

# SPECTRUM

Northern Cross Science Foundation Newsletter

December 2011

## LOOKING UP

### December 1, Thursday

#### General Meeting

7:30 p.m. - Business Meeting

Board Elections (1)

Holiday Party to follow

"Elephant Gift Exchange"

(See Pg. 3 for details)

### December 15, Thursday

#### Board Meeting

7:30 p.m.

Home of Joyce Jentges

### January 5, Thursday

#### General Meeting

7:00 p.m. Astronomy 101

7:30 p.m. Main Program

Business Meeting to follow

### January 7, Saturday

#### Candlelight Ski & Hike

6:00 p.m. to 9:00 p.m.

Harrington Beach

### January 21, Saturday

#### Horicon Marsh

6:00 p.m. to 9:00 p.m.

### February 2, Thursday

#### Annual Banquet

Fox & Hounds Restaurant

Hubertus, WI

Details to follow

## Meteorite Crater in Our Backyard

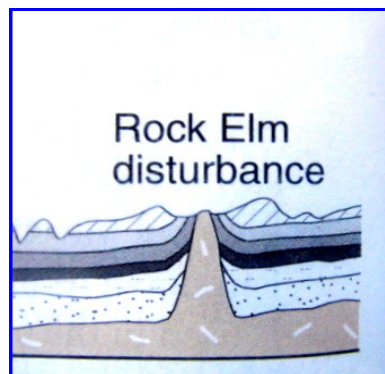
By Mark Hirschmann

Imagine one morning you hear the loud rumble of the thunder created by a Lambeau Field size meteorite striking the earth close to Nugget Lake County Park, County Road HH, Plum City, Pierce County, Wisconsin. The Park is about 30 minutes south of Menomonie and 30 minutes west of Osseo.

This explosion occurred about 450 million years ago when this part of Wisconsin was in a shallow sea near the equator. Water and sea bottom filled that crater. Eons of erosion have blended the crater into the surrounding farmland and hills leaving just a few visible signs of a once cataclysmic event. Professor William Cordua of the University of Wisconsin – Rivers Falls has studied the Rock Elm Disturbance in depth and supports a meteorite impact is its origin.

### ***The Bent Rock***

The staff at Nugget Lake County Park are helpful directing you to several geologic features of the Rock Elm Meteorite Impact Site. (At the park office you will pay a \$5 vehicle fee and obtain a map to the boat launch and the "Underlook.") Begin at the boat launch and look across Plum Creek to layers of horizontal, stratified rock deposited before the ancient sea receded. This is undisturbed sandstone and shale. With this in mind, drive a short distance back to the trailhead (Bluerock Scenic Overlook) and hike to the "Underlook." In the distance of a few hundred yards from the undisturbed rock, you will see stratified rock bent and broken by strong forces consistent with a meteorite impact.



### ***The Central Uplift***

The original crater was 4 miles in diameter and about ¼ of a mile deep when it was first created. Like many craters on the moon an elevated rim surrounds a hill or mountain. This central uplift is created when the displaced rock softened by the impact rushes back to the center pushing up and solidifying. The center of the Rock Elm crater has an uplift of sandstone just north of Nugget Lake County Park.

The best way to experience the uplift is drive around it. The uplift is private property, so stay on the county roads. There are several places to start. From Nugget Lake County Park, turn left (north) a short way on Hwy HH. At the "T," turn left over the creek bridge, then turn immediately right (north) onto 170<sup>th</sup> Street. This begins a counter clockwise drive around the uplift of about 20 minutes. Notice the contrast between the farmland on the right and trees on the left. At the north end of the uplift, turn left (west) on Hwy 72 for short distance, then left (south) again on 190<sup>th</sup> St. There is a small cemetery on the corner. Follow the gravel road south and west until you reach Hwy CC. Turn left (south) on Hwy CC and then left (east) on Hwy HH where you can return to the Park. (See Page 4 for ***Direction Map***)

### ***The Rim***

The rim of the crater is difficult to distinguish from the surrounding hills. The best vantage point is on the south rim not far from Nugget Park just north of the corner of 410<sup>th</sup> Av and 210<sup>th</sup> Street. A good map or the Park staff can help you find this location. Once there, look north and slightly east. The uplift can be seen and the far horizon is the north rim of the crater. (See Page 4 for ***Rim Map***)

### ***The Dessert***

If you are hungry after this exploration, consider the outstanding pies at Norske Nook Restaurant in Osseo.

