

***Jassa marmorata* (HOLMES, 1905) AND
Monocorophium acherusicum (COSTA, 1853)
NEW AMPHIPODS (CRUSTACEA: AMPHIPODA)
TO THE CANARY ISLANDS**

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RESUMEN

Se citan por primera vez las especies de anfípodos *Jassa marmorata* (Holmes, 1905) y *Monocorophium acherusicum* (Costa, 1853) para el archipiélago canario. Se aportan datos de la fauna acompañante y de las características de los puntos de muestreo donde fueron recolectados.

Palabras clave: Amphipoda, Gammaridea, *Jassa*, *Monocorophium*, islas Canarias, océano Atlántico.

ABSTRACT

The amphipod species *Jassa marmorata* (Holmes, 1905) and *Monocorophium acherusicum* (Costa, 1853) are first recorded for the Canarian archipelago. Accompanying fauna data and information about the sampling sites where they were collected are provided.

Key words: Amphipoda, Gammaridea, *Jassa*, *Monocorophium*, Canary Islands, Atlantic Ocean.

1. INTRODUCTION

Two crustacean species new to the Canary Islands, *Jassa marmorata* (Holmes, 1905) and *Monocorophium acherusicum* (Costa, 1853) are recorded. Both species are considered native to the Atlantic Ocean and have been spread recently to other geographic areas, such as, the Chilean and Australian coasts (PÉREZ-SCHULTHEISS, 2009) where they are consid-

ered invasive species. These species are probably introduced by travelling in the ballast waters of containerships.

The species *Jassa marmorata* was found in circalittoral seabeds, being a dominant component of epifauna on an artificial substrate, i.e. ropes of a fish trap. *Monocorophium acherusicum* was an accidental species collected from subtidal sandy bare bottoms that compete with other crustacean and annelid species characterized by larger abundances.

2. MATERIAL AND METHODS

Sediment samples were collected by scuba divers, pushing into the sediment a 20 cm inner diameter core with a hammer. Samples were fixed by 4% formaldehyde during 48 hours and then, sieved in a 0.5 mm mesh size. Specimens were separated under a stereomicroscope and preserved in 70° ethanol. Specimens were identified by means of a stereomicroscope Nikon SMZ-800 and pictures were taken with an attached camera (EOS-500D).

The studied specimens were stored in the invertebrate collection of CIMA (Centro de Investigaciones Medioambientales del Atlántico SL).

3. SYSTEMATICS

Order AMPHIPODA Latreille, 1816

Suborder GAMMARIDEA Dana, 1852

Family ISCHYROCERIDAE Stebbing, 1899

Jassa marmorata (Holmes, 1905)

(Figure 1A)

Jassa marmorata Holmes, 1903: 289.

Jassa falcata Chevreux & Fage, 1925: 344.

Studied material: Tenerife, off Candelaria (coordinates: 367450E/3134040N), 10 individuales (5 females and 5 males), 1st September 2011, 150 m deep. The studied individuals were collected from loose ropes of a fish trap covered by hydroids and filamentous algae.

Description: Length 5,5 mm, whitish with distinct yellowish and brownish markings throughout the body. Coxal plate 2 short and angular, posteriorly elongated in males. Head with a dwarf lateral lobe, angular; eyes large and rounded. Antenna 1 robust with flagellar articles not discernible at all, accessory flagellum very small. Antenna 2 slightly larger than antenna 1, rather robust in males; flagellum very short and flagellar articles poorly defined. Gnathopod 1 propodus oval with palm strongly oblique, delimited by small spines (2-3). Gnathopod 2 female larger than 1, propodus large and oval, with several long setae on the inner margin serrate of the basis. Gnathopod 2 male very large, basis short with long setae on anterior margin, propodus elongate in larger specimens with highly developed proximal process. Uropods 1-2 outer ramus slightly shorter than inner. Uropod 3 inner ramus straight with hooked apical spine on the outer ramus and several denticles (2-3).

