

A NEW SPECIES OF SIPUNCULA FROM THE ATLANTIC OCEAN

By V. V. MURINA

Institute of Biology of the Southern Seas of the Academy of Sciences
the Ukrainian SSR, Sevastopol, USSR

ABSTRACT

A new species, *Golfingia (Phascoloides) elisae*, is described. It is closest to *G. (P.) vitjazi* Murina, 1964 and *G. (P.) constricticervix* Cutler, 1969.

Among the sipunculans collected in the Atlantic Ocean during the Galathea Expedition was a new species of Sipuncula which is described herein. The holotype has been deposited in the Zoological Museum of the University of Copenhagen (Denmark).

Golfingia (Phascoloides) elisae n. sp.

Material:

St. 63. Bay of Guinea (2°00'N, 9°14'E), 1520 m, 2 Dec. 1950, trawl, clay, c. 3.8° C. - 20 specimens and many fragments.

Diagnosis: A small slender species with long filiform introvert and slender long trunk; introvert hooks 0.02 mm in height; chitinous shield with 11-13 longitudinal ridges on anterior of trunk; two retractor muscles which quickly fuse; two unilobed nephridia; trunk up to 70 mm in length, 0.6-0.9 mm in diameter.

Description: The anterior one-third of the trunk is reddish-brown, the remainder light brown or greyish-yellow to yellow with the intestinal coil occasionally being visible through the body wall. The length of the trunk is about 24 times the width. The posterior end of the trunk is round. The thin, yellow-pink introvert appears to be less than twice the length of the trunk.

At the anterior end of the trunk there is a chitinous shield, 1.5 mm in length, 1.25 mm in diameter. The shield has 11-13 brown ridges consisting of densely packed skin glands. The proximal part of the shield (Fig. 1a) is clearly, the distal part poorly defined. On the surface of the trunk small annular wrinkles or folds are discernible. At the posterior end of the trunk are numerous skin glands 0.02 mm in diameter.

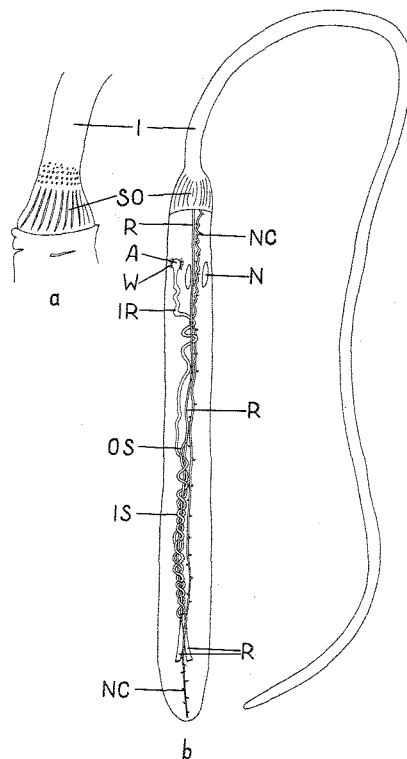


Fig. 1. *Golfingia (Phascoloides) elisae* n. sp.; a, anterior shield; b, dissection of holotype. A, anus; I, introvert; IS, intestinal spiral; IR, rectum; N, nephridium; NC, nerve cord; OS, oesophagus; R, retractor; SO, oral shield; W, wing muscles.

The transparent introvert is covered with minute mammiform papillae.

The longitudinal muscle layer is smooth, lustrous, and undivided. Two introvert retractors originate in the posterior fifth of the trunk. They join quickly and for most of the length they appear as a single band (Fig. 1b). The intestine has about 15 single coils and is unattached posteriorly. The rectum is long, coiling around the retractors, and it bears a caecum. The contractile vessel is inconspicuous. The wing muscles are small and weakly developed. The orange unilobed nephridia are short. They open 0.2-0.3 mm posterior to the anus. The anus is 5.5 mm posterior to the shield.

Remarks: Ten specimens have been studied and dissected. The length of the trunk is from 14 to 78 times the diameter of the body. Several specimens have retractor muscles originating from different levels; the left one slightly anterior to the right. Intestinal coils number about 30. Ripe eggs are found in the coelom. They are pink, spherical, and measure 0.15-0.25 mm in diameter. One specimen has an introvert 31 mm long with a diameter of 0.2-0.3 mm. On the distal end of the introvert there are inconspicuous hooks, 0.02 mm in height. The nature of the tentacles cannot be ascertained because no specimen is completely expanded.

Only two species of the subgenus *Phascoloides* (with hooks) are similar to this species in having long, filiform trunk: *Golfingia vitjazi* Murina, 1964, and *G. constricticervix* Cutler, 1969. The new species is distinguished from *G. vitjazi*: 1. *G. elisae* has an introvert twice the length of the trunk (in *G. vitjazi* it is one-fifth the trunk length). 2. The hooks are smaller: 0.02 mm as compared to 0.21-0.28 mm in height. 3. The origin of the retractors is in the posterior fifth of the trunk in *G. elisae* as compared to the anterior third in *G. vitjazi*. 4. By fewer shield ridges (11-13 here while in *G. vitjazi* there are 34-36).

The new species is distinguished from *G. constricticervix* by the presence of an anterior oral shield, the long filiform introvert and absence of the narrowed region at the boundary between the introvert and the trunk that is characteristic for *G. constricticervix*.

This new species was named in honour of the late Danish scientist Elise Wesenberg-Lund.

Literature cited

- Murina, V. V., 1964: New and rare species of sipunculids of genus *Golfingia*. - Trudy Inst. Okeanol. **64**: 216-253. (In Russian).
- Cutler, E. B., 1969: New species of Sipuncula from the Western North Atlantic. - Proc. Biol. Soc. Wash. **82**: 209-218.