

In addition to the vocabulary from Biology I, students should become familiar with the following words as they relate to the study of ornithology. We will have vocab quizzes over terms as they relate to units we cover in class. (adapted from The Sibley Guide to Bird Life and Behavior)

Ornithology Vocabulary

Assigned	Term and Definition
	Accidental Species. A bird not regularly found in an area; Usually not seen more than 10 times in 25 years in North America.
	After-feather. A second well developed feather growing out from the shaft of the main body feather; usually a downy feather designed for warmth; often seen in Grouse, quail, and ground birds.
	Aigrette feathers. Long loose breeding feathers; also called plumes; seen in egrets and herons.
	Air sac. Part of the avian respiratory system; it allows for a one-way air flow through the lungs
	Allopreen. To perform maintenance on the feathers of another individual; often something that strengthens the bond between individuals.
	Alternate plumage. In birds that have two molts per year; usually the plumage seen in late winter or early spring before breeding.
	Altricial. A helpless hatchling without feathers, unable to leave the nest; eyes are usually closed.
	Anisodactyly. The common toe arrangement in birds with three toes pointing forward and one toe pointing back.
	Archaeopteryx. Prehistoric bird fossil linking the evolution of birds directly to reptiles.
	Arthropod. Insects, crustaceans, spiders and other members of the phylum Arthropoda.
	Aspect ratio. A measure of wing shape determined by dividing the wing length by the wing width; used in the study of flight performance.
	Asynchronous hatching. Hatching that takes place over several days.
	Auriculars. Feathers covering the side of the head including the ear openings; Also called ear coverts.
	Banding. The practice of marking individual birds using a metal or plastic band on the leg; this allows specific birds to be identified.
	Barbicels. Tiny hooks that join the barbules making up the feather; they help form the rigid structure of the feather.
	Barbs. Projections off the shaft that form the broad vanes of a feather.
	Basic Plumage. The set of feathers seen in birds that have only one molt; for birds having two molts per year this set is the non-breeding feather arrangement.
	Bolus. A lump of food made up of small items carried as a clump in the throat often carried to the nest to feed young.

	Breeding Bird Survey (BBS). An annual monitoring program organized by the US Geological Survey and Canadian Wildlife Service using volunteers that help provide data on bird populations that can be observed from roadsides.
	Bristles. Hair-like feathers made up mostly of just the shaft usually seen around the eyes and mouth
	Brooding. A behavior where parents warm hatchlings or young unable to maintain their own body temperature; often looks similar to incubation.
	Brood parasitism. Reproduction by laying eggs in the nest of other birds either of the same or different species.
	Brood patch. A patch of featherless skin found on the lower abdomen; the skin thickens and becomes rich with blood vessels to help transfer heat to incubating eggs and hatchlings
	Brood reduction. A reproductive strategy where females lay more eggs than they can raise. Late hatchlings are usually weaker and do not survive; Often seen in larger birds like Herons and Eagles.
	Caching. Storing food for later use.
	Calamus. The hollow portion of the feather that attaches to the skin
	Caruncle. A bright colored growth of skin on the face or neck; prominent on turkeys.
	Centrifugal tail molt. Replacement of the tail feathers starting with the inner feathers and moving outward to the sides of the tail.
	Centripetal tail molt. Replacement of the tail feathers starting the outer feathers and moving inward.
	Chaparral. A dense, bushy habitat made up of woody shrubs with small thick evergreen leaves.
	Christmas Bird count. An annual monitoring program conducted by volunteers organized by the National Audubon Society.
	Circadian rhythm. Innate responses of an organism based on the twenty-four hour cycle.
	Clutch. A set of eggs.
	Colony. A spatially discrete cluster of breeding territories usually packed tightly together
	Communal nesting. Breeding system in which several females place eggs in the same nest and work together to raise and care for the young.
	Complete molt. Replacement of feathers in all tracts of the body within a short period of time
	Contour feathers. The outer coat of feathers on the body, wings, and tail that give the bird its appearance.
	Cooperative breeding. Breeding system where non-breeding birds help the breeding pair raise the young.
	Counter shading. Plumage patten of light under parts and dark upper parts that serves to disguise the shape of the bird.
	Counter singing. Behavior where territory holders match the song of neighbors. Counter singing may send a message "I'm here and I know you're there".
	Coverts. Small contour feathers that cover the base of the flight feathers on both upper and lower surface of the tail and wings.
	Crop. Part of the digestive system; A pouch in the esophagus that serves as a temporary storage area for food.
	Culmen. The central ridge of the maxilla, running from the forehead to the bill tip.

