

**Antelope Island State Park
International Dark Sky Park Annual Report
2018**

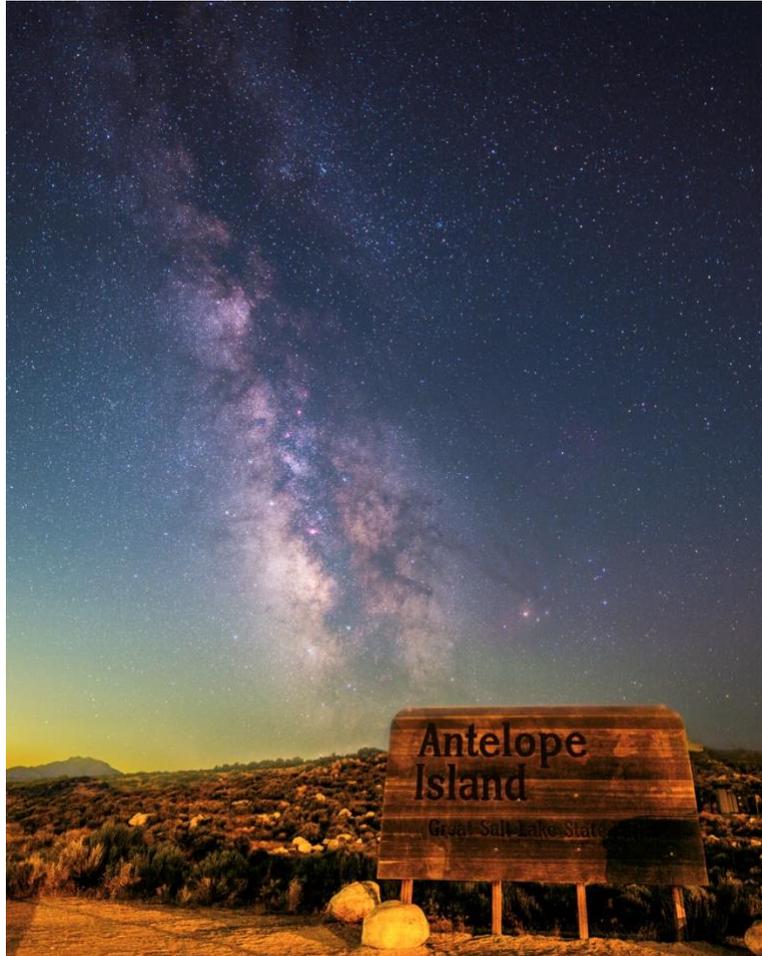


Photo by Ryan Andreasen

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Overview:

Since receiving International Dark Sky Park status in April 2017, Antelope Island State Park has taken steps to continue to improve our lighting and increase outreach to the community. The following is a summary of what has been done.

Total Visitation: 430,000 visitors

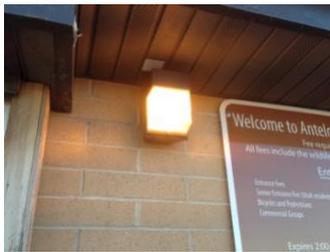
Dark Sky/Astronomy Program Attendance: 24 programs with 1048 participants

New Lighting Projects:

Upon designation in 2017, 66.7% of our outdoor lighting was in compliance with our Light Management Plan. Since that time, we have worked with Davis County, Friends of Antelope Island, and the Northern Region on three separate upgrades. The first in October 2017 brought our total compliance to 70%. The second in February 2018 brought our compliance to 75%. And the third brought us to 83% and reduced the total number of outdoor lights by 10.

Here are pictures of the fixtures that were upgraded:

Entrance Station



Before



After

Visitor Center



Before



After



After

Ranger Memorial/Flag Light



Before (bottom up) After (solar top down)

Lighting still remaining within the park that is currently not in compliance with the LMP includes the following:

- 1 Flag Light (by 2019)
- 1 Street Light (This is up to Davis County to remove. It is currently disconnected)
- 12 Exterior Wall Packs (2019-2020)
- 2 Residence Flood Lights (by end 2018)
- 2 Residence Porch Lights (by end 2018)

Funding has been requested from the Northern Region to update the majority of the wall packs remaining out of compliance. The four residence lights will be replaced by the end of 2018 with park funding. We need to do additional research for a top down flag light for our remaining flag to find one that will work for that particular pole. The current plan is to seek funding from Friends of Antelope Island for that replacement. The final light, the Street Light owned by Davis County will be up to them to remove. This light is never used, serves no purpose, and is currently turned off at the breaker. The Park has been in contact with Davis County about removing this light with no response to date.

Sky Quality:

Current SQM-L Measurement for Antelope Island State Park: 20.83

Night Sky Data – Main Data Points							
	White Rock Bay	BB #8	Grill	Ladyfinger Trail	Marina	Upper Frary	Moon Phase
	N 41° 01.506 W 112° 14.395	N 41° 02.390 W 112° 15.731	N 41° 02.901 W 112° 15.007	N 41° 03.492 W 112° 15.017	N 41° 03.643 W 112° 14.383	N 41° 59.627 W 112° 12.151	
8/20/2017	20.82	20.94	20.82	20.78	20.84	20.66	New 1%

7/12/18	20.81	20.95	20.96		20.87	20.84	New 0%
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Average Measurements:

August 20, 2017 20.78
 July 12, 2018 20.88

At least one more measurement will be taken before the end of this calendar year. That number will be reported with the next annual report.

