

### GIS Software a Success

The Geographic Information System (GIS) developed to help the Manitoba CDC with mapping has been purchased by The Nature Conservancy (TNC).

Developed in conjunction with Linnet Geomatics International Inc. the software is designed to work with the Biological and Conservation Database used by all CDCs. Rob Solomon, Acting Director of Conservation Systems, with TNC said the GIS package is just what was needed.

"We were impressed by the direct way that Linnet was able to translate the CDC needs into an application," Rob said. "They were willing to listen and learn from the staff at the Manitoba CDC in order to deliver a more useful product."

Ken Donkersloot, former Manitoba CDC information manager, was instrumental in developing the program with Linnet. TNC was informed of the GIS systems' development from concept to completion.

TNC is currently developing a method which will ease the implementation of the GIS system into other CDCs.

The Manitoba CDC is the first to work with an external organization to develop a product for distribution by TNC. Other CDCs in Canada and the United States were working on creating GIS systems. The key benefit of Manitoba's GIS is the system's ability to simplify the way in which data flows between the CDC's database and the GIS. ■

### New Role for the CDC

The CDC is a key contributor to Manitoba's Endangered Species Advisory Committee (ESAC).

The ESAC recommends plants and animals to the Minister of Natural Resources for protection under *The Endangered Species Act*. The CDC researches species for review by the committee.

"We are particularly efficient because we are tied into a larger network of information," said Jim Duncan, CDC zoologist. "We don't over or under-generalize. We provide the range-wide status of a species, provincially and globally." Criteria used to evaluate a species include the number of living and protected occurrences, population size, and population threats and trends.

Merlin Shoesmith, Assistant Deputy Minister of Natural Resources, said the CDC's contributions have become a vital resource for the committee.

"The CDC has become a mini-centre of excellence for technical and biological expertise on endangered species," Shoesmith said. ■

### Good Demand for Manitoba Plant List

A listing of Manitoba's vascular plants printed in 1995 has quickly become one of the CDC's most requested documents. Over 340 requests have been received for the publication compiled by CDC botanist Elizabeth Punter.



"Some of the plant species once found in Manitoba haven't been seen in a long time," Elizabeth said.

"The Gumbo-lily, for instance, hasn't been seen since before the Second World War."

Information for the listing was compiled through a review of existing literature and herbaria collections. The publication is currently being updated and a new edition will be available this year. To request a copy of *Manitoba's Vascular Plants* contact the CDC. ■

### The Manitoba Conservation Data Centre was initiated by:

- Manitoba Museum
- The Nature Conservancy of Canada
- Manitoba Natural Resources
- The Nature Conservancy (United States)

Manitoba  
Natural Resources

Hon. J. Glen Cummings  
Minister



### Owl Symposium Proceedings Now Available

CDC zoologist Jim Duncan had his hands full of owls last year in February. Jim helped to organize an international symposium on owls in the Northern Hemisphere.

Approximately 300 owl enthusiasts from all over the world attended the symposium in Winnipeg. The presentation of scientific papers was combined with an owl carving and sculpting competition, a photography and art exhibit, and workshops.

Jim, who gained his Ph. D. studying great gray owls, was able to cap the symposium off nicely for delegates on the last day.

"The prairie field trip coincided with an amazing irruption of owls," Jim said. Species sighted included great gray owls and Northern hawk owls. "The delegates couldn't figure out how we arranged it."

The overwhelming success of the symposium has driven the organizers to start planning the next event for the year 2000.

Symposium proceedings are available through Manitoba Natural Resources. ■



Great Gray Owl  
illustration by R. Koes

## Manitoba's Tall Grass Prairie Exemplary

*A network of over 85 conservation data centre databases exists across the Western Hemisphere. The international scope of information available through conservation data centres allows local and regional data to contribute to national and international conservation planning.*

Ecoregional planning moves conservation efforts beyond species within political borders to focus on habitats. The long-term survival of a plant or animal can be reinforced by maintaining a functional ecosystem. The first ecoregion targeted for conservation planning by The Nature Conservancy and its conservation data centre partners was the Northern Tall Grass Prairie which ranges from southern Manitoba to northern Nebraska and Iowa.

