ANNALES HISTORICO-NATURALES MUSEI NATIONALIS HUNGARICI
Volume 96 Budapest, 2004 pp. 299–315.

New and little known species of terrestrial Mollusca from East Africa and Congo (Kinshasa)

B. VERDCOURT

Royal Botanic Gardens, Kew, Richmond, Surrey, TW9 3AB, United Kingdom

Abstract – *Hydrocena tanzaniensis* sp. n., *Nesopupa bisulcata sinistra* ssp. n., *Edentulina parensis* sp. n., *Tayloria leroyi depressa* ssp. n., *Gulella kimbozae* sp. n., *G. pseudolkokolae* sp. n., *G. eoryi* sp. n. and *G. afrooccidentalis* sp. n. are described as new taxa and further information is given about *Nesopupa minutalis* (MORELET, 1881), *N. bisulcata bisulcata* (JICKELI, 1874), *Cecilioides callipeplum* (CONNOLLY, 1923), *C. tribulationis* PRESTON, 1911, *Gulella ingloria* (PRESTON, 1913), *G. meruensis* (D'AILLY, 1910), *G. peakei* VAN BRUGGEN, 1975, *G. olkokolae* ADAM, 1965, *G. hildae* VAN BRUGGEN, 2001, *G. habibui* TATTERSFIELD, 1998, *G. coarctata* (D'AILLY, 1910), *Trachycystis lamellosa* K. L. PFEIFFER, 1952, *T. ariel* (PRESTON, 1910) and *Pisidium reticulatum* KUIPER, 1966. With 20 figures.

Key words – Mollusca, Pulmonata, Hydrocenidae, Vertiginidae, Ferussaciidae, Streptaxidae, Charopidae, Sphaeriidae, East Africa, Congo Kinshasa.

INTRODUCTION

In February, 2002, Dr. ZOLTÁN FEHÉR of the Hungarian Natural History Museum (HNHM) asked me to examine a collection of non-marine Mollusca which had been made by several Hungarian naturalists whilst working in mostly East Africa. Just over 300 lots of material were involved mostly consisting of one species but others with up to ten different species. Much of this material consisted of small mostly indeterminate juveniles, indeterminate worn specimens or of species belonging to genera in need of revision. Even with abundant good material it would be foolish to describe supposedly new species in such genera. There were for example hundreds of a species of *Thapsia* a genus (or more likely a group of several genera) which cannot be revised until a great deal of anatomical work has been done on topotypes of numerous mostly ± identical – appearing 'species' described from shells alone. There are, however, some very distinctive species in better known genera which appear to be undescribed, some unfortunately represented by only one specimen; several of these are described below. Mention is also made of specimens, which add to our knowledge of previously described species.

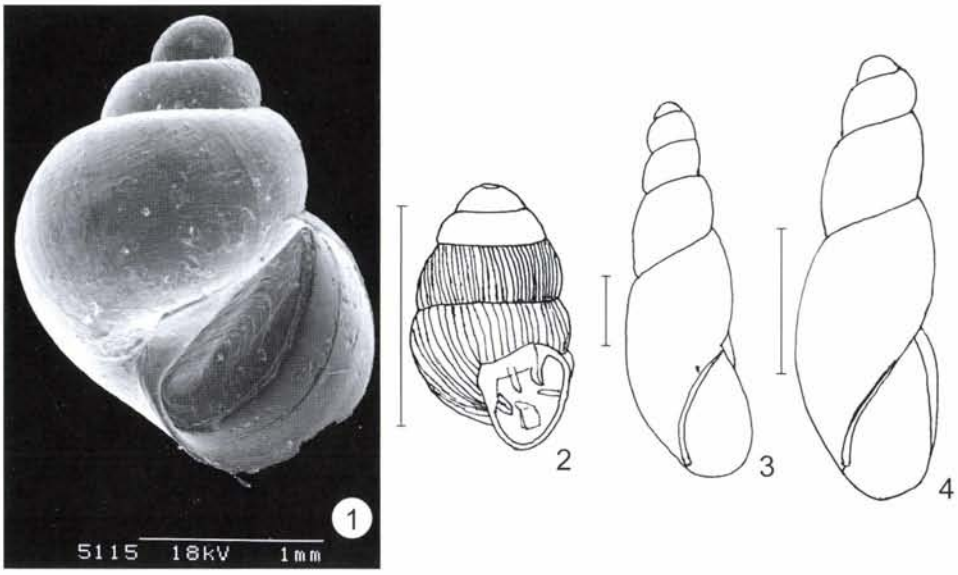
HYDROCENIDAE

Hydrocena tanzaniensis sp. n.
(Fig. 1)

Type material – Holotype: Tanzania, Morogoro Region, Kimboza Forest Reserve, 4.II.1987, MAHUNKA, PÓCS & ZICSI (HNHM 93857). Paratypes: same date and locality as holotype (HNHM 93972/6); Tanzania, East Usambaras, Amani, botanical garden, sieved from soil, 8.II 1987, MAHUNKA, PÓCS & ZICSI (HNHM 93858/1); Meru, S slope, above Usa River, "Átnyergelő rét" (1700 m), 30.IV.1979, EŐRY & SIPOS (HNHM 93973/5)

Diagnosis – Closely related to *Hydrocena kenyana* CONNOLLY, 1929 but with a fine sculpture of numerous interrupted raised lines.

Description – Shell pale brown, broadly conical; apex rounded, mamilliform, with an angle of about 75° between projected sides, with 3–4 strongly convex visible whorls; suture deep; umbilicus closed with an irregularly lunate slightly concave finely shagreened callus, the edges slightly raised where it meets the body whorl. Apical whorl ± smooth, the rest particularly the body whorl with dense fine interrupted raised lines sloping at ± 30° to the horizontal; there are also fine transverse growth lines, more noticeable in worn shells of lot HNHM 93973/5 which have lost their periostracum. Aperture subovate, the outer edge strongly rounded, the inner oblique and straight. Operculum withdrawn into shell, with concentric rings based on a focus near base, slightly concave, ± 1.3 mm long, without internal peg. Dimensions: height 2.45–3 mm, breadth 1.9–2.3 mm.



Figs 1–4. 1 = *Hydrocena tanzaniensis* sp. n., paratype, 2 = *Nesopupa bisulcata bisulcata* (JICKELI, 1974), 3 = *Cecilioides callipeplum* (CONNOLLY, 1923), 4 = *C. tribulationis* (PRESTON, 1911) (scale bar = 1 mm)

Distribution – Tanzania, Kimboza Forest Reserve, Amani and Meru.

