

NEW GENERIC NAMES AND NEW SPECIES OF MARINE
MOLLUSCA.

By TOM IREDALE.

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PLATE IX.

To this periodical I have already contributed papers originated through the study of a collection of shells made at the Kermadec Islands, and in this essay I describe a few of the novelties there obtained, and also propose some new generic names. The determination and description of new specific forms is a necessary evil, but the attempt to generically place even common shells seems to be an unnecessary evil to the majority of writers, and one which has been constantly neglected. I noted (this periodical, vol. ix, p. 70): "Furthermore I have found great difficulty in generically locating such well-known species as *Drupa*(?) *chaidea*, Duclos, and *Galeropsis*(?) *monodonta*, Quoy & Gaimard." Prolonged study has convinced me of the inaccuracy of the continued attachment of the preceding, with others, to genera with which they have little in common, and I later wrote (vol. ix, p. 320): "In recent years scarcely any scientific worker has described a new minute shell without carefully detailing the apical characters, and using them for classificatory purposes. Yet these same workers have been content to class larger well-known shells in an almost Linnean fashion."

In attempting to work through this collection I have been impressed with factors that have militated against the accurate and easy determination of the Indo-Pacific Marine Mollusca: firstly, the lack of series, showing variation, from almost any locality, and especially the almost entire absence of individuals showing the juvenile characters: this is most noticeable when it is realized that the majority of the common littoral Indo-Pacific molluscs are so abundant that long series of many forms could be easily obtained in a single day, covering most stages from the very young to adult. We are thus ignorant of the juvenile stages of very many of the commonest molluscs, and know the development only in rare cases, and until such are fully known all our higher groupings must be most imperfect, and in many cases also inaccurate. Secondly, it is no longer a possibility to correctly work out such a collection as mine without practically monographing each genus, more certainly as the monographs in the earlier volumes of Tryon's *Manual of Conchology* are useful only as works of reference to literature, the malacological matter being quite unreliable. I am convinced that all future workers, to produce any lasting results, must undertake monographic studies, and moreover must study series, note variation, also determine the sub-species from such series, and discriminate between species, sub-species, and varieties. I foresee the time when there will be more genera, fewer species, and more sub-species, with entire elimination of varieties. These latter may interest non-scientific

workers, but serious students should never name such. Unfortunately, though I have, in the majority of cases, long series from the Kermadecs, the previously named molluscs with which comparisons have been instituted are represented by odd specimens only.

Since this note was written my views have received quite unexpected confirmation by the study of series of *Janthina*.

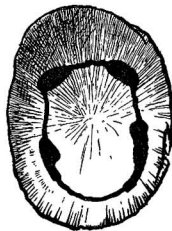
ROYA, n.gen.

ROYA KERMADECENSIS, n.sp. Pl. IX, Fig. 10.

Shell thin, conical, bilaterally symmetrical, broadly ovate, anterior slope long, arched, posterior slope steep, scarcely concave. Apex at about four-fifths its length, nucleus anastrophic, almost immersed by last whorl. The muscular impression is horseshoe-shaped, symmetrical, but composed of two portions: a semicircular broad scar ending in an enlargement, and then on each side continued by a narrow line; these lines meet obliquely-set oval scars, which are connected by a narrow line. This muscular impression is invisible in dead shells, which are translucent. These are pale rufous, sometimes rayed with a darker colour; there is no apparent sculpture save growth-lines. The live shell is clothed with a fine green epidermis. Length about 5.5, breadth 3.5, height 3 mm.

Radula: Like that of *Gena* (Gwatkin).

Hab.—Sunday Island, Kermadec Group.



