

# FY2013 Annual Report

July 1, 2012 – June 30, 2013



State of New Jersey  
Department of Environmental Protection  
Division of Fish and Wildlife



# FY2013 Annual Report

State of New Jersey  
Department of Environmental Protection  
Division of Fish and Wildlife  
Mail Code 501-03  
P.O. Box 420  
Trenton, NJ 08625-0420  
[www.njfishandwildlife.com](http://www.njfishandwildlife.com)

Chris Christie, Governor  
Bob Martin, Commissioner  
Dave Chanda, Director

## **Fish and Game Council**

David Burke, Acting Chair  
Phillip Brodhecker  
Dr. Barbara Brummer  
Agust Gudmundsson  
Jeffrey A. Link  
John Messeroll  
Robert Puskas  
Dan Van Mater

## **Endangered and Nongame Species Advisory Committee**

Dr. Barbara Brummer,  
Chair  
Dr. James Applegate  
Dr. Joanna Burger  
Dr. Emile DeVito  
Jane Morton Galetto  
Howard Geduldig  
Dr. Rick Lathrop  
Dr. Erica Miller  
Dr. David Mizrahi  
Dr. Dale Schweitzer  
James A. Shissias

## **Marine Fisheries Council**

Gilbert Ewing, Jr., Chair  
Scott Bailey  
Erling Berg  
Dr. Eleanor Ann Bochenek  
Dr. Patrick Donnelly  
Edward Goldman  
Richard Herb  
Walter L. Johnson, III  
Frances Puskas  
Sergio Radossi  
Joe Rizzo

## **Atlantic Coast Shellfish Council**

Walter L. Johnson, III, Chair  
Walter Hughes  
John J. Maxwell  
Oliver Twist, III

## **Delaware Bay Shellfish Council**

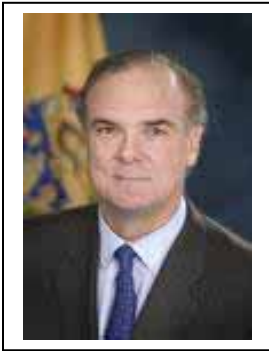
Scott Bailey, Chair  
Stephen Fleetwood  
Warren Hollinger  
Richard Malinowski

## **Waterfowl Stamp Advisory Committee**

Robert Von Suskil, Chair  
Bob Allen  
Carl W. Blank  
David Burke  
Mike Kantor  
Cindy O'Connor  
James A. Shissias  
Jack Stewart

## **Wildlife Rehabilitators Advisory Committee**

Kelly Simonetti, Chair  
Donald Bonica  
Phillip Brodhecker  
Lisa DeLambert  
Harriet Forrester  
Tracy Leaver  
Dr. Erica Miller  
Diane Nickerson



## **Message from DEP Commissioner Bob Martin**

Dear Governor and members of the Senate and General Assembly:

It is with great pleasure that I present the Fiscal Year 2013 Annual Report of the Department of Environmental Protection (DEP)

Division of Fish and Wildlife. Once again it has been a year filled with significant accomplishments, including but not limited to expanding wildlife-related recreational opportunities, protecting the environment from polluters, preserving wildlife habitat, educating the public and protecting endangered species.

I consider all of these accomplishments extraordinary, especially considering that Superstorm Sandy recovery efforts dominated DEP activities during this report period. While the dedicated professionals of Fish and Wildlife performed their regular responsibilities, they simultaneously assumed additional tasks associated with post-Sandy recovery. Impacts from Sandy that required immediate attention included significant numbers of downed trees at Wildlife Management Areas (WMAs), and breaches in impoundments and dikes such as at the Tuckahoe and Heislerville WMA that were diligently and expeditiously repaired. Repairs were performed to address the significant damage inflicted on the Division's Sedge Island Natural Resource Interpretative Center in Barnegat Bay. Freshwater coastal lakes experienced fish kills due to saltwater intrusion caused by Sandy, the severity of which varied with the salinity and species. Division staff quickly evaluated damage to these waterbodies and continue to undertake monitoring activities. Though it will take time, once the elevated salinity levels decline, staff will restock these waters with fish raised at one of the two State fish hatcheries.

On the marine side, Conservation Officers assisted the State Police in Sandy-related efforts. Utilizing rib craft vessels they were able to help secure the barrier islands preventing potential vandals from gaining access to devastated shore communities through Barnegat Bay. The marine fisheries biologists were just as busy as a result of Sandy, conducting a comprehensive survey in the weeks and months following the storm to determine losses and overall impacts to the recreational and commercial fishing sector. In-the-field, online and direct mail surveys were conducted and distributed to nearly 2,500 licensed or permitted fishermen, various fishing businesses and commercial docks. Total losses to the bait and tackle industry, marinas, commercial fishermen, for-hire industry, shellfisheries/aquaculture, and commercial dealers exceeded \$270 million.

While Superstorm Sandy necessitated a shift in focus to assess damage and make plans for recovery, our commitment to managing our natural resources remained firm. Our many achievements above and beyond Sandy recovery is a testament to the State's commitment to the protection and stewardship of New Jersey's natural resources now and the generations to come.



## Message from Division Director Dave Chanda

There are many positive accomplishments to highlight in Fiscal Year 2013. Following are some of the year's highlights along with financial information for inland fish and wildlife management, as well as for marine and shellfisheries:

- ✓ A contract was awarded to an architect for the design of a new state-of-the-art Olympic-style archery training center in Hunterdon County. This center is expected to be one of the premier facilities, not only in the Northeast, but in the entire nation.
- ✓ A planning document to map the future of marine and shellfisheries management in New Jersey was also finalized. It highlights important projects currently provided and establishes a matrix to determine mission-critical responsibilities and those that must be suspended in order to balance the budget with the fiscal and staffing resources available or until there is enough funding to subsidize them.
- ✓ A similar document is being developed for the entire Division. It will charter a course for the future of fish and wildlife conservation in this state.

Look for this agency to change wherever change is needed and to adapt to the ever-changing demands of the world we live in. That is the only assurance we have for successfully passing along the conservation tradition to the next generation.

## **New Jersey Division of Fish and Wildlife**

*The New Jersey Division of Fish and Wildlife is a professional, environmental organization dedicated to the protection, management and stewardship of the State's fish and wildlife resources.*

### **Our Mission**

To protect and manage the State's fish and wildlife to maximize its long-term biological, recreational and economic values for all New Jerseyans.

### **Our Goals**

- ◆ To maintain New Jersey's rich variety of fish and wildlife species at stable, healthy levels, and protect and enhance the many habitats on which they depend.
- ◆ To maximize the wise use of New Jersey's fish and wildlife for present and future generations.
- ◆ To educate New Jerseyans on the values and needs of fish and wildlife, and to foster a positive human/wildlife co-existence.

