

# First Light Lite

May 1, 2024

Jim Lynch – Editor

## Message from the CCAS President

April was active for CCAS, but with a different flavor. We had a star party on April 8<sup>th</sup>, only in daylight and with the “star attraction” being the Sun. Our First Thursday talk was not by an external speaker, but rather by our members who discussed directions for the club, always a relevant topic. And we continued to do outreach to various Cape organizations, with many future events also being planned. A bureaucratic snag (insurance) was encountered but is being addressed. Let me talk about all of these below.

## Star parties

As mentioned, our star party for April was the solar eclipse event, which was a 90% partial eclipse on the Cape. Though many of our members scattered to various off-Cape venues to track totality (and were successful, it seems), many of us didn't leave the Cape. Five members of the club came over to the DYHS grounds and WSO to host an event for the DY students, staff and faculty who stayed on campus.

Thanks to some great publicity by Mrs. Garcia and other DY teachers, we had a large turnout of students, and more than a few faculty and staff showed up as well. The weather cooperated beautifully, and rather ironically, the Cape had better weather than most of the totality sites in the country. We gave out about 150 pairs of solar glasses, which was roughly the head count we took.

We had a small 8” scope with a solar filter looking at the eclipse, and you could see sunspots along with the Moon's disc blotting the Sun. There was a live-feed of the totality event in the dome, and we also gave tours of our facility to any students interested. We had 1-2 students interested in joining our club and would like to see more if there is any interest. There are no dues for students, and we can show them some interesting things to do if they have the time!

We didn't have any night star parties in April due to the usual (you guessed it) poor weather, but the one daytime event we had perhaps made up for that (and then some!)

And to compound the usual weather problem, we recently have had to switch insurance carriers, and will thus have delay having star parties at the dome until that transaction is finalized. Always something!

### **Technical Projects for the club/schools**

As also mentioned in prior months, many of our club members are looking for astronomy-related technical projects which can be done either individually or as a team. Some of the possibilities mentioned to date have been: 1) a radio telescope project, 2) displaying the spectral classes of stars using RSPEC, 3) measuring the full set of lunar orbital parameters, 4) a photo gallery of deep sky objects using the main telescope, and 5) an analemma. At the April 22<sup>nd</sup> meeting, Gary Walker also mentioned that he was taking a long series of photos of T Corona Borealis, which goes nova every ~80 years, and is due for another explosion any day between now and September. Analyzing that time series and describing the underlying physics would be a nice project for someone and a good club talk, and Gary said he would make the data available.

### **Contributed Newsletter Articles**

As we have become more active post-Covid with in-person activities, there are more things to relate that would be of interest to each other. If people would like to submit brief (1-2 paragraph) articles for the newsletter about such activities or events, the newsletter editor would be more than happy to include them. This would be subject to editing, and pictures of people are discouraged, as permission rules have become rather strict of late. The solar eclipse, which we will be discussing at the May 2<sup>nd</sup> meeting, would be a great candidate!

### **Dues**

This year, as we are resuming activities, we are requesting dues at a reduced flat rate of \$15 per family (or individual, if there is no family to consider. Also, dues are waived for any students.) Dues will be due July 1<sup>st</sup>. If you have sent our treasurer (Dr. Ken Brink) dues in the last year, you will be considered to have paid dues for this year. If not, we would ask you to submit them, as this money is used to support our activities with the schools and the public. (We don't buy equipment, as that is the Foundation's function.) Dues should be sent to: Dr. Ken Brink, 16 Greengate Rd., Falmouth, MA 02540. If you send your dues to the Observatory or DYHS, they will be delayed in their transmission to the CCAS Secretary.

## **Outreach**

We've had many requests for talks, events, demonstrations, and star parties from various Cape organizations, libraries, schools, and individuals. We need help if we want to do this outreach. Please consider lending your talents to this effort if you haven't already. Contact Chris Lynch ([cca@capecodastronomy.org](mailto:cca@capecodastronomy.org)) or Jim Lynch ([jlynchwhoi@gmail.com](mailto:jlynchwhoi@gmail.com)) if you're interested and we'll pass it on to our organizing committee. Thanks!

## **Speakers**

**Last month's speaker:** CCAS members, moderated by Jim Lynch

**Title:** Future Directions for CCAS

**This Month's Speaker (May 2<sup>nd</sup>):** CCAS members, moderated by Jim Lynch

**Topic:** The April Solar Eclipse: CCAS's observations.

**Note:** This will be an IN PERSON and Zoom event, and we will have a club and guest dinner at the H&K restaurant! Please try to come to the live event if you can. Zoom is wonderful, but nothing beats talking to each other in person if possible! It's been a while since we've done so.

