

rather the smaller. The cingulum, again, shows the same depression behind, but to a less extent, and hardly forms an internal cusp.

The palate is narrow, and the fragment, viewed from the upper surface, indicates a longish and rather pointed snout.

The attribution of this species to the genus *Hyotherium* is tentative.

I name this species after my friend Dr. W. M. Jeffreys, who accompanied me on my first expedition to Baluchistan and to whose energy and skill in collecting I owe a great deal.

The measurements of the teeth are:—

	Length.	Breadth.
	cm.	cm.
PM <sup>2</sup> .....	0·7	0·55
PM <sup>3</sup> .....	0·8	0·7
PM <sup>4</sup> .....	0·75	0·8
M <sup>1</sup> .....	1·0	1·0
M <sup>2</sup> .....	1·0	1·1 (front half).

LXV.—*Characters of new Genera and Species of Terrestrial Mollusca from Norfolk Island.* By H. B. PRESTON, F.Z.S.

THROUGH the kindness of Messrs. Gregory M. Mathews and T. Iredale, all the terrestrial and fluviatile shells collected by Mr. Roy Bell during his recent prolonged stay on Norfolk Island have been handed to the author, from which material the following species are diagnosed, no figures being given at present, as it is intended to do this in a forthcoming work dealing exclusively with the fauna of that island and the adjacent islets.

DENDROLAMELLARIA, gen. nov.

Shell vitriniform, transparent, with smooth apical whorls and minutely *transversely striate* last whorl.

Genotype: *D. mathewsi*, Preston.

The genus, which is arboreal in its habits, resembles almost exactly in form the marine genus *Lamellaria*; it probably belongs to the family *Limacidae*.

*Dendrolamellaria mathewsi*, sp. n.

Shell rather large, whitish, transparent, shining, with

exserted spire; whorls 3, the first very small, the remaining two very rapidly increasing, the last sculptured with very fine, microscopic, closely set, transverse, silky striæ; suture impressed, narrowly margined below; columella margin curvedly excavated above, very obliquely descending below; labrum submembranaceous at the extreme edge, advancing in front, receding above and below; aperture very large, ovately subrectangular.

Alt. 15·5, diam. maj. 18·75, diam. min. 14 mm.

Aperture: alt. 12·25, diam. 14 mm.

Hab. Ball's Bay, Norfolk Island (*R. Bell*).

ALLENOCONCHA, gen. nov. (*Zonitida*).

Shell thin, corneous, depressedly turbinate or almost planulate, imperforate, microscopically spirally striate.

Genotype: *A. basispiralis*, Preston.

*Allenconcha basispiralis*, sp. n.

Shell turbinate, thin, semitransparent, polished, shining, pale reddish brown; whorls 5, flattish, regularly increasing, the last rather sharply angled at the periphery, marked with radiate growth-plicæ, and sculptured with microscopic, closely set, wavy, spiral striæ; suture rather lightly impressed, narrowly margined below; base of shell convex, sculptured with similar striæ to those on the spire; columella outwardly expanded, obliquely and rather steeply descending; labrum acute; aperture obliquely, broadly, and compressedly sublunate.

Alt. 2·5, diam. maj. 4·5, diam. min. 4 mm.

Hab. Ball's Bay, Norfolk Island (*R. Bell*).

*Allenconcha belli*, sp. n.

Shell small, depressedly conoid, with somewhat convex base, slightly polished, yellowish brown; whorls 4, regularly increasing, the last angled at the periphery, microscopically sculptured with fine, wavy, closely set, spiral striæ; suture impressed, narrowly margined below; columella margin white, narrowly reflexed throughout, somewhat oblique, curved; labrum simple; aperture very broadly and a little obliquely sublunate.

Alt. 2, diam. maj. 3·5, diam. min. 3·25 mm.

Hab. Steel's Point, Norfolk Island (*R. Bell*).

*Alloconcha matheusi*, sp. n.

Shell depressedly turbinate, pale yellowish brown; whorls 5, regularly increasing, the last angled at the periphery, microscopically sculptured with very fine, slightly wavy, closely set, spiral striæ; suture impressed, very narrowly, callously margined below; columella margin a little reflexed above, very obliquely descending in a slight curve, a well-defined, light, parietal callus joining it with the upper margin of the labrum; labrum simple; aperture obliquely subrescentic.

Alt. 2·25, diam. maj. 4·75, diam. min. 4·25 mm.

*Hab.* Ball's Bay, Norfolk Island (*R. Bell*); also taken by Mr. Bell on Mount Pitt and at Steel's Point.

