From the Executive Director

It’s hard to believe that more than a year has gone by since I was given the honor and the privilege to serve as your organization’s third Executive Director. As we look to the future and align our collective efforts worldwide to combat light pollution, I want to acknowledge and thank you – our committed, caring and compassionate donors and supporters. A day doesn’t go by that I’m not reminded of your financial generosity – large gifts, small gifts, all gifts – which allows IDA to remain the worldwide leader in combating artificial light at night and its many adverse impacts on our environment. The philanthropic spirit of IDA’s donor community not only provides the essential resources necessary for us to meet our mission, it also inspires our work ... day in and day out! Although 2015 was a time to pause, reflect and take the necessary steps to ensure that our operations are professionally managed so your dollars are invested wisely and effectively, it was also a time of tremendous programmatic growth and achievement. Thanks to your support, we ... • Completely overhauled and updated IDA’s website, which dramatically increased visitation rates and now presents a “public face” that is elegant and easily navigated • Launched a new blog and deepened and broadened our social media platforms to more effectively communicate our work to diverse audiences • Designated 17 new Dark Sky Places, more than any other year, and broke the 2014 record of 13 • Completed a first draft of IDA’s strategic plan that will provide a three-year organizational roadmap for key decision-making and resource allocation • Hosted a hugely successful Annual General Meeting on the ecological impacts of light pollution that reached important new, and underrepresented, IDA constituencies • Significantly increased our grant writing activities to increase IDA’s market share of foundation funding and expand and diversify our revenues that support key programs of IDA • Regularly communicated with you – our donor community – to express our thanks and appreciation for your support IDA’s operations are finely tuned and the stage is now set for transitioning the organization into an exciting new phase of strategic – yet incremental – financial and programmatic growth so we can better meet your mission. With our continued support, 2016 will be a year in which we ... • Restore the health and efficacy of our Chapters in order to leverage IDA’s capacity for influencing and guiding key policies at the local, state and national levels • Diversify our member base and invite new constituencies and supporters into the “IDA family,” including those focused on energy conservation, climate change and human health • Embrace state-of-the-art technologies so our operations remain contemporary and abreast of the rapidly evolving world of communication and outreach • Foster and strengthen IDA’s partnerships and collaborations with scientists, industry, agencies and like-minded organizations • Evaluate undertaking a capital campaign in 2018 to establish an endowment that will provide IDA long-term financial stability IDA remains strong, vibrant, effective, and the only nonprofit organization in the world working to reduce light pollution and its environmental impacts. In partnership with you – our donors and supporters – the future is promising and, together, we’ll make 2016 the best year ever. Thank you! — J. Scott Feierabend, Executive Director

IDA Welcomes New Board Members... and Says Goodbye to Old Friends

IDA is excited to welcome four newly elected board members. Each new member brings unique perspectives, talents and backgrounds to our organization. We are so grateful for their willingness and passion to serve IDA’s mission. We are also happy to report that what was reelected to serve again as IDA’s President. Jim has been a great asset to IDA and we’re thrilled that he’ll continue contributing his knowledge and inspiration to our important work in the coming year.

New board members include:
• Darcie Chinnis, Ph.D., PE, Senior Associate at HLB Lighting Design, Boulder, Colorado
• James Karl Fischer, Ph.D., Executive Director, The Zoological Lighting Institute, New York City, New York
• Kim Patten, Associate, Research Development, The University of Arizona, Tucson, Arizona
• Kellie Pendoley, Principal Scientist and Director, Pendoley Environmental, Perth, Australia

For more details about our board members, go to darksky.org/about/board-of-directors.

