

Our Night Sky for February 26th, 2024

As we look forward to enjoying our night skies during the coming spring evenings let's take a moment to consider the planets beyond Jupiter. The gas giants Saturn, Uranus, and Neptune. These outer planets are truly giants, many times larger than earth. Even with their enormous size they were not identified as planets until we had better telescopes. Uranus was discovered in 1781 by William Herschel and 64 years later, Neptune was identified amid controversy between a French and a British astronomer. Despite the controversy the discovery was a triumph of understanding the mathematics of orbits. The planets closer to earth had irregularities in their orbits, they seemed to be inexplicably stretched out as they followed predictable paths around the sun. The predictions were sent to observatories and within a day Neptune was identified as a planet. Turns out it had been seen and documented by Galileo in 1612, but not recognized as a planet. In 1612 they simply did not have the mathematics necessary to calculate the orbits, that took another almost 200 years. There is an excellent article in Wikipedia titled "Discovery of Neptune".

It never fails to amaze me the things that early scientists achieved, from the Phoenicians and Egyptians measuring the diameter of the earth with shadows of sticks to astronomers over the last 500 years with equipment far less capable than I can buy for my back yard deciphering Our Night Sky.