

Müller gave the lengths of females as 1.4-1.9 mm. Most of his male specimens were 1.6-1.75 mm long, but he had two males 1.35-1.45 mm long that had a differently shaped frontal organ. At Station S, males were 1.4-1.8 mm long, and females 1.4-1.88 mm long. Examination of the males showed that two species were present. Males 1.4-1.48 mm long had the frontal organ of Müller's small form, and were different from males 1.5-1.8 mm long. The small specimens, males 1.4-1.48 mm long and females 1.4-1.5 mm long, were caught only between 1000 and 1500 m. The larger males, 1.6-1.8 mm long and females 1.7-1.88 mm long, were taken from 1500 to 2000 m depths. Juvenile specimens were caught between 500 and 2000 m. As documented records (Rudyakov 1962; Poulsen 1973; Deevey 1978b) apply to the large form, which Müller also found more frequently, the larger form is here considered to be *C. mamillata* Müller. The small form must be described as a new species.

*Conchoecia nanomamillata*, new species

Figures 11a-d, i-n; Figures 12b-g; Figures 13a, c, d

*Conchoecia mamillata* C. W. Müller 1906 (part): 34, pl. 16, figs. 1-9, pl. 35, fig. 8.

HOLOTYPE—Male, 1.48 mm long, 1 slide, to be deposited in the National Museum of Natural History, Smithsonian Institution.

TYPE LOCALITY—Station S, 32°10'N, 64°30'W, in the Sargasso Sea off Bermuda. Collected in a tow from 1000-1500 m on 19 February 1970.

DESCRIPTION OF MALE

SHELL—In both male and female (Figs. 11k, l) the shell is distinctively sculptured and shaped as figured by Müller (1906, pl. 16, figs. 1-2) for *C. mamillata*. The height is approximately 40% the length, with rounded anteroventral and posteroventral corners. The left asymmetric gland opens on a rounded process at the posterodorsal corner, the right gland on a similar process on the posterior margin. At the posterodorsal corner of the right shell is a sharp point and a medial gland opens at its base as well as at the base of the left asymmetric gland.

FRONTAL ORGAN AND 1ST ANTENNA (Figs. 11a-d)—The capitulum of the frontal organ has some hairs or spinules proximally and ventrally and a large bulbous distal section (Fig. 11d), which readily distinguishes this species from the male *C. mamillata*. In *C. mamillata* the capitulum is long and slim with hairs on the proximal half (Fig. 11e). The armature of the 1st antenna is similar to that of the male *C. mamillata*, but there are several differences. In *C. nanomamillata* the principal seta has the large brush of long fine hairs as in *C. mamillata*, but it is also slightly longer