

## A New Genus and new species and new subspecies of skink from Victoria.

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### ABSTRACT

This paper describes a new taxon from near Shepparton, Victoria, closely related to the species formerly known as "*Lampropholis delicata*". At the same time, the entire group of skinks in the "*delicata*" group formerly placed in the genus *Lampropholis* Fitzinger, 1843, are hereby placed into a new genus, namely *Allengreerus* gen. nov.

The new species is herein described as *Allengreerus ronhoseri* sp. nov..

Furthermore a subspecies of the taxon, *delicata* from the environs of Melbourne, Victoria is also described herein as *Allengreerus delicata jackyhoseriae* subsp. nov.

**Keywords:** Skink; Lizard; *Allengreerus*; *Lampropholis*; *ronhoseri*; *jackyhoseriae*; species; genus; subspecies; taxonomy.

### INTRODUCTION

The genus *Lampropholis* as defined to date, contains a number of small skinks and may ultimately be split into several genera.

The "Delicate Skink" to date known as "*Lampropholis delicata*", as presently defined in most texts (e.g. Cogger 2000), is common and well-known in Eastern Australia. Most texts, including Wilson and Swan 2003, report on the taxon as being found throughout south-east Australia.

Their distribution map does not include large parts of Victoria, but another text, Swan and Watharow 2005, gives added distribution for the "taxon" as including a disjunct population from Little Desert Victoria.

Those specimens are quite different in appearance to both the type race and the taxa described below and quite likely also is an undescribed taxon.

While numerous similar species have been described from the northern part of the range from specimens that would otherwise have previously keyed out as *L. delicata*, (e.g. *L. colossus* and *L. coupon*), this has not been the case in the south.

In July 2008, I caught a number of specimens that keyed to the taxon, *L. delicata* as per Cogger 2000, but were clearly different to specimens attributable to that taxon from Sydney, Melbourne and Brisbane, with which I have been familiar with for decades.

As a result, it is herein described as a new species.

Furthermore, it has long been known that the "*delicata*" from Melbourne environs (Victoria) are substantially different from those further north in NSW and Queensland, where the holotype for the species came from.

The Melbourne taxon previously referred to that species is herein described as a new subspecies, *Allengreerus delicata jackyhoseriae* subsp. nov.

The taxon *L. guichenoti* as described in most texts (including Cogger 2000) includes a number of well-defined regional races, that will ultimately be identified either at the subspecies or species level.

Broadly sympatric with this taxon is the "*delicata*" group, readily separated from the "*guichenoti*" group by a suite of characters, most notably being a usual lack of a defined mid-vertebral stripe in the "*delicata*" group as seen in the "*guichenoti*" group.

There are numerous other features that separate the two groups.

While Greer and others have established the relationships of the taxa within both groups as being reasonably closely related based on anatomy, it is my considered opinion that they are however sufficiently differentiated to be placed in separate genera.

Hence the erection of a new genus to cover the "*delicata*" group.

### ALLENGREERUS GEN. NOV.

#### TYPE SPECIES

*MOCOA DELICATA* DE VIS, C. W. 1888

#### DIAGNOSIS

Separated from *Lampropholis* (type species *guichenoti*), to which it/they would otherwise be identified as, by the general lack of a distinct mid-vertebral stripe as seen in adult specimens.

All species lacking the mid-vertebral stripe as seen in *guichenoti* are hereby transferred to this new genus.

Occasional specimens of *Allengreerus* gen. nov. that may have a partial or broken mid-dorsal stripe or line can be separated from *Lampropholis* by the presence of dark flecks (on whitish background) on the underside of the neck, usually forming a somewhat striated appearance.

The genus "*Lampropholis*" as known to this date is defined and diagnosed on pages 380-381 and 505 of Cogger 2000.

