

WHERE has my fish traveled?

NEW JERSEY'S
STRIPED BASS
TAGGING PROJECT

By Heather Corbett,
Assistant Fisheries Biologist



When discussing fish tagging programs, most people drift towards the same questions. How many fish have you tagged? Where do the fish go after tagging? How old are the fish? Many anglers may never have caught a tagged fish; some may think researchers are tagging too few. As you will see, that is definitely not the case with striped bass.

How many fish have you tagged?

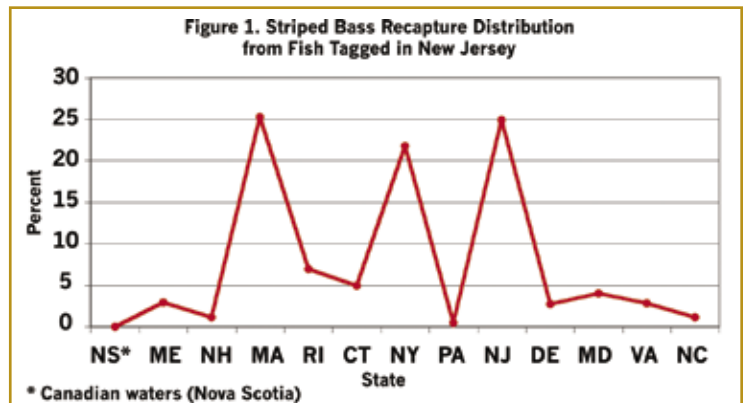
The Coastwide Cooperative Striped Bass Tagging Program is coordinated by the U.S. Fish and Wildlife Service (USFWS) and involves several state and federal agencies from North Carolina to Massachusetts. Each agency is responsible for submitting their tagging information annually to the USFWS, which handles tag distribution, recapture reporting and management of the coastwide database for all releases and recaptures. Since 1987, 473,942 striped bass were tagged and released coastwide with 84,964 recaptures reported to date.

Division of Fish and Wildlife personnel began tagging Delaware Bay striped bass in 1989, marking 34,689 fish from various New Jersey waters through 2007. Although the majority of these fish (26,809) were tagged during the spring on the Delaware Bay, striped bass were also tagged on the Navesink and Delaware rivers as well as along the coast during the Ocean Trawl Survey and coastal sampling of striped bass party boats.

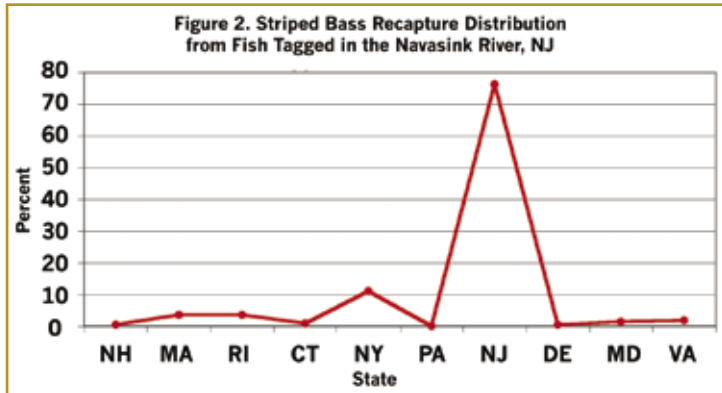
Where do the fish go after they are tagged?

Of the fish tagged in New Jersey, 7,877 recaptures have been reported. These recaptures range from North Carolina to as far north as Nova Scotia. Although only one New Jersey-tagged fish has been recaptured in Canadian waters, it does make an interesting footnote. The striped bass was tagged during January 1992 in Barnegat Bay and was recaptured in the Sissiboo River near Weymouth, Nova Scotia in September 1993.

The majority of fish tagged by Fish and Wildlife (64 percent) are recaptured north of New Jersey, while 26 percent are caught in New Jersey and Pennsylvania. Only 11 percent of recaptures are reported from the south (Figure 1). Striped bass recaptures from fish tagged in Delaware Bay and along the coast tend to follow similar movement patterns, with most of the recaptures occurring in Massachusetts, New Jersey and New York. The majority of these tagged fish are immature females or young adult males which travel as part of the mass migration up and down the coast.



Fish tagged in the Navesink River from 1989 to 2000 generally followed a different pattern with over 76 percent recaptured in New Jersey waters (Figure 2). Factors which may account for this difference could be the tagging location and the type of fish. Striped bass tagged in the Navesink River were stocked by Fish and Wildlife as part of a restoration project during the 1990s. These fish were progeny of a non-migratory stock of striped bass from North Carolina and may tend not to migrate like wild stocks from the Chesapeake Bay, Hudson River and Delaware River.

