#### May 2022

#### Sponsored by the Santa Barbara Museum of Natural History



Tom Totton offers an outreach for a small group at the Miramar this past May.

## **OUTREACH SUMMARY**

To get full outreach credit, SBAU volunteers must be fully vaccinated and masked, and have undergone the SBMNH background check to participate in outreach activities. To get vetted, contact SBMNH Volunteer Manager Rebecca Coulter <<u>rcoulter@sbnature2.org</u>>. It's quick and painless.

Some big events since the last newsletter, with Astronomy Day, Kaleidoscope, and the lunar eclipse. Certified SBAU volunteers Brandy Ackerman, Krissie Cook & Annika Wagner, Tim & Karen Crawford, Joe Doyle, Tessa Flanagan & Duff Kennedy, Art Harris, Sean Kelly, Pat & Chuck McPartlin, Janet & Martin Meza, Bruce & Bonnie Murdock, Edgar Ocampo, Javier Gretchen Rivera, Charles Schueler & Maria, Tom Totton, Tom Whittemore, and Jerry Wilson & Pat Forgey showed the sky to 2479 guests. Robert Bernstein, John Boyd, Raf Cottom, Brian Green, Ken Kihlstrom, Chris Larson, Peggy O'Rork, and Jim Williams also helped out.

Campground outreaches for the summer are ramping up. Masking is recommended for outreach volunteers.

### **OUTREACH EVENTS**

# FRIDAY, JUNE 3, 7:30 PM

The SBAU monthly meeting will be on Zoom again this month. The speaker will be Dr. Ben Darvish of CalTech, speaking on galaxy evolution. Check the SBAU webpage for the link.

## SATURDAY, JUNE 4, SETUP 7:30 PM

Telescopes for campers at Refugio State Beach, setup in the southwest corner of the day use parking lot

# TUESDAY, JUNE 7, SETUP 7 PM

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

## FRIDAY, JUNE 10, SETUP 7:30 PM

Telescopes for campers at Refugio State Beach, setup in the southwest corner of the day use parking lot.

# SATURDAY, JUNE 11, SETUP 7:30 PM

Monthly Public Star Party at SBMNH, next to Palmer Observatory, 8:30 PM to 10 PM.

#### WEDNESDAY, JUNE 15, SETUP 7:30 PM

Telescopes for campers at Refugio State Beach, setup in the southwest corner of the day use parking lot.

### FRIDAY, JUNE 17, SETUP 7 PM

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

### SATURDAY, JUNE 18, SETUP 7 PM

Telescopes and slide show for campers at Carpinteria State Beach. We set up on the sidewalk towards the beach from the entry kiosk.

#### THURSDAY, JUNE 23 SETUP 7:30 PM

Telescopes for campers at Refugio State Beach, setup in the southwest corner of the day use parking lot.

#### SATURDAY, JUNE 25, SETUP 7 PM

Telescopes and slide show for campers at Carpinteria State Beach. We set up on the sidewalk towards the beach from the entry kiosk.

## FROM THE PRESIDENT

Jerry Wilson

The SBAU is slowly and carefully re-establishing its traditional agenda of events. The club has continued some activities via Zoom for the two years of the pandemic. These are the SBAU Astro Hour - every Monday from 11 to noon live on YouTube - and the Telescope Workshop on Tuesday evening from 7:30 to 9:00 as a Zoom meeting. The Zoom format for the workshop has worked well and allows members and interested parties to attend from remote locations without having to be on site at the museum. Our participants include members in Scottsdale AZ, Paso Robles and Rio Vista in CA, plus the hinterlands of Goleta, Isla Vista, and Santa Barbara. We do not anticipate resuming our in-person workshops in the Broder Building.

Since February of 2022 the club has re-established our first Friday of the month general meeting via Zoom with an invited speaker, and has restarted our second Saturday in person business meeting (outside in the plaza in front of the Palmer Observatory on the campus of the SBMNH) followed by our monthly star parties. Public turnout at the star parties has been overwhelming with over 500 people attending the first event in March.

Our outreach coordinator, Chuck McPartlin reports increasing requests for our in-person outreach services at schools and events. Our dance card is filling up. The final step will be a return to an indoor general meeting (first Friday) in Farrand Auditorium. The museum has given us their OK, but with COVID on the rise, the club is proceeding cautiously. Our first in-person monthly meeting is planned for the first Friday in August. This meeting will be a hybrid meeting, which means the public may attend in person or watch on YouTube. The intervening meetings in June and July will be shown live on YouTube only.

Hopefully we will be back to our pandemic tunnel by the end of the year and think about holding a Holiday Season dinner.



"Yeah. I don't know what happened, either. A few minutes ago a space ship landed and all our guests disappeared!" Photo credit: Tom Totton.

## STAR STORIES

Spica

In last month's kick-off of "Star Stories" we focused on Arcturus, the Lucida (brightest star) in Bootes, the Herdsman. In contrast to the 7-billion-year old Arcturus, we now turn our attention to a much younger star, Spica - in Virgo, the Maiden. Below is a map of how you can easily locate Spica. After you "arc to" Arcturus, continue and "spike on to" Spica. As the 15<sup>th</sup> brightest star in the night sky, Spica stands out in the south shortly after sunset.



Where Arcturus is red and cool and has a mass of about one sun, Spica is blue and hot and has a mass of ten suns. Although still fusing elements on the Main Sequence, Spica is nearing instability – and

sharing its orbit with another massive star that is too close to see in a backyard telescope. Spica will someday explode into a supernova. At 260 light years she should put on quite a show in the night – and likely also in the daytime sky. But, don't go out this evening for the drama. Spica is a young, 12.5 million-year-old star, and is not likely to give up the ghost for a long time!



"Yeah. Ken warned me about this gravitational anomaly at the Westmont Observatory." Photo credit: Tom Totton.

# SUMMER!

Summer officially begins at 2:13 AM PDT on Tuesday, June 21, with the Solstice, when the tilt of the Earth's axis causes the Sun to appear at its most northerly point in the sky. This point defines the Tropic of Cancer, the northernmost latitude on Earth at which the Sun can appear directly overhead. When the tropic was named around 300 BCE, the Sun was in the constellation Cancer at the June solstice, but precession of the equinoxes has now moved the Sun into Taurus at the June solstice.

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**AU AstroNews**, the monthly publication of the **Astronomical Unit (AU)**, is mailed to the AU membership. For publishing consideration for the next month, submit astronomical items by the 20th of the current month!

AU annual membership rates: Single = \$20 Family = \$25

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# The Astronomical Unit

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June 2022						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3 AU MONTHLY MEETING ON ZOOM 7:30 PM	4 REFUGIO STATE BEACH 7:30 PM
5	6	7 CAMINO REAL MARKETPLACE 7PM	8	9	10 REFUGIO STATE BEACH 7:30 PM	11 MONTHLY STAR PARTY SBMNH 7:30PM
12	13	14	15 REFUGIO STATE BEACH 7:30 PM	16	WESTMONT PUBLIC STAR PARTY 7:00 PM	18 CARPINTERIA STATE BEACH 7:00 PM
19	20	21	22	23 REFUGIO STATE BEACH 7:30 PM	24	25 CARPINTERIA STATE BEACH 7:00 PM
26	27	28	29	30		