

*Notices and Descriptions of various Reptiles, new or little known.—**By E. BLYTH.*

**TESTUDO PHAYREI**, nobis. Great Burmese land Tortoise. Carapax smooth, as in *T. RADIATA* and *T. ANGULATA*, but much flatter; oblong, subquadrate, its free marginal plates reverted and moderately serrate. Nuchal plate broader than long. Caudal plate *double*. Gular plates longer than broad, moderately notched: anal broader than long, and deeply notched. Beak unemarginate. Fore-limbs covered with very long and thick imbricated scales, much as in a Pangolin; the claws elongate, strong and thick: similar great elongate scales at the heel; and a group of five principal obtuse spines on either side of the tail, the medial of them remarkably strong and thick. Two or more smaller spines or thick elongate scales above the tail. Colour wholly black, or mingled more or less with buff-yellow. In the young, the scales are probably of the latter hue, with gradually increasing black centres. Limbs deep brown; some of the claws yellow in some specimens: the head and neck paler brown, strongly tinged with yellow. Our largest specimen is 20 in. long in a straight line, or  $22\frac{1}{2}$  in. measured over the curve of the carapax, from front of nuchal plate to middle of caudal notch: greatest breadth  $14\frac{1}{2}$  in. or  $20\frac{1}{2}$  in. following the curve, from one obtuse lateral angle to the other. Height  $1\frac{1}{2}$  in. Head to occiput  $4\frac{1}{2}$  in. The shell of this individual is wholly black, with merely a few slight indications of the ochreous-yellow colouring: all the claws deep brown. Another, rather smaller, has the appearance of great age, with most of the plates of its carapax more or less completely united, so that the form of some cannot be traced. Colour irregularly mingled black and dull buff-yellow; the plastron chiefly black; and several of the claws are yellow wholly or in part. Hab. Arakan; Tenasserim Provinces. Specimens presented by Capt. Phayre.

**T. ELONGATA**, nobis. Small Burmese land Tortoise. Carapax elongate, becoming more so and quite smooth in adults, wherein it approaches to a semi-cylindrical form; flattish, sub-even, the three medial vertebral plates lying almost in a plane, and the free marginals

slightly reverted. Caudal broader than the last vertebral. Nuchal twice or thrice as long as broad, and even with the borders of the anterior marginals. Gulars not notched, or but very slightly so. Caudals divergent from base, and transversely elongate-triangular, broader than long, forming a slight lateral notch with the ventrals. Beak laterally notched or distinctly three-pointed. Scales of the limbs rather small, contrasting much with those of the preceding species. Colour of half grown specimen orange-yellow, each plate having a large black centre, which mostly disappears with age, leaving a few more or less radiating black spots on those of the carapax, and often a black spot on only the large medial plates of the plastron. Head and limbs brown, much tinged with yellow. Length of an adult 13 in. in a straight line, by 8 in. across, or rather more towards the hinder part of the body. Height  $5\frac{1}{2}$  in. Head to occiput  $2\frac{1}{2}$  in. Hab. Arakan. Specimens presented by Capt. Phayre. According to Dr. Helfer, Tortoises abound in the Tenasserim Provinces, and are much eaten by the Peguers and Karens, who train dogs to search for them.

In India proper and also in Ceylon, only one species of land Tortoise occurs, the *T. STELLATA*, Schweigger, a figure and interesting notice of which are given by Capt. Hutton in *J. A. S.* VI, 689, under the supposition of its being *T. GEOMETRICA*. The latter is a S. African species, very similar to *T. STELLATA*, but having a distinct nuchal plate, which *T. STELLATA* does not possess, and exhibiting certain other distinctions. Among some Tortoises, however, presented to the Society by Capt. Sherwill from S. Africa, are two small specimens of *GEOMETRICA*, and one full grown example which can in no way be distinguished from the Indian *STELLATA*. The latter does not inhabit Lower Bengal, and is rarely brought alive to Calcutta. One much more commonly brought here is the *T. RADIATA*, Shaw, a larger species remarkable for its very hemispherical form, and which is said to be indigenous to Madagascar, in which case it is probably brought to India from the Mauritius. The very large specimen referred by me to *STELLATA* (*v. actinodes*) in a note to p. 462 *ante*, I now think, after much consideration, to be distinct, and shall indicate as

*T. MEGALOPUS*, nobis, *n. s.* Similar to *T. STELLATA*, but attaining

a much greater size, with proportionally much larger feet and claws. The colours duller and therefore less strongly contrasting, and the lines radiating from each boss of the carapax more numerous. Fore-feet with two large claw-like scales of equal size behind the palm, and no others approaching them in size. Claws of hind-feet fully twice as large as in adult *STELLATA*. Length of carapax, measured in a straight line, 12 in., by  $7\frac{1}{2}$  in. in diameter-breadth. Hab.——?

