

**Zooplankton**

Sheet 88

**ROTATORIA V**

**ORDER: MONOGONONTA**

**SUB-ORDER: PLOIMA**

**(i) Family: Asplanchnidae**

**Genus: ASPLANCHNA**

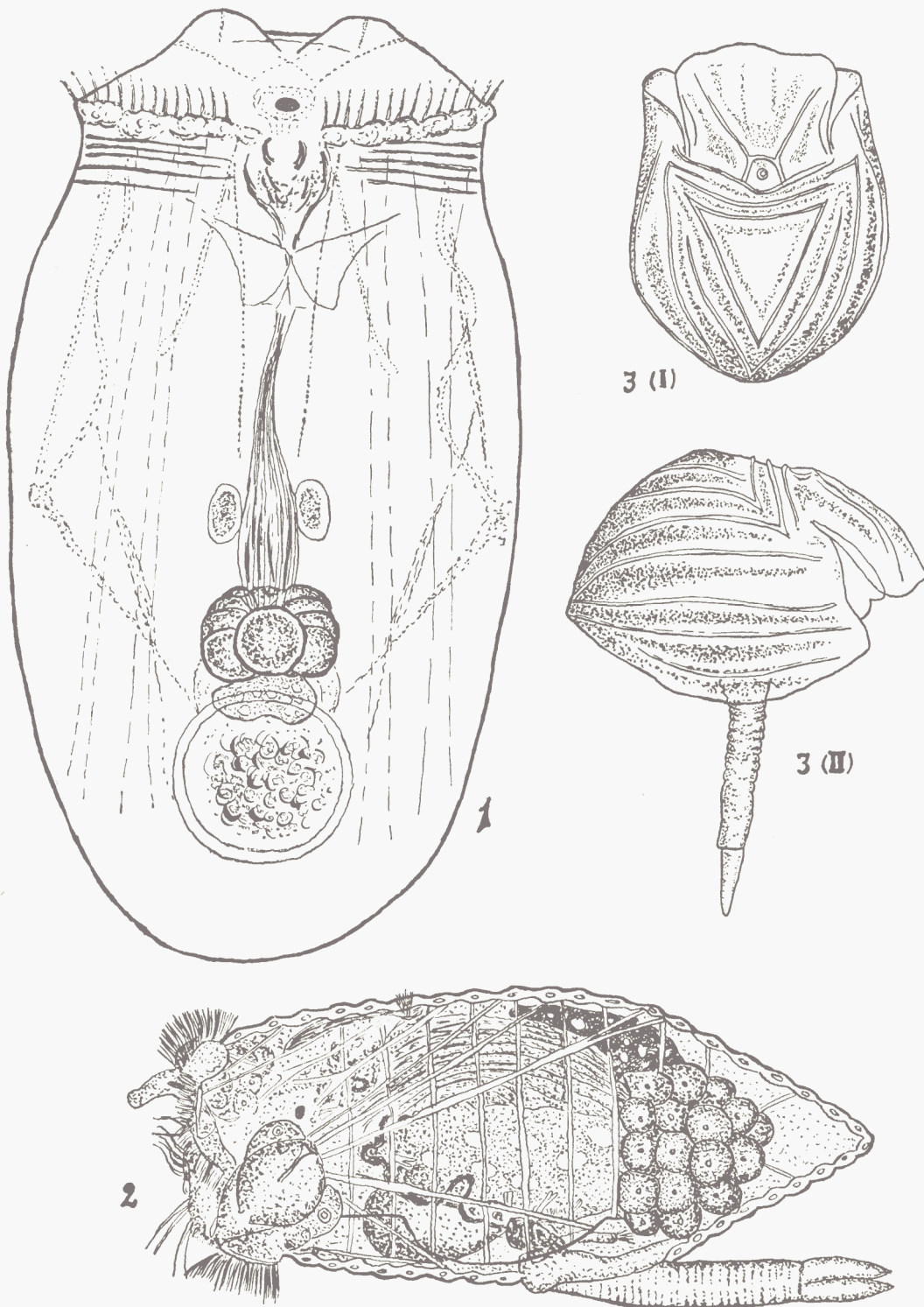
**(ii) Family: Synchaetidae**

**Genera: PLOESOMA**

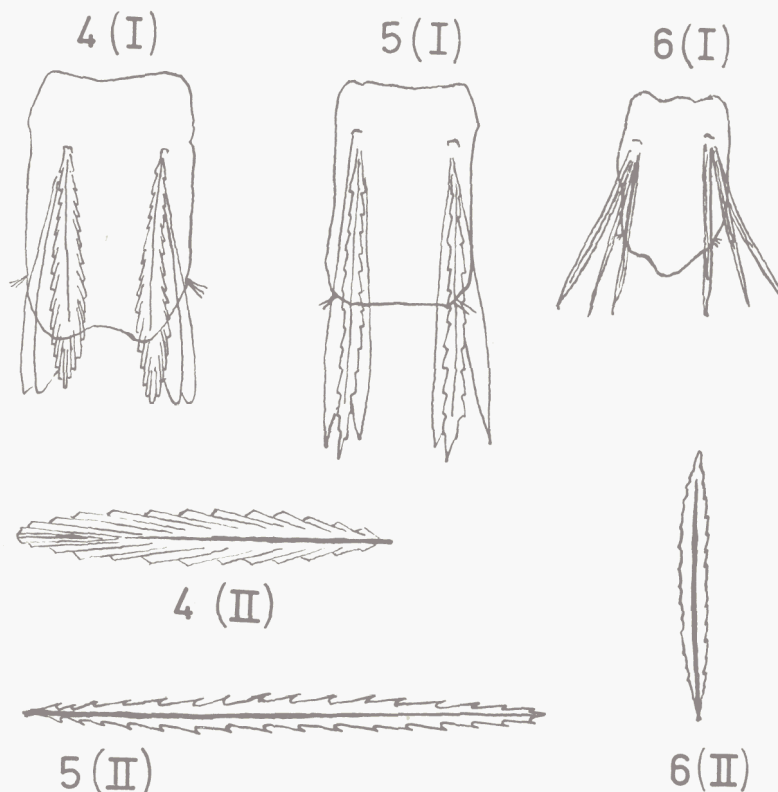
**POLYARTHRA**

**(By Bruno Berzins)**

**1960**



1, *Asplanchna priodontata*. 2, *Ploesoma hudsoni*, laterally. 3 (I—II), *Ploesoma truncatum*, dorsally and laterally respectively. (After various authors.)



4 (I—II), *Polyarthra vulgaris* (II = single appendage or fin). 5 (I—II), *P. dolichoptera* (II = single fin). 6 (I—II), *P. remata* (II = single fin). (After various authors.)

## Family ASPLANCHNIDAE

Body sac-shaped, with a soft cuticle and a well developed corona. Intestine and anus lacking. Mastax incudate.

### Genus *Asplanchna* Gosse 1850

Without foot.

1. *Asplanchna priodonta* Gosse 1850. Length 400—1,500  $\mu$ . Body very transparent. Ovary roundish. Without cement glands. Viviparous. Freshwater species, found in estuaries.

## Family SYNCHAETIDAE

Body varied in form, often with a firm lorica. Corona with sensory bristles or frontal palps. Mastax rod-shaped.

### Genus *Ploesoma* Herrick 1885

Lorica firm; often open along the midventral line. Corona with frontal palps. Foot long and annulated.

2. *Ploesoma hudsoni* (Imhof) 1891. Length 300—600  $\mu$ . Often with foam-like structure of the hypodermis. Without open midventral line. Freshwater species, found in estuaries.
3. *Ploesoma truncatum* (Levander) 1894. Length 150—300  $\mu$ . Lorica firm, with many ridges placed longitudinally and also across the dorsal side. Open along midventral line. Lorica rounded in front. Freshwater species, in estuaries and brackish bays.

### Genus *Polyarthra* Erhenberg 1834

With 12 movable, sword-shaped lateral appendages or fins. Body a short, dorso-ventrally flattened cylinder.

