

Maryland's Biodiversity

Have you ever looked at a topographical map of the United States? When viewing the map, you would see that the Eastern United States is bordered by the Atlantic Ocean, the Central United States has very flat land and the Western United States has very large mountain ranges. Maryland's map is very similar to the United States so it has been referred to as a "Little America". Maryland has mountains, caves, and limestone woods in the west; clear stream valleys, hardwood forests and rolling hills in the Piedmont; and barrier islands, cypress swamps and the bay in the Coastal plains. This diversity of geological ranges lends itself to an immensely unique set of ecosystems.

When John Smith explored this area, the ecosystems within these ranges were very different. Wolves were found throughout the state and were hunted by the Native Americans for bounties. Bears were seen from western Maryland to the lower point of southern Maryland. Once abundant, large Cypress trees and Atlantic White Cedars were cut down to make canoes. Marsh lands were filled with ducks, geese and swans. Sturgeons were so numerous that they could be corralled in the water and scooped up with their hands. Oysters, clams, and terrapins were a major source of food for the Native Americans. In fact, oysters were so numerous that they were a navigational hazard to the boats that were moving through the bay.

Today, many of the animals and plants mentioned above have become rare or, in some cases, extinct within our state. Additionally, Puritan Tiger Beetles, Bog Turtles, Porcupines, Black Rails, Northern Pitcher Plants, White Trout Lilies, and Indian Paintbrushes are all plants and animals that John Smith might have seen but are now limited to very confined areas within our state.

What has led to this change in biodiversity across our state? How can we control the loss of biodiversity of the present ecosystems within the state? How has the loss of this biodiversity affected Maryland's economic, ecological, social and environmental systems?

Your team consists of scientists with the Chesapeake Bay Program. This program is a unique partnership between a number of regional organizations that help to restore the bay. You have been given the task of developing a presentation that will go to the state legislature regarding the changes in biodiversity across our state and how those changes have affected our state. In this presentation, you will include the following items:

1. Why is biodiversity important?
2. How has Maryland's biodiversity changed over time?
3. What has caused the decline in Maryland's biodiversity?
4. How has that decline affected Maryland's cultural, economical, environmental and social systems?
5. What can we do to improve the biodiversity in our state?