*Alloconcha mons-pittensis*, sp. n.

Shell perforate, small, depressedly orbicular, polished, shining, yellowish brown, shading in the subsutural region to greyish; whorls 5, flattened, regularly increasing, the last sharply angled at the periphery, marked with indistinct, radiate, transverse growth-plicæ, crossed by very fine, microscopic, closely set, wavy, spiral striæ, which become almost obsolete on the base of the shell; suture lightly impressed, narrowly margined below; perforation very narrow, almost covered by the flattened and rather hooked outward expansion of the basal parietal callus; columella margin interiorly thickened into a broad, excavately arched, pillar-like callus which extends both interiorly and exteriorly as a basal parietal thickening; labrum acute, projecting in front of the pillar-like columella callus; aperture obliquely and rather compressedly sublunate.

Alt. 1·5, diam. maj. 4·25, diam. min. 3·75 mm.

*Hab.* Mount Pitt, Norfolk Island (*R. Bell*).

*Alloconcha perdepressa*, sp. n.

Shell small, very depressed, somewhat iridescent, corneous; whorls 4, regularly increasing, the last angled at the periphery, marked with radiate transverse plicæ, and sculptured with exceedingly fine, closely set, microscopic, spiral striæ; suture impressed, narrowly margined below; columella margin very obliquely descending; labrum simple; aperture obliquely and very compressedly and broadly sublunate.

Alt. 1·25, diam. maj. 3·25, diam. min. 3 mm.

*Hab.* Mount Pitt, Norfolk Island (*R. Bell*).

*Allenococoncha royana*, sp. n.

Shell small, very depressedly turbinate, in colour greenish brown; whorls 5, regularly increasing, the last angled at the periphery, sculptured with very fine, microscopic, closely set, wavy, spiral striæ, and marked with radiate growth-plicæ; suture impressed; columella margin very obliquely descending; labrum simple, outwardly extending above, receding below; aperture obliquely sublunate.

Alt. 2, diam. maj. 4.75, diam. min. 4 mm.

*Hab.* Duncombe Bay, Norfolk Island (*R. Bell*).

*Allenococoncha congener*, sp. n.

Shell differing from *M. royana* in its darker colour, which is of a deep reddish-brown shade, less depressed form, and less oblique columella margin.

Alt. 3.25 (nearly), diam. maj. 4.75, diam. min. 4.25 mm.

*Hab.* Duncombe Bay, Norfolk Island (*R. Bell*).

GREENWOODOCONCHA, gen. nov. (*Zonitidae*).

Shell turbinate, with somewhat convex base, imperforate, moderately solid, finely spirally striate.

Genotype: *Microcystis nux*, Sykes\*.

*Greenwoodoconcha tomi*, sp. n.

Shell turbinate, with convex base, reddish brown, polished, shining; whorls  $4\frac{1}{2}$ , regularly increasing, the last considerably angled at the periphery, sculptured with slightly curved, transverse plicæ and rather closely set, wavy, spiral striæ, which become finer on the last whorl; suture impressed, margined below, the margin being also spirally striate; columella margin reflexed, almost perpendicularly descending above, obliquely curved below, diffused above into a well-defined, whitish, parietal callus which reaches to the upper margin of the labrum; labrum simple; aperture rather obliquely broadly sublunate.

Alt. 3, diam. maj. 5.25, diam. min. 4.75 mm.

Aperture: alt. 2, diam. 2.5 mm.

*Hab.* Mount Pitt, Norfolk Island (*R. Bell*).

\* Proc. Malac. Soc. London, vol. iv. 1900, p. 139, pl. xiii. figs. 4 & 5.

ROYBELLIA, gen. nov. (*Zonitidae*).

Shell very depressed, thin, horny, yellowish brown, transversely costulate, strongly and acutely carinate at the periphery, the termination of the costulæ projecting beyond the margin of the carina.

Genotype: *Trochonanina platysoma*, Sykes\*.

*Roybellia depressa*, sp. n.

Shell differing from *Trochonanina platysoma*, Sykes, in its much more depressed form, the spire having a laterally concave appearance, the transverse costulæ are finer than in *T. platysoma*, and the surface of the shell is microscopically granulate, while the peripheral carina is produced into a projecting flange; the base is also less inflated, thus almost entirely eliminating the umbilical depression which is seen in Sykes's species.

Alt. 1.5, diam. maj. 6.5 (nearly), diam. min. 5.5 mm.

