

As an astrophotographer, I've circled the globe in search of dark skies, from hunting the Northern Lights on sheep farms in Greenland to admiring the Milky Way above Chile's otherworldly Atacama Desert. Yet, it took schlepping 2,000 vertiginous feet into the Grand Canyon for me to discover my favorite stargazing accommodation to date: Phantom Ranch.

This century-old collection of cabins and dormitories is the only lodging on the Grand Canyon floor, and the remote property, owned by park concessionaire Xanterra, goes above and beyond to protect its inky nightscapes. While many hotels in and around stargazing hubs use strong exterior lighting to help guests feel safe, Phantom Ranch keeps its outside illumination minimal—and red.

It can take our eyes up to 30 minutes to adjust to the dark after exposure to bright white light, but red tones preserve our night vision.¹ Instead of hiking away from the property to admire the Andromeda Galaxy or watch for the Pleiades star cluster sans LED glare, I could admire the cosmos right from my cabin's porch. Swapping a warm hue, such as red, for white lights may not seem revolutionary. It's one of the Five Principles for Responsible Outdoor Lighting² set by the IES and global light pollution authority, DarkSky International. But it's critical, now more than ever.

Skyrocketing interest in nocturnal wonders, from stargazing to nighttime eco-tours, has introduced unwanted light in some of the world's darkest places. New programs and innovative measures are integral to protecting nighttime's darkness and

