Notes on East African land and freshwater snails 11. Miscellaneous records from Kenya and Tanzania including the description of two new species

BERNARD VERDCOURT

The following paper is mainly based on material handed over to me for naming by Dr. B. Hauser (Geneva), Dr. A.C. van Bruggen (Leiden) and Dr. D. Mabberley (Oxford). This contains several species not previously reported from East Africa¹.

Land operculates (Cyclophoridae) are curiously poorly represented in Africa and I was amazed to find one that I did not recognise in an unsorted mass of minute species collected in limestone areas near the Shimoni Caves in Kenya. Unfortunately only one specimen was present and the operculum of this was missing. The genus and even the family are not certain. I realise that some workers will criticise me for describing the species but I feel it is of sufficient interest to warrant recognition. Waiting for further material to turn up is a course frequently advocated but only too often one waits in vain. I have placed the species in the genus Cyathopoma W. & H. Blanford, 1861, which has numerous species in India, Sri Lanka (Ceylon) and Japan; one had been described from the Seychelles and one from the Ituri Forest in Zaire. Until fresh material is discovered the correct placing will be in doubt. It has much the appearance of a very juvenile Tropidophora (subgenus Ligatella) but is undoubtedly a fully formed adult shell. A juvenile of the smallest Tropidophora has very much larger apical whorls.

Cyathopoma azaniense sp. nov.

Differing from C. africanum Pilsbry in its less pronounced spiral ribs and unexpanded peristome; C. blanfordi H. Adams is a more elevated species.

Shell (fig. 1) minute, depressed helicoid, not very thin, very widely umbilicate, semi-translucent white, slightly glossy. Spire short, the apical angle about 42°, the actual apex narrowly obtuse. Whorls four, rapidly increasing, very convex, not keeled (ignoring the sculpture); two apial whorls with fine almost imperceptible transverse striae, the

¹ Mus. Geneva = Muséum d'Histoire Naturelle, Geneva, Switzerland; Mus. Leiden = Rijksmuseum van Natuurlijke Historie, Leiden, Netherlands.

Fig. 1. Cyathopoma azaniense n. sp., holotype, Kenya, Shimoni, Geneva Museum. H. Heijn del.

remaining two with strong spiral ribs, there being 17 on the last whorl, most of them on the under side of the shell and visible deep into the umbilicus; those on the upper side are more spaced and one close to the periphery is the strongest; between the ribs are very numerous very close transverse slightly curved riblets visible only at fairly high powers. Suture very deeply impressed. Aperture almost round, the peristome a little irregular and with two or three circumferential ribs outside just behind the outer margin; umbilicus wide and deep, extending to the apex. Operculum not seen. Height: 1.4 mm, width: 2.0 mm; aperture, height: 0.7 mm, width 0.8 mm.

Kenya: Kwale District, Shimoni, 70 km SW. of Mombasa, near the caves, 28 September 1975, leg. P. Strinati & V. Aellen (holotype in Mus. Geneva).

The assemblage of small molluscs in which this single shell was found contained several species of great interest including Tropidophora letourneuxi Bourguignat juv., Quickia concisa (Morelet) (probably Succinea corticalis Von Martens is a synonym), Pupoides coenopictus samavaensis (Paladilhe), Gastrocopta cf. klunzingeri (Jickeli), Nesopupa cf. minutalis (Morelet), N. cf. bisulcata (Jickeli), Cecilioides sp. (a very small probably new species), Opeas delicatum (Taylor), Gulella gwendolinae (Preston), Streptostele (Raffraya) berma Connolly, and S. sp.

Maizania bildebrandti kibonotoensis (D'Ailly, 1910)

D'Ailly, 1910, Wiss. Ergebn. Schwed. Zool. Exp. Kilimandjaro 1 (6): 3 (Cyclophorus kibonotoensis).

Kenya: Marsabit National Reserve, Mt.Marsabit, W. rim of Lake Paradise crater, in forest, 1500 m, 12 February 1976 and 16 January 1977, leg. A.C. & W.H. van Bruggen (Mus. Leiden).

