

Zooplankton

Sheet 78

ISOPODA

SUB-ORDER: FLABELLIFERA

Family: Gnathidae

**GENERA: PARAGNATHIA,
GNATHIA**

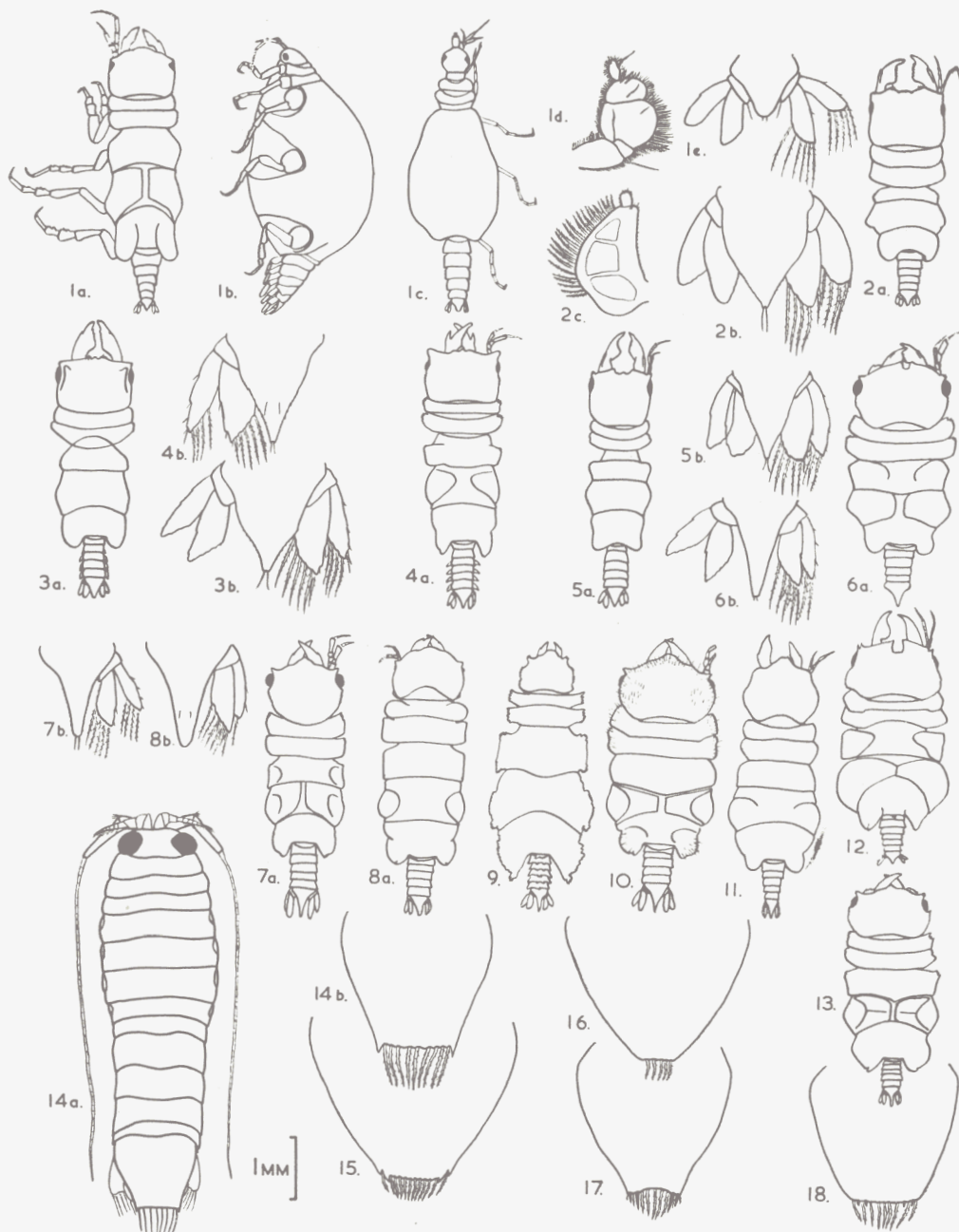
Family: Cirolanidae

GENUS: EURYDICE

(By E. Naylor)

1957

Few isopods are strictly planktonic, but many are occasionally taken in tow-nets, often from amongst floating weed. The groups taken most frequently (excluding Epicaridea) are included in this sheet and Sheet 77.



