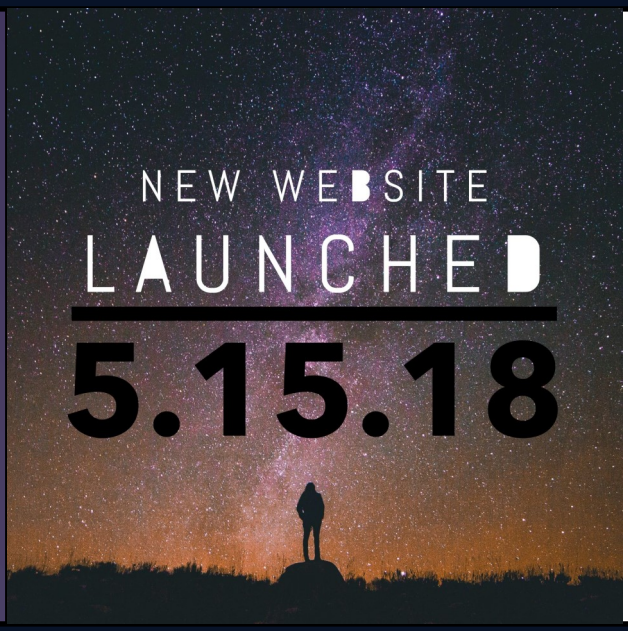
After Dark

Updates from the Great Basin Observatory & the Great Basin National Park Foundation

Foundation Firsts

Spring, 2018



The Foundation is proud to report the unveiling of two new websites! Visit our beautifully reconstructed Foundation website and learn what the Foundation is doing to *Engage, Connect and Protect* at **www.greatbasinfoundation.org**

Want to virtually tour the Great Basin Observatory, meet scientists, view research, or learn about preserving dark night skies? Do you know an educator interested in bringing the wonder of science to life in their classroom? Find all this and more at the Great Basin Observatory's web portal. Please check back often as new research and educator resources continue to be added.

www.greatbasinobservatory.org

Reach for the Stars

The Great Basin National Park Foundation (GBNPF) is inspiring children to *Reach for the Stars* (RFS) while protecting and preserving resources on our one and only Earth! Great Basin area elementary and middle schools will have classroom visit opportunities starting this fall. Educators anywhere can access resources which include interactive lesson plans, activities, lab sheets, videos and slideshows for their classrooms through the GBO web portal.

We will be turning the best of our STEM (science, technology, engineering, and math) lessons into traveling night sky teacher box kits and making them available for educators residing in Millard County, Utah and White Pine County, Nevada.

RFS has made excellent progress in 2018 with the hiring of a program coordinator, Aviva O'Neil, and a Southern University of Utah intern, Rowdy Miller. Aviva started testing curricula in classrooms this spring with Katrina Litke, a graduate student in Astronomy at the University of Arizona. The two met through Project Astro, a partnership organized by the National Optical Astronomy Observatory.

If you are a Great Basin area educator, or know an educator, and would like to schedule a classroom visit or participate in a training, please contact RFS program coordinator Aviva O'Neil at **oneil.aviva@gmail.com**

