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small black spines at its base, and is long, tapering, and

slightly moniliform. No dorsal bristles were visible in the

preparation.

The setigerous region tapers towards the outer extremity, where a papilla occurs. The spine is black and powerful. The bristles (Pl. I. fig. 10) have comparatively short shafts, which are minutely striated longitudinally and transversely as in allied forms. When seen on edge the tips of the shafts are somewhat fusiform, from the dilatation below the bevelled region. In lateral view, though the diameter is greater, the dilatation is less pronounced and the striæ are now oblique. The terminal blade is comparatively short, has a web connecting its bevelled base with the shaft, is slightly curved, and tapers very little to the strongly forked (longitudinally split) terminal region. The dorsal limb of the fork, viz. that opposite the serrated edge, is the longer, but is frequently broken. It is proportionally longer in the upper bristles of the tuft. The edge of the blade is minutely spinous even up to the base of the fork. The ventral cirrus is slender and subulate, stretching beyond the fleshy tip of the setigerous process. The structure of this bristle would seem to be diagnostic, for though that of Stephania flexuosa of Delle Chiaje \*, as figured by Claparede †, is a step in its direction, yet not even uniform and continuous friction could make it resemble that of the present form, and this without referring to other distinctive characters of the species.

# EXPLANATION OF PLATE I.

Fig. 1. Anterior foot of Nephthys Jeffreysii. × about 90 diam.

Fig. 2. Anterior foot of Eteone japanensis. × 90 diam.

Fig. 3. Anterior foot of Phyllodoce sp. ? from Gaspe Bay. × 79 diam. Fig. 4. Thirtieth foot of Eteone cinerea, Web. & Bened. × 250 diam.

Fig. 5. Foot of Tyrrhena atlantica, Roule, viewed from the front.  $\times$  12 diam.

Fig. 6. Bristle (with very short tip) of the foregoing.

Fig. 7. Tip of a bristle of a specimen of Tyrrhena Claparedii from Naples. × about 400 diam.

Fig. 8. Tip of a bristle from Tyrrhena atlantica procured by the

Porcupine.' × about 400 diam.

Fig. 9. Head of Dalhousiella Carpenteri, enlarged under a lens. The specimen was indifferent.

Fig. 10. Distal blade and tip of the shaft of a bristle of the foregoing. × about 400 diam.

Distant, 1901

type who recorded

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On some Plataspinæ and Graphosominæ.

. catalogued

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XXXI.—Notes and Descriptions relating to some Plataspine. and Graphosominæ (Rhynchota). By W. L. DISTANT.

THE British Museum having recently acquired the very fine and extensive collection of Plataspinæ amassed and studied by Dr. A. L. Montandon, it has become possible-particularly in so vast a genus as Coptosoma-not only to identify many obscure species but to describe some new ones. It has naturally also become necessary to add a few synonymical notes.

A study of the Graphosominæ, the result of some recently arrived material from the Oriental region, has also added to the described species and genera.

#### RHYNCHOTA.

Fam. Pentatomidæ.

Subfam. PLATASPINA.

Codronchus, gen. nov.

Somewhat broad and moderately convex. Head large, angulate, the central lobe very broad and ovate, a little shorter than the lateral lobes, which are divergent and do not meet in front, lateral margins moderately concave from base to about the region of the insertion of the antennæ and then oblique and reflexed to apex; eyes prominent, ocelli nearer to each other than to the eyes; pronotum with the lateral margins convex. the anterior margin much excavated, nearly straight at the extreme base of head, the disk prominently transversely impressed; scutellum broad, not quite reaching the apex of the abdomen, its apex slightly concave; stigmata near the abdominal margin; rostrum reaching the intermediate coxæ; antennæ five-jointed; a raised centrally hollowed and marginally ridged process between the intermediate and posterior

Allied to Cratoplatys and Heterocrates.

Codronchus andamanensis, sp. n.

Black, very thickly punctate; eyes ochraceous; rostrum brownish ochraceous; femora more or less castaneous. Head with an undulating transverse ridge between the eyes and with a short waved basal ridge; pronotum with a paten or transverse striæ at centre of anterior margin, and with a

<sup>\*</sup> Mem. sugli Anim. senza Vert. ii. pp. 368, 401, & 424, tav. xix. fig. 8; Descrizione e Not. iii. p. 97, v. p. 103, tav. cxxix. fig. 8. Supplem. Ann. Nap. 1870, p. 118, pl. xii. fig. 1.

broad central transverse impression on disk, the lateral margins convex and somewhat foliate; pronotum and scutellum with a faint central longitudinal ridge. Antennæ piceous, second joint shortest.

