

A Taxonomic Study on the Korean Sponges

1. Poecilosclerina

by

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[Abstract]

The present investigation is an extensive work for the study on the marine sponge fauna from Korea. The species newly added to the sponge fauna of Korea are as follows: *Strongylophora corticata* Wilson, *Tedania brevispiculata* Thiele, *Anchinoe novae-zealandiae* Dendy, *Esperlopsis plumosa* Tanita and *Esperlopsis uncigera* Topsent.

Introduction

This paper deals with the Poecilosclerina belonging to Demospongia which have been collected from the coastal seas of Korea during the period from 1963 to 1978. On the Poecilosclerina in Korea, eighteen species have already been reported by the authors and the others (Kim, *et al*, 1968¹⁾; Rho, *et al*, 1969²⁾; Rho & Sim, 1972a³⁾; 1972b⁴⁾; 1976⁵⁾; Rho & Lee, 1976⁶⁾).

This publication is the first one in an anticipated series of reports dealing with the species of the Poecilosclerina. All of them are found to be hitherto unrecorded species in Korea.

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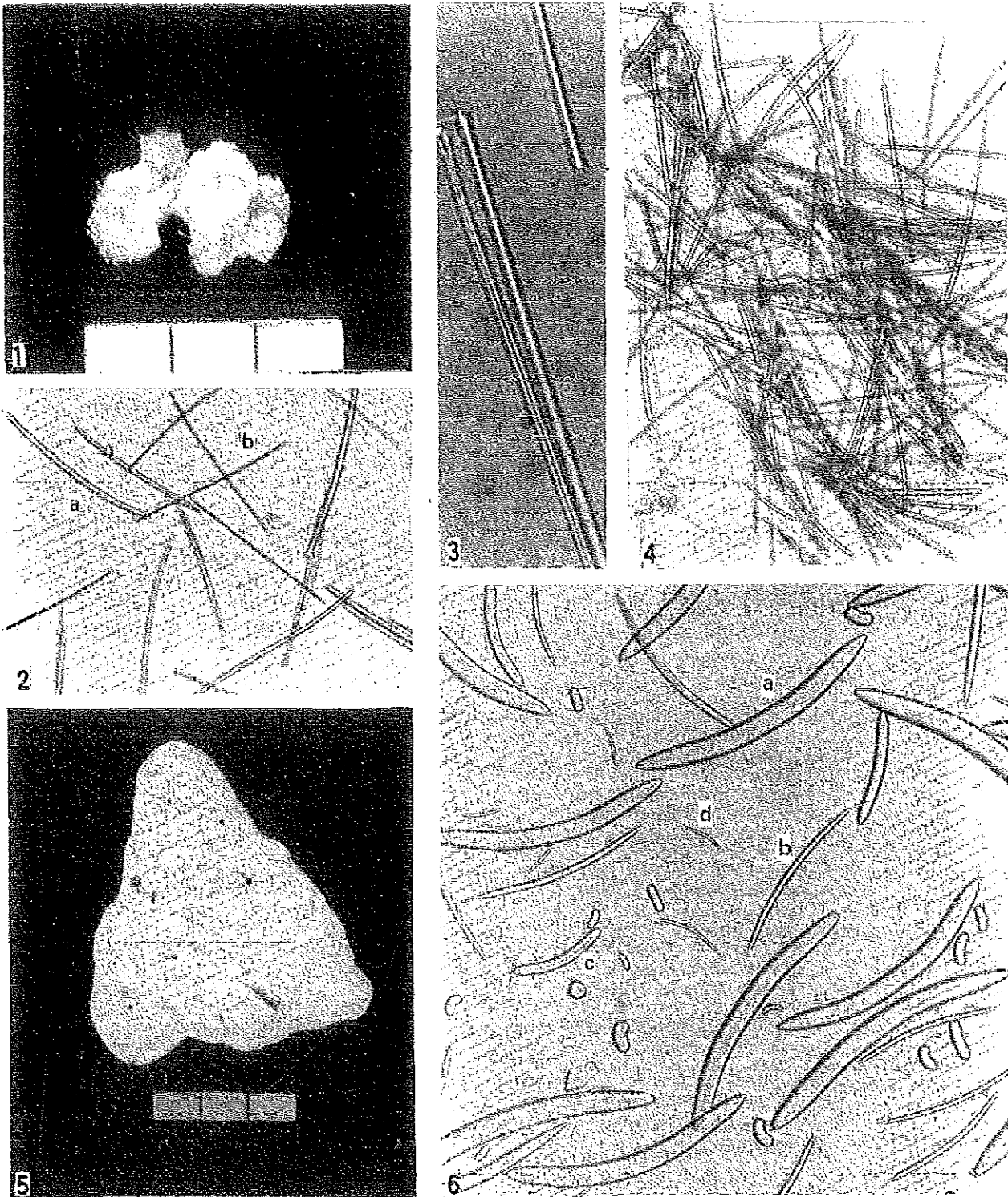


