

**AUDUBON SOCIETY -  
MISSISSIPPI HEADWATERS CHAPTER**  
PO BOX 193  
BEMIDJI, MN 56619

We're on the Web!  
[www.spearheadMHAS.org](http://www.spearheadMHAS.org)

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Permit #28

## Give to the Max!

MHAS is making a difference in the Bemidji area by providing a wilderness setting for kids, families, and small groups to explore. We are working with local schools to provide an outdoor classroom for learning. Our Young Naturalist Program has inspired hundreds of kids to cherish the gifts of Mother Nature.

By partnering with GiveMN—an online giving website for Minnesota nonprofits—Your generous support means the world to conservation and environmental education now more than ever. Find a link for GiveMN at our website at [www.spearheadMHAS.org](http://www.spearheadMHAS.org). Thanks! **Jaime Thibodeaux—President**

## How Trees get Ready for Winter

As Minnesota's fall temperatures drop lower and lower each night, we simply throw on some extra layers, a stocking cap and a pair of moccasins to keep our bodies toasty warm. Trees do it a little differently. They have complicated physiological adjustments to make in only a few weeks time in order to withstand the frigid Northern Minnesota winters.

Like us, the tree's metabolism begins to slow down under colder temperatures. But before their metabolism becomes too slow or stops altogether, trees have some work to do. They must shut down their biochemical "machinery" and essentially freeze-dry their cells. The water within their cells will freeze into ice crystals and puncture the cell walls, which will ultimately kill the cell. They must dehydrate, or pull the water out of their cells, in order to save them for next year. Trees use a process called osmosis to move water through the cell membrane to a safe place between the cells.

After proteins are packed away and the cells are dehydrated, trees go into a type of hibernation mode. Deciduous trees will drop their leaves, since they are no longer doing photosynthesis. Conifers will hold onto their needles for a couple of more years, and they will be ready to do full photosynthesis again as temperatures warm up in the spring. - **Trista Little**



Mississippi Headwaters Audubon Society

# The Source

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### MHAS Board

**President** - Jaime Thibodeaux  
225-810-5591

**Vice President** - John Eggers  
**Treasurer** - George-Ann Maxson  
218-586-3414

**Secretary** - Trista Little  
**Board Members** -  
Michele Walker, Becky Marty,  
Annette Drewes

### Neilson Spearhead Center

**Caretakers** - Lee & Julie Patten  
218-444-8672

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Suggestions for the newsletter? Contact [chrismsousa@hotmail.com](mailto:chrismsousa@hotmail.com)

### List of Services or Supplies Needed:

Seeking donations or low-cost services:

Snow plowing, road mowing, brush blade, hand weed whip, loppers (4), angle grinder, tools (socket set, screw driver, wrench set), portable air compressor, wall shelving, tool hanger, digital camera, PFDs (13), gloves and eye protection.

### Special THANK YOUS!

Thank you Gladen Construction (gravel and rock for the driveway) and John Ellis (canoe).

Thank you to all of the volunteers that volunteered time and energy to help with storm cleanup

## Exciting Times for the Neilson Spearhead Center!

NSC may be a much busier place come next summer. Members of the board and a couple of enthusiastic local citizens are preparing an application for grant funds to implement the Master Plan developed for Spearhead. The application was invited by the Northwest Minnesota Foundation and will seek funds from the Neilson Foundation, as well as any other funding sources that seem appropriate.

High-school students monitoring tree growth, a sophomore biology student collecting phytoplankton samples from the depths of Spearhead Lake, and a small group of area teachers gathered in the outdoor learning space could be just some of the sights you might see at NSC in the near future. The vision of the grant writing group is a year-round education and research center with full-time staff and on-going collaborations with area educators and natural resource personnel.

For more information or to get involved contact Annette Drewes at 218-368-5050 or at [Annette.Drewes@gmail.com](mailto:Annette.Drewes@gmail.com).

### Neilson Spearhead Center

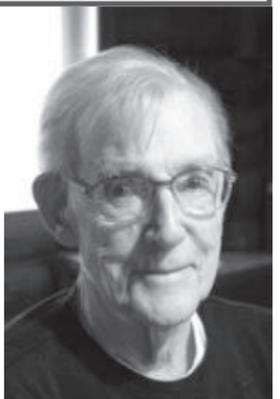
MHAS owns and manages a 466-acre tract of prime wilderness near Bemidji. This land was acquired by George W. Neilson in the 1930s, and deeded to the Nature Conservancy, which later deeded it to MHAS.