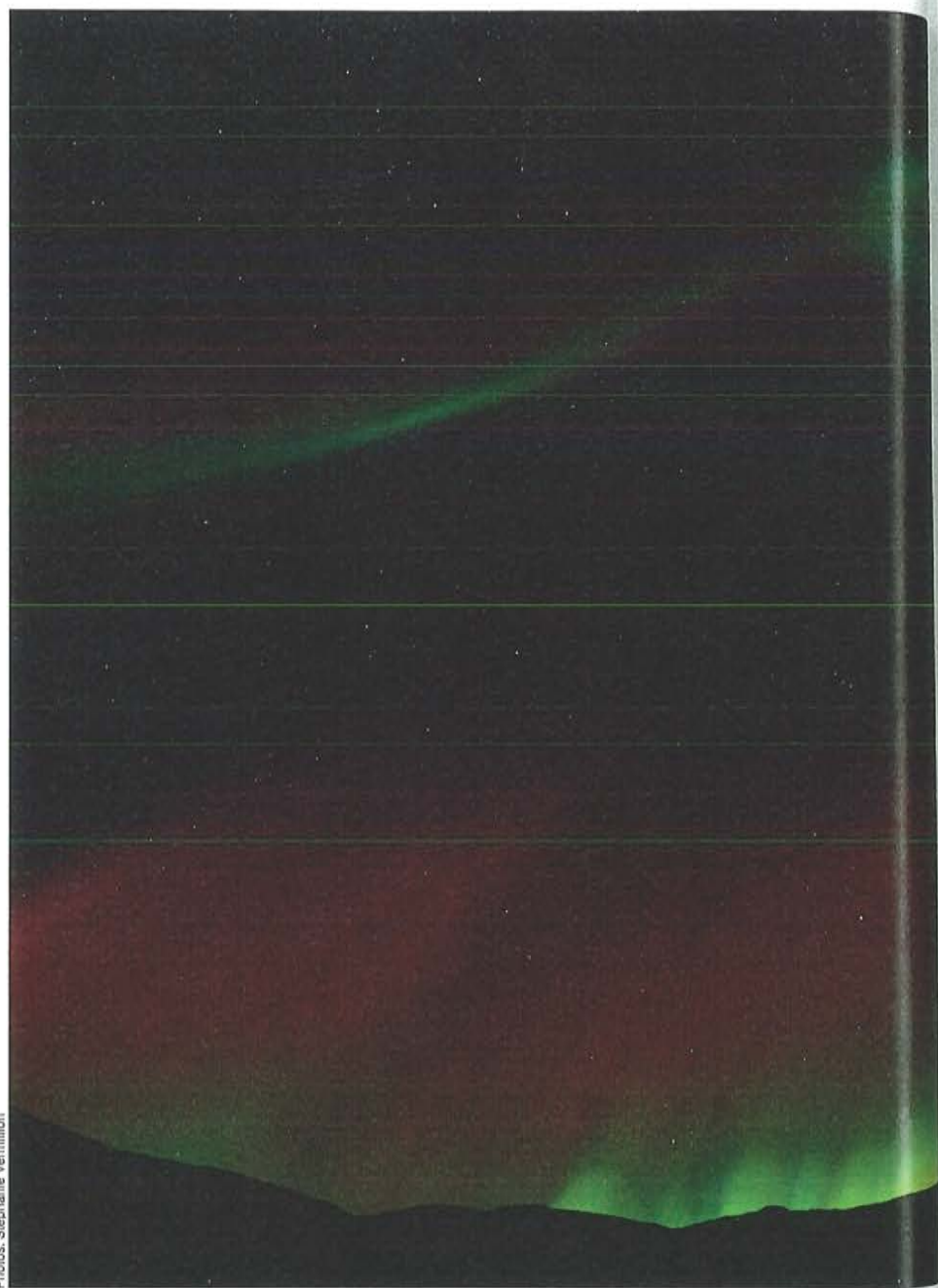
