A division of the genus elapid genus *Loveridgelaps* McDowell, 1970 from the Solomon Islands, including formal description of four new species (Serpentes: Elapidae: Micropechiini: Loveridgelapina).

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**ABSTRACT**

The species described as *Hoplocephalus elapoides* Boulenger, 1890, from Florida Island in the Solomon Islands since the original description, widely divergent specimens have been found across the Solomon Islands. However, no herpetologist has considered whether or not there is more than one species currently under this umbrella.

Inspection of specimens from the majority of islands *Loveridgelaps* have been found shows significant variation between specimens and of sufficient basis to warrant division into separate species. This includes consistent differences in scalation, colouration and hemipene morphology and can be reliably used to separate each form.

As a result, of an assessment of the snakes and the relevant available genetic evidence involving species affected by the same geographical barriers, e.g. lizards of the genera *Corucia* Gray, 1855 and *Tribolonotus* Duméril and Bibron, 1839 as detailed by Austin *et al.* (2010) and Hagen *et al.* (2012), and the geological evidence of relevance, it is clear that the relevant forms are sufficiently divergent to warrant taxonomic recognition.

Thus five distinctive forms are herein given taxonomic recognition as full species. Other than *Loveridgelaps elapoides* (Boulenger, 1890), none have available names and so four are named for the first time according to the provisions of the *International Code of Zoological Nomenclature* (*Ride et al.* 1999).

These are: *Loveridgelaps sloppi* sp. nov. from the New Georgia Group of Islands. *L. josephburkei* sp. nov. from the Shortland Islands, *L. yeomansi* sp. nov. from Guadalcanal and *L. fiacummingae* sp. nov. from Malaita.

**Keywords**: Taxonomy; snakes; genus; *Loveridgelaps*; species; *elapoides*; Boulenger; Solomon Islands; Solomons; Guadalcanal; Ngela; Nggela, Malaita; Shortland Island; New Georgia; Gizo; Santa Isabel; Florida Islands; Bougainville; new species; *sloppi*; *josephburkei*; *yeomansi*; *fiacummingae*. 

**INTRODUCTION**

The Solomons Black-banded Krait was originally described as *Hoplocephalus elapoides* Boulenger, 1890, from a specimen caught on Florida Island in the Solomon Islands. It was transferred to a newly created monotypic genus *Loveridgelaps* by McDowell in 1970 on the basis of significant morphological differences to all other elapid species.

Hoser (2012), assigned this and related species to a relevant tribe and subtribe, Micropechiini and Loveridgelapina respectively.

Since the original description widely divergent specimens have been found across most major island groups within the Solomon Islands. However, until now no herpetologist has considered whether or not there is more than one species currently under this umbrella.

Inspection of specimens from the majority of islands *Loveridgelaps* have been found shows significant variation between specimens and of sufficient basis to warrant division into separate species. This includes consistent differences in scalation, colouration and hemipene morphology and can be reliably used to separate each form, including the substantial body of evidence published by McDowell (1970), who also inspected a number of specimens from across the Solomon Islands.

As a result, of an assessment of the snakes and the relevant available genetic evidence involving species affected by the same geographical barriers, e.g. lizards of the genera *Corucia* Gray, 1855 and *Tribolonotus* Duméril and Bibron, 1839 as detailed by Austin *et al.* (2010) and Hagen *et al.* (2012), and the geological evidence of relevance, it is clear that the relevant forms are sufficiently divergent to warrant taxonomic recognition.

They are clearly morphologically distinct, have significant diversences with respect to very conservative characters, such as hemipene morphology, indicating deep divergence and based
on parallel studies involving species affected by the same barriers, clearly form genetically distinct, separately evolving populations.

Thus five distinctive forms are herein given taxonomic recognition as full species. Other than Loveridgelaps elapoides (Boulenger, 1890), none have available names and so four are named for the first time according to the provisions of the International Code of Zoological Nomenclature (Ride et al. 1999).

These are: Loveridgelaps sloppi sp. nov. from the New Georgia Group of Islands. L. josephburkei sp. nov. from the Shortland Islands, L. yeomansi sp. nov. from Guadalcanal and L. ficummingae sp. nov. from Malaita.

It should also be noted that at the time of McDowell’s (1970) study, he was isolated from molecular studies not available at the time and therefore could only speculate as to the taxonomic significance of divergent traits he observed and documented.

