

# Chapter 1

## The U.S. Fish and Wildlife Service

The Fish and Wildlife Service (FWS), within the U.S. Department of the Interior, is the principal agency through which the U.S. Government carries out its responsibilities to care for the country's wildlife and their habitats. Migratory birds, endangered species, certain marine mammals, and freshwater and anadromous fish are all wildlife resources managed by the FWS. Some of the natural resource programs within the FWS include:



### **Endangered Species**

The FWS leads the federal effort to protect and restore animals and plants that are in danger of extinction both in the United States and worldwide. Using the best scientific evidence available, FWS biologists identify species that appear to be endangered or threatened. After review, species may be placed on the Interior Department's official "List of Endangered and Threatened Wildlife and Plants." FWS biologists, along with other partners, then develop recovery plans for the species that include research, habitat preservation and management, and other recovery activities.

### **Migratory Birds**

Because many bird species fly thousands of miles in their annual migrations, conservation by any single state or nation alone is not enough; cooperative efforts by each are required. The U.S. Federal Government is responsible for leading migratory bird conservation under several laws and international treaties with Canada, Mexico, Japan, and the Soviet Union. The FWS is responsible for conservation of more than 800 species of migratory birds. It regulates hunting, studies bird populations, and acquires and manages many national wildlife refuges to provide secure habitat for migratory birds.

### **Fisheries**

Restoring nationally significant fisheries that have been depleted by over fishing, pollution, or other habitat damage is a major effort of the FWS. Research laboratories study fish health, genetics, ecology, nutrition, and other topics to provide the information needed to raise fish in hatcheries and to restore wild fish populations. As part of this program, nearly 80 national fish hatcheries produce some 50 species of fish. The FWS stocks more than 160 million fish annually.

### **Federal Aid**

Through a system of excise taxes on fishing and hunting equipment, more than \$50 million per year is distributed to states for fish and wildlife management. Grants to states fund the

purchase and development of critical habitat and research on endangered species.

### **Law Enforcement**

The FWS enforces federal laws that protect endangered species, migratory birds, marine mammals, and fisheries. The FWS carries out U.S. enforcement obligations under international agreements. Special agents work to prevent exploitation of game and non game species and the interstate transportation of illegally taken wildlife. Wildlife inspector stations at major ports of entry check the legality of documents and permits, and inspect shipments of live animals and wildlife products to ensure that protected species are not imported or exported illegally.

### **National Wildlife Refuge System**

The National Wildlife Refuge System is the world's largest and most diverse collection of lands and waterways set aside specifically for wildlife. Over 540 refuges stretch across the continent and over to the Pacific Islands. They range in size from Minnesota's tiny Mille Lacs (less than 1 acre) to Alaska's sprawling Yukon Delta (app. 20 million acres). Many early refuges were created for herons, egrets, and other water birds. Others were set aside for large mammals like elk and bison. But by far the most have been created to protect migratory waterfowl. Today, national wildlife refuges play a vital role in preserving endangered and threatened species. They provide secure habitat for native plants and many species of resident mammals, fish, insects, amphibians, and reptiles. National wildlife refuges offer a wide variety of recreational opportunities, and many refuges have visitor centers, nature trails, and environmental education programs. Small or large, each refuge provides vital habitat for at least a portion of America's wildlife populations.

*The U.S. Fish and Wildlife Service's mission is to work with others to conserve, protect, and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people.*

# Steigerwald Lake National Wildlife Refuge

**S**teigerwald Lake NWR (Washougal, Washington) is one of over 550 national wildlife refuges found across the United States. Steigerwald Lake Refuge is located on the Columbia River floodplain approximately 20 miles east of the Portland-Vancouver metropolitan area.

The refuge is one of only a few natural areas left on the Columbia River and provides more than 1,000 acres of vital migration and wintering habitat for Pacific flyway waterfowl. The mild, rainy climate and refuge wetlands along the Columbia River create ideal resting and feeding areas for ducks, geese, and swans. The refuge provides marshes, grasslands, and woodlands for a variety of other animals, birds, and plants. More than 230 species of birds, mammals, fish, reptiles, and amphibians make their homes on the refuge, providing an excellent place to study and observe wildlife.

