

XVIII.—*Diagnoses of new Species of Pleurotomidæ in the British Museum.* By EDGAR A. SMITH.

THE following descriptions have been written some time ; and it was hoped that when published they would be accompanied by figures. This is very necessary considering the extent of the family, but not at present practicable. Nearly thirteen hundred recent species have been described ; but many of these have already proved identical with others, and a good many more will no doubt, on further investigation, fall into the same category of bad species.

The object of having these diagnoses printed now is to prevent the distribution of manuscript names, which frequently occasions a great waste of time and labour.

Pleurotoma (Clavus) alboangulata.

Testa ovato-fusiformis, saturate fusca, strigis conspicuis albis 7 ab apice supra costas radiantibus ornata ; anfract. 9, planiusculi, superne leviter constricti, costis obtusis albis 7 supra spiram continuis instructi ; anfr. ultimus costis ad peripheriam evanidis dimidio infero omnino saturate fusco ; apertura parva, longitudinis totius $\frac{2}{3}$ æquans, intus purpureo-fusca ; columella callo crassiusculo purpurascente ad suturam tuberculato induta ; sinus medio-cris ; canalis perbrevis, subangustus.

Long. 20 mill., diam. 7.

Hab. — ?

This species is very remarkably coloured. The seven white stripes radiating from the apex down the continuous ribs as far as the middle of the body-whorl contrast very markedly with the deep-brown ground-colour of the shell.

Pleurotoma (Clavus) spinosa.

Testa acuminato-ovata, saturate fusca, supra costarum medium albo tincta ; anfract. 9, superne concavi, in medio acute angulati, costis medio aliquanto spinose acuminatis, superne versus suturam obsoletis (in anfr. ult. 8 paululum ante basim evanidis) instructi ; anfr. ultimus aliquanto infra medium punctorum alborum seriebus duabus supra costas ornatus, circa caudam spiraliter striatus ; apertura purpureo-fusca, longitudinis testæ $\frac{2}{3}$ vix æquans ; columella superne valde tuberculata ; sinus latus ; canalis brevissimus.

Long. 15 mill., diam. 5½.

Hab. — ?

The nearest ally of this species is *P. læta*, Hinds. The acute spine-like projections of the ribs are white ; and the rest

of the ribs also are of a paler colour than the interstices, the lower halves of which are darker than the upper.

Pleurotoma (Clavus) interpunctata.

Testa oblonga, subturrita, nitens, dilute rosea, zona angusta circa medium anfractuum et supra zonam illam inter costas punctorum saturate roseorum serie succincta; anfract. 9, superne excavati, inferne convexi, costis nodulosis circa medium (in anfr. ultimo 9 ad peripheriam obsoletis, ultima validissima roseo tincta, aliquanto pone labrum sita) instructi, lineis spiralibus incrementique lineis exilissime striati; anfr. ultimus zona secunda alba circa medium ornatus; apertura lata, longitudinis totius circa $\frac{2}{3}$ æquans; sinus parvus; canalis brevissimus; labrum tenue, effusum.

Long. 16 mill., diam. $5\frac{1}{3}$.

Hab. St. Thomas, West Indies. Coll. Cuming.

This species is remarkable for the pretty disposition of coloration.

Pleurotoma (Clavus) diversa.

Testa crassa, ovata, flavo-aurantiaca, inter costas rufo tincta; anfract. 8, convexiusculi, superne simplices, inferne costis crassis (in anfr. ultimo 10-11 prope medium evanidis) instructi, ubique spiraliter exiliter striati; apertura longit. totius $\frac{2}{3}$ adæquans; columella callosa ad suturam valde tuberculata; sinus medioeris, infra tuberculum situs; canalis brevis.

Long. 14 mill., diam. $5\frac{1}{2}$.

Hab. — ?

The ribs only occupy the lower two thirds of the whorl, the remainder being simple. The spiral striation is fine; that towards the base of the body-whorl is a trifle coarser.

Pleurotoma (Clavus) amanda.

