

## Purple Loosestrife Teacher Background

Purple loosestrife, nicknamed by some the “Marsh Monster”, is a non-native perennial plant that has been spreading its way across Canada for over a century. Don’t be fooled by this plant’s pretty purple flowers; purple loosestrife is an invasive wetland weed. It takes over native plants, severely degrading the quality of wetland habitat, and is almost impossible to eradicate. Until recently, these plants were sold as an ornamental known as Lythrum.

### History

Purple loosestrife arrived in North America in the early 1800s. It is believed to have been carried over from Europe as a medicinal herb. Some plants were brought for gardens while others were “stowaways” in ships’ cargo.

### Appearance

- 1-2 meters in height
- Square, woody stalk with many stalks per plant
- Leaves have smooth edges and are attached opposite each other on the stalk
- Many small flowers form a long pink/purple spike

### Characteristics

- Aggressive plant that crowds out other wetland plants
- Large stem re-grows annually from the root
- Plant can spread through seeds or cuttings
- Seeds are extremely small and a single plant can produce two million seeds every year
- Seeds are spread by wind, water, wildlife and humans
- The plant flowers from June to September

### Effects to Wetlands

- Crowds out native plants
- Seeds from this non-native plant are not eaten by native birds, and foliage does not provide shelter for most wetland species
- Native wildlife does not eat plants or find shelter among it
- Clogs waterways

### Procedures for Removal

Entire plant must be removed, root dug out and all pieces taken. The root can extend 30 cm or deeper into the soil. Place all plant matter in a carton or a protected site so it can dry completely and not be in danger of being spread. Once totally dry, it can be burned or packaged for disposal. When burning, be sure everything is destroyed. Composting is an *unacceptable* disposal method because seeds can blow away or germinate. If plants cannot be burned, they should be bagged and disposed of in a landfill.

Visit [http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/prm2593?opendocument](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/prm2593?opendocument)

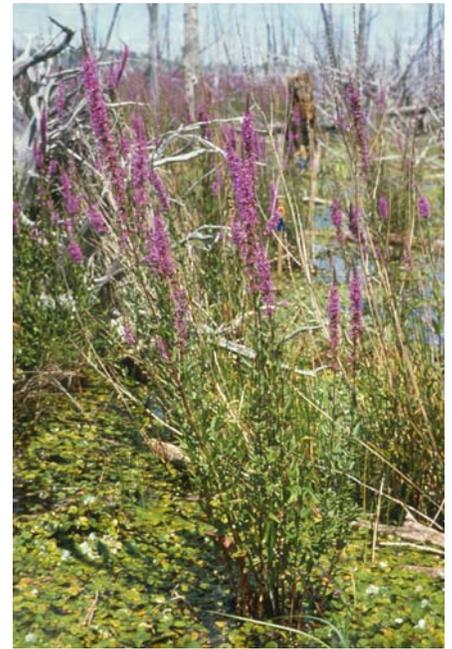


Photo credit: Ducks Unlimited Canada



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Ducks seem to be a favorite among people and birders of all ages and levels. Their large, colorful bodies and open water habitat make ducks easy to spot. For these reasons they are great teaching tools for wetland bird identification. Students can benefit greatly from getting out in the field for a “waterfowl watch”. Round up some binoculars, create a checklist, and see who can spot the most species. The more you and your students get to know your ducks, the more likely you will notice when they are missing due to wetland loss!

## Background

An abundance of prairie potholes and wetlands in the boreal regions of Alberta means an abundance of ducks. Traditionally, the prairie potholes and the boreal forest wetlands are two of the highest duck producing areas in North America. One-fifth of all duck species use Alberta’s wetlands during the breeding season. With increasing development pressures, the number of potholes and wetlands has been declining. Drought, destruction of habitat and predators are all factors which influence population fluctuations. For example, drought conditions throughout the 1980s provided an opportunity for intensification of agricultural activities. Wetlands or their vegetative buffers and surrounding uplands were cultivated. With little nesting cover, predation rates increased and duck populations fell.

Stable or growing duck populations indicate a healthy wetland ecosystem. In recent years, the populations of most common North American waterfowl species have either stabilized or increased. However, scaup and scoter species are in trouble. Breeding primarily in the boreal forest, their continental breeding season numbers have fallen by 40 per cent and 60 per cent respectively.

Research is currently being conducted to find out why. Northern pintails, which historically breed mostly in southern Alberta, have shown significant population declines as well. These lowered numbers are thought to be linked to both the reduction of breeding ponds and summer fallowed fields. Ducks Unlimited Canada (DUC) is one of several organizations in Canada collecting data to try to determine the causes of these dramatic declines and improve wetland conservation efforts. Ducks are a great indication of the health and biodiversity of wetlands and because they are easy to count, they make a good index. The largest and longest standing wildlife survey in the world is of spring breeding waterfowl in North America and this survey continues until today.

See Prairie Waterfowl Survey, [www.pnr-rpn.ec.gc.ca/nature/migratorybirds/pw-rp/index.en.html](http://www.pnr-rpn.ec.gc.ca/nature/migratorybirds/pw-rp/index.en.html)

### **North American Waterfowl Management Plan**

The North American Waterfowl Management Plan (NAWMP) is a conservation agreement between Canada, the U.S.A. and Mexico. Originally signed between Canada and the United States in 1986, Mexico joined in 1994. It is the most wide-ranging land use and wildlife habitat program in the world. Its goal is to return waterfowl populations to their average 1970s levels by conserving wetland and upland habitat. In Alberta, NAWMP is a partnership among seven agencies: Agriculture and Agri-Food Canada; Environment Canada; Alberta Environment; Alberta Agriculture, Food and Rural Development; Alberta Sustainable Resource Development; Ducks Unlimited Canada; Nature Conservancy of Canada.

### **Activity**

Use a DUC waterfowl poster (available at DUC offices across the province) and have students select one duck to write a poem, story or rap song about. Present these to the class.

Here's an example for the male Ruddy Duck:

I have white cheeks  
And a big blue bill  
I am a male Ruddy  
And I'll give you a thrill.