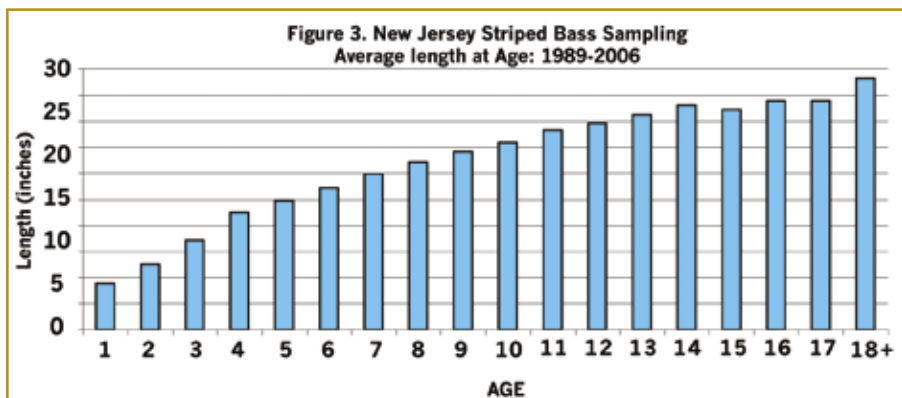


What ages are the tagged fish?

Scale samples collected during tagging provide invaluable information for the development of age-length keys. These keys help determine the general age range of a fish if a scale sample is not available, such as with those fish you catch. (Figure 3).


Each fish is measured prior to tagging, a subsample is weighed and scales are taken from all fish for age determination. (See sidebar on aging scales.) During the 2006 Delaware Bay tagging survey, fish ranged in total length from 16 to 40 inches, with a mean size of 25 inches. The majority of the fish collected were ages five through seven years old, with the 2000 year-class accounting for 36 percent of the fish sampled.

An example of using an age-length key to



estimate the age of a striped bass includes a striper dubbed "Morsax" tagged in the early days of our sampling. Morsax was 24 inches when tagged in the Delaware Bay during March 1989. It was quickly recaptured in November of the same year, in Barnegat Inlet, New Jersey then re-released. By January 2004, Morsax had grown to 43 inches when it was recaptured again off the coast of North Carolina. Morsax held the tag for nearly 15 years. A scale sample was not taken at the time of tagging, so biologists used the Delaware Bay age-length key to estimate the approximate age of the fish. When tagged, it was estimated to be five years old, so by the second recapture Morsax would be around 20 years old.

The travels of Morsax may not have occurred without proper hook and release techniques at the time of first recapture. Fish and Wildlife encourages catch and release when possible, so it is imperative to take good care of fish during handling. Approximately 54 percent of all recaptured coastal striped bass are re-released, while 66 percent of fish marked from the Delaware and Navesink rivers are re-released.

With the number of tagged striped bass swimming along our coast, anglers have a fair chance of catching one. The recapture rate coastwide is about 18 percent, while New Jersey's recapture rate is 23 percent. If you see a pink tag protruding from the belly of a striper, record the tag number, length, date, location and capture method. If you cannot record the data, cut the tag at its base, retain the tag, then call (800) 448-8322 to report the recapture. The USFWS will send information from when your fish was tagged and will reward you with a hat. Good luck and keep looking for the pink tags. 



Scale from five year old striped bass.



Fish scales are heated in this press to burn an impression onto an acetate slide.

Striped Bass Scale Aging

- Most commonly used aging structure
- Advantages: ease of collection and non lethal sampling technique
- Disadvantage: difficult to determine age with older fish
- Taken from midway between the head and tail in the upper half of the body
- Heated press used to burn impression onto acetate slide (above, bottom)
- Slide viewed with microfiche reader to count annuli (growth rings) like rings on a tree (above, top)
- One annuli per year
- In 2006, New Jersey Division of Fish and Wildlife aged over 1,500 striped bass scales

Fishing clubs or organizations interested in learning more about this topic may contact New Jersey Division of Fish and Wildlife's Bureau of Marine Fisheries at (609) 748-2020 to schedule a group presentation.

Health Advisory

For Eating Fish And Crabs Caught In New Jersey Waters *Fish Smart – Eat Smart*

Fishing provides enjoyable and relaxing recreation. Fish are an excellent source of protein and other nutrients and play a role in maintaining a healthy, well-balanced diet. Many anglers enjoy cooking and eating their own catch. However, elevated levels of potentially harmful chemical contaminants, such as dioxin, polychlorinated biphenyls (PCBs), pesticides and mercury have been found in certain fish and crabs in some New Jersey waters. Fish consumption advisories have been adopted to guide citizens on safe consumption practices.

The current list of fish consumption advisories consists of state-wide, regional and water body-specific warnings for a variety of fish species and fish consumers. The New Jersey Department of Environmental Protection (DEP) and the Department of Health and Senior Services have prepared literature and a new Web site to help you make informed choices about which fish to eat and how to reduce your exposure to these harmful chemicals.