Aperture: alt. 1.5, diam. 3 mm.

*Hab.* Mount Pitt, Norfolk Island (*R. Bell*).

*Fretum microstriatum*, sp. n.

Shell depressedly turbinate, without trace of colour; whorls  $4\frac{1}{2}$ , the last ascending a little in front, regularly and rather rapidly increasing, sculptured with very fine, wavy, closely set, microscopic, spiral striæ, and marked with fine, indistinct, transverse growth-plicæ; suture rather lightly impressed; base of shell moderately convex; columella margin callously thickened and inwardly bulging above, then slightly excavatedly curved, and obliquely descending below; labrum simple; aperture broadly and depressedly subclunate.

Alt. 10, diam. maj. 16, diam. min. 14 mm.

Aperture: alt. 8, diam. 8 mm.

*Hab.* Norfolk Island, subfossil in sand near the limestone quarry on the S.E. coast (*R. Bell*).

*Advena campbellii* (Gray), var. *charon*, var. n.

Shell differing from the typical form in having the earlier whorls of a dark crimson colour, below which the whole shell, with the exception of the supersutural, extreme carinal margins and the columella, is of a uniform blackish-brown colour.

*Hab.* Mount Pitt, Norfolk Island (*R. Bell*).

\* Proc. Malac. Soc. London, vol. iv. 1900, p. 140, pl. xiii. figs. 16, 17.

*Advena campbellii nepeanensis*, subsp. n.

Shell much broader and with less elevated spire than has *A. campbellii* (Gray) \* from Norfolk and Phillip Islands.

Alt. 15, diam. maj. 27, diam. min. 23·5 mm.

*Hab.* Nepean Island, in subfossil condition only (*R. Bell*).

*Fanulum testudo*, sp. n.

Shell roundedly turbinata, with strongly carinate periphery and very slightly convex base, yellowish, irregularly transversely banded and mottled with reddish chestnut above, the transverse banding becoming paler and less marked on the base of the shell; whorls 5, regularly increasing, marked only with transverse ridges, which assume a more definitely sculptural appearance on the latter half of the last whorl; suture very lightly incised, narrowly, but coarsely callously margined above; columella margin white, obliquely descending, bearing an oblique, oblong, tooth-like projection above; labrum simple, acute, receding below; aperture subrectangular; interior of shell showing the reddish-chestnut markings through the test.

Alt. 4·5, diam. maj. 7·75, diam. min. 7 mm.

Aperture: alt. 2·5, diam. 3 mm.

*Hab.* Mount Pitt, Norfolk Island (*R. Bell*).

QUINTALIA, gen. nov. (*Zonitidae*).

Shell imperforate, turbinately conic, minutely spirally striate, angled at the periphery.

Genotype: *Caracolla stoddarti*, Gray †, from Phillip Island.

*Hab.* Norfolk Island and immediately adjacent islets.

The above genus includes, besides the type-species, *Helix flosculus*, Cox ‡, and the subspecies below described, which would seem to be intermediate between *C. stoddarti* and *H. flosculus*, both of which have been erroneously placed in the New-Zealand genus *Carthæa*, the former by Sykes §, the latter by Pilsbry ||.

\* Proc. Zool. Soc. London, 1834, p. 65; Reeve, Conch. Icon., *Helix*, spp. 438 & 765.

† Proc. Zool. Soc. London, 1834, p. 65.

‡ *Id. ibid.* 1865, p. 695; Journ. de Conch. xiv. 1866, p. 48.

§ Proc. Malac. Soc. London, iv. 1900, p. 142.

|| Man. Conch. ser. 2, viii. 1892, p. 77.



*Quintalia stoddarti intermedia*, subsp. n.

Shell intermediate in form and size between *Caracolla stoddarti*, Gray, from Phillip Island, and *Helix flosculus*, Cox, from the mainland; though only found in a subfossil state, some specimens show vividly the subperipheral chestnut band, as well as traces of the transverse colour-blotches above the periphery.

Alt. 8, diam. maj. 13, diam. min. 11·25 mm.

Aperture: alt. 6·75, diam. 6·75 mm.

*Hab.* Nepean Island, in subfossil state only (*R. Bell*).

MATHEWSONCONCHA, gen. nov. (*Zonitide*).

Shell imperforate, heliciform, depressedly turbinate, spirally striately sculptured, with thickened and inwardly bulging columella.

Genotype: *M. belli*, Preston.

*Mathewsoconcha belli*, sp. n.

