

advertisement

## Bnk of Hwii intrdcs Hwii's 1st mbl bnkng



Banking from any cell phone or PDA is finally here.

[LEARN MORE](#)



### News

- e-Edition
- Local News
- Local Features
- Obituaries
- Archives
- Photo Galleries
- Volcano Update
- Special Reports

### Sports

- Local Sports
- Big Fish List

### Opinion

- Letters - Your Voice
- Editorial
- Columns
- Forums
- Submit Letter

### Classifieds

- Submit an Ad
- Announcements
- Automobiles
- Employment
- Instructions
- Miscellaneous
- Real Estate
- Rentals
- Services
- Govt. Notices
- Legal Center

### West Hawaii Today

- Advertise
- Subscription Services
- Newspapers in Education
- Notice of Completion
- Privacy Statements
- Contact us

### Online Partners

- Hawaii Tribune-Herald
- Hawaii.com

### Today's Weather



advertisement

from archives > Local

Email | Print | Comment | Subscribe | Text Size

## Astronomer dispels myths about being a scientist

by Erin Miller  
West Hawaii Today  
emiller@westhawaii.com  
Tuesday, August 14, 2007 7:21 AM HST

Heidi Hammel seemed to think she had a tricky question for Waimea Middle School students.

"Is Pluto a planet?" the astronomer asked the sixth-, seventh- and eighth-grade students at the public conversion charter students Monday morning.

But the students had already studied the former ninth planet and some of the reasons it lost its planet status, their knowledge illustrated by the overwhelming number of students who answered "no" to the question.

Hammel, who earned her masters degree from the University of Hawaii's Institute for Astronomy, is visiting the Big Island to study the night sky at the William Keck Observatory on Mauna Kea. During her visit, the Institute for Astronomy donated two sets of biographies about women in science, including one on Hammel, to the school.

Her goal in giving the presentation was two-fold, she said. First, she wanted them to understand why scientists ruled that Pluto was no longer a planet. Second, she wanted to clear up some myths about being a scientist.

"Everybody thinks you have to be smart to be a scientist," Hammel said, describing what she called the Einstein myth.

Hammel enrolled at Massachusetts Institute of Technology, a school known for its math and science programs, to study English, but switched to astronomy during her second year there. Sure, she said, she struggled with some of the classes, but she studied hard and found a career that she enjoys.

Putting a drawing of a "geeky" scientist up on the Power Point presentation, Hammel dispelled myth two.

"I do not wear a lab coat," she said. "I do not have a beard. You do not have to look like a geek to be a scientist."

Scientists don't have to sacrifice family, either, she said, showing a photo of her with her three children.

Reviewing the characteristics of planets, several of which Pluto met, Hammel

advertisement

808-329-7170

expectations delivered.

www.hawaiihomesandland.com

Edward J. Raposa (P)

Search

### Top Blogs



Stories with the most reader comments during the last 14 days.

- George W. Bush (223)
- Target coming to Kona (101)
- Aloha (67)
- Aloha (63)
- 'Aloha spirit' (51)
- Honor Differences (40)
- Security group knew assailants, did not tell police (36)
- Immigration (34)
- New Kona Roads (27)
- Civil rights complaints in schools (25)



### Best of West Hawaii

Find out who our readers said is the best in West Hawaii. Places to shop, eat, stay, services to use...



West Hawaii Today Photo Galleries

Submit a photo!

### Elected Officials



### Hurricanes





tried to dispel questions about the former planet, which is now categorized as part of the Kuiper Belt.

"Why are people mad?" Hammel asked, rhetorically, about the reclassification.

Without waiting for the students, she answered her own question. One, only a few hundred of the thousands of astronomers were involved in the decision, and two, the decision wasn't particularly well explained to the public.

To provide a better explanation, Hammel went way back, starting with ancient astronomers who recognized five planets outside of Earth. Then she listed planets that were discovered, then later reclassified as asteroids. In 1828, 11 planets were believed to be known, and the number grew through the mid-19th century.

"Aren't you glad you weren't in middle school in 1851?" she said. "You would have had to memorize 22 planets."

Scientists decided that hundreds of objects between Mars and Jupiter were actually asteroids. By 1929, scientists knew of eight planets, but were searching for what might be causing Neptune's orbit to take a strange path. In 1930, Planet X was found, later to be named Pluto.

For the next 60 years, students learned about the nine planets, Hammel said. But something still wasn't quite right, she added.

"Its orbit was strange," she said, a slide comparing Pluto's orbit with those of the other eight planets. "You don't need to be a rocket scientist to see it's different."

The discovery of a moon meant a reprieve for Pluto, as some scientists were already questioning its planet status. Then, in 1992, two astronomers on the Big Island discovered another object in what was later named the Kuiper Belt. As more objects were located, more and more doubt was cast on the idea of Pluto being a planet. Asteroids can have moons, Hammel said, so Pluto having three moons was no longer enough to keep calling it a planet.

And those questions about what force might be disrupting Neptune's orbit? Turns out it wasn't so weird after all, Hammel said.

"They had the wrong size of Neptune," she said. "The whole search for Pluto was based on a mistake."

Students Alyssa Salmo, 12, and Gabriela Andrade, 12, said they appreciated Hammel's explanation of how Pluto's status changed.

"Last year, we learned that Pluto wasn't a planet, I did some research and I couldn't believe everything I read," Salmo said.

"Before, when they announced Pluto wasn't a planet, I didn't really believe it," Andrade added. "Now I understand why."

Both girls said they were considering science-related careers, even before Hammel spoke to their classes.

"It's really cool to find out what she does," Andrade said.

### Comments

You are now in the public comment zone: What follows is not our product; it is generated by other people, we do not vouch for it. By using this Web site you agree to accept our Rules of Engagement.

Those who want to have a personal, one-on-one discussion with another comment writer or have a continued debate about a topic may use our West Hawaii Today forums.

Posts will not immediately appear online until they are approved or denied based on our Rules of Engagement. Abuse of our trust for people's ability to police themselves and adhere to our Rules of Engagement has caused us to review each comment before posting.

All comments that adhere to our Rules of Engagement will appear online within one business day or sooner.

There are **No comments posted.** comments to this story.

Name:  
fujmon

Contact your representatives.

More...

Hurricane season is June 1 through November 30. Learn how to stay prepared.

More...

### Kailua-Kona Visitors Guide

Maps, history, beaches, shopping, coffee tours, astronomy and more.

**Comments:**

**Current Word Count:**

0

**Image Verification:**



Post Comment

Copyright © West Hawaii Today 1997 - 2007 | Stephens Media Group Privacy Statement