2016 Cherry Springs Dark Sky Park Report

General Information

Contact Information

Park Manager Chip Harrison Lyman Run State Park 636 Lyman Run Road Galeton Pa. 16922 Telephone 814-435-5010 E-mail hharrison@pa.gov

Dark Sky Park Status Level Gold Level

Number of site visitors in the last year

Total Attendance September 2015 – October 2016 60,743

Night Sky Attendance

	2016
Public Night Sky Programs	11,193
Astronomer overnight	5,811
Non Astronomer night Sky Viewing	20,055
Non-personal Daytime Astronomy Interpretation	7,333
Rustic Camping	11,023
Total Night Sky Attendance	56,218
Total Park Attendance	60,743

Lighting

All lighting is 100% full cut off and compliant with the outdoor lighting guidelines and the Management Plan Night Sky Objectives.

Sky Quality 2016

Numerous Unihedron Sky Quality Meter Readings Visual Limiting Magnitude.

Site	Date	Time	MPSAS	LVM
Cherry Springs	5/3/16	3:00 AM	21.75	6.5
Cherry Springs	5/9/16	11:30 PM	21.67	6.5
Cherry Springs	5/30/16	11:11 PM	21.70	6.5
Cherry Springs	5/31/16	1:08 AM	21.70	6.5
Cherry Springs	5/31/16	1:41 AM	21.75	6.5
Cherry Springs	6/1/16	1:00 AM	21.73	6.5
Cherry Springs	6/29/2016	10:55 PM	21.82	6.5
Cherry Springs	7/1/2016	12:20 AM	21.56	6.4
Cherry Springs	7/1/2016	1:15 AM	21.69	6.5
Cherry Springs	7/5/2016	11:45 PM	21.82	6.5
Cherry Springs	7/6/2016	1:40 PM	21.71	6.5
Cherry Springs	7/7/2016	12:15 AM	21.66	6.5
Cherry Springs	8/3/2016	12:00 AM	21.76	6.5
Cherry Springs	8/4/2016	10:30 PM	21.70	6.5
Cherry Springs	9/27/2016	10:30 PM	21.76	6.5
Cherry Springs	9/28/2016	10:30 PM	21.78	6.5
Cherry Springs	9/29/2016	10:00 PM	21.70	6.5

Park Staff and astronomers have observed a visual limiting of 6.4 to 7.0 for Cherry Springs under clear skies and good seeing conditions.

Conservation and Research

Publication of research report on the dark sky in Cherry Springs conducted 2014-15

Variation of outdoor illumination as a function of solar elevation and light pollution Manuel Spitschan, Geoffrey K. Aguirre, David H. Brainard, Alison M. Sweeney http://www.nature.com/articles/srep26756

Funding

Operational funding is provided by general funds from the Pennsylvania State Budget allocation to Bureau of State Parks.

The Cherry Springs Dark Sky Fund (A Pennsylvania Parks and Forestry Foundation Friends Group) continues to be a critically important partner with Dark Sky Fund donations used to enhance the stargazing and astronomy experience at Cherry Springs State Park. Donations have been used to educate local residents and visitors about the value of the night sky resource and why it needs to be preserved.

Arts and Culture

In 2016 the park offered three Arts and Cultural events.

The first event, "Wish upon a Star" featured a performance by the Endless Mountain Music Festival (EMMF) Brass Quintet - EMMF co-sponsored the event. The concert was followed by stargazing.

The second event "Stars in the Arts" hosted by the Friends of Lyman Run at nearby Lyman Run State Park and featured PA Wilds and Rt. 6 sanctioned artisans, food vendors and music by folklorist Van Wagner, an acoustical trio called Vernal Pool, and another folk group Burning Tractor.

The third event, new for 2016, Nightscapes Photography Workshop Series with PA Wilds Juried Artisan Curt Weinhold.

Wish upon a Star

Sunday, July 24, 8:00pm to 11:00pm

"Come enjoy the night sky of Cherry Springs State Park accompanied by a wonderful night of brass music performed by the Endless Mountain Music Festival (EMMF) Brass Quintet.

This is a FREE part of the EMMF concert series especially designed for children and seniors. All are welcome and donations will be accepted. Seating is available or you can bring chairs or a blanket. Dress for the cooler weather at the park. The works of Gustav Holst, Scott Joplin, and the ever popular John Phillip Sousa (among others) will be featured. After a short intermission, a special Night Sky Tour will conclude your evening under the stars."

Stars in the Arts Festival

The second annual Stars in the Arts Festival will be held at Lyman Run State Park on Saturday, September 10 from 10:00 am until 6:00 pm. This event will feature artisans from the PA Wilds Cooperative, Route 6 and other juried artisans. During the event, there will be several musical performances from local historian/ folksinger Van Wagner, Vernal Pool and Burning Tractor.

Food vendors will also be on hand to delight the taste buds. To celebrate our dark skies, several solar scopes set up by the Cherry Springs Dark Sky Team will allow visitors to view actual activity happening on the sun, then later that evening when the sun goes down and the weather permits, stargazing will be done from the top of the dam.

