

## NEW LOCALITIES OF *ACARTIA BACOREHUISENSIS* (CRUSTACEA: COPEPODA: ACARTIIDAE) ON THE PACIFIC COAST OF MEXICO

Previous to the description of *Acartia bacorehuisensis* Zamora-Sánchez, M. E. & S. Gómez-Aguirre (1986. *Anales Inst. Biol. Univ. Nac. Autón. México, Ser. Zool.* 56: 337-346) three species of acartiid copepods were known to occur in the states of Sinaloa and Sonora, on the north Pacific coast of Mexico: *Acartia tonsa* Dana, 1848, *A. lilljeborgii* Giesbrecht, 1889, and *A. danae* Giesbrecht, 1889 (Hendrickx, M. E & L.S. Osuna, 1983. *Rev. Biol. Trop.* 31: 283-290; Álvarez-Cadena, J. N. 1985. *An. Inst. Cienc. Mar y Limnol. Univ. Nal. Autón. México.* 12: 1-14 ). The type material used for the description of *A. bacorehuisensis* was collected from the coastal lagoon of Agiabampo Sonora (26° 20' N and 109° 05' W) and was previously referred to as *Acartia* sp. ( Zamora-Sánchez, M.E., 1974. Tesis Facultad de Ciencias, UNAM, México, D.F., 57 p).

During our study of the zooplankton communities associated with shrimp-ponds in coastal lagoon systems from Sonora and Sinaloa, Mexico, specimens of the genus *Acartia* were obtained and identified. Among these, approximately 150 specimens of *A. bacorehuisensis*, 30 males and 120 females were recognized, representing new northern (Laguna de la Cruz Bahía Kino, Sonora) and southern (Escuinapa, Sinaloa) distribution limits. Specimens were collected at the surface (0-1m depth) by means of a filtration device described by Nuñez- Pastén *et al.* (1992. *Revista Ciencias del Mar, U.A.S.* 12: 27-30).

**Material examined.** Laguna de la Cruz in Bahía Kino Hermosillo, Sonora: 28° 47' N, 111° 53' W, from May 12 through August 20, 1992 (5♂, 20♀) and shrimp farms in Sinaloa: "Dimas" in Elota, 23° 47' N y 106° 49' W, (8♂, 30♀); "La Clementina" in Barrón, 23° 06' N y 106° 17' W (6♂, 25♀); "Simental" in Escuinapa, 23° 36' N and 105° 42' W, (5♂, 18♀); "Escutia" in Escuinapa, 22° 22' N 105° 40' W (6♂, 27♀). Specimens were collected from April 14 through-February 9, 1994.

**Environmental data.** Salinity and temperature values, as well as other parameters were reported by Ruiz-Fernández, A.C. (1995. Tesis de Maestría en Ciencias del Mar, UACPy P. del CCH, UNAM, México, 133 p.) indicating that *A. bacorehuisensis* inhabits waters with the following characteristics: temperature, 17.3-33.6 °C; salinity, 1.26-65.6 ‰; pH, 7.1-10.5; dissolved oxygen, 0.35-18.4 ml/l.

The specimens of *A. bacorehuisensis* are now part of the plankton collection of ICMyL, UNAM at Mazatlán.

**Remarks.** Environmental data associated to the type material of this species were published by Arenas-Fuentes, V. & S. Gómez-Aguirre (1970. Inst. Biol. Univ. Nal. Autón. México, Informe Técnico Inédito 6, pp. 1-30, 32-38). These data were as follows: temperature, 20.3-31°C; salinity, 37.6-54.7 ‰, dissolved oxygen 3.12-4.43 ml/l. Our data indicate an increase of the temperature, salinity, and dissolved oxygen tolerance ranges for this species.

According to Zamora-Sánchez & Gómez-Aguirre (1986, *op. cit.*) *A. bacorehuisensis* can be easily recognized from *A. tonsa* using the following characters. Females of *A. bacorehuisensis*, have a three-segmented smooth (without spinules) abdomen and the first joint of the first antenna has 2-3 spines. The male of *A. bacorehuisensis* possess a four segmented abdomen. Provided with spines in posterior part of second segment (dorsal view).

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