

## A new species of *Triphoroidea* from Cuba

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**Key words:** TRIPHORIDAE, "*Triphora*" *arrondoi* sp. nov., Cuba.

**Abstract:** A new species of *Triphoroidea* from the island of Cuba is described and compared with the numerous known species from this island, showing its peculiar coloration and microsculpture to differentiate it from other existing species from these coasts.

**Introduction:** The family **Triphoridae** is represented by numerous species all over the world (Marshall, 1983) and mainly in Caribbean waters, where numerous new species have recently been described (Rolán & Fernández-Garcés, 2007, 2008, 2015). In spite of this, numerous species in this family only have a small distributional area, thus new species may frequently be found in newly explored areas.

In the revision by Rolán & Fernández-Garcés (2008), several new species were described and tentatively accommodated within the genus "*Triphora*" because it is necessary to have information on the radula to determine the correct genus. This is likewise the problem with the newly studied species, which is only known from one shell in perfect condition, yet without soft parts for anatomical or radular studies.

The first author found a very characteristic shell, which is not similar to any other known species, on a sand substrate in the frontal reef at a depth of 14 metres south of Cayo Rosario in the Batabanó Gulf (21°35.427 N, 81°55.764 W). It is shown in the present paper and considered an unknown species, which is thus described below.

### Systematics

Family **Triphoridae** Gray, 1847

Genus "*Triphora*"

"*Triphora*" *arrondoi* sp. nov.

Figs 1A-F

**Type material:** Holotype (Figs 1A-C), deposited in the Acuario Nacional de Cuba (ANC.06.3.167).

**Type locality:** 21°35.427 N, 81°55.764 W, south of Cayo Rosario, Batabanó Gulf, Cuba. 14 metres deep.

**Description:** Shell subconical elongate, solid. Protoconch (Figs 1D-E) paucispiral, white, with about two whorls and a diameter of about 450 µm. The nucleus and most of the first whorl are smooth and white, after which 2 lines of tubercles appear; these probably reach the second whorl, which is of a brown colour. The teleoconch begins with two lines of nodules; the upper one is brown while the lower one is white. The teleoconch consists of 8 whorls, adorned with two spiral lines of nodules, present from the very beginning of the teleoconch. Near the suture there is a fine spiral elevation. On about the fifth whorl, a new, narrower and straight spiral lines appears between the upper and lower nodulous spiral line. This third spiral line slightly increases in size. A fourth, slightly narrower, extra spiral line appears on the last whorl below the third one. The aperture is depressed and with a fine external border; the siphonal canal is narrow and strongly curved.

The colour of the shell is brown with a white protoconch and lower spiral cord.

Dimensions: holotype 5.4 mm x 2.06 mm.

**Remarks:** The lowest white nodular cord is very characteristic of the species, as the rest of the shell, except for the protoconch, is dark brown.

The comparison with other species with a similar colour pattern is as follows: *Nototriphora decorata* (C.B. Adams, 1854) has a multispiral protoconch and three spiral cords in the teleoconch, the lower two of which are white.

*Similiphora intermedia* (C.B. Adams, 1850) has a similar colour pattern, but the protoconch is multispiral. The same goes for *Triforis atlantica* E.A. Smith, 1890, *Eutriphora bermudensis* (Bartsch, 1911) and *Nanaphora verbenei* (Moolenbeek & Faber, 1989),

*Cheirodonta decollata* Rolán & Fernández-Garcés, 1994 also has a multispiral protoconch, the shell is less elongate and the white nodular cords are only present in a restricted area on the teleoconch.

*Monophorus ateralbus* Rolán & Fernández-Garcés, 1994 also has a multispiral protoconch, but is not so elongate. "*Triphora*" *yociusi* Rolán & Lee, 2008 has a similar pattern consisting of two colours, but the lower nodular cord is cream instead of white. The protoconch consists less than 2 whorls and its diameter is 370 µm. The aperture is more prominent and the siphonal canal is straight and opened.

**Etymology:** The species is named after Ernesto Arrondo Odriozola, a Spanish malacologist who has been very interested in the study of the molluscs for many years and author of the very nice and interesting book "*Los Moluscos y el hombre*", which was published in 2012.

