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Two new species of *Spiniphiline* (Gastropoda: Cephalaspidea) from the Middle and Eastern Atlantic Ocean

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Keywords: Mollusca, Gastropoda, Cephalaspidea, *Spiniphiline*, Atlantic Ocean, new species.

Abstract: Two species belonging to the genus *Spiniphiline* Gosliner, 1988 are introduced and described as new to science: *Spiniphiline richardsoni* sp. nov., originating from deeper waters of Ascension Island and *Spiniphiline verbinneneni* sp. nov., originating from the waters of La Gomera Island. Both new species are compared with the previously known *Spiniphiline kensleyi* Gosliner, 1988, *Spiniphiline persei* Caballer & Ortea, 2015 and *Spiniphiline caboverdensis* Malaquias Ohnheiser, Oskars & Willassen, 2016, which they are conchologically distinct from.

Introduction: Species belonging to the genus *Spiniphiline* are very small in size, poorly known and difficult to obtain. Only a few species have previously been recorded. The specimens are characterised by an internal shell with a relatively large posterior wing bearing 4 to 6 elongate spines. Until now only three specimens had been known to science: *Spiniphiline kensleyi* Gosliner, 1988 from the Aldabra Atoll, Seychelles, *Spiniphiline persei* Caballer & Ortea, 2015 from Guadeloupe and *Spiniphiline caboverdensis* Malaquias et al., 2017 from São Vicente island, Cape Verde. Subsequently, two new species were collected and they are described in this paper as *Spiniphiline richardsoni* sp. nov., found in detritus at Ascension Island [7°53'30.3" S, 14°25'59.4" W.] at a depth of approximately 130 metres. The second one, *Spiniphiline verbinneneni* sp. nov., was collected in detritus at 18 metres deep at Playa la Cueva, San Sebastian, [28°05'26" N, 17°06'19" E] La Gomera Island. The living animals of the newly described species were not available for examination.

Systematics:

Order: Cephalaspidea Fischer, 1883

Family: Philinidea Gray, 1850 (1815) (86)

Genus: *Spiniphiline* Gosliner, 1988

Type Species: *Spiniphiline kensleyi*

Gosliner, 1988

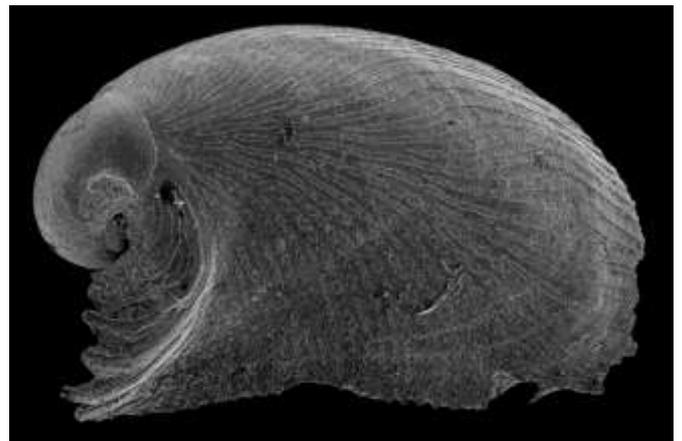
Abbreviations

RBINS: Royal Belgian Institute of Natural Sciences
Brussels, Belgium

CFS: Collection Frank Swinnen

Spiniphiline richardsoni sp. nov.

Plate 1



Holotype of *Spiniphiline richardsoni*
RBINS IG. 34270 (MT.3892)

Type material: **Holotype:** RBINS IG. 34270 (MT.3892); **Paratypes 1-4:** CFS.

Type locality: Off Georgetown, Ascension Island [7° 53'30.3" S 14°25'59.4" W], approximately 130 metres deep.

Description: Internal shell microscopically small (1.255 μm x 817.4 μm), elongate-oval to haliotoid shaped, translucent, very thin and fragile. Protoconch concealed by subsequent whorl, last whorl slightly elevated from earlier whorl, forming a suture ridge. The microsculpture of the dorsum consists of numerous very close-set spiral lines, which change into series of micro-pits and rings becoming chain-like. The inner surface of the aperture is smooth, divided into two compartments and bearing six elongated spines on the posterior upper outer lip (finger-like).

The coloration of the studied shells was whitish and dull.

Discussion: *S. richardsoni* sp. nov. is distinguished from its congeners *S. kensleyi*, *S. persei* and *S. caboverdensis* by having a chain-like sculpture on the dorsum, a characteristic lacking in all of the mentioned species, the posterior extensions of the new species are also much smaller in size.

