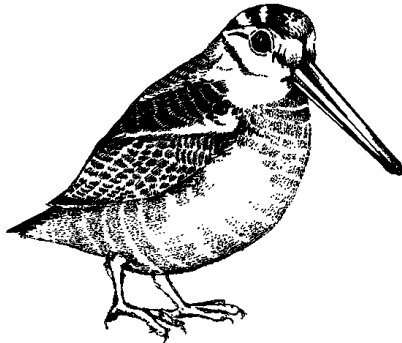


WOODCOCK



Michigan serves as an important breeding ground for woodcock, along with Minnesota, Wisconsin, southern Ontario and Quebec, the Maritime Provinces, and some New England states. Because woodcock are migratory, their populations are monitored by the U.S. Fish & Wildlife Service. Numbers in Michigan and other Midwestern states increased dramatically after many old growth forests were cut during the 100-year period from about 1830 to 1930. The last woodcock population peak occurred in the 1950's. During the past 30 years, woodcock numbers have seen a steady decline. Since 1968, the number of singing males in spring has declined an average of 1.3 percent per year. Since 1985, the loss is even greater, an average of 2.8 percent per year. Hunting the birds seems to have little impact on overall numbers in the breeding population. Most experts agree that habitat loss and degradation are key reasons for the decline.

Although some people confuse woodcock with their close cousin, the snipe, the birds are separate species

that belong to the sandpiper family. Unlike others in its family, woodcock prefer uplands. Woodcock are forest birds known for their erratic flight patterns and unusual spring displays by the males.

A Senecan Indian myth says God made the woodcock from the leftover parts of other birds. Large eyes are located along the sides of the bird's head, allowing it to see in all directions, including directly behind. A long, thin bill that averages nearly three inches in length permits woodcock to probe in soft earth for worms, slugs and other invertebrates. Nostrils lie high against the skull so the woodcock can feed and breathe at the same time. Its ears are located beneath the eyes. Woodcock stand about eight inches tall, appear to bob when they walk, and weigh about a half-pound each.

Woodcock need young-growth forests with openings for reproduction; especially in the upper Midwest where the forests are growing older. This process of natural succession is a key reason for habitat degradation, but prime cover is also lost to roads, houses, croplands, and other human developments. This chapter explains what woodcock need to survive and how interested landowners can help by creating or improving habitat on their property.

Life Cycle

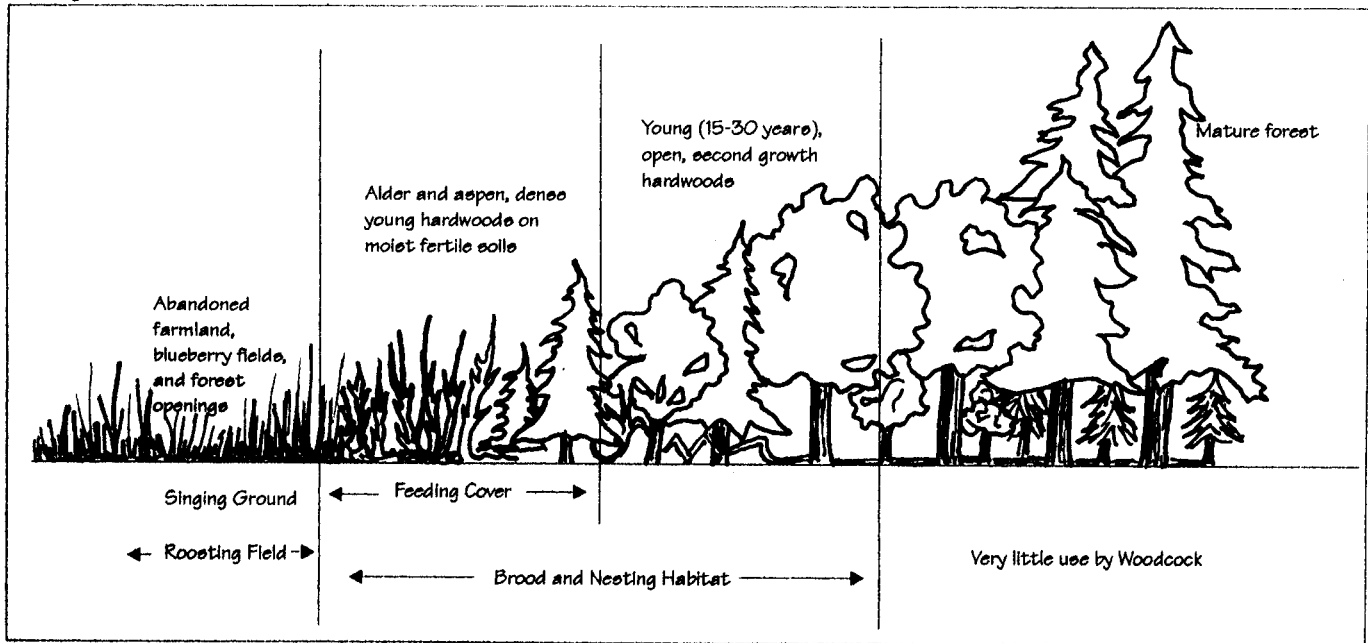
Woodcock return to Michigan from their southern wintering grounds typically sometime in March. Breeding males establish a "singing ground"

