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Two New Records of Siphonophores (Hydrozoa: Siphonophora) in Korea

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ABSTRACT

Some siphonophores were collected from the Korea Strait, 33°59'N-129°17'E and Yeosu with Issacs-Kidd Midwater trawl net in Sep. 2002. They were identified into *Diphyes chamissonis* Huxley, 1859 and *Abylopsis eschscholtzi* (Huxley, 1859) in the suborder Calycophorae of the order Siphonophora, respectively. They are new to the Korean fauna. As a result of this work, six siphonophores of four families have been reported in Korea.

Key words: taxonomy, Hydrozoa, Siphonophora, Korea

INTRODUCTION

The siphonophore has a polymorphic organization with many types of structure, each of which shows a different function. Unlike most other cnidarians, the siphonophores do not have an alternation of generations consisting of an attached polypoid stage and a free-swimming medusa, but derivatives of both stages are attached to the stem of the free floating or swimming colonies (Kirkpatrick and Pugh, 1984).

Up to date the taxonomic studies on the siphonophores in Korea have not been actively done. Four siphonophore species were reported in Korea by Park (2002), Park and Song (2004) and

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Park and Won (2004).

Some siphonophores were collected from the Korea Strait, 33° 59'N-129° 17' E and Yeosu with Issacs-Kidd Midwater trawl net in Sep. 2002. They were sorted and preserved in about 5% formalin after narcotization with menthol powders. And the observations for identification were done with stereo- and lightmicroscope. The photographes were taken with Nikon stereomicroscope SMG-U with Digatal Still Camera DXM 120.

SYSTEMATIC ACCOUNTS

Order Siphonophora

Suborder Calycophorae

Family Diphyidae

***Diphyes chammisonis* Huxley, 1859 (Fig. 1A-D)**

Diphyes chammisonis: Totton and Bargmann, 1965, p. 156, figs. 93-94; Pugh, 1999, p. 489, fig. 3.70; Gao et al., 2002, p. 114, fig. 58; Namikawa and Soyama, 2004, p. 71, photo.

Material examined. Korea Strait (33° 59'N-129° 17'E), 24 Sep. 2002 (J. H. Won); Yeosu, Sep. 2002 (J. H. Won).

Description. Anterior nectophore relatively slender, blunt apically, about 11-13 mm long. Five longitudinal ridges, reaching apex. Ventral side twisted a litttle from apex to right. Hydroecium relatively deep, reaching ut to mid height of nectosac, extending well below margin of ostium, with deep basal notch in ventral wall. Somatocyst narrow and short, nearly same wide, not reaching apex. Nectosac slender, gradually narrowing toward apex of nectophore. Ostial teeth three, pointed and equal size. Eudoxid bract roughtly conical, about 6-7 mm long from apex to margin of hydroecial flap. Neck-shield large, with a club-shaped phyllocyst. Dorsal and sutural surface well rounded off, meet with dorsal wall at apex. Gonophore resembled with anterior nectophore, with serrated longitudinal ridges, mouth flap and ostial teeth. Eudoxid phase with two gonophores was examined.

Remarks. *D. chamissonis* resembls with *D. bojani* (see Park and Won, 2004) in the shape of anterior nectophore. But it is distinguished from later by the deeper hydroecium, the shorter somatocyst and the blunt apex.

Distributon. Korea, Japan, East China Sea, Great Barrier Reef, Indo Pacific, South Africa.

Family **Abylidae

****Abylopsis eschscholtzi* (Huxley, 1859) (Fig. 2A-D)**

Agaliomoides eschscholtzi: Huxley, 1859, p. 59; Lens and van Riemsdijk, 1908, p. 25, pl. III, figs. 29-31; Moser, 1925, p. 334, pl. 2, figs. 5-6 pl. 21, figs. 1-2.

Abylopsis eschscholtzi: Totton and Bargmann, 1965, p. 218, pl. 40, figs. 2, 4, 6; Gao et al., 2002, p. 173, fig. 99.

Material examined. Korea Strait (33° 59'N-129° 17'E), 24 Sep. 2002 (J. H. Won).