Tropidophora anceps (Von Martens, 1878)

Von Martens, 1878, Monatsber. Kön. Preuss. Akad. Wiss. Berlin 1878: 288, pl. 1 fig. 4 (Cyslostoma anceps).

Kenya: Tsavo West National Park, Roaring Rocks, ca. 900 m, 29 Januari 1975, leg. A.C. & W.H. van Bruggen (Mus. Leiden).

Tropidophora letourneuxi (Bourguignat, 1887)

Bourguignat, 1887, Bull. Soc. Malac. France 4: 270 (Rochebrunia letourneuxi).

Kenya: Shimoni, Strinati & Aellen (details as above); Mt. Marsabit, 1976, A.C. & W.H. van Bruggen (details as above).

Plecotrema monilifera H. & A. Adams, 1853

H. & A. Adams, 1853, Proc. Zool. Soc. London 1853:120.

Kenya: Kwale District, 10 km S. of Mombasa, Similani Cave, leg. P. Strinati & V. Aellen (Mus. Geneva).

Cassidula labrella (Deshayes, 1830)

Deshayes, 1830, Encycl. Méth. 2, 92, no. 15 (Auricula labrella).

Kenya: with last.

Biomphalaria sudanica (Von Martens, 1870)

Von Martens, 1870, Malak. Blätt. 17:35 (Planorbis sudanicus); 1870, in Pfeiffer's Nov. Conch. 4: 23, pl. 114 figs. 6-9.

Kenya: Amboseli National Park, Amboseli Safari Camp, 1140 m, 13 January 1976, leg. A.C. & W.H. van Bruggen; Tanzania: Lake Manyara National Park, W. shore of Lake Manyara, 945 m, 18 January 1976, leg. A.C. & W.H. van Bruggen (both Mus. Leiden).

Quickia concisa (Morelet, 1848)

Morelet, 1848, Revue Mag. Zool. 1848:351 (Succinea concisa).

Kenya: Shimoni, Strinati & Aellen (details as above).

It is very probable that Succinea corticalis Von Martens is also referable to this species.

Nesopupa cf. minutalis (Morelet, 1881)

Morelet, 1881, J. Conchyl., Paris 29: 212 (Pupa minutalis); Adam, 1954, Volume Jubilaire Victor van Straelen 2: 776, fig. 14 D.

Kenya: Shimoni, Strinati & Aellen (details as above).

The specimens are imperfect but comparisons in the British Museum (Natural History) convinced me that the above determination is correct. The species has not previously been reported from East Africa.

Nesopupa cf. bisulcata (Jickeli, 1873)

Jickeli, 1873, Malak. Blätt. 20:107 (Pupa bisulcata); Jickeli, 1874, Nova Acta Leop. Carol. 37:119, pl. 5 fig. 10 (Pupa bisulcata); Adam, 1954, Volume Jubilaire Victor van Straelen 2:764, figs. 12D-J, 13.

Kenya: Shimoni, Strinati & Aellen (details as above).

Further material in a fresh state enabling the dentition to be more clearly seen is required to confirm the determination. The species has not previously been reported from East Africa.

Pupoides coenopictus samavaensis (Paladilhe, 1872)

Paladilhe, 1872, Ann. Mus. Civ. Stor. Nat. Genova 3:14, pl. 1 figs. 20-21 (Bulimus samavaensis). Kenya: Shimoni, Strinati & Aellen (details as above).

Gastrocopta cf. klunzingeri (Jickeli, 1874)

Jickeli, 1873, Malak. Blätt. 20:106 (Pupa klunzingeri); 1874, Nova Acta Leop. Carol. 37:116, pl. 5 fig. 8 (Pupa klunzingeri).

Kenya: Shimoni, Strinati & Aellen (details as above).

Cerastua trapezoidea lagariensis (Smith, 1904)

Smith, 1904, Proc. Malac. Soc. London 6:68, fig. 1. [Ena (Cerastus) lagariensis].

Kenya: Mt. Elgon National Park, podocarpus forest, ca. 2600 m, 3 February 1976, leg. A.C. & W.H. van Bruggen (Mus. Leiden).