There are several living specimens about Calcutta, of the great Seychelle Tortoise, miscalled *T. INDICA* by Gmelin, and under which Mr. Gray unites no fewer than seven of the supposed species admitted by M. M. Dumeril and Bibron. According to Dr. Schlegel, "The Indian Tortoise [so-called], probably indigenous to Madagascar and the neighbouring isles, has been acclimated in the Gallapagos Isles, in California, and on several other points on the western coast of South America:" but we have been assured, on good authority, that numerous specimens kept in gardens in the Mauritius, have all been brought from the Seychelle Islands in the first instance. that they are still commonly brought from those islands to the Mauritius, and thence we believe the few in India have been imported. It is most assuredly not an Indian reptile, nor have we heard of its ever propagating in this country.\*

\* In the Mauritius I am informed that it is eaten. The largest I have seen is in my own possession, alive, and measures 4 ft. 4 in. in length over the curve of the carapax, or 3 ft. 5 in. in a straight line; transversely 4 ft. 2 in. over the high arch of the carapax, or in a diameter line 2 ft. 2 in. : height, when not raised upon the legs, *i. e.* height of shell,  $20\frac{1}{2}$  in. ; when walking, the shell is lifted fully 6 in. from the ground, if not more: circumference of hind-foot  $17\frac{1}{2}$  in. A scientific friend, recently from Jamaica, assures me, that this great Seychelle species is quite distinct from the great Gallapagos Tortoise, which has bred and multiplied in Jamaica and other W. India islands. Curious, that these gigantic land Tortoises (diminutive, however, in comparison with the extinct Indian *COLOSSACHEILIS*,) should thus be indigenous to small oceanic groups of islands, in each case remarkable for the peculiarities of both their *fauna* and *flora*. We are reminded of the great wingless birds (Dodos and Solitaires) of the Mauritius, Bourbon, and Rodrigues; those also of N. Zealand and of Madagascar; the *MEGALOPTERUS* of the Nicobars, and its congeners of other islands; the singular and quite recently extinct great Parrot of Philip Islet near Norfolk island, with its sole congener in N. Zealand; the Owl-like

From Afghanistan Mr. Gray describes a *T. HORSFIELDI*, which he suggests may be *T. IBERIA*, Pallas, *Faun. Casp.*, t. 5. The Society's Museum possesses a land Tortoise from that country, which however belongs to the genus *HOMOPUS*, having but four claws to each foot. It may be thus described.

*HOMOPUS BURNESII*, nobis. Carapax squarish, depressed, broadest posteriorly, where the free marginals are a little reverted and distinctly serrate. Anterior border straight, the nuchal plate well developed. Caudal as broad as the last vertebral, and broader than the other vertebral plates. Nucleus of each lateral or discoidal plate near its inner or upper border. Gular plates longer than broad, the two forming a nearly equilateral triangle. Anals oblong, divergent, forming a rather deeply notched border. Scales of forelimbs rather large, and those to the front mostly uniform in size. Claws elongate, or not worn down by attrition. Beak three-pointed. Colour yellow above, with black nuclei to the plates: those of the plastron black with yellow border. The head and limbs appear to have been yellowish. Length of carapax 6 in., by  $5\frac{1}{2}$  in., measuring straight. Height  $2\frac{7}{8}$  in. Head to occiput  $1\frac{1}{2}$  in. This large specimen was procured in Afghanistan by Sir A. Burnes. A very small *HOMOPUS* in spirit, also from Afghanistan, is doubtless the young, though exhibiting some remarkable differences in the shape of the upper plates. In this the nuchal is roundish, or as broad as long;

nocturnal Cock too of N. Zealand, also close upon extirpation, &c. The majority, if not all, of these islands appearing to be remnants of what may be comparatively termed continents, each with its peculiar centre or centres of creation.

In all these supposed reliques of ancient lands, with the chief exception of Madagascar, mammalia are rare, and are chiefly or wholly *Cheiroptera*, *Rodentia*, and *Marsupialia*; the two former orders comprising the only placental mammalia of Australia; and one species of each of these placental orders being the only known indigenous mammals of N. Zealand, though a large Badger-like animal has lately been reported in the latter country, in all probability a marsupial. Madagascar is very remarkable for the extraordinary development of the quadrumanous group of Lemurs, among the higher placental mammalia; and has even a rodent Lemur in *CHEIROMYS*, as Australia has a rodent marsupial in *PHASCALOMYS*. Its other placental mammals are mostly of peculiar genera, unknown even on the neighbouring continent of Africa; and no marsupial has been discovered there.

and all the vertebrae are about equally broad. Colour dull yellow throughout. Presented to the museum by Dr. Allan Webb.

