MANAGING YOUR LAND FOR WOODCOCK

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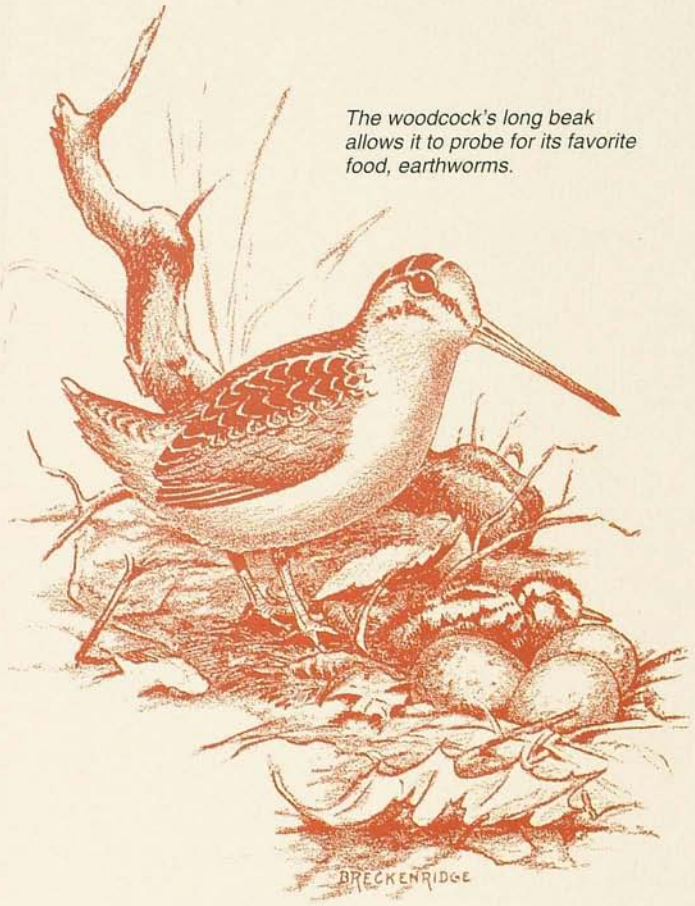
The Ruffed Grouse Society

Managing Your Land for Woodcock

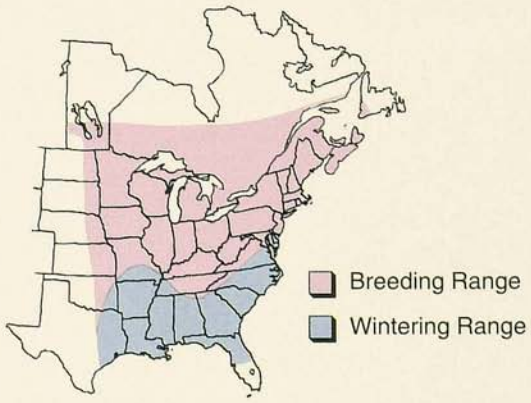
The American woodcock (also known as "timberdoodle") is a member of the shorebird family, but long ago it abandoned the marshes and moved into the uplands. Unlike its closest relative, the common snipe, woodcock are forest birds. They are best known for their erratic flight pattern, spring mating display, and sudden appearances and disappearances during the fall migration. These birds provide recreation for thousands of Minnesotans—hunters and non hunters—each year.

Several unique physical characteristics enable a woodcock to stand out in a crowd. Its bill is extremely long (almost 3 inches) for such a small body, which stands only 8 inches high. The long bill allows a woodcock to probe moist soil and capture its primary food—earthworms. Most woodcock activity, including feeding, takes place in the dim light of dawn and dusk.

The woodcock's eyes are located along the sides of its head, enabling the bird to see in all directions, including directly behind. Because the bird spends so much time with its beak in the mud, it needs to have a large field of vision to detect predators.



The woodcock's long beak allows it to probe for its favorite food, earthworms.



