

ISSUE # 83 | 2011 • \$2.50

# nightscape

A PUBLICATION OF THE INTERNATIONAL DARK-SKY ASSOCIATION

## IN THIS ISSUE

- 4 Lighting News: NPS Agreement
- 5 Lighting News: Model Lighting Ordinance
- 6 Astronomy News: IDSPlaces
- 7 Astronomy News: Adler Planetarium
- 8–11 Feature Article: The City Dark
- 12 & 13 Annual Meeting and Awards
- 14 FSA





It took Caroline 14 years  
to become a **SkyProdigy**.

You can be **ONE** in minutes.

**SKYPRODIGY**

On November 7, 2008 at age 14, amateur astronomer Caroline Moore became the youngest person to discover a supernova.

**Explore the Universe at the touch of a button  
with your personal SkyProdigy.**

Celestron's revolutionary StarSense Technology makes our new computerized SkyProdigy the smartest – and easiest – telescope in the Universe. Simply turn SkyProdigy on, press a button, and in less than three minutes you will be exploring the night sky. SkyProdigy's Sky Tour option will even identify and locate the best sights for you to see for your exact time, date and location. *What will you discover tonight?*



**DISCOVER SKYPRODIGY**

Scan with your Smart Phone or visit  
[www.celestron/prodigy.com](http://www.celestron/prodigy.com)

YOUR ADVENTURE STARTS HERE  
[www.CELESTRON.com](http://www.CELESTRON.com)

## Dear Members,

**E**XCITING DEVELOPMENTS in lighting practices are unfolding in 2011.

In February, IDA started work on a cooperative agreement with the National Park Service to develop a best practice design guide for national parks. The design guide will help park staff improve the quality of the night sky with cost-effective retrofits. IDA staff has visited seven parks so far. More information on this collaboration between the NPS Night Sky Team and IDA is available on page 4.

We hosted the IDA Annual Meeting in Suffern, New York at the Northeast Astronomy Forum (NEAF) in April, once again assembling volunteers and researchers to plan the future of night sky protection. Rockland Astronomy Club, the organizers of NEAF, provided IDA with a prime spot on the trade show floor and spacious meeting space. A highlight of the meeting was an exclusive screening of "The City Dark" with award-winning filmmaker Ian Cheney. (Read more about this documentary and its role in dark sky advocacy on page 8.) We welcome the 88 new IDA members who stopped by the booth and signed up on the spot. Overall, the IDA/NEAF collaboration was a huge success, with IDA benefiting from the generosity of manufacturers who donated telescope equipment for the eBay Silent Auction. Many thanks to our volunteers who helped staff the booth and coordinate the program. IDA will return to NEAF next year to hold a regional meeting.

In June, we finished work on the eagerly anticipated IDA/IES Model Lighting Ordinance (MLO). This legislation template is the culmination of seven years of dedicated work by the MLO task force. The IDA is now unrolling an education program that will assist cities in adopting and utilizing this legislation. The release of the first MLO is a huge achievement, and developments will be discussed in future issues of *Nightscape* and on the IDA website.

IDA has been able to expand our capacity with the addition of some key staff. In March, we hired Carol Freeman as development director in Washington, D.C. She is looking for new sources of income to bolster our programs and has started by connecting with our longtime supporters.

In July, we welcomed Roger McManus as managing director of the Tucson office. Roger brings twenty-five years experience in environmental advocacy through his work with the Ocean Conservancy and Conservation International. He will be helping expand our message by developing a broad environmental coalition of other non-profits that care about the night sky and conserving energy.

Last, Scott Kardel will be joining the Tucson office as public affairs director in August. Scott spent eight years as outreach coordinator for the Palomar Observatory and has been advocating for dark skies for most of his professional career. One of his first challenges will be developing a series of seminars for the MLO. We will be targeting local government officials and planning staff with the goal of demonstrating how the MLO will facilitate legislative protection of the night sky. Ask your elected officials to attend the seminars to become acquainted with the best tool available to control light pollution and reduce energy use. Watch the IDA website for more details.

These exciting additions to the IDA team will substantially increase our ability to meet new challenges. All of this is possible because of your generous support.

Thank you,



Bob Parks  
Executive Director



The mission of the International Dark-Sky Association (IDA) is to preserve and protect the nighttime environment and our heritage of dark skies through environmentally responsible outdoor lighting. IDA was incorporated in 1988 as a tax-exempt 501 (c)(3) nonprofit organization. (FIN 74-2493011)

### CHAPTERS & AFFILIATES

Chapters Australia, Österreich/Austria, Canada (2), República de Chile/Chile, Česká Republika/Czech Republic, 中国/China(4), Éire/Ireland, ישראל/Israel, Ελλάδα/Greece, 香港/Hong Kong, Magyarország/Hungary, Italia/Italy, 日本/Japan, Repubblika ta' Malta/Malta, Slovenija/Slovenia, Schweiz/Switzerland, Sverige/Sweden, United States (36)

Affiliates België/Belgium, Canada, Deutschland/Germany, France, Nederland/Netherlands, Polska/Poland, United Kingdom, Türkiye/Turkey, United States (8)

### BOARD OF DIRECTORS

President Buell Jannuzi  
Vice President Christian Monrad  
Secretary Kelly Beatty  
Treasurer Christopher Walker  
Members James Benya; Nancy Clanton; Paul Ericson; Audrey Fischer; Terry McGowan; Martin Morgan-Taylor; Mario Motta; Friedel Pas; Jean-François Simard; Leo Smith; Robert Wagner; Reginald Wilson