Opeas delicatum Taylor, 1878

Taylor, 1878, Quart. J. Conch. 1:281, pl. 3 fig. 3.

Kenya: Shimoni, Strinati & Aellen (details as above).

Pseudoglessula monticula K.L. Pfeiffer, 1952

K.L. Pfeiffer, 1952, Arch. Moll. 81:91, pl. 1 fig. 8.

Tanzania: Gibb Farm (Ngorongoro Safari Lodge), N. of Karatu, forest near waterfalls, ca. 2000 m, 17 January 1976, leg. A.C. & W.H. van Bruggen (Mus. Leiden).

Oreohomorus nitidus (Von Martens, 1897)

Von Martens, 1897, Möbius, Deutsch Ost-Afrika 4 (1), Beschalte Weichthiere: 119 (Subulina mamboiensis nitida).

Tanzania: Gibb Farm, leg. A.C. & W.H. van Bruggen (details as above).

Halolimnohelix sp. nov.

A single shell of a hairy species not identifiable with any known to me. Description must await further material.

Tanzania: Gibb Farm, leg. A.C. & W.H. van Bruggen (details as above).

Vicariibelix keniensis keniensis Verdcourt, 1974

Verdcourt, 1974, Rev. Zool. Afr. 88:465, fig. 3 & pl. 3 figs 4a, b, c, 5, 6.

Kenya: Mt. Kenya, Naromoru Track, above Met. Station, ca. 3500 m, 7 February 1976, leg. A.C. & W.H. van Bruggen; Mt. Kenya, Sirimon Track, ca. 3000 m, 13 January 1977, leg. A.C. & W.H. van Bruggen, fig. 2 (both Mus. Leiden).

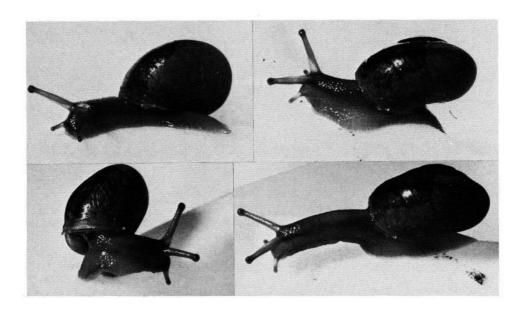


Fig. 2. Vicariibelix k. keniensis Verdcourt, live specimen from Mt. Kenya, Sirimon Track, Leiden Museum, enlarged, Chr. Hoorn phot.

Trachycystis ariel (Preston, 1910)

Preston, 1910, Ann. Mag. Nat. Hist. (8) 6:531, pl. 8 fig. 15 (Phortion ariel). Tanzania: Gibb Farm, leg. A.C. & W.H. van Bruggen (details as above).

Punctum kilimanjaricum sp. nov.

Shell small, depressed helicoid, mat, the umbilicus deep, 0.5 mm wide, pale corneous; spire raised; whorls 3.8, rounded with only very faint traces of a keel; first 1.25 whorls more or less smooth, the rest with 16-17 close transverse striae per mm, more or less irregular in strength, also some fine transverse striae and very close and indistinct spiral striae in between, scarcely noticeable above even under a 2/3 rds. objective, but evident beneath particularly around the umbilicus; suture deep and well-defined; aperture rounded, the columella not reflected over the umbilicus. Major diameter, 2.0-2.25 mm; minor diameter, 1.8-1.9 mm; height, 1.3-1.4 mm; aperture 0.8-0.9 × 0.8 mm.

Tanzania: Kilimanjaro, near Peters Hut, under large stones amongst *Helichrysum* and *Euryops*, 4050 m, January 1955, leg. B. Verdcourt (holotype and two paratypes in National Museum, Nairobi).

