ON THE PRESENCE OF *PINNOTHERES PISUM* (BRACHYURA, PINNOTHERIDAE) IN THE CANARY ISLANDS (NE ATLANTIC), ITS SOUTHERNMOST DISTRIBUTION LIMIT

BY

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The pea crab *Pinnotheres pisum* was described by Linnaeus in 1767 as *Cancer pisum* and is the type species of the genus *Pinnotheres* Bosc, 1801, that at present contains 64 species (Palacios-Theil et al., 2016). This species has been so far studied due to its peculiar lifestyle as a symbiont of invertebrates (Orton, 1920; Atkins, 1958; Christiansen, 1959). Schmitt et al. (1973) provided a detailed list of hosts for *P. pisum*, mainly consisting of bivalves and in addition the ascidians *Ascidia aspersa* (Müller, 1776) [as *Ascidia aspersa* Mueller, 1776], and *Ascidia mentula* Müller, 1776. However, after their detailed study of the pinnotherids along Europe’s coastal waters, Becker & Türkay (2017) concluded that *P. pisum* is, like other pinnotherids, not host-specific but still an associate only of bivalves. According to those authors, previous records in ascidians must be misidentifications of *P. pisum* that must have, on those occasions, been confused with *Nepinotheres pinnotheres* (Linnaeus, 1758).

After the review by Becker & Türkay (2017), an updated list of bivalves infested by *P. pisum* has been provided by Perez-Miguel et al. (in press), and includes: *Acanthocardia echinata* (Linnaeus, 1758), *Arctica islandica* (Linnaeus, 1767), *Atrina pectinata* (Linnaeus, 1767), *Chamelea gallina* (Linnaeus, 1758), *Ch. striatula* (da Costa, 1778), *Cerastoderma edule* (Linnaeus, 1758), *C. glaucum* (Bruguière, 1789), *Donax trunculus* Linnaeus, 1758, *D. variegata* (Gmelin, 1791), *D. venustus* Poli, 1795, *D. vitattus* (da Costa, 1778), *Gari fervensis* (Gmelin, 1791), *Laevicardium crassum* (Gmelin, 1791), *Lutraria lutraria* (Linnaeus, 1758), *Mactra*...
stultorum (Linnaeus, 1758), Modiolus modiolus (Linnaeus, 1758), Mya arenaria Linnaeus, 1758, Mytilus edulis Linnaeus, 1758, M. galloprovincialis Lamarck, 1819, Ostrea edulis Linnaeus, 1758, Pinna nobilis Linnaeus, 1758, Ruditapes decussatus (Linnaeus, 1758), Spisula solida (Linnaeus, 1758), S. elliptica (Brown, 1827), S. subtruncata (da Costa, 1778), and Venus verrucosa (Linnaeus, 1758).

P. pisum has been recorded in the Mediterranean Sea, from the Alboran Sea to the Sea of Marmara, and in the eastern North Atlantic Ocean from the Gulf of Cadiz (on the Iberian Peninsula) to the North Sea and south of Scandinavia, as well as from the Canary Islands (d’Udekem d’Acoz, 1999; Becker, 2010; Becker & Türkay, 2017; Perez-Miguel et al., in press). The records of P. pisum from Atlantic continental Africa are to be considered incorrect, because after the review of the West African pinnotherids by Manning (1993), all African records of P. pisum were considered to belong to a new species: Afropinnotheres monodi Manning, 1993. Therefore, the male of P. pisum collected by Moro et al. (2014), free-living in a submarine cave at 38 m depth in Lanzarote (Canary Islands), as the first record of this species for the Canary Islands, is until now the unique observation of P. pisum in the Atlantic waters of Africa, but with no data about its host. Until now, the unique pinnotherid frequently recorded in the Canary Islands is Nepinotheres pinnotheres, found inside of the rough penshell, Pinna rudis Linnaeus, 1758 (cf. González, 1995).

Recently, however, an ovigerous female of Pinnotheres pisum (fig. 1) was collected inside an unidentified cardiid bivalve on Gran Canaria Island (Canary Islands). The pea crab specimen examined in this study is 5.82 mm (carapace length) by 5.78 mm (carapace width), and 6.90 mm width in its fifth abdominal somite. This specimen has been deposited in the Crustacean Decapod Collection of the Cadiz Oceanographic Centre, under accession number IEO-CD-CAN16/2179. The cardiid specimen hosting the pinnotherid was collected by scuba diving from a seagrass meadow (Cymodocea nodosa (Ucria) Ascherson, 1870) on a

Fig. 1. Pinnotheres pisum (Linnaeus, 1767), ovigerous female (IEO-CD-CAN16/2179): A, dorsal view; B, ventral view.