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Sailing to America for the first time in 1620, the Pilgrims landed on the eastern coastline of our nation. Shaped for thousands of years by the crashing waves and weather of the Atlantic Ocean, the eastern coastline has developed wonderfully diverse landscapes set in equally varied climates. From warmer tropical ecosystems such as Florida's beaches, barrier islands, bays, estuaries, and tidal marshes, to the colder reaches and rocky coastline of Maine, each of these landscapes has its own set of plants and animals that call these places home.

These varied landscapes have developed through a combination of processes. As the sea level continues to rise due to melting of continental glaciers left by the Ice Age and the effects of climate change, most of the eastern coastal region has experienced, and continues to experience, submergence. At the same time, rivers and streams deposit sediment surrounding their mouths as they open to the ocean. In addition, the harsh waves of the Atlantic Ocean, which are weakened by the wide continental shelf jutting out into the ocean, slow and deposit the sediment that they carry near the shoreline. Thus, as glaciers melt, the ocean rises, and sediments are deposited along the shoreline. These processes have been happening concurrently for thousands of years and have marked the eastern shoreline by thick deposits of sediment and sea level rise. The shoreline is now referred to as a "submergent/depositional" coastline: broad, nearly flat, and low-lying.

Those who live along this coastline must cope with its unique environmental issues. Low-lying land juxtaposed with the vast Atlantic Ocean leads to issues of flooding and erosion. These issues are compounded by the effects of climate change.

### Downloads

- [Case Study: Eastern Coastline](#)
- [Impact of Climate Change on Diamondback Terrapin - Activities](#)
- [Activity 1 - Watershed Drainage](#)
- [Activity 2 - Topographical Landscape Models](#)
- [Activity 3 - Water Level Distribution](#)