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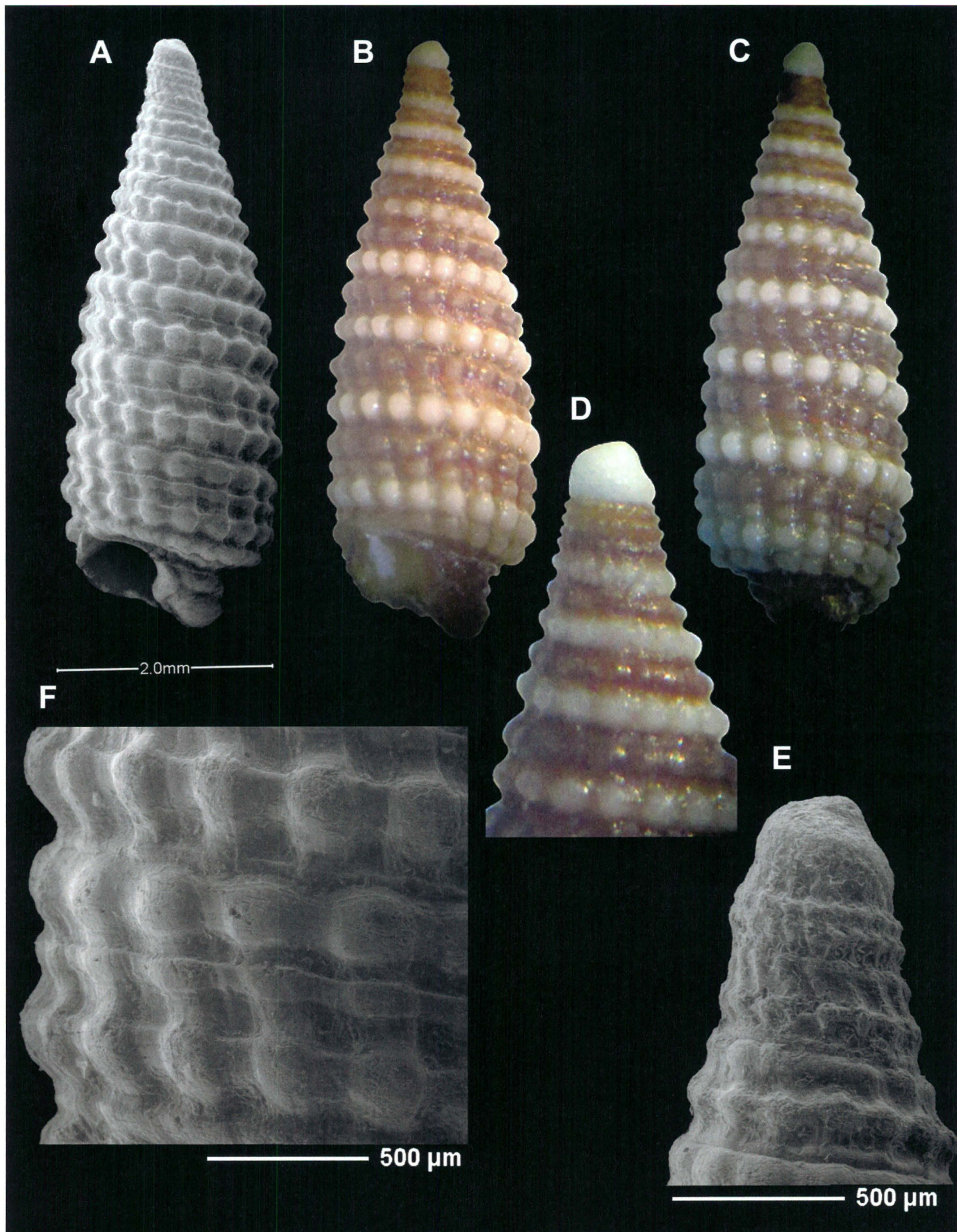


Plate 1: "*Triphora*" *arrondoi* n. sp.

A-C: Holotype, 5.4 mm in height (ANC)

D-E: Apex and protoconch;

F: sculpture of the last whorl.