

**Description of *Lischkeia mahajangaensis* n. sp.  
(Gastropoda: Trochidae: Eucyclinae: Calliotropini)  
from East Madagascar**

Claude VILVENS

Rue de Hermalle, 113 - B-4680 Oupeye, Belgium  
cvilvens@prov-liege.be

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**ABSTRACT.** *Lischkeia mahajangaensis* n.sp. is described and compared with similar Calliotropini species from deep waters of the Indo-Pacific area.

**RESUME.** *Lischkeia mahajangaensis* n.sp. est décrite et comparée avec des espèces analogues de Calliotropini d'eaux profondes de la zone Indo-Pacifique.

## INTRODUCTION

A few month ago, Guido T. Poppe, a well known shell collector from Belgium, entrusted me with two shells from deep water off East Madagascar. These shells belong obviously to the subfamily Eucyclinae, tribe Calliotropini, probably to the genus *Lischkeia* Fischer in Kiener, 1879. They reminded me two other slightly bigger shells, coming from the same area, in the material of the Muséum national d'Histoire naturelle of Paris. Further studies showed that these four shells belong to an unknown species that is described in this paper.

## Abbreviations

### Repository

MNHN : Muséum national d'Histoire naturelle, Paris, France.

BM(NH) : Natural History Museum, London, United Kingdom.

MNB : Museum für Naturkunde, Berlin, Germany.

### Other abbreviations

D : diameter

H : height

HA : height of aperture

P1, P2, P3 : primary cords (P1 is the most adapical)

dd : no live-taken specimens present in sample

lv : live-taken specimens present in sample

## Systematics

Family: TROCHIDAE Rafinesque, 1815

Subfamily: EUCYCLINAE Koken, 1897

Tribe: CALLIOTROPINI Hickman and Mc Lean, 1990

Genus: *Lischkeia* Fischer in Kiener, 1879

Type species: *Trochus moniliferus* Lamarck, 1816  
(by o.d.Fischer, 1879) – Recent, Japan Sea

*Lischkeia mahajangaensis* n.sp.  
Figs 1-4

**Type material.** Madagascar, 17°50'S – 43°07'E, trawled in 1475-1530 m, holotype MNHN, 28.5 x 22.3 mm (lv), coll. A. Crosnier; 18°00'S – 43°00'E, trawled in 1715-1750 m, paratype MNHN, 27.2 x 21.6 mm (dd), coll. A. Crosnier; off Mahajanga (formerly Majunga), trawled in 800 m, 2 paratypes (dd) coll. G.T. Poppe\*.

**Diagnosis.** A typical *Lischkeia* species, shell conoidal, with last spire whorls bearing one strong spiral cord and a weak peripheral cord only clearly visible on the last whorl, with a convex ridged base and without umbilicus.

**Description.** *Shell* not very large for genus (height up to 28.8 mm, width up to 22.3 mm), conoidal in shape; spire high, 1.1x to 1.2x higher than diameter, 3.0x to 3.2x higher than aperture, anomphalous.

*Protoconch* of about 1 to 1.5 whorl, partly or fully damaged in all available specimens.

*Teleoconch* of 8 to 8.5 whorls, bearing one strong, almost median, spiral cord on all the whorls; one subsutural spiral cord on first whorls and one suprasutural spiral cord only on last whorls. Suture visible, not canalculated.

First teleoconch whorl convex, sculptured by two granular primary cords and about 15 axial prosocline ridges; P1 weakest, close to suture; beads of cords at intersections of cords and ridges, small, isolated; distance between P1 and P2 similar to distance between P2 and suture. On second whorl, P2 becoming weakly stronger than P1, with rounded

\* Stanislas Leclefstraat, 8, 2600, Berchem, Belgium.

well separated beads; axial ridges becoming stronger. On third whorl, beads of P2 become clearly stronger than on P1; shape of area between cords becoming concave; beads becoming pointed.

On fourth whorl, nodules of P2 becoming sharp pointed, horizontally bent; nodules of P1 adapically oriented; axial ridges becoming obsolete. Axial ribs beginning to disappear on fifth whorl, obsolete on sixth whorl, nodules of P1 becoming weaker on fifth whorl, obsolete on sixth whorl; P3 emerging from suture, much weaker than P2, with small abapically oriented pointed nodules (3 nodules of P3 for one single of P2 on same distance). On two last whorls, P1 absent; P3 peripheral on last whorl, still much weaker than P2.

