



M E M O R A N D U M

TO: Christopher Amato, Assistant Commissioner

FROM: Patricia Riexinger, Director, DFWMR

SUBJECT: MONTHLY REPORT - May 2008

DATE: June 24, 2008

Commercial Use

Shellfish Transplant Program - The Shellfish Transplant Program, which is administered by the Shellfish Management Unit in the uncertified waters of Raritan Bay and Great Kills Harbor off Staten Island, commenced on May 19. Shellfish Management staff provide on-site supervision over the hand harvesting of hard clams from designated uncertified waters in Raritan Bay and transplanting those shellfish to certified waters in Little Peconic Bay for bacterial cleansing and subsequent marketing as a food product. This year, approximately 5,580 acres or just more than 50 percent of Raritan Bay is approved for transplant harvest. Presently, there are approximately 24 harvesters (diggers and their helpers) and one shellfish transplant cleansing operation participating in this program. During the period of May 19 through May 30, a total of 2,045 bushels of hard clams was harvested by commercial shell fishermen and transplanted to off-bottom culture racks in Little Peconic Bay. Staff have been working in collaboration with the Marine Animal Disease Laboratory at Stony Brook University since the discovery of the hard clam parasitic disease Quahog Parasite Unknown, or QPX, in 2002. In order to determine the distribution and prevalence of QPX, staff collected samples of hard clams from designated sampling sites in Raritan Bay on April 16 and May 14 prior to the start of this year's program. This monitoring program will continue on a monthly basis through October in order to verify that the hard clams are acceptable for transplant purposes.

The Shellfish Transplant Program provides an important economic opportunity for commercial shell fishermen and also protects the public health by making these areas less attractive to illegal harvest.

Information and Extension

Hale Creek's Spring '08 Environmental Field Day - Each spring and fall for more than 20 years, staff at the Hale Creek Field Station have served as instructors for an "Environmental Field Day" sponsored by Cornell Cooperative Extension and held at the Field Station in Gloversville. This year on Thursday, May 29, about 95 fifth grade students and their teachers attended five 30 minute stations to learn about trout and water quality; stream ecology and benthic macroinvertebrates; fish, wildlife and bioaccumulation of contaminants; animal track box surveys; and plant and animal life on a nature hike. Bureau of Habitat instructors included David Mayack, Colleen Kimble, Benjamin Stafford (Student Conservation Association intern) and Tim Preddice. Also, Ed Kuzia and Nicole Wright from Division of Water filled in as instructors at the stream ecology station. Children had a bag lunch on site, and were very attentive and well-behaved. All, including the Hale Creek staff, had fun learning. Mrs. Kimble and the Saratoga Tree Nursery supplied students with a scotch pine to take home to plant while Cornell Cooperative Extension maintained the energy supply of instructors with doughnuts and candy bars. In recent years, instructors have encountered a few parents who tell us they remember the great day they had at Hale Creek as a fifth grader many years ago. It seems the students have aged but instructors are as young as ever...Hmm.



Bureau of Habitat

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Protection

Walleye Rearing Experiment: Staff at Oneida Hatchery will be conducting an evaluation of rearing conditions and transition diets on survival and growth of intensively reared walleye fingerlings. Fish in one half of the rearing tanks will be exposed to normal lighting conditions in the rearing building while the remaining tanks will be shrouded in dark plastic with only a small submerged light source. Staff will also evaluate the performance of a special "starter diet" for walleye in comparison to standard New York dry diet. This work builds on encouraging results achieved last year with a small number of experimental rearing units. In 2007, fish in the darkened tanks receiving the special diet had the best survival among the four trials (covered and open fed special starter diet, covered and open fed New York diet), and overall results indicated diet had more influence on survival than rearing tank lighting.

Bureau of Fisheries

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Protection

The Bureau of Marine Resources (BMR) shellfish sanitation program is well into its fifth year of monitoring for the presence of marine biotoxins in shellfish. Mesh bags of blue mussels have been deployed at several locations around Long Island to detect phytoplankton that produces a toxin that can cause paralytic shellfish poisoning in shellfish consumers.

