

Division of the Asian Snake Genera *Liopeltis* Fitzinger, 1843 and *Gongylosoma* Fitzinger, 1843 (Serpentes:Colubridae).

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ABSTRACT

The Asian genera *Liopeltis* Fitzinger, 1843 and *Gongylosoma* Fitzinger, 1843 as recognized at start 2013 have had a chequered taxonomic history, as outlined by Leviton (1964) for *Liopeltis* and Grismer *et al.* (2003) for *Gongylosoma*.

Species previously assigned to both genera have been removed and placed elsewhere by various authors. However a review of the remaining species within both genera show that there is sufficient evidence to warrant further division of both genera on the basis of strong morphological and biological differences between members.

As a result, in *Liopeltis*, what is perhaps the most divergent species is herein placed in its own monotypic genus, *Rossnolanus gen. nov.*

In terms of *Gongylosoma* the genus as recognized to date is divided three ways, with two new subgenera created and named according to the Zoological Code (Ride *et al.* 1999).

In turn all relevant genera are placed in a new colubrid tribe, namely Rossnolaniini, that also includes other genera including species formerly placed in *Liopeltis* and *Gongylosoma*.

The species *Liopeltis tricolor* Schlegel, 1837 is also herein divided into four subspecies, three formally named for the first time.

Keywords: Taxonomy; nomenclature; new tribe; Rossnolaniini; *Liopeltis*; *Gongylosoma*; new genus; *Rossnolanus*; new subgenera; *Paulelliottus*; *Avonlovellus*; new subspecies; *tricolor*; *philippinesiensis*; *brummeri*; *borneoiensis*.

INTRODUCTION

The Asian Snakes of the genera *Liopeltis* Fitzinger, 1843 and *Gongylosoma* Fitzinger, 1843 are diminutive and relatively uncommon snakes from the wetter South Asian region. Species within both genera as presently recognized have in the past been placed in a single genus (e.g. Boulenger 1890, 1894), with division of the group by most herpetologists only being done in the latter part of the twentieth century, this being done by resurrecting older available names.

Some species have in fact been transferred out, including the species *Cyclophiops doriae* Boulenger, 1888, returned to a monotypic genus as first described by Boulenger in 1888 and *Coluber porphyraceus* Cantor, 1839, held in with the *Liopeltis* group for many years and then transferred out to the genus *Oreocryptophis* Utiger *et al.* 2005, noting it had been recognized as divergent for some time and in fact including more than one species-level taxon (Utiger *et al.* 2005).

For several reasons, including in part a relative lack of specimens in museums of the remainder of the species, these snakes have not been of much taxonomic interest in the latter part of the twentieth century.

However a wide-ranging audit of most of the world's snake genera as popularly recognized showed that both genera contained divergent species worthy of taxonomic recognition in their own right, based on morphological and biological differences.

In terms of the genus *Liopeltis* the species *L. rappii* Günther, 1860, is significantly different from others in the genus, being of longer body-shape, more fossorial in habits and with a considerably smaller eye. Its head also differs significantly, including having just six as opposed to seven or eight upper labials.

As a result it is placed in a new genus *Rossnolanus gen. nov.* defined and named according to the Zoological Code (Ride *et al.* 1999), with the genus *Liopeltis* being redefined accordingly.

The genus *Gongylosoma* also comprises two main groups. The first (nominal group), includes the species, *Gongylosoma baliodeirus* Boie, 1827 the type species for the genus and *Gongylosoma scripta* (Theobald, 1868). The second group consists of the species *Gongylosoma mukutense* Grismer, Das and Leong, 2003, *Gongylosoma nicobariensis* (Stolicza, 1870)

and *Gongylosoma scripta* (Theobald, 1868), characterized by a body colour that fades from reddish brown anteriorly to greyish brown at the rear.

While my first view was to divide the genus along these lines, the second group of three also consists two different groups, that being *G. nicobariensis* which lacks a chevron-shaped nuchal band, anterior and posterior chin shields of the same size, five stripes anteriorly and a triangular postocular patch, versus the other two species (*G. scripta* and *G. mukutense*) which have these.

Therefore *Gongylosoma* is divided three ways into subgenera, according to the Zoological Code.

The differences between the three groups are in my view significant, based solely on morphological differences and almost certainly warrant division at the full genus level, but I have taken a conservative position (naming subgenera instead) in the absence of relevant molecular data for the relevant species.

There is also a likelihood that one of the two named subgenera should be treated as a full genus, with the other subgenus remaining within the group.

In the unlikely event that a subsequent or first reviser seeks to merge the two newly named subgenera within *Gongylosoma*, into a single genus, then *Paulelliottus gen. nov.* as defined herein is then the name that must take priority.