One of the primary goals for creating the refuge in 1987 was to provide habitat to make up for the habitat impacted by the construction of the second powerhouse at Bonneville Dam. To fulfill this goal, the Refuge manages pastures, wetlands, mixed deciduous/coniferous forests, and oak woodlands. This habitat diversity situated at the crossroads of the Cascade Mountains and Columbia River Gorge, creates a uniquely significant location for wildlife. Birds from the east side of the mountains mingle with those of the west at this near sea-level passage through the Cascades. The Refuge offers a respite for migrating birds and a safe home for resident wildlife.

Steigerwald Lake NWR is part of a complex of four refuges (see Map 1). Ridgefield NWR, Steigerwald Lake NWR, Franz Lake NWR, and Pierce NWR are located along the Columbia River floodplain (see Map 2). Each refuge supports unique habitat that provides migration stopover points or wintering homes for migratory birds.

What is the extinction of a condor  
to a child who has never seen a wren?

-Robert Michael Pyle

# Map 1: Steigerwald Lake NWR



## Map 2: Refuges of the Ridgefield NWRC



## Seasons at the Refuge

**A**lthough Steigerwald Lake National Wildlife Refuge is a good place to visit at all times of the year, you are likely to see different kinds of wildlife in different seasons.

### **Spring (March through May)**

Visits at this time of the year usually provide good weather, although many of the ducks, geese, and swans have already migrated north to their nesting grounds. Large numbers of migrating birds move through the refuge during the spring: goldfinches, red-winged blackbirds, warblers, and swallows are a few examples. Watch for ducks, geese, red-tailed hawks, great blue herons, bald eagles, great horned owls, and purple martins, which all nest on the refuge. Along the trails, watch for cottontail rabbits and garter snakes, painted turtles, and nutria. Spring is a great time for wildflowers blooming on the refuge. Spring is a great opportunity to visit the refuge with weather improving throughout the season.

### **Summer (June through August)**

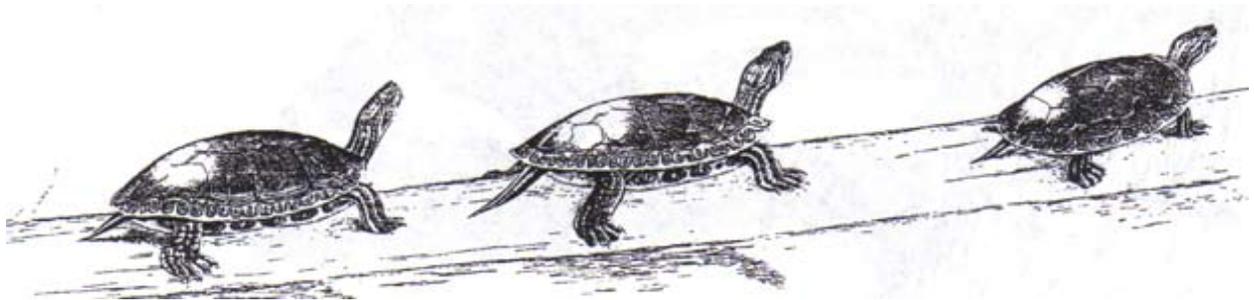
The best summer wildlife viewing is early morning or evening. Many of the wildlife that arrived for spring nesting remain on the refuge through summer. Watch for great blue herons, bitterns, ducks, geese, red-tailed hawks, and many songbirds.

### **Fall (September through November)**

Songbirds migrate through the refuge during September. Fall arrivals also include Canada geese and a variety of ducks including mallards, shovelers, American wigeon, gadwall, pintail, and green-winged teal. Early fall is a good opportunity to visit the refuge with school groups with pleasant weather occasionally extending into October.

### **Winter (December through February)**

Winter field trips can be a wonderful experience for groups, allowing them to combine environmental education activities with the opportunity to see large numbers of Canada geese and a variety of ducks. Bald eagles are more abundant during winter months. Even in the rain or cold, the opportunity to see large flocks of waterfowl can make a field trip very enjoyable. Groups should come adequately prepared for the weather.



