FY2011
Annual Report

July 1, 2010 – June 30, 2011

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

FY2011 Annual Report

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Department of Environmental Protection
Division of Fish and Wildlife
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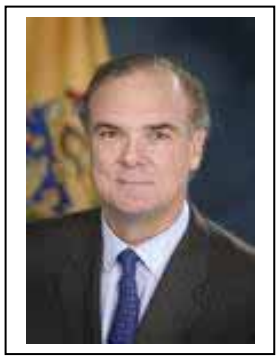
Chris Christie, Governor
Bob Martin, Commissioner
Dave Chanda, Director



Message from DEP Commissioner Bob Martin

As Commissioner of the New Jersey Department of Environmental Protection (DEP), I am pleased to present the Division of Fish and Wildlife's FY11 Annual Report spanning July 1, 2010 to June 30, 2011. This document highlights DEP's programs, projects and activities as well as the commitment and dedication of the DEP professionals who ensure healthy fish and wildlife populations, preserve quality habitat, and foster a positive outdoor experience for those who live, work and vacation in the Garden State.

To help further these objectives, the DEP is firmly committed to protecting, preserving and enhancing our natural resources through a new and innovative approach known as the five Priority Goals. These goals ensure that the Department takes a holistic approach and looks across all media when assessing a problem and developing a response. The goals complement the Department's Transformation effort, which is an ambitious vision of modernizing and streamlining how we have sought to protect the environment in the past. These initiatives will provide a framework for enhancing our management of natural resources on a more comprehensive, regional basis; focusing on the protection and restoration of environmentally overburdened communities; and improving water quality throughout Barnegat Bay.

With regard to fish and wildlife in particular, biologists are focusing on mitigating the impacts of habitat loss and fragmentation. Priorities include conducting a statewide Habitat Connectivity Study that will serve as a blueprint for restoring and maintaining the critical linkages between areas so important for migration, reproduction and foraging. Biologists are also developing various regional ecosystem restoration projects in areas like Greenwood Forest in Ocean County, Cox Hall and Pond Creek estuaries in Cape May County, and along the Musconetcong River in Hunterdon and Warren counties.

Restoration efforts will also focus on identifying and establishing ecologically sensitive areas in Barnegat Bay, as well as determining research priorities for the bay's marine fisheries resources. In addition, shellfish populations will be monitored and enhanced through a Hard Clam and Submerged Aquatic Vegetation Inventory as well as the planting of three million hard clam seed, one million oyster seed and 16,000 bushels of clam shell. Finally, law enforcement patrol efforts will be increased to detect and curtail non-point sources of pollution in these waters.

These are exciting and hopeful times for New Jerseyans concerned about their environment. Through the DEP Transformation initiative, the future of outdoor recreation in the Garden State has never looked better. Whether you hunt, fish or just enjoy watching wildlife, promoting a healthier environment ultimately translates into more quality opportunities for doing what you love.

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 wise use 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.

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Bureau of Freshwater Fisheries
Lisa Barno, Chief

A fisheries worker displays a female walleye laden with eggs.

The Bureau of Freshwater Fisheries protects and manages the State's warmwater and coldwater freshwater fish species. It is also responsible for fish-rearing operations at the Division's Pequest and Hackettstown hatcheries. The fish raised here are later stocked throughout the State's inland waterways.

Bureau biologists are highly involved in research, which the Fish and Game Council depends upon to determine New Jersey's annual freshwater fishing regulations. Staff members also play an important role in helping the State meet its Federal Clean Water Act goals and related EPA mandates by monitoring freshwater fish populations, classifying streams and protecting waterways (75-percent of which serve as the public's water supply).

Highlights

Staff at the Hackettstown Hatchery raised and distributed 2.9 million cool and warmwater fish, including 48,000 4-inch hybrid striped bass fingerlings, 31,000 4-inch walleye, 15,000 10-inch muskellunge, and 12,000 11-inch channel catfish. In addition, 130,000 mosquitofish (*Gambusia affinis*) were supplied to the Office of Mosquito Control Coordination. The Hatchery's spring pipeline replacement project was also completed during this time period.

Pequest Trout Hatchery staff raised 619,131 brook, brown and rainbow trout for the Spring, 21,495 for the Fall and 5,010 for the Winter Trout Stocking programs. In addition, 16,300 brown trout were stocked in the Manasquan River as part of the Sea Run Brown Trout Program. Phase II of a project to upgrade the Hatchery's electric well pump system was also completed. Utilizing energy efficient, variable speed motors will offer substantial savings in utility costs.

Bureau staff conducted 112 fisheries surveys (26 lake; 86 stream) and monitored a variety of species, including largemouth bass, lake trout, landlocked salmon and various panfish, as well as several "indicator species" such as brook, brown, and rainbow trout to determine water quality and identify critical habitat areas. Additional fieldwork was performed to control exotic species such as Asian swamp eels, snakeheads and grass carp, as well as invasive plants like water chestnut.

Bureau of Land Management
Tony Petrongolo, Chief

Oyster Creek Boat Launch in Ocean Township, Ocean County.

The Bureau of Land Management (BLM) is responsible for administering the Division's Wildlife Management Area (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

In September, a new boat launch/fishing access facility was opened on Oyster Creek in Ocean County. The project is a joint endeavor between the Division and Ocean Township, which has agreed to operate and maintain the facility. The site includes a boat ramp, dock, parking for 25+ vehicles with trailers, modern comfort facility, fish cleaning station, bulk-heading and shoreline fishing access.

