Two new taxa of land snails of the genera Kalidos and Ampelita from Madagascar (Gastropoda, Pulmonata)

B. VERDCOURT

Royal Botanic Gardens, Kew, Richmond, Surrey TW9 3AB, U.K.

Kalidos dupuyi (Ariophantidae) and Ampelita lamarei dendritica (Acavidae) are described as new taxa from SW. and NE. Madagascar respectively.

Key words: Gastropoda, Pulmonata, Ariophantidae, Kalidos, Acavidae, Ampelita, taxonomy, Madagascar.

INTRODUCTION

Various Kew botanists whilst on expeditions to Madagascar have brought back molluscs they found incidentally. I have already reported on some of these I could identify with some certainty (Verdcourt, 2002). There remained others I could only suggest names for or which proved impossible to name, for example many *Tropidophora* specimens; these have been placed in The Natural History Museum, London. Two taxa which although very characteristic in colour I failed to name from Fischer-Piette et al. (1994) I am treating as new and describe below.

The following abbreviations are used: BM, The Natural History Museum, London; RMNH, National Museum of Natural History, Leiden; MNHN, Muséum National d'Histoire Naturelle, Paris.

DESCRIPTIONS

Ariophantidae Godwin-Austen, 1888

Kalidos dupuyi spec. nov. (figs 1-6)

Material examined. — SW. Madagascar, NW. corner of Lac Tsimanampetsotsa, on very dry limestone under bushes, David J. Du Puy leg., 12.i.1989 (RMHN 104690/holotype, 104691/7 paratypes; BM/2 paratypes; MNHN/1 paratype).

Diagnosis. — A rather large, broadly conical shell, subangulate when adult, with a broad, brown spiral band on a white background.

Description. — Shell (figs 2-6) depressed helicoid, the spire distinctly raised, broadly conical with sides distinctly convex forming an apex of about 172°, white with a broad spiral brown band about 5 mm wide near the peristome. Umbilicus distinct, about 3.5 mm wide. Whorls 7½, moderately convex, the last subangulate at the periphery (but in juvenile only 20 mm wide sharply acute). Suture moderate. Apical 2½ whorls smooth, the rest with strong close irregular ribs, 3-8 per mm. The broad spiral brown band is margined



Figs 1-2. Living Kalidos dupuyi spec. nov. from the type locality during a rainstorm on 12.i.1989, including a pair in copulation. From colour slides by Dr D.J. Du Puy.

with narrow white subsutural and peripheral bands on the body whorl, the sutural one continuing for about 4½ whorls. The apex is uniformly brown; base of shell pale with some transverse brownish streaks, the transverse ribs being fainter. Aperture oblong-lunate, obliquely retracted at about 45° from vertical; margin of peristome slightly thick-ened and dark (from photograph) but sharp in nearly adult holotype.

The collector took three photographs (figs 1-2) of the living animal during a rainstorm, including a pair in copulation. He was reluctant to kill any specimens but collected a number of empty shells all save one unfortunately worn.

Dimensions. — Major diameter 28.5 mm, minor diameter 25 mm; height 17 mm; aperture 14 mm wide, 10 mm tall.

Distribution. – SW. Madagascar, Réserve Naturelle intégrale Lac Tsimanampetsotsa.

Discussion. — I was unable to match this species with any of the illustrations in Fischer-Piettte et al. (1994). *Kalidos lapillus* Fischer & Bedoucha, 1966, is recorded from the area but has 5½ whorls, granular above with transverse and spiral striae. *Kalidos piperatus* (Fulton, 1901) is similar in shape but much smaller, with quite different colour pattern. *Kalidos chastellii* (Férussac, 1832) has a different colour pattern.

Acavidae Pilsbry, 1895

Ampelita lamarei dendritica subspec. nov. (figs 7-10)

Material examined. — NE. Madagascar, 14 km W. of Antanambe, Mananara Avaratra Biosphere Reserve, near R. Mavohoh, 240 m alt., rain forest, Henk Beentje leg. (no 4317), 24.x.1994 (holotype RMNH 104692).