### STAFF

#### IDA Headquarters

Writer & Editor Rowena Davis  
Art & Design Stephanie Mar

Membership Director Susan Ciarniello  
Public Affairs Director Scott Kardel  
Managing Director Roger McManus  
Technical Director Peter Strasser  
Technical Associate Matthew Root

#### IDA Public Policy & Governmental Affairs

Executive Director Robert Parks  
Development Director Carol Freeman  
Associate Director Milton Roney

### NIGHTSCAPE

Address corrections [admin@darksky.org](mailto:admin@darksky.org)  
Advertisements & submissions [editor@darksky.org](mailto:editor@darksky.org)  
Deadlines; Issue # 84: 23 Oct. 2011; Issue # 85: 23 Jan. 2012; Issue #86: 23 Apr. 2012; Issue # 87: 23 Jun. 2012  
*Nightscape*, a publication of the International Dark-Sky Association, is published quarterly.

### CONTACT

Address International Dark-Sky Association,  
3223 N. First Ave., Tucson, AZ 85719, U.S.A.  
Tel +1 520 293 3198 Fax +1 520 293 3192  
website [www.darksky.org](http://www.darksky.org) email [ida@darksky.org](mailto:ida@darksky.org)  
For more information contact  
[editor@darksky.org](mailto:editor@darksky.org)



# (re)Lighting the parks



IDA recommendations will help phase out ineffective and unshielded fixtures in national parks.

## IDA helps the National Park Service protect dark skies above national parks

As light pollution spreads, national parks and other managed land areas have an increasingly prominent role in protecting the natural night. For many, a national park such as Yosemite offers the best opportunity to see a dark night sky for hundreds of miles. Recognizing this, the U.S. National Park Service established the NPS Night Sky Team in 1999 to monitor night sky degradation, manage park lighting practices, investigate the effect of artificial lighting on parks and the promote the night sky through visitor outreach.

In 2010, the NPS allocated funds to improve lighting in nine national parks. Current NPS policies call for the use of artificial light only when necessitated by safety. However, important details, like how much and what type of light to use, remain vague. The Night Sky Team turned to IDA to help develop original lighting “best practices” that will assure unequalled dark sky protection.

In the close of 2010, IDA signed a cooperative agreement with NPS to assess lighting in nine parks and test innovative ways to light safely and efficiently in these extremely delicate environments. The resulting “best practice” guidelines will preserve the view of the starry sky and protect nocturnal wildlife while meeting the recreational needs of park staff and visitors. These guidelines also are expected to reduce operating cost, energy use, and pollutants.

In February, IDA staff started making field visits to Canyon de Chelly and Chiricahua National Monument in Arizona. (Additional parks include Mojave National Preserve and Redwood National Park in California, Homestead National Monument in Nebraska, Craters of the Moon in Idaho, and several others.) Technical director Pete Strasser, technical associate Matt Root, and executive director Bob Parks performed lighting audits and night sky mapping, then installed test fixtures for evaluation. IDA expects to utilize new technology that can have a huge impact on the ecological quality of the light. One possible solution is use of a red-tinted, heatproof gel used in sea turtle friendly lighting that can be applied around a light source to create longer wavelengths that are less disruptive to wildlife.

Work at the Canyon de Chelly, on the Navajo Indian reservation in the Four Corners area of northeast Arizona, already promises exciting results. Park management is enthusiastic about proposed changes to lighting and interested in extending outreach throughout the nearby town.

Other sites have shown everything from exceptionally good lighting practices to some of the worst. “You can tell that some lighting designs were done without any consideration whatsoever to the location of the facility or its purpose,” says Pete Strasser. “The lighting levels are so high it’s as though the buildings should be next door to a convenience store, not in a wilderness setting.”

Fortunately, the lighting changes in these varied sites will provide standards and examples for lighting plans in other public managed land areas. Widespread implementation would revolutionize park lighting throughout the country, improving visitor experience, stewardship of rare ecosystems, and preservation of the nocturnal habitat.

This initiative provides enormous potential for increased protection of nocturnal species. First, it is a monumental opportunity to incorporate outdoor lighting guidelines into ecosystem conservation specifications. Second, the field research is collecting important data on light’s impact on park fauna. The idea of artificial light as an instrument of environmental degradation is just starting to become accepted both within and out of conservation circles. Any research that can definitively correlate light levels and species behavior will push protection agencies toward considering artificial light in ecologically sensitive area as an environmental pollutant. Developing best practices at this time will not only redefine how parks are lit, but can positively impact environmental protection regulations.



Canon de Chelly

YosemiteNewsman

# Model Lighting Ordinance released in June

**T**HE IDA/IES MODEL Lighting Ordinance is ready for use! The document was approved by the boards of the two organizations and publicly released on 13 June.

IDA's decision to work cooperatively with the Illuminating Engineering Society (IES) has produced an outdoor lighting template designed for widespread application. The MLO is expected to be readily adopted by cities and towns that rely on IES recommended practices for outdoor lighting. The IES position as a trusted standards organization will give the MLO the credibility needed to convince planning officials that adoption of a lighting ordinance is good public policy. IDA's input assures that the MLO can be effective in reducing glare and light trespass and curtailing wasted energy.

