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## 동물학회지

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## 투고규정

- 본지는 동물학에 관한 보문, 종설, 자료, 속보, 소식, 강좌 및 기타 기사 내용으로 한다.
  - 기사는 국문 또는 구문(영, 독, 불)으로 하되, 적어도 보문에는 제목을 국문과 구문으로 명기하고, 국문보문에는 구문제요문, 구문보문에는 국문제요문을 갖추어야 한다.
  - 원고의 양은 보문과 종설은 국문일 경우는 200자 원고지 200매 (상화 및 도표 포함), 구문일 경우는 틱자지 (60자×25행) 20매, 기자는 각자 50매, 10매를 초과하지 못한다.
  - 조판 16면을 초과할 때는 초과한 출판수비는 저자가 부담한다.
  - 원고는 흑서로 하고 구문원고는 "타이프라이터"로 써 (1매당 60자×25행) 한 것이며 "고지"체로 할 것은 —— 표, "이데릭체"로 할 것은 ~~~ 표의 짙은 밀줄을 칠 것. 단, 학명(종속명)은 반드시 이데릭체로 할 것.
  - 국문논문의 문문중의 구문(저자명, 저명, 재료명 등)은 반드시 "타이프라이터"로 써 할 것.
  - 상화의 도표는 후배사진 또는 억으로 경화하고 선명하게 그려서 적절 철판을 끌 수 있도록 할 것이며, 설명문은 국문논문일지도 반드시 구문을 쓸 것.
  - 문헌란의 인용문헌의 기재순서는 저자명의 알파벳순으로 하고 문헌의 기입순은 아래 예를 따를 것.
- Dances, B.C., M.M. Pradfast and J. Paul, 1963. A comparative study of respiratory metabolism in cultured mammalian cell strains. *Exptl. Cell Res.* 30(3):369-378.  
Simpson, G.G. and A. Roe, 1939. Quantitative Zoology. McGraw-Hill Book Co., New York, pp. 125-145.  
石田明, 1933. 明城地方의 蠕相. 조작지 15:64-72.  
Wyckoff, R.W.G., 1933. Optical Methods in Cytology. In: The Cell (J. Brachet and A.E. Mirsky, editors). Academic Press Inc., New York 1:8-16.
- 논문 본문 중의 문헌의 인용은 다음의 예에 준한다. Dances et al. (1963), Stone (1933), Simpson and Roe (1939).
- 원고제는 종별에 따라 원고접수 순으로 하되, 편집상 전후가 다소 바뀔 수도 있다.
  - 원고의 채택여부는 편집위원회의 결의를 거쳐서 정하고, 채택하지 않은 원고는 저자에게 물려보낸다.
  - 교정은 편집위원이 전담한다.
  - 변색은 30부를 저자에게 무료로 증정한다. 단, 30부를 초과할 때에는 저자가 그 실비를 부담하며, 회망부수는 원고제출시 원고표지에 명기하여야 한다.
  - 원고는 원본과 사본 2부를 제출하여야 하며 이는 수시로 접수한다.
  - 원고 및 편집에 관한 문서는 아래에 적은 곳으로 직접 전달 또는 등기로 우송할 것.

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## A Taxonomic Study on the Marine Sponges in Korea

## 4. Choristida (Geodiidae)

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韓國產 海產海綿類의 分類學的研究

4. 코리스티다해면류(조디아해면파)

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(Received December 20, 1981)

## 摘要

본인은 축산, 울릉도, 충무, 제주도 등지에서採集된 四放海綿類를 同定한 결과 다음과 같은 코리스티다해면류에 속하는 5種의 韓國未記錄種이 밝혀졌다. *Geodia varioscipulosa* Thiele, *Geodia japonica* (Sollas), *Geodia reniformis* Thiele, *Geodinella cylindrica* (Thiele), *Geodinella hyotania* Tanita.

This paper deals with the Choristida(subclass Tetractinomorpha). Sixteen species belonging to the Choristida were already reported by the author(Sim, 1981).

Specimens for the present study were collected from the coastal areas of the East Sea (Sea of Japan) and the South Sea of Korea during the period from 1971 to 1978.

## Order Choristida 코리스티다해면류

## Family Geodiidae 조디아해면파

1. *Geodia varioscipulosa* Thiele, 1898 다조디아해면 (Pl. 1, figs. 1-6)*Geodia varioscipulosa* Thiele, 1898, p. 10, pl. 6, figs. 6a-1.*Geodia varioscipulosa*: Lendenfeld, 1903, p. 107.