Aperture ovate, almost circular, without ridges within; outer lip thin at rim, rounded; inner lip thicker, with only a very weak angle at meeting point with outer lip.

Columella weakly arched, smooth; callus completely closing umbilicus, producing expansion at bottom.

Base convex, with 4 spiral cords and fine axial threads making cords granular; distance between cords much larger than cords; cord near umbilical area much stronger, with nodules bigger than those of 3 other cords.

*Colour* of protoconch and teleoconch light brown to almost white; columella nacreous.

*Operculum* corneous, multispiral with central nucleus.

	H	D	HA	H/D	H/HA
holotype	28,5	22,3	9,6	1,3	3,0
paratype 1	27,2	21,6	8,7	1,3	3,1
paratype 2	25,5	19,3	7,9	1,3	3,2
paratype 3	24,0	21,6	7,9	1,1	3,0

Table 1. - *Lischkeia mahajangaensis*. Shells measurements in mm – sample of 4 specimens.

**Discussion.** The global shape of the new species could implies that it could belong to the genus *Calliostoma*, but the apparent lack of reticulate network of fine ridges on the protoconch and the type of sculpture of the teleoconch whorls lets rather infer that the genus *Lischkeia* can be a good choice.

*Lischkeia mahajangaensis* n.sp. seems to be close to *Lischkeia oxycona* (Smith, 1899) from the Andaman Islands. No type of this species was available (maybe one type could be in Zoological Survey of India) but, *vide* the description, *L. oxycona* is a little smaller with 10 whorls, has an umbilicus and 5 cords, instead of 4, on base.

The new species is also superficially similar to *Calliotropis metallica* (Wood-Mason & Alcock, 1891) (Figs 5-6) from Indian Ocean, but this species has also an umbilicus and bears on all the teleoconch whorls two spiral cords similar in size and an additional weak suprasutural spiral cord appearing very late.

The shape of *Lischkeia mahajangaensis* n.sp. seems to be close to the shape of *Solariella infralaevis* von Martens, 1898 (Figs 7-8), especially when seeing the illustration of the original description. However, there is no doubt that the two species are different, because *S. infralaevis* is less elevated, keeps a strong subsutural cord on last whorls and only has two spiral

cords on the base, one external and one around umbilicus, with a smooth area between them.

Regarding the species having a concealed umbilicus and the same number of spiral cords on the whorls and the base, the description of *L. mahajangaensis* n.sp. can remember *Calliotropis granolirata* (Sowerby, 1903) (Figs 9-10), but this species has a less elevated spire and very different spiral cords on the whorls and the base: the adapical cord is almost of the same size as the median one, with axially elongated nodules.

The new species is also superficially similar to *Lischkeia indosa* Kuroda & Kawamura, 1956 (Figs 11-12) from Japan and the Philippines, but this species is bigger and has a very different sculpture between primary cords, with numerous thin spiral cords and axial lamellae.

The new species also can be feeled close to *Lischkeia (Tnrcicula) imperialis* (Dall, 1881) from north-east Atlantic, but this species is much bigger, has more convex whorls, a more elongated aperture and more numerous basal spiral cords.

