

WEYMOUTH ASTRONOMY

Sky Watcher

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Trips / Events

Ideas for trips and events
always welcome!

events@weymouthastronomy.co.uk

**Society Meetings
cancelled until further
notice—Please check
their websites for the
latest schedule**

In the meantime, the British Astronomical Association has moved their meetings to an online format. Live streamed on release and 'catch-up' on Youtube available. These webinars are Open to All.

<https://britastro.org/>

**BAA live webinars, 7pm
every Wednesday**

[https://
www.youtube.com/user/
britishastronomical](https://www.youtube.com/user/britishastronomical)

If you are interested in giving a talk or workshop, let the organisers know. They like to offer new titles in their programme line-up.



Lockdown has been a challenge for all peoples of the world. This month I came across a positive story of Helena Cochrane, a teen in Scotland who has taken advantage of the extra 'time' to pursue a hobby in astrophotography.

She has the luck of living in an area of dark skies and has used this to her advantage. The BBC has a nice biographical article on her and images of her work. <https://www.bbc.co.uk/news/uk-scotland-south-scotland-56215197>



HELENA COCHRANE



This story really struck a chord as it is great to see younger people pursuing a hobby in astronomy and making the most of these strange times rather than perhaps focussing on the TV/video games. Hope you are enjoying the increasing daylight as we head into the Equinox.

Until next time...SLK



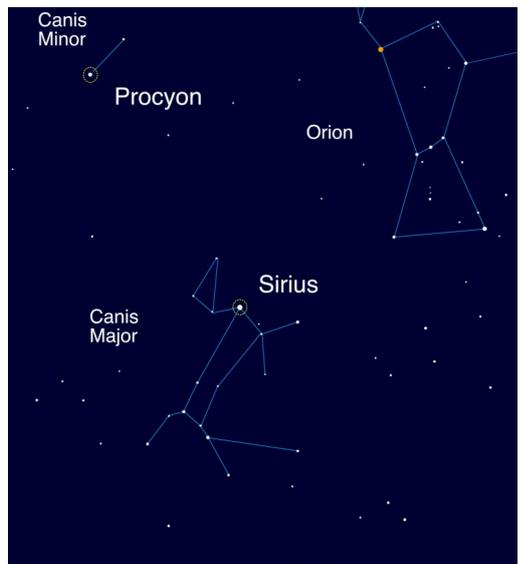
Taking the Dog Stars for a Springtime Walk: Sirius and Procyon

by David Prosper

March skies feature many dazzling stars and constellations, glimmering high in the night, but two of the brightest stars are the focus of our attention this month: Sirius and Procyon, the dog stars!

Sirius is the brightest star in the nighttime sky, in large part because it is one of the closest stars to our solar system at 8.6 light years away. Compared to our Sun, Sirius possesses twice the mass and is much younger. Sirius is estimated to be several hundred *million* years old, just a fraction of the Sun's 4.6 *billion* years. Near Sirius - around the width of a hand with fingers splayed out, held away at arm's length - you'll find Procyon, the 8th brightest star in the night sky. Procyon is another one of our Sun's closest neighbors, though a little farther away than Sirius, 11.5 light years away. While less massive than Sirius, it is much older and unusually luminous for a star of its type, leading astronomers to suspect that it may "soon" - at some point millions of years from now - swell into a giant star as it nears the end of its stellar life.

Sirius and Procyon are nicknamed the "Dog



Facing South, early evenings in March

Sirius and Procyon, the loyal hunting dogs of nearby Orion the Hunter! What other stories can you imagine for these stars? Learn about "Legends in the Sky" and create your own with this activity: <https://bit.ly/legendsinthesky> Image created with assistance from Stellarium.

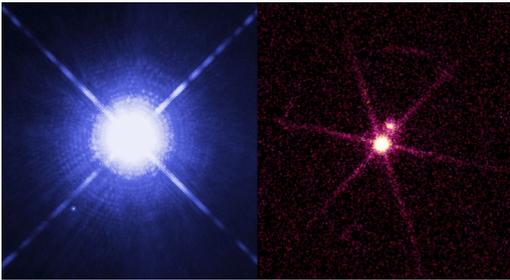
WAC Upcoming Events:

	Watch website for online options.
9 Apr	Dr Claire Davies - The Formation of Stars and Planets
14 May	AGM and James Fradgley - Astronomical Causes of Climate Change
11 June	Bob Mizon - Hours with the Night Sky

Sirius (more!)

Stars,” an apt name as they are the brightest stars in their respective constellations – Canis Major and Canis Minor – whose names translate to “Big Dog” and “Little Dog.” Not everyone sees them as canine companions. As two of the brightest stars in the sky, they feature prominently in the sky stories of cultures around the world. Sirius also captures the imaginations of people today: when rising or setting near the horizon, its brilliance mixes with our atmosphere’s turbulence, causing the star’s light to shimmer with wildly flickering color. This vivid, eerie sight was an indication to ancient peoples of changes in the seasons, and even triggers UFO reports in the modern era!

Both of these bright stars have unseen companions: tiny, dense white dwarf stars, the remnants of supermassive companion stars. Interestingly, both of these dim companions were inferred from careful studies of their parent stars’ movements in the 1800s, before they were ever directly observed! They are a challenging observation, even with a large telescope, since their parent stars are so very bright that their light overwhelms the much dimmer light of their tiny companions. The white dwarf stars, just like their parent stars, have differences: Sirius B is younger, brighter, and more energetic than Procyon B. Careful observations of these nearby systems over hundreds of years have helped advance the fields of: astrometry, the precise measurement of stars; stellar evolution; and astroseismology, the study of the internal structure of stars via their oscillations. Discover more about our stellar neighborhood at nasa.gov!



