Metro Regional Parks and Greenspaces

BREEDING BIRD MONITORING PROTOCOL

- Assessing and tracking habitat quality and restoration effectiveness using breeding birds as a bio-indicators

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BASICS:
Conduct timed surveys of breeding bird from fixed point count stations deployed within specific habitats. Protocol represents methods recommended by Huff et al. (2000, http://www.fs.fed.us/pnw/pubs/gtr501.pdf).

TARGET HABITATS:
Varied but including emergent wetlands, oak savanna, oak-pine savanna restoration sites, ash forest, conifer reforestation sites and upland prairie.

TARGET SPECIES:
All breeding birds

METHODS:
Habitat-Based Point Count Monitoring
(Note: Protocol steps 1 & 2 are likely already done by Metro)

1.) Identify target site/habitat, considering the following:
- Habitat type
- Restoration activities

2.) Establish Point Count Stations, considering the following criteria:
- At least 5 stations/SA
- Each station should be $\geq$ 150 m from neighboring stations
- Each station should be $\geq$ 125 m from the boundary
- Flag locations 50m from point count station at N, E, S, and W compass points to help delineate count boundaries.

3.) Conduct point counts using following protocol (Record data on provided data sheets):

Conditions
- Do not conduct counts under the following weather conditions: Rain, cold drizzle (light drizzle okay if birds are active), sleet, snow, heavy ground fog, strong winds (>20mph).

***Timing of Counts*:**
- Conduct $\geq$ 3 counts/season beginning May 15th and finishing by June 30th. Visits to the same point count array should be separated by 7-10 days (Note: This requires careful coordination if more than 1 team is surveying the same array). Adjustments to dates can be made if weather is unusually cool or warm.
- Try to visit sites at similar dates on subsequent years.

- Conduct all counts during period of peak bird activity (roughly between sunrise and 10:00 AM).
- Visit all points in an array in one day.

***Site Visitation Procedure*:**

- Alternate initial starting station each visit (by starting at stations #1 or #5 on alternating visits to the site).
- Travel as quietly as possible between stations to avoid disturbing birds
- Wait a couple minutes at each station before beginning count to allow bird community to "settle down" (make sure you are quiet, breathing normally).
- Spend 5 minutes at each point, separating birds detected into 0-3 min. and 3-5 min.
- Record detections as either "typical" or "fly-over". A detection is when the bird is first seen or heard in a point count. A typical detection is habitat specific and spatially defined (i.e. in relation to the 50-m radius and surrounding vegetation). A fly-over detection is defined as a bird detection above the highest vegetation (i.e. tree canopy). An associated fly-over detection is one where the bird appears actively involved in the site (habitat type), whereas an independent fly-over is not using the site below
- Record typical detections as either 0-50 meters (within the point count radius) or >50 meters.
- Tally juveniles separately. Record flush detections (birds neither seen nor heard during station counts). These are usually disturbed or flushed as a person enters or leaves a point count site, but are found within the point count radius. Flushes that occur between stations should be recorded in the field notes.
- Be careful of double counts! Once you have detected a bird once and recorded it, you do not want to note it again.
- Record species using 4-digit common name species codes. If you are unsure of this notation, or of the code for a specific species, just write out the species name. The following address can be used to look up four-letter bird codes: http://www.pwrc.usgs.gov/bbl/manual/sname.htm

Huff, M. H.; K. A. Bettinger; H. L. Ferguson; M. J. Brown; and B. Altman. A habitat based point-count protocol for terrestrial birds, emphasizing Washington and Oregon. U.S. Department of Agriculture/Forest Service Gen. Tech. Rep. PNW GTR-501. Available online: www.fs.fed.us/pnw/pubs/gtr501.pdf