In October, the popular boating access site on the Egg Island WMA in Cumberland County was completely renovated. Improvements included the construction of a new concrete boat ramp, installation of a state-of-the-art floating dock, increased parking for 20 vehicles and trailers, and removal of a dilapidated wooden bridge that spanned the creek. In addition, the access road was raised in elevation to reduce problems caused by over-wash from unusually high tides.

In May, a 667-acre parcel of land was acquired as an addition to the Dix WMA in Cumberland County. This marsh-edged property is comprised of an exemplary mix of salt marsh, agricultural fields and woodlots representing critical habitat for a variety of migratory birds, as well as prime habitat for deer, waterfowl, wild turkey, bobwhite quail, cottontail rabbit and other game animals.

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.

Highlights

On January 24, after being alerted by Division conservation officers who had been intensely monitoring the commercial fishing vessel Atlantic Queen, the U.S. Coast Guard initiated a search for the boat, which had not returned to port in ten days and was presumed missing. It was eventually located safe and intact 70 miles east of Cape May, and expected to return the next evening. At that time, conservation officers boarded the boat at a packing dock in Point Pleasant. Although the vessel held the appropriate federal fisheries permits for the species possessed, it did not have New Jersey landing licenses for the summer flounder and black sea bass found on board. Consequently, it was only legally permitted to land a maximum of 200 and 100 pounds of each species, respectively, as long as it did not exceed 10-percent of the vessel's total allowable catch. Upon inspection, the Atlantic Queen had exceeded the allowable limit for summer flounder by 2,397 pounds and by 1,108 pounds for black sea bass! The fish were seized and sold with monies placed in escrow by the State until a court ruling can be made. The vessel captain and owner were issued seven summonses apiece ranging in penalties from $300 to $3,000 each.

Conservation officers were involved in an investigation involving the illegal shooting of white-tailed deer in Somerset County and subsequent unlawful possession of deer parts. Conservation officers with the Pennsylvania Game Commission were also involved, as it was determined that some of the deer were illegally killed in the Commonwealth. The investigation originated from an ongoing domestic violence case of the Bridgewater Township Police Department and was brought to the Division's attention when the female victim advised detectives that on multiple occasions her boyfriend had forced her to drive him around after dark as he shot deer from the vehicle. Deer parts and a rifle bullet taken from one of the animals were found at her residence, as well as numerous photos of the kills that were stored on her cell phone and computer. Interestingly, the same male was a suspect involved in a hunter harassment incident earlier in the season on

property managed by the Somerset County Park Commission. The proper summonses were issued in both cases. Charges are still pending in Pennsylvania.

A conservation officer measures a porgy to ensure that it meets the legal harvest size limit.

In February and March, conservation officers investigated the activities of several oyster fishermen in the Maurice River Cove section of Delaware Bay off Port Norris. By comparing the observations made to harvester landing reports and dealer records, the officers discovered several individuals who were not tagging and reporting their harvests as required during the Oyster Harvest Season. As a result, eight harvesters and one dealer were apprehended for 13 violations, including harvesting oysters without the purchase of oyster harvest tags, failure to submit reports, submitting false or inaccurate information and failure to renew an oyster dealer license. Proper reporting and use of oyster tags is essential for determining the general health and density of oyster beds in this area of Delaware Bay, as well as developing tag allocations for future years.

Marine Fisheries Administration

Tom McCloy, 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.

In addition to the above organizations, the MFA relies on the expertise and dedication of the New Jersey Marine Fisheries Council to help formulate management plans. The 11-member Council represents recreational and commercial fishermen, fish processors, the general public and the Atlantic Coast and Delaware Bay sections of the Shellfisheries Council. The Marine Fisheries Council is a unique entity in State government in that it can veto marine fishery regulations proposed by the DEP Commissioner. The Council routinely contributes to the fishery management process by holding public hearings on marine fisheries issues, convening species-related citizen panels when necessary, and

working with the MFA to ensure that the management programs slated for implementation allow for the wise utilization of these important resources.

Bureau of Marine Fisheries
Brandon Muffley, Chief

The Bureau of Marine Fisheries 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. This data is 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.

A happy angler poses with his striped bass.

Federal legislation mandates that states implement every fishery management plan approved by the ASMFC. Each plan requires that states implement the required management measures of the plan, 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

Staff assisted in the development and implementation of the free New Jersey Saltwater Recreational Registry Program (NJSRRP) which exempts anglers from registering under the federal registry program and the $15.00 federal fee. The NJSRRP was implemented on May 3, 2011 and mandates that anglers and for-hire vessels recreationally fishing in the State's marine and tidal fresh waters or landing their catches in New Jersey, must first register with the NJSRRP. A website was created specifically for registration purposes and to offer additional information about the new program (visit www.nj.gov/dep/saltwaterregistry/). Since its inception, nearly 220,000 individuals and 1,000 for-hire vessel owner/operators have registered.

In 2008, the Bureau of Marine Fisheries initiated an on-line recreational fishing logbook where saltwater anglers could provide detailed information about their catches and harvests of many popular recreational species in the State. In 2011, this valuable information was approved by the Atlantic States Marine Fisheries Commission and used for the first time to develop summer flounder regulations for the 2011 recreational fishing season. Staff hopes to use this information for other species in the years to come.