Woodcock breed throughout the eastern United States and southern Canada. They spend December through February along the south Atlantic coast in the states that border the Gulf of Mexico. Most woodcock that breed in Minnesota spend their winters in central and southern Louisiana.

Spring and Summer

Woodcock begin arriving in Minnesota in mid-March, often well before the winter snow is gone. Male woodcock begin their courtship activity as they migrate north in the spring. They often return to the same breeding area year after year.

A breeding male establishes a "singing ground" that it defends from other males. Singing grounds are small openings usually free of most woody vegetation and are often near dense shrubs or young forest stands, which provide nesting and brood-rearing habitat. Here, the male performs his unique courtship ritual to attract females.

The woodcock's courtship performance lasts 30 to 60 minutes each day during the first and last hours of daylight. The male begins by giving a series of nasal sounds *(peents)*. He then flies upward in a spiral pattern to heights of 100 to 300 feet. Rising into the dawn or dusk sky, his wings produce a twittering noise as the air rushes through the narrow, outer wing feathers. After reaching the peak of his flight, the male descends, emitting a series of vocal chirps until he glides to the ground near where the flight originated.

Each flight lasts for about one minute. The male remains on the ground a short while, repeating the *peent*, and then rises in another aerial display. Males repeat these displays a dozen times or more. During most years, breeding activity ends by early June.

Throughout the day and night, males stick close to their singing grounds in nearby dense stands of alder, hazel, dogwood, or young aspen (popple). Here they feed and rest until the light level signals the time to begin their courtship performance.

Only one out of every three or four male woodcock found in a given area takes part in the breeding ritual each spring. However, males who aren't breeding hang around occupied singing grounds. This often causes the breeding woodcock to chase or even attack the unwelcome intruders—especially when the visit is during the mating ritual.

Female woodcock nest in or next to forest openings, often within 500 feet of a male's singing ground. For a nest, the hen simply creates a small, cup-shaped depression in dead leaves that cover the ground. In it she lays four light brown eggs heavily blotched with darker shades of brown. She incubates her clutch for 21 to 22 days.

G. Gullion

Woodcock typically lay four eggs in a simple nest near the edges of forest openings.

Dan Dessecker

The woodcock's eyes are positioned to see in all directions, even directly behind its head.

When the chicks hatch, they are ready to leave the nest. Young woodcock depend on their mother to help them find insects, which make up most of their diet.

Young woodcock grow quickly and within two weeks of hatching, they can fly. As they mature, the birds begin to spend time in dense, young aspen woods or alder, where the soil is moist and earthworms are plentiful. At age 30 days, their primarily earthworm diet is essentially the same as an adult's.

By early summer, woodcock chicks are fully independent. Broods break up only four to six weeks after hatching. Most chicks produced in Minnesota are virtually on their own by the Fourth of July.

DNR Photo

Remnant fields invaded by brush provide ideal singing grounds, nesting, and brood habitat.

In midsummer, woodcock begin to roost in grassy fields at night and seek dense cover during the day. Old farm fields and large openings (more than 3 acres) in woods, some of which served as singing grounds earlier in the year, may hold dozens of woodcock on summer nights.

Fall

The fall migration begins when enough snow cover or cold temperatures that freeze the ground makes feeding on earthworms difficult. In northern Minnesota, the fall woodcock migration typically begins the first week of October and peaks during the middle of the month. During this time, birds may literally be here today and gone tomorrow. Migrants from farther north may arrive in great numbers, or they may trickle through in relatively small numbers on their way south.

How long woodcock remain in Minnesota during the fall migration depends on the weather. In most years, most have left the state by early November.

Winter

Minnesota's resident woodcock begin to arrive on their wintering grounds in central and southern Louisiana in late November. If temperatures are exceptionally cold, they will fly to the Gulf of Mexico. Some birds even continue south along the coast and into northern Mexico.

Dan Dressecker

This woodcock chick is 9 days old. It will be nearly full-grown and flying in another week.

