

Restoration and Pollinators: Perspective from NCC

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Manitoba Ecological Restoration Workshop

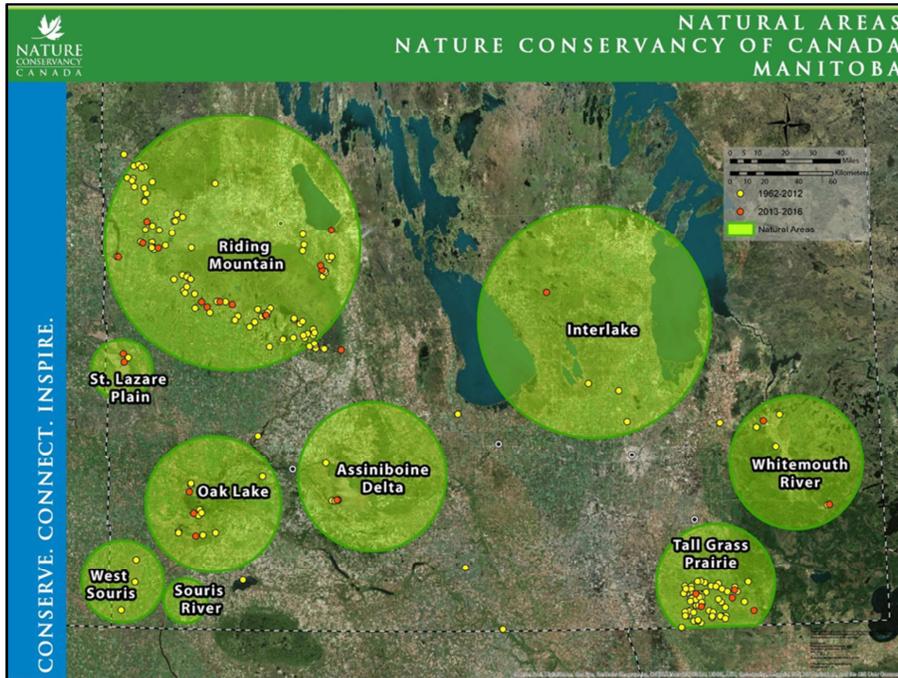


NCC's perspective

The Nature Conservancy of Canada leads and inspires others to join us in creating a legacy for future generations by **conserving important natural areas and biological diversity** across all regions of Canada



When it comes to restoration, are our management decisions contributing to our mission?



Genetic diversity: if we use the same genetics in projects all across the province, are we potentially reducing diversity in our natural areas

We also work in rare and at-risk ecosystems. We don't want to risk jeopardizing species and communities that are already under threat.

As a science-based organization, we want to incorporate best knowledge into our management practices, and in that process we identify knowledge gaps and research needs, and we partner with researchers and organizations to further conservation knowledge.



Importance of linking pollinators to restoration projects: appropriate species as well as appropriate phenology.

Diana Robson's work demonstrates differences in pollination communities across the province.

Persistence of restoration activities over time depends on biological linkages with pollinator communities.

At-risk Pollinators



NCC works with at risk pollinators: monarchs, Poweshiek skipperlings, potentially others like Dakota skippers, Garita skippers, *Bombus terricola*, etc

In sum, NCC has many interests in linking restoration with questions of genetics, local sources, links with pollinator communities: protect existing biodiversity, enhance restoration “success” (where success is maintaining native communities, diverse restorations, providing habitat for species), providing habitat for at-risk pollinators.







NCC's work in Manitoba



So with these goals in mind, NCC has ongoing work that incorporates questions of restoration and of pollination.

Monarch Butterfly Habitat Restoration



The first is our Monarch Butterfly Restoration Project at the Tall Grass Prairie Preserve. The objective for this project was to improve monarch habitat, which includes larval habitat (milkweeds), as well as nectar sources for adults as they arrive at TGP, and after they emerge and before they migrate south.



The site was a tame grassland that had been cultivated in the past. Woody species were mowed and treated with herbicide, the site was hayed to remove vegetation and then soil was turned to allow better seed-soil contact.



122 local native species were collected, both mechanically and by hand.
All seed was collected within 5km: grasses and wildflowers. In this case, our goal was to make sure that the phenology and the genetics were appropriate for a pollinator-focused restoration project.
2012-2014.

Land Management



Installing permanent cover



We often seed formerly cultivated areas back to permanent cover

Revegetating old roads or pipelines also comes up.

In this work, pollinators has not been a focus, however, we would like to be able to ensure that we do consider pollinators going forward....

Assessing our restoration work



Being able to assess restoration/revegetation work is important to NCC so that we can make changes over time and continually learn and improve (adaptive management). At the monarch restoration, long-term veg monitoring plots were set up. Data can be compared to a control in an unrestored area.

Also working to develop pollinator habitat assessments: applies to broader pollinator community. Can use as a tool to monitor how our management work, including restorations/revegetation work, affects the general pollinator community.

Challenges



Seed availability and cost



Developing policy and guidelines



Currently NCC MB has a statement on seed sourcing but no guiding policy. Need to develop one, based on best knowledge/science to guide our practices into the future.

This would need to incorporate questions of local in order to address the priorities I described earlier (biodiversity, pollinator match-up, conserving at-risk spaces and species). Incorporating research is also key to developing meaningful policies. Research from North Dakota and Minnesota can help with some of this.

Interim Decisions



Policy can also help us make interim decisions.

If preferred seed is not available, what is our next step?

When planting, should we use tame (non-spreading) species or should we use less-than-local native species?

Research like Jill's can help us as we develop answers to these questions.



Thank You.

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