Sirius A and B imaged by two different space telescopes, revealing dramatically different views! Hubble’s image (left) shows Sirius A shining brightly in visible light, with diminutive Sirius B a tiny dot. However, in Chandra’s image (right) tiny Sirius B is dramatically brighter in X-rays! The “Universe in a Different Light” activity highlights more surprising views of some familiar objects: <http://bit.ly/different-light-nsn> NASA, ESA, H. Bond (STScI), and M. Barstow (University of Leicester) (left); NASA/SAO/CXC (right)

Photogenic Mars

<https://theskylive.com/>

Mars is currently moving through a very easily observed grouping of the Pleiades, Taurus and Orion. The finder chart to the right is for the 12 March.

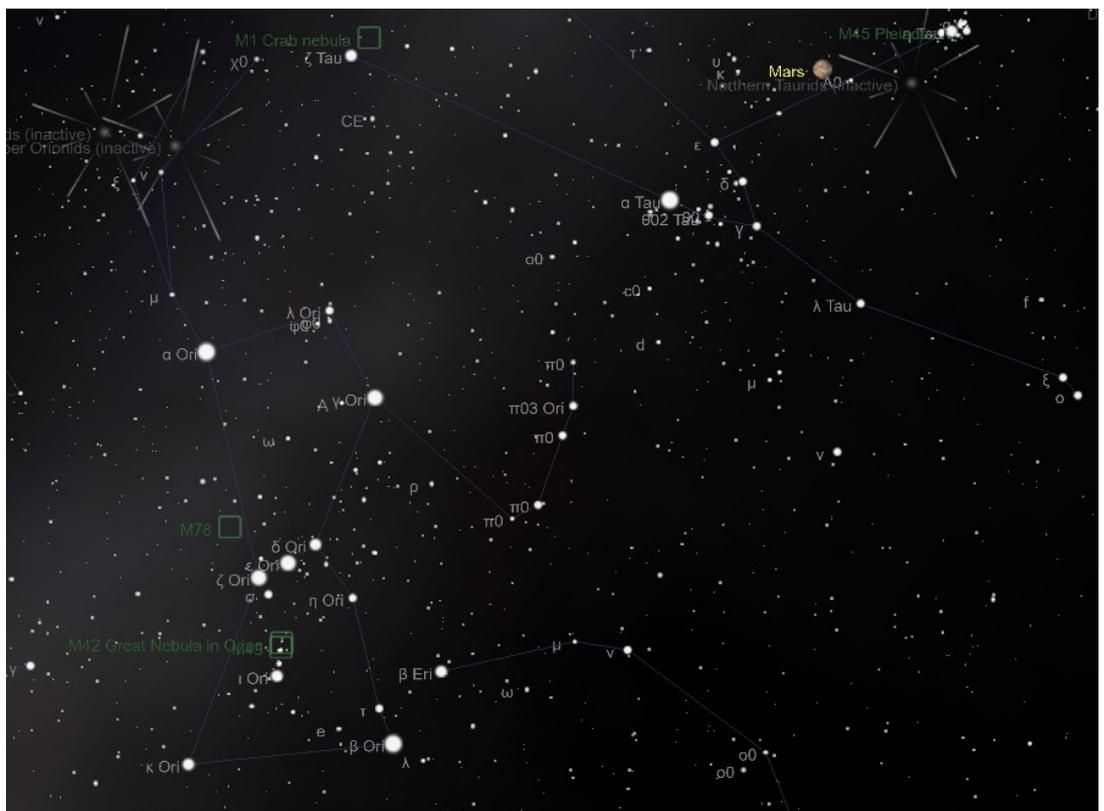
As the stars in this region are bright even in light polluted areas, it is a good naked eye, binocular and photographic target.

Even using a camera phone with a night mode or manual settings can achieve very good wide field results without a tripod. If the camera or phone can be leaned on a

stable object for approx. 5-10 seconds of exposure and mid ISO range, pleasing results can be achieved.

Keep a watch on how the red planet moves through the region with easily visible red giant stars in the field of view. The comparison of the red shades is fascinating.

Please send you photos or sketches to the webmaster for inclusion in the next issue! ~SLK



Mars on the move

The image below was taken with a smartphone camera using the manual mode to adjust exposure time and ISO setting. The phone was held against a wall for stability.

The image to the right was taken using a DSLR camera with the same technique. 10s exposure and ISO 400. Mars is to the lower left of M45.



Both images have had a light grey point adjustment to remove the artificial lighting gradient. The phone camera image has had a light touch of colour saturation adjustment.

Space Flight Update

SpaceX Starship SN10 soars, lands for first time! SpaceX Starship SN10 prototype flew to an altitude of 6.2 miles (10 kilometers) and landed 6 minutes and 20 seconds after liftoff on Mar. 3, 2021.

<https://youtu.be/gLNQ6Mq5kg>

Several minutes later the rocket exploded.

<https://videos.space.com/m/bYPbUiBr/spacex-starship-sn10-explodes-shortly-after-landing?list=9wzCTV4g>

The full story of the launch can be read at Space.com:

<https://www.space.com/spacex-starship-sn10-test-launch-landing-explosion>

A really interesting overview of the SpaceX fleet can be found on their website.

<https://www.spacex.com/vehicles/starship/>

There is still divided opinion of whether space exploration and travel should be moving to the private industry domain rather than the traditional/historical government approach.

We are certainly entering an age that private industry is quickly advancing our rocket capabilities to support both industry and governmental requirements globally.

Stay tuned for more!

