On the true identity of Trichotropis solida Aurivillius, 1885 (Gastropoda)

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Trichotropis solida was described on the basis of a single dead shell collected by Vega Expedition in the southern part of Chukchi Sea (66°58’N, 171°35’W, 38 m) [Aurivillius, 1885: 328, 375, Taf. 12, fig. 6]. The holotype (Fig. 1 A-B) was deposited in the Swedish Museum of Natural History, Stockholm (type-1560. Shell height 35.2 mm).

This species name appears in current Russian malacological publications [e.g. Golikov, 1995; Egorov, Alexeyev, 1998]. Its nomenclatural status was discussed by Sysoev and Kantor [2002], who were not able to find any specimens that match the type of T. solida in the collections of Capulidae housed in the Zoological Institute of Russian Academy of Sciences (St.-Petersburg) or the Zoological Museum of Moscow State University. They discovered that the specimens identified as T. solida by Golikov (1995) and subsequently cited by Egorov and Alexeyev (1998) belong to a different species, Neophinoe arctica (Middendorff, 1849).

Sysoev and Kantor (2002) concluded that T. solida is a valid species distinct from N. arctica, but is probably not represented in Russian collections.

After the publication of the paper of Sysoev and Kantor [2002], the junior author discovered that “Trichotropis” solida is the senior synonym for Admete regina Dall, 1911, a species correctly assigned to the family Cancellariidae (Admetinae). The type locality of Admete regina was reported by Dall [1911:19] as “Plover Bay on the Siberian side of the Strait” dredged on hard bottom in 25 fathoms [46 m] (now most often known as Provideniya Bay, approximately 64°20’N, 173°30’W). The holotype of Admete regina (Fig. 1 C-D) is in the collections of the National Museum of Natural History, Smithsonian Institution (USNM 221473). Comparison of types of both species confirms that they are conspecific. Besides, type localities and depths are very similar for both species.

The anatomy of this species had been examined by MGH and its position within Admetinae confirmed by morphological features shared with the type species of Admete [Harasewych & Petit, 1986], among them a reduced kidney, the absence of operculum and radula, and presence of a greatly reduced jaw. Preliminary analyses of a partial 16S rDNA sequence of this species place it within Neogastropoda, as sister taxon to Sydaphera spengleri ana (Deshayes, 1830) and Hertleinia mitriformis (Sowerby, 1832), both Cancellariinae [Harasewych, in preparation].

This species is characterized by significant variability in the degree of umbilicus development, from the nearly complete absence of an umbilicus in the holotype (Fig. A-B) to the presence of a pronounced