CONSEIL INTERNATIONAL POUR L'EXPLORATION DE LA MER

Zooplankton.
Sheet 57.

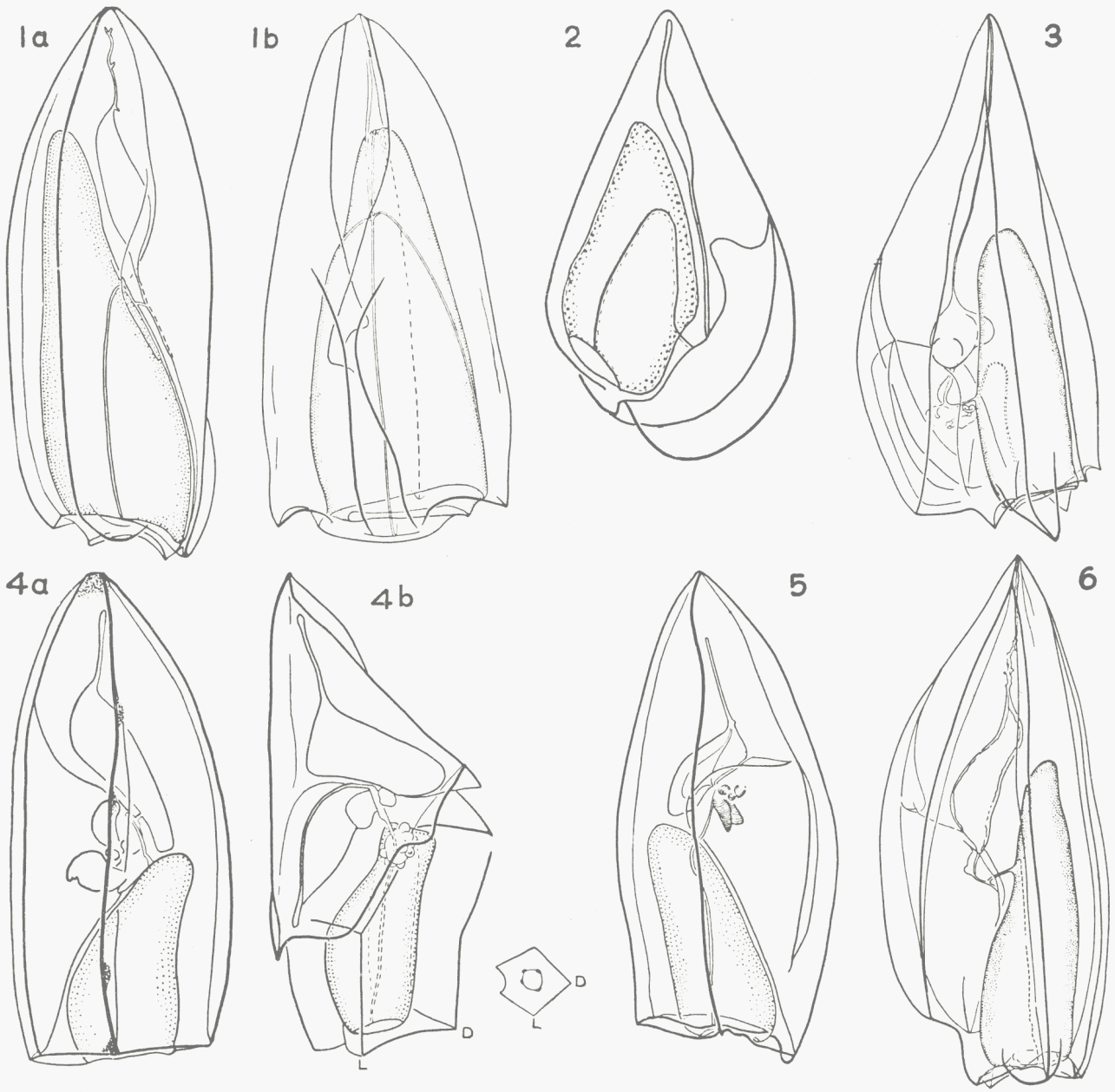
SIPHONOPHORA

SUB-ORDER: CALYCOPHORAE

Family: Chuniphyidae

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

1955.



1a. *Crystallophyes amygdalina* (anterior nectophore).
1b. *Crystallophyes amygdalina* (posterior nectophore).
2. *Clausophyes ovata* (anterior nectophore).
3. *Chuniphyes multidentata* (anterior nectophore).
4a. *Heteropyramis maculata* (anterior nectophore).
4b. *Heteropyramis maculata* (eudoxid).
5. *Thalassophyes crystallina* (anterior nectophore).
6. *Chuniphyes moserae* (anterior nectophore).

