American Museum Of Natural History

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Life at the Limits: Nature's Superheroes Returns to American Museum of Natural History for an Encore Presentation

Special exhibition showcases variety of 'super powers' organisms use to survive and thrive on Earth

Opens May 19, 2025



Holding your breath for up to two hours. Gulping down a snack 10 times your own weight. Living in crushing depths where there is no sunlight to support life. These may sound like superpowers to humans, but somewhere on this planet, an organism is using one of these extraordinary talents to go about its daily tasks. *Life at the Limits: Nature's Superheroes*, returning to the American Museum of Natural History on May 19 for an encore presentation, offers a fascinating glimpse of the breathtaking diversity of the natural world and the power of natural selection to shape exceptional responses to the challenges and opportunities of life on Earth.

Featuring life-size and larger-than-life models—including a climbable model of a Hercules beetle—and interactive exhibits, *Life at the Limits: Nature's Superheroes* highlights an array of organisms with surprising ways of thriving in harsh environments, finding a mate or their next meal, and leveraging strength, endurance, speed, and more. The Museum debuted *Life at the Limits* in 2015 and traveled the exhibition internationally before bringing it back to New York for a second run.

Showcasing the extraordinary range of ways different organisms—plant and animal, aquatic and terrestrial, vertebrate and invertebrate—have adapted to this planet, *Life at the Limits* introduces visitors to:

• Creative courtship and reproduction strategies

Some organisms go to extraordinary lengths to procreate—including corals, which release billions of eggs and sperm in a spectacular synchronized spawning event during a full moon that is re-created in the exhibition with an intricate model of Australia's Great Barrier Reef.

• Remarkable adaptations for breathing

Many life forms on Earth thrive at high altitudes, where oxygen is scarce, and some have ways of accessing or storing oxygen in other types of extreme conditions. The southern elephant seal (*Mirounga leonina*), featured in the exhibition as a 20-foot life-size model, can dive down nearly a mile and stay underwater for up to two hours while hunting.

• Efficient ways of moving around Evolution has been shaping locomotion for millions of years—with fascinating results that match or even surpass human technologies. Find out how dragonflies can hover motionless and fly upside down and backwards!

• Super sensing abilities

Life at the Limits tells the stories of the natural world's top eyes, noses, ears, and more, including a gallery devoted to life inside caves, which showcases a variety of species that have adapted to low-light environments in similar ways.

• Extreme hunting and eating

Organisms have many ways of securing a meal. Explore amazing adaptations, including the black swallower (*Chiasmodon niger*), which lives thousands of feet beneath the ocean's surface and can gulp down prey 10 times its own weight

• Extraordinary endurance

Even in the harshest environments on Earth, life finds a way to thrive. A diorama of a hydrothermal vent deep in the ocean features tube worms (*Riftia pachyptila*), which survive in superheated seawater with high concentrations of acids, metals, and sulfur.

• **Dramatic defense systems** Predators can't hunt what they can't find, and some species have found ways to hide in the open. The mimic octopus (*Thaumoctopus mimicus*), can imitate a number of venomous and poisonous creatures, including a flatfish, a lionfish, and a sea snake, to fool its own predators.

• Death-defying feats

Some species can seemingly defy death. Shown as 10-foot models, microscopic animals called tardigrades can survive dehydration, extreme temperatures, and even space.

Exhibition Organization

Life at the Limits: Nature's Superheroes is co-curated by John Sparks, curator in the Museum's Department of Ichthyology, and Jessica Goodheart, assistant curator in the Museum's Division of Invertebrate Zoology. The exhibition was designed and produced by the Museum's award-winning Exhibition Department, now under the direction of Lauri Halderman, senior vice president for exhibition.

ABOUT THE AMERICAN MUSEUM OF NATURAL HISTORY (AMNH)

The American Museum of Natural History, founded in 1869 with a dual mission of scientific research and science education, is one of the world's preeminent scientific, educational, and cultural institutions. The Museum encompasses more than 40 permanent exhibition halls, galleries for temporary exhibitions, the Rose Center for Earth and Space including the Hayden Planetarium, and the Richard Gilder Center for Science, Education, and

Innovation. The Museum's scientists draw on a world-class permanent collection of more than 30 million specimens and artifacts, some of which are billions of years old, and on one of the largest natural history libraries in the world. Through its Richard Gilder Graduate School, the Museum offers two of the only free-standing, degree-granting programs of their kind at any museum in the U.S.: the Ph.D. program in Comparative Biology and the Master of Arts in Teaching (MAT) Earth Science residency program. Visit amnh.org for more information.

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Image

This life-size model (20 feet) is of the southern elephant seal (*Mirounga leonina*), which spends two months a year living on land in Antarctica and the rest of the year hunting for fish and squid in the frigid Southern Ocean. While hunting, the elephant seal can dive down nearly a mile and may not resurface to breathe for up to two hours.

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