Division of Fish, Wildlife and Marine Resources
Monthly Highlights
March, 2009

Issue Priorities:

Connect New Yorkers to Nature

Utica Peregrine Nest Site – Staff from Region 6, National Grid, and a local bird club coordinated a visit to a peregrine falcon nest site on the M&T Bank building in downtown Utica. In 2008, a pair of peregrine falcons established a nest for the first time four stories off main street. That year, the single egg failed to hatch and it was suspected that aspects of the nest site may have contributed to the unsuccessful nesting attempt. Through donations of equipment and material by National Grid, Poland Sand and Gravel, and Spring Farm CARES, a site visit was made in early 2009 to enhance the immediate nesting area by removing old pigeon wire and placing a nest tray with fine gravel. The unhatched egg was recovered and the nest site enhancements were made. Local press were on hand to record the event. Recently, the birds have returned to the nest site, and they have been very visible in and around the nest tray, appearing to accept the tray. Volunteers have begun observations in hopes of confirming the presence of eggs.

Bureau of Wildlife ***Bill Gordon*** ***(315) 785-2254***

Promote a Toxic Free Future

Analytical Services Unit Continues to Tackle the Stockholm Convention's "Dirty Dozen" -Since the establishment of DEC's Hale Creek Field Station in 1979, scientists in its Analytical Services Unit have been measuring levels of organic chemicals that are among the worst environmental pollutants. Included in these organic chemicals are ten of the "dirty dozen" listed by the Stockholm Convention on Persistent Organic Pollutants (POPS) [http://www.pops.int]. The Stockholm Convention is an international treaty that became law in May of 2004. One of its aims is the elimination of dangerous POPs, starting with the twelve worst on the basis of toxicity, persistence, mobility in the environment, and bioaccumulation. The twelve (commonly known as the "dirty dozen") are the chemicals aldrin, chlordane, DDT, dieldrin, endrin, heptachlor, hexachlorobenzene (HCB), mirex, PCBs, toxaphene, dioxins and furans. DEC has long recognized the need for data on levels of these chemicals in New York's fish and wildlife, and the staff in the Analytical Services Unit have been providing this data for the past thirty years. While the field station no longer conducts analyses for dieldrin, endrin and toxaphene (and has never analyzed for dioxins and furans because they require prohibitively expensive equipment and facilities), it still conducts almost daily analyses for aldrin, chlordane, DDT, heptachlor, HCB, mirex and PCBs. These analyses

are very complex because of the presence of multiple compounds for many of the chemicals - aldrin and HCB are single compounds, but heptachlor and mirex are two compounds each, chlordane is five compounds, DDT is six compounds, and PCBs are 209 different compounds. The current staff of Phyllis Nichols (biostatistician), John Finn (chromatographer) and Charles Weiss (instrumental analyst) conducts high-quality analyses of these complex organic chemicals in fish and wildlife from all regions of the state. For health advisories due to levels of these chemicals (and others) in New York's fish and game, see http://www.health.state.ny.us/environmental/outdoors/fish/docs/fish.pdf.

Bureau of Habitat ***Tony Gudlewski*** ***(518) 773-7318***

Safeguard New York's Unique Natural Assets

Upland Wood Duck Nesting Structures Key to Duckling Production –Region 8 Wildlife Technician Sonny Knowlton has been tracking the use of wood duck nesting boxes at the Tonawanda Wildlife Management Area for many years and has recently been moving more boxes to upland locations rather than out over open water.

Of the 166 boxes checked at Tonawanda WMA this winter, 59 were over water, and 107 were in upland areas:

- Of the water boxes, 44% were used by wood ducks, producing 239 ducklings.
- Of the upland boxes, 75% were used by wood ducks, producing 480 ducklings.
- Each type of location had the same percentage of boxes not used (14%).

The biggest reason for higher use by wood ducks of the upland rather than water boxes was competition for boxes by hooded mergansers, which occupied 22% of water boxes and only 8% of upland sites, producing 150 hooded merganser ducklings.

Bureau of Wildlife ***Mike Wasilco*** ***(585) 226-5460***

White Nose Syndrome in Bats Detected at New Location - White nose syndrome had been confirmed at the Jamesville hibernaculum this winter and is likely the cause of bats appearing in residential areas north of the site during February and early March. Several homeowners contacted wildlife control agents or DEC to report bat activity. Staff visited homes and collected bats on two occasions. An effort to collect bats at the cave entrance revealed little activity, with only six bats seen over a two-hour span. A quick visit inside the cave revealed near typical numbers at roosting areas near the entrance and only a couple dead bats.

