

---

# Skyguide

2016 - IV

---

**created by:**

Robert Zebahl

[www.faint-fuzzies.de](http://www.faint-fuzzies.de)

**in cooperation with:**

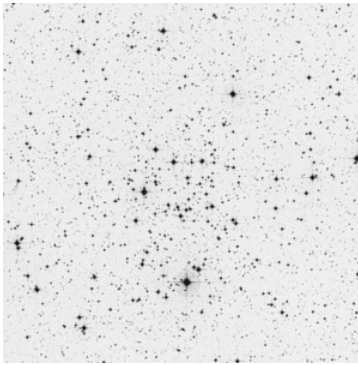
René Merting

[www.freunde-der-nacht.net](http://www.freunde-der-nacht.net)

# Skyguide - A Short Introduction

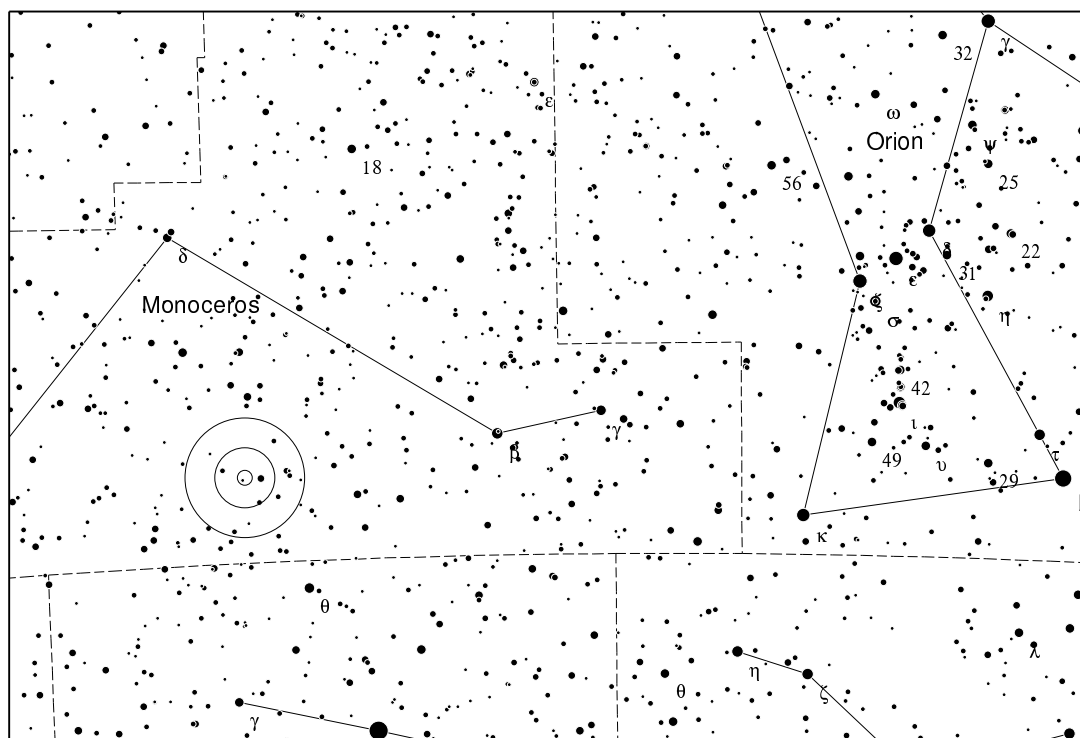
The Skyguide should mainly give you some suggestions for own observations and will briefly describe 5 objects annually for every season. It contains easy as well as difficult objects, which are sorted by ascending difficulty. How difficult an object is, depends on several factors, especially quality of sky, aperture of the used telescope and the experience of the observer.

For each object the most important information are given and if applicable a [DSS](#) image (Digitized Sky Survey). In addition you will find a chart, created by the free software [Cartes du Ciel](#) (Skychart), to get an overview of where the object is located. This chart shows stars down to a magnitude of about 8.0 mag. Telrad rings (0.5°, 2°, 4°) on the chart mark the position of the object. But basically I recommend creating your own finder charts. The visual descriptions are mainly based on own observations and only serve as a reference point.