Check online for fish consumption advisories on the local water body in which you fish! Go to FishSmartEatSmartNJ.org

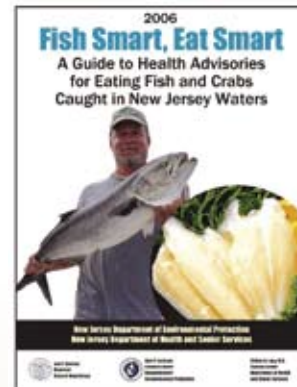
The new FishSmartEatSmartNJ.org is a user-friendly site designed to help you decide what fish are best for you to consume. The Fish Smart-Eat Smart Fish Advisory Web site includes a Geographic Information System (GIS) map linked to current fish consumption advisories statewide. For example, to see the latest mercury or PCB advisories for your area, just select the county by clicking on the map. The page shows the water body location, fish species and any advisories that apply. This feature makes it easy to find current fish consumption advisories for the specific waterbody in which you fish.

To reduce exposure to harmful chemical contaminants when preparing and eating the fish species taken from the identified waters,

it is essential to follow the guidelines provided. The DEP encourages you to consult the Fish Smart-Eat Smart Fish Advisory Guide or www.FishSmartEatSmartNJ.org when making decisions about eating recreationally caught fish and crabs.

The Fish Smart-Eat Smart Advisory Guide includes contaminant information, advisory charts, plus preparation and cooking methods to reduce contaminant levels, as well as specific guidelines, advice and prohibitions for people at high risk, such as children, pregnant women and women of child-bearing age. The Guide also includes Web site links to Pennsylvania, Delaware and New York for information about fish consumption advisories for shared waters.

The fish consumption advisories, Fish Smart-Eat Smart Web site and Advisory Guide are each updated periodically and are available in print or online through these agencies:



The Fish Advisory Guide is available by contacting the following:

New Jersey Department of Environmental Protection
Public Access Center (609) 777-DEP4 or www.state.nj.us/dep

Division of Science, Research and Technology
(609) 984-6070 or www.state.nj.us/dep/dsr

Division of Fish and Wildlife
(609) 748-2020 or www.NJFishandWildlife.com

New Jersey Department of Health and Senior Services
Consumer and Environmental Health
(609) 588-3123 or (609) 777-3373
www.state.nj.us/health/eoh/foodweb/fishguid.htm

Get on the Lists

The Marine Fisheries and Shellfish e-mail lists that is. This free service will provide you with the latest information about Fish and Wildlife events, public hearings and other matters related to marine resources. And there are six other lists to help you get the most out of New Jersey's fish and wildlife resources. Sign up today. Visit Fish and Wildlife's Web site at: www.NJFishandWildlife.com/lstsub.htm

New Jersey's Accessible Fishing Sites for People With Disabilities

Visit www.NJFishandWildlife.com/sites.htm

An Accessible Fishing Sites list is available to assist anglers whose mobility is impaired.



All sites are wheelchair-accessible except for the Musconetcong River in Morris County, where vehicle access is to the shoreline.

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Clean Vessel Act Program Continues To Expand

By Al Ivany, Principal Biologist

Vessel-generated sewage discharges can degrade water quality, impact people and wildlife and cause the closure of shellfish beds and swimming beaches. To address this, Congress passed the Clean Vessel Act Program (CVA) in 1992 to help keep our waters clean by providing funds for the construction and operation of sewage pumpout stations and dump stations for recreational boats. Funds are also provided for information and education programs to make boaters aware of the program, and to encourage them to use pumpouts.

New Jersey began implemented the Clean Vessel Act Program in 1994, with ongoing success. In fact, applications are increasing to request funding for installation of pumpout stations, along with requests for additional pumpout boats. Pumpout projects have also grown in size as many marinas have expanded their facilities, as well as their need for additional pumpout systems. Although the

program is generating a positive response, the increased interest is forcing the Clean Vessel Act Steering Committee to make tough decisions on the allocation of the program's limited funding.

One hundred eighty pumpout stations are currently in operation at marinas, providing service to the recreational boating community. In addition, four pumpout boats patrol coastal waterways in the summer assisting boaters on the open water. Seventeen marinas currently have applications pending, plus two applications for pumpout boats.

Pumpout stations are easy to use and CVA-participating marinas may not charge more than a \$5 fee for their use. Boaters in New Jersey have responded overwhelmingly to the Clean Vessel Act Program. Millions of gallons of sewage from boats have been removed and safely treated since the inception of the program.

Marina owners and municipal governments are encouraged to continue applying to the CVA program for pumpout facilities, as well as pumpout boats. Owners must maintain the pumpout for five years. After that, owners may reapply for funding of a new pumpout should it become necessary.

Interested parties can request an application for pumpout installation through the CVA Program by contacting the New Jersey Marine Trades Association at (732) 292-1051.

