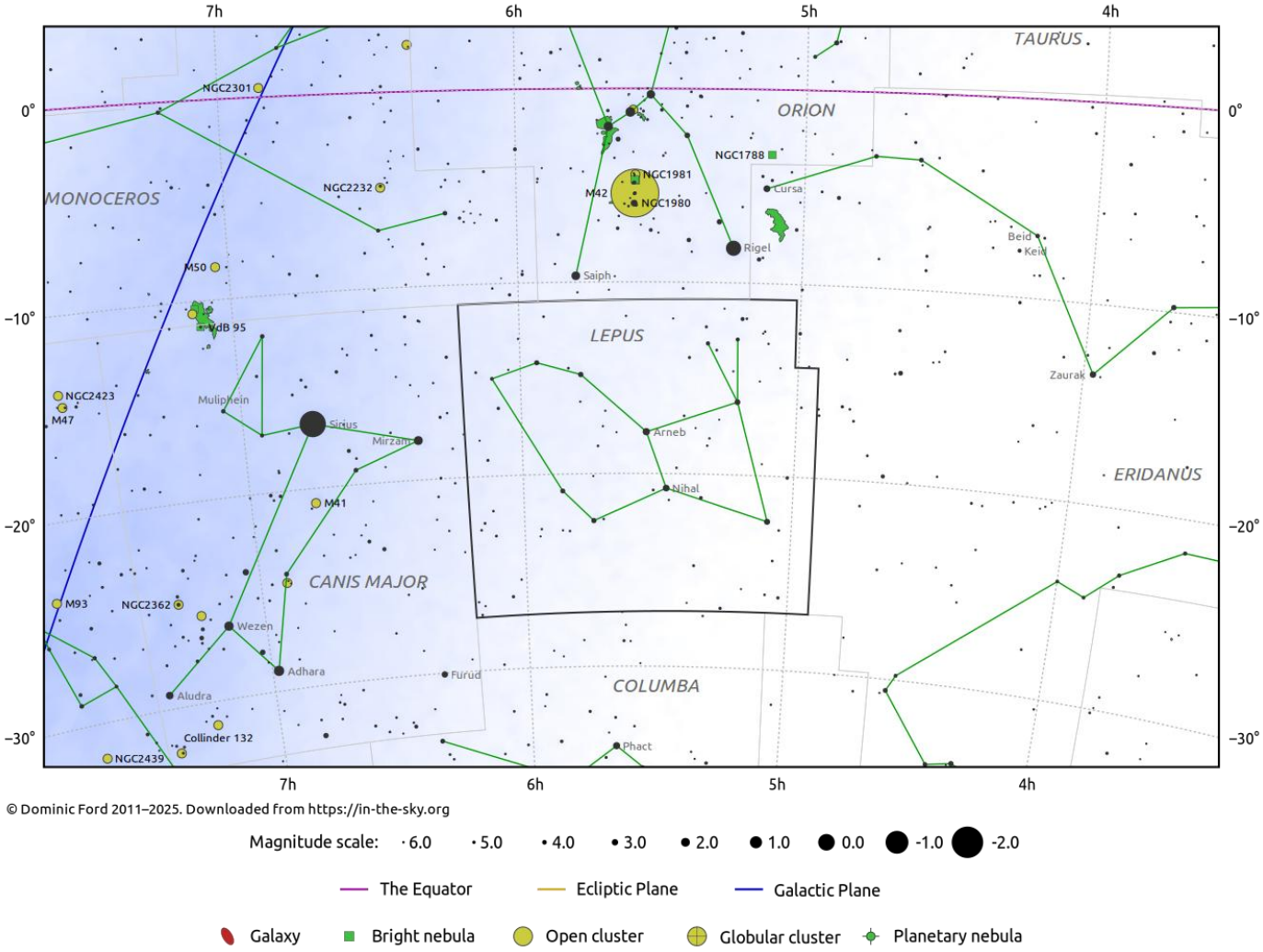
Constellation Guide

Lepus (Lep)

