

## QUAD-CITIES POPULAR ASTRONOMY CLUB

# It's Milky Way season

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Summer is a good time to view our home galaxy.

It's June, so we're in the middle of Milky Way season. No, this isn't the best time to enjoy the popular nougat-filled candy bar (that's year-round) but rather the time when we get the best view of our home galaxy.

From April to September, the Milky Way is nearly overhead, appearing as a hazy stream of light up to 30 degrees wide radiating from the south to southwest. When we view what we call the Milky Way, what we're actually seeing is a portion of the galaxy that our Earth calls home, also known as the Milky Way.

Every individual star we see in the night sky is contained within the Milky Way galaxy. The stream of light that we dub the Milky Way, and which Chinese astronomers called the "Silver River," is made up of stars that are too distant to resolve individually with the naked eye and that are located within one of the galaxy's spiral arms.

From our perspective, the center of the Milky Way galaxy can be found in Sagittarius, one of the constellations in the Zodiac. Just last month, astronomers captured the first image of "Sagittarius A," a massive black hole at the center of the Milky Way that the galaxy revolves around.

The name "Milky Way" for the stream of light in the sky goes back to ancient Greece. Greek legend has it that the Milky Way came from milk spewed from the breast of Hera, the goddess of women and marriage who was the wife of Zeus and one of his many lovers.

The term "Milky Way galaxy" is, in fact, a bit redundant. That's because the word "galaxy" is rooted in "gala," the Greek word for milk.

Until about 100 years ago, there was no need to pluralize the word "galaxy," as astronomers thought that the Milky Way was the one and only galaxy and that it made up the observable universe. This is under-



standable when you consider that it takes about 100,000 years for a beam of light to travel across the Milky Way, and that our home galaxy contains billions of stars and a countless number of other celestial objects.

As vast as the Milky Way was, astronomer Edwin Hubble believed that it was not the only galaxy and that many of the objects then classified as "nebulae" and thought to be clouds of gas were, in fact, separate galaxies outside the Milky Way. In the 1920s, Hubble conclusively proved his theory, and his fellow astronomers soon found and imaged many other galaxies.

Today, it's estimated that there are at least 100 billion galaxies in the universe and probably many more. This means that there are at least a dozen galaxies for every person now living on Earth.

We now know that the Milky Way is a barred spiral galaxy, a fairly common type of a fairly average size. But we've also found that every galaxy we study has unique characteristics that set it apart, just as all of us are individuals.

The rustic origin of the Milky Way galaxy's name harks back to a time when most people lived on farms or in rural villages and so could easily see the stream of light in the sky when they looked up on clear, moonless nights in the spring and summer. Back in those days, even city dwellers could raise their heads and see the Milky Way as they traversed darkened streets.

Then along came progress, which brought with it artificial lighting and a massive population shift from the country into urban and suburban areas. As a result, it's estimated that nearly 80% of Americans, including those of us residing in the Quad-Cities metro area, now live in



ALAN SHEIDLER PHOTOS, POPULAR ASTRONOMY CLUB

The photo of the Milky Way was taken last summer by Alan Sheidler of the Popular Astronomy Club during a trip to Zion National Park in Utah. A time exposure of 25 seconds was used to capture the image, so the Milky Way won't look like this to the naked eye; still, it is clearly visible on clear, moonless nights in places far from city light



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places where viewing the Milky Way is virtually impossible because of ambient light — a figure that is sure to increase as we continue to grow in number and spread farther out.

So if you do want to see the Milky Way, you will have to travel to a place far away from city lights. Choose a night when the skies are clear and a time when the moon is below

the horizon, as the glare from a full moon can wash out the Milky Way as sure as a streetlamp can.

Looking up at the Milky Way makes me wonder if there are any alien astronomers observing from one of those many other galaxies, seeing our galaxy from an outside viewpoint that we cannot share. If so, perhaps they are wondering who

might be looking back at them.

PAC invites the public to its next observing session at Niabi Zoo on June 18 at sunset and on the third Saturday of every month through November. To learn more, visit the PAC website at <https://www.popularastronomyclub.org/> or search for the club on Facebook.