

Three New Species of Tetractinomorpha (Choristida,
Hadromerida and Axinellida) from Jeju Island in Korea

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韓國 濟州島産 四放海綿類의 三新種에 관하여

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摘 要

저자들이 1969年 2月과 12月, 1971年 2月, 1976年 2月 그리고 1978年 11
월에 濟州島의 西歸浦에서 採集한 海綿類를 同定한 結果 3新種 즉 코리스티
다해면 目, 조디아해면 科에 *Erylus koreanus*, 경해면 目, 테티아해면 科
에 *Tethya koreana*, 그리고 축해면 目, 털해면 科에 *Raspailia koreana*로
命名하고 이들을 記載報告한다. 完模式標本은 梨大 自然史博物館에, 副模式
標本은 梨大 生物學科에 보관하고 있다.

As the previous paper (Kim, *et al*, 1968; Rho, *et al*, 1969, Rho & Sim, 1972a;
1972b; 1976) this study also deals with the Korean marine sponge fauna in
Korea.

The following accounts of the species are based upon the materials collected
from Jeju Island during the period from 1969 to 1978.

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Order Choristida Sollas, 1880 코리스티다해면 目

Family Geodiidae Gray, 1867 조디아해면 科

1. *Erylus koreanus* sp. nov. 꼭지해면
(pl. 1, Figs. 1-5)

Occurrence

One specimen, Seogwipo, Feb. 7, 1971, B.J. Rho, 60 m.

Holotype

Natural History Museum of Ewha Womans University, Por. 1.

Description

The specimen has many lobes, often tip of them has single osculum.

Dimension: 10 cm wide, 7 cm high.

Colour: Pale yellow in alcohol.

Texture: Stony.

Surface: Smooth, oscula, 2-3 mm in diameter.

Skeleton: Cortical region with aspidasters, euasters and microrhabds is 1 mm thick. Endosome has styles, strongyles, oxeas and rare orthotriaenes.

Spicules (μ):

Megascleres: Orthotriaenes, 450-600 \times 45

Strongyles, 1000 \times 30, 1300 \times 30

Oxeas and Styles, 700 \times 15

Microscleres: Sterrasters, 120-180

Oxyasters (4 ray), 45-60

Microstrongyles (Centrotylotes), 30-45 \times 7-9

Remarks

This new species is related to *Erylus nigra* Bergquist, 1968, but is distinguished from the latter not only by the external feature but also by the following differences in spiculations.

1. In megascleres, the new species has oxeas and styles which lacks in Bergquist's species.

2. In microscleres, *Erylus nigra* has oxyspherasters which lacks in this new species.

On the other hand, *Erylus mamillaris* (Schmidt) is very much like *Erylus koreanus* in the external feature (Lendenfeld, 1903; Pulitzer-Finali, 1972).

Order Hadromerida Topsent 경해면 목

Family Tethyidae Gray 테티아해면 과

2. *Tethya koreana* sp. nov. 차루팔기해면

(Pl. 2, Figs. 1-4)

Occurrence

Three specimens, Seogwipo Dec. 15, 1969, B.J. Rho, two specimens, Seogwipo, Feb. 17, 1976, B.J. Rho, nine specimens, Nov. 30, 1978, C.J. Sim, 60-80 m.

Holotype

Natural History Museum of Ewha Womans University, Por. 2 (Dec. 15, 1969).

Paratypes

Department of Biology, Ewha Womans University, Por. 2-1 (Dec. 15, 1969);
Por. 2-2 (Feb. 17, 1976); Por. 2-3 (Nov. 30, 1978).

Description

The specimen has round head, stalk with bundle of large styles and rooting processes (styles). Stalk runs into central part of the head and the head has many large asters.

Dimension: 4 cm high; the head is 1 cm in diameter, 1.5 cm high; stalk is 4 mm in diameter.

Colour: Dirty grey (because of mud), inside yellowish white.

Texture: Elastic.

Surface: The surface of the head is mammillated with polygonal pattern and the oscula are not visible.

Skeleton: Styles making up the radial bundles are straight and running from the center to the periphery.

Internal tissue containing spherasters and tylasters.

Spicules (μ):

Megascleres: Strongyloxeas (small) $200-700 \times 11$, (large), $1100 \times 11-2000 \times 55$.