Evening Visibility: **November - January**
Online Information: **Lepus**
More Online Information: Gamma Leporis, NGC 2017, Messier 79, HD 35162, R Leporis

In-The-Sky.org Constellation Map



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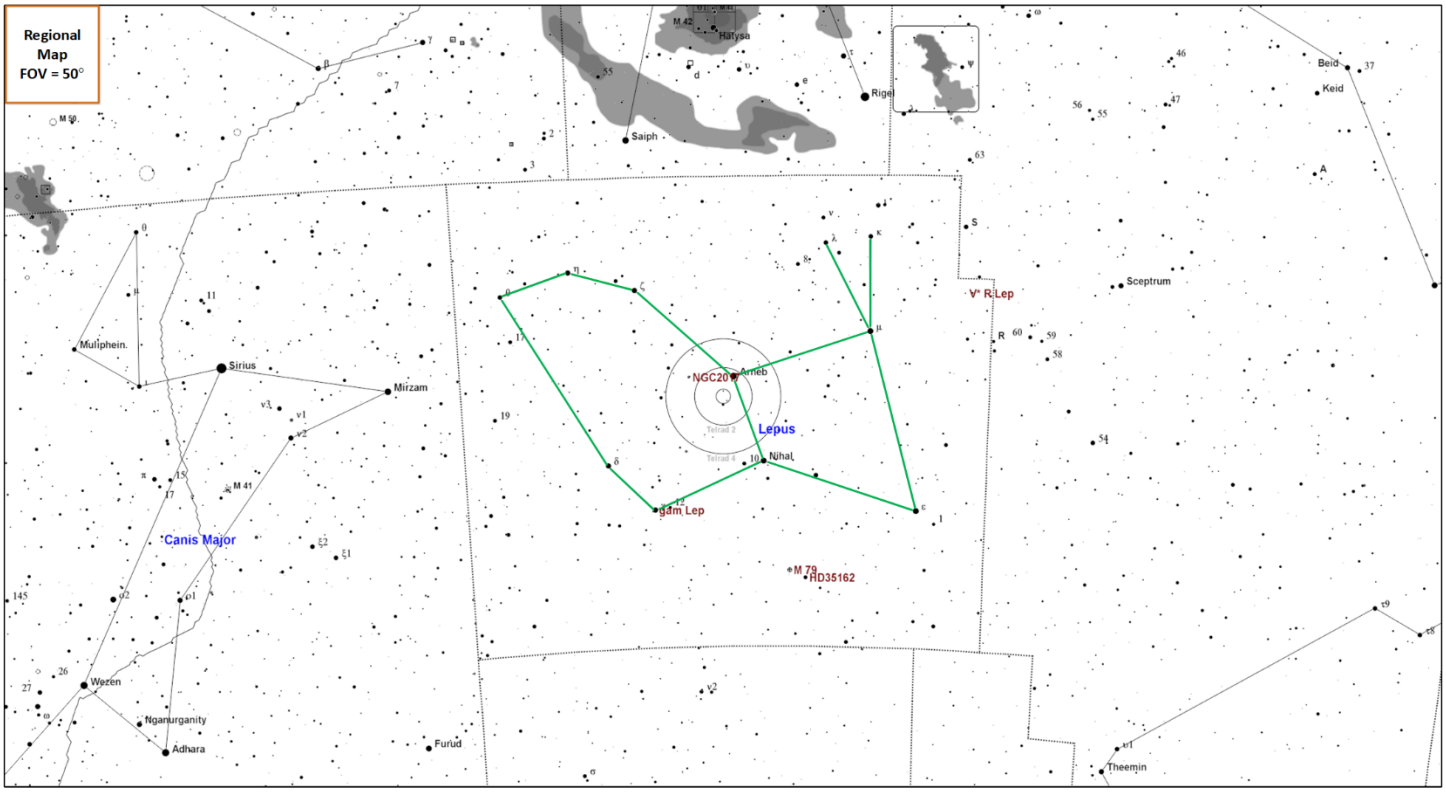
Lepus is a constellation directly under Orion and known as the hare that is being chased by Orions two dogs Canis Major and Canis Minor. This faint constellation that only contains one Messsier object and a few other deep sky targets including Hind's Crimson Star (R Leporis).

