

CONSEIL INTERNATIONAL POUR L'EXPLORATION DE LA MER

Zooplankton.

Sheet 55.

SIPHONOPHORA

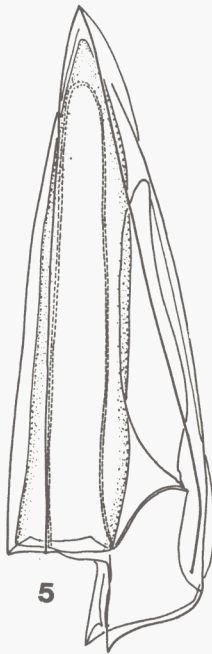
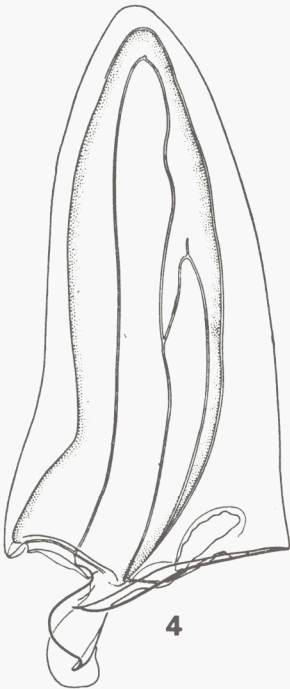
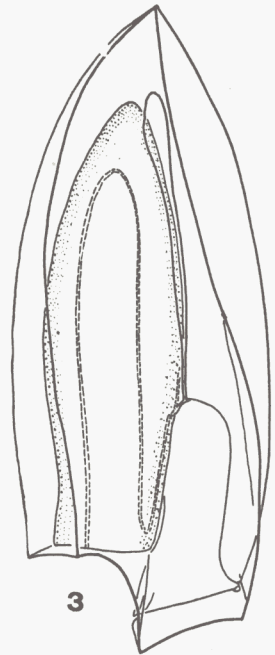
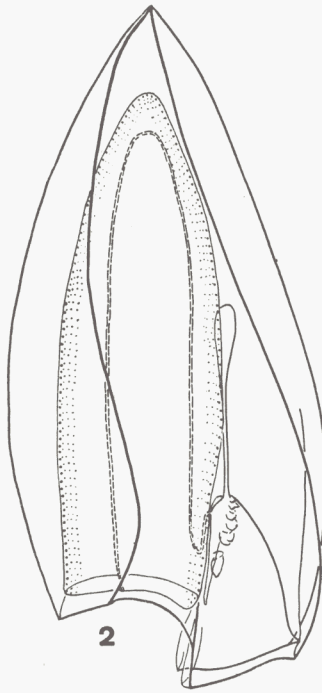
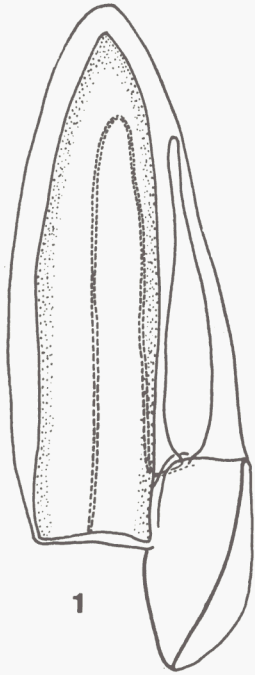
SUB-ORDER: CALYCOPHORAE

Family: Diphyidae

**GENERA: DIMOPHYES, MUGGIAEA
SULCULEOLARIA, CHELOPHYES
EUDOXOIDES**

(By A. K. Totton and J. H. Fraser)

1955.



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|-------------------------------|--------------------------------------|
| 1. <i>Dimophyes arctica</i> . | 4. <i>Sulcoleolaria biloba</i> . |
| 2. <i>Muggiaea kochi</i> . | 5. <i>Chelophyes appendiculata</i> . |
| 3. <i>M. atlantica</i> . | 6. <i>Eudoxides spiralis</i> . |

(Figure 4 from T o t t o n, 1954; remainder original).

Family DIPHYIDAE

Some genera of Calycophorae in which the heteromorph larval nectophore is caducous. In *Sulculeolaria* spp. there may be a succession of four definitive nectophores; in *Chelophyes*, *Dimophyes* and *Eudoxoides* a succession of two; and in *Muggiaea* only one definitive nectophore. In *Sulculeolaria* the eudoxids are not freed till sexual maturity, if freed at all, and are not known in a free state, whilst in *Dimophyes* they appear to be freed early on.

