Nature's Wonders Lizards

3D model set by Ken Gilliland
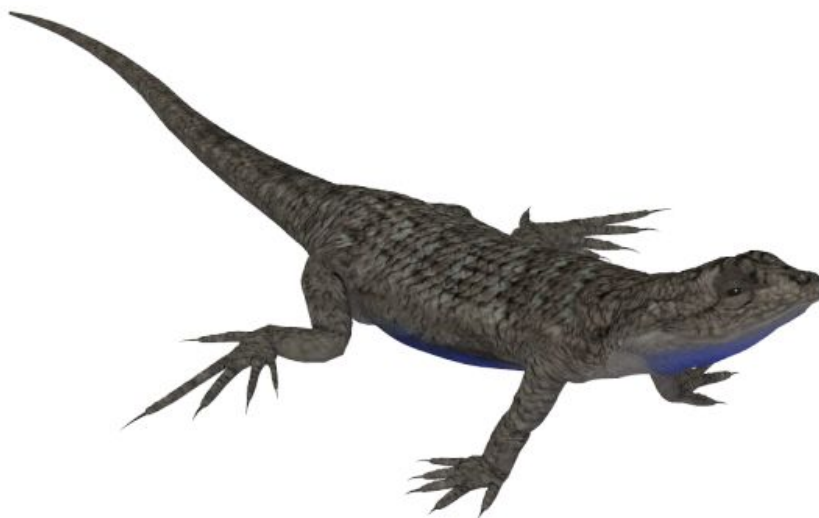
Nature's Wonders

Lizards

Manual

Field Guide
List of Species

Introduction

Lizards are a widespread group of reptiles with over 6,000 species. They are found on all continents, with the exception of Antarctica. Lizards differ from snakes in that most have feet and exterior ears. There are four infraorders in the lizard family (*Lacertilia*); Iguanas and Chamelons *(Iguania),* Geckos and Snake Lizards *(Gekkota)*, Old World arboreal lizards *(Amphisbaenia)* and Skinks, Anguimorphs, and Venomous Lizards *(Autarchoglossa).*

Vision, including color vision, is particularly well developed in most lizards, and most communicate with body language or bright colors on their bodies, as well as with pheromones. Lizards are the most diverse species among extant non-avian reptiles. They can range from several centimeters in length (chameleons and geckos) to nearly three meters (Komodo dragon).

Many lizard species (including geckos, skinks, and others) are capable of shedding part of their tails through a process called "autotomy". This is an example of the "*pars pro toto"* principle which means sacrificing "a part for the whole".   This tactic is employed by lizards to allow them to escape when a predator captures them by the tail. Lizard tails are often a different and dramatically more vivid color than the rest of the body so as to encourage potential predators to strike for the tail first. The detached tail writhes and wiggles, creating a deceptive sense of continued struggle, distracting the predator's attention from the fleeing prey animal.

The lizard will partially regenerate its lost tail over a period of several weeks.

Lizards are predominantly insectivorous, but some eat fruit, or vegetables. The crested gecko can feed entirely on fruit.

Most lizard species are harmless to humans. Only the largest lizard species, the Komodo dragon, has been known to stalk, attack, and, on occasion, kill humans. The venoms of the Gila monster and beaded lizard are not usually deadly, but they can inflict extremely painful bites due to powerful jaws. However the chief impact lizards have on humans is positive, as they are significant predators of pest species and numerous species of lizards are also prominent in the pet trade.

In some cultures lizard symbolism plays an important, though rarely predominant role:
➢ In Aboriginal Australia, the Lizard Tarrotarro is considered a cultural hero.
➢ The Moche people of ancient Peru worshiped animals and often depicted lizards in their art.
➢ According to a popular legend in Maharashtra, in the Battle of Sinhagad, domesticated Indian monitor lizards, with ropes attached, were used to scale the walls of the Sinhagad fort; with the aide of the ropes, men were then able to climb the fort walls.

Overview and Use

This set uses a common model to recreate digitally the lizard species included in this volume. Each species uses specific morphs from the generic model to single-out it's unique features. Select **Figures** in the Runtime Folder and go to the **Nature's Wonders → Reptiles** folder:

- **Models included in this volume:**
    - **Natures Wonders Lizard Base** - This model is used with all lizards included in this set.
    - **Natures Wonders Lizard Tail Base** - This model can be used with all lizards included in this set.