Bureau of Wildlife ***Dave Riehlman*** ***(607) 753-3095***

Wild Turkey Survival Study - DEC staff recently completed the fourth and final field season of banding wild turkeys to estimate harvest and survival rates of this popular game bird. DEC staff have banded almost 2,700 turkeys in 54 of the 55 counties in upstate New York, and data from band returns will be collected through summer 2009. The study was done in cooperation with the National Wild Turkey Federation, Pennsylvania State University, and wildlife agencies in Pennsylvania and Ohio. Preliminary results have already yielded useful information on harvest and survival rates. Final results will be used to assess our current hunting season configurations to ensure the long-term welfare of the wild turkey resource in New York.

Bureau of Wildlife ***Mike Schiavone*** ***518 402-8886***

Chronic Wasting Disease Targeted Sampling Completed in Oneida/Madison Containment Area - Wildlife Staff, with the assistance of the Division of Law Enforcement and USDA Wildlife Services, completed a targeted winter sample of deer in the Oneida-Madison Containment Area during March. The study location included two circles, each with a two-mile radius around the initial 2005 CWD cases found at a deer farm in Westmoreland, and in two wild deer in the town of Verona. Thirty-five deer submitted for testing during the 2008 big game season were determined to have been harvested in the area of interest and were also included in the sample. An additional 49 deer were collected by staff during the March effort, meeting the minimum desired sample of 40-50 from each location (40 Westmoreland, 44 Verona). Test results are complete and did not detect the presence of CWD in any of these deer. While over 6,000 deer from the larger containment area have been tested since 2005, current best science suggests targeted sampling at (or very near) a known occurrence may locate infected animals more effectively than random sampling over a larger area. Results from this study will help to inform future decisions related to CWD management in New York.

Bureau of Wildlife ***Jim Farquhar*** ***(315) 785-2261***

The New York Natural Heritage Program Completes a Year-Long Survey of the Shoreham-Wading River Marsh - The New York Natural Heritage Program completed a year-long survey of the Shoreham-Wading River Marsh. This project identified rare species and ecological communities around the Shoreham Power Plant and adjacent Wading River Marsh on the North Shore of Long Island. Botanist David Werier found the area to be botanically rich as he discovered six new rare plant species in the upland forest, and four new rare plant species in the marsh. He also updated information on two rare plant species that were already known from the marsh. Three ecological communities were documented and found to be significant, including the coastal oak heath forest, high salt marsh, and maritime dune. Contract Zoologist Ginger Brown surveyed for rare dragonflies but no state rarities were seen.

Bureau of Habitat ***Sean Young*** ***(518) 402-895***1

Ambient Water Quality Value for Bromoacetic Acid Proposed - At the request of the Division of Water, the Ecotoxicology and Standards Unit derived an ambient water quality value for the protection of aquatic life in freshwater for bromoacetic acid. Bromoacetic acid is a disinfection byproduct that is formed when chlorinated effluents from publicly-owned water treatment works (POTWs) mix with naturally-occurring organic materials in receiving water when bromine is present. This was an unusual value to derive because the only useable toxicity data available for bromoacetic acid was aquatic plant toxicity data. The normal process for deriving a water quality value is first to evaluate the acute, or short-term toxicity to fish and aquatic invertebrates. Once the acute toxicity has been evaluated, the chronic, or long-term toxicity of the chemical to fish and invertebrates is determined. The final step in the process, which is described in 6NYCRR Part 706.1, is to compare the chronic toxicity of fish and invertebrates to the toxicity of the chemical to plants. The more sensitive of the two, plants or animals, are selected as the basis for the final water quality value. Since only plant toxicity data were available, the water quality value was based solely on toxicity risks to aquatic plants. This value is protective of fish and invertebrates as well, because bromoacetic acid is part of a larger family of chemicals known as haloacetic acids (HAAs). This entire family of chemicals is characterized by low toxicity to aquatic animals but high toxicity to aquatic plants. So by protecting the plants, all aquatic life will be protected as well. The bromoacetic acid values will be posted in the Division of Water's Technical and Operational Guidance Series (TOGS) 1.1.1, and eventually adopted into the state water quality regulations the next time the regulations are revised.

