

New Fern Locations Discovered

While investigating limestone outcrops last summer, Manitoba Conservation Data Centre Botanist Elizabeth Punter discovered a new occurrence of Cliff-brake (*Pellaea glabella* Met. ex Kuhn ssp. *occidentalis* (E.E. Nelson) Windham), the first new record since 1972. The Cliff-brake was previously known from only four localities.

Later in the summer, on a field trip in the company of Manitoba CDC Ecologist Jason Greenall, and University of Manitoba Botanists Dr. Bruce Ford, Dr. Norm Kenkel, and Dr. Dave Punter, two more occurrences of the Cliff-brake were found north of Grand Rapids.

One of the purposes of the joint CDC-U of M field trip was to locate the 1982 record of the Limestone oak fern (*Gymnocarpium robertianum* (Hoffman) Newman) known only from two localities in Manitoba.

After some searching, the Limestone oak fern was found in the general area of the 1982 occurrence. Further searching located another occurrence several kilometres away.

While Limestone oak fern's range is northeastern North America, it is rare in every province or state in which it occurs.

"Locating these plants involved a bit of detective work. It was quite satisfying to be able to find these two species of ferns still extant in Manitoba," says Elizabeth.

Field surveys locate and collect data on species of interest, number of plants, potential threats, habitat, ecology, reproduction, predation, and mortality.

This information will be used to develop the CDC database, and assist with future strategies for conservation and maintenance of plant biodiversity. ✪

MANITOBA CDC ON THE WORLD-WIDE WEB (WWW)

As of September 1, 1995, access to the Manitoba CDC became even easier with the debut of its own Internet WWW "home page" on the Natural Heritage Network Central Server.

"The Manitoba CDC is an important source of biological information. Providing this information on the Internet will allow users an inexpensive and efficient way to use our data," says Ken Donkersloot, Information Manager at the Manitoba CDC.

All CDC/Heritage programs were offered access to the Natural Heritage Server as part of a cooperative agreement between the US National Biological Service and The Nature Conservancy (US).

To date, Manitoba is the only Canadian data centre with a home page on the network.

The Manitoba CDC home page offers a program overview, Manitoba's plant, animal, and natural community inventory status, procedures for contributing information and/or making a data request, contact information, and a staff list with biographies.

Manitoba CDC publications should be online by March. ✪

MB CDC's e-mail address:
mbcdc@lic.gov.mb.ca

WWW home page site:
<http://www.abi.org/nhp/canada/manitoba/welcome.html>

Butterfly Ranking Workshop

The status of Manitoba butterflies was reviewed in a workshop coordinated by the Manitoba CDC last September at the Manitoba Museum of Man and Nature.

During the workshop, twelve experts reached a consensus on status ranks for 167 species. More detailed reviews were documented for 34 butterfly species of special interest.

The CDC thanks the following workshop participants: David Delf, Brent Elliott, Terry Galloway, Don Henne, Paul Klassen, Osamu Kuroda, Brian McKillop, Chris Pederson, Bill Preston, Peter Taylor, Richard Westwood, and Florence Zawislak. ✪



Tiger Swallow Tail: One of Manitoba's 167 Butterfly Species

The Tiger Swallow Tail *Papilio glaucus* is the second largest butterfly species in Manitoba. It can be seen as far north as Churchill. Adults may be seen from May to August, sometimes up to 200' at a time drinking from mud puddles.

SOME REQUESTS WE'VE FILLED:

- A Manitoba biologist needed Baird's Sparrow nest data for a scientific manuscript
- A Manitoba consultant wanted a literature review for all plant species in southern Manitoba
- A US conservation organization asked for biodiversity information on a shared ecosystem
- An Alberta consulting firm requested species of interest information on a proposed twinning route for the TransCanada pipeline

Need Data? We Take Requests

Developing as Manitoba's most comprehensive database on flora, fauna, and natural communities, the Manitoba Conservation Data Centre is an invaluable tool for anyone interested in conservation planning, development planning, research, or education.

What We Have to Offer

The Manitoba CDC can extract and/or map specific biological information related to literature searches, species lists, species locations, etc. The data, collected from multiple sources, are entered into the system and quality-controlled by Manitoba CDC scientists.

How Do You Ask?

The information can be requested via phone, electronic mail, letters, or fax machines. To date, there have been over 90 requests for information, from Manitoba, Canada, the US, and as far afield as Finland.