## Habitats of the Refuge

**T**he habitat of an organism is defined as “the place where it lives, or the place occupied by an entire community.” Thus the habitat of an organism includes the other plants, animals, and inorganic materials in its community. A habitat provides the items necessary for an organism to survive, such as, water, light, food, space, and shelter. The variety of habitats at Steigerwald Lake National Wildlife Refuge provide for a variety of animal and plant life.

The refuge is 1,049 acres and has a public trail that is 2.75 miles long. It is open year round with a seasonal spur only open May 1<sup>st</sup> through September 30<sup>th</sup> (see Map 1). For management purposes the refuge is divided up into three units: the Port Unit, the Stevenson Unit, and the Straub Unit. To provide the best wildlife habitat, both natural and agricultural habitat management philosophies and techniques are followed on the refuge.

The next several pages describe the variety of habitats found on the refuge — openwater, freshwater wetlands, fields, riparian woodlands, and upland woodlands.



*A variety of management techniques are used to ensure productive wildlife habitat*

### **Open Water Habitat**

Open water habitat generally has water depths too deep to sustain the growth of plants that would root in the bottom of the waterbody but have leaves growing above the surface of the water. However, floating or submergent vegetation (plants that grow in the water column) may be present. The shorelines of these waterbodies where the water level is shallow are generally characterized by emergent vegetation (aquatic vegetation rooted underwater but growing above the surface of the water). Open water habitat can also be associated with waterways (e.g. creeks and streams). In the case of waterways, the current precludes the establishment of permanent vegetation.

Examples of open water habitat at the refuge include the center of various wetlands and Gibbons Creek. Gibbons Creek is the watershed of the city of Washougal. The creek has been rerouted at the Refuge and now is channeled over Steigerwald Lake before emptying into the Columbia River. Historically, Gibbons Creek would have spilled into Steigerwald Lake before emptying into the Columbia River. Because of this lost connection, Steigerwald Lake is largely refilled with rainwater and overflows of Gibbons Creek at a structure just south of SR 14.

### **Open Water Animals**

#### **Fish**

Carp  
Cutthroat Trout  
Threespine Stickleback  
Yellow Bullhead

#### **Mammals**

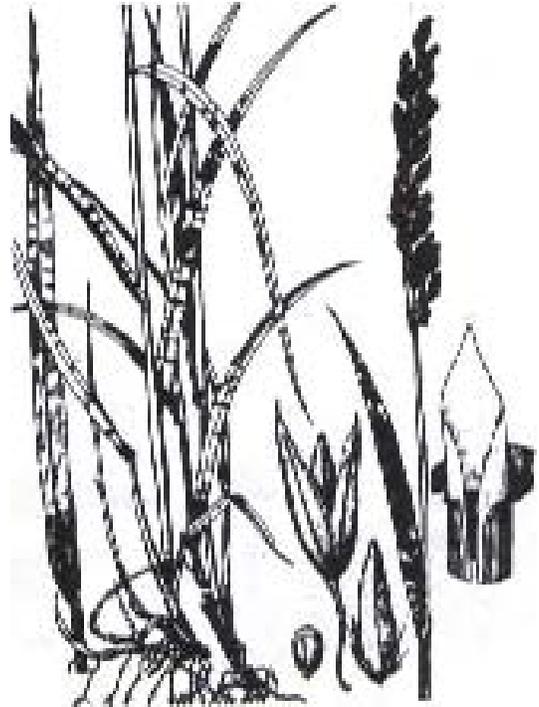
River Otter  
Beaver  
Nutria  
Muskrat

#### **Birds**

American Wigeon  
Bald Eagle  
Northern Pintail  
Tundra Swan

## Freshwater Wetland Habitat

Historically, the Columbia River flooded areas along its shores during periods of heavy rainfall and during May and June when mountain snows would melt and enlarge the river. This flooding created a vast mosaic of seasonal wetlands along the entire course of the river. Most of the natural wetland areas along the Columbia River have been destroyed by 1) the development of hydroelectric dams, 2) the filling of wetlands along river shorelines for industrial and other development, and 3) the construction of bank stabilization structures to prevent stream bank erosion. The existing natural wetlands on the refuge are a small remnant of the once vast wetland system.



