

Wildlife of the Alfred Caldwell Lily Pool

The Lily Pool's diverse and healthy ecosystem provides habitat for a variety of year-round and migratory birds as well as various mammals, amphibians, reptiles, and insects. Many of the birds are considered rare or endangered.

Field Guides: <https://fieldguides.fieldmuseum.org/>

Birds

<https://www.chicagoaudubon.org/resources>

<https://www.chicagoaudubon.org/resources>

<http://www.birdingillinois.com/conservation.htm>

- Approximately 5 million songbirds, over 300 species, migrate through the Chicago area each year. Hawks and falcons, owls, waterfowl, gulls, terns and shorebirds also follow Lake Michigan's shoreline or winter just offshore.
 - Principal spring migration months are March, April and May. In the fall, migration lasts from mid-August to the middle of November.
 - Most of these species are "passerines" or land birds, which migrate at night (to avoid predators, mainly hawks and falcons, which migrate by day) and alight in any scrap of open space they find when dawn breaks. Passerines avoid flying over water if at all possible and especially when winds are from the west, tend to crowd right up against the lake shore while flying, a pattern that has been documented by use of Doppler radar by the Illinois Natural History Survey.
 - Migrants make daily stop-overs to feed and rest. Exhausted and hungry birds need to find the right kind of high calorie, high protein food (seeds, fruit, and insects) or the long-distance journey becomes more arduous or fatal. They also need shelter sufficient to protect them from predators and extremes of weather. Monocultures of corn and soybean are not fertile stop-overs.
 - Various migratory birds stop at the Lily Pool to rest and find food and shelter, including heron, thrushes, warblers, hawks and owls.
- Many bird species stay in Chicago all year (American Crows, Northern Cardinals, Downy Woodpeckers and Black-capped Chickadees). The Lily Pool is home to many of these year-round birds, including sparrows, cardinals, and American crows.
- Some move in to breed and then leave (Yellow Warbler, Baltimore Orioles and Blue-winged Teal).
- Lake Michigan's shoreline is one of the most important flyways for migrant songbirds in the United States. The parks and open areas all along the Lake Michigan shore are "oases of green in a desert of concrete."
 - From a bird's standpoint, the foresight of Chicago's earlier urban planners in establishing a long and almost unbroken stretch of green open spaces along the lake shore was the key to survival for millions of individual birds along the Lake Michigan flyway.
 - Habitat enhancements to public and private land all along the lake shore that provide better food, shelter and protection from predators are paramount to large-scale survival of many neotropical migrant bird species.
- Lawn grasses do attract a few species of birds, such as the American Robin and Killdeer, but are unused by most species.

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Some Birds of Note in the Lily Pool

<https://www.allaboutbirds.org/guide>

The Wood Duck: Nest in holes in trees around lake margins. One of the few duck species equipped with strong claws that can grip bark and perch on branches. The Wood Duck is the only North American duck that regularly produces two broods in one year.

Mallards: Dabbling ducks, they almost never dive. Instead, they feed by tipping forward in the water and grazing on underwater plants. They can be very tame and often group together with other Mallards and other species of dabbling ducks.

Canada Geese: Open, mowed lawns near water are inviting to Canada Geese. They feed by dabbling in the water or grazing in fields and large lawns. They are often seen in flight moving in pairs or flocks; flocks often assume a V formation.

Green Heron: These small herons crouch patiently to surprise fish with their daggerlike bill. They sometimes lure in fish using small items such as twigs or insects as bait.

Great Blue Heron: This stately bird often stands motionless as it scans for prey or wades belly deep with long, deliberate steps. In flight, look for this widespread heron's tucked-in neck and long legs trailing out behind.

Black Crowned Night Heron: They are most active at night or at dusk, when you may see their ghostly forms flapping out from daytime roosts to forage in wetlands. These social birds breed in colonies of stick nests usually built over water.