In the past, lighting ordinances seldom have been initiated by local government. Often, a dedicated IDA volunteer spends months or years educating community officials and pushing them to draft an outdoor lighting ordinance to protect the night sky. This process can be incredibly frustrating, as few local governments share concern for the night sky or independently educate themselves on the issues associated with outdoor light at night. Local government action is usually driven by the elimination of headaches, where the biggest headaches get the fastest action.

Executive director Bob Parks recalls his first legislative work: "When I started working on my first zoning ordinance in Fairfax County, Virginia, I was lucky to find a planning administration ready and willing to adopt a lighting ordinance. Their reason to act was a significant increase in complaints of glare and light trespass. The complaints were time consuming to address and ultimately frustrating to both the zoning staff and residents. Without a comprehensive lighting ordinance, little could be done to remediate the situation that generated a complaint. So I helped show that a lighting ordinance would reduce frustrations, rather than create them."

Localities are reluctant to initiate an outdoor lighting ordinance for two main reasons. First, to create legislation from scratch can take a very long time. Also, few within a planning department have expertise in outdoor lighting. Without a willing and knowledgeable IDA volunteer to serve as an information resource, most local governments just are not willing to spend the money to contract for a lighting engineer to guide the process.

This lack of experience and lack of government priority helps explain the fact that in the U.S., only approximately 250 outdoor



A good lighting ordinance saves money and energy.

George Fleenor

lighting ordinances control lighting, out of about 25,000 cities, counties and towns. IDA staff and volunteers have worked hard for this progress, and decades of education on the importance of responsible outdoor lighting has generated interest in creating a smart lighting policy.

However, control of outdoor lighting must be much more widely embraced to make a large impact on overall sky quality. The MLO is a tool to make this happen. IDA's goal with the MLO is to vastly increase the rate at which outdoor lighting ordinances are adopted in the large cities responsible for the majority of light pollution. The MLO has been designed for these purposes from its inception. The MLO addresses a myriad of potential situations to ensure that the ordinance is comprehensive. This approach also ensures enforceability.

Planners who have seen the MLO are enthusiastic, and have told IDA in a recent session that it is the tool they have been looking for. They value the endorsement of the IES, as it will help convince elected officials that lighting controls do not negatively impact public safety.

These important qualifications may mean that for the first time in IDA's history, lighting ordinances will be initiated by local government. Many environmentally conscious communities will be able to use the MLO to reduce their carbon footprint and to meet sustainability goals. Some areas will adopt it to reduce energy consumption to avoid building new power plants in the future. However, the vast majority will do it to reduce headaches.

The MLO can make a vast improvement in the quality of outdoor lighting and the night sky, especially in midsize to large North American cities. IDA will be launching a series of seminars this fall for planners, city officials, and IDA members who want to introduce the MLO to their local government. Keep track of updates at <http://www.darksky.org/MLO>.

## Summary of the features of the MLO:

- Controls glare and light trespass by the use of the new IES fixture classification system, nicknamed BUG (**Backlight, Uplight, Glare**).
- Controls the overall lighting levels by limiting total lumens per parcel.
- Zero uplight for street and area lighting.
- The MLO will be initially revised in 2012 and then regularly on a three-year cycle. As energy codes require less energy and IES recommended levels fall, the MLO will incorporate these improvements.



# Heads up at the Headlands

**I**N MAY 2011, the Headlands Park in Michigan, USA was approved as an International Dark Sky Park. The 600 acre park on the northern tip of the Lower Peninsula between Lake Michigan and Lake Huron displays a resplendent Orion and shimmering Milky Way, which the park's custodians intend to use as an educational resource, a conservation tool, and a financial asset.

The collective goal for the county-owned park has long been to keep the land as wild as possible. Only three structures exist among the Headland's pristine woodlands, home to rare flora like the threatened dwarf lake iris as well as osprey, bald eagles, and black bear. A county-wide lighting ordinance and retrofits to further protect wildlife were unanimously supported by the Emmet County Board of Commissioners, a group refreshingly aware that maintaining a natural habitat means keeping nights dark.

James E. Tamlyn, the Board's chairman, notes, "The Headlands, with its two-and-a-half miles of shoreline and 600 acres of old-growth timber, is a beautiful

place that will be protected forever. Add to that the ability to have uninterrupted night-time viewing, and it continues that educational experience—and that's what the Headlands is all about."

The park hosts educational events several times a year. Star parties that feature light pollution education are common, as well as are special events such as lunar eclipse viewing, astrophotography sessions, and an annual Halloween party, which uses lighted pumpkins as path lighting.

The Emmet County Dark Sky Committee, coordinators of the IDSPark designation, collaborated with conservation groups, historical societies, and Chambers of Commerce from nearby Makinaw City to create a strong culture of night sky conservation. Specialized GLOBE at Night events and educational luncheons are hosted by the Emmet County Outdoor Lighting Forum. "Starry Cruises" began in June, the same month of the Makinaw Maritime Festival, which included star lore and astral navigation techniques in the schedule of events. These diverse programs are not the sole responsibility of any one group; they are created and executed by entities that share a stake in the area. The mix between educational outreach and commercialized programs ensures continued development of dynamic dark sky agendas that reach visitors and residents alike.



Mary Adams (left) and Laurie Gaetano (right) tout the IDSPark designation in the Makinaw City Memorial Day Parade.

The architects of the Headlands' designation are Mary Stewart Adams, Mary Lou Tanton, and Fred Gray. "About four years ago, I began meeting with a group of local people who were dedicated to protecting the night sky... They were laying the groundwork, they were doing the technical components, and I provided the information about 'Here's what you can experience when you achieve all of that,'" said Adams, a storyteller and public speaker who became program director at the Headlands after the designation.

