



## FREE STARGAZING AND TELESCOPE VIEWING

Attending our Multimedia Shows prior to stargazing with telescopes is key to getting the most out of your Astronomy Festival experience. At the shows you'll not only be told how to best look through a telescope, but also you'll better appreciate what you're looking at. To assist your viewing of the heavens, we proudly enlist volunteers from the Salt Lake Astronomical Society (SLAS) who are the most helpful and knowledgeable volunteer telescope operators around! Therefore, don't be shy! If you don't see anything, let the telescope operator know! Please ask questions, and above all else, enjoy!

WEDNESDAY-SATURDAY - BRYCE CANYON STARGAZING SITE\*  
STARGAZING: 10:00 PM - 12:30 AM

At the Stargazing Site, Bryce Canyon's "Dark Rangers" offer 20-minute constellation tours where you can learn more about the mythology and lore of the night sky.



**\*Parking at the Stargazing Site is limited to persons with disabilities and telescope operators. EVERYBODY ELSE must arrive at the Stargazing Site via the Star Shuttles (see Star Shuttle Information).**



**Dress Warmly:** At 8,000 feet, Bryce Canyon is cooler than you may expect. While daytime temperatures typically reach 80°F, nighttime temperatures can fall below 40°F.



**Bad Weather:** In the event of cloudy or stormy weather, stargazing will be cancelled as determined only at the conclusion of the Multimedia Shows.



**Flashlights:** No flashlights, flash photography, or laser pointers allowed on the Stargazing Site. Trust us, you can see in the dark once your eyes have had 10-15 minutes to adjust to the darkness.



**Star Shuttles:** Parking near the Stargazing Site is limited. Each night (June 25 - 28), two nighttime shuttles provide transit between the Multimedia Show venues, the Stargazing Site, and overnight accommodations. See map at right. The Star-Shuttle has a 15-minute return interval. A second shuttle, the Ruby's-Star Shuttle, will make all of these stops and additionally go out to Ruby's Inn. The Ruby's-Star Shuttle has a return interval of 30 minutes. Express Shuttles from Ebenezer's Barn and Grill to the Stargazing site will operate immediately following Friday's program with Alex Cherney.

STAR SHUTTLE: 8:00 PM - 12:30 AM

STAR-RUBY'S SHUTTLE: 8:00 PM - 12:30 AM



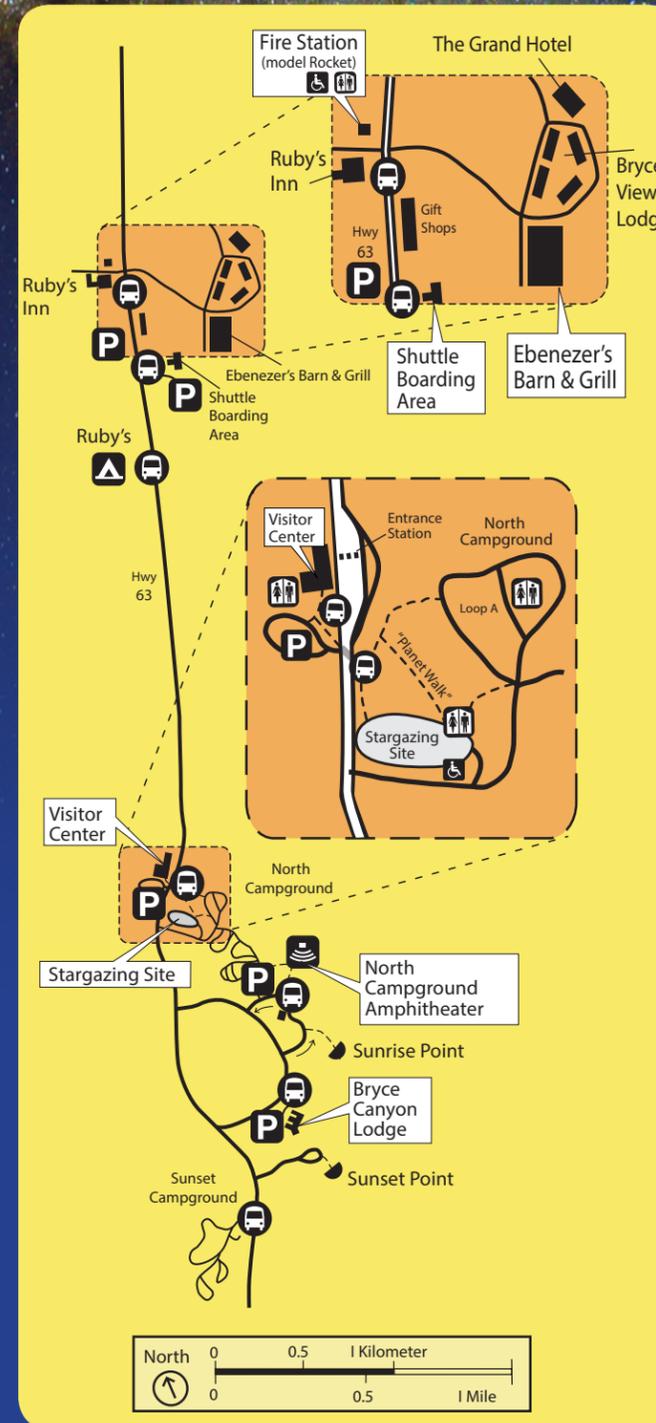
**Accessibility:** Handicapped parking is available at the Stargazing Site. The Stargazing Site itself is paved, with gentle inclines suitable for wheelchairs.



