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**ABSTRACT**
A review of the Centipede Eating Snakes, *Aparallactus* Smith, 1849 shows that the genus as understood at present comprises three well-defined species groups. On this basis the genus *Aparallactus* Smith, 1849 is divided three ways.

Most species remain within *Aparallactus*. The species *modestus* is placed on its own in the genus *Elapops* Günther, 1859.

Two species, *Aparallactus werneri* Boulenger, 1895 and *Aparallactus nigriceps* (Peters, 1854), are placed in a new genus *Plumridgeus* gen. nov. which is named and diagnosed according to the Zoological Code.

Within the African Wolf Snake genus *Lycophidion* Fitzinger, 1843 one species is divergent from the rest and is placed within its own subgenus, namely *Jacobclarkus* subgen. nov..

**Keywords:** Taxonomic revision; new genus; new subgenus; *Aparallactus*; *Plumridgeus*; *Lycophidion*; *Jacobclarkus*; *Elapops*; *Metoporhina*; *Cryptolycus*; *capensis*; *modestus*; *werneri*; *nigriceps*; *laterale*.

**INTRODUCTION**
The Centipede Eating Snakes, genus *Aparallactus* Smith, 1849 as currently recognized consists of a genus of rear-fanged snakes found in Africa.

The taxonomic history of the group is similar to that of many other snake genera.

In the 1800’s when species were named, many were placed in new genera at the time of first description. In the 1900’s these genera have been merged with the senior name taking priority.

In the post 2000 period a number of snake genera have been revisited to see if it is in fact appropriate to have morphologically conservative species within a single genus. When it has been deemed appropriate to split a genus up, a search for pre-existing “available” names is done and if such are available, then these are used. If not, then one is assigned. *Aparallactus* has also been the subject of molecular studies that have shown phylogenetic divisions within the genus as currently understood worthy of recognition at the genus level.

Pyron et. al. (2011) published results for three species showing at least two species groups within *Aparallactus* worthy of generic recognition.

A review of the entire 11 species currently placed within *Aparallactus* has found three distinct groups worthy of generic recognition.

These are easily characterized as follows:

The first group consists of most species, including the type species *capensis*. These snakes typically have seven supralabials and a high subcaudal count and in line with their common name, typically feed on centipedes.

The second group is that of the divergent species, *modestus* which while physically similar to the snakes in the first group,
appears to lack the back fangs seen in the other species and also appears to have a preference for earthworms as opposed to centipedes. When he first described this taxon, Günther assigned it to a new genus he erected, namely Elapops and so this species is re-assigned to this currently monotypic genus.

The third group of species includes two species, namely Aparallactus werneri Boulenger, 1895 and Aparallactus nigriceps (Peters, 1854). These are separated from the rest of the genus by a suite of characters, most notably including a lower subcaudal count and six, as opposed to seven supralabials.

The results of Pyron et. al. 2011, show clearly that Aparallactus werneri is sufficiently divergent from the type species of Aparallactus to warrant being placed in a separate genus (obviously with the similar species nigriceps). As no genus name is available for these snakes, a new genus is erected to accommodate these species, namely Plumridgeus gen. nov. which is named and defined according to the Zoological Code (Ride et. al. 1999).

The genus name Uriechis Peters, 1854, is referable to A. lunulatus and is therefore not available for the species referred to Plumridgeus gen. nov.


Within the African Wolf Snake genus Lycophidion Fitzinger, 1843 there have been various attempts in the past to break the genus up into smaller groups.

Besides the pre-existing genus name Lycophidion, the name Metoporhina Günther, 1858 is available for the species irrorata Günther, 1858 and others within this defined species group. The genus name Cryptolycaeus Broadley, 1958 is available for the species nanus Broadley, 1958 for this taxon and others in this species group.

The genus name Alopecion Peters, 1863 is available for the species nigromaculatus Peters, 1863, but because it is within the same species group as irrorata, it would in effect be a junior synonym for the former.

Recent molecular studies and data published by Pyron et. al. (2011) and others have shown there to be at least three distinct species groups within the genus Lycophidion as presently recognized. However Broadley 1996 identified no fewer than four major species groups.

Combining these and other studies, it is clear that Lycophidion should be divided. However due to the obvious morphological similarities between all species, my view is that these divisions should be at the subspecies level only.

I therefore recognise the subgenera Metoporhina Günther, 1858, Cryptolycaeus Broadley, 1958, the nominate subgenus (Lycophidion) and a fourth group as yet unnamed as a subgenus consisting of the divergent taxon, Lycophidion laterale Hallowell, 1857.

