chimbuenis* sp. nov. is a dark blackish brown, versus chocolate brown in both *C. curta* and *C. alotauensis* sp. nov. (modified and amended from Kraus 2007).

The three species, *C. chimbuenis* sp. nov., *C. curta* and *C. alotauensis* sp. nov. are separated from all other species in the genus *Caudaclara* gen. nov. as well as all other species in the genera *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following unique combination of characters:

A relatively small species of the *Carlia sensu lato* complex, maximum snout vent to 44 mm, that is distinguished from other related species with: smooth scales; six supralabials; 8-9 supraciliaries; fewer than 10 supradigital scales on the fourth toe, 19-30 lamellae under the fourth toe; 24-28 midbody scale rows; 34-42 paravertebral scales; typically one small, white-tipped ear lobule on the anterior margin of the ear opening; dorsal and lateral surfaces dark brown with a lighter golden-brown dorsolateral stripe of some form separating the two fields; temporals dark brown; a few light brown or white scales arranged to form a stripe along the anterior face of the upper forearm and often on the

anterior face of the upper hind limb; region between the ear and forearm insertion with either a white stripe or scattered white scales and a dark orange-red wash on the sides and under the tail in sexually active males (largely modified from Kraus 2007).

The species within *Caudaclara* gen. nov. are separated from species in the other two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following unique combination of characters:

Lower eyelid movable; 22-29 midbody rows; usually six supralabials; usually 7 supraciliaries (but sometimes 8-9); 8-9 supradigital scales on the fourth toe; ear aperture is round, with either A/ Blunt or flat lobules around the margin, B/ A single anterior ear lobule, or, C/ No ear lobule.

Distribution: *C. alotauensis* sp. nov. is a species from the eastern part of the Milne Bay Province in eastern Papua New Guinea.

Etymology: The species is named in reflection of the type locality where this species occurs.

CAUDACLARA CHIMBUENSIS SP. NOV.

LSIDurn:lsid:zoobank.org:act:7BF2BD35-B583-4B27-AC48-CC1DF290EBB0

Holotype: A preserved specimen at the Bernice Pauahi Bishop Museum, Honolulu, Hawaii, USA, specimen number 17397 collected from Crater Mountain, Chimbu Province, Papua New Guinea (PNG), Latitude 6.5825 S., Longitude 145.0908 E.

This facility allows access to its holdings.

Paratype: A preserved specimen at the Bernice Pauahi Bishop Museum, Honolulu, Hawaii, USA, specimen number 17398 collected from Crater Mountain, Chimbu Province, Papua New Guinea (PNG), Latitude 6.5825 S., Longitude 145.0908 E.

Diagnosis: Until now both *Caudaclara alotauensis* sp. nov. and *C. chimbuenis* sp. nov. have been treated as western and eastern populations of *C. curta* (Boulenger, 1897), better known as *Carlia curta* or *Lygisaurus curta*.

C. curta with a type locality of Mount Victoria, Owen Stanley Range, Papua New Guinea, is herein confined to this general part of the Owen Stanley Range.

C. alotauensis sp. nov. is the taxon from the eastern part of the Milne Bay Province in eastern PNG.

C. chimbuenis sp. nov. is the taxon from the southern slopes of the Central Highlands of PNG.

The three species are separated from one another as follows:

Adult *C. curta* has a dark brown vertebral line approximately four scales in width and a dark brown lateral region, separated by a ragged dorsolateral stripe of light golden-brown. This stripe occupies two adjacent scale rows but only one to two thirds of each scale has the lighter dorsolateral colour. The ragged appearance is created by the fact that no two adjoining scales, in either adjacent rows or serially within a row, contain the same amount of light colour.

By contrast *C. alotauensis sp. nov.* have greater contrast between the dorsal and lateral fields, with the medium brown middorsal region approximately five scales in width, bordered on each side by straight (not ragged) dorsolateral bronze stripes. Below the light dorsolateral stripes, the sides are black or dark-chocolate brown, lightening on the lower sides to the pearl-gray colour of the venter, which normally occupies 4-6 scale rows.

In *C. curta*, the pearl-gray venter is usually 6-8 scale rows wide and is often partially infused with dark brown encroaching from the lower sides.

In *C. curta*, the sides of the neck are adorned with scattered pale white or straw specks; in *C. alotauensis sp. nov.* the lighter adornment on the neck is typically a white stripe or linear series of white spots.

For both *C. curta* and *C. alotauensis sp. nov.*, there is a short light stripe one scale in width along the anterior face of the upper forearm. This stripe is white in specimens of *C. alotauensis sp. nov.* but typically, dirty white or straw coloured in *C. curta*

A similar white stripe is present on the anterior face of the thighs in specimens of *C. alotauensis sp. nov.* but is lacking in specimens of *C. curta*.

C. chimbuensis sp. nov. is separated from *C. curta* and *C. alotauensis sp. nov.* by having a pearl grey venter of 4-6 scale rows versus 6-8 in *C. curta* and both white specks and lines on the neck.

The dorsum of *C. chimbuensis sp. nov.* is a dark blackish brown, versus chocolate brown in both *C. curta* and *C. alotauensis sp. nov.* (modified and amended from Kraus 2007).

The three species, *C. chimbuensis sp. nov.*, *C. curta* and *C. alotauensis sp. nov.* are separated from all other species in the genus *Caudaclara gen. nov.* as well as all other species in the genera *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following unique combination of characters:

A relatively small species of the *Carlia sensu lato* complex, distinguished from other related species with: smooth scales; maximum snout vent to 44 mm; six supralabials; 8-9 supraciliaries; fewer than 10 supradigital scales on the fourth toe, 19-30 lamellae under the fourth toe; 24-28 midbody scale rows; 34-42 paravertebral scales; typically one small, white-tipped ear lobule on the anterior margin of the ear opening; dorsal and lateral surfaces dark brown with a lighter golden-brown dorsolateral stripe of some form separating the two fields; temporals dark brown; a few light brown or white scales arranged to form a stripe along the anterior face of the upper forearm and often on the anterior face of the upper hind limb; region between the ear and forearm insertion with either a white stripe or scattered white scales and a dark orange-red wash on the sides and under the tail in sexually active males (largely modified from Kraus 2007).

The species within *Caudaclara gen. nov.* are separated from species in the other two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following unique combination of characters:

Lower eyelid movable; 22-29 midbody rows; usually six supralabials; usually 7 supraciliaries (sometimes 8 or 9); 8-9 supradigital scales on the fourth toe; ear aperture is round, with

either A/ Blunt or flat lobules around the margin, B/ A single anterior ear lobule, or, C/ No ear lobule.

Distribution: *C. chimbuensis sp. nov.* is a species from the southern slopes of the Central Highlands of Papua New Guinea.

Etymology: The species is named in reflection of the type locality where this species occurs.

CAUDACLARA PRAECIPUUS SP. NOV.

LSIDDurn:lsid:zoobank.org:act:4706379B-AD8D-4A09-B96D-5E9FAB9FB8AF

Holotype: A preserved specimen at the Museum and Art Gallery of the Northern Territory, Darwin, Northern Territory, Australia, specimen number R17423 collected from Latram River, Northeast Arnhem Land, Northern Territory, Australia, Latitude -12.317 S., Longitude 136.783 E.

This government owned facility allows access to its holdings.

Paratypes: Eleven preserved specimens at the Museum and Art Gallery of the Northern Territory, Darwin, Northern Territory, Australia, 1/ Specimen numbers R17424 and R17427 collected from Latram River, Northeast Arnhem Land, Northern Territory, Australia, Latitude -12.317 S., Longitude 136.783 E., and 2/ Specimen numbers R16509, R16511, R16512, R16513, R16514, R17422, R20992, R22555 and R35674 collected from Gove Peninsula, Arnhem Land, Northern Territory, Australia, Latitude -12.283 S., Longitude 136.883 E.

Diagnosis: Until now, both *Caudaclara praecipuus sp. nov.* and *C. tiwi sp. nov.* both from the Northern Territory have been treated as western populations of *C. macfarlani* (Günther, 1977), better known as *Carlia macfarlani* or *Lygisaurus macfarlani*, and with a type locality of "Islands of Torres Straits, Queensland".

Caudaclara macfarlani is now restricted to northeast Queensland, Southern New Guinea and Torres Strait.

Caudaclara praecipuus sp. nov. is essentially confined to the Gove Peninsula area of east Arnhem Land in the Northern Territory.

Caudaclara tiwi sp. nov. is a Tiwi Islands endemic, known only from Bathurst and Melville Islands in the north-west Northern Territory.

The three species are separated from one another as follows:

Caudaclara macfarlani from Australia is black or very dark brown at the anterior tips of the scales on the dorsum and on the flanks. This is slightly more intense on the mid rows of scales on the flank as the overall background colour goes from medium brown to whitish.

The overall colour of the dorsum and flanks of the lizard is either medium brown to reddish brown.

Upper labials are creamy white with irregularly shaped brown blotches at the centres of each scale. Upper surfaces of limbs are usually without white spots.

If there are white spots on the upper surfaces of the limbs, they are numerous and evenly spaced.

Tail is not heavily peppered at the posterior end.

Iris of eye is orange.

Caudaclara macfarlani from some Torres Strait Islands and southern New Guinea tend to retain the juvenile colouration as adults in that the lizards usually have a dorsal and (especially) lateral colour pattern of including some dark longitudinal stripes or rows of spots caused by dark pigment in the centres of scales.

C. praecipuus sp. nov. is a very dark brown, blackish coloured lizard, with peppering on the head and neck giving it a speckled appearance.

Upper surfaces of hind limbs have widely spaced white spots. On the anterior part of the body there is a semi-distinct light brown edge or stripe on the dorsolateral edge that tapers out towards the back legs.

Below this is very dark and blackish, extending most of the way

down the flank.

Upper labials are dark with only tiny amounts of white present.

Tail is heavily peppered at the posterior end.

Iris of the eye is orange.

C. tiwi sp. nov. is a distinctive yellow-brown lizard all over, only becoming whitish on the lower flanks. On the lower half of the flanks and on the upper surfaces of the limbs are numerous scattered semi-distinct white spots, these obvious white spots on the lower flank readily separating *C. tiwi sp. nov.* from the two preceding species, *C. macfarlani* and *C. praecipuus sp. nov.*

Tail is effectively unmarked, except for a slight darkening on the upper sides at the anterior end.

Upper labials are plain yellow-brown and without any white spots, bars, markings, etc.

Iris of the eye is a dark orange colour.

The three preceding species, being *C. tiwi sp. nov.*, *C. macfarlani* and *C. praecipuus sp. nov.* are separated from all other species in the genus *Caudaclara gen. nov.* by having rows of dark brown spots on the abdominal scales, at least posteriorly and having several anterior and posterior ear lobules.

The species within *Caudaclara gen. nov.* are separated from species in the other two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following unique combination of characters:

Lower eyelid movable; 22-29 midbody rows; usually six supralabials; usually 7 supraciliaries (sometimes 8 or 9); 8-9 supradigital scales on the fourth toe; ear aperture is round, with either A/ Blunt or flat lobules around the margin, B/ A single anterior ear lobule, or, C/ No ear lobule.

Caudaclara praecipuus sp. nov. is depicted in life in Horner (1992) on page 111 at bottom.

Caudaclara tiwi sp. nov. is depicted in life in online at: <https://www.flickr.com/photos/154630905@N06/25434912868>

C. macfarlani is depicted in life in Cogger (2014) on page 648 at top right, Wilson and Swan (2021) on page 405 top left and online at:

<https://www.flickr.com/photos/jaricornelis/53667290572/>

and

<https://www.flickr.com/photos/euprepiosaur/4655141033/>

and

<https://www.flickr.com/photos/171250498@N08/51282645166/>

Distribution: *Caudaclara praecipuus sp. nov.* is essentially confined to the Gove Peninsula area of east Arnhem Land in the Northern Territory, Australia.

Etymology: The species name "*praecipuus*" is Latin for unusual, in that it refers to the relatively unusual rainbow-like sheen of the skink as well as its unusual distribution, being effectively endemic to the Gove Peninsula region of the Northern Territory. It is an adjective in apposition.

CAUDACLARA TIWI SP. NOV.

LSIDurn:lsid:zoobank.org:act:DEB22D30-ADD3-4B23-BFAE-DCAE088A1D73

Holotype: A preserved specimen at the Museum and Art Gallery of the Northern Territory, Darwin, Northern Territory, Australia, specimen number R16975 collected from Melville Island, Tiwi Islands, Northern Territory, Australia, Latitude -11.5 S., Longitude 130.55 E.

This government owned facility allows access to its holdings.

Paratypes: Four preserved specimens at the Museum and Art Gallery of the Northern Territory, Darwin, Northern Territory, Australia, being: 1/ Specimen number R16993, collected from Melville Island, Tiwi Islands, Northern Territory, Australia, Latitude -11.5 S., Longitude 130.55 E., 2/ Specimen numbers R23021, R23031 and R23034 all collected from Maxwell Creek, Melville

Island, Tiwi Islands, Northern Territory, Australia, Latitude -11.54 S., Longitude 130.56 E.

Diagnosis: Until now, both *Caudaclara praecipuus sp. nov.* and *C. tiwi sp. nov.* both from the Northern Territory have been treated as western populations of *C. macfarlani* (Günther, 1977), better known as *Carlia macfarlani* or *Lygisaurus macfarlani*, and with a type locality of "Islands of Torres Straits, Queensland".

Caudaclara macfarlani is now restricted to northeast Queensland, Southern New Guinea and Torres Strait.

Caudaclara praecipuus sp. nov. is essentially confined to the Gove Peninsula area of east Arnhem Land in the Northern Territory.

Caudaclara tiwi sp. nov. is a Tiwi Islands endemic, known only from Bathurst and Melville Islands in the north-west Northern Territory.

The three species are separated from one another as follows:

Caudaclara macfarlani from Australia is black or very dark brown at the anterior tips of the scales on the dorsum and on the flanks. This is slightly more intense on the mid rows of scales on the flank as the overall background colour goes from medium brown to whitish.

The overall colour of the dorsum and flanks of the lizard is either medium brown to reddish brown.

Upper labials are creamy white with irregularly shaped brown blotches at the centres of each scale. Upper surfaces of limbs are usually without white spots.

If there are white spots on the upper surfaces of the limbs, they are numerous and evenly spaced.

Tail is not heavily peppered at the posterior end.

Iris of the eye is orange.

Caudaclara macfarlani from some Torres Strait Islands and southern New Guinea tend to retain the juvenile colouration as adults in that the lizards usually have a dorsal and (especially) lateral colour pattern of including some dark longitudinal stripes or rows of spots caused by dark pigment in the centres of scales.

C. praecipuus sp. nov. is a very dark brown, blackish coloured lizard, with peppering on the head and neck giving it a speckled appearance.

Upper surfaces of hind limbs have widely spaced white spots. On the anterior part of the body there is a semi-distinct light brown edge or stripe on the dorsolateral edge that tapers out towards the back legs.

Below this is very dark and blackish, extending most of the way down the flank.

Upper labials are dark with only tiny amounts of white present.

Tail is heavily peppered at the posterior end.

Iris of the eye is orange.

C. tiwi sp. nov. is a distinctive yellow-brown lizard all over, only becoming whitish on the lower flanks. On the lower half of the flanks and on the upper surfaces of the limbs are numerous scattered semi-distinct white spots, these obvious white spots on the lower flank readily separating *C. tiwi sp. nov.* from the two preceding species, *C. macfarlani* and *C. praecipuus sp. nov.*

Tail is effectively unmarked, except for a slight darkening on the upper sides at the anterior end.

Upper labials are plain yellow-brown and without any white spots, bars, markings, etc.

Iris of the eye is a dark orange colour.

The three preceding species, being *C. tiwi sp. nov.*, *C. macfarlani* and *C. praecipuus sp. nov.* are separated from all other species in the genus *Caudaclara gen. nov.* by having rows of dark brown spots on the abdominal scales, at least posteriorly and having several anterior and posterior ear lobules.

The species within *Caudaclara gen. nov.* are separated from

species in the other two genera, *Carlia* Gray, 1845 type species *Mocoo melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following unique combination of characters:

Lower eyelid movable; 22-29 midbody rows; usually six supralabials; usually 7 supraciliaries (sometimes 8 or 9); 8-9 supradigital scales on the fourth toe; ear aperture is round, with either A/ Blunt or flat lobules around the margin, B/ A single anterior ear lobule, or, C/ No ear lobule.

Caudaclarata praecipuus sp. nov. is depicted in life in Horner (1992) on page 111 at bottom.

Caudaclarata tiwi sp. nov. is depicted in life in online at: <https://www.flickr.com/photos/154630905@N06/25434912868>

C. macfarlani is depicted in life in Cogger (2014) on page 648 at top right, Wilson and Swan (2021) on page 405 top left and online at:

<https://www.flickr.com/photos/jaricornelis/53667290572/>

and

<https://www.flickr.com/photos/euprepiosaur/4655141033/>

and

<https://www.flickr.com/photos/171250498@N08/51282645166/>

Distribution: *Caudaclarata tiwi* sp. nov. is, so far as is currently known, essentially confined to the Tiwi Islands in the Northern Territory, Australia. It is a range-restricted endemic and should therefore be treated as a vulnerable species.

Etymology: The species name "tiwi" is the name of the Aboriginal tribe that occupies Melville and Bathurst Islands in the Northern Territory and so the species name reflects the original Australian inhabitants of the place.

Because the land is flat, isolated, regularly hammered by tropical cyclones and lacks significant economic opportunities, the local tribes never had their lands stolen from them by British invaders and as of 2024 it remains in Aboriginal hands (as in it is controlled by the Tiwi people).

The spelling of the scientific name is deliberate and should not be amended.

CAUDACLARATA PARVUS SP. NOV.

LSIDurn:lsid:zoobank.org:act:207DEC5F-056C-4242-A8D0-47632FED14CC

Holotype: A preserved female specimen at the Museum of Vertebrate Zoology, Herpetology Collection, University of California, Berkeley, California, USA, specimen number MVZ:Herp:274095 collected from Desa Ohoililir, Kecamatan Kei Kecil, Kabupaten Maluku Tenggara, Indonesia, Latitude -5.6466712 S., Longitude 132.6383123 E.

This facility allows access to its holdings.

Paratypes: Nine preserved specimens at the Museum of Vertebrate Zoology, Herpetology Collection, University of California, Berkeley, California, USA, specimen numbers MVZ:Herp: 274015, 274017, 274018, 274020, 274021, 274022, 274076, 274080 and 274085 all collected from Desa Ohoililir, Kecamatan Kei Kecil, Kabupaten Maluku Tenggara, Indonesia, Latitude -5.6466712 S., Longitude 132.6383123 E.

Diagnosis: *Caudaclarata parvus* sp. nov. of the Kei Islands (south of the west Papua mainland) has been treated as an unnamed species affiliated with *Caudaclarata novaeguineae* (Meyer, 1874), more commonly known as *Carlia novaeguineae* or *Lygisaurus novaeguineae* with a neotype locality of Cenderawasih Bay, also known as Sarera Bay and formerly Geelvink Bay, being in the northern Province of Papua, Central Papua and West Papua, New Guinea, Indonesia.

C. parvus sp. nov. is readily separated from putative *C. novaeguineae* (Meyer, 1874), *sensu* Kraus (2007) by having a distinctive purplish mask on the sides of the head, which surround the eye and extends as a thick curved bar over the labials below the eye, with surrounding labials being white,

except for tiny purplish spots on the anterior labials on the jawline, versus white labials that are thickly but evenly barred dark at the boundaries of each scale.

The upper surfaces of the limbs of *C. parvus* sp. nov. have large faded white spots, versus either none or tiny in *C. novaeguineae* which as a rule, usually has small brown spots instead.

Caudaclarata parvus sp. nov. and *C. novaeguineae* are separated from other members of the genus *Caudaclarata* gen. nov. by lacking multiple ear lobules or alternatively lacking a single conspicuous, pointed, anterior ear lobule that is white in colour.

If an anterior ear lobule is present in *Caudaclarata parvus* sp. nov. and *C. novaeguineae*, it is brown in colour.

The species within *Caudaclarata* gen. nov. are separated from species in the two genera, *Carlia* Gray, 1845 type species *Mocoo melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following unique combination of characters:

Lower eyelid movable; 22-29 midbody rows; usually six supralabials; usually 7 supraciliaries (although sometimes 8 or 9); 8-9 supradigital scales on the fourth toe; ear aperture is round, with either A/ Blunt or flat lobules around the margin, B/ A single anterior ear lobule, or, C/ No ear lobule.

Caudaclarata parvus sp. nov. is depicted in life in Karin *et al.* (2018) on page 725 in two images showing two different colour forms (in adults).

Those images speak for a more detailed description of *Caudaclarata parvus* sp. nov..

Comparative photos of putative *C. novaeguineae* can be found online at:

<https://www.inaturalist.org/observations/178345729>

and

<https://www.inaturalist.org/observations/189470969>

and

<https://www.inaturalist.org/observations/9217441>

The pictures of the latter contain both the so-called Golden morph and breeding male colours, which in turn are quite different to those seen in Kei Islands *Caudaclarata parvus* sp. nov.

Distribution: *Caudaclarata parvus* sp. nov. of the Kei Islands (south of the west Papua mainland) is a locally endemic species. The Kei Islands have never been connected to the New Guinea mainland via a land bridge.

Etymology: In Latin "parvus" means small, which is a reflection of the adult size of these skinks, being under 40 mm in snout-vent length. It is an adjective in apposition.

ORANGEDEMALE GEN. NOV.

LSIDurn:lsid:zoobank.org:act:89E84C25-2B09-4D1B-BB04-E2AC5338E944

Type species: *Carlia caitlinmoranae* Hoser, 2024.

Diagnosis: The five species within the genus *Orangedemale* gen. nov. have until now been treated by most authors as being within the genus *Carlia* Gray, 1845.

The five species in *Orangedemale* gen. nov. are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mocoo melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following unique combination of characters:

Interparietal is distinct; dorsal scales are mostly bicarinate, 6 sided, each usually with an angular posterior or free edge and moderately to strongly keeled; ear opening is surrounded by acute unequal pointed scales; usually less than 34 midbody scale rows (modified from Cogger 2014).

Orangedemale caitlinmoranae (Hoser, 2024) from the wet tropics region of far north Queensland, is morphologically similar in form and closely related to *Orangedemale storri* (Ingram and

Covacevich, 1989), type locality of Bamaga, Queensland and herein confined to the region generally north of Cooktown, Queensland, including Torres Strait and southern New Guinea.

O. caitlinmoranae is readily separated from *O. storri* by the absence of a distinctive white line running across the upper labials. Adult *O. storri* also have scattered yellow, beige or white flecks on the upper body, which are not seen in *O. caitlinmoranae*. Black flecks on the dorsum of *O. storri* commonly tend to form indistinct longitudinal lines, but this is not the case in *O. caitlinmoranae*.

Iris of *O. caitlinmoranae* is light orange, versus brown or brown with orange tinge in *O. storri*.

O. caitlinmoranae in life is depicted in Wilson and Swan (2021) on page 223 at bottom right and online at:

<https://www.inaturalist.org/observations/142718638>

and

<https://www.inaturalist.org/observations/57182840>

O. storri in life is depicted in Cogger (2014) on page 446 top and online at:

<https://www.inaturalist.org/observations/126190775>

and

<https://www.inaturalist.org/observations/142343784>

O. arukidding sp. nov. until now treated as an outlier population of *O. storri* from the Aru Islands is separated from the two preceding species by having dull rather than distinct flecks on the upper body and dark barring on the otherwise white upper labials.

O. bicarinata (Macleay, 1877) occurs in southern New Guinea along the south-east coast and nearby hills from about Inawi in the north-west to Sogeri in the south-east, all in the Central Province.

It is separated from the preceding two species by colouration. The breeding male *O. bicarinata* is heavily spotted with dark brown and with white flecking on the body, limbs and tail; there is a reddish tinge to the flanks; labials, side of throat and under the side of the head and neck are lined in dark brown; there is a dark line from the nares through the eye to above the ear (derived from Ingram and Covacevich, 1989).

O. accretio sp. nov. is essentially similar in most respects to *O. bicarinata* but separated from it by having dull instead of well-defined body markings in breeding males and the white flecking on the upper surfaces is reduced to virtually non-existent. The light line on the dorsolateral edge is however well-defined.

Distribution: *O. caitlinmoranae* is found in the wet-tropics region of far north Queensland from Townsville in the south to about Cooktown in the north and including the near coastal ranges. *O. storri* is found to the north of this area and including the northern tip of Cape York, Queensland, Torres Strait and nearby parts of southern New Guinea.

O. bicarinata (Macleay, 1877) occurs in southern New Guinea along the south-east coast and nearby hills from about Inawi in the north-west to Sogeri in the south-east, all in the Central Province.

The associated taxon, *O. accretio sp. nov.* occurs south-east of this area in a zone along the coast and nearby hills from Kwikila in the North-west to Kealko in the south-east, all in the Central province.

This is the entire known range for the genus.

Etymology: In Latin the words “*Orange de male*” literally means “orange on the male” in reflection of the breeding colour on the posterior of the body in breeding males. The words are an adjective and noun in apposition.

Content: *Orangedemale caitlinmoranae* Hoser, 2024 (type species); *O. accretio sp. nov.*; *O. arukidding sp. nov.*; *O. storri* (Ingram and Covacevich, 1989); *O. bicarinata* (Macleay, 1877).

ORANGEDEMALE ARUKIDDING SP. NOV.

LSIDurn:lsid:zoobank.org:act:4E504A90-7EDC-420F-9606-DB4B8F1A4B5E

Holotype: A preserved adult female specimen at the Museum of Vertebrate Zoology, University of California, Berkeley, California, USA, specimen number MVZ:Herp:274136 collected from Desa Maror, Kecamatan Aru Selatan, Timur, Maluku, Indonesia, Latitude -6.812889 S., Longitude 134.377937 E.

Paratypes: Eight preserved specimens at the Museum of Vertebrate Zoology, University of California, Berkeley, California, USA, specimen numbers MVZ:Herp:274135, 274137, 274138, 274139, 274140, 274141, 274143 and 274148 all collected from Aru Islands, Maluku, Indonesia.

Diagnosis: *O. arukidding sp. nov.* until now treated as an outlier population of *O. storri* (Ingram and Covacevich, 1989), type locality of Bamaga, Cape York, Queensland, Australia, occurs on the Aru Islands, of Maluku Province, Indonesia.

It is separated from the morphologically similar *O. storri* and *O. caitlinmoranae* (Hoser, 2024) a similar species from the lower eastern part of Cape York by having dull rather than distinct flecks on the upper body and dark barring on the otherwise white upper labials.

The five species within the genus *Orangedemale gen. nov.* have until now been treated by most authors as being within the genus *Carlia* Gray, 1845.

The five species in *Orangedemale gen. nov.* are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following unique combination of characters:

Interparietal is distinct; dorsal scales are mostly bicarinate, 6 sided, each usually with an angular posterior or free edge and moderately to strongly keeled; ear opening is surrounded by acute unequal pointed scales; usually less than 34 midbody scale rows (modified from Cogger 2014).

Orangedemale caitlinmoranae (Hoser, 2024) from the wet tropics region of far north Queensland, is morphologically similar in form and closely related to *Orangedemale storri* (Ingram and Covacevich, 1989), type locality of Bamaga, Queensland and herein confined to the region generally north of Cooktown, Queensland, including Torres Strait and southern New Guinea.

O. caitlinmoranae is readily separated from *O. storri* by the absence of a distinctive white line running across the upper labials. Adult *O. storri* also have scattered yellow, beige or white flecks on the upper body, which are not seen in *O. caitlinmoranae*. Black flecks on the dorsum of *O. storri* commonly tend to form indistinct longitudinal lines, but this is not the case in *O. caitlinmoranae*.

Iris of *O. caitlinmoranae* is light orange, versus brown or brown with orange tinge in *O. storri*.

O. caitlinmoranae in life is depicted in Wilson and Swan (2021) on page 223 at bottom right and online at:

<https://www.inaturalist.org/observations/142718638>

and

<https://www.inaturalist.org/observations/57182840>

O. storri in life is depicted in Cogger (2014) on page 446 top and online at:

<https://www.inaturalist.org/observations/126190775>

and

<https://www.inaturalist.org/observations/142343784>

O. bicarinata (Macleay, 1877) occurs in southern New Guinea along the south-east coast and nearby hills from about Inawi in the north-west to Sogeri in the south-east, all in the Central Province.

It is separated from the preceding two species by colouration. The breeding male *O. bicarinata* is heavily spotted with dark brown and with white flecking on the body, limbs and tail; there is a reddish tinge to the flanks; labials, side of throat and under the side of the head and neck are lined in dark brown; there is a dark line from the nares through the eye to above the ear (derived from Ingram and Covacevich, 1989).

O. accretio sp. nov. occurs south-east of where *O. bicarinata* (Macleay, 1877) occurs, being found in a zone along the coast and nearby hills from Kwikila in the North-west to Kealko in the south-east, all in the Central province.

O. accretio sp. nov. is essentially similar in most respects to *O. bicarinata* but separated from it by having dull instead of well-defined body markings in breeding males and the white flecking on the upper surfaces is reduced to virtually non-existent. The light line on the dorsolateral edge is however well-defined.

Distribution: *O. arukidding* sp. nov. occurs only on the Aru Islands, of Maluku Province, Indonesia and is a range restricted endemic species.

Etymology: I was discussing a new and unnamed species from the Aru Islands to a colleague (who has asked not to be named). When I mentioned it was a "*Carlia*" species, he replied "*arukidding*" and so that is the new species name.

ORANGEDEMALE ACCRETIO SP. NOV.

LSIDurn:lsid:zoobank.org:act:59602D93-4A83-425F-AD42-07308BD43993

Holotype: A preserved specimen at the Louisiana State University Museum of Natural Science. LSUZ Herps Collection, Baton Rouge, Louisiana, USA, specimen number LSUZ Herps 94732 collected from Amau Village, on the Amau River (near Kupiano), Central Province, Papua New Guinea, Latitude -10.0368 S., Longitude 148.5646333 E.

This facility allows access to its holdings.

Paratypes: One preserved specimen at the Louisiana State University Museum of Natural Science. LSUZ Herps Collection, Baton Rouge, Louisiana, USA, specimen number LSUZ Herps LSUZ 94731 collected from Amau Village, on the Amau River (near Kupiano), Central Province, Papua New Guinea, Latitude -10.0368 S., Longitude 148.5646333 E.

Diagnosis: Until now, *Orangedemale accretio* sp. nov. has been treated as a south-east population of *O. bicarinata* (Macleay, 1877), known by most people as *Carlia bicarinata*, with a type locality of Yule Island, Hall Sound, Central Province, Papua New Guinea.

O. accretio sp. nov. is essentially similar in most respects to *O. bicarinata* but separated from it by having dull instead of well-defined body markings in breeding males and the white flecking on the upper surfaces is reduced to virtually non-existent. The light line on the dorsolateral edge is however well-defined.

In turn *O. bicarinata* is separated from the morphologically similar species *O. caitlinmoranae* (Hoser, 2024), *O. storri* (Ingram and Covacevich, 1989), *O. accretio* sp. nov. and *O. arukidding* sp. nov. by colouration. The breeding male *O. bicarinata* is heavily spotted with dark brown and with white flecking on the body, limbs and tail; there is a reddish tinge to the flanks; labials, side of throat and under the side of the head and neck are lined in dark brown; there is a dark line from the nares through the eye to above the ear (derived from Ingram and Covacevich, 1989).

See also the photo of a breeding-coloured male specimen of *O. bicarinata* in the paper of Ingram and Covacevich (1989) on page 448 at top (black and white image) and online at:

<https://www.inaturalist.org/observations/147137805>

and

<https://www.inaturalist.org/observations/67001606>

and

<https://www.inaturalist.org/observations/129058051>

The two closely related Australian species (*O. caitlinmoranae* and *O. storri*) are separated from each other and the two New Guinea species (*O. accretio* sp. nov. and *O. bicarinata*) as follows:

O. caitlinmoranae is separated from *O. storri* by the absence of a distinctive white line running across the upper labials. Adult *O. storri* also have scattered yellow, beige or white flecks on the upper body, which are not seen in *O. caitlinmoranae*. Black flecks on the dorsum of *O. storri* commonly tend to form indistinct longitudinal lines, but this is not the case in *O. caitlinmoranae*.

Iris of *O. caitlinmoranae* is light orange, versus brown or brown with orange tinge in *O. storri*.

O. arukidding sp. nov. until now treated as an outlier population of *O. storri* from the Aru Islands is separated from the two preceding species by having dull rather than distinct flecks on the upper body and dark barring on the otherwise white upper labials.

The five species within the genus *Orangedemale* gen. nov. have until now been treated by most authors as being within the genus *Carlia* Gray, 1845.

The five species in *Orangedemale* gen. nov. are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following unique combination of characters:

Interparietal is distinct; dorsal scales are mostly bicarinate, 6 sided, each usually with an angular posterior or free edge and moderately to strongly keeled; ear opening is surrounded by acute unequal pointed scales; usually less than 34 midbody scale rows (modified from Cogger 2014).

Distribution: *O. bicarinata* (Macleay, 1877) occurs in southern New Guinea along the south-east coast and nearby hills from about Inawi in the north-west to Sogeri in the south-east, all in the Central Province.

O. accretio sp. nov. occurs south-east of this area in a zone along the coast and nearby hills from Kwikila in the North-west to Kealko in the south-east, all in the Central province.

Both species appear to have a centre of distribution in relatively flat low lying coastal and near coastal areas, separated by a hilly zone immediately south of Port Moresby, where the hills run to the coastline, being an area neither taxon occurs.

O. caitlinmoranae is found in the wet-tropics region of far north Queensland from Townsville in the south to about Cooktown in the north and including the near coastal ranges.

O. storri is found to the north of this area and including the northern tip of Cape York, Queensland, Torres Strait and nearby parts of southern New Guinea.

O. arukidding sp. nov. is found on the Aru Islands only.

This is the entire known range for the genus.

All species prefer drier open woodland types of habitats.

Etymology: *O. accretio* sp. nov. is named in reflection that as a taxon, the species has been accreted to or added to the *Carlia sensu lato* group and the newly erected genus *Orangedemale* gen. nov..

The relevant Latin word is "*accretio*".

It is a verb in apposition.

AURANTIACOLATERI GEN. NOV.

LSIDurn:lsid:zoobank.org:act:1707BE09-F1CA-41DF-BD7D-72FFAF85BBB1

Type species: *Heteropus schmeltzii* Peters, 1867.

Diagnosis: The two species and including two newly described subspecies in *Aurantiacolateri* gen. nov. are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by

Cogger (2014) by the following unique combination of characters:

Moderately large and robust with a snout-vent to 55 mm; interparietal distinct; prefrontals separated; seven supraciliaries; 32-38 midbody rows; dorsal scales are six-sided, each usually with an angular posterior or free edge and moderately to smoothly keeled; alignment of scales varies from regular to irregular; 22-30 lamellae under the fourth toe; dorsal scales strongly tricarinate or bicarinate; palpebral disc occupies at most barely half the lower eyelid; ear opening is vertically elliptical and as large as the palpebral disc; two lobules on the anterior border of the ear (may be large or small).