Because the Columbia River dike protects the refuge wetlands from naturally occurring flooding from the Columbia River, all of the refuge wetlands are managed as much as possible, given the constraints to limit flooding of adjacent landowners. Some of the wetlands are managed to provide natural vegetation such as duckweed, smartweed, beggar's tick, and cattail. The seeds from these aquatic plants provide valuable winter food.

Reed canary grass, a marsh grass introduced early in this century, has invaded many of the wetlands in the Pacific Northwest, including those on the refuge. This plant is an aggressive invader, out competing most of the natural vegetative communities in which it becomes established. In the spring it collapses to the ground, making it poor nesting cover. The small seeds, although numerous, are an insignificant portion of waterfowl's diet. Management actions to reduce reed canary grass include prolonged seasonal flooding of young plants, herbicide application to growing plants, and mechanical treatments to break up dead vegetative mats and kill the plant's rhizomes. These actions are labor intensive and costly, but periodically important to promote the native habitats. Limited resources prevent most of this type of management from occurring.

Refuge staff, however, does mow the canary grass during late summer and early fall, to provide short, green vegetation preferred by Canada geese when they arrive in the fall and throughout the winter and early spring.

Like most wetlands, refuge marshes provide habitat for many wildlife species. The refuge was established as partial mitigation for fish and wildlife resources impacted by the construction of the second powerhouse at North Bonneville. With the loss of many wetlands along the Columbia River, refuge management to improve wetland quality on its lands has become even more important.

## Freshwater Wetland Plants and Animals

### Plants

Beggar's Tick  
Cattail  
Spikerush  
Pondweed  
Reed Canary Grass  
Smartweed  
Smooth Rush

### Animals

Beaver  
Bullfrog  
Cinnamon Teal  
Great Egret  
Mallard  
Mink  
Nutria  
Pacific Tree Frog



## Field Habitat

The refuge fields may be composed of different types of vegetation, but they all lack shrubs and trees. Some are composed of natural plants and can be found along the edges of agricultural fields or in small open patches of habitat not hayed or grazed.

Most refuge fields, however, are in agricultural production and provide winter food for wildlife. Pastures are grazed by cattle owned by refuge “cooperators,” and they are clipped in the fall to provide short, succulent green browse for Canada geese.. Canada geese are commonly seen in flocks of several thousand on refuge grasslands. These fields are also heavily used by coyotes, hawks, and herons that hunt for small mammals in the short grass fields.

## Field Plants and Animals

### Plants

Bluegrass  
Bromegrass  
Ryegrass  
Velvetgrass

### Animals

American Goldfinch  
Black-tailed Deer  
Canada Goose  
Deer Mouse  
Eastern Cottontail  
Northern Harrier  
Garter Snake

## **Riparian Woodland Habitat**

Riparian woodlands (woodlands associated with watercourses such as streams and rivers) comprise an important component of refuge vegetative communities. A variety of riparian shrubs (i.e., Pacific willow, red-osier dogwood, ninebark) and cottonwood trees are being planted along Gibbons Creek, and can be seen growing well along portions of the Gibbons Creek Art Trail. Historically, stands of willow became naturally established on many sand and gravel bars along the Columbia River after periods of high water. These dense stands trapped additional sediments, raising the bars' elevation to allow the establishment of other wetland species less tolerant of water than willow.

Black cottonwood woodlands, established in the past when the Columbia River floodwaters inundated the area, are found in numerous locations throughout the refuge. Although these species are commonly found in soils usually moist throughout the year, they do not tolerate flooding for extended periods. Native understory species include Nootka rose, red-osier dogwood, snowberry, and stinging nettle. The non-native reed canarygrass is the predominant groundcover.

These riparian forests are located along the Columbia River shoreline in the refuge and along Gibbons Creek. They are especially valuable to wood ducks, hooded mergansers, owls, tree and violet-green swallows, purple martins, and raccoons, which nest and raise young in natural cavities. Additional artificial nesting structures have been erected and maintained by refuge volunteers to support swallows and martins.