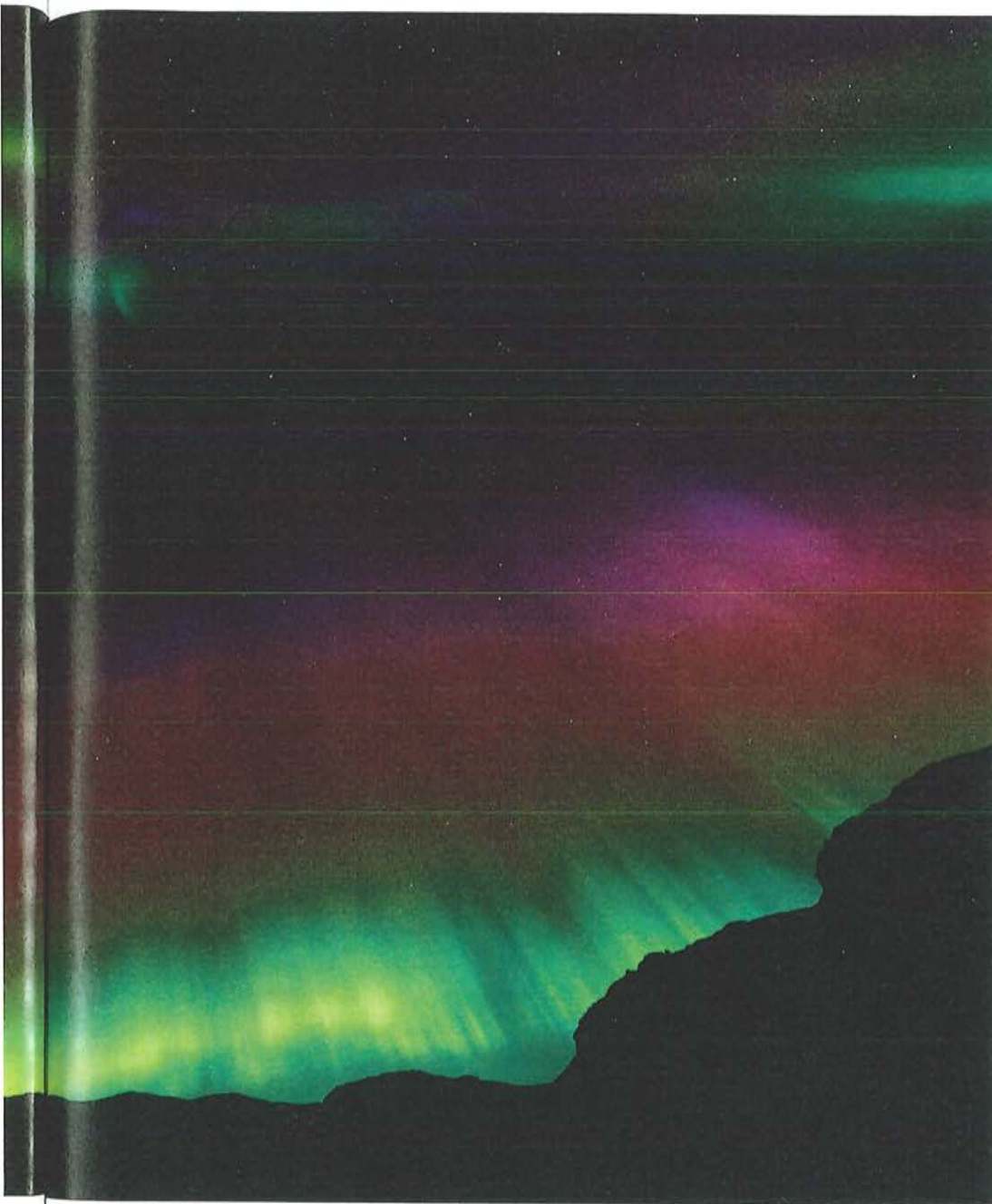


