

PRBO
AREA SEARCH CENSUS
INSTRUCTIONS
May 1999

Background:

Recently adopted for the Australian Bird Count as a follow up to their completed Breeding Bird Atlas, area search censuses are time constrained bird censuses, similar to a “Christmas Bird Count” or repeated “breeding bird atlas” census. However, area search censuses differ significantly in that the census areas are defined by habitat rather than by political boundaries. This allows bird relationships to be determined and land management techniques assessed. This method is also ideal for volunteers and observers with limited identification skills. Observers are able to interact, compare notes, and chase down unfamiliar species or sounds. It is ideal for recruiting new observers in that it requires little training and allows skilled observers to train new observers. Non-birders may even participate by serving as recorders or tallying obvious species.

1. Choosing a site:

Any site containing a definable habitat may be chosen for a census. Riparian, oak woodland, grassland, coastal scrub, chaparral, and coniferous forests are current priority habitats of California Partners in Flight. Area searches can be done in any habitat, Important Bird Area (IBA), or site where bird information is needed.

Each site generally consists of three separate plots or “search areas”. For those of you setting up your own sites, each site should be registered with PRBO (using Table 1) and defined according to its current land use or habitat criteria (e.g. grazing, controlled burning, recreational park land, mixed riparian woodland, etc.). Habitat criteria will initially follow classifications in “California Statewide Wildlife Habitat Relationships System” (WHR) (*A guide to wildlife habitats of California*, 1988. K.E. Mayer and W.F. Laudenslayer editors, available from California Department of Fish and Game, CA), and/or from *A Manual of California Vegetation* (J.O. Sawyer and T. Keeler-Wolf, 1995). Contact PRBO if more information is needed.

2. Choosing a plot (or search area):

All search areas at a given site should be the same size and of the same habitat type. Avoid mixing habitat types, or standing water (i.e. lakes), or areas of high human activity. Standard protocol recommends 3 search areas within a given site. However, each site may have anywhere from 1 to 12 search areas, depending on volunteer availability and land access. For forested habitats, each plot should be about 3 hectares (e.g. 150m by 200m; 1 hectare=100m by 100m). Larger areas can be used in more open habitats (up to 10 hectares). The size of the plot should be such that it can be easily covered and barded thoroughly over a 20 minute period, and this is the most useful criteria in setting up the size of your plots. Plots may be of any shape. The different plots may have adjoining boundaries. In general the plot boundaries should be at least 25 meters from edges or different habitats; however this is frequently impossible, especially in riparian habitat, it is usually only the rule for areas containing continuous habitat. Plot boundaries should be planned and marked using permanent geographic features so that they can be relocated in subsequent visits, seasons and years, and often by different observers. These boundaries should be described in detail, and if necessary a map clearly delineating these boundaries and the plots should be made.

3. Conducting a census:

Each area search plot is covered in 20 minutes during a census (some exceptions may apply, i.e. 30 minute censuses). Typically 3 plots should be covered in a single morning. In general, observers cover the entire plot in the time allotted. Observers are free to stop the area search (and the clock) to investigate songs, calls, or breeding activity. This may be necessary for identifying species you are not familiar with. Do not be distracted or spend too much time looking for rare birds or nests (if you are doing nest searches, do them after the census).

It is a good idea, whether you are conducting the census alone or with other observers, to walk through and explore the plot prior to the actual census. It helps to have a good sense of the borders of the plot so it can be thoroughly covered. The “time constraint” nature of area search censuses is an important feature; never extend your time to include “just a few good birds”. Carefully record your starting time when you begin, stay aware of the time throughout the census to ensure both good coverage and correct timing, and keep track of any pauses you take in the 20 minutes. With groups it may be helpful to designate one observer as timekeeper. Additionally, please try to be sensitive to the subjects of your census and in particular do not stay too long near a nest or anywhere where birds are distress calling.

