

A new subspecies of Mountain Dragon, *Rankinia hoserae* Hoser, 2015 from the Brindabella Ranges of south-east Australia.

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ABSTRACT

A geographically isolated population of the *Rankinia diemensis* (Gray, 1841) species group, most similar to the Victorian taxon *R. hoserae* Hoser 2015 from the Brindabella Ranges on the New South Wales / Australian Capital Territory border is formally named as a subspecies.

Keywords: Taxonomy; nomenclature; Lizards; Agamids; Mountain Dragons; Australia; New South Wales, ACT, *Rankinia*; *diemensis*; *hoserae*; *boylani*; *neildaviei*; *jameswhybrowi*; *fergussonae*; new subspecies; *martinekae*.

INTRODUCTION

The genus *Rankinia* was created by Wells and Wellington (1984), type species being *Grammatophora muricata diemensis* Gray, 1841.

Most recently the genus has been treated as monotypic for the species *Grammatophora muricata diemensis* Gray, 1841, based on a specimen from Tasmania and now known as *Rankinia diemensis* (Gray, 1841).

Most authorities including Cogger (2014) treat *Rankinia diemensis* (Gray, 1841) better-known as the Mountain Dragon as being monotypic for the genus and occurring in a range from Tasmania, through Victoria and north to central eastern New South Wales.

These lizards are found in sandy areas, heaths and the like, often at high altitude.

Their distribution appears to be patchy, probably due to habitat requirements as well as the influence of morphologically similar competing species within the genera *Amphibolurus* Wagler, 1830 and *Tympanocryptis* Peters, 1863, which share much of the same broad distribution.

Wells and Wellington (1984) formally named the population from the Sydney basin as *R. boylani*, reaffirmed by Wells and Wellington (1985).

However the use of this name to identify the relevant taxon has not had acceptance or use by publishing Australian herpetologists anywhere. This is in spite of clear and obvious morphological differences and a disjunct population from *R. diemensis*.

The basis of this non-acceptance of the validity of the taxon *R. boylani* has more to do with personality politics as practiced by a group known as the Wüster gang, who force their views on others using unethical and unlawful means as detailed by Hoser (2009, 2012a, 2012b, 2013, 2015a-f, 2019a, 2019b), ICZN (2013) and sources cited therein.

Hoser (2007) published an appeal to herpetologists to ignore the Wüster gang and to stop the general suppression of the Wells and Wellington works as it was hampering wildlife conservation. This in turn led to the Wüster gang adding myself (Hoser) to the target list of herpetologists whose works they sought to use improper means to suppress and force others to do likewise (Kaiser 2012a, 2012b, 2013, 2014a, 2014b and Kaiser *et al.* 2013).

The relevant response to the false claims and pseudoscience of the Wüster Gang (AKA Kaiser *et al.*) are dealt with in Hoser (2015a-f) and sources cited therein.

Ng *et al.* (2013) published a molecular phylogeny showing six well defined species within what had until then been treated as *R. diemensis*.

However they chose not to recognize any bar *R. diemensis* (in line with Cogger *et al.* 1983) as for Ng *et al.* to do so, would have necessitated them recognizing the most divergent lineage being *R. boylani* and to do so was against the forced edicts of the Wüster gang.

There is little doubt that Ng *et al.* (2013) did not want to become a target of the illegal harassment by the Wüster gang, including false complaints made to law enforcement authorities to generate illegal raids on them and their families, telephone death threats at odd times of the day and night and other illegal forms of attack.

Refusing to be bullied by the unlawful and unscientific demands of the Wüster gang, Hoser (2015g) formally described all identified lineages as full species, including four for the first time.

These newly named species were *R. hoserae*, *R. neildaviei* and *R. jameswhybrowi* from Victoria and *R. fergussonae* from mid-western New South Wales. Hoser (2015g) restricted *R. diemensis* to Tasmania and nearby islands and recognized *R. boylani* as the form from the Sydney basin.

The populations previously treated as *R. diemensis* in the region

between Sydney and the Victorian border were effectively ignored by Ng *et al.* (2013).

Hoser (2015g) did similar, but had managed to ascertain that the specimens from the uplands along the coast south of Sydney in New South Wales were clearly affiliated with *R. boylani*, whereas those from the Australian Capital Territory and south through the Snowy Mountains were most closely affiliated with *R. hoserae* (in particular) and *R. jameswhybrowi*.

More recent inspection of further specimens from the Brindabella Ranges at the northern extremity of the range of animals that are morphologically similar to the Victorian species indicates that they are sufficiently different to warrant separate recognition as a unique taxonomic entity.

The same population is physically cut off from *Rankinia* to the north, south and east and is also reproductively isolated.

Based on the geological history of the area and intervening areas of both unsuitable habitat and competing species, it is reasonable to infer that this isolation is ancient, meaning that the Brindabella Ranges population has evolved in isolation from the rest and will continue to do so.