Long. 8 millim.; max. lat. 5 millim. Hab. Andaman Islands (Coll. Dist.).

#### Genus Ponsila, Stål.

#### Ponsila montana, sp. n.

Body above shining black; head in front of eyes, eyes, lateral margins and an oblique line joining subanterior margin of pronotum, lateral and posterior margins of scutellum and a small spot near each basal angle, head beneath, antennæ, lateral margins of sternum, rostrum, and legs ochraceous; sternum piceous, opaque; abdomen mutilated; fourth and fifth joints of antennæ piceous.

Head with the anterior area transverse, concavely excavated, the anterior angles obtusely prominent, the central lobe and anterior and lateral margins piceous; pronotum and scutellum thickly and finely punctate; pronotum with a somewhat obscure transverse impression on anterior area.

Long. 51 millim.; max. lat. 5 millim. Hab. Assam: Naga Hills (Doherty).

# VIGETUS, gen. nov.

Body broad, convex above. Head broad, short, deeply inserted in the pronotum, concave from between the region of the eyes, on the inner margin of which is a short distinct transverse ridge; anterior margin very slightly rounded; the lobes about equal in length, or central lobe slightly shortest; eyes moderately transverse. Pronotum convex, the anterior lateral margins convexly rounded and moderately laminately produced, the lateral angles distinctly nodulose; anterior margin concavely excavated for the reception of the head, posterior margin nearly straight. Scutellum broad above, completely covering the abdomen, its apex distinctly concavely excavated in the male. Rostrum apparently reaching the intermediate coxe; antennæ with the second joint very short; odoriferous apertures very broad and obliquely striate.

differs by the much shorter head, the distinct nodulose lateral pronotal angles, &c.

A genus allied to Madegaschia, Montand., from which it

Vigetus typicus, sp. n.

Above shining olivaceous black; thickly, finely, but obscurely punctate; eyes luteous; base of lateral margin to corium ochraceous; head beneath and sternum black, opaque; abdomen shining black; legs piceous, apices of femora, tibiæ, and tarsi brownish ochraceous; lateral margins of the abdomen ochraceous, inwardly angulated. Antennæ ochraceous, fourth joint piceous-remainder mutilated.

Long. 3 and 2, 5 to 6 millim.; max. lat. 4 to 5 millim.

Hab. Assam: Margherita (Doherty).

### Genus BRACHYPLATYS, Boisd.

# Brachyplatys funebris, sp. n.

Above black, moderately shining with a dull olivaceous hue; eyes castaneous; head beneath and sternum opaque black; abdomen beneath shining olivaceous black; central area of head beneath, extreme lateral margins of pronotum both above and beneath, extreme lateral and apical margins of scutellum and abdomen ochraceous; lateral margins of abdomerr beneath ochraceous, notched internally, and containing a submarginal series of black spots; legs castaneous, the femoral apices, tibiæ, and tarsi brownish ochraceous; antennæ and rostrum brownish ochraceous. Body above thickly and finely punctate.

Long. 8 to 9 millim.; max. lat. 7 to 8 millim.

Hab. Assam : Sadia (Chennell).

Allied to B. Burmeisteri, Dist., from which it can be at once separated by the narrow ochraceous marginal markings to the abdomen, not ray-like fasciæ as in B. Burmeisteri.

### Genus Tiarocoris, Voll.

# Tiarocoris consertus, sp. n.

9. Head ochraceous, the margins, margins of central lobe, an oblique line a little in front of eyes, and the basal margin piceous. Pronotum with the anterior area ochraceous, glabrous, containing two large-transverse discal black spots; the anterior margin black and an inner linear series of black punctures to the dilated anterior margins; posterior area ochraceous, thickly covered with large, irregular, coarse, black punctures, the basal margin narrowly black. Scutellum ochraceous, thickly covered with very coarse black punctures; the apical margin and basal transverse circumscribed area much more sparingly punctate. Sternum piceous, opaque; abdomen shining black;

Plataspinæ and Graphosominæ.