Therefore following the division of the genus Aparallactus below I name and diagnose a new subgenus within Lycophidion, namely Jacobclarkus subgen. nov. according to the Zoological Code (Ride et. al. 1999).


**GENUS APARALLACTUS SMITH, 1849**

**Type species:** Aparallactus capensis Smith, 1849

**Diagnosis:** A genus of usually rear-fanged snakes found in sub-Saharan Africa. They are known as centipede eaters in reflection of what is thought to be their main diet.

The following traits diagnose these very thin snakes. Maxillary is short, with 6-9 small teeth followed by a large grooved fang situated below the eye. Anterior mandibular teeth longest. Head small, not distinct from neck. Eye is small, with a round pupil. Nasal entire or divided; no loreal. Body cylindrical; tail moderate or short. Dorsal scales smooth, without pits, arranged in 15 dorsal mid-body rows. Ventrals are rounded; subcaudals are single.

Not included in the genus Aparallactus as defined herein are three species formerly placed within this genus.

Specimens that would previously have been defined as being within this genus with six supralabials are placed in a new genus Plumridgeus gen. nov.. Those species are the species originally described as Aparallactus werneri Boulenger, 1895 and Uriechis nigriceps Peters, 1854. These two species are separated from Aparallactus (and Elapops) by having 6 supralabials, as opposed to seven in all other species within Aparallactus (and Elapops).

Plumridgeus gen. nov. is further separated from Aparallactus by their lower subcaudal count (below 41, versus above 41), being a reflection of the considerably shorter tail seen in snakes of that genus.

The species originally described as Elapops modestus Günther, 1859 is returned to that genus as the type and sole species. It is separated from all other Aparallactus by an apparent lack of visible back fangs as seen in the other species.

Elapops modestus Günther, 1859 apparently feeds on worms as a preferred diet as opposed to centipedes.

**Distribution:** Sub-Saharan Africa.

**Content of Genus Aparallactus Smith, 1849**

Aparallactus capensis Smith, 1849 (Type species).

Aparallactus guentheri Boulenger, 1895.

Aparallactus jacksonii (Günther, 1888).

Aparallactus lineatus (Peters, 1870).

Aparallactus lunulatus (Peters, 1854).

Aparallactus moeruensis de Witte and Laurent, 1943.

Aparallactus turneri Loveridge, 1935.

**GENUS ELAPOPS GÜNTER, 1859**

**Type species:** Elapops modestus Günther, 1859

**Diagnosis:** This genus is monotypic for the type species.

It is separated from all snakes within genera Aparallactus and Plumridgeus gen. nov. by a lack of defined back fangs at the rear of the mouth. Elapops modestus Günther, 1859 apparently feeds on worms as a preferred diet as opposed to centipedes.

This genus (type species) is diagnosed by the following suite of characters: Dorsally Elapops modestus is a dark olive-gray, the
For the species Plumridgeus nigriceps it is reddish brown the posterior pair. Three lower labials in contact with its fellow behind the mental. Three six upper labials, second and third entering the eye. First postoculars, in contact with the anterior temporal. Temporals longer than its distance from the end of the snout, as long as the distance from the frontal. Internasals much shorter than the distance from the frontal. Portion of rostral visible from above about one third as long as its distance from the frontal. Internasals much shorter than the prefrontals. Frontal one and a third times as long as broad, much longer than its distance from the end of the snout, a little shorter than the parietals. Nasal entire, in contact with the preocular. One postocular. Temporals 1+1 (the first sometimes absent). Six upper labials, second and third entering the eye, fourth (or fourth and fifth) in contact with the parietal. Three lower labials in contact with the anterior chin shield. Anterior chin shields in contact with the mental, slightly larger than the posterior chin shields.

**Diagnosis:** Physically species within this genus are similar in most respects to Aparallactus as defined within this paper. Plumridgeus gen. nov. is most easily separated from genera Aparallactus and Elapops by having six as opposed to seven supralabials. Plumridgeus gen. nov. is also separated from genera Aparallactus and Elapops by their consistently lower subcaudal count (below 41, versus above 41), being a reflection of the considerably shorter tail seen in snakes of this genus.