Note – The lack of a peg on the operculum suggests that this species and probably *Hydrocena kenyana* CONNOLLY, 1929 are misplaced. Although the generic placing is doubtful I am satisfied that the family is correct. I managed to extract a minute radula from a dried-up animal and it agrees well with the description given for the family by PILSBRY & BEQUAERT 1927) with the central area devoid of teeth but numerous imbricate spathulate marginals with about 10 minute cusps.

VERTIGINIDAE

Nesopupa minutalis (MORELET, 1881)

Pupa minutalis MORELET, 1881 in *Journal de Conchliologie* **29**: 212; type locality: Comoro Islands, Mayotte, Dzaoudi, on *Acacia* bark; BM 93.2.4. 934–5 (holotype and paratype).

Distribution – Kenya coast, Comoro Islands.

Material examined – Kenya, Shimba Hills National Reserve, from litter and decaying debris accumulated at base of large trees, 29.IX.1985 leg. MAHUNKA & MAHUNKA-PAPP (HNHM 92428/6).

Remarks – Only once recorded before from East Africa from Shimoni, Kenya (see VERDCOURT 1978), and then with some doubt. This present record confirms its presence in coastal Kenya.

Note – ADAM (1954: 776, fig. 14D) gives an excellent drawing of this species and discusses its possible presence in Senegal. Minute species are easily transported almost anywhere. The presence in Shimoni could easily be an introduction but it is not so likely in the case of this Shimba Hills record.

Nesopupa bisulcata bisulcata (JICKELI, 1874)
(Fig. 2)

Pupa bisulcata JICKELI, 1874 in *Nova Acta der Ksl. Leop.-Carol. Deutschen Akademie der Naturforscher* **37**: 119, t. 5, fig. 10; type localities: Eritrea, Hamacen Rora-Beit-Andu and Bogos ZMB 22514a (lectotype).

Ennea iota PRESTON, 1911 in *Annals and Magazine of Natural History* **8** (7): 463, t. 2. fig. 2; Type locality: Kenya, between Rumuruti and Mt. Kenya MAC 17543 (holotype).

Nesopupa iota (PRESTON); ADAM (1954) in *Volume Jubilaire Victor van Straelen*, t. 2: 762, fig. 12C, 13.

N. bisulcata (JICKELI); ADAM (1954) in *Volume Jubilaire Victor van Straelen*, t. 2: 764, fig. 12, D-J.

Distribution – Eritrea, Ethiopia, Kenya, Tanzania.

Material examined – Tanzania, Meru Crater, S side, above Usa River, observation tower no. 17., 28.III.1979, leg. EŐRY & SIPOS HNHM 92293/19).

Nesopupa bisulcata sinistra ssp. n.

Type material – Holotype: Tanzania, 20 km from Arusha, Meru, S slope, Usa River settlement, (1200 m), 27.III.1979, leg. EŐRY & SIPOS (HNHM 93974). Paratypes: same date and locality as holotype (HNHM 92329/1); Kenya, Homa Bay, Bala, leg. PICKFORD IRSNB).

Diagnosis – Exactly similar to *Nesopupa bisulcata bisulcata* (JICKELI, 1874) but constantly sinistral.

Description – See ADAM (1954) descriptions and figures of *N. iota* (PRESTON, 1911) and *N. bisulcata* (JICKELI, 1873)). These differ only in being dextral.

Distribution – Kenya, Homa Bay, Bala and Tanzania, Meru, Usa River.

Etymology – Latin for left-handed.

Remarks –VAN BRUGGEN & VERDCOURT (1993) have already discussed this taxon treating it as a sinistral form although it was pointed out that all the population at Homa Bay was sinistral. The discovery of sinistral material at a site some 400 km away (both sites near water rather than being alpine) indicates that at least subspecific rank is necessary.

FERUSSACIIDAE

Cecilioides callipeplum (CONNOLLY, 1923)
(Fig. 3)

Opeas (*Micropeas*) *callipeplum* CONNOLLY, 1923 in *Annals and Magazine of Natural History, ser.* 9, **12**: 657, t. 19, fig. 26; type locality: Kenya: Eusso Nyiro, BM 1937 12.30 4219 lecto.

Distribution – Kenya, Malawi.

Material examined – Kenya, Sanchu, 3°58 44'S, 39°44 96'E, 8.XI.2001, KONTSCHÁN & GERE HNHM 93975/1).

Remarks – This single shell measuring 5.5 × 1.7 mm comes near the lower limits for this species but matches authentic material.

Cecilioides tribulationis (PRESTON, 1911)
(Fig. 4)

Subulina tribulationis PRESTON, 1911 in *Revue Zoologique Africaine* **1**: 220, t. 11 fig. 2; type locality: Kenya: Naivasha BM 1911.10.12. 114–115 (? syntypes).

Distribution – Kenya, Tanzania.

Material examined – Tanzania, Meru Crater, S side, above Usa River, at observation tower no. 17., 28.III.1979, leg. EŐRY & SIPOS HNHM 93879/1).

Remarks – I am not certain of this identification since the type material at the BM is virtually destroyed. The specimen agrees well with PRESTON's figure but his dimension, height 0.3 mm, is clearly an error (? for 3). The present specimen is 4 mm long.

Edentulina parensis sp. n.
(Fig. 5)

Type material – Holotype: Tanzania, Pare District, Pare Mts., Minja Forest Reserve, near Vuchama, Ngifi Village, Mwanga District, 12.IV.1990, 1850 m, mesic montane evergreen forest on summit, 12.IV.1990, leg. PÓCS (HNHM 93859).

Diagnosis – Related to *Edentulina ovoidea* (BRUGUIÈRE, 1789) (including *Edentulina affinis* C. R. BOETTGER, 1913) but with a much slimmer contour and differently coloured much thinner shell. It is possibly related to some material collected by R. POLHILL and B. VERDCOURT on the Vuria Peak at 2175 m in the Teita Hills, Kenya (in National Museum, Nairobi but not seen for 40 years). *Edentulina usambarensis* BEQUAERT et CLENCH, 1936 described from Lutindi in the W. Usambaras is much smaller with a more conical differently coloured shell.

