

FY2012 Annual Report

July 1, 2011 – June 30, 2012



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



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Department of Environmental Protection
Division of Fish and Wildlife
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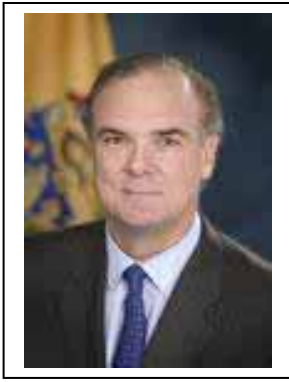
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Message from DEP Commissioner Bob Martin

As Commissioner of the New Jersey Department of Environmental Protection, I am pleased to present the Division of Fish and Wildlife's FY12 Annual Report spanning July 1, 2011 to June 30, 2012. The many impressive programs, projects and activities highlighted herein attest to the hard work and commitment of these dedicated professionals to ensuring healthy fish and wildlife populations, preserving quality habitat, and fostering a positive outdoor experience for those who live, work and vacation in the Garden State.

One of our state's greatest assets is the richness and diversity of its fish and wildlife resources. New Jersey is home to more than 800 wildlife species (73 currently listed as endangered or threatened) and serves as an important rest and refueling stop for many others during their seasonal migrations. The Division of Fish and Wildlife is responsible for professionally monitoring and managing these populations, and the lands and waters on which they depend.

As you read through the year's accomplishments, I hope you will reflect on the enormity of the task and how successfully it is being carried out. May the information inspire you to discover the wonder and diversity of our state's natural resources first-hand.

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. Currently, the Division employs approximately 240 people statewide in 18 field locations and one main office in Trenton. It is comprised of 11 major program areas: freshwater fisheries, land management, law enforcement, marine fisheries, shellfisheries, wildlife management, endangered and nongame species, health and forensics, environmental review, education, and administration.

Our Mission

To protect and manage the state's fish and wildlife to maximize its long-term biological, recreational and economic values for the benefit of 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 resources 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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*New Jersey's only native trout species:
the brook trout.*

Bureau of Freshwater Fisheries

Lisa Barno, Chief

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 on 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

The Division's Hackettstown State Fish Hatchery celebrated its 100th year of operation at a public celebration held June 2-3, 2012. The special event paid tribute to the Hatchery's long history in New Jersey and was attended by more than 15,000 visitors who were granted access to the facility for the first time in 30 years. Prior to the celebration, several renovations were made to the original building and 230 surrounding acres. During the year, the hatchery raised and stocked more than 1.5 million fish of 15 different species for stocking throughout the state.

During the spring of 2012, staff from the Pequest Trout Hatchery stocked 620,262 trout, weighing 340,996 pounds. It was the fourth highest year for poundage in the facility's 29 years of operation. A total of 26,390 trout were also stocked for the Division's Fall and Winter Stocking programs.

The Bureau's Research and Management Unit completed 33 fisheries surveys in various waters throughout the state. Of the 18 surveys performed on streams, seven were part of continuing efforts to assess and classify New Jersey's fresh waters. Fifteen surveys targeted lakes and focused on managing largemouth and smallmouth bass, muskellunge and lake trout.

During this report period, efforts to monitor the passage of American shad through the Island Farm Weir Fish Ladder were reinstated. The weir is a dam-like structure with a "ladder" to help the fish on their migration up the river. Plans for the removal of the Calco Dam downstream of the weir are underway and should facilitate migration as well.

Bureau of Land Management

Tony Petrongolo, Chief

The Bureau of Land Management (BLM) is responsible for administering the Division's Wildlife Management Area (WMA) System which now comprises more than 330,000 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, repair of roads and bridges, and the construction and maintenance of parking areas and boat ramps. The Bureau is also responsible for maintaining 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 other critical fish and wildlife habitat.

Highlights

Staff drafted and implemented a forestry stewardship plan for the 3,224-acre Sparta Mountain WMA in Sussex County to benefit endangered wildlife species that require early successional forest habitat (grasslands mixed with low shrubs and/or young trees). In a cooperative project with foresters from the New Jersey Audubon Society, biologists marked timber from areas along the power line right-of-way (ROW) for harvest to improve habitat for the golden-winged warbler, which currently nests in the vicinity of the power line. The harvest effort resulted in leaving 15 acres of widely spaced trees in proximity to the ROW near wetlands and at an elevation that would benefit the birds. By thinning out the landscape to encourage new growth, biologists are able to achieve the early successional habitat favored by this species.

