



AU AstroNews

The Newsletter of the Astronomical Unit

October 2026

Sponsored by the Santa Barbara Museum of Natural History



Setting up at Refugio Beach this past summer. Photo credit: Tom Totton.

OUTREACH SUMMARY

Since the last newsletter, certified SBAU/SBMNH volunteers Andy Allen, Krissie Cook, Tim Crawford, Joe Doyle, Tessa Flanagan, Shannon Gerow & Quasars, Brian Green, Art Harris, Ronnie Herron, Mike Jacoby, Sean Kelly, David Larson, Pat & Chuck McPartlin, Janet & Martin Meza, Edgar Ocampo, Michael Robertson, Woody Schlom, Sohini Sengupta, Tom Totton, Tom Whittemore, Lee Wilkerson, and Greg Wittmann, helped by David Feinberg and Jen Gee and Ken Kihlstrom and Westmont students, showed the sky to **1454** guests.

OUTREACH EVENTS

SBAU volunteers must have undergone the SBMNH background check, and conform with the SBMNH policies for dealing with the public, to participate in outreach activities. To get vetted, contact SBMNH Volunteer Manager Rebecca Coulter <rcoulter@sbnature2.org>. It's quick and painless.

FRIDAY, OCTOBER 2, 6 PM

Clothing and calendar sales at 6, quick planetarium show at 6:30, then a brief AU monthly meeting at 7 in Farrand Auditorium, followed by our speaker, Dr. Briley Lewis of UCSB. Her topic will be Exoplanet Polarimetry Group Studies. The meeting ends promptly at 9.

SATURDAY, OCTOBER 10, SETUP 7 PM

Monthly Public Star Party at SBMNH, next to Palmer Observatory, 8 to 10 PM.

SUNDAY, OCTOBER 11, 4:30 PM

AU monthly planning meeting on Zoom. Watch your email for the link.

FRIDAY-SUNDAY, OCTOBER 16-18

Annual AU Campout at Cachuma Lake.

FRIDAY, OCTOBER 16, 6 PM

Talk by Dr. Alex Filippenko at the BC Forum at SBCC. His topic will be Dark Energy in a Runaway Universe.

FRIDAY, OCTOBER 16, SETUP 6 PM

Monthly Public Telescope Night at Westmont, at the Keck Observatory, next to the athletic fields.

TUESDAY, OCTOBER 20, SETUP 7 PM

Telescope Tuesday at the Camino Real Marketplace, in the plaza by the theater.

THURSDAY, OCTOBER 22, SETUP 5 PM

Telescopes for Science Night at Kellogg School, 475 Cambridge Dr, Goleta, on the playground blacktop.

SATURDAY, OCTOBER 31, HALLOWEEN

Share some eye candy with trick-or-treaters!

ANNUAL AU CAMPOUT

Be sure to RSVP with Events Coordinator Diane Welcenbach at <events@sbaa.org> for the annual campout! The AU campout will take place at the Mohawk Shores group site at Cachuma Lake, with arrival on Friday, October 16 after 1 PM, and checkout on Sunday, October 18 by 1 PM. The campout is free to SBAU members, but we are limited to parking for 22 vehicles, after which there is a \$10 entry fee per vehicle. Keep your receipt if you pay for parking and you will be reimbursed.

If you see a sign saying the camping area surrounding Mohawk Shores, on the East side of the park, is closed, you can ignore it. It's open for us.

We will have a potluck dinner on Saturday at 4 PM. The potluck will have a catered main dish (tri-tip, chicken, garlic bread, and baked beans). Bring a salad or dessert, and your own beverage.

Unfortunately, the Cachuma Lake Nature Cruises are no longer in operation.

SBAU ELECTION

Our annual election is coming up in December. If you are interested in serving as an officer in the club, contact Vice President Ronnie Herron at <brherron@gmail.com>. Positions and their duties are detailed on the SBAU web page. **We need new blood!**

2027 ASTRONOMY CALENDARS!

Pat McPartlin, SBAU Merch Manager, will have AU merch and 2027 Astronomy calendars at the SBAU meeting in Farrand, at 6-6:30pm on Friday, October 2, 2026. Take note: I won't be able to sell them after the lecture. Each calendar costs a bargain price of \$10 for club and SBMNH members (\$15 for non-members). That's lower than you'll find anywhere in town for such beautiful astronomical photos. So buy several! Christmas is coming! Pat will take cash (exact change is most appreciated), or you can make your check payable to "SBMNH" with a note of: "for SBAU". Remember: I can only sell them from 6-6:30pm. Happy New Year!

OUR FUTURE?

Jerry Wilson

(Excerpted from an article in Space.com)

Our Sun will, in a few billion years, run out of hydrogen to fuse, will expand into a red giant phase and will consume Mercury, Venus, and possibly the Earth. When all fusion of everything in our Sun stops, it will lose its energy source and shrink down to a white dwarf and slowly cool off over trillions of years. Our inner planets will be gone. But, a planet, WD 1856+534 b, has been discovered orbiting a white dwarf in its forbidden zone. The planet is extremely large, more than 10 times as massive as Jupiter, and it orbits its star, a white dwarf that is smaller than it by about a factor of seven, at a distance only 1/50 of that between Earth and the Sun. Typically, a planet orbiting its star so closely would have been destroyed as the star expanded into a red giant. Two hypotheses have been developed to account for this startling result:

The first proposes that the exoplanet initially orbited at a much farther and safer distance from the red giant, but that two additional stars in the system pulled it closer to the white dwarf after the end of the star's life.

The second borrows a model from binary stars and proposes that WD 1856+534 b survived inside the red giant's swelling hydrogen envelope because of aerodynamic drag. That process would create enough kinetic energy to expel the star's gas envelope and leave the exoplanet orbiting the red giant's exposed core. In the second scenario, the researchers expected that WD 1856+534 b's atmosphere would become relatively rich in hydrogen through accretion from the red giant and that, as a result, it would have comparatively less carbon and nitrogen. To determine which scenario was more likely, transmission spectroscopy was used to analyze IR and red light (0.55–5.5 μm) collected by the James Webb Space Telescope. When the exoplanet transits in front of the white dwarf, its atmosphere absorbs some of the light from the star. From the spectrum of the transmitted light the researchers could extract the atmosphere's chemical composition. The transit data also enabled

them to determine the planet's temperature and mass. The researchers found that the exoplanet was much hotter (roughly 400 K) than expected for a giant planet of its age and that its atmosphere contained a high percentage of methane. Based on cooling models for planets of that size, they determined that WD 1856+534 b had undergone a period of reheating after its star had become a white dwarf. That history and the abundant carbon are strong signals that the exoplanet started its life much farther from the star and that tidal interactions heated it as it migrated in to its current position. Although this system is different from our own, the work still offers potential insight into what may happen to Jupiter, Uranus, and Neptune billions of years in the future when our sun exhausts its fuel and evolves into a white dwarf. The outer planets may then find their orbits affected by gravitational interactions that heat them up and send them inward.



Setting up at Lopez Lake this past summer. Photo credit: Tom Totton.

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OCTOBER 2026						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2 MONTHLY MEETING 6 PM	3 LQ MOON
4	5	6	7	8	9	10 NEW MOON SBMNH STAR PARTY SETUP 7 PM
11 PLANNING MEETING ON ZOOM 4:30 PM	12	13	14	15	16 WESTMONT 7 PM	17
18 FQ MOON	19	20 CAMINO REAL MARKETPLACE 7 PM	21	22 KELLOGG SCHOOL 5 PM	23	24
25 FULL MOON	26	27	28	29	30	31 HALLOWEEN