



The Binocular Sky

May
2013

Newsletter

Introduction

Welcome to the ***Binocular Sky*** Newsletter of May 2013. 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 and possibly even further south. 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.

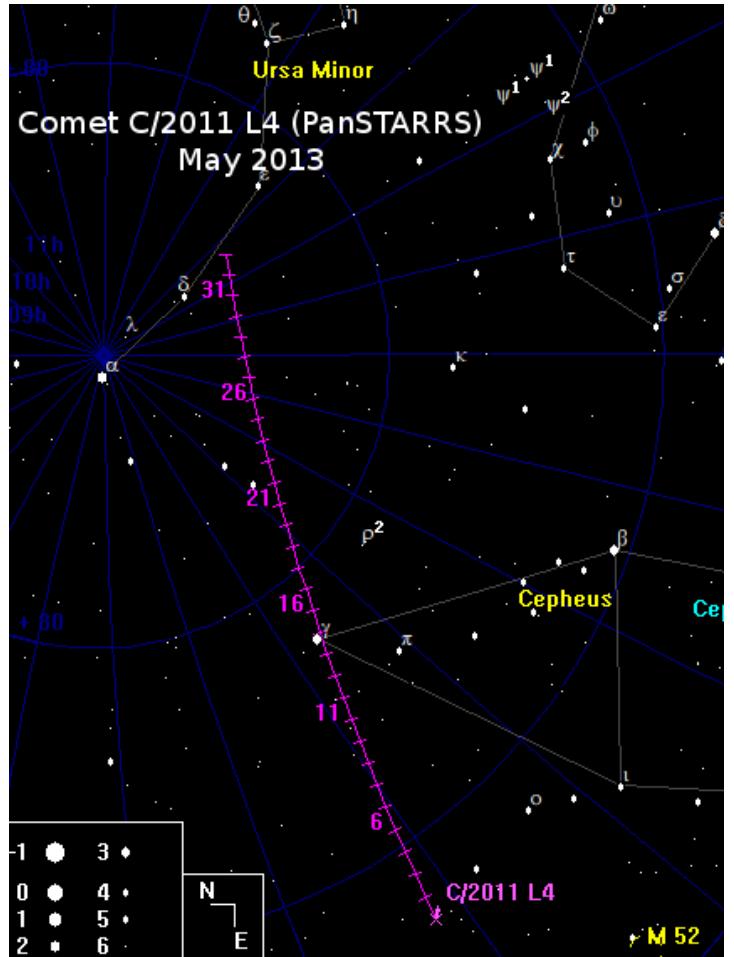
If you would like me to email this newsletter to you each month, please complete and submit the [subscription form](#). You can get “between the newsletters” alerts, etc. via  and .

Transient Objects

Comet C/2011 L4 (PanSTARRS) continues to rapidly fade and the test this month will be to see how long you can follow it in binoculars. One of the easier opportunities for observing it will be on the evening of the 13th when, although only about 9th magnitude, it will be only a quarter of a degree from Errai (γ Cep) at the end of astronomical twilight, when the Moon will be setting. Observing PanSTARRS as late as possible into the month will provide good practice for finding **Comet C/2012 S1 (ISON)** early in its apparition later this year.

Comet PanSTARRS (contd)

PanSTARRS is now circumpolar (in fact, from our latitude it will never set again!), so can be observed all night.



The Deep Sky

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.

Of the globular clusters, [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 assumptions 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.

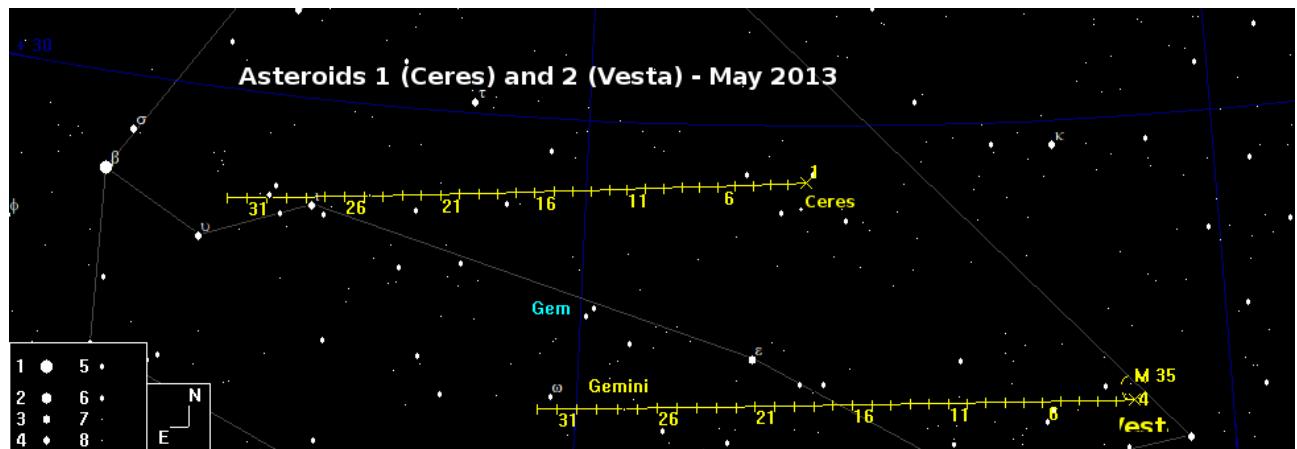
For interactive maps of Deep Sky Objects visible from 51°N, please visit: http://binocularsky.com/map_select.php

