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For Immediate Release
November 13, 2009

Butterfly Pavilion Sends Butterflies into Space **Educational program places NASA experiment in Colorado classrooms**

(Denver, CO) – On November 16, 2009, several Painted Lady and Monarch butterfly larvae will take the flight of their lives as they travel aboard the Space Shuttle Atlantis to the International Space Station (ISS). The butterflies will spend several months in space, as part of a NASA experiment to observe their life cycles and behaviors in microgravity.

The Butterfly Pavilion will be conducting the control experiment on Earth as part of its temporary exhibit *Butterflies in Space*. The exhibit will include a flight-ready butterfly habitat with live larvae as well as a monitor displaying near-real time photos and videos of the experiment from the Space Station.

Butterfly Pavilion scientists will compare the ground control larvae with the larvae on the Space Station by observation of pictures downloaded from the Space Station. All of the elements of the Space Station experiment and the ground control experiment will be the same except for the lack of gravity. The Space Shuttle habitat box provides the food, air, lighting, and climate (temperatures and humidity) needed by the butterflies to live.

The *Butterflies in Space* temporary exhibit will be on display at the Butterfly Pavilion from November 12 through December 19, and is included in the price of admission.

The *Butterflies in Space* experiment is a collaboration between BioServe Space Technologies and the Butterfly Pavilion, and was designed to provide middle schools teachers the opportunity to participate in life science experiments that are conducted in conjunction with research being completed on board the Space Station.

Twenty schools in Colorado will also be conducting control experiments in their classrooms during the experiment. The Butterfly Pavilion is sponsoring 10 of the classrooms by providing all materials needed to conduct the experiment. A training session will also be held at the Butterfly Pavilion on Saturday, November 7 for participating teachers. More information about joining the classroom experiment or the teacher training can be obtained by emailing mhamilton@butterflies.org or calling 720-974-1875.

Students will participate in the experiment by devising their own hypotheses about the butterflies' behavior in microgravity. A hypothesis is an educated guess about the outcome of an experiment based on evidence provided by previous experiments or known facts. The project emphasizes the importance of the scientific method in the study of life sciences and physics. Students will learn observation and deductive thinking skills.

Mary Ann Hamilton, Butterfly Pavilion Curator and consultant for the experiment, says the control experiments and temporary exhibit are great opportunities for students and adults to participate in a scientific experiment that will provide invaluable information to scientists.

“The information we collect from this experiment will help scientists learn how microgravity impacts species that are vital for survival. It will influence future space travel to the moon and Mars,” Hamilton notes.

This is the second year BioServe Technologies and the Butterfly Pavilion have conducted the experiment. During the first experiment, the butterfly larvae were not able to pupate during their time in space. It was concluded that the nutritional content of the food might have been the cause of their demise. Hamilton has since worked with BioServe Technologies to make adjustments to the habitat to further increase chances for pupation.

More information about the temporary exhibit or any of the Butterfly Pavilion’s exhibits can be found by visiting www.butterflies.org.

When: November 12 through December 19, 2009

Where: Butterfly Pavilion
6252 W. 104th Ave. Westminster, CO 80020
Just 15 minutes from downtown Denver off Hwy 36 and 104th Avenue in Westminster
Entrance is located on Westminster Blvd.

Contact: 303-469-5441
www.butterflies.org

Who: Open to general public

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The Butterfly Pavilion is a Scientific and Cultural Facilities District (SCFD) funded organization. Our mission is to foster an appreciation of butterflies and other invertebrates while educating the public about the need for conservation of threatened habitats in the tropics and around the world. We educate over 35,000 school-aged children every year. SCFD is metro Denver’s unique commitment to its art, cultural and scientific institutions. A penny sales tax for every \$10 purchase in Adams, Arapahoe, Boulder, Denver, Jefferson, and northern Douglas Counties goes to support more than 300 non-profit organizations – from the smallest community groups to the largest regional museums.