



The Manitoba Chapter Wildlife Society Newsletter



**Winter
2005**

THE WILDLIFE SOCIETY

March 2005

Excellence in Wildlife Stewardship Through Science and Education



Presidents Corner

Thoughts and Tribulations

In the world of politics, which come to think of it is really not much different then in most professions, I've learned a thing or two about staying in the game... that anything you said in the past can come back to bite you in the ass and does (so watch what you say), and two, what you don't know today can haunt you tomorrow (so stay informed). There is no such thing as complacency in politics as you are always struggling to stay ahead of your opposition plus maintaining your place in the game. The same can be applied to the wildlife profession. With ever changing landscapes, conflicting demands and tightening budgets, we are challenged to be more innovative and resourceful. With almost daily advances (ok perhaps only monthly) in computer systems and the latest in technology from GIS Software, GPS's, Telemetry, Radio collar technology, Remote Sensing, and population modeling programs to various data collection and management techniques, it is increasingly difficult to stay on top of the game. Even more critical is the need to remain current and to be familiar with topics and issues of the day, and the science related to them. By attending conferences, seminars, workshops,

publishing articles and original research, wildlife professionals remain informed and connected within the profession (this is especially important in today's fluctuating job market and increasing competition for fewer and fewer jobs).

The Manitoba Chapter of The Wildlife Society offers many of these opportunities to stay informed and network through various seminars and social functions. This past year, the Manitoba Chapter organized many activities including - a joint AGM and all day Research Seminar Series (last March), co-hosted the TWS Conference in Calgary with the Alberta Chapter in September, organized a special Holiday Presentation and festive mixer, and offered a GIS and GPS workshop at our annual Delta Get Away this past February at the beautiful University of Manitoba Field Station on Lake Manitoba (highlights of the holiday special presentation and Delta Getaway can be found further in this newsletter).

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We are now in the midst of finalizing the upcoming Annual General Meeting being held March 17, 2005 at Fort Whyte Centre (watch your e-mail for details). Future endeavors include a past presidents meeting to look at the future direction of the MB Chapter and hopefully one or two field excursions. As we are always looking for new ideas, speakers, and articles for the newsletter, I encourage anyone interested in becoming more involved with chapter activities to contact us. I'd like to finish by saying that I have truly enjoyed serving the MB Chapter as President and encourage all members to remain active in Chapter activities and within the wildlife profession.

Hope to see you all at the AGM on March 17! *Alex Miller*

Impacts of Global Change on Wildlife

TWS released its technical review of *Global Climate Change and Wildlife in North America* in December 2004. Some of its findings include:

- Habitat and wildlife species are predicted to generally move northward as temperatures increase.
- Urban sprawl and agriculture may close off corridors to some species of wildlife attempting to move northward.
- In forested areas increased incident of disease and insects can be expected.
- A rise in sea level will displace some wildlife species as wetlands disappear.
- In the Prairie Pothole Region a major decline of wetlands and breeding ducks can be expected by 2080.

According to the authors (Douglas Inkley, *et al.* 2004) "Global warming presents a

profound threat to wildlife as we know it in this country."

Please visit www.wildlife.org if you wish to order this publication. - *Rick Riewe*

CHAPTER NEWS

GIS, GPS and Wildlife

Conservation:

Highlights from the Delta "Get- Away" Weekend, 2005

The weekend started off well with the promise of good weather for our Saturday activities. Rick Baydack and colleagues arrived at Delta early on Friday evening, got the festivities underway and had a roaring fire going by the time most of us showed up. After settling into our accommodations Rick Riewe educated and entertained us with a contrasting review of life as a fisherman on the east coast versus west. After Rick's enjoyable presentation we were entertained by the singing/guitar of Ken Hodges accompanied by Rick R. on his drum. This writer retired for the evening while Ken was still singing, but I hear the merriment went on well into the night.

