

**Innovations in:**  
 Data and information sharing  
 Strategic coordination of planning  
 Partnership building

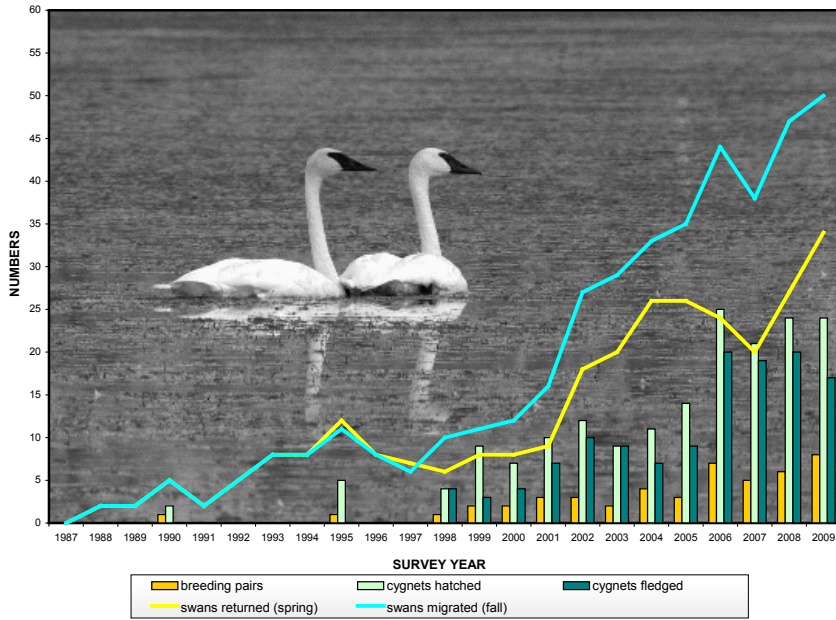
# Beaver Hills Initiative

# Working Together

For a sustainable region,  
 through shared initiatives  
 and coordinated action



**Trumpeter Swan Population (Elk Island National Park and Beaver Hills Area)**  
 Updated October 2009 - Rob Kaye and Brett Sarchuk (Photo by John Warden)



## Trumpeter Swan Monitoring Program:

From 1987 to 2000, trumpeter swans [families, and later, just cygnets] were re-introduced to Elk Island National Park from Grande Prairie, AB. The objective was to establish a free-flying, breeding flock of ten pairs of trumpeter swans.

The chart on the left demonstrates the success of the re-introduction program. As of 2009, 34 swans returned in the spring, and 8 breeding pairs raised 24 cygnets. Today, the program focuses on monitoring the trumpeter swan's breeding, nesting, fledging, spring return, survival rates and overall behavior. Parks Canada staff are responsible for ongoing monitoring.

## Greetings from the BHI's Executive Director

Welcome to our 13th edition of the BHI Newsletter! I hope you find the highlights informative and testament of the hard work and activities so far in 2011.

First, and most important, thank you to the BHI collaboration, the working groups, and everyone involved with the BHI, for your dedication, hard work, time commitments and most of all, remaining committed to the vision of the BHI. Your support and cooperative efforts ARE making a difference.

The BHI is well on its way to finalizing the 2011 -2014 Business Plan and the focus will remain on the completing the Biosphere Reserve Nomination, the Transfer of Development Credits Pilot, implementation of the Beaver Hills Tourism Opportunity Assessment study and updating the BHI Land Management Framework. Underpinning the outcomes of each of these projects will be on-going development of BHI's GIS library and data management plan, including landscape modeling scenarios.

I would like to take this opportunity to thank all of the Chairs of the BHI Working Groups. Their in-kind time commitment required to organize and carry out the work of the BHI, as well as the responsibility of monthly reporting, is fundamental to the "moving forward" of the BHI Collaboration. Thank you to Tom Schwertfeger of Leduc County, Chair of the Planners WG, Dr. Guy Swinnerton, Professor Emeritus, UofA, Chair of the Protected Areas WG, and Hiroo Sawada of Parks Canada, Chair of the GIS WG.

