

2018 LANCASTER COUNTY JUNIOR ENVIROTHON BIRDS

Wetland Birds	
American Woodcock	Osprey and call
Bald Eagle and call	Red-winged Blackbird and call
Belted Kingfisher and call	Short-eared Owl
Great Egret	Snow Goose and call
Great Blue Heron and call	Tundra Swan and call
Green Heron	Wood Duck

An asterisk (*) on the list below indicates that students are responsible for the call of the bird.

References:

<http://www.pgc.pa.gov/Education/WildlifeNotesIndex/Pages/default.aspx>

<http://www.pgc.pa.gov/Wildlife/EndangeredandThreatened/Pages/default.aspx>

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



AMERICAN WOODCOCK: Classified as a migratory gamebird and therefore under the jurisdiction of the U.S. Fish and Wildlife Service, the timberdoodle features an extremely long straight bill; large dark eyes, a large head, short neck, dark back and buffy brown breast. Listen for the nasal “*peeent*” call and watch for displaying woodcocks in open fields in spring. Displays are given at dawn, dusk, and all night when the moon is full. A woodcock can eat its weight in earthworms within 24 hours. Woodcock may be exposed to pesticides used to control either forest or agricultural pests. Since these birds feed on earthworms, which are resistant to many chemicals, there is a chance the woodcock can accumulate persistent toxic chemicals found in worms.



BALD EAGLE*: Most Americans can identify an adult bald eagle at close range without difficulty. The striking white head, neck and tail are unmistakable field marks. At a distance, however, or silhouetted against a clouded sky, bald eagles may be more challenging to positively identify. Immature eagles, like the one above, lack the definitive color pattern of adults. Still they carry telltale traits that help positively identify them. Perching: Bald eagles perch and roost in an upright square-shouldered stance grasping a branch with strong, yellow talons. Bald eagles are 28 to 38 inches tall. Females are larger than males. The

bald eagle's beak is large and heavily curved. The color of this hooked beak ranges from bright orange-yellow in adults to dark gray in first year birds. The bald eagle's upper legs are feathered, but its lower legs are bare to the talons.

On the wing: Bald eagles soar on broad wings held in a flat plane. Their wingspan ranges from five and a half to eight feet. In flight, the bald eagle pumps its wings in slow, powerful wing beats. The front or leading edge of the wings runs fairly straight across, especially when viewed from a distance. The bald eagle's head is prominent and when compared visually to its tail, it extends forward more than half the length of its long, wedge-shaped tail. Immature bald eagles have white showing in the wing pit area, unlike golden eagles.

Natural history: Bald eagles are found throughout and only in North America, most often around water where they catch and scavenge fish. They supplement their diet with waterfowl, small mammals, turtles and carrion. Bald eagles are notorious for their ability to pirate fish from other piscivorous (fish-eating) birds like ospreys and common mergansers, chasing the other bird until it drops the fish. Although bald eagles will hunt in flight and by wading in water for prey, they generally perch on a tree or snag and wait for their prey to appear.

Eagles don't reach adulthood and begin nesting until age four or five and can live a long life for a bird, up to about 30 years. Bald eagles are known for their spectacular courtship, including acrobatic flight displays. The "cartwheel display" is perhaps the best known. In this courtship act, the pair flies to great altitude, lock their talons in flight, and tumble in cartwheels back toward the earth, breaking off their hold at the last moment before colliding with the ground. These flight displays often occur in winter, giving support to the idea that many pairs remain bonded through the year. In Pennsylvania, some pairs seem to occupy the same areas all year long, while others leave their nesting area when ice forms on the water and decreases their ability to find fish.

Bald eagles build among the largest nests of all birds. These massive and often conspicuous structures are reused and refurbished each year. Eagle nests, called eyries, are 5 to 6-foot wide piles of interconnecting sticks, rubbish, and cornstalks that support a cup of softer materials such as small twigs, grasses, mosses, weeds, sod and feathers. Eagles will lay eggs in February through April, sometimes sitting on eggs when there is ice and snow on the ground. This is one of the reasons why it is not good to approach nests too closely. If you flush an adult off of a nest in the incubation period you can expose the eggs to cold air, causing nest failure. Bald eagles normally produce one to three young per year.

Current status: In Pennsylvania, the bald eagle is protected under the Game and Wildlife Code. Although no longer listed as endangered or threatened, the bald eagle is protected by the Bald and Golden Eagle Protection Act and the Migratory Bird Protection Treaty Act.