On May 6 samples of mussels collected from monitoring locations in Northport Bay and Northport Harbor tested positive for the presence of saxitoxin (STX).

Consistent with the requirements of the National Shellfish Sanitation Program, the Bureau of Marine Resources (BMR) implemented a temporary emergency shellfish closure of approximately 2000 acres of shellfish harvesting areas in Northport Bay and its tributary harbors to protect public health. The closure went into effect on May 7.

The Bureau of Marine Resources' Shellfisheries Section then expanded its sample collection efforts to include soft shell clams (steamers) that staff harvested from a number of locations in the Northport Bay area. BMR's Shellfish Inspectors visited wholesale shellfish dealers to collect additional samples of various shellfish commercially harvested from bays and harbors around Long Island. Those samples were tested for the presence of STX but the toxin was not found in shellfish from harvesting areas outside the Northport Bay area.

Over the course of the final three weeks in May, the Shellfisheries program collected and tested dozens of samples of shellfish – mussels, soft clams, hard clams and oysters. On May 27 samples of soft clams and hard clams harvested in Huntington Bay, by both DEC staff and commercial diggers, tested positive for the presence of STX. On May 28, BMR expanded the emergency shellfish closure by 5200 acres to include all of Huntington Bay and Lloyd Harbor, for a total of 7200 acres closed in northwest Suffolk County.

BMR will continue its expanded biotoxin monitoring program to determine if the biotoxin spreads to other shellfish harvesting areas.

BMR will be able to re-open the temporarily closed areas when three consecutive samples, collected over a period of two weeks, have STX levels that are at acceptable levels.

Bureau of Marine Resources

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Recreational Use

Swamp River Fishing Access Site: Completed posting Fishing Access Site signs along 0.8 miles, both banks, of recently acquired lands along the Swamp River in the Town of Dover, Dutchess County. This 59-acre property was gifted to the Department of Environmental Conservation by a real estate developer. It is accessible from a Fisherman's Parking Lot located on County Route 6 that was constructed by the Region 3 Operations Unit this spring. The Swamp River contains stocked brown trout as well as a modest population of wild brown trout.



Bureau of Fisheries

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Recreational Use

Citizen Task Forces on Deer Management -In April, Region 8 staff concluded Citizen Task Forces for Deer Management in Wildlife Management Units (WMUs) 8N and 8X. DEC staff, in consultation with an outside facilitator, identified the various stakeholders (interests) in deer management in a given WMU, such as farmers, hunters, foresters, conservationists, motorists, the tourism industry, landowners, small business, etc. During the task force process, community members representing these stakeholders canvass other similar stakeholders from the unit, then attempt to collectively agree on a deer population level for that WMU. DEC will now work toward implementing that population level over the next five years.

The WMU 8X Task Force agreed on a 13% reduction in the current 8X deer population, and the Task Force in 8N settled on a 10% reduction. Since DEC uses the buck harvest during the fall deer seasons as an index to the overall deer population size, the recommended population reductions are then translated into corresponding Buck Take Objectives (BTOs). The new BTO for WMU 8X is 4.1 bucks per square mile, and for 8N, 4.6 per square mile. Since DEC uses the harvest of female deer as the principle means of managing the herd, the issuance of Deer Management Permits will be adjusted to bring about the desired population reductions in the two units.

Bureau of Wildlife

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Research and Monitoring

Governor Patterson Announces the Hudson River Environmental Conditions Observing System (HRECOS) - Over the past year, the Bureau of Habitat, Hudson River National Estuarine Research Reserve, Hudson River Estuary Program, and the Division of Water have been working with a consortium of five non-state partners to establish the first instrumented environmental observing program on the Hudson River Estuary from Troy south to the New York/New Jersey Harbor. The non-state partners include the Cary Institute of Ecosystem Studies, the Hudson River Foundation, Lamont-Doherty Earth Observatory, Stevens Institute of Technology, and the U.S. Geological Survey. HRECOS provides geographically distributed, high frequency real-time data and will be used to address specific research and management issues such as 1. providing timely data and information critical to support ecosystem-based management efforts; 2. identifying ecosystem effects of episodic events; 3. tracking environmental changes spurred by climate change and invasive species; 4. tracking potential downriver effects of the PCB cleanup; 5. providing a platform for other focused Hudson River Estuary studies; 6. supporting other proposed observing systems; and 7. supporting modeling efforts to develop TMDLs and improve the prediction of flood forecasting.