Similarly, staff initiated a wildlife habitat restoration project to create 22 acres of early successional habitat on the Manasquan WMA in Ocean County. The site, a former gravel pit, was completely cleared (i.e., hydro-axed, mowed and control burned) during the winter to encourage new growth in the spring. Further efforts include the planting of warm season grasses (native species that grow in the summer) to complete the project.



Biologists plant warm season grasses to improve the habitat for wildlife.

Staff designed and implemented a project at Lizard Tail Swamp WMA in Cape May County to create vernal pool habitat for endangered eastern tiger salamanders. Vernal pools are enclosed wetland depressions that hold water for at least two consecutive months of the year. Eastern tiger salamanders rely on these pools for breeding. This project is part of a larger effort to assist migration of the species along the Cape May Peninsula by creating travel corridors of habitat

critically needed for their survival. Pools were constructed in the fall of 2011 and the presence of eastern tiger salamanders was documented during the winter of 2011-12.

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

An anonymous tip was received at the Northern Region Office about a large 8-point buck illegally shot with a rifle the previous night in Belvidere, Warren County. Officers responded to the suspect's residence and observed fresh blood and deer hair in the bed of his truck. Upon questioning, he admitted to killing the deer and butchering it at a friend's farm nearby. The officers were able to recover the meat at the farm, but when questioned about the antlers, the suspect claimed to have thrown them out. While at the suspect's house, the officers noticed a mount of a very large 19-point deer hanging in the living room, which the man claimed to have shot in Illinois. Subsequent record checks with the Illinois Department of Natural Resources revealed that the suspect had never possessed an Illinois hunting license and had never registered a deer in that state. As a result, conservation officers along with officers from the Belvidere Police Department, New Jersey State Police and the Warren County Prosecutor's Office executed a search warrant at the suspect's residence. The head of the 8-point buck was found in the freezer along with the antlers and skull cap from a second freshly killed, illegally harvested buck. In addition to the above deer parts, the officers confiscated the mounted 19-pointer as well as multiple other mounts and more than 50 sets of antlers, none of which had any proper documentation. Officers are currently in the process of examining the suspect's cell phone, which contained many pictures of dead bucks and text messages about the suspect's illegal hunting activities. The individual has been charged with nine violations pertaining to the 8-point buck with numerous charges pending upon completion of the investigation.

During the early morning hours of July 22, marine conservation officers received a complaint regarding a group of five individuals using a cast net to catch striped bass from the Fortescue Creek Bridge on the Fortescue WMA in Cumberland County. Upon obtaining a vehicle description, the officers set up surveillance on the only road leading out of the WMA and were able to stop the fishermen. An inspection revealed the cast net and 11



Marine conservation officers with an assortment of confiscated illegally-caught fish.

undersized striped bass. Upon questioning, one individual claimed to have caught all the fish while the others watched. Summonses were issued for the small bass and the taking/possession of nine striped bass over the daily limit. Officers also ascertained that the angler owned a restaurant in Bridgeton and decided to conduct an inspection later that day. Their hunch proved to be right as a total of 74 undersized striped bass were discovered in a freezer. Subsequently, summonses were issued for the illegal possession of the fish, possession of 68 striped bass over the daily limit, possession of striped bass for the purpose of selling, and failure to provide accurate records of fisheries resources. The maximum penalties for all charges exceed \$19,000.

While on patrol in the southern region, a conservation officer had been listening to two hunters calling wild turkeys in Port Norris, Cumberland County. About 20 minutes before the close of legal hunting hours, he heard three shots followed by a conversation between the individuals. Edging closer, he saw them put a turkey into a black plastic bag and place it into their vehicle with one hunter mocking that he was “not going to bother filling out the transportation tag” (an illegal act since a turkey must be tagged immediately upon harvest and taken to an official check station by 3 p.m. in the spring and 7 p.m. in the fall). A search of the vehicle revealed that they had in fact, shot two turkeys and failed to tag either one. It was then explained that part of their responsibility as sportsmen was and remains helping to collect important harvest information for managing turkeys in the state. The appropriate summonses were issued.

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 fisheries regulations proposed by the DEP Commissioner. The Council routinely contributes to the 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 (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. 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.

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 second year (first full 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 \$15. The data is 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 2011 database of contact information included 251,025 individuals and 1,013 for-hire operators.