CALL: https://www.allaboutbirds.org/guide/Bald_Eagle/id scroll to identification, click typical voice



BELTED KINGFISHER* : A kingfisher has a stocky body and a large head with a ragged looking double-pointed crest. The beak is sturdy and sharply pointed, the tail is short. The white neck ring and breast stand out against the blue-gray body plumage. The female has a belt of rusty feathers along her sides and breast which the male lacks. People often hear their rattle-like call before seeing them. After catching a fish, the bird flies back to its perch, stuns the fish by whacking it against the perch, and swallows it headfirst. Pennsylvania is veined with streams, and kingfishers are widely distributed across the state. The birds are absent from places such as southern Clearfield County, where acid mine drainage has polluted long sections of waterways.

CALL: https://www.allaboutbirds.org/guide/Belted_Kingfisher/id scroll to identification, click typical voice



GREAT EGRET : A large white heron with a yellow bill and black legs, this wading bird is listed as state-endangered. Since 2009, only 2 known nesting locations in Pennsylvania have been active: Kiwanis Lake in York County, and the Susquehanna's Wade Island in Dauphin County. Today, with federal and state protection, the great egret's population is rebounding.

Identifying Characteristics: Great Egrets are almost the size of a Great Blue Heron, but white rather than gray-blue. From bill to tail tip, adults are about 40 inches long. The wingspan is 55 inches. The plumage is white, bill yellowish, and legs and feet black. Great Egrets typically forage in deeper water than the smaller, shorter-legged herons and egrets; this is useful in distinguishing Great

Egrets from other wading with similar plumage.

Natural History: The major distribution of this species is south of Pennsylvania. The Mid-Atlantic coastal population extends like fingers up the streams of the Delaware and Susquehanna drainages. This egret is typically found in shallow rivers, streams, ponds, lakes and marshes. Nests are found in adjacent trees or shrubby growth, preferably on islands. Nests are in colonies, sometimes with other heron species, usually 10 to 50 feet up in trees. Nests are made of sticks and twigs, two feet in diameter, sometimes lined with leaves, moss and grass. The female lays 3 to 4 oval, blue or greenish-blue unmarked eggs. Both parents incubate the eggs which hatch in 23 to 24 days.

Great Egrets consume frogs, small fish, and other small aquatic animals. Depending upon food availability, these birds forage up to six miles from their nesting colonies.

Reasons for being endangered: At the turn of the 20th century, many bird species were shot for use, in whole or in part, on women's hats. Great egrets were hunted for their beautiful feathers. By 1917, some doubted the species could be saved from extinction. Plume trade, combined with the popular hobbies of egg and bird collecting, decimated populations of many bird species, leading to enactment of several federal laws to protect migratory, breeding and rare birds in the 1900s, namely the Lacey Act of 1900 and Migratory Bird Treaty Act of 1918. In addition, the National Audubon Society, one of the country's oldest non-profit conservation organizations, was formed around this time and used the great egret on its logo to symbolize the organization's commitment to bird conservation. Legal protection from plume hunting enabled the species to rebound.



GREAT BLUE HERON*: This bird probably comes to mind most when the word "heron" is mentioned. It's the largest of the dark herons, 38 inches long with a 70-inch wingspread. A great blue heron's head is largely white with a feathery black crest. The underparts are dark gray, and the back and wings are grayish-blue. The legs are dark. When hunting, a great blue walks slowly through the shallows or stands in wait, head hunched on its shoulders. Favorite foods include fish (up to a foot in length), water snakes, frogs, crayfish, mice, shrews and insects. Individuals are believed to remain solitary except in breeding season. The call

is three or four hoarse squawks. Great blue herons inhabit saltwater or freshwater areas near trees suitable for nesting — the more remote and inaccessible, the better. They nest singly, in colonies and among the nests of other herons, often in the same tree. The nest is a platform of large sticks lined with fine twigs and leaves and built in a sturdy crotch or on a limb. Its outside diameter is 25 to 40 inches. The male brings nesting material to the female, which does most of the actual building. Nests may be used several years. The female lays 3 to 6 (usually four) pale bluish-green, unmarked eggs. Incubation is by both sexes and takes 28 days. Both parents

feed the young, which are ready to leave the nest in three weeks. The species generally breeds across the northern United States, southern Canada and Alaska. In the fall, great blue herons pass through our state from July to October. Some remain as winter residents, hanging out along waterways and other open water. The species winters principally along the Atlantic coast, the southern states and Central and South America.

