



# Standard Operating Procedure (SOP) 1:

## *Preparations and Equipment Set Up V2.1*

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### Revision History Log

| Prev. Version # | Revision Date | Author      | Changes Made            | Reason for Change            | New Version # |
|-----------------|---------------|-------------|-------------------------|------------------------------|---------------|
| 1.0             | Oct 2006      | T. Gardali  | Minor suggestions       | NPS internal review comments | 2.0           |
| 2.0             | Dec 2018      | M. Dettling | Minor addition to lists | Clarification                | 2.1           |
|                 |               |             |                         |                              |               |
|                 |               |             |                         |                              |               |
|                 |               |             |                         |                              |               |

This Standard Operating Procedure is available in digital format from [San Francisco Bay Area Network website](#) and the [NPS Data Store](#).

This Standard Operating Procedure explains the procedures for (1) preparing field narratives and maps; (2) preparing GPS units for use and with coordinates; (3) determining equipment needs; (4) reviewing training protocols and topics; and (5) scheduling field crews.

## **Prepare Field Narratives and Maps**

Each field biologist or crew will be given printouts of the most recently updated narratives and maps for each site. This applies to point count transect and mist-netting station locations. These include navigation to the site and navigation around the site (to facilitate finding points or nets once in the field). Point count transect narratives will include GPS coordinates for all stations in case of GPS unit malfunction.

## **Prepare GPS Units**

Each point count field biologist will receive a hand-held Garmin GPS unit with newly uploaded point count station locations. These will be uploaded prior to the field season in order to ensure that any changes made in previous years are included. Additionally they will be set up in appropriate datum and configuration (NAD83 and UTM's, respectively). See also SOP#8.

## **Equipment Needs**

Equipment should be inventoried, organized and made ready for the field season a few weeks in advance of it beginning in order to address any needs that have to be met. Some of these items will be provided and others (e.g., binoculars, watch) are expected to be owned by the biologist.

Each point count surveyor needs:

- Park Radio or cell phone
- Binoculars (high quality)
- Field Notebook
- Standard Datasheets
- Narratives
- Field Maps
- Pens (black ballpoint and permanent marker)
- Flagging
- Clipboard (with rubber band or clip)
- Watch (must indicate seconds)
- GPS unit (with extra battery set)
- Range finder (for distance determination)
- Compass
- Bird ID reference book (National Geographic, Peterson's, or Sibley's)
- Bird songs CD
- First aid kit

- Sunscreen/Hat
- Water/snacks
- Camping gear (if applicable)
- Rain shell/warm clothes

Each mist-netting crew needs:

| Category                                | Items                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General:                                | 2-way radios<br>Pyle (1997) Identification guide<br>Tabular Pyle identification guide<br>Field guide<br>Black pens (4+)<br>Bands: for all sizes, both current/pre-strung bands and backup string of each<br>Leg Measurement Gauge<br>Color bands: for all sizes, all colors<br>Banding pliers<br>Wing rule(s) (make sure it works for the specific banders, i.e. "leftie" vs. "rightie")<br>Plastic ruler<br>Calipers<br>Calculator<br>Scale<br>Backup 9V battery for scale<br>Weighing canisters, all sizes<br>Scissors<br>Sharpie pen<br>Band remover and aluminum wire<br>Fresh sugar water<br>Compass<br>Thermometer<br>Clipboard (3)<br>Extra flagging<br>Acetone<br>Q-tips<br>Rechargeable soldering iron |
| Data Binder                             | current banding sheets<br>extra banding sheets<br>journal pages<br>net location maps                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Color band note book<br>(as applicable) | printout of all color banded birds<br>new color combo sheets                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Informational Binder                    | Copy of current banding permits<br>AOU codes and band sizes<br>Banding sheet codes<br>Palo special handling notes<br>Education Handout                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Other supplies                          | First Aid Kit<br>Nets, including 1 extra (12)<br>Poles (if not left at site)<br>Extra set of poles (all riparian sites)<br>Bird bags (clean)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

| Category | Items                                                                       |
|----------|-----------------------------------------------------------------------------|
|          | Extra rope                                                                  |
|          | Hammer/mallet                                                               |
|          | Extra stakes/rebar                                                          |
|          | Clothespins (marked)                                                        |
|          | Extra plastic bags for nets                                                 |
|          | Transportable Hot Box (e.g. insulated lunch box with reusable hand warmers) |
|          | Machete/clippers                                                            |
|          | Grass cutters                                                               |

## Review Training Protocols and Topics:

In preparation for training incoming biologists, trainers will review all appropriate:

- Protocols and SOPs
- Training of bird plumage and calls
- Field safety considerations

## Scheduling Field Crews

- Field crews will have been hired or identified as early as possible (for the breeding season, this is generally done late winter).
- Prepare a timetable for conducting each point count visit. Determine appropriate windows for each visit (see SOP on conducting point count surveys for frequency and timing of visits). Generally, a single transect (9 to 18 points) will be counted within a single morning.
- Assign point count transects to biologists and provide them with the timetable in which they must be completed. As much as possible vary observers between visits to a transect.
- Schedule mist-netting visits to each site and assign crews to each visit (see SOP on conducting mist-netting for frequency and timing of visits).

## Literature Cited

Pyle, P. 1997. Identification Guide to North American Birds, Part I. Slate Creek Press, Bolinas, Calif.