Constellation Highlights

- **Gamma Leporis** (DS): Appears on the 22 most colorful multiple star systems list.
- **Messier 79** (GC): A fairly bright Globular Cluster.
- **R Leporis** (CS): Hind's Crimson Star, one of the more red stars in the sky during its period of low magnitude.

Constellation Targets Map



Objects Summary

Object (Type)	Ref	Aliases	Stats
Gamma Leporis (DS)	1, 2	SAO-170759, HIP 27072, 13 Lep, HR 1983, HD 38393, ADS 4334	| M=3.6, 6.3 | Sep=95" | PA=349º | 22 color stars
NGC 2017 (OC)	1	H 3780	| Stars = 9 |
Messier 79 (GC)	1	NGC-1904, ESO 487-SC7, GCI 10, Melotte 34	| M=7.7 | Size=8.7' | SB= 21.0|
HD 35162 (MS-3)	1	SAO-170351, HIP 25045, HR 1771, HR 1771, ADS 3954	| M=5.4, 6.6, 9.3 | Sep AB=3.5", AC=60" | PA AB=91º AC=104º |
R Leporis (CS)	1	SAO-150058, HIP 23203, HR 1607, HD 31996, Hind's Crimson Star	| Mag Range= 5.5 to 11.7 | Period=427 days |

