The August Night Sky

Rā the Sun rises at 7:29 a.m. on the 1st (6:47 a.m. by the 31st) and likewise sunset gets later over August – the days are getting longer.

**Te Māngōroa the** **Milky Way** is brightest and broadest overhead, crossing the zenith at about 8pm and stretching from north to south. Follow it south to find **Māhutonga the Southern Cross**. Follow it north to see **Poutū-te-rangi Altair** and Whānui Vega near the horizon. Te Māngōroa is the edgewise view of our galaxy, a pancake of billions of stars including our sun.

Midway down the southwest sky 'The Pointers', stars from the **Centauri constellation**, point down and right towards **Māhutonga** **Crux the Southern Cross**. **Hakihea Alpha Centauri** is the third brightest star in the sky and the closest, 4.3 light years away. **Ranginui Beta Centauri**, like most of the stars in Māhutonga, is a blue-giant star hundreds of light years away, thousands of times brighter than the sun.

There are a number of bright stars visible from the Southern Hemisphere. **Takurua Sirius**, the brightest star, is in the morning sky, a white dwarf (the dense remnant of a larger star). The next brightest is **Atutahi Canopus,** low in the south. Atutahi twinkles with all colours as its white light is broken up by the air. At the north end of Te Māngōroa is **Whānui Vega** on the skyline. Orange **Ruawāhia Arcturus** is in the northwest, twinkling red and green as it sets.

North of the zenith is orange **Rehua Antares** (classified as a red giant star) marking the body of **Te Matau a Māui Scorpius**. The Scorpion's tail hooks around the zenith like a back-to-front question mark. Below or right of the Scorpion's tail is 'the teapot' made by the brightest stars of **Kaikōpere Sagittarius**. It is upside down in our southern hemisphere view (and not to be confused with the pot of **Orion**, visible for a few hours before sunrise).

The Milky Wayincludes a number of dust clouds, appearing as gaps and slots. The Large and Small Clouds of Magellan **LMC** and **SMC** look like two misty patches of light low in the south, easily seen by eye on a dark moonless night. They are galaxies like our Milky Way but much smaller and about 180 000 light years away. Near the Southern Cross is another famous dark patch, the Coalsack, known as Pātiki the flounder - in a truly dark sky, you will see the resemblance.

The Delta Aquariid meteors ramble across the sky from late July to mid-August but are faint, so the best viewing is before the moon rises i.e. before midnight. Meteor showers occur when the Earth passes through the trail of debris left by a comet, but the comet of origin is not known for the Delta Aquariids.

Visible planets all rise in the east & set in the west.

KŌPŪ VENUS is the brilliant ‘evening star’, low in the west and setting after the sun (7pm on the 1st, 8pm by month’s end). On the 6th the thin crescent Moon will be to the right of Venus.

WHIRO MERCURY is straight above Venus, looking like a medium-bright star but over the month it fades and slips lower in the sky.

MATAWHERO MARS is orange and just above & to the left of Jupiter (with Matariki further left still).

KŌPŪNUI JUPITER is the brightest ‘star’ in the early morning sky, and near to orange Mars. The Moon will be below the two planets on the 28th.

RONGO SATURN looks like a medium bright star with a cream tint, low in the western sky at dawn. The ring is nearly edge-on to us so looks like a line on each side of the planet. Big telescopes show some of its moons looking like faint stars. The Moon will be near Saturn on the 21st.

Star groups and single stars are coloured at 1st mention

Refs

<https://milky-way.kiwi/august/>

<https://www.rasnz.org.nz/in-the-sky/the-evening-sky/august-evening-sky-1>

<http://www.pixieplots.co.nz/Maori-Star-Names>