Material examined: Seongsanpo, Feb. 14, 1976; Chungmu, July 19, 1978.

Description: This sponge is massive, subspherical in shape and measures 2×1.5×1.3 cm in dimension. The colour is white in alcohol, texture is hard and incompressible. The surface is very smooth. The cortex has a thick layer of sterrasters, 1mm in extent.

Measurements of spicules ( $\mu$ ): Megascleres

- a) Large oxeas.....2000-2500×20-45
- b) Small oxeas.....200×4
- c) Dichotriaenes .....rabdome 2500-3000×50  
clad 200-300
- d) Orthotriaenes.....rabdome 2500-3000×50  
clad 200-300
- e) Plagiotriaenes.....rabdome 2500-3000  
clad 200
- f) Large anatriaenes .....rabdome 6000×12  
clad 70
- g) Small anatriaenes .....rabdome 3000×8  
clad 3

## Microscleres

- a) Serrasters.....80-100×50-30
- b) Large oxyaster.....120
- c) Small oxyaster.....30-50
- d) Sphaerasters.....30
- e) Strongylaster .....6-8

Distribution: Korea(Korea Strait, Jeju Isl.), Japan(Yogashima), North Pacific Ocean.

2. *Geodia japonica*(Sollas, 1888) 왜죠디아해면 (Pl. 2, figs. 1-4)

*Cydonium japonicum* Sollas, 1888, p. 256.

*Geodia japonica*: Thiele, 1898, p.7, pl.2, fig. 1, pl.6, fig. 3; Lendenfeld, 1903, pp. 111-112.

Material examined: Seogwipo, Nov. 30, 1978.

Description: This sponge is like cup shape, which has many round protuberance. Measures 17×15cm in dimension. The colour in life is light yellow, texture is hard. The surface has pores and oscules. Many spicules look like hair. The cortex has a hard layer of sterrasters, 1mm thick.

Measurements of spicules( $\mu$ ): Megascleres

- a) Large oxeas.....2000-2500×45
- b) Small oxeas.....200
- c) Orthotriaenes .....rabdome 2500-2700×75-85  
clad 200-300
- d) Anatriaenes.....rabdome 2500  
clad 80

## Microscleres

- a) Serrasters .....75-90

- b) Oxyasters.....14-30
- c) Sphaerasters.....4-5

Distribution: Korea(Jeju Isl.), Japan(Sagami Bay, Enoshima).

3. *Geodia reniformis* Thiele, 1898 일조디아해면 (Pl. 3, figs. 1-6)

*Geodia reniformis* Thiele, 1898, p.9, pl.1, fig. 3, pl.6, fig. 5.

*Geodia reniformis*: Lendenfeld, 1903, p.108

Material examined: Seogwipo, Feb. 7, 1971.

Description: This sponge is a massive, subspherical to reniform in shape. The convex surface has many pores. Measures 13×10×5cm in dimension. The colour in alcohol is pale yellow, texture is hard and incompressible. The surface of the sponge looks smooth but rough to the touch owing to the projecting pile of cortical oxea. The cortex has a thick layer of sterrasters, 1.5mm in extent.

Measurements of spicules( $\mu$ ): Megascleres

- a) Large oxeas.....4000×56
- b) Small oxeas.....250-280×5
- c) Orthotriaenes .....4000-5000×80
- d) Protriaenes .....3000-4000
- e) Anatriaenes .....6000

## Microscleres

- a) Serrasters .....120×90
- b) Large oxyasters.....40-60
- c) Small oxyasters.....16-25
- d) Sphaerasters .....14
- e) Pycnasters .....5

Distribution: Korea(Jeju Isl.), Japan(Sagami Bay, Enoshima).

4. *Geodinella cylindrica*(Thiele, 1898) 가동죠디엔라해면 (Pl. 4, figs. 1-3)

*Geodia cylindrica* Thiele, 1898, p.12, pl.1, fig. 2, pl.6, fig. 9.

*Geodinella cylindrica*: Lendenfeld, 1903, p.117; Tanita, 1978, p.236, pl.1, fig. 4, text. fig. 2.

Material examined: Ulreung I., July 23, 1976.

