

DATA ENTRY IN THE FIELD

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INTRODUCTION

One copy of the Field Form is included in this kit. You will use it to make enough copies so that you have at least one for each visit you make to each Survey Point. For example, if you have eight Survey Points, you will need at least 16 copies of the Field Form. You will need more than the minimum number of forms if you are surveying for more than eight species at any Survey Point. **We recommend that you put your name and ID number on the master copy in the kit** (this will save a little effort later on), then keep the master copy in your binder for future use. Copies of all completed Field Forms should be returned to the Lab of Ornithology after all of your field work is completed (by September 15 if possible).

FILLING IN THE FIELD FORM

Front side

The front side of the Field Form must be completed for each visit you make to the Survey Point. Be sure to fill in the top section of the form (Survey Point ID, names of observers, location of site, date, and times), and remember to mark whether you are conducting Visit 1 or Visit 2. Then label the top of each column with the name of each species that you are surveying for.

You will notice the form has three columns for each species. These represent the three study periods that make up each visit. The first column is for the Observation Period (O), the second is for the Playback Period (P), and the third is for the Behavior Watch Period (B) (see example at left). During each period, you will mark the appropriate column for any observations that you make. **It is very important that you consider each study period a fresh start and mark everything that you see and hear during that period, even if you detected the same thing in an earlier period.**

For example, you hear a Black-throated Blue Warbler singing during the Observation Period (refer to the example at left). Mark *song heard* in the O column. Then, during the Playback Period, a male approaches and sings. Mark both *song heard* and *male seen* in the P column. Finally, during the Behavior Watch Period, you see the male singing and you also see a female with an insect in her bill. Mark *song heard*, *male seen*, *female seen*, *pair*, and *adult carrying food*.

The Cowbirds section of the Field Form only has one column to be marked. This is because you only use this section for

AN EXAMPLE OF HOW TO USE THE FIELD FORM

VISIT 1 VISIT 2

Mark all that apply during the

Species name (write in space)	Black-T. Blue War.		
Not seen or heard			
Playback used	yes		
	O	P	B
Adult seen			
Male seen		X	X
Female seen			X
Call heard			
Song heard	X	X	X
Drumming heard			
Pair			X
Territoriality			
Courtship and display			
Probable nest site			
Carrying nest material			
Nest building			
Distraction display			
Recently fledged young			
Occupied nest			
Adult carrying fecal sac			
Begging call heard			
Adult carrying food			X
Adult feeding young			
Nest with eggs			
Adult on nest			
Nest with young			

cowbirds that are detected during the 10-minute Observation Period. The Competitors/Predators section has two columns to be marked. You should indicate the total number of individuals detected during the Observation Period in the left column. Then mark the right column if they were heard only. Any cowbirds, competitors, or predators that are detected at other times, as well as any other interesting observations, can be noted in the Comments section of the form.

Back side

The back side of the Field Form contains location and habitat information and only needs to be completed once for each Survey Point. It is divided into three sections: *Survey Point Characteristics*, *Study Site Characteristics*, and *Landscape Level Characteristics*.

Survey Point Characteristics

These characteristics apply to the point where you actually stand to conduct the protocols. Some variables may be calculated from maps (latitude, longitude, and elevation), but sometimes they are easier to measure while you are out in the field. For example, you can get the exact latitude and longitude of your Survey Point in the field with a Global Positioning System (GPS) receiver.

The distances to nearest edge, road, water, and occupied building may be measured or estimated while you are out in the field, or if the distances are very large, you can use a map instead. Write the numbers on the appropriate lines, and be sure to indicate the proper units for each measurement.

Study Site Characteristics

These characteristics apply to the entire study site, the circle with a radius of 500 feet (150 meters) around your Survey Point. All of this section should be completed while you are out in the field with the possible exception of Ownership.

Some variables have check boxes while others require you to write in numbers. Notice that some variables (Hydrology and Land Use) allow you to mark more than one item, while others (Forest Cover Type, Slope, and Ownership) allow only one answer.

After estimating the vegetation cover percentages, be sure to check your math. The individual percentages should add up to whatever you have written in for the total percentage of cover.

Landscape Level Characteristics

These characteristics apply to areas ranging from the entire forest patch in which your Survey Point is located to a 2,500-

acre (1,000-hectare) block around your Survey Point. For smaller forest patches, it may be possible to determine Patch Edge while you are out in the field. Otherwise, these variables will be calculated from maps or aerial photographs.

Patch Edge and Forest Patch Size should be calculated for the entire forest patch in which your Survey Point is located. Percentage of Forest and Linear Distance of Edge should be calculated for a 2,500-acre (1,000-hectare) block around your Survey Point. Isolation Measurements are the distances from the forest patch in which your Survey Point is located to other large patches.

Be sure to indicate the proper units for each measurement, and mark all sources of information that were used to make the measurements.

