

NEW YORK STATE  
DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
**BUREAU OF FISHERIES**

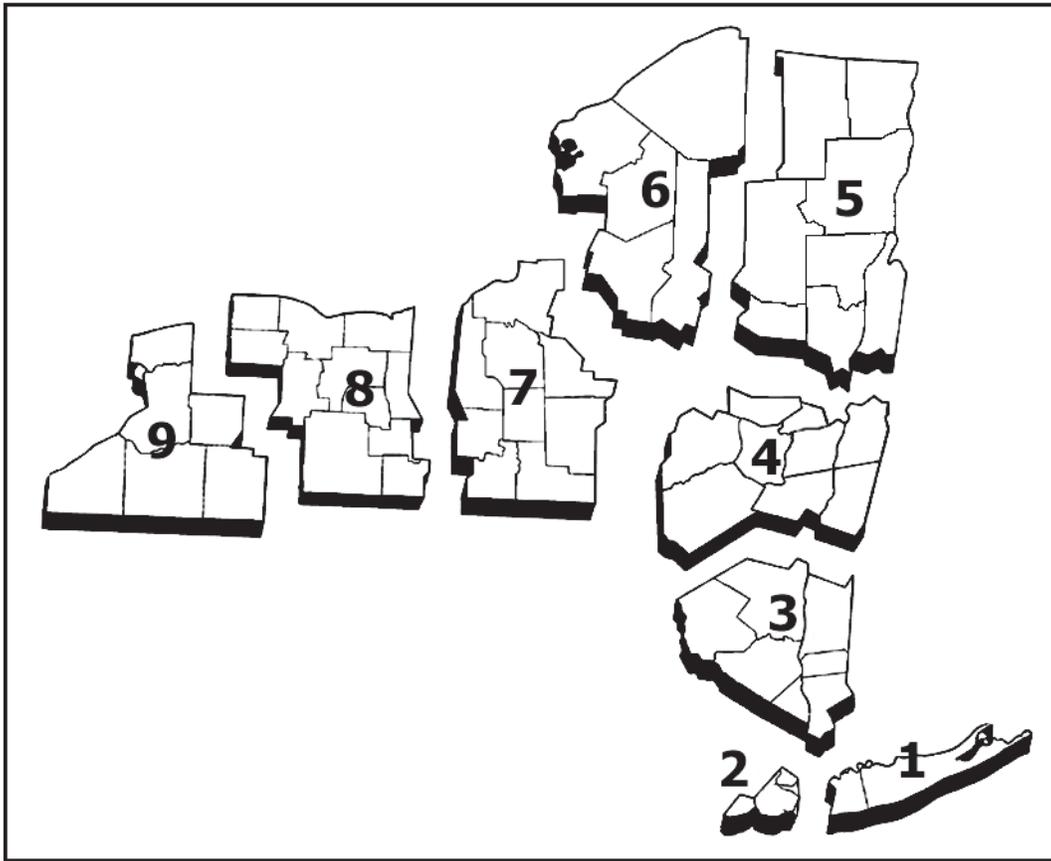


**2010-2011 ANNUAL REPORT**





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# 2010-11 Annual Report

## New York State Department of Environmental Conservation

### Bureau of Fisheries

*Phillip J. Hulbert, Chief*

### Introduction

The New York State Department of Environmental Conservation, Division of Fish, Wildlife and Marine Resources, Bureau of Fisheries delivers a diverse program and annually conducts a wide array of activities to accomplish its mission:

*Conserve and enhance New York State’s abundant and diverse populations of freshwater fishes while providing the public with quality recreational angling opportunities.*

This report provides a summary of significant activities completed during fiscal year 2010-2011 by Bureau of Fisheries staff located in 9 regional offices, 2 research stations, 12 fish hatcheries, 1 fish disease laboratory, as well as the DEC Central Office in Albany.

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# 2010-11 Annual Report

## Common Acronyms, Definitions and Units of Measure

### Common Acronyms

**ACOE:** Army Corps of Engineers

**BEF:** Boat electrofishing

**CPUE or CUE:** catch per unit of effort - such as the number of fish caught per hour or fish caught per net.

**DEC or NYSDEC:** Department of Environmental Conservation.

**DFWMR:** Division of Fish, Wildlife and Marine Resources.

**RM:** river mile - denotes the distance upstream from the river mouth.

**OMNR:** Ontario Ministry of Natural Resources

**PFR:** Public Fishing Rights.

**TSMP:** Toxic Substances Monitoring Program.

**USGS:** United States Geological Survey.

**USFWS:** United States Fish and Wildlife Service.

**YOY:** young of year - typically a fish that is captured by sampling in the same year it was hatched.

### Definitions

**Bottom trawl:** a sampling technique where a net is dragged along the bottom of a water body behind a boat.

**Creel Survey:** a survey where anglers are interviewed about their catch.

**Cross vane structure:** a “U”-shaped structure of boulders or logs, built across the stream channel to reduce velocity and energy near the stream banks.

**CROTS:** Catch-Rate-Oriented-Trout-Stocking - the model used to develop stocking rates for trout streams that takes into account biological measures of the stream and stream carrying capacity, trout natural reproduction, hold-over of previously stocked trout, classification of the type of trout fishery managed for, measured or assumed angler effort and targeting an angler catch rate of 0.5 trout/hour.

**Dreissenid mussels:** a family of small freshwater mussels that attach themselves to stones or to any other hard surface.

**Electrofishing:** use of electricity to temporarily stun fish, allowing them to be captured.

**Extirpated species:** a species that no longer exists in the wild in a certain country or area.

**Gill netting:** a survey technique that uses a mesh net to ensnare fish.

**HUC:** Hydrologic Unit Code. A categorization of watershed boundaries from the basin to the sub (small) watershed level (HUC12).

**Hydroacoustic survey:** use of sound and reflected echoes from schools of fish to estimate abundance.

**Pen reared:** raising hatchery salmon or trout in a pen to “imprint” those fish to the pen rearing site. In theory, this will cause the fish to return to the pen rearing site to spawn.

**PSD:** proportional stock density - describes the portion of a fish population or sample that exceeds a size threshold. For example, the PSD for largemouth bass is the proportion of 12 inch and larger bass in the sample of largemouth bass that were stock size (8 inches and larger).

**RSD 15:** relative stock density greater than 15 inches - describes the proportion of fish larger than 15 inches in a population or sample of all fish exceeding a size threshold. For example, the RSD 15 for largemouth bass is the proportion of 15 inch and larger bass in a the sample of all largemouth bass that were stock size (8 inches and larger).

**Secchi depth:** the water depth in which the black and white colors of a disc can longer be distinguished from each other by an observer at the surface of the water.

**Seining:** using a seine net, a large net that hangs in the water due to weights along the bottom edge and floats along the top, to capture fish.

**VHS/VHSv:** Viral hemorrhagic septicemia - a serious disease of fish (not humans) recently introduced into New York State.

**Year Class:** a group of fish spawned during the same year.

### Units of Measure

**°C:** degrees Celsius - to convert from c to fahrenheit (f) =  $(f - 32) \times \frac{5}{9}$ .

**ha:** hectare - a metric system unit of area, 1 hectare = 2.47 acres.

**hr:** hour.

**in:** inch.

**kg:** kilogram - a metric system unit of weight, 1 kg = 2.2 pounds.

**km:** kilometer - a metric system unit of length, 1 km = 0.62 miles or 3,281 feet.

**m:** meter - a metric system unit of length, 1 meter = 3.28 feet.

**mm:** millimeter - a metric system unit of length, 100 mm = 3.94 inches.

**ppm:** part per million - describes the density of a substance in another solid, liquid or gas (typically water, air).

**ppb:** parts per billion - describes the density of a substance in another solid, liquid or gas (typically water, air).

**µg/l:** micrograms per liter; equivalent to ppb,



### Surveys Document the Need for Adjusting Walleye Stocking Policy in Lake Ronkonkoma and Fort Pond

Lake Ronkonkoma and Fort Pond are two of the largest lakes on Long Island and their fish populations have been dominated by an abundance of small white perch over the past few decades. Since the mid 1990's, DEC has stocked walleye in these waters in an effort to control the over abundance of white perch. A different stocking policy was adopted for each lake to analyze the most effective control methods. In Lake Ronkonkoma, 10,000 fingerling walleye, or twice the standard stocking rate of 20 fingerlings per acre, were stocked annually; whereas, in Fort Pond, 4,000 fingerling walleye, or the standard fingerling stocking rate per acre, were stocked biennially (every other year). Stocking biennially was used to test for higher walleye survival through decreased cannibalism of fingerlings, as has been reported in scientific literature. To analyze these two stocking policies, DEC's Region 1 Fisheries Unit completed triennial gill net and electrofishing surveys in Lake Ronkonkoma and Fort Pond. The 2010 results are as follows:

- In Lake Ronkonkoma, the overall electrofishing catch rate for white perch declined over 90% from a catch rate of 1,300 fish per hour in 2001 to 108 fish per hour in 2010. Gill net catches resulted in similar declines. The goal of reducing the white perch population was certainly achieved; however, the catch rates for walleye over the same period also declined, especially for quality (15-20") and preferred (>20") size walleye. The relative weight (a measure of relative plumpness) also declined dramatically for quality and preferred sized fish. These results led to the conclusion of a fish community that has shifted significantly toward the predator (walleye) and a reduction in the walleye stocking rate is warranted.
- In Fort Pond, the electrofishing catch rate for white perch increased over 200% from a catch rate of 300 fish per hour in 2001 to over 1,000 fish per hour in 2010. During the same time period, walleye catch rates declined, and walleye relative weight remained stable. It is clear from these results that the alternate year stocking of walleye is not controlling the white perch in Fort Pond and an increase in the stocking frequency is warranted.



From these results, the recommended stocking policies will change to 20 fingerling walleye per acre per year. That translates to 5,000 walleye per year for Lake Ronkonkoma and 4,000 walleye per year for Fort Pond. DEC's Region 1 Fisheries Unit will continue to monitor these waters on a triennial basis and adjust stocking rates as needed.

### I FISH NY - Long Island

I FISH NY continued to offer fishing instruction to the public through public fishing events and clinics and in cooperation with private organizations, despite a decrease in staff and the loss of partnership with New York Sea Grant. By collaborating with New York State Office of Parks, Recreation and Historic Preservation, I FISH NY was able to offer three public fishing events at Long Island state parks, reaching a total of 2,750 people. An additional public clinic was held in collaboration with the Town of Brookhaven at Lake Ronkonkoma, providing 74 beginner anglers with fishing instruction and a fun fishing experience.



The DEC I FISH NY Program coordinated with Boy Scouts, Girl Scouts and other organizations, providing over 1,000 children with fishing education through I FISH NY clinics and summer camp programs. Participating Boy Scouts earned their fishing belt loops and Girl Scouts earned an I FISH NY fishing badge.

Staff reductions significantly affected the I FISH NY in school program. The program was only able to visit 4 schools in FY 2010-11 compared with 20 in FY 2009-10.

### Species of Greatest Conservation Need: Banded Sunfish and Swamp Darter

In our continued effort to document the status and range of the species of greatest conservation need on Long Island, twelve rare and endangered species surveys were conducted during the summer of 2010.

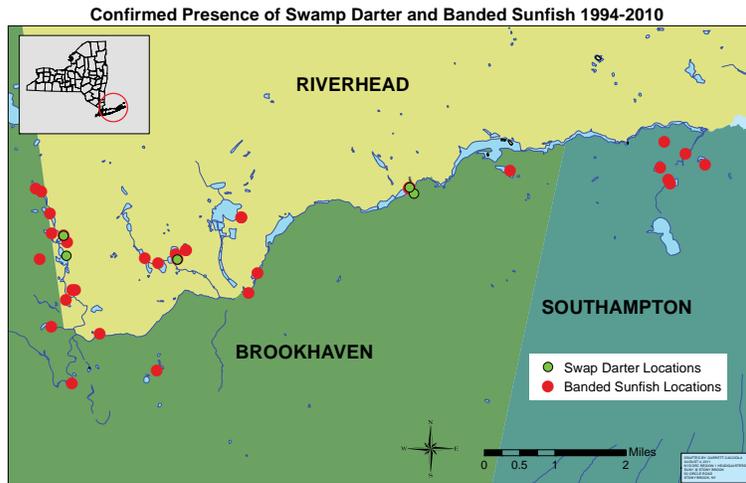
**Banded Sunfish:** The range of banded sunfish (*Enneacanthus obesus*) appears stable. The species has been documented in 28 different waters within the Peconic River drainage, 14 of these are newly discovered locations since 2007, mostly from surveys of waters not previously surveyed. Not surprisingly, the presence of banded sunfish is well correlated with a healthy pine barrens/bog wetland community, and they are often found in waters where sweetpepper bush (*Clethra alrifoli*), buttonbush (*Cephalanthus occidentalis*), purple bladderwort (*Utricularia purpurea*), and yellow bladderwort (*Utricularia L*) occur. Banded sunfish were found to be extirpated from two locations where they were documented in the 1990's. One of these waters, Linus Pond, has been inundated by Phragmites in the last ten years and the other pond dried up completely in the drought of 2002 and is now fishless.



**Swamp Darter:** The range of the swamp darter (*Etheostoma fusiforme*) has contracted substantially in comparison to historical records. Historically swamp darters were reported from the Lake Ronkonkoma drainage, the Carmans River drainage and the Peconic River drainage. Recent surveys have been unable to document swamp darter in the

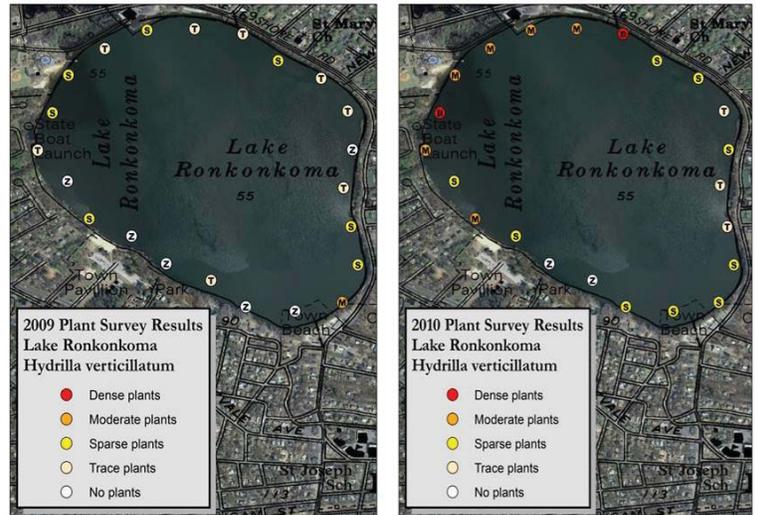
Lake Ronkonkoma or Carmans River drainages, but they have been documented at five locations in the Peconic River drainage. Swamp darters prefer flowing water and a sandy bottom and are often found at the connections between the banded sunfish ponds. One possible explanation for the loss of swamp darter from the Lake Ronkonkoma

drainage is that the most promising habitat for swamp darter now has abundant populations of mosquitofish (*Gambusia affinis*) and weather loach (*Misgurnus anguillicaudatus*), both non-native species.



three waters on Long Island in 2008 and in Lake Ronkonkoma in 2009. The Regional Fisheries Unit conducted surveys of the hydrilla in Lake Ronkonkoma in 2009 and 2010 and found a substantial expansion of the plant in just one year (see survey map). The Regional Fisheries Unit will continue to monitor the spread of hydrilla and is working with stakeholders to develop a plan for control of hydrilla in Lake Ronkonkoma. (Figure Caption: Lake Ronkonkoma Hydrilla Survey Results, 2009 and 2010)

Lake Ronkonkoma Hydrilla Survey Results 2009 and 2010



**Invasive Species Control – One Step Forward, Two Steps Back**

**One Step Forward – Water Chestnut** - The third year of water chestnut control on Swan Pond in Calverton found only one water chestnut plant, down from 2 in 2009 and 11 in 2008. With continued monitoring eradication appears possible.

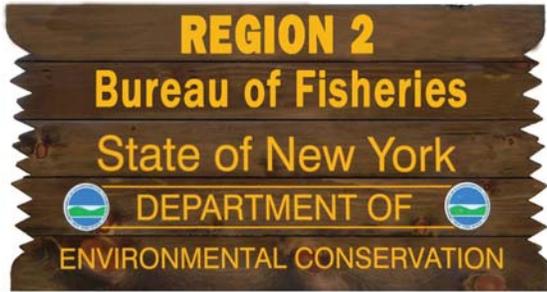
**One step back – Ludwigia** - In 2009 victory appeared assured when two trips down the river found only a few small patches of the invasive plant. However, the cool June 2009 weather may have done as much as our removal efforts to suppress the growth of the weed. In 2010 the Ludwigia has made a strong comeback. This year it took about 90 hours to remove 4.5 cubic yards of Ludwigia. While this is a big improvement over 2007 when 666 hours were needed to remove 60 cubic yards, it is clear that without continued vigilance, it would only take a few years to return to the infestation levels of 2007.

**Another step back – Hydrilla** – Hydrilla was first documented in



**2010-11 Region 1 Fisheries Staff**

- |                  |   |
|------------------|---|
| Guthrie, Charles | Biologist 2 (Aquatic)                                       |
| Heidi O’Riordani | Biologist 1 (Aquatic)                                       |
| Charles Vullo    | Seas. Laborer (4/1/10 – 3/31/11)                            |
| Ann Tenyenhuis,  | Environ. Ed. Asst. (4/1/10- 10/6/10)                        |
|                  | Sea Grant Ext. Aid (10/7/10 - 3/31/11)                      |
| Kaitlin Friedman | Fish and Wildlife Tech 1 (Seasonal)<br>(6/17/10 – 10/27/10) |
| Cory Tizzio      | Cobleskill Intern<br>(5/20/10 – 8/20/10)                    |



### I FISH NY – NYC School Fishing Program

Spring fishing in school program: 50 classes, total students = 1145. Classes taught during 2010 included slightly higher number of students than in 2009 and incorporated new schools and age groups: Flushing International HS, Flushing, Queens; PS 340, Bronx; PS 277, Gerritsen Beach, Brooklyn; and K821 in Sunset Park, Brooklyn. These students fished in 2011.

#### Internal Fish Anatomy Lesson Launched:

Students at P.S. 262 in Rockaway, Queens were treated to an educational creation to teach internal fish anatomy. Internal and external fish anatomy of a gigantic striped bass shown on several sheets of overlaid plastic elicited “oohs and aahs” and provided the seventh-graders the opportunity to learn of the differences existing in the internal anatomy of different species of fish.



### I FISH NY – Other Fishing Outreach

**Naturemania:** Fishing provided to approximately 40 students on Spring Break during New York Restoration Project’s Naturemania event at Swindler’s Cove, Harlem River, 4/1/10

**Roosevelt Island Health & Fitness Day:** 35 participants fishing in the East River off Roosevelt Island, 5/15/10

**Roosevelt Island HS:** Fishing clinics for summer school students, 7/15/10 and 7/22/10.

**City of Water Day:** I FISH NY joined numerous local groups promoting NYC’s waterfront; taught fishing to more than 85 people despite temperatures over 100° F, 7/24/10.

**Lincoln Square Community Center:** Fishing clinic for approximately 20 youth at 68th St. Pier in Manhattan at the Hudson River, 8/19/10.



**Solar 1 Go Fish Day:** East River fishing clinic with approximately 25 in attendance, 9/11/10.

**Little Red Lighthouse Festival, Ft. Washington Park:** Fishing clinic with 169 participants in the Hudson River, 9/25/10.

**Baisley Pond Park:** Community fishing clinic, 61 participants, 10/9/10.

**Zimmer Club:** Outdoor recreation education program for Staten Island youth. R2 staff attended to discuss angling techniques, fishing regulations, licenses, and safe catch and release fishing, 3/19/10.

