

## **Instructions for Electronic Submittal of Bat Survey Data for U.S. Fish and Wildlife Service**

In an effort to reduce redundancy, increase efficiency, and minimize data entry errors, the U.S. Fish and Wildlife Service (Service) Ecological Services Field Offices in Region 3 (Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio, and Wisconsin) have collaborated to create a single standardized spreadsheet<sup>1</sup> for electronic submittal of bat survey data by federal permittees to the Service. Recently issued permits' terms and conditions require submission of data in the form provided by Service Field Offices. In addition to a traditional written report, Region 3 federal permit holders (and other regions/FOs as requested) will be required to submit their survey data using this standardized permit reporting spreadsheet to fulfill the annual reporting requirements of a section 10(a)(1)(A) Recovery Permit. Alternative reporting forms or spreadsheets will not be accepted in Region 3. If permittees intend to collect additional data that does not fit within the format of this spreadsheet, they should coordinate with the Service Field Office for the study area regarding how to report the additional data<sup>2</sup>. If multiple federal permittees are contracted and/or subcontracted to conduct bat surveys as part of a single large project, each permittee is required to separately report the bat captures made under their permit so that the permittee responsible for each bat capture can be clearly identified. Due to reductions in bat populations, primarily from White-Nose Syndrome (WNS), the Service is requesting that information on **all** bat observations (i.e., captures, roost counts, and acoustic detections) of **all** bat species be submitted, regardless of current federal status.

### **Instructions:**

The spreadsheet is divided into several worksheets (Capture Site Info, Capture Data, Roost Site Info, Roost Count, Acoustic Site Info, Acoustic Survey Results, and Accepted Codes). **It is important to start by filling out the “Site Info” worksheets first for whichever surveys have been completed because the information from these worksheets populates drop-down boxes in other worksheets.** The “Accepted Codes” worksheet provides a list of valid abbreviations that are to be used in the Capture Data worksheet. It also includes a key to which fields are required and which are optional.

***Site Info Worksheets (Capture, Roost, or Acoustic):*** One site entry should be made for each night of monitoring. For mist netting or harp trapping, a survey “site” is an area containing one or more nets/traps in relatively close proximity that require surveyors no more than 10 minutes to walk between during net checks. One GPS point should be taken for each site. The latitude and longitude should be entered in decimal degrees (NAD83) for the site either by taking a point at the net with the most captures or within a centralized location at the site. The state and county in which the survey was conducted are entered using drop-down menus. The type of survey refers to the survey method (e.g., mist-net, harp trap, or acoustic). If surveyors used both mist-nets and harp traps

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<sup>1</sup> Prior to data submittal, permittees should ensure they are using the most current version of the permit reporting spreadsheet, which will be available on the Service's R3 Indiana Bat Summer Survey Guidance web page (<http://www.fws.gov/midwest/Endangered/mammals/inba/inbasummersurveyguidance.html>).

<sup>2</sup> Currently this spreadsheet is not suitable for submitting results of acoustic driving routes.

at a particular site, only one entry needs to be made in the Capture Site Info tab for each date. If acoustic detectors, in addition to either mist-nets or harp traps, are used at the same site, one entry should be made for the acoustic monitoring (and included in the Acoustic Site Info tab) and another one for the mist-net/harp trap. The number of nets or traps, used on that particular date should be entered in the “Number of Net sets/Trap Nights...” column (e.g. 2 mist-net sets and 1 harp trap set for one night equals 3 net/trap nights)<sup>3</sup>. The “Habitat” column has a drop-down menu with general descriptions of likely monitoring locations. Information on the federally permitted individual(s) responsible for conducting the survey should be entered into the designated columns. Even if no bats were captured/detected during a night of survey effort this information should also be submitted.

**Capture Data:** Within the Capture Data worksheet information may be entered one of two ways: either through typing commonly used codes for species, age, sex, and reproductive condition (*see the Accepted Codes worksheet*), or by using drop-down menus within the appropriate section (Drop-down Data Entry)<sup>4</sup>. If no bats were captured type “nobats” in the species code column, or select “No bats” in the scientific name column. The remaining information on captured bats (e.g. weight, right forearm length, wing score, etc.) should then be completed. If samples were taken, please provide additional information in the comments field. The “Site” column is a drop-down menu comprised of a concatenation of the Project/Site/Date/Survey Type information from the Site Info<sup>5</sup>. The site that is associated with each bat captured/detected should be selected.

**Roost Site Info:** The roost worksheet requests much of the same information that is found within the 2016 Range-Wide Indiana Bat Summer Survey Guidelines. Many cells are comprised of drop-down menus to facilitate data entry. If the exact location of the roost was not accessible due to terrain, access, etc. the approximate location of the roost may be entered by selecting “triangulated” in the Location Accuracy column.

**Roost count:** This worksheet relies heavily on information from other tabs in order to simplify data entry. When a count is conducted only six pieces of information need to be entered: the species of bat known to use the roost; the Bat ID (if a bat was radio tracked to this roost) and Roost ID, which are derived from information from the Capture Data and Roost Site Info respectively. If the radio tagged bat was occupying the tree the night the count was conducted select “yes” in the appropriate box; if the bat was absent from that tree select “no”. This information will be used to track bat movements between roost trees. Finally, the date the survey occurred and the number of bats observed on that date need to be entered. If multiple counts occur at the same roost please enter all of the counts, including zero counts, not just the high count. Should several radio tagged bats use the same tree on the same date, create a separate entry for each radio-tracked bat<sup>6</sup>.

**Acoustic Survey Results:** Enter each species detected during the survey, and the bat ID software program used to identify that species. The number of calls identified for each species should include the total number of calls identified by the computer program plus the number of calls that were

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<sup>3</sup> Double or triple-high nets are considered as one net set.

<sup>4</sup> If using the drop-down menus, it is not necessary to go back and fill out the abbreviated codes section.

<sup>5</sup> If the drop-down appears blank, scroll up within the drop-down box to find the site name.

<sup>6</sup> This is to facilitate the tracking of individual bats.

qualitatively identified. If more than one program is used to analyze data from a site, each species identified should be included on a separate line for each software program used to identify that species (even though this may create multiple lines with the same species). The Bat ID Software Program Used column is supplied with a drop-down menu of programs currently approved for use for summer surveys of Indiana bats<sup>7</sup>. The version of the ID software program used should also be identified in the Version column. The number of calls confirmed through qualitative ID should be indicated for each site by species including the full name of the individual providing the qualitative ID. As with previous tabs, the “Site” column is a drop-down menu comprised of a concatenation of the Project/Site/Date/Survey Type information from the Acoustic Site Info tab. The site that is associated with each species identified should be selected.

**DO NOT move columns or adjust the format of this spreadsheet.**

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<sup>7</sup> A current list of Service-approved acoustic programs/versions is available at <http://www.fws.gov/midwest/Endangered/mammals/inba/surveys/inbaAcousticSoftware.html>