Abilene Reporter News

COLUMNISTS

Big Country Master Naturalists: Look up for show in night sky

Mike Richins Special to the Reporter-News Published 5:00 p.m. CT Aug. 14, 2022

Most of us have had the thrill of looking up at night and seeing a meteor flash across the sky.

Meteors occur suddenly. Some bright, some faint, some have a short, modest tail while some have a brilliant streak that seems to light up the sky. All meteors occur so quickly that if you are not looking at that specific part of the sky they are gone forever.

Meteors have awed and inspired humanity throughout the ages. Many ancient civilizations saw meteors as a portent for an upcoming event, either good or bad.

According to metoritemarket.com, in Switzerland, a meteor possessed the power of God. Early Japanese believed that if you see a meteor coming toward you, you open the collar of your kimono to let the good luck in. Swabians, from Germany, believed that a meteor represented a year of good fortune; seeing three in one night, however, meant death was nigh.

Modern science has taught us that meteors are less of a mystery, but more of an evening gem to be sought and enjoyed.

A meteor begins as a speck of dust, sand or rock particle in space. This particle enters the earth's atmosphere at such an intense speed that it ignites, leaving a trail of glowing debris in its wake. Almost all meteors are consumed while burning through the atmosphere and never hit the ground. The remnants of the few that do are called meteorites.

Several times during the year, meteors occur at an increased rate and intensity. These are known as meteor showers.

One famous meteor shower, the Leonid shower of 1933, occurred on the morning of Nov. 13. There were many eyewitness accounts to this meteor shower because people woke from their early morning sleep by what appeared to be broad daylight outside. There are estimates that between 50,000 and 150,000 meteors fell per hour that evening. This was an incredible event as most meteor showers today are considered good if there are 80 to 120 meteors per hour.

Meteor showers occur when the earth travels through the orbit of a comet. Comets, as do planets, travel in approximately the same plane around the sun. While our solar system's planets have orbits that are circular with the sun as their center, the comet's orbit is highly elliptical.

The orbit of a comet draws it very close to the sun, where it gains momentum and is pushed far beyond most if not all planets in the far reaches of the solar system.

While close to the sun, the comet comprised of ice, dust and rock melts, leaving debris in its orbit. As the earth in its orbit encounters the comet's orbit, the melted ice, sand and rock increase the number of meteors, or meteor showers, we see.

There are many meteor showers created by such comets during the calendar year. One of the most viewed is the Perseid meteor shower which occurs in late-July through mid-August every year. Astronomers expected the peak night for viewing this year to be the evening of Aug. 12 to the morning of Aug. 13.

Unfortunately, that day also coincided with a full moon, hindering our view of all but the brightest meteors that night. Best meteor viewing occurs during a new moon or when the moon is either already over the horizon or not yet above the horizon.

The next best chances for viewing meteors for the rest of this year are the Orionid meteor shower peaking on the evening of Oct. 21, the Leonids (of 1833 fame, but don't expect the same results!) Nov. 17, and the Geminids on Dec. 14.

The best way to view meteors is to find an open field away from city light, dress for the weather, bring bug spray, snacks and drink, throw out a blanket and lay with a pillow looking straight up. Use your peripheral vision to scan as much of the sky as you can. Distractions like cell phones, other devices or even flashlights ruin your night vision so leave them in the car.

Above all, make sure your expectations are realistic. If you expect the 1833 shower with meteors lighting the sky you will be disappointed. If you are patient and expect to see a handful of precious gems, you will more than likely be rewarded.

Upcoming Big Country Master Naturalist Events:

Aug. 18: Chapter Meeting, 6 p.m.

Aug. 20: Cedar Creek Waterway Hike, 7 a.m. Meet at trailhead off of East South 11th Street

Aug. 27: Star party (weather permitting), Abilene State Park. Plan to arrive around dusk. Meet near swimming pool (unless otherwise directed by park staff).

Sept. 3: Lake hike, Abilene State Park. Be at Lake Abilene parking area by 9 a.m. Bring water and appropriate footwear for five-mile hike.

All master naturalists are volunteers interested in the great Texas outdoors. From our backyards to natural spaces across the state, master naturalists are learning, sharing, and protecting our natural resources. The fall 2022 class is accepting applications now! To learn more about the Texas Master Naturalist program and how you can get involved go to txmn.tamu.edu or our local Facebook page @BCTXMN.

Mike Richins is a member of the Big Country Master Naturalist program in Abilene.