Because the taxonomic history of these snakes has been well documented elsewhere, it is not my purpose to rehash the detail here. However key references in terms of the taxonomy and ecology of the relevant species within the genera *Liopeltis*, *Gongylosoma*, *Cyclophiops* and *Oreocryptophis* include Boettger (1897), Boie (1827), Bong Hean (1987), Boulenger (1898, 1890, 1894), Brown and Alcalá (1970), Bulian *et al.* (2005, 2006), Cantor (1839), Chanard *et al.* (1999), Cox *et al.* (1998), Daan and Hillenius (1966), Das (1999), Das and Yaakob (2007), David and Vogel (1996), David *et al.* (2004), Dowling and Jenner (1988), Fischer (1886), Gaulke (1999), Grandison (1972, 1978), Gray (1853), Grismer *et al.* (2002, 2003, 2008), Grossmann and Tillack (2004, 2005), Grossmann and Schulz (2000), Gumprecht (2003), Günther (1858, 1859, 1860), Heiko (2013), Hendrickson (1966), Jan (1865, 1866), Karunarathna Suranjan and Naalin Perera (2010), Karunarathna Suranjan and Thanun Amarasinghe (2011), Knietsch (2005), Kopstein (1938), Kramer (1977), Lenk *et al.* (2001), Leviton (1964), Lidth De Juede (1890), Lim and Ng (1999), Love (2010), Malkmus *et al.* (2002), Manthey (1983), Manthey and Grossman (1997), Marx (1958), Mattison (2007), Mell (1931), Oshima (1910), Pauwels *et al.* (2003), Peters (1871), Pyron *et al.* (2013), Saikia *et al.* (2007), Sang *et al.* (2009), Schlegel (1837), Schulz (1996a, 1996b), Schulz and Helfenberger (2010), Schulz *et al.* (2010), Sclater (1891), Sharma (2004), Smedley (1931a, 1931b), Smith (1931, 1943), Stejneger (1910), Stoliczka (1870a, 1870b, 1873), Stuart *et al.* (2006), Stuebing and Inger (1999), Taylor (1950, 1965), Teo and Rajathurai (1997), Theobald (1868), Trapp (2012), Utiger *et al.* (2002, 2005), van Rooijen and van Rooijen (2007), Vijayakumar and David (2006), Wall (1908, 1921, 1924), Whitaker and Captain (2004), Zhao (1993), Ziegler *et al.* (2007) and sources cited therein.

A number of molecular studies have shown that at least some (as tested) species within these genera (including those defined below) form a divergent group within the Colubridae (e.g. Utiger *et al.* 2005, Pyron *et al.* 2013).

As a result, the group are formally placed in a new tribe defined according to the Zoological Code (Ride *et al.* 1999), namely *Rosnolaniini* tribe *nov.*

Liopeltis tricolor Schlegel, 1837 has been known to vary significantly between populations. These differences have in part been documented in some of the literature cited above.

As a result those differences are given taxonomic recognition, with three regional subspecies described herein.

GENUS *LIOPELTIS* FITZINGER, 1843

Type species: *Herpetodryas tricolor* Schlegel, 1837.

Diagnosis: Smallish snakes usually well under 60 cm in total length. Maxillary teeth small, equal in size and numbering 15-30. Mandibular teeth are subequal. The head is short, not or scarcely distinct from the neck. The eye is small or moderate in size, but is more than half the length of the snout. The pupil is round, head shields are more-or-less normal. The body is cylindrical with smooth or feebly keeled scales in 15 dorsal mid-body rows without apical pits. Ventrals are not angulate laterally, the tail is moderate to long and the subcaudals are divided. 7-8 upper labials.

Nasal shield may be single, semidivided or divided.

Distribution: Southern Asia including south-east Asia.

Content: *Liopeltis calamaria* (Günther, 1858); *L. frenatus* (Günther, 1858); *L. philippinus* (Boettger, 1897); *L. stoliczkae* (Sclater, 1891); *L. tricolor* (Schlegel, 1837).

LIOPELTIS TRICOLOR (SCHLEGEL, 1837)

Type locality: Java, Indonesia.

Diagnosis: As for the genus (above) and then including the following: Snout is rather long and depressed, twice as long as the diameter of the eye; rostral broader than deep, visible from above; nasal undivided; suture between the internasals as long as or a little shorter than that between the praefrontals; frontal not broader than the supraocular, as long as its distance from the end of the snout, shorter than the parietals; no loreal, the praefrontal in contact with the second and third labials; one preaocular and two postoculars; temporals 1+2; eight supralabials, numbers 4 and 5 entering the eye; four or five lower labials in contact with the anterior chinshields, which are a little shorter than the posterior. There are 15 dorsal mid-body scale rows; 140-187 ventrals, divided anal and 103-130 divided subcaudals. The colour is olive or greenish above; a black streak on each side of the head and anterior part of the body; passing through the eye; upper lip and lower parts are yellowish-white; a pale streak along each side of the belly.