Description: This sponge is irregularly long tuberous in shape and measures 70×5 mm in dimension. The lower part of the long tube is bulkier than the upper part. The colour of the surface is light brown or pale yellow, texture is hard and incompressible. The surface of the sponge is smooth, without hispitation. The cortex is about 0.5 mm thick and occupied by a layer of sterrasters.

## Measurements of spicules(μ): Megascleres

- a) Oxenes.....1200-1400×25-30
- b) Reduced triaenes.....rabdome 1200-1400  
clad small

## Microscleres

- a) Sterrasters .....120-140
- b) Strongylasters .....5-7

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

5. *Geodinella hyotania* Tanita, 1965 효단조디넬라해면 (Pl. 4, figs. 4-7)

*Geodinella hyotania* Tanita, 1965, p. 53, pl. 3, fig. 13, text-fig. 7.

Material examined: Chugsan, April 25, 1976.

Description: This sponge is an irregularly, elongated broken mass and measures 6×6×2 cm in dimension. The colour is nearly white with brownish spots but that of the inner is dirty brown. The texture is very hard owing to the thick cortex of sterrasters. The surface is smooth.

## Measurements of spicules(μ): Megascleres

- a) Oxeia .....1300-3500×35-45
- b) Style .....1400-2000×56

## Microscleres

- a) Sterrasters.....130
- b) Sphaerasters.....13-26

Distribution: Korea(East Sea), Japan(Sado Isl.).

## REFERENCES

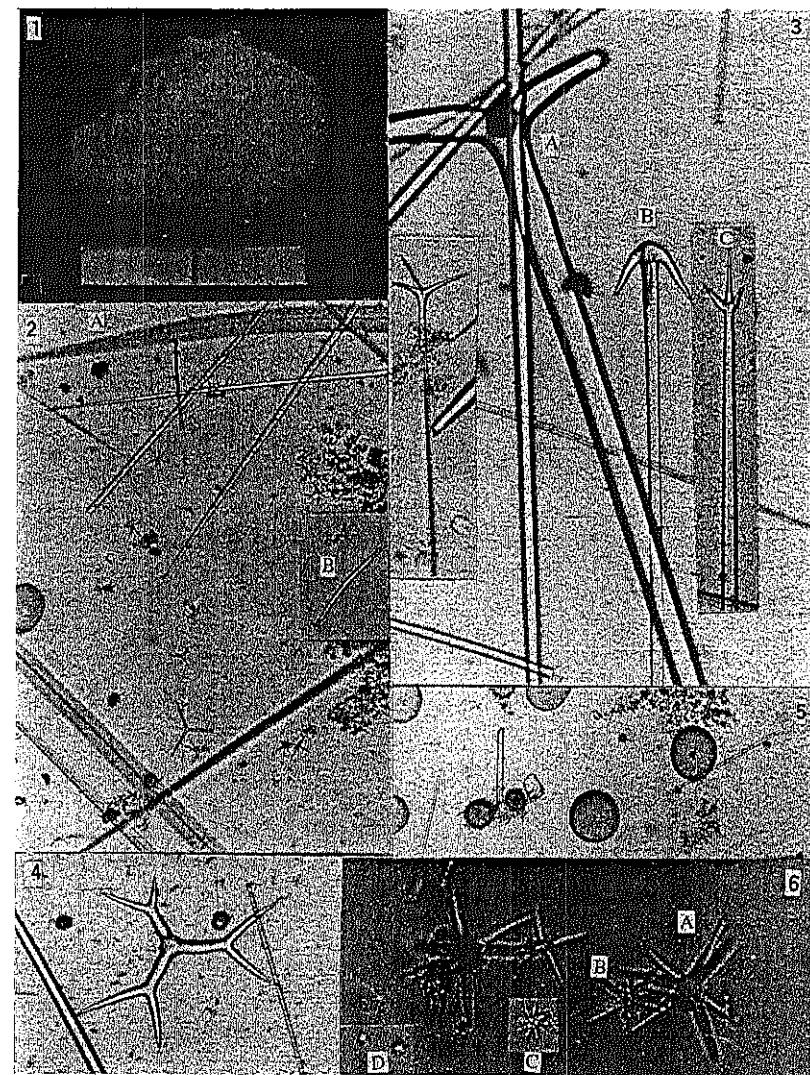
- Lendenfeld, R. von, 1903. Tetraxonida. *Das Tierreich* 19: 1-168.  
 Sim, C.J., 1981. A Systematic Study on the Marine Sponges in Korea. 1. Ceractinomorpha and Tetractinomorpha. *Song Jun Univ. Essays and Papers* 11, Part. 2.  
 Sollas, W.J., 1888. Report on the Tetractinellidae collected by H.M.S. Challenger, during the Years 1873-76. *Rep. Chall., Zool.* 25: 1-455.  
 Tanita, S., 1965. Report on the Sponges obtained from the Adjacent Waters of the Sado Island, Japan Sea. *Bull. Jap. Sea Reg. Fish. Res. Lab.* 43-66.  
 Tanita, S., 1978. Sponges obtained by Trawl Net from the Sado Strait. *ibid.*, 29: 229-237.  
 Thiele, J., 1898. Studien über Pazifische Spongien 1. *Zool.* 24: 1-72.

