Korean J. Syst. Zool. Vol. 23, No. 2: 209-211, November 2007

A New Species of the Genus *Ophlitaspongia* (Poecilosclerida: Microcionidae) from Korea

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ABSTRACT

A new marine sponge in the family Microcionidae, *Ophlitaspongia yongjeongensis* n. sp. is collected from Yongjeong-ri, Hyeongyeong-myeon, Muan-gun, Korea during 2005-2007. *O. yongjeongensis* n. sp. is closely related to *O. reticulata* in growth form (shape and color). However, the thick style and slender style of *O. yongjeongensis* n. sp. are larger than *O. reticulata*'s (Bergquist and Fromont, 1988).

Key words: *Ophlitaspongia*, new species, Poecilosclerida, Korea

INTRODUCTION

The family Microcionidae Cater, 1875 (Poecilosclerida: Microcionidae) is consists of nine genera and about 470 species worldwide. Micriocionids are widely distributed predominantly in shallow water with a few species recorded from deep seas. The genus *Ophlitaspongia* Bowerbank, 1866 belongs to Ophlitaspongiinae with isodictyal reticulate spongin fiber skeleton and with regular cross-connecting fibers arising from a hymedsmioid basal layer of spongin frbre. Mineral skeleton is exclusively plumose, with only ascending fibres cored by plumose columns of entirely smooth principal subtylostyles (Hooper and van Soest, 2002).

The present study on marine sponges is based on the specimens collected from Yongeong-ri, Muan-gun, Korea by hand during May 2005 to July 2007. All procedures were followed the methods of Rützler (1978) and Kim and Sim (2005). The new specimens are deposited in the Natural History Museum, Hannam University (HUNHM) and Departments of Biogical Sciences, Hannam University, Daejeon, Korea.

SYSTEMATIC ACCOUNT

Order Poecilosclerida
Suborder Microcionina
Family Microcionidae

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Subfamily Ophlitaspongiinae
[1]****Ophlitaspongia yongjeongensis* n. sp. (Fig. 1A-G)**

Material examined. Holotype (Por. 77), Yongjeong-ri, Hyeongyeong-myeon, Muan-gun, Korea, 9 Sep. 2005, intertidal area (by hand), K.J. Lee, H.J. Kim and D.W. Kang, deposited in the HUNHM. Paratype. (Por. 77-1), 15 Feb. 2006, H.J. Kim and D.W. Kang. (Por. 77-2), 9 June 2006, H.J. Kim and D.W. Kang. (Por. 77-3), 15 July 2007, D.W. Kang deposited in the Department of Biological Sciences, Hannam University, Daejeon, Korea.

Description. This new species, thin encrusting, size up to 10 × 5 and 0.2 cm thick. Texture tough and solid. Surface, finely hispid. Color, red in life, gradually changed to bright gray in ethyl alcohol. Oscule, not conspicuous. Choanosomal skeleton, hymedesmioid fibre skeleton with ascending fibres regularly interconnected by transverse ones and forming a ladder-like isodictyal reticulation in basal reaa. Megascleres; style, slender style. Microscleres; toxa.

Spicules.

Megascleres
thick style ································ 300-700 × 16-22 μm
slender style ································ 240-470 × 3-5 μm
Microscleres
toxa ·· 30-65 μm

Etymology. This species is named after the type locality, Yongjeong-ri (Muan-gun), Korea.

Remarks. Ophlitaspongia yongjeongensis n. sp. is closely related to *O. reticulata* (Bergquist and Fromont, 1988) in type of growth form (shape and color). However, the thick style and slender style of *O. yongjeongensis* n. sp. are larger than those of *O. reticulata* (Table 1).

[1]*용정바늘뼈해면 (신칭)