Therefore I have no hesitation in recognizing it as a taxonomic entity in accordance with the rules as set out in the *International code of Zoological Nomenclature* (Ride *et al.* 1999).

In the absence of comparative DNA material from the relevant population, I have chosen to conservatively name this taxon as a subspecies of *R. hoserae*.

Should a detailed molecular analysis of this population be done at some stage in the future, there is a strong likelihood that this taxon may have to be elevated to the status of full species.

RANKINIA HOSERAE MARTINEKAE SUBSP. NOV.

LSID urn:lsid:zoobank.org:act:81E4537C-F191-40FE-8AF0-12E5BBC39181

Holotype: A preserved specimen at the Australian Museum in Sydney, New South Wales, Australia, specimen number R.44758, collected at 24km West of Mount Franklin, at Condor Creek, ACT, Australia, Latitude 35.32 S., Longitude 148.83 E. This is a government-owned facility that allows access to its holdings.

Paratype: A preserved specimen at the Australian National Wildlife Collection, Canberra, ACT, Australia, specimen number R02939 collected at Coree Flats, Brindabella Range, on Two Sticks Road, New South Wales, Australia, Latitude 35.28 S., Longitude 148.82 E.

Diagnosis: *Rankinia hoserae martinekae sp. nov.* is similar in most respects to nominate *R. hoserae* Hoser, 2015, which it would be identified as using the description of that taxon in Hoser (2015g).

Typical *R. hoserae hoserae* in life is depicted in Robertson and Coventry (2019) at page 215, top left.

The two subspecies (*R. hoserae martinekae sp. nov.* and *R. hoserae hoserae*) are however separated by the following characters (in living adults): six light semi-circles on each side of the body with their bases running off the dorso-lateral lines, versus seven in *R. hoserae hoserae*; strong orangeish red on the upper lateral surfaces versus greyish in *R. hoserae hoserae*; dark patches on the upper surface of the anterior tail are ill-defined versus well defined in *R. hoserae hoserae*. Male *R. hoserae martinekae sp. nov.* have prominent spines on the lower flanks of the body, versus present but not prominent in *R. hoserae hoserae sp. nov.*, both taxa otherwise being relatively spinose members of *Rankinia* in terms of the upper body. Within the genus *Rankinia*, each of the six morphologically similar species as identified by Hoser (2015g) are identified and separated from one another as follows:

Rankinia hoserae sp. nov. is the taxon found around Anglesea on the central Victorian coast and the highlands of central Victoria in scattered locations including Kinglake National Park and Wombat State Forest. It is separated from the other five

species in *Rankinia* Wells and Wellington, 1984 by the following characters: the hind legs have no obvious banding; exceptionally large spines on the upper body and in particular between the rear legs; some of the scale spines on the rear of the hind legs are either white or yellowish in colour; scales forming the nuchal crest are small, distinct and apart.

Rankinia jameswhybrowi sp. nov. is the species found in the hills just east of Lake Eildon, Victoria and in the ranges to the north of there. It is separated from the other five species of *Rankinia* Wells and Wellington, 1984 by the following characters: the lighter dorso-linear blotches above the lateral flanks are of even curvature when viewed from above and noticeably elongate in shape and to an extent not seen in any of the other species; the tail is strongly banded, versus indistinctly banded in the other species; the nuchal crest is so poorly developed as to appear absent.

Rankinia diemensis (Gray, 1841), herein restricted to Tasmania and Bass Strait Islands, is separated from the other five species in *Rankinia* Wells and Wellington, 1984 by the following characters: the lateral spines running on each side from the base of the tail are smaller than the lateral spines along the sides of the body; the lighter dorso-linear blotches above the lateral flanks are of even curvature when viewed from above; there are distinct white-tipped spines on the posterior lateral edge of the back legs; the spines of the nuchal crest are distinctive in that they are easily noticed.

Rankinia boylani Wells and Wellington, 1984, herein restricted to NSW in the vicinity of the Sydney basin, including the Blue Mountains, as far west at Mount Victoria (the type locality), but presumed to include most other specimens of *Rankinia* from New South Wales north of Goulburn, is separated from the other five species in *Rankinia* Wells and Wellington, 1984 by the following characters: the lateral spines running on each side from the base of the tail are considerably larger than the lateral spines along the sides of the body; the lighter dorso-linear blotches above the lateral flanks are not of even curvature when viewed from above, these being larger at the posterior edge; there are no distinct white-tipped spines on the posterior lateral edge of the back legs; the spines of the nuchal crest are not distinctive in that they are easily not noticed.