HRECOS sites currently allow for the collection of high-frequency measurement of water quality and atmospheric variables. Eventually, the system will be equipped with pumping stations for the collection of water samples for contaminant analysis. As of May 2008, eight permanent stations have been established from Schodack Island (RM 131) to the NY/NJ Harbor. To view real-time data displays or download preliminary data, go to www.hrecos.org.

Bureau of Habitat

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NY Natural Heritage Completes Draft Report on Vegetation Mapping of Montezuma and Iroquois National Wildlife Refugees – Bud Sechler, Ecologist, completed a draft report on a project to identify vegetation associations (natural communities) found at Montezuma and Iroquois National Wildlife Refuges (NWR). Vegetation classification and mapping of vegetation associations were completed at each refuge, creating current digital geospatial databases for the refuge managers. At Montezuma NWR, twenty-one vegetation associations occurring within the Refuge were identified and described in detail. At Iroquois NWR, twenty-four vegetation



Research and Monitoring

associations were identified and described in detail. The diversity and distribution of vegetation associations at both refuges are primarily a result of the following four factors: 1) the geologic history of the regions, especially the effect of glaciation; 2) the proximity of both refuges to Lake Ontario within a temperate climate; 3) a history of hydrological manipulation within certain areas of the refuges; and 4) their settings within a rural agricultural landscape with associated historical and ongoing land use practices. A dichotomous field key was developed for these vegetation associations to assist with field recognition and classification. The following three vegetation associations at Montezuma NWR are considered significant occurrences of natural communities by NY Natural Heritage: floodplain forest (along the Seneca and Clyde Rivers), red maple-hardwood swamp, and silver maple-ash swamp. The following three vegetation associations at Iroquois NWR are considered significant occurrences of natural communities by NY Natural Heritage: deep emergent marsh (along Oak Orchard Creek), hemlock-hardwood forest, and beech-maple mesic forest. In addition, an invasive plant assessment was done for Montezuma NWR which found several invasive species of management concern: common buckthorn, garlic mustard, reed canarygrass, creeping jennie, multiflora rose, yellow iris, and pale swallow-wort.

Bureau of Habitat

Bud Sechler

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EPA Action on Brodifacoum a Major Disappointment - Since 1997, the Ecotoxicology and Standards Unit (ESU) has been working to reduce wildlife exposure to the rodenticide brodifacoum. Brodifacoum has been registered by EPA as an unrestricted use pesticide available to the general public for application without a license. In the mid-1990s, pathologist Ward Stone of the Wildlife Pathology Unit (WPU) noted a large number of cases of wildlife poisoning by brodifacoum. WPU and ESU worked together with the Bureau of Pesticides Management (BPM) to bring this issue to EPA's attention. EPA finally took notice, and completed a risk assessment that showed conclusively that newer, second generation anticoagulant rodenticides such as brodifacoum posed a significant risk of secondary toxicity to wildlife. Secondary toxicity is toxicity caused when a predator consumes a target rodent that has in turn consumed the rodenticide. A delay of four-five days can occur before a rodent exposed to an anticoagulant rodenticide dies. During this period, highly potent rodenticides have caused significant harm to owls, hawks, and other predators that eat exposed rodents. In January 2007, EPA announced their intention to re-register brodifacoum as a restricted use pesticide. This would have made brodifacoum, and a few other second generation anticoagulant rodenticides, available only to certified pesticide applicators. Other rodenticides less likely to cause secondary toxicity would still be available to homeowners. The final chapter of this saga was released on May 28, 2008 when EPA announced it was not going to make these products restricted use. Instead, EPA has adopted a complicated series of alternatives. The first alternative is that all homeowner rodenticides must come pre-packaged in a tamper resistant bait station. Other measures that the EPA is adopting are essentially label modifications so that second generation anticoagulant rodenticides will be less available to non-professional applicators. The full details of EPA's decision and the various regulatory actions it is initiating can be found at: <http://www.epa.gov/oppsrrd1/reregistration/rodenticides/>. Only time and monitoring will tell whether these use modifications will protect non-target wildlife.