For the record, the specimens from the Eastern edge of the Gulf of Carpentaria, described as "*Carlia prava* Covacevich and Ingram, 1975" and herein treated as a separate species, are readily separated from the widespread species *A. schmeltzii* (Peters, 1867) by having two square-shaped ear lobules, versus lobules that are more rounded or triangular in shape as well as bicarinate dorsal scales versus tricarinate.

Sequences at Genbank also confirms that the two taxa (*A. schmeltzii* and *A. prava*) are distinct species based on divergences, which is contradictory to the positions of Cogger (2014) and Wilson and Swan (2021) who represent the majority opinion in Australia with respect of their published positions.

This does not mean that the majority is correct.

In this instance this is clearly not the case!

Distribution: Coastal and near coastal Queensland from the Gulf of Carpentaria coast of Cape York (but excluding the far north tip area), along the coast and drier hinterland south to west of Brisbane and the Gold Coast in south-east Queensland.

Etymology: The genus name in Latin being a combination of the words "*aurantiaco lateri*" literally means "orange flank" in reflection of the breeding colouration of males.

The species name is a combination of an adjective and noun in apposition.

Content: *Aurantiacolateri schmeltzii* (Peters, 1867) (type species); *A. prava* (Covacevich and Ingram, 1975).

AURANTIACOLATERI PRAVA LANGUIDAFEMINA SUBSP. NOV.

LSIDurn:lsid:zoobank.org:act:ED58416C-2881-4A0D-B903-FAA65BD7C208

Holotype: A preserved specimen at the Australian Museum, Sydney, New South Wales, Australia, specimen number R.89624 collected from Mount Garnet Rubbish Tip, northeast of the main township, North-east Queensland, Australia, Latitude -17.683 S., Longitude 145.116 E.

This government-owned facility allows access to its holdings.

Paratypes: Eleven preserved specimens at the Australian Museum, Sydney, New South Wales, Australia, being: 1/ Specimen number R.21320 collected from Brownville Battery, near Mount Garnet, Queensland, Australia, Latitude -17.566 S., Longitude 145.133 E., 2/ Specimen number R.128843 collected from Mandalee, Innot Hot Springs, Queensland, 4872, Australia, Latitude -17.733 S., Longitude 145.266 E., 3/ Specimen numbers R.89496, R.89497, R.89498, R.89499, R.89500, R.94566, R.94568, R.94569 and R.94585 all collected from the area around Granite Gorge, about 10.9 km west of Mareeba Post Office, North Queensland, Australia, Latitude -17.033 S., Longitude 145.316 E.

Diagnosis: The putative species *Aurantiacolateri schmeltzii* (Peters, 1867), more widely known as *Carlia schmeltzii*, with a type locality of Rockhampton occurs from the mid north of Cape York Peninsula Queensland, along the coast and drier hinterland to west of Brisbane and the Gold Coast in south-east Queensland.

However, *A. prava* (Covacevich and Ingram, 1975) is resurrected from synonymy for the populations north of the Burdekin basin.

There are regionally divergent populations, but as the distribution

appears to be continuous or may be and there is no available molecular evidence separating the forms, the two hitherto unnamed forms are formally named herein as subspecies, even though in all probability they are sufficiently divergent to be treated as full species.

They can be readily separated from one another as follows:

For *A. prava languidafemina subsp. nov.* breeding males have an absence of black spots or peppering on the upper flank. Rarely some specimens may have a tiny number of tiny dull, indistinct spots (specimens from the Townsville and Magnetic Island areas mainly). Upper surfaces of the limbs in *A. prava languidafemina subsp. nov.* lack obvious black spotting, which is seen in the nominate form of *A. schmeltzii*. On the lower two thirds of the neck, the scales appear to have been brushed with white paint from a brush.

In *A. prava languidafemina subsp. nov.* this lacks the black specks seen in the nominate form of *A. schmeltzii*.

Male *A. prava languidafemina subsp. nov.* have a beige iris.

Both *A. prava languidafemina subsp. nov.* and the nominate subspecies of *A. prava* a taxon herein confined to the northwestern side of northern Cape York are a more gracile lizard than both subspecies of *A. schmeltzii*.

Males in the nominate form of *A. schmeltzii* has on the upper third of the flank heavy black peppering in the form of numerous tiny black dots.

Males in the nominate form of *A. schmeltzii* has a light orange-beige iris.

Male *A. schmeltzii obscurilinea subsp. nov.* are separated from males of the two-preceding subspecies by the fact that the upper third of the flank is effectively all black, in effect forming a well-defined upper lateral band. Furthermore, in male *A. schmeltzii obscurilinea subsp. nov.* the upper surfaces of the limbs are marbled brown and black, but not with black spots as seen in the nominate form of *A. schmeltzii*.

Male *A. schmeltzii obscurilinea subsp. nov.* have thin curved black lines on the lower neck, giving the appearance of striations on the white background.

Iris of *A. schmeltzii obscurilinea subsp. nov.* is orange.

The specimens from the western edge of the northern part of the Gulf of Carpentaria, described as "*Carlia prava* Covacevich and Ingram, 1975" were initially treated as being from that area only, and then synonymised with *A. schmeltzii* by most authors.

However, it seems that the main morphological break between the taxa is the Burdekin basin and so all specimens north of there are referred to *A. prava*.

A. prava of the nominate subspecies, is herein treated as being confined to the western part of the northern section of Cape York.

It is readily separated from the widespread more species *A. schmeltzii* (Peters, 1867) of both subspecies by having two square-shaped ear lobules, versus lobules that are more rounded or triangular in shape as well as bicarinate dorsal scales versus tricarinate.

The subspecies *A. prava languidafemina subsp. nov.* is separated from the nominate form of *A. prava* by having an obviously rounded oval shaped upper ear lobule as well as sometimes having either bicarinate or tricarinate dorsal scales.

The two species and including two newly described subspecies (above) in *Aurantiacolateri gen. nov.* being *A. schmeltzii* and *A. prava* are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following unique combination of characters:

Moderately large and robust with snout-vent to 55 mm; interparietal distinct; prefrontals separated; seven supraciliaries; 32-38 midbody rows; dorsal scales are six-sided, each usually

with an angular posterior or free edge and moderately to smoothly keeled; alignment of scales varies from regular to irregular; 22-30 lamellae under the fourth toe; dorsal scales strongly tricarinate or bicarinate; palpebral disc occupies at most barely half the lower eyelid; ear opening is vertically elliptical and as large as the palpebral disc; two lobules on the anterior border of ear (may be large or small).

A. prava languidafemina subsp. nov. is depicted in life online at: <https://www.inaturalist.org/observations/85482661>

The type form of *A. schmeltzii* is depicted in life in Wilson (2022), page 112 top right, Brown (2014) on page 549 second from top on left and online at:

<https://www.inaturalist.org/observations/85482949>

A. schmeltzii obscurilinea subsp. nov. is depicted in life in Brown (2014) on page 549 second from top on right and online at:

<https://www.inaturalist.org/observations/183903898>

and

<https://www.inaturalist.org/observations/143229667>

and

<https://www.inaturalist.org/observations/145731075>

and

<https://www.inaturalist.org/observations/196738399>

Distribution: *A. prava languidafemina subsp. nov.* occupies the coast and nearby hinterland of Queensland between the Burdekin basin and the northern extremity of the wet tropics on Eastern Cape York.

A. schmeltzii obscurilinea subsp. nov. appears to be restricted to dry habitats west of the Sunshine Coast (south of Jimna, Latitude -26.666667 S., Longitude 152.466667 E.) in the near coastal region, south to the New South Wales border.

The intervening area along most of the coast of Queensland and nearby hinterland is occupied by the nominate form of *A. schmeltzii*.

A. prava of the nominate subspecies, is herein treated as being confined to the western part of the northern section of Cape York.

Etymology: The Latin words "*languida femina*" means "dull female" in reflection of the relatively dull colouration of females in this species, which as a rule are a generally brownish colour.

The words of the subspecies name are an adjective and noun in apposition.

AURANTICOLATERI SCHMELTZII OBSCURALINEA SUBSP. NOV.

LSIDurn:lsid:zoobank.org:act:9173A3AA-3069-4598-ADD5-B849935CCEF2

Holotype: A preserved specimen at the Queensland Museum, Brisbane, Queensland, Australia, specimen number J39695 collected from Gatton, Queensland, Australia, Latitude -27.566667 S., Longitude 152.283333 E.

This government-owned facility allows access to its holdings.

Paratypes: 1/ A preserved specimen at the Queensland Museum, Brisbane, Queensland, Australia, specimen number J26999 collected from the Helidon area, Queensland, Australia, Latitude -27.633333 S., Longitude 152.066667 E., 2/ A preserved specimen at the Queensland Museum, Brisbane, Queensland, Australia, specimen number J23994 collected from Mount French, Queensland, Australia, Latitude -28.0 S., Longitude 152.616667 E.

Diagnosis: The putative species *Aurantiacolateri schmeltzii* (Peters, 1867), more widely known as *Carlia schmeltzii*, with a type locality of Rockhampton occurs from the mid north of Cape York Peninsula Queensland, along the coast and drier hinterland to west of Brisbane and the Gold Coast in south-east Queensland.

However, *A. prava* (Covacevich and Ingram, 1975) is resurrected from synonymy for the populations north of the Burdekin basin.

There are regionally divergent populations, but as the distribution appears to be continuous or may be and there is no available molecular evidence separating the forms, the two hitherto unnamed forms are formally named herein as subspecies, even though in all probability they are sufficiently divergent to be treated as full species.

They can be readily separated from one another as follows:

For *A. prava languidafemina subsp. nov.* breeding males have an absence of black spots or peppering on the upper flank. Rarely some specimens may have a tiny number of tiny dull, indistinct spots (specimens from the Townsville and Magnetic Island areas mainly). Upper surfaces of the limbs in *A. prava languidafemina subsp. nov.* lack obvious black spotting, which is seen in the nominate form of *A. schmeltzii*. On the lower two thirds of the neck, the scales appear to have been brushed with white paint from a brush.

In *A. prava languidafemina subsp. nov.* this lacks the black specks seen in the nominate form of *A. schmeltzii*.

Male *A. prava languidafemina subsp. nov.* have a beige iris.

Both *A. prava languidafemina subsp. nov.* and the nominate subspecies of *A. prava* a taxon herein confined to the northwestern side of northern Cape York are a more gracile lizard than both subspecies of *A. schmeltzii*.

Males in the nominate form of *A. schmeltzii* has on the upper third of the flank heavy black peppering in the form of numerous tiny black dots.

Males in the nominate form of *A. schmeltzii* has a light orange-beige iris.

Male *A. schmeltzii obscurilinea subsp. nov.* are separated from males of the two-preceding subspecies by the fact that the upper third of the flank is effectively all black, in effect forming a well-defined upper lateral band. Furthermore, in male *A. schmeltzii obscurilinea subsp. nov.* the upper surfaces of the limbs are marbled brown and black, but not with black spots as seen in the nominate form of *A. schmeltzii*.

Male *A. schmeltzii obscurilinea subsp. nov.* have thin curved black lines on the lower neck, giving the appearance of striations on the white background.

Iris of *A. schmeltzii obscurilinea subsp. nov.* is orange.

The specimens from the western edge of the northern part of the Gulf of Carpentaria, described as "*Carlia prava* Covacevich and Ingram, 1975" were initially treated as being from that area only, and then synonymised with *A. schmeltzii* by most authors.

However, it seems that the main morphological break between the taxa is the Burdekin basin and so all specimens north of there are referred to *A. prava*.

A. prava of the nominate subspecies, is herein treated as being confined to the western part of the northern section of Cape York.

It is readily separated from the widespread more species *A. schmeltzii* (Peters, 1867) of both subspecies by having two square-shaped ear lobules, versus lobules that are more rounded or triangular in shape as well as bicarinate dorsal scales versus tricarinate.

The subspecies *A. prava languidafemina subsp. nov.* is separated from the nominate form of *A. prava* by having an obviously rounded oval shaped upper ear lobule as well as sometimes having either bicarinate or tricarinate dorsal scales.

The two species and including two newly described subspecies (above) in *Aurantiacolateri gen. nov.* being *A. schmeltzii* and *A. prava* (Covacevich and Ingram, 1975) are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following unique combination of characters:

Moderately large and robust with snout-vent to 55 mm; interparietal distinct; prefrontals separated; seven supraciliaries;

32-38 midbody rows; dorsal scales are six-sided, each usually with an angular posterior or free edge and moderately to smoothly keeled; alignment of scales varies from regular to irregular; 22-30 lamellae under the fourth toe; dorsal scales strongly tricarinate or bicarinate; palpebral disc occupies at most barely half the lower eyelid; ear opening is vertically elliptical and as large as the palpebral disc; two lobules on the anterior border of ear (may be large or small).

A. prava languidafemina subsp. nov. is depicted in life online at: <https://www.inaturalist.org/observations/85482661>

The type form of *A. schmeltzii* is depicted in life in Wilson (2022), page 112 top right, Brown (2014) on page 549 second from top on left and online at:

<https://www.inaturalist.org/observations/85482949>

A. schmeltzii obscurilinea subsp. nov. is depicted in life in Brown (2014) on page 549 second from top on right and online at:

<https://www.inaturalist.org/observations/183903898>

and

<https://www.inaturalist.org/observations/143229667>

and

<https://www.inaturalist.org/observations/145731075>

and

<https://www.inaturalist.org/observations/196738399>

Distribution: *A. schmeltzii obscurilinea subsp. nov.* appears to be restricted to dry habitats west of the Sunshine Coast (south of Jimna, Latitude -26.666667 S., Longitude 152.466667 E.) in the near coastal region, south to the New South Wales border.

The intervening area along most of the coast of Queensland and nearby hinterland is occupied by the nominate form of *A. schmeltzii*.

A. prava of the nominate subspecies, is herein treated as being confined to the western part of the northern section of Cape York.

A. prava languidafemina subsp. nov. occupies the coast and nearby hinterland of Queensland between the Burdekin basin and the northern extremity of the wet tropics on Eastern Cape York.

Etymology: The Latin words “*obscura linea*” means “dark line” in reflection of the dark upper lateral line seen in breeding males of this taxon. The words combined are an adjective and noun in apposition.

CELERSCINCUS GEN. NOV.

LSIDurn:lsid:zoobank.org:act:4291E6EC-73D4-4504-A834-423F4CD169FD

Type species: *Heteropus rostralis* De Vis, 1885.

Diagnosis: The single species in this genus, including the newly described subspecies in *Celerscincus gen. nov.* are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mocoo melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following unique combination of characters:

Dorsal scales are smooth, striated or weakly keeled, 4-sided and each with a smoothly curved posterior edge; prefrontals separated; seven supraciliaries; interparietal is distinct and not fused to the frontoparietals; 25-38 midbody rows; 26-36 lamellae under the fourth toe; males with a very distinctive black throat and broad upper lateral stripe from the eye to hindlimb; females with a conspicuous pale dorso-lateral stripe; ear opening vertically elliptical and slightly larger than the palpebral disc, with 1-3 enlarged anterior facing pointed lobules, the remainder of the ear without enlarged scales; up to 65 mm snout-vent length.

The closely related and morphologically similar genus *Veloxscincus gen. nov.* known alternatively as the “*Carlia fusca* group” is separated from *Celerscincus gen. nov.* by the fact that breeding males lack a very distinctive black throat and broad

upper lateral stripe from the eye to hindlimb and females lack a pale dorsolateral stripe.

Both preceding genera are separated from the morphologically similar genus *Circularisauris gen. nov.* by the presence of an ear opening that is vertically elliptical or oblong shaped, versus a well-formed circular ear opening in *Circularisauris gen. nov.*

Furthermore, the rim of the ear in *Circularisauris gen. nov.* is encircled with smallish acute auricular lobes, distinctly pointed on anterior and anteriodorsal edges, contrasting with the blunter lobes confined to the anterior and anteriodorsal border in the other two genera.

Distribution: Wet tropics of north-east Queensland, with apparent outlier populations on the Northern part of Cape York and eastern Gulf of Carpentaria.

Etymology: The Latin word “*celer*” means fast and “*scincus*” is the Latinised word for skink and hence the genus name says “fast skink”, which is an apt description. The words are an adjective and noun in apposition.

Content: *Celerscincus rostralis* (De Vis, 1885) (monotypic as treated herein and including one divergent subspecies).

CELERSCINCUS ROSTRALIS BLACKI SUBSP. NOV.

LSIDurn:lsid:zoobank.org:act:96A6899C-BAB4-425C-A6EF-8FA546629D97

Holotype: A preserved specimen at the Queensland Museum, Brisbane, Queensland, Australia, specimen number J88597 collected from Bridge Creek National Park, Queensland, Australia, Latitude -15.153056 S., Longitude 144.917222 S.

This government-owned facility allows access to its holdings.

Paratypes: Six preserved specimens at the Queensland Museum, Brisbane, Queensland, Australia, being: 1/ Specimen numbers J88609 and J88618 both collected from Bridge Creek National Park, Queensland, Australia, Latitude -15.153056 S., Longitude 144.917222 S., 2/ Specimen number J61850 collected from Cape Flattery, Queensland, Australia, Latitude -14.994167 S., Longitude 145.283611 E., 3/ Specimen number J51113 collected from near Airport Lake, Cape Flattery, Queensland, Australia, Latitude -14.991667 S., Longitude 145.308333 E., 4/ Specimen number J69632 collected from the Cape Flattery dune system, Cape Flattery, Queensland, Australia, Latitude -15.075 S., Longitude 145.175 E., 5/ Specimen number J69462 collected from 13 km northwest of Cape Flattery, Queensland, Australia, Latitude -14.925 S., Longitude 145.225 E.

Diagnosis: *Celerscincus rostralis blacki subsp. nov.* is a northern subspecies of *Celerscincus rostralis* (De Vis, 1885), widely known as *Carlia rostralis*, with a type locality of Cardwell, Queensland, Australia.

Adult breeding male *Celerscincus rostralis blacki subsp. nov.* are readily separated from adult breeding male *Celerscincus rostralis* by having bright yellow upper and lower labials, versus white in the nominate form of *C. rostralis*.

Adult breeding male *Celerscincus rostralis blacki subsp. nov.* are further separated from adult breeding male *Celerscincus rostralis* by having a dorsum that is blackish yellow in colour as opposed to blackish brown or reddish black-brown. The black on the back of adult breeding male *Celerscincus rostralis blacki subsp. nov.* is in the form of closely spaced small black triangles, versus scattered black spotting of both triangular and irregular shape in adult breeding male *Celerscincus rostralis*.

The single species including the newly described subspecies in *Celerscincus gen. nov.* (as separated above) are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mocoo melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following unique combination of characters:

Dorsal scales are smooth, striated or weakly keeled, 4-sided and each with a smoothly curved posterior edge; prefrontals

separated; seven supraciliaries; interparietal is distinct and not fused to the frontoparietals; 25-38 midbody rows; 26-36 lamellae under the fourth toe; Males with a very distinctive black throat and broad upper lateral stripe from the eye to hindlimb; females with a conspicuous pale dorso-lateral stripe; ear opening vertically elliptic and slightly larger than the palpebral disc, with 1-3 enlarged anterior facing pointed lobules, the remainder of the ear without enlarged scales; up to 65 mm snout-vent length.

The closely related and morphologically similar genus *Veloxscincus gen. nov.* known alternatively as the “*Carlia fusca* group” is separated from *Celerscincus gen. nov.* by the fact that breeding males lack a very distinctive black throat and broad upper lateral stripe from the eye to hindlimb and females lack a pale dorsolateral stripe.

Both preceding genera are separated from the morphologically similar genus *Circularisauris gen. nov.* by the presence of an ear opening that is vertically elliptic or oblong shaped, versus a well-formed circular ear opening in *Circularisauris gen. nov.*

Furthermore, the rim of the ear in *Circularisauris gen. nov.* is encircled with smallish acute auricular lobes, distinctly pointed on anterior and anteriodorsal edges, contrasting with the blunter lobes confined to the anterior and anteriodorsal border in the other two genera.

Celerscincus rostralis blacki subsp. nov. in life is depicted online at:

<https://www.inaturalist.org/observations/193077889>

and

<https://www.flickr.com/photos/shaneblackfnq/16309681108/>

and

<https://www.flickr.com/photos/shaneblackfnq/29339230122/>

Celerscincus rostralis of the type form is depicted in Cogger (2014) on page 441 bottom, Wilson (2022) on page 111 top left, Wilson and Swan (2021) on page 231 top left and online at:

<https://www.flickr.com/photos/euprepiosaur/8460623940/>

and

<https://www.flickr.com/photos/whawha88/13056551644/>

and

https://repfocus.dk/photos/TAX/Sauria/Scincidae/Carlia_rostralis.html

Distribution: *Celerscincus rostralis blacki subsp. nov.* occurs along the coast, ranges and adjacent environs from about Mount Windsor in the south, north to about Cape Flattery in the north, north-east Queensland. South of here to the Burdekin basin just south of Townsville is where the nominate form of *Celerscincus rostralis* occurs.

Etymology: *Celerscincus rostralis blacki subsp. nov.* is named in honour of well-known Australian herpetologist Shane Black, of north Queensland in recognition of his contributions to herpetology in Australia. Originally of Sydney, New South Wales, he fled there as a fugitive from the unlawful harassment of corrupt wildlife officials within the New South Wales National Parks and Wildlife Service (NPWS). He is one of many such victims of an Australian government bureaucracy that is literally out of control, run by criminals and has been for decades.

VELOXSCINCUS GEN. NOV.

LSIDurn:lsid:zoobank.org:act:9AC754FB-BA4E-4205-B05F-2CDEF80772BE

Type species: *Carlia sergeimosyakini* Hoser, 2024.

Diagnosis: The genus *Veloxscincus gen. nov.* is the so-called *Carlia fusca* group of species.

Species within *Veloxscincus gen. nov.* are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following unique combination of characters:

Dorsal scales are smooth, striated or weakly keeled, 4-sided and each with a smoothly curved posterior edge; prefrontals separated; seven supraciliaries; interparietal is distinct and not fused to the frontoparietals; 25-38 midbody rows; 26-36 lamellae under the fourth toe; males without a very distinctive black throat and broad upper lateral stripe from the eye to hindlimb; females without a conspicuous pale dorso-lateral stripe; ear opening vertically elliptic or oblong shaped (not circular) and slightly larger than the palpebral disc, with 1-3 enlarged anterior facing pointed lobules, the remainder of the ear with or without enlarged scales; up to 65 mm snout-vent length.

The closely related and morphologically similar genus *Celerscincus gen. nov.* is separated from *Veloxscincus gen. nov.* by the fact that breeding males have a very distinctive black throat and broad upper lateral stripe from the eye to hindlimb and females have a pale dorsolateral stripe.

Both preceding genera are separated from the morphologically similar genus *Circularisauris gen. nov.* by the presence of an ear opening that is vertically elliptic or oblong shaped, versus a well-formed circular ear opening in *Circularisauris gen. nov.*

Furthermore, the rim of the ear in *Circularisauris gen. nov.* is encircled with smallish acute auricular lobes, distinctly pointed on anterior and anteriodorsal edges, contrasting with the blunter lobes confined to the anterior and anteriodorsal border in the other two genera.

Distribution: *Veloxscincus gen. nov.* occurs in far northern Australia in north-east Queensland and the very top end of the Northern Territory as well as the Torres Strait islands, New Guinea and offshore islands to the immediate north, the west and south.

Etymology: In Latin “*Velox*” means fast and with the Latinised addition “*scincus*” for skink (lizard) the name *Veloxscincus gen. nov.* accurately describes the members of this genus.

The words combined are an adjective and noun in apposition.

Content: *Veloxscincus sergeimosyakini* (Hoser, 2024) (type species); *V. abababa sp. nov.*; *V. aenigma* (Zug, 2004); *V. ailanpalai* (Zug, 2004); *V. albae sp. nov.*; *V. aramia* (Zug, 2004); *V. aruserious sp. nov.*; *V. babarensis* (Kopstein, 1926); *V. barelyedible sp. nov.*; *V. beccarii* (Peters and Doria, 1878); *V. bomberai* (Zug and Allison, 2006); *V. caesius* (Zug and Allison, 2006); *V. closetonoweherensis sp. nov.*; *V. crurascabra sp. nov.*; *V. diguliensis* (Kopstein, 1926); *V. donoteatit sp. nov.*; *V. eother* (Zug, 2004); *V. fusca* (Duméril and Bibron, 1839); *V. leucotaenia* (Bleeker, 1860); *V. longipes* (Macleay, 1877); *V. luctuosa* (Peters and Doria, 1878); *V. maculanigrae sp. nov.*; *V. mysi* (Zug, 2004); *V. orainsignis sp. nov.*; *V. pulla* (Barbour, 1911); *V. quinquecarinata* (Macleay, 1877); *V. sexdentata* (Macleay, 1877); *V. spinauris* (Smith, 1927); *V. taediosus sp. nov.*; *V. tastesterribleyes sp. nov.*; *V. tenebricephalus sp. nov.*; *V. thisisserious sp. nov.*; *V. tutela* (Zug, 2004).

VELOXSCINCUS MACULANIGRAE SP. NOV.

LSIDurn:lsid:zoobank.org:act:93490F5D-22B5-49D6-9B8F-E9F75672F834

Holotype: A preserved gravid female specimen at the National Museum of Natural History, Smithsonian Institution, Washington, DC, USA, specimen number NMNH Amphibians and Reptiles 166263, collected from Kundiawa, Chimbu Province, Papua New Guinea (PNG), Latitude -6.01915 S., Longitude 144.965 E., at an elevation of about 1524 metres ASL.

Paratypes: Nine preserved specimens at the American Museum of Natural History, Manhattan, New York City, USA, AMNH Herpetology Collections, specimen numbers R-75383-391 all collected from Kundiawa, Chimbu Province, Papua New Guinea (PNG), Latitude -6.01915 S., Longitude 144.965 E., at an elevation of about 1524 metres ASL.

Diagnosis: *Veloxscincus maculanigrae sp. nov.* has until now been treated as an unassigned member of the so-called *Carlia fusca* group of species *sensu* Zug (2004).

V. maculanigrae sp. nov. is separated from all other species in the genus by the following unique combination of colour characters:

Adults semi distinctly dark flecked with tiny black spots, especially on the dorsum of the body where the tiny spots tend to form as reticulum. On top of the neck, the spotting is grouped to form two paravertebral lines which break up posterior to the front legs. On the flanks the spotting becomes faded and less frequent ventrally. The belly itself is a greyish colour.

There is a distinct dorsolateral line, extending from the head, down the length of the body and onto the tail on either side, this line becoming semi-distinct on the lower part of the dorsum, anterior to the pelvic girdle. The top half of the flank is dark brown, sometimes slightly reddish posteriorly with the lower part whitish and the boundary between the two areas is not sharp.

Unlike the dorsum, the flank also has some scattered semi-distinct, pale spots, each being an individual scale.

The black streaking of the chin and throat is not seen in females.

Juveniles are a darker version of the adults.

Zug (2014) gives further diagnostic information on this species which is copied below:

“A moderately large *Carlia* ranging in adult size from 48 to 62 mm SVL (females 47.8-59.8; males 50.9-62.3) with HeadL 20-25%, TrunkL 42-60%, and HndlL 42-54% of SVL, and 82-164% PalpbD of EarD. Some populations sexually dimorphic in one or more of the following traits: SVL, HeadL, PalpbD, EarD, TrunkL, HndlL, HeadL/SVL, TrunkL/SVL, HndlL/SVL, EyedL, Midbody, and 3FingL. Head and nuchal scales smooth; interparietal uncommonly absent; 4 Supoc, 6-9 Supcil, 3-13 EyedL, 7 (rarely 6) Suplab, 5th (rarely 4th) BlwEye, and 6 or 7 (rarely 5 or 8) Inflab on each side. Ear opening oblong vertical to oblique with 2-6 AuricN, usually pointed, on anterior and dorsal margin. Trunk scales smooth to weakly tricarinate dorsally and laterally: 44-51 Dorsal, 28-37 Midbody. Subdigital lamellae undivided, smooth: 17-24 3FingL, 23-31 4ToeL.”

In the preceding description he included specimens from other Highland populations which may not be of this species. Therefore, the ranges for the meristics given herein may be greater than is actually the case for this particular species.

This species and all other species in the genus *Veloxscincus* gen. nov. are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following unique combination of characters:

Dorsal scales are smooth, striated or weakly keeled, 4-sided and each with a smoothly curved posterior edge; prefrontals separated; seven supraciliaries; interparietal is distinct and not fused to the frontoparietals; 25-38 midbody rows; 26-36 lamellae under the fourth toe; males without a very distinctive black throat and broad upper lateral stripe from the eye to hindlimb; females without a conspicuous pale dorso-lateral stripe; ear opening vertically elliptic or oblong shaped and slightly larger than the palpebral disc, with 1-3 enlarged anterior facing pointed lobules, the remainder of the ear with or without enlarged scales; up to 65 mm snout-vent length.

The closely related and morphologically similar genus *Celerscincus* gen. nov. is separated from *Veloxscincus* gen. nov. by the fact that breeding males have a very distinctive black throat and broad upper lateral stripe from the eye to hindlimb and females have a pale dorsolateral stripe.

Both preceding genera are separated from the morphologically similar genus *Circularisauris* gen. nov. by the presence of an ear opening that is vertically elliptic or oblong shaped, versus a well-formed circular ear opening in *Circularisauris* gen. nov..

Furthermore, the rim of the ear in *Circularisauris* gen. nov. is encircled with smallish acute auricular lobes, distinctly pointed on anterior and anteriodorsal edges, contrasting with the blunter

lobes confined to the anterior and anteriodorsal border in the other two genera.

Distribution: *Veloxscincus maculanigrae* sp. nov. currently known only from the type locality may occur in other nearby parts of the Eastern Highlands, Chimbu, and Southern Highland Provinces of Papua New Guinea.

Etymology: The Latin words “*macula nigrae*” (AKA “*maculae nigrae*”) mean black spots, in reflection of the numerous small black spots seen on the dorsum of these lizards. The spelling of the species name “*maculanigrae*” should not be changed.

The words combined are an adjective and noun in apposition.

VELOXSCINCUS TENEBRICEPHALUS SP. NOV.

LSIDurn:lsid:zoobank.org:act:27899392-A739-490B-B448-E35A47233C1A

Holotype: A preserved specimen at the Louisiana State University Museum of Natural Science, LSUMZ Herps Collection, specimen number LSUMZ 94695 collected from Amau Village, on the Amau River (near Kupiano), Central Province, Papua New Guinea, Latitude -10.0368 S., Longitude 148.5646333 E.

This facility allows access to its holdings.

Paratypes: Three preserved specimens at the Louisiana State University Museum of Natural Science, LSUMZ Herps Collection, specimen numbers LSUMZ 94696, 94697 and 94719 all collected from Amau Village, on the Amau River (near Kupiano), Central Province, Papua New Guinea, Latitude -10.0368 S., Longitude 148.5646333 E.

Diagnosis: *Veloxscincus tenebricephalus* sp. nov. has until now been treated as an unassigned member of the so-called *Carlia fusca* group of species *sensu* Zug (2004).

V. tenebricephalus sp. nov. is separated from all other species in the genus by the following unique combination of colour characters:

Males are virtually uniformly black on the head and upper shoulders, dark brown thereafter on the dorsum and with strongly contrasting russet brown on the flanks; the upper labials are mainly dark with some whitish marbling; lower labials light with thin dark barring at the outer edges. From nostril to below the eye is a distinct, then and partly curved white line. Snout tip is white. Upper surfaces of the limbs are dark brown with small semi-distinct blackish spots. Toes are dark with semi distinct light barring at the proximal part of each scale.

Venter is creamish to ivory white in colour, males usually being greyish cream underneath and females usually whiter.

V. tenebricephalus sp. nov. is separated from the morphologically similar *V. luctuosa* (Peters and Doria, 1878) by having russet brown on the flanks and some white on the upper labials, versus yellowish to beige on the flanks of *V. luctuosa*, all black labials and no area of white under the eye.

Females have a dark brown dorsum and sides, somewhat darker anteriorly, and dorso- and midlateral light stripes usually evident on the head and anterior neck.

Juveniles have white spots on the dorsum and flanks, as well as obvious stripes on the dorsolateral and midlateral edges on the anterior part of the body.

This species is relatively large with a snout-vent length to 80 mm.

This species and all other species in the genus *Veloxscincus* gen. nov. are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following unique combination of characters:

Dorsal scales are smooth, striated or weakly keeled, 4-sided and each with a smoothly curved posterior edge; prefrontals separated; seven supraciliaries; interparietal is distinct and not fused to the frontoparietals; 25-38 midbody rows; 26-36 lamellae under the fourth toe; males without a very distinctive black throat

and broad upper lateral stripe from the eye to hindlimb; females without a conspicuous pale dorso-lateral stripe; ear opening vertically elliptic or oblong shaped and slightly larger than the palpebral disc, with 1-3 enlarged anterior facing pointed lobules, the remainder of the ear with or without enlarged scales; up to 65 mm snout-vent length.

The closely related and morphologically similar genus *Celerscincus gen. nov.* is separated from *Veloxscincus gen. nov.* by the fact that breeding males have a very distinctive black throat and broad upper lateral stripe from the eye to hindlimb and females have a pale dorsolateral stripe.

Both preceding genera are separated from the morphologically similar genus *Circularisauris gen. nov.* by the presence of an ear opening that is vertically elliptic or oblong shaped, versus a well-formed circular ear opening in *Circularisauris gen. nov.*

Furthermore, the rim of the ear in *Circularisauris gen. nov.* is encircled with smallish acute auricular lobes, distinctly pointed on anterior and anteriodorsal edges, contrasting with the blunter lobes confined to the anterior and anteriodorsal border in the other two genera.

Distribution: Known only from the type locality, Amau Village and nearby Dorobisoro, (Latitude -9.5 S., Longitude 147.8 S.), but is probably present in the general area from Barakau in the north to Hood Point in the south in south-east Papua New Guinea, including nearby ranges.

Etymology: The Latin words "*tenebri cephalus*" means dark head in reflection of the characteristic darkening of the head seen in adult males. The words are an adjective and noun in apposition.

VELOXSCINCUS ABABABA SP. NOV.

LSIDurn:lsid:zoobank.org:act:3235D0C2-844B-4686-9D4E-3E4AB175223C

Holotype: A preserved specimen at the Louisiana State University Museum of Natural Science, Louisiana, USA, LSUMZ Herps Collection, specimen number 93552 collected at Wanigela Base Camp 1, at the base of Mount Victory, Oro Province, Papua New Guinea, Latitude -9.2390667 S., Longitude 149.0543 E.

This facility allows access to their holdings.