Distribution: To date only known from the type locality (Ascension Island).

Etymology: This new species is named in honour of Andy Richardson, Chief Scientist at the Ascension Island Government Conservation and Fisheries Department, for his help in collecting detritus with the Van Veen grab around the island of Ascension .

Spiniphiline verbinneni sp. nov.

Plate 2



Holotype of *Spiniphiline verbinneni*
RBINS IG. 34270 (MT.3892)

Type material : Holotype: RBINS. IG. 34270 (MT.3893)

Type locality: Playa la Cueva, San Sebastian [28°05' 26"N, 17°06'19"E] La Gomera Island at approximately 18 metres deep.

Description: The internal shell is microscopically small (910.3 μm x 561.2 μm), elongate to squarish oval in shape (haliotoid shaped), translucent, very thin and fragile. Protoconch partly embedded in subsequent whorl. Last whorl slightly elevated from earlier whorl, forming a suture ridge. The microsculpture of the dorsum consists of numerous concentric growth lines forming an uneven surface. Near the centre of the last whorl several ribs, which form five elongated (finger-like) spines on the posterior upper outer lip, occur. The inner aperture is smooth.

Coloration of the studied shell whitish and dull.

Discussion: *S. verbinneni* sp. nov. differs from its congener *S. richardsoni* by lacking the chainlike microsculpture on the dorsum, from *S. kensleyi* by the posterior extensions that are much smaller in size and by lacking a single spine present at the posterior end of the protoconch. *S. persei* differs by the posterior extensions, which are much larger and *S. caboverdensis* is distinguished from the new species by the presence of only three spines on the posterior upper outer lip.

Etymology: This new species is named in honour of Gilbert Verbinnen, Research Associate Royal Belgian Institute of Natural Sciences, D.O. Taxonomy & Phylogeny.

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References:

Caballer, M. & Ortea, J. (2015?-2016) The first species of *Spiniphiline* Gosliner, 1988 (Gastropoda: Cephalaspidea) in the Atlantic Ocean, with notes on its systematic position. *Journal of Molluscan Studies*.

Gosliner, T. M. (1988) The Philinacea (Mollusca: Gastropoda: Opisthobranchia) of Aldabra Atoll, With descriptions of Five New Species and a New Genus. *Bulletin of the Biological society of Washington*.

Linden, J. Van Der (1995) Philinidae dredged by the CANCAP expeditions (Gastropoda, Opisthobranchia) CANCAP Project Contribution N°. 110. *Basteria* 59: 65-83.

Malaquisa, M. A. E., Ohnheiser, L. T., Oskars, T. R. & Willassen, E. (2016) Diversity and Systematics of philinid snails (Gastropoda: Cephalaspidea) in west Africa with remarks on the biogeography of the region. *Zoological Journal of the Linnean Society* 180: 1-35, 15 figs.

Plate 1: *Spiniphiline richardsoni*

Plate 2:

Spiniphiline verbinneni

1-1a: *Spiniphiline persei* Caballer & Ortea, 2016
Photographs copied from: Caballer, M. & Ortea, J. (2015?-2016). The first species of *Spiniphiline* Gosliner, 1988 (Gastropoda: Cephalaspidea) in the Atlantic Ocean, with notes on its systematic position. *Journal of Molluscan Studies*.

