



Invasives: Yellow Flag Iris (*Iris psuedacorus*)

by Lorraine Van Slooten

Yellow iris, a native of Eurasia and northern Africa, was brought to N.

America as an ornamental perennial wetland plant in the late 1700s. It now grows in all but four states as well as in most Canadian provinces. In New York it is listed as a prohibitive invasive plant. Over the years it was planted for erosion control and to absorb heavy metals from sewage treatment plant wastewater. However, it escaped cultivation and has formed large, dense colonies along the shores of ponds, lakes and streams as well as in flood plains and in fresh or brackish marshes. The plants are very tolerant of low oxygen conditions and soils with a wide range of pH values and somewhat tolerant of salty areas. Optimum growth is in wetlands rich in nitrogen with low salinity.

The leaves are dark green with a blue-green tint and are erect, sword-like with pointed tips, have a raised midrib and are 2-4 ft. tall. The cream to bright yellow flowers grow on stems about the same height as the leaves and bloom from May to July. Each flower has 3 downward sepals (falls) faintly lined in purple/brown and 3 upward petals. The plants need about 3 years of growth before they are mature enough to flower. Yellow iris is pollinated by some species of long-tongue flies and bees. The seed pods are large, three-sided and turn from a shiny green to brown as they mature. Each pod contains up to 120 glossy brown, flattened, D-shaped seeds arranged


in 3 rows. The seeds are buoyant and able to float long distances in flowing water for months. They will germinate in moist soil along shores, but not usually in waterlogged soil or underwater. Yellow iris has fleshy roots up to a foot long and many branching tuberous pink rhizomes by which the plants spread vegetatively. The rhizomes can persist for over 10 years in the soil and can even survive for more than 3 months if dried. Rhizomes can break into pieces that can also be spread by flowing water.

All parts of yellow iris are toxic. Resin from its roots and leaves can cause skin irritation and blistering. If eaten, it will cause gastric distress in both humans and animals. Grazing animals do tend to avoid feeding on it. Palatable grazing species are relatively uneaten when mixed with yellow iris, reducing the quality of pastures.

Dense mats of yellow iris can reduce the flow and block irrigation systems and flood control ditches. Its seeds can clog pipes and water control structures. Large populations also have the ability to alter an ecosystem. Established roots in a wetland area trap sediment, which promotes growth of more seedlings, which trap more sediment. Enough sediment eventually collects to form a habitat for shrubs or trees, which alters the wetland to a drier ecosystem and reduces the food supply for fish and waterfowl. Dense growth of yellow iris out-competes the growth of native irises as well as native sedges and rushes that are waterfowl habitats.

Small infestations of yellow iris can be dug out by hand, but the rhizomes

must be totally removed to prevent re-sprouting. Mowing or removing flowers and seed pods will help reduce the plants' spread. Do not compost the plants since the rhizomes can remain viable for up to 3 months even without water. For large infestations apply an herbicide labeled for wetland use. Because of the extensive root system, any of the control methods may need to be used multiple times over a few years for total eradication. Always wear gloves when handling the plants because of their toxicity.

A native iris, Blue Flag Iris (*Iris versicolor*), is not invasive and may be planted as an alternative wetland perennial. 



21 South Grove Street
East Aurora, NY 14052