

HUDSON RIVER ESTUARY: *Report on Ten Years of Progress*



The Hudson River Estuary Program
New York State Department of Environmental Conservation

George E. Pataki, Governor

Denise M. Sheehan, Commissioner



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Governor George E. Pataki

A legacy to remember

Governor George E. Pataki has made conservation of the Hudson River one of the highest priorities of our administration. Beginning with New York State's first *Hudson River Estuary Action Plan*, which he released in 1996, he has kept an unwavering focus on the river for the last 10 years, reflecting his own passion for the place where he grew up as well as his commitment to the principle that a clean environment and a vibrant economy go hand in hand.

This report details the many accomplishments of the New York State Department of Environmental Conservation (DEC) and our partner state agencies implementing the Governor's vision since 1996. It is a sweeping program which embraces science, planning, protection of natural areas and open spaces, and management of the Hudson's unique natural heritage of fish, plants, animals and habitats.

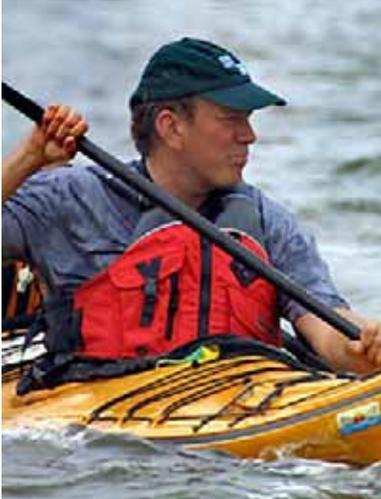
The human side of managing the Hudson River is as important as the ecological side. The Governor's program for the Hudson has embraced river cities and river users, as you will read in the following pages. Through legislative initiatives and administrative actions, the Governor has taken dramatic steps every year to push forward his agenda for the river. He has launched a proposal to create a world-class research institute on the shores of the Hudson, in Beacon. He has proposed making the Hudson swimmable by 2009, the 400th anniversary of Henry Hudson's voyage of discovery and has allocated funds to make it happen. He has committed to provide new or improved access to every Hudson River community by 2009.

Funding is an important element of the revitalization of the Hudson. When the Governor took office, the Estuary Program operated on a shoestring with an annual \$100,000 budget and a small staff. Since then, the program has matured and grown, working with diverse partners who embrace a unified vision for restoring and conserving the Hudson. The 1996 Clean Water/Clean Air Bond Act provided substantial grants to support water quality improvements, brownfield cleanups and open space programs. The state's Environmental Protection Fund (EPF) has been increased from \$25 million to \$225 million annually, and a budget line for the Hudson within the EPF was created. Governor Pataki negotiated an agreement with the Governor of New Jersey to provide funding for trackdown and cleanup of river contaminants through the New York-New Jersey Port Agreement.

Governor Pataki directed all his state agencies to make the Hudson a priority and to work together as a team to deliver results. Achievable objectives and established systems to track progress were created. In the last 10 years, more than \$373.4 million state and federal dollars have been directed to the rebirth of the Hudson. Agencies that have been active partners in this team

The Hudson River rises in the Adirondacks and flows into the sea at lower New York Harbor. About halfway along this 322-mile journey, the river spills over the Troy dam and becomes an estuary, an arm of the sea that ebbs and flows with daily tides.





Governor Pataki kayaks on the Hudson during the Great Hudson River Paddle. As he enjoys the clean river today, he recalls his childhood, when swimming and fishing in the river were unsafe because of poor water quality.



Carl Heilmann II

include the Hudson River Valley Greenway, New York State Office of Parks, Recreation and Historic Preservation, New York State Department of State Division of Coastal Resources, The Hudson River Valley National Heritage Area, The Hudson River Park Trust, New York State Office of General Services, and New York State Agriculture and Markets in addition to New York State Department of Environmental Conservation.

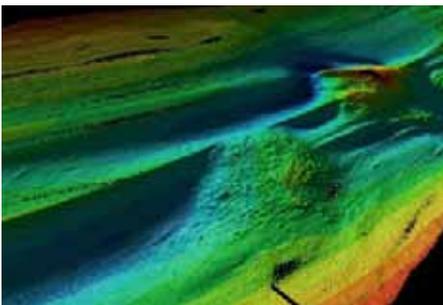
Working effectively with the federal government is also key. The Governor helped secure the support of the United States Environmental Protection Agency (EPA) for cleanup of the Hudson's legacy of PCB pollution and for designating the Hudson as a No Discharge Zone for vessel waste. With his leadership, the Hudson has been crowned an American Heritage River, and the National Heritage Area has become firmly established as a state-federal partnership with the National Park Service.

