



Alaria esculenta

Common names: Atlantic wakame, Dabberlocks.

Irish names: Láir, Láracha, Sraoilleach.

Phylum: Ochrophyta
Class: Phaeophyceae
Order: Laminariales
Family: Alariaceae
Genus: *Alaria*
Species: *A. esculenta*



Fig 1. *Alaria esculenta* fronds showing distinctive midrib.

Morphology

- This brown alga has a small holdfast, with a short stipe that extends from the holdfast and continues as a distinct midrib for the length of the blade.
- The blade is elongated, soft, flexible and rounded at the tip.
- Commonly 1-2 m in length, but may be larger, and 5-40 cm in width, tapering slowly towards the tip.
- The colour is generally a dark brown with a paler midrib.
- This species is difficult to mistake for any other in Ireland because of its distinctive midrib.

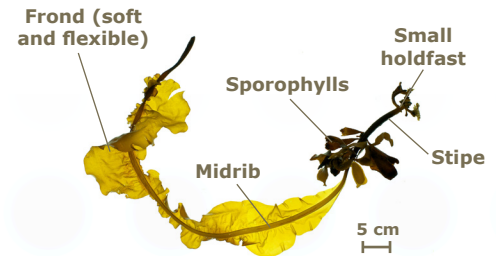


Fig 2. Morphology.

Reproduction

- *Alaria esculenta* sporophytes are the macroscopic phase of the two-stage life-cycle (see LC4*).
- Reproductive structures are located in sporophylls, in dark patches called sori. The sporophylls containing sori form on the stipe, below the base of the blade/frond. They can be numerous, forming a dense bundle between 10 – 20 cm in length.



Male and female gametes occur on separate microscopic individuals (gametophytes).

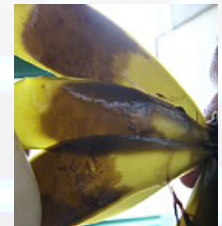


Fig 3. Fertile wing-like sporophylls.

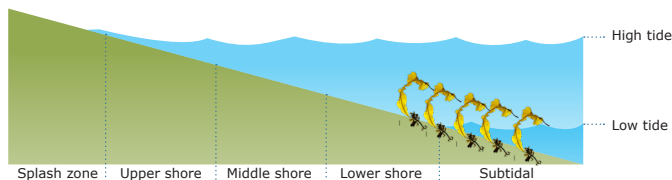
*Note: Life-cycle 4 (LC4) on page 4.



Alaria esculenta

Distribution and habitat

- Occurs throughout the N Atlantic (from Greenland to France) and along both western and eastern Atlantic shores. Also found in the NE Pacific (Alaska).
- It is commonly found between 0-8 m depth but may grow deeper in areas of good light penetration. Prefers rocky substrata in weak or strong currents at exposed to extremely exposed locations.



Seasonality



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

Wild resource and cultivation



interesting facts

- Known as Atlantic Wakame due to its similarity to the Asian Wakame species (*Undaria pinnatifida*). This is a tasty seaweed that can be used in many dishes – soups, casseroles, breads, and even in sweet desserts. Like all the kelps, it is rich in vitamins, minerals, and particularly iodine.
- All the kelps contain alginates which are used as for thickeners, stabilizers, and gelling agents for food: E400 – alginic acid, E401 – sodium alginate, E402 – Potassium alginate, E403 – Ammonium alginate, E404 – Calcium alginate, E405-Propylene glycol alginate (PGA).



- This species was first cultivated on longlines in Ireland in the mid 1990's.
- It's holdfast is so strongly attached to the rock that when pulled, sometimes the rock breaks off before the holdfast does!

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