Description – Shell bulimiform with elevated spire and very rounded apex with thin medium brown periostracum covering white shell; sides of spire distinctly convex; umbilicus reduced to an almost closed slit. Whorls 6 ½, slightly convex; suture not deeply impressed. Apical whorl smooth and rest of shell with erratic sculpture, mostly faint but when evident, particularly on the whorl above the body whorl, consisting of oblique ribs ± 6 per mm and under high magnifications the ribs are faintly crenellate; body whorl very slightly compressed and with an obscure oblique bulge which extends across the parietal area near the outer lip (but this could be an individual aberration). Aperture ¾ – oblong-elliptic, the outer lip somewhat oblique; base smoothly rounded; columella with oblique ridge; peristome white and glossy, narrowly thickened and reflected. Dimensions: height 37 mm, breadth 18 mm; aperture 15 mm long, 11.5 mm wide.

Distribution – known only from a single shell from the N. Pare Mts. at 1850 m.

Etymology – Derived from the locality Pare, an area SE of Mt. Kilimanjaro.

Anatomy – Animal unknown.

Note on locality – The Pares have long been rather neglected since travellers were always going from the coast or the Usambaras to further inland and many never stopped for more than a short time; only some botanists have collected there at all thoroughly and I have seen very few molluscs from the region. The mountain tops are now largely denuded of forest but pockets remain on the north and south slopes. The Pares belong to the same complex fault-system as the Usambara Mts. with bounding faults of the NW–SE elongated fault-blocks and the Teita Hills probably belong to the same phase; the principal movements occurred in the Tertiary.

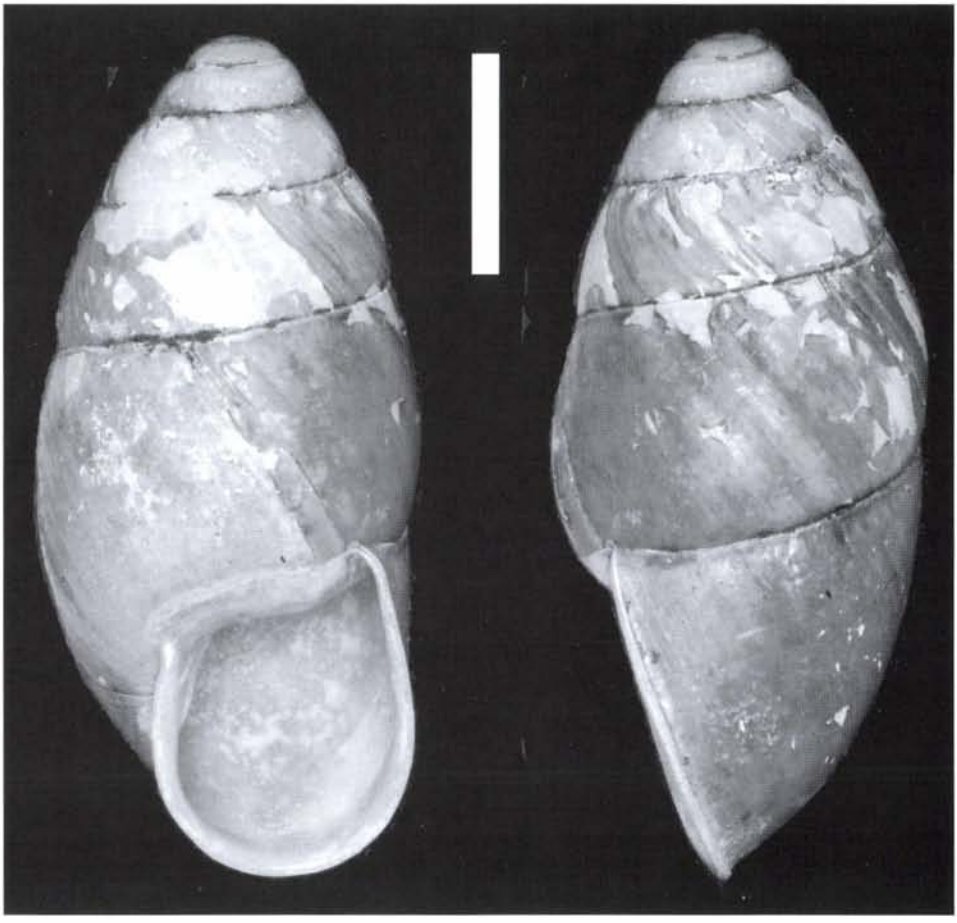


Fig. 5. *Edentulina parensis* sp. n., holotype (scale bar = 1 cm)

Tayloria (Colpanostoma) leroyi depressa ssp. n.
(Fig. 6)

Type material – Holotype and juvenile paratype: Tanzania, Nguru Mts, Kanga, montane rainforest, 850 m 30.III.1989, leg. A. BANKOVICS (HNHM 93860 and HNHM 93861/1).

Diagnosis – Differs from *Tayloria* (*Colpanostoma*) *leroyi* (BOURGUIGNAT, 1889) in its much more depressed shell but agreeing with the striation disappearing on the lower surface.

Description – Shell depressed behind; spire moderately raised, broadly rounded; creamy white and glossy; umbilicus rather narrow, very deep, the whorls being visible to top, about 2 mm wide. Whorls 6, moderately convex, the last smoothly rounded with no trace of peripheral angulation; suture moderate. First 3 whorls ± smooth then next ribbed just below the suture until the last 1/3 of a whorl before the body whorl which has ± complete ribs; body whorl with strong curved ribs, 3–4 per mm which extend almost to the periphery but base of shell ± smooth; varices due to growth stages are fairly marked particularly beneath and within umbilicus. Aperture ¾-circular, oblique set at 30° to vertical; peristome strongly reflected, strongly retracted at junction with body whorl to form a dis-