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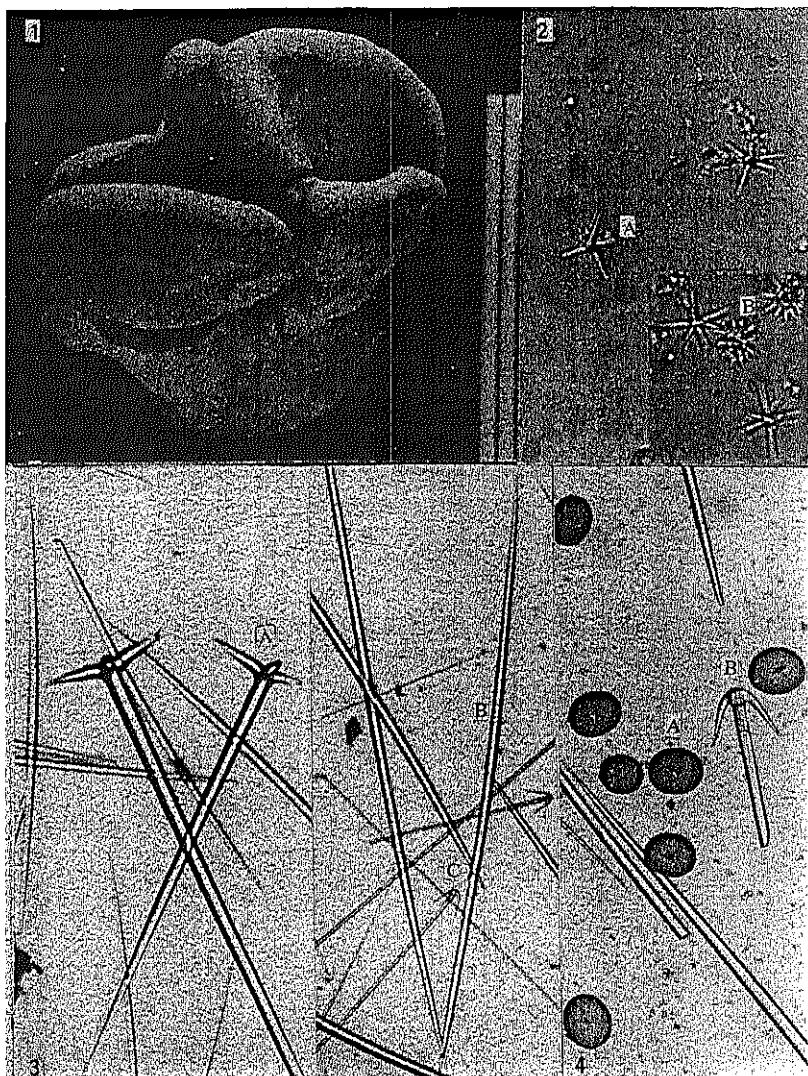
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Plate 1



Figs. 1-6. *Geodia variospiculosa* Thiele, 1898

1. Entire animal
- 2.A. Large oxeia, B. Small oxeia, ×100
3. A. Plagiotaene, B. Anatrienia, C. Protariaen, ×40
4. Dichotriaene, ×40
5. Sterrasters, ×100
6. A. Large oxyaster; B. Small oxyaster, C. Sphaeraster, D. Pycnaster, ×450.