However prior to the publication of this paper I was able to match this evidence with what is now well known about the recent geological past, in terms of ice-age maxima, changing sea levels and climates and the roles these play in speciation, either in these relevant snakes or other reptile taxa affected by the same factors.

Divergences were ascertained on the basis of previous ice-age maxima connections between relevant islands as explained by authors such as Bruns et al. (2009), Russell and Coupe (1984) and recent molecular studies on both Corucia Gray, 1856 and Tribolonotus Duméril and Bibron, 1839 as published by Austin et al. (2010) and Hagen et al. (2012), and the relevant sources cited within.

Notwithstanding the theft of relevant materials from this author in an illegal armed raid on 17 August 2011, which were not returned (Court of Appeal Victoria 2014 and VCAT 2015) and not returned in breach of various earlier court orders, I have made a decision to publish this paper in view of the conservation significance attached to the formal recognition of unnamed species and on the basis that further delays may in fact put these otherwise unnamed taxa at greater risk of extinction. I also note that Boseto and Pikacha (2016), wrote of a serious alleged decline in abundance of Loveridgelaps in recent years, meaning the species in the genus are at heightened risk.

They wrote: “Locals from Sasamugga also claimed that the rare and poorly known Loveridgelaps elapoides, one of the two terrestrial elapid snake species that has been previously documented on Choiseul, was once common in the Sirebe Rainforest area, but that the arrival of R. marina caused it to decline dramatically.”

Thus five distinctive forms are herein given taxonomic recognition on the basis that likely divergences exceed the timeline determined as significant by Keogh et al. (2003).

Rafting between islands is not viewed as a significant means of dispersal or ongoing gene flow, beyond times of initial colonisation for reasons given by Hagen et al. (2012) and Balsai (1995) and also due to the absence of the genus from nearby island archipelagos beyond the Bougainville group.

Of relevance also is that the islands Guadalcanal and Malaita are separated from one another and the others by a sea depth of more than 200 metres and hence do not appear to have been joined at any stage in the last 5 million years.

MATERIALS AND METHODS

These are not formally explained in a number of my recent papers under the heading ‘Materials and methods’ or similar, on the basis they are self evident to any vaguely perceptive reader. However, the process by which the following taxonomy and nomenclature in this and other recent papers by myself of similar form, has been arrived at, is explained herein for the benefit of people who have recently published so-called ‘criticisms’ online of some of my recent papers. They have alleged a serious ‘defect’ by myself not formally explaining ‘Materials And Methods’ under such a heading.

The process involved in creating the final product for this and other relevant papers has been via a combination of the following:

Genera and component species are audited to see if their classifications are correct on the basis on known type specimens, locations and the like when compared with known phylogenies and obvious morphological differences between like species.

Original descriptions and contemporary concepts of the species are matched with available specimens from across the ranges of the species to see if all conform to accepted norms.

These may include those held in museums, private collections, collected in the field, photographed, posted on the internet or held by individuals, and only when the location data is good and any other relevant data available.

Where specimens do not appear to comply with the described species (and accepted concept of the species), this non-conformation is looked at with a view to ascertaining if it is worthy of taxonomic recognition or other relevant considerations on the basis of differences that can be tested for antiquity or deduced from earlier studies.

When this appears to be the case (non-conformation), the potential target taxon is inspected as closely as practicable with a view to comparing with the nominate form or forms if other similar taxa have been previously named.

Other relevant data is also inspected, including any available molecular studies which may indicate likely divergence of populations.

Where molecular studies are unavailable for the relevant taxon or group, other studies involving species and groups constrained by the same geographical or geological barriers, or with like distribution patterns are inspected as they give reasonable indications of the likely divergences of the taxa being studied herein.

Additionally other studies involving geological history, sea level and habitat changes associated with long-term climate change, including recent ice age changes in sea levels, versus known sea depths are utilized to predict past movements of species and genus groups in order to further ascertain likely divergences between extant populations (as done in this very paper).

When all available information checks out to show taxonomically distinct populations worthy of recognition, they are then recognized herein according to the rules of the International Code of Zoological Nomenclature (Ride et al. 1999). This means that if a name has been properly proposed in the past, it is used. This is exactly what happens in this paper for the taxon originally described as Hoplocephalus elapoides Boulenger, 1890.

