Contents

A male Angular Crab *Goneplax rhomboides*. Loch Sunart, Highland.

Brachyura Latreille, 1802

True crabs

This infraorder of crustaceans includes about 7,400 species worldwide, which occur in marine, freshwater or terrestrial habitats; of these, 60 species recorded from around Britain and Ireland are mentioned in this guide. The true crabs have a highly calcified cephalothorax, created by fusion of the head with the segments of the thorax, which forms the shell (carapace) of the crab. The abdomen is a thin, short, flat, segmented flap which is tucked under the cephalothorax, hence the name Brachyura translated from Ancient Greek as 'short tail'. There are paired appendages on the head including antennules, antennae and mouthparts (mandibles and maxillae). The thoracic limbs comprise additional mouthparts (maxillipeds) and five pairs of conspicuous legs which are differentiated into a pair of chelipeds (front claws) with chelae (pincers) at the front, and four pairs of pereiopods (walking legs) which end in a sharp pointed dactylus.

A few species of the true crabs have considerable commercial value: the fishery for the Brown Crab *Cancer pagurus* (p. 68) is the most valuable, with a recent assessment of the annual value to the Cornish fishing fleet of over £6 million and a total annual estimate for the British fleet of more than £350 million. The next most valuable species is the Spiny Spider Crab *Maja brachydactyla* (p. 100). There is also an export fishery for the Velvet Swimming Crab *Necora puber* (p. 54) with the Scottish fishery being the largest supplier of this species to markets in southern Europe after the collapse of the Spanish fishery in the 1980s.

The invasive, non-native Chinese Mitten Crab *Eriocheir sinensis* (p. 93) is the only species of true crab in Britain and Ireland which spends part of its time in freshwater; all the other species in this guide occur in estuarine or fully marine habitats.

A Velvet Swimming Crab *Necora puber* in defensive pose. Cornwall.

The infraorder Brachyura is split into four sections of which we consider only two in this guide: Eubrachyura (below) and Dromiacea (see p. 66). Eubrachyura is further split into two subsections, Heterotremata and Thoracotremata. The majority of the brachyuran crabs described or mentioned in this guide (49 species) come from eight of the 12 superfamilies under Heterotremata.

Subsection Heterotremata Guinot, 1977:

Superfamily Cancroidea Latreille, 1802: four species in two genera, from two separate families:

Family Cancridae Latreille, 1802: Brown Crab *Cancer pagurus* – see p. 68, mentions Toothed Rock Crab *Cancer bellianus*.

Family Atelecyclidae Ortmann, 1893: Circular Crab *Atelecyclus rotundatus* – see p. 70, which mentions *Atelecyclus undecimdentatus*.

Superfamily Corystoidea Samouelle, 1819: a monospecific genus in a single family:

Family Corystidae Samouelle, 1819: Masked Crab *Corystes cassivelaunus* – see p. 72.

Superfamily Eriphioidea MacLeay, 1838: a monospecific genus in a single family:

Family Eriphiidae MacLeay, 1838: Warty Crab *Eriphia verrucosa* – see p. 79.

Superfamily Goneplacoidea MacLeay, 1838: one species in two genera, from two separate families:

Family Goneplacidae MacLeay, 1838: Angular Crab *Goneplax rhomboides* – see p. 73.

Family Euryplacidae Stimpson, 1871: *Eucrate crenata* De Haan, 1835 is omitted as it has an Indo-Pacific distribution despite being listed in MSBIAS.

Superfamily Leucosioidea Samouelle, 1819: five species in a single genus:

Family Leucosiidae Samouelle, 1819 / **Subfamily Ebaliinae** Stimpson, 1871: Nut crabs *Ebalia* spp. – see pp. 74–78.

Superfamily Majoidea Samouelle, 1819: covered in detail on pp. 98–119.

Superfamily Parthenopoidea MacLeay, 1838: one family containing two genera (one empty) and one species.

- *Parthenopoides massena* (Roux, 1830) – no recent British or Irish records, although there is one occurrence on the Brittany coast (listed in the 1776–1997 Paul F. Clark *North East Atlantic Crab Atlas*).

Superfamily Pilumnoidea Samouelle, 1819: one family containing a single genus with two species:

Family Pilumnidae Samouelle, 1819 / **Subfamily Pilumninae** Samouelle, 1819: Hairy Crab *Pilumnus hirtellus* – see p. 80, which also mentions *Pilumnus dasypodus*.

- *Pilumnus vespertilio* (Fabricius, 1793) is omitted as it has an Indo-Pacific distribution despite being listed in MSBIAS.

Superfamily Portunoidea Rafinesque, 1815: covered in detail on pp. 45–51.

Superfamily Pseudozioidea Alcock, 1898: one family with one genus and two species which are omitted from this guide:

Family Pilumnoididae Guinot & Macpherson, 1987: *Pilumnoides perlatus* (Poeppig, 1836) was recorded once in 1898 at Falmouth associated with the wreck of a vessel which had come from South America, the normal range of this species. It has been not recorded again at Falmouth or anywhere else around Europe since.

- *Pilumnoides inglei* Guinot & Macpherson, 1987 was named as a new species using the material relating to the record of *P. perlatus* above. There are no records for this species anywhere around Europe.

Superfamily Trapezioidea Miers, 1886: one empty family in MSBIAS.

Superfamily Xanthoidea MacLeay, 1838: split into two families (one with three subfamilies) encompassing eight genera with eight species. Of these we describe three species in detail.

Family Xanthidae MacLeay, 1838 / **Subfamily Euxanthinae** Alcock, 1898: Couch's Crab *Monodaeus couchii* – see p. 82.

Family Xanthidae MacLeay, 1838 / **Subfamily Xanthinae** MacLeay, 1838: Montagu's or Furrowed Crab *Xantho hydrophilus* (p. 83) and Risso's Crab *Xantho pilipes* (p. 85).

Family Panopeidae Ortmann, 1893: The following species *Dyspanopeus sayi* and *Rhithropanopeus harrisii* are mentioned on p. 95.

The Thoracotremata subsection encompasses pea crabs (superfamily Pinnotheroidea) and grapsid crabs (superfamily Grapsoidea, mostly non-native or cosmopolitan species arriving on flotsam or via anthropogenic activities).

Subsection Thoracotremata Guinot, 1977:

Superfamily Grapsoidea MacLeay, 1838: covered in detail on pp. 86–93.

Superfamily Pinnotheroidea De Haan, 1833: two monospecific genera in one family:

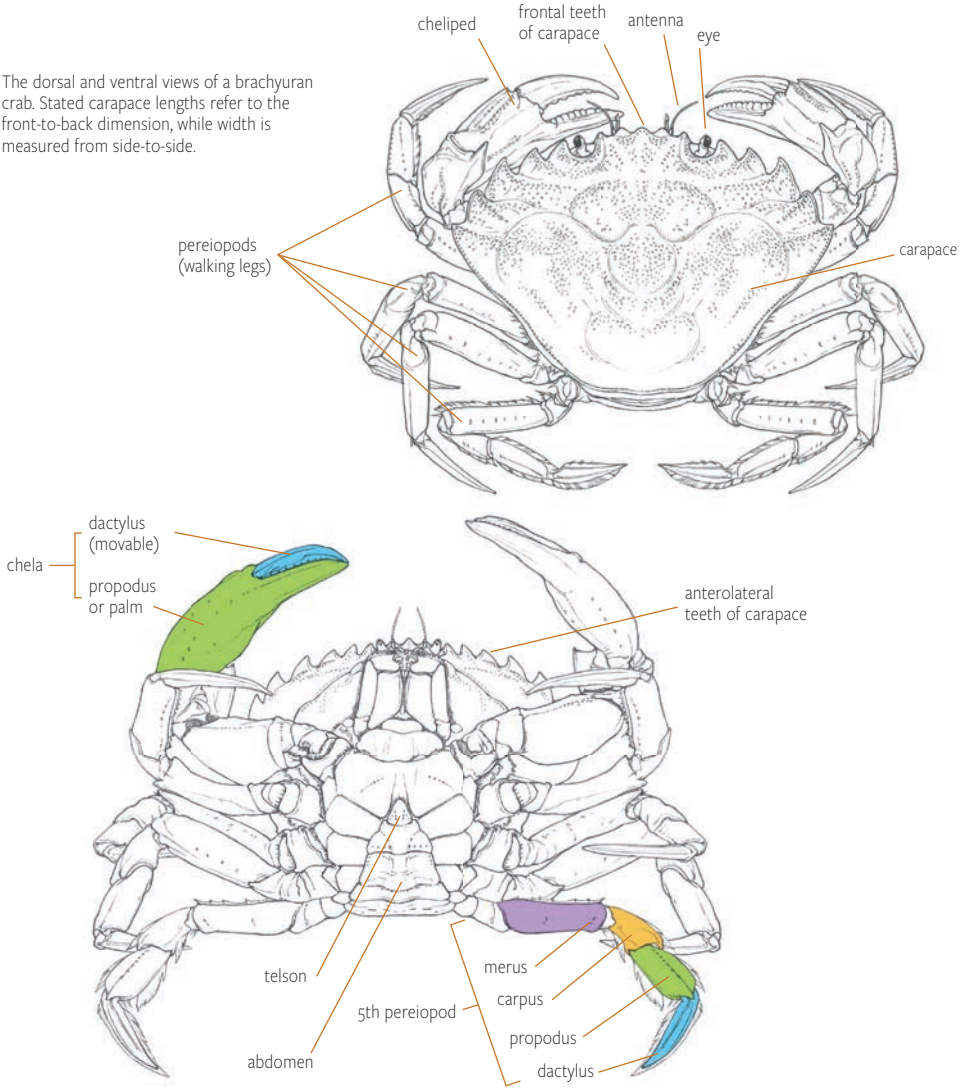
Family Pinnotheridae De Haan, 1833: Pea Crab *Pinnotheres pisum* and Pinna Pea Crab *Nepinnotheres pinnotheres* – see pp. 96–97.