Despite the continued loss of staff and resources, the Bureau initiated several new research projects during the 2011 fiscal year. These included the River Herring and Bluefish Aging programs, River Herring Population Analysis in Two River Systems, an expanded Volunteer Angler Survey, Atlantic Sturgeon Research in the Delaware Estuary, Biological Sampling Program for Summer Flounder and Black Sea Bass, Commercial Lobster Ventless Trap Survey, expanded environmental sampling on the Ocean Trawl Survey, and a Biological Sampling Program at recreational fishing tournaments.

Bureau of Shellfisheries

Jim Joseph, Chief

A shellfisheries biologist displays a handful of oysters.

The Bureau of Shellfisheries directs shellfish programs on the Atlantic Coast and Delaware Bay. Staff members work with colleagues in the Bureau of Marine Fisheries, Bureau of Law Enforcement (Marine Unit) and other state agencies to formulate and implement plans to conserve marine habitat and the State's shellfish resources. Bureau staff members also work 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 involved in fostering aquaculture development projects and reviewing 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 in the State.

Highlights

Staff planted 1.5 million hard clam seed to enhance 28 acres of shellfish habitat in the Sedge Island Marine Conservation Zone in Barnegat Bay. This seeding effort was the largest in recent years and confirms the Department's commitment to shellfish enhancement in Barnegat Bay. It was made possible through the Barnegat Bay Shellfish Enhancement Account established with funding from the Exelon Oyster Creek Nuclear Generating Station.

Bureau staff investigated a report that a dredging contactor for the U.S. Army Corps of Engineers (USACE) had grounded a barge on sub-tidal shallows in an area known as Barley Point on the Navesink River in December 2009. The grounding had disturbed productive shellfish habitat and displaced numerous hard clams. In addition, the dredge contractor did not report the incident until several shellfishermen notified the Bureau. Consequently, staff and the NJDEP Office of Dredging and Sediment Technology met with the contractor and USACE resolving that the contractor would purchase 128,000 seed clams (20 to 25 mm) to replenish the impacted areas and reimburse the Bureau's time in planting the clams and monitoring the site. Clam seeding was completed in May 2011.

The Bureau of Shellfisheries, working at the request of the commercial oyster industry, adopted changes to its Oyster Management Rules creating for the first time an annually funded Tongers Fishery Enhancement Project in the Maurice River. Although oyster enhancement activities to the Maurice River Cove (MRC) oyster beds have been ongoing for some time, the new rules will collect a $2.00 fee from tongers (harvesters) for each bushel harvested. This money will then be earmarked specifically for the planting of shell and oyster seed directly on the MRC beds.

Bureau of Wildlife Management

Larry Herrighty, Assistant Director

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

For the first time in five years, a Black Bear Hunting Season was held concurrently with the Six-Day Firearm Buck Season, December 6-11, 2010. Utilizing a hunting season is one of many tools used by the Division to manage an ever-increasing black bear population. A total of 592 bears were harvested in five of the seven counties open to black bear hunting. The results mirrored Division biologists' estimates based on land area and bear density. Of the bears harvested, 41-percent were taken on private property, 39-percent on state property, 16-percent on federal property and 4-percent on

county/municipal land. The largest adult male and female bears had estimated weights of 750 and 500 pounds, respectively and were taken in Morris County.

The Rockport Pheasant Farm, a hatching/rearing facility located in Hackettstown, Warren County, first began producing pheasants for Garden State hunters in 1923. Today, more than 50,000 pheasants are raised annually for distribution to 25 Division Wildlife Management Areas throughout the State. In FY11, the Division replaced the brooder house, egg incubators and hatching room. The upgrades have created a modern, assembly-line operation that includes mechanized egg-turning capabilities within fully aerated incubators and an automatic feeding system. Prior to improvements, these efforts were conducted manually using 1930s-era equipment. As a result of the new automation, the Division will realize substantial savings in labor and utility costs at the facility, which operates on a 24-hour basis. In addition, several outside enhancements were made, including the reconstruction of wire fencing and replacement of top-netting on a third of the rearing pens (about 10 acres). The entire renovation project was funded through the sale of hunting and fishing licenses, stamps and permits. The cost of raising and stocking the birds there is borne entirely by hunters who purchase pheasant stamps in addition to their hunting licenses for a completely "user pays" system.

Staff displays a male ring-necked pheasant raised at the Rockport Game Farm.

Since 2006, the Division has conducted cooperative research concerning waterfowl ecology and management in partnership with the University of Delaware. New Jersey contains key wintering grounds for waterfowl with an estimated 95,000 black ducks and 85,000 Atlantic brant using tidal marsh habitats annually (about 1/3 and 2/3 of the entire continent's black ducks and Atlantic brant, respectively). Current understanding of waterfowl ecology suggests that availability of food on wintering grounds can be a primary factor limiting the growth of waterfowl populations. As continued degradation of tidal marsh habitat on the East Coast occurs, the number of wintering black ducks has declined while the number of Atlantic brant has fluctuated dramatically. Because it is unknown how many ducks and brant the habitat can sustain, biologists are measuring winter food source availability and depletion, habitat use and availability, and waterfowl energy resulting from different behavioral states, to develop a comprehensive "bioenergetics" model that can help quantify that number. Studies in FY11 focused on nighttime behaviors and habitat use, since the nocturnal period comprises the majority of the 24-hour cycle in winter. Recent advances in night vision technology are helping biologists determine the 24-hour energy demand of these species. Over the past two years, 15,000 observations were collected for use in developing the bioenergetics model.