Microscleres: Spherasters, 55-200

Tylasters, 11-22

Remarks

This new species is easily distinguishable from any other species of the genus by the possessing of stalk with large style and rooting process externally.

In spiculation, the new species is similar to *Tethya amamensis* Thiele, 1898 (Tanita, 1961, 1969; Hoshino, 1971) and *Tethya japonica* Sollas, 1888 (Tanita, 1964, 1969; Hoshino, 1971).

Order Axinellida Bergquist

축해면 목

Family Raspailiidae Hentschel

털해면 과

3. *Raspailia koreana* sp. nov. 긴털가지해면

(Pl. 3, Figs. 1-5)

Occurrence

One specimen, Seogwipo, Dec. 12, 1969, B.J. Rho, 60-80 m.

Holotype

Natural History Museum of Ewha Womans University, Por. 3.

Description

The specimen is bushy shape.

Dimension: 6 cm wide; 10 cm high.

Colour: Pale reddish brown in alcohol.

Texture: Elastic.

Surface: Rough because of protruding styles.

Skeleton: Styles, strongyles, acanthostyles are made up central axis.

Slender styles are made up dermal region and long styles protruding to outside.

Spicules (μ):

Styles, 2500 \times 40

Strongyles, 900 \times 30—1200 \times 30

Slender Styles, 250—300 \times 5

Acanthostyle, 75—100

Remarks

This new species is similar to *Raspailia kasumiensis* Tanita, 1965 in the spiculation, but has strongyles which lacks in *Raspailia kasumiensis* Tanita.

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EXPLANATION OF PLATES 1-3

Plate 1

Fig. 1. *Erylus koreanus* sp. nov., (One scale measures 1 cm)

Fig. 2. A. Style, B. Sterrasters, $\times 100$

Fig. 3. A. Microstrongyle, B. Oxyasters, $\times 450$

Fig. 4. A. Oxea, B. Strongyle, $\times 100$

Fig. 5. A. Orthotriaene, B. Oxyasters, $\times 100$

Plate 2

Fig. 1. *Tethya koreana* sp. nov., (One scale measures 1 cm)

Fig. 2. Spherasters, $\times 100$

Fig. 3. Strongyloxea, $\times 40$

Fig. 4. Tylasters, $\times 450$

Plate 3

Fig. 1. *Raspailia koreana* sp. nov., (One scale measures 1 cm)