Creating a Lizard

1. Choose what you want to load. For this example, we'll create the Eastern Fence Lizard.
2. Load Poser or DAZ Studio. For Poser, select FIGURES and the "Nature's Wonders" →   "Reptiles". DAZ Studio users will select the "Poser Formats"→   (*your runtime library*) → "FIGURES" → "Nature's Wonders"→"Reptiles" folder.
3. To create an Eastern Fence Lizard, use the "Nature's Wonders Lizard" base model.
4. Go to the **POSES** folder and "Nature's Wonders "→ "Reptiles folder"→"Lizards". For DAZ Studio users, this will be found in the "Poser Formats" file section.
5. Select the Eastern Fence Lizard (or a lizard of your choice) and load/apply it to the Lizard base model by clicking the mouse. This species pose contains both the morph and texture settings to turn the generic model into the selected lizard. It will automatically apply the correct DAZ Studio material settings if you are using DAZ Studio

Using the Lizard Tail

The Lizard Tail model is used to represent a behavior common in many lizard species in which they drop their tails to confuse predators. The tail model should be used in conjunction with the "LostTail" morph for the Lizard Base Model. See instructions below:

1. Load the Lizard Base and Lizard Tail Models.
2. Go to the **POSES** folder and apply the specific Lizard species you want to

use to both the Lizard Base and the Lizard Tail Model.

3. Apply the "LostTail1" preset to the Lizard Base Model. This will automatically set the "LostTail" morph to "1" and load the Lost Tail Material.

4. Apply the "LostTail2" preset to the Lizard Tail Model to apply the Lost Tail Material.
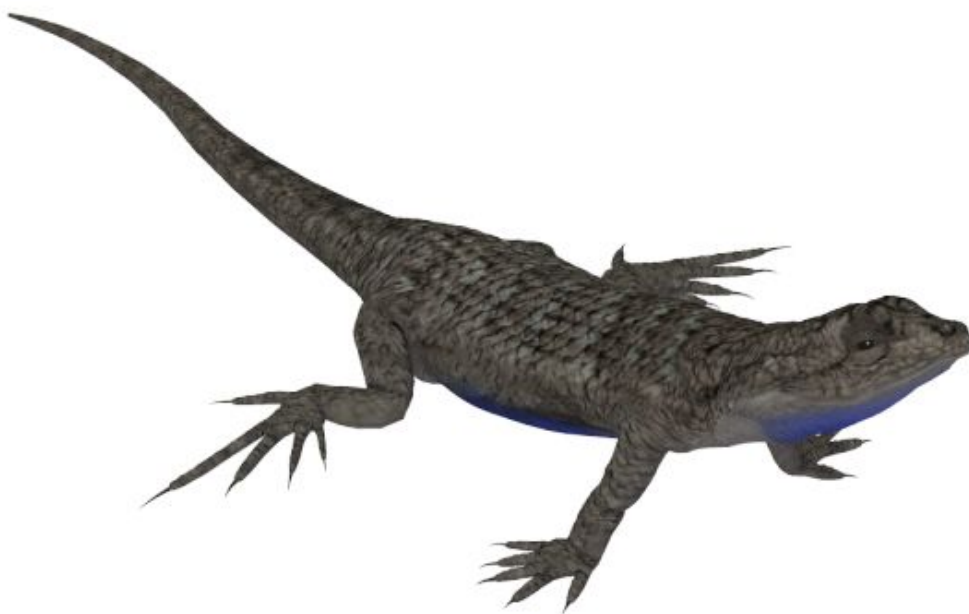
In cases where you might want to return the Lizard to its original state (before the tail loss), simply reapply the lizard species to the model.

Using the Poses

The poses were designed for the default model. Since different individual species may use torso, neck, leg and tail scaling, it may alter the expected ground level of the species model. Some adjusting may be necessary (e.g. the "ytran" dial may need to be used to raise or lower the model).