Shell rather small, turbinate, dark reddish purple, ornamented with a narrow, peripheral, yellowish band, which appears as a subsutural band on the upper whorls; whorls 4, the last slightly angled at the periphery, flattish, sculptured with fine, closely set, wavy, spiral striæ, and marked with coarse, irregular, and also rather closely set, oblique growth-plicæ; suture impressed; base of shell moderately convex, the spiral sculpture of the spire becoming subobsolete on this portion of the shell; columella margin whitish, outwardly reflexed, obliquely descending and bulging a little inwards in the median part, then slightly notched and again descending obliquely below, spreading above into a very fine, almost imperceptible, minutely granular callus which reaches the upper margin of the labrum; labrum acute, rapidly receding below; aperture obliquely, compressedly, and rather broadly sublunate; interior of shell bluish, showing the peripheral band through the test.

Alt. 6, diam. maj. 9·25, diam. min. 8·25 mm.

Aperture: alt. 4·5, diam. 4 mm.

*Hab.* Mount Pitt, Norfolk Island (*R. Bell*).

*Mathewsoconcha albocincta*, sp. n.

Shell rather small, somewhat depressedly turbinate, reddish yellow, ornamented with a narrow, white, peripheral band; whorls 4, regularly increasing, sculptured with oblique, radiate,

transverse plicæ, and rather indistinct spiral striæ; suture impressed; base of shell somewhat convex; columella margin callously thickened, forming with the parietal wall a small notch above, below which it descends obliquely to form an obtuse angle with the labrum below; labrum simple.

Alt. 5·5, diam. maj. 8·75, diam. min. 7·5 mm.

Aperture: alt. 4, diam. 4·5 mm.

*Hab.* Norfolk Island, subfossil in sand near the limestone quarry on the S.E. coast (*R. Bell*).

*Mathewsoconcha vexillum*, sp. n.

Shell conoidly turbinata, in subfossil condition white, strikingly painted with a rather narrow, reddish-orange, suprasutural band, which appears as a peripheral band on the last whorl; whorls 5, regularly increasing, the first two a little flattened above, the remainder moderately convex, bearing traces of very fine spiral striæ, and marked with numerous fine oblique growth-ridges; suture impressed; columella margin descending obliquely, developed throughout almost its whole length into a medianly excavated projection, and diffused above into a thin, well-defined, parietal callus which reaches to the upper margin of the labrum; labrum acute, receding below; aperture broadly and compressedly obliquely sublunate.

Alt. 6·25, diam. maj. 9, diam. min. 8 mm.

Aperture: alt. 4·5 (nearly), diam. 3·5 mm.

*Hab.* Limestone Quarry, Norfolk Island, in subfossil condition only (*R. Bell*).

BELLOCONCHA, gen. nov. (*Zonitidæ*).

Shell imperforate, heliciform, turbinately conic, marked only with transverse growth-plicæ.

Genotype: *B. elevata*, Preston.

*Belloconcha elevata*, sp. n.

Shell imperforate, conically turbinata, in subfossil condition white without trace of colouring; whorls 5, regularly increasing, convex, smooth, but for rather oblique growth-ridges; suture impressed, narrowly margined below; columella margin outwardly calloused, descending in a curve; labrum acute; aperture very obliquely broadly sublunate.

Alt. 11, diam. maj. 14·75, diam. min. 12·75 mm.

Aperture: alt. 6·25, diam. 6·75 mm.

*Hab.* Nepean Island, in subfossil state only (*R. Bell*).



*Belloconcha compacta*, sp. n.

Shell imperforate, turbinate, in subfossil condition pale yellowish white, showing traces of a rather narrow, white, peripheral band; whorls  $4\frac{1}{2}$ , very slightly convex, marked only with oblique growth-lines; suture impressed; base of shell moderately convex; columella margin narrowly, outwardly reflexed, obliquely descending and curved below; aperture subovate.

Alt. 6.5, diam. maj. 10, diam. min. 9 mm.

Aperture: alt. 4.5, diam. 4.25 mm.

*Hab.* Nepean Island, in subfossil state only (*R. Bell*).

*Belloconcha norfolkensis*, sp. n.

Shell somewhat depressedly turbinate, obtusely carinate at the periphery, thin, corneous, light reddish brown, painted with a very narrow sutural band of dark chestnut and a slightly broader, whitish, peripheral band; whorls  $4\frac{1}{2}$ , regularly increasing, rather flat, coarsely sculptured with oblique radiate riblets; base of shell somewhat shining, absolutely minutely granulate; suture impressed, narrowly margined below; columella tinged with dark chestnut, sharply curved and outwardly expanded above, white and somewhat bulging inwards below; labrum acute, simple; aperture irregularly sublunate.