Butterflies

<https://www2.illinois.gov/dnr/education/Pages/WAMothButterfly.aspx>

https://www.chicagobotanic.org/plantinfo/smartgardener/gardening_butterflies

Approximately 150 species of butterflies and 1,850 species of moths live in Illinois. These insects are food resources for many birds, mammals, and other arthropods. Numerous species serve as indirect indicators of habitat quality. For example, if the plant species upon which they depend are becoming scarce, these insects may also become fewer in number.

Butterflies and moths undergo a complete metamorphosis, which has four distinct stages: egg, larva, pupa (chrysalis), and adult (butterfly or moth).

- Depending on the species, eggs may be laid singly or in clusters on or near the host plant. Eggs hatch into the larval, or caterpillar, stage.
- Larvae of some species feed on many different kinds of plants; others tend to feed on only one particular species (such as monarchs feeding on milkweed). The larva may molt several times before it pupates. Caterpillars can damage cash crops.
- Although the pupa appears to be inactive, its internal tissues are restructuring to form the adult. Many species of moths and a few species of butterflies pupate within cocoons spun from their silk glands. Others may pupate in a sheltered area, like leaf litter, or in the soil. Most butterflies pupate on or near their host plant. Upon completion of this stage, the pupal skin splits apart, and the soft, newly formed adult pulls itself out through the narrow opening.
- Most adults live only about two weeks, during which they mate and lay eggs. Many may mate several times. However, some species overwinter in the egg, larval, or pupal stage, and the final adult monarchs of the summer migrate to Mexico in the fall.

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- When butterflies and moths are ready to mate, the males and females of each species find each other by means of odors secreted by the pheromone glands or by looking for others with a specific pattern of markings on the body.
- Butterflies primarily eat nectar from flowers, which is about 20% sugar. They use their vision to find flowers, but use taste receptors on their feet to find the nectar.

Butterflies of note include the Monarch, known for its interactions with milkweed. Monarch development from egg to adult is completed in about 30 days.

Dragonflies:

<https://ucmp.berkeley.edu/arthropoda/uniramia/odonatoida.html>

http://www.museum.state.il.us/ismdepts/zoology/odonata/Dragonfly_intro.html

Dragonflies are an indicator species on the health of a wetland environment (their presence or absence helps scientists determine the health of the environment). Human actions affecting the health of ponds, riverbeds, and marshes can have devastating effects on dragonflies.

Dragonflies look very much like their relatives the damselflies; however, there are obvious differences which make it easy to tell them apart.

- Both possess two sets of wings, but at rest, a dragonfly holds its wings straight out from its side, while most damselflies fold their wings back.
- Dragonflies have large eyes covering most of their heads, while a damselfly's eyes are set much farther apart.
- The dragonfly's abdomen is usually somewhat flattened while a damselfly's is rounder and needle-like.

The dragonfly larva (also known as a nymph or naiad) is drab and unremarkable looking. They are voracious hunters and eaters, gobbling up not only mosquito larvae but also, on occasion, minnows, tadpoles, and small crustaceans. The outsized hunting skills of these tiny creatures usually mean the dragonfly larvae is at the top of the food chain in freshwater habitats without fish. The dragonfly nymph may molt as many as 15 times and grow up to 20 times its original size before climbing out of the water and undergoing its final metamorphosis. The skin along the nymph's back dries out and splits open, and the adult dragonfly emerges.

Taking to the air, the dragonfly cruises streambeds and open meadows in search of mosquitoes. Grabbing its prey in mid-air, the adult dragonfly may eat as many as 300 mosquitoes a day, and thousands of insects, mostly mosquitoes, during its life span.

Most adult dragonflies only live for a month or two, so mating is an urgent priority. Like eating, mating takes place during flight. The female then lays her eggs, and the circle of life continues.

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Squirrels

<https://www.wildlifeillinois.org/gallery/mammals/looks-like-a-dog/tree-squirrels/>

<https://www.sciencedaily.com/releases/2013/12/131206132408.htm>

<https://projectsquirrel.org/index.shtml>

Tree squirrels play an important role in forest habitat and regeneration. Squirrels bury tree seeds and nuts to cache food for use later in the season. However, they do not return for all of the seeds and nuts that they bury, and some of these later sprout and grow into trees. Squirrels are also an important part of the food web, being preyed upon by several species of avian and mammalian predators.

