

On examining the mouth there was no trace of any sublingual or gular pouch; on the contrary, the *frænum linguæ* was well developed in its ordinary position. But the *œsophagus*, for the greater part of its course in the neck, though stopping short considerably of its entrance into the thoracic cavity, was much dilated, so that by blowing it up with a blowpipe a large distention of the neck took place, confined, however, to the upper two thirds, or thereabouts, of the neck—the *œsophagus*, which, as usual in the *Otididæ*, develops no crop, being in the rest of its course, till it entered the stomach, of very much smaller calibre.

On inquiring of Mr. Bartlett and the keeper, J. Church, whether they had ever witnessed any display on the part of this bird, they both told me that during the last two summers (1878, 1879) it had “shown off.” But this display did not take place in the same way as in *E. australis*, as depicted and described by Dr. Murie (P. Z. S. 1868, pp. 474, 475, pl. xxxvi.); for there was none of that *downward* distention of the *œsophagus*, and consequent trailing of it on the ground, that is so marked a feature in the showing-off of that species; on the contrary, the distention of the *œsophagus* during display in *E. denhami* is *lateral*, the neck being immensely puffed out on both sides in a globular way, and so resembling when seen from in front, to use Mr. Bartlett’s words, “a lady’s muff.” In *E. australis*, it must be remembered, there is a similar dilatation of the *œsophagus*, extending, however, in that species, over a larger extent of its course, so that “before dissection, by filling its cavity with air, the lower portion of the dilated *œsophagus* protruded downwards considerably in front of the *symphysis furculæ*, and formed the depending portion of the sac which was so conspicuous in the living animal” (Garrod, P. Z. S. 1874, p. 473).

6. Descriptions of twelve new Species of Shells.

By EDGAR A. SMITH.

[Received June 16, 1880.]

(Plate XLVIII.)

Of the species here described, all, with the exception of the *Trophon* and the *Helix*, are in the British Museum; the latter are in the collection of Dr. J. Percy, F.R.S.

CONUS CONSANGUINEUS. (Plate XLVIII. fig. 1.)

Testa solida, subponderosa, alba, dilute fusco zonata, epidermide crassa dense lamellosa induta. Spira breviter conica, ad apicem pallide rosea. Anfractus circiter 10, declives, sutura irregulari discreti. Anfr. ultimus superne rotunde angulatus, deinde leviter convexus, in medio levissime constrictus, transversim undulatim rugose striatus, versus basin oblique sulcatus, interstitiis inter

sulcos elevatis conspicuis. Inflatio basalis nulla. Labrum tenue, superne et inferne arcuatum, in medio rectiusculum. Sinus sub-suturalis latus, profundus. Apertura alba, supra et infra sub-æqualiter lata.

Long. 88 mill., diam. 49.

Hab. —? (From Mr. Lombe Taylor's collection.)

The outlines of the spire are straight, converging to an acute apex. The upper part of the whorls has been attacked by a boring annelid to such an extent as to destroy almost entirely whatever sculpture may have existed. As far as can be traced, there appear to have been one or two small spiral grooves, fine striæ in the same direction, and flexuous lines of growth. The shallow grooves give the whorls a somewhat concave aspect. The light-brown bands are not well defined; the uppermost is very broad, and falls just above the middle of the whorl; at this point there is a white zone, beneath which are two ill-defined and somewhat confluent bands. The portion of the volution above the uppermost zone is in some places also suffused with light brown. *C. fulvocinctus*, Crosse, is the nearest ally of this species. In form it is not so attenuated at the base, the spire is less elevated, and its epidermis is described as rather thin, whilst that of *C. consanguineus* is very thick and firmly attached; the latter, too, has a rosy apex and more of the light fulvous transverse banding.

CONUS NEPTUNOIDES. (Plate XLVIII. fig. 2.)

Testa conica, roseo-albida, lineis fuscis irregulariter reticulata, paululum supra pauloque infra medium fascia lata, interrupta indistincta ejusdem coloris cincta. Spira elevata, concava, gradata, lineis contortis fuscis radiatim picta. Anfractus circiter 10, superne declives, leviter excavati, striis tribus spiraliter sculpti incrementique lineis arcuatis striati, inferne angulati. Anfr. ultimus superne rotunde angulatus, infra angulum aliquanto convexus, deinde rectiusculus, transversim tenuiter striatus, infra medium sulcis angustis remotis 10–12 oblique sculptus, ad basin supra columellam oblique inflatus. Apertura mediocriter lata, inferne aliquanto latior, intus dilute rosacea. Labrum obliquum, superne infra sinum haud profundum leviter arcuatum, in medio rectiusculum. Columella infra inflationem anfractus rectiuscula, callosa.

