

Deepsky Beauties: April 2010

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

Last month we've discussed a few open clusters. This month we will highlight some galaxies. Spring is a good season to take a closer look at these objects. Especially in constellation Leo we run in to a few nice galaxies of which we will discuss several.

Let's start with the barred spiral galaxy **Messier 95** and the spiral galaxy **Messier 96**. Both galaxies are part of the M96 Group, also known as the Leo I Group. M96 is the brightest member of this group. The two galaxies are located next to each other and are visible in one field of view at low magnifications. Then we see two slightly oval galaxies of which M95 is the faintest and therefore the hardest to see. Through small telescopes it can be hard (but not impossible) to see the two objects, especially if you observe from a light polluted site. Therefore observe M95 and M96 during a dark, moonless night with a higher magnification. You'll see a lot more detail in the galaxies, including the bright cores.

If you use a large field of view, you'll glimpse a third galaxy: the elliptical galaxy **Messier 105**. This object is also a member of the Leo I Group. Study has shown that the core of M105 is home for a super massive black hole. Unlike M95 and M96, M105 is easy and obvious visible. However, it's best to choose a moonless

night and a dark site for observing this beauty so you get the most out of it. M105 can easily be seen with small telescopes. With higher magnifications we see an obvious round cloud with a bright core. Around this core we see a dim halo.

Another member of the Leo I Group is the elliptical galaxy **NGC 3384**. Through telescopes is this galaxy about the same as M105 when it comes to brightness. We see that NGC 3384 is more elongated than its neighbour M105, which is located at only 20' away from it. Its core is obvious more fainter. Both galaxies can be observed in one field of view.

Before we continue with more galaxies in Leo, we'll observe first two nice double stars. We begin with the famous bright star **Algieba** (Gamma Leonis). We find Algieba 8 degrees nne of Regulus. Through our scopes we see a close double in bright yellow and pale yellow. A nice target for the smaller telescopes.

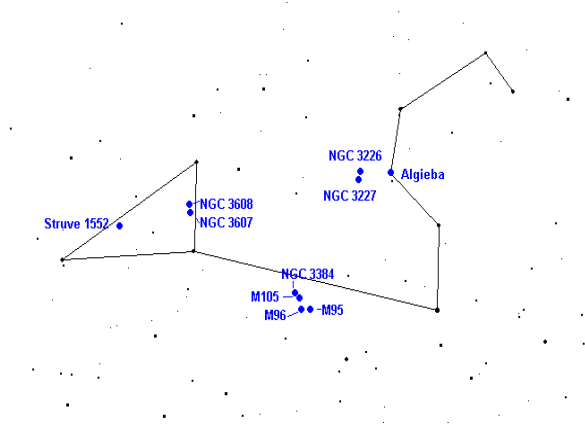
Struve 1552 (90 Leonis) is also a nice double star for small scopes. We see two blue and white stars that are separated at a distance of 3 arc seconds. However, there is a third member of this system. This is a star with a deep blue colour of magnitude 8.7. We find it at 83 arc seconds distant of the other two stars.

Let's go back to some galaxies. **NGC 3521** is located in the head of the Lion at 30' east of the star 62 Leonis. This is really a nice galaxy that is best seen in larger telescopes. Mostly people overlook this impressive galaxy because of the nearby

Leo Triplet and the Leo I Group. Understandable, but Leo has so much more nice galaxies to offer! Through our scopes we see NGC 3521 as a relatively large and bright oval shaped galaxy. If you observe this one with a large telescope, than try if you can spot the dark area west of the halo. Averted vision is required.

We continue with a nice duo: **NGC 3607** and **NGC 3608**. The first galaxy is shown as an oval shaped galaxy with a bright halo and core. NGC 3608 is located 6' north of its neighbour. This galaxy is a fainter and smaller replica of NGC 3607. This object has a faint halo with a diameter of 1'. Both galaxies are already visible with small scopes from a dark observing site. A large telescope with high magnifications show more details of course.

Another nice duo is **NGC 3226** and **NGC 3227**. We find them 40 arc minutes east of the star Gamma Leonis. NGC 3227 is the larger of the two galaxies, but has at the same time the lowest surface brightness. This makes NGC 3226 better visible. This last one has a round shape. The object is a compact elliptical galaxy. NGC 3227 is a spiral galaxy and oval shaped. We see that its north side almost touches its neighbour. The nice part of this duo is the diversity between both galaxies. One round, the other oval. Observe these objects with a telescope from a dark observing site.



