



Science Stories

Understanding the Human Dimension of Wetland Conservation

Waterfowl hunters are key supporters of waterfowl and wetland conservation. But the number of waterfowlers in North America has seriously declined since the late 1970s. This decline is hampering conservation efforts in many regions, including Alberta. To better understand and address this issue, a project is diving into the human dimension of waterfowl hunting in Alberta.

"Increasingly there is the perspective that if we are going to see real advances in conservation management, we have to be engaging regular folks. That's where the human dimension approach to conservation comes in," explains Dr. Howard Harshaw, an associate professor at the University of Alberta who is leading this project.

In his research, Harshaw seeks to understand how people interact with the outdoors and how they are affected by their interactions with the outdoors. He notes, "I'm really curious to see if people's engagement in nature-based recreation is one of the drivers of pro-conservation actions – everything from making your backyard a bit more amenable to wildlife, to getting involved in local initiatives or being politically active

on wetland conservation issues."

Much of his research involves working with natural resource management agencies to identify their human dimension information needs and to translate those needs into questions for target stakeholder groups. With the resulting information about stakeholder behaviours, attitudes, perceptions and values, these agencies can then adapt and fine-tune their policies and programs to achieve key outcomes.

Motivations & constraints for waterfowl hunters

Harshaw's current project on waterfowl hunters in Alberta is the third phase of his research on this issue.

"The first phase was part of a larger survey [in 2015] that looked at attitudes of Albertans about a whole number of things. In that survey, we included a suite of questions on waterfowl hunting – why people did or didn't hunt waterfowl and what they thought about it," he says. "That survey provided us with a nice snapshot of the way things were, and it gave us some guidance around areas that we might want to find out more about."

The second phase was a study in the Prairie Provinces involving interviews with people who had been learning how to hunt waterfowl through mentoring programs and with the mentors in those programs. "That study gave us some good insights in terms of various programs that are available [for recruiting new waterfowlers] and the different approaches that work," says Harshaw.



Harshaw is exploring the issues that influence whether or not Albertans engage in waterfowl hunting. Photo: Nicole Graham

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The third phase builds on the results of the two previous phases. In this new phase, Harshaw is continuing to collaborate with his colleagues Dr. Lee Foote at the University of Alberta and Dr. Farhad Moghimehfar at Vancouver Island University.

This phase involves surveying active waterfowlers, lapsed waterfowlers, and non-waterfowlers in Alberta. It is exploring the issues that influence whether or not Albertans engage in waterfowl hunting.

“The main focus of this third phase is to really dig into some of the key issues and sort out the social perspectives around waterfowl hunting. Why are current hunters able to continue to hunt? What are the reasons why people have stopped waterfowl hunting? And why are some people opposed to the idea of hunting?” he explains.

“And weaved into that focus is also the curiosity about what some of the benefits of waterfowl hunting are, including benefits to pro-conservation actions and outcomes.”

The survey is using three questionnaires, one for each of the surveyed groups. But some of the same questions are asked in each of the surveys, so the researchers will be able to compare the motivational and constraint issues across the three groups.

Harshaw and his team will be analyzing the survey data in 2020-21. The goal is to develop detailed, data-supported profiles of the motivations and preferences of the three groups.

The results will help managers and planners in natural resource management agencies as they engage with these stakeholder groups. For instance, the findings could be used in developing and implementing recruitment, retention and reactivation programs for waterfowl hunters.

Harshaw notes, “Managers and planners can’t control everything, but if we can identify some of the things they do have control over – maybe it’s simpler hunting regulations or different approaches to season-length, for example

– they might be able to put in place changes to increase waterfowling participation.”

The Alberta Conservation Association and Delta Waterfowl Foundation were the principal funders of the first two phases. For the third phase, the Alberta NAWMP Partnership’s Science Fund and the Social Sciences and Humanities Research Council of Canada are funding the research, and Wildlife Habitat Canada is providing in-kind support.

NAWMP and the human dimension

Alberta NAWMP is one of many partnerships involved in the North American Waterfowl Management Plan (NAWMP). NAWMP is an agreement between Canada, the United States and Mexico to sustain continental waterfowl populations. Alberta NAWMP’s interest in the human dimension springs in part from NAWMP’s heightened emphasis on this aspect. In 2012, NAWMP added a human dimension goal to its two long-standing goals, which are to conserve waterfowl populations and to conserve their key habitats. The new goal is: to grow the numbers of waterfowl hunters, other conservationists and citizens who enjoy and actively support waterfowl and wetland conservation.

Harshaw emphasizes, “The success of NAWMP depends on NAWMP’s ability to maintain and increase its relevance to stakeholders and all of society.”

That requires an ongoing effort to understand changing trends in the human dimension of wetland and waterfowl conservation.

To help meet NAWMP’s human dimension information needs, Harshaw led a recently-completed major study. Through surveys and interviews, this study asked waterfowl hunters and birdwatchers across Canada and the U.S., and the general public in the U.S., about their attitudes, behaviours, priorities, and support for waterfowl and wetland conservation.