Like many others, Adams is thrilled at the achievement and what it means for Emmet County. "The designation gives us a place to stand so we can raise awareness of the importance of having a dark night," she says. "It's good for the health and well-being of human beings and of nature. It gives us an opportunity to pause and think that we don't only need to be concerned about the quality of our water and our air, but also another resource that belongs to all of us—the night sky."



Mary Adams wears her storyteller hat to fascinate a crowd during a special eclipse viewing on 21 December 2010.

*More information on the Headlands, the designation, and a schedule of events is found at <http://www.emmetcounty.org/darkskypark/> or by calling 231.348.1704.*



# HIDDEN WONDERS

## Adler Planetarium & Astronomy Museum in Chicago, Illinois brings dark skies to life

ONE SAD CONSEQUENCE of loss of the night sky is the fact that people can hardly fathom all they're missing. In urban areas, artificial light hides the cosmos before it can be experienced. How can people be expected to protect a resource they've never even seen?

Adler Planetarium & Astronomy Museum (the first planetarium in the Western Hemisphere) presents an alternative view. The exhibit 'Hidden Wonders' captures imagination by showing the Chicago skyline as it is, then, through a composite image by Craig Stillwell and Larry Ciupik, as it could be if stars were visible. This comparison immediately creates a local context and imparts a visceral sense of loss. From there, displays ask "What happened to the stars?" and suggest ways to bring them back.

The exhibit was conceived by IDA Board member Audrey Fischer and embraced by the team at the Adler Planetarium, who spent six months developing it. Julian Jackson, director of experience design and the project's lead, strove to make the exhibit as personal as possible. An interactive board invites notes on how to reduce sky glow. A satellite map indicates dark sky sites reasonably close to Chicago so visitors can experience the 'hidden wonders' for themselves.

According to Jackson, the exhibit that "caught the deep passion and interest of some staff members" is a surprisingly big hit with the public. "People like the space, they navigate it, and they come out with the right talking points," says Jackson, who has definitely met his goal to "bring the issue home" and make people feel empowered.

Due to its popularity, the exhibit, originally scheduled to end on 5 September, has been extended indefinitely. In response to interest from venues in Boston and other major cities, the Adler team intends to develop a blueprint for smaller exhibits and even a reproducible template to help bring more 'Hidden Wonders' into view.



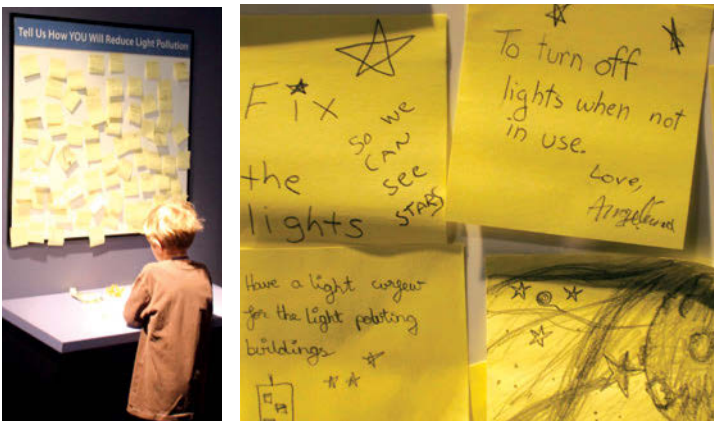
Entrance to Adler Planetarium



Entrance to the Hidden Wonders exhibit



Hidden Wonders team (clockwise from top left): Russ Kotlin, Craig Stillwell, Molly Guevara, Rich George, Jerome Lane, Michael McGowan, Adam Tarnoff, Larry Ciupik, Audrey Fischer, Paul Knappenberger, Julian Jackson, Jose Francisco Salgado



Children and adults post ideas on how to make the night sky more natural.



Maps and images show the difference between a natural night sky and a light polluted urban sky.

Photos courtesy of Audrey Fischer



# THE CITY DARK

LP101

*A new documentary offers a crash course on the night's disappearance*

## **A filmmaker's journey**

**A**WARD-WINNING FILMMAKER IAN Cheney takes his subjects personally. The co-producer, creator and star of the quirky documentary “King Corn” (2007) spent a year farming one acre of corn in Iowa to address important questions about food supply and quality. Cheney’s intimate approach, a trademark of Wicked Delicate Films (co-founded by Cheney in 2006), distills an issue with near limitless scope into digestible facts, punctuated by astute visuals and the odd crayon-style diagram.





This affable, accessible style returns in “The City Dark,” another personal quest taken public. Growing up in Maine, Cheney felt pangs from the loss of the starry night sky for years after leaving home, but was unable to articulate exactly what was missing as he peered into the pink-hued sky over New York City and declared “One . . . there’s two . . . I can only see about half of the sky because of this building, so we’ll assume there’s 12 stars.” In 2008, he visited a gathering of astronomers at a dark sky convention in Mont Mégantic, Quebec (the world’s first IDSRreserve) to seek answers to the question “What do we lose, when we lose the night?” The resulting documentary traces his journey through lights and darkness, exploring the causes and consequences of a brightening night sky.

