

# Glossary

**acre** - a unit of land measurement; equal to 43,560 square feet and slightly smaller than a football field  
Aunt Grace plants a one-acre garden every spring and sells the vegetables in town.

**adapt (adapted, adaptation)** - to adjust to new conditions or surroundings in an effort to survive  
When our family moved to Minnesota we had to **adapt** to the cold winters.

**agricultural** - land planted to harvest, such as hay or row crops  
Corn is the primary **agricultural** crop in our state.

**altricial** - the condition of being helpless and naked when hatched, such as blue jays and doves  
The baby blue jays are **altricial** and are born without feathers.

**anthropomorphism** - giving humanlike characteristics to animals  
An **anthropomorphism** is saying that a bird cried tears of sadness.

**barb** - the part of the feather that sticks out of the shaft; collectively, a vane  
The structures that look like little hairs growing out of the shaft of a feather are **barbs**.

**barbule** - structures which grow out of the barbs of a feather; have hooks and rolled edges to lock the barbs together  
Under the microscope the **barbules** look like the hook and eye on our garden gate.

**binoculars** - a device that makes distant objects look larger and closer  
Viewing the bird through the **binoculars** let us identify it as a yellow warbler.

**biologist** - a person who studies living and once-living things  
The **biologist** showed our class the differences between birds and mammals.

**birding** - to watch birds  
We went **birding** with a biologist and learned six new bird calls.

**booming** - to make a deep, hollow sound to attract mates  
Each spring prairie-chicken males attract females by **booming** and dancing.

**boycott** - people who join together to protest a person or business  
I joined the **boycott** of products of the business that was dumping chemicals in the river.

**brood** - collectively, all the offspring from one nesting of a bird  
The hen wood duck led her **brood** to the stream.

**calcium carbonate** - a white compound (CaCO<sub>3</sub>) found in bones, teeth and shells  
The shells and bones of birds contain **calcium carbonate**.

**call** - a vocalization that is not a song; made during courtship, feeding, migration or as a warning  
The **call** of the northern bobwhite parents warns their young of approaching danger.

**camouflage** - protective coloring that helps hide an animal  
The hen ring-necked pheasant's brown color helps to **camouflage** her while sitting on the nest.

**cavity** - hollow place or hole  
The red-headed woodpeckers are nesting in a **cavity** in the elm tree.

## ***Glossary—continued***

**characteristic** - a quality or feature that makes something different from others

One characteristic used to identify the meadowlark is the black "v" on its breast.

**classification** - to arrange things in groups or classes

The classification of birds is based in part on their feeding habits and types of beaks.

**clutch** - a nest of eggs or brood of chicks

The nest in the evergreen tree contained a clutch of song sparrow eggs.

**common** - ordinary or average

The northern cardinal and blue jay are birds common to both the city and country.

**communicate** - to exchange information

Birds communicate through songs, calls and body posture.

**competition (compete)** - the act of trying to win or gain something from another or others

The competition between woodpeckers for the suet was intense.

**contour feather** - a feather having a strong, hollow shaft and a network of hooks

Contour feathers hide the fluffy, soft, down feathers that lie close to the bird's body.

**courtship** - a behavior pattern that leads to mating

Courtship behavior for birds includes singing, strutting, booming and posturing.

**cover** - the vegetation and debris that provide areas for animals to hide, sleep, feed and breed

The brushy fence row provides excellent cover for songbirds.

**covey** - a small flock or group, often a family

On our walk through the field, we disturbed a covey of northern bobwhite that scattered noisily in every direction.

**crop** - the organ at the bottom of the esophagus where food is stored for later digestion

While sitting under the bird feeder, the dove filled its crop with millet seed.

**dehydrating** - the process of drying out

The eggshell prevents the embryo from dehydrating.

**dimorphism** - having two distinct forms; males and females of the same species having different appearances

The red male and brown female northern cardinals are an example of dimorphism.

**diurnal** - active during the day

The American robins, northern cardinals and blue jays we saw on our picnic at the park are diurnal birds.

**down feather** - soft feather next to the body that provides insulation; the covering of young birds

The newly hatched owlets look soft because they are covered with down feathers.

**drumming** - to make a loud, reverberating sound by quivering the wings

Each spring, male ruffed grouse attract females by drumming.

**ecological balance** - an environment that is healthy and fully functional

Removing the food supply from a habitat upsets the ecological balance.

**egg tooth** - a small, sharp tip on the upper bill used during hatching to chip out of the shell

I held a newly hatched chicken and felt its egg tooth.

## ***Glossary—continued***

**endangered** - a species which is in danger of extinction

The greater prairie-chicken is an **endangered species** in Illinois.

**embryo** - a bird developing inside an egg

The **embryo** is protected by the egg's shell.

**energy expense** - the amount of energy used in performing a task

The **energy expense** of a bird feeding young is greater than for one without young.