Figs. 1-4. *Geodia japonica* (Sollas, 1888)

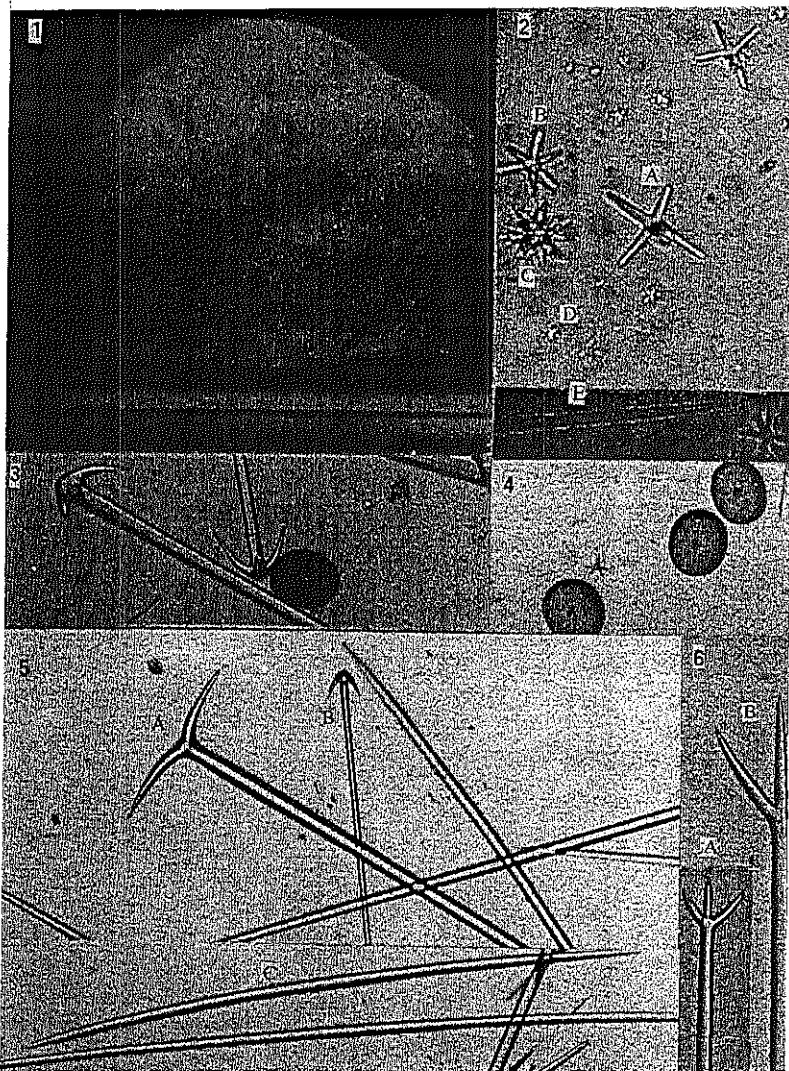
1. Entire animal
2. A. Oxyaster, B. Sphaeraster,  $\times 450$
3. A. Orthotriaene, B. Oxea, C. Anatriaen,  $\times 40$
4. A. Sterraster, B. Anatriaen,  $\times 100$

