

2018 LANCASTER COUNTY MIDDLE SCHOOL ENVIROTHON

WILDLIFE



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 cres. 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.

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MINK: A common *carnivore* found near water, the mink is a member of the *mustelid* or weasel family. They prey upon muskrats, fish, other mammals, and marsh birds. Like most *mustelids*, they are agile and fierce fighters, killing prey with a hard bite to the back of the skull. On land, they travel at a slow, arch-backed walk or a bounding lope, which they can keep up for miles. They swim and dive well; a webbing of stiff hairs between the toes of their hind feet helps them in water. Generally *nocturnal*, the mink is active year-round. Mink den in abandoned woodchuck tunnels, hollow logs, vacant muskrat houses (owners of which they may have eaten), and holes in stone piles, and beneath large tree roots. The mink is the main predator of muskrat. Mink survive best where water is unpolluted, for this is where the greatest concentration and variety of prey is located.



EASTERN PIPISTRELLE: Eastern Pipistrelle is the state’s smallest bat. The bat’s wingspan is just 8-10 inches. The fur of the Eastern Pipistrelle is tri-colored including gray, yellow, and brown. The bat takes flight in early evening and makes short oval shaped patterns in the air just above the treetops.

During the summer woods near water is a favorite shelter. Eastern Pipistrelle hibernates from September-April deep inside caves. They dangle in the spot for months building water condensation on their bodies. They are very sound sleepers. When active out of hibernation, the Eastern Pipistrelle eats flies, grain moths, and other insects. Young bats called pups are born in June and July. Twins are common to this type of bat. The Eastern Pipistrelle can live for approximately 15 years in the wild.



RIVER OTTER: An *aquatic* mammal not often seen, the river otter belongs to the *mustelid* family like the weasel and mink. Excellent swimmers, otters feed on fish, crayfish, frogs, snakes, muskrats and other small mammals. A den is made in a stream bank or at the base of a hollow tree. Young pups born from February to April weigh 4-5 ounces and blind and toothless at birth. As pups grow they remain curious and playful. Otters are mainly nocturnal. Otters do not store food for winter and do not hibernate. Clean water supporting aquatic life is the foundation of habitat needs for the otter. Anti-pollution laws safeguard

these waters and protect the otter's habitat needs. This *carnivore* has been protected from hunting or trapping since 1952. To provide wildlife *diversity*, the Pennsylvania Game Commission has reintroduced river otters beginning in the 1983. Biologists have released 110 river otters into six areas; Pennsylvania's otter population numbers are growing. Wildlife Conservation Officers and other Game Commission employees have observed otters and otter sign along both sides of the Susquehanna River, and at Middle Creek Wildlife Management Area.



BEAVER: The largest *rodent* found in the state these herbivores feature a flat tail. This tail is adapted for use in swimming, and the tail also supports the beaver when it sits erect or gnaws on a tree on dry land. Their front paws include long claws for digging and work a bit like a human hand and are used in the construction of damming water and building a family lodge. The hind feet have webbed toes. The second claw from the outside one each hind foot is split and used like a comb for grooming. The beaver's front teeth never stop growing. It must cut wood almost each day keep the teeth in

check. Beavers can stay underwater for up to 15 minutes; during a dive, the heart slows and valves close off the ears and nostrils. Lodge building affects many other wildlife species. This *furbearer's* activity provides habitat for ducks, geese, shorebirds, fish, and amphibians. Otters, raccoons, osprey, and other predators are attracted by the rich variety of wildlife and food. By the beginning of the twentieth century there were few beavers in Pennsylvania. In 1903 a law was passed protecting this *herbivore*. In 1917 the Game Commission released a pair of Wisconsin beavers. This successful reintroduction led to the reopening of beaver trapping in 1934, a tradition that continues today.



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.

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MUSKRAT: The nation's most abundant *furbearer*, this *rodent* lives on or near the still or slow moving water of ponds, marshes, streams and rivers. Common in Pennsylvania, the muskrat feeds on the roots and stems of *aquatic* plants, especially cattails. Like its cousin the beaver, the muskrat constructs lodges of vegetation or they burrow into the banks of streams. Muskrats eat a small amount of animal protein like crayfish, freshwater mussels, small fish, and frogs. Muskrats have a high reproduction rate with an adult female having two, three, or even four litters a year. Commonly preyed upon by mink, minks prefer to hunt the young or sick because adult muskrats fight hard.



The average lifespan is 12 months but may live as long as 5 or 6 years. Through feeding, muskrats can open up areas of densely vegetated marsh that can benefit waterfowl and other *aquatic* wildlife. They don't hibernate during the winter; they depend on grassy plants within swamps and bogs.

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.



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MOOSE: Moose are the largest member of the deer family. Male moose are recognizable by large antlers that can spread 6 feet from end to end. All moose have a long face and muzzle that dangles over their chin. A flap of skin call a bell sways under the moose's throat. During the summer, moose will *browse* high grasses and shrubs rather than lower their heads to ground level. Moose are often found in wetlands feeding on aquatic plants. They do not hibernate. In winter, they eat shrubs, pinecones, and use their hooves to clear snow to get to mosses. Their hooves act as snowshoes and support their heavy bodies in muddy and marshy

ground. Moose were once a part of the Pennsylvania landscape. Sometimes called the black moose, they were found wading into woodland wetlands. The last known Pennsylvania moose was killed about 1790 near the Juniata River which enters the Susquehanna River from the west. Today moose are known as an extirpated species in Pennsylvania. Extirpated means the species although not extinct has disappeared from large areas of its original, natural habitat.



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.

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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



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