

A New Species of the Genus *Chelonaplysilla* (Demospongiae: Dendroceratida: Darwinellidae) from Korea

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Abstract: *Chelonaplysilla supjiensis* n. sp. belonging to family Darwinellidae was collected from Jeju Island, Korea in 2008. *C. supjiensis* n. sp. is closely to *C. noevus* in surface structure and skeleton, but differ in surface, sandy reticulation mixed with many spicule detritus. This study is a new record of genus, family and order in Korea.

Key words: new species, Darwinellidae, *Chelonaplysilla*, Korea

Darwinellidae Merejkowsky, 1879 (Demospongiae, Dendroceratida) with dendritic skeletons contains four genera, *Darwinella*, *Chelonaplysilla*, *Aplysilla* and *Dendrilla*. Except one genera *Darwinella* with free fibrous spicules, three genera have dendritic skeleton, fibre always arising from a flat basal spongin plate, contain pith and are laminated. Eight species of this genus *Chelonaplysilla* have been reported from worldwide (Laubenfels, 1948; Berquist, 1980, 1996; Vacelet, 1959, Hooper and Van Soest, 2002). This study is a new record of the genus, family and order in Korea.

MATERIALS AND METHODS

The sponge was collected by hand from Intertidal zone at Sinyang, Jeju Island, Korea. All procedures were followed the methods of Lee and Sim (2007). The material examined in this study was deposited in the Natural History Museum, Hannam University (HUNHM) Daejeon, Korea and Department of Biological Sciences, Hannam University, Daejeon, Korea.

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SYSTEMATIC ACCOUNTS

Phylum Porifera Grant, 1836
Class Demospongiae Sollas, 1885
Order Dendroceratida Minchin, 1900
Family Darwinellidae Merejkowsky, 1879

Chelonaplysilla supjiensis n. sp.
(Figs. 1-2)

Type specimen: Holotype (Por. 91), Intertidal zone, Sinyang, Jeju Island, 15 Oct. 2008, C. J. Sim.

Description: Thin encrusting, less than 2 mm thickness rocky substrate. Surface covered by a structured reticulation of sand and spicule detritus. Oscules 1-2 mm diameter, many open on the surface. Skeleton dendritic, pigmented fibres which arise from a basal spongin plate (Fig. 2E). Mesh of the reticulation regular, 120-250 μ m in diameter. Fibre uncored up to 3 mm long, unbrached, 90-100 μ m thickness basally, 30 μ m near the surface. Pith 30-45 μ m in diameter, laminated bark. Colour bright purple in life, dark violet in alcohol.

Etymology: This species is named after type locality, Supjikoji, Sinyang, Jeju Island, Korea.

Remarks: *Chelonaplysilla supjiensis* n. sp. is closely to *C. noevus* in surface structure and skeleton, but differ in the surface sandy crust. Sandy crust of new species are mixed with many spicules detritus than sandy grain and dendritic fibres covered with many spicules and sand inside (Fig. 2).