A good starting point to decide which brachyuran crab you have seen is to examine the detail of the frontal margin of the carapace between the eyes. A top-down view from directly above the animal is usually easy to achieve and will make this feature very accessible to examine. The margin may be smooth or toothed; it is the number and shape of the teeth that will help to signpost you to the correct species account(s) for further checking.

The pictorial key on p. 44 excludes some distinctive species of crab; if you cannot find your crab in the key, refer to the following accounts: the Brown Crab *Cancer pagurus* (p. 68), the Angular Crab *Goneplax rhomboides* (p. 73), Masked Crab *Corystes cassivelaunus* (p. 72), the Sponge Crab *Dromia personata* (p. 66) and the pea crabs Pinnotheroidea (p. 96). The porcelain crabs Porcellanidae, which are not true crabs but belong with the squat lobsters as anomurans, can be found on p. 155. This key should help lead you to four of the major groups of crabs described in this guide: the Portunoidea which includes the swimming crabs (Polybiidae) p. 52, the Xanthoidea (p. 82) and the Grapsoidea which are largely non-native species (p. 86). There is a separate guide to the spider crabs (Majoidea p. 98).

There are several non-native species of crab which have been recorded only rarely and these are mentioned briefly in a separate section (p. 94).

The dorsal and ventral views of a brachyuran crab. Stated carapace lengths refer to the front-to-back dimension, while width is measured from side-to-side.



Carapace detail between the eyes of some brachyuran crabs

No teeth

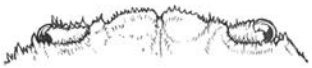
Polybius navigator (p. 63)

Some *Grapsoidea* spp. (pp. 86–93)

Xanthoidea (pp. 82–85)

Ebalia spp. (pp. 74–78)

Xaiva biguttata (p. 49)



Pilumnus hirtellus (p. 80)

Three teeth

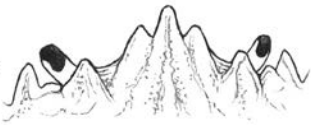
Some *Polybius* spp. (p. 53)

Polybius corrugatus (p. 62)

Polybius pusillus (p. 64)

Carcinus maenas (p. 46)

Portumnus latipes (p. 51)



Pirimela denticulata (p. 49)

Very hairy, *Thia scutellata* (p. 50)

Four teeth

Eriocheir spp. (p. 93)

Very rounded teeth, *Bathynectes longipes* (p. 55)

Five teeth

Atelecyclus rotundatus (p. 70)

Seven to eight teeth

Necora puber (p. 54)

This key excludes the following crabs which are sufficiently familiar and or distinctive: Brown Crab *Cancer pagurus* (p. 68), Angular Crab *Goneplax rhomboides* (p. 73), Masked Crab *Corystes cassivelaunus* (p. 72), Sponge Crab *Dromia personata* (p. 66), and pea crabs Pinnotheroidea (p. 96). The porcelain crabs Porcellanidae (p. 155) which are not true crabs are also omitted.

Portunoidea Rafinesque, 1815

The superfamily Portunoidea includes 15 species of crab which occur around the coasts of Britain and Ireland and are described or mentioned in this guide. They are all rather active crabs. Of these, ten species are swimming crabs (family Polybiidae, p. 52), which are distinguished by the dactylus of the fifth pereiopod being flattened and expanded into a broad paddle. The other five species have a dactylus which is either sharply pointed or only slightly flattened and much narrower than in the Polybiidae.

Another useful characteristic to differentiate these species is the detail of the shape of the carapace between the eyes (opposite and p. 53). This frontal region may be distinctly toothed or may have just a very slightly curved smooth edge, sometimes with hairs or else somewhat protuberant.

Superfamily Portunoidea Rafinesque, 1815:

Family Carcinidae MacLeay, 1838: two subfamilies encompassing three monospecific genera:

Subfamily Carcininae MacLeay, 1838: Green Shore Crab *Carcinus maenas* – see p. 46.

Subfamily Platyonichinae Dana, 1851: Pennant's Swimming Crab *Portumnus latipes*, p. 51, and *Xaiva biguttata* which is mentioned on p. 49

Family Geryonidae Colosi, 1924: one subfamily with two monospecific genera:

Subfamily Geryoninae Colosi, 1924: *Chaceon affinis* (A. Milne-Edwards & Bouvier, 1894) and *Geryon trispinosus* (Herbst, 1803) are omitted as all records are from offshore.

Family Pirimelidae Alcock, 1899: one subfamily with one monospecific genus:

Subfamily Pirimelinae Alcock, 1899: Toothed Pirimela *Pirimela denticulata* – p. 49.

Family Polybiidae Paulson, 1875: five genera comprising 13 species, covered in detail on pp. 52–65.

Family Portunidae Rafinesque, 1815: one subfamily with one monospecific genus.

Subfamily Portuninae Rafinesque, 1815: Atlantic Blue Crab *Callinectes sapidus* is mentioned on p. 94.

The subfamily Polybiinae is now accepted as family Polybiidae (pp. 52–65).

Family Thiidae Dana, 1852: one monospecific genus:

- *Thia* Leach, 1815 contains only Thumbnail Crab *Thia scutellata* – see p. 50.

Very broad, flattened paddle on the fifth pereiopod of a typical swimming crab: the Harbour Crab *Polybius depurator*.

The sharply pointed dactylus on the fifth pereiopod of the Green Shore Crab *Carcinus maenas*.

Carcinus maenas Green Shore Crab (Linnaeus, 1758)

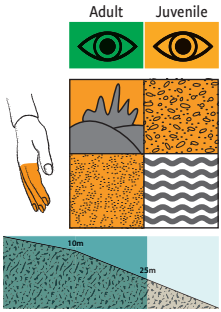
Showing pointed dactylus on fifth pereiopod, with colour of greenish above and yellowish below. Isle of Arran.

GENERAL DESCRIPTION This crab usually has an overall green hue, as the vernacular name implies, but can range from almost black through to reddish-orange, while some small individuals can be pale, speckled greenish-grey or with bright white markings (see gallery p. 48). The underside of this crab tends to be yellowish. The carapace is roughly hexagonal in shape and the edge has a serrated appearance from the five anterolateral teeth on each side. Between the eyes are three blunt teeth of equal height with the central tooth being slightly narrower (p. 44). In juveniles the teeth between the eyes are absent, replaced by rounded lobes. The front chelipeds are equal in size and the fifth pereiopod is only slightly flattened into a sharp dactylus rather than a broad paddle. This crab is found on rocky shores in the intertidal zone and subtidally where the majority of records are from 10m or less. Carapace length to 6cm, width to 9cm.

KEY FEATURES The fifth pereiopod ending in a narrow dactylus, five sharply pointed teeth either side of the carapace and three teeth between the eyes.

SIMILAR SPECIES The Green Shore Crab needs to be distinguished with care from several crabs which have colonised the intertidal zone relatively recently. These other species tend to have a rather square carapace with either only three teeth on each side (*Hemigrapsus* spp., p. 90; Marbled Rock Crab *Pachygrapsus marmoratus*, p. 86) or four (Chinese Mitten Crab *Eriocheir sinensis*, p. 93). Adult Chinese Mitten Crabs have distinctively hairy chelipeds, though this feature is absent in juveniles. The underside of the Mitten Crab is cream or whitish whereas the Green Shore Crab has a yellowish tinge.