Testa ovato-turrita, alba, zona fuscescente infra medium anfractuum ornata; anfract. 10, convexi, superne leviter excavati, et subangulati, costis plicosis, undulatis, obliquis (in anfr. penultimo 8, in ult. 7 basi fere continuis, ultima longe pone labrum sita validissima) instructi, transversim tenuiter confertim lirati, liris supra et inter costas continuis, longitudinaliter inter liras minute striati; apertura basi lata, longitudinis totius $\frac{1}{3}$ paulo superans; columella rectiuscula, callo medioeri superne incrassato labroque juncto induta; canalis latissimus, perbrevis.

Long. 17 mill., diam. $6\frac{1}{3}$.

Hab. — ?

A slight pit or excavation exists between the ribs at the upper part of the whorls. The spiral lirations are very distinct and regular, and appear to be separated by punctured

striae, which appearance is produced by the numerous longitudinal lirations in the interstices between them.

Pleurotoma (Clavus) quadrilirata.

Testa fusiformi-ovata, alba, inferne ad suturam et in anfr. ultimo circa medium linea saturate roseo-fusca cincta; anfract. 9, supra concavi, infra convexiusculi, costis subrectis superne versus suturam undulatam evanidis (in anfr. ultimo 7 vix ad basim continuis, ultima maxima) instructi, et circa dimidium inferius liris spirali-bus 4 supra costas præcipue prominentibus cincti; anfr. ultimus infra liras spiraliter crebre striatus, infra lineam fuscam dilute roseo late zonatus; apertura parva, sordide albida, longitudinis testæ $\frac{3}{8}$ æquans; columella recta, callosa, ad suturam tuberculata; sinus mediocris; canalis brevissimus, levissime recurvus.

Long. 16 mill., diam. $5\frac{1}{2}$.

Hab. —?

The deep pinkish-brown line above the suture is most apparent between the ribs. The four lirations on the ribs are rather acute and prominent, and are only on the lower half of the whorls.

Pleurotoma (Clavus) interstrigata.

Testa acuminato-pyramidalis, flavida, inter costas roseo-fusco strigata; anfract. $7\frac{1}{2}$, primi $1\frac{1}{2}$ læves, cæteri superne leviter constricti, inferne convexiusculi, costis crassis superne ante suturam evanidis (in anfr. ultimo 10 basi desinentibus) instructi, liris spirali-bus supra costas subtubercularibus, in interstitiis fere obsoletis, cincti (liris in anfr. penult. 4, in ultimo circa 12), undique minutissime spiraliter striati, sutura undulata sejuncti; apertura intus flavescens, longitudinaliter fusco-roseo strigata, long. totius $\frac{4}{11}$ adæquans; columella callo prope suturam tuberculato induta; sinus parvus; canalis brevissimus.

Long. 11 mill., diam. $4\frac{1}{2}$.

Hab. St. Thomas and St. Vincent, West Indies.

Each of the longitudinal ribs may be said to be composed of four transverse nodules, and those on the body-whorl are bifurcate from the middle downwards. The liræ on the body-whorl below the four principal ones are only slightly interrupted in the interstices between the ribs.

Pleurotoma (Clavus) hottentota.

Testa oblonga, subturrita, fuscescens, zonis duabus albis (in anfr. ultimo 3) in interstitiis inter costas interruptis ornata; anfract. 8, superne leviter excavati, inferne convexiusculi, costis obliquis, superne versus suturas evanidis (in anfr. ultimo 12 infra medium

obsoletis) instructi; anfr. ultimus striis paucis spiralibus circa caudam ornatus; apertura longit. totius $\frac{5}{13}$ adæquans; columella callo tenui superne tuberculato labroque juncto induta; canalis latus, apertus; sinus magnus.

Long. 13 mill., diam. $4\frac{1}{2}$.

Hab. Port Elizabeth, South Africa.

The upper interrupted white band is situated around the top of the ribs; just above each rib there is a faint brown spot, and the exterior of the labrum is whitish.

Pleurotoma (Clavus) caffra.

Testa subquadrato-ovata, subturrita, luteo-fuscens, costis superne albis, punctulis numerosis albis rubrisque aliquanto fasciatim irrorata; anfract. 9? (apice fracto), superne læves concave excavati, deinde planiusculi, costis contiguis (in anfr. ultimo circiter 16 versus basim evanidis, sed supra caudam reproductis) instructi; apertura longit. totius $\frac{2}{5}$ æquans; columella valde callosa, superne tuberculata; canalis perbrevis, latus: sinus parvus.

