

# HYDRILLA

[*Hydrilla verticillata* (L. f.) Royle ]

## HYVE3



Fig. 1

UGA 5345047

**Problem:** Native to warmer areas of Asia, hydrilla or waterthyme, was first discovered in the United States in 1960.<sup>4</sup> It is adapted to low light levels and can photosynthesize in only 1 % of full sunlight, thus growing in deep water.<sup>4</sup> As it nears the surface, it forms thick dense mats that block waterways, restrict water flow, interfere with boating and swimming, reduce light penetration and habitat for wildlife, and displace native species.<sup>4,7</sup>

**Habit:** Submerged aquatic perennial herb,<sup>5,7</sup> erect underwater and heavily branched near the surface (Fig. 1).<sup>4,5</sup>

**Reproduction:** Spreads vegetatively from rhizomes or tubers,<sup>2</sup> stem fragments, nodes, or enlarged lateral buds called turions.<sup>4,5,7</sup>

**Leaves:** Simple, whorls of 3 to 8 per node;<sup>1,2,4,5</sup> leaf margins with spine-tipped teeth (Figs. 2 and 3);<sup>1,4</sup> usually 1 to 4



Fig. 2

UGA 5399498 Fig. 3

UGA 5399531

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### *Hydrilla verticillata* (L. f.) Royle



Fig. 4

UGA 5396707



Fig. 5

UGA 5447183

small conical bumps along underside of often red midrib;<sup>5</sup> stemless or sessile.<sup>1</sup>

**Stems:** to 9 m (~30 ft);<sup>5</sup> in clear water to 12 m (40 ft).<sup>3,7</sup>

**Flowers:** Monoecious (both female and male flowers on the same plant) or dioecious (male and female flowers on different plants);<sup>1,2,4</sup> Inconspicuous and rarely seen; female flowers have three translucent or whitish petals that float near the surface;<sup>1,4</sup> male flowers are white to reddish brown, and are detached and free floating at maturity.<sup>1,4,5</sup>

**Fruits/Seeds:** Small<sup>1,7</sup> and inconspicuous; production is of minor importance and viability is low.<sup>4</sup>

**Habitat:** Variety of aquatic habitats with the exception of swift-flowing water;<sup>1</sup> it can grow under a wide range of water chemistry conditions from clear low-nutrient oligotrophic lakes to high nutrient-rich eutrophic waters.<sup>1</sup>

**Similar Species:** The native Canadian waterweed (*Eloдея canadensis* Michx.)<sup>6</sup> and western waterweed [*Eloдея nuttallii* (Planch.) H. St. John]<sup>6</sup> both look very similar to hydrilla, except that neither species has teeth visible to the naked eye on the leaf margins.<sup>5</sup> Both usually have 3 leaves per node, however this can be variable (Fig. 4).<sup>7</sup> The non-native Brazilian waterweed (*Egeria densa* Planch.)<sup>6</sup> also resembles hydrilla and both native waterweeds, but it has 3 to 6 whorled leaves and the minutely toothed leaves are barely visible without magnification.<sup>5</sup> It also has much larger and showier flowers than the other species (Fig. 5).

## ***Hydrilla verticillata* (hydrilla)**

### **Text Citations:**

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### **Photograph Information:**

Figure 1 (photographer: David J. Moorhead, University of Georgia).

Figures 2, 3 and 4 (photographer: Robert Vidéki, Doronicum Kft.).

Figure 5 (photographer: Leslie J. Mehrhoff, University of Connecticut).

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