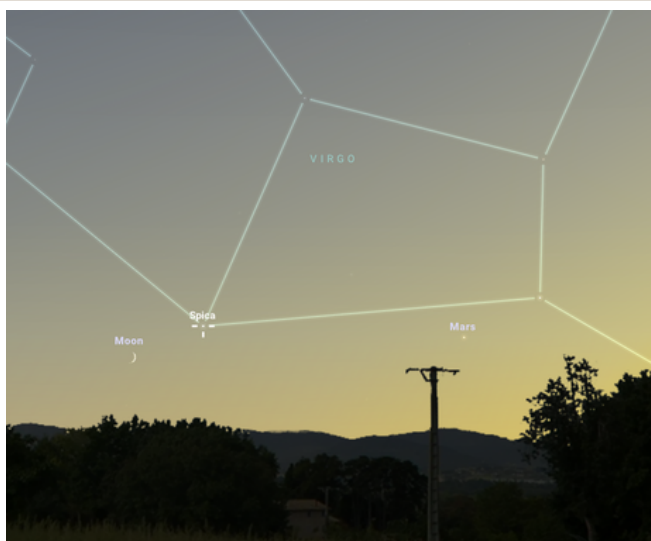


SKYWATCHER NEWSLETTER



July's Night Sky Notes: Spy the Scorpion

By: Kat Troche

As summer deepens in the Northern Hemisphere, a familiar constellation rises with the galactic core of the Milky Way each evening: Scorpion the Scorpion. One of the twelve zodiacal constellations, Scorpion contains many notable objects, making it an observer's delight during the warmer months. Here are some items to spy in July:

• **Antares:** referred to as "the heart of the scorpion," this supergiant has a distinct reddish hue and is visible to the naked eye. If you have good skies, try to split this binary star with a medium-sized telescope. Antares is a double star with a white main-sequence companion that comes in at a 5.4 magnitude.

• **Messier 4:** one of the easiest globular clusters to find, M4 is the closest of these star clusters to Earth at 5,500 light years. With a magnitude of about 5.6, you can spot this with a small or medium-sized telescope in average skies. Darker skies will reveal the bright core. Use Antares as a guide star for this short trip across the sky.

• **Caldwell 76:** If you prefer open star clusters, locate C76, also known as the Baby Scorpion Cluster, right where the 'stinger' of Scorpion starts to curve. At a magnitude of 2.6, it is slightly brighter than M4, albeit smaller, and can be spotted with binoculars and the naked eye under good sky conditions.

Lastly, if you have an astrophotography set up, capture the Cat's Paw Nebula near the stinger of Scorpion. You can also capture the Rho Ophiuchi cloud complex in the nearby constellation Ophiuchus. Brilliant Antares can be found at the center of this wondrous structure.

Manaiakalani

While many cultures tell tales of a 'scorpion' in the sky, several Polynesian cultures see the same stars as the demigod Māui's fishhook, Manaiakalani. It is said that Māui didn't just use his hook for giant fish in the sea, but to pull new islands from the bottom of the ocean. There are many references to the Milky Way representing a fish. As Manaiakalani rises from the southeast, it appears to pull the great celestial fish across a glittering sea of stars.

Measure Your Darkness

While you can use smartphone apps or dedicated devices like a Sky Quality Meter, Scorpion is a great constellation to measure your sky darkness with! On a clear night, can you trail the curve of the tail? Can you see the scorpion's heart? Use our free printable Dark Sky Wheel, featuring the stars of Scorpion on one side and Orion on the other for measurements during cooler months. You can find this resource and more in the Big Astronomy Toolkit.

LATEST NEWS

Tonight just after sunset you should be able to spot Mars just to the west of the crescent moon. Spica sits near to the moon. A great binocular treat!

The sun has been quite active this summer as well with many observations of sunspot activity as well as magnetic disturbance in other wavelengths visible to solar observers. In case the compact smartscope fever is tempting you, here are some results with the Seestar S50 and a Baader astrofilm filter.

