

Marine Intertidal Rocky Shore Community

State Rank: S4 - Secure



Cape Ann tidal pools in the surf. Photo: Bill Byrne, MassWildlife.

Description: Marine Intertidal Rocky Shore Communities occur on ocean shores between the high tide splash zone and the subtidal limits of light penetration. The habitat has alternating submersion and exposure with accompanying desiccation and thermal stress. Winter storms directly remove organisms. Microhabitat features include tide pools of varying depth and sizes, rocks ranging from huge boulders and bedrock to cobbles, rock faces varying in degree of exposure to wave energy, and crevasses and surge channels within and between rocks.

Marine Intertidal Rocky Shores are dominated by invertebrates and non-vascular plants, in a high-stress environment alternately covered by tides and exposed to desiccation and thermal stress.

Characteristic Species: Intertidal communities consist of non-vascular plants and invertebrates. Marine brown algae (seaweed), especially bladder wrack and rockweed, dominate. Sea-lettuce, a green alga, is common throughout. Irish moss, a red alga is common in tide pools.

Differentiating from Other Communities: Marine Intertidal Rocky Shores and Marine Intertidal Gravel/Sand Beaches are both inundated by twice daily salt water tides and receive



Tern flying over rockweed on Rocky Shore. Photo: T. Richardson, New England Boating.

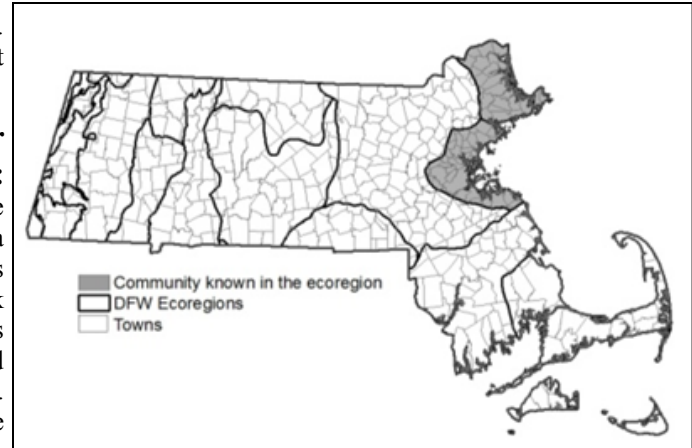
the full force of waves. Substrate size is the most obvious difference.

Habitat for Associated Fauna:

This was probably the habitat of the extinct sea mink. Wintering sea birds such as Harlequin Duck and Great Cormorants feed among submerged rocks close to shore. Wintering Purple Sandpipers forage among

exposed rocks in low tide where marine fish forage during high tide. Tidal pools provide habitat for invertebrates including blue mussels (a competitive dominant for space), barnacles, snails, and sea stars. Seaweeds provide cover and food for crustaceans and mollusks that in turn affect the plant cover. In the absence of physical removal, competition for space determines the types of species present.

Examples with Public Access: Halibut Point SP, Rockport; East Point/Lodge Park, Nahant. The Marine Intertidal Rocky Shore Community occurs where bedrock is at the surface, particularly from Cape Ann south to



Marshfield. There are scattered occurrences along Buzzards Bay and the Elizabeth Islands.



Rocky coastline with gulls resting on intertidal rocks. Photo: Carolyn Mostello, NHESP.



Halibut Point surf and Rocky Shore. Photo: Bill Byrne, MassWildlife.