Alt. 6.5, diam. maj. 10, diam. min. 9 mm.

Aperture: alt. 5.25, diam. 5 mm.

*Hab.* Norfolk Island.

IREDALEOCONCHA, gen. nov. (*Zonitidae*).

Shell heliciform, depressed, corneous, *imperforate*, having a widely grooved suture, which is continued on the last whorl as a supraperipheral channel.

Genotype: *I. inopina*, Preston.

The present genus is at first sight almost identical with *Diepenheimia*, which inhabits the Obi Islands, Dutch East Indies\*; this latter is, however, *perforate*, while both the species of *Iredaleoconcha* which have as yet come to light are quite devoid of all trace of perforation.

*Iredaleoconcha inopina*, sp. n.

Shell small, imperforate, suborbicular, depressedly conoid, yellowish, semitransparent, polished, shining; whorls  $3\frac{1}{2}$ ,

\* Ann. & Mag. Nat. Hist. ser. 8, vol. xii. 1913, pp. 433-434.

regularly increasing, the last channelled above and carinate at the periphery, the apical whorls smooth, the later whorls marked with irregular transverse growth-ridges, and sculptured with very distinct, closely set, spiral striæ; suture narrowly callously margined above, deeply channelled below, the sutural channel being continued as the supraperipheral channel on the last whorl; base of shell inflated, bearing the same sculpture as on the spire; columella margin descending in a very oblique curve; labrum acute, notched at the termination of the supraperipheral channel; aperture obliquely sublunate.

Alt. .75, diam. maj. 2, diam. min. 1.75 mm.

Hab. Limestone quarry, Norfolk Island; also found on Mount Pitt (*R. Bell*).

*Iredaleoconcha calorophe*, sp. n.

Shell rather depressedly turbinate, brown; whorls 5, regularly increasing, the last narrowly channelled above and carinate at the periphery, sculptured with fine, closely set, spiral striæ, and marked with oblique transverse growth-plicæ; suture channelled, bearing an erect callous ridge above, bordered on the upper side by a rather deep but very narrow groove; base of shell inflated, also sculptured with fine revolving striæ; columella margin vertically descending for a short distance, then sharply angled and very obliquely descending below; labrum acute, notched at the termination of the supraperipheral channel; aperture broadly and obliquely subrescentic.

Alt. 2, diam. maj. 4.25 (nearly), diam. min. 3.75 mm.

Hab. Duncombe Bay, Norfolk Island (*R. Bell*).

PITTOCONCHA, gen. nov. (*Zonitidæ*).

Shell imperforate, corneous, turbinate, swollen, peripherally carinate, spirally striate, and transversely costulate.

Genotype: *P. concinna*, Preston.

*Pittoconcha concinna*, sp. n.

Shell small, turbinate, with inflated spire, thin, horny, dark blackish brown; whorls 4, regularly increasing, the last strongly carinate at the periphery, sculptured with coarse, closely set, very oblique, and somewhat curved, transverse plicæ, crossed by indistinct spiral striæ, which are more noticeable on the apical whorls and base of the shell; suture impressed; base of shell inflated; columella margin white,

thickened, almost vertically descending, bulging inwardly in the median part; labrum simple, receding below; aperture subovate.

Alt. 1.75, diam. maj. 3 mm.

*Hab.* Mount Pitt, Norfolk Island (*R. Bell*).

*Nitor retinaculum*, sp. n.

Shell small, depressedly conic, thin, transparent, somewhat shining, yellowish brown; whorls 4, regularly increasing, the last subangled at the periphery, sculptured only with rather closely set, oblique, arcuate plicæ, which are more noticeable on the later convolutions; suture impressed; columella margin curved above, very obliquely descending and thickened inwardly into a whitish loop-like lamella, visible through the test; labrum acute; aperture obliquely and compressedly sublunate.

Alt. 1.5 (nearly), diam. maj. 3, diam. min. 2.5 mm.

*Hab.* Ball's Bay, Norfolk Island (*R. Bell*).

MACGILLIVRAYELLA, gen. nov. (*Zonitidæ*).

Shell depressedly turbinate, small, vitreous, somewhat broadly perforate.

Genotype: *M. crystallina*, Preston.

*Macgillivrayella crystallina*, sp. n.