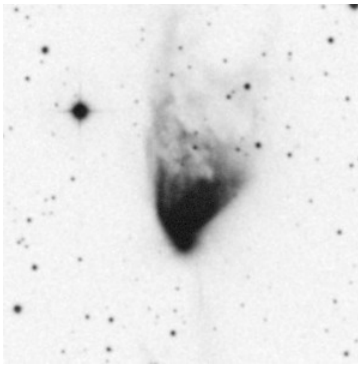


DSS II (red) - 25.0×25.0'

<b>Constellation</b>	Mon
<b>Coordinates</b>	07h02m47.50s / -08°20'16.00''
<b>Brightness</b>	5.9 mag
<b>Size</b>	16.0×16.0'

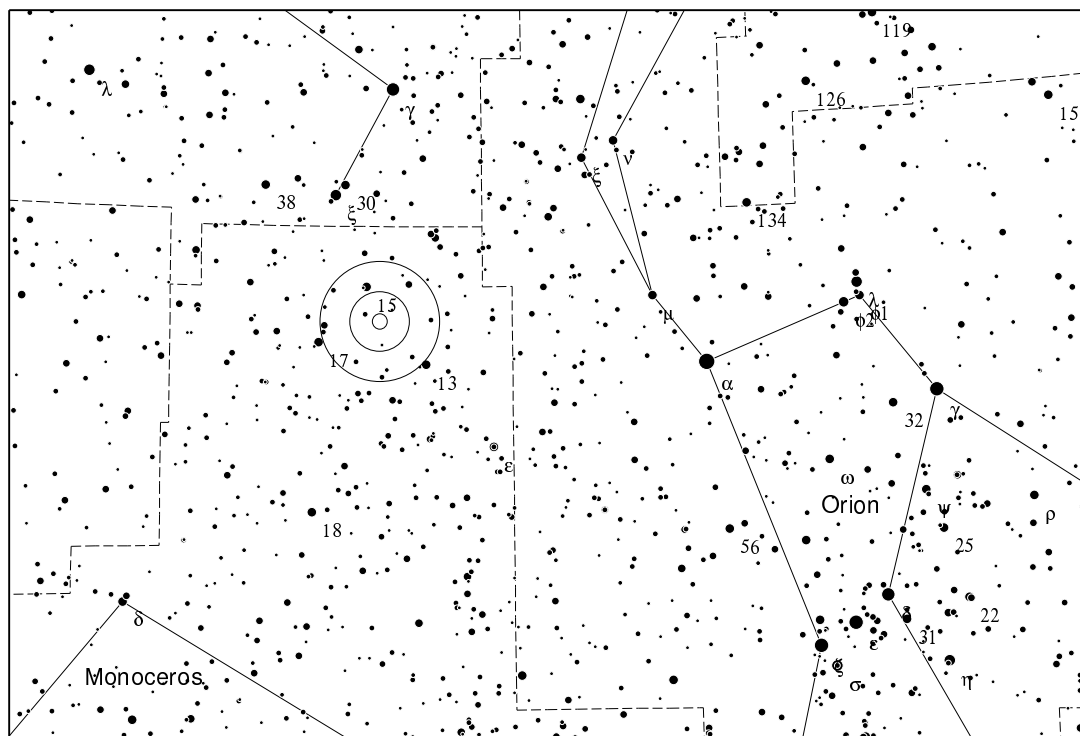


Messier 50 is on the one hand pretty old with an age of about 100 million years, but still comparatively compact. With increasing age open clusters expand more and more. Often there is not enough mass to gravitationally bound the stars. The cluster was incidentally discovered two times: In 1711 by the French astronomer Giovanni Domenico Cassini and independently in 1772 by Charles Messier, who is also a French astronomer and well known due to his Messier catalogue containing today 110 objects. For visual observing of Messier 50 binoculars should be sufficient. With larger aperture the cluster is pretty well resolvable. Overall this cluster is bright and evident.