Nightscapes Photography Workshop Series

Photograph the starry night sky with your DSLR camera & lenses you currently own. Curt Weinhold, a PA Wilds Juried Artisan, teaches you to photograph constellations & the Milky Way. Foreground material, as trees or buildings may also add to the composition. Samples of work online: http://pbase.com/cwphoto. Some photo gear essential to this would include a digital camera which allows removable lenses (DSLR) and a tripod. Strongly recommend a fully charged camera battery and a spare battery if available and a memory card. This is NOT for those wishing to photograph through a telescope. Clear nights are cool so bring a jacket. Class is approximately 2 hours in length. We may travel to two or more locations near Cherry Springs.

Outreach

Public Outreach-

Light Pollution outreach to the surrounding local communities.

- Meeting with local land owner groups providing good lighting fixtures information and brochure's
- Local fairs and community events set up Light Pollution/Dark Sky/Good Lighting displays
- Continue the local Public Library Star Gazing Loaner Trunk Program to Galeton and Ulysses
- Dark Sky Street Lighting Project in Coudersport Pa.



Programming-

Public stargazing programs are presented by park educational staff and dark sky team volunteers every Friday and Saturday night Memorial Day weekend though Labor Day weekend and Saturday night programs were offered from early April to Memorial Day weekend and from Labor Day until the end of October. Since its designation in 2008, attendance for the park's evening programs and stargazing has grown to unprecedented numbers.

In an effort to address the large crowds and their impact on the night sky and program quality we hired two additional interns who received academic credit towards their degree program. Additionally Night Sky Tour programming continued on Sunday evenings and select weeknights during the months of July and August.

Public Night Sky Programs attendance for 2016 was 11,193 for 121 hours of scheduled night sky programing.

Note: The total number of visitors to Cherry Springs was 60,743 and once again it is estimated that close to 93% were exposed to some type of night sky message be it interpretive waysides, brochures, or informational pamphlets on astronomy/light pollution awareness.

Cherry Springs – Night Sky Attendance increased 24% from 42,690 visitors in 2015 to 56,218 visitors in 2016. This is due to the increase of visitors coming to Cherry Springs to view the night sky largely as result of social media coverage. Campground usage once again increased from last year going from 7,407 in 2015 to 11,023 in 2016.

Events

Star Parties: Two star parties are held at the park each year. These are pre-paid, pre-registered events hosted by Astronomy Clubs where over 500 astronomers gather to stargaze and listen to slated professional speakers. Astronomy vendors are also on site. These are either 2-3 day (night) events.

"Black Forest Star Party"

The Black Forest Star Party (BFSP) is an annual dark-sky amateur astronomy observing event hosted by the Central Pennsylvania Observers (CPO). Held every year since 1999, the BFSP generally spans a weekend in the late summer or early fall at Cherry Springs State Park in Potter County, Pennsylvania. http://bfsp.org/

"Cherry Springs Star Party"

The Cherry Springs Star Party is an annual dark-sky amateur astronomy event that has been running every year in early to late June since 2005 at Cherry Springs State Park and is hosted by by the **Astronomical Society of Harrisburg**, **PA Inc.** http://www.astrohbg.org/CSSP/index.php

A Sampling of Visitors Comments

Review on Cherry Springs from Tripadvisor:

"Make this trip"

I've been coming here since it was an active airport. It been delightful to watch it turn into one of the premier stargazing spots on the east coast. One of the only places you can see andromeda galaxy with your naked eye.

On a good night you can see forever" Reviewed 3 weeks ago via mobile

The stars and the entire Milky Way is yours to enjoy.

Watch for special programs like the night photography course offered by Curt Weinhold, a local photographer.

If you live in a metropolitan area you may never have seen so many stars. Find the next new moon and go!

"Star Gazing & Milky Way" Reviewed August 3, 2016

This park is perfect to see more stars than you can see at home and more stars than you ever thought were out there. We came specifically to see the Milky Way and it didn't disappoint. There is a great open field which is shielded from car lights and you can lay on your blanket and watch the stars come out - just like a slow planetarium show. Dress warmly, even in August the night temperature was in the 60s.

"Dark Skys" Reviewed July 27, 2016

Premium night sky park with the best night sky facilities I have encountered. This place is remote, but easily accessible.

Visited July 2016

"Clear Skies on the Third Try" Reviewed July 4, 2016

Two times before I had been staying overnight near Cherry Springs State Park and hoped to experience its legendary clear, dark skies, among the best in the eastern U.S. for astronomy. Around 6 p.m. we were sitting in a nearby restaurant watching the rain out the window. But an hour later, the clouds began to break, and when we arrived at Cherry Springs just after 9, it was mostly clear. We had registered online for an astronomy program, which was a lot of information about the Greek and Roman legends behind the constellations, as well as a basic orientation to the summer night sky and the planets that were visible that night (Mars, Jupiter, Saturn). I had my old 3-inch reflector telescope along, but the program also offered a chance to look through much more powerful telescopes. For me, the highlight was the Milky Way, which I at first mistook for illuminated clouds. I live in a fairly rural area and can see the Milky Way occasionally, but on a clear night at Cherry Springs, it's taken to a new level. Looking into that "cloud" with binoculars resolves it into so many densely packed stars it almost doesn't seem possible. And, oh yeah – no charge for any of this! Worth considering as a bucket list item for anyone who has any interest in the astronomical universe.