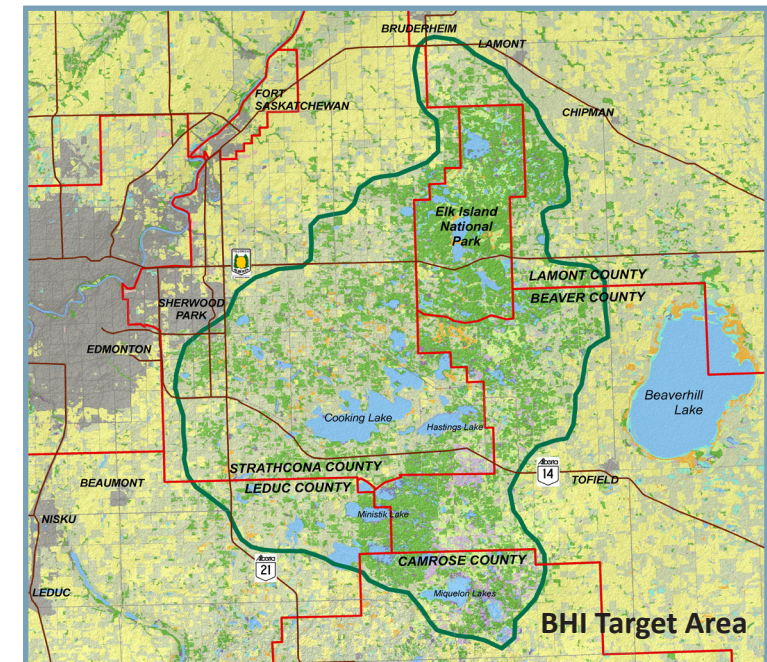
With recent changes to some of the BHI Working Groups I want to acknowledge the incoming and outgoing chairs. For the Research & Monitoring WG thank you to Brian Eaton of AITF, the new Chair and Jocelyn Thrasher-Haug, of Strathcona County, the new Co-chair, and to Toso Bozic of Alberta Agriculture, the outgoing Chair, for his leadership over the past three years.

Also thank you to Alissa Wilson, of Nature Conservancy of Canada, for fulfilling interim Chair of the Communication and Education Working Group.



BEAVER HILLS INITIATIVE  
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# Summer 2011 Newsletter



Welcome to Tyler Westover, from Strathcona County; Chair of the new working group called TWIG (Tourism Working Implementation Group), and past chairperson Paul Radchenko of AB Tourism, Parks & Recreation. Also, a big shout out and thank you to our elected officials of the BHI member municipalities, who have energized the Councillor Working Group, generously chaired by Councillor Jocelyn Mackay from Leduc County. Last but not least, thank you to Glen Lawrence, Chairperson of the BHI Board.

I value this tremendous in-kind time commitment and broadening of partnerships; the range of expertise provides incredible guidance and support. Thank you again and as always I look forward to working with you all.

Brenda Wispinski  
 Executive Director

## Land Use, Wetlands & Biodiversity in the BHI Region:

Research conducted since 2008 by Augustana Campus of the University of Alberta, is comparing wetland sites within agricultural areas to those in Miquelon Provincial Park. The objective is to determine whether in-pond habitat differences exist by measuring water chemistry, biodiversity, and pond morphometry. Preliminary results suggest that physical modification of ponds by beavers plays an important role in the abundance, diversity and distribution of aquatic macro-invertebrates and that the beaver channels extending beyond the pond are very rich in amphibians and small rodents, especially in early spring. Also, ponds with beaver are more resistant to drought as they tend to be deeper and able to store more surface water. Future research may involve bathymetric analysis of the ponds with and without beaver.

Additional research on winter tracking of wildlife species in agricultural areas compared to protected areas showed that ponds in agricultural areas tended to have less total species and a lower number of identified tracks. Forested cover or a well vegetated riparian area, increased the total species and number of tracks. Species with significant trends regarding upland habitat were deer, weasel and hare. Agricultural ponds with active beaver had 2.5 times the number of species and identified tracks as those without beaver.

Research on impacts of the 2008-2009 drought on beaver populations revealed that active beaver lodge occupancy in Miquelon Provincial Park was reduced from 32 to 15 active lodges, out of a total of 89 lodges surveyed in 2010; largely due to the drought.

Dr. Glynnis Hood, Augustana Campus  
 University of Alberta

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## BHI Landscape Conservation:

The Landscape Conservation Planning Project (LCPP) is a multi-disciplinary working group that is proposing to develop a common set of conservation planning tools for the Beaver Hills region of central Alberta. Conservation tools will be used to assist municipal planners and conservation organizations with land use planning at both the regional (BHI) and local (individual development proposals) scales. Planning tools will include spatially-explicit maps describing different aspects of the five key principles of the BHI (i.e., quality of life, biodiversity, water quality, land use, and air quality), a conservation prioritization model using Marxan (simulated annealing) that identifies the most valued (irreplaceable) unprotected habitats remaining in the region based on stakeholder targets, and scenario models that describe different plausible futures for the BHI.

These products will be useful for evaluating the potential impacts of future developments, helping to locate municipal reserves, identifying conservation values (ecological equivalence) for transferable development (credit) programs that require delineation of sending areas, and for conservation organizations looking to expand their conservation portfolio in the most valuable (biodiversity) and efficient manner.

