

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).

ACKNOWLEDGMENTS

The authors thank Michel E. Hendrickx and Alberto A. Grobois, Estación Mazatlán, Instituto de Ciencias del Mar y Limnología, UNAM, for reviewing this note. Ramón Barraza Guardado, Centro de Investigación Científica y Tecnológica de la Universidad de Sonora, helped during field activities. We also thank the owners and staff of the shrimp-farms where this study was developed (Sistemas Acuáticos Controlados, Acuacultores del Siete Arriba, Acuacultores de Dimas, and Clementina). This study was supported by CONACyT (0625-N9110), Mexico.

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