

## A Systematic Study on the Errantiate Polychaeta in Cheju Island

Rho, Boon-Jo and Lee, Jong-Wui

(Department of Biology, College of Natural Sciences, Ewha Womans University, Seoul 120-750, Republic of Korea)

### 濟州島産 遊泳目 (Polychaeta, Errantia) 의 分類學의 研究

盧 粉 祚 · 李 鍾 璋  
(梨花女子大學校 自然科學大學 生物學科)

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#### 摘 要

본 연구는 1969년 12월부터 1987년 10월까지 제주도의 10개 지역(濟州港, 牛島, 城山浦, 表善, 西歸浦, 숲섬, 和順, 加波島, 飛揚島, 翰林)에서 채집된 표본들을 동정·분류한 결과(9과 31種)와 이미 발표된 種을 종합하여 제주도 연안의 遊泳目を 정리하였다. 그 결과 모두 11과 31속 45종이었다. 이들 중 4종 (*Lepidasthenia berkeleyae*, *Brania clavata*, *Sphaerosyllis hirsuta* 및 *Ceratonereis singularis*) 은 韓國末記錄種이며, 13종은 제주도 연안에서만 발견되었다. 한국 미기록종에 관하여는 그림을 그리고 기재하였다. 45종 중 暖溫水型이 22종 (48.89%)으로 가장 많았고, 범세계형이 10종(22.22%), 熱帶水型이 8종 (17.78%), 冷溫水型이 4종(8.89%), 冷水型이 1종(2.22%)의 순으로 나타났다. 난온수형이 가장 많이 나타난 현상은, 제주도가 위치하고 있는 海況 즉 쿠로시오 난류의 영향을 크게 받고 있다는 사실과 부합한다.

Key words: systematics, errantiate Polychaeta, Cheju Island

#### INTRODUCTION

On the systematic studies of errant polychaetous fauna in Cheju Island, Paik (1972) reported for

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본 연구는 1987년도 문교부 학술연구조성비에 의해 “한국산 동·식물의 종속지적 연구 IV”라는 제목 하에 연구된 것의 일부임.

the first time one species in his article entitled "The Polychaetous Annelids in Korea (1)". Since then, Rho and Song (1975) reported 3 species in 3 families, Paik (1976) reported 2 species in family Eunicidae and he (1972) also described 4 species belonging to family Nereidae. Besides the publications mentioned above, Rho and Lee (1982), Jae *et al.* (1985, 1987) and Rho and Lee (1987) reported some additional polychaetous species in their survey reports.

Summing up the results of the previous studies, total of 24 errantiate species in 8 families have been reported from Cheju Is. The study of Korean errant polychaetes is relatively well performed. However, comprehensive researches on the errant polychaetous fauna are required especially in Cheju Is. The authors intend to understand the errant polychaetous fauna of Cheju Is. based on the materials identified by the authors and previous records.

## MATERIALS AND METHODS

The materials identified were collected from ten localities in Cheju Is. from December 1969 to October 1987 (Fig. 1). They were collected at intertidal zones during low tide and at the subtidal zone with the fishing net. The collected materials were narcotized with menthol and then preserved in about 5% neutral formalin. For the morphological study, a stereomicroscope and an optical microscope were used. A brief description and figures of newly reported species in Korea were given. The system of classification in this study followed that used by Imajima and Hartman (1964) and Hartman (1968). All the specimens identified in the present investigation are deposited in the Department of Biology, Ewha Womans University, Seoul, Korea.

## RESULTS

This report includes all errant polychaetous species which are newly examined in the present work and the previous papers. Thirty-one species in nine families of the errant polychaetes occurring in Cheju Is. are recognized in the present study. Four species among them are newly reported in Korean waters; they are marked with three asterisks(\*\*\*). Thirteen species found only in Cheju Is. are marked with two asterisks(\*\*). The species marked with one asterisk(\*) are identified not by the present investigation, but by the previous workers.

Under the scientific name of each species, the localities are cited from the previous papers and then the material examined is also given when specimens are identified.

Class Polychaeta Grube, 1850      다모 강  
 Order Errantia Audouin & Milne- Edwards, 1832      유채 목  
 Family Polynoidae Malmgren, 1867      비늘갯지렁이 과  
 Genus *Euphione* McIntosh, 1885      아가미비늘갯지렁이 속

### 1. *Euphione chitoniformis* (Moore, 1903)      군부갯지렁이

Material examined: Sögwip'o, 1 specimen, Dec. 12, 1969 (B.J. Rho).