Endangered and Nongame Species Program
Dave Jenkins, Chief

The Endangered and Nongame Species Program (ENSP) was created in response to the enactment of the New Jersey Endangered Species Act of 1973. 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.

New Jersey's bald eagle population continues to recover dramatically. In the spring of 2011, ENSP biologists and volunteers counted a new high of 120 pairs. By the end of June, 95 pairs had produced eggs in nests that hatched 100 young with more expected to fledge over the summer. This, despite a less-than-stellar nesting season the year before in which only 94 pairs were counted with 82 active nests. That year, only 43 nests were successful at producing 69 young. It was the lowest productivity rate in 17 years and attributed to heavy amounts of precipitation and severe winds in the late winter and spring.

For the past several years, federal and state agencies in the Northeast have been conducting surveys to determine the exposure and susceptibility of amphibians to two major diseases. Chytrid fungus (*Batrachochytrium dendrobatidis*) and Ranavirus have been linked to massive declines in amphibian populations worldwide. Beginning with a grant in 2010, the ENSP partnered with Montclair University to conduct the first statewide survey from early spring through mid-summer. More than 2,000 amphibians were captured, marked and released. The data is currently being analyzed with results expected in early 2012.

In FY11, biologists conducting research at the Hibernia Mine in Morris County counted approximately 750 bats. The total is a 57-percent decline from last year's count of 1,756 and a 97-percent decrease from 27,000 in 2009! To date, White-nosed Syndrome (WNS) has decimated cave bat populations in New Jersey and throughout the Northeast as it continues to spread south and west across the nation. As a result, ENSP biologists are continuing their research to better understand how the fungus (*Geomyces destructans*) is causing widespread mortality in hibernating bats. ENSP biologists and researchers at the National Wildlife Health Center worked together to determine if WNS-infected bats emerging from hibernation can recover from the disease. Research showed that by

A cluster of little brown bats in their winter roost.

providing supportive care (food, water, medical attention), bats were able to make a full recovery from WNS. The results of the study were published in the Journal of Wildlife Diseases in 2011. Additional research is being conducted on the use of UV light (to expose fungus-infected tissue) as an early detection tool for identifying bats with WNS. In cooperation with the Conserve Wildlife Foundation of New Jersey, ENSP biologists are also monitoring summer bat maternity colonies to determine breeding success and conducting acoustic monitoring surveys to better understand bat distribution in the State.

Office of Fish and Wildlife Health and Forensics

William Stansley, Research Scientist

The Office of Fish and Wildlife Health and Forensics conducts the surveillance of diseases in captive and free-ranging fish and wildlife populations throughout the State. Scientists from this office detected the first cases of West Nile Virus in birds in New Jersey. 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. These scientists helped develop the State's surveillance and emergency control plans for Foot and Mouth Disease and Chronic Wasting Disease of wild and captive deer as well as the surveillance plan for Avian Influenza in wild birds.

Highlights

An outbreak of Epizootic Hemorrhagic Disease (EHD) occurred primarily in Salem County and accounted for the deaths of 80 deer in September and October of 2010. This particular strain of the virus was first identified in New Jersey in 2007. Previous outbreaks in 1955, 1975 and 1999 were caused by the EHD Type 1 virus. EHD Type 2 is most prevalent in the southern part of the country.

The Office's Wildlife Pathologist and Wildlife Toxicologist wrote a chapter on forensic pathology and toxicology for a book on the subject. In addition, a survey of liver lead concentrations in New Jersey raptors was conducted and the results were published in the journal *Bulletin of Environmental Contamination and Toxicology*.

A young white-tailed buck travels through suburbia.

The tenth statewide survey for Chronic Wasting Disease (CWD) in deer was conducted. The survey included 400 hunter-killed deer plus one deer exhibiting symptoms that died in Hunterdon County. All tested negative for CWD, which causes fatal damage to the nervous system of white-tailed deer and other members of the deer family.

Office of Environmental Review
Kelly Davis, Biologist

The Office of Environmental Review (OER) gathers and coordinates information about the potential impacts of development projects on local fish and wildlife populations. Prior to construction approval, the office offers guidelines to builders that will accommodate these species. Biologists regularly review land use permits for the DEP's Wetlands, Waterfront Development, Coastal Area Facility Review Act, Pinelands and Stream Encroachment programs.

Wetlands and the many species dependent upon them are highly vulnerable to the impacts of development.

Highlights

The OER, in cooperation with the DEP Office of Information Resource Management, created project descriptions, maps and plans outlining expected areas of impact for projects included in the massive New Jersey Environmental Management System (NJEMS) database. The information is currently available to anyone with access to NJEMS.

Staff developed additional layers for the Geographic Information System (GIS) "Master Map," including project timing restrictions for all DE P Surface Water Quality-Classified rivers and streams in New Jersey. GIS layers for all trout stocked water bodies were also provided.