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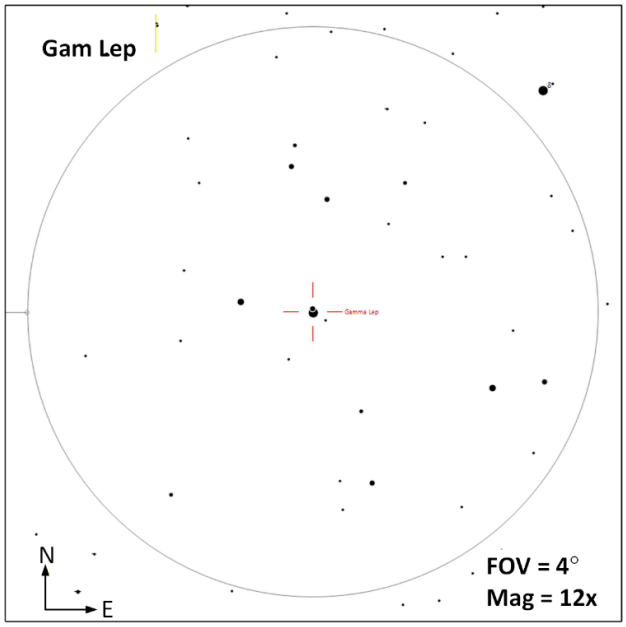
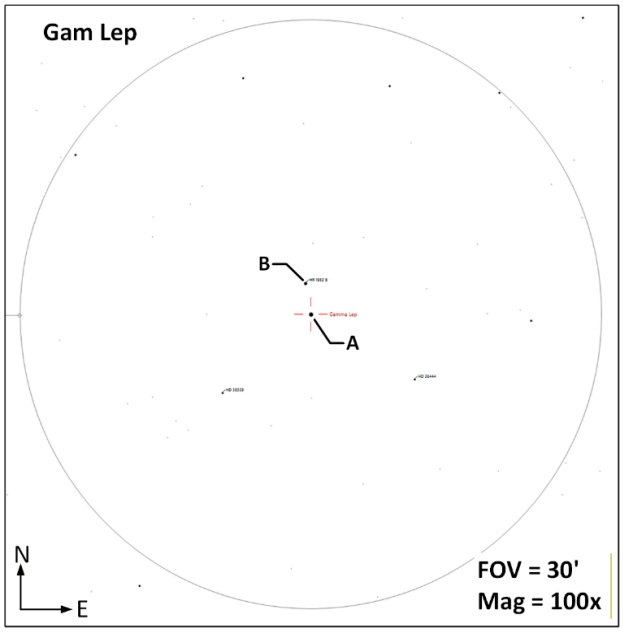
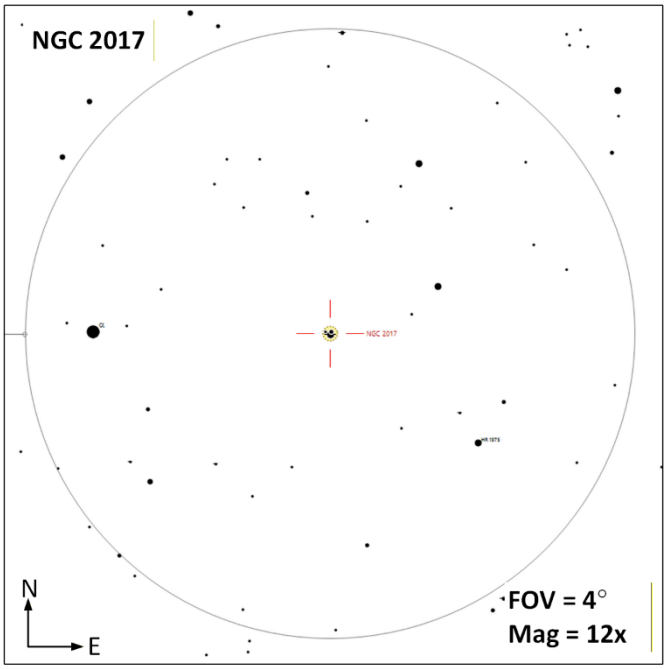
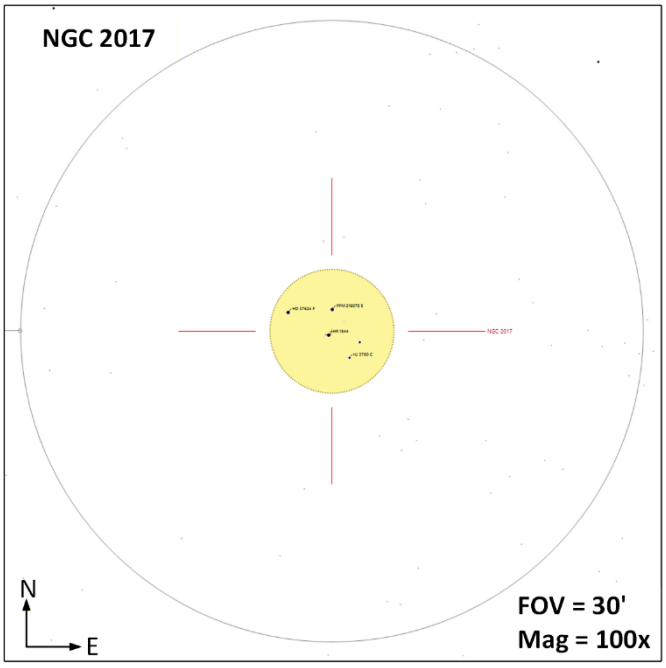
Gamma Leporis (DS | M=3.6, 6.3 | Sep=95" | PA=349º |) – At 29 ly from earth this star system is quite close to us and should be easily separated even in small telescopes. The primary component is estimated to be 1.3 billion years old and has a mass of about 1.2 times that of our sun. The B component is a orange dwarf with about 63% of the suns mass. The orbital period of this system is at about 18,000 years. The pair appear yellow and orange and is listed as one of the top 22 most colorful multiple star systems.