Distribution: Indonesia (Pulau We, Borneo, Bangka, Java, Nias, Riau Archipelago, Sumatra, We); Brunei Darussalam; Malaysia (Malaya and East Malaysia, Pulau Tioman); Philippine Islands (including Bubuan, Palawan); Singapore; Thailand; Vietnam.

LIOPELTIS TRICOLOR PHILIPPINESIENSIS SUBSP. NOV.

Holotype: A specimen at the California Academy of Science (CAS), San Francisco, USA, specimen number 62168 from Palawan Island, the Philippines. This is a government-owned facility that allows access to its specimens by scientists.

Paratype: A specimen in the Chicago Natural History Museum, Chicago, USA, specimen number 15054 from Palawan Island, the Philippines. This is a government-owned facility that allows access to its specimens by scientists.

Diagnosis: *Liopeltis tricolor philippinesiensis* subsp. nov. is most readily separated from the nominal form of the species and the subspecies *Liopeltis tricolor borneoiensis* subsp. nov. described herein by consistent differences in scalation.

For *Liopeltis tricolor philippinesiensis* subsp. nov. males have 149 ventrals (n=3), females have 148 ventrals (n=1); males have 116-125 subcaudals (n=3), females have 124 subcaudals (n=1); the tail length versus standard length is .55-.61 (n=4); compared to:

For *Liopeltis tricolor borneoiensis* subsp. nov. males have 153-160 ventrals (n=4), females have 167-171 ventrals (n=2); males have 124-133 subcaudals (n=4), females have 127-133 subcaudals (n=2); the tail length versus standard length is .60-.62 (n=2); compared to:

For *Liopeltis tricolor tricolor* males have 140-149 ventrals (n=3), females have 187 ventrals (n=1); males have 118-131 subcaudals (n=3), females have 108 subcaudals (n=1); the tail length versus standard length is .65-.66 (n=2).

Liopeltis tricolor brummeri subsp. nov. is most readily separated from the other three subspecies by the following: In life, the upper lip and lower parts are whitish with at best a faint yellowish tinge as opposed to yellowish white to yellow in the other subspecies.

In *Liopeltis tricolor brummeri subsp. nov.* the frontal shield is also a different shape to that seen in the other three subspecies. In the other three subspecies the anterior part of the frontal flares outwards to a noticeable degree, whereas in *Liopeltis tricolor brummeri subsp. nov.* the frontal either does not flare out or does so only slightly.

Obviously all four subspecies can be separated by distribution as well.

Liopeltis tricolor philippinensis subsp. nov. is restricted to Palawan Island, the Philippines.

Liopeltis tricolor bornei subsp. nov. is restricted to the island of Borneo and immediately adjacent offshore islands.

Liopeltis tricolor tricolor occupies Java and immediately adjacent islands.

Liopeltis tricolor brummeri subsp. nov. is found in Peninsula Malaysia, Singapore, Thailand and immediately adjacent islands.

Distribution: *Liopeltis tricolor philippinensis subsp. nov.* is restricted to Palawan Island, the Philippines and immediately adjacent islands.

Etymology: Named in relation to where the subspecies occurs.

LIOPELTIS TRICOLOR BORNEIENSIS SUBSP. NOV.

Holotype: A specimen at the Museum of Comparative Zoology (MCZ), Harvard, USA, specimen number: MCZ 11270 from the Limbang District, Sarawak on the island of Borneo. The Museum of Comparative Zoology allows access to its specimens by scientists.

Diagnosis: *Liopeltis tricolor bornei subsp. nov.* is most readily separated from the nominal form of the species and the subspecies *Liopeltis tricolor philippinensis subsp. nov.* described herein by consistent differences in scalation.

For *Liopeltis tricolor bornei subsp. nov.* males have 153-160 ventrals (n=4), females have 167-171 ventrals (n=2); males have 124-133 subcaudals (n=4), females have 127-133 subcaudals (n=2); the tail length versus standard length is .60-.62 (n=2); compared to:

For *Liopeltis tricolor philippinensis subsp. nov.* males have 149 ventrals (n=3), females have 148 ventrals (n=1); males have 116-125 subcaudals (n=3), females have 124 subcaudals (n=1); the tail length versus standard length is .55-.61 (n=4); compared to:

For *Liopeltis tricolor tricolor* males have 140-149 ventrals (n=3), females have 187 ventrals (n=1); males have 118-131 subcaudals (n=3), females have 108 subcaudals (n=1); the tail length versus standard length is .65-.66 (n=2).