Saturday morning started bright and early. We watched several groups of ice-fishers head out onto the ice while we ate breakfast and we discussed how many fish we might catch later that afternoon. We began the morning session with an excellent overview of GIS by Dave Walker (see article in this newsletter for more details on Dave's presentation). Following Dave's introduction to GIS several case examples were presented. Doug Schindler provided examples of home range analysis and habitat selection from marked woodland caribou. I gave a talk about the use of spatially explicit

models in conservation planning for waterfowl. Jennifer Ledgett demonstrated how knowledge from trappers is incorporated into GIS databases and incorporated into the model forest management plans. Ryan Brook gave an interesting presentation on his study looking at elk/agriculture conflicts based on a sample of GPS collared elk near Riding Mountain. We ended the “indoor” session with an overview on the latest GPS handheld technology from Wholesale Sports.

While we had been cloistered in the seminar room, a high wind had kicked up off the lake resulting in near zero visibilities at the station. Needless to say we were forced to cancel the “great perch search” and the inaugural geo-caching adventure. However, on the bright side Dave Walker and his crew had set up the computers in the lab with GIS programs and spatial data for us to try out what we had been introduced to that morning. Many of us took this opportunity to hone our GIS skills. We were treated to a roast beef dinner for supper and then retired once again to the lodge to exchange tall tales (and a mean round of “trivial pursuit”) around the fireplace.

Most of us slept in on Sunday and then had a hearty breakfast before we headed back home. Once again the Delta Get Away weekend provided us with the opportunity for professional development and the occasion to spend time with old friends and a chance to make new ones. - *Karla Guyn*



GIS Overview

Delta “Get Away” Weekend, 2005

Dr. David Walker from the Faculty of Environment, Earth, and Resources at the University of Manitoba with assistance from Grant Wiseman from Manitoba Conservation presented a workshop on Geographic Information Systems (GIS) for Wildlife Professionals at the Delta Weekend Getaway. The goal of the workshop was to, “introduce the use of GIS in the Wildlife profession and Environmental Science”. The workshop was focused on three areas/skills of GIS: GIS and layer model, examining vector-based habitat approaches; GPS, examining GPS coordinates and upload/download to mobile GIS; Remote Sensing, examining how Remote Sensing technology is used. The workshop was comprised of two sections, a lecture presented by Dr. Walker followed by a hands on workshop in the computer lab.

The lecture began with a general overview of GIS and its application to wildlife and resource management. The overview included a historical look at the development of GIS including Canada’s position as a leader in the development of GIS with its creation of the Canadian Land Inventory in 1965. The historical overview was followed by a review of modern GIS. The overview of modern GIS included a look at the main components of a GIS including software, hardware, databases, people, and applications.

The application of GIS in wildlife/resource management was presented in a real world model. Dr. Walker demonstrated the use of GIS in a case study of *The Loss of Tall Grass by utilizing Raster and Vector GIS and the layer model in*

understanding shrub encroachment at the St. Charles Rifle Range. In this example Dr. Walker was able to highlight a number of core components of GIS, including spatial analysis, GPS, layering, data sources, and data types.

The second half of the workshop was completed in a computer lab. The computer lab allowed participants to work through a variety of applications from the most basic functions to advanced data analysis. Both Dr. Walker and Grant were on hand to answer any questions and provide instruction for users.

The GIS workshop provided an excellent summary of utilizing GIS in wildlife and resource management. The combination of lecture and lab work was an excellent learning opportunity for all who attended!

2004 Christmas Mixer and Open House a great Success!

The Christmas mixer and open house, held on November 30, 2004 at Fort Whyte, was well attended by students and professionals (approx. 45 attendees). Dr. Mike Campbell, professor from the U of MB Faculty of Recreation, charmed us with an insightful look into the role of Wilderness area in his presentation titled ‘The Green Spot on the Map – for wilderness or from wilderness’. The event also hosted representatives/volunteers from the Manitoba Wildlife Rehabilitation Organization who kindly brought several raptor ambassadors and donated several door-prizes. The evening presentations were followed by an opportunity to mingle with like minded individuals and a chance to see the raptors up close.

A big Thank You goes out to Mike Campbell and to the Manitoba Wildlife Rehabilitation Organization for helping us make this a great event and to all those who attended. Much student interest was shown through their attendance numbers and several new memberships were purchased. This event was a great success and hopefully will become a Manitoba Chapter annual event.

MEET YOUR EXECUTIVE

The last in a series of Bios from the 2004/05 Executive - Ed.