Paratypes: 1/ A preserved specimen at the Louisiana State University Museum of Natural Science, Louisiana, USA, LSUMZ Herps Collection, specimen number 93552 collected at Wanigela Base Camp 1, at the base of Mount Victory, Oro Province, Papua New Guinea, Latitude -9.2390667 S., Longitude 149.0543 E., 2/ A preserved specimen at the Louisiana State University Museum of Natural Science, Louisiana, USA, LSUMZ Herps Collection, specimen number 93551 collected from Koreaf Village Area, Wanigela, Collingwood Bay, Oro Province, Papua New Guinea, Latitude -9.3376667 S., Longitude 149.14 E.

Diagnosis: *Veloxscincus abababa sp. nov.* has until now been treated as an unassigned member of the so-called *Carlia fusca* group of species *sensu* Zug (2004) or otherwise confused with the morphologically similar "*Carlia mysi* Zug, 2004", with a type locality of Gusika (near Finschhafen), Huon Peninsula, Morobe Province, PNG.

V. abababa sp. nov. is separated from all other species in the genus by the following unique combination of colour characters: Juveniles have a dorsolateral light stripe from the eye to axilla, occasionally to the anterior trunk, (juvenile *V. mysi* lack this stripe).

Sometimes the stripe occurs on the neck as a series of light spots and dashes.

Adult females retain the white dorsolateral stripe on the head and neck and along the entire flank (in contrast to the morphologically similar *V. mysi* where if the stripe is present in adult females, it does not go to the posterior part of the flank).

Adult female *V. abababa sp. nov.* also have a well-defined moderately thick white stripe running from the upper labials,

through the top of the ear, along the mid flank as a well-defined white line, bordered above by an area of dark brown and orange scales between the white dorsolateral and mid-lateral lines, and bordered below by a reasonably well-defined orange-red line that is sharp edged on top and less well-defined on the interface between the far lower flank and belly region.

Both dorsolateral and mid-lateral white lines extend onto the tail.

On the dorsum there is a poorly defined copper line running down the centre and the outer areas of the dorsum are a reddish brownish black.

Adults both sexes have light chins, throats, and venters.

V. abababa sp. nov. also has 32 to 35 midbody rows; 19 to 22 third finger lamellae; 27-30 fourth toe lamellae.

V. abababa sp. nov. is further separated from the morphologically similar species *V. mysi* (and any other similar species) by the adult female being orange-red under the white midflank line and the unstriped adult male also having the same colour on the anterior half of the lower flank. On the upper flank of adult male *V. abababa sp. nov.* there is a strong black flush, separating this area from the orange below on the anterior flank and white below on the posterior flank. The dorsum itself is dark brown and the head and neck are greyish on top. Behind the ear on the upper neck the pigment is black or very dark brown, with black and white striations below.

Anterior ear lobes of the adult male are large, and sharply pointed, versus bluntly pointed in *V. mysi*. Black and white striations on the lower side of the head and neck (gular area) are bold and distinct in *V. abababa sp. nov.* versus barely distinct in *V. mysi*.

Feet and toes of *V. abababa sp. nov.* of both sexes are brown with black spots.

Iris of adult female *V. abababa sp. nov.* is bright orange.

Iris of adult male *V. abababa sp. nov.* is mainly a greyish beige colour.

Both sexes have white upper labials with limited and thin, light grey etchings on some.

V. abababa sp. nov. and all other species in the genus *Veloxscincus gen. nov.* are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following unique combination of characters:

Dorsal scales are smooth, striated or weakly keeled, 4-sided and each with a smoothly curved posterior edge; prefrontals separated; seven supraciliaries; interparietal is distinct and not fused to the frontoparietals; 25-38 midbody rows; 26-36 lamellae under the fourth toe; males without a very distinctive black throat and broad upper lateral stripe from the eye to hindlimb; females without a conspicuous pale dorso-lateral stripe; ear opening vertically elliptic or oblong shaped and slightly larger than the palpebral disc, with 1-3 enlarged anterior facing pointed lobules, the remainder of the ear with or without enlarged scales; up to 65 mm snout-vent length.

The closely related and morphologically similar genus *Celerscincus gen. nov.* is separated from *Veloxscincus gen. nov.* by the fact that breeding males have a very distinctive black throat and broad upper lateral stripe from the eye to hindlimb and females have a pale dorsolateral stripe.

Both preceding genera are separated from the morphologically similar genus *Circularisauris gen. nov.* by the presence of an ear opening that is vertically elliptic or oblong shaped, versus a well-formed circular ear opening in *Circularisauris gen. nov.*

Furthermore, the rim of the ear in *Circularisauris gen. nov.* is encircled with smallish acute auricular lobes, distinctly pointed on anterior and anteriodorsal edges, contrasting with the blunter lobes confined to the anterior and anteriodorsal border in the other two genera.

Male and female *V. abababa* sp. nov. is depicted in life online at: https://www.markoshea.info/home_fieldblog_papua_2013_08_12-3.php where they are (erroneously) identified as "*Carlia mysr*".

Distribution: *V. abababa* sp. nov. is known to occur in a region along the north coast of Papua New Guinea from Morobe City in the north-west to Collingwood Bay in the south-east (about 200 km in a straight line). How much further south, inland or north the range actually extends is not known, but related presumably allopatric species occur further afield in each direction, limiting any likely range extensions for this taxon.

Etymology: When discussing with PNG native from Popondetta how he caught this species he said he used an "*abababa* trap", more commonly known as a "bubblegum trap" or "glue trap". This is a bit of hard cardboard or similar with some really sticky gummy glue substance on it.

It has a surface that animals walk over and get stuck in and cannot escape.

Sold widely in Papua New Guinea to control rodents, the traps efficiently catch the small skinks as a byproduct.

"*Abababa*" is a pidgin word for gum or glue. The etymology is a noun in apposition.

VELOXSCINCUS ALBAE SP. NOV.

LSIDDurn:lsid:zoobank.org:act:A5365E65-2207-4A6E-83A2-F5457875044A

Holotype: A preserved specimen at the Louisiana State University Museum of Natural Science, Louisiana, USA, LSUMZ Herps Collection, specimen number LSUMZ Herps 93102 collected from the Young Oil Palm Plantation, West of Alotau, Milne Bay Province, Papua New Guinea, Latitude -10.399283 S., Longitude 150.091617 E.

This facility allows access to their holdings.

Paratypes: 1/ A preserved specimen at the Louisiana State University Museum of Natural Science, Louisiana, USA, LSUMZ Herps Collection, specimen number LSUMZ Herps 93103 collected from the Young Oil Palm Plantation, West of Alotau, Milne Bay Province, Papua New Guinea, Latitude -10.399283 S., Longitude 150.091617 E., 2/ Two preserved specimens at the National Museum of Natural History, Smithsonian Institution, Washington, DC, USA, specimen numbers USNM 560101 and 560136 both collected from, Saga Aho River, Bush Camp, Cloudy Mountains, Milne Bay Province, Papua New Guinea, Latitude -10.54417 S., Longitude 150.115167 E., 3/ A preserved specimen at the Louisiana State University Museum of Natural Science, Louisiana, USA, LSUMZ Herps Collection, specimen number LSUMZ Herps 95752 collected from Takwatakai Village, West of Alotau, Milne Bay Province, Papua New Guinea, Latitude -10.19.537 S., Longitude 150.02.259 E.

Diagnosis: *Veloxscincus albae* sp. nov. has until now been treated as an unassigned member of the so-called *Carlia fusca* group of species *sensu* Zug (2004).

It is morphologically most similar to *V. aenigma* (Zug, 2004), a taxon from the Western and Gulf Provinces of Papua New Guinea, found roughly between the Aramia River in the west and the Kikori River in the east.

V. albae sp. nov. is separated from all other species in the genus by the following unique combination of colour characters:

Adult *V. albae* sp. nov. have dusky chins, throats, and venters, a trait they only share with *V. aenigma*. Adult *V. albae* sp. nov. are separated from *V. aenigma* by the absence of scattered random light spots (individual scales) on the flanks and dorsum.

Adult females are generally light brown on top of the head (without any spots or markings there), neck and along a broad vertebral zone down the back. The dorsolateral edge and the lateral zone itself are darker and blackish in colour, although the anterior part of this dark zone is reddish in hue.

Juvenile *V. aenigma* are unique among all species in

Veloxscincus gen. nov. in that juvenile *V. aenigma* have a dorsolateral light stripe from eye to midneck, a break, and then onto anterior trunk; and unlike other *Veloxscincus* gen. nov. species, the midlateral light stripe seen in juvenile *V. aenigma* consists of a series of light spots and dashes from eye to inguen. Adult *v. aenigma* females commonly retain this juvenile pattern although faded.

V. albae sp. nov. and all other species in the genus *Veloxscincus* gen. nov. are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following unique combination of characters:

Dorsal scales are smooth, striated or weakly keeled, 4-sided and each with a smoothly curved posterior edge; prefrontals separated; seven supraciliaries; interparietal is distinct and not fused to the frontoparietals; 25-38 midbody rows; 26-36 lamellae under the fourth toe; males without a very distinctive black throat and broad upper lateral stripe from the eye to hindlimb; females without a conspicuous pale dorso-lateral stripe; ear opening vertically elliptic or oblong shaped and slightly larger than the palpebral disc, with 1-3 enlarged anterior facing pointed lobules, the remainder of the ear with or without enlarged scales; up to 65 mm snout-vent length.

The closely related and morphologically similar genus *Celerscincus* gen. nov. is separated from *Veloxscincus* gen. nov. by the fact that breeding males have a very distinctive black throat and broad upper lateral stripe from the eye to hindlimb and females have a pale dorsolateral stripe.

Both preceding genera are separated from the morphologically similar genus *Circularisauris* gen. nov. by the presence of an ear opening that is vertically elliptic or oblong shaped, versus a well-formed circular ear opening in *Circularisauris* gen. nov..

Furthermore, the rim of the ear in *Circularisauris* gen. nov. is encircled with smallish acute auricular lobes, distinctly pointed on anterior and anteriodorsal edges, contrasting with the blunter lobes confined to the anterior and anteriodorsal border in the other two genera.

Distribution: *V. albae* sp. nov. is only known from the far south-east of Papua New Guinea in the general region of Alotau. Distributional limits beyond this area are not known.

Etymology: The word "albae" in Latin means white spots, which is a good description of the markings in juveniles and retained in some adult females. It is an adjective in apposition.

VELOXSCINCUS TAEDIOSUS SP. NOV.

LSIDDurn:lsid:zoobank.org:act:AC3C0ABA-2441-4BA2-B24B-61444ED1360E

Holotype: A preserved female specimen at the National Museum of Natural History, Smithsonian Institution, Washington, DC, USA, Amphibians and Reptiles collection, specimen number 560107 collected from North-East Coast Road, #2 Village, Iapoa, Milne Bay Province, Papua New Guinea, Latitude -10.2586 S., Longitude 150.573 E.

This facility allows access to its holdings.

Paratypes: 1/ A preserved female specimen at the National Museum of Natural History, Smithsonian Institution, Washington, DC, USA, Amphibians and Reptiles collection, specimen number 560108 collected from North-East Coast Road, #2 Village, Iapoa, Milne Bay Province, Papua New Guinea, Latitude -10.2586 S., Longitude 150.573 E., 2/ A preserved specimen at the Louisiana State University Museum of Natural Science, Louisiana, USA, LSUMZ Herps Collection, specimen number 92877 collected from Topura Village, Milne Bay Province, Papua New Guinea, Latitude -10.1933 S., Longitude 150.33705 E., 3/ A preserved specimen at the Louisiana State University Museum of Natural Science, Louisiana, USA, LSUMZ Herps Collection, specimen number 92880 collected from Huhuna Village, Milne Bay Province, Papua New Guinea, Latitude -10.284817 S., Longitude

150.60105 E., 4/ A preserved specimen at the Louisiana State University Museum of Natural Science, Louisiana, USA, LSUHM Herps Collection, specimen number 93156 collected from Eastern Cape, Milne Bay Province, Papua New Guinea, Latitude -10.230083 S., Longitude 150.8745 E.

Diagnosis: *Veloxscincus taediosus* sp. nov. has until now been treated as an unassigned member of the so-called *Carlia fusca* group of species *sensu* Zug (2004) or otherwise confused with the morphologically similar "*Carlia mysi* Zug, 2004", with a type locality of Gusika (near Finschhafen), Huon Peninsula, Morobe Province, PNG or alternatively the morphologically similar "*Carlia eothen* Zug, 2004", with a type locality of Kiriwina Island, Trobriand Islands, Milne Bay Province, Papua New Guinea, (Latitude -8.36 S., Longitude 151.08 E.).

V. taediosus sp. nov. is separated from all other species in the genus by the following unique combination of colour characters: Juveniles have a dorsolateral light stripe from the eye to axilla, occasionally to the anterior trunk, (juvenile *V. mysi* lack this stripe).

Sometimes the stripe occurs on the neck as a series of light spots and dashes.

Adult females retain the white dorsolateral stripe on the head and neck and along the anterior flank only and it is generally faded.

Adult female *V. taediosus* sp. nov. also have a poorly defined thick white stripe running from the upper labials, through the top of the ear, along the mid flank as a semi-distinct white line, bordered above by an area of dark mottled scales between the whitish dorsolateral and mid-lateral lines or edges, and bordered below by a reasonably well-defined dull dark reddish line that is sharp edged on top and less well-defined on the interface between the far lower flank and belly region.

On the dorsum there are also scattered black spots and markings on individual scales that are not in an even configuration.

These are not on the flanks, which instead have a very slight darker etching on the outer edges of each scale.

No lines run onto the tail.

Adults both sexes have light chins, throats, and venters.

V. taediosus sp. nov. also has 32 to 35 midbody rows; 19 to 22 third finger lamellae; 27-30 fourth toe lamellae.

V. taediosus sp. nov. is further separated from the morphologically similar species *V. mysi* (and any other similar species) by the adult female being dull dark reddish under the semidistinct white midflank line or midline region and the unstriped adult male also having the same colour on the anterior half of the lower flank. On the upper flank of adult male *V. taediosus* sp. nov. there is a strong black flush, separating this area from the brownish red below on the anterior flank and white below on the posterior flank. The dorsum itself is dark brown and the head and neck are greyish on top. Behind the ear on the upper neck the pigmentation is very dark brown, with semi-distinct grey and white striations below.

Feet and toes of *V. taediosus* sp. nov. of both sexes are brown with black spots.

Both sexes have white upper labials with limited and thin, dark etchings on some.

V. taediosus sp. nov. and all other species in the genus *Veloxscincus* gen. nov. are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following unique combination of characters:

Dorsal scales are smooth, striated or weakly keeled, 4-sided and each with a smoothly curved posterior edge; prefrontals separated; seven supraciliaries; interparietal is distinct and not fused to the frontoparietals; 25-38 midbody rows; 26-36 lamellae under the fourth toe; males without a very distinctive black throat

and broad upper lateral stripe from the eye to hindlimb; females without a conspicuous pale dorso-lateral stripe; ear opening vertically elliptic or oblong shaped and slightly larger than the palpebral disc, with 1-3 enlarged anterior facing pointed lobules, the remainder of the ear with or without enlarged scales; up to 65 mm snout-vent length.

The closely related and morphologically similar genus *Celerscincus* gen. nov. is separated from *Veloxscincus* gen. nov. by the fact that breeding males have a very distinctive black throat and broad upper lateral stripe from the eye to hindlimb and females have a pale dorsolateral stripe.

Both preceding genera are separated from the morphologically similar genus *Circularisauris* gen. nov. by the presence of an ear opening that is vertically elliptic or oblong shaped, versus a well-formed circular ear opening in *Circularisauris* gen. nov..

Furthermore, the rim of the ear in *Circularisauris* gen. nov. is encircled with smallish acute auricular lobes, distinctly pointed on anterior and anteriodorsal edges, contrasting with the blunter lobes confined to the anterior and anteriodorsal border in the other two genera.

Distribution: *V. taediosus* sp. nov. is known from Goodenough Bay in the west along the coast to Eastern Cape, all in Milne Bay Province, Papua New Guinea, being a straight-line distance of about 120 km. It is a range-restricted taxon.

Etymology: The species name "*taediosus*" is Latin for boring, which describes the overall features of this species and in part explains why it has been overlooked by science until now. The word is an adjective in apposition.

VELOXSCINCUS THISISSERIOUS SP. NOV.

LSIDurn:lsid:zoobank.org:act:6372617E-72D1-4340-BC33-8892627EE08D

Holotype: A preserved specimen at the Bernice P. Bishop Museum, Honolulu, Hawaii, USA, specimen number Herp-BPBM 19898 collected from Cheme, Rossel Island, Milne Bay Province, Papua New Guinea, Latitude 11.32312 S., Longitude 154.24285 E.

This facility allows access to its holdings.

Paratypes: 14 preserved specimens at the Bernice P. Bishop Museum, Honolulu, Hawaii, USA, specimen numbers Herp-BPBM 19897, 19888, 19889, 19890, 19894, 19895, 19896, 19899, 19900, 19901, 19902, 19903, 19904 and 19905 all collected from Cheme, Rossel Island, Milne Bay Province, Papua New Guinea, Latitude 11.32312 S., Longitude 154.24285 E.

Diagnosis: *Veloxscincus thisisserious* sp. nov. has until now been treated as an unassigned member of the so-called *Carlia fusca* group of species *sensu* Zug (2004) or otherwise confused with the morphologically similar "*Carlia mysi* Zug, 2004", with a type locality of Gusika (near Finschhafen), Huon Peninsula, Morobe Province, PNG or alternatively the geographically proximal (relatively speaking) morphologically similar "*Carlia eothen* Zug, 2004", with a type locality of Kiriwina Island, Trobriand Islands, Milne Bay Province, Papua New Guinea, (Latitude -8.36 S., Longitude 151.08 E.).

V. thisisserious sp. nov. is separated from all other species in the genus by the following unique combination of characters:

70 cm adult snout-vent length. Ear opening is oblong vertically oriented with 2-5 large lobules on anterior dorsal margin that are usually pointed. Trunk scales smooth to weakly tricarinate dorsally and laterally. 45-53 dorsal rows; 31-40 midbody rows; subdigital lamellae are undivided and smooth: 18-25 third finger lamellae and 25-34 fourth toe lamellae.

Juvenile specimens have a dorsolateral light stripe from eye to inguen; the midlateral light stripe of juveniles is complete from eye to the anterior body only, fading from there.

Adult females commonly retain the dorsolateral stripe on the head and neck but lose the midlateral stripe. Dusky chin, throat and light venter. Dorsally they are brown with a greyish-red tinge.

Adult males are a uniform brown colour, slightly reddish on the lower flank, with a dark blackish patch on the cheek, lips, anterior neck, and overlapping onto the chin and throat.

There is no dark etching or edges of the dorsal scales in adults of either sex.

V. thisisserious sp. nov. and all other species in the genus *Veloxscincus* gen. nov. are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following unique combination of characters:

Dorsal scales are smooth, striated or weakly keeled, 4-sided and each with a smoothly curved posterior edge; prefrontals separated; seven supraciliaries; interparietal is distinct and not fused to the frontoparietals; 25-38 midbody rows; 26-36 lamellae under the fourth toe; males without a very distinctive black throat and broad upper lateral stripe from the eye to hindlimb; females without a conspicuous pale dorso-lateral stripe; ear opening vertically elliptic or oblong shaped and slightly larger than the palpebral disc, with 1-3 enlarged anterior facing pointed lobules, the remainder of the ear with or without enlarged scales; up to 65 mm snout-vent length.

The closely related and morphologically similar genus *Celerscincus* gen. nov. is separated from *Veloxscincus* gen. nov. by the fact that breeding males have a very distinctive black throat and broad upper lateral stripe from the eye to hindlimb and females have a pale dorsolateral stripe.

Both preceding genera are separated from the morphologically similar genus *Circularisauris* gen. nov. by the presence of an ear opening that is vertically elliptic or oblong shaped, versus a well-formed circular ear opening in *Circularisauris* gen. nov..

Furthermore, the rim of the ear in *Circularisauris* gen. nov. is encircled with smallish acute auricular lobes, distinctly pointed on anterior and anteriodorsal edges, contrasting with the blunter lobes confined to the anterior and anteriodorsal border in the other two genera.

Distribution: *V. thisisserious* sp. nov. is endemic to Rossel Island, Milne Bay Province, Papua New Guinea. It is a range-restricted endemic.

Etymology: *V. thisisserious* sp. nov. is named in honour of the anonymous Melbourne Rock Band TISM, an acronym for "This is serious mum", with the "mum" chopped from the scientific name, the honour being in recognition of their services to the Australian and New Guinea music industries.

The spelling of the name should not be Latinised in any way or otherwise altered.

VELOXSCINCUS TASTESTERRIBLEYES SP. NOV.

LSIDurn:lsid:zoobank.org:act:FE173474-064F-4E4A-AE66-E077A54D7FDE

Holotype: A preserved male specimen at the Bernice P. Bishop Museum, Honolulu, Hawaii, USA, specimen number Herp-BPBM 17548 collected from Guasopa, Woodlark Island, Milne Bay Province, Papua New Guinea, Latitude -9.226449 S., Longitude 152.9471767 E.

This facility allows access to its holdings.

Paratypes: 1/ Thirteen preserved specimens at the Australian Museum Sydney, New South Wales, Australia, specimen numbers R.124831, R.124865, R.124871, R.124872, R.124873, R.124874, R.124875, R.124876, R.124866, R.125192, R.125193, R.125194 and R.125196 collected from Woodlark Island, Milne Bay Province, Papua New Guinea, 2/ 17 preserved specimens at the Bernice P. Bishop Museum, Honolulu, Hawaii, USA, specimen numbers Herp-BPBM 17547, 17549, 17550, 17551, 17552, 17553, 17554, 17555, 17556, 17557, 17558, 17559, 17560, 17561, 17562, 17563 and 17564 all collected from Woodlark Island, Milne Bay Province, Papua New Guinea, 3/ Two preserved specimens at the Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts,

USA, specimen numbers MCZ Herp R-142478 and MCZ Herp R-142489 both collected from Guasopa, Woodlark Island, Milne Bay Province, Papua New Guinea, Latitude -9.226449 S., Longitude 152.9471767 E.

Veloxscincus tastesterribleyes sp. nov. has until now been treated as an unassigned member of the so-called *Carlia fusca* group of species *sensu* Zug (2004) or otherwise confused with the morphologically similar "*Carlia mysi* Zug, 2004", with a type locality of Gusika (near Finschhafen), Huon Peninsula, Morobe Province, PNG or alternatively (and more commonly in recent times) the geographically proximal (relatively speaking) and morphologically similar "*Carlia eothern* Zug, 2004", with a type locality of Kiriwina Island, Trobriand Islands, Milne Bay Province, Papua New Guinea, (Latitude -8.36 S., Longitude 151.08 E.).

V. tastesterribleyes sp. nov. is separated from all other species in the genus by the following unique combination of characters: 70 cm adult snout-vent length.

Ear opening is oblong vertically oriented with relatively small lobules on the anterior dorsal margin that are usually bluntly pointed. Trunk scales are smooth to weakly tricarinate dorsally and laterally. 45-53 dorsal rows; 31-40 midbody rows; subdigital lamellae undivided and smooth; 18-25 third finger lamellae and 25-34 fourth toe lamellae.

Juvenile specimens have a dorsolateral light stripe from eye to inguen; the midlateral light stripe of juveniles is complete from eye to the anterior body only, fading from there.

Adult females commonly retain the dorsolateral stripe on the head and neck but lose the midlateral stripe. Dusky chin, throat and light venter. Dorsally they are reddish brown in colour.

Adult males have a distinctively copper coloured head and neck pm top, the colour also on the anterior of the snout on the sides. Anterior upper labials are yellow, rear upper labials yellow.

Tail is reddish on top and brown on the sides with a black spotted line demarcating the two zones.

From the eye to the above the shoulder is a well-defined dark line with sharp upper and lower borders.

The line is brown anterior to the ear and black posterior to it and runs across the top of the ear opening. The black section terminates abruptly above the axilla of the front limb.

The upper border of the dark line is a sharp thin slightly broken yellow line. The lower edge is wavy and abuts the white below.

This lower white area is infused with black borderings of the scales, giving the appearance of reasonably well-defined black striations on the lower part of the neck at the flank angle.

There is no dark etching or edges of the dorsal scales in adults of either sex but there is sometimes a thin dark border at the posterior edge of some mid-lateral scales.

An adult male *V. tastesterribleyes* sp. nov. is depicted in life online at:

<https://www.inaturalist.org/observations/17956013>

V. tastesterribleyes sp. nov. and all other species in the genus *Veloxscincus* gen. nov. are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following unique combination of characters:

Dorsal scales are smooth, striated or weakly keeled, 4-sided and each with a smoothly curved posterior edge; prefrontals separated; seven supraciliaries; interparietal is distinct and not fused to the frontoparietals; 25-38 midbody rows; 26-36 lamellae under the fourth toe; males without a very distinctive black throat and broad upper lateral stripe from the eye to hindlimb; females without a conspicuous pale dorso-lateral stripe; ear opening vertically elliptic or oblong shaped and slightly larger than the palpebral disc, with 1-3 enlarged anterior facing pointed lobules, the remainder of the ear with or without enlarged scales; up to 65

mm snout-vent length.

The closely related and morphologically similar genus *Celerscincus gen. nov.* is separated from *Veloxscincus gen. nov.* by the fact that breeding males have a very distinctive black throat and broad upper lateral stripe from the eye to hindlimb and females have a pale dorsolateral stripe.

Both preceding genera are separated from the morphologically similar genus *Circularisauris gen. nov.* by the presence of an ear opening that is vertically elliptic or oblong shaped, versus a well-formed circular ear opening in *Circularisauris gen. nov.*

Furthermore, the rim of the ear in *Circularisauris gen. nov.* is encircled with smallish acute auricular lobes, distinctly pointed on anterior and anteriodorsal edges, contrasting with the blunter lobes confined to the anterior and anteriodorsal border in the other two genera.

Distribution: *V. tastesterribleyes sp. nov.* is endemic to Woodlark Island (AKA Muyua Island), Milne Bay Province, Papua New Guinea. It is a range-restricted endemic.

Etymology: When speaking with a native from Muyua Island, PNG of the Wamwan tribe about this species of lizard he remarked “*tastes terrible yes*” and so this is the name for the species.

VELOXSCINCUS ARUSERIOUS SP. NOV.

LSIDDurn:lsid:zoobank.org:act:3AC598EB-D89A-4A60-8E15-75CFEFD4A61C

Holotype: A preserved specimen at the Museum of Vertebrate Zoology, University of California, Berkeley, California, USA, specimen number MVZ:Herp:274227 collected from Desa Kongan, Kec. Aru Tengah, Kab. Kepulauan Aru, Aru Islands, Maluku, Indonesia, Latitude -6.50278 S., Longitude 134.39138 E.

This facility allows access to its holdings.

Paratypes: Thirteen preserved specimens at the Museum of Vertebrate Zoology, University of California, Berkeley, California, USA, being: 1/ Specimen numbers MVZ:Herp: 274228, 274229, 274230, 274232, 274234, 274235, 274236 and 274237 all collected from Desa Kongan, Kec. Aru Tengah, Kab. Kepulauan Aru, Aru Islands, Maluku, Indonesia, Latitude -6.50278 S., Longitude 134.39138 E., 2/ Specimen numbers 274239, 274240 and 274242 all collected from Desa Maror, Kecamatan Aru Selatan Timur, Aru Islands, Maluku, Indonesia, Latitude 6.812889 S., Longitude

134.377937 E., 3/ Specimen numbers 274245 and 274249 both collected from Desa Salarem, Kecamatan Aru Selatan Timur, Aru Islands, Maluku, Indonesia, Latitude -6.884591 S., Longitude 134.260176 E.

Diagnosis: *Veloxscincus aruserious sp. nov.* has until now been treated as an unassigned member of the so-called *Carlia fusca* group of species *sensu* Zug (2004) or otherwise confused with the morphologically similar “*Carlia diguliensis* Kopstein, 1926”, with a type locality of the Digul River drainage on the mainland of southern New Guinea.

V. aruserious sp. nov. is morphologically very similar to *V. diguliensis* which explains why until now most recent authors have treated it as one and the same species.

V. aruserious sp. nov. is separated from all other species in the genus by the following unique combination of characters:

Adult snout-vent to 55 mm; ear opening is oblong vertical to oblique; 1-5 large pointed lobules on the antero-dorsal margin; trunk scales are smooth to weakly tricarinate dorsally and laterally; 44-51 dorsals; 30-36 midbody rows; subdigital lamellae undivided and smooth; 18-24 under the third finger and 23-34 under the fourth toe.

Juveniles have a brown dorsum with light spots on the trunk. There are dorso- and midlateral white stripes from the eye to the midneck, thereafter faded (dorsolateral only) or a series of white spots.

There is a dark brown lateral band from eye to inguen; venter is cream to ivory.

Adults of both sexes have a slightly faded juvenile pattern on top, and faded on the flanks, separating this taxon from *V. diguliensis* which retains a well-defined pattern on the flanks as well in adults. The black from the back of the eye to the top of the foreleg is well-defined, and stops at the top of the foreleg, versus stopping well posterior to it in *V. diguliensis*.

The venter of adults is cream to ivory.

V. aruserious sp. nov. and all other species in the genus *Veloxscincus gen. nov.* are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following unique combination of characters:

Dorsal scales are smooth, striated or weakly keeled, 4-sided and each with a smoothly curved posterior edge; prefrontals separated; seven supraciliaries; interparietal is distinct and not fused to the frontoparietals; 25-38 midbody rows; 26-36 lamellae under the fourth toe; males without a very distinctive black throat and broad upper lateral stripe from the eye to hindlimb; females without a conspicuous pale dorso-lateral stripe; ear opening vertically elliptic or oblong shaped and slightly larger than the palpebral disc, with 1-3 enlarged anterior facing pointed lobules, the remainder of the ear with or without enlarged scales; up to 65 mm snout-vent length.

The closely related and morphologically similar genus *Celerscincus gen. nov.* is separated from *Veloxscincus gen. nov.* by the fact that breeding males have a very distinctive black throat and broad upper lateral stripe from the eye to hindlimb and females have a pale dorsolateral stripe.

Both preceding genera are separated from the morphologically similar genus *Circularisauris gen. nov.* by the presence of an ear opening that is vertically elliptic or oblong shaped, versus a well-formed circular ear opening in *Circularisauris gen. nov.*

Furthermore, the rim of the ear in *Circularisauris gen. nov.* is encircled with smallish acute auricular lobes, distinctly pointed on anterior and anteriodorsal edges, contrasting with the blunter lobes confined to the anterior and anteriodorsal border in the other two genera.

Distribution: *V. aruserious sp. nov.* is endemic to the Aru Islands group in Indonesia. It is a range-restricted endemic.

Etymology: When mentioning to a colleague that I was naming two species of putative “*Carlia*” from the Aru Islands in a single paper, he said “*aruserious?*”, which has become the etymology for the species.

It is hoped that the unusual etymology will trigger further interest in this and other small species of lizard, including as part of the wildlife conservation process.

VELOXSCINCUS CRURASCABRA SP. NOV.

LSIDDurn:lsid:zoobank.org:act:D1AFA985-A891-41F7-B7D5-56857C8C350D

Holotype: A preserved specimen at the Bernice P. Bishop Museum, Honolulu, Hawaii, USA, specimen number Herp-BPBM 16879 collected from Araeda, along Nulia River, Liak, Misima Island, Milne Bay Province, Papua New Guinea, Latitude -10.6608 S., Longitude 152.685 E.

This facility allows access to its holdings.

Paratypes: Five preserved specimens at the Bernice P. Bishop Museum, Honolulu, Hawaii, USA, specimen numbers Herp-BPBM 16878, 16880, 16881, 16883 and 16884 all collected from Araeda, along Nulia River, Liak, Misima Island, Milne Bay Province, Papua New Guinea, Latitude -10.6608 S., Longitude 152.685 E.

Diagnosis: *Veloxscincus crurascabra sp. nov.* has until now been treated as an unassigned member of the so-called *Carlia fusca* group of species *sensu* Zug (2004) or otherwise confused

with the morphologically similar "*Carlia mysi* Zug, 2004", with a type locality of Gusika (near Finschhafen), Huon Peninsula, Morobe Province, PNG or alternatively the geographically proximal (relatively speaking) morphologically similar "*Carlia eothen* Zug, 2004", with a type locality of Kiriwina Island, Trobriand Islands, Milne Bay Province, Papua New Guinea, (Latitude -8.36 S., Longitude 151.08 E.).

V. crurascabra sp. nov. is separated from all other species in the genus by the following unique combination of characters:

70 cm adult snout-vent length. Ear opening is oblong vertically oriented with 2-5 moderate-sized lobules on the anterior dorsal margin that are usually pointed. Trunk scales smooth to weakly tricarinate dorsally and laterally. 45-53 dorsal rows; 31-40 Midbody rows. Subdigital lamellae undivided and smooth; 18-25 third finger lamellae and 25-34 fourth toe lamellae.

Juvenile specimens have a semi-distinct dorsolateral light stripe from eye to inguen; the midlateral light stripe of juveniles is complete from eye to the anterior body only, fading from there.

Adult females rarely if ever retain the dorsolateral stripe on the head and neck and lose the midlateral stripe. Dusky chin, throat and light venter. Dorsally they are brown with a rusty coloured flank and rusty orange-red limbs.

Adult males are a uniform brown colour, rusty orange red on the lower flank and limbs, being lighter anteriorly, with a dark blackish patch on the cheek and anterior neck. The lower neck is white with faded greyish rather than blackish lines, giving the appearance of semi-distinct striations.

There is no dark etching or edges of the dorsal scales in adults of either sex, but both sexes have slight dark etching at the posterior edges of scales on the mid flank.

V. crurascabra sp. nov. and all other species in the genus *Veloxscincus* gen. nov. are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following unique combination of characters:

Dorsal scales are smooth, striated or weakly keeled, 4-sided and each with a smoothly curved posterior edge; prefrontals separated; seven supraciliaries; interparietal is distinct and not fused to the frontoparietals; 25-38 midbody rows; 26-36 lamellae under the fourth toe; males without a very distinctive black throat and broad upper lateral stripe from the eye to hindlimb; females without a conspicuous pale dorso-lateral stripe; ear opening vertically elliptic or oblong shaped and slightly larger than the palpebral disc, with 1-3 enlarged anterior facing pointed lobules, the remainder of the ear with or without enlarged scales; up to 65 mm snout-vent length.

The closely related and morphologically similar genus *Celerscincus* gen. nov. is separated from *Veloxscincus* gen. nov. by the fact that breeding males have a very distinctive black throat and broad upper lateral stripe from the eye to hindlimb and females have a pale dorsolateral stripe.

Both preceding genera are separated from the morphologically similar genus *Circularisauris* gen. nov. by the presence of an ear opening that is vertically elliptic or oblong shaped, versus a well-formed circular ear opening in *Circularisauris* gen. nov..

Furthermore, the rim of the ear in *Circularisauris* gen. nov. is encircled with smallish acute auricular lobes, distinctly pointed on anterior and anteriodorsal edges, contrasting with the blunter lobes confined to the anterior and anteriodorsal border in the other two genera.