Shell small, depressed, orbicular, white, semitransparent; whorls  $3\frac{1}{2}$ , sculptured with rather fine, somewhat closely set, oblique, arcuate striæ, which become obsolete on the base of the shell; suture deeply impressed; umbilicus wide, moderately deep; columella margin descending in a curve; labrum acute, receding below; aperture roundly sublunate.

Alt. 1, diam. maj. 2.5, diam. min. 2.25 mm.

*Hab.* Norfolk Island.

JOHANNESOCONCHA, gen. nov. (*Zonitidæ*).

Shell minute, vitreous, turbinate, multispiral, umbilicate.

Genotype: *J. multivolva*, Preston.

*Johannesconcha multivolva*, sp. n.

Shell minute, turbinate, thin, white, polished, shining; whorls 5, rather rapidly increasing, the last scarcely ascending in front, faintly marked with lines of growth; base of shell

radiately striate; suture well impressed; umbilicus moderately wide, deep, well-like; labrum simple; aperture obliquely sublunate.

Alt. 5, diam. maj. 1.25 mm.

*Hab.* Norfolk Island, under dead leaves (*Macgillivray*, June 1855).

*Johannesconcha pusillior*, sp. n.

Shell differing from *J. multivolva* in its smaller size, more depressed form, and less well-like umbilicus, the margin of which is much less abrupt.

Alt. .25, diam. maj. 1.25 (nearly) mm.

*Hab.* Norfolk Island.

*Johannesconcha minuscula*, sp. n.

Shell very minute, depressedly turbinate, in subfossil condition white; whorls  $3\frac{1}{2}$ , regularly increasing, marked only with faint transverse growth-striæ; suture impressed; umbilicus moderately narrow, deep, well-like; columella margin obliquely descending; labrum acute; aperture very broadly and depressedly subrescentic.

Alt. .25, diam. maj. 1 mm.

*Hab.* Limestone Quarry, S.E. coast of Norfolk Island, where it occurs in a subfossil state (*R. Bell*).

*Charopa mathewsi*, sp. n.

Shell small, orbicular, planulate above, widely umbilicate below, chestnut-coloured throughout; whorls  $4\frac{1}{2}$ , regularly, but rather slowly, increasing, the last descending, the embryonic whorls smooth, the remainder sculptured with regular, radiate, rounded costulæ, the interstices being occupied by fine, closely set, transverse striæ crossed by very fine and indistinct spirals; columella margin slightly reflexed above, obliquely descending; labrum simple; aperture obliquely subquadrate.

Alt. .75, diam. maj. 2.5, diam. min. 2.25 mm.

*Hab.* Ball's Bay, Norfolk Island (*R. Bell*).

*Charopa sororcula*, sp. n.

Shell allied to *C. mathewsi*, but lighter in colour, being of a yellowish-brown tint; it is also much smaller, though having the same number of whorls, the sculpture is finer, though similar in other respects, the apex is slightly exerted, the last whorl does not descend, and the aperture is narrowly

ovate, having the appearance of being laterally compressed, while in *C. mathewsi* it is compressed above and laterally dilated.

Alt. .5, diam. maj. 1.5 mm.

*Hab.* Mount Pitt, Norfolk Island (*R. Bell*).

CRYPTOCHAROPA, gen. nov. (*Endodontidæ*).

Shell planulate, incrustated with an agglutinated mass of earth and vegetable matter, which broadens out at the periphery into a serrated fringe.

Genotype: *C. atlantoididea*, Preston.

The agglutinated covering which is present in every individual seen by the author, and which is extremely hard to remove even after several days of soaking, would seem to be a habitual generic character. The shell has a superficial resemblance to *Charopa*, though probably having no close relationship with that genus.

*Cryptocharopa atlantoididea*, sp. n.

Shell of moderate size, very depressedly orbicular, almost planulate above, covered with an agglutinated mass of foreign matter which broadens at the periphery into a coarse saw-like fringe or projection, and beneath which the shell is of a reddish-brown colour; whorls 5, regularly increasing, the last strongly angled at the periphery, sculptured with coarse, irregular, somewhat radiate, transverse, and rather distant, wavy, spiral striæ, the latter becoming obsolete on the base of the shell; suture deeply impressed; umbilicus very wide; columella margin excavatedly angled above, obliquely curved below; labrum simple, receding below, projecting in front; aperture subcircular.

Alt. 1.5, diam. maj. 3.75, diam. min. 3.25 mm.

Aperture: alt. 1.25 (nearly), diam. 1.25 (nearly) mm.

*Hab.* Mount Pitt, Norfolk Island (*R. Bell*).