Juvenile Green Shore Crabs, before the teeth between the eyes have developed fully (see gallery p. 48), could be confused with the Dwarf Swimming Crab *Polybius pusillus* (p. 64) which may have a similar, rather blunt, rounded edge to the front of the carapace but usually has a more prominent central tooth. However, the fifth pereiopod of all swimming crabs ends in a broad, flattened paddle, whereas it is a sharp, narrow point in the Green Shore Crab. The Toothed Pirimela *Pirimela denticulata* (p. 49) is sometimes mistaken for a small Green Shore Crab, but in that species the median tooth of the three between the eyes is much longer than in the Green Shore Crab where the teeth are equal.



ABUNDANCE AND DISTRIBUTION This crab is very common around all coasts of Britain and Ireland. This crab is collected commercially for anglers' bait just after it has moulted and before it has hardened; it is known in that context as a 'peeler crab'.

A dark-coloured individual with a highly decorated carapace helping it to blend in with the shallow sandy habitat. Studland, Dorset.

Almost black on top but reddish-orange underneath. Portland Harbour, Dorset.

Colour variation in juvenile Green Shore Crabs

Lepe, Hampshire.

Langstone Harbour, Hampshire.

Menai Strait, Anglesey.

Kimmeridge, Dorset.

Lepe, Hampshire.

The Solent, Hampshire

The Solent, Hampshire.

The Solent, Hampshire

Pirimela denticulata Toothed Pirimela (Montagu, 1808)

Left Showing banding on pereiopods.

Below left Clearly shows the long median lobe between the eyes. St Agnes, Cornwall.

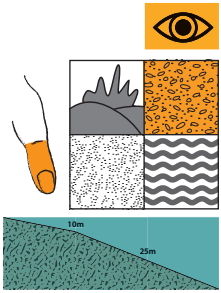
Below right *Xaiva biguttata* – careful examination of the teeth around the carapace is required to distinguish the two species. Porthcurnick, Cornwall.

GENERAL DESCRIPTION This small crab has a carapace that is slightly broader than long. The front half is distinctively toothed, with a point between the eyes that has three lobes, the median lobe being the longest (p. 44). The front chelipeds are short and of equal size while the remaining four pairs of pereiopods all terminate in a finely pointed dactylus. It is often a dark colour, typically brown, but with a disruptive camouflage patterning of blotches in white or other pale colours such as red or green. The front chelipeds and other pereiopods are usually banded in brown and the same white or pale colours. This species is found in clean, mobile sand and gravel, or among algae and seagrass, from the lower intertidal to depths of 250m. Carapace length to 15mm, width to 20mm.

KEY FEATURES A small crab with a carapace that comes to a point between the eyes with three distinct lobes of which the central one is the longest.

SIMILAR SPECIES This crab might be confused with another small crab, *Xaiva biguttata* Risso (1816) (not described further), which has a frontal margin that protrudes between the eyes as three rounded lobes with the central one the longest (p. 44). That species, also very variable in colour, has a flattened dactylus on the fifth pereiopod, rather than the pointed dactylus of the Toothed Pirimela. There are recent records of *X. biguttata* from north Devon (2017) and Cornwall (2015, 2018) with early twentieth century records from Plymouth, south Devon; it occurs intertidally to depths of about 10m.

The Toothed Pirimela is frequently confused with the Green Shore Crab *Carcinus maenas*, see p. 46 for distinctions.



ABUNDANCE AND DISTRIBUTION Recorded from all coasts of England, Wales and Ireland, but less common in Scotland where it appears to be absent from the north and east coasts, Orkney and Shetland. It may be under-recorded through misidentification and confusion with other species.

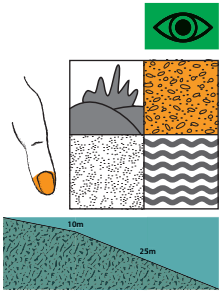
Thia scutellata Thumbnail Crab (Fabricius, 1793)

Showing the front margin and sides of the carapace densely fringed with setae and the very short front chelipeds. Kenmare Bay, County Kerry

GENERAL DESCRIPTION This crab has a carapace that is almost heart-shaped, slightly broader than long and with a smooth dorsal surface that is convex rather like a thumbnail (hence the vernacular name). The front margin appears broadly rounded with only very indistinct teeth, is densely fringed with setae and the eyes are very small and may be invisible. The front chelipeds are extremely short, of equal size and more robust in the male. The remaining four pairs of pereiopods are very short and densely setose, terminating in fine points. The carapace is white, pale pinkish or grey, sometimes with red or brown markings. The front chelipeds and pereiopods are also white or pale coloured. This species is found in loosely packed, clean, mobile medium to coarse sand with shell exposed to currents caused by either wave action or tidal flow. It occurs from the lowest part of the shore and subtidally to approximately 45m depth. In some areas juveniles have been reported closely associated with the burrowing Purple Heart Urchin *Spatangus purpureus*. Carapace length to 2cm, width slightly greater.

KEY FEATURES A small, nearly heart-shaped crab, narrowing posteriorly and with a smooth dorsal surface that is arched from side to side. The eyes and eye sockets are very small and the front edge of the carapace and the pereiopods are densely setose.

SIMILAR SPECIES Pennant's Swimming Crab *Portumnus latipes* (opposite) is of a similar size and shape but lacks the fringe of long hairs around the carapace, which in that species is longer than it is broad. Other differences in Pennant's Swimming Crab include a lobed or pointed frontal margin to the carapace and proportionally longer hairy pereiopods.



ABUNDANCE AND DISTRIBUTION The Thumbnail Crab is a species with a southern and western distribution extending from Kent and the southern North Sea round to Liverpool Bay in England and Wales and off the Isle of Man. In Ireland there are nineteenth century records from Galway Bay and a single Seasearch record (2007) from Kenmare Bay, County Kerry. Some evidence suggests that this species is extending its range northwards, possibly as a consequence of climate change.

Portumnus latipes Pennant's Swimming Crab (Pennant, 1777)

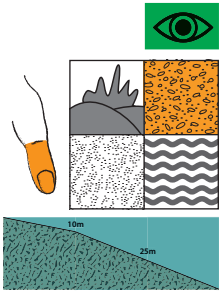
The heart-shaped carapace and leaf-shaped rear dactylus clearly identify this crab as *Portumnus latipes*. South Devon.

GENERAL DESCRIPTION The carapace of this crab is smooth and heart-shaped, narrowing posteriorly, and is very slightly longer than broad. The wide eye sockets are separated by a slightly projecting frontal margin that has three acute teeth, with the middle one being the longest (p. 44). The right front cheliped is often slightly larger than the left and the slightly flattened pereiopods are fringed with setae. The dactylus of the fifth pereiopod is leaf-shaped, tapering to a point with setae along the front edge. The colour can be variable but is often brown or reddish-brown speckled in white or cream and the carapace may have larger white markings of variable pattern. There may be occasional strandings of large numbers of these crabs after rough weather. This species is found buried in the surf zone in intertidal sands on exposed beaches and in the sublittoral, though reported to 150m depth. Carapace length to 2.5cm, width 2cm.

KEY FEATURES A small heart-shaped crab, carapace narrowing posteriorly with a smooth dorsal surface. The frontal margin has three small acute teeth, of which the median is the longest and the pereiopods are fringed with setae.

SIMILAR SPECIES The Thumbnail Crab *Thia scutellata* (opposite) is of a similar size and shape but its setose pereiopods are very short and the carapace differs in being slightly broader than long and fringed with long hairs, with a front margin that is broadly rounded rather than lobed or coming to a point as in Pennant's Swimming Crab.

ABUNDANCE AND DISTRIBUTION Pennant's Swimming Crab is not common but has been recorded nearshore from all coasts around Britain and Ireland. There are few Scottish records and it is absent from Orkney and Shetland.



Polybiidae Swimming crabs Paulson, 1875

The Polybiidae comprise a family of crabs where the fifth pereiopod (walking leg) is modified as a broad flattened paddle (p. 45), hence the group name. These crabs all have five sharply pointed spines on either side of the roughly hexagonal carapace and are generally active, often aggressive crabs. The best characteristic to use in order to identify one of the swimming crabs is to study the form of the front of the carapace between the eyes (p. 44), particularly in the four very closely related *Polybius* species (*P. marmoreus*, *holsatus*, *henslowii* and *dioscurus*) which all have three teeth (opposite). In these species it is necessary to examine the proportions of the teeth relative to each other and note the symmetry of the lowest point between the teeth.