Long. 16 mill., diam. $5\frac{1}{2}$.

Hab. South Africa.

The upper half of each whorl is concave and smooth and slightly thickened at the suture; the lower half is closely ribbed. The thickening below the suture is whitish, closely dotted with red.

Pleurotoma (Clavus) coffea.

Testa ovata, ad apicem acuminata, fusca, costis in medio albis ornata; anfract. 9, paululum infra suturam leviter constricti, deinde convexiusculi, costis superne versus suturam evanidis (in anfr. ultimo 10, infra medium desinentibus) instructi, incrementi lineis striati; anfr. ultimus zona secunda alba infra medium in interstitiis inter costas obsolete ornatus, circa basim striis paucis einctus; apertura longitudinis totius ad $\frac{7}{17}$ æquans; columella callosa, ad suturam valde tuberculosa; sinus parvus, infra tuberculum situs; labrum extra validissime incrassatum alboque bimaiculatum; canalis brevissimus.

Long. $8\frac{1}{2}$ mill., diam. $3\frac{1}{2}$.

Hab. Philippine Islands. Coll. Cuming.

The depression in the last whorl is broad and smooth; the fine apical whorls are small and produced suddenly into a cone.

Pleurotoma (Clavus) bellula.

Testa acuminato-ovata, flava, circa medium anfractuum albo fasciata; anfract. 8, primi 2 læves aurantiaci, cæteri superne leviter ex-

cavati, inferne convexi, costis obsoletis 10 instructi, liris spirali-
bus 5-6 (3-4 supra costas incrassatis) cincti; anfr. ultimus liris
ad 15 ornatus; apertura longitudinis totius $\frac{1}{3}$ paulo superans;
sinus mediocris; canalis brevissimus, leviter recurvus.

Long. $8\frac{1}{2}$ mill., diam. 3.

Hab. St. Vincent, West Indies.

The white band encircling the whorls includes three of the spiral lirations which are thickened upon the obsolete ribs; in fact, each rib might be said to be composed of the thickening of the liræ.

Pleurotoma (——?) *albata*.

Testa elongata, fusiformi-pyramidalis, alba; anfractus 9, primus lævis convexus, sequentes duo læves medio carinati, cæteri convexi, costis distantibus crassiusculis 6 supra spiram continuis (in anfr. ultimo paululum infra medium evanidis) instructi, sutura filo-carinata discreti, et liris tenuibus spiralibus prominentibus 4 (suprema quam cæteris valde tenuiore) cincti; anfr. ultimus liris circiter 15 ornatus; apertura longitudinis totius $\frac{1}{3}$ adæquans; labrum tenue, superne subprofunde sinuatum, intus liris 4-5 intrantibus munitum; columella lævis, callo tenuissimo induta; canalis brevis, leviter recurvus, angustus.

Long. 8 mill., diam. $2\frac{1}{2}$.

Hab. Persian Gulf (*Pelly*).

This species, when viewed with the apex towards the eye, appears hexagonal, as the six ribs are continuous up the spire. The spiral lirations, although fine, are conspicuously prominent. The form of this species approaches that of *P. pyramidula*, Reeve; but the sculpture is totally distinct.

Pleurotoma (*Crassispira*) *microstoma*.

Testa solida, elongata, subturrita, flavida; anfract. 9-10, primi 2 longitudinaliter exiliter crebre costati, liris spiralibus subcancelati, cæteri superne ad suturam carina undulata cincti, infra carinam sulco angusto tenuiter striato excavati, infra sulcum costis crassis contiguus, liris spiralibus nodulosis (in anfr. superioribus 3, in ultimo circiter 12) transitis (in anfr. ult. costis 12 fere ad basim continuis, una maxima crassissima pone labrum sita) instructi; apertura parva, longitudinis totius haud $\frac{1}{3}$ æquans; canalis brevissimus, recurvus; columella callosa, ad suturam tuberculata; sinus parvus.