### Warmwater Fisheries Surveys

**Invasive Species Surveys:** The lakes of Flushing Meadows Corona Park were surveyed by electrofishing four times during FY2010. Survey objectives included monitoring changes over time in catch-per-unit-effort (CPUE) of invasive northern snakeheads and CPUE of other fish populations of these lakes. Most of the shoreline of Meadow Lake was surveyed over two evenings in April and both Meadow and Willow Lakes were surveyed in October. CPUE was not found to have significantly increased or decreased for either the northern snakeheads or native fish of this system. One significant finding of the 2010 surveys was the capture of largemouth bass distributed into three size classes. This is the first time over five years of surveying these lakes that a top predator other than snakeheads has been found. Another significant finding was the collection of the two smallest snakeheads captured to date: they were 97mm and 99mm, leaving no doubt snakeheads are successfully reproducing here.

**Prospect Park Lake Fish Disease Surveillance & General Biological Survey:** An electrofishing survey of Prospect Park Lake, Brooklyn, was performed over two evenings in October, 2010. Objectives of this survey included fish collection for New York’s Statewide Fish Disease Surveillance program and collection of data for fish population assessment. Fish samples were tested for four diseases. Negative results were found for all four. Data was compared to 2008 electrofishing data and while larger fish composed a greater proportion of bass captured in 2008, stock density indices calculated from both the 2008 and 2010 survey data indicate the largemouth bass and sunfish populations of Prospect Park Lake have a well-balanced predator-prey relationship. Comparison of young versus adult largemouth bass suggests that bass reproduction is neither too low nor excessive.



**Willowbrook Pond, General Biological Survey:** An electrofishing survey of Willowbrook Pond, Staten Island, was performed on 9/29/10. This was the first such survey of this lake and had been a long time coming as fish kills at Willowbrook Pond occurring within the past three years had been the only source of fish population data. Catch per unit effort (CPUE) of Willowbrook’s fish was one of the highest for any



New York City water body surveyed with a CPUE of 1080 fish/hour. The CPUE of fish from Prospect Park Lake, in comparison, was 714 fish/hour. Comparison of size frequency distributions of largemouth bass and sunfish indicates a narrow size distribution of these fish. The number of young-of-the-year (YOY) sunfish was well over 1,000; larger sunfish were very few in number. In the case of largemouth bass, no YOY were found indicating a poor spawning season. The most recent Willowbrook Lake fish kill investigated occurred at the end of March and is a likely cause of spawning and recruitment problems.

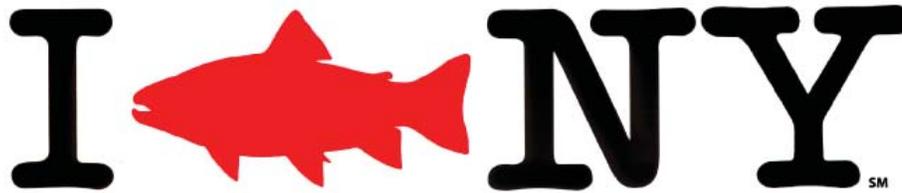
**Bronx River Survey, General Biological Survey:** An electrofishing survey of three areas of the Bronx River was performed on 5/6/10. Species collected during the survey included redbreast sunfish, yellow bullhead, tessellated darter, eastern blacknose dace, pumpkinseed and white sucker. Results of this survey correlate well with those of a 2007 survey of the Bronx River and indicate the diversity of New York City's warmwater fish communities is greater than previously thought. Bronx River Alliance staff attended the first part of the survey and observed fish processing firsthand.

**Other fishery surveys: Mt. Loretto Unique Area Ponds:** Two freshwater ponds of DEC-managed Mt. Loretto Unique Area, Staten Island, were surveyed with a backpack electrofisher and seine. Bullheads, pumpkinseeds, and fish of the *Gambusia* and *Fundulus* genera composed the majority of the catch. **Central Park Lake:** This electrofishing survey followed-up a truncated 2009 survey and resulted in a size distribution skewed towards large largemouth bass. Another survey should be performed before concluding the warmwater population of this lake is unbalanced.



#### 2010-11 Region 2 Fisheries Staff

Melissa Cohen	Biologist 2 (Aquatic)
Darin Alberry	Environmental Education Assistant
Diallo House	Environmental Education Assistant
James MacDonald	Environmental Education Assistant





**Esopus Creek 2010 Creel survey**

A full season creel survey was conducted on the 17.9 mile stocked section of the Esopus Creek to determine fishing pressure, harvest, catch rates, catch composition, and basic angler demographics. A total of 136 days were surveyed during the 2010 season, with 1,129 individual anglers being interviewed.

The majority of the fishing pressure on the Esopus Creek occurred below Allaben (Portal) in 2010 (Table 1). June accounted for the largest portion of the fishing pressure below the Portal but fishing effort continued through the summer. Catch rates are quite low before the first increment stocking, although fishing conditions at that time of year may contribute to the low catch rate. Catch rates generally peaked in June/July 2010, after the second increment stocking. Low catch rates in the Fall were primarily due to a large storm that damaged stream banks and caused severely turbid conditions during this period.

Period	(Dates)	Below Allaben	Above Allaben
Pre-stocking	(4/1 - 4/25)	2,429	365
Post first stocking	(4/26 - 5/27)	5,676	789
Post second stocking	(5/28 - 6/30)	8,470	285
July	(7/1 - 7/31)	4,605	231
August	(8/1 - 8/31)	2,954	205
September	(9/1 - 9/30)	3,299	203
October	(10/1 - 10/31)	806	316
November	(11/1 - 11/30)	805	172
<b>Total hours fished for the season</b>		<b>29,044</b>	<b>2,566</b>
<b>Hours fished per acre of water</b>		<b>207</b>	<b>86</b>

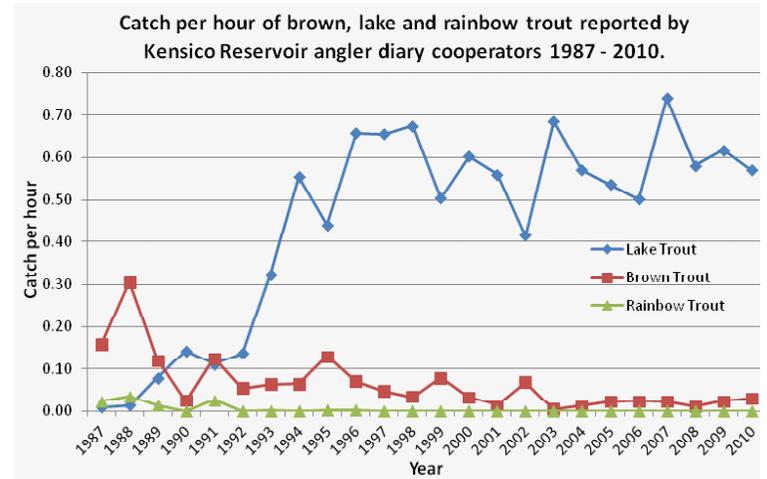
A total of 16,480 trout were estimated to have been caught (creeled or released). We estimate that 83% (13,678) of the trout which were caught by Esopus anglers in 2010 were released, with 2,142 estimated as being harvested. Catch rate by time period and stream section can be found in Table 2.

Period	(Dates)	Below Phoenicia	Phoenicia to Allaben	Above Allaben
Pre-stocking	(4/1 - 4/25)	0.17	0.13	0.14
Post first stocking	(4/26 - 5/27)	0.83	0.97	0.27
Post second stocking	(5/28 - 6/30)	1.60	1.13	1.17
July	(7/1 - 7/31)	1.12	1.26	2.11
August	(8/1 - 8/31)	1.13	0.92	0.74
September	(9/1 - 9/30)	1.11	1.25	0.22
October	(10/1 - 10/31)	0.59	1.90	0.82
November	(11/1 - 11/30)	0.47	0.28	0.26

Angler opinions concerning the proposed institution of a catch and release regulation were negative. Instead, a “five trout with only two trout over 12 inches” regulation will be enacted, primarily to help spread out the harvest of the stocked two year old brown trout. This survey is being repeated in 2011, with the upper “Above Portal” section being designated as a “Fate of Stocked Trout” study reach.

**Kensico Reservoir Trout Assessment**

Two nights of gill net sampling in September yielded 68 lake trout and 5 brown trout. The lake trout averaged 18.6 inches and the largest was 29.6 inches and weighed 9 pounds. The brown trout averaged 17.8 inches and the largest was 24 inches and weighed 7 pounds. Stocked lake trout represented only 5.9% of the lake trout population (based on fin clips). Combining the data from this survey with angler diary program data, it is estimated that approximately 93% of the lake trout are wild fish. This percentage is the highest observed since the stocking program has started. Diary program catch rates of lake trout have increased from 0.14 caught per hour in 1990 to a fairly consistent catch rate of 0.60/hour for the last 5 years. Over this same time period brown trout catch rates have declined from 0.31/hour to 0.03/hour. The stocking program for lake trout in Kensico began in the 1980’s with annual stockings of roughly 8,000 yearlings. Currently, 900 lake trout are stocked each year. Lake trout predation on brown trout is likely the cause of the brown trout decline. The creation of the self sustaining wild lake trout population will likely result a further reduction in lake trout stocking at Kensico Reservoir.

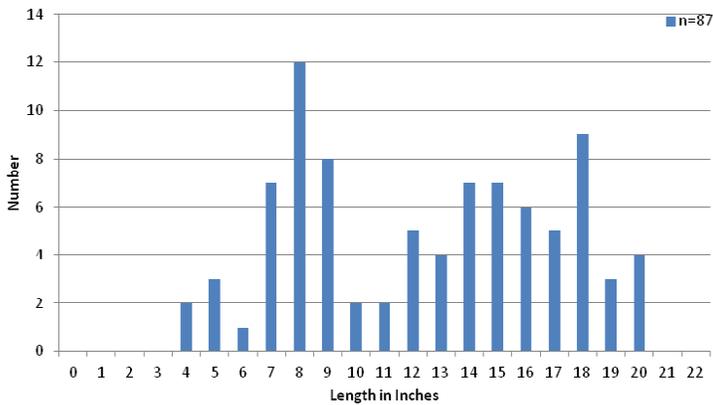


**Titicus Reservoir Trout and Bass Assessment**

A gill net survey was conducted on Titicus Reservoir for two nights in late June in order to sample the trout population and assess the effectiveness of the trout stocking program. A total of 29 trout were caught (28 brown trout and 1 rainbow trout) in 2 nights of gill netting in late June. Only 3 of the trout were over 12 inches, indicating that most of the trout sample was comprised of fish that were stocked this year. The possible reason for the lack of holdover fish could be the small summer trout zone (dissolved oxygen >= 5 ppm and temperature <= 70 F) that was measured at the time of this survey. A future netting survey will be conducted to see if this trend continues, and this may result in a stocking policy adjustment.

A boat electrofishing survey was also conducted in mid-October to assess the largemouth bass fishery. A total of 87 largemouth bass were collected, for a catch rate of 43.5 bass per hour. Largemouth bass were found in all sites sampled. Fifty seven percent of the bass collected were over 12 inches in length. Titicus Reservoir has a balanced population of largemouth bass, and offers anglers a good chance of catching bass over 18 inches.

### Length Frequency of Largemouth Bass Titicus Reservoir BEF 10/13/10



### Region 3 Outreach

The Region 3 Fisheries Unit I FISH NY Program conducted 7 school programs reaching over 500 students, 3 fishing festivals reaching 270 people, 9 fishing clinics reaching over 700 people and 8 summer camps reaching 165 campers. A total of over 1,600 people went fishing this year with the Region 3 I FISH NY Program!

A total of 35 new web pages under "Places to Fish" were created for Region 3 waters. [www.dec.ny.gov/outdoor/7940.html](http://www.dec.ny.gov/outdoor/7940.html)

Additionally Regions 3 continues to update their fishing hotline web page. [www.dec.ny.gov/outdoor/42811.html](http://www.dec.ny.gov/outdoor/42811.html)



### Champlain Hudson Power Express

Staff participated in the environmental review of a proposed project that includes the installation of 333 miles of 1000 Megawatt DC electrical transmission lines. Most of this distance would require it to be buried in the waters of Lake Champlain, Hudson River, Harlem River and East River. Once completed, the project would transmit electricity from yet to be built hydroelectric and wind energy projects in Canada to New York City. The project could provide additional low cost energy to the metropolitan area. However, there are several potential environmental impacts to the aquatic communities in the waters where the cables would be located. DEC staff have invested significant time in negotiations with TDI and other parties in efforts to allow the project to proceed with a minimum of impact to the environment.

### Northern Snakehead Monitoring

Region 3 Fisheries staff conducted three monitoring surveys in May and November within the Northern Snakehead Eradication Project area in Orange County. Various segments of Catlin Creek were sampled with a backpack electrofisher, and on November 22, Hyde Pond was sampled with a twelve foot electrofishing boat. No fish of any species were found in Catlin Creek. The pond, which was stocked in 2009 after the second rotenone treatment, contained a good population of largemouth bass, crappie, yellow perch and golden shiners. No snakeheads were found in any of the waters sampled.



### 2010-11 Region 3 Fisheries Staff

Mike Flaherty	Biologist 2 (Aquatic)
Bob Angyal	Biologist 1 (Aquatic)
Larry Wilson	Biologist 1 (Aquatic)
Ryan Coulter	Biologist 1 (Aquatic)
Linda Wysocki	Fish & Wildlife Technician 3
Tim McNamara	Fish & Wildlife Technician 2
Dustin Dominesey	Fish & Wildlife Technician 1 (seasonal)
Ryan Burns	Laborer 1 (seasonal)
Indie Bach	Cobleskill Intern



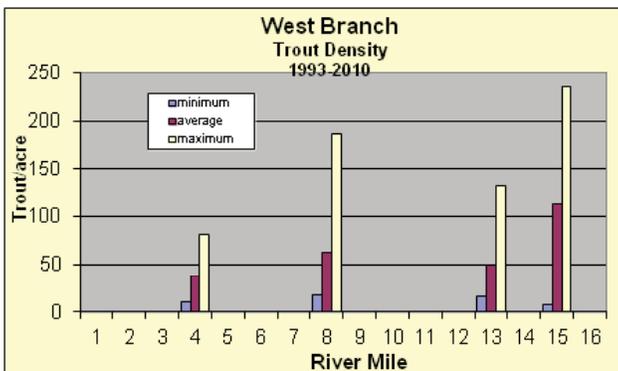
**Otsego Lake Ice Fishing Creel Survey**

Ice anglers made an estimated 1,991 trips to the 4,226 acre Otsego Lake and fished an estimated 9,814 hours between January 23 and March 13, the period of safe ice, with 84% of the effort directed towards salmonids, 15% towards warmwater species, and 1% targeted both. Ice fishing effort averaged a low 0.5 trips/acre or 2.3 hours/acre. Salmonid anglers caught an estimated 2,391 lake trout between 10.5 and 31.0 inches of which 989 were legal size (> 23 in) for an average catch of 0.29 fish/hour and 0.12 legal fish/hour. An estimated 330 lake trout (12% hatchery fish) were creeled at a rate of 0.04 fish/hour. The harvest of 0.08 lake trout/acre is considered low.



**West Branch Delaware River Trout Population Studies**

Mark and recapture trout population studies on the West Branch have been conducted at the same four sites for most years since 1993 as part of DEC's commitment to the interstate Delaware River Basin Commission to evaluate the effectiveness of the water releases program on trout populations in the 16.9 mile West Branch tailwater. A total of 1,413 unmarked yearling and older trout and 107 marked trout between 4.2 and 23.2 inches were collected including 1,271 wild brown trout, 13 hatchery brown trout, 128 rainbow trout and 1 brook trout. Trout abundance at these four study sites located at river mile 4.2, 8.8, 13.0, and 15.2 were 28, 63, 50, and 113 trout/acre with trout biomass averaging 25.6, 22.9, 45.9, and 72.7 lbs/acre, respectively. Compared to the long term averages, trout abundance and biomass were higher at the three upstream sites and down slightly at the downstream site.



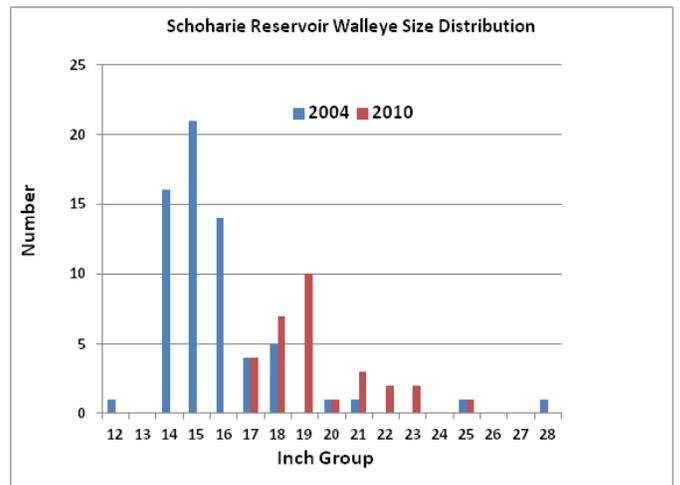
**Eastern Brook Trout Joint Venture (EBTJV) Sampling**

The fourth year of a five year project to survey the many smaller streams throughout the region to determine the presence or absence of brook trout was completed. The goal of this effort is to halt the decline of brook trout and restore fishable populations. To accomplish this goal, an updated inventory of brook trout waters is needed because many of these smaller streams have never been surveyed or the survey data is old and outdated. In 2010, a federally funded two man survey team sampled 671 streams including 418 streams where trout were collected. Brook trout were found in 355 streams, brown trout in 279 streams, and rainbow trout in 101 streams. For the four year period to date, a total of 2,967 small streams have been surveyed throughout the region including 1,290 streams that support trout. Brook trout were found in 1,091 streams, brown trout in 708 streams, and rainbow trout in 134 streams.



**Schoharie Reservoir Walleye Netting**

The 1,145 acre Schoharie Reservoir was gill netted in June to collect baseline information on the current status of walleye in this reservoir which will be used to help evaluate the effectiveness of the fingerling walleye stocking program. Approximately 23,000 walleye fingerlings are being stocked annually into the reservoir for five years beginning in 2010 in an effort to rebuild the walleye population and fishery. Ten gill nets were set overnight in the same general areas that were used in a 2004 survey. A total of 30 walleye from 17.1 to 26.0 inches were collected for an average catch of 3.0 fish/net compared to the 6.5 fish/net recorded in 2004. In 2004, 80% of the walleye collected were smaller than the smallest (17.1 in) fish collected in 2010. The data indicates no successful reproduction since 2007 as there were no Ages 1-3 walleye present in 2010.

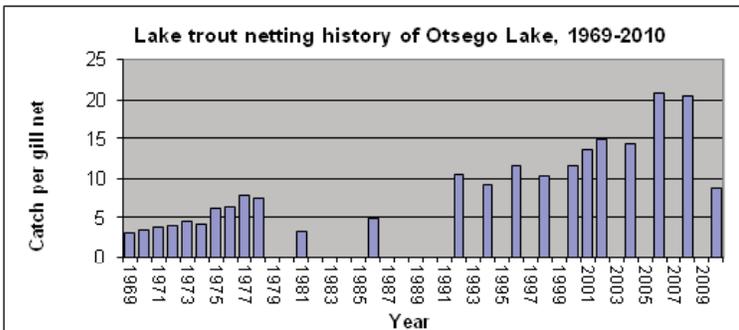


### Canadarago Lake Walleye

The biannual gill netting of this 1,900 acre lake to monitor the abundance of walleye was completed in September. Although the catch of 11.8 walleye/net indicates an abundant population, it represents the fourth straight year of a continuing decline from the record 21.6 walleye/net recorded in 2003. Only 4.3% of the walleye collected in 2010 were sublegal (< 15 in) compared to 18.7% in 2008. In the five nettings from 1999 through 2008, the catch of sublegal walleye (range was 21.4% to 31.7%) averaged 28.5%. The decline in the abundance of adult and sublegal walleye is due to the growing population of alewife in the lake which preys extensively on larval walleye. This alewife predation resulted in the complete absence of walleye from the 2008, 2009, or 2010 year classes during the 2010 monitoring efforts. To maintain this walleye fishery and prevent further declines in walleye abundance, the lake will be stocked for 5 years with approximately 40,000 walleye fingerlings annually beginning in 2011. These fingerlings will be finclipped to allow evaluation of the effectiveness of this stocking program.