DAZ Studio Iray Materials

DAZ Studio Iray materials have been included in this set. They are found in the Iray Versions subfolder in the Poses folder. The versions found in the main folder are 3D Delight Materials.
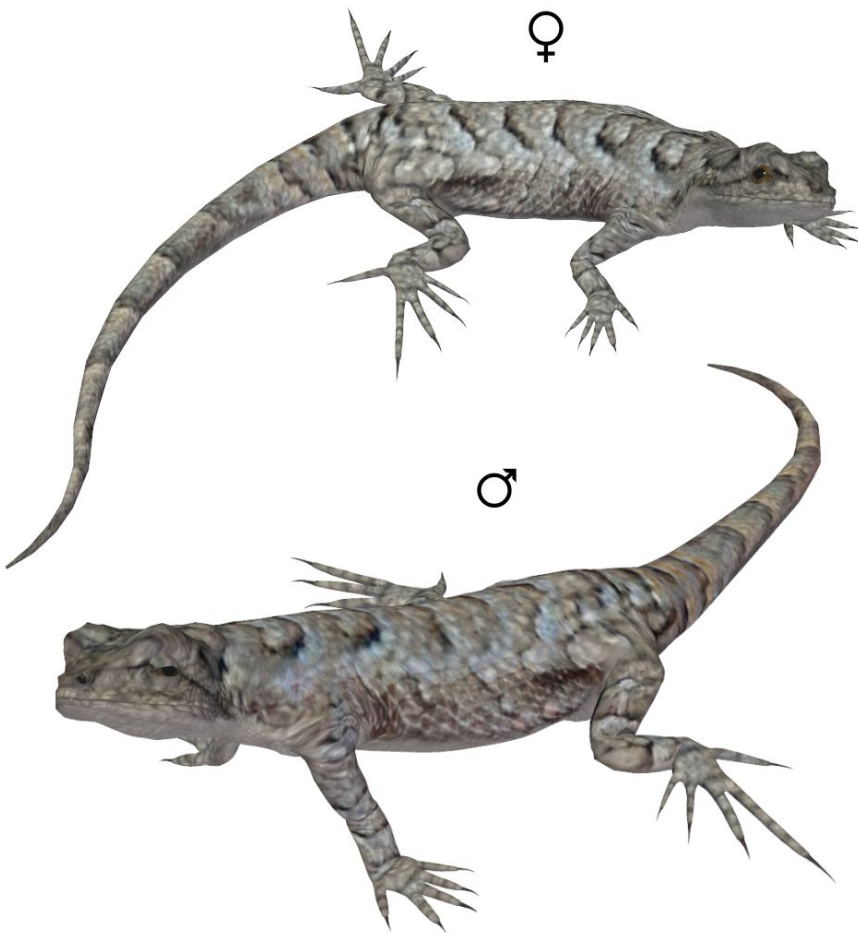
Eastern Fence Lizard   *Sceloporus undulatus*

It is a medium-sized lizard, 10.6-18.3 cm (4.0 to 7.2 inches) long and is found in the eastern United States (Alabama, Louisiana, Arkansas, Georgia, North Carolina, South Carolina, Virginia, Kentucky, Southern Illinois, Southern Indiana, Tennessee, Ohio, Pennsylvania, Maryland, Missouri, West Virginia, Mississippi, Delaware, northern Florida, southern New Jersey and parts of New York). It is common along forest edges, rock piles, and rotting logs or stumps. This lizard is also referred to as the prairie lizard, fence swift, gray lizard, northern fence lizard or pine lizard.