The above measurements were taken after the agglutinated foreign matter had been removed from the shell.

*Paralaoma orestias*, sp. n.

Shell rather small, turritate, somewhat shining, pale yellowish brown flecked with blotches of white; whorls 5, the last subangulate at the periphery and descending in front, sculptured, especially on the lower whorls, with arcuate, slightly distant, transverse costulæ; suture impressed;

umbilicus moderately narrow, deep; columella margin outwardly reflexed, descending in a curve, diffused above it into a parietal callus which reaches to the upper margin of the labrum; labrum having the extreme edge submembranaceous; aperture ovate.

Alt. 1, diam. maj. 2·25, diam. min. 2 mm.

Hab. Mount Pitt, Norfolk Island (*R. Bell*).

*Paralaoma perminuta*, sp. n.

Shell minute, depressedly turbinate, thin, horny, pale brownish yellow; whorls 4, regularly increasing, sculptured with somewhat obsolete, transverse, arcuate plicæ; suture impressed; base of shell not very convex, sculptured with slightly wavy and closely set, punctate, revolving striae; umbilicus moderately wide; columella margin obliquely descending; labrum simple; aperture compressedly sublunate.

Alt. ·25, diam. maj. 1·25 (nearly) mm.

Hab. Mount Pitt, Norfolk Island (*R. Bell*).

*Paralaoma depressior*, sp. n.

Shell allied to *P. perminuta*, but considerably larger and having an additional half whorl; the last whorl is considerably flattened above and strongly angled at the periphery, the colour is darker, being in the present species of a dark brownish-amber shade; the columella margin descends almost vertically and the aperture, though somewhat compressed towards the base, is obliquely subovate; the system of sculpture is altogether that of *P. perminuta*.

Alt. ·75, diam. maj. 2·25, diam. min. 2 (nearly) mm.

Hab. Mount Pitt, Norfolk Island, in several localities (*R. Bell*).

NORFOLCIOCONCHA, gen. nov. (*Endodontidæ*).

Shell minute, subhyaline, turbinate, with open umbilicus, sculptured with transverse riblets; aperture armed with two parietal lamellæ and two lamellæ on the outer wall.

Genotype: *Endodonta norfolkensis*, Hedley \*.

*Norfolcioconcha iota*, sp. n.

Shell very minute, depressedly turbinate, in subfossil

\* Rec. Austr. Mus., Sydney, vol. iii. p. 152, pl. xxviii. figs. 4, 5, 6.



condition white, vitreous, shining; whorls 4, regularly increasing, radiately finely costulate; suture impressed; base of shell sculptured with revolving striæ; umbilicus narrow, deep, well-like; columella margin obliquely descending; aperture somewhat compressedly sublunate, armed with four erect plaits, of which two are on the parietal wall, one below the other, and two on the outer wall, similarly situated.

Alt. .25, diam. maj. 1 mm.

*Hab.* Limestone Quarry, S.E. coast of Norfolk Island, where it occurs in a subfossil state (*R. Bell*).

*Succinea humerosa*, sp. n.

Shell allied to *S. norfolkensis*, Sykes \*, but differing from that species in being rather narrower in form and in having the last two whorls conspicuously *shouldered above and below*; the aperture is also rather longer and narrower than in *S. norfolkensis*.

Alt. 13.5, diam. maj. 8.5, diam. min. 5 mm.

Aperture: alt. 8, diam. 5 mm.

*Hab.* Nepean Island, in a subfossil state only.

*Succinea nepeanensis*, sp. n.

Shell elongate, whorls 3, rapidly increasing, moderately convex, the last very long; suture well impressed; columella margin curved, narrowly calloused; labrum simple, somewhat bent inwards over the aperture above; aperture ovate.

Alt. 14.75, diam. maj. 7.25, diam. min. 5.5 mm.

Aperture: alt. 9.25, diam. 5.75 mm.

*Hab.* Nepean Island, in a subfossil condition only (*R. Bell*).

*Tornatellina norfolkensis*, sp. n.

Shell subulately cylindrical, thin, fragile, semitransparent, smooth, polished, shining, pale reddish brown; whorls 6, the first very small, the second proportionately large, the remainder regularly increasing, marked only with irregular growth-plicæ; suture impressed, very narrowly margined below, columella whitish, developed into a rather twisted, inwardly projecting fold, and extending above into a light, well-defined, and somewhat restricted parietal callus, which reaches to the upper margin of the labrum; labrum simple; aperture inversely annular, bearing a single, curved, erect, white, entering, parietal lamella.

