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NOTES ON SOME INDO-AUSTRALIAN MONITORS (SAURIA, VARANIDAE)

By Robert Mertens[1]

During my visit to the American Museum of Natural History in the summer of 1949, Mr. Charles M. Bogert, Chairman and Curator of the Department of Amphibians and Reptiles, generously placed the lizard material of the genus *Varanus* at my disposal for examination. I was especially interested in the collections from New Guinea and the near-by islands of the D'Entrecasteaux Archipelago. Inasmuch as an undescribed form as well as other noteworthy material were found in the collections, it was suggested that a report be made to supplement our knowledge of this group of lizards. In this paper, I should also like to report on the type specimen of *Varanus scutigerulus* Barbour from Sarawak, which was made available to me during my visit to Cambridge, Massachusetts, through the kindness of Mr. Arthur Loveridge, Curator of Herpetology at the Museum of Comparative Zoölogy. In addition to expressing my appreciation to Mr. Bogert and Mr. Loveridge, I should also like to extend my thanks to Mrs. Bessie Matalas Hecht of the American Museum for assistance in preparing the manuscript.

Loveridge (1948) in his valuable paper on reptiles and amphibians of New Guinea lists four species for this island, all of which are represented in the American Museum collections. They are *Varanus gouldii*, *V. i. indicus*, *V. p. prasinus*, and *V. salvadorii*. Now we can add two more species: *V. timorensis orientalis*

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and one previously unknown but shortly to be described on the basis of material in the collection of the Chicago Natural History Museum. From the neighboring islands Loveridge (1948) listed two endemic subspecies: *V. indicus kalabeck* from Waigeu and *V. prasinus beccarii* from the Aru Islands. We can now double the list by adding *V. prasinus kordensis* from Kordo (Korido), Schouten Islands north of Netherlands New Guinea, and a new subspecies described herein from Fergusson Island, D'Entrecasteaux Archipelago.

Varanus salvadorii (Peters and Doria)

A.M.N.H. Nos. 59873, 59932: Two adults from Sturt Island, Fly River, Papua, collected by the Archbold New Guinea expedition in 1936.

A.M.N.H. Nos. 61884 (subadult), 61895 (adult), from Hollandia, Netherlands New Guinea, collected by Mr. W. B. Richardson of the Archbold New Guinea expedition in June–July, 1938.

There are four specimens of this rare species, of which only the skins and skulls are preserved. The occurrence of this species on Sturt Island in the Fly River (approximately 100 kilometers from the mouth) was not known, but it has been reported from Hollandia (de Jong, 1927, p. 310). One individual from Sturt Island is extraordinarily large, about 2 meters long, the skull being approximately 14 centimeters in length. Inasmuch as the skull of this species is known only from a young individual, I hope to give a detailed description of this large skull at a later date.

Varanus timorensis orientalis Fry

A.M.N.H. Nos. 57884, 57885, 57888, 57890 (four females); 57886, 57891 (two males); 57887 (subadult) from Dagwa, near Daru, Western Division, Papua, collected by the Archbold New Guinea expedition in February, 1934.

A.M.N.H. Nos. 57892–57893 (two males), from Wuroi, Western Division, Papua, collected by the Archbold New Guinea expedition in 1933–1934.

A.M.N.H. No. 58391, one juvenile from "New Guinea" collected by the Archbold New Guinea expedition in 1937.

A.M.N.H. No. 59931 (female), 59956 (male), from Tarara, British New Guinea, collected by the Archbold New Guinea expedition in 1937.

A.M.N.H. No. 62884 (female) from Darril Station, Queensland, Australia, collected by the Whitney South Sea Expedition.