### Otsego Lake Lake Trout

This 4,200 acre lake was netted for the 23rd time since 1969 to monitor the abundance of lake trout. The wild population is supplemented with the stocking of approximately 5,000 yearling lake trout annually. A total of 52 lake trout between 6.9 and 29.2 inches were collected for an average catch of 8.7 fish/net. This represents a 59% decline from the record catch of 21.2 fish/net recorded in 2008 and the 20.8 fish/net recorded in 2006. The 8.7 laker trout/net recorded in 2010 was the lowest recorded in the 12 nettings since 1986 and was due to the lowest catch (6 fish) of lake trout under 15 inches ever recorded going back to 1969. The nettings between 1992 and 2008 averaged 7.6 small lake trout/net. The record low abundance of lake trout under 15" is of concern and the cause of the decline is not known. It is recommended that the biannual lake trout monitoring be continued.



### Exotic Loaches Found

Oriental weatherfish 'loach' were documented in the Manor Kill watershed of Schoharie County from June through Dec 2010. A large source population was found in a state wetlands feeding tributary 16 some 8.4 river miles above Schoharie Reservoir. Five instream ponds totaling 3 acres are infested with loach which continue to out-migrate downstream into the upper mainstem Manor Kill and are presumed to be in Schoharie Reservoir. Over 800 loaches from 2.0 to 7.0 inches were captured in 2010 with the largest individuals typically being gravid females. Loach eradication is unlikely because some property owners will not allow a rotenone treatment of their pond. The impact of this unauthorized introduction is not known.



### 2010-11 Region 4 Fisheries Staff

- |                   |  |
|-------------------|--|
| Norm McBride      | Region 4 Fish Manager                            |
| Dan Zielinski     | Biologist 1 (Aquatic)                            |
| Scott Wells       | Biologist 1 (Aquatic)                            |
| Dennis Wischman   | Fish and Wildlife Tech 3                         |
| Dave Cornwell     | Fish & Wildlife Tech 1                           |
| Tim Pokorny       | Seasonal Fish & Wildlife Tech                    |
| Rob Poprawski     | Seasonal Fish & Wildlife Tech                    |
| Tobias Widger     | Seasonal Fish & Wildlife Tech                    |
| Fred Linhart      | Fish and Wildlife Tech 3<br>(retired Sept, 2010) |
| Jeff Strassenburg | Seasonal Fish & Wildlife Tech 1                  |
| Steve Swenson     | Stream Protection Biologist (contract)           |



**Lake Champlain Lamprey Control**

Lake Champlain is nationally renowned for its smallmouth and largemouth bass fisheries. But due to intensive management efforts, the native lake trout and landlocked Atlantic salmon resources are experiencing a dramatic recovery. Salmon and trout management in Lake Champlain is conducted cooperatively with the US Fish and Wildlife Service (FWS), the Vermont Department of Fish and Wildlife (VTDFW), and the New York State Department of Environmental Conservation (NYSDEC). Controlling the abundance of parasitic sea lamprey is critical to those management efforts.

Lake Champlain lamprey treatments were conducted on the Salmon River, Little Ausable River, Ausable River, and Putnam Creek in New York during September 2010. In addition, Lewis Creek in Vermont was treated in October. The treatments went very well. In addition to treatments, barriers and trapping were employed to control spawning lamprey on Beaver Brook, Mullen Brook, and the Great Chazy River in New York, as well as several streams in Vermont.

The abundance of lamprey wounds on trout and salmon declined substantially in 2010 relative to recent previous years (Table 1). As expected, the fisheries for those species improved dramatically. Angler reports and electrofishing results show that the abundance and average sizes of trout and salmon increased dramatically with the decrease in lamprey wounding.

Continuing improvements in lamprey control are expected to further close the gap between observed wounding rates, and the rates established as objectives for the program. The FWS is improving their ability to detect and target concentrations of sea lamprey larvae on the deltas, and several delta treatments are scheduled for 2011. Also in 2011, expectations are to construct a lamprey barrier on the Morpion Stream in Quebec, which should prevent sea lamprey spawning in a system that we are unable to treat with lampricides.

Table 1. Sea lamprey wounding rates on Lake Champlain (main lake) lake trout and salmon during 2009 and 2010, compared with pre-control and eight-year experimental control program results.

	Objective	Pre-control	Exp. Control	2009	2010
Lake Trout	25	55	38	55	40
Salmon	15	51	27	31	15

**Inland Waters**

Various surveys were conducted on about 34 lakes and ponds, as well as the North Branch of the Saranac River. About 11 of the pond surveys were simple water chemistry checks to monitor acidification. Of those, two ponds (Benz and St. Germain) have marginal pH values and may be considered for liming. Great Sacandaga Lake was surveyed to assess the state’s rainbow trout stocking policy of about 12,000 yearlings annually. Returns of trout were low, and the lake’s summertime water quality is poor for trout. Loon Lake was sampled to assess the effectiveness of the “50-day” walleye fingerling stockings. Catch of young walleye indicate that the stockings have been effective in Loon Lake.

Purchases of land and recreational easements by the state opened various waters in Franklin County to the public in 2010. Two sections of the North Branch of the Saranac River, totaling more than 8 miles, provide access to excellent trout water. Headwater sections support a high abundance of wild brook trout. Other Franklin County waters opened to the public include: portions of Hays Brook and the Little Trout River; Figure Eight Ponds; Grass Pond; Fishhole Pond; Mountain Pond; and various other small ponds and headwater streams.

Brook trout restoration and management continued with egg takes for the Heritage strains, and repairs and maintenance to various fish barriers that control invasions by non-native fishes.

**Habitat Protection**

Efforts to make road culverts “fish friendly” were a priority in 2010. Undersized or improperly installed culverts can block fish movements and alter the channel morphology. In several instances biologists were able to influence designs for culvert repairs to minimize such problems. However, highway maintenance staff often seek to “slip line” failing old culverts rather than replace them. That process of placing a new, smaller diameter pipe inside the existing culvert, largely precludes making the kind of changes that are needed for passage of fish and other aquatic animals.

Substantial progress was made towards reclassifying hundreds of stream segments in the Champlain and St. Lawrence Watersheds. Fisheries, Habitat, and Division of Water staff reached agreement to upgrade many waters to higher, more protective, classifications. The upgrades will better protect streams from construction projects that might destroy aquatic habitat. Regulations incorporating the upgrades still need to be promulgated.



*Before - a barrier to fish movement*



*After - fish can move freely*

**Staff Honored**

Biologist, Rich Preall was awarded the 2010 Professional Resource Award by the New York State Council of Trout Unlimited. This state-wide award was in recognition of Rich's work on the recovery of the endangered round whitefish and with Adirondack Heritage strains of



brook trout.

**Public Access:**

Two major boat launch projects were substantially completed and, as described on page 29, the "Crusher" boat launch on the Raquette River was completely rehabilitated in 2010. The Downtown Plattsburgh Boat Launch, built in cooperation with the City of Plattsburgh, will provide good access with plentiful parking to this section of Lake Champlain. This new facility will also enhance the City's capability to host large fishing tournaments which yield substantial economic benefits to the area. The other new site, the Rogers Island Pool Boat Launch, provides access to the Hudson River in the Fort Edward area (between Locks 6 and 7 on the Champlain Canal). The West Lake boat launch damaged by storms and a beaver dam blowout over the past few years, also had a new bulkhead installed and other necessary repairs completed.



*Installation of launch ramp at Rogers Island Pool Boat Launch.*



*Installation of 3 lane launch ramp at City of Plattsburgh Boat Launch.*

**Landlocked Atlantic Salmon Returning to Tributaries of Lake Champlain**

New York's Bureau of Fisheries has worked together with Vermont's Fish and Wildlife Department and the US Fish and Wildlife Service to restore salmon and lake trout in Lake Champlain. Progress from those efforts is encouraging, with good returns of salmon to various tributaries in 2010. During the fall of 2010, 51 adult salmon returned to the Willsboro Fishway on the Boquet River in Essex County. That is the most salmon collected in the Fishway in more than a decade. A fish lift on the Winooski River in Vermont had similar strong returns, and anglers are reporting good catches of salmon in New York's Saranac River. Similarly, anglers fishing Lake Champlain over the summer indicate that fishing was great for both salmon and lake trout. The restoration of these two native species provides substantial economic, recreational, and biological benefits. The recent improvements in the status of salmon and lake trout are largely due to improvements in the sea lamprey control program conducted by the three agencies.



**2010-11 Region 5 Fisheries Staff**

- |                  |  |
|------------------|--|
| Bill Schoch      | Regional Fisheries Manager             |
| Rich Preall      | Senior Aquatic Biologist               |
| Emily Zollweg    | Senior Aquatic Biologist               |
| Rob Fiorentino   | Senior Aquatic Biologist               |
| Jennie Sausville | Fish and Wildlife Technician 3         |
| Beth Kress       | Environ. Educator Assistant (Seasonal) |
| Adam Kosnick     | Seasonal Fish and Wildlife Technician  |
| Doug Peck        | Seasonal Fish and Wildlife Technician  |



**Eastern Lake Ontario/St. Lawrence River Warmwater/Coolwater Fish Stock Assessments**

Over one-third of fishing effort in Region 6 occurs on eastern Lake Ontario or the St. Lawrence River. Warm/coolwater fish stock assessments are conducted by the regional fisheries management unit on the St. Lawrence River and by both regional and Lake Ontario units on eastern Lake Ontario to track condition of fish stocks in these waters. In the St. Lawrence River /Thousand Islands area smallmouth bass abundance increased from record lows in 1996-2004 and has varied without trend at moderate levels since 2006. Much of this increase has been due to faster growth and higher vulnerability to sampling of young fish. Northern pike abundance in the Thousand Islands remains depressed largely due to habitat changes resulting from water level regulation. Downstream in Lake St. Lawrence, smallmouth bass have shown greater abundance as well as increased growth rates, probably due to increased availability of round goby forage. Abundance of yellow perch in the Lake St. Lawrence area has increased since 2006 apparently as the result of several stronger than average year classes in recent years. Abundance of smallmouth bass in eastern Lake Ontario has increased substantially from record lows in 2000-2004, although it remains low relative to the levels of the 1970s, 1980s and early 1990s. Increases since 2005 have been attributed to reduced cormorant predation and increased growth and vulnerability of young fish to sampling gear. Recent increases in eastern Lake Ontario yellow perch abundance has also been attributed partly to reduced cormorant predation. Regional cormorant management reduced chick feeding and fish consumption by some 5.5 million fish, including 4,000 smallmouth bass and 109,000 yellow perch.



**Lake Sturgeon Restoration**

Lake sturgeon (*Acipenser fulvescens*) is currently listed as a Threatened species in New York State. Restoration activities have been ongoing since 1991. A tagging study began in 2010 to acquire biological data and provide the basis for movement studies throughout Lake Ontario and the St. Lawrence River. A total of 150 sturgeon were tagged with Passive Integrated Transponders (PIT tags) in 2010 from the Eastern Basin of Lake Ontario to just below the Robert Moses Power Project on the St. Lawrence River. Data was collected from both spawning populations and non spawning fish over a wide geographic range. Movement of up to 85 miles was documented for one fish. Lake sturgeon

eggs (N=179,000) were taken in early June at the Robert Moses Power Project, Massena NY. A total of 124 sturgeon were processed with two egg bearing females providing eggs. Unfortunately eggs failed to show any sign of development after egg take.



**Brook Trout Management**

Trout fishing in the Adirondacks is a traditional and culturally important form of recreation. Brook trout are a keystone Adirondack fish species. In an effort to help maintain genetically native populations of brook trout (heritage strains), Region 6 completed an egg take for Little Tupper strain brook trout. Besides helping to maintain heritage genetics, the use of these fish in stockings is thought to provide fish that have a higher potential to thrive and spawn in the water conditions common to Adirondack ponds. This was the third year that an egg take was conducted from Boottree Pond, a brook trout population established in 2005. Region 6 is in the process of establishing new brood waters for the various heritage strains in order to facilitate a greater reliance on heritage strain fish in the DEC stocking program.



**Development of a new Index of Trout Condition**

Region 6 worked with Cornell University to determine the possibility of using fish tissue water content data to measure trout condition. The goal of the study was to develop a tool to assess stocking rates. Stocking rates would be adjusted to develop a fishery full of fish with high lipid levels (low water content) and a wide distribution of age classes. The study monitored seasonal changes in brook trout tissue water content in four stocked public ponds. The use of water content based condition was determined to be possible, but limited to long term studies of specific waters with tightly standardized sampling methodology and large sample size.

## Habitat Protection

Fish habitat protection and management are basic elements of any fishery management program. When severe bank erosion threatened County and State highways along the Mohawk River in Westernville, NY the regional fisheries unit was afforded an unusual habitat management opportunity. Using the combined efforts of a suite of federal, state, county and local agencies, which provided time, expertise, equipment and materials, we were able to complete a large-scale project to restore the eroded bank and realign the stream to correct the immediate infrastructure problems and reduce the chance of having them recur. The completion of the stabilization project prevented sediment from causing habitat problems downstream and provided improved habitat for fish and wildlife on site.

## Public Access

Providing public access to natural resources is a key regional program. During 2010-11 work advanced on development of three important sites providing fishing access to Lake Ontario: Mud Bay (essentially complete), The Isthmus, near Point Peninsula, and Three Mile Bay on Chaumont Bay.

## Public Outreach

Regional outreach efforts included outdoor expos, conservation field days, environmental awareness days, fishing clinics, Envirothon and Earth day events which reached thousands of anglers, students and families throughout the region.



## 2010-11 Region 6 Fisheries Staff

Frank Flack	Biologist 2 (Ecology)
Russ McCullough	Biologist 1 (Aquatic)
Rodger Klindt	Biologist 1 (Aquatic)
Chris VanMaaren	Biologist 1 (Aquatic)
Dick McDonald	Biologist 1 (Aquatic)
Dave Erway	Biologist 1 (Aquatic)
Dave Gordon	Fish & Wildlife Technician 2
Les Ressiguie	Seasonal Fish & Wildlife Technician 1
Nicole Balk	Seasonal Fish & Wildlife Technician 1
Dan Ellis	Seasonal Fish & Wildlife Technician 1
Travis Rice	Seasonal Laborer
Doug Carlson	Biologist 1 (Aquatic) ETS Unit



**Fall Sampling for 50-day Walleye Fingerlings in Otisco and Otter Lakes**

Night electrofishing was conducted in October along 2.1 miles of Otisco Lake shoreline south of the causeway, to determine the relative success of our spring 2010 stocking of 45,000 50-day old fingerling walleye. A total of 61 young-of-year (YOY) walleye were captured, providing a rough population estimate of 2,222 YOY walleye in the lake south of the causeway. Growth of these young walleye was outstanding with their average length being 8.5 inches. Overwinter survival of these walleye is expected to be excellent given their large size.

Night electrofishing was conducted in late October 2010 to evaluate the success of the initial stocking of 5,200 50-day walleye fingerling in Otter Lake. Five larger walleyes were collected during two hours of electrofishing but no young-of-year were observed. Also observed were largemouth bass, smallmouth bass, northern pike, black crappie, sunfish not identified to species, brown bullhead, common carp, golden shiner and bowfin.



**Whitney Point Reservoir Fall 2010 Walleye Assessment**

Night electrofishing was conducted at four standard sampling locations along the Whitney Point Reservoir shoreline to monitor year class strength of walleye. A total of 772 young-of-year (YOY) walleye (2010 year class) were captured in 3.5 miles of shoreline sampling. Based on this catch we estimated that 62,610 YOY walleye were present in the reservoir. This is the third highest estimate of YOY walleye abundance in the 15 years of sampling that has occurred since 1994. Growth of the 2010 year class was very good with an average length of 202mm (8 inches).

Twenty-six (26) yearling walleye (2009 year class) were also captured which provided a population estimate of 1,748 age 1 walleye. The population estimate for this year class as YOY in 2009 was 26,885 so survival between the two sampling events was just 6.5%. Past survival estimates between age 0 and age 1 at Whitney Point Reservoir have

ranged from 2% to 42%. Year classes with the lowest survival have generally been small as YOY. The 2009 year class followed this pattern and averaged just 154mm (6 inches) as YOY in October. It's likely that the surviving walleye were the largest individuals in the cohort (2009 range: 113–248mm) and the abundant food supply in 2010 enhanced growth of the survivors. Average size of yearlings in 2010 was 318mm (12.5 inches) which is the largest we've seen in the past six years.

**Susquehanna River Smallmouth Bass Assessment**

Several severe flood events in recent years along with multiple outbreaks of Columnaris bacteria infections in juvenile smallmouth bass since 2005 have raised concerns about the status of the river's bass population. Anglers have complained for several years that bass fishing, in some areas, has been poor. A boat electrofishing survey was conducted in September to compare the abundance of bass at two old sampling sites and to look for signs of Columnaris. Few fish were collected during an abbreviated sampling effort at Sandy Beach in Binghamton, but it is not clear whether this was a true reflection of low fish abundance or of problems experienced with the generator. Sampling conducted at the mouth of Nanticoke Creek in Endicott, yielded a catch of 50 smallmouth bass measuring between 96-458mm (4-18 inches). Of these bass, eleven were greater than or equal to the minimum length of 12 inches. The total catch of bass at this site was similar to previous years and the catch of legal bass was the highest in any of the surveys. Sampling results at Sandy Beach, though biased this year, seem to indicate problems with the bass population in this area. No bass captured at either site showed any signs of Columnaris infection.



**Cayuga Inlet Fishway Monitoring – Spring 2010**

Operation of the Cayuga Inlet fishway continued in spring 2010. A total of 583 rainbow trout were handled which was similar to the numbers handled during the past two years. Also handled were 4,407 white suckers and 1,190 sea lampreys. After processing, the rainbow trout and white suckers were passed over the fishway dam while the lampreys were killed to prevent them from spawning upstream. All rainbow trout handled at the fishway were examined for the presence of sea lamprey wounds. A total of twelve fresh wounds were observed on the 583 rainbow trout examined but only one wound was observed on the 75 rainbow trout in our primary index size of 500 mm to 549 mm (19.7 inch to 21.6 inch). The number of wounds observed was well below the threshold rate where we believe the lamprey population begins to impact trout and salmon survival (one wound per 10 rainbow trout in the index range).

### Finger Lakes Angler Diary Cooperator Program

Angler catch data for the 2010 fishing season on the four eastern Finger Lakes was summarized and letters were sent to participating cooperators. The summaries are available on the DEC website at [www.dec.ny.gov/outdoor/27875.html](http://www.dec.ny.gov/outdoor/27875.html). A brief summary of each lake follows. The catch of nearly one legal gamefish/trip at Otisco Lake was on the low end of average and a decline in both effort and catch of walleye was the primary factor. Otisco Lake bass and tiger musky catch rates were similar to other years. At Skaneateles Lake, the trout and salmon catch rate of 1.1 legal fish/trip was lower than recent years but close to the long term average. Rainbow trout comprised 57% of the Skaneateles Lake catch; lake trout made up 38% and landlocked Atlantic salmon comprised the remaining 5%. Average sizes of all species were the highest ever recorded. At Owasco Lake, lake trout comprised 98% of the trout catch and average size was 23.6". Only two rainbows and no brown trout were caught in the open lake fishery. Finally, at Cayuga Lake, the legal salmonid catch of 1.4/trip was similar to recent years. Lake trout comprised 78% of the legal catch, rainbows 4%, brown trout 8%, and landlocked Atlantic salmon 10%. Average size of all trout and salmon was similar to past years.



