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A SHORT REVIEW OF THE LIZARDS BELONGING TO THE  
GENUS *LIALIS* GRAY.

BY

J. R. KINGHORN, C.M.Z.S., Zoologist.

*Genus LIALIS Gray.*

*Lialis* Gray, Proc. Zool. Soc. London, 1834, p. 134. *Id.*, Boulenger, Brit. Mus. Cat. Lizards, i, 1885, p. 246. *Id.*, Werner, K. Pr. Akad. Wiss. Berlin, Das Tierreich, 33, 1912, p. 27. *Id.*, Rooij, Reptiles Indo-Australian Archipelago, i, 1915, p. 62.

*Alopecosaurus* Lidholm, Jahrb. Ver. Nassau, lviii, 1905, p. 231.

*Definition.*—Body elongate, snake like, rudiments of hind limbs externally. Parietal bone single. Teeth numerous in both jaws, sharply pointed and directed backwards. Tongue flattened, elongate, papillose, nicked at the tip, much broader behind than in front. Ear small, exposed. Head elongate, depressed, covered with small, more or less irregular plates. Scales of body cycloid, imbricate, more or less sharply pointed posteriorly. The median pair of abdominal scales and the central caudals (at least on the anterior part) hexagonal, transversely enlarged. Preanal pores present.

*Distribution.*—Aru Islands, New Guinea and Australia.

Key to the species of *Lialis*:—

Tip of snout truncate, rostral quite twice as broad as high, 4 preanal pores .. .. .	<i>Lialis burtonis.</i>
Tip of snout sharp pointed, rostral slightly broader than high, 6-8 preanal pores .. .. .	<i>Lialis jicari.</i>

*LIALIS BURTONIS Gray.*

*Lialis burtonis* Gray, Proc. Zool. Soc., 1835, p. 134. *Id.*, Werner, K. Pr. Akad. Wiss. Berlin, Das Tierreich, 33, 1912, p. 27.

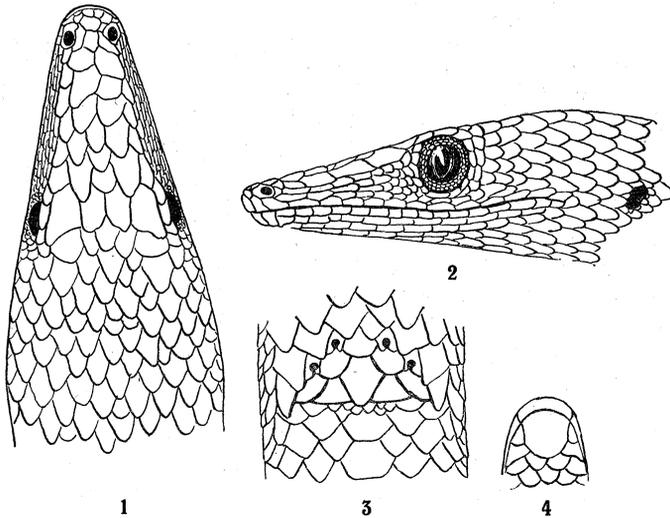
*Lialis bicatenata* Gray, Zool. Miscell., p. 52; and Zool. "Erebus" and "Terror," Rept., 1845, p. 5.

*Lialis punctata* Gray, Zool. Miscell., p. 52, and Zool. "Erebus" and "Terror," Rept., 1845, p. 5, pl. viii, fig. 1.

*Lialis leptorhyncha* Peters, Monatsb. Akad. Wiss. Berl., 1873, p. 605.

*Lialis burtonii* Boulenger, Brit. Mus. Cat. Lizards, i, 1885, p. 247. *Id.*, Gray, in Grey's Two Expeditions, ii, 1841, p. 437, pl. iii, fig. 1; and Zool. "Erebus" and "Terror," Rept., 1845, p. 5, pl. viii, fig. 2; *Id.*, Günther, Ann. Mag. Nat. Hist., (3) xx, 1867, p. 46.

*Lialis burtoni* Werner, Fauna Südwest-Australiens, ii, 1909, p. 4. *Id.*, Rooij, Reptiles Indo-Australian Archipelago, i, 1915, p. 63.



Figs. 1-4. *Lialis burtonis* Gray.

