



Hydra the multi-headed Serpent

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Hydra, the female Water Snake, is the longest of today's 88 known constellations, stretching from the Libra up to the northern constellation Cancer – more than 3% of the entire night sky (see starmap). It is quite a challenge to deal with this expansive constellation in one article, especially as it contains exceptionally magnificent objects that make a visit to the constellation decidedly worthwhile.

Of course, what makes the constellation all the more interesting is the fact that it raises the question, why the name – why a female snake? According to legend Hydra was the multi-headed snake which had the ability to grow two new heads for every one that was cut off. The constellation was associated with the goddess Tiamat the ruler of the seawater who according to legend

kills her offspring. However slightly softer on the tongue is the German name *Wasserschlange*.

The northern part of the constellation is characterised by the magnitude 3 to 4 stars eta, sigma, delta, epsilon and zeta Hydrae, which could be seen as making up the head shape with a sharp-pointed nose.

The star Alphard, also known as alpha Hydrae, could easily be seen as a yellow-white diamond hanging on her slender neck (remember she is a woman). Sometimes also referred to as the Water Snake's heart line, it is located 180 light years away from us. The Arabic name for this star is The Solitary One, referring to the lack of bright stars in its vicinity.

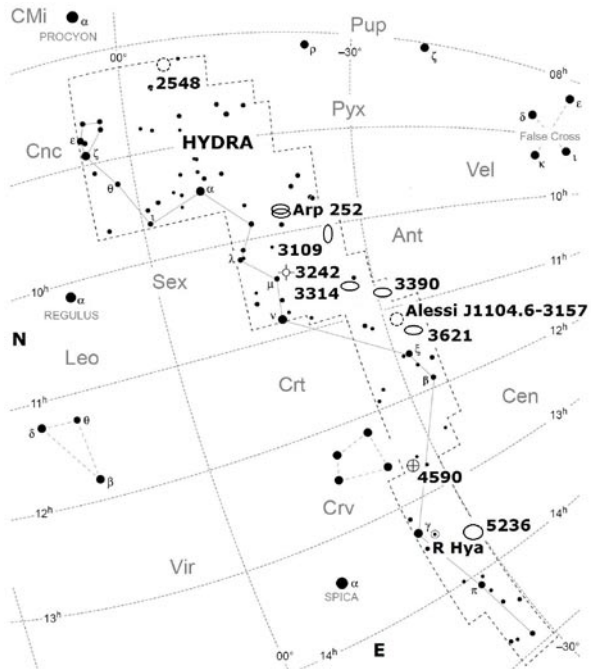


Image source: Stellarium.org

The well-known open cluster **NGC 2548**, perhaps better known by the name Messier 48, is situated due west of alpha Hydrae right on the constellation Monoceros boundary. Caroline Herschel and Charles Messier independently discovered this large, bright and loosely expanded cluster of around 50 stars displaying circles, pairs and triplets (see picture). A prominent crooked string of stars runs through the cluster in a north-south direction. Numerous outliers mingle with the star field, although the middle area is slightly condensed.

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For the purpose of this article, however, it is best to concentrate on the southern area of Hydra. In the middle area of the constellation it is quite easy to locate the very orange-red magnitude 3.8 mu Hydrae and then to star-hop 1.8 degrees south to the planetary nebula **NGC 3242**, also known as the Ghost of Jupiter. The outstanding, slightly oval nebula displays a soft outer envelope, a noticeable washed-out blue colour and a glimpse of the magnitude 12 star towards the centre (see sketch). Through a somewhat larger amateur telescope it appears mottled and resembles a human eye, in contrast with



the inner dark envelope around the star. A faint darkish area can be seen

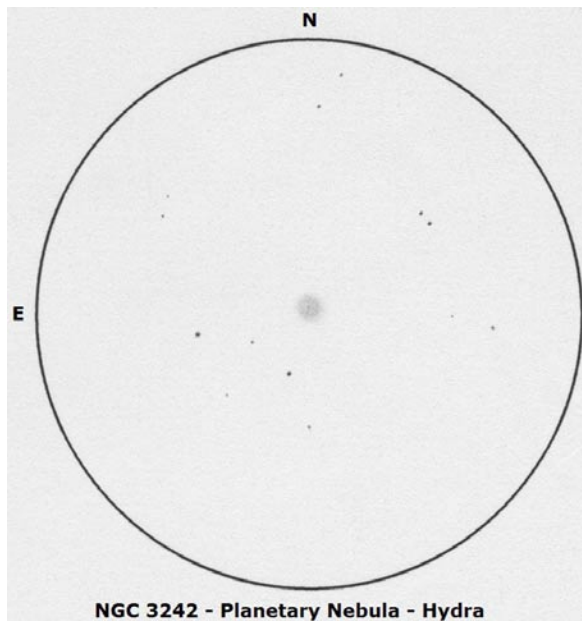
in the southern section, with a brighter northern side. William Herschel described this nebula as just a faint puffball during observations in 1785. Jenni Kay noted a soft, diffuse edge wrapped in multiple soft, layered shells with a strong response to the OIII filter.