Rankinia neildaviei sp. nov. herein confined to the Grampians in south-western Victoria, is separated from the other five species in *Rankinia* Wells and Wellington, 1984 by the following characters: the dorsal spines on the anterior part of the tail are large; there are no distinct white-tipped spines on the posterior lateral edge of the back legs; the lighter dorso-linear blotches above the lateral flanks are all or mostly of even curvature when viewed from above; the banding on the hind limbs is distinct (as opposed to obvious banding that is indistinct in some other species in the genus, including *R. diemensis* and *R. boylani*).

Rankinia fergussonae sp. nov. from Goonoo National Park, NSW is defined and separated from the other five species in the genus *Rankinia* Wells and Wellington, 1984 by the following: It is similar in most respects to *R. boylani*, from which it is differentiated by its more prominent nuchal crest scales (prominent versus very hard to see) and the presence of a well-developed white line along the lower lateral flank of the body on either side, which is indistinct in *R. boylani* and usually not white in colour, but light greyish instead or if whitish in *R. boylani*, is invariably broken.

The genus *Rankinia* Wells and Wellington, 1984, is separated from all other Australian agamids by the following suite of characters:

Body is without very large conical spines or a spiny nuchal hump; no large skin frill around the neck; tail is not compressed and with a lateral keel, it does not have a strongly differentiated dorsal keel; a vertebral series of enlarged scales present or absent on the back; if present, three or more femoral pores present on each side; femoral pores present; a single row of spinose scales on sides of the base of the tail; lower edge of

supralabials straight or at most slightly curved, forming a more or less straight or even edge to the upper lip; no row of enlarged scales from below eye to above ear; dorsal scales of body heterogeneous, but with either distinctive vertebral and paravertebral rows of enlarged, keeled or spinose scales and with a poorly developed nuchal crest (that varies in development between species), no dorsal crest and sometimes a distinct vertebral ridge; tympanum distinct; enlarged spinose scales along each side of the base of the tail.

Distribution: *R. hoseerae martinekae* subsp. nov. are known only from the Brindabella Ranges in the ACT and NSW, Australia.

Etymology: Named in honour of Maryann Martinek from Bendigo, Victoria, Australia in tribute for services to wildlife conservation. For detail see the etymology in Hoser (2018).