Harshaw explains why the study included birders as a key stakeholder group. “While the number of waterfowlers has been declining, the number of birdwatchers has exploded. Over about the past 10 or 15 years, birdwatching has been one of the fastest growing outdoor recreation activities in North America,” he says.

“According to some estimates, one in five Canadians are engaged in birdwatching to some degree. There don’t seem to be a lot of barriers to getting engaged in birdwatching – a book or a good website and a pair of binoculars and away

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you go. And birdwatchers are interested in waterfowl and also wetlands, which provide habitat for a whole host of bird species. So maybe birdwatchers are a natural fit with NAWMP's goals."

He adds, "But I think there was a lot of uncertainty within NAWMP [about trying to broaden its base of supporters]. How would waterfowlers feel about a new group coming in that may have different perspectives about the use of wildlife, for example? Would NAWMP's goals and objectives resonate with birdwatchers? How would birders feel about being lumped in with waterfowl hunters? So we really wanted to sort that out.

"And we also wanted to engage with waterfowlers to find out what has changed so much that we can't maintain waterfowl hunter numbers and continue to achieve some of the conservation outcomes that we're looking for."

Powerful partnerships

Partnerships were essential to the study, bringing substantial expertise as well as funding support. "Partner agencies in NAWMP include federal, state, provincial and territorial governments, and NGOs like Ducks Unlimited. And NAWMP has Flyway Councils and Joint Habitat Venture partnerships. All of these groups are engaged in waterfowl and wetland conservation and management. But they each have different priorities and different tactics to achieve their outcomes. So it was fascinating to juggle and address all these different outcomes and perspectives," explains Harshaw.

"It took us about three years to develop the questionnaires that would work for all these different groups. But the involvement of all these groups and the perspectives that they brought to the table resulted in a comprehensive and really useful set of data for all the partners. It also allows these partners to collaborate using that same data on other issues."

For the Canadian portion of this research, partners included Wildlife Habitat Canada, Ducks Unlimited Canada, Environment and Climate Change Canada, Alberta NAWMP, and the provincial governments of New Brunswick, Quebec and Ontario.

Relevant results

The study results were summarized for the different waterfowl migration pathways in the two countries. For instance, organizations in Prairie Canada can draw on the results from the surveys of waterfowlers and birders in Canada's portion of the Central Flyway.

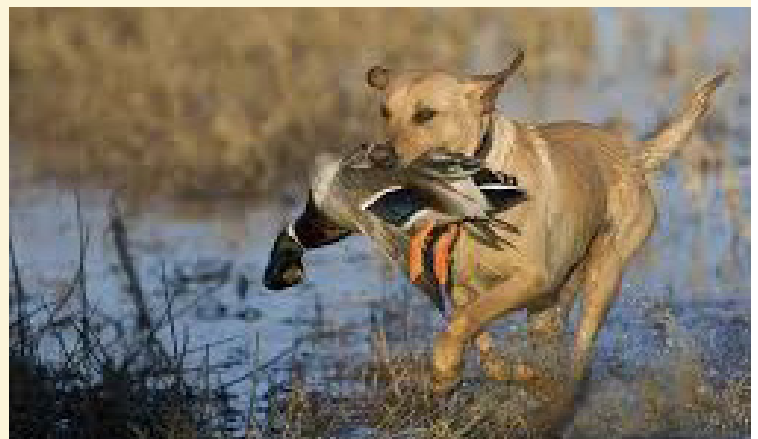
The findings provide relevant, up-to-date information on stakeholder behaviour, preferences and values, and shed new light on some common assumptions that guided past

conservation and management programs.

Many organizations in Canada and the U.S. are drawing on the study results to inform their efforts to achieve NAWMP's goals – from setting national priorities for programs, to designing and implementing regional management policies and programs, to developing improved stakeholder communication strategies.

For instance, Harshaw has been working on human dimension issues with the Prairie Habitat Joint Venture (PHJV). This is the regional NAWMP partnership with responsibility for prairie, parkland and boreal landscapes in western Canada; Alberta NAWMP is part of the PHJV.

He notes, "Working with the PHJV involves some of the strategic information that we had gathered, but with a focus on an operational scale: How do the survey results apply to Alberta, Saskatchewan and Manitoba? How can we better manage the prairie habitat, which is pretty important for all of North American waterfowl? How can we get more people on side, both individual citizens through their engagement in recreation but also landowners? Decisions that people in agriculture make around how they manage their lands can have implications for wetland conservation.



So what are their perspectives? What are their challenges? And how can we find win-win opportunities that are good for landowners but also good for wetlands?"

In terms of the future of wetland conservation, perhaps the most inspiring finding from the international study is that waterfowlers and birders share some key viewpoints.

Harshaw explains, "Too often we focus on the differences between waterfowl hunters and birdwatchers. But we found that both waterfowlers and birders really value habitat.

Both groups enjoy the outdoors and identify themselves as outdoors people. And they both tend to see themselves as conservationists. So there may not be as much distance between these groups as we previously thought."