Distribution: *V. crurascabra* sp. nov. is endemic to Misima Island, Milne Bay Province, Papua New Guinea. It is a range-restricted endemic.

Etymology: In Latin, the species name "*crura scabra*" literally means "rusty legs" which aptly describes the colouration of the upper surfaces of the limbs in this taxon.

VELOXSCINCUS CLOSETONOWHEREENSIS SP. NOV.

LSIDDurn:lsid:zoobank.org:act:023758FD-5D0C-4C8A-9D31-D2949E5B8647

Holotype: A preserved specimen at the Bernice P. Bishop Museum, Honolulu, Hawaii, USA, specimen number Herp-BPBM 19911 collected from Araeda, Sudest Island, Milne Bay Province, Papua New Guinea, Latitude - 11.4362 S., Longitude 153.4301 E.

This facility allows access to its holdings.

Paratypes: Nine preserved specimens at the Bernice P. Bishop Museum, Honolulu, Hawaii, USA, specimen numbers Herp-BPBM 19906, 19907, 19908, 19909, 19910, 19916, 19918, 19920 and 19922 collected from Araeda, Sudest Island, Milne Bay Province, Papua New Guinea, Latitude - 11.4362 S., Longitude 153.4301 E.

Diagnosis: *Veloxscincus closetonowhereensis* sp. nov. has until now been treated as an unassigned member of the so-called *Carlia fusca* group of species *sensu* Zug (2004) or otherwise confused with the morphologically similar "*Carlia mysi* Zug, 2004", with a type locality of Gusika (near Finschhafen), Huon Peninsula, Morobe Province, PNG or alternatively the geographically proximal (relatively speaking) morphologically similar "*Carlia eothen* Zug, 2004", with a type locality of Kiriwina Island, Trobriand Islands, Milne Bay Province, Papua New Guinea, (Latitude -8.36 S., Longitude 151.08 E.).

V. closetonowhereensis sp. nov. is separated from all other species in the genus by the following unique combination of characters:

70 cm adult snout-vent length.

Ear opening is oblong vertically oriented with 2-5 large lobules on the anterior dorsal margin that are usually pointed. Trunk scales smooth to weakly tricarinate dorsally and laterally. 45-53 dorsal rows; 31-40 Midbody rows. Subdigital lamellae undivided and smooth; 18-25 third finger lamellae and 25-34 fourth toe lamellae.

Juvenile specimens have a semi-distinct dorsolateral light stripe from eye to inguen; the midlateral light stripe of juveniles is complete from eye to the anterior body only, fading from there.

Adult females commonly retain the dorsolateral stripe on the head and neck but lose the midlateral stripe. Dusky chin, throat and light venter. Dorsally they are brown with a strong yellowish tinge.

Adult males are a uniform brown colour, lighter brown on the lower flank, being yellowish anteriorly, with a dark blackish patch on the cheek and anterior neck. Lower neck is white with blackish lines, giving the appearance of distinct striations.

There is no dark etching or edges of the dorsal scales in adults of either sex, but both sexes have slight dark etching at the posterior edges of scales on the mid flank.

V. closetonowhereensis sp. nov. and all other species in the genus *Veloxscincus* gen. nov. are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following unique combination of characters:

Dorsal scales are smooth, striated or weakly keeled, 4-sided and each with a smoothly curved posterior edge; prefrontals separated; seven supraciliaries; interparietal is distinct and not fused to the frontoparietals; 25-38 midbody rows; 26-36 lamellae under the fourth toe; males without a very distinctive black throat and broad upper lateral stripe from the eye to hindlimb; females without a conspicuous pale dorso-lateral stripe; ear opening vertically elliptic or oblong shaped and slightly larger than the palpebral disc, with 1-3 enlarged anterior facing pointed lobules, the remainder of the ear with or without enlarged scales; up to 65 mm snout-vent length.

The closely related and morphologically similar genus

Celerscincus gen. nov. is separated from *Veloxscincus gen. nov.* by the fact that breeding males have a very distinctive black throat and broad upper lateral stripe from the eye to hindlimb and females have a pale dorsolateral stripe.

Both preceding genera are separated from the morphologically similar genus *Circularisauris gen. nov.* by the presence of an ear opening that is vertically elliptic or oblong shaped, versus a well-formed circular ear opening in *Circularisauris gen. nov.*

Furthermore, the rim of the ear in *Circularisauris gen. nov.* is encircled with smallish acute auricular lobes, distinctly pointed on anterior and anteriodorsal edges, contrasting with the blunter lobes confined to the anterior and anteriodorsal border in the other two genera.

Distribution: *V. closetonowhereensis sp. nov.* is endemic to Sudest Island (AKA Tagula Island), Milne Bay Province, Papua New Guinea. It is a range-restricted endemic.

Etymology: The location of Sudest Island is relatively remote to most people in the world, (unless you actually live there are near there). So, in naming the taxon, it is appropriate to describe its location of origin as being "close to nowhere".

The giving this species such an unusual name will hopefully create a greater interest in the unique fauna of the region and hopefully a greater incentive for people to want to protect it.

VELOXSCINCUS ORAINSIGNIS SP. NOV.

LSIDurn:lsid:zoobank.org:act:94F8F68F-5604-4DD3-959A-EEDDE65D14FA

Holotype: A preserved specimen at the Monte L. Bean Museum, Brigham Young University, Provo, Utah, USA, specimen number BYU Main 47674 collected from Tekadu Village, Lakekamu Basin, Morobe Province, Papua New Guinea, Latitude Latitude -07.41435 S., Longitude 135.3391 E.

This facility allows access to its holdings.

Paratypes: Six preserved specimens at the Monte L. Bean Museum, Brigham Young University, Provo, Utah, USA, specimen numbers BYU Main 47675, 47676, 47683, 47686, 47687 and 47691 all collected from Tekadu Village, Lakekamu Basin, Morobe Province, Papua New Guinea, Latitude Latitude -07.41435 S., Longitude 135.3391 E.

Diagnosis: *Veloxscincus orainsignis sp. nov.* has until now been treated as an unassigned member of the so-called *Carlia fusca* group of species *sensu* Zug (2004) but is otherwise morphologically very similar to the species *V. quinquecarinatus* (Macleay 1877) of Torres Strait, with a type locality of Darnley Island, Queensland (Latitude -9.35 S., Longitude 143.46E.).

V. orainsignis sp. nov. is separated from all other species in the genus by the following unique combination of characters:

Adult snout vent to 60 mm. A relatively heavily bodied species in the genus.

Adults are characterised with an unmarked light chocolate brown head and neck and a deeper, darker, slightly greyish brown on the mid to lower dorsum of the body.

Behind the eye to the ear is a barely noticeable brown stripe, running above the ear, beyond which it becomes a distinct dark brown to black coloured band, which fades past the front leg to become a barely noticeable dark upper zone of the flank.

Below the dark zone of the flank is a series of elongate white dashes, not aligned straight, and below that is more brown pigment, before lightening to the belly.

From behind the ear to the forebody just posterior to the front leg is a bright dorsolateral edge, formed by a lightening of the scales on the edge of the dorsum and a dark brown edge of the upper side of the neck.

The white dashes below the dark zone on the neck are thick and formed by 2 or 3 rows of 3-4 white scales on top of one another.

The dorsum also has a series of a small number of widely scattered white scales or pairs of scales (arranged longitudinally,

not laterally) that are light yellowish white and with blackish etching on the outer side edges. These are only on the dorsum of the body proper and not on the flanks, top of head, neck or tail.

The tail is a dark brownish-grey colour along most of its length, versus reddish-brown and lightening significantly at the distal end in the morphologically similar *V. quinquecarinatus* (Macleay 1877). Scales on the mid flanks also have dark etching on the posterior edges.

Adult females lack the distinctive dark brown or black band seen on the neck of males as described above.

In juveniles the dorsolateral edge has a distinct band running down all or most of the length of the body. They are otherwise more brightly coloured versions of the adults.

The inner ear is dark in pigment (not black) and the area around the ear forms a poorly defined cream coloured circle, except where the brown of the bar behind the eye cuts across the top of the eye or the otherwise darker upper pigment approaches the top of the eye.

The ear opening is elongate and slightly ovular (up down elongate), with two large sharply pointed triangular lobules on the anterior edge and tiny recessed lobules on the posterior edge.

V. orainsignis sp. nov. and all other species in the genus *Veloxscincus gen. nov.* are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following unique combination of characters:

Dorsal scales are smooth, striated or weakly keeled, 4-sided and each with a smoothly curved posterior edge; prefrontals separated; seven supraciliaries; interparietal is distinct and not fused to the frontoparietals; 25-38 midbody rows; 26-36 lamellae under the fourth toe; males without a very distinctive black throat and broad upper lateral stripe from the eye to hindlimb; females without a conspicuous pale dorso-lateral stripe; ear opening vertically elliptic or oblong shaped and slightly larger than the palpebral disc, with 1-3 enlarged anterior facing pointed lobules, the remainder of the ear with or without enlarged scales; up to 65 mm snout-vent length.

The closely related and morphologically similar genus *Celerscincus gen. nov.* is separated from *Veloxscincus gen. nov.* by the fact that breeding males have a very distinctive black throat and broad upper lateral stripe from the eye to hindlimb and females have a pale dorsolateral stripe.

Both preceding genera are separated from the morphologically similar genus *Circularisauris gen. nov.* by the presence of an ear opening that is vertically elliptic or oblong shaped, versus a well-formed circular ear opening in *Circularisauris gen. nov.*

Furthermore, the rim of the ear in *Circularisauris gen. nov.* is encircled with smallish acute auricular lobes, distinctly pointed on anterior and anteriodorsal edges, contrasting with the blunter lobes confined to the anterior and anteriodorsal border in the other two genera.

Distribution: *V. orainsignis sp. nov.* is only known from the type locality being Tekadu Village, Lakekamu Basin, Morobe Province, Papua New Guinea, but presumably occurs elsewhere in the Lakekamu Basin, Papua New Guinea.

Etymology: The Latin words "*ora insignis*" means edge marked, or marked edge, with reference to the line at the anterior dorsolateral edge that is retained in adults of this species.

The words of the species name are an adjective and noun in apposition.

VELOXSCINCUS BARELYEDIBLE SP. NOV.

LSIDurn:lsid:zoobank.org:act:1E80B05C-BFB4-4E41-9582-8D5EA23DAAE8

Holotype: A preserved specimen at the Australian Museum, Sydney, New South Wales, Australia, specimen number R.121117 collected from Daru Township, Cemetery near Airport,

Daru Island, Western Province, Papua New Guinea, Latitude -9.05 S., Longitude 143.12 E.

This government-owned facility allows access to its holdings.

Paratypes: Four preserved specimens at the Australian Museum, Sydney, New South Wales, Australia, specimen numbers R.121121, R.121144, R.121145 and R.121147 collected from Daru Island, Western Province, Papua New Guinea.

Diagnosis: *Veloxscincus barelyedible* sp. nov. has until now been treated as an unassigned member of the so-called *Carlia fusca* group of species *sensu* Zug (2004) but is otherwise morphologically very similar to the species *V. leucotaenia* (Bleeker, 1860) of Ceram, Indonesia and *V. donoteatit* sp. nov. from Kiunga on the Fly River in the Western Province of Papua New Guinea.

V. barelyedible sp. nov. is separated from all other species in the genus *Veloxscincus* gen. nov. by the following unique combination of characters:

Adult snout-vent length to 55 mm.

A generally brownish coloured lizard without any obvious markings on the dorsum or flanks.

There is no band or stripe on the dorsolateral edge.

The flank of the body itself is dark brownish black in colour with a poorly defined upper boundary, just before the dorsolateral edge.

Top of head and body are slightly darker than the neck.

There is no dark band running from the back of the eye, above the ear and to the neck and/or beyond.

All scales on the upper and lateral surfaces tend to have darker outer edges.

Limbs are without obvious markings.

Females and juveniles have a distinct dorsolateral line at the anterior part of the body that fades with age or size. Likewise, for a midlateral white stripe seen in juveniles.

Juveniles have tiny black flecks that tend to form obvious longitudinal rows.

Venter, chins and throats of all ages and sex is cream to ivory in colour.

V. barelyedible sp. nov. is separated from *V. leucotaenia* by the fact that the black flecks seen in the juveniles tend to form obvious longitudinal rows, versus not so in *V. leucotaenia*.

V. barelyedible sp. nov. is separated from *V. donoteatit* sp. nov. by its larger adult size and medium brown dorsum, versus dark brown in *V. donoteatit* sp. nov.

V. barelyedible sp. nov. and all other species in the genus *Veloxscincus* gen. nov. are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following unique combination of characters:

Dorsal scales are smooth, striated or weakly keeled, 4-sided and each with a smoothly curved posterior edge; prefrontals separated; seven supraciliaries; interparietal is distinct and not fused to the frontoparietals; 25-38 midbody rows; 26-36 lamellae under the fourth toe; males without a very distinctive black throat and broad upper lateral stripe from the eye to hindlimb; females without a conspicuous pale dorso-lateral stripe; ear opening vertically elliptic or oblong shaped and slightly larger than the palpebral disc, with 1-3 enlarged anterior facing pointed lobules, the remainder of the ear with or without enlarged scales; up to 65 mm snout-vent length.

The closely related and morphologically similar genus *Celerscincus* gen. nov. is separated from *Veloxscincus* gen. nov. by the fact that breeding males have a very distinctive black throat and broad upper lateral stripe from the eye to hindlimb and females have a pale dorsolateral stripe.

Both preceding genera are separated from the morphologically

similar genus *Circularisauris* gen. nov. by the presence of an ear opening that is vertically elliptic or oblong shaped, versus a well-formed circular ear opening in *Circularisauris* gen. nov..

Furthermore, the rim of the ear in *Circularisauris* gen. nov. is encircled with smallish acute auricular lobes, distinctly pointed on anterior and anteriodorsal edges, contrasting with the blunter lobes confined to the anterior and anteriodorsal border in the other two genera.

Distribution: *V. barelyedible* sp. nov. is only known from Daru Island, Western Province, Papua New Guinea. It may also occur on the immediately adjacent Bristow Island, as well as the adjacent New Guinea mainland, meaning that the exact distribution of this taxon is not known.

Etymology: The species name reflects the view of this lizard by the local natives in New Guinea where this lizard comes from. The words are effectively an adjective in apposition.

VELOXSCINCUS DONOTEATIT SP. NOV.

LSIDurn:lsid:zoobank.org:act:0F8B8D1A-73C3-489C-9978-3567AF3F3559

Holotype: A preserved specimen at the California Academy of Sciences, San Francisco, California, USA, specimen number CAS HERP 121465 collected from Kiunga, Western Province, Papua New Guinea, Latitude -6.124094 S., Longitude 141.288043 E.

This facility allows access to its holdings.

Paratypes: 39 preserved specimens all collected from Kiunga, Western Province, Papua New Guinea, Latitude -6.124094 S., Longitude 141.288043 E., being: 1/ 18 preserved specimens at the California Academy of Sciences, San Francisco, California, USA, specimen numbers CAS HERP 121464, 121466, 121467, 121468, 121469, 121470, 121471, 121472, 121473, 121474, 121475, 121476, 121477, 121478, 121479, 127254, 127255 and 127256, 2/ Nine preserved specimens at the Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts, USA, specimen numbers R-123600, R-123601, R-123602, R-123603, R-123604, R-125298, R-125299, R-125300 and R-137662, 3/ 12 preserved specimens at the Louisiana State Museum of Natural History, Baton Rouge, Louisiana, USA, specimen numbers LSUMZ Herps 97136, 97137, 97138, 97139, 97140, 97141, 97142, 97143, 97144, 97145, 97146 and 97147.

Diagnosis: *Veloxscincus donoteatit* sp. nov. has until now been treated as an unassigned member of the so-called *Carlia fusca* group of species *sensu* Zug (2004) but is otherwise morphologically very similar to the species *V. leucotaenia* (Bleeker, 1860) of Ceram, Indonesia and *V. barelyedible* sp. nov. of Daru Island, Western Province of Papua New Guinea.

V. donoteatit sp. nov. is separated from all other species in the genus *Veloxscincus* gen. nov. by the following unique combination of characters:

Adult snout-vent length to 45 mm making it one of the smallest species in the genus.

A generally dark brownish coloured lizard without any obvious markings on the dorsum or flanks.

There is no band or stripe on the dorsolateral edge.

The flank of the body itself is dark brownish black in colour with poorly defined upper boundary, just before the dorsolateral edge.

Top of head and body are slightly darker than the neck.

There is no dark band running from the back of the eye, above the ear and to the neck and/or beyond.

All scales on the upper and lateral surfaces tend to have darker outer edges.

Limbs without obvious markings.

Females and juveniles have a distinct dorsolateral line at the anterior part of the body that fades with age or size. Likewise, for a midlateral white stripe seen in juveniles.

Juveniles have tiny black flecks that do not tend to form obvious longitudinal rows.

Venter, chins and throats of all ages and sex is cream to ivory in colour.

V. barelyedible sp. nov. is separated from *V. leucotaenia* and *V. donoteatit* sp. nov. by the fact that the black flecks seen in the juveniles tend to form obvious longitudinal rows, versus not so in *V. leucotaenia* and *V. donoteatit* sp. nov..

V. barelyedible sp. nov. and *V. leucotaenia* are separated from *V. donoteatit* sp. nov. their larger adult size and medium brown dorsum, versus dark brown in *V. donoteatit* sp. nov..

V. donoteatit sp. nov. and all other species in the genus *Veloxscincus* gen. nov. are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following unique combination of characters:

Dorsal scales are smooth, striated or weakly keeled, 4-sided and each with a smoothly curved posterior edge; prefrontals separated; seven supraciliaries; interparietal is distinct and not fused to the frontoparietals; 25-38 midbody rows; 26-36 lamellae under the fourth toe; males without a very distinctive black throat and broad upper lateral stripe from the eye to hindlimb; females without a conspicuous pale dorso-lateral stripe; ear opening vertically elliptic or oblong shaped and slightly larger than the palpebral disc, with 1-3 enlarged anterior facing pointed lobules, the remainder of the ear with or without enlarged scales; up to 65 mm snout-vent length.

The closely related and morphologically similar genus *Celerscincus* gen. nov. is separated from *Veloxscincus* gen. nov. by the fact that breeding males have a very distinctive black throat and broad upper lateral stripe from the eye to hindlimb and females have a pale dorsolateral stripe.

Both preceding genera are separated from the morphologically similar genus *Circularisauris* gen. nov. by the presence of an ear opening that is vertically elliptic or oblong shaped, versus a well-formed circular ear opening in *Circularisauris* gen. nov..

Furthermore, the rim of the ear in *Circularisauris* gen. nov. is encircled with smallish acute auricular lobes, distinctly pointed on anterior and anteriodorsal edges, contrasting with the blunter lobes confined to the anterior and anteriodorsal border in the other two genera.

Distribution: *V. donoteatit* sp. nov. is only known from the area around Kiunga on the Fly River in the Western Province of Papua New Guinea. It presumably occurs across a wider part of the Fly River basin.

Etymology: The species name reflects the view of this lizard as expressed by some of the local natives in New Guinea where this lizard comes from. The words are effectively an adjective in apposition.

CIRCULARISAURIS GEN. NOV.

LSIDurn:lsid:zoobank.org:act:B477161E-8333-4AB0-BE16-FC2A808AA86C

Type species: *Circularisauris wereisdat* sp. nov. (this paper).

Diagnosis: The genus *Circularisauris* gen. nov. is the so-called "*Carlia peronii*" group of species.

Species within *Circularisauris* gen. nov. are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following unique combination of characters:

Dorsal scales are smooth, striated or weakly keeled, 4-sided and each with a smoothly curved posterior edge; prefrontals separated; seven supraciliaries; interparietal is distinct and not fused to the frontoparietals; 25-38 midbody rows; 26-36 lamellae under the fourth toe; males without a very distinctive black throat and broad upper lateral stripe from the eye to hindlimb; females

without a conspicuous pale dorso-lateral stripe; ear opening is circular shaped, not oblong or oval and slightly larger than the palpebral disc, with 1-3 enlarged anterior facing pointed lobules, the remainder of the ear with or without enlarged scales; up to 65 mm snout-vent length.

The closely related and morphologically similar genus *Celerscincus* gen. nov. is separated from *Circularisauris* gen. nov. and the morphologically similar genus *Veloxscincus* gen. nov. by the fact that breeding males have a very distinctive black throat and broad upper lateral stripe from the eye to hindlimb and females have a pale dorsolateral stripe.

Both *Veloxscincus* gen. nov. and *Celerscincus* gen. nov. are separated from the morphologically similar genus *Circularisauris* gen. nov. by the presence of an ear opening that is vertically elliptic or oblong shaped, versus a well-formed circular ear opening in *Circularisauris* gen. nov..

Furthermore, the rim of the ear in *Circularisauris* gen. nov. is encircled with smallish acute auricular lobes, distinctly pointed on anterior and anteriodorsal edges, contrasting with the blunter lobes confined to the anterior and anteriodorsal border in the other two genera.

Distribution: Mainly found on islands of the Lesser Sundas, and in total so far known from Timor, Roti, Pulau Sukur, being a small island 35 km north of Flores, Sumbawa, Tindjil (off the south-west tip of Java), Alor, Wetar, Kisar and the Banda Islands.

Etymology: The Latin words "*circularis auris*" mean circular ear, which reflects one of the key diagnostic features of this genus, that being a circular ear opening, as distinct from oval in the morphologically similar genera *Veloxscincus* gen. nov. and *Celerscincus* gen. nov..

Combined the words are an adjective and noun in apposition.

Content: *Circularisauris wereisdat* sp. nov. (type species); *C. aeriscorpus* sp. nov.; *C. ferrugineis* sp. nov.; *C. luxbrunneilineam* sp. nov.; *C. nigrauris* (Zug, 2010); *C. itishere* sp. nov.; *C. peronii* (Duméril and Bibron, 1839); *C. spinauris* (Smith, 1927); *C. sukur* (Zug and Kaiser, 2014).

CIRCULARISAURIS AERISCORPUS SP. NOV.

LSIDurn:lsid:zoobank.org:act:5DD2849B-03CA-4125-97A1-C4C9B818EE20

Holotype: A preserved specimen at the Western Australian Museum, Perth, Western Australia, Australia, specimen number R117509 collected from Ilpokil, Wetar Island, Maluku, Indonesia, Latitude -7.75 S., Longitude 126.75 E.

This government-owned facility allows access to its holdings.

Paratypes: Five preserved specimens at the Western Australian Museum, Perth, Western Australia, Australia, specimen numbers R112483, R112482, R117553, R117577 and R112481 all collected from Wetar Island, Maluku, Indonesia.

Diagnosis: *Circularisauris aeriscorpus* sp. nov. from Wetar Island, Indonesia, *Circularisauris ferrugineis* sp. nov. from the nearby Kisar Island, *Circularisauris luxbrunneilineam* sp. nov. from Alor Island, *Circularisauris itishere* sp. nov. from Sumbawa Island and *Circularisauris wereisdat* sp. nov. from Bandaneira Island, Banda Islands are all species closely related to *Circularisauris peronii* (Duméril and Bibron, 1839) known to most contemporary herpetologists as *Carlia peronii*, with a type locality of Timor Island.

They are similar in most respects to that taxon and the closely related forms *Circularisauris spinauris* Smith, 1927 from southeast Timor, *C. sukur* (Zug and Kaiser, 2014), from Pulau Sukur, 35 km off the north coast of Flores and *C. nigrauris* (Zug, 2010) from Pulau Tindjil, a small islet off the south coast of Java.

The nine species are separated from one another as follows:

Circularisauris aeriscorpus sp. nov. is separated from all other species in this genus by the following unique combination of characters:

In adult males the colour is brown on the dorsum from head to base of the tail, brassy anteriorly becoming lighter, somewhat coppery on posterior half of trunk. The top and sides of the head are brown to the supra and infra-labials which are white with black edges. Brown and white mottling continues on neck to axilla; side of trunk is golden beige with band of bright orange from shoulder to hindlimb, lighter on the posterior half of the body, where it continues to the sides of the tail, which are also orangish. Sides of the throat have dark and light striping. Inside of ear-opening appears dark.

There is no indication of a lighter dorsolateral stripe or any indication of dark brown on the sides of the flank.

There is no large white or pale spotting on the centre of the posterior rump in this species, which separates it from the otherwise morphologically similar *C. nigrauris*.

Both *C. aeriscorpus sp. nov.* and *C. nigrauris* are the only species in the genus with dark or black inside the ear and dark scales immediately around the ear. *Circularisauris wereisdat sp. nov.* has black inside the ear, but not on the edges outside.

In *Circularisauris wereisdat sp. nov.* the outer edges are whitish, making the contrast of the black inside quite sharp and obvious.

The associated species *Circularisauris ferrugineis sp. nov.* from the nearby Kisar Island is separated from *C. aeriscorpus sp. nov.* (and *C. nigrauris*) by colour.

It is similar to *C. aeriscorpus sp. nov.* but less bright laterally on the flanks and there is also a subdued coppery orange band on the flank. Dorsolaterally the neck is a unicolor dark brown and there is more diffused dark and light mottling below. A distinct white spot is behind the ear.

In common with *C. aeriscorpus sp. nov.*, and *C. wereisdat sp. nov.* from Bandaneira Island, Banda Islands, *C. ferrugineis sp. nov.* lacks any indication of a lighter dorsolateral stripe or any indication of dark brown on the sides of the flank.

C. nigrauris has a very slight indication of a lighter dorsolateral stripe on the neck and anterior body in adult males.

C. wereisdat sp. nov. is most similar to *Circularisauris ferrugineis sp. nov.* as just described, but differs by having blackish spots on the upper surfaces of the limbs and dark grey to black upper surfaces of the feet, which it seems is unique among the nine species.

C. wereisdat sp. nov. is otherwise a brownish lizard with reddish tinge and immaculate white upper and lower labials. That is no etching, peppering or barring of any form.

C. wereisdat sp. nov. is unusual among the species in that it has one, two or three large squarish posterior facing ear lobules. *C. nigrauris* has numerous small lobules, the larger ones (still small) are quite pointed.

Separate to the preceding species, *C. peronii*, *C. spinauris*, *C. luxbrunneislineam sp. nov.* and *C. itishere sp. nov.* all display a distinct dorsolateral light stripe from ear to inguen.

C. luxbrunneislineam sp. nov. and *C. itishere sp. nov.* are separated from the other seven species by the fact that juveniles and adults have a brown dorsum from snout to tail with black speckling (dark scale edges) on the trunk, a moderately broad dorsolateral stripe from snout onto tail (this ontogenetically disappears from snout to eye, then eye to ear, and becomes more diffuse but still distinct on the neck and body in adults); laterally brown, dark brown from eye to trunk just behind the forelimb, thereafter the brown same as on the dorsum; laterally the temporal area and neck are spotted with white; venter is ivory and the throat has narrow black striping.

C. itishere sp. nov. is separated from *C. luxbrunneislineam sp. nov.* by having a whitish, rather than yellowish brown dorsolateral stripe. The markings on the throat are not bold and contrasting as seen in *C. luxbrunneislineam sp. nov.*, but rather faded.

C. itishere sp. nov. also has significant peppering on the upper labials, versus none or light in *C. nonvidetur sp. nov.*

C. peronii is separated from the other species by the following colouration:

It has a narrow dark middorsal stripe; a narrow light dorsolateral stripe from ear to end of trunk, a narrow midlateral light stripe from ear to at least midtrunk, and the two light stripes enclosed a broader dark brown stripe with a few tiny light spots on each side, and dorsally the lizard is olive brown with a scattering of small brown spots on the edges of some dorsal scales.

C. spinauris is separated from the other species by having a dorsum that is medium to dark brown with some barely noticeable darker brown peppering; with an indistinct light dorsolateral stripe bordered below with black that runs from the eye to the anterior quarter of the flank. There is no midlateral light stripe. The lizard has dusky brown sides from ear to inguen. The venter is white and throat is black spotted.

C. sukur is readily separated from the preceding species by colouration. Dorsum is light brown in colour with a well-defined dorsolateral line on either side from snout to tail, which has a straight-well-defined narrow edge.

The flanks are generally dark and unmarked, although in some specimens there may be scattered pale scales. Top of head is light brown with a few black specks. These continue on the neck and dorsum where they become more common, before reversing anterior to the tail to become numerous light spots that continue along the upper surface of the tail. On the tail the spots form lines of crossbands. Sides of the head are generally light brown. Blackish markings are dull edged and at the posterior edges of some scales. Upper labials are light brown with poorly defined and slight barring on the posterior edges. Similar applies to the lower labials that are essentially white as are the underparts.

Zug (2010) and Kaiser and Zug (2014) provide further diagnostic characters that can be used to differentiate and separate the preceding nine species.

The preceding nine species, being the known total for the genus *Circularisauris gen. nov.* is the so-called "*Carlia peronii*" group of species.

Species within *Circularisauris gen. nov.* are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following unique combination of characters:

Dorsal scales are smooth, striated or weakly keeled, 4-sided and each with a smoothly curved posterior edge; prefrontals separated; seven supraciliaries; interparietal is distinct and not fused to the frontoparietals; 25-38 midbody rows; 26-36 lamellae under the fourth toe; males without a very distinctive black throat and broad upper lateral stripe from the eye to hindlimb; females without a conspicuous pale dorso-lateral stripe; ear opening is circular shaped, not oblong or oval and slightly larger than the palpebral disc, with 1-3 enlarged anterior facing pointed lobules, the remainder of the ear with or without enlarged scales; up to 65 mm snout-vent length.

The closely related and morphologically similar genus *Celerscincus gen. nov.* is separated from *Circularisauris gen. nov.* and the morphologically similar genus *Veloxscincus gen. nov.* by the fact that breeding males have a very distinctive black throat and broad upper lateral stripe from the eye to hindlimb and females have a pale dorsolateral stripe.

Both *Veloxscincus gen. nov.* and *Celerscincus gen. nov.* are separated from the morphologically similar genus *Circularisauris gen. nov.* by the presence of an ear opening that is vertically elliptic or oblong shaped, versus a well-formed circular ear opening in *Circularisauris gen. nov.*

Furthermore, the rim of the ear in *Circularisauris gen. nov.* is encircled with smallish acute auricular lobes, distinctly pointed on anterior and anteriodorsal edges, contrasting with the blunter lobes confined to the anterior and anteriodorsal border in the other two genera.

Distribution: *Circularisauris aeriscorpus* sp. nov. is believed to be endemic to Wetar Island, Indonesia.

Etymology: The Latin words "*aeris corpus*" literally means "copper body" which is a good description of the body colour of the adult lizard. The words combined are an adjective and noun in apposition.

CIRCULARISAURIS FERRUGINEIS SP. NOV.

LSIDDurn:lsid:zoobank.org:act:C4CA0B17-31AD-44E8-BB57-AB8669259F38

Holotype: A preserved specimen at the Western Australian Museum, Perth, Western Australia, Australia, specimen number R117421 collected from Nomaha, Kisar Island, Maluku, Indonesia, Latitude -8.083333 S., Longitude 127.2 E.

This government-owned facility allows access to its holdings.

Paratypes: Seven preserved specimens at the Western Australian Museum, Perth, Western Australia, Australia, specimen numbers R117422, R117424, R117427, R117428, R117429, R117430 and R117487 all collected from Nomaha, Kisar Island, Maluku, Indonesia, Latitude -8.083333 S., Longitude 127.2 E.

Diagnosis: *Circularisauris aeriscorpus* sp. nov. from Wetar Island, Indonesia, *Circularisauris ferrugineis* sp. nov. from the nearby Kisar Island, *Circularisauris luxbrunneislineam* sp. nov. from Alor Island, *Circularisauris itishere* sp. nov. from Sumbawa Island and *Circularisauris wereisdat* sp. nov. from Bandaneira Island, Banda Islands are all species closely related to *Circularisauris peronii* (Duméril and Bibron, 1839) known to most contemporary herpetologists as *Carlia peronii*, with a type locality of Timor Island.

They are similar in most respects to that taxon and the closely related forms *Circularisauris spinauris* Smith, 1927 from southeast Timor, *C. sukur* (Zug and Kaiser, 2014), from Pulau Sukur, 35 km off the north coast of Flores and *C. nigrauris* (Zug, 2010) from Pulau Tindjil, a small islet off the southwest coast of Java.

The nine species are separated from one another as follows:

Circularisauris aeriscorpus sp. nov. is separated from all other species in this genus by the following unique combination of characters:

In adult males the colour is brown on the dorsum from head to base of the tail, brassy anteriorly becoming lighter, somewhat coppery on posterior half of trunk. The top and sides of the head are brown to the supra and infra-labials which are white with black edges. Brown and white mottling continues on neck to axilla; side of trunk is golden beige with band of bright orange from shoulder to hindlimb, lighter on the posterior half of the body, where it continues to the sides of the tail, which are also orangish. Sides of the throat have dark and light striping. Inside of ear-opening appears dark.

There is no indication of a lighter dorsolateral stripe or any indication of dark brown on the sides of the flank.

There is no large white or pale spotting on the centre of the posterior rump in this species, which separates it from the otherwise morphologically similar *C. nigrauris*.

Both *C. aeriscorpus* sp. nov. and *C. nigrauris* are the only species in the genus with dark or black inside the ear and dark scales immediately around the ear. *Circularisauris wereisdat* sp. nov. has black inside the ear, but not on the edges outside.

In *Circularisauris wereisdat* sp. nov. the outer edges are whitish, making the contrast of the black inside quite sharp and obvious.

The associated species *Circularisauris ferrugineis* sp. nov. from the nearby Kisar Island is separated from *C. aeriscorpus* sp. nov. (and *C. nigrauris*) by colour.

It is similar to *C. aeriscorpus* sp. nov. but less bright laterally on the flanks and there is also a subdued coppery orange band on the flank. Dorsolaterally the neck is a unicolor dark brown and there is more diffused dark and light mottling below. A distinct

white spot is behind the ear.

In common with *C. aeriscorpus* sp. nov., and *C. wereisdat* sp. nov. from Bandaneira Island, Banda Islands, *C. ferrugineis* sp. nov. lacks any indication of a lighter dorsolateral stripe or any indication of dark brown on the sides of the flank.

C. nigrauris has a very slight indication of a lighter dorsolateral stripe on the neck and anterior body in adult males.

C. wereisdat sp. nov. is most similar to *Circularisauris ferrugineis* sp. nov. as just described, but differs by having blackish spots on the upper surfaces of the limbs and dark grey to black upper surfaces of the feet, which it seems is unique among the nine species.

C. wereisdat sp. nov. is otherwise a brownish lizard with reddish tinge and immaculate white upper and lower labials. That is no etching, peppering or barring of any form.

C. wereisdat sp. nov. is unusual among the species in that it has one, two or three large squarish posterior facing ear lobules. *C. nigrauris* has numerous small lobules, the larger ones (still small) are quite pointed.

