

Wolf's Eye



ISLE ROYALE NATURAL HISTORY ASSOCIATION

2005 No. 2



*Isle Royale
wolves consume
about 7 moose a
year apiece, but
this food source
may be getting
scarce.*

Isle Royale Wolf-Moose Study 2004-2005

It's been another tough year for the moose of Isle Royale, the home of a 47-year study of predators and their prey. As they battled summer heat, thick snow cover and a ferocious infestation of ticks, the number of moose on the island has dwindled from 1,100 in the winter of 2002-03 to 740 last year to the current 540.

"Moose numbers have been cut in half in the last three years," said Professor Rolf Peterson, of Michigan Technological University, who has led the study of Isle Royale's wolves and moose for 35 years. "That's pretty remarkable."

Meanwhile, the moose's only predators on the island seem to be doing just fine. Last year, the wolf population jumped nearly 50 percent, from 19 in 2003 to 29 in 2004, and has held relatively steady this year at 30.

"Last summer, the average moose had lost over 70 percent of its body hair due to ticks," said Research Assistant Professor John Vucetich, who has been involved in the Isle Royale study for about 10 years. "This is about twice the hair loss of just a few years ago. A moose with 70 percent hair loss could have been carrying in excess of 70,000 ticks during the winter and early spring."

A single moose can host several ticks per square inch, and each tick can suck up about a cubic centimeter of blood. Rather than feed, the moose scratch themselves against trees or bite their hair out trying to remove the parasites. Weight and blood loss may prove such a handicap that the moose don't survive the winter. The weakened moose are made doubly vulnerable in extra-snowy winters such as the last two, since they become mired in the deep snow and are easy prey for wolves.

So far, the island's three wolf packs have been using the moose's hard times to their advantage. However, they could be riding the caboose of the gravy train.

"There were only 18 moose per wolf this year, the lowest ratio we've ever had," Vucetich said. That proportion is usually between 30 and 70 moose per wolf. On average, wolves may consume about seven moose a year apiece, so they could be eating themselves out of house and home. Or not. Their future has been difficult to predict.

The Isle Royale wolf/moose study is funded by the National Park Service, the National Science Foundation and Earthwatch.

2005 Isle Royale Natural History Association Member Meetings on Isle Royale

Program by Isle Royale Artist in
Residence Meghan Kirkwood
Friday, July 22 • 8:00 p.m.
Rock Harbor Auditorium.

Ranger-led Tour of Rock Harbor
Cultural Sites

Saturday, July 23 • 10:00 a.m.
Meet at Rock Harbor Visitor Center.

Tobin Harbor Canoe Trip

Saturday July 23 • 2:00 p.m.
Meet at the Rock Harbor Visitor
Center to arrange for canoe rentals.
Rental fee: \$18 per canoe.

**Annual Membership Meeting

Sunday, July 25 • 2:00 -3:30 p.m.
Rock Harbor Auditorium

Membership Program.

Isle Royale Author's Presentation

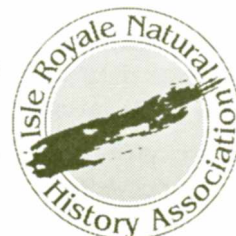
Sunday, July 25 • 3:30 -4:45 p.m.

**Whitefish and brats picnic on the Rock Harbor Waterfront.

Sunday, July 25 • 5:00 p.m.
\$12 for adults, \$6 children.

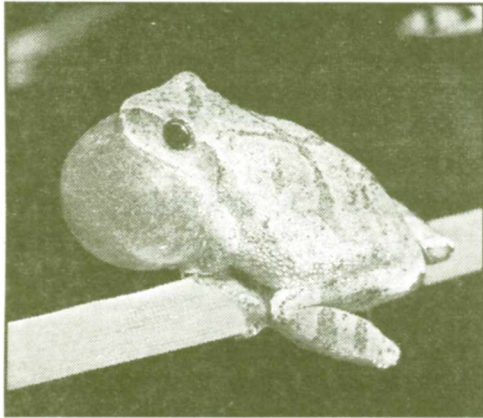
Check www.irnha.org or Visitor Center
Bulletin Board for Updated
Information.

** These events
for IRNHA
members only.



2004 Isle Royale Frog & Toad Survey

Declining numbers of several of Michigan's frog species in recent years have raised concerns about the status of regional anuran populations. Since wetlands are commonly impaired by human development, frogs and toads are vulnerable to human exploitation of their habitat, and there are many other characteristics of anurans that make them sensitive to subtler environmental change, such as pH and ultraviolet light. Fluctuations in



frog and toad populations are therefore a possible indicator of a shift in the overall environmental quality of an area and the well being of the local ecosystem. Thus, it is important to be aware of long-term changes in the abundance and distribution of anurans.