Saying Goodbye to Outgoing Board Members

We’re saddened to announce that Jim Benya, Chris Kyba, Mario Motta and Scott Roberts stepped down. They each contributed considerable knowledge and expertise to IDA during their time on the board and we’re so grateful for their years of service. They will be greatly missed, although as friends of IDA, they won’t be strangers!
Our International Dark Sky Places program had another record-breaking year. We designated 17 new Dark Sky Places, breaking 2014's record of 13! The new Dark Sky Places are located in six different nations and include 10 parks, four communities and one reserve. In addition to breaking our previous record, 2015 was also a year of firsts:

First Dark Sky Sanctuary

The Association of Universities for Research in Astronomy (ARUA) Observatory in the Elqui Valley in northern Chile became the first International Dark Sky Sanctuary in the world. The site is now known as the “Gabriela Mistral Dark Sky Sanctuary,” named after the famed Chilean poet. The new IDA designation category reflects the need for special protections for the world’s darkest places where nighttime conditions are especially threatened. In certain cases, the public may be excluded from these sites in order to further important conservation priorities. Dark Sky Sanctuaries have some of the characteristics of Dark Sky Parks and Reserves, but otherwise do not qualify for either distinction.

2015 was a record breaking year for the International Dark Sky Place program. We designated 17 new Dark Sky Places, which included ten Parks, one Reserve and four Communities.

First Dark Sky Place in Asia

The Yeongyang Firefly Eco Park in South Korea – the first in Dark Sky Place in Asia – is a remarkable achievement in a part of the world with some of the world’s most brightly lit cities. Yeongyang is an island of relative darkness within a sea of light from the southern Korean peninsula. Yet, as isolated as the park is, it’s only a 4.5-hour drive from the capital, Seoul, and is readily accessible to South Korea’s 50 million residents.

First “Dark Sky Nation”

The Kaibab Paiute tribe in Arizona is now an International Dark Sky Community. The tribe’s land totals more than 120,000 acres (about 48,900 hectares) and contains five tribal villages as well as Pipe Spring National Monument and the non-Indian community of Moccasin. The Dark Sky Community is officially known as “Thunder Mountain Pootsee Nightsky,” a name that recognizes the status of the Kaibab Paiute as a sovereign nation, the importance of Thunder Mountain and the night sky in Kaibab Paiute culture, and the unique language spoken by Southern Paiutes.

First Dark Sky Place in the Netherlands

The countries of Western Europe are among the most light polluted in the world. The Netherlands leads these countries with a relatively small size, a large population density and the tendency to light outdoor spaces to high levels. Yet, there remain a few places that are dark nighttime refuges for people and wildlife. One of these protected places, on an island in the North Sea, permits no electric lighting anywhere and serves as an important stopover for European migratory bird species on their way to and from wintering grounds in West Africa. The IDA now recognizes this preserve, De Boschplaat, as an International Dark Sky Park. De Boschplaat, a 40 square kilometer area the eastern side of the island of Terschelling, is also a “Natura 2000” Nature Reserve recognized by the European Council.

First Dark Sky Place in Alberta

The Bon Accord International Dark Sky Community is the first Canadian community to receive IDA status, and only one of 14 Dark Sky Communities in the world. Despite its location only 40 kilometers north of downtown Edmonton, the quality of Bon Accord’s night skies is comparable to some of IDA’s Dark Sky Parks. Residents have demonstrated their commitment to maintaining these conditions while allowing the town to grow responsibly and sustainably.

First Privately-Owned Dark Sky Park

The Driv Cymru Welsh Water’s Elan Valley Estate in Powys, Wales, has achieved International Dark Sky Park status and become the first privately owned, but publicly accessible park in the world to do so. The 45,000-acre estate is protected against light pollution for the benefit of those who live, work and visit it and for the abundance of wildlife and vegetation found there. The Elan Valley Dark Sky Park now embarks on plans to further improve lighting within the park, and to enhance facilities for astronomers at several locations across the Estate.

In Other Program News

• As many of you know, IDA’s innovative Parks and Protected Areas Program is taking off. We partnered with lighting manufacturers and provided nearly 400 inexpensive or free, eco-friendly lights in 2015 to parks across the U.S.

• We continue to help cities pass dark sky friendly lighting ordinances by working with city planners and elected officials. Currently, we are working with the City of Malibu, California, to write and adopt a dark sky ordinance.