Fig. 2. A. Styles, B. Slender styles, $\times 40$

Fig. 3. A. Strongyle, B. Slender style, $\times 100$

Fig. 4. A. B. Slender styles, $\times 100$

Fig. 5. A. Acanthostyle, $\times 450$

Plate 1

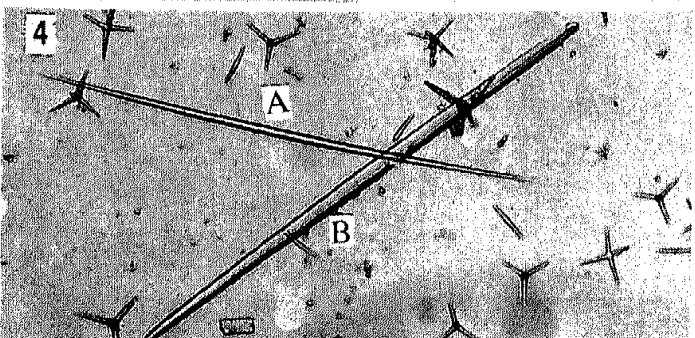
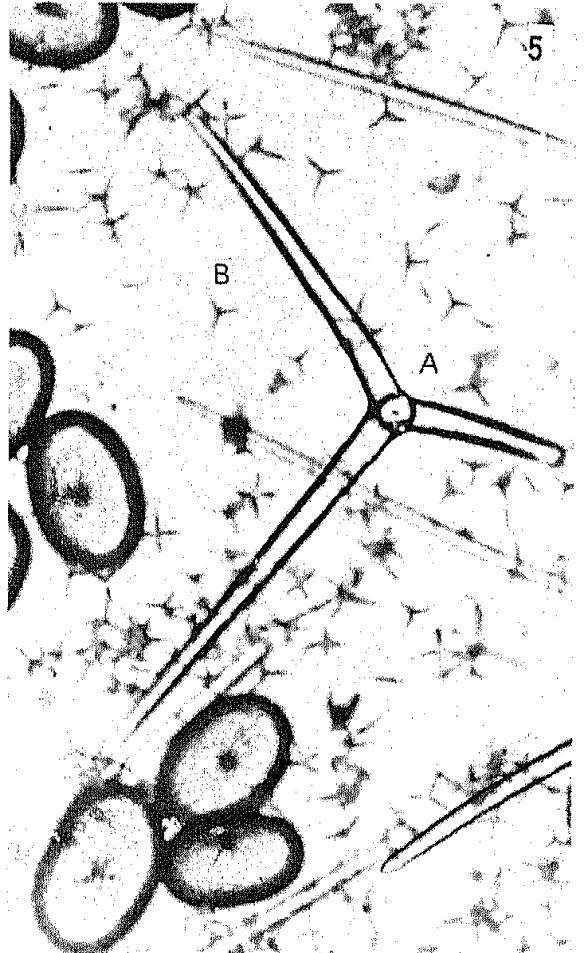
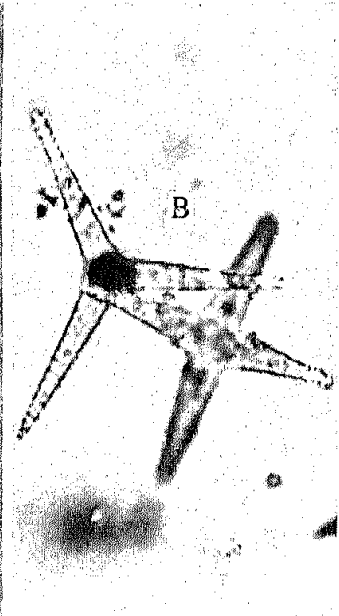
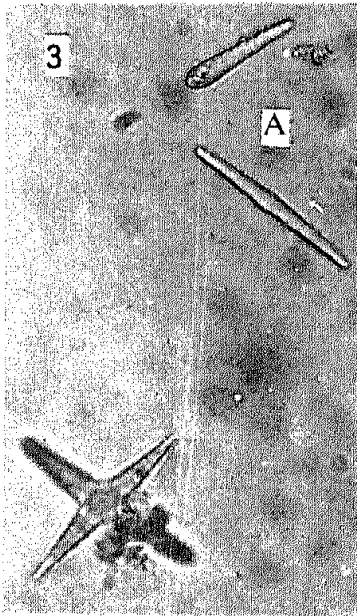
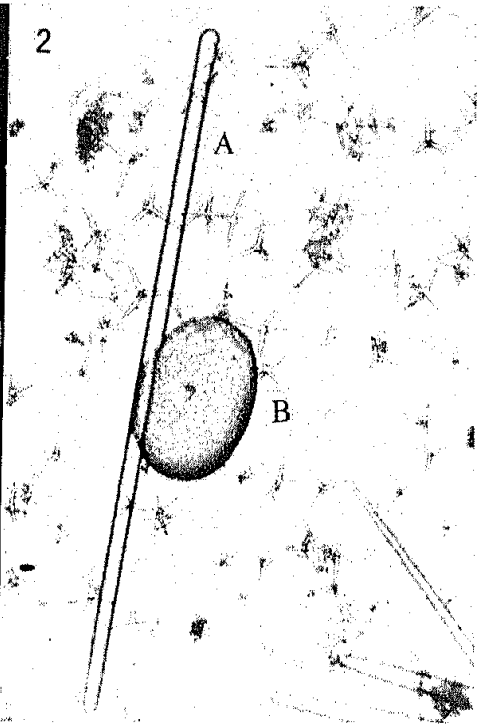
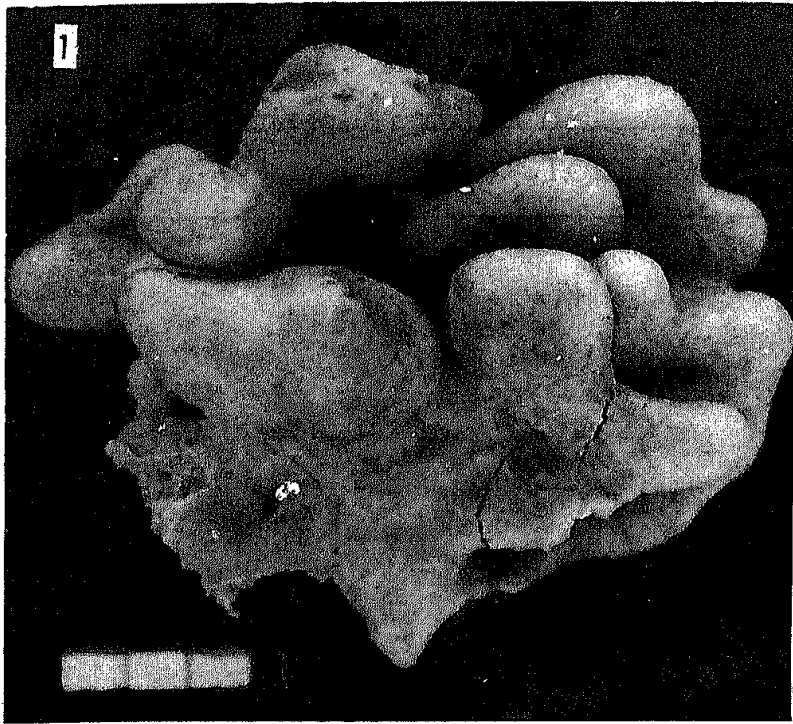