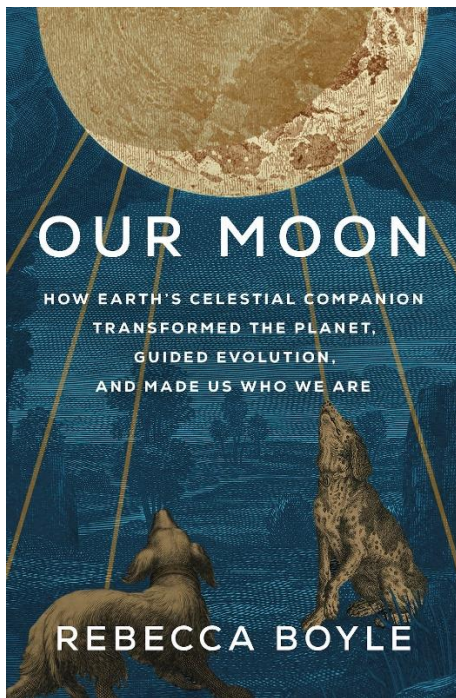
**Next Month's Speaker (June 6<sup>th</sup>) :** Ms. Rebecca Boyle

**Title:** Our Moon

**CV:** As a journalist, Rebecca Boyle has reported from particle accelerators, genetic sequencing labs, bat caves, the middle of a lake, the tops of mountains, and the retractable domes of some of Earth's largest telescopes. Her first book, *OUR MOON: How Earth's Celestial Companion Transformed the Planet, Guided Evolution, and Made Us Who We Are* (Random House, 2024) is a new history of humanity's relationship with the Moon, which Rebecca has not yet visited on assignment. (Book is available through the Cape's "Clams" system libraries.) Based in Colorado Springs, Colo., Rebecca is a contributing editor at *Scientific American*, a contributing writer at *Quanta Magazine*, and a columnist at *Atlas Obscura*. She is a frequent contributor to the *New York Times*, *The Atlantic*,

Smithsonian Air & Space, and many other publications. Rebecca's work has been anthologized multiple times in the Best American Science and Nature Writing series, and she is the recipient of multiple writing awards throughout her career. As a daily newspaper reporter, Rebecca interviewed presidents and presidential candidates, state and local lawmakers, and covered major criminal court cases. Rebecca got her start in a small newsroom, but attending Space Camp in 6th grade is really what set the course of her career.

**Abstract:** The Moon is one of Earth's most unique features, and it shapes all of the other things that make our planet special, from its geology to its multitudes of life. Earth would be a vastly different planet without our Moon, and we would be different too. In this lecture, author Rebecca Boyle will dive into the spectacular journey that the Earth and the Moon have shared, providing a new perspective on human history through a lunar lens. You will come away from this event with a new appreciation for our Moon as something greater than just a beautiful object in the sky.



[Our Moon: How Earth's Celestial Companion Transformed the Planet, Guided Evolution, and Made Us Who We Are](#) (Random House)

USA Today and ABA Indiebound Bestseller, NYT Book Review Editor's Choice

**July 4<sup>th</sup> Speaker** – None. Enjoy the holiday!

**August 1<sup>st</sup> Speaker** – Dr. Tony Stark, Senior Astronomer, Harvard & Smithsonian Center for Astrophysics

**CV:** Antony Stark is a pioneer of Antarctic Astronomy and is a founder and designer of the South Pole Telescope (SPT), which is among the most important instruments for observational cosmology. He is PI and designer of the Parallel Imager for Southern Cosmology Observations (PISCO), a photometric camera on the Magellan Clay telescope for taking fast simultaneous g, r, i, and z band images. PISCO is being used to take the first images of galaxy clusters discovered by the SPT to determine their mass by gravitational lensing analysis. PISCO is also in use by several groups from Magellan consortium institutions to study asteroids, galaxy formation, exoplanets, and X-ray sources. Stark is a member of the STO and GUSTO balloon-borne telescope teams for Milky Way and Magellanic Cloud TeraHertz spectroscopy surveys of the dominant cooling lines of the interstellar medium.

**Title:** "The LSST Survey and You"

**Abstract:** The Large Synoptic Survey at the Vera Rubin Observatory is starting up and will operate for the next decade. It will survey the Southern Sky in six visual-wavelength bands with an 8 meter primary mirror, covering a large fraction of the sky repeatedly with billions of CCD pixels, in order to detect time-variable sources and build up a long exposure of deep sky objects over the years. It will be producing data as if from a fire hose, data that will be immediately available to the public, and that includes you!

### **Directions to Dennis Yarmouth HS and Schmidt Observatory**

For information on the location of our Dome behind Dennis-Yarmouth High School, click on the purple button "Old Website" and once there, click on "Meeting Location" viewing the two maps that are there: external for the Dome, and internal to locate the high school library where meetings are held. **NOTE:** We are redoing the website, so that this information may become dated soon. We intend to move any currently useful information to our new website.

For meetings, drive along the south entrance road and go around behind the main building. Park in the lot about halfway down the building and go in the back door and turn down the hall to your left to find the library.

For Star Parties at the Dome, drive in the north entrance road all the way past the north side of the main high school building, through a gate, and on to park near our Dome. You can (and should) park on the grass there.

### **H&K directions**

CCAS hosts a dinner gathering for the speaker (if available), members and friends on meeting nights (just before the meeting) at the South Yarmouth Hearth & Kettle restaurant at 5:45pm; (the meetings begin at 7:30 at D-Y.) Please join the group to dine and talk about all things interesting, especially astronomy, before our meeting. The H&K is at 1196 Rt 28, South Yarmouth, about a half mile west of the Station Avenue/Main Street intersection with Rt 28 (stop light). **NOTE:** Since Covid, we have a mix of fully remote and hybrid in-person+ remote meetings. Check the newsletter and/or website to see what the format is each month! There are no dinners when the meeting is fully remote.