This material confirms my suggestion (1942, p. 303) that the *V. timorensis* reported by de Jong (1927, p. 311) from two villages, Gelib and Okaba, in southern New Guinea, were really the northeastern Australian race, *V. timorensis orientalis*. The New Guinea material listed above agrees well with previously examined series of nine specimens of this subspecies from northwestern Australia; there are no pattern differences, but only some minor differences in the average number of dorsal and ventral scales. The adult males have a distinctly ocellated pattern, whereas in most females the ocellated pattern is diffused by light spots. The tail length is never twice as long as the snout-to-vent length as is characteristic of *V. timorensis tristis*. A female, A.M.N.H. No. 62884, from southwestern Queensland approaches *V. timorensis tristis* in having a dark-colored head, a very thick tail, and a high number of scales.

Varanus prasinus bogerti, new subspecies

TYPE: A.M.N.H. No. 41639, adult male from Fergusson (Moratau) Island, D'Entrecasteaux group, collected by R. H. Beck of the Whitney South Sea Expedition in March, 1929.

PARATYPES: A.M.N.H. Nos. 41638 (female), 41640 (male) with the same data as the type.

DIAGNOSIS: A *Varanus* of the *prasinus* group, nearest the typical subspecies, but distinct in having rugose head scales, nuchal scales that are tuberculated, and a higher number (44–48 instead of 32–42) of occipital scales over the back of the head from rictus to rictus. The color is black as in *V. p. beccarii*, but from which it may be distinguished not only by the above-mentioned characters, but also by the posterior position of the nostril, the higher number of scales around the body (95–99 instead of 81–86), and the higher number of transverse series of ventral scales (87–90 instead of 70–79).

DESCRIPTION: Head long, narrow, 2.01 to 2.14 times as long as broad and 2.37 to 2.56 as long as high; snout long, pointed. The distance from the tip of the snout to the anterior border of the eye is somewhat longer than the distance from the anterior border of the eye to the anterior border of the tympanum. The canthus rostralis is indistinct and very slightly raised above the

nostril. The nasal openings are oval and distinctly nearer to the tip of the snout than to the anterior border of the eye; the snout-to-nostril distance divided by the nostril-to-eye distance provides a ratio varying from 1/1.15 to 1/1.29. The ear opening is large, the legs are long, and the fingers and toes are provided with strongly curved claws. The tail is long, twice as long as the

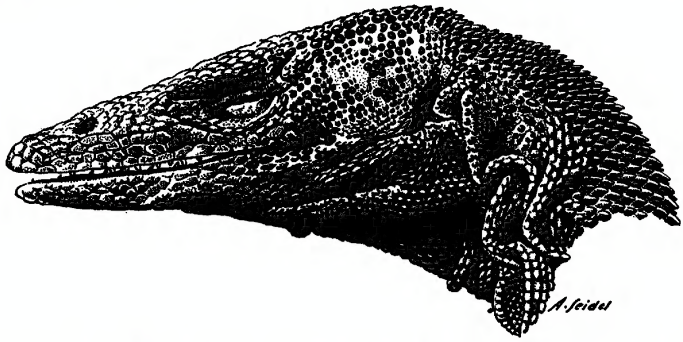

FIG. 1. Lateral view of head of the type of *Varanus prasinus bogerti*, A.M. N.H. No. 41639, adult male from Fergusson (Moratau) Island, D'Entrecasteaux group. Natural size.

snout-to-vent length, not compressed laterally, and with the end apparently somewhat prehensile. The skull (not examined) apparently does not differ in any important way from that of *V. p. prasinus*. The total length of the type is 830 mm.

LEPIDOSIS: The top of the head is covered with rather large scales which are largest in the interorbital region and the structure of which is rugose (less so in A.M.N.H. No. 41638). On each side there are three supraoculars slightly differentiated from the other head scales. A differentiated interparietal is present only in A.M.N.H. No. 41640. The temporals are smaller than the scales in the occipital region, numbering about 44–48 over the back of the head from rictus to rictus. Behind the mental there are no differentiated chin shields. The anterior nuchals, rounded and tuberculated, are smaller than the scales in the occipital region. The dorsal scales are very small, with exceptionally strong keels, and the ventrals are also strongly keeled. There are 95–99 scales around the middle of the body. The lateral scales are scarcely smaller than the dorsal scales. The ventral scales are in 87–90 transverse series from the gular fold to the insertion of the hind legs. The scales in the dorsal region of the

legs are keeled; those on the dorsal and ventral surface of the tail are approximately of equal size and in regular annuli to the tip of the tail. The two paratypes have pea-sized swellings scattered over the body which are caused by parasites.

