OREGON

IDA Oregon

The Oregon Chapter of the International Dark-Sky Association promotes responsible lighting to conserve energy, enhance safety and security, safeguard human health, protect wildlife, and preserve the cultural heritage of Oregon's star-filled night-time sky. We run a number of educational and scientific projects. We are a non-profit organized in August 2019 as a Chapter under the International Dark-Sky Association.

Outreach

Outreach is a key part of educating the public about light pollution. We periodically give online or in person presentations to interested organizations. Our IDA Oregon board member and Portland Audubon member Mary Coolidge gave this presentation in March: *From Desert to Coast, the Case for Dark Skies*.



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We also produce an annual Oregon Dark Sky Calendar that features night sky views over Oregon landscapes. The calendar raises donations, gives local night sky photographers and artists an opportunity to get some recognition, and helps to spread our name recognition along with the good lighting message. The calendar shows dates of peak bird migration in Oregon, meteor showers, Globe at Night dates, solstice and equinox dates, and phases of the moon.

Dark Sky Place Certification

We encourage the recognition of dark sky places in Oregon and provide advice and technical assistance (lighting inventory, night photography along with night sky brightness data) to facilitate certification. In August 2020, the community of Sunriver was certified as the first dark sky place in Oregon as a Development of Distinction. In May 2021, Prineville Reservoir State Park became Oregon's first International Dark Sky Park. We are currently working with two other Oregon State Parks, Cottonwood Canyon and Wallowa Lake, as they prepare applications. We completed a lighting inventory for Cottonwood Canyon earlier in 2021 and are in the process of completing the

lighting inventory for Wallowa Lake. A husband-wife team of professional photographers are currently documenting the night skies of Wallowa Lake and plan to complete a similar project at Cottonwood Canyon.

Oregon Skyglow Measurement Network

The Oregon Chapter of IDA has established a network of continuously recording Sky Quality Meters (SQMs) in Oregon to measure skyglow. Skyglow is literally the glowing sky at night, due to both man-made artificial light and natural light. SQMs measure the brightness of the night sky and provide a measure of both light pollution and natural light at night.

This project's primary aim is to quantitatively measure, interpret, and share skyglow measurements in Oregon to better understand the current level of light pollution in comparison to other regions and to document any changes over a five-year period. The skyglow data will help to inform action to minimize light pollution for healthier and safer communities. The measurements also support local efforts to nominate sites under IDA's International Dark Sky Places Program (IDSP). With support from volunteers and partner organizations, we harvest SQM data quarterly and update our SQM report twice a year. Here's <u>a link to our</u> <u>most recent report, from July, 2021</u>.

All Sky Cameras

We use all sky cameras as an educational tool to give a visceral sense of light pollution. These cameras use a fisheve lens to capture pictures and movies of the night sky. The movies show the dramatic influence of light pollution, both on clear nights and especially on cloudy nights when the clouds are lit up by light escaping upwards from poorly shielded lights on the ground. Currently, we have two all sky cameras in Bend, Oregon, with more planned. Here is a link to a movie of a mostly cloudy night. For more information on all our sky cameras *click* here.

As shown by Dan Duriscoe, retired NPS, and others, calibrated all sky images of the night sky provide a wealth of information about light pollution. Because our existing all sky cameras are uncalibrated, they have limited value for quantitative measurement of light pollution. We are pursuing two projects toward obtaining inexpensive, calibrated all sky camera data. These hemispheric data will augment our SQMs, which measure the sky brightness directly overhead at the zenith.

In the first project, we are working with Andrej Mohar (Euromix LTd, Ljubljana, Slovenia) to add support for Nikon and Canon DSLRs to Andrej's Sky Quality Camera calibration service and software. Secondly, we are working with Dan Duriscoe and Simon Balm (Night Sky Metrics LLC Woodland Hills, CA), on a system with a cooled CMOS astronomical camera mated to a fisheye lens and controlled by a Raspberry PI computer. This system will be affordable, portable, mounted on a tripod and will produce higher quality results than possible with a DSLR.

Good Light Neighbor

In 2020, IDA Oregon established the Good Light Neighbor program to recognize residents, businesses, and organizations in Oregon that employ responsible lighting on their property — lighting that is human, wildlife, and night sky-friendly. We subsequently merged this program with a new program by IDA. Participation is entirely voluntary and on the honor system. Participants use the information and application on the International Dark-Sky Association's <u>"Home Lighting</u> <u>Assessment" page</u>.

IDA Oregon Partners

- Oregon State Parks
- Travel Southern Oregon
- Central Oregon Visitors Association
- Oregon Outback Dark Sky Network
- Columbia River Gorge Commission
- Portland Audubon

Quick Links:

- Who are we?: <u>darkskyoregon.org/</u> <u>board-members</u>
- IDA Oregon website: <u>darkskyoregon.</u> <u>org</u>
- Mary Coolidge presentation: <u>youtube.com</u>
- July 2021 SQM report: link
- All sky camera cloudy night: <u>cbstarrynights.com/allsky1/videos/</u> <u>allsky-20210315.mp4</u>
- Sky camera info: <u>darkskyoregon.org/</u> <u>allskycameras</u>
- Home lighting assessments: <u>darkskyoregon.org/good-light-</u> <u>neighbor-program</u>



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BASIN & RANGE DARK SKY COOPERATIVE MEMBER SPOTLIGHT