## **Riparian Woodland Plants and Animals**

### **Plants**

Black Cottonwood  
Willows  
Red-osier Dogwood  
Reed Canary Grass  
Stinging Nettle

### **Animals**

Downy Woodpecker  
Long-toed Salamander  
Painted Turtle  
Striped Skunk  
White-breasted Nuthatch  
Wood Duck

## **Upland Woodland Habitat**

The primary upland woodland habitat on the refuge is oak woodland, ranging from pure oak to a mixture of oak and Douglas-fir. Oregon white oak represents an important community with limited range along the lower Columbia River. Remnant oak communities often occur in small fragmented patches without native understory plant species. The refuge has several large intact oak woodlands that are contiguous with oak woodlands on adjoining property. Collectively, these woodlands are important for a suite of wildlife species that require oak woodlands for their continued survival.

The Oregon white oak community occupies well drained ridges and slopes above the flood zone. The oaks are found in closed-canopy stands interspersed with open grassland. Most of these trees are mature specimens, with some exceeding 30 inches in diameter. Understory shrubs include serviceberry, snowberry, ocean spray, poison oak, and oval leaf viburnum.

The open grasslands are frequently composed of brome grass and orchard grass with vividly colored displays of wildflowers in the spring.

Douglas-fir is interspersed within the oak woodlands in the northeast corner of the refuge. These stands are found in the highest areas on the refuge, because they, like the oaks, do not tolerate wet soil conditions. Common understory plants include salal, vine maple, ocean spray, and Indian plum, with a ground layer of Oregon grape and sword and bracken ferns. To some extent, Douglas-fir is a threat to oak woodlands. In shared habitat, Douglas-fir grows 3 to 5 times faster. At maturity, fir casts shade on the oaks and suppresses oak growth. Oaks do not survive in the shade of a fir forest. Historically, fire would have kept the forest in balance. Oaks survive fire with young plants advantageously pioneering into the landscape after fire has reduced competing plants. Conversely, fire kills Douglas-fir trees and periodic fire may prevent fir from establishing within oak woodlands.

### **Upland Woodland Plants and Animals**

#### **Plants**

Brome grass  
Fawn Lily  
Oregon White Oak  
Oval Leaf Viburnum  
Sword Fern  
Douglas-fir  
Indian Plum  
Ocean Spray

#### **Animals**

Black-capped Chickadee  
Coyote  
Eastern Cottontail  
White-breasted Nuthatch  
Rufous-sided Towhee  
Song Sparrow  
Townsend's Chipmunk

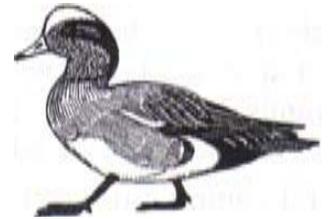
# Birds of the Refuge

The following list, although not complete, describes some of the birds most commonly seen in each of the refuge habitats. Drawings are not to scale.

## Open Water Habitat

### American Wigeon (*Anas americana*)

The wigeon is a surface feeding duck that eats mostly aquatic plants. Unlike many ducks, wigeon are also known to graze on short grasses alongside geese. In flight, wigeon form tight flocks, unlike most ducks that form a V pattern. Wigeon are mostly brown with a white wing patch. The males have green and white on top of their heads.



### Bald Eagle (*Haliaeetus leucocephalus*)

Adult bald eagles are readily identified by a white head and tail and huge yellow bill. Immature bald eagles are mostly dark brown; it takes four or five years for bald eagles to reach full adult plumage. They feed mainly on fish. The bald eagle were once an endangered species; however, because of intense recovery programs, populations are increasing.



### Double-Crested Cormorant (*Phalacrocorax auritus*)

The cormorant is a resident along coast, lakes, and estuaries. Its body is black throughout. The large, rounded throat pouch is orange year round; double crests are seldom visible; kinked neck is distinctive in flight. It flies with a rapid wing beat.



