

## Ceratophyllaceae

### Hornwort Family

A monogeneric family with only six species, the hornworts are represented in NS by two species. They are our only aquatic plants with whorled compound leaves; palmately arranged. Rootless, they drift in the water on long tenuous stems. Sessile flowers are minute and carried in the leaf axils. Petals are absent; sepals a whorl of 8–15. Staminate flowers are positioned above the pistillate flowers on a single plant.

Plants often not flowering and tentative identification may be made based on leaf forking. This is the only genus of wetland plants with whorled leaves that are dichotomously forked (Voss and Reznicek, 2012). The key below can distinguish species based on the number of times leaves are sequentially so forked.

### *Ceratophyllum* L.

#### Hornworts

Submerged plants, they are difficult to find.

#### Key to species

Leaflets toothed, at least on one side; achene with 2 basal spines.  
Leaves not limp and no leaf forked more than twice.

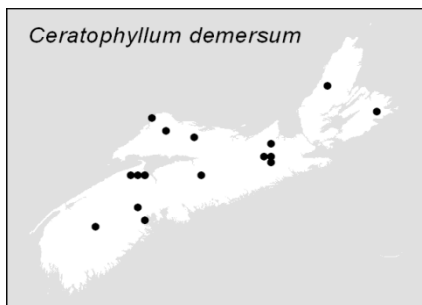
*Ceratophyllum demersum*

Leaflets entire and very narrow; achene with both basal and lateral spines. Leaves limp with some main axis leaves forked at least three times

*C. echinatum*

### *Ceratophyllum demersum* L.

#### Hornwort; cornifle nageante



Leaves are whorled, toothed on either side. Internodes are shorter distally, becoming dense, obscuring the stem.  
Achenes 4–6mm long.

Flowers from July to September.

Lacustrine or paludal, marshes, headwaters of streams with mucky substrate.

Common in rivers flowing into the Minas Basin, Kings County. Scattered from Cumberland to Antigonish and Guysborough counties. Infrequent along the Atlantic coast. Collected from Hibernia, Queens Co. and Oakland Lake, Lunenburg Co. Sherbrooke Lake, Halifax. Its distribution in NS may be more to do with the difficulty in collecting and

identifying it, than its actual scope.

Across North America.

***Ceratophyllum echinatum* Gray**  
**cornifle échinée**



*Photo by Sean Blaney*

Leaves are filiform, their margins smooth. Achenes have spines. Rather similar to the previous species.

Only recently distinguished in Nova Scotia *from C. demersum*; few collections to date in NS, however, it is reported from marshes from Yarmouth to Cumberland Counties.

A plant more typical of the shallows of acidic water bodies than its congener.

Eastern North America with disjunct occurrence in the Pacific Northwest.