It is typically colored in shades of gray or brown, and has keeled scales, with a dark line running along the rear of the thigh. Females are usually gray and have a series of dark, wavy lines across their backs. The belly is white to gray with black flecks. There may be some pale blue on the throat and belly. The male is usually brown, and during the summer, has a more greenish-blue and black coloration on the sides of the belly and throat than the female has. The young look like the females, but are darker and duller.
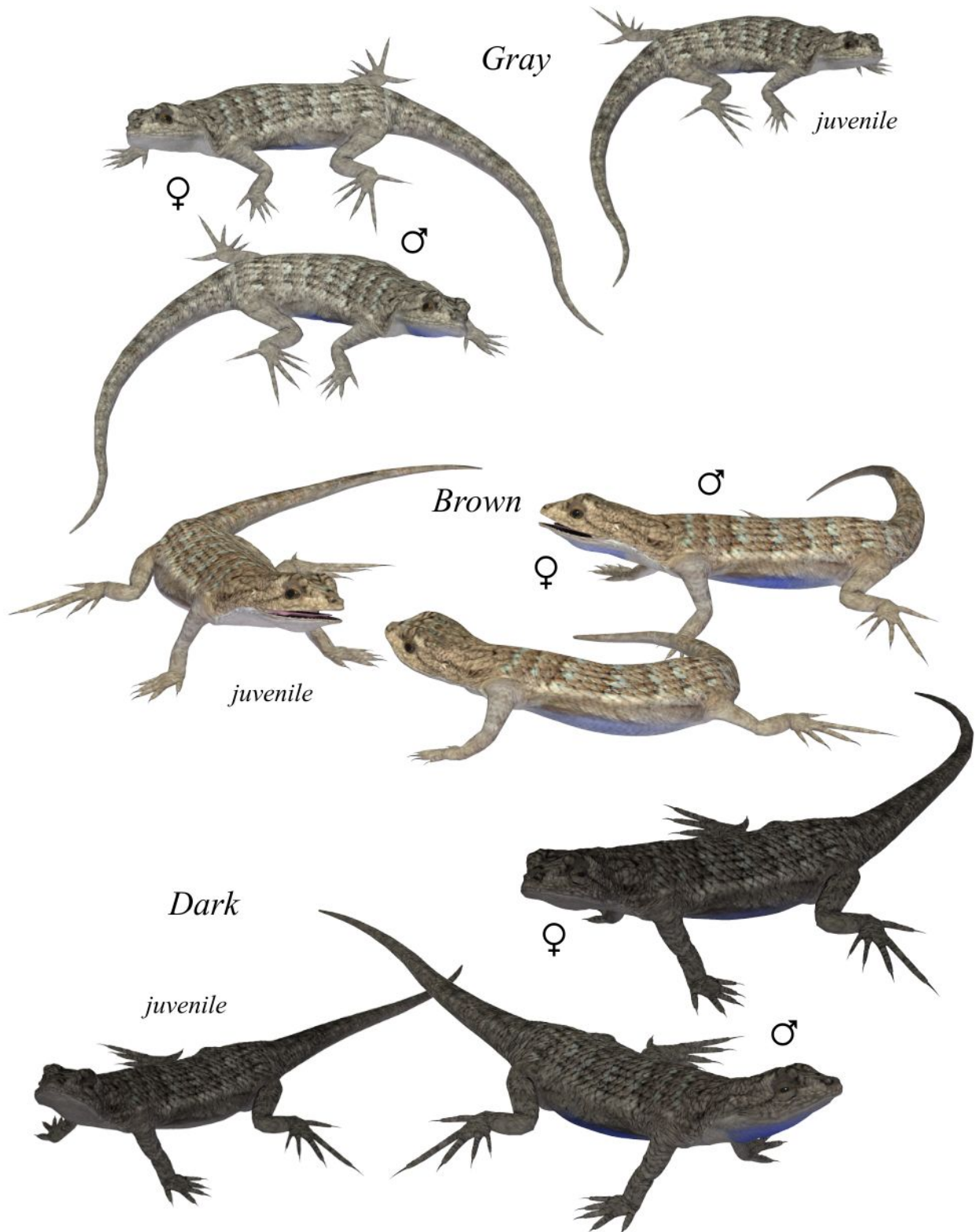
In 70 years, according to a study published in 2009, eastern fence lizards in parts of the United States have adapted to have longer legs and new behaviors to escape the red imported fire ant, which can kill the lizard in under a minute.

♀

♂

Western Fence Lizard   *Sceloporus occidentalis*

It is a medium-sized lizard, 21 cm (8.3 inches) long and is found in the western United States and Mexico (Arizona, California, Idaho, Nevada, Oregon, Utah,

Gray

juvenile

♀

♂

Brown

♂

♀

juvenile

Dark

♀

juvenile

♂

Washington and Northern Mexico). It is found in grassland, broken chaparral, sagebrush, woodland, coniferous forest, and farmland. It occupies elevations from sea level to 3,291 m (10,800 ft.). They generally avoid the harsh desert. The ventral abdomen of an adult is characteristically blue, giving this lizard the second common name of "blue-belly".

They are brown to black in color and have black stripes on their backs. The brown may be sandy or greenish in color. Their most distinguishing characteristic is their bright blue bellies. The ventral sides of the limbs are gray to yellow. Mature lizards may also have blue patches on their throats. This coloration is faint or absent in both females and juveniles.

The western fence lizard eats spiders and insects such as beetles, mosquitoes, termites, and various types of grasshoppers.

Like most other lizards, it goes through a period of hibernation during the winter. The length of time and when they emerge varies depending on climate. During the mating season, adult males will defend a home range.

Special Thanks to…

….my betatesters (FlintHawk)

Species Accuracy and Reference Materials

The author-artist has tried to make these species as accurate to their real life counterparts as possible. Lizards of the same species vary considerably, as do all other animals in nature. These Lizards were created using the correct field markings and the most common similarities.

With the use of one generic model to create dozens of unique lizard species, some give and take is bound to occur. In addition, 3D-models have many technical challenges, which make exact representations difficult, if not impossible.   It's best to think of these Lizards represented as resembling the particular species, and they may not, in some cases, be 100% scientifically accurate.

The model and morphs were created using Luxology's Modo. The texture maps were created in Corel's Painter.   The model was rigged and materials were created in Smith-Micro's Poser and DAZ's DAZ Studio.

Internet Sources:

- **Wikipedia** (http://www.wikipedia.com)
- **California Herps** (http://californiaherps.com)
- **San Diego Zoo** (http://animals.sandiegozoo.org/animals/lizard)