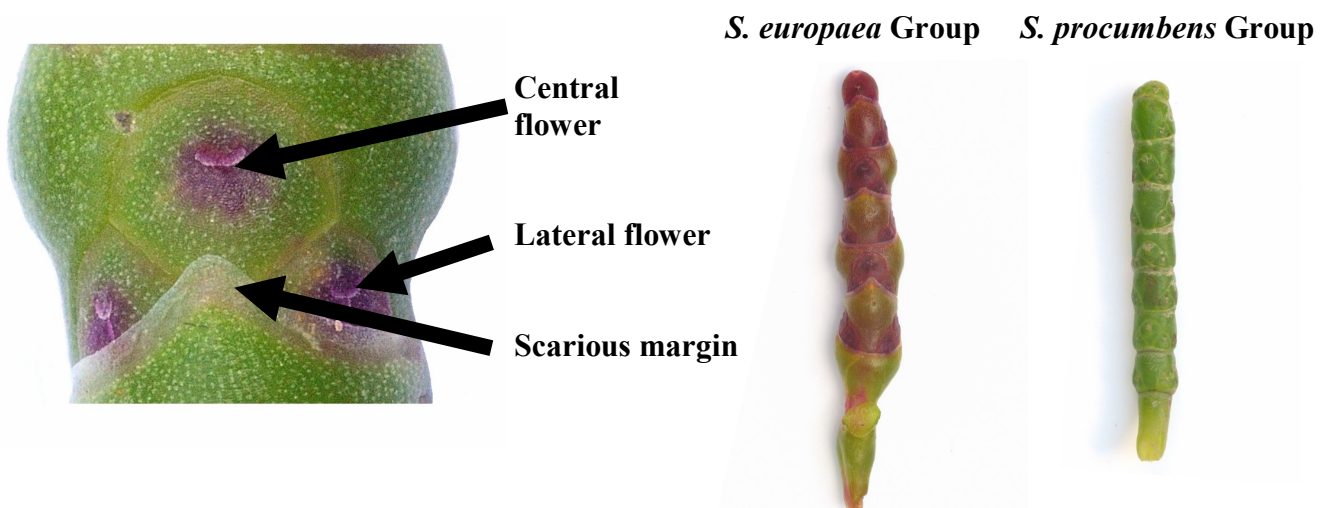


# A Guide to the Identification of the Glassworts of the British Isles

By Lliam Rooney

The Glassworts are mostly annual plants (*Sarcocornia perennis* being the exception) and are found in saltmarshes around the coasts of the British Isles. The genus *Salicornia* is the most difficult to identify owing to the high level of plasticity and probable hybridity. Glassworts are best divided up into four groups, the Perennial Glasswort, the One-flowered Glasswort, the diploid *S. europaea* group and the tetraploid *S. procumbens* group. Identification is best attempted with fresh material during the fruiting stage when the plants begin to change colour in September to October. Avoid seemingly malformed or damaged plants and plants in the shade, and come to expect there will be plants one cannot identify!

Below is a flowering segment showing the apical central flower and the two lateral flowers forming a triangular configuration. The leaves are in opposite pairs which form a sheath around the stem which ends in a 'scarious margin' below the flower sections and is diagnostic in determining some species. It is best to look at the terminal spikes for identification. On the left is a *S. europaea* group terminal spike showing the convex 'beaded' sides with the central flower being distinctly larger. On the right is a *S. procumbens* group terminal spike showing the more or less straight sides and all flowers roughly the same size.



### Perennial Glasswort (*Sarcocornia perennis*)

The only perennial Glasswort in the British Isles and is told apart from the other Glassworts by its usual mixture of fertile and non-fertile segments and in the difficulty of it being uprooted due to its perennial nature. Grey-green turning a bronzy colour, often by the sides of pools on the upper and middle parts of the saltmarsh.



Fertile segments are rather compressed and untidy, looking like fingers with too many knuckles. Set distally on the terminal segments.

Unfertile segments are long and skinny with side buds. Set proximally on terminal and non-terminal segments.

### One-flowered Glasswort (*Salicornia disarticulata*)

The easiest Glasswort to identify with only one central flower (rarely two). Branches short and stubby, usually simple but sometimes many-branched. Yellow-green turning orangy to pinkish-purple, favouring the higher and drier parts of the saltmarsh.