During the spring of 2012, biologists deployed 18 acoustic receivers in Delaware Bay to track migration patterns of Atlantic sturgeon, a state and federally endangered species. As part of a multi-state collaborative effort, the Bureau helped develop a multi-year study to provide state, federal, and regional fisheries managers with information to protect and ultimately restore the population in the mid-Atlantic region. The special receivers detect movement of fish identified with acoustic telemetry tags and the information is downloaded monthly. Of the 209 fish detected, 80 were Atlantic sturgeon. The data collected will allow biologists to monitor important migratory patterns in Delaware Bay.



Fall surf fishing along the Jersey coast.

Staff developed a planning document outlining the increasing demands and compliance requirements of coast wide fisheries management, current status of the Bureau (in terms of personnel and fiscal solvency), and priority rankings of existing job responsibilities. Based on this comprehensive approach, recommendations were made regarding which responsibilities could reasonably be continued and which should be terminated given the current resources. Lastly, the document offers various objectives and suggested actions to chart a course for the future.

Bureau of Shellfisheries

Russ Babb, Chief

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. 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.



Biologists assess the health of oysters in Delaware Bay.

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 received its new, long-awaited 46-foot research vessel currently stationed at the Bureau's Delaware Bay Region Office (DBO). Biologists worked directly with the builder to design the boat specifically for conducting research in the Bay. The recent acquisition upgrades and improves the research capacity, safety and scope of biologists in these waters, while the vessel it replaces will be transferred to the Atlantic Coast Office to supplant a much older, inoperable one. The ocean side relocation will enhance clam and oyster assessment/restoration efforts in Barnegat Bay and elsewhere along the coast.

The Bureau conducted a stock assessment survey of shellfish, particularly hard clams, in Little Egg Harbor Bay (LEHB) during the summer of 2011. The survey was conducted to gather baseline data in conjunction with the Governor's own initiative to restore Barnegat Bay. A total of 196 locations were sampled using a hydraulic clam dredge. Hard clams and other shellfish species of economic value were counted and measured. In addition, submerged aquatic vegetation collected in the dredge was identified and documented. The sites sampled were the same as those evaluated in similar studies conducted in 1987 and 2001. This consistency allows for comparisons among the years to identify population trends. The information collected will enable biologists to estimate the number of hard clams present and identify sensitive areas for any future coastal development projects. The sampling of Barnegat Bay (north of LEHB), began in May 2012 and is currently ongoing with 355 locations scheduled for sampling.

Bureau staff teamed with those of other state government agencies as well as leaders in New Jersey's shellfish aquaculture industry and academia to establish Aquaculture Development Zones (ADZs). The goal of creating ADZs is to facilitate expansion and innovation within the industry by designating areas specifically for aquaculture purposes involving the use of enclosures (i.e., racks and cages). As these locations are already state and federally permitted for operation, prospective leaseholders may now bypass a previously lengthy and complicated process that had been deemed an impediment to aquaculture development. Three ADZs encompassing 1,151 acres were established in the lower Delaware Bay. The fourth, a 51-acre intertidal (exposed at low tide) ADZ was located in the area adjacent to the mouth of Green Creek in Cape May County. Extremely popular, this area has gained the most interest among the industry with all available leases issued.

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

The Bureau began efforts to finalize details and promote the launch of a new Automated Harvest Report System (AHRS) for white-tailed deer, which is replacing the longstanding concept of check stations. The AHRS requires hunters to report harvested animals via phone or Internet and eliminates the need to physically bring them to a check station. For hunters, reporting deer through the automated system means no more searching for open check stations or waiting in line after a long day of hunting. The AHRS will also reduce the checking cost per deer by more than 50%, free up biologists' time for other important deer management work and provide instant access to deer harvest data.

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 FY12 continued to focus on nighttime behaviors and habitat use since the nocturnal period comprises the majority of the 24-hour cycle in winter. As a result, energy budgets were developed from observations of 11,542 black ducks and 5,862 brant collected from 2009-11. Both species were found to be active in all behavior states throughout the 24-hour cycle. However, both species spent more time flying during daytime periods and less time flying during the nocturnal period. Since flying expends 13 times more energy than resting behavior, measurements of nocturnal behavior reduce the amount of overall energy needed by these birds when compared to using traditional measurements of only daytime activity. If daytime observations are used exclusively as has been the case in previous studies, daily energy expenditure are likely to be overestimated leading managers to believe that the landscape can support fewer birds than is actually possible.

