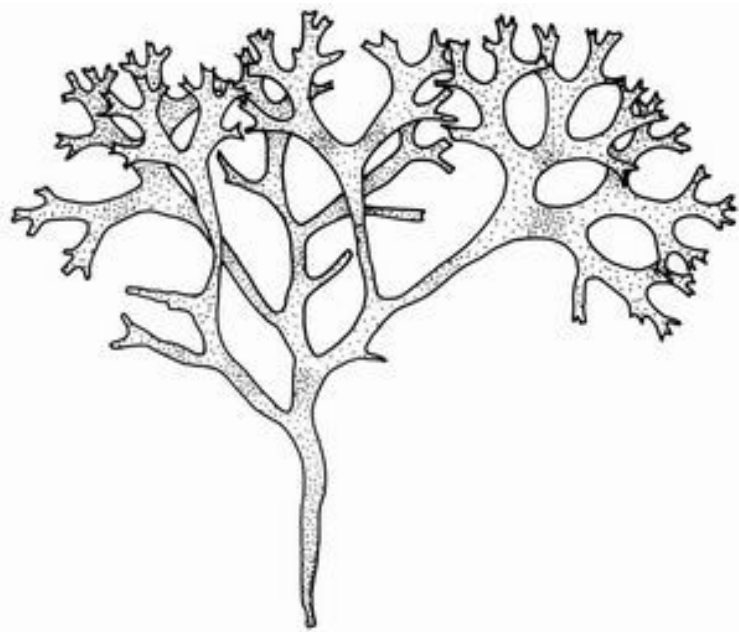


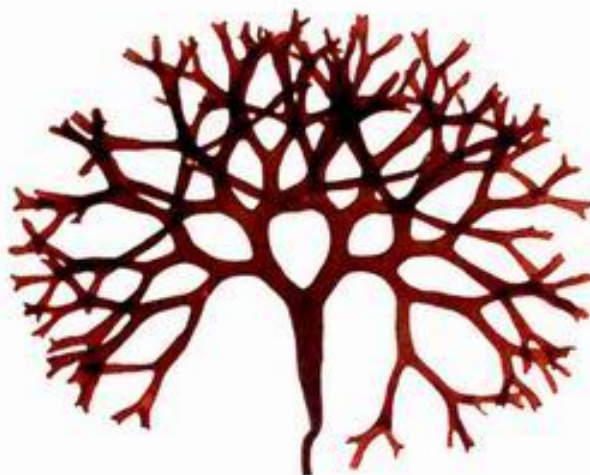


Species Fact Sheets

Chondrus crispus (Stackhouse, 1797)



Chondrus crispus: [\(click for more\)](#)



Chondrus crispus: [\(click for more\)](#)

See tree map [↔](#)

Synonyms

- *Fucus filiformis* Hudson, 1762*
- *Fucus crispus* Linnaeus, nom. illeg., 1767*
- *Sphaerococcus norvegicus* (Gunnerus) C. Agardh, 1817
- *Chondrus norvegicus* (Gunnerus) Lyngbye, 1819
- *Halymenia platynus* C. Agardh, 1822*
- *Chondrus platynus* (C. Agardh) J. Agardh, 1851
- *Chondrus crispus* var. *virens* Turner, *
- *Chondrus crispus* var. *stellatus* Turner, *
- *Chondrus crispus* var. *patens* Turner, *
- *Chondrus crispus* var. *sarniensis* Turner, *
- *Chondrus crispus* var. *lacerus* Turner, *
- *Chondrus crispus* var. *planus* Turner, *
- *Chondrus crispus* var. *aequalis* (Turner) Lyngbye, 1819
- *Chondrus crispus* var. *filiformis* (Hudson) Lyngbye, 1819
- *Fucus crispus* f. *aequalis* Turner, 1809*
- *Sphaerococcus crispus* f. *aequalis* (Turner) C. Agardh, 1817
- *Chondrus crispus* var. *incurvatus* Lyngbye, 1819*
- *Sphaerococcus crispus* var. *ciliatus* Suhr, 1834*
- *Chondrus crispus* f. *abbreviatus* Kjellman, 1907*
- *Chondrus crispus* f. *polychotomus* Kjellman, 1907*
- *Chondrus crispus* f. *aequalis* (Turner) Rosenvinge, 1931
- *Chondrus crispus* f. *densus* Rosenvinge, 1931*

- *Chondrus crispus f. incurvatus* (Lyngbye) Rosenvinge, 1931
- *Polymorpha crispa* (Stackhouse) Stackhouse, 1809

FAO Names

En - Carragheen (Irish) moss, Fr - Mousse perle, Sp - .

3Alpha Code: IMS Taxonomic Code: 7871600104

Scientific Name with Original Description


Chondrus crispus Stackhouse, 1797. Nereis britannica, Fasc. 2. Hazard, Bath.

Diagnostic Features

Thallus of cartilaginous consistency, perennial, erect, expanding gradually onto a flat, fan-like or curled, rather variable in form, blade. The blade is dichotomously branched, in tufts from a discoid holdfast. Stipe compressed and narrow. Axils rounded, apices blunt or subacute, frond thicker in centre than margins. Segments very variable in breadth. Colour of fronds varying with period of the year and depth (tidal level occupied), from white to yellowish green in summer and in shallow water and dark purplish-red in autumn and in deeper water, frequently iridescent under water.