The format of the response depends upon the nature of the request, which can be highly varied. Most requests are answered within a week. Sensitive data may be masked to protect a vulnerable species. The user must have written permission from Manitoba CDC before publishing information and credit the data centre as an information source. ✪

MANITOBA CDC GIVES DATA TO INTERNATIONAL PARTNERSHIP

The Manitoba Conservation Data Centre is providing data on Manitoba plants, animals, and natural communities to the Great Plains Partnership (GPP), a multipartner group working together to protect and restore the health of the Plains' ecosystems in ways that are

compatible with, and supported by, local residents and private landowners.

The Partners

The GPP was formed in the early 1990's by the Western Governor's Association in the US.

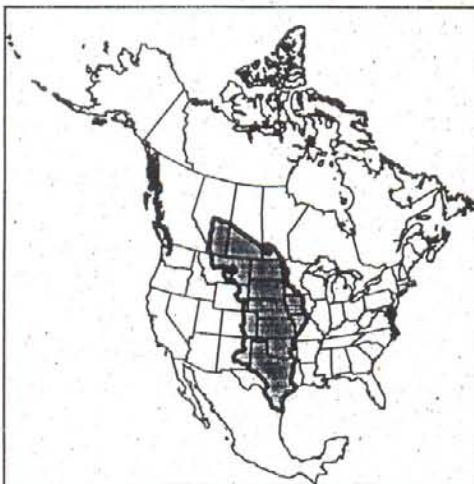
The GPP area consists of the Great Plains region in the US (13 states) and the Canadian Prairies (3 provinces). The GPP includes state/provincial and federal agencies, aboriginal bands, and representatives of agricultural, environmental, business and other interests. Manitoba is the only Canadian province involved in the project to date.

Our Role In The GPP

When Manitoba was asked to identify biologically significant landscapes, the CDC was the logical source.

Using their comprehensive database, individual knowledge, and consultations with the science community, CDC staff identified eight landscapes in southern Manitoba.

These areas were chosen based on their natural vegetation, size and the degree to which they have been impacted. Their significance as biologically diverse, relatively intact ecosystems, has made them priorities for data collection by the Manitoba CDC. ✪



Great Plains Partnership area of interest

BioNet

is published by The Manitoba
Conservation Data Centre.

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New GIS Speeds Progress

The much anticipated Geographical Information Systems (GIS) software is working accurately and performing to expectations at the Manitoba Conservation Data Centre since its installation in September of 1995.

Called the Biological Information Spatial System (BISS), this software allows a user to map plant, natural community, and animal occurrences on computer maps, a traditionally time-consuming, manual process.

"BISS has significantly increased our productivity in mapping elements of biological interest," says Ken Donkersloot, Information Manager at the Manitoba CDC.

The Nature Conservancy (US) and several other CDC/Natural Heritage programs have shown interest in BISS, as it is designed to work with the Biological and

Conservation Database (BCD) software developed by The Nature Conservancy.

Once sufficient data is available, the Manitoba CDC hopes to use BISS for various types of analytical tasks related to monitoring species and natural communities of interest.

To date, 433 managed areas and over 1000 animal, plant, and natural community occurrences are in the system. ☆

Recent Publications

Anonymous. 1995. Canadian Biodiversity Strategy - Canada's response to the Convention on Biological Diversity. Minister of Supply and Services Canada, Ottawa, Ontario. 77 pp.

A response to the obligations associated with Canada's signing of the United Nations Convention on Biological Diversity at the Earth Summit in June 1992. The Strategy promotes conservation of biodiversity, sustainable use of our biological resources, and describes how Canada will contribute to international efforts.—*Jason Greenall*

Given, D. R. 1994. Principles and practice of plant conservation. Timber Press, Portland, Oregon.

This book, sponsored by the WWF and IUCN, is the first exhaustive and systematic treatment of plant conservation.—*Elizabeth Punter*

Johnson, D., L. Kershaw, A. MacKinnon and J. Pokar. 1995. Plants of the eastern Boreal forest and Aspen Parkland. Lone Pine Publishing, Edmonton, Alberta. 392 pp.