1, *Paragnathis formica* (a, male; b, female; c, juvenile; d, gnathopod of male; e, juv. telson). 2, *Gnathia maxillaris* (a, male; b, juv. telson; c, gnathopod of male). 3, *G. oxyuraea* (a, male; b, juv. telson). 4, *G. dentata* (a, male; b, juv. telson). 5, *G. vorax* (a, male; b, juv. telson). 6, *G. abyssorum* (a, male; b, juv. telson). 7, *G. elongata* (a, male; b, juv. telson). 8, *G. albescens* (a, male; b, juv. telson). 9, *G. stygia*, male. 14, *Eurydice grimaldii* (a, male; b, telson). 15, *E. truncata* — telson. 16, *E. inermis* — telson. 17, *E. spinigera*. 18, *E. pulchra* — telson.

(1—13 not to same scale (lengths given in text): 2a, 2b, 14a—18 original; others after M o n o d).

SUB-ORDER FLABELLIFERA

Uropods lateral, forming a caudal fan with the telson.

Family GNATHIDAE

Male, female, and larvae (praniza) all of different form; each with only five pairs of walking legs, [first pair of walking legs modified as gnathopods (pylopods); last pair missing]. Head of male large, with large mandibles which project forwards. Adults usually bottom living; juveniles often ectoparasitic on fish.

(At present it is possible to define species on the basis of males only, following Monod, 1926).

Genus PARAGNATHIA Omer-Cooper

Male gnathopod of five segments. (Fig. 1d).

1. *P. formica* (Hesse). The only species; generic character relevant. Estuarine. Average length: 4 mm.

Genus GNATHIA Leach

Male gnathopod of two or three segments (Fig. 2c).

2. *G. maxillaris* (Montagu). Front of head having a shallow central concavity with slight median forward projection. Length 4.6—5.0 mm. Intertidal—inshore.
3. *G. oxyuraea* (Lilljeborg). Front of head with central portion tridentate. Pronounced ridge over each eye. Length 2.4—5.4 mm. Inshore—intertidal.
4. *G. dentata* (G. O. Sars). Front of head with central portion tridentate. Lateral mandibular spine diverging from the mandible itself. Length 2.8—3.8 mm. Inshore.
5. *G. vorax* (Lucas). Front of head with a central deep concavity and a small sharp median forward projection. Length 5.0—7.0 mm. Inshore.
6. *G. abyssorum* (G. O. Sars). Front of head with a central deep incision only. Eyes bulbous; sides of head serrated. Length 2.5—3.5 mm. Offshore.
7. *G. elongata* (Kröyer). Front of head convex, with median forward projection. Eyes bulbous; sides of head serrated. Length about 4 mm. Telson very narrow. Circumpolar.
8. *G. albescens* Hansen. Front of head convex. Eyes absent. Body not ornate. Length 2.9—3.5 mm. Offshore.
9. *G. stygia* (G. O. Sars). Front of head convex; mandibles small; eyes absent. Body ornate. Length 10—12 mm. (Larva not well known.) “Atlantic arctic”.
10. *G. hirsuta* (G. O. Sars). Front of head convex. Body setose. Length 5 mm. (Larva not known.) Offshore.
11. *G. bicolor* Hansen. Front of head with a pronounced median rostrum. Eyes absent, body not ornate. Known from one male only. Length 4.1 mm. Offshore.
12. *G. schistifrons* Stebbing. Front of head with deep median cleft. Sides of head very convex. Length 2.5 mm. (Larva unknown.) Offshore.
13. *G. robusta* (G. O. Sars). Front of head with median forward projection; lateral corners toothed. “Orbit” deeply concave. Length 4.3—6.6 mm. (Larva not well known.) Offshore.

Family CIROLANIDAE

Body compressed laterally; semicylindrical in form.

Genus EURYDICE Leach

Abdominal segment immediately in front of telson not markedly reduced. Antennal peduncle with only four segments.

14. *Eurydice grimaldii* Dollfus. Telson narrows sharply posteriorly; apical border with lateral acute teeth and long plumose setae. Male with short antennulae and with antennae almost as long as body (female antennae shorter). Length up to 9 mm. Offshore.
15. *E. truncata* Norman. Telson rounded; apical border with two acute teeth at each corner and short plumose setae. Male with long antennulae (female antennulae shorter) and with antennae almost as long as body. Length up to 9 mm. Offshore.
16. *E. inermis* Hansen. Telson broadly rounded; apical border lacking markedly acute teeth or spines and with only a few short plumose setae. Male antennae about two-thirds body length. Length up to 7 mm. Offshore and inshore.
17. *E. spinigera* Hansen. Telson narrows posteriorly; apical border emarginate, with two spines at each side and with fairly long plumose setae. Male antennae about two-thirds body length. Length up to 9 mm. Inshore.
18. *E. pulchra* Leach. Telson fairly broadly rounded; apical border not emarginate, with two very small spines at each side and with fairly long plumose setae. Male antennae about two-thirds body length. Length up to 7 mm. Inshore and intertidal.