Bureau of Habitat ***Timothy Sinnott*** ***(518) 402-8970***

Bird Repellent Mist Okayed by ESU - The Ecotoxicology and Standards Unit (ESU) reviewed an application to register a bird repellent that is applied as a mist or fog. The chemical component of the repellent is methyl anthranilate. Methyl anthranilate is not toxic. It is a food-grade flavoring product that produces a grape flavor. This chemical has previously been registered and used in New York in other forms. For example, it is sprayed onto grass to repel geese, which don't like the flavor and won't eat treated grass. The new product applies methyl anthranilate in a mist or fog. In this form, the compound irritates bird eyes and mucous membranes, but does not harm them. It is intended to repel birds from structures like power substations, bridges, etc. After two or three repeat exposures, birds abandon the treated structure and no longer use it as a roosting site. The fogger product came in to DEC several years ago, but ESU objected to registering it. That label did not have adequate safeguards to prevent the methyl anthranilate fog from being accidentally applied to areas of natural, acceptable bird habitat adjacent to treated structures. For example, there was nothing to prevent the mist from drifting from a power substation to an adjacent woodlot. The manufacturer adopted several suggestions proposed by ESU to limit and control fogging applications, so ESU dropped our objections and recommended that the fogger product be registered. The Bureau of Pesticide Management will make the final decision whether or not the product will be registered for use.

Bureau of Habitat ***Timothy Sinnot*** ***(518) 402-8970***

Peconic River Fish Kill Investigations: A fish kill in Peconic Lake, on the Peconic River, was reported to the Regional Fisheries Unit on March 10, 2009 by an angler who fished the pond on March 1, March 6, and March 8. The angler reported that he did not observe any dead fish on March 1, but did observe dead and distressed fish on March 6 and March 8. He reported more than a hundred dead sunfish (bluegill and pumpkinseed) plus one dead largemouth bass and one dead brown bullhead. Most of the dead fish were observed in the small cove on the southwest side of the PLECO cove, which is the largest cove on the south side of Peconic Lake.

On March 11, 2009, Regional Fisheries Manager, Chart Guthrie, and Sr. Fisheries Technician, Erik Latremore, conducted a fish kill investigation on Peconic Lake. Over 200 dead sunfish were counted, with the vast majority concentrated in the single cove off the west side of the PLECO Cove. Two distressed bluegill and one distressed black crappie were collected and shipped to the Aquatic Animal Disease Laboratory at Cornell University. Preliminary results found a heavy infestation with the gill fluke *Dactylogyrus* and a systemic infection with the bacteria *Pseudomonas putida*. This kill was very similar to a kill in the same part of the lake in March of 2008. A fish collected during that kill had the *Dactylogyrus* infestation, but not the *Pseudomonas* infection.

On March 20, 2009, a second fish kill was reported on the Peconic River, this time in Upper Mills Pond, the next pond downstream from Peconic Lake. On Monday, March 23, Erik Latremore and Seasonal Laborer Charles Vullo investigated this kill. Over 200 dead sunfish were counted. Unlike the kill in Peconic Lake, the dead fish were distributed throughout the impoundment. Again, distressed fish were collected and shipped to the Aquatic Animal Disease Laboratory at Cornell University. Preliminary results found that the fish all had moderate amounts of the same gill flukes, *Dactylogyrus*, that the Peconic Lake fish had. They were also severely infested internally with encysted parasites, particularly the tail kidney. While it is normal to see some internal parasites on wild fish, the amount of parasites in these fish was particularly high. Bacterial culture also produced growth of colonies of bacteria that look the same as the *Pseudomonas putida* infections seen in the Peconic Lake fish, but the definitive bacterial identification has not been completed.

It appears that some combination of stressors in these water bodies is causing the fish to be stressed, which leads to heavy parasite burdens and opportunistic infections. The regional fisheries unit is planning to collect fish from these waters later in the year for pathological analysis to see if this sheds any light on the problem.

