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Two Species of Haplosclerida (Demospongiae) from Kŏjedo, Korea

Chung Ja Sim and Kyung Jin Lee
(Department of Biology, Hannam University, Daejeon 300-791, Republic of Korea)

ABSTRACT

Two species of Haplosclerida (subclass Ceractinomorpha) are described from Kojedo. One species, *Taxadocia daepoensis* n. sp. is new to science and the other, *Callyspongia subarmigera*, is new to Korean fauna

Key words: Haplosclerida, Demospongiae, Kŏjedo, Korea

The Haplosclerida is the largest and taxonomically most complicated order of sponges (Bergquist 1980, Soest 1980). Thirty species of haplosclerida sponges have been reported from the Korean seas (Rho and Yang 1983, Sim and Byeon 1989). The genus *Toxadocia* Topsent 1918, contains about 13 species and is reported for the first time in Korea. The materials examined were collected from Kŏjedo by fish-net. The type specimen of the new species are stored in the Natural History Museum (NHM), Hannam University.

Class Demospongia Sollas, 1885 보통해면 강
Subclass Ceractinomorpha Lévi, 1953 일축해면 아강
Order Haplosclerida Topsent, 1928 단골해면 목
Family Chalinidae Gray, 1867 고삐해면 과

***Toxadocia daepoensis* n. sp.** 대포톡사해면(신칭) **(Fig.1)**

Material examined : Holotype Por. 21 (Hannam Univ. NHM) Daepo (Kŏjedo) fish-net, 100 m, 2/VIII/1994. Paratype Por. 21-1 (Hannam Univ., Dept. of Biology)

Description : Specimen erect, branching off from short stem, measuring 15 cm in length, 7 cm in

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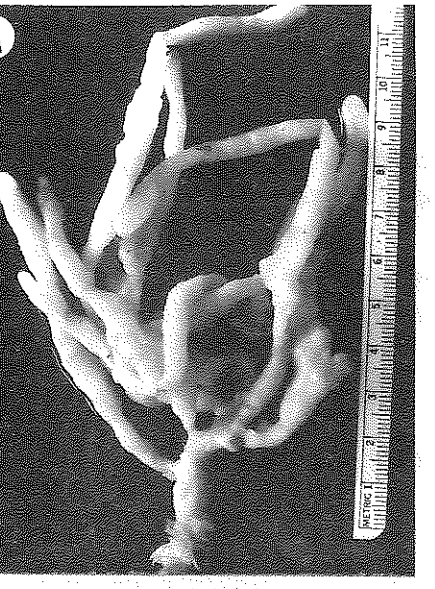
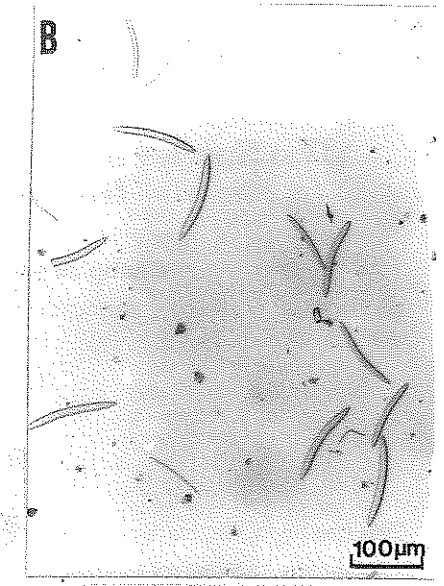
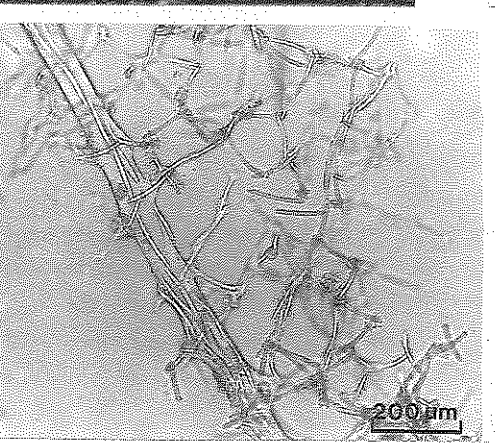
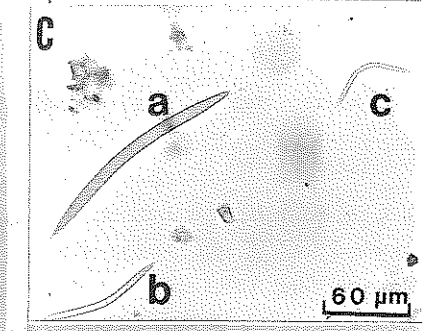
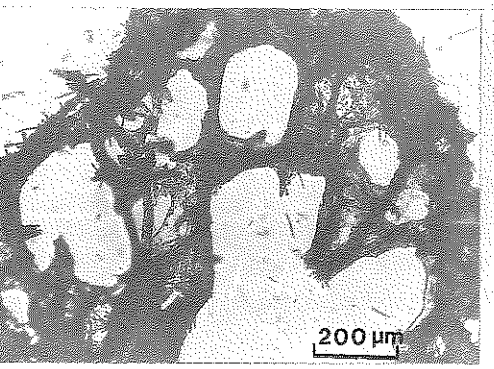
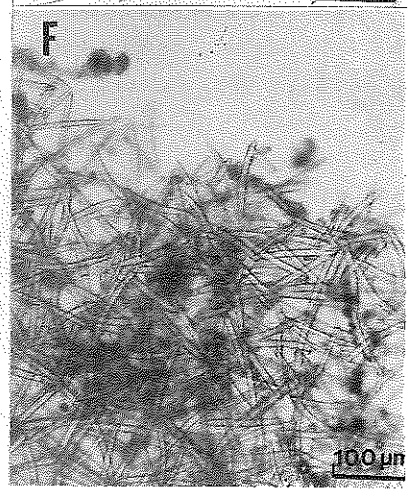












