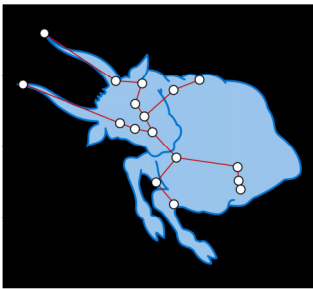


Zodiac constellations 10: Taurus



The Latin 'bull' is a prominent constellation. The 17th largest of the constellations, it is located between Aries and Gemini. One of the oldest known constellations, it contains two of the nearest open clusters to Earth, Hyades and Pleiades. Hyades cluster outlines the bull's face while its brightest star, Aldebaran, marks the glinting red eye.

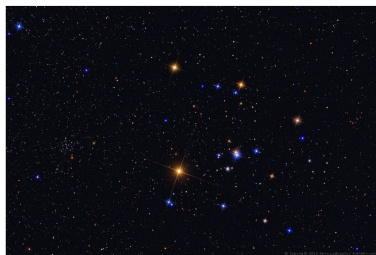
Taurus also contains part of Gould's Belt, a ring-like Milky Way structure of hot, young bright stars which forms a band around the sky. Estimated to be only around 50 my old the ring of young stars and interstellar material is tilted about 18° to the galactic plane. Its existence was established in 1879.



Taurus is the only constellation crossed by the galactic equator, the celestial equator and the ecliptic. It dates to the Early Bronze Age when it, then, marked Sun's location during the spring equinox. Its related Importance to agriculture influenced many bull mythologies, including in Babylon. In Greek mythology, the bull was the disguise adopted by Zeus to carry off princess Europa of Phoenicia to Crete, swimming across the Mediterranean with her on its back.

The Sun passes through Taurus from mid-May to late-June.

Notable features include:



- Alpha Tauri: Aldebaran (Arabic for 'the follower' (of Pleiades)). The red giant is 65 ly away, half the distance of rest of cluster's stars.
- Hyades open cluster: the nearest major star cluster to Earth, at 150 ly. It contains about 200 stars and is estimated to be around 660 million years old. Like Pleiades, binoculars identify more stars than only naked eye observation.
- Pleiades open cluster (M45): also known as the Seven Sisters, six of which are visible with the naked eye. 400 ly away, it is around 100 million years old and contains over 500 stars. It includes many types of stars of varying colours and magnitudes. Binoculars show many more stars than are visible with the naked eye.



- Crab nebula (M1): a supernova remnant of the 1054 supernova. It was named in 1844 by Lord Rosse for its crab-like filaments. A large telescope is needed in order to observe any detail.
- Crystal Ball Nebula (NGC 1514): south-east of Pleiades in the southern hemisphere. It was discovered in 1790 by William Herschel who showed that planetary nebulae are not collections of stars, but a central star surrounded by nebulous cloud. In 1864, William Huggins's spectral analysis showed the nebula to be luminous gas, not stars.

- Hind's Variable Nebula (NGC 1555): a reflection nebula discovered in 1852 by English astronomer John Russell Hind. It includes T Tauri, a young, irregular variable star, also discovered by Hind.
- Taurid meteors: radiate from a point north (from the southern hemisphere) of Pleiades from early-October to end-November. It includes both the Northern and Southern Taurids. Its parent body is comet Encke, the comet of the shortest known period (3.3 yrs). The shower's long duration and relatively low activity indicate that the stream is ancient and well dispersed.

Taurus can be observed from the southern hemisphere during the summer months.

Sources: Ridpath, I (Ed) 2012 Oxford dictionary of astronomy Oxford, OUP, Ridpath, I (Ed) 2006 Astronomy London, Dorling Kindersley, en.wikipedia.org