Liopeltis tricolor brummeri subsp. nov. is most readily separated from the other three subspecies by the following: In life, the upper lip and lower parts are whitish with at best a faint yellowish tinge as opposed to yellowish white to yellow in the other subspecies.

In *Liopeltis tricolor brummeri subsp. nov.* the frontal shield is also a different shape to that seen in the other three subspecies. In the other three subspecies the anterior part of the frontal flares outwards to a noticeable degree, whereas in *Liopeltis tricolor brummeri subsp. nov.* the frontal either does not flare out or does so only slightly.

Obviously all four subspecies can be separated by distribution as well.

Liopeltis tricolor philippinensis subsp. nov. is restricted to Palawan Island, the Philippines.

Liopeltis tricolor bornei subsp. nov. is restricted to the island of Borneo and immediately adjacent offshore islands.

Liopeltis tricolor tricolor occupies Java and immediately adjacent islands.

Liopeltis tricolor brummeri subsp. nov. is found in Peninsula Malaysia, Singapore, Thailand and immediately adjacent islands.

Distribution: *Liopeltis tricolor bornei subsp. nov.* is restricted to the island of Borneo and immediately adjacent offshore islands.

Etymology: Named in relation to where the subspecies occurs.

LIOPELTIS TRICOLOR BRUMMERI SUBSP. NOV.

Holotype: A specimen at the Raffles Museum of Biodiversity Research, Singapore, specimen number: ZRC.2.2837, from Penang Hill, Penang, Peninsula Malaysia. This is a facility that allows access to its collection by scientists.

Paratype: A specimen at the Raffles Museum of Biodiversity Research, Singapore, specimen number: ZRC.2.2838, from Penang Hill, Penang, Peninsula Malaysia. This is a facility that allows access to its collection by scientists.

Diagnosis: *Liopeltis tricolor brummeri subsp. nov.* is most readily separated from the other three subspecies by the following: In life, the upper lip and lower parts are whitish with at best a faint yellowish tinge as opposed to yellowish white to yellow in the other subspecies.

In *Liopeltis tricolor brummeri subsp. nov.* the frontal shield is also a different shape to that seen in the other three subspecies. In the other three subspecies the anterior part of the frontal flares outwards to a noticeable degree, whereas in *Liopeltis tricolor brummeri subsp. nov.* the frontal either does not flare out or does so only slightly.

Liopeltis tricolor bornei subsp. nov. is most readily separated from the nominal form of the species and the subspecies *Liopeltis tricolor philippinensis subsp. nov.* described herein by consistent differences in scalation.

For *Liopeltis tricolor bornei subsp. nov.* males have 153-160 ventrals (n=4), females have 167-171 ventrals (n=2); males have 124-133 subcaudals (n=4), females have 127-133 subcaudals (n=2); the tail length versus standard length is .60-.62 (n=2); compared to:

For *Liopeltis tricolor philippinensis subsp. nov.* males have 149 ventrals (n=3), females have 148 ventrals (n=1); males have 116-125 subcaudals (n=3), females have 124 subcaudals (n=1); the tail length versus standard length is .55-.61 (n=4); compared to:

For *Liopeltis tricolor tricolor* males have 140-149 ventrals (n=3), females have 187 ventrals (n=1); males have 118-131 subcaudals (n=3), females have 108 subcaudals (n=1); the tail length versus standard length is .65-.66 (n=2).

Obviously all four subspecies can be separated by distribution as well.

Liopeltis tricolor philippinensis subsp. nov. is restricted to Palawan Island, the Philippines.

Liopeltis tricolor bornei subsp. nov. is restricted to the island of Borneo and immediately adjacent offshore islands.

Liopeltis tricolor tricolor occupies Java and immediately adjacent islands.

Liopeltis tricolor brummeri subsp. nov. is found in Peninsula Malaysia, Singapore, Thailand and immediately adjacent islands.

Distribution: Peninsula Malaysia, Singapore and Thailand.

Etymology: Named in honour of Marcus Brummer of Upwey, Melbourne, Victoria, Australia for his magnificent efforts in terms of highlighting police and political corruption in the Australian state of Victoria.

In the late 1990's the Victorian police were routinely bashing political protestors, on instructions of their controlling government, led at the time by Premier Steve Bracks.

The police were not enforcing the law of the land, but rather in

effect acting as paid government thugs to bash, rob and lock up any people they deemed a threat to their cosy and corrupt arrangement.

After several law-abiding workers were bashed, robbed and some even killed as a result of their protests against Bracks government policies and highly corrupt practices, Brummer decided to wage a peaceful protest against the dictatorial and fascist Bracks government.

He did this by sneaking into a press conference at a Museum opening on 22 October 2000 and shoving a large pie into the face of Bracks while live TV cameras were running.

