

Arizona town keeps the lights dim for local wildlife and area stargazers

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TOP: Just beyond the glow of the city lights of Phoenix, Arizona, the Sonoran Desert National Monument offers great dark skies to the south, where the Milky Way arcs across the sky. Photo: Bureau of Land Management. BELOW: Images of Flagstaff show far less excess artificial light than cities of comparable size. National Park Service

FLAGSTAFF, Ariz. — For decades, a small Arizona city has committed to preserving its pitch-black sky for stargazers and wildlife. Now, it looks like those efforts are paying off.

The National Park Service took images of Flagstaff. They show that the city has far less extra artificial light than cities of a similar size.

Arizona's mountain peaks and stretches of desert sky make it popular for astronomers. Arizona is home to three of the nation's largest telescopes.

Protecting The Darkness

The state is a leader in efforts to protect the darkness. They are using fewer lights, or using dimmed LED lights, the International Dark-Sky Association said. The Dark-Sky Association hopes to protect the darkness so future generations can see a clear night of stars.

Darkness allows people to see stars and spot the Milky Way, which is getting harder and harder to see. A dark sky is also critical for birds that hunt and travel at night. Many insects are active at nighttime, too. Larger animals depend on these insects for food, the park service said.

"This issue goes beyond astronomy. It has impacts on wildlife ecology, public safety, potentially public health," said John Barentine. He is program manager for the dark sky group, which is based in Tucson.

Lowell Observatory

Flagstaff is home to Lowell Observatory, whose astronomers discovered Pluto in 1930. The observatory started to support dark-sky efforts nearly 60 years ago. The satellite images from July show those efforts are working, said Christian Luginbuhl, a retired U.S. Naval Observatory astronomer. Luginbuhl helped collect information for the dark-sky report.

The images were taken by a panoramic camera developed by the park service. The images show nighttime light in Flagstaff is nearly 14 times fainter than that of Cheyenne, Wyoming.

In the images, light is represented by a rainbow of colors. The rainbow blooms from Phoenix, Arizona, Cheyenne and Fort Collins, Colorado. Only a faint halo of yellow and green can be seen around Flagstaff, which means it is darker than its neighbors.

For And Against Light Pollution

Cities have lots of extra light from street lights and electronic signs. Scientists call the artificial brightness "light pollution."

The Arizona state government introduced rules that protect darkness around main observatories. A 2012 agreement banned electronic signs in two counties.

Many people in cities are against going dark. Critics say efforts to preserve darkness raise concerns about public safety and crime.

Businesses have also fought back against the dark-sky rules. The billboard industry has many electronic signs on freeways, and they have opposed the strict regulations in Arizona.

Laws introduced last year would have allowed electronic signs to be posted in those western Arizona counties. The laws ultimately failed. Advocates said electronic billboards would not harm rural areas known for dark skies because they would never go up on untraveled roads.

Republican state Sen. Sonny Borrelli said Wednesday that he's negotiating with opponents of last year's failed laws. He may introduce the law again.

National Park Service Study

The National Park Service is studying the effect of different types of lighting that cities use. The new images are part of that effort, said Ashley Pipkin, a regional specialist with the National Park Service's natural sounds and night skies division.

Other measurements have been done on Flagstaff's light pollution before. Still, this study's information is "pretty pioneering," said Luginbuhl, who is part of the Flagstaff Dark Skies Coalition.

"The results have shown we have done even better than we might have expected," he said.