

Deepsky Beauties: September 2009

All objects in this article can be observed underneath a dark sky with telescopes with a maximum of 8 inch (20 cm). Most objects can already be observed with smaller scopes or binoculars.

This month we're going to observe some objects in four constellations. We start with Aquila, continue with Cygnus, Draco and we finish with Vulpecula.

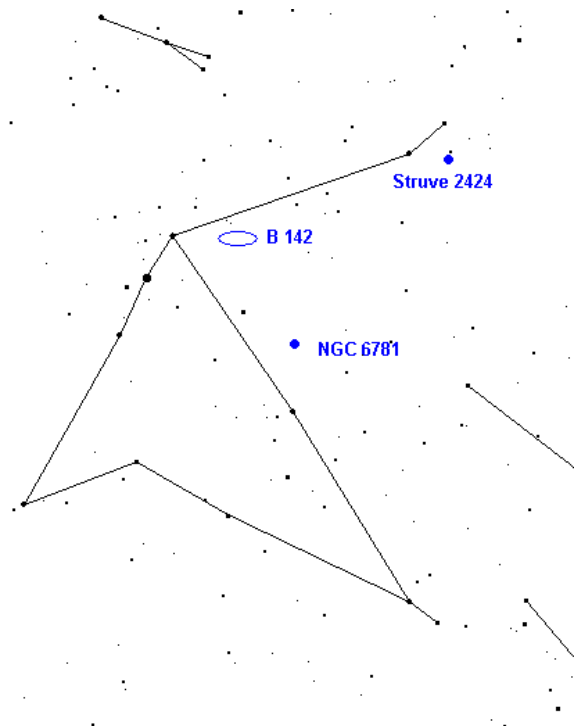
Aquila is the Latin name for eagle. The Romans also knew it as Vultur Volans, the flying vulture. In the classic Greek mythology Aquila was the eagle that carried the bolts of Zeus. Aquila was sent by Zeus to the shepherd boy Ganymede who he desired, to take him to the mountain Olympus. Ganymede is sometimes associated with the constellation Aquarius.

We're going to observe three objects in Aquila, starting with the double star **Struve 2424**, also known as 11 Aquilae. The double star can already be split in binoculars and small telescopes because both stars are located relatively far from each other. Especially the color contrast of this double is very beautiful: the primary star has a nice yellowish color while its companion has a blue color.

The planetary nebula **NGC 6781** is easy to find. The nebula is located in a rich star field. A 6th magnitude star is located a half degree West of the object and a 7th magnitude star is located a half degree East of it. NGC 6781 is relatively large and round. The north side is a bit fainter than

the rest of the nebula. In the middle there is a darkening which can be seen if you observe the planetary with averted vision. Observe this object with a middle sized telescope underneath a dark sky.

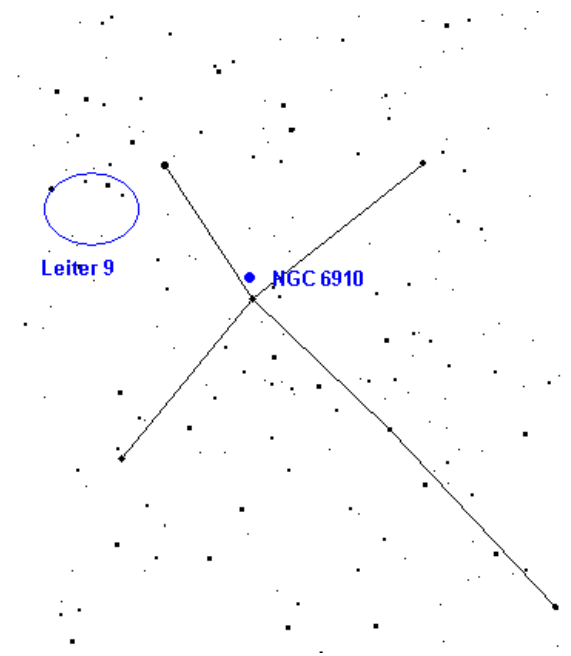
Underneath a dark, moonless sky there is another special object visible: the dark Nebula **Barnards E**, or B 142. The nebula is easily visible because it's located in a rich star field. The nebula is visible as a large capital letter 'E'.



One of the most famous constellations of the summer night sky is Cygnus, the swan, which is also known as the Northern Cross because of its prominent shape. There are a lot of myths around Cygnus. One of those myths is the story about Zeus, who transformed himself into a swan to seduce the woman Leda. According to another story Orpheus was transformed into a swan after he was murdered.

We aim our telescopes to the open cluster **NGC 6910**. This cluster is located a half degree NNE of the star Gamma. The object goes from northeast to southeast. There are relatively bright stars north and southeast of this cluster. North of NGC 6910 there is a yellowish star of magnitude 7.5. This star forms the foundation of a 'Y' shape existing of 5 stars.

Let's continue with the asterism **Little Orion** (Leiter 9). This asterism looks like a miniature version of the constellation Orion, only a bit out of proportion. Its shape is easily to recognize though. Especially the lower part of the figure. Also the belt and legs are easily visible, just as its arms. Observe Leiter 9 with a binocular or small telescope.



