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

Dong Won Kang and Chung Ja Sim*
Department of Biological Sciences, College of Life Sciences and Nano Technology, Hannam University, Daejeon 305-811, Korea

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. Microcionids are widely distributed predominantly in shallow water with a few species recorded from deep seas. The genus Ophlitaspongia Bowerbank, 1866 belongs to Ophlitaspongiidae with isodictyal reticulate spongian fiber skeleton and with regular cross-connecting fibers arising from a hymedesmoid basal layer of spongian fbrre. 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 Yongjeong-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

Subfamily Ophlitaspongiidae

*Ophlitaspongia yongjeongensis n. sp. (Fig. 1A-G)


Description. This new species, thin encrusting, size up to 10 x 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, hymedesmoid 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; toxca.

Spicules.

Megascleres

thick style ........................................... 300-700 x 16-22 μm
slender style ......................................... 240-470 x 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).
Fig. 1. Ophitaspungal yongjeongensis n. sp. A, entire animal; B, spicules (a, thick style; b, slender 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).

<table>
<thead>
<tr>
<th>species</th>
<th>characters</th>
<th>thick style</th>
<th>slender style</th>
<th>toxa</th>
<th>growth form</th>
<th>color</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>O. yongjeongensis</em> n. sp.</td>
<td>300-700 x 16-22 μm</td>
<td>240-470 x 3-5 μm</td>
<td>30-65 μm</td>
<td>encrusting</td>
<td>red</td>
<td></td>
</tr>
<tr>
<td><em>O. reticulata</em></td>
<td>300-490 x 19-33 μm</td>
<td>230-375 x 4-6.5 μm</td>
<td>50-92 μm</td>
<td>encrusting</td>
<td>red</td>
<td></td>
</tr>
</tbody>
</table>

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REFERENCES


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