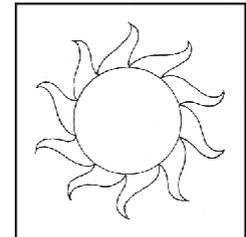
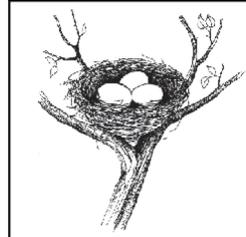
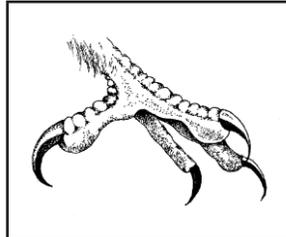




Eagles

Order Falconiformes

Family Buteoninae



Fortunately in Pennsylvania it is possible to see both the **Bald Eagle** and **Golden Eagle**, two very large, impressive birds of prey. **The golden eagle is a regular migrant** during fall and spring, but **the bald eagle is making a strong comeback throughout the commonwealth and is found here year-round**. Still, if you spot one of these birds, consider yourself very lucky. They are still uncommon.

Eagles are big. Their wingspan is up to eight feet. When standing they measure about two feet from head to tail and weigh up to fourteen pounds. Compare this to an adult great horned owl, weighing perhaps three pounds. Like all birds of prey, the female is larger than the male.



Bald Eagle

Haliaeetus leucocephalus



Even though **the bald eagle is our national bird**, Benjamin Franklin had wanted the wild turkey to be the symbol of our country, but his wish never came to be. Instead, our nation's emblem is the **magnificent black bird with the spotless white head and tail**. Many people have mistaken the black and white osprey for a bald eagle, until they see a bald eagle. Once you see this huge bird soaring overhead, you will never misidentify the two birds again.

The Bald Eagle is not bald at all. Historically, bald meant white, and when mature, both the male and female bald eagle have white heads and tails contrasting a dark body. The **immature bald eagles** are mottled brown all over their body, sometimes **resembling golden eagles**. At about five years of age, the bald eagle molts into its adult plumage. Both sexes and the immature birds have large yellow beaks and feet.



Never far from water, except when migrating, bald eagles soar on broad wings that they rarely flap. **Their flight silhouette is flat**—imagine two oars sticking straight out at right angles to a canoe. Osprey have a “squashed M” flight silhouette while turkey vultures have “V” or dihedral shape to their silhouettes when flying. **The eagle’s call is a coarse *kweek-kik-ik-ikik-ik*** that they scream in flight or when perched.

Almost 90 percent of the bald eagle’s diet is fish, although they will occasionally take another bird or mammal. They will also feed on carrion and are not above stealing fish from osprey. They fish from a perch or in flight, using their superb eyesight to spot a fish at the water’s surface. As they fly down to the water, they push their feet forward (as if about to land) to prepare to grasp their slippery prey in their talons. They’ll hold the food with their feet, using their heavy beak to tear the food into bite-size pieces.

Eagles engage in an impressive aerial breeding display with the birds locking talons, diving and somersaulting through the sky. They will mate for life or until one mate dies. **Huge stick nests called eyries are placed in a large tree** near large lakes, rivers or the ocean. Nests can be as wide as five feet in diameter and two feet deep. Some nests that have been used repeatedly can become so large that the tree branches supporting them collapse.

In early spring the female will lay one to three plain white eggs over several days. **Incubation begins with the first egg**, resulting in chicks of various sizes in the same nest. Both parents feed the young, but if food is scarce the youngest chick may not survive if it has to compete with its larger siblings. By 6 to 7 weeks, the chicks begin to walk around the nest flapping and exercising their wings until they begin to fly at three months.



Due to pesticide toxins that made their way from the farmer’s fields into our waterways and into the fish that they ate, **bald eagle populations plummeted in the 1950s and 1960s.** In an effort to re-establish the birds, the **PA Game Commission began removing eaglets from nests in Canada and then raising and releasing them in our state through a hacking program.** Hacking refers to caring for a young bird in a semi-wild condition until it can fend for itself. It worked, and now there are dozens of bald eagle nests in the state. Although **recently downgraded from endangered status to threatened, bald eagles** still require our protection.

Bald eagles may live up to 30 years or longer, but since they don’t begin to breed until about five years of age, **their reproductive rate is slow.** A slow reproductive rate means it is difficult to build population up if anything threatens it.

Eagles are not normally preyed upon by other animals, **but people have wreaked havoc on their populations.** Some eagles are shot illegally, and some are electrocuted when landing on power lines. Due to the bald eagle’s close relationship with water, toxic pollutants have had the largest impact on our national bird.



Golden Eagle

Aquila chrysaetos

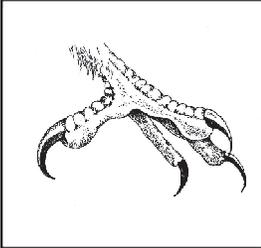


Golden Eagles are associated more with the Western United States than Pennsylvania, but during spring and fall migration, especially during October, **it is possible to see these enormous golden-brown birds soaring overhead.** They do not nest in the state or spend any other time here.

