

<b>NORTH AMERICAN WOODCOCK SINGING GROUND SURVEY</b> U.S. FISH AND WILDLIFE SERVICE DIVISION OF MIGRATORY BIRD MANAGEMENT, 11510 AMERICAN HOLLY DR, LAUREL, MD, USA 20708-4002  CANADIAN WILDLIFE SERVICE, DEPARTMENT OF THE ENVIRONMENT OTTAWA, ONTARIO, CANADA K1A 0H3 <b>OBSERVER'S NAME (FIRST NAME, M.INITIAL, LAST NAME)</b> _____  PHONE (        ) _____  E-MAIL: _____	<b>SURVEY YEAR</b>	<b>STATE OR PROVINCE</b>
	<b>COUNTY</b>	<b>ROUTE NUMBER</b>
	<b>DATE OF SURVEY</b> /        / MONTH    DAY    YEAR	

<b>AGENCY</b>
1 <input type="checkbox"/> STATE
3 <input type="checkbox"/> PROV
5 <input type="checkbox"/> FED
7 <input type="checkbox"/> OTHER

<b>LAST OBSERVER</b>	<b>MAILING STREET</b> _____	<b>CITY</b> _____
	<b>ADDRESS STATE/PROVINCE</b> _____	<b>ZIP CODE</b> _____

<b>OFFICIAL SUNSET</b> :        PM	<b>SKY CONDITION</b>	<b>TEMPERATURE</b>	<b>WIND</b>	<b>PRECIPITATION</b>
<b>ROUTE NAME</b> _____	0 <input type="checkbox"/> CLEAR	°F    31 °C	1 <input type="checkbox"/> CALM	0 <input type="checkbox"/> NONE
	1 <input type="checkbox"/> 1/4 OVERCAST	35-39 <input type="checkbox"/> 41	2 <input type="checkbox"/> GENTLE (1-3 mph)	1 <input type="checkbox"/> MIST
	3 <input type="checkbox"/> 1/2 OVERCAST	40-49 <input type="checkbox"/> 51	3 <input type="checkbox"/> LIGHT (4-7 mph)	3 <input type="checkbox"/> SNOW, HEAVY RAIN
	5 <input type="checkbox"/> 3/4 OVERCAST	50-59 <input type="checkbox"/> 60	4 <input type="checkbox"/> MODERATE (8-12mph)	5 <input type="checkbox"/> FOG
	7 <input type="checkbox"/> >3/4 OVERCAST-ADD 15 MIN.	60+ <input type="checkbox"/> 16+	5 <input type="checkbox"/> STRONG (>12mph)	7 <input type="checkbox"/> LIGHTRAIN

STOP NUMBER	ODOMETER READING 1 <input type="checkbox"/> MILES or 3 <input type="checkbox"/> KM	TIME (Civilian)	NUMBER HEARD PEENTING	DISTURBANCE(SEE BACK)				REMARKS (or GPS coordinates)
				NO	LOW	MOD	HI	
1	.	:						
2	.	:						
3	.	:						
4	.	:						
5	.	:						
6	.	:						
7	.	:						
8	.	:						
9	.	:						
10	.	:						

<b>TOTAL WOODCOCK HEARD PEENTING</b>			
<b>TOTAL STOPS</b>	<b>ACCEPTABLE STOPS</b>	<b>TOTAL WOODCOCK ON ACC. STOPS</b>	<b>ROUTE STATUS</b>

DO NOT WRITE IN SHADED AREAS

**SUNSET TIMES FOR THIS ROUTE:** (See "Sky Condition" for starting time)

<b>DATE</b>	10 - Apr	15 - Apr	20 - Apr	25 - Apr	30 - Apr	05 - May	10-May	15 - May	20 - May
<b>DAYLIGHT SAVINGS TIME</b>									
<b>STANDARD TIME</b>									

**STATE/PROVINCIAL COORDINATOR :** \_\_\_\_\_

- PLEASE READ INSTRUCTIONS ON REVERSE SIDE CAREFULLY AND COMPLETELY**
- Main Points to consider are listed below
- (1) Conduct survey within dates shown on map (see reverse)
  - (2) Make sure to conduct survey at proper time of day according to sky conditions
  - (3) You must complete the entire survey within 38 minutes
  - (4) Stops should be at 0.4 mi (0.6 km) intervals, listen for exactly 2 minutes at each stop
  - (5) Do not conduct survey if temperature is below 40°F (5°C), in strong wind, or in heavy precipitation
  - (6) Contact your state coordinator promptly if unable to run your route within the designated dates
  - (7) Fill out all sections of this form and immediately mail form

