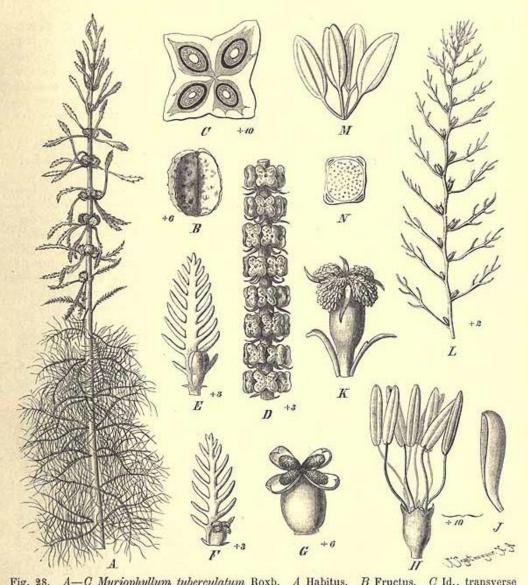
The mess that is Myriophyllum

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Fig. 28. A-C Myriophyllum tuberculatum Roxb. A Habitus. B Fructus. C Id., transverse sectus. — D M. indicum Willd. Spica fructigera. — E-J M. verticillatum L. E Bractea cum flore 3. F Bractea cum fl. Q. G Fl. Q, H 3, petalis remotis. J Petalum. - K M. brasi-Myriophyllum spp. - Engler, H.G.A. (1905) liense Cambess. Flos. — L-N M. humile Morong. L. Ramulus florifer. M. Stamina. N. Pollinis granulum. - Sec. Engler-Prantl, Pflzfam. III. 7. p. 234 fig. 404.

Pflanzenr. vol. 225 p. 97 f. 28.



"Although Myriophyllum is easily recognized in the field, positive identification at the species level has been problematic.phenotypic plasticity can greatly alter leaf characteristics such as size and segment number of aquatic plants in different environments.

In many cases, the vegetative character states utilized in taxonomic treatments have been based largely on information repeated from a small number of older regional floras. As a result, the circumscription of species has often not encompassed the full extent of variability observed in many taxonomic characters."

Flora of N. America - HALORAGACEAE R. Brown & al. 2014

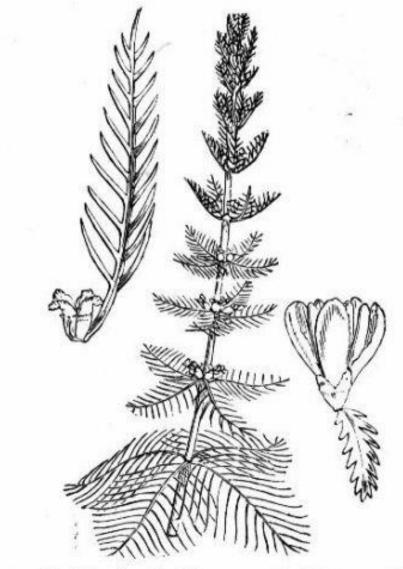
Myriophyllum aquaticum (Vell.) Verdc. -Bettfreund, C. (1901) Fl. Argent. vol. 3, t. 127



Native Species: Myriophyllum is a cosmopolitan genus, with the exception of some tropical regions. There are about 70 species although some aspect of the taxonomy and nomenclature are not fully resolved.

Many species require care microscopic examination to enable identification. In GB there are three native species: the rare *M. verticillatum* and the more frequent *M. spicatum* and *M. alterniflorum*.

The latter two species are unlikely to be confused with *M. aquaticum* due to the absence of leafy shoots above water. *M. verticillatum* may be confused with *M. aquaticum* as it too has leafy aerial shoots, however, these tend to be less leafy and robust than those of *M. aquaticum* and the two species are normally separable.



396. Myriophyllum verticillatum L. Whorled Water-Milfoil.

Walter Hood Fitch (1924)
Illustrations of the British Flora

Parrot's-feather - the situation up until 2022

Accepted scientific name: *Myriophyllum* aquaticum (Vell.) Verdc.