Externally this shell agrees very well with *Capulus nutatus*, Hedley (Proc. Linn. Soc. N.S.W., vol. xxxiii, p. 467, pl. ix, figs. 15–16, 1908). Upon comparison with the type of that species Mr. Hedley and I agreed it was inseparable as far as external conchological characters were observed. The muscle-impression of the shell, and the animal of *C. nutatus* are yet unknown. In the British Museum is the type of *Tectura radiata*, Pease (Proc. Zool. Soc. Lond., 1860, p. 437) from the Sandwich Islands. This seems to be another species of this genus. Yet this shell was at one time accepted as identical with *Williamia Gussoni*, Costa, by such an authority as Mr. E. A. Smith (Proc. Zool. Soc. Lond., 1890, p. 296), judging from conchological features alone. But *W. Gussoni*, Costa, belongs to the Siphonariidæ, whilst my shell does not. I am therefore doubtful of the correctness of merging specifically my shell with *Capulus nutatus*, Hedley, in view of the fact that animals of similar shells have proved

ridges, a few intercalatory ribs sometimes present; all are continuous, a very slight depression only being noticeable in the middle of the back. The interstices appear smooth. Aperture narrow; the teething agreeing with the ribbing present.

Length 7, breadth 5, height 4 mm.

Hab.—Sunday Island, Kermadec Group.

TROPHON SUBTROPICALIS, n.sp. Pl. IX, Fig. 3.

Shell very small, regularly trophonoid. Colour brownish. Protoconch two-whorled, elevated, smooth, white. Four adult whorls, regularly shouldered, with eight to ten longitudinal varices, which are crossed by spiral ribs, the first two adult whorls showing one, the third three, and the last five, three of which are prominent. In some shells the spirals overrule, but usually they are subordinate to the longitudinal varices. Aperture oval, denticled within the outer lip, which is heavily varicose. Canal short, recurved, open. Operculum typical.

Measurements of type: Length 3, breadth 1.5 mm.

Hab.—Sunday Island, Kermadec Group.

CONUS KERMADECENSIS, n.sp. Pl. IX, Figs. 15, 16.

Shell of medium size, quite smooth. Colour reddish-yellow, towards the middle of the shell a fainter band is usually seen when the shell is destitute of the thick red-brown epidermis, rarely persistent, save on the last quarter of a whorl. Number of whorls unknown. Spire slightly elevate; broad, conical, sutures impressed, periphery subangled. Anal notch distinct, outer lip thin. Pillar lip almost straight with a faint twist at anterior end; aperture widening anteriorly where there are a few wrinkles. Inside white, edge of outer lip tipped with brown. Operculum variable in size and shape.

Measurements: Height 55, 42, 31 mm.; breadth 29, 25, 18 mm.; height of spire 12, 8, 8 mm.

Hab.—Sunday Island, Kermadec Group.

CASSIDEA PERRYI, n.sp. Pl. IX, Fig. 17.

Shell small, ovate, smooth, aperture more than half the length of the shell, outer lip reflexed, scarcely variced, and bearing no denticles. Colour fawn with four darker transverse bands, only noticeable on the last whorl and clearly marked on the reflected lip as reddish-brown marks; sometimes the bands are broken and appear as oblong marks. Five adult whorls and the usual juvenile Cassoid apex, but varices are not apparent, save rarely on the last half-whorl. Aperture somewhat obliquely pyriform, the anterior canal short and recurved. Columella with an anterior groove, but otherwise smooth. Length 43, breadth 24, length of aperture 25 mm.

Hab.—Sunday Island, Kermadec Group.