### Oneida Lake Joint DEC/Volunteer Cormorant Hazing Program

Federal funding for cormorant management on Oneida Lake was eliminated in 2010. In an effort to reduce cormorant predation during the fall migration, Region 7 Fisheries staff, Region 6 Wildlife staff, Conservation officers and citizen volunteers worked cooperatively to conduct harassment activities on the lake. The program came together quickly but by all accounts was fairly successful. Fortunately, high numbers of cormorants were never present during the September effort but in total approximately 5,000 cormorants were counted and harassed. Overall the program provided a valuable lesson on how to effectively conduct similar efforts in the future, if needed.



#### 2010-11 Region 7 Fisheries Staff

Bishop, Dan	Biologist 2 (Aquatic)
Lemon, Dave*	Biologist 2 (Aquatic)
Robins, Jeff	Biologist 1 (Aquatic)
Prindle, Scott	Biologist 1 (Aquatic)
Everard, Jim	Biologist 1 (Aquatic)
Blackburn, Ian	Fish & Wildlife Technician 2
Richardson, Denise	Fish & Wildlife Technician 1
Boyden, Eric	Fish & Wildlife Technician 1
Heider, Althea	Secretary

\*Replaced Bishop upon his promotion to Natural Resources Supervisor



## Great Lakes Research

### *Irondequoit Bay Fish Community Assessment*

A survey was conducted from September 20 to 23, with the purpose of assessing the overall fish community and the success of DEC-stocked fingerling walleye. Two thousand twenty one individual fish of 18 species were collected from six gill net sites (336.8/net), including four game and eight pan fish species. The game fish catch consisted of 78 walleyes (13.0/net), seven northern pike (1.2/net), one largemouth bass, and three brown trout. Many walleyes were collected in the 15.75-17.75 inch range, which are likely age 2, suggesting good growth and survival of fingerlings stocked in 2008. These fish should be legal sized (>18 inches) by next year and should provide good walleye fishing for the next several years. In order of abundance, the pan fish catch consisted of white perch, yellow perch, and gizzard shad. Age determination and analysis of the data and comparisons with previous surveys will be done at a later date.

## Warm Water Fisheries Management

### *Honeoye Lake Electrofishing Survey*

Honeoye Lake was electrofished on May 11 and 18. The primary target was largemouth bass. Catch rate for largemouth bass was 95 per hour. This is a very high catch rate and is similar to past surveys. Forty-one percent of the largemouth bass sample consisted of fish in the 12 to 15 inch size range. A few bass exceeding five pounds were also collected. Anglers participating in the region's cooperative diary program also had excellent catch rates for bass last season, averaging 3.9 bass per hour. Honeoye Lake continues to provide an excellent largemouth bass fishery. Data from this survey will be further analyzed and compared to past surveys to determine if any major changes have occurred since the early catch and release bass season was opened.



## Cold Water Fisheries Management

### *Experimental Sea Lamprey Barrier Installed*

An experimental sea lamprey barrier was installed in Catharine Creek in an attempt to eliminate approximately 6 miles of sea lamprey spawning habitat. The perforated stainless steel barrier was attached to the farthest downstream "pool digger", an in-stream structure that is designed to stabilize the stream bed, provide resting and nursery areas for rainbow trout, and provide access to anglers. Catharine Creek, the main tributary to Seneca Lake, is one of two major sea lamprey producing streams for Seneca Lake. Sea lamprey, a parasitic fish that attaches to trout and salmon as well as a host of other fishes and sucks out their fluids, have been shown to negatively impact native lake trout, naturalized rainbow trout, and introduced Atlantic salmon and brown trout in Seneca Lake. High water during the spring of 2011, did not allow for the evaluation of the effectiveness of the barrier in control lamprey passage. Staff plan on observing nesting activity of adult sea lamprey in the future to help determine if this barrier is successful.



## Cold Water Fisheries Management (Rivers) Wild Trout Surveys

Region 8 Fisheries Unit completed electrofishing surveys on 105 streams in 2010. The majority of the streams were in the Chemung River Basin, Chemung and Steuben Counties, with a few streams in the Oswego River and Genesee River drainages, Ontario and Livingston Counties. Trout were collected in 48 streams. Twenty six brook trout, eleven brown trout, two rainbow trout, and nine brook and brown trout streams were identified. Wild trout were documented for the first time in 31 streams. These streams will be added to a list of streams that qualify for reclassification.



## Seneca Lake Sea Lamprey Control Program

Region 8 staff along with Bureau Chief Phil Hulbert met with staff from the United States Fish and Wildlife Service (USFWS) to discuss a joint effort in the control of Seneca Lake's sea lamprey. Department staffing changes have resulted in challenges to maintain the technical expertise needed to safely and efficiently perform complicated treatment plans within the Finger Lakes Sea Lamprey Control Program. As a result of this meeting, USFWS have agreed to assist the Department by providing equipment and experienced staff needed to complete the Catharine Creek stream treatment. Department staff will work jointly with USFWS staff by acquiring necessary permits and other preliminary pre-treatment requirements to meet all State regulations as well as providing the skilled staff necessary to perform the actual treatment. This cooperation is a perfect example of leveraging resources to achieve resource protection.

## NEPA Approval for Sea Lamprey Control Program

The Finger Lakes Sea Lamprey Control Program received a big boost in November when Region 8's Fisheries Management Unit was informed that its application for a National Environmental Policy Act (NEPA) permit had been approved. The approval means several things for DEC and anglers in Seneca and Cayuga lakes. Federal Sport Fish Restoration funds will now be available to be used in future control efforts, including the purchase of lampricides and field and laboratory equipment. In addition to a new funding source, staff from the U.S. Fish and Wildlife Service's (USFWS) Lake Champlain Office have offered to assist with the next lamprey control treatment on Catharine Creek, scheduled for spring 2011.

The Region 8 Fisheries Management Unit is continually looking for ways to reduce the amount of chemical and staff time needed for these treatments. The inclusion of Federal monies and staff expertise within the Finger Lakes sea lamprey control program will enhance program effectiveness benefitting both anglers and the fishery resources they enjoy.

## Public Fishing and Boating Access

### *Black Creek Fishing Access Site (FAS) Renovation*

Repairs included the extension of the concrete pad to allow for safer and easier launching conditions at the Black Creek FAS located in Chili, Monroe County. This launch site provides angler access to quality northern pike, smallmouth bass, and walleye fishing on Black Creek and the Genesee River.

## Angling Outreach and Education

### *Fishing Rod Lending Program*

Three new libraries joined Dansville Public Library in the Region 8 Fishing Rod Lending Program in 2010. Under the program, poles and reels, purchased with funds from the Federal Sport Fish Restoration Act are supplied by the DEC. To provide educational material for the participants, the DEC teamed up with the New York State Environmental Conservation Officer Association (NYSCOA) and Shikar Safari to print copies of informative "Getting Started" fishing manual. In addition, Sport Fish Restoration Funds were used to obtain copies of the New York State Conservation's insert "Conservation for Kids - Fish". One of the unique features of the program is that each library is sponsored by a local organization, business, or individual(s) which takes on the responsibility of supplying the bobbers, hooks and sinkers, and keeping the equipment in working order.

The libraries and their sponsors include:

- 1) Dansville Public Library - Dansville Fish and Game Club. Rods were checked out 33 times for a total of 623 days, 19 adults and 38 children
- 2) Wood Library, Canandaigua - Clearly Aquatic Pond Service, Ultrafab Inc. and the Canandaigua Lake Duck Hunters Association. Rods were checked out 67 times on a three week basis.
- 3) Pulteney Public Library - Paul Schnipelsky, President, Board of Directors, and Donna Colvin. Rods were received late in year, yet five rods were checked out on weekly basis.
- 4) Woodward Memorial Library, LeRoy - Oatka Fish and Game Club. Rods were received too late in the year for any circulation in 2010.

## Western Finger Lakes Tributaries Rainbow Trout Sampling

On March 24, despite air temperatures in the mid to upper twenties, approximately 150 spectators showed up to watch the Region 8 Fisheries Unit sample the Naples Creek rainbow trout spring spawning run. Naples Creek is a tributary to Canandaigua Lake. Sampling conditions were fair with water temperatures in the upper thirties. Sixty five rainbow trout were collected with the largest being an 8.2 pound female. Very few of the females collected had spawned, and a large number of them were found in the lower portions of the stream.

Assessment of the rainbow trout spring spawning run on Cold Brook a tributary to Keuka Lake was completed on the following day. A total of 36 rainbow trout were collected, the highest number since 2000. Fish appeared to be in excellent condition, with the largest fish being a 6.7 pound female. Twenty-four of the fish collected were females, with only one fish ready to spawn. Fish were spread throughout the creek. In addition to the rainbow trout, several resident brown trout up to 20 inches were also collected, which should provide anglers an additional angling opportunity.

Results from both streams combined with a forecast for cool weather suggests that there will be plenty of fish in both streams for the opening day of trout season on April 1.

## Local High School Students Learn About Fisheries Management

For the ninth consecutive year, about 60 Environmental Studies students from four area high schools learned about fisheries management. Region 8 Fisheries staff cooperated with Delta Laboratories' Adopt-a-Stream program to provide hands-on demonstration of fisheries management techniques. Activities included a boat electrofishing demonstration and hands on opportunities in sampling water quality, benthic invertebrates, and seining fish. Student also learned about aging fish via scales and data interpretation.



### 2010-11 Region 8 Fisheries Staff

Web Pearsall	Biologist 2 (Aquatic)
Matt Sanderson	Biologist 1 (Aquatic)
Brad Hammers	Biologist 1 (Aquatic)
Peter Austerman	Biologist 1 (Aquatic)
Amy Mahar	Biologist 1 (Ecology)
Bob Deres	Fish and Wildlife Technician 1
Dan Mulhall	Fish and Wildlife Technician 1
Eric Olsowsky	Fish & Wildlife Tech (Seasonal)
Andy Steiner	Fish & Wildlife Tech (Seasonal)
Chris Mandrino	Fish and Wildlife Tech (Seasonal)



**DEC Fisheries/Forestry partner with conservation groups for tree planting efforts**

In spring 2010, Region 9 Fisheries staff coordinated with three local Trout Unlimited groups, a county highway department and a local university to plant over 3,200 shrubs and shade trees along public trout streams in the region. The shrubs, mostly streamco willow and red osier dogwood, have extensive root systems that help to hold stream banks in place and reduce erosion while the larger shade trees such as silver maple will eventually provide shading to help cool the streams. Between 2005 and 2010, volunteer conservation organizations have planted 12,600 shrubs and 3,750 shade trees in Region 9. DEC Fisheries staff also planted 1,570 shrubs and 725 shade trees during that six year period. These trees were provided by the DEC tree nursery in Saratoga, NY.

**Results of 2010 surveys to locate unknown wild brook trout populations in Western New York**

Beginning in June, 2010 and continuing through at least 2012, Region 9 Fisheries will be conducting trout surveys on streams not previously surveyed in the far western end of New York State. Some surveys will also be completed on streams that have historically held brook trout populations, but may have lost them due to land use changes, expansion of beaver populations or introductions of exotic trout species.

Many of the brook trout (and other wild trout ) populations may be found in streams that currently have a water classification that does not provide them with the fullest protection from disturbance. By documenting these populations, we will be able to offer these streams the fullest protection possible under Article 15 of ECL. During each survey where trout are found, an evaluation of threats to brook trout will be completed. These threats include impassable culverts and other barriers. Notes are also made of streams with potential for future habitat restoration work. Beginning in 2011, genetic samples of all brook trout will also be taken.



Results of field work in 2010 showed 66 sampling days producing 33 streams with only brook trout present, 31 streams with only brown trout present and 11 streams with mixed populations of both trout. A total of 386 streams were assessed, of which 101 were dry and 210 had fish, but no wild trout. At least one HUC 12 watershed was evaluated that will likely attain a status at the level of “population

reduced” (50-90% of system containing wild brook trout) or possibly even “population intact” (>90% containing brook trout). We have also sampled a few streams containing individual wild brook trout that are much larger than the average found in low fertility western New York streams. Several wild fish of 11-12.5 inches have been found. It is not clear whether these larger fish are due to low population densities or if they are fish with greater growth potential than normal.

**Fishing Hotlines**

Two regional fishing hotlines are updated every Friday to provide area anglers with pertinent fishing information. Together, the hotlines cover the major fishing waters of region 9 and the western half of region 8. Each fishing hotline is available on the DEC website at <http://www.dec.ny.gov/outdoor/fishhotlines.html> and each can also be heard at (716) 855-FISH. The Lake Erie Fishing Hotline webpage had a total of 5,988 visits during July and 37,296 visits, year to date, an increase of 10% over same span in 2009. The Western New York Fishing Hotline webpage had a total of 2,596 visits during July and 22,792 visits, year to date, an increase of 20% over the same span in 2009. The automated phone hotline received 1,845 calls in July and 9,658 calls, year to date.

**Common Carp collected for Cornell Fish Herpes Study**

Fisheries staff collected 60 adult common carp for Cornell University fish pathologists. The fish will be examined for the presence of antibodies for Koi Herpes Virus (KHV), a disease that killed thousands of carp in Chautauqua Lake several years ago. Cornell University was unable to detect antibodies for Koi Herpes Virus (KHV), from the Chautauqua Lake sample.



**Buffalo Harbor/Upper Niagara River Muskellunge Studies**

Region 9 Fish Unit Staff spent considerable effort preparing a report summarizing study results from 2008 and 2009 surveys for assessing young-of-year and adult muskellunge in the Buffalo Harbor and Upper Niagara River. The studies were conducted cooperatively by staff from



State University College of Environmental Science and Forestry at Syracuse (ESF) and DEC Bureau of Fisheries. ESF staff provided valuable review and input to the summary report. Federal Aid was used in part to fund these studies, and the report was prepared as a requirement for suc-

successful completion of the work. The results of our efforts to capture muskellunge via electrofishing during spring suggest that suitable habitat for juvenile (yearling and age-2) muskellunge are limited. Efforts to identify and protect critical spawning and nursery habitat will continue with annual young-of-year surveys.

**Lake Ontario Chinook Salmon Pen Project Assessment**

Region 9 Fish Unit staff compiled results of quality control data collected for a Chinook salmon pen project conducted in spring 2010 by Niagara River Anglers Association on the lower Niagara River. The quality control effort included assessments of fin clip quality, presence/absence of coded wire tags, and dissolved oxygen monitoring at the pen site during the three-week rearing period. Both fin clip quality and percent of fish with a coded wire tag were very high, and dissolved oxygen values in the salmon pen were more than adequate to sustain the salmon. The quality control data will be incorporated into an assessment that compares whether there are differences in performance between batches of pen-reared and direct stocked fish in the lower Niagara River, as part of a much larger assessment being conducted at a number of Lake Ontario pen-rearing sites.



**New Ice Fishing Access Site on Silver Lake, Wyoming County**

Utilizing a grant from the DEC Habitat and Access Stamp Fund, the Village of Perry recently improved a 20 car parking lot for use by ice anglers. Formerly, the only public ice fishing access to this 836 acre lake was located on the south end at Silver Lake State Park. This new access site is located on Walker Road at the northeastern end of the lake. The Village of Perry plows the lot as needed through the winter.



**McIntosh and Beehunter Creeks in Allegany State Park**

In mid-June 2010, with the help of angler volunteers, brook trout were sampled at 35 sites on McIntosh and Beehunter Creeks. This was the

third year of sampling to evaluate the habitat improvement work that DEC, TU, USFWS and Allegany State Park undertook on McIntosh Creek in July 2008. Habitat improvement activities consisted of 16 rock and log pool digging structures in a 1.5 mile section of the stream. Sampling began in June 2008 to evaluate the wild brook trout population before habitat work and four years (2009-2012) of post work sampling are planned. Beehunter Creek had no habitat work done and is used as our “control” stream for this project.

In our initial year of sampling (2008), before the habitat work, there were moderate numbers of adult wild brook trout, but essentially no reproduction with only one YOY found in McIntosh and 12 in Beehunter. We also found very low numbers of yearling trout. Almost the entire trout populations were made up of age 2 and 3 fish, with a couple fish that may have been 4 or 5 years of age. We fully expected to see fewer adults in 2009 as many of the adults we found in 2008 would have died naturally before the 2009 sampling. That is exactly what we saw. However, we were glad to see that the 2009 year class was very strong in both streams, indicating they had good spawning and rearing conditions.



In 2010, we anticipated much higher numbers of adults in both streams with the majority being yearlings. The numbers backed that up, with good numbers of adults (primarily yearlings) in both streams. In addition, we again saw good reproduction in 2010.

While the increase in abundance of adult wild brook trout in McIntosh Creek from 2008 to 2010 was statistically significant, we cannot say with confidence yet that this was due to the habitat work. A similar, but not statistically significant increase was also seen in Beehunter Creek from 2008 to 2010. Hopefully two more years of sampling will allow us to fully evaluate the success of this habitat improvement project.



**2010-11 Region 9 Fisheries Staff**

Paul McKeown	Biologist 2 (Aquatic)
Mike Clancy*	Biologist 2 (Aquatic)
Scott Cornett	Biologist 1 (Aquatic)
Joe Galati	Biologist 1 (Aquatic)
Mike Todd	Biologist 1 (Aquatic)
Mike Wilkinson	Biologist 1 (Aquatic)
Jim Zanett	Fish & Wildlife Technician 3
Rob Roth	Fish & Wildlife Technician 1
Eric Stratton	Fish & Wildlife Technician 1
Jon Sztukowski	Fish & Wildlife Technician 1

\*Replaced McKeown upon his promotion to Natural Resources Supervisor

**Inland Fisheries Section**  
**Bureau of Fisheries**  
**State of New York**  
 DEPARTMENT OF  
 ENVIRONMENTAL CONSERVATION

### Proposed Changes to Baitfish Regulations Available for Public Comment

As the 2010-11 year was about to end a Notice of Proposed Rule Making (NPR), containing proposed changes to the current “fish health-baitfish regulations”, was prepared and filed with the Department of State (on March 22, 2011). The NPR contains proposed changes to the overland transport of uncertified baitfish by anglers, including baitfish that are personally collected. The proposed revisions, if adopted, would allow for overland transport of baitfish within three specified transportation corridors, provided the baitfish are only used in the same waters from which they are collected. This would facilitate the use of baitfish by anglers while retaining protection against the spread of fish pathogens to additional waters. The 45 day public comment period was to be initiated on April 6, 2011 and expire on May 23, 2011. During the summer of 2010 three public informational meetings were held, including one in Tonawanda NY, to obtain public feedback concerning the proposed baitfish regulations. The input received was utilized in making decisions for the proposed rule making that was subsequently developed.

### Bureau Field Surveys Entered Into Statewide Fisheries Database

Data from a total of 1,635 fishery field surveys were received by the Bureau’s Biological Survey Unit during 2010-11. Approximately 659 Eastern Brook Trout Joint Venture surveys were conducted. A total of 1,094 surveys were finalized and added into the Bureau of Fisheries Statewide Database. Two “Releases” containing updated data were distributed, primarily to Regional Bureau of Fisheries staff; one in April 2010 and a second in September 2010.