# AMERICAN WOODCOCK SINGING-GROUND SURVEY: BACKGROUND AND INSTRUCTIONS

The Singing-ground Survey provides an index to the relative size of the woodcock breeding population in North America. It is the most important source of data used to guide federal, state and provincial woodcock programs. As part of their courtship behavior, male woodcock exhibit aerial and vocal displays each evening. They begin by giving calls described as "peents" shortly after sunset. From habitat types called singing-grounds, birds alternately "peent" and make flight songs. New survey participants should become thoroughly familiar with these woodcock sounds before running routes. Visit [http://www.allaboutbirds.org/guide/American\\_Woodcock/id](http://www.allaboutbirds.org/guide/American_Woodcock/id) for identification tips and to hear a sound clip of a peenting woodcock.

Originally, survey routes were run in areas of prime habitat where woodcock were known to be present, but subsequent studies showed that these counts did not accurately reflect overall woodcock densities. Consequently, new routes were selected randomly so that all habitat types would be surveyed and results would better reflect the status of the overall woodcock population. A normal characteristic of such random surveys is that some routes will fall in unfavorable habitat, so do not become disheartened if you do not hear birds on your route. Your results are still valuable.

Please follow the below instructions closely so that data from your route will be of maximum value. The quality of the survey depends on you.

## OBSERVER

Survey protocol requires that whenever possible the same observer should run the same route each year. If it is known that a new observer will take over next year, both observers (old and new) should run the survey together this year if possible to allow for one year of overlap. New observers should complete the survey *with* the previous observer on the same day at the same time, however both should collect and submit data independently (observers should ride together in the same car, but collect data on separate survey forms, and not discuss what they hear or compare results). This will ensure that the new observer learns survey procedures and local route conditions. Further, because observer data are used as covariables to adjust for differences in observers' ability to hear woodcock, and the approach used to calculate the 2 year population trend requires at least 2 non-zero counts by at least one observer, overlapping new with previous observers will ensure that route data qualifies for the 2 year comparison. If a year of observer overlap is not possible, data collected by a new observer is still valuable and will still qualify for the long term trend analysis.

## SURVEY DATES

See the survey map (below) to determine survey dates in your area. When spring weather is early or late, contact the North American Coordinator for permission to conduct routes up to 5 days outside the survey period. We encourage cooperators to run survey routes early within their survey window.

## CALCULATE START TIME USING LOCAL SUNSET TIME AND SKY CONDITIONS

Correct timing is the key to valid data! **Calculate the start time for your survey date using the provided local sunset times and the formula below.** Record the sunset time for the survey date on the survey form. If the sky is clear or up to and including 3/4 overcast, add 22 minutes to the sunset time to determine the starting time. Or, add 15 minutes if the sky is more than 3/4 overcast. *Example: If sunset = 8:30, and it is more than 3/4 overcast, start at 8:45. If it is 3/4 or less overcast, start at 8:52.* If your judgment dictates variation from this timing, as in the case of deep valleys, clearly explain under "Remarks." Do not use military time. If sunset times are not provided, consult [http://aa.usno.navy.mil/data/docs/RS\\_OneYear.php](http://aa.usno.navy.mil/data/docs/RS_OneYear.php) or the local media. (If you use an alternate or media sunset time source please write your source on the survey form as your start time calculations will be verified accordingly).

## PROCEDURE

Plan to arrive at stop 1 of your route at or shortly after local sunset. When the start time approaches, shut off your vehicle's engine and step several feet away. At the start time, record the time on your survey form and commence listening for woodcock. Listen for 2 minutes and record the number of different woodcock heard "peenting." Then proceed rapidly 0.4 miles (0.6 km) to the next stop and repeat the procedure. Continue to do so until all 10 stops have been covered. If a bad traffic hazard prevents stopping within 100 feet (.03 km) of the 0.4 mile (0.6 km) mark, proceed to the next stop and note "no stop-hazardous" in the space for the stop omitted. Be sure to check the survey form's box that indicates if your odometer readings are in miles or kilometers. SGS routes must be completed in the allotted time period (38 minutes). Therefore, begin listening for woodcock at stop 10 no later than 36 minutes after the time at stop 1. This ensures that the survey is conducted during the peak activity period of "peenting" male woodcock. Survey procedures allow for 2 minutes of listening/recording time at each stop, and an additional minute for travel time in between stops. If a traffic hazard prevents you from listening at a stop or completing the survey route within the specified amount of time, please clearly explain the reason in the remarks column.