There is considerable on-going research into the taxonomy of this group of crabs using genetic sequencing (García-Raso *et al*. 2024). As a result, all British and Irish species previously known as *Liocarcinus* are now called *Polybius* in MSBIAS/WoRMS. This change has occurred despite the fact that the authors indicated that further work was required on some species, including three species in the British and Irish fauna (*P. corrugatus*, *P. navigator* and *P. pusillus*) in order to clarify their position; the authors suggested that these species might belong to different genera. We have used *Polybius* throughout to align with MSBIAS/WoRMS.

Family Polybiidae

Genus *Bathynectes* Stimpson, 1871:

- Red Swimming Crab *Bathynectes longipes* – see p. 55, which also mentions *Bathynectes maravigna*.

Genus *Liocarcinus* Stimpson, 1871 – see taxonomic note above.

Genus *Macropipus* Prestandrea, 1833:

- *Macropipus tuberculatus* is mentioned on p. 55.

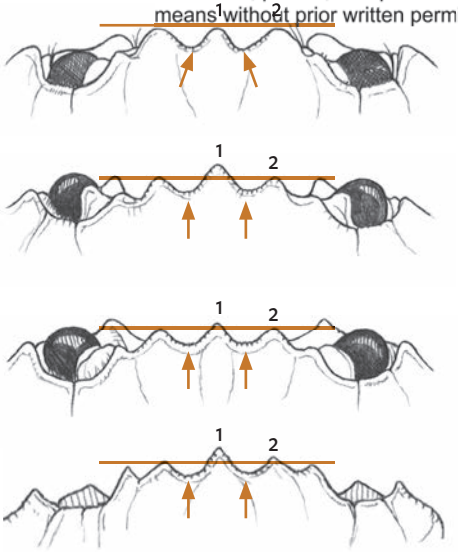
Genus *Necora* Holthuis, 1987:

- Velvet Swimming Crab *Necora puber* – see p. 54.

Genus *Polybius* Leach, 1820:

- Wrinkled Swimming Crab *Polybius corrugatus* – see p. 62.
- Harbour Crab *Polybius depurator* – see p. 60.
- *Polybius dioscurus* – not yet listed in MSBIAS; see p. 58.
- Henslow's Swimming Crab *Polybius henslowii* – see p. 59.
- Flying Crab *Polybius holsatus* – see p. 56.
- Marbled Swimming Crab *Polybius marmoreus* – see p. 57.
- Arch-fronted Swimming Crab *Polybius navigator* – see p. 63.
- Dwarf Swimming Crab *Polybius pusillus* – see p. 64.
- Grey Swimming Crab *Polybius vernalis* – see taxonomic note on p. 58.
- *Polybius zariquieyi* (Gordon, 1968) – omitted, no British or Irish records.

The bold, reddish-brown variegated pattern on the carapace indicates the Marbled Swimming Crab *Polybius marmoreus* Kenmare Bay, County Kerry.



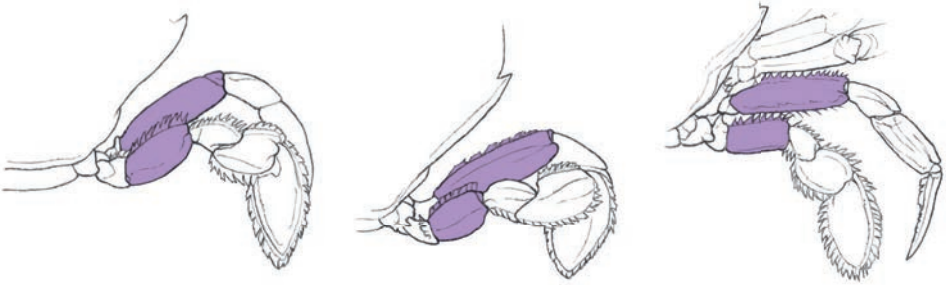
Marbled Swimming Crab *Polybius marmoreus* (p. 57)
● Central tooth (1) and laterals (2) blunt and equal in height. ● Lowest point (arrows) nearest central tooth. ● Gap asymmetrical. ● Smooth carapace marbled white and reddish-brown.

Flying Crab *Polybius holsatus* (p. 56)
Central tooth (1) longest and pointed. ● Laterals (2) blunt and lower than central tooth. ● Lowest point (arrows) mid-way between central tooth and laterals. ● Gap symmetrical. ● Smooth carapace plain grey-brown. ● Pereiopods often with orange tints.

Grey Swimming Crab *Polybius dioscurus* (p. 58)
Central tooth (1) sharply pointed, very slightly longer than laterals. ● Laterals (2) shorter and blunt. ● Lowest point (arrows) mid-way between central tooth and laterals. ● Gap symmetrical. ● Carapace mottled greyish, often with a contrasting stripe down the centre line.

Henslow's Swimming Crab *Polybius henslowii* (p. 59)
Central tooth (1) longest and sharply pointed. ● Laterals (2) pointed. ● Lowest point (arrows) mid-way between central tooth and laterals. ● Gap symmetrical. ● Carapace light and fragile.

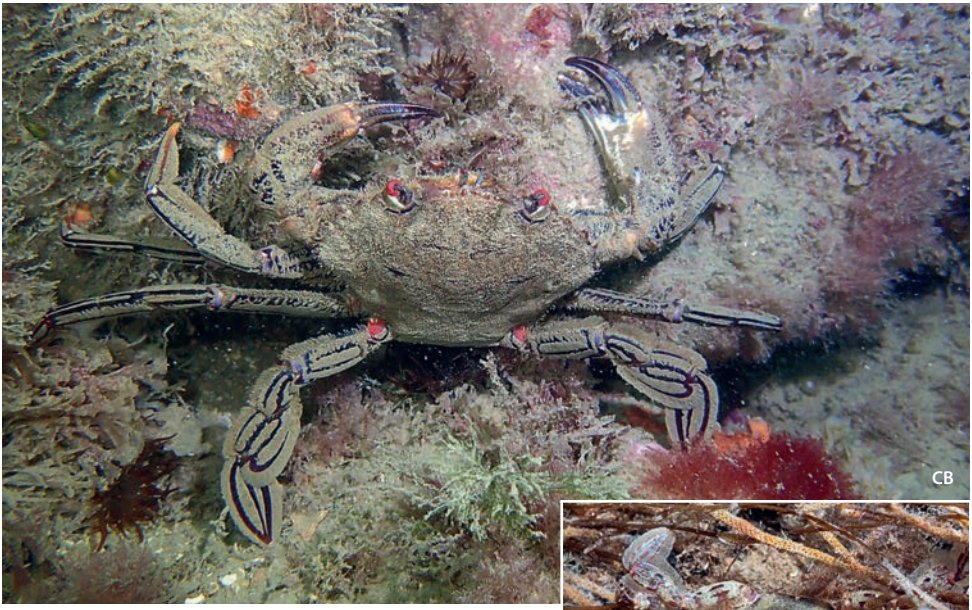
Proportions of the teeth between the eyes used to distinguish four species of swimming crabs (*Polybius*), (after García-Raso *et al.* 2024).



Polybius marmoreus *Polybius holsatus* *Polybius dioscurus*

Relative proportions of the merus of the fourth and fifth pereiopods in Marbled Swimming Crab *Polybius marmoreus*, Flying Crab *Polybius holsatus* and *Polybius dioscurus* (after Ingle, 1980, Ingle & Clarke 1998).

Necora puber Velvet Swimming Crab (Linnaeus, 1767)



Above A classic pose displaying the red eyes, velvety carapace and boldly striped pereiopods and paddles. Portland, Dorset.

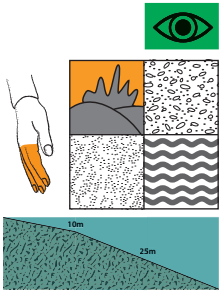
Right Juvenile carapace width about 1cm. Loch Fyne, Argyll & Bute.

GENERAL DESCRIPTION This swimming crab has a dense felt of short, fine hairs all over the carapace (as implied by the vernacular name) as well as on the pereiopods. The carapace is a dull brownish-grey with five sharply pointed teeth on either side. The paddles of the fifth pereiopods are strongly marked with dark, broad curving lines and the sharply pointed chelae have dark, deep purple-brown (sometimes blue) lines on them. The joints of all the pereiopods are bright pink. The eyes are strikingly bright red and the margin of the carapace between the eyes has two central broad, rounded teeth with two or three shorter, sharply pointed teeth either side (p. 44). When approached underwater this crab typically makes itself look as large as possible by holding the chelipeds straight out either side of its body while standing its ground. This crab is found on rocky reefs from the lower intertidal to 30m. Of nearly 14,500 records from around Britain and Ireland, only 3% are from water deeper than 30m, with a maximum recorded depth of 100m. Carapace length to 4cm, width to 6.5cm.

