

CONSTELLATION PISCES, THE FISHES

The Pisces constellation lies in the northern sky. Its name means “the fish” (plural) in Latin. It is one of the larger constellations in the sky, 14th. It is also one of the zodiac constellations first catalogued by the Greek astronomer **Ptolemy** in the 2nd century and lies between the Aries and Aquarius constellations. Its symbol is ♓. **In our sky Pisces now rises in the east just above the Great Square of Pegasus.**

The Vernal (March) equinox, the point at which the Sun moves to the northern hemisphere across the equator every year, is currently located in Pisces, the other intersection of the ecliptic and the celestial equator lies within the constellation Virgo.

Pisces constellation also contains a number of interesting deep sky objects, among them the

face-on grand design spiral galaxy Messier 74 (NGC

628), the Pisces Dwarf galaxy, the double radio galaxy 3C 31, and the colliding galaxy pair Arp 284.

The neighbouring constellations are Andromeda, Aquarius, Aries, Cetus, Pegasus and Triangulum. Pisces has ten stars with known planets. There is one meteor

shower associated with the constellation; the Piscids. Pisces belongs to the Zodiac family of constellations, along with Aries, Taurus, Gemini, Cancer, Leo, Virgo, Libra, Scorpius, Sagittarius, Capricornus and Aquarius.

Constellations make a convenient two-dimensional map of the sky used for orientation and to make it easier for astronomers to find objects and explain their location. It must be remembered though, that the universe itself isn't flat and does not revolve around our planet and these groupings of stars are completely arbitrary.

NAMES OF STARS

Eta Piscium, Kullat Nunu ("cord of the fish") is the brightest star in the constellation. It has an apparent magnitude of 3.62 and is 294 light years distant from the solar system.

Gamma Piscium is the second brightest star in Pisces. It is a yellow giant with the stellar classification of G9 III. It has a magnitude of 3.699 and is 138 light years distant. **The star is part of an asterism called the Circlet of Pisces, which represents the head of the western fish in the Pisces constellation.** The others stars are Kappa, Lambda, TX, Iota and Theta Piscium. Gamma Piscium will not be in the vicinity for long. It moves almost an arcsecond across the sky every year.

Alpha Piscium, Al-Rischa ("the cord"), at 139 lightyears, a class A2, apparent magnitude 3.62

Beta Piscium, Fum al Samakah ("mouth of the fish"), at 492 lightyears, class B6Ve, magnitude 4.48

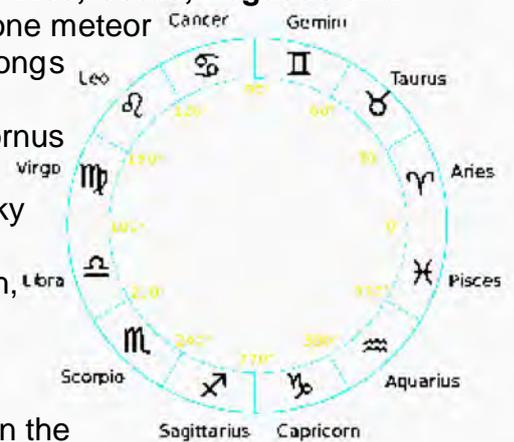
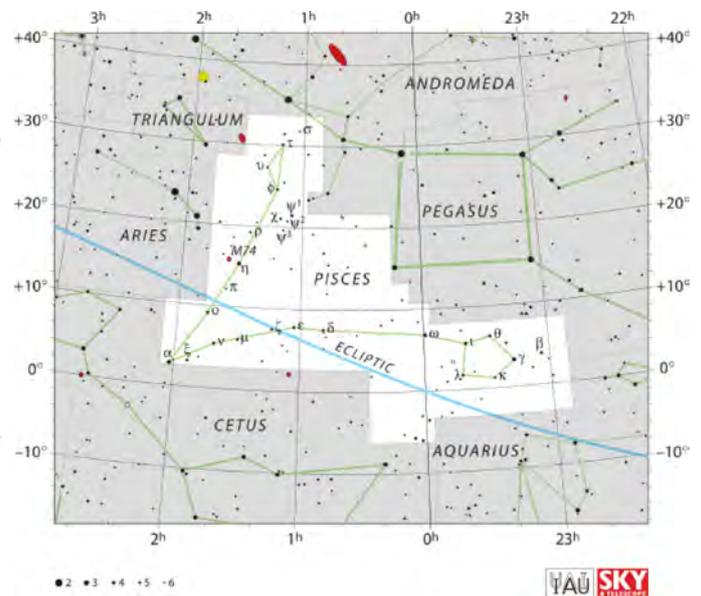
Delta Piscium, Linteum ("cord"), at 305 lightyears, class K5III, magnitude 4.44