Fox, gray, and red squirrels are diurnal, meaning that they are active during the day. They are tree squirrels, and active year-round. They will shelter in their nests during extreme cold weather. Nests in tree cavities are preferred, but when cavities are not available squirrels will build nests of leaves in trees.

Tree squirrels are solitary; however, since they are not territorial many may be seen in close proximity to each other, particularly if there is a good supply of food. The young often stay near the female until the next litter is born.

Fox and red squirrels spend more time on the ground than gray squirrels.

Chipmunks

<https://www.wildlifeillinois.org/gallery/mammals/mole-like/chipmunk/>

<https://www.dupageforest.org/plants-wildlife/wildlife/mammals/chipmunks-ground-squirrels>

Chipmunks are ground squirrels and are solitary; however, since they are not very territorial, many may be seen in close proximity, particularly if there is a good supply of food at that location. Eastern chipmunks prefer woodland borders rather than deep forests, particularly sloped areas with plenty of woody underbrush. But they are also common in urban areas.

Chipmunks are diurnal (active during the day) and feed primarily on nuts, seeds, fruits, fungi, flowers, and buds. They cache (store) their food in their burrows. During the summer, chipmunks will also eat invertebrates such as beetles, grasshoppers, and spiders.

Chipmunks play an important role in soil aeration and help condition the soil for plant growth. Their body wastes contribute to the organic structure of the soil. Chipmunks are an important part of the food web, being preyed upon by several species of bird, mammal, and snake.

Turtles

<https://www.inhs.illinois.edu/outreach/animals/turtles/>

<https://www2.illinois.gov/dnr/education/Pages/WildAboutTurtles.aspx>

Seventeen turtle species live in Illinois, dwelling in forests, prairies, marshes, swamps, ponds, lakes, streams and rivers. Those aquatic species that bask are regularly seen on sunny days lining logs and sand banks. The highly adaptable snapping turtle, painted turtle, pond slider and spiny softshell turtle thrive in a variety of habitats and conditions. The chief conservation issue

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for turtles is the loss or alteration of critical habitats. Over-exploitation of turtles for food and the pet trade are also serious problems in Illinois.

Most Illinois turtles are opportunistic omnivores. Even a snapping turtle's diet may include large amounts of plants along with the animal food it usually eats.

Diets of certain species change with age. For example, young sliders are carnivores, feeding on insects. Adult pond sliders, however, mainly eat plants.

Few turtles have the speed or agility to catch fast-moving prey. Most search for food slowly along the bottom or over weed beds, grazing on vegetation and eating slow-moving animals. The occasional dead fish or fruit fallen from a riverside tree may attract large numbers of turtles. A few species catch fast-moving prey by ambush. Such turtles usually are colored to blend with their environment and have long, muscular necks that can strike out at prey from a distance. A snapping turtle with its long, bumpy neck, mud-colored body and algae-covered shell, illustrates these characteristics well.

Frogs

<https://www2.illinois.gov/dnr/education/Pages/WildAboutFrogs.aspx>

<https://www.wildlifeillinois.org/gallery/amphibians-and-reptiles/frogs-toads/>

<https://www.inhs.illinois.edu/outreach/animals/frogs/>

Frogs and toads are the most conspicuous amphibians. Frogs and toads are well known for their mating call and long, insect-catching tongue. They are excellent gauges of environmental health because of their close contact with aquatic, wetland, and terrestrial environments. They have moist, sensitive skin that allows chemicals in the environment to pass into their bodies. Furthermore, their eggs lack a hard shell so their developing young also are directly exposed to the environment.

The long tongue of frogs and toads is folded in half when stored in the mouth. When extended for capturing prey, the tongue unfolds and is flipped out rather than being cast out straight. American bullfrogs are famous for their incredible eating habits. They will attempt to eat anything that moves -- that they can at least partially swallow. They have been known to eat baby ducks, small mammals, other bullfrogs and snakes. A female American bullfrog can lay over 20,000 eggs in a thin film measuring two feet by two feet.