Based on the most recent measurements, the sky is slightly darker than it was upon initial submission (20.67). This is good news considering the continued expansion along the Wasatch Front, and may be a testament to the efforts of several local dark sky advocates in the area.

Antelope Island State Park does not have a permanently mounted sky monitor. At this time, there are no plans to install one.

Conservation and Research:

There are several research programs/projects taking place at Antelope Island State Park. The only one currently impacted by the level of darkness is an ongoing bat study. These studies are conducted by the Utah Division of Wildlife Resources in conjunction with Antelope Island State Park and volunteers. The current goal is to determine the number of bat species utilizing the park for foraging and/or roosting. This is an ongoing project, and species are being both counted, as well as captured and tested for overall health.

Funding:

Funding for our dark sky efforts comes mainly from the Northern Region Office, Friends of Antelope Island and local support from Dark Sky Layton. At this time, we have not sought any additional funding through grants.

Arts and Culture:

Over the past year, we have held two night sky photography workshops. Both were open to the public with a focus on how to capture great night sky images. We are currently in the planning stages for an additional class, as these have been very well received by the public.



Outreach:

Three new outreach programs were started this year in collaboration with Dark Sky Layton. The first is to County Libraries. We have held two programs at two different Davis County Libraries. Both have been very well received by the public, with an average of 45-50 people in attendance.

The second, also in conjunction with Dark Sky Layton, is a booth at local farmers markets followed by small star parties. We have attended three local farmers markets over several weeks between this and last summer.



Finally, Antelope Island and Dark Sky Layton are co-teaching a Dark Sky class for the Lifelong Learning Program at the University of Utah. The first class this spring did not fill and so did not take place. We have a second class scheduled for later in October of this year.

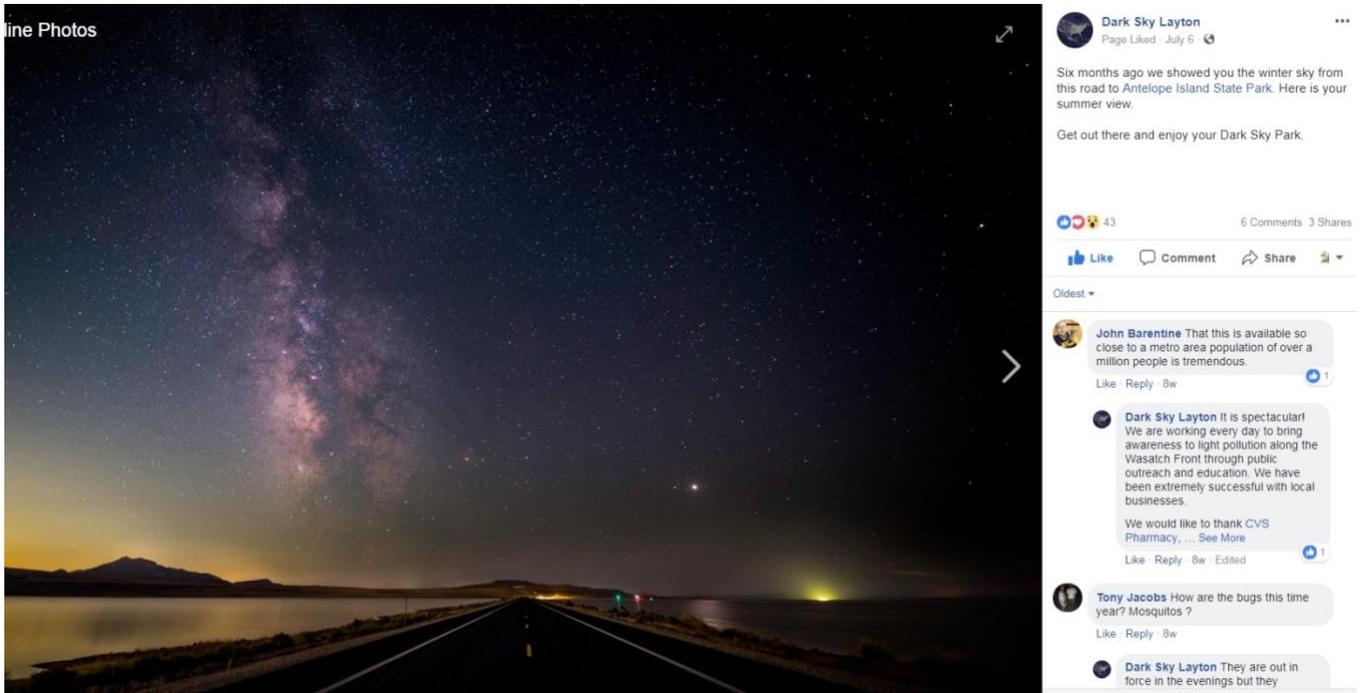
Community and Media Relations:

Antelope Island has created a new web page focusing on dark skies and our International Dark Sky status.

<https://stateparks.utah.gov/parks/antelope-island/dark-skies/>

Dark Sky Layton and Dark Sky SLC continue to be great partners in the community and help to increase awareness of dark sky programs and events taking place at Antelope Island State Park.





After we received our official designation, Davis County Tourism worked with us to create a new brochure focusing on dark skies at Antelope Island State Park (see attached PDF). They printed and distributed nearly 10,000 copies.