In FY11, staff reviewed and commented on 132 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, young and old, 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 coexist successfully. 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

A major expansion of the Division's Black Bear Education Program was completed with the release of a new film documentary in DVD format and a companion curriculum for students in Grades K-8. The documentary, entitled "Living with New Jersey Black Bears," was developed with scientific input from Division biologists over the course of more than four years. The end result is a comprehensive and up-to-date educational film that will help the public better understand and co-exist with black bears. The Division received 2,500 copies for distribution to groups and organizations located in areas frequented by bears. Recipients included municipalities, state and county parks/recreation departments, private campgrounds, nature centers and scout troops. The companion K-8 classroom curriculum is entitled "Understanding Black Bears" and was adapted from the documentary. It includes 29 interactive activities covering 11 topics and was provided to teachers along with the DVD and 26 CD-ROMs for distribution to students. The free materials were offered to 500 New Jersey teachers through a partnership with Untamed Science, an educational non-profit group that agreed to raise the necessary funds to produce and distribute them.

Since 2005, the Office has annually conducted advertising/marketing campaigns to increase public awareness of fishing opportunities in New Jersey, as well as promote participation. A large component of these efforts has been a direct-mail campaign to former fishing license buyers through a cost sharing partnership with the Recreational Boating and Fishing Foundation (RBFF). FY11 marked the fourth year of that partnership and a significant departure from the traditional postcard design used in the past. Previously, recipients were directed to the Division and RBFF websites for information that would assist and encourage them to fish more often. The old postcard offered only a limited amount of text and required individuals to take the extra step of going online to find information that could influence their decision. The new offering was developed based on surveys of lapsed anglers who revealed that information on places to fish within 30 minutes of their homes was what would most likely persuade them to fish again. As a result, the objective was to provide enough information to allow prospective anglers to decide without having to get on the computer. The final product took the form of three regional versions (north, central and south) of a brochure entitled *Great Fishing Close to Home in New Jersey,* which provides mapped locations and

extensive fisheries information of more than 300 water bodies. In the spring, brochures were mailed to 25,000 anglers in each region with additional supplies retained for general distribution.

A student retrieves her arrows during a NASP exercise.

In FY2011, the Office's Hunter Education Program introduced more than 12,000 people to archery, 6,000 to shotgun shooting and 2,000 to rifle shooting. These individuals were trained through mandatory hunter education training classes, public outreach programs such as the NJ Wild Outdoor Expo, Pequest Trout Hatchery Open House, National Archery in the Schools Program (NASP) and numerous requests from summer camps and scouting programs throughout the State. Education efforts were accomplished through the dedication of a trained volunteer staff that provided 19,386 service hours.

Office of Business Administration
Paulette Nelson, Administrator

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.

Office of Mosquito Control Coordination
Robert Kent, Administrator

The Office of Mosquito Control Coordination (OMCC) works closely with the Division. Though a separate entity with an independent budget, the OMCC is housed within the Division's main office in Trenton, and works cooperatively with the agency to provide a variety of public services. The OMCC is committed to improving quality of life by reducing mosquito populations in an environmentally sound manner.