Starting work on the film, Cheney says he expected esoteric discussion of what is considered an astronomy-centric concern. But the scope broadened quickly, and Cheney found himself with a host of critical issues to fit into his portrayal of light pollution. “Without a doubt, the most surprising aspect of the story was human circadian disruption. The idea that excessive artificial light and poorly designed light might actually be affecting our health was shocking to me,” recalls Cheney, who quickly saw the logic of the connection: “On some level it is surprisingly intuitive, if you consider the way we have evolved on the planet and how different our environment is today. When you think about it, it makes perfect sense.”

## Substance and style

THIS INTUITIVE CONNECTION also depicts the plight of wildlife affected by artificial light at night. Altered behavior of sea turtles and migratory birds is examined with a cinematography that captures the dire biological consequences to night-dependent species yet avoids sentimentality. Onscreen, National Park Service Night Sky Team leader Chad Moore deftly sums up the segment

by saying, “When we add light to the environment, that has the potential to disrupt habitat, just like running a bulldozer over the landscape can.”

Throughout the movie, this common sense approach to the tangible losses of a fading night meshes with the more intangible, but no less real, concerns of people attracted to the night for its sheer beauty. “The more downward our gaze is, the less perspective we have on our lives,” comments Cheney. “This was kind of an awakening for me, coming to terms with feelings that had been brewing since my childhood. And part of that is related to the environmental issues in the film, the idea that by losing a connection with the stars we not only lose a different perspective pertaining to how we relate to the Universe, but also we might lose our perception of how . . . precious this all is, and that’s a valuable idea.”

Discussion of the spiritual value of a starry night sky is rendered with the same gravity as cancer research. From a troop of Boy Scouts seeing their first starry sky to the world’s largest camera on a volcanic crater in Hawaii, conversations with professional astronomers and passionate stargazers balance the real benefits of astronomical science with the no less compelling philosophical dimension. In the Sky Village, a small community of amateur astronomers in southeast Arizona, Cheney sensed “a wonderful mix of dedication to their dark skies, openness about sharing what they loved, and perseverance with their science, their art.” These moments of reflection about the ephemeral yet persistent connection between humanity and the stars above form a crucial part of the argument in favor of responsible outdoor lighting.

It all ties together, you see: “In my own experience in conversations with environmentalist friends, they can be quick to criticize spending billions of dollars on space exploration, with the logic that there are plenty of issues that need attention on Earth.

But I actually think that our exploration of space and our connection to the wider Universe not only helps our perspective, but also will cycle back and make us a little bit more careful about how we use our resources here at home,” notes Cheney.

Experienced dark sky advocates will be familiar with the information presented. Yet Cheney’s straightforward language and obvious passion present a compelling case for dark skies to any viewer. Fresh approaches vary the pace of the film, which concludes by discussing simple shielding solutions and other courses of action to preserve the dark night. A subtly haunting score by the Fishermen Three evokes a faint feeling of expanse and unrest—possibly the same feeling that compelled Cheney to create the film in the first place, and to persist despite numerous challenges.

One piece of data the film lacks is any mention of IDA. But Cheney has a reason for that. Besides editing down literally hundreds of hours of footage, “I’m really sensitive to corporations

working with IDA, or get a lighting ordinance passed, or just start an astronomy club and get more people excited about looking up.”

This film is not the place to find information on how to pass a lighting code or a guide to lighting cities. Cheney recognizes that no one film can address all aspects of this large issue, but is hopeful that the film is “an engaging conversation starter.”

And people have started conversations with him. Friends and strangers alike have written in to say how they are now noticing their lighting for the first time. “It’s terrific, people are not only looking up, but they’re thinking critically about what they see when they look up,” he reports.

To keep the conversation going, the film needs as wide-spread a distribution as possible. In spring and early summer, “The City Dark” screened at film festivals as far away as Sri Lanka after a premiere at the South by Southwest Music Festival in Austin, Texas. A limited theater run is planned for the fall. But the filmmakers are dependent on public and semi-private



and product placement appearing in a film, or organizations or corporations using the film to get their name out there. I didn’t want to put off my first time viewers by acting as a label, even if it’s an organization I agree with like the IDA. So while I’m in support, and we’ll work hard to get the word out, it was important to me that the film itself was about a subject and not organizations.” Despite that, he says, he is indebted to everyone interviewed, including IDA members, staff, and associates. “Their information was so crucial to the process.”

## Spreading the word

CHENEY HOPES THE finished product will become an important awareness tool. He appeared personally at an advance screening at IDA’s Annual Meeting in April, eager to offer the film to a knowledgeable and zealous audience. “We want to bombard people with their ability to act upon it if they are inspired, either to block out the lighting in their own home, or get involved

screenings hosted by astronomy clubs, Audubon Societies and dark sky organizations like IDA to make sure the film gets viewed. Wicked Delicate Films makes it easy to get involved. IDA members are offered a special distribution rate. Instructions for hosting a screening appear on the following page. Screenings not only bring a unique event to a community, but set the tone for an ‘enlightening’ dialogue.

To extend its use as a light pollution resource, the TCD team is editing together a one hour, compacted version of the film that focuses on issues and solutions. Additional material will be available as a DVD extra or on the TCD website. “It would be wonderful to think of the film as part of a whole process that broadens the conversation about the darkness, and it’s easy to be in touch with us through our web page, [[www.thecitydark.com](http://www.thecitydark.com)] concludes Cheney. “I am hoping to shift consciousness through interpretation, and I’m hoping to shift consciousness all over the country.”



