Skyguide

2017 - IV

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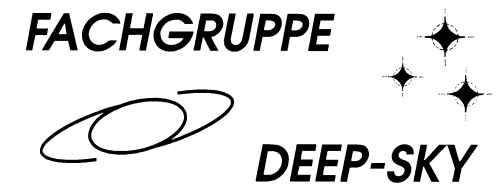


www.deepsky.vdsastro.de

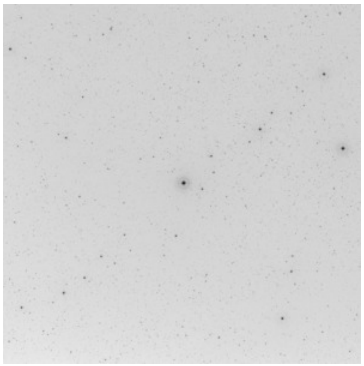
www.vds-astro.de

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.

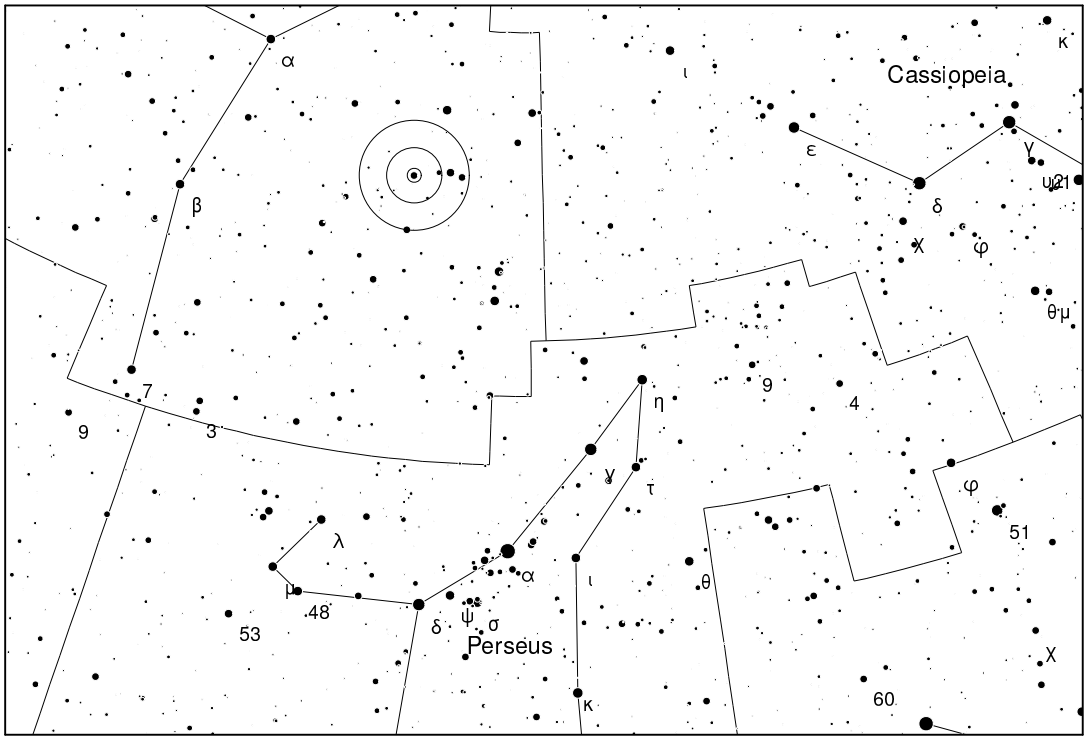
For each object the most important information are given and if applicable a DSS image (Digitized Sky Survey). In addition you will find a chart, created by the free software Cartes du Ciel (Skychart), to get an overview of where the object is located. This chart shows stars down to a magnitude of about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

Kemble 1 (Kemble's Cascade) AST



DSS II (red) - 120.0×120.0'

Constellation	Cam
Coordinates	03h57m30.00s / +63°04'00.00''
Brightness	5.0 mag
Size	180.0×180.0'



Kemble's Cascade is located in the less apparent constellation Giraffe. The prominent, adjacent constellations Perseus and Cassiopeia can be used for better orientation, especially when the sky is brightened. Kemble's Cascade is an asterism, which extends of almost 3 degree as a chain of about 20 stars with magnitudes between 5.0 and 10.0 mag. Binoculars are a good choice for observation. It was named by Walter Scott Houston in memory of the Canadian amateur astronomer Father Lucian Kemble. He described the star formation in a letter to Houston as "a beautiful cascade of faint stars tumbling from the northwest down to the open cluster NGC 1502", when he observed the night sky with 7x35 binoculars. Houston was impressed by this letter and wrote an article about this asterism, which was published in his "Deep Sky Wonders" column in the astronomy magazine "Sky & Telescope" in 1980.

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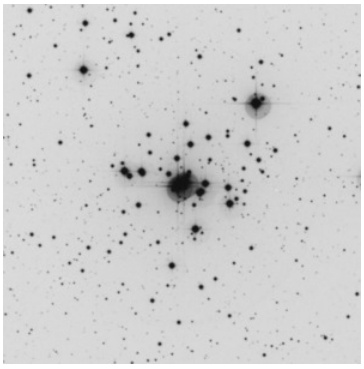
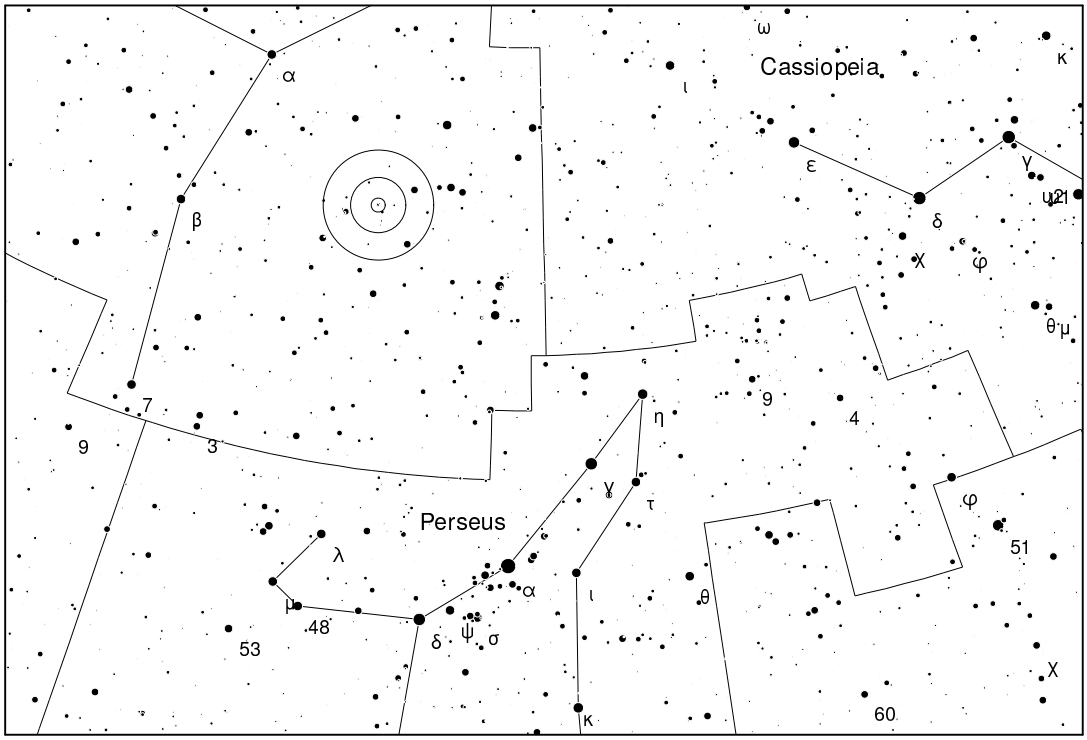
NGC 1502 (H 7.47) OC



DSS II (blue) - 15.0×15.0'

Constellation	Cam
Coordinates	04h07m50.00s / +62°19'54.00''
Brightness	6.9 mag
Size	8.0×8.0'



At the southeastern end of Kemble's Cascade the rather compact, but bright cluster NGC 1502 can be found. The cluster is part of the Cam OB1 association with a distance of about 3000 light years and a diameter of about 6 light years. It is dominated by an optical double star (STF485 AE). Both components have a brightness of about 6.9 mag with an angular distance of 18 arcseconds. The cluster is already visible with binoculars, but higher magnification will show the typical character of an open cluster. With 8 inch aperture under urban conditions the cluster appears conspicuous. Under rural skies about 20 stars around the double star are visible.

