

What to look for in the night sky over the next few weeks.

**Presented to Ewell Astronomical Society by Ron Canham
At Nonsuch High School for Girls, Cheam
Friday 14th February 2020**

**Topics: Valentine's Day, Orion constellation, Betelgeuse,
Objects for binoculars**

<https://ewellastronomy.org/>

For today's date I searched for connections to St Valentine.

The star **Vega** in the constellation **Lyra** is one of the sky's most beloved stars, for people around the world.

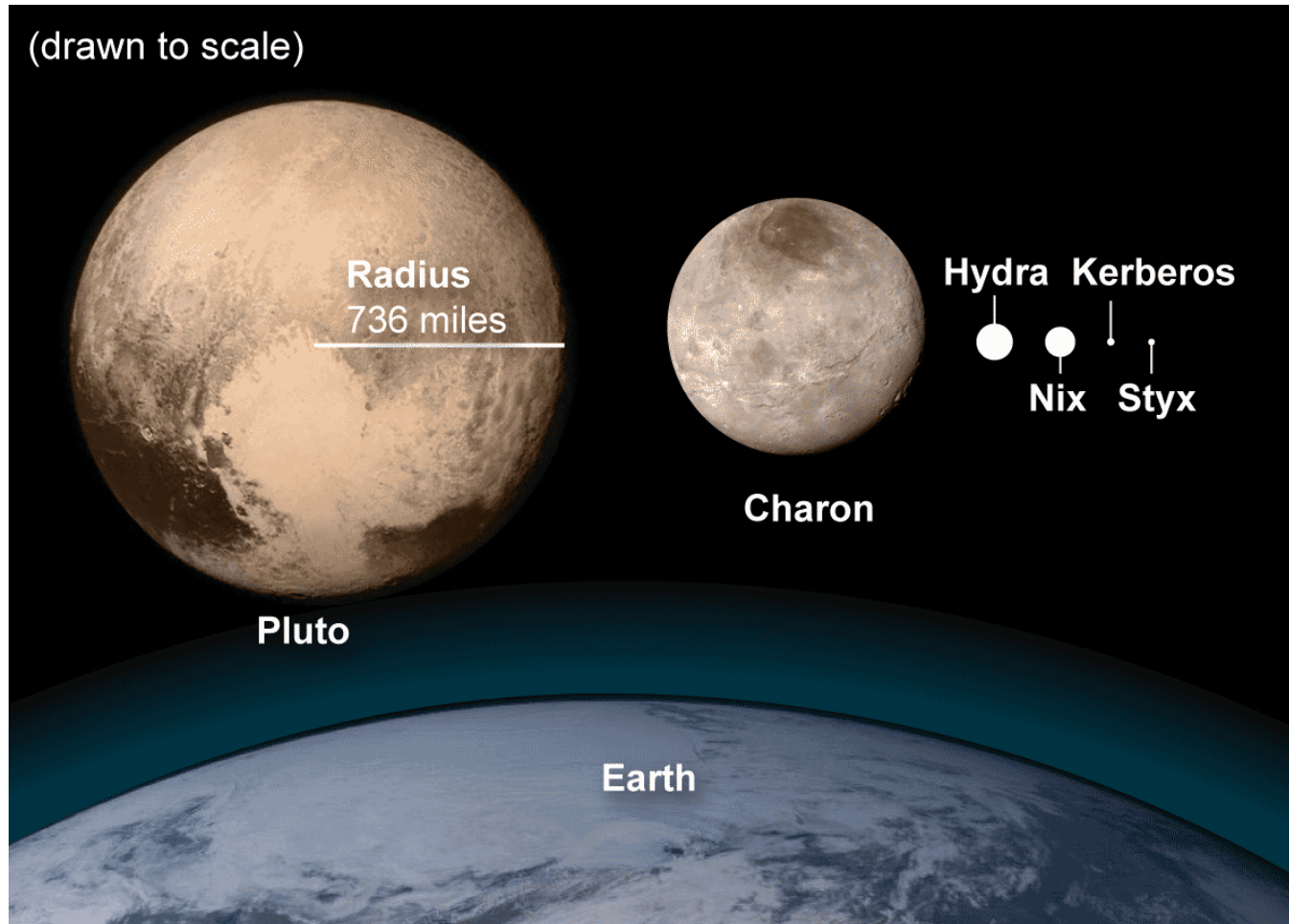
This beautiful blue-white star figures into the Qixi Festival, or Chinese Valentine's Day.

