

Proceedings of the Iowa Academy of Science

Volume 82 | Number 3-4

Article 14

1976

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Recommended Citation

Kloglan, Eugene D.; Gladfelter, H. Lee; Sheets, Robert G.; and Hlavka, Gene (1976) "Current Status of the Woodcock in Iowa," *Proceedings of the Iowa Academy of Science*, 82(3-4), 191-193.

Available at: <https://scholarworks.uni.edu/pias/vol82/iss3/14>

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Current Status of the Woodcock in Iowa¹

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KLONGLAN, EUGENE D., H. LEE GLADFELTER, ROBERT G. SHEETS, and GENE HLAVKA (588 Big Thompson Canyon Road, Loveland, Colorado 80537). Current Status of the Woodcock in Iowa. *Proc. Iowa Acad. Sci.* 82(3-4): 191-193, 1976.

Iowa is at the western edge of the continental range of woodcock. Because of their scarcity in the state, little interest has been shown in them. They are a prized game bird in many states in the eastern half of the country. In 1961, Iowa began participating in the annual U.S. Fish and Wildlife Service spring woodcock census, which has increased efforts to learn more about this species in the state. The spring singing-ground census of courting males revealed

The American woodcock (*Philohela minor*) is a game bird of significant stature in much of the eastern United States, yet it is probably one of the most unfamiliar sporting birds to the Iowa public. Interest in the woodcock in Iowa was relatively dormant for many decades, being restricted primarily to ornithologists, conservationists, and serious birdwatchers. There are early historical references to woodcock hunting in the state, but sportsmen in recent years have expressed little or no interest in the species. Since woodcock are migratory, responsibility for management is a function of the U.S. Fish and Wildlife Service under terms of international treaties with Canada and Mexico.

Information must be available on population trends to manage woodcock effectively. To accomplish this, two major surveys are conducted annually throughout the eastern United States. A singing-ground survey conducted each spring gives an index of breeding population trends, while a wing collection survey carried on during the hunting season provides data for reproductive success, distribution, and harvest. In addition, many of the primary woodcock states conduct banding operations to determine movement and migration patterns. From these sources comes biological information needed to best manage continental woodcock populations.

Iowa is on the western fringe of the woodcock range in the United States, and because of the relative scarcity of these birds compared to eastern states, little attention was paid to them over the years. However, in 1960 the U.S. Fish and Wildlife Service, in its role of managing the species throughout the country, asked that Iowa initiate singing-ground surveys in parts of the state where woodcock might be present and nesting. Since Iowa had no woodcock hunting season throughout the 1960's, we could not take part in the wing collection survey. Iowa did not participate in banding efforts

that a low population of breeding woodcock exists in suitable habitat, primarily limited to the eastern one-third of the state. Thirty verified records of nesting woodcock in Iowa, most from brood sightings, were recorded during the 1960's and 1970's. These bracketed the state from the Mississippi to the Missouri rivers. Other sightings have been reported from various locations in the state during spring and fall migration. A composite of information available showed that woodcock are not abundant but are widely distributed over Iowa.

INDEX DESCRIPTORS: Woodcock, Population Index, Nesting Records, Iowa.

because the number of birds at any one location at a given time was too low to make such operations productive. Therefore, singing-ground counts were initiated and nest and brood sightings were documented in an attempt to monitor the Iowa woodcock population.

METHODS

Four exploratory singing-ground survey routes were laid out and conducted for the first time in the spring of 1961 in Allamakee and Clayton counties of northeastern Iowa. It was felt that this area had the greatest potential for surveying woodcock. Surveys were gradually expanded to include 12 routes in eight counties, all in the eastern half of the state. In addition, eight experimental routes in other areas of the state, including three in the Missouri River watershed, were conducted in 1972.

The singing-ground survey was essentially an audio count of displaying male woodcock during their evening courting period. As part of this performance the male utters a characteristic call that is audible for about 0.2 miles. Counts of performing males on the same routes each year provide a measure of their relative abundance during the breeding season. Counts were made after migration had ceased and before the peak of hatching. In Iowa mid-April to mid-May was the best time to conduct this survey.