Trails are open to the public, but groups of 6 or more require a permit. A trail map and more information about NSC as well as the Master Plan are at our website.



## Amos M. Einerson—30 Oct 1971 to 22 Oct 2012

*In Memoriam*—Amos Einerson, an Audubon board member and enthusiastic promoter of Neilson Spearhead Center during the 1980s and 90s, passed away on October 22. We remember his passionate concerns for sustainable energy, his support for the Young Naturalist Program, his profound love of nature and his late wife Marion. He was a true gentleman and friend to those of us who worked with him. Amos played a major role in developing Spearhead. He was a retired engineer, specializing in sustainable energy systems, and set up the solar panel at Spearhead as a memorial to Margaret Rogers. He was "green" before it became fashionable. We will miss him. Donations to MHAS may be made in his memory.



## Bird in Focus: Red Crossbill



Female red crossbill (Photo: Wikipedia)

Recently, I was examining the tops of our trees for damage from this summer's storms and spotted red crossbills (*Loxia curvirostra*) feeding on cones. Red crossbills (sometimes called common crossbills) are found in

the coniferous portions of North America, Europe, and Asia. They are one of 17 finch species in North America. Males are brick red to reddish yellow with dark wings that lack wingbars; females are olive drab and also lack wingbars. What sets these birds apart from other finches is their bill. They are called 'crossbills', because they have specialized bills that cross at the tips allowing them to pry open cones of conifers, such as pine, spruce, hemlock, and fir, to access nutritious seeds. These birds are nomadic, seeking out cone crops, their preferred food, across the U.S. Because of variations in bill shape, body size, and voice, there may be several different subspecies. Researchers contend that bill sizes indicate food preferences. For example, eastern hemlock cones are much smaller than lodgepole pinecones, requiring a smaller bill to access seeds.

Crossbills breed in the boreal north and winter throughout the continental U.S. They lay 3-5 eggs in a cup nest of twigs, grass and bark, which is typically lined with grasses, lichen, conifer needles, and feathers. Nests are located near the tops of coniferous trees in dense woods. Their song is described as "a series of short warbled clicks and whistles" and their call "a series of short, hard jips". When I have seen them in my yard, they have been in small flocks of 20 to 50 birds, and they call often as they fly and forage.

The bills of young birds are not crossed at hatching, but cross as they grow!

There is another crossbill species you might encounter in Minnesota called the white-winged crossbill (*Loxia leucoptera*). This bird is similar in size and appearance to the red crossbill with the exception of 2 bold, white wingbars found on both males and females.

Both species may winter in Minnesota, so if you have conifers with lots of cones, check them out if you see a flock of birds foraging on them! - **Christine Herwig**

### Want to know more?

Cornell Lab of Ornithology: [www.allaboutbirds.org/guide/red\\_crossbill/id](http://www.allaboutbirds.org/guide/red_crossbill/id)  
Bird Web: [birdweb.org/birdweb/bird/red\\_crossbill](http://birdweb.org/birdweb/bird/red_crossbill)

## Upcoming Events!

**Christmas Bird Counts;** see [birds.audubon.org/christmas-bird-count](http://birds.audubon.org/christmas-bird-count)  
The Bemidji count will occur December 15 starting at 7:00 am at Minnesota Nice. See the MHAS website for details and contact information.

**A Kenya Photo Safari—December 13, 12:00; Bemidji Library—**  
Instead of bagging the "big five" (lion, leopard, elephant, Cape buffalo, rhinoceros) with a gun and a major expedition, today's visitors to Kenya capture their trophies with hundreds of digital photos taken from the comfort of a Land Rover. We've recently returned from a photo tour of Kenya's famous national parks: Amboseli, Samburu, Lake Nakuru, and Masai Mara, and will share our version of a modern safari. Steve and George-Ann Maxson are wildlife biologists with a passion for nature photography and travel to exotic destinations.