## RECORDING COUNTS

Only record the number of different "peenting" woodcock. Do not record birds you hear performing only the flight song, and do not record the number of "peents" heard. When no birds are peenting, record "00" in the appropriate column. When disturbances at a particular stop make a count absolutely impossible, note the type of disturbance and proceed to the next stop. Upon completion of the route, record the total number of birds heard.

## DISTURBANCE

Disturbance	Description	Example
NO	No appreciable effect on count.	Occasional crow calling.
LO	Slightly affecting count.	Distant tractor noise.
MOD	Moderately affecting count.	Intermittent traffic.
HI	Seriously affecting count.	Heavy-continuous traffic.

## THINGS TO AVOID NUMBER OF TIMES TO COUNT

Do not run routes when the temperature is below 40° F (5°C), in heavy precipitation or strong wind.

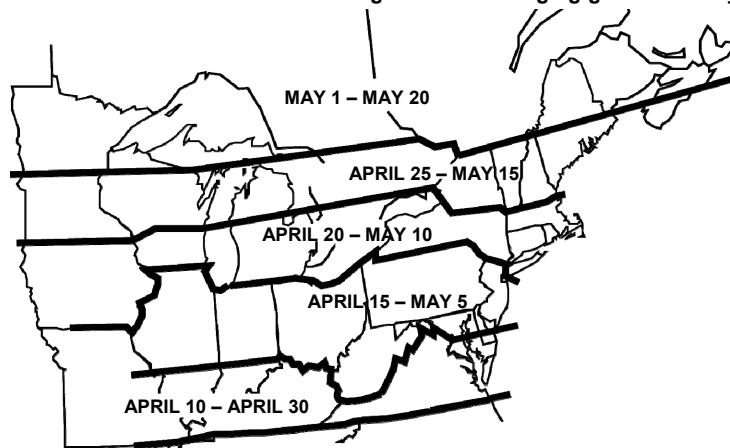
Normally, conduct a route only once during the specified period. However, if weather or other factors cause invalid counts at five or more stops the route should be rerun and data recollected on another evening.

## REPORTING

Immediately after running your route, submit 1 copy of the survey form to your State Coordinator, keep 1 copy of file for your records, and mail the original form to: Woodcock Surveys, U.S. Fish and Wildlife Service, Division of Migratory Bird Management, 11510 American Holly Dr., Laurel, MD USA 20708-4002. Survey results should also be entered via the Internet at <https://migbirdapps.fws.gov/woodcock/> and survey forms must be received at the Laurel office no later than the day following your state's survey date window. Fax your form if necessary to (301) 497-5871 to meet this cut off date, and then mail the original form.

Your cooperation in this important survey is greatly appreciated. You can view and print the Singing-ground Survey results online at <http://www.fws.gov/migratorybirds/> (click on the "Publications and Reports" link) every July. You can also query and download Woodcock SGS route level data at <https://migbirdapps.fws.gov/>.

### Recommended Period for Conducting Woodcock Singing-ground Survey



In accordance with the Privacy Act (5 U.S.C. 522a) and the Paperwork Reduction Act (44 U.S.C. 3501), please note the following information. This study is authorized by the Migratory Bird Treaty Act (16 U.S.C. 703 et seq.). The information you provide will be used for estimating woodcock relative abundance. It is our policy not to use your name for any other purpose. All names and identifying information will be removed when we compile the results, and only summary information will be reported. The information is maintained in accordance with the Privacy Act. Your response is voluntary. An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The information collection has been approved by OMB and assigned clearance number 1018-0019. We estimate that it will take you about 1.67 hours to complete the survey, including time to read the instructions and map, drive to and from the survey route, gather data at survey stops, and complete and review the survey form. Comments on this form should be mailed to the Information Collection Clearance Officer, U.S. Fish and Wildlife Service, ms 224-ARLSQ, 1849 C Street, N.W. Washington, D.C. 20240.