NOAA Chesapeake Bay Interpretive Buoy System Patapsco Buoy: Fall Seasonal

Water conditions at the Patapsco Buoy reflect not only the rainfall in its river's watershed upstream of Baltimore but also that of the Susquehanna's gigantic drainage basin in central Pennsylvania and south-central New York.

Summer's algae blooms and high surface water temperatures drive dissolved oxygen to poor levels. This pollution-driven problem restricts fish and crabs from going much deeper than 20' for most of that time. As water temperatures drop in fall, however, the dissolved oxygen numbers throughout the water column rise. The reason is that the cooling upper layer of water begins to sink, effectively "turning over" or mixing the system and bringing oxygen-deprived bottom water to the surface for wind and rain to refresh. You can watch this process as the season progresses by following observations from this buoy at <u>www.buoybay.noaa.gov</u>.

For fish and birds in and along this part of the upper Chesapeake, the falling water temperatures signal the prospect of winter and the need to fatten up for that lean season. Young-of-the-year menhaden, aka "peanut bunkers," and their two-year-old kin school up in preparation for migration to coastal waters off North Carolina. The majority of the fish in those dense schools will survive to make the trip, but a significant number will feed predators along the way, ranging from fishing birds like loons, gulls, and gannets to bluefish and rockfish.

Most fall visitors to this part of Capt. Smith's Trail are carrying fishing rods. It's a great time to be out there, but be sure you have enough boat under you, that you dress for the weather, and that you pay prudent attention to the weather information that the NOAA CBIBS Patapsco Buoy gives you. Be sure also to check the NOAA National Weather Service forecast for the area.