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On the presence of *Barentsia discreta* (Busk, 1886) (Entoprocta: Barentsiidae) in fouling community from a commercial harbour

Moro, L.[1], **R. Riera**[2], **J. Ortea**[3] **& R. Herrera**[1]

[1] Servicio de Biodiversidad, Viceconsejería de Medio Ambiente del Gobierno de Canarias.
Edf. Usos Múltiples I, Av. Anaga nº 35, 38071, S/C de Tenerife, Canary Islands, Spain
[2] Centro de Investigaciones Medioambientales del Atlántico (CIMA SL)
Av. Los Majuelos 115, Santa Cruz de Tenerife, Tenerife, Canary Islands, Spain
[3] Departamento BOS, Universidad de Oviedo, Asturias, España
Corresponding author: rodrigo@cimacanarias.com

ABSTRACT

The ectoproct *Barentsia discreta* (Busk, 1886) is first recorded for the canarian archipelago. The studied material was extracted from the fouling community attached to the submerge structures of a pontoon in the marina of the Puerto de Santa Cruz de Tenerife. This species has a cosmopolitan distribution and it has been previously reported in the Macaronesian region, i.e. Cape Verde and Azores.

Keywords: Biodiversity, Entoprocta, *Barentsia*, harbours, Macaronesia, Canary Islands.

RESUMEN

Se registra por primera vez el ectoprocto *Barentsia discreta* (Busk, 1886) en el archipiélago canario. El material estudiado procedió de la comunidad de fouling presente las estructuras submarinas de un pantalán del muelle deportivo del Puerto de Santa Cruz de Tenerife. Se trata de una especie cosmopolita, que con anterioridad ha sido citada para la región macaronésica, en concreto en Cabo Verde y Azores.

Palabras clave: Biodiversidad, Entoprocta, *Barentsia*, puertos comerciales, Macaronesia, islas Canarias.

1. INTRODUCTION

The number of new records and species recorded in the marine realm worldwide has been steadily increased in the last decades (APPELTANS *et al*. 2012). Most of the increase of biodiversity consists of small-sized individuals, since most of larger conspicuous taxa,

i.e. Pisces, Echinodermata, among others, were described in the last century (COSTELLO *et al*., 1996), even some of them were discovered in the late 18th century by Linneaus and his contemporaries. Moreover, the geographic distribution of a high number of marine species has been expanded due to several reasons such as, the awareness of people on nature, the number of scientists, technology (net connections, computers, HD photos and videos, etc.), among others. In spite of the eminent lack of taxonomists worldwide, especially on inconspicuous taxonomic groups (DISNEY, 1988; GODFREY, 2002), but the discovery of new records and species is concomitant to larger ecological studies focused on biodiversity (MORA et al., 2011).

In the Canary Islands, several research projects have been conducted to identify the potential biodiversity in the marine realm, e.g. PROMAR and MIMAR, however, exotic species have been overlooked despite of they have been identified as a real threat to native biodiversity (e.g. PAJUELO *et al.,* 2016). MIMAR project is funded through the program INTERREG V-A MAC 2014-2020 and coordinated by the Consejería de Política Territorial, Sostenibilidad y Seguridad of the Canarian Government. This project is focused on the control and assessment of proliferations of marine organisms associated to human-induced perturbations and climate change in the Macaronesian region. PROMAR is a net of citizen science coordinated by the Canarian government, which compiles and geolocates all sightings of marine species carried out by over 700 collaborators throughout the canarian archipelago. Currently, PROMAR has a "*Catalogue of Species*" collaborative and free-access, where over 1,250 canarian species are identified, with over 4,000 pictures.

Ectoprocts have been scarcely studied in the Canary Islands, with only a previous single species that has been so far recorded, *Loxosomella parguerensis* Rützler, 1968. This species was found as an endobiont of desmosponges in shallow subtidal seabeds from Tenerife (PASCUAL, 2009).

In the present contribution, the species *Barentsia discreta* (Busk, 1886) is recorded for the first time from the Canary Islands. Descriptive data on the species and information on the sampling location are also provided.

2. SYSTEMATICS

Filum Entoprocta Nitsche, 1869
Family Barentsiidae Emschermann, 1972
Genus *Barentsia* Hincks, 1880

Barentsia discreta (Busk, 1886)

Ascopoda1ria discreta: *Report on the Scientific Results of the Voyage of HMS" Challenger,"Zoology*, 1: 44, Pl. X. figs. 6-12.

Barentsia discreta Wasson, 1997: 33, figs. 1E, 10 & 11.

Studied material: Marina Tenerife (WGS84: UTM 28N 381602x/3152523y), Fishing Dock, Santa Cruz de Tenerife Harbour, Canary Islands, 25th July 2017; 1 colony with 16 polypides on pontoon floats at 30 cm depth.

Description: Stolon dark and brownish; stalk only comprises one elongate node and one narrow rod, with almost not discernible pores. Stalks are *ca*. 1.85 mm long, with a wide and muscular base.

Stalk and calyx junction consists of an incomplete septum, not easily discernible. Calyx harbours *ca*. 20 tentacles, tentacular membrane is a narrow band. Calyx are 500 x 400 µm outer diameter and compressed laterally. Tentacles are as long as the calyx height, and tentacular membrane consists of a narrow band.