(Maps on Page 4)

## November Meeting Minutes

By Kevin Bert

The November business meeting of the Northern Cross Science Foundation was held at the Unitarian Church North in Mequon. President Joyce Jentges opened the meeting at 8:05 pm. and welcomed over 30 members and guests. She then asked for standard reports.

Treasurer Gene Dupree reported a balance \$9106.45 in the general fund. He reported that Bayshore had given us a check for \$3000 for our efforts of sidewalk astronomy this season. This would be an increase from last year's donation.

Secretary Kevin Bert reported that Kenneth Dunn from Milwaukee joined the Northern Cross and was in attendance. And joining that evening was Brian Sisk from Mequon. No new Astronomical League information.

Under old business, Joyce said that she continues to wait for information from Harrington Beach about the Observing Mound and confirmation on the lighting procedure at the picnic shelter. Updates will follow as they become available.

Cancellation of our participation in the

Holiday Folk Fair was decided at the last Board meeting according to Joyce. A combination of them not contacting us and the low participation rate from last year contributed to this decision.

Under new business, Joyce reported that Jeff Setzer, was finishing his term as board member of the NCSF in December. She reminded members that if elected it consisted of a 3 year term and that nominees have the option to accept or decline to run. Outgoing members are also eligible to run again. Joyce then opened up the floor to nominations for the position.

Mickey Kazmierski nominated Jeff Setzer and Aris Penikis seconded the selection. Jeff accepted to run again. With no other names brought forward Joyce closed the nominations and announced that they would resume at the December meeting followed by elections.

Joyce confirmed that the February 2<sup>nd</sup> Banquet would again be held at the Fox & Hounds restaurant in Hubertus largely due to last year's success. Plan now as details will come in an upcoming Spectrum.

As a reminder Joyce noted that the December meeting/party will have no 101 class or main program. It would be an

opportunity for members to bring a dish or plate to share. The club will provide beverages, cups, plates, plastic utensils and napkins. Following the brief business meeting there will be a time to socialize and enjoy the snacks. As a new activity, any member wishing to participate in a white elephant exchange should bring a gift. Numbers will be assigned to the gifts and matching numbers will be drawn from a hat by the participants. She hopes that all members will attend.

In closing Joyce listed the final two scheduled viewing events of the year. See Kevin Bert for the Jim & Gwen Plunkett Observatory training on November 5<sup>th</sup> at 7:00 pm. See Jeff Setzer for a Star Party at the Yerkes Observatory on November 19<sup>th</sup>. Telescopes will be needed to entertain the guests on the back lawn area with tours of the facility being conducted by the staff. Jim Marsala noted that Dave DeRemer would be willing to hold an event for our group at the Horwitz Planetarium in Waukesha. No date was set, but the membership would take it under consideration.

With no further business, the meeting was closed at 8:30 pm.

## Things to See In the December 2011 Night Sky *By Don Miles*

**Venus:** Now trails the Sun, and sets about 6pm *early in the month*, and by about 7:30 *later in the month* (6 / 7:30pm). It's best viewed right after the Sun sets. Venus (mag -3.9) is now even brighter than Jupiter, and it's very easy to find as it's the brightest "star" in the sky. Look right behind the Sun as it's setting, and the first bright "star" you'll see will be Venus. It will start the month in the constellation Sagittarius, but will move eastward into Capricornus by the end of the month.

**Neptune:** Still straddles the border of the constellation Aquarius & Capricorn, and will move very little throughout December. It's still at (mag 7.9), and like Venus, its best seen right after sunset as the sky darkens. It's just to the east of the lower "fish" in Pisces and will set about (10:30 / 9pm).

**Uranus:** Is also up as the sun sets, and will be highest in the sky by about (7:30 / 5:30pm), and sets about (1:30am / 11:30pm). Uranus is at (mag 5.8), and remains pretty stationary for December. Look just east of the lower "fish" in Pisces for a "star" with a blue-green color to it.

**Jupiter:** Now at (mag -2.8), bright Jupiter is up as the sun sets, and will be highest in the sky by about (9:30 / 7:30pm). This month Jupiter will move very little, as it

hovers around the knot holding the fish together in the constellation Pisces. Jupiter sets about (4 / 2:30am). About the evening of the 20th, all four of the above planets will form a "chain" after sunset. The chain will total approximately 90 degrees, with about 30 degrees separating each planet. From right (western horizon) to left will be Venus, Neptune, Uranus, and finally Jupiter.

