ABOUT THE DARK SKY FESTIVAL

Sequoia Parks Conservancy, in partnership with Sequoia and Kings Canyon National Parks, welcomes you to the ninth annual Dark Sky Festival.

Events will take place at locations across Sequoia and Kings Canyon National Parks. This year marks the return of the largest night sky festival in the region after a two-year hiatus due to Covid.

The Dark Sky Festival is a free event and is open to the public. This year the festival also corresponds with National Public Lands Day. National Public Lands Day is held annually on the fourth Saturday in September. This day celebrates the connection between people and the great outdoors.

Most of the world grapples with the effects of what is known as artificial light pollution. The night skies over Sequoia and Kings Canyon National Parks are one of the few places in California left to experience natural darkness. The Dark Sky Festival aims to educate people about the importance of preserving natural darkness and inspire them to take action in their own communities.

In addition to this year’s keynote speaker, you will have access to stargazing, guest speakers, movies, Q&A’s, a kids zone, and other enrichment programs throughout Giant Forest & Lodgepole, Grant Grove, and the Cedar Grove areas of Sequoia and Kings Canyon National Parks. The night will conclude with Star Parties in each of those areas.
OUR KEYNOTE SPEAKER

KATE GUNDERSON

DARK SKY FESTIVAL KEYNOTE ADDRESS
TIME: 7:30 PM TO 8:30 PM
LOCATION: LODGEPOLE CAMPGROUND AMPHITHEATER

Kate Gunderson is a mechanical and aerospace engineer currently attending the National Test Pilot School in Mojave, CA through a flight test engineering fellowship. To pursue this opportunity, Kate left her dream job at NASA's Johnson Space Center where she worked as an engineer and NASA's youngest Flight Science Officer aircrew member, supporting various astronaut training activities and airborne science missions flown all over the world.

Kate was born and raised in West Fargo, North Dakota. Although proud of her hometown, Kate always had a nagging feeling that there was more for her somewhere else. She talked early-on (starting in second grade) and often about her desire to become an astronaut one day.

Although many of her classmates were critical, she has never given up on her dream!
SCHEDULE OF EVENTS
GIANT FOREST & LODGEPOLE AREA

Walk Around the Solar System
Presented by: Riverside Astronomical Society
Time: 10 AM to 11 AM
Location: Big Trees Trail
It is called “space” for a reason. If the sun were a large grapefruit in our model, the earth would be a grape seed fifty feet away, and there would not be much in between! Come walk a 2,000-foot scale model of the solar system, learning along the way some interesting facts about our place in the universe!

NASA- Climate Change
Presented by: Terry Himes
Time: 11 AM to 12 PM
Location: Beetle Rock Education Center
Let's talk about human-caused climate change! How do we know the climate is changing? What data do we use to study climate change? How are spacecraft missions used to gather that data? We will show a 13-minute film by Rory Kennedy, granddaughter of President John F. Kennedy. In our discussion, we'll address the claims of those who deny the existence of climate change, and lastly, what you can do to help preserve a liveable world!

Solar Viewing
Presented by: Riverside Astronomical Society
Time: 10 AM to 2 PM
Location: Giant Forest Museum
How often do we really get to see Earth’s own star, the Sun? It glows with enough energy to give us life and has enough mass to keep us from spinning off into the cosmos. Join us for a rare opportunity to look at the sun using safe, solar telescopes.

Dark Sky Festival Kidz Zone!
Time: 10 AM to 2 PM
Location: Giant Forest Museum
Visit our local valley scientists in action! This year at the Kids Zone we will have the Hanford National Weather Service team for an inside look into the fascinating science behind weather and our planet and also educators from Pena Planetarium to teach us about space! We will also have a special appearance by our keynote speaker from 12 PM to 1 PM!

