

Look for the zodiacal light

By Vernon Whetstone

Amateur Astronomer

Capricornus is the smallest of the zodiacal constellations. Represented as half goat and half fish, this boat-shaped constellation lies due south at about 8:30 p.m. MDT on these early autumn evenings. It is somewhat difficult to find from city skies as only one of its stars is brighter than magnitude three.

It is in an area referred to as the ocean of the sky. Several other water-related constellations are nearby. Aquarius, Pisces, Eridanus, the River, Piscis Austrinus and Cetus, the Whale.

Capricornus is a very ancient constellation found on Babylonian star charts as early as 1,000 BC and Ptolemy listed it on his charts in the second century.

The only object of interest in Capricornus is the Messier object, M30, a globular cluster located on the southeast edge of the constellation. There are several other clusters and galaxies with the borders, but they are too dim to see without aid.

There are, however, two interesting objects that can be clearly viewed by using binoculars, both on right end of the "boat."

On the right end (as you are looking at it) is its brightest star, Algedi, which is Arabic for "Head of the Goat." It is a double star which can be seen without aid, but binoculars bring the two stars into better view.

Right below it is another nice double star, Dabih which is the second brightest star. Binoculars show them as yellow and blue.

On the other end is the star, Deneb Algedi, a name which translates as "tail of the goat."

Ever hear of the "Zodiacal Light?" It is a very faint triangle of light reaching from the horizon halfway up the sky along the ecliptic. The ecliptic is the path the Sun, moon, and planets follow through the sky.

In spring and autumn the ecliptic is at a very steep angle to the horizon which enables us to see sunlight scattered off of the dust particles aligned along the plane of the solar system

Monica Young writing in *Sky and Telescope* magazine says, "Though certain times of year are better for seeing the zodiacal light (the alignment of the ecliptic matters, as do moonless skies), it's always there, ringing the sky along the plane of the solar system. The zodiacal light is actually sunlight, scattering off a thick pancake-shaped cloud of dust motes floating in the inner solar system."

If you can see the Milky Way from your location you will have a good possibility of seeing the Zodiacal Light as they are similar in appearance.

Be outside at your favorite dark-sky location when the moon is out of the sky, looking east anywhere from an hour and a half to two hours before local sunrise. The light should extend from a broad base at the horizon up to a point near and possibly including the planet Jupiter.

If you don't see it right away, not to worry. I have been doing astronomy since I was

12-years-old and have only seen it once. If you are not a morning astronomer, wait until spring when it will be possible to view the light in the early evening after sunset.

SKY WATCH: First quarter moon, Friday, Oct. 11. Saturday, Oct. 12, is International Observe the Moon Night. The moon is just a first quarter and it will be a good time to dig out your telescope or binoculars and spend some time looking. Starting Sunday morning, Oct. 13 and for the rest of the week the bright star Regulus in Leo and the planet Mars will be very close together, also that week Comet ISON could become visible in binoculars.

NEXT WEEK: More about ISON, and the lunar eclipse nobody will see.