which they defend against other males, often in the same area year after year. Singing grounds are small clearings or very young stands of seedlings, and can be as small as a half-acre or as large as 100 acres. Every night, from March through May, the optimistic male puts on an aerial ballet, which is unmatched by any other bird in North America. The best time to hear and see the display is between sundown and full darkness.

Listen first for a buzzing, insect sound, an unusual noise, which biologists call a "peent." When the peents grow more rapid in succession, the male is ready to fly. The instant the peents stop, he will take to the air in a spiral ascent that grows wider and wider until he reaches heights of about 300 feet. If you miss him rising, listen for a chirping sound from high above, then a twittering--the sound of wind rushing through their wing feathers as the woodcock falls to earth.

A nearby female chooses a male to mate with. Hens build a shallow nest area in this same area of young-growth forest. Similar to snipe and certain other shorebirds, woodcock lay four eggs, which will hatch in about 20 days. As far as researchers know, woodcock raise only one brood per year. Each year brood sizes are fairly constant at about four chicks per successful nesting hen. However, chicks are lost each year between the early brooding season in spring and the hunting season in fall. In the event a predator destroys their eggs, hens will usually reneest. The young are capable of foraging for them

Stages of forest succession



selves when only a few hours old. Within a few weeks, they begin to fly.

Habitat Needs

Woodcock require four key types of habitat in order to thrive:

- 1) Small clearings that provide singing grounds for the males' sky dance.
- 2) Young, second-growth shrubs such as alders, and hardwoods of mostly birch and aspen (poplar) in northern Michigan, or young stands of maple and ash in southern Michigan that provide nesting and brood-rearing cover.
- 3) Moist, rich soils that provide the invertebrates, especially earthworms, that woodcock eat. When soils become too acidic to support earthworms, woodcock have to find food elsewhere.
- 4) Roosting area which could be an old field, hayfield, grassland planting, or cut young forest area. The birds prefer open ground cover

where they can see to run from predators and to probe for food. They will not use fields with thick, lush vegetation.

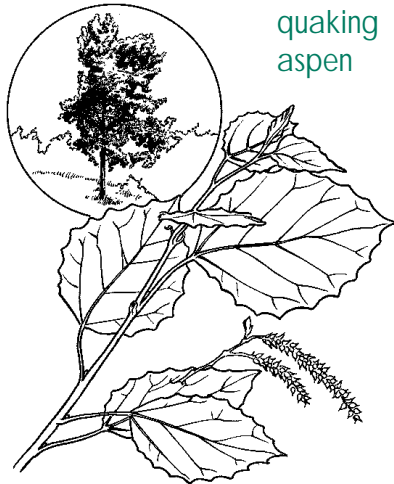
In general, woodcock need a mixture of small, scattered openings one to three acres in size among dense stands of shrubs and young leaf-bearing trees in a moist area. As young forests mature, they lose their value for woodcock. A general principle to keep in mind is that when most trees grow larger in diameter than a silver dollar, breeding habitat quality begins to diminish.