Roadside counts were conducted along five-mile survey routes selected because of their proximity to good woodcock habitat consisting of open, mixed growth of young hardwood timber. Selected stops along the route were at least 0.4 miles apart. Male woodcock begin to display about 10 to 30 minutes after sunset depending on the amount of light as determined by cloud cover. The period during which an individual bird performs on his singing-ground varies from about 20 to 45 minutes, averaging about 35 minutes. A two-minute listening period was scheduled for each roadside stop. Considering the total time available for the survey, 7-10 stops were all that could be visited per route. Surveys were started between 15 and 22 minutes after sunset depending on cloud cover. Evenings without rain or wind with temperatures of about 40°F were selected for the survey.

In addition to the implementation of singing-ground surveys in 1961, Conservation Commission personnel around the state watched for woodcock throughout the year and reported

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sightings to the project leader. Instructions were also given to report nests and broods, since verified records of these were almost non-existent.

RESULTS

During the 12 years that the singing-ground survey was made, an average of 0.22 woodcock were heard per stop (Table 1). Translated into more meaningful terms, an average of two woodcock were heard on each of the 117 counts made over this period. The greatest number of birds heard on any count was six. During roughly the same period of time, the average number of woodcock heard per route throughout the eastern half of the country was around six (Goudy, 1967 and 1969). The average was close to seven in the eastern region of the overall census area and about five in the western region, which includes Iowa. Thus, Iowa ranked near the bottom so far as woodcock density was concerned, which is not surprising considering our minimal habitat and location on the fringe of the ancestral woodcock range.

TABLE 1. INDEX TO THE SIZE OF THE WOODCOCK BREEDING POPULATION IN THE EASTERN HALF OF IOWA, 1961-1972

	Number of Routes	Number of Stops	Number of Woodcock Heard	Number of Woodcock Heard per Stop
1961	4	40	10	0.25
1962	5	41	9	0.22
1963	9	77	25	0.32
1964	12	106	17	0.16
1965	10	81	14	0.17
1966	13	108	26	0.24
1967	13	102	22	0.22
1968	12	96	20	0.21
1969	9	82	12	0.15
1970	10	90	23	0.26
1971	10	82	25	0.30
1972	10	93	21	0.23
Total	117	998	224	
Average	10	83	19	0.22

Of the 15 different singing-ground survey routes that were checked more than once during the 12 years, woodcock were heard on all but two. This does not include several exploratory routes that were checked only once, but for some reason (bad roads, stops too far apart, or noise interference) proved unsuitable for consideration in an annual survey system. Woodcock were heard on some of these as well. The presence of woodcock on nearly every survey route indicated that breeding woodcock were more common in the state than generally recognized (Table 2).

TABLE 2. PRIMARY WOODCOCK SINGING-GROUND SURVEY ROUTES USED IN IOWA, 1961-72

County Route Located	Descriptive Name of Route	Number of Years Surveyed	Number of Woodcock Heard	Average Number Heard per Count
Allamakee	Luster Heights	12	23	1.9
	Paint Creek	12	37	3.1
	Sand Cove	5	4	0.8
Clayton	Sny Magill	12	34	2.8
	Buck Creek	10	33	3.3
Winneshek	Canoe Creek	7	5	0.7
Bremer	Wapsie Bottoms	10	23	2.3
Tama	Otter Creek	7	10	1.4
Jasper	Rock Creek	7	7	1.0
Louisa	Klum Lake	7	20	2.9
Lucas	Colyn Area	9	15	1.7
	City Lakes	7	10	1.4

Further substantiation of the widespread range of breeding woodcock in Iowa was obtained during this study from nest and brood records. Thirty-two broods or nests were reported and verified from widely separated locations (Table 3). A few additional reports were received second- or third-hand, referring to earlier years. Since these could not be verified and there is a distinct possibility for confusion with other shorebirds, they were not included. Considering the frequency of observations at locations where Conservation Commission personnel were stationed, and the minute portion of the total habitat this encompasses, it was obvious that considerably more woodcock production occurred in the state than was previously thought.

