

## AUGUST ĀKUHATA HIGHLIGHTS

### Scorpius / Māui's Hook

For many northern iwi of New Zealand, the Scorpius constellation is known as Māui's hook. One day while out fishing with his brothers, Māui caught a giant fish using a fishhook carved from the jawbone of his grandmother. The fish, Te Ika-a-Māui, became the North Island of New Zealand.

To find Scorpius, face north and look above you towards the centre of the Milky Way. Search for Antares, a bright red star known as the "heart of the Scorpion" – you should be able to see the scorpion's tail nearby.

### The Milky Way / Te Ika-o-te-raki

The Milky Way is known as Te Ika-o-te-raki in Māori, meaning "the great fish of the sky". This fish is said to take care of the rest of the stars as it swims across the sky.

Our solar system is located in the Milky Way, a beautiful, barred spiral galaxy. About two-thirds of galaxies have bars – bright areas thought to be nurseries where new stars are born – and the Milky Way has two. Another feature of our galaxy is its spiralling arms, with our solar system located in the Orion Arm.

We look at the Milky Way edge-on from Earth because we are within the galaxy itself, so it appears as a band of bright dust and stars painted across the sky. During August it will stretch from north-east to south-west with the brightest and densest part, called the galactic bulge, overhead.

Thanks to low light pollution, the South Island is one of the best places in the world to view the Milky Way. We're also able to see the galactic bulge all year round (unlike in the northern hemisphere where it's only visible from October to March).

### Sagittarius

Sagittarius is depicted as a centaur holding a bow and arrow pointed at Antares, to protect the great hero Hercules should Scorpius attack.



The galactic bulge of the Milky Way is located on the eastern side of Sagittarius. Sagittarius A\* (pronounced Sagittarius A-star) is thought to be the location of a supermassive black hole, around 100 light years in diameter.

We can't see black holes as nothing, not even light, is able to escape their immense gravitational effects. However, we know there is one at the centre of our galaxy due to the orbital patterns of stars in the Milky Way.

### What's On in August?

Shows at Perpetual Guardian Planetarium, book at Museum Shop or online. See website for show times and details: [otagomuseum.nz](http://otagomuseum.nz)

**Capturing the Cosmos** Planetarium show.

**The Sky Tonight** Planetarium show.

**We Are Stars** Planetarium show.

## THE SKY TONIGHT



## AUGUST ĀKUHATA SKY GUIDE

PERPETUAL  
GUARDIAN  
PLANETARIUM

  
OTAGOMuseum



## MOON MARAMA PHASES

### Phase

### Date

**3rd quarter**

Sunday 5 August

**New moon**

Saturday 11 August

**1st quarter**

Saturday 18 August

**Full moon**

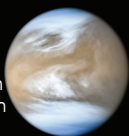
Sunday 26 August

## PLANETS WHETŪ AO

### Venus

**Meremere-tū-ahiahi**

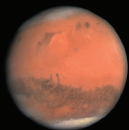
Early August before 9.32pm  
Mid August before 9.55pm  
Late August until 10.41pm  
In Virgo



### Mars

**Matawhero**

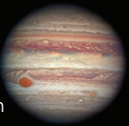
Early August all night  
Mid August all night  
Late August all night  
On Capricorn-Sagittarius border



### Jupiter

**Hine-i-tiweka**

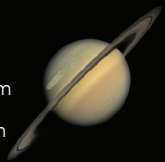
Early August until 1.53am  
Mid August until 1.04am  
Late August until 12.11am  
In Libra



