

A new species of the genus *Ventsia* (Gastropoda, Seguenzioidea) from deep water of Cuba

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Abstract: A new species of the genus *Ventsia* Warén & Bouchet, 1993 from deep waters of the north of Cuba is described and compared with *Ventsia tricarinata* Warén & Bouchet, 1993, the type species of the genus and the only previously known species. It is also compared with species of the genus *Trenchia* Knudsen, 1964, which has some similarity.

Introduction: The genus *Ventsia* was introduced by Warén & Bouchet (1993) to describe the new species *Ventsia tricarinata* from Lau Basin, Fiji, and it was placed in the family **Skeneidae** W. Clark, 1851 (Trochoidea); molecular data subsequently suggested a basal seguenzioidean position (Kano, Chikyu & Warén, 2009). The latter hypothesis is supported by morphological data about the micro-anatomy of *Ventsia tricarinata* (in Kunze, Heß & Haszprunar, 2016).

Ventsia tricarinata closely resembles species of *Xylo-skenea* Marshall, 1988 in protoconch, certain teleoconch and soft part characteristics, but differs by its radular characters.

Another related genus is *Trenchia* Knudsen, 1964 (Type species: *Trenchia wolffi* Knudsen, 1964 from the Kermadec Trench). Species of *Trenchia* have a similar shell and radula, but their protoconch differs in being smooth and lacking spiral ridges.

Ventsia and *Trenchia* species are all from deep water.

In the Cuban waters an expedition organised by a co-operation between the University of South Florida, University of Texas and Eckerd College with the Centro de Investigaciones Marinas of the La Habana University,

the Centro de Estudios Ambientales de Cienfuegos of the Ministerio de Ciencia, Tecnología y Medio Ambiente with the ship Weatherbird II, in the north of Cuba between La Habana Bay and San Antonio Cap between 10 and 25 May 2017. A part of this material is actually in study and some papers have been published (Fernandez-Garcés *et al.*, 2017, 2018). In the present work, one species of the genus *Ventsia* Warén & Bouchet, 1993 is described.

Abbreviations:

- ANC:** Acuario Nacional, La Habana, Cuba
CEAC: Centro de Estudios Ambientales of Cienfuegos
CIM-UH: Centro de Investigaciones Marinas, University of La Habana, Cuba
MHNS: Museo de Historia Natural, Santiago de Compostela
MNCN: Museo Nacional de Ciencias Naturales, Madrid
USF: University of South Florida

Systematics

Class **Vetigastropoda** Salvini-Plawen, 1980
 Superfamily **Seguenzioidea** Verrill, 1884
 Family [unassigned]
 Genus *Ventsia* Warén & Bouchet, 1993

Ventsia Warén & Bouchet, 1993: 28 [Type species by original designation: *Ventsia tricarinata* Warén & Bouchet, 1993].

Diagnosis: In Warén & Bouchet, 1993: “Small archaeogastropods with a subplanispiral shell with short, oblique lines, spiral keels and axial ribs. Protoconch with about 6 spiral ridges composed by granules. Radula n.3.1.3.n. Ctenidium monopectinate. Right neck-lobe

with 2 tentacles, left neck-lobe absent. Two epipodial tentacles at each side below the operculum, one posterior with sensory papillae”.

Remarks: *Ventsia* and *Trenchia* are very similar genera. *Trenchia* species have a similar shell and radula, but their protoconch differs in being smooth instead of having spiral ridges.

Ventsia hollanderi n. sp.

Fig. 1A-F

Type material: **Holotype** (Fig. 1A) in ANC (ACN.06.3.161), Bahía Honda, La Habana, Cuba and 1 **paratype** from Cayo Jutía. Paratypes: 1 s in MNCN (Fig. 1B); 1 in MHNS (Fig. 1C) both from Cayo Jutía, N. Cuba.

Material examined: 4 s: Cuba: 1 s, Bahía Honda, SL41-750, 23.085587 N, 83.197063 W, 1513 m (holotype); 3 s, Cayo Jutía, SL39-750, 22.48324 N, 84.06538 W, 1296 m (paratypes).

