



American Woodcock



Photo courtesy of USFW Service

Introduction

The American woodcock (*Scolopax minor*) is a migratory game bird that is popular with both hunters and bird watchers. The birds range is roughly the eastern ½ of the United States. Widely sought by gentlemen hunters in the northeast over a century ago, it was almost unknown to Indiana's hunters as late as 1960. Its popularity as an Indiana game bird increased significantly in the 70's and early 80's and then plunged downward as the bird's numbers declined. Many folks associate the annual arrival of woodcock with spring and anticipate observing the males performing their nightly "sky dance".

General Characteristics

The American woodcock is a member of the shorebird family which includes the sandpiper and common snipe. Unlike its shorebird relatives, woodcock inhabit woodlands during the daytime. Both males and females have similar plumage of mottled browns and blacks that blend the bird into the dead leaves of the forest floor.

Ancient lore suggested that the Great Maker, when done creating all other birds, used the leftover parts to fashion the woodcock. The most distinctive features of this rather peculiar bird are its large bill and bulging eyes. The eyes sit so far back on the side of its head that a woodcock can see a full 360 degrees. This sight adaptation enables the bird to detect predators even while feeding. The bill is 60-75 mm in length (approx. 2½ -3"). Females can

be distinguished from males by their longer bills (usually > 68 mm). Layman can use a dollar bill to sex a bird in hand – females will generally have a beak longer than the width of the dollar bill while male's snouts will not extend past the width of a paper bill. The pencil-like beak has nerves out to the tip to help its owner locate prey below the surface. A woodcock can open its beak just at the tip while probing deep in soft soil. These specializations of the bill enable the woodcock to grasp earthworms, its favorite prey, and pull them from the soil.

Woodcock are quail-sized, standing about eight inches tall and appear to bob when they walk. The bird has short, powerful wings which permit skillful flight in its diurnal thickets. Female woodcock are slightly larger than males typically weighing in at a tad over 7 oz. vs. males averaging less than 6 oz. In flight it is difficult to distinguish sexes. Wildlife biologists can determine the age and sex of woodcock by examining specific wing feathers.

A woodcock has many local names based primarily on its appearance and/or habits. Some of the more colorful names are: bog borer, bog sucker, big eyes, swamp bat, mud bat, hokumpake, Labrador twister, whistler, cock-of-the-woods, golden bombshell, marsh plover, big-eyed John, swamp quail, blind snipe, drooping snipe, forest snipe, cane snipe, brush snipe, owl snipe, wood snipe, hill partridge, night partridge, bec noir, becass'e, night becass'e, and the most common name, timberdoodle.

Life Cycle

Woodcock return to Indiana from their southern wintering grounds typically in mid February to early March. Breeding males establish a "singing ground" which they defend against other males, often in the same area year after year. Singing grounds are typically in fallow fields, a recent clear-cut or in very young stands of seedlings, and can be as small as one and half-acres or as large as 100 acres. Most every night, from March through May, the persistent male puts on a spectacular aerial courtship display. The courtship act begins shortly after sundown with a ground display where the male utters a soft "tuko" call followed by a buzzing, insect like sound commonly called a "peent". As the male calls, he paces/bobs around in circles making the peent call seem to rise and fall in volume. The calls continue every couple of seconds for about a minute. Once the peents stop, he will take to the air in a spiral ascent that gets wider and wider until he reaches a height of about 300 feet (about as far as you can see in the darkening sky) before dive bombing back to earth. Distinct whistling and chirping/twittering sounds, created by wind passing amongst the woodcock's three narrow outer wing primaries, can be heard during this bat-like performance. After alighting near the take-off point, the male repeats the sky dance for approximately 40-50 minutes depending on weather conditions and light intensity. On moonlit nights during the peak season of courtship activity, some males continue the act sporadically throughout the night.

A nearby female chooses a male to mate with on its singing ground. The hen then builds a shallow nest on the ground often in close proximity to the males' courtship area. Although a variety of habitats are selected for nesting purposes, most hens nest in young-growth forest near the base of a small tree or shrub. The woodcock hen lays four brown-spotted, buff colored naturally camouflaged eggs in a nest carved out amongst the dead leaves and twigs. Woodcock will readily reneest if the nest is destroyed or if the young are lost early during brood rearing. The hen incubates the eggs for about 21 days. Newborn chicks can travel with the female within a day of hatching, but are not as independent as young turkeys and quail, which can feed themselves immediately after hatching. The hen gathers most of their food and feeds the young directly. Chicks will huddle under her for warmth during the first 10 days or so. After this period, the hen no longer broods her young. Before the chicks are truly independent, they are extremely vulnerable to death from cold, wet weather. The hen's motherly assistance tapers off after around three weeks, and the young are on their own after about 35 days. Once independent, the young disperse from the brooding area but typically remain in

the general vicinity until the fall migration.