Two radulae and jaws were mounted to confirm the generic placing. The jaw consists of about 16 plates and measures 0.2 mm across and 0.06 mm wide. The radula is 0.6 mm long and 0.17 mm wide. The formula is 16-19:c:16-19 and the endocones are longer than the entocones in the young part of the radula stainable with Chlorazol Black E. In

P. hottentotum (Melvill & Ponsonby) var. mkusiensis Verdcourt the costulae are further apart and there are quite marked spiral striae above. A paratype of P. cryophilum (Von Martens) is larger with more conspicuous spiral striae; the actual holotype preserved in the Zoological Museum, Berlin, is darker and 1.8-2.2 mm wide. P. pallidum Connolly material from Mt. Vengo in Mozambique is very pale and 1 mm wide with a narrow deep umbilicus; the striae are not strong at X 15. P. hottentotum is darker and much more strongly ribbed than P. pallidum, 1.5 mm wide. P. pygmaeum (Draparnaud) is darker than P. kilimanjaricum and with more evident striae, 1.3 mm wide, and P. brucei (Jickeli) has the shell more loosely coiled and is more or less helicoid, 1.75 mm wide. The material was left in the Nairobi Museum when I returned to Europe in 1964; it is not at present available for illustration.

Vitrina lactea Connolly, 1925

Connolly, 1925, Ann. Mag. Nat. Hist. (9) 15:461, figs. 1,2.

Kenya: Mt. Kenya, Naromoru Track, leg. A.C. & W.H. van Bruggen (details as above).

Trochonanina mozambicensis (L. Pfeiffer, 1855)

Von Martens, 1869, Von der Decken's Reisen in Ostafrika 3:55, Moll., pl. 1 fig. 3 (Nanina pyramidea).

Kenya: Tsavo West National Park, leg. A.C. & W.H. van Bruggen (details as above).

Trochonanina moxambicensis (L. Pfeiffer, 1855)

Pfeiffer, 1855, Proc. Zool. Soc. London 1855: 91, pl. 31 fig. 9 (Helix mozambicensis).

Tanzania: Serengeti National Park, Grumeti R., Poacher's Lookout, among boulders, ca. 1500 m, 23 January 1976, leg. A.C. & W.H. van Bruggen (Mus. Leiden); Serengeti National Park, Naabi Hill Gate, among overgrown boulders, ca. 2000 m, 21 January 1976, leg. A.C. & W.H. van Bruggen (Mus. Leiden).

The genus *Trochonanina* needs revision and the name used above may cover several species. The banded specimens from the Serengeti resemble *T. elgonensis* (Preston), but that has much stronger spiral striae above and also *T. monozonata* (Preston) which, however, has a blunter keel.

Gulella sp. nov.

Tanzania: Gibb Farm, leg. A.C. & W.H. van Bruggen (details as above).

This species comes in the group in which the aperture possesses no dentition; the single shell is too poor to describe but is figured here in outline (fig. 3).

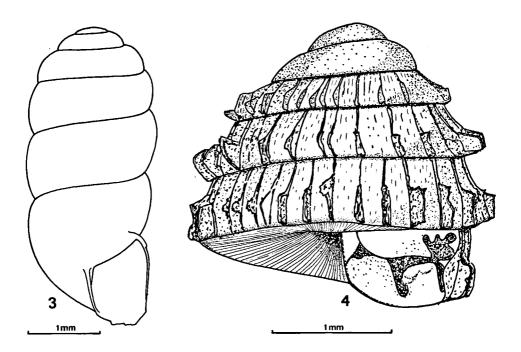
Gulella gwendolinae (Preston, 1910)

Preston, 1910, Ann. Mag. Nat. Hist. (8) 6:527, pl. 7 fig. 3 (Ennea gwendolinae).

Kenya: Shimoni, leg. Strinati & Aellen (details as above).

Gulella sp. nov.

Although this is only a juvenile shell (fig. 4) and as such not adequate for description it is clearly not identical nor perhaps even very closely related to *G. aenigmatica* (Smith) or to *G. jacquelinae* Adam, the only two remotely similar species described from the general area concerned. The very distinct lamelliform element of the sculpture indicates



Figs. 3-4. East African Gulella species. 3. Gulella n. sp., Tanzania, Gibb Farm, Leiden Museum. 4. Gulella n. sp. juv., Tanzania, Ukaguru Mts., Leiden Museum. Fig. 3 H. Heijn del., fig. 4 author del.

affinity with G. spatium (Preston) and G. pretiosa (Preston), both Kenya species; no species of this group are recorded from Tanzania but since G. peakei continentalis Van Bruggen, described from Zululand, is related, it is not surprising to find allies in the intervening territory. It is to be hoped that adult specimens will be found but there is little doubt that many species will be extinct and remain unknown as virtually all the forests in East Africa are being degraded at an ever increasing rate.