Species	Number of ridges on anterior bell	Hydroecium	Somatocyst	Basal wing	Inferior bell
1. <i>Dimophyes arctica</i> (Chun)	Absent	Deep, open at ventral side	Long and fusiform	Single	Present
2. <i>Muggiaea kochi</i> (Will)	5	Deep	Half length of nectosac	Divided, corners not produced	Absent
3. <i>Muggiaea atlantica</i> Cunningham	5	Deep	Whole length of nectosac	Divided, corners not produced	Absent
4. <i>Sulculeolaria biloba</i> (Sars)	Absent	Very shallow	Very short and ovate	Two distinct lamellae	Present
5. <i>Chelophyes appendiculata</i> (Eschscholtz)	5 at base, one very short leaving 4 at apex	Medium	Large and fusiform	Divided, corners not greatly produced	Present
6. <i>Eudoxoides spiralis</i> (Bigelow)	5, spirally twisted	Medium	Half length of nectosac	Divided, corners distinctly produced	Absent
<i>Lensia</i> spp. (see following sheet, No. 56)	5 or more	Very shallow	Varies	Divided, corners not produced	Present

(A separate sheet will deal with the sub-family Chuniphyinae).

Further Information on Identification

1. *Dimophyes arctica*: Chun, 1897, p. 20, Pl. 1, Figs. 1—5; Moser, 1925, Pl. 26, Figs. 1—9.
2. *Muggiaea kochi*: Chun, 1882, p. 1155, Pl. 17 (as *Monophyes primordialis*, *Muggiaea kochii* and *Eudoxia eschscholtzii*); Moser, 1925, p. 100, Pl. 1, Fig. 1.
3. *Muggiaea atlantica*: Cunningham, 1892, p. 212, Figs. 1—2; Bigelow, 1911, p. 187, Pl. 7, Fig. 1; Pl. 9, Figs. 7—8; Moser, 1925, Pl. 1, Fig. 5; Russell, 1938, p. 441, Figs. 1—6.
4. *Sulculeolaria biloba*: Sars, 1846, Pl. 7, Figs. 16—21 (as *Diphyes biloba*); Bigelow, 1911, Pl. 5, Figs. 8, 9, 9 bis (as *Galeolaria australis*, this is the *Galetta biloba* or *G. australis* of several recent authors); Totton, 1954, Discovery Rep., Vol. XXVII, Figs. 49—51.
5. *Chelophyes appendiculata*: Bigelow, 1911, p. 248, Pl. 7, Figs. 5—6, Pl. 8, Figs. 7—8, Pl. 9, Fig. 6, Pl. 10, Fig. 6, Pl. 11, Fig. 1 (as *Diphyes appendiculata*) non Fig. 9, Pl. 11 (— *Eudoxoides mitra*).
6. *Eudoxoides spiralis*: Bigelow, 1911, p. 249, Pl. 7, Fig. 4, Pl. 8, Figs. 1—2, Pl. 9, Fig. 3, Pl. 11, Fig. 4 (as *Diphyes spiralis*); Moser, 1925, Pl. 1, Figs. 6—11 (as *Muggiaea spiralis*); Totton, 1932, Fig. 30.

Distribution

Species
(Species in brackets occur only exceptionally)

Gulf of Bothnia	—
Gulf of Finland	—
Baltic proper	—
Belt Sea	—
Kattegat	—
Skagerak	—
Northern North Sea	1, 4, 5
Southern North Sea	—
English Channel (eastern)	—
English Channel (western)	2, 3
Bristol Channel and Irish Sea	2, 3
South and West Ireland and Atlantic ..	1, 2, 3, 4, 5, 6
Faroe Shetland Area	1, (3), 4, 5, (6)
Faroe Iceland Area	1, (4), (5)
Norwegian Sea	1, (4), (5)
Barents Sea	1

References to Work on Biology

are so few and scattered that they have been disregarded for this sheet.

References.

- Bigelow, H. B., 1911. Mem. Mus. comp. Zool. Harv., **38**,
2, pp. 173—402.
- Chun, C., 1882. Sitzungsber. Preuss. Akad. Wiss., **52**, p.
1155.
- Chun, C., 1897. Ergebn. Plankton-Exped. Humboldt-Stift.,
2, K. b.
- Cunningham, J. T., 1892. J. Mar. biol. Ass. U. K., **2**, 1,
pp. 212—15.
- Moser, F., 1925. Dtsch. SüdpolExped., **17**, (Zool.), 9,
pp. 1—541.
- Russell, F. S., 1938. J. Mar. biol. Ass. U. K., **22**, pp.
441—46.
- Sars, M., 1846. *Fauna littoralis Norvegiae* . . . , **1**, pp. 31
—46.
- Totton, A. K., 1932. Gt. Barrier Reef Exped., **4**, 10, pp.
317—74.
- Totton, A. K., 1954. Discovery Rep., **27**, pp. 1—162.