



# The Binocular Sky

May  
2012

# Newsletter

## Introduction

Welcome to the May 2012 *Binocular Sky* Newsletter . The intention of this monthly offering is to highlight some of the binocular targets for the coming month. It is primarily targeted at observers in the UK, but should have some usefulness for observers anywhere north of Latitude 30°N. For this Newsletter to be a useful tool, it needs to have the information that **YOU** want in it; therefore please do not be shy about making requests – if I can accommodate your wishes, I shall do so.

## Transient Objects

At the time of going to press, there are no comets or supernovae available to binocular viewers at our latitude.

## The Deep Sky (Yellow text is hyperlinked to charts and more information.)

The **trio of open clusters** in Auriga and **M35** in Gemini are still visible low in the West as twilight darkens. While you are looking at M35, also see if you can identify two smaller open clusters, NGC 2158, which is half a degree to the SE, and the somewhat more difficult IC 2157, which is a degree to the ESE. Also in the West, but slightly higher are **M44 (Praesepe)** and **M67**, two fine open clusters in Cancer. Also visible in the North are **NGC 457 (The Owl Cluster)** and **NGC 633** in Cassiopeia and the **Perseus Double Cluster**. The finest and best-placed open cluster available this month is last month's "object of the month", **Melotte 111**, the cluster that gives Coma its name.

## The Deep Sky (contd)

Open (also called 'Galactic') Clusters are loosely packed groups of stars that are gravitationally bound together; they may contain from a few dozen to a few thousand stars which recently formed in the galactic disk.

In May, we are able to look out of the plane of the Galaxy during the evening. This makes more globular clusters and galaxies available for observation. Look out for the two galaxy trios in Leo ([M95/96/105](#) and [M65/66/NGC3628](#)) which are now moving into the western sky, and *Markarian's Chain* in Coma Berenices, which is very well placed as we enter astronomical twilight. If you have a big binocular, also observe the edge-on [NGC4565](#) (*Berenice's Hair Clip*), which is next to [Melotte 111](#). Also very well placed this month are [M81](#) (*Bode's Nebula*) and [M82](#) (*The Cigar Galaxy*), both of which are easy in a 50mm binocular. These can be used as a good demonstration of averted vision: if you have them both in the same field of view, you may see that the core of M81 becomes more apparent if you look at M82. If you have good skies, try [M51](#) (*The Whirlpool*) and M101 which, although it is a large object, is very difficult owing to its low surface brightness.

This month's "object of the month", the globular cluster [M3](#), is a good one to start with during an May evening's observing. Later in the evening, the two Hercules globulars, [M92](#) and the very impressive, and very easy to find, [M13](#) are at a better altitude for observation. Although M13 is clearly larger than M3, it is easier to resolve the outer stars of the latter one, which is why I one reason that I have nominated it as object of the month. Also becoming visible in May evenings is [M5](#) in Serpens.

Globular clusters are tightly-bound, and hence approximately spherical, clusters of tens, or even hundreds, of thousands of stars that orbit in a halo around almost all large galaxies that have been observed. They are important for two reasons: Firstly, they contain some of the oldest stars in the galaxy, so studying them helps us understand the evolution of stars. Secondly, they are useful as "standard

## The Deep Sky (contd)

candles” in establishing a distance scale of the Universe, based on the assumption that the brightest stars in any globular cluster will be approximately the same brightness and that the brightest globulars in a galaxy will be approximately the same brightness.

If you have binoculars of at least 100mm aperture, see if you can find and identify **NGC 4361**, a planetary nebula in Corvus. It is a difficult object because it is low in the sky, even from southern Britain.

Planetary Nebulae are short-lived (a few tens of thousands of years) masses of gas and plasma that result from the death of some stars. They have nothing to do with planets, but get their name from the fact that, in early telescopes, they had the appearance of giant planets.

For an interactive maps of Deep Sky Objects visible from 51 °N, please visit:  
[http://binocularsky.com/map\\_select.php](http://binocularsky.com/map_select.php)

## The Solar System

### Planets

**Venus** itself is high in the west at dusk. It is difficult, owing to its brightness, to make observations of it in a dark sky but, if you observe it in bright twilight, with good optics and magnification of x10 or (preferably) more, you should be able to detect a change in its phase as its diameter slowly grows throughout the month. It will show a waning crescent during the month, changing from just over a quarter-illuminated, to a mere sliver by month end.

## Meteor Showers

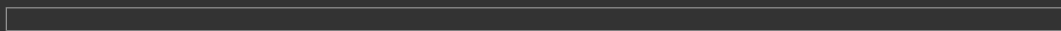
The conditions for this month's meteor shower, the *Eta Aquarids*, are about as poor as it gets: from our latitude, astronomical twilight ends before the radiant achieves a reasonable elevation, so only the brighter members are seen and, this year, the maximum on May 5/6 coincides with a Full Moon. However, the peak is broad, so there may be an opportunity to observe some after Moonset earlier this month. These meteors are dust particles from the tail of Comet Halley. As these particles enter the atmosphere, they compress and heat the air in front of them. This heat causes the surface of the particle to ablate and ionise. Binoculars are useful for observing the persistence of these ionisation trains that form the streak in the sky which is what we observe as a "shooting star."

## The Moon

May 06	Full Moon
May 12	Last Quarter
May 21	New Moon
May 28	First Quarter

Wishing you Clear Dark Skies,

Steve Tonkin for *The Binocular Sky*



### Acknowledgments:

The charts in this newsletter were prepared with Guide v9.0 from <http://projectpluto.com>

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