

ON *PHILALANKA*, A NEW SUBGENUS OF *ENDODONTA*, WITH  
DESCRIPTIONS OF TWO NEW SPECIES FROM THE INDIAN  
REGION.

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Read 10th December, 1897.

PLATE I.

AMONG the sub-provinces into which the Molluscan fauna of the Indian region may be divided, the island of Ceylon is conspicuous for the many very distinct genera and species which have been found there, and which have not as yet been discovered elsewhere save in the neighbourhood of the gneissic mass of the Nilgiris. It is an indication that this region is one having a former history of its own, connecting it in some way with an area and a fauna of greater extent than at present, both of which were long ago diminished. It presents a field for speculation as to what the conditions were which enabled that land to receive its molluscan inhabitants and which finally restricted them to their present limited range. It is not a new subject for thought, because Mr. W. T. Blanford, so long ago as 1876, wrote an excellent paper in the *Annals and Magazine of Natural History*, entitled "The African Element in the Fauna of India," with a criticism of Mr. Wallace's views.

The present paper does not permit of entering into a subject of this nature; but I may point to the occurrence of such genera as *Acavus*, *Corilla*, *Cataulus*, and *Aulopoma*, that, as well as a more extended acquaintance with the indigenous Helicidæ, tends to support the same interesting fact in distribution.

The species I first describe is another instance of a similarly isolated genus, which I place in the family Endodontidæ. The genitalia in very few species of that family are known, and since this one cannot be placed in any of the subgenera mentioned by Pilsbry in his *Manual of Conchology*, I have considered it necessary to establish a new subgenus for these Indian forms, which I name *Philalanka*, from "Lank" or "Lanka," the well-known name for Ceylon.

*PHILALANKA*, n.subgen.

Jaw composed of numerous squarish plates. Basal plates of teeth of the radula square or oblong; central teeth tricuspid, laterals multicuspid. No mucous gland at extremity of the foot. Generative organs simple. No amatorial organ and no accessory organs. Shell small, many-whorled, pyramidal or trochiform with a single liration, unicoloured.

1. *PHILALANKA SECESSA*, n.sp. Pl. I, Figs. 1-5.

Shell (Figs. 1, 1a) pyramidal, base convex, narrowly umbilicated. Sculpture: fine, irregular, costulate transverse lines; a single liriate



band follows the angulation of the whorl throughout, with another on and above the suture; on the under side an exceedingly fine striation may be seen under a high power ( $\times 60$ ). Colour pale ochraceous, with a greenish tinge. Spire conic, sides nearly flat; apex blunt. Suture shallow, with a thread-like liration. Whorls 8, narrow, sides very slightly convex below the liration, flat from that to the suture. Aperture semilunate, narrow, vertical. Peristome thin, slightly reflected on the columellar side, which is suboblique. Size: maj. diam. 7, alt. axis 6 mm.

*Hab.*—Ambegamua, Ceylon, 3,000 feet (O. Collett).

This very interesting species was found among dead leaves in the forest, and to Mr. O. Collett is due the credit of being the first to collect a form, which enables me to show the occurrence in India of a group of shells not hitherto recorded from any part of that region. Nothing like it has been found to the east of the Bay of Bengal, on the north-east frontier, or in Burma, but the possibility of its being a casual introduction is removed by the discovery of another allied species in the south of the Indian Peninsula by Colonel Beddome.

It is also possible that *Sitala tricarinata*, W. & H. Blanf., from the Nilgiris, and *S. subbilirata*, G.-A., from the Little Brother, Andaman Islands, may find a place in the Endodontidæ. *Helix mononema*, Benson, from Ceylon, is almost certain to belong to this section.

I have examined two specimens which were preserved in spirit.

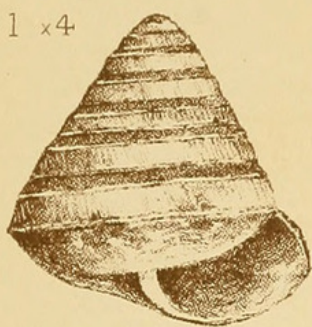
The animal has a distinct peripodial groove and broad pallial margin (Figs. 2*a-b*) with a fringe-like structure, very colourless in contrast with the foot above, but it has no mucous pore. The right dorsal lobe (Fig. 2) is large, with a very pale, narrow outer margin, the left rather narrow, its widest portion being in the middle; both are darker than the foot of the animal, which is pale grey with a paler margin. The sole is not divided. The salivary glands, disposed in two long masses on either side of the œsophagus, are of a dark tint.