Of the numerous true *Terrapins* (*EMYS*) of the Gangetic rivers, only three species are common in the vicinity of Calcutta; and adults of all are rarely met with. These are—*E. THURGII*, Gray, which attains to a much larger size than has hitherto been described, adults measuring 20 to 22 in. (straight) in length of carapax; *E. TECTUM*, Gray, the adults of which measure similarly 6 in.; and *E. HAMILTONII*, Gray, the adults of which measure similarly 5½ in. The only other species we have yet met with from this vicinity is *E. TENTORIA*, Gray, one young specimen only. This Mr. Gray describes from the Bombay Dukhun, where procured by Col. Sykes; and Sir Alexander Burnes obtained an adult from the Indus, which is now in the Society's museum. These two specimens differ in some respects from each other, also from Mr. Gray's description, and from Buchanan Hamilton's coloured figure, the two latter again presenting certain discrepancies one from the other. The species is nearly affined to *E. TECTUM*, Bell, but at all ages has the median keels to the first three vertebral plates much less developed, and the form of the whole carapax is conspicuously flatter and broader. A peculiarity of both species consists in the peculiar decanter-shaped form of the fourth vertebral plate. Comparing the adult of *E. TENTORIA* from the Indus (length of carapax, measured straight, 6½ in.) with an adult of *E. TECTUM* from the Hughly (carapax, similarly measured, 6 in.), the first vertebral plate is proportionally much broader in the former, pentagonal, narrower to the front, with a broad straight transverse base posteriorly, and the keel little developed; whereas the first vertebral plate of *E. TECTUM* is pentagonal, broader to the front, with a rounded posterior base, and much more developed keel. In the former, the first vertebral is considerably larger and somewhat broader than the second, whereas in the latter it is sub-equal or even rather smaller than the second: in adult *E. TENTORIA* the second vertebral plate is hexagonal but almost square, and rather broader than long, with the keel nearly obsolete; in *E. TECTUM* somewhat pear-shaped, truncate to the front and narrowing and curving off posteriorly, with the keel strongly marked: the third vertebral plate of adult *TENTORIA* is quadrangular, longer by

half than broad, with the keel quite obsolete on the anterior half, and flat and but little raised posteriorly; in *E. TECTUM* it is hexagonal, with the keel strongly developed and prolonged backward. A narrow black line is continued along the spinal ridge of *E. TENTORIA*; whereas the middle of the ridge is broadly white in *E. TECTUM*, bordered by a black line on either side. The plastron of *E. TENTORIA* is blackish-brown, with a pale border to each plate; in *E. TECTUM* pale with two or three distinct blackish patches on each plate. Comparing the young of the two species, the first vertebral plate forms a much broader pentagon in *E. TENTORIA*, being equal in breadth to the second; in young *E. TECTUM* the first vertebral plate is considerably narrower than the second: the second vertebral plate in young *TENTORIA* forms a heptagon with the base posteriorly; in young *TECTUM* a pentagon with rounded apex and anterior base: the third in young *TENTORIA* is subquadrilateral, somewhat longer than broad, with the keel a little produced posteriorly; in young *TECTUM* a pentagon with its base to the front, and the keel much broader and more prominent. Yet, notwithstanding these great differences of detail, and also of the colouring of the head, neck and limbs, the two species are very liable to be confounded on a superficial glance.

According to M. M. Dumeril and Bibron, the *E. TRIJUGA*, Schweigger, was obtained by M. Duvaucel from the "salt-water lake" lying east of Calcutta; but of the numbers of *Terrapins* which we have seen from that locality, we have sought in vain for this species, which belongs to the peninsula of India, and is the only one which has been there observed, with the exception of Col. Sykes's specimen of *E. TENTORIA*.\* In Ceylon it is replaced by the very distinct *E. SEBÆ*, Gray.

On the Arakan coast, adults of *E. DHONGOKA*, Gray, approaching to 2 ft. in length of carapax, would appear to be very common; but the only young specimen which we have seen of this species was sent down alive from Asám by Major Jenkins, and is now

\* Since the above was printed, we have obtained another *EMYS* from the vicinity of Chaibasa, which appears to be the young of *E. DHONGOKA*; and Mr. Jerdon assures me that a large species abounds in the Nerbudda, 2 feet and upwards, which is probably the same: it is not referred to in Mr. Jerdon's paper, p. 463 *ante*.

mounted in our museum. The adults have much the appearance of *TETRAONYX LESSONII*, D. and B., but are readily distinguished by having five instead of four claws to the fore-feet. *T. LESSONII* abounds at the mouth of the Hugly, and great numbers are brought to Calcutta, where they are eaten by particular castes of Hindus, and are even kept for sale in tanks. Though the water-Tortoises generally are much used as food, the species chiefly consumed, or at least which are brought in greatest quantity for that purpose, are *TETRAONYX LESSONII* and *EMYDA PUNCTATA*. The latter appears to be the most generally diffused species of Tortoise throughout the whole of India and Ceylon, and is very abundant in Lower Bengal, burrowing deep into the beds of tanks when the water dries up. A large one which escaped into the Society's compound was found several months afterwards in a healthy state, buried among the roots of some guinea-grass.