	Dabble. Reaching into shallow water to obtain food without diving or leaving the surface of the water. Some ducks for example are "dabblers" while others are "divers".
	DDT. An organic pesticide banned in the US in the early 1970s; toxin to birds. A chemical... that had significant affects on the decline of the Bald eagle population. DDT is still used in South America today.
	Dimorphism. "Occurring in two forms"; usually used in reference to two different sizes or colors in a species.
	Display. A ritualized signal intended to send a message to another bird.
	DNA –DNA Hybridization. A molecular biological process that measures the similarities in DNA sequences from two gene pools
	Dummy nest. A nest built to make a territory attractive to females or to distract predators; may be used as an alternate nest.
	Echolocation. A process of navigation through the use of reflected sound (as in bats);
	Emergent vegetation. Vegetation that is rooted underwater but has foliage above the water's surface.
	Extirpation. The loss of individuals from an island, local population, or region; implies that the species can be found in other locations.
	Fallout. Migratory occurrence where birds are forced down due to bad weather or high winds into any habitat they can find.
	Fledging. The development in young birds of the feathers necessary for flight; development to the point that young are able to leave the nest
	Fledgling. A young bird that has left the nest but is still somewhat dependant on the parents
	Flight Feathers. Collective name for the long feathers of the wings and tail
	Gape. The opening formed when the mouth is open wide; in nestlings the bright colored areas at the corner of the mouth
	Gizzard. A muscular portion of the digestive system; food is ground in the gizzard by muscular contractions and with the help of "grit" or stones in the system.
	Gorget. Iridescent throat patch on hummingbirds
	Guano. Large amounts of bird feces that accumulates in regularly used areas.
	Gular fluttering. A behavior where some species rapidly flap their gular pouch to increase evaporation to assist in cooling the body.
	Gular pouch. A bare throat pouch that can be expanded to accommodate large prey
	Hacking. A conservation practice in which birds are released in the wild but still provided some food until they become independent.
	Hack site. The site from which a rehabilitated bird is released
	Hallux. The hind toe
	Home range. The area that an animal uses during the course of its daily activities.
	Immature. A young bird not under the care of its parents but too young to breed; a bird that is not fully an adult.

	Internal compass. A hypothesized mechanism that allows birds to orient themselves in the right direction during migration
	Juvenal. Refers to the first plumage attained after a bird loses its down feathers.
	Juvenile. A bird wearing its juvenile body feathers. In most songbirds juvenal feathers are molted within two weeks making this period very short
	Kleptoparasitism. The strategy of stealing items such as food or nesting materials (frigate birds)
	Lift. An aerodynamic force that moves a bird off the ground; produced by air moving around and past the airfoil formed by the wings .
	Loafing platform. A nest-like structure built by coots and some waterfowl where young can rest out of water.
	Lores. The area between the eyes and base of the bill.
	Mandible. The lower portion of the bill
	Mantle. The group of feathers in the center of the back
	Maxilla. The upper portion of the bill.
	Migration. Annual movements between breeding and wintering sites, usually between different areas of latitude.
	Mobbing. Harassment behavior by a group of birds directed at a predator or other intruder with the intent of warding them out of the area.
	Molt-migration. An annual migration from breeding grounds to a temporary location where birds molt, followed by a later migration to wintering territory.
	Monogamy. Relationship where a breeding pair establish an exclusive relationship during one reproductive cycle.
	Morph. One or more distinctive plumages seen in a particular species.
	Nidicolous. Young that stay in the nest for a time; which could be precocial or altricial
	Nidifugous. Those that leave the nest soon after hatching. "Nidifugous young are always precocial"
	Orbital ring. A fleshy ring around the eye; of contrasting color in some species.
	Ornithology. The study of members of the class Aves; the study of birds.
	Partial molt. The replacement of feathers on only part of the body.
	Passerine. A member of the order Passeriformes; the perching birds.
	PCBs. A class of chemicals used as lubricants and in insulation materials. They are hard to clean up, are long lived in the environment, and have toxic effects on birds and their reproduction.
Add	Pelagic – birds that live most of their life at sea, often returning to land only to breed
	Pellet. A mass of indigestible material including fur, feathers, and bones that are regurgitated by hawks, owls, herons, and other predatory birds.
	Philopatry. The tendency of birds to breed near the site where they were hatched and raised.

