
Skyguide

2018 - IV

created by:

Robert Zebahl

www.faint-fuzzies.de

in cooperation with:

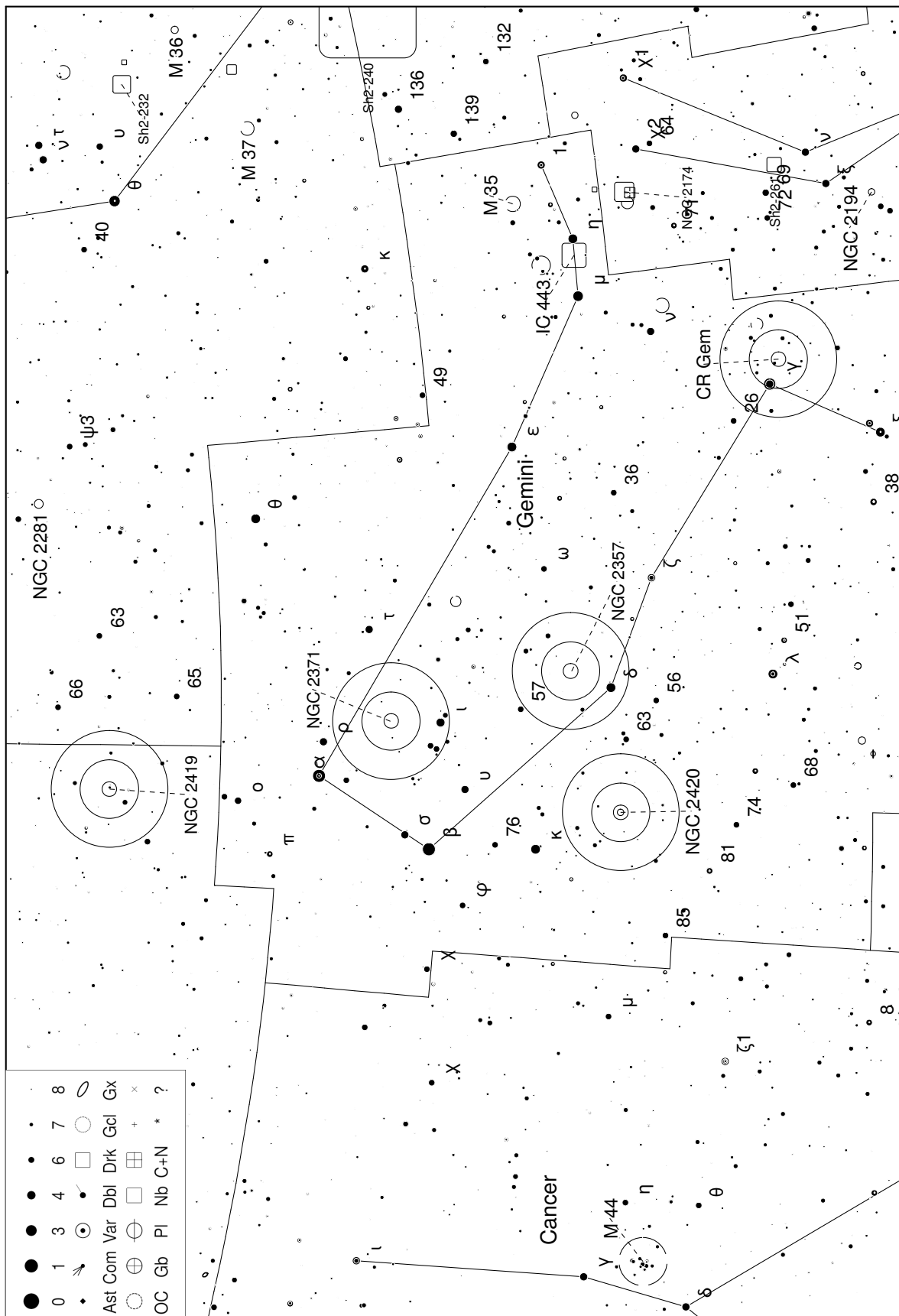
René Merting

www.freunde-der-nacht.net

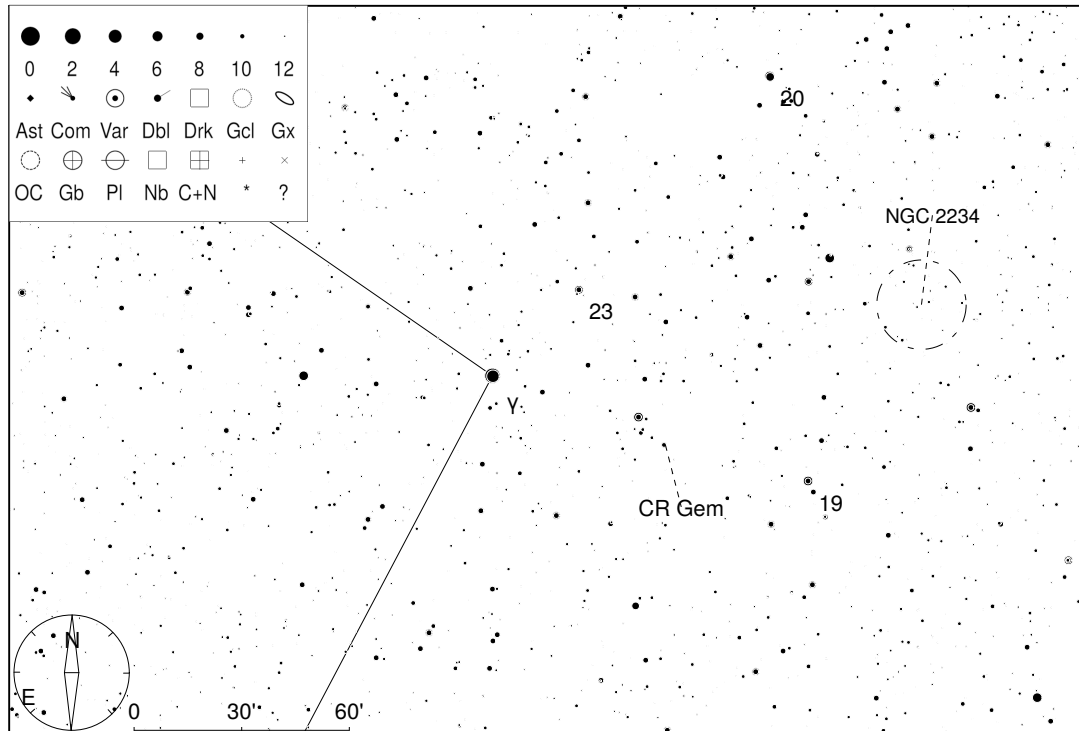
Skyguide - A Short Introduction

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.

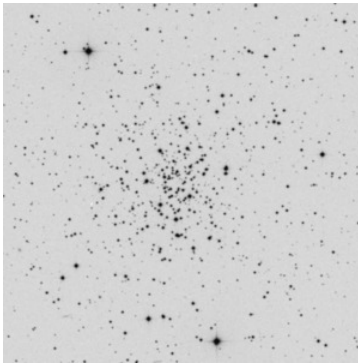
For each object the most important information are given and if applicable a [DSS](#) image (Digitized Sky Survey). In addition you will find a chart, created by the free software [Cartes du Ciel](#) (Skychart), to get an overview of where the object is located. This chart shows stars down to a magnitude 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.



Constellation	Gem
Coordinates	06h34m23.92s / +16°04'30.32"
Brightness	b10.9-12.1 mag
Period	250.0d