This caused the meglomaniac Bracks extreme embarrassment.

For this act, Brummer was jailed, although as it happened the other prisoners treated him like Royalty for his deed!

A short time earlier Victorian police had without provocation attacked and killed a number of peaceful protestors, and severely injuring many more, campaigning for better working conditions in the city of Melbourne. This included a number of elderly ladies.

In contrast to Brummer, no police officer was charged or punished in any way.

All it takes for evil to flourish is for supposedly good people to do nothing.

Brummer did his best to highlight the extreme political and police corruption that was the hallmark of the Bracks government of the period post-dating August 1999.

The government of Bracks was an evil monstrosity run in effect by the hatchet-man Rob Hulls who broke all the rules of democracy by banning protest and dissent. Hulls copied the Nazi Adolf Hitler and had books seized from shops and shredded and his henchmen and thugs effectively destroyed any semblance of decency or integrity in the legal system by appointing his own corrupt mates to positions of power. This in effect made his own band of thieves untouchable by the law and removing the right to a fair trial for any fabricated charges laid against anyone seen by Hulls, Bracks and the band of thieves as dissenting.

As it happens, Bracks had deposed an equally corrupt leader in the form of Jeffrey Gibb Kennett, (also known to have had books seized from shops and shredded) whose legacy of debt created to line the pockets of the favoured few, the State of Victoria will be repaying for many years. This includes in the form of tolls on roads that had long earlier been built and paid for by taxpayers and then given to one or more companies owned or controlled by people with connections to the Kennett regime.

GENUS ROSSNOLANUS GEN. NOV.

Type species: *Ablabes rappii* Günther, 1860.

Diagnosis: This genus consists of smallish snakes, usually well under 60 cm in length. Maxillary teeth small, equal in size and numbering 15-30. Mandibular teeth are subequal. The head is short, not or scarcely distinct from the neck. The eye is small or moderate in size and is less than half the length of the snout. The pupil is round, head shields are more-or-less normal. The body is cylindrical with smooth or feebly keeled scales in 15 dorsal mid-body rows without apical pits. Ventrals are not angulate laterally, the tail is moderate to long and the subcaudals are divided. 6 upper labials.

This genus (*Rossnolanus gen. nov.*) is separated from *Liopeltis* Fitzinger, 1843 (within which it was formerly placed), by having the eye being not more than half the length of the snout, (being smaller than in *Liopeltis*, which has an eye more than half the length of the snout), and by having six upper labials, as opposed to 7-8 in *Liopeltis*.

This genus (*Rossnolanus gen. nov.*) is separated from *Gongylosoma* Fitzinger, 1843 (including the subgenera named below) by the fact that species in that genus have either 13 or 17 dorsal mid-body rows instead of the 15 in this genus.

This genus (*Rossnolanus gen. nov.*) is separated from the

genus *Oreocryptophis* Utiger *et al.* 2005 by the fact that the latter has 19 as opposed to 15 dorsal mid-body rows.

Cyclophiops doriae Boulenger, 1888 (monotypic for the Boulenger-named genus) is separated from *Rossnolanus gen. nov.* by having 8 as opposed to 6 upper labials. *Cyclophiops doriae* Boulenger, 1888 also has a distinctively convex snout.

Rossnolanus gen. nov. is also diagnosed by the following suite of characters: Rostral is twice as broad as deep, being just visible from above. The nostril is between two nasals; suture between the internasals is a little shorter than that between the praefrontals; frontal slightly shorter than its distance from the end of the snout, a little shorter than the parietals; loreal is as long as deep or a little longer than deep; one praeocular; two postoculars, only the upper in contact with the parietal; temporals 1+1; 6 upper labials, the third and fourth entering the eye; four lower labials in contact with the anterior chin shields, which equal or a little exceed the posterior in length. 15 dorsal mid-body scale rows, 178-195 ventrals, divided anal and 60-75 divided subcaudals. The colour is brown above with a broad dark collar and a double series of transverse dark spots on the anterior part of the body; these markings being noticeably more distinct in young specimens. The venter is a uniform yellowish colour.

Distribution: The Himalayas, including, Nepal, India (Sikkim, Darjeeling, Himachal Pradesh).

Etymology: Named in honour of Ross Nolan of Ringwood, Victoria, Australia in recognition of his civic ethics in being a whistleblower of corruption in the Victorian Liberal Party and their private army, including heavily armed and highly corrupt Victorian Police Officers and a totally corrupt judiciary appointed by the politicians and who follow orders given to them to railroad innocent people and ensure that police protected thugs and criminals remain untouched by the law.