Separate to the preceding species, *C. peronii*, *C. spinauris*, *C. luxbrunneislineam* sp. nov. and *C. itishere* sp. nov. all display a distinct dorsolateral light stripe from ear to inguen.

C. luxbrunneislineam sp. nov. and *C. itishere* sp. nov. are separated from the other seven species by the fact that juveniles and adults have a brown dorsum from snout to tail with black speckling (dark scale edges) on the trunk, a moderately broad dorsolateral stripe from snout onto tail (this ontogenetically disappears from snout to eye, then eye to ear, and becomes more diffuse but still distinct on the neck and body in adults); laterally brown, dark brown from eye to trunk just behind the forelimb, thereafter the brown same as on the dorsum; laterally the temporal area and neck are spotted with white; venter is ivory and the throat has narrow black striping.

C. itishere sp. nov. is separated from *C. luxbrunneislineam* sp. nov. by having a whitish, rather than yellowish brown dorsolateral stripe. The markings on the throat are not bold and contrasting as seen in *C. luxbrunneislineam* sp. nov., but rather faded.

C. itishere sp. nov. also has significant peppering on the upper labials, versus none or light in *C. nonvidetur* sp. nov..

C. peronii is separated from the other species by the following colouration:

It has a narrow dark middorsal stripe; a narrow light dorsolateral stripe from ear to end of trunk, a narrow midlateral light stripe from ear to at least midtrunk, and the two light stripes enclosed a broader dark brown stripe with a few tiny light spots on each side, and dorsally the lizard is olive brown with a scattering of small brown spots on the edges of some dorsal scales.

C. spinauris is separated from the other species by having a dorsum that is medium to dark brown with some barely noticeable darker brown peppering; with an indistinct light dorsolateral stripe bordered below with black that runs from the eye to the anterior quarter of the flank. There is no midlateral light stripe. The lizard has dusky brown sides from ear to inguen. The venter is white and throat is black spotted.

C. sukur is readily separated from the preceding species by colouration. Dorsum is light brown in colour with a well-defined dorsolateral line on either side from snout to tail, which has a straight-well-defined narrow edge.

The flanks are generally dark and unmarked, although in some specimens there may be scattered pale scales. Top of head is light brown with a few black specks. These continue on the neck and dorsum where they become more common, before reversing anterior to the tail to become numerous light spots that continue along the upper surface of the tail. On the tail the spots form lines of crossbands. Sides of the head are generally light brown. Blackish markings are dull edged and at the posterior edges of some scales. Upper labials are light brown with poorly defined

and slight barring on the posterior edges. Similar applies to the lower labials that are essentially white as are the underparts. Zug (2010) and Kaiser and Zug (2014) provide further diagnostic characters that can be used to differentiate and separate the preceding nine species.

The preceding nine species, being the known total for the genus *Circularisauris* *gen. nov.* is the so-called "*Carlia peronii*" group of species.

Species within *Circularisauris* *gen. nov.* are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following unique combination of characters:

Dorsal scales are smooth, striated or weakly keeled, 4-sided and each with a smoothly curved posterior edge; prefrontals separated; seven supraciliaries; interparietal is distinct and not fused to the frontoparietals; 25-38 midbody rows; 26-36 lamellae under the fourth toe; males without a very distinctive black throat and broad upper lateral stripe from the eye to hindlimb; females without a conspicuous pale dorso-lateral stripe; ear opening is circular shaped, not oblong or oval and slightly larger than the palpebral disc, with 1-3 enlarged anterior facing pointed lobules, the remainder of the ear with or without enlarged scales; up to 65 mm snout-vent length.

The closely related and morphologically similar genus *Celerscincus* *gen. nov.* is separated from *Circularisauris* *gen. nov.* and the morphologically similar genus *Veloxscincus* *gen. nov.* by the fact that breeding males have a very distinctive black throat and broad upper lateral stripe from the eye to hindlimb and females have a pale dorsolateral stripe.

Both *Veloxscincus* *gen. nov.* and *Celerscincus* *gen. nov.* are separated from the morphologically similar genus *Circularisauris* *gen. nov.* by the presence of an ear opening that is vertically elliptic or oblong shaped, versus a well-formed circular ear opening in *Circularisauris* *gen. nov.*

Furthermore, the rim of the ear in *Circularisauris* *gen. nov.* is encircled with smallish acute auricular lobes, distinctly pointed on anterior and anteriodorsal edges, contrasting with the blunter lobes confined to the anterior and anteriodorsal border in the other two genera.

Distribution: *Circularisauris ferrugineis* *sp. nov.* is believed to be endemic to Kisar Island, Indonesia.

Etymology: The Latin word "*ferrugineis*" literally means reddish brown or rusty in colour which is a good description of the dorsal body colour of the adult lizard. The species name is an adjective in apposition.

CIRCULARISAURIS LUXBRUNNEISLINEAM SP. NOV.

LSIDDurn:lsid:zoobank.org:act:F32491EB-B685-45E2-B8FA-299A5B965D22

Holotype: A preserved specimen at the Western Australian Museum, Perth, Western Australia, Australia, specimen number R108006 collected from Apui, Alor Island, Alor Archipelago, Maluku, Indonesia, Latitude -8.25 S., Longitude 124.716667 E.

This government-owned facility allows access to its holdings.

Paratypes: Twenty-two preserved specimens at the Western Australian Museum, Perth, Western Australia, Australia, specimen numbers R107932, R107934, R107937, R107938, R107939, R107941, R107958, R107960, R107965, R107966, R107967, R107974, R107975, R107976, R107978, R107981, R107982, R107991, R107999; 108002, 108003 and R108064 all collected from Apui, Alor Island, Alor Archipelago, Maluku, Indonesia, Latitude -8.25 S., Longitude 124.716667 E.

Diagnosis: *Circularisauris aeriscorpus* *sp. nov.* from Wetar Island, Indonesia, *Circularisauris ferrugineis* *sp. nov.* from the nearby Kisar Island, *Circularisauris luxbrunneislineam* *sp. nov.* from Alor Island, *Circularisauris itishere* *sp. nov.* from Sumbawa Island and *Circularisauris wereisdat* *sp. nov.* from Bandaneira

Island, Banda Islands are all species closely related to *Circularisauris peronii* (Duméril and Bibron, 1839) known to most contemporary herpetologists as *Carlia peronii*, with a type locality of Timor Island.

They are similar in most respects to that taxon and the closely related forms *Circularisauris spinauris* Smith, 1927 from southeast Timor, *C. sukur* (Zug and Kaiser, 2014), from Pulau Sukur, 35 km off the north coast of Flores and *C. nigrauris* (Zug, 2010) from Pulau Tindjil, a small islet off the southwest coast of Java.

The nine species are separated from one another as follows: *Circularisauris aeriscorpus* *sp. nov.* is separated from all other species in this genus by the following unique combination of characters:

In adult males the colour is brown on the dorsum from head to base of the tail, brassy anteriorly becoming lighter, somewhat coppery on posterior half of trunk. The top and sides of the head are brown to the supra and infra-labials which are white with black edges. Brown and white mottling continues on neck to axilla; side of trunk is golden beige with band of bright orange from shoulder to hindlimb, lighter on the posterior half of the body, where it continues to the sides of the tail, which are also orangish. Sides of the throat have dark and light striping. Inside of ear-opening appears dark.

There is no indication of a lighter dorsolateral stripe or any indication of dark brown on the sides of the flank.

There is no large white or pale spotting on the centre of the posterior rump in this species, which separates it from the otherwise morphologically similar *C. nigrauris*.

Both *C. aeriscorpus* *sp. nov.* and *C. nigrauris* are the only species in the genus with dark or black inside the ear and dark scales immediately around the ear. *Circularisauris wereisdat* *sp. nov.* has black inside the ear, but not on the edges outside.

In *Circularisauris wereisdat* *sp. nov.* the outer edges are whitish, making the contrast of the black inside quite sharp and obvious.

The associated species *Circularisauris ferrugineis* *sp. nov.* from the nearby Kisar Island is separated from *C. aeriscorpus* *sp. nov.* (and *C. nigrauris*) by colour.

It is similar to *C. aeriscorpus* *sp. nov.* but less bright laterally on the flanks and there is also a subdued coppery orange band on the flank. Dorsolaterally the neck is a unicolor dark brown and there is more diffused dark and light mottling below. A distinct white spot is behind the ear.

In common with *C. aeriscorpus* *sp. nov.*, and *C. wereisdat* *sp. nov.* from Bandaneira Island, Banda Islands, *C. ferrugineis* *sp. nov.* lacks any indication of a lighter dorsolateral stripe or any indication of dark brown on the sides of the flank.

C. nigrauris has a very slight indication of a lighter dorsolateral stripe on the neck and anterior body in adult males.

C. wereisdat *sp. nov.* is most similar to *Circularisauris ferrugineis* *sp. nov.* as just described, but differs by having blackish spots on the upper surfaces of the limbs and dark grey to black upper surfaces of the feet, which it seems is unique among the nine species.

C. wereisdat *sp. nov.* is otherwise a brownish lizard with reddish tinge and immaculate white upper and lower labials. That is no etching, peppering or barring of any form.

C. wereisdat *sp. nov.* is unusual among the species in that it has one, two or three large squarish posterior facing ear lobules. *C. nigrauris* has numerous small lobules, the larger ones (still small) are quite pointed.

Separate to the preceding species, *C. peronii*, *C. spinauris*, *C. luxbrunneislineam* *sp. nov.* and *C. itishere* *sp. nov.* all display a distinct dorsolateral light stripe from ear to inguen.

C. luxbrunneislineam *sp. nov.* and *C. itishere* *sp. nov.* are separated from the other seven species by the fact that juveniles

and adults have a brown dorsum from snout to tail with black speckling (dark scale edges) on the trunk, a moderately broad dorsolateral stripe from snout onto tail (this ontogenetically disappears from snout to eye, then eye to ear, and becomes more diffuse but still distinct on the neck and body in adults); laterally brown, dark brown from eye to trunk just behind the forelimb, thereafter the brown same as on the dorsum; laterally the temporal area and neck are spotted with white; venter is ivory and the throat has narrow black striping.

C. itishere sp. nov. is separated from *C. luxbrunneislineam* sp. nov. by having a whitish, rather than yellowish brown dorsolateral stripe. The markings on the throat are not bold and contrasting as seen in *C. luxbrunneislineam* sp. nov., but rather faded.

C. itishere sp. nov. also has significant peppering on the upper labials, versus none or light in *C. nonvidetur* sp. nov..

C. peronii is separated from the other species by the following colouration:

It has a narrow dark middorsal stripe; a narrow light dorsolateral stripe from ear to end of trunk, a narrow midlateral light stripe from ear to at least midtrunk, and the two light stripes enclosed a broader dark brown stripe with a few tiny light spots on each side, and dorsally the lizard is olive brown with a scattering of small brown spots on the edges of some dorsal scales.

C. spinauris is separated from the other species by having a dorsum that is medium to dark brown with some barely noticeable darker brown peppering; with an indistinct light dorsolateral stripe bordered below with black that runs from the eye to the anterior quarter of the flank. There is no midlateral light stripe. The lizard has dusky brown sides from ear to inguen. The venter is white and throat is black spotted.

C. sukur is readily separated from the preceding species by colouration. Dorsum is light brown in colour with a well-defined dorsolateral line on either side from snout to tail, which has a straight-well-defined narrow edge.

The flanks are generally dark and unmarked, although in some specimens there may be scattered pale scales. Top of head is light brown with a few black specks. These continue on the neck and dorsum where they become more common, before reversing anterior to the tail to become numerous light spots that continue along the upper surface of the tail. On the tail the spots form lines of crossbands. Sides of the head are generally light brown. Blackish markings are dull edged and at the posterior edges of some scales. Upper labials are light brown with poorly defined and slight barring on the posterior edges. Similar applies to the lower labials that are essentially white as are the underparts.

Zug (2010) and Kaiser and Zug (2014) provide further diagnostic characters that can be used to differentiate and separate the preceding nine species.

The preceding nine species, being the known total for the genus *Circularisauris* gen. nov. is the so-called "*Carlia peronii*" group of species.

Species within *Circularisauris* gen. nov. are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following unique combination of characters:

Dorsal scales are smooth, striated or weakly keeled, 4-sided and each with a smoothly curved posterior edge; prefrontals separated; seven supraciliaries; interparietal is distinct and not fused to the frontoparietals; 25-38 midbody rows; 26-36 lamellae under the fourth toe; males without a very distinctive black throat and broad upper lateral stripe from the eye to hindlimb; females without a conspicuous pale dorso-lateral stripe; ear opening is circular shaped, not oblong or oval and slightly larger than the palpebral disc, with 1-3 enlarged anterior facing pointed lobules, the remainder of the ear with or without enlarged scales; up to 65 mm snout-vent length.

The closely related and morphologically similar genus

Celerscincus gen. nov. is separated from *Circularisauris* gen. nov. and the morphologically similar genus *Veloxscincus* gen. nov. by the fact that breeding males have a very distinctive black throat and broad upper lateral stripe from the eye to hindlimb and females have a pale dorsolateral stripe.

Both *Veloxscincus* gen. nov. and *Celerscincus* gen. nov. are separated from the morphologically similar genus *Circularisauris* gen. nov. by the presence of an ear opening that is vertically elliptic or oblong shaped, versus a well-formed circular ear opening in *Circularisauris* gen. nov..

Furthermore, the rim of the ear in *Circularisauris* gen. nov. is encircled with smallish acute auricular lobes, distinctly pointed on anterior and anteriodorsal edges, contrasting with the blunter lobes confined to the anterior and anteriodorsal border in the other two genera.

Distribution: *Circularisauris luxbrunneislineam* sp. nov. is believed to be endemic to Alor Island, Indonesia.

Etymology: The Latin word "*luxbrunneislineam*" literally means "light brown line" which is on the sides of the back of the lizard at the laterodorsal edge and so it is a good description of the dorsal body colour of the adult lizard. The words in combination are two adjectives and a noun in apposition.

CIRCULARISAURIS ITISHERE SP. NOV.

LSIDDurn:lsid:zoobank.org:act:4C6A697F-E658-4A58-9089-967227698426

Holotype: A preserved specimen at the Western Australian Museum, Perth, Western Australia, Australia, specimen number R109634 collected from Batu Dulang, Sumbawa Island, West Nusa Tenggara, Indonesia, Latitude -8.583333 S., Longitude 117.288889 E.

This government-owned facility allows access to its holdings.

Paratypes: Six preserved specimens at the Western Australian Museum, Perth, Western Australia, Australia, specimen numbers R109635, R109636, R109637, R109638, R109639 and R109640 all collected from Batu Dulang, Sumbawa Island, West Nusa Tenggara, Indonesia, Latitude -8.583333 S., Longitude 117.288889 E.

Diagnosis: *Circularisauris aeriscorpus* sp. nov. from Wetar Island, Indonesia, *Circularisauris ferrugineis* sp. nov. from the nearby Kisar Island, *Circularisauris luxbrunneislineam* sp. nov. from Alor Island, *Circularisauris itishere* sp. nov. from Sumbawa Island and *Circularisauris wereisdat* sp. nov. from Bandaneira Island, Banda Islands are all species closely related to *Circularisauris peronii* (Duméril and Bibron, 1839) known to most contemporary herpetologists as *Carlia peronii*, with a type locality of Timor Island.

They are similar in most respects to that taxon and the closely related forms *Circularisauris spinauris* Smith, 1927 from southeast Timor, *C. sukur* (Zug and Kaiser, 2014), from Pulau Sukur, 35 km off the north coast of Flores and *C. nigrauris* (Zug, 2010) from Pulau Tindjil, a small islet off the south coast of Java.

The nine species are separated from one another as follows:

Circularisauris aeriscorpus sp. nov. is separated from all other species in this genus by the following unique combination of characters:

In adult males the colour is brown on the dorsum from head to base of the tail, brassy anteriorly becoming lighter, somewhat coppery on posterior half of trunk. The top and sides of the head are brown to the supra and infra-labials which are white with black edges. Brown and white mottling continues on neck to axilla; side of trunk is golden beige with band of bright orange from shoulder to hindlimb, lighter on the posterior half of the body, where it continues to the sides of the tail, which are also orangish. Sides of the throat have dark and light striping. Inside of ear-opening appears dark.

There is no indication of a lighter dorsolateral stripe or any indication of dark brown on the sides of the flank.

There is no large white or pale spotting on the centre of the posterior rump in this species, which separates it from the otherwise morphologically similar *C. nigrauris*.

Both *C. aeriscorpus sp. nov.* and *C. nigrauris* are the only species in the genus with dark or black inside the ear and dark scales immediately around the ear. *Circularisauris wereisdai sp. nov.* has black inside the ear, but not on the edges outside.

In *Circularisauris wereisdai sp. nov.* the outer edges are whitish, making the contrast of the black inside quite sharp and obvious.

The associated species *Circularisauris ferrugineis sp. nov.* from the nearby Kisar Island is separated from *C. aeriscorpus sp. nov.* (and *C. nigrauris*) by colour.

It is similar to *C. aeriscorpus sp. nov.* but less bright laterally on the flanks and there is also a subdued coppery orange band on the flank. Dorsolaterally the neck is a unicolor dark brown and there is more diffused dark and light mottling below. A distinct white spot is behind the ear.

In common with *C. aeriscorpus sp. nov.*, and *C. wereisdai sp. nov.* from Bandaneira Island, Banda Islands, *C. ferrugineis sp. nov.* lacks any indication of a lighter dorsolateral stripe or any indication of dark brown on the sides of the flank.

C. nigrauris has a very slight indication of a lighter dorsolateral stripe on the neck and anterior body in adult males.

C. wereisdai sp. nov. is most similar to *Circularisauris ferrugineis sp. nov.* as just described, but differs by having blackish spots on the upper surfaces of the limbs and dark grey to black upper surfaces of the feet, which it seems is unique among the nine species.

C. wereisdai sp. nov. is otherwise a brownish lizard with reddish tinge and immaculate white upper and lower labials. That is no etching, peppering or barring of any form.

C. wereisdai sp. nov. is unusual among the species in that it has one, two or three large squarish posterior facing ear lobules. *C. nigrauris* has numerous small lobules, the larger ones (still small) are quite pointed.

Separate to the preceding species, *C. peronii*, *C. spinauris*, *C. luxbrunneislineam sp. nov.* and *C. itishere sp. nov.* all display a distinct dorsolateral light stripe from ear to inguen.

C. luxbrunneislineam sp. nov. and *C. itishere sp. nov.* are separated from the other seven species by the fact that juveniles and adults have a brown dorsum from snout to tail with black speckling (dark scale edges) on the trunk, a moderately broad dorsolateral stripe from snout onto tail (this ontogenetically disappears from snout to eye, then eye to ear, and becomes more diffuse but still distinct on the neck and body in adults); laterally brown, dark brown from eye to trunk just behind the forelimb, thereafter the brown same as on the dorsum; laterally the temporal area and neck are spotted with white; venter is ivory and the throat has narrow black striping.

C. itishere sp. nov. is separated from *C. luxbrunneislineam sp. nov.* by having a whitish, rather than yellowish brown dorsolateral stripe. The markings on the throat are not bold and contrasting as seen in *C. luxbrunneislineam sp. nov.*, but rather faded.

C. itishere sp. nov. also has significant peppering on the upper labials, versus none or light in *C. nonvidetur sp. nov.*

C. peronii is separated from the other species by the following colouration:

It has a narrow dark middorsal stripe; a narrow light dorsolateral stripe from ear to end of trunk, a narrow midlateral light stripe from ear to at least midtrunk, and the two light stripes enclosed a broader dark brown stripe with a few tiny light spots on each side, and dorsally the lizard is olive brown with a scattering of small brown spots on the edges of some dorsal scales.

C. spinauris is separated from the other species by having a dorsum that is medium to dark brown with some barely noticeable darker brown peppering; with an indistinct light dorsolateral stripe bordered below with black that runs from the

eye to the anterior quarter of the flank. There is no midlateral light stripe. The lizard has dusky brown sides from ear to inguen. The venter is white and throat is black spotted.

C. sukur is readily separated from the preceding species by colouration. Dorsum is light brown in colour with a well-defined dorsolateral line on either side from snout to tail, which has a straight-well-defined narrow edge.

The flanks are generally dark and unmarked, although in some specimens there may be scattered pale scales. Top of head is light brown with a few black specks. These continue on the neck and dorsum where they become more common, before reversing anterior to the tail to become numerous light spots that continue along the upper surface of the tail. On the tail the spots form lines of crossbands. Sides of the head are generally light brown. Blackish markings are dull edged and at the posterior edges of some scales. Upper labials are light brown with poorly defined and slight barring on the posterior edges. Similar applies to the lower labials that are essentially white as are the underparts.

Zug (2010) and Kaiser and Zug (2014) provide further diagnostic characters that can be used to differentiate and separate the preceding nine species.

The preceding nine species, being the known total for the genus *Circularisauris gen. nov.* is the so-called "*Carlia peronii*" group of species.

Species within *Circularisauris gen. nov.* are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following unique combination of characters:

Dorsal scales are smooth, striated or weakly keeled, 4-sided and each with a smoothly curved posterior edge; prefrontals separated; seven supraciliaries; interparietal is distinct and not fused to the frontoparietals; 25-38 midbody rows; 26-36 lamellae under the fourth toe; males without a very distinctive black throat and broad upper lateral stripe from the eye to hindlimb; females without a conspicuous pale dorso-lateral stripe; ear opening is circular shaped, not oblong or oval and slightly larger than the palpebral disc, with 1-3 enlarged anterior facing pointed lobules, the remainder of the ear with or without enlarged scales; up to 65 mm snout-vent length.

The closely related and morphologically similar genus *Celerscincus gen. nov.* is separated from *Circularisauris gen. nov.* and the morphologically similar genus *Veloxscincus gen. nov.* by the fact that breeding males have a very distinctive black throat and broad upper lateral stripe from the eye to hindlimb and females have a pale dorsolateral stripe.

Both *Veloxscincus gen. nov.* and *Celerscincus gen. nov.* are separated from the morphologically similar genus *Circularisauris gen. nov.* by the presence of an ear opening that is vertically elliptic or oblong shaped, versus a well-formed circular ear opening in *Circularisauris gen. nov.*

Furthermore, the rim of the ear in *Circularisauris gen. nov.* is encircled with smallish acute auricular lobes, distinctly pointed on anterior and anteriodorsal edges, contrasting with the blunter lobes confined to the anterior and anteriodorsal border in the other two genera.

Distribution: *Circularisauris itishere sp. nov.* is believed to be endemic to Sumbawa Island, Indonesia.

Etymology: The words "*itishere*" literally means "it is here" which reflects on the location where this lizard occurs. It is a combination of pronoun, linking verb and adjective in apposition.

CIRCULARISAURIS WHEREISDAT SP. NOV.

LSIDurn:lsid:zoobank.org:act:141B660F-DF00-4A9A-A3BD-406812D51D4A

Holotype: A preserved specimen at the Western Australian Museum, Perth, Western Australia, Australia, specimen number R109401 collected from Bandaneira Island, Banda Islands, Indonesia, Latitude - 4.3130 S., Longitude 129.5217 E.

This government-owned facility allows access to its holdings.

Paratypes: Twelve preserved specimens at the Western Australian Museum, Perth, Western Australia, Australia, specimen numbers R109402, R109413, R109414, R109416, R109417, R109419, R109421, R109422, R109424, R109425, R109426 and R109427 all collected from Bandaneira Island, Banda Islands, Indonesia, Latitude - 4.3130 S., Longitude 129.5217 E.

Diagnosis: *Circularisauris aeriscorpus* sp. nov. from Wetar Island, Indonesia, *Circularisauris ferrugineis* sp. nov. from the nearby Kisar Island, *Circularisauris luxbrunneislineam* sp. nov. from Alor Island, *Circularisauris itishere* sp. nov. from Sumbawa Island and *Circularisauris wereisdat* sp. nov. from Bandaneira Island, Banda Islands are all species closely related to *Circularisauris peronii* (Duméril and Bibron, 1839) known to most contemporary herpetologists as *Carlia peronii*, with a type locality of Timor Island.

They are similar in most respects to that taxon and the closely related forms *Circularisauris spinauris* Smith, 1927 from southeast Timor, *C. sukur* (Zug and Kaiser, 2014), from Pulau Sukur, 35 km off the north coast of Flores and *C. nigrauris* (Zug, 2010) from Pulau Tindjil, a small islet off the south coast of Java.

The nine species are separated from one another as follows:

Circularisauris aeriscorpus sp. nov. is separated from all other species in this genus by the following unique combination of characters:

In adult males the colour is brown on the dorsum from head to base of the tail, brassy anteriorly becoming lighter, somewhat coppery on posterior half of trunk. The top and sides of the head are brown to the supra and infra-labials which are white with black edges. Brown and white mottling continues on neck to axilla; side of trunk is golden beige with band of bright orange from shoulder to hindlimb, lighter on the posterior half of the body, where it continues to the sides of the tail, which are also orangish. Sides of the throat have dark and light striping. Inside of ear-opening appears dark.

There is no indication of a lighter dorsolateral stripe or any indication of dark brown on the sides of the flank.

There is no large white or pale spotting on the centre of the posterior rump in this species, which separates it from the otherwise morphologically similar *C. nigrauris*.

Both *C. aeriscorpus* sp. nov. and *C. nigrauris* are the only species in the genus with dark or black inside the ear and dark scales immediately around the ear. *Circularisauris wereisdat* sp. nov. has black inside the ear, but not on the edges outside.

In *Circularisauris wereisdat* sp. nov. the outer edges are whitish, making the contrast of the black inside quite sharp and obvious.

The associated species *Circularisauris ferrugineis* sp. nov. from the nearby Kisar Island is separated from *C. aeriscorpus* sp. nov. (and *C. nigrauris*) by colour.

It is similar to *C. aeriscorpus* sp. nov. but less bright laterally on the flanks and there is also a subdued coppery orange band on the flank. Dorsolaterally the neck is a unicolor dark brown and there is more diffused dark and light mottling below. A distinct white spot is behind the ear.

In common with *C. aeriscorpus* sp. nov., and *C. wereisdat* sp. nov. from Bandaneira Island, Banda Islands, *C. ferrugineis* sp. nov. lacks any indication of a lighter dorsolateral stripe or any indication of dark brown on the sides of the flank.

C. nigrauris has a very slight indication of a lighter dorsolateral stripe on the neck and anterior body in adult males.

C. wereisdat sp. nov. is most similar to *Circularisauris ferrugineis* sp. nov. as just described, but differs by having blackish spots on the upper surfaces of the limbs and dark grey to black upper surfaces of the feet, which it seems is unique among the nine species.

C. wereisdat sp. nov. is otherwise a brownish lizard with reddish

tinge and immaculate white upper and lower labials. That is no etching, peppering or barring of any form.

C. wereisdat sp. nov. is unusual among the species in that it has one, two or three large squarish posterior facing ear lobules in addition to other smaller ones. *C. nigrauris* has numerous small lobules around the ear, the larger ones (still small) are quite pointed.

Separate to the preceding species, *C. peronii*, *C. spinauris*, *C. luxbrunneislineam* sp. nov. and *C. itishere* sp. nov. all display a distinct dorsolateral light stripe from ear to inguen.

C. luxbrunneislineam sp. nov. and *C. itishere* sp. nov. are separated from the other seven species by the fact that juveniles and adults have a brown dorsum from snout to tail with black speckling (dark scale edges) on the trunk, a moderately broad dorsolateral stripe from snout onto tail (this ontogenetically disappears from snout to eye, then eye to ear, and becomes more diffuse but still distinct on the neck and body in adults); laterally brown, dark brown from eye to trunk just behind the forelimb, thereafter the brown same as on the dorsum; laterally the temporal area and neck are spotted with white; venter is ivory and the throat has narrow black striping.

C. itishere sp. nov. is separated from *C. luxbrunneislineam* sp. nov. by having a whitish, rather than yellowish brown dorsolateral stripe. The markings on the throat are not bold and contrasting as seen in *C. luxbrunneislineam* sp. nov., but rather faded.

C. itishere sp. nov. also has significant peppering on the upper labials, versus none or light in *C. nonvidetur* sp. nov.

C. peronii is separated from the other species by the following colouration:

It has a narrow dark middorsal stripe; a narrow light dorsolateral stripe from ear to end of trunk, a narrow midlateral light stripe from ear to at least midtrunk, and the two light stripes enclosed a broader dark brown stripe with a few tiny light spots on each side, and dorsally the lizard is olive brown with a scattering of small brown spots on the edges of some dorsal scales.

C. spinauris is separated from the other species by having a dorsum that is medium to dark brown with some barely noticeable darker brown peppering; with an indistinct light dorsolateral stripe bordered below with black that runs from the eye to the anterior quarter of the flank. There is no midlateral light stripe. The lizard has dusky brown sides from ear to inguen. The venter is white and throat is black spotted.

C. sukur is readily separated from the preceding species by colouration. Dorsum is light brown in colour with a well-defined dorsolateral line on either side from snout to tail, which has a straight-well-defined narrow edge.

The flanks are generally dark and unmarked, although in some specimens there may be scattered pale scales. Top of head is light brown with a few black specks. These continue on the neck and dorsum where they become more common, before reversing anterior to the tail to become numerous light spots that continue along the upper surface of the tail. On the tail the spots form lines of crossbands. Sides of the head are generally light brown. Blackish markings are dull edged and at the posterior edges of some scales. Upper labials are light brown with poorly defined and slight barring on the posterior edges. Similar applies to the lower labials that are essentially white as are the underparts.

Zug (2010) and Kaiser and Zug (2014) provide further diagnostic characters that can be used to differentiate and separate the preceding nine species.

The preceding nine species, being the known total for the genus *Circularisauris* gen. nov. is the so-called "*Carlia peronii*" group of species.

Species within *Circularisauris* gen. nov. are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following unique combination of characters:

Dorsal scales are smooth, striated or weakly keeled, 4-sided and each with a smoothly curved posterior edge; prefrontals separated; seven supraciliaries; interparietal is distinct and not fused to the frontoparietals; 25-38 midbody rows; 26-36 lamellae under the fourth toe; males without a very distinctive black throat and broad upper lateral stripe from the eye to hindlimb; females without a conspicuous pale dorso-lateral stripe; ear opening is circular shaped, not oblong or oval and slightly larger than the palpebral disc, with 1-3 enlarged anterior facing pointed lobules, the remainder of the ear with or without enlarged scales; up to 65 mm snout-vent length.

The closely related and morphologically similar genus *Celerscincus gen. nov.* is separated from *Circularisauris gen. nov.* and the morphologically similar genus *Veloxscincus gen. nov.* by the fact that breeding males have a very distinctive black throat and broad upper lateral stripe from the eye to hindlimb and females have a pale dorsolateral stripe.

Both *Veloxscincus gen. nov.* and *Celerscincus gen. nov.* are separated from the morphologically similar genus *Circularisauris gen. nov.* by the presence of an ear opening that is vertically elliptic or oblong shaped, versus a well-formed circular ear opening in *Circularisauris gen. nov.*

Furthermore, the rim of the ear in *Circularisauris gen. nov.* is encircled with smallish acute auricular lobes, distinctly pointed on anterior and anteriodorsal edges, contrasting with the blunter lobes confined to the anterior and anteriodorsal border in the other two genera.

C. wereisdat sp. nov. is depicted in life online at:

https://www.researchgate.net/figure/A-photo-of-a-Carlia-fusca-from-Palau-Ai-Banda-Islands-No-photo-was-available-for-the_fig14_329058344

Distribution: *Circularisauris wereisdat sp. nov.* is currently only known from the type locality island and is almost certainly a range-restricted endemic.

Etymology: The species name "*wereisdat*" matches the comments I got from people when discussing the species. Often when I mentioned that it came from Bandaneira Island, people would say "*wereisdat*" leading to the choice of nomen for the taxon. The name is a combination of conjunction pronouns in apposition.

JACKY GEN. NOV.

LSIDDurn:lsid:zoobank.org:act:5F8738E0-CC58-47A9-892B-42C8F433CD78

Type species: *Jacky hoserae sp. nov.* (this paper).

Diagnosis: The two species within the genus *Jacky gen. nov.* have until now been treated as being within the genus *Carlia* Gray, 1845, type species *Carlia melanopogon* Gray, 1845, which is a synonym of *Heteropus mundus* De Vis, 1885

Mocoo melanopogon Gray, 1845 became a junior homonym of *Lygosoma melanopogon* Duméril and Bibron, 1839 when Boulenger (1887) included all Lygosomine species in the genus *Lygosoma*. The Fourth edition of the *International Code of Zoological Nomenclature* (Ride *et al.* 1999) states that "*a secondary homonym replaced prior to 1961 is permanently invalid unless the substitute is not in use and the relevant taxa are no longer congeneric*".

As "*Carlia munda* (De Vis, 1885)" is of a divergent lineage, the species "*Carlia jarnoldae* Covacevich and Ingram, 1975" and the associated and newly described "*Jacky hoserae sp. nov.*" are placed in the new genus *Jacky gen. nov.*

Species within *Jacky gen. nov.* are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mocoo melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following unique combination of characters:

Snout vent length to 50 mm. Prefrontals mostly separate, but touch or form a medium suture in roughly 1 in 10 specimens.

Interparietal is distinct (not fused to the frontoparietals). Supraciliaries usually 7, occasionally 6 or 8. Palpebral disc is large and occupying more than half of the lower eyelid. Ear aperture smaller than the palpebral disc, with the longer axis horizontal, this being a trait relatively unusual among all putative "*Carlia*" species, and with a single small, pointed lobule anteriorly. 27-32 midbody scale rows; mid-dorsal scales hexagonally shaped, moderately tricarinate and regular in alignment; 22-28 smooth lamellae under the fourth toe.

Colouration in males is as follows: In the breeding male, on the dorsum there are 5-7 dark blueish-black stripes on a brown background from neck to hind legs where they break up into spots.

The brown interspaces on the back are also punctuated by small yellowish spotting.

The dorsal stripes lie between two parallel lines formed by the outer keels of adjacent scales. A thick dark blackish stripe flecked with white in some form runs from behind the ear to the front of the hindleg and stops immediately thereafter, with the tail itself being brown with triangular-shaped black spots on both top and sides.

Below the dark stripe on the upper flank there is a bright orange or red stripe which begins above the foreleg and terminates either at or in front of the hindleg. A light line starts on the upper labials at the snout, expands slightly under the eye, passes through, and includes the ear, which it expands around both top and bottom and continues to end above the foreleg at the axilla. Undersurface is white.

In adult females, the head is bronze-brown, back and sides olive-grey, with a well-defined white line edged in black from under the eye, through the ear aperture, back above the foreleg and terminating just in front of the hindleg; under surfaces are also white.

The newly described species *Jacky hoserae sp. nov.* from south of Cape Tribulation, Queensland, is separated from the morphologically similar species *J. jarnoldae* (Covacevich and Ingram, 1975), type locality of Wakooka Outstation, Starcke Station, Cape York, Queensland, Australia, (Latitude -14.33 S., Longitude 144.33 E.) a species found from north of Cooktown, Queensland on upper Cape York as follows:

Adult male *J. hoserae sp. nov.*, have more and larger whitish spots on the upper flank than seen in adult male *J. jarnoldae*. Counting in a straight line there are 24-28 spots in the most spotted line between front and back leg, versus 20-23 in *J. jarnoldae*.

