



FOR IMMEDIATE RELEASE

Dan Caselden, Research Associate at the American Museum of Natural History receives the 2023 Gordon Myers Amateur Achievement Award for his contributions as a citizen scientist propelling the science of brown dwarfs and the methods of machine learning

San Francisco, California – September 28, 2023 - Recognizing significant observational or technological contributions to astronomy or amateur astronomy by an individual not employed in the field of astronomy in a professional capacity, the **2023 Gordon Myers Amateur Achievement Award** goes to **Dan Caselden** for reshaping the understanding of what is possible in volunteer-research.

A Principal Software Engineer at Netskope by trade, Caselden is also a revered citizen scientist whose dedication to science research began in 2017 when he created an interactive browser tool to visualize data from any part of the sky using imaging from NASA's Wide-field Infrared Survey Explorer (WISE) and NEOWISE missions.

The "Backyard Worlds: Planet 9" citizen science project on the Zooniverse platform in early 2017 caught Caselden's eye on Reddit. His experience helping answer questions from other users inspired him to create a new, efficient visualization tool, WiseView, with a fellow data scientist. What followed was a surge of brown dwarf discoveries and over the following five years, Caselden's pioneering the application of machine learning techniques to discover extremely important and unusual cosmic treasures. Three of them are among the very coldest known brown dwarfs now approved as James Webb Space Telescope (JWST) Cycle 1 targets. Others are members of a "second new class of brown dwarfs...extreme T-type subdwarfs" that may be the coldest and lowest mass objects formed in the Galaxy's earliest generation of stars.

Caselden's selfless contributions to brown dwarf research, and the timing of the discoveries prior to Spitzer's retirement in 2020 and prior to the start of JWST's mission, accentuates his immense technical abilities in machine learning as well as his deep commitment to creating publicly accessible astronomy tools. A former colleague praises how Caselden's *"rare combination of software, data visualization and web programming skills has been and will continue to be a truly unique asset to the field of astronomy for many years to come."* Rather than take all the credit, Caselden allows others to take ownership of writing publications, grants, or follow-up observing proposals. *"There is no limit to how much he wants to know and contribute, and he asks nothing in return"*, emphasizes a researcher who worked closely with Caselden on the Backyard Worlds: Planet 9 project.

A continued dedication to supporting citizen science has led Caselden to three important collaborations beyond his "day job" as a computer security researcher. All on his own time, Caselden is a collaborator at Caltech on the CatWISE astronomical source catalog of over ten years of WISE images; co-investigator on NSF's NOIRLab's Backyard Worlds: Cool Neighbors, a NASA-funded, citizen science in development spinoff of Backyard Worlds: Planet 9; and lastly a volunteer affiliate at the American Museum of Natural History as a Research Associate.



Join us in celebration of Dan Caselden's achievements at the in-person ASP Awards Gala on Saturday, November 11, 2023 at the Grand Bay Hotel San Francisco in Redwood City, California.

About the ASP

The Astronomical Society of the Pacific (ASP), established in 1889, is a 501c3 nonprofit organization whose mission is to use astronomy to increase the understanding and appreciation of science and to advance science and science literacy. The ASP connects scientists, educators, amateur astronomers and the public together to learn about astronomical research, improve astronomy education, and share resources that engage learners of all kinds in the excitement and adventure of scientific discovery. Current ASP programs and initiatives support college faculty, K-12 science teachers, amateur astronomy clubs, science museums, libraries, park rangers, and girl scouts to name a few.

Through its annual awards, ASP recognizes achievement in research, technology, education, and public outreach. The awards include the ASP's highest honor, the Catherine Wolfe Bruce Gold Medal awarded since 1898 for a lifetime of outstanding research in astronomy. The Bruce Medal has gone to some of the greatest astronomers of the past century, including Arthur Eddington, Edwin P. Hubble, Subrahmanyan Chandrasekhar, and Vera Rubin. The ASP also presents the Klumpke-Roberts Award for outstanding contributions to the public understanding and appreciation of astronomy. Awardees include Carl Sagan, Isaac Asimov, and the Hubble Heritage Project.

For more information, visit our website at astrosociety.org/awards

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