

New Record of a Freshwater Hydra and a Marine Hydromedusa (Cnidaria, Hydrozoa) in Korea

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ABSTRACT

Hydra and hydromedusa specimens were collected from the Jisanchon Stream in Kyonggi-do (Pyongtaek-shi) and the coasts of Geoje-do Island (Jangmok-ri), Korea during the period July 1999-June 2000. They were identified into *Hydra magnipapillata* Itô, 1947 (Hydridae, Athecatae) and *Phialidium folleatum* (McCrary, 1857) (Campanulariidae, Leptomedusae) respectively. *H. magnipapillata* is blackish or light brown color, its cylinder-shaped trunk reaches to 20 mm long and 0.5-0.6 mm wide in fully extended, and has generally 5-6 highly delicate long tentacles. *P. folleatum* is a small marine hydromedusa, below 5 mm wide and has a minute statocyst between successive tentacles.

Key words: taxonomy, hydromedusa, hydra, Korea

INTRODUCTION

A freshwater hydroid, *Craspeacusta sowerbii* (Limnomedusae: Olindiidae) and seven marine hydromedusae (Anthomedusae: Cladonematidae, Clavidae, Rathkeidae, Spirocodonidae; Leptomedusae: Dipleurosomatidae, Eirenidae; Limnomedusae: Olindiidae) have so far been reported by Park (1996, 1998, 1999) from Korea.

Some freshwater hydra and marine hydromedusa specimens were collected from the Jisanchon

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Stream in Kyonggi-do (Pyongtaek-shi) and the coasts of Geojedo Island (Jangmok-ri) during the period July 1999-June 2000. They were identified into *Hydra magnipapillata* Itô, 1947 (Athecatae, Hydridae) and *Phialidium folleatum* (McCrary, 1857) (Leptomedusae, Campanulariidae) respectively. They are new to the Korean fauna.

The redescriptions with their light and stereo photomicrographs are given.

SYSTEMATIC ACCOUNTS

Order Athecatae 민컵히드라충목

Family Hydridae 히드라과(신칭)

***Hydra magnipapillata* Itô, 1947 유두히드라 (신칭) (Figs. 1A-C, 2A-E)**

Hydra magnipapillata Itô, 1947, p. 6, text-figs. 1-3; 1952, p. 202, fig. 1; 1954, p. 287; 1956, p. 65; Grayson, 1971, p. 439.

Material examined. Upper portion of Jisanchon Stream (Pyongtaek-shi), a small stream in

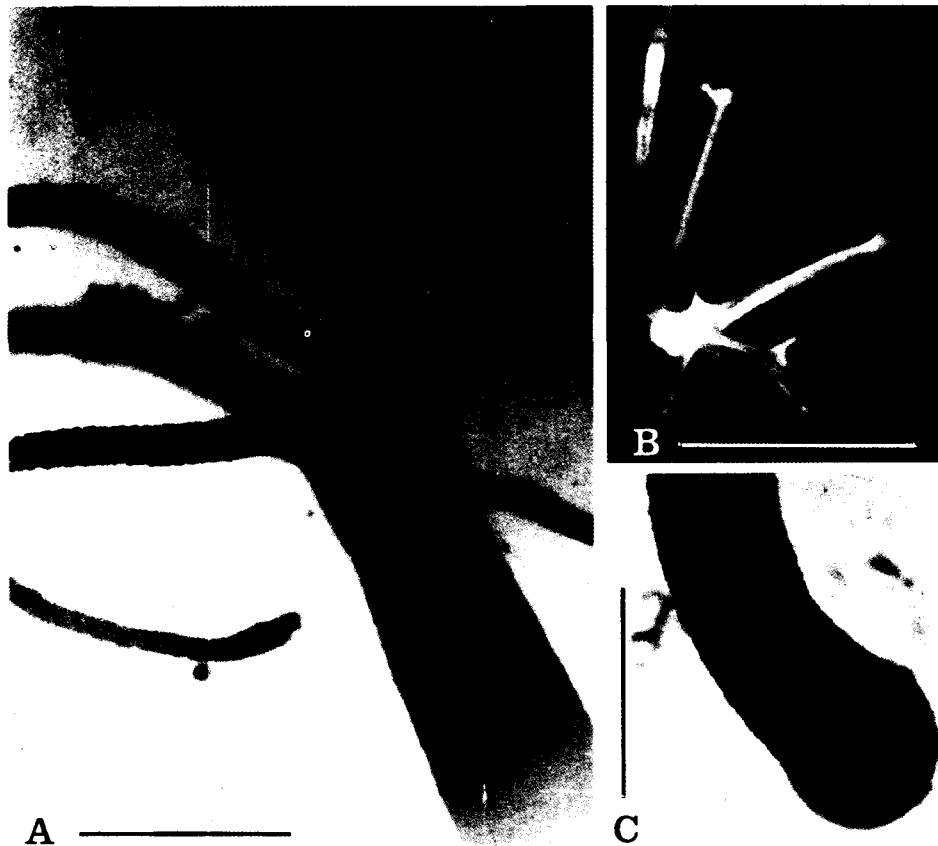


Fig. 1. *Hydra magnipapillata*. A, head with contracted tentacles and round hypostome; B, young polyps with buds; C, basal portion of body. Scale bars = 0.3 mm (A, C), 5 mm (B).

