

KEY TO SPECIES OF PORPHYRA (BLADE PHASE)

This key should be used in conjunction with Table 6 and the frontispiece. Apart from juvenile individuals, the majority of specimens are fertile; however, a proportion of individuals will be impossible to identify on gross morphology alone.

1. Blades (golden-, mauve-, purple-) brown or purple-red. Male sori diamond/slit-shaped (pale); sublittoral or lower littoral.....

2.

Blades (pink-, rose-, purple-) red, or (red-, purple-, grey-) brown, or (olive-, dull grass) green. Male and female reproductive structures in separate sori or mixed; male sori in paler patches, and female sori in redder areas/bands; littoral-shallow sublittoral.....

3.

2. Colour (golden-, mauve-, purple-) brown; sometimes appearing umbilicate; reproductive structures scattered mainly near margins, male sori diamond/slit-shaped (pale); usually epiphytic (e.g. on *Fucus serratus* and *Mastocarpus stellatus*); lower littoral to shallow sublittoral; present in summer.....

P. leucosticta

Colour purple-red: margins smooth; monoecious, reproductive structures scattered, male sori diamond/slit-shaped, pale; epiphytic on tips of *Laminaria* blades; sublittoral; present in summer.....

3. Blades pink- or rose-red; 1-2 cell-layers thick*; margins ruffled; monoecious, reproductive structures scattered, male sori paler pink patches; on shells and stones and epiphytic on other algae; present May-November; sublittoral or extreme lower littoral, restricted to northern counties

P. amplissima

Colour (golden-, red-, purple-, grey-) brown or greenish; monoecious or dioecious; mainly littoral.....

4.

4. Blades red-brown or brown; linear to broad; reproductive structures marginal or in sectors, or scattered; male sori (pale) not diamond/slit-shaped; midlittoral to upper littoral (splash zone); not confined to summer.....

5.

Blades olive-green, purple or grey-brown; usually dioecious; lower to upper littoral.....

6.

5. Frond with linear blade, occasionally pear-shaped, small, up to 15 cm long; margin with either a male sorus (pale yellow) or a female sorus (red) or with male sector below female sector; epilithic; upper littoral to splash zone; present in winter

P. linearis

Frond with narrow to broad and almost ovate blade, up to 38 cm long; male sector light yellow, female sector red; sometimes epiphytic (e.g. on *Fucus* spp) or epizoic (e.g. on limpets, mussels), otherwise epilithic; midlittoral; present all year

P. purpurea

6. Blades olive-green to purple brown (light brown); sometimes laciniate, folding in half when held vertically; often forming a dense, almost black, cover on boulders, rarely epiphytic; lower to upper littoral; present all year

P. dioica

Blades (green) olive-green, brown, golden-brown, grey-brown, often grading from a greyish area near the holdfast to olive-green to paler at the margin; frond appearing umbilicate; often epizoic on limpets and mussels, especially in summer; lower to upper littoral, occasionally shallow sublittoral; present all year

P. umbilicalis

*Other British Isles species are entirely monostromatic.

Porphyra sp. A. (*P. yezoensis* sensu Kornmann) has not been included in the key because of the lack of information for material collected in the British Isles.