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No don't panic! I am not about to talk about 10 Downing Street and politics but Planet 10 instead.

However, I cannot help but mention a short story about Kenneth Clarke and an astronomical blunder, especially as he has been in the news lately involving the Tory leadership battle. During an episode of the BBC's political programme, Question Time, some years ago, Clarke made an attempt to show how consistent his policies are by claiming "I am as constant as the North Star." Fine but for one slight problem Mr Clarke, the North Star is a variable star!

So, astronomical politics aside and with it the infinite expanse of grey characters and their charisma bypasses we can turn to the infinite expanse of Space.

Astronomers have now discovered Planet 10 beyond Pluto and with it a new set of problems. The new planet is unofficially called Xena after the Princess Warrior TV programmes. That is not a name likely to please the International Astronomical Union (IAU) who govern the world's astronomy. So instead we officially call it 2003 UB313 for now.

A few weeks ago I wrote an article in which I objected to the Xena name, I think I said something along the lines of "What next, an 11th planet called Scooby Doo?" Oh dear! Shortly after that piece went to press two more planets were discovered in the outer Solar System and they were unofficially named Santa and Easterbunny! Like a sketch out of Monty Pythons, I quite expected John Cleese to appear dressed as a General and say "stop this nonsense and now for something completely different."

So back to 2003 UB313 or Planet 10. The new planet is about three times as distant as Pluto and takes 560 years to orbit the Sun. It is larger than Pluto coming in at 3000 kilometres in diameter or one and a half times the size of Pluto. The work to measure this size was interesting. Planet 10 is bright, and this could be due to its size, its closeness or how much light it reflects. For example, it could be close and reflect little light, or it could be small and highly reflective. Now if we assume it reflects the maximum amount of light falling on it that would be 100 percent. No astronomical body is perfectly reflective so the true value will be below 100 percent. If we do take a value of 100 percent that in itself would make Planet 10 bigger than Pluto,

for its distance from the Sun. An even lower value would make it even bigger. So, whichever way we look at it Planet 10 is bigger than Pluto. There is still some work to do on this, but the figure of 3000 kilometres seems close, all the more so when we learn the true reflective value. This is based on spectral analysis which shows it is coated with frozen methane like Pluto and Triton, a moon of Neptune, and therefore reflects 60 percent of the light falling upon it.

All this suggests Planet 10 is a very large Kuiper belt object. The Kuiper belt is a belt of icy debris beyond Pluto. Not so long ago it became clear that Pluto might simply be the largest of the Kuiper belt objects, in the same way Ceres is the largest asteroid in the asteroid belt between Mars and Jupiter. This started a debate. We do not regard Ceres as a planet so should we give planetary status to Pluto?

Moreover, Pluto's status as largest Kuiper object has also slipped from its list of honours, Planet 10 is bigger. So the discovery of Planet 10 has added to the controversy. There was even a suggestion Pluto should lose its planetary status and Planet 10 should then become Planet 9 in Pluto's place.

The orbit of Planet 10 takes it out to a distance of 97 astronomical units (au) and brings it in to 38au (one au is the distance between the Sun and Earth or 93 million miles). Pluto has an average distance of 39au which means Planet 10 comes closer to the Sun than Pluto, in the same way Pluto can come closer to the Sun than Neptune. This further suggests Planet 10 is a Kuiper object with an even more eccentric orbit than Pluto.

Planet 10 with its highly eccentric or 'oval' orbit creates a strange orbital dance between Neptune, Pluto and Planet 10: Pluto crosses Neptune's orbit, Planet 10 crosses Pluto's orbit and both Pluto and Planet 10 have eccentric orbits, increasing in value as we move out further from the Sun. All this is very different to the nice ordered distances of the inner planets. So, is this further evidence that none of these large Kuiper objects are true planets? That is the tricky problem the IAU has been struggling with for some time.

One of the astronomers faced with this

problem is Professor Iwan Williams. Interestingly for me, Prof Williams is one of my old Professors from when I was a postgraduate. He is President of the IAU Division III which deals with Planetary System Sciences. He said "For 12 months we have been debating what constitutes a planet." He has also pointed out that if we were to use modern understanding of the Solar System other planets like Jupiter and Saturn might not be regarded as planets either. I am sure Prof Williams will make the right decisions, I know how he thinks. It therefore came as no surprise when I learnt that the best solution might be to stop using the universal name 'planet' and instead call planets by different names. For example planets like Mercury, Venus and Earth would be terrestrial planets, Jupiter and Saturn would be gas planets and Pluto, Planet 10 Santa and Easterbunny would be trans-Neptunian planets. Names like these already exist, but to make them more formal might solve the problem.

Certainly as far as I am concerned, Pluto and Planet 10 are planets and always will be, but we will have to be careful if, like Santa and Easterbunny, there are other large Kuiper objects waiting to be discovered. I am sure there are.

So you might ask, where does all this fit with Planet X, Planet 12 and Nibiru? Astronomers do not really address such things, like they do not want to get involved with UFOs. So that is one to stay well in the domain of taboo ideas for now. I am not sure these discoveries go much further in such a debate, except to maybe hold on to the idea a large, mystery planet might still await discovery out there. That might be Planet X. Time will tell.

Astronomers are still hard at work with

these new objects. Santa or 2003 EL61 is cigar-shaped and similar in size to Pluto along its longer axis. It rotates in four hours which is suprisingly fast. Like Pluto and Planet 10, Santa appears to have a moon, which to some suggests it is a planet. Less is known about Easterbunny or 2003 FY9, so named because it was originally sighted last spring. It is also believed to be the size of Pluto.

As I say, there is still much work to do on this part of the Solar System. Apart from the matter of status and size, we also need to know why this outer part of the Solar System is so mixed up. Is it possible something ploughed through during the past history of the Solar System and scattered these objects into a new set of orbits? Was that Planet X? Did it then move in towards the 7th planet, Uranus, and tip it over so that it now spins on its side? Again only time will tell.

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