### Northern Pintail (*Anas acuta*)

When feeding, this duck “tips over” and dabbles for its meal (plant matter and seeds), showing off its long tail feathers. The male has a chocolate brown head and white neck with a dark stripe down the back. Black central tail feathers extend to form a “pintail.”



### Ring-Billed Gull (*Larus delawarensis*)

Adults have black ring around yellow bill, greenish-yellow legs, pale-grey mantle, white head and underparts, black primary feathers tipped with white spots. Their heads are streaked with brown in winter. These gulls mature in 3 years and acquire new and different plumage in each of the first three winters.



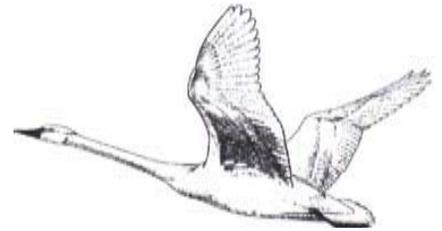
**Ruddy Duck (*Oxyura jamaicensis*)**

This duck has a chunky, thick-necked duck with large white cheek areas and a stiff upturned tail. Males have rusty sides and a light blue bill during the breeding season (April to August). Females are mottled brown. Ruddy ducks nest in dense vegetation of freshwater marshes, lakes, and ponds.



**Tundra Swan (*Cygnus columbianus*)**

This large, white, long-necked swan used to be called Whistling Swan. The adults black bill often shows a bright yellow spot. They dip their head and neck into the water to feed on bottom vegetation and also to browse on shore grasses. They fly in V-formation or in lines. Tundras winter in large flocks in shallow fresh or brackish water.



**Freshwater Wetland Habitat**

**American Coot (*Fulica americana*)**

Coots are dark grey and black duck-like birds with a white bill and lobed toes. They feed on the shore and on the surface of the water or under it, diving with an upward jump before submerging. Coots, often called mud hens, are found in freshwater ponds and in sloughs.



**Belted Kingfisher (*Ceryle alcyon*)**

The kingfisher dives from the air; head first, into the water to catch fish with its long beak. It nests in tunnels dug into the banks of rivers and lakes. The kingfisher is blue on its head and back, with a blue band across its white breast. The female also has a rusty colored belly band.



**Cinnamon Teal (*Anas cyanoptera*)**

Male cinnamon teals have cinnamon heads, necks, and underparts. The female is brown. Males older than 8 weeks have red-orange eyes, yellowish legs, and bright blue on their wings. They are common in spring in marshes, ponds, and lakes.



**Common Snipe (*Gallinago gallinago*)**

This inland sandpiper is the size and shape of a dowitcher, but browner with a more streaked head and back. In flight its brown rump and orange tail are visible. The common snipe has short legs and neck, and the bill is extremely long. It is common in marshes and along riverbanks and generally stays close to cover.



**Common Yellowthroat (*Geothlypis trichas*)**

The male common yellowthroat has a broad black bandit-mask and a bright yellow throat and breast. The female lacks the black mask and is more olive color. It can be found in grassy fields, shrubs, and marshes; it nests on the ground. It often holds its tail cocked like a wren. Its song is a loud, rolling *wichity wichity wichity wich*.



**Great Blue Heron (*Ardea herodias*)**

One of the larger wading birds, the great blue heron stands 4 feet tall. It is slate blue with a white head, a black stripe above the eyes, and a white fore neck streaked with black. A resident of freshwater marshes, it eats fish, frogs, and mice.



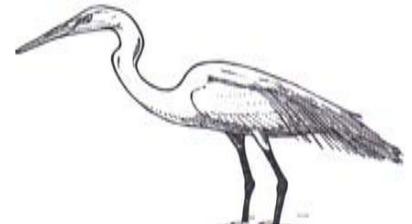
**Long-Billed Dowitcher (*Limnodromus scolopaceus*)**

This shorebird's nickname is the "sewing machine bird" because of its feeding technique of probing in the mud with its long straight bill. Its winter plumage is grayish, with a white rump patch. In summer the underparts are reddish.