Diagnosis. — Closely similar in shape to *A. lamarei sakalava* (Angas, 1877) and the many taxa similar but distinguished by the combination of three dark bands within the aperture and dense hieroglyphic and dendritic marks on outside of shell.

Description. — Shell (figs 7-10) asymmetrically depressed helicoid, the spire slightly but distinctly raised, the sides almost straight, very obtuse at the apex, the angle being about 150°. Body whorl with three internal dark bands showing through the shell very distinctly but the entire yellowish outer surface of the body whorl has dense brown irregular speckling of fine hieroglyphic, vermiform and dendritic marks, this area bordering the shiny circum-umbilical ridge and unlike that is smooth not striate. Within the aperture there are three dark brown bands reaching probably to the apex; the apical whorls are entirely brown save for an irregular pale sutural band. Umbilicus narrowly pyriform, about 2 mm long, at the bottom of a funnel-shaped declivity of the body whorl surrounded by a raised transversely striate yellowish ridge. Whorls 4½, quite sharply keeled at periphery, convex save for a distinct spiral groove above the keel on the body whorl. Aperture 4/5-elliptic, retracted about 30° from the vertical, the peristome strongly flanged for about 1.5 mm, with recurved margin.

Dimensions. — Major diameter 26 mm, minor diameter 19 mm; aperture 14 mm wide and tall.



Figs 3-6. Holotype shell of Kalidos dupuyi spec. nov. (RMNH 104690), SW. Madagascar, NW. corner of Lac Tsimanampetsotsa.

Distribution. - NE. Madagascar, 16°S, Mananara Nord Parc National.

Discussion. — Emberton (1990) has suggested that A. lamarei (Pfeiffer, 1853), A. lamarei sakalava (Angas, 1877), A. hova (Angas, 1877), A. subsepulcralis (Crosse, 1868), A. alluaudi (Dautzenberg, 1894), A. caduca Fischer-Piette, Blanc & Salvat, 1975, A. lamothei (Dautzenberg, 1894), A. perampla Dautzenberg, 1907, A. stragulum (Crosse & Fischer, 1873), and A. watersi (Angas, 1877) may be all the same species and this appears very possible. This simplifies things to some extent but does not suggest to me that one can ignore all the variation. A detailed description of the various 'morphs' and their possible relation to geography is still of interest.

ACKNOWLEDGEMENTS

My thanks are due to Ms Virginie Héros of the Mollusca department of the Muséum National d'Histoire Naturelle for loaning to me type material of *Kalidos lapillus* and to my colleagues Drs H. Beentje and D.J. Du Puy for collecting the material during their official botanical collecting expeditions. The professional photographs of the shells are acknowledged to Mr Jeroen Goud of the Leiden Museum.

Verdcourt: Two new taxa of land snails of the genera Kalidos and Ampelita



Figs 7-10. Holotype shell of *Ampelita lamarei dendritica* subspec. nov. (RMNH 104692), NE. Madagascar, 14 km W. of Antanambe, Mananara Avaratra Biosphere Reserve, near R. Mavohoh, 240 m alt., rain forest.

REFERENCES

- EMBERTON, K.C., 1990. Acavid land snails of Madagascar: subgeneric revision based on published data (Gastropoda: Pulmonata: Stylommatophora). — Proceedings of the Academy of Natural Sciences of Philadelphia 142: 101-117.
- FISCHER-PIETTE, E., C.P. BLANC, F. BLANC & F. SALVAT, 1994. Gastéropodes terrestres pulmonés (excl. Veronicellidae et g. *Elisolimax*). Faune de Madagascar 83: 1-551.
- VERDCOURT, B., 2002. Records of non-African tropical land snails, Part 1. Conchologist's Newsletter 163: 258-268.