

VOUCHER SHEET

Species name: *Microcharon* sp A

Date Examined: 11 March 2012

Group: Isopoda Family Microparasellidae

Voucher By: Don Cadien

Voucher Specimen(s): California, Catalina Id., Isthmus Reef; 61 ♂ and ♀, 5-10m, 18, April 1991, Tony Chess, US Fish and Wildlife

SYNONYMY: *Caecianiropsis psammophila* in part, not *C. psammophila* Menzies and Pettit, 1956 in grey literature in NEP; ? *Microcharon* sp WS1 Stebbins 2010

LITERATURE: **Chappuis, PA, and Delamare Deboutteville, C. 1954.** Recherches sur les Crustacés souterrains. VII. Les Isopodes psammiques de la Méditerranée. *Archives de Zoologie Experimentale et Generale* 91(1):103-138.

Coineau, N 1968. Contribution à l'étude de la faune interstitielle – Isopodes et Amphipodes. *Mémoires du Muséum National d'Histoire Naturelle* 55(3A):145-216.

Coineau, N. 1971. Isopoda: Asellota, Janiroidea, pp. 465-472 IN: Botosaneanu, L. 1986. *Stygofauna Mundi*: A faunistic, distributional, and ecological synthesis of the world fauna inhabiting subterranean waters (including the marine interstitial). E. J. Brill, Leiden.

Coineau, N and Schimdt, P 1979. Interstitielle Fauna von Galapagos XXIV. Microparasellidae (Isopoda, Asellota). *Mikrofauna des Meeresbodens* 73:1-19.

Kensley, B 1984. The Atlantic Barrier Reef System at Carrie Bow Cay, Belize. III New marine isopods. *Smithsonian Contributions to Marine Science* 24:1-81.

Lévi, C 1950. *Duslenia teissieri*, nov. gen., n. sp., nouveau Parasellide des côtes de France. *Archives de Zoologie Experimentale et Generale* 87(1):42-47.

Spooner, GM 1958. The occurrence of *Microcharon* in the Plymouth offshore bottom fauna, with description of a new species. *Journal of the Marine Biological Association of the United Kingdom* 38:57-63.

Stock, J 1977. Microparasellidae (Isopoda, Asellota) from Bonaire. *Studies Fauna Curacao* 51: 69-91

Wilson, GDF and Wägele, J-W. 1994. Review of the Family Janiridae (Crustacea: Isopoda: Asellota). *Invertebrate Taxonomy* 8:683-747.

DIAGNOSTIC CHARACTERS:

1. antenna 2 bearing a scale on article three; scale distally truncate, not acute; antenna 2 about 1.5x cephalon length, with 11 flagellar articles
2. uropodal peduncle much longer than the rami, about 2/3 pleotelson length and half its width; exopod attached laterally 20-25% of the way to the peduncle base, endopod terminal, exopod slightly less than 1/2 endopod length
3. pleotelson distally rounded, not indented or bearing lobes

RELATED SPECIES AND CHARACTER DIFFERENCES:

1. *M. sp A* can be distinguished from all local janirids, including *Caecianiropsis psammophila*, *C. sp LA1*, and *C sp LA2*, by the possession of a scale on article three of the antenna
2. *M. sp A* can be distinguished from *M. marinus*, *M. harrisi* and *M. herrerae* by antenna 2 length. Antenna 2 of *M. marinus* is much shorter relative to the cephalon, while those in *M. harrisi* and *M. herrerae* are nearly twice as long as in *M. sp A* relative to cephalon length
3. *M. sp A* can be distinguished from *M. galapagoensis* and *M. sabulum* by number of antenna 2 flagellar articles; 11 in *sp a*, 12 in *galapagoensis*, and 8 in *sabulum*
4. Characters differentiating *sp A* from *M. teisseiri*, *M. heimi*, and *M. salvati* are not currently known, as descriptions of those species are yet to be obtained. Since they are from widely diverging source locations and anthropogenic transport of such interstitial forms relatively unlikely, comparisons are probably not needed
5. Characters differentiating *sp A* from *M. sp WS1* are unknown, and await generation of a comparable description for the latter species

DEPTH RANGE: 5-10m

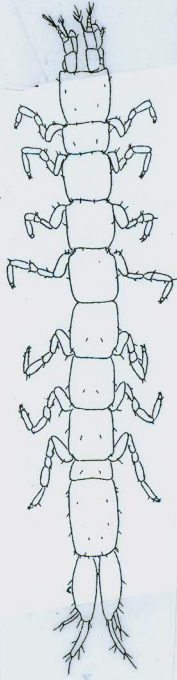
DISTRIBUTION: currently known only from Catalina Id., but if *M. sp WS1* proves to be equivalent, will also be distributed in the Northern Channel Islands. No mainland records are known