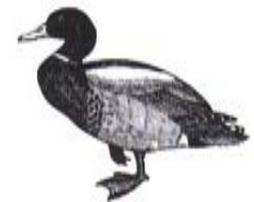
**Great Egret (*Ardea alba*)**

The great egret is a large white heron with yellow bill and blackish legs and feet. It stalks prey slowly and methodically. Populations were greatly reduced by feather plume hunters (for hats) at the turn of the century, when these feathers were twice as valuable as gold. Populations are now recovering. Formerly called common egret and American egret, it is common in marshes and mudflats.



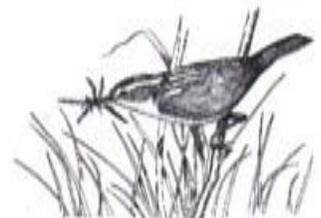
**Mallard (*Anas platyrhynchos*)**

The male is identified by his metallic green head and neck, yellow bill, narrow white collar, and chestnut breast. Black tail feathers curl up. A "puddle duck" that feeds with its tail in the air and head underwater, the mallard can be observed in a variety of wetland habitats.



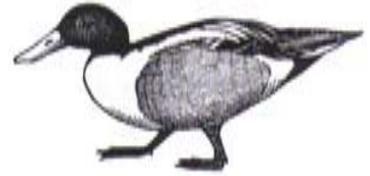
**Marsh Wren (*Cistothorus palustris*)**

This small brown bird has a brown crown, bold white eye line, black triangle on upper back streaked with white, and underparts that are mostly white. The marsh wren's call sounds like a lawn sprinkler (*whish, whish*). It is found in reedy freshwater marshes.



**Northern Shoveler (*Anas clypeata*)**

The shoveler has a large, spatula-like bill that is longer than its head. The male has a green head, white breast, and brown sides; females have a grayish bill tinged with orange. It is found in ponds, marshes, and bays.



**Pied-Billed Grebe (*Podilymbus podiceps*)**

The pied-billed grebe is a small, stocky, brown bird with a black ring around its stout, whitish bill. It has a black chin and throat, and pale belly. It nests around marshy ponds and sloughs and tends to hide from intruders by sinking like a submarine until only its head shows. Grebes spit up pellets of indigestible materials, such as bones, like owls do.



**Field Habitat**

**American Goldfinch (*Carduelis tristis*)**

This is a bright yellow bird with black cap and wings. It is common in flocks in weedy fields, bushes and roadsides, and in seed-bearing trees. Its song in flight sounds like the words ‘potato chip’ repeated in series.



**American Kestrel (*Falco sparverius*)**

The kestrel is the smallest member of the falcon family. It is often seen on telephone wires near open fields where it hunts for insects and small rodents. The kestrel is reddish-brown with a white face and black lines near the eyes. The male has blue-gray wings.



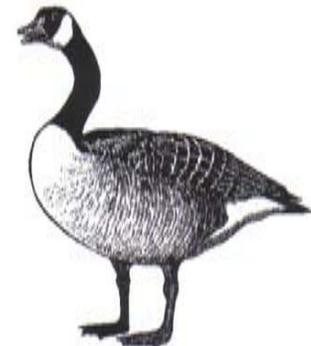
**Barn Swallow (*Hirundo rustica*)**

This swallow has an iridescent blue back and a cinnamon-colored belly and throat. Most distinctive is its long, deeply forked tail. It makes open cup-shaped mud nests. If it can't find any mud, it makes its own by walking in water and then soil. It eats insects while flying.



**Canada Goose (*Branta canadensis*)**

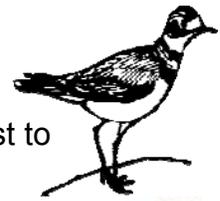
The Canada goose is the most common and best-known goose. It is identified by the black head and neck, broad white cheek, and characteristic honking. It can be seen in large flocks, grazing in open fields within commuting distance of water. The refuge is used by seven recognized subspecies which differ greatly in size and slightly in color.



It

**Killdeer (*Charadrius vociferus*)**

The killdeer has two black stripes across a white throat. It is common in fields and pastures as well as on shores and riverbanks. The killdeer eats insects, worms, and grubs, and is a skilled actor, feigning injury near its nest to distract intruders. Its call is a quick repeated 'killdeer-killdeer'.