**Mars:** Rises around (11:30 / 10:30pm) in the constellation Leo between the lion's front & hind feet, and will drift eastward to end up below the hind feet by the end of the month. It's around (mag 0.7), and is highest in the sky right before sunrise.

**Saturn:** Rises around (3:30 / 2am), and like Mars, is also at (mag. 0.7). The rings are still at an excellent angle to see detail in the rings. The best views will also be right before sunrise.

**Mercury & Pluto:** Both are very close to the line of sight of the Sun, and Pluto will be out of view until next spring. Mercury is now on our side of the Sun, and for the first week, will be too close to the Sun to see. It will continue to work its way around the front side of the Sun, and will emerge as a morning object just ahead of the Sun by mid-month. Mercury will reach its "greatest western elongation" (the point

where it will reach its greatest separation from the sun to the west) on the 22nd. After the 22nd, Mercury will start to slip closer to the Sun again on its way around the back side.



### **Moon:**

December 2nd: First Quarter  
December 10th: Full Moon  
December 18th: Last Quarter  
December 24th: New Moon

### **Special Events:**

There is only one meteor shower to speak of this month, and those are the Geminids. They peak the night of the 13th, and into the morning of the 14th. The debris trail is pretty wide, as the showers start around the 6th and last thru the 19th. The recent full moon (on the 10th) will wash out some of the more faint meteors. They are predicted to peak at 60/hr, so even if you only catch the brighter ones, the shower should still be enjoyable to watch if we have clear skies.

## December General Meeting

### Holiday Party

The meeting will begin at 7:30 p.m. Nominations for the Board of Directors will be reopened, followed by an election to fill the open position on the Board. After the meeting is over, we will have our Holiday Party. Drinks will be supplied. We ask that everyone bring a dish to pass. Some suggestions are appetizers, salads, vegetable dish, meatballs, casseroles, cheese/sausage and of course...desert. (cookies, cake, brownies, pie, etc.)



### White Elephant Holiday Exchange!

At the Holiday Party we will have our first ever "White Elephant" gift exchange. The only rule is to bring something with an "astronomical theme". Examples include something lying around the house that you don't want (some ugly item that someone gave you as a gift, something with a humorous theme, something no longer needed, etc.). *The goal is "entertainment, not gain"*. Rules of the exchange will be explained at the meeting.



## November Events

### Great Pumpkin Event October 28

*By Charlotte DuPree*

Mild but cloudy weather greeted shoppers and trick or treaters to this Bayshore Town Center Event. Gene had his Astrophysics refractor. He pointed it at a pumpkin in the distance and lured people by telling them they could view the "Pumpkin Moon" Charlotte set up an 8" Dob and pointed it at Victoria Secret! Carol Nelson assisted. Jeff and Becca arrived later and handed out Club materials. The event went from 6:00 - 9:00 PM.

### Observatory Training November 5

*Reported by Kevin Bert*

The November 5th Observatory training session was a wonderful evening. The conditions were mild but the wind became a slight problem at times. Eight members were treated to the sharpest views I have personally seen through the Panarusk telescope of the planet Jupiter. Jeff Setzer gave us an early heads up of Jupiter activity and early views through the 9.25-inch Schmidt Cassegrain showed the satellite transit shadow of Io on the Great Red Spot. As the training proceeded with the 20-inch, it was directed to Jupiter. The first views were stunning at a low power. Exceptionally fine markings were seen which prompted me to kick up the power a few notches. It held up to nearly 500x. The detail was great! By this time the Great Red Spot had nearly rotated out of view with the transit moon and shadow nearing the limb. A great number of parallel bands and swirls were seen along with two small dark markings in the Northern

Equatorial Belt. They were almost as dark as the satellite shadow and nearing the central meridian. A look at the prominently placed Moon completed the show.

### Keeping The Peace at Star Party..

*by Harvey Sherman*

Today's cars have automated lighting systems. Under normal circumstances, they work well. At star parties, however, problems can occur. Let's say the sun has gone down, and you remember leaving some gizmo in your car. You open the trunk or door and white lights go on. Oops! People around you are screaming because you've just ruined their night vision and/or long exposure picture. Here's a simple solution. There are knife switches available for hooking to your car battery. After parking your car, simply open the switch to prevent any automatic features from turning on any of your lights. Yes, you might have to reset your radio and/or clock. That's a small price to pay for keeping the peace with your fellow astronomers.