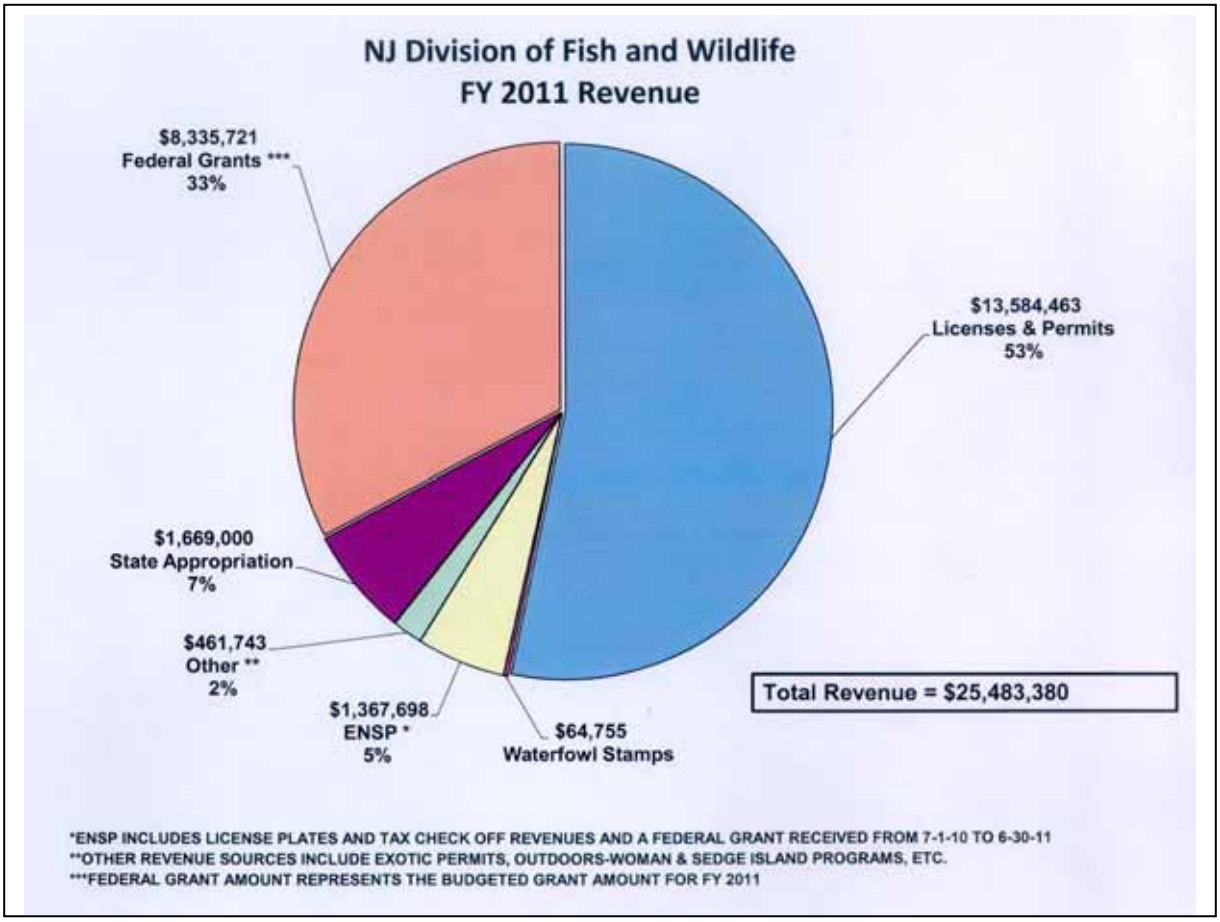
Highlights

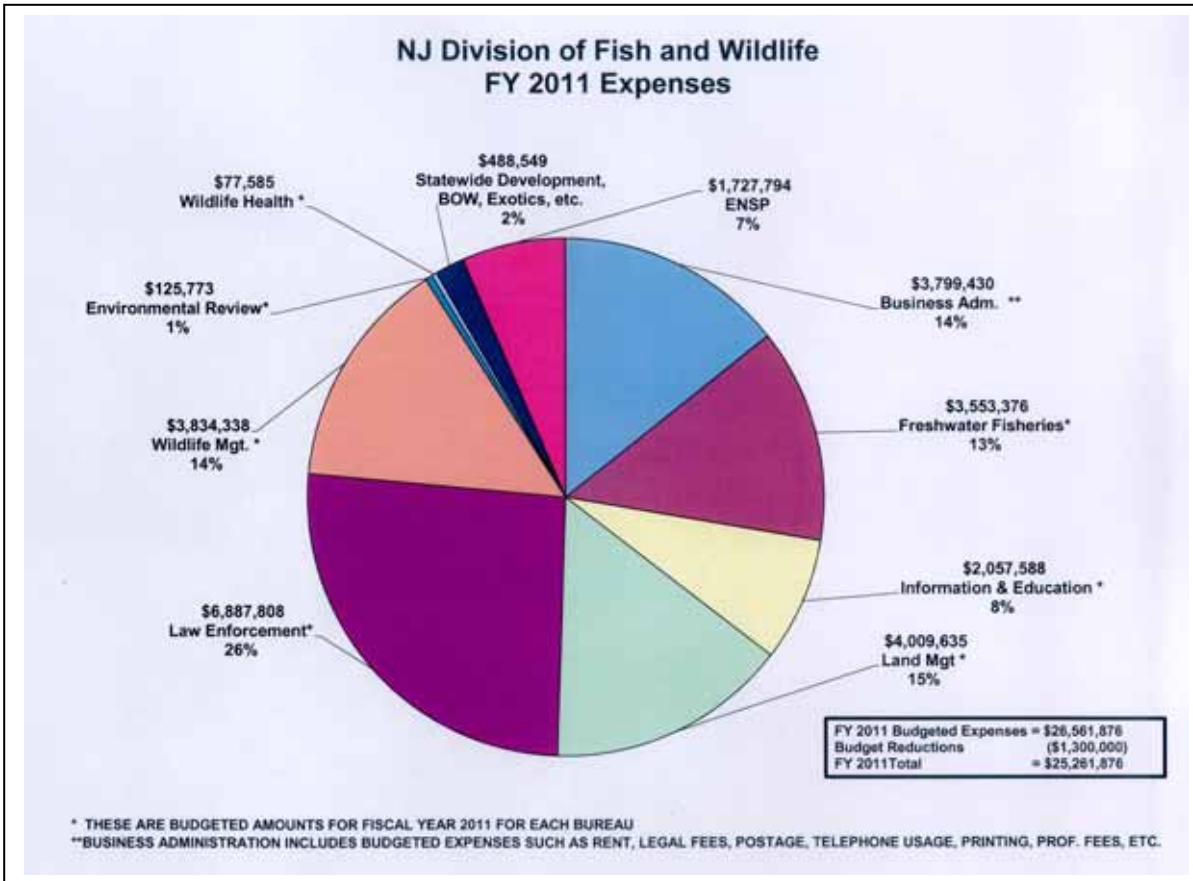
By partnering with the NJ Department of Agriculture's Beneficial Insect Laboratory (BIL), the Office of Mosquito Control Coordination (OMCC) supplemented their biological control efforts by launching a statewide effort to use a tiny, shrimp-like crustacean known as *Macrocyclops albidus*. A voracious larvae predator, the species is native to the State and has been cultured at the BIL for the past several years as county mosquito control agencies under OMCC guidance have evaluated it's effectiveness in a variety of mosquito larval habitats. It is hoped that massive production of this natural controlling agent will replace the need to use pesticides in many areas.

