

The Observer's Challenge Objects

Submitted by Larry McHenry, Pittsburgh, PA, USA. <http://stellar-journeys.org>

October: M39 – Open Cluster – Cygnus; $\text{mag}_v=4.6$; Size = 31'

RA: 21h 32m; Dec: +48° 26'

M39 is located in the Summer constellation of Cygnus - 'The Swan'.

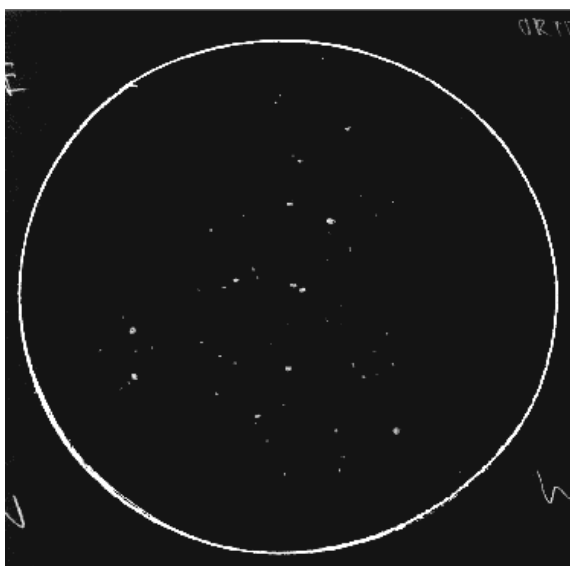
The star cluster is about 800 light years distant, (one of the closer star clusters to us and moving in our direction), and about 250 million years old, about 7 light-years in size, and contains around 30 stars.

Initially discovered by French astronomer Guillaume Le Gentil in 1750, (and possibly first noted by Aristotle in 325 BC), M39 was "re-discovered" by Charles Messier from his observatory in Paris on October 24th, 1764 using his 3.5 foot focal-length Dollond refractor with a fixed magnification of 120x. Messier describes it as "a cluster of stars near the tail of the Swan".

Visually, M39 is a large, bright 5th mag open cluster that can be seen by the naked-eye in a dark country sky near the bright star Deneb in the direction towards the constellation of Lacerta. It has an apparent size larger than the full moon.

Visual Sketch:

08/18/1987 from backyard in Louisville, KY, using a 13.1" f4.5 Dob Reflector and 40mm eyepiece at 28x. "Loose bright cluster, easy to find. Requires low power". West is to the lower-right.



Video-Capture/EAA:

On 08/23/2022, from the ORAS Observatory, PA, using an 8" SCT optical tube @ f6.3 on a GEM mount, with a CMOS color camera and broadband filter, 15-second guided exposure, live-stacked for 15 minutes, image cropped.

Using EAA techniques, M39 displays embedded in a rich Milky-Way star-field as a large inverted "V" shaped open cluster of colorful blue-white stars.