COLORATION: The dorsal surface of the head and body is coal black without any pattern; the under side of A.M.N.H. No. 41638 is coal black, but in the other two specimens the color is somewhat lighter, or slate colored.

MEASUREMENTS: The measurements (in mm.) and scale counts of the specimens are as follows:

	TYPE	PARATYPE	PARATYPE
A.M.N.H. No.	41639	41638	41640
Total length	830	805	825
Tail length	555	545	550+ ?
Tail length/total length	0.66	0.67	—
Head length	55.9	50.0	55.4
Head width	26.1	24.9	26.0
Head depth	23.6	20.0	21.6
Head length/head width	2.14	2.01	2.13
Head length/head depth	2.37	2.50	2.56
Tip of snout to anterior border of nostril (a)	12.6	12.2	12.9
Posterior border of nostril to anterior angle of eye (b)	16.0	13.8	16.6
b/a	1.27	1.15	1.29
Supraoculars (right and left)	3/3	3/3	3/3
Number of scales from rictus to rictus over the head	45	48	44
Number of scales from gular fold to anterior border of hind limbs	88	87	90
Number of scales around body	97	99	95

REMARKS: These three specimens were examined by Burt and Burt (1932, p. 554) and identified as *Varanus kordensis*. They cannot be identified with *kordensis*, which is also a subspecies of *prasinus*, because the latter has smoother and larger head scales, no tuberculated nuchal scales, and a lower number of scales. In addition, *kordensis* is green in color, whereas the new subspecies is as melanistic as *beccarii* from the Aru Islands. It can easily be differentiated from *beccarii* by the characters given in the diagnosis. Doubtless the melanism of the new subspecies and that of *beccarii* is a result of convergence, and both were derived independently from *V. p. prasinus*. *V. p. bogerti* is derived directly from *V. p. prasinus* because both are found in the same archi-

pelago, that is, Goodenough (Dauila), from which Burt and Burt (1932, p. 554) have reported the latter. I have examined this specimen, A.M.N.H. No. 42373, which is a *V. p. prasinus* with somewhat narrower and more strongly keeled nuchal and dorsal scales than is characteristic of the subspecies.

The new race is named in honor of Mr. Charles M. Bogert, Curator of the Department of Amphibians and Reptiles at the American Museum.

Varanus rudicollis Gray

A.M.N.H. No. 69651, juvenile from Kamoukgyi Chaung headwaters, Lower Burma, collected by Arthur S. Vernay in 1928.

A.M.N.H. No. 36235, head of adult from Maliwun, Lower Burma, collected by Arthur S. Vernay on February 28, 1928.

M.C.Z. No. 32264, type of *Varanus scutigerulus* Barbour from Kampong Ulu, Madalam River, Sarawak, Borneo, collected by Harrison W. Smith on February 3, 1915.

The examples from Lower Burma are doubtlessly *V. rudicollis*, the first records for this country. These extend the range considerably to the north, approximately paralleling the range of *V. dumerili*.

The examination of the type specimen of *V. scutigerulus*, a dry skin with skull, revealed that Barbour (1932, p. 1) unfortunately mistook small apertures on the tip of the snout for nostrils, whereas the holes had been made by insects. The true nostrils are large slits near the eye; they were revealed when the area was moistened with water. There is no doubt that this is *V. rudicollis* with which *V. scutigerulus* Barbour should be placed in synonymy, and the notation of *V. salvator scutigerulus* by Mertens (1942, p. 259) should be suppressed.

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