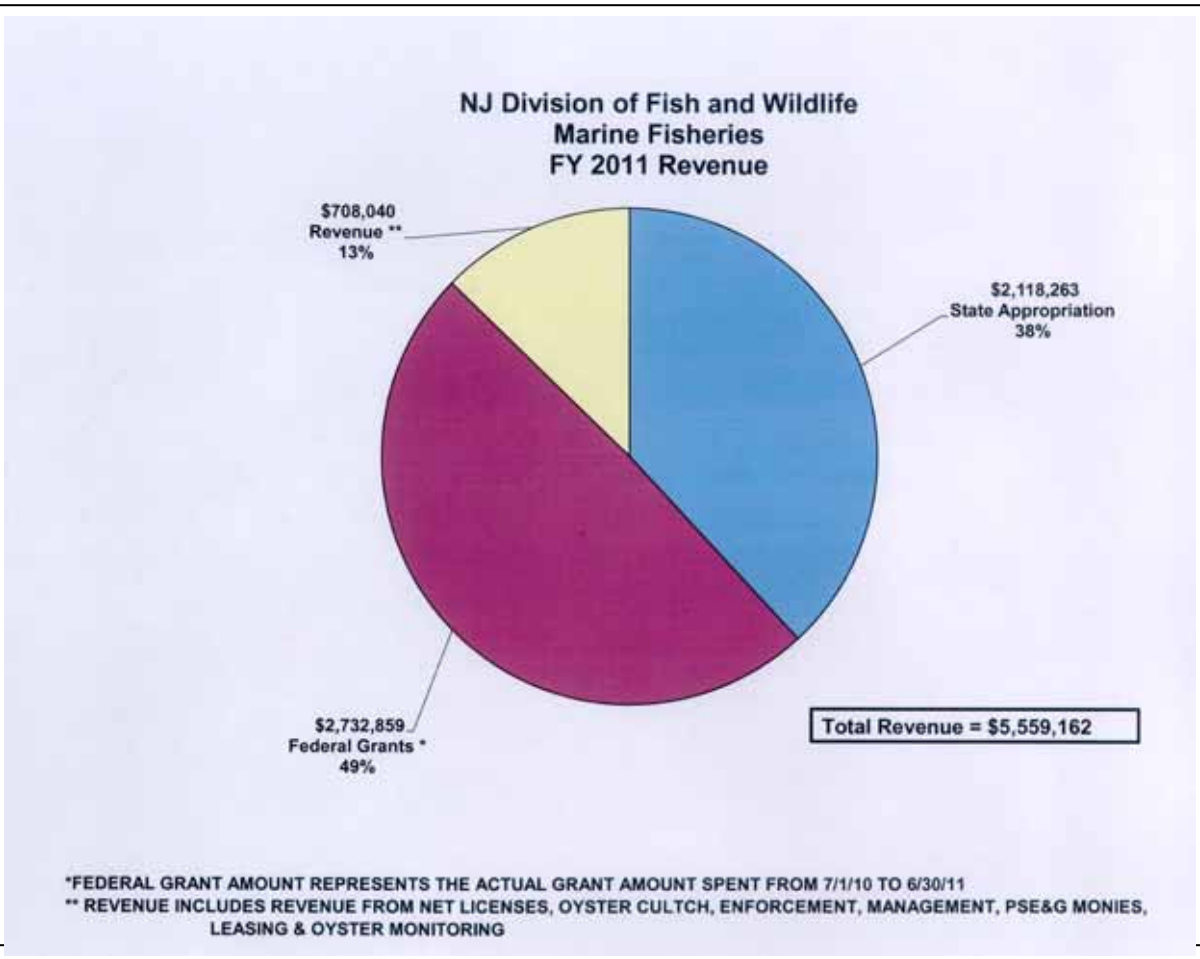
Macrocyclops albidus (adult).

