

INTEGRATED PEST MANAGEMENT

Grades 2 & 3 Curriculum



Wetland Plants and Animals
Picture Card Set



Photo By Tom Smylie, images.fws.gov

Beaver

Usually nocturnal and active year round, this member of the rodent family is the largest in the United States. Its webbed feet and paddle shaped tail are perfect adaptations for life in any habitat that has a year round water source. Beavers' sharp teeth aid them in felling the trees and branches used to build their lodges and spectacular dams. Beavers are considered a pest by some people because their dams built in streams, pounds, lakes and rivers can lead to flooding of yards and even roads.



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Photo By Ron Singer, images.fws.gov

River Otter

It has been said of these furry wetland dwellers that if they aren't sleeping or eating, they are playing. Their playful antics, which include wrestling, tag games, diving and even sliding in mud or snow endears them to many humans. River otters have short legs, long slender bodies and webbed toes which make them excellent swimmers. Other physical adaptations to their aquatic life style are ears and noses that close when they swim or dive.



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Photo By R. Tuck, images.fws.gov

Bullfrog

The largest true frog found in North America, the North American bullfrog must live in water and is therefore usually found near some source of water, such as a lake, pond, river, or bog. Bullfrogs are predators that usually feed on small snakes, worms, insects, crustaceans, other frogs and tadpoles. They are cannibalistic and will not hesitate to eat their own kind. They have sticky tongues rolled up in their mouths to catch insects. Prey can only be seen if it's moving and alive.





Photo By Gary M. Stolz, images.fws.org

Snapping Turtle

These reptiles, the largest fresh water turtles in Connecticut, spend most of their life in shallow lakes, ponds and streams that have abundant plant life. Their diet consists of fish, amphibians, and other water creatures. Unlike most turtles, they can not retreat into their shell when threatened. In water, they are timid and flee rather than fight. However, when on land to lay their eggs, snapping turtles should be given a wide berth. They have a sharp beak like nose and strong jaws for defense.





Photo By Gary M. Stolz, images.fws.gov

Salamander

These amphibians live in the soils of mixed deciduous forests. However, they move to watery areas to breed in the early spring. Egg masses secured to twigs are deposited in the water. Immature salamanders spend their childhood in the water before returning to the land where they live for three years before returning to wetlands to breed.



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Photo By Bauer, Erwin and Peggy, images.fws.gov

Mallard

Mallards are by far the most common species of duck found in wetland areas. They stay near shallow bodies of fresh water, on lakes, in marshes and even flooded fields. Mallards are called dabbling ducks because they feed by “dabbling” at the surface of the water. They eat mainly seeds of grasses, sedges, pondweeds and other aquatic vegetation. Sometimes they will consume snails, insects and small fish. When frightened, they are able to spring directly out of the water and into the air.





Photo By Lee Karney, images.fws.gov

Great Blue Heron

This species is one of the tallest birds and has a wing span of 6 to 7 feet. A solitary, shy bird, the heron nests in wetland trees to make them less accessible to humans. The heron is a shallow water hunter and stands motionless while waiting to strike unsuspecting frogs and fish with its dagger like bill.





Photo By Susan Ellis, www.forestryimages.org

Dragonfly

A common sight around bodies of water in the warmer months, adults eat mosquitoes and are eaten by a wide variety of birds, amphibians, spiders, other insects, and even bats.



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Photo By Susan Ellis, www.forestryimages.org

Mosquito

They enjoy living by the water and like it even better if it is not too deep, so that they can eventually lay their eggs there. When mosquitoes are adults, only the females search for blood because they are the only ones who need it. Females need blood because it helps egg production and makes them fertile before they lay eggs. When a mosquito finds something to suck on, it will first put some saliva at the site it plans to pierce. The saliva causes a red bump on the skin. Once the mosquito pierces the skin, it will take in about five millionths of a liter of blood from the host.





Photo By Eric Engbretson, images.fws.gov

Trout

Trout habitats must have a supply of moving water rich in oxygen and a thick layer of gravel in which **eggs** hatch and tiny **alevin** develop. Protective cover such as submerged rocks, logs or stumps are needed not only by the **fry**, newly emerged from their gravel nest, but by developing **fingerlings** and adolescent **par** as well. Even fully grown **adults** need to hide from predators! Finally, trout need an environment with a rich assortment of insect life for their food supply. Because trout are sensitive to any changes in their environment, they are considered an indicator species. A habitat with a declining trout population indicates other populations are threatened as well.





Photo By Robert Benson, Texas A&M University-Corpus Christi

Redwinged Blackbird

A migratory bird, this harbinger of spring is a common sight amidst the tall water plants of marshes, swamps and wet meadows. The male is easy to recognize by his bright red shoulder patches. His female counterpart is far less obvious. These birds eat both seeds and insects.





Photo Courtesy Donna Ellis

Purple Loosestrife

From June through early summer, walks in wetlands and marsh areas reveal the lavender flowers of this wetland plant. While purple loosestrife is beautiful, especially against the backdrop of black marsh earth and dark green foliage, it is also an invasive plant that is classified in many ecosystems as a noxious weed. It pushes out many other freshwater plant populations, creating a less-diverse ecosystem.





David J. Moorhead, The University of Georgia, www.forestryimages.org

Buttonbush

The seeds of buttonbush are a food source for waterfowl and the globular flowers are a favorite of bees. This wetland plant is usually a bush but may reach a height of 50 feet. Look for these distinctive plants along the shores of ponds, lakes and streams.



