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# Skyguide

2014 - II

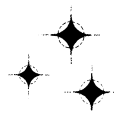
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created by:

Robert Zebahl

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

**FACHGRUPPE**



**DEEP-SKY**

*Vereinigung der Sternfreunde e.V.*

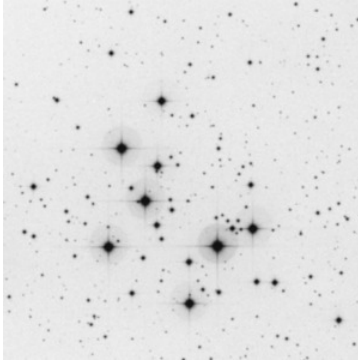
[www.deepsky.vdsastro.de](http://www.deepsky.vdsastro.de)

[www.vds-astro.de](http://www.vds-astro.de)

# Skyguide - A Short Introduction

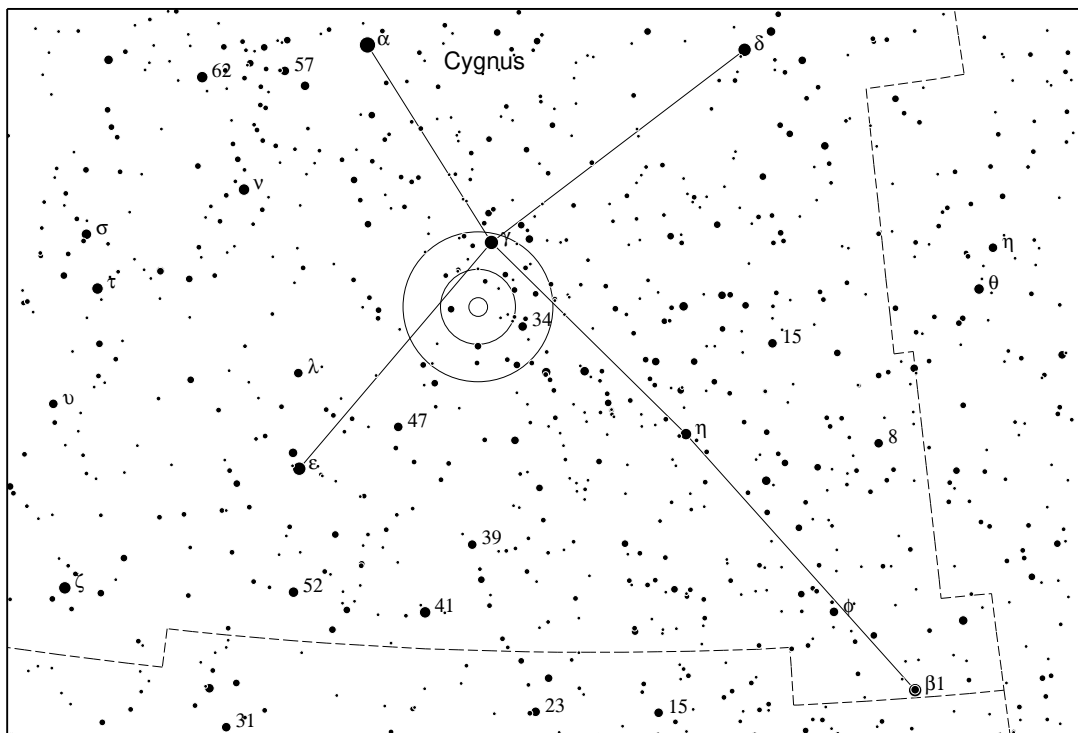
The Skyguide should mainly give you some suggestions for own observations and will briefly describe 5 objects annually for every season. It contains easy as well as difficult objects, which are sorted by ascending difficulty. How difficult an object is, depends on several factors, especially quality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

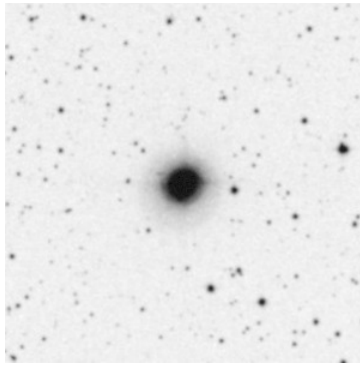


DSS II (blue) - 10.0×10.0'

<b>Constellation</b>	Cyg
<b>Coordinates</b>	20h23m56.00s / +38°31'24.00''
<b>Brightness</b>	6.6 mag
<b>Size</b>	7.0×7.0'

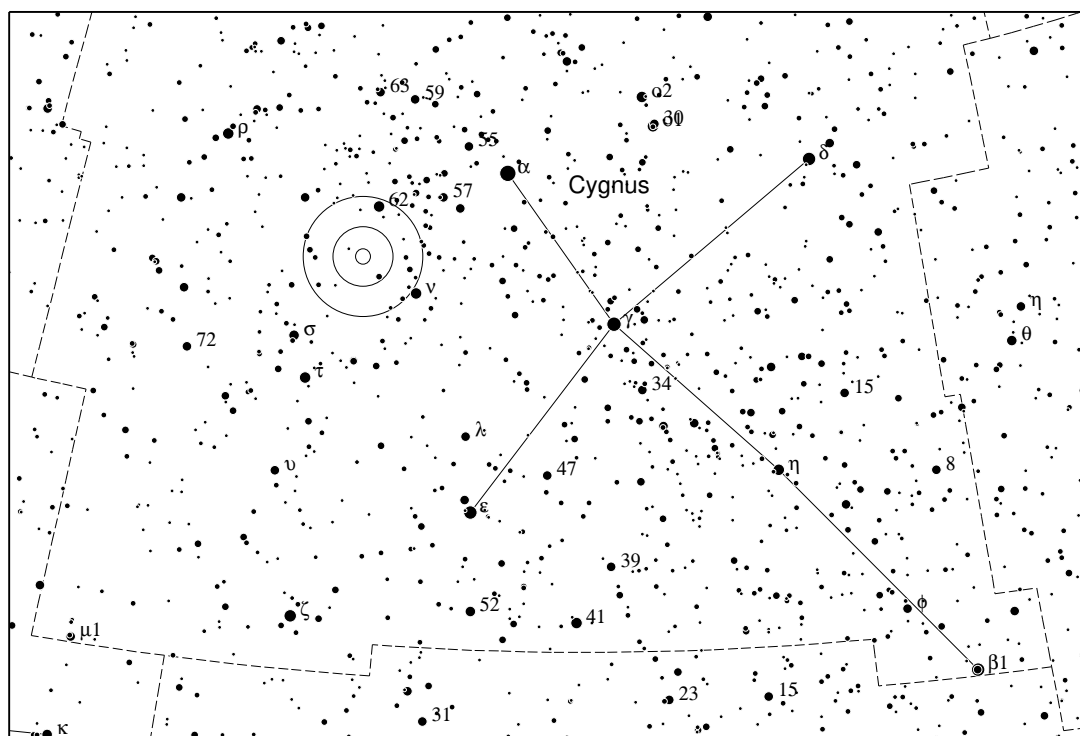


Messier 29 is a small, visually quite poor cluster, which is easy to find. In a telescope at too high magnification the cluster becomes less evident, whereas some brighter stars are dominant. Binoculars can be a good choice for observation: Under suburban skies (Bortle 6, NELM 5.0 mag) in an 8x40 binoculars the cluster appears as a quite evident star cloud, which is diffuse or partially resolved depending on the conditions.



**Constellation** Cyg  
**Coordinates** 21h07m01.59s / +42°14'10.20"  
**Brightness** 8.5 mag  
**Size** 0.3×0.2'

DSS II (blue) - 5.0×5.0'

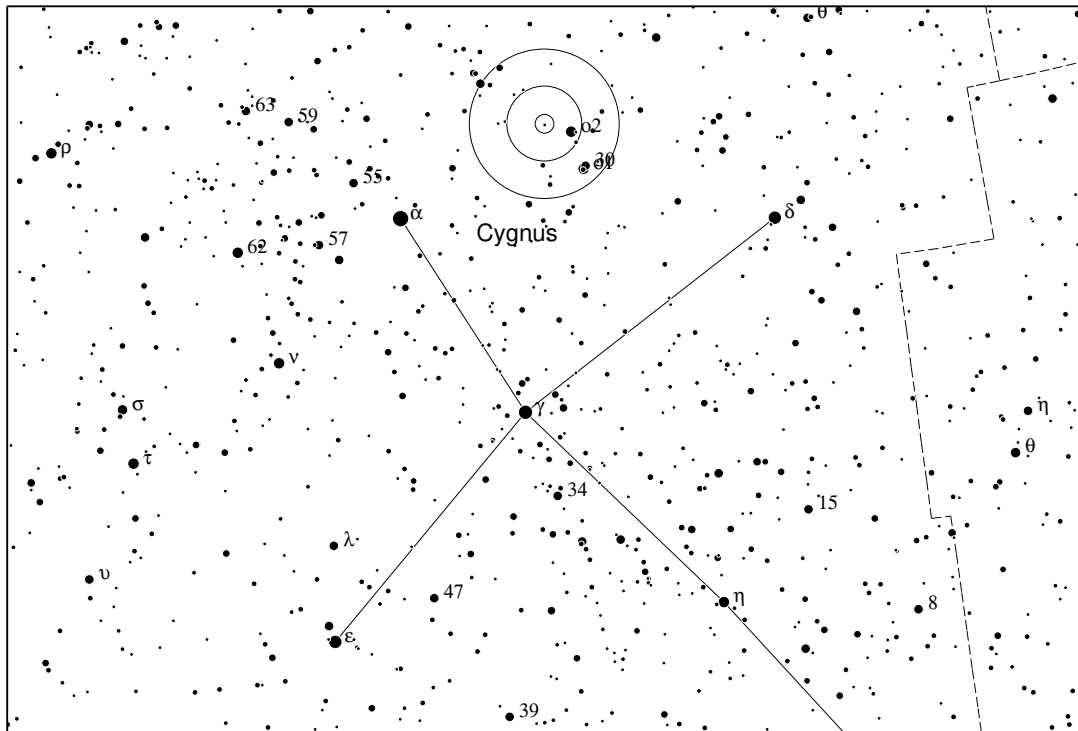


With an age of about 600 years and a distance of around 3.000 light years this planetary nebula is one of the youngest of its kind. It shows interesting structures on photographs. This nebula is a quite easy one, which is also well feasible from city with smaller telescopes. Due to its brightness the nebula is already visible with binoculars as a stellar object. But a detailed finder chart is recommended. At a NELM of about 5.0 mag with an 114mm f/8 Dobsonian I could easily see the nebula at 75x slightly extended with averted vision. At higher magnification (e.g. 145x) it is slightly oval with brighter center and diffuse edges.

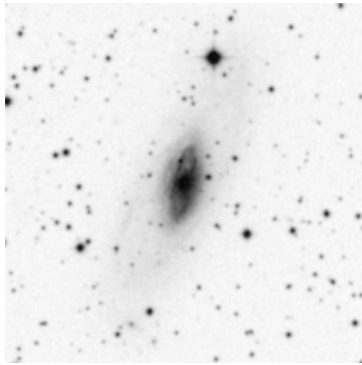
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<b>Constellation</b>	Cyg
<b>Coordinates</b>	20h19m36.60s / +47°53'39.10"
<b>Brightness</b>	5.9-12.1 mag
<b>Period</b>	463.24d