Type locality: North of Cuba, Bahía Honda, SL41-750, 23.085587 N, 83.197063 W, 1513 m.

Description: Shell minute (<1.5 mm) with a low spire, formed by 2 ¾ whorls, bicarinate and widely umbilicate. The protoconch has a little more than ½ whorl, with a size of 260 µm in diameter and bears 3-4 spiral ridges at its initial part. The teleoconch has 2.2 whorls, a rounded periphery and is bicarinate; its surface is totally smooth except for marked growth lines in prosocline direction. There are two strong carinae; the first one, the most apical one, is in subsutural position and demarcates a short “shoulder area” and the second demarcates the periumbilical area. A third carina is restricted to the inner part of the umbilicus, steeply ascending from the inner, lower corner of the aperture. Umbilicus wide and deep, bounded by a thick carina and another inside. Aperture oval, prosocline. Parietal area covered with a fine callous layer; columella oblique, reflected towards the umbilicus at its beginning, where the umbilical carina ends. Outer lip with smooth margin, angled next to the parietal area and with an evident notch next to the base of the columella.

Dimensions: the holotype size is 1.34 mm in diameter and 1.21 in height. H/D = 0.90.

Habitat: Bathyal species dredged at 1513 m deep. The substrate is a very fine and sticky yellowish mud.

Distribution: Only known from the type locality.

Etymology: The species’ name is after Dr. David Jon Hollander of the University of South Florida, who collected the sample.

Remarks: *V. hollanderi* n. sp. is characterised by having two main carinae (subsutural and periumbilical) and a third, thinner one, which develops inside the umbilicus; for its protoconch with 3-4 spiral ridges and for its oval aperture, with a notch at the base of the columella.

It differs from *V. tricarinata* in lacking the peripheral carina and in the shape of the aperture.

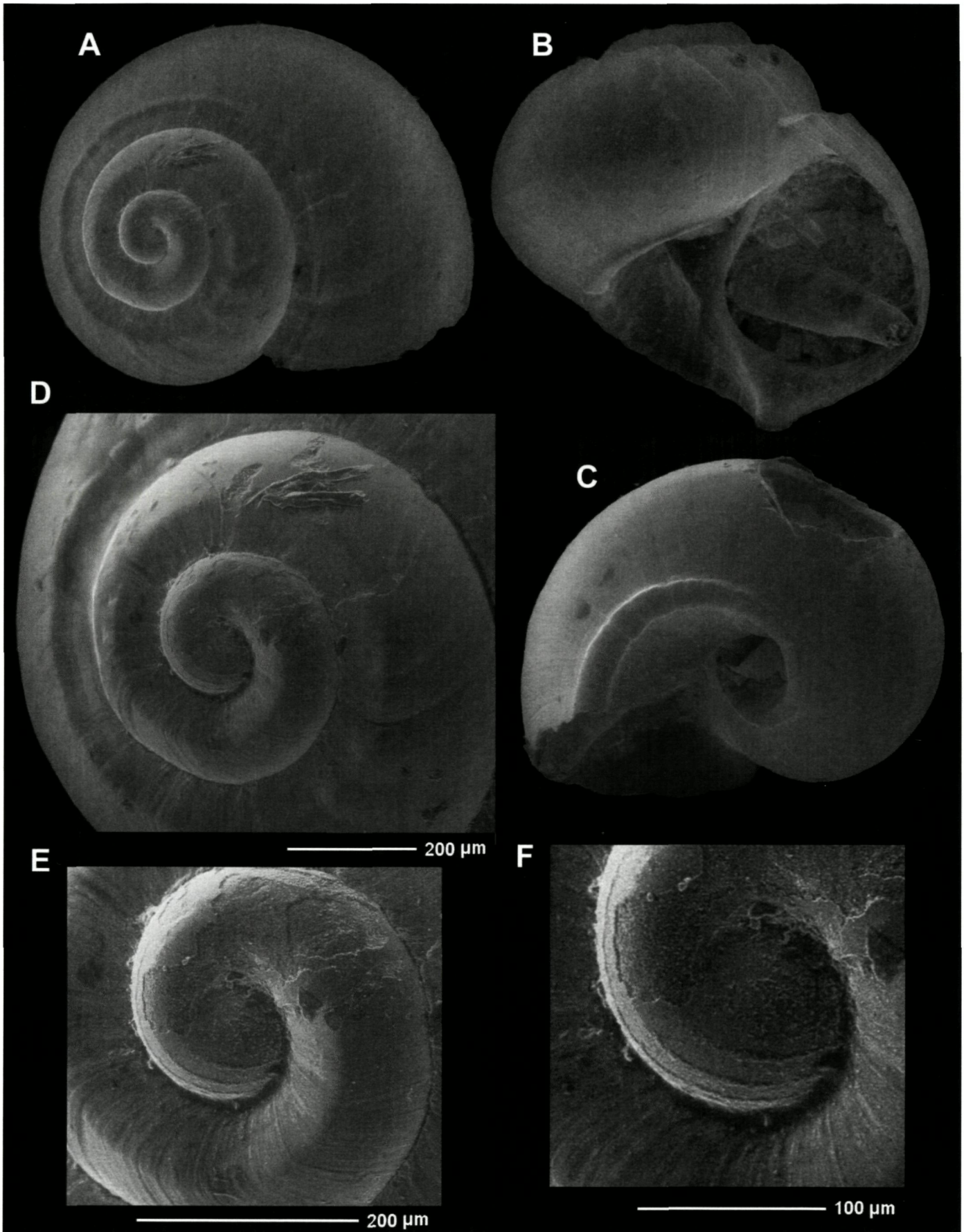
It can be distinguished from *Trenchia wolffi* Knudsen, 1964 by its thicker carinae and by having the protoconch ornamented with spiral ridges instead of smooth.

