

A new operculate genus from East Africa – *Elgonocyclus*
(Mollusca, Cyclophoridae), a preliminary diagnosis

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Whilst working through the Åke Holm collection, kindly sent on loan to me from the Naturhistoriska Riksmuseet, Stockholm, by Dr. Åke Anderson, I discovered several lots of minute operculates from various localities on Mt. Elgon and eastern Kenya. These immediately struck a chord of memory and reference to my notes of a visit to the Laboratoire de Malacologie, Muséum National de Histoire Naturelle, Paris, in the late 1950's confirmed that on examination of the types of two supposed species of *Trachycystis* described from Mt. Elgon by Louis Germain I had commented 'look very like small operculates and probably conspecific'. I was able to make a direct comparison of the Holm material with these types in March 1982 by kind permission of Dr. Simon Tillier during another brief visit to Paris. This showed that my original impressions were certainly correct and that only one species is actually involved. I have been unable to refer it to any known genus of African operculates nor does it seem to fit into any extra-African genus. I have reached the conclusion that a new genus is needed. Since a detailed study of the minute animal will take a long time and a name is needed for a list of East African non-marine Mollusca to be published soon, and in fact already distributed to a few institutions as a typescript, a preliminary diagnosis is given here to avoid a manuscript name coming into use.

Elgonocyclus gen. nov.

Differing from all other African operculates in its minute size, 1.2-1.75 mm¹ diameter. Shell very depressed helicoid, somewhat resembling a miniature *Theobaldius*, whitish to yellowish horn-coloured, very broadly and deeply umbilicate; spire very obtuse; whorls 4-4.5, very rapidly enlarging, convex, the apical 1½ almost smooth or very finely transversely striate, the rest finely transversely obliquely ribbed (about 30-40 per mm); suture well impressed; aperture almost circular, oblique, the simple peristome not free all round but adnate to the body whorl for a short distance, the ends joined by a thin callus. Operculum about 0.5 mm wide, thin and uncalcified, translucent and flexible, paucispiral, the marginal 0.15 mm without spiral, capable of being drawn up into the aperture. Otocysts reniform. The radula has about 85 rows and is about 510 µm long and 36 µm wide, the central tooth about 6.5 µm wide; central tooth with a moderately tapering shank and apparently² 5 equal cusps; other teeth have apparently² 4-5 cusps; the inner laterals have very tapering shanks.

¹ The ½ mm in Germain's description is an obvious error for 1.2 mm.

² The cusps are at the limit of resolution of an oil immersion lens and although the three central cusps are evident, the outer structures may possibly be the curved outer margins of the top of the reflected part; I believe there are five cusps but only a S.E.M. investigation will confirm this.

Elgonocyclus differs from *Maizania* Bourguignat, 1889 sect. *Micromaizania* Verdcourt, 1964, in its much smaller size, different periostracum and apparently 5-cusped central teeth; from *Cyathopoma* Blanford, 1861, in its totally different sculpture; from *Chondrocyclus* Ancey, 1898, in its simple operculum. The discovery of its correct position will involve a great deal of further study and its dissection is beyond my capabilities. The material available is unfortunately preserved with the animals contracted.

Type of genus: *Trachycystis koptaweliensis* Germain, 1934. Probably one species only. Eastern Kenya.

Elgonocyclus koptaweliensis (Germain) new combination

Germain, 1934, Bull. Mus. Natn. Hist. Nat., Paris (2) 6: 269 (*Trachycystis koptaweliensis*); 1934, loc.cit. (*Trachycystis monotropha*); editeurs, 1952, J. Conchyl., Paris 92: 168, pl. 7 fig. 14 (*Trachycystis koptaweliensis*); editeurs, loc.cit.: 169, pl. 8 fig. 15 (*Trachycystis monotropha*).

KENYA³. W. Suk District: Cherangani Hills, Kamatira Forest, 2400 m, 21 Jan. 1965, leg. A. Holm 92. Trans-Nzoia District: Cherangani Hills, Kapolet Forest, 1940 m, 10 Jan. 1965, leg. Å. Holm 60. Mt. Elgon: Vallée de la Koptaweli au nord de la rivière Koitobbos, 2300 m, 20 décembre 1932, leg. R. Jeannel (holotype in Mus. Paris); camp près de l'Elgon Saw Mill, à la lisière inférieure de la forêt, 2470 m, 17 décembre 1932, leg. R. Jeannel (holotype of *T. monotropha* in Mus. Paris); East Side, Kaptega R., 1850 m, 12 Dec. 1964, leg. A. Holm 16 and same locality, 1920 m, 25 Dec. 1964, leg. Å. Holm 26 and same locality 1900 m, litter in gallery forest, 12 Dec. 1977, leg. Å. Holm 383; E. Side, Suam R., 2170 m, 24 Dec. 1964, leg. Å. Holm 22 & Suam Saw Mill, 2500 m, 26 Dec. 1964, leg. Å. Holm 27 & Suam R., 2150 m, 27 Jan. 1965, Å. Holm 109 & Suam R., 2100 m, 29 Dec. 1964, leg. Å. Holm 346; E. Side, Kimothon R., 2500 m, 2 Feb. 1965, leg. Å. Holm; S. Side, Kimilili R., 2400 m, 30 Jan. 1965, leg. Å. Holm 115; locality uncertain since contents of several broken tubes mixed but probably Kimilili R., Jan. 1965, circa 2400 m, Å. Holm 98 or 117. Nakuru District: Molo, 2250 m, 15 Dec. 1964, leg. Å. Holm 27 (believed to be this species but not quite certain) & Elburgon, 2380 m, litter in undergrowth of *Eucalyptus* plantation, 14 Dec. 1971, leg. A. Holm 385. Not traced: Milimambogo, litter at brook in forest, 1500 m, 6 Dec. 1977, leg. Å. Holm 380.

REFERENCES

- EDITEURS, 1952. Figuration des mollusques de l'Omo décrits en 1934 par feu L. Germain. — J. Conchyl., Paris 92: 161-175.
 GERMAIN, L., 1934. Contributions à la faune malacologique de l'Afrique équatoriale. LXVIII. Mollusques terrestres nouveaux des régions montagneuses de l'Afrique orientale (Mission de l'Omo 1932-1933). — Bull. Mus. Natn. Hist. Nat., Paris (2) 6: 262-270.

³ Note all Holm specimens are in the Naturhistoriska Riksmuseet, Stockholm. Districts are those used in Flora of East Tropical Africa.