Stargazing Guide: June 2019

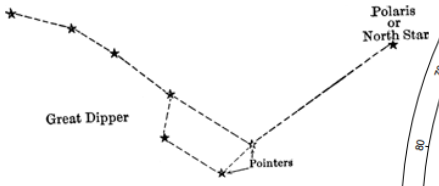
WINCHESTER SCIENCE CENTRE AND PLANETARIUM

What to look out for…

Constellations (star pictures) and interesting stars:

1 **<u>The Plough</u>** This well known pattern is almost overhead at this time of year.

The last two stars point to the North Star, **Polaris,** which is above the North Pole.

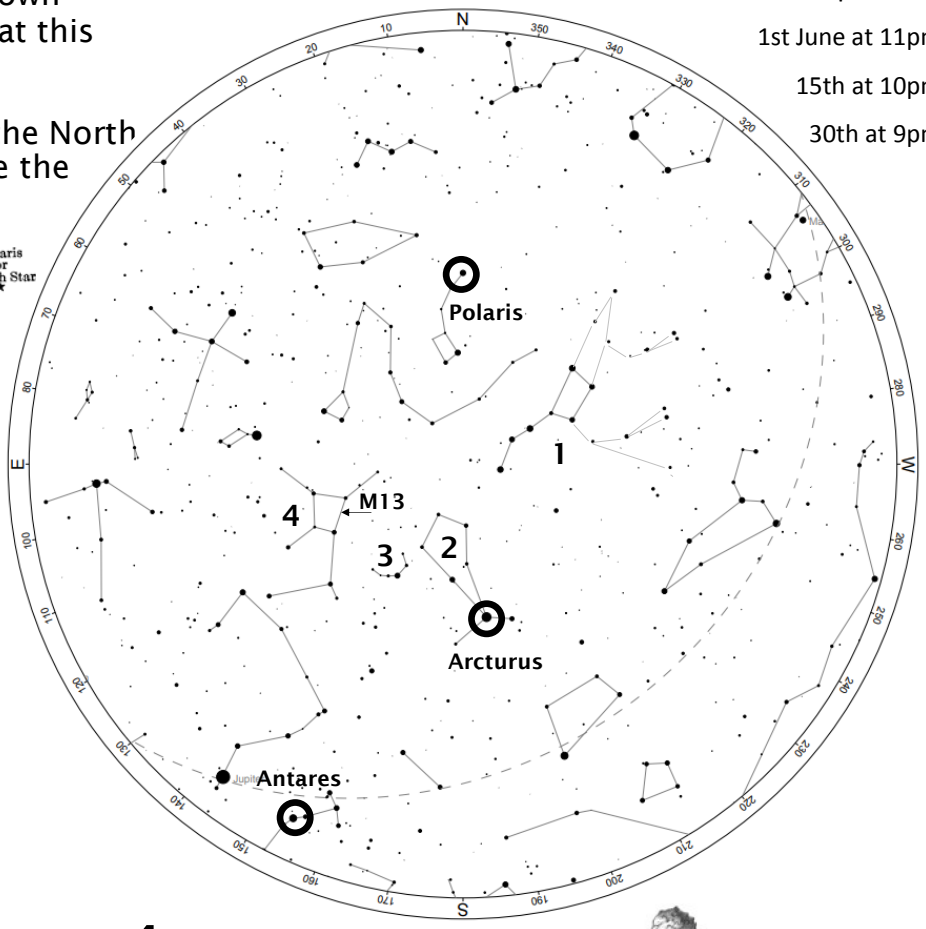


Map shows:

1st June at 11pm

15th at 10pm

30th at 9pm

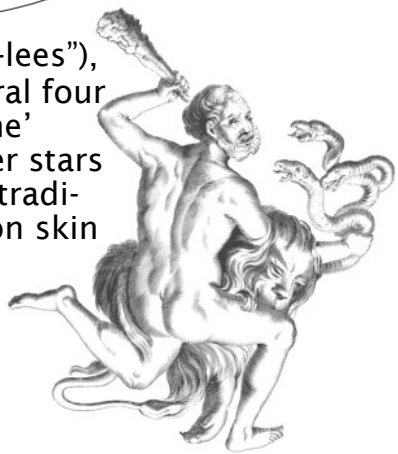


2 **<u>Bootes</u> the herdsman** (say "Boo-oat-ees"). The herdsman. Contains the bright orange-red star **Arcturus.** See last month's guide for more about this constellation.

