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INTRODUCTION

Founded in 1858, the Illinois Natural History Survey (INHS) is one of the oldest biological surveys in the United States. The INHS is centrally located between Chicago, St. Louis, and Indianapolis in the midwestern US.

The INHS safeguards 10 Biological Collections and preserves about 11 million voucher specimens representing the state's biological memory and natural heritage.



[INHS Biological Collections](#)

To understand the Illinois and the midwestern U.S. biota in a global context, the collections cover everything from detailed local coverage to international research on specific taxa.

The Fish and Herpetology Collection are two particularly important collections at INHS and are well-known internationally.

The collections at INHS are valuable resources for making discoveries and gaining a better understanding of our world.

The specimens provide crucial information for monitoring changes in life history and geographical distributions, especially as human activities continue to alter habitats on a global scale.

COLLECTIONS



Fig. The INHS Fish Laboratory and a section of the INHS Fish Collection.

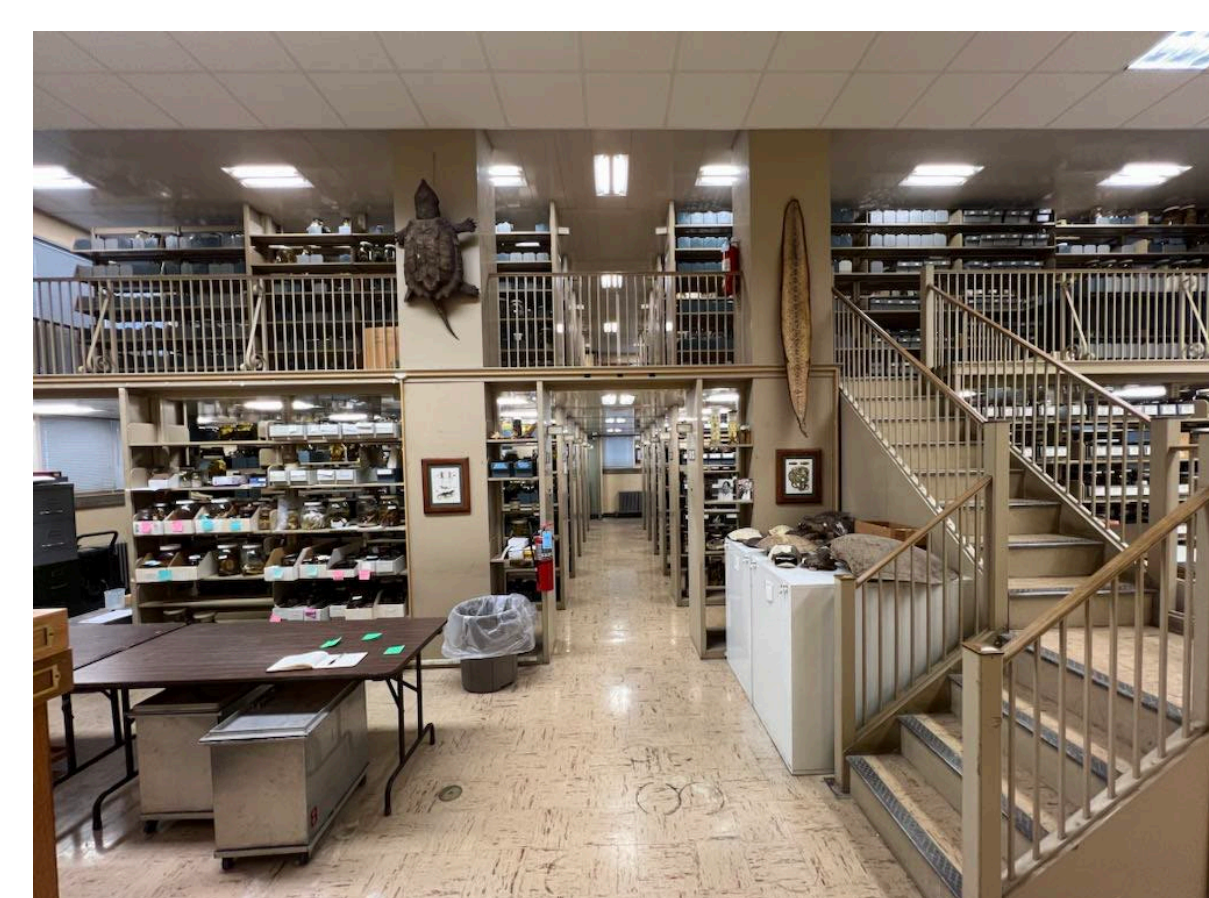


Fig. The INHS Herpetology Collection, house to the INHS and UIMNH Amphibian and Reptile Collection.

INHS Fish Collection

- ⇒ 1.3 million cataloged specimens and 170,000 lots.
- ⇒ One of the largest Ichthyology collections in the US and the 6th largest collection of Neotropical fishes in North America.
- ⇒ The collection represents about 170 families and over 2,500 species.
- ⇒ Geographically, about 58% of the collection is from Illinois, 28% from elsewhere in North America, 13% from South America, and 1% from the rest of the world, including Antarctica.
- ⇒ The collection's value is greatly enhanced by the 2,751 fish lots collected between 1862 and 1910 from areas where they no longer occur.
- ⇒ Additionally, thousands of specimens have been added from other areas of North and South America in the past few decades. The collection contains representatives from 48 states of the US and many countries, including Angola, Antigua, Bolivia, Brazil, Canada, Colombia, Costa Rica, England, Guyana, Indonesia, Lebanon, Mexico, Pakistan, Panama, Paraguay, Peru, Puerto Rico, Romania, Russia, Thailand, Trinidad, Uruguay, Venezuela, and Yugoslavia (Figure 1).