Hope you have a nice summer and looking forward to the nights drawing in and more astronomical treats to come!

Until next month and hopefully 20 years more of the WAC... SLK



LOCAL EVENTS

2 Sept - WAS - Dr. Lilian Hobbs – Messier Objects (In Person)

2 Sept - BNSS - Joan Freeman: A Passion for Physics - 7.30pm (zoom only)
Speaker: Ceri Edwards

17 Sept - FA - Dark Matter - Why we think 95% of the Universe is Missing - Elizabeth Cunningham

7 Oct - WAS - The Bob Mizon Memorial Lecture – Prof. Martin Hendry – An astronomer's guide to the periodic table
Via Zoom

15 Oct - FA - Bok Globules - Dark Nebulae - Club Speaker Ross Gould

4 Nov - WAS - Steve Plant UK Space Agency
In Person

MORE TO COME IN 2025!

VISIT OUR WEBSITE FOR THE LATEST CLUB INFORMATION

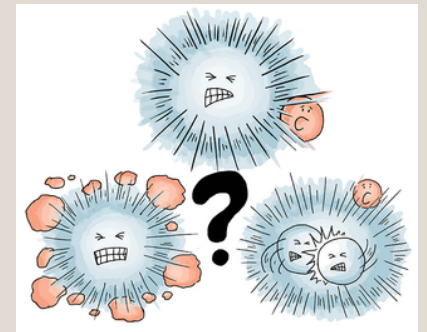
Continued from page 1:



The star map of the Scorpius constellation highlights the star Antares and several notable deep-sky objects like the Rho Ophiuchi Complex, Messier 4, the Cat's Paw Nebula, and Caldwell 76, the Baby Scorpion Cluster. Credit: Stellarium Web



A digital map of the Rho Ophiuchi Complex. Credit: Stellarium Web



WAC Upcoming Events

SEPT 12 - DAVID WHITEHOUSE -
SEARCHING FOR LIFE (IN-PERSON
AND ZOOM)

OCT 10 - SHERI KARL - ORBITING
SOLAR OBSERVATORIES (ZOOM)