Karla Guyn *President Elect*

I am, what most would call, a “city kid” having grown up in Calgary, but my appreciation for prairie landscapes and associated wildlife came from spending summers at my grandparents’ cattle ranch near Pincher Creek. After a couple of “lost years” in general studies at university I transferred to Lethbridge Community College and obtained my diploma in Environmental Science. Re-inspired from this experience I went on to complete my B.Sc. in Wildlife Biology from the University of Montana in Missoula. After being introduced to the world of wetlands and waterfowl at the Delta Waterfowl and Wetland Research Station I went to the University of Saskatchewan where I completed M.Sc. and Ph.D. degrees in Biology. My Ph.D. work focused on Northern Pintail breeding ecology in southern Alberta. I have worked for Ducks Unlimited Canada since 1998, and currently work as a Conservation Programs Biologist for the Prairie Region. My main duties are the development of conservation planning tools for the prairies, and the use of these

tools in Ducks Unlimited’s conservation programs. I have continued my interest in pintails by leading DU’s Pintail Initiative, Chairing the Pintail Action Group and launching a new pintail research study this year. I have been involved with the Wildlife Society since first joining a student chapter at the University of Montana in 1986. In my free time I enjoy wilderness canoeing, gardening and training my horse.

Pat Bergen *Student Representative*

Pat Bergen is a Masters student in the Faculty of Environment, Earth and Resources at the University of Manitoba. His field of interest is wildlife management and conflicts in urban and near urban areas. He is currently working on his thesis project, examining the attitudes of residents in Greater Winnipeg toward urban geese and goose management techniques. Pat is also employed with Manitoba Conservation, Wildlife & Ecosystem Protection Branch as an Urban Goose Management Technician.

Monica Reid *Secretary/Treasurer*

I am working towards completing a MSc. in zoology at the U of M with a focus on small mammals in the boreal forest as my area of study. Currently, I am working as a research assistant for Dr. Pruitt and as a TA in the chordate lab.

STUDENT RESEARCH

Spatial Variability in the Water Chemistry, Nutrient Status and Hydrogeology of a Coastal Freshwater Marsh in South Central Canada, as Influenced by its Adjoining Large Lake.

Tara Bortoluzzi and Dr. L. Gordon Goldsborough,
University of Manitoba.

Tara was the 2004 Student Bursary Award Winner – Ed.

Hydrology is a key regulator of coastal wetland functions, including their ability to act as nutrient sinks, improve lake water quality, and provide critical habitat for fish, waterfowl, and other wildlife. However, compared to their ocean bordering counterparts, the hydrology of coastal freshwater wetlands has received little scientific attention. Over the past three years, the water chemistry, nutrient status and hydrology of Delta Marsh, an 18,500 hectare wetland located on the south end of Lake Manitoba in south-central Canada, have been examined to determine the influence of lake hydrology on wetland parameters. Results of the study have indicated that seiches on the lake caused by strong winds can have a significant influence on water levels and flow conditions in the marsh, as well as its chemical characteristics. Several parameters have been found to be positively correlated with increasing distance from Lake Manitoba, including inorganic nitrogen and phosphorus, salinity, specific conductance, alkalinity, pH, and several conservative ions including potassium, chloride and sulfate. The primary production of phytoplankton and periphyton at samples sites was also found to be highly positively correlated with the water chemistry parameters influenced by Lake Manitoba. Algal nutrient limitation by nitrogen and phosphorus decreased as

sites were located inland from the influence of the lake and closer to the surrounding upland watershed, which is primarily agricultural and appears to be the primary source of nitrogen and phosphorus to the marsh. These results indicate that lake hydrology can have a significant influence on the water chemistry and nutrient status of adjoining coastal wetlands.

Biography – Tara Bortoluzzi

Tara obtained her Bachelors of Science in Applied Environmental Studies from the University of Manitoba in 2001. Currently, Tara is in the fourth year of her PhD. program in the Botany Department, at the University of Manitoba. Her current PhD. research examines the hydrological influence of Lake Manitoba on the water chemistry and nutrient status of adjoining Delta Marsh. Tara hopes to be completed her PhD. by the summer of 2006, after which she plans on continuing her education and work on a post-doctoral project further examining the ecology of lakes and wetlands. Her future career aspirations are to become a university professor.