### **Table of Contents**

<b>Bureau of Freshwater Fisheries.....</b>	<b>6 - 8</b>
<b>Bureau of Land Management.....</b>	<b>8 - 9</b>
<b>Bureau of Law Enforcement.....</b>	<b>10 -12</b>
<b>Marine Fisheries Administration.....</b>	<b>12</b>
<b>Bureau of Marine Fisheries.....</b>	<b>12 -14</b>
<b>Bureau of Shellfisheries.....</b>	<b>14 - 15</b>
<b>Bureau of Wildlife Management.....</b>	<b>16 - 17</b>
<b>Endangered and Nongame Species Program.....</b>	<b>17 - 18</b>
<b>Office of Fish and Wildlife Health and Forensics.....</b>	<b>18 - 19</b>
<b>Office of Environmental Review.....</b>	<b>20</b>
<b>Office of Information and Education.....</b>	<b>20 - 22</b>
<b>Office of Mosquito Control Coordination.....</b>	<b>22</b>
<b>Office of Business Administration.....</b>	<b>23</b>
<b>Finance Charts.....</b>	<b>24 - 25</b>

## **Bureau of Freshwater Fisheries**

**Lisa Barno, Chief**

Bureau of Freshwater Fisheries is responsible for the propagation, protection, and management of the State's freshwater fisheries resources as well as promoting its recreational use. In addition to raising and distributing over 3.5 million fish annually, the Bureau conducts research and management surveys, classifies the State's waterways, provides technical input on a variety of watershed and habitat based issues, facilitates habitat restoration projects, serves



as a liaison to a variety of sportsmen groups, and provides information to the general public, in a variety of forums, concerning the status of the State's fishery resources. The Bureau also administers over 600 permits annually to provide for the effective management and protection of the State's aquatic resources.

The Bureau's Fish Culture component includes the Pequest Trout Hatchery in Oxford Township and the Charles O. Hayford Hatchery in Hackettstown. The Pequest Trout Hatchery raised 614,833 trout, weighing 352,970 pounds for the 10week spring stocking program. An additional 22,225 trout, weighing 35,990 pounds, were reared for the fall and 5,000 trout for the winter stocking program. Pequest also provided 15,840 brown trout for the Division's Sea Run Brown Trout program, which places these highly sought after and elusive fish in the brackish and lower freshwater sections of the Manasquan River.

The Hackettstown Hatchery raises 15 species of freshwater fish with over 850,000 released in 2013 throughout the State. The hatchery also supplied county mosquito control commissions, under the direction of the State Mosquito Control Commission, with over 116,000 sunfish, killifish, and gambusia to assist with the Commission's efforts for effective mosquito control.

Full-time Freshwater Fisheries personnel are complemented by a dedicated and talented seasonal staff, which provide incredible insight and enthusiasm necessary to raise fish within our hatcheries and conduct fisheries inventories across the State, not to mention the countless tasks that ultimately maintain and enhance New Jersey's fisheries resources.

### **Highlights**

Superstorm Sandy resulted in major power outages at both the Pequest and Hackettstown hatcheries. On-site back-up generators maintained hatchery systems at Pequest for 72

hours and for 10 days at the Hackettstown facility until power was restored. Serious flooding occurred at the Hackettstown facility as hatchery production ponds overflowed into one another. A 100-foot stream bank section of Trout Brook, which flows through the hatchery, failed and continues to jeopardize road access to hatchery production ponds. Both facilities suffered from numerous downed trees and debris. Fortunately, no significant damage occurred to the buildings at either facility.

Eleven freshwater coastal lakes also suffered the wrath of Superstorm Sandy as record setting high tides inundated these freshwater systems with saltwater, sediment and debris. Lake Takanassee in Long Branch was hit the hardest. The outlet structure separating this freshwater impoundment from the ocean failed; what little is left is directly open to the ocean. The remaining 10 waterbodies; Carteret Park Pond (Carteret), Deal Lake (Asbury Park), Fletcher Lake (Asbury Park), Hooks Creek Lake at Cheesequake St. Park (Matawan), Lake Como (Spring Lake), Lake of The Lillies (Pt. Pleasant), Silver Lake (Bradley Beach), Sunset Lake (Asbury Park), Sylvan Lake (Bradley Beach), and Wesley Lake (Asbury Park) all experienced freshwater fish kills due to saltwater intrusion.

The severity of the fish kills varied with the salinity and the species. Recovery of these waters will take time as most of these waters have little fresh water inputs to offset the elevated salinity levels.

In 2012, the Bureau of Freshwater Fisheries Research and Management Unit conducted fisheries surveys at 80 waterbodies throughout the State, demonstrating the diversity of the state's aquatic resources by covering a variety of project objectives. Largemouth and smallmouth bass, panfish, and/or lake trout were targeted at 21 lakes to gather data to better manage our fisheries. Of the 46 stream surveys conducted, 26 were part of continuing efforts to assess and/or classify New Jersey's fresh waters helping the state meet its Federal Clean Water Act goals and related EPA mandates. The remaining 20 surveys were conducted to document the occurrence of wild brook trout (New Jersey's only native salmonid) as part of the Eastern Brook Trout Joint Venture efforts.

In 2012, fish passage was monitored at the Island Farm Weir on the Raritan River through a remote camera recording device for 97 days. Two of the river's lowermost dams, Calco and Robert Street, were recently removed. A total of 5,133 fish migrated through the ladder, 465 of which were American shad. The final report for fish passage monitoring conducted from 1996 through 2003, and in 2005, 2011, and 2012 was also completed. To date, a total of 63,829 fish have been documented utilizing the ladder, 3,752 of which were American shad.

In addition to raising and distributing over 850,000 fish for New Jersey anglers the Hackettstown State Fish Hatchery also supports fishery management efforts in neighboring states. In 2012, New Jersey supplied 150,000 tiger muskie fry to New York, 135,000 northern pike fry to Connecticut, 74,000 tiger muskie fry, 64,000 muskie fry and 10,000 hybrid striped bass fingerlings to Pennsylvania and 27,000 northern pike fingerlings to Massachusetts.

The Division entered into a lease agreement with neighboring Centenary College for a vacant building located on the Hackettstown State Fish Hatchery property. The college renovated the building for a biology classroom and lab space. Students will attend classes in the building in the Fall of 2013.