Plumridgeus werneri, it is a blackish colored snake with a deep black, light-edged nuchal collar. The upper lip is blackish below the eye, extending in front of and behind the eye. Ventrally it is uniformly yellowish. It may attain 39 cm in total length, with a tail 6.5 cm long. Smooth dorsal scales in 15 mid-body rows. Ventrals 110-149; anal plate single; subcaudals 21-40, all single. Portion of rostral visible from above about one third as long as its distance from the frontal. Internasals much shorter than the prefrontals. Frontal one and a third times as long as broad, much longer than its distance from the end of the snout, a little shorter than the parietals. Nasal entire, in contact with the preocular. One postocular. Temporals 1+1 (the first sometimes absent). Six upper labials, second and third entering the eye, fourth (or fourth and fifth) in contact with the parietal. Three lower labials in contact with the anterior chin shield. Anterior chin shields in contact with the mental, slightly larger than the posterior chin shields.

**Distribution:** Plumridgeus werneri is found in south-east Mozambique. Plumridgeus nigriceps is only known from the Uluguru and Usambara Mountains, East Tanzania.

**Etymology:** Named after Gordon Plumridge of Kangaroo Flat, Bendigo, Victoria, Australia for services to reptile education in Australia.

**Content of Plumridgeus gen. nov.**

Plumridgeus werneri (Boulenger, 1895) (Type species).

Plumridgeus nigriceps (Peters, 1854).

**GENUS LYCOPHIDION FITZINGER, 1843**

**Type species:** Lycodon horstoki Schlegel, 1837 (Known in most contemporary texts as Lycophidion capense (Smith, 1831))

**Diagnosis:** The genus Lycophidion is a genus distributed across most parts of Africa and commonly known as Wolf Snakes. Consisting roughly 19 described and recognized species, they are smooth-scaled, moderate to small sized snakes with needle sharp and strongly recurved teeth, which are longest in the front of the upper jaw. These consist of 6-10 maxillary teeth increasing in size, and then after a small gap 15-17 very small teeth. Mandible anteriorly with 5-6 small teeth, increasing in size and then one or two large fang-like teeth, followed by very small teeth. The head is barely distinct from the neck, distinctively flattened and the snout is broadly rounded; the rostral is small; nostril pierced in a single nasal shield, followed by a small post-nasal; the eye is small with a vertically elliptical pupil; praeocular is much developed on the upper surface of the head taking the place of the supraocular anteriorly. The body is cylindrical and scales are smooth, with apical pits in 15-17 rarely in dorsal mid-body rows, rounded ventrals, single anal and all subcaudals paired, with the tail being short to moderate. All are oviparous.

**Distribution:** Africa, with most species south of the Sahara.

**SUBGENUS JACOBLAURUS SUBGEN. NOV.**

**Type species:** Lycophidion laterale Hallowell, 1857

**Diagnosis:** This subgenus is monotypic for this species. It is separated from all other species within Lycophidion by having four or more apical pits. There are 2 or 3 in Lycophidion irroratum and Lycophidion nigromaculatum (subgenus Melopomina) while all other species have a single pit. The species Lycophidion (Jacoblaurus) laterale is also separated from others in the genus by having 17 dorsal mid-body rows, 8 supralabials, the rostral is nearly twice as broad as deep, two labials enter the eye, the diameter of the eye is not greater than the distance from the mouth and there are 176-188 ventrals. In common with the rest of the genus, this species is a smooth-
scaled, to moderate small sized snake with needle sharp and strongly recurved teeth, which are longest in the front of the upper jaw. These consist of 6-10 maxillary teeth increasing in size, and then after a small gap 5-6 small teeth, Mandible anteriorly with 5-6 small teeth, increasing in size and then one or two large fang-like teeth, followed by very small teeth. The head is barely distinct from the neck, distinctively flattened and the snout is broadly rounded; the rostral is small; nostril pierced in a single nasal shield, followed by a small post-nasal; the eye is small with a vertically elliptical pupil; preoccular is much developed on the upper surface of the head taking the place of the supraocular anteriorly. The body is cylindrical and scales are smooth, with apical pits in 15-17 (rarely 19) dorsal mid body rows, rounded ventrals, single anal and all subcaudals paired, with the tail being short to moderate. Oviparous.

**Distribution:** From the Central African Republic west to Senegal and including Senegal, Gambia, Guinea, Ivory Coast, Ghana, Togo, Benin, Nigeria, Cameroon, Democratic Republic of the Congo (Zaire), Congo (Brazzaville), Gabon, Central African Republic and North Angola.

**Etymology:** Named in honour of Jacob Clark of Ballarat, Victoria, Australia in recognition for his services to reptile education.

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