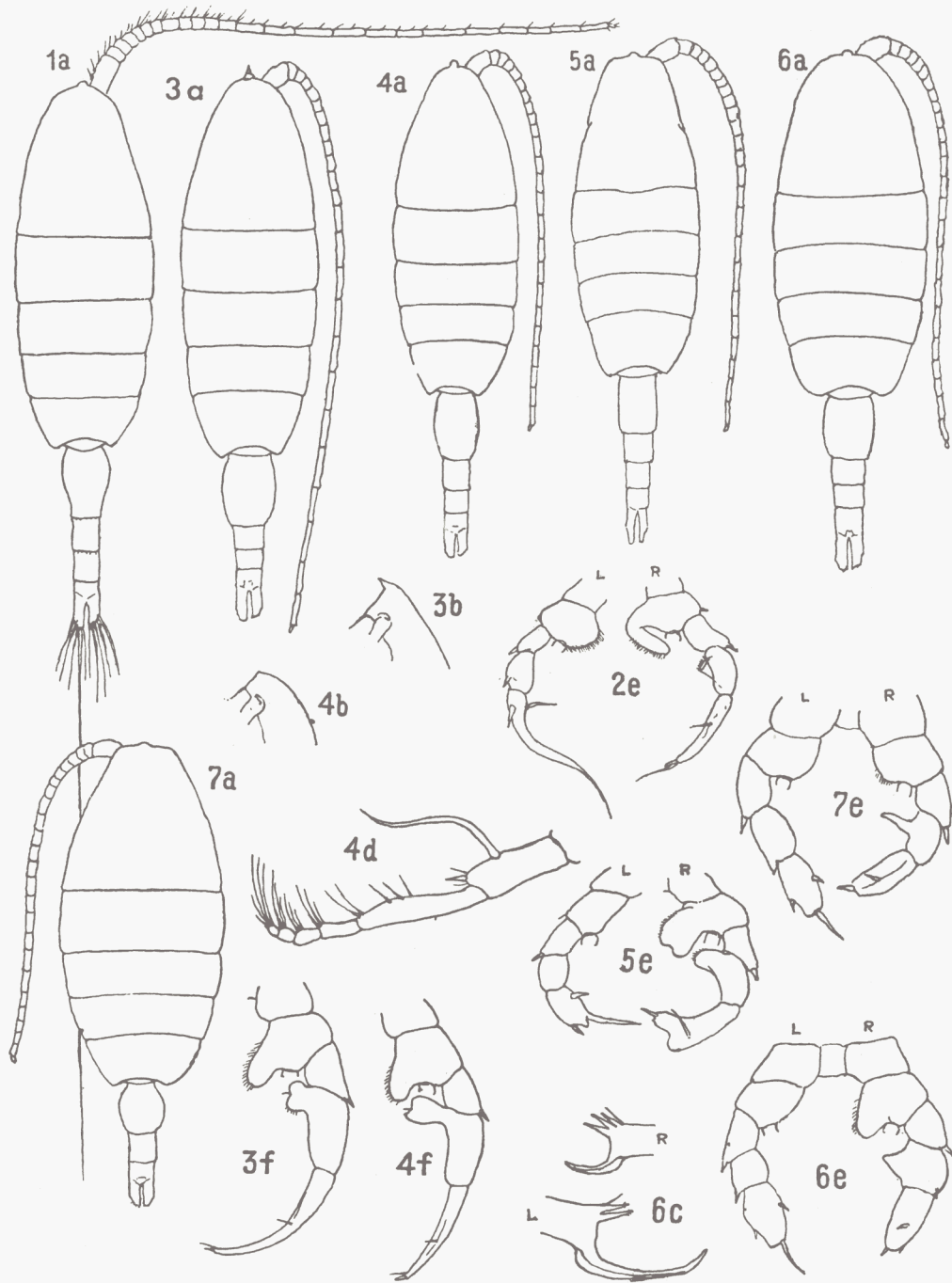


CONSEIL INTERNATIONAL POUR L'EXPLORATION DE LA MER

Zooplankton
Sheet 16

COPEPODA
SUB-ORDER: CALANOIDA
Family: Heterorhabdidae
GENUS: HETERORHABDUS
(By G. P. Farran†)
1948.



1. *H. norvegicus*. — 2. *H. abyssalis*. — 3. *H. spinifrons*. — 4. *H. papilliger*. — 5. *H. vipera*.
6. *H. robustus*. — 7. *H. compactus*.
a. ♀ dorsal. b. ♀ cephalon, lateral. c. ♀ mandible, cutting teeth of basal joint. d. ♀ maxilliped.
e. ♂ 5th feet. f. ♂ right 5th foot (endopodites of 5th feet omitted).
(Figs. 2e, 5a and 5e after Giesbrecht, the remainder after Sars).

Genus HETERORHABDUS Giesbrecht 1898.

Body elongate, head and 1st thoracic segment separated. ♀ abdomen 4-segmented ♂ abdomen 5-segmented. Endo- and exopodites of all 5 pairs of feet 3-jointed; ♀ 5th exopodite with falciform spine on inner margin of 2nd joints of both sides. ♂ 5th feet more or less prehensile. Allied genera of Heterorhabdidae (*Heterostylites*, *Hemirhabdus*, *Mesorhabdus*, *Disseta*) are mainly distinguishable by differently shaped 1st and 2nd maxillae.