The Hackettstown Hatchery continues to assist the Fairton Correctional Institute's Fish Culture Program by providing them with seed fish for their aquaculture facility. The hatchery provided over 4,000 fingerling largemouth bass, sunfish, channel catfish and brown bullheads to them during Fiscal Year 2013. The fish are raised to larger size and stocked for children's fishing derby events in South Jersey.

As the 100<sup>th</sup> Anniversary of the Hackettstown Hatchery drew to a close, a time capsule was assembled and placed in the rafters of the original hatch house. Scheduled to be re-opened in 2062 the capsule includes original blueprints to the hatchery, historic photos, old Division patches, hats and clothing, a digest and articles.

For the first time the Hackettstown Hatchery reared and stocked 332,000 golden shiner fingerlings (1,000 pounds) in Round Valley Reservoir to help improve the forage base. A struggling herring population in the popular reservoir has led to declines in resident trout species present despite previous attempts to re-establish herring through active stocking. The golden shiners will provide an alternative forage base and may improve size and condition of trout in the future.

## **Bureau of Land Management**

### **Tony Petrongolo, Chief**

The Bureau of Land Management (BLM) is responsible for administering the Division's WMA System, which now comprises more than 328,000 acres on 121 separate areas. These areas are managed for a diversity of fish and wildlife species through a variety of habitat improvement programs. Public access for wildlife-associated recreation is encouraged through the development of visitor facilities, maintenance of roads and bridges, and the construction and maintenance of parking areas and boat ramps. The Bureau is also responsible for the maintenance of Division facilities including buildings, shooting ranges, dams and water control structures. In addition, the BLM offers technical assistance to the State's Green Acres Program in the acquisition of open space and critical fish and wildlife habitat.

### **Highlights**

The development of forest stewardship plans for Trout Brook, Weldon Brook, Rockaway River and Hainesville WMAs was undertaken, and additional work was done to implement the Sparta Mountain WMA Forest Stewardship Plan. At Sparta, forest management activities were accomplished to benefit a number of species dependent on young forest habitat in an area associated with a powerline right-of-way in the northern part of that WMA.



The development of forest stewardship plans includes internal staff review (Office of Natural Lands Management, State Forestry Service, Office of Historic Preservation and Endangered and Nongame Species Program), and stakeholder input (sought directly from a body of identified stakeholders, posted on the Division's website, and presentations to councils). All of the forest stewardship plans have entailed additional plant surveys conducted by consultants. The Weldon Brook WMA plan required bat surveys as well.



*A photo taken at Sparta Mt shows how the harvested area (winter 2013) has regrown with native trees, shrubs and herbaceous vegetation.*

A significant Green Acres purchase this report period was made in the Northern region: the Baker Firestone tract (646 acres), an addition to the Rockaway River WMA. This tract fills a doughnut-hole in the WMA, provides enhanced public access and offers a wide range of critical Highlands habitats.

Impacts from Hurricane Sandy dominated activities during this report period. Areas containing a significant number of downed trees on field edges and in areas bordering private property were dealt with by staff and contractors in all three Regions. In the Southern Region, the storm overwashed, and caused breeches in, impoundment dikes at Tuckahoe and Heislerville WMA's. Crews worked diligently and expeditiously to make emergency repairs before the breeches could expand to the point of washing out the entire dike systems. A long reach excavator was rushed down from Warren County to help repair the worst of the breeches. Both dike systems were saved, although additional breeches occurred at Heislerville a week after the storm which, again, needed emergency repair. In addition to the impoundment damage, Hurricane Sandy caused significant damage to the Division's Sedge House educational facilities and destroyed the fisherman access steps over the seawall in the Borough of Deal in Monmouth County.

## **Bureau of Law Enforcement**

### **Mark Chicketano, Acting Chief**

The Bureau of Law Enforcement is responsible for enforcing regulations that protect wildlife and its habitat. Highly trained conservation officers patrol the State and its waters using the latest in law enforcement technology. These officers investigate all types of cases, including hunting and freshwater fishing violations, illegal marine and shellfish harvesting, collection and sale of endangered species and even water pollution.

Conservation Officers are among the Division's most visible representatives, interacting with thousands of individuals each year. In the field, they educate and redirect the actions of recreationists to ensure compliance with Division policies, the Fish and Game Codes, marine conservation measures and other land use regulations to protect the environment, and ensure that people enjoy our natural resources in safe and ethical ways.

As the oldest organized law enforcement agency in the State of New Jersey, State Conservation Officers have enjoyed a storied history since their inception in 1871. Originally tasked with strictly fish protection in the Delaware River, Conservation Officers now delve into every parameter of fish, wildlife and natural resource protection. Far from just enforcing hunting and fishing regulations, Conservation Officers serve the citizens of New Jersey and protect the environment by enforcing pollution laws involving New Jersey's woods and waterways, enforcing bans on the harvest of crabs from polluted waters, enforcing clamming and oystering regulations designed to protect the general public from polluted water harvesting which could endanger public health, assist with the control of nuisance and dangerous bears, enforce commercial and recreational salt water fishing regulations, provide protection to lands owned by the State of New Jersey from illegal timber sales and off road vehicle usage, enforce non-game and dangerous wildlife laws, and provide pet shop and fish market enforcement to insure the lawful handling of exotic wildlife and the sale of lawfully procured fishery resources.

Conservation Officers are also charged as the primary law enforcement authority in the State of New Jersey to investigate any hunting accidents or hunting fatalities. Each year, Conservation Officers also intervene in many suicide attempts in remote areas and assist in numerous motor vehicle accidents further protecting the general public. They are uniformed law enforcement officers with full law enforcement authority and as such are the most highly visible members of the Division of Fish and Wildlife. Each year, they provide innumerable hours of public outreach at educational facilities, sportsman's shows, and through their basic day to day patrols.

The education of hunters, fishermen, and the general public regarding their environment and all that makes that environment beneficial to us as human beings is a paramount task which Conservation Officers are proud to perform.

## **Highlights**

### ***Dumping on Public Lands:***

During this fiscal year conservation officers made an extra effort to apprehend those that illegally dumped debris on public lands. Upon receiving a complaint about asbestos siding which was illegally dumped in the Greenwood Forest WMA in Lacey Township, Ocean County, Conservation Officer Sean McManus found a letter from a prepaid credit card with the owners name and address on it. With the assistance of the Ocean County Prosecutors Office and the Toms River Township Police



Department, Conservation Officer McManus was able to track down the suspect and speak to him. During the interview the man admitted to dumping the siding. The man said that he was paid fifty dollars to dispose of the debris. He also said that he didn't know what was in the plastic garbage bags that he had dumped.

