

September 2011 Night Sky

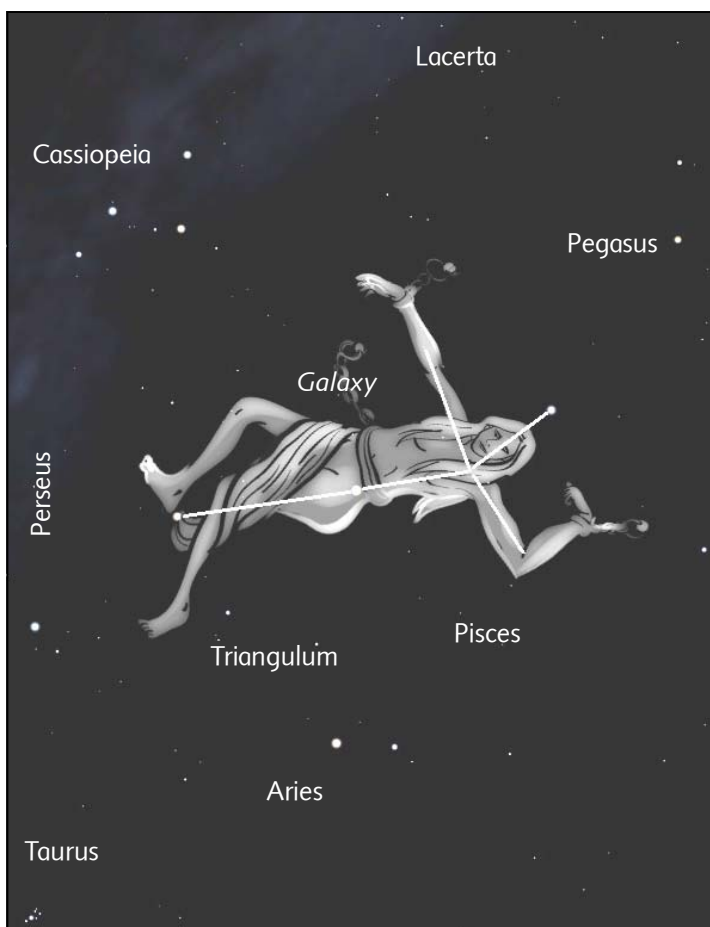


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The Autumn season arrives in September, and with it some exciting constellations become well-placed in the night sky. Andromeda the Chained Lady is in the middle of a group that includes Cassiopeia the Queen, Perseus the Hero, and Pegasus the Winged Horse. Why don't you have a go at tracking them all down?

Constellation of the month: Andromeda

According to legend Andromeda was the daughter of boastful Queen Cassiopeia, who claimed that Andromeda was more beautiful than the daughters of the sea god Nereus. To avenge the insult a sea monster was sent to destroy Cassiopeia's country. In the night sky Andromeda is shown chained to the rocks, awaiting her fate as a human sacrifice. There's no need to worry though because Perseus is close by, ready to rescue her!



Finding Andromeda

Andromeda itself isn't the most obvious of constellations, but luckily it's close to the distinctive "W" shape of Cassiopeia. Start off by looking high in the east and then try to spy the brighter stars making up Cassiopeia, which will be just above fainter Andromeda.

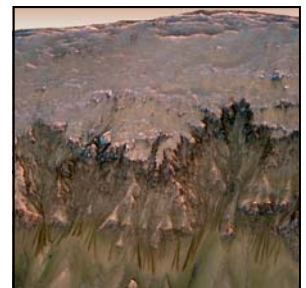
Look out for...

The famous Andromeda Galaxy is within this constellation's boundaries, close to the middle star. From a dark site away from light pollution it's actually possible to make out the bright centre of this galaxy with the naked eye. The Andromeda Galaxy is slightly bigger than our own Milky Way Galaxy and contains around a trillion stars but looks very faint because it's an incredible 2,500,000 light-years away from us. Still, as galaxies go it's one of our closer neighbours.

News flash: evidence suggests water is flowing on Mars

New images of Mars from a NASA space probe show dark shapes throughout the Martian Spring and Summer that disappear during Autumn and Winter. A possible explanation is water melting in the warmer months and forming small rivers. This is the closest we have come to discovering liquid water on the surface of Mars.

Finding liquid water raises hopes for life. Image: NASA/JPL/Caltech/University of Arizona.



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The planets in September

- Mercury** is low in the east at around 5am.
Venus is too close to the Sun to be seen this month.
Mars rises in the east after midnight.
Jupiter blazes over the horizon in the east after dusk.
Saturn cannot be seen, for the same reason as Venus.

Theme of the month: Astrophotography



This exposure time of one hour captures startrails above a campsite.

Have you ever looked up at the night sky and wanted to take a photograph of the constellations? It isn't as difficult as you might imagine. You need two pieces of equipment. The first is a camera with manual settings allowing you to control the exposure. Most cameras with interchangeable lenses have this function, and a few compact cameras do as well. The second thing you'll need is a sturdy tripod.

Set your camera up on the tripod and focus on infinity. Then use your manual mode and set the exposure (sometimes called "bulb") time to 20 seconds. Such a long exposure is needed because the stars appear to be so small and faint.

Now snap away, check your results, change the settings, and try again!

Moon calendar

04 September
First Quarter



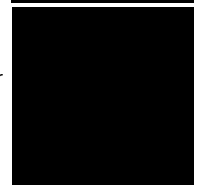
12 September
Full Moon



20 September
Last Quarter



27 September
New Moon



Would you like to know more?

Zooniverse is a collection of projects which let you help professional astronomers and maybe make a real discovery. Visit www.zooniverse.org to get started.

Stellarium is a planetarium program for your computer, showing a realistic 3D sky just as you would see if looking with your eyes or a telescope. Best of all, it's completely free. Download it at www.stellarium.org

Heavens Above is a website for you to create customised sky maps and see when satellites like the International Space Station and Iridium flares will be visible. Try it at www.heavens-above.com

The Bristol Astronomical Society is a group of local stargazers who are always keen to help beginners. Find out more via www.bristolastro.org.uk

Do you have an astronomy question for the At-Bristol planetarium team?
E-mail lee.pullen@at-bristol.org.uk and our devoted astronomers will be happy to help!