

Hydrilla *Hydrilla verticillata*

Non-native to Chesapeake Bay; invasive

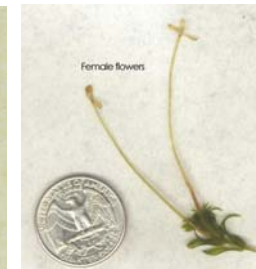
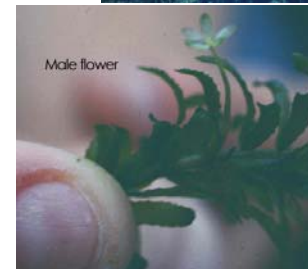
Family - Hydrocharitaceae

Distribution - Hydrilla is an exotic species introduced from southeast Asia which first appeared in United States during 1960's. Today it is found in most of the southeastern United States, westward to California. Hydrilla was first observed in 1982 in the Potomac River near Washington D.C. and by 1992 grew to cover 3000 acres in the Potomac. Hydrilla is also found in the Susquehanna Flats and a few upper bay tributaries. It is predominantly a freshwater species, but has been found in waters of 6-9 ppt salinity. Hydrilla grows on silty to muddy substrates and tolerates lower light than other SAV species.

Recognition - Stems are freely branching with whorls of 3-5 leaves linear to lanceolate leaves. Leaves have strongly toothed or serrated margins and a spinous midrib. Roots are adventitious, forming along nodes of rhizomes that grow horizontally atop or just below sediment surface. Tubers are also commonly found at the end of runners that branch from the buried rhizome.

Ecological Significance - Hydrilla is an introduced species first identified in the Chesapeake Bay region in 1982. It is often considered a nuisance plant because of its habit of forming dense impenetrable beds that impede recreational uses of waterways. Because of the substantial populations of hydrilla found in the Potomac River, a mechanical harvesting program had to be instituted to keep the many marinas along the river open to boat traffic. Hydrilla is an excellent food source for waterfowl, and the large populations found in the Potomac River have increased waterfowl numbers. In spring, young hydrilla beds that are just starting to reach for the surface are a great place to catch a large mouth bass.

Similar Species - Common waterweed (*Elodea canadensis*) has a similar appearance, however, leaves of waterweed are in whorls of 3 and are not as markedly toothed as those of hydrilla. Common waterweed also lack the tubers that hydrilla forms in late summer or early fall.



Reproduction -Hydrilla reproduces sexually and asexually. The strain found in Chesapeake Bay is monoecious, with male and female flowers occurring together near the growing stem tips. Small, white female flowers are born on a hypanthium at the water surface. Male flowers detach from stem tips and float to the water surface. The pollen they release must settle directly on the female flower for pollination to occur. Seed set has a success rate of about 50% and is not as effective as asexual reproduction. Asexual reproduction occurs through fragmentation, production of new stems from rhizomes, turions (resting plant buds that develop in leaf axils or tips of branching stems) which break off then sink to the substrate and form a new plant, and tubers (another type of resting plant bud) that develop at ends of buried runners that branch off from rhizomes. Tubers and turions can over-winter and are the major form of reproduction during the late summer (August) die-off of dense hydrilla beds.