Fish Scraps

Marinas located in sheltered areas protect boats from storms. These areas have reduced water exchange, or flushing, so waste discharged here may accumulate and decay. Fish cleaning scraps can be a problem when discarded in a poorly flushed marina basin. Fish waste is smelly and unsightly. Life-sustaining oxygen becomes depleted from these waters as bacteria decompose any meat scraps.

But you can help.

Keep marinas clean by following these tips:

- Do not discard fish waste in poorly flushed waters.
- Ask about the marina's cleaning and disposal policy.
- Bag waste and discard at home or in a Dumpster.

From CleanMarina.org

New Jersey Skillful Angler Application

Name _____ Age _____

Address _____

City _____ State _____ Zip _____

Daytime Telephone Number (_____) _____

Entry Category (check only one):

Adult Junior (16 years and under)

Catch and Release (qualification based on length)

Fish Species (Angler must complete. Subject to verification by a state biologist.)

Weight _____ lb (s), _____ oz. Length _____ in.

Girth _____ in. Date Caught* _____ / _____ / _____

Time Caught: _____

Location: Caught from (check only one):

Boat Shore Surf Jetty

Other (specify) _____

Line Test Used _____ Reel Type _____

Rod Type _____ Lure/Bait _____

Certification for Adult and Junior Categories

Name of establishment where fish was measured and weighed _____

Telephone Number _____

Weighmaster's Name _____

Weighmaster's Signature _____

I certify:

- 1.) this fish was caught in New Jersey waters in accordance with state laws and regulations;
- 2.) the entry was weighed on a certified scale (for Adult and Junior categories only).

_____ Date _____

Applicant's Signature

* Application and photo must be submitted within 30 days of catching the fish.

Applications for fish caught in December will be accepted only until January 31.

Mail to:

**NJ Division of Fish and Wildlife - Pequest
Skillful Angler Award Program
605 Pequest Rd.
Oxford, NJ 07863**

Skillful Angler Awards Program



The Skillful Angler Awards Program is designed to supplement the New Jersey Record Fish Program. It comprises three categories: Adult (for anglers age 16 and older), Junior (under age 16) and Catch and Release (based on length). A clear, side-view photo that allows accurate species identification must be included with each application. All photo entries become property of the Division of Fish and Wildlife and will not be returned.

The Skillful Angler Awards Program acknowledges that many anglers catch freshwater and marine fish that are not record size but are still worthy of recognition because the size and weight of the fish sufficiently tested the angler's skill. The program is open to resident and non-resident anglers. All fish must be caught in New Jersey waters using a hook and line during legally open seasons.

Anglers qualifying for a Skillful Angler award receive a certificate and a bronze pin to adorn their fishing hat or jacket. Only one pin and certificate per species—regardless of category—will be awarded annually to each participant, but an angler may submit applications for larger fish caught even after receiving a pin.

At the end of the year, special recognition is given to anglers who catch the largest fish in each species category. The winner of each category receives a special commemorative gift recognizing his or her accomplishment as the best of New Jersey's Skillful Anglers.

Fish must be measured from the tip of the nose (with mouth closed) to the tip of the tail. For Adult/Junior categories, fish must be weighed and measured by fishing license agents, tackle shops or an authorized Fish and Wildlife fisheries biologist.

See online at www.NJFishandWildlife.com/skflang.htm.

Minimum Entry Requirements

	Adult Weight (lbs., oz.)	Junior (lbs., oz.)	Catch and Release (inches)
Black Sea Bass	4	3	20
Striped Bass	40	36	42
Black Drum	70	63	46
Bluefish	18	16	33
Cod	30	27	42
Dolphin	30	27	n/a
Winter Flounder	2	1 lb., 8 oz.	16
Fluke	8	7	27
Kingfish	1	8 oz.	13
Mako Shark	250	225	n/a
Blue Marlin	400	360	n/a
White Marlin	60	54	n/a
Pollock	25	22 lbs., 8 oz.	41
Tautog	8	7	22
Albacore Tuna	50	45	n/a
Big Eye Tuna	200	180	n/a
Bluefin Tuna	500	450	n/a
Yellowfin Tuna	120	108	n/a
Tuna (other)	250	225	n/a
Weakfish	10	9	30

Note: The New Jersey State Record Fish Program requires a separate application and is based on weight alone. See facing page. Scale certification documentation and a weighmaster's signature are necessary. Other rules apply. Visit Fish and Wildlife's Web site at www.NJFishandWildlife.com/recfish.htm for a complete list of current state records.

New Jersey State Record Marine Sport Fish

New Jersey Division of Fish and Wildlife's Record Fish Program honors anglers who catch the largest of select species of freshwater and saltwater fish. Record size is based on weight alone; there are no line classes.

In 2006, revisions were made to the New Jersey State Record Fish Program for both freshwater and saltwater species. Currently there are 61 marine species eligible for entry into the program.

Anglers are reminded that the objective of the Record Fish Program is to increase awareness of fishing opportunities for species that are regularly sought and routinely found in or off the coast of New Jersey. The original list of 72 species was pared down with that objective in mind.