### Sportfish Regulations for October 2012

Initial considerations for sportfish (freshwater) regulation changes were identified by the Bureau of Fisheries, as part of the early phase of the regulation process. At the end of the 2010-11 year, the Bureau was preparing to list these on the Department’s website for initial public feedback. Obtaining public feedback during this informal phase helps DEC gauge public interest and concerns about the proposed changes before developing regulations to implement the changes. A subsequent formal rule making will be developed in the Fall of 2011, and will include a 45 day formal public comment period.

Changes being considered include modifications to the current seasons, size limits, and creel limits on certain waters for popular game fish species such as trout, salmon, walleye, black bass, pickerel, muskellunge, and tiger muskellunge. Additional suggested changes pertain to ice fishing on certain waters, as well as for establishing specific gear requirements for certain angling practices. If adopted, regulation changes would become effective on October 1, 2012.

## Warmwater Fisheries Management

### Stocking evaluation of 50 day old walleye fingerlings

An experimental walleye stocking program, initiated in 2009, was continued using 50-day old tank raised fingerlings from Oneida Hatchery. Ten lakes throughout the northern, central and western regions of the state were stocked in June with about 260,000 1.5 inch long fingerlings. Waters stocked included Loon Lake in Region 5, Black, Red, and Payne lakes in Region 6, Otisco and Otter lakes in Region 7, and Red-house and Upper, Middle and Lower Cassadaga lakes in Region 9. The success of this program is being assessed through annual monitoring in the fall and with a full fish community assessment at the end of the five-year stocking schedule. Fall 2010 surveys documented the presence of stocked walleye at Loon and Otisco lakes.

### Ecology and Management of the Fish Communities in Oneida and Canadarago Lakes

Researchers at the Cornell Biological Field Station at Oneida Lake completed their annual assessment of the fish communities in Oneida and Canadarago Lakes. Funded by a Federal Aid to Sportfish Restoration grant, these monitoring projects are the longest running warmwater fishery assessments in New York State and continue to provide valuable insight on the complex dynamics associated with warmwater fish populations in large northern lakes.

#### Oneida Lake

The spring 2010 adult walleye population was estimated to be 498,000, which represents a 29% increase in the population since 2007. The adult population benefitted from a higher than expected contribution from the 2006 year class. However, early indications are that the 2007-09 year classes will provide fewer adult fish. The population of adult walleye should be stable over the next few years, but may experience declines without the addition of another large year class after the 2006 cohort.

The adult yellow perch population was estimated to be just under 1 million fish. This represents an increase from the 2009 estimate, but well below 2008. It is expected that yellow perch numbers will fluctuate around 1 million fish in the near future.

Walleye and yellow perch represented 52% of the total gill net catch in 2010. White perch were 34% of the catch. Catches of white perch in recent years suggest that they are as abundant as yellow perch in Oneida Lake.

In 2009 a new invasive species, *Hemimysis anomala* (bloody red shrimp), was discovered in the diet of a white perch collected during routine gill net sampling. Subsequent sampling revealed the organism is widely distributed in Oneida Lake. Continued monitoring of fish diets as well as a directed sampling effort produced only one individual in 2010, suggesting that winter conditions in Oneida Lake may constrain growth of the *Hemimysis* population. Continued monitoring will be necessary to see if this species can establish in the lake.

The monitoring program on Oneida Lake has recently been adjusted to account for the expansion of nearshore fish community habitat, which has resulted from increased water clarity due to filter feeding by zebra and quagga mussels. In 2010, shoreline fyke net sampling resulted in the capture of approximately 3,000 fish of 28 different species. The

most common species caught were yellow perch, pumpkinseed, bluegill, rock bass and gizzard shad. Fyke net sampling also has provided annual samples of species not typically seen in routine monitoring, including longnose gar, bowfin, yellow and brown bullheads, chain pickerel, sunfish, and black crappie. In 2011, a spring shoreline electrofishing survey will be implemented to supplement the nearshore fyke netting surveys.

### *Canadarago Lake*

Walleye natural recruitment was low or absent again in 2010. Fry sampling since 2005 has produced walleye fry in only two years, 2006 and 2008. Young of year walleye catches in electrofishing samples have been very low or zero for the past 5 years. These results are consistent with increased alewife predation on walleye larvae. Adult walleye electrofishing catches have decreased since 2007 and the lack of young walleye in the catches indicates that the population will continue to decline in the near future.

Yellow perch fry were abundant in 2005 and 2006, decreased dramatically in 2008, rebounded in 2009, but were low again in 2010. Near-term, the yellow perch population should remain at levels consistent with recent years.

Estimates of alewife abundance have steadily increased over the last 6 years and were at the highest level on record in 2010.

Zooplankton average size and biomass continued to decline, which is an expected trend with the increased density of planktivorous alewife. Water clarity was the lowest observed in 20 years, indicating that grazing of zooplankton by alewife is allowing increased algal growth, despite colonization of the lake by zebra mussels.

An acoustic survey of submerged aquatic plants was conducted in August. Vegetation coverage was sparse at shallow depths, increased to 80% at the 3-4 m depth contour, and decreased to less than 7% at depths greater than 7 m. Average plant height followed a similar pattern, with a maximum of 0.85 m at the 3-4 m depth contour. Coontail dominated the plant community followed by Elodea and pondweed. A similar survey is planned for Oneida Lake in 2011. Results will be used to predict changes in habitat and to relate habitat extent and structure with fish community composition obtained from expanded nearshore sampling.

## **Coldwater Fisheries Management**

### **New Coldwater Unit Leader Hired**

On December 31, 2010, Fred Henson was hired as Coldwater Unit Leader. Fred replaces Jim Daley who was promoted to Fish Culture Section Head. Fred has worked for the Bureau of Fisheries since 2000 when he was hired as an aquatic biologist in Region One. From 2004 through 2010, he worked at the Fish Disease Control Unit at the Rome Fish Hatchery. Fred earned a B.S. degree in natural resources at Cornell University and an M.S. degree in fisheries from the University of Minnesota.

### **CROTS Review & Fate of Stocked Trout Study**

In 2010, the Bureau of Fisheries began a statewide study to verify and update the key biological and fishery parameters used to calculate trout stocking rates under our Catch Rate Oriented Trout Stocking (CROTS) model in use since 1990. The study, conducted in partnership with the

Fish and Wildlife Cooperative Unit at Cornell University, will yield fresh estimates of angling effort, seasonal patterns of angling effort, harvest rates, and total mortality rates of stocked trout.

During the 12 month period ending on March 31, 2011, a steering committee composed of biologists from Cornell University and DEC met to select streams for inclusion in the study and to establish standard methods for conducting the required creel surveys and fish population assessments. These preliminary tasks were accomplished and creel agents were hired to begin collecting information on eight streams around New York State in April 2011. The following streams are included in the study for the 2011 field season: Carmans River, Esopus Creek, W. Branch Delaware River, Oriskany Creek, Big Creek, Otselic River, Meads Creek, and East Koy Creek.

### **Brook Trout Stream Status Surveys**

New York is one of 17 states on the eastern seaboard participating in the Eastern Brook Trout Joint Venture. The goal of this effort is to halt the decline of brook trout and restore fishable populations of this native trout. In support of this goal, DEC biologists are conducting stream surveys to determine the status of brook trout populations in watersheds where our information is outdated or absent. Ultimately, documentation of the presence of brook trout will confer legal protection on streams that may lack such protection now due to lack of information. In addition, the information will also allow prioritization of habitat restoration projects.

In 2010, one thousand, one hundred eighty-five stream surveys were completed under this federally funded project. The surveys were done in DEC regions 4, 8 and 9. The presence of brook trout was documented in 441 streams; some of which had never been previously surveyed.

#### **Summary of EBTJV Surveys in Regions 4,8 &9**

Region	Streams Surveyed	Brook Trout Found
4	671	355
8	128	42
9	386	44

### **Delaware River Basin Gaging Stations Funded**

In order to assure the availability of data essential to the management of the highly productive trout fisheries in the tailwaters of New York City's Delaware River Basin reservoirs, a total of \$48,290 was committed to support the operation of U.S. Geological Survey stream gages at the following locations:

- Diversion from Schoharie Reservoir
- Esopus Creek at Coldbrook
- East Branch Delaware River at Harvard
- West Branch Delaware River at Hale Eddy
- West Branch Delaware River at Hancock
- Delaware River at Lordville
- Delaware River at Callicoon
- Neversink River at Bridgeville

These instruments, which transmit flow and temperature measurements

in real time, would otherwise be shut down. The data they collect are particularly important because of the exceptional value of the recreational trout fishery and because they allow monitoring of the biological effects of flow management plans which are frequently altered at the direction of the Delaware River Basin Commission. The data are available to the public at the following website: [http://waterdata.usgs.gov/ny/nwis/current/?type=sw&group\\_key=basin\\_cd](http://waterdata.usgs.gov/ny/nwis/current/?type=sw&group_key=basin_cd)

## Management of Rare & Endangered Fishes

### Mussel Distribution in the Southern Lake Ontario Watershed

The DEC has completed the second year of a five-year project to determine distribution, density and status of native freshwater pearly mussel species (Unionacea) in the Southern Lake Ontario watershed. Mussels stabilize streambeds, diversify stream bottom habitat, provide nutrients to other benthic (bottom dwelling) invertebrates, filter suspended solids and pollutants from water, and are considered indicators of ecosystem health. In spite of the ecological importance of freshwater pearly mussels, they are among the most imperiled groups of animals in North America.

In most of Lake Ontario's southern tributaries, the current status of freshwater mussels is unknown. Between 2009 and 2010, 154 sites in 40 streams and 12 Erie Canal sites between Brockport and Clyde were surveyed. Live mussels were found in 53% of surveyed streams, with New York State Species of Greatest Conservation Need (SGCN) confirmed in 28% of the streams. Spent (empty) shells were found in an additional 15% of streams. Evidence of mussels was found in 16 streams in which there were no previous mussel records. In these surveys, 20 native mussel species were observed; 17 of the 20 species were found live, including nine SGCN. Two species thought to be extirpated (no longer occurring in New York) in the surveyed areas, deer toe and liliput mussels, were found alive. In addition, the green floater mussel, a New York State threatened species was found.

Throughout the Erie Canal sites, native pearly mussels were found, as well as invasive bivalves such as zebra mussels, quagga mussels, and Asian clams. In Genesee River tributaries, species diversity and the number of SGCN present were greatest at sites where tributaries joined the Genesee River. For tributaries associated with Finger Lakes, the greatest mussel densities were found near lake outlets. The densest beds were dominated by common eastern elliptio mussels. Surveys of Rochester urban streams revealed high densities of only three common species.

Surveys continuing for 2011 through 2013 will focus on tributaries of the Finger Lakes, the Upper Genesee, and the Lake Ontario plains. All results from information collected in this five-year study will result in distribution maps, which will help guide future mussel conservation efforts.

### Lake Sturgeon Restoration

#### Propagation

DEC staff gill netted adult sturgeon near the Moses Saunders Dam in the St. Lawrence River at Massena in an effort to collect eggs and sperm for rearing at the Oneida hatchery. 124 sturgeon were collected in late spring. Eggs and sperm were collected from 3 female and 9 male sturgeon and the fish returned to the river. Unfortunately, the eggs from this year's collection effort failed to develop for the second year

in a row. Data about the collection procedure and the condition of the fish was collected and reviewed for clues to the cause of the failure. So far no cause is apparent and DEC is evaluating future lake sturgeon propagation options.

#### Stock Assessment

Collection and tagging of lake sturgeon in 2010 throughout the Eastern Lake Ontario and St. Lawrence corridor was highly successful. A total of 164 sturgeon were captured over a wide geographic range and 150 fish were PIT tagged. St. Lawrence fish received the bulk of the tags (84%); sturgeon in waters associated directly with Eastern Lake Ontario received the remainder (16%). Initial results from tag recapture data show that lake sturgeon are moving great distances where there are no barriers, but like to return to specific places during the year.

Assessment of the sturgeon population within the Oswego River basin continues through partnership with SUNY ESF, SUNY Oswego, and US Geological Survey. This year, federal State Wildlife Grant funds supported genetic analysis of the population established in Oneida Lake. The results indicated that these sturgeon display a healthy genetic diversity and may be suitable to use for as an egg source for the DEC hatchery once they mature. State Wildlife Grant funds also supported research on habitat quality and movement of sturgeon within the barge canal system. Results are anticipated to be available in 2012.

### Paddlefish Restoration

#### Propagation

Spring of 2010 was a banner year for paddlefish production at Oneida Hatchery. Eggs received from University of Kentucky researcher Dr. Steve Mims resulted in 1,600 paddlefish being stocked into western New York waters. Fish averaging 14 inches were placed into Allegheny Reservoir, Chautauqua Lake, and Conewango Creek.



#### Stock Assessment

A State Wildlife Grant funded project continues to track radio tagged adult paddlefish. In 2010 a female estimated to be about 11 years old was found to have eggs remaining in her abdomen. DEC researchers suspect that she may have attempted to spawn earlier in the summer of 2010. This is the first evidence of fertile female paddlefish in New York since the 19th century. Over 10,000 juvenile paddlefish have been stocked into the Allegheny River and reservoir system. Through the SWG project, DEC staff hope to demonstrate that paddlefish have been successfully restored as a self-sustaining species in NY. In 2010, apparently wild-spawned juvenile paddlefish were observed at the head of Allegheny Reservoir, but staff were unable to capture any to verify whether or not they had implanted tags. DEC staff will continue to track radio tagged fish and attempt to capture young-of-year fish observed to document natural reproduction. The results of the paddlefish restoration evaluation project are expected in 2012.





**Sportfishery Monitoring**

Each year from April through September, the Lake Ontario Research Unit conducts the Lake Ontario fishing boat survey at 30 access channels from the Niagara River in the west to the Association Island cut in the east. The survey tracks a multitude of trends in the open lake sportfishery, including angler effort, catch and catch rates, harvest and harvest rates, performance of stocked fish, and fish growth/condition. Lake Ontario fishing quality is best characterized by the number of trout and salmon caught per hour of active fishing (catch rate). In 2010, the catch rate for all trout and salmon combined was the second-highest observed since this survey began in 1985. In fact, 5 of the 6 highest combined catch rates were recorded between 2003 and 2010 (Figure 1). These exceptional catch rates are largely due to record or near record-high catch rates in recent years for Chinook salmon, rainbow trout (steelhead), and coho salmon. While fishing quality has been exceptional, angler effort (number of fishing boat trips) has not increased. (Figure 2)

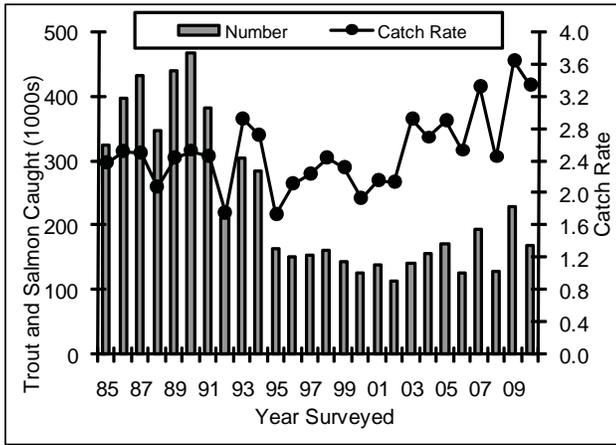


Figure 1. Total trout and salmon catch (bars) and catch rate (line/dots) for boats seeking trout and salmon, 1985-2010.

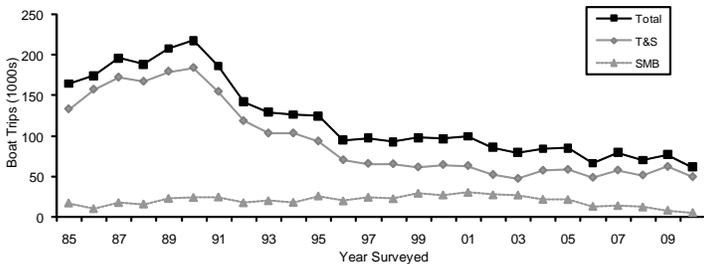


Figure 2. Seasonal estimates of total fishing boat trips, trips targeting trout and salmon (T&S), and trips targeting smallmouth bass (SMB) during the traditional open season (3<sup>rd</sup> Saturday in June-September 30 when the survey ended).

**Preyfish Monitoring and Predator Growth/Condition**

With over 5 million trout and salmon stocked annually into Lake Ontario by New York State and the Province of Ontario, it is important to monitor the abundance of bait or preyfish that trout and salmon predators feed on, as well as growth rates and condition of predators (also see Sportfishery Research). Partnering with USGS and OMNR, the LOU monitors relative abundance of alewife, rainbow smelt, sculpins, and round gobies. Alewife populations are of particular concern, as they are the primary food for Chinook salmon, the top predator in the lake. In 2010, adult alewife abundance declined to its lowest level since this survey began in 1978 (Figure 3). Abundance of age-1 or yearling alewife, however, increased markedly in 2010, contributing to increased growth of age-2 and 3 Chinook (Figure 4). Lake Ontario Chinook salmon continue to be the largest in the Great Lakes, and Lake Ontario predator demand in 2010 appeared to be in balance with available prey.

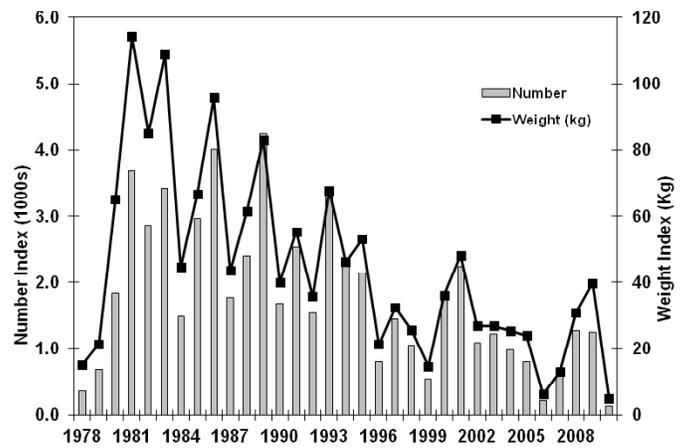


Figure 3. Abundance indices for adult (age-2 and older) alewife in the U.S. waters of Lake Ontario during late April-early May, 1978-2010. (1 kg = 2.205 lbs)

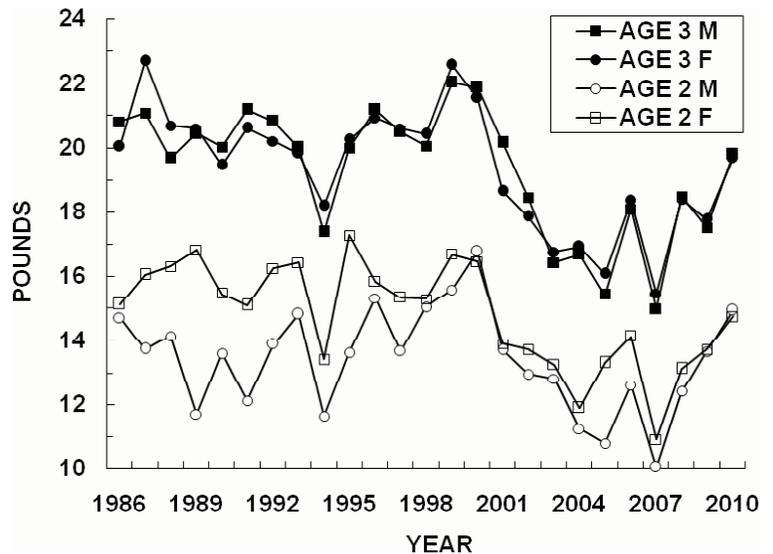


Figure 4. Mean weights of Chinook salmon ages 2-3 at Salmon River Hatchery 1986-2010.

