EXPLANATION OF THE PLATES.

PLATE XVIII.

- Fig. 1. Hyale Nilssoni*, young male. 1 *a.* Lower antennæ. 1 *b.* Gnathopods. 1 *d.* Last pereopod. 1 *f.* Portion of pleon. 1 *c.* Gnathopods of younger forms, retained in the female even when spawning. 1 *e.* Pleon of ditto. 1 *g.* Gnathopods of fully developed female. 1 *h.* First gnathopod of fully developed male.
- Fig. 2. Hyale Lubbockiana*, male. 2 *a.* Gnathopods of male. 2 *c.* Last pereopod. 2 *d.* Pleon. 2 *b.* Gnathopods of young.

PLATE XIX.

- Fig. 3. Anonyx serratus*, male. 3 *a.* Antennæ. 3 *b.* First gnathopod. 3 *c.* Second gnathopod. 3 *d.* First pereopod. 3 *e.* Pleon.
- Fig. 4. Probolium Spence-Batei*. 4 *a.* Antennæ. 4 *b.* Gnathopods. 4 *c.* Pleon.

XXXIV.—*Notes on Chrysochloris Trevelyani*. By Dr. ALBERT GÜNTHER, F.R.S., Keeper of the Zoological Department, British Museum.

[Plate XX. figs. A & B.]

IN the 'Proceedings of the Zoological Society' for 1875, p. 311, I described and figured a large species of Golden Mole from British Caffraria (*Chrysochloris Trevelyani*) from a single flat skin. As the discoverer, Mr. Herbert Trevelyan, shortly afterwards returned to South Africa, I begged him to obtain more and better-preserved examples, entire if possible, or to procure at least the skull. In this he was so far successful as to send home flat skins of two adult and one younger specimen, and three skulls, one of which is in a fragmentary condition. The skins of these examples differ from the typical specimen in the fur being of a greyish brown colour, with scarcely any gloss on it, the under-fur being grey. This difference in the colour is probably due to the season of the year at which the specimens were obtained, those sent last having been killed in the course of the summer.

The skull represents one of the most singular forms in the division of Insectivorous mammals; and although its most prominent and characteristic features are indicated in the other species of *Chrysochloris*, it differs widely from their skulls as regards general form*. From the occipital crest forwards the skull is nearly equally narrow and elongate, the occipital region behind that crest being abruptly truncated, vertical—yet

* For comparison of the descriptive detail I refer to Prof. Mivart's excellent account of the skull of *Chrysochloris*, in 'Journal of Anatomy and Physiology,' ii. pp. 130 *et seqq.*

more so in perfectly adult animals than in younger ones, in which this region is rather more convex. The occipital crest is high, broad, presenting a rough surface behind; each of its halves is curved forward, and, detaching itself from the cranium, it forms, together with the posterior part of the malar bone, a broad, high, vertical shield, protecting the temporal fossa in its entire depth. The remainder of the zygomatic arch is not broader than in the much smaller *C. capensis*. The suture between the squamosal and malar bones is persistent, vertical, terminating below opposite to the glenoid fossa; and it is at this place that the greatest breadth of the skull is situated. The orbits are, as generally in *Chrysochloris*, incomplete; and there is no trace of a postorbital process; neither is the skull constricted laterally behind the orbits. As in *C. capensis* the premaxillary is produced on each side in a short process, which, however, is not so much twisted or flattened as in that species; on the other hand, the nasal aperture is more open, the nasal bones advancing less forwards, so that the terminal portions of the simple naso-turbinal and the more complex maxillo-turbinal can be clearly seen. A well-developed sagittal crest extends from the occipital crest to the nasal bone. The bony vesicle in the temporal fossa, which is so prominent in the other *Chrysochloris*, is much less developed and lower down in the fossa. The palate is of moderate width, widest between the true molars, rather concave antero-posteriorly. It is perforated by numerous minute foramina, but otherwise perfectly ossified, with a prominent tubercle on each side in front of, and close to, the posterior margin, which itself is not thickened but provided with a pointed median projection. This posterior margin is at some distance behind the level of the last molar. The hamular processes of the pterygoids are very long, slender, and pointed; the interpterygoid fossa is deep, narrowing backwards and ending in an excavation.

The auditory bulla is well developed, of a transverse oval shape, at its lower convex surface traversed by a curved ridge, the convexity of which is directed backwards. At its interno-anterior base, behind the hamular process of the pterygoid, there is a vacuity in the bulla, the orifice of the Eustachian canal, which is covered by a separate lunate ossicle (fig. B, *a*), leaning against the lateral wing of the basisphenoid. This singular ossicle, which does not exist in *C. capensis*, is but loosely attached to the surrounding bones and easily detached with the soft parts.

There are no paroccipital or mastoid projections, or the former is but slightly indicated. The glenoid cavity is small, flat, convex behind, transverse, bounded by the cranial wall

internally and behind. The mandible is narrow, narrower below the true molars than below the premolars; symphysis rather long. The coronoid process rises as a triangular plate high above the condyloid, which is directed backwards in a nearly horizontal direction; condyle obliquely transverse. The angle is much produced, expanded into a trihedral bone and somewhat bent inwards.

In regard to the various foramina of the skull and the dentition this species does not differ from *C. capensis*; they have been fully described by Mivart (*l. c.*).

EXPLANATION OF PLATE XX.

- A. Three views of the skull of *Chrysochloris Trevelyani*: the lateral and upper views, of the natural size; the lower, of twice the natural size.
 B. Lower view of the posterior part of the skull, of twice the natural size, turned so as to show the ossicle (*a*) covering the Eustachian orifice. On the left side of the skull the ossicle is removed.

XXXV.—*Description of a new Species of the Genus Nyctinomus from South Africa.* By G. E. DOBSON, M.A., M.B., F.L.S., &c.

Nyctinomus africanus, n. sp.

Upper lip smooth, without vertical wrinkles. Ears from perfectly distinct points of origin though close together, their inner margins arising from the upper surface of the muzzle, though not so near the extremity of the muzzle as in *N. Cestonii*; tragus somewhat similar to that of *N. Cestonii*, but longer, and the upper margin quite evenly rounded off; antitragus quadri-lateral, the shortest side in front, the upper margin slightly concave.

Fur bright orange-chestnut above and beneath.

Incisors $\frac{2}{4}$; the lower incisors not crowded: premolars $\frac{2.2}{2.2}$; the first upper premolar very short and blunt, its base occupying the whole space between the canine and second premolar.

Length (of an adult male) 3.6 inches; tail 2.2; ear 1; tragus 0.3; forearm 2.5; thumb 0.4; second finger—metacarpal bone 2.4, first phalanx 1.1, second phalanx 1.3; fourth finger 2.4; tibia 0.75; foot and claws 0.45.

This species resembles *N. midas*, from North Africa, in size and in general appearance. The large tragus, however, at once distinguishes it from that species.

Hab. South Africa (Transvaal Republic). Type in the collection of the British Museum, presented by R. B. Sharpe, Esq.

Mintern Bros. imp.

A & B. *CHRYSOCHLORIS TREVELYANI*.
C. *POLYPEDATES RETICULATUS*.