

Save PLANET Pluto: The Power of Protest

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[This is a transcript from a recent edition of The Frequency Mutineers, show date indicated in brackets.]

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A leading science magazine recently ranked the “Top Astronomical Stories of 2006” (1). Alongside amazing data such as that gained from captured cometary dust (2), was the largely political decision to remove planetary status from Pluto. While this debate has festered for over a hundred years (3), it recently climaxed with the discovery of 2003 UB313 (a.k.a., Xena) (a.k.a., Eris), a planet-like object larger than Pluto in 2005 (4). The somewhat arbitrary decision to “demote” Pluto is flawed for several reasons, and a few of these will be briefly described here.

First, only about 400 out of 10,000 professional astronomers were allowed to vote (5). (The debate was staged on the last day of the annual meeting of the International Astronomical Union (IAU) after about 90% of the attending members had left.) In most governmental systems, 5% does not qualify as a quorum and thus the vote should be considered illegitimate. Further, the results were somewhat ambiguous with 237 members voting in favor of demoting Pluto, 157 voting against demotion, and 17 abstaining (6).

Second, Pluto’s current status is “dwarf planet” but definitely not “planet”. This statement is linguistically illogical. That is, “dwarf planet” would normally be interpreted as meaning subset of “planet” and thus not outside the set of “planet”. Pluto therefore—following Socratic logic—remains a planet?

Third, one of the new criteria for “planet” is that an object must have “cleared the neighborhood around its orbit”. While it is true that Pluto has not, neither has Earth, Mars, Jupiter, and Neptune (7). Yet these bodies have retained their planetary status. Thus by resolving the debate between Pluto-Xena, another (perhaps even more contentious) debate has arisen.

Fortunately, both professional and public organizations including The Frequency Mutineers, have recognized these flaws and have taken action. Most prominent among such organizations is a group of 300 scientists who have signed a petition refusing to recognize the decision demoting Pluto (8). Because of these protests, another debate will be staged when the IAU meets in 2009. [The IAU meeting in 2009 was chosen for this important debate as it represents “The International Year of Astronomy” due to it being the 500-year anniversary of Galileo’s initial telescope work (9).] Until then, we encourage our listeners to make their feelings about Pluto clear so that a fairer (and more representative) vote will occur.

[Notes]

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- (3) D'Alto, N. (2005). Pluto: The American Planet [The Discovery of Pluto]. *American History*, 40(4), 30-36.
- (4) Brown, M.E. (2005). Discovery of a planetary-sized object in the scattered Kuiper Belt. *Astrophysical Journal*, 635(1), L97-L100, Part 2.
- (5) Rincon, P. (2006). Pluto vote 'hijacked' in revolt. *BBC News*, August 25, 2006.
<http://news.bbc.co.uk/2/hi/science/nature/5283956.stm>
- (6) [Anonymous]. (2006). International Astronomical Union Website, News IAU0603, August 24, 2006.
<http://www.iau.org/iau0603.414.0.html>
- (7) [Anonymous]. (2006). Is Pluto a Planet? Astronomers Vote, JHU Takes Straw Poll. Johns Hopkins University, Status Report, August 21, 2006.
<http://www.spaceref.com/news/viewsr.html?pid=21762>
- (8) [Anonymous]. (2006). Petition Protesting the IAU Planet Definition. Planetary Science Institute and Southwest Research Institute. August 30, 2006.
<http://www.ipetitions.com/petition/planetprotest/>
- (9) [Anonymous]. (2006). International Astronomical Union Website, News IAU0606, October 27, 2006.
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