Woodcock prefer aspen stands because they form the dense stands needed for nesting and brood rearing cover. Woodcock heavily prefer young, recently harvested aspen stands where soils are moist and earthworms are plentiful. Aspen regenerates by sending up root sprouts through the soil after being cut. For every acre of aspen forest that is cut, it is estimated that up to 70,000 root sprouts are sent up. Openings and new growth from aspen cuttings provide singing, nesting, feed-

ing, and sometimes roosting areas.

Alder stands along streams and other lowlands are another type of preferred woodcock habitat. Like aspen, alder grows best when out of the shade of competing trees, and regenerates through cutting. It usually persists in streamside situations, but may be replaced with red maple, ash, and swamp white oak in lowland areas.

If you do not have an abundance of aspen or alder on your property, you may still be able to attract woodcock. Brushlands containing apple or crabapple trees, fruiting shrubs like highbush cranberry and dogwood, thickets of elderberry and sumac, and young-growth hazel, willow, cherry, and ironwood also make excellent woodcock habitat. Many of these brushlands are actually farm fields that were abandoned, sometimes because loam and clay soils made the field too wet for productive farming. In southern Michigan especially, lowland hardwoods such as red maple, cottonwood, white ash, swamp white oak, pin oak, sycamore, and black gum with an understory of



quaking
aspen

shrubs and ground cover can provide good habitat for woodcock. Forests dominated by evergreens such as hemlock, fir, larch, make only marginal woodcock habitat.

If your property contains stands of aspen and birch mixed with old farm fields, forest openings, and brushy lowland areas, you most likely will be able to manage for woodcock. The more acreage the better, but if your property is small, you can still provide one or more habitat components and work with your neighbors to furnish other parts. Managing for woodcock will also benefit ruffed grouse, golden-winged warblers, chestnut-sided warblers, snowshoe hares, and deer.

Management Considerations

The following are options to consider when managing for woodcock:

- In aspen stands, develop a clearcutting rotation to keep the stand young and dense. See the **Aspen** and **Birch** chapter in the Forest Management section for more information.
- Regenerate alder by cutting when the stand and individual stems show signs of decay. To determine decay, look at the stand as a whole

and decide if vertical stems are beginning to lie horizontally.

- If there is an abundance of alder on your property, in the winter cut strips 60 to 80 feet wide through existing stands. Cut adjacent strips three to five years apart in order to provide different ages of alder, and plan to re-cut the stand every 20 years. Maintain a buffer of 100 feet wide next to streams.

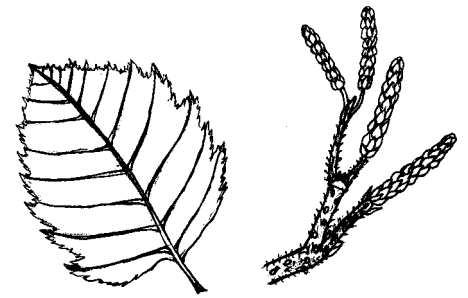
- Although some removal of slash (dead trees) is desirable to encourage singing males to use small openings, it is not necessary to clear all the ground. After seven to 10 years when the new alders have grown into suitable feeding cover, the slash will have decayed.

- Provide good nesting and brood rearing cover in areas without aspen by preventing old fields from proceeding into the forest stage of succession. To do this periodically remove trees as they grow older, or mow or burn half of the field every 10 years. Ideally, for woodcock nesting cover, old fields should contain 60 to 70 percent shrubs and young trees.

- Plant shrubs and trees along forest edges to help establish dense woodcock cover while waiting for new growth to occur in regeneration areas.