Long. 16 mill., diam. 5.

Hab. Ceylon (*E. L. Layard*).

This species is remarkable for having the first two whorls large, and not smooth and glassy as in most other species, but finely ribbed and lirated. The aperture is very small.

Pleurotoma (Crassispira) atramentosa.

Testa turrata, nigro-fusca, fere nigra; anfract. 12, superne juxta suturam unicarinati, infra carinam concavi, ad basim nodulorum 14 serie unica (in anfr. ultimo in costas deorsum producta) ornati, et liris spiralibus duabus nodulos connectentibus cincti; anfr. ultimus infra nodulos liris 5 validis distantibus supra costas subnodosis, et infra eas circa caudam aliis minoribus circiter 10 succinctus, atque inter liras spiraliter sparsim striatus; apertura purpureo-nigra, longit. totius $\frac{1}{3}$ paulo excedens; columella callosa; labrum paululum pone marginem costa ultima incrassatum, superne infra carinam subprofunde sinuatum; canalis perbrevis, vix recurvus.

Long. 21 mill., diam. 7.

Hab. Panama. Coll. Cuming.

Care must be taken not to confound this species with *P. discors*, Sowerby, from which it mainly differs in having the row of nodules at the base of the whorl connected by two spiral lirations. The nodules in *P. discors* are much smaller and not joined together by liræ; and the keel at the upper part of the whorls is much more prominent than in the present species.

Pleurotoma (Crassispira) cubensis.

Pleurotoma luctuosa, d'Orbigny, Sagra's Hist. Nat. Cuba, vol. ii. p. 172, pl. xxiii. figs. 29-31.

Hab. Cuba (*d'Orbigny*); St. Thomas. Coll. Cuming.

The specific name *luctuosa* having been used by Hinds before d'Orbigny for a Californian species belonging to the same group of Pleurotomidæ, I have deemed it advisable to propose *cubensis* as a trivial name for the West-Indian shell.

Pleurotoma (Crassispira) albopustulata.

Pleurotoma albomaculata, d'Orbigny, Sagra's Hist. de Cuba, vol. ii. p. 176, pl. xxiv. figs. 16-18.

Hab. Cuba (*d'Orbigny*).

C. B. Adams described an allied species from Jamaica in the Proc. Boston Soc. Nat. Hist. 1845, vol. ii. p. 3, under the name *P. albo-maculata*. Such being the case, I propose the above name for the Cuban species, the description of which dates, according to the author, about 1846. *P. jayana*, C. B. Adams, is also a closely allied form.

Pleurotoma (Crassispira) caribbea.

Testa elongate fusiformi-ovata, nigro-fusca, costis crassis flavidis ornata; anfract. 8, convexiusculi, superne prope suturam leviter

pallide carinati vel incrassati, infra carinam leviter constricti, inferne costis crassis nodosis 10 superne in excavatione obsoletis instructi, ubique minute spiraliter striati; anfract. ultimus costis versus basim bifurcatis, ultima pone labrum maxima, liris spiralibus circiter 6 supra costas nodosis (nodulis flavidis) cinctus; apertura longit. totius $\frac{1}{3}$ æquans; columella callo tenui superne tuberculato induta; canalis brevissimus; sinus parvus.

Long. 12 mill., diam. $4\frac{1}{2}$.

Hab. Cuba. Coll. d'Orbigny in British Museum.

The bifurcation of the ribs on the body-whorl is very remarkable. The ribs are broader at the upper ends than inferiorly. Three or four of the spiral lirations are coarser than the rest, and are thickened on crossing the ribs. The palish keel beneath the suture is a little undulating and spotted with brown.

Pleurotoma (Crassispira) flavocarinata.

Testa ovata, saturate fusca, infra suturam carina validissima flava ornata; anfract. 9, superne valde carinati, infra carinam sulco angusto arati, infra sulcum costis parvis 18-20 (in anfr. ultimo fere ad basim continuis) instructi, inter costas spiraliter striati; anfr. ultimus liris ad 12, quarum superiores sex supra costas nodulosæ sunt, succinctus, striis paucis spiralibus inter liras ornatus; apertura parva, longitudinis totius $\frac{2}{5}$ adæquans; labrum infra carinam sinu parvo subamentiformi fissum; columella rectiuscula, callo tenui amicta; canalis perbrevis, vix recurvus.