Hydra is rich in galaxies, and a few interesting facts are attached to several of them, even though through amateur telescopes they would prob-



M48, also known as **NGC2548** is a large, bright and loosely expanded open cluster. Photo: Dale Liebenberg

deep-sky delights



NGC 3242. Planetary Nebula in Hydra.

ably appear to be mere patches of light.

A very special galaxy is **Arp 252** (PGC 27928 and PGC 27929), which is situated a

few degrees west of NGC 3242 and has also been popular known as the Question Mark Galaxy. It can be seen as a pair of interacting spirals, which

the Hubble deep picture reveals in a unique way. This special pair is situated only 1.2 degrees south-east from the galaxy NGC 3028. The small spiral galaxy **NGC 3109** is situated about 7.5 degrees further south-west from Arp 252. Astronomers pointed KAT, the Karoo Array Telescope (picture), towards this galaxy, which allowed them to see the HI radio emission and moving of the galaxy. Where the gas is moving towards us the frequency of the spectral line is Doppler shifted upwards, whereas where the gas is moving away it is shifted down. A few degrees south-east the tight knot of about a dozen galaxies also known as the Hydra 1 Galaxy Cluster shares a field of nearly 2 degrees. However, the



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southern member in this group, **NGC 3314**, has a nice twist to it. The galaxy is also indicated both as NGC 3314A and NGC 3314B. Hubble pictures show two galaxies appearing to be head on, while they are actually tens of millions of light years apart and it is only from our perspective that they appear to line up. Further south-east, on the border with the constellation Antlia, the spiral galaxy **NGC 3393** contains a pair of super-massive black holes. In the midst of the galaxy cluster the magnitude 4.8 lovely red colour star (HD 92036) can serve as a good indication to locate this group.

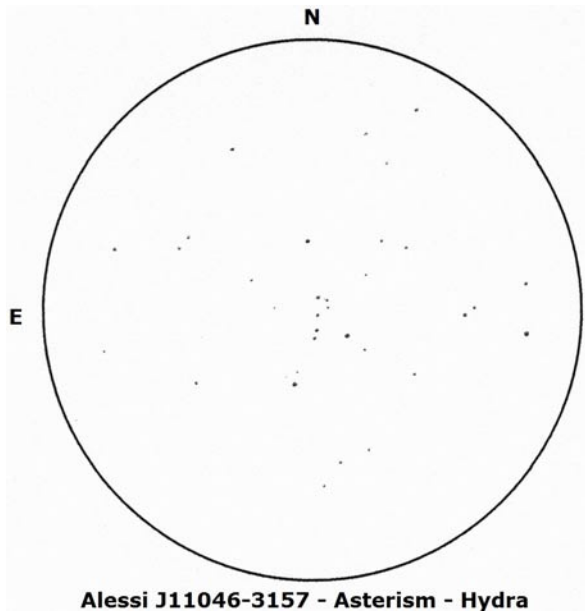
So, as can be seen, there is a lot more to discover and explore, so next time when you try to only glimpse these above-mentioned galaxies to remember the interesting facts woven around them. Sadly, only the most beautiful Hubble pictures show them in anything like their full glory.

The lovely double star chi 1&2 Hydrae, quite bright

with magnitudes 4.8 and 5.7, point the way 4.5 degrees south to the asterism **Alessi J11046-3157** – five magnitude 12 to 13 stars in a short string from north to south, with two fainter ones topping the scale to the west (see sketch). Not at all an easy task to find this compact, faint and small asterism, but when found, it is nicely lifted out against the star field. However the book star clusters (Archinal and Hynes) indicate a larger C-shaped

group which may be part of this faint string.

About 3 degrees south-east is the galaxy **NGC 3621**, which in combination with field stars displays a special character. The galaxy, lying in an elongated north-west to south-east direction, looks somewhat mottled, gradually getting brighter towards a wide, dense nucleus. The periphery is shrouded in mistiness, with faint splinter stars embedded on its northern sur-



The Alessi J11046-3157 Asterism.

deep-sky delights



NGC 3621
or the **Crux**
Galaxy. Pic-
ture by Dale
Liebenberg.

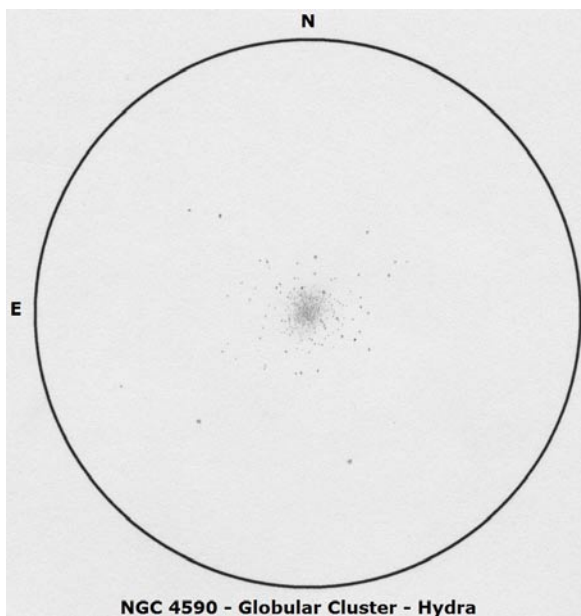
face. It has become a habit of mine to name an object according to the very first thought that strikes me when I look at an object. My notes indicate the “The Crux Galaxy” for this one guarded by a trapezium of stars closely surrounding the galaxy with a memorable impression of the Crux constellation.

The bright globular cluster **NGC 4590**, also known as Messier 68, can be found about halfway between beta and gamma Hydrae. The globular cluster appears somewhat oval in a north-west to south-east direction with an obscure compressed core with faint mist indicating a star-rich cluster (see sketch). I suspect that its apparently elongated shape might be attributed to the fact that

there are faint clumps of stars visible on the north-western edge. The eastern side of the globular is slightly more edged, whereas the western part filters out with faint star

trails. But it is not at all easy to resolve the cluster, except with higher magnification.

The magnitude 2.9 star gamma Hydrae shines with a lemon-yellow colour and could be seen as indicating the last curve towards the tail-end of the constellation. Hop 2.5 degrees south-east to the variable star **R Hydrae**, one of the brightest long-period variables in the sky. It is an M-class Mira type star that reaches a maximum



NGC 4590 - Globular Cluster - Hydra

Globular Cluster NGC 4590, also know as M68.

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of magnitude 3 and magnitude 11 near its minimum. The reddish-orange colour star (HD number 117287) with a period of 389 days classed with a spectral type M6 – 9, and a parallax of 8.05 milli arc-second according to Christopher Middleton.

But the real show stopper in the Hydra constellation is the magnificent galaxy **NGC 5236**, better known as Messier 83, discovered by Nicolas Louis de Lacaille at the Cape of Good Hope in 1752. The galaxy is situ-

ated barely 30' from the northern border with the constellation Centaurus and is also part of the Centaurus galaxy group. It is a large, bright, face-on galaxy with a soft, flimsy edge quite outstanding against the star field. The bright nucleus is obvious, and with careful observation it displays a soft halo around a more bar-like east-west core. Really high magnification through larger amateur telescopes will bring out the delicate arm extensions which can be glimpsed curving out from

the east end of the nucleus going south and the other arm from the western end going north. Faint stars peek through the glow, with a few brighter ones sighted just off the extreme eastern edge of the galaxy. Since 1923, more than a handful of supernova explosions have been found in this galaxy.

Never underestimate a woman, even if she is a constellation against the starry skies – she will show you a thing or two that are unbeatable! ☆

Object	Type	RA (J2000.0)	Dec	Mag	Size
NGC 2548 M 48	Open Cluster	08 ^h 13 ^m 8	-05°48	5.8	54'
Arp 252	Galaxy	09 44 8	-19 43	15	1.5'x0.4'
(PGC 27928/9)	Galaxy	09 44 9	-19 43	15.3	0.9'x0.4'
NGC 3109	Galaxy	10 03 1	-26 10	9.8	15'x2.9'
NGC 3242	Planetary Nebula	10 24 8	-18 38	7.8	16"
NGC 3314	Galaxy	10 37 2	-27 41	12.8	1.5'x0.8'
NGC 3390	Galaxy	10 48 1	-31 33	12.4	3.1'x0.7'
Alessi J11046-3157	Asterism	11 04 6	-31 58	8	3.3'
NGC 3621	Galaxy	11 18 3	-32 49	8.9	9.8'x4.6'
NGC 4590 M 68	Globular Cluster	12 39 5	-26 46	7.7	12'
R Hydrae	Variable star	13 29 7	-23 17	3-11	389.6 d
NGC 5236 M 83	Galaxy	13 37 6	-29 53	7.6	15.5'x13.0'