**environment** - the surrounding area in which an organism lives

Our zoo tries to make each animal's cage like its natural **environment**.

**ethical** - having to do with ethics or morals

**Ethical** sportsmen harvest only their legal limit of birds.

**extinct (extinction)** - a species that is no longer existing

Passenger pigeons became **extinct** when the last one died in 1914.

**feeding station** - structures filled with bird seed and placed outdoors

During breakfast we watch birds at the **feeding station** outside our dining room window.

**field** - a piece of open or cleared land

The weeds growing in the **field** provide food for many birds.

**field guide** - a book used to identify organisms or other objects

For our picnics we always pack a **bird field guide** so we can identify the birds we see.

**flight feather** - a type of contour feather on the wing used during flight

For a few weeks each summer geese molt their **flight feathers** and are unable to fly.

**flyway** - a migratory route followed by birds to and from breeding areas

The Mississippi River serves as a **flyway** for many birds.

**forb** - a broad-leaved flowering plant that grows in a field or prairie

Prairies contain grasses as well as a variety of **forbs**, such as Indian paintbrush.

**forest** - an area covered with trees and other plants that form a closed canopy

The **forest floor** is a favorite feeding area for thrushes.

**fragmentation** - creating smaller areas of habitat from a large continuous habitat tract, such as removing a block of trees from a forested area

The road built through the forest resulted in **fragmentation** of the habitat.

**game bird** - a bird hunted for food and sport

My Dad's favorite **game bird** to hunt is the wild turkey.

**habitat** - the natural environment providing food, water, shelter and space for animals

The **habitat** for a Canada goose is a wetland.

**hover** - to stay in the air, flying in one place

The American kestrel **hovers** above the grassy roadside waiting to catch a mouse.

**imitate** - to copy the behavior of another animal

European starlings **imitate** many other birds' songs.

## ***Glossary—continued***

**incubate (incubation)** - to sit on eggs, keeping them warm until they hatch

The female American robin sat on her nest for two weeks to **incubate** the eggs.

**instinct** - a way of acting that an animal is born with

The urge to fly south for the winter is an **instinct**.

**intrinsic** - inherent qualities

The right to exist is an **intrinsic** value.

**key** - a chart showing grouping characteristics used to identify different classifications of organisms

The bird **key** helped us to decide that the bird at our feeder was a song sparrow.

**mandible** - the lower half of a bird's bill

Seed-eating birds, such as the northern cardinal, have a strong **mandible**.

**mate (mating)** - the process of male and female coming together to join egg and sperm cells; one of a pair of animals brought together for breeding

Mating takes place to produce offspring.

**mating ritual** - a practice conducted at regular intervals

Booming and drumming rituals occur during the **mating** season.

**mating season** - the time of year when mating occurs

The **mating** season for most birds is spring and early summer.

**metabolism (metabolic rate)** - chemical changes that provide the energy required for life; amount of food consumed, heat produced or oxygen used; speed at which the changes occur is the metabolic rate

Birds eat a lot of food because of their high **metabolic** rate.

**migrate (migration, migrating, migrants, migratory, migratory species)** - to move from one place to another

Warblers **migrate** from Central and South America each spring to nest in North America.

**molt (molting)** - to shed worn feathers and replace with new ones

Geese are unable to fly for a short period each summer when they **molt** their flight feathers.

**monogamous** - having only one mate

Bald eagles are **monogamous**.

**naturalist** - a person who knows a great deal about plants and animals

The park **naturalist** led our field trip and named plants and animals seen along the trail.

**nectar** - the sweet liquid produced by flowers

Ruby-throated hummingbirds are **nectar**-feeding birds.

**Neotropical migrant** - bird that spends the winter months in Central and South America and summers in North America

Scarlet tanagers are **Neotropical migrants**, spending part of the year in North America and the rest of the year in South America.

**nocturnal** - active at night

Owls are **nocturnal** birds because they hunt for food when it is dark.

**ornithologist** - a biologist specializing in the study of birds

The **ornithologist** showed the children the marks made by the woodpecker.

## ***Glossary—continued***

**parasite (parasitize)** - an animal that lives at the expense of another animal

The brown-headed cowbird is a nest **parasite** that relies on other birds to raise its young.

**passerine** - songbirds or perching birds

Warblers, blackbirds, finches, sparrows and vireos are types of **passerines**.

**pesticide** - any chemical used to control insects or weeds

Our neighbor applies **pesticides** to his yard and garden to control insect pests.

**phenology** - the study of natural phenomena that recur periodically, such as migration

Comparing daily records of birds at our feeding station for many years is called **phenology**.

**pipping** - to break through the shell

Twenty-eight days after the eggs were laid the chicks began **pipping**.

**population** - the number of organisms of one species living in a specific place at a specific time

Biologists estimated the **population** of mallards on the lake to be 125.

