

Water Primrose Willow

Ludwigia peploides

Introduction: Water primrose willow (*Ludwigia peploides*) is an invasive species that invades waterways. It was first noted as an invasive species in France, but is currently an increasing concern in the U.S. It was first observed in the U.S. in 2003 on the Peconic River, NY. Since its arrival in there, its associated lake has been covered in dense mats of vegetation, making it very hard to boat or fish in the once recreational lake. Water primrose grows and reproduces quickly and can therefore rapidly displace native species.

Description:

Plant: Floating aquatic plant that sometimes forms mats. It consists of stems and flowers that are held weakly upright along with lance-shaped leaves. Stems have little to no hairs, and are purple and rooted, but most of the stem floats on the surface of the water.

Leaves: Leaves occur alternately on the stem, and are net-veined. The leaves are elongate with smooth outer margins.

Flowers, fruit, and seeds: Flowers are about one inch wide with five yellow petals, and are on stalks 1 to 5 cm long. The fruit is a cylindrical capsule containing many seeds, which are yellowish, oval, and less than 1 mm long.

Similar Species: There are 75 *Ludwigia* species, of which all are aquatic.

Habitat: Water primrose is most abundant in ditches, riverbanks, ponds, slow moving streams, and along margins of lakes and reservoirs.

Introduction: Water primrose is native to South and Central America and was introduced to the U.K., the U.S. and other European countries by being sold as a decorative plant.

Spread: The main method of dispersal is when the stem breaks into pieces and travels down river, where they stop and grow into a full plant. Dispersal methods by seeds are currently being studied, but their role is yet unknown.

Distribution: In Oregon, Water primrose willow has been reported from two sites in the upper Willamette Valley and one site in Coos Bay.

Uses: The water primrose is and has been sold as a decorative plant for ponds, fountains and water gardens.



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Threats: Water primrose is a threat to aquatic systems because of its rapid growth. French researchers found that *Ludwigia* species can double their biomass in 15-20 days in rivers with a slow flow; in rapid rivers it takes up to 70 days. Water primrose can rapidly block waterways, which interferes with how humans use water (such as swimming, fishing and boating). It also reduces biodiversity in ecosystems because it displaces native plants and also decreases water quality by decreasing pH level and reducing oxygen content.

What Can We Do About It: The easiest way to prevent water primrose from turning into a large colony is by detecting it early, then manually pulling it out of the water. People can also place filters downstream of infestations before pulling it out of the water to prevent it from spreading during its extraction. It is suggested that after pulling it out, it should be put in a garbage bag and left in the sun for a week.

Bibliography

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