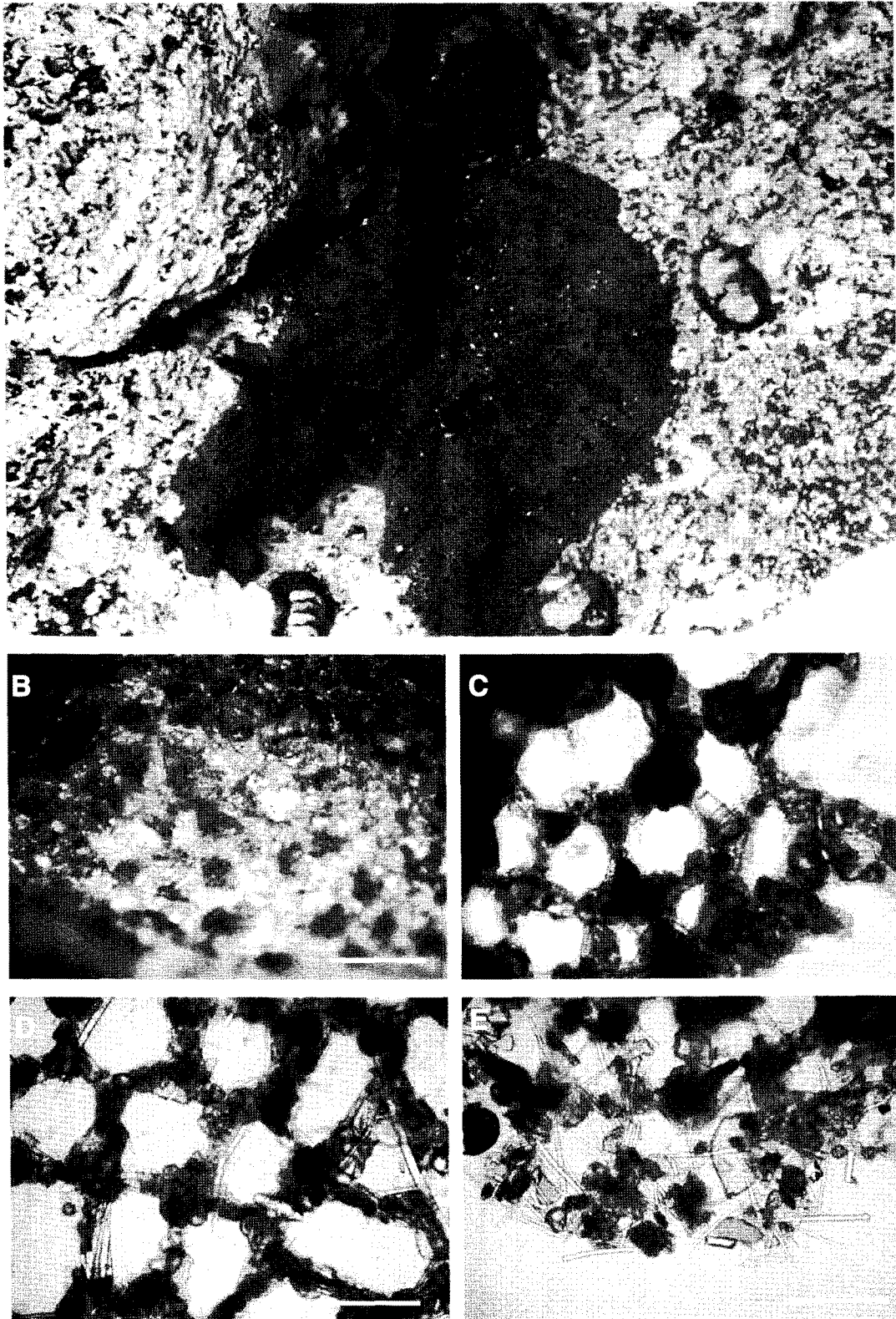


Fig. 1. *Chelonaplysilla supjiensis* n. sp. A, entire animal; B, surface; C-E, ectosomal skeletal structure. Scale bars=150 μ m (C-E); 100 μ m (B).

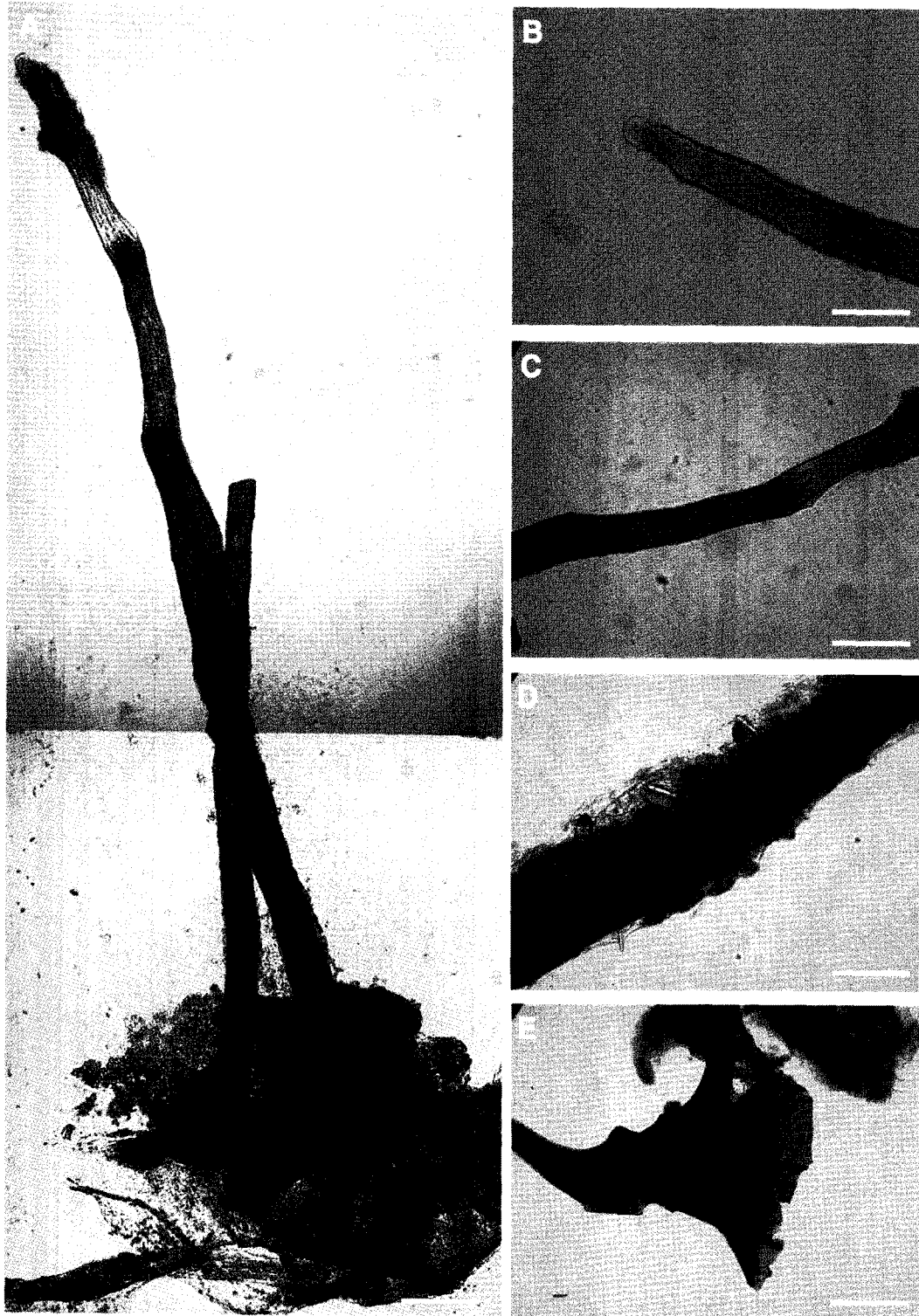


Fig. 2. *Chelonaplysilla supjiensis* n. sp. A, fibre skeletal structure; B, end of fibre; C, lamellate pith; D, fibre with spicule and sand; E, basal of fibre. Scale bars=300 μ m (A); 100 μ m (B-E).

ACKNOWLEDGMENTS

This research was supported by a grant from Marine Biotechnology Programme funded by Ministry of Land, Transport and Maritime Affairs of Korean Government.

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[Received November 3, 2008; accepted December 7, 2008]