



Refuge News



Seney National Wildlife Refuge

Spring 2008

Frog Sampling Discontinued Due to Lack of Abnormalities

National attention focused on abnormal amphibians in 1995 when a group of school children in Minnesota discovered a large number of malformed and mishappen frogs. After five years, the numbers of abnormal frogs collected at Seney has been fairly low and the Service has chosen to discontinue sampling at Seney. Below is an excerpt from an article, written by Christina Lydick, in the Endangered Species Bulletin, about evaluating amphibian abnormalities on wildlife refuges.

“In recent years, scientists have observed an increasing number of frogs and toads with severe abnormalities throughout the United States and other parts of the world. Researchers are addressing the problem in many ways, including conducting surveys and studies in both the field and laboratory. Several federal agencies also are involved, including the U.S. Fish and Wildlife Service, which benefits from the scientific expertise provided by its Environmental Contaminants (EC) program. The Service helps to conserve habitat through the National Wildlife Refuge System, the world’s largest and most diverse collection of lands set aside specifically for wildlife conservation. To ensure the health of these habitats, Service EC specialists monitor the effects of contamination on fish and wildlife. Many amphibian species are sensitive to a variety of environmental stressors and may serve as early indicators of environmental health. The Service is interested in determining to what extent abnormal frogs occur on national wildlife refuges and investigating the potential causes.”

“The potential causes of amphibian abnormalities include the following: 1) climate change (e.g., increased ultraviolet-B light due to ozone depletion, acid rain, drought); 2) predators (e.g., fish, bullfrogs, invertebrates); 3) pathogens (e.g., parasites, bacteria, fungi, viruses); and 4) chemical contaminants (e.g., pesticides, heavy metals, fertilizer). Many scientists believe frog abnormalities have a number of possible causes. In some areas, more than one factor may be causing the abnormalities. It is also possible that the cause(s) may differ from one area to another.”



“The Service’s Northeast and Midwest Regions began assessments in 1997 to document the extent of abnormal frogs on national wildlife refuges.”

“In 2000, the Service expanded its efforts to refuges nationwide. The objectives of this program are to 1) determine if refuges have sites with a high frequency of abnormal frogs, 2) evaluate whether abnormality frequencies at a site are consistent within a season and among years, and 3) investigate possible causes of the abnormalities.”

“The Service has found abnormal frogs on refuges in all of its regions. We also have found that the presence of abnormal frogs on refuges varies. Abnormality frequencies have varied among years, between refuges, between ponds on individual refuges, and even within a single pond over the course of one

sampling season. These differences may be due to normal fluctuations in amphibian populations, changing levels of environmental stressors, or some combination.”

“Data in the scientific literature suggest that abnormalities in amphibians normally occur at low frequencies (zero to two percent) in wild populations. Therefore, the Service set three percent as the abnormality frequency at which we would consider additional sampling for this project. As of December 2006, 58 refuges had a frequency of three percent or more abnormal frogs in at least one pond during at least one sampling period, and several refuges had three percent or more abnormal frogs for at least two sampling seasons. The Service is considering these refuges for more intensive field studies as part of our continuing abnormal amphibian efforts.”

“As scientists make cause and effect linkages, refuge managers can take action to mitigate the effects of their management practices on amphibians and other wildlife. If data indicate that land use practices on private property adjoining refuges are the likely cause of amphibian abnormalities, the Service will work closely with the landowners to help determine whether there are other cost-effective and efficient remedies available.”

For more information on amphibian abnormalities and declines, visit the Service’s amphibian Web site at www.fws.gov/contaminants/Issues/Amphibians.cfm.