Plate 1

Figs. 1-4. *Tedania brevispiculata* Thiele 테다너해면

1. Entire animal, one scale measures 1 cm.

2. a. Style, b. Raphids x100

3. Tyloids x450

4. A part of skeletal structure x100

Figs. 5-6. *Strongylophora corticata* Wilson 불뚱해면

5. Entire animal, One scale measures 1cm.

6. a. Strongyle, b. Oxea, c. Microstrongyle, d. Microoxea x100

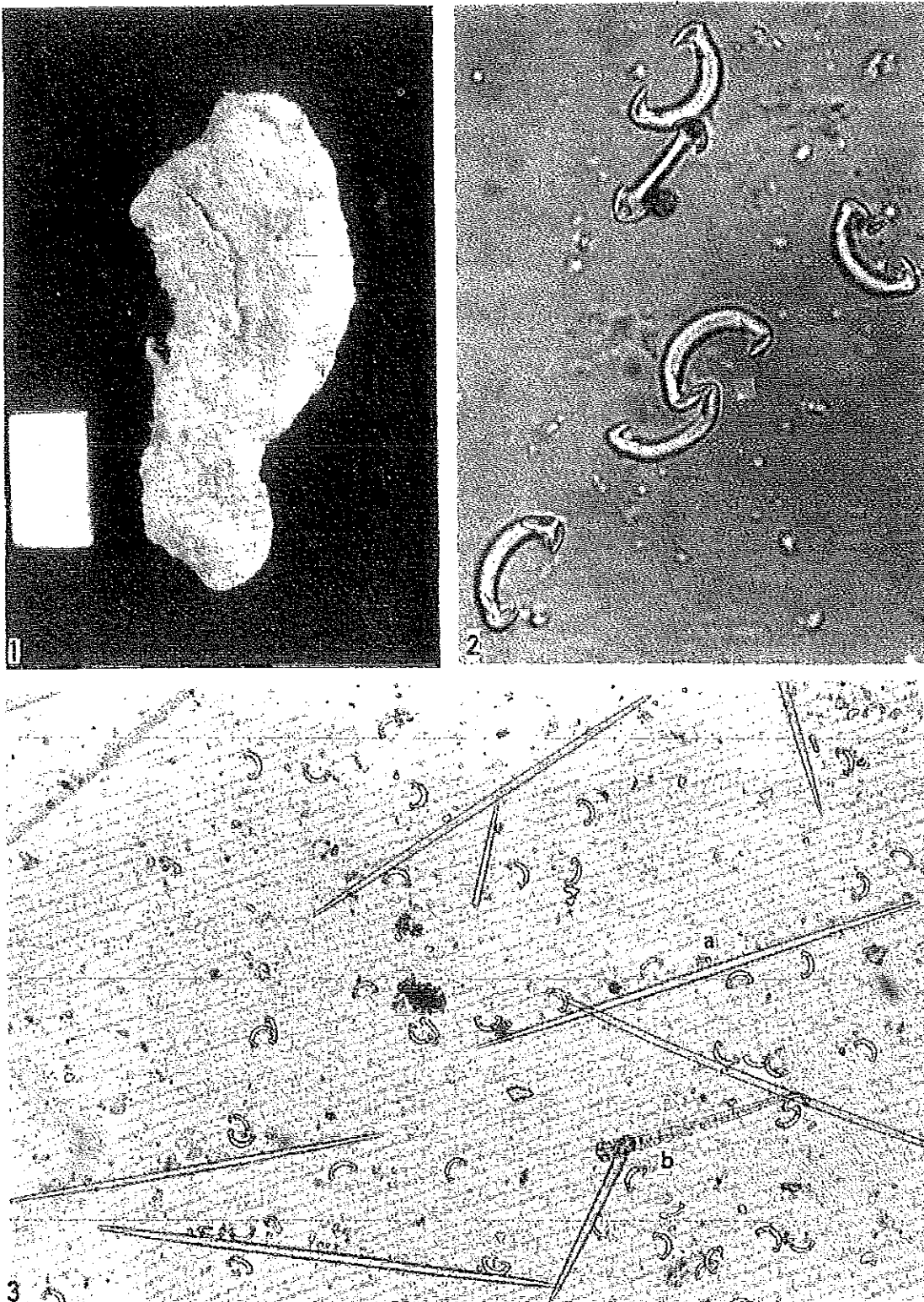


Plate 2

- Figs. 1-3. *Anchinoe novae-zealandiae* Dendy 안키노헤면
 1. Entire animal, scale measures 1cm.
 2. Isochelas x450
 3. a. Oxea, b. Acanthostyle x100