Eleven species are now retired from the list of program-eligible fish, but remain on a separate list posted on Fish and Wildlife's Web site. One historical catch is also retired and posted on the list. In addition, the historical record for northern kingfish was removed as the current entry surpassed it by 3 ounces.

Anglers should be aware that several procedural changes are now in effect for the Record Fish Program. First, separate applications are required for freshwater and saltwater species. Second, for saltwater entries, it is now mandatory that a marine biologist inspect any potential record fish, as identification solely by photo is not always accurate. Anglers must call Fish and Wildlife's Nacote Creek Research Station at (609) 748-2020 to make arrangements for inspection. In most instances, the fish must be transported to this office in Port Republic. However, in the case of extremely large fish (i.e., shark and tuna), a biologist will be available to travel for dockside inspection. Note that all scale certification requirements still apply, including a valid Certificate of Inspection/Test Report and current Registration Certificate issued by the County Office of Weights and Measures.

Other changes include a new entry deadline - applications must now be submitted no later than one month after the date of catch - and the triggerfish category is now defined as gray triggerfish. All other program rules still apply.

For a complete list of state record fish or to print an application with complete program rules, visit the Division of Fish and Wildlife's Web site at www.NJFishandWildlife.com/fishing.htm.

Species	Lbs.	Oz.	Year	Angler	Where Caught
Amberjack, greater	85	0	1993	Edwin Metzner	Off Cape May
Bass, black sea	8	2	1992	Tony Cunha	Inshore Wreck
	8	2	1994	John Geddes	Off Pt. Pleasant
Bluefish	27	1	1997	Roger Kastorsky	5 Fathom Bank
Bonito, Atlantic	13	8	1945	Frank Lykes, Jr.	Off Sandy Hook
Cobia	87	0	1999	John Shanchuk	Off Sea Bright
Cod	81	0	1967	Joseph Chesla	Off Brielle
Crab, blue	8 1/2" pt. to pt.		1995	William Dool	Manahawkin
	8 1/2" pt. to pt.		2006	Martin Winnicki	Brick
Croaker, Atlantic	5	8	1981	Frederick Brown	Delaware Bay
*Cunner	2	9	2006	Nick Honachefsky	Mud Hole
Dogfish, smooth	19	8	2000	Michael LaTorre	Pleasantville
Dogfish, spiny	15	12	1990	Jeff Pennick	Off Cape May
Dolphin	63	3	1974	Scott Smith, Jr.	Baltimore Canyon
Drum, black	107	0	2006	William Kinzy	Delaware Bay
Drum, red	55	0	1985	Daniel Yanino	Great Bay
Eel, American	9	13	1988	Warren Campbell	Atlantic City
Fluke	19	12	1953	Walter Lubin	Off Cape May
Flounder, winter	5	11	1993	Jimmy Swanson	Off Barnegat Light
Hake, white	41	7	1989	Wayne Eble	Off Barnegat Light
Kingfish, Northern	2	8	2004	Chester Urbanski	Barnegat Bay
Ling (red hake)	11	1	2002	Natalie Jones	Off Brielle
Lobster, American	15	3	2003	William Sharp	Almirante Wreck
Mackerel, Atlantic	4	1	1983	Abe Elkin	Manasquan Ridge
Mackerel, king	54	0	1998	Fernando Alfaiate	Off Cape May
*Mackerel, Spanish	9	12	1990	Donald Kohler	Off Cape May
Marlin, blue	1,046	0	1986	Phil Infantolino	Hudson Canyon
Marlin, white	137	8	1980	Mike Marchell	Hudson Canyon
Perch, white	2	12	1998	Michael King	Little Beach Creek
*Pollock	46	7	1975	John Holton	Off Brielle
Porgy	5	14	1976	Victor Rone	Delaware Bay
Sailfish	43	4	2006	Dr. John Tallia	Linden Kohl Canyon
Seatrout, spotted	11	2	1974	Bert Harper	Holgate Surf
Shad, American	7	0	1967	Rodger West	Great Bay
Shad, hickory				Vacant (Minimum Weight 2 lbs.)	
Shark, blue	366	0	1996	Albert Jewitt	Mud Hole
Shark, bull				Vacant (Minimum Weight 150 lbs.)	
Shark, dusky	530	0	1987	Brian Dunlevy	Off Great Egg Inlet
Shark, hammerhead	365	0	1985	Walter Thacara	Mud Hole
Shark, porbeagle				Vacant (Minimum Weight 100 lbs.)	
Shark, sandbar	168	8	1987	John Norton	Little Egg Inlet
Shark, s-fin mako	856	0	1994	Christopher Palmer	Wilmington Canyon
Shark, thresher	617	0	2004	Chris Chalmers	Off Cape May
Shark, tiger	880	0	1988	Billy DeJohn	Off Cape May
Sheepshead	17	3	2003	Paul Lowe	Manahawkin Bay
Spadefish	11	6	1998	Cliff Low	Delaware Bay
Spearfish, longbill	42	0	1989	George Algard	Poor Man's Canyon
	42	0	1997	Joseph Natoli	Hudson Canyon
Spot	0	13	2003	Robert Belsky, Jr.	Little Sheepshead Creek
*Striped Bass	78	8	1982	Al McReynolds	Atlantic City
Swordfish	530	0	1964	Edmund Levitt	Wilmington Canyon
*Tautog	25	0	1998	Anthony Monica	Off Ocean City
Tilefish, golden	55	4	2006	Keith Karl	Tom's Canyon
Tilefish, gray	18	7	2007	Joseph Sanzone	Tom's Canyon
Triggerfish, gray	5	11	2005	Lois Schuda	Cape May Reef
Tuna, albacore	77	15	1984	Dr. S. Scannapiego	Spencer Canyon
Tuna, big-eye	364	14	1984	George Krenick	Hudson Canyon
Tuna, bluefin	1,030	6	1981	Royal Parsons	Off Pt. Pleasant
Tuna, skipjack	13	4	1999	Craig Eberbach	Wilmington Canyon
Tuna, yellowfin	290	0	1980	Wayne Brinkerhoff	Hudson Canyon
Tunny, little	24	15	1977	Mark Niemczyk	Off Sea Bright
Wahoo	123	12	1992	Robert Carr	28-Mile Wreck
Weakfish	18	8	1986	Karl Jones	Delaware Bay
Whiting (silver hake)				Vacant (Minimum Weight 2.5 lbs.)	