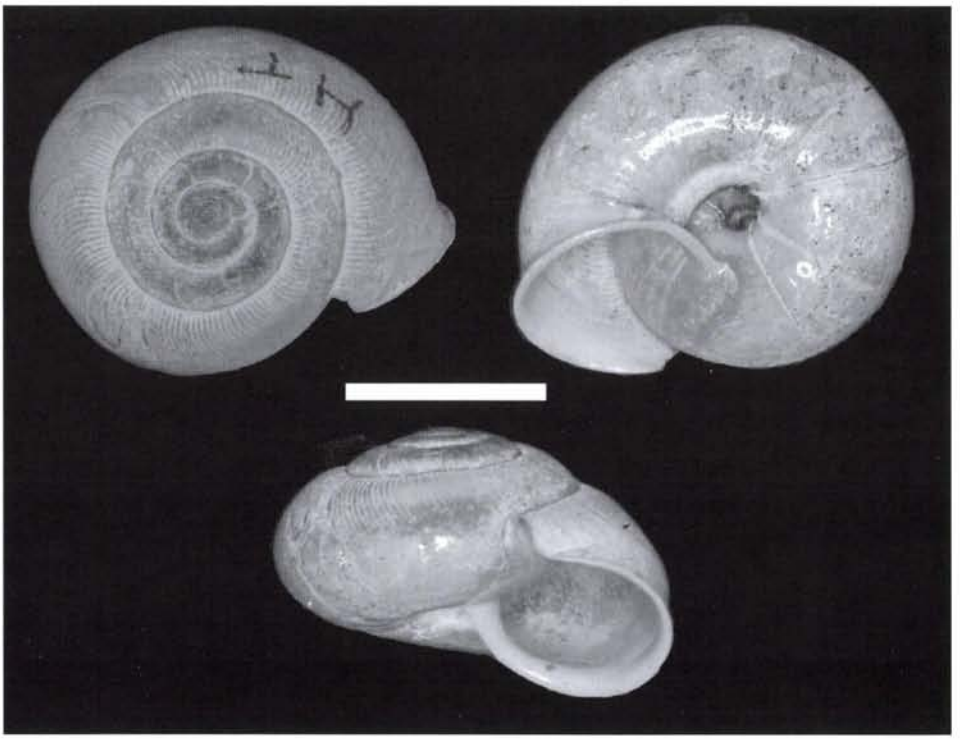


Fig. 6. *Tayloria leroyi depressa* ssp. n., holotype (scale bar = 1 cm)

tinct sinus. Dimensions: Major diameter 21 mm; minor diameter 17 mm; height 13 mm; aperture 10 mm diameter.

Remarks – BOURGUIGNAT (1889) in his description of *Tayloria leroyi* states that the shell is striate above, the striae being produced to the periphery but becoming evanescent beneath and specifically mentions "la forte échancrure qui caractérise le sommet de son ouverture". He gives the dimensions as alt. 20, diam 25 mm and the locality as summit of 'Mt Ngourou' at 2000 m. BOURGUIGNAT's Nguru Mountains material was collected by the Rev. Pères missionaries of Saint Esprit whose mission was at M'hounda i.e. the present Mhonda at 6°07'S 37°34.5'E where there is still a mission and a sawmill. It is quite possible that *Tayloria leroyi* was collected by LE ROY himself although BOURGUIGNAT does not specifically say so (see VERDCOURT 1986).

In my synopsis of the genus (VERDCOURT 1958) I treated *Tayloria leroyi* as a subspecies of *T. usambarica* (CRAVEN, 1880) but in that species the shell sculpture is strong on both upper and lower surfaces and I have decided to keep them separate. There are two specimens of *Tayloria leroyi leroyi* in The Natural History Museum, London: BM 97.11.13. 3 collected at Magila in the foothills of the Usambaras Mts. by Miss WOODWARD at about 240 m measures 20 × 16 mm and is relatively much taller and BM 1937.12.139 from Ukami (more or less equivalent to the Uluguru Mts.) purchased from SOWERBY and FULTON measures 19 × 14 mm and is also relatively much taller. It is not known who collected it but it could have been LAST.

It appears to me very likely that *Tayloria grandis* THIELE, 1933 described from 'Deutsch Ost Afrika' without locality is *Tayloria leroyi leroyi* (BOURGUIGNAT).

Gulella ingloria (PRESTON, 1913)
(Fig. 7)

Ennea ingloria PRESTON, 1913 in *Proceedings of the Zoological Society of London* **1913**: 197, t. 33, fig. 10; type locality: Kenya: Mt. Nyiro, 2490 m.

Distribution – Kenya, Tanzania.

Material examined – Tanzania, Meru, S slope, above Usa River, Hunter's House, moss forest (2000 m), 3.III.1979, leg. EŐRY & SIPOS (HNHM 93862/1).

Gulella meruensis (D'AILLY, 1910)

Ennea (*Gulella*) *meruensis* D'AILLY in SJÖSTEDT, 1910, *Kilimanjaro-Meru Expedition* **6**: 6, t. 1, figs. 3–6; type locality: Tanzania: Mt. Meru, 3000–3500 m.

Distribution – Tanzania, Mt. Meru.

Material examined – Tanzania, Meru, above Usa River, Crater, S side, "Átnyergelő rét" (1700 m), 30.IV.1979, leg. EŐRY & SIPOS (HNHM 92335/1). Meru Mt., III.1962, leg. SÁSKA (HNHM 92437/1). Meru, 1970, collector not known, (HNHM 92446/1).

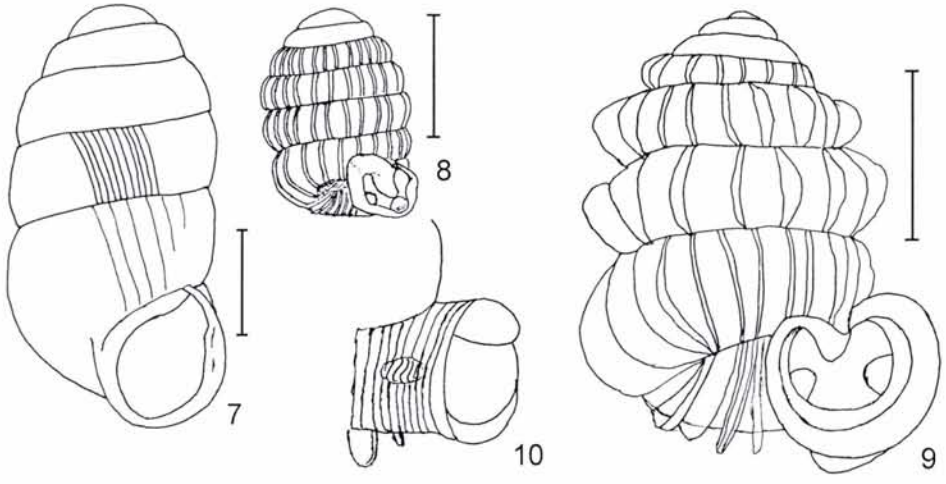
Gulella peakei VAN BRUGGEN, 1975
(Fig. 8)

Gulella peakei VAN BRUGGEN, 1975 in *Bulletin of the British Museum (Natural History), Zoology* **28**: 164, fig. 2; type locality: Aldabra Island: Middle Island (Ile Malabar) (BMNH GG21202).

