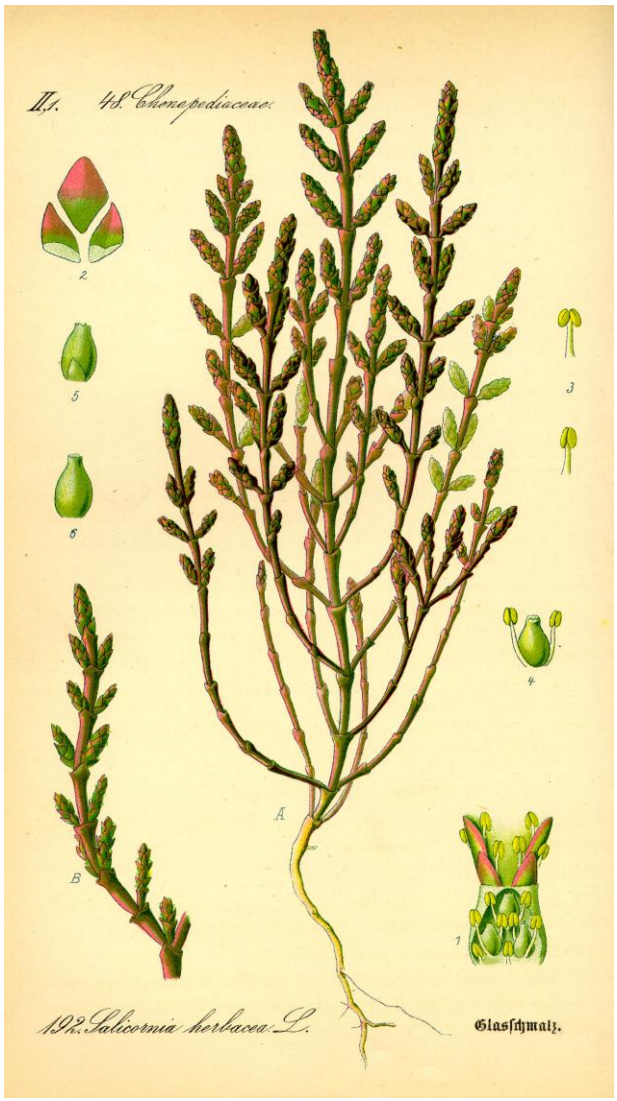
Marsh Samphire - *Salicornia europaea*

Marsh Samphire emerges from the mud of the salt marsh in summer. Bright green shoots, cut them with scissors when still very young and tender, just a few inches high, taking care not to uproot the plant. Boil them but not for long; they're best eaten almost raw. Some recommend standing it upright in a pot with just a little boiling water so it cooks in its own steam. It is very rich in oils, particularly the polyunsaturated linoleic acid, and is high in vitamins and minerals.



Salicornis europaea
Prof. Dr. Otto Wilhelm Thomé "Flora von Deutschland, Österreich und der Schweiz" 1885

The Salicornia genus belongs to the same family, *Amaranthaceae*, as beetroot and spinach. They are variable and *S europaea* may best be described as an aggregate, the British natives comprising about half a dozen annual species:

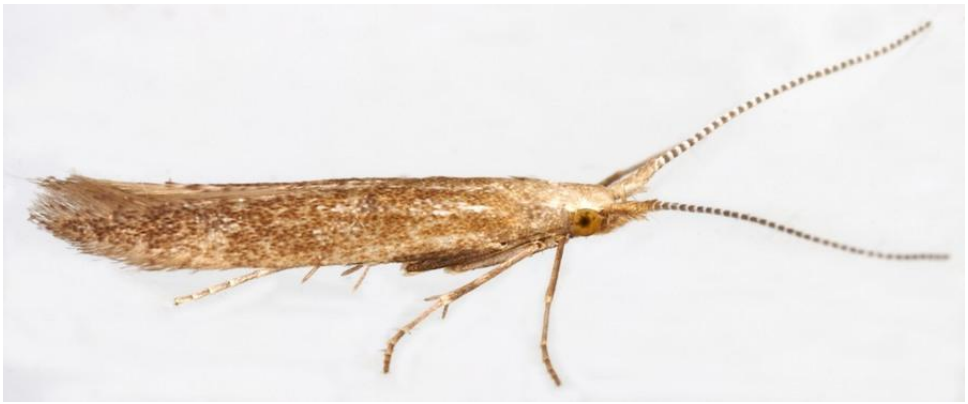
Salicornia dolichostachya	Long-spiked Glasswort
Salicornia europaea	Common Glasswort
Salicornia fragilis	Yellow Glasswort
Salicornia procumbens	Yellow Glasswort
Salicornia nitens	Shiny Glasswort
Salicornia obscura	Glaucous Glasswort
Salicornia ramosissima	Purple Glasswort

The closely related Perennial Glasswort, *Sarcocoria perennis*, has creeping woody stems and tends to occur on the upper, firmer parts of the saltmarsh.

Samphire is high in sodium carbonate and the alternative name, Glasswort, comes from its ancient use in the glass industry. Burning the plant released the sodium more easily than from common salt until, in 1806, the introduction of Leblanc's process of obtaining soda from sodium chloride. Samphire was gathered and burned in heaps and the ash fused with sand to make glass, or for better glass, the ash was leached with lime water to make a solution of caustic soda, evaporated and then added to the silica. It was also used, mixed with animal fats, as a soda source in soap making, but Soapwort, *Saponaria*, is a quite different genus. Domestic production was supplemented by imports from Spain and North Africa and the local trade died out in the 19th century

While some Samphire grows on the Lincolnshire coast most production comes from Norfolk. According to an environmental impact published by English Nature:

"Traditional activities, including common rights, such as samphire gathering, bait digging and wildfowling are widely recognized by English Nature and the other relevant authorities as a particularly important aspect of the local culture and economy in the Wash and North Norfolk Coast European marine site. These activities are generally seasonal in nature, localised in their occurrence, employ traditional methods and place a strong emphasis on the principles of sustainability. Sound management of these activities over many years is considered to have contributed to the long-term maintenance of the site's condition."



Coleophora salicornia,
a moth completely dependent on Marsh Samphire.
Photo Dr. Chris Lewis

Samphire's flowers are wind pollinated but the plant is eaten by some *Coleophora* moth larvae, with one species, *C. salicorniae*, feeding entirely on Samphire as a stem borer.

Samphire is a halophyte, or salt-lover, but there are limits. Its roots take up seawater, storing the salt in its leaves but it reduces the salt intake as much as possible by using as little water as necessary with thick skinned leaves of limited surface area to reduce evaporation. Roots are adapted to reduce uptake of metals and the excess salt is stored in the oldest (lowest) leaves which eventually die off. The saturated leaves turn yellow or even red while the top of the plant can still have a healthy green colour. To germinate, the seeds require a soaking in fresh rainwater.

Salicornia europaea Waddensea National Park, Germany
photo: M.Buschmann