# Host a screening near you!

“THE CITY DARK” is scheduled for widespread public release in August. In addition to a limited theatrical run, TCD producers are eager to partner with communities and campus groups to organize screenings. Arranging or hosting a show is a fun, manageable way to raise awareness on sky quality degradation and acquaint friends and neighbors with a great film. It’s throwing a party for a cause—and the special guest might just be award-winning filmmaker Ian Cheney!

## Tips for hosting a screening:

**Choose the date, time, and screening venue for the event.** Think about what venue will be most appropriate for the expected audience. Events can be anything from small screenings for a specific group or club to large fundraising events for nonprofits or other organizations. Hosts should consider how many people are expected to attend and try to book a venue that will best meet their needs.

Screenings can be held in any space where a DVD can play, so be creative. Student groups and academic departments at universities and even high schools are enthusiastic hosts or audiences, and space in a school is often available to the broader public. A film could screen at a local observatory or planetarium, or local astronomers could lead a stargazing activity outside the venue after the screening is over. Ian will be available to speak at a number of screening events, so make sure to inquire.

Another option is to screen the film in a local theater. TCD will be showing at a number of theaters across the country this summer and fall, and hosts wishing to procure a theater venue can contact TCD to make sure their screening fits in with the rest of their limited theatrical release.

**Purchase the film’s public performance rights.** These rights grant hosts the copyright permission to screen the film in a public setting. In turn, TCD will provide screening hosts with an exhibition copy of the film as well as additional materials to help plan and promote the screening event. There are two types of licenses available (each with a special discount for IDA members): single screening licenses, and multiple-screening licenses.

To obtain a public screening license, visit the film’s website (<http://www.thecitydark.com/#/Screenings>) or email us at [screenings@thecitydark.com](mailto:screenings@thecitydark.com).

The single screening licenses and multiple-screening licenses are for events that do not charge admission. If interested in hosting an event that will charge admission or be a fundraiser, please contact TCD’s theatrical distributor, Argot Pictures: [jim@argotpictures.com](mailto:jim@argotpictures.com).

**Advertise.** The key to advertising on a budget is communication and planning. Act at least one month in advance. Compose a “press release” to friends and colleagues and ask them to redistribute it. Send the information to public access television and community radio stations; these agencies often read public service announcements without charge, as do weekly “about town” periodicals. Don’t forget to alert the local news. Post information on astronomy and service club websites, email IDA and TCD, which will both list screenings on the web. Flyers in local businesses never hurt either, and are an opportunity to make alliances with businesses that embrace sound lighting practices.

**Have fun!**



*The price of a single-use public screening license is*  
**\$195 (IDA reduced rate: \$95)**

*The price of a multiple-use public screening license is*  
**\$295 (IDA reduced rate: \$195)**

*Blu-ray disc rentals are available for an additional*  
**\$25 per screening**

All images ©2011 Wicked Delicate Films LLC

THE CITY DARK

# IDA shines at NEAF



Clockwise from top left photograph:

GlareBuster™ creator Bob Crelin and IDA board member Nancy Clanton during the IDA members reception; Geoff Notkin (top right) and Steve Arnold (bottom right) give advice on meteorite hunting; and Bob Parks and Ron Barnell, winner of the Celestron NexStar 6SE door prize



**T**O CONTINUE THE momentum created by hosting IDA's 2010 Annual Meeting jointly with the Astronomical League, the 2011 Annual Meeting took place at another popular astronomy event. The Northeast Astronomy Forum (NEAF), held annually in April in Suffern, New York, is the largest gathering of astronomers on the east coast, drawing approximately 2,500 night sky enthusiasts. The Rockland Astronomy Club, NEAF's organizers, gave IDA a well-trafficked spot in the exposition hall and abundant meeting space to carry out a two-day agenda.

Compelling speakers outlined developments in research and conservation. Dr. Mario Motta explained the evolving role of artificial light at night in human health issues, and Dr. Harald Stark, of the National Oceanic and Atmospheric Administration, outlined his fascinating research on how sky glow contributes to air pollution. The popularity of IDA's expanding International Dark Sky Places program was reflected in talks given by Steven Owens, Dave Ingram, and Terry McGowan. New York Chapter leader Susan Harder, a recent recipient of the Sierra Club's

Environmentalist of the Year Award for her work on light pollution, gave tips on effective advocacy. Nobouaki Ochi came from Japan to report on educational initiatives in the Far East, including an innovative map of GLOBE at Night by his high school physics class. Geoff Notkin and Steve Arnold, a.k.a. the world renowned Meteorite Men, drew a large crowd with their entertaining presentation on meteorite hunting. An advance screening of Ian Cheney's 2011 documentary, "The City Dark," was hotly anticipated and well received.

In addition to the lively program, the enthusiasm and generosity of volunteers, donors, and meeting participants created a meaningful event. 88 new members signed up at the conference. A number of manufacturers graciously contributed telescope equipment and other items for the eBay silent auction. The NexStar 6SE door prize donated by Celestron caused a stir.

Attendees pitched in wherever they were needed. IDA is grateful for the volunteers who helped staff the booth and coordinate the program, and to the new and familiar faces dedicated to using the knowledge gained at the conference to make changes in their communities.

IDA will return to NEAF for a regional meeting in 2012.

## 2011 Annual Awards

Every year, volunteers find creative ways to educate, inspire, and protect the night sky. Congratulations and thank you to the 2010 and 2011 luminaries.