With the assistance of the Michigan DNR, a frog and toad survey was established on Isle Royale in 1996 and has been continued and expanded since that time. Frog and toad surveys at Isle Royale are conducted in the early spring, late spring, and

summer on four transects, three transects on the east end of the island and one transect on the west end. The transects follow the Mt. Ojibway loop trail, the Three Mile to Lane Cove trail, the Moskey Basin to Lake LeSage trail, and the Huginnin Cove loop trail.

The six anuran species known and verified for ISRO are the American toad, spring peeper, boreal chorus frog, green frog, mink frog, and wood frog. Four of the six frog and toad species were heard during the 2004 survey, while chorus and mink frogs were not heard. Wood frogs were heard in numbers similar to previous years on ISRO, but the percentage of sites in which wood frogs are found is generally much lower than on routes in the Upper Peninsula. Green frogs, although low in abundance, were also found in levels close to previous years. The Michigan DNR statewide data from 1996-2003 reported a non-significant increase for the green frog, though they were also noted to be possibly on the "verge of decline" across Michigan. Spring peepers, the most abundant species on Isle Royale, and American toads were observed in slightly lower numbers than in the previous two years. The Michigan DNR statewide data also reported a non-significant decrease of the American toad. The high abundance of spring peepers on ISRO is similar to abundance data for marshes in the Great Lakes region.

Since 1998 there have been two incidental reports of the gray tree frog at the western end of Isle Royale. Gray tree frogs are previously unknown to the island. Distribution of most species appears to be island-wide. Of the five species recorded on the 2002-2004 surveys, all have shown a presence on each of the four survey routes. Chorus frogs are known to inhabit shorelines on the northeast end of the island, but their overall distribution is unknown.

Due to the limited data set, it is difficult to make predictions or conclusions, or to see trends in the anuran populations. What is clear is a lop-sided use of certain habitats for breeding. The incompleteness of data for mink frogs suggests that more frequent surveys would need to be completed to get a better picture of the status of this species on ISRO, while the lack of evidence for gray treefrog presence is curious and should be pursued more diligently. As data continues to be added to this survey, it should become possible to interpret some of the factors that control anuran populations on ISRO. Barring atmospheric pollutants, ISRO's anuran population could be viewed as a control group to compare with the mainland populations, as direct watershed pollution and habitat encroachment are at a minimum.

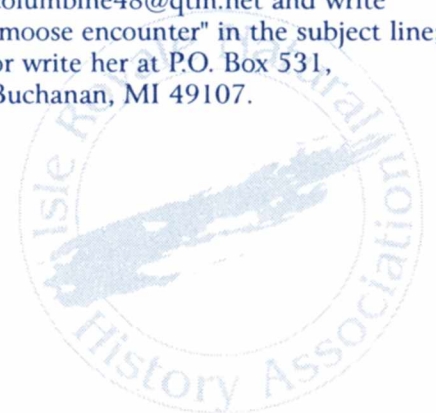
— Excerpted from a report by Alexander Egan, Biological Technician,
Isle Royale National Park



WANTED: Your Moose Encounter Stories

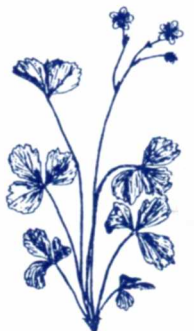
Have you ever had an interesting moose encounter on Isle Royale?

IRNHA member Jan Ferris wants to hear about it/them for a book she is compiling. There is no compensation, but recognition will be given to you in the book. If you would be willing to share your moose encounter(s), you may call Jan at 269-695-1201; email columbine48@qtm.net and write "moose encounter" in the subject line; or write her at P.O. Box 531, Buchanan, MI 49107.



Keweenaw Ingot • ENCLOSED •

As part of our annual Aid-to-the-Park contribution, IRNHA funds the publication of Keweenaw National Historical Park's newspaper, *The Ingot*. This year's full color edition includes a comprehensive listing of the KNHP cooperating sites, a list of Keweenaw related products, and lots of interesting articles. Your complimentary copy in enclosed.



Isle Royale Natural History Association
2005 Board of Directors Election
Vote for not more than 3 candidates for IRNHA Board
(Ballots must be postmarked by July 15)

Marilyn Cooper, Houghton, MI

I am a professor of Humanities at Michigan Technological University. I hold a BA from Pennsylvania State, an MA from University of Michigan, and a Ph.D. from University of Minnesota.

Although I was born in Michigan, my first trip (backpacking) to Isle Royale was in the summer before I moved to Los Angeles. Seven years later, when I moved to Houghton, I was eager to return to the island, which I have done many times.