1 NOV 14 - JO RICHARDSON FRAS -
THE JWST - A MIRRORED MARVEL
(IN-PERSON AND ZOOM)

WEYMOUTH ASTRONOMY

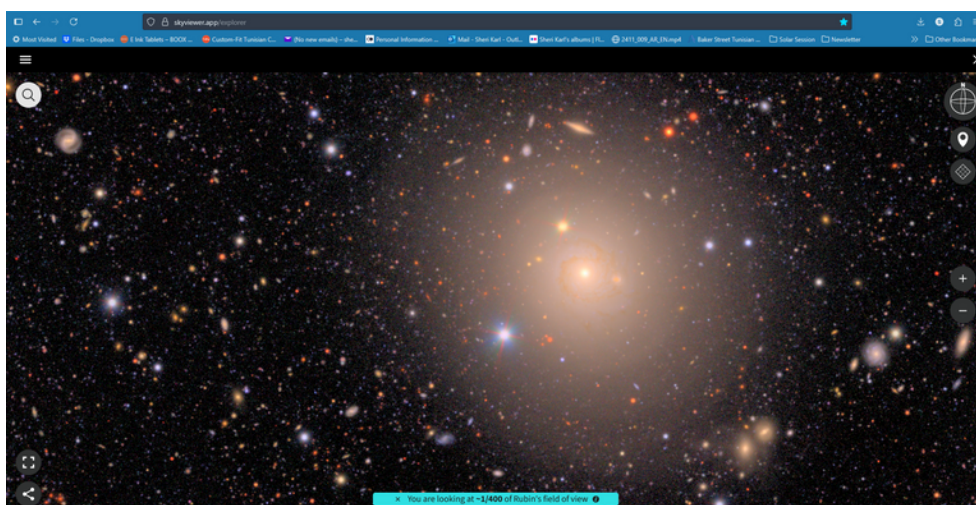
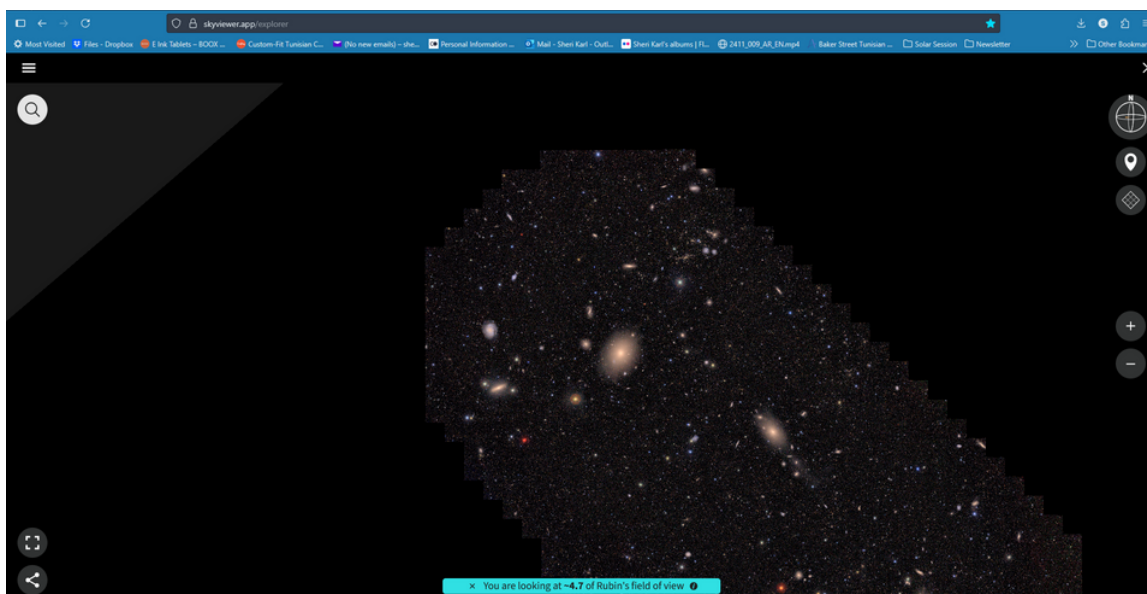


Made from over 1100 images captured by NSF-DOE Vera C. Rubin Observatory, the video begins with a close-up of two galaxies then zooms out to reveal about 10 million galaxies. Those 10 million galaxies are roughly 0.05% of the approximately 20 billion galaxies Rubin Observatory will capture during its 10-year Legacy Survey of Space and Time. Credit: NSF-DOE Vera C. Rubin Observatory

<https://rubinobservatory.org/news/first-imagery-rubin>



<https://rubinobservatory.org/news/rubin-first-look/rhythm-stars>



<https://skyviewer.app/explorer>

WAC Members Corner

September 7, 2025 Total Lunar Eclipse in Weymouth, England, United Kingdom

Start time, end time, animation, and detailed viewing information for the upcoming eclipse in Weymouth, England, United Kingdom

[timeanddate.com](https://www.timeanddate.com)

<https://www.timeanddate.com/eclipse/in/uk/weymouth?iso=20250907>

7 Sep 2025, 19:46

Max View in Weymouth, England

Global Event: Total Lunar Eclipse

Local Type: Total Lunar Eclipse in Weymouth, England

Begins: Sun, 7 Sep 2025, 19:38

Maximum: Sun, 7 Sep 2025, 19:46 1.089 Magnitude

Ends: Sun, 7 Sep 2025, 21:55

Duration: 2 hours, 16 minutes

All times shown on this page are local time.