Steve and George-Ann pictured above; Cape buffalo photo by George-Ann Maxson

**Snow Sparkles and Winter Wonders—December 27, 12:00 to 5:00 pm at NSC—**Join Naturalist Dan Bera at the Neilson Spearhead Center for a very special post-Christmas treat. Enjoy a bonfire, hot chocolate, and snowflakes, snowsnakes, animal tracks, and a walk on the frozen lake. Second grade and older welcome! Dress warmly; bring an extra pair of snowpants and mittens, gorp ingredients, and leftover Christmas cookies to share. Limited to 15 participants, \$10 per person. Register by December 21; call George-Ann at 218-586-3414.

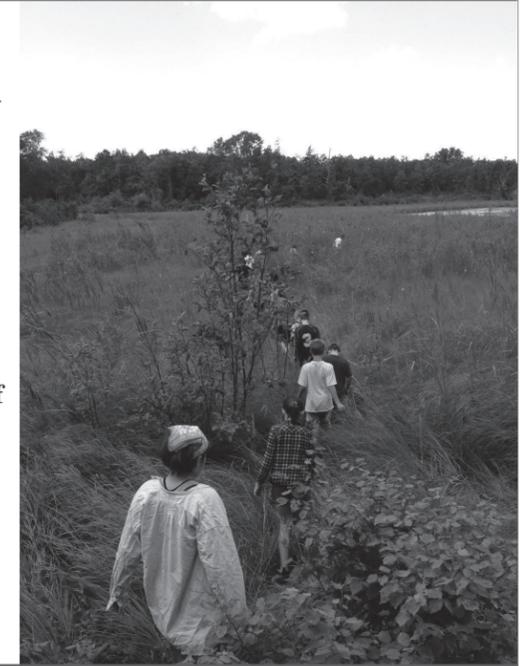
## Young Naturalist Program—Season Summary

We are thankful to have a few wonderful folks that helped with the YNP this summer. Mary and Michelle have shared some of their memories of the summer. As you can see by the differences in their end-of-season summaries, there's lots to remember! Thanks again to our excellent staff for another successful YNP program!

To summarize all the adventures that took place at Neilson Spearhead Center this summer would be impossible to fit into one paragraph. Some of the most talked about and memorable moments were discoveries of coyote carcasses, climbing on top of the beaver dam, mud fights, bog walks, scary stories, "man hunt", and the new tradition of whip-cream pie fights for all the overnights. With every group of campers, there was at LEAST one new and exciting discovery or observation.

This summer was a little different than all the rest. A new team of Naturalists: Katie, Mary, and Michelle, came together to provide all the campers with information about our natural environment in a fun and memorable way. The campers learned about several native plants and animals, invasive species, soils, survival skills, and some history of Neilson Spearhead Center and why it's so unique to the Bemidji area.

At the end of each week, it was hard to say good-bye to the campers, but we felt joy as we overheard each and every one of them talking about how excited they were for next year. With all the new adventures, observations, and obstacles (storm in July), this summer was a very successful and memorable. We hope to see old and new faces at the Young Naturalist Program next summer! - **Michelle Jipson**



Photos by Michelle Jipson

The YNP had another wonderful summer! We had grand adventures every week! Every group of campers found a different discovery, one that they could tell all of their friends and family about. We found a gigantic bone hidden in a murky marsh, coyote remains in Berry Heaven, and all sorts of wonderful plant species. That's the magic of the YNP: children from all over the area come to Spearhead and observe a unique biological setting. The program, besides providing a fun summer activity, allows kids to witness how cool nature really is. Kids leave the program with wonderful stories that they share with others.

I first discovered my love of nature when I attended the YNP as a child, and I was excited to return to Spearhead to spend a full summer working with such a wonderful program. I saw so many kids this summer who enveloped themselves in the experience and began to think more about the environment. Katie, Michelle, and I, made a point of teaching as much as we could about Spearhead: the plant communities, the lake, the history of the area, and much more.

All of this was mixed in with loads of games, mud fights, canoeing, and storytelling. The only disappointment of the summer was that we didn't have a sighting of the legendary Wannagittchi monster. Oh well, maybe next year! - **Mary Comfort**

The **Young Naturalist Program** at the **Neilson Spearhead Center** ~11 miles southwest of Bemidji has been educating youth in the Bemidji area about the natural world since 1985. Want to know more? Check out our website ([www.spearheadMHAS.org](http://www.spearheadMHAS.org)) or contact George-Ann Maxson (218-586-3414 or [gamaxson@paulbunyan.net](mailto:gamaxson@paulbunyan.net)).