We leave Leo behind us to take a look at his whelp, Leo Minor.

Leo Minor is one of the seven constellations that are invented by the Polish astronomer Hevelius in the 17th century. One of the stories about the background of this constellation is that in midsummer the sun is in the middle of these constellations. This is the moment that the lions leave their hunting grounds to cool down at the Nile.

Constellation Leo Minor contains a lot of galaxies, most of them very faint. We will discuss two of them.

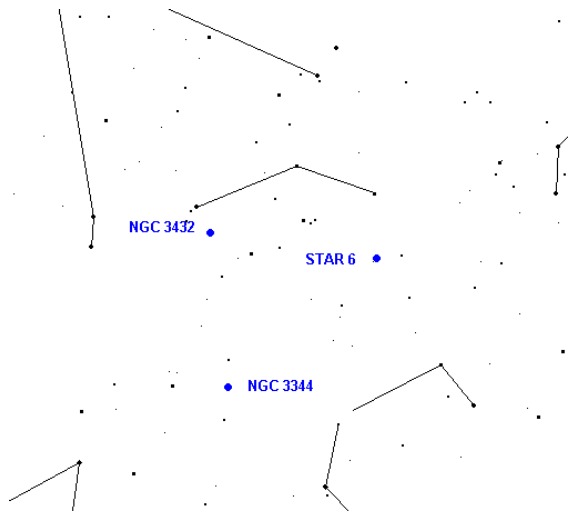
Before we begin with that, we grab our binoculars and aim them to the asterism **The Sailboat Cluster** (STAR 6). The Sailboat Cluster looks a lot like a sailboat. The 13 or 14 stars that form this asterism are blue/white and have different magnitudes. It also contains the star 22 Leonis. In the mast there are 2 red coloured stars visible. In binoculars the Sailboat stands upside down.

Than we aim our scopes to the spiral galaxy **NGC 3344**. Through medium sized telescopes we see a round galaxy with a bright core. It is a pretty bright face-on galaxy with a halo of 4' around the centre. To the east side of the galaxy we see a star of magnitude 10.5 that touches the galaxy. A fainter star is located on top of the halo, closer to the core of the object.

Finally we observe the spiral galaxy **NGC 3432** (Arp 206). Through our scopes we see an elongated galaxy with a thin, elongated core. There are two stars visible. One star is located on the south side of the galaxy. The other star is fainter and lies east of the galaxy.

That's it for this month.
Have fun observing these objects!

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<http://www.everyoneweb.com/observingthenightsky/>



Constellation	Object	Type	Magn.	Size/sep	RA	Dec.
Leo	M95	Sterrenstelsel	9.8	7.3' x 4.4'	10h43m58s	11°42'
Leo	M96	Sterrenstelsel	9.2	7.8' x 5.2'	10h46m46s	11°49'
Leo	M105	Sterrenstelsel	9.5	5.3' x 4.8'	10h47m50s	12°35'
Leo	NGC 3384	Sterrenstelsel	9.9	5.4' x 2.7'	10h48m17s	12°38'
Leo	Algieba	Dubbelster	2.2&3.5	4.4"	10h20m00s	19°51'
Leo	Struve 1552	Dubbelster	6.0&7.3	3.3"	11h34m38s	16°48'
Leo	NGC 3521	Sterrenstelsel	9.2	11.2' x 5.4'	11h05m49s	00°02'
Leo	NGC 3607	Sterrenstelsel	9.9	4.6' x 4.0'	11h16m54s	18°03'
Leo	NGC 3608	Sterrenstelsel	10.7	3.5' x 3.0'	11h16m59s	18°09'
Leo	NGC 3226	Sterrenstelsel	11.4	2.5' x 2.2'	10h23m27s	19°54'
Leo	NGC 3227	Sterrenstelsel	10.4	6.6' x 5.0'	10h23m30s	19°52'
Leo Minor	STAR 6	Asterisme	-	45'	10h14m00s	31°30'
Leo Minor	NGC 3344	Sterrenstelsel	9.7	7.1' x 6.8'	10h43m31s	34°55'
Leo Minor	NGC 3432	Sterrenstelsel	11.1	6.6' x 1.6'	10h52m31s	36°37'