Presence of *Sinelobus stanfordi* (Richardson, 1901) (Crustacea: Tanaidacea: Tanaidae) in coastal lagoons of western Mexico

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Abstract

*Sinelobus stanfordi* (Richardson, 1901), a cosmopolitan, euryhaline species, is reported from four coastal lagoon systems along the west coast of Mexico. Almost all specimens reported were collected on prop-roots of *Rhizophora mangle* Linnaeus, 1773, and among *Salicornia*. The abundant material collected indicates that the species reproduces at least from January to August.

Key words: *Sinelobus stanfordi*, Tanaidacea, distribution, coastal lagoons.

Introduction

There are very few records of Tanaidacea on the west coast of Mexico. In his review of Tanaidacea records for the entire west coast of America, Heard (2002) reported 70 species, quite certainly an underestimated figure due to the numerous undescribed species that must inhabit the variety of badly explored microhabitats available along this coast. Heard (2002) included in his list 14 species from Pacific Mexico: *Apsedes cedronensis* Menzies, 1953, described from Baja California and recently found into the Gulf of California (Hendrickx, 2007); *A. garthi* Menzies, 1953, from the Gulf of California; *Kalliapseudes crassus* Menzies, 1953 and *K. viridis* Menzies, 1953 from western Baja California; *Apsedomorpha glebosus* (Menzies, 1953) from Guadalupe Island and *A. magdalenensis* Menzies, 1953 also from western Baja California; *Synapseudes dispina* Menzies, 1953, *S. rudis* Menzies, 1953 (both from western Baja California), and *S. intumescent* Menzies, 1953, from Guadaloupe Island; *Pagurapseudes laevi* Menzies, 1953, from Guadaloupe Island; *Parapseudes pedispinis* (Boone, 1923) known from California to Ecuador, including the Pacific coast of Mexico (Menzies, 1953); *Chauliopleona dentata* Dojiri and Sieg, 1997, *Scoloua phillipsi* Sieg and Dojiri, 1991, and *Tanaella propinquus* Dojiri and Sieg, 1997, from Los Coronados Islands, Baja California. *Neotanais armiger* Wolf, 1956, a deep-water species reported from the US west coast (45°N) to Chile, but with no record off Mexico (Heard, 2002).

*Sinelobus stanfordi* (Richardson, 1901) is a cosmopolitan, euryhaline species reported from the eastern Pacific in Clipperton Island (type locality), California, El Salvador, Panama, Peru, Colombia, and the Galapagos Islands (Heard 2002; Suarez et al. 2004). The species was briefly reported from the Pacific coast of Mexico by Hendrickx and Meda-Martínez (2001) as part of the invertebrate community associated with shrimp-ponds in southern Sinaloa. Since, it has been collected intensively in this part of the southern Gulf of California and further south, and previous samples obtained from incidental sampling in coastal lagoons in the same area were examined for this species. This note reports the presence of *S. stanfordi* in four coastal lagoon systems along the Pacific coast of Mexico. A restricted synonymy of the species is provided.

Material and Methods

Specimens of *Sinelobus stanfordi* were obtained from several coastal lagoons along the Pacific coast of Mexico by extracting, mostly by washing and sorting the epibiontes attached to
Rhizophora mangle Linnaeus, 1773, prop-roots. Because of the high heterogeneity observed among the epibiontes communities that were sampled, no attempt were made to standardize the amount of specimens collected by density unit. Some specimens were also obtained by collecting, washing and filtering a sample of Salicornia (collected with a plastic bag). Sorted material was first fixed with a 4% solution of formaldehyde, washed with freshwater and transferred to a 70% ethanol solution for conservation. Specimens were deposited in the regional collection of marine invertebrates (EMU followed by voucher number) at the Mazatlán unit of the Instituto de Ciencias del Mar y Limnología, UNAM.

**Results**

Specimens were found in five localities along the Pacific coast of Mexico (Fig. 1). A total of 590 specimens were collected.