### David L. Crawford Lifetime Achievement Award

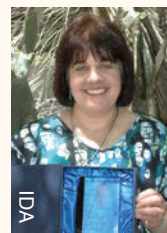
*David Toeppen (posthumous)*



David Toeppen was one of IDA's earliest and most passionate members. Throughout his life, Dave has worked to record and protect natural spaces. Since he built his first 10" reflector telescope in high school, Dave has been ardently sharing the night sky with others. As the longtime leader of the Illinois at Large IDA Chapter, he helped obtain streetlights with side shields in Mount Prospect, and helped draft the sound, progressive lighting ordinance for the Village of Homer Glen, the first of its kind in Illinois. At the time of his death early in 2011, he was working with a Wisconsin Indian tribe for shielded casino lighting.

### Hoag-Robinson Award

*Dr. Constance Walker*



As an associate scientist in the Education and Public Outreach group at the National Optical Astronomy Observatory (NOAO) in Tucson, Arizona, Dr. Walker is expanding astronomy and dark sky programs in classrooms worldwide. Her management of the GLOBE at Night star hunting program has helped it gain tens of thousands of participants. She chaired both the U.S.

and the global working groups on dark skies awareness for the International Year of Astronomy in 2009 and continues to convene conferences and develop kits for astronomy-based science education. She has chaired the IDA Education Committee for the last year, as well as the Global Astronomy Month Dark Skies Awareness program, and sits on the board of the Astronomical Society of the Pacific.



## Dark Sky Defender (Formerly Executive Director) Awards

### Adler Planetarium

The Adler Planetarium in Chicago, Illinois created an informative and popular exhibit on light pollution, including tips to encourage people to reclaim the “hidden wonders” of their faded night.

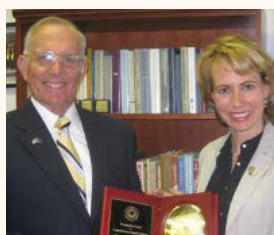
### Ian Cheney

Ian’s 2011 documentary on light pollution, “The City Dark,” provides an engaging outreach tool.

### David Ingram

As president of IDA Northwest, David has been working for a statewide ordinance in Washington for several years. His energy is limitless; among other projects, he is working with state parks to improve astronomy outreach and activities.

### Gabrielle Giffords



Former IDA Board President Bob Gent presents an Astronomical League award to Gabrielle Giffords.

Arizona Representative Gabrielle Giffords has wholeheartedly championed dark sky initiatives. As state senator, her support of SB 1218, which limits light pollution in the State of Arizona, was instrumental to the bill’s passage. As a U.S. Representative, she sponsored IDA’s congressional briefings in 2008 and 2009. She has added her name to letters to the Environmental Protection Agency and the Department of Energy to promote energy efficiency and responsible outdoor lighting.

### Nobuaki Ochi

As a high school physics teacher in Japan, Nobuaki Ochi created illuminance maps of his city with his class and science club to encourage students to think about light pollution and energy waste. He also participates in promoting Japan’s GLOBE at Night campaign and is a member of the IDA Education Committee.

### Steven Owens

Steven has worked to promote dark sky conservation around the United Kingdom through the International Dark Sky Places program. He initiated the application process for Galloway Forest Park and Sark Island, and is providing lighting guidance to several additional parks.

### Jennifer West



Former IDA Board President Robert Wagner, Jennifer West and Bob Parks

A student at the University of Manitoba and member of the Royal Astronomical Society of Canada, Jennifer created the short film “Our Vanishing Night” to raise awareness of issues associated with light pollution. It has been translated into several languages.

## Rising Star Award

### Mariana Cabrera Figueroa, Sonora, Mexico

At 16, Mariana Cabrera Figueroa started the “One Light, One Star” project to reduce light pollution and raise awareness on climate change. The name was chosen to represent the idea that every time a useless light goes out, a star becomes more visible. The project was selected as a winner in the British Council’s program Climate Generation, developed to encourage young people’s involvement in environmental issues.

### Sarah Betti, Herndon High School, Virginia

Sarah’s project, “The Effect of Light Pollution on the Visibility of Stars” won second prize for physics at her school and an honorable mention in the Fairfax County Regional Science and Engineering Fair.

Continued on page 14

## 2010 European Awards

### Galileo Award

#### Wim Schmidt, Sotto le Stelle



Friedel Pas, leader of IDA Europe, presents Wim Schmidt with the Galileo Award at the 10th European Symposium in Kaposvár, Hungary.

Wim is the owner of Sotto le Stelle (<http://www.sotto.nl>), a light pollution monitoring website in Dutch and English. Wim quit his job to dedicate himself to fighting light pollution and started the site to help local governments in the Netherlands. He has made several light pollution maps to assist development of light pollution policy, including a Google Map-based database with sky pictures correlating to sky quality data. His work with sky meters helped determine which types of lighting technology are contributing the most to sky glow, and he uses

his evaluation of sky quality in a municipality to create an area specific lighting management plan.

Wim is also the leader of the affiliated association, Platform Lichthinder Nederland, and one of the leaders of the Night of the Night Campaign, a light pollution awareness night similar to the Belgian Night of Darkness.

## European Lighting Award

### Opticalight

Opticalight designed an innovative projector that illuminates a building without shining light at it directly. The diffused light is not overly bright and can be sharply controlled and precisely directed.

## 2011 U.S. Lighting Design Award

University of Arizona

Mark DeJong, Lighting Designer, Musco Lighting

The 2010 retrofit of Arizona Stadium, replaced traditional sports lighting with fewer fixtures that dramatically reduce glare and can be controlled to save money and energy. In

addition, additional campus-wide initiatives have replaced lighting, lighting ballasts, and lighting controls, lowering watts per square foot.