Long. 45 mill., diam. 20.

Hab. Australia. (From Mr. Lombe Taylor's collection.)

The pattern upon this shell consists of an irregular network of brown lines, more or less disconnected. This reticulation becomes rather coarser and blotched with brown both above and below the middle of the last whorl, thus forming two broad, but ill-defined bands. This species is allied to *C. neptunus*, Reeve, but rather broader, and has fewer striæ upon the spire. The oblique linear sulci extend only about halfway up the body-whorl, whilst in *C. neptunus* they are observable to the top. The painting, too, is rather different.

CONUS TAYLORIANUS. (Plate XLVIII. fig. 3.)

Testa parva, breviter conica, saturate fusca, albo maculata. Spira breviuscula, gradata, ad apicem prominula, albo variegata. Anfractus 9, superne declives, angulati, ad angulum coronati, striis spiralibus paucis sculpti. Anfr. ultimus superne coronatus et angulatus, infra angulum levissime convexus; spiraliter puncto-striatus, ad angulum maculis magnis remotis niveis et paululum infra medium maculis ejusdem coloris ornatus, et prope basin niveo punctatus. Apertura angusta, fusco-violacea, albo maculata. Labrum superne vix emarginatum.

Long. 20 mill., diam. 11.

Hab. Australia?

The contrast of the white blotches upon the dark-brown ground is very conspicuous. This feature, together with that of the transverse deeply punctured striæ, easily distinguish this interesting shell. It formed part of the collection of Mr. Lombe Taylor, and was purchased with the above locality attached to it.

CONUS ALBOSPIRA. (Plate XLVIII. fig. 4.)

Testa breviter conica, alba, zonis duabus vel tribus strigarum pallide olivaceo-fuscarum picta. Spira concava, mediocriter elevata, ad apicem dilute carnea. Anfractus 9-10, declives, plani, vix gradati, liris tenuibus tribus spiralibus incrementique lineis sculpti. Anfr. ultimus superne subacute angulatus, ad latera leviter convexus, striis transversis supra medium tenuissimis sed inferne profundioribus et subpunctatis insculpti. Apertura supra angusta, versus basin latior, dilutissime lilaceo-alba. Labrum ad angulum vix emarginatum.

Long. 27.5 mill., diam. 14.5.

Hab. — ?

This is an unattractive little shell, without any marked characters. The spire is pure white, with the exception of the first five whorls forming the apex, which is of a pale fleshy tint. The whorls are slopingly flattened, and are ornamented with three equal fine liræ, exclusive of the upper raised margin, which might by some be considered a fourth. They are but very slightly raised one above the other, and consequently the spire presents but a very feebly gradated aspect. The painting consists of pale olive stripes, interrupted in such a manner as to form three transverse series of elongate spots, whereof the uppermost are the smallest and situated just beneath the angle, the next just above the middle of the whorl, and the third rather below it. The striæ or sulci on the lower half are crossed by lines of growth, and thus present a somewhat punctured appearance. *Conus straturatus*, Sowerby, somewhat resembles this species; it is, however, a little longer, more strongly sulcated, differently coloured, and has a spotted spire.

TEREBRA MARIESI. (Plate XLVIII. fig. 5.)

Testa elongata, subulata, fusco-albida, rufo-fusco variegata. Anfractus 20, planati, superne seriebus tuberculorum duabus ornati,

spiraliter striati, inferne tenuiter costati. Anfr. ultimus infra medium contractus, in medio zona alba. Columella plica subtuberculiformi superne instructa.

Long. 45 mill., lat. 7.

Hab. Japan (*Mr. Maries*).

The nodules of the upper row are larger and much more conspicuous than those of the lower; the latter are oblique and separated from those above by an impressed line. The costæ are not much elevated, a little arcuate, and correspond in number (about 20 on a whorl) and position with the tubercles. The lower half of the volutions, or that occupied by the ribs, is spirally striated, the striæ being continuous over the costæ, and not equidistant. The interstices between the nodules also show indications of spiral lines. The reddish-brown variegation takes the form of longitudinal oblong blotches, which are further apart upon the upper volutions than upon the lower ones. The upper series of granules is comparatively free from brown maculations. The costæ upon the last whorl extend to the base, where they become obsolete. The columella is covered with a callosity, and towards the upper part exhibits a prominent plica.

