
Skyguide

2017 - I

created by:

Robert Zebahl

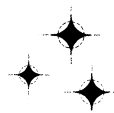
www.faint-fuzzies.de

in cooperation with:

Rene Merting

www.freunde-der-nacht.net

FACHGRUPPE



DEEP-SKY

Vereinigung der Sternfreunde e.V.

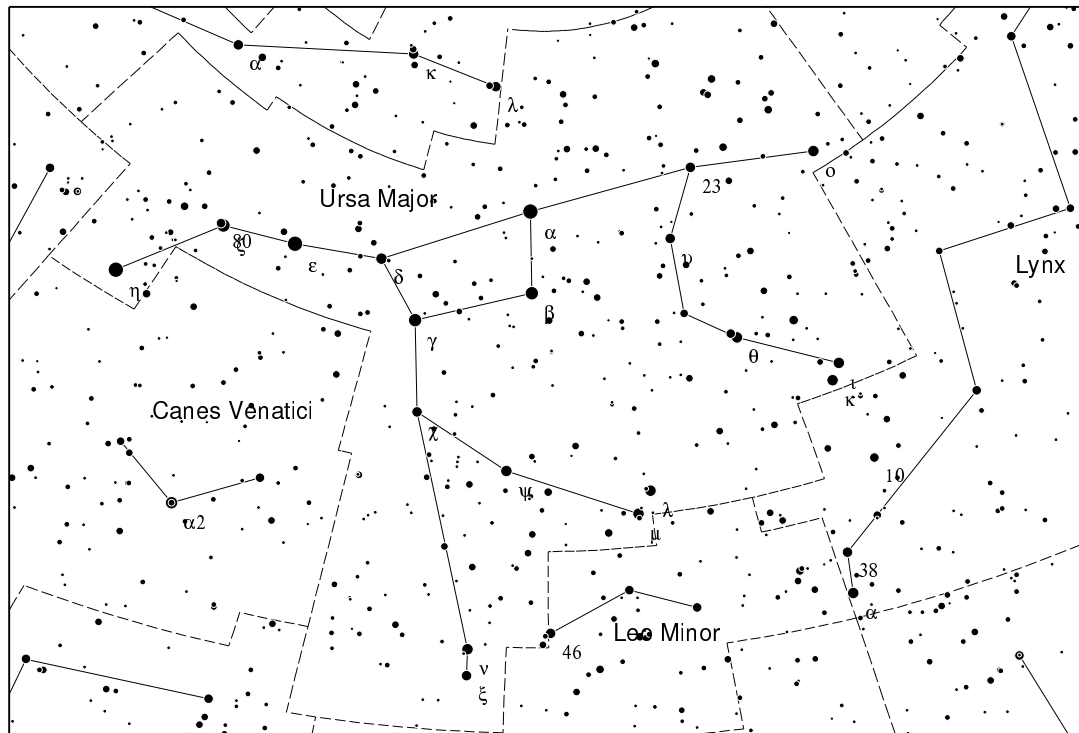
www.deepsky.vdsastro.de

www.vds-astro.de

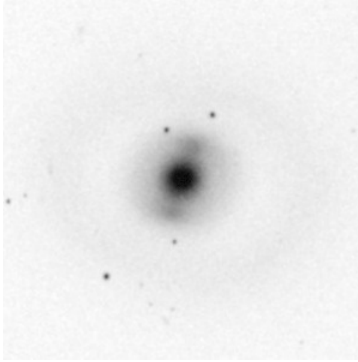
Skyguide - A Short Introduction

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.

