# Deepsky Beauties January 2011

*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.*

This month we'll take a closer look to the beautiful constellation Canis Major, the Greater Dog. Canis Major is one of Orion's hunting dogs that is chasing Lepus, the Hare. The Greater Dog contains the brightest star visible in the night sky: **Sirius**, the Dog Star, with a magnitude of 1.5. Sirius has a companion, Sirius B, but unfortunately it will be a tough job to split these two with (middle sized) telescopes. Sirius B is too small and too faint to split it from its bright neighbour. But it's not impossible!

The multiple star **β 324 / S537** is beautiful visible through the smaller telescopes. The system counts 4 stars. The A and B stars are white while the C component looks bleu. The fourth star, D, is very faint and has a magnitude of 12.8.
The stars A and B are known as β 324, while the AC pair is registered as S537. Five arc minutes from S537 we find another wide double, existing of a white and a blue star.

We continue with the large open cluster Collinder 121, also known as the Omicron **Canis Minorum Cluster**. The cluster is easy to find. It's irregularly shaped and looks a bit like a saxophone. The brightest star in Collinder 121 is part of the asterism that shapes Canis Major. The cluster is poor, it counts about 20 stars. This cluster is definitely a great target for binoculars!

Next on our list is the irregular shaped open cluster **NGC 2345**. Through telescopes there are about 30 stars visible of which the brightest makes a V-shape. On the nne side of the cluster we see a double star.
Through binoculars we see about 8 stars on a background of a hazy glow of unresolved stars.

Another nice open cluster is **NGC 2354**. This cluster is large and irregular. In the heart of NGC 2354 we see an empty area with no stars. The stars are roughly grouped in three groups. I thought it looked like a house, upside-down, but maybe you'll think this cluster looks more like the constellation Scorpius.

A really nice binocular target is **Collinder 132**. This open cluster is large and counts a lot of stars with different magnitudes, scattered in a 1.5 degree area. The four brightest stars in this cluster are forming a quadrangle. One of these stars is of magnitude 5, the other three stars are of magnitude 6. The points of this quadrangle are pointing north/south and east/west. Observe this object with a binocular or telescope with a low magnification.

Our next stop is another open cluster: **NGC 2360**. This is a lovely group which is located at a distance of a 5$^{th}$ magnitude star. The cluster is large, irregular en counts up to 60 stars. Most of these stars are of magnitude 11 and 12 with a brighter




pair on the east side of the object. At the top we see an obvious line of stars. NGC 2360 is a nice target for binoculars. The 20 to 25 brightest stars will be visible.

The next open cluster that we'll pay attention to is **The Mexican Jumping Star** (NGC 2362). This cluster has 1 obvious bright star, the star Tau Canis Majoris, with a magnitude of 4. Through small telescopes we'll see a small cloud of stars around Tau Canis Majoris. With low magnifications the rest of the stars are nothing more than a fuzzy glow around the bright star.
Also through larger telescopes this object is impressive. Than we'll see a large open cluster with countless little faint stars around Tau.
Curious where the name Mexican Jumping Star comes from? Well, just wiggle you're telescope a bit if you're observing the cluster. You'll notice that Tau seems to move differently than the other stars. This is caused by is brightness, compared to the other, faint, stars. Our eyes are playing with us, because all of the clusters stars move in the same direction in the same way.

**Collinder 140** is already visible with the unaided eye as a thickening in the Milky Way. It marks the tuff on the tail of Canis Major. That's why Collinder 140 is also called 'Tuft in the tail of the Dog'. With telescopes we'll see an obvious Y-shape, the bottom of this Y exists of four stars of magnitude 5 and 6. The middle of the Y-shape is marked by the double star Dunlap 47, a nice wide pair of a blue and a yellow star. There magnitudes are 5.5 and 7.6. This whole area is really nice when you use a binocular.

**NGC 2374** is the next open cluster which we'll take a better look at. This is a pretty large, irregular shaped object. It counts about 35 stars that are all visible with at the background the haze of the Milky Way. The brightest stars of NGC 2374 are located at the north- and eastside. There we see about 10 stars of magnitude 10 and 11 in an area of 7 arc minutes large. On the southwest side we see the largest compaction of stars. This area is 4 arc minutes large and counts about 15 stars. Observe this cluster with a telescope.

We end this month with two small clusters that are right next to each other: **NGC 2383 and 2384**. Let's start with the first one. NGC 2383 is good visible through small telescopes as a glow around three stars. With high magnifications we'll see that this glow is elongated with the points directing to the north- and south side. Through larger telescopes we see more obvious that this is a small, rich cluster.
Eight arc minutes southeast we see NGC 2384. Through small scopes this cluster looks more like a nebula, although we can resolve some stars. The glow of the unresolved stars stretches out from east to west. With low magnifications we can catch both clusters easily into the same field of view.

Have fun searching and observing these objects!