Toxadocia daepoensis n. sp.: A, Entire animal; B, Spicules; C, (a, large oxea, b, small oxea, c, toxa); tal structure of fiber; E, Stucture of transitional section; F. Skeletal structure of ectosome.

breadth, each branch measures 6-10 ㎜ in diameter.

Central parts of the branch with a narrow cavity throughout the entire body. Surface soft, easily torn, colour in alcohol ivory.

Ectosome, oxeas tangentially arranged, mixed with toxas.

Choanosome, with stout, divergent polyspicular fibres of oxeas (meshes 50-100 ㎛) and single oxeas arranged isodictiale between them. Polyspicular fibres have nodes with single oxeas (Fig.1, D).

Spicules Megascleres : large oxea ——— 110-160 × 8-12 ㎛
small oxea ——— 60-90 × 3-5 ㎛
Microscleres : Toxa ——— 35-60 ㎛

Etymology : This speices is named after its type locality.

Remarks : De Laubenfels (1950) compared seven species with *Toxadocia violacea*. Among them *T. primitivus* (Lundbeck, 1902), *T. proximus* (Lundbeck, 1902) and *T. violacea* are most closely related to *T. daepoensis* n. sp.. This new species differs in shape and in having of the small oxea (Table. 1). The small oxeas are confused with the toxas because they are of same size. *Toxadocia cylindrica* (Tanita, 1961) is similar to the new species but its spicules are larger (Table 1).

Table 1. Comparison of sponge form and spicule size of five *Toxadocia* species.

Species	Shape	Spicule Measurement (㎛)
Toxadocia primitivus	encrusting	oxea ——— 137 -170
		toxa ——— 28 -107
T. proximus	encrusting	oxea ——— 149 -184
		toxa ——— 28 -107
T. violacea	encrusting	oxea ——— 120-140 × 4-7
		toxa ——— 60
T. cylindrica	cylindrical tube form	oxea ——— 200-240 × 4-13
		toxa ——— 80 -100
T. daepoensis n. sp.	branch form	oxea ——— 110-169 × 8-12
		small oxea ——— 60-90 × 3-5
		toxa ——— 35-60