2008 The Year of the Frog

From Africa to the Americas, frogs and other amphibians are vanishing from the planet at an alarming rate. Not since the dinosaurs has the world seen such a rapid extinction. In the past few decades, as many as 130 species of frogs and other amphibians may have been wiped out. Right now, one-third to one-half of the world’s amphibian species are threatened. Climate change, pollution and a silent killer — chytrid fungus — are the main suspects in the mass disappearance. Chytrid fungus is currently unstoppable and untreatable in the wild. The World Conservation Union calls it the worst infectious disease ever recorded among vertebrates. Visit www.amphibianark.org/yearofthefrog.htm for more info

Mark Your Calendars

Volunteer Socials: Third Thursday of each month at 6pm.
June 19, July 17, August 21

Art on the Lake Exhibit: August 30

Jr. DuckStamp Art Display: September 3–13

Scout Day: September 27

New programs are scheduled near the end of each month, for July/August/September programs pick up a monthly calendar from the visitor center or visit the seney website, www.fws.gov/midwest/seney

Seney National Wildlife Refuge
1674 Refuge Entrance Rd
Seney, MI 49883

Did You Know . . . Common loons do not mate for life. Although serially monogamous, there is a 20% annual likelihood of "divorce" between a breeding pair.

Silver Eagle Award

The Seney Natural History Association was recognized by the U.S. Fish and Wildlife Service for its 20 year commitment to supporting the Seney National Wildlife Refuge. The Association was presented the Silver Eagle Award, the most prestigious award given by the Service's Midwest Region to individuals outside the agency who have made exceptional contributions to natural resource causes.

"Twenty years ago the Association understood the significance of the Seney National Wildlife Refuge and wanted to help support the Refuge's mission," said Robyn Thorson, the Service's Midwest Regional Director.

The Seney Natural History Association was established in 1987, when a group of volunteers assumed operations of a Lake States Association bookstore and thereafter committed all of its proceeds toward the support of the Refuge. This pledge made the Association the first "Refuge Friends Group" in the Midwest Region and among the first in the Nation.

Funds donated by the Association have allowed the Refuge to develop a comprehensive visitor services program and provide training opportunities for future conservation leaders. The Refuge has received more than \$400,000 from the



Dee Phinney, current vice president of SNHA & Dick St. Martin, first president of SNHA accept Silver Eagle Award

Association to enhance its biological and public use programs.

Their support of interns, special events, exhibits, species monitoring, visitor orientation, and facility enhancements, has helped make Seney NWR a better place for both wildlife and visitors. It is hard to overstate the impact of their contributions.

Memories from the Past

SNHA has funded at least 80 interns since 1993. We tracked down some of those interns to find out where they ended up & how they remembered their Seney experience.

"One of my fondest memories of Seney was zipping around Marsh Creek pool with biologist Richard Urbanek in the airboat he had just acquired for crane restoration work." -Sally Petrella (1999 intern), Volunteer & Stewardship Coordinator for "Friends of the Rouge"

"I have to say one of my fondest memories was bringing chocolate chirpy cookies (made with real insects) to an SNHA potluck" - Bob Wild (2000 intern), Interpreter, Porcupine Mountains State Park

Changing Faces

In January, maintenance worker Terry Papple retired after 37 years with the Refuge. During his tenure, Terry was a refuge officer conducting law enforcement duties, a primary boat operator for access to refuge islands and an active member of the Refuge fire crew. For most of his career, Terry was responsible for controlling the water levels in 21 water impoundments encompassing at least 44 water control structures spread out over half



Terry Papple

the Refuge. His electrical, plumbing, carpentry, cement, masonry and metal skills were constantly put to use maintaining over 25 Refuge buildings. Terry is an excellent carpenter. He designed and constructed the handicapped accessible fishing pier, observation decks along the auto tour loop, several kiosks throughout the refuge, trail benches along the nature trail and visitor center exhibits. Due to his expertise and work ethic, Terry was often

requested to help with off-site wetland restoration projects, in addition to his Seney projects. He skillfully operated multiple pieces of heavy equipment on all these projects. Terry has been an integral and vital component of Seney NWR. He will be immensely missed.

Brad Bergman, Senior Firefighter, has moved on to the same position at Horican NWR. Dave DeMeyere has filled the vacancy. Dave hails most recently from Fairbanks Alaska where he worked for the BLM Alaska Fire Service. Dave was raised outside of Detroit MI, graduated from Lake Superior State University and has worked on the Hiawatha and Ottawa National Forests. Welcome!



Dave DeMeyere