Genus *Halosydna* Kinberg, 1855      미룩비늘갯지렁이 속

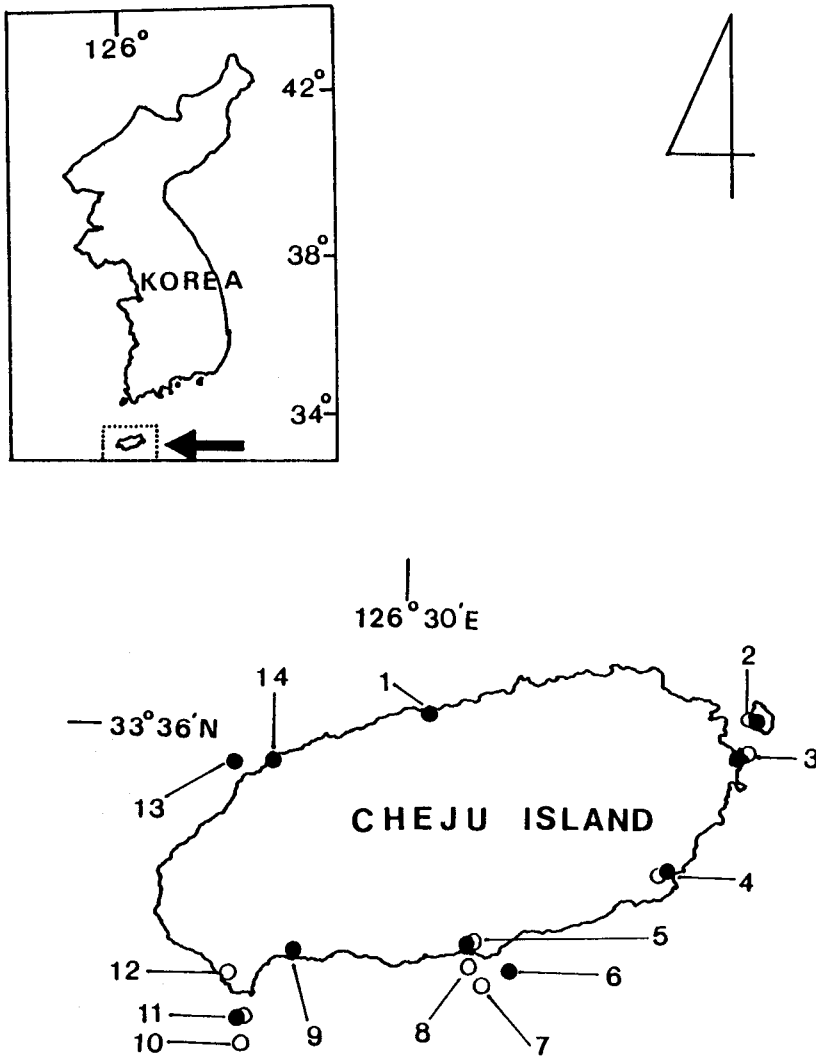


Fig. 1. A map showing the localities where the previous and present materials were collected. 1, Cheju-hang (濟州港); 2, Udo (牛島); 3, Söngsanp'o (城山浦); 4, P'yosön (表善); 5, Sögwip'o (西歸浦); 6, Supsöm ( 숲섬); 7, Munsöm (蚊島); 8, Saesöm (鳥島); 9, Hwasun (和順); 10, Marado (馬羅島), 11, Kap'ado (加波島); 12, Mosülp'o (摹瑟浦); 13, Piyangdo (飛揚島); 14, Hallim (翰林). (●: present study; ○: previous record).

2. *Halosydna brevisetosa* Kinberg, 1855    짧은미륵비늘갯지렁이

Material examined: Kap'ado, 1 specimen, Jun. 16, 1985 (B.J. Rho); Udo, one specimen, Oct. 8, 1987 (B.J. Rho & J.W. Lee); Söngsanp'o, 1 specimen, Oct. 8, 1987 (B.J. Rho & J.W. Lee); Hallim, 16 specimens, Oct. 9, 1987 (B.J. Rho & J.W. Lee).

Genus *Hermenia* Grube, 1856    삼지창비늘갯지렁이 속

3. ***Hermenia acantholepis*** (Grube, 1876)    가시지주갯지렁이

Sōgwip'o (Rho & Lee).

Material examined: Sōgwip'o, 1 specimen, Dec. 12, 1969 (B.J. Rho).

Genus *Lepidasthenia* Malmgren, 1897    긴비늘갯지렁이 속

4. \*\**Lepidasthenia berkeleyae* Pettibone, 1948    버클리긴비늘갯지렁이 (신칭)    (Fig. 2)

*Lepidasthenia longicirrata*: Berkeley. E. & C. Berkeley, 1948 (p.19, fig. 22).

*Lepidasthenia berkeleyae* Pettibone, 1948 (pp. 413-416, fig. 2); 1953 (pp. 53-54, pl. 26, figs. 237-239).

Material examined: Udo, Oct. 8, 1987, 2 specimens (B.J. Rho & J.W. Lee).