REFERENCES CITED

- Cogger, H. G. 2014. *Reptiles and Amphibians of Australia* (Seventh edition), CSIRO. Sydney, Australia:1064 pp.
- Cogger, H. G., Cameron, E. E. and Cogger, H. M. 1983. *Zoological Catalogue of Australia (1) Amphibia and Reptilia*. Australian Government Publishing Service, Canberra, ACT, Australia:319 pp.
- Hoser, R. T. 2007. Wells and Wellington - It's time to bury the hatchet. *Calodema* Supplementary Paper 1:1-9.
- Gray, J. E. 1841. Description of some new species and four new genera of reptiles from Western Australia, discovered by John Gould, Esq. *Ann. Mag. Nat. Hist.* (1)7:86-91.
- Hoser, R. T. 2009. Creationism and contrived science: A review of recent python systematics papers and the resolution of issues of taxonomy and nomenclature. *Australasian Journal of Herpetology* 2:1-34. (3 February).
- Hoser, R. T. 2012a. Exposing a fraud! *Afronaja* Wallach, Wüster and Broadley 2009, is a junior synonym of *Spracklandus* Hoser 2009! *Australasian Journal of Herpetology* 9 (3 April 2012):1-64.
- Hoser, R. T. 2012b. Robust taxonomy and nomenclature based on good science escapes harsh fact-based criticism, but remains unable to escape an attack of lies and deception. *Australasian Journal of Herpetology* 14:37-64.
- Hoser, R. T. 2013. The science of herpetology is built on evidence, ethics, quality publications and strict compliance with the rules of nomenclature. *Australasian Journal of Herpetology* 18:2-79.
- Hoser, R. T. 2015a. Dealing with the "truth haters" ... a summary! Introduction to Issues 25 and 26 of *Australasian Journal of Herpetology*. Including "A timeline of relevant key publishing and other events relevant to Wolfgang Wüster and his gang of thieves." and a "Synonyms list". *Australasian Journal of Herpetology* 25:3-13.
- Hoser, R. T. 2015b. The Wüster gang and their proposed "Taxon Filter": How they are knowingly publishing false information, recklessly engaging in taxonomic vandalism and directly attacking the rules and stability of zoological nomenclature. *Australasian Journal of Herpetology* 25:14-38.
- Hoser, R. T. 2015c. Best Practices in herpetology: Hinrich Kaiser's claims are unsubstantiated. *Australasian Journal of Herpetology* 25:39-52.
- Hoser, R. T. 2015d. Comments on *Spracklandus* Hoser, 2009 (Reptilia, Serpentes, ELAPIDAE): request for confirmation of the availability of the generic name and for the nomenclatural validation of the journal in which it was published (Case 3601; see *BZN* 70: 234-237; comments *BZN* 71:30-38, 133-135). *Australasian Journal of Herpetology* 25:39-52.
- Hoser, R. T. 2015e. PRINO (Peer reviewed in name only) journals: When quality control in scientific publications fails. *Australasian Journal of Herpetology* 26:3-64.
- Hoser, R. T. 2015f. Rhodin *et al.* 2015, Yet more lies, misrepresentations and falsehoods by a band of thieves intent on stealing credit for the scientific works of others. *Australasian Journal of Herpetology* 27:3-36.
- Hoser, R. T. 2015g. Australian agamids: Eighteen new species from the genera *Amphibolurus* Wagler, 1830, *Lophognathus* Gray, 1842, *Rankinia* Wells and Wellington, 1984, *Diporiphora* Gray, 1842, *Tympanocryptis* Peters, 1863, as well as three new genera and six new subgenera. *Australasian Journal of Herpetology* 30:37-64.
- Hoser, R. T. 2018. A new subspecies of the endangered Leadbeater's Possum *Gymnobelideus leadbeateri* McCoy, 1867 from the Victorian High Country, with comments about the long-term conservation of the species in view of the recent genocide of the species caused by the Victorian Government, their wildlife and forestry departments and their controlled business enterprises. *Australasian Journal of Herpetology* 37:3-10.
- Hoser, R. T. 2019a. 11 new species, 4 new subspecies and a subgenus of Australian Dragon Lizard in the genus *Tympanocryptis* Peters, 1863, with a warning on the conservation status and long-term survival prospects of some newly named taxa. *Australasian Journ. of Herpetology* 39:23-52.
- Hoser, R. T. 2019b. Richard Shine *et al.* (1987), Hinrich Kaiser *et al.* (2013), Jane Melville *et al.* (2018 and 2019): Australian Agamids and how rule breakers, liars, thieves, taxonomic vandals and law breaking copyright infringers are causing reptile species to become extinct. *Australasian J. of Herp.* 39:53-63.
- ICZN 2013. Case 3601. *Spracklandus* Hoser, 2009 (Reptilia, Serpentes, ELAPIDAE): request for confirmation of the availability of the generic name and for the nomenclatural validation of the journal in which it was published. *Bulletin of Zoological Nomenclature* 70(4):234-237.
- Kaiser, H. 2012a. SPAM email sent out to numerous recipients on 5 June 2012.
- Kaiser, H. 2012b. Point of view. Hate article sent as attachment with SPAM email sent out on 5 June 2012.
- Kaiser, H. 2013. The Taxon Filter, a novel mechanism designed to facilitate the relationship between taxonomy and nomenclature, vis-à-vis the utility of the Code's Article 81 (the Commission's plenary power). *Bulletin of Zoological Nomenclature* 70(4) December 2013:293-302.
- Kaiser, H. 2014a. Comments on *Spracklandus* Hoser, 2009 (Reptilia, Serpentes, ELAPIDAE): request for confirmation of the availability of the generic name and for the nomenclatural validation of the journal in which it was published. *Bulletin of Zoological Nomenclature*, 71(1):30-35.
- Kaiser H. 2014b. Best Practices in Herpetological Taxonomy: Errata and Addenda. *Herpetological Review*, 45(2):257-268.
- Kaiser, H., Crother, B. L., Kelly, C. M. R., Luiselli, L., O'Shea, M., Ota, H., Passos, P., Schleip, W. D. and Wüster, W. 2013. Best practices: In the 21st Century, Taxonomic Decisions in Herpetology are Acceptable Only When supported by a body of Evidence and Published via Peer-Review. *Herpetological Review* 44(1):8-23.
- Ride, W. D. L. (ed.) *et al.* (on behalf of the International Commission on Zoological Nomenclature) 1999. *International code of Zoological Nomenclature*. The Natural History Museum - Cromwell Road, London SW7 5BD, UK.
- Robertson, P. and Coventry, A. J. 2019. *Reptiles of Victoria: A field guide to identification and ecology*. CSIRO, Australia:323 pp.
- Ng, J., Clemann, N., Chapple, S. N. J. and Melville, J. 2013. Phylogeographic evidence links the threatened 'Grampians' Mountain Dragon (*Rankinia diemensis* Grampians) with Tasmanian populations: conservation implications in south-eastern Australia. *Conservation Genetics* April 2014, 15(2):363-373. (Published online on 7 Nov 2013).
- Wells, R. W. and Wellington, C. R. 1984. A synopsis of the class Reptilia in Australia. *Australian Journal of Herpetology* 1(3-4):73-129.
- Wells, R. W. and C. R. Wellington. 1985. A classification of the Amphibia and Reptilia of Australia. *Australian Journal of Herpetology Supplementary Series* 1:1-61.