

The 10 Biggest Challenges in Bird, Inventory and Monitoring

Which migratory routes will monitoring take next?

The excitement of being out at dawn in a new habitat and tallying the birds as the day transitions between the hunters of the night and the birds of the early morning—this is a profound and tangible experience. It is one of the great joys of monitoring birds in the field. Long before this happens,

a lot of thinking and discussion have gone into selecting a monitoring or inventory method to use that can be replicated in future years (monitoring) or compared between other census stations in your area (inventory). And, hopefully, long after you have spent the enjoyable morning, your data will live on, providing essential baseline population information for present and future land-use decisions.

Deciding which specific method to use among the multitude of methods, objectives, applications, and products involved with bird inventory and monitoring seemed, only a few years ago, an impossible task. How to count Canvasbacks to make sure that hunters do not decimate the population is difficult enough, but what about the shy, retiring Blue Grouse? Many critically endangered species are so rare as to almost preclude a one-time inventory, let alone long-term monitoring.

As information on the decline of bird populations became more available, the need for an adequate assessment of populations became obvious. We have done much since then in meeting these needs, and we have much to do.

Probably the most profound step has been the realization among investigators, biologists, and administrators that as we look to continent-wide evaluations of species we need a suite of common methodologies. This is more difficult than one might first suppose, as a methodology with the proven value of a Breeding Bird Survey or Christmas Bird Count is hard to translate into more complex methods.

But we must have a suite of common methods used by disparate groups of researchers, volunteers, consultants, agency



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personnel, and students. The ultimate payoff is potentially magnificent. For instance, I estimate about one million point count censuses are conducted each year in North America. In these censuses a person stands in one location for a set period of time (usually between three and ten minutes), and counts every bird seen or heard. Bringing all these points of light together, with point locations, and a measure of the vegetation, is one of the many

challenges facing us. I also estimate that, at present, the half-life of these hard-earned data is about three years. About ten percent per year are lost in dusty files, notebooks, and de-archived data sets on old computers.

There are many challenges facing us in monitoring over the next few years. The following are ones on which I, personally, would like to see significant progress made.

1. Development of an international data base for landbird point counts, housed in one or more national, state, or provincial data centers.

2. An accepted methodology for doing ground-based vegetation assessment to help characterize a census station for regional comparisons.

3. A widely-accepted method of monitoring small owls that is practical and replicable.

4. A monitoring network of landbird migration stations throughout the continent to give us insight into productivity and survivorship, as well as routes and dangers attendant to migration.

5. A viable network and accepted methodology of monitoring waterbirds, especially shorebirds, that incorporates the very important ephemeral habitats that include agriculture fields, and seasonal wetlands.

6. A regular monitoring of the productive nearshore waters and bays in all seasons, including sea ducks, alcids, gulls, loons, grebes, and other species that are very likely to be negatively affected by human activities, especially oil pollution.

7. Implementation of a colonial water bird monitoring methodology, especially including those species often nesting in small scattered colonies, such as some cliff-nesting seabirds, and tree-nesting herons.

8. An international data base for each group of birds, as methods are adopted, such as that proposed above for landbirds.

9. A regular method of communication between monitoring and inventory workers to keep people informed of the methods being used in taking information, analyzing it, and disseminating it.

10. A series of expert consensus workshops from biologists and managers on the desirable level of statistical power for monitoring trends or population sizes.

To help move this forward, the PIT Inventory and Monitoring Working Group is planning to host an international Partners in Flight meeting in Monterey, California in October 2001. Each of the ten items above can be addressed and made the subject of workshops or symposia by convening experts. We expect that partners from other parts of PIF other bird initiatives, including shorebirds, seabirds, raptors, and others, will also participate. If you are interested in attending or helping organize workshops or symposia, please contact me.

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