Brown-headed Cowbird Expansion in British Columbia, Recently and Historically Sympatric Host Response

Amber Robinson, University of Manitoba

Brown-headed Cowbirds (*Molothrus ater*, hereafter cowbirds) rely on host species to raise their young, often reducing their reproductive success. Originally confined to the Great Plains, cowbirds have expanded their range as forested lands were logged and cleared. Few records of cowbirds existed prior to the 1950s in British Columbia (BC), Canada, though they have since expanded their range to include most

of the province. A common Vancouver Island (VI) species is the Song Sparrow (*Melospiza melodia*, sparrows) which is one of the most heavily parasitized cowbird host species in North America and responds aggressively to cowbirds. Previous work on sparrow aggression did not test sparrow response to predators or distinguish unique alarm calls given to predator and brood parasite; though anecdotal reports have observed unique sparrow calls towards accipiters, humans and cowbirds. These calls may assist in defining how sparrows perceive cowbirds on VI where cowbirds are known to be both predators and brood parasites. Will recently sympatric sparrows recognize the cowbird as a brood parasite or as an avian nest predator? This question will be tested using three freeze-dried avian models: a cowbird, a control, and a predator placed near active sparrow nests. With these models sparrow reactions will be investigated, vocal responses and behavior will be compared, and the degree of perceived threat measured. Vocal responses may be unique to the individual threat perceived, such as in Yellow Warblers (*Dendroica petechia*), which utter a unique alarm call towards cowbirds. Responses recorded in 2004 from a historically sympatric sparrow population at Delta Marsh, Manitoba, Canada, differ significantly in the number of tchuck calls (a general alarm call) given towards the brood parasite compared to the control or predator model (p-value = 0.0053, n = 41). The unique alarm call of *zhee* was given significantly more to the brood parasite than the predator, novel or control models (p-value = 0.0302, n = 41). Another unique alarm call, *tik*, was given more to the predator than towards any other model (p-value = 0.0821, n = 41). Sparrows may react more during nesting than incubating

stages (parental investment theory) or alternatively during the egg-laying stage. I predict sparrows will react greatest when the cost of parasitism on their reproductive success is highest. Sparrows may serve as a model for rare, threatened, or sensitive species such as Southwestern Willow Flycatchers (*Empidonax traillii extimus*) and Yellow-breasted Chats (*Icteria virens*) that also have open cup nests in the understory, use similar habitat and are known cowbird hosts.

Biography – Amber Robinson

Amber Robinson is a Graduate student at the University of Manitoba pursuing a degree in behavioural ecology through the department of Zoology and Faculty of Science. She's interested in birding, saunaing, photography and getting various statistical programs to run on her data! You can contact Amber at umrobi55@cc.umanitoba.ca if you have any questions regarding her research.



ANNOUNCEMENTS

Calling all Past Presidents

We would like to convene a meeting of the past presidents of the Manitoba Chapter of the Wildlife Society. At this meeting would like to canvass past presidents on:

- strategies to generate more interest from professionals
- how best to maintain involvement from members outside of Winnipeg
- future direction of the MB chapter

If you are a past president and would be interested in participating please contact Karla Guyn (k_guyn@ducks.ca).

Be Part of the Team

Do you want to be part of the Wildlife Society Executive? Or perhaps you know someone who would be a good candidate. Being part of the Executive gives you the opportunity to help direct the activities of the Chapter, get better acquainted with Chapter members and provides an opportunity for professional development. We will be electing new people to the positions of President Elect and Member at Large at the upcoming Annual General Meeting. If you are interested or would like to nominate someone please contact one of the executive.

Manitoba Chapter Student Award

The Manitoba Chapter presents an annual student award valued at \$500. It is awarded to a graduate student enrolled at a Manitoba University carrying out research on a topic related to wildlife in Manitoba. The basis of the award is a proposal made by the student in writing. Details of the award and how to apply are available on the Chapter website under "AWARDS". The deadline for application is March 10th, 2005. The award will be presented to the top applicant at the Annual General Meeting to be held on March 17th 2005 at the Fort Whyte Centre.