Last year, the Hudson was a finalist for the Theiss Riverprize, an international award supporting outstanding achievements in river management. Here at home, in the Hudson River Valley, cities and towns have revitalized their waterfronts making the Hudson a miracle of discovery and recovery helped by the new brownfields law advanced by the Governor, and a new water trail. People fish, boat and swim in the river, and school children have learned about its natural cycles. The word estuary was unfamiliar to many valley residents 10 years ago, and now it's part of the common vocabulary.

Governor Pataki's vision of a cleaner river, a healthier ecosystem, and a robust economy throughout the Hudson Valley has been achieved in cooperation with a wide variety of organizations, municipalities, businesses and individuals. As we approach 2009 and the quadricentennial celebration of the early navigators, Henry Hudson, Robert Fulton, and Samuel de Champlain, we also rejoice in a strong Hudson Valley network of people who care passionately about the river today. We celebrate a decade of hard work and creative, productive partnerships. Together, we look forward to a brighter future for future generations of people who love the Hudson River.

A handwritten signature in black ink, which appears to read "Denise Sheehan".

Denise Sheehan
Commissioner

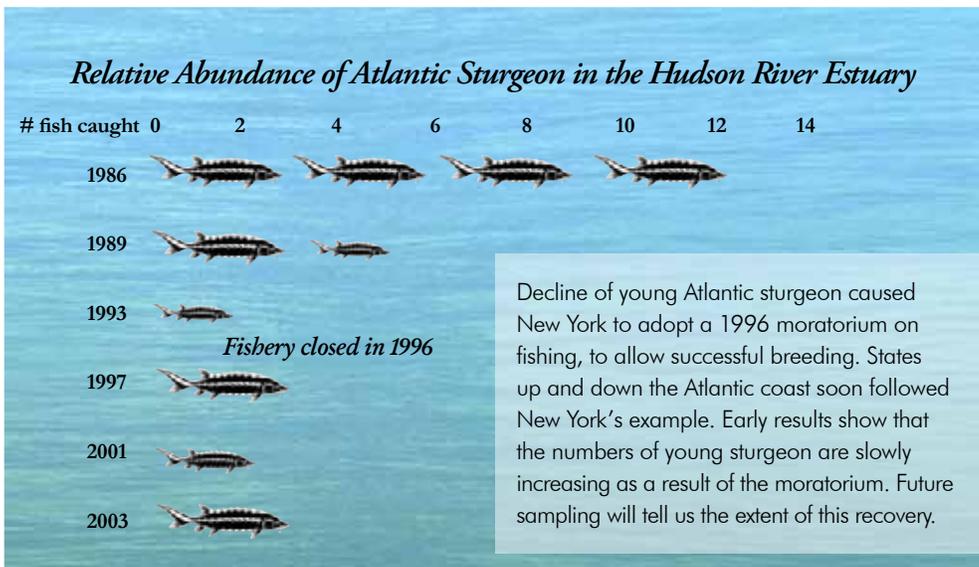
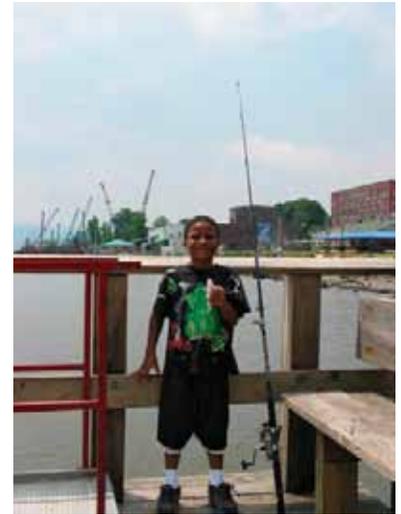


Signature Fisheries

The Estuary Program, with support from many partners, has improved management of shad, sturgeon, and striped bass using state-of-the-art technology.

Fish stocks are in decline worldwide as a result of over-fishing, habitat loss, pollution, and water withdrawals by power plants. Hudson River fish stocks mirror these trends, and biologists are finding ways to rapidly respond. Herring and eels appear to be suddenly decreasing. Shad and sturgeon have been in long-term decline.