CALL: https://www.allaboutbirds.org/guide/Great_Blue_Heron/id scroll to identification, click typical voice



GREEN HERON: From a distance, the Green Heron is a dark, stocky bird hunched on slender yellow legs at the water's edge, often hidden behind a tangle of leaves. Seen up close, it is a striking bird with a velvet-green back, rich chestnut body, and a dark cap often raised into a short crest. These small herons crouch patiently to surprise fish with a snatch of their dagger-like bill. They sometimes lure in fish using small items such as twigs, earthworms, feathers or insects as bait. This behavior makes it one of the world's few tool-using bird species.

Compared with most herons, Green Herons are short and stocky, with relatively short legs and thick necks that are often drawn up against their bodies. They have broad, rounded wings and a long, dagger-like bill. They sometimes raise their crown feathers into a short crest. Green Herons stand motionless at the water's edge as they hunt for fish and amphibians. They typically stand on vegetation or solid ground, and they don't wade as often as larger herons. In flight these compact herons can look ungainly, often partially uncrooking their necks to give a front-heavy appearance. Green Herons live around wooded ponds, marshes, rivers, reservoirs, and estuaries.

OSPREY*: No longer listed as federally endangered or threatened, but, in Pennsylvania, this raptor is listed as threatened. As recently as 1986 the state had only one nesting pair of osprey. By 2010, the state nesting period numbered over 115 nests. Ospreys are large, fish-eating birds of prey most often seen around water. They may exceed 24' in length and



with a wingspan approaching 6'. Also referred to as the 'fish hawk,' ospreys are dark brown



above, bright white below, with some brown streaking on the breast. Key identification characteristics are the dark eye stripes, black patches at the crook of bent wings. Unlike eagles, osprey often hover while hunting. Habitat destruction, water pollution, and illegal shooting played a role in this bird's decline. Ospreys were also affected by pesticides, such as DDT, which affected their ability to lay healthy eggs and successfully reproduce.

CALL: <https://www.allaboutbirds.org/guide/Osprey/id> scroll to identification, click typical voice



RED-WINGED BLACKBIRD*: The male is all black with a red shoulder patch bordered by yellow. The female is brown above and heavily streaked brown below with a buffy-to-whitish eyebrow. Males hold territories of 1/8 to 1/4 acre, which they defend by singing from perches with wings spread open and red shoulder patches exposed. Many ornithologists believe the red-winged blackbird is the most populous bird species in North America. Redwings arrive on their breeding grounds in late February and early March. Adults usually breed within 30 miles of where they were hatched. This songbird nests in loose colonies. They aggressively attack crows and hawks to drive them out of the area.

CALL: https://www.allaboutbirds.org/guide/Red-winged_Blackbird/id scroll to identification, click typical voice



SHORT-EARED OWL: In Pennsylvania, short-eared owls are at the southern edge of their North American breeding range. They may be found regularly during winter in farmlands and wetlands throughout the state. Numbers vary from year to year depending on prey densities.

Identifying characteristics: The short-eared owl received its name from its diminutive "ear" tufts. It is about the size of a crow, 13 to 17 inches high, and has a 38- to 44-inch wingspan. Color varies from light to dark brown with dark circles around the eyes. Dark, crescent-shaped patches on the undersides of the wings, dark wingtips, and large buff-colored patches on the upper sides are very distinctive in flight. This open county owl has a distinctively slow and buoyant flight while hunting, like a giant moth flying

low over the fields. They quarter the fields methodically and then fly up in loops and hover over potential prey before dropping on the mouse or soaring to their next hunting ground.

Atypical for owls, shorted-eared owls nest on the ground, sometimes in colonial groups. The female excavates a slight bowl-shaped depression, often at the base of a clump of weeds or grasses, and sparsely lines it with grass and feathers. Nesting typically occurs during May and June. The female, which incubates the eggs while the male brings her food, is reluctant to leave the nest, thus making searching for this species particularly difficult. A typical clutch consists of four to seven white eggs. Young hatch about three weeks after egg-laying, and are able to fly in about a month. The female is the primary caretaker of the young. Throughout the nesting and brood-rearing periods, the male defends the territory and brings food to the female and the young. By late September–October, breeding birds may migrate to their southern wintering grounds in the southern United States or northern Central America. If prey is readily available and the winter is mild, short-eared owls may overwinter in the state. They are attracted to larger open fields and reclaimed strip mines at various parts of the state including the southern tier of counties. Short-eared owls will roost during the day in dense vegetation on the ground, sometimes under the dense lower boughs of a conifer.