The woodcock's survival and abundance is dependent on the quantity and quality of habitat throughout its range. Preferred diurnal (daytime) habitat is primarily the **young** stages of forest growth or shrub thickets occurring in moist, fertile soils where earthworms are present and ground vegetation is sparse. In close proximity to the daytime coverts must be generous portions of open land such as old fields, burned-over areas or recent clear-cut. These open areas are needed to meet the nocturnal requirements of woodcock which include singing grounds for males and roosting sites for all mature woodcock. Woodcock fly from their daytime coverts at dusk to spend the night (roost) in these open areas and then return to their daytime haunts at dawn.

The exodus of resident woodcock from Indiana begins in late October to early November. Woodcock migrate at night, flying singly or in loose flocks at low altitudes. Cold fronts and poor weather can influence the movement south, but the driving force is day-length related. By Thanksgiving, most woodcock have left their northern breeding grounds, including Indiana, for their southern wintering destination. On occasions, woodcock have been noted in southern Indiana in December and January during mild weather spells. Woodcock typically return to Indiana in mid-February. Their trip north is also triggered by the increasing day-length.

Food

Woodcock mainly eat invertebrates, primarily earthworms, obtaining by probing into damp earth or under leaf litter. Earthworms make up 80-90% of their total diet. Woodcock are voracious feeders. In an average day, a woodcock will consume nearly its own body weight in worms. When earthworms are unavailable or scarce, their diet may be broader. Woodcock will eat the larvae of beetles, flies and other insects when available, and, more rarely, ants, moths, snails, and seeds from various plants.

Current Status

The American woodcock's range encompasses the eastern ½ of the United States, roughly from the Mississippi River eastward. Woodcock are migratory birds, breeding mostly in the northern two tiers of states and southern Canada and wintering in the south. The species is managed on the basis of 2 regions or populations, the Eastern and Central. These management units are based on band recovery data which indicated that there was little crossover of birds between the regions. The boundary between these 2 regions also conforms to the boundary between the Atlantic and Mississippi Flyways. Indiana is in the Central management region.

The U.S. Fish and Wildlife Service (USFWS) with cooperation from state wildlife agencies conducts annual counts of displaying male woodcock during the peak of the breeding season. Data from these "singing-ground surveys" are used to monitor population trends in each management region. Indiana is 1 of 6 states in the Central management region participating in the annual surveys. The other participating states in the region are Minnesota, Wisconsin, Michigan, Illinois and Ohio. The singing ground surveys have been conducted on designated routes in Indiana annually since 1968. From 1968-2004, the number of woodcock heard on Indiana routes has declined by an average of 7.0% per year. This decline is significantly greater than the 1.8% per year average decline in the Central management region during the same period.

The number of American woodcock that Indiana hunters and birders encounter each year has progressively declined over the last couple of decades due to the loss or alteration of the bird's habitat. The outright loss of habitat has been primarily due to the expanding human population. More people require more living space, i.e. larger cities, bigger towns, more subdivisions, shopping centers, rural developments, etc., etc. More subtle than these permanent direct habitat losses are the

alterations of habitat. Prime examples of altered habitat losses would include: the maturation of public and private woodlands/forests and the conversion of natural lands into large agricultural monocultures.

A range-wide American Woodcock Conservation Plan (WCP) has been developed by a group of dedicated woodcock biologists coined the Woodcock Task Force. The objective of the WCP is to increase overall woodcock numbers to those observed back in the early 1970's. The WCP is based on projected habitat needs/goals considered to be necessary to achieve this population goal. According to the Woodcock Task Force, "cooperation between governmental agencies, private landowners (commercial and non-commercial), and non-government organization will be necessary in order to achieve management goals."

Habitat Needs

Indiana woodcock require three key types of habitat in close proximity in order to thrive. These habitats are:

- 1) Young, dense, second-growth hardwoods or shrubs located in moist, rich soils that host earthworms. This type of habitat is needed for nesting, feeding and daytime cover. As young forests mature, they lose their value for woodcock. A general rule to keep in mind is that when most trees grow larger in diameter than a silver dollar, habitat quality begins to diminish.
- 2) Forest openings or clearings that provide singing grounds for the males' sky dance. The openings should be adjacent to suitable daytime coverts and be a minimum of 1.5 acres in size.
- 3) Night-time roosting areas which could be an old field, hayfield, thin grassland planting, or a recently clear-cut forest area. Woodcock prefer to roost in sparse ground cover which allows them to move freely, feed/probe and be on the lookout for predators.



English Setter pointing (laying down) woodcock in typical Southern Indiana habitat.