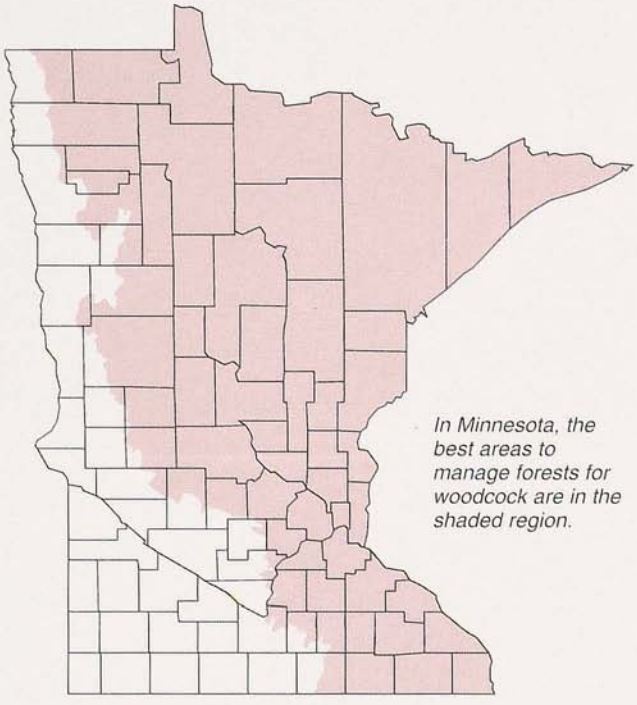
R. Nelson

Young, regenerating forests, interspersed with openings, provide ideal habitat for woodcock and many other wildlife species.

Habitat Management

Woodcock management works best on land with lots of aspen and birch, mixed with a few old farm fields, several forest openings, and a few brush lowland areas. Forests dominated by maples, oaks, pines, or spruce generally do not provide high-quality woodcock habitat. Landowners might be better off managing these lands for other wildlife species.

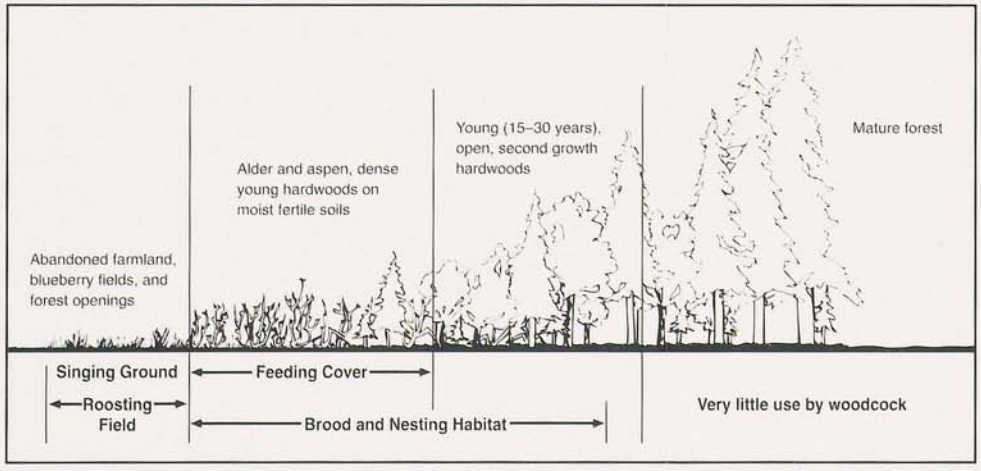
Woodcock require a mix of small, scattered openings and dense stands of shrubs and young deciduous trees. Because these habitats are not permanent features of the landscape, good woodcock habitat doesn't last on its own for long. As a forest matures over time, fewer woodcock use the area, until finally the habitat is simply too old to attract these birds. A good rule of thumb is that when most trees in an area become larger in diameter than a silver dollar, the habitat is too mature to be of much use to woodcock.



In Minnesota, the best areas to manage forests for woodcock are in the shaded region.

In Minnesota, many privately-owned forests contain aspen (popple) too old for woodcock. If portions of these areas were occasionally cut or burned, the mature trees could be taken over by young forest that woodcock use.

