



STARRY TRAILS

OCTOBER 2019

Take a deep breath. Do you smell the scent of autumn in the air? Our nights are getting chillier and the sun sets much earlier. But on the warmer fall nights, we may still hear the last of the crickets! Jupiter and Saturn continue to dazzle us after sunset, in the southwestern sky. Jupiter's brilliance will catch your eye. Saturn is up to the left of Jupiter and dimmer (Illustration 1). The Moon will pair with Jupiter on October 3rd and Saturn on October 5th. Our inner planets, Venus and Mercury will not be as easy to spot as the two large gas giants. You will need to look early in twilight, in the west-southwestern sky, to catch Venus and Mercury, with the aid of binoculars. Best night to view will be October 29th when the Crescent Moon is just above the two inner planets. Venus will be the brighter of the two objects (Illustration 2).

Our hike begins around 8:00. Grab your Starry Trail map, jacket, binoculars and for those cold nights, your gloves. Start by facing west and the beautiful colors of the sunset. Look slightly left, brilliant Jupiter will catch your eye! Up and to the left of Jupiter, you will see Saturn. Saturn certainly is a lovely object in a telescope!

Now venture towards the right to the familiar keystone shape of Hercules, which will be sinking lower in the west each night (Illustration 3). Journey overhead to a bright blue-white star, which is Vega. Trek up just a bit more to another bright star, Deneb. Head to the left and down slightly to the next bright star, Altair. When you connect these three stars you have made the Summer Triangle. Great! Running through the Summer Triangle is the Milky Way, our Galaxy! Take your binoculars and scan through that part of the sky. Look at all those stars! Even if you cannot view the Milky Way, due to light pollution, you can still see so many stars with your binoculars! Here is a challenge: scan to the right and up of Altair. Do you see the group of stars that resembles a coat hanger? Cool!

Hike back to Deneb. Imagine this to be the tail of Cygnus, the Swan. To the left will be three stars in a line. Those make up the wings. You should also be able to see the long neck and head of the swan, extending from the wings. The head of the swan would be to the left of Vega. This star is Albireo, which is a beautiful double star through the telescope. Just above the Summer Triangle you will see a group of stars that look like a kite. This is the constellation, Delphinus, the Dolphin (Illustration 4)

Turn to the right or direction north. The Big Dipper is very low on the horizon. Take the two stars at the end of the cup of the Big Dipper and draw an imaginary line to the next bright star. You have reached the North Star! The North Star is at the end of the handle of the Little Dipper. Venture to the right and upward. Do you see the W shape in the stars? You have found Cassiopeia (Illustration 5). Grab your binoculars again. From the top point of the W shape, scan slowly to the right and up slightly. Do you see a fuzzy circular shape? That is the Andromeda Galaxy. It is 2.5 million light years away! Find the bottom point of the W. Scan once again to the right, a bit, and down slightly. You will come upon the Double Cluster in Perseus. If you continue to hike down to the horizon, you will see a bright red-orange star, Capella.

Turn once more to the right. You will now be facing east. Look straight ahead and up. You will see four stars that form a large square. This is the Great Square of Pegasus (Illustration 6). As we head further into October, you will begin to see a small cluster of stars, the Pleiades, or the Seven Sisters. This has to be one of my favorite clusters of stars to view through my binoculars. Give it a try. Wow!

Our final listen to the crickets, until next summer.....

Next month, late autumn constellations and the Leonid Meteor Shower!

Night Sky Highlights

- October 3** – The Moon passes north of Jupiter.
- October 5** – The Moon passes south of Saturn.
- October 5** – First Quarter Moon. International Observe the Moon Night.
- October 10** – The Moon passes south of Neptune.
- October 13** – Full Moon. According to folklore it is the Full Hunters Moon.
- October 14** – The Moon passes south of Uranus.
- October 21** – Last Quarter Moon.
- October 21** – Peak of the Orionid Meteor Shower.
- October 27** – New Moon.
- October 28** – Uranus at opposition.
- October 29** – The Moon passes north of Venus & Mercury.
- October 31** - The Moon passes north of Jupiter.

Brightest Stars – Overhead: Vega, Deneb, Altair. **West** – Arcturus. **North East** – Capella. **South** – Fomalhaut.

Binocular Highlights: The Moon, Hercules Globular Star Cluster M13, Milky Way from southwest to northeast starting at Sagittarius, the Pleiades, Double Cluster (NGC 869 & 884), and Andromeda Galaxy M31.

Telescope Highlights: The Moon, Jupiter, Saturn, Uranus, Neptune, Albireo, M31, M8, M51, M13, M57, M81, M82, M10, M11, M12, M27, M15, M16, M17, M20, M21, M22, M23, M25, M2, M39, M92 and NGC 869&884.

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Night Sky Illustrations created by Suzie Dills using Starry Night Backyard & Stellarium.

Illustrations courtesy of Cassandra Dills

Written by Suzie Dills – Remember to download your Illustrations & Star Map!