Habitat Management Techniques

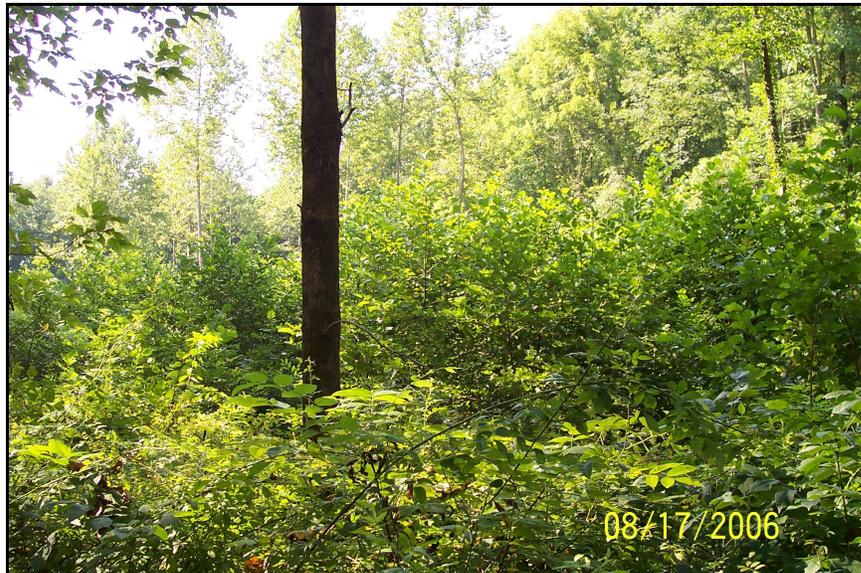
Your first step should be to inventory your land and the neighboring property outlining and mapping potential woodcock habitat types such as moist forests/woodlands, ditch/stream corridors, old fields, forest openings, etc. You may want to request assistance from your local District Wildlife Biologist to help you with this task. After these habitat types are identified, the biologist can determine if it is practical to manage for woodcock and if so what specific management practices are needed. A management plan will then be developed based on the landowner's resources.

The following are practices to consider when managing for woodcock:

- 1) Maintain/create dense thickets especially in moist areas along the edges of your woodlands. These thickets should be a minimum of 50' in depth from the forest/woodland edge – the larger the better. Cut all trees greater than fist size in diameter. Consider half-cutting the trees and leaving the tops to create immediate temporary cover. Half-cutting means partially severing the trunk to allow the tree to fall. Half-cut trees often remain alive and will last longer as cover than completely severed trunks. Appropriate herbicides may be needed to kill unwanted vegetation in these areas.
- 2) Landowners with large woodland tracts may want to consider a rotational, aggressive timber cutting program. Obtain such a cutting plan from a consulting forester that has training in wildlife management.
- 3) If your property has an abundance of aspens or alders, cut strips 60 to 80 feet wide through existing stands. Cut adjacent strips three to five years later in order to provide different ages of habitat. Plan to re-cut the entire stand every 20 years or so.
- 4) Plant woodcock friendly trees/shrubs along woodland edges to create dense woodcock cover. Favorable trees/shrubs would include: hawthorn, crabapple, dogwood (red-osier, silky, gray), alder, hazelnut, plum, elderberry, aspen, sumac and prickly ash. These plantings should be at least 50' wide and a minimum of one acre in size.
- 5) Create and maintain forest openings where few are present near preferred daytime covers to increase the number of singing grounds for courting males. Woodland clearings should be at least 1 ½ acres in size. Irregular cuts are preferable over square cuts. Develop one opening for every 25 acres of forest/woodlands as a general guideline. Maintain these areas by mowing every other year or so or by using appropriate herbicides. Logging trails and log landings (places where trees are piled prior to going to the mill) can make excellent openings if they are large enough. Consider planting these openings to clover and maintain by mowing.
- 6) Thin your woods. If you harvest enough trees, the extra light on the ground will allow thickets to thrive again.
- 7) Create and maintain roosting fields preferably within 150 yards of daytime covers. Roosting fields should be a minimum of 10 acres in size (generally the larger the better). Maintain roosting fields by burning fields every three to five years to suppress invading woody vegetation. Burn in late summer, fall or early in the spring to prevent nest destruction.
- 8) Prevent old fields from proceeding into the forest stage of succession by periodically burning, mowing/disking, cutting trees, using herbicide, or a using a combination of these practices.



A prescribed burn in an old field can create/restore woodcock roosting habitat.



An alder regeneration cut to restore woodcock habitat in Owen county (Indiana).

Related *Habitat Management Fact Sheets*:

Woodland Edge Enhancement
 Forest Habitat Improvement
 Forest Openings
 Natural Regeneration
 Tree and Shrub Corridors
 Tree and Shrub Coverts
 Warm Season Grass Maintenance

Legume Food Plots
 Legume Interseeding
 Prescribed Burning
 Fescue Eradication
 Strip Disking
 Strip Spraying
 Strip Mowing

Prepared by the Indiana Department of Natural Resources, Division of Fish and Wildlife. For up-to-date information concerning the Indiana Division of Fish and Wildlife, or for information on the location of your District Wildlife Biologist, visit our website at www.wildlife.IN.gov

January 2008