Stages of forest succession



Aspen "regeneration" is when a mature aspen stand is clearcut and thousands of root suckers develop on every acre. Within three to five years, young trees spring up, and provide excellent woodcock habitat. Woodcock depend especially upon these young, recently harvested aspen stands where soils are moist and earthworms are abundant. Because aspen is a commercially valuable species, a landowner who harvests a mature stand can not only improve woodcock habitat, but can make money in the process.

Not all mature timber should be harvested at once. Cutting a portion about every 10 years will ensure a continual supply of suitable woodcock habitat while maintaining older forests of value to other species.

Dan Dessecker

This 12-year old aspen stand provides excellent woodcock habitat.

Aspen is "shade-intolerant," which means it reproduces best in full sunlight. Therefore, if an aspen stand is to achieve maximum suckering, it must be clearcut. If too many live trees are left standing to cast shade on the young aspen sprouts, the stand may convert to maple or some other forest type not used by woodcock. Aspen sprouts best if the mature stand is cut during the tree's dormant season (October through March).

Logging trails and log landings (areas where the felled trees are piled before being transported to the mill) often remain relatively open as the rest of the harvested stand grows thick with young trees. These small, scattered openings are used by woodcock as singing grounds and nighttime loafing areas. Keep these areas open by mowing, burning, or using herbicides every 3 to 5 years.

Other habitats important to woodcock for singing, nesting, and brood-rearing include abandoned agricultural fields that have been invaded by alder, dogwood, hazel, and other deciduous shrubs. Ideally, 60 to 70 percent of the field should be covered by shrubs and young trees. However, invading trees must periodically be removed or they will eventually replace the dense stands. If you want to maintain these old-field sites as woodcock habitat, do *not* plant pine or spruce. Burning or mowing half of these openings every 3 to 5 years will keep them as prime woodcock habitat.

Stands of alder along streams and other low spots are another place where landowners can create or maintain woodcock habitat. Alder stands on *moist* sites that contain small, broad-leafed ground plants such as asters are far more productive than alder stands on *wet* sites that contain a dense, grass understory. Dense grass prevents woodcock from moving around on the ground, so the birds don't frequent these areas.

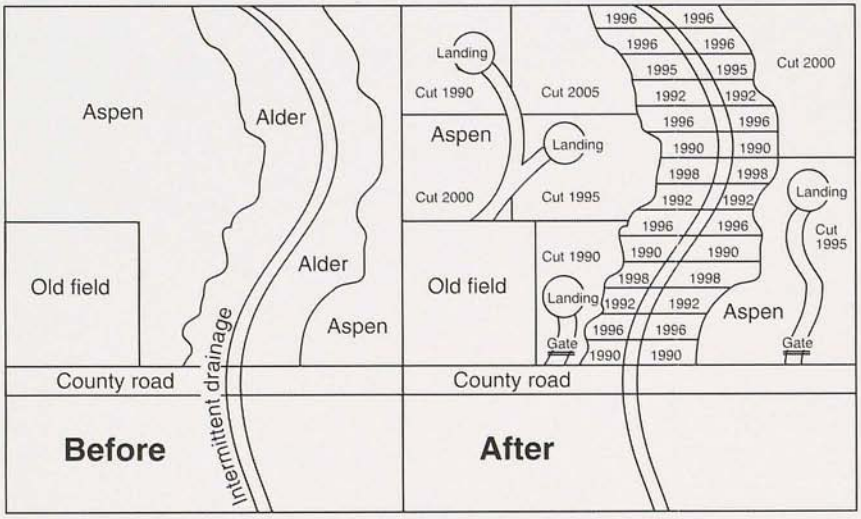
Alder, like aspen, is shade-intolerant. It will not grow well in the shadows of competing trees. Stands of alder can be regenerated if cut in the winter when they first begin to show signs of decay and the stems start to bend out, away from the others in the clump. These signs of "old age" typically occur when alder is about 15 years old.