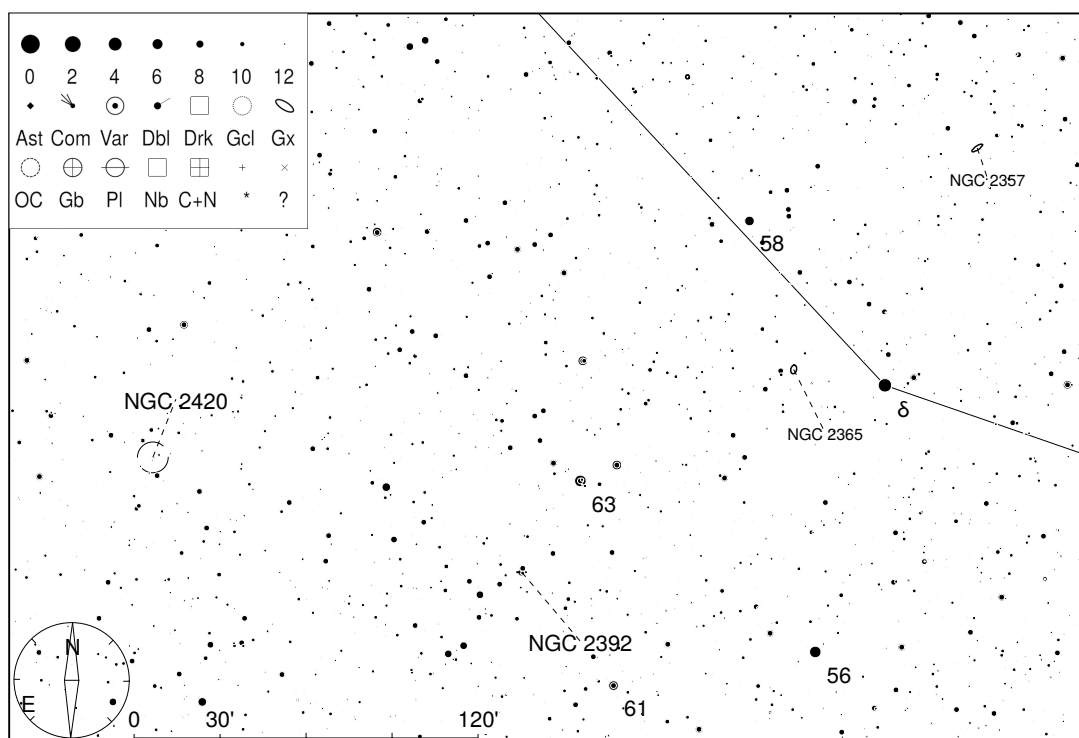


Anyone who enjoys watching colors in Deepsky should take a look at this carbon star. The brightness fluctuates only relatively low. In addition, the blue brightness is stated, so that the visual brightness should be noticeably higher. Due to its proximity to gamma Gemini, the carbon star is easy to find. This star was already observed with apertures from 70mm to 200mm, where it always showed a conspicuous color, which partly appeared deep red. Thus CR Gemini is also worth a try for smaller telescopes under urban conditions.



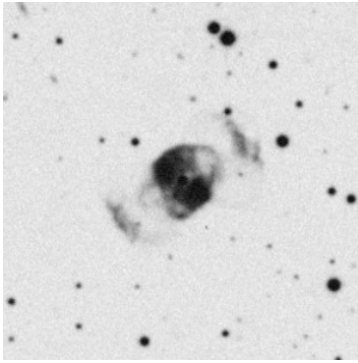
Constellation Gem
Coordinates 07h38m23.00s / +21°34'24.00"
Brightness 8.3 mag
Size 10.0×10.0'

DSS II (blue) - 15.0×15.0'



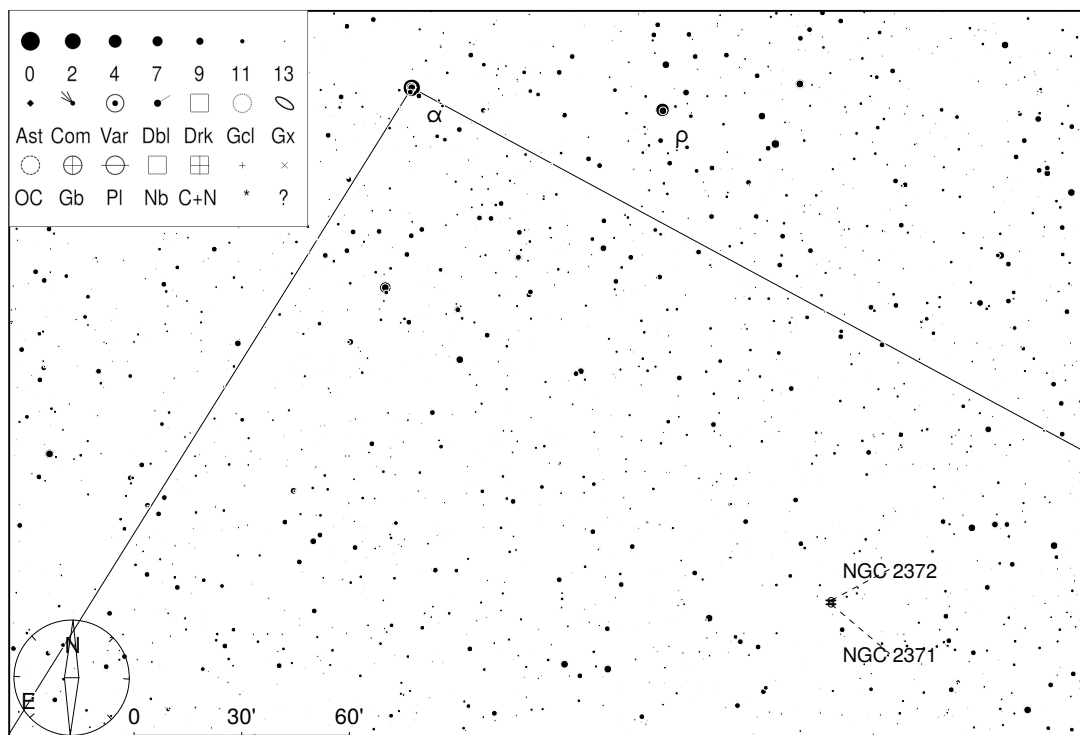
NGC 2420 is a relatively rich star cluster with about 700 members at a distance of about 8000 light years. Its quite old age of two to four billion years is due to the fact that it moves in the less dense outer areas of the Milky Way. Visually, the star cluster with 8 inch aperture is a conspicuous object under rural conditions even at low magnification, but always showed a nebulous background, which indicates many weak members. What is visible under urban conditions? How does the star cluster appear in smaller or larger telescopes?

NGC 2371 (NGC 2372, PK 189+19.1, H 2.316, H 2.317, Peanut Nebula) PN



Constellation Gem
Coordinates 07h25m34.68s / +29°29'26.40"
Brightness 11.3 mag
Size 1.0×1.0'

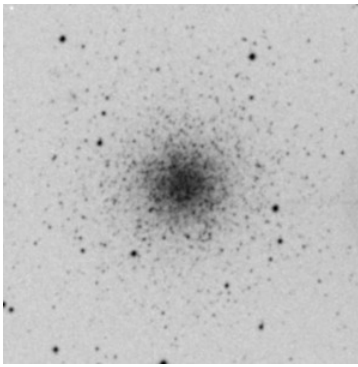
DSS II (blue) - 5.0×5.0'



A structurally interesting planetary nebula is NGC 2371, which is dominated by two brighter regions. Apparently, earlier observations assumed that these were two different objects. Therefore there are two entries each in the New General Catalogue (NGC) and in the object list of Friedrich Wilhelm Herschel. The planetary nebula can be observed well with nebula filters (e.g. [OIII]-filters) and can be magnified highly. Already with 4 inch aperture under rural sky the nebula shows up as a small, faint brightening. With 8 inch aperture the two brighter knots are visible separately. An increase of the aperture shows some details at high magnification.

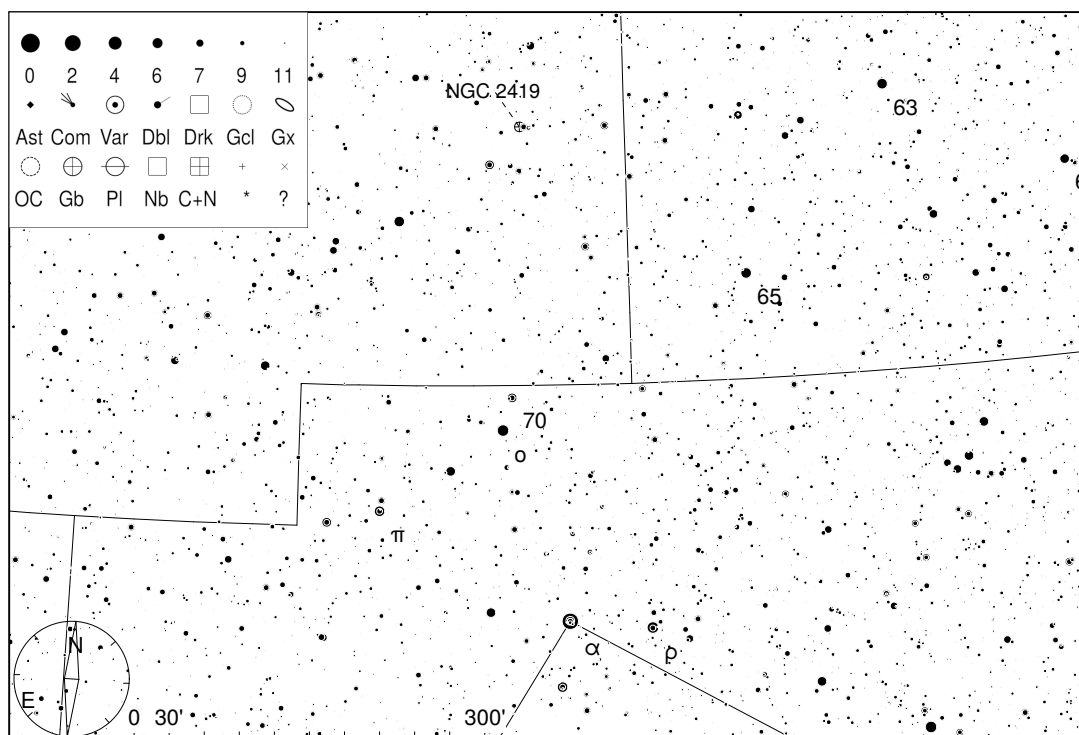
NGC 2419 (H 1.218, Intergalactic Wanderer)