Manitoba Chapter Conservationist Award

The Manitoba Chapter is seeking nominations for the Conservationist Award. This award is presented to an individual or group who has made a significant contribution to wildlife management in Manitoba and need not be a member of the Chapter or a wildlife professional. A nomination form can be accessed via the Chapter website, under "AWARDS". Nominations should consist of a short biography of the individual and outline the aspects of the person's actions that merit the "Conservationist Award". This award is presented at the Annual General Meeting, but not necessarily presented every year. Nomination deadline is March 10th, 2005. For more details contact Rick Riewe at riewerr@Ms.UManitoba.CA or 474-9768.

Prizes for Silent Auction

The executive is looking for prizes/donations for our annual silent auction event which occurs during the AGM. We are asking members to look in their closets, storage rooms or attics for items that are wildlife related (new or used in good condition) which you are no longer utilizing and may provide someone else years of enjoyment. Items can include a beautiful landscape picture which no longer goes with your decor, a usable duck decoy or the hunting vest which you bought on sale that is two sizes too small. If you have anything to contribute, please contact anyone on the executive to make arrangements.

Call for Volunteer Positions

The Manitoba Chapter of The Wildlife Society believes that it is critical for biology students to have field experience in order to become competent wildlife biologists. With that in mind the Chapter is compiling a list of potential volunteer positions for its membership (many of whom are students) for this upcoming spring/summer.

Do you have any field studies involving wildlife which could incorporate a volunteer for a few days or longer? If so please send us a short description of the position and we'll post it in our Spring/Summer Newsletter (for Mid May).

Manitoba Chapter AGM March 17, 2005, Fort Whyte Centre

The Manitoba Chapter will hold its Annual General Meeting on Thursday March 17, 2005 at Fort Whyte Interpretive Center. Your annual membership fee of \$10 plus a \$5 AGM fee is due at that time. Details will be posted on the website and emailed to all members, but will include a guest speaker, 2005 student award presentation, the 2004 student award speaker, business meeting including the election of a new executive, and a silent auction. Pizza and refreshments will be served. Mark your calendars and watch for more details soon.

Reminder, 2005-2006 Chapter Membership Fees due in March...

Reminder to all members that its time to renew your membership fees, which are still a bargain at \$10. The fees help cover the Chapter student bursary, expenses for speakers and rooms, contributions to TWS and CMPS annual general meetings, and other initiatives. Without your memberships, the Chapter would not be able to offer the events we do. Membership dues

can be paid at the AGM or contact Monica at mreid@cc.umanitoba.ca for payment.

12th Annual Conference of The Wildlife Society

Madison, Wisconsin September 25-29, 2005

Preliminary Program

Plenary

- Following Leopold's Footsteps: Six Decades After A Sand County Almanac

Workshops

- Introduction to R: Free Software for Statistics and Graphics
- Getting Started on Adaptive Management in Your Organization
- Urban Wildlife Management Issues in Madison, Dane County, Wisconsin
- ArcGIS 9.x Basics
- Spatial Modeling with ArcGIS ModelBuilder/Scripting
- Wildlife Investigator Series: Total Instructional Packages for Your Next K-12 Presentation
- Chronic Wasting Disease in Wisconsin

Symposia

- Diseases in Wildlife Populations: Challenges for Science and Management
- Statistics, Logistics, and Estimation of Detectability from Aerial Surveys
- Advances in Reptile and Amphibian Conservation
- Managing Western National Parks of North America for Ecological Integrity
- Birds in Changing Grassland Landscapes: Ecological and Management Implications

- Wildlife Habituation: Advances in Understanding and Management Applications
- Bird Conservation on North American Shrublands, Grasslands, and Pasturelands
- Gray Wolf Recovery in the Western Great Lakes Region
- Habitat Selection and Fitness Estimates: Implications for Wildlife Management
- CRP Mid-Contract Management and Benefits for Wildlife
- Unmanned Aircraft in Natural Resource Research and Management
- Kernel Methods in Space Use Analyses
- The Importance of Extended Field Programs (Summer Camps) to Undergraduate Education: Benefits and Limitations
- Observational Studies: When You Can't Control Nature
- Managing Aviation-Wildlife Conflicts: Challenges for the Wildlife Profession
- Habitat Conservation Accomplishments of the Farm Bill
- The Role of Professional Development in the Wildlife Profession
- Critical Wildlife Health Issues in North America
- Integrated Ecological Science in Central Yellowstone
- Overview and Treatment of Spatial Errors in GIS Applications
- State Comprehensive Wildlife Conservation Strategies

