

Short communications

New data on the foregut morphology of Raphitominae (Conoidei, Conidae)

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Новые данные по морфологии переднего отдела пищеварительной системы Raphitominae (Conoidei, Conidae)

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During the study of deep-sea conoideans, collected by the R/V Galathea, a new species of *Gymnobela* (subfamily Raphitominae*, Conidae) was found, which apparently lacked a radula. After examination of the anterior part of digestive system, it appeared, that the species represents a new type of arrangement of the foregut anatomy, additional to those, described by Taylor et al. [1993]. The species has some unusual for the conoideans characters of the foregut. Therefore we describe the foregut anatomy of this still unnamed species.

The anterior part of the digestive system was serially sectioned after the removing from the body haemocoel. The sections were obtained by a routine technique and stained with Masson triple stain.

Gymnobela sp. nov.

(Fig. 1, 2)

MATERIAL EXAMINED: R/V Galathea, sta. 607, 44°18'S, 166°46'E, Tasman Sea, depth 3610 m, clay, January 17, 1952, 1 specimen (female) sectioned (shell length 26.6 mm).

ANATOMY: Head small (Fig. 2A), with short stout tentacles. Eyes present, large, pigmented. Rhynchostome simple, without funnel.

Digestive system (Fig. 2B): The proboscis is very long, folded several times within the rhynchodeal cavity, rather broad at the base (in the figure the proboscis is shown straight and somewhat shorter).

The proboscis is lined with tall goblet-shaped cells, which are cuticularized in the posterior part of the proboscis. The proboscis wall is rather thin and formed of an outer layer of circular muscle fibres and an inner layer of longitudinal fibres. Powerful proboscis retractor muscles run along the proboscis walls. The border between the retractors

* senior synonym of subfamily Daphnellidae Casey, 1904, not Deshayes, 1863, as it was often erroneously cited [e.g. Taylor et. al., 1993].



FIG. 1. Shell of *Gymnobela* sp. nov. Shell length 26.6 mm.

РИС. 1. Раковина *Gymnobela* sp. nov. Высота раковины 26.6 мм.

and the wall is unclear and thus retractors produce an appearance of thick proboscis wall.

The wall of anterior part of the proboscis forms an invagination, into which the anterior part of the buccal tube protrudes like a cylinder (Fig. 2C). The opening of the buccal tube, which should be considered as the mouth, is very small. The epithelium lining the very anterior part of the buccal tube is formed by tall elongated, probably glandular cells. There is no sac-like enlargement of the buccal tube.

The buccal tube runs along the entire proboscis length, is rather thick-walled, and lined with a