Wildlife biologists continue to examine the relationship between declining bobwhite quail populations and their habitat in South Jersey. A survey was conducted in the winter of 2012 to determine the current practices of New Jersey farmers with regard to quail restoration efforts. A total of 581 questionnaires were sent to landowners residing in Cumberland, Gloucester and Salem counties who received a Farmer Deer Shotgun Permit. Surveys were returned from 219 respondents for a 37.7% response rate.



A male bobwhite quail nestled in the snow.

Results revealed the average land parcel size was 103 acres. Of these, 66% percent contained hardwood forests, 63% row crops, 49% pasture/hay, 22% pine forests and 47% contained at least some wetlands. Respondents had been farming/managing their land for an average of 24 years with 82% indicating that their primary residence was located on that land. Sixty-five percent showed some level of interest in managing for quail on their property and 59% said they were interested in providing habitat for this species on their land. However, only 20% indicated that they were willing to actually convert some of their land into quail habitat.

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. Nearly 75 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 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

Since 2008, along with other states in the region, biologists have been annually monitoring New Jersey's golden-winged warbler population since 2008. This monitoring, coupled with information on trends in the area prompted the decision to list New Jersey's breeding population of golden-winged warblers as state-endangered in February 2012. The eastern population of golden-winged warblers has been declining for many decades. In New Jersey from 2000-2008, research showed that the breeding population had dropped 75-percent. Currently, it is stabilized at 25-30 actively reproducing pairs at 22 locations. In an effort to learn more about survival rates and breeding sites, 13 male and two female golden-winged warblers were netted and banded during this report period. Also and as part of a cooperative effort to create breeding habitat on private lands, biologists are assisting in the Natural Resources Conservation Service's new *Working Lands for Wildlife* initiative. Staff help review prospective management plans submitted by applicants. Thus far, these efforts have resulted in managing more than 85 acres of forest for breeding golden-winged warblers.



The colorful male golden-winged warbler.

The ENSP partnered with the Cape May County Zoo, Conserve Wildlife Foundation and Montclair State University to develop and implement a breeding program for eastern tiger salamander. The project is part of a larger effort to assist eastern tiger salamander migration along the Cape May Peninsula as well as help protect the population against losses due to rising sea levels. To begin, biologists reviewed exactly where tiger salamander ponds occurred and determined that many were at risk. Next they teamed up with staff from the Bureau of Land Management to construct/restore 10 vernal pools on the Lizard Tail Swamp Wildlife Management Area in Cape May County. As a result of these efforts, natural migration was documented with egg masses observed in each of the newly excavated ponds. Some of the egg masses were collected and placed inside

predator exclusion cages to ensure development. Some were delivered to the Cape May County Zoo to be raised under laboratory conditions. Prior to release into the wild, genetic samples were taken from individuals in both the cages and the lab tanks to determine maternal and paternal lineages of each. Such information can help in determining which rearing method was most effective when testing future populations. To date, Montclair State University is currently analyzing the information collected.

ENSP staff updated and released a new version of its Landscape Project (3.1), an interactive ecosystem-based mapping tool that assists government agencies, planners, conservation groups, the public and others in making decisions that involve protecting wildlife habitat. Since the last edition, information on the occurrences of more than 3,500 new species have been added including those with a status of endangered or threatened as well as those previously not represented such as freshwater mussels, marine mammals and marine turtles. In addition, the new version offers more detailed information on species occurrences along with research documentation and references to supporting scientific literature.

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 state government to specialize in fish and wildlife pathology and 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 in deer from Morris, Mercer and Middlesex counties during the late summer of 2011. It was the third outbreak of this particular strain of the disease (serotype 2) in the last five years. Previous outbreaks in 1955, 1975 and 1999 were caused by the EHD serotype 1 virus. The serotype 2 strain is prevalent in the southern states and the increase of its occurrence up north is not well understood yet.

The 11th annual statewide survey for Chronic Wasting Disease (CWD) in white-tailed deer was conducted in 2011. The survey included 360 hunter-killed deer plus two symptomatic deer that died in Somerset and Hunterdon counties. All tested negative for CWD, which causes fatal damage to the nervous system of white-tailed deer and other members of the deer family. Since 1997, a total of 4,753 wild deer, 129 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.