Fig. 2 after M o s e r, 1925, others from T o t t o n, 1954.

Family CHUNIPHYIDAE, Fam. nov.

Calycophorae whose anterior nectophores retain the characteristic relationship between the somatocyst and the nectosac that is found in the larval (caducous) nectophores of some Diphyidae, but which have not reached the stage found in the Abylidae where the part of the bell containing the somatocyst has grown down on the opposite side of the nectosac to form a deep hydroecium. In the Chuniphyidae, and some Diphyidae, the anterior nectophores are probably the larval ones retained. The posterior nectophore which is homologous with the first definitive one of most Diphyidae has a somatocyst. The pedicular canal of the anterior nectophore is near the apical end. The hydroecium is open ventrally. They are all mid-water or deep-water forms, still not fully known. The stems and appendages (gastrozooids very small) are rarely seen.

Species	Nectosac of anterior nectophore	Relative position of the dilated part of somatocyst	Other characters
1. *Crystallophyes amygdalina* Moser	Extends about ¾ total length	Level with end of nectosac	All five ridges meet at or near the apex
2. *Clausophyes ovata* (Keferstein & Ehlers)	Extends about ⅔ total length	Extends beyond end of nectosac	Has a very characteristic shape, see Fig. 2
3. *Chuniphyes multidentata* Lens & van Riem.	Extends distinctly more than ½ total length	About ⅔ length of nectosac, and with pronounced lateral dilations	Two lateral ridges join distinctly before apex. Protuberance in hydroecium for attachment of posterior nectophore below mid-level of nectosac
4. *Heteropyramis maculata* Moser	Extends about ½ total length	Entirely beyond tip of nectosac	Hydroecium runs whole length of nectophore. Pigment patches at apex and on lateral ridges
5. *Thalassophyes crystallina* Moser	Extends about ½ total length	Entirely beyond tip of nectosac	Very like sp. 4 but has no pigment patches
6. *Chuniphyes moserae* Totton	Extends about ⅔ total length	Mostly before, but extending beyond tip of nectosac and fusiform	Two lateral ridges join distinctly before apex. Protuberance in hydroecium for attachment of posterior nectophore above mid-level of nectosac

Further Information on Identification

1. *Crystallophyes amygdalina:* Moser, 1925, p. 369, Pl. XXIV, Fig. 5; Totton, 1954, Figs. 68—9.
2. *Clausophyes ovata:* Keferstein & Ehlers, 1861, p. 17, Pl. 5, Figs. 1—5; Moser, 1925, Pl. XXIV, Fig. 4.
3. *Chuniphyes multidentata:* Bigelow, 1911, p. 262, Pl. 8, Fig. 9, Pl. 10, Fig. 7, Pl. 12, Fig. 6; Moser, 1925, p. 357; Bigelow & Sears, 1937, p. 60, Fig. 48; Bigelow, 1931, p. 566, Figs. 208—9; Totton, 1954, p. 131, Fig. 66.
4. *Heteropyramis maculata:* Moser, 1925, p. 117, Pl. 2; Totton, 1954, p. 137, Figs. 70—1.
5. *Thalassophyes crystallina:* Moser, 1925, p. 367, Pl. 23, Figs. 5—6; Totton, 1954, p. 141, Fig. 72.
6. *Chuniphyes moserae:* Moser, 1925, Pl. 23, Fig. 1, as *C. multidentata;* Totton, 1954, p. 131, Fig. 66A. This species has, until recently, been confused with sp. 3.

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

References to Work on Biology

see references given opposite, especially Totton, 1954.

References

Bigelow, H. B., 1911. Mem. Mus. comp. Zool. Harv., **38**, 2, pp. 173—402.

Bigelow, H. B. & Sears, M., 1937. Rep. Danish oceanogr. Exped. 1908—10, **2**, 2, pp. 1—144.

Keferstein, W. M. & Ehlers, E., 1861. *Zool. Beitr. gsmt. im Winter 1859—60 in Neapel u. Messina*, Pt. 1, pp. 112, Leipzig.

Lens, A. D. & van Riemsdijk, T., 1908. Siboga Exped., **9**, pp. 1—130.

Moser, F., 1925. Dtsch. SüdpolExped., **17**, (Zool.), 9, pp. 1—541.

Totton, A. K., 1954. Discovery Rep., **27**, pp. 1—162.