The new species differs from *Xyloskenea* species in having two thick carinae (subsutural and periumbilical) and a wider umbilicus.

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Bibliography:

- Fernández-Garcés, R., Rubio, F. & Rolán, E.,** 2017. A new species of the genus *Brookula* (Gastropoda, Seguenzioidea) from deep water of Cuba. *Iberus* 36(1): 55-59.
- Fernández-Garcés, R., Rubio, F. & Rolán, E.,** 2018. A new species of the genus *Neusas* (Gastropoda: Tornidae) from deep water of Cuba. *Gloria Maris* 57(2): 61-63.
- Kano, Y., Chikyu, E. & Warén, A.,** 2009. Morphological, ecological and molecular characterisation of the enigmatic planispiral snail *Adeuomphalus* (Vetigastropoda: Seguenzioidea). *Journal of Molluscan Studies* 75: 397-418.
- Knudsen, J.,** 1964. Scaphopoda and Gastropoda from depths exceeding 6000 meters. *Galathea Report* 7: 125-136.
- Kunze, T., Heß, M. & Haszprunar, G.,** 2016. 3D-interactive microanatomy of *Ventsia tricarinata* Warén & Bouchet, 1993 (Vetigastropoda: Seguenzioidea) from Pacific hydrothermal vents. *Journal of Molluscan Studies* 82(3): 366-377.
- Warén, A. & Bouchet, P.,** 1993. New records, species, genera, and a new family of gastropods from hydrothermal vents and hydrocarbon seeps. *Zoologica Scripta* 22: 1-90.



Ventsia hollanderi n. sp.

A: Holotype, 1.34 mm in diameter, Bahía Honda, 1513 m (ANC).

B: Paratype, 1.13 mm in diameter, Bahía Honda, 1513 m (MNCN).

C: Paratype, 1.23 mm in diameter, Bahía Honda, 1513 m (MHNS).

D: Apex and protoconch.

E-F: Detail of the microsculpture of the protoconch.