Long. 12 mill., diam. 5.

Hab. Panama.

This species is very easily recognizable. The uniform deep brown or chestnut colour, the very stout yellow keel around the upper part of the whorls, and the little numerous ribs on the lower are the principal characteristics. The keel is edged above, or, in other words, is not quite contiguous with the suture. The sculpture is very like that of *P. discors*, Sowerby.

Pleurotoma (Crassispira) latizonata.

Testa solida, acuminato-ovata, dilute rubra, albo late fasciata; anfract. 8, planiusculi, costis exilibus circa 24 et liris spiralibus 4 (in anfr. ultimo 14) granulate cancellati, parte superiore tertia haud spiraliter lirati, ubique spiraliter minute striati; apertura parva, longitudinis totius $\frac{1}{18}$ adæquans; columella juxta suturam valde tuberculata; labrum crassissimum; sinus parvus, minime profundus; canalis brevissimus.

Long. 9 mill., diam. $3\frac{1}{2}$.

Hab. ———?

The general aspect of the surface of this shell is granulous;

but on closer examination the upper third part of each whorl is found to exhibit only the longitudinal ribs, which are suddenly directed obliquely to the left. The white band occupies about half the whorl, and includes the four upper series of granules. The transverse striation is fine and most easily seen on the upper part of the whorls.

Pleurotoma (Crassispira) melanacme.

Testa elongato-ovata, spira subacuminata, fusco-cinerea, costis lirisque albidis ornata; anfract. $7\frac{1}{2}$, primi $2\frac{1}{2}$ læves, politi, nigri, cæteri superne excavati, inferne costis parvis 12, liris spiralibus 3 supra costas incrassatis clathrati, striis spiralibus incrementique lineis insculpti; anfr. ultimus liris spiralibus ad 15, superioribus tribus supra costa subnodosis, succinctus; apertura parva, fusca, longitud. totius $\frac{1}{3}$ paulo superans; sinus parvus, paululum infra suturam situs; canalis brevissimus.

Long. $7\frac{2}{3}$ mill., diam. 3.

Hab. St. Vincent, West Indies.

The upper half of each whorl is concave, and not crossed by the ribs, which are situated below. Of the three spiral lirations which connect the ribs, the upper one is rather more slender than the others. There is a slight thickening just below the suture.

Pleurotoma (Mangilia) modica.

Testa ovato-fusififormis, sordide albida, ad apicem pallide rosacea; anfractus 6, supremi duo læves convexi, cæteri convexi, medio rotunde angulati, costis crassiusculis 10 supra spiram continuis instructi; costæ anfr. ultimi paululum ante basim liris spiralibus circiter 6 circa caudam interruptæ; apertura parva, longitudinis totius $\frac{5}{12}$ adæquans; labrum extra valde incrassatum, superne levissime sinuatum, intus læve; columella callo pertenui amicta; canalis latus, brevis.

Long. 6 mill., diam. $2\frac{1}{2}$.

Hab. Japan?

The nearest ally of this species is *P. septangularis*, var. *secalina*, Philippi; but the ribs are more acute, and there is no spiral sculpture except the few lirations around the base of the body-whorl, which are rather coarse.

Pleurotoma (Mangilia) minutistriata.

Testa ovata, sordide albida; anfract. $7\frac{1}{2}$, primi $1\frac{1}{2}$ læves nitentes, cæteri costis obliquis 13-14 (in anfr. ultimo paululum ante basim obsoletis) instructi, ubique exiliter (præsertim inter costas) spiraliter incrementique lineis striati; apertura ovata, longit. totius fere $\frac{2}{3}$ æquans; labrum costa ultima incrassatum, vix sinu-

atum; columella callo tenui amicta; canalis latus, brevissimus.

Long. $10\frac{1}{2}$ mill., diam. $3\frac{1}{2}$.

Var. Testa albida, hic illic prope suturam fusco maculata; anfr. $6\frac{1}{2}$, costis 12 instructi.

Hab. — ?