A field guide to ferns, fern allies, conifers, flowering plants, mosses, liverworts and lichens. Keys, a brief description, and illustrations are given for commonly encountered species from Western Ontario to Alaska. In addition, the aboriginal use of plants as food, medicine and in daily life is described.—*Elizabeth Punter*

Morgan, J. P., D. R. Collicutt, and J.D. Thompson. 1995. Restoring Canada's native prairies—a practical manual. Prairie Habitats, Argyle, Manitoba. 84 pp.

Guidelines for people interested in prairie plant community restoration in western Canada and southern Ontario. The book covers the steps involved in restoration, including site planning and preparation, seed acquisition, planting techniques, and site management.—*Jason Greenall*

Nero, R., 1995. Barn owl nesting in Manitoba. Blue Jay 53 (3): 159-66.

First documented nesting of this species in Manitoba and the prairie provinces.—*James Duncan*

Plant Talk: plant conservation worldwide.

The first magazine devoted to global plant conservation. Features include plant conservation around the world, conservation activities, biodiversity issues, new protected areas, books (floras, new Red Data books) and book reviews.—*Elizabeth Punter*

Taylor, P. and R.F. Koes. 1995 Rare and marginal winter passerine birds in Manitoba. Blue Jay 53 (3): 148-58.

Describes the influence of winter bird feeders on the distribution and range expansion of this diverse group of songbirds.—*James Duncan*

Manitoba CDC Finds Ideal Habitat in Wildlife Branch

The Manitoba Conservation Data Centre is a particularly good fit with the recently restructured Manitoba Department of Natural Resources Wildlife Branch. The Wildlife Branch's mandate is to manage wildlife resources with a focus on ecosystem management.

The three other sections of the Wildlife Branch, Game and Fur Management, Habitat and Land Management, and Nongame and Endangered Species Management, will greatly benefit from the Manitoba CDC's ability to provide a centralized, science-based database on Manitoba flora, fauna, and plant communities.

The CDC's database can assist with evaluation of environmental impact assessments, determination of conservation priorities, monitoring of species, and other Wildlife Branch tasks.

Through the CDC, the Wildlife branch has gained access to an international network of over 80 data centres, increasing Manitoba's ability to contribute to both local and global conservation efforts. ☆



Birds of Manitoba

Manitoba CDC staff and over 20 volunteers transcribed and mapped 11,453 bird nesting record cards of 199 species, to be used in the Manitoba Naturalists Society *Birds of Manitoba* book.

The transcribed data not only enlarged the Manitoba CDC database, but will be merged with GIS technology to produce accurate bird location maps for the book. In the works for ten years, the book should be published in 1997.

The transcribing was finished two months ahead of schedule, thanks to the initiative of volunteer-turned-staff member, Rosemary Trachsel.

Rosemary coordinated intensive bird card transcribing workshops with groups of volunteers, which resulted in a quick wrap-up of the project. ✨

OUR DEDICATED VOLUNTEERS

Assistant Ecologist/GIS Tech:

Jeff Turner

Assistant Botanist: Suzanne Thornton

Assistant Ecologist: Jennifer Lashek

Assistant Zoologists:

Kelly Hamilton

Giselle Mak

Kim Koons

Tanya Rusnak

Birds of Manitoba:

Nadira Čardzić

Allan Benoit

Susan MacLean

Rennie Cook

Rob Sigurdson

John Pascual

Rosemary Jackson

Jason Wells

Gloria Havens

Robert Boni

Liesel Jansson

Pat Caron

Reinhard Jansson

Alice French

Anne Koprojda

Bill Moroz

Sylvia Marshall

Louis Maric

Brian Williams

Don Barker

Darryl Baptiste

Glenda Bultr

John Wherrett

Donna Webb

CHANGING FACES

Publicist: Roberta Anderson has a 3 week work grant to produce *BioNet*.

Assistant Botanist: Suzanne Thornton wants to gain work experience to supplement her Biology degree.

Assistant Zoologists: Tanya Rusnak studies Zoology and hopes to learn more about the discipline.

Kim Koons and **Giselle Mak** have Geography degrees and want to gain experience in GIS.

Assistant Ecologist: Jennifer Lashek wants to complement her studies in Environmental Science. ✨

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The Manitoba Conservation Data Centre was initiated by:

- ❖ Manitoba Museum of Man and Nature
- ❖ The Nature Conservancy of Canada
- ❖ The Nature Conservancy (United States)
- ❖ Manitoba Department of Natural Resources

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