## Native Species Restoration

An international program to restore a naturally reproducing population of lake trout in Lake Ontario is ongoing. To measure progress, cooperative DEC/USGS bottom trawl (juveniles; July) and gill net (adults; Sept.) surveys are conducted annually at 14 sites from the Niagara Bar to Charity Shoals in the Eastern Basin. Catch of age-2 lake trout indicates survival remaining well below 1980s levels. While adult lake trout abundance increased for the 2nd consecutive year (following a record-low in 2007), abundance remains low due to continuing poor juvenile survival. On a positive note, survival of naturally produced lake trout to the fingerling stage in summer and fall occurred each year during 1993-2007.

Four species of deepwater cisco are considered extirpated from Lake Ontario, and the LOU has been collaborating with the OMNR, US-FWS, and the GLFC to re-introduce these fish into the lake. In February, LOU staff took delivery of deepwater cisco eggs collected in Lake Michigan for experimental rearing at the Cape Vincent Fisheries Station. On 13 April, approximately 7,000 embryos were transferred to OMNR's White Lake Fish Culture Station, where researchers are better trained and equipped to conduct necessary research on early life feeding/dietary requirements. Plans are underway to collect more deepwater cisco eggs in February 2012 in Lakes Michigan and Superior.

Two milestones in Atlantic salmon restoration were achieved in 2010: the discovery by USGS staff of naturally reproduced Atlantic salmon smolts in the Salmon River, and a record-high angler catch rate for the open waters of Lake Ontario. While the reasons for these phenomena are not yet known, DEC is currently changing the strain of Atlantic salmon stocked into the lake, and OMNR has also expanded strain composition and numbers of stocked fish.

## Warmwater Fisheries Assessment

Each year the LOU conducts index gill netting to assess the status of warmwater fish populations in Lake Ontario's Eastern Basin. In 2010, smallmouth bass catch remained well above the record-low levels experienced prior to Double-crested cormorant population management. Walleye abundance remains relatively stable, while yellow perch catch in 2010 was the second highest observed since 1984. Following a long period of low abundance, white perch numbers appear to be rebounding. At least one lake sturgeon has been collected in 12 of the last 16 years (4 in 2010), suggesting an increase in sturgeon abundance.

## Sportfishery Research

Using Occidental Chemical Corporation Natural Resources Damages funds, the Bureau of Fisheries purchased a \$1.3 million automated fish marking trailer in 2008 (Autofish - PICTURE). The Autofish system is capable of removing a fish's adipose fin and/or inserting a coded wire tag into the snout of the fish automatically at a high rate of speed and accuracy. Fin clipping and tagging give researchers tools to answer a variety of questions regarding the performance of stocked and wild fish. From 2008-2010, the Department and the OMNR "mass-marked" all Chinook salmon stocked into Lake Ontario with an adipose fin clip to determine the relative contributions of naturally reproduced ("wild") and hatchery stocked Chinook salmon to open lake and tributary fisheries. In recent years, high numbers of wild Chinook salmon in addition to stocked fish in Lake Huron are thought to have contributed to an imbalance between salmon and their primary prey, the alewife.

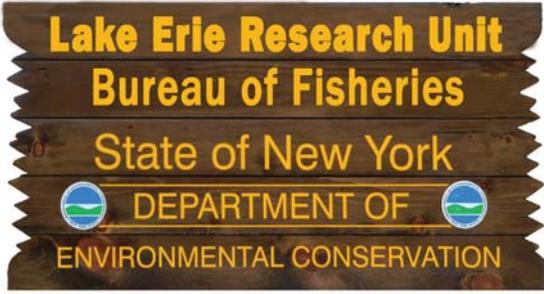
The imbalance led to greatly reduced growth and condition of Chinook salmon, and had substantial, negative impacts on sportfisheries. In 2010, 34.6% of age-2 (2008 year class) Chinook salmon harvested by anglers in the New York waters of Lake Ontario were wild. The 2008 year class resulted from very low water flow in the Salmon River during fall 2007. It is anticipated that future results may reveal much higher levels of Chinook natural reproduction from the Salmon River when water flows are more favorable during the spawning and egg incubation periods.



### 2010-11 Lake Ontario Research Unit Staff

Steve LaPan	Biologist 2 (Aquatic)*
Jana Lantry	Biologist 1 (Aquatic)
Mike Connerton	Biologist 1 (Aquatic)
Alan Fairbanks	Fisheries Research Vessel Captain
Gaylor Massia	Maintenance Assistant
Beverly Grant	Secretary 1 (retired 9/30/10)
Josh Fisher	Fish & Wildlife Technician 1
Tom Eckert	Fish & Wildlife Technician 1
Ron Harrington	Fish & Wildlife Technician 1
Joe Dallas	Fish & Wildlife Technician 1
Rich Chiavelli	Fish & Wildlife Technician 1
Ben Carson	Fish & Wildlife Technician 1
Emily Tucker	Fish & Wildlife Technician 1
Mike Siragusa	Fish & Wildlife Technician 1
Shane Grant	Seasonal Laborer

\* promoted to Biologist 3 10/18/2010

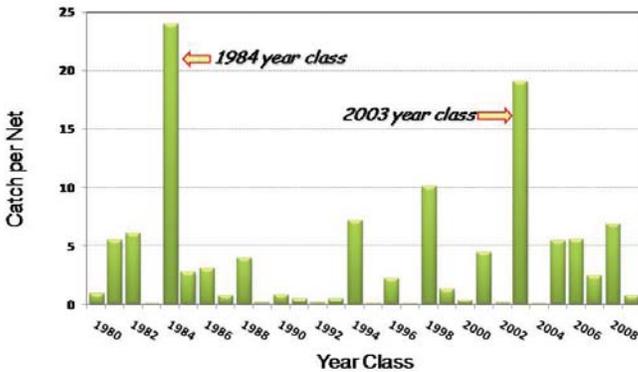


**Warmwater Fisheries Management**

*Walleye*

Lake Erie’s eastern basin walleye resource is composed of local spawning stocks, as well as contributions from summertime movements from western basin spawning stocks. The annual movement of western basin stocks is now well known via long-term tagging studies conducted throughout the lake. Walleye fishing quality in recent years has been mostly very good and largely attributable to excellent spawning success observed in 2003. However, the dominant 2003 year class has now begun to wane. Nevertheless walleye fishing quality was very good in 2011. Our most recent juvenile walleye surveys indicate average to good spawning success occurred from 2005 to 2008, but lower spawning success occurred in 2009, suggesting the decline of the adult population might somewhat moderate from the peak observed just a few years earlier.

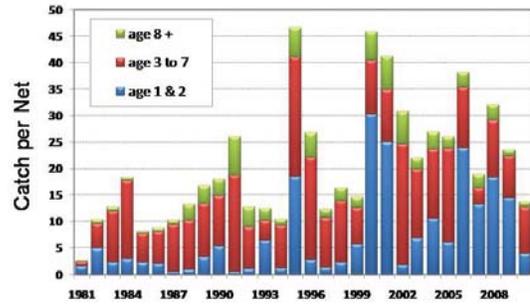
**Age-1 Walleye Index**



*Smallmouth Bass*

Lake Erie supports New York’s, and perhaps the country’s, finest smallmouth bass fishery. Generally stable spawning success, coupled with very high growth rates and good survival to old ages, produces high angler catch rates and frequent encounters with trophy-sized fish. However, the most recent bass monitoring program has found smallmouth bass abundance measures trending downward to slightly below long-term abundance levels, with recruitment to the adult population expected to be near average during the next few years.

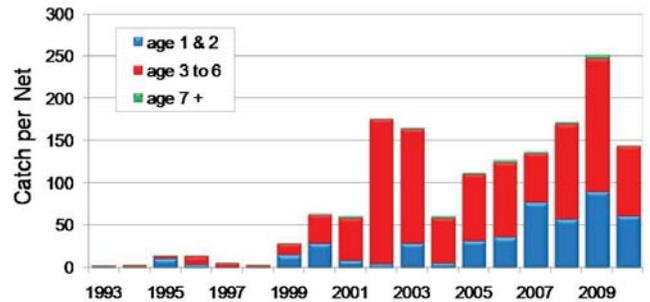
**Smallmouth Bass Index**



*Yellow Perch*

Lake Erie’s yellow perch resource has experienced wide oscillations in abundance over the last 30 years, from a low ebb in the mid-1990’s, to an extended recovery over the last decade. A large adult population continues to produce good angler catch rates especially during spring and fall seasons. Measures of juvenile perch abundance from 2005 to 2008 were especially high, below average during 2009, and near average in 2010. Overall, this pattern of recruitment suggests the recent large and more stable abundance of yellow perch will extend at least another few years.

**Gill Net Catches of Yellow Perch**

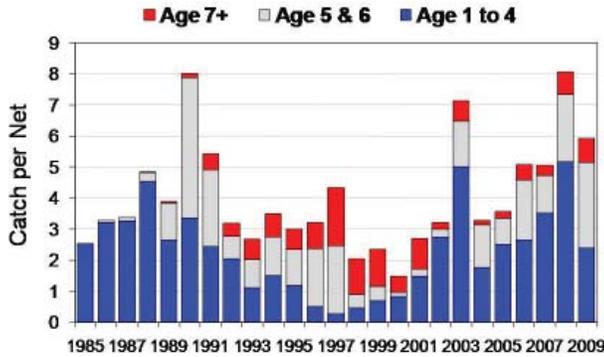


**Coldwater Fisheries Management**

*Lake Trout*

Rehabilitation of a self-sustaining lake trout population in the eastern basin of Lake Erie continues to be a major thrust in New York’s Great Lakes coldwater fisheries management program. Lake trout have been stocked annually since 1978 and assessment programs monitor the status of progress. A revised lake trout rehabilitation plan was completed in 2008 and will guide future recovery efforts. Abundance of lake trout in the New York waters of Lake Erie has been slowly increasing since 2000 and has reached the levels found in the 1990s. However, lakewide abundance remains well below targets. Adult abundance (age 5+) also continues to increase, mainly due to successful recruitment of Klondike strain lake trout to this age category. Additional stocking and effective sea lamprey control are needed in order to build adult lake trout populations to levels where natural production is a possibility.

### Gill Net Catches of Lake Trout

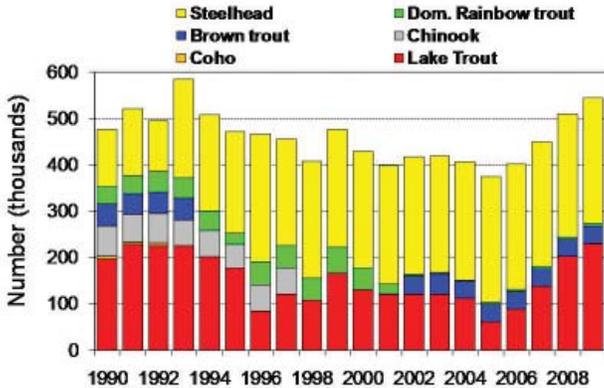


### Steelhead and Salmonid Stocking

New York annually stocks around 270,000 steelhead and 35,000 brown trout into Lake Erie and its tributaries to provide recreational opportunities for both lake and stream anglers. Tributary angling for steelhead, assessed through an angler diary program, continues to show excellent fishing with average catch rates exceeding 0.50 fish/hour. Wild reproduction of steelhead also occurs which contributes to the fishery as well. Juvenile assessment programs conducted since 2001 confirmed substantial numbers of young-of-year steelhead present in the fall on many tributaries. Pre-passage monitoring is occurring on Chautauqua Creek in anticipation of a fish passage project that will hopefully improve natural reproduction in this stream. Fishing quality is expected to remain good in the near future.

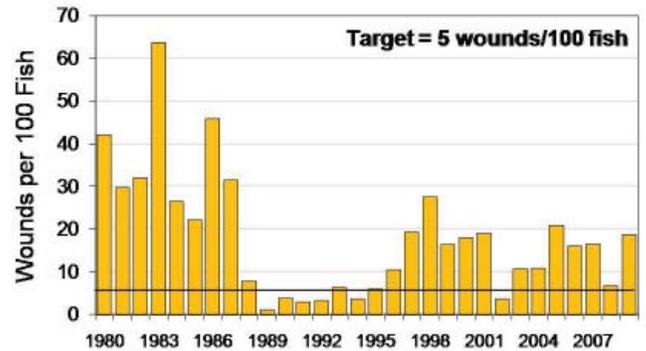
### Sea Lamprey

### Trout & Salmon Stocking in NY



Sea lamprey invaded Lake Erie and the Upper Great Lakes in the 1920s and have played an integral part in the failure of many native cold-water fish stocks. Sea lamprey control in Lake Erie began in 1986 in support of lake trout rehabilitation efforts, and regular treatments are conducted to control lamprey populations. Annual monitoring consists of observations of sea lamprey wounds on lake trout and other cold-water fish species, and nest counts on standard stream sections. Both wounding rates and nest counts increased substantially in 2009 compared to 2008, indicating that the Lake Erie sea lamprey population is increasing. Back-to-back lampricide treatments of all key Lake Erie tributaries began in 2008 and continued in 2009. These treatments are expected to reduce sea lamprey wounding to below target levels beginning in 2010.

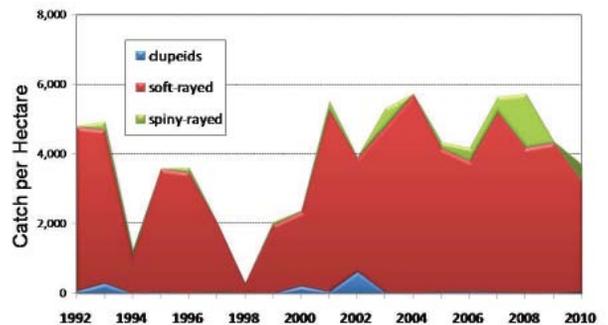
### Sea Lamprey Wounding Rate on Lake Trout >21 inches



### Prey Fish

The Lake Erie Unit also participates in a number of investigations to assess forage fishes and other components of the lake ecosystem. These investigations include trawl and sonar surveys of prey fishes, and predator diet studies. A variety of prey fish investigations beginning approximately 19 years ago found rainbow smelt as the dominant component of the open lake forage fish community. Through more recent years there has been a notable increase in prey species diversity accompanied by somewhat lower smelt abundance. Through recent years especially high abundances of round gobies and emerald shiners were encountered in both prey fish collections and predator diets. However, the most recent 2010 surveys found overall prey fish abundance trending somewhat downward, and particularly the contribution by gobies has declined in trawl surveys. Over time we expect these investigations to be useful in furthering our understanding of factors shaping the fish community.

### Trawl Catches of Prey Fish



### 2010-11 Lake Erie Research Unit Staff

- |                    |                                   |
|--------------------|-----------------------------------|
| Don Einhouse       | Biologist 2 (Aquatic)             |
| Jim Markham        | Biologist 1 (Aquatic)             |
| Doug Zeller        | Fisheries Research Vessel Captain |
| Brian Beckwith     | Fish & Wildlife Technician 2      |
| Rich Zimar         | Fish & Wildlife Technician 2      |
| Ginger Szwejbka    | Secretary 1                       |
| Mark Dusablon      | Fish & Wildlife Technician 1      |
| Carrie Ann Babcock | Fish & Wildlife Technician 1      |
| Paul Andrews       | Fish & Wildlife Technician 1      |
| Kyle Nemecek       | Fish & Wildlife Technician 1      |



**Angler Education**

***In-School Fishing Education Programs***

Two hundred seven formal education programs were conducted between April 1, 2010, and March 31, 2011, in DEC Regions 1, 2, 7 and 9. Of those, there were 194 in-school programs and 13 County Conservation Days where schools come to go through environmental programs in a round robin fashion. Most of those programs, 177, were done in DEC Region 2 (NYC). A total of 8,335 contacts with school kids were generated from these programs, including 5,934 in-school contracts and 2,401 contacts at County Conservation Days.

***Fishing Clinics/Festivals***

One hundred forty eight non-formal fishing education programs were conducted between April 1, 2010, and March 31, 2011, including 14 fishing festivals, 64 fishing clinics, 53 fishing clinics at summer camps, and 17 fishing clinics at campgrounds. Twenty three of these events were held in conjunction with a free fishing day or designated as a free fishing event. At those 148 fishing events, 12,037 people were reached, including 3,630 at fishing festivals, 5,484 at fishing clinics, 2,473 at summer camps and 450 at campgrounds. People attending fishing festivals generally received little to no fishing education, although there were usually seminars available to those who desired to learn more about fishing. People attending fishing clinics generally received between 30 to 60 minutes of fishing education followed by an opportunity to fish.



***Library loaner rod program***

Loaner fishing rods were made available in eight Capital District and Rochester area libraries. Of the eight libraries, two received rods too late in the season to loan any out. Four of the remaining six libraries reported loaning out 143 fishing rods between April 1, 2010, and March 31, 2011.

**Fisheries webpages**

One hundred forty new fisheries web pages were posted on the NYS-DEC website during the grant period. Most of these were Places to Fish pages (81 pages) and Biologist Reports pages (43 pages). In addition, 41 new fisheries PDFs were added to the website. In order to serve our website visitors more effectively, the main fishing page (<http://www.dec.ny.gov/outdoor/fishing.html>) was redesigned on January 11, 2011, to provide quick links to fishing content. This should result in



more page visits on those quick linked pages. The fishing regulations page (<http://www.dec.ny.gov/outdoor/7917.html>) was also modified to make it easier to look up fishing regulations. An evaluation of the number of page visits will be used to determine the effectiveness of the main fishing page redesign.

**Direct Mail Marketing of Fishing Licenses**

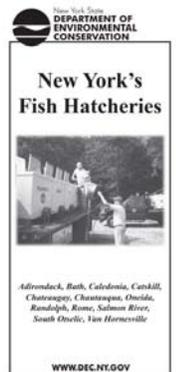


New York continued its involvement in this cooperative effort managed by the Recreational Boating and Fishing Foundation to remind anglers to renew their fishing licenses. On May 27, 83,000 postcards were mailed out to lapsed anglers and 2009 program respon-

dents. A second postcard was mailed to non-respondents on July 13. Each postcard included creative graphics and messaging designed to encourage anglers to renew their fishing license. Concurrent with this direct mail effort was a radio, print and on-line advertising campaign. The 12.5% overall response rate was the highest recorded for the three years this program has been conducted. New York's lift was 0.59, slightly above the national average of 0.52. Overall, the program resulted in the sale of 9,730 licenses for a total of \$241,850 in license sales revenue. The direct mail component of this program contributed \$11,335.

**Fish Hatchery Brochures Reprinted**

The general brochure covering all of the DEC fish hatcheries and individual brochures for each of the 12 DEC fish hatcheries were updated and printed. A total of 25,000 copies were printed through the Office of General Services (OGS). The publications discuss the unique operations and the fish raised at each facility and are very popular with visitors to DEC fish hatcheries.



**Raquette River “Crusher” Boat Launch Rehabilitation**

This popular Franklin County boat launch was reopened in June after being completely rehabilitated. A new launch ramp was installed, along with a new floating boarding dock. A separate access point for canoes and kayaks was developed to avoid conflicts with the launching of trailered boats. Parking areas and the entrance drive were regraded and paved with a crushed stone blend. The failing bulkhead was removed and a natural shoreline was reestablished using native stone and plantings.



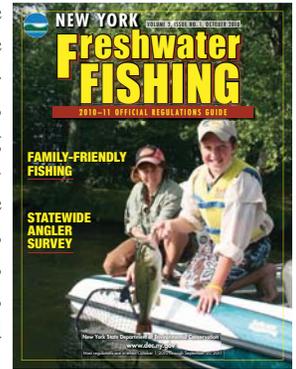
**Kiosk Displays Installed**

In a continued effort to improve the availability of information of interest to anglers and boaters, new interpretative displays were installed at the the Coeymans (Hudson River) and Crusher (Raquette River) boat launch sites. Content on the panels included information on fish species present, a map of the water body, invasive species, a historical background and fishing regulations. Each panel is designed using a template, giving the display a more cohesive look. Two panels were also created for the newly constructed South Bay Fishing Pier that inform anglers what species they can catch and fishing regulations for Lake Champlain.