The shell which I place as a variety differs from the type chiefly in having the ribs stouter and one less on each whorl. In both specimens, which have a semitransparent aspect, the nuclear half-whorl is brown.

Pleurotoma (Mangilia) platycheila.

Testa ovata, sordide albida, infra suturam hic illic fusco maculata, et circa anfr. ultimi medium rubro-fusco unizonata; anfract. $6\frac{1}{2}$, supremi $2\frac{1}{2}$ læves, cæteri costis crassis flexuosis 10–11 superne versus suturam sensim attenuatis (in anfr. ultimo ad basim desinentibus) instructi, passim spiraliter perspicue striati; apertura longit. totius fere $\frac{1}{2}$ æquans; labrum insigniter tenue, valde lateraliter dilatatum, superne obsolete sinuatum; columella callo tenuissimo amicta; canalis apertus, brevissimus.

Long. $6\frac{1}{2}$ mill., diam. $2\frac{2}{3}$.

Hab. — ?

The single reddish-brown band around the last whorl and the broadly expanded lip at once mark the distinctness of this species. The maculations near the suture are about three on a whorl.

Pleurotoma (Mangilia) flexuosa.

Testa ovata, fusciscenti-albida, linea rubro-fusca circa medium anfractuum et lineis duabus circa anfr. ultimum ornata; anfract. $6\frac{1}{2}$, primi $1\frac{1}{2}$ rotundi læves, cæteri perconvexi, costis flexuosis, confertis 15–16 (in anfr. ultimo ante basim evanidis) instructi; anfr. ultimus striis paucis spiralibus inferne insculptus; apertura ovata, longit. totius $\frac{2}{3}$ æquans; labrum extra costam ultimam maximam valde incrassatum, intus album, superne paululum infra suturam levissime sinuatum; columella callo tenui suturæ juncto induta; canalis brevissimus, latus.

Long. $8\frac{1}{2}$ mill., diam. 3.

Hab. — ?

In this species the ribs are flexuous, turning obliquely to the left above, and to the right at the base of the body-whorl; and they are placed near together, being broader than the interstices between them. The spiral reddish-brown lines are only apparent on the ribs.

*Pleurotoma (Mangilia) decora.**Pleurotoma costata* (Gray), Reeve, Conch. Icon. f. 298.*Hab.* St. Vincent, West Indies.

The name *costata* was used by Pennant many years ago for a species belonging to the section *Mangilia*, long before the publication of Reeve's description in the 'Conchologia Iconica.'

Pleurotoma (Mangilia) opalina.

Testa ovato-fusiformis, pallide purpurascenti-alba; anfractus 8, primi 2 læves, convexi, vitrei, tertius tenuiter costatus, cæteri superne leviter concavi, medio subangulati, infra angulum convexiusculi, costis circiter 12 (in anfr. ultimo fere basi productis) instructi, liris spiralibus 6-7 (quarum duæ circa medium cæteris paulo crassiores sunt) cincti; anfractus ultimus liris circiter 24 ornatus; apertura angusta, longit. totius $\frac{1}{2}$ adæquans; labrum extra valde incrassatum, medio macula parva fusca notatum, superne leviter sinuatum, intus superne obsolete unidentatum; columella callo tenui superne labro juncto induta; canalis brevis, angustus.

Long. 8 mill., diam. 3.

Hab. — ?

The entire surface is finely reticulated by the wavy lines of growth and spiral striations; but these are not visible under an ordinary lens.

Pleurotoma (Mangilia) trizonata.

Testa ovata, alba, dilute fusco zonata (in anfr. superioribus zonis duabus, altera superne prope suturam, altera ad basim, in anfr. ultimo tribus); anfr. 8, primi 2 læves vitrei, cæteri convexiusculi, superne aliquanto constricti, costis rotundis superne ante suturam evanidis (in anfr. ultimo 9 basi continuis) instructi, striis minutis spiralibus incrementique lineis pulcherrime insculpti; apertura linearis, angusta, longit. totius $\frac{1}{2}$ æquans; labrum intus incrassatum, superne obsolete unidentatum; columella callo minute granuloso induta; sinus parvus, minime profundus.

