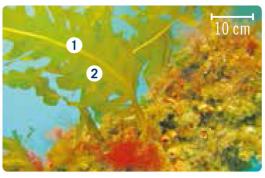
WAKAME/UNDARIA

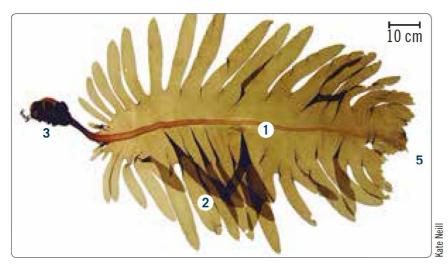
Undaria pinnatifida

Key features

- Strap-like midrib in plants larger than 10 cm
- 2 Smooth, thin, laminar blade, with side lobes, that starts just above the holdfast, or above the frilly reproductive tissue in mature plants







- 3 Base of mature plant is frilly (reproductive tissue), with a root-like holdfast
- Adult plants brown to yellowish, up to 3 m tall
- **5** Tops of mature plants are often eroded







Habitat

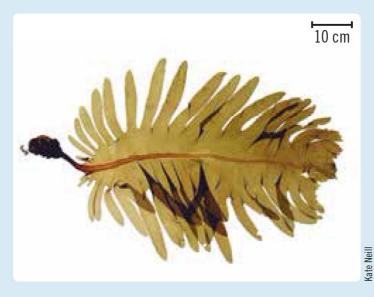
- Intertidal to 40 m depth
- Wharves, pontoons and buoys
- Rocky coasts and reefs
- Boat hulls
- Sheltered to exposed environments
- Grows well in polluted or nutrient-enriched waters

Impact

- Very fast growing and can form dense colonies displacing native and fisheries species
- Fouls boats, aquaculture installations and other marine structures

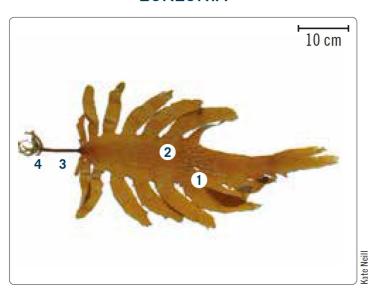


NATIVE SPECIES THAT LOOK SIMILAR

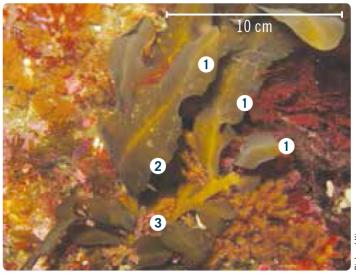


How to differentiate Undaria pinnatifida from:

Ecklonia radiata ECKLONIA



Carpophyllum flexuosum



- le, often with many s smooth, thin and Carpophyllum has multiple ribbed leaves; Undaria has only a single midrib and blade
 - **2** Carpophyllum has stiff, tough, leathery leaves
 - 3 Carpophyllum has no frilly base
- Ecklonia has rough, leathery blade, often with many small, raised bumps; Undaria has smooth, thin and fragile blades
- **2** Ecklonia has no midrib (Note: plants are difficult to differentiate before this character develops in *Undaria* at about 10 cm length)
- **3** *Ecklonia* has a cylindrical trunk-like stipe. *Undaria* has a flattened, strap-like stipe
- 4 Ecklonia has no frilly reproductive tissue at base