



## FOR IMMEDIATE RELEASE

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# GECKOS—TAILS TO TOEPADS May 30 – Sept. 7, 2009

# New exhibit features dozens of live geckos

PHILADELPHIA—They have bulging eyes, "sticky" toe pads and disposable body parts, and their curious characteristics are being adapted to develop new products that help humans.

They are geckos, and more than 75 of the live little lizards will invade The Academy of Natural Sciences May 30 through Sept. 7 in the new exhibit "Geckos—Tails to Toepads." Eighteen species of geckos will be on display—from the raucous tokay gecko that barks at intruders to the giant day gecko, whose charismatic television counterpart is a popular spokes-creature for an insurance company.

"Geckos are among the most diverse and interesting of all reptiles," said Dr. Aaron Bauer, a Villanova University biology professor and an Academy research associate who is a world expert on geckos. "This exhibit will give people a good look at their unique specializations and an appreciation for why they are such excellent models for studying evolutionary questions. The exhibit is entertaining and accessible, but has lots of real science in it, too."

#### Interactive features of the exhibit

"Geckos—Tails to Toepads" features 20 naturalistic habitats where visitors can not only see these secretive creatures up close, but also activate devices to hear their unusual squawks, chirps, barks and growls. Interactive components demonstrate their amazing night vision, remarkable camouflage and tremendous diversity of body parts—not to mention their ability to pop off a tail now and then to evade a predator. Visitors can:

- Build a gecko by using a touch-screen computer to combine different eyes, feet, skin and tails to 'customize' a gecko for a particular habitat.
- Test their knowledge of geckos on subjects from basic to bizarre. For instance, geckos use their tongues like windshield wipers to clean their eyelids.
- Look at insects in the dark using night-vision optics.
- Try to spot camouflaged geckos in the "Predator Challenge."

### What is a gecko and why they are important?

Geckos are among the most adaptable lizards on earth, with more than 1,250 species that have conquered habitats from balmy tropical beaches and lush rain forests to frigid mountain slopes and parched deserts. In the U.S., they are found in the extreme southern states, from Florida to California.

"Practically whenever someone goes on vacation somewhere warm they will find geckos in their cabin or hotel room," said Anthony Geneva, an Academy biologist who studies gecko evolution. "No one tells you they saw a roach climbing the wall, but they all have stories about geckos because they are cute with their giant eyes and smooth skin, not scaly and mean-looking like other reptiles."

Geckos range from shadowy nighttime hunters with unbelievable camouflage to neon-colored nectar-eaters that scamper around in daylight. They are commonly known for their amazing ability to scale smooth walls. Indeed their sticky feet have inspired a new type of glue-free bandage for use in internal injuries as well as external wounds. They are also important in the balance of nature.

"Geckos are an important component of many ecosystems," Bauer said. "Along with bats, they are among the most important nocturnal predators of insects, including mosquitoes and roaches." But some species, especially those on islands, are endangered or threatened from habitat destruction and by the pet trade.

Scientists are learning a great deal about earth history from geckos, which have been around long enough to help track the movements of land masses over the last 250 million years. They are also learning about vision, regeneration and a host of other biological processes and phenomena.

"Geckos—Tails to Toepads" was created by *Peeling Productions* at Clyde Peeling's REPTILAND of Allenwood, Pa. The exhibit is **free** with museum admission.

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The Academy is located at 1900 Benjamin Franklin Parkway and is open Monday through Friday from 10 a.m. to 4:30 p.m. and weekends until 5 p.m. Admission is \$12 for adults, \$10 for children ages 3-12, seniors, college students and military personnel, and free for Members and children under 3. There is a \$2 fee for "Butterflies!"

Founded in 1812, The Academy of Natural Sciences is the oldest natural science research institution and museum in the Americas and is a world leader in biodiversity and environmental research. The mission of the Academy is the encouragement and cultivation of the sciences.