Epsilon Piscium, Kaht (also "cord"), at 190 lightyears, class K0III, apparent magnitude 4.27

Zeta Piscium, at 148 lightyears, ia a class A7IV, apparent magnitude 5.21

Omicron Piscium, Torcular ("thread"), at 258 lightyears, is a class K0III, apparent magnitude 4.2

Omega Piscium, Vernalis (referring to the vernal equinox), at 106 lightyears, is a class F4IV star, apparent magnitude 4.03



A cord joins the tails of Pisces. From the Atlas of John Flamsteed (1729).

HISTORY AND MYTHOLOGY

Pisces is a disappointingly faint constellation, its brightest stars being close to fourth magnitude. It probably originated from some composition of the Babylonian constellations Šinunutu4 "the great swallow" and Anunitum the "Lady of the Heaven" listed in the first-millennium BC texts known as the Astronomical Diaries

In Greek mythology, Pisces is associated with the gods Aphrodite and Eros, who escaped from the monster Typhon by leaping into the sea and transforming themselves into fish. In order not to lose each other they tied themselves together with ropes..The star *Alpha Piscium*, or Al-Rischa ("the cord" in Arabic) marks the knot tying the ropes together..

The events are said to have taken place around the Euphrates river, a strong indication that the Greeks inherited this constellation from the Babylonians. The story follows an earlier episode in Greek mythology, in which the gods of Olympus fought and defeated the Titans in a power struggle. But from the lowest region of the Underworld, where Zeus had imprisoned the Titans, arose Typhon, the most awful monster the world had ever seen. According to the Greek poet Hesiod, Typhon had a hundred dragon's heads from which black tongues flicked out. Fire blazed from the eyes in each of these heads, and from them came a cacophony of sound: sometimes ethereal voices which gods could understand, while at other times Typhon bellowed like a bull, roared like a lion, yelped like puppies, or hissed like a nest of snakes. There are many versions of the final struggle of Zeus with Typhon, how he finally defeated him with his thunderbolts and cast him into Tartarus under the volcanic mountain range in Italy

The Romans adopted the Greek legend, with Venus and Cupid acting as the counterparts for Aphrodite and Eros. The mythologists say it is because of this story the Syrians do not eat fish.

DEEP SKY OBJECTS

M74 is a loosely wound (type Sc) spiral galaxy in Pisces, found at a distance of 30 million light years (redshift 0.0022). It has many clusters of young stars and the associated nebulae, showing extensive regions of star formation. It was discovered by **Pierre Méchain**, a French astronomer, in 1780. A type II-P supernova was discovered in the outer regions of M74 by **Robert Evans** in June 2003; the star that underwent the supernova was later identified as a red supergiant with a mass of 8 solar masses.



CL 0024+1654 is a massive galaxy cluster that lenses the galaxy behind it, creating arc-shaped images of the background galaxy. The cluster is primarily made up of yellow elliptical and spiral galaxies, at a distance of 3.6 billion light-years from Earth (redshift 0.4), half as far away as the background galaxy, which is at an estimated distance of 5.7 billion light-years (redshift 1.67). at least 33 images of 11 separate background galaxies are discernible

NGC 520 is the product of a collision between two disk galaxies that started 300 million years ago. It exemplifies the middle stages of the merging process: the disks of the parent galaxies have merged together, but the nuclei have not yet coalesced. It features an odd-looking tail of stars and a prominent dust lane that runs diagonally across the centre of the image and obscures part of the galaxy.



AK with Wikipedia and Ridpath Notes