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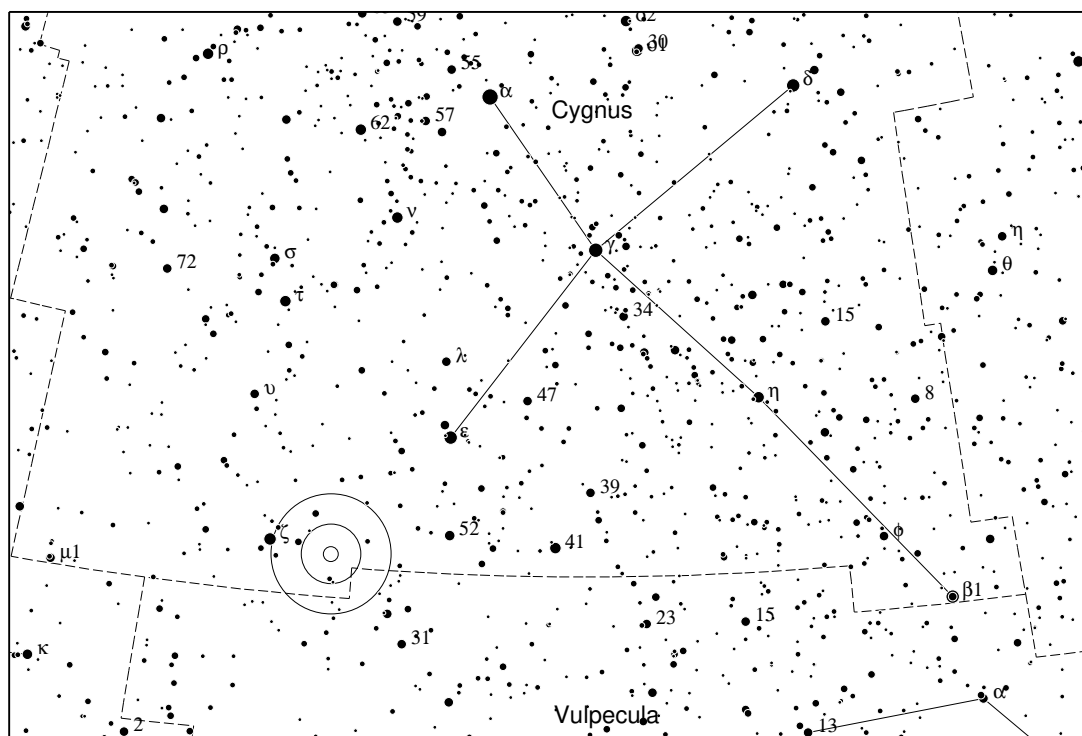


U Cyg is a more or less well known carbon star, which is evident through its intensive red coloring. It is also easily findable. Like most carbon stars U Cyg is variable in its magnitude. Carbon stars are late-type stars whose atmosphere contains more carbon than oxygen. Due to chemical processes these stars appear mostly orange or reddish. Currently the magnitude goes down towards its minimum. Nevertheless this colorful star is still well observable with 4.5 inch under suburban skies. It appeared to me deep reddish to crimson. However seeing color, especially of stars, is very individual and can vary considerably, because it depends on several factors. So don't worry if you see no color. But if getting really interested in observing carbon stars, you can have a look at [www.faint-fuzzies.de](http://www.faint-fuzzies.de), where I've published many observations of these stars. In the Internet you will also find some other lists of carbon stars, which can be used for planning.

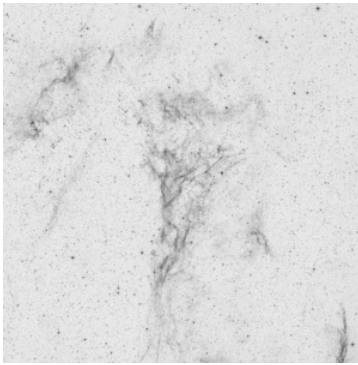


DSS II (blue) - 5.0×5.0'

<b>Constellation</b>	Cyg
<b>Coordinates</b>	21h03m33.61s / +29°53'50.50"
<b>Brightness</b>	11.3 mag
<b>Size</b>	4.0×1.4'

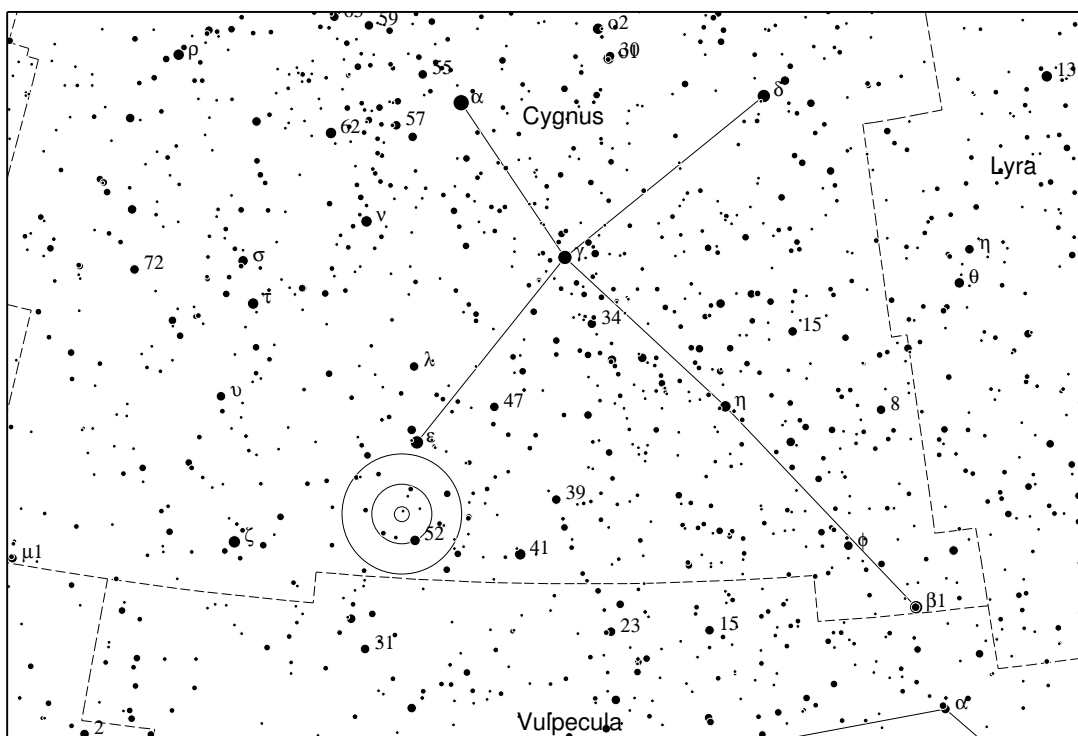


Probably less well known is this galaxy, which is one of the brightest in the constellation Cygnus. Especially the proximity to the great Veil nebula makes this galaxy quite interesting, where probably most of us don't expect such a bright one. With an aperture of 8 inch under a 6.0 mag sky (Bortle 4) this galaxy is fairly well visible with averted vision, whereby I recommend at least medium power. At 96x the galaxy was well visible with averted vision as oval nebula with brighter core.



**Constellation** Cyg  
**Coordinates** 20h48m30.00s / +31°38'00.00"

DSS II (red) - 80.0×80.0'



Pickering's Triangular Wisp is part of the well known Veil Nebula and much more fainter than the eastern and western part. The latter two visually show under dark rural skies and [OIII] filter depending on aperture a lot of details and are mostly well-defined. Pickering's Triangular Wisp, on the contrary, is much more diffuse and like wisps of fog spread over a large area. Under NELM 6.0 mag skies (Bortle 4) this part can be successfully observed with 8 inch and [OIII] filter, whereby the sky should be preferably transparent. Averted vision helps a lot, to extract the nebula from the star rich background. Under very clear NELM 6.4 skies (Bortle 3) I was able to see it in my 8 inch Dobsonian without any filter, but it was very faint and hardly visible with averted vision. Due to its angular size a dark, transparent sky might be more important than aperture.