

NOTE

***Pisidia magdalenensis* (Crustacea: Porcellanidae) commensal of the diogenid hermit crab *Petrochirus californiensis* (Decapoda: Diogenidae).**

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Most of the known porcelain crabs in the tropical eastern Pacific are free-living. They are commonly found under rocks or crevices, in the middle and low intertidal zone and in subtidal reefs. *Pisidia magdalenensis* (Glassell 1936) is a small species of Porcellanidae that lives among rocks, sand, polychaete cavities, algae, yellow gorgonians, corals and reefs from Magdalena Bay, Baja California and Mazatlán, Sinaloa, Mexico to Peru (Haig 1960, Haig *et al.* 1970, Hendrickx & van der Heiden 1984, Hendrickx 1993). Gore & Abele (1976) reported this species associated with holothurians and among hydroids, but without indicating a clear commensal relationship. Other species of Porcellanidae (*e.g.* *Porcellana cancrisocialis* Glassell, 1936 and *P. paguriconviva* Glassell, 1936) are known as commensals living with some large hermit crabs like *Petrochirus californiensis* (Bouvier, 1895), *Dardanus sinistripes* (Stimpson 1859), *Aniculus elegans* (Stimpson, 1859) and *Paguristes digueti* (Bouvier, 1895) and several specimens of this genus are commonly found within the shell carried by hermit crabs (Haig 1960, Brusca 1980).

Between October 1995 and September 1996 several specimens of the hermit crab *Petrochirus californiensis* were obtained from gillnets used in local spiny lobster fishery. Close examination of the specimens revealed the presence, within the shells used by the hermit crab, of several porcellanid crabs. In addition to *Porcellana cancrisocialis* and *P. paguriconviva* three of them were host of *Pisidia magdalenensis*. Like *Porcellana*, *Pisidia* takes advantage of the food habits of its host; particles of food often enter the shell when the hermit crab is feeding. Together with other commensals such as polychaete worms, also commonly found inside the shell of some hermit crabs living in the area (*e.g.* *Dardanus sinistripes*), they also keep the shell clean of other organic detritus.

The specimens are deposited in the reference collections of the Instituto de Ciencias del Mar y Limnología, Estación Mazatlán (EMU) and of the Facultad de Ciencias del Mar of the Universidad Autónoma de Sinaloa (UAS). Abbreviations utilized are: CW, carapace width; a, males; aa, ovigerous female.

Material examined: Los Cardones (23° 10.5' N-106° 24.5' W), Sinaloa, Mexico, 27 Jun 1995, 2a (CW 4.1 – 4.42 mm), 22 m, gillnet (EMU-4918). Rocas Hermanas (23° 11.0' N-106° 26.5' W), Sinaloa, Mexico, 25 Sep 1996, 1aa (CW 4.6 mm), gillnet, 23.8 m (UAS-08).

Remarks: All the specimens were collected in shells of *Melongena Patula* (Broderip & Sowerby, 1829) inhabited by the hermit crab *Petrochirus californiensis* together with the other porcellanids: *Porcellana cancrisocialis* and *P. paguriconviva*. The specimens are easy to recognize from other porcellanids because of their spinulate carapace, specially on the lateral and orbital margins, and on the frontal lobes. The fact that the hermit crabs were collected individually from gillnet eliminate the possibility that the porcellanids have been introduced accidentally within the shell. To our knowledge, this is the first record of commensalism in *Pisidia magdalenensis*.

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