Coordinated Bird Monitoring: recommendations for better bird monitoring

Major CBM Products

1. The NA CBM Plan
2. Regional CBM Plans

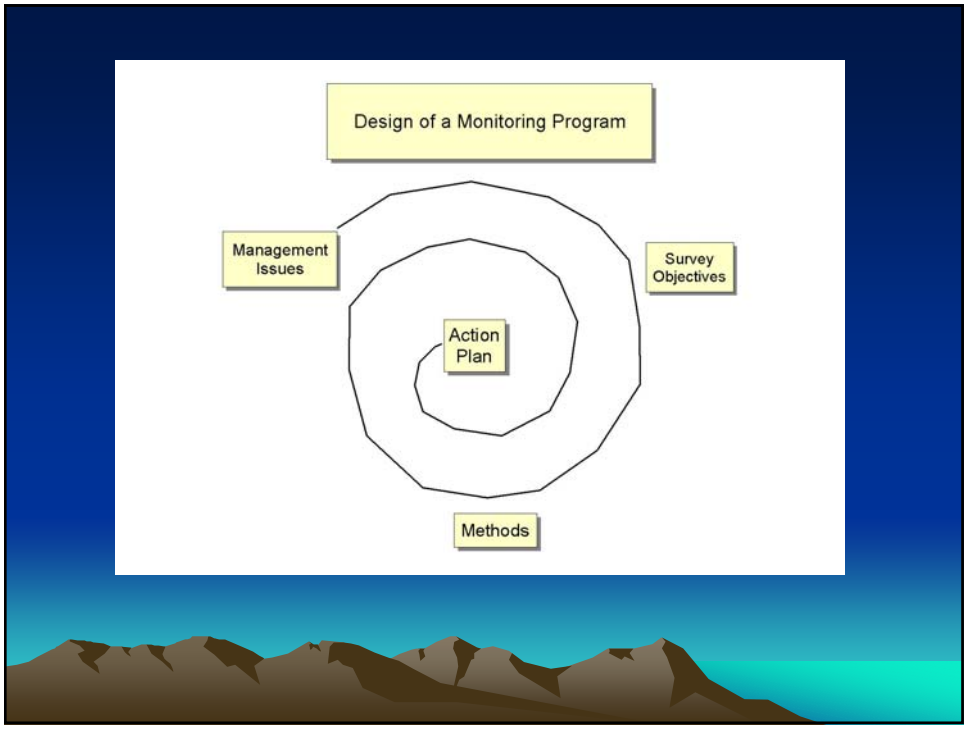
Outline of the North American CBM Plan

- **Introduction**
  - Project history and rationale
  - Monitoring program descriptions
- **Long-term programs**
  - Terrestrial species
  - Aquatic species
- **Short-term programs**
  - Project identification
  - Implementation
- **Program support**
  - Field protocols
  - Aquatic surveys
  - Regional CBM Plans
  - Other recommendations

- **Appendices**
  - Target species
  - Current programs
  - Design of bird surveys
  - Agency roles

Regional CBM Plans

1. Comprehensive description of bird monitoring activities for an organization or region
2. Help increase efficiency and utility of bird monitoring programs by improving coordination
3. Prepared by States, BCRs, agencies
4. Describes participation in long-term and short-term projects
5. Includes aquatic area survey protocols
6. Updated frequently to reflect current short-term projects



Management Issues

- Brief description
- Needed products
  - Inventory
  - Description of high and low quality habitat
  - Project evaluation

Example: Evaluation of riparian restoration projects in Nevada

Many riparian restoration projects are underway or being planned; effects on birds should be evaluated.

Needed product: Project evaluations

Survey Objectives

- Study area
- Study period
- Species
- Biological population
- Parameters
- Accuracy target

Example: Importance of aspen in the intermountain west

Mgmt. Issue: Aspen stands are breaking up; the FS is concerned but doesn't know how much effort to expend; importance of aspen to birds is unknown but would help them decide how much effort to make on conserving aspen. Product needed: inventory to estimate abundance of aspen-dependent birds in aspen stands thru-out the IW.

Survey Objectives

- Study area: Aspen stands in the IW
- Study period: Breeding season
- Species: (list)
- Biological population: Territorial birds
- Parameters: Density and population size for the study area
- Accuracy target: CVs < 0.25

Methods

- Brief description
- Statistical population
- Sampling plan
- Field methods
- Needed sample sizes
- Data management
- Analysis and reports
- Roles and responsibilities
- Schedule

Example: ID of forested areas to protect in the mid-Atlantic States

Mgmt. Issue: Forested areas are a high priority for protection in the mid-Atlantic States but better methods are needed to identify site of highest value to birds. Product needed: description of high and low quality habitat.

Survey Objectives: Study area and period – forested areas in the mid-Atlantic region during the breeding season; species – list; biological population: territorial birds; parameters – density and nesting success; acc. target: CVs < 0.25 (tentative).

Methods

Brief description: Area searches for density; nest monitoring

Statistical population: area-times; nests (or nest-days)

Sampling plan: Stratification by State and regions within states; PPS sampling; multiple visits

Field methods: from literature

Needed sample sizes: in progress

Data management: National Point Count database (?); nest data and GIS products maintained at State level and submitted to project coordinator.

Analysis and reports: TBD (mainly state agencies)

Roles and responsibilities: TBD (mainly State agencies)

Schedule: Three years, starting in 2005

Interior Least Terns (and...?)

Management Issues (from the 2003 Biol. Opinion):

1. Collect information needed for consideration of delisting, especially population size and productivity by sub-region (inventory)
2. Estimate take (inventory)
3. Evaluate effects of flooding (project evaluation)
4. Design habitat-creation projects (habitat quality)
5. Reduce human disturbance (project evaluation)

Survey Objectives: Population size, productivity, take

Study area: All areas used for nesting by ILTs (others?)

Study period: Breeding season, through nest departure

Species: ILTs, PIPL?, SNPL?, AMAV? Others?

Biological population: Breeding birds, non-territorial birds?

Parameters: Density (and thus population size), nest success, take

Accuracy target: TBD (CVs < 0.10?) [Biol. Opin. implied complete counts, thus CVs = 0]

Methods

Brief description: area searches, nest-monitoring
Statistical population: area-times; nests (or nest-days)
Sampling plan: Stratification, rest TBD
Field methods: From past ILT work and literature
Needed sample sizes: TBD based on analysis of past data
Data management: ???
Analysis and reports: ???
Roles and responsibilities: ???
Schedule: ???