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Plate 1

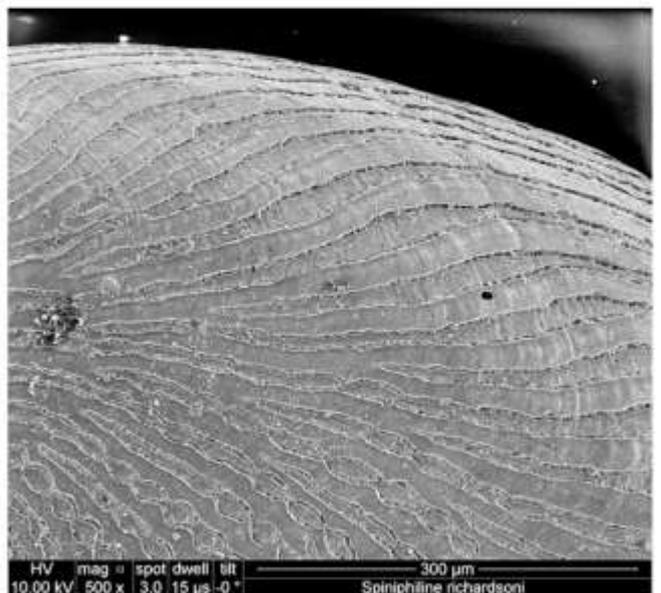
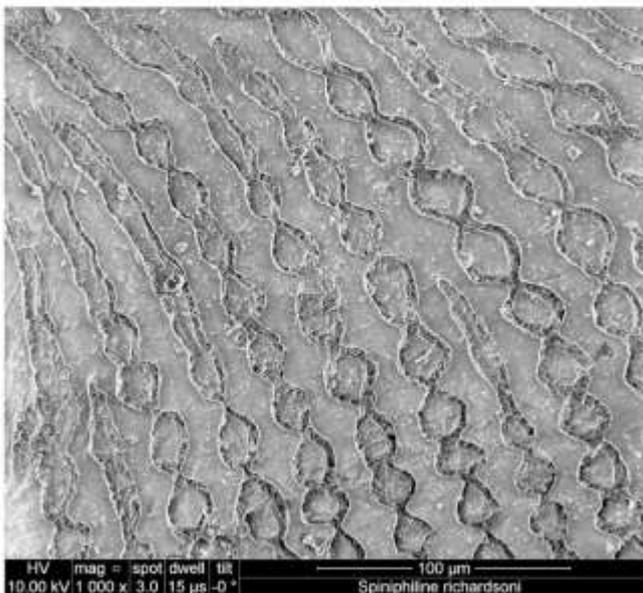
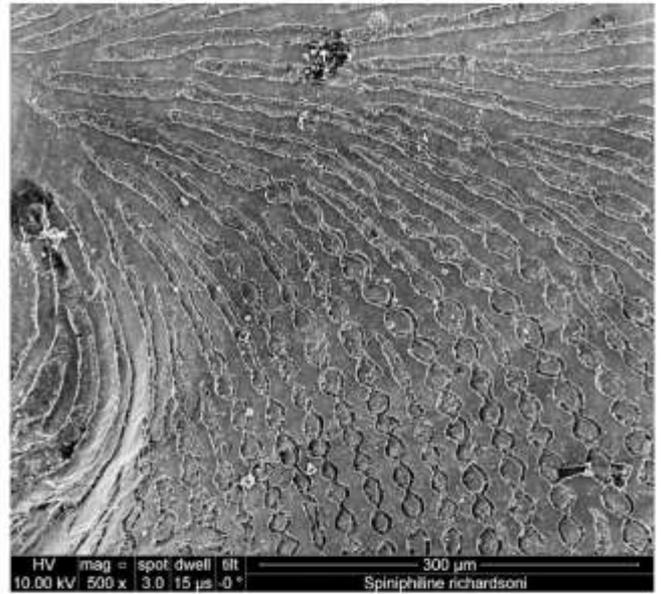
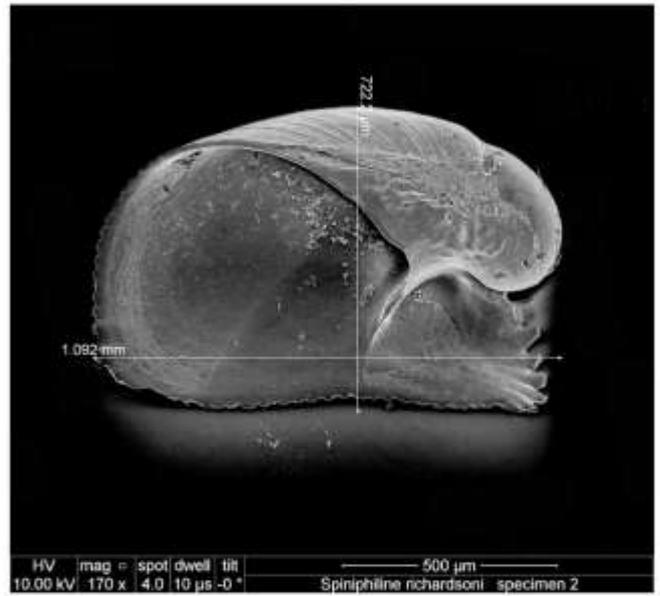