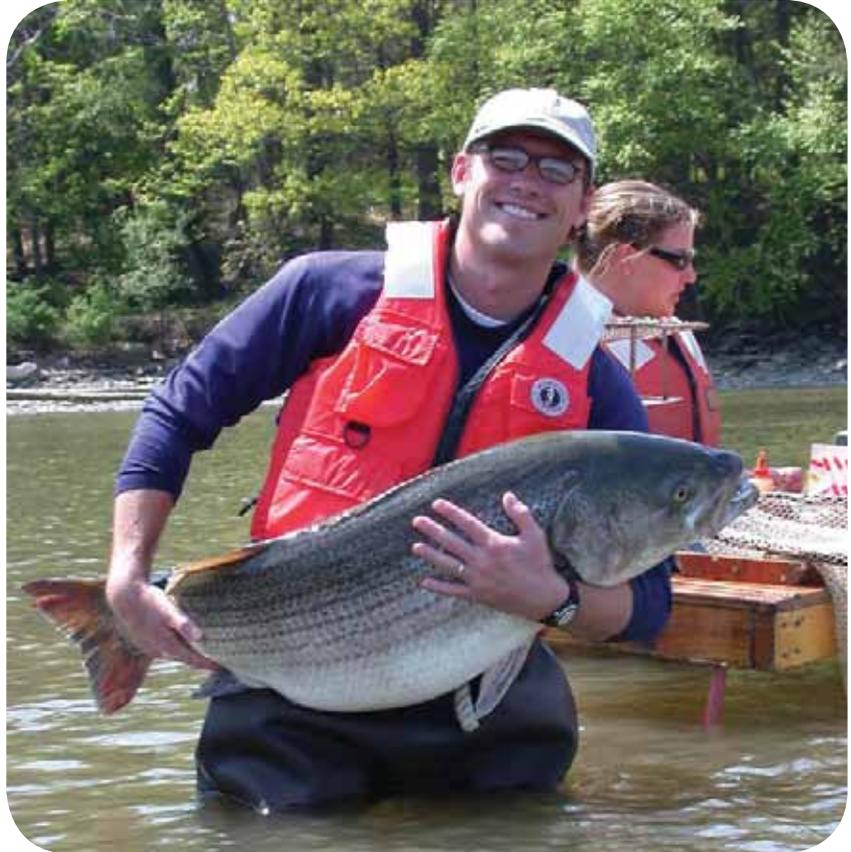
Striped bass, however, are at a hundred-year high due to state and interstate actions to conserve stocks. The Estuary Program and its partners keep a watchful eye on Hudson fish stocks and a “finger on the pulse” of their activity with the goal of conserving the river’s signature species and returning depleted stocks to high levels.



People love to fish the Hudson, as our multi-year survey demonstrated. We counted the people fishing and found out what they catch at different times of the year. The favorites are striped bass and shad, caught only in spring. Blue crab, black bass, yellow perch and white perch are popular in summer and fall. These studies help us understand and manage fishing levels to conserve stocks for future anglers.



More people fish from the shore of the Hudson for blue crabs than for any species except striped bass, yet 10 years ago, we knew very little about them. Since then, we have studied blue crab life cycles and habitat preferences in the Hudson and followed them as they migrate through the Estuary. Results indicate that their population is increasing and that the Hudson may be an important over-wintering area for young crabs.



Ten years ago, the Hudson population of striped bass began its upswing, and the intensity of sport fishing increased as well. To maintain stocks at high levels, DEC increased the minimum size limit for fish that can be kept and provided advice on best catch-and-release fishing methods to keep released fish alive. Today, striped bass are setting size records. The current state record, set in 2003, is a 55-pound Hudson River striped bass, bigger than the one in the photo above.

Ten years ago, the Estuary Program took steps to improve management of signature fish stocks. Biologists in the Hudson River Fisheries Unit of DEC's Division of Fish, Wildlife and Marine Resources studied the natural history and life cycles of Atlantic sturgeon, the fish that symbolizes the Hudson. Using state-of-the-art technology, and supported by many research partners, DEC biologists have found out where the sturgeon go in the Hudson and habitats they prefer. Surveys of shad and striped bass have shown

which factors contribute most to mortality, allowing actions to be taken to manage these fish stocks. DEC also seeks to reduce the number of fish drawn into power plant cooling systems by requiring the best available exclusion technology. Though the New York State Department of Health (DOH) advises caution in eating fish taken from the Hudson, levels of PCBs (polychlorinated biphenyls) in fish are expected to decline as a result of the recently mandated cleanup project on the upper Hudson.



Shad stocks, so abundant in historical records, have diminished in recent years, so the Estuary Program went to work to find out why. Our studies showed that coastal fishing practices reduced the numbers of shad returning to the Hudson to spawn. We pressed for a coast-wide regulation, put into effect in 2005, that outlaws fishing for shad in the ocean.

Websites for more information:

Status of specific Hudson River fish stocks:
 NYSDEC Hudson River Fisheries Unit
www.dec.state.ny.us/website/dfwmr/marine/hudson/index.html

Health Advisories; NYS Department of Health; Chemicals in Sportfish & Game
www.nyhealth.gov/nysdoh/fish/fish.htm

Coast-wide regulations governing migratory fishes;
 Atlantic States Marine Fisheries Commission
www.asmf.org

Federal programs: US Fish and Wildlife Service;
 National Marine Fisheries Service
www.fws.gov or www.nmfs.noaa.gov