**Northern Harrier (*Circus cyaneus*)**

Both sexes of the harrier have a distinct white area between the lower back and tail. Females are brown above and white below with dark streaks. Males are gray above and white underneath. They fly close to the ground searching for frogs, mice, birds, and small prey. Harriers are very silent birds, rarely making calls or cries.



**Red-Tailed Hawk (*Buteo jamaicensis*)**

A skilled glider, the red-tailed hawk has broad and fairly rounded wings. Although its plumage can be extremely variable, its reddish upper tail and paler red under-tail are distinctive. It preys on rodents in fields. Often screams a loud 'keee-arr'.



**Turkey Vulture (*Cathartes aura*)**

The wings of this large, dark, red-headed bird look two-toned from below. In flight, wings are often held in an upward, shallow "V", seldom flapping, rocking from side to side. Turkey vultures feed on carrion and refuse in dry, open country.



**Woodland Habitat**

**Black-Capped Chickadee (*Parus atricapillus*)**

This is a small bird with a black cap and bib, rusty sides, and a white cheek patch. Chickadees nest in cavities in trees and nest boxes, and are easily attracted to feeding stations. Its whistled song is easily imitated. Its call is a quick repeated 'chick-a-dee-dee-dee' or a slower 'cheese burger'.



**Northern Flicker (*Colaptes auratus*)**

Flickers are jay-sized woodpeckers with a brown back, no white on wings, and a black breast crescent. In flight, the white rump and salmon under wings and tail are visible. Often seen on the ground eating ants, they are common in open country near large trees. The call is a loud repeated flick or flicker.



**Dark-Eyed Junco (*Junco hyemalis*)**

Juncos are rather tame brown sparrows with light pink bills, gray or black hoods, white bellies, and white outer tail feathers that can be seen when they fly. Often seen in flocks, they hop on the ground and pick up small seeds. In winter, juncos are easily attracted to feeding stations often gathering seed from the ground, rather than the feeder perch.



**Downy Woodpecker (*Picoides pubescens*)**

This is a small black and white woodpecker with a short, slender bill, red head patch, and barred outer tail feathers. It is seen in suburbs, orchards, shade trees and woods. Call is a single crisp 'peak' which are sometimes delivered in a fast series of 'peaks'.



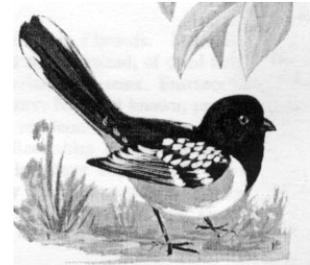
**Great Horned Owl (*Bubo virginianus*)**

This large, nocturnal owl is distinguished by its large ear tufts. The great horned owl will take prey as large as skunks. Its call is a series of three to eight loud, deep hoots.



**Spotted Towhee (*Pipilo maculatus*)**

This large, ground feeding sparrow has a dark back, white wing markings, rufous sides, a white belly, and a long rounded tail with large white spots. Commonly seen in brush, heavy undergrowth, and wood margins, they hop with both feet together to reveal seed from the surrounding duff, and usually fly close to the ground.



**Song Sparrow (*Melospiza melodia*)**

It has a long, rounded tail pumped in flight; broad, grayish eyebrow; and broad, dark stripe bordering a whitish throat. Its upper parts are usually streaked; also the breast, with lines converging at a central spot. The legs and feet are pinkish. The song sparrow is found in dense, brushy areas.



**White-Breasted Nuthatch (*Sitta carolinensis*)**

A small acrobatic bird that climbs up, around, or down a trunk head first, its white face and solid black cap are distinctive. A close look may reveal a slightly up turned bill. The call is a low ear-ear. It is common in deciduous woodlands.



**Wood Duck (*Aix sponsa*)**

The large head, short neck, and long square tail are good field marks. No other duck has the long, slicked-back crest. They feed on plant materials, from duckweed to acorns, and some insects. Nesting is in tree cavities or nest boxes.



Notes: