
Skyguide

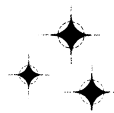
2014 - III

created by:

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www.faint-fuzzies.de

FACHGRUPPE



DEEP-SKY

Vereinigung der Sternfreunde e.V.

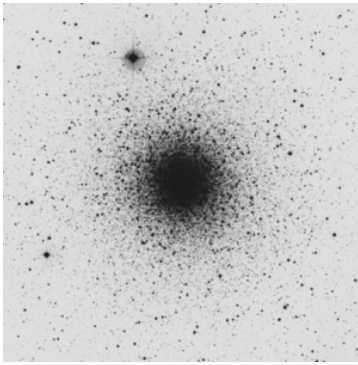
www.deepsky.vdsastro.de

www.vds-astro.de

Skyguide - A Short Introduction

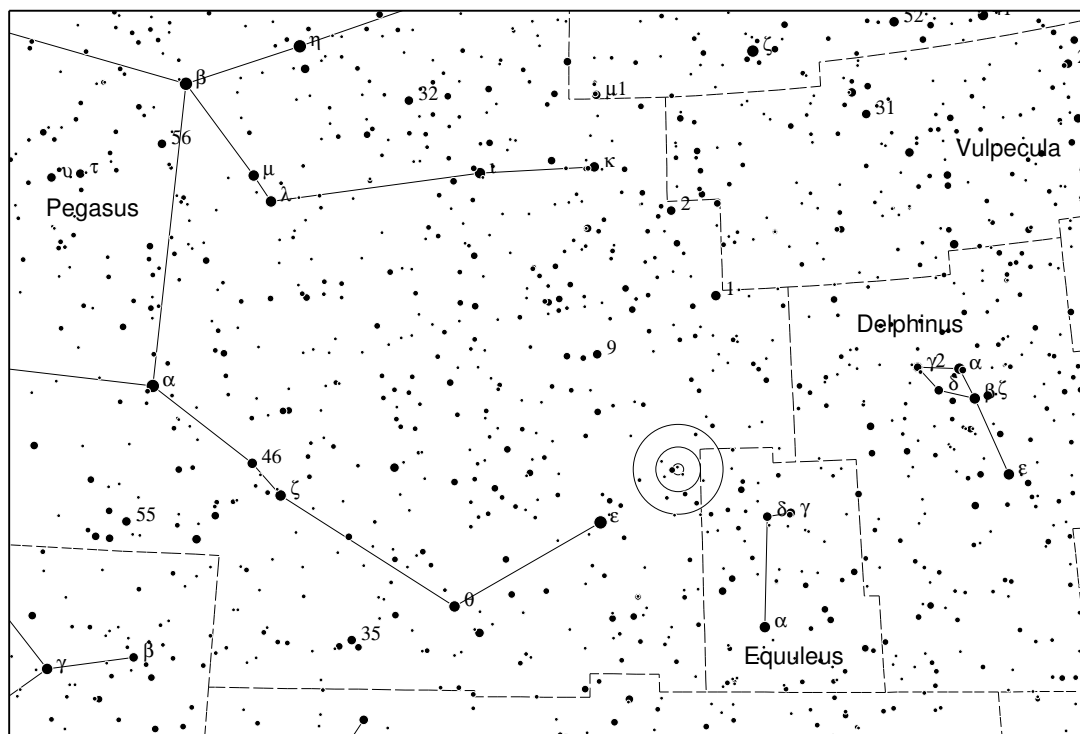
The Skyguide should mainly give you some suggestions for own observations and will briefly describe 5 objects annually for every season. It contains easy as well as difficult objects, which are sorted by ascending difficulty. How difficult an object is, depends on several factors, especially quality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

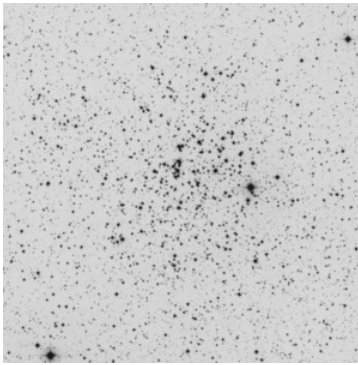


DSS II (blue) - 18.0×18.0'

Constellation	Peg
Coordinates	21h29m58.33s / +12°10'01.20''
Brightness	6.2 mag
Size	18.0×18.0'

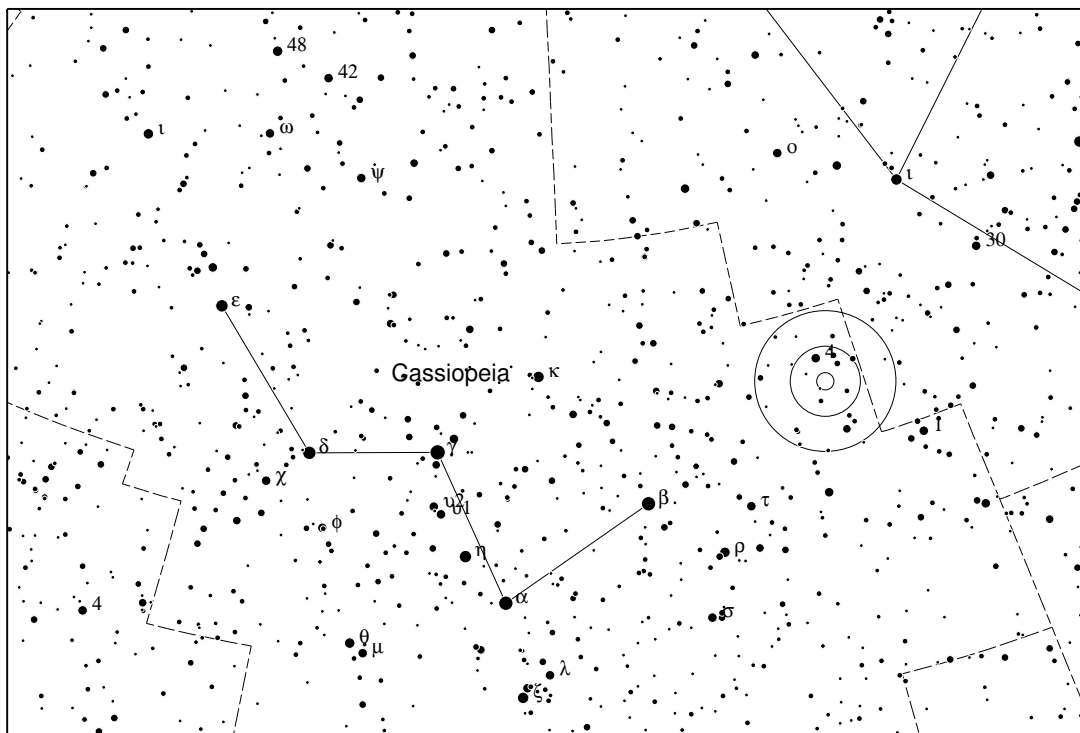


Messier 15 is one of the brightest globular clusters in the northern hemisphere and counts over 500.000 members. The distance is about 30.000 light years. Under dark skies the cluster is already visible with the naked eye, but I didn't tried this yet. With a visual magnitude of 6.2 mag it's easily visible even from the city. The cluster shows a very compact, bright center and much more fainter outer regions. That's why it can be confused with a star when using small binoculars (e.g. 8x40), because only the bright center is apparent. With an aperture of 8 inch the cluster is quite well resolvable at higher magnification, except the compact center. Very interesting is the embedded planetary nebula Pease 1 with a magnitude of about 15.5 mag, which is tried by owners of larger telescopes. It was discovered in 1928 by Francis G. Pease.



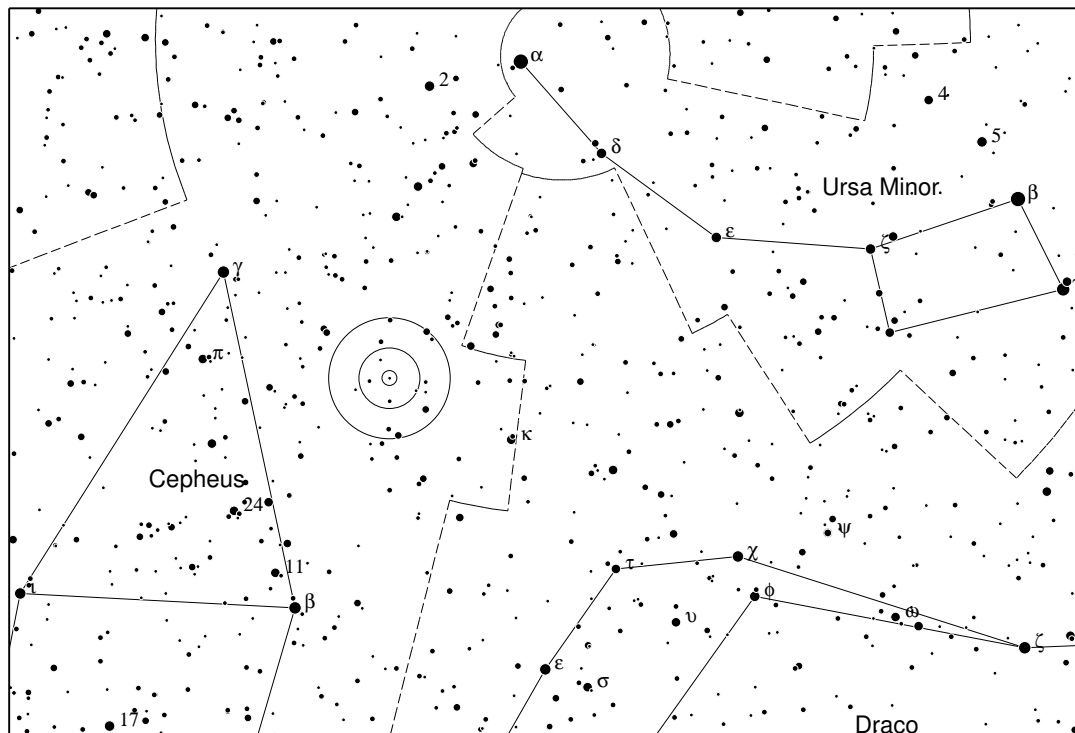
DSS II (red) - 20.0×20.0'

Constellation	Cas
Coordinates	23h24m48.00s / +61°35'36.00"
Brightness	6.9 mag
Size	13.0×13.0'

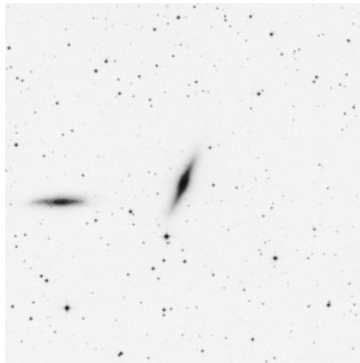


A very nice, obvious and rich cluster is Messier 52, which is easy to find. The cluster is relatively compact and consists of rather faint members. In 8x40 binoculars the cluster appears nebulous and roundish. An evident 8.26 mag star is located at the western edge, which shows an orange coloring with larger aperture. Otherwise this cluster is well resolvable when using a telescope, whereby the members are quite evenly distributed. Nearby you will also find the prominent Bubble Nebula (NGC 7635), the quite evident emission nebula NGC 7538 and the also interesting open cluster NGC 7510, which appears more elongated.

Constellation	Cep
Coordinates	21h35m12.83s / +78°37'28.20"
Brightness	7.4-12.9 mag
Period	486.84d

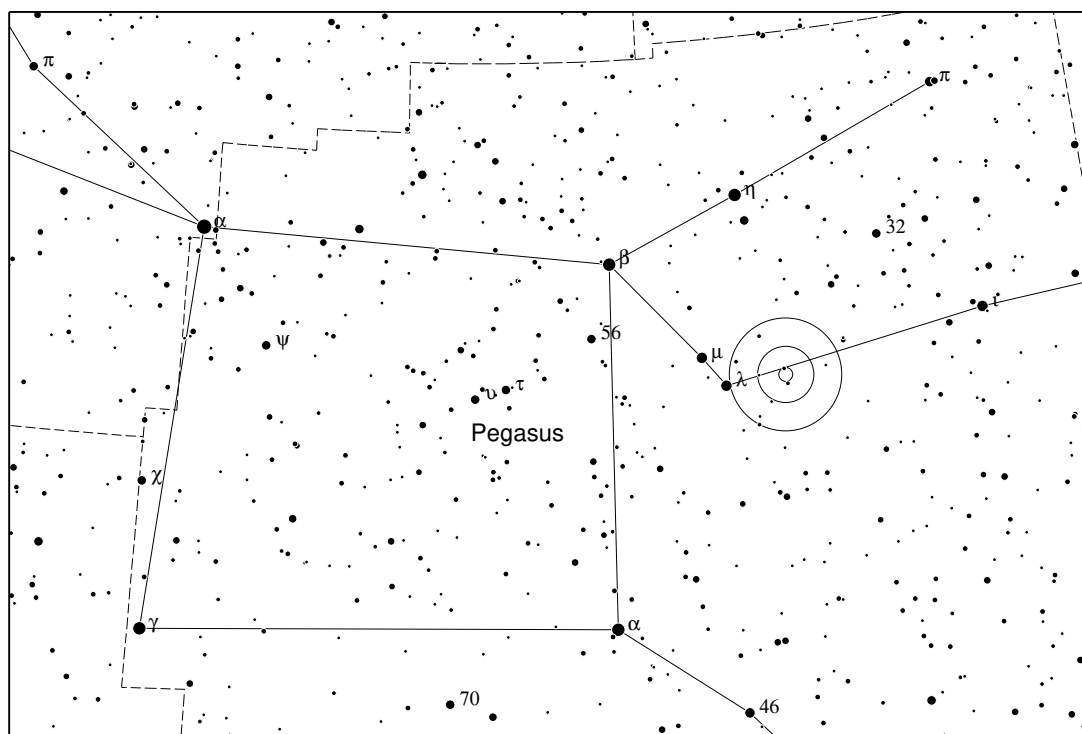


S Cep is a quite colorful, Mira variable carbon star. It is on its end of evolution and after expelling the outer layers and becoming a white dwarf it will evolve off of the asymptotic giant branch (AGB). A look at the light curve, provided on www.aavso.org, shows a visual magnitude of about 8.0 mag, so it should be easily observable also in small telescopes. With an 80mm refractor and an 8 inch reflector a could always see S Cep in a deep red, partly also crimson.

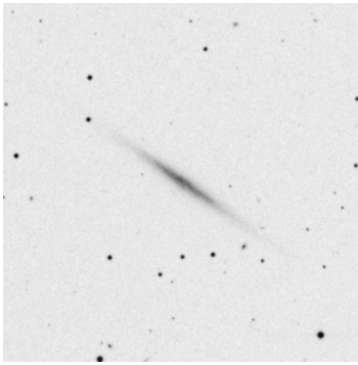


Constellation Peg
Coordinates 22h37m24.52s / +23°47'54.10"
Brightness 11.0 mag
Size 4.1×1.1'

DSS II (red) - 15.0×15.0'