Besides the whitish spots being larger in adult male *J. hoserae sp. nov.* those at the top of the flank have a strong tendency to become elongate dashes (in an antero-posterior direction), being a feature not seen in *J. jarnoldae*.

However, the easiest way to separate both males of both species is by looking at the extent of red or orange seen on the lower flank.

In adult male *J. hoserae sp. nov.* this red extends the entire way along the lower flank to the hind limb. This is not the case in *J. jarnoldae* where this same area of red or orange only extends half to three quarters of the way along the bottom of the lower flank on the body.

Adult female *J. hoserae sp. nov.* have a dark brown upper surface of the head, dark brown dorsum (rarely tending to be greyish at the posterior end only) and invariably with some form of dark or light flecks on the dorsum; a brownish-black tail; a well-defined thick black line commencing in front of the eye, but effectively running from the back of the eye along the upper flank and onto the tail. The upper surfaces of the limbs are dark brown with no obvious markings, or rarely white flecks.

Adult female *J. jarnoldae* are separated from *J. hoserae sp. nov.* by having a brown upper surface of the head, grey (not brown) dorsum and as a rule without any spots or flecks on the dorsum,

or if present as black flecks and peppering on the rump of the body, where it is sometimes quite dense; the dark line along the upper flank is dark brown anteriorly (between snout and front leg) and grey posteriorly (along the flank proper). The upper surfaces of the limbs in adult female *J. jarnoldae* are light grey with scattered dark greyish-black specks and markings.

Adult male *J. jarnoldae* (of the type form) are depicted in life

https://www.flickr.com/photos/zimny_anders/32832697316/

and

<https://www.flickr.com/photos/smacdonald/8958329689/>

and

https://www.flickr.com/photos/zimny_anders/32832697316/

and

<https://www.inaturalist.org/observations/189912852>

and

<https://www.inaturalist.org/observations/196826068>

Adult female *J. jarnoldae* (of the type form) are depicted in life

<https://www.inaturalist.org/observations/174420527>

and

<https://www.flickr.com/photos/mattsummerville/15753022481/>

and

<https://www.flickr.com/photos/moloch05/32326409268/>

Adult male *J. hoseræ* sp. nov. are depicted in life in Cogger (2014) on page 436 top (with a female in the same image) and online at:

<https://www.flickr.com/photos/jramos15/37999876512/>

and

<https://www.flickr.com/photos/127392361@N04/49458812751/>

and

<https://www.flickr.com/photos/smacdonald/4453329088/>

and

https://www.flickr.com/photos/dan_lynch/5961006766/

and

<https://www.flickr.com/photos/edwardevans/49412610658/>

and

<https://www.flickr.com/photos/smacdonald/3204876927/>

and

<https://www.flickr.com/photos/edwardevans/49492015262/>

Adult female *J. hoseræ* sp. nov. are depicted in life in Cogger (2014) on page 436 top (with a male in the same image) and online at:

<https://www.inaturalist.org/observations/58322181>

and

<https://www.inaturalist.org/observations/62170829>

and

<https://www.flickr.com/photos/euprepiosaur/23552177328/>

and

<https://www.flickr.com/photos/smacdonald/394999141/>

and

<https://www.flickr.com/photos/58828131@N07/6452220157/>

Distribution: The newly described species *Jacky hoseræ* sp. nov. occurs generally from south of about Cape Tribulation, Queensland, (Latitude -16.0889 S., Longitude 145.4622 E along the coast and dry hinterland south to about Mount Aberdeen, near Bowen, north Queensland (Latitude -20.20 S., Longitude 147.917494 E.).

The morphologically similar species *J. jarnoldae* (Covacevich and Ingram, 1975), type locality of Wakooka Outstation, Starcke Station, Cape York, Queensland, Australia, (Latitude -14.33 S.,

Longitude 144.33 E.) is a species found from north of about Cooktown, Queensland on upper Cape York to near the northern tip of Cape York.

Etymology: The new genus *Jacky gen. nov.* is named in honour of my youngest daughter Jacky Hoser (born 19 May 2001) in recognition of more than 2 decades of working for wildlife conservation and research in Australia, Africa, Asia and North America.

Content: *Jacky hoseræ* sp. nov. (type species): *J. jarnoldae* (Covacevich and Ingram, 1975).

JACKY HOSERÆ SP. NOV.

LSIDurn:lsid:zoobank.org:act:98BCE7D6-0D40-4DFF-B424-4CDB879EFB01

Holotype: A preserved male specimen at the Queensland Museum, Brisbane, Queensland, Australia, specimen number J62695 collected from Mount Aberdeen, Queensland, Australia, Latitude -20.1985787 S. Longitude 147.917494 E.

This government-owned facility allows access to its holdings.

Paratypes: 1/ A preserved male specimen at the Queensland Museum, Brisbane, Queensland, Australia, specimen number J79882 collected from Bluewater Creek, 32 km north of Townsville, Queensland, Australia, Latitude -19.2485867 S., Longitude 146.4841743 E., 2/ A preserved specimen at the Queensland Museum, Brisbane, Queensland, Australia, specimen number J42525 collected from Fanning River Caves, near Mingela, Queensland, Australia, Latitude -19.741667 S., Longitude 146.458333 E., 3/ A preserved specimen at the Queensland Museum, Brisbane, Queensland, Australia, specimen number J44636 collected from Spyglass Station, Queensland, Australia, Latitude -19.35 S., Longitude 146.766667 E., 4/ Four preserved specimens at the Queensland Museum, Brisbane, Queensland, Australia, specimen numbers J62732, J62733, J62734 and J62992 all collected from Mt Abbot, Queensland, Australia, Latitude -20.098580 S., Longitude 147.750829 E.

Diagnosis: The newly described species *Jacky hoseræ* sp. nov. from south of Cape Tribulation, Queensland, is separated from the morphologically similar species *J. jarnoldae* (Covacevich and Ingram, 1975), type locality of Wakooka Outstation, Starcke Station, Cape York, Queensland, Australia, (Latitude -14.33 S., Longitude 144.33 E.) a species found from north of Cooktown, Queensland on upper Cape York and the only other species in the genus *Jacky gen. nov.* as follows:

Adult male *J. hoseræ* sp. nov., have more and larger whitish spots on the upper flank than seen in adult male *J. jarnoldae*. Counting in a straight line there are 24-28 spots in the most spotted line between front and back leg, versus 20-23 in *J. jarnoldae*.

Besides the whitish spots being larger in adult male *J. hoseræ* sp. nov. those at the top of the flank have a strong tendency to become elongate dashes (in an antero-posterior direction), being a feature not seen in *J. jarnoldae*.

However, the easiest way to separate both males of both species is by looking at the extent of red or orange seen on the lower flank.

In adult male *J. hoseræ* sp. nov. this red extends the entire way along the lower flank to the hind limb. This is not the case in *J. jarnoldae* where this same area of red or orange only extends half to three quarters of the way along the bottom of the lower flank on the body.

Adult female *J. hoseræ* sp. nov. have a dark brown upper surface of the head, dark brown dorsum (rarely tending to be greyish at the posterior end only) and invariably with some form of dark or light flecks on the dorsum; a brownish-black tail; a well-defined thick black line commencing in front of the eye, but effectively running from the back of the eye along the upper flank and onto the tail. The upper surfaces of the limbs are dark brown with no obvious markings, or rarely white flecks.

Adult female *J. jarnoldae* are separated from *J. hoserae* sp. nov. by having a brown upper surface of the head, grey (not brown) dorsum and as a rule without any spots or flecks on the dorsum, or if present as black flecks and peppering on the rump of the body, where it is sometimes quite dense; the dark line along the upper flank is dark brown anteriorly (between snout and front leg) and grey posteriorly (along the flank proper). The upper surfaces of the limbs are light grey with scattered dark greyish-black specks and markings.

Adult male *J. jarnoldae* (of the type form) are depicted in life
https://www.flickr.com/photos/zimny_anders/32832697316/
 and

<https://www.flickr.com/photos/smacdonald/8958329689/>
 and

https://www.flickr.com/photos/zimny_anders/32832697316/
 and

<https://www.inaturalist.org/observations/189912852>
 and

<https://www.inaturalist.org/observations/196826068>

Adult female *J. jarnoldae* (of the type form) are depicted in life
<https://www.inaturalist.org/observations/174420527>
 and

<https://www.flickr.com/photos/mattsummerville/15753022481/>
 and

<https://www.flickr.com/photos/moloch05/32326409268/>

Adult male *J. hoserae* sp. nov. are depicted in life in Cogger (2014) on page 436 top (with a female also in the photo) and online at:

<https://www.flickr.com/photos/jramos15/37999876512/>
 and

<https://www.flickr.com/photos/127392361@N04/49458812751/>
 and

<https://www.flickr.com/photos/smacdonald/4453329088/>
 and

https://www.flickr.com/photos/dan_lynch/5961006766/
 and

<https://www.flickr.com/photos/edwardevans/49412610658/>
 and

<https://www.flickr.com/photos/smacdonald/3204876927/>
 and

<https://www.flickr.com/photos/edwardevans/49492015262/>

Adult female *J. hoserae* sp. nov. are depicted in life in Cogger (2014) on page 436 top (with a male also in the photo) and online at:

<https://www.inaturalist.org/observations/58322181>
 and

<https://www.inaturalist.org/observations/62170829>
 and

<https://www.flickr.com/photos/euprepiosaur/23552177328/>
 and

<https://www.flickr.com/photos/smacdonald/394999141/>
 and

<https://www.flickr.com/photos/58828131@N07/6452220157/>

The two species within the genus *Jacky* gen. nov. have until now been treated as being within the genus *Carlia* Gray, 1845, type species *Carlia melanopogon* Gray, 1845, which is a synonym of *Heteropus mundus* De Vis, 1885

Mocoa melanopogon Gray, 1845 became a junior homonym of *Lygosoma melanopogon* Duméril and Bibron, 1839 when

Boulenger (1887) included all Lygosomine species in the genus *Lygosoma*. The Fourth edition of the *International Code of Zoological Nomenclature* (Ride et al. 1999) states that “a secondary homonym replaced prior to 1961 is permanently invalid unless the substitute is not in use and the relevant taxa are no longer congeneric”.

As “*Carlia munda* (De Vis, 1885)” is of a divergent lineage, the species “*Carlia jarnoldae* Covacevich and Ingram, 1975” and the associated and newly described “*Jacky hoserae* sp. nov.” are placed in the new genus *Jacky* gen. nov..

Species within *Jacky* gen. nov. are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mocoa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following unique combination of characters:

Snout vent length to 50 mm. Prefrontals mostly separate but touch or form a medium suture in roughly 1 in 10 specimens. Interparietal is distinct (not fused to the frontoparietals). Supraciliaries usually 7, occasionally 6 or 8. Palpebral disc is large and occupying more than half of the lower eyelid. Ear aperture smaller than the palpebral disc, with the longer axis horizontal, this being a trait relatively unusual among all putative “*Carlia*” species, and with a single small, pointed lobule anteriorly. 27-32 midbody scale rows; mid-dorsal scales hexagonally shaped, moderately tricarinate and regular in alignment; 22-28 smooth lamellae under the fourth toe.

Colouration in males is as follows: In the breeding male, on the dorsum there are 5-7 dark blueish-black stripes on a brown background from neck to hind legs where they break up into spots.

The brown interspaces on the back are also punctuated by small yellowish spotting.

The dorsal stripes lie between two parallel lines formed by the outer keels of adjacent scales. A thick dark blackish stripe flecked with white in some form runs from behind the ear to the front of the hindleg and stops immediately thereafter, with the tail itself being brown with triangular-shaped black spots on both top and sides.

Below the dark stripe on the upper flank there is a bright orange or red stripe which begins above foreleg and terminates wither at or in front of the hindleg. A light line starts on the upper labials at the snout, expands slightly under the eye, passes through, and includes the ear, which it expands around both top and bottom and continues to end above the foreleg at the axilla. Undersurface is white.

In adult females, the head is bronze-brown, back and sides olive-grey, with a well-defined white line edged in black from under the eye, through the ear aperture, back above the foreleg and terminating just in front of hindleg; under surfaces are also white.

Distribution: The newly described species *Jacky hoserae* sp. nov. occurs generally from south of about Cape Tribulation, Queensland, (Latitude -16.0889 S., Longitude 145.4622 E along the coast and dry hinterland south to about Mount Aberdeen, near Bowen, north Queensland (Latitude -20.20 S., Longitude 147.917494 E.).

The morphologically similar species *J. jarnoldae* (Covacevich and Ingram, 1975), type locality of Wakooka Outstation, Starcke Station, Cape York, Queensland, Australia, (Latitude -14.33 S., Longitude 144.33 E.) is a species found from north of about Cooktown, Queensland on upper Cape York to near the northern tip of Cape York.

Etymology: The new species *Jacky hoserae* sp. nov. is named in honour of my youngest daughter Jacky Hoser (born 19 May 2001).

This is in recognition of her doing more than 2 decades of working for wildlife conservation and research including doing hands on reptile shows with Snakebusters: Australia's Best Reptiles and other important work.

FASCISTSTATESCINCUS GEN. NOV.

LSIDurn:lsid:zoobank.org:act:9B50C8A7-08A4-4B5E-9715-66E835878BE8

Type species: *Mococa tetradactyla* O'Shaughnessy, 1879.

Diagnosis: The species in the genus *Fasciststatescincus gen. nov.* are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following unique combination of characters:

Adult snout vent to 50 mm; ear opening round or vertically elliptical being about equal to the palpebral disc in size; pale mid-lateral stripe if present is not split or displaced by the ear opening; dorsal scales are four sided, each with a smoothly curved posterior edge; dorsal scales smooth, striated or weakly keeled, but never with rows of raised tubercles; interparietal distinct; prefrontals usually separated; 7 supraciliaries; 30-34 midbody rows; 18-26 lamellae under the fourth toe; one enlarged rounded anterior ear lobule.

Colouration of adults is brownish above, flecked with black and paler brown. The flecks tend to concentrate in a broad vertebral zone and an upper lateral zone, resulting in a pale dorso-lateral stripe. Upper flanks are brown; lower flanks and sides of neck are very pale brown, cream or in breeding males a deep blue-green colour. Breeding males also have a pair of rich orange-reddish stripes on the upper and lower flank, separated by a wide whitish zone in between.

The orange stripes have jagged top and bottom edges. In breeding males, on the sides of the anterior end of the tail are also scattered orange spots.

The genus is herein treated as monotypic for the species *Fasciststatescincus tetradactyla*, although it is possible that the putative species is in fact a complex of more than one.

According to a phylogeny published by Afonso Silva (2018) the species in this genus diverged from other nearest relatives about 8.5 MYA, this being the species in the genus *Fortitercarinata gen. nov.*

Distribution: From south-east Queensland to north-east Victoria, generally along the western slopes and nearby plains, west of the Great Dividing Range.

Etymology: The words "*Fasciststatescincus*" literally means "fascist state skink" in reflection of the fact that the species in this genus occurs in the Australian State of Victoria, well-known to have a corrupt Fascist State Government (Hoser 1989, 1991, 1993, 1994, 1996, 1999a, 1999b). The genus is not named to honour the government of Victoria and its corrupt legal instruments, but rather to highlight this fact (the Fascism here in Victoria and the other Australian states of New South Wales and Queensland) to others outside of this/these place/s and as a historical record of the state of play in the State of Victoria (and the other east Australian states) in the year 2024.

Content: *Fasciststatescincus tetradactyla* (O'Shaughnessy, 1879) (type species).

TRIACARINAE GEN. NOV.

LSIDurn:lsid:zoobank.org:act:5A1173F7-C9FF-47DB-8B28-C0A63654779E

Type species: *Carlia gracilis* Storr, 1974.

Diagnosis: Species within the genus *Triacarinae gen. nov.* are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following unique combination of characters:

Small skink with an average of 35 mm adult (non-growing) snout vent.

Dorsal scales 6-sided, each with an angular posterior or free

edge and moderately to strongly keeled tricarinate; interparietal distinct (not fused to the frontoparietals), five supraciliaries; 24-32 midbody rows; 19-27 lamellae under the fourth toe; horizontal elliptical opening ear opening that is smaller than the palpebral disc. Colouration is copper-brown to grey above and darker anteriorly. There may or may not be a pale midlateral stripe commencing below the eye. Whitish venter. Breeding males have coppery forelimbs and anterior flanks.

The new genus *Triacarinae gen. nov.* includes just 2 species.

Besides recognition of "*Carlia gracilis* Storr, 1974" (type locality of Mitchell Plateau, north-west Kimberley District, Western Australia) as the type species of the genus, "*Carlia arafuræ* Wells and Wellington, 1985" (type locality of Yirrkala, north-east Northern Territory) is recognised as a valid species. Their other named "species" "*Carlia boltoni* Wells and Wellington, 1985" (type locality of Woolanang, north-western Northern Territory), is treated as a valid subspecies of *C. gracilis*, on the basis of a divergence of less than 1 MYA, but close to that number.

The basis of the preceding taxonomic judgment is within Fig 6.1 in the PhD thesis of Afonso Silva (2018).

For the record at Fig. 6.1., Afonso Silva (2018) found a 1.52 MYA divergence between putative "*Carlia gracilis*" from the eastern top end ("*Carlia arafuræ* Wells and Wellington, 1985") versus the rest (west top end, Melville Island and Western Australia). None of the other populations of that putative species diverged more than 1 MYA.

The relevant species in this genus, did according to the same publication of Afonso Silva (2018) diverge from their nearest relatives about 9.5 MYA supporting the concept of a separate genus to accommodate them.

Distribution: Tropical north of the Northern Territory and nearby Western Australia, with distribution centred on the Arnhem Land escarpment and the north Kimberley district.

Etymology: The Latin words "*tria carinae*" means "three keels", which are seen on the dorsal scales of lizards in this genus. The scientific name is two adjectives in apposition.

Content: *Triacarinae gracilis* (Storr, 1974) (type species); *T. arafuræ* (Wells and Wellington, 1985).

PARVABRUNNEIS GEN. NOV.

LSIDurn:lsid:zoobank.org:act:350419D9-D379-4F0A-98D1-16E756FEDD32

Type species: *Heteropus rhomboidalis* Peters, 1869.

Diagnosis: The species within the genus *Parvabrunneis gen. nov.* are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by being the only species in the genus with an interparietal fused to the frontoparietals.

Distribution: North-east Queensland south of Cape Melville, south to near the New South Wales border, either along the coast or hilly areas to the immediate west.

Etymology: The Latin "*parva brunneis*" means "small brown" which describes most specimens in this genus. The scientific name is two conjoined adjectives in apposition.

Content: *Parvabrunneis rhomboidalis* (Peters, 1869) (type species); *P. crypta* (Singhal, Hoskin, Couper, Potter and Moritz, 2018); *P. rubrigularis* (Ingram and Covacevich, 1989); *P. wundalthingi* (Hoskin, 2014).

WHITTONSCINCUS GEN. NOV.

LSIDurn:lsid:zoobank.org:act:F11F3029-32FE-4FD1-98A7-06BB157DCC1F

Type species: *Heteropus pectoralis* De Vis, 1835.

Diagnosis: The species within the genus *Whittonscincus gen. nov.* are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845

and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following suite of characters:

Dorsal scales six sided, each usually with an angular posterior or free edge and moderately to strongly keeled. Interparietal is distinct, it is not fused to the frontoparietals and one or other of the two following additional combinations of characters:

1/ Dorsal scales mainly bicarinate; ear opening is round or vertically elliptic; ear opening with no more than one or two enlarged lobules on the anterior edge; males and females are both brown or grey on top with indications of pale dorsolateral and midlateral stripes and with black and white dots creating a mottled pattern on the back and flanks; breeding males lack red lateral stripes, 5 (usually) or 6 supraciliaries; 32-34 midbody rows; 27-31 lamellae under the fourth toe; or,

2/ Dorsal scales mainly tricarinate, the keels well aligned to form more or less continuous lines along the body; five supraciliaries; ear opening round or vertically elliptic; palpebral disc occupies much more than half the lower eyelid; prefrontals are narrowly to widely separated; upper preocular scale is very narrow and vertical; 28-32 midbody rows; 22-29 lamellae under the fourth toe.

Distribution: Coast and nearby hills of Queensland south of the wet tropics to the New South Wales border.

Etymology: Named in honour of Evan Whitton (5 March 1928 to 16 July 2018) who was one of Australia's leading investigative journalists and crime book authors.

He is best known for publishing several best-selling books detailing the endemic corruption in Australia's legal system, including the victims of this system, who as a rule are unable to have their stories published in Australia's State controlled media. His best selling books that should be mandatory reading for all school-aged Australians included:

Can of Worms: A Citizen's Reference Book to Crime and the Administration of Justice (1986) ISBN 0949054313

Can of Worms II: A Citizen's Reference Book to Crime and the Administration of Justice (1986) ISBN 0949054968

Amazing Scenes (1987) ISBN 064212809X

The Hillbilly Dictator: Australia's Police State (1989) ISBN 064212809X

Trial by Voodoo: Why the Law Defeats Justice & Democracy (1994) ISBN 0091828805

The Cartel: Lawyers and their Nine Magic Tricks (1998) ISBN 0646348876

Serial Liars: How Lawyers Get the Money and Get the Criminals Off (2005) ISBN 9781411658752

Our Corrupt Legal System (2010) ISBN 9781921681073

Content: *Whittonscincus pectoralis* (De Vis, 1835) (type species); *W. inconnexa* (Ingram and Covacevich, 1989), *W. rubigo* (Hoskin and Couper, 2012).

FORTITERCARINATA GEN. NOV.

LSIDurn:lsid:zoobank.org:act:13D63F88-3A2F-469F-A2F7-80CDE37BF667

Type species: *Fortitercarinata tastywhencrispy* sp. nov. (this paper).

Diagnosis: The species within the genus *Fortitercarinata* gen. nov. are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following suite of characters:

Dorsal scales six sided, each usually with an angular posterior or free edge and moderately to strongly keeled. Interparietal is distinct, it is not fused to the frontoparietals and one or other of the three following additional combinations of characters:

1/ Dorsal scales mainly triacarinata; palpebral disc occupies much more than half of the lower eyelid; ear opening round or vertically elliptic, 6 supraciliaries; prefrontals usually in contact or narrowly separated; dorsal scales tricuspid, the keels are not well aligned with those of the following scales so that the keels do not form continuous lines along the body, or:

2/ Dorsal scales mainly bicarinate; ear opening surrounded by acute, subequal pointed scales; 30-40 midbody rows; 20-26 lamellae under the fourth toe, or;

3/ Dorsal scales mainly bicarinate; ear opening with no more than one or two enlarged rounded lobules on the anterior edge; ear opening horizontally elliptical.

It should be noted that "*Carlia isostricacantha* Afonso-Silva, Santos, Ogilvie and Moritz, 2017" is a junior synonym of "*Carlia mysteria* Wells and Wellington, 1985", the species being placed in the genus *Fortitercarinata* gen. nov..

Afonso-Silva *et al.* (2017) stated that specimens of putative "*Carlia triacantha* (Mitchell, 1953)" from the type locality of "*Carlia mysteria* Wells and Wellington, 1985" (Sir Graham Moore Island, Western Australia) were of their allegedly new species.

It is a disgusting and low act for Afonso-Silva *et al.* (2017) to recklessly engage in taxonomic vandalism and to create a synonym and a destabilizing "dual nomenclature" for this previously known species.

A claim on Peter Uetz's "The Reptile Database" that the Wells and Wellington (1985) name ("*Carlia mysteria* Wells and Wellington, 1985") is a "*nomen nudem*" is completely false.

The Wells and Wellington (1985) species has an identified holotype in the Western Australian Museum (WAM 440414), checked as recently as May 2024 as being still in existence and listed on their database as a holotype. It matches the same putative species and there has never been a question as to what entity the name "*Carlia mysteria* Wells and Wellington, 1985" is attached to.

According to a phylogeny published by Afonso Silva (2018) the species in this genus diverged from other nearest relatives about 8.5 MYA, this being the species in the genus *Fasciststatescincus* gen. nov..

Fortitercarinata mysteria is depicted in life in Brown (2014) on page 548, second from bottom on right.

Fortitercarinata triacantha is depicted in life in Brown (2014) on page 548, second from bottom on left.

A similar situation to the above is seen with respect of the Wells and Wellington taxon *F. monsolgaenensis*. The phylogeny produced by Afonso-Silva (2018) at page 76 confirms the validity of that taxon as well. But Peter Uetz's "The Reptile Database" as of 2024, continues to deny the scientific reality.

It would be sad if any of these species simply became extinct because Peter Uetz, his cohort and their influence to others via their despotic control of the flow of information both online and elsewhere caused these valid species to be ignored for too long.

Distribution: The top end of the Northern Territory as well as the south-west of the Northern Territory, entering far north-west South Australia in the ranges there, as well as the north-west third of Western Australia, Australia.

Etymology: The Latin words "*fortiter carinata*" means "strongly keeled", being an apt description of the dorsal scales in the species in this genus.

The scientific name is an adjective in the form of two words together in apposition.

Content: *Fortitercarinata tastywhencrispy* sp. nov. (type species); *F. amax* (Storr, 1974); *F. faark* sp. nov.; *F. instantanea* (Wells and Wellington, 1985); *F. insularis* (Afonso-Silva, Santos, Ogilvie and Moritz, 2017); *F. itis* sp. nov.; *F. johnstonei* (Storr, 1974); *F. triacantha* (Mitchell, 1953); *F. monsolgaenensis* (Wells and Wellington, 1985); *F. mysteria* (Wells and Wellington, 1985); *F. wow* sp. nov..

FORTITERCARINATA TASTYWHENCRISPY SP. NOV.

LSIDDurn:lsid:zoobank.org:act:A313B2E2-777B-458E-96C6-275E219E8698

Holotype: A preserved specimen at the Museum and Art Gallery of the Northern Territory, Darwin, Northern Territory, Australia, specimen number R21746 collected from the Tjaynera Falls Area, Litchfield National Park, Northern Territory, Australia, Latitude -13.25 S., Longitude 130.733 E.

This government-owned facility allows access to its holdings.

Paratypes: Five preserved specimens at the Museum and Art Gallery of the Northern Territory, Darwin, Northern Territory, Australia, being 1/ Specimen number R21733 collected from the Tjaynera Falls Area, Litchfield National Park, Darwin, Northern Territory, Australia, Latitude -13.25 S., Longitude 130.733 E., 2/ Specimen numbers R12871 and R12888 both collected from Wangi Falls, Litchfield National Park, Northern Territory, Australia, Latitude -13.163 S., Longitude 130.685 E., 3/ Specimen number R12098 collected from Tolmer Falls, Litchfield National Park, Northern Territory, Australia, Latitude -13.207 S., Longitude 130.713 E., 4/ Specimen number R12082 collected from Sandy Creek Falls, Litchfield National Park, Northern Territory, Australia, Latitude -13.25 S., Longitude 130.75 E.

Diagnosis: *Fortitercarinata amax* (Storr, 1974), until now known as *Carlia amax*, with a type locality of Mitchell Plateau, Northwest Kimberley District, Western Australia, has been treated by most authors as a single taxon occupying the tropical north of Australia from the Kimberley District, across the Northern Territory to the hilly areas on the south shore of the Gulf of Carpentaria.

Divergent from this was Wells and Wellington (1985), who formally named a divergent form from Arnhem Land in the Northern Territory, Australia (type locality of Koongarra, NT, Latitude -12.9384 S., Longitude 132.8051 E.) as *Carlia instantanea* and also Storr (1974) who named a taxon as *Carlia johnstonei grandensis*, from Groote Eylandt in the north east of the Northern Territory, which significantly Wells and Wellington (1985) also elevated to full species status.

Notwithstanding the fact that both "*Carlia instantanea*" and "*Carlia grandensis*" have been ignored by all publishing herpetologists in the 39 years since Wells and Wellington (1985) was first published, the molecular evidence of Potter *et al.* (2016) confirmed the taxonomy and nomenclature of Wells and Wellington (1985) to be correct in stark contrast to that of all other relevant publishing authors in the intervening period.

Herein, the three other unnamed forms identified by Potter *et al.* (2016) are formally named as new species.

Therefore, the *Fortitercarinata amax* (Storr, 1974) complex is as follows:

F. amax is effectively confined to the Kimberley District of Western Australia.

F. tastywhencrispy sp. nov. is the taxon from the Western section of the Top End of the Northern Territory, generally in a line west of between Darwin and the Victoria River District, with the centre of the population in the Litchfield National Park and Daly River districts.

F. grandensis occupies most parts of the tropical north of the top end, including Kakadu National Park, areas to the south that are hilly and extending to the west side of the Gulf of Carpentaria and including Groote Eylandt, being the type locality for that species.

F. instantanea contrary to the assertion of Wells and Wellington (1985) is not widespread in the ranges of the top end of the Northern Territory but is in fact confined to a relatively small part of the Arnhem Land escarpment, this being generally near the type locality. It is *F. grandensis* that is the more invasive and wide-ranging taxon.

F. tasteslikesheet sp. nov. is a range restricted taxon, apparently confined to the English Company's Islands and the adjacent

Wessel Islands in the far north-east of the Northern Territory.

F. faark sp. nov. occurs in the hills of the southern shores of the Gulf of Carpentaria, extending to the Selwyn Ranges in north-west Queensland.

The six taxa are readily separated from one another by different sets of characters as follows:

F. amax is a brown coloured lizard all over, with no significant contrast between the head and body upper surfaces colour, or if there is a contrast, it is usually only slight.

That is the head may be slightly more brownish than the greyish body, although quite often any slight transition in colour may be half-way down the trunk rather than between head and upper body (on neck) as seen as a rule in the other species.

The dorsum of *F. amax* has semi distinct dark spotting and more distinct scattered tiny white spots, which also run along most of the length of the tail. Other than the light spots and dull darker spotting, no lines run onto the tail from the body either on top or on the sides of the tail.

F. amax has white spotting separated from black spots on the dorsum, versus joined in all other species.

The belly is always whitish in this species, versus various configurations in the other five species, including whitish, greyish, with or without darker markings.

Upper surfaces of the limbs in *F. amax* are medium brown with dull blackish spots.

Most *F. amax* have contiguous prefrontals, versus generally not so in all the other species in the complex.

F. amax average 21 subdigital lamellae under the fourth toe, versus 23 in the other five species.

F. tastywhencrispy sp. nov. is separated from all other species in the complex by having slightly larger spotting than all others in the group (except for, *F. faark sp. nov.* which has similarly larger spots and blotches) and also well contrasting rather than semi-distinct dark and light spotting.

F. tastywhencrispy sp. nov. is separated from *F. faark sp. nov.* by having more dark spotting on the dorsum and especially the flanks in particular, versus *F. faark sp. nov.* which has a preponderance of white spotting, especially on the flanks and along the tail where they are prominent in that species alone there.

F. tastywhencrispy sp. nov. is further separated from the other five species in the complex by the fact that above the white line that runs from the front of the eye, under the eye to neck is a well-defined dark upper edge and line (contrasting with the lighter brown above this line). In all other species this dark line is either absent, or at best poorly defined and not strongly contrasting with the brown on top of the head.

F. grandensis has a dorsum that is brownish in colour and with moderately numerous very small dark brown dots, formed at the distal parts of some scales, more-or-less arranged longitudinally. There are occasionally a smaller number of scattered tiny white spots as well. These are less distinct on the flanks, making them more-or-less unmarked. Head on top is light brown and body is darker and greyish brown above. Upper labials are whitish, with slight dark etching and similar for lower labials.

In all other species in this complex, there is a well-defined white line that runs from near the nostril, across the underside of the eye, across the ear and along the side of the neck to terminate just anterior of the front leg.

This is not present in *F. grandensis*. In *F. grandensis* under the eye is white, but there is no obvious line extending beyond and along the neck. Instead, this area is the same brownish or greyish colour of the rest of the neck region.

F. instantanea has a dorsum that is greyish on top, not brown. On the dorsum is a series of spots formed by black and white sections joined, the black often in the form of tiny triangles

superimposed over a white spot, leaving white on the sides of the black. On the flanks these black bits are expanded to form squares of 2-3 scales in size, with the white spots moved away from the black to form flecks on the otherwise light grey flank. The black on the flanks is in two rows, leaving a line along the mid flank without black. There are tiny white spots on this line as well as the rest of the flank.

Towards the hind limb and onto the tail, the density of the black on the flank increases to form a semi-well-defined band of black that extends halfway along the length of the tail, below which is a well-defined white line. The top of the tail is a medium grey.

Upper labials have thick, well-defined dark bars that terminate under the white line that runs below the eye.

Upper surfaces of limbs are light grey, but heavily marked with dark spots, blotches and bars giving them an overall mottled appearance.

There is a well-defined white line that runs from near the nostril, across the underside of the eye, across the ear and along the side of the neck to terminate just anterior of the front leg.

This is not present in *F. grandensis* as a species found in close proximity to this taxon and potentially sympatric with it.

F. tasteslikesheet sp. nov. is similar in most respects to *F. instantanea* but differs from that taxon by being a lighter sandy grey colour on top and with a generally washed-out appearance in terms of the dorsum. There is a greater preponderance of tiny white spots on top, versus the darker blackish ones, including when they are combined, but the white spots are not exceptionally numerous as seen in *F. faark* sp. nov.. Upper surfaces of the limbs in *F. tasteslikesheet* sp. nov. are generally light grey with scattered dark spots.

The head of *F. tasteslikesheet* sp. nov. is a light yellowish grey, rather than brownish as seen in *F. grandensis* or brown anteriorly and greyish brown at the back of the head as seen in *F. instantanea*.

F. faark sp. nov. is readily separated from the other five species by having a dull brown head, a dull grey body and an obvious preponderance of numerous scattered tiny white spots on the top of the body, the flanks and all over the tail. Any darker spotting is small in amount, very scattered, very dull and barely noticeable on close inspection.

Upper labials are white and with thin dark etching on the margins. There is no evidence of any dark line above the white line running under the eye. The upper sides of the head are the same colour as on top.

The upper surfaces of the limbs are brown with numerous scattered white spots and a lesser number of dull dark blackish ones.

No lines run along the sides of the tail.

The six preceding species, being *F. amax*, *F. tastywhencrispy* sp. nov., *F. grandensis*, *F. instantanea*, *F. tasteslikesheet* sp. nov. and *F. faark* sp. nov. are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following suite of characters:

Interparietal distinct (as in not fused to the frontoparietals); prefrontals in contact or narrowly separated; 5-8 (usually 6) supraciliaries; 26-35 midbody rows; dorsal scales are 6-sided, each usually with an angular posterior or free edge, mostly bicarinate and strongly keeled, the keels not being well aligned with the following scales; ear opening horizontally elliptical, much smaller than the palpebral disc and with only one small lobule on the anterior edge; 19-28 lamellae under the fourth toe. Colouration is mainly uniform above (more brownish on the head and ending greyish on the lower end of the body but varying with species). Distinct or semi-distinct spots and blotches on the body, all tiny in size and generally not distracting from the more-or-less uniform appearance of the lizard. Venter is white, whitish, whitish

grey, with or without darker markings.

