

New animal species from Aldabra atoll

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Abstract: Two new animal species are described from Aldabra atoll, Seychelles: *Kaliella aldabrana* (Chronidae: Gastropoda: Mollusca) and *Amirantea aldabrensis* (Pentatomidae: Hemiptera: Insecta).

Keywords: *Amirantea*, Chronimidae, Hemiptera, *Kaliella*, Mollusca, Pentatomidae

Introduction

During the examination of recent collections as part of the taxonomic revisions of the Seychelles fauna of the Indian Ocean Biodiversity Assessment two undescribed animal species were identified from material from Aldabra atoll. These are described below.

Abbreviations

NMW – National Museum of Wales

NPTS – Nature Protection Trust of Seychelles

SNHM – Seychelles Natural History Museum

UMZC – University Museum of Zoology, Cambridge

Mollusca Gastropoda ?Chronidae

The family position of many species in the Limacoidea is uncertain. The genus *Kaliella* has variously been placed in Chronidae, Ariophantidae and Helicacionidae.

***Kaliella aldabrana* sp. nov.**

'*Kaliella*' sp. Gerlach 2006: 84

Kaliella sp. B Barnacle 1968: 54. Lionnet 1984: 241. Gerlach 1987:
17. Gerlach & Griffiths 2002: 678. Gerlach 2006: 84

Description (Fig. 1): Conical with 6 whorls; apex blunt. The body whorl lacks any trace of a keel. Surface with faint irregular ribs, no other sculpture detectable. Colour light brown. Aperture subpublie, quadrately lunate; peristome simple. The umbilicus is narrow, almost entirely obscured by the reflected columellar margin. Shell colour pale brown, all specimens at least partially bleached.

Material examined: Holotype NMW.Z.2002.027.00019; Paratype NPTS M2001.38 – all Esprit, Aldabra 16.12.2000, coll. J. Gerlach. Other specimens: NPTS M2001.7 (Polymnie 9.12.2000, coll. J. Gerlach), M2006.36 (Polymnie 14.12.2006, coll. J. Gerlach), UMZC (Esprit 16.12.2000, coll. J. Gerlach). SNHM (Aldabra 1966, ex. G. Lionnet colln.)

Distribution: Aldabra: Picard, Polymnie, Grande Terre and Esprit islands.

Status: As with all animals endemic to Aldabra this species can be considered to be Endangered due to sea level rise. This species is known from only a small number of collections. The first specimen is from 1907, several were collected in 1966 and four old bleached shells were found in 2000 (Gerlach & Griffiths 2002) and a single old shell in 2006. Searches for the species in 2006 failed to locate any fresh specimens and it is possible that this species is extinct.

Comparisons: *Kaliella* is a largely Asian genus of conical pyramidal shells with slightly convex whorls and a shallow suture, oblique apex, subquadrately lunate aperture and simple peristome. Many species are probably not true members of the genus. Superficially this species resembles *K. detecabilia* Sykes, 1898 of south-east Asia but has a lower spire. Three species are present in the Western Indian Ocean region: *K. barrackporensis* (Pfeiffer, 1853) (including *K. basalis* (Dohm, 1882)) and *K. soulaiana* Fisher-Piette, 1973 from Madagascar, and *K. fourneauxensis* Godwin-Austen, 1908 from Mauritius. Of these *K. aldabrana* is most similar to *K. barrackporensis* and *K. fourneauxensis* but can be distinguished by having a convex underside, no spiral striae and no keel.

