

Three New Records of Hydroids (Cnidaria: Hydrozoa) in Korean Waters

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ABSTRACT

Some hydroid specimens were collected from 10-14 m deep of Munseom (Jejudo Is.) on 22 June 2007, and from 20-25 m deep of Nagokkkottdongsan (Uljin) on 10 Jan. 2008 by SCUBA diving. Among the identified species, the following three species, *Solanderia spinosa* (Carter, 1892), *Lafoea dumosa* (Fleming, 1828) and *Rhizocaulus verticillatus* (Linnaeus, 1758) were turned out to be new to the Korean fauna.

Key words: taxonomy, hydroids, Hydrozoa, Korea

INTRODUCTION

As results of previous taxonomic studies on hydroids in Korea, 149 species/subspecies of 19 families in three orders have been known up to date. Some hydroid specimens were collected by SCUBA diving from 10-14 m deep of Munseom (Jejudo Is.) on 22 June 2007, and from 20-25 m deep of Nagokkkottdongsan (Uljin) on 10 Jan. 2008. Among the identified species, the following three species, *Solanderia spinosa* (Carter, 1892), *Lafoea dumosa* (Fleming, 1828) and *Rhizocaulus verticillatus* (Linnaeus, 1758) were turned out to be new to the Korean fauna.

The pictures of parts of colony were taken under the light microscope (Nikon Microscope ECLIPSE 80i). The whole colonies were taken with camera, Canon EOS 300D.

As a result of this taxonomic study the Korean hydroid fauna consists of 152 hydroid species/subspecies of 19 families in three orders.

SYSTEMATIC ACCOUNTS

Phylum Cnidaria
Class Hydrozoa
Order Athecatae
Family Solanderiidae

¹**Solanderia spinosa* (Carter, 1892) (Fig. 1A-F)

Ceratella spinosa: Spencer, 1891, p. 21.

Solanderia spinosa: Vervoort, 1962, p. 535.

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Material examin. Munseom (Jejudo Is.), 22 Jun. 2007 (S.J. Hwang).

Description. Colony rich purple-red color, about 10 cm long, 5 cm wide, composed of chitinous fibre, of which meshes more or less oblong, passing into prominent longitudinal lines on branchlets. Hydranth club shaped, with capitate tentacles and milky white. Hydrophore spatulate shaped, sporting hydranth on its base. Gonophore not examined.

Remarks. This species is similar to *S. procumbens* (see Vervoort, 1962) in the colony color and semispatular hydrophore, but it is distinguished from the latter by oblong and longitudinal line of chitinous fibre.

Distribution. Korea, Port Natal.

Order Thecatae

Family Lafoëidae

²**Lafoea dumosa* (Fleming, 1828) (Fig. 2A-D)

Lafoea dumosa: Hincks, 1868, p. 200, pl. 41, figs. 1, 1a; Stechow, 1919, p. 30, fig. A1; 1923, p. 10; Totton, 1930, p. 158, fig. 14; Fraser, 1944, p. 221, pl. 45, fig. 205; Vervoort, 1946, p. 197, figs. 83a, 84; Yamada, 1959, p. 50; Naumov, 1969, p. 276, fig. 21, 4V, pl. 1, fig. 1; Hirihito, 1995, p. 126, fig. 36a-c, pl. 8, fig. A; Schuchert, 2000, p. 413; 2001, p. 67, figs. 54-55, p. 157, fig. 16; Galea, 2007, p. 49, fig. 11A-E.

Material examined. Nagokkkottdongsan (Uljin), 10 Jan. 2008 (S.H. Kim) 20-25 m deep by SCUBA diving.

Description. Colony large and erect, straggly, almost without main trunk loosely and irregularly branched, polysiphonic component tubes parallel, each bearing hydrotheca at irregular intervals. Hydrotheca long tubular, margin without

