

The January 2024 Chippewa Valley Astronomy Update



Figure caption: The Milky Way band in the sky is our view from the inside of our galaxy, also called “The Milky Way”. This image of the Milky Way was obtained in October 2023 from the dark skies of Oklahoma.

Photo credit: Mike Brown, CVAS member

Pondering the Milky Way Galaxy By Kevin Litten

Western civilizations once thought that when they looked into the night sky they could see all the stars in the Universe. Why not? Earth was at the center. As science progressed, we lost our anthropic world view. Yet the best science of those days was unable to explain that band of stars so faint they were indistinguishable to the naked eye. Even with the best telescopes it was still a mystery until one hundred years ago Edwin Hubble determined, with some lively debate from other astronomers, that the stars in the Universe were clumped into galaxies and that band of faint stars, our Milky Way, was actually our local galaxy.

Just so you know, the observable Universe is now thought to be 92 billion light years in diameter. How things change in 100 years. How big is it really? We don't know. And for those doing the guessing it is still a lively debate. Is there an edge to the Universe? Are there multiple Universes? Does anybody really enjoy the study of metaphysics?

Seeing and observing are two different things. We cannot see most of our own galaxy because of dust. We observe the center because of the radio waves it emits. We believe our galaxy is huge, in the range of hundreds of billions of stars.

Science comforts us by telling us where in our local galaxy we are. And that other galaxies are like ours: a barred spiral galaxy. If we could see our galaxy, it might be very pleasing to the eye.

The ancient Greeks called our local galaxy the Milky Circle; one of many circles in the sky such as the Circle of Zodiac Constellations. The Romans referred to it as Via Lactea, the Milky Way. They had a mythology to cover its creation, yet scholars of ancient Rome say they didn't believe it. The Milky Way is such a calming name. Much better than “River of Despair” or “Road to Chicago” or something like that.

Local astronomers, using their own telescopes on the field in front of Hobbs Observatory on the Beaver Creek Reserve, have imaged galaxies that have yet to be charted or numbered. A few galaxies have names. All should be numbered. Astronomers are working on it.

As the Universe gets bigger, human beings do not get smaller. We can look up at the night sky and ponder the entirety of it all, rejoice in our uniqueness, and celebrate what we see.

--Kevin Litten is a member of the Chippewa Valley Astronomical Society