• Also, we are again revising our Fixture Seal of Approval program criteria to better reflect changing technologies. Stay tuned...

2015 DARK SKY PLACES

We’re also excited to have welcomed the following Dark Sky Places into the IDA family in 2015:

Black Canyon of the Gunnison National Park, a Dark Sky Park (Colorado)
Canyonlands National Park, a Dark Sky Park (Utah)
Horseshoe Bay Dark Sky Community (Texas)
Lost Creek Dark Sky Friendly Development of Distinction (Texas)
Pickett State Park and Pogue Creek Canyon State Natural Area, a Dark Sky Park (Tennessee)
Staunton River State Park, a Dark Sky Park (Tennessee)
Uluru Camp and Retreat Center, a Dark Sky Park (Texas)
Weber County North Fork Park, a Dark Sky Park (Utah)
Westcliffe and Silver Cliff Dark Sky Community (Colorado)
Humans have radically disrupted this cycle with enormous impacts to DNA of all plants and animals. However, by lighting up the night, we have upset the rhythms of day and night – so much so that it is encoded in the genes of many species.

For billions of years, all life on Earth has relied on the planet’s predictable rhythms of day and night and what can be done to reduce its devastating effects on fish and wildlife resources.

IDA Steps Up its Public Policy Advocacy

Reaching decision makers is vital to our efforts to protect night skies and the nighttime environment.

During 2015, with the help of our members and supporters, we ramped up our efforts and became more involved than ever in influencing decision makers about the importance of night sky protection. Here are a few highlights.

In cooperation with the Arizona-based Center for Biological Diversity, we submitted a letter in July to the office of U.S. Representative Raúl Grijalva concerning the Greater Grand Canyon Heritage National Monument Act (H.R. 3882). The bill, introduced in Congress in October, would grant protected status to nearly 2 million acres north of Grand Canyon National Park. At IDA’s suggestion, the legislation requires the Departments of Agriculture and the Interior to develop a management plan for the Monument, including instructions to “evaluate the naturally dark time conditions and propose goals and management directives to retain current characteristics.” It is the first time dark skies have been explicitly addressed in the enabling legislation for a new U.S. National Monument.

Building on the idea of rallying support for the creation of new, protected places in the United States, in October IDA signed on to a joint letter with many southern California environmental groups and organizations asking President Barack Obama and Secretary of the Interior Sally Jewell to designate three new National Monuments in the southern California desert – Mojave Trails, Sand to Snow and Castle Mountains. We then invited our supporters to write or call the President and Secretary to express their support for the protection of these pristine areas and defend their remarkable night skies for generations to come. Thanks to everyone who voiced their support, the President invoked his executive authority and designated all three Monuments in early 2016.

Guest columns and letters to the editor of major newspapers are another means of effectively communicating IDA’s message about dark skies. In June, the Arizona Republic published an IDA letter (“Empire State Building Light Display’s Effects on Wildlife”) noting the project’s tremendous amount of unnecessary light that “wreaks havoc on the urban ecology of the city, confusing migratory birds and disrupting the natural cycle of plants.” It further challenged the owner of the Empire State Building for “hosting such an environmentally irresponsible event” in the face its self-proclaimed “reputation for sustainability.” While we ultimately failed to stop the event from taking place, IDA successfully drew public attention to the issue of wasted light and its damaging effects on urban wildlife.

2015 AGM Covers A Lot of Ground

This past November, IDA convened a conclave of expert scientists, policy makers, industry representatives, concerned citizens and grassroots leaders to learn about the ecological impacts of artificial light at night and what can be done to reduce its devastating effects on fish and wildlife resources.