I take this opportunity of changing the name of a species described by me in the 'Annals and Magazine of Natural History,' ser. 4, vol. xi. p. 267 (1873), as *Myurella belcheri*, as that name had already been employed by Philippi for another species. In its stead I now propose *guayaquilensis*, as the type specimen was collected by Sir Edward Belcher at Guayaquil, in Ecuador.

TROPHON STUARTI. (Plate XLVIII. fig. 6.)

Testa breviter fusiformis, alba. Anfractus 7, superne planati et angulati lateribus planis, costis late lamelliformibus, aliquanto obliquis, erectis, superne ad angulum valde sursum productis dextrorsumque curvatis, costis transversis (in anfr. superioribus 2-3, in ultimo 4) æquidistantibus, et supra longitudinalibus continuis instructi. Apertura irregulariter ovata, inferne in canalem producta. Canalis curvatus, retrorsus, aperturam fere æquans. Columella leviter arcuata, callo tenui extus libero induta. Labrum expansum, costa ultima lamelliformi extus munitum.

Long. 53 mill., diam. 21. Aperturæ (cum canali) long. 31, lat. intus 10.

Hab. Vancouver's Island (*Cutter*).

This is a pure white shell, remarkable on account of the thin lamellæ which adorn it. At the upper part, at the angle of the whorls, these are much prolonged upwards, hollow on one side, ridged on the other, and curved to the right. Of the spiral liræ, that at the angle is rather stouter than the rest. Upon the upper whorls they are proportionally more elevated than upon the last, and, with the longitudinal lamellæ, form a coarse reticulation. Upon the body-whorl, towards the lower part, they cease to be erect, are lapped one upon another, and form an imbricated caudal ridge subparallel with the canal. The entire surface is both spirally and

longitudinally minutely striated, a feature observable only under a lens. The specimen described is in the collection of Dr. J. Percy, F.R.S.

LATIRUS NAGASAKIENSIS. (Plate XLVIII. fig. 7.)

Testa crassa, fusiformis, rotunde plicata et spiraliter lirata, costis nigro-fuscis, intersitiis pallide rufis, liris pallidioribus vel albidis. Anfractus circiter 12, convexiusculi, sutura profunda undulata sejuncti, costis vel plicis 8 latis, rotundatis, paulo obliquis, supra spiram subregulariter continuis instructi, liris transversis supra costas prominulis (in anfr. superioribus 3, in ultimo circiter 12) et lineis elevatis filiformibus interjacentibus cincti. Anfr. ultimus superne rotundatus, infra medium contractus, ad basin anguste perforatus, costis inferne attenuatis subobsoletis. Apertura fusco-albida, cum canali longitudinis totius $\frac{3}{4}$ adæquans, intus tenuiter lirata. Columella callo fusco-albido induta, superne parum arcuata, ad basin obliqua, in medio plicis tenuibus tribus levissime elevatis instructa. Canalis obliquus, vix reflexus.

Long. 60 mill., lat. 22.

Hab. Japan (Mr. Maries).

This species may readily be distinguished by its striking painting. The swollen plicæ, which are about twice as broad as the interstices, are of a rich chocolate-brown, whilst the interlying spaces are quite pale. *L. varicosus* is somewhat similarly coloured, but is less robust, the plicæ being narrower and the spiral liræ more numerous. *L. craticulatus* is more cylindrical, has less pronounced costæ, coarser spiral ridges, and is differently coloured. One specimen has a distinct transverse tubercle at the upper part of the columella, but in the other it is less developed.

CYPRÆA DECIPIENS. (Plate XLVIII. figs. 8, 8a.)

Testa ovata, antice angustata, alta, in dorso gibbosa, inferne fere plana, superne pallide olivaceo-fusca, maculis irregularibus valde saturatioribus guttata et variegata, versus basin colore aurantiaco-rubro suffusa, infra eodem colore picta. Apertura angusta, intus alba. Anfractus ultimus intra aperturam omnino niveus. Dentes labri circiter 20, mediocriter validi, columellares minus distincti, anteriores quinque vel sex cæteris magis producti. Sulcus columellaris antice latus, haud profundus.

Long. 52 mill., diam. 36, alt. 32.

Hab. North Australia (Mr. Jamrach).