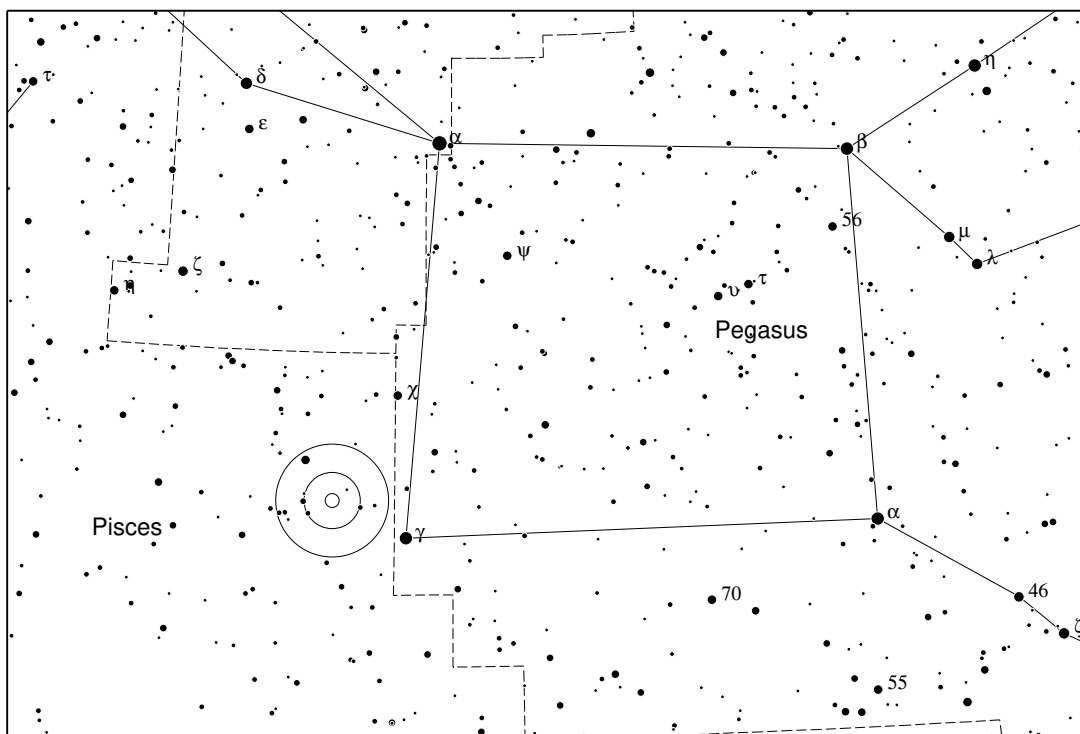


A very nice, spindle-shaped edge-on galaxy is NGC 7332 in the constellation Pegasus with a distance of about 67 million light years. The galaxy was discovered on 19. September 1784 by the British astronomer Friedrich William Herschel. Due to its high surface brightness it is quite well visible also under brightened, suburban skies with 4.5 inch at medium power and shows a brighter and broader core. Under dark skies (Bortle 4, NELM 6.0 mag) with 8 inch the spindle-like shape can be well seen. But this galaxy can be easily overlooked at low magnification, because only the bright and rather compact core is evident. East of NGC 7332 in the immediate vicinity you will find the fainter galaxy NGC 7339 (12.3 mag, 3.0x0.7'), which is also well visible under dark skies with 8 inch. A really nice view, if both galaxies are within the field of view.



DSS II (red) - 8.0×8.0'

Constellation	Psc
Coordinates	00h24m02.84s / +16°29'11.00"
Brightness	13.2 mag
Size	5.7×0.6'



This quite thin, elongated galaxy was discovered by the American astronomer Lewis A. Swift on 10. November 1885 and is about 44 million light years away. Among the thin galaxies this is a rather brighter one, whereby you need dark skies (Bortle 4, NELM 6.0 mag) and somewhat experience to successfully see this galaxy with 8 inch. The galaxy appeared at 100x almost even bright, very elongated and thin with averted vision and was hardly held. So be patient, if you observe under less optimal conditions.