Warning:
Wildlife Hazard!

Properly dispose of your fishing line. Plastic debris can endanger marine life and snare propellers.

* Fish was previously certified by the IGFA as a world record.

For information concerning the New Jersey State Record Fish or Skillful Angler programs, visit the New Jersey Division of Fish and Wildlife's Web site at www.NJFishandWildlife.com

GOVERNOR'S SURF FISHING TOURNAMENT

By Karen Leskie, Wildlife Technician

A Favorite for Families and Friends

The 17th Annual Governor's Surf Fishing Tournament will be held Sunday, Oct. 5, 2008. Once again anglers will line the beaches of Island Beach State Park in hopes of catching the largest fish of the day. Popular with families from New Jersey and neighboring states, the tournament aims to encourage youngsters and adults to learn more about surf fishing and raises much-needed funds for marine resource conservation and education.

In 2007, the warm waters and summer-like weather made for an enjoyable Tournament day. Contestants caught

bluefish, kingfish, striped bass and blackfish, with a total of 21 prizes awarded in categories for children, teens and adults. However, the grand prize went to Martin Mosen of Collingswood, with a 37 3/8-inch striped bass. DEP Commissioner Lisa P. Jackson and Jersey Coast Anglers Association President, John Toth congratulated Mr. Mosen with a plaque and two rod-and-reel combinations. Mr. Mosen's name has been engraved on the Governor's Cup, which is on permanent display at Island Beach State Park.

Since its inception, the tournament has generated more than \$100,000 for various marine education and restoration efforts, construction of access ramps for disabled saltwater anglers, surf fishing instruction programs and equipment and specialized wheel chairs that provide beach access to the disabled and elderly, among other purposes.

For more information about the Governor's Surf Fishing Tournament or to receive a registration form, visit www.NJFishandWildlife.com/gsf.htm or call (609) 748-4347.

New Jersey Division of Fish and Wildlife and the Division of Parks and Forestry

(along with our co-sponsors: NJ State Federation of Sportsmen's Clubs, Jersey Coast Anglers Association and NJ Beach Buggy Association) would like to thank the following organizations for contributing to the success of the 16th Annual Governor's Surf Fishing Tournament in 2007:

Zebco for donating 32 Quantum rods and reels	Fisherman Eyewear	Legal Limits Company	Stanley Jigs, Inc.
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Eagle Claw Fishing Tackle Company	Jenkinson's Aquarium	O Mustad & Son, Inc.	Trenton Devil's
	L & H Woods And Water	Silver Horde	Wetlands Institute
		Sportsman's Center	



If you care about:

- Wise management of fish and wildlife populations
- Protection and enhancement of natural lands and waters
- Preservation of traditional outdoor sports

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- Stay informed on issues affecting NJ sportsmen and sportswomen
- Make an impact on outdoor issues
- Meet others who share similar sporting interests
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Angler, boater purchases fuel success of sport fish restoration projects



You probably don't have to be told what fishing means to you. You value time spent in the great outdoors, relaxing with family and friends on the water and savoring the thrill of battling a trophy.