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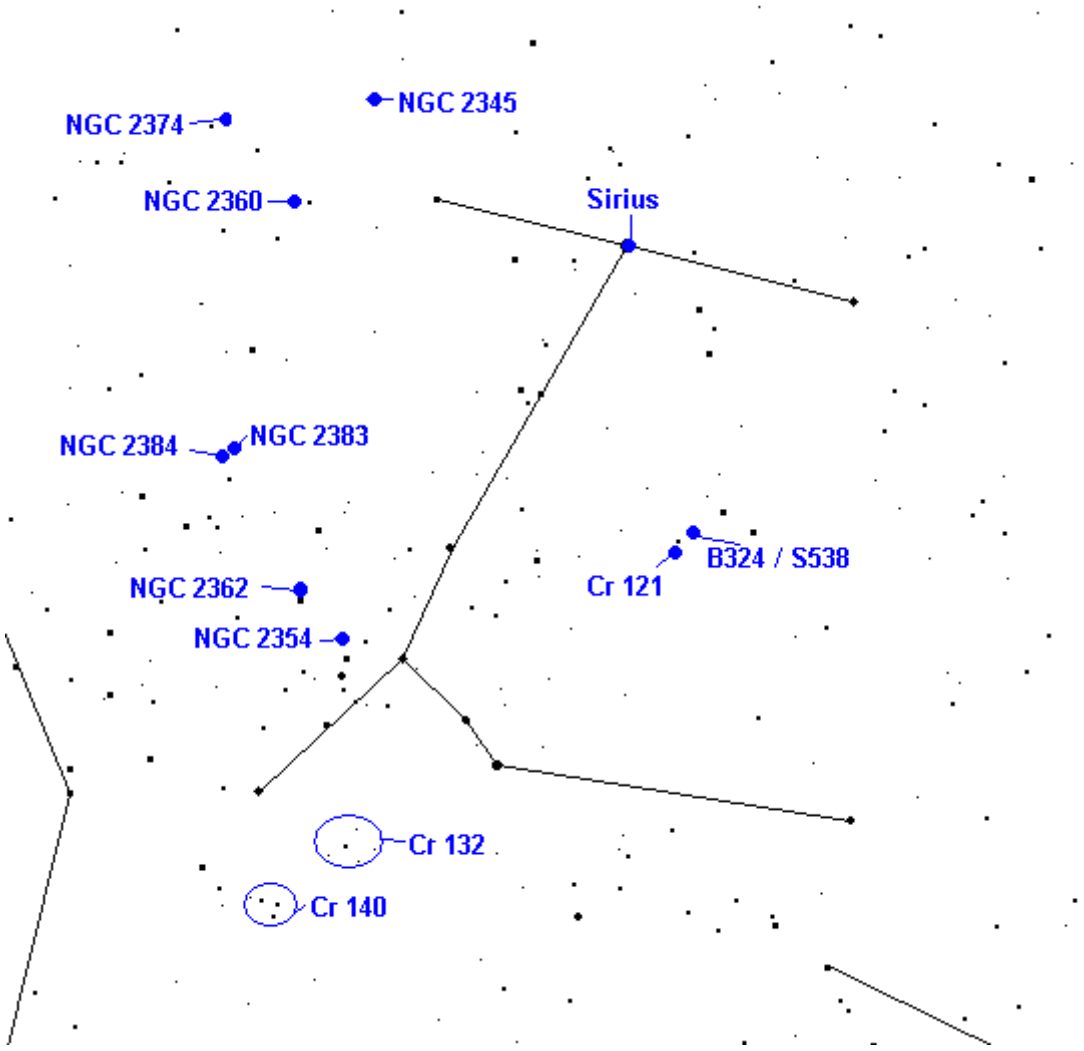
*http://www.everyoneweb.com/observingthenightsky/*




| Constell. | Object | Type | Magn. | Size/sep | RA | Dec. |
|---|---|---|---|---|---|---|
| Canis Major | Sirius | Star | 1.5 | - | 06h45m09s | -16°43' |
| Canis Major | β 324 / S537 | Multiple star | 6.3 & 7.6 | 1.8” | 06h49.7m | -24°05’ |
| Canis Major | Cr 121 | Open cluster | 5.8 | 49’ x 49’ | 06h54m12s | -24°37’ |
| Canis Major | NGC 2345 | Open cluster | 7.7 | 12’ x 12’ | 07h08m19s | -13°12’ |
| Canis Major | NGC 2354 | Open cluster | 6.5 | 20’ x 20’ | 07h14m15s | -25°42’ |
| Canis Major | Collinder 132 | Open cluster | 3.8 | 95’ x 95’ | 07h14m24s | -31°10’ |
| Canis Major | NGC 2360 | Open cluster | 7.2 | 13’ x 13’ | 07h17m43s | -15°38’ |
| Canis Major | NGC 2362 | Open cluster | 4.1 | 8’ x 8’ | 07h18m41s | -24°57 |
| Canis Major | Collinder 140 | Open cluster | 4.2 | 42’ x 42’ | 07h23m54s | -32°11’ |
| Canis Major | NGC 2374 | Open cluster | 8.0 | 19’ x 19’ | 07h23m56s | -13°16’ |
| Canis Major | NGC 2383 | Open cluster | 8.4 | 6’ x 6’ | 07h24m40s | -20°57’ |
| Canis Major | NGC 2384 | Open cluster | 7.4 | 2.5’ x 2.5’ | 07h25m12s | -21°01’ |