#### ETYMOLOGY

In honor of Allen E Greer, herpetologist of many years at the Australian Museum, Sydney, who perhaps more than anyone else has resolved taxonomic questions in relation to Australasian skinks, including issues arising from controversial work by Richard Wells and his friend Ross Wellington in the 1980's.

### ALLENGREERUS DELICATA JACKYHOSERAE SUBSP. NOV.

#### HOLOTYPE

An adult specimen in the National Museum of Victoria, specimen number, D 76838, from Pakenham, Victoria, Australia. (38 04 S, 145 28 E). It is recorded on their database as: "D 76838, *Lampropholis delicata* (De Vis, 1888) : Scincidae : Squamata : Reptilia : Chordata, Australia, Victoria, Pakenham (38 04 S, 145 28 E)"

**DIAGNOSIS**

While in the past this taxon would have keyed as *A. delicata*, it is easily separated from that species (Holotype from Warro, Qld) by the following suite of characters: The nominate race has a very distinct white stripe along each side of the lower flanks commencing behind the ear and before the front leg and running to the hind leg. The same stripe in this subspecies is indistinct and only runs between the limbs in most specimens. The type race of *A. delicata* has a distinct bronze sheen, whereas *A. delicata jackyhoserae* lacks this sheen and presents as a grayish black color instead.

Physically the taxon *A. delicata jackyhoserae* is smaller in adult size to the nominate form (35 mm S-V versus 40 mm s-v in the nominate form) and also more gracile in build.

*A. delicata jackyhoserae* has a tiny white spot behind the eye (sometimes faded) which is not seen in *A. delicata* from northern NSW and Queensland.

*A. delicata jackyhoserae* like *A. delicata* elsewhere is an invasive species that does well in human modified environments, where it is often found in larger numbers than would be the case in unaltered bushland. They are common in Melbourne's inner, middle and outer suburbs, more-so in the south-east and east rather than the west, south-west or northwest.

**ETYMOLOGY**

Named in honor of my daughter, Jacky Hoser for valuable work she did with the family reptile education company, Snakebusters, over a period of 8 years.

**ALLENGREERUS RONHOSERI SP. NOV.****HOLOTYPE**

A specimen in the Museum Victoria, D 73711 Caught at 7.45 AM on 22 July 2008, from a site 20 km south-east of Shepparton (the site being 146 km by road from the Melbourne CBD) adjacent to the main Goulburn Valley Highway between Arcadia and Murchison East (Lat 145° 20' E, Long 36° 40' S), the exact location about 20 meters west-south-west of the road.

**PARATYPE**

Five other specimens in the Museum Victoria, numbers D737112-D737116 inclusive, caught at the same time and place as the holotype.

**DIAGNOSIS**

Similar in most respects to *Allengreerus delicata*, to which it would key to in Cogger 2000.

Separated from *A. delicata* by the following suite of characters.

Midlateral stripes are absent in *A. ronhoseri* sp. nov., as opposed to strongly visible in *A. delicata*. Lightening of colour around the labial scales as seen in typical *A. delicata* and all other described and named *Allengreerus* is either absent or not very pronounced in *A. ronhoseri* sp. nov.

*A. ronhoseri* sp. nov. is separated from all others in this genus and *Lampropholis* by a distinct peppering colouration on the lower parts of the upper labials, a colour trait only seen in this taxon. This colouration is best seen by looking at photos of adult specimens in life.

Average adult size is slightly smaller in *A. ronhoseri* in terms of specimens seen as compared to *A. delicata*.

Scalation of the head varied in the original series of specimens seen, so no diagnostic characters for these are given.

Colouration of the taxon is generally brownish dorsally. For detail either refer to the type specimens or photos of them in life.

In terms of known distribution, the taxon is presently known only from the type location.

However it is reasonable to assume that it may occur in a wide area throughout the lower Goulburn River and Murray basins and perhaps elsewhere.

It is fair to assume that as a small innocuous skink, specimens caught previously have either been overlooked, or misidentified as other taxa, most notably *A. delicata*.