But you may not realize how much you mean to fishing. Every time you fill your boat with gasoline, buy your child a new rod or stock up on lures, you are making an important contribution toward better fishing and boating in the Garden State. Simply by purchasing the things you need for fishing, you support the Sport Fish Restoration Program, which enables states to restore fisheries, improve habitats, create fishing and boating access, provide educational opportunities and accomplish other valuable work.

The Sport Fish Restoration Program is funded by excise taxes manufacturers pay on sales of rods, reels and other fishing equipment and a portion of tax on motorboat fuel. The U.S. Fish & Wildlife Service distributes these funds annually to the states through a federal aid grant program. New Jersey receives more than \$3.4 million each year in Sport Fish Restoration funds.

For more information on the U.S. Fish and Wildlife Service's Federal Aid in Sport Fish Restoration program, visit <http://federalasst.fws.gov>.

Griffin's Gear Guide

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2008 - Salina Bait Feeder

Okuma Fishing Tackle is pleased to announce the release of the ALL NEW Salina Bait Feeder line of spinning reels. Based on Okuma's top selling Salina saltwater spinning series, the Salina Bait Feeder incorporates our patented bait feeding system with our time tested and proven "ALC" AlumiLite construction, patented "EOS" Elliptical Oscillation system and our legendary Dual Force Drag System to make the ultimate bait feeding saltwater spinning reel. All of these features and more are now encompassed within the revolutionary Okuma Blade Body Design which narrows the reel's frame, reducing the weight and overall mass, thereby giving the reel a great look and more balanced "feel".

For more information visit www.okumafishing.com



Wild Water Fly Fishing HX Series Saltwater Rods

WILD WATER
-FLY FISHING-

These rods are very fast action with tip flex for throwing large flies over long distances in windy conditions.

Available in five sizes: 7, 8, 9, 10 and 12, each rod comes with a FREE rod sock and a FREE blue nylon-covered zippered case. All Wild Water Fly Fishing rods have a lifetime warranty. If you break these rods for ANY reason Wild Water Fly Fishing will replace the rod.

At less than \$150 each, these rods offer a lot of bang for the buck. So if you always wanted to fly fish in saltwater or if you want to expand your tackle arsenal Wild Water is the best way to go.

These rods are also perfect for pulling double duty for going after salmon and steelhead. It's like getting two rods in one package! The Wild Water Fly Fishing HX Series Saltwater rods can become your favorite all around big game rod.

For more information visit wildwaterflyfishing.com



Species Profile:

By Peter J. Himchak, Acting Chief, Bureau of Marine Fisheries
Jeff Brust, Research Scientist

Tautog

Common Name: Tautog. Also known as blackfish, white chin, chinner, chub, black porgy, slippery bass and tog.

Scientific Name: *Tautoga onitis*

Characteristics: Coloration varies by habitat and sex, but tautog are generally drab-colored, with light and dark irregularly-blotched sides with a slightly lighter belly. Large males have a characteristically white chin. During the spawning season, males are commonly grayish, often with a white midline saddle mark. Juveniles and female tautog show a mottled, brown-toned appearance. Besides these color variations, a mature tautog's gender can often be determined from external characteristics. Males have a pronounced lower jaw and more steeply-sloping forehead. The female's mouth position is more midline, and her body is an ovoid shape. Other distinguishing characteristics include large fleshy lips and large canine teeth that often protrude from the mouth. Like other members of the wrasse family, tautog possess a second set of jaws, called pharyngeal (far-IN-gee-all) jaws, located at the opening to the throat.

Range: Tautog are distributed along the northeast Atlantic coast of North American from the outer coast of Nova Scotia to Georgia. Greatest abundances are found from Cape Cod to Chesapeake Bay. North of Cape Cod, tautog are usually found close to shore (within four miles) in water less than 60 feet deep. South of Cape Cod, these fish can be found up to 40 miles offshore and at depths up to 120 feet.

Habitat: Throughout their lives, tautog are structure-dependant fish. Juvenile tautog occur in bays, in submerged aquatic vegetation beds and around pilings or other hard structures. Adults inhabit rough bottom which includes rock outcroppings, shipwrecks and reefs, in nearshore ocean waters. North of Long Island, New York, rocks and boulders can be found in abundance along the coastline as a result of glacial deposition, providing habitat for larger tautog. South of Long Island there are few natural rocky habitats in coastal waters, so tautog commonly inhabit shellfish beds, coastal jetties, pilings, shipwrecks, and reefs. Significant outcroppings along the New Jersey coast do occur along the mouth of Delaware Bay and

the area north of Manasquan Inlet. Reef locations occur along the entire New Jersey coastline.

Food and Feeding: Juvenile tautog feed primarily on small, bottom and water-column invertebrates. Their diet changes as juveniles mature and increase in size. Adults feed primarily on the blue mussel and other shellfish. Adult tautog grasp mussels using their large canine teeth, tearing mussels from their attachment surface by shaking them loose. Small mussels are swallowed whole, while large, hard-shelled ones are crushed by the pharyngeal teeth prior to swallowing. Adult tautog also consume barnacles, crabs, hermit crabs, sand dollars, scallops and other invertebrates.