A small and evidently young *EMYS* from Arakan or Tenasserim would seem to be

*E. OCELLATA*, Dumeril and Bibron. The colouring agrees with the description: the details of structure less completely. Length of carapax 6 in. (measured straight). It is affined to *E. THURGII*; and, as compared with a specimen of *E. THURGII* of the same size, it is at once distinguished by having the whole under surface of the shell spotless yellowish-white, and each lateral or discoidal plate of the carapax is marked in the centre with a large round reddish-brown spot, surrounded by a pale areola; an interrupted black line along the spinal ridge, which is raised into keels on the first four vertebral plates. These are of equal breadth, whereas in *E. THURGII* the first is much narrower than the others. Nuchal plate twice as long as broad, and throughout equal; whereas in *E. THURGII* it is triangular with posterior base. Hindmost vertebral plate much narrower than in *E. THURGII*; and the posterior marginals and especially the caudals are much smaller than in that species. Colour of the upper parts greenish olive-brown, with the ocelli before mentioned, which probably become obscured with age. Head brown above, with yellow superciliary line meeting its opposite over the nostrils, and another proceeding backward from the eye. Limbs and under parts apparently yellowish without markings.

There is a species of Chameleon in the Society's old collection, the origin of which is unknown, but it would appear to be undescribed. It would seem to be most nearly affined to *C. CUCULLATUS*, Gray, and has the occipital flaps of both that species and *CH. DELPEIS*, Leach.

*CH. VERRUCOSUS*, nobis. Body minutely tuberculated, with larger tubercles regularly interspersed throughout. The latter are smaller and contrast less strongly on the limbs and tail, and are more thickly set upon the limbs. Ridges of the back and throat serrated, the tubercles becoming smaller towards and upon the tail. Beneath, the tail is smooth, though tending to exhibit a slight serrature towards its base. Superciliary ridges not uniting together, either before or behind; and a small medial occipital ridge continued to the base of the two lateral flaps or lappets of skin. Colour of the specimen blanched; but there is a strongly marked black streak proceeding backward from the axilla, and surmounted by a white streak, the two occupying the space which may be concealed behind the humerus. Length  $11\frac{1}{2}$  in., of which the tail is 6 in. Hab. unknown.

*LEIURUS BERDMOREI*, nobis (*Geckoidea*). Agrees with Mr. Gray's definition of *LEIURUS*, except that there is no appearance of the toes being webbed at base. Colour grey, with 4 longitudinal blackish streaks along the back and sides, 3 or 4 interrupted cross-bands of the same on the upper surface of the tail, a medial black streak on the nape, and others successively diverging on each side of it, and a black streak from before the eye continued to the shoulder. Some mottling also on the limbs. Hab. Mergui, where procured by Capt. Berdmore.

The genus *STELLIO* is new to the Indian fauna. A species from Upper Hindustan cannot be safely separated from the Arabian *ST. CYANOASTER*, Ruppell, unless upon comparison of specimens. The tail, however, appears to be longer; and there is a slight gular *fanon*. Specimens vary much in colour. An adult from Mirzapore, presented by the late Major Wroughton, measures  $12\frac{1}{2}$  in. long, of which the tail is 8 in. Throat blue, spotted over with yellowish-white, deepening to purple on the *fanon* which is less spotted. The rest of the lower parts are yellowish-white, marbled on the trans-



verse fold of the neck and immediately behind it with blackish, and spotted with the same on the breast and belly, the spots becoming less numerous on the latter. Upper parts dark olive-green, the back and sides speckled over with whitish. Two smaller specimens were presented to the Society by L. C. Stewart, Esq. now of H. M. 61st Regt., from Wuzeerabad. Length of one  $8\frac{1}{2}$  in., of which the tail measures  $5\frac{1}{2}$  in. In these the under parts are yellowish-white, suffused or marbled with bluish or pale dusky on the throat, and slightly spotted with the same on the breast. Upper parts paler olive-green than in the large specimen; the back and sides speckled with yellowish-white in one, as in the adult example, with traces of dusky marbling on the back; in the other, the back is much more marbled and blotched with dusky, and has only a few largish dull white spots on the back and sides, while the limbs and tail are banded, and there are three dark transverse lines over each eye. If new, *St. INDICUS, nobis.*

Genus *CALOTES*, Kaup. We have now nine well marked species of this genus in the museum. The first three are distinguished by a pit or fold before the shoulder, which is lined with minute scales.

