

Wild Things Workshop for Stewards and Monitors
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 Notes by Karen Glennemeier

Session V:

Monitoring

Resource Experts:

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Rich Hyerczyk, Lichenologist and monitor

Scott Kobal, Ecologist, Forest Preserve District of DuPage County

Susanne Masi, Chicago Botanic Garden and Plants of Concern Director

Judy Pollock, Director of Bird Conservation, Audubon-Chicago Region

Jim Steffen, Chicago Botanic Garden

How do you measure progress/success in restoration efforts? How do you know when things aren't going right?

When looking at individual species, it's fairly straightforward to track increases and decreases in population size. Community-level evaluation is more difficult.

For plants, we use metrics like the Floristic Quality Index, Average Co-efficient of Conservatism, abundance of grasses and sedges, abundance of invasive species.

Most of our monitoring is necessarily long term. But sometimes dramatic, quick changes happen and we need to be there to see them.

In some cases the goal may be stability – a flat line of population size over time – rather than always wanting the populations to be increasing.

It can be hard to know what we are “restoring to.” Working with stewards and land managers is key for knowing what our monitoring goals are.

From a conservation perspective, it's important to monitor the most important species – whether these be federally endangered species, globally rare birds that are doing well in our restorations, bur oak seedlings, or butterfly species with specific prairie host plants.

The Bird Conservation Network has done an extensive analysis of bird trends in the region, and it can be found at <http://bcnbirds.org/trends07/>.

Butterfly data are giving us some phenology information that may be important climate change information. Phenology is the study of the timing of ecological events – for example, the average first flower date for a plant species.

How many plots or transects should I establish in order to gauge the quality of my site? It's good to have at least three plots or transects. Overall, try to get from 40 to 100 quadrats at a site, ideally spread among at least three transects or plots. After collecting data and looking at the results, you can get a feel for whether you need to add additional sampling, depending on how representative the data are of the area.

What are some examples of how monitoring plants or wildlife has been instrumental in making change occur through management response? What are other ways in which monitoring data are used?

Susanne Masi has many examples where Plants of Concern monitors alerted land managers to a threat such as encroaching invasive species or imminent trail construction, and got a terrific response from the land managers. They removed the invasives, re-routed the trail, and saved the endangered species populations.

The 2001 Cook County Land Audit showed widespread degradation in the plant communities across the forest preserves of the county. These results sparked massive changes in the District's staffing, budget, and goals. Then in 2007, the Audit was repeated and showed that degradation still continued. As a result, the District has budgeted \$3.5M for land management every year since then, and that budgeted number is set to increase in 2010.

A DuPage County Board member emphasized the importance of having strong data to demonstrate whether the Board is spending the tax payers' money wisely. Photographs are a very important component of this, to easily demonstrate what success and failure looks like.

Think about a simple narrative and packaging to go with the data – again, photos are key.

The monitor often knows more about a site than anyone else, and it's important to share what you know with land managers, stewards, and Board members or Commissioners.

It's important for monitors and stewards of a site to know each other and talk often. Look at the Habitat Project website's Connections page to find monitors and stewards at a site. www.habitatproject.org

You can ask for bird data from the Bird Conservation Network, through Judy Pollock, jpollock@audubon.org.

How does a person decide what's top priority for monitoring, and how often?

You can start with what you know how to identify. Also, species that are "charismatic" and beautiful make good stories for the public and decision makers, so to the extent these are telling us something about the ecosystem, they are good ones on which to focus. For examples, butterflies and leafhoppers may tell us similar things, but butterflies are a much easier story to tell – and an easier one for which to recruit monitors.

Try to focus on the more ecologically important species, such as remnant-dependent animals that can't easily migrate to other sites.

Most importantly, ask yourself this question: "Why am I monitoring, what do I want to find out?" This will guide which species you monitor and where.

Focus on things that affect system functioning if possible – much of these components are underground, so this isn't a very practical goal for most stewards and monitors.