Unlike most other owls, the short-eared is active at dusk, dawn and – at times – even in midday; therefore, they are seen more often than other owl species. Short-eared owls are more likely to be encountered here in the winter when several may be seen together, hovering or flying low and in circles over agricultural fields in search of their main prey, meadow mice.

Current status: The short-eared owl was designated endangered in 1985 and remains on the state endangered species list. Short-eared owls have declined across their range as suitable breeding and wintering habitat, namely grasslands, marshes, and infrequently-used pastures, have been lost to development, converted to more intensive agricultural practices, or altered through a field's natural succession to forest.



SNOW GOOSE*:The snow goose is one of the world's most abundant waterfowl species. Snow geese breed in the arctic and subarctic regions of North America during spring and summer, then migrate south to spend the winter in inland and coastal areas, including Pennsylvania. They feed voraciously on vegetation, and recent population increases have led to serious damage of the species' habitat, mainly on its breeding range, but also in some wintering areas.

Biology: A medium-size goose, the snow goose is 27 to 33 inches long, with a wingspread of about 54 inches. It has a chunky body and weighs from 3.5 to 7 pounds, with males slightly heavier than females. The snow goose has two distinct subspecies, the greater snow goose and the lesser snow goose. The lesser snow goose is dimorphic, meaning it comes in two color phases, white and blue. The white phase is all white with the exception of black primary wing feathers. On the blue phase, the head and front of the neck are white, and the body is gray-brown, with white or gray underparts. All snow geese have, in addition to black primaries, a black patch on the edge of the bill, suggesting a grin when viewed from the side. The eyes are dark, the bill is pink, and the legs are dark pink.

Snow geese are good swimmers. They do not normally dive to find food, but can submerge to evade predators. They walk readily on land, and run swiftly. They sleep floating on the water, or on land, sitting down or standing on one leg; the head is held low or tucked partway beneath one wing. Strong fliers, snow geese can reach speeds of 50 miles per hour. Snow geese are extremely vocal. Individuals sound a whouk or kowk, given repeatedly in flight and on the ground and resembling the shrill barking of a dog. When feeding, snow geese make quieter gah notes.

Snow geese nest on arctic tundra, near river mouths and on islands, usually within five miles of the coast. They gather in colonies varying greatly in number and density of pairs. A pair defends an area around its nest, where both partners feed heavily. The female builds a shallow nest out of plant material and down plucked from her body; she may reuse her previous year's nest. Nests are often sited on low ridges or hummocks offering good visibility over the surrounding terrain. A female typically lays three to five creamy white eggs, sometimes as many as seven. Incubation is by the female alone, with the male remaining close to the nest. Snow geese mate for life.

During migration, snow geese fly both by day and night. In fall, they often travel in large flocks with more than 1,000 members; spring flocks vary in size from a few dozen to a few hundred individuals. Usually they migrate along fairly narrow corridors, with traditional stopping points along the way. Migrating snow geese take advantage of following winds, good visibility and periods of no precipitation. They fly in long, diagonal lines and in V-formations, at altitudes of up to 7,500 feet. When preparing to land, they may tumble to lose height in what has been described as a "falling-leaf" maneuver. Middle Creek Wildlife Management Area is a reliable place to view the spring migration of these birds. This eastern population winters along the Atlantic Coast from Massachusetts to South Carolina, with concentrations in southeastern Pennsylvania, New Jersey, Delaware, Maryland, Virginia and North Carolina. In winter, snow geese are highly gregarious and often feed in flocks numbering thousands of individuals. Pennsylvania is attractive to snow geese because of the large number of agricultural fields. Waste grain left after harvesting allow birds to recharge fat reserves needed for spring migration and nesting and, thus, has been implicated in increasing survival rates. At times, snow geese can be

destructive feeders, pulling stems and roots of plants out of the ground. This grubbing behavior is largely responsible for extensive habitat damage of marsh habitats on both breeding and wintering areas.