KEY FEATURES An aggressive crab with bright red eyes and a dense felt of hairs covering the carapace and pereiopods.

SIMILAR SPECIES None. Although the Wrinkled Swimming Crab *Polybius corrugatus* (p. 62) also has red eyes, that species has a reddish, ridged carapace. A careful examination of the front of the carapace between the eyes may be necessary, especially for small individuals (p. 44).

ABUNDANCE AND DISTRIBUTION This crab is very common inshore around all British and Irish coasts. There are few records between the Wash and the Humber in eastern England or in eastern Scotland from the Tay estuary north to Peterhead (Aberdeenshire), probably due to the absence of suitable rocky habitat in these areas.



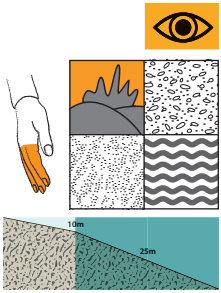
Bathynectes longipes Red Swimming Crab (Risso, 1816)

Showing the overall reddish colour and the long fifth spine on the edge of the carapace. Mulroy Bay, County Donegal.

GENERAL DESCRIPTION As the vernacular name implies, this crab is red or bright reddish-brown in colour with creamy marbling on the carapace and white flecks on the front chelipeds and other pereiopods. The carapace margin between the eyes has two low, smoothly rounded lobes (p. 44), while on each side of the carapace the fifth (rearmost) spine is a little longer than the preceding four blunt ones and extremely sharply pointed. The front chelipeds are stout and solid-looking but the other four pairs of pereiopods are markedly less robust. This swimming crab is found on rocky reefs from depths of about 10m to over 80m. Carapace length to 2.5cm, width slightly greater.

KEY FEATURES A red or reddish-brown swimming crab with the very sharply pointed rearmost anterolateral spine the longest of the five.

SIMILAR SPECIES In poor light where the red coloration is not evident this species might be mistaken for other swimming crabs described in this guide. The long, very sharply pointed fifth anterolateral spine distinguishes it from all of these. *Macropipus tuberculatus* (Roux, 1830) (not described further in this guide) is a deepwater species with a longer, sharply pointed, almost triangular fifth spine, a rather coarse, knobbly texture to the carapace as suggested by the scientific name and with three sharp teeth between the eyes. A careful examination of the front of the carapace between the eyes may necessary (p. 44) to distinguish this species from other crabs.



ABUNDANCE AND DISTRIBUTION There are a few historic records from south Cornwall, Devon and Wales pre-dating 1912. The most recent records, since 2018, are from northwest Ireland, Mulroy Bay (County Donegal) with earlier twentieth century reports from County Kerry and County Galway. There is a report from a depth of 30–40m off the Lizard, Cornwall in 2018. A record from northwest Anglesey (1967) for the related deepwater species *Bathynectes maravigna* (Prestandrea, 1839) (not described here) is an error. A record for *Macropipus* sp. from a depth of less than 30m off south Devon is also erroneous, confusion having arisen from the use of the old, superseded generic name for the Velvet Swimming Crab (*Macropipus*) in the original survey record.

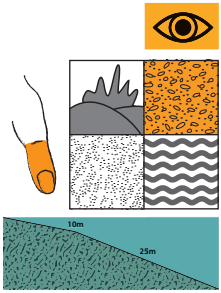
Polybius holsatus Flying Crab (Fabricius, 1798)

The fringe of orange hairs is very clear on the rear pereiopods, as are the arcs of white spots on the dull purple carapace. Loch Foyle, County Donegal.

GENERAL DESCRIPTION This swimming crab is a dull plain purple, grey-brown or greenish colour with arcs of white spots along the mid-line and a smooth carapace. The fifth pair of pereiopods have large, translucent paddles, while the merus of these pereiopods is broad (1.5× long as wide) and less than one third the length of that of the fourth pereiopod merus (p. 53). The pereiopods often have an orange hue and are fringed with orange hairs. There are three bluntly rounded teeth on the carapace margin between the eyes with the central tooth the longest and sometimes slightly more pointed than the laterals. The low points between the teeth are at the mid-point between the central tooth and the two either side with the gaps appearing symmetrical (p. 53). When disturbed this crab readily launches itself into the water column (hence the vernacular name) and swims swiftly away propelled by its large paddles. It occurs on coarse sand and gravel from the lower intertidal to depths of 80m, up to 400m in its wider distribution. Carapace length and width to 4cm.

KEY FEATURES Plain grey-brown coloured swimming crab with a smooth carapace. The three teeth on the carapace margin between the eyes are as described above (and see p. 53).

SIMILAR SPECIES The Flying Crab is most likely to be confused with the Marbled Swimming Crab *Polybius marmoreus* (opposite), *Polybius dioscurus* (p. 58) and *Polybius henslowii* (p. 59). Very careful comparison of the shape and proportions of the teeth on the edge of the carapace between the eyes is required in order to distinguish the species, as well as the proportions of the merus of the fourth and fifth pereiopods (see p. 53). If uncertain record as *Polybius* sp.



ABUNDANCE AND DISTRIBUTION This swimming crab is widely distributed around Britain and Ireland and is particularly common around Wales and the western, southern and south eastern coasts of England. This species is indistinguishable genetically from Henslow's Swimming Crab *Polybius henslowii* (p. 59) but has been retained as a distinct species because of the very different preferred habitats and behaviours of these two swimming crabs (García-Raso *et al*. 2024).

Polybius marmoreus Marbled Swimming Crab (Leach, 1814)

Above White marbled carapace with seabed clearly showing through the translucent paddles of the fifth pereiopods. Kenmare Bay, County Kerry.

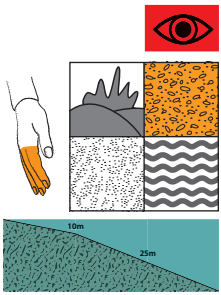
Left The marbling closely matches the seabed for this pinky-red individual. Orkney.

GENERAL DESCRIPTION This swimming crab is typically white marbled with reddish-brown variegations and a smooth carapace. The fifth pair of pereiopods have large, translucent broad but pointed paddles, while the merus of the fifth pereiopod is only about twice as long as wide and about one-third the length of the fourth pereiopod merus (p. 53). There are three, bluntly rounded teeth approximately equal in width and height on the carapace margin between the eyes. The low points between the teeth are closer to the central tooth than the two lateral teeth so that the gap between looks asymmetrical (see p. 53). This swimming crab occurs on coarse sand and gravel from the lowest intertidal to depths of 80m, up to 200m in its wider distribution. Carapace length and width to 3.5cm

KEY FEATURES Reddish-brown marbling on a white or greyish background. The three teeth on the carapace margin between the eyes are as described above (and see p. 53).

SIMILAR SPECIES The Marbled Swimming Crab is most likely to be confused with the Flying Crab *Polybius holsatus* (opposite) and *Polybius dioscurus* (p. 58). Very careful comparison of the shape and proportions of the teeth on the edge of the carapace between the eyes is required in order to distinguish the species as well as the proportions of the merus of the fourth and fifth pereiopods (see p. 53). If uncertain record as *Polybius* sp.

ABUNDANCE AND DISTRIBUTION This crab has a southern and western distribution around Britain and Ireland but has been less frequently recorded than the Flying Crab.



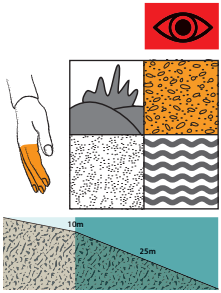
Above A classic view of a startled swimming crab on a shallow sandy seabed enabling all the key features to be clearly examined. This individual has only an indistinct cream smudge on the carapace. Guernsey.
Right This animal has much more obvious characteristic cream smudges of colour in the middle of the carapace. Tooth shape also clear. South Devon.

TAXONOMIC NOTE This swimming crab has only recently been described (García-Raso *et al.* 2024), and distinguished from *Polybius vernalis* (Risso, 1827) which is now deemed to be a species confined to the Mediterranean. Previous records for *P. vernalis* (all as *Liocarcinus vernalis*) from around Britain and Ireland have either been shown to be *P. dioscurus* or should be considered to be of this species.

