

Summary of an article by
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'The hunt for Planet X'

This article revived the debate over the distant regions of the Solar System and the possibility of other worlds being found there. Try to find the original article, and information from other writers.

There is a strange world out at the far edge of the Solar system. There are lots and lots of small icy objects circling the Sun that together make up the Kuiper Belt. This is also the home of the comets. But there may also be another planet.

Ever since Pluto was found by Clyde Tombaugh in 1930, there has been that niggling feeling that there should be another planet, often called Planet X (X stands for unknown, but it also represents the Roman numeral 'ten' - for the tenth planet. Before its discovery by Tombaugh, Pluto was known as Planet X). The evidence for this is that Pluto on its own does not account for the observed changes in the orbit of Neptune. Pluto just isn't big enough. The calculations say there should be another object, similar in mass to Pluto, which is influencing Neptune's path. But it hasn't been found yet.

Now a strange observation in this outer region of the Solar System has raised the possibility again. In a region about 50 times further out from the Sun than the Earth's orbit, on the far side of the Kuiper Belt, there should be a large number of small objects. But in fact there are very few. Could they have stuck together to form one massive object, which then pulled all the debris onto it? Could this be the elusive Planet X? And could there be others? There is even some evidence that these planets may contain the seeds of extraterrestrial biology.

If the presence of this object is confirmed then should it, and indeed Pluto, be called a planet? Or should they be considered to be Kuiper Belt Objects or even just 'trans-Neptunian Objects'?

Discovery of a new planet 2003

On 14 November 2003, scientists at the Mount Palomar observatory in California discovered a new object orbiting the Sun way beyond the orbit of Pluto. They have named this object 'Sedna' after the Inuit goddess of the ocean. Sedna is less than 1,700 km across, and is both very shiny and very red - the reddest object in the solar system after Mars. It is probably half rock and half ice. At its most distant, Sedna is 130 billion km from the Sun but it is currently around 5.9 billion km away, with a surface temperature of around -240 degrees Celsius. Although Sedna could be a Kuiper Belt object, its discoverers doubt this. The object's elliptical orbit is unlike anything previously seen.

Several big objects have now been located beyond Neptune. Quaoar, discovered in 2002, is around 1,200km in diameter. Ixion, found in 2001 is 1,065 km wide and Varuna, located in 2000, is about 900 km across. In February 2004, scientists announced the discovery of an, as yet, unnamed object that is thought to be 1,600 km across. These new discoveries will re-ignite the debate as to what we should call a planet. So far, the International Astronomical Union has refused to demote Pluto from its status as a true planet but a growing number of scientists think that it should be.