An isopod (*Idotea pelagica*)

MarLIN – Marine Life Information Network
Biology and Sensitivity Key Information Review

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A report from:
The Marine Life Information Network, Marine Biological Association of the United Kingdom.

Please note. This MarESA report is a dated version of the online review. Please refer to the website for the most up-to-date version [https://www.marlin.ac.uk/species/detail/2104]. All terms and the MarESA methodology are outlined on the website (https://www.marlin.ac.uk)

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Idotea pelagica.
Photographer: Marco Faasse
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See online review for distribution map

Distribution data supplied by the Ocean Biogeographic Information System (OBIS). To interrogate UK data visit the NBN Atlas.

Researched by	Dr Harvey Tyler-Walters	**Refereed by**	Admin
Authority	Leach, 1816		
Other common names	-	**Synonyms**	-

Summary

Description

A dorso-ventrally flattened crustacean with an elongated rounded oblong shaped body. Body mostly dark purple to brown with white diamond-shaped patches or stripes down the midline and white markings along the edges of the body. Females tend to be darker than males. Males range in length from 4-11 mm and females from 7-10 mm. The distinctive head bears two dorso-lateral eyes, a pair of short antennules, and a pair of antennae. Most of body is taken up by a thorax composed on seven sections (somites). The body ends in a short abdomen (two somites) and a distinct tail-piece (the pleotelson). The antennule extend to the third segment of the antenna. The antenna is robust with a short flagellum that is densley covered with hairs in males. The pleotelson in adults is characteristic, with straight or slightly convex sides, a rounded end and only an indistinct middle tooth or process.

Recorded distribution in Britain and Ireland

Probably distributed all around the coasts of Britain and Ireland but poorly represented in surveys.

Global distribution

Recorded form Norway to the French coast but not entering low salinity waters of the inner Baltic.

Habitat

Found on wave exposed rocky shores amongst barnacles, mussels and stunted fucoids.

Depth range

-

Identifying features

- Dorso-ventrally flattened and oblong, oval body.
- Abdomen (pleon) consists of two complete somites and one partial suture.
- Antennule just or equal in length to the third section of the antenna.
- Antennal flagellum shorter than its peduncle, less than one sixth of the body length, and densely covered in hairs in males.
- Pleotelson sides straight or slightly convex, rounded with only an indistinct, blunt tooth.
- Tops of the legs bear broad coxal plates that widen posteriorly.
- Legs are very robust and bear a relatively larger claw than other *Idotea*.

Additional information

No text entered

Listed by

Further information sources

Search on:

Google Google NBN WoRMS

Biology review

Taxonomy

Phylum	Arthropoda	Arthropods, joint-legged animals, e.g. insects, crustaceans & spiders
Class	Malacostraca	Crabs, lobsters, sand hoppers and sea slaters
Order	Isopoda	Sea slaters and gribbles
Family	Idoteidae	
Genus	Idotea	
Authority	Leach, 1816	
Recent Synonyms	-	

Biology

Typical abundance	
Male size range	4-11mm
Male size at maturity	
Female size range	Small(1-2cm)
Female size at maturity	
Growth form	
Growth rate	
Body flexibility	Low (10-45 degrees)
Mobility	
Characteristic feeding method	Grazer (fronds/blades)
Diet/food source	
Typically feeds on	Fucoids, associated epiphytes.
Sociability	
Environmental position	Epifaunal
Dependency	No text entered.
Supports	No information
Is the species harmful?	No

Biology information

-none-

Habitat preferences

Physiographic preferences

Biological zone preferences

Substratum / habitat preferences

Tidal strength preferences

Wave exposure preferences

Salinity preferences

Depth range

Other preferences	No text entered
Migration Pattern	

Habitat Information

There are a total of 8 members of *Idotea* in British waters which can be distinguished using the keys provided in Naylor (1972) and Hayward & Ryland (1995b). The various species are not typically sympatric, but are ecologically segregated. For example, *Idotea pelagica* is found in the lower intertidal and shallow subtidal on exposed rocky reefs and is replaced in less exposed areas by *I. granulosa* which in turn is replaced by *I. chelipes* on sheltered, estuarine shores (Naylor, 1955).

Life history

Adult characteristics

Reproductive type	Gonochoristic (dioecious)
Reproductive frequency	See additional information
Fecundity (number of eggs)	11-100
Generation time	1-2 years
Age at maturity	
Season	
Life span	1-2 years

Larval characteristics

Larval/propagule type	-
Larval/juvenile development	Brooding
Duration of larval stage	-
Larval dispersal potential	-
Larval settlement period	See additional information

Life history information

1. **Reproductive season**
   The reproductive season of *Idotea pelagica* is closely linked to temperature (Leifsson, 1999). Reproductive effort is at its greatest during periods when the sea water temperature is between 5 and 12&176; C (Sheader, 1977; Healy & ONeill, 1984; Leifsson, 1999). While ovigerous females are found all year round in southern Irish coasts, the highest proportion of ovigerous females are found between December and August (Healy & ONeill, 1984), while on the Northeast coast of England ovigerous females were found only between April and August (Sheader, 1977). Icelandic populations have their reproductive period further reduced to May to July (Leifsson, 1999). In the more southern extent of its range, the reproductive season of *Idotea pelagica* would be expected to shift further towards winter.
2. **Fecundity**
   Females brood up to 80 eggs for 6-8 weeks (Leifsson, 1999), as with most isopods there is no larval stage and the juveniles appear as the adults, but with 6 pairs of pereopods not 7. Once the eggs hatch, females may then moult and produce a second brood (Healy & O'Neill, 1984).

Sensitivity review

This MarLIN sensitivity assessment has been superseded by the MarESA approach to sensitivity assessment. MarLIN assessments used an approach that has now been modified to reflect the most recent conservation imperatives and terminology and are due to be updated by 2016/17.

Physical Pressures

	Intolerance	Recoverability	Sensitivity	Confidence
Substratum Loss				
Smothering				
Increase in suspended sediment				
Decrease in suspended sediment				
Dessication				
Increase in emergence regime				
Decrease in emergence regime				
Increase in water flow rate				
Decrease in water flow rate				
Increase in temperature				
Decrease in temperature				
Increase in turbidity				
Decrease in turbidity				
Increase in wave exposure				
Decrease in wave exposure				
Noise				
Visual Presence				
Abrasion & physical disturbance				
Displacement				

Chemical Pressures

	Intolerance	Recoverability	Sensitivity	Confidence
Synthetic compound contamination				

Heavy metal contamination

Hydrocarbon contamination

Radionuclide contamination

Changes in nutrient levels

Increase in salinity

Decrease in salinity

Changes in oxygenation

Biological Pressures

	Intolerance	Recoverability	Sensitivity	Confidence
Introduction of microbial pathogens/parasites				
Introduction of non-native species				
Extraction of this species				
Extraction of other species				

Additional information

Importance review

Policy/legislation

- no data -

Status

National (GB) importance -

Global red list (IUCN) category -

Non-native

Native -

Origin -

Date Arrived -

Importance information

-none-

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Datasets

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