GENERAL DESCRIPTION This swimming crab is very variable in colour ranging from almost plain grey to variously speckled white on a greyish or brownish background. There is often a variably sized block of plan colour (maroon, orange or cream) narrowing posteriorly down the centre of the carapace. The slightly more sharply pointed middle tooth on the carapace margin between the eyes is a little higher than the broadly rounded lateral teeth, with the low points between the teeth being central in the space between them, the gap is symmetrical (see p. 53). This swimming crab occurs on fine or muddy sand from the low intertidal to depths of about 30m. Carapace length and width to 3cm.

KEY FEATURES A swimming crab with a plain greyish or brownish carapace often with a tapering, variably sized block of plain colour. The three teeth on the carapace margin between the eyes as described above.

SIMILAR SPECIES This swimming crab is most likely to be confused with the Flying Crab *Polybius holsatus* (p. 56) and the Marbled Swimming Crab *Polybius marmoreus* (p. 57). Very careful comparison of the shape and proportions of the teeth on the edge of the carapace between the eyes is required in order to distinguish the species (see p. 53). The relative lengths of the merus of the fourth and fifth pereiopods also differ between the species (p. 53). If uncertain, record as *Polybius* sp.



ABUNDANCE AND DISTRIBUTION This crab has rarely been recorded around Britain and Ireland with recent records (all as *Liocarcinus vernalis*) from southeast England (Norfolk, Suffolk), the southern North Sea, the English south coast (Dorset, Devon and Cornwall) and the Bristol Channel (north Devon, the Gower, Glamorgan) as well as from the north of Ireland and west coast of Scotland. Examination of Irish museum material demonstrated that the species has been present in Irish waters since the nineteenth century with records from counties Kerry, Clare and Galway. Twenty-first century observations have been made from counties Kerry, Galway and Antrim.

Polybius henslowii Henslow's Swimming Crab Leach, 1820

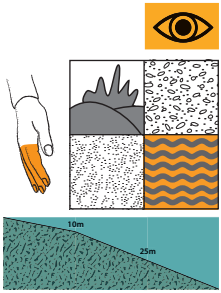
Polybius henslowii uncharacteristically in shallow water rather than its more usual pelagic habitat. Kimmeridge, Dorset.

GENERAL DESCRIPTION This swimming crab has a plain, dull brown, mauve-brown or bluish smooth, rather rounded carapace often with two arcs of white spots across the mid-line. The carapace is very fragile in comparison with other swimming crabs; this is an adaptation to its pelagic lifestyle. The pereiopods are all flattened and usually tinged a contrasting orange in life. The carapace between the eyes has three sharply pointed teeth, with the central tooth the longest and the gaps between central tooth and the laterals symmetrical (p. 53). This crab is a very active swimmer and may occur in huge swarms in surface waters; these can be very damaging to shoals of commercially valuable fish such as sardines on which the crabs prey. Large numbers of this crab are occasionally found washed ashore. The crab occurs in surface waters, offshore records from any depth probably reflect collections of fragments of crabs falling from surface swarms. Carapace length and width to 4cm.

KEY FEATURES A swimming crab with a very lightly built carapace, plain mauve-brown in colour with contrasting orange pereiopods. Three sharply pointed teeth between the eyes with the central tooth the longest.

SIMILAR SPECIES Other swimming crabs especially the Flying Crab *Polybius holsatus* (p. 56). A careful examination of the front of the carapace between the eyes is necessary (p. 53).

ABUNDANCE AND DISTRIBUTION This swimming crab has a southern and western distribution around Britain and Ireland with rare reports from as far north as Shetland. Because of its offshore pelagic lifestyle, this crab is rarely seen in the water but is more usually found stranded on southern and west-facing shores.

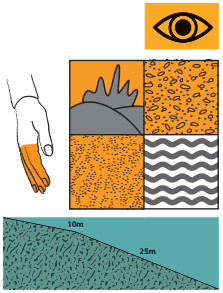


Polybius depurator Harbour Crab (Linnaeus, 1758)

Above Oval bright blue paddles prominently displayed on the fifth pereiopod. Loch Hourn, Highland.

Right A frontal view shows the chelipeds have very angular ridges or keels. Loch Long, Argyll & Bute.

GENERAL DESCRIPTION This swimming crab has a slightly rough carapace with tubercles and ridges which is often brightly coloured in a mosaic of hues of reds and browns, occasionally with hints of blue and purple (see opposite). The contrast varies with habitat, being less striking against a seabed with little contrast and subdued colours. The five strong teeth on either side of the carapace are more-or-less equal in size and very sharply pointed. The middle tooth of the three on the carapace margin between the eyes is acutely pointed (blunt in juveniles), narrower at the base and about the same length as or slightly longer than the teeth on either side which are broader and more rounded. The bright blue paddles on the fifth pair of pereiopods are oval and are often displayed prominently when the crab is agitated. This is a lively crab scuttling away sideways when disturbed, often raising a plume of sediment behind it. This crab occurs on reefs as well as on a wide variety of sediment seabeds into which they bury readily, from the lower intertidal to water depths of 280m. Carapace length to 4cm, width to 5cm.



KEY FEATURES Generally brightly contrasting red and brown colouring of the carapace. Bright blue paddles on the fifth pair of pereiopods.

SIMILAR SPECIES The profile of the three teeth on the front of the carapace between the eyes is very similar to the Flying Crab *Polybius holsatus* (p. 56) but the tubercles and

ridges and rich brown and red hues on the rough carapace of the Harbour Crab are diagnostic, as are the bright blue paddles on the fifth pair of pereiopods. A careful examination of the front of the carapace between the eyes may be necessary, especially for small individuals.

ABUNDANCE AND DISTRIBUTION This crab is common and widely distributed all around Britain and Ireland.

Colour variation in the Harbour Crab

Small Isles, Highland.

Loch Linnhe, Highland.

Helford Estuary, Cornwall.

Isle of Arran.

Loch Etive, Argyll & Bute.

Poole Bay, Dorset.

Polybius corrugatus Wrinkled Swimming Crab (Pennant, 1777)

Above Wrinkled Swimming Crab with red eyes, crinkled, ridged carapace and broad but pointed paddles on the fifth pereiopods. Sound of Sleat, Highland.

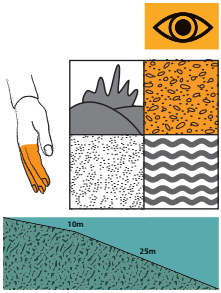
Left Despite the rather bright spotted red colour, the wrinkled carapace and red eyes show this very small crab to be the Wrinkled Swimming Crab. Summer Isles, Highland.

GENERAL DESCRIPTION As the scientific and vernacular names imply, the rich red-brown coloured carapace of this crab appears crinkled, being covered in parallel ridges each with a dense fringe of very short hairs on the front edge. The pereiopods are boldly banded in red with the fifth pair having broad but pointed paddles fringed with long hairs. The eyes are bright scarlet and the clearly crenulated edge of the carapace between them has a very broad, blunt central tooth with blunt teeth sloping away asymmetrically to either side (p. 44). This crab is very common in maerl beds in particular but also occurs on shell-rich sediments from the intertidal to depths of 150m. Carapace length and width to 4cm.

KEY FEATURES Red or reddish-brown ridged carapace. Distinctive pattern of the three teeth on the front of the carapace between the red eyes.

SIMILAR SPECIES Given the presence of the key features there should be no confusion with any other swimming crab. Although the Velvet Swimming Crab *Necora puber* (p. 54) also has red eyes, that species has an obvious dense felt of fine hairs on a brownish-grey carapace. However, a careful examination of the front of the carapace between the eyes may be necessary, especially for small individuals (p. 44).

ABUNDANCE AND DISTRIBUTION This swimming crab has a scattered northern and western distribution around Britain and occurs widely but infrequently around Ireland.



Polybius navigator Arch-fronted Swimming Crab (Herbst, 1794)

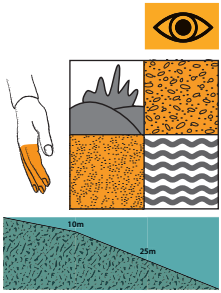
Above The gently curving carapace between the eyes explains the vernacular description 'arch-fronted' for *Polybius navigator*. Killary, County Galway.

Right This frontal view shows the blue-green eyes and the broad rear paddle; the lack of teeth on the front of the carapace is also clearly visible. Lough Hyne, County Cork.