Dr. Scott Neilsen  
University of Alberta

## Upcoming Events:

### July 2011

- 9-10 - Cloverdale Stampede at Viking
- 15-17 - Canadian Bison Assoc Field Days at EINP
- 16 - AB Organic Producers Assoc Field Day at Lamont
- 16 - Parks Day and Citizenship Ceremony at Elk Island National Park
- 22-24 - Lamont Fair & Rodeo
- 23-24 - Parks Canada 100th Anniversary
- 30-31 - Bruce Stampede

### August 2011

- 4-5 - Dine Kalyna at Vegreville
- 7 - Ukrainian Day at Ukrainian Heritage Village
- 12-14 - Experience the Bounty in Beaver County
- 14 - Tomato Fare at Sherwood Park
- 19 - Rainbow Society 19th Annual Trail Ride at Cooking Lake-Blackfoot Provincial Recreation Area
- 20-21 - Camrose County Prairie Fun Days
- 20-21 - Agri-Daze at Mundare
- 27-28 - Strathcona Vintage Tractor Pull at Ardrossan
- 28 - Friends' Music Fest at Ukrainian Heritage Village

### September 2011

- 3-4 - Beaumont Blues Festival
- 4 - Beaver Hills Dark Sky Preserve 5th Anniversary Celebrations at Astotin Lake, EINP
- 10 - Neighbour Day at Fort Saskatchewan
- 11 - Harvest of the Past and Taste of Heritage Food Festival at Ukrainian Heritage Village

### October 2011

- 1 - 23rd Annual Pumpkin Fair at Smoky Lake
- 15 - Andrew Annual Garlic Festival

### November 2011

- 1 - Alberta Art Days at Fort Saskatchewan
- 26 - Christmas in the Heartland at Josephburg



**Vision:** The Beaver Hills Initiative values the region for its natural beauty, quality of life and supports cooperative efforts to sustain the quality of water, land, air, natural resources, and community development.

## BHI Partners:

### Local Governments

- Beaver County,
- Camrose County,
- Leduc County,
- Lamont County,
- Strathcona County

### Government of Canada

- Elk Island National Park, Parks Canada
- AESB, Agriculture and Agri-Food Canada

### Government of Alberta

- Agriculture and Rural Development
- Environment
- Municipal Affairs
- Sustainable Resource Development
- Tourism, Parks and Recreation

### Academia

- University of Alberta
- Alberta Innovates Technology Futures

### Industrial Partners

- Alberta Industrial Heartland Association
- Fort Air Partnership

### Non-Government Organizations

- Alberta Invasive Plants Council
- Alberta Conservation Association
- Alberta Fish and Game Association
- Alberta Lake Management Society
- Alberta Land Trust Alliance
- Alberta Sports Recreation & Wildlife Foundation
- Beaver Hills Dark Sky Preserve
- Cosmic Journey
- Ducks Unlimited Canada
- Edmonton and Area Land Trust
- Land Stewardship Centre of Canada
- Miistakis Institute
- Nature Conservancy of Canada
- North Saskatchewan Watershed Alliance
- Royal Astronomical Society of Canada
- Worley Parsons

## Protected Areas Working Group:



Over the past two years a number of the BHI Newsletters have contained background information on Biosphere Reserves in general and the Beaver Hills nomination in particular. As this extensive process nears completion it is appropriate to reiterate some of the key points relating to this nomination.

The Biosphere Reserve nomination document follows UNESCO's prescribed format and contains the relevant information to demonstrate that the Beaver Hills meets the criteria for nomination. The criteria include: the area's significance for biological diversity conservation; the area provides the opportunity to explore and demonstrate environmental stewardship and sustainable development on a regional scale; the area is of sufficient size to serve the three functions of biosphere reserves and associated zoning; and there is an organizational agreement in place for the involvement and participation of all relevant stakeholders.

Paralleling the preparation of the technical nomination document has been an extensive communication process of making key stakeholders aware of the Biosphere Reserve nomination and the benefits of this designation.

The Beaver Hills Biosphere Reserve nomination document was informally reviewed by two honorary members of the Canada Man and Biosphere (MAB) Committee. Subject to final review and incorporated feedback, as well as inclusion of relevant signatures and letters of support, the document will then be sent to the Canada Commission for UNESCO in Ottawa for the formal Canadian review. Approval at that stage will result in the nomination being forwarded to the MAB Secretariat for UNESCO in Paris for the review by an international committee. If successful, Biosphere Reserve designation will give global recognition to the importance of the Beaver Hills and international endorsement to what the Beaver Hills Initiative is already doing and the considerable accomplishments it has realized to-date.

Dr. Guy Swinnerton  
Chairperson