At a first glance this shell, unfortunately in a worn state, might very naturally be considered a dwarfed and peculiarly coloured variety of *C. thersites*; and it is impossible to affirm with certainty that such may not really be the case. Certain distinctions, however, present themselves, which, if constant, would certainly entitle this form to specific rank. In the first place, it is considerably smaller than any examples of *C. thersites* I have seen; nor has Mr. G. B. Sowerby, jun., who is thoroughly acquainted with the variation of the species of this genus, ever had one of such small dimensions come under

his notice; he informs me, too, that, as far as his knowledge of this species extends, it exhibits but comparatively slight variation in point of size. Secondly, the form is not quite the same, the back being higher and more humped. But the chief differences are met with at the base. This part is certainly flatter than in any individual of *C. thersites* I have been able to compare, of a rich orange-red colour, which also extends up about one third of the sides of the shell. On the contrary, *C. thersites* is white upon both sides of the aperture, blotched and stained with black-brown towards the circumference of the base. The teeth on the outer lip are white, and almost always faintly streaked with brown above, the streak becoming broader and more intense in colour towards the margin; they are also rather more numerous, and not bent over so deeply as in the present species, consequently the labrum is not so thick. Another distinctive feature consists in the body-whorl within the aperture being pure white; in *C. thersites*, judging from the series of specimens I have examined, it is invariably partially uncoated with callus, and of a brown mottled appearance. The aperture of *C. thersites* at the posterior end curves very much to the left; in the present form the curvature is very slight. Finally, the geographical distribution of *C. thersites*, according to Mr. Angas (P. Z. S. 1865, p. 170), "is very limited, the above-named locality (Salt Creek, Yorke's Peninsula, S. Australia) being the only place where it has hitherto been met with." On the contrary, the shell here described is North-Australian according to the statement of Mr. Jamrach, from whom it was purchased for the Museum. Presuming this to be correct, the probability of its specific distinctness becomes almost a certainty.

TURBO (POMALAX?) TAYLORIANUS. (Plate XLVIII. fig. 9.)

Testa turbinato-conica, infra plana, imperforata, purpureo-rosea, strigis obscurioribus perobliquis indistincte notata, ad basin albida. Spira breviter conica, marginibus rectiusculis. Anfractus circiter 8, declives, superne levissime concavi, inferne convexiusculi, ad suturam carina rugosa subsquamosa ornati, liris numerosis granulorum subæqualium parvorum cincti. Anfr. ultimus infra medium acute carinatus, supra carinam leviter excavatus, infra eam planus. Basis albida, zona externa purpureo-rosea cincta, seriebus concentricis granulorum ornata, in regione umbilicali callo albo lævi flavo-marginato induta. Columella albo-callosa, arcuata.

Alt. 40 mill., diam. max. 49.

Hab. —? (From Mr. Lombe Taylor's collection.)

This species is remarkable on account of its flattened base and the contrast of colour of the upper and lower surfaces. The granular series are about eleven in number on the penultimate whorl, rather more numerous upon the upper part of the last, upon the base of which they number about sixteen, whereof four or five nearest the circumference are of the same colour as the upper part of the shell, the rest being nearly white. The entire upper surface between the

granules is finely, irregularly, and somewhat obliquely striated; and the base exhibits intermediate concentric striæ between the rows of granules. The carina, visible upon the body-whorl, winds up the spire just above the sutural line, and upon the upper whorls especially is furnished with numerous, somewhat tubulous short spines, which, lying upon the volution beneath, give to the sutural line a festooned appearance. No locality, unfortunately, is attached to this shell, but it is probable that it is a Chinese or Japanese form.

LIOTIA CRASSIBASIS. (Plate XLVIII. fig. 10.)

Testa solida, umbilicata, alba. Spira brevis, ad apicem depressa. Anfractus 4, superne plani, vix declives, deinde angulati, carinis duabus (quarum superior ad angulum sita) et plicis tenuibus supra carinas acute subnodosis clathrati, lirisque tenuibus supra angulum circiter quatuor, infra eum duabus cincti, incrementi lineis elevatis ornati. Anfr. ultimus plicis versus labrum longe majoribus superneque haud planatis, infra carinam inferiorem late constrictus, liris pluribus granulatis concinne ornatus, ad basin circa umbilicum porca convexa, versus aperturam latissima, spiraliter et longitudinaliter obsolete lirata instructus. Apertura circularis, margine basali crassissimo, intus pallide fusco-margaritacea.

Long. 12 mill., diam. 14.