F. amax is depicted in life in Storr *et al.* (1981) in plate 1, photo 6, second from bottom on right and online at: <https://www.inaturalist.org/observations/177476229>

and

<https://www.inaturalist.org/observations/144481369>

F. tastywhencrispy sp. nov. is depicted in life in

<https://www.inaturalist.org/observations/173918771>

and

<https://www.inaturalist.org/observations/187164300>

F. grandensis is depicted in life online at:

<https://www.inaturalist.org/observations/100485324>

F. instantanea is depicted in life in Wilson and Knowles (1988) on page 253 middle left and online at:

<https://www.flickr.com/photos/nieminski/5315225943/>

and

<https://www.inaturalist.org/observations/195641586>

and

https://www.flickr.com/photos/ben_parkhurst_photography/41508121481/

F. faark sp. nov. is depicted in life online at:

<https://www.flickr.com/photos/smacdonald/4539877222/>

and

https://www.flickr.com/photos/zimny_anders/32492490820/

and

<https://www.flickr.com/photos/ryanfrancis/24887261128/>

and

<https://www.inaturalist.org/observations/121558089>

and

<https://www.inaturalist.org/observations/135069030>

and

<https://www.flickr.com/photos/euprepiosaur/5282068366/>

Distribution: *F. tastywhencrispy* sp. nov. occurs in the region of the Western section of the Top End of the Northern Territory, generally in a line west of between Darwin and the Victoria River District, with the centre of the population in the Litchfield National Park and Daly River districts.

Etymology: In early 2012, I sat at a campfire with an Aboriginal elder from the Marranunggu tribe in the bushland off the road about 2 hours drive south-west of Darwin.

It was a large corroboree with Aboriginals from all across the top end of Australia.

I asked the man about the skink we had just caught and he replied that when you put some seasoning on the dead lizard and cook it up on the hot coals of a campfire that it becomes "tasty when crispy". Hence the etymology. The words are adjectives in apposition.

FORTITERCARINATA TASTESLIKESHEET SP. NOV.

LSIDurn:lsid:zoobank.org:act:870DF68C-E68A-4190-AE21-48280DC1B06E

Holotype: A preserved specimen at the Museum and Art Gallery of the Northern Territory, Darwin, Northern Territory, Australia, specimen number R22758 collected from Wigram Island, The English Company's Islands, Northern Territory, Australia, Latitude -11.773 S., Longitude 136.534 E.

This government-owned facility allows access to its holdings.

Paratypes: Ten preserved specimens at the Museum and Art Gallery of the Northern Territory, Darwin, Northern Territory, Australia, being: 1/ Specimen number R22724 collected from Wigram Island, The English Company's Islands, Northern Territory, Australia, Latitude -11.773 S., Longitude 136.534 E., 2/ Specimen numbers R22730, R22731, R22734 and R22735 all collected from Pobasso Island, The English Company's Islands,

Northern Territory, Australia, Latitude -11.901 S., Longitude 136.452 E., 3/ Specimen numbers R22756, R22768, R22769, R22771 and R22775 all collected from Astell Island, The English Company's Islands, Northern Territory, Australia, Latitude -11.873 S., Longitude 136.42 E.

Diagnosis: *Fortitercarinata amax* (Storr, 1974), until now known as *Carlia amax*, with a type locality of Mitchell Plateau, Northwest Kimberley District, Western Australia, has been treated by most authors as a single taxon occupying the tropical north of Australia from the Kimberley District, across the Northern Territory to the hilly areas on the south shore of the Gulf of Carpentaria.

Divergent from this was Wells and Wellington (1985), who formally named a divergent form from Arnhem Land in the Northern Territory, Australia (type locality of Koongarra, NT, Latitude -12.9384 S., Longitude 132.8051 E.) as *Carlia instantanea* and also Storr (1974) who named a taxon as *Carlia johnstonei grandensis*, from Groote Eylandt in the north east of the Northern Territory, which significantly Wells and Wellington (1985) also elevated to full species status.

Notwithstanding the fact that both "*Carlia instantanea*" and "*Carlia grandensis*" have been ignored by all publishing herpetologists in the 39 years since Wells and Wellington (1985) was first published, the molecular evidence of Potter *et al.* (2016) confirmed the taxonomy and nomenclature of Wells and Wellington (1985) to be correct in stark contrast to that of all other relevant publishing authors in the intervening period.

Herein, the three other unnamed forms identified by Potter *et al.* (2016) are formally named as new species.

Therefore, the *Fortitercarinata amax* (Storr, 1974) complex is as follows:

F. amax is effectively confined to the Kimberley District of Western Australia.

F. tastywhencrispy sp. nov. is the taxon from the Western section of the Top End of the Northern Territory, generally in a line west of between Darwin and the Victoria River District, with the centre of the population in the Litchfield National Park and Daly River districts.

F. grandensis occupies most parts of the tropical north of the top end, including Kakadu National Park, areas to the south that are hilly and extending to the west side of the Gulf of Carpentaria and including Groote Eylandt, being the type locality for that species.

F. instantanea contrary to the assertion of Wells and Wellington (1985) is not widespread in the ranges of the top end of the Northern Territory but is in fact confined to a relatively small part of the Arnhem Land escarpment, this being generally near the type locality. It is *F. grandensis* that is the more invasive and wide-ranging taxon.

F. tasteslikesheet sp. nov. is a range restricted taxon, apparently confined to the English Company's Islands and the adjacent Wessel Islands in the far north-east of the Northern Territory.

F. faark sp. nov. occurs in the hills of the southern shores of the Gulf of Carpentaria, extending to the Selwyn Ranges in north-west Queensland.

The six taxa are readily separated from one another by different sets of characters as follows:

F. amax is a brown coloured lizard all over, with no significant contrast between the head and body upper surfaces colour, or if there is a contrast, it is usually only slight.

That is the head may be slightly more brownish than the greyish body, although quite often any slight transition in colour may be half-way down the trunk rather than between head and upper body (on neck) as seen as a rule in the other species.

The dorsum of *F. amax* has semi distinct dark spotting and more distinct scattered tiny white spots, which also run along most of the length of the tail. Other than the light spots and dull darker spotting, no lines run onto the tail from the body either on top or

on the sides of the tail.

F. amax has white spotting separated from black spots on the dorsum, versus joined in all other species.

The belly is always whitish in this species, versus various configurations in the other five species, including whitish, greyish, with or without darker markings.

Upper surfaces of the limbs in *F. amax* are medium brown with dull blackish spots.

Most *F. amax* have contiguous prefrontals, versus generally not so in all the other species in the complex.

F. amax average 21 subdigital lamellae under the fourth toe, versus 23 in the other five species.

F. tastywhencrispy sp. nov. is separated from all other species in the complex by having slightly larger spotting than all others in the group (except for, *F. faark sp. nov.* which has similarly larger spots and blotches) and also well contrasting rather than semi-distinct dark and light spotting.

F. tastywhencrispy sp. nov. is separated from *F. faark sp. nov.* by having more dark spotting on the dorsum and especially the flanks in particular, versus *F. faark sp. nov.* which has a preponderance of white spotting, especially on the flanks and along the tail where they are prominent in that species alone there.

F. tastywhencrispy sp. nov. is further separated from the other five species in the complex by the fact that above the white line that runs from the front of the eye, under the eye to neck is a well-defined dark upper edge and line (contrasting with the lighter brown above this line). In all other species this dark line is either absent, or at best poorly defined and not strongly contrasting with the brown on top of the head.

F. grandensis has a dorsum that is brownish in colour and with moderately numerous very small dark brown dots, formed at the distal parts of some scales, more-or-less arranged longitudinally. There are occasionally a smaller number of scattered tiny white spots as well. These are less distinct on the flanks, making them more-or-less unmarked. Head on top is light brown and body is darker and greyish brown above. Upper labials are whitish, with slight dark etching and similar for lower labials.

In all other species in this complex, there is a well-defined white line that runs from near the nostril, across the underside of the eye, across the ear and along the side of the neck to terminate just anterior of the front leg.

This is not present in *F. grandensis*. In *F. grandensis* under the eye is white, but there is no obvious line extending beyond and along the neck. Instead, this area is the same brownish or greyish colour of the rest of the neck region.

F. instantanea has a dorsum that is greyish on top, not brown. On the dorsum is a series of spots formed by black and white sections joined, the black often in the form of tiny triangles superimposed over a white spot, leaving white on the sides of the black. On the flanks these black bits are expanded to form squares of 2-3 scales in size, with the white spots moved away from the black to form flecks on the otherwise light grey flank. The black on the flanks is in two rows, leaving a line along the mid flank without black. There are tiny white spots on this line as well as the rest of the flank.

Towards the hind limb and onto the tail, the density of the black on the flank increases to form a semi-well-defined band of black that extends halfway along the length of the tail, below which is a well-defined white line. The top of the tail is a medium grey.

Upper labials have thick, well-defined dark bars that terminate under the white line that runs below the eye.

Upper surfaces of limbs are light grey, but heavily marked with dark spots, blotches and bars giving them an overall mottled appearance.

There is a well-defined white line that runs from near the nostril, across the underside of the eye, across the ear and along the

side of the neck to terminate just anterior of the front leg.

This is not present in *F. grandensis* as a species found in close proximity to this taxon and potentially sympatric with it.

F. tasteslikesheet sp. nov. is similar in most respects to *F. instantanea* but differs from that taxon by being a lighter sandy grey colour on top and with a generally washed-out appearance in terms of the dorsum. There is a greater preponderance of tiny white spots on top, versus the darker blackish ones, including when they are combined, but the white spots are not exceptionally numerous as seen in *F. faark* sp. nov.. Upper surfaces of the limbs in *F. tasteslikesheet* sp. nov. are generally light grey with scattered dark spots.

The head of *F. tasteslikesheet* sp. nov. is a light yellowish grey, rather than brownish as seen in *F. grandensis* or brown anteriorly and greyish brown at the back of the head as seen in *F. instantanea*.

F. faark sp. nov. is readily separated from the other five species by having a dull brown head, a dull grey body and an obvious preponderance of numerous scattered tiny white spots on the top of the body, the flanks and all over the tail. Any darker spotting is small in amount, very scattered, very dull and barely noticeable on close inspection.

Upper labials are white and with thin dark etching on the margins. There is no evidence of any dark line above the white line running under the eye. The upper sides of the head are the same colour as on top.

The upper surfaces of the limbs are brown with numerous scattered white spots and a lesser number of dull dark blackish ones.

No lines run along the sides of the tail.

The six preceding species, being *F. amax*, *F. tastywhencrispy* sp. nov., *F. grandensis*, *F. instantanea*, *F. tasteslikesheet* sp. nov. and *F. faark* sp. nov. are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following suite of characters:

Interparietal distinct (as in not fused to the frontoparietals); prefrontals in contact or narrowly separated; 5-8 (usually 6) supraciliaries; 26-35 midbody rows; dorsal scales are 6-sided, each usually with an angular posterior or free edge, mostly bicarinate and strongly keeled, the keels not being well aligned with the following scales; ear opening horizontally elliptical, much smaller than the palpebral disc and with only one small lobule on the anterior edge; 19-28 lamellae under the fourth toe. Colouration is mainly uniform above (more brownish on the head and ending greyish on the lower end of the body but varying with species). Distinct or semi-distinct spots and blotches on the body, all tiny in size and generally not distracting from the more-or-less uniform appearance of the lizard. Venter is white, whitish, whitish grey, with or without darker markings.

F. amax is depicted in life in Storr *et al.* (1981) in plate 1, photo 6, second from bottom on right and online at:

<https://www.inaturalist.org/observations/177476229>

and

<https://www.inaturalist.org/observations/144481369>

F. tastywhencrispy sp. nov. is depicted in life in

<https://www.inaturalist.org/observations/173918771>

and

<https://www.inaturalist.org/observations/187164300>

F. grandensis is depicted in life online at:

<https://www.inaturalist.org/observations/100485324>

F. instantanea is depicted in life in Wilson and Knowles (1988) on page 253 middle left and online at:

<https://www.flickr.com/photos/nieminski/5315225943/>

and

<https://www.inaturalist.org/observations/195641586>

and

https://www.flickr.com/photos/ben_parkhurst_photography/41508121481/

F. faark sp. nov. is depicted in life online at:

<https://www.flickr.com/photos/smacdonald/4539877222/>

and

https://www.flickr.com/photos/zimny_anders/32492490820/

and

<https://www.flickr.com/photos/ryanfrancis/24887261128/>

and

<https://www.inaturalist.org/observations/121558089>

and

<https://www.inaturalist.org/observations/135069030>

and

<https://www.flickr.com/photos/euprepiosaur/5282068366/>

Distribution: *F. tasteslikesheet* sp. nov. is a range restricted taxon, apparently confined to the English Company's Islands and the adjacent Wessel Islands in the far north-east of the Northern Territory. It may also occur on the immediately adjacent mainland of Australia.

Etymology: In early 2012, I sat at a campfire with an Aboriginal elder from the Marranunggu tribe in the bushland off the road about 2 hours drive south-west of Darwin.

It was a large corroboree with Aboriginals from all across the top end of Australia.

I asked the man about the skink we had just caught and he replied that when you put some seasoning on the dead lizard and cook it up on the hot coals of a campfire that it becomes "tasty when crispy".

A visiting member of the Yolngu from East Arnhem Land replied "I think it tastes like sheet", so the etymology for the new East Arnhem Land species is "tastes like sheet".

The words are adjectives in apposition.

FORTITERCARINATA FAARK SP. NOV.

LSIDDurn:lsid:zoobank.org:act:6982AC13-F527-4C29-B2E4-A8B074577873

Holotype: A preserved specimen at the Museum and Art Gallery of the Northern Territory, Darwin, Northern Territory, Australia, specimen number R21363 collected from Musselbrook Reserve, Murrays Spring, Queensland, Australia, Latitude -18.588 S., Longitude 138.054 E.

This government-owned facility allows access to its holdings.

Paratypes: Seven preserved specimens at the Museum and Art Gallery of the Northern Territory, Darwin, Northern Territory, Australia, being: 1/ Specimen numbers R21361 and R21364 both collected from Musselbrook Reserve, Murrays Spring, Queensland, Australia, Latitude -18.588 S., Longitude 138.054 E., 2/ Specimen numbers R31719, R31729 and R31730 all collected from Springvale, Northern Territory, Australia, Latitude -18.533 S., Longitude 137.6 E., 3/ Specimen numbers R14406 and R14412 both collected from Echo Gorge, Wollongorang Station, Gulf of Carpentaria, Northern Territory, Australia, Latitude -17.183 S., Longitude 137.717 E.

Diagnosis: *Fortitercarinata amax* (Storr, 1974), until now known as *Carlia amax*, with a type locality of Mitchell Plateau, Northwest Kimberley District, Western Australia, has been treated by most authors as a single taxon occupying the tropical north of Australia from the Kimberley District, across the Northern Territory to the hilly areas on the south shore of the Gulf of Carpentaria.

Divergent from this was Wells and Wellington (1985), who formally named a divergent form from Arnhem Land in the Northern Territory, Australia (type locality of Koongarra, NT, Latitude -12.9384 S., Longitude 132.8051 E.) as *Carlia instantanea* and also Storr (1974) who named a taxon as *Carlia*

johnstonei grandensis, from Groote Eylandt in the north east of the Northern Territory, which significantly Wells and Wellington (1985) also elevated to full species status.

Notwithstanding the fact that both "*Carlia instantanea*" and "*Carlia grandensis*" have been ignored by all publishing herpetologists in the 39 years since Wells and Wellington (1985) was first published, the molecular evidence of Potter *et al.* (2016) confirmed the taxonomy and nomenclature of Wells and Wellington (1985) to be correct in stark contrast to that of all other relevant publishing authors in the intervening period.

Herein, the three other unnamed forms identified by Potter *et al.* (2016) are formally named as new species.

Therefore, the *Fortitercarinata amax* (Storr, 1974) complex is as follows:

F. amax is effectively confined to the Kimberley District of Western Australia.

F. tastywhencrispy sp. nov. is the taxon from the Western section of the Top End of the Northern Territory, generally in a line west of between Darwin and the Victoria River District, with the centre of the population in the Litchfield National Park and Daly River districts.

F. grandensis occupies most parts of the tropical north of the top end, including Kakadu National Park, areas to the south that are hilly and extending to the west side of the Gulf of Carpentaria and including Groote Eylandt, being the type locality for that species.

F. instantanea contrary to the assertion of Wells and Wellington (1985) is not widespread in the ranges of the top end of the Northern Territory but is in fact confined to a relatively small part of the Arnhem Land escarpment, this being generally near the type locality. It is *F. grandensis* that is the more invasive and wide-ranging taxon.

F. tasteslikesheet sp. nov. is a range restricted taxon, apparently confined to the English Company's Islands and the adjacent Wessel Islands in the far north-east of the Northern Territory.

F. faark sp. nov. occurs in the hills of the southern shores of the Gulf of Carpentaria, extending to the Selwyn Ranges in north-west Queensland.

The six taxa are readily separated from one another by different sets of characters as follows:

F. amax is a brown coloured lizard all over, with no significant contrast between the head and body upper surfaces colour, or if there is a contrast, it is usually only slight.

That is the head may be slightly more brownish than the greyish body, although quite often any slight transition in colour may be half-way down the trunk rather than between head and upper body (on neck) as seen as a rule in the other species.

The dorsum of *F. amax* has semi distinct dark spotting and more distinct scattered tiny white spots, which also run along most of the length of the tail. Other than the light spots and dull darker spotting, no lines run onto the tail from the body either on top or on the sides of the tail.

F. amax has white spotting separated from black spots on the dorsum, versus joined in all other species.

The belly is always whitish in this species, versus various configurations in the other five species, including whitish, greyish, with or without darker markings.

Upper surfaces of the limbs in *F. amax* are medium brown with dull blackish spots.

Most *F. amax* have contiguous prefrontals, versus generally not so in all the other species in the complex.

F. amax average 21 subdigital lamellae under the fourth toe, versus 23 in the other five species.

F. tastywhencrispy sp. nov. is separated from all other species in the complex by having slightly larger spotting than all others in the group (except for, *F. faark sp. nov.* which has similarly larger

spots and blotches) and also well contrasting rather than semi-distinct dark and light spotting.

F. tastywhencrispy sp. nov. is separated from *F. faark sp. nov.* by having more dark spotting on the dorsum and especially the flanks in particular, versus *F. faark sp. nov.* which has a preponderance of white spotting, especially on the flanks and along the tail where they are prominent in that species alone there.

F. tastywhencrispy sp. nov. is further separated from the other five species in the complex by the fact that above the white line that runs from the front of the eye, under the eye to neck is a well-defined dark upper edge and line (contrasting with the lighter brown above this line). In all other species this dark line is either absent, or at best poorly defined and not strongly contrasting with the brown on top of the head.

F. grandensis has a dorsum that is brownish in colour and with moderately numerous very small dark brown dots, formed at the distal parts of some scales, more-or-less arranged longitudinally. There are occasionally a smaller number of scattered tiny white spots as well. These are less distinct on the flanks, making them more-or-less unmarked. Head on top is light brown and body is darker and greyish brown above. Upper labials are whitish, with slight dark etching and similar for lower labials.

In all other species in this complex, there is a well-defined white line that runs from near the nostril, across the underside of the eye, across the ear and along the side of the neck to terminate just anterior of the front leg.

This is not present in *F. grandensis*. In *F. grandensis* under the eye is white, but there is no obvious line extending beyond and along the neck. Instead, this area is the same brownish or greyish colour of the rest of the neck region.

F. instantanea has a dorsum that is greyish on top, not brown. On the dorsum is a series of spots formed by black and white sections joined, the black often in the form of tiny triangles superimposed over a white spot, leaving white on the sides of the black. On the flanks these black bits are expanded to form squares of 2-3 scales in size, with the white spots moved away from the black to form flecks on the otherwise light grey flank. The black on the flanks is in two rows, leaving a line along the mid flank without black. There are tiny white spots on this line as well as the rest of the flank.

Towards the hind limb and onto the tail, the density of the black on the flank increases to form a semi-well-defined band of black that extends halfway along the length of the tail, below which is a well-defined white line. The top of the tail is a medium grey.

Upper labials have thick, well-defined dark bars that terminate under the white line that runs below the eye.

Upper surfaces of limbs are light grey, but heavily marked with dark spots, blotches and bars giving them an overall mottled appearance.

There is a well-defined white line that runs from near the nostril, across the underside of the eye, across the ear and along the side of the neck to terminate just anterior of the front leg.

This is not present in *F. grandensis* as a species found in close proximity to this taxon and potentially sympatric with it.

F. tasteslikesheet sp. nov. is similar in most respects to *F. instantanea* but differs from that taxon by being a lighter sandy grey colour on top and with a generally washed-out appearance in terms of the dorsum. There is a greater preponderance of tiny white spots on top, versus the darker blackish ones, including when they are combined, but the white spots are not exceptionally numerous as seen in *F. faark sp. nov.* Upper surfaces of the limbs in *F. tasteslikesheet sp. nov.* are generally light grey with scattered dark spots.

The head of *F. tasteslikesheet sp. nov.* is a light yellowish grey, rather than brownish as seen in *F. grandensis* or brown anteriorly and greyish brown at the back of the head as seen in *F. instantanea*.

F. faark sp. nov. is readily separated from the other five species by having a dull brown head, a dull grey body and an obvious preponderance of numerous scattered tiny white spots on the top of the body, the flanks and all over the tail. Any darker spotting is small in amount, very scattered, very dull and barely noticeable on close inspection.

Upper labials are white and with thin dark etching on the margins. There is no evidence of any dark line above the white line running under the eye. The upper sides of the head are the same colour as on top.

The upper surfaces of the limbs are brown with numerous scattered white spots and a lesser number of dull dark blackish ones.

No lines run along the sides of the tail.

The six preceding species, being *F. amax*, *F. tastywhencrispy* sp. nov., *F. grandensis*, *F. instantanea*, *F. tasteslikesheet* sp. nov. and *F. faark* sp. nov. are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following suite of characters:

Interparietal distinct (as in not fused to the frontoparietals); prefrontals in contact or narrowly separated; 5-8 (usually 6) supraciliaries; 26-35 midbody rows; dorsal scales are 6-sided, each usually with an angular posterior or free edge, mostly bicarinate and strongly keeled, the keels not being well aligned with the following scales; ear opening horizontally elliptical, much smaller than the palpebral disc and with only one small lobule on the anterior edge; 19-28 lamellae under the fourth toe. Colouration is mainly uniform above (more brownish on the head and ending greyish on the lower end of the body but varying with species). Distinct or semi-distinct spots and blotches on the body, all tiny in size and generally not distracting from the more-or-less uniform appearance of the lizard. Venter is white, whitish, whitish grey, with or without darker markings.

F. amax is depicted in life in Storr *et al.* (1981) in plate 1, photo 6, second from bottom on right and online at:

<https://www.inaturalist.org/observations/177476229>

and

<https://www.inaturalist.org/observations/144481369>

F. tastywhencrispy sp. nov. is depicted in life in

<https://www.inaturalist.org/observations/173918771>

and

<https://www.inaturalist.org/observations/187164300>

F. grandensis is depicted in life online at:

<https://www.inaturalist.org/observations/100485324>

F. instantanea is depicted in life in Wilson and Knowles (1988) on page 253 middle left and online at:

<https://www.flickr.com/photos/nieminski/5315225943/>

and

<https://www.inaturalist.org/observations/195641586>

and

https://www.flickr.com/photos/ben_parkhurst_photography/41508121481/

F. faark sp. nov. is depicted in life online at:

<https://www.flickr.com/photos/smacdonald/4539877222/>

and

https://www.flickr.com/photos/zimny_anders/32492490820/

and

<https://www.flickr.com/photos/ryanfrancis/24887261128/>

and

<https://www.inaturalist.org/observations/121558089>

and

<https://www.inaturalist.org/observations/135069030>

and

<https://www.flickr.com/photos/euprepiosaur/5282068366/>

Distribution: *F. faark* sp. nov. occurs in the hills of the southern shores of the Gulf of Carpentaria, extending to the Selwyn Ranges in north-west Queensland.

Etymology: In early 2012, I sat at a campfire with an Aboriginal elder from the Marranunggu tribe in the bushland off the road about 2 hours drive south-west of Darwin.

It was a large corroboree with Aboriginals from all across the top end of Australia.

I asked the man about the skink we had just caught and he replied that when you put some seasoning on the dead lizard and cook it up on the hot coals of a campfire that it becomes "tasty when crispy".

A visiting member of the Yolngu from East Arnhem Land replied "I think it tastes like sheet".

Another visiting elder from the Waanji tribe, from the southern Gulf of Carpentaria said "faark ... bwudda, we only eat goannas where we live", making the etymology for the species from the species from the southern Gulf of Carpentaria "faark"

Technically, the species name could be a noun, an adjective or a verb in apposition.

FORTITERCARINATA WOW SP. NOV.

LSIDurn:lsid:zoobank.org:act:A3FE109C-B391-4A0B-94A3-03599A8E64E5

Holotype: A preserved specimen at the Western Australian Museum, Perth, Western Australia, Australia, specimen number R173481 collected from an escarpment site at the "Drysdale River Camp", 50 km southeast of Kalumburu, Western Australia, Australia, Latitude -14.608333 S., Longitude 126.931667 E.

This government-owned facility allows access to its holdings.

Paratypes: Eight preserved specimens at the Western Australian Museum, Perth, Western Australia, Australia, specimen numbers R173475, R173476, R173477, R173478, R173482, R173483, R173484 and R173485 all collected from an escarpment site at the "Drysdale River Camp", 50 km southeast of Kalumburu, Western Australia, Australia, Latitude -14.608333 S., Longitude 126.931667 E.

Diagnosis: Until now each of *Fortitercarinata wow* sp. nov. and *Fortitercarinata itis* sp. nov. have been treated as divergent populations of *Fortitercarinata johnstonei* (Storr, 1974), originally described as "*Carlia johnstonei*", with a type locality of Mitchell Plateau, Western Australia, Australia (Latitude -14.52 S., Longitude 125.50 E.).

Fortitercarinata johnstonei (Storr, 1974) is herein restricted to the north-west Kimberley District of Western Australia. In the region including the Drysdale River and east along the nearby north Kimberley Coast one finds *Fortitercarinata wow* sp. nov..

In the region of the Prince Regent River one finds *F. itis* sp. nov..

An associated and recently described form *F. insularis* (Afonso-Silva, Santos, Ogilvie and Moritz, 2017) occurs on a number of northwest Kimberley Islands, all of which were joined in recent ice-age minima.

The four species can be readily separated from one another as follows:

F. johnstonei is generally brownish all over with scattered small white and dark spots, with the dark generally placed anterior to and joining the white. Lower flanks have tiny white spots on their own. The upper labials have a well-defined white line extending to the back of the head and becoming wider and broken up on the neck. There is no barring as such on the labials, with a few specimens at best having lightly etched scales.

Upper surfaces of the limbs are an even combination of dark and light brown markings, being black as a background and with brown spots and the like on top.

Tail is not really marked in any way but is a combination of grey-

black and brown pigment, sometimes also including tiny white spots.

Fortitercarinata wow sp. nov. lack any line going beyond the labials to the neck. There is however in this species are reasonably well-developed brownish line running from snout, through nostril and eye to back of head as an upper temporal streak that widens posteriorly. On the dorsum, white flecks are more obvious than dark, versus either reverse, or about even in *F. johnstonei*.

Upper surfaces of the limbs are medium brown with semi-distinct black spots and bars.

The tail is brown with semi-distinct blackish bars, closely spaced, running across the top.

F. itis sp. nov. is a more reddish-coloured lizard than the two preceding species. There is no white stripe on the lower neck and the entire neck and body is heavily spotted with tiny white spots. Anterior upper labials are mainly dark and those at the rear white but with dark blotches, marks, spots or bars.

Upper surfaces of the limbs are dark in colour and with numerous tiny but well-defined white dots.

Tail is brown with scattered tiny white or yellowish spots.

The associated species *F. insularis* is separated from the three preceding species by having a mixture of 2 or 3 strong keels on the dorsal scales, versus always 2 strong keels in the other three species.

F. insularis also has prefrontals in contact or narrowly separated, versus well separated in the other three species. *F. insularis* also has a reasonably well-defined blackish stripe running along either side of the tail. The top of the head and anterior two thirds of the body are reddish on top, becoming greyish at the rump and tail. While the labials are mainly white, there is no obvious white line extending from them. There is no line from snout through nostril, eye and to back of side of head. On the lower sides of the head and neck, a series of small spots in each scale gives the gular area and sides of lower neck a striated pattern. Upper surfaces of limbs are greyish-brown and the darker markings on them are faded, so not in any way obvious.

The four preceding species, being *F. johnstonei*, *F. insularis*, *F. wow sp. nov.* and *F. itis sp. nov.* are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following suite of characters:

40 mm adult snout-vent length; interparietal distinct (as in not fused to the frontoparietals); prefrontals in contact or narrowly separated; 6-8 (usually 7) supraciliaries; 34-40 midbody rows; dorsal scales are 6-sided, each usually with an angular posterior or free edge, mostly bicarinate and strongly keeled, the keels not being well aligned with the following scales; ear opening is circular, horizontally or vertically elliptical, smaller in size to the palpebral disc and with one large lobule on the anterior edge and many other smaller ones on other margins of the ear; 20-26 lamellae under the fourth toe. Colouration is mainly uniform above (more brownish on the head and ending greyish on the lower end of the body but varying with species). Distinct or semi-distinct spots and blotches on the body, all tiny in size and generally not distracting from the more-or-less uniform appearance of the lizard. Venter is white, whitish, whitish grey, with or without darker markings.

Breeding males of the preceding four species develop a quite distinctive boldly black coloured head and upper neck.

The six morphologically similar and closely related species *F. amax*, *F. tasywhencrispy sp. nov.*, *F. grandensis*, *F. instantanea*, *F. tasteslikesheet sp. nov.* and *F. faark sp. nov.* are separated from the preceding four species by the lack of many smaller lobules on the margins of the ear as seen in the preceding four species. At best the six morphologically similar and closely related species *F. amax*, *F. tasywhencrispy sp. nov.*,

F. grandensis, *F. instantanea*, *F. tasteslikesheet sp. nov.* and *F. faark sp. nov.* may have one or two tiny lobules on the ear margin in addition to the larger one. But they do not have a well-defined series as seen in the other four species.

F. johnstonei is depicted in life online at:

<https://www.flickr.com/photos/smacdonald/5221027778/> and

<https://www.flickr.com/photos/54876436@N08/14185739270/>

F. itis sp. nov. is depicted in life in Wilson and Swan (2021) on page 227, second from bottom (also in Wilson and Knowles 1988 on page 255 at top right) and online at:

<https://www.inaturalist.org/observations/900770>

and

<https://www.inaturalist.org/observations/144382212>

F. insularis is depicted in life in Wilson and Swan (2021) on page 225 bottom right.

Distribution: In the region including the lower Drysdale River and east along the nearby north Kimberley coast one finds *Fortitercarinata wow sp. nov.*

Etymology: When finding a new species it is common to exclaim "wow" and hence the etymology.

FORTITERCARINATA ITIS SP. NOV.

LSIDurn:lsid:zoobank.org:act:9AA94025-E493-49CA-9710-6306365E3FBE

Holotype: A preserved adult female specimen at the Western Australian Museum, Perth, Western Australia, Australia, specimen number R171488 collected from Prince Regent Nature Reserve, Western Australia, Australia, Latitude -15.991667 S., Longitude 125.328333 E.

This government-owned facility allows access to its holdings.

Paratypes: A preserved adult female specimen at the Western Australian Museum, Perth, Western Australia, Australia, specimen number R169980 collected from the Yampi Peninsula, Western Australia, Australia, Latitude -16.176667 S., Longitude 123.639444 E.

Diagnosis: Until now each of *Fortitercarinata wow sp. nov.* and *Fortitercarinata itis sp. nov.* have been treated as divergent populations of *Fortitercarinata johnstonei* (Storr, 1974), originally described as "*Carlia johnstonei*", with a type locality of Mitchell Plateau, Western Australia, Australia (Latitude -14.52 S., Longitude 125.50 E.).

Fortitercarinata johnstonei (Storr, 1974) is herein restricted to the north-west Kimberley District of Western Australia. In the region including the Drysdale River and east along the nearby north Kimberley Coast one finds *Fortitercarinata wow sp. nov.*

In the region of the Prince Regent River one finds *F. itis sp. nov.*

An associated and recently described form *F. insularis* (Afonso-Silva, Santos, Ogilvie and Moritz, 2017) occurs on a number of northwest Kimberley Islands, all of which were joined in recent ice-age minima.

The four species can be readily separated from one another as follows:

F. johnstonei is generally brownish all over with scattered small white and dark spots, with the dark generally placed anterior to and joining the white. Lower flanks have tiny white spots on their own. The upper labials have a well-defined white line extending to the back of the head and becoming wider and broken up on the neck. There is no barring as such on the labials, with a few specimens at best having lightly etched scales.

Upper surfaces of the limbs are an even combination of dark and light brown makings, being black as a background and with brown spots and the like on top.

Tail is not really marked in any way but is a combination of grey-black and brown pigment, sometimes also including tiny white spots.

Fortitercarinata *wow* sp. nov. lack any line going beyond the labials to the neck. There is however in this species are reasonably well-developed brownish line running from snout, through nostril and eye to back of head as an upper temporal streak that widens posteriorly. On the dorsum, white flecks are more obvious than dark, versus either reverse, or about even in *F. johnstonei*.

Upper surfaces of the limbs are medium brown with semi-distinct black spots and bars.

The tail is brown with semi-distinct blackish bars, closely spaced, running across the top.

F. itis sp. nov. is a more reddish-coloured lizard than the two preceding species. There is no white stripe on the lower neck and the entire neck and body is heavily spotted with tiny white spots. Anterior upper labials are mainly dark and those at the rear white but with dark blotches, marks, spots or bars.

Upper surfaces of the limbs are dark in colour and with numerous tiny but well-defined white dots.

Tail is brown with scattered tiny white or yellowish spots.

The associated species *F. insularis* is separated from the three preceding species by having a mixture of 2 or 3 strong keels on the dorsal scales, versus always 2 strong keels in the other three species.

F. insularis also has prefrontals in contact or narrowly separated, versus well separated in the other three species. *F. insularis* also has a reasonably well-defined blackish stripe running along either side of the tail. The top of the head and anterior two thirds of the body are reddish on top, becoming greyish at the rump and tail. While the labials are mainly white, there is no obvious white line extending from them. There is no line from snout through nostril, eye and to back of side of head. On the lower sides of the head and neck, a series of small spots in each scale gives the gular area and sides of lower neck a striated pattern. Upper surfaces of limbs are greyish-brown and the darker markings on them are faded, so not in any way obvious.