	Polymorphism. Plumage variations found in two or more forms.
	Precocial. Capable of a high degree of independent activity from birth. Precocial young are born with heavy down, are quickly mobile, and require little help from parents. Ex: Ducklings
	Preen gland. Located near the rump of the bird, the gland that produces oil used to clean and maintain feathers.
	Primary Extension. The distance the primary feathers extend beyond secondary feathers when the wing is folded alongside the body.
	Rachis. The portion of the central shaft of a feather to which the vanes are attached
	Range. The geographic area in which a species is normally found
	Rare. Present in a given location but unlikely to be seen without considerable effort, usually because the species is found in small numbers or because it is only present some years in... the area. Usually implies a more regular occurrence than "accidental".
	Rectrices (rectrix). The long flight feathers of the tail.
	Remiges (remix). The long flight feathers of the wing.
	Resident. A nonmigratory species that completes its annual life cycle within a fixed area.
	Scrape nest. A rudimentary nest on the ground usually without any lining; often just a depression made in the ground.
	Sedentary. Nonmigratory; generally used for birds that do not move long distances.
	Semi-precocial. Describing young that have characteristics of precocial young at hatching but that remain in the nest
	Shaft. A feather's stiff central structure to which the vanes of the feather are attached.
	Shorebirds. Sandpipers, plovers and their relatives of similar size and ecology often found on coastal areas. Does not include the long-legged waders
	Siblicide. The death of young caused by fighting with siblings.
	Songbird. The common name for birds in the order Passeriformes, called passerines.
	Stoop. To dive in the air; used especially of falcons in courtship or when attacking prey. "The osprey went into a stoop after hovering for a moment".
	Stray. An individual bird found outside its normal range.
	Supercilium. The eyebrow of a bird.
	Suspended molt. A molt that is temporarily halted for a short time, due to migration, for example and that resumes at a later date.
	Synchronous hatching. Hatching in which all chicks hatch within a 24 hour period.
	Syrinx. The structure through which most avian vocalizations are produced. Found at the base of the trachea.
	Tarsus. The lower leg; the bone making up the region of the lower leg is called the tarsometatarsus, which is a fusion of (in mammals) the ankle and foot bones.

	Territory. A defended area in which a species survives.
	Tertials. The flight feathers of the wing closest to the body
	Thermal. A rising body of warm air, used by some soaring birds to gain altitude without flapping.
	Torpor. A period of reduced metabolic activity to help conserve energy; not as deep a reduction as hibernation. Birds that go into torpor can come out of it relatively quickly.
	Totipalmate feet. Condition in swimming birds where webbing is extended to connect all four toes.
	Trap-lining. Behavior of conducting a daily visit to food sources in a predictable pattern. Hummingbirds for example will visit a number of feeders in a particular pattern each day.
	Vane. The flat portion of the feather extending off the rachis of the shaft; the feather webbing
	Waders. Long-legged, long necked birds found in wetland areas and coastal habitats (herons, flamingos, spoonbills)
	Watchlist. A conservation program indentifying species that are declining or have limited ranges but not yet endangered or threatened.
	Wattle. An unfeathered flap or growth of skin on the face or neck that hangs down below the head; often brightly colored (example, on turkeys)
	Wing-bar. A light colored bar on the wing, formed by lighter tips on the covert feathers or pale base of the flight feathers.
	Zygodactyly. Arrangement of the toes in which the outer front toe is turned backward (two toes forward, and two backward as in woodpeckers)

Taxonomy You Should Know

Kingdom: Animalia

Phylum: Chordate

Class: Aves

Orders: (you are responsible to know the following orders and their representatives)

Passeriformes – perching birds and songbirds

Strigiformes – owls

Charadriiformes – shore birds, gulls, terns, plovers, sand pipers, skimmers

Gruiformes – Rails, Coots, Cranes

Ciconiformes – long-legged waders... storks, herons, Ibises, Spoonbills

Anseriformes – Waterfowl... ducks, geese, swans

Galliformes – gamebirds.. quail, pheasants, chickens

Falconiformes – Raptors... falcons, hawks, eagles, vultures, osprey, kites

Apodiformes – swifts, hummingbirds