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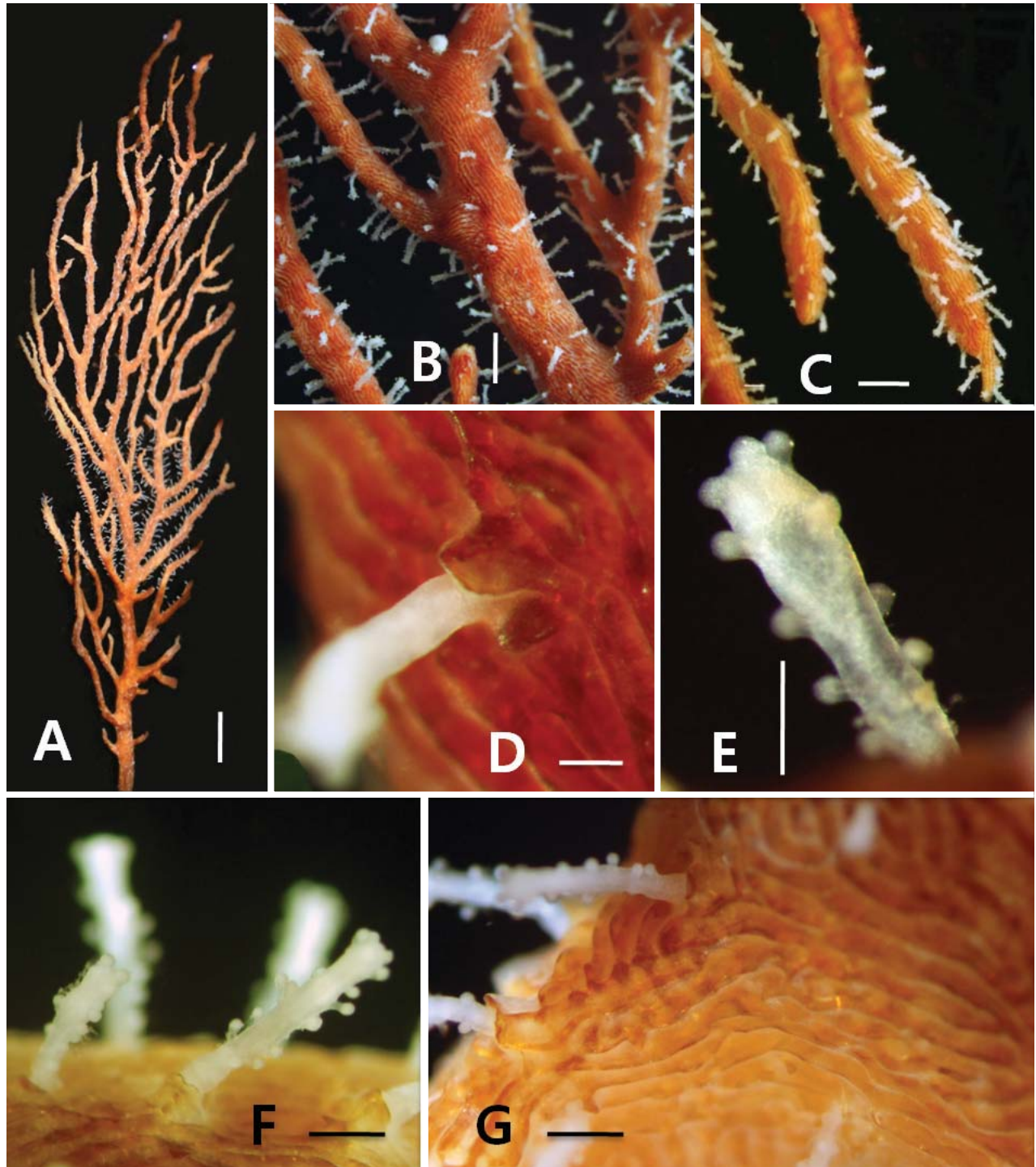


Fig. 1. *Solanderia spinosa*. A, colony; B, branching pattern; C, apical portions of branches; D, spatulated hydrophore on base of hydranth; E, F, hydranths; G, surface showing spines and grooves. Scale bars=10 mm (A), 1 mm (B, C), 100 μ m (D), 500 μ m (E), 300 μ m (F, G).

teeth, tapering below, sometimes asymmetrically, without pedicel, so that sessile type, diaphragm and operculum lack-

ing. Gonotheca rarely produced, coppinia.