Geographical Distribution

Mainly distributed on Atlantic coasts of Europe, East Africa and Northern America. NE Atlantic: from coasts of Iceland and Norway (rare in the Baltic Sea) including the British Islands to France, Spain, Portugal and Morocco, the Azores and Canary Island (doubtful); Mediterranean (Greece). NW Atlantic: from New Jersey to Newfoundland. SE Atlantic: Mauritania, Cape Verde Islands and Ghana. Also recorded from the Bering Sea and Alaska in the NE Pacific, Antarctic and subantarctic regions (Antarctic Peninsula, Falkland Islands) and New Zealand (Levring et al., 1969).

 Launch the Aquatic Species Distribution map viewer

Habitat and Biology

Chondrus crispus occurs both in the lower intertidal and shallow subtidal stages, sublittorally to 6 - 24 m depending on wave action, water transparency and local topographic conditions. On rocks and stones and also in tide pools. It is widely distributed and abundant, forming a thick carpet over rocks and ledges. Primary producer. Food of grazers such as the green sea urchin in New England and Canada. Sessile, on rocks and stones.

Plants maturation in summer; fruiting in summer and autumn. Considered to be diplobiontic with an alteration of dioecious gametophytic and tetrasporic plants and an interposition of a carposporic generation parasite on the female gametophyte. The asexual regeneration of fronds from established holdfast is also important for the recruitment of this algae (Mathieson and Prince, 1973; www.mar.dfo-mpo.gc.ca). Marine intertidal and shallow subtidal waters. It can also inhabit estuaries. *Chondrus crispus* is an eurythermal (0-30°C) and euryhaline (13-32 ppt) algae. Optimum temperature for photosynthesis is 20°C and ideal growing temperatures range between 5-15°C. Maximum photosynthesis rate is reached at 24 ppt.

Size

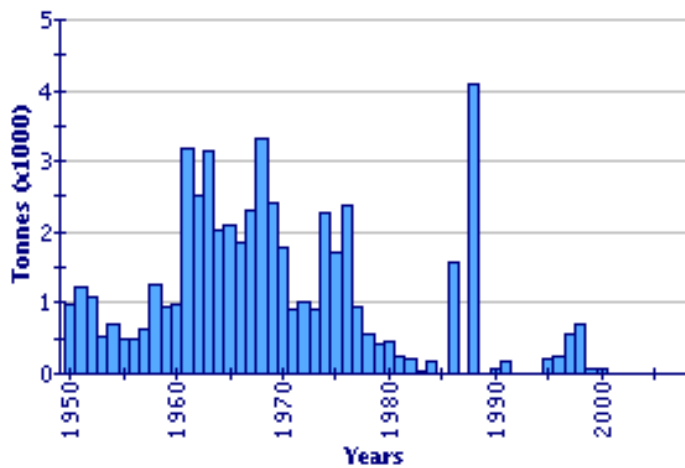
Normally 7-15 cm tall (up to 22 cm).

Interest to Fisheries

Global Capture production for

Chondrus crispus

(FAO Fishery Statistic)



Detailed landings of Irish moss available for the Canadian coasts between 1948 to 1985, showed peaks of production in 1970 (48,008 metric tonnes) and 1974 (50,400 mt). In 1985 the production was 22,845 mt, 19779 mt in 1990, and 7165 mt in 1993. In many areas the bivalve mollusc *Mytilus edulis* grows in association with Irish moss.

Chondrus crispus is harvested commercially (collected together with *Mastocarpus stellatus*), as Carrageen to be used in the food, pharmaceutical and cosmetic industries. It is a source of carrageenan (a sulphated polysaccharide) used to make soups, jellies, etc. and as a thickening agent for sweets. In Ireland was also used as a traditional remedy for respiratory disorders. Used as food for domestic animals (sheeps, horses) in Iceland and also in Norway, Scotland and Ireland. The Irish-moss industry is the oldest seaweed industry in U.S.A. (since 1944-1945). This alga is usually harvested between its 3th and 5th years, from April to September. Quality of plants in terms of biomass best for harvesting is in summer (July and August).

[🔍 Related Fishing Techniques](#)

Local Names

FRANCE : Mousse d'Irlande .

GERMANY : Irländisches Moss , Felsenmoss , Knorpeltang , Perlmoss .

NORWAY : Gelatitang .

SPAIN : Musgo perlado .

UNITED KINGDOM : Irish Moss , Carrageen Moss , Carrageen , Jelly Moss , Dorset Weed , Carraigín .

Remarks

Mastocarpus stellatus is frequently collected with *Chondrus crispus* and sold as a mixture under the name Carrageen or Irish Moss. (*) in synonyms section mean basynims.

Bibliography

Levring, T., H.A. Hoppe & O.J. Schmid - 1969. Marine Algae. A survey of Research and Utilization. Cram, De Gruyter and Co., Hamburg, Germany. .

Mathieson, A.C. & J.S. Prince - 1973. The ecology of *Chondrus crispus* Stackhouse. In: *Chondrus crispus*, Edited by M.J. Harey and J.McLachlan. 155 p. Nova Scotia Institute of Science, Halifax, Nova Scotia. . 53 to 79..