Special Poster Sessions

- Wildlife Toxicology
- Citizen Science and Wildlife Management: Opportunities and Challenges

Contributed Papers and Posters

- Ecology and Conservation of Birds
- Ecology and Conservation of Mammals
- Ecology and Conservation of Reptiles and Amphibians
- Conservation of Communities, Ecosystems, and Landscapes
- Wildlife-Habitat Relationships
- Wildlife Population Dynamics and Management
- Wildlife Damage Management
- Human Dimensions, Conservation Education, and Conservation Policy
- Wildlife Diseases and Toxicology
- Biometrics in Wildlife Management
- New Technology in Wildlife Management

Please visit www.wildlife.org for more information

Wildlife Jobs Online

The Wildlife Society is pleased to announce the launch of Wildlife Jobs Online, an employment listing specifically for those in the wildlife professions. Please see www.wildlife.org/jobs/index.cfm for more information.

**Second International Water
Conference presented by the Red
River Basin Institute**

**Research and Education in an
International Watershed: Implications in
Decision Making
April 6-7, 2005
Fort Garry Hotel, Winnipeg**

Plenary speakers and concurrent sessions will address some of the most problematic issues of water management, flood damage reduction/mitigation, and natural resources protection/development confronting policy makers, scientists and citizens of the Red River basin. Every effort will be made to make this a true international conference focusing on mutual Canada - U.S concerns.
<http://www.tri-college.org/watershed/conference.htm>

**Manitoba Government News
Releases - February, 2005**

**DELTA HERITAGE MARSH EXPANDS
- Province Acquires Land near Portage
for Wildlife**

Conservation Minister Stan Struthers announced today that Delta Heritage Marsh northwest of Portage la Prairie will expand following the purchase of 32 hectares (80 acres) of land. Approximately 12,000 hectares of the marsh is owned by the province, while the balance is privately owned. The recent acquisition is located 1.6 kilometres east of the Portage Diversion and is adjacent to existing Crown lands that comprise the heritage marsh.

Delta Marsh is one of several large marshes recognized as heritage marshes in Manitoba. It is one of the largest freshwater marshes in the world, encompassing some 25,000

hectares. It stretches across the vast southern edge of Lake Manitoba and has attracted waterfowl hunters from across the world.

The marsh is well known for the Delta Marsh Field Station (University of Manitoba), the Delta Waterfowl Research Station and the Delta Marsh Bird Observatory. The marsh is recognized as a wetland of international importance (Ramsar Convention) and an important bird area (BirdLife International).

**MÉTIS HARVESTING POLICY –
Powley Implementation Committee
created**

Conservation Minister Stan Struthers announced the creation of the Powley Implementation Committee. The committee's mandate is to assist the government in its endeavour to create and develop a Métis harvesting policy and strive to ensure the spirit of the Powley decision on Métis hunting rights is implemented. The role of the committee is to provide recommendations that will enable government to implement principles recognized in the Powley decision.

Members were chosen based on their contributions to and knowledge of Aboriginal Peoples and their livelihood including historical and cultural perspectives. Traditional and contemporary living-off-the-land experiences and the role that research plays in legal jurisprudence were also taken in to consideration. The committee will meet on an as-needed basis and update the minister regularly and is expected to provide its advice and recommendations to the government by July 31.

LINKS OF INTEREST

- Current issue of EnviroZine.
http://www.ec.gc.ca/envirozine/english/home_e.cfm
- Species at Risk in the Prairie Region
<http://www.pnr-rpn.ec.gc.ca/nature/endspecies/sar/db08s00.en.html>
- List of Endangered and Threatened Species in Manitoba
<http://www.pnr-rpn.ec.gc.ca/nature/endspecies/sar/db08s03.en.html>
- Renew your TWS membership online.
<http://www.wildlife.org/cart/index.cfm>