As a result of his blowing the whistle on the corruption, Liberal Party luminaries in Melbourne organised a campaign to discredit him via the Murdoch-controlled "hate press" (known best for the illegal phone hacking scandal in the UK) the end result being a total destruction of Nolan's life and distinguished career as an aviation engineer. Nolan's speciality was the development of "Flying Cars".

Content: *Rossnolanus rappii* Günther, 1860 (monotypic for the genus).

GENUS GONGYLOSOMA FITZINGER, 1843

Type species: *Coronella baliodeira* Boie, 1827.

Diagnosis: Smallish snakes, usually well under 60 cm in length. Maxillary teeth small, equal in size and numbering 15-30. Mandibular teeth are subequal. The head is short, not or scarcely distinct from the neck. The eye is small or moderate in size and may be less than half the length of the snout or more. The pupil is round, head shields are more-or-less normal. The body is cylindrical with smooth or feebly keeled scales in 13 or 17 dorsal mid-body rows (depending on the subgenus as defined herein) without apical pits. Ventrals are not angulate laterally, the tail is moderate to long and the subcaudals are divided. 7-8 upper labials.

Separated from *Rossnolanus gen. nov.* by the fact that *Rossnolanus gen. nov.* has six as opposed to 7-8 upper labials. *Liopeltis* Fitzinger, 1843 has 15 dorsal-mid-body rows, which no *Gongylosoma* species has. *Oreocryptophis* Utiger *et al.* 2005 is separated from *Gongylosoma* by having 19 dorsal-mid-body scale rows, as opposed to 13 or 17.

Cyclophiops Boulenger, 1888 is separated from *Gongylosoma* by having 15 dorsal-mid-body rows, which no *Gongylosoma* species has.

Distribution: Southern Asia, including south-east Asia.

Content: *Gongylosoma baliodeirus* (Boie, 1827); *G. longicauda* (Peters, 1871); *G. mukutense* Grismer, Das and Leong, 2003; *G. nicobariensis* (Stolicza, 1870); *G. scripta* (Theobald, 1868).

SUBGENUS PAULELLIOTTUS SUBGEN. NOV.

Type species: *Ablabes longicaudus* Peters, 1871.

Diagnosis: The subgenus *Paulelliottus subgen. nov.* is separated from all other *Gongylosoma* and *Liopeltis* by the presence of (1) a nuchal band, (2) a wide, triangularly shaped postocular patch, (3) five, thin, white stripes consisting of a vertebral stripe and a pair of lateral and ventrolateral stripes, and (4) anterior and posterior chin shields of equal length and 13 dorsal mid-body rows.

The subgenus *Avonlovellus subgen. nov.* in common with *Paulelliottus subgen. nov.* has a dorsal body colour that fades from reddish anteriorly to gray-brown posteriorly. This is not the case in the remaining species of *Gongylosoma*.

Avonlovellus subgen. nov. is readily separated from all other *Gongylosoma* by having 17 rather than 13 dorsal mid-body rows. In turn and in common with all other *Gongylosoma* these snakes are diagnosed as follows: Smallish snakes, usually well under 60 cm in length. Maxillary teeth small, equal in size and numbering 15-30. Mandibular teeth are subequal. The head is short, not or scarcely distinct from the neck. The eye is small or moderate in size and may be less than half the length of the snout or more. The pupil is round, head shields are more-or-less normal. The body is cylindrical with smooth or feebly keeled scales in 13 or 17 dorsal mid-body rows (depending on the subgenus as defined herein) without apical pits. Ventrals are not angulate laterally, the tail is moderate to long and the subcaudals are divided. 7-8 upper labials.

Separated from *Rossnolanus gen. nov.* by the fact that *Rossnolanus gen. nov.* has six as opposed to 7-8 upper labials. *Liopeltis* Fitzinger, 1843 has 15 dorsal-mid-body rows, which no *Gongylosoma* species has. *Oreocryptophis* Utiger *et al.* 2005 is separated from *Gongylosoma* by having 19 dorsal-mid-body scale rows, as opposed to 13 or 17.

Cyclophiops Boulenger, 1888 is separated from *Gongylosoma* by having 15 dorsal-mid-body rows, which no *Gongylosoma* species has.

Distribution: *Paulelliottus subgen. nov.* occurs in Malaysia (West and East) and parts of Indonesia within these boundaries.

Etymology: Named in honour of Paul Elliott of Polyester booksellers in Brunswick Street, Fitzroy, Victoria, Australia in recognition for his courageous efforts in fighting government corruption by selling books about corruption banned by the government (illegally) and in the face of countless armed raids and falsified criminal charges by the local Victorian Police (see etymology for *Avonlovellus gen. nov.* below).

Content: *Gongylosoma (Paulelliottus) longicaudus* (Peters, 1871) (type species); *G. (Paulelliottus) mukutense* Grismer, Das and Leong, 2003.