Time	Phase	Event	Direction	Altitude
16:28 Sun, 7 Sep	Not directly visible	Penumbral Eclipse begins <i>Below horizon</i>	 62°	 -29.8°
17:27 Sun, 7 Sep	Not directly visible	Partial Eclipse begins <i>Below horizon</i>	 74°	 -21.3°
18:30 Sun, 7 Sep	Not directly visible	Total Eclipse begins <i>Below horizon</i>	 86°	 -11.5°
19:11 Sun, 7 Sep	Not directly visible	Maximum Eclipse <i>Below horizon</i>	 94°	 -5.1°
19:38 Sun, 7 Sep	Rising	Moonrise Rising, but the combination of a very low moon and the total eclipse phase will make the moon so dim that it will be extremely difficult to view until moon gets higher in the sky or the total phase ends.	 99°	 -0.2°
19:46 Sun, 7 Sep		Maximum in Weymouth This is the moment when the eclipse reaches its greatest magnitude while the entire Moon is above the horizon in Weymouth. The true maximum point of this eclipse cannot be seen in Weymouth because the Moon is below the horizon at that time. Moon close to horizon, recommend going to a high point.	 100°	 0.8°
19:52 Sun, 7 Sep		Total Eclipse ends Total moon eclipse ends. Moon close to horizon, so make sure you have free sight to East-southeast. Additionally, the eclipsed moon combined with dimming near horizon might make the Moon very hard or impossible to see.	 102°	 1.7°
20:56 Sun, 7 Sep		Partial Eclipse ends <i>Partial moon eclipse ends.</i>	 114°	 10.9°
21:55 Sun, 7 Sep		Penumbral Eclipse ends <i>The Earth's penumbra ends.</i>	 126°	 18.9°



John went up to Poundbury the morning of 12 Aug to photograph the conjunction.
He used a camera hand-held to achieve this lovely image.

WEYMOUTH ASTRONOMY



Astronomers detect the most massive black hole collision ever

A collision observed between two black holes, each more massive than a hundred suns, is the largest merger of its kind ever recorded, according to new research.

CNN / Jul 17

<https://edition.cnn.com/2025/07/16/science/massive-black-hole-collision-gravitational-waves>

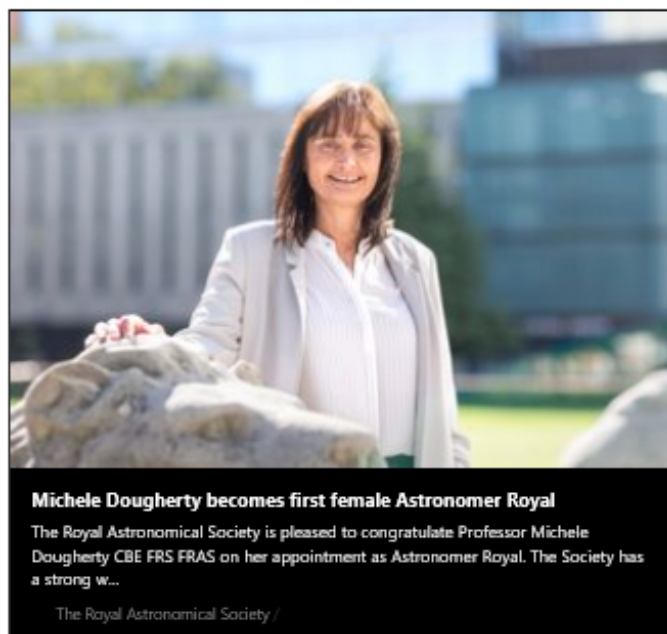


First Complete Picture of Nighttime Clouds on Mars

Data captured by the Emirates Mars Mission reveal that clouds are typically thicker during Martian nighttime than daytime.

