

## **NOAA Chesapeake Bay Interpretive Buoy System Upper Potomac Buoy: Summer Seasonal**

As spring's snowmelt and rainwater runoff subside, water temperatures at the NOAA Upper Potomac CBIBS buoy rise into the upper 70s and low 80s. Variations in weather patterns from year to year can create wild swings in runoff, from snowy winters to dry ones. Heavy runoff will mean plenty of nitrogen, phosphorus, and sediment pollution in the upper tidal Potomac, and cloudy, brown water around this buoy.

Salinity stays low enough here to classify this part of the Potomac as fresh water, in contrast to nearly five times greater salinity observed by the Potomac CBIBS buoy at the mouth of the river near Point Lookout. Summertime dissolved oxygen normally remains in the healthy range, despite the warm water temperatures. If you'd like to see good graphic representations of these water quality features over time, and the way they affect each other, you can visit [www.buoybay.noaa.gov](http://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."

As summer settles in, the young shad, herring, rockfish, and white perch spawned up the river are spreading out in the area around the Woodrow Wilson Bridge, feeding and growing in underwater grass beds along the river's channel. Some of them will become food for larger fish, especially adult perch, channel and blue catfish, and—up the creeks—largemouth bass, which have made a great comeback in the past 25 years.

Meanwhile, the little fish have to avoid predators from above, especially ospreys, great blue herons, and bald eagles, plus fast-swimming furry fishermen like river otters. Even with all of these predators, though, the nursery waters of the Potomac should produce enough juvenile fish this summer to help swell the stock of each species over the fall and winter.