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head beneath, prosternum, legs, antennæ, rostrum, abdominal margin, and two ray-like fasciæ at apex of each abdominal segment ochraceous; antennæ with the fourth and fifth

Long. 9, 5 millim.; max. lat.  $4\frac{1}{2}$  millim. Hab. Burma: Ruby Mines (Doherty).

Allied to T. contestatus, Montand., but at once distinguished by the punctate and not black posterior area of the pronotum, by the sparsely punctate apical margin of the scutellum, longer ray-like marginal fasciæ to the abdomen, &c.

# Tiarocoris signatus, sp. n.

Q. Ochraceous, reticulately marked with piceous. Head ochraceous; anterior margin, margins of central dobe, and central basal margin narrowly piceous; eyes pale castaneous. Pronotum with the anterior area ochraceous, levigate, with an oblique fascia of black punctures on each anterior lateral area, and with a similar fascia obliquely extending from each lateral angle and united with a transverse fascia—centrally broken—across anterior disk; remaining area somewhat thickly reticulately marked with piceous. Scutellum thickly reticulately marked with piceous, with a distinct black arcuated spot behind the basal transverse elevation. Body beneath piceous; head beneath, prosternum, legs, rostrum, abdominal margins, and inner ray-like fasciae ochraceous; antennæ piceous, first and second joints

Long. 6 millim.; max. lat. 4 millim. Hab. Ceylon (G. Lewis).

# Genus Coptosoma, Lap.

# Coptosoma prisca, sp. n.

Shining black above; head with the anterior halves of the lateral lobes more or less ochraceous; pronotum with the anterior lateral margins and a marginal line near lateral angles, an irregular transverse series of markings across anterior disk, a similar oblique series on anterior lateral dilatations, and two spots on anterior margin ochraceous; scutellum with the base and lateral areas mottled with ochraceous. Body beneath black, the sternum opaque, the abdomen shining; legs, lateral margins, and a small angulated spot at the apex of each abdominal segment ochraceous;

Head broad; scutellum with basal callosity.

Long. 5 millim.; max. lat. 5 millim. Hab. Assam: Margherita (Doherty).

Allied to C. ramosa, Walk., but differing by the broader head, different markings, &c.

# Coptosoma saniosa, sp. n.

Ochraceous, somewhat thickly punctured and mottled with dark castaneous. Head with the base and margins of central lobe piceous; eyes and ocelli pale castaneous. Pronotum with the anterior third separated by a distinct transverse impression, within which are two discal angulated piceous lines; a submarginal line on anterior lateral margins and a narrow anterior submarginal line piceous; a central pale line extends through the pronotum and basal callosity of the scutellum. Body beneath black, the sternum opaque, the abdomen shining; head beneath brownish ochraceous; lateral margins of sternum and lateral prosternal dilatations, antennæ, legs, rostrum, abdominal lateral margins and a long ray-like fascia (the centre of which is black) on each segment ochraceous.

Apices of lateral lobes of head cleft, not entirely meeting in front of central lobe; scutellum with a basal transverse callosity.

Long. 5 millim.; max. lat. 5 millim. Hab. Tenasserim: Myitta (Doherty).

In general appearance somewhat resembling C. punctatissima, Montand., but the structure of the head quite different.

# Coptosoma pernobilis, sp. n.

Above pale reddish ochraceous, somewhat thickly covered with dark brown punctures. Head with the anterior margin, the central lobe, and basal fascia from inner margin of eyes black; eyes castaneous; antennæ ochraceous, fourth and fifth joints infuscated; pronotum with two short, curved, transverse, linear, black fasciæ on disk; scutellum with a small macular cluster of dark punctures on each side of basal margin and a similar spot at apex. Head beneath and sternum piceous, opaque; abdomen beneath shining black; lateral margins of sternum, legs, lateral margins and two prominent ray-like fasciæ at apex of each abdominal segment ochraceous; each of the ray-like fasciæ possesses a small black spot at base.

Long: 6 millim.; max. lat. 6 millim. Hab. Assam: Margherita (Doherty).

Coptosoma margheritæ, sp. n.

Coptosoma W. ?, Dist. Ann. & Mag. Nat. Hist. (7) vol. iv. p. 216 (1899).

