



What is Climate Change?

Climate change is any significant alteration in climate patterns lasting for decades or longer. Climate patterns (for example, temperature, rain, sea level) vary naturally, and human activity is driving some climate changes—negative effects are already being felt within our national parks.

What are we doing to protect sites from Climate Change threats at Canaveral National Seashore?

Presently, scientists cannot predict with certainty the long-term impacts from climate change. However, the National Park Service has developed an adaptation strategy that focuses on identifying appropriate actions related to vulnerable cultural and natural resources before the threat from climate change becomes acute. In Canaveral National Seashore, the National Park Service's Southeast Archeological Center is working with scientific partners to identify those cultural resources most at risk and to determine appropriate courses of action. These actions include research, documentation, and protection measures.

Mound Stabilization

Several of the largest, most intact, and most significant prehistoric shell mounds in North America are located within Canaveral National Seashore. Shell mounds such as Turtle Mound, Castle Windy, and Seminole Rest were built over time by Native Americans piling up "midden" (discarded food remains such as oyster and clam shells). These large shell mounds served as foundations for structures and settlements, may have housed important leaders, and were likely key prehistoric monuments that later served as important navigational landmarks during the European exploration and colonization of the Americas. These nationally significant sites are much more than just giant "midden" piles—they hold important archeological information about the people who lived along Mosquito Lagoon for thousands of years. These data tell stories about how humans interacted with their environment, how climate change may have happened hundreds of years ago, and how people were able to adapt to these changes.

Unfortunately, sea level rise is already taking its toll on the many prehistoric shell mounds and middens within the park. For over 1000 years, beginning as early as AD 500, generations of Native Americans deposited oyster and clam shells, creating Turtle Mound, one of Florida's largest and best-known archeological sites. It is estimated to contain 1.5 million bushels of shells and towers close to 40 feet above the coastline's flat landscape. The southwest face of Turtle Mound is being lost to shoreline erosion due to storms, high water events, and boat wakes. This erosion will only intensify with increased storm frequency and sea level rise, known effects of climate change.

Multiple projects are underway to archeologically research, document, and protect Turtle Mound (and other mounds within the park), as well as to help conserve the natural shoreline habitat to create resiliency and a more stable environment to help fend off erosional threats. The park has partnered with multiple universities, non-profit organizations, and hundreds of volunteers in restoring native habitats and creating "living shorelines" by planting native vegetation and restoring oyster reefs. These actions restore natural shoreline communities, help to stabilize the substrate, and add a buffer of protection for mounds.



Artist view of Turtle Mound about 1000 AD. Courtesy of Martin Pate.



Turtle Mound 1937

Courtesy of State Archives of Florida.



Scientists and community volunteers working to establish a "Living Shoreline" to protect mound sites in the Park. Courtesy of Margo Schwadron, NPS.