

SPECTRUM

Northern Cross Science Foundation Newsletter

July, 2017

Looking Up

July 6, Thursday

General Meeting

No Astronomy 101

7:30 p.m. - Main Program

Business Meeting to Follow

July 20 Thursday

Board Meeting

7:30 p.m.

House of Jeff Setzer

July 22, Saturday

Small Scope Party

7:00 p.m.

Harrington Beach

(See Insert)

July 28, Friday

Public Viewing

8:00 -11:00 p.m.

Harrington Beach

July 29, Saturday

Public Viewing

8:00 -11:00 p.m.

Harrington Beach

July 29, Saturday

Public Viewing

8:00 -11:00 p.m.

Pike Lake Campground

August 3, Thursday

General Meeting

101 - (To be announced)

7:30 p.m. - Main Program

Business Meeting to Follow

Newport State Park—Wisconsin's 1st Dark Sky Site

Newport State Park in Door County has recently become the first Wisconsin location to be designated as a Dark Sky Park. It is one of only 48 parks in the world to receive designation from the International Dark-Sky Association, whose purpose is to protect night skies from light pollution. Newport joins Big Ben, Glacier and Grand Canyon national parks and 13 other state parks across the country in receiving this designation.

I had seen a Dark Sky Site in Michigan several years ago and was excited to visit Wisconsin's first such park. I knew I'd be up state in Door County around the middle of June camping and planned to check it out. I knew the Park was wilderness-only camping and envisioned a rather primitive facility with the standard 11:00 pm State park curfew. I was delightfully surprised! When I talked to the Ranger and checked out the Park I found they were Amateur Astronomer friendly, much like Harrington Beach with several nice observing sites.

The first site was at the Beach looking due east. Observing can be done right on the water edge or back up near the walkway. The spot is beautiful and offers a full eastern exposure with some tree obstruction to the west.



Beach Site

The second site is near the Rangers Station in an open area called Monarch. The best western horizon is available at this site, but trees obscure the east a bit. Both sites have their own charm.

The only issue is the need to park in Lot-1 at Marathon and Lot-3 at the Beach. Equipment must then be transported to the site on foot; a walk of about a city block in both cases. One could setup in the parking lot, but the view would

be confined to the zenith. Use of a cart would be very handy or even necessary depending on the weight of the equipment. Fortunately, at the Beach site there is asphalt walkway from parking Lot-3 to the beach, which is wide and level. To access the Monarch site requires parking in Lot-1 by the ranger station and a short walk down an asphalt road to a grassy path out into open field. Not ideal but definitely doable.



Monarch Site

The last day of vacation the skies cleared and my Granddaughter and I visited the park at 11:30pm. We parked at the beach lot and walked to the water edge. I've seen dark skies before in Mexico, Arizona, and Upper Minnesota but never with this much horizon! The southern Milky Way was like smoke rising from the water surface. The North American and Pelican Nebula were easily visible by naked eye. Scanning Sagittarius with 11X80 Binoculars was overwhelming. There were several other cars in the parking lot but we saw nobody. They might have been further down the beach?

This is a great observing site. Since we camp regularly in Door County you can be sure I'll be back.



Lot-3 from Beach

June Meeting Minutes

By Kevin Bert

The June Business meeting of the Northern Cross Science Foundation was held at the GSC Technology Center in Germantown. President Jeff Setzer called the meeting to order at 9:03pm and reminded attendees that May is the start of the public viewing season. He welcomed 27 members and guests, and then asked for standard reports.

Treasurer Gene Dupree reports \$12,219.87 in the checking account. Expenditures for the Astronomical League membership, International Dark Sky Association and electric bills were recorded. The Observatory account balance was at \$762.23.

Secretary Kevin Bert reports that final 2017 roster contains 46 members and was included in the June Spectrum. Any corrections should be forwarded to Kevin. The Astronomical League 2017 National Convention will be held in Casper Wyoming in conjunction with the total solar eclipse.

