

**Notes on Kenya land and freshwater snails
9. A rediscovery of *Microstele iredalei* (Preston) *)**

by
BERNARD VERDCOURT

Microstele iredalei (Preston, 1912)

Preston, 1912, Proc. Zool. Soc. p. 188, pl. 31, fig. 18 (*Leucochiloides* ?); Pilsbry, 1921, Man. Conch. (2), vol. 26, p. 148, pl. 14, fig. 18, pl. 17, fig. 7; Adam, 1954, Vol. Jubil. V. van Straelen, vol. 2, p. 789; Verdcourt, 1958, Basteria, vol. 22, p. 4.

In 1958 I described a collection of *Pupoides* from drift material collected in the Turkana District of Kenya. This material varied over a wide range of size and shape and three varieties were distinguishable. Whether these occurred together or in different areas could not be ascertained from drift material. I was, therefore, very pleased to see in an interesting collection sent to me by Dr. A. RIEDEL of the Polish Academy of Sciences abundant material of what at first sight appeared to be two species of *Pupoides*. This material had been collected in Kenya by Messrs. BANIEWICZ and KNABE '150 km. E. of Nairobi, 700 m. altitude, dry terrain under stones and pieces of stem or bark'. The material had been found alive together with *Trochonanina pyramidea* von Martens and obviously had been in a state of aestivation since epiphragms were in position. The material was easily sorted into two groups save for a very few intermediate specimens. On removing some epiphragms it was a surprise to find that the small species had a parietal and a columellar lamella in addition to the nodule close to the top of the peristome. Clearly it was *Microstele iredalei* (Preston) and, apart from the report of ADAM (1954) that a 'cotype' said to be of *Pupoides chanlerensis* (Preston) and received at the Institut Royal des Sciences Naturelles de Belgique from PRESTON himself was in fact *Microstele iredalei*, no other records could be traced. This statement of ADAM, together with the fact that in the new material the lamellae are often not visible unless the shell is tilted, made me query the identity of some of the drift material previously mentioned. The bulk of this is preserved in Nairobi and not readily available to me.

The material of *Microstele* collected by BANIEWICZ and KNABE is uniform save for one quite abnormal specimen. The measurements may be tabulated as follows, the units employed being micrometer eyepiece divisions (50 are equivalent to 7 mm.).

*) No. 8, see: Basteria, vol. 27, p. 65 (1963).

Breadth	Numbers in each group														
	14	13	12	11	10	22	23	24	25	26	27	28	29	30	31
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
13	0	0	0	0	1	0	2	0	0	1	0	0	0	0	0
12	0	0	0	2	2	1	1	0	0	0	0	0	0	0	0
11	1	2	3	20	22	20	5	1	0	0	0	0	0	0	0
10	0	1	4	2	2	3	1	0	0	0	0	0	0	0	0
						22	23	24	25	26	27	28	29	30	31
						Length									

The one right outside is so different that it might be thought to be a new species but without more adequate evidence I think it is only a very abnormal specimen which has continued growth longer than is usual. Two normal specimens and this abnormal one are shown in Fig. 1 A-D.

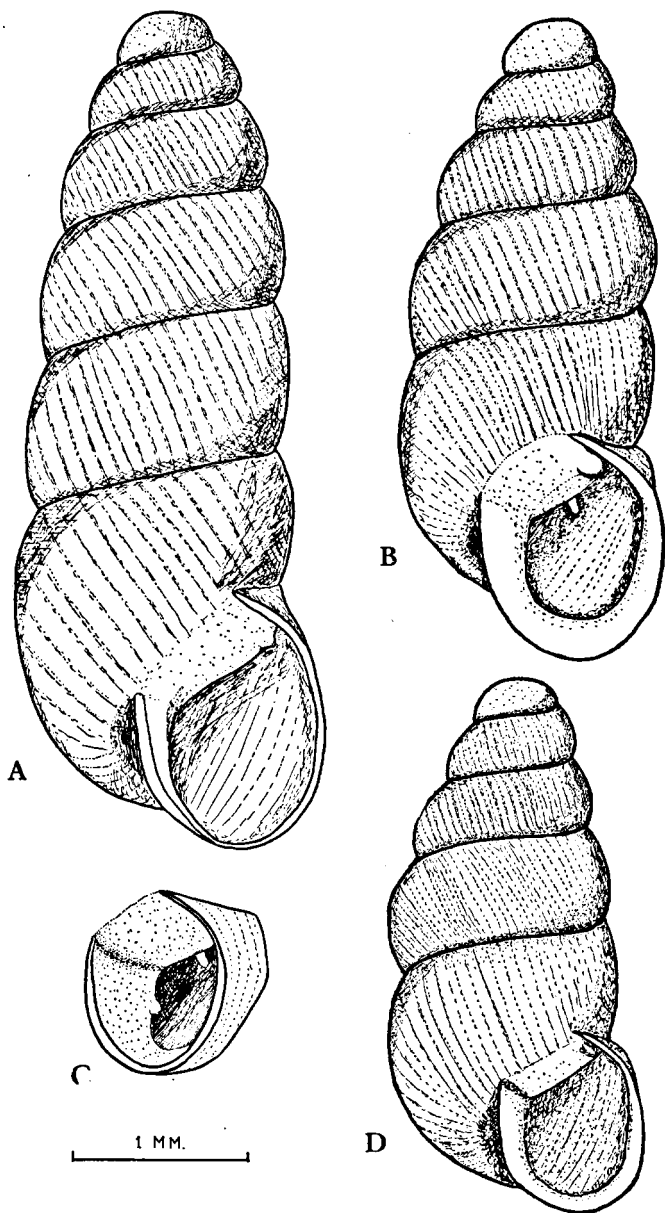
The accompanying *Pupoides* is the second live collected population I have been able to measure and shows that extremes of variation do not occur in one locality. The measurements may be tabulated as follows:

Breadth	Numbers in each group											
	19	18	17	16	15	14	30	31	32	33	34	35
19	0	0	0	0	1	1	0	2	2	1	0	
18	0	0	1	5	7	11	5	5	3	3	1	
17	0	1	0	12	29	26	13	17	1	1	0	
16	0	0	6	13	16	17	4	2	0	2	0	
15	2	5	4	5	2	3	0	1	0	0	0	
14	2	0	0	0	0	0	0	0	0	0	0	
							30	31	32	33	34	35
							Length					

This population seems to be assignable to *Pupoides coenopictus* (Hutton) var. *samavaensis* (Paladilhe).

The only other lot I have seen which was collected alive is a very uniform lot from Malindi, Kenya collected by HARRIES. This is not available now as a complete sample suitable for measuring but it seems uniformly referable to *Pupoides coenopictus* (Hutton) var. *sennaariensis* (L. Pfeiffer). Thus it seems likely that the various variants mentioned in my previous paper do not occur together in one population.

I have examined the material of *Microstele* and *Pupoides* preserved in the British Museum (Natural History). This includes paratypes of *M. iredalei* from Eusso Nyiro, Kenya, and also a lot from Mt. Marsabit, Kenya, collected by PERCIVAL. The following *Pupoides* material is present: — *P. consanguineus* (Preston), a paratype from Gazi which possesses a small mid-parietal denticle; *P. soror* (Preston), a paratype from Eusso Nyiro and also material from an island in Lake



Baringo, Kenya, collected by WORTHINGTON and from Mt. Marsabit collected by PERCIVAL; *P. chanlerensis* Preston, paratypes from the Chanler Falls, Eusso Nyiro, and also material from the Lorian Swamp, Kenya, Dar es Salaam, Tanzania, collected by CONNOLLY and from Zanzibar collected by GIBBONS (possibly unpublished material of *P. zanguibaricus* (Taylor)). None of the above, save the one mentioned, had any denticles.

CONNOLLY (1930) mentioned that he thought *Microstele iredalei* was probably not congeneric with *M. noltei* (Bttgr.) from South West Africa and that the resemblance between the molluscs of the south-west and north-east arid areas of Africa is due to similar climatic conditions rather than to any more intimate links. This is of particular interest since there is a certain amount of botanical and other evidence pointing to a former arid corridor joining the two areas. From a study of the shells alone I am not able to confirm CONNOLLY's view.

REFERENCES

- ADAM, W., 1954. Études sur les mollusques de l'Afrique Centrale et des régions voisines. 1. Vertiginidae et Valloniidae. Vol. Jub. Victor van Straelen Bruxelles, vol. 2, pp. 725-817.
- CONNOLLY, M., 1930. Contributions to a knowledge of the fauna of South West Africa. IX. The non-marine Mollusca of South West Africa. Ann. S. Afr. Mus., vol. 29, pp. 277-336.
- VERDCOURT, B., 1958. Notes on Kenya land and freshwater snails. 5. Records of Vertiginidae and Valloniidae from Kenya, Zanzibar, and Tanganyika. Basteria, vol. 22, pp. 1-9.

Fig. 1. *Microstele iredalei* (Preston). Three specimens from Kenya. A, abnormally large specimen; B, D, normal specimens; C, aperture of D tilted to show the dentition.