Eos / Aug 19

https://eos.org/research-spotlights/first-complete-picture-of-nighttime-clouds-on-mars?mkt_tok=OTg3LUlHVCO1NzIAAAGcTCmtDV3Em_weOXPPmHGcO5K-UyHSoi_DFsF6CulxsleRfArWpz8np5tmRCgV52XCW0n2bTGo3TZnJ-jqdMHNzIsh7Ff5o5FMjgZZRRWRaQ

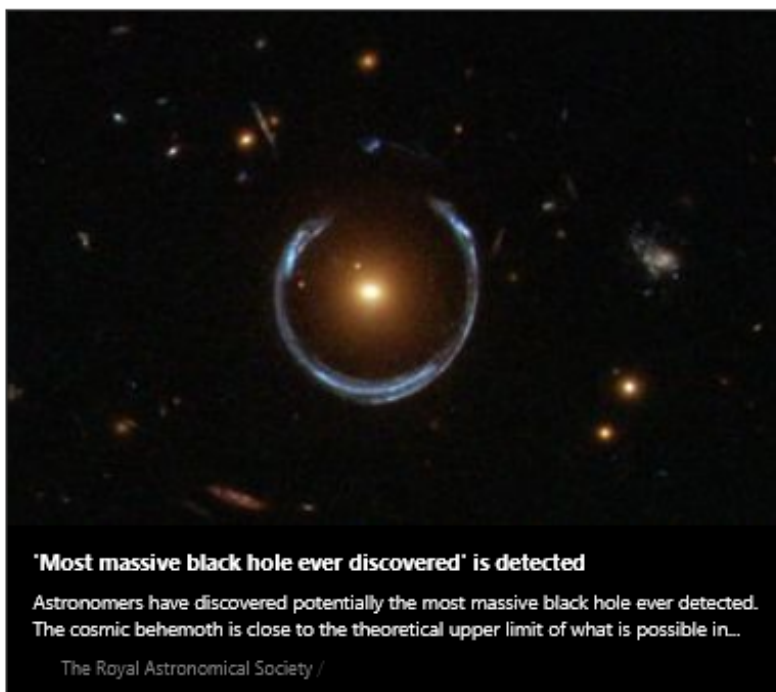


Michele Dougherty becomes first female Astronomer Royal

The Royal Astronomical Society is pleased to congratulate Professor Michele Dougherty CBE FRS FRAS on her appointment as Astronomer Royal. The Society has a strong w...

The Royal Astronomical Society /

<https://ras.ac.uk/news-and-press/news/michele-dougherty-becomes-first-female-astronomer-royal>



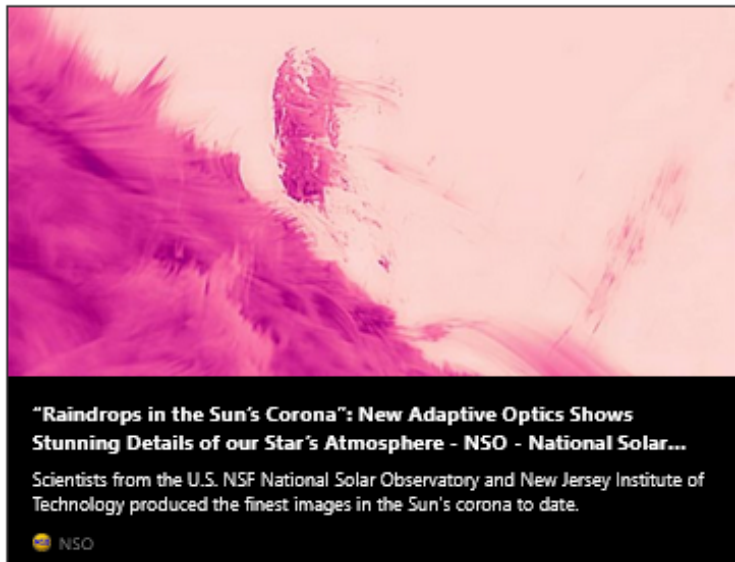
'Most massive black hole ever discovered' is detected

Astronomers have discovered potentially the most massive black hole ever detected. The cosmic behemoth is close to the theoretical upper limit of what is possible in...