Alternatively, if no name is available, one is proposed according to the rules of the Code as is done four times in this paper.

As a matter of trite I mention that if a target taxon or group does check out as being “in order” or properly classified, a paper is usually not published unless some other related taxon is named for the first time.

The published literature relevant to the taxonomic judgements made within this paper includes papers relevant to Solomon Islands species affected by the same physical barriers to dispersion as well as those directly relevant to Loveridgelaps and combined, they include the following: Adler et al. (1995), Austin et al. (2010), Balsai (1995), Barbouro (1921), Boseto and Pikacha (2016), Boulenger (1884, 1886, 1890), Bruns et al. (1989), Cogger (1972), Dahl (1986), Duméril and Bibron (1839), Gray (1856), Greer (1982), Greer and Parker (1967), Greer and Simon (1982), Hagen et al. (2012), Hall (2002), Iskandar and Erdelen (2006), Keogh et al. (2003), Kinghorn (1928, 1937), McCoy (1980, 2006), McDowell (1970), Mys (1988), Ogilvy (1890), Pianka and Vitt (2003), Pyron et al.
Diagnosis: Loveridgelaps elapoides (Boulenger, 1890) from the Florida Islands, Solomon Islands. In common with L. flacummingae sp. nov. the hemipenis of L. elapoides is forked at subcaudal 7 or 8, versus 6 in L. sloppi sp. nov. and 9 in L. yeomansi sp. nov.. The sulcus is forked at subcaudals 5-8 in all species, but usually 7 in L. elapoides.

Distribution: Restricted to the Florida Islands, Santa Isabel and Choiseul.

LOVERIDGELAPS SLOPPI SP. NOV.

Holotype: A male specimen at the Museum of Natural History, London, UK, specimen number: 1933.3.4.2, from Gizo Island in the New Georgia group of islands in the Solomon islands. The Museum of Natural History, London, UK is a facility that allows access to its holdings.

The Museum of Natural History, London, UK, specimen number: 1933.3.4.2, from Gizo Island in the New Georgia group of islands is separated from all other Loveridgelaps McDowell, 1970, by the following suite of characters: The entire head and anteriormost neck are yellowish white, except for a few dark flecks on the internasals and rostral and a narrow black border around each eye and nostril; the black crossbands are noticeably narrow laterally, but about five scale-lengths wide vertebrally, where the separating orange-yellowish white zones are two or three scale-lengths wide. There are 42 dark crossbands on the body and tail, versus never more than 34 in any other species of Loveridgelaps. The pale zones and belly lack scattered black pigment, although the black crossbands extend onto the tips of the ventrals and completely traverse the subcaudals to form rings.

The hemipenis in male L. sloppi sp. nov. is unique for Loveridgelaps in the following properties: everted organ length to subcaudal 6 (versus 7 or more in all other species), forked at subcaudal 6 (versus 7 or more in all other species) and sulcus is forked at subcaudal 5 (in common with L. flacummingae sp. nov. from Malaita). Loveridgelaps elapoides (Boulenger, 1890) from the Florida Islands Group, Santa Isabel and Choiseul is separated from all other Loveridgelaps McDowell, 1970 (excluding L. josephburkei sp. nov.), by the following suite of characters: The snout and ocular region are black, although the rest of the head and anteriormost neck are yellowish white, with or without a pair of small black spots on the occipital region of the head, behind the parietals. The black crossbands are of nearly equal width laterally and vertebrally, about five or six scale-lengths wide, and separated by yellowish zones about three to four scales wide. Posteriorly, the pale zones contain black spots, and the black crossbands extend onto the tips of the ventrals and encircle the tail to form rings. L. elapoides is separated from all other Loveridgelaps by having a belly that is either unmarked and unspotted (Florida Islands animals) or with considerable black spotting except on the forebody (Choiseul and Santa Isabel).

For L. elapoides there are about 22 crossbands on the body and tail, (Florida Islands animals) or 34 (Choiseul and Santa Isabel). The hemipenis in male L. elapoides is unique for Loveridgelaps in the following properties: The everted organ extends to subcaudal nine, (versus 6 in Loveridgelaps sloppi sp. nov. from the New Georgia Group of Islands; 10 in L. yeomansi sp. nov. from Guadalcanal and 7-8 in L. flacummingae sp. nov. from Malaita). In common with L. flacummingae sp. nov. the hemipenis of L. elapoides is forked at subcaudal 7 or 8, versus 6 in L. sloppi sp. nov. and 9 in L. yeomansi sp. nov.. The sulcus is forked at subcaudals 5-8 in all species, but usually 7 in L. elapoides.