**An ecoregion is an area with similar climate and geography that can be broken down into smaller provinces, units or subunits. The Northern Tall Grass Prairie is a subunit of the Prairie Parkland ecoregion which stretches from Manitoba to Nebraska.**

In April 1997, representatives from conservation data centres within the Northern Tall Grass Prairie ecoregion met in Minneapolis to discuss where regional conservation efforts should be bridged.

The occurrences of high priority species and plant communities were mapped for the ecoregion. This map was compared with a map that identified protected areas such as parks and wildlife management areas. Locations with a high number of occurrences and minimal protection indicated targets for future conservation work.

Manitoba's tall grass prairie was repeatedly identified as an area of high priority for further study and conservation since it has some of the best examples of native species and habitats in the ecoregion. ■

### NEW CDC Reports

- Conservation Status Ranks of the Mammals of Manitoba (97-01)
- Conservation Status Ranks of the Fishes of Manitoba (97-02)
- Conservation Status Ranks of the Butterflies of Manitoba (97-03)
- Conservation Status Ranks of the Gastropods of Manitoba (98-01)
- Conservation Status Ranks of the Tiger Beetles of Manitoba (98-02)

### Second Data Exchange with TNC Completed

The Manitoba CDC just completed the second exchange of biological data with The Nature Conservancy's (TNC) central database in Arlington, Virginia. The TNC compiles and updates data received from conservation data centres across the Western Hemisphere.

TNC then supplies updated data to all conservation data centres.

"The exchange is mutually beneficial," said François Blouin, CDC information manager. "We have updated information on each species across its entire range." ■

## ■ CDC Project Updates

### Community Pasture Inventories

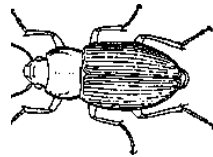
The CDC was contracted by Prairie Farm Rehabilitation Administration (PFRA), Manitoba Habitat Heritage Corporation and the Canadian Wildlife Service to prepare biological inventories on two of Manitoba's community pastures during the summer of 1997.

An overview of plant communities was prepared for the Wallace PFRA community pasture located north of Virden. A more extensive inventory was undertaken on the Gardenton community pasture in southeastern Manitoba. This area lies between the well-researched Tall Grass Prairie Reserve and the Canada/United States border. It represented a gap in the CDC's data.

Nine different community types were identified in the Wallace pasture including prairie, forest, wetlands and

cultivated lands. Of the 236 types of species found, 86 per cent were native to Manitoba.

Although the Gardenton inventories for plants and animals started late in the season, beetle species not known to exist in the area were found. Another interesting find was an occurrence of the endangered Great Plains ladies'-tresses orchid. ■



Ground Beetle

(from *Insects, the yearbook of agriculture*, U.S. Department of Agriculture, Washington, DC, 1952)

### Fescue Grassland Inventory

The conservation data centres in the three Prairie provinces have joined with Parks Canada to develop a national fescue grassland inventory.

Most of North America's remaining fescue grasslands can be found in the Canadian Prairies. ■

### Rare Plants in Manitoba's Forests

The Canadian Forestry Service (CFS) has contracted the CDC to identify occurrences of rare plants within selected forested areas of Manitoba.

Elizabeth Punter, CDC botanist, and her assistant, Steven Kembel, have already begun the task by consulting herbarium records. The CDC database of recent occurrences will also be consulted for the project. Rare plant occurrences are also being mapped in the geographic information system.

Ultimately, the CDC will develop maps for the CFS which will allow habitats of rare species to be identified within forested areas.

The project is an opportunity for the CDC to supplement the database with new information on species and their range in Manitoba. ■

## CDC WORKSHOP

### Biodiversity Field Inventories

The CDC held a workshop March 5 and 6 for people involved in biological inventories.

Jason Greenall, CDC botanist/ ecologist, said CDC staff are regularly in contact with people who express interest in knowing more about what other biologists are doing.

"We took it upon ourselves to bring people together," Jason said. Thirty-five people presented papers at the workshop outlining vertebrate,

invertebrate and plant field inventories planned for 1998.