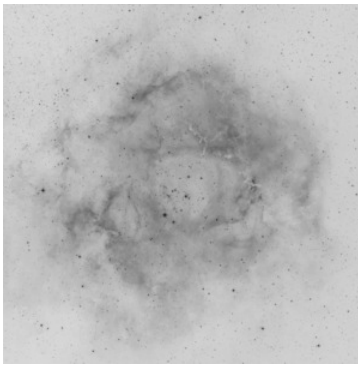


<b>Constellation</b>	Mon
<b>Coordinates</b>	06h39m10.00s / +08°45'00.00"
<b>Brightness</b>	9.0 mag
<b>Size</b>	2.0×1.0'

DSS II (blue) - 5.0×5.0'

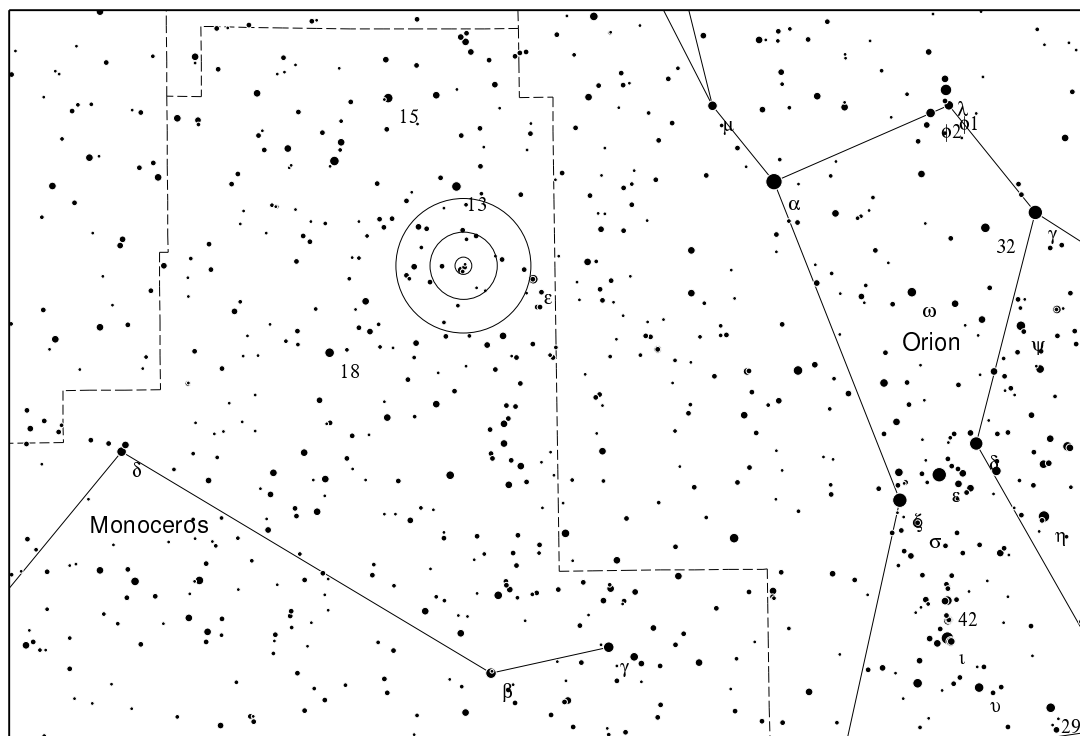


A pretty well known reflection nebula is NGC 2261, which is illuminated by R Monocerotis. The name comes from its variability of brightness and structure, whereby mainly details within the nebula varied over the last years. Based on the last years NGC 2261 is a fairly bright but small nebula. A telescope with an aperture of 4 inch will easily show it under rural skies. With 8 inch aperture first details become visible. The nebula appears comet-like with a stellar brightening at the southern end. It is not clear, if this is the star R Monocerotis or just a high condensation of dust.