SURVEY POINT CHARACTERISTICS (see pages 2.7–2.8 in the *Study Site Instructions* section)

Latitude: _____ **Longitude:** _____ **Elevation:** _____ ft m (circle)

How did you determine latitude and longitude: (mark one)

- | | |
|--|---|
| <input type="checkbox"/> BFL map application | <input type="checkbox"/> Provided by my site coordinator |
| <input type="checkbox"/> Topographic map | <input type="checkbox"/> Worldwide Web (or Internet) |
| <input type="checkbox"/> Global positioning system (GPS) | <input type="checkbox"/> Other map (write on lines below) |
| <input type="checkbox"/> Geographic information system (GIS) | <input type="checkbox"/> Other (write on lines below) |
| | _____ |
| | _____ |

Distance to nearest: (circle one)

- edge: _____ ft mi m km
road: _____ ft mi m km
water: _____ ft mi m km
occupied building: _____ ft mi m km

STUDY SITE CHARACTERISTICS (see pages 2.8–2.12 in the *Study Site Instructions* section)

Hydrology in breeding season:
(mark all that apply)

- No water
 Stream/flowing water
 Pond/standing water
 Forested wetland
 Riparian forest strip

Forest cover type: (mark one)

- Conif. (natural)
 Conif. plantation
 Deciduous
 Mixed conif./decid.

Slope: (mark one)

- Sloped
 Level
 Undulating

Land use: (mark all that apply)

- Undisturbed
 Light recreation
 Heavy recreation
 Partially cut
 Commercial forest
 Grazed
 Recently burned
 Suburban woodlot
 Other _____

Ownership: (mark one)

- Private
 Timber Co.
 State
 County/Town
 Forest Service
 BLM
 USFWS
 Other federal
 Tribal lands
 Other _____

Canopy height: _____ ft m

Percentage of canopy cover: _____ =% Deciduous cover _____ + % Coniferous cover _____

Most common trees in canopy: (list three if known) _____

Percentage of low vegetation cover: _____ = % Saplings _____ + % Deciduous shrubs + _____
+ % Coniferous shrubs _____ + % Ground cover _____ + % Dead _____ (leaf litter, fallen trees, etc.)

Most common low vegetation plants: (list three if known) _____

LANDSCAPE LEVEL CHARACTERISTICS (see pages 2.12–2.15 in the *Study Site Instructions* section)

Patch edge: (check all that are adjacent to your patch)

- | | |
|--|--|
| <input type="checkbox"/> Industrial/Commercial | <input type="checkbox"/> Desert scrub |
| <input type="checkbox"/> Residential | <input type="checkbox"/> Natural grassland |
| <input type="checkbox"/> Agricultural | <input type="checkbox"/> Wetland |
| <input type="checkbox"/> Second growth | <input type="checkbox"/> Open water |
| <input type="checkbox"/> Natural shrub | <input type="checkbox"/> Other |

Forest patch size: _____ acres ha (circle one) Was this measured or estimated?

Percentage of forest: _____ %

Linear distance of edge: _____ ft m (circle one)

Isolation measurements: (if your patch is 1,000 acres (400 hectares) or more, you do not need to complete this measurement)

Distance from your patch to the nearest patch of 100 acres (40 hectares) or more: _____ ft mi m km (circle one)

Distance from your patch to the nearest patch of 500 acres (200 hectares) or more: _____ ft mi m km (circle one)

Sources of information: (mark all that apply)

- Topographic map Other map (write on lines to right) Other: _____
 Aerial photo Geographic Information System (GIS) _____

QUICK-REFERENCE SHEET FOR FIELD USE

VISIT PROTOCOL FOR BFL STUDY SPECIES

- **Observation Period (mandatory 10 minutes)**
 1. Look and listen for predators, cowbirds, and study species
 - **Playback Period (mandatory 5 minutes per species)**
 1. Species 1: play songs, calls, or drums for 1 minute
 2. Species 1: watch/listen for 1 minute
 3. Species 1: repeat songs, calls, or drums for 1 minute
 4. Species 1: watch/listen for 2 minutes
- *Repeat steps 1–4 for each additional study species**
- **Behavior Watch Period (mandatory 10 minutes)**
 1. Play eastern or western mobbing calls for 5 minutes while looking and listening for study species
 2. Watch/listen for 5 minutes

