NEW RECORDS FOR SYNALPHEUS PERUVIANUS RATHBUN, 1910
(DECAPODA, CARIDEA, ALPHEIDAE) IN THE EAST PACIFIC

BY
MARGARITA HERMOSO-SALAZAR¹ and MICHEL E. HENDRICKX²,³

¹ Postgraduate Program, Instituto de Ciencias del Mar y Limnología, UNAM, Mexico, D.F., Mexico
² Laboratorio de Invertebrados Bentónicos, Unidad Académica Mazatlán, Instituto de Ciencias del Mar y Limnología, Universidad Nacional Autónoma de México, P.O. Box 811, Mazatlán, Sinaloa 82000, Mexico

Over 100 species of Synalpheus have been described (Bruce, 1976; Chace, 1988), of which 19 have been recorded from the eastern tropical Pacific (Wicksten & Hendrickx, 2003). These caridean shrimp are typical of a rocky environment in tropical and subtropical coastal ecosystems and are often found associated with corals, sponges, and crinoids (Banner & Banner, 1975; Dardeau, 1984). The ecological study of the species of Synalpheus is complicated, due to the complexity of their systematics. Morphologically similar species are easily confused, while polytypic and amphio-American species make the matter even more complicated, particularly considering that the species are small-sized and that reliable characteristics are difficult to use (see Chace, 1972; Banner & Banner, 1975; Christoffersen, 1979; Dardeau, 1984).

A recent review of the material included in the crustacean collections of the Smithsonian Institution, Washington, D.C. (USNM) and in the collections of the Invertebrate Reference Collection in Mazatlán, Mexico (EMU), indicated that Synalpheus townsendi peruvianus Rathbun, 1910 should be given full-species status, and that S. recessus Abele & Kim, 1989 is a junior objective synonym of S. peruvianus. This synonymy will be presented and sustained in a forthcoming contribution. Material reported here represents a significant extension of the geographic distribution of S. peruvianus to the north, and the first record of this species for Mexico.

³ e-mail: michel@ola.icmyl.unam.mx
Synalpheus peruvianus Rathbun, 1910

Material examined. — Teacapán (entrance of the Estero), 22°30′N 105°45′W, Sinaloa, Mexico, 3 females and 3 ovigerous females, 26 February 1981, among oysters (35‰, 25°C) (coll. A. Toledano) (EMU-6383); same locality, 4 males, 1 female, and 1 ovigerous female, 7 March 1980, among oysters (40‰, 25°C) (coll. A. Toledano) (EMU-6385).

Punta Altata (off Tétuan), 24°31′N 107°53′W, Sinaloa, Mexico, 2 males and 3 ovigerous females, 22 March 1991, try-net, 10 m, in sponges (coll. J. Salgado and A. Esparza) (EMU-6386).

Previous records. — Matapalo, Peru (holotype) and Miraflores Locks, Panama (as S. recessus) (Rathbun, 1910; Abele & Kim, 1989); Golfo de Nicoya, Costa Rica (Vargas et al. 1996; as S. cf. recessus).

Habitat. — Among oysters, from intertidal to 20 m depth (Rathbun, 1910, as S. townsendi peruvianus; Vargas & Cortés, 1999, as S. cf. recessus; present study) and in sponges (present study).

Remarks. — The material from Mexico was compared to the holotype of S. peruvianus (1 ovig. female, Matapalo, Peru, 23 Jan. 1908) (USNM 40503) and to the type material of S. recessus (holotype, 1 male, and paratypes, 27 males and 10 females, all from Miraflores Locks, Panama Canal, 26 Aug. 1974) (USNM 237640 and USNM 237645, respectively).

Synalpheus peruvianus seems to be able to tolerate a wide salinity variation. Salinity conditions at Miraflores Locks were not measured when the type material of S. recessus was collected, but salinity in nearby collecting stations at this time varied from 4 to 10‰ (Abele & Kim, 1989). Material from Teacapan, Mexico was collected in euhaline-hyperhaline water on oyster beds, a habitat similar to the one reported by Rathbun (1910) for the type locality (“Oyster beds of Matapalo”).

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REFERENCES


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