The Royal Astronomical Society /

<https://ras.ac.uk/news-and-press/research-highlights/most-massive-black-hole-ever-discovered-detected>

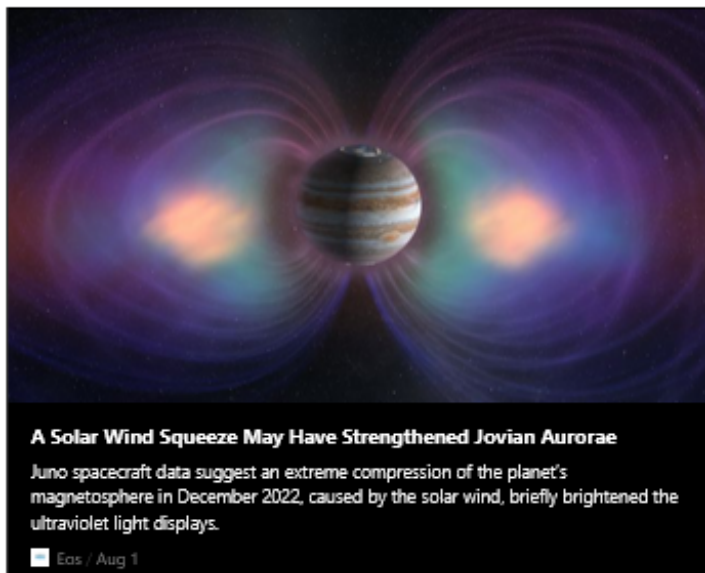
WEYMOUTH ASTRONOMY



<https://nso.edu/press-release/new-adaptive-optics-shows-stunning-details-of-our-stars-atmosphere/>



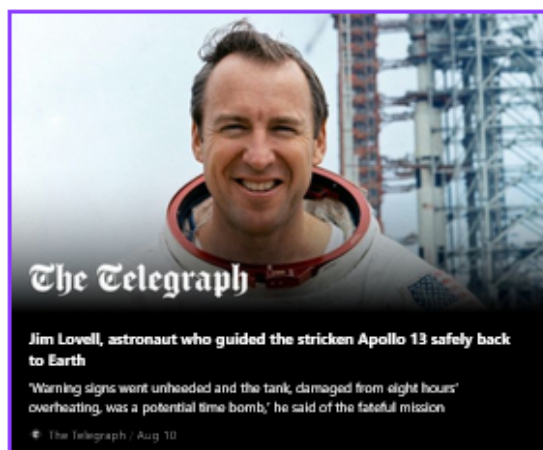
<https://www.bbc.co.uk/news/articles/cx23g5jpj9go>



https://eos.org/research-spotlights/a-solar-wind-squeeze-may-have-strengthened-jovian-aurorae?mkt_tok=OTg3LUIHVVC01NzIAAAGcKB0Khp1mVYL3WTxRfV-cX-WH6NblLEyJbMIG6e3SajhvfsvxAs9BHZFSOinRXOtUHWnFAyDxPwnjuSNXnPEVMBUP1s3nnuF-57wup6ak96w



https://eos.org/articles/exoplanet-triggers-stellar-flares-and-hastens-its-demise?mkt_tok=OTg3LUIHVVC01NzIAAAGcKB0Khp1mVYL3WTxRfV-cX-WH6NblLEyJbMIG6e3SajhvfsvxAs9BHZFSOinRXOtUHWnFAyDxPwnjuSNXnPEVMBUP1s3nnuF-57wup6ak96w



<https://www.telegraph.co.uk/gift/a34272b4600f99f5>



HOT OFF THE PRESS 27 AUG 2025:

STARSHIP 10 LAUNCH SUCCESS: First, Starship 10 didn't explode. Then, it accomplished almost all of its mission objectives. SpaceX's massive Starship, combined with its Super Heavy booster, lifted off from Starbase, Texas on Aug. 26th at 6:30 PM CDT. For the first time, Starship successfully deployed eight extra-large Starlink satellite simulators into orbit, paving the way for future expansion of the megaconstellation. Then it landed (a soft splashdown) in the Indian Ocean.

Skymaps.com—Feel free to download the full article directly each month.