The man was charged with the following: Dumping on a State Wildlife Management Area, Disposal of solid waste in excess of 0.148 cubic yards, Engaging in the solid waste industry without an A- 901 license, Engage in solid waste industry without first obtaining a certificate of convenience and necessity, Transport solid waste without a solid waste registration and Dumping of solid waste at an unapproved facility.

The defendant appeared in Lacey Township Municipal Court and agreed to plead guilty to dumping on a State Wildlife Management Area. The penalty for this violation is \$50 to \$1,500 and an additional penalty of three times the cost of the cleanup which was approximately \$10,000. He agreed to pay two times the cleanup cost for the removal and disposal of the debris. The judge imposed a penalty of \$21,533 for the violation.

### ***Commercialization of Recreationally Caught Black Sea Bass:***

Another area of focus was regarding the illegal black market of Black Sea Bass. While on routine patrol, Conservation Officer Swift observed a 32' Regulator with 5 fishermen onboard enter a lagoon in Ocean City. Making contact with one of the fishermen in front of the house where the boat tied up, CO Swift asked if he had been fishing. The individual stated he and his friends caught "a couple of fish."

Officer Swift then proceeded to the rear of the house towards the boat dock. He observed two fishermen dragging a cooler up the ramp from the boat. When they saw Officer Swift, they began to slide the cooler back down the ramp. Officer Swift identified himself

and advised the fishermen not to dump the contents of the cooler. An inspection of the vessel revealed two additional coolers. In total, there were 292 black sea bass that filled all three coolers. On this date, the recreational black sea bass season was closed. With the assistance of Lt. Jason Snellbaker the fish were seized, later sold at fair market value, and weighed a total of 566 lbs. Each fisherman was charged for possession of 58 black sea bass



during the closed season. The owner of the vessel was issued 3 additional summonses for landing black sea bass in excess of 100 lbs. without a NJ black sea bass landing permit, land black sea bass in excess of 10% by-catch limit, and for landing black sea bass during the closed commercial season.

Further intelligence received on the owner of the vessel revealed that he owned and served as head chef in a restaurant in the Philadelphia area. A Philadelphia-based media website stated in an article regarding this individual, "...this is a chef who often drives to Cape May to fish for much of the blackfish (a.k.a. tautog) and black sea bass that serve as the restaurant's signature dish."

All five defendants pleaded guilty in Ocean City Municipal Court. By way of plea bargain, the owner of the vessel paid \$2,250.00 in penalties, plus court costs. The remaining four defendants each paid \$1,350.00 in penalties. The fair market wholesale value of the illegal fish was assessed at \$1,834.00.

## **Marine Fisheries Administration**

### **Brandon Muffley, Administrator**

The Marine Fisheries Administration (MFA) includes the Bureaus of Marine Fisheries and Shellfisheries. The MFA supervises and coordinates the planning, organization, operation and management of the marine and estuarine finfish and shellfish resources of New Jersey, which are worth more than \$2 billion. The MFA also coordinates New Jersey's fishery management activities on a coastwide basis with the Atlantic States Marine Fisheries Commission and the Mid-Atlantic Fishery Management Council.

### **Bureau of Marine Fisheries**

The Bureau of Marine Fisheries (Bureau) is responsible for developing and implementing management programs that protect, conserve and enhance New Jersey's marine fisheries resources. To formulate sound state management plans, the Bureau conducts studies to

gather information about New Jersey's marine species as well as the user groups dependent upon them. These data are also combined with information from other Atlantic states and federal management agencies to support coastwide management plans.

Since many marine fisheries species are migratory in nature, they are managed on a coastwide basis by the Atlantic States Marine Fisheries Commission (ASMFC) and/or the Mid-Atlantic Fishery Management Council. The Bureau plays a vital role in representing New Jersey's fisheries and fishermen (both commercial and recreational) through these organizations.

Federal legislation mandates that states implement every fishery management plan approved by the ASMFC. Each plan requires that states employ the required management measures, enforce those rules and monitor the status of the fishery population. States failing to comply with the requirements of the plan risk a federally imposed moratorium in their state for those species covered.

### **Highlights**

Bureau staff administered the third year of the New Jersey Saltwater Recreational Registry Program (NJSRRP). The NJSRRP was initiated in the spring of 2011 to annually collect contact information from all marine anglers and for-hire vessel owners/operators fishing in state waters. The New Jersey registry was created as a way to meet the mandatory federal requirement for gathering information, while sparing anglers the national registration fee of \$25. The data are forwarded to the National Marine Fisheries Service for inclusion in its master registry "phone book" and provides biologists with an accurate sampling pool for future surveys and management efforts. New Jersey's 2012 database of contact information included 270,439 individuals and 1,098 for-hire operators.



On November 19, 2012 the Acting Secretary of Commerce determined a fishery resource disaster has occurred in the states of New Jersey and New York as a result of Hurricane Sandy. Bureau staff took a very active role in working with the fishing community and state and federal fisheries partners to gather information to assess the damages and losses to New Jersey's fishing communities. Staff conducted a number of on-site field visits and

developed a comprehensive survey to document the losses to infrastructure, equipment, product, gear and lost fishing opportunities. This assessment determined that New Jersey's various commercial and recreational fishing industries sustained over \$225 million in uninsured losses as a direct result of the hurricane. This assessment work led to federal NOAA Fisheries Disaster Funds being awarded to New Jersey to provide direct financial assistance grants to fishermen/businesses that were impacted and sustained losses from Sandy.

In February 2012, ASMFC's Bluefish Management Board passed Addendum I to Amendment 1 to the bluefish fishery management plan that required to collect a minimum of 100 bluefish ages (50 from January - June; 50 from July - December). New Jersey voluntarily initiated this program in 2010 and then continued and expanded the program in 2011 and 2012. Sampling strategies included: collections from volunteer recreational anglers; collections from recreational fishing tournaments; collections from party boats. Staff extracted otoliths from 176 bluefish harvested from a variety of locations in NJ between May and September 2012. Fifty-five percent of the otoliths were collected from fish harvested in spring; the remainder in fall.

## **Bureau of Shellfisheries**

### **Russ Babb, Chief**

The Bureau of Shellfisheries directs shellfish harvest and production programs on the Atlantic Coast and in Delaware Bay. Staff members work with the bureaus of Marine Fisheries, Law Enforcement's Marine Unit and other State and federal agencies to formulate and implement plans to conserve marine habitat and manage the state's shellfish resources. Staff members also work closely with the New Jersey Shellfisheries Council, an advisory board to the DEP Commissioner, on issues related to the protection, enhancement and management of shellfish. Staff members are actively engaged in working to foster aquaculture development and review coastal development activities to protect critical habitat. They are also managing surf clams in the Atlantic Ocean and oysters in Delaware Bay as well as examining the impacts of offshore sand mining. In addition, the Bureau is responsible for administering a licensing program for recreational and commercial shellfishermen as well as the shellfish aquaculture program for the state.