To create the best woodcock habitat in this cover type, cut strips approximately 60 to 80 feet wide through existing alder stands. If possible, lay out these cuts perpendicular to the stream. This helps create a variety of soil moisture conditions within the young stand. Adjacent strips should be cut 3 to 5 years apart to provide different ages of alder in the same general area. There is no need to pile the cut stems; simply let them decompose where they fall. Strips can be cut by hand, sheared with a bulldozer in winter, or cut with a hydro-ax brush-cutter.

Dan Dessecker

Young alder with broad-leaved plants (left) *provides good woodcock habitat. Wetter site* (right) *with dense grass is poor habitat.*

Perpendicular Cutting Orientation



By distributing timber cuts over time and throughout the forest, landowners can create and perpetuate good woodcock habitat.

DNR Photo

Brush can be regenerated in strips by hand-cutting or shearing with a bulldozer in winter.

Habitat Management Suggestions for Landowners

1. Maintain existing aspen stands by clearcutting during the winter. Contact a forester or wildlife manager to schedule timber harvests on your property to benefit woodcock.

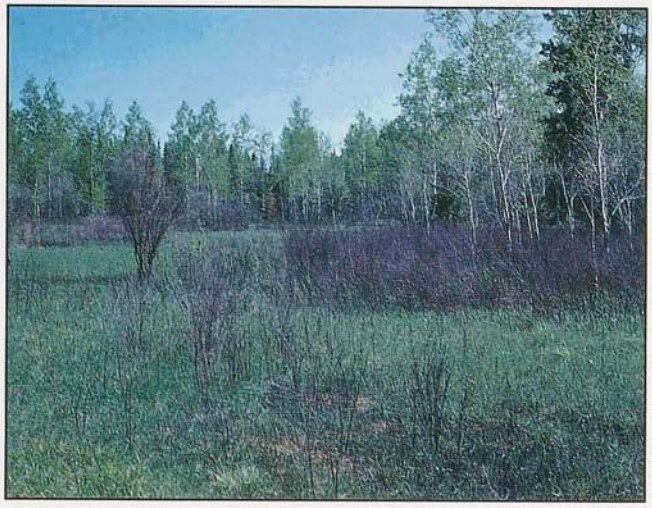
2. Singing grounds can be established by creating small clearings in recently cut forest stands. Create or maintain one small clearing of approximately one-quarter to one-half acre in size for every 20 to 25 acres of habitat.

3. Singing grounds can be maintained by mowing or burning every 2 to 4 years to control invading woody vegetation.

4. To provide a roosting area as well as singing grounds and nesting habitat, create or maintain by burning or mowing one clearing of at least 3 acres for every 100 acres of habitat.

5. Allow abandoned agricultural fields less than 40 acres in size to become 60 to 70 percent overgrown with dense shrubs. Do *not* plant these fields with tree seedlings.

6. Remove most large trees from old fields before they begin to cast shade on dense stands of shrubs.



DNR Photo

Brush can be controlled in forest openings by mowing or burning every 3–5 years.

Summary

Woodcock are not the only wildlife that uses these young forest habitats. Ruffed grouse, golden-winged warblers, chestnut-sided warblers, snowshoe hares, deer, and many other species require these same habitats. By managing your land for woodcock, you help these other species too.

Private landowners control 44 percent of the forest land in Minnesota. The future of many species of forest wildlife, including woodcock, largely depends on how private landowners manage their lands.

Fortunately, most landowners can help wildlife *and* achieve their other management goals with little or no extra cost. Many landowners actually make money while boosting wildlife habitat when they contract for a commercial timber harvest.

For more information

Through the Forest Stewardship Program, owners of 10 acres or more of woodlands may obtain free assistance for developing an inventory of their forest resources and preparing a management plan to fulfill their objectives. Cost-share funds for some of the habitat practices outlined in this brochure also may be available. Contact your regional DNR office for the name and location of the area wildlife manager or forester for your area, or call your local DNR Forestry or Wildlife office.

Steve Merchant

Crisp October days trigger the woodcock migration that can provide memorable days afield.

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