**Restrooms:** Two portable toilets (one is accessible) are located at the Stargazing Site. Accessible restrooms are also available at the Visitor Center until midnight each night.



JOIN US NEXT YEAR FOR OUR 15TH ANNUAL  
BRYCE CANYON ASTRONOMY FESTIVAL  
JUNE 17-20, 2015



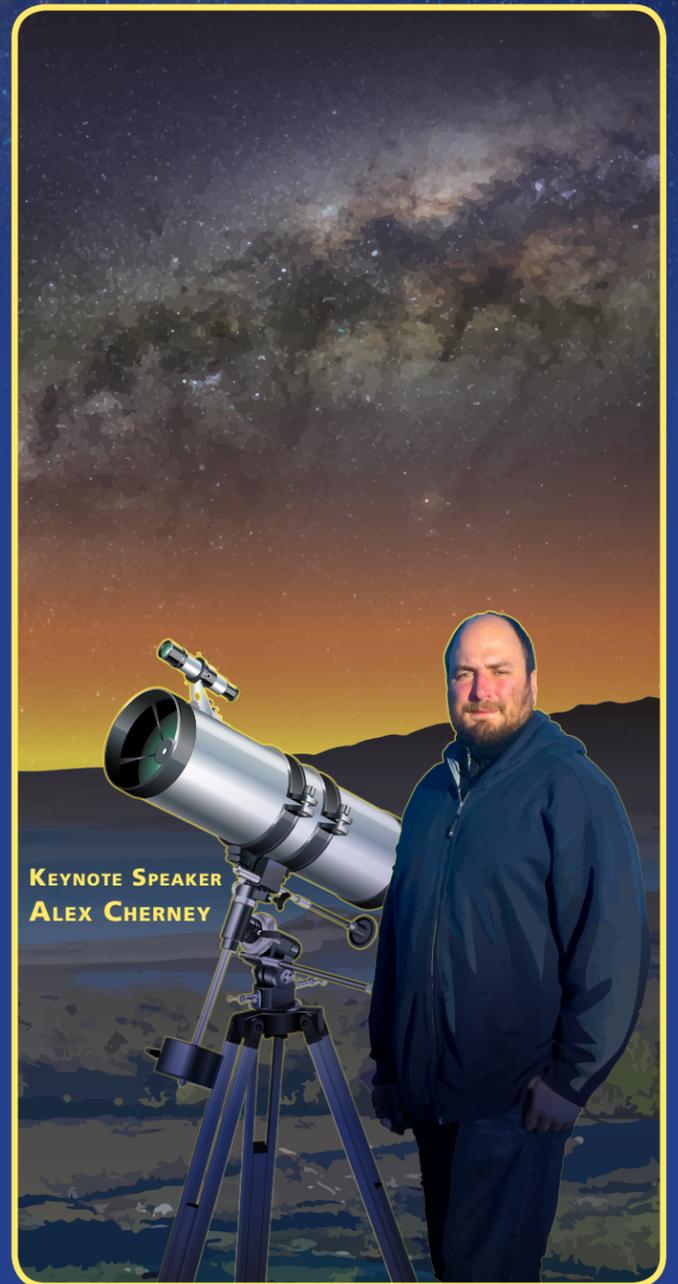
This special event is sponsored by the National Park Service, Bryce Canyon Natural History Association, Bryce Canyon City, Ruby's Inn, Garfield Travel Council, Salt Lake Astronomical Society and the National Park Foundation.