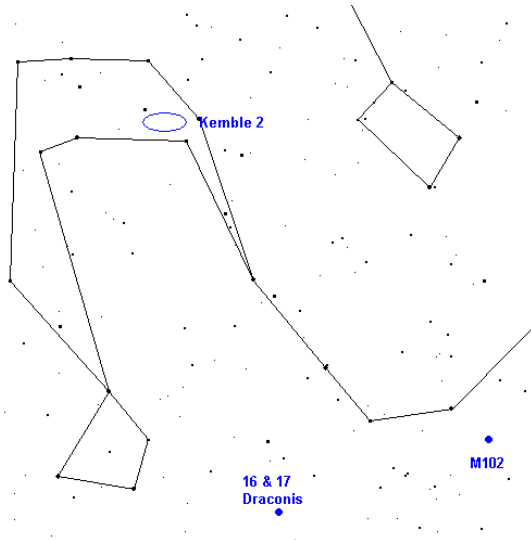
Draco the dragon is one of the oldest constellations known. The old Egyptian knew the figure as Tawaret, a strong goddess that protected them. Her body was made of several animal parts: partially she excised of a human being, a crocodile, a lioness and a hippo. Nevertheless we now know the figure as Draco, the dragon. According to the old Greek mythology, Draco represents Ladon, the dragon with a hundred heads. Ladon guarded the golden apples of Hesperides. Hercules put him to sleep by playing music and he stole the golden apples. According to the legend, Hera was the one that gave Ladon a place in the night sky.

Let's see which objects Draco contains for us.

We start with the beautiful triple star **16 & 17 Draconis**. Already with binoculars these stars can be split. 17 Draconis has another companion at a distance of 3.4". All three stars are white colored.

The asterism **Kemble 2** is also known as 'Little Cassiopeia'. Its name betrays the shape of this star group. Because Kemble 2 is pretty large, it's best seen with binoculars or small telescopes with a large field of view. Through the middle of the 'W' shape (or, depending of the view in your scope, an 'M') and the fourth star there are 7 bright stars in a row. At the fifth star there are four stars going down with at its left an arc of four stars.

The Spindle Galaxy (M102) has different history than the rest of the Messier objects. In 1783 Mechain discovered that Messier 102 was actually a double observation of M101. Owen Gingerich suggested renaming NGC 5866 to M102. The Spindle Galaxy forms a triangle together with a 12.5th magnitude star at a distance of 1.5' ZW and a 11.5th magnitude star 1.5' NNW. The edge-on galaxy is relatively bright and has a bright core. Observe it with a middle sized to large telescope.

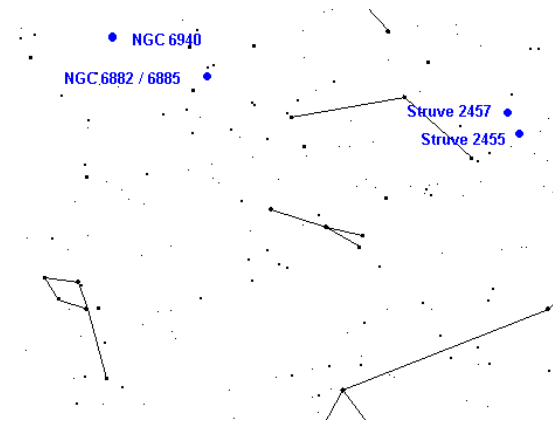


Vulpecula is Latin for little fox. The astronomer Johannes Hevelius named this constellation in the 17th century. Initially Vulpecula was known as 'Vulpecula cum anser', which means 'little fox with the goose'. Hevelius made two separate constellations of the figure, known as Vulpecula and Anser. Presently both constellations are combined again as Vulpecula. The goose is still remembered as the star α Vulpeculae: Anser.

We aim our scopes to the triple star **Struve 2455**. This is a nice group of blue and white stars. If you observe Struve 2455 with a large field of view, than you will see the double star **Struve 2457**, a half degree NNE of the triple star. This duo exists of a white and a blue star.

We'll move on with two open clusters: **NGC 6882** and **NGC 6885**. These two objects are located really close to each other and it is hard to identify them as two separate objects. NGC 6882 counts about 50 stars in an area of 18'. The star cluster is irregularly shaped. The star 20 Vulpeculae is with a magnitude of 5.9 obvious visible on its southeast side. NGC 6885 is described as a cluster that's located around the star 20 Vulpeculae. However, there is no obvious cluster visible.

We end this Deepsky Beauties with the nice open cluster **NGC 6940**. Through small telescopes there is a rich cluster visible which counts more than 75 stars. On its South side there are 4 prominent stars visible that together forms a trapezium. Through the larger telescopes there are more than 125 stars visible. The centre of this irregular shaped cluster has an obvious thickening. Definitely a recommended object!



Have fun observing there nice objects!

Demelza Ramakers (*August, 30 2009*)

Constell.	Object	Type	Magnitude	Size/sep	RA	Dec.
Aquila	∑ 2424	Double star	5.2 en 8.7	17.5"	18h59m10s	13°37'
Aquila	NGC 6781	Plan. nebula	11.0	1.8' x 1.8'	19h18m28s	06°32'
Aquila	B 142	Dark nebula		80' x 50'	19h40m42s	10°57'
Cygnus	NGC 6910	Open cluster	7.4	8.0' x 8.0'	20h23m12s	40°47'
Cygnus	Leiter 9	Asterism			20h56m00s	43°34'
Draco	16 & 17	Double star	5.4 & 5.5	90.3"	16h36m20s	52°55'
Draco	Kemble 2	Asterism			18h35m00s	72°23'
Draco	M102	Galaxy	9.8	6.5' x 3.1'	15h06m30s	55°46'
Vulpecula	∑ 2455	Multiple star	7.4 & 8.5	6.6"	19h07m00s	22°10'
Vulpecula	∑2457	Double star	7.5 & 9.0	10.3"	19h07m10s	22°35'
Vulpecula	NGC 6882/85	Open clusters	4.7 & 5.7	7.0' x 7.0'	20h11m58s	26°29'
Vulpecula	NGC 6940	Open cluster	6.3	31' x 31'	20h34m27s	28°17'