Observations: Canarian specimens are shorter than individuals from Pacific and Indian Oceans, characterized by tall zooids, with large calyces.

Habitat: The studied colony occurred on an artificial substrate from a pontoon of the marina located inside the Santa Cruz de Tenerife harbour. The substrate was a plastic floating pontoon, with a dense fouling community mainly dominated by sponges, bryozoans and other accidental sessile taxonomic groups (e.g. ascidians, algae, etc.). The colony was collected at 0.5 m depth, and this species has a depth range from the intertidal to 500 m, also has been recorded in coastal localities from different gradients of exposition, from exposed to sheltered sites. However, the broad ecological range of this species needs to be studied in detail since its geographic distribution has been expanded regardless the substrate and anthropogenic pressure.

Distribution: Cosmopolitan, with records in South Pacific, Western Pacific, Arctic, Atlantic, Mediterranean, Antarctic and Indian Oceans (WASSON, 1997). In the Macaronesian region it was firstly reported in Cape Verde (WATERS, 1918) and Azores (BORGES *et al*., 2010). This species is first recorded in the Canary Islands.

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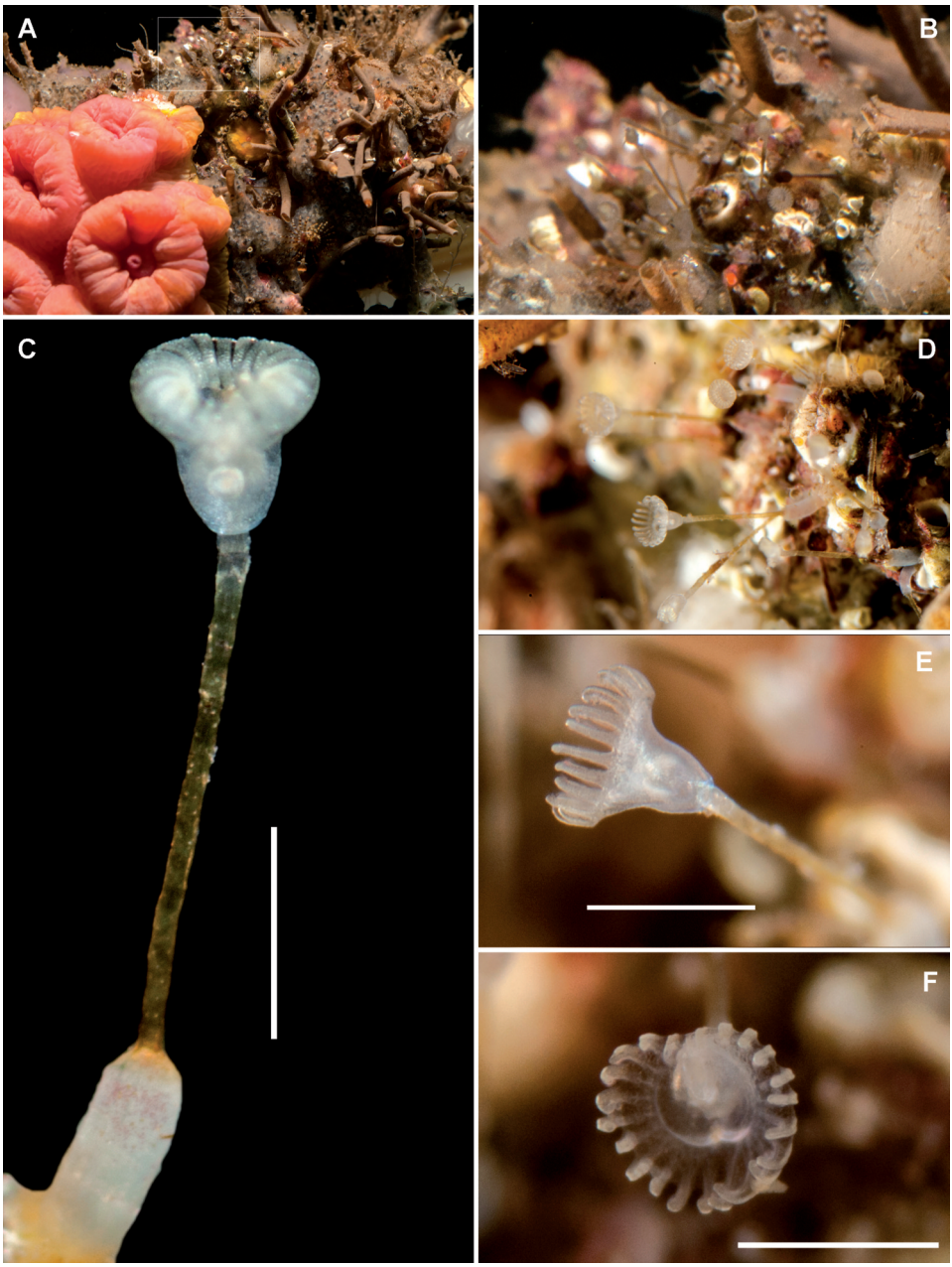

Figure 1.- A-B. Fouling community where *Barentsia discreta* was recorded. B.F Colony and individuals of *Barentsia discreta.* Scale: 500 µm.

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