# 14<sup>TH</sup> ANNUAL BRYCE CANYON ASTRONOMY FESTIVAL

"The last grand sanctuary of natural darkness"

## JUNE 25 - 28, 2014



KEYNOTE SPEAKER  
ALEX CHERNEY

ILLUSTRATION BY: BRIAN B. ROANHORSE

# DAYTIME / EVENING PROGRAMS & ACTIVITIES

DAYTIME PROGRAMS & ACTIVITIES ARE ATTENDED ON A FIRST-COME FIRST-SERVED BASIS



**SOLAR VIEWING**  
Using special solar telescopes, we will safely show you the Sun and explain solar prominences and sunspots.

**ATTENDANCE LIMIT: NONE**  
**LOCATION: OUTDOORS, BRYCE CANYON VISITOR CENTER PATIO ENTRANCE**  
**EVERY DAY, 10:00 AM - 3:00 PM - OPEN HOUSE**



**ROCKET BUILDING & LAUNCHING WORKSHOPS**  
Many great astronauts and astronomers got their start from a childhood love for model rockets. Here's a chance to introduce your son or daughter to the hobby of model rocketry.

"Spectators welcome during launching sessions. No charge!"

**AUDIENCE: AGES 6+ (AN ADULT MUST ACCOMPANY CHILDREN)**  
**LOCATION: BRYCE CANYON CITY FIRE STATION**  
**EVERY DAY 10:00 AM - 2:00 PM - ASSEMBLY**  
**11:00 AM - 3:00 PM - LAUNCH**

NOTE: PARTICIPANTS CAN PURCHASE ROCKET KIT TICKETS FROM THE BRYCE CANYON VISITOR CENTER BOOKSTORE PRIOR TO THE WORKSHOP. ROCKET KIT PRICES RANGE FROM \$10-\$30. YOU CAN ALSO BRING YOUR OWN ROCKET FOR THE LAUNCHING.



**PLANET WALK**  
Join a Park Ranger on a tour across the expanse of our solar system — 1/10 billionth its actual size! Learn about the planets and how there's no place like home.

**ATTENDANCE LIMIT: NONE**  
**LOCATION: OUTDOORS, BRYCE CANYON VISITOR CENTER ENTRANCE**  
**EVERY DAY, 4:00 - 5:30 PM**  
**ROUND TRIP WALKING DISTANCE = 3/4 MILE (1.2 KM)**



**PLANISPHERE PRACTICE: LEARN THE SKY**  
Becoming a constellation expert requires nothing more than practice with a planisphere. Let Bryce Canyon's "Dark Rangers" teach you how to use this simple device and share with you other useful tips and tricks for navigating the night sky. Join us for this great warm-up to stargazing.

**ATTENDANCE LIMIT: 50 (FIRST-COME, FIRST-SERVED)**  
**LOCATION: BRYCE CANYON VISITOR CENTER THEATER**  
**EVERY DAY, 6:00 - 7:00 PM**



**AFTERNOON STARGAZING**  
Enjoy the magic of the stars in the middle of the afternoon.

20-minute programs offered from 1 - 4 pm in a special "Star Lab."  
**ATTENDANCE LIMIT: 30 CHILDREN OR 15 ADULTS**  
**LOCATION: BRYCE CANYON LODGE AUDITORIUM**  
**EVERY DAY, 1:00 - 4:00 PM**

**ADMIT ONE** Tickets: Because of limited seating, FREE tickets are required for Wednesday, Thursday, and Saturday Evening Programs (for Friday keynote see right). Tickets must be obtained in person and are available at the Visitor Center beginning at 10 pm the night before the program (Visitor Center open until midnight June 25 - 28; tickets for Wednesday programs available beginning at 6 pm Tuesday). PLEASE ARRIVE AT THE PROGRAM EARLY, as 5 minutes PRIOR to the scheduled start time, ALL unclaimed seats will be given away to bystanders.

**WEDNESDAY, JUNE 25**

**STAR STORIES**  
Planetary Educator Dr. Amy Sayle takes you on a trip through the constellations and the eternal legends they help tell. Help act out one of the greatest star stories ever told!  
**LOCATION: BRYCE CANYON VISITOR CENTER THEATER**  
**WEDNESDAY, JUNE 25, 8:15 - 9:15 PM**

**VIOLENCE FROM THE VOID**  
Join "Dark Ranger" William Goins as he evaluates the perceived vs. potential "out-of-this-world" threats to humanity - everything from meteor impacts to galactic collisions.  
**LOCATION: BRYCE CANYON LODGE AUDITORIUM**  
**WEDNESDAY, JUNE 25, 8:45 - 9:45 PM**