NGC 2017 (OC | Stars = 6 to 9 |) – This is an interesting object in that it is still not known if this is a very sparse open cluster with 9 members or a populous multiple star system (seems like it is more an open cluster). This object lies 3,700 ly from earth. Four of the brighter stars are close doubles.





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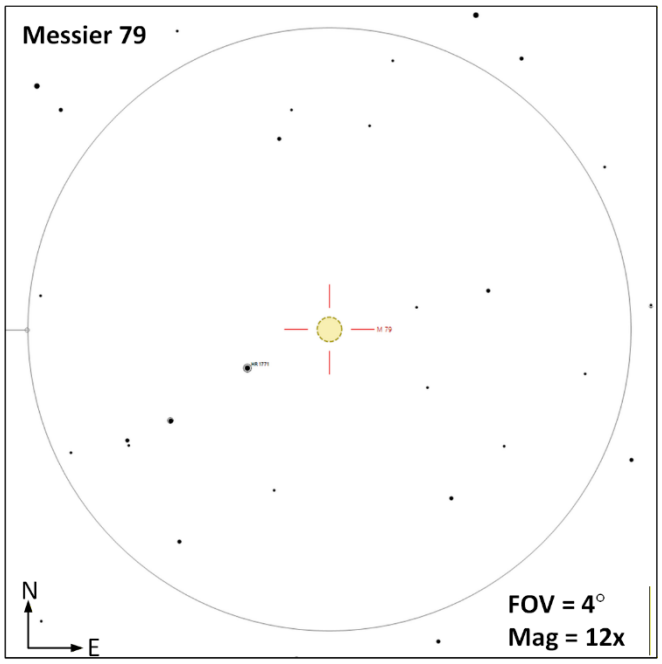
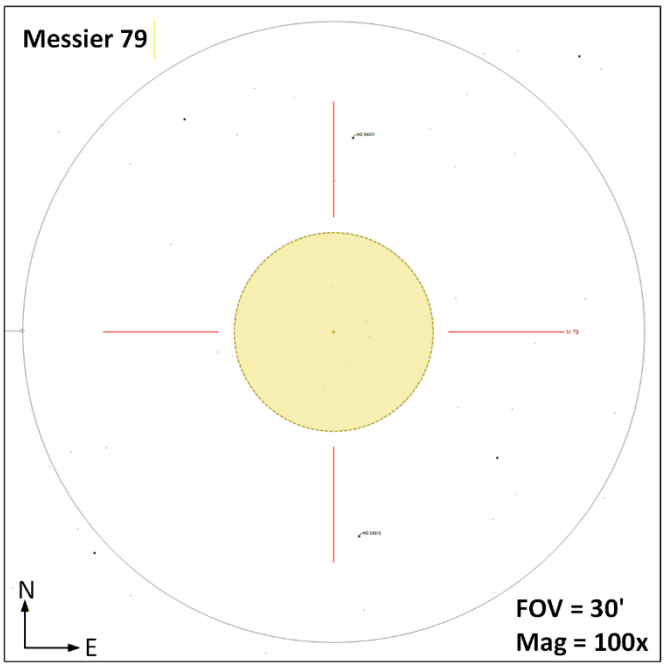
