

IV. — ON THE OCCURRENCE OF A CYCLOHELIX ON JAVA.
 BY TERA VAN BENTHEM JUTTING (ZOOLOGICAL MUSEUM,
 AMSTERDAM).

In 1921 's Rijks Museum van Natuurlijke Historie received from Jhr. W. C. VAN HEURN a collection of landmollusca, collected by him at about 1600 m. altitude in the Malabar Mounts, West Java. Amongst 19 *Cyclophorus rafflesi* (Brod. & Sow.), 38 *Cyclophorus perdix* f. *zollingeri* (Mouss.) and 1 *Dyakia rumphii* (v. d. Busch) there was one *Cyclohelix*.

Now the truth is that of this genus no representative has been hitherto recorded from Java. KOBELT (*Cyclophoridae* in: *Tierreich*, 1902, p. 144—146) mentions the following species in all: *crocatius* (Born) = *turbo* (Chemn.), *denselineatus* (Pfr.), *foliaceus* (Chemn.) and *nicobaricus* Pfr. all from the Nicobar Islands and *leai* (Tryon) from the Andaman Islands. Afterwards FULTON described *C. kibleri* from Nias Id. (*Ann. Mag. Nat. Hist.* (7) Vol. 19, 1907, p. 156, pl. 10, fig. 4).

One is inclined to ask how it comes about that MÖRCH (*Journ. de Conch.* Vol. 20, 1872, p. 316) and KOBELT (*Nachr. Blatt*, Vol. 31, 1899, p. 134 and *Tierreich* 1902, p. 144) consider *C. turbo* identical with *C. crocatius* as the two species do not agree in the least either in shape or in colour, while moreover the habitat of *crocatius* is altogether unknown (cfr. PFEIFFER in *Mart.-Chemn. N. Syst. Conch. Cab.* Band I, Abt. 19¹, 1849, pl. 19, fig. 4, 5 with BORN, *Test. Mus. Vindob.* 1780, pl. 12, fig. 11 and 12).

Thus it is clear that *crocatius* must be dropped from the synonymy of *Cyclohelix turbo*.

In the second place KOBELT (*Tierreich* 1902, p. 144) omits the record of *C. turbo* from Sumatra ¹) by SOWERBY (*Thes. Conch.* Vol. I, 1843, p. 116, pl. 25, fig. 102, 103) afterwards quoted by PFEIFFER (l. c. p. 141) and it is this latter record which helps especially to make the occurrence of *Cyclohelix* on Java more readily understood.

Yet it is not so simple to decide to which species the Javanese shell belongs.

For a better comparison I have tabulated below side by side the characters of *C. turbo* and *C. kibleri* being the two species which come close to VAN HEURN's specimen:

¹) And also that from Coromandel and Tranquebar (cfr. PFEIFFER, l. c. p. 141). In the Leiden Museum there are specimens of *turbo* from Burma.

<i>turbo</i>	<i>kibleri</i>
1 bedeckt durchbohrt	very narrowly umbilicate
2 kegelförmig	turbinate
3 dünn	very solid
4 ziemlich glatt	nucleus consisting of 2½ whorls, first 1½ smooth, the next with rather distant curved striae, remainder of shell with fine oblique striae, crossed by close-set microscopic spirals which are waved on the underside of body-whorl
5 gelb oder weiss, kastanienbraun marmoriert	rich dark brown colour, with numerous irregularly shaped spots and streaks of lighter colour; on the underside of shell the markings take a more regular spiral pattern
6 Apex ziemlich spitz	—
7 4 ziemlich gewölbte Windungen	whorls 5½, convex
8 letzte kantig, manchmal deutlich gekielt, unten abgeflacht	the last whorl a little flattened below
9 Mündung schräg	aperture very oblique
10 „ abgerundet viereckig	„ subirregularly oval
11 „ innen weisslich	„ orange coloured within
12 Mundrand verdickt	peristome well thickened
13 „ leicht zurückgeschlagen	—
14 „ weiss	„ orange
15 „ weit unterbrochen, durch sehr dünnen Callus verbunden	„ margins approaching and connected by a transparent callus
16 Spindelrand zu einer angedrückten Lamelle verbreitert, Unter- rand oben in einen vorspringenden Knoten auslaufend	columellar portion sloping towards the right, with a blunt tooth-like projection about the middle
17 —	operculum corneous, thin, about 8 whorls
18 Höhe 16, Diam. 25 × 21 mm.	Alt. 27, maj. diam. 31½ mm.

Of these 18 points there are 6 which agree more or less on both sides and 3 which are not comparable because the parallel condition is not mentioned (nos. 1, 2, 9, 10, 12, 16 and 6, 13, 17).

Of the remaining nine the *Cyclohelix* from Java has one characteris-

tic (no. 5) in common with *turbo*, seven (nos. 3, 4, 7, 8, 11, 14, 15) with *kibleri* while point 18, the dimensions, are: height 24 mm., max. diam. 29, min. diam. 23 mm.

I hope that these few lines will suffice to show that in the case of the *Cyclohelix* from Java we have to do with a small and light-coloured variety of *C. kibleri*.

The subject-matter of this note has been already investigated by Dr. A. L. J. SUNIER, until recently a curator at the Leiden Museum. On his removal to Amsterdam he suggested to me that I should work it out which I did by the kind permission of the Director of the Museum, Prof. Dr. E. D. VAN OORT. To both gentlemen my best thanks are due.
