

CATALOGING BIODIVERSITY IN GREAT SMOKY MOUNTAINS NATIONAL PARK

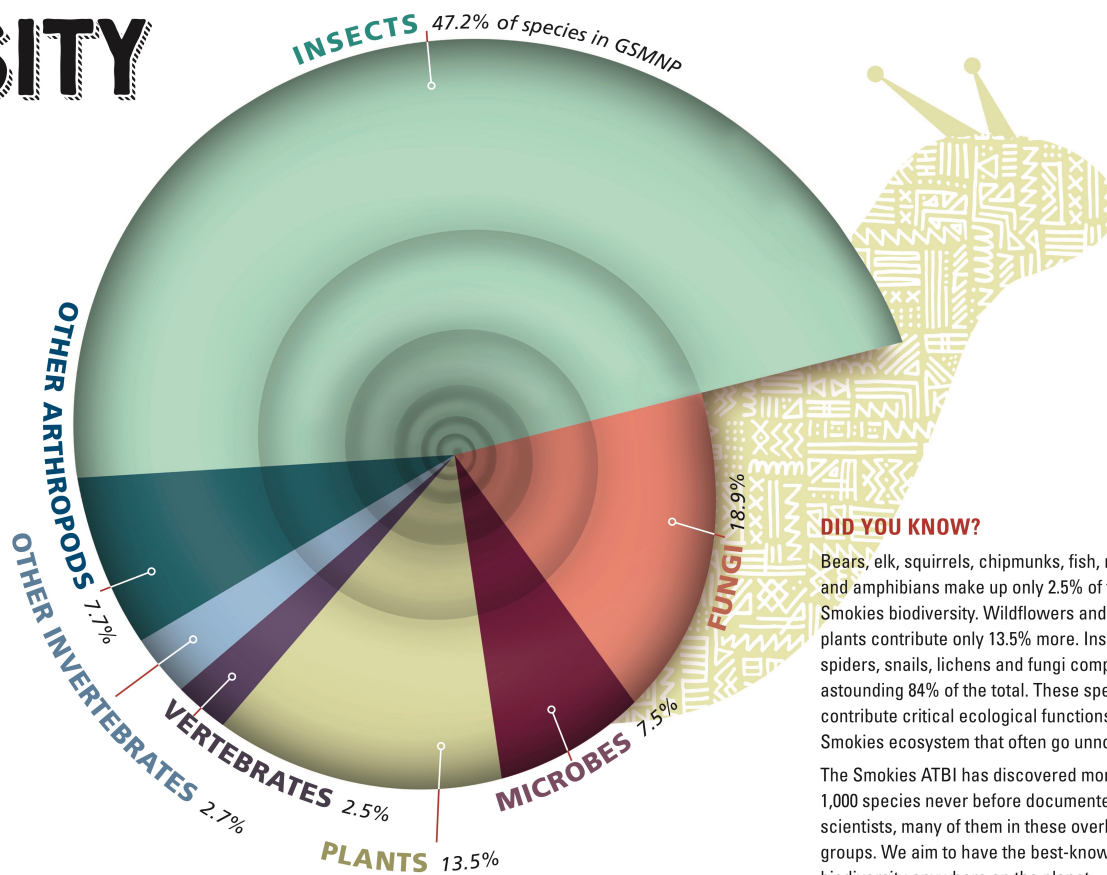
for **20** years...
and counting

Great Smoky Mountains National Park is one of the most biodiverse regions in North America. Nestled within these ancient mountains are many endemic species that only exist here and nowhere else in the world!

By conducting an All Taxa Biodiversity Inventory (ATBI), Great Smoky Mountains National Park and Discover Life in America (DLIA) have sought to answer four basic questions:

- What species are here?
- What are their geographic distributions?
- What are their relative abundance?
- What are their ecological relationships to other species?

WHAT DO WE GET FROM BIODIVERSITY? 🍌 FOOD 🐝 POLLINATION 💧 WATER PURIFICATION 🌬️ AIR PURIFICATION 🧬 GENETIC MATERIAL 🏥 MEDICINE ♻️ DECOMPOSITION 🐛 PEST CONTROL 🌿 BEAUTY, HUMAN WELL-BEING



DID YOU KNOW?

Bears, elk, squirrels, chipmunks, fish, reptiles and amphibians make up only 2.5% of the Smokies biodiversity. Wildflowers and other plants contribute only 13.5% more. Insects, spiders, snails, lichens and fungi comprise an astounding 84% of the total. These species contribute critical ecological functions in the Smokies ecosystem that often go unnoticed.

The Smokies ATBI has discovered more than 1,000 species never before documented by scientists, many of them in these overlooked groups. We aim to have the best-known biodiversity anywhere on the planet.

What is biodiversity?

"Biodiversity" is a term that describes the diverse organisms living on Earth—plants, animals, fungi, and microorganisms—as well as the diverse genetic material that they carry, and the variety of ecosystems on our planet—grasslands, rainforests, mountains, coral reefs. All of these comprise the biological diversity of Earth.

Why is biodiversity important?

Biodiversity helps our ecosystems by protecting resources like water and soil, storing and recycling nutrients, breaking down and absorbing pollution and contributing to climate stability. It provides resources like food, medicine and building materials as well as social benefits such as recreation and tourism. Therefore most cultures recognize biodiversity as being integral to any approach to sustaining life on Earth.

What is DLIA and how does it support biodiversity?

In 1997, Great Smoky Mountains National Park held a meeting of scientists, park staff, and representatives from other federal agencies to discuss the feasibility of conducting an All Taxa Biodiversity Inventory (ATBI), and to better understand the breadth of biodiversity in a given area. Discover Life in America (DLIA) was formed to manage the ATBI in the Smokies.

Cooperating scientists working on this project have discovered more than 1,000 species new to science and more than 10,000 new records of species distributions. In 2018, DLIA will reach the 20-year milestone, with even higher aspirations for the future.

How can you support DLIA?

- Provide financial support
- Volunteer and become a citizen scientist
- Participate in education programs and special events
- Purchase the DLIA t-shirt at smokiesinformation.org
- Add your own species observations to DLIA's iNaturalist project at inaturalist.org

LEARN MORE AT DLIA.ORG



WHAT HAS DLIA DISCOVERED IN GSMNP?

- New species to science
- New GSMNP records
- Historic GSMNP records

