

Lizard Resources on HHMI BioInteractive

Short Films & Videos

Short Film: *The Origin of Species: Lizards in an Evolutionary Tree* (<https://www.hhmi.org/bioInteractive/origin-species-lizards-evolutionary-tree>). Working in the islands of the Caribbean, biologist Jonathan Losos has discovered the traits that enable dozens of anole species to adapt to different vertical niches in the forest, with interesting examples of convergent evolution. Available in Spanish.

Film Guides and Student Quiz: *The Origin of Species: Lizards in an Evolutionary Tree* (<https://www.hhmi.org/bioInteractive/film-guides-origin-species-lizards-evolutionary-tree>). Two classroom-ready film guides, and a student quiz, provide background and resources for the film, *The Origin of Species: Lizards in an Evolutionary Tree*, including key concepts, ties to curricula, discussion points, and lists of related resources. The "Quiz" is designed as a summative assessment that probes student understanding of the key concepts addressed in the film. Available in Spanish.

Virtual Lab

Virtual Lab: *Lizard Evolution Virtual Lab* (<https://www.hhmi.org/bioInteractive/lizard-evolution-virtual-lab>). This Lizard Evolution Virtual Lab allows students to explore the evolution of the anole lizards in the Caribbean by collecting and analyzing their own data.

Classroom Resources

Classroom Activity: *Using DNA to Explore Lizard Phylogeny* (<https://www.hhmi.org/bioInteractive/using-dna-explore-lizard-phylogeny>). In this activity, students are guided to sort the lizard species by appearance, then generate a phylogenetic tree using the lizards' DNA sequences to evaluate whether species that appear similar are closely related to each other. Also available in Spanish.
Classroom Activity: *Look Who's Coming for Dinner: Selection by Predation* (<https://www.hhmi.org/bioInteractive/look-whos-coming-dinner-selection-predation>). This activity supports the film *The Origin of Species: Lizards in an Evolutionary Tree*. Students are asked to formulate a hypothesis, and collect and analyze real research data to understand how quickly natural selection can act on specific traits in a population. Also available in Spanish.

Apps

Virtual Lab App (iTunes): *Lizard Evolution Virtual Lab App* (<https://apps.apple.com/us/app/lizard-evolution-virtual-lab/id955217861>). This Lizard Evolution Virtual Lab app lets you explore the evolution of the anole lizards in the Caribbean on your iOS device.

Animations

Anole Lizards: An Example of Speciation (<https://www.hhmi.org/bioInteractive/anole-lizards-example-speciation>). This animation features the anole lizards as an example of how a single species can split and multiply into many different species with distinct traits.

Data Point and Phenomenal Images

Effects of Predation on the Niche of Lizards (<https://www.hhmi.org/bioInteractive/effects-predation-niche-lizards>). This data point illustrates the results of a team of scientists who studied the effects of introducing a lizard predator on the food webs of a group of small islands in the Bahamas. A student worksheet is provided as is as an educator guide for leading classroom discussion.

Lizards in the Cold (<https://www.bioInteractive.org/classroom-resources/lizards-cold>) This activity guides the analysis of a published scientific figure from a study that investigated how anole lizards may adapt to extremely cold temperatures. A student worksheet is provided as is as an educator guide for leading classroom discussion.

Lizards in Hurricanes (<https://www.bioInteractive.org/classroom-resources/lizards-hurricanes>) This activity explores images of anole lizards subjected to strong winds, which serve as phenomena for learning about natural selection and the impacts of extreme climate events. A student worksheet is provided as is as an educator guide for leading classroom discussion.