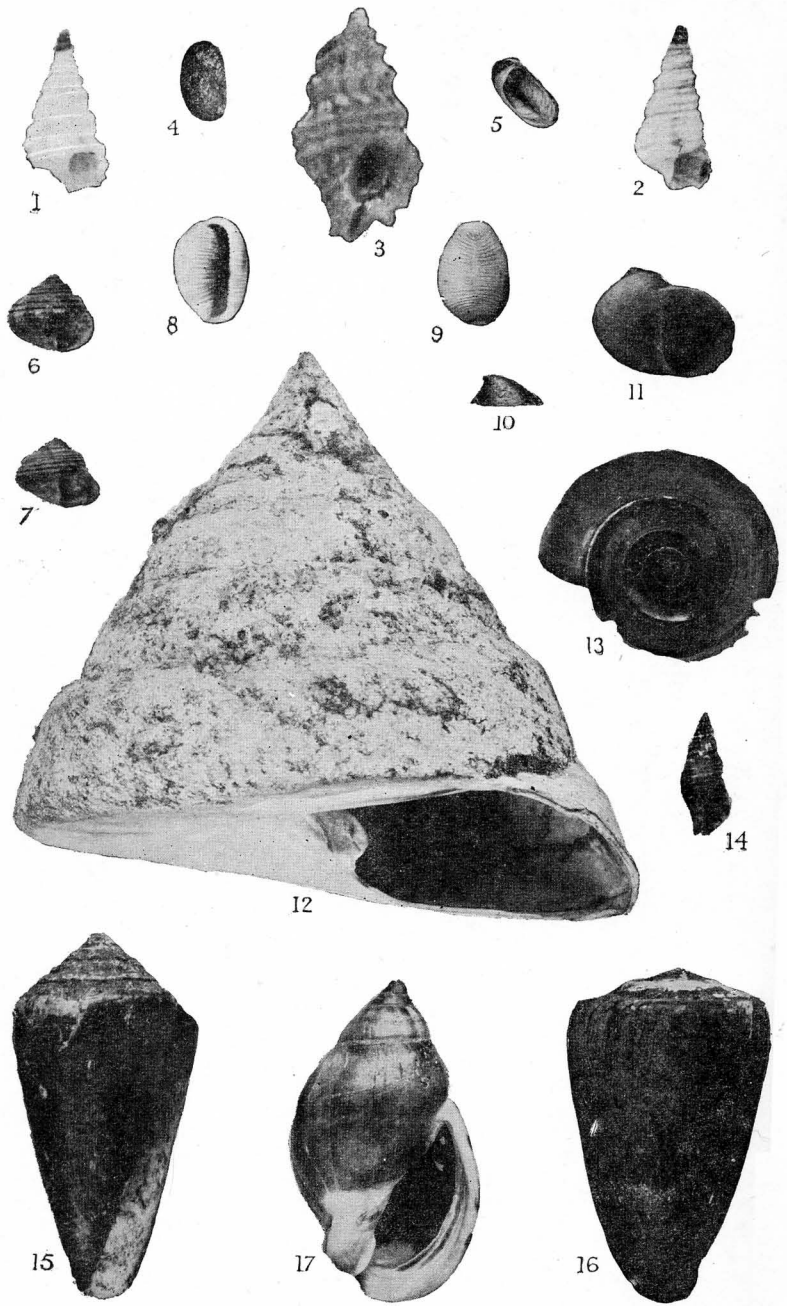
Bearing a deceptive resemblance to *C. cernica*, Sowerby, but that species is a smooth relation to *C. vibex*, to which this form is not closely allied.

All the types of these new species will be presented to the Canterbury Museum, New Zealand, and paratypes are in the Australian Museum, Sydney.

EXPLANATION OF PLATE IX.

FIG.

1. *Royella sinon*, Bayle.
2. *Royella* sp. (undescribed).
3. *Trophon subtropicalis*, n.sp.
- 4, 5. *Gena Oliveri*, n.sp.
6. *Monilia incerta*, n.sp.
7. *Clanculus atypicus*, n.sp.
- 8, 9. *Trivia desirabilis*, n.sp.
10. *Roya Kermadecensis*, n.sp.
11. *Vanikoro Wallacei*, n.sp.
12. *Trochus Royanus*, n.sp.
13. " " operculum.
14. *Jeannea Hedleyi*, n.sp.
- 15, 16. *Conus Kermadecensis*, n.sp.
17. *Cassidea Perryi*, n.sp.



MOLLUSCA FROM THE KERMADEC ISLANDS.