GC

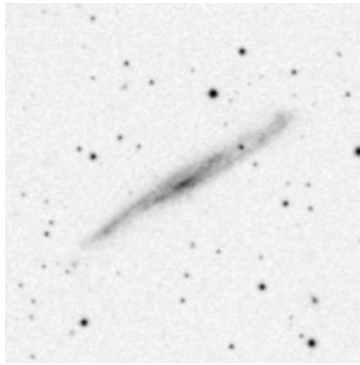


Constellation Lyn
Coordinates 07h38m08.51s / +38°52'54.90"
Brightness 10.1 mag
Size 6.0×6.0'

DSS II (blue) - 6.0×6.0'

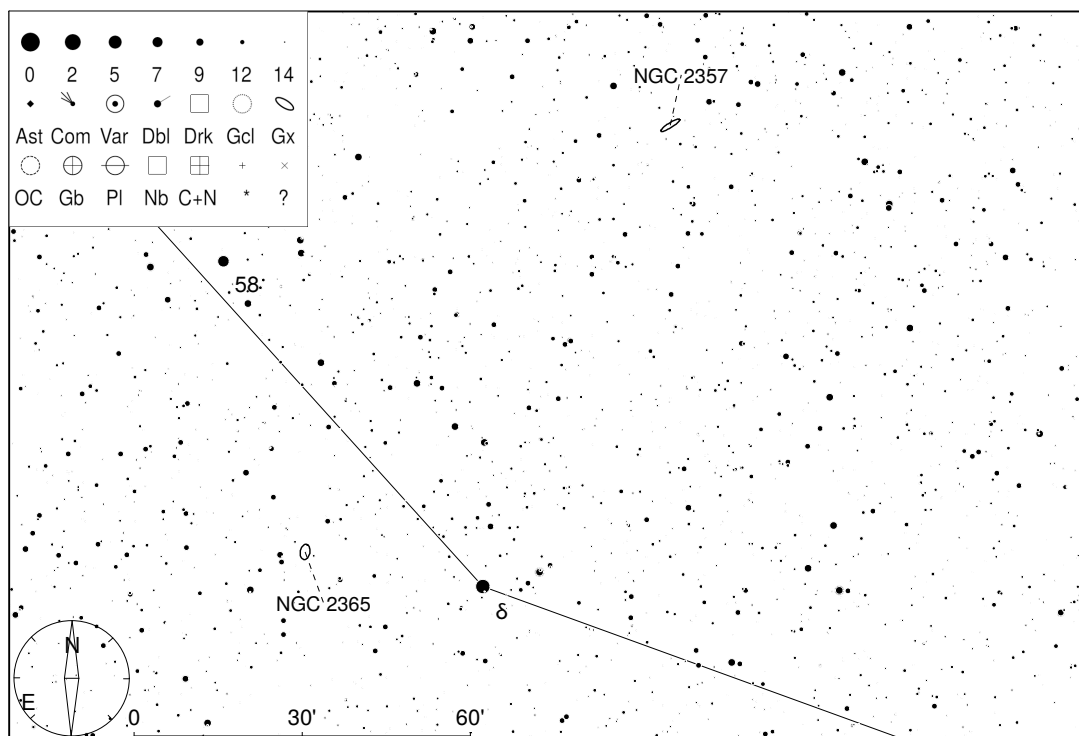


This globular cluster is well suited for galactic wanderings, as it lies far outside the Milky Way at a distance of about 275000 light years compared to other globular clusters. The well-known globular cluster Messier 13, for example, is only about 25000 light years away from the Sun. First observations go back to William Herschel in the year 1788, which had noticed him however only as a nebulous object. Only in 1850 Lord Rosse could resolve this star cluster into individual stars with his Leviathan telescope, a reflector telescope with 186cm aperture. Experienced observers can try out 5-inch telescopes under urban conditions. Under a land sky the star cluster is very well observable with 8 inch aperture, but could not be resolved.



Constellation Gem
Coordinates 07h17m40.98s / +23°21'24.28"
Brightness 13.3 mag
Size 3.6×0.5'

DSS II (blue) - 5.0×5.0'



Edge-on galaxies are a popular target for deepsky observers. Beside bright objects there are also some weaker candidates to which this galaxy belongs. It was discovered in 1885 by the French astronomer Édouard Stephan. Due to the relatively low overall brightness, a dark location is important. Experienced observers can take care of this galaxy well with 8 inch aperture under a Bortle 4 sky, where it appears as an extremely faint, elongated nebula without visible condensation. Higher magnification is beneficial here. With a large aperture, details are certainly perceptible.