



## Citizen Science for Outdoor Adventures

### Downloadable Packet

#### **How do you become a citizen scientist and conduct a reptile and amphibian survey on private property?**

Development of formal citizen science programs for cataloging records of the distribution and abundance of reptiles and amphibians on private lands in the Southeast are in progress. State wildlife biologists, amateur and professional herpetologists, and other citizens who are simply interested in finding, identifying, and documenting the presence of reptiles and amphibians are already involved in developing a plan. Opportunities for anyone who wishes to become involved will be forthcoming.

The steps below are suggested for anyone wanting to make an inventory of reptiles and amphibians on an identifiable area they have access to. Examples of each are provided for the Salleyland project.

1. START YOUR LIST - Begin compiling a list of reptiles and amphibians that might be on the property, and then start the list of what is present as soon as you make your first observation. The **list of Salleyland reptiles and amphibians** is now up to 53 species. Also, check field guides or other reputable source to see what you have not discovered but that still might be present. The list of reptiles and amphibians we are **still looking for** at Salleyland is much shorter than when we started.

2. TAKE VOUCHER PHOTOS - Make a **photographic voucher** of every new species you find. Photos are one of the simplest and most reliable means of documenting that you have identified the species correctly and have a permanent record of it. Cell phone photographs are ideal for the purpose.

3. LEARN TO IDENTIFY SPECIES - Make sure you properly identify each animal, especially if it is a species you have not seen before. Field guides are a useful starting point for this purpose. And if you have taken good photos, you can send them for confirmation. See **Wildlife Identification**. Some species of reptiles and amphibians have **look-alikes** that may require careful scrutiny, so if you send a photo, please try to focus on key characters that distinguish between species that are similar in appearance.

4. KEEP FIELD NOTES - Keeping careful notes and records is part of conducting an inventory for any kind of wildlife. Compiling the records ultimately provides an overview of biodiversity of a particular site. The standard questions of who, what, why, where, when, and how are the basic foundation for taking field notes. The following template is a suggestion for keeping a daily record of reptile and amphibian sightings.





# **CITIZEN SCIENCE for OUTDOOR ADVENTURES**

## **The Reptile and Amphibian Model**

### **CITIZEN SCIENTISTS CONTRIBUTE TO WILDLIFE MANAGEMENT**

Inventories to determine species richness, biological diversity, and distribution patterns of wildlife within a region provide the information vital for developing prudent conservation and wildlife management programs for both game and non-game species. Hunters and anglers provide much of the information needed for management of game species. In one sense, they are citizen scientists.

### **REPTILE AND AMPHIBIANS SERVE AS A MODEL FOR CITIZEN SCIENCE**

Non-game species are a critical component of wildlife habitats both as prey and predators. Among these are the reptiles and amphibians, the herpetofauna. Outdoor enthusiasts interested in reptiles and amphibians can become citizen scientists who contribute to our knowledge of the distribution and abundance of native animals.

### **REPTILES AND AMPHIBIANS ARE HIDDEN BIODIVERSITY**

Distribution patterns of herpetofauna, are especially difficult to determine because most of them comprise hidden biodiversity due to their cryptic or fossorial nature. Even professional herpetologists often have difficulty verifying the presence of regional herpetofauna, sometimes taking decades to derive a thorough inventory.

### **THE SOUTHEAST: A REGION OF HIGH BIODIVERSITY**

The Southeast has the highest biodiversity of reptiles and amphibians in the country. Therefore, complete inventories of a designated acreage can be especially arduous in the southeastern United States because of the high concentration of reptiles and amphibians. But the opportunities for exciting outdoor adventures abound.

Regional field guides can be useful in identifying an animal in hand or recently observed and also can be useful in determining what species a citizen might expect to find in a particular region.

The Wormsloe series published by the University of Georgia Press includes books that cover all species of reptiles and amphibians native to the Southeast as well as introduced species such as Burmese pythons and Cuban treefrogs.

**Salamanders of the Southeast**

**Frogs and Toads of the Southeast**

**Turtles of the Southeast**

**Lizards and Crocodylians of the Southeast**

**Snakes of the Southeast**