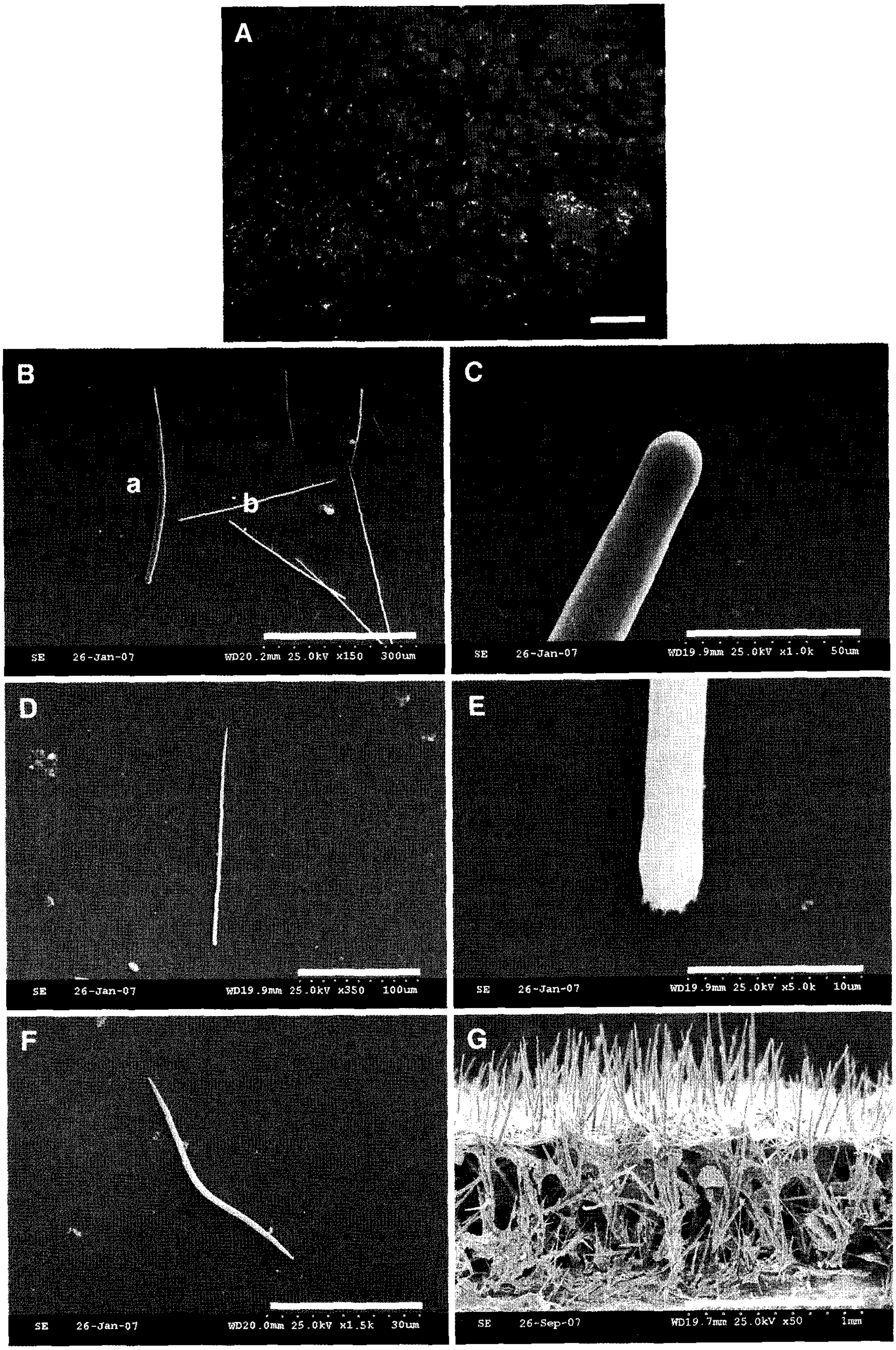

Fig. 1. *Ophlitaspongia yongjeongensis* n. sp. A, entire animal; B, spicules (a, thick style; b, sleneder style); C, head of style; D, slender style; E, Head of slender style with spines; F, toxa; G, Choanosomal skeleton. Scale bars=2 cm (A), 1 mm (G), 300 μm (B), 100 μm (D), 50 μm (C), 30 μm (F), 10 μm (E).

Table. 1. The comparison of characters between *O. yongjeongensis* n. sp. and *O. reticulata* (Bergquist and Fromont, 1988).

species \ characters	thick style	slender style	toxa	growth form	color
O. yongjeongensis n. sp.	300-700 × 16-22 μm	240-470 × 3-5 μm	30-65 μm	encrusting	red
O. reticulata	300-490 × 19-33 μm	230-375 × 4-6.5 μm	50-92 μm	encrusting	red

ACKNOWLEDGEMENTS

This study was supported by a grant from the Long Term Ecology Research.

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Received October 1, 2007
Accepted November 7, 2007