**ASTRONOMY THROUGH THE AGES**  
Astronomy is called the "Mother of All Sciences" - join "Dark Ranger" Kevin Doxstater for a journey through 30,000 years of awe and wonder as we humans have pondered our place in the Universe.  
**LOCATION: NORTH CAMPGROUND AMPHITHEATER**  
**WEDNESDAY, JUNE 25, 9:15 - 10:15 PM**

**FRIDAY, JUNE 27 - 9:00-10:30 PM\***  
**"STAR STORIES FROM DOWN UNDER"** **ADMIT ONE**

Keynote speaker Alex Cherney is a passionate astronomer and world-class night-sky photographer. Born in Ukraine, Alex lives in Melbourne, Australia, where he photographs the wilds of Australia and New Zealand - two of the few places on Earth with even darker night skies than Bryce Canyon. In the Australian Outback the Milky Way is so bright that many of the native people's constellations were not drawn in connect-the-dots fashion from star patterns, but from the 3-dimensional dark clouds (stellar cocoons) within the Milky Way. If you've ever dreamed of going on an Australian night-sky "walk-about," here's your chance to follow in the footsteps of an expert. Listen to Alex tell of these 20,000-year-old sky stories, and his own adventures in the Outback, beneath the backdrop of his stunning night sky videography set to moving music.



**LOCATION: EBENEZER'S BARN & GRILL, BRYCE CANYON CITY**  
**ATTENDANCE LIMIT: 1500**  
**ADMISSION: \$3 PER PERSON/\$10 PER IMMEDIATE FAMILY**  
**PAY AT THE DOOR OR ADVANCE TICKET SALES**  
**MONDAY - FRIDAY, 2 TO 6 PM AT THE EBENEZER'S BARN & GRILL DESK IN RUBY'S BEST WESTERN LOBBY**

\*Followed at 10:45 PM by FREE stargazing with telescopes at the Stargazing Site in Bryce Canyon National Park (across from the Visitor Center).

**THURSDAY, JUNE 26**

**THE FIRST STAR PEOPLE**  
North America has been practicing astronomy for thousands of years. Native people have left evidence in archeological sites and oral traditions showing they were profoundly affected by the stars, sun and moon. Join "Dark Ranger" Sean Duffy to look at the stars and constellations through indigenous eyes.  
**LOCATION: BRYCE CANYON VISITOR CENTER THEATER**  
**THURSDAY, JUNE 26, 8:15 - 9:15 PM**

**BLACK HOLES: HUNTING THE INVISIBLE**  
ANIL SETH, PHD ASTRONOMER, UNIVERSITY OF UTAH  
Large galaxies, like our own Milky Way, have massive and centrally located black holes. Learn how Dr. Anil Seth studies the origin of these uncanny objects by finding, measuring, and comparing the black holes of smaller galaxies.  
**LOCATION: BRYCE CANYON LODGE AUDITORIUM**  
**THURSDAY, JUNE 26, 8:45 - 9:45 PM**

**STRANGE UNIVERSE**  
If you thought Bryce Canyon's hoodoos were beautiful and bizarre, wait until you explore the universe overhead with "Dark Ranger" Geoff Goins!  
**LOCATION: NORTH CAMPGROUND AMPHITHEATER**  
**THURSDAY, JUNE 26, 9:15 - 10:15 PM**

**SATURDAY, JUNE 28**

**SCARED OF THE DARK?**  
Darkness is a common fear, but in this multimedia presentation Head "Dark Ranger" Kevin Poe will introduce you to the growing field of scotobiology (nocturnal ecology) and explain why true wildlife lovers should be more scared of the light than the darkness.  
**LOCATION: BRYCE CANYON VISITOR CENTER THEATER**  
**SATURDAY, JUNE 28, 8:15 - 9:15 PM**

**JOURNEY TO THE VIRGO CLUSTER**  
Join "Dark Ranger" Donald Williams for a trip highlighting some of the celestial objects visible from Bryce Canyon's magnificent dark sky.  
**LOCATION: BRYCE CANYON LODGE AUDITORIUM**  
**SATURDAY, JUNE 28, 8:45 - 9:45 PM**

**THE LIVES OF STARS**  
JOEL ALLEN, EDUCATOR, COLORADO ACADEMY  
What would life be like as a bazillion-ton ball of nuclear fusion? Join Educator Joel Allen from the Colorado Academy for an amusing celebration of our universe and the stars that make it ALL possible!  
**LOCATION: NORTH CAMPGROUND AMPHITHEATER**  
**SATURDAY, JUNE 28, 9:15 - 10:15 PM**