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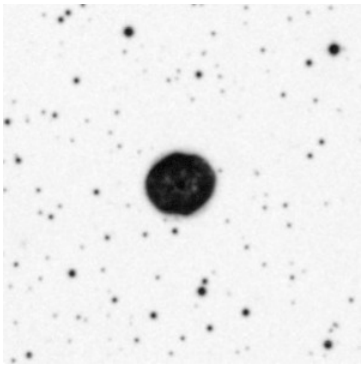
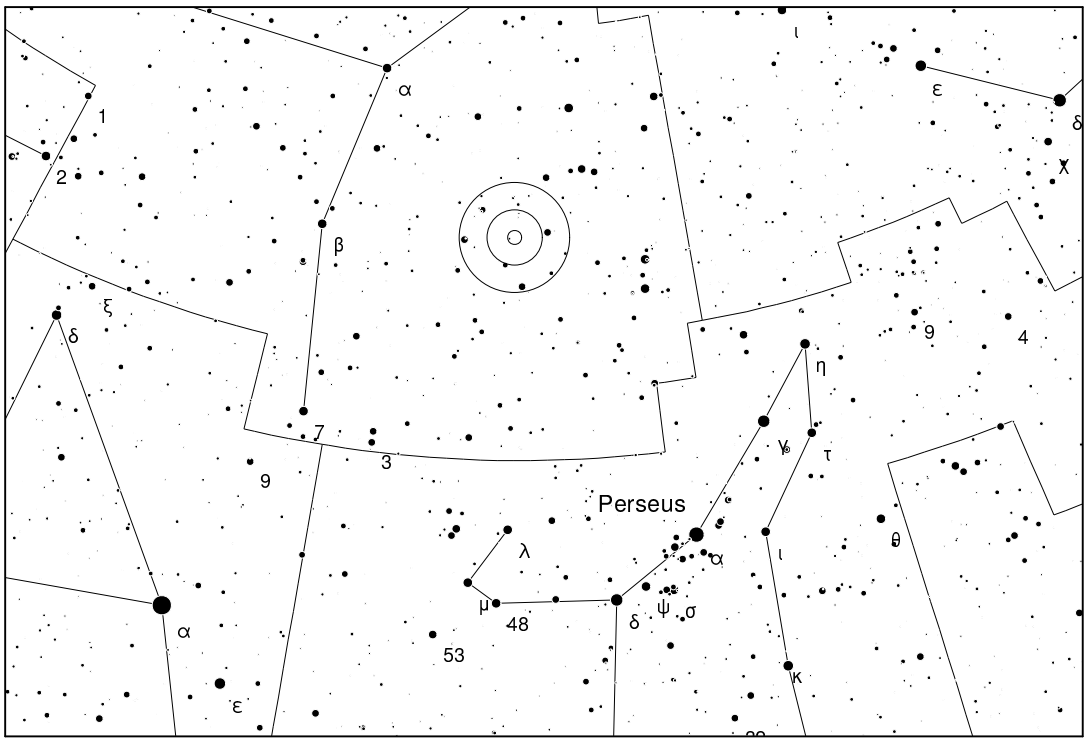
NGC 1501 (PK 144+6.1, H 4.53, Camel's Eye, Oyster Nebula) PN



DSS II (blue) - 5.0×5.0'

Constellation	Cam
Coordinates	04h06m59.39s / +60°55'14.40''
Brightness	11.5 mag
Size	0.9×0.9'



The planetary nebula NGC 1501 is located almost 1.5 degree south of NGC 1502. Its central star, a Wolf–Rayet star, has a visual brightness of 14.45 mag, which varies about 0.1 magnitudes in irregular periods. The real extent of the nebula is 1.4 light years. Very impressive is the complex structure of the nebula, which is characterized by a thin ellipsoid. Under rural conditions the nebula can be easily seen with only 4 inch aperture, whereby filters can help a lot. The nebula appears as a small disc. With 8 inch aperture and higher magnification the elliptical shape is noticeable. Differences in brightness within the nebula are also visible under good conditions.

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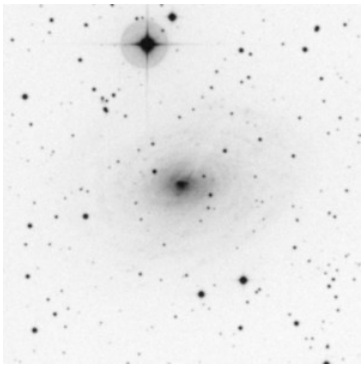
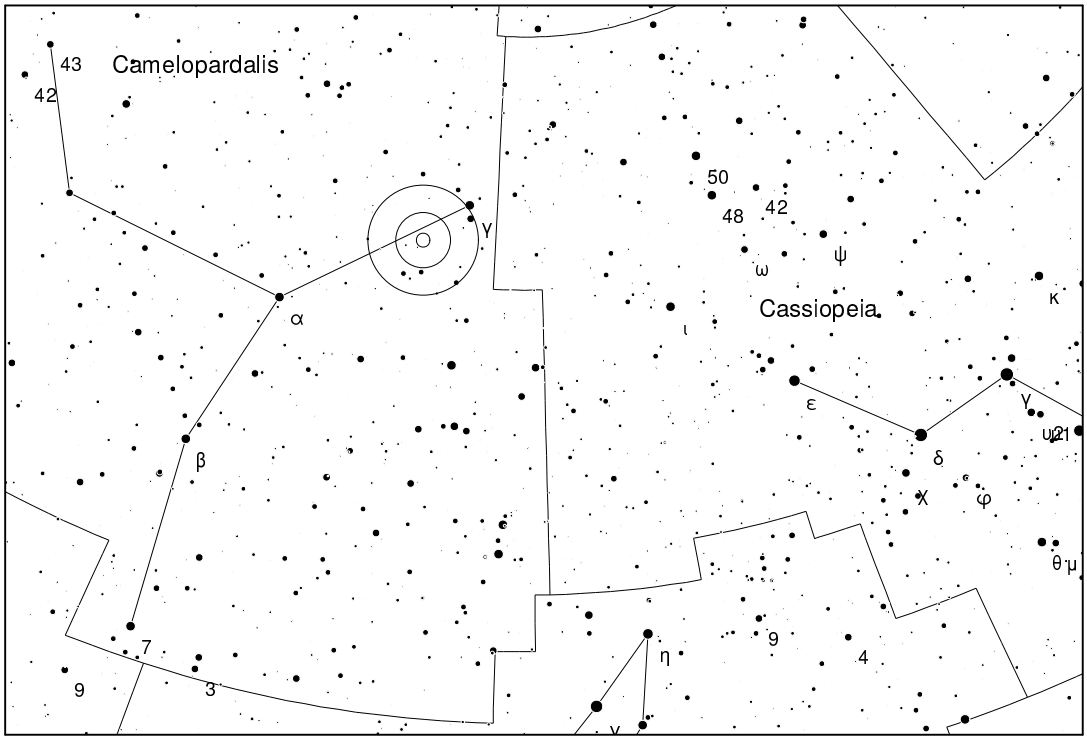
IC 356 (UGC 2953, Arp 213) GLX



DSS II (blue) - 8.0×8.0'

Constellation	Cam
Coordinates	04h07m46.91s / +69°48'44.80''
Brightness	10.5 mag
Size	4.5×3.5'



The Index Catalogue (IC) contains many faint objects but also brighter ones, which are manageable with smaller telescopes. IC 365 is a spiral galaxy and pretty bright, which was discovered in 1889 by Edward Emerson Barnard. The galaxy was also added by Halton Arp to his Arp catalogue under the catagory "Galaxies with irregularities, absorption and resolution". Reason for that is the dark, wedge-shaped structure towards northwest. On photographs the galaxy appears also slight reddish because of a lot of interstellar dust in front. Visually the galaxy is quite easily visible with 8 inch aperture under dark skies and moderate magnification and appears slightly oval, getting a bit brighter towards the middle. At low magnification the galaxy might appear rather faint.

