AUSTRALIAN MUSEUM SCIENTIFIC PUBLICATIONS

Kinghorn, J. Roy, 1923. A new genus of elapine snake from North Australia. *Records of the Australian Museum* 14(1): 42–45, plate vii. [28 February 1923].

doi:10.3853/j.0067-1975.14.1923.825

ISSN 0067-1975

Published by the Australian Museum, Sydney

nature culture discover

Australian Museum science is freely accessible online at www.australianmuseum.net.au/publications/ 6 College Street, Sydney NSW 2010, Australia



A NEW GENUS OF ELAPINE SNAKE FROM NORTH AUSTRALIA.

$\mathbf{B}\mathbf{y}$

J. R. Kinghorn, Zoologist, Australian Museum.

(Plate vii and Figures 1-3.)

Through the generosity of Mr. H. L. White, of Belltrees, Scone, New South Wales, and the energies of his collector, Mr. W. McLennan, the Australian Museum acquired the large Elapine snake which is described below as belonging to a new genus.

Family COLUBRIDAE.
Subfamily ELAPINAE.
Genus Oxyuranus, gen. nov.

Maxillary extending forwards beyond the palatine, with one or two pairs of large grooved fangs followed by one small grooved tooth near the posterior extremity. Anterior portion of the palatine toothless and prolonged into a needle-like projection, the point of which is well behind the level of the anterior portion of the maxillaries. The palatine bears five to six and the pterygoid eight to nine small teeth. The maxillary teeth gradually decrease in size posteriorly, the anterior pair are much the largest, and the first two or three pairs on either side are feebly grooved.

Head not, or but slightly, distinct from neck; nostril situated in a divided nasal; no loreal. Body cylindrical; scales smooth¹; ventrals rounded; subcaudals in two rows.

OXYURANUS MACLENNANI sp. nov.

Eye longer than high, its vertical diameter less than its distance from the mouth. Head not, or but slightly, distinct from the neck. Rostral broader than deep, visible from above. Internasals broader than long, shorter than, and not half the size of the prefrontals. These latter are broader than long and form sutures with the internasals, posterior nasal, second upper labial, preocular supraocular, and frontal. Frontal about twice as long as broad, once and one-third as broad as the supraoculars; its length equal to its distance from the posterior border of the rostral, and shorter than the suture formed by the parietals. Nasal divided, narrowly separated from the preocular by its suture with the prefrontal. Two postoculars; temporals 2+3,

¹ A few of the central rows of dorsal scales appear to bear obtuse keels, but, as the skin is a flat one and was dried after being painted with an arsenical soap, these keels may be due to shrinkage. Mr. McLennan tells me that he is almost certain that the scales were smooth on the living snake.

the lower anterior wedged in between the fifth and sixth upper labials.² Six upper labials, the third and fourth entering the eye. Seven lower labials, the first three being in contact with the anterior chin shields, which are longer and broader than the posterior. Scales in 21 rows round the centre of the body, more on the neck. Anal single. Subcaudals in 67 pairs. Ventrals 234.

Colour (from life).—Dark brown above, with a golden sheen; under parts pale cream, as also are the labial regions.

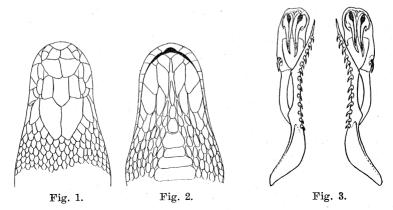
Total length of holotype (skin containing skull), 2,760 mm.; tail, 375 mm.; head, 80 mm. Paratype, skull only, belonging to a specimen which measured 2.545 mm. in life.

Locality.—Coen, Cape York Peninsula, North Queensland.

Holotype (registered no. R.7901) and paratype (registered no. R.7900) in the Australian Museum.

AFFINITIES

External characters.—Examination of the external characters alone would allow this snake to be most nearly allied to Pseudechis scutellatus Peters³, which species I at first thought it to be, but the dental and cranial characters are so very different from those of any other elapine snake, that the only course left open was to describe it as a new genus.



- Dorsal view of head, showing size and arrangement of shields. 1 natural Fig. 1. size. R. 7901.
 - Lower labials and thin shields. $\frac{1}{2}$ natural size. R. 7901. 3. Palatines and maxillary bones. Natural size. R. 7900.
- ² In the type the lower anterior temporal on the left side of the head is abnormal, being divided into two, and it is separated from the postocular by the upper portion of the fifth upper labial, which forms a suture with the upper anterior temporal.

*In referring to Peters' original description of Pseudechis scutellatus (Monatsb. K. Akad. Wiss., Berlin, 1867, p. 710), I noticed that he states that his type has forty-eight pairs of subcaudals, whereas Boulenger (B.M.C. Snakes, III, p. 1896, p. 331) says "subcaudals 61-78 pairs."

Comparative.

The Maxillary.—The maxillary bone extends well beyond the anterior extremity of the palatine, while in all other Australian elapine snakes, with the exception of Furina, the palatine is either on the same level as, or in advance of, the maxillary. As the genus Furina is very distinct through the absence of the post frontal and through the prefrontals extending backwards so as to almost form a suture with the parietals, thereby almost excluding the frontals from the orbital periphery, it need not be seriously considered.

