*Measurements in millimeters.*

| | Height of shell. | Height of aperture. | Maximum breadth of shell. | Maximum breadth of aperture. | Number of whorls in the spire. |
|---|---|---|---|---|---|
| Type specimen. | 24·0 | 14·0 | 17·5 | 9·0 | 3 |
| 1. | 22·0 | 13·7 | 16·0 | 8·5 | 4 |
| 2. | 21·5 | 16·0 | 15·6 | 8·0 | 2½ |
| 3. | 26·2 | 16·2 | 20·0 | 10·5 | |

Measurements of No. 3 refer to a large specimen taken by Captain F. W. Walker in Meiktila Lake, Upper Burma.

*Type-specimen.*—M $\frac{12485}{2}$ Zool. Surv. Ind. (*Ind. Mus.*).

Three shells were collected by Dr. Hora from the edge of a stream near Thazi railway station, Lower Burma. A number of shells collected by Captain F. W. Walker, of the Geoglogical Survey of India, at Halin, Burma, in April 1922, belongs to the race *peguensis* of *P. andersoniana*. The deep colour of the shells and the incised spiral lines serve to distinguish them from those of the new species at a glance. The shells from Kin-U in the Chindwin valley, Upper Burma, which were described by Annandale as *Temnotaia incisa*[1] really belong to *Paludomus*.

The species is closely allied to *P. andersoniana* Nevill, especially to the race *peguensis*, but differs in having a relatively short spire and a characteristic sculpture and colour.

**Acrostoma reevei** f. **olivacea,** nov.

Shells of this form approach those of *A. reevei* var. *lanceolata* Nevill but differ in having less tumid whorls, in the less strongly impressed

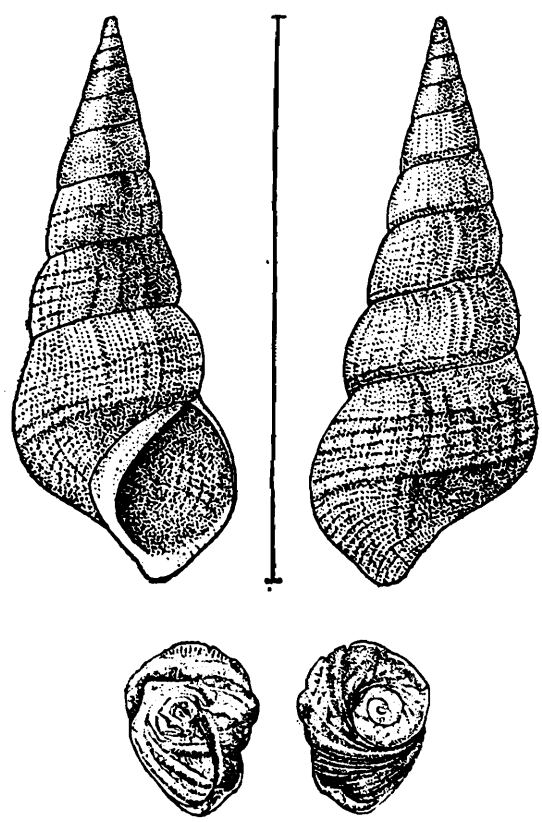

FIG. 2.—Shell and operculum of *Acrostoma reevei* f. *olivacea*.

suture, in the spiral sculpture consisting of fine parallel ridges (instead of impressed striae), which become more prominent on the last three

[1] Annandale, *Rec. Ind. Mus.*, XIX, p. 115 (1920).

whorls, in having fine close-set vertical striae which often give rise to minute varices on the last whorl, in the aperture being a little more compressed, its columellar side being less arched, in the less strongly developed columella, and in their dull olivaceous colour. The upper whorls are often dark while the rest of the shell is olivaceous.

In some shells the columellar fold is reflected outwards as a more or less broad flap leaving a narrow channel running down the umbilicus.

The operculum is strongly chitinous, ovate-conical in outline, and paucispiral. In the specimens examined the operculum was split up along the lines of the spire.

The radular teeth approach those of *A. variabilis* but have distinct features, especially in the central, which has 3 cusps on each side of the median and in the marginal which has a broad rectangular chitinous flap from the outer side of the middle region of the tooth.

The young shell is very similar to that of var. *lanceolata* but differs in having a more prominent sculpture.

In two shells examined remains of the animal were detected and carefully removed by treatment with caustic potash. They were then washed in water and left in a mixture of glycerine and 70 per cent alcohol. On dissection it was found that several embryos, not exceeding 3 mm. in height and 2 mm. in breadth, were closely packed in what was apparently a brood-chamber immediately behind the head of the animal. As the specimens were very much crumpled owing to bad preservation the exact relationship of the brood-chamber to the genitalia could not be made out by dissection. Our knowledge of the anatomy of Indian Melaniids is very meagre, and so far as I am aware there is no

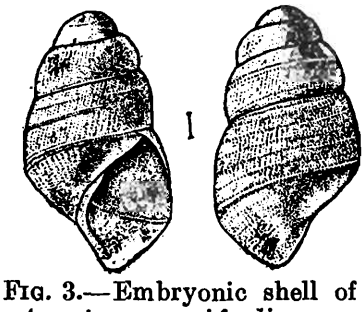

Fig. 3.—Embryonic shell of *Acrostoma reevei* f. *olivacea*.