In 2011, the Division joined the Southeastern Cooperative Wildlife Disease Study (SCWDS) making New Jersey the 19th state to become a member. SCWDS provides critical diagnostic services to help identify and control disease outbreaks in fish and wildlife populations throughout the region.

A new fish pathologist was hired in 2011 to replace the previous one who retired six years ago. The office remains one staff member short with the retirement of a former research scientist in June of 2011.



A fish pathologist at work in the lab.

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, the office provides guidelines to builders that will accommodate these species and their habitat. Biologists regularly review land use permits for the DEP's Wetlands, Waterfront Development, CAFRA (Coastal Area Facility Review Act), Pinelands and Stream Encroachment programs.

Highlights

On the recommendation of OER staff, the Department has incorporated using an electronic folder for descriptions, maps, pictures and plans for every project in the New Jersey Environmental Management System database. These folders have enabled the Division to review projects and assess potential impacts with greater speed and efficiency, nearly doubling the number of evaluations staff have been able to perform annually.

Staff continued the review and development of an anadromous species (those that travel from saltwater to freshwater to spawn) layer for the DEP's Geographic Information System "master map." It will eventually provide environmental planners with appropriate timing restrictions based on the specific waterway and species present.

In FY12, staff reviewed and commented on 157 project proposals that had the potential to adversely impact the state's fish and wildlife resources.

Office of Information and Education
Jim Sciascia, Chief



Some of the many activities to try at the NJ Wild Outdoor Expo.

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 second annual New Jersey Wild Outdoor Expo. More than 90 organizations participated, connecting an estimated 5,300 visitors to the natural world by providing a unique blend of conservation information, education and hands-on opportunities to learn outdoor skills and activities. Throughout the weekend, guests were introduced to a wide variety of outdoor recreation, including fishing, target shooting, kayaking, hiking, camping, rock climbing, orienteering 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.

In FY12, a major expansion of the National Archery in the Schools Program (NASP) was initiated in New Jersey. In an effort to recruit new schools and improve communication with participants, two full-time employees were hired to coordinate the program that teaches 4th - 12th grade students target archery skills during physical education class. With the added staff, 12 Basic Archery Instructor Training classes were conducted statewide in FY12 (more than double that of last year), welcoming several new schools, summer camps and after-school programs into the fold. In addition, thousands of people were introduced to NASP through archery ranges set up at Division-sponsored events, including the NJ Wild Outdoor Expo, Pequest Trout Hatchery Open House, and

Hackettstown Fish Hatchery 100th Anniversary Celebration. The Division also partnered with Tightline Productions to develop a DVD that is currently in the final phases of production. In addition, 30,000 color brochures were printed and will be combined with the DVD to create a promotional package for public distribution. Progress on a proposed public indoor/outdoor community archery park continues with the completion of an environmental assessment and scheduling of a public meeting to present the findings.

Development of a Smartphone App for hunters, anglers and wildlife watchers was initiated through an agreement with *Parks By Nature*, the same company that developed the New Jersey State Parks and Forests App. Scheduled for release in late August/early September 2012, the Fish and Wildlife Smartphone App is available free to download. Features include places to hunt and fish, wildlife viewing sites, guide to fish and wildlife species, rules and regulations, license and permit information, and GPS mapping. It will be a powerful tool in helping introduce the public to New Jersey's fish and wildlife resources, and encourage them to step outside and explore the recreational opportunities available.

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: Licensing and Revenue, Permitting, and Budget/Procurement. These three sections work together in a team approach to provide fiscal services to the Division and its constituents.



Sample Hunting License

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.