What Do Black Holes Look Like?
Presented by: Dr. Nils Deppe
Time: 12:30 PM to 1:30 PM
Location: Beetle Rock Education Center
Galaxy collisions are some of the most violent and breathtaking events in our universe. At their centers are black holes that crash into each other nearly at the speed of light. What would these violent collisions look like if we could see them? Does each black hole look like those from the movie Interstellar? The talk will discuss what black holes are, what they look like, and how scientists study these weird, exotic objects that Einstein predicted over a century ago.
NASA’S Journey to Mars!
Presented by: Terry Himes
Time: 2:00 PM to 3:00 PM
Location: Beetle Rock Education Center
Mars 2020 (Perseverance) landed on February 18, 2020. We will discuss in vivid detail Cruise, Entry, Descent & Landing (EDL), and Surface Operations. Including the Mars 2020 Helicopter Ingenuity. We will also discuss InSight, Curiosity, and many future Mars missions such as Mars Sample Return and beyond.

Caltech Astrophysicist Panel Q&A
Time: 6 PM to 7 PM
Location: Lodgepole Campground Amphitheater
A panel of professional astronomers and astrophysicists from Caltech will field questions from the audience on all topics related to astronomy, physics, and space science. Join us and bring your burning questions about stars, galaxies, life in the universe, black holes, science fiction, and more! We’ll do our best to address your questions.

Dark Sky Festival Keynote Address
Presented by: Kate Gunderson
Time: 7:30 PM to 8:30 PM
Location: Lodgepole Campground Amphitheater
This year’s keynote speaker is Kate Gunderson. To learn more about Kate, and what to expect during her address turn to page 3 of this guide.

Wuksachi Star Party
Presented by: Kern Astronomical Society
Time: 9 PM to 11 PM
Location: Wuksachi Lodge
Hosted by the Kern Astronomical Society. Telescopes will be set up at the Wuksachi Lodge back parking lot in Lodgepole for guests to view astronomical objects. Astronomers will be on hand to show you deep-sky objects and answer your questions.
SCHEDULE OF EVENTS

KINGS CANYON: GRANT GROVE

Saving the Dark
Time: 10 AM to 11 AM AND 3:30 PM to 4:30 PM
Location: Kings Canyon Visitor Center
From the award-winning director of Lost in Light, Sriram Murali, comes his follow-up documentary, Saving The Dark. With breathtaking cinematography and new information, this film invites and excites each person to protect and enjoy the “other half of the day.”

How to Rip Apart a Star
Presented by: Samantha Wu
Time: 11 AM to 12 PM
Location: Kings Canyon Visitor Center
Stars traveling through space can sometimes be destroyed by encounters with other nearby objects. If a star wanders too closely to a supermassive black hole, such as the one in the center of the Milky Way, it can be ripped apart in a process known as a tidal disruption event (TDE). As one side of the star experiences a stronger gravitational pull from the black hole than the other side, the black hole’s extreme gravity rips material off the star that then flows into the black hole itself. However, even stars that are far away from these supermassive black holes are not always safe from catastrophe. Binary stars, stars that orbit around a companion star, can pass too closely to their neighbors. This process results in the outer layers of the star getting stripped away and consumed by the neighbor, oftentimes leading to an explosive visual display! Learn how both these scenarios for ripping apart a star occur and how we see them in action.

Understanding the Formation and Evolution of Galaxies
Presented by: Dr. Cameron Hummels
Time: 12:30 PM to 1:30 PM
Location: Kings Canyon Visitor Center
Galaxies—like our own Milky Way—are among the basic building blocks of our universe. Discovered only one hundred years ago, galaxies are complex systems consisting of billions of stars, along with gas, dust, and dark matter. They occupy much of what we see when we gaze at the night sky through our telescopes. Astronomers learn about galaxies using both telescope observations and sophisticated computer simulations. These numerical investigations are crucial in helping us better understand how galaxies form and evolve since the birth of our universe.
KINGS CANYON: GRANT GROVE
CONTINUED...

The Antikythera Mechanism: The 2000-Year-Old Greek Computer
Presented by: Khaled Alkotob
Time: 2 PM to 3 PM
Location: Kings Canyon Visitor Center
One hundred years ago, sponge divers discovered a rusted bronze mechanism off the Greek island of Antikythera. After decades of mystery, an international team of astronomical historians discovered that this mystifying object was the oldest computer in the world. Come see a working model of this 2,000-year-old eclipse computer and learn of its history.