The Observatory Director Dan Bert reports that we are fully operational. Leaders are still needed for upcoming public events. M81 & M82 were the subjects for the imaging training sessions by Ernie Mastroianni along with several enthusiastic members out at the observatory.

Jeff Setzer covered upcoming events for June. The 2nd and 3rd are public viewing nights at Harrington Beach. Pike Lake State Park also has an evening viewing on the third. The 10th is a member's event during the day. Sun-Day on Saturday at Kevin Bert's home in Grafton. June 17th is a daytime event for solar viewing at Harrington Beach that is celebrating "The Treasures of OZ". Wisconsin Observers Weekend (WOW) runs June 22-25. Only two of the five camp sites at Hartman Creek State Park were reserved for this event so members wishing to attend should register soon because of the limited space.

The Orion 4.5-inch Star Blast Library telescopes are being prepared for the West Bend and Port Washington libraries. A program to enlist future corporate sponsors is being worked on to expand the library telescope program even further.

MAS July Campout

By Kevin Bert

I talked to Paul Borchardt at WOW and our club is invited to the MAS July Campout 7/21 to 7/23. Below is the notice Paul sent to MAS members. Anyone interested in attending or wanting more information, please contact me at 262 674-0610 so Paul has a reasonable head count.

Hi All, The last time the MAS had a campout was back in 2010 at the Yanko farm. After a long drought of no campouts mainly because we had no place to go, (the state parks have gotten real expensive for group sites and the fees are nonrefundable if the weather is bad), we now have a great place to go thanks to an invitation from Tom Maxwell and his wife Toni. They are willing to host a campout this July during the new moon on their land in Hiles Wisconsin, which is a little north of Crandon in the Chequamegon-Nicolet National Forest but can't see staying in a tent for the weekend there is lodging within minutes.

Friday, July 21 to Sunday, July 23, 2017
8604 Atkins Road, Hiles, WI 53235

Coma Galaxy Cluster *by Ernie Mastroianni*

Except for the three 7th magnitude stars in the upper left (they're blue if you're viewing in color), nearly every other object in this picture is a galaxy.

Among the most prominent in this dramatic view of the Coma Galaxy Cluster are NGC 4889 and NGC 4874, but they both glow at only 12th magnitude. These galaxies were discovered by Frederick William Herschel in 1785. Both super massive elliptical galaxies about 300 million light years distant. NGC 4889 is one of the largest and most massive galaxies known, and is at least many hundreds of times as massive as the Milky Way galaxy.

Near the bottom is the barred spiral NGC 4921, nearly 320 million light years away and shining at just 13th magnitude. A rough count of just the most obvious galaxies pictured here tallied more than 100. A closer examination would raise that number significantly. Not one Messier galaxy is in this frame.

Northern Cross member Tom Schmidtkunz took this picture via iTelescope to remotely operate a TOA-150mm refractor at New Mexico Skies April 22, 2017. He used an SBIG ST-4000XMC one-shot color camera which produced this a 98 x 98 arc-minute field of view (about three full moons of width). Nine exposures at 300 seconds were combined for this final picture. It is only by the excellent image processing efforts of Chad Andrist that this final image was possible. - Tom Schmidtkunz

Images are best viewed in the digital version of this Newsletter



Coma Galaxy Cluster by Tom Schmidtkunz

July General Meeting

Main Program

William Dirienzo, Ph.D

Star Formation

The July meeting will have a speaker from UW - Sheboygan. William Dirienzo, Ph.D will speak on Star Formation. He is an Assistant Professor of Physics and Astronomy at the University.



Sun-day on Saturday

June Public Viewing Events

Harrington Beach - June 2

By Ernie Mastroianni

A few dozen well-engaged visitors stopped by the Plunkett Observatory at Harrington Beach State Park on Friday June 2. Leading the event was Ernie Mastroianni, assisting were Jim Macak and Richard Yzaguirre. Favorite targets of the evening included Jupiter and its Great Red Spot, which slowly rotated out of view as twilight faded. Steady skies also revealed much detail on the waxing gibbous moon. Despite the moonlight, many favorite deep sky objects were observed, plus a bonus comet: Johnson (C/2015 V2), which glowed at about 7th magnitude near Arcturus. Saturn rose later in the evening, but it remains low in the southern sky in unfavorable atmospheric conditions.