L. josephburkei sp. nov. known only from the Shortland Islands is similar in most respects to L. elapoides which it would otherwise be identified as, but differs from it by having small black spots, flecks and markings on the lower belly, but not on the mid-belly, and in not alternatively having an unmarked belly. L. yeomansi sp. nov. from Guadalcanal is separated from all
other Loveridgelaps McDowell, 1970, by the following suite of characters: Head as in *L. elapoides*, but black occipital spots expanded into large blotches that extend nearly or to the edges of the parietals. The black crossbands are about four to six scale-lengths wide, and the light zones may or may not contain some black spotting, but not so much as to connect the black bands. The belly has a small amount of black spotting, and the black crossbands impinge extensively on the ventrals (so that the last one or two bands on the body may be complete rings, like those of the tail). The crossbands are moderate in number (28 to 33 on body and tail).

The hemipenis in male *L. yeomansi* sp. nov. is unique for Loveridgelaps in the following properties: its length when everted is 10 subcaudals (versus 9 or less for all other species), it is forked at subcaudal number 9, versus 8 or less for all other species, and the sulcus is forked at subcaudal number 7 or 8. *L. lucummingae* sp. nov. from Malaita is separated from all other Loveridgelaps McDowell, 1970, by the following suite of characters: The colouration noticeably tends towards being melanotic as described by both McCoy (2006) and McDowell (1970). In more detail, the black occipital blotches extend well onto the parietals and become confluent with the black ocular regions and with one another, thus isolating the white area on the frontal as an irregular pale crown patch. The dark crossbands are very broad, but become narrower laterally, and tend to fuse with one another through connection with the black pigment in the whitish zones, which makes the counting of blotches somewhat arbitrary; the pale zones are reduced in width to one scale-length vertebrally. The belly is white and without flecks or blotches, but the tail is encircled by black rings.

Hemipene characteristics for *L. fiacummingae* sp. nov. appear within the mid-range for the genus, reaching to subcaudal 7 or 8 when fully everted, versus 6 in *L. sloppi* sp. nov., 9 in *L. elapoides* and 10 in *L. yeomansi* sp. nov.

**Distribution:** *L. sloppi* sp. nov. is restricted to the New Georgia Group of Islands in the Solomon Islands.

**Etymology:** Named in honour of our living Great Dane (dog), named “Sloppy” for services to educating people about being nice to animals, via our live animal shows and displays business.

**Loveridgelaps Jospehburkei Sp. Nov.**

**Holotype:** A specimen at the Australian Museum, Sydney, NSW, Australia, specimen number: R.126267, from Near Harahare Village, Shortland Island, Solomon Islands (7°03' S, 155°52' E).

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

**Diagnosis:** *L. josephburkei* sp. nov. known only from the Shortland Islands is similar in most respects to *L. elapoides* which it would otherwise be identified as, but differs from it by having small black spots, flecks and markings on the lower belly, but not on the mid-belly, and in not alternatively having an unmarked belly.

The hemipenes in male *L. josephburkei* sp. nov. are essentially similar to those of *L. elapoides*.

**Loveridgelaps elapoides** (Boulenger, 1890) from the Florida Islands Group, Santa Isabel and Choiseul is separated from all other Loveridgelaps McDowell, 1970 (excluding *L. josephburkei* sp. nov.), by the following suite of characters: The snout and ocular region are black, although the rest of the head and anteriormost neck are yellowish white, with or without a pair of small black spots on the occipital region of the head, behind the parietals. The black crossbands are of nearly equal width laterally and vertebrally, about five or six scale-lengths wide, and the light zones may or may not contain some black spotting, but not so much as to connect the black bands. The belly has a small amount of black spotting, and the black crossbands impinge extensively on the ventrals (so that the last one or two bands on the body may be complete rings, like those of the tail). The crossbands are moderate in number (28 to 33 on body and tail).