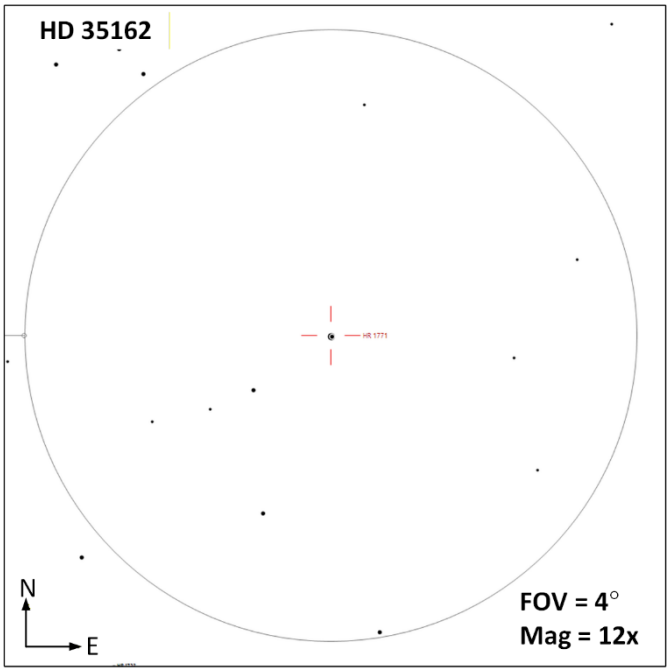
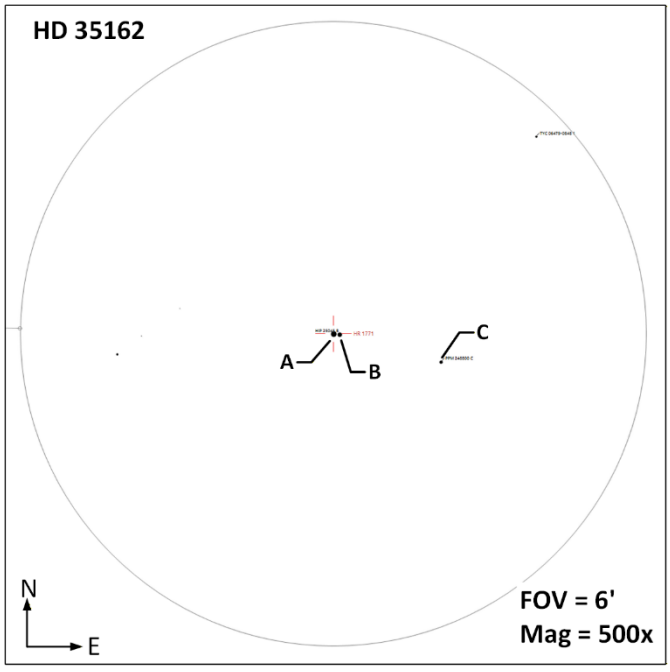
Messier 79 (GC | M=7.7 | Size=8.7’ | SB=21.0|) – Estimated to be 43,000 ly from earth this globular cluster is suspected of originating from the Canis Major Dwarf Galaxy and is being disrupted by the galactic tide giving it a trailing tidal tail. This is a class V globular cluster indicating it has an intermediate concentration.