For billions of years, all life on Earth has relied on the planet’s predictable rhythms of day and night – so much so that it is encoded in the DNA of all plants and animals. However, by lighting up the night, humans have radically disrupted this cycle with enormous impacts to the environment and fish and wildlife.
Every year volunteers from around the globe show remarkable dedication and initiative in supporting the IDA mission. The IDA awards program recognizes individuals who have given generously of their time to dramatically improve our nighttime environment. The following amazing individuals and organizations were recognized at our 2015 Annual General Meeting held November 14-15, in Scottsdale, Arizona. A detailed description of each award can be found on our Awards webpage (darksky.org/awards).

**Dr. David L. Crawford**

**Lifetime Achievement Award**

Andreas Hänel, Ph.D., Planetarium Director at the Museum am Schölerberg in Osnabrück, Germany.

For years, Andreas has been actively fighting light pollution in Germany and Europe and was a key player in the designation of two International Dark Sky Reserves in Germany – Rhön Biosphere Reserve and Westhavelland Nature Park. Establishing a Dark Sky Reserve is much more difficult in Germany than in other countries because it requires obtaining agreements from numerous mayors from dozens of small villages. Andreas meticulously persuaded local councils in both cases to adopt meaningful limits on their outdoor lighting for the protection of the reserves’ core regions.

**The Lighting Design Award**

Jou Jwo-Huei, Ph.D. (Nano Organic Photonics Devices Lab, National Tsing Hua University, Taiwan)

Since 2006, Jou has worked with students on organic LED (OLED) lighting technologies in an effort to create lighting that minimizes negative impacts to human health. In this work, he and his research team have made numerous breakthroughs, such as the creation of very low color temperature OLED, sunlight-style OLED, pseudo-natural light OLED, and candlelight-style OLED devices. Their candlelight-style OLED has attracted considerable attention from both academia and industry. Most importantly, the candle-like OLED has also been praised by medical experts and is considered one of the safest electricity-driven lighting sources. This lighting can be used in both indoor and outdoor applications.

**The Hoag/Robinson Award**

William Wren, Special Assistant to the Superintendent, University of Texas McDonald Observatory, Texas

Bill was recently featured on the CBS News “Sunday Morning” program, in which he was referred to as “the Angel of Darkness” due to his efforts to protect the night skies of west Texas, one of the darkest spots on the globe. For the past 20 years, Bill has strived to control light pollution by working with city councils, county governments, utilities, media representatives, and businesses across west Texas and beyond. His tireless efforts have raised awareness and helped protect the entire region. He has made continuing astronomical research possible at the McDonald Observatory, defending millions of dollars of investment.

**The Rising Star Award**

Henryka Netzel, Astronomical Institute, University of Wrocław, Poland

Henryka, an undergraduate student from Poland, created an improved version of the 1976 model developed by Richard L. Berry that uses not only population data but also dasymetric methods to map population density relative to residential land uses. She used this to successfully model light pollution over Poland and traveled to Canada to present her work at the 2015 Light Pollution: Theory, Modelling, and Measurements conference, where it was well received by participants.

Jayli Carmichael and Halley and Paige Charette, 13th Annual eCYBERMISSION Student Challenge Competition - Second Place

The light pollution project of these sixth grade students from North Attleborough, Massachusetts, was awarded second place in the 13th Annual eCYBERMISSION Student Challenge Competition, an Educational Outreach Program of the U.S. Army. In an effort to reduce light pollution in North Attleborough and surrounding towns, the team designed a light pollution reducing shield for the streetlights in their community. The shield was made from recycled cans and the North Attleborough Electric Department installed it on a streetlight near the team’s residence where they could measure the amount of light reduction compared to a control streetlight and then analyze their data.