Long. $8\frac{1}{2}$ mill., diam. $3\frac{1}{2}$.*Hab.* Sibonga, Zebu Island, 30 fms. (*H. Cuming*).

The sculpture of the third and fourth whorls from the apex is of a different character from that of the four succeeding. The ribs are thinner and more numerous; and spiral lirations take the place of the fine striation of the latter.

Pleurotoma (Mangilia) rufocincta.

Testa ovato-fusiformis, turrata, pallide flava, circa medium anfr. ultimi zona rufo-purpurea, superne prope suturam rufo tincta, et

cauda purpureo-nigra ornata; anfract. 7, primi 2 læves politi, tertius longitudinaliter tenuiter costatus, cæteri superne decliviter planulati, medio acute angulati, infra angulum plani, costis crassis margine acutis ad bases contiguus (in anfr. ultimo ad 13 fere basi continuis) instructi, ubique transversim tenuiter striati; apertura longit. testæ totius $\frac{1}{2}$ æquans; columella obliqua, simplex, levis-sime torta; labrum costa ultima incrassatum, supra angulum obsolete sinuatum; canalis brevis, obliquus.

Long. 8 mill., diam. 3.

Hab. Porto Cavalho, S. America.

This species must not be mistaken for *Mangilia semiassa*, Gould, from which it differs in having more ribs or plications and also in the style of painting. The size and shape are similar.

Pleurotoma (Mangilia) flicincta.

Testa fusiformi-turrita, nitens, sordide albida, lineis spiralibus filiformibus (in anfr. ultimo ad 12 in penult. 4-5) cincta; anfract. $6\frac{1}{2}$, primi $1\frac{1}{2}$ vitrei globosi, cæteri superne declives, deinde rotunde angulati basi que ad suturam contracti, costis longitudinalibus obliquis flexuosis (in anfr. penultimo ad 13, in ultimo versus labrum lævi haud costato circiter 10-11), inferne sensim evanescentibus; anfr. ultimus infra medium contractus, cum columella caudam brevem transversim striatam effingens; apertura pyriformi-ovata, longitudine spiram æquans; labrum superne leviter sinuatum, margine acutum, extra varicosum; canalis brevis, levissime recurvus.

Long. 13 mill., diam. 5.

Hab. Japan (*A. Adams*).

The chief marks of distinction in this form are the large apex, the third part of the body-whorl near the labrum lacking the costæ, and the very fine reddish spiral lines, the last character existing in *costulata*, Dunker, from which it differs in size, the absence of all spiral sculpture, and the character of the ribbing.

Pleurotoma (Mangilia) ordinaria.

Testa oblonga, subturrita, fusco-lutea; anfract. 7, primi 2 læves, cæteri ad latera parum convexi, costis subacutis 10-11 (in anfr. ultimo ad basim productis) instructi, spiraliter crasse striati, vel tenuiter lirati, liris paucis hic illic quam cæteræ majoribus; apertura angusta, longit. totius $\frac{2}{3}$ æquans; columella simplex; labrum incrassatum, superne parum sinuatum; canalis brevissimus.

Long. $7\frac{1}{2}$ mill., diam. $2\frac{1}{2}$.

Hab. Chile and Peru.

This species appears to be allied to *P. lutescens*, Reeve.

Pleurotoma (Mangilia) inepta.

Testa ovato-fusiformis, turrita, tenuis, alba; anfractus 7, superne breviter declives, deinde convexiusculi, costis 16-17 (in anfr. ultimo versus basim attenuatis) instructi, ubique transversim tenuiter conferte striati; apertura anguste ovata, longit. totius $\frac{6}{11}$ paulo superans; columella tenui-callosa; labrum extra incrassatum, intus læve, superne modice sinuatum; canalis brevis. Long. 11 mill., diam. $4\frac{1}{2}$.

Hab. Honduras (*Dyson*).

This species has no very remarkable characteristic. It is simply rather closely ribbed, finely spirally striated, and has a little of the general aspect of the section *Cythara*.

Pleurotoma (Mangilia) millestriata.

