

THE OCCURRENCE OF *IDOTEA METALLICA* BOSCH IN BRITISH WATERS

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(Text-figs. 1 and 2)

Idotea metallica Bosch occurs occasionally in plankton from waters off the west coast of Britain, but since it does not seem to be a British resident it was excluded from a recent review of the genus *Idotea* (Naylor, 1955a). Accounts of the distribution of *I. metallica* seldom distinguish between occasional records and resident breeding localities, and this note attempts to explain its occasional occurrence in Britain.

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SPECIFIC CHARACTERS (Fig. 1)

Body oblong; length about three times the width, except in females which are relatively much broader. *Cephalon* about $1\frac{3}{4}$ times as broad as long; anterior border concave, posterior border less so; marked transverse sinuous furrow behind the eyes; eyes large. *Antennules* hardly extending beyond the third joint of the antennal peduncle; first and second joints expanded, others fairly robust. *Aesthetascs* in pairs, numbering up to 20 or more in males; fewer in females. *Antenna* robust, flagellum shorter than peduncle and about one-sixth the length of the body; flagellum segments numbering up to about 10 in males and 8 in females; terminal style blunt, one quarter to one-sixth the length of the subterminal segment. *Coxal plates* triangular, extending over the whole length of the segment in segments 2 or 3 and posterior ones, becoming only slightly wider posteriorly; 5-7 sharply produced laterally making an angle of less than 45° . *Legs* robust; second leg of adult males having pads of fine setae. *Abdomen* with straight sides; *telson* with apical border straight, with rounded corners (adults) or widely rounded corners (juveniles). *Appendix-masculus* reaches just beyond the tip of the second pleopod in larger males.

Length: males recognizable from about 8 mm, ranging to about 30 mm; females from 9 to 19 mm.

Colour: uniformly greyish or brown.

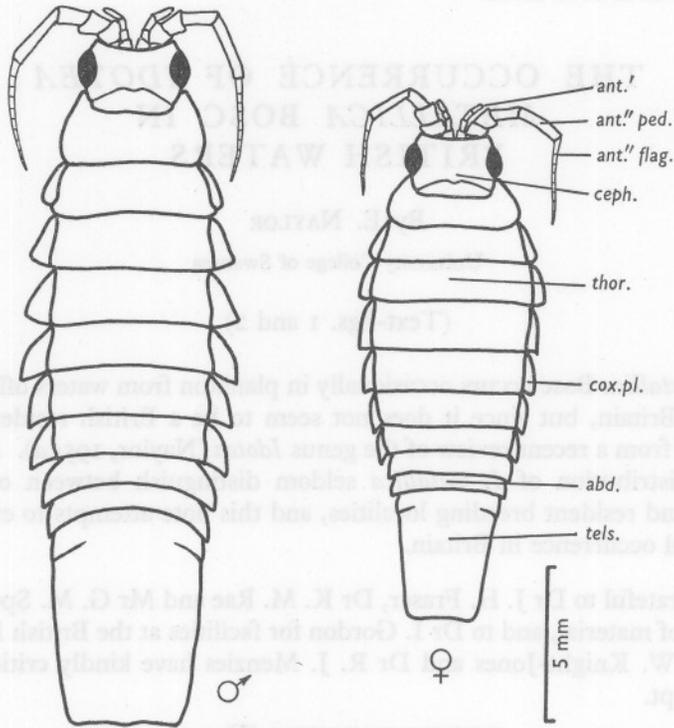


Fig. 1. Adult male and female *Idotea metallica*: ant.', antennule; ant.'' ped., antennal peduncle; ant.'' flag., antennal flagellum; ceph., cephalon; thor., thorax; cox.pl., coxal plate; abd., abdomen; tels., telson.