*Harvey can be reached by e-mail to [harvey@shermcraft.com](mailto:harvey@shermcraft.com). You can visit his website at [www.shermcraft.com/astro](http://www.shermcraft.com/astro).*

## Related Info

### New Members

Welcome to "New Club Member's"

Bryan Atinsky

Jordan Atinsky

Brian Sisk

### 2011 Dues

Your 2011 Dues invoice is included with this Newsletter. New members having joined the Club this past year will find their dues have been prorated, making them payable on the same schedule as the rest of our general membership (at the beginning of each calendar year). Members receiving electronic mailing can download the Dues Invoice from the Club website or print the attached pdf file. Additional copies of the Invoice will be available at the December Membership Meeting.

Instructions for submitting Dues are indicated on the Invoice.

**Note:** Astronomy Magazine can only be renewed through the Club to receive the discount rate. However, you can renew an existing Sky & Telescope Magazine subscription on your own and the Club discount will automatically be available.

### Jim and Gwen Plunkett Observatory



**Observatory Director:**  
Dan Bert: 262-375-2239

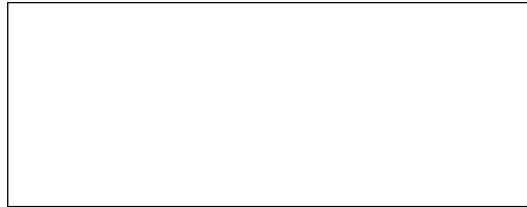
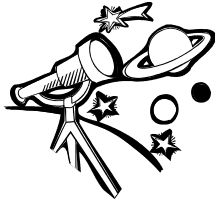
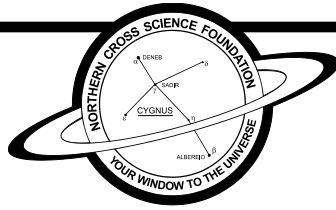
### Astronomy Bumper Stickers

"Size does matter

"Telescope in the trunk."

"My other car is a Saturn"

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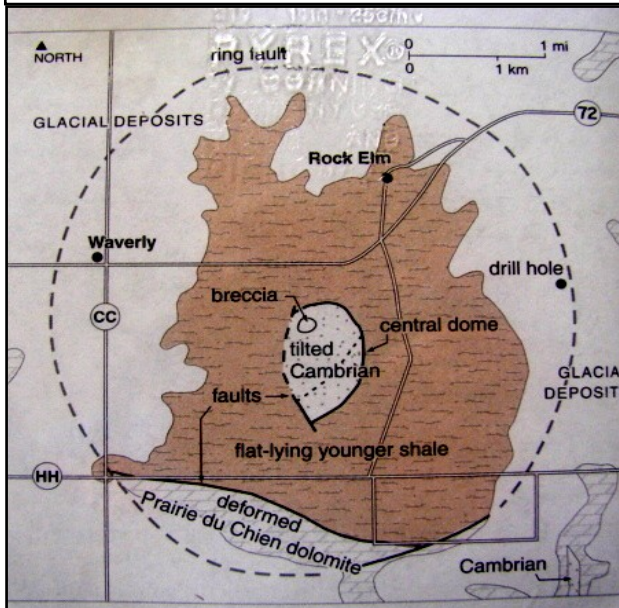
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**Direction Map (Continued from Pg. 1)**



**Rim Map (Continued from Pg. 1)**



*Mark Hirschmann (414-870-0974) is an amateur astronomer and a member of the Northern Cross Science Foundation.*

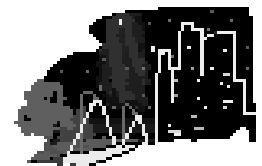
Our club has a "Discussion Group on Google"  
 See our website: <http://www.ncsf.info/> for details.

## SPECTRUM

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The NCSF supports the International Dark sky association.



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This Issue, along with back Issues of SPECTRUM, can be found on the NCSF Web Site.

<http://www.ncsf.info>

**Monthly Meeting Location**  
 Unitarian Church North  
 13800 N. Port Wash. Rd.  
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