

**By Vernon Whetstone**

*Amateur Astronomer*

With the onset of autumn, one of our favorite summer constellations, Scorpius, has left the sky and another, Sagittarius, is rapidly exiting stage right.

Let's focus our attention this week on another summer group, the constellations Capricornus.

Capricornus is a zodiacal constellation which means it resides on the ecliptic, the path the sun takes through the sky.

For reasons unknown from ancient history Capricornus is given the title the Sea Goat, being depicted as half fish and half goat. Look due south about two hours after sunset (about 8 p.m. MT) for a group of stars that look like a child's crude drawing of a boat.

Since the stars making up the constellation are dim third and fourth magnitude you will need to be in your favorite dark-sky place to observe.

On the extreme western (right) end of the constellation is Alpha Capricorni, or Al Giedi, the brightest star in the group.

Al Giedi is an optical double star which means it is not a true double, but only appear so because they are near each other from our line of sight. They can be seen without magnification just as can Alcor and Mizar in the handle of the Big Dipper.

However, just below Alpha Capricorni is Beta Capricorni which is a true multiple star system. In Beta C, also known as Dabih, each double has doubles of their own. Best viewed in binoculars or a small telescope, the pair make a nice sight.

On the other end of Capricornus is Deneb Algiedi, or the "tail" of the Sea Goat. This star is a multiple star also but the companion is too close to be seen as a double. It can only be detected by spectroscopic examination.

If you put the extreme right side of your binocular field of view on this tail star, on the extreme left side of the field of view it is possible to find one of the outer gas giant planets, Neptune.

Neptune is a dim eighth magnitude object but will be discernible from the surrounding stars because it will have a very small disc shape and it will not twinkle like the surrounding stars.

By 8 p.m. MT another of the outer gas giants, Jupiter, will be above the eastern horizon.

Binoculars or even a small telescope will show the four Galilean moons of Jupiter, Io, Ganymede, Callisto, and Europa.

Another planet is also visible, but only in the early morning sky. By 4 a.m. MT the reddish planet Mars is above the eastern horizon just above Regulus, the brightest star in Leo, the Lion.

If you have occasion to be up and about at that time of the morning watch each day as Mars moves closer to Regulus until their very close meeting on Nov. 11/12.

**SKY WATCH:** New Moon today. Contrary to popular thinking, don't expect a full moon on Halloween. Such an occurrence is a relatively rare event. This year the moon will be almost at first quarter which means there will only be half of it seen in the sky to give light to the scores of "goblins and ghosties" roaming the streets looking for treats.

**NEXT WEEK:** More astronomical blathering.