SUBGENUS AVONLOVELLUS SUBGEN. NOV.

Type species: *Ablabes nicobariensis* Stolicza, 1870.

Diagnosis: The subgenus *Paulelliottus subgen. nov.* is separated from all other *Gongylosoma* and *Liopeltis* by the presence of (1) a nuchal band, (2) a wide, triangularly shaped postocular patch, (3) five, thin, white stripes consisting of a vertebral stripe and a pair of lateral and ventrolateral stripes, and (4) anterior and posterior chin shields of equal length and 13 dorsal mid-body scale rows.

The subgenus *Avonlovellus subgen. nov.*, monotypic for the species *Gongylosoma (Avonlovellus) nicobariensis* (Stolicza, 1870) in common with *Paulelliottus subgen. nov.* has a dorsal body colour that fades from reddish anteriorly to gray-brown posteriorly. This is not the case in the remaining species of *Gongylosoma*.

Avonlovellus subgen. nov. is also readily separated from all other *Gongylosoma* by having 17 rather than 13 dorsal mid-body rows.

Avonlovellus subgen. nov. is further diagnosed as follows: Rostral low, wide, not reaching the top of the head; nostril

between two nasals; internasals about half the size of the praefrontals; frontal somewhat larger than the supraoculars; parietals about one forth larger than the frontal, in contact with both postoculars; loreal united with the postnasal; one praeocular and two postoculars; temporals 1+2, 7 upper labials, the third and fourth entering the eye; both pairs of chin-shields are subequal in size. 17 dorsal mid-body scale rows. 189 ventrals, divided anal and 87 subcaudals. The anterior half of the body is reddish brown above grading to a blackish grey at the rear. Head above is blackish, the first three labials have yellow spots. There is a short broad yellow streak from behind and below the eye posteriorly to the angle of the mouth; a black collar, margined on both sides with an interrupted yellow band, of which the anterior is the most distinct; an indistinct series of blackish-grey dorsal spots, almost forming a dark undulating band; sides marbled and freckled blackish grey, this colour being separated from the upper brown one by a series of closely set black spots which are partially conspicuous on the posterior part of the body; chin dusky; lower parts yellow with a vermilion tinge, each ventral with a large black spot near the outer extremity (Stoliczka 1870).

In turn and in common with all other *Gongylosoma* these snakes are diagnosed as follows: Smallish snakes, usually well under 60 cm in length. Maxillary teeth small, equal in size and numbering 15-30. Mandibular teeth are subequal. The head is short, not or scarcely distinct from the neck. The eye is small or moderate in size and may be less than half the length of the snout or more. The pupil is round, head shields are more-or-less normal. The body is cylindrical with smooth or feebly keeled scales in 13 or 17 dorsal mid-body rows (depending on the subgenus as defined herein) without apical pits. Ventrals are not angulate laterally, the tail is moderate to long and the subcaudals are divided. 7-8 upper labials.

Separated from *Rossnolanus gen. nov.* by the fact that *Rossnolanus gen. nov.* has six as opposed to 7-8 upper labials. *Liopeltis* Fitzinger, 1843 has 15 dorsal-mid-body rows, which no *Gongylosoma* species has. *Oreocryptophis* Utiger *et al.* 2005 is separated from *Gongylosoma* by having 19 dorsal-mid-body scale rows, as opposed to 13 or 17.

Cyclophiops Boulenger, 1888 is separated from *Gongylosoma* by having 15 dorsal-mid-body rows, which no *Gongylosoma* species has.

Distribution: Known only from the holotype from the Nicobar Islands (India).

Etymology: Named in honour of Avon Lovell, author of the three books, *The Mickleberg Stitch*, published in 1985, *Split Image* published in 1990 and *Litany of Lies*, published in 2011, all about corruption in the Western Australian (WA) Police Force (Lovell 1985, 1990, 2011).

To attempt to publish a book about government corruption in Australia just once is an act of extreme courage and to have done this three times is something Lovell should be honoured for.

The three books had as their centrepiece the story of the Perth Mint Swindle, which is the popular name for the robbery of 49 gold bars weighing 68 kg from the Perth Mint in Western Australia on 22 June 1982. The bullion was valued at A\$653,000 at that time (2011:\$2.02 million). According to the WA Police at the time, three brothers, Ray, Peter and Brian Mickelberg, orchestrated the robbery. The three went to trial and were found guilty of the conspiracy and sentenced in 1983 to twenty, sixteen and twelve years in jail respectively. Lovell took up the case and all three convictions were overturned in 2004, because they were able to show that there had been a conspiracy by corrupt Western Australia Police to frame them. The offending officers have not been charged.