GENERAL DESCRIPTION This swimming crab usually has a dull greenish or yellowish-brown carapace, sometimes with reddish hues, with the pereiopods often a slightly contrasting orange-brown colour. The carapace forms a gentle curve between the eyes (hence the vernacular name) which are often tinged blue and/or emerald-green. There is a thick brush of stiff hairs along this edge which thins out with time between moults; the frontal carapace margin lacks any teeth or spines (see p. 44). The crab has a preference for silty, often soft muddy sediments or pockets of such sediment among reefs; it also occurs on sediments with dead maerl and broken shell. Lower intertidal to depths of over 100m. Carapace length to 2cm, width to 3cm.

KEY FEATURES Gently curved edge to the carapace between eyes with long hairs in recently moulted individuals. Emerald green or bluish eyes.

SIMILAR SPECIES This species has been confused with the non-native Brush-clawed Shore Crab *Hemigrapsus takanoi* (p. 90) which also has greenish eyes. That species has three, short lateral spines down the side of carapace and the fifth pereiopod ends in a sharp dactylus, not a paddle. A careful examination of the front of the carapace between the eyes may be necessary, especially for small individuals (p. 44).



ABUNDANCE AND DISTRIBUTION This swimming crab has a western and southern distribution around Britain and Ireland with clusters of records in estuaries such as the Solent (Hampshire) and the Thames (Essex, Kent). A review of Seasearchers' images show that it is common on soft sediments in Scottish sea lochs.

Polybius pusillus Dwarf Swimming Crab (Leach, 1816)

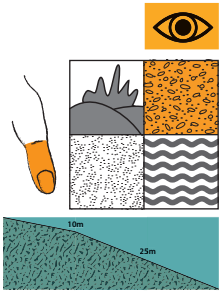
The paddles (typical of a swimming crab), the lack of sharp teeth between the eyes and the yellow antennules are characteristic of *Polybius pusillus*. The overall colour closely matches the surrounding seabed. Sound of Sleat, Highland.

GENERAL DESCRIPTION This small (hence the scientific and vernacular names) swimming crab is extremely variable in colour (see gallery opposite) frequently with a contrasting stripe down the middle of the smooth carapace, matching the hues of its habitat closely. The pereiopods are often striped with different colours and the peduncles of the antennules are frequently a dull yellow. The carapace between the eyes has three, usually very blunt teeth, the central tooth broadly based and the longest (see p. 44). This crab occurs on relatively clean coarse sediments of gravel, shell or maerl from the lower intertidal to depths of 150m. Carapace length and width to 2cm.

KEY FEATURES A small swimming crab with three blunt teeth between the eyes.

SIMILAR SPECIES Juveniles of other swimming crabs, which have rather blunt teeth between the eyes compared with adults, could be confused with this species. See p. 46 for distinctions with juvenile Green Shore Crabs. A careful examination of the front of the carapace between the eyes is necessary (p. 44).

ABUNDANCE AND DISTRIBUTION This swimming crab is common and occurs widely both inshore and offshore around Britain and Ireland on suitable sediments. There are few records from the east coasts of England and Scotland due to lack of suitable habitat.



Colour variation in the Dwarf Swimming Crab

Anima Point, County Cork.

Jersey.

Poole Bay, Dorset.

Sound of Sleat, Highland.

Valentia, County Kerry.

Fal Estuary, Cornwall.

Mulroy Bay, County Donegal

Loch Fyne, Argyll & Bute.

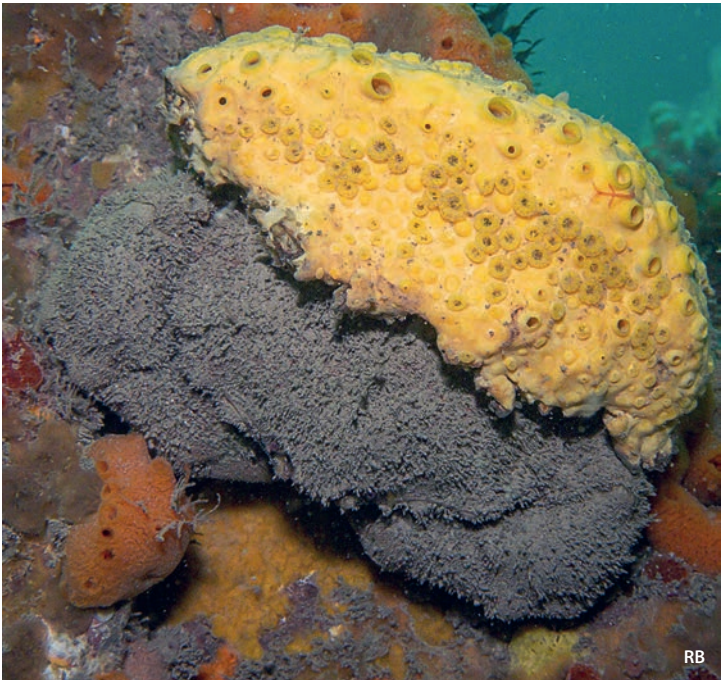
Other brachyuran crabs

This part of the guide covers 20 species (14 with full descriptions) of brachyuran crabs, all except one from the section Eubrachyura de Saint Laurent, 1980. The exception is the Sponge Crab *Dromia personata*, classified in the section Dromiacea De Haan, 1833 which includes only that species in British and Irish waters. The classification of the entire Eubrachyura section is much revised and extremely fine-grained, such that many levels of the hierarchy terminate in a single species. We have omitted from this guide any shallow water species lacking British or Irish records (whether listed in MSBIAS or not) and species for which there are only offshore / deepwater records, since they are unlikely to be encountered by recreational divers.

Species for which there are only one or two records, or that have been recorded on the other side of the English Channel and may soon arrive in the Channel Islands or on the south coast of England, are highlighted on p. 79.

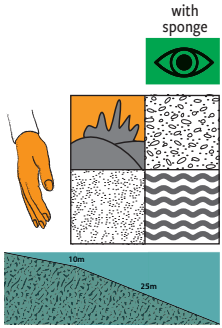
Unsurprisingly given the taxonomy, these crabs exemplify a broad range of carapace shapes and sizes, habitats and distributions.

Dromia personata Sponge Crab (Linnaeus, 1758)



Hiding the pink chelipeds but with the favourite *Cliona* sponge hat in place neatly illustrating the origin of the French name 'Crabe béret-basque'. Pembrokeshire.

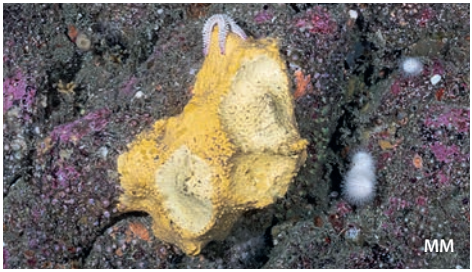
GENERAL DESCRIPTION This crab can be hard to find given its preference for deep crevices and its habit of carrying a large piece of sponge on its back, held in place by the fourth and fifth pair of very short pereiopods. These are modified to hold the sponge in place, the movable dactylus working against a thickened spine to make a small pincer. The carapace is brownish-grey, oval and rather plump and covered with a felt of stiff hairs. The front chelipeds are large and robust with the tips of the chelae bright pink, usually held tightly against the carapace. The crab selects live sponges or colonial tunicates for decoration and it is thought the sponge may produce toxins which act as a deterrent to would-be-predators. In Pembrokeshire the crab almost exclusively uses the Boring Sponge *Cliona celata* with Elephant Hide Sponge *Pachymatisma johnstonia* reported occasionally. The sponge load is abandoned during mating. The presence of the Sponge Crab at a site is



Naked juvenile showing pink tips to chelipeds and felt of stiff hairs. Guernsey.

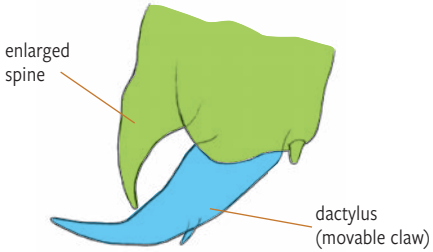
Showing the small 4th and 5th pereiopods modified to carry the sponge over the top of the carapace. Pembrokeshire.

Evidence of *Dromia* sponge selection activity. Pembrokeshire.



Ciona celata snipped sponge. Eddystone, Cornwall.

Colonial tunicate *Didemnum maculosum* as decoration. Pembrokeshire.



An enlarged spine on the end of the propodus (green) works against the dactylus (movable claw, blue) to form a pincer used to clutch onto the sponge (after Ingle, 1980).