Testa oblonga, turrita, alba, supra costas ad basim et circa anfr. ultimi medium prope basim supra costas rufo-punctata; anfractus 7-8? (apice abrupto), reliqui 5 convexiusculi, costis 7-8 (in anfr. ultimo ad basim supra caudam transversim flexis) instructi, ubique minute spiraliter striati; apertura elongato-ovata, longit. totius ad $\frac{3}{4}$ æquans, labrum costa ultima incrassatum, superne leviter sinuatum; canalis brevis, angustus, basi truncatus. Long. 11 mill., diam. $3\frac{1}{2}$.

Hab. St. Thomas, West Indies. Coll. Cuming.

The manner in which some of the ribs on the body-whorl turn suddenly at right angles to the base of the columella is very remarkable. The penultimate and the three or four preceding ribs exhibit this character. At the upper ends, a little below the suture, the ribs are faintly angled; and the dots on the base in the upper whorls and on the middle and lower part in the body-whorl are so faint that they might be easily overlooked. There are also a few faint dots between the ribs, just below the suture.

Pleurotoma (Mangilia) caledonica.

Testa subquadrato-ovata, alba, epidermide fugaci, tenui, pallide lurida amicta; anfractus 8, convexi, costis 7 continuis (in anfr. ultimo basi productis) superne ad suturam undulatam productis instructi, ubique minutissime spiraliter striati; apertura longitudinis testæ $\frac{6}{11}$ æquans; columella lævis; labrum extra incrassatum, intus læve, prope suturam leviter sinuatum; canalis brevissimus, vix recurvus. Long. 11 mill., diam. $4\frac{1}{2}$.

Hab. New Caledonia (*Brenchley*).

In form this species somewhat resembles *Cythara cithara*, Gould; but the penultimate whorl is larger, and the columella and labrum are not lirated. The suture is very prettily un-

dulating, as the ribs are produced upward upon those above them, leaving little concavities between.

Pleurotoma (Mangilia) Pellyi.

Testa elongate ovato-fusiformis, alba, inter costas superne prope suturam et versus basim anfractus ultimi purpureo-fusco tincta; anfractus 8, primus parvus, convexus, sequentes 2 læves, medio carinati, cæteri leviter convexi, costis 7 continuis (in anfr. ultimo basi fere continuis) instructi, ubique spiraliter minute striati; apertura parva, ovata, longitudinis totius $\frac{5}{13}$ æquans; labrum costa ultima maxima extra valde incrassatum, vix sinuatum; columella callo crassiusculo labro juncto amicta; canalis brevissimus.

Long. $6\frac{1}{2}$ mill., diam. $2\frac{1}{3}$.

Hab. Persian Gulf (*Colonel Pelly*).

The seven strong ribs are continuous up the spire, thus making the shell heptagonal. The labrum has a purple-brown spot, which is the termination of the interrupted band around the base of the body-whorl, near the lower end of it.

Pleurotoma (Mangilia?) acutangulus.

Testa elongata, subfusiformis, alba, juxta suturam et ad caudam purpureo-rufo tincta, et circa medium anfr. ultimi zona angusta ejusdem coloris cincta; anfractus 8, supremi duo læves, tertius granose reticulatus, cæteri medio acute angulati, costis subacutis 7-8 supra spiram irregulariter continuis et versus basim anfr. ultimi evanidis instructi, circa angulum lira spirali tenui cincti, et ubique exiliter spiraliter striati; apertura albida, zona externa ornata, longit. totius $\frac{1}{3}$ paulo superans; labrum costa ultima incrassatum, vix sinuatum; canalis breviusculus, angustus.

Long. $7\frac{1}{2}$ mill., diam. $2\frac{1}{2}$.

Hab. —?

This species is remarkable for the acute angulations of the whorls, the spiral liration at the angle, and the purplish-red bands at the suture and the middle of the last whorl, the latter being visible within the aperture. The number of ribs appears to vary from seven to eight; and they are not quite regularly continuous from the apex downwards.

[To be continued.]

XIX.—*Note on the Echinoderm-Fauna of the Island of Ceylon, together with some Observations on Heteractinism.*
By Prof. F. JEFFREY BELL, M.A.

WE know so little about the fauna of the seas around the island of Ceylon that, though there is no reason to suppose