Visited July 2016

"Great Scout Trip!" Reviewed June 26, 2016 via mobile

Thank you to the DCNR Staff and Rangers for a great trip for the Cub Scouts and Boy Scouts of Pack & Troop #69 from York County. The firefly, owl, and stargazing programs, were great this weekend. The staff is incredibly knowledge and friendly. It was a fantastic weekend! The staff and volunteers provided awesome views of Jupiter, Mars, Saturn, and a host of other celestial bodies. With one of the darkest skies on the east coast, the Milky Way is very clear. Satellites can be seen whizzing overhead shortly after sunset. Just awesome! The campground is very nice and clean; very convenient for our day hike at the Grand Canyon and stargazing at night. We had a great rocketry event on Sunday, again thanks to the DCNR staff for working with our group to make this happen.

Visited June 2016

"Star gazing" Reviewed May 30, 2016

We went to the park for star gazing. The sky is so clear and beautiful, it took me back to my childhood and looking up at all the stars as a kid. We just don't realize how much the light in our towns blot out the true night sky. We are not into astronomy, we just wanted to look at the stars. the programs are free, they have great telescopes on site and people pointing the telescopes all you have to do is look. The program was

really short but full of information, they were really trying to get you over to the telescopes to start viewing. We loved the program and we loved the gazing. I would tell everyone to definitely go to this place and see the stars.

Visited May 2016

"Stars in heaven" Reviewed May 30, 2016 via mobile

This whole area is breath taking. They have a wonderful night sky viewing program, and it was free. Staff was helpful and informative. Even my teenager enjoyed it. Cellphones where put away and everything.

Visited May 2016

"The Stars At Night Are BIG and BRIGHT!!" Reviewed February 19, 2016

Cherry Springs State Park is an astronomers dream! It is deemed one of the THE darkest places on earth and its mid summer festival affords the professional or amateur astronomer celestial views unseen anywhere else. Grab your kids & telescope and head out Route 6 to see one of nature's most beautiful views. The area during the day has amazing vistas looking across mountains but the night sky is the draw. You will see the skies as the early pioneers did and feel as though you could be drenched by the Milky Way. This is nature at it's finest!

Community and Media Relations

September

Backpacker Magazine

Best State Parks

Serenity Now CHERRY SPRINGS, PENNSYLVANIA

If solitude is a measure of greatness, then this park in central Pennsylvania is one of the greatest. More than four hours removed from the Northeast corridor, this 82-acre tract of woodland is enveloped by 262,000 acres of

Susquehannock State Forest. Light pollution isn't a thing in this park.

Trailblazers turn into stargazers on the 30-mile out-and-back to the astronomy field at Cherry Springs State Park, a Gold-Level International Dark Sky Park. Some opt to drive to the meadow, toting telescopes and astrophotography gear, but we recommend hiking in. To do it, start at the STS trailhead at Ole Bull State Park and continue

13 miles north into Cherry Springs to the fire tower. Keep going 2 miles to find a site in the Cherry Springs Campground (starting at \$19, reserve online). Bonus if you go soon: The Orionid meteor shower passes from October 2 through November 7 this year (peaking October 20 and 21).

Trailhead STS (Ole Bull State Park) **Season** April through October **Permit** None **Contact** bit.do/cherry-springs-sp

August

The United States of the Great Outdoors Visit the USA web site 5 Incredible U.S. Spots to Stop and See the Stars http://outdoors.visittheusa.com/5-incredible-us-spots-stop-and-see-stars

July

VQR online Magazine

http://www.vqronline.org/essays-articles/2016/07/night-moves

June

The Weather Channel

http://features.weather.com/stargaze/

April

Pennlive.com

What's the darkest spot in Pennsylvania? It's the perfect locale for International Dark Sky Week http://www.pennlive.com/wildaboutpa/2016/04/celebrate international dark s.html

March

The Culturetrip.com

http://theculturetrip.com/north-america/articles/10-best-places-in-the-world-to-stargaze/?utm_source=emails&utm_medium=featured&utm_campaign=191215northamericatravel

February

Inverse.com, a newly launched, science- and tech-centric lifestyle publication. https://www.inverse.com/article/11545-space-tourism-on-earth-the-7-dark-sky-reserves-to-visit-right-now

January

The Travel Channel.com

Star Struck: Where to Revel in the Night Sky

http://www.travelchannel.com/roam-blog/adventure/star-struck

Dark Sky / Stargazing tourism