*A mosquitofish (Gambusia affinis)
eyeing its next meal.*

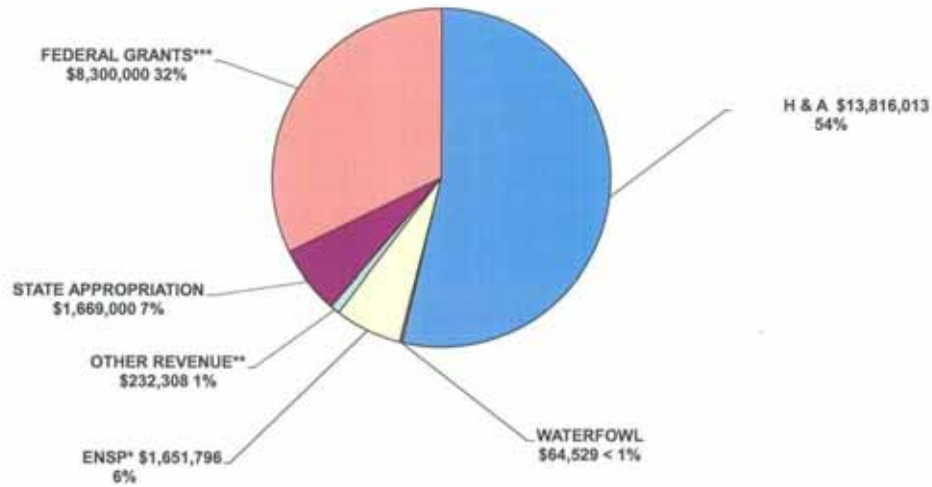
Highlights

The Office of Mosquito Control Coordination continued its valuable partnership with the Bureau of Freshwater Fisheries by obtaining more than 150,000 mosquito larvae-eating fish from the Hackettstown Hatchery. Twelve counties were stocked with mosquitofish (*Gambusia affinis*), fathead minnows and sunfish. This natural alternative to traditional mosquito control methods eliminates the need to apply pesticides in the areas receiving fish.

In partnership with the New Jersey Department of Agriculture (NJDA), the OMCC continued its initiative to develop viable populations of the crustacean *Macrocyclus albidus*, a natural predator of mosquito larvae in freshwater. Crustaceans reared in the NJDA's Philip Alampi Beneficial Insect Rearing Laboratory were made available to every county mosquito control agency in New Jersey.

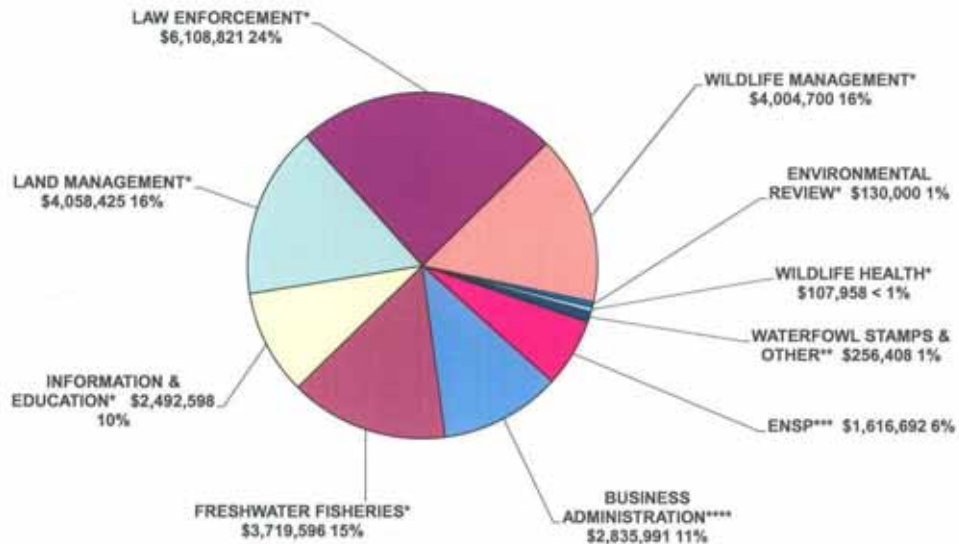
The fleet of state-owned mosquito control equipment was used to improve wetland areas documented as persistent mosquito production sites. More than a dozen pieces of equipment were used for projects aimed at eliminating mosquito breeding habitat in eight counties, many of which focused on watersheds previously subject to repeated applications of pesticides.