Differs from all the varieties of C. W., Montand., in having only two small spots at the anterior margin of the pronotum and not another two behind them, the apical spots to the scutellum distinctly divided and more truncate, ochraceous markings darker, &c.

Long. 4 millim.; max. lat. 4 millim.

Hab. Assam: Margherita (Atkins. Coll., Brit. Mus.).

I formerly gave a description of this species, supra, but ascribed it with doubt to the C. W., Montand. Having now been able to examine a series of specimens belonging to that species, I find that there are apparently two species and that one requires a distinctive name.

# Coptosoma nilgirensis, sp. n.

Dull opaque ochraceous, very sparingly and irregularly punctate; head impunctate; pronotum with the anterior, lateral, and basal areas impunctate, the punctures being sparingly distributed on the disk; scutellum very sparingly punctate, a longitudinal space on each side of base impunctate.

Other characters as in *C. cribraria*, Fabr. Long. 5 millim.; max. lat. 4 millim. *Hab.* Nilgiri Hills (Sir G. F. Hampson).

# Bozius, gen. nov.

Body moderately convex above, subovate. Head deflexed, convexly rounded in front, the central lobe as long as the lateral lobes but not elevated, a distinct transverse impression in front of eyes; antennæ moderately robust, second joint minute; pronotum long, anterior margin concave, anterior lateral margins moderately laminately dilated, a distinct transverse impression about one third from apex; scutellum very strongly transversely impressed near base, the impression not extending to the basal angles, and with a deep foveate impression on each side of its termination; rostrum just passing the anterior coxæ; femora and tibiæ (especially the intermediate and posterior) somewhat longly hirsute; odoriferous apertures lineate, ascending; abdomen beneath pilose.

Allied to Tropidotylus, but differing by the non-elevated central lobe to the head, the foveately depressed scutellum, different position of the odoriferous apertures. &c.

#### Bozius exsiccus, sp. n.

Dull ochraceous, somewhat coarsely and darkly punctate; fourth and fifth joints of antennæ and some irregular markings on the scutellum (of which the most prominent are at the foveate impressions, two on anterior disk, three or four transverse spots on central lateral area, and some obscure apical spots) piceous; sternum dull greyish, opaque; abdomen piceous; head beneath, lateral margins of sternum, legs, rostrum, and obscure marginal abdominal spots dull ochraceous.

Central impression and foveæ to scutellum profound; third, fourth, and fifth joints of antennæ subequal in length, or third slightly longest.

Long. 5 millim.; max. lat. 4 millim. Hab. Nilgiri Hills (Sir G. F. Hampson).

# Bozius respersus, sp. n.

Above ochraceous, punctured and mottled with piceous. Head with the anterior margin, base and margins of central lobe, and basal area piceous; pronotum with two piceous transverse subfoveate spots, each containing posteriorly a small ochraceous spot immediately in front of the transverse impression, disk considerably mottled with piceous, anterior and lateral margins ochraceous, levigate; scutellum with the basal impressed space with a black central fascia and black at the foveate extremities, on the basal half the punctures somewhat appear as oblique longitudinal fasciæ, on the apical third there are some transverse series of irregularly shaped black spots. Body beneath piceous, the sternum opaque, the abdomen shining; head beneath, rostrum, lateral margins of sternum, legs, antennæ, lateral margins and an inner row of lineate marginal spots to abdomen ochraceous; fourth and fifth joints of antennæ piceous.

Long. 6 millim.; max. lat. 5 millim.

Hab. Nilgiri Hills (Sir G. F. Hampson); Utakamand (Atkins. Coll., Brit. Mus.).

#### SYNONYMICAL NOTES.

### Cantharodes Rutherfordi.

Cantharodes Rutherfordi, Dist. Ent. Month. Mag. xiv. p. 246 (1878). Cantharodes nubilosus, Montand. Rev. d'Ent. 1892, p. 299.

#### Coptosoma testacea.

Coptosoma testacea, Walk. Cat. Het. i. p. 91 (1867).
Coptosoma immaculatum, Montand. Ann. Soc. Ent. Belg. xxxviii.
p. 265 (1894).

Coptosoma aspersa.

Coptosoma aspersa, Walk. Cat. Het. i. p. 97 (1867). Coptosoma respersum, Bergr. Wien. ent. Zeit. xi. p. 173 (1892).

