

# Spectacular Southern Hemisphere Nights:

## Australia Is the Place with the View

Touring the Northern hemisphere has many advantages, so much to see and do in close proximity with stunning history and cultural diversity. However there is one thing that can't be experienced from the north and that is the best view of our Milky Way galaxy and indeed our nearest galactic neighbours, the Large and Small Magellanic Clouds. For these you need to come south.



Fortunately for us southerners the Earth leans to one side by 23.5 degrees. Apart from causing the seasons, the lean or tilt pushes the central view of our galaxy toward the south.

Here in Sydney the galactic centre passes nearly overhead during the cold clear winter months for a breath taking view. The other big advantage is that there aren't as many people and therefore lights to wash out the sky, whose beauty is surely equal to that of any national park or reserve.

Sydney is a great place to start and at Sydney Observatory, Australia's oldest existing observatory now open to the public day and night, you can pick-up an Australian Sky Guide, take an astronomy tour, get astronomical advice and view through telescopes. Only 25 kilometres north of Sydney's CBD rock carvings from the long vanished local Indigenous Guringai people in the Kuringai Chase national park show an Emu bearing an egg. It matches perfectly the orientation of the Emu in the sky at the time of year when Emu eggs were sought after.

Big cities like Sydney and Melbourne now suffer from bad light pollution like many larger cities worldwide but a pleasant country drive away from the cities will show you how the stars shine beautifully. Take a much longer journey to the heart of Australia and the stars blaze as they have since the Indigenous sky watchers arrived more than 20,000 years ago. The Milky Way almost stretches from horizon to horizon. Cold dark dust and gas patches within it coupled with a little imagination are suggestive of the flightless Emu.



Icon of the south, the Southern Cross is the smallest of all 88 constellations and helps us navigate both seas and deserts. It is a rich target for Indigenous mythology. Very little is known of the Indigenous sky lore from the locals of the Sydney region but further north, the Murri people see the Southern Cross as the glowing eyes of the Yowie, Spirit of Death and the first person to die forever residing in the sky in a great tree. The nearby pointers represent two cockatoos trying to return to their tree in the sky. To other Indigenous peoples it represents a canoe, daughters of an elder and even an eagle's footprint snuggled against the nest of the dark nebula "the Coal Sack". With over 400 different groups across Australia the diversity of Indigenous mythology is a challenging but fascinating journey through the sky.

The southern Milky Way is a rich target area for binocular travellers especially in winter when it is highly placed. Certainly a telescope will afford better views but do not under estimate the beauty of a securely held pair of binoculars. A typical 7 x 50 pair is well suited. Anything larger becomes difficult to hold still.

Snuggled against the second brightest star in the Southern Cross lies an Open clusters of baby stars NGC 4755 commonly called the Jewel Box. At around 7,500 light years away it is perhaps only second in beauty to the northern cluster, the Pleiades in Taurus, but its compact nature makes it a spectacular sight with its dying red supergiant. To the east of the Southern Cross in the adjoining constellation Centaurus is the greatest of all the Milky Way's 140 globular clusters. Apart from the ordinary sounding name of NGC 5139 or Omega Centauri it is a massive ball of perhaps a million stars jammed close together and only 16,000 light years away.



On a moonless night through a small telescope it is the finest view in the entire sky. Further south NGC 3372 or the Eta Carinae nebula is host to both young star forming clouds of gas and dust and the death throws of the massive star Eta Carinae. These are but a few objects in a region of unmatched beauty anywhere in the sky.

Even without binoculars, sitting on a blanket in a dark location with a glass of red wine and some fine Australian cheese you are almost guaranteed the best seat on Earth for the best view of the galaxy and

beyond. Enjoy!

**By Geoff Wyatt** (Senior Astronomy Educator, Sydney Observatory)

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<http://www.sydneyobservatory.com>

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