

ART. XXIV.—On some new Species of Nudibranchiate Mollusca.

By T. F. CHEESEMAN, F.L.S.

[Read before the Auckland Institute, 19th July, 1880.]

1. *DORIS RUBICUNDA*, n.sp.

Body $\frac{1}{3}$ –1 inch in length, oblong, blunt at both ends, sides nearly parallel, back elevated. Mantle not much larger than the foot, densely covered with minute, closely-packed, narrow, erect tubercles; colour bright scarlet, sometimes with a darker line down the centre, and with a few scattered blackish specks. Dorsal tentacles (rhinophores) clavate, short, stout, completely retractile; lower part cylindrical, whitish; central part much broader, furnished with about twelve broad laminae that run obliquely upwards; apex a small projecting flat-topped style. The tubercles round the base of the tentacles are rather larger than elsewhere, and of a paler colour. Branchiae completely retractile, eight in number, small, erect, oblong, bipinnate. Oval tentacles free, narrow linear. Head rounded, fleshy. Foot the same colour as the mantle or slightly darker, obtuse, and slightly notched in front, behind pointed and extending beyond the mantle when the animal is crawling. Odontophore broad, of very numerous rows of teeth, central tooth wanting, lateral about 50 on each side, those nearest the centre short and hooked, those on the outside much longer and more slender, strongly arched.

This species belongs to the same section of the genus as the British *D. coccinea*, Forbes, to which it comes very near indeed; principally differing in the fewer bipinnate branchiae. *D. granulosa* and *D. longula*, two new species from New Zealand, described by Mr. Abraham in the Proceedings of the Zoological Society (1877, p. 253), are also near allies. It is abundant in Auckland harbour and elsewhere on the coast.

2. *DORIS* (?) *FLABELLIFERA*, n.sp.

Body $\frac{3}{4}$ –1 $\frac{1}{4}$ in. long, elliptical oblong, equally rounded at both ends, back moderately elevated. Colour pale yellowish orange, sometimes sprinkled with a few minute blackish specks. Mantle not much larger than the foot, minutely rugose, and covered with small low rounded tubercles; margin thin, undulate. Dorsal tentacles somewhat conical, retractile within cavities that have slightly tuberculate edges, upper part strongly laminate, laminae usually 15. Branchiae placed in a transverse slit on the hinder part of the back, all spreading in the same plane, usually 22 in number, but varying from 18 to 26, simply pinnate, or occasionally forked at the ends, connected together at the base, and completely retractile within the slit, the anterior flap-like margin of which falls down and closes the cavity. Head produced into a broad two-lobed veil. Foot rounded in

front, pointed behind, and often protruded beyond the mantle when the animal is crawling. Odontophore broad, of 35 rows of teeth; central teeth none, laterals from 40 to 45 on each side, all similar in form but the inner the smallest, stout, smooth, strongly hooked. Mantle spicules very numerous, straight or slightly bent, thickest in the middle and tapering gradually to the extremities.

Not uncommon between tide-marks in Auckland harbour, feeding on sponges and corallines. The position of the branchiæ, which instead of forming a more or less complete circle round the anus are placed in a single flat row in front of it, would appear to remove this species from *Doris* proper; and I have little doubt but that it will ultimately form the type of a new genus.

3. *CHROMODORIS AUREO-MARGINATA*, n.sp.

Body $\frac{1}{2}$ – $1\frac{1}{4}$ inch long, linear-oblong, much depressed, expanded and rounded in front, then contracted, and gradually tapering to a point behind. Colour pellucid white, with a narrow bright golden line just within the margin of the mantle on both surfaces. Mantle quite smooth and even, greatly expanded in front and forming a broad and thin veil that extends far beyond the head, abbreviated posteriorly, and not nearly concealing the foot, sometimes deeply notched on the right side; margins thin, even. Dorsal tentacles rather long, retractile within simple-edged sheaths, linear, tapering a little upwards, laminae about twenty. Branchial plumes nine (seven in one specimen), simply pinnate, erect or incurved at the tips, retractile within a common cavity. Foot much longer than the mantle, narrow, pointed behind, very thin and flexible.

This is a very handsome and delicate species. I have only seen four specimens, three of which were obtained in Auckland harbour, and the fourth on the coast near Waiwera.

4. *DORIDOPSIS CITRINA*, n.sp.

Body 2–3 inches long, a little depressed, elliptic oblong, equally rounded at both ends. Mantle very large, margin thin and almost translucent, wavy; upper surface roughened with indistinct low and broad irregularly shaped pustules; under-surface smooth. Colour usually a pale lemon yellow, but varying from nearly white to a dark orange, always more or less freckled with minute superficial opaque-white specks. Dorsal tentacles clavate, upper two-thirds strongly laminated, laminae 19–20, retractile within simple-edged sheaths. Branchiæ five, large, ramose, tripinnate, set round the anus in a circle that is interrupted behind, the two posterior the largest and the most branched, the whole retractile within a common cavity. Foot oblong, rounded in front and behind, margin thin, even. There is a slight transverse marginal groove in front through which passes the tubular pro-

boscis. No oral tentacles or veil, and no odontophore or buccal armature of any description.

This is the commonest Nudibranch in Auckland harbour, and is particularly abundant in the winter and spring months. It is usually found in sheltered rocky places, in tide-pools, or under stones. The spawn is deposited in the form of a few-coiled spiral, and is generally seen in the months of June, July, and August.

ART. XXV.—*On a new Genus of Opisthobranchiate Mollusca.*

By T. F. CHEESEMAN, F.L.S.

[Read before the Auckland Institute, 16th August, 1880.]

IN some tide-pools near the Tamaki heads, in Auckland harbour, I have repeatedly obtained specimens of a curious little Opisthobranch, that appears to me to be not only undescribed, but also to form the type of a new genus. The following is a description.

MELANOCHLAMYS CYLINDRICA, nov. gen.

Body elongated, almost cylindrical, 1-1½ in. long; colour a deep rich velvety black. Cephalic disc narrow oblong-quadrate, slightly expanded in front, so as to project over the foot and mouth, truncate behind. Mantle small, entirely concealing the shell, at its posterior end 2-lobed and with a large gaping orifice. Foot large, with ample side-lobes, which are folded up to the sides of the head-disc and mantle, leaving, however, the back exposed. Shell quite internal, triangular, spire minute, inner lip with a small spoon-shaped projection. Branchiæ minute, situated far back on the right side under the mantle. Gizzard very large and muscular, without calcareous plates. Odontophore apparently wanting.

I assume that the proper position of this animal is with the Philinidæ, with which it agrees in most of its characters. It differs, however, in having no odontophore, and in the gizzard not being strengthened with calcareous plates. *Aglaiia* (of Renier), appears to be its nearest ally; but I am unable to place it in that genus, as it differs from the species figured in Adams' "Genera" in being much more elongated, in the cephalic disc being larger and projecting beyond the foot, in the branchiæ being smaller and always concealed by the mantle, and in the side-lobes of the foot being closely appressed to the sides of the animal, and not spreading.

In addition to the specimens collected by myself I have examined some obtained by Mr. G. M. Thomson near Dunedin, and kindly forwarded to me by Prof. Hutton. Very probably it will be found to be common in suitable localities all round our shores.
