New Records of Seychelles Tardigrades

V.I. Biserov [1]
J. Gerlach [2]

[1] Institute of Inland Water Biology, Russian Academy of Sciences,
152742 Post Borok, Yaroslavl District, RUSSIA
[2] 53 River Lane, Cambridge, CB5 8HP, ENGLAND

Abstract: Three species of tardigrades were recorded from moss samples collected in some islands of the Archipelago, one of which is new to the Seychelles fauna (*Macrobiotus madegassus*). Some inaccuracies in the first description of this species are noted.

Introduction

In two papers concerning the tardigrades from the Seychelles 15 species were recorded. 7 species, including 3 new to science, were reported by Biserov (1994) from Assumption Island and 9 species, including 2 new to science, were reported by Binda & Pilato (1995) from the islands of Mahé and Praslin. Only *Minibiotus intermedius* was found in both studies.

The material examined in the present study consisted of 9 moss samples collected on the islands of Mahé, Praslin, Silhouette, and La Digue. Only two samples (from Silhouette and La Digue) contained tardigrades. 3 species of water bears were identified, one of which is new to the Archipelago's fauna.

Taxonomy

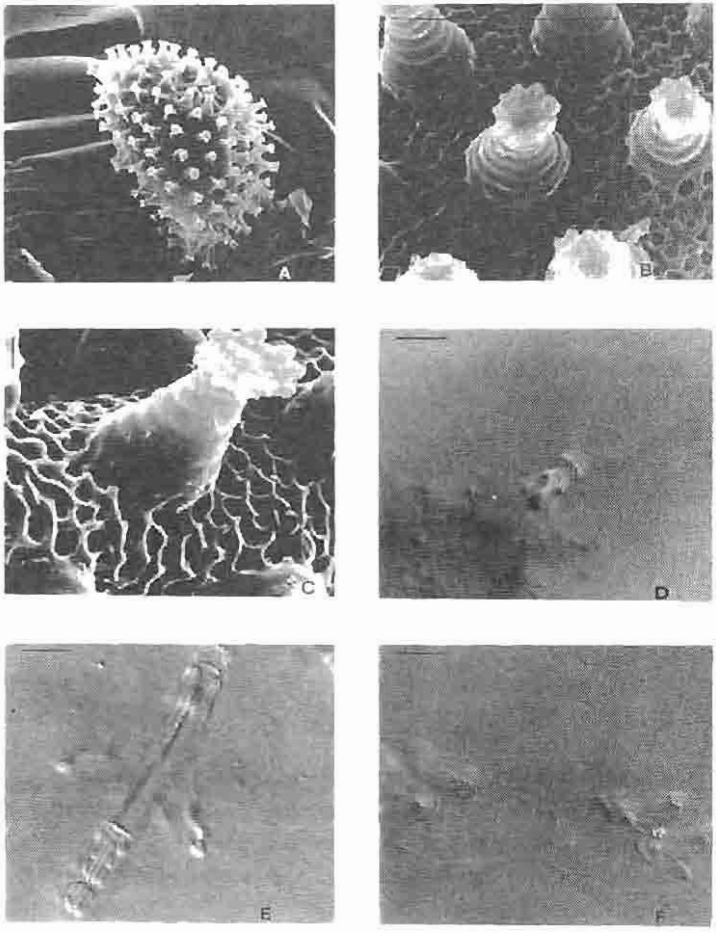
Macrobiotus madegassus Maucci, 1993 (Figs. A-D)

La Digue, a moss sample from *Cocos nucifera* L., 17 specimens and 5 eggs.

Silhouette, a moss sample from breadfruit tree, *Artocarpus altilis* (Parkins.)Fosb., 7 specimens.

Length of body from 180µm to 365µm. Other morphometric data agree well with the description by W. Maucci (1993). There are some errors in the description of the species. Maucci wrote: "...Cuticola: senza pori. L'armature boccale consiste solamente nelle creste trasversali posteriori, senza dentelli." In reality this species has pores on the cuticle (sometimes very difficult to see on some specimens) and the dorsal ridges are joined to one another to form a single transversal ridge. These features can be observed on both the Seychelles specimens and the type series from Madagascar, including the holotype (slides number 14005 and 14009 from Maucci's collection). In comparison to specimens from Madagascar the Seychelles populations have well developed diffuse ocular spots. The old specimens have transverse bands (up to 10) of black pigment on the cuticle.

The species is new to the Archipelago's fauna, previously being known from Madagascar, St-Marie Island and the very small Ile aux Nattes only (both latter islands are situated near the east coast of Madagascar).



Figs. A-C, *Macrobiotus madegassus*, eggs, scanning electron microscopy: **A** - general view, **B** - detail of egg surface, **C** - separate process of egg.

Figs. D-F, differential interference contrast. **D** - *Macrobiotus madegassus*, buccal armature, dorsal aspect. **E-F** *Macrobiotus seychellensis*: **E** - buccal armature, dorsal aspect, **F** - lunules of legs IV.

Scale bars: C = 1μm, A, B, D, E, F = 10μm.

Macrobiotus seychellensis Biserov, 1994 (Figs. E-F)

La Digue, a moss sample from *Cocos nucifera* L., 1 specimen.

We consider this specimen to belonging to *M. seychellensis* rather then to *M. iharosi* Pilato *et al.*, 1991 since the individual has a relatively thick transverse joint ridge in the buccal armature and well developed teeth on the lunules of the hind legs. Unfortunately, the lack of eggs makes precise identification of this specimen impossible. *M. seychellensis* has been reported from Assumption Island only.

Milnesium tetralamellatum Pilato & Binda, 1991.

Silhouette, a moss sample from breadfruit tree, *Artocarpus altilis* (Parkins.)Fosb., 9 specimens. Typical specimens with 4 peribuccal lamellae. For Seychelles Binda & Pilato (1995) reported this species from Mahé Is

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References

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Chilocorus nigritus (Fabricius) (Coleoptera: Coccinellidae) on Cousine Island sixty years after release in Seychelles

Michael J Samways

Invertebrate Conservation Research Centre, Department of Zoology & Entomology, University of Natal, P/Bag X01, Scottsville 3209, SOUTH AFRICA.

Chilocorus nigritus is a highly effective biocontrol agent (Samways, 1984) that has been translocated and moved naturally to many climatically suitable parts of the world (Samways 1989).

Forty individuals were introduced into the Seychelles on 28 December 1938 from Coimbatore, India. The beetle was reared and released against the scale insects *Ischnaspis longirostris*, *Pinnaspis buxi* and *Chrysomphalus aonidum* on coconut palm. All three species were reduced by the beetle (Vesey-FitzGerald 1941, 1953).