### Hybrid Glasswort (*Salicornia x marshallii*)

The only recognised Glasswort hybrid is between *S. disarticulata* and *S. ramosissima*. It grows where the parents mix and has flowers in 3s, 2s and 1s. It is best to find plants that have three flowers above a single flower to rule out retarded flower development.



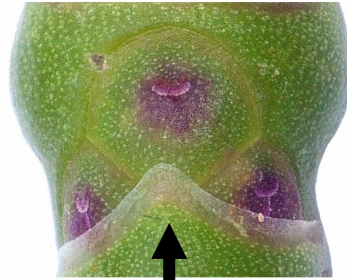


### Purple Glasswort (*Salicornia ramosissima*)

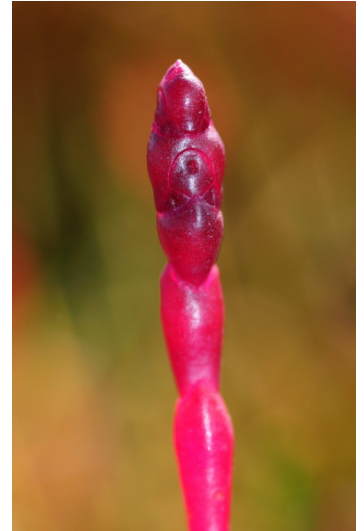
The most common and most polymorphic Glasswort. Many branched to unbranched; segments very beaded with central flower distinctly larger than the lateral flowers. Deep shiny-green usually turning dark purple. Upper and middle parts of saltmarshes.



(5) 10-30(60)mm



Scarios margin (c. 0.2mm); obvious, usually with apex angle 110-120°; obtuse, occasionally acute.

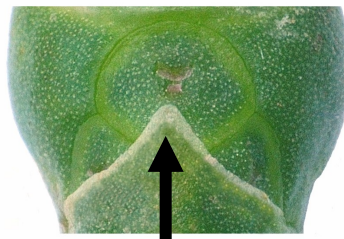


### Common Glasswort (*Salicornia europaea*)

Very similar to *S. ramosissima* but the scarios margin tends to be less obvious and usually with a cuspidate apex, but not always; often with a longer terminal spike. Clear green becoming yellowish-green suffused with pink or red, or becoming bright yellow. Often by runnels throughout the saltmarsh.



10-50(90)mm



Scarios margin (c. 0.1mm) often cuspidate with apex usually angle 90° or less; acute, occasionally obtuse.

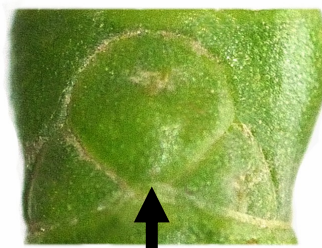


### Glaucous Glasswort (*Salicornia obscura*)

A very rare Glasswort with distinctly upward curving branches distally. Little branched and never with tertiary branches; hardly beaded; flowers subequal. Glaucous, matt, becoming dull yellowish-green. On bare mud at the lower end of saltmarshes, often beside runnels.



10-40(45)mm



Scarios margin (0.05mm) rounded with apex angle 140-150° if any; obtuse.



### Long-spiked Glasswort (*Salicornia dolichostachya*)

A rather distinct Glasswort with long, distinctly tapering terminal spikes with 12-30 fertile segments. Primary lateral branches also tapering. Flowers equal in size; segments not beaded. Dark dull green becoming dull yellow to yellowish-brown. Bare mud mostly on lower saltmarsh but can be throughout.



(25)50-120(200)mm



Lower fertile segments 3-6mm wide at narrowest point. Flowers forming a semicircle in shape.



### Yellow Glasswort (*Salicornia fragilis*)

Similar to *S. dolichostachya* but with a shorter, cylindrical (not tapering) terminal spike with 6-15(22) fertile segments. Primary lateral branches also cylindrical. Flowers equal in size; segments flat-sided. Dull green becoming yellowish-green or bright yellow. Throughout the saltmarsh.



(15)25-80(100)mm



Lower fertile segments 3-6mm wide at narrowest point. Flowers forming a semicircle in shape.



### Shiny Glasswort (*Salicornia emericii*)

A very rare Glasswort usually with little branching, with the lower fertile segments on the terminal spike being up to and including 3(3.5)mm in height at narrowest point (the above two species being 3-6mm). Bright shiny-green turning purplish-brown or reddish-purple. Middle to upper parts of saltmarsh.



(10)12--40 (95)mm



Lower fertile segments 2-3.5(4)mm wide at narrowest point. Flowers often forming a triangle in shape.

