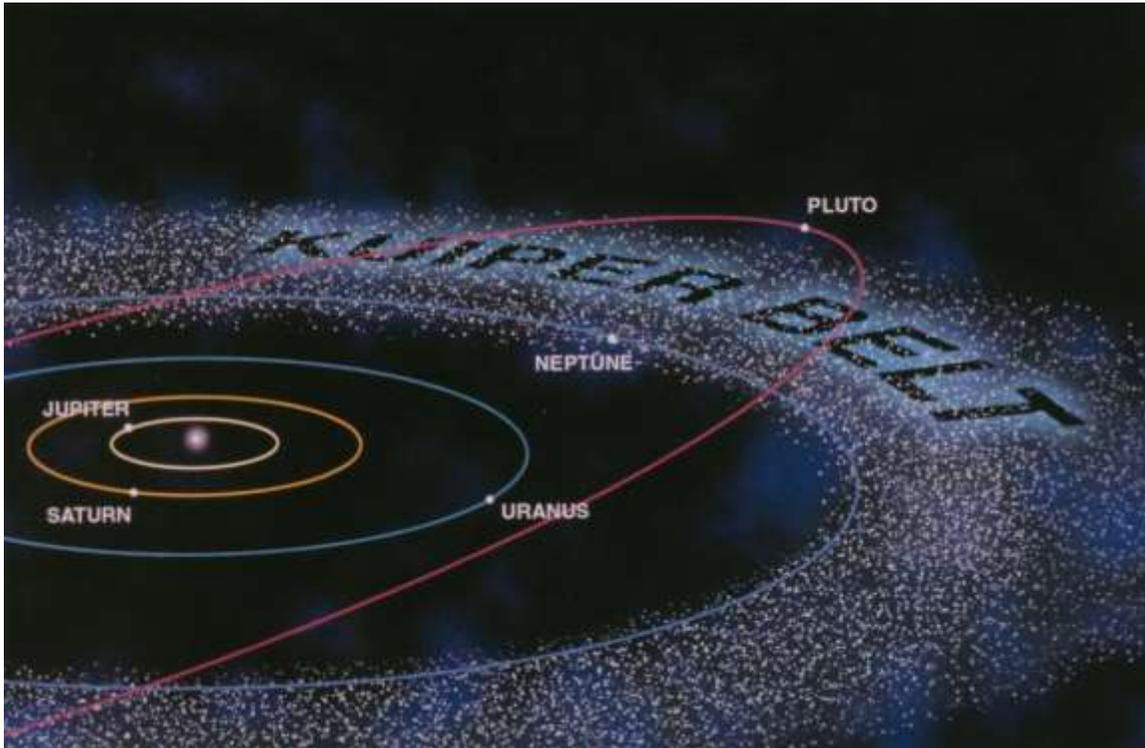


The Kuiper Belt home of the five dwarfs...



...and perhaps thousands more. The Kuiper (Ki-per) Belt was first envisioned by Gerard Kuiper and Kenneth Edgeworth. It is like the Asteroid Belt between Mars and Jupiter, but the objects that call it home are much icier in composition.

The planet Neptune just skirts its inner ring and the entire belt extends another 20 Astronomical Units beyond that. An Astronomical Unit is the distance from Earth to the Sun or 149,600,000 km. Multiply that by 20 and the Kuiper Belt is an enormous chunk of our solar system which has yet to be explored. The dwarf planet Pluto travels through the Kuiper Belt during its 248-year orbit of our Sun.



Gerard Kuiper in his library..

Four other dwarf planets; Eris, Sedna, Makemake (Moc-ke-Moc-ke) and Haumea (How-me-ya) are also residents of our solar system's suburbs. Ceres, the sixth dwarf planet calls the asteroid belt home.

The Kuiper Belt is thought to contain trillions icy-rocky chunks that are leftovers from our solar system's formation. It is also the lunch pad of short term comets – those with under a 200-year orbital period around our Sun.

When the planets formed some of the leftover debris was gravitationally hurled into the Sun while some was flung into deep space, but not beyond the gravitational tug of our Sun. So it gradually settled into place and began orbiting the Sun.

Cal Tech astronomer Mike Brown has been focusing on KBOs for a number of years. He and his team are credited with discovering several KBOs including Eris, Sedna and Haumea (which has been contested).

Brown is also the author of *How I Killed Pluto and why it had it coming* and, as you may have guessed, was one of the driving forces that ultimately led to Pluto's tumble to dwarf planet status.



An artist's concept of the Kuiper Belt.



*Cal-Tech Astronomer Mike Brown
Prime suspect in Pluto's assignation.*

Based on its size, the Kuiper Belt is the other half of our solar system and we just recently discovered it. So far, other than a few of its nearest and largest objects all we know is that it is home to literally trillions of objects, some as small as gravel and others large enough to be considered worlds unto themselves.

The New Horizons spacecraft will be the first to flyby Pluto, the Kuiper Belt's nearest object. We'll get our first images of the dwarf planet and then New Horizons will be off to explore the Kuiper Belt.

There is much to be learned. New Horizons will be our first step into the distant unknown.