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Dave Powell, USDA Forest Service, www.forestryimages.org

Cattails

Shallow water of lakes, ponds and slow streams as well as brackish marshes can be home to cattails. The tubular brown fuzzy flowers develop seeds that resemble dandelion fuzz and are transported by the wind. These plants provide resting and nesting places for some birds of wetland habitats and hiding places and food for others.



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Photo Courtesy Donna Ellis

Rushes

Although 200 separate species of rush have been identified, the average person would be hard pressed to distinguish one from the other. All grow in shallow fresh water or salt water marshes. Their leaves are flattened and often hollow. The round stems may be hollow too. Rushes are often used to weave baskets, mats and chair seats.



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Chris Evans, The University of Georgia, www.forestryimages.org

Pickerelweed

This perennial herb is easily spotted because of its tiny, brilliant violet-blue flowers growing on a single thick stem. Pickerelweed grows in large colonies along the edges of lakes and streams as well as in bogs and marshes from the Mississippi River to Nova Scotia.



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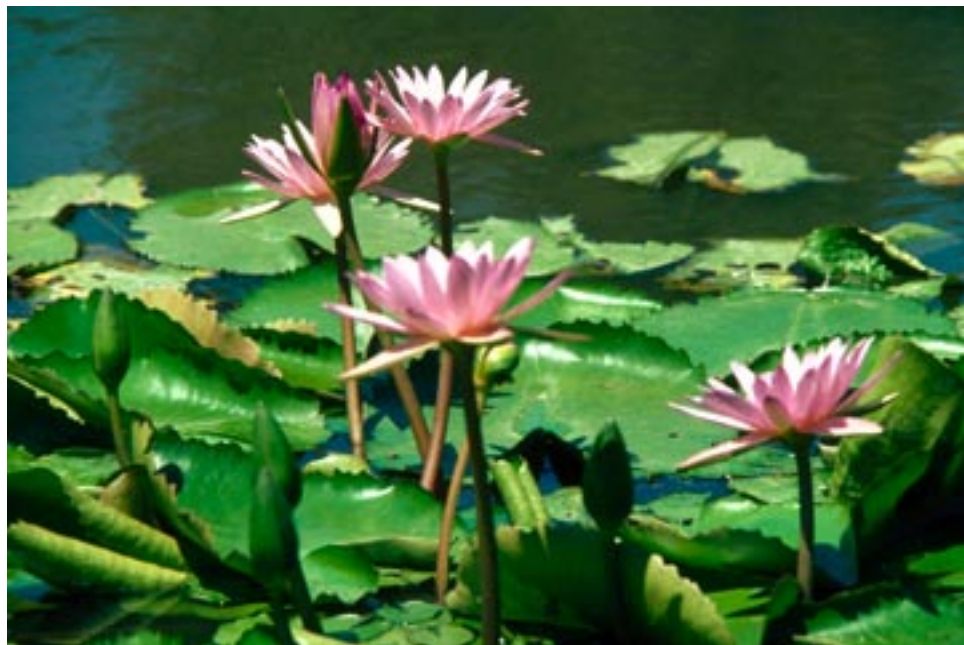


Photo By Kenneth M. Gale, www.forestryimages.org

Water Lily

The plants that float on the surface of quiet ponds and lakes of our region have long branching root stalks that anchor the plant in the mud and give rise to new plants. These rhizomes (root stalks) also provide food for beavers, muskrats and other wetland animals. The large flat leaves are used by smaller animals as platforms on which to lay their eggs.



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Photo © University of Connecticut

White Willow

While not truly aquatic (growing in water) like the cypress, willows grow only in moist soil and are frequently observed bordering lakes, ponds, rivers and streams. White willows can sometimes be seen growing in the shallow water of these wetland environments. As either a small shrub or a large tree, willows provide shelter and shade for the inhabitants and visitors to the wetland habitat.





Photo © NDSU Extension Service, www.ext.nodak.edu

Ostrich Fern

Look for this wetland plant in swamps and along lake shores. Its leaves, called fronds, can grow up to 5 feet tall making it one of the largest ferns in North America!



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Photo By Charles T. Bryson, USDA ARS, www.forestryimages.org

Sedge

All sedges are grass like plants. The number 3 is of special significance when identifying these wetland plants. Not only do their leaves grow from their stems in rows of three, but the stems of sedges are three sided. Sedges are perennial and grow along marshy shores. The fruits provide food for waterfowl.





Photo By Dave Powell, USDA Forest Service, www.forestryimages.org

Horsetails

Close relatives of ferns and considered one of the oldest of the vascular plants (having roots, stems and leaves), these plants have survived for 280 million years! The spores from which new plants grow are in cones at the top of the plant's stem. Horsetails grow in wet meadows and along the shores of lakes and ponds.



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Pitcher Plant

This bog-dwelling plant is carnivorous, a meat eater. During colonial times it was thought to cure smallpox. The odd-looking flowers bloom in early summer. Carnivorous plants usually live in nitrogen poor soils. They have 'learned' to augment the inadequate nitrogen available in the soil by capturing and consuming insects! The inside of the tubular shaped leaf is lined with downward pointing hairs. These hairs block an insect from climbing up the tube and escaping. The fluid in the bottom of the tube contains digestive juices that will consume the insect prey.

Photo By Arnold T. Drooz, USDA Forest Service, www.forestryimages.org



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