Cotypes of Dr. Bergroth's species were in the collection of Dr. Montandon.

Coptosoma nepalensis.

Coptosoma nepalensis, Westw. in Hope Cat. i. p. 17 (1837). Coptosoma obrosum, Montand. Ann. Mus. Genov. xxxiv. p. 138 (1894).

Coptosoma siamica.

Coptosoma siamica, Walk. Cat. Het. i. p. 89. n. 39 (1867). Coptosoma concinnula, Walk, loc. cit. p. 94. n. 54.

Coptosoma bellula, Walk. loc. cit. n. 56.

Coptosoma inclusa, Walk. loc. cit. p. 95. n. 57. Coptosoma Saundersii, Leth. & Sev. Cat. Gén. Hém. t. i. p. 9 (1893). Coptosoma sphærula (part.), Leth. & Sev. loc. cit. p. 9; Dist. A. M. N. H. (7) iv. p. 215 (1899).

Coptosoma minima, Atkins. J. A. S. Beng. lvii. p. 342 (1889); Kulg. Arch. f. Naturg. 1901, p. 224.

Coptosoma pygmæum, Moutand. Ann. Soc. Ent. Belg. xl. p. 120 (1896); Kulg. Arch. f. Naturg. 1901, p. 221.

Var. orbicula, Walk.

Coptosoma orbicula, Walk. Cat. Het. i. p. 91. n. 47 (1867). Coptosoma blandula, Walk. loc. cit. p. 96. n. 61. Coptosoma pygmæum, var. accensitum, Montand. Ann. Soc. Ent. Belg. xl. p. 447 (1896).

Having followed previous authorities from Dallas to Lethierry and Severin in the identification of C. spharula, Germ., I now find authentic specimens of that species in Montandon's collection. I had (supra) placed the rather long synonymy under Germar's species; that being removed, the earliest described form by Walker naturally now takes its place by priority. Kulgatz (supra) has also recently pointed out the distinctness of Germar's species.

Subfam. GRAPHOSOMINA.

EOBANUS, gen. nov.

Allied to Bolbocoris, A. & S. Body convex, short, moderately gibbous above. Head with the lateral lobes a little longer and meeting in front of the central lobe, their margins reflexed. Antennæ five-jointed, second joint short and slender; fourth and fifth and apex of third joints incrassated. Pronotum with the lateral margins convex, very strongly transversely impressed on disk. Scutellum almost

as long as abdomen, deeply sinuate at base, where the corium is considerably exposed; two oblique transverse impressions near base, slightly longitudinally continued at their apices. Rostrum about reaching the intermediate coxæ; meso- and metasterna with two very distinctly raised central carinæ.

Lobanus typicus, sp. n.

Black, very coarsely punctate; abdomen beneath much more finely punctate; antennæ and tarsi pale brownish; antennæ with the third joint a little longest, fourth and fifth joints subequal.

Long. 31 millim.; exp. pronot. angl. 2 millim.

Hab. Burma: Bhamo.

Genus Podops, Lap.

Nodops ceylonica, sp. n.

Ochraceous, coarsely and darkly punctate; head, anterior area of pronotum, and a small foveate spot at each basal angle of the scutellum more or less piceous; scutellum with three small ochraceous spots at base and with two irregular longitudinal series of very dark punctures; body beneath piceous, lateral margins of metastermum and abdomen broadly ochraceous; rostrum and antennæ brownish ochraceous, the last with the apical joint piceous; legs castaneous, tibiæ (excluding bases and the apices of the anterior tibiæ) and the tarsi ochraceous.

Pronotum spined at the anterior angles, the spines more or less horizontally extended, lateral pronotal margins convex.

Long. 7 millim.; exp. pronot. angl. 4 millim.

Hab. Ceylon (Lewis, Coll. Dist.), Pomparipo (Brit. Mus.). Allied to P. limosa, Walk., in colour, but to P. affinis, Hagl., in the structure of the pronotum.

Podops ochracea, sp. n.

Ochraceous, coarsely and more darkly punctate; head, anterior area and apices of lateral angles to pronotum, and a small foveate spot in each basal angle of the scutellum more or less piceous; body beneath, legs, antennæ, and rostrum ochraceous; disk of abdomen, apical joint of antennæ, coxæ, and bases of femora piceous.