- Protect or restore lowland areas, as their moist soils provide excellent foraging opportunities for woodcock.

- If the lowland hardwood canopy grows too dense to maintain a productive understory, you may wish to thin the trees through single-tree selection cutting. However, be careful to not remove too many trees as this will disturb the lowland ecosystem. Refer to the **Lowland Hardwoods** chapter for more information.



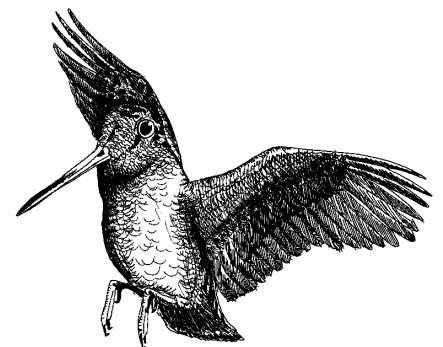
Alder

- Provide small clearings for singing at least a half-acre in size for every 20 to 25 acres of young forest. Clearings should be 5 to 10% of the total management area. You can create them by cutting or mowing. Where possible, create the clearings on a north-south orientation, and make them irregular in shape.

- Plant clearings with a low growing ground cover such as clover. This will provide good singing and roosting areas.

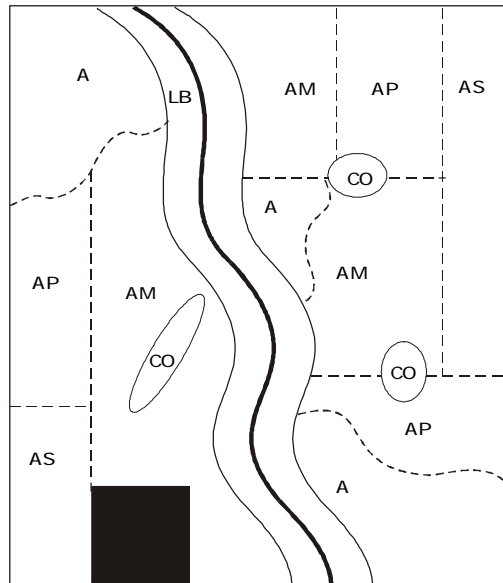
- Logging trails and landings, where felled trees were piled before transport to the mill, make excellent openings because they tend to stay open as the rest of the harvested stand grows thick with new seedlings.

- Locate roosting sites within a half-mile of feeding areas. Preferred



40 acres

Existing features	
	Road
	House and Yard
	River
LB	Lowland brush
AM	Mature aspen
AP	Aspen poles
A	Alders
Habitat projects	
CO	Clover opening
AS	Aspen saplings



This map is an example that demonstrates the many management options discussed throughout this chapter. The option(s) you choose should depend not only on your goals, but the location, condition, and present use of your land.

sites tend to be about an acre in size, and one per 100 acres of overall habitat is sufficient.

- Maintain roosting sites by burning fields every three to five years to suppress invading woody species. To prevent nest destruction, conduct all burning before mid March, especially in southern Michigan. Be sure to contact your local fire authorities for permits, advice and regulation details.

In summary, Michigan is an important state for the production of woodcock. Landowners can help by restoring former woodcock habitats and creating new ones. It is important to remember that no matter how you manage your property, your decision

will impact other wildlife. In this case, clearcutting aspen for woodcock will discourage mature forest loving wildlife such as woodpeckers, some warblers, and squirrels. For this reason, it is critical to know what animals currently live in your area, and how management for woodcock would affect them.

FOR ADDITIONAL CHAPTERS CONTACT:

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Lansing, MI 48909
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Private Land Partnerships: This partnership was formed between both private and public organizations in order to address private lands wildlife issues. Individuals share resources, information and expertise. This landowner's guide has been a combined effort between these groups working towards one goal: Natural Resources Education. We hope this guide provides you with the knowledge and the motivation to make positive changes for our environment.

FOR ADDITIONAL ASSISTANCE: CONTACT YOUR LOCAL CONSERVATION DISTRICT