Bureau of Fisheries ***Chart Guthrie*** ***631-444-0281***

Northern Snakehead Monitoring - R2 Fisheries staff, with help from R1 Fisheries, NYC Parks and Queens College, continued efforts to monitor northern snakeheads and other fish populations through

electrofishing surveys of Meadow and Willow Lakes in Flushing Meadows Corona Park, Queens, on March 24 and 25. Low water temperatures (5 – 8o C) led to low catch rates for fish assemblages usually caught during these surveys, but catch per unit effort (CPUE) for snakeheads was consistent with numbers obtained during previous surveys, regardless of water temperature. The most significant finding of the surveys was the smallest northern snakehead caught to date, from Meadow and Willow Lakes. The 213 mm fish suggests some reproductive success for the snakeheads. The consistently low CPUE for snakeheads suggests that reproductive success or juvenile survival is limited by some factor or factors still to be determined.

Bureau of Fisheries ***Melissa K. Cohen*** ***718-482-4022***

Federation Pond Re-limed - On March 16, 2009, Federation Pond, located in the Saranac Lakes Wild Forest, was treated with three tons of pulverized agricultural limestone to counteract the impacts from acid precipitation. Division of Fish and Wildlife staff cooperatively limed Federation Pond. Federation Pond has been included in the pond liming program since the mid-1980's and was last treated in March of 1995. The 1995 treatment provided suitable water chemistry conditions for brook trout for 14 years. Annual pH and acid neutralizing capacity (ANC) monitoring is conducted on all ponds that are included in the liming program so that retreatments occur prior to reacidification. In this case, an August 2008 water sample from Federation Pond showed that the pH had dropped to just below 6.0, the threshold value for further treatment. The Adirondack Park Agency (APA) cooperated in the treatment by providing an extension to the original permit, allowing the project to go forth expeditiously. While the permit allowed for up to five tons of agricultural limestone to be applied, current budget constraints limited the treatment to the amount applied. This lower rate of application should still be sufficient to provide several additional years of favorable conditions. It is anticipated that a new long-term APA permit will be applied for prior to a return to marginal conditions, so that additional applications can go forth as needed.

Bureau of Fisheries ***Leo Demong*** ***518-897-1333***

Organizational Priorities*:*

Partnerships and the Public

Regional Fisheries Manager, Chart Guthrie, receives Coastal America Spirit Award - Chart Guthrie, Regional Fisheries Manager, was recognized as a member of the Carmans River Partnership, an unofficial consortium of Federal, State and Local Government and NGO representatives who coordinated the seven-year effort to complete the installation of a fish ladder at the

Hards Lake Dam on the Carmans River. This is the first permanent fish ladder installation on Long Island. The fish ladder provides the opportunity for fish to move from the tidal portion of the Carmans River into the freshwater portion for the first time in more than 50 years. Within days of its installation in March of 2008, alewife was documented using the ladder.

Coastal America is a unique partnership of federal agencies, state and local governments, and private organizations that work together to protect, preserve, and restore our nation's coasts (www.coastalamerica.gov). The Spirit Award recognizes outstanding partnership efforts that demonstrate the "spirit" of Coastal America. The award was presented on Saturday, March 21 by Mario DelVicario of the USEPA at the site of the fish ladder.

Bureau of Fisheries ***Chart Guthrie*** ***(631) 444-0281***

Workforce, Science and Technology

Navigating the Rough Seas of Controversial Public Issues - In early March, Colleen Kimble, of the Steam Electric Unit, and Sean Madden, of the Hudson River Natural Resource Damages Unit, attended a NOAA sponsored training titled Navigating in Rough Seas: Public Issues and Conflict Management. The two-day course was held at the offices of the Hudson River National Estuarine Research Reserve in Norrie Point State Park overlooking the Hudson River. While the late winter ice flows and bald eagles were an occasional (and beautiful) distraction, the course had more than enough to keep the interest of the class. Through a series of lectures and exercises, the instructors helped the participants develop skills for designing, conducting, and controlling public meetings on controversial topics, and encouraging the participation and cooperation of all stakeholders. The diverse backgrounds and experiences of the class, including representatives from municipalities, community groups, private companies, and state agencies, made the role-playing activities, meant to simulate the varied perspectives of multiple stakeholders, seem all the more real. Fish mortality at power plant intakes and PCBs in the Hudson River rank among some of the most contentious issues facing DEC, and Colleen and Sean will undoubtedly be putting their new skills to good use.

Bureau of Habitat ***Sean Madden, Colleen Kimble*** ***(518) 402-8977***