TABLE 3. WOODCOCK BROODS AND NESTS DISCOVERED IN IOWA, 1961-1973

County	Location	Number of Nests or Broods	Year
Muscatine	Weise Slough	2	1961, 1964
Floyd	Idlewild Access	1	1969
Lucas	Red Haw State Park	3	1963, 1969
	Lake Ellis	2	1965, 1971
	Stephens State Forest	1	1963
Allamakee	Yellow River State Forest	2	1969, 1971
Lee	Mississippi and Des Moines River Bottoms	2	1961, 1971
	Green Bay Bottoms	1	1963
	Shimek State Forest	5	1961, 1964, 1971
Monona	Missouri River Bottom	2	1967, 1969
Pottawattamie	Wilson Island	3	1966, 1968, 1969
Hardin	New Providence	1	1971
Harrison	DeSoto Bend	1	1964
Jackson	Mississippi River	1	1960
Davis	Lake Wapello State Park	1	1971
Buchanan	Liberty and Fairbanks Townships	2	1968, 1970
Marion	Elk Rock State Park	1	1972
Wapello	S.W. of Ottumwa	1	1973
		32	

Sightings of woodcock during spring and fall migration were too numerous to tabulate. These bracketed the state from the Mississippi to Missouri rivers, with the greatest frequency in the eastern part of the state. Isolated observations of displaying male woodcock were reported from several areas, indicating that it may be possible to locate woodcock broods anywhere in the state in suitable habitat.

DISCUSSION

The small number of singing-ground surveys made each year and the resultant limited coverage of the state preclude precise measurement of woodcock population trends in Iowa. However, these data when combined with that from cooperating states and provinces provide an important contribution to the overall picture of trends on breeding grounds in the eastern half of the continent. Results of these surveys are reported annually by the U.S. Fish and Wildlife Service in its Special Scientific Report series.

Singing-ground survey results in Iowa cannot be expanded to indicate the statewide woodcock population because the

amount of comparable habitat in the state is not known. A future goal of woodcock research in Iowa may be to estimate total woodcock breeding habitat. Then, if survey routes can be laid out through comparable areas, an estimate of the statewide spring breeding woodcock population could be made. A more logical approach of designing random routes throughout the state would prove unworkable. Woodcock habitat in the state is so sparse that an astronomical number of random routes would have to be conducted to have a chance of hearing any birds.

Since the woodcock is a migratory bird, hunting is regulated by the federal government. The U.S. Fish and Wildlife Service determines framework dates and bag limits and the states have the option of setting their seasons within these rules. In 1972 Iowa joined other Mississippi Flyway states by opening its first modern-day woodcock season. Neighboring states of Minnesota, Wisconsin, Illinois, and Missouri allowed a 65-day woodcock season, compared to our 42-day season. The 1972 Iowa season dates, October 21-December 1, were set to allow hunting slightly past the peak of fall migration, when sizable numbers of birds were still migrating from the breeding grounds in Minnesota and Wisconsin down the Mississippi River valley to the major Louisiana wintering grounds. The migration through Iowa normally occurs from early October through mid-November. Ruffed grouse hunters in 1972 bagged woodcock consistently through the last week of October in northeastern Iowa. Hunting success began to taper off the first week in November with the last woodcock sightings coming from northeastern Iowa the weekend of November 11.

In future years it is hoped that Iowa will be able to participate more actively in research and management efforts of woodcock. A decision to end the woodcock singing-ground survey was made in 1972, since further useful information would be insufficient to justify the expended effort. Limited fall migration data will be collected during future hunting seasons. Detailed research and management information about the major woodcock states can be found in Sheldon (1967), Mendall and Aldous (1943), Liscinsky (1966), and Edminster (1954).

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