

CONSEIL INTERNATIONAL POUR L'EXPLORATION DE LA MER

Zooplankton.

Sheet 57.

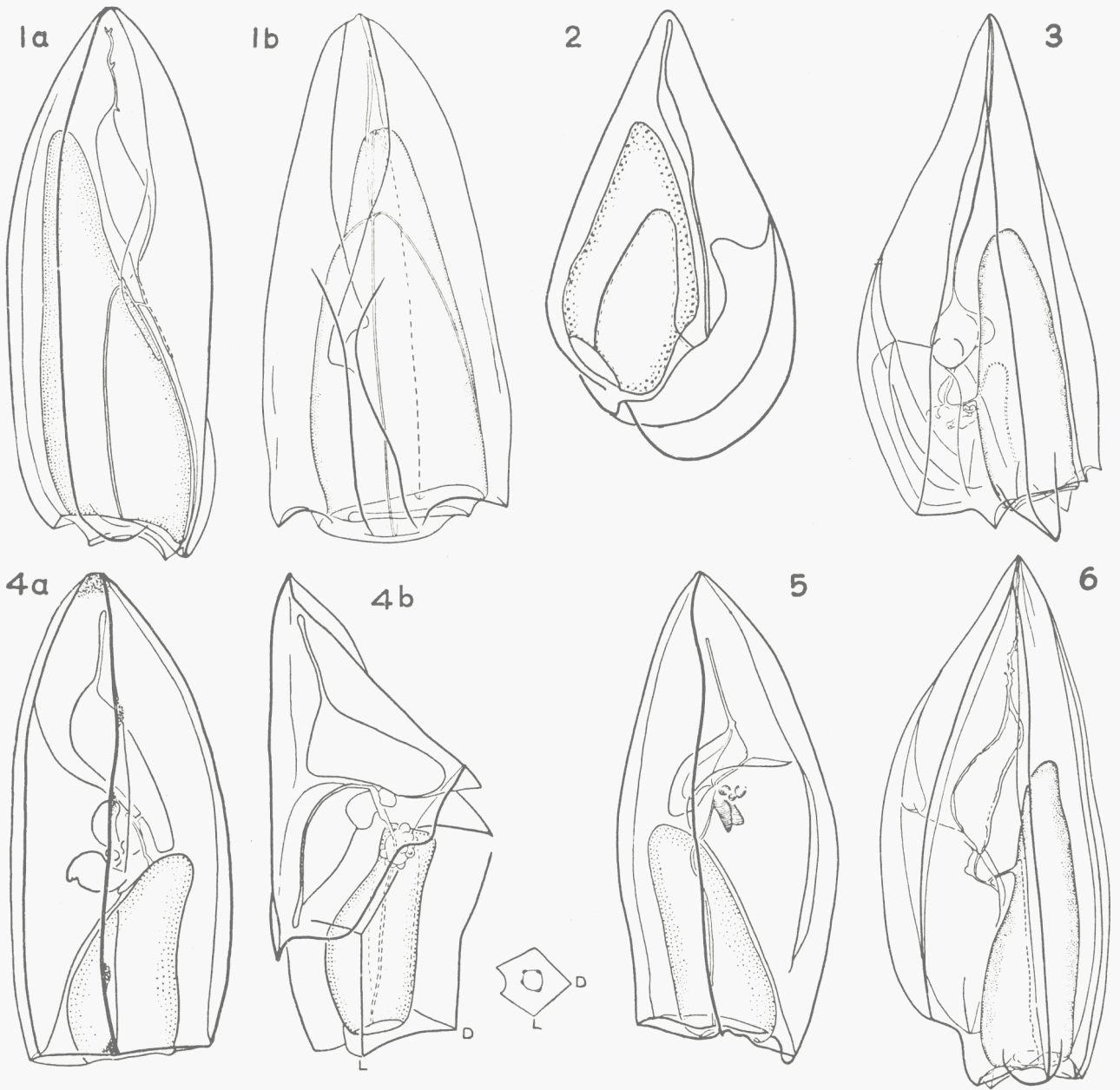
SIPHONOPHORA

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 Moser, 1925, others from Totton, 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. <i>Crystallophyes amygdalina</i> Moser | Extends about $\frac{3}{4}$ total length | Level with end of nectosac | All five ridges meet at or near the apex |
| 2. <i>Clausophyes ovata</i> (Kefer. & Ehlers) | Extends about $\frac{2}{3}$ total length | Extends beyond end of nectosac | Has a very characteristic shape, see Fig. 2 |
| 3. <i>Chuniphyes multidentata</i> Lens & van Riem. | Extends distinctly more than $\frac{1}{2}$ total length | About $\frac{2}{3}$ 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. <i>Heteropyramis maculata</i> Moser | Extends about $\frac{1}{2}$ total length | Entirely beyond tip of nectosac | Hydroecium runs whole length of nectophore. Pigment patches at apex and on lateral ridges |
| 5. <i>Thalassophyes crystallina</i> Moser | Extends about $\frac{1}{2}$ total length | Entirely beyond tip of nectosac | Very like sp. 4 but has no pigment patches |
| 6. <i>Chuniphyes moserae</i> Totton | Extends about $\frac{2}{3}$ 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.