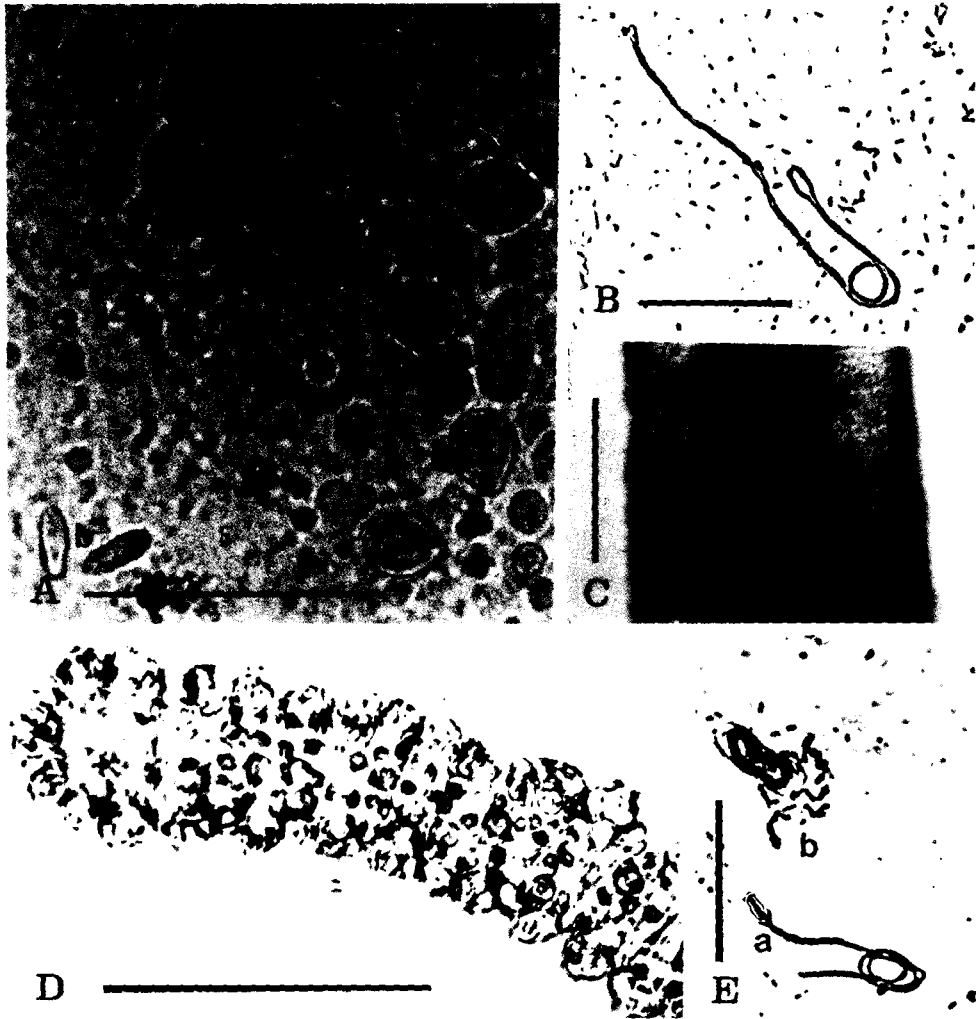


Fig. 2. *Hydra magnipapillata*. A, undischarged nematocysts (a, penetrant, b, glutinant, c, volvent); B, discharged volvent; C, body surface with nematocysts D, part of contracted tentacle armed with nematocysts; E, discharged nematocysts (a, discharged glutinant; b, discharged volvent). Scale bars = 0.05 mm (B, D, E), 0.1 mm (A, C).

Kyonggi-do (Pyongtaek-shi), 10 Jun. 2000, J. H. Park, attached to plants and gravels immersed in water.

Description. Body reached about 20 mm long and 0.5-0.6 mm wide in fully extended, relatively large, blackish or light brown color, surface smooth, cylinder-shaped and with round hypostome. Tentacles very long, 3-6 times as long as body, usually 5-6 but sometimes 4 or 7 in number, highly delicate with nematocysts. Nematocysts three types, large pear-shaped penetrant, elongated oval-shaped glutinant and small pyriform volvent. Gonads not examined. Asexual buds produced from one-third below of body.