### **Highlights**

The Bureau had conducted a stock assessment survey of shellfish in Barnegat Bay, in May 2012 that concluded just five days prior to the arrival of Hurricane Sandy. This sampling had replicated the last survey of Barnegat Bay which was conducted in 1985/86. In 2013, a post-Sandy evaluation of stations in both Barnegat and Little Egg Harbor Bays was also conducted by the Bureau as a "snapshot" of post-storm conditions. This targeted re-survey subsampled 25% (138 total stations) of the stations within the BB-LEH complex. This information will be incorporated into the final report of the 2012 Barnegat Bay Estuarine Inventory, which is nearing completion. This field sampling was the first formal survey on the recently transferred and retrofitted 42' research vessel

*Zephyrus*, formerly stationed on the Delaware Bay. The vessel and crew performed superbly and greatly enhances the Bureau's sampling range.

The Delaware Bay oyster fishery was changed from open access program to a limited-entry licensing program in 1979-80. The costs of maintaining an aging fleet of oyster vessels was a significant burden on industry members. In 2010, working in unison with the industry, DEP allowed limited license consolidation through the use of an Administrative Consent Order (ACO) (i.e., three licenses to one harvest vessel). This immediately reduced industry overhead and aided enforcement (e.g., less boats to monitor). Following the ACO program, DFW staff began working with the DEP's Office of Legal Affairs on a set of amendments to N.J.A.C. 7:25A (Oyster Management Rules). This rule proposal, which was written to mimic the ACO (3:1 licenses) was not prioritized and has not been adopted. Since that time, the Council's Licensing Committee recommended license consolidation up to 6:1. Following Administration approval, the Bureau worked with the Council and reissued new the ACOs that allowed the increase to 6:1 licenses. The DEP's ACO program has been widely lauded by the industry as a true example of cutting through red tape and assisting the industry economically.

In an effort to foster aquaculture development, shellfisheries staff completed a series of draft guidelines and samples applications to assist shellfish aquaculturists in applying for "General Permits" for activities such as placement of cages and rafts for shellfish grow-out on existing shellfish leases. Draft versions of the guidelines and application forms were sent to the Division of Land Use Regulation for their review and approval. In addition to the guidelines, a more detailed set of instructions would be



available that gives the applicant step-by-step instructions on how to fill out the application, and what to expect while the application is in Trenton. This creates a predictable pathway for applicants and to grow aquaculture.

## **Bureau of Wildlife Management**

The Bureau of Wildlife Management provides the scientific information and recommendations necessary to develop conservation programs for New Jersey's game species. It also manages breeding operations for the Division's game bird stocking program and assists the public in reducing damage caused by wildlife. Biologists (with conservation officers from the Division's Bureau of Law Enforcement) respond to emergency situations between humans and wildlife, and work with other agencies and local governments to develop cooperative management programs throughout the State. These professionals also monitor wildlife population numbers and health conditions as well as assess the impacts of urbanization. The information collected is of critical value to the Fish and Game Council, which relies on it to determine New Jersey's annual hunting and trapping regulations.

### **Highlights**

Bureau staff worked with Ducks Unlimited to secure \$1 million in grant money from the North American Wetlands Conservation Act (NAWCA) grant program. This funding will be used to restore the waterfowl impoundments on the Tuckahoe Wildlife Management Area. Built during the 1940's, these impoundments total over 1,500 acres. The grant will be used to replace and repair key elements of the impoundments in order to provide staff with control in manipulating water levels which is needed for effective management.



The bureau finalized changes to the 2013-2014 Game Code, with these changes being formally adopted during a public meeting of the Fish and Game Council early in the fiscal year. This brought to conclusion the 2-year process required to amend the Game Code, which is a process involving a large investment of staff time and requiring input from the Fish and Game Council and the general public. Staff has already initiated the process for amending the 2015-2016 Game Code.

Staff biologists made great progress on the Division's Northern Bobwhite Recovery Project, with much planning and implementation taking place. Following the strategy outline by the National Bobwhite Conservation Initiative (NBCI), bureau staff has identified 557,251 acres in Cumberland, Gloucester and Salem counties as an NBCI Focal Region. This area is conducive to quail management because it has extensive agricultural habitats, relatively low population density, and is comprised of 87,000 acres



of preserved open space. Working with a team of Division biologists, project leaders have begun habitat management efforts in 75 “Quail Management Units” of approximately 100 acres each. The goal at the end of five years is for each QMU to be able to sustain a quail covey for its entire life cycle by providing cover appropriate for nesting, brood rearing, loafing, escape, and foraging. Species and habitat monitoring have already been initiated and will continue throughout the project.

Moving into the 5<sup>th</sup> year of the Division’s Comprehensive Black Bear Management Policy (CBBMP), bureau staff has begun to summarize/analyze the key initiatives of this policy in order to determine how New Jersey’s black bear population might be adaptively managed in the future. This systematic evaluation into which components of the CBBMP were most effective will be critical to the successful future management of black bears, especially considering that this species has been expanding its range in New Jersey over the past several years.

## **Endangered and Nongame Species Program**

**Dave Jenkins, Chief**

The Endangered and Nongame Species Program (ENSP) was created in response to the enactment of the “Endangered and Nongame Species Conservation Act”. More than 80 endangered and threatened species inhabit the Garden State, and many more stop here to rest and refuel during their migrations. To protect these species, the ENSP is committed to conserving New Jersey’s biological diversity by working to maintain and foster endangered and threatened populations as well as protect the unique habitats on which they depend. The ENSP is also responsible for administering the State Tax Check-Off for Wildlife, which benefits these species.

### **Highlights**

ENSP initiated the habitat connectivity project in October, 2012, to identify key areas and the actions needed for preserving and restoring habitat connectivity for wildlife in New Jersey. The project, named Connecting Habitats Across New Jersey – or CHANJ – is designed to help prioritize land protection, inform habitat restoration and management, and identify problem roadways and recommend improvements for wildlife. The CHANJ group is made up of representatives from over 40 agencies across the state, including NJ DOT and several other state, federal, local, academic, and non-profit organizations. This multi-partner, multi-disciplinary group is informing the development of the connectivity plan that will help target local, regional, and state planning efforts and ultimately reconnect the landscape in New Jersey. ENSP staff have organized and led monthly meetings for core teams addressing GIS mapping, a guidance document, and communications. The technology applied includes GIS mapping of wildlife habitat core habitat areas and the corridors that connect them, and remotely triggered cameras to validate the mapping and evaluate effectiveness of wildlife crossing structures under existing roadways. A few of the project outcomes to date include draft connectivity mapping in the Skylands Region, a draft economic feasibility report, draft best management practices for designing effective wildlife crossing structures in roadways,

coordinated transportation project planning with NJ DOT, collaborative research with universities and non-profit organizations, and ongoing implementation of habitat connectivity projects.