4. *Polyarthra vulgaris* Carlin 1943. Length of body 100—145  $\mu$ , fins 85—150  $\mu$ .  
Fins only somewhat longer posteriorly than body; rather wide and with strong saw-toothed margins. Lateral antennae somewhat before the end of body.  
Freshwater species, in eastern Baltic and in estuaries.
5. *Polyarthra dolichoptera* Idelson 1925. Length of body 80—145  $\mu$ , fins 100—200  $\mu$ .  
Fins very extended posteriorly; long and thin, with strong saw-toothed margins. Lateral antennae on the posterior end of body.  
Freshwater species, in eastern Baltic and in estuaries.
6. *Polyarthra remata* Skorikov 1896. Length of body 75—105  $\mu$ , fins 80—125  $\mu$ .  
Fins not very extended posteriorly; rather thin, with a strong midrib, but with thin margins. Lateral antennae near posterior edge of body. Very small species.  
Freshwater species, also found only in the eastern part of the Gulf of Finland.

#### References to Descriptions and Figures

1. *A. priodonta*: Hudson & Gosse, 1889, I, p. 123, Pl. 12, Fig. 2; Remane, 1929, p. 100; Wesenberg-Lund, 1930, p. 163, Pl. 12, Figs. 1 and 5, Pl. 14, Figs. 1—2; Voigt, 1957, p. 385, Pl. 84, Fig. 7; Waniczek, 1930, pp. 169—322, Pls. 14—25.
2. *Pl. hudsoni*: Remane, 1929, p. 109, Fig. 13; Wesenberg-Lund, 1930, p. 143, Pl. 10, Figs. 1—5; Voigt, 1957, p. 403, Pl. 86, Fig. 24.
3. *Pl. truncatum*: Levander, 1894, p. 25, Pl. 1, Figs. 9—10 (as *Gastroschiza truncata*); Remane, 1929, p. 109, Fig. 98; Voigt, 1957, p. 404, Pl. 86, Fig. 27.
4. *Po. vulgaris*: Carlin, 1943, p. 82, Pl. 1, Fig. 1, Pl. 3, Fig. 1; Pejler, 1956, p. 246, Figs. 1—2; Voigt, 1957, p. 392, Pl. 23, Figs. 3 and 18.
5. *Po. dolichoptera*: Carlin, 1943, p. 83, Pl. 2, Figs. 1 and 5, Pl. 4, Fig. 1; Pejler, 1956, p. 246, Figs. 1—2; Voigt, 1957, p. 394, Pl. 23, Fig. 4.
6. *Po. remata*: Skorikov, 1896, p. 277, Pl. 7, Figs. 3—4; Carlin, 1943, p. 85, Pl. 2, Figs. 2 and 4; Voigt, 1957, p. 395, Pl. 23, Fig. 6.

#### Distribution

#### Species

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

#### References to Work on Biology

Carlin, 1943; Levander, 1894; Wesenberg-Lund, 1930.

### References

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| <p>Carlin, B., 1943. Medd. Lunds. Univ. Limnol. Inst., <b>5</b>.<br/>Hudson, C. T., &amp; Gosse, P. H., 1889. <i>The Rotifera or Wheel-Animalcules</i>. <b>2</b> (and suppl.).<br/>Levander, K. M., 1894. Acta Soc. Flora Fauna Fenn., <b>12</b> (3).<br/>Pejler, B., 1956. Evolution, <b>10</b>: 246—61.<br/>Remane, A., 1929. Tierwelt der Nord- und Ostsee. Lief. 7, e: 156 pp.</p> | <p>Ridder, M. de, 1959. Bull. Inst. roy. Sci. nat. Belg., <b>35</b> (20).<br/>Skorikova, 1896. Trav. Soc. nat. Univ. Imp. Kharkov, <b>30</b>.<br/>Sokolova, M., 1927. Etudes de la Neva. <b>1</b>(5): 48 pp.<br/>Waniczek, H., 1930. Ann. Mus. Zool. Pol., <b>8</b>: 169—322.<br/>Wesenberg-Lund, C., 1930. K. Dan. Vid. Selsk. Nat. Math., Avd. 9, <b>2</b> (1): 230 pp.</p> |
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