Remarks. The cylinder-shaped body and delicate long tentacles are characteristics of this species.

Distribution. Korea, Japan.

Order Leptomedusae 연(軟)해파리목

Family Campanulariidae 증히드라과

***Phialidium folleatum* (McCrary, 1857) 얇은컵해파리 (신칭) (Figs. 3A-D, 4A-F)**

Epenthesis folleata McCrary, 1857, p. 191.

Clytia folleata: Mayer, 1910, p. 264, pl. 31, figs. 9, 10, pl. 33, figs. 1-3.

Phialidium folleatum: Kramp, 1961, p. 166.

Material examined. Geojedo Island (Jangmok-ri), 21 Jul., 5 Aug. 1999, W. J. Lee.

Description. Medusae small, below 5 mm wide, hemispherical or flatter as it growth. Mesoglea thick at center and thin at margin. Manubrium short, reached about half as long as high of bell, with 4 oral lobes arranged in cross. Radial canals 4 in number, simple and narrow. Bell margin

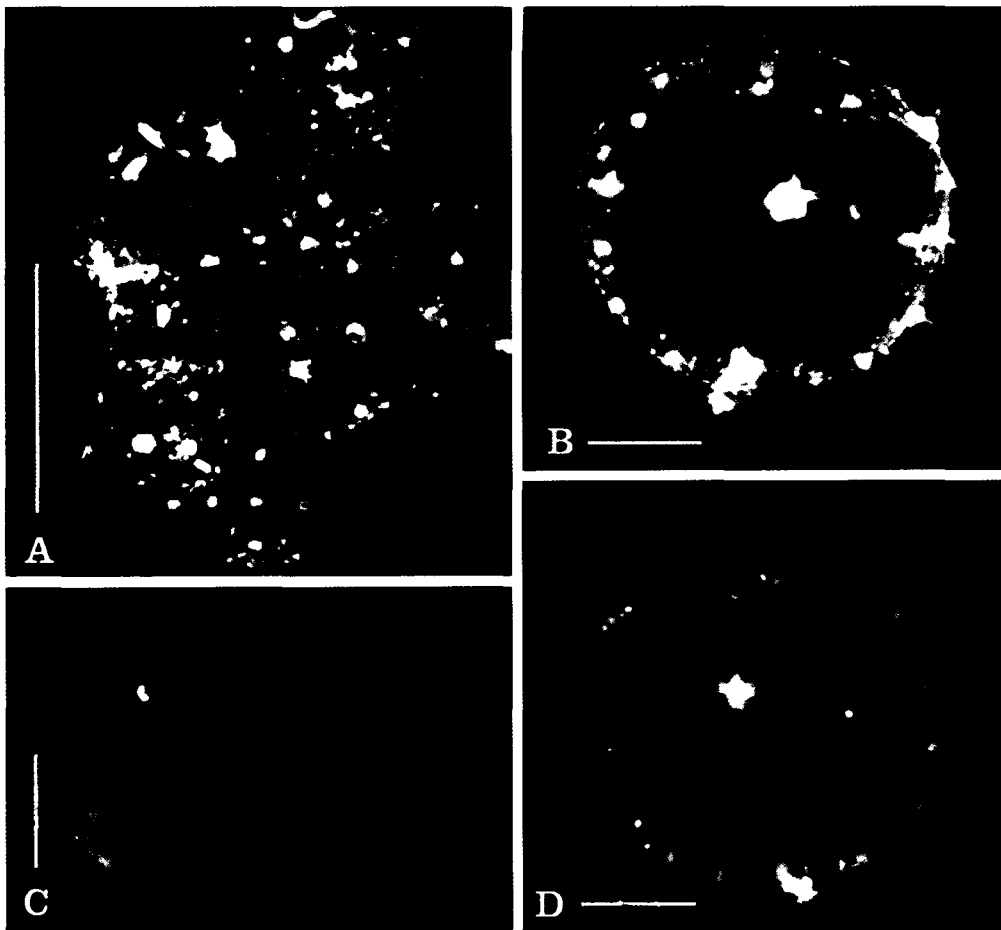


Fig. 3. *Phialidium folleatum*. A, medusae of various size; B, aboral view; C, lateral view; D, oral view. Scale bars = 1 mm (B-D), 5 mm (A).

with 16 filiform tentacles in common but variable in its number according to size. Tentacles simple, with large tentacular bulb. A minute statocyst located between successive tentacles. Velum narrow