CALL: https://www.allaboutbirds.org/guide/Snow_Goose/id scroll to identification, click typical voice



TUNDRA SWAN*: The tundra swan, formerly known as the whistling swan, breeds in northern Alaska and Canada and migrates south to winter along and near the Pacific and Atlantic coasts. Tundra swans fly across Pennsylvania in spring and fall, and some winter in the southeastern part of the state. Our only other swan is the mute swan, originally imported from Europe and now here in domestic and feral populations.

The tundra swan — 4 to 5 feet long and with a wingspan of about 66 inches — is markedly smaller than the mute swan. Adult tundra swans weigh 10 to over 18 pounds, with males somewhat larger than females. The plumage is white, and the sexes look alike. The bill and the front portion of the face are black (the mute swan has an orange bill with black knobs at the base). Most adult tundra swans have a yellow spot in front of the eye. The legs are black. The neck is held straight up most of the time (the mute swan, in contrast, usually keeps its neck in a curved position). Whether taking off from water or land, before a tundra swan can become airborne it must take many running steps. Individuals can fly up to 50 miles per hour. The flight call consists of one to three syllables, usually described as variations of the sounds ou, oh, and oo; the voice of a tundra swan sounds similar to that of a Canada goose.

As their name implies, tundra swans breed in the treeless tundra of northern Alaska and Canada's Northwest Territories, Nunavut, northeastern Manitoba, northern Ontario, and northwestern Quebec. On their northern breeding range, tundra swans eat a variety of plants, including sedges, pondweed, pendant grass, arrow leaf, and algae, consuming seeds, stems, roots, tubers and some invertebrates. While floating on the water, tundra swans feed by dabbling with their bills.

Males and females form life-long pair bonds. On the breeding range, a pair maintains a territory in which they feed, nest and rear young. The territory usually includes part of a large body of water, used for feeding and escaping from predators. The male and the female build a nest out of grasses, sedges, lichens and mosses, on the ground, usually on an island or a low ridge or some other spot providing good visibility. The mound-shaped nest is 1 to 2 feet across, with a depression in the center. A pair may reuse the same nest in successive years. The female lays three to five creamy white eggs. She broods her clutch the majority of the time. After 31 to 32 days, the eggs hatch.

Young swans, called cygnets, are able to fly after two to three months. As the northern summer dwindles, family groups fly to staging areas, mainly along brackish shores of river deltas, which remain free of ice longer than other arctic wetlands. In late September, the flocks, composed of multiple family groups, begin heading south. The swans fly in V-formations at altitudes of 1,800 to 4,500 feet and higher. Flocks follow traditional inland migratory routes. The Eastern wintering population arrives in early October in the Midwest. Later, flying by day and night, they make a nonstop migration of almost a thousand miles to wintering areas in coastal New Jersey, the Susquehanna River Valley in southern Pennsylvania, the Chesapeake Bay region, and coastal North Carolina. In the past, tundra swans fed largely on submerged aquatic vegetation, as well as a small amount of animal matter, including clams. As aquatic plants have dwindled, due to the destruction of wetlands, wintering swans have shifted to feeding on land. They forage mainly in farm fields, picking up waste corn and soybeans left after the harvest, and eating crops such as winter wheat, rye, and barley. In winter, tundra swans spend the night floating and sleeping on the water. They fly back and forth between resting and feeding areas.

CALL: https://www.allaboutbirds.org/guide/Tundra_Swan/id scroll to identification, click typical voice



WOOD DUCK : The wood duck is our most brilliantly colored duck. This shy bird inhabits ponds and sluggish streams surrounded by woodlands. The drake's head is bright green, shading into blue and purple, with slick backed crest of feathers and a white "chinstrap." His eyes are bright red, his bill reddish-orange, his legs yellow. The hen's plumage is drab; combination of gray, white, and brown. The hen's key field mark is the white eye ring. In the early 1900's the wood duck was nearing extinction. Many woodland ponds had been drained and widespread logging had removed the mature trees needed for nesting. In addition, this duck was over-

hunted until 1913 when the Department of Agriculture banned hunting wood ducks for 5 years. That effort, followed by the ratification of the Migratory Bird Treaty Act between the United States and Canada, established the framework for managing waterfowl. This protection and the construction and placement of wood duck nest boxes have led to the recovery of this beautiful duck. Today, only the mallard is a more common nesting duck in Pennsylvania.

***Students are responsible for the identification of these bird calls.**