Accepted common name: Parrot's-feather

Alternative common names: parrot feather watermilfoil, Brazilian watermilfoil, Brazilian myriophyllum, red-stemmed parrot's-feather

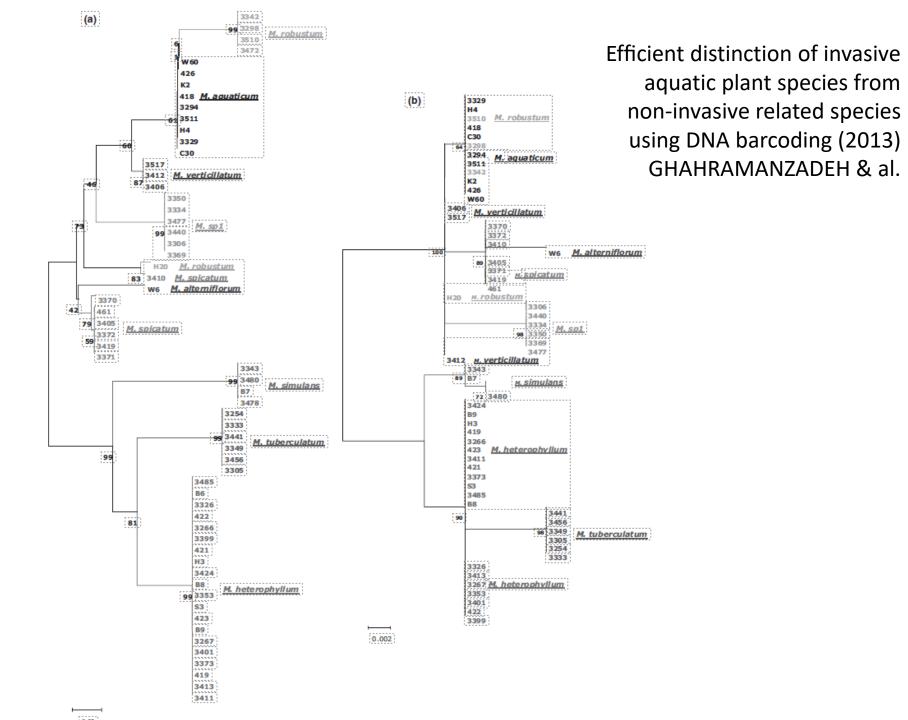
Scientific synonyms:

Enydria aquatica Vell.

Myriophyllum brasiliense Cambess.

Myriophyllum proserpinacoides Gillies ex Hook. & Arn.





Parrot's-feather – and now, we also have Red-stemmed Parrot's-feather

Accepted scientific name: *Myriophyllum rubricaule* Valk. & Duist.

<u>Alternative common names</u>: Brazilian watermilfoil, Brazilian myriophyllum,

Scientific synonyms:

Myriophyllum brasiliense[sis] sensu hort.



Myriophyllum rubricaule sp. nov., a *M. aquaticum* look-alike only known in cultivation VAN VALKENBURG & al. (2022) "Fig. 1. Plants, prior to collection, of *M. rubricaule* Valk. & Duist. sp. nov. (*Valkenburg 3495*; red stem) growing amidst *M. aquaticum* (*Valkenburg 3494*; green stem) in an artificial pond at a golf course, illustrating the more modest dimensions and color differences (13 July 2009, Grashoek, the Netherlands)."



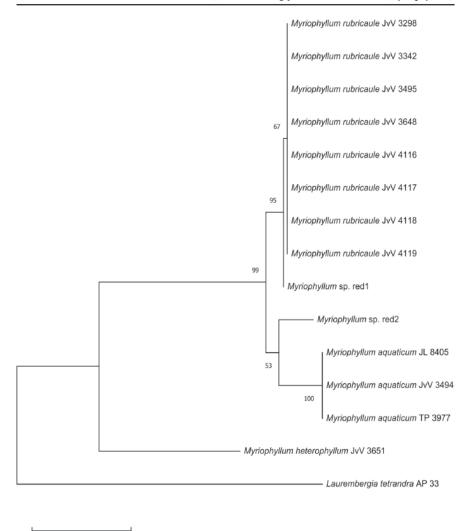


Fig. 2. Maximum likelihood tree based on ITS (partial 18S, ITS1, 5.8S, ITS2, partial 28S) sequences. The Tamura 3 parameter model was used (Tamura 1992). The tree with the highest log likelihood (-1398.71) is shown. Bootstrap values after 1000 replicates are expressed as percentages. A discrete Gamma distribution was used to model evolutionary rate diff erences among sites (5 categories (+G, parameter = 0.4031)). The tree is drawn to scale, with branch lengths measured in the number of substitutions per site. *Laurembergia tetrandra* AP 33 was used as an outgroup.