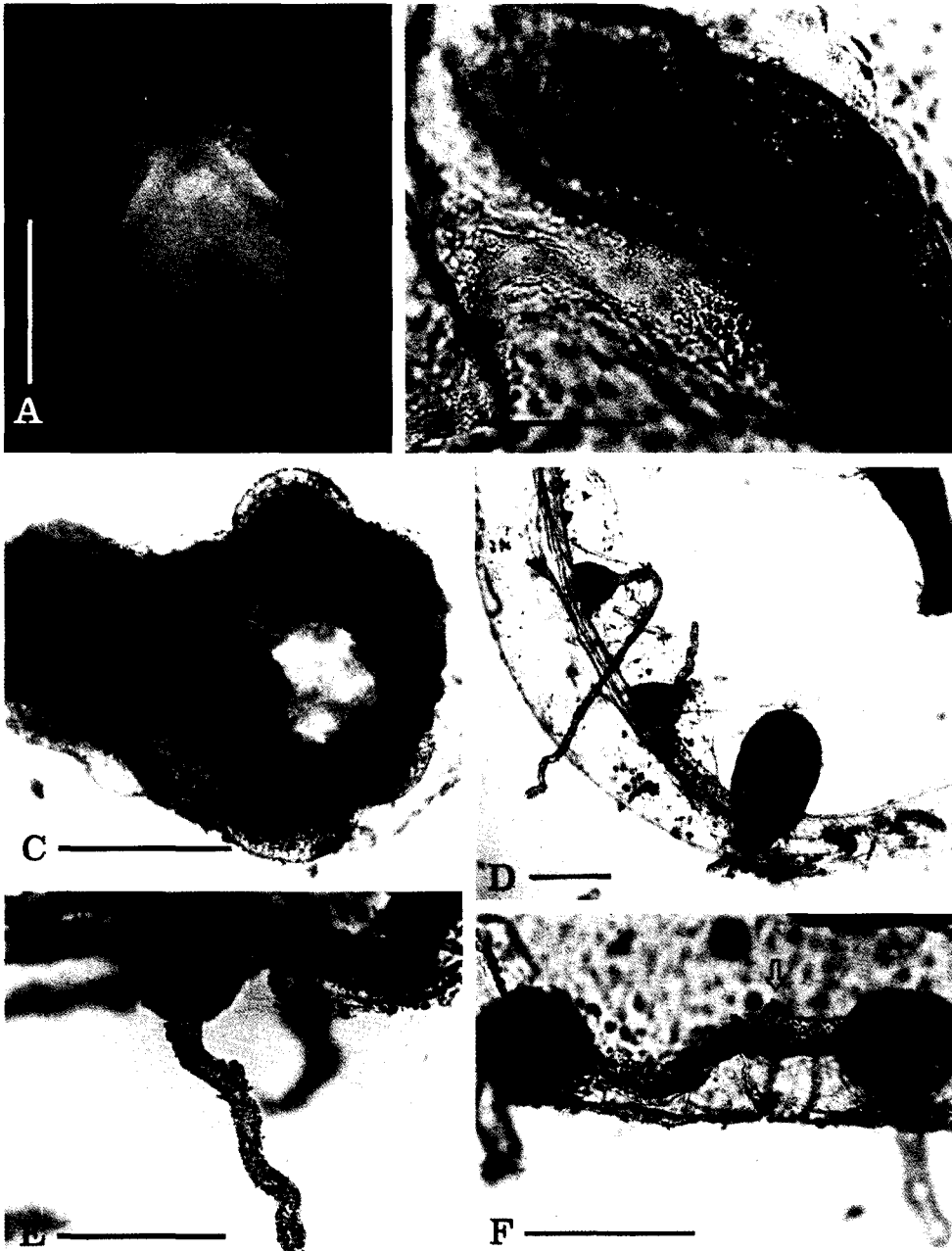


Fig. 4. *Phialidium folleatum*. A, four oral lobes arranged in cross; B, male gonad; C, female gonad; D, part of bell margin showing male gonad, tentacles and velum; E, short tentacle with large tentacular bulb; F, the arrow indicates a statocyst located between successive tentacles. Scale bars = 0.1 mm (B-F), 0.2 mm (A).

and simple. Gonad developed upon each radial canal at near margin, sac-shaped.

Remarks. This species is similar to *Phialidium hemisphaericum* in feature and size, but distinguished from it by having a statocyst located between successive marginal tentacles (Mayer, 1910).

Distribution. Coasts of North America from Cape Hatteras southward to the West Indies, New England, Tortugas (Florida), Woods Hole.

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요 약

2000년 6월 경기도 평택시의 지산천과, 1999년 7월 거제도 장목리에서 담수산 히드라 및 해산 히드라해파리가 채집되었다. 담수산 히드라는 유두히드라 (*Hydra magnipapillata*)로, 해산 히드라해파리는 얇은컵해파리 (*Phialidium folleatum*)로 동정되었다. 이들은 모두 한국미기록종으로 판명되어 재기재하고 보고한다.