1. *C. EMMA*, Gray (vide "Proceedings of the Asiatic Society" for May, 1853, p. 413.) Inhabits Mergui, and probably other parts of Burma, ranging northward perhaps to the Khásya hills; but extremely doubtful as an inhabitant of Afghanistan. We have elsewhere expressed our suspicion (*loc. cit.*) that collections made by the late Dr. Griffith in Afghanistan and in the Khásya hills had become mixed and confounded, and hence that Mr. Gray had been led to assign his *CALOTES EMMA*, *C. MARIA*, *C. MINOR*, and *SALEA HORSFIELDI* to Afghanistan, and two of the four to the Khásyas also; countries so extremely different, that it is most improbable that the same species would be found to inhabit both of them.

2. *C. MYSTACEUS*, Dumeril and Bibron. (Described *J. A. S.* XXI, 754). Inhabits Burma, and also the mountainous parts of Ceylon. Hind-toe reaching to the ear.

3. *C. ROUXI* (?), Dumeril and Bibron. Three adult specimens and another half-grown forwarded by Dr. Kelaart from Newera Elia, in Ceylon, accord fully with the description as regards structure;

but the colouring is remarkable, and different again from that of Mr. Jerdon's supposed *C. ROUXI* of S. India. Pit before the shoulder more developed than in *C. MYSTACEUS*, and partially black. Hind-toe reaching to the eye. A row of 3 or 4 raised spines above the tympanum; and nuchal crest moderate and gradually diminishing to the tail. The latter is tumid at base, and soon attenuates rather suddenly, the tumid portion exhibiting a median ridge of very broad keeled scales. Caudal scales towards the base of tail much larger than those of the body. Throat scales very broad and flat, with a median row of narrow compressed scales imparting the appearance of a small *fanon* or dewlap. A half-grown specimen (in spirit) is blue, with the tail reddish-brown to near its base, and marked with an irregular double series of *ocelli* which are white, having a black border. A few similar *ocelli* are seen bordering the low spinal crest. There is a black mark between the eye and the ear, and another below the eye; and a tinge of ruddy on the throat, about the tympanum, and on the occipital and tympanic spines. Adults (in spirit) have the body and limbs blue, the tumid base of tail green, and the rest of the tail dull red-brown, with *ocelli* less bright than in the young. Borders of lips black, continued as a broad black band (more or less variegated with ruddy-white) to the shoulder-pit. Throat whitish tinged with ruddy and strongly contrasting, as also a white band from the tympanum continued over and passing the shoulder-pit. In some, the shoulder-pit is also posteriorly margined with a white mark; and raising the fore-leg, two or three additional white stripes are seen, oblique and successively more inclining to the horizontal. The limbs are also banded with white; but these markings are often indistinct or obsolete. Tumid base of tail bright orange underneath in some specimens. *C. ROUXI* is described from Burma; but as we possess the preceding species both from Burma and the mountains of Ceylon, it is the less improbable that the present may have the same habitat.

4. *C. GIGAS*, nobis. (Supposed *C. OPHIOMACHUS*, *J. A. S. XI*, 870). Resembles *C. VERSICOLORE*, except in being much larger, having no trace of gular *fanon*, and a *double* nuchal crest of spine-like scales,  $\frac{1}{2}$  in. long in the specimen under examination. Dorsal crest also proportionally more developed than in *C. VERSICOLORE*,

and terminating abruptly over base of tail. Length of head and body  $5\frac{1}{2}$  in. Of tail—? Of hind-limb  $3\frac{1}{2}$  in. Colour apparently uniform without markings, but the specimen is much blanched. Hab.—?

5. *C. VERSICOLOR*, Daudin. The most common and generally diffused species, inhabiting all India and Ceylon, from the base of the Himalaya southward, and (according to Mr. Gray) also China and Afghanistan (vide, however, remarks on *C. EMMA*). It is the only species we have in Lower Bengal, where it is excessively abundant, particularly in gardens. Sir A. Burnes sent a specimen from Sindh; and we have also one from Rangoon. In the last, however, the scales are somewhat smaller than in Indian specimens, and the two detached spines on the tympanic ridge are remarkably minute; but there is no other difference. Ceylon specimens, on the other hand, appear commonly to attain a greater size, with somewhat larger scales, the nuchal and dorsal crests and also the gular *fanon* being rather more developed (and they are then the supposed *C. ROUXI* *apud nos* of *J. A. S. XXI*, 354); but smaller and younger specimens from Ceylon are quite undistinguishable from Bengal examples; and it may even be that the latter sometimes attain the size and general development of the Ceylon reptile.\* In S. India, again, the changes of colouring (as described by Mr. Jerdon) differ from those of *C. VERSICOLOR* of Bengal, and are perhaps the same as in the Ceylon animal. Here the colours are changeable, but no yellow is ever seen; and in the months of May and June, the males chiefly are often observed with the head and anterior third of the body, inclusive also of the fore-limbs, tolerably bright red, a large black patch before the shoulder, and all the rest plain greenish-brown. They are often altogether of the latter hue without markings; or the markings come out more or less strongly. The reptile is then commonly brown, lighter or darker, with a series of transverse dusky bands, broken on either side by a longitudinal whitish band which is evanescent, appearing and disappearing and sometimes shewing very conspicuously. A dusky streak through the eye, and