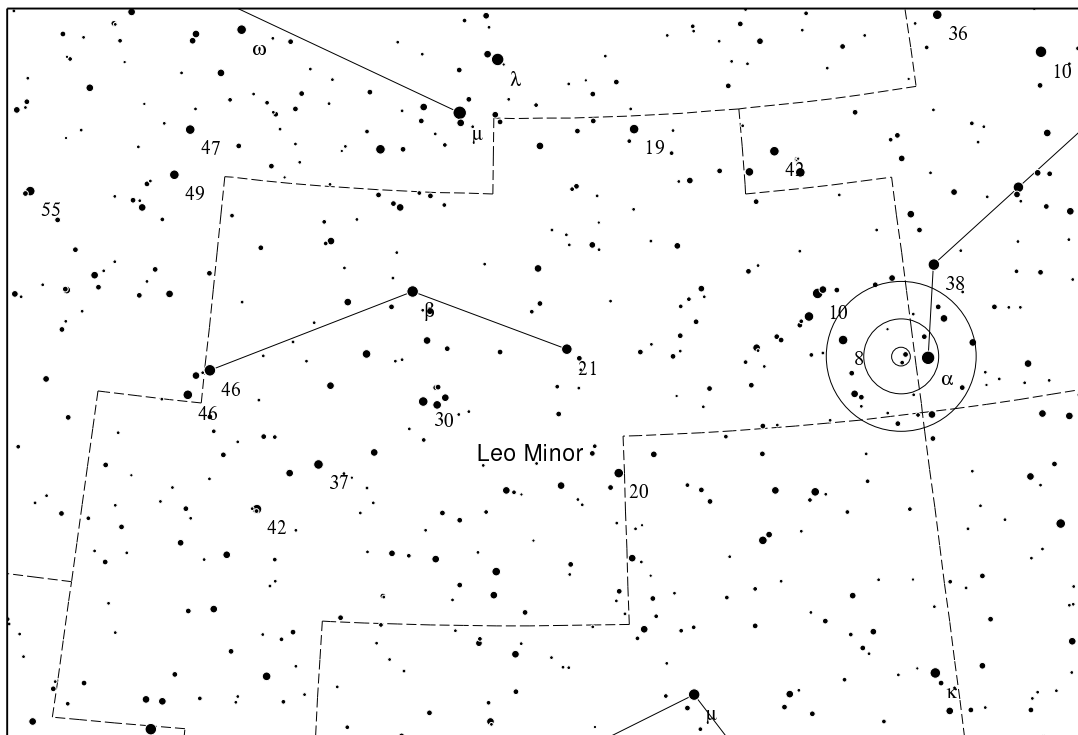


The constellation Ursa Major (Great Bear) is one of the best-known constellations of the northern hemisphere and in our latitudes largely circumpolar, so visible over the entire year. The brightest stars are also commonly known as 'Big Dipper' or 'The Wagon'. The constellation includes also some Messier objects like Messier 81 and 82 or the 'Owl Nebula' Messier 97. It is one of the largest of the total 88 constellations. The brightest stars are part of an open cluster, which is also referred to as 'Ursa Major Moving Group' or 'Ursa Major association'. It is the brightest and largest known open cluster on the firmament. The 'Ursa Major Moving Group' itself is just the center of the actual cluster, which contains stars of other constellations like Virgo, Coma Berenices or Taurus. Our solar system is so close to this cluster, that we can't perceive as such. This might be also the reason for not being included in well known catalogues like Messier, NGC or IC. The Swedish astronomer Per Arne Collinder was the first mentioned this cluster in his catalogue of open clusters in 1931. Next time you look at the sky maybe you see this constellation with other eyes.

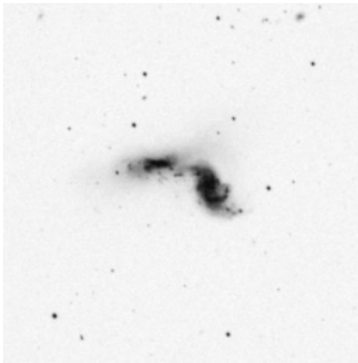


Constellation LMi
Coordinates 09h24m18.55s / +34°30'48.20"
Brightness 10.9 mag
Size 4.0×3.6'

DSS II (blue) - 5.0×5.0'

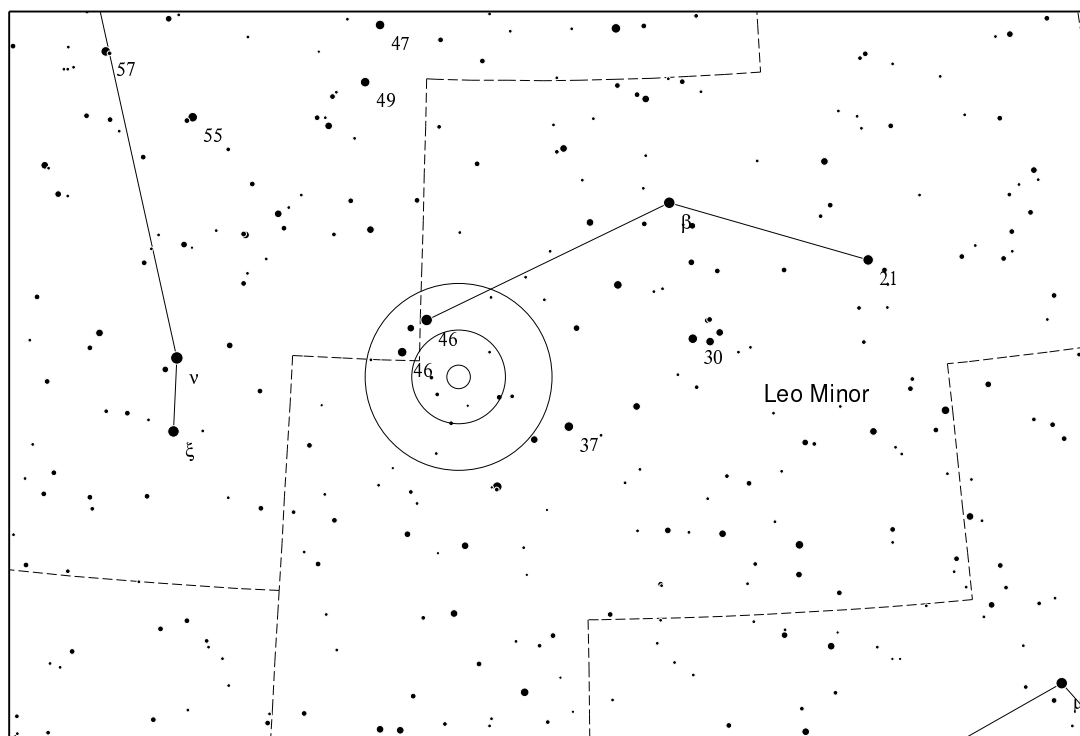


NGC 2859 is located at the boundary between Lynx and Leo Minor near alpha Lyncis and therefore easy to find. Particularly apparent is the double ring structure and the bar. This galaxy has no spiral arms, so it was classified as lenticular galaxy with bar (Hubble type SB0). The evolution of ring galaxies is mostly originated by collision of two galaxies. Much rarer is the type of so called polar-ring galaxies based on fusion of two galaxies. In case of NGC 2859 there seemed to be no collision or fusion. Visually the bright core and the inner ring should be easily seen with 8 inch aperture under rural skies. The bar stayed hidden up to now. The outer, much more fainter ring might be a challenge and probably needs a very dark sky, patience and aperture.

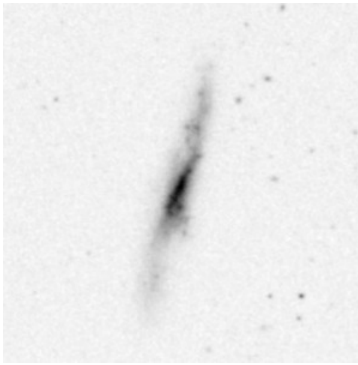


DSS II (blue) - 8.0×8.0'

Constellation	LMi
Coordinates	10h49m53.00s / +32°59'00.00''
Members	NGC 3395 (11.8 mag, 1.7×0.9')
	NGC 3396 (12.0 mag, 2.9×0.9')

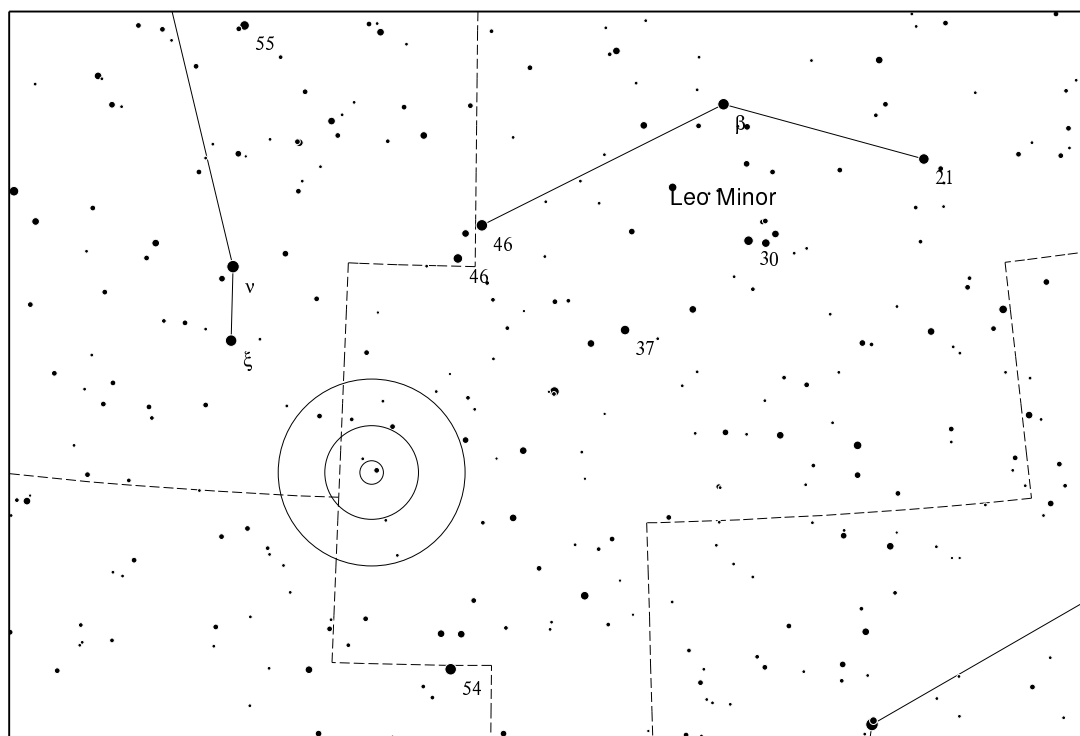


The Arp catalogue consists of morphologically interesting galaxies, which are grouped by their peculiarity. Arp 270 is part of the group of galaxy pairs with connected arms. This group contains just 6 galaxy pairs and is therefore pretty manageable. Most of the galaxies in this catalogue are either faint or the morphological structure is visually challenging or needs very large aperture. This galaxy pair is already well visible with moderate aperture. With 8 inch aperture and medium power under rural skies both galaxies were well seen and barely touching each other. NGC 3395, southwest of NGC 3396, appeared larger and brighter.

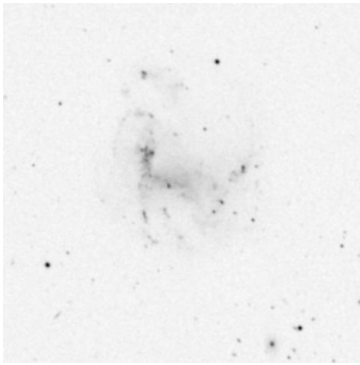


Constellation	LMi
Coordinates	11h03m43.36s / +28°53'13.60''
Brightness	12.1 mag
Size	4.1×0.8'