The Solar System

Planets

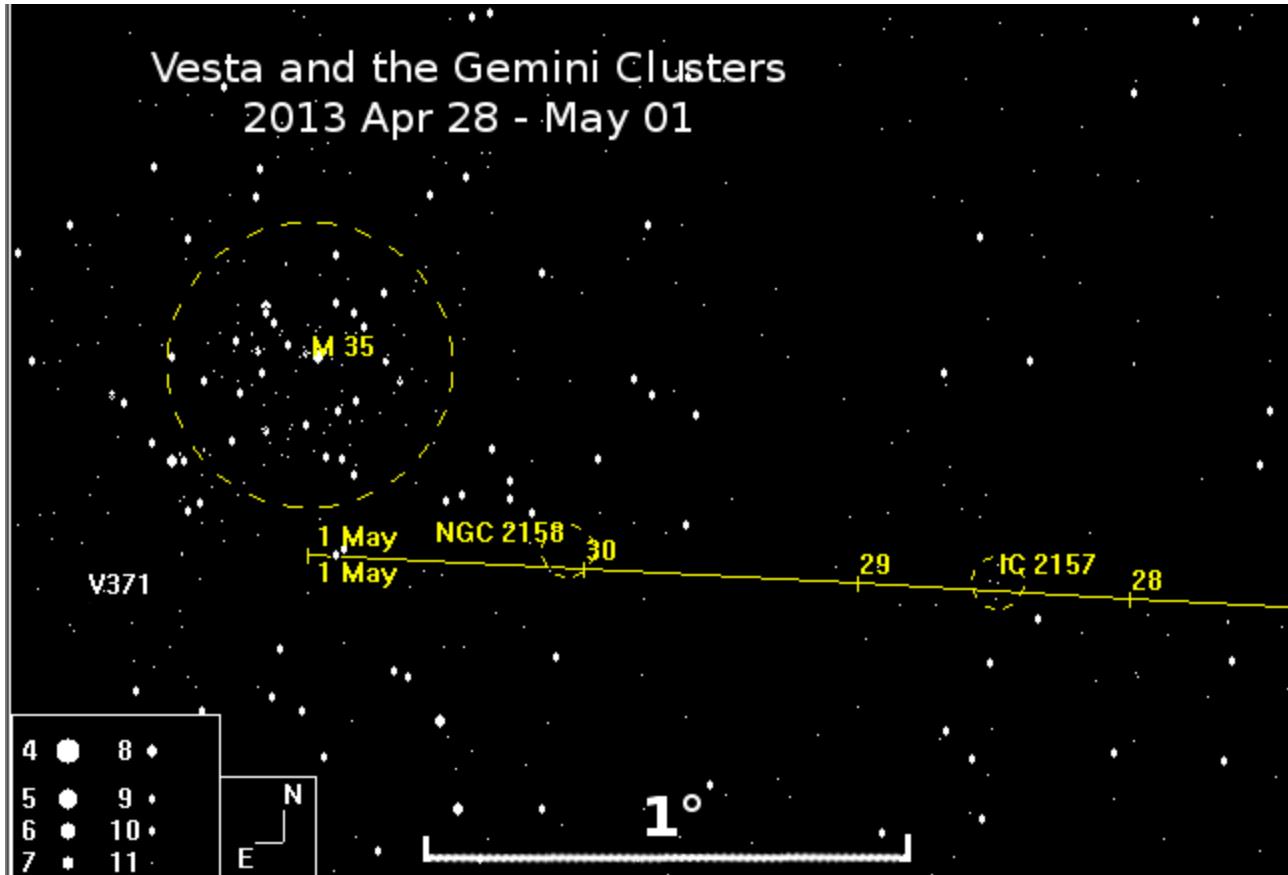
The binocular planets, **Neptune** and **Uranus**, rise in the morning twilight, so are not observable this month.

Minor Planets



Minor Planets (contd)

Vesta has a close encounter with M35 at the beginning of the month.



Lunar Occultations

There are no occultations of bright stars visible from the UK this month.

Asteroid Occultations

Although the event is not visible from the UK, the magnitude 8.8 star, HIP 72566 (*HU Librae*), will be occulted by asteroid 258 Tyche on the evening of May 23. The track extends from the Malaysian peninsular, across the Arabian peninsular, Northern Egypt, Sicily, Sardinia and France, and into the Bay of Biscay. Details are at http://asteroidoccultation.com/2013_05/0523_258_29781.htm

Meteor Showers

The conditions for this month's meteor shower, the *Eta Aquarids*, are reasonably good: this year, the maximum is at 01:00 UT on May 6, more than an hour before the rise of the waning crescent Moon.

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 trains of this shower tend to be long. Owing to the position of the radiant, this is essentially a shower for observers at a latitude south of about 35°N.

The Moon

May 02 Last Quarter

May 10 New Moon

May 18 First Quarter

May 25 Full Moon

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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