

CONSTELLATION DELPHINUS, THE DOLPHIN

Delphinus is a constellation in the northern sky, close to the celestial equator. Its name is Latin for dolphin.

Delphinus was one of the 48 constellations listed by the 2nd century astronomer **Ptolemy**, and it remains among the 88 modern constellations recognized by the International Astronomical Union. It is one of the smaller constellations, ranked 69th in size.

Delphinus' brightest stars form a distinctive asterism that can easily be recognized. It is bordered (clockwise from north) by Vulpecula the fox, Sagitta the arrow, Aquila the eagle, Aquarius the water-carrier, Equuleus the foal and Pegasus the flying horse.

Delphinus does not have any bright stars; its brightest star is of magnitude 3.8. The main asterism in Delphinus is sometimes called Job's Coffin, formed from the four brightest stars: Alpha, Beta, Gamma, and Delta Delphini.

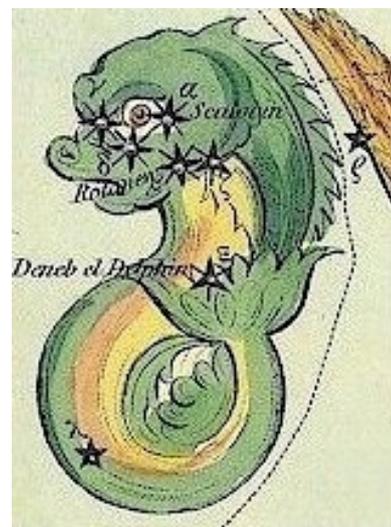
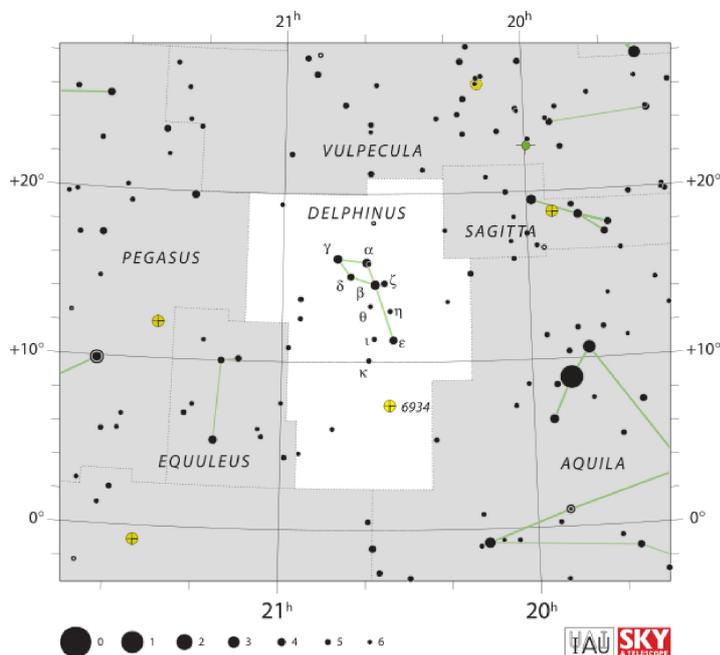
Alpha and Beta Delphini are named *Sualocin* and *Rotanev*, respectively. When read backwards, they read as Nicolaus Venator, the Latinized name of Palermo Observatory's former director, Niccolò Cacciatore.

THE STARS

- *Alpha Delphini*, called *Sualocin*, is a blue-white hued main sequence star of magnitude 3.8, 241 light-years from Earth.
- *Beta Delphini*, the brightest star in Delphinus is called *Rotanev*. It is a close binary star and, as noted by the American astronomer **S. W. Burnham** in 1873, divisible in only large amateur telescopes. To the unaided eye, it appears to be a white star of magnitude 3.6. It has a period of 27 years and is 97 light-years from Earth.
- *Gamma Delphini* is a celebrated binary star among amateur astronomers. The primary is a gold-colored star of magnitude 4.3 and the secondary is a yellow-tinged star of magnitude 5.1. 102 light-years away, the components of Gamma Delphini are divisible in a small amateur telescope. The secondary, also described as green, is 10 arcseconds from the primary. **Struve 2725**, called the "**Ghost Double**", is a pair that appears similar to a dimmer **Gamma Delphini**. Its components of magnitudes 7.6 and 8.4 are separated by 6 arcseconds and are 15 arcminutes from Gamma Delphini itself.
- *Delta Delphini* is a type A7 IIIp star of magnitude 4.43.
- *Epsilon Delphini*, called *Deneb Dulfim*, (tail of the Dolphin) is a 4 magnitude star of spectral class B6 III.
- *R Delphini* is a Mira-type variable star with a period of 285.5 days. Its magnitude ranges between a maximum of 7.6 and a minimum of 13.8.
- *HR Delphini* was a nova that brightened to magnitude 3.5 in December 1967. On 14 August 2013, a possible nova was discovered by amateur astronomer Koichi Itagaki, initially labelled PNV J20233073+2046041, now labelled Nova Delphini 2013.

DEEP-SKY OBJECTS

Because it is in a rich Milky Way star field, Delphinus has several deep-sky objects: NGC 6891 is a planetary nebula of magnitude 10.5. NGC 6934 is a globular cluster mag. 9.75 found by **William Herschel** September 24, 1785. At a distance of about 185,000 light-years, the globular cluster NGC 7006 is extremely remote. It is also fairly dim at magnitude 11.5.