Anterior pronotal spines anteriorly extended, lateral margins

of the pronotum almost straight.

Long. 8 millim.; exp. pronot. angl. 43 millim.

Hab. Tenasserim, Victoria Point (Atkins. Coll., Brit. Mus.); Burma, Arakan (Coll. Dist.).

Allied to P. limosa, Walk., but differing by the larger size, different colour of the body beneath and femora, &c.

# Lodops dentata, sp. n.

Above brownish ochraceous; head and pronotum thickly and coarsely punctate, scutellum with the punctures arranged in five longitudinal series, exposed corium also somewhat longitudinally punctate; body beneath and legs concolorous; femora with a pale annulation near apices; apical joint of antennæ and disks of sternum and abdomen more or less piceous.

Pronotum with the lateral margins finely dentate, the anterior lateral angles produced in short more or less horizontal spines, lateral angles obtusely spinous, transversely impressed on anterior disk and behind anterior margin.

Long. 7 millim.; exp. pronot. angl. 4 millim.

Hab. Bengal: Maldah (Atkins. Coll., Brit. Mus.),

Calcutta (Coll. Dist.).

Allied to P. serrata, Voll., by the structure of the lateral pronotal margins, but very distinct from that species.

XXXII.—Descriptions of some supposed new Species of Diplommatina, Opisthostoma, and a new Variety of Alycœus from N. Borneo, Banguey Island, and Darjeeling. By Hugh Fulton.

Alycœus Fultoni, Mölldff., var. degenerans, v. n.

Compared with typical Fultoni this variety is smaller, of a less bright yellow colour, obsoletely angled at the periphery on front of last whorl, the oblique striæ are somewhat stronger, and the last whorl is not so swollen at the sides as in typical form.

Alt. 5\frac{1}{4} millim.; diam. maj. 5\frac{1}{2} millim. Hab. Gomanton, N. Borneo.

#### Opisthostoma concinnum, sp. n.

Shell conical, reddish above, shining golden colour below, lower part ornamented with oblique somewhat waved costæ; whorls  $6\frac{1}{2}$ , angularly convex, slowly increasing, last whorl slightly deflected at the constriction, becoming free at its termination; aperture circular; peristome thin, slightly expanded, margined by a moderately broad rim or flange.

Alt, 2½ millim.; diam. maj. 3 millim.

Hab. Gomanton, N. Borneo.

Compared with O. Linteræ, Sowb., to which it bears a close superficial resemblance, the present species is slightly smaller, the whorls are narrower and increase less quickly, and the last half-whorl (free portion) is more angular.

The costa on last whorl of concinnum form narrow, almost complete, tubes, whereas in Linteræ the costæ extend across the whorl as in O. pulchellum. The deflection at the

constriction is also greater in Lintera.

### Opisthostoma simplex, sp. n.

Shell pyramidal, narrowly perforate, apical whorls reddish. lower whorls of a somewhat shining golden colour; whorls 6, convex, slowly increasing, ornamented with close oblique costæ; aperture circular; peristome thin, slightly expanded, not free, right-hand margin touching the whorls, bordered at the inner margin with a narrow thin rim or flange which is expanded at the upper part.

Alt. 13 millim.; diam. maj. 2 millim.

Hab. Gomanton, N. Borneo.

This form is nearest in its general characters to O. Austeni, Smith, but can be readily distinguished from that species by its smaller size and different peristome, which in Austeni is rather thick and has practically no flange; whereas in simplex the peristome is thin and the flange produced, especially at its upper part. The aperture of O. Austeni is somewhat angular, not circular as in O. simplex.

### Opisthostoma Smithi, sp. n.

Shell pyramidal, narrowly perforate, red above, pale yellow below, ornamented with oblique costæ, which are semitubular on lower portion of last half-whorl; whorls 7, angularly convex; aperture circular; peristome free, slightly thickened and expanded, and margined by a moderately wide rim.

Alt. 3 millim.; diam. maj. 34 millim.

Hab. Banguey Island, Borneo.

This distinct new species is somewhat like O. Cookei, Smith, in form; its sculpture is similar to that of O. Everetti, Smith, but not so prominently developed as in that species.

Named in honour of Edgar A. Smith, Esq., Assistant-

Keeper of Zoology at the British Museum.