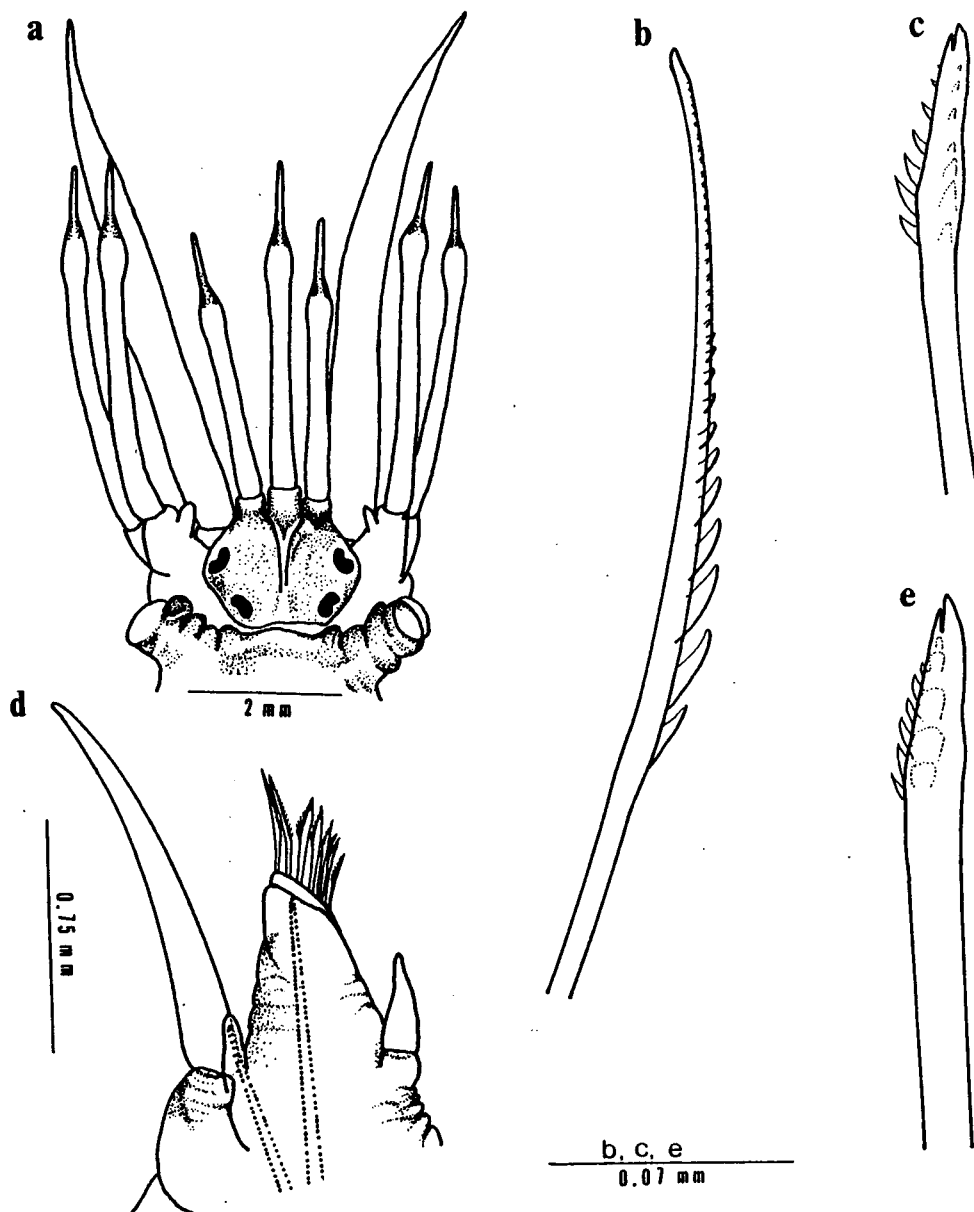


Fig. 2. *Lepidasthenia berkeleyae* Pettibone, 1948. a, Anterior end, in dorsal view; b, Upper neuroseta; c, Last inferior neuroseta; d, Parapodium; e, Middle neuroseta.

**Description:** The body is slender, 49 mm long, consists of 103 segments and 3 mm wide including parapodia. The median antenna has slight subterminal enlargements and filamentous tip. The prostomium is wider than long and carries two pairs of eyes, the anterior pair located just above the widest area of the prostomium and posterior pair located near the rear margin of prostomium. Antennae and palps are without papillae. The basal lobes of the tentacular cirri have an aciculum project in a short achetous process.

Anterior and median parts of the dorsum have a broad transverse dark brown or dark band, towards posterior segments these bands become light brownish. The basal parts of parapodia and cirriphores are darkly pigmented. In the first few segments, the dorsum is complemently covered with a pair of elytra and thereafter, the dorsum is nearly exposed and from the median segments, the dorsum is fully exposed. Elytra is translucent, smooth and arranged on segments 2, 4, 5, 7, 9, .... 23, 26, 32, 34, 37, .... every third segment to the end of the body. One specimen has 41 pairs of elytra, the other 38 pairs.

Elytra has dark pigment, without fringe. Tentacula cirri are of the same shape with the antennae. The anterior three pairs of dorsal cirri are similar to the antennae in shape, subsequent ones are slender; dorsal cirri elongated, tapering, extending to the tips of the setae. The notopodium is a small conical achaetous lobe holding an aciculum. The neuropodium is elongated, with slightly longer presetal lobe than postsetal lobe. Neurosetae consist of two kinds of groups: (1) dorsal group comprising two to three setae in number, which project beyond the others, each provided with numerous short combs, and (2) median and ventral group which are stouter and shorter, with bifurcate tip.

**Remarks:** This species is new to Korean waters and found in the tube together with *Thelepus setosus* which is understood to be a commensal. Berkeley and Berkeley (1948) reported this species as the commensal form with *Praxillela affinis* var. *pacifica*. However, Pettibone (1948) found them within parchmentlike tubes which, he thought, was made by itself. Therefore, the commensalism of this species is to be studied further.

**Distribution:** Northeastern Pacific from east and west Vancouver Island to Puget Sound.

Genus *Lepidonotus* Leach, 1816      예쁜이비늘갯지렁이 속

5. *Lepidonotus elongatus* Marenzeller, 1902      긴예쁜이비늘갯지렁이

Marado (Jae, Lee and Noh, 1987).

**Material examined:** Söngsanp'o, 16 specimens, Oct. 8, 1987 (B.J. Rho & J.W. Lee).

6. *Lepidonotus helotypus* (Grube, 1877)      송곳예쁜이비늘갯지렁이

**Material examined:** Hallim, 1 specimen, Oct. 9, 1987 (B.J. Rho & J.W. Lee).

7. *Lepidonotus squamatus* (Linnaeus, 1767)      비늘예쁜이비늘갯지렁이

Munsöom (Jae, Lee & Noh, 1987); Udo (Jae, Lee & Noh, 1987).

**Material examined:** Piyangdo, 4 specimens, Jun. 20, 1985 (B.J. Rho); Sögwip'o, 1 specimen, Dec. 12, 1969 (B.J. Rho).

Genus *Harmothoe* Kinberg, 1855      눈비늘갯지렁이 속

8. **\*\**Harmothoe hirsuta*** Johnson, 1897      털눈비늘갯지렁이

Munsöom (Jae, Lee & Noh, 1985).

Family Chrysopetalidae Ehlers, 1864 등가시갯지렁이 과  
Genus *Chrysopetalum* Ehlers, 1864 황금비늘갯지렁이 속

9. \**Chrysopetalum occidentale* (Johnston, 1897) 황금비늘갯지렁이  
Mosülp'o (Rho & Lee, 1987).

Family Amphinomidae Savigny, 1818 양목갯지렁이 과  
Genus *Amphinome* Bruguiere, 1789 양목갯지렁이 속

10. \*\**Amphinome rostrata* (Pallas, 1766) 부리양목갯지렁이  
Kap'ado (Rho & Lee, 1987).

Genus *Cloeia* Savigny, 1818 풀갯지렁이 속

11. \*\**Cloeia flava* (Pallas, 1766) 노란풀갯지렁이  
Sögwip'o (Rho & Song, 1975).

Family Phyllodocidae Williams, 1852 부채발갯지렁이 과  
Genus *Genetyllis* Malantren, 1865 납작수염부채발갯지렁이 속

12. *Genetyllis castanea* (Marenzeller, 1879) 납작수염부채발갯지렁이

Material examined: Hallim, 1 specimen, Oct. 9, 1987 (B.J. Rho & J.W. Lee); Söngsanp'o, 1 specimen, Oct. 8, 1987 (B.J. Rho & J.W. Lee).

Family Syllidae Grube, 1850 염주발갯지렁이 과  
Subfamily Exogoninae Rioja, 1925 민염주발갯지렁이 아과 (신칭)  
Genus *Brania* Quatrefages, 1865 곤봉발갯지렁이 속 (신칭)

13. \*\*\**Brania clavata* (Claparède, 1863) 곤봉발갯지렁이 (신칭) (Fig. 3)

*Grube clavata*: fauvel, 1923 (pp. 296-298, fig. 14, a-e); Ushakov, 1955 (p. 193, fig. 56).

