ON THE TAXONOMY OF THE GENUS CORNIGERIUS (CLADOCERA, POLYPHEMIDAE)

BY

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N. Pengo described in 1879 a new genus and species of polyphemid Cladocera from the Sea of Azov under the name of Corniger maeoticus. Although the very appropriate generic name Corniger — the genus is distinguished from the rest of the family by horn-like diverging processes on the head — has been used several times in the literature on Cladocera, it cannot be maintained since it is preoccupied by Corniger Agassiz (1831) for a genus of fish and by Corniger Böhm (1879) for a genus of Pycnogonida. Much to my regret I have to propose a new name to replace Corniger Pengo, 1879, and I suggest Cornigerius nom. nov. I am much indebted to Dr. J. H. Stock for this indication and for aid in the choice of a new name.

Zernov (1901) confirmed the existence of the species C. maeoticus, and described briefly two more species of the genus, namely C. horribilis and C. bicorneis. A new polyphemid obviously close to C. maeoticus was described by G. O. Sars (1902) from the Caspian Sea but referred by him to the genus Evadne under the name E. hircus. Sars denied the independence of the genus Corniger and named Pengo's species Evadne cornigeri.

Meissner (1908), emphasizing the close resemblance of the two forms, reduced the Caspian E. hircus to the status of a "local variety" of the species from the Sea of Azov and named it E. maeotica (Pengo) var. hircus (G. O. Sars), while Corniger horribilis described by Zernov was considered by him not to be a distinct species but merely a form of E. maeotica.

Later on Behning (1938) reestablished the genus Corniger but in a different scope. As the most distinctive character of this genus Behning considered the strongly developed and diverging caudal claws.

In his opinion the processes on the head — "horns", though present in the majority of the species of this genus, may be absent, as in the new species described by him as Corniger glabriceps. Behning intended to give a detailed description of this genus and all its species in his revision of the whole group of the Caspian polyphemids. This revision was not published, but the conclusion may be drawn from his papers on other topics (Behning 1938, 1941) that he suggested five
species, namely *Corniger maeoticus* (with some forms), *C. glabriceps*, *C. auritus* (mentioned but not described by him), *C. lacustris* and a fifth one (unknown). *C. lacustris* was described by Spandl (1923, 1924) under the name *Evadne lacustris*.

In my review of the Caspian fauna (Mordukhai-Boltovskoi, 1960) I included in the list of Caspian species neither *Corniger auritus* (since it is a nomen nudum) nor *C. bicornis* (since this species, very unsatisfactorily described in 1901 by Zernov, was not found thereafter during sixty years). I also refrained from the restoration of the genus *Corniger* and thus listed only *Evadne maeoticus* (in the Pontoasov basin), *E. m. bicornis*, and *E. glabriceps* (in the Caspian Sea).

However, the more detailed study of the pontocaspian polyphemids led me to the conclusion that the genus *Corniger* is to be restored, but rather in the sense of Pengo than that of Behning. A common character of all species of this genus is in my view the presence of appendages on the head ("horns"). Therefore *Corniger glabriceps* should not be included in this genus (it belongs probably to the genus *Podonevadne*). On the other hand *Corniger bicornis* Zernov, found by me in the Caspian Sea, is a good species of the present genus. In this paper the diagnosis of the genus *Cornigerius* is given, as well as the description of all four species belonging to it, one of which is new. *C. maeoticus* and *C. bicornis* are redescribed in more detail than by previous authors.

**Cornigerius** nom. nov. (pro *Corniger* Pengo, 1879, preocc.)

Type species: *Corniger maeoticus* Pengo, 1879.

Diagnosis. — Head on the frontal surface 1) with two appendages developed to various degrees, from a small spine-like projection to long horn-like processes bent on the end. Depression behind head also variable and sometimes hardly noticeable. Shell more or less elongate, elliptical or tapering to end but never quite round.

The caudal claws are always very well-developed, and diverging. The armament of the exopodites fits generally the setal formula 2.2.2.1, i.e., as in the majority of Caspian podonids, and the structure of the legs closely resembles that in *Podonevadne camptonyx* Sars. However, in one species (*C. bicornis*) this formula is variable, the lesser seta of the exopodite of the second and third pair being undeveloped, sometimes lacking.

At present four species are known; three of these are endemic in the Pontocaspian basin.

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1) On the figures the front side is situated above, the hinder part below, as usual in the representation of podonids (= polyphemids without caudal appendage; see Mordukhai-Boltovskoi, 1965), i.e., in a swimming position.

The distance from the lower edge of the head to the top of the shell (which covers only the brood pouch and heart and may be named the incubatory chamber), called the length by many authors, is properly the height and does not coincide with the morphological length, i.e., the distance from the frontal edge of the head to the hind edge of the postabdomen or caudal claws.