(Tattersall (1911) records a further species, *E. rotundicauda* Norman, from the Atlantic, and Hansen (1905) records *E. affinis* n. sp., a form which is close to *E. pulchra*, from the French coast.)

Further Information on Identification

1. *P. formica*: Monod, 1926, p. 308.
2. *G. maxillaris*: nec Sars, 1897; Monod, 1926, p. 521.
3. *G. oxyuraea*: Sars, 1897, p. 52, Pl. 22(1), as *G. maxillaris*: Monod, 1926, p. 538.
4. *G. dentata*: Sars, 1897, p. 54, Pl. 22(2); Monod, 1926, p. 516.
5. *G. vorax*: Monod, 1926, p. 480.
6. *G. abyssorum*: Sars (1897), p. 56, Pl. 23(2), but see Hansen (1916) and Monod (1926) p. 455.
7. *G. elongata*: Sars (1897), p. 55, Pl. 23(1); Monod, 1926, p. 347.
8. *G. albescens*: Monod, 1926, p. 410.
9. *G. stygia*: Monod, 1926, p. 398.
10. *G. hirsuta*: Monod, 1926, p. 363.
11. *G. bicolor*: Monod, 1926, p. 408.
12. *G. schistifrons*: Monod, 1926, p. 451.
13. *G. robusta*: Monod, 1926, p. 385.
14. *E. grimaldii*: Dollfus, 1888, p. 6; Hansen, 1890 (as *E. elegantula*), p. 364, Pl. v, Figs. 2—2c; Hansen, 1905, p. 361; Tattersall, 1911, p. 212, Figs. 65—71.
15. *E. truncata*: Norman, 1868, p. 421, Pl. xxiii, Figs. 12—15; Hansen, 1895, p. 13, Pl. i, Figs. 5—5h; Hansen, 1905, p. 363, Pl. 34, Figs. 2a—2b; Tattersall, 1911, p. 214, Figs. 72—79.
16. *E. inermis*: Hansen, 1890, p. 366, Pl. v, Figs. 3—3f; Hansen, 1905, p. 369, Pl. 35, Figs. 3a—3c; Tattersall, 1911, p. 209, Figs. 56—61.
17. *E. spinigera*: Hansen, 1890, p. 367, Pl. v, Figs. 4—4c, Pl. vi, Figs. 1—1c; Hansen, 1905, p. 359; Tattersall, 1911, p. 204, Figs. 37—41.
18. *E. pulchra*: Hansen, 1890, p. 370, Pl. vi, Figs. 3—3c; Sars, 1897, p. 73, Pl. 30(2); Hansen, 1905, p. 365, Pl. 34, Figs. 3a—3c, Pl. 35, Fig. 1a; Tattersall, 1911, p. 205, Figs. 42—48.

Distribution	Species
Gulf of Bothnia	—
Gulf of Finland	—
Baltic proper	18
Belt Sea	18
Kattegat	18
Skagerak	18
Northern North Sea	1, 3, 5, 14, 15, 17, 18
Southern North Sea	1, 2, 14, 15, 17, 18
English Channel (E.)	1, 2, 3, 14, 15, 16, 17, 18
English Channel (W.)	1, 2, 3, 4, 5, 14, 15, 16, 17, 18
Bristol Channel and Irish Sea	1, 2, 3, 4, 14, 15, 16, 17, 18
South and West Ireland and Atlantic	1, 2, 3, 5, 6, 12, 14, 15, 16, 17, 18
Faroe—Shetland Area	3, 6, 8, 9, 14, 15, 16, 18
Faroe—Iceland Area	6, 7, 9, 10, 11, 13, 14
Norwegian Sea	3, 4, 6, 7, 9, 10, 13, 18
Barents Sea	3, 6, 7, 9, 13

References to Work on Biology

(Numbers after references give species referred to)

Monod (1926) 1—13; Nierstrasz & Steckhoven (1930) 1, 3—6, 14—18; Smith, G., *et al.* (1909) 2; Tattersall (1906) 15; Tattersall (1911) 2, 3, 14—18.

References

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