

Australia's first astronomers

Astronomy didn't start with the Greeks. Thousands of years earlier Aboriginal people scanned the night sky, using its secrets to survive the Australian landscape.

Unlike Greek celestial tradition, which focuses almost exclusively on stars, Aboriginal astronomy focuses on the Milky Way and often incorporates the dark patches between stars.

The Emu in the Sky, a story common to many Aboriginal groups, is an example of this — its body is made up of the dark patches in the Milky Way. The Boorong people saw the same dark patches as the smoke from the fires of Nurrumbunguttias, the old spirits. The Kurna people saw the Milky Way — called Wodliparri or hut river — as a large river where a Yura (monster) lives in the dark patches. To the Ngarrindjeri people, the dark shape formed by the Southern Cross is the stingray Nunganari and the pointers are Ngarakani, or sharks.

Information from ABC Science - Beginners Guide to the Night Sky by Maryke Steffens www.abc.net.au

More than meteors

Keep your eyes open for satellites and the International Space Station (ISS). www.spotthestation.nasa.gov

ISS completes 15.5 orbits a day at 27,724 kilometres per hour, which means the crew on board see a sunrise or sunset every 92 minutes. ISS is the third brightest object in the sky and is visible with the naked eye, its travelling incredibly fast so knowing when to look-up will help with spotting.

An Iridium Flare is also known as a satellite glint, it is created when the sun reflects off the mirrored surface of a satellite and creates a bright flash or flare directed onto the surface of the Earth. While it is not a rare event it is rare to see an Iridium Flare.



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2-3 hour
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\$149 (plus travel)

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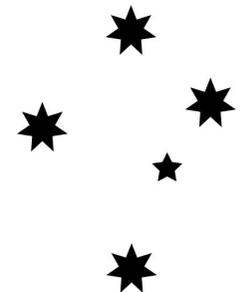


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Dark Sky Country 2019

The Barrington Tops region is a perfect location for star gazing, satellite spotting, comet watching or taking a front row seat to a spectacular meteor shower.

Barrington Tops is 95,000 hectares of dark sky wilderness providing the perfect back drop to observe the night sky. Exploring celestial wonders intrigues both the young and old, and can be done anytime of year when the skies are clear.



Australia's most well known star symbol is the Southern Cross, which appears on our national flag. Officially the Southern Cross is an asterism and is also known as the Crux constellation, which is the smallest constellation. Crux was once part of Centaurus, however it is now mapped separately.

January

Full moon: Tue 21 January

Meteor Shower: QUADRANTID - Approximately 40 meteors per hour, meteors will radiate from the constellation Bootes but can appear anywhere in the sky. Best viewing after midnight.

Starts: 1 - 5 January

Peak viewing: 3 - 4 January

Supermoon & Total Lunar Eclipse: 21 January

February

Full moon, Supermoon: 19 February

March

March Equinox: 20 March

Full moon, Supermoon: 21 March

Earth Hour: Saturday 30 March - Turn off your lights and go outside and look at the stars :)

April

Full moon: 19 April

Meteor Shower: LYRIDS - Approximately 20 meteors per hour at its peak. Meteors will radiate from the constellation Lyra, but can appear anywhere in the sky. This show can produce bright dust trails that last for several seconds. Best viewing after midnight.

Starts: 16 - 25 April

Peak viewing: 22 to 23 April

May

Meteor Shower: ETA AQUARIDS - Approximately 60 meteors per hour at its peak. The shower is produced by dust particles left behind from Halley's comet. Meteors will radiate from the constellation Aquarius, but can appear anywhere in the sky. Best viewing after midnight.

Starts: 19 April to 28 May

Peak viewing: 6 to 7 May

Full moon, Blue Moon: 18 May

CELESTIAL EVENTS 2019

www.seasky.org/astronomy/astronomy-calendar

June

Jupiter: 10 June - The gas giant will be at its closest approach to earth it will be brighter and visible all night.

Full moon: 17 June

Winter Solstice: 21 June

July

Saturn at opposition: 9 July - Saturn will be at its closest point to earth and visible all night. Medium sized telescopes should show Saturn's rings and some of its brighter moons.

Full moon & Partial Lunar Eclipse: 16 July

Meteor Shower: DELTA AQUARIDS - Approximately 20 meteors per hour at its peak. Meteors will radiate from the constellation Aquarius, but can appear anywhere in the sky.

Starts: 12 July - 23 August

Peak viewing: 28 - 29 July

Mars at opposition: 27 July - Mars will be at its closest point to earth

August

Full moon: 15 August

Meteor Shower: PERSEIDS - Approximately 60 meteors per hour at its peak. Perseids are famous for producing a large number of bright meteors, the meteors are produced by the comet Swift-Tuttle. Meteors will radiate from the constellation Perseus, but can appear anywhere in the sky.

Starts: 17 July - 24 August

Peak viewing: 12 - 13 August

September

Neptune at Opposition: 9 September - The blue giant will be closest to Earth, but only visible to powerful telescopes.

Full moon: 14 September

October

Meteor Shower: DRACONIDS - Approximately 10 meteors per hour at its peak. Not a huge show but is best viewed in the early evening. Unfortunately the near full moon will block out all but the brightest meteors.

Starts: 6 - 10 October

Peak viewing: 8 October

FULL MOON: 13 October

Uranus at Opposition: 27 October - The blue-green planet will be closest to Earth, but only visible to powerful telescopes

Meteor Shower: ORIONIDS - Approximately 20 meteors per hour at its peak. The shower is another produced from the dust of Halley's comet.

Starts: 2 October - 7 November

Peak viewing: 21 to 22 October

November

Meteor Shower: TAURIDS - Approximately 10 meteors per hour at its peak. Taurids is the longest running meteor shower as it spans 8 weeks. Meteors will radiate from the constellation Taurus, best viewing is after midnight.

Starts: 7 September - 10 December

Peak viewing: 5 - 6 November

FULL MOON: 12 November

Meteor Shower: LEONIDS - Approximately 15 meteors per hour at its peak. Every 33 years this shower has a cyclonic peak producing hundreds of meteors per hour, this last occurred in 2001.

Starts: 6 - 30 November

Peak viewing: 17 - 18 November

December

FULL MOON: 12 December

Meteor Shower: GEMINIDS - Approximately 120 multi-coloured meteors per hour at its peak. Considered the best shower all year. The meteors are produced by debris from the asteroid 3200 Phaethon. Meteors will radiate from the constellation Gemini, but can appear anywhere in the sky. Best viewing after midnight.

Starts: 7 - 17 December

Peak viewing: 13 - 14 December

Meteor Shower: URSIDS - Peak 21 - 22 December

Annular Solar Eclipse: 26 December