<b>Constellation</b>	Mon
<b>Coordinates</b>	06h32m00.00s / +05°00'00.00"
<b>Brightness</b>	6.0 mag
<b>Size</b>	80.0×60.0'

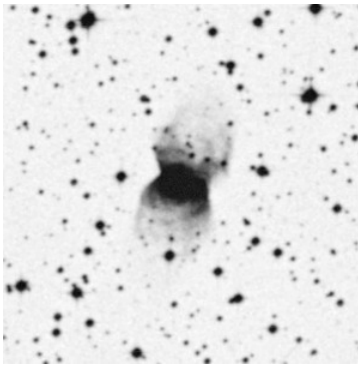
DSS II (red) - 100.0×100.0'



The Rosette nebula is an active star forming region, whereby the embedded open cluster NGC 2244 induces the gas to illuminate. NGC 2244 with a visual magnitude of 4.8 mag is already visible with the naked eye under rural skies. The center directly around the cluster is almost free from gas. Historically the Rosette nebula is divided into several regions with different entries in the New General Catalogue. To successfully see the nebula aperture is not so important due to its pretty large size. Even with binoculars it will appear as a roundish brightening. A dark observing place is helpful. Filters like UHC or [OIII] filter are also recommendable, especially under less good conditions. With 8 inch aperture the irregular shape and many details become visible.

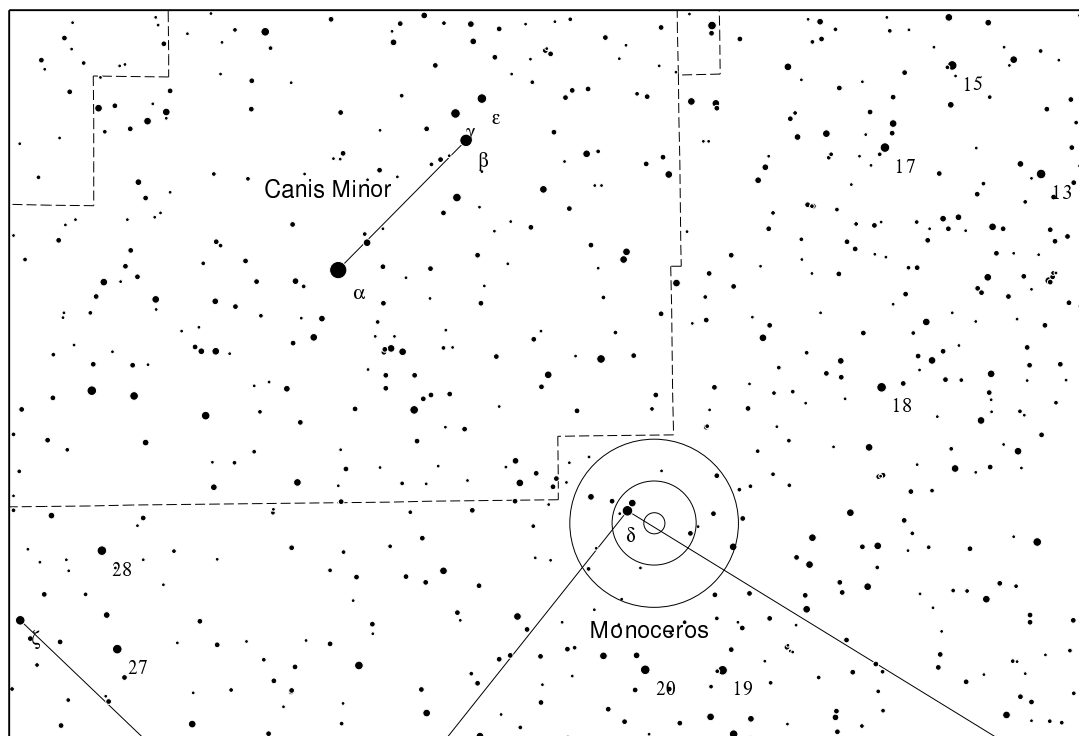
# NGC 2346 (PK 215+3.1, H 4.65, Butterfly Nebula)

PN

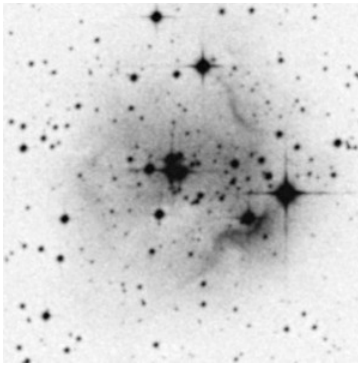


DSS II (red) - 5.0×5.0'

<b>Constellation</b>	Mon
<b>Coordinates</b>	07h09m22.52s / -00°48'23.60''
<b>Brightness</b>	11.6 mag
<b>Size</b>	1.0×0.9'