**ECOLOGICAL NOTES**

Details of the location of the type series is given below.

At 7.45 AM on the morning of 22 July 2008, I stopped on the side of the main Goulburn Valley Highway to Shepparton (adjacent to the Melbourne 146 km signpost) and headed to a paddock immediately west of the road and abutting a watercourse with a view to lift scattered rubbish and debris in search of insects and worms to feed frogs (held under DSE permit for demonstrations).

The "habitat" was typical of the agricultural landscape in the area, with trees generally absent, except along the watercourse and periphery. In other words the area was degraded and primarily agricultural.

The search and collection of insects took all of about 15 minutes and yielded 17 lizards, including 15 *A. ronhoseri* sp. nov. under a single piece of wood, as well as 2 *Morethia boulengeri*, both found separately under pieces of tin. The aggregating lizards, rested in a clump, save for a single "outlier" resting about 6 cm away under the same piece of wood.

The aggregation consisted of lizards of all ages, ranging from last season's juveniles up.

The weather at the time was cold, with a moderately severe frost on the ground and an ambient air temperature of 1 Degree Celsius.

In previous days the weather in the area had been cool (max temps in low teens), with steady rain two days prior.

Furthermore, based on the time of year, it is therefore reasonable to assume that the lizards were "hibernating" as in a sustained period of inactivity.

While sheets of metal are regarded as good cover for reptiles, experience has shown that in frosty conditions, such are avoided due to the conductivity of the tin, with reptiles and other small animals showing a preference for cover away from frosts.

In terms of surface cover, wood is preferred, especially if of sufficient thickness to afford protection from frosts.

This was seen in this very area, where sheets of tin were also devoid of insects.

The aggregation of skinks was found under a disused wood post, being an outlier of a pile, seen between the paddock fence and the roadway.

In that pile of wood and outliers there were no other skinks and in terms of that species, no others were found in the vicinity, even though there were similar (in appearance) bits of wood in the immediate and nearby area.

This indicates that the aggregation was deliberate on the part of the lizards, as opposed to a chance gathering of individual lizards seeking a piece of shelter.

The lizards while very torpid when seen (they didn't move at all in the period between my going to the car to get a camera and my return some minutes later), they were not frozen, having been insulated by the wood from the frost.

It appears that the group hibernation was deliberate. That no *Morethia boulengeri* were found in the aggregation is significant, as this may indicate a lack of tolerance for one species over the other, bearing in mind the other species was evident in the area.

That two *Morethia boulengeri* were found separately under other bits of wood may indicate that this species is less likely to hibernate in aggregations.

While lizards are regarded as "cold-blooded" their limited biological activity does generate some heat and as a group may afford added protection or insulation against particularly cold and freezing conditions. This was probably the reason for the lizards seeking to hibernate in an aggregation.

To bypass the need to aggregate the lizards could have chosen a deeper refuge or one less exposed to the frosts.

The downside of this is that when the weather warms, the lizards must wait longer, before they can enjoy the benefits of heating where they hibernate, be that earlier feeding or mating.

Hence as a trade-off the lizards are able to aggregate over-winter nearer outside heat sources, enabling a slightly earlier emergence from hibernation, or perhaps earlier warming from under cover.

In summary this new taxon appears to be highly adaptable to human altered habitats and is presumably an invasive species.

**ETYMOLOGY**

Named in honour of the now deceased Ron Hoser, who happened to be my uncle. In the 1960's he encouraged my early interest in reptiles, when in 1967 he gave me my first ever pair of Bearded Dragons (*Pogona barbata*), that he'd caught in the general vicinity of "The Crossroads", just west of Liverpool, NSW.

That was back in the days when one could legally trap and keep common reptiles without running the risk of imprisonment as is the case now in Australia, where to "interfere with wildlife" of any kind and in any way is an offence punishable by heavy fines and/or jail and/or seizure of property.

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