**L. elapoides** is separated from all other Loveridgelaps by having a belly that is either unmarked and unspotted (Florida Islands animals) or with considerable black spotting except on the forehead (Choiseul and Santa Isabel). There are anywhere from 22 to 34 crossbands on the body and tail.

The hemipenis in male *L. elapoides* is unique for Loveridgelaps in the following properties: The everted organ extends to subcaudal nine, (versus 6 in *Loveridgelaps sloppi* sp. nov. from the New Georgia Group of Islands; 10 in *L. yeomansi* sp. nov. from Guadalcanal and 7-8 in *L. lucummingae* sp. nov. from Malaita). In common with *L. lucummingae* sp. nov. the hemipenis of *L. elapoides* is forked at subcaudal 7 or 8, versus 6 in *L. sloppi* sp. nov. and 9 in *L. yeomansi* sp. nov.. The sulcus is forked at subcaudals 5-8 in all species, but usually 7 in *L. elapoides*.

**Loveridgelaps sloppi** sp. nov. from the New Georgia group of islands is separated from all other Loveridgelaps McDowell, 1970, by the following suite of characters: The entire head and anteriormost neck are yellowish white, except for a few dark flecks on the internasals and rostral and a narrow black border around each eye and nostril; the black crossbands are noticeably narrow laterally, about five scale-lengths wide vertebrally, where the separating orange-yellowish white zones are two or three scale-lengths wide. There are 42 dark crossbands on the body and tail, versus never more than 34 in any other species of Loveridgelaps. The pale zones and belly lack scattered black pigment, although the black crossbands extend onto the tips of the ventrals and completely traverse the subcaudals to form more black areas than in any other Loveridgelaps except *L. elapoides*.

The hemipenis in male *L. sloppi* sp. nov. is unique for Loveridgelaps in the following properties: everted organ length to subcaudal 6 (versus 7 or more in all other species), forked at subcaudal 6 (versus 7 or more in all other species) and sulcus is forked at subcaudal 5 (in common with *L. lucummingae* sp. nov. from Malaita).

**L. yeomansi** sp. nov. from Guadalcanal is separated from all other Loveridgelaps McDowell, 1970, by the following suite of characters: Head as in *L. elapoides*, but black occipital spots expanded into large blotches that extend nearly or to the edges of the parietals. The black crossbands are about four to six scale-lengths wide, and the light zones may or may not contain some black spotting, but not so much as to connect the black bands. The belly has a small amount of black spotting, and the black crossbands impinge extensively on the ventrals (so that the last one or two bands on the body may be complete rings, like those of the tail). The crossbands are moderate in number (28 to 33 on body and tail).

The hemipenis in male *L. yeomansi* sp. nov. is unique for Loveridgelaps in the following properties: its length when everted is 10 subcaudals (versus 9 or less for all other species), it is forked at subcaudal number 9, versus 8 or less for all other species, and the sulcus is forked at subcaudal number 7 or 8. *L. lucummingae* sp. nov. from Malaita is separated from all other Loveridgelaps McDowell, 1970, by the following suite of characters: The colouration noticeably tends towards being melanotic as described by both McCoy (2006) and McDowell (1970). In more detail, the black occipital blotches extend well onto the parietals and become confluent with the black ocular regions and with one another, thus isolating the white area on the frontal as an irregular pale crown patch. The dark crossbands are very broad, but become narrower laterally, and tend to fuse with one another through connection with the black pigment in the whitish zones, which makes the counting of blotches somewhat arbitrary; the pale zones are reduced in width to one scale-length vertebrally, but about five scale-lengths wide, and the light zones may or may not contain some black spotting, but not so much as to connect the black bands. The belly has a small amount of black spotting, and the black crossbands impinge extensively on the ventrals (so that the last one or two bands on the body may be complete rings, like those of the tail). The crossbands are moderate in number (28 to 33 on body and tail).

**Hemipene characteristics for *L. fiacummingae* sp. nov. appear** within the mid-range for the genus, reaching to subcaudal 7 or 8 when fully everted, versus 6 in *L. sloppi* sp. nov., 9 in *L. elapoides* and 10 in *L. yeomansi* sp. nov..
Islands, but may also occur elsewhere in the Bougainville group of islands.

**Etymology:** Named in honour of Joseph Burke of Joseph Burke Law, Melbourne, Victoria in recognition of his services to the administration of justice in Melbourne, Australia, by defending people against improper attacks from corrupt government employees.