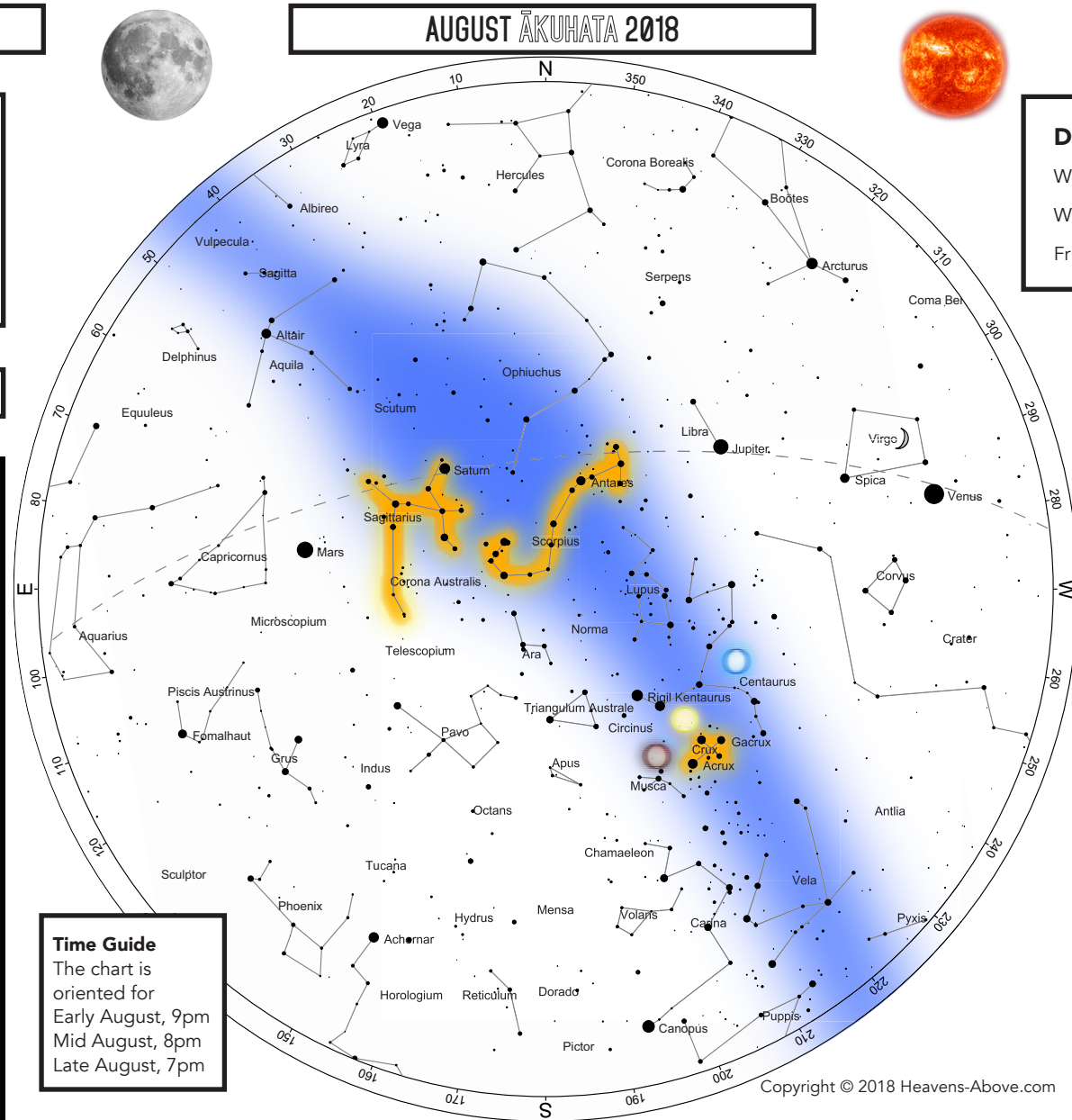
### Saturn

**Pareārau**

Early August until 5.57am  
Mid August until 5am  
Late August until 3.56am  
In Sagittarius



## AUGUST ĀKUHATA 2018



### Time Guide

The chart is oriented for  
Early August, 9pm  
Mid August, 8pm  
Late August, 7pm

**How to use this chart:** Hold the chart up to the sky and rotate it, so the direction you are looking matches the direction printed on the bottom. For example, if you are looking south, place "S" at the lower edge. Stars rise in the east and set in the west like the sun. As the Earth turns, the sky appears to rotate clockwise around the south celestial pole. The sky makes a small shift to the west every night, as the Earth rotates around the sun.

## SUN RĀ RISE / SUNSET

### Date

### Rise

### Set

Wednesday 1

7.57 AM

5.31 PM

Wednesday 15

7.37 AM

5.47 PM

Friday 31

7.10 AM

6.07 PM

## SOUTHERN CROSS AND THE SOUTHERN POINTERS

### Southern Cross

To find the Southern Cross, or Crux, first find Alpha (labelled as Rigel Kentaurus on star chart) and Beta Centauri in the Centaurus constellation. When lined up, these bright stars point towards the Southern Cross (they're also known as the Pointers). Several cool features can be found around the Southern Cross and Pointers.

### Jewel Box Cluster

This open cluster (loose grouping of stars) of just over 100 stars is known for its many different colours. Blue stars are younger and red stars are older. Look to the left of Beta Crux (the left star of the Southern Cross) to find this cluster.

### Omega Centauri

This is a globular cluster (spherical star grouping) once thought to be a dim star in Centaurus. We now know it consists of 10 million stars, making it the largest globular cluster in the Milky Way! Look above Gamma Crux (the top star of the Southern Cross) to locate it.

### Coalsack Nebula

This cloud of galactic dust – known as a dark nebula – is so thick it blocks nearly all the starlight behind it. However, in a few million years the gas will likely form new stars, bringing light to the Coalsack. Look around Alpha Crux (the star system that looks like a star at the bottom of the Southern Cross) to find this nebula.