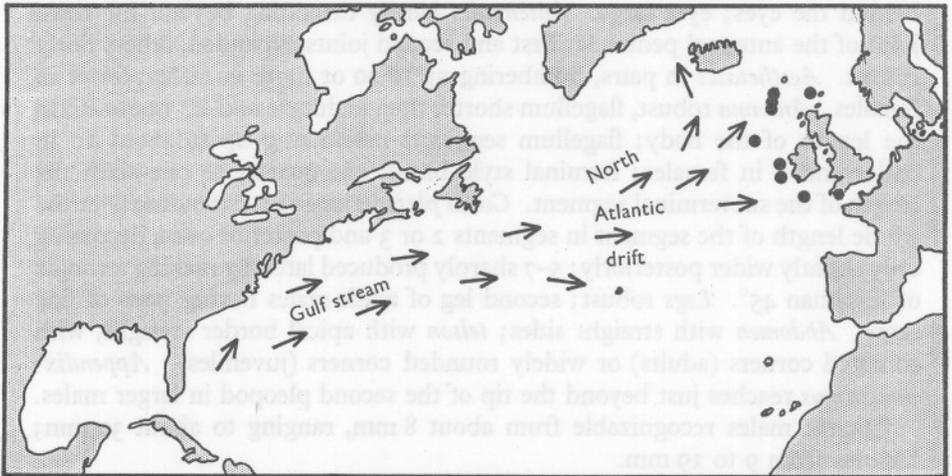


Fig. 2. The occurrence of *Idotea metallica* in British waters. (●, confirmed records of single or 'a few' specimens, from data in Table 1 and in Tattersall, 1906.)

GEOGRAPHICAL DISTRIBUTION

The distribution of *I. metallica* is described by Richardson (1905), Tattersall (1906, 1911), Stephenson (1915), Collinge (1917), Nierstrasz & Stekhoven (1930) and Cărăușu (1955). The species is known to breed in the Black Sea, Adriatic, Mediterranean and along the east coast of North America probably from Florida to Nova Scotia. In the north Atlantic, besides the occasional records from off the west coasts of Britain, there are rare records from off the coasts of Iceland and Greenland. There are also records from the west coast of North America, Patagonia, India and Australia. I have seen specimens from off the west coast of Britain (Table 1), off Plymouth (Marine Biological Association, 1957, p. 200), from the Atlantic, the east coast of North America, the Mediterranean, Montevideo and north-west Australia.

TABLE 1. BRITISH MATERIAL EXAMINED

Material	Location	Date	Source
2♀, 3♂	55° 49' N., 16° 44' W.	1875	British Museum ('Valorous' Expedition)
1 ♂	Near Labadie Bank	2. vii. 50	British Museum (Manihine Collection—as <i>I. pelagica</i>)
1 juv.	Bofin Is., C. Galway	1908	British Museum (Norman Collection)
1 juv.	60° 51' N., 9° 06' W.	15. vii. 49	Marine Laboratory, Torry, Aberdeen
1 ♂	61° 48' N., 9° 06' W.	11. ix. 50	Marine Laboratory, Torry, Aberdeen
1 ♂	59° 45' N., 3° 00' W.	7. ix. 54	Marine Laboratory, Torry, Aberdeen
1 ♀	59° 02' N., 9° 08' W.	9. vii. 55	Marine Laboratory, Torry, Aberdeen
1 juv.	2 miles E. of Eddystone	7. xi. 49	Marine Biological Laboratory, Plymouth (routine haul with 2 m stramin ring trawl)
1 ♂	49° 14' N., 5° 11' W.	2. v. 57	Plymouth Lab., vertical haul with coarse tow-net.

The species is variously recorded from amongst floating weed or timber, amongst floating colonies of *Lepas* (Tattersall, 1906, 1911), or even swimming freely at the surface (Menziés & Dow, 1957); and this surface living habit probably accounts for its wide distribution. Of the other species of *Idotea* in North Atlantic waters *I. baltica* is the only one which seems to live predominantly amongst drift weed (Naylor, 1955*b*), and this species is almost as widespread as *I. metallica* (Cărăușu, 1955). It seems likely that specimens of *I. metallica* reach British waters from the east coast of North America amongst floating debris carried by the North Atlantic Drift (Fig. 2), in rather the same manner as the grapsoid crab *Planes minutus* Leach (Bell, 1853) and several other organisms (Hardy, 1956) are thought to reach these waters. Some of Stebbing's *I. metallica* material in the British Museum is labelled 'Gulf

Stream'. British specimens belong to the form *typica* which is also found on the east coast of North America and in the western Mediterranean; a second form, *elongata*, is restricted to the Black Sea and eastern Mediterranean (Cărăușu, 1955). Though male and ovigerous female *I. metallica* have been occasionally recorded off Britain for the past hundred years or so, the species has not so far established itself.

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