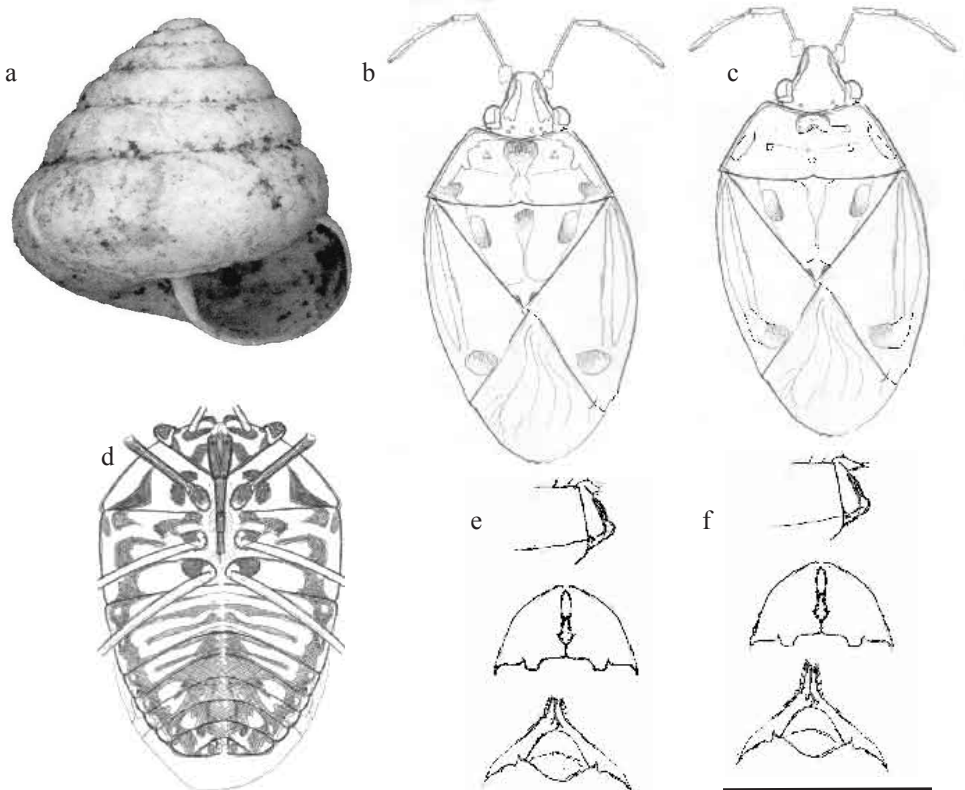


Fig. 1a. *Kaliella aldabrana* holotype. **b, d, e.** *Amirantea aldabrensis* holotype. **c, f.** *A. gardineri*. **b-c** dorsal, **e** ventral, **e-f** parpamere lateral, dorsal and ventral. Scale bar: a-e 2mm, e-f 0.5mm

Table 1. Dimensions of *Kaliella aldabrana* (range, mean and standard deviation)

	Diameter (mm)	Height (mm)	H/D
Holotype NMW.Z.2002.027.00019	4.4	4.7	1.07
Paratype NPTS M2001.38	4.5	4.9	1.09
Range (n=4)	4.0-(4.33±0.24)-4.5	4.0-(4.65±0.43)-4.9	1.00-(1.07±0.06)-1.09

Insecta
Hemiptera
Pentatomidae

Amirantea aldabrensis sp. nov.

Distribution: Endemic – Aldabra. One male specimen collected by L. Jack, mixed scrub, Malabar island, Aldabra. April 2005. NPTS Hh2005.21

Description: Male - Head dark brown with longitudinal white marks with bluish central areas. Eyes red with white margin. White spot positioned antero-medially to each ocellus. Pronotum dark brown with white margins and central longitudinal line. Scutellum dark brown with antero lateral white spot and medial white mark, not reaching anterior margin. Corium dark brown with lateral white line and sub-apical white spot. Abdomen dark magenta, orange-red with white markings ventrally, red at margins. Thorax and head ventrally white with blackish markings. Rostrum dark brown.

Comparisons: This species is one of only two members of the genus *Amirantea*. *A. gardineri* Distant, 1909 differs in the pronotal central and marginal lines being interrupted, the corium markings being joined and the scutellar markings interrupted, apically red. The paramere is more elongate in *A. gardineri* and the antennae differ in proportions:

A. aldabrensis 1:2:2:2:1.5 *A. gardineri* 1: 3:2:2.5:2

Amirantea gardineri is endemic to the granitic islands of Mahé (near Morne Blanc 1905, 1908) and Silhouette (widespread above 300m, 1908) where several specimens collected from *Aphloia theiformis* (Distant 1913). The species has not been located since 1908 and may be extinct. *A. aldabrensis* is known only from scrub habitat and appears to be scarce, being represented only by a single specimen.

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