**LOVERIDGELAPS YEOMANSI SP. NOV.**

**Holotype:** A specimen at the Australian Museum, Sydney, NSW, Australia, specimen number: R.118881 from Guadalcanal, Solomon Islands (9°32’S, 160°12’E).

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

**Paratypes:** A specimen at the Australian Museum, Sydney, NSW, Australia, specimen number: R.9301, from Guadalcanal, Solomon Islands (9°32’S, 160°12’E).

A female specimen at the Museum of Comparative Zoology, Harvard University, USA, specimen number: MCZ 66899 from Guadalcanal, Solomon Islands.

A male specimen at the Museum of Natural History, London, UK, specimen number: 1936.10.4.64 from Guadalcanal, Solomon Islands.


**Diagnosis:** L. yeomansi sp. nov. from Guadalcanal is separated from all other Loveridgelaps McDowell, 1970, by the following suite of characters: The everted organ extends to subcaudal 6 (versus 7 or more in all other species), forked at subcaudal 6 (versus 7 or more in all other species) and 10 in L. yeomansi sp. nov.. The sulcus is forked at subcaudals 5-8 in all species, but usually 7 in L. elapoides.

L. josephburkei sp. nov. known only from the Shortland Islands is similar in most respects to L. elapoides which it would otherwise be identified as, but differs from it by having small black spots, flecks and markings on the lower belly, but not on the mid-belly, and in not alternatively having an unmarked belly.

**LOVERIDGELAPS SLOPPI SP. NOV.**

**Holotype:** A specimen at the Australian Museum, Sydney, NSW, Australia, specimen number: R.7982 from Malaita, Solomon Islands (9°00’S, 161°00’E).

A specimen at the Australian Museum, Sydney, NSW, Australia, specimen number: R.2379 from Malaita, Solomon Islands.

A female specimen at the Australian Museum, Sydney, NSW, Australia, specimen number: R.118881 from Malaita, Solomon Islands.

A specimen at the Australian Museum, Sydney, NSW, Australia, specimen number: R.87382 from Malaita, Solomon Islands.

A specimen at the Australian Museum, Sydney, NSW, Australia, specimen number: R.9301, from Guadalcanal, Solomon Islands (9°32’S, 160°12’E).


**Diagnosis:** L. yeomansi sp. nov. from Guadalcanal is separated from all other Loveridgelaps McDowell, 1970, by the following suite of characters: The entire head and anterioirmost neck are yellowish white, except for a few dark flecks on the internasals and rostral and a narrow black border around each eye and nostril; the black crossbands are noticeably narrow laterally, but about five scale-lengths wide ventrally, where the separating orange-yellowish white zones are two or three scale-lengths wide. There are 42 dark crossbands on the body and tail, versus never more than 34 in any other species of Loveridgelaps.

The pale zones and belly lack scattered black pigment, although the black crossbands extend onto the tips of the ventrals and completely traverse the subcaudals to form rings.

The hemipenis in male L. sloppi sp. nov. is unique for Loveridgelaps in the following properties: everted organ length to subcaudal 6 (versus 7 or more in all other species), forked at subcaudal 6 (versus 7 or more in all other species) and 10 in L. yeomansi sp. nov.. The sulcus is forked at subcaudal 5 (in common with L. ficummingae sp. nov. from Malaita).

L. ficummingae sp. nov. from Malaita is separated from all other Loveridgelaps McDowell, 1970, by the following suite of characters: The colouration noticeably tends towards being melanotic as described by both McCoy (2006) and McDowell (1970). In more detail, the black occipital blotches extend well onto the parietals and become confluent with the black ocular regions and with one another, thus isolating the white area on the frontal as an irregular pale crossband. The pale crossbands are very broad, but become narrower laterally, and tend to fuse with one another through connection with the black pigment in the whitish zones, which makes the counting of blotches somewhat arbitrary; the pale zones are reduced in width to one scale-length ventrally. The belly is white and without flecks or blotches, but the tail is encircled by black rings.

Hemipene characteristics for L. ficummingae sp. nov. appear within the mid-range for the genus, reaching to subcaudal 7 or 8 when fully everted, versus 6 in L. sloppi sp. nov., 9 in L. elapoides and 10 in L. yeomansi sp. nov..