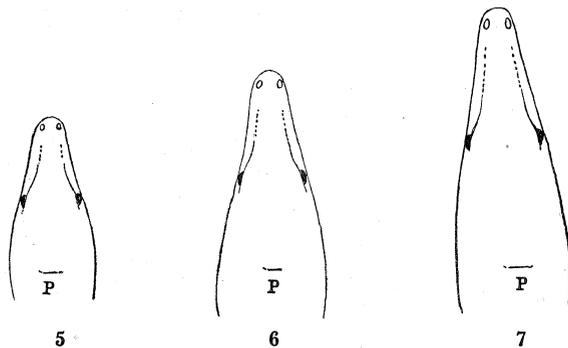
Fig. 1. Dorsal view of head. Fig. 2. Lateral view of head.  
Fig. 3. Anal region. Fig. 4. Mental region.

*Definition.*—Head narrow, angular, and depressed. Canthus rostralis angular, sides of head perpendicular. Snout narrow, truncate at tip. Eye small, surrounded by a circular scaly lid. Ear opening oval, oblique, directed backwards. Snout covered above with small plates, more or less irregularly arranged, those on the tip between the nostrils being smallest. Nostril oval, situated in the posterior part of a single nasal shield. Loreal region filled with small elongate scales. Rostral band-like, about twice as broad as high, visible from above. Thirteen to nineteen upper labials, separated from the orbit by two or three rows of small scales. Mental large, variable in shape and size. Twelve to nineteen lower labials, and a row of enlarged, elongate, gular scales, separated from the labials by one or two rows of smaller scales. 19 to 22 rows of scales around the middle of the body; 70 to 100 pairs of ventral scales; 5 anals; 4 preanal pores.

*Colour.*—The specimens before me show that the colour markings vary even more than those of specimens already described. The ground colour may be brown, olive, grey, or brick red, as well as intermediate tints. The markings of specimens described by Boulenger enabled him to divide them into varieties, but among my specimens there are intermediate forms in many instances, and I find them to be so variable that it would be an unnecessary waste of space and time to make an attempt to describe them here. In passing, it might be worthy of note that, several specimens which should be nearest *var.*

I in the British Museum catalogue, have the under surface of the chin and throat black, with light colored angular markings extending into this dark area from the labial region, while the sides of the head and snout bear irregular, perpendicular, dark lines. The top of the snout is freckled and the top of the head bears several longitudinal dark lines.

*Comparative.*—Rooij says, "Méhely describes a specimen of *Lialis burtoni* Gray, collected at Erima, Astrolabe Bay, which has 22 scales round the body, two supra-oculars and 6 praeanal pores. Its tail is one time and a half as long as head and body; length of head and body is 270 mm.; tail 423 mm. This specimen probably belongs to the species *Lialis jicari*, as described by Boulenger. In different Museum-collections more examples of the latter species, named now *L. burtoni* Gray will be found on closer examination, as already various authors have given indications of specimens with 22 rows of scales."



Figs. 5-7. *Lialis burtonis* Gray.

Outline drawings to show the extreme variation in the comparative length and breadth of the snout in specimens approximately the same size.

Fig. 5. Total length, 460 mm., tail, 220 mm. Fig. 6. Total length, 420 mm., tail 156 mm. Fig. 7. Total length 420 mm., tail 180 mm.

P = the position of the posterior border of the parietal bone, from which points measurements were taken.

In regard to this statement I would suggest that Méhely's specimen is *L. burtonis* and not *L. jicari*, as the very sharp snout of the latter would have attracted his attention immediately. In support of this I might say that among the specimens of *L. burtonis* before me the scale rows range from 19 to 22, four specimens bearing the latter number. All have the very broad, truncate snout and other characters which are typical of the species.

In the Australian Museum collection there are over sixty specimens of this species, and after thorough examination, I hold the same opinion as Boulenger and other authors—that the degree of elongation of the snout, the scutellation of the head, and the number of scale rows as well as the colour vary considerably.

*Food.*—The food of *Lialis burtonis* appears to consist mainly of other lizards. Unfortunately the internal organs of many of the specimens examined had been removed before preservation, but in twenty which were complete, I found either the remains of, or whole, lizards belonging to the genus *Lygosoma*. In one instance the devoured lizard was so large that it must have caused considerable inconvenience to its swallower during the passage of the jaws; in fact I am sure it would have almost overtaxed the swallowing capacity of a snake the same size as the *Lialis*.

*Distribution.*—*Lialis burtonis* appears to be distributed widely from British New Guinea, throughout many of the islands of Torres Strait, and extending over practically the whole of Australia and Tasmania.

LIALIS JICARI Boulenger.