DSS II (blue) - 5.0×5.0'

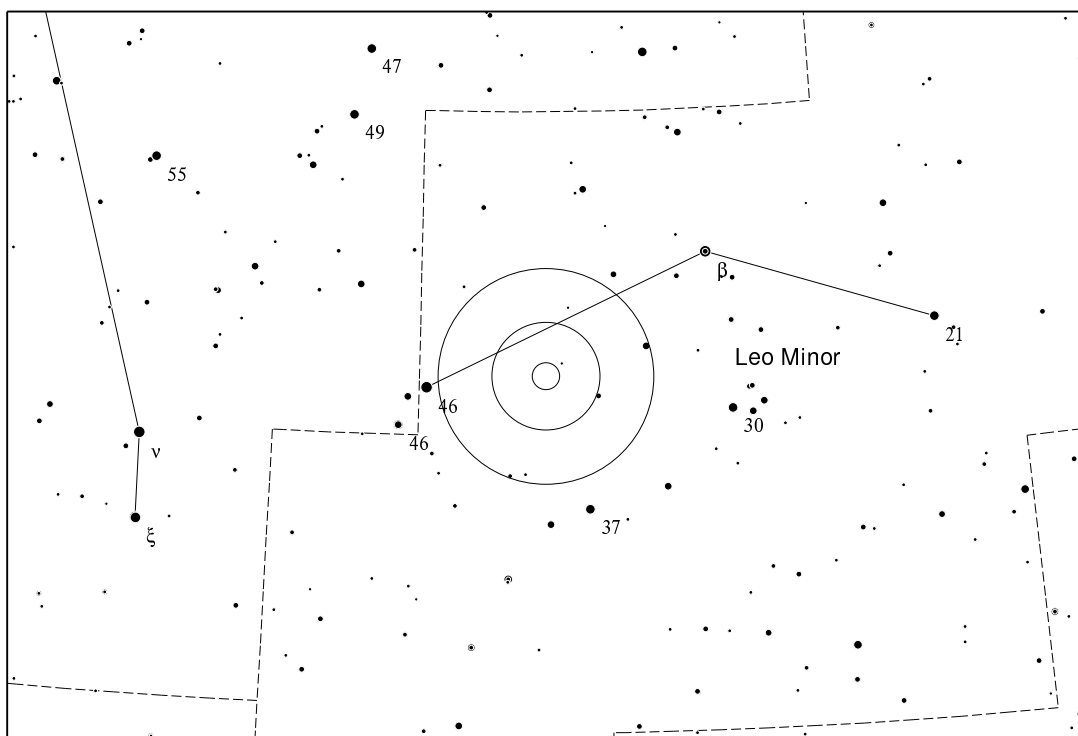


Spring is well known for its many observable galaxies. Besides bright, structured galaxies like Messier 51 also so called edge-on galaxies are very impressive. They mostly appear as very elongated, thin glow. In some cases the central dust lane is also visible. But you should be patient when observing this type of galaxies. Under a Bortle-4 sky with 8 inch aperture and some experience you should see NGC 3510 at medium power as obviously elongated brightening. Towards west and south of NGC 3510 with an angular distance of less than one degree you will find the much brighter galaxies NGC 3486 and NGC 3504, which are worth to observe too.



Constellation LMi
Coordinates 10h42m42.20s / +34°26'56.30"
Size 4.6×3.8'

DSS II (blue) - 8.0×8.0'



UGC 5829 is a galaxy of type 'Low Surface Brightness' (LSB). Most dwarf galaxies are probably also of this type. LSB galaxies have by definition a lower surface brightness than the brightness of the natural night sky, the airglow. On photographs the irregular structure of this galaxy is easily visible, which might be the reason for its sobriquet. With 8 inch aperture under Bortle-4 sky the galaxy is not really challenging, but far away from being evident. It was just a very faint, roundish glow without noticeable condensation. A sufficiently dark sky is important for a successful observation.