Tanzania: Ukaguru Mts., Mamiwa Ridge, 2190 m, leg. D.J. Mabberley (Mus. Leiden).

Gulella kohllarseni (Haas, 1936)

Haas, 1936, Abh. Senckenb. Naturf. Ges. 431:18, pl. 1 fig. 4. [Diaphera (Huttonella) kohl-larseni]. Tanzania: Gibb Farm, leg. A.C. & W.H. van Bruggen (details as above).

Gulella laqueus (Preston, 1913)

Preston, 1913, Proc. Zool. Soc. London 1913:207, pl. 34 figs. 5,5a (Ennea laqueus). Kenya: Mt. Marsabit, leg. A.C. & W.H. van Bruggen (details as above).

Gulella commoda (Smith, 1903)

Smith, 1903, J. Conch. London 10:315, pl. 4 fig. 9 (Ennea commoda). Tanzania: Gibb Farm, leg. A.C. & W.H. van Bruggen (details as above).

Gulella farquhari (Melvill & Ponsonby, 1895)

Melvill & Ponsonby, 1895, Ann. Mag. Nat. Hist. (6) 16: 478, pl. 18 figs. 3-5 (Ennea farquhari). This southern African species has previously not been found north of Mt. Vengo in Mozambique so it is of great interest to record it from Tanzania which extends the range by some 1500 km.

When the missionary J. Last visited the Nguru Mts. towards the end of the last century it is clear, that apart from evangelizing zeal he also had a good eye for minute molluscs since E.A. Smith in 1890 described no fewer than 15 species of Gulella from his collections, mostly from plentiful fresh specimens. Since that time, however, practically noone else has been there and no further collections have been made of most of the species. When Dr. D.J. Mabberley mentioned that he was going to some nearby mountains I asked him to look out for tiny shells. Unfortunately the collection made did not contain any of the species collected by Last and most of the specimens were either juvenile or in a poor state of preservation. I at first thought that a new species was involved but comparison with South African material in the British Museum (Natural History) showed it to be very close to G. farquhari and its relatives. Dr. A.C. van Bruggen has kindly confirmed my identification and considers that the material 'very probably belongs to this variable complex'. Several varieties have been described from South Africa which are no longer maintained. The specimens are considerably larger than those from Mozambique and have the dentition more prominent; they probably represent a distinct race but a decision must await better material. A description follows (fig. 5).

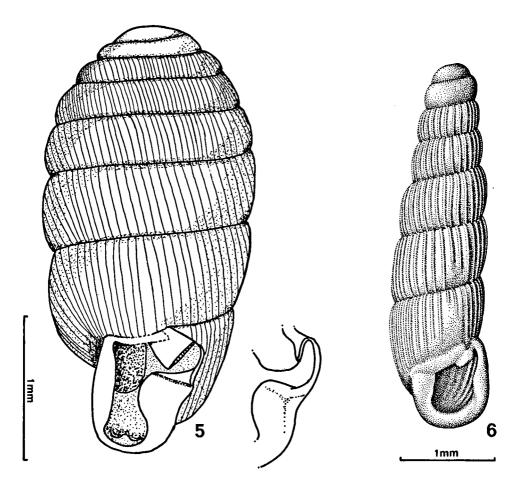
Shell oblong-ellipsoid, imperforate, white, shining, the sides more or less straight in the middle and rounded at both ends; the apex broadly rounded and dome-shaped. Whorls 7.5–8, slightly to distinctly convex. Apical 1.5–2.5 whorls more or less smooth; rest very finely ribbed the number per mm being 25, 25, 27, 36 and 45 on the first, second, third, fourth and fifth whorls above the aperture as seen in plan view. Suture lightly impressed, slightly crenellate. The aperture is obliquely quadrate; dentition basically four-fold, a strong angular parietal lamella, a relatively large rounded process on the outer lip, angled above and corresponding to a very deep pit just behind the peristome, a very small inset basal tooth; the columella is longitudinally thickened, but it can hardly be said to bear a marginal process; there is, however, a deeply inset rounded lobe. Height: 3–3.6 mm, breadth 1.3–1.5 mm.