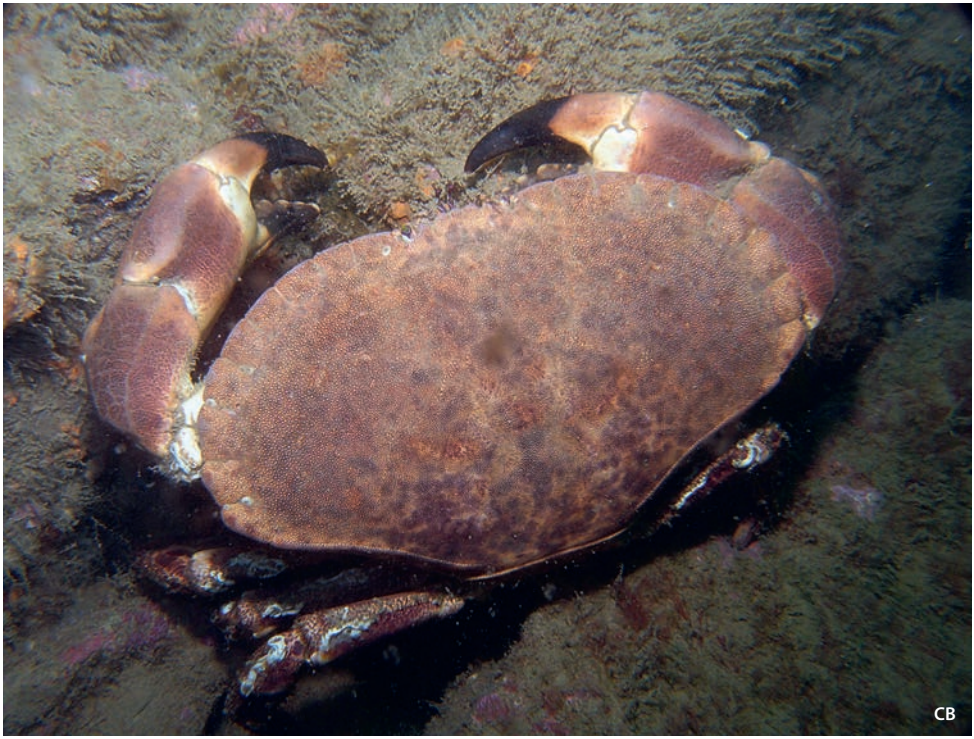
indicated by the very characteristic cut-outs left in colonies of the Boring Sponge in particular. It occurs on rocky reefs from the lower shore to depths of about 75m. Carapace length to 7cm.

KEY FEATURES A crab usually carrying a large piece of sponge on its back. Bright pink tips to the chelae.

SIMILAR SPECIES None if sponge is present. The bright pink chelae are also diagnostic.

ABUNDANCE AND DISTRIBUTION Prior to 1998 most British records for this crab were from the late 19th and early 20th century. Since 1998, 71 records have been added to the public databases, the majority from Seasearch divers. This could be partly due to the preferred habitat of this species (rocky reef) being almost impossible to sample using remote methods. The increased accessibility of SCUBA diving and particularly underwater photography may account for the recent surge in sightings. There are now records from around Pembrokeshire, Lundy, the north Devon coast, Sussex, and Kent and more recently there have been regular reports from reefs in south Cornwall and from Plymouth Sound, south Devon as well as the Channel Islands. The first Irish record was from a maerl bed off County Antrim in 2004 with the next two individuals reported caught in nets off County Cork in 2010 and 2011. There have been a few reports from the southern North Sea since 2016 where the Breadcrumb Sponge *Halichondria panicea* and the non-native sponge *Celtodoryx ciocalyptoides* were used by the crabs.

Cancer pagurus Brown Crab Linnaeus, 1758

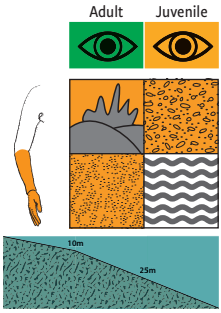


The unmistakable adult with dark chelae on the sturdy chelipeds and a pie-crust edge to the oval carapace. Poole Bay, Dorset

GENERAL DESCRIPTION Also called the Edible Crab. This crab has a pinkish-brown, smooth carapace which is much wider than it is long giving an almost oval outline. There are low, blunt, rounded, evenly sized scallop-shaped lobes all around the margin, creating a distinctive 'pie crust' edge. The three teeth between the eyes are the same rounded shape and all the same size in adults. The chelae are black and the equal-sized front chelipeds are proportionally very much larger in males. The other pereiopods are edged with short, bristly hairs. This crab can be found in a range of seabed types, burrowing in soft sediment or tucked into crevices on rocky reefs from the intertidal (juveniles of 10mm carapace length) to depths of over 500m. Carapace length to 10cm, exceptionally to 15cm, width up to 25cm.

KEY FEATURES The pie crust margin to the carapace in a pinkish-brown crab. Black-tipped chelae even in juveniles.

SIMILAR SPECIES An adult Brown Crab is unlikely to be confused with any other common species of crab. The closely related Toothed Rock Crab *Cancer bellianus* (Johnson, 1861) (see opposite, not described further here) is typically a deepwater species but has been recorded from as shallow as 35m off Shetland and there is evidence that the species might be extending its range northwards. There are recent records from County Donegal from deep water (50m). The carapace of that species is reddish-brown with darker red spots and small tubercles giving a rough texture to the surface while the marginal lobes are conspicuously serrated, hence its vernacular name. Small juvenile Brown Crabs are frequently found in the intertidal and are very variable in colour (see gallery opposite) These juveniles have been confused with *Atelecyclus undecimdentatus* (a species for which there are few reliable records from the area; see pp. 70–71 for the distinguishing features of that species).



ABUNDANCE AND DISTRIBUTION The Brown Crab is common around all British and Irish coasts with the majority of records inside the 100m depth contour. It forms the basis for a very valuable fishery.

A male Brown Crab displaying large, sturdy black-tipped chelipeds. Loch Hourn, Highland.

The rough texture to the surface and the conspicuously serrated marginal lobes of the carapace are characteristic of the Toothed Rock Crab *Cancer bellianus*.

Colour morphs of juvenile Brown Crab

Portland, Dorset.

Portland, Dorset.

With the characteristic dark-tipped chelae. Orkney.

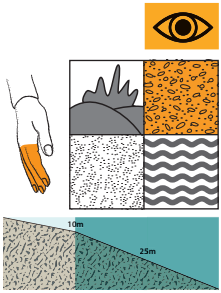
Shetland.

Atelecyclus rotundatus Circular Crab (Olivi, 1792)

A top-down view showing the sharp teeth on the carapace margin and the hairy pereiopods. Isle of Skye, Highland.

GENERAL DESCRIPTION As the scientific and vernacular names suggest, this crab has an orange-red, rounded carapace (as wide as long), which, together with its habitat of holding its pereiopods tightly in to the body when disturbed, results in a very compact, globular-looking crab. There are 9–11 sharp, prominent teeth with tuberculate margins alternating one large, one smaller (often obscured by sediment) on the edge of the carapace either side of the eyes. Between the pale eyes, which are carried on long stalks, there are five teeth, three of which form a prominent mid-point with the central tooth being the longest.

When viewed from the front, the dense hairs on the antennae and lower edge of the carapace and inner edges of the front chelipeds are clearly visible; these act both as a snorkel and a filter, allowing the crab to draw clear water beneath itself when buried in sediment permitting exchange of clean water over the gills. The cream-coloured front chelipeds are short, very broad and deep with black tips to the chelae. There are distinct rows of small blunt tubercles running in parallel lines on the outside of the propodus. It seems to be rare to see females of this crab out on the sediment. Its preferred habitat is burrowing in muddy sediment containing shell or stone gravel from the low intertidal to depths of nearly 800m. Carapace length and width to 4cm.



KEY FEATURES Rounded, hairy crab found on muddy, shell-rich sediment.

SIMILAR SPECIES *Atelecyclus undecimdentatus* (Herbst, 1783) superficially resembles the Circular Crab with 10 or more evenly sized sharp, tuberculate teeth around the carapace and either side of the eyes. The best distinguishing features are the three central teeth between the eyes which in *A. undecimdentatus* do not form a prominent mid-point and are not much taller than the two other lateral teeth (see opposite). *A. undecimdentatus* is also densely hairy but has an oval (broader than long) rather than circular carapace with a concave, converging posterolateral margin; the shape more closely resembling a small Brown Crab *Cancer pagurus* (p. 68). The Brown Crab has low, blunt, rounded, evenly sized teeth

(continued...)

Index

D

E

F

G