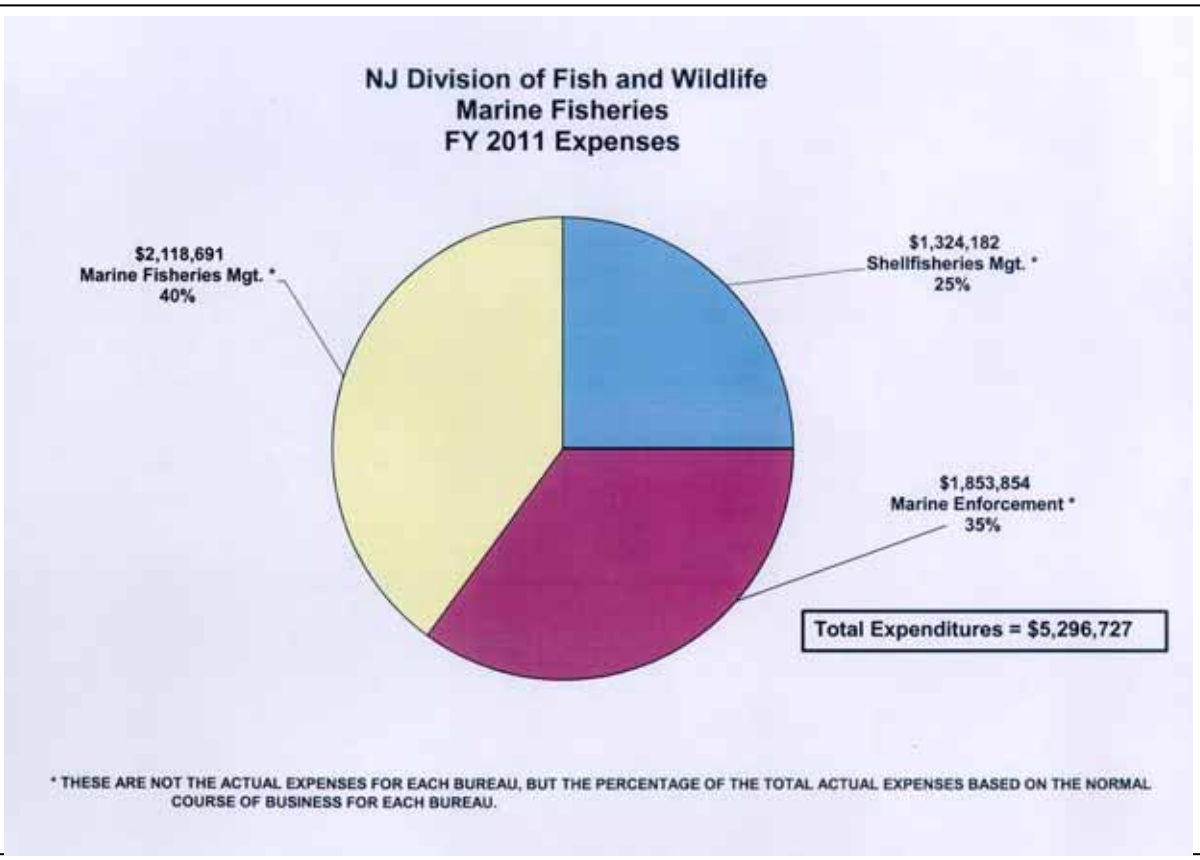
The OMCC's bio-control efforts marked a significant milestone this past year by stocking the three millionth fish since the Mosquito Control Program began 20 years ago. Also noteworthy, the OMCC in partnership with the Bureau of Freshwater Fisheries (BFF) stocked more than 100,000 mosquito larvae-eating fish during this reporting period. If these same fish were obtained commercially, the cost would be $1.00 each, but with assistance from the BFF the State realized a savings of approximately 75-percent. Fish stocking in select areas, eliminates the necessity to treat mosquito-breeding waters with pesticides and provides an environmentally sound alternative to traditional control methods.

The OMCC's recently obtained amphibious, tracked aquatic weed mower has been used at several sites in southern and northern New Jersey for the non-pesticide removal of mosquito-friendly vegetation such as *Phragmites australis*. The machine is utilized by various county, state and federal agencies to control invasive, non-indigenous, mosquito habitat while encouraging the growth of native and beneficial wetlands vegetation.


NJ Division of Fish and Wildlife
FY 2011 Revenue
$8,335,721
Federal Grants ***
33%
$13,584,463
Licenses & Permits
53%
$1,669,000
State Appropriation
7%
$461,743
Other **
2%
$1,367,698
ENSP *
5%
$64,755
Waterfowl Stamps
Total Revenue = $25,483,380
*ENSP INCLUDES LICENSE PLATES AND TAX CHECK OFF REVENUES AND A FEDERAL GRANT RECEIVED FROM 7-1-10 TO 6-30-11
**OTHER REVENUE SOURCES INCLUDE EXOTIC PERMITS, OUTDOORS-WOMAN & SEDGE ISLAND PROGRAMS, ETC.
***FEDERAL GRANT AMOUNT REPRESENTS THE BUDGETED GRANT AMOUNT FOR FY 2011


NJ Division of Fish and Wildlife
FY 2011 Expenses
$77,585
Wildlife Health *
$488,549
Statewide Development,
BOW, Exotics, etc.
2%
$1,727,794
ENSP
7%
$125,773
Environmental Review*
1%
$3,799,430
Business Adm. **
14%
$3,834,338
Wildlife Mgt. *
14%
$3,553,376
Freshwater Fisheries*
13%
$2,057,588
Information & Education *
8%
$6,887,808
Law Enforcement*
26%
$4,009,635
Land Mgt *
15%
FY 2011 Budgeted Expenses = $26,561,876
Budget Reductions ($1,300,000)
FY 2011Total = $25,261,876
* THESE ARE BUDGETED AMOUNTS FOR FISCAL YEAR 2011 FOR EACH BUREAU
**BUSINESS ADMINISTRATION INCLUDES BUDGETED EXPENSES SUCH AS RENT, LEGAL FEES, POSTAGE, TELEPHONE USAGE, PRINTING, PROF. FEES, ETC.


NJ Division of Fish and Wildlife
Marine Fisheries
FY 2011 Revenue
$708,040
Revenue **
13%
$2,118,263
State Appropriation
38%
$2,732,859
Federal Grants *
49%
Total Revenue = $5,559,162
*FEDERAL GRANT AMOUNT REPRESENTS THE ACTUAL GRANT AMOUNT SPENT FROM 7/1/10 TO 6/30/11
** REVENUE INCLUDES REVENUE FROM NET LICENSES, OYSTER CULTCH, ENFORCEMENT, MANAGEMENT, PSE&G MONIES, LEASING & OYSTER MONITORING


NJ Division of Fish and Wildlife
Marine Fisheries
FY 2011 Expenses
$2,118,691
Marine Fisheries Mgt. *
40%
$1,324,182
Shellfisheries Mgt. *
25%
$1,853,854
Marine Enforcement *
35%
Total Expenditures = $5,296,727
* THESE ARE NOT THE ACTUAL EXPENSES FOR EACH BUREAU, BUT THE PERCENTAGE OF THE TOTAL ACTUAL EXPENSES BASED ON THE NORMAL COURSE OF BUSINESS FOR EACH BUREAU.