Photo: Stephanie Vermillion

DARK PLACES

As astrotourism trends, responsible lighting is essential

By Stephanie Vermillion



the myriad species—including humans—that rely on it.

Inside the Astrotourism Boom

The idea of jet-setting for dark skies has gained major steam over the past decade, particularly following the buzzed-about total solar eclipse over North America in 2017 and then again in April 2024. According to Vicky Derksen, author and founder

of Arizona-based astrotourism outfitter Night Sky Tourist, many found their way into sky-watching during the COVID-19 pandemic.

"I talked to people who used stargazing and moongazing to help them cope with the stress of the pandemic," said Derksen. "Some went to their backyards every night, turned off all the lights, and just watched the stars

Auroras take center stage in Narsarsuaq, Greenland.

move across the sky. Others turned to astrophotography and took pictures of the moon as a way to ground themselves through the difficult days."

The night sky's healing powers are no anomaly. In recent years, many have looked to the heavens for renewed perspective and wellness, with meditative stargazing retreats—nicknamed "starbathing"—as well as full- and new-moon yoga growing in popularity. The Office of Astronomy for Development even uses celestial observations to help vulnerable groups, such as refugees, cope with stress.³

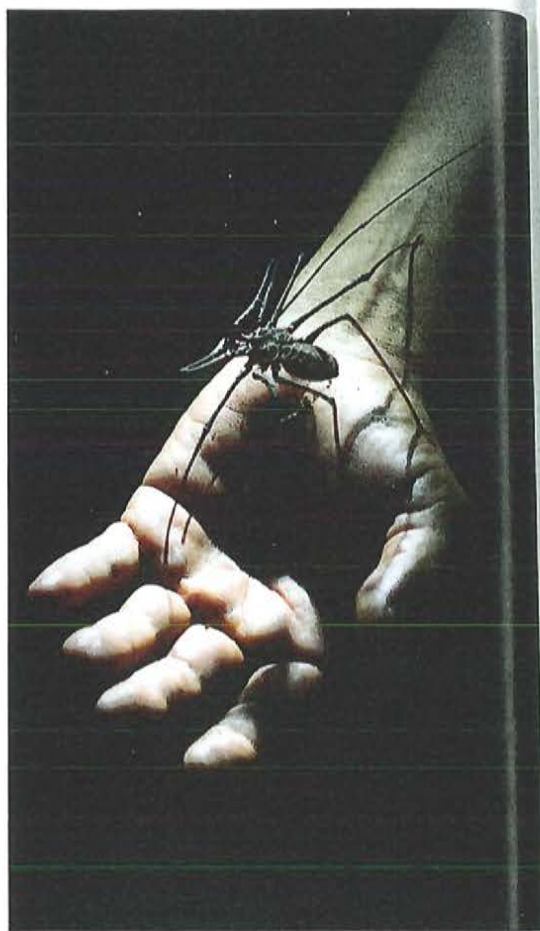
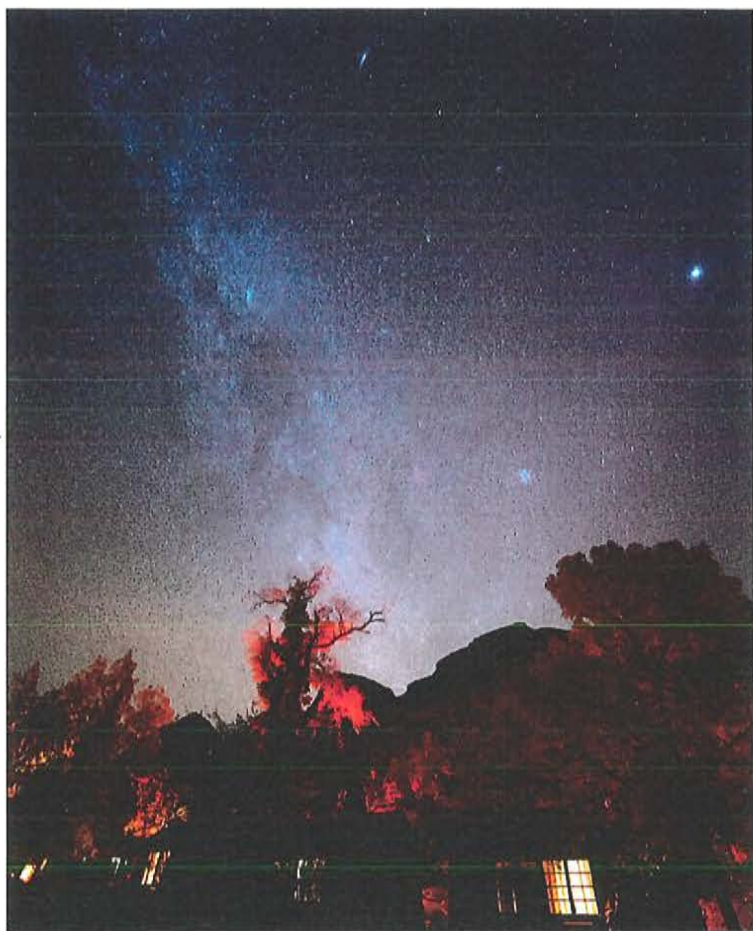
Astrotourism's allure is also tied to the night sky's novelty: Rampant light pollution, created by everything from city skyscrapers to suburban streetlights, now hides the Milky Way from some 80% of Americans. Research suggests light pollution is also growing as much as 10% every year.⁴

"So many people tell me it's the first time they've ever looked through a telescope," noted Derksen, who leads stargazing experiences for travelers from around the world. "Some wipe tears from their eyes after seeing the craters on the moon."

Astronomical awe isn't just inspiring; it's good for business. Research suggests that, within the next decade, astrotourists could spend \$5.8 billion in stargazing hotspot the Colorado Plateau alone.⁵

Avoiding Unwanted Light

It's not surprising, then, that lodging in and near dark-sky areas has skyrocketed alongside the astrotourism movement. Sky-watching roofs in the Southwest U.S., alfresco star beds in safari escapes



throughout Africa, in-room telescopes—these are among the many ways hoteliers are alluring dark-sky travelers.

Yet, as I've experienced throughout numerous stargazing pursuits, proper dark-sky lighting is arguably the greatest and perhaps most overlooked astrotourism amenity of all. But that's changing.

In 2023, DarkSky introduced a new initiative that compliments its lauded Dark Sky Places program, which uses rigorous testing to certify destinations that minimize light pollution, from national parks to urban areas. The nonprofit has recognized more than 200 locations to date. This new lodging program, which it piloted with wilderness glamping brand Under Canvas, now builds upon this work.

Left: The Grand Canyon's Phantom Ranch offers an optimal stargazing environment.

Right: Noctourism reveals creatures like whip scorpions, which were on display during a night safari in Tanzania.

"The livelihood of these kinds of businesses depends on their pristine skies," explained DarkSky Lighting Program Manager James Brigagliano. The nonprofit and Under Canvas partnered together on criteria for DarkSky Lodging, and Under Canvas Lake Powell – Grand Staircase in Utah became the first DarkSky-approved accommodation in 2023.

