## Minor Naiad (Najas minor) in Connecticut

**Identification:** Minor naiad or Brittle water nymph (*Najas minor*) is a submersed, aquatic, invasive plant in Connecticut. This species is a slender, branching plant with paired (subopposite), sometimes appearing whorled, leaves, which usually bunch in the leaf axils.



The leaves are typically stiff, curled and pointed, and have spines along the margins that are visible to the naked eye, if not a hand lens.



The basal lobes of the leaf are serrated on the top and taper to the leaf base.





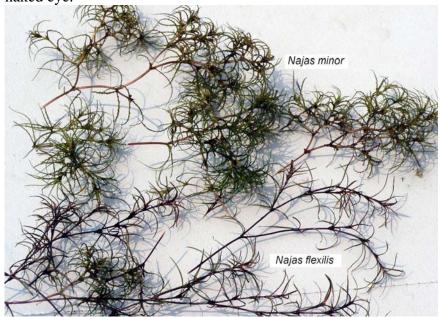
(Leaf base drawing Crow and Hellquist 2000)

**Habit:** Minor naiad is found in alkaline streams, ponds or lakes in New England, the Midwest and the South of the United States. It has been found in lakes and ponds of Connecticut growing at depths of 15 cm to 2 m. Although its growth is usually compact and relatively bushy, Minor naiad has also been found with stems up to 1 m.





**Easily Confused Species:** Minor naiad is easily confused with the other *Najas* species, Slender water nymph (*N. flexilis*), Common water nymph (*N. guadalupensis*) and Northern naiad (*N. gracillima*), found in Connecticut. These species can be differentiated from Minor naiad by looking at the leaf bases and seeds. Furthermore, Minor naiad is usually the only *Najas* species whose spines on the leaf margins can be seen with the naked eye.



Why is Minor Naiad a Problem? Minor naiad is a native of Europe that was introduced about thirty years ago and quickly spread to Midwest and Florida (Meriläinen 1968). It arrived in Connecticut in the 1980s (Les and Mehrhoff 1999). Prior to The Connecticut Agricultural Experiment Station Invasive Aquatic Plant Program's (CAES IAPP) survey, Minor naiad had only been found in nineteen lakes. CAES IAPP's survey has since found fourteen additional lakes where Minor naiad occurs. Minor naiad is an annual that is easily spread through its many small seeds. These seeds are easily carried by waterfowl, and can easily 'hitch a ride' to other water bodies on boats and boat trailers. Minor naiad can grow in dense stands that out compete native species for space, and the

taller growth forms of Minor naiad can interfere with recreational activities, such as boating, swimming and fishing.

**Prevention or Management:** Prevention is the best management method. Efforts should be focused on cleaning boats and trailers, specifically bilges and trailer wheel wells, with a high powered hose and possibly bleach after leaving a lake. Several herbicides for Minor naiad are approved by the Connecticut Department of Environmental Protection (CT DEP 2006). However, herbicides can only be applied in Connecticut waters after obtaining a permit from the CT DEP. For more information on management of Minor naiad in a lake of concern to you, call CAES IAPP at (203) 974-8512 to schedule a survey.

## **References:**

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- Crow, G.E., and C.B. Hellquist. 2000. Aquatic and Wetland Plants of Northeastern North America. Vol. 2. Angiosperms: Monocotyledons. University of Wisconsin Press, Madison.
- CT DEP. 2006. Nuisance Aquatic Vegetation Management; A Guidebook. http://www.dep.state.ct.us/wst/pestcert/supervisor/aweeds.pdf
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- Les, D.H., and L.J. Mehrhoff. 1999. Introduction of nonindigenous aquatic vascular plants in southern New England: A historical perspective. Biological Invasions 1:281-300.
- Meriläinen, J. 1968. Najas minor All. In North America. Rhodora 70:161-175.

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