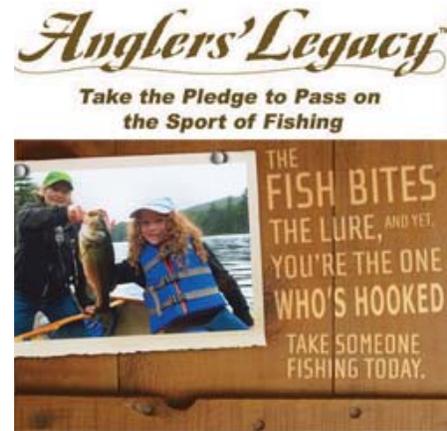
**2010-11 Fishing Regulations Guide**

The fishing regulations guide was increased from its former 5.25” x 7.25” size to 8” x 10.5” in an effort to increase advertising revenue and reduce overall production costs. The larger guide also allowed the font size to be increased to improve legibility. The 2010-11 guide had a youth/family fishing focus and featured articles on beginning fishing techniques and family-friendly fishing locations in New York. 750,000 guides were printed and distributed to license agents across the state. Although some anglers prefer the smaller size, a survey of anglers attending a major sports show indicated that this opinion was far from unanimous.



**Angler Legacy in New York**

Angler Legacy is a cooperative venture between DEC and the Recreational Boating and Fishing Foundation to encourage anglers to introduce others to the sport. New York currently ranks 5th in the country in the number of people who have taken the Angler Legacy pledge. Recent research noted that Angler Legacy Ambassadors introduced 3.3 youth and 4.2 newcomers to the sport of fishing, an increase of 73% and 68% respectively, over non-Ambassadors. Anglers interested in taking the pledge should go to [www.dec.ny.gov/outdoor/fishing.html](http://www.dec.ny.gov/outdoor/fishing.html).



**Angler Achievement Awards Program**

The Angler Achievement Awards Program received 167 entries in 2010. Over 70% of the entries were entered into the Catch and Release Category, indicating that most anglers choose not to harvest their catch. Largemouth and smallmouth bass proved to be a popular species to fish for, taking up almost half of the entries received. State records remained unbroken in 2010.



**2010-11 Public Use Staff**

- |                   |                              |
|-------------------|------------------------------|
| Edward Woltmann   | Biologist 3                  |
| Gregory Kozlowski | Biologist 2                  |
| Joelle Ernst      | Biologist 1 (Aquatic)        |
| Michael DiSarno   | Fish and Wildlife Technician |



### **Hatchery Infrastructure Improvements**

#### ***Adirondack Hatchery – Lighting Upgrade***

Subcontractors for National Grid replaced nearly all the original lights in the production areas of Adirondack Hatchery with energy efficient fluorescent lighting. Motion sensors were installed in appropriate areas of the hatchery buildings to further improve energy efficiency. This project was funded through Nation Grid's Small Commercial Lighting Program and DEC Division of Operations. There was no charge to the Bureau of Fisheries, Fish Culture Section. The new fluorescent lights are expected to save \$7,500 per year in energy costs and improve lighting levels and quality.

#### ***Bath Hatchery – Flow Meter Installed to Meet SPDES Permit Requirements***

The Bath Hatchery has three spring sources which feed the fish rearing units. These are the Main Spring Pond, Creek Spring, and Butternut Pond Spring. The Butternut Spring did not have a flow meter installed on it and therefore was in violation of our SPDES permit. During the fall of 2010 the flow from the Butternut Pond was diverted so that it flows into the Fountain Building. The Fountain Building is an aeration building which receives the flow from the Main Spring Pond. This project accomplished two things. It allowed us to measure the combined flow of both springs and also gave us more flexibility with the Butternut Spring water. In the past the Butternut water could only be used in one series of ponds. Now it can be used to feed all the units in the hatchery.

#### ***Chateaugay Hatchery – Fuel Tanks Replaced***

In 2010 Chateaugay Hatchery replaced three old and deteriorating 275 gallon fuel tanks with new double paneled tanks that were installed with alarms. The alarms are precautionary measures that are activated in case of over fill and leakage. A 1,000 gallon tank was also unearthed and removed. It was replaced with a 1,000 gallon above ground tank with the same alarm system installed to reduce the possibility of spills.

#### ***Caledonia Hatchery – Traveling Screen Replaced***

Caledonia Hatchery uses a "traveling screen" to trap debris that enters the hatchery via the intake water line from Spring Creek. If debris isn't trapped and removed it could rapidly plug pond screens and prevent proper water flow through the hatchery. The old screen was deteriorating and needed frequent repairs to keep it functioning.

#### ***Rome Hatchery – New Rearing Building and Visitor Center***

A new rearing building/office/visitor center at Rome Hatchery is nearly complete. This past fall, brown trout and brook trout eggs were hatched

in the new building and presently fish are being raised in the raceways. The office area is now occupied by hatchery staff and the conference room has already been used for meetings and health and safety training classes. Displays at the visitor center are being developed by the Outreach Section and will soon be completed so the public will have insight into our fish culture programs.

#### ***Rome Fish Disease Unit – New Dissection Trailer Installation***

A trailer was purchased to serve as a necropsy and disease testing lab for the Rome Fish Disease Control Unit. The trailer will be sited on Fish Hatchery property but away and downstream from existing production ponds so that harmful pathogens will not be transmitted from fish samples taken from off site locations. Late last fall a new sewer line for the dissection trailer was installed via directional drilling under State Route 46 which runs adjacent to Rome Hatchery. A poured concrete pad and water, sewer, and electric connections are planned for 2011-2012.

#### ***Salmon River Hatchery – New Water Supply Well***

Production at Salmon River is currently limited in part due to an insufficient supply of water. A hydro geological survey was conducted during the spring of 2010 to locate a water source to enhance the hatcheries water supply. From this survey, four sites were found to have a high potential for water. A test well was drilled at the location with the highest potential. The test well has been monitored and it has been producing acceptable quantities of water. Full development of this well is planned for 2011-2012.

### **Experimental Evaluations**

#### ***Thiamine Water Hardening Experiment***

A thiamine water hardening experiment was initiated during the wild rainbow trout egg collection at the Cayuga Inlet Fishway. Early Mortality Syndrome (EMS) has caused mortality in rainbow trout fry in the past and has been associated with a thiamine deficiency in the eggs. This experiment will determine the correct concentration of thiamine that can be used on the eggs during the water hardening process. By using the correct concentration of thiamine it is hoped EMS can be eliminated. The experiment will be under the direction of George Ketola of the Tunison Laboratory of Aquatic Science in Cortland.

### **Fall Egg Takes**

#### ***Windfall Heritage Strain Brook Trout***

Egg collection of the Windfall heritage strain of brook trout took place on October 26 and 27 in Mountain and Black Ponds. Three personnel from South Otselic Hatchery assisted the Region 5 Fish Management Unit in the egg collection process. A total of 50,000 eggs were collected over the two day period. The eggs were transported to the South Otselic Hatchery. The fish from these eggs will be stocked in selected waters under the Adirondack Heritage Strain Brook Trout Management Program.

#### ***Lake Trout From Cayuga Lake***

The annual Cayuga Lake egg collection of lake trout eggs began October 4, 2010 at Taughannock Point on Cayuga Lake. For the next three days eggs were collected for a total of 424,000 eggs. Of this total, 363,000 eggs were used for lake trout production while 61,000 eggs

were fertilized with brook trout to produce splake eggs. The eggs were transported each day to Bath Hatchery. The egg collection was completed using personnel from South Otselic Hatchery, Oneida Hatchery, and Bath Hatchery. The lake trout hatched from these eggs will be stocked throughout the state and the hatched splake will be released in the Adirondack Mountain region.

### ***Salmon River Chinook and Coho Salmon***

The annual Salmon River Fish Hatchery's chinook and coho salmon egg collection began on October 7 and October 15, respectively. The 6 day chinook egg collection resulted in 3.2 million eggs taken. For the coho egg collection, it took four days to complete with a total of 1.4 million eggs taken. The egg collection was completed using all personnel from Salmon River Fish Hatchery along with help from Oneida Fish Hatchery, Cape Vincent Field Station and the Region 6 Fish Management Unit. The salmon hatched from these eggs will be used in Salmon River Fish Hatchery's stocking program for Lake Ontario.

### ***Adirondack Hatchery – Landlocked Atlantic Salmon Egg Take***

745,000 total Atlantic salmon eggs taken; 620,000 from captive broodstock and 125,000 taken from broodstock in Little Clear Pond. The egg take target numbers were reduced due to staffing shortages, but enough eggs were taken to meet the needs of 2011 spring yearling stocking. Landlocked Atlantic salmon are stocked into many Adirondack waters, as well as the Finger Lakes and other selected waters around the state.

### **Spring Egg Takes**

#### ***Salmon River Hatchery***

Salmon River Hatchery's annual steelhead rainbow trout egg collection began April 4 and continued for the next three days. A total of 163,000 Washington strain and 129,000 Skamania strain eggs were collected. Target numbers for the egg collection were met and these numbers should be adequate to meet stocking numbers in future. All eggs have eyed and are doing exceptionally well. The fish hatched from these eggs will be stocked in tributary waters of Lake Ontario and Lake Erie. The egg collection was completed by personnel from Salmon River Hatchery and Oneida Hatchery.

#### ***Bath Hatchery***

An egg collection of wild rainbow trout from the Cayuga Inlet Fishway began with eggs being taken on April 8. They were also taken on April 15, 22, and 29. A total of 153,500 wild rainbow trout eggs were collected. There were also 24,600 hybrid (wild rainbows x domestic rainbows) rainbow trout eggs taken. The domestic rainbows used for fertilizing the eggs were from Randolph Hatchery. Target numbers for the egg collection were met and these numbers should be adequate to meet stocking numbers in the future. The fish hatched from these eggs will be stocked in Cayuga Lake, Owasco Lake, and Skaneateles Lake. The egg collection was completed by staff from Bath Hatchery and the Region 7 Fish Management Unit in Cortland.

## **Fish Disease Control**

### **Fish Health Testing Overview**

The NYSDEC Fish Disease Control Unit at Rome Field Station oversees the fish health program for the state. The fish health program includes disease surveillance of the DEC hatchery system and wild fish living in rivers, streams and lakes.



### ***State Hatchery Disease Testing***

Samples from all lots of fish stocked from DEC hatcheries were tested prior to stocking and no harmful fish pathogens were found. In all, 50 different lots of fish were tested from our 12 hatcheries, including both production fish and parental brood stock. No regulated fish diseases were found in any DEC hatcheries and the overall fish health is excellent.

### ***Wild Fish Disease Surveillance***

Wild fish health is assessed annually in a cooperative program with the USFWS and the National Wild Fish Health Survey. Fish from 30 locations were tested at either the DEC Rome Field Station or the USFWS Fish Health Center in Lamar, PA and no harmful fish pathogens were found. Locations included sites from all regions in the state and fish collections included cold water and cool water species.

## 2010-11 Fish Culture Staff

### CENTRAL OFFICE

Jim Daley	Fish Culturist 6
Dave Armstrong	Fish Culturist 5
Mary LaBoissiere	Secretary 1

### ADIRONDACK

Matt Jackson	Fish Culturist 3
Fritz Aldinger	Fish Culturist 1
Neil Cranker	Fish Culturist 1
Kenneth Klubek	Fish Culturist 1

### BATH

Ken Osika	Fish Culturist 3
Kelly Raab	Fish Culturist 1
Robert Sweet	Fish Culturist 2
Steven Robb	Fish Culturist 1

### CALEDONIA

Alan Mack	Fish Culturist 4
Kevin Hayden	Fish Culturist 2
Mark Krause	Fish Culturist 3
Jason Schirmer	Fish Culturist 1
Robert Stein	Fish Culturist 2
Brian Ward	Fish Culturist 1
Stephen Zenzen	Fish Culturist 1

### CATSKILL

John Anderson	Fish Culturist 4
Tim Anstey	Fish Culturist 1
Steve Galbreth	Fish Culturist 1
Joseph Gennarino	Fish Culturist 2
James Judson	Fish Culturist 1
Derek Weishan	Fish Culturist 1 (trainee)

### CHATEAUGAY

Neal McCarthy	Fish Culturist 2
Zachary Goodale	Fish Culturist 1
Adam Haley	Fish Culturist 1

### CHAUTAUQUA

Larry King	Fish Culturist 3
Eric Defries	Fish Culturist 2
Bradley Gruber	Fish Culturist 1
Ron Preston	Fish Culturist 1

### ONEIDA

Mark Babenzien	Fish Culturist 4
Bill Evans	Fish Culturist 2
Carl Rathje	Fish Culturist 3

### RANDOLPH

Richard Borner	Fish Culturist 3
Trevor Brady	Fish Culturist 1
Barry Hohmann	Fish Culturist 1
Raymond Hulings	Maintenance Assistant
Jim Rambuski	Fish Culturist 2

### ROME

Robert Lewthwaite	Fish Culturist 4
Kevin Balduzzi	Fish Culturist 1
John Draper	Fish Culturist 1
Steven Grabowski	Fish Culturist 2
John Gray	Fish Culturist 1
William R. Hajdasz	Maintenance Supervisor
Kimberly Matt	Keyboard Specialist
Jon Stercho	Fish Culturist 1
Scott Wanner	Fish Culturist 3
William Woodworth	Fish Culturist 2

### FISH DISEASE CONTROL

Andrew Noyes	Pathologist 2 (Aquatic)
Mark Batur	Fish Culturist 1

### SALMON RIVER

Andreas Greulich	Fish Culturist 4
Brian Boyer	Fish Culturist 1
Stephen Dolan	Fish Culturist 3
David Domachowske	Fish Culturist 2
Brian Edmonds	Fish Culturist 1
Karen Hurd	Keyboard Specialist
Robert Nelson	Fish Culturist 2
Casey Tabolt	Fish Culturist 1

### SOUTH OTSELIC

Patt Emerson	Fish Culturist 3
Thomas Kielbasinski	Fish Culturist 2
Bruce Ryan	Fish Culturist 1
Mike Speziale	Fish Culturist 1

### VAN HORNESVILLE

Larry Kroon	Fish Culturist 3
Craig DuBois	Fish Culturist 2
Lauren C. Watson	Fish Culturist 1

## Summary of Fisheries, Creel & Angler Surveys

Survey Name	Purpose
<i>Region 1</i>	
Connetquot (Tidal)	Fish Disease
Lake Ronkonkoma	Centrarchid
Fort Pond	Centrarchid
Hards Lake	Centrarchid
Massapequa Res	TSMP
Little River	Alewife
Horn Pond	Rare/Endangered Species
Little Horn Pond	Rare/Endangered Species
Unnamed	Rare/Endangered Species
<b>North Pond</b>	Rare/Endangered Species
Big Reed Pond	Fish Kill
Nissequogue T3	Fish Disease
Swan River	Fish Disease
Connetquot	Fish Disease
Peconic River	Rare/Endangered Species
Sandy Pond	Rare/Endangered Species
Dog Ponds	Rare/Endangered Species
Ronkonkoma	Water Chemistry/Plankton
Nissequogue River	CROTS
Unnamed water	Rare/Endangered Species
Lake Ronkonkoma	Percid Sampling
Fort Pond	Percid Sampling
Carmans River (Tidal)	Other - White Perch
Fort Pond	Percid Sampling
Lake Ronkonkoma	Percid Sampling
<i>Region 2</i>	
Meadow Lake (4/7/10 & 4/8/10)	Invasive Species Survey
Central Park Lake (4/21/10)	General Biological Survey
Bronx River (5/6/10)	General Biological Survey
Mt. Loretto Ponds (8/18/10 & 9/8/2010)	General Biological Survey
Willowbrook Pond (9/29/10)	General Biological Survey
Willow Lake (10/13/10)	Invasive Species Survey
Meadow Lake (10/14/10)	Invasive Species Survey
Prospect Park Lake (10/18/10 & 10/19/10)	General Biological Survey & Fish Disease Surveillance
<i>Region 3</i>	
Rio Reservoir	Walleye spawning assessment

## Summary of Fisheries, Creel & Angler Surveys

Survey Name	Purpose
<i>Region 3 cont.</i>	
New Croton Reservoir	Toxic Substances Monitoring Program
Titicus Reservoir	Trout Assessment Using Gill Nets
Esopus Creek (above Ashokan Reservoir)	Trout collection for radio tagging study
Catlin Creek	Northern snakehead eradication follow-up assessment
Hessian Lake	Toxic Substances Monitoring Program - Mercury
Rondout Reservoir	Trout Assessment Using Gill Nets
Kensico Reservoir	Trout Assessment Using Gill Nets
Titicus Reservoir	Centrarchid (bass and sunfish) assessment
Neversink River	Trout assessment
Esopus Creek (below Ashokan Reservoir)	Toxic Substances Monitoring Program - Mercury
Esopus Creek (above Ashokan Reservoir)	Trout population estimate/assessment
<i>Region 4</i>	
Kinderhook Lake	Centrarchid survey
Featherstonhaugh Lake	Centrarchid survey
Canadarago Lake	Centrarchid survey
Collins Lake	Centrarchid survey
Long Pond	Contaminant fish collections
Unadilla River	Warmwater river survey
Canadarago Lake	Percid gill netting survey
Schoharie Reservoir	Walleye gill netting survey
West Branch Delaware River	Trout population studies, fish health collection
East Branch Delaware River	Trout population studies, fish health collection
Manor Kill	CROTS survey
Bush Kill	Trout stream biological survey
Lisha Kill	CROTS survey
Tremper Kill	Trout stream biological survey
Sands Creek	Trout stream biological survey
Quacken Kill	CROTS survey
Read Creek	Trout stream biological survey
Cold Spring Creek	Trout stream biological survey
Cadosia Creek	Trout stream biological survey
Little Delaware River	Trout stream biological survey
Poesten Kill	CROTS survey
Delaware River	Snorkel survey
Stony Kill	CROTS survey
Batavia Kill Reservoir	Salmonid netting assessment
T16-Manor Kill	Loach investigations
1-137- Susquehanna River	Loach investigations
Humphries Brook	Trout stream biological survey
Otsego Lake	Salmonid netting assessment
Canadarago Lake	Walleye YOY fall survey

## Summary of Fisheries, Creel & Angler Surveys

Survey Name	Purpose
<i>Region 4 cont.</i>	
Gilbert Lake	Contaminant fish collections
Hudson River	Black bass wintering area assessment
Small stream surveys (671 streams)	Brook trout presence/absence surveys.
<i>Region 5</i>	
Black Mountain Pond	Evaluate experimental stocking
Bone Pond	Post-liming survey
Upper Conglin Lake	Evaluate experimental stocking
Echo Pond	Post-liming survey
Fishbrook Pond	Egg take
Gay Pond	Pre-reclamation survey
Giants Washbowl	Post-Reclamation survey
Great Sacandaga Lake	Evaluate experimental stocking
High Pond	Other, see comments
Holmes Lake	Post-liming survey
House Pond	Pre-liming survey
Icehouse Pond	Post-liming survey
Lake Clear	Physical/Chemistry survey
Lake Lauderdale	Evaluate experimental stocking
Ledge Pond	Other, see comments
Ledge Pond	Other, see comments
Ledge Pond	Post-Reclamation survey
Little Green Pond	Rare/endangered species
Loon Lake	Evaluate experimental stocking
Lower Lost Pond	General biological survey
Upper Lost Pond	General biological survey
N. Br. Saranac River	CROTS survey
Oseetah Lake	TSMP collection
Prier Pond	Evaluate experimental stocking
Rhododendron Pond	Pre-reclamation survey
Round Pond	Post-Reclamation survey
Schroon Lake	TSMP collection
Schroon Lake	General biological survey
St. Germain Pond	Pre-liming survey
Twin Pond	Post-Reclamation survey
Cadyville Reservoir	TSMP collection
Unnamed Water	CROTS survey
Black Pond	Post-liming survey
Federation pond	Post-liming survey
Embody Pond	Pre-reclamation survey
Embody Pond	Physical/Chemistry survey
Unnamed Water	Whirling disease sampling
Middle Conglin Lake	Evaluate experimental stocking