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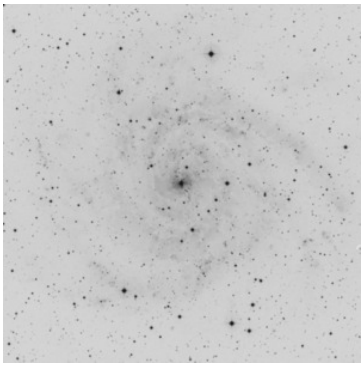
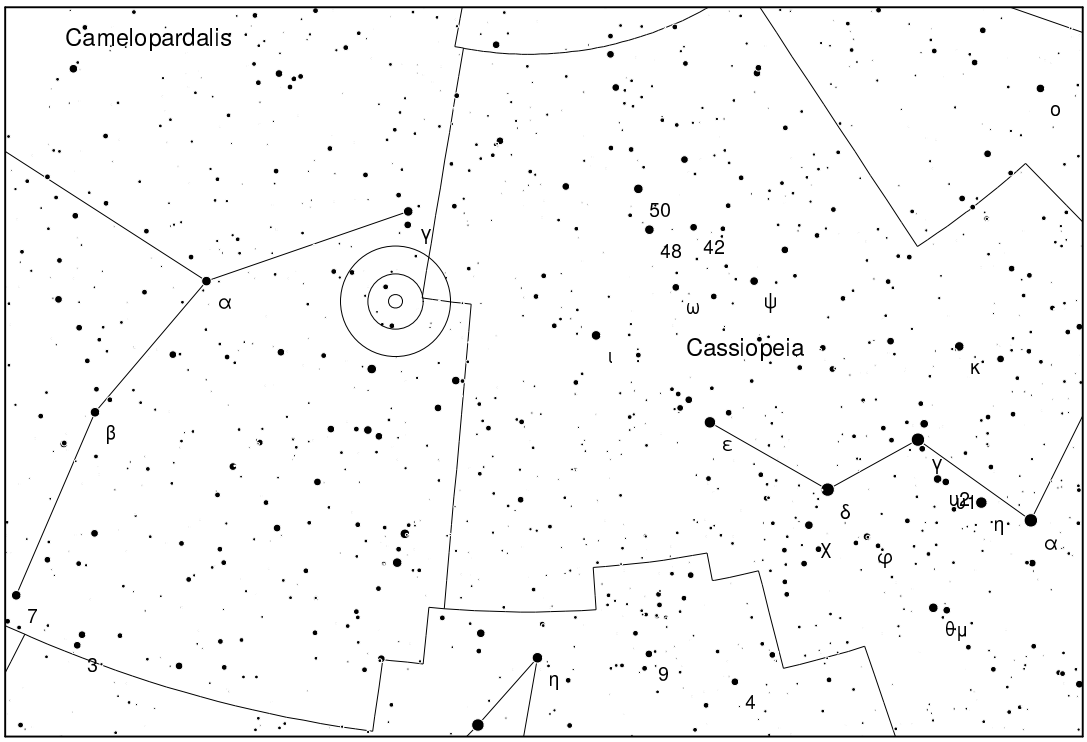
IC 342 (UGC 2847) GLX



DSS II (blue) - 21.0×21.0'

Constellation	Cam
Coordinates	03h46m48.51s / +68°05'46.00''
Brightness	9.1 mag
Size	20.9×20.4'



IC 342 is a barred spiral galaxy with a distance of about 11 million light years. It is one of the brightest galaxies of the Maffei Group. The Maffei Group is the closest galaxy group regarding the Local Group. IC 342 is located near the galactic plane so a lot of interstellar dust makes observation more difficult. Due to its low surface brightness this galaxy is not an easy one. A dark, transparent sky is very important. Most likely the brighter core area is visible and appears with 8 inch aperture as small, diffuse brightening. The outer regions are very faint and require patience.

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