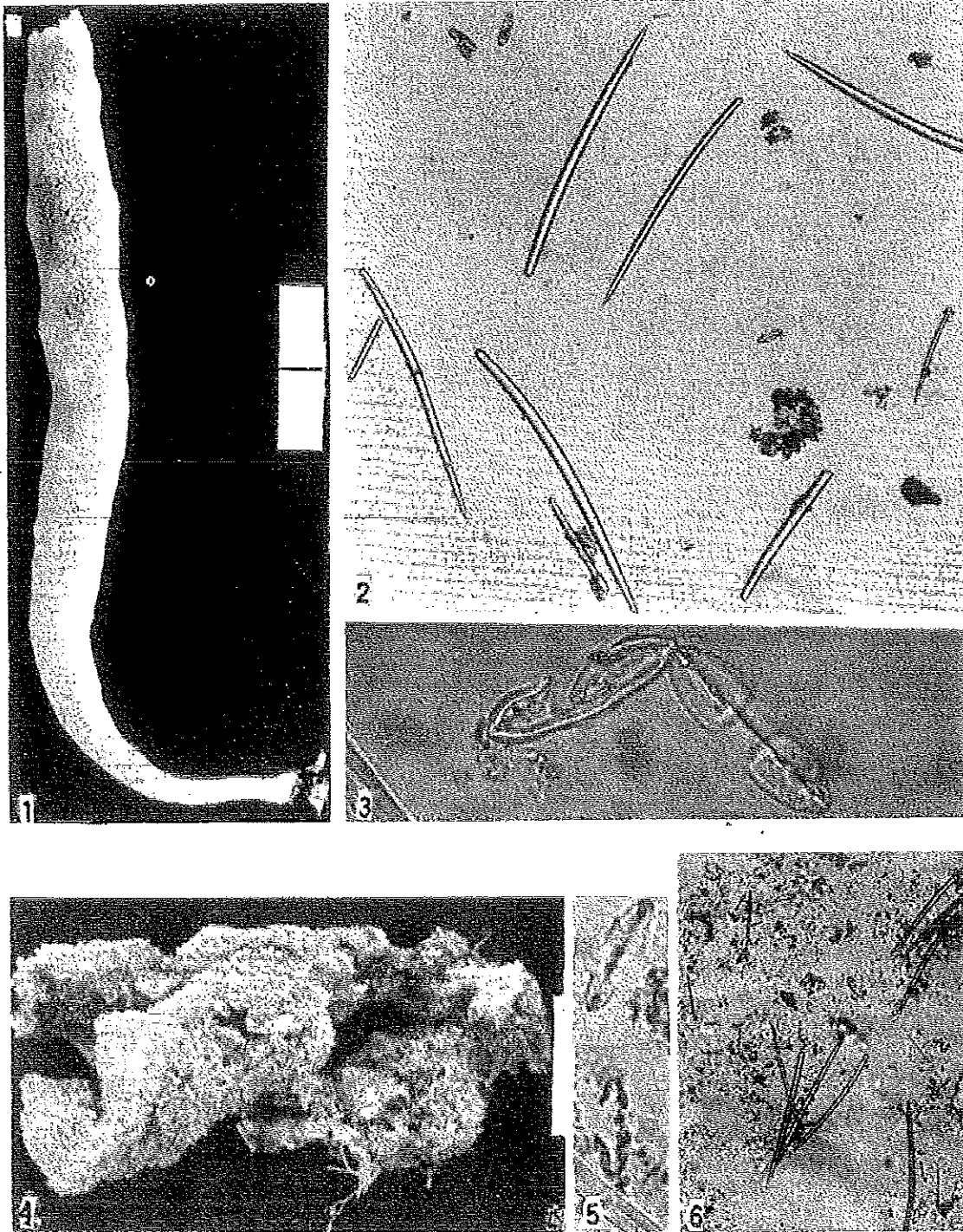


Plate 3

Figs. 1-3. *Esperioipsis uncigera* Topsent 관발톱해면

- 1. Entire animal, one scale measures 2cm.
- 2. Styles x100
- 3. Isochelas x450

Figs. 4-6. *Esperioipsis plumosa* Tanita 발톱해면

- 4. Entire animal, scale measures 1cm.
- 5. Isochelas x450
- 6. Styles x100

Description of Species

Order Poecilosclerina 다골해면 목

Family Adociidae 아도시해면 과

1. *Strongylophora corticata* Wilson 불뚱해면

(Pl. 1, Figs. 5-6)

Strongylophora corticata: Tanita, 1970, p. 89, pl. 2, fig. 7, text-fig. 17).