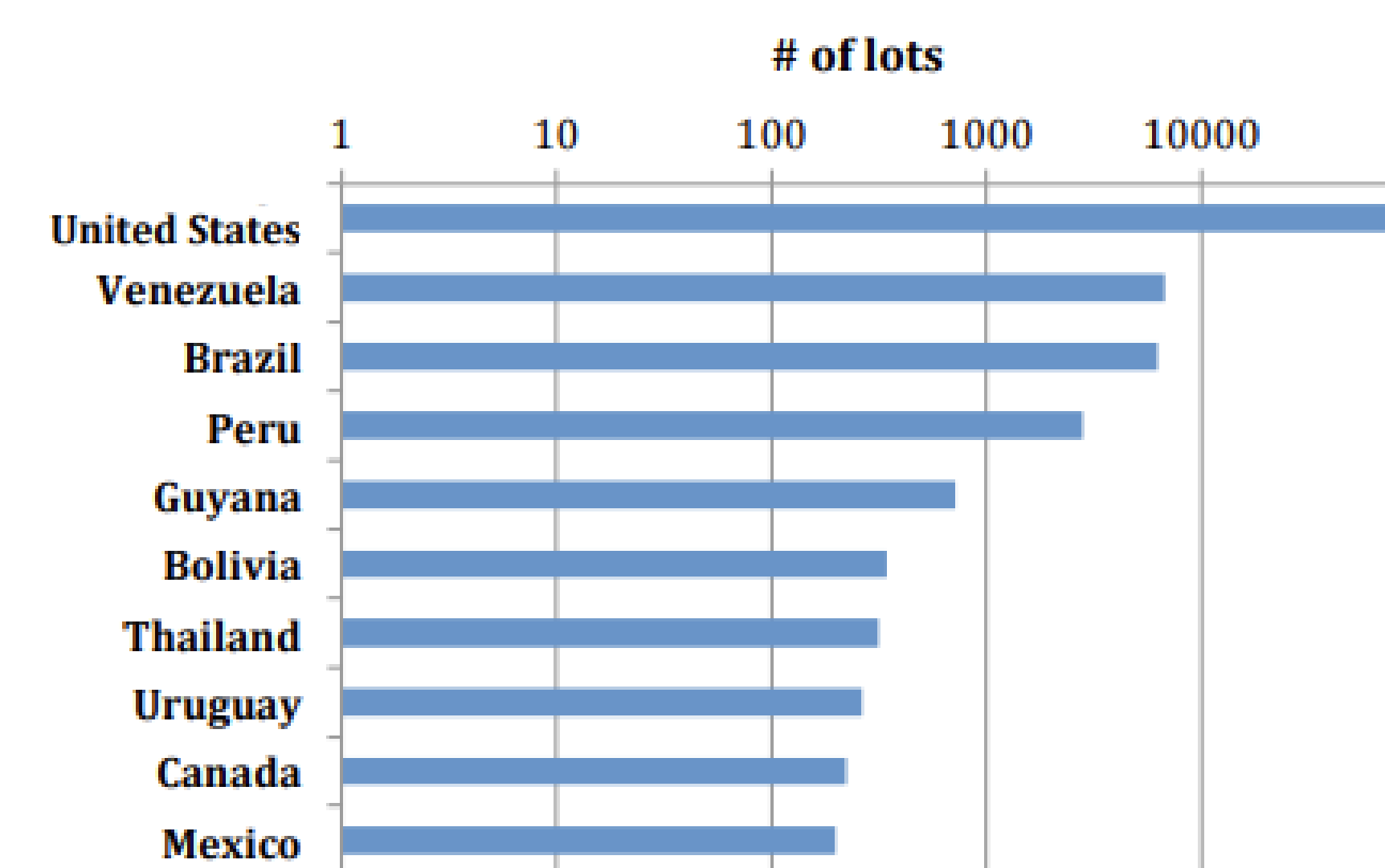


Fig. Top ten countries with the largest number of fish represented in the INHS Fish Collection.

- ⇒ The type collection contains 1,220 specimens representing 93 nominal species. Name-bearing type material consists of 26 holotypes (24 nominal species, 2 subspecies), 5 lectotypes, and 5 series of syntypes (39 specimens). Additional type material includes paratypes of 125 nominal species (1,198 specimens).



INHS Herpetology Collection

The INHS houses two separate herpetology collections, the INHS Amphibian and Reptile Collection and the University of Illinois Museum of Natural History Amphibian and Reptile Collection (UIMNH).

INHS Amphibian and Reptile Collection

- ≈ Approximately 40,000 cataloged specimens.
- ≈ The collection represents 55 families and over 550 species (51% Amphibia, 49% Reptilia).
- ≈ The geographical emphasis is Illinois (75%).
- ≈ In addition to the Illinois material, the INHS collection also houses specimens from 45 other U.S. states, Canada, the Caribbean, Mexico, South America, Asia, Africa, and Europe.

