Pluto’s Family of Moons Just Got Larger

Astronomers have discovered a new fifth moon circling the icy dwarf planet Pluto, located in the Kuiper Belt at the outskirts of our solar system.

The tiny new satellite — temporarily named P5 — was uncovered by NASA’s Hubble Space Telescope during a search for rings around Pluto. Astronomers are hunting for both potential hazards and observing opportunities for NASA’s New Horizons spacecraft, now heading to Pluto for a 2015 flyby. New Horizons will be the first spacecraft to visit the dwarf planet and study it in detail. Following that encounter, the spacecraft will study other objects in the Kuiper Belt.

The new moon is estimated to be irregular in shape and 6 to 15 miles (10 to 24 kilometers) across.

Another Moon for Pluto

This Hubble Space Telescope composite image shows five moons orbiting the distant, icy dwarf planet Pluto. Pluto and its bright inner moon, Charon, were observed with a short exposure, while the fainter, outer moons required a longer exposure time. The box points to the newly discovered moon, initially named P5. The moon is roughly 6 to 15 miles across. The images were taken on July 7, 2012, by the Wide Field Camera 3.

The Hubble observations will help scientists in their planning for the July 2015 flyby of Pluto by NASA’s New Horizons spacecraft. Following that encounter, the spacecraft will study other objects in the Kuiper Belt.
By comparison, Charon, Pluto's largest moon, is 746 miles (1,200 kilometers) across. Two other moons, Nix and Hydra, range from 20 to 70 miles (32 to 113 kilometers) in diameter. The last of Pluto's known moons is P₄, spotted in 2011, with an estimated diameter of 8 to 21 miles (13 to 34 kilometers). P₅ appears to lie in the same plane as the other four moons.

Names from Greek mythology

The names for Pluto and its family of moons come from Greek mythology. Discovered in 1930, Pluto was named for the Greek god of the underworld, who was perhaps better known as Hades. The moon, Charon, discovered in 1978, was named for the ferryman who carried souls to the underworld. Nix, one of two moons discovered in 2006 with Hubble, is named for Nyx, the goddess of the night and Charon's mother. Hydra, the other moon spied in 2006, is named for the many-headed, serpent-like beast of ancient times.

It's a good bet Pluto's two newest moons, P₄ and P₅, will also bear the names of characters from Greek mythology. A few possible names are Erberus, Nyx's husband and Charon's father; Styx, the river that divided the living world from the underworld; Cerberus, Pluto's three-headed dog; and Hypnos or Thanatos, two sons of Nyx.

Astronomers will continue to monitor the Pluto system until New Horizons arrives. Maybe they will find another member of Pluto's family.

SEE MORE Hubble images and read more Star Witness news stories at Amazing Space, NASA's award-winning educational website for K-12 students and teachers.