The generative system (Fig. 5) is simple, and devoid of accessory parts; the male organ is sharply bent on itself near the generative aperture, the retractor muscle being given off low down from the second bend. It thence narrows, becoming gradually whip-like, into the long vas deferens, forming a long loop in a backward direction, and returning, as usual, to pass between the retractor muscles of the eye-tentacles. The male organ, as far as the loop, is solid, pink in colour, and conspicuous on dissection. At the anterior end it terminates in a bluntish knob. The spermatheca is globose, with a thin stalk-like tube, which joins the vagina high up, and, connected with it, passes downwards into the common sheath of the vagina.

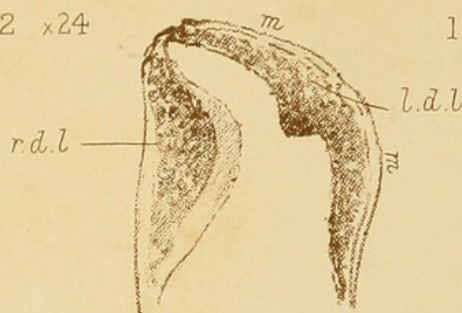
The jaw (Fig. 3) was only seen in the second specimen examined; it corresponds with that of the family Endodontidæ, and was exceedingly fragile, consisting of a number of thin, oblong plates, overlapping each other. This single jaw was not complete, and I could only get two drawings of separate portions, one being a side view, of eight or nine plates.