Begin by filling out the observer and census information at the top of the PRBO AREA SEARCH FORM. Only one address is needed although there may be additional observers; their names go on the bottom of the form. Complete the weather information, consulting the PRBO Area Search Code Key. During the census, carefully record the name of each species seen or heard on the plot in the species column. If you know the American Ornithologists’ Union 4-letter code for the bird (e.g. WIWA for Wilson’s Warbler) please use that, if not record the full individual name of the bird. Fill in the Total column for each species after the census is complete. Record data as described on the enclosed PRBO Area Search Code Key. For each individual of each species, record a single letter (S=song, V=visual, C=call), in the order of priority explained in the code key. You should change the data, i.e. from a call to a song, if a higher priority observation later occurs for that individual. Recording any special behaviors (such as food carries, flocking, displaying), is strongly recommended but not required; there are respective columns on the form for these observations, following breeding bird atlas methodology. Other species not recorded in the 20 minutes, observed off the plot, or exhibiting interesting behaviors, may be recorded under Notes and Flyovers or on a separate sheet of paper (such as the “Off Census Bird List and Breeding Observations” form).

Observers: At least one observer should be able to identify by sight and sound most of the species likely to be encountered. Surveying the area prior to conducting a census is recommended. Observers not familiar with the birds, habitat or methods are encouraged to participate as recorders or counters of easily identified species. Up to 6 observers per plot is acceptable under certain circumstances, but 1 or 2 is preferable. During the census, observers should keep together, **act as one observer**, and record all observations on the same sheet by the designated recorder. Encourage beginners to come along and learn their local birds.

4. Frequency

3 plots should be done in a single morning. We recommend at least 2, and ideally 3, censuses of each plot during the breeding season; during the winter a single census may be adequate, while during the fall migration they should probably be conducted a minimum of once a week. The same exact plots must be censused annually, and at approximately the same time of year.

PRBO Area Search Code Key May 1999

Name and Address: Contact information for primary person conducting the area search.

Date and Visit #: Day in which census is done, and corresponding visit number (1, 2, 3, 4 etc.)

Location: County in which area search is conducted.

Site: Specific name (two-letter code unique to the county) given to the site.

Plot #: Consecutive number or letter given to the specific area search plot within the site.

Weather (Censuses should not be conducted in bad weather, which includes high winds):

Temperature: Celsius or Fahrenheit (specify) of temperature at time of census

Cloud Cover: Percent of sky covered by clouds

Wind Speed: mph, knots, or kmph (specify) of average wind speed during census

Number of Observers: Number of people involved in conducting the census. Ideally should be only one or possibly two.

Start Time: Time the 20 minute census was begun.

End Time: Time the census was completed. Is not always 20 minutes after start time as interruptions may occur. Indicate below why it is not 20 minutes (i.e spent 5 minutes tracking down a bird, etc.)

Species: Use current 4-letter code from the AOU checklist as well as subspecies if discernible. If you do not know the 4 letter code please write name in full.

Tally of Individuals: Put an S (song), V (visual), or C (call) for each individual encountered in the following priority:

Priority is S, V, C. For example, if you first see an individual (V) then later during the census hear it call (C), and after a few minutes hear it sing (S), the only code recorded on the form in the end for this individual would be an S. If you hear a bird sing (S) then see it (V), the only code recorded would be an S.

Total: After each area search is complete, tally the total number of individuals of each species encountered.

Behavior: Check each column if any individual of the species is observed doing the following:

Forag: Foraging observed

Flock: Bird observed in a flock

Copul: Copulation observed

Displ: Breeding display observed

Pair: 2 birds believed to be a mated pair observed; courtship behavior observed

Mater. Carry: Individual observed carrying nest material

Food Carry: Individual observed carrying food

Nest: Active nest found.

Fledg: Dependent fledgling observed (being fed by adults, begging, with fledgling-length tail)

Notes and flyovers: Flyovers (birds flying above and not through the plot) are recorded here, as can be birds detected outside of the boundaries of the plot, and any other information deemed pertinent, including nest predators.

Other Observers: Give the names of the observers whose personal information is not filled out above.