\* Some *living* examples sent to me from Galle by Dr. Kelaart are quite undistinguishable from living Bengal specimens.

three others radiating below and two above it. Three or four oblique streaks on each side of the throat; and others on the limbs. Females are smaller and darker, generally of the hue of the ground on which they lie.

6. *C. VIRIDIS*, Gray. Nuchal crest extremely slight; and no decided spines above the tympanum, but three raised angular scales placed not on a ridge, but disposed triangularly and separated apart. In some specimens, probably the females, the latter are scarcely noticeable. There is also a row of five flattened scales from below the eye to above the tympanum. Two longest hind-toes of subequal length and reaching only to the ear. Body scales acutely pointed, especially those of the lower parts. Colours green or brown, mottled with whitish and with dark brown; lips black. From S. India.

7. *C. OPHIOMACHUS*, (Merrem). Tympanic ridge with several short and two longer spines. Longest hind-toe reaching to front of eye. Tail extremely long, its terminal three-fourths commonly whitish. General colour green, paler below; with some irregular white transverse bands on the body in adults. Stripe through the eye red; and nuchal crest and throat the same in the breeding livery of the males. One Ceylon example (in spirit) is remarkable for having a longitudinal white lateral band, continued from the shoulder to the tail upon which it becomes broken and lost. Identical from S. India, Ceylon, and the Nicobar Islands.

8. *C. PLATYCEPS*, nobis, *J. A. S. XXI*, 854. Hab. Khásia hills.

9. *C. TRICARINATUS*, nobis. Founded on a young specimen of a well marked species, affined by the flat form of the head to the last, but particularly distinguished by having three low crests or keels along the nape and shoulders. An oblique row of six large triangular scales over each tympanum, but no spines (perhaps on account of youth). Longest hind-toe reaching to tip of muzzle. Colour (in spirit) blue above, white beneath. From near Darjiling, where procured by Capt. Sherwill.

*ASPRIS*, nobis, *n. g. (Scincidæ)*. Affined to *TROPIDOPHORUS*, Dumeril and Bibron, but differs much in the arrangement of the shields upon the head, and the face anterior to the eyes is compressed and narrow, with subacute muzzle. Tongue very slightly notched. Teeth extremely minute. Frontal shield elongate-pentan-

gular, attenuating much posteriorly : fronti-parietals triangular and contiguous ; parietals large, subovate ; interparietal smaller, elongate and obtusely pentangular ; superciliaries five in number, broad, the two series separated apart by the narrow hinder part of the elongated frontal shield. Scales of the back and upper part of tail rhombic, strongly carinate, the keels running in parallel ridges ; of the belly roundish, smooth. Præ-anal scales 2, large, triangular. Toes 5—5, simple, slender.

A. BERDMOREI, nobis, *n. s.* Colour dusky-brown or blackish, the throat and belly ruddy-white, with some cross-bands of the same upon the neck and body, broader and more distinct on the former, and white specks on the lips, chin, and on the under and lateral surface of the tail. Eight distinct rows of keeled scales along the back. Length of specimen  $4\frac{1}{2}$  in., of which the tail is  $2\frac{3}{8}$  in., and head  $\frac{1}{8}$  in. ; fore-limbs  $\frac{1}{8}$  in. ; hind-limbs  $\frac{1}{2}$  in. Hab. Mergui, where procured by Capt. Berdmore.

MOCOA FORMOSA, nobis, *n. s.* Length of one 7 in., of which the tail measures half. Scales hexagonal, in six dorsal series. Præ-anal scales similar to the abdominal. Form robust. Frontal shield elongate-pentagonal, broadest to the front, and rounded posteriorly. Inter-nasal and fronti-nasals lozenge-shaped, or somewhat fan-shaped, broader than long. Fronti-parietals distinct, but unsymmetrically divided. Colour olive-green, with black lateral and pale superlateral bands as usual, the former much speckled with greenish-white, and the latter shewing a series of black spots. Between the pale superlateral streaks are five narrow black lines along the nape and body, variegated with angular greenish-white spots. A few such spots appear also on the upper surface of the tail, caused by a scale variegated with black and greenish-white here and there placed. Limbs minutely pencilled with black, and spots or streaks of the same upon the head. Under-parts greenish-plumbeous throughout. This large specimen was procured at Mirzapore by the late Major Wroughton ; and others, from Wuzeerabad, presented by L. C. Stewart, Esq. now of H. M. 61st Regt., are smaller and less marked with black, which does not form continuous lines along the back, but variegated scales (black, with pale

medial portion,) are throughout scattered, and there are some black markings on the head.