Accompanying fauna: The sampling station was clearly dominated by the present species. Other species were scarce in terms of individual abundance, such as, an unidentified lumbrinerid polychaete, the cephalaspid *Haminoea ortei* Talavera, Murillo & Templado, 1987 and an unidentified brachiopod.

Distribution: North Atlantic Ocean, East Pacific Ocean (LOWRY *et al.* 2011).

Family COROPHIIDAE Leach, 1814

***Monocorophium acherusicum* (Costa, 1853)**

(Figure 1B)

Corophium acherusicum Costa, 1853, p. 170.

Monocorophium acherusicum Pérez-Schultheiss, 2009, fig. 1.

Studied material: Tenerife, Las Galletas (coordinates: 338336E/30984254N), 1 individual (1 female), September 2005, 38 m. Maërl seabed with low content of organic matter (0.05%). Gran Canaria, Tarajalillo (coordinates: 445311E /3071048N), 1 individual (1 male), January 2009, 10 m. Seabed dominated by very fine sands (39%) with 0.65% of organic matter.

Description: Length 2-4 mm, with brownish markings along the body. Head, rostrum very short, sometimes minute; recessed posterior to lateral lobes of head. Antennae 1, peduncular segment 1 smooth, narrowing distally, 7-9 segmented hardly discernible, and flagellum slender. Antennae 2 strongly pediform and flagellum short and scarcely setose. Gnathopod 1 with dactyl exceeding palm by little. Gnathopod 2, carpus short, peropod with distinct postero-distal tip, dactyl with 2-3 posterior marginal teeth. Pereopods 3 and 4, basis broad, dactyl slender and longer than segment 6. Uropod 1, rami short, each with 4-6 outer marginal spines. Uropod 2 short, each rami with outer marginal spines. Telson short, broad with 3-4 pairs of postero dorsal small spines.

Accompanying fauna: This species was accessory at both collection sites. In Tenerife, the dominant species were the polychaete *Aponuphis bilineata* (86 ind.), followed by the sabelid polychaete *Paradialychone filicauda* (18 ind.). In Gran Canaria, the sample was dominated overwhelmingly by the tanaid *Apseudes talpa* (56 ind.) and the amphipod *Ampelisca brevicornis* (35 ind), with other species well represented, such as the polychaete *Rhynchospio glutaea* (12 ind).

Distribution: Atlantic Ocean, Pacific Ocean, Mediterranean, Australia (BOUSFIELD & HOOVER 1997; DANIELS *et al.* 2009).

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5. REFERENCES

- BOUSFIELD, E.L. & P.M. HOOVER. 1997. The Amphipod superfamily Corophioidea on the Pacific coast of North America. Part V. Family Corophiidae: Corophiinae, new subfamily. Systematics and distributional ecology. *Amphipacifica* 2(3): 67-139.
- DANIELS, L.C.D., J. MARK, C. HOLMES & J.G. WILSON. 2009. *Paradoxostoma anglicorum* (Crustacea: Ostracoda) and *Monocorophium acherusicum* (Crustacea: Amphipoda), new to Ireland from Malahide Marina, Co. Dublin. *Irish Naturalists' Journal*, 30(1): 32-34.
- LOWRY, J., M., COSTELLO & D. BELLAN-SANTINI. 2011. *Jassa marmorata* Holmes, 1905. In J. LOWRY. World Amphipoda Database. World Register of Marine Species. Retrieved February 6th, 2012.
- PÉREZ-SCHULTHEISS, J. 2009. Nuevos registros de anfípodos corofídeos (Crustacea: Amphipoda: Corophiidea) en el sur de Chile, con comentarios acerca de las invasión de especies exóticas marinas. *Boletín de Biodiversidad de Chile* 1(1): 24-30.



Figure 1.- A. *Jassa marmorata*. Male, entire body (dorsal and lateral view) and gnathopod (inset).
B. *Monocorophium acherusicum*. Male, entire body (dorsal and lateral view) and gnathopod 2 (inset)