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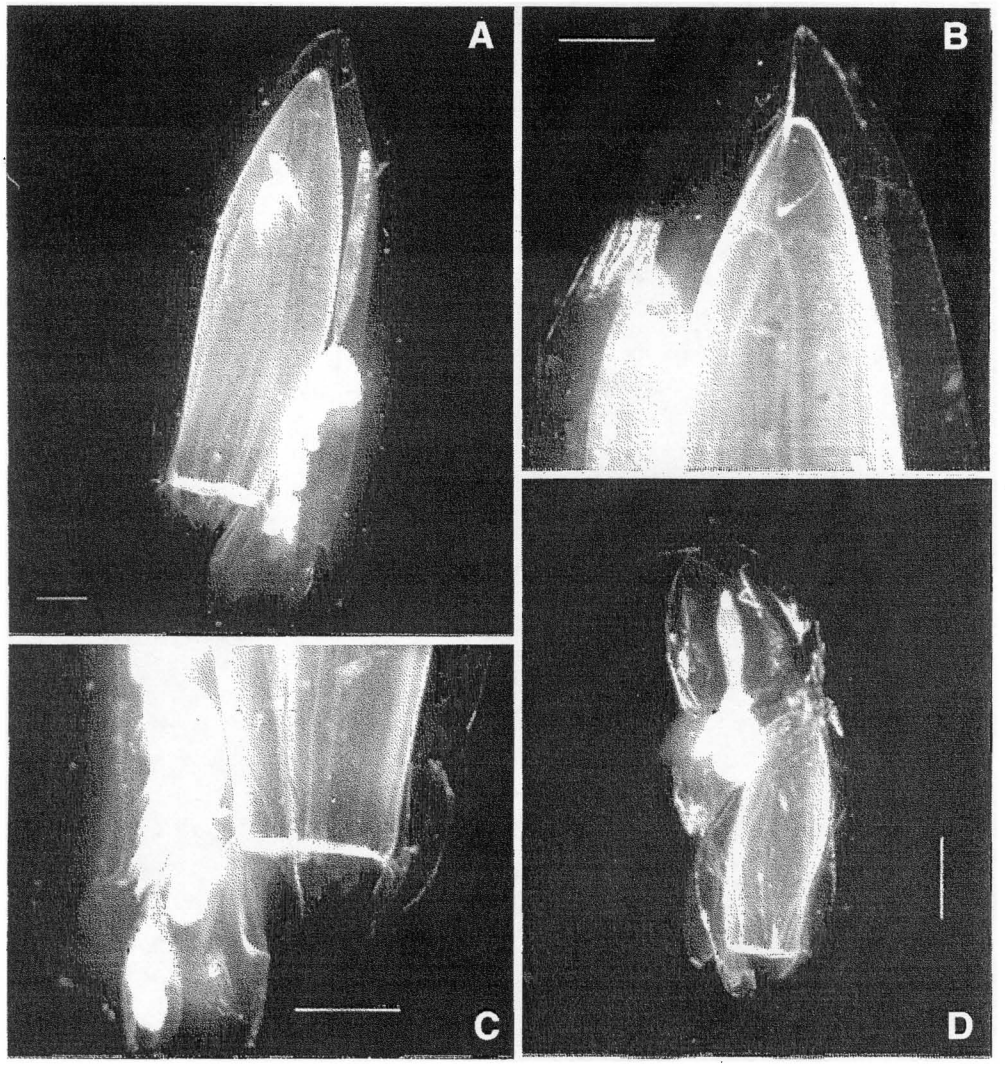

Fig. 1. *Diphyes chamissonis*. A, lateral view of anterior nectophore in polygastric phase; B, apex of nectophore; C, ostial teeth and mouth flap; D, lateral view of whole body in eudoxid phase. All scale bars = 1 mm.

Description. No polygastric phase examined. Eudoxid bract small, distinct pentagonal prismatic shaped in ventral and dorsal views. Upper facet about 1.8 mm long, upper right and left facets about 1.8 mm long, lower right and left facets about 2 mm long. From upper fecet to lower junction of lower right and left facets about 3 mm long. All ridges of two facets serrated. Phyllocyst short.

