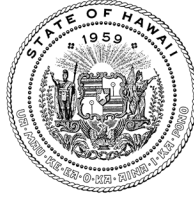


JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA



STATE OF HAWAII | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA 'OIHANA KUMUWAIWAI 'ĀINA

P.O. BOX 621
HONOLULU, HAWAII 96809

DAWN N.S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE
MANAGEMENT

RYAN K.P. KANAKA'OLE
FIRST DEPUTY

CIARA W.K. KAHAHANE
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE
MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES
ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

Testimony of
DAWN N. S. CHANG
Chairperson

Before the House Committee on
CULTURE & ARTS
Friday, April 11, 2025
10:30 AM

State Capitol, Conference Room 309 and Via Videoconference

In consideration of
SENATE CONCURRENT RESOLUTION 12, SENATE DRAFT 1
RECOGNIZING INTERNATIONAL DARK SKY WEEK

Senate Concurrent Resolution 12 Senate Draft 1 establishes that April 21 through April 28, 2025, shall be recognized as International Dark Sky Week in Hawai'i and implements a task force to provide recommendations on dark sky legislation to be chaired by the Chairperson of the Board of Land and Natural Resources. **The Department of Land and Natural Resources (Department) provides comments on this measure.**

The Department recognizes the significance of dark skies for both the people and wildlife of Hawai'i. Artificial light pollution affects wildlife, including seabirds and turtles, while disrupting astronomy, stargazing, and cultural traditions. Recognizing International Dark Sky Week in Hawai'i promotes dark sky conservation by raising awareness to protect wildlife, preserve cultural heritage, support human health, and advance astronomical research and appreciation for dark skies.

The Department supports efforts to study light pollution and protect dark skies across the State. In 2017, the Legislature established the Dark Skies Protection Advisory Committee, housed at the University of Hawai'i (University), and the Department has been an active collaborator since its inception. In recent months, the Department, the University, and additional partners have been engaged in developing a draft technical report, which is anticipated to be presented for review and consideration for approval by the existing Committee later this year. Given the current momentum and strong leadership within the University, the Department believes that continued progress on dark skies protection is best achieved through the already established Advisory Committee rather than by creating a new task force under the Department.

Mahalo for the opportunity to provide testimony on this measure.



TO: Representative Jeanne Kapela, Chair
Representative Sam Satoru Kong, Vice Chair
Committee on Culture & Arts

FROM: Maunakea Observatories

RE: **SCR 12 SD1 – Recognizing International Dark Sky Week - In Support**

HEARING: Friday, April 11, 2025; 10:30 AM
Conference Room 309 & Videoconference

Aloha Chair Kapela, Vice Chair Kong, and Members of the Committee,

Mahalo for the opportunity to provide testimony **in support** of SCR 12 SD1 relating to recognizing International Dark Sky Week. Dark skies are an essential condition for astronomy that also supports economic, environmental, and human health in Hawai'i. Recognizing April 21 through April 28 as International Dark Sky Week would raise community awareness about the importance of dark skies and the many negative impacts of light pollution.

Maunakea, one of Hawai'i's many natural wonders, is the most productive ground-based astronomy site in the world, allowing us to observe the universe in a completely unique setting. A number of conditions make Maunakea an astronomy powerhouse, not the least of which is its extremely dark sky. These dark skies allow observatories to see the faintest galaxies at the very edge of the observable universe, which repeatedly puts Hawai'i at the center of groundbreaking astronomical research and discoveries.

Strong lighting ordinances and distance from city lights protect Maunakea from the light pollution that prevents most people, both in Hawai'i and around the world, from seeing the stars. This resolution would convene a task force to study light pollution and dark skies which is a crucial step toward substantively addressing light pollution in Hawai'i and establishing a statewide policy on outdoor lighting. Hawai'i's astronomy community is an advocate in this space with considerable expertise that can assist in defining strategies and recommendations for combating light pollution.


Investments in space science and astronomy already generate \$200M in annual economic impact statewide, with the potential for this number to grow if we continue supporting and protecting the conditions that make Hawai'i one of the best places for it. By recognizing International Dark Sky Week and convening a task force, we have the opportunity to bring education, resources, and solutions to our communities that promote responsible outdoor lighting and the protection and enjoyment of dark skies. Every resident deserves to see the stars above them without a smoke screen of excessive artificial light and this takes us a step closer to that reality.

Thank you for the opportunity to testify before your committee in support of SCR 12 SD1.

With aloha,

A handwritten signature in black ink, appearing to read 'Mark Chun'.

Mark Chun, University of Hawai'i 2.2-meter Telescope

A handwritten signature in black ink, appearing to read 'Jean-Gabriel Cuby'.

Jean-Gabriel Cuby, Director, Canada-France-Hawai'i Telescope

A handwritten signature in black ink, appearing to read 'Geoffrey Bower'.

Geoffrey Bower, Director, East Asian Observatory (James Clerk Maxwell Telescope)

A handwritten signature in blue ink, appearing to read 'Richard H. Matsuda'.

Richard Matsuda, Director, W. M. Keck Observatory

A handwritten signature in black ink, appearing to read 'Satoshi Miyazaki'.

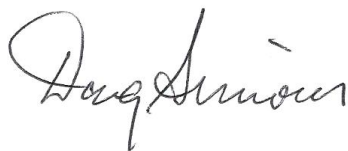
Satoshi Miyazaki, Director, Subaru Telescope, National Astronomical Observatory of Japan

A handwritten signature in blue ink, appearing to read 'Timothy J. Norton'.

Timothy J. Norton, Director, Submillimeter Array

A handwritten signature in blue ink, appearing to read 'John T. Rayner'.

John Rayner, Director, NASA Infrared Telescope Facility

A handwritten signature in black ink, appearing to read 'Doug Simons'.