Alt. 3.5, diam. maj. 1.25 mm.

*Hab.* Ball's Bay, Norfolk Island (*R. Bell*).

\* Proc. Malac. Soc. London, iv. 1900, p. 144, pl. xiii. fig. 12.

*Tornatellina norfolkensis moohuensis*, subsp. n.

Shell differing from *T. norfolkensis*, Preston, in its very slightly shorter and *much broader* form, and in the parietal lamella, which, in the present species, is quite obsolete.

Alt. 3·5, diam. maj. 1·5 mm.

*Hab.* Moohu Stone, a small islet off the coast of Norfolk Island (*R. Bell*).

*Tornatellina norfolkensis nepeanensis*, subsp. n.

Shell allied to both *T. norfolkensis* and *T. moohuensis*, but differing from the former in its much broader form and from the latter in its more tapering spire, more rounded whorls, and well-developed parietal lamella.

Alt. 3·5, diam. maj. 1·5 mm.

*Hab.* Nepean Island (*R. Bell*).

With the exception of *Vallonia* sp., which is exceedingly plentiful, this and the following are the only living species of land-mollusca found upon the island.

*Tornatellina duplicilamellata*, sp. n.

Shell fusiformly ovate, polished, shining, yellowish brown; whorls 5, regularly but rather rapidly increasing, somewhat inflated, marked only with growth-striæ; suture impressed; columella margin white, twisted, bearing a short projecting lamella above, descending below in an almost vertical curve; aperture rather obliquely inversely auriform, furnished with a well-developed, entering, parietal lamella.

Alt. 2·25, diam. maj. 1·5 (nearly) mm.

*Hab.* Nepean Island (*R. Bell*).

*Palaina norfolkensis*, sp. n.

Shell moderately small, sinistral, fusiformly ovate; colour of type-specimen pale yellowish, but varying in individuals from pure white to yellowish and delicate flesh-colour; whorls 6, convex, the first two small, the third large in proportion, the remainder regularly increasing, the apical whorl quite smooth, the second showing signs of very oblique, obsolete, transverse ribbing, the third finely and rather closely costulate; the fourth and remainder beautifully sculptured with slightly distant and oblique, erect, transverse, blade-like costulæ, the interstices on all four last whorls sculptured with fine, closely set, wavy, spiral striæ; suture deeply impressed; umbilicus very narrow; labrum con-

tinuous, vitreous, showing under the microscope the concentric growth-markings, broadly expanded except in the parietal region, where it is considerably contracted, not reflexed, circumference ovate; aperture circular, set well to the left of the axis of the shell; operculum thin, corneous, yellowish white, paucispiral, with central raised nucleus.

Alt. 2.5, diam. maj. 1.25 mm.

*Hab.* Stockyard Creek, Norfolk Island (*R. Bell*).

*Palaina belli*, sp. n.

Shell small, sinistral, roughly ovate, dull white shading to pale flesh-colour, with reddish-brown apex; whorls 5, convex, the first two small, the third proportionately large, the remainder regularly increasing, the two apical whorls quite smooth, the remainder sculptured with closely set, wavy, spiral striæ which become considerably coarser on the last whorl, crossed by not very erect, rather oblique, transverse costulæ; suture deeply impressed; umbilicus narrow, deep; labrum continuous, outwardly expanded, sublaminiferous, circular; aperture large for the size of the shell, subcircular.

Alt. 3.5, diam. maj. 1.75 (nearly) mm.

*Hab.* Mount Pitt, Norfolk Island (*R. Bell*).

Differing from the preceding chiefly in its smaller size, it having one whorl less, in the more closely set and less erect and blade-like costulæ, coarser spiral striæ, the circular circumference of the labrum, and in the comparatively large size and more central position of the aperture with regard to the axis of the shell.

LXVI.—*Five new Siphonaptera from Asiatic Russia, collected by W. Rückbeil.* By the Hon. N. CHARLES ROTHSCHILD, M.A.

[Plates XIV. & XV.]

ONE of the two species described below belongs to the genus which we call *Ctenophthalmus*, Kolen. We dealt with this generic name at some length in Nov. Zool. 1911, p. 80, and came to the conclusion that its type is a species with three genal spines. A. C. Oudemans, in a recent note on Siphonaptera (*Entom. Berichten*, 1913, p. 341), maintains, on the contrary, that *musculi* is the type. He says:—"The genus *Ctenophthalmus* is well defined by Kolenati by the words