NOAA Chesapeake Bay Interpretive Buoy System
Gooses Reef Buoy: Summer Seasonal

The NOAA Dominion Gooses Reef CBIBS buoy sits on the edge of the ancient channel that the Susquehanna River carved out during the last Ice Age, some twenty thousand years ago. Charts correctly call this location part of the Chesapeake Bay, but in ecological reality, it is also the tidal Susquehanna River.

With freshwater rainfall in the Susquehanna's huge watershed wrestling with salty water from the Atlantic, salinities here can vary widely through the year, with the highest values usually coming in late summer. Salty water is denser than fresh, and cool water is denser than warm. The Gooses Reef buoy has sensors on both surface and bottom, so you can see differences between layers. For graphic illustrations of these water-quality features over time, and the way they affect each other, you can visit www.buoybay.noaa.gov and create your own graphs. This is a great feature for anyone who wants to understand how the Bay and its rivers "work."

At the height of summer, young croakers, spot, menhaden, silversides, and bay anchovies spread out across the Bay's main stem here, especially around the powerful current rips caused by the topography and rough bottom on this living reef. The reef is full of oysters, mud crabs, grass shrimp, marine worms, and other Bay critters. Some of them will become food for larger fish, especially rockfish, Atlantic croakers, Norfolk spot, black sea bass, and flounder.

Fast-swimming bluefish and Spanish mackerel are already chasing anchovies and "peanut" (or baby) menhaden in the open waters outside the buoy. Little fish also have to avoid predators from above, especially terns, laughing gulls, and herring gulls, and from ospreys, great blue herons, and occasional bald eagles that chase them closer to shore. Summer is a busy time in this part of the Chesapeake.