Since then, interest in the program has soared. Brigagliano said there should be at least five, if not 10, new DarkSky-approved lodgings by late 2025, with even more to come in 2026. "There's an economic benefit of being linked to astrotourism," said Brigagliano. "A clear night sky is becoming a less-abundant resource; these lodgings, especially those in remote locations, recognize the value."

Now Trending: "Noctourism"

This growing focus on responsible lighting is particularly important as another off-shoot of the astrotourism movement gains steam—noctourism—which *Booking.com* named the top travel trend for 2025.

Nocturnal tourism incorporates stargazing, but it also expands upon it, with trips to see all sorts of after-dark marvels, from synchronous fireflies and full-moon hiking to dusk safaris. In my dark-sky pursuits, I've dabbled into noctourism; with the combination of space sights and ecological awe, it's become my favorite type of travel to date.

The experience is also multi-sensory. While darkness makes it tougher to see, your other senses become sharper, and few places made this clearer for me



than Ecuador's sliver of the Amazon Rainforest. Here, the animal kingdom comes to life at night, and accommodations like Sacha Lodge offer twilight immersions to help guests see the jungle at its liveliest. I joined a local biologist guide for night hikes to listen for frogs, owls, and howler monkeys, as well as canoeing beneath the bustling canopy among glowworms and caimans. Of course, the stars were part of the fun—we saw planets and star clusters beneath open patches in the treetops—but the awe was just as much about the wonders of life here on Earth.

Another experience that startled my senses and, like Phantom Ranch, left me inspired about the future of noctourism: a night safari in Tanzania. Many wildlife getaways now offer

nighttime outings to see the ecosystem at its most active but guides often use bright-white spotlights that temporarily blind the animals, making them vulnerable to nearby predators.

But this is also changing. Several outfitters, such as Chiawa Safaris' award-winning collection of Safari Camps, now rely solely on red lights for their nocturnal safari tours—and some are innovating well beyond that. At Usangu Expedition Camp, a conservation-focused safari stop in less-trodden southern Tanzania, guides use thermal cameras to let guests watch the forest's goings-on without disrupting nocturnal behaviors. This led to nearly an hour of watching a leopard stalking prey beneath the stars during my June 2022 visit.

Whether it's safe wildlife

Thermal monocular technology is often available during night safaris.

viewing in Tanzania or stargazing beneath responsible outdoor lighting on the Grand Canyon floor, nocturnal tourism can inspire travelers to take what they've learned and protect the natural night back at home—an important move as the world brightens from light pollution each year.

"Getting people to have these experiences will change the way they think about lighting and the way they think about the night sky," said Brigagliano. "A lot of people are scared of the dark, but once you've had a really moving experience, you can gain some comfort. It might change your perspective." ☺

THE AUTHOR | Stephanie Vermillion is a travel journalist who covers astrotourism and outdoor adventure for *National Geographic*, *Outside Magazine*, *Travel & Leisure*, and *Vogue*. Her first book, *National Geographic's 100 Nights of a Lifetime: The World's Ultimate Adventures After Dark*, was published in December 2024.

References

- 1 Jim O'Connor, "Dark Adaptation of the Human Eye and the Value of Red Flashlights," National Parks Service, Mar. 1, 2021.
- 2 DarkSky and the Illuminating Engineering Society, "Five Principles for Responsible Outdoor Lighting," June 11, 2-24. Available: <https://darksky.org/resources/guides-and-how-tos/lighting-principles/>
- 3 Office of Astronomy for Development, "Mental Health for Development and Astronomy's Potential," June 2025. Available: <https://astro4dev.org/themes/theme-2-celebrating-our-common-humanity-through-astronomy/astronomy-mental-health/mental-health-for-development-and-astronomys-potential/>
- 4 Tenzie Pugh et al., "Rapid Brightening of Night Skies Globally: Recent Results from Citizen Science and Solutions," American Astronomical Society, Mar. 1, 2023.
- 5 National Park Service, "Night Skies: An Economic Value," June 17, 2024. Available: <https://www.nps.gov/subjects/nightsskies/economic.htm>