**prairie** - a type of habitat characterized by native grasses and forbs

Prairies once covered most of Illinois.

**precocial** - newly hatched birds that are covered in down and able to walk away from the nest with their parents as soon as they have dried off

Ring-necked pheasants and northern bobwhite have **precocial** young.

**predator (predation)** - an animal that feeds on other animals

Hawks and owls are **predators**.

**preening** - to clean, straighten and fluff feathers

The house sparrows sat in the road dusting and **preening** themselves.

**prehensile** - adapted to grasp or seize; flexible

The American woodcock's **prehensile** bill allows it to probe the ground and, when it finds an earthworm, open only the tip to grasp the worm and pull it out.

**prey** - an animal that is hunted by another animal for food

Insects, crayfish and songbirds are **prey** for the screech owl.

**primitive** - an organism that has evolved little from early ancestral types

Hawks and owls are more **primitive** birds than warblers.

**rally** - to bring or come together

When scattered, northern bobwhite whistle their **rally** call to locate and rejoin members of their covey.

**range** - the land on which an animal lives

The home **range** of birds contains the food, cover, shelter and water required for living.

**rare** - something not seen or found often

The black rail is **rare** in Illinois because much of its nesting habitat in wetlands has been destroyed.

**scientific** - having to do with or used in science

The **scientific** name for the barn owl is *Tyto alba*.

**scientist** - a person who knows a great deal about a branch of science

An ornithologist is a **scientist** who specializes in the study of birds.

## ***Glossary—continued***

**scold** - sharp vocalizations

Blue jays **scold** squirrels that get too close to their nest.

**shaft** - the hard center “tube” of a feather

The **shaft** of a feather pen holds the ink.

**shelter** - cover from the weather for purposes such as nesting, breeding and travel

Our apple tree provided **shelter** for the nesting mourning dove.

**soar** - to fly high in the air and barely flap wings

Bald eagles **soar** up and down the river in search of fishes.

**song** - the notes repeated by a bird in a regular pattern, used to defend territory and attract mates

Hearing the **songs** of birds is one of the first signs of spring.

**space** - a certain-sized area an animal needs to live

Larger animals require more **space** than smaller ones.

**species** - groups of animals with shared characteristics that can reproduce and produce fertile offspring

Red-headed and red-bellied woodpeckers are two different **species** of woodpeckers.

**strut** - to walk in a stiff manner

The **strut** of a male turkey is part of the mating ritual.

**suburban** - having to do with a suburb; an area with homes and stores between a city and the country

Landscaped **suburban** yards attract many birds.

**suet** - animal fats

Woodpeckers are attracted to **suet** hung in bags from trees.

**syrinx** - the vocal organ of birds

Air passing over the **syrinx** produces songs and calls.

**territory** - a defended area used for nesting or feeding

The northern mockingbird flew at the cat that entered its **territory**.

**thermal** - a rising mass of warm air

The hawk flew in a spiral on the **thermals**.

**thermoregulation** - keeping the temperature of a living body at a constant level

Cormorants hold their wings out for **thermoregulation** and to dry their feathers.

**threatened** - any species likely to become endangered in the foreseeable future

On our trip to the nature preserve we saw a **threatened** bird, the brown creeper.

**toxin** - a poison

Oils and acids are **toxins** to eggs and will cause a developing chick to die.

**urban** - having to do with a city

Peregrine falcons, rock doves, European starlings and house sparrows have adapted to an **urban** life.

**urban sprawl** - the spread of development in a way that is extensive and not efficiently planned

The **urban sprawl** of new homes and businesses into the countryside destroys natural habitats.

**vane** - the flat, weblike part of a feather emerging from the shaft; there are two vanes per feather

The **vane** of one flight feather overlaps the vane of the next feather.

## ***Glossary—continued***

**volunteer** - a person who offers to help or does something of his or her own free will and without pay  
The statewide spring bird count is conducted by **volunteers**.

**warm-blooded** - maintaining a constant internal body temperature regardless of external conditions  
Birds and mammals are **warm-blooded** animals while snakes are cold-blooded.

**wetland** - land that holds water for at least a portion of the year, has hydric soils and has water-loving plants  
Wetland types range from cattail marshes and cypress swamps to the Mississippi River.

**wildlife sanctuary** - a place of refuge for animals  
The area where bald eagles roost was dedicated as a **wildlife sanctuary**.

**wind resistance** - drag produced by the shape of a bird's body  
Canada geese fly in a "v" to reduce the **wind resistance** on any one bird.

**wing span** - the distance between the tips of a bird's wings when extended  
One of the largest birds in Illinois is the bald eagle, with a **wing span** of seven and one-half feet.

**yolk** - the food source in an egg for the developing bird  
As a developing bird grows, the **yolk** shrinks.