Operculum extus seriebus concentricis granulorum calcareorum ornatum.

Hab. — ?

This is a remarkably sculptured shell and very peculiar in form. The upper whorls and half the last one are flattened at the top, and scarcely slope at all. The last half of the body-whorl, however, upon which the plicæ become very much larger than those above, is a little convex. The lines of growth are elevated, excessively close together, and cover the entire surface of the shell, being continuous upon the keels and liræ and in the interstices between them. The plicæ are somewhat acuminately produced upon the upper carina, which, when viewed from above, presents a prettily festooned appearance. The immense thickening at the base of the body-whorl is very remarkable, and forms an excessively thick base to the aperture. Between this thickening and the lower keel the whorl is a little constricted or concave, especially so towards the mouth; and in this part the transverse liræ, about twelve in number, are finely granulose. The plicæ do not extend below the keels, nor do they interrupt the spiral liræ, the latter being continuous on and between them.

PALUDINA SPEKEI. (Plate XLVIII. fig. 11.)

Testa pyramidalis-ovata, late umbilicata, sub epidermide olivacea albida, versus apicem lilaceo-fusca. Anfractus 6, superne sub-humerosi, ad latera parum convexi, spiraliter minutissime striati lineisque elevatis paucis subæquidistantibus subgranosis cincti.

Spira subgradata, pallide lilacea. Anfr. ultimus ad peripheriam rotundatus, usque ad basin lineis subgranosis ornatus. Apertura late ovata, superne aliquanto acuminata, intus cæruleo-alba, versus labrum olivacea, longitudinis totius $\frac{1}{2}$ haud æquans.

Peristoma nigrescens, marginibus callo saturate olivaceo junctis.

Long. 34 mill., diam. 23; aperturæ long. 16, diam. 12.

Hab. "Low land near the east coast of Africa, from 6° to 7° south latitude" (*Capt. J. B. Speke*).

This interesting species is well characterized by its deep and wide umbilicus, and the peculiar elevated transverse subgranular lines encircling the whorls. They are about ten in number on the penultimate volution and about thirty on the last. The epidermis is of a greenish-olive tint, and is varied at intervals by darker concentric stripes, which probably indicate stages of arrested growth.

HELIX (AMPELITA) PERCYANA. (Plate XLVIII. figs. 12, 12a.)

Testa tenuiuscula, depresso-globosa, mediocriter umbilicata, undique minute subseriatim granulata incrementique lineis perobliquis sculpta, fusco-olivacea, opaco-lacteo sparsim fulgurata. Anfractus 4, celeriter accrescentes, convexi; ultimus magnus, aliquanto inflatus, antice descendens. Spira prominula, ad apicem obtusa. Apertura magna, transversa, parum obliqua, fere subhorizontalis, intus lilacea. Peristoma album, breviter expansum et reflexum, marginibus approximatis, columellari obliquo, rectiusculo, vix arcuato.

Diam. max. 31 mill., min. 22 $\frac{1}{2}$, alt. 18.

Hab. Madagascar. (In Dr. J. Percy's collection.)

The ornamentation of this pretty species is very peculiar. The narrow zigzag lines are irregular in their disposition, and of the same opaque creamy colour as frequently adorns many of the species of *Orthostylus* from the Philippine Islands. The granules which cover the entire surface are disposed in somewhat irregular closely-set transverse series, interrupted considerably by oblique lines of growth. The texture of the shell is thin, and so transparent that the fulgurations of the exterior are quite conspicuous through the lilac interior of the aperture.

EXPLANATION OF PLATE XLVIII.

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| <p>g. 1. <i>Conus consanguineus</i>, p. 478.
 2. — <i>neptunoides</i>, p. 479.
 3. — <i>taylorianus</i>, p. 480.
 4. — <i>albospira</i>, p. 480.
 5. <i>Terebra mariesi</i>, p. 480.
 6. <i>Trophon stuarti</i>, p. 481.
 7. <i>Latirus nagasakiensis</i>, p. 482.</p> | <p>Fig. 8, 8a. <i>Cypræa decipiens</i>, p. 482.
 9. <i>Turbo</i> (<i>Pomaulax</i>?) <i>taylorianus</i>, p. 483.
 10. <i>Liolia crassibasis</i>, p. 484.
 11. <i>Paludina spekei</i>, p. 484.
 12, 12a. <i>Helix</i> (<i>Ampelita</i>) <i>percyana</i>, p. 485.</p> |
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