Remarks. This species is similar to *L. fruticosa* (see Vervoort,

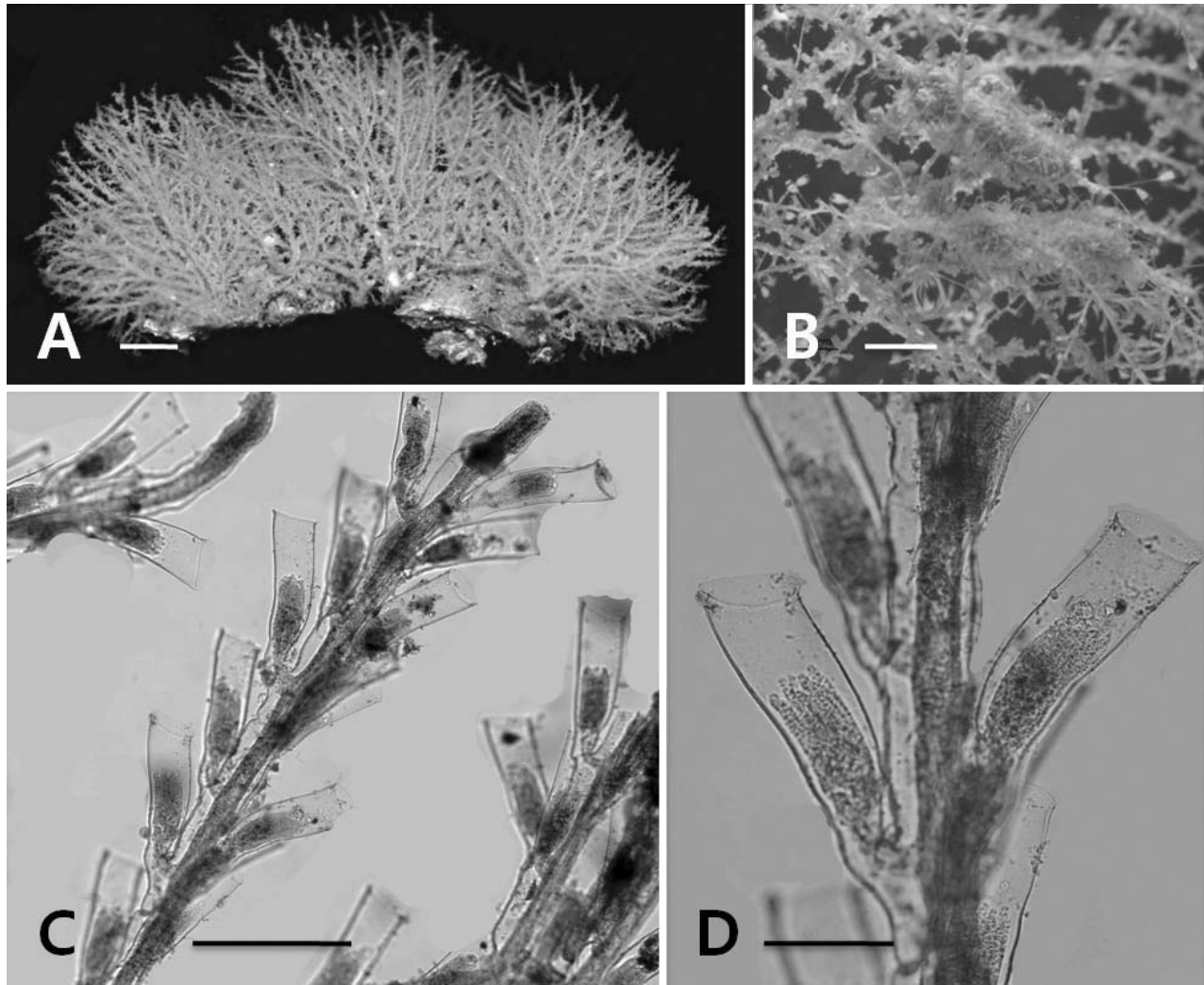


Fig. 2. *Lafoea dumosa*. A, whole colony; B, coppinia; C, parts of branches with hydrothecae; D, hydrothecae. Scale bars=10 mm (A), 2 mm (B), 500 μ m (C), 200 μ m (D).

1945) in the shape of colony, hydrotheca and coppinia. But this species is distinguished from the latter by lacking the hydrothecal pedicel.

Distribution. Near cosmopolitan.

Family Campanulariidae

¹**Rhizocaulus vertivillatus* (Linnaeus, 1758) (Fig. 3A-E)

Campanularia verticillata: Hincks, 1868, 167, pl. 32, figs. 1, 1a.

Rhizocaulus verticillatus: Stechow, 1919, p. 852; Cornelius, 1982, p. 67, fig. 7.

Verticillina verticillata: Naumov, 1969, p. 291, fig. 159.

Material examined. Nagokkotttdongsan (Uljin), 10 Jan. 2008 (S.H. Kim) 20-25 m deep by SCUBA diving.

Description. Stem erect, composed of many parallel tubes, each bearing long straight smooth hydrothecal pedicels arranged in verticils of 4-6 in number at regular intervals, unbranched but sometimes branched irregularly. Hydrotheca bell-shaped, rather large and deep, with 10-16 blunt teeth. Hydrothecal pedicel more or less annulated at top and bottom. Gonotheca bottle-shaped, with smooth, narrow and long neck and very short stalk.