Plate 2

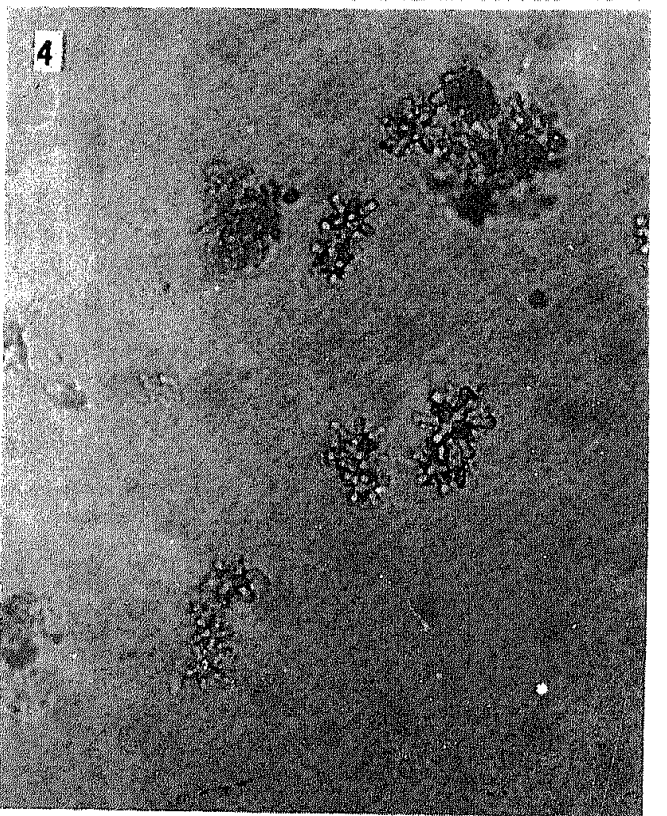
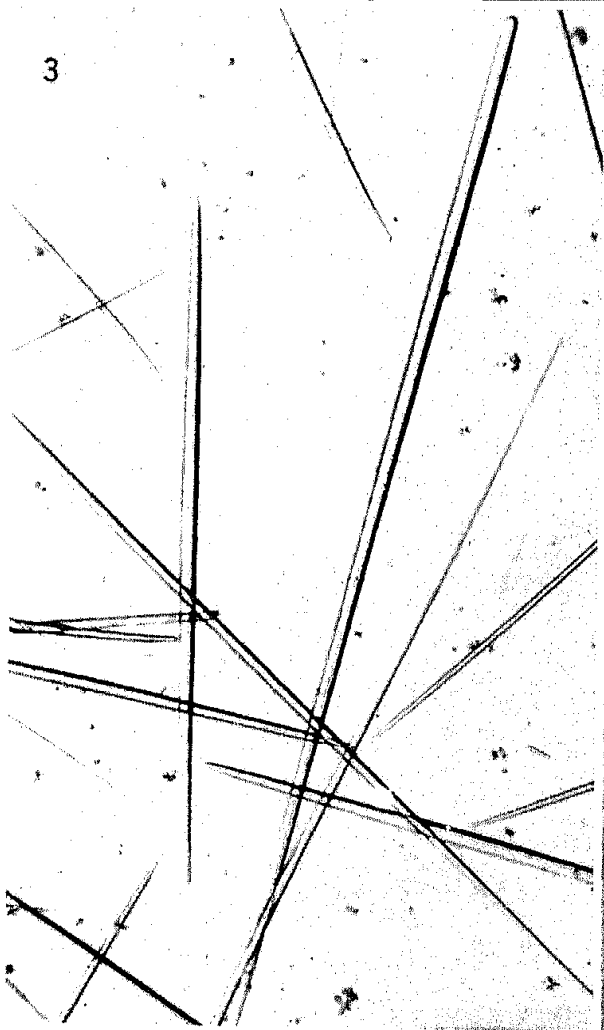
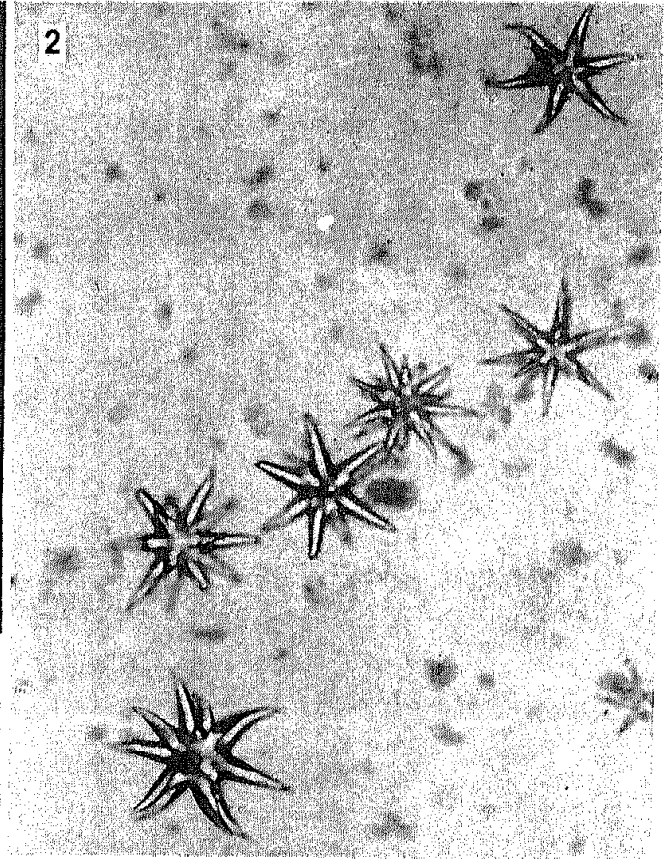
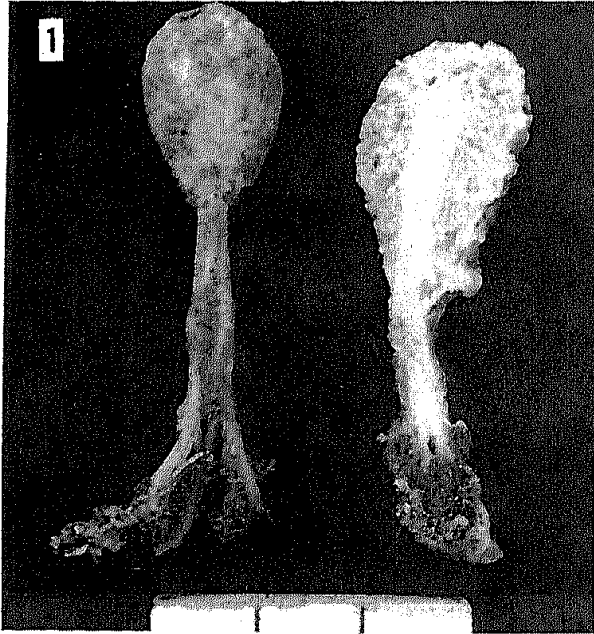


Plate 3