*Sinelobus stanfordi* (Richardson, 1901)

*Tanais stanfordi* Richardson, 1901: 565-567, figs. 58-60

*Sinelobus stanfordi*: Suárez-Morales et al. 2004: 43, figs. 18-20; Hendrickx and Meda-Martínez, 2001: 61, fig. 4.5.

Material examined: Laguna Caimanero (ca 22°54’N, 106°04’W), Sinaloa, December 1977 (exact date unknown), 82 M (TL 2.56-4.70 mm), 64 H (TL 2.56-5.23 mm), and 42 HH (TL 3.10-4.80 mm), among *Salicornia* (EMU-8029). Laguna Huizache (23°01’09.60”N, 106°09’15.90”W), Sinaloa, 06/VII/2007, 1 H (TL 1.76 mm), among *Salicornia* (EMU-8265). El Verde Camacho Coastal lagoon, (ca 23°24’W, 106°32’W), Sinaloa, 10/II/1979, 10 M (TL 3.16-3.80 mm), 1 H (TL 2.50 mm), and 2 HH (TL 3.46 mm and 3.60 mm), on *Rhizophora mangle*, prop-roots (EMU-8028). El Verde Camacho coastal lagoon (23°24’46”N,
106°32'51"W), Sinaloa, 26/XI/2007, 31 M (TL 1.60-3.60 mm), 42 H (TL 2.33-4.00 mm), and 6 HH (TL 2.83-3.93 mm), in trap with shell debris (EMU-8269). Estero de Urias Coastal lagoon (23°11'29.00"N, 106°21'48.70"W), Sinaloa, 1998, 7 M (TL 2.17 mm and 2.63 mm), and 3 HH (TL 2.26-3.00 mm), on Rhizophora mangle prop-roots (col. M. García-Guerrero) (EMU-8025). Estero de Urias coastal lagoon (23°09’14"N, 106°19’57"W), Sinaloa, 1998, 2 M (TL 2.57 mm and 2.63 mm), and 2 H (TL 2.57 mm and 2.63 mm), on R. mangle prop-roots (col. J. Arciniega Flores) (EMU-8723).

Comments: The geographic range of S. stanfordi along the Pacific coast of Mexico is hereby extended to the north to 23°24'46"N and to the south to 19°11'46"N, thus covering ca 4°13' degrees of latitude interval (Fig. 1). It has been previously reported in several localities in the East Pacific: El Salvador, Panama, Peru (Suarez-Morales, 2004), Colombia (Gutu and Ramos, 1995), and the Galapagos Island (Gardiner, 1975). According to Richardson (1901: 567), the type locality is Clipperton Island (“Clipperton Island Lagoon”), almost 1300 km off continental Mexico and 950 km away from the Revillagigedo Archipelago. Although our material was always collected on mangrove prop-roots or close to mangrove, S. stanfordi is known to occur in a wide variety of habitats (e.g., coraline substrate, intertidal sediments, algae) (Suarez-Morales et al., 2004), all present on Clipperton Island where no mangrove are to be found.

According to García-Guerrero and Hendrickx (2004), other Peracarida associated with S. stanfordi on prop-roots are the isopods Paradella dianae (Menzies, 1962), Uromunna sp. (both dominant), Paracerceis sculpa (Holmes, 1904), and Cassidinidaea mexicana Hendrickx and Espinosa-Pérez, 1988 (both scarce). The abundant material collected in Estero de Urias, Sinaloa, Mexico, indicates that the species reproduces at least from January to August. The material from Caimanero (about 30 km south of the Estero de Urias), collected in December, extends even more the observed reproducing period.

Of the 14 species of Tanaidacea cited by Heard (2002) for the Pacific coast of Mexico, 10 were either described or reported in a single contribution by Menzies (1953). This clearly indicates the little interest for the group in the region, notwithstanding the fact that some of Menzies’ species might turn out to be more widely distributed than previously thought and very abundant in the region (see Hendrickx, 2007).

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References


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