Published on HamptonRoads.com | PilotOnline.com (http://hamptonroads.com)

Chesapeake Bay grasses show signs of rebounding

Underwater grasses, key indicators of ecological health, increased about 10 percent last year throughout the Chesapeake Bay, though they remain sparse and far below restoration goals, a survey released Monday concludes.

Grass beds are important because they offer shelter for baby crabs and fish, breathe oxygen into water and are fodder for waterfowl. Most experts believe the Bay cannot be saved without saving its aquatic plants.

In Virginia last year, grasses continued a slow recovery from a massive die-off in 2005, when unusually hot temperatures and calm winds, along with poor water quality from pollution, whacked hundreds of acres of these green, weedy plants.

Overall, scientists estimate that grass beds in 2007 covered about 65,000 acres of the Bay's bottom – well short of the 185,000-acre goal supposed to be reached by 2010.

Experts do not think that goal can be attained. Nor do they anticipate that another 2010 target, of planting 1,000 acres of new plants in the Bay by human hand, will be realized.

Also known as submerged aquatic vegetation, or SAV, the grasses once grew so thick that commercial fishermen and waterfront residents considered them nuisances. Then they began fading under various pressures – mostly excessive nutrients from sewage plants, development and storm drains – reaching a low point in 1984 of about 30,000 acres.

Baywide abundance hit 90,000 acres in 2002, but Hurricane Isabel and continued pollution, combined with the big die-off in 2005, have sent populations tumbling.

"The picture of grasses in the Bay, overall, is not great," said Bob Orth, a researcher at the Virginia Institute of Marine Science, who oversaw the latest survey, conducted mostly with aerial photos and boat tours.

There are signs of hope, Orth said, including a huge restoration in the coastal bays on Virginia's Eastern Shore. These bays along the Atlantic Ocean were virtually devoid of life a decade ago, he said. Today, lush beds spread across about 1,400 acres.

Such success is not counted in the annual survey that Orth oversees because the coastal waters are not within the Chesapeake watershed. Still, he said, the experience shows what can happen when water temperatures are slightly cooler and fewer pollutants and sediments cloud water clarity.

The upper, northern reaches of the Bay are doing well, too. In the area where the Susquehanna River enters the Chesapeake in Pennsylvania, massive grass beds have grown and thrived where they once barely could be found, said Lee Karrh, a scientist with the Maryland Department of Natural Resources.

The beds of the Susquehanna Flats are so dense that they can be seen from space on satellite images, Karrh added.

The problems hit home most notably in the upper and lower parts of the Bay, where the water is generally saltier and warmer, according to scientific data.

More locally, no grasses could be detected in the Elizabeth River in Norfolk, Chesapeake and Portsmouth, and barely any in the Lynnhaven River in Virginia Beach.

More inland waterways, such as the upper reaches of the Potomac River, the Mattaponi and Pamunkey rivers, and branches of the upper James River, are showing good growth, according to data – but of hydrilla, not eelgrass .

Eelgrass is the predominant species in Virginia, while hydrilla is considered an invasive species in other states, and recently started blooming here.

Asked if hydrilla could similarly become a pain in these freshwater streams, Orth said definitely so.

“But hydrilla’s better than nothing,” he said, “and we can be thankful at least for that.”

Scott Harper, (757) 446-2340, scott.harper@pilotonline.com