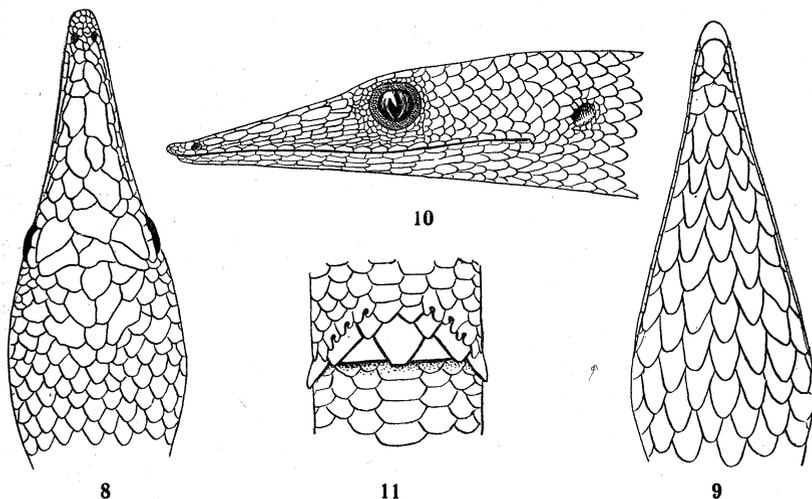
*Lialis jicari* Boulenger, Ann. Mag. Nat. Hist., (7), xii, 1903, p. 430.

*Id.*, Werner, K. Pr. Akad. Wiss. Berlin, Das Tierreich, 33, 1912,

p. 29. *Id.*, Rooij, Reptiles Indo-Australian Archipelago, i, 1915,

p. 64. *Id.*, Procter, Proc. Zool. Soc., London, 1923, p. 106.

*Alopecosaurus cuneirostris* Lidholm, Jahrb. Ver. Nassau, lviii, 1905, pp. 231, 240.



Figs. 8-11. *Lialis jicari* Boulenger.

About 2 1-5th times natural size.

Fig. 8. Dorsal view of head. Fig. 9. Under surface of head showing long mental and rostral.

Fig. 10. Lateral view of head. Fig. 11. Anal area.

This species differs from *L. burtonis* in having a much more sharply pointed and cylindrical snout, and a greater number of preanal pores.

As the several specimens in the Australian Museum collection have certain differences from those already described by Boulenger, Lidholm, and Werner, and as it has not yet been figured, I consider it advisable to give a new definition of the species, and to figure it here for the first time. The definition is compiled from already published descriptions with the added information from the specimens before me.

*Definition.*—Snout attenuate, acutely pointed, the tip soft, flat and turning slightly upwards. The distance from between the eyes to the tip of the snout is equal to twice the distance across the supraorbitals. Eye small, surrounded by a circular scaly lid, and situated midway between the tip of the snout and the ear opening, which is small, oval and oblique. Pupil narrow, erect. Top of head and snout covered with irregular plates which are smallest on the rostro-nasal area. There are two large supraorbitals, and three elongate scales between these and the eye lid. Rostral a little broader than long when measured along the labial region. Nostril oval, oblique, smaller than the ear. About eight or ten rows of irregular elongate scales between the nostril and the rounded preocular scales.

There are from 17 to 22 upper labials, the thirteenth to the fifteenth being situated under the eye, and three rows of small scales between these and the orbit. Mental longer than broad. 22 rows of scales round the center of the body. Ventrals in 90 to 114 rows. Anals 5-6. Preanal pores 6 to 8.

The total lengths of the specimens known vary from 323 to 755 mm.

*Colour.*—Greyish, yellowish or pinkish brown above, speckled with black. A faint dark vertebral stripe which divides into two on the head. A well defined dorsolateral stripe which is broader and darker on the sides of the head. Top of head streaked longitudinally with dark brown irregular lines. A light streak on the lower lip extends along the body in the form of a wide band, ill defined from above but sharply defined by a darker line below. There are several longitudinal dark lines on the under surface of the body, of which the centre one is the most distinct and extends forward to the mental. The chin shields are also bordered by dark lines.

*Distribution.*—*Lialis jicari* would appear to be restricted to New Guinea. Of the twelve specimens known, Boulenger's holotype and cotypes are from Dar, Fly River, British New Guinea; Lindholm's holotype and cotypes of *A. cuneirostris* are from Fly River, British New Guinea; Astrolabe Bay, and Bogadjin near Stephansort, Dutch New Guinea; while the four specimens in the Australian Museum are from the following localities:—Daru Island; Rabaul; Orimo River; and Dar on the Fly River. Miss Procter records it from Lababia, N.E. New Guinea.