*Brania clavata*: Imajima, 1966 (pp. 393-395, fig. 1, a-g); 1981 (p. 272, fig. 13, a-d); Pettibone, 1963 (pp. 133-134, fig. 35b).

Material examined: Söngsanp'o, Jul. 16, 1987, 6 specimens (J.I. Song & J.W. Lee).

Description: The body is 3.2 - 3.5 mm long and 0.3 - 0.35 mm wide including parapodia; they consist of 22 - 27 segments. Prostomium is elliptical, wider than long. Prostomium carries three pairs of eyes; two eye spots near the anterior margin of the prostomium and four eyes in trapezoidal arrangement with the posterior smaller eyes. All three antennae are distally tapered and arise from the anterior part of the prostomium. Palpi are fused.

The pharynx has a subterminal tooth. The tentacular segment has two pairs of tentacular cirri which are similar to the prostomial antennae. Dorsal cirri are slender, distally tapered; they alternate the long and the short. Parapodium contains bidentate compound setae, with long appendage in the superior setae, with short one in the inferiormost. The posterior parapodia each bears, in addition, one simple seta in the superior of the fascicle and the far posterior parapodia two simple setae in the superior and inferior parts of the fascicle.

Remarks: Subfamily Exogoninae from Korea previously known includes only two species, *Exogone verugera* and *Exogone uniformis*. One species, *Brania clavata* is newly added in this report.

The present specimens agree with that of Imajima (1966, 1981) except that the specimens studied

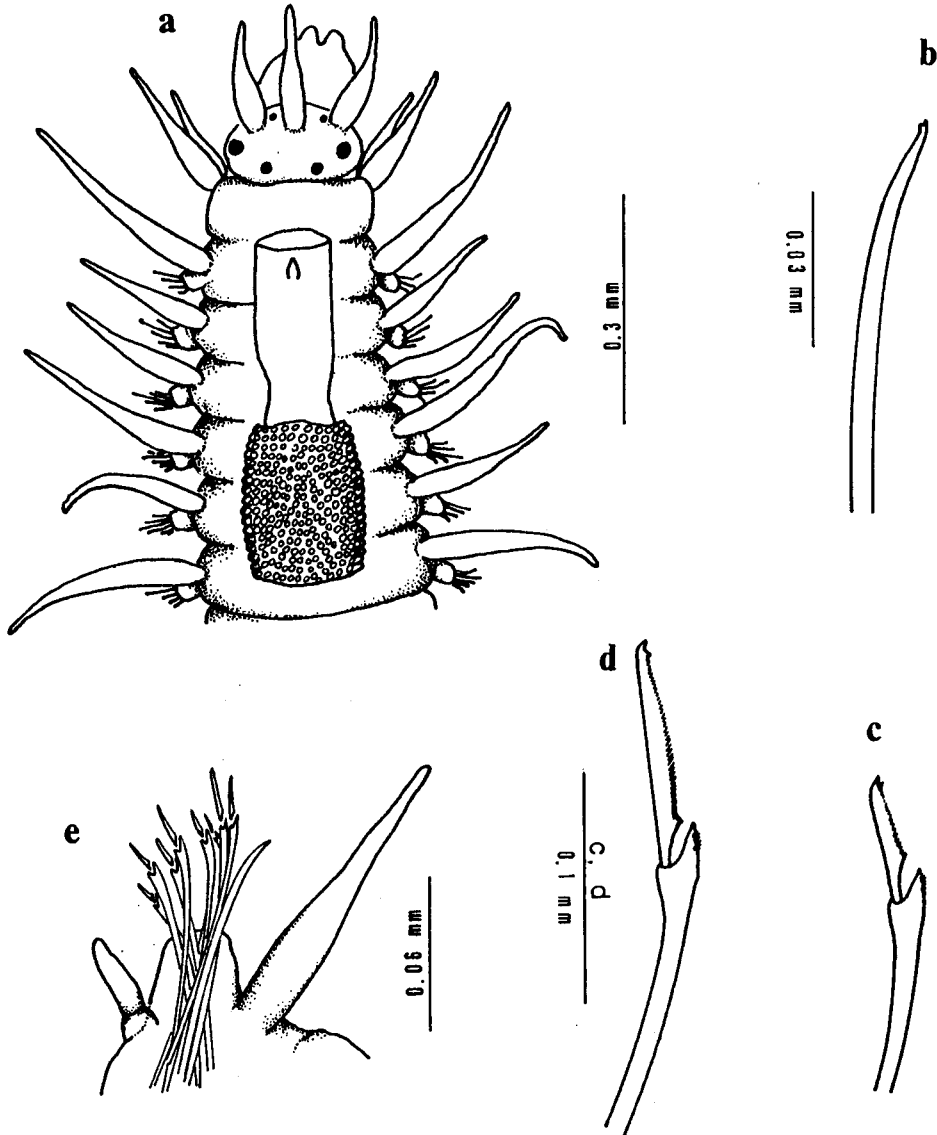


Fig. 3. *Brania clavata* (Claparède, 1863). a, Anterior end, in dorsal view; b, Superior simple seta from posterior parapodium; c, Inferior compound seta; d, Superior compound seta; e. Parapodium.

by Imajima have no eye spots. The present specimens also agree with that of Ushakov (1955), Fauvel (1923) and Pettibone (1963). We found one discrepancy that according to descriptions of Ushakov (1955) and Fauvel (1923), it bears only one simple seta even in posterior parapodia.

The present specimens are collected in sponges and algae.

**Distribution:** France; English channel; Ireland; Mediterranean Sea; Caribbean Sea; Mexico; Massachusetts; Bering Sea; Okhotsk Sea; north Japan Sea; Yellow Sea; Japan.

