Invasive Plant Alert[1]

Alligatorweed

Alternanthera philoxeroides (Mart.) Griseb

Alligatorweed is a perennial with rapidly growing stems that form dense floating mats up to 3' tall on the surface of water bodies. Alligatorweed may take root along waterway banks and persist in terrestrial, semi-aquatic, and aquatic environments. It alters aquatic ecosystems by outcompeting native aquatic and shoreline vegetation, decreasing water flow, increasing sedimentation, shading submersed plants, reducing oxygen levels, and filling in and choking off formerly open water column habitat. Thick mats may also promote flooding and create anoxic conditions that provide breeding habitat for mosquitoes.

Figure 1 Richard Old, XID Services, Inc., Bugwood.org.

Where to Look

Alligatorweed is most commonly found growing in and along waterways; however it can occur in a range of habitats from dry terrestrial to aquatic. It tolerates slightly brackish water. Alligatorweed grows in lakes, ponds, streams, canals, ditches, rivers, stream edges, wetlands, and sloughs. Alligatorweed occurs throughout the southeast from Virginia south to Florida and west to Texas. It has also been documented in southern Illinois, and more recently California. It thrives in subtropical to temperate regions; optimum growth temperature is between 15 and 20°C. Alligatorweed has been found as far north as Fairfax County, Virginia.

Identifying the Plant

Alligatorweed is a sprawling herb with leaves and stems that vary in size and shape. Pink, fleshy, hollow stems can grow horizontally to a length of 1 m and float on the surface of the water, forming matted clumps with rooting stem nodes. When growing in terrestrial habitats, the stems may be solid. Dark-green leaves with a distinctive midrib are narrowly elliptic, opposite in pairs, have indistinct teeth on the margin, form a sheath around the stem node, and range in size from 5-10 cm.

Flowers are thin and clover-like in shape on long stalks from upper leaf axils, and appear throughout the growing season. Each flower has 4–5 thin, papery bracts, 5 stamens, and 1 pistil. The fruit is tiny, one-seeded, and thin-walled.

Reproduction is predominantly through vegetative means; individuals rarely produce seeds, which are typically non-viable.

Figure 2 Robert H. Mohlenbrock: USDA NRCS PLANTS DatabaseRobert H. Mohlenbrock @ USDA-NRCS PLANTS Database / USDA SCS. 1991.

How to get rid of it?

Mechanical removal is costly and often results in the dispersal of vegetative fragments that can exacerbate the infestation. Chemical control using herbicides may be more effective. A non-ionic surfactant included in a 0.75-1.5% glyphosate solution will increase leaf retention. Biological control using Alligatorweed flea beetle, *Agasicles hygrophila* L. has been successful in controlling alligatorweed in aquatic habitats, however these insects do not overwinter in our region. Additional insects introduced as potential biocontrol agents include alligatorweed thrips *Amynothrips andersonii* L. and the alligatorweed stem borer moth *Arcola (=Vogtia) malloi* L.

Resources

Biological Control of Invasive Plants in the Eastern United States - USDA Forest Service

Invasive Alien Plant Species of Virginia - Virginia DCR and Virginia Native Plant Society

[1] This species has been identified as a potential or emerging threat to natural areas in the mid-Atlantic region

2012 – National Park Service, National Capital Region Exotic Plant Management Team, Washington, DC. Written by JL Fisher, edited by Mark Frey, Amanda West