Doug Simons, Director, University of Hawai'i, Institute for Astronomy



UNIVERSITY OF HAWAII SYSTEM

‘ŌNAEHANA KULANUI O HAWAII

Legislative Testimony

Hō'ike Mana'o I Mua O Ka 'Aha'ōlelo

Testimony Presented Before the
House Committee on Culture and the Arts
Friday, April 11, 2025 at 10:30 a.m.

By

Suzanne Case, Director, Office of Land and Conservation Futures, UH System

Doug Simons, Director, Institute for Astronomy, UH Mānoa

on behalf of

Vassilis L. Syrmos, Vice President for Research and Innovation

University of Hawai'i System

SCR 12 SD1 – RECOGNIZING INTERNATIONAL DARK SKY WEEK

Chair Kapela, Vice Chair Kong, and Members of the Committee:

The University of Hawai'i (UH) appreciates the Legislature's recognition of the importance of our night sky for Hawai'i's quality of life, the health of our residents and our wildlife, astronomy, economy, and culture, and offers the following comments.

The University of Hawai'i agrees that International Dark Sky Week provides an important opportunity to promote the protection and enjoyment of dark skies and encourage responsible lighting, and supports the designation.

SCR 12 was amended by SD1 to add language to move the existing Dark Skies Protection Advisory Committee, established by Act 185, Session Laws of Hawai'i 2017, from UH where it was placed for administrative purposes, to the Hawai'i Department of Land and Natural Resources (DLNR).

The work of the Dark Skies Protection Advisory Committee was interrupted by the COVID-19 pandemic. However, since 2024, a group of technical experts has been collaborating extensively on a review of the importance to Hawai'i of its night skies and of addressing light pollution in the state, and of the existing laws and rapidly evolving available technologies on outdoor lighting. These technical experts include people from UH (Institute for Astronomy, Institute for Sustainability and Resilience, Natural Resources and Environmental Management, Office of Land and Ocean Conservation Futures, and the Richardson School of Law); DLNR; the U.S. Fish and Wildlife Service; Hawai'i Pacific University; Maui Nui Seabird Recovery Committee; Pacific Rim Conservation; and DesignLights Consortium, an independent non-profit organization, collectively with expertise on the impacts of light pollution on seabirds, sea turtles, insects and other wildlife, human health, astronomy, law, and data and resources for decision makers on quality lighting, controls, and integrated building systems to reduce energy, carbon, and light pollution.

These technical experts are finalizing a draft report that is intended to be presented to the Dark Skies Protection Advisory Committee in 2025 for review and consideration for approval. It is anticipated that the draft report will include:

- recommendations on Hawai'i's legal frameworks to protect our night skies, and
- recommendations on technical specifications on:
 - outdoor lighting color temperature and intensity,
 - adaptive lighting systems such as dimmers, timers and motion-detection,
 - shielded fixtures to prevent upward light emissions and light spill, and
 - light trespass limits.

Based on progress to date, UH feels momentum will best be kept by keeping the Dark Skies Protection Advisory Committee with the university for administrative purposes at this time.

The University of Hawai'i notes that Act 185, Session Laws of Hawai'i 2017, did not call for reports to the Legislature past 2021. Respectfully, UH suggests that the Legislature may wish to include a request for annual reports beginning in December 2025 in this resolution and that the Committee consider the attached edits to the language of SCR 12 SD1.

Thank you for the opportunity to testify on this matter.

SCR 12 SD1 Testimony Suggested Amendments

Page 2, line 27, delete “now, therefore,” and add “and”

Page 2, starting on line 29, add:

WHEREAS, Act 185, Session Laws of Hawaii 2017, established a Dark Skies Protection Advisory Committee to assist the University of Hawaii in developing a statewide dark night skies protection strategy. The advisory committee was placed within the University of Hawaii for administrative purposes, with annual reports to the Legislature through 2021; and

WHEREAS, the COVID-19 epidemic interrupted the work of the Dark Skies Protection Advisory Committee; and

WHEREAS, an extensive group of technical experts from the University of Hawaii (Institute for Astronomy, Institute for Sustainability and Resilience, Natural Resources and Environmental Management, Office of Land and Ocean Conservation Futures, and the Richardson School of Law), the Hawaii Department of Land and Natural Resources, the United States Fish and Wildlife Service, Hawaii Pacific University, Maui Nui Seabird Recovery Committee, Pacific Rim Conservation, and DesignLights Consortium, and independent non-profit organization, collectively with expertise on the impacts of light pollution on seabirds, sea turtles, insects and other wildlife, human health, astronomy, law, and data and resources for decision makers on quality lighting, controls, and integrated building systems to reduce energy, carbon, and light pollution, have been meeting for the past few years to review the factual and legal framework on light pollution in Hawaii; and

WHEREAS, this continuing work has not been reported to the Legislature since reports under Act 175, SLH 2017, were not requested past 2021; now, therefore,

Page 2, starting on line 39, delete content until page 4, line 9

Replace it with:

BE IT FURTHER RESOLVED that the University of Hawaii is requested to reconvene the full Dark Skies Protection Advisory Committee in 2025, and to ask the technical experts who have been working with the University of Hawaii in reviewing the factual and legal framework on light pollution in Hawaii to present a draft report of its findings and recommendations to the full Dark Skies Protection Advisory Committee in such meeting for consideration for adoption; and

Page 4, lines 11-13 amend language as follows:

BE IT FURTHER RESOLVED that in developing the dark night skies protection strategies and recommendations, the ~~task force~~ is technical experts and the advisory committee are requested to consider and evaluate issues that include:

Page 5, line 11, amend as follows:

December 1, ~~of each year of 2025 and 2026;~~ and