Leaping Lizards

By Pooja Makhijani

People go wild for lizards, snakes, and other reptiles in a new exhibit.

Darrel Frost will never forget the time he saw a diamondback rattlesnake coiled up beside a tree. He was just 4 years old, traveling with his family through the Arizona wilderness.

"It was the most beautiful animal I had ever seen in my entire life," he told an audience recently [2006] at the American Museum of Natural History (AMNH) in New York City. "It was just spectacular."

Seeing that fanged rattler up close inspired Frost to become the scientist he is today. As a herpetologist, he studies reptiles and amphibians. He helped put together an AMNH exhibit of the scaly lizards and slithering snakes that he fell in love with as a child. The exhibition is called "Lizards and Snakes: Alive!" and features more than 60 live animals.

Before the show opened, WR News got an inside look. At the exhibit, leaf-tailed geckos scampered up the sides of a glass tank while an emerald tree boa basked under a sunlamp.
Startled onlookers watched as a veiled chameleon climbed up a tree branch and changed color. The chameleon’s ability to camouflage, or conceal itself by changing its appearance, helps the creature hide from predators and curious museum-goers.

**What’s a Squamate?**

These lively lizards and sleepy snakes are part of a diverse group of reptiles called squamates (SKWAH-mayts). Squamate comes from the Latin word for "scale" and is the scientific name for legged lizards and their legless relatives—snakes. All squamates are covered with scales—small, hard, plate-like structures that shield an animal’s skin and protect it from harm.

There are about 8,000 species, or types, of squamates. Along with snakes and lizards, this group includes iguanas, geckos, and Gila (HEE-luh) monsters. These squamates share characteristics with other reptiles, such as turtles and alligators. They are all cold-blooded, which means they cannot regulate their own body temperature. Most squamates lay eggs, although some give birth to live young.

**New Discoveries**

Scientists at the museum felt that the timing was right for an exhibition about squamates and that it would be a big hit. "[The] public is really interested in scaly, slimy things," Jack Conrad told WR News. Conrad is a paleontologist, a scientist who studies plants and animals that lived long ago. Paleontologists are always finding new squamate fossils. A fossil is the remains of an ancient plant or animal preserved in Earth’s crust.

Conrad has been examining the fossils of an 80-million-year-old Gila monster with really "bizarre" skin. Studying present-day squamates gives scientists a glimpse into the biology of ancient animals. "Many squamate species haven’t changed in 200 million years," says Conrad. "These animals are a window into the past."
Strange Squamates

Here is a look at some of the scaly creatures that were featured in the exhibit and a description of how they stay safe.

When startled, a green basilisk—named after a mythical beast—sprints on water by churning its legs like a windmill.

A blue-tongue skink scares away predators by hissing and sticking out its brightly colored tongue.

A veiled chameleon has cells that aid in complex color-pattern changes, which are used for camouflage.

A Campbell’s milk snake stays safe by looking like its lethal neighbor, the coral snake.

A Gila monster’s venom flows through special grooves in its teeth when it bites its victim.

Think Critically

Compare the ways fossils and living things help scientists learn about ancient animals.