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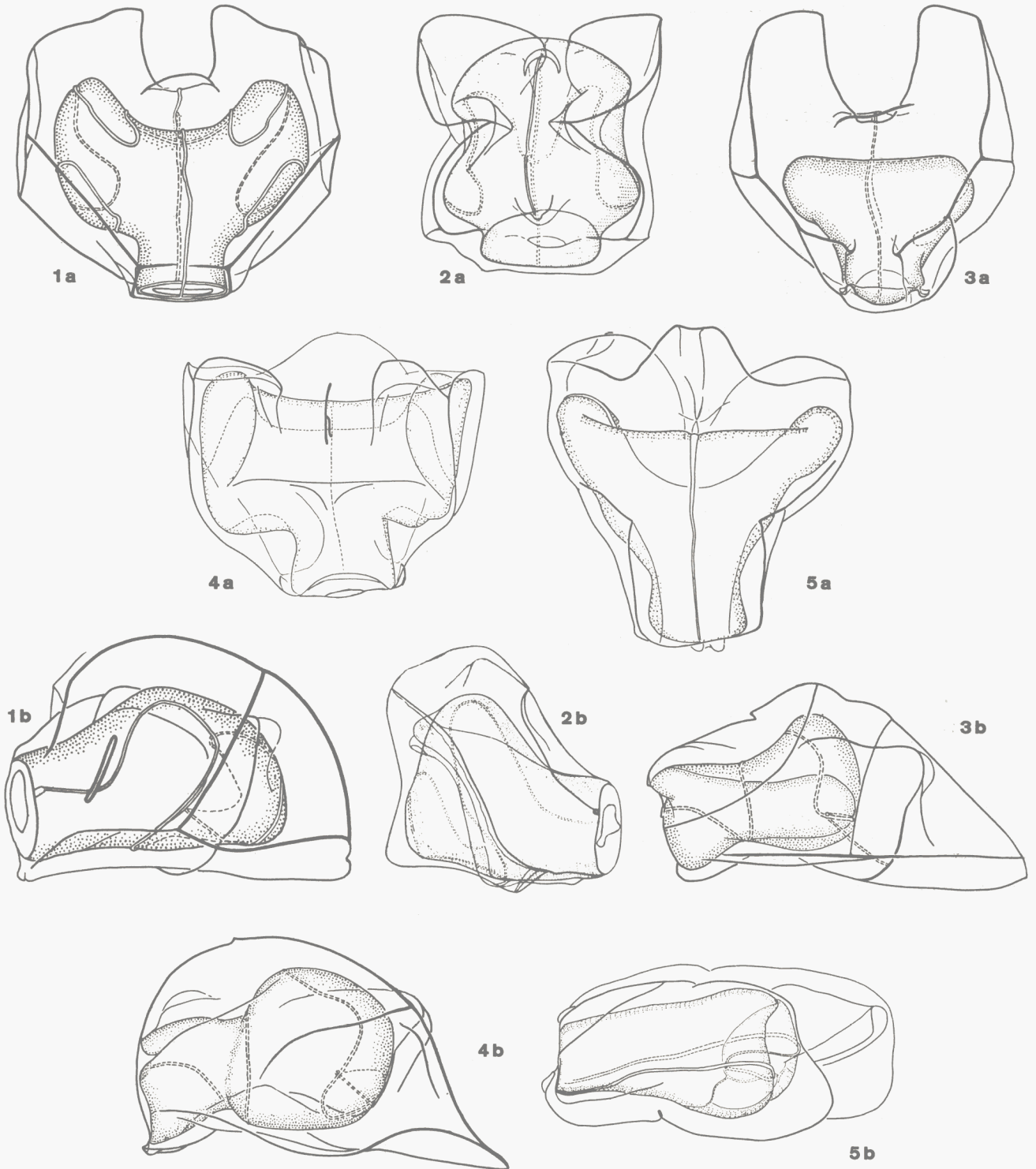
**Zooplankton**  
Sheet 61

**SIPHONOPHORA**  
**SUB-ORDER PHYSONECTAE**

**Family Agalmidae**

(By A. K. Totton and  
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**1955.**



1, *Nanomia cara*. 2, *Nanomia bijuga*. 3, *Agalma elegans*.  
4, *Halistemma rubra*. 5, *Marrus orthocanna*.  
a) dorsal view of nectophore; b) side view.

Figs. 1a, b, 3a, b, 4a, b, from Totton 1954; Figs. 2a, b, from Totton 1932;  
Figs. 5a, b, original, A. K. T.

## Family AGALMIDAE

Long stemmed Physonectae consisting of 1) pneumatophore, 2) nectosome carrying nectophores, 3) siphosome carrying gastrozooids, bracts, palpons and gonophores. The nectophores, which alone are figured, are characteristic. The bracts are often useful in specific determination and are illustrated in the references given. The ends of the side branches of the tentacles (the tentilla) are filiform in *Nanomia*, *Halistemma* and *Marrus*, and trifid (two tentacles and one ampulla) in *Agalma*.