MYTHOLOGY

Delphinus is associated with two stories from Greek mythology:

1) After Zeus, Poseidon, and Hades had overthrown their father Cronus, they divided up the sky, the sea and the underworld between them, with Poseidon inheriting the sea. He built himself a magnificent underwater palace off the island of Euboea. For all its opulence, the palace felt empty without a wife, so Poseidon set out in search of one. He found Amphitrite, a beautiful nereid. She, however, wanting to protect her virginity, fled to the Atlas mountains and took refuge among her sisters. Her suitor then sent out several searchers, among them a certain Delphinus.

Delphinus accidentally stumbled upon her and was able to persuade Amphitrite to accept Poseidon's wooing. Out of gratitude the god placed the image of a dolphin among the stars.

2) The Greek poet Arion of Lesbos (7th century BC), was a court musician at the palace of Periander, ruler of Corinth. Arion was sailing back to Greece after a concert tour of southern Italy when the sailors who were also on the ship started plotting to kill him and take the money he had earned. Surrounded by swords drawn, Arion asked them to let him sing one last song. The sailors allowed this, and Arion's music drew several dolphins to the ship. As he played, the dolphins swam alongside the ship and Arion decided to take a leap of faith and he jumped overboard. One of the dolphins carried him all the way back to Greece. **It was Apollo, the god of poetry and music, who placed the dolphin among the constellations for saving the life of Arion.** He placed the dolphin next to the constellation Lyra in the sky, and Lyra represents Arion's lyre.

Dolphins were a familiar sight to Greek sailors, so it is not surprising to find stories about these playful and friendly creatures in Greek mythology. Delphi was then known as the centre of the world. It happened like this: **To find out exactly where the centre of the world was located, Zeus released two eagles (Aquila is an adjoining constellation) from opposite ends of the earth, one from the east and one from the west, and the precise spot where they met, was in Delphi.** Delphi was also the site of the sanctuary to the god Apollo because Apollo appeared there in the guise of a dolphin. It was the site of the Pythian Games and the legendary Oracle 'Pythia'. This dates back to when Delphi was in the grip of a horrible dragon named Delphyne or Python, who was devastating the countryside. When Apollo was still very young, he slew the dragon, claimed the oracle for himself and established funerary games (the Pythian Games) in order to appease the dead monster's spirit.

FACTS

Delphinus is the 69th constellation in size, occupying an area of 189 square degrees.

It lies in the fourth quadrant of the northern hemisphere (NQ4) and can be seen at latitudes between +90° and -70°.

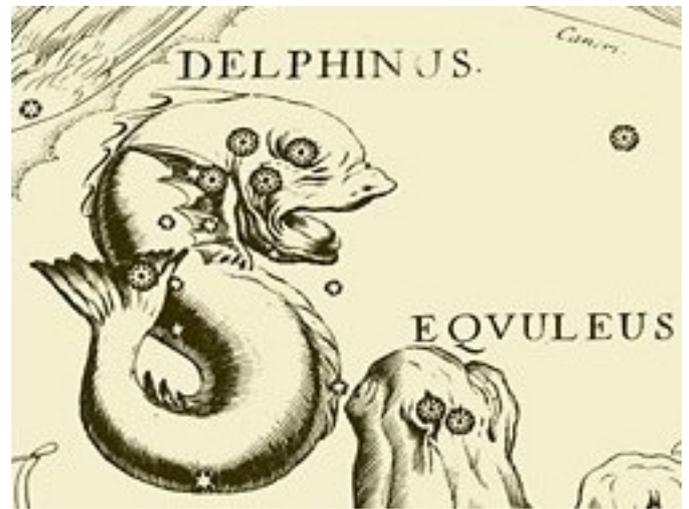
The neighboring constellations are Aquarius, Aquila, Equuleus, Pegasus, Sagitta, and Vulpecula.

Delphinus has five stars with known planets and contains no Messier objects.

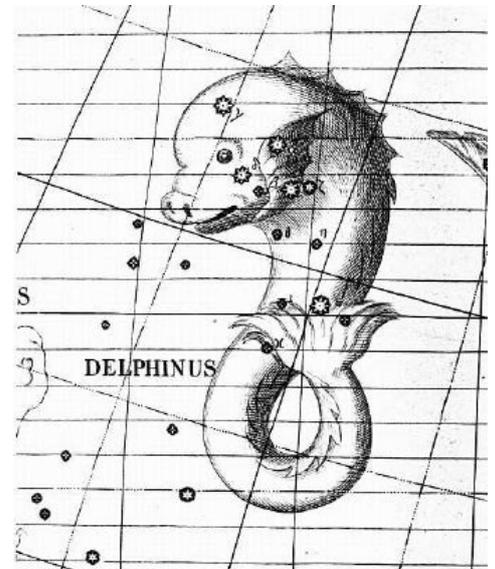
The brightest star in the constellation is Rotanev, Beta Delphini.

There are no meteor showers associated with the constellation.

Delphinus belongs to the Heavenly Waters family of constellations, along with Carina, Columba, Equuleus, Eridanus, Piscis Austrinus, Puppis, Pyxis, and Vela.



Delphinus on the left of this card from Urania's Mirror (1825)



A playful-looking Delphinus depicted in the Atlas Coelestis of John Flamsteed (1729)

