

3 Sirius in the constellation Canis Major

Distance

8.7 light years

Luminosity

25 times that of the sun

Colour

Blue-white

Surface temperature

10,000 K

Diameter

1.7 times the diameter of the sun

(To Planet Trail scale: 2.4 m)

Mass

2.1 solar masses

Evening visibility

December to April

Sirius is the brightest star in the constellation Canis Major and by far the brightest fixed star in the sky. It falls into the main sequence phase of the star life cycle, meaning that, like our sun, it gains its energy through fusing hydrogen into helium. Sirius is a binary star system consisting of a main sequence star (Sirius A) and a white dwarf (Sirius B) which orbit their common centre of gravity over a period of around 50 years. The above data refer to Sirius A. Sirius B has roughly the mass of our Sun but, as a white dwarf, only the diameter of our Earth.

Sirius forms the Winter Hexagon with the stars Rigel in Orion, Aldebaran in Taurus, Capella in Auriga, Pollux in Gemini and Procyon in Canis Minor.

Of all the stars in the Winter Hexagon, Sirius is the lowest on the horizon and is therefore not visible for more than eight hours at night.

Other bright stars in the constellation Canis Major:

Adhara	Distance: 431 light years
Wezen	Distance: 1,600 light years
Mirzam	Distance: 715 light years
Aludra	Distance: 3,200 light years

3 Constellation Canis Major

The constellation of Canis Major is easy to find in the winter night sky because of its bright star Sirius. It is slightly lower in the sky than the dominant constellation Orion. Several star clusters and gas nebulae can be seen within the constellation with the aid of binoculars.

The dawn rising of the brightest star in Canis Major signalled the flooding of the Nile 2000 years ago. This annual flood provided Egypt with fertile land each year. The Greeks were convinced that its early rise in midsummer added to the intensity of the sun's heat. This is where the phrase the "dog days of summer" originated. The constellation is depicted by the figure of a dog.

There are several myths about the constellation Canis Major. Most of them describe Canis Major as Orion's faithful hunting companion.

Another story suggests that Canis Major represents Cerberus. Cerberus was the guardian of the underworld, known as Hades. He was terrifying with his three heads, snake heads growing from of his back and a spiked tail. His purpose was to prevent anyone from entering or leaving the underworld. Hercules managed to get Cerberus out of Hades. In daylight, he shed droplets of foam from all his mouths, from which poisonous plants grew. The world rejoiced when Hercules finally returned Cerberus to Hades.