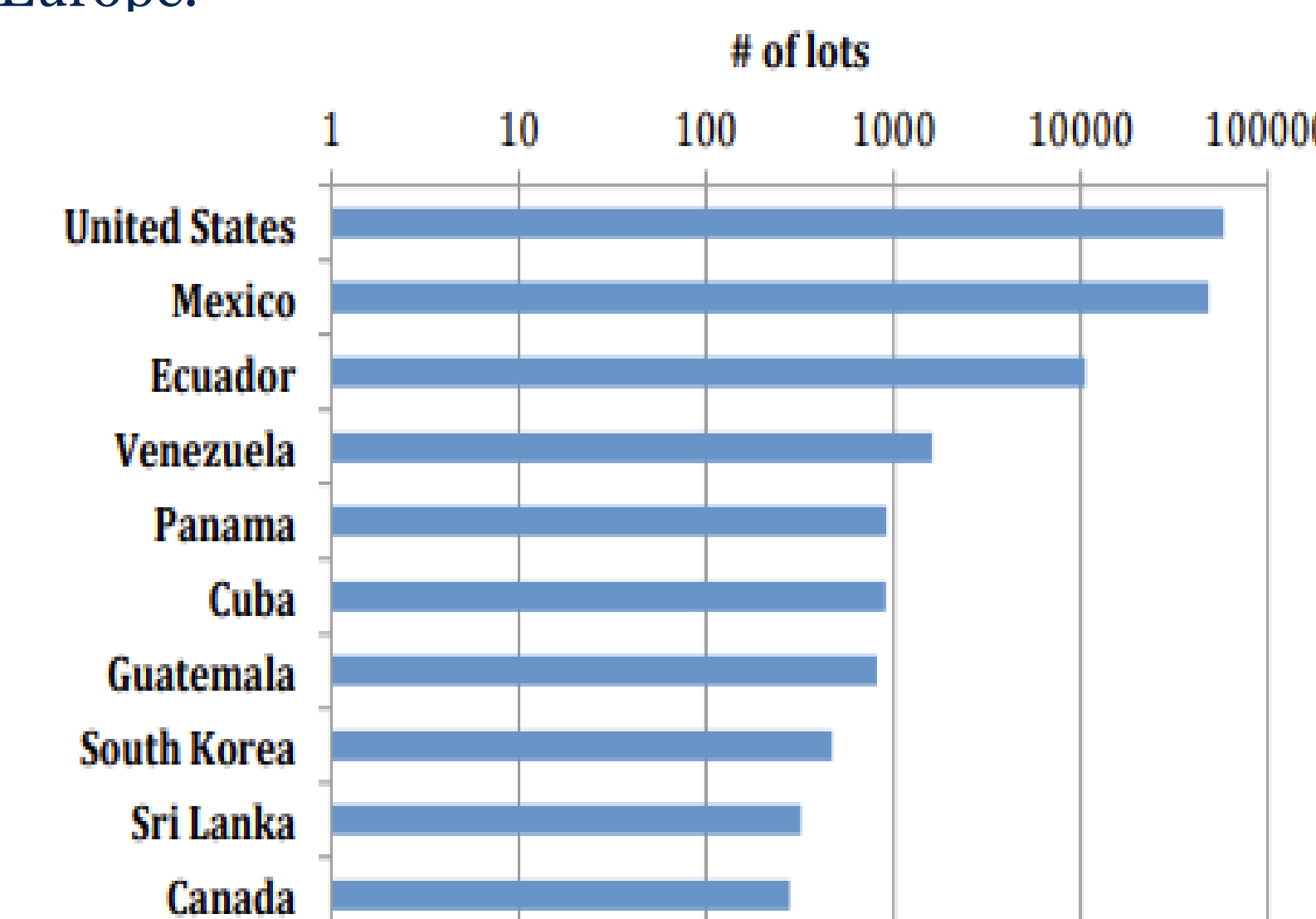


Fig. Top ten countries with the largest number of herpetofauna represented in the INHS Herpetology Collection.

UIMNH Herpetology Collection

- ≈ Approximately 100,000 cataloged specimens. The collection is among the largest in North America.
- ≈ The geographic emphasis is Mexico (about 50,000), but there are large holdings from the United States, Canada, Ecuador, Cuba, the Philippines, and Venezuela.
- ≈ The type collections include over 170 primary types and about 2000 paratypes.



REMARKS

The INHS Fish and Herpetology Collections have continued to grow steadily over the past ten years with specimens being deposited from Illinois and other national and international localities. The collections are regularly used in scientific research to

- Recognize threatened and endangered species
- Determine the arrival and spread of exotic and invasive Species
- Provide baseline data for ecological restoration projects
- Evaluate habitat quality over time and space
- Assess the effects of climate change
- Locate populations of medical or economic importance
- Resolve evolutionary relationships
- Discover new species and facilitate species identification through comparative morphology and DNA barcoding.

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Specimen records are available online through web-based searchable databases.

The INHS is committed to making all voucher specimens, and extended specimen data, accessible to the science community worldwide.



[INHS Fish Collection](#)

The associated data of both world-class collections are fully digitized and can be accessed through the INHS Biological Collections website or data aggregators like GBIF and VerNet.



[INHS Herpetology Collection](#)

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