Tanzania: Ukaguru Mts., Mnyera Ridge, Cyathea forest, 1950 m, leg. D.J. Mabberley (Mus. Leiden).

Using my original keys to the genus (1962, Ann. Mus. Roy. Afr. Centr., Sci. Zool., No. 106) this species will key to Key 8 and come out right at the last couplet, number 31; it differs from both the species concerned in size and/or shape.

Gulella (Primigulella) sp.

A very young shell of a species of this group was found by Dr. Mabberley and could possibly be G. usagarica (Crosse). The locality fits in with the migration path of this subgenus being an intermediary station between the Uluguru Mts. and the Usambara Mts.



Figs 5-6. East African streptaxids. 5. Gulella farquhari (Melvill & Ponsonby) var., Tanzania, Ukaguru Mts., Leiden Museum. 6. Streptostele herma Connolly, Kenya, Shimoni, Geneva Museum. Fig. 5 author del., fig. 6 H. Heijn del.

The flattened Architectonica-like shells of this subgenus could easily be confused by the unsuspecting as belonging to some other family.

Tanzania: Ukaguru Mts., Mnyera Ridge, Cyathea forest, 1950 m, leg. D.J. Mabberley (Mus. Leiden).

Streptostele crassiplicata Connolly, 1922

Connolly, 1922, Ann. Mag. Nat. Hist. (9) 10:510, pl. 14 fig. 30.

Tanzania: Gibb Farm, leg. A.C. & W.H. van Bruggen (details as above).

Streptostele (Raffraya) berma Connolly, 1912

Connolly, 1912, Ann. S. Afr. Mus. 11:89, pl. 2 fig. 3; Van Bruggen, 1967, Zool. Verhand. Leiden 91:30, fig. 14.

Kenya: Shimoni, leg. Strinati & Aellen (details as above).

A single specimen of a *Streptostele* which I am unable to separate from this species was obtained by these collectors, thus bringing the total number of species in this one lot new to East Africa up to the amazing figure of four. Van Bruggen (1967) gives full details of distribution and further references in the paper cited above. The nearest locality to the Kenya one is the Victoria Falls. Whilst preparing the illustration reproduced here (fig. 6), Mr. Heijn commented on the great similarity of the specimen to a Rhodesian specimen of *S. berma* which he drew for the 1967 paper mentioned above.

A key is given below to the species of the subgenus Raffraya recorded from East Africa, based on an examination of the types save where an * is appended to the specific name.

1.	Ribs not crossing the main whorls completely or more or less absent
-	Ribs crossing the main whorls completely
2.	Shell glossy, save for slight crenellation and with a low, characteristically raised, plat-
	form well within the aperture on the outer wall; shell 5.0-5.8 x 1.5-1.6 mm (Tan-
	zania, Mt. Kilimanjaro)
_	Shell more strongly crenellate or partially ribbed; no raised platform present 3
	Shell very small, 2.7 x 0.9 mm, ribbed below the suture; a lamella on the columella
	as well as a tooth on the parietal wall and one on the outer lip (Tanzania, Mt. Ha-
	nang)
_	Shell larger and with no columellar lamella
	Tapering, slender shell with less convex sides; ribs rather obscure, spaced, some
••	crossing only half the whorl; parietal tooth, outer lip thickening and angular external
	nodule all present; shell 5.0 X 1.4 mm (Tanzania, Zanzibar and E. Usambaras)
	S. taylori (Gibbons)
	Less tapering shell with more convex sides; suture very distinctly crenellate, but only
	very few ribs cross the whorls which are thus mostly smooth; parietal tooth and
	angular external nodule absent, but a very slight thickening on the outer lip; shell
	4.1-4.3 X 1.3 mm (Kenya Highlands)
5.	Large, relatively wider, species; shell 5.6-8.5 X 1.6-2.5 mm
_	Smaller, relatively narrower, species
6.	First whorl smooth; second whorl with fine transverse lines and very fine spiral lines;
	third onwards with strong ribs; shell 8.0 X 2.0 mm (Tanzania, Dabaga)
_	Initial whorls smooth, without fine spiral lines
7.	Less tapering shells with more rounded sides and gradually narrowed or sometimes
	strongly contracted to the apex; parietal lamella and external nodule present and a
	variable thickening on the outer lip
_	Tapering slender shells
Q	Apical whorls relatively narrower, the embryonal shell more elongate; shell 7.5—
ο.	
	8.5 X 2.5 mm (Kenya, Nairobi area)