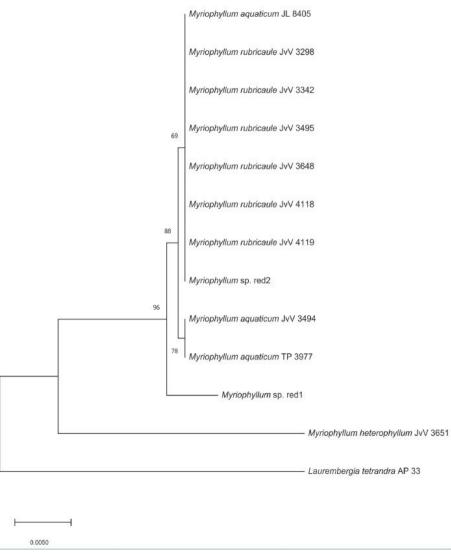


Fig. 3. Maximum likelihood tree based on concatenated *trnK3-matK* sequences. This tree was inferred by using the Maximum Likelihood method and Tamura 3 parameter model (Tamura 1992). The tree with the highest log likelihood (-2853.86) is shown. Bootstrap values after 1000 replicates are expressed as percentages. The tree is drawn to scale, with branch lengths measured in the number of substitutions per site. *Laurembergia tetrandra* AP 33 was used as an outgroup.

Myriophyllum aquaticum



potje in de handel



bloeiende plant



witte bloemen

Kenmerken

- groene stengel (boven water) blauwe waas op blad witte bloemen

Myriophyllum "brasiliensis"



potje in de handel



bloeiende plant



roze bloemen

- Kenmerken
 rode stengel
 groen blad
- roze bloemen

Red-stemmed Parrot's-feather (Myriophyllum rubricaule) in a garden centre



Probably Parrot's-feather (Myriophyllum aquaticum) in a pond, N. London

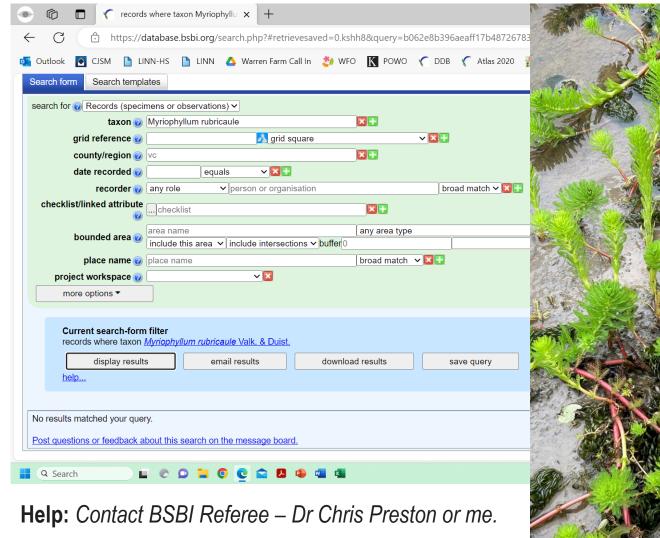




- Other Species: M. crispatum; this plant tends to be smaller than M. aquaticum. It has recently become available in horticulture.
- It should be readily
 distinguishable from all other
 species due to the small, fine
 'crisped' hairs found on the
 stems and occasionally the leaf
 bases (these need examining
 with at least a x 10 or x 20 hand
 lens).
- It is recommended that all material being traded as 'crispatum' be checked for these characters as it is possible that M. aquaticum or rubricaule may be traded under that name.



- Other Species: *M. heterophyllum*; Like M. aquaticum, this plant produces leafy emergent shoots. But, the emergent foliage of this plant tends to be much less 'feathery' than *M. aquaticum*.
- If unsure, check the surface of the leaves for glands (x 10 or x 20 hand lens required), these are dense on *M. aquaticum* and sparse or absent on *M. heterophyllum*.
- The species this plant is most likely to be confused with is the rare native, *M. verticillatum*. However, they should be readily separable by examining the submerged foliage, in *M. verticillatum* each leaf is normally divided into more than 15 segments, in *M. heterophyllum*, there are normally fewer than 15 segments.



Buy: Aquatic Plants of Northern & Central Europe including Britain and Ireland (2022) Schou & al.