**The Dark Sky Defender Awards**

- Jim Bradburn, Steve Linderer and Ed Stewart (Wet Mountain Valley Dark Skies, Inc.), for their light pollution reduction efforts over many years, resulting in the designation of Westcliffe and Silver Cliff, Colorado as an International Dark Sky Community.
- Rémi Boucher and Guillaume Poulain (ASTROLab at Mont-Mégantic Observatory), for their work at the Mont-Mégantic International Dark Sky Reserve in Quebec, Canada, and use of nighttime photography to highlight and promote the protection of dark skies in the area.
- Sabine Frank (Project Coordinator, Rhön Biosphere Reserve), for her efforts in getting the reserve designated an International Dark Sky Reserve and her continued work promoting dark sky friendly lighting in central Germany.
- Joanne Kendrick (Keep Sedona Beautiful), for her successful efforts helping Sedona, Arizona, become an International Dark Sky Community and efforts to get IDA designations for nearby Big Park/Village of Oak Creek and Red Rock State Park.
- Keith Krueger (Superstition Mountains Astronomical League and chapter leader of IDA Pinal County), for his years of work educating the public about light pollution in the Phoenix, Arizona, area. In 2005 he won an IDA Executive Director Special Award.
- Pie Town Rising Stars (a nonprofit in Pie Town, New Mexico), for its commitment to preserving the area’s dark skies through public outreach.
- Jim Traweek (San Diego Astronomy Association and IDA San Diego), for his ongoing efforts educating the public about light pollution in the San Diego, California, area.
- Diane Turnshek (Carnegie Mellon University Department of Physics), for her help protecting the night skies over Pittsburgh, Pennsylvania, and surrounding areas and her public outreach efforts, including a presentation at TEDx Pittsburgh.
- Eric Vandernoot (Astronomy and Physics Lab Coordinator, Florida Atlantic University), for his dedicated efforts helping to organize the Annual Dark Sky Festival in Palm Beach County, Florida; his tireless public education talks; and public outreach efforts through his light pollution resources webpage.
- Mike Weasner (Oracle, Arizona), for his efforts in helping the Oracle State Park become an International Dark Sky Park, helping other Arizona state parks start the Dark Sky Park application process, and for championing dark skies in Pinal County, Arizona.
- Bob Yoele (Friends of Goldendale Observatory); for his work helping the observatory in Washington state obtain an International Dark Sky Park designation and his continued efforts working with the city of Goldendale, Washington, and surrounding Klickitat County on the long-term protection of the Dark Sky Park.
Thanks to our supporters, since last July we have a beautiful, streamlined, mobile-friendly website that gives our members and the public regularly updated information and resources so they can go out and make a difference! It’s been a great success. The monthly number of visitors to our site has more than doubled!

Our blog is a great addition and provides regular, fresh and interesting content from IDA staff, board and members, and experts. It’s also been a great way of getting more people to our site from our social media channels. Our traffic from Facebook alone has increased nearly 2000 percent!

New Website Features Include

- Interactive maps of our International Dark Sky Places and IDA Chapters
- An IDA blog that’s regularly updated by staff, experts and guest writers
- New content on outdoor lighting, including useful information on lighting ordinances, neighbors’ lighting, lighting basics and more
- A more organized Resources section that includes our new brochures, concrete suggestions on how individuals can make a difference, and much, much more!

Check it out at darksky.org

IDA thanks our members, donors, corporate sponsors, and foundations for their generous support in 2015. We couldn’t protect the night skies without you!

IDA made significant financial progress in 2015, with an eight percent increase in revenues and a seven percent decrease in expenses. Thanks to the tremendous generosity of supporters like you, IDA’s income from memberships and donations – fully 80 percent of our 2015 revenues – increased by nearly 16 percent. We are so incredibly grateful for your philanthropic spirit, which allowed us to end 2015 “in the black”!

IDA’s 2015 program income saw a significant decline from 2014, due primarily to our sea turtle protection work with the Florida Fish and Wildlife Commission being put on hold until 2016. There was also a temporary hiatus in IDA’s Fixture Seal of Approval Program that was necessary to update and revise the Guidelines and certification standards.

New IDA Website is Gaining Lots of Visitors

We want the IDA blog to become the definitive one-stop-shop for all things light pollution and dark skies. (If you or someone you know has a great idea for a post, contact Cheryl Ann at cherylann@darksky.org.)

IDA Financial Summary 2015

80% of our income is from members and donors like you. Thank you for your support!
Join us in our fight to stop light pollution.

Join IDA

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