Unfortunately Lyra is below the north horizon.

The Qixi Festival, also known as the Qiqiao Festival, is a Chinese festival celebrating the annual meeting of the cowherd and weaver girl in mythology. It falls on the 7th day of the 7th lunar month on the Chinese calendar.

Tuesday, 25 August 2020

When the images of Pluto were first seen, I recall comments about the heart.
So I am surprised this has not been adopted by the card publishers, who use any
excuse to sell us cards.
Photo from NASA, for comparison our moon is a little over 1,000 miles radius.



Pluto, discovered by Clyde
Tombaugh on 18th February
1930.

At the time an amateur
astronomer using a 13inch
astrograph and a blink
comparator.



Some may like Betelgeuse as an appropriate star for St Valentine's Day, as it is a bright red star in the night sky at this time of year. Easy to see with the unaided eye.

I mentioned Betelgeuse last month as it was unusually dim, which may indicate it is about to go supernova.

A few days later two magazines, BBC Sky at Night and Astronomy Now featured articles on this.

Betelgeuse is too big to live for long, stars that size burn up their fuel pretty fast compared to smaller which can live for billions of years.

Scientists think Betelgeuse has already hit the ripe old age of 8.5 million years, and if it hasn't gone supernova by now, it may in the next century or so.

Betelgeuse is massive, a red supergiant star about as wide as Jupiter's orbit around the sun.

I expressed concern, last month, that a supernova this close (640 ly) may be a problem. Two supernova within 330 ly 1.5 and 2.3 million years ago may have caused mass extinction events on our planet.

No need to panic. Around 5% of species survived those events.

Betelgeuse (Al Mankib - Betelgeux - Martial Star - Mirzam)
 α Ori - 58 Ori - HIP 27989 - SAO 113271 - HD 39801 - HR 2061 - WDS J05552+0724Aa,Ab

Type: **pulsating variable star, double star (SRC)**
Magnitude: **0.45**
Absolute Magnitude: **-5.47**
Colour Index (B-V): **1.52**
Magnitude range: **0.00+1.30** (Photometric system: V)
RA/Dec (J2000.0): 5h55m10.35s/+7°24'25.7"
RA/Dec (on date): 5h56m16.77s/+7°24'32.7" Regulus
HA/Dec: 1h41m32.83s/+7°24'32.7"
Az./Alt.: +214°28'14.2"/+41°18'30.8"
Gal. long./lat.: -160°12'45.9"/-8°57'30.3"
Supergal. long./lat.: -7°16'31.3"/-62°32'32.4"
Ecl. long./lat. (J2000.0): +88°45'17.2"/-16°01'37.0"
Ecl. long./lat. (on date): +89°02'25.1"/-16°01'27.5"
Ecliptic obliquity (on date): +23°26'11.4"
Mean Sidereal Time: 7h37m50.6s
Apparent Sidereal Time: 7h37m49.6s
Rise: 13h41m
Transit: 20h20m
Set: 2h58m
IAU Constellation: Ori
Distance: 497.95±56.00 ly
Spectral Type: M1-M2Ia-Iab
Parallax: 6.550±0.830 mas
Period: 2335 days
Position angle (1983): 273.00°
Separation (1983): 0.060"
Proper motions by axes: 33.9 13.8 (mas/yr)
Position angle of the proper motion: 67.8°
Angular speed of the proper motion: 36.6 (mas/yr)



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Moon: New 23rd Feb, full 9th March and a supermoon, 8th April at 03:35 is the brightest supermoon this year.

Venus is bright mag -4,2, setting around 22:00

Mars rises in Southeast about 04:30.

On 17-18 Feb Mars is between the Lagoon Nebula and Trifid Nebula, visible with binoculars.

Jupiter rises Southeast around 05:30

Saturn may be seen near Jupiter at the end of the month.

(My thanks to Stellarium 0.19.3, Philip's 2020 Stargazing, Collins 2020 Guide to the Night Sky, Astronomy Now magazine, BBC Sky at Night magazine, Janus and numerous other sources.)