FY 2012 Hunter and Angler Account
Total Revenue = \$25,733,646



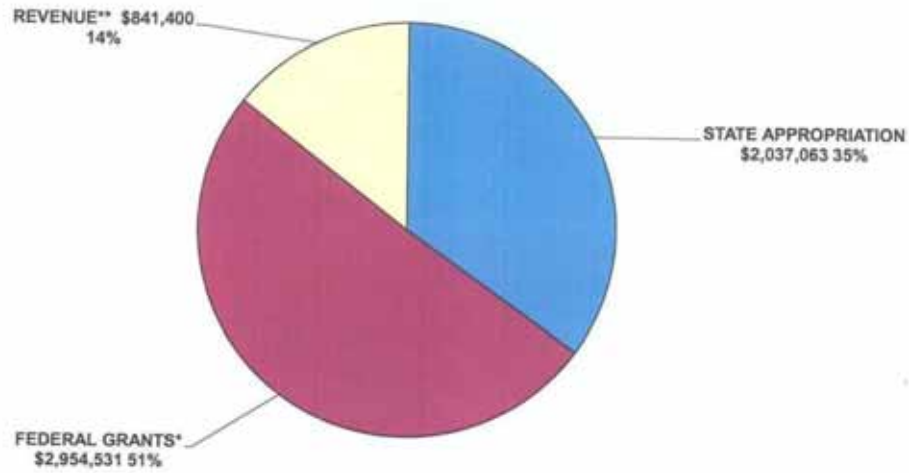
*ENSP INCLUDES LICENSE PLATES AND TAX CHECK OFF REVENUES, AND FEDERAL GRANTS RECEIVED FROM 7-1-11 TO 6-30-12
 **OTHER REVENUE INCLUDES EXOTICS, OUTDOOR WOMAN, SEDGE ISLAND AND OTHER PROGRAM REVENUE
 ***FEDERAL GRANT AMOUNT REPRESENTS THE BUDGETED GRANT AMOUNT FOR FY 2012

FY 2012 Hunter and Angler Account
Total Expenses = \$25,331,189



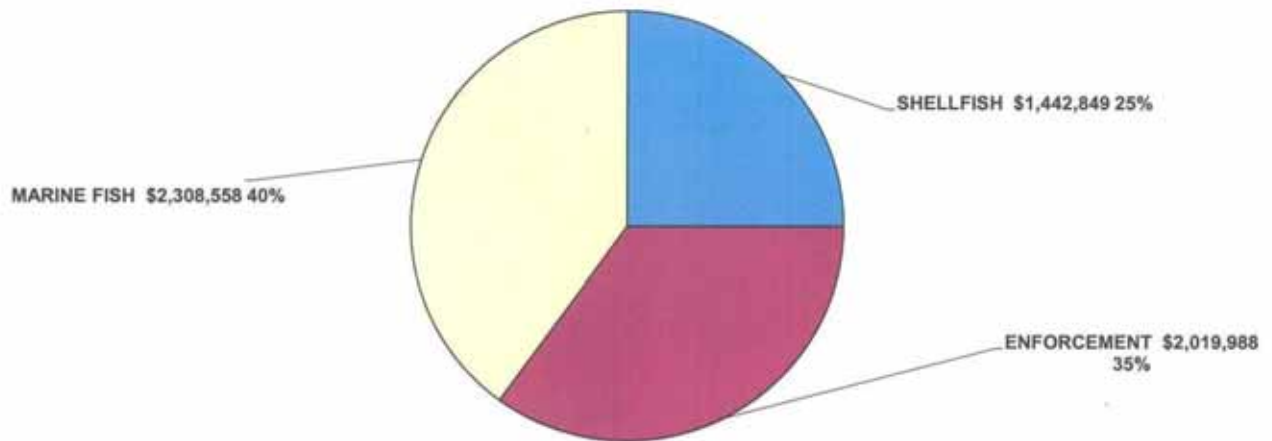
* THESE ARE BUDGETED AMOUNTS FOR FISCAL YEAR 2012 FOR EACH BUREAU
 ** THESE ARE ACTUAL EXPENSES INCURRED FROM LICENSE PLATE, WATERFOWL, EXOTICS, OUTDOOR WOMAN ETC. ACCOUNTS
 *** ENSP FEDERAL GRANTS RELATED EXPENSES FROM 7-1-11 TO 6-30-12 ARE INCLUDED IN THIS AMOUNT
 ****BUSINESS ADMINISTRATION INCLUDES BUDGETED EXPENSES FOR PERMITS, RENT, LEGAL FEES, POSTAGE, TELEPHONE, PRINTING, PROFESSIONAL FEES, TRAVEL AND OTHER ADMINISTRATIVE SUPPORT SERVICES

FY 2012 Marine/Shellfish
Total Revenue = \$5,832,994



*FEDERAL GRANT AMOUNT REPRESENTS THE ACTUAL GRANT AMOUNT SPENT FROM 7/1/11 TO 6/30/12
 ** REVENUE INCLUDES REVENUE FROM NET LICENSES, OYSTER CULTCH, ENFORCEMENT, MANAGEMENT, PSE&G, LEASING, AND OYSTER MONITORING

FY 2012 Marine/Shellfish
Total Expenses = \$5,771,395



* 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.