

**1SUPPORTING STATEMENT B FOR  
PAPERWORK REDUCTION ACT SUBMISSION**

**American Woodcock Singing Ground Survey  
OMB Control Number 1018-0019**

**1. Describe (including a numerical estimate) the potential respondent universe and any sampling or other respondent selection method to be used. Data on the number of entities (e.g., establishments, State and local government units, households, or persons) in the universe covered by the collection and in the corresponding sample are to be provided in tabular form for the universe as a whole and for each of the strata in the proposed sample. Indicate expected response rates for the collection as a whole. If the collection had been conducted previously, include the actual response rate achieved during the last collection.**

The respondent universe is the number of 10' blocks in the northeastern United States and South-Eastern Canada. From 1965-1970, these blocks were enumerated and a random sample of 1,500 were selected from the woodcock range in the northeastern United States and southeastern Canada. A roadside survey route was placed in each selected 10' block and each route represents roughly 750 mi<sup>2</sup> of land area. An additional 67 routes have been added over time using the same protocol. The expected response rate is approximately 80 percent because different circumstances (e.g., weather and staffing shortages at State and Provincial agencies) prevent all requested routes from being run each year. Actual response rates (total # submitted records/total # routes selected to be run) the past couple years (2021-2023) have been 86 percent. To improve efficiency of the survey, "constant-zero" routes, routes where woodcock have not been heard for 2 consecutive years, are run once every 5 years instead of every year. Each year, for the past 3 years (2021-2023), 31% of the routes have been in a constant-zero status.

**2. Describe the procedures for the collection of information including:**

- \* **Statistical methodology for stratification and sample selection,**
- \* **Estimation procedure,**
- \* **Degree of accuracy needed for the purpose described in the justification,**
- \* **Unusual problems requiring specialized sampling procedures, and**
- \* **Any use of periodic (less frequent than annual) data collection cycles to reduce burden.**

For descriptions of survey design and statistical methods for analyzing data, see:

- Seamans, M. E., and R.D. Rau. 2023. American woodcock population status, 2023. U.S. Fish and Wildlife Service, Laurel, Maryland. Available online at: <http://www.fws.gov/birds/surveys-and-data/reports-and-publications.php>
- Sauer, J. R., W. A. Link, M. E. Seamans, and R. D. Rau. 2021. American woodcock singing-ground survey: comparison of four models for trend in population size. Journal of Fish and Wildlife Management 12: 83-97. Available online at: <https://meridian.allenpress.com/jfwm/article/12/1/83/463015/American-Woodcock-Singing-Ground-Survey-Comparison>

**3. Describe methods to maximize response rates and to deal with issues of non-response. The accuracy and reliability of information collected must be shown to be**

**adequate for intended uses. For collections based on sampling, a special justification must be provided for any collection that will not yield "reliable" data that can be generalized to the universe studied.**

We use phone and email contacts and a system of State and Provincial coordinators to maximize timely response. In addition, we develop formal and nonformal participation assessment reports, follow up with coordinators as well as individual observers, and include concise directions and checklists for observers that accompany FWS Form 3-156. Our intention is to establish a snapshot of current participation levels, which will enable the Singing Ground Survey (SGS) coordination team to identify the strengths and weaknesses of survey coordination, identify challenges and obstacles to survey participation, and efficiently allocate resources to strengthen survey participation. The foundation of the survey is the strength of our relationships with observers.

**4. Describe any tests of procedures or methods to be undertaken. Testing is encouraged as an effective means of refining collections of information to minimize burden and improve utility. Tests must be approved if they call for answers to identical questions from 10 or more respondents. A proposed test or set of tests may be submitted for approval separately or in combination with the main collection of information.**

We have improved and refined the Singing Ground Survey methodology and analytical techniques over the last 55 years. In 2022 we adopted the new modeling approach for the Singing Ground Survey proposed by Sauer et al. (2021) that is referenced in #2 above. The new approach remains a loglinear hierarchical model but describes temporal population change in terms of conditionally independent differences between years, whereas the old approach described change based on a linear trend with random time effects. We are constantly evaluating methods used to analyze survey data. While some improvements in precision, accuracy, and general results are expected, it is unlikely that the improvements will be substantial enough to allow a reduction in survey coverage since the current sample size maximizes precision in the data. We frequently assess the assumptions behind the survey. In 2017 and 2018 we tested how discontinuing some survey areas and adding others has affected estimates since the beginning of the survey was examined. If changing disturbance levels (e.g., traffic and noise) along survey routes, especially in the Eastern U.S., has affected counts of woodcock was also examined. Researchers outside the federal government have also used Singing Ground Survey data to help develop and assess habitat conservation goals.

**5. Provide the names and telephone numbers of individuals consulted on statistical aspects of the design and the name of the agency unit, contractor(s), grantee(s), or other person(s) who will actually collect and/or analyze the information for the agency.**

Statistical consultants:

Mark Seamans (303) 275-2388

Persons collecting and analyzing data:

Mark Seamans (303) 275-2388