*M. SIKIMENSIS, nobis, n. s.* A small species, about 4 in. long, the tail varying in length in different individuals. In one the head and body measure  $1\frac{1}{2}$  in., the tail  $2\frac{3}{8}$  in.; in another the head and body measure  $1\frac{1}{4}$  in., the tail but 2 in. This difference is probably sexual, the former proportions denoting the male, and the latter the female.\* Closely affined to the preceding species, but much smaller, flatter, and more lustrous, with proportionally much more slender toes. Colour of the upper parts nacreous olive-green, with three irregular black lines or rows of specks along the back, not always very conspicuous. A broad black lateral band, becoming obsolete along the sides of the tail, is margined with a glistening pale greenish stripe above, and variegated with spots of the same along its lower half and on the outside of the limbs. Under-parts greenish-white, except the tail and below the limbs where the colour is rufous-white. Some have a few dark spots on the throat. *HAB.* Sikim, where procured by Capt. W. S. Sherwill.

*PLESTIODON QUADRILINEATUM, nobis, n. s.* Proportions of *TILIQUA*; the head small, but its plates almost exactly as in *PL. LATICEPS* of N. America. Colour blackish above, pearly white below; two dorsal greenish-white streaks, commencing at the nostrils and gradually disappearing at about the middle of the tail; these streaks being exterior of the two alternating series of medial and hexagonal dorsal scales: also a lateral pale streak from fore to hind limb, which is more or less indicated on the neck and base of tail, close upon the whitish hue of the under-parts. Length  $7\frac{1}{2}$  in., of which the tail measures  $4\frac{3}{4}$  in.; of hind-limb  $1\frac{5}{8}$  in. China (Hong Kong?). J. C. Bowring, Esq.

*EUPREPES MACULARIUS, nobis, n. s.* Affined to *EU. CYANOASTER*, (Lesson, v. *Eu. sechellensis*, D. & B.) Like *TILIQUA RUFESCENS*, (Shaw), but the scales of the upper-parts 5-7 carinate, and colour bronzed olive-green above, pale below; the hinder half of back and base of tail above marked with irregular reddish-brown spots, and a broad reddish-brown lateral streak continued from the ear to the middle of the tail, marked throughout with white, which tends to

\* The same variation occurs in the species of *RIOPA*, Gray.

form continuous lines posteriorly. Terminal half of tail whitish. Arms and hind-limbs speckled with white posteriorly. Length of specimen  $5\frac{1}{2}$  in., of which the tail measures  $3\frac{1}{2}$  in. HAB. Rungpore ?

LISSONOTA, nobis, *n. g.* Form of EUPREPES, but more slender, covered with very smooth minute uncarinated scales. Head short, flat, subtriangular as viewed from above, broader than high, with obtusely pointed muzzle. Tympanum distinct, roundish. Lower eyelid scaly. Palatal incision slight, placed far back. Tongue scarcely notched. Teeth very minute. Frontal shield pentagonal, subtriangular, broad to the front, and elongated to an obtuse point posteriorly; the supra-orbitals nearly meeting across. Inter-nasal hexangular, somewhat fan-shaped. Fronti-nasals small. Fronti-parietals two, contiguous. Inter-parietal squarish or diamond-shaped. Limbs well developed. Toes 5-5, the palms and the heels (or exterior portion of soles) granular. Infra-caudal scales larger than those of the body; and two large triangular præ-anal scales.

L. MACULATA,\* nobis, *n. s.* Colour (in spirit) greyish olive-green, with a double row of irregular dark spots along the nape and back, and a median line of the same along the tail. On each side a dark band is continued throughout, commencing at the nostrils; and beneath this is a narrow pale streak, then a narrow dark one, and finally a few dark spots on the sides of the throat and belly. Upper surface of the limbs variegated throughout. Lower-parts albescent-greenish. Length of specimen,—head and body  $1\frac{1}{2}$  in., and tail probably about the same, but the tip is wanting. Fore-limbs  $\frac{5}{8}$  in.; hind limbs  $\frac{1}{2}$  in.: distance apart of fore and hind limbs 1 in. From Asám; Col. Jenkins.

OPHIOPS JERDONI, nobis, *n. s.* A typical species, dark bronze above, black-spotted, with two obscure broad dorsal streaks; below white throughout. Length of head and body  $1\frac{1}{2}$  in.; of tail  $2\frac{1}{4}$  in.; of hind-limb, to extremity of longest toe,  $\frac{3}{4}$  in. Femoral pores 7 or 8. Shields of head plaited longitudinally. "Procured at Mhow, in pasture land." T. C. Jerdon, Esq.†

\* This species would seem affined to PLESTIODON SINENSIS, Gray.