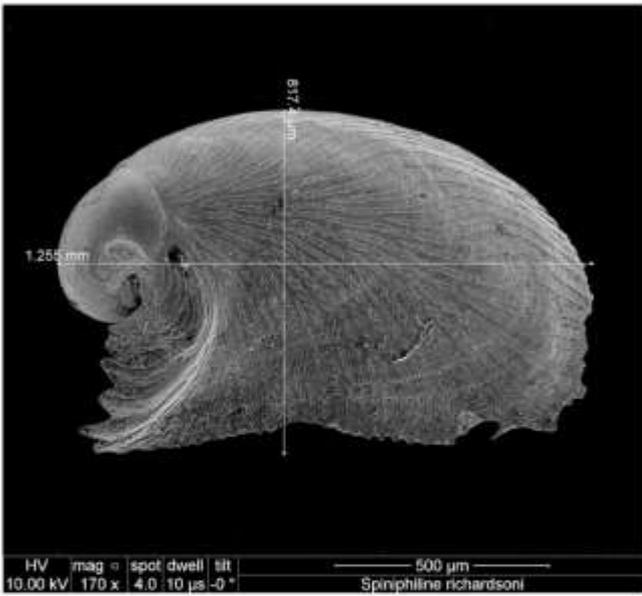
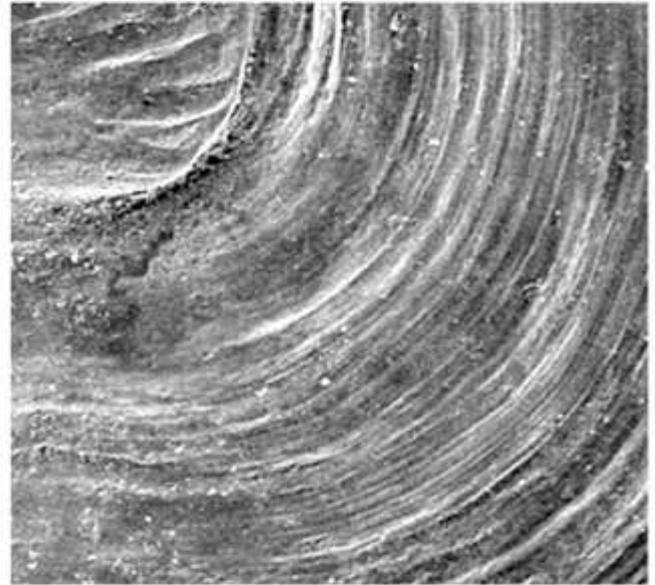
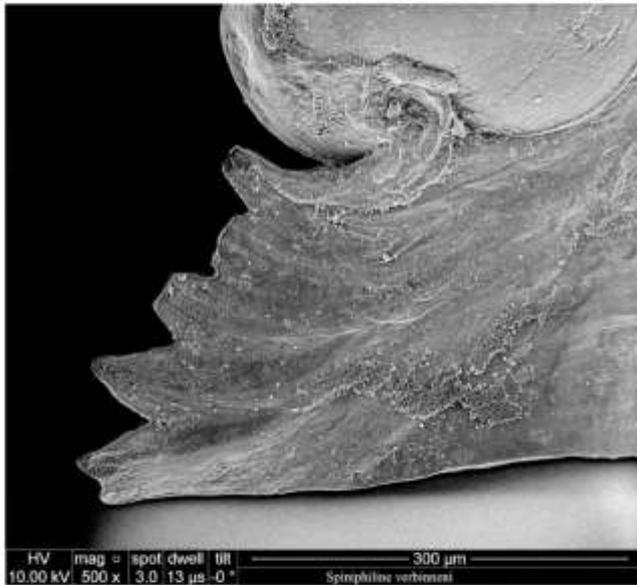
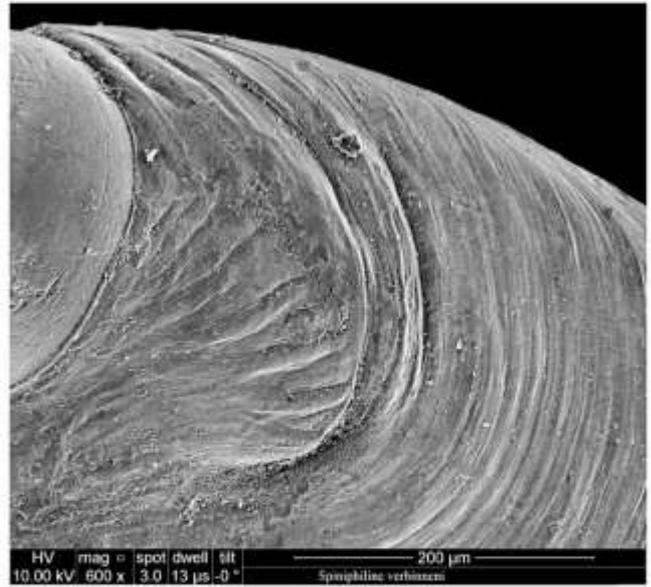


Plate 2



1 - 1a *Spiniphilae persei* M. Caballer & J. Ortea, 2016