Family Callyspongiidae de Laubenfels, 1936 예쁜이해면 과

***Callyspongia subarmigera* Ridley, 1884** 가시예쁜이해면(신칭) **(Fig. 2)**

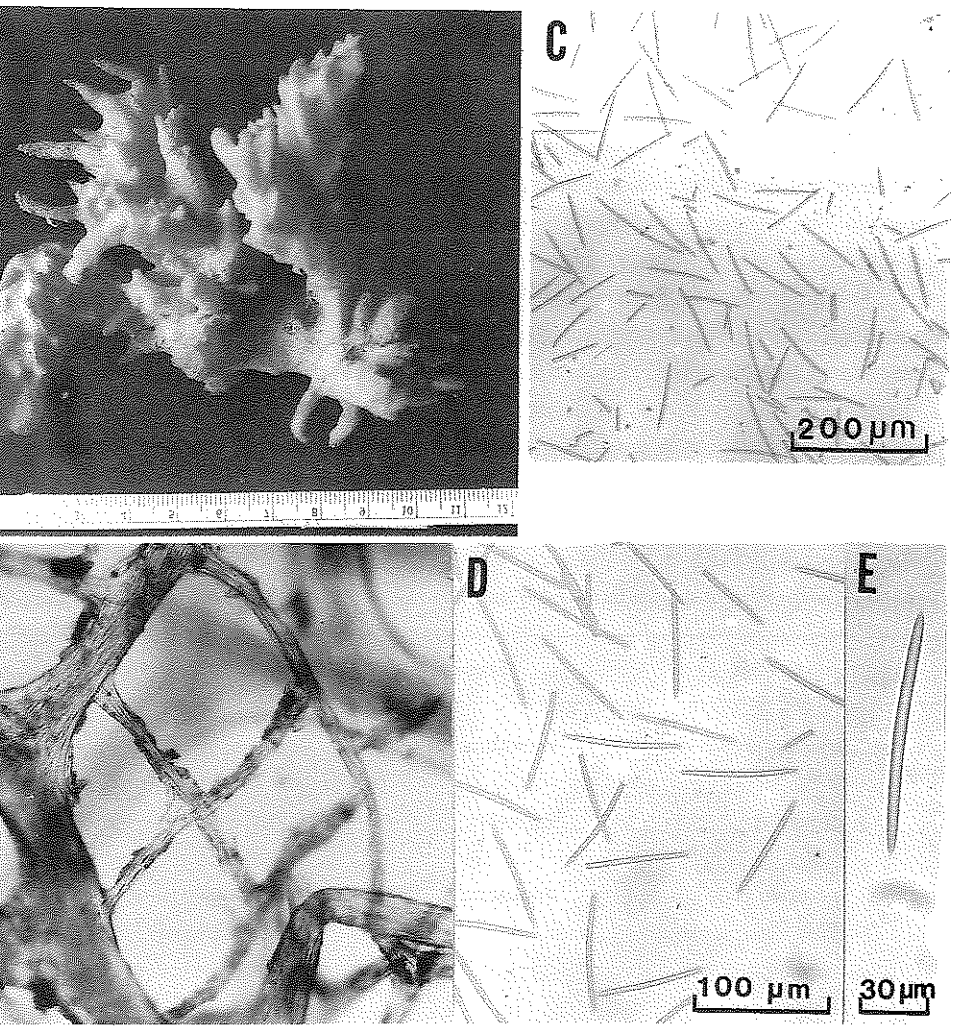
Cladochalina subarmigera Ridley, 1884, p. 397, pl. 39, fig. 11, pl. 41, fig. 1.

Pachychalina fibrosa var, gracilis Wilson, 1925, p. 412.

Callyspongia subarmigera Burton, 1934, p. 540; Bergquist, 1965, p. 152, fig. 15a-c: Hoshino, 1981, p. 107, fig. 38, pl. 4, fig. 5.

Material examined : Daepo(Kŏjedo), 2/VIII/1994.

Distribution : Nothern Australia, Philippines, Japan, Korea.



lyspongia subamigera; A. Entire animal; B, Structure of fibre; C-E, *Oxeas*

on : This sponge is irregularly branched of solid form, and its size up to 9.5 × 2.5 × 1.5 ㎝, inous processes 0.3-1.3 cm in length. One branch has oscula 1.5 cm in diameter. The ght brown in alcohol. The spicules are only oxeas 85-110 × 2-8 ㎛ in spicule size.

: The shape of the entire animal and the size of spicules are nearly identical with spcimens by Hoshino (1981).

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한국 거제도 단골해면목(보통해면류)의 2종

심 정 자 · 이 경 진
(한남대학교 생물학과)

요 약

한국 거제도에서 여러 차례 채집되어온 표본들을 정리한 결과 보통해면류, 단골해면목에 속하는 1신종 대포톡사해면(*Taxadocia daepoensis* n. sp.)과 한국미기록종인 가시에쁜해면(*Callyspongia subarmigera* Ridely, 1844)을 보고한다.