Remarks. Not being examined the polygastric phase of *A. eschscholtzi*, it is easy to distinguish this species from related other species by the shape of bract of eudoxid phase. This species is similar to *A. tetragona* (see Totton and Bargmann, 1965) in the shape of eudoxid bract. But the

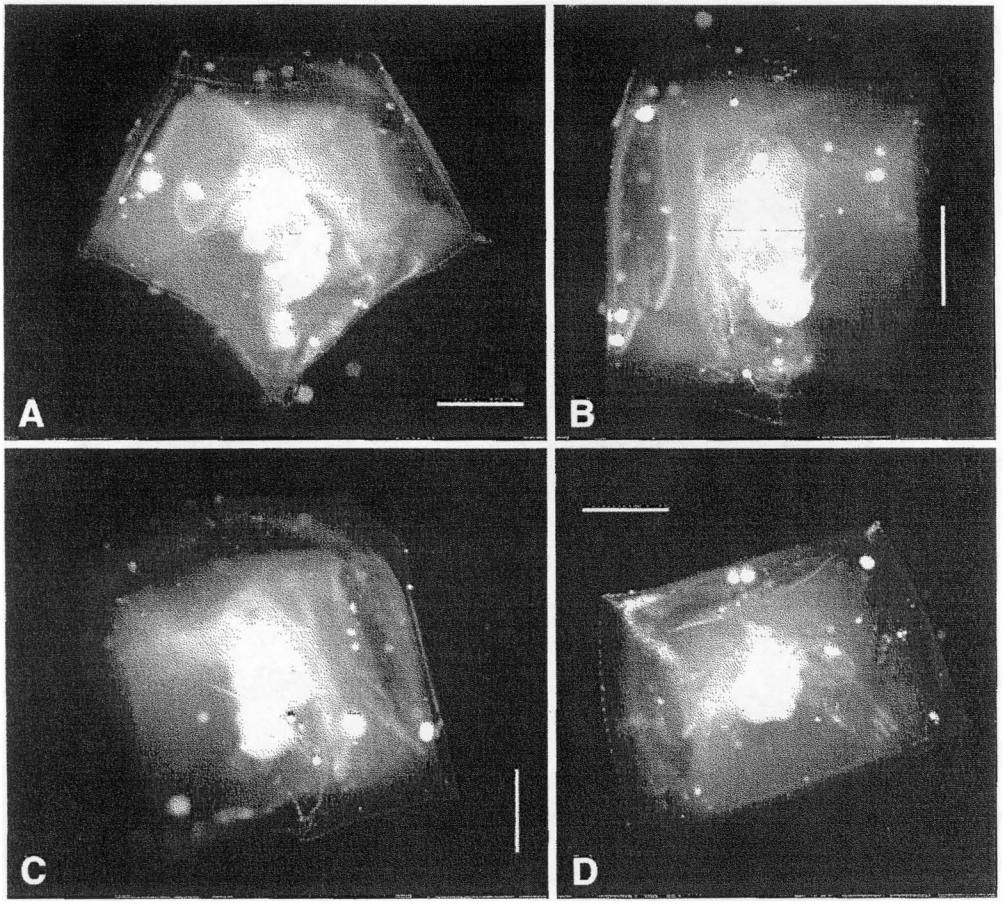

Fig. 2. *Abylopsis eschscholtzi*. A, ventral view of bract in eudoxid phase; B, left lateral view of the same; C, right lateral view of the same; D, frontal view of the same. All scale bars = 1 mm.

lateral ridges of dorsal facet toward apical facet instead of being of vertical as in *tetragona*.

Distribution. Korea, Japan, East China Sea, Pacific Ocean, Indian Ocean.

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요 약

대한해협(33°59′N-129°17′E)과 여수에서 2002년 9월에 Issacs-Kidd Midwater 저인망으로 채집된 관해파리류를 동정·분류한 결과 관해파리목의 두컵관해파리아목에 속하는 카미소두겹관해파리(*Diphyes chamissonis*)와 에시솔츠심해컵해파리(*Abylopsis schscholtzi*)가 각각 한국 미기록종으로 밝혀져 재기재하여 보고한다. 본 연구의 결과 한국산 관해파리류는 4과 6종이 된다.