

LEARNING FROM THE LAKE

FROM THE GREAT LAKES AQUARIUM EDUCATION DEPARTMENT

JANUARY 2010

The Education Newsletter is a new monthly resource for families, educators, and naturalists alike! Every month, this newsletter will provide activities for families to do at home; phenology for the current month to keep you updated on migration patterns and happenings in nature; interesting facts relevant to the time of year; astronomical events; and family-friendly events happening around the Duluth area.

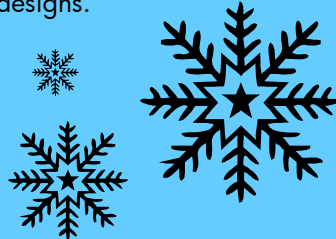
Watch for Education Newsletters each month! For inquiries on FREE subscriptions, contact Lindsay Brandt via email lbrandt@glaquarium.org or phone (218) 740-2027.

FAMILY ACTIVITY—Catch a Snowflake

Explore one of nature's most beautiful and diverse creations. Catch your own snowflake, and observe their unique and intricate designs.

Here is what you need to get started:

- Piece of cardboard
- Black construction paper
- Magnifying lens
- Freezer
- Glue



Glue black construction paper onto the cardboard, and place in a freezer until it reaches freezing temperature (or below). Then bring outside and allow snowflakes to fall on the construction paper. Don't forget the magnifying lens so you and your family can see them up close!

PHENOLOGY—January 2011 *by Minnesota Weatherguide*

First and Second Week

- Cardinals, chickadees, and nuthatches begin singing their spring songs.
- Eastern chipmunks awaken.
- American tree sparrows begin arriving at feeding stations about 30 minutes before sunrise.

Third and Fourth Week

- Raccoons and skunks begin to emerge from dormancy.
- Red fox can be observed in pairs as mating season nears.
- Coyotes begin their mating season.
- White-tailed deer bucks and bull moose begin to drop their antlers.

Did you know?!

- Since the winter solstice (Dec. 21), the Northern Hemisphere has gained 20 minutes of day light.
- The reason why you do not often see deer or moose antlers after they drop is because they are devoured by gnawing animals like deer mice, red squirrels, and porcupines! Antlers are high in calcium and phosphorus.



Get Outside: Snowshoe

A great way to get outside and enjoy the winter months is snowshoeing through the woods. Observe the wildlife that thrives in the winter; notice the different adaptations each plant and animal have for winter survival; and search for animal tracks in the snow. Each set of tracks has a story. Where was the animal headed? Was it in pursuit of a potential meal? Don't have your own snowshoes? Place like Hartley Nature Center and UMD rent snowshoes at a low cost!



JANUARY ASTRONOMY by Minnesota Weatherguide

Quadrantids Meteor Shower, January 3 and 4

The Quadrantids meteor shower can generate up to 40 meteors per hour at its peak! You will be able to get the best viewing of this show after midnight in a dark location.

Morning Stars—Venus, Jupiter, and Saturn



Venus, the 2nd planet in our solar system (named after the goddess of beauty) remains the morning star until February. To find Venus, look between 10 and 20 degrees above the southeastern horizon at 6:15 a.m.



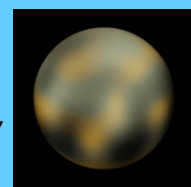
Jupiter, the 5th and largest planet in our solar system (named after the kind of the gods) remains the morning star until March. You may be able to view the “Great Red Spot” - a storm that has existed on the planet for over 400 years!



Saturn, the 6th planet in our solar system is visible in the morning until April, when it will become an evening star. With each day, it will rise earlier and earlier. Being the “Planet of Rings”, see if you are able to spot them through a telescope!

New Research—Pluto

Astronomers believe our chilliest former-planet, Pluto, may harbor an ocean beneath its 120-mile thick icy surface. Research suggests radioactive heat is warming the interior planet, maintaining an ocean 60 to 105 miles thick! Astronomers are looking forward to confirming this theory in 2015 when the spacecraft, *New Horizon*, reaches Pluto. The primary piece of evidence *New Horizon* will search for is cracks on the surface—an indicator that heat is being released from the interior.



Local Events

- Jan. 1—New Years Family Slumber Party, Ely
- Jan. 14—Jan. 17—Tracking the Pack for Teens, Ely
- Jan. 17—M.L.K. Day
- Jan. 19—Winter Tree & Shrub ID, Boulder Lake Environmental Learning Center
- Jan. 22—Courage Center’s Up North Winter Adventure, Boulder Lake Environmental Learning Center
- Jan. 23—Jeehaw Jaunt: A Skijor Race, Island Lake
- Jan. 23—Jan. 28—Road Scholar Minnesota Winter Sampler (various events), Ely
- Jan. 29—Candlelight Ski, Skate, and Snowshoe, Hartley Nature Center
- Jan. 30—United Northern Sportsman’s Winter Fishing Contest, Island Lake
- Jan. 30—Feb. 4—Road Scholar: Wolves in Winter, Ely

JANUARY 2011

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23/30	24/31	25	26	27	28	29

Events at Great Lakes Aquarium

Whirligigs Preschool Program: this is exciting drop-off program is for children ages 3-5. Every Tuesday and Wednesday from January 4th—February 9th, preschoolers learn more about nature! Topics this winter include; hibernation, tracking, constellations, snowflakes, life beneath the snow, and trees in the winter. Pre-registration is REQUIRED. Contact Lindsay Brandt for more information: (218) 740-2027 or lbrandt@glaquarium.org