Genus *Sphaerosyllis* Claparède, 1897      배발갯지렁이 속

14. \*\*\**Sphaerosyllis hirsuta* Ehlers, 1897      배발갯지렁이 (신칭)

(Fig. 4)

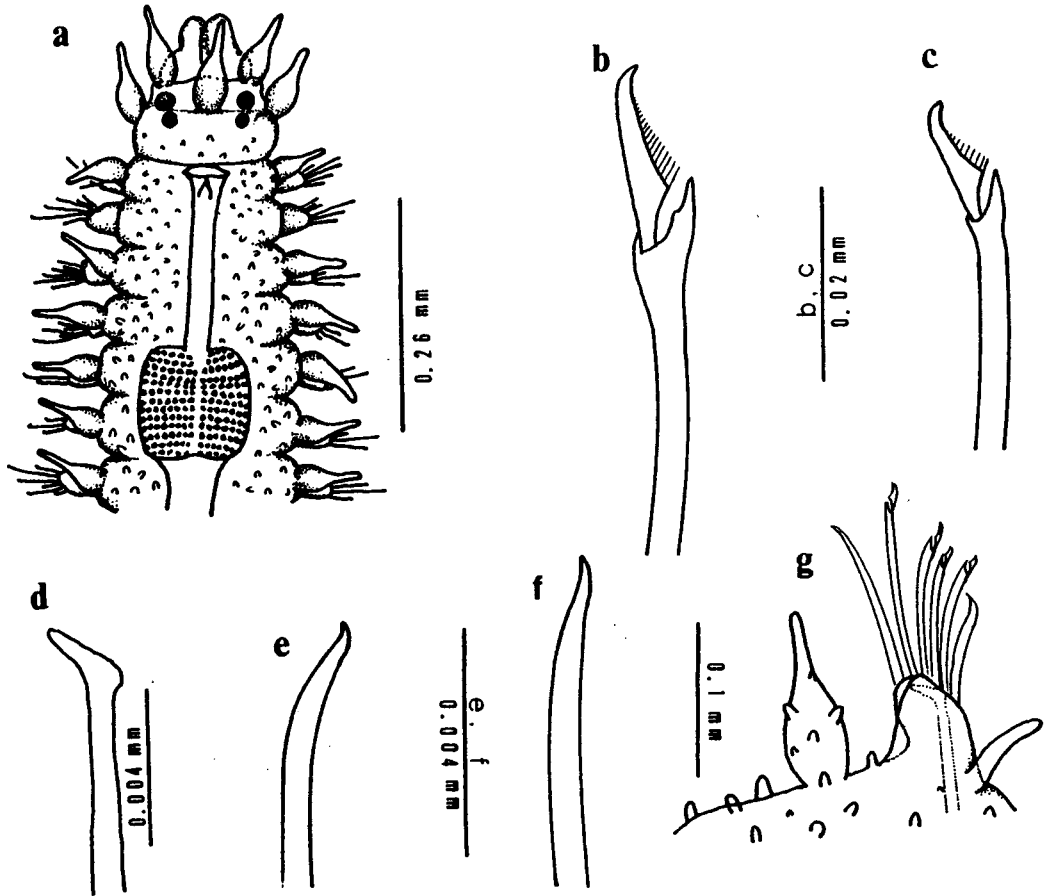


Fig. 4. *Sphaerosyllis hirsuta* Ehlers, 1897. a, Anterior end, in dorsal view; b, Superior compound seta; c, Inferior compound seta; d, Aciculum; e, Inferior simple seta from posterior parapodium; f, Superior simple seta from same parapodium; g, Posterior parapodium.

*Sphaerosyllis hirsuta*: Imajima et Hartmen, 1964 (pp. 116-117, pl. 27, fig. f-1); Hartman, 1964 (pp. 88-89, pl. 28, fig. 1-2); Imajima, 1966 (p. 404); Ushakov, 1955 (p. 190, fig. 55).

**Material examined:** Söngsanp'o, Jul. 16, 1987, 5 specimens (J.I. song & J.W. Lee); Söngsanp'o, Oct. 8, 1987, 28 specimens (B.J. Rho & J.W. Lee).

**Description:** The body is 3.4 - 4 mm long, for 26 - 30 setigerous segments, 0.25 - 0.3 mm wide including parapodia. The surface of the body is strewn with many small papillae. The prostomium is subrectangular; it is broader than long. Prostomial antennae is piriform, thick at the base and slender distally. Median antenna arise between the posterior eyes. lateral antennae arise from the lateral sides of the anterior margin of the prostomium. Two pairs of eyes are reddish. Palpi are large, fused throughout their length. The second setigerous segment lacks dorsal cirri. The pharynx has a mid-dorsal tooth. Gizzard is short. Dorsal cirri resemble the prostomial antennae, and proportionately slender toward posterior of the body. Ventral cirri are cirri-form.

A setal fascicle consist of one simple seta and 4-6 unidentate compound setae. From the first parapodium, simple seta appears at the top superior part of the fascicle, and in a few of posterior parapodium there are two simple setae, one at the top superior and one at the last inferior position. Compound seta has a sharply hooked appendage with serrations along the cutting margin. Compound



seta has long setal appendage in superior part, and this setal appendage are gradually shorter.

**Remarks:** This species is new to Korean waters and this genera is also known for the first time in Korea. For the identification of this species, the authors referred mainly to the reprot of Imajima and Hartman (1964). Also the authors referred to description of Hartman (1964) and Ushakov (1955). The present specimens agree with their report. But there are some differences about the simple seta. In the present specimens, one simple seta appears from the first parapodium and a few of posterior parapodia comprise two simple setae, one at the top superior and one at the last inferior position. According to the description of Imajima and Hartman (1964) the simple seta appears first from the seventh parapodia and they made no mention about two simple setae. Hartman (1964) described that male epitokous individuals have long simple seta on 13th to 33th segments and does not touch the number of simple seta per one parapodium in the posterior part of the body. Ushakov (1955) described only that segments with simple setae are interspersed on the middle and posterior part of the body.

**Distribution:** Strait of Magellan; Antarctic Peninsula; Kerguelen; Kurile Islands; Japan.

Genus *Haplosyllis* Langerhans, 1879      제일염주발갯지렁이 속

15. **\*\**Haplosyllis tentaculata*** (Marion, 1879)      축수염주발갯지렁이  
Sögwip'o (Rho & Lee, 1987); Söngsanp'o (Rho & Lee, 1987)

Genus *Trypanosyllis* Claparède, 1864      툽니염주발갯지렁이 속

16. ***Trypanosyllis taeniaformis*** (Haswell, 1886)      짧은얼룩염주발갯지렁이  
**Material examined:** Söngsanp'o, 1 specimen, Jul. 16, 1987 (J.I. Song & J.W. Lee).