Big Stump Star Party
Presented by: Central Valley Astronomers
Time: 9 PM to 11 PM
Location: Big Stump Picnic Area
Hosted by the Central Valley Astronomers. Telescopes will be set up at Big Stump parking lot in Grant Grove for guests to view astronomical objects. Astronomers will be on hand to show you deep-sky objects and answer your questions.

KINGS CANYON: CEDAR GROVE

“The Dark Night”
Presented by: Lauren Harre
Time: 8 PM to 9 PM
Location: Cedar Grove Amphitheater
Evening Program at the Cedar Grove Amphitheater with Ranger Lauren. 45-minute program talking about the importance of our night skies.

Star Party at Road’s End!
Presented by: Cedar Grove Park Rangers
Time: 10 PM to 11 PM
Location: Cedar Grove Roads End
Join the Cedar Grove Rangers to get a look through a telescope, with binoculars or your own eyes at some of the coolest night sky features, including stars, planets, and even galaxies!
SEQUOIA & KINGS CANYON NATIONAL PARKS

Travel times
- LK to FH - 30 minutes
- FH to MK - 2 hours
- FH to CC - 1 hour*
- FH to LP - 1.5 hours*
- FH to GF - 1 hour*
- GG to LP - 1 hour
- GG to GF - 1.5 hours
- GG to CG - 1 hour

*Expect travel delays of 20-60 minutes.
The art for ‘Under the Milky Way’ was designed exclusively for Sequoia and Kings Canyon's Dark Sky Festival by the extremely talented Eric Tan.

Shirts, posters, and stickers with this year's theme will be available to purchase at park visitor center stores on Saturday, September 24th, 2022 as well as online at store.sequoiaparksconservancy.org the week of the event.

Additional merchandise can be purchased here: https://www.bonfire.com/dark-sky-festival-2022/
MEET YOUR HOSTS

Sequoia Parks Conservancy (SPC) is the official nonprofit partner of Sequoia and Kings Canyon National Parks in the Sierra Nevada Mountains of California.

Sequoia Parks Conservancy is built on decades of support for Sequoia and Kings Canyon National Parks. This legacy demonstrates a longstanding commitment and contribution to the parks and their surrounding communities, including the US Army Corps of Engineers at Lake Kaweah.

SPC's efforts have been critical in the conservation of wild, beautiful landscapes for the enjoyment and inspiration of generations of visitors.

WAYS YOU CAN HELP

Donate- Monetary gifts of any kind are always welcome and greatly appreciated. Donate by:
Mail: Sequoia Parks Conservancy
47050 Generals Hwy Unit 10
Three Rivers, CA 93271
- OR -
Online: sequoiaparksconservancy.org

Become a Friend- Join our membership program Friends of SPC and enjoy exclusive benefits while supporting our efforts. Visit a park visitor center store for more info.

Shop our store- All of the products in our park visitor center stores support our efforts. You can also shop online: store.sequoiaparksconservancy.org

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PARK UPDATES

COVID Safety:
Masks may be required in federal buildings. Please check the signage outside visitor centers and other buildings. These requirements are based on CDC’s COVID-19 Community Level tool. When nearby counties are at low-medium risk, masks are optional in buildings.

Construction Projects:
Two construction projects are underway this summer to improve park roads and utilities. Expect average delays of 15 minutes, with traffic control.

Also, a road preservation project is scheduled this year throughout Sequoia National Park. Short stretches of road will be sealed and resurfaced. If you encounter one of these construction zones, please plan on a delay of up to 30 minutes.

Stop at Foothills Visitor Center to learn where construction is happening during your visit.

MEET YOUR HOSTS

Sequoia National Park and Kings Canyon National Park were established to protect giant sequoia trees, the largest living trees by volume on Earth.

These two parks, which lie side-by-side in the southern Sierra Nevada in Central California, serve as prime examples of nature’s size, beauty, and diversity.

Nearly 2 million visitors from across the U.S. and the world visit these parks for the world’s largest trees (by volume), grand mountains, rugged foothills, deep canyons, vast caverns, the highest point in the lower 48 states, and more.

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www.nps.gov/seki/index.htm
ENJOY YOUR VISIT!

Be sure to tag us on social media in your memories.
#DARKSKYFEST2022

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