The June Night Sky

**Takurua Sirius**, the brightest true star, appears in the west soon after sunset. It sets in the southwest around 9 pm, mid-month, twinkling like a diamond. **Atutahi Canopus**, the second brightest star, is in the southwest. Canopus is a 'circumpolar' star: it circles the South Celestial Pole (SCP on the chart) clockwise but never sets from Aotearoa NZ.

**Ruawāhia Arcturus** is the brightest star in the north sky. Its orange light is often split into red and green when it is low in the sky.

**Mahutonga** the Southern Cross, is high in the south. Beside it, and brighter, are Ranginui Beta and Hakihea Alpha Centauri**,** often called 'The Pointers' because they point at Crux. Alpha Centauri is the closest naked-eye star, while Beta Centauri and three of the four brightest stars in Crux are hot, extremely bright blue- giant stars hundreds of light years away.

Orange **Rehua** **Antares**, high in the eastern sky, marks the body of Scorpius the scorpion. It is a red giant star: 600 light years away and 19 000 times brighter than the sun. The scorpion's tail, upside down, curves off to the right, and by midnight is directly overhead. Below Scorpius is **Sagittarius**, its brighter stars making 'the teapot'.

The **Matariki Pleiades** star cluster reappears in mid-late June but is hard to see. This faint cluster can be hidden by twilight, moonlight and artificial light as it rises above the north eastern horizon. On the 15th Matariki is to the left of Mercury and just below a thin crescent moon on the morning of the 16th.

**Te Mangoroa The** **Milky Way** is brightest and broadest in the southeast toward Scorpius and Sagittarius. It remains bright but narrower through Crux and Carina then fades in the western sky. The Milky Way is our edgewise view of the galaxy, the pancake of billions of stars of which the sun is just one. A scan along the Milky Way with binoculars will find many clusters of stars and some glowing gas clouds. Relatively nearby dark clouds of dust and gas look like holes and slots in the Milky Way. The dust, more like smoke, comes from old red-giant stars like Antares. These clouds eventually coalesce into new stars.

The Clouds of Magellan, **Tuputuputu** **LMC** and **Tioreore** **SMC**, in the lower southern sky, are luminous patches easily seen by eye in a dark sky. They are two small galaxies, much smaller than our galaxy but still contain billions of stars.

#### Whiro MERCURY: In the first half of June, Mercury is easily seen in the eastern sky just before sunrise, below and right of Jupiter.

#### Kōpū VENUS: After sunset Venus is brilliant in northwest soon after sunset, setting after 8pm. On June 22nd it forms a lovely triangle with the Moon to its right and fainter Mars above.

#### Matawhero MARS: This medium-brightness reddish planet appears in the northwest, above & right of Venus. Over the month the gap between the 2 planets gets smaller, and they form a triangle with the moon on the 22nd.

#### Hine-i-tīweka JUPITER: Golden Jupiter rises around 4:30 a.m. at the beginning of June; around 3 a.m. at the end. It is the brightest ‘star’ in the morning sky. By dawn it is high up the northeast sky. Moon is close on the 10th.

#### Pareārau SATURN: Saturn rises due east before midnight on the 1st and around 10 pm by the 30th. It has a cream tint and is the brightest object in an empty region of sky. By dawn it is north or northwest of the zenith. Moon is close on the 14th.

Sources: Stardome Observatory, Mt St Johns Observatory