### MEETING NEWS

#### Washington, D.C.

MILT RONEY, ASSOCIATE director of IDA's Washington Office, spent 14 May at the National Air and Space Museum's Udvar-Hazy Center with Bill Pala to educate onlookers about light pollution. Several contractors were interested in the Model Lighting Ordinance and the Fixture Seal of Approval program. Children's activities printed from the IDA website were enthusiastically received by the younger crowd.

#### Utah

BOB PARKS SPOKE at the Astronomical League's AlCon, held in southeastern Utah's Bryce Canyon National Park from 29 June–2 July. Satellite images from the National Academy of Sciences indicate a decrease in light pollution between 1994–2003 in some areas. The presentation focused on the fact that control of excess artificial light at night, can be—and has been—achieved. The encouraging news energized many AlCon attendees.

### FIXTURE SEAL OF APPROVAL NEWS

#### Arianna



DEFLECTO LED STREET light is the result of years of research and development in sustainable engineering and applied optics: it is the first total reflection LED lamp for street lighting in the world. [www.Ariannaled.com](http://www.Ariannaled.com)

#### Cooper Crouse-Hinds



DESIGNED TO PROVIDE uniform, crisp light suitable for low mounting heights, confined spaces, tunnels, over doorways, landings, etc. Vaporgard LED is an ideal replacement for traditional 100–200W incandescent applications.

<http://www.cooperindustries.com/content/public/en/crouse-hinds.html>

#### Eye Lighting

THE KÍAROLED IS a versatile new line of LED luminaires that provide lighting solutions for an extensive range of outdoor environments. [www.eyelighting.com](http://www.eyelighting.com)

#### Luxim

LUXIM'S PATENTED LiFi technology provides high-quality and energy-efficient lighting. A stable lifetime of 10,000 hours makes LiFi the perfect technology for architectural lighting applications. [www.luxim.com](http://www.luxim.com)

#### Grechi



EXTREMELY FUNCTIONAL AND versatile luminaire with a sober line, suitable for every kind of urban background. [www.grechi.com](http://www.grechi.com)

#### Swarco



THANKS TO THE smart design of Futurlux, the luminaires elegantly integrate into the cityscape. [www.swarco.com](http://www.swarco.com)



#### On the Cover:

“The World Health Organization has named overnight shift work as a probable carcinogen,” intones Ian Cheney as narrator for “The City Dark.” This image, taken as a still photograph with a Canon EOS 20D, appears in the documentary's segment “Night Shift” to depict light trespass. It is one of several still image sequences used in the film.

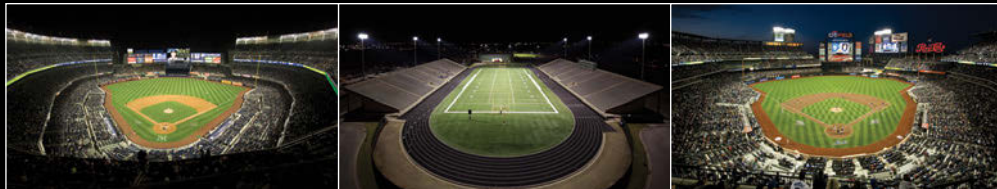
©2011 Wicked Delicate Films LLC





**NO, IT'S NOT A UFO.**

**BUT ITS UNEQUALED PERFORMANCE  
MAY BE JUST AS STARTLING.**



## Light-Structure GREEN™

Light-Structure Green™ reduces your sports-lighting operating cost by 50% or more with less energy consumption, cuts spill light by 50%, and eliminates 100% of your maintenance costs for the next 25 years. We guarantee it!

Light-Structure Green includes Musco's Constant 25™ product assurance and warranty program, which provides 25 years of carefree lighting equipment

operation including guaranteed light levels, maintenance, group lamp replacements, monitoring, and remote on/off control services.

From foundation to poletop, Light-Structure Green makes your sports-lighting projects fast, trouble-free, and now more affordable than ever. Call, email, or check our website today for details.

**Unequaled performance . . .  
for your budget, for the environment.**

Photos left to right: Yankee Stadium, Bronx, NY;  
Burger Stadium, Austin, TX; Citi Field, Mets Stadium, Flushing, NY  
©2010 Musco Sports Lighting, LLC · ADIDA10-1

Contact Us Today.  
**800-825-6030**  
[www.musco.com](http://www.musco.com)  
e-mail: [lighting@musco.com](mailto:lighting@musco.com)



**We Make It Happen.®**

INTERNATIONAL DARK-SKY ASSOCIATION  
3223 N FIRST AVE  
TUCSON AZ 85719-2103  
USA

NON-PROFIT  
ORGANIZATION  
US POSTAGE  
**PAID**  
TUCSON, AZ  
PERMIT NO. 1902

*Nightscape* is printed with soy ink on FSC certified paper.

Is your mailing address and email up to date? If not, please update your information at IDA's website at [www.darksky.org](http://www.darksky.org).

Since Most of Us Still Travel for Dark Skies...



...Make the Most of the Opportunity.

Superbly Crafted APO Refractors from 60mm to 127mm and Visionary Eyepieces.

32 Elkay Drive, Chester, New York 10918 845.469.4551 [www.TeleVue.com](http://www.TeleVue.com)

 **TeleVue**  
Visionary