Bureau of Habitat

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Research and Monitoring

Spruce Grouse Research - Region 6 staff conducted Spruce Grouse surveys in Algonquin Provincial Park, Ontario, from May 19-23 to capture individuals and collect blood samples to be used in DNA analyses. Five of seven individuals observed were captured and blood samples were collected. DNA will be compared within Adirondack populations and across populations at the southeastern extent of the Spruce Grouse range (i.e., in the northeastern United States and southern Canada). Genetic analyses will be necessary to determine the viability of remaining New York populations and to examine the feasibility of releasing individuals from other populations into New York to bolster numbers and increase dispersal into historically occupied habitat patches. To date, the DEC have collected 22 and seven blood samples of Adirondack and Algonquin Spruce Grouse, respectively. At least 35 samples of each population will be necessary for genetic analyses.

Bureau of Wildlife

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Short-eared Owl Migration Tracked by Satellite - Region 9 and Endangered Species Unit staff in Albany continued to monitor a male short-eared owl that was captured by Region 9 Bureau of Wildlife staff in the Town of Hartland in Niagara County in February 2008 and tagged with a platform transmitter terminal (PTT). The owl's location has been identified approximately every four days since then by satellites that use the PTT signal to triangulate location. After spending about three weeks in the Niagara County study area, the owl traveled southwest past Erie, Pennsylvania and Cleveland, Ohio. It then spent about a month near New London, Ohio. During the last week of April, the owl started its northward migration to Canada. In the period between April 23 and 26, the owl traveled roughly 400 miles from New London, Ohio to a location north of Algonquin Provincial Park in Ontario. From there, it followed a somewhat circuitous route north and then northeast to the vicinity of Lake Mistessini, Quebec. It stayed in the same general area for about the first two weeks of May before traveling an additional 400 miles northeast to the vicinity of Smallwood Reservoir in Labrador.



Bureau of Wildlife

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Data Collected on Deer - Region 2 staff recently undertook a project to collect data on the numbers and location of deer currently present within Richmond County. The project was a "snapshot survey" intended solely to provide baseline information to help guide future actions. First, the public was asked to report any deer sightings (i.e., number of deer, location, date and time) to the regional office. Then the DEC used this data to help prioritize sites for conducting a field sampling program to estimate how many deer are currently on the island and to delineate the general areas that the deer inhabit.

The survey determined that at least 24 deer reside in Richmond County. Twenty (20) Richmond residents reported 37 separate sightings of deer. The numbers of deer witnessed in these sightings varied from one to seven deer at a single location. Based on these reports, staff identified four general locations as habitat frequented by deer.

DEC released a series of recommendations designed to help the public with the growing deer presence in Richmond County. DEC encouraged elected officials, municipal agencies, community organizations and residents to engage in discussion about the presence of deer in their community to determine what population size and control measures are acceptable to the community. DEC staff will be available to participate in discussions and provide technical advice.

