



Pelvetia canaliculata

Common names: Cow tang, Channelled wrack.

Irish names: Dubhlamán, Múirín na muc, Caisineach.

Phylum: Ochrophyta
Class: Phaeophyceae
Order: Fucales
Family: Fucaceae
Genus: *Pelvetia*
Species: *P. canaliculata*



Fig 1. *Pelvetia canaliculata* plants.

Morphology

- Brown alga with regularly forked fronds and in-rolled margins, forming a channel on one side.
- Individuals are 5-15 cm long and less than 5 mm wide.
- The fronds are tough, smooth and olive-green to brown when wet. On drying, the fronds become brittle and dark, almost black in colour, especially when out of water for long periods during neap tides.
- *P. canaliculata* is the only species of this genus in Ireland.
- It does not resemble any other wrack.

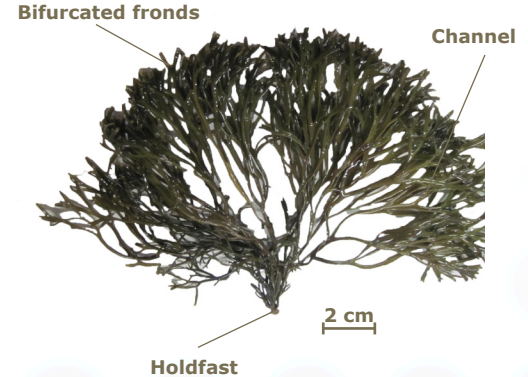


Fig 2. Morphology.

Reproduction

- *Pelvetia canaliculata* has a direct life-cycle (see LC5*)
- The reproductive structures or receptacles develop at the tips of the thallus and have a beaded, knobby, forked appearance.



Male and female structures occur on the same individual.



Fig 3. Detail of the reproductive receptacles.

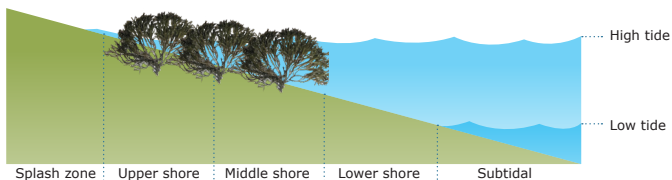
*Note: Life-cycle 5 (LC5) on page 4.



Pelvetia canaliculata

Distribution and habitat

- This species is found in the NE Atlantic, from Iceland to Portugal.
- It grows on bedrock on shores ranging from sheltered to exposed shores.
- Free living forms (known to some as *P. canaliculata* var. *libera*) can be found in salt-marshes.



Seasonality



Note: These seasonal characteristics may vary slightly from year to year.

Wild resource and cultivation



interesting facts

- *Pelvetia canaliculata* is very drought resistant and can endure high levels of tissue dehydration without affecting normal functionality. If it stays submerged for more than six hours a day it dies and decays.
- Purified chemicals called fucoidans from *Pelvetia* have been described as having anticoagulant properties.

- Natural production of chloroform by this species has been reported, and from many other red, brown and green seaweeds.



- The tissue of this alga is colonised by an endophytic fungus called *Mycosphaerella ascopylli* which may aid in resisting desiccation. *M. ascopylli* was first described in *Ascopyllum nodosum*.

© Pictures: Figs 1 & 3 by Irish Seaweed Consultancy and Fig 2 by Jyostna.

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