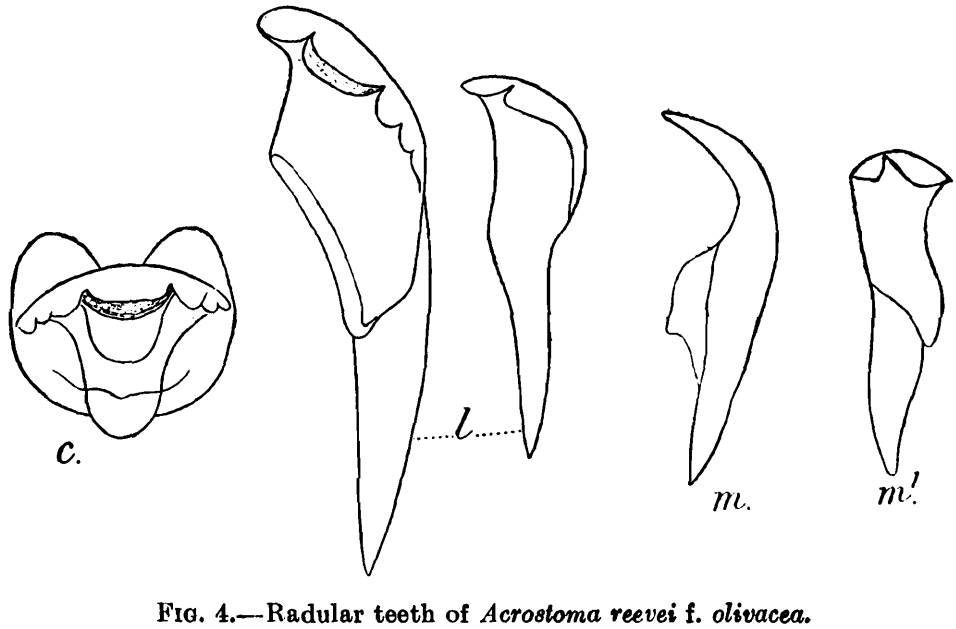


Fig. 4.—Radular teeth of *Acrostoma reevei* f. *olivacea*.
*c.* central ; *l.* laterals ; *m* and *m*¹. side and front views of marginal.

record of viviparity in the Indian species of the family, though in Europe vivaparous species are known among the Melaniidae.[1]

[1]Pelseneer in Lankester's *Treatise on Zoology*, Part V, p. 131 (1906).

In one of the two specimens dissected the edge of the mantle and a portion of the rectum were in a good condition. The former bore no processes and had a regular and sharp outline. In the latter were found bundles of elongated rod-like faecal pellets consisting of fine mud. The pellets were bound together by some sticky secretion of the rectum.

The embryonic shells are somewhat transparent and have about four complete whorls, the apical being broad and blunt. The whorls of the spire appear to be telescoped and are separated by a fairly deep suture. The spiral sculpture, consisting of fine ridges, is well developed especially on the last whorl and in the middle region of the remaining whorls. The operculum is very thin and transparent and exactly fits the mouth of the shell. It is slightly depressed in the middle.

Dr. Hora obtained a few specimens of this form from the Thazi stream. The shells collected by Captain F W Walker in Meiktila Lake, Upper Burma, also belong to this form. The largest specimen in our collection has the following measurements (in millimeters) :

| Height of shell. | Height of aperture. | Maximum breadth of shell. | Maximum breadth of aperture. |
|---|---|---|---|
| 56·5 | 17·5 | 21·0 | 11·0 |

## VIVIPARIDAE.

### **Vivipara bengalensis** race **doliaris** (Gould).

1921. *Vivipara bengalensis* race *doliaris*, Annandale, *Rec. Ind. Mus*, XXII, p. 273, pl. i, fig. 9.

Two shells of this race were obtained by Dr. Hora near the Thazi stream. They are apparently young specimens of this race. The biangulate outline of the body-whorl is not at all conspicuous. One of the shells is partly worn and somewhat thicker than the other.

### **Vivipara dissimilis** var. **decussatula** Blanford.

1884. *Paludina dissimilis* subvar. *decussatula*, Nevill, *Hand List Moll.*, II, p. 30.

Dr. Hora found two shells of this form on the banks of the Thazi stream. One of them is fairly fresh, while the other is more or less worn and slightly decollate. They agree closely with the Burmese specimens of this form in the collection of the Indian Museum but have their spire relatively short. This form apparently forms a link between *V dissimilis* and the smooth-shelled species of *Lissotaia*, a new subgenus of the Burmese *Taia* proposed recently by the late Dr. Annandale and myself.[1]

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[1]Annandale and Rao, *Rec. Ind. Mus.*, XXVII, p. 120 (1925).