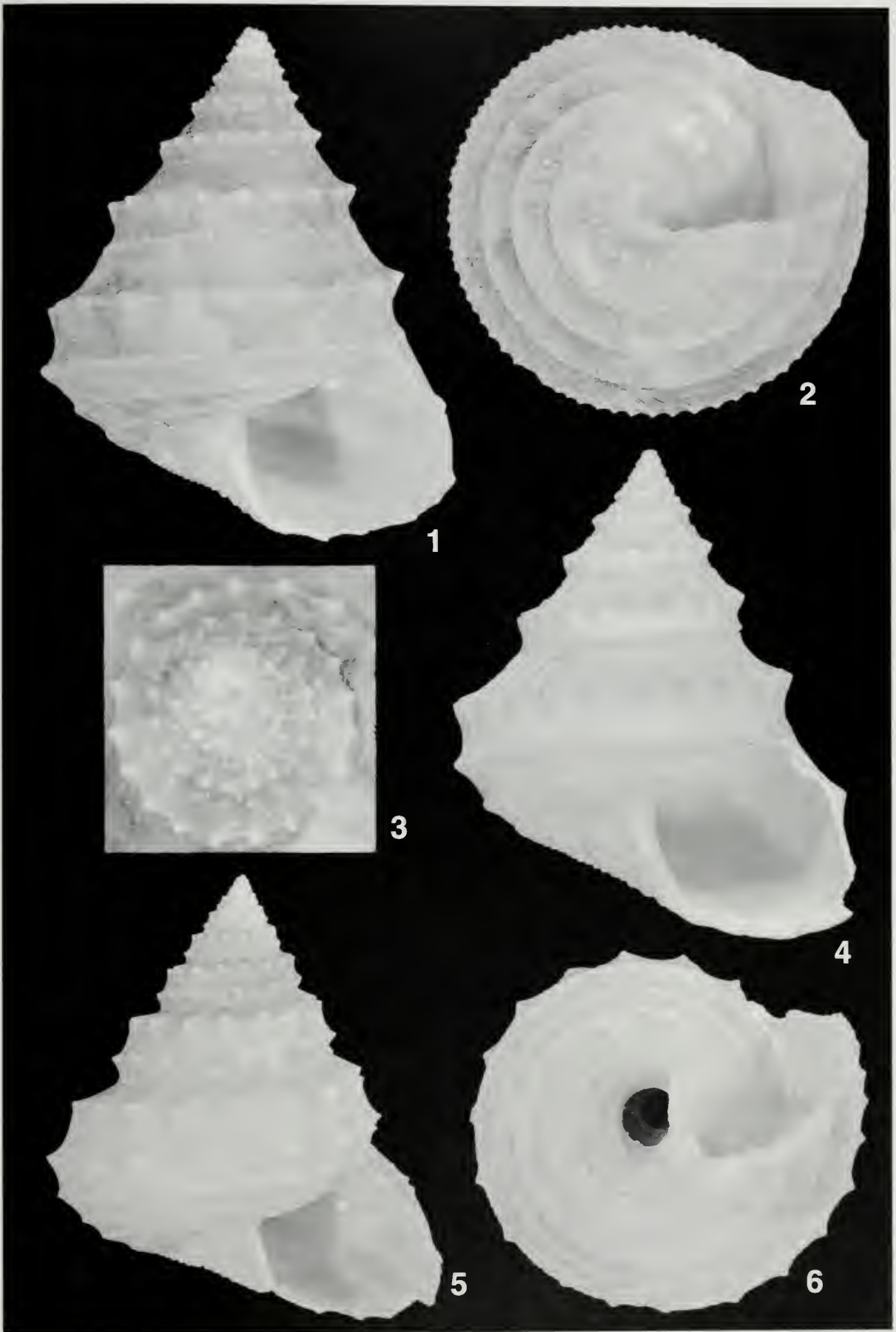
**Etymology.** The new species is named after Mahajanga (Majunga), the well-known town nearest from the type locality.

## Figures 1-6

1-3. *Lischkeia mahajangaensis* n.sp. holotype MNHN, Madagascar, 28.5 x 22.3 mm : frontal view - basal view – protoconch and first whorls.

4. *Lischkeia mahajangaensis* n.sp., paratype MNHN, Madagascar, 27.2 x 21.6 mm.

5-6. *Calliotropis metallica* (Wood-Mason & Alcock, 1891), Madagascar, 25.5 x 22.2 mm, MNHN.



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## Figures 7-12

- 7-8. *Calliotropis granolirata* (Sowerby, 1903), syntype BM(NH) (1903.7.27.65), South Africa, 13.0 x 12.0 mm.
- 9-10. *Solariella infralaevis* von Martens, 1898, holotype MNB (59.980), off Somalia coast, Valdivia expedition stn. 256, 10.0 x 9.0 mm.
- 11-12. *Lischkeia undosa* Kuroda & Kawamura, 1956, Philippine Islands, 43 x 35.7 mm, coll. C. Vilvens.