Thank you to our generous *Reach for the Stars* donors

Cashman Family Foundation

George S. and Dolores Doré Eccles Foundation

Great Basin Heritage Area Partnership

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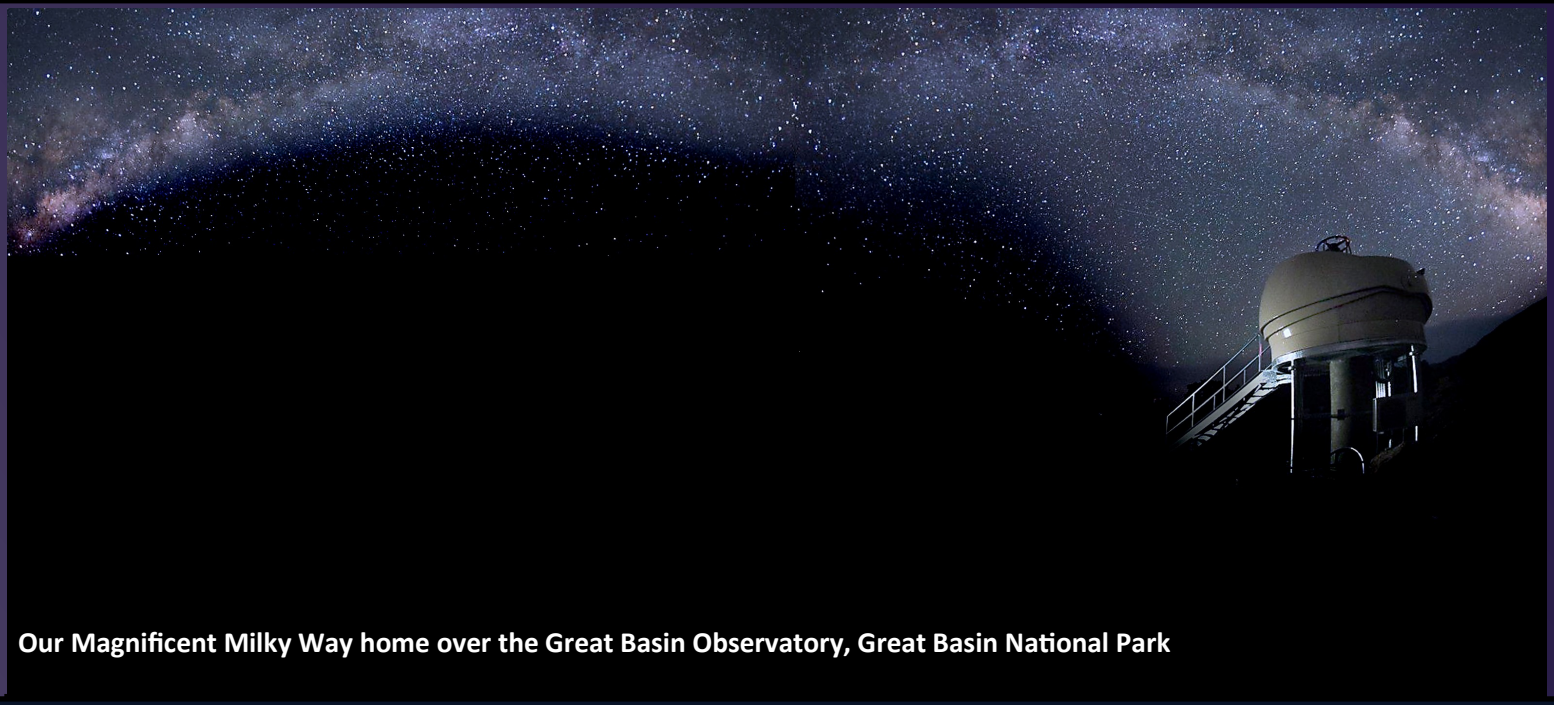

Our Magnificent Milky Way home over the Great Basin Observatory, Great Basin National Park

Research Report — Concordia University, Irvine, Calif.

Concordia University, in conjunction with Global Science Directive, has been working with the Great Basin Observatory in the study of double star systems. It is believed that more than eighty percent of the single points of light observed in the night sky are actually two or more stars orbiting together in double star or triple star systems. Research has already resulted in several publications consisting of new observations, new methods, and foundational work for future projects. Previous data collected suggests to the Concordia research team that new orbital plots need to be created for several double star systems; therefore the group is moving towards learning the required techniques for making these calculations. In the ensuing months, Concordia University will be installing an eShel spectrograph at the GBO, allowing for detailed spectra to be captured from stars, greatly expanding the GBO's capabilities.

Recent Publications in the Journal of Double Star Observations:

- An Astrometric Observation of Binary Star System WDS 15559-0210 at the Great Basin Observatory
- A Simple Method for Reproducing Orbital Plots for Illustration Using Microsoft Paint and Microsoft Excel

Who We Are

The Great Basin National Park Foundation is the official nonprofit partner of Great Basin National Park. We help the Park engage and connect the public to Great Basin's spectacular wide-open scenery, dark night skies, cultural heritage and diverse native ecosystems. The Foundation helps the Park to study, enhance, preserve and protect these resources for future generations.

The Great Basin Observatory, built by the Foundation, is the first research-grade observatory located in a National Park. The GBO benefits students, scholars, teachers, Park visitors, and the public, and enables exploration into the fundamental questions of our universe. The location in Great Basin National Park underscores the need to preserve dark night skies as a Park resource.

Learn more at

www.greatbasinfoundation.org
www.greatbasinobservatory.org

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