Material examined: One specimen, Seogwipo, August 5, 1970.

The sponge is slightly flattened, triangular shape, 8.5cm × 6.0cm × 1.0cm in dimension. Under part of the sponge has only one short and stout branch. The surface of the sponge is nearly smooth, the oscula are circular shape with 1mm diameter. Colour in life is reddish brown and texture hard.

Spicules: Megascleres, Strongyles, 375-400 μ × 14-28 μ

Oxeas, 210-350 μ × 8-10 μ

Microscleres, Microstrongyles, 30-140 μ × 14-20 μ

Microxeas, 40-70 μ × 5 μ

Distribution: Korea (Korea Strait); Japan (Sagami Bay); Philippine.

Family Tedaniidae 테다니해면 과

2. *Tedania brevispiculata* Thiele, 1903 테다니해면

(Pl. 1, Figs. 1-4)

Tedania brevispiculata Thiele, 1903, p. 947, pl. 28, fig. 15⁸⁾; Levi, 1961, p. 136, fig. 9⁹⁾; Hoshino, 1976, p. 6, pl. 2, fig. 17.¹⁰⁾

Material examined: One specimen, Gugdo Island, July 21, 1978.

This species is similar to *Halichondria japonica* in colour and surface. The fragment is 2cm × 1cm × 0.5cm in dimension. The colour in life is reddish orange and texture soft.

Spicules: Styles, 240-255 μ × 9 μ

Tylotes, 210-225 μ × 3 μ

Raphids, 144-180 μ

Distribution: Korea (Korea Strait); Japan; South China; Viet Nam (Nha Trang).

Family Microcionidae 유행해면 과

3. *Anchinoe novae-zealandiae* Dendy, 1924 안키노해면

(Pl. 2, Figs. 1-3)

Anchinoe novae-zealandiae Dendy, 1924, p. 360, pl. 12, fig. 2, pl. 15, figs. 9-11¹¹⁾; Bergquist, 1961, p. 179, fig. 6¹²⁾; Tanita, 1967, pp. 116-117, pl. 2, fig. 7, text-fig. 3¹³⁾.

Material examined: One specimen, Chugsan, April 25, 1976.

This sponge is flattened, small fragment, 4cm × 1.5cm × 1cm in dimension. The colour is dirty brown, texture fibrous and compressible.

Spicules: Oxeas, 360-430 μ , Acanthostyles, 144-170 μ , Isochelas, 28 μ

Distribution: Korea (East Sea); Japan (Tajima); New Zealand.

Family Ophlitaspongiidae 바늘뼈해면 과

4. *Esperiopsis plumosa* Tanita, 1965 발톱해면

(Pl. 3, Figs. 4-6)

Esperiopsis plumosa Tanita, 1965, pp. 48-49, pl. 2, fig. 6, text-fig. 3¹⁴⁾.

Material examined: One specimen, Namhae Island, July 20, 1967.

The sponge is moderately massive or erect, and the surface is hirsute with projecting spiculo-fibers. There are large oscules, 3-5mm in diameter. Texture is soft and the colour in life greenish yellow.

Spicules: Megascleres, Style, 240-260 μ

Microscleres, sochelas, 20-30 μ

Distribution: Korea (Korea Strait); Japan (Off Sado Island).

5. *Esperiopsis uncigera* Topsent, 1928 관발톱해면

(Pl. 3, Figs. 1-3)

Esperiopsis uncigera Topsent, 1928, p. 307, pl. 3, figs. 4-5¹⁵⁾; Tanita, 1978, pp. 230-231, pl. 1, fig. 2, text-fig. 1¹⁶⁾.

Material examined: Three specimens, Bangeojin, July 22, 1963; Yeong-il Bay, July 25, 1969; Seogwipo, December 1, 1978.

The sponge is long and cylindrical tube shape, narrow at the base than the upper part. The largest specimen is 30 cm long, 3 cm in diameter. The surface is slightly hirsute and texture soft and elastic. The colour in alcohol is dark brown.

Spicules: Styles, 357 μ × 15 μ

Isochelas, 30-40 μ

Distribution: Korea (East Sea, Korea Strait); Japan (Sagami Bay).

<요 약>

韓國產 海産海綿類의 分類에 관하여

1. 多骨海綿類

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저자들이 1963년에서 1978년까지 삼면 해안으로부터 채집한 표본들 중 미해결로 보관하고 있던 多骨海綿類를 同定 分類한 결과 다음과 같은 5種의 韓國 未記錄種이 밝혀졌다.

Strongylophora corticata Wilson, *Tedania brevispiculata* Thiele, *Anchinoe novae-zealandiae* Dendy, *Esperiopsis plumosa* Tanita, and *Esperiopsis uncigera* Topsent.

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