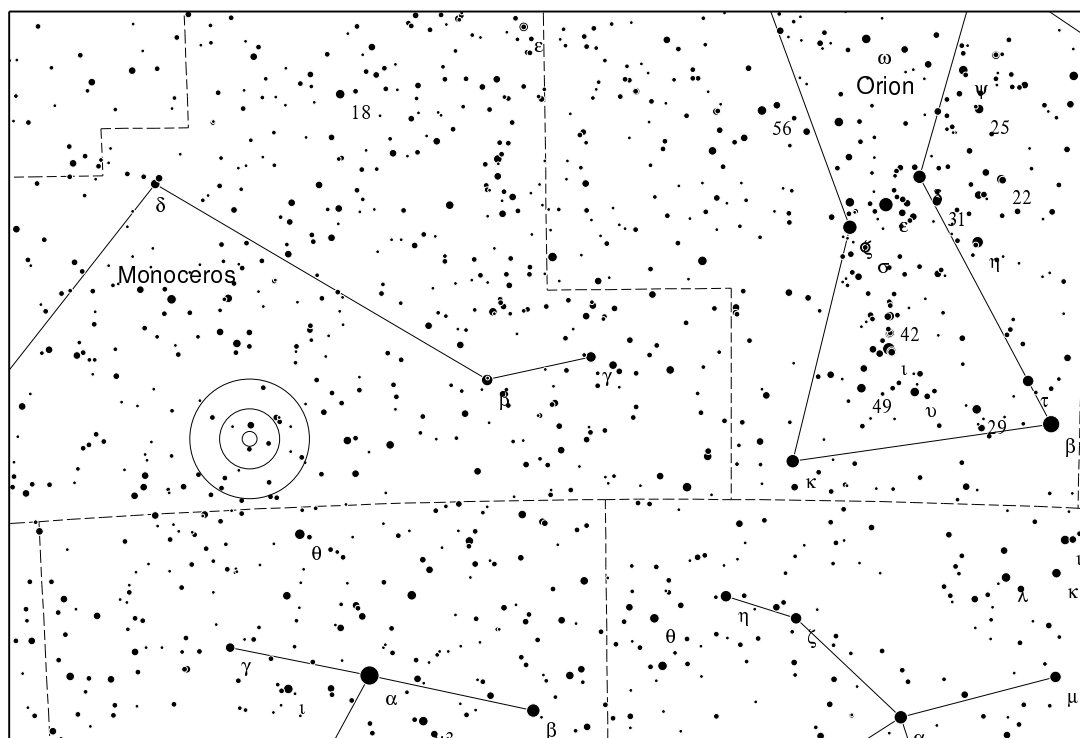


NGC 2346 is a bipolar nebula with the central star V651 Monocerotis, which is a spectral binary star with a period of nearly 16 days. Besides the peculiar shape especially the central star is of great scientific interest. It showed in 1981 particular fluctuations in brightness, that was caused by passing interstellar clouds of dust. Due to its shape the nebula is also named 'Butterfly Nebula' or 'The Hourglass'. Visually the nebula can be successfully observed under a rural sky already with 4 inch aperture, where it appears as a small, non-stellar brightening. Nebula filters are helpful. At low magnification the nebula could be easily mistaken for a star. With 8 inch aperture the 11 mag central star is pretty evident. The nebula itself appears round to slightly oval with fading edges.



DSS II (red) - 5.0×5.0'

<b>Constellation</b>	Mon
<b>Coordinates</b>	07h00m34.50s / -08°51'50.00''
<b>Brightness</b>	8.8 mag
<b>Size</b>	3.0×3.0'



Only 40' southwest of Messier 50 there is the not so well known but in our view interesting reflection nebula vdB 87, which is dominated by two medium bright stars. The nebula probably also contains share of emissions. Our own observations are limited to 4 inch aperture, where just a fuzzy star was seen. Higher magnification showed another stellar brightening. Further observations will show whether and how well this nebula is observable. Based on 'Interstellarum Deep Sky Atlas' (by Ronald Stoyan and Stephan Schurig) it should be visible with 8 inch aperture under rural skies. You are invited to send us short reports, even if there was nothing visible.