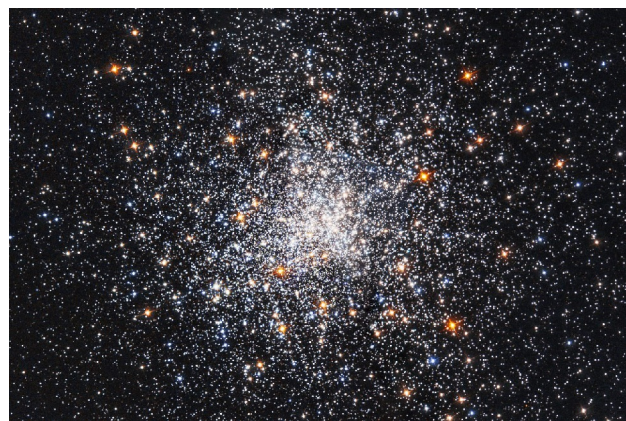


Messier 79 Globular Cluster in Constellation Lepus

Messier 79 (also known as M79 or NGC 1904) is an extragalactic globular cluster in the constellation Lepus. It was discovered by **Pierre Méchain** in 1780 and is at a distance of about 42,000 light years away from Earth and 60,000 light years away from the Galactic Centre. Like Messier 54 (the other extragalactic globular on Messier's list), it is thought that M79 is not native to the Milky Way galaxy at all, but instead to the putative Canis Major Dwarf Galaxy, which is currently experiencing a very close encounter with the Milky Way. This is, however, a contentious subject as astronomers are still debating the nature of the Canis Major dwarf galaxy itself. Based on the diagram, it is evident that most of the bright stars in this cluster are red giants. The elongated branch is the red giant branch. Some of the stars in the diagram, including those extending outward from the red giant branch toward the upper left, are actually foreground stars that are not members of the cluster.



Messier 79, a Snowstorm of Stars

OBSERVATION DATA (J2000 EPOCH)

Class V[1]

Constellation Lepus

Right ascension 05h 24m 10.59s[2]

Declination $-24^{\circ} 31' 27.3''$ [2]

Distance 12.9 kpc (42 kly)[3]

Apparent magnitude (V) +8.56[2]

Apparent dimensions (V) 8.7'

Physical characteristics Metallicity [Fe / H]

$\left\{ \frac{\text{Fe}}{\text{H}} \right\}$

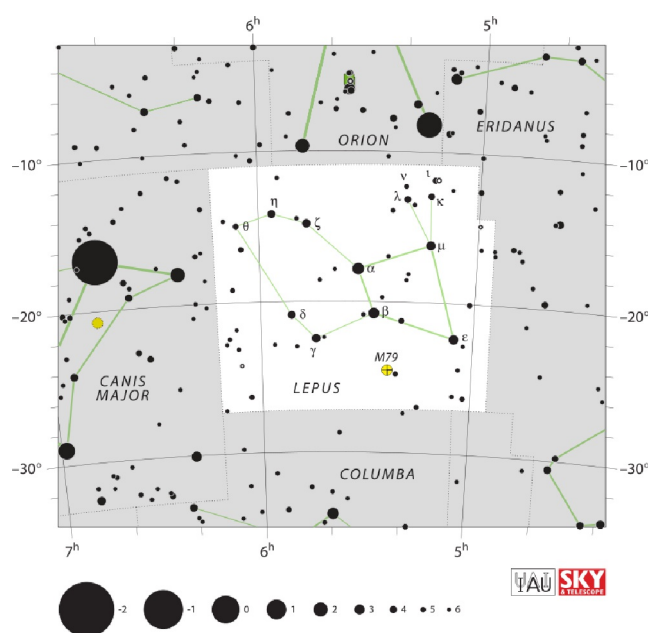
Estimated age 11.7 Gyr[4]

HISTORY AND MYTHOLOGY

Lepus is most often represented as a hare being hunted by Orion, whose hunting dogs (Canis Major and Canis Minor) pursue it. The constellation is also associated with some lunar mythology, including the Moon rabbit.

Four stars of this constellation (α , β , μ , δ Lep) form a quadrilateral and are known as 'Arsh al-Jawza', "the Throne of Jawza" or Kursiyy al-Jawza' al-Mu'akhkhar, "the Hindmost Chair of Jawza" and al-Nihal, "the Camels Quenching Their Thirst" in Arabic.

There are a fair number of bright stars, both single and double, in Lepus. **Alpha Leporis**, the brightest star of Lepus, is a white supergiant of magnitude 2.6, 1300 light-years from Earth. Its traditional name, Arneb, means "hare". **Beta Leporis**, called Nihal, is a yellow giant of magnitude 2.8, 159 light-years from Earth. **Gamma Leporis** is a double star divisible in binoculars. The primary is a yellow star of magnitude 3.6, 29 light-years from Earth. The secondary is an orange star of magnitude 6.2. **Delta Leporis** is a yellow giant of magnitude 3.8, 112 light-years from Earth. **Epsilon Leporis** is an orange giant of magnitude 3.2, 227 light-years from Earth. **Kappa Leporis** is a double star divisible in medium aperture amateur telescopes, 560 light-years from Earth. The primary is a blue-white star of magnitude 4.4 and the secondary is a star of magnitude 7.4.



Lepus as seen in Urania's Mirror (1825)