Because immature bald eagles resemble both the immature and adult golden eagles, golden eagle sightings seem to be more common than they actually are. **Their dark plumage is highlighted with a golden sheen,** especially on the head and neck with considerable white mottling throughout the body.

Goldens are strong, intelligent birds. In their resident territories out west, goldens have been known to knock mountain goats and sheep off steep ledges in order to kill them. The eagles will then fly to the base of a canyon to feed on their prey wherever it landed. They hunt over open range taking rodents, hares, birds, reptiles, in addition to larger prey.





Osprey

Order Falconiformes
Family Pandionidae



DIURNAL - Active during the day

The Osprey (*Pandion haliaetus*) is not as large as an eagle, but it is still an **impressive bird of prey with striking field marks**. Any large black and white hawk-like bird seen near large lakes or rivers in the state should be considered an osprey unless you can be sure you are not looking at a bald eagle.



Osprey are black above and white below with a **white head marked by black cheek patches**. In flight their “wrists” are black against the white underside and **their flight silhouette has a distinct crook** (or squashed “M”) in the wings.



Superb fishers, **osprey hover** high above the water before dropping to the water to grab a fish with their talons, sometimes submerging momentarily to grasp their prey. **Unique scales on their feet** help them hold the struggling fish while they fly back to a perch or their nest, turning the fish face-forward to reduce wind resistance.

Osprey don't soar as well as other birds of prey. **Their flight resembles a sea gull's slow wing beats**. The wingspan is up to 6 feet and they stand 20–24 inches from head to tail, but are noticeably thinner than eagles and perch in a slightly horizontal position, giving the impression they are about to take off.

Osprey calls are high-pitched whistles. Their nests can be seen on treetops, utility poles, billboards, channel buoys and other high structures, natural or man-made. They are quite tolerant of human activity but will duck down in the nest when there is too much commotion.

The stick nests are loose, bulky and lined with bark or grasses. Some nests, which are used year after year, are decorated with seashells or pieces of fish nets. The female lays an average of three white or pinkish eggs with brown spots.





A Simple Review of Eagles & Osprey



Bald eagles and osprey are both large, hawk-like birds found near large bodies of water. Many people mistake the osprey for a bald eagle, but **eagles are much, much larger than ospreys.** If you saw the two birds next to one another, you would not mistake them.

The **adult bald eagle** has a dark brown body and full **white head and tail.** The **osprey has a white body** with dark wings and black marks on its face.



Bald eagles do not get their white head and tail until they are about 4–5 years old. They are not bald. Many years ago the word **bald meant white.** For the first few years of their lives, bald eagles are a mottled brown and white all over. They have a **large, strong yellow bill,** and **yellow legs and feet.** The **osprey has a black bill.**

An eagle's feet and talons would be about the same size as an adult human's hand and fingers. They are big birds. **Bald eagles eat fish** most of the time. Sometimes they steal fish from ospreys hunting in the same area. Eagles **will also eat carrion** or injured small animals.

Like all birds of prey, **bald eagles have broad, flat wings,** which allow them to soar for hours on thermals. When eagles soar, they hold their wings flat. **Osprey hold their wings in a squashed "M" silhouette.**

The **bald eagle** holds a special place among wildlife because it **has been our national bird since the late 1700's.** Despite that title, until recently bald eagles have been on the **endangered species** list. Many years ago their numbers dropped to dangerous levels because they were sickened by toxins in the fish they ate. They have also suffered from loss of habitat. Happily their populations are growing. Bald eagles can be seen fishing and nesting on most large rivers in Pennsylvania.



Golden eagles do not nest in our state, but they do pass through the state during fall and spring migration. They, too, are **very large, dark birds**. Sometimes a golden eagle can be mistaken for an immature bald eagle, but golden eagles have **golden-brown feathers on the back of their head and nape**. Unlike the bald eagle, **their legs are completely feathered**. Golden eagles never have a white head or tail.

They soar in lazy circles, but **in a dive they have been clocked at 120 mph**. They are strong hunters, taking mammals and birds by attacking from above. Golden eagles have been known to take an animal the size of a small deer.



Osprey are beautifully marked raptors with dark brown body parts set against bright white. They **have small, white heads with a dark crown, eyestripe and dark bill**. They have **gray legs and feet**. Fish make up most of their diet.

The soles of their feet have barbed pads that help them grip the slippery fish they grasp from near the surface of the water. **In flight they will turn the fish around so the fish is facing head-first** in the direction the osprey is headed. This is believed to make flying easier.

The outer **toes of the osprey's feet are even reversible** to help them grab a fish easier. Depending on need, they can hold a fish with two toes forward and two toes backward or one toe backward and three toes forward.

Osprey love to nest on top of posts and platforms near large bays, rivers or the ocean. Their **stick nests** are large, but not as large as bald eagle nests which can weigh as much as two tons!