I bring to the Board of IRNHA a life-long interest in the environment, especially birds. I have been a board member of Upper Peninsula Environmental Coalition and I compiled the Copper Country Christmas Bird Count for 15 years. I also have expertise in editing and publication which has been useful in my work as chair of the publications and marketing committee for the past 2 years. I contributed to the production of the children's book "Wolf Scat and Moose Tracks" and I am especially excited now to be working on the new Field Guide to Isle Royale. IRNHA does valuable work in interpreting the Isle Royale and Keweenaw National Parks, and I look forward to continuing to contribute to this work if I am reelected to the Board.

Ron Eckoff, Cumming, IA

I grew up in southwestern lower Michigan on a fruit farm. I earned BS and MD degrees from the University of Michigan in 1960 and 1964 and a Master of Public Health Degree from Harvard in 1968. I served two years in the US Public Health Service and then worked for the Iowa Department of Public Health from 1967 until I retired in 2002.

We first visited the Keweenaw Peninsula in the late 60s or early 70s and were fascinated with the area. I longingly looked toward Isle Royale, but did not visit there until going on an Earthwatch trip in 1989. I returned on Earthwatch trips in 1992, 1994 and then every year starting with 1996. I have read almost every book published by the association and many other publications about Isle Royale, moose, and wolves. Most recently I obtained a copy of Adolf Murie's "The Moose of Isle Royale" publication of his 1929-1930 studies. It would be an understatement to say I am hooked on Isle Royale. I have done captioned photo albums of each trip and have videotaped the last six trips. I use these materials in informal and now more formal talks about Isle Royale and the Earthwatch trips.

The association publications have contributed greatly to my learning more about Isle Royale. I am pleased to learn about the plans for an endowment fund which can help assure the continuation of development of quality publications. Although I cannot claim a lifelong interest in history, I have a growing appreciation for history. I am currently writing the history of the Iowa State Board of Health/Iowa Department of Public Health 1880-2005. We are also working to restore some tall grass prairie in southern Iowa. I would be honored to serve on the board of the Isle Royale Natural History Association if elected.

Nelda Liebig, Trempealeau, Wisconsin

I am a retired teacher with a BS in Education and graduate work in Education and Journalism. It has been rewarding to serve on the IRNHA board this term. My involvement includes financial support, especially for the Endowment fund. Also, I was a participant in the 2004 service week to remove noxious weeds on Isle Royale. In 2004 I also worked as a volunteer for two weeks at the Windigo visitors' center.

As a member of a Wisconsin speakers' bureau I address school groups and am a presenter at an annual young authors conference in Minnesota. I enjoy many opportunities to share experiences in Isle Royale National Park.

I have authored three juvenile historical novels. My latest publication is a photo illustrated novel and guide for young people as they prepare to backpack on Isle Royale.

As a frequent visitor to Isle Royale National Park, I am acutely aware of the financial and environmental needs of the park. If reelected to the Board of Directors of IRNHA I will strive to continue to support the organization and Isle Royale National Park to the best of my ability.

Vote for not more than 3 candidates for IRNHA Board

**Please mail to IRNHA, 800 E. Lakeshore Dr, Houghton, MI 49931
(Ballots must be postmarked by July 15)**

_____ Marilyn Cooper
_____ Ron Eckoff
_____ Nelda Liebig

Keweenaw National Historical Park Survey Results In

During the last week of July 2004, Keweenaw National Historical Park (KNHP) conducted a survey of its visitors to find out who they were, what they did in the Keweenaw and what they liked or didn't like about their visit. 565 visitor groups were given surveys and 403 were completed and returned.

Some of the interesting findings:

- Most of the park's visitors (68%) came with other family members.
- 13% of park visitors were 10 or younger, making up the single largest age group. Another 11% were between 11-15. The next largest age group was made up of those between 41-50.
- 54% of visitors were from Michigan.
- 52% of those visiting KNHP sites did not know that the sites they visited were part of a National Park or that the KNHP existed.
- Most people came to the Keweenaw for the scenic beauty and natural resources.
- While visiting KNHP the most common activities were visiting historic sites, gift shops, and lighthouses.
- The most frequently visited KNHP sites were Fort Wilkens, Porcupine Mountains State Park and the Quincy Mine Hoist.
- Before and after visiting KNHP sites, park visitors also went to Copper Harbor (71%), Pictured Rocks (41%), Apostle Islands (12%), and Isle Royale (9%).

Michigan History Grant Awarded

IRNHA was recently awarded a \$7500 grant from the Michigan Historical Center, an agency of the Michigan Department of History, Arts and Libraries. It was one of many grants the Michigan Historical Center awarded to state and local historical organizations whose mission is to preserve or to interpret Michigan's history or to make history available to the public.

The grant will be used to update the Isle Royale historic film collection. The funds will help us to produce written titles and a new master film from which we can make a variety of different digital formats. The total cost for the project is \$12,000, some of which has already been raised in donations from our members. An additional \$2800 is needed in order to complete the project. If you are interested in helping IRNHA secure this additional funding, please call (800) 678-6925.