Bureau of Wildlife

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Resource Management Plans

Habitat enhancement at Whitney Point Reservoir: Biologist Lemon participated in planning meetings to finalize the habitat enhancement work that is planned for Whitney Point Reservoir this fall. The Corps of Engineers will alter their water management regime for the reservoir starting in 2009, and to compensate for potential negative impacts to the lake fishery, both habitat and recreation related projects have been proposed as mitigation. The first project, reconstruction of the state boat launch at Dorchester Park, has already been completed to offset draw downs from the reservoir during drought. A second project is a proposal to develop an emergent/submergent wetland in a 14-acre cove at the north end of the reservoir. In conjunction with the wetland planting, they will excavate a two-acre deepwater pool in the shallow, flat, featureless cove and use the spoils to create two waterfowl nesting islands at the mouth of the cove. A deepwater channel will also be excavated to tie in the two-acre pool with the main lake. Other fish habitat enhancement work in the reservoir will be the excavation of trenches and adjacent spoil piles to create contour breaks in otherwise featureless areas of lake bottom where no fish holding habitat exists. Large root-wads will be placed adjacent to these excavated trenches to further diversify these habitat complexes. These features will all be constructed to offset potential impacts to the fishery from proposed late-summer draw-downs that will occur during periods of extended drought in the basin. The proposed releases from the reservoir are intended to augment low flows in the Tioughnioga and Chenango River systems for the benefit of aquatic riverine organisms.

Bureau of Fisheries

Dave Lemon

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Long Island Sound Seafloor Habitat Classification Workshop - Staff participated in the on-going discussions to classify the Long Island Sound seafloor habitats to meet manager's needs. There are many different habitat classification schemes being evaluated and a hybrid will probably be recommended. Once the classification system is agreed to, the stage will then be set to initiate benthic mapping of the Sound's seafloor. Approximately \$7 million is available through a settlement to undertake this benthic mapping initiative. Managers on both sides of the Sound want to ensure that the mapping is undertaken to best serve all of our needs, such as to better evaluate past and proposed pipeline and cable crossings, identify sites for artificial reefs, to designate underwater stewardship areas, to develop a spatial water management plan for the Sound and other uses.

Bureau of Marine Resources

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Restoration

Lower Genesee River lake sturgeon survey: Region 8 Fish and Wildlife Diversity Biologists assisted USGS biologist, Dawn Dittman, in lake sturgeon monitoring on the lower Genesee River. Lake sturgeon were a common species throughout many watersheds of New York, but overharvest and habitat degradation resulted in severe declines by the early 1900s. Lake sturgeon are currently listed as threatened in New York State, with lost or declining ranges in six of the nine watersheds where they historically occurred. The lake sturgeon's historical range included the lower Genesee River, but the population was believed to be extirpated, and in 2003 and 2004, 1900 lake sturgeon were experimentally stocked in the river. During recent sampling, twelve stocked lake sturgeon, ages four to five years, were recaptured in six, 24-hour gill nets. Total length, girth and weight were recorded. Captured lake sturgeon were tagged for individual identification upon repeated recapture, photographed, and returned to the river.



Recaptured lake sturgeon provided snapshots of distribution, movement and individual growth rates. Distribution and movement data will be used to determine residence locations and associated habitat preferences. Capture and recapture data will be used to compare habitat preferences within and between reaches in the river.

Bureau of Fisheries

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Shoreline Improvements Planned for Onondaga Lake - As part of the remediation of Onondaga Lake, Honeywell will be constructing a 1,560 foot bulkhead along a portion of the shoreline to contain a subsurface plume of chlorobenzene and prevent further contamination of the lake through groundwater discharge. In order to accommodate the large barges needed for the dredging and capping within the lake itself during remediation, Honeywell is intending to delay restoration of 1,300 linear feet of the bulkhead until the entire lake remediation is completed sometime around 2018. To meet the substantive requirements of permitting under 6 NYCRR Part 608, the DFWMR is requiring Honeywell to provide shoreline upgrades in other portions of Onondaga Lake as mitigation for the loss of shoreline habitat. In response, Honeywell has proposed to upgrade 1,200 linear feet of historically placed rip-rap to support shoreline vegetation and habitat. The rip rap to be upgraded has been in place for many years and supports little vegetation (see picture). While the exact details of the upgrade still need to be worked out, this will be the first habitat restoration along the lake as a result of the Onondaga Lake hazardous waste remediation. Construction for the upgrade should begin in the late summer or fall of 2008.

Bureau of Habitat

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