_	Apical whorls relatively broader, the embryonal shell less elongate; shell 6.5-8.2 X
	2.0-2.5 mm (Tanzania, near Lake Tanganyika; Zaire) S. borei Smith
9.	Shell slightly curved; peristome thin; shell 6.0 X 1.9 mm (Uganda, Mt. Elgon; Kenya
	Turkwell R. drift)
	Shell not curved; peristome very thick with distinct parietal tooth and outer lip
	thickening; shell 5.5-7.0 x 2.0-2.2 mm (Uganda, Mt. Elgon)
10.	More slender tapering species with rather stepped whorls; shell 3.5-5.2 x 0.9-1.3
	mm (Kenya coast; Rhodesia; Transvaal)
_	Less slender species with more convex sides; shell 4.1-5.25 X 1.3-1.6 mm (Kenya
	Highlands)
11.	Aperture slightly larger, 1.4 X 1.3 mm, with vertical groove near the upper extremity
	of the columella; sinus of the outer lip less marked above; shell 4.7 x 1.6 mm (Kenya
	Highlands)
_	Aperture slightly smaller, 1.2-1.25 X 0.75-1.0 mm; no vertical groove on upper
	part of columella; sinus of the outer lip more marked above; shell 4.1-5.25 X 1.2-
	1.7 mm (Kenya: Kakamega, Kapenguria, Turkwell R. drift, Turi, Mara)
	S. constricta Connolly (including S. babaulti Germain*)

Mr. H. Heijn of Leiden University kindly prepared the five professional drawings (figs. 1, 3, 6); the other two are my own.

SUMMARY

Miscellaneous records of East African land snails, including the description of two new species, viz. Cyathopoma azaniense from Shimoni (Kenya) and Punctum kilimanjaricum from Mt. Kilimanjaro (Tanzania). Nesopupa cf. minutalis, N. cf. bisulcata, Gulella farqubari, and Streptostele berma are new records for East Africa; other imperfect material represents three possibly new species. A key to the East African species of the subgenus Raffraya of Streptostele is added.

² S. costulata Von Martens var. minor Von Martens, i.e. S. minor Thiele, is close to and perhaps the same as this according to a note I made when examining material at Berlin some twenty years ago. According to Pilsbry it may also be the same as his S. dautzenbergi although his illustration indicates a shell with a thinner peristome. A similar shell collected in Uganda, Ruizi (leg. Jarrett) is in the collection of the National Museum, Nairobi (Kenya), but it has a parietal denticle.

SAMENVATTING

Naast de beschrijving van twee nieuwe soorten, Cyathopoma azaniense van Shimoni (Kenia) en Puctum kilimanjaricum van Mt. Kilimanjaro (Tanzania), bevat bovenstaand artikel een groot aantal nieuwe verspreidingsgegevens wat betreft land- en zoetwatermollusken van Oost-Afrika. Vesopupa cf. minutalis, N. cf. bisculcata, Gulella farquhari en Streptostele herma zijn soorten nieuw voor Oost-Afrika. Tenslotte wordt een determinatietabel gegeven voor de soorten van het ondergeslacht Raffraya van het geslacht Streptostele.