Genus *Typosyllis* Langerhans, 1879      참염주발갯지렁이 속

17. ***Typosyllis nipponica*** Imajima, 1966      녹색염주발갯지렁이  
**Material examined:** Sögwip'o, 1 specimen, Sept. 5, 1986 (C.J. Sim).

18. **\*\**Typosyllis aciculata orientalis*** Imajima and Hartman, 1964      족자염주발갯지렁이  
Söngsanp'o (Rho & Lee, 1987).

**Material examined:** P'yosön, 1 specimen, Jul. 16, 1987 (J.I. Song & J.W. Lee); Söngsanp'o, 2 specimens, Oct. 8, 1987 (B.J. Rho & J.W. Lee).

19. ***Typosyllis fasciata*** (Malmgren, 1967)      긴수염염주발갯지렁이  
**Material examined:** Cheju-hang, 1 specimen, Oct. 9, 1987 (B.J. Rho & J.W. Lee).

20. **\*\**Typosyllis variegata***      참염주발갯지렁이  
Söngsanp'o (Rho & Lee, 1987).

Family Nereidae Johnston, 1865      참갯지렁이 과

Genus *Ceratonereis* Kimberg, 1866      빨참갯지렁이 속

21. **\*\**Ceratonereis hircinicola*** (Eisig, 1870)      털참갯지렁이  
Sögwip'o (Rho & Lee, 1982).

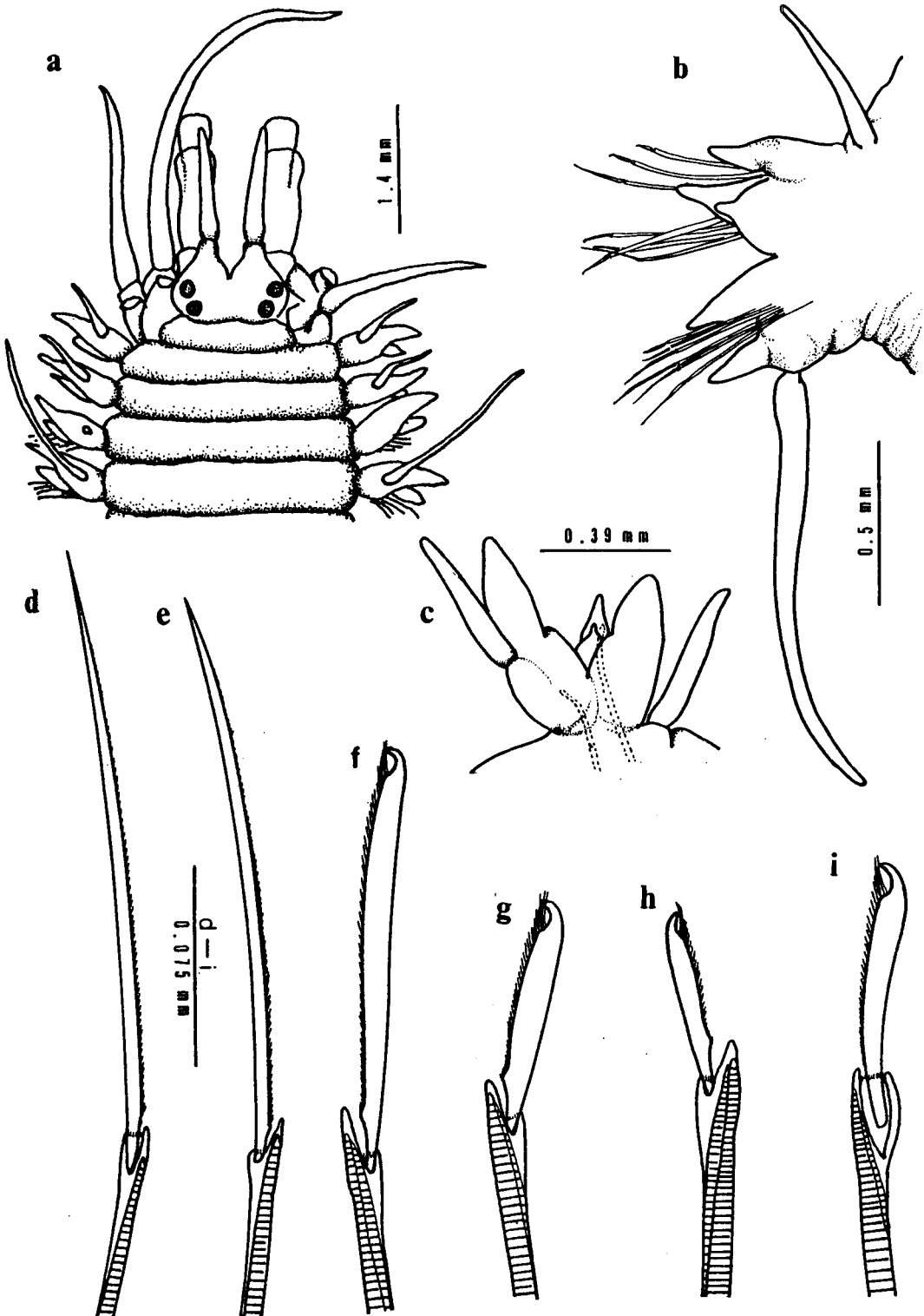


Fig. 5. *Ceratoneis singularis* Treadwell, 1929. a, Anterior end, in dorsal view; b, Twentieth parapodium; c, First parapodium; d, Sesquigomph spiniger; e, Heterogomph spiniger; f, Low neuropodial heterogomph falciger; g, Median neuropodial heterogomph falciger; h, Upper neuropodial falciger; i, Notopodial sesquigomph falciger.

22. \*\*\**Ceratonereis singularis* Treadwell, 1929      빨참갯지렁이 (신칭)      (Fig. 5)

*Ceratonereis mirabilis*: Hartman, 1968 (p. 505, figs. 1-4); Day, 1967 (p. 324, fig. 14, 10 a-g).

*Ceratonereis singularis*: Perkins, 1980, (pp. 17-26, figs. 7-10).