The four preceding species, being *F. johnstonei*, *F. insularis*, *F. wow* sp. nov. and *F. itis* sp. nov. are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following suite of characters:

40 mm adult snout-vent length; interparietal distinct (as in not fused to the frontoparietals); prefrontals in contact or narrowly separated; 6-8 (usually 7) supraciliaries; 34-40 midbody rows; dorsal scales are 6-sided, each usually with an angular posterior or free edge, mostly bicarinate and strongly keeled, the keels not being well aligned with the following scales; ear opening is circular, horizontally or vertically elliptical, smaller in size to the palpebral disc and with one large lobule on the anterior edge and many other smaller ones on other margins of the ear; 20-26 lamellae under the fourth toe. Colouration is mainly uniform above (more brownish on the head and ending greyish on the lower end of the body but varying with species). Distinct or semi-distinct spots and blotches on the body, all tiny in size and generally not distracting from the more-or-less uniform appearance of the lizard. Venter is white, whitish, whitish grey, with or without darker markings.

Breeding males of the four preceding species develop a quite distinctive boldly black coloured head and upper neck.

The six morphologically similar and closely related species *F. amax*, *F. tasywhencrispy* sp. nov., *F. grandensis*, *F. instantanea*, *F. tasteslikesheet* sp. nov. and *F. faark* sp. nov. are separated from the preceding four species by the lack of many smaller lobules on the margins of the ear as seen in the preceding four species. At best the six morphologically similar and closely related species *F. amax*, *F. tasywhencrispy* sp. nov., *F. grandensis*, *F. instantanea*, *F. tasteslikesheet* sp. nov. and *F. faark* sp. nov. may have one or two tiny lobules on the ear

margin in addition to the larger one. But they do not have a well-defined series as seen in the other four species.

F. johnstonei is depicted in life online at:

<https://www.flickr.com/photos/smacdonald/5221027778/>

and

<https://www.flickr.com/photos/54876436@N08/14185739270/>

F. itis sp. nov. is depicted in life in Wilson and Swan (2021) on page 227, second from bottom (also in Wilson and Knowles 1988 on page 255 at top right) and online at:

<https://www.inaturalist.org/observations/900770>

and

<https://www.inaturalist.org/observations/144382212>

F. insularis is depicted in life in Wilson and Swan (2021) on page 225 bottom right.

Distribution: *F. itis* sp. nov. is only known from the general vicinity of the Prince Regent River drainage basin, including around the mouth and nearby Storr Island in the south-west Kimberley District of Western Australia, Australia.

Etymology: When confirming the finding of a new species it is common to exclaim "it is" and hence the etymology.

CARLIA ADINA SP. NOV.

LSIDurn:lsid:zoobank.org:act:5E100348-A6D1-4AD5-B208-9B7FE3DFDE78

Holotype: A preserved specimen at the Museum and Art Gallery of the Northern Territory, Darwin, Northern Territory, Australia, specimen number R26330 collected from Jensen Bay, Marchinbar Island, Wessel Islands, Northern Territory, Australia, Latitude -11.167 S., Longitude 136.683 E.

This government-owned facility allows access to its holdings.

Paratypes: Nine preserved specimens at the Museum and Art Gallery of the Northern Territory, Darwin, Northern Territory, Australia, being specimen numbers R26297, R26298, R26305, R26317, R26318, R26326, R26327, R26328 and R26331 all collected from Jensen Bay, Marchinbar Island, Wessel Islands, Northern Territory, Australia, Latitude -11.167 S., Longitude 136.683 E.

Diagnosis: Until now *Carlia rufilatus* Storr, 1974 has been treated as a single putative species found from the wetter parts of the top end of Australia, including both Western Australia and the Northern Territory.

Wells and Wellington (1985) named the west Kimberley population as *Carlia boustedi* with a type locality of Derby in Western Australia. They restricted *C. rufilatus* to the hillier parts of the top end of the Northern Territory.

In line with an unscientific forced suppression of the names of Wells and Wellington by the Wüster gang (see Hoser 2007), no publishing author in Australia or elsewhere has recognized that taxon in the 39 years since publication of the Wells and Wellington (1985) paper.

However, Afonso Silva (2018) showed a 2.4 MYA divergence between the Kimberley populations of putative *C. rufilatus* from those of the top end, which is exactly why I quite properly recognise *C. boustedi* as a morphologically divergent species in exactly the same terms as formally proposed by Wells and Wellington 39 years back.

I note that Wells and Wellington were correct in their assessment of the relevant taxa in 1985 and other than myself in this paper, no other herpetologist in Australia or elsewhere appears to have formally caught up with their science and the nomenclature that followed!

Afonso Silva (2018) also showed an even greater divergence for the population of putative *Carlia rufilatus* from the north-east of the Northern Territory, as compared to the type form from the north-west of the top end.

That divergence was estimated at 5.39 MYA.

Consequently that is herein named as a new species, *Carlia adina* sp. nov..

Six years is far too long for a potentially highly vulnerable, range-restricted taxon to remain unnamed and effectively outside of any proper conservation management.

In terms of the Kimberley population of *C. boustedi*, those from the Ord Drainage in the north-east Kimberley district are morphologically divergent from those to the west and so are formally named herein as a new subspecies, *C. boustedi mmm* subsp. nov..

The four preceding mentioned taxa are separated from one another as follows:

Breeding male *C. rufilatus* have a well-defined orange-red upper lateral band along the flank. Anterior to that is a dark neck stripe that runs into the orange. The upper labials are white, extending as a bold, sometimes broken, line to the top of the forelimb. Other than a series of semi-distinct greyish black chevrons on the vertebral line of the tail, the tail is effectively unmarked.

Across the upper surfaces, flanks and tail are widely spaced cream dots that are more or less arranged in a linear manner.

The upper surfaces of the limbs are brown and with barely distinct yellow spots, sometimes with a tiny dark dot in the centre. The underside of the inner hind limb has an obvious bold white line on the lower edge.

Black spotting on the body and sides is not as distinctive as the white, usually being faded in mature adult males.

There are 24-31 lamellae under the fourth toe and usually 7 supraciliaries.

C. boustedi of the type form from the south-west Kimberley is similar in most respects to *C. rufilatus* as described above, but breeding males are separated from that species by the fact that the lateral white line from the snout, passes well past the axilla of the front leg before ending and there are few if any white spots on the dorsum and sides, but still numerous dark or black ones.

The upper surfaces of the limbs are brown with black spots, not white or light.

There are 21-27 lamellae under the fourth toe and usually 6 supraciliaries.

C. boustedi mmm subsp. nov. is separated from the two preceding taxa by the fact that breeding males have a colouration that includes the white line from the snout terminating well before the front leg, usually immediately past the ear opening. All the latter part of the lower two thirds of the side of the neck is composed of dark scales with light centres, but no line of any sort. A moderately well-defined black line does run from the back of the eye, across the upper neck to above the front leg.

The orange red of the upper flank seen in the two previous taxa and *C. adina* sp. nov. is in *C. boustedi mmm* subsp. nov. reduced in intensity to be a dull orange-brown colour instead of the brilliant orange red seen in the other three taxa.

The upper edge of the flank of breeding male *C. boustedi mmm* subsp. nov. lacks any edge and there is no well-defined upper border of the orange flush that is seen in the other three taxa. Upper surfaces of the limbs are brown, with small black edged or tipped whitish spots. The top of the head of breeding male *C. boustedi mmm* subsp. nov. also has a strong light bluish olive tinge, versus grey in nominate *C. boustedi*, light brown in *C. adina* sp. nov. or darker brown in *C. rufilatus*.

There are 21-27 lamellae under the fourth toe and usually 6 supraciliaries.

Breeding male *C. adina* sp. nov. is separated from the preceding three taxa by having a strong preponderance of well-defined large whitish spots on the dorsum and sides, including a relatively dense row along the dorsolateral edge of the neck and body that is not seen in any of the other taxa.

The orange of the flank is not in a well-defined upper band, but rather is ill defined in boundary and somewhat broken.

Also, along the dorsolateral edge, but on the lateral edge side is a broken line of dark brown peppering of the scales.

Upper surfaces of the legs are a combination of dark brown, light brown and white, but not in the form of spots or obvious markings.

The tail has a very strong orange flush on the upper surface, versus slight or non-existent in the other three taxa. It is also prominently covered with scattered mid-sized yellow-white spots along most of the length of the tail.

White spots on the lower flank are also more prominent in this species than in the other three taxa.

The bar from the back of the eye to the neck is brown in colour, with a sharp edge on the upper labials and a poorly defined edge on the upper side of the back of the head. Anterior to the eye and above, the head is a plain light brown colour.

Upper labials are cream or white and immaculate, although all have thinly etched borders.

The four preceding taxa, being *C. rufilatus*, *C. boustedi*, *C. boustedi mmm* subsp. nov. and *C. adina* sp. nov. are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following suite of characters:

35 mm adult snout-vent length; interparietal distinct (as in not fused to the frontoparietals); prefrontals narrowly separated; 5-7 supraciliaries; 28-32 midbody rows; dorsal scales are 6-sided, each usually with an angular posterior or free edge, mostly tricarinate and strongly keeled, the keels being reasonably well aligned with the following scales longitudinally; ear opening horizontally elliptical, smaller in size to the palpebral disc and with at most one large lobule on the anterior edge; 21-31 lamellae under the fourth toe.

Colouration is mainly uniform above with some kind of dotting or flecks (dark or light). Venter is white, whitish, whitish grey. Breeding males have a red-orange mid-lateral stripe, usually bright and well-defined.

C. rufilatus is depicted in life in Wilson and Swan on page 233 on top right, Wilson and Knowles (1988) on page 257 middle left and online at:

<http://www.wildherps.com/species/C.rufilatus.html> and

<https://www.flickr.com/photos/moloch05/52586098368/> and

<https://www.flickr.com/photos/ryanfrancis/30259821266/> and

<https://www.flickr.com/photos/beninfreo/11599113686/>

and <https://www.flickr.com/photos/nieminski/53576226516/>

and <https://www.inaturalist.org/observations/341906>

C. boustedi of the nominate form is depicted in life online at:

<https://www.inaturalist.org/observations/200708941> and

<https://www.inaturalist.org/observations/186698122>

C. boustedi mmm subsp. nov. is depicted in life in Wilson and Swan (2021) on page 233 top left.

Distribution: *Carlia adina* sp. nov. is only known from a few islands within the Wessel Islands and English Company's Islands groups in north-east Arnhem Land. It is believed to be a range-restricted endemic.

Etymology: According to the Yolngu elder from East Arnhem Land that I met in 2012, he also described the local small skink

lizards as “adina” which in their language means pleasant or good.

They like the lizards because they know they eat insects.

The species name is an adjective in apposition.

CARLIA BOUSTEDI MMM SUBSP. NOV.

LSIDurn:lsid:zoobank.org:act:28419DB8-356D-436B-8329-7AD9960FB18B

Holotype: A preserved specimen at the Western Australian Museum, Perth, Western Australia, Australia, specimen number R129197 collected from Weaber Plain, Western Australia, Australia, Latitude -15.361111 S., Longitude 129.13 E.

This government-owned facility allows access to its holdings.

Paratypes: 1/ Two preserved specimens at the Western Australian Museum, Perth, Western Australia, Australia, specimen numbers R129279 and R129280 both collected from Weaber Plain, Western Australia, Australia, Latitude -15.361111 S., Longitude 129.13 E., 2/ A preserved specimen at the Western Australian Museum, Perth, Western Australia, Australia, specimen number R125990 collected about 2 km southwest of Point Springs Yard, Western Australia, Australia, Latitude -15.419167 S., Longitude 128.863889 E., 3/ Two preserved specimens at the Australian National Wildlife Collection, Commonwealth Scientific and Industrial Research Organisation, Canberra, ACT, Australia, specimen numbers R00507 and R00500 both collected from Cockatoo Springs, Western Australia, Australia, Latitude -15.3833 S., Longitude 128.8167 E.

Diagnosis: Until now *Carlia rufilatus* Storr, 1974 has been treated as a single putative species found from the wetter parts of the top end of Australia, including both Western Australia and the Northern Territory.

Wells and Wellington (1985) named the west Kimberley population as *Carlia boustedi* with a type locality of Derby in Western Australia. They restricted *C. rufilatus* to the hillier parts of the top end of the Northern Territory.

In line with an unscientific forced suppression of the names of Wells and Wellington by the Wüster gang (see Hoser 2007), no publishing author in Australia or elsewhere has recognized that taxon in the 39 years since publication of the Wells and Wellington paper.

However, Afonso Silva (2018) showed a 2.4 MYA divergence between the Kimberley populations of putative *C. rufilatus* from those of the top end, which is exactly why I quite properly recognise *C. boustedi* as a morphologically divergent species in exactly the same terms as formally proposed by Wells and Wellington 39 years back.

I note that Wells and Wellington were correct in their assessment of the relevant taxa in 1985 and other than myself in this paper, no other herpetologist in Australia or elsewhere appears to have formally caught up with their science and the nomenclature that followed!

Afonso Silva (2018) also showed an even greater divergence for the population of putative *Carlia rufilatus* from the north-east of the Northern Territory, as compared to the type form from the north-west of the top end.

That divergence was estimated at 5.39 MYA.

Consequently that is herein named as a new species, *Carlia adina* sp. nov.

Six years is far too long for a potentially highly vulnerable, range-restricted taxon to remain unnamed and effectively outside of any proper conservation management.

In terms of the Kimberley population of *C. boustedi*, those from the Ord Drainage in the north-east Kimberley district are morphologically divergent from those to the west and so are formally named herein as a new subspecies, *C. boustedi mmm* subsp. nov..

The four preceding mentioned taxa are separated from one

another as follows:

Breeding male *C. rufilatus* have a well-defined orange-red upper lateral band along the flank. Anterior to that is a dark neck stripe that runs into the orange. The upper labials are white, extending as a bold, sometimes broken, line to the top of the forelimb. Other than a series of semi-distinct greyish black chevrons on the vertebral line of the tail, the tail is effectively unmarked.

Across the upper surfaces, flanks and tail are widely spaced cream dots that are more or less arranged in a linear manner.

The upper surfaces of the limbs are brown and with barely distinct yellow spots, sometimes with a tiny dark dot in the centre. The underside of the inner hind limb has an obvious bold white line on the lower edge.

Black spotting on the body and sides is not as distinctive as the white, usually being faded in mature adult males.

There are 24-31 lamellae under the fourth toe and usually 7 supraciliaries.

C. boustedi of the type form from the south-west Kimberley is similar in most respects to *C. rufilatus* as described above, but breeding males are separated from that species by the fact that the lateral white line from the snout, passes well past the axilla of the front leg before ending and there are few if any white spots on the dorsum and sides, but still numerous dark or black ones.

The upper surfaces of the limbs are brown with black spots, not white or light.

There are 21-27 lamellae under the fourth toe and usually 6 supraciliaries.

C. boustedi mmm subsp. nov. is separated from the two preceding taxa by the fact that breeding males have a colouration that includes the white line from the snout terminating well before the front leg, usually immediately past the ear opening. All the latter part of the lower two thirds of the side of the neck is composed of dark scales with light centres, but no line of any sort. A moderately well-defined black line does run from the back of the eye, across the upper neck to above the front leg.

The orange red of the upper flank seen in the two previous taxa and *C. adina* sp. nov. is in *C. boustedi mmm* subsp. nov.. reduced in intensity to be a dull orange-brown colour instead of the brilliant orange red seen in the other three taxa.

The upper edge of the flank of breeding male *C. boustedi mmm* subsp. nov. lacks any edge and there is no well-defined upper border of the orange flush that is seen in the other three taxa. Upper surfaces of the limbs are brown, with small black edged or tipped whitish spots. The top of the head of breeding male *C. boustedi mmm* subsp. nov. also has a strong light bluish olive tinge, versus grey in nominate *C. boustedi*, light brown in *C. adina* sp. nov. or darker brown in *C. rufilatus*.

There are 21-27 lamellae under the fourth toe and usually 6 supraciliaries.

Breeding male *C. adina* sp. nov. is separated from the preceding three taxa by having a strong preponderance of well-defined large whitish spots on the dorsum and sides, including a relatively dense row along the dorsolateral edge of the neck and body that is not seen in any of the other taxa.

The orange of the flank is not in a well-defined upper band, but rather is ill defined in boundary and somewhat broken.

Also, along the dorsolateral edge, but on the lateral edge side is a broken line of dark brown peppering of the scales.

Upper surfaces of the legs are a combination of dark brown, light brown and white, but not in the form of spots or obvious markings.

The tail has a very strong orange flush on the upper surface, versus slight or non-existent in the other three taxa. It is also prominently covered with scattered mid-sized yellow-white spots along most of the length of the tail.

White spots on the lower flank are also more prominent in this species than in the other three taxa.

The bar from the back of the eye to the neck is brown in colour, with a sharp edge on the upper labials and a poorly defined edge on the upper side of the back of the head. Anterior to the eye and above, the head is a plain light brown colour.

Upper labials are cream or white and immaculate, although all have thinly etched borders.

The four preceding taxa, being *C. rufilatus*, *C. boustedi*, *C. boustedi mmm subsp. nov.* and *C. adina sp. nov.* are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following suite of characters:

35 mm adult snout-vent length; interparietal distinct (as in not fused to the frontoparietals); prefrontals narrowly separated; 5-7 supraciliaries; 28-32 midbody rows; dorsal scales are 6-sided, each usually with an angular posterior or free edge, mostly tricarinate and strongly keeled, the keels being reasonably well aligned with the following scales longitudinally; ear opening horizontally elliptical, smaller in size to the palpebral disc and with at most one large lobule on the anterior edge; 21-31 lamellae under the fourth toe.

Colouration is mainly uniform above with some kind of dotting or flecks (dark or light). Venter is white, whitish, whitish grey. Breeding males have a red-orange mid-lateral stripe, usually bright and well-defined.

C. rufilatus is depicted in life in Wilson and Swan on page 233 on top right, Wilson and Knowles (1988) on page 257 middle left and online at:

<http://www.wildherps.com/species/C.rufilatus.html>
and

<https://www.flickr.com/photos/moloch05/52586098368/>
and

<https://www.flickr.com/photos/ryanfrancis/30259821266/>
and

<https://www.flickr.com/photos/beninfreo/11599113686/>
and

<https://www.flickr.com/photos/nieminski/53576226516/>
and

<https://www.inaturalist.org/observations/341906>

C. boustedi of the nominate form is depicted in life online at:

<https://www.inaturalist.org/observations/200708941>
and

<https://www.inaturalist.org/observations/186698122>

C. boustedi mmm subsp. nov. is depicted in life in Wilson and Swan (2021) on page 233 top left.

Distribution: *Carlia boustedi mmm subsp. nov.* is only known from the Ord Drainage in the north-east Kimberley district of Western Australia and the nearby Keep River area on the Northern Territory, Western Australian border.

Etymology: In January 1983, when collecting around Kununurra in Western Australia, I asked a local Miriwoong Aboriginal what he called the relevant species. He looked at me and said "mmm" and so this is the etymology.

CARLIA UNT SP. NOV.

LSIDDurn:lsid:zoobank.org:act:56D8D95A-F479-44DE-81F8-B0E1E397F033

Holotype: A preserved specimen at the Australian Museum, Sydney, New South Wales, Australia, specimen number R.88688 collected from the Jabiluka project area, Arnhem Land, Northern Territory, Australia, Latitude -12.466 S., Longitude 132.866 E.

This government-owned facility allows access to its holdings.

Paratypes: 1/ Seven preserved specimens at the Australian

National Wildlife Collection, Commonwealth Scientific and Industrial Research Organisation, Canberra, ACT, Australia, specimen numbers R03756, R03672, R03755, R03610, R04297, R03744 and R03741 all collected from north of Cannon Hill, Kakadu National Park (site 12), Northern Territory, Australia, Latitude -12.3167 S., Longitude 132.95 E., 2/ A preserved specimen at the Museum and Art Gallery of the Northern Territory Reptile Collection, specimen number R00601 collected from Oenpelli, Western Arnhem Land, Northern Territory, Australia, Latitude -12.333 S., Longitude 133.05 E.

Diagnosis: Until now putative *Carlia munda* (De Vis, 1885), with a type locality of near Rockhampton in Queensland has been treated as a wide-ranging taxon found across most parts of northern Australia including most of Queensland, most of the Northern Territory and most of Northwest Australia from the Cape Range in the south-west, excluding the most arid areas and the deserts south, west and east of the Macdonnell Ranges in Central Australia.

Storr (1974) noted the similarity of specimens from most parts of Australia and presumed that it was a recently wide-ranging and invasive species, potentially displacing competing species within *Carlia sensu lato*. Storr's hypothesis was effectively tested by the molecular study of Afonso Silva (2008) who found very low divergences between widely ranging populations of the same putative species.

Notwithstanding this, Afonso Silva (2008) found divergences of over 2 MYA for two morphologically divergent forms from the top end of the Northern Territory and so they are both formally named herein as new species.

The relevant species are now the following:

C. munda is herein treated as occupying most parts of the Northern Territory except for the hilly parts of the top end, as well as the Kimberley District of Western Australia and most of Queensland.

C. springelli Wells and Wellington, 1985 occupies the Pilbara District of Western Australia, including the Cape Range.

C. unt sp. nov. occupies most of the hillier parts of the top end of the Northern Territory, Australia.

C. michaelmatheri sp. nov. occupies the Tiwi Islands (Melville Island, Bathurst Island) only, where it is extremely abundant and appears to be endemic to these islands.

The four species are separated from one another as follows:

Adult breeding male *C. munda* of the type form have a well-developed white stripe from tip of snout, across the upper labials (which are black at the lower and upper edges, to the top of the ear, where it stops. From the bottom of the ear another white line continues backwards over the front leg, where it breaks, but continues as it becomes a series of dashes forming an obvious line along the mid flank to the back leg.

The tail has scattered yellow dots on the lateral edges and a vertebral row of black chevrons running along the tail.

The top of the head is light yellowish brown, neck darkens slightly to become a mid-level brown and from the shoulders down the back and onto the tail are scattered yellow and black spots, each about a scale in size and semi-randomly scattered. While the yellow spots continue onto the anterior part of the top of the tail, from that point on they are mainly on the sides. The vertebral chevrons on the anterior part of the tail become closer as one moves down the tail to merge and become a well-formed, well-defined, sharp edged grey vertebral line.

From just before the front leg, to the back leg there is a strong bright, dark orange colour on the flank occupying both upper and lower portions of the flank and of high intensity on both front and back parts of the flank.

Upper surfaces of the legs are blackish with a lot of yellow-brown spots, which make up about half the surface area. Under the throat and lower sides of neck, small spots form lines on the

white, giving a well-defined pattern of striations.

C. springelli is similar in most respects to *C. munda* as just described but is readily separated from that taxon in that breeding males have a well-formed white line from snout to ear, which breaks and runs backwards from the bottom of the ear to the front of the front leg, whereupon it stops abruptly. It is the only species in the group that lacks a white line of any form that continues along the mid flank.

Iris is dull brown to light with an orange tinge.

C. unt sp. nov. is separated from the two preceding species in that the white line along the midflank in breeding males continues unbroken past the front leg and becomes thinner mid-way on the flank where may be formed by a thin line of closely spaced spots or specks, typically within an even and thin yellow bar and of varying intensity. It is not in the form of a row of dashes as seen in *C. munda*.

In most breeding males, the orange of the upper flank does not extend to the lower flank below the white midflank line. In specimens where the orange does extend below the white midflank line it is obviously not nearly as deep or intense as above this line. Iris is deep orange.

C. michaelmatheri sp. nov. is separated from the preceding species as follows: In breeding males, the white line that commences at the bottom of the ear and runs towards the top of the front leg, passes it before it breaks and becomes a well-formed line of tiny white dots along the mid-flank.

The top of the head is brown in colour, with no dark blotches or peppering. It is immaculate. The neck rapidly turns grey in the posterior direction. The dorsum and tail are a steel grey.

Chevrons on the back of the tail are in this species reduced to tiny faded spots and the tail is generally grey all over from proximal to distal end.

Exceptional to this is a row of tiny semi-distinct white dots along the lower flank of either side of the tail.

Upper surfaces of the limbs are a steely grey in colour, with small semi-distinct white spots.

Iris is light to dark grey brown in colour.

The dorsal scales on this species are more strongly keeled than in the three other species.

The four preceding taxa, being *C. munda*, *C. springelli*, *C. unt sp. nov.* and *C. michaelmatheri sp. nov.* are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following suite of characters:

40 mm adult snout-vent length; interparietal distinct (as in not fused to the frontoparietals); prefrontals narrowly separated; 5-7 supraciliaries; 26-34 midbody rows; dorsal scales are 4-sided, each with a round edge, mostly smooth to weakly tricarinate, the keels (if present) being reasonably well aligned with the following scales longitudinally; ear opening horizontally elliptical, much smaller in size than the palpebral disc and with one or two small lobules on the anterior edge; 19-30 lamellae under the fourth toe.

C. munda of the type form (from Queensland) is depicted in Wilson and Swan (2021) on page 229 top left and right, Brown (2014) on page 458 top (right and left) and online at:

<https://www.flickr.com/photos/edwardevans/52415206131/>

and

<https://www.flickr.com/photos/stephenmahony/49383472722/>

and

<https://www.flickr.com/photos/elliottbudd/31520489174/>

C. springelli is depicted in life in Storr *et al.* (1981) in plate 1, photo 1, at top left of page, and online at:

<https://www.flickr.com/photos/58349528@N02/52894769893/>

and

https://www.flickr.com/photos/gazs_pics/52397567662/

and

<https://www.flickr.com/photos/stevehapp/47584677171/>

C. unt sp. nov. is depicted in life online at:

<https://www.flickr.com/photos/nieminski/5002180767/>

and

<https://www.flickr.com/photos/nieminski/17046746511/>

and

<https://www.flickr.com/photos/nieminski/4759138305/>

and

<https://www.flickr.com/photos/centralaustralia/5563762846/>

and

<https://www.flickr.com/photos/nieminski/15972455880/>

and

https://www.flickr.com/photos/zimny_anders/53208850704/

Distribution: *Carlia unt sp. nov.* occupies most of the hillier parts of the top end of the Northern Territory, Australia.

Etymology: On a number of trips to Arnhem Land, I have tried to recruit local Bininj Aboriginal children to help me hunt and study the small skinks in the area.

They abbreviate the word to hunt to "unt", so this is the etymology for the species.

CARLIA MICHAELMATHERI SP. NOV.

LSIDurn:lsid:zoobank.org:act:3F9245EA-8C48-4139-8AE1-812EE3D1C896

Holotype: A preserved specimen at the Museum and Art Gallery of the Northern Territory Reptile Collection, Darwin, Northern Territory, Australia, specimen number R22860 collected from 4 km southwest of Taracumbie Falls, Melville Island, Tiwi Islands, Northern Territory, Australia, Latitude -11.6 S., Longitude 130.7 E. This government-owned facility allows access to its holdings.

Paratypes: Seven preserved specimens at the Museum and Art Gallery of the Northern Territory Reptile Collection, Darwin, Northern Territory, Australia, being: 1/ Specimen number R21211 collected from 18 km south of Milikapiti, Melville Island, Tiwi Islands, Northern Territory, Australia, Latitude -11.567 S., Longitude 130.683 E., 2/ Specimen numbers R22848, R22849, R22858, R22859, R23114 and R23116 all collected from near Taracumbie Falls, Melville Island, Tiwi Islands, Northern Territory, Australia, Latitude -11.6 S., Longitude 130.7 E.

Diagnosis: Until now putative *Carlia munda* (De Vis, 1885), with a type locality of near Rockhampton in Queensland has been treated as a wide-ranging taxon found across most parts of northern Australia including most of Queensland, most of the Northern Territory and most of Northwest Australia from the Cape Range in the south-west, excluding the most arid areas and the deserts south, west and east of the Macdonnell Ranges in Central Australia.

Storr (1974) noted the similarity of specimens from most parts of Australia and presumed that it was a recently wide-ranging and invasive species, potentially displacing competing species within *Carlia sensu lato*. Storr's hypothesis was effectively tested by the molecular study of Afonso Silva (2008) who found very low divergences between widely ranging populations of the same putative species.

Notwithstanding this, Afonso Silva (2008) found divergences of over 2 MYA for two morphologically divergent forms from the top end of the Northern Territory and so they are both formally named herein as new species.

The relevant species are now the following:

C. munda is herein treated as occupying most parts of the Northern Territory except for the hilly parts of the top end, as well as the Kimberley District of Western Australia and most of

Queensland.

C. springelli Wells and Wellington, 1985 occupies the Pilbara District of Western Australia, including the Cape Range.

C. unt sp. nov. occupies most of the hillier parts of the top end of the Northern Territory, Australia.

C. michaelmatheri sp. nov. occupies the Tiwi Islands (Melville Island, Bathurst Island) only, where it is extremely abundant and appears to be endemic to these islands.

The four species are separated from one another as follows:

Adult breeding male *C. munda* of the type form have a well-developed white stripe from tip of snout, across the upper labials (which are black at the lower and upper edges, to the top of the ear, where it stops. From the bottom of the ear another white line continues backwards over the front leg, where it breaks, but continues as it becomes a series of dashes forming an obvious line along the mid flank to the back leg.

The tail has scattered yellow dots on the lateral edges and a vertebral row of black chevrons running along the tail.

The top of the head is light yellowish brown, neck darkens slightly to become a mid-level brown and from the shoulders down the back and onto the tail are scattered yellow and black spots, each about a scale in size and semi-randomly scattered. While the yellow spots continue onto the anterior part of the top of the tail, from that point on they are mainly on the sides. The vertebral chevrons on the anterior part of the tail become closer as one moves down the tail to merge and become a well-formed, well-defined, sharp edged grey vertebral line.

From just before the front leg, to the back leg there is a strong bright, dark orange colour on the flank occupying both upper and lower portions of the flank and of high intensity on both front and back parts of the flank.

Upper surfaces of the legs are blackish with a lot of yellow-brown spots, which make up about half the surface area. Under the throat and lower sides of neck, small spots form lines on the white, giving a well-defined pattern of striations.

C. springelli is similar in most respects to *C. munda* as just described but is readily separated from that taxon in that breeding males have a well-formed white line from snout to ear, which breaks and runs backwards from the bottom of the ear to the front of the front leg, whereupon it stops abruptly. It is the only species in the group that lacks a white line of any form that continues along the mid flank.

Iris is dull brown to light with an orange tinge.

C. unt sp. nov. is separated from the two preceding species in that the white line along the midflank in breeding males continues unbroken past the front leg and becomes thinner mid-way on the flank where may be formed by a thin line of closely spaced spots or specks, typically within an even and thin yellow bar and of varying intensity. It is not in the form of a row of dashes as seen in *C. munda*.

In most breeding males, the orange of the upper flank does not extend to the lower flank below the white midflank line. In specimens where the orange does extend below the white midflank line it is obviously not nearly as deep or intense as above this line. Iris is deep orange.

C. michaelmatheri sp. nov. is separated from the preceding species as follows: In breeding males, the white line that commences at the bottom of the ear and runs towards the top of the front leg, passes it before it breaks and becomes a well-formed line of tiny white dots along the mid-flank.

The top of the head is brown in colour, with no dark blotches or peppering. It is immaculate. The neck rapidly turns grey in the posterior direction. The dorsum and tail are a steel grey.

Chevrons on the back of the tail are in this species reduced to tiny faded spots and the tail is generally grey all over from proximal to distal end.

Exceptional to this is a row of tiny semi-distinct white dots along the lower flank of either side of the tail.

Upper surfaces of the limbs are a steely grey in colour, with small semi-distinct white spots.

Iris is light to dark grey brown in colour.

The dorsal scales on this species are more strongly keeled than in the three other species.

The four preceding taxa, being *C. munda*, *C. springelli*, *C. unt sp. nov.* and *C. michaelmatheri sp. nov.* are separated from all other species in the two genera, *Carlia* Gray, 1845 type species *Mococa melanopogon* Gray, 1845 and *Lygisaurus* De Vis, 1884, type species *Lygisaurus foliorum* De Vis, 1884 as defined by Cogger (2014) by the following suite of characters:

40 mm adult snout-vent length; interparietal distinct (as in not fused to the frontoparietals); prefrontals narrowly separated; 5-7 supraciliaries; 26-34 midbody rows; dorsal scales are 4-sided, each with a round edge, mostly smooth to weakly tricarinate, the keels (if present) being reasonably well aligned with the following scales longitudinally; ear opening horizontally elliptical, much smaller in size than the palpebral disc and with one or two small lobules on the anterior edge; 19-30 lamellae under the fourth toe.

C. munda of the type form (from Queensland) is depicted in Wilson and Swan (2021) on page 229 top left and right, Brown (2014) on page 458 top (right and left) and online at:

<https://www.flickr.com/photos/edwardevans/52415206131/>

and

<https://www.flickr.com/photos/stephenmahony/49383472722/>

and

<https://www.flickr.com/photos/elliottbudd/31520489174/>

C. springelli is depicted in life in Storr *et al.* (1981) in plate 1, photo 1, at top left of page, and online at:

<https://www.flickr.com/photos/58349528@N02/52894769893/>

and

https://www.flickr.com/photos/gazs_pics/52397567662/

and

<https://www.flickr.com/photos/stevehapp/47584677171/>

C. unt sp. nov. is depicted in life online at:

<https://www.flickr.com/photos/nieminski/5002180767/>

and

<https://www.flickr.com/photos/nieminski/17046746511/>

and

<https://www.flickr.com/photos/nieminski/4759138305/>

and

<https://www.flickr.com/photos/centralaustralia/5563762846/>

and

<https://www.flickr.com/photos/nieminski/15972455880/>

and

https://www.flickr.com/photos/zimny_anders/53208850704/

Distribution: *Carlia michaelmatheri sp. nov.* appears to be restricted to the Tiwi Islands (Melville Island, Bathurst Island) only, where it is extremely abundant.

Notwithstanding the local abundance of the lizards, it must be treated as a vulnerable species.

Etymology: *C. michaelmatheri sp. nov.* is named in honour of Michael Mather of Wollongong, New South Wales, Australia, in recognition of a lifetime's work in herpetology, in particular the captive breeding and study of skinks in the *Carlia sensu lato* group.

Michael Mather has had particular interest in highlighting public awareness in the need to conserve smaller and less "sexy" reptile species that risk becoming extinct through merely being overlooked.

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CONFLICTS OF INTEREST

None.

Cite this paper as:
Hoser, R. T. 2024. The inevitable split-up. *Carlia sensu-lato* (Scincidae), from Australia and New Guinea formally divided, including 14 new genera, 35 new species and 4 new subspecies. *Australasian Journal of Herpetology* 71:1-64.



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Australasian Journal of Herpetology

Issue 71

Hoser, R. T. 2024. The inevitable split-up, *Carlia sensu-lato* (Scincidae), from Australia and New Guinea formally divided, including 15 new genera, 35 new species and 4 new subspecies. *Australasian Journal of Herpetology* 71:1-64.

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