Distribution – Aldabra Island, Kenya and Tanzania.

Material examined – Tanzania, Meru S slope, Usa River settlement, 20 km from Arusha (1200 m) (in side of brook), III-IV.1979 leg. EŐRY & SIPOS (HNHM 93863/4 and HNHM 93864/15).

Remarks – There is no doubt that the two shells from Usa River belong to *Gulella peakei* and that they are closer to subspecies *peakei* than they are to *G. p. continentalis* later described by VAN BRUGGEN (1975) from South Africa. The aperture is more quadrangular than in material from the type locality but without



Figs 7–10. 7 = *Gulella ingloria* (PRESTON, 1913), 8 = *G. peakei* VAN BRUGGEN, 1975, 9 = *G. kimbozae* sp. n., holotype, 10 = same, twisted to show inner side of aperture wall (scale bar = 1 mm)

much more material it is not clear if this indicates another subspecies. The species also occurs in the Kavirondo District of Bala, Homa Bay and on Mfwfanganu Island where it was found by MARTIN PICKFORD but that material is no longer available to me to compare.

Gulella kimbozae sp. n.
(Figs 9–11)

G. sp. 'R' TATTERSFIELD ined. (Fig. 11)

Type material – Holotype and paratypes: Tanzania, Kimboza Forest Reserve, (there is Kimboza I. on the label, which probably means the following locality: Kibungo, a spring-fed lake near Mimion), 21.III.1989 leg. MAHUNKA (HNHM 93865 and HNHM 93866/6). Tanzania, Kimboza Forest Reserve, 5.II.2003 leg. TATTERSFIELD, SEDDON, ROWSON & NGEREZA (NMW.Z.2003.001.00060).

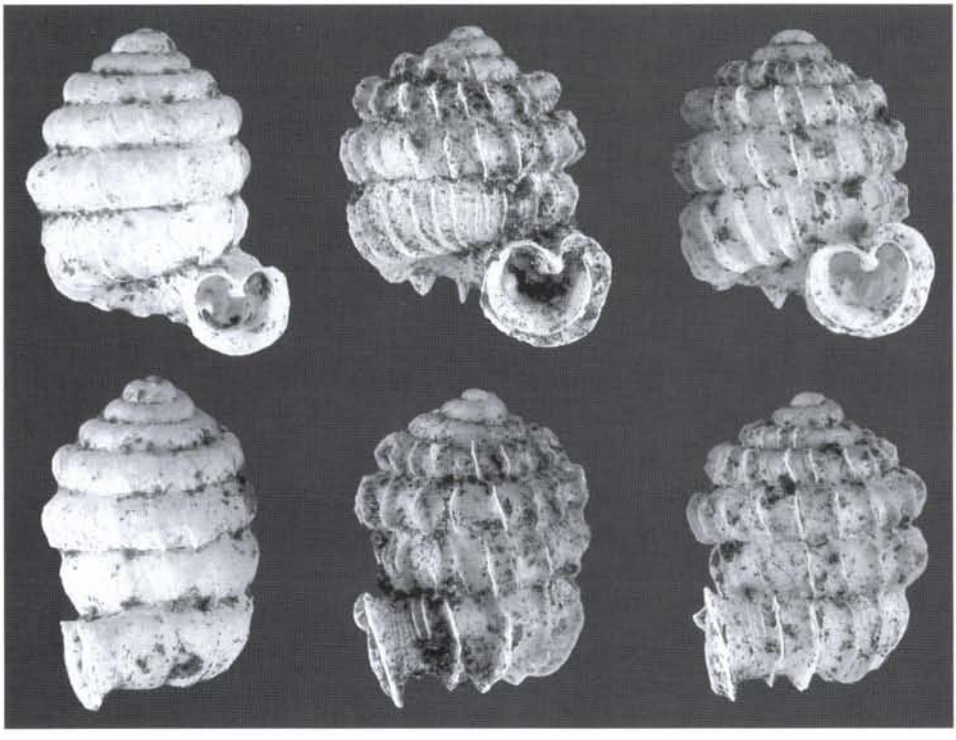


Fig. 11. *Gulella kimbozae* sp. n. paratypes, NMW.Z.2003.001.00060

Diagnosis – Related to *Gulella lacuna* (PRESTON, 1911) in shape and the slightly detached aperture, but lamellate. There is no material in the Natural History Museum and I am grateful to Dr. R. JOCQUÉ of Musée d'Afrique Central Tervueren for loaning me the holotype. Examination of this has confirmed that the sculpture is of very close ribs, not in any way lamelliform and that the aperture is not so produced as in the new species described below.

Shell broadly oblong-ovoid (Fig. 9), small with dome-shaped apex, white but with orange red animal showing through shell, narrowly but distinctly umbilicate. Whorls about 7, the last with the aperture shortly but distinctly detached, strongly convex, the body rounded-angular above; suture strongly impressed. Apical 2 ½ whorls without lamellae but spirally punctate striate, rest with very conspicuous spaced lamellae, 7–11 being visible on each whorl viewed from the front; a few striae present between the lamellae but otherwise smooth; behind the peristome there are ± 12 close striae on the detached part. Aperture rounded reniform appearing distinctly two-layered with a thicker more nacreous inner part and a thinner outer part which makes up most of the strongly flared peristome (Fig. 10). Dentition 3-fold; a fairly centrally placed parietal tooth and two opposing inset nodules, one on the columella and the other on outer wall. Dimensions: height 2.6–2.75 mm, breadth 2–2.26 mm; aperture ± 1 mm in diameter.

Distribution – Tanzania, Kimboza Forest Reserve. TATTERSFIELD also collected his sp. 'R' in this reserve.

Gulella olkokolae ADAM, 1965
(Fig. 12)

Gulella olkokolae ADAM, 1965 in *Annales du Musée Royal de l'Afrique Centrale Serie in 8° Sciences Zoologiques* no. **138**: 34, t. 2, fig. 5; type locality: Tanzania, Mt. Meru, towards NW., Olkokola, Latia gorge, 2700 m (MRAC 789012).

Distribution – Tanzania, Mt. Meru.

Material examined – Tanzania, Meru Crater, S side, above Usa River, "Átnyergelő rét" (1700 m), 30.IV.1979, leg. EŐRY & SIPOS (HNHM 93867/4).