**Material examined**: Sögwip'o, Sept. 5, 1986, 2 specimens (C.J. Sim).

**Description**: The body is 15 mm long for 25 setigerous segments, 3.5 mm wide including parapodia. It is reddish creamy, however, without color marking. The prostomium is broader than long, incised anteriorly. The palpi extend slightly beyond ends of the antennae and about 2 times and long as the prostomium; they have short terminal joints (Perkins describes palps with long subcylindrical palpophores and short rounded palpostyles). Two pairs of eyes are large, red and in trapezoidal arrangement.

The first and second setigerous segments carry uniramous notopodium and short, slender dorsal cirri. The other posterior ones have biramous notopodia and extremely long dorsal cirri extending far beyond the end of the setae. Ventral cirri similar to dorsal cirri in the shape. Notopodium has sesquigomph spinigers from the third prapodium and long-appendaged sesquigomph falciger from the seventeenth parapodium. Neuropodium has heterogomph falcigers, spinigers and sesquigomph spinigers. Falcigers comprise undentate tips, rounded distally and also have hairs along the cutting edge.

**Remarks**: This species is new to Korean waters. Though the present specimens are incomplete they do not show the development of parapodial lobes along the body, other important characteristics such as the shape of the prostomium, the setae and parapodium agree with the description and figures of Perkins. Dorsum of anterior segments have 2 transverse bands in his report, meanwhile the present specimens without color marking. The present specimens agree with the description and figures of Hartman (1968) and Day (1967) as *C. mirabilis*. By Day's report, the falcigers of notosetae were described as homogomph faciger, but in our opinion it is sesquigomph faciger.

**Distribution**: From Mexico to Panama in the eastern Pacific Ocean; North Carolina; eastern and southern Florida; the Gulf of Mexico; Colombia in the Western Atlantic.

23. \**Ceratonereis erythraeensis* (Fauvel, 1919)      붉은집참갯지렁이

Sögwip'o (Paik, 1977).

Genus *Cheilonereis* Benham, 1916      목도리참갯지렁이 속

24. \**Cheilonereis cyclurus* (Harrington, 1897)      목도리참갯지렁이

Söwip'o (Paik, 1982).

Genus *Platinereis* Kinberg, 1866      좁쌀이빨참갯지렁이 속

25. *Platinereis bicanaliculata* (Baird, 1863)      두점참갯지렁이

**Material examined**: Songsanp'o, 1 specimen, Jul. 10, 1965 (B.J. Rho); Sögwip'o, 19 specimens, Sept. 5, 1986 (C.J. sim).

Genus *Perinereis* Kinberg, 1866      눈썹참갯지렁이 속

26. *Perinereis vancaurica tetradentata* Imajima, 1972      두토막눈썹참갯지렁이

**Material examined**: Cheju-hang, 1 specimen, Oct. 9 1987 (B.J. Rho & J.W. Lee).

**27. *Perinereis cultrifera*** (Grube, 1840) 한토막눈섭참갯지렁이

Material examined: Sögwip'o, 1 specimen, Sept. 5, 1986 (C. J. Sim).

**28. *Perinereis nuntia*** (Savigny, 1818) 눈섭참갯지렁이

P'yoson (Rho & Lee, 1987); Sogwip'o (Paik, 1974).

Material examined: Cheju-hang, 6 specimens, Oct. 9, 1987 (B.J. Rho & J.W. Lee); Piyangdo, 14 specimens, Jun. 19, 1985 (B.J. Rho); Sögwip'o, 1 specimen, Feb. 16, 1976 (B.J. Rho); Sögwip'o, 1 specimen, Feb. 16, 1976 (B.J. Rho); Sögwip'o, 1 specimen, Jul. 8, 1972 (B.J. Rho).

Genus *Pseudonereis* Kinberg, 1866 반쪽이빨참갯지렁이 속

**29. *Pseudonereis variegata*** (Grube, 1856) 둥근이빨참갯지렁이

Material examined: P'yosön, 1 specimen, Jul. 16, 1987 (J.I. Song & J.W. Lee).

Genus *Neanthes* Kinberg, 1866 참갯지렁이 속

**30. *Neanthes japonica*** (Izuka, 1908) 참갯지렁이

Sögwip'o (Paik, 1977).

Material examined: Cheju-hang, 21 specimens, Oct. 9, 1987 (B.J. Rho & J.W. Lee).

Genus *Nereis* Linnaeus, 1758 원참갯지렁이 속

**31. *Nereis heterocirrata*** Treadwell, 1931 굵은앞더듬이참갯지렁이

Material examined: Hallim, 1 specimen, Oct. 9, 1987 (B.J. Rho & J.W. Lee); Söngsanp'o, 1 specimen, Jul. 16, 1987 (J.I. Song & J.W. Lee).

**32. *Nereis neoneanthes*** Hartman, 1948 큰깨점박이참갯지렁이

Material examined: Hallim, 1 specimen, Oct. 9, 1987 (B.J. Rho & J.W. Lee).

**33. *Nereis multignatha*** Imajima et Hartman, 1964 깨점박이참갯지렁이

Sögwip'o (Rho & Lee, 1987).

Material examined: Udo, 3 specimens, Oct. 8, 1987 (B.J. Rho & J.W. Lee); Sögwip'o, 2 specimens, Sept. 5, 1986 (C.J. Sim); Kap'ado, 1 specimen, Jun. 16, 1985 (B.J. Rho); Sögwip'o, 2 specimens, Aug. 3 1970 (B.J. Rho).

**34. *Nereis pelagica*** Linnaeus, 1758 원참갯지렁이

Sögwip'o (Rho & Lee, 1987).

Material examined: Udo, 3 specimens, Oct. 8, 1987 (B.J. Rho & J.W. Lee); Söngsanp'o, 1 specimen, Oct. 8, 1987 (B.J. Rho & J.W. Lee); Supsöm, 1 specimen, Jul. 14, 1987 (J.I. Song & J.W. Lee); Sögwip'o, 1 specimen, Sept. 5, 1986 (C.J. Sim); Kap'ado, 1 specimen, Jun. 18, 1985 (B.J. Rho).

Genus *Tylorrhynchus* (Grube, 1869) 실참갯지렁이 속

**35. *Tylorrhynchus heterochaetus*** (Quatrefages, 1865) 실참갯지렁이

Sögwip'o (Paik, 1979).