There has been much confusion in the synonymy of the family, the most acceptable terminology is given and explained in Totton, 1954, pp. 46, 55 and 63.

1. *Nanomia cara* Agassiz [= *Cupulita sarsi* Haeckel].

A cosmopolitan form. The nectophores are flattened in a plane at right angles to the long axis of the whole animal, and without pigment. The oil-filled diverticulum at the base of the palpon is probably characteristic. The top of the pneumatophore is bright red. It has frequently been confused with the following species and records given of *Stephanomia bijuga* in the Celtic Sea, Irish Sea and English Channel should probably be referred to *N. cara*.

2. *Nanomia bijuga* (Delle Chiaje) [= *Cupulita picta* (Metchnikoff) = *Stephanomia bijuga* Delle Chiaje].

A Mediterranean and warm Atlantic species, recorded at Canary Is. The nectophores are flattened in a plane parallel to the long axis of the whole animal and have red pigment patches when fresh. The top of the pneumatophore is plum coloured.

3. *Agalma elegans* (Sars) [= *Agalmopsis elegans* Sars, small part only].

Of very wide distribution. The ends of the tentilla are trifid. The lateral wings of the nectophores are more produced than in the other Agalmidae, but the extent depends on the age and position of the nectophore on the nectosome. There is a vertical ridge on the lateral edge of the nectophore so that there is a lateral triangular facet at the tip. The upper lateral ridge forms a small but distinct "tooth" at about its mid point.

4. *Halistemma rubra* (Vogt) [= *Stephanomia rubra* (Vogt)].

This is very similar to *Agalma elegans* but with a known distribution in the Mediterranean, Red Sea, and West Indian Ocean. The ends of the tentilla are filiform. The nectophores are not so elongated as in *Agalma* and the lateral wings are less produced. There is no vertical lateral ridge and the "tooth" on the upper lateral ridge is often reduced to a slight prominence. The lateral radial canal at the outer end of the nectophore in side view runs much lower than in *Agalma* and below the level of the inner end of the pedicular canal.

5. *Marrus orthocanna* (Krampe).

A rare arctic species. The nectophores are relatively long with the nectosac approximately cylindrical and the lateral radial canals almost straight.

(Note that in many Physonectae the immature nectophores have the upper lateral ridges somewhat folded in, so that care must be taken, when comparing nectophores to allow for immaturity).

### Further Information on Identification

- Nanomia cara*: Sars, 1846, Pl. 5 (except Figs. 7—8), Pl. 6; Krampe, 1942; Totton, 1954, Figs. 19 A, B, C.
- Nanomia bijuga*: Bigelow, 1911, Pl. 19, Figs. 5—11, as *Stephanomia*; Kawamura, 1911, Pl. 17 (as *Cupulita picta*); Totton, 1932, p. 324, Figs. 6—7; Totton, 1954, p. 52, Fig. 19 D.
- Agalma elegans*: Sars, 1846, as *Agalmopsis elegans*, Pl. 5, Figs. 7—8 only; Fewkes, 1881, p. 163, Pl. 9—10; Bigelow, 1911, Pl. 19, Figs. 1—4; Totton, 1954, p. 61, Fig. 24.
- Halistemma rubra*: Kölliker, 1853, Pl. 4 (as *Agalmopsis punctata*); Totton, 1932, p. 323, Figs. 3—5 (as *Agalma* sp. indet.); Totton, 1954, p. 47, Figs. 12—18 (as *Stephanomia*).
- Marrus orthocanna*: Krampe, 1942, p. 17, Figs. 4—5, as *Stephanomia orthocanna*; (Totton, 1954, p. 55).

### Distribution

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

### References to Work on Biology

see especially Totton, 1954, and references given therein.

### References.

- Bigelow, H. B., 1911. Mem. Mus. comp. Zool. Harv., **38**,  
2, pp. 173—402.
- Fewkes, J. W., 1881. Bull. Mus. comp. Zool. Harv., **8**,  
pp. 141—82.
- Kawamura, T., 1911. Zool. Mag., Tokyo, **23**, pp. 359—63.
- Kölliker, A., 1853. *Die Schwimmpolypen oder Siphonophoren von Messina*, Leipzig, pp. 1—96.
- Kramp, P. L., 1942. Medd. Grønland, **80**, 8, pp. 3—24.
- Sars, M., 1846. *Fauna littoralis Norvegiae...*, **1**, pp. 1—  
94.
- Totton, A. K., 1932. Sci. Rep. Gr. Barrier Reef Exped.,  
4, 10, pp. 317—74.
- Totton, A. K., 1954. Discovery Rep., **27**, pp. 1—162.