The Landscape Project, ENSP's delineation of habitat for endangered, threatened and special concern wildlife, is based on aerial photography that is classified into habitat types. An important part of evaluating the trends and future of species' populations is accurately defining the changing habitats across the state, and ENSP biologists use habitat availability and trends when they assess species' status. To improve our understanding of how and where wildlife habitats are changing, the ENSP joined forces with Rowan University's GeoLab to design a habitat change analysis pilot project and investigate the development of automated mapping and analysis routines to examine wildlife habitat transition and fragmentation over time. Habitat base layers were generated from available Land Use-Land Cover classifications (1986, 1995, 2002 and 2007) to create a consistent basis for comparative analysis. Species range extents were developed for five birds, two mammals, two herps, and one butterfly to test the species-based habitat analysis. The GeoLab at Rowan University presented preliminary results of the habitat change analysis and ENSP biologists provided input on methodology that GeoLab will incorporate into automated GIS analysis routines. Once developed, these techniques will provide specific data on how and where habitats have changed in suitability, which can help guide management to restore and maintain species' population centers.

Important steps have been made to better help New Jersey and other Northeast states assess the status of the federally-threatened bog turtle and take action to move the species towards recovery. Through coordination with the US Fish and Wildlife Service Region 5 office, all states within the range of the bog turtle's northern population (MA, CT, NY, PA, NJ, MD, and DE) are piloting regional population and habitat monitoring protocols. These updated protocols for data collection will have all the states "speaking the same language" and allow USFWS to more quickly detect positive or negative trends in turtle populations and changes in habitat conditions where the animals persist. Resulting data will all be entered into a secure USFWS database for analysis and reporting. New Jersey will also be the first state to develop an Endangered Species Act Section 7 Formal Programmatic Consultation for the bog turtle. This partnership between the Federal Highway Administration, NJDOT, USFWS, and NJDEP will help align transportation project goals with bog turtle recovery. Products from this effort will include a Programmatic Biological Opinion that includes best management practices and conservation measures.

### **Office of Fish and Wildlife Health and Forensics** **William Stansley, Research Scientist**

The Office of Fish and Wildlife Health and Forensics (OFWHF) conducts surveillance and research on diseases and chemical contaminants that affect New Jersey's fish and wildlife. Scientists in this office also recommend measures to manage diseases in the Division's fish hatcheries and in free-ranging fish and wildlife populations.

These scientists are the only available experts in New Jersey state government to specialize in wildlife pathology, fish pathology, and fish and wildlife toxicology. As a result, when fish and wildlife are dying in the Garden State, the public and other government agencies call on this office to determine the cause and develop a response strategy.

### **Highlights**

There were confirmed or suspected cases of Epizootic Hemorrhagic Disease (EHD) in deer in nine counties in 2012. On a national basis, 2012 was a record-breaking year for EHD, with cases confirmed in 27 states. Hot and dry conditions may have contributed to the severity of this outbreak by creating ideal conditions for the biting midges that spread the EHD virus.

Lymphoproliferative disease was diagnosed in a wild turkey from Sussex County; the first case of this emerging viral disease reported in New Jersey. Prior to being found in 2009 in wild turkeys in Georgia, the disease was only known to affect domestic turkeys in parts of Europe and the Middle East.

Monitoring for Chronic Wasting Disease (CWD), which causes fatal damage to the nervous system of white-tailed deer and other members of the deer family, was continued in 2012. Samples were collected from 394 hunter-killed deer and 4 symptomatic deer, and all were negative for CWD. Since 1997, a total of 5151 wild deer, 130 captive deer, 6 captive elk and 2 captive reindeer have been tested for CWD in New Jersey, all of which were found to be negative.

The recently-hired fish pathologist reconstituted the fish pathology lab, which had been unused for six years following the retirement of the former pathologist. The lab was also updated with new equipment, allowing for the resumption of annual fish health inspections at the Pequest and Hackettstown Hatcheries.



A major fish kill occurred in Runnemede Lake, that affected 5,000-6,000 goldfish, an exotic species in the state's waters. The cause of death was related to a herpesvirus outbreak (cyprinid herpesvirus-2) that is specific to goldfish. This was the first report of this virus in the state.

A study of marine fish health was initiated under the federally-funded Fish and Wildlife Health Project. Previous work focused primarily on freshwater fish diseases. For the first time, this study will provide information on the presence and prevalence of pathogens that affect marine species, including many that are recreationally and commercially important.

## **Office of Environmental Review**

**Kelly Davis, Biologist**

The Office of Environmental Review (OER) provides Wildlife, Marine Fisheries, Shellfisheries, Freshwater Fisheries and Endangered Species resource/habitat concerns into State permitting and Federal programs for the purpose of protecting, maintaining and enhancing the State's fish and wildlife assets through environmental review of those developments that may negatively impact the resources protected by the Division of Fish & Wildlife. Prior to construction, the Office provides recommendations to eliminate, minimize, or mitigate impacts to fish and wildlife resources and their habitats. Biologists regularly review and provide comments or recommendations into permits/projects for the DEP's Land Use Resources Program (Waterfront Development Act, Coastal Area Facility Review Act or CAFRA), Bureau of Dam Safety & Flood Control, Solid & Hazardous Waste Program. Federal agencies to include the Army Corps of Engineers, Federal Energy Regulatory Commission, the Bureau of Ocean Energy Management, the Federal Aviation Administration, and the Department of Defense.

### **Highlights**

Staff is reviewing and updating a previously provided Freshwater Fisheries Geographic Information System (GIS) layer and continued the evaluation and development of an anadromous species (those that travel from saltwater to freshwater to spawn) layer for the DEP's GIS "master map." It will eventually provide environmental planners with appropriate timing restrictions based on the species present.

In Fiscal Year 2013, staff reviewed and commented on 194 project proposals that had the potential to adversely impact the State's fish and wildlife resources.

## **Office of Information and Education**

**Jim Sciascia, Chief**

The Office of Information and Education educates thousands of New Jerseyans on the needs and values of fish and wildlife. As more families expand into rural areas of the state, this type of education is critical if residents and wildlife are to successfully coexist. To do this, staff interprets technical information about the fish and wildlife resource and its management to help the public better understand the unique needs of each species as well as their economic, aesthetic, environmental and recreational values. Outreach efforts also promote the wise use of these resources and the need to safeguard them for future generations.