Gulella pseudolkokolae sp. n.
(Fig. 13)

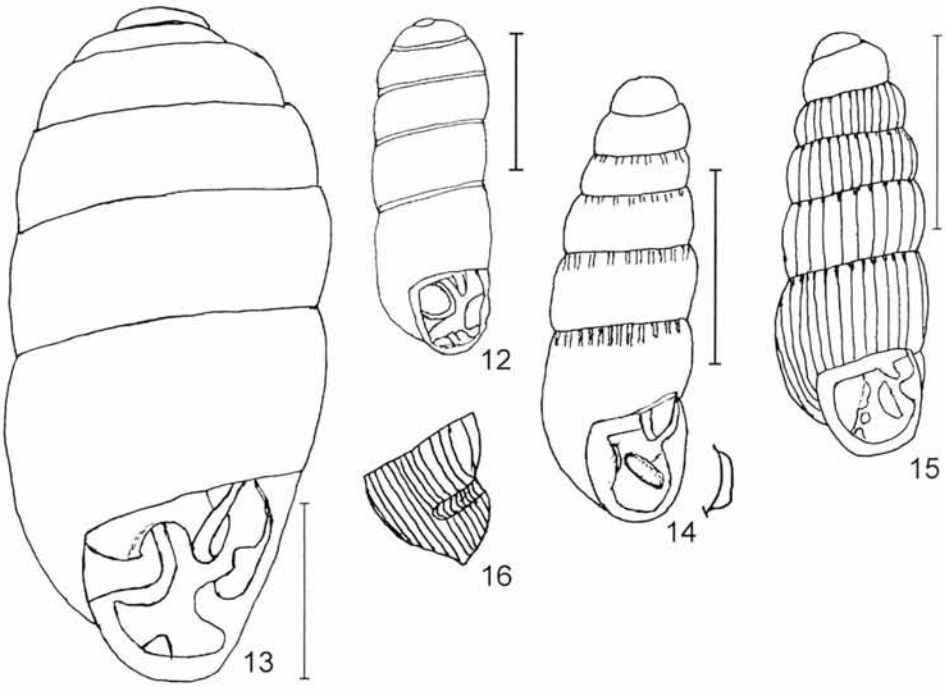
Type material – Holotype and paratypes: Tanzania, Kimboza Forest Reserve, (there is Kimboza I. on the label, which probably means the following locality: Kibungo, a spring-fed lake near Mimion), III-IV.1989 leg. MAHUNKA (HNHM 93868 and HNHM 93869/3).

Diagnosis – Closely related to *Gulella olkokolae* ADAM, 1965 but larger and relatively broader and details of basal apertural teeth different.

Description – Shell small, oblong-ellipsoid (Fig. 13), apex broadly round, with 6 visible but actually 7 whorls, apparently smooth (and shining); suture not deep; umbilical pit deep behind the shelf. Aperture subquadrate; a strong curved parietal lamella and a prominent outer lamella bearing an apical tooth and cutting off a sinus with the parietal tooth; a basal tooth to the left of the base and a columella lamella, thickened at the margin which extends across the outer edge of the peristome. Dimensions: height 3.2–3.9 mm, breadth 1.3–1.8 mm.

Distribution – Tanzania, Kimboza Forest Reserve.

Notes – ADAM says of his *Gulella olkokolae* "ombilic complètement fermé par un callus derrière le peristome".



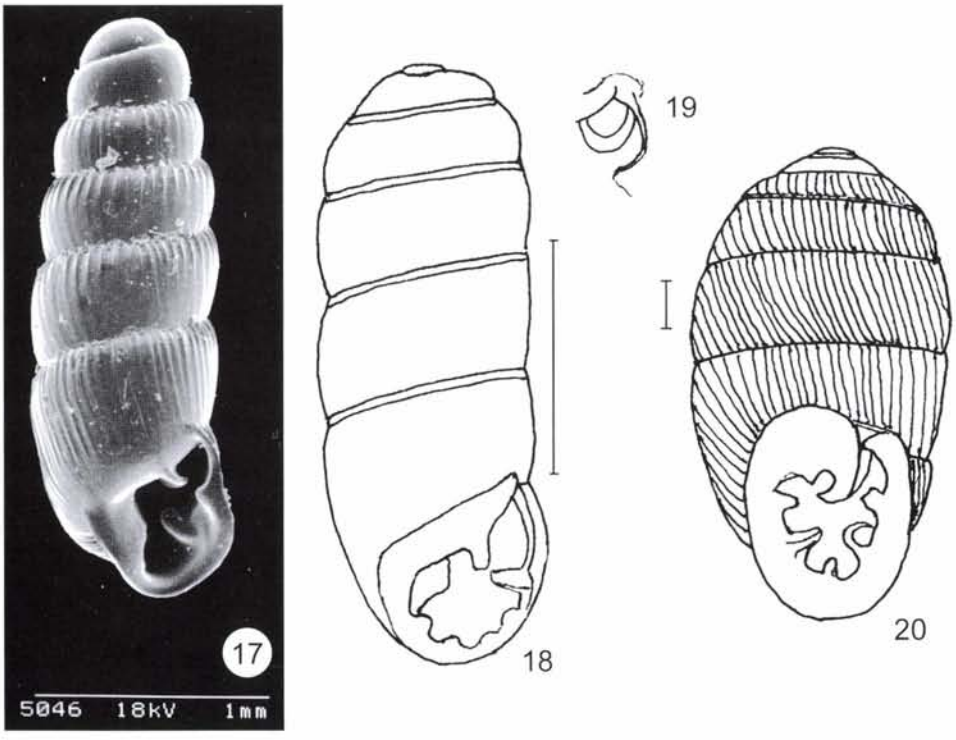
Figs 12–16. 12 = *Gulella olkokolae* ADAM, 1965, 13 = *G. pseudolkokolae* sp. n., holotype, 14 = *G. eoryi* sp. n., paratype, 16 = same, twisted to show outside the body whorl behind aperture (scale bar = 1 mm)

Gulella eoryi sp. n.
(Figs 14–17)

Type material – Holotype: Tanzania, Meru Crater, S side, above Usa River, observation tower no. 17, rocks, 28.III.1979, leg. EŐRY & SIPOS (HNHM 93978). Paratypes: same date and locality as holotype (HNHM 93979/16); Tanzania, Meru, S slope, above Usa River, Hunter's House (2000 m), IV.1979, leg. EŐRY & SIPOS (HNHM 93981/5); same locality, moss forest, 30.III.1979, leg. EŐRY & SIPOS (HNHM 93980/2); Meru Crater, S side, above Usa River, "Átnyergelő rét" (1700 m), 30.IV.1979, leg. EŐRY & SIPOS (HNHM 93880/4).

