

Orion - the hunter.

The Kurna constellation, Tiinninyarra.



This constellation covers two of the ten brightest stars in the sky, Rigel and Betelgeuse, as well as several famous nebulae, the trapezium cluster, and one of the most prominent asterisms – Orion's Belt.

Probably the world's most easily identifiable constellation, as it is on the celestial equator, which means it is visible in summertime in both hemispheres.

The Greek story of Orion is that he was one of the most beautiful men in ancient Greece: he was tall and handsome, the son of Poseidon and Euryale, the daughter of King Minos of Crete. As well as being exceptionally handsome, he could walk on water and walked to a Greek island called Chios. When he got there, he got drunk and made sexual advances on the daughter of the local King. The King was enraged, blinded him and threw him off the island. He wandered around for many years before Helios, the sun god, restored his sight.

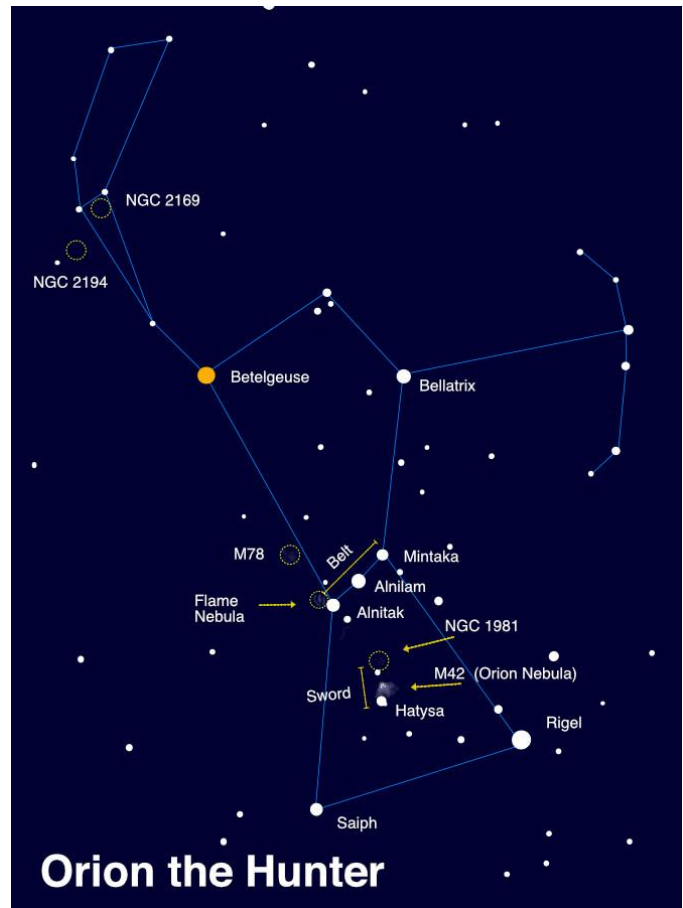
Upon return of his sight, Orion declared himself the best hunter in the world and announced he was going to kill every beast. Gaea, the goddess of Earth, angered by this, sent a scorpion to kill him. Upon Orion's death, Zeus turned him into a constellation, along with the scorpion that killed him. They are placed on opposite sides of the sky, so that as Scorpius rises in the sky, Orion drops below the horizon. ³

The Kurna people call the constellation of Orion Tiinninyarra. This represents a group of young men who are hunting game from a plain called Womma. They are hunting the kangaroos and emus along the banks of a river called wodliparri, which is the milky way running from the southern cross up and over towards Orion.

Just below Tiinninyarra, on the horizon's edge is Pleiades, which in Kurna constellations is Mankamankarrana, which is a group of women collecting reeds and berries from the banks of the river. ¹

All the stars are different distances from earth. We measure stellar distances in light years, and one light year is about 100 trillion km. The closest to us in this constellation is Bellatrix, at 243 light years. Our sun is a mere 8 light minutes away, a distance of 149 million km.

The brightest star, Rigel, is 777 light years away. This is actually three stars close together, but the brightest one is a blue supergiant which is about 85,000 times brighter than our sun.



Betelgeuse is 429 light years away. Betelgeuse is a red super giant, and if we placed it where our sun is, all the inner planets (up to and including Mars) would be engulfed within it. It emits 100,000 times the amount of light of our sun, but because it is so much larger than Rigel in volume, it appears slightly dimmer in the sky. However, it is one of the largest stars in the heavens.

The Orion nebula is 1,350 light years away and is easy to spot near the middle star of the sword, it is so easy to see because of the trapezium stars in the middle of the nebula, which effectively backlight all this dust. Three of the trapezium stars were first discovered by Galileo Galilei on 4th February 1617. This is a large stellar nursery, meaning new stars are forming in this area.

Finally, the horsehead nebula may be visible just to the left of Alnitak, the highest of the 3 stars of the belt as we view it, making the third point of an equilateral triangle with the bright star s (sigma) Ori near Alnitak.

There are no stars near this dust cloud and so it is very dim, and light pollution and the moon can mean that it is not visible without photography.

1: Blog, I. et al. (2011) *Australian Indigenous Astronomy*, *Aboriginalastronomy.blogspot.com*. Available at: <https://aboriginalastronomy.blogspot.com/search?q=kaurna> (Accessed: 17 March 2022).

2: *EarthSky | Orion the Hunter, the world's most recognizable constellation* (2021). Available at: <https://earthsky.org/constellations/orion-the-hunter-most-recognizable/> (Accessed: 17 March 2022).

3: *Orion Constellation (the Hunter): Stars, Facts, Myth, Location – Constellation Guide* (2022). Available at: <https://www.constellation-guide.com/constellation-list/orion-constellation/> (Accessed: 17 March 2022).

Orion the Hunter Reigns in the Winter Sky | Almanac.com

By ESO - ESO, CC BY 4.0, <https://commons.wikimedia.org/w/index.php?curid=8293882>