## **Highlights**

The Division partnered with the DEP Division of Parks and Forestry, and Green Acres Program as well as the Conserve Wildlife Foundation of New Jersey to host the third annual New Jersey WILD Outdoor Expo. More than 90 organizations participated, connecting an estimated 7,600 visitors to the natural world by providing a unique blend of conservation information, education and hands-on opportunities to learn outdoor skills and activities. This was a 43 percent increase in participation from the 2011 Outdoor Expo. Throughout the weekend, guests were introduced to a wide variety of outdoor recreation opportunities, including fishing, target shooting, kayaking, hiking, camping, rock climbing, geocaching and wildlife watching. The hands-on activities and demonstrations were geared toward avid outdoor enthusiasts and novices alike with the goal of showcasing the wealth of recreational opportunities available within our state's forests, parks and natural areas.



The 21<sup>st</sup> Annual Governor's Surf Fishing Tournament was held October 7, 2012 at Island Beach State Park. More than 500 anglers participated in the tournament, and 130 fish were entered in the kingfish, bluefish and blackfish categories. Lieutenant Governor Kim Guadagno and DEP Commissioner Bob Martin participated in the awards ceremony where Bill Sheppard of Seaside Park won the tournament with a 20 3/8" bluefish. Eighteen other prizes were awarded in various species and age categories.



The Pequest Trout Hatchery and Natural Resource Education Center's Exhibit Hall was reopened after being closed for almost a year for renovation and the installation of new exhibits. The renovation included new exhibits, interactive displays, and hands on learning opportunities for children. It also allows education staff to increase program offerings in an engaging and user friendly environment. The renovation was funded through a 2006 voter approved constitutional amendment that directs a portion of the existing Corporate Business Tax to the DEP for improvements on some 800,000 acres of

land administered by the Division of Fish and Wildlife and the Division of Parks and Forestry.

## **Office of Mosquito Control Coordination**

**Eric Williges, Administrator**

The New Jersey State Mosquito Control Commissions' Office of Mosquito Control Coordination (OMCC) was created in 1974 and is based in the Division's main Trenton office. The OMCC's aim is to coordinate programs funded by the State Mosquito Control Commission and serve as a public face for the Commission and Department on mosquito control matters. Actively collaborating with different units in the Division and DEP at large is a priority for our office to maintain existing standards and develop new methods of mosquito control. These efforts help ensure that mosquito control agencies across the state are improving the public's quality of life by reducing mosquito populations in an environmentally sound manner.

### **Highlights**

The OMCC continued its partnership with the Bureau of Freshwater Fisheries to raise and supply the mosquitofish (*Gambusia affinis*) and other species to county agencies as a form of bio-control. These fish, when stocked in appropriate sites, are efficient predators of mosquito larvae and allow mosquito control agencies to reduce mosquito populations on a long-term basis while reducing the use of larvicides in those areas. Over 80,000 mosquitofish were stocked across the state in 10 counties in collaboration with the OMCC. Our office also worked in collaboration with the New Jersey Department of Agriculture's Beneficial Insects Rearing Laboratory in continuing to investigate the use of copepods as a new form of bio-control.

By partnering with the New Jersey Department of Health, Rutgers University, and county mosquito control agencies, the OMCC helped to monitor mosquito populations across the state. Multiple collaborations allow the OMCC, Rutgers, and county mosquito control agencies to have a clearer picture of population trends across the state and focus their efforts appropriately to most efficiently reduce local populations. These projects also track the spread of potential arboviral vectors across the State and allow local agencies to respond quickly to any emerging threats to the public health.

Another area of focus for the OMCC was working closely with county agencies to improve wetland areas that have been documented as persistent mosquito production sites. By providing equipment and knowledge the office supported projects aimed at eliminating larval mosquito habitats and restoring wetland areas to a more natural state in counties across the state. These projects serve to reduce the number of mosquito habitats while ensuring the work is done in an environmentally conscious manner.

**Office of Business Administration**  
**Paulette Nelson, Assistant Director**

The Office of Business Administration is responsible for the Division's licensing, accounting, budgeting, purchasing and billing functions. This office has three primary elements: Licenses and Revenue, Permits and Budget/Procurement. These three sections work together in a team approach to provide fiscal services to the Division and its constituents.



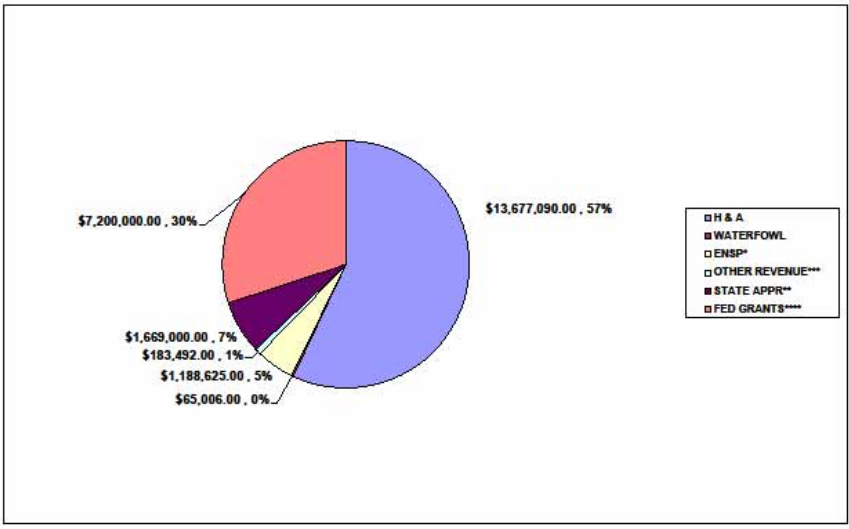
**Highlights**

Over 8,000 permits were issued to facilities such as zoos, circuses and pet stores, having captive native and exotic species of wildlife, generating over \$194,000 in Fiscal Year 2013. Routine inspections of these facilities are conducted by Office of Business Administration staff.