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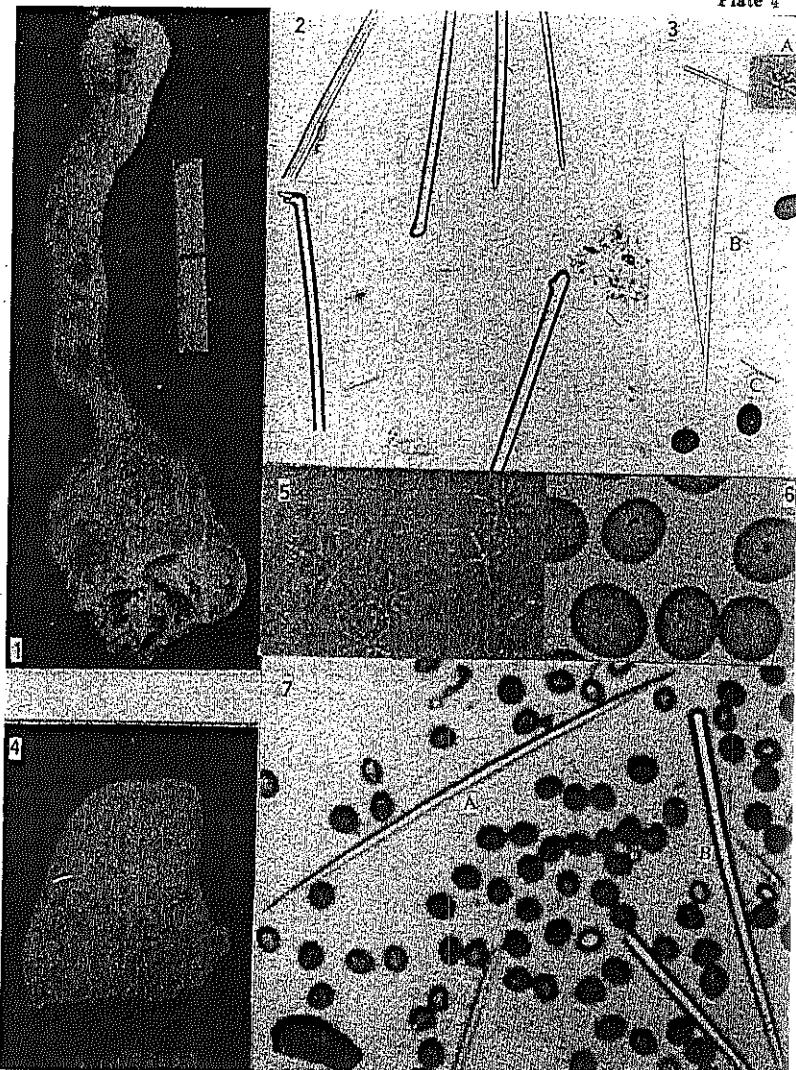
Sim—Marine sponges in Korea

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Plate 3

Figs. 1-6. *Geodia reniformis* Thiele, 1898

1. Entire animal
2. A. Large oxyaster, B. Small oxyaster, C. Sphaeraster, D. Pycnaster, E. Small oxea,  $\times 450$
3. Anatriaen,  $\times 100$
4. Sterraster,  $\times 100$
5. A. Orthotriaene, B. Anatriaen, C. Largeoxea,  $\times 40$
6. A. Protriaene, B. Abnormal triaen,  $\times 100$

Figs. 1-3. *Geodinella cylindrica* (Thiele, 1898)1. Entire animal 2. Reduced triaene,  $\times 100$  3. A. Pycnaster,  $\times 450$ , B. Oxea,  $\times 40$ , C. Sterraster,  $\times 40$ .Figs. 4-7. *Geodinella hyotania* Tanita, 19654. Entire animal 5. Sphaerasters,  $\times 450$  6. Sterrasters,  $\times 100$  7. A. Oxea, B. Style,  $\times 40$ .發情週期에 따른 Guinea Pig의 子宮內膜 表層上皮細胞의  
微細構造 및 細胞化學的研究崔春根\* · 劉寬灝\* · 蔡永健\* · 李春九\*\* · 鄭鎬三\*\*\*  
(\*延世大學校 生物學科 · \*\*淑明女大 · \*\*\*漢陽大學大)Ultrastructural and Cytochemical Studies on the Endometrial  
Surface Epithelial Cells of Guinea Pig During Estrous Cycle

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## SUMMARY

Cyclical changes in the fine structures of the surface epithelial, stroma and glandular cells of guinea pig endometrium during the estrous cycle were studied by transmission and scanning electron microscopy. Cytochemical studies were made in order to investigate the ultrastructural localization of the acid phosphatase, alkaline phosphatase and ATPase in these cells.

The results obtained are as follows:

1. The endometrial surface epithelium was pseudostratified columnar during estrus and metestrus, and simple columnar during proestrus and diestrus. The characteristic features observed in these cells include increased nucleocytoplasmic ratio at proestrus, elongated shapes of both the nucleus and the entire cell, increased volume of the cytoplasm and cytoplasmic bulging into the lumen during estrus, and smaller surface epithelial cells during metestrus.
2. In the cytoplasm of surface epithelial cells, the numbers of mitochondria and free ribosomes were increased, and rough endoplasmic reticulum and Golgi complex appeared during estrus, and the degenerated cells, lipid droplets, multilamellated bodies and lysosomes appeared during diestrus.
3. During estrus, scanning electron microscopic observations of endometrial

본 연구는 1980년도 과학재단 연구비 지원에 의하여 이루어졌으므로 과학재단에 감사를 드립니다.