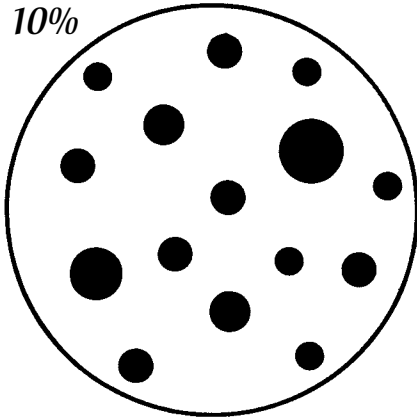
SURVEY RECOMMENDATIONS AND TIPS

- **Work in teams**—Work in teams of two to four observers; one person records data while the others look and listen for the study species.
- **Allow a settle-down period**—Upon arriving at your survey point, stand quietly for one to two minutes to allow the birds to settle down and resume normal activity.
- **Use a CD player**—Note the track numbers of your study species before going into the field.
- **Set tape prior to survey**—If using tape(s), set to the appropriate species prior to beginning your survey. Rewind the tape as you travel to your next study site or during the settle-down period.
- **Turn speaker in four directions**—Broadcast the playback in all four compass directions, use the intervals between songs/calls/drums to turn speaker.
- **Watch for movement**—To detect birds, continually scan for movement, look from the ground to canopy while listening for vocalizations.
- **Survey hawks last**—When surveying hawks and other species at the same study site, be sure to broadcast the non-hawk playbacks before playing the hawk calls.
- **Complete each of the three sections of the Visit Protocol fully**—To standardize effort, complete the entire protocol for each species even if you detect your study species during the middle of one of these periods or during the Playback Period for another study species.
- **Fill out the Field Form completely**—The front side of the Field Form should be completed during your visits. Some of the questions on the back of the Field Form need to be answered in the field (Study Site Characteristics variables; hydrology, canopy height, percentage of low vegetation cover, etc.)

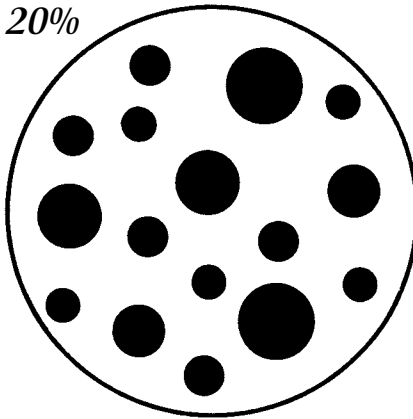
VISUAL ESTIMATES OF PERCENTAGE COVER

Use these reference figures to help estimate the percentage of canopy cover and the percentage of low vegetation cover. We suggest you laminate this copy so it will last longer in the field.

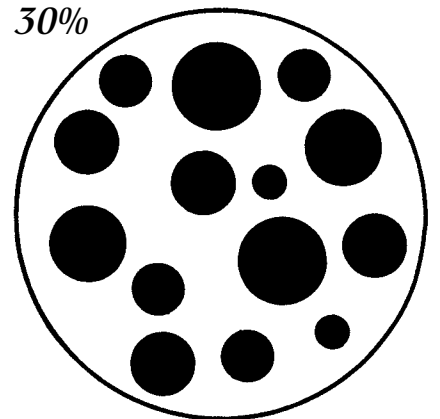
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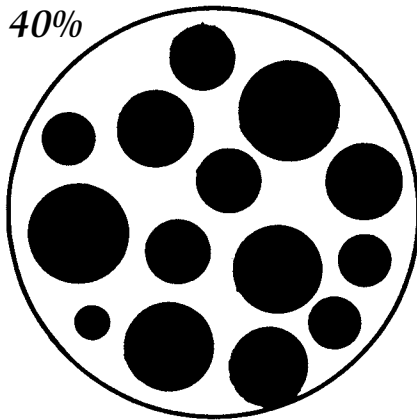
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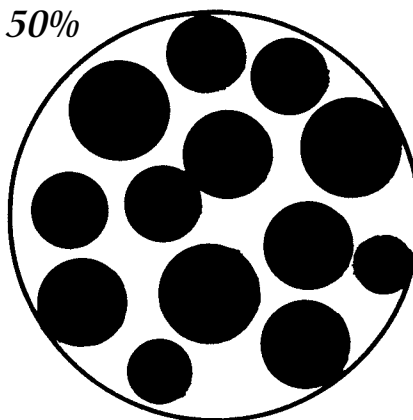
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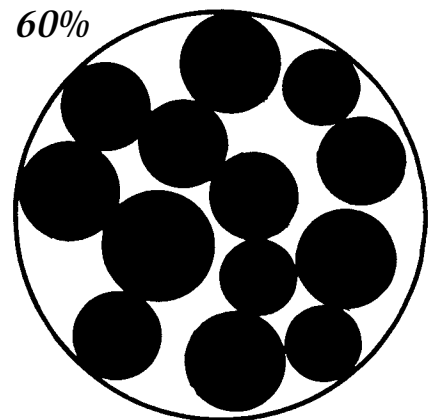
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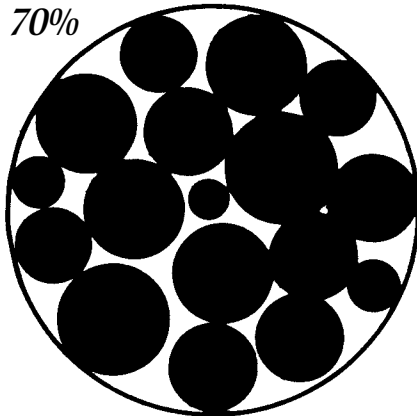
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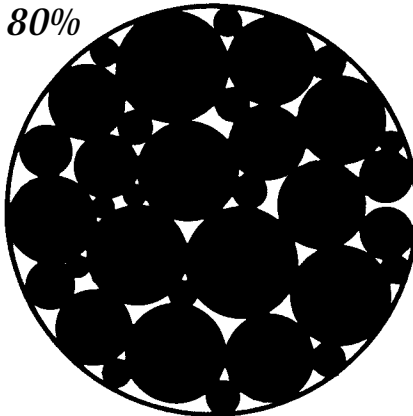
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