HD 35152 (MS-3 | M=5.4, 6.6, 9.3 | Sep AB=3.5”, AC=60” | PA AB=91º, AC=104º |) – This system is 350 ly from earth and is composed of three stars, however the C component is not physically associated with this system. The A component of this system has a mass of 1.1 time that of our sun, but it’s radius is 14.3 times that of our sun.





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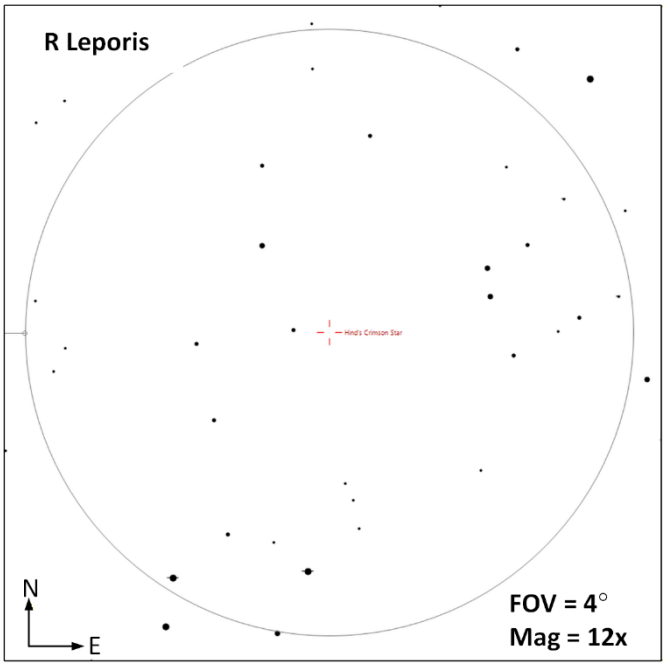
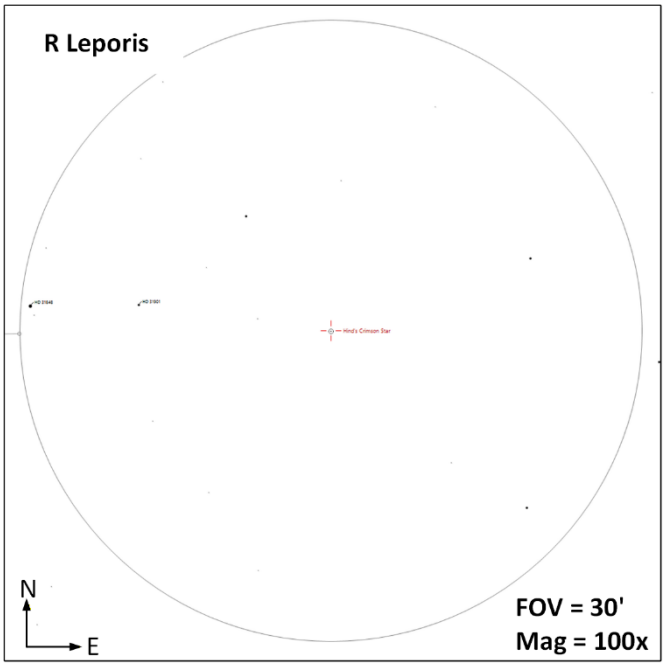
R Leporis (DS | Mag Range = 5.5 to 11.7 | Period=427 days |) – Hind's Crimson Star is a variable star that has a distinctly red color that varies in magnitude from 5.5 to 11.7 over a period of about 427 days. Descibed by many as having an intense smokey red color. The star appears reddest when it is at its dimmest which occurs every 14.5 months, during this period it rivals the most red stars in the sky.





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References, Resources and Tools used to create this document

The resources listed below were utilize to generate this document.

References

- Books
  - Objects in the Heavens: Peter Birren
  - Touring the Universe through Binoculars: Philip Harrington
  - The Deep Sky: Philip Harrington
  - Double and Multiple Stars and How to Observe Them: James Mullaney
  - Sky Spot Books
    - Bright Telescopic Objects: Brent Watson
    - Select Double Stars: Brent Watson
    - Overlooked Objects: Bret Watson
- Asterisms
  - Astronomical League: Asterisms observing program List
  - Asterisms: Demeiza Ramakers
  - Pattern Asterisms: John Chiravalle
  - Milwaukee Astronomical Society: Binocular Asterisms
  - Deep-Sky.co.uk: Observing Asterisms (David Ratlege)
  -
- Saguaro Astronomy Club
  - Asterisms List
  - 110 Best of the NGC
  - Red Stars List
- Online
  - Wikipedia
  - The Garden Astronomer: Double, Multiple, and Special Star Observations List
  - Sky & Telescope: Colored Double Stars, Real and Imagined
  - In-The-Sky.org
  - Constellation-guide.com

Applications

- SkyTools 4.1 Visual Professional
- AstroPlanner Version 2.4
- Cartes du Ciel Version 4.3
- Sky Safari Pro 7
- Microsoft Office Home and business 2021 - Word
- Microsoft Visio Professional 2021
- IrfanView Version 4.72