Harrington Beach - June 3

By Dan Bert

Harvey and Gail and I opened up the Observatory for an hour to about 6 guests for a brief view of moon. Weather was mostly cloudy. After giving Panarusky a WD 40 rub I left around 9:30.

Pike Lake - June 3

By Charlotte DuPree

This event is for families to explore the outdoors, and we have participated every year. It is held rain or shine. The day was cloudy with off and on again rain. We put-up the canopy and set out our display of hand outs. The visitors were few, so we decided to pack-up when there was a break in the rain.

Pike Lake - June 3

By Charlotte DuPree

We arrived early and set-up our scopes despite the lingering clouds. Gene spotted the moon, in a sucker hole. He knew that Jupiter was close to the moon that night. Because it was still day light he started to scan around the edge of the moon. It did not take long until he found Jupiter, south and west of the moon. There was a steady flow of visitors, and we were able to see Saturn and a few other objects as the clouds disappeared. The clouds came back so it was time to pack-up. Thanks to Al S. and Rick D. for helping out.

Sun-Day on Saturday - June 10

By Kevin Bert

The sun shone uncontested by clouds at the 2017 Sun-Day on Saturday. A dozen attendees enjoyed views of the sun in standard white light and hydrogen alpha. Sunspots were absent but some interesting H-alpha detail appeared. Coronado 90mm setup instructions were taken advantage of by members wanting to check it out some time on their own. It is a wonderful telescope that gives amazing views. Some members took advantage of some garage sale items to add to their library. Time was taken to review most of the clubs loaner telescopes stored by Kevin while one was even checked out by one of the members. Most attendees stayed for the great variety of food at dinner. I will need to get plates with more partitions next year. Thanks to all who participated in the festivities.

Harrington Beach - June 17

By Nolan Zadra

Solar Viewing Day at Harrington brought sunny but very windy skies at set up. Within an hour clouds rolled in and but for a few minutes of dodging clouds and then even fewer sucker holes as the day progressed. So observing the sun was scant most of the day. Too bad as a few sunspots and prominences were present. Nevertheless, about 30 people joined Nolan Zadra as leader (club's Coronado) and Rick Dusenberry (assisting with his dobsonian with solar filter). Discussion focused on NCSF, the observatory equipment and the August 21st eclipse. Some folks were generous to the extent that we collected \$40 for the 10 to 12 eclipse glasses that were passed out. Despite the predominant clouds, there was genuine interest amongst those who showed up.

Harrington Beach - June 30

By Jeff Setzer

Public viewing started out overcast, but by 9:30pm the sky cleared nicely. About 30 visitors, but several very interested. One person brought a completed membership form for him and his wife (along with a check). Another couple plans to attend our meeting on Thursday and sign up then. Several families were there and there was much interest overall.

Moon, Jupiter, Saturn, M13 and M57 were the targets for our short (90-minute) session.

