

# Tennessee's Extinct Species

The following species once occurred in Tennessee and are now believed to be extinct. Following this list are two species descriptions—one describing the Carolina parakeet and another describing the extinct freshwater mussels of Tennessee.

**Birds:**  
Carolina parakeet  
Passenger pigeon

**Mammals:**  
Eastern elk

**Fishes:**  
Harelip sucker

**Mussels:**  
Acornshell  
Angled riffleshell  
Cumberland leafshell  
Leafshell  
Narrow cat's paw  
Rough rockshell  
Round combshell  
Sugarspoon  
Tennessee riffleshell

*Conuropsis carolinensis*  
*Ectopistes migratorius*

*Cervus elaphus canadensis*

*Lagochila lacera*

*Epioblasma haysiana*  
*Epioblasma biemarginata*  
*Epioblasma stewardsoni*  
*Epioblasma flexuosa*  
*Epioblasma lenoir*  
*Quadrula tuberosa*  
*Epioblasma personata*  
*Epioblasma arcaeformis*  
*Epioblasma propinqua*



# Carolina Parakeet

*(Conuropsis carolinensis)*

## You Can Help!

*Learn more about Tennessee's diverse ecosystems. Support conservation in your community and state!*

## Status

The Carolina parakeet is an extinct species.

## Description

The Carolina parakeet was a small parrot, about 12 inches in length. Its head was lemon yellow, with an orange forehead and cheeks. The rest of its body was green. Its legs and beak were pale pinkish-white. These curious birds lived and traveled in flocks.

## Habitat

The Carolina parakeet was found in riverine forests, cypress swamps, and other woodlands over much of the Eastern and Midwest Regions of the United States. It was the only parrot native to the United States. The parakeets rested at night in groups, with as many as 30 birds sleeping inside one hollow tree, while others would hang on the outside. Nests were placed in hollow trees, and three to five white eggs were laid. Up to 50 nests were often crowded into one tree.

## Role in the Ecosystem

Carolina parakeets enjoyed a variety of different foods—apples, peaches, mulberries, pecans, grapes, dogwood fruit, and grains. The colorful birds also fed on the seeds of grasses, maples, elms, bald cypress, pines, and other trees. They were known to visit orchards and gardens. Historically, many seeds of bald cypress trees were dispersed by Carolina parakeets as they ate the seeds and spread them with their droppings.

## Why the Carolina Parakeet is Extinct

Carolina parakeets were considered agricultural pests. Flocks were known to visit orchards and gardens, where they would eat and scatter fruit and grain crops. Farmers and gardeners would shoot the parakeets, and the flock would hover over the injured birds until they were shot as well. This behavior allowed entire flocks to be quickly destroyed. The curious, easily tamed parakeets were also collected as pets. The showy feathers of the birds were used as decorations for ladies' hats and clothing. Conservation efforts, including a captive-breeding program, were not enough to save this species from extinction. The last known Carolina parakeet died in the Cincinnati Zoo in 1914.



# Extinct Freshwater Mussels

## You Can Help!

*Remember, what we put on the land may eventually enter the streams! Tell a friend about freshwater mussels. Reduce water consumption. Protect water quality. Prevent nonpoint source pollution. Participate in a local stream or river cleanup. Use biodegradable soaps. Control erosion on your property, and report erosion sources. Watch for and report illegal dumping alongside streams. Plant or maintain native vegetation along streams. Learn more about Tennessee's diverse ecosystems. Support conservation in your community and state!*

The following freshwater mussel species once lived in Tennessee and are now extinct:

Acornshell  
Angled riffleshell  
Cumberland leafshell  
Leafshell  
Narrow cat's paw  
Rough rockshell  
Round combshell  
Sugarspoon  
Tennessee riffleshell

*Epioblasma haysiana*  
*Epioblasma biemarginata*  
*Epioblasma stewardsoni*  
*Epioblasma flexuosa*  
*Epioblasma lenoir*  
*Quadrula tuberosa*  
*Epioblasma personata*  
*Epioblasma arcaeformis*  
*Epioblasma propinqua*

## Description

All freshwater mussels have two shells connected by a "hinge." Their shells come in a variety of colors, shapes, and sizes. Some shells are smooth, some have a clothlike texture, and some are covered with bumps and ridges. Some species rarely reach an inch in length, while others may grow to 6 inches in length and weigh more than 5 pounds.

## Habitat

These freshwater mussels once lived in the riffles and shoals of free-flowing streams. They generally lived in the gravel, sand, or mud on stream bottoms.

## Life History

Fertilized mussel eggs develop into larvae, called glochidia. One female may produce hundreds of thousands of glochidia. These tiny, bean-shaped glochidia attach themselves to the gills of fishes and cling there for a time while they develop into adults. Once this change is completed, the tiny mussels drop to the stream bottom. Adult mussels are filter feeders; they consume tiny creatures by pumping and filtering water through their gills. Most species can live more than 50 years. Using their single "foot," they can move short distances along the streambed.



### **Role in the Ecosystem**

As mussels feed and breathe, they filter water and make it cleaner. Their presence can be an indicator that the water is clean and healthy. They serve as a food source for various fish species and otters, raccoons, turtles, and muskrats. They process minute organic matter in the riverine ecosystem and make it available to other organisms. Because mussels absorb many water contaminants, researchers can use mussels to learn what's in the water and the sources of the contaminants.

### **Why So Many Freshwater Mussel Species Are Extinct**

These species of freshwater mussels have become extinct primarily because of the destruction of their stream ecosystems. The construction

of dams, gravel dredging, strip mining, and pollution have all contributed to the extinction of these species. Pollution from coal mining and other sources of nonpoint source pollution kill freshwater mussels. Silt from erosion and poor land-use practices clogs the mussels' gills and smothers them.

One example of habitat destruction occurred in 1924, when the Wilson Dam was created on the Tennessee River in northern Alabama. Wilson Dam flooded most of Mussel Shoals, the richest freshwater mussel habitat in the world. Nearly 80 species of mussels were known to live at this site. Today, about 40 species survive in suitable remnant habitat below the dam.

### **Efforts Underway to Protect Our Remaining Freshwater Mussels**

In Tennessee alone, there are 36 species of freshwater mussels that are either endangered or threatened. Like the Cumberland monkeyface pearl mussel described earlier in this guide, these creatures have unique characteristics and specific habitat requirements. Many conservation organizations at federal, state, and local levels now recognize the importance of this unique group of creatures and are working together to protect them. Studies exploring the life history and habitat needs of different species are underway. Restoration projects continue to improve riverine ecosystems.