COMMENT: WoRMS lists 41 valid taxa in the genus *Microcharon*, the majority of which are from freshwater or brackish groundwater, but does not include *M. galapagoensis*. The World List of Isopoda (<http://invertebrates.si.edu/isopod/>) lists 70. Marine species, from either intertidal sands or shallow sublittoral sands or gravels, include *M. galapagoensis* Coineau and Schmidt 1979, *M. harrisi* Spooner 1958, *M. heimi* Coineau 1968, *M. herrerae* Stock 1977, *M. marinus* Chappuis and Delamare Deboutteville 1954, *M. sabulum* Kensley 1984, *M. salvati* Coineau 1968, and *M. teisseiri* (Lévi 1950). All of these species are grossly similar (see Figure 1 for a comparison of the gross appearance of *M. harrisi*, *M. herrerae*, *M. marinus*, and *M. sabulum*), with fine details of their anatomy needed to distinguish between them. There is fairly strong sexual dimorphism in some characters, so both sexes are needed for full identification, leading to a number of *Microcharon* sp records in the literature.

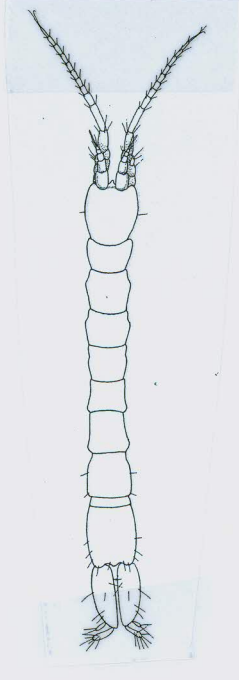
These species are distributed predominantly in eastern Atlantic/Mediterranean waters (*harrisi*, *marinus*, *teisseiri*), the tropical West Atlantic (*herrerae*, *sabulum*), or the western tropical Pacific (*heimi*, *salvati*). The only record from the Eastern Pacific is *M. galapagoensis*, which, as the name suggests, was discovered in the Galapagos Islands. No species were previously known from the NEP, although a second provisional taxon (*M. sp WS1*) was erected during B'08. It is presumed that this is the same as the current species, but until a fuller description of both is available, that is not proven.

The validity of the Microparasellidae as a family was controversial for some time, but the arguments of Wilson and Wägele (1994) seemed to have established it firmly as a separate group allied to but not included in the Janiridae.

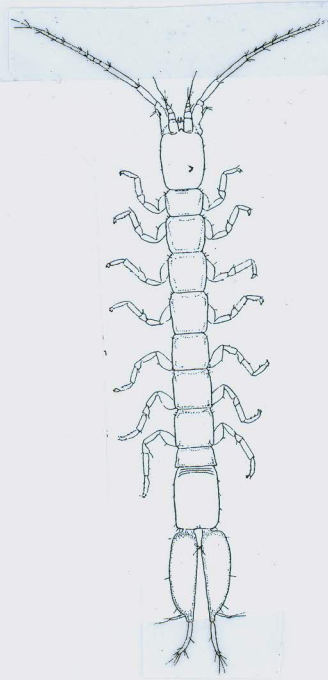
ILLUSTRATION:



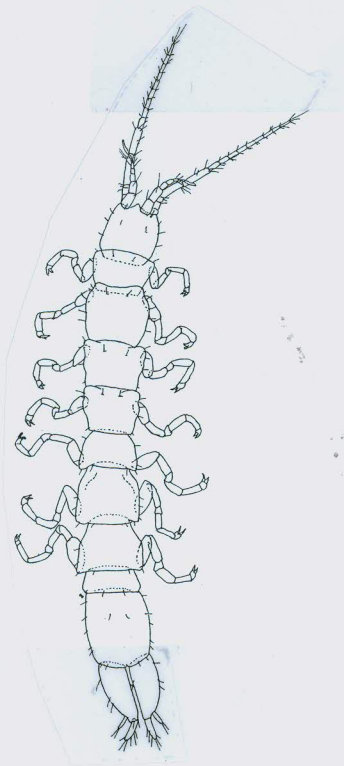
A



B



C



D

Figure 1 – Dorsal view of A) whole body *Microcharon marinus* (from Coineau, 1971), B) *M. sabulum* (from Kensley 1984), C) *M. harrisi* (from Spooner 1958), and D) *M. herrerae* (from Stock 1977). Note differences in proportion of head/antenna 2 length, relative length of pleotelson/uropodal peduncle, and uropodal ramal lengths (exopod vs. endopod) in these species.