**Distribution:** Guadalcanal Island in the Solomon Islands.

**Etymology:** Named in honour of now deceased UK herpetologist, Luke Yeomans. For details relating to the etymology, see Hoser (2012).

**LOVERIDGELAPS FICUMMINGAE SP. NOV.**

**Holotype:** A male specimen at the American Museum of Natural History (AMNH), New York, USA, specimen number: AMNH 43399, from Malaita, Solomon Islands.

The American Museum of Natural History (AMNH), New York, USA, is a facility that allows access to its holdings.

**Paratypes:** 1/ A male specimen at the American Museum of Natural History (AMNH), New York, USA, specimen number: AMNH 43400, from Malaita, Solomon Islands.

2/ A specimen at the Australian Museum, Sydney, NSW, Australia, specimen number: R.2379 from Malaita, Solomon Islands (9°00’S, 161°00’E).

3/ A specimen at the Australian Museum, Sydney, NSW, Australia, specimen number: R.2379 from Malaita, Solomon Islands (9°00’S, 161°00’E).

**Diagnosis:** L. ficummingae sp. nov. from Malaita is separated from all other Loveridgelaps McDowell, 1970, by the following suite of characters: The colouration noticeably tends towards...
L. josephburkei sp. nov. known only from the Shortland Islands crossbands on the body and tail, versus never more than 34 in noticeably narrow laterally, but about five scale-lengths wide around each eye and nostril; the black crossbands are 1970, by the following suite of characters: The entire head and black spots, flecks and markings on the lower belly, but not on otherwise be identified as, but differs from it by having small from Guadalcanal and 7-8 in L. fiacummingae sp. nov. from the New Georgia Group of Islands; 10 in L. yeomansi sp. nov.. The sulcus is subcaudal nine, (versus 6 in Loveridgelaps sloppi sp. nov. from Malaita). In common with L. fiacummingae sp. nov. the hemipenis in male L. yeomansi sp. nov. is unique for Loveridgelaps in the following properties: The everted organ extends to subcaudal nine, (versus 6 in Loveridgelaps sloppi sp. nov. from the New Georgia Group of Islands; 10 in L. yeomansi sp. nov. from Guadalcanal and 7-8 in L. fiacummingae sp. nov. from Malaita). In common with L. fiacummingae sp. nov. the hemipenis of L. elapoides is forked at subcaudal 7 or 8, versus 6 in L. sloppi sp. nov and 9 in L. yeomansi sp. nov.. The sulcus is forked at subcaudals 5-8 in all species, but usually 7 in L. elapoides.

L. josephburkei sp. nov. known only from the Shortland Islands is similar in most respects to L. elapoides which it would otherwise be identified as, but differs from it by having small black spots, flecks and markings on the lower belly, but not on the mid-belly, and in not alternatively having an unmated belly. Loveridgelaps sloppi sp. nov. from the New Georgia group of islands is separated from all other Loveridgelaps McDowell, 1970, by the following suite of characters: The entire head and anterioirst neck are yellowish white, with or without a pair of small black spots on the occipital region of the head, behind the parietals. The black crossbands are of nearly equal width laterally and vertebrally, about five or six scale-lengths wide, and separated by yellowish zones about three to four scales wide. Posteriorly, the pale zones contain black spots, and the black crossbands extend onto the tips of the ventrals and encircle the tail to form rings.

L. elapoides is separated from all other Loveridgelaps by having a belly that is either unmarked and unspotted (Florida Islands animals) or with considerable black spotting except on the forebody (Choiseul and Santa Isabel). For L. elapoides there are about 22 crossbands on the body and tail, (Florida Islands animals) or 34 (Choiseul and Santa Isabel). The hemipenis in male L. elapoides is unique for Loveridgelaps in the following properties: The everted organ extends to subcaudal nine, (versus 6 in Loveridgelaps sloppi sp. nov. from the New Georgia Group of Islands; 10 in L. yeomansi sp. nov. from Guadalcanal and 7-8 in L. fiacummingae sp. nov. from Malaita). In common with L. fiacummingae sp. nov. the hemipenis of L. elapoides is forked at subcaudal 7 or 8, versus 6 in L. sloppi sp. nov. and 9 in L. yeomansi sp. nov.. The sulcus is forked at subcaudals 5-8 in all species, but usually 7 in L. elapoides.


**CONFLICT OF INTEREST**

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

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