

New Jersey SeaGrant- Protecting Jersey Shore Residential and Ecological Communities

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New Jersey has seen more resources spent on beach replenishment than any other state in the country. While much of the resources used in beach replenishment have been focused on the protection of reconstructed dune systems, the beach or “berm” is equally important for shoreline protection and the health of the system as a whole. Beach vegetation stabilizes and accumulates sand on the beach surface and promotes the natural development of new dunes on the upper beach. This back (landward) portion of the beach is vital for rare plants and like the lower beach, is utilized by many animals.. Approximately 70% of the New Jersey ocean shoreline is currently impacted by beach raking or other practices that disturb the back beach and limit the beaches’ natural ability to develop dunes. However, research has shown that recreational beach uses like walking and sunbathing are concentrated lower on the beach, near the ocean. Therefore, maintaining the back-beach in a more natural condition is fully compatible with recreational beach use. Besides promoting growth of natural dunes and providing habitat, improved back-beach management can potentially result in cost-savings (*e.g.*, from less raking) and diversify the range of recreational amenities (*i.e.*, some visitors enjoy natural habitats featuring native plants, butterflies, etc.).

Through this project, the Sea Grant team will partner with the U.S. Fish and Wildlife Service, the NJ Office of Natural Lands Management, and local municipalities to put improved back-beach management practices in place in conjunction with existing species conservation zones that protect both the mid and lower beach. The project also includes research to measure the effectiveness of these practices, as well as education and outreach to coastal communities, land managers, and public officials. Using marker fencing on the upper portion of beach will protect beach vegetation and important habitat without impinging on human uses that are typically concentrated closer to the water. Monitoring will record vegetation rates, sand trapping, and use of beach habitat by wildlife, comparing sites with different types of back-beach management.

In 2015, the U.S. Fish and Wildlife Service began asking that all new and revised Beach Management Plans to include back-beach Plant Protection Strips, to address sharp declines in the federally listed species Seabeach amaranth (*Amaranthus pumilus*). In eligible areas, the Sea Grant team is available to assist beach managers in establishing Plant Protection Strips by providing both the materials and man power needed to identify, mark, and monitor these important areas.



Rapid succession of dune vegetation and development in Sea Girt, NJ, from 2001 to 2005