

### **WORLD'S SHORTEST CATALOG: P3-PICKARD'S COATHANGER**

The 3<sup>rd</sup> member in my catalogue is the Coathanger Asterism located in Vulpecula. It is currently referred to as Collinder 399, but has also been called Brocchi's Cluster. It was first identified by the Persian astronomer Al Sufi in 964 A.D. It had been considered a star cluster for most of the 20<sup>th</sup> century until data from the Hipparcos satellite showed that the stars did not have the same proper motion. Thus, it is no more than a chance alignment of stars.

Having multiple synonyms for stellar objects is not only common in astronomy, but sometimes mind boggling. So why does the Coathanger qualify as P3? Having an Iridium Flare within 8° seemed to be a fine reason as I had shot Flares in my Little Dipper and Triple Double.

The Magnitude of the 10 stars range from Mag 5.1~7.1. The Iridium Flare on August 14,2013, was Mag. -6.2. The difference in Magnitude between the asterism and flare is about Mag. 13 or 158,500 times brighter!

The first picture is a wide field with P3 in the middle. You can clearly see the different colors of the asterism's stars. Along a diagonal line to the upper left you will see a double star, Alpha and 8 Vulpeculae which are clearly split at 442 arcseconds. And in the upper left corner is Albireo, the beautiful orange and blue double star in Cygnus. (The field of view is too wide to split this at 34 arcseconds.) This was shot on 8/10/2013, Nikon D70, 50mm, f/5.6, ISO 1600, Light 27x30 sec, Dark 20x30 sec, Flat 20x1/1600 sec, Bias 5x1/1600 sec.



The shot with the Iridium Flare was a single shot, 30 sec, ISO 1600, f/5.6. The field of view still includes the doubles mentioned above. Thanks go to Pascal Menut for so nicely Photoshopping the image!



The next photo is a wonderful view of the CoatHanger. It was shot by Anthony Ayiomamitis in Greece and is reprinted with permission. For you astrophotographers, he has listed all the technical details right in the photo. It can be seen here (and below):

<http://www.perseus.gr/Astro-DSO-Cluster-Cr-399.htm>

**Deep Sky Object Image Gallery**

Open star clusters are widely distributed in our galaxy and represent a loose collection of stars which number from a few dozen to a few hundred stars and are weakly-held gravitationally. Perhaps the three most famous such open clusters are the Pleiades (M45) in Taurus, the Beehive (M44) in Cancer and the double cluster in Perseus. They are all characterized with a handful of hot and white prominent stars and nebular material surrounding these stars.

**Note:** Collinder 399 in Vulpecula is a large asterism comprised of approximately 40 member stars with an apparent diameter of 90 arc-minutes. The asterism is best known for the appearance of an upside-down coil; larger formations thanks to the eight or nine brightest member stars. There exists some confusion as to whether this collection of stars is an open cluster or simply an asterism. The cluster was first observed by Al-Sufi in 964 AD and was never assigned an IGC designation perhaps owing to its large apparent diameter. Lying at a distance of 420 light-years away, the asterism is best observed using a pair of binoculars during late summer and early fall when the constellation of Vulpecula is high overhead following the end of astro twilight.

Please click on the image below to display in higher resolution (1200 x 900)

Image Details	Cr 399 - Open Cluster in Vulpecula	Imaging Details
<b>Collinder Number:</b> 399  <b>Common Name(s):</b> Beech's Cluster Al Sufi's Cluster The Coachman's Cluster  <b>Other Designations:</b> OC1, I13, Land 890  <b>Object Type:</b> Open Cluster  <b>Object Classif:</b> III 3 m  <b>Constellation:</b> Vulpecula  <b>RA / Dec:</b> 19h 26m 18s / 20° 07' 56"  <b>Distance:</b> 420 light-years  <b>Object Size:</b> 90 x 60'  <b>Magnitude:</b> 3.6		<b>Date:</b> Jul 19-20, 2012 22:35 - 01:35 UT+3  <b>Location:</b> Athens, Greece  <b>Equipment:</b> Takahashi FSQ 106/15 AP 130XGT0 GEM SBIG ST-10XME SBIG CFW10 SBIG LRGB filters  <b>Integrations:</b> Lum - 050 min (50 x 1 min) Red - 042 min (07 x 6 min) Green - 042 min (07 x 6 min) Blue - 042 min (07 x 6 min) Dewing: 1s1 (Lum), 1s1 (C...)  <b>Image Scale:</b> 2.65" per pixel  <b>Temperatures:</b> Ambient: +22.0° C CCD Chip: -15.0° C  <b>Software:</b> CCDSu6 V3.00.201 CCDStack V1.6.0.5 eXcalibrator V1.0.3.0 Aladin V6 Photoshop CS3

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He has an **amazing website** which can be seen here:

<http://www.perseus.gr/>

This is the rig I used for the pictures:



Bill Pickard

“The difference between Stupidity and Genius, Genius has its limits” Albert Einstein