Approximately 60 people attended the event held at the Viscount Gort Hotel in Winnipeg. In addition to sharing information, the workshop also provided networking opportunities for partnership development, resources and support.

"We have had excellent feedback from workshop attendees," Jason said. "We intend to continue providing biologists with this opportunity." ■

## ■ Staff & Volunteer Updates

The Manitoba CDC is delighted to report that Manitoba Natural Resources increased its support in 1997. Although still the product of a partnership, the CDC has become more closely allied with the Wildlife Branch of the Department.

"We interpret the increased support as a vote of confidence in the CDC," said Carol Scott, Chief of Conservation Data and Nongame Management and the manager of the CDC. "Manitoba Natural Resources, and the Wildlife Branch in particular, see the CDC as an integral component of biodiversity protection in Manitoba." ■

Ken Donkersloot has left the CDC to pursue other interests in the field of biology. François Blouin, from St. Malo, Québec, has assumed the information manager position. François' educational background is in biology and wildlife management. He earned his master's degree studying greater snow geese.

"Natural history is of great interest to me," François said. "I find working with rare and endangered species very interesting and very appealing."

François is currently updating the CDC's home page to allow Internet users to make online queries about Manitoba species. ■

Who said volunteering doesn't pay? Former CDC volunteer Jeff Turner has been contracted to help with Web page development after spending three years helping out at the CDC. ■

Congratulations to former volunteer Roberta Anderson who is a new mom to baby Karen. ■

Former CDC volunteer Rosemary Trachsel is now manager of the Used Building Material Association in Winnipeg. ■

*Volunteer opportunities exist for people with biological training and/or experience with GIS systems and databases.*

### **The following companies and organizations have contributed to the development of the Manitoba Conservation Data Centre:**

- Canadian Wildlife Service, Environment Canada
- Cargill Limited
- Centra Gas Manitoba Inc.
- De Fehr Foundation Inc.
- Dominion Tanners, A Division of United Canadian Shares Limited
- Ducks Unlimited Canada
- ENSIS Corporation Inc.
- Falconbridge Limited
- Gendis Inc., Sony of Canada Ltd.
- Gray Owl Fund
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- Kleysen Transport Ltd.
- Linnet Geomatics International Inc.
- Louisiana-Pacific Canada Ltd.
- Manitoba Hydro
- Manitoba Naturalists Society
- Manitoba Peregrine Committee
- Manitoba Wildlife Rehabilitation Organization
- Nature Saskatchewan
- Northern Forest Owl Symposium Award Fund
- Shell Environment Fund
- The Nature Conservancy (Minnesota Chapter)
- The Wawanesa Mutual Insurance Co.
- The Wildlife Society, Manitoba Chapter

### **Manitoba Conservation Data Centre Staff**

**Box 24, 200 Saulteaux Crescent, Winnipeg, MB, CANADA, R3J 3W3**

**FAX (204) 945-3077**

**EMAIL [fblouin@nr.gov.mb.ca](mailto:fblouin@nr.gov.mb.ca)**

**HOME PAGE <http://www.heritage.tnc.org/nhp/canada/mb>**

#### phone

Carol Scott.....Manager.....(204) 945-2911  
[cscott@nr.gov.mb.ca](mailto:cscott@nr.gov.mb.ca)

Elizabeth Punter.....Special Project Botanist.....(204) 945-8481  
[epunter@nr.gov.mb.ca](mailto:epunter@nr.gov.mb.ca)

Jason Greenall.....Botanist/Ecologist.....(204) 945-2912  
[jgreenall@nr.gov.mb.ca](mailto:jgreenall@nr.gov.mb.ca)

François Blouin.....Information Manager.....(204) 945-6998  
[fblouin@nr.gov.mb.ca](mailto:fblouin@nr.gov.mb.ca)

Dr. James Duncan.....Zoologist.....(204) 945-7465  
[jduncan@nr.gov.mb.ca](mailto:jduncan@nr.gov.mb.ca)

Elaine Weiss.....Administrative Assistant.....(204) 945-7743

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*Watch the CDC's home page for postings of this issue and future issues.*

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