RELATED INFO

NCSF Welcomes New Member

Arun Hegde



Leaders for Public Viewing

July 28

Harrington Beach
Leaders Needed

July 29

Harrington Beach
Leaders Needed

July 29

Pike Lake
DuPrees

Great American Eclipse

August 21

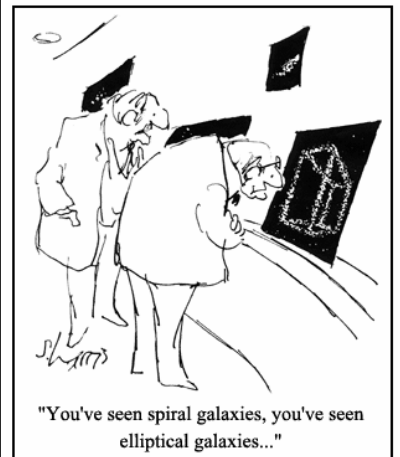
Pick your spot on the Center Line



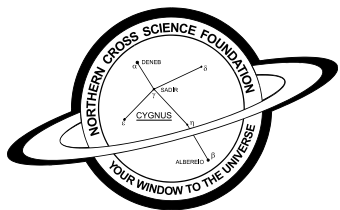
Northwoods

August 25 -27

Hobbs Observatory
Beaver Creek Reserve
Fall Creek, WI.
www.cvastro.org



SPECTRUM
5327 Cascade Drive
West Bend, WI 53095



**Jim & Gwen Plunkett
OBSERVATORY**



2017 Board of Directors

President - Jeff Setzer
1418 Trillium CT
West Bend, WI 53095
262-338-8614
astrosetz@hotmail.com

Vice-President - Joyce Jentges
336 N Main Street, Apt.3
Cedar Grove, WI 53013
262 483- 4270
joycejentges@hotmail.com

Secretary - Kevin Bert
2292 Ridgewood Road
Grafton, WI 53024
262-674-0610
kevin.bert@hotmail.com

Treasurer - Gene DuPree
6219 Jay St.
Myra, WI 53095
262-675-0941
grdupree@charter.net

Dan Bert - Observatory Director
262-357-1973
1517 Green Valley Rd.
Grafton, WI 53024
dbert64@gmail.com

Rick Kazmierski - Newsletter
262-305-1895
5327 Cascade Drive
West Bend, WI 53095
rickkaz@charter.net

Wisconsin Observers Weekend (WOW)

June 22 - 25 Gene and Charlotte DuPree

Pre WOW, as we call it, started the Saturday before. There were two good nights of viewing. On the Thursday night of WOW the rain won out, and we went to Waupaca to see a movie. Friday night was a GREAT night to visit with old friends, and for viewing and seeing new objects one has never seen. Objects like the 3rd part of the Veil nebula, open cluster NGC 7789, Caroline's Rose, some new galaxies, and planetary nebula. Gene using the 18 inch and Jeff using the 22 inch, spent time sharing and comparing views of different objects.

On Saturday afternoon, there was a small crowd at the ice cream social. The attendance was low enough that everyone won (received) door prizes, with a few left over for next year. Mark June 14 of 2018 for WOW next year. Two of the group sites had already been reserved, starting the week before so that was the reason for the small attendance.

For Sale

Impressive large 14.5 inch telescope with unusual F/ 5.6 ratio! Reduced size secondary and curved vanes for less obstruction for planetary views. Custom made mirror made by known mirror maker Jim Mulherin of Torus Optical, now OMI. Taurus specified the mirror "Each mirror is guaranteed to be corrected for spherical aberration to 1/10 wave, peak to valley on the wave front using the Caustic Test with no detectable astigmatism under the Wire Test." My personal notes indicate he might have ground it to 1/16th.

Gorgeous views of M 13, M 81 and 82 in the same field, M 57, M 27, Jupiter, Saturn, Andromeda (M 31), Orion Nebula (M 42).... Includes shroud to keep dew off of main mirror, 2 wood arms to move it on 2 wheels (see picture), older dob driver, 2 inch JMI focuser with 1.25 adapter, 6 inch off axis apererture mask with separate cover, wires for dew heater on the secondary. Have over \$4000 cost but willing to sell for about 1/2 that amount. Height at zenith 77.5 inches; height at 60 degrees is 68 inches.

Nolan 414 333-5248

SPECTRUM

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NCSF is a member of the North-Central Region of the Astronomical League.



NCSF supports the **International Dark Sky Association**

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

Monthly Meeting Information

7:00 p.m. Astronomy 101 Mtg.
7:30 p.m. Main Program
Location at the -

GSC Technology Center
W189 N11161 Kleinmann Dr
Germantown, WI 53022

Spectrum Newsletter
5327 Cascade Drive
West Bend, WI 53095

Please send your Questions, Suggestions, Articles, and photos to:
rickkaz@charter.net