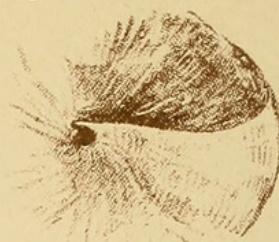
1 x4



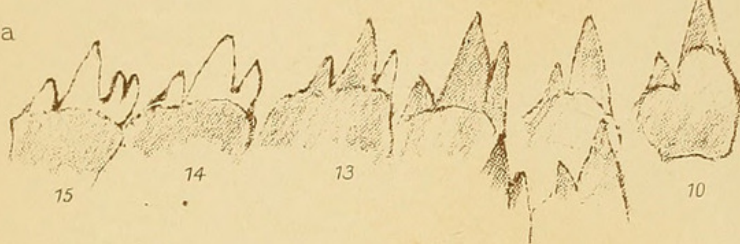
2 x24



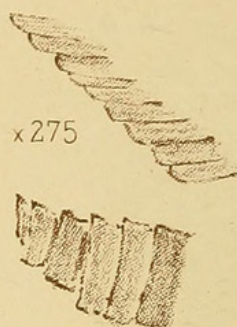
1a x8



4a



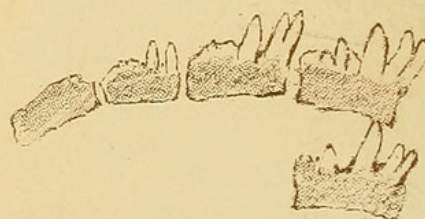
3 x275



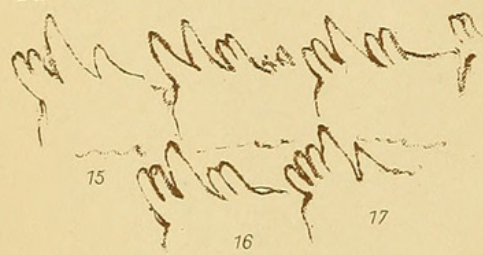
4



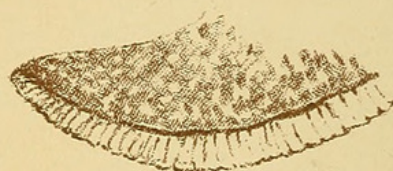
4c



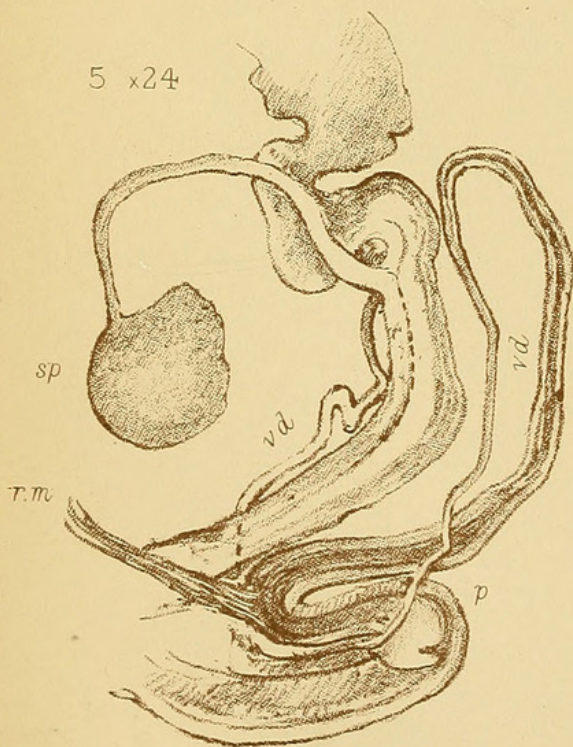
4b



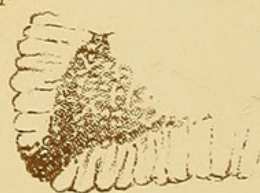
2a x8



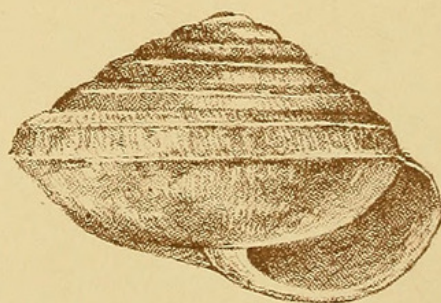
5 x24



2b x24



6 x8



NEW LAND SHELLS, CEYLON & S. INDIA.



The odontophore (Figs. 4-4c) was equally interesting, and showed the same affinities. The plates of the central teeth are square in shape, the rhachidian being the narrowest; they increase outwards in breadth until the laterals are very broad, low, and oblong, whilst on the outermost ones the cusps are difficult to detect and very irregular. The centre tooth has a large pointed mesocone, with two basal cusps; the median teeth up to the eleventh are similar in shape, but with only one cusp on the outer side; the next, the twelfth, shows an inner side cusp. In the thirteenth and fourteenth the centre is smaller, with two equal-sized side cusps rising from the upper edge of the plate. In the succeeding teeth there is a good deal of irregularity in profile, but the side cusps are split into two, now and then three, the centre still remaining the longest or nearly the longest. The dental formula is—

$$\begin{array}{cccccccc} 20 & : & 2 & : & 10 & : & 1 & : & 10 & : & 2 & : & 20 & \text{or} \\ & & & & & & 32 & : & 1 & : & 32 \end{array}$$

## 2. PHILALANKA BOLAMPATTIENSIS, n.sp. Pl. I, Fig. 6.

Shell depressedly conoid, rounded and widely umbilicated below, keeled. Sculpture: a single liration is situated about one-third the breadth of the whorl on the upper side, following the sutural thread, which commences on the keel; fine vertical irregular lines of growth. Colour pale horny. Spire depressedly pyramidal, sides flattened, apex flatly rounded. Suture well marked. Whorls 6, convex below the liration, flat above it. Aperture narrow, semilunate. Peristome somewhat thickened, columellar margin reflected and very oblique. Size: maj. diam. 5·0, alt. axis 2·6 mm.

*Hab.*—Bolampatti Hills, Southern India (Colonel R. Beddome).

Animal not seen.

There is no doubt but that this is allied to the typical Ceylon species, possessing all its principal characteristics; it exhibits, however, a more depressed form.

### EXPLANATION OF PLATE I.

- |         |  |        |
|---------|--|--------|
| FIG. 1. | Philalanka secessa. Shell.                         | × 4.   |
| „ 1a.   | ——— Shell, showing umbilicus.                      | × 8.   |
| „ 2.    | ——— Right and left dorsal lobes.                   | × 24.  |
| „ 2a.   | ——— Foot, viewed from right side.                  | × 8.   |
| „ 2b.   | ——— Extremity of foot from above.                  | × 24.  |
| „ 3.    | ——— Portions of jaw.                               | × 275. |
| „ 4.    | ——— Odontophore. Central tooth and the three next. |        |
| „ 4a.   | ——— ——— Lateral teeth, 10th to 15th.               |        |
| „ 4b.   | ——— ——— ——— still further from the centre.         |        |
| „ 4c.   | ——— ——— The four outermost teeth.                  |        |
| „ 5.    | ——— Generative organs.                             | × 24.  |
| „ 6.    | Philalanka Bolampattiensis. Shell.                 | × 8.   |
- 
- |               |                    |             |                   |
|---------------|--------------------|-------------|-------------------|
| <i>l.d.l.</i> | Left dorsal lobe.  | <i>r.m.</i> | Retractor muscle. |
| <i>m.</i>     | Mantle edge.       | <i>sp.</i>  | Spermatheca.      |
| <i>p.</i>     | Penis.             | <i>v.d.</i> | Vas deferens.     |
| <i>r.d.l.</i> | Right dorsal lobe. |             |                   |



Godwin-Austen, Henry Haversham. 1898. "On Philalanka, a new subgenus of Endodonta, with descriptions of two new species from the Indian Region." *Proceedings of the Malacological Society of London* 3, 11–13.

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