## Summary of Fisheries, Creel & Angler Surveys

Survey Name	Purpose
<i>Region 5 cont.</i>	
Sunrise Pond	Post-liming survey
Black Mountain Pond	Evaluate experimental stocking
<i>Region 6</i>	
St. Lawrence River Thousand Islands	Warmwater fish stock assessment
Lake St. Lawrence	Warmwater fish stock assessment
Eastern Lake Ontario	Warmwater fish stock assessment
Lake Ontario Biomonitoring	Lower trophic level monitoring
Eastern Lake Ontario Littoral	Development impact baseline survey
Mill Creek	Sediment impact evaluation
Black Lake	Fingerling walleye evaluation
Red Lake	Fingerling walleye evaluation
Payne Lake	Fingerling walleye evaluation
Mohawk River	Spawning walleye assessment
Oswegatchie River	Spawning walleye assessment & egg take
Black River	Fish kill recovery monitoring
St. Lawrence River Sturgeon	Lake sturgeon survey & egg take
Eastern Lake Ontario Sturgeon	Lake sturgeon survey
Black River Sturgeon	Lake sturgeon survey
St. Lawrence River Esocids	Pickeral, pike and muskellunge young-of-the-year survey
Razorback Pond	Endangered/threatened species survey (summer sucker)
Boottree Pond	Heritage strain brook trout survey & egg take
Big & Little Hill Ponds	Heritage strain brook trout survey & egg take
North & South Twin Lakes	Heritage strain brook trout survey & egg take
Delta Lake	Fish disease survey
Lake Bonaparte	Fish disease survey
Lake of the Woods	Fish disease survey
Black River Salmonids	Lake-run trout and salmon monitoring
Cleveland Lake	Brook trout condition index study (four seasonal surveys)
Long Pond	Brook trout condition index study (four seasonal surveys)
Pitcher Pond	Brook trout condition index study (four seasonal surveys)
Streeter Lake	Brook trout condition index study (four seasonal surveys)
Deer Pond	Heritage brook trout broodstock survey
Tamarack Pond	Heritage brook trout broodstock survey
Palmer Creek	Heritage brook trout survey
Evergreen Lake	Heritage brook trout survey
Peaked Mountain Lake	Heritage brook trout survey
Hidden Lake	Heritage brook trout survey
Stink Lake	Brook trout survey
Toad Pond	Brook trout survey
Robinson River	Brook trout survey
Cowhorn Pond	Brook trout survey
Sand Lake	Brook trout survey

## Summary of Fisheries, Creel & Angler Surveys

Survey Name	Purpose
<i>Region 6 cont.</i>	
Mud Pond	Brook trout survey
Mill Creek	Brook trout survey
Mud Lake	Brook trout survey
Bridge Brook Pond	Brook trout survey
Cary Lake	Brook trout survey
Unnamed Water	Brook trout survey
Unnamed Water	Brook trout survey
Moss Lake	Lake trout survey
Grass River	General biological survey
Delta Lake	General biological survey
Adirondack Limed Waters	Water quality survey (16 waters in liming program)
Crystal Lake	Water quality survey (potential liming)
Clear Pond	Water quality survey (potential reclamation)
Twitchell lake	Water quality survey (pre-stocking)
<i>Region 7</i>	
Sherman Creek	Sampling demonstration for Trout Unlimited Camp
Tributary to Wylie Brook	Assess for presence of wild trout
Chenango River	Sampling demonstration for Rogers Environ. Ed. Center
Tributary to Susquehanna River-Afton	Determine presence of invasive Dojo Loach
Susquehanna River	Smallmouth bass abundance assessment
Whitney Point Reservoir	Fall Electrofishing to assess young-of-year walleye abundance
Otisco Lake	Fall Electrofishing to assess survival of stocked fingerling walleye
Jamesville Reservoir	Fall Electrofishing to assess need to reinstitute walleye stocking
Otter Lake	Fall Electrofishing to assess walleye abundance
Cazenovia Lake	Fish Kill Investigation
Skaneateles Lake	Fish Kill Investigation
Trib to Rice Creek	Brook trout population assessment
Rice Creek	Brook trout population assessment
Trib to Center Brook	Brook trout population assessment
Center Brook	Brook trout population assessment
<i>Region 8</i>	
Springwater Creek	Rainbow trout assessment
Naples Creek	Rainbow trout assessment
Cold Brook	Rainbow trout assessment
Seneca Lake	Fish health collection
Honeoye Lake	Warm-water fisheries assessment
Meads Creek	Fate of stocked trout study
Dry Run	Brook trout stream status survey
Sodus Bay	Warm-water fisheries assessment
Seneca Lake Derby	Sea lamprey assessment
Seneca Lake	Black bass sampling
Harlow Lake	General survey

## Summary of Fisheries, Creel & Angler Surveys

**Survey Name**
**Purpose**

<i>Region 8 cont.</i>	
Mill Creek	Brook trout stream status survey
Pardee Hollow Creek	Brook trout stream status survey
Van Camper Creek	Brook trout stream status survey
Unnamed stream (PA-3-58-32-2)	Brook trout stream status survey
Unnamed stream (PA-3-58-3-8)	Brook trout stream status survey
Erwin Hollow Brook	Brook trout stream status survey
Sinclair Creek	Brook trout stream status survey
Unnamed stream (PA-3-58-3-10)	Brook trout stream status survey
Chamberlain Brook	Brook trout stream status survey
Maxwell Creek	Brook trout stream status survey
Unnamed stream (PA-3-58-27-5)	Brook trout stream status survey
Campbell Creek	Brook trout stream status survey
Curtis Creek	Brook trout stream status survey
Burr Hollow Brook	Brook trout stream status survey
Culver Creek	Brook trout stream status survey
Gulf Creek	Brook trout stream status survey
Unnamed stream (PA-3-58-28-23)	Brook trout stream status survey
Trout Run	Brook trout stream status survey
Deer Lick Run	Brook trout stream status survey
Jones Brook	Brook trout stream status survey
Switzer Brook	Brook trout stream status survey
Cohocton River	Brook trout stream status survey
Unnamed stream (PA-3-58-38-15)	Brook trout stream status survey
Unnamed stream (PA-3-58-38-19-2)	Brook trout stream status survey
Unnamed stream (PA-3-58-38-19)	Brook trout stream status survey
Fairbrothers Brook	Brook trout stream status survey
Oil Well Hollow Brook	Brook trout stream status survey
Unnamed stream (PA-3-58-44-1)	Brook trout stream status survey
Unnamed stream (ONT-117-201-11-3)	Brook trout stream status survey
Unnamed stream (ONT-117-201-11-4-1)	Brook trout stream status survey
Unnamed stream (ONT-117-201-11-7)	Brook trout stream status survey
Mill Creek	Brook trout stream status survey
Lyon Creek	Brook trout stream status survey
Hinkle Hollow Brook	Brook trout stream status survey
Unnamed stream (	Brook trout stream status survey
Unnamed stream (PA-3-58-3-12)	Brook trout stream status survey
Unnamed stream (PA-3-58-8-2)	Brook trout stream status survey
Unnamed stream (PA-3-58-3-3-2)	Brook trout stream status survey
Ten Mile Creek	Brook trout stream status survey
Unnamed stream (PA-3-58-35-1)	Brook trout stream status survey
Castle Creek	Brook trout stream status survey
Stocking Creek	Brook trout stream status survey

## Summary of Fisheries, Creel & Angler Surveys

Survey Name	Purpose
<i>Region 8 cont.</i>	
Unnamed stream (PA-3-58-19-6)	Brook trout stream status survey
Rice Glen Brook	Brook trout stream status survey
Golf Creek	Brook trout stream status survey
Unnamed stream (PA-3-58-38-1-1)	Brook trout stream status survey
Unnamed stream (PA-3-58-38-6)	Brook trout stream status survey
Unnamed stream (PA-3-58-38-10-3)	Brook trout stream status survey
Unnamed stream (PA-3-58-32-2)	Brook trout stream status survey
Unnamed stream (PA-3-58-32-6)	Brook trout stream status survey
Unnamed stream (PA-3-58-34-1)	Brook trout stream status survey
Cotton Creek	Brook trout stream status survey
Unnamed stream (ONT-66-12-52-40-39-1)	Brook trout stream status survey
Unnamed stream (ONT-66-12-52-40)	Brook trout stream status survey
Unnamed stream (ONT-66-12-52-40-39)	Brook trout stream status survey
Reservoir Creek	Brook trout stream status survey
Nettle Creek	Brook trout stream status survey
Avery Hollow Brook	Brook trout stream status survey
Harrisburg Hollow Brook	Brook trout stream status survey
Smith Run	Brook trout stream status survey
Page Brook	Brook trout stream status survey
Twelve Mile Creek	Brook trout stream status survey
Unnamed stream (PA-3-58-39-10)	Brook trout stream status survey
Unnamed stream (PA-3-58-39-5)	Brook trout stream status survey
Lake Ontario-Webster	Black bass assessment
Lake Ontario-Pultneyville	Black bass assessment
Stanton Creek	Brook trout stream status survey
Unnamed stream (PA-3-58-28-23)	Brook trout stream status survey
McNutt Run	Brook trout stream status survey
Unnamed stream (PA-3-58-11-8)	Brook trout stream status survey
Michigan Creek	Brook trout stream status survey
Tannery Creek	Brook trout stream status survey
Unnamed stream (ONT-66-123-P286-18-2-9-2)	Brook trout stream status survey
Unnamed stream (PA-3-58-11-9)	Brook trout stream status survey
Unnamed stream (ONT-66-12-52-P286-18-2-8-5)	Brook trout stream status survey
Mill Creek	Brook trout stream status survey
Ganargua Creek	Brook trout stream status survey
Grimes Creek	Brook trout stream status survey
Cutler Creek	Brook trout stream status survey
Borden Creek	Brook trout stream status survey
Erwin Creek	Brook trout stream status survey
Neil Creek	Brook trout stream status survey
Post Creek	Brook trout stream status survey
Narrows Creek	Brook trout stream status survey

## Summary of Fisheries, Creel & Angler Surveys

Survey Name	Purpose
<i>Region 8 cont.</i>	
Willis Creek	Brook trout stream status survey
Sleepers Creek	Rainbow trout production study
Naples Creek	Rainbow trout production study
Springwater Creek	Rainbow trout production study
Unnamed stream (ONT-117-201-16)	Brook trout stream status survey
Unnamed stream (ONT-117-184-18)	Brook trout stream status survey
Bulkley Creek	Brook trout stream status survey
North Branch Newtown Creek	Brook trout stream status survey
Sing Sing Creek	Brook trout stream status survey
Madison Creek	Brook trout stream status survey
East Creek	Brook trout stream status survey
Marsh Creek	Rare Fish Survey
Trout Run	Brook trout stream status survey
Deer Lick Run	Brook trout stream status survey
Davis Hollow Brook	Brook trout stream status survey
Reynolds Creek	Brook trout stream status survey
East Wayland Creek	Brook trout stream status survey
Miller Brook	Brook trout stream status survey
Salmon Creek	Brook trout stream status survey
Unnamed stream (PA-3-58-56)	Brook trout stream status survey
Irondequoit Bay	Brook trout stream status survey
Baker Creek	Brook trout stream status survey
Cameron Creek	Brook trout stream status survey
Goodhue Creek	Brook trout stream status survey
Beekman Hollow Brook	Brook trout stream status survey
Helmer Creek	Brook trout stream status survey
Tracy Creek	Brook trout stream status survey
Unnamed stream (PA-3-57-5-8-35)	Brook trout stream status survey
Tuscarora Creek	Brook trout stream status survey
Unnamed stream (PA-3-57-5-8-11-14)	Brook trout stream status survey
North Branch Tuscarora Creek	Brook trout stream status survey
Unnamed stream (PA-3-57-5-8-11-18)	Brook trout stream status survey
Hemlock Lake	Forage fish assessment
Conesus Lake	Forage fish assessment
East Lick Creek	Brook trout stream status survey
Unnamed stream (PA-3-57-5-8-11-2)	Brook trout stream status survey
Unnamed stream (PA-3-57-5-8-25)	Brook trout stream status survey
Unnamed stream (PA-3-57-5-8-31)	Brook trout stream status survey
Unnamed stream (PA-3-57-5-8-34)	Brook trout stream status survey
Catherine Creek	Sea Lamprey Assessment
Shequaga Creek	Sea Lamprey Assessment
Breakneck Creek	Sea Lamprey Assessment

## Summary of Fisheries, Creel & Angler Surveys

Survey Name	Purpose
<i>Region 8 cont.</i>	
Mill Creek	Sea Lamprey Assessment
Spring Creek	Sea Lamprey Assessment
Bennetts Creek	Brook trout stream status survey
Ohuran Creek	Brook trout stream status survey
Elk Creek	Brook trout stream status survey
Red Spring Run	Brook trout stream status survey
Irondequot Creek	General survey
Pokamoonshine Gulf	Brook trout stream status survey
Reynolds Gully Creek	Brook trout stream status survey
Unnamed stream (PA-3-58-31-7)	Brook trout stream status survey
Unnamed stream (PA-3-58-32-1-1)	Brook trout stream status survey
West Creek	Brook trout stream status survey
Limekiln Creek	Brook trout stream status survey
Spoonable Gully Creek	Brook trout stream status survey
Unnamed stream (ONT-117-201-11-4-2)	Brook trout stream status survey
Shovel Hollow	Brook trout stream status survey
Cohocton River	Brook trout stream status survey
Kirkwood Creek	Brook trout stream status survey
Dyke Creek	Brook trout stream status survey
Cryder Creek	Brook trout stream status survey
<i>Region 9</i>	
N. Branch Wiscoy Creek	Wild brown trout population assessment
Trout Brook	Wild brown trout population assessment
Clear Creek (Ellington)	Wild brown trout population assessment
McIntosh Creek	Habitat improvement evaluation
Beehunter Creek	Habitat improvement evaluation
Gill Creek	Stocked trout stream assessment
296 small streams in Allegany County	EBTJV surveys to document presence of wild trout populations
73 small streams in Wyoming County	EBTJV surveys to document presence of wild trout populations
24 small stream in Cattaraugus County	EBTJV surveys to document presence of wild trout populations
Cassadaga Lake Trap netting	Muskie brood stock assessment
Silver Lake Ice-out Electrofishing	Walleye Spawning stock survey
Chautauqua Lake Trawling	Forage fish assessment
Chautauqua Lake Electrofishing	Game Fish survey
Red House Lake Electrofishing	50 Day Walleye stocking evaluation
Cassadaga Lake Electrofishing	50 Day Walleye stocking evaluation
Buffalo Harbor/Upper Niagara River Young-of-Year Muskellunge Surveys	Monitor relative abundance of wild YOY muskellunge
<i>Lake Erie Research Unit</i>	
Lake Erie Commercial Fishery Assessment	Characterize harvest & age composition of commercial yellow perch fishery
Lake Erie Lower Trophic Monitoring Program	Index of lower trophic indicators seasonally, including zooplankton density, nutrient concentrations, temperature and water transparency

## Summary of Fisheries, Creel & Angler Surveys

Name	Purpose
<i>Lake Erie Research Unit cont.</i>	
Lake Erie Open Lake Sport Fishing Survey	Determine sport fishing catch and effort from boat fisheries for walleye, smallmouth bass and yellow perch
Lake Erie Tributary Angler Diary Program	Assess fishing quality for Lake Erie's tributary steelhead fishery
Lake Erie Tributary Sea Lamprey Nest Density	Annual nest counts to index the concentration of sea lamprey nests in selected Lake Erie tributaries
Lake Erie Fish Cleaning Station Monitoring	Annual examination of angler caught walleye processed at cleaning stations to characterize size, age composition and stomach contents
Lake Erie Beach Seine Assessment	A new pilot survey to assess abundance and distribution of near shore young-of-year fishes in eastern Lake Erie
Lake Erie Coldwater Community Assessment	Gill net index of abundance, age composition, growth, and diet of lake trout, burbot and lake whitefish
Lake Erie Warmwater Community Assessment	Gill net index of abundance, age composition, growth, and diet of walleye, yellow perch and smallmouth bass
Lake Erie Wild Steelhead Assessment	Electrofishing index of abundance of juvenile wild steelhead trout in selected Lake Erie tributaries
Lake Erie Forage and Juvenile Fish Assessment	Bottom Trawl index of abundance, age composition and growth, of juvenile yellow perch and an array of forage fish species
Lake Erie Lake Trout Spawning Survey	Gill net survey to understand site selection by spawning phase lake trout in nearshore and offshore areas
<i>Lake Ontario Research Unit</i>	
Lake Ontario Alewife Bottom Trawl Survey	Assess yearling and adult alewife in Lake Ontario
Lake Ontario Rainbow Smelt Bottom Trawl Survey	Assess yearling and adult smelt in Lake Ontario
Lake Ontario Juvenile Lake Trout Trawl Survey	Assess juvenile lake trout in Lake Ontario
Lake Ontario Warmwater Fisheries Assessment	Assess warmwater fish populations in the Eastern Basin
Status of Lake Ontario's Lower Trophic Levels	Monitor trends in Lake Ontario productivity, including nutrients, chlorophyll a, and zooplankton populations
Lake Ontario Adult Lake Trout Assessment	Assess adult lake trout populations in Lake Ontario
Lake Ontario Fishing Boat Survey	Monitor trends in angler effort/catch/harvest in the open waters of Lake Ontario
Lake Ontario Chinook Salmon Mass Marking Program	Determine contribution of wild Chinook salmon to Lake Ontario sport-fisheries and evaluate success of pen-rearing projects
Northern Pike and Muskellunge Monitoring in the Thousand Islands Region of the St. Lawrence River	Monitor northern pike and muskellunge spawning and nursery areas to assess reproductive success and influence habitat changes

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# Permits & Licenses

A summary of licenses and permits reviewed or issued by the Bureau of Fisheries

## DEC REGION

Permit Name	1	2	3	4	5	6	7	8	9	CO	Total
Farm Fish Pond			4	245		15	175	66	62		567
Stocking			183	23		25	37	8	9		285
Triploid Grass Carp		1	226	300		60	220	469	627		1903
Overland Transport of Bait			13	15		6	4	14	15		67
Fish Possession (over daily limit)			0			4	0	0	1		5
Piranha			0			1	2	0	2		5
Baitfish (C.O)			76	37		-	84	111			308
Temporary Revocable Permit (TRP)			1	3		3	12	3			22
Article 15 Review		3	417	287		446		54	400		1607
Article 24 Review			228			?		0	4		232
Pesticide Permit Review			16	5		-		6	3		30
Bass Hatchery Permits (C.O)						-					
Trout Hatchery Permits (C.O)						-					
Fishing Preserve Licenses (C.O)						-		1			1
Fish Health Certificates (C.O)						-					
Commercial Fishing Licenses			15*								15
License to Collect and Possess (C.O)		5				-	2	14			21
Other (please name)											
Trout in the Classroom			2/89	23							23
Hydropower Relicensing						8					8
Susquehanna R. Floating Lure							49				49
Adopt A Natural Resource								7			7
Permit to remove and destroy fish			1								1

\* all eel weir permits