Diagnosis – No related species has been found; the partial furrow on the body whorl might suggest a relationship with *Ptychotrema* L. PFEIFFER, 1853, but I do not think this is so.

Description – Shell very small, elongate, fusiform-cylindrical, slightly tapering (Figs 14–15, 17); apex rounded, smooth; whorls 6 when viewed from front, actually 7, the four main whorls with strongly crenulate sutures, the crenae typically passing into quite strong ribbing across the whorls



Figs 17–20. 17 = *Gulella eoryi* sp. n. paratype (identical with holotype), 18 = *G. hildae* VAN BRUGGEN, 2001, 19 = same, oblique view of sinus of aperture showing side of parietal lamella, 20 = *G. afrooccidentalis* sp. n. holotype (scale bar = 1 mm)

(Figs 15, 17) but in some specimens this is much fainter (Fig. 14); body whorl with ± 28 ribs viewed from the front and the three above with 18–21 ribs; umbilicus deep. Aperture squarish pyriform; a curved parietal lamella near the right hand side; a prominent outer tooth, the rounded apex of which is close to the parietal lamella and cuts off a prominent upper sinus about a third the length of the aperture. At the back of the aperture a sloping arcuate lamella well away from the peristome corresponds to a deep furrow on the outside of the shell (Fig. 16); the outside area behind the peristome is closely ribbed, the ribs crossing and forming small arcs within the furrow; columella sloping, bearing a low protuberance or platform and either typically devoid of other dentition or with two interior small nodules between the base of the columella and the internal lamella. Dimensions: height 1.9–2.2 mm, breadth 0.6–0.7 mm.

Distribution – Tanzania, Meru.

Note – The dentition varies amongst the material; HNHM 93980/2 and 93981/5 (partly) have two small additional nodules at the base of the columella; HNHM 93978, HNHM 93979/16, HNHM 93880/4 and HNHM 93981/5 (partly) have no additional nodules.

Gulella hildae VAN BRUGGEN, 2001
(Figs 18–19))

Gulella hildae VAN BRUGGEN, 2001 in *Basteria* **65**: 102, fig. 1–3: type locality: S. MALAWI: Mt. Mulanje (RMNH 83932).

Distribution – Malawi, Tanzania.

Material examined – Tanzania, 20 km from Arusha, Meru S slope, Usa River settlement, in side of brook (1200 m), IV.1979, leg. EŐRY & SIPOS (HMNH 92528/1); same locality, 27.III.1979, EŐRY & SIPOS (HMNH 92341/3) (occurring with *Thapsia* sp. and *Afroguppya rumrutiensis* (PRESTON, 1911).

Remarks – At first I could not identify this small species until I went through recent papers by VAN BRUGGEN and discovered he had described what was clearly the same species from a single specimen from Malawi. He informed me (in litt.) that PETER TATTERSFIELD had also found it in Tanzania.

The specimens collected by EŐRY and SIPOS antedate these by some years and they must take credit for first discovering this species.

Gulella afrooccidentalis sp. n.
(Fig. 20)

Type material – Holotype: Congo (Zaire), Kindamba, 4°43'S 13°03'E, Meya Village (not traced), 8.XI.1963, leg. J. BALOGH & A. ZICSI (HNHM 93986).

Diagnosis – Undoubtedly related to *Gulella bitzeensis* CONNOLLY, 1922 described from Cameroon, the type of which I have examined in the Natural History Museum, but the lowest tooth of the outer lip in that species is in the plane of the aperture not entering at right angles to it. *Gulella biparietalis* THIELE, 1933 described from Ghana must also be related but the dentition is quite different in detail.

Description – Shell ovoid-oblong, broadly rounded at the apex (Fig. 20), greyish white, not umbilicate but with a closed linear area. Whorls 6 ½, slightly convex; suture scarcely impressed. Apical 2 whorls obscurely transversely striate, the rest strongly striate with 6–8 ribs per mm, the ribs more curved at the base where meeting suture. Aperture oval; peristome thick, very broadly expanded and reflected. Dentition complicated, 7-fold; two parietal teeth, the outer lamelliform, strong and very curved to the left, the right hand one a small tooth; outer lip with two teeth, the upper squarish, the lower lamelliform and entering at right angles to plane of aperture, somewhat excavated above, a single broad tooth and two lamellar teeth on the columella, the lower the larger. The body whorl with three pits behind the peristome, outer, basal and columellar. Dimensions: height 10 mm, breadth 5 mm; aperture height 4.2 mm, breadth 3.5 mm.

Distribution – Known only from a single shell from the extreme west of Zaire.

Etymology – Derived from 'West African'.

Gulella (*Juventigulella*) *habibui* TATTERSFIELD, 1998

Gulella (*Juventigulella*) *habibui* TATTERSFIELD, 1998 in *Journal of Conchology* **36** (2): 32, fig. 1a–c; type locality: Tanzania: Morogoro District, Uluguru Mountains, Kimboza Forest Reserve (NMW.Z. 1997.059.003).

Distribution – Tanzania.

Material examined – Tanzania, 20 km from Arusha, Meru S slope, Usa River settlement (1200 m), 27.III.1979, leg. EŐRY & SIPOS (HNHM 92325/10).

Remarks – This material antedates that cited by TATTERSFIELD by over 15 years.

Gulella (*Pliciguletla*) *coarctata* (D'AILLY, 1910)

Ennea (*Gulella*) *coarctata* D'AILLY in SJÖSTEDT, 1910, *Kilimandjaro-Meru Expedition* **6**. Mollusca: 6, t. 1, figs. 7–9; type localities: Tanzania: Mt. Meru, 3000–3500 m and Kilimanjaro, Kibonoto (Stockholm Nat. Hist. Mus.).

Distribution – N. Tanzania, Kilimanjaro and Meru.