The senior investigating officer in the case was the highly corrupt and protected Detective Sergeant Don Hancock who was later promoted to head of the State Criminal Investigation Bureau (CIB). In September 2001 in an apparently unrelated

series of events and an act of Karma, Hancock was murdered when a bomb which had been planted under his car exploded outside his home in Lathlain, killing him and a friend Lou Lewis. The bomb had been planted by a member of the family of a man Hancock had ordered killed, the original victim being in a well-known bikie gang.

In 2002, midway through a State Royal Commission into police corruption commenced in part as a result of material detailing WA Police corruption including the Mickelberg matter, published in chapters dedicated to the WA Police in the books *Victoria Police Corruption* and *Victoria Police Corruption-2* (Hoser 1999a, 1999b), a retired police officer who had been at the centre of the case, Tony Lewandowski, made a confession of his involvement in fabricating evidence which was used to help frame the brothers. Lewandowski's senior officer during the investigation was Don Hancock, who with Lewandowski, were the only persons present at the brothers' interviews following the Mickelberg arrests. Lewandowski was subsequently charged with attempting to pervert the course of justice, making false statements, fabricating evidence and perjury. In May 2004, just before facing trial Lewandowski apparently committed suicide though there has been some speculation as to whether or not this may have been staged to cover his (possible) murder. Although Lewandowski is now deceased, it was ultimately through Lewandowski's confession, Hancock was directly implicated in fabricating evidence in the Mickelberg case.

In July 2004 the Western Australian Court of Criminal Appeal quashed the brothers' convictions after seven unsuccessful attempts. The judge ruled that with the suppression of their sentence, they were entitled to a presumption of innocence. The Assistant Police Commissioner, Mel Hay, expressed disappointment with the decision which prompted a threat of a defamation lawsuit from the brothers. The brothers subsequently sued the Western Australian government for libel, and as part of the settlement, the West Australian police issued a public apology in December 2007.

After lodging claims for compensation, in January 2008 State Attorney-General Jim McGinty offered \$500,000 in ex-gratia payments to each brother for the "injustice done to them". The payment followed \$658,672 paid to cover legal costs of their two appeals. The Mickelbergs' lawyer had asked for \$950,000 in compensation for Ray and \$750,000 for Peter.

Meanwhile, in WA, Lovell's books were all banned illegally by the State Government and police who had all copies seized and destroyed. From Victoria, myself and others distributed books through the postal system into WA.

The police union collected a levy of \$1 per week from each member to fund legal action against Lovell and his publishers and distributors to suppress publication of the book and these proceedings, illegal in initiation by the police ran for many years. The WA Police Union raised in excess of a million dollars and also diverted a far greater sum of tax-payer's funds to enforce the bans on the book and associated legal actions. While websites such as "Wikipedia" state that the ban has been lifted, the fact is that as of 2013, state police across Australia still routinely raid major bookshops with all Lovell titles being on the ongoing "banned, seize and destroy" list.

In Melbourne, the owner of the Polyester Bookshop in Brunswick Street, Fitzroy, Paul (Gonzo) Elliott was raided and charged and fined by the Victoria police after being found selling copies of the Lovell books.

Content: *Gongylosoma (Avonlovellus) nicobariensis* (Stolicza, 1870) (monotypic).

TRIBE ROSSNOLANIINI TRIBE NOV.

(Terminal taxon: *Ablabes rappii* Günther, 1860)

Defined herein as *Rossnolanus rappii* (Günther, 1860).

Diagnosis: Separated from other snakes by the following suite of characters: Smallish terrestrial or subarboreal snakes, growing to usually well under 60 cm in total length. Maxillary

teeth small, equal in size and numbering 15-30. Mandibular teeth are subequal. The head is short, not or scarcely distinct from the neck. The eye is small or moderate in size, and may be more than half the length of the snout or alternatively less. The pupil is round, head shields are more-or-less normal. The body is cylindrical with smooth or feebly keeled scales in 13-23 dorsal-mid-body rows without apical pits. Ventrals are not angulate laterally, the tail is moderate to long and the subcaudals are divided. 6-8 upper labials.

Nasal shield may be single, semidivided or divided.

Distribution: Southern and south-east Asia.

Etymology: See for the genus *Rossnolanus* *gen. nov.* above.

Content: *Rossnolanus* *gen. nov.*; *Cyclophiops* Boulenger, 1888; *Gongylosoma* Fitzinger, 1843; *Liopeltis* Fitzinger, 1843; *Oreocryptophis* Utiger *et al.* 2005.

FIRST REVISER NOTE

In the unlikely event that a subsequent reviser seeks to merge the two newly named subgenera within *Gongylosoma*, then *Paulelliottus* is than name that must take priority.

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CONFLICT OF INTEREST

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

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