# FY 13 Financial Information

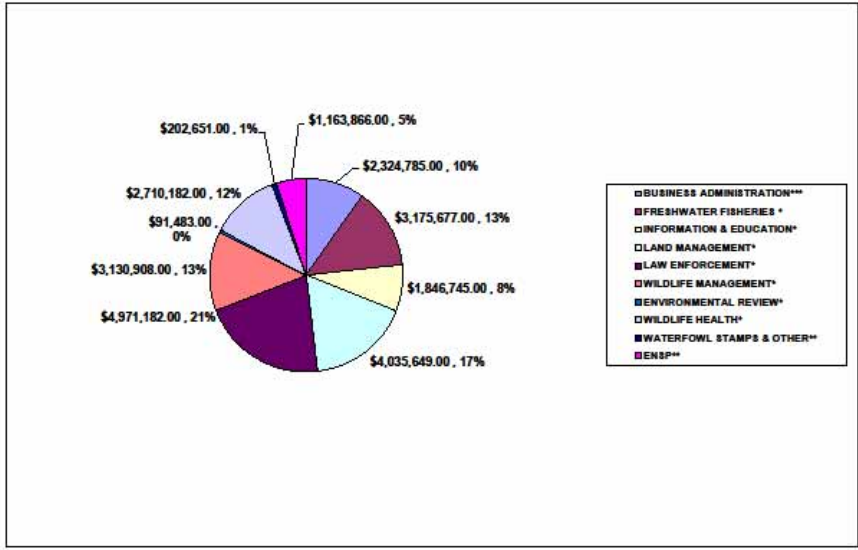
## Hunter & Angler Fund

### Hunter and Angler Revenue



\*ENSP INCLUDES LICENSE PLATES AND TAX CHECK OFF REVENUES AND FEDERAL GRANT \$ SWG RECEIVED FOR FY 2013.  
 \*\*OTHER REVENUE INCLUDES EXOTICS, OUTDOOR WOMAN SEDGE ISLAND ETC.  
 \*\*\*FEDERAL GRANT AMOUNT REPRESENTS THE BUDGETED GRANT AMOUNT FOR FY 2013

### Hunter and Angler Expenses

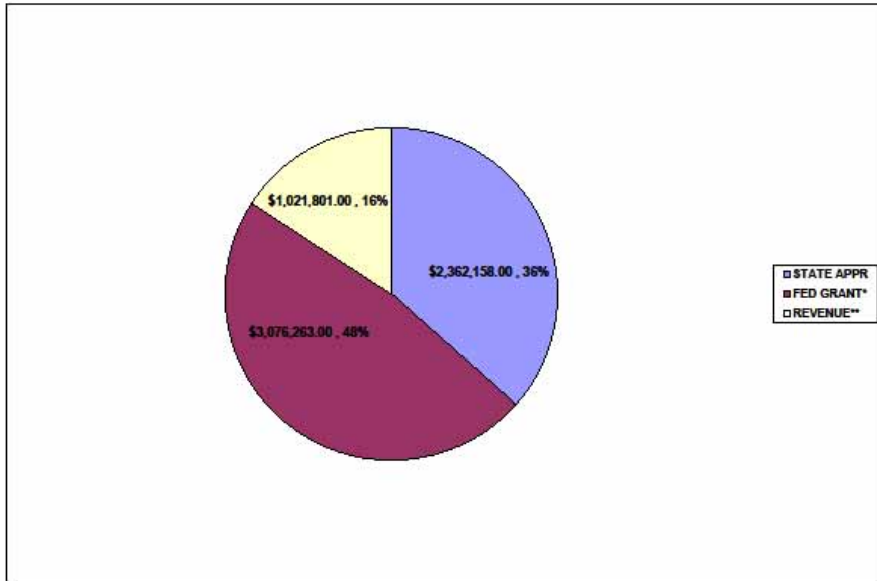


\* THESE ARE BUDGETED AMOUNTS FOR FISCAL YEAR 2013 FOR EACH BUREAU  
 \*\* THESE ARE ACTUAL EXPENSES INCURRED FROM LICENSE PLATE, WATERFOWL, EXOTICS, OUTDOOR WOMAN ETC. ACCOUNTS  
 \*\*\* ENSP FEDERAL GRANTS RELATED EXPENSES FROM 7-1-12 TO 6-30-13 ARE INCLUDED IN THIS AMOUNT  
 \*\*\*\* BUSINESS ADMINISTRATION INCLUDES BUDGETED EXPENSES FOR DIRECTOR'S OFFICE, RENT, LEGAL FEES, POSTAGE, TELEPHONE, PRINTING, PROFESSIONAL FEES, TRAVEL ETC.



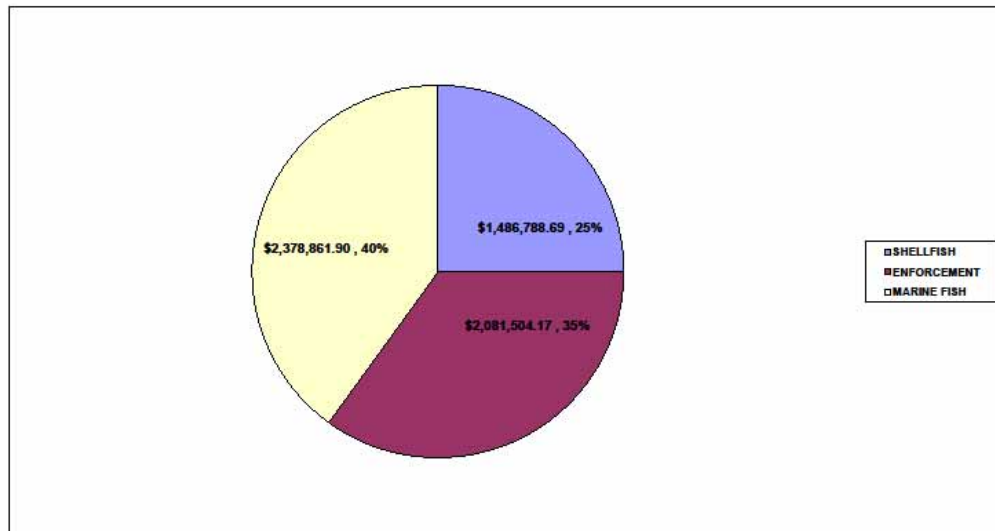
# Marine Fisheries FY 13 Funding

## Marine Fisheries Revenue



\*FEDERAL GRANT AMOUNT REPRESENTS THE ACTUAL GRANT AMOUNT SPENT FROM 7/1/12 TO 6/30/13  
\*\* REVENUE INCLUDES REVENUE FROM NET LICENSES, OYSTER CULTCH, ENFORCEMENT, MANAGEMENT, PSE&G, LEASING, OYSTER MONITORING ETC.

## Marine Fisheries Expenditures



\* THESE ARE NOT THE ACTUAL EXPENSES FOR EACH BUREAU BUT THE PERCENTAGE OF THE TOTAL ACTUAL EXPENSES BASED ON NORMAL COURSE OF BUSINESS FOR EACH BUREAU.