Remarks. This species is similar to *R. chinensis* (see Rho and Park, 1979) in polisiphonic main stem and unbranched hydrothecal pedicel. But it is distinguished from the latter

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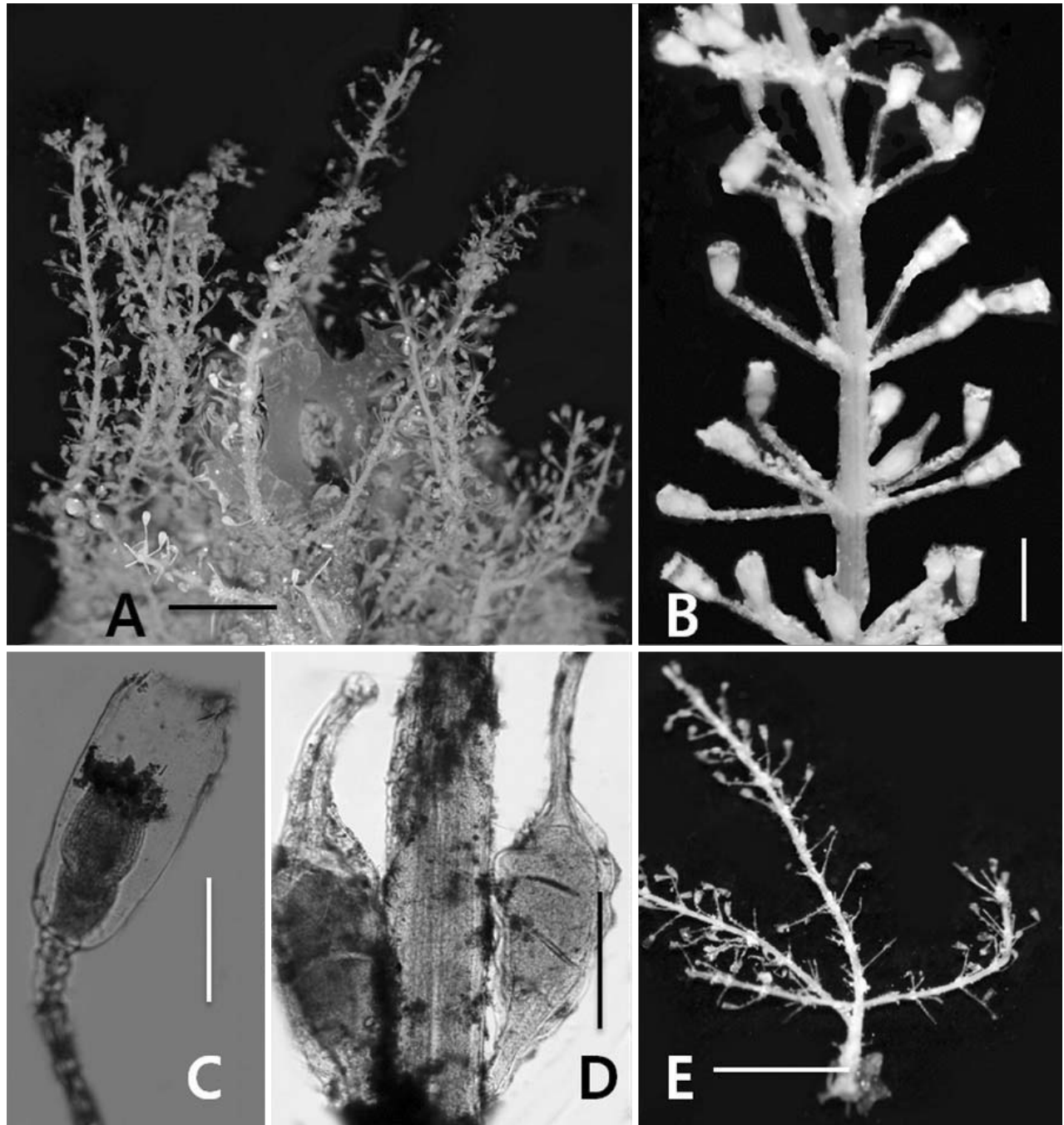


Fig. 3. *Rhizocaulus verticillatus*. A, colonies; B, verticils of hydrothecal pedicels; C, hydrotheca; D, gonothecae; E, branching colony. Scale bars=10 mm (A, E), 1 mm (B), 500 μ m (C, D).

with semiverticillate arrangement of hydrothecal pedicels and lacking the neck of gonotheca.

Distribution. Korea, Norway, Denmark and Sweden, Barents Sea, Greenland, Roscoff (NW France), Britain, Netherlands, Belgium.

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