Fangs and Maxillary teeth.—The fangs are exceptionally large, notwithstanding the fact that the examples belong to snakes which measure nine feet three inches and eight feet six inches respectively. There are several pairs of reserve fangs situated in the gums. On the posterior end of the maxillary bone there is only one small grooved tooth which is active, though there are three reserve teeth, one lying in the reserve pocket. The only other Australian snake which may possess but one tooth following the fang is Acanthophis. This genus, which is viperine in form and possesses a strong outer process on the ectopterygoid, is so very distinct that further comparisons need not be made.

Palatine and Pterygoid.—The palatine possesses a long, toothless, needle-like anterior process, which projects well beyond the teeth, but not to the level of the anterior extremity of the maxillary bone. Such a process is not traceable to any other elapine snake examined. The palatine and pterygoid teeth total only thirteen to fifteen, and the anterior pair do not reach to the level of the posterior base of the fangs, while the posterior pair are situated almost on the same level as the posterior border of the transverse bone. Speaking generally there are fewer palatine and pterygoid teeth in Oxyuranus than in any other Australian elapine genus, and they do not extend so far forward or backward on their respective bones.

Mandibular teeth.—The mandibular teeth number twelve to fourteen. The anterior pair are the largest, the remainder decreasing gradually in size posteriorly, while the first two or three pairs are feebly grooved. In other Australian elapine snakes the third pair of mandibular teeth are generally the largest, the anterior never.

The Frontals.—The frontals are nearly twice as broad as long. Their posterior borders stretch out beyond the anterior border of the parietal and form a notch on each side.

The Parietal.—This bone is, comparatively, much narrower anteriorly than that of any other snake examined. The antero-lateral process, which forms a suture with the post frontal, is very poorly developed and does not extend outwards, but, on the contrary, forms a very obtuse angle with the lateral edge of the frontal. So that the orbital periphery may not suffer enlargement by this cutting away, the post frontal is strongly developed, somewhat triangular in shape,

and its upper anterior edge fits into the notch formed by the extension of the frontals beyond the parietal. In other species examined there is a strong, outward, anterior process on the antero-lateral edge of the parietal, while the postorbitals are very weak and slender.

The horizontal plate is triangular and exceptionally small, while from it to the posterior border of the parietal is a strongly developed median ridge. In other species examined this plate is much larger, often extending the whole length of the parietal, while the ridge, when present, is generally flat and obtuse. The only allied genus in which I can find a distinct ridge is *Demansia*, but in that genus it is very small.

Summary.—Oxyuranus differs consistently from all allied genera by the extension of the maxillary beyond the palatine; by the peculiar anterior process on the palatine; the narrow anterior portion of the parietal; the strongly developed postfrontals; the fewer palatine and pterygoid teeth and the enlarged anterior mandibular tooth.

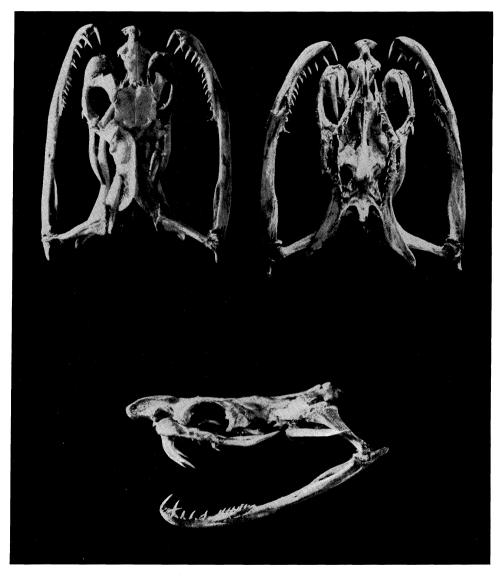
Field Notes.—Mr. McLennan rode over the top of this snake in the long grass near Coen, Queensland, taking it, at a glance, to be one of the large pythons. The snake moved off rapidly when attacked, but was despatched by two blows from a sapling. When measured before skinning it was found to be nine feet three inches in length, and eight inches in girth, and Mr. McLennan recorded it as the largest of its kind that he had ever seen. He noted that there was only one tooth following the poison fang on the right side and two on the left side, but, when I examined it, I found that the second tooth was merely in reserve and was not firmly attached to the bone. Venom was collected, but unfortunately the tubes were corked up before the venom was dry, and I am afraid that it has fermented; nevertheless, it has been sent to an experimentalist to be tested. When opened the snake was found to contain the remains of a Dasyurus.

EXPLANATION OF PLATE VII.

- Fig. 1. Oxyuranus maclennani, gen et sp. nov. Dorsal view of skull showing size and shape of plates, especially the parietal. Natural size.
 - " 2. Oxyuranus maclennani. Ventral view of skull showing palatines and maxillary bones. Natural size.
 - , 3. Oxyuranus maclennani. Lateral view of skull showing fangs, single maxillary tooth, and enlarged anterior mandibular tooth. Natural size.

1





3

G. C. CLUTTON, photos.