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A new species of Gulella Pfr. (Gastropoda Pulmonata, Streptaxidae) from NE. Tanzania

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A new species of *Gulella, G. conoidea*, is described from the foothills of the East Usambara mountains, north-east Tanzania. It has no obvious relationships with any other species but may be closest to *G. radius* (Preston).

Key words: Gastropoda, Pulmonata, Streptaxidae, *Gulella*, taxonomy, Tanzania, East Africa.

In 1962, I suggested that the total number of species of *Gulella* known from East Africa would eventually reach about 500 and although a steady stream of new species has been described, it is more likely about half of that figure; 500 is nearer the figure for the whole of Africa south of the Sahara. Quite a large number of unidentified species collected by recent expeditions remains to be dealt with, most of which will probably prove to be undescribed. Unfortunately many of these are known from one specimen only and that an empty shell. It is of course far from ideal to describe a new species from a single shell with no anatomical data and in many groups it would be quite wrong to do so, but when the species will be easily recognised again it is not in my view reprehensible. Just such a species has recently been found in a collection of molluscs given to me for naming by 'Frontier Tanzania' in April 1995; this striking species is described below.

Gulella conoidea sp. nov.
(fig. 1)

Shell fairly small, almost exactly conical in outline, narrowly perforate at the end of the umbilical groove, probably glossy in life, white; spire produced, the sides appearing almost straight in outline but slightly convex; apex acute, forming an angle of about 48° but angle formed by the produced sides about 38°; whorls 8, fairly convex, gradually increasing, the first 2 or 3 probably smooth but worn, the rest strongly ribbed with about 9-12 ribs per mm; suture moderately deep, not crenulate. Aperture about quadrate, rounded at the base, the peristome rather thick; dentition 4-fold; a rather narrow parietal lamella situated about one third the way from the outer edge, cutting off an almost round sinulus with upper tooth on the outer lip; below this is an obtuse nodule about the middle of the outer lip; these two outer elements are separated by a rather shallow valley; on the columella exactly opposite to the outer lip nodule is a narrow lamella; no obvious upper inset columella fold it present; parietal callus with a basally indented upper margin.

Length 5.5 mm., breadth 2.8 mm; aperture length 2.0 mm., breadth 1.5 mm.

Distribution. — Tanzania: East Usambara foothills, Kwamgumi/Segoma Reserve, about 4°57′-4°58′ S, 38°43′-38°45′ E, near Muzi R./Sigi R. junction, leg. 'Frontier Tanzania', holotype in National Museum of Natural History, Leiden (RMNH 57150).

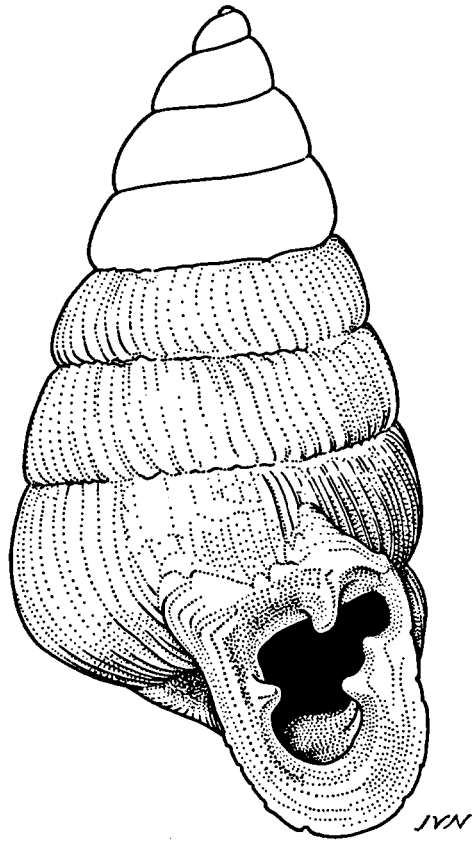

Fig. 1. *Gulella conoidea* n. sp., holotype (RMNH 57150); 5.5 x 2.8 mm. Inge van Noortwijk del. (half schematic).

Using my keys to the East African species (Verdcourt, 1962) it might be considered to come near to *Gulella cuspidata* Verdcourt, 1962, in the very first couplet; that, however, has the apex even more acuminate with slightly concave sides, more lamellate sculpture on the basal whorls and a totally different apertural dentition. *Gulella radius* (Preston, 1910), perhaps an aggregate of closely related spcies, also has an acute apex but an ovate 'body' giving it a quite different shape; some forms of this species have a dentition very similar to that of the new species, but the outer lip denticle is a bifid process rather than two elements. It might be keyed to Key 4 but agrees with nothing there or to Key 9 but equally does not agree with any species.

I have commented on the paucity of anatomical information in a paper on two

Ethiopian streptaxids (Verdcourt, 1990). It seems likely that the internal armature of the penis, the radula and the shell together will provide a better basis for classification, but so few species are known anatomically that no patterns have yet emerged. The gross genital anatomy does not appear to be of much value even at generic level.

The figure is acknowledged with thanks to the professional skill of Mrs. Inge van Noortwijk of the Leiden Museum.

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