A REVIEW OF THE SPECIES OF THE GENUS *TYLOS* LATREILLE FROM THE NEW WORLD (ISOPODA, ONISCOIDEA)

BY

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The isopod genus *Tylos* Audouin, 1825 (family Tylidae) contains from 16 to 20 species according to the interpretations of various authors. *Tylos* and *Helleria* are the only genera in the family. *Helleria* contains one species only, *H. brevicornis* Ebner. Vandel (1960) placed the two genera in the subfamilies Tylineae and Hellerinae. Five species of *Tylos* are recorded from the New World. They are as follows: *Tylos latreillei* Audouin, 1825, *Tylos spinulosus* (Dana, 1853), *Tylos niveus* Budde-Lund, 1885, *Tylos wagneri* Vandel, 1952, and *Tylos punctatus* Holmes & Gay, 1909.

The isopods can be found on beaches from just below low tide level to a level high on the upper part of the beach. On rocky or coralline beaches the species are found in the crevices and cracks between and among the rocks, and on sandy beaches they make burrows in the sand. Many times the species are found under the thick masses of seaweed and detritus on the marine drift regardless of the substrate. They are not encountered among the mangrove roots of swampy shores according to the author's limited observations.

When the animals are frightened or disturbed they roll into a ball and only rarely escape by swimming or running. When, after being captured, they are released into a tide pool or open water, they usually swim for the nearest cover on the bottom and there hide. There is one record of *T. punctatus* from the west coast of the United States being caught in a near-shore plankton tow (Menzies, 1952). Species of the genus have never been recorded from the open water of the ocean, at least not in the New World, and they are not considered to be strong swimmers. Mostly the isopods are found in the intertidal zone where their behavior is strongly correlated to the tidal cycle, but some species have been recorded far from the immediate influence of the seawater or sea spray. At times when the animals are found, they occur in very large numbers, at high densities and over a wide section of beach or along a rocky coastline.

Two species of the five New World species are widespread in distribution. The most widely distributed species of the genus, *T. latreillei* Audouin, is found in abundance in western Europe and in the Mediterranean region. It is probably really world wide in distribution although it is probably only occasionally found in
some locations. The species is easily transported by ships and probably has so reached most parts of the world since early times. It is apparently the most adaptable of the species, and has become established in temperate and tropical regions. It should be kept in mind, however, that many records of the occurrence of *T. latreillei* might be incorrect and based on other species of the genus since there have never been really any good criteria for the proper definition of the species. Also other species have not always been completely separated from *T. latreillei* taxonomically. At times what are here properly called species were considered distinct only on the subspecies level (Arcangeli, 1938; Lemos de Castro, 1952).

The second expansive species in the New World is *T. niveus* Budde-Lund. It is not as extensively distributed as is *T. latreillei* and is mainly an inhabitant of the subtropics and tropics. The other species of the New World are more limited in distribution. *T. wagneri* Vandel (1952) is found in northern South America (Venezuela). At the southern tip of South America, north at least to the vicinity of Valparaiso, Chile, *T. spinulosus* (Dana) is found. The *Tylos* sp. mentioned from Peru by De Borre (see Van Name, 1936: 416) is perhaps *T. spinulosus*. Holmes & Gay (1909) described *T. punctatus* from southern California, and it has since been recorded from northern Mexico and the Gulf of California. A subspecies of *T. punctatus*, *T. punctatus insularis* Van Name (1936) is found in the Galapagos Islands. All three species which appear less common, occur in places which have not been extensively examined for isopods, so their limited distribution probably only reflects a lack of collecting in the regions.

No attempt will be made here to either redefine the genus or any of the species in any formal sense. An excellent account of the family, the genus and the type species *Tylos latreillei* Audouin has been given by Vandel (1960: 101). An attempt will be made to establish criteria by which the species recorded from the New World can be keyed and distinguished from each other. Only *T. punctatus* and *T. latreillei* present real difficulties and it is hoped that the simple criteria presented here will work as it has for the author on many museum specimens and ones from his own collection. Color patterns in the different species vary and might be useful to distinguish some species in a uniform state of fresh preservation, but the manner in which color varies during the season, according to background and according to the state of maturity must be studied with a large number of fresh specimens which were not available to the author. A key to the species is presented and a list of the literature which contains mention of the New World species is also included to complete Van Name’s (1936, 1940) bibliographies.

**Tylos latreillei** Audouin, 1825 (fig. 12-17)


The species has the borders of the ventral extensions of the fifth pleonal segment narrow and almost touching at the mid-line (fig. 13). By that criterion the species