† Since Mr. Jerdon's paper on the reptiles of S. India was ready for publication. With reference to that paper, p. 468 *ante*, he desires me to state that "the only specimen of HOMONOTA FASCIATA was taken from the mouth of a snake, in grassy land, near Jaulnah."

**SPHENOCEPHALUS, nobis, n. g.** A *Sepsoid* form affined to **SPHENOPS**, Wagler, but with more slender and elongated shape, and the limbs placed more distantly apart; the anterior minute and fitting into a groove, the posterior as large as in **SPHENOPS**, and each having but three toes, of which the innermost and next are subequal and the outer much shorter.\* Form slender,  $\frac{3}{4}$  cylindrical, quite flat and laterally angulated beneath as far as the vent: the body and tail covered with small, smooth, lustrous, hexagonal scales, with a median row of broader scales along the under surface of the tail. Head much as in **SPHENOPS**, but the muzzle more pointed; the upper lip covering the mouth. Tongue broad, triangular, its cleft scarcely perceptible; the incision of the palate small. Teeth very minute. Eyes minute, with semi-transparent lower lid. No external trace of ear. Nostrils terminal, placed in the anterior margin of the nasals, contiguous to the front of each inter-nasal and the rostral; rostral equilaterally triangular; supra-nasal broad, heptangular, with apex to the front; fronti-nasals subtriangular, a little elongated; frontal obtusely subtriangular; parietal inequilaterally pentangular, with obtuse posterior base, single and as large as the frontal. A large subquadrilateral plate under the eye, and three small transversely narrow plates in front of it, and posterior to the nasal plate. A large diamond plate on centre of chin, emarginated anteriorly to admit a small roundish plate which is bordered by the anterior laterals. Tail shorter than the body, and sub-cylindrical, flattened below.

**SPH. TRIDACTYLUS, nobis, n. s.** Very pale brown, a little deeper on the upper-parts. The largest of six specimens, measures 6 in. in total length, of which the tail is 2 in., and distance apart of the fore and hind limbs  $\frac{1}{2}$  in. Length of fore-limb  $\frac{1}{4}$  in.; of hind  $\frac{2}{3}$  in. From Afghanistan. Presented by Dr. Allan Webb.

The habit of this curious reptile is indicated by its structure. It is evidently a burrower, probably into loose sandy soil, where it would work its way with its wedge-like muzzle, deriving considerable *appui* from its hind-limbs; the minute fore-legs remaining

\* It is still more nearly affined to the Australian form **RONIA** of Gray, figured in the Appendix to Grey's Journal; but this has still more rudimentary limbs, the anterior merely indicated externally, and the posterior showing but two digits.



generally close within the grooves into which they fit; the head meanwhile being raised, and the long body arched,—an attitude which most of the specimens assumed when immersed in spirit.

The following is a remarkable limbless lizard from Rangoon, obtained by purchase.

*OPHISEPS, nobis, n. g.* Form anguine, of nearly uniform bulk throughout, tapering suddenly at the extremity of the tail; no exterior trace of limbs; and the vent placed in the middle of the entire length; the body above, and tail above and below, covered with parallel ranges of quadrilateral keeled scales, the throat and belly with hexagonal smooth scales, and the tapering extremity of the tail with imbricated and rounded scales. A groove on each side from shoulder to vent. Tongue obtusely forked: no palatal teeth; but a single row of small maxillary teeth: the triangular incision of the palate large. Eyes rather small, lacertine; the lids scaly. Tympanum small. Nostrils small, lateral. Head conical, somewhat compressed in front; the cleft of the mouth extending to beyond the eye. Rostral plate small, broad, triangular; it and the nasals and anterior labials surmounted by numerous small plates and larger representatives respectively of a posterior nasal and united fronto-nasals. Frontal shield large, heptagonal with posterior base; and the parietal inequilaterally pentangular, with anterior base. Frontoparietals quadrangular. The streaks of the chin are sub-quadrangular and placed obliquely. Along the median ridge of the back the parallel ranges of scales alternate, but not upon the tail.

*O. TESSELLATUS, nobis, n. s.* Length of specimen  $12\frac{1}{2}$  in., of which the tail measures  $6\frac{1}{2}$  in. Colour pale dingy buff-yellow, paler below, with numerous plumbeous spots on the anterior half of the body above, composed of scales of that colour, some detached, others placed contiguously to form transverse bands more or less imperfect; all the scales being highly lustrous. There are 14 parallel ranges of them above, from lateral groove to groove, and 8 such ranges below. From Rangoon.

(To be continued.)