3 **<u>Corona Borealis</u>** (say "Cur--roe-na Bore-ree-ah-lis"). The Northern Crown. A beautiful crescent of about seven stars.

This constellation represents the crown of Ariadne, who helped Theseus escape the Labyrinth in the story of the Minotaur. She was given the crown by the god Bacchus, whom she later married.

4 **<u>Hercules</u>** (say "Hurk-you-lees"), the Hero. Look for the central four stars that form the 'keystone' shape of his body. The other stars form his limbs. Hercules is traditionally shown wearing a lion skin and holding a club.



M13 a globular cluster (needs binoculars), **see over**.

<u>How to use this chart</u>:

Imagine the chart flat & upside-down above your head. The circle around the outside shows the horizon all around you. Turn the chart to have North (N), South (S), East or West at the front depending on which direction you are looking.

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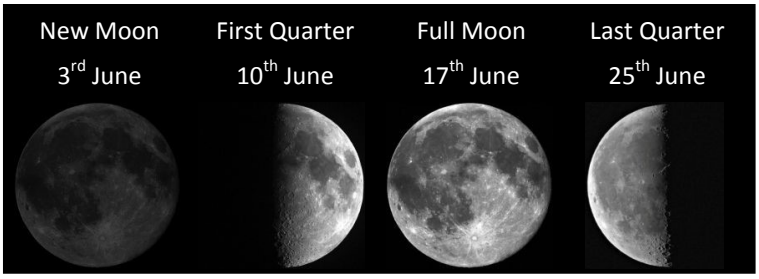
The Moon

The Moon looks quite different depending on how the Sun is lighting it and where the shadows fall. You will see different craters and features at different times for this reason.



Planets

Mars and Mercury remains visible during the month in the sky towards the West once the sun sets. Mercury starts the month close to the Sun, appearing to move away each night. Both planets will set each night of the month shortly after sunset, with Mercury setting later each night.

Jupiter, starts the month rising shortly after sunset, then rises earlier each day throughout the month and setting just shortly before the sun rises, it can be seen just above Scorpius in the night time sky
Saturn rises shortly after Jupiter and they remain relative to each other throughout the month with Saturn setting at a similar time as the Sun rises.

Venus rises shortly before the Sun at the beginning of the month remaining close to the horizon and tricky to spot. Venus will rapidly be getting closer to the position of the Sun in the sky but still rising before dawn each day.

Using Binoculars

Look in the constellation Hercules for the **M13 globular cluster** (see map, the cluster is at the tip of the arrow). This is a dense cluster containing hundreds of thousands of stars. It covers about half the size of the full Moon in the sky but is very dim which is why binoculars help. The wide ends of the binoculars catch more light than normally enters through the pupil of our eyes. The best binoculars for astronomy are those with the widest ends.

Our galaxy, the Milky Way (a spiral of over 100 billion stars), contains about 150 globular clusters. These clusters contain ancient stars over ten billion years old; our Sun is only half this age! Globular clusters may even be older than the Milky Way itself.

Tip of the Month

This is the perfect time of year to look out for **Noctilucent Clouds**, which glow eerily in the night sky. They are normal clouds but very high up so they are still lit by the Sun long after it has set from our viewpoint. You will need dark skies to spot them, so the best dates are those leading up to (and including) New Moon when you can look after the Moon has set. Use binoculars if you have a pair.

Download this star guide and those for other months from:
http://www.winchestersciencecentre.org/starguides

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