Material examined – Tanzania, Meru, S slope, above Usa River, Hunter's House, moss forest (2000 m), 30.III.1979, leg. EŐRY & SIPOS (HNHM 92306/4); Meru Crater, S side, above Usa River, observation tower no. 17, rocks, 28.III.1979, leg. EŐRY & SIPOS (HNHM 92299/1); 20 km from

Arusha, Meru S slope, Usa River settlement (1200 m), 27.III.1979, leg. EŐRY & SIPOS (HNHM 92331/1).

CHAROPIDAE

Trachycystis lamellosa K. L. PFEIFFER, 1952

Trachycystis lamellosa K. L. PFEIFFER, 1952 in *Archiv für Molluskenkunde* **81**: 93, t. 1., fig. 3; type locality: Tanzania: Meru, by a stream, west of Momella farm at 1700 m (SMF holotype 96718).

Distribution: – Tanzania, Mt. Meru.

Material examined – Tanzania, Meru Crater, S side, above Usa River, observation tower no. 17, rocks, 28.III.1979, leg. EŐRY & SIPOS (HNHM 93987/5).

Remarks – The material matches PFEIFFER's description and figure. Until living material has been examined it will not be possible to determine whether this is really a *Punctum* MORSE, 1864. Lot HNHM 93987/5 consists of numerous small similar shells mostly very worn but there are at least three species involved, the others being *Trachycystis iredalei* PRESTON, 1912 and *Punctum ugandanum* (E.A. SMITH, 1903).

Trachycystis (*Psichion*) *ariel* (PRESTON, 1910)

Phortion ariel PRESTON, 1910 in *Annals and Magazine of Natural History, ser. 8*, **6**: 531, t. 8, fig. 15; type locality: Kenya: Shimba Hills (MAC Tervuren, holotype; BM 1911. 10.12.76, paratype).

Trachycystis (*Psichion*) *ariel* PRESTON; VERDCOURT (1991) in Conchologists' Newsletter 116: 356 (1991) (references and distribution).

Distribution – Kenya, Tanzania, Mozambique and Malawi.

Material examined – Tanzania, Morogoro Region, Kimboza Forest Reserve, on rocks and trunks, 4.II.1987, leg. MAHUNKA, PÓCS & ZICSI (HNHM 93871/2).

SPHAERIIDAE

Pisidium (*Parapisidium*) *reticulatum* KUIPER, 1966

Pisidium (*Parapisidium*) *reticulatum* KUIPER, 1966 in *Archiv für Molluskenkunde* **95**: 16, figs. 1–4; type locality: Madagascar: Nossi-Bé, Andranobé – brook (SMF 183936 holotype and 183937/2 paratypes).

Distribution – Madagascar (Nossi-Bé), Zimbabwe and Tanzania.

Material examined – Tanzania, Kimboza Forest Reserve, (there is Kimboza I. on the label, which probably means the following locality: Kibungo, a spring-fed lake near Mimion), 21.III.1989, leg. MAHUNKA (HNHM 93872/1).

Remarks – Only a single valve was found but it is a new record for East Africa. I am grateful to Dr. J. G. J. KUIPER for naming the material.

*

Acknowledgements – Thanks are due to Dr. P. TATTERSFIELD and the National Museum of Wales for Fig. 11 which has been used with permission from the National Museums and Galleries of Wales, and to Dr. A. GUBÁNYI (Hungarian Natural History Museum) for Figs 5 and 6.

REFERENCES

ADAM, W. (1954): Études sur les Mollusques de l'Afrique Centrale et des Régions Voisines I. Vertiginidae et Valloniidae. – *Volume Jubilaire Victor van Straelen* **2**: 725–817.

BEQUAERT, J. & CLENCH, W. J. (1936): Studies on African land and freshwater mollusks. Notes on Edentulina Pfeiffer, with descriptions of new species. – *Journal of Conchology* **20**: 204–216.

BOURGUIGNAT, J. R. (1889): *Mollusques de l'Afrique Equatoriale*. – D. Dumoulin, Paris, 229 pp.

BRUGGEN, A. C. VAN (1975): New taxa of Streptaxidae and Enidae (Mollusca, Gastropoda, Pulmonata) from South Africa and Malawi. – *Zoologische Medelingen* **49**: 207–223.

BRUGGEN, A. C. VAN & VERDCOURT, B. (1993): Notes on a sinistral specimen of Nesopupa bisulcata (Jickeli) (Gastropoda Pulmonata: Vertiginidae) from Kenya. – *Basteria* **57**: 103–105.

PILSBRY, H. A. & BEQUAERT, J. (1927): The aquatic mollusks of the Belgian Congo. – *Bulletin American Museum of Natural History* **53**: 69–607.

VERDCOURT, B. (1958): Descriptions of two new taxa of Tayloria Bgt. together with a synopsis of the genus (Mollusca, Streptaxidae). – *Revue de Zoologie et de Botanique Africaines* **58**: 267–276.

VERDCOURT, B. (1986): Collectors in East Africa – 12. A. Le Roy. – *The Conchologists' Newsletter* **98**: 369–377.

VERDCOURT, B. (1978): Notes on East African land and freshwater snails. 11. Miscellaneous records from Kenya and Tanzania including the description of two new species. – *Basteria* **42**: 15–26.

Earthworms of Hungary (Annelida: Oligochaeta, Lumbricidae)

by Cs. Csuzdi & A. Zicsi

This is the first volume of a new series Pedozoologica Hungarica launched by the Hungarian Natural History Museum and the Hungarian Academy of Sciences aiming to present the scientific results of the Hungarian soil zoology school founded by Endre Dudich in the early years of the 1950s.

During these more than fifty years of research a great amount of data have accumulated on the different groups of the pedofauna waiting for monographic elaboration. It is especially true for earthworms where continuous research has been carried out from the end of the 19th century till now.

In this book the authors summarize and critically survey the Hungarian earthworm records and give an account on the systematics and taxonomy of the family Lumbricidae complemented with a key to the inland genera and species.

All the 57 species recorded so far in the country are provided with diagnosis, detailed synonymy list and complete Hungarian distributional data figured in UTM grid maps. Except the peregrine species the European distributions are also given.

The book closes with a short zoogeographic summary of the lumbricid earthworms and a chorological analysis of the species occurring in Hungary.

ISSN 1785–1025
ISBN 963 7093 81 8

271 pages, hardback, with 107 b/w photos 39 line drawings
and 100 distribution maps.
Price: EUR 50, excluding package and postage

Orders should be sent to:
The Library, Hungarian Natural History Museum
H-1088 Budapest, Baross u. 13, Hungary
Fax: (36-1) 3171669