I. Maxillipede with elongate median seta on 1st joint.

1. <i>H. norvegicus</i> (Boeck)	♀ 2.8—3.4 mm. ♂ 2.8—3.1 mm.	{ Antennules longer than body. Cephalon rounded.	Oceanic.
2. <i>H. abyssalis</i> (Giesbr.)	♀ 2.2—2.6 mm. ♂ 2.0—2.6 mm.	Indistinguishable from <i>H. norvegicus</i> except in size.	Oceanic deep water.
3. <i>H. spinifrons</i> (Claus)	♀ 3.0—3.15 mm. ♂ 2.7—3.4 mm.	{ Antennules longer than the body. Cephalon produced into a sharp point.	Oceanic.
4. <i>H. papilliger</i> (Claus)	♀ 1.85—2.35 mm. ♂ 1.8—2.3 mm.	{ Antennules reach middle genital segment. Cephalon produced into an obtuse point.	Oceanic.

II. Maxillipede without elongated median seta on 1st joint.

5. <i>H. vipera</i> (Giesbr.)	♀ 2.6—2.8 mm. ♂ 2.6—2.7 mm.	Body slender. Antennules shorter than the body. ♂ 5th foot with bilobed process on 2nd joint of right exopodite.	Oceanic.
6. <i>H. robustus</i> Farran	♀ 3.48—3.6 mm. ♂ 3.36 mm.	Body robust. Antennules not reaching anal segment; cutting edge of left mandible with long scythe shaped tooth, much longer than that of right.	Oceanic, deep water.
7. <i>H. compactus</i> (Sars)	♀ 2.23—3.35 mm. ♂ 2.2 mm.	Abdomen very short. Antennules just reaching genital segment. Teeth of right and left mandibles similar. (Possibly the same as the briefly described <i>H. brevicornis</i> Dahl).	Oceanic, deep water.

References to Description and Figures.

1. *H. norvegicus*: Aurivillius, 1899, Figs. 4, 5, (as *Heterochaeta angulata*). Giesbrecht u. Schmeil, 1898. Sars, 1900, Pl. 23, (as *Heterochaeta*); 1903, Pl. LXXX, LXXXI. Van Breemen, 1908, Fig. 139. Farran, 1926. Wilson, 1932, Fig. 89.
2. *H. abyssalis*: Giesbrecht, 1892, Pl. XIX, Fig. 4; Pl. XX, Figs. 29, 30, (as *Heterochaeta*). Giesbrecht u. Schmeil, 1898, Fig. 26. Van Breemen, 1908, Fig. 141. Farran, 1926. Sewell, 1947, Fig. 46.
3. *H. spinifrons*: Claus, 1863, Pl. XXXII. Giesbrecht, 1892, Pl. XX, Figs. 1, 3, 11, 16, 19, 31; Pl. XXXIX, Figs. 42, 43, 51, 52, 54 (as *Heterochaeta*). Van Breemen, 1908, Fig. 137. Sars, 1924—25, Pl. LXII, Figs. 9—12. Wilson, 1932, Fig. 91. Sewell, 1947.
4. *H. papilliger*: Claus, 1863, Pl. XXXII, (as *Heterochaeta*). Giesbrecht, 1892, Pl. XX, Figs. 4, 7, 10, 15, 17, 23, 35, 36; Pl. XXXIX, Figs. 40, 53 (as *Heterochaeta*). Giesbrecht u. Schmeil, 1898. Van Breemen, 1908, Fig. 138. Sars, 1924—25, Pl. LXII, Figs. 13—19.
5. *H. vipera*: Giesbrecht, 1892, Pl. XX, Figs. 5, 6, 12, 13, 18, 20, 27, 32, 33; Pl. XXXIX, Fig. 41 (as *Heterochaeta*). Giesbrecht u. Schmeil, 1898. Van Breemen, 1908, Fig. 142.
6. *H. robustus*: Farran, 1908, Pl. VII, Figs. 1—10. Sars, 1924—25, Pl. LXI.
7. *H. compactus*: Sars, 1900, Pl. XXIV, XXV (as *Heterochaeta*); 1924—25, Pl. LXII, Figs. 1—8. Van Breemen, 1908, Fig. 143.

Distribution

Species

Gulf of Bothnia	—
Gulf of Finland	—
Baltic proper	—
Belt Sea	—
Kattegat	—
Skagerak	1
Northern North Sea	1, 2
Southern North Sea	—
English Channel (eastern)	—
English Channel (western)	—
Bristol Channel and Irish Sea	—
South and West Ireland	1, 2, 3, 4, 6
Eastern Atlantic	1, 2, 3, 4, 5, 6, 7
Faeroe Shetland Area	1, 2
Faeroe Iceland Area	1, 2, 6
Norwegian Sea	1
Barents Sea	1, 7

References to Work on Biology.

Aurivillius (1899), 1. Claus (1863), 3, 4. Farran (1905), 1, 2, 3, 6; (1908), 1, 2, 3, 6; (1920), 1, 2, 3, 4; (1926), 1, 2, 3, 4, 5, 6, 7. Giesbrecht (1892), 2, 3, 4. Giesbrecht u. Schmeil (1898), 1, 2, 3, 4, 5. Jespersen (1940), 1, 2, 3, 6. Lysholm and Nordgaard (1921), 1, 3, 6. Mrazek (1902), 1. Ostenfeld (1906), (1909), 1, 2, 4. Runnström (1932), 1. Sars (1900), 1, 7; (1903), 1; (1924—25), 1, 3, 4, 6, 7. Scott (1911), 1. Sewell (1947), 2, 3. Störmer (1929), 1, 2. Van Breemen (1908), 1, 2, 3, 4, 5, 7. Wiborg (1940), 1. Wilson (1932), 1, 3. Wolfenden (1904), 1, 2, ? 5.

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