Family Glyceridae Grube, 1850 미갯지렁이 과

Genus *Glycera* Savigny, 1818 참미갑갯지렁이 속

36. *Glycera rouxi* Audouin & Milne-Edwards, 1833 어리미갑갯지렁이  
Material examined: Hallim, 1 specimen, Oct. 9, 1987 (B.J. Rho & J.W. Lee).

Family Onuphidae Kinberg, 1865 집갯지렁이 과

Genus *Onuphis* Audouin & Milne-Edwards, 1833 수염집갯지렁이 속

37. **\**Onuphis willemoesii*** (McIntosh, 1885) 수염집갯지렁이  
Sŏgwip'o (Rho & Song, 1974).

Family Eunicidae Savigny, 1818 털갯지렁이 과

Genus *Eunice* Cuvier, 1817 두수염털갯지렁이 속

38. **\**Eunice antennata*** Savigny, 1817)) 고리털갯지렁이  
Saesŏm (Rho & Lee, 1987).

39. **\**Eunice aphroditois*** (Pallas, 1788) 왕털갯지렁이  
Sŏngsanp'o (Paik, 1976).

40. *Eunice ovalifera* Fauvel, 1936 타원털갯지렁이  
Sŏgwip'o (Paik, 1976).

Genus *Marphysa* Quatrefages, 1865 바위털갯지렁이 속

41. *Marphysa sanguinea* (Montagu, 1815) 바위털갯지렁이  
Material examined: Hallim, 1 specimen, Oct. 9, 1987 (B.J. Rho & J.W. Lee); Piyangdo, 1 specimen, Jun. 19, 1985 (B.J. Rho).

Genus *Lysidice* Savigny, 1818 숨털갯지렁이 속

42. *Lysidice collaris* Grube, 1870 노란숨털갯지렁이  
Saesŏm (Rho & Lee, 1987).

Material examined: Supsŏm, 1 specimen, Jul. 14, 1987 (J.I. Song & J.W. Lee); Sŏngsanp'o, 3 specimens, Oct. 8, 1987 (B.J. Rho & J.W. Lee).

Family Lumbrineridae Malmgren, 1867 송곳갯지렁이 과

Genus *Lumbrineris* Blainville, 1828 송곳갯지렁이 속

43. *Lumbrineris brevicirra* (Schmarda, 1861) 짧은다리송곳갯지렁이  
Udo (Rho & Lee, 1987); Sŏngsanp'o (Rho & Lee, 1987).

Material examined: P'yosŏn, 6 specimens, Jul. 16, 1987 (J.I. Song & J.W. Lee); Hallim, 4 specimens, Oct. 9, 1987 (B.J. Rho & J.W. Lee); Sŏngsanp'o, 1 specimen, Oct. 8, 1987 (B.J. Rho & J.W. Lee); Hwasun, 3 specimens, Feb. 8, 1986 (J.W. Lee); Supsŏm, 5 specimens, Feb. 15, 1976 (B.J. Rho & J.I. Song).

Family Arabellidae Hartman, 1944 홍점갯지렁이 과

Genus *Arabella* Grube, 1850 홍점갯지렁이 속

44. *Arabella iricola* (Montagu, 1804) 홍점갯지렁이

Söngsanp'o (Rho & Lee, 1987); Sögwip'o (Rho & Song, 1974).

**Material examined:** Hallim, 5 specimens, Oct. 9, 1987 (B.J. Rho & J.W. Lee); Piyangdo, 1 specimen, Jun. 19, 1985 (B.J. Rho); Sögwip'o, 1 specimen, Feb. 16, 1976 (B.J. Rho).

Family Dorvillidae Chamberlin, 1919      구슬수염갯지렁이 과  
Genus *Dorvillea* Parfitt, 1866      구슬수염갯지렁이 속

**45. *Dorvillea rudolphi*** (Delle Chiaje, 1825)      루돌프구슬수염갯지렁이

*Staurocephalus rudolphi*: Fauvel, 1923 (p. 446, fig. 178 a-p); Pettibone, 1963 (pp. 231-233, fig. 60).

*Dorvillea rudolphi*: Day, 1967 (p. 457, fig. 17, 21 d-j).

*Dorvillea articulata*: Hartman, 1968 (p. 817, figs. 1-5).

*Dorvillea matsushimaensis*: Lee, 1976 (p.62, fig. 7 D-G); Paik, 1982 (pp. 56-57, pl. 19 a-d).

*Schistomerigos rudolphi*: George and Hartman-Schröder, 1985 (pp. 202-203, figs. A-E).

**Material examined:** Söngsanp'o, Oct. 8, 1987, 1 specimen (B.J. Rho & J.W. Lee).

**Remarks:** The present species agrees with descriptions by Fauvel (1923), Pettibone (1963), Day (1967), Hartman (1968) and George and Hartman-Schröder (1985). In our specimen, dorsal cirri are biannulated, neuropodium comprise forked setae with extremely unequal branches and capillary setae in the superior group, and compound falciger in the inferior group. It is also in agreement with that of Lee (1976) and Paik (1982), as *Dorvillea matsushimaensis*. However, the description and figures of Lee and Paik differ from the original description of Okuda and Yamada (1954) which was referred to by them. The specimens identified by Okuda and Yamada have no forked seta.

**Distribution:** Atlantic Ocean (the English Channel, the Mediterranean Sea, the Black Sea).

## ABSTRACT

The specimens of the errant polychaetes collected from ten localities in Cheju Island during 1969 to 1987 are identified into 31 species in 9 families. The total number of the errant polychaetous species which include the previous records and the present materials in Cheju Island are 45 species in 11 families. Among them, 4 species (*Lepidasthenia berkeleyae*, *Barania clavata*, *Sphaerosyllis hirsusta* and *Ceratonereis singularis*) are newly known from Korean waters and the description and figures of these 4 species are given. Of 45 species, 13 species are reported only in Cheju Island. Twenty-two (48.89%) species of 45 are warm-temperature form, 10 species (22.22%) cosmopolitan form, 8 species (17.78%) tropical form, 4 species (8.89%) cold temperature form, and 1 species (2.22%) boreal form. This is in accord with the environmental factor that Cheju Island is strongly influenced by Kurushio Warm Current.

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