IRNHA Members Hiking Trip

We still have two openings for September's Hiking Trip. The trip will be led by experienced backpacker and board member, Tom Wiseloge who selected the first week of September as a particularly quiet and beautiful time to hike the island. All equipment, travel, and food included for \$1000 per person. Call (800) 678-6925 or e-mail www.irnha.org to register.

Hiking Trip Itinerary—September 6th -14th, 2005

Tuesday: Depart Houghton for Island and Hike to Daisy farm, 7 miles

Wednesday: Hike to West Chickenbone Lake, 7.7 miles

Thursday: Hike to Hatchet Lake 7.9 miles

Friday: Hike to South Lake Desor 8.1 miles

Saturday: Hike to Island Mine 5.5 miles

Sunday: Hike to Washington Harbor(Windigo) 6.6 miles

Monday: Board Voyageur II for trip back to Rock Harbor, Dinner in Dining Hall

Tuesday: Free day optional day hike to Scoville Point

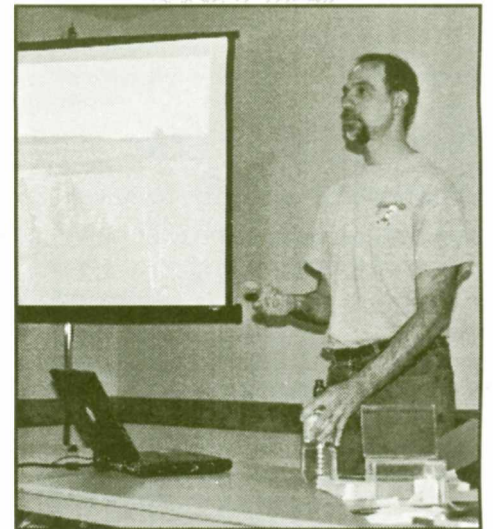
Wednesday: Depart Rock Harbor for Houghton

Matthew "Wes" and Marit Farmer Remembered

Isle Royale life lease holders and IRNHA members Wes and Marit Farmer passed away recently in Minnetonka, Minnesota, Marit on January 23 after a long battle with cancer and Wes of a heart attack on February 12.

Wes grew up on Isle Royale where his family owned a home they dubbed "Coffee Pot Landing" in Rock Harbor. The Farmers were regulars at our annual membership meetings on the island.

They leave behind one son, David, one daughter, Marit Anne, and two grandchildren. A memorial service was held in Shorewood, MN on Feb. 12th.



Fishery Biologist Jay Glase presented the latest information on the Isle Royale fishery including an update on Coaster Brook Trout and invasive species at a program at Northern Michigan University in Marquette on April 7. The program was co-sponsored by Isle Royale Natural History Association and the NMU Organization of Outdoor Recreation Professionals. IRNHA also sponsored a program in Ames, Iowa on April 2. IRNHA members Mike Meetz and Bill Beckman presented a program on loons at the Story Country Conservation Center.

Isle Royale Natural History Association
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New Products for Summer 2005

*Wolf Tracks and Moose Scat:
 A Visit to Isle Royale*
 \$5.95

The latest publication from IRNHA is now available! This children's book introduces early elementary age students to Isle Royale and to the concept of predators and prey. A simple text and beautiful watercolors and color photographs describe the island's weather and geology and its animal and plant inhabitants. A perfect book for both children who have not visited Isle Royale and those who have.



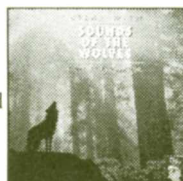
Isle Royale Wolf Hiking Staff Medallion • \$5.95

This medallion can be shaped to fit on hiking staff, paddles, etc. or can be flattened and glued to flat surfaces.



Sounds of The Wolves CD
 \$11.95

A beautiful and natural symphony of wolf calls enhanced with strings and woodwinds. 60 minutes playing time.



NPS Wristbands • \$2.00

Wristbands supporting favorite causes are the rage. The National Park Service now has its own. These sturdy green rubber wristbands are imprinted with the words "PRESERVE-PROTECT-ENJOY-NPS."

10% Discount for all members.
 6% sales tax for MI residents.

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 800 E. Lakeshore Drive
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Make checks payable to "IRNHA,"
 or call (800) 678-6925,
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www.irnha.org

Isle Royale Natural History Association

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 e-mail: irnha@irnha.org
 website: www.irnha.org

IRNHA is a non-profit membership organization that assists Isle Royale National Park and Keweenaw National Historical Park by publishing and selling educational materials to park visitors.

Gifts, bequests, memorials and memberships are U.S. tax deductible.

Membership Categories

Individual	 \$25
Household	 \$30
Supporting	 \$50
Sustaining	 \$100
Patron	 \$250
Benefactor	 \$500
Life Membership	.. \$1,000*

*Life memberships may be paid in 5 annual installments.

Board of Directors

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