Size: The tautog is a slow-growing, long-lived species with reports of individuals over 30 years of age. Larval growth rates are estimated at 0.01 to 0.03 inches per day. Young-of-the-year juveniles grow during the summer at a rate of 0.02 inches per day. Juvenile growth rates have been observed to be higher in vegetated than non-vegetated habitats. Average length after the first summer of growth is 2.9 inches; 6.1 inches after the second summer. Adult growth is relatively slow and varies with the season.

Adult male tautog grow faster in length than adult females. A reasonably accurate guide to tautog length at age is provided by the table at right.

Migration: Tautog are not highly migratory along the Atlantic coast but rather demonstrate an

Length	Age (years)
3.0	1
5.5	2
9.0	3
10.5	4
12.5	5
14.0	6
15.5	7
17.0	8
18.0	9
19.0	10
21.0	15
22.0	20



Photo by: Herb Segars, photosnapshot.com

inshore-offshore migration pattern throughout the year. Adult tautog migrate inshore in the spring as water warms to around 48°F to spawn in the late spring through early summer. The fall offshore migration is triggered when water temperatures drop below 52°F in late fall. Most adult tautog form schools and migrate offshore to deep water locations (80-150 feet) with a rugged bottom, where they become inactive throughout the winter.

Spawning: Tautog normally reach sexual maturity at three to four years of age (7-12 inches). Spawning usually occurs within estuaries or in nearshore marine waters. Tagging studies show that adults return to the same spawning locations over a period of several years. Discrete spawning groups may exist in Narragansett Bay as evidence by tagging studies and fishing observations. Optimum size for female egg production has been estimated at 16 inches. Tautog between 8 and 27 inches long were observed to contain 5,000 to 637,000 mature eggs. Eggs are buoyant without oil globules, 0.9 -1.0 mm in diameter. Spawning occurs in heterosexual pairs or in groups of a single female with several males.

Recreational and Commercial Importance: The primary tautog fishing grounds extend from the

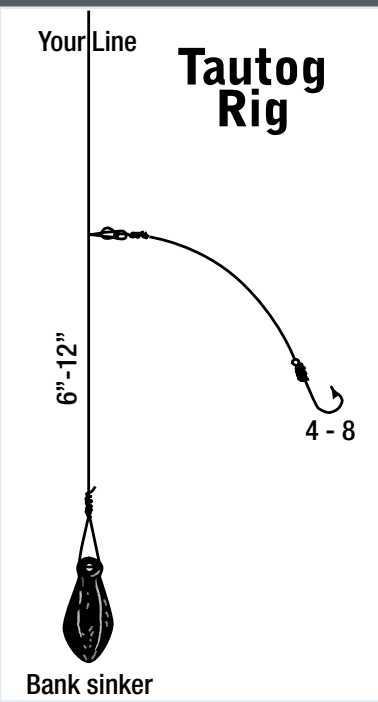
beach out to about the 12-fathom contour. Recreational fishing modes include bottom fishing, particularly the directed trips of party and charter boats, jetty fishing and spearfishing.

The ideal boat rod for tautog is 7 feet long with a sturdy butt section and slow tapered tip. Live green crabs or fiddlers are the best bait to use. Conventional reels are preferable over spinning tackle for bottom fishing and a fishing rod with muscle will help keep those hooked tautog from getting back into reef structure where the line may get hung up or cut on sharp edges of blue mussels or barnacles.

The mean weight of tautog harvested in New Jersey's recreational fishery ranges from 1.8 – 2.3 pounds. The New Jersey State Record tautog is 25 pounds and is recognized by the IGFA as the current world record.

The overwhelming majority of tautog harvested in New Jersey is from the recreational fishery, which averaged approximately 1.3 million pounds per year from 1981 to 1995. Because of fishery regulations, landings varied from 40,000 pounds to 1.8 million pounds per year during the 1996 to 2002 period. New regulations implemented in 2003 have stabilized landings at a much lower level, averaging about 167,000 pounds per year from 2003-2005.

From 1981 to 1995, the commercial tautog fishery in New Jersey averaged about 110,000 pounds per year. With the implementation of a fishery management plan in 1996, harvest has decreased substantially. Over the last five years (2002-2006), the commercial fishery has averaged approximately 55,000 pounds per year.



MOTOR BOAT REGISTRATION

Motor Boat Title and Boating Operator Requirements

Registration

Most boats must be registered to operate on New Jersey waterways. All titled boats must be registered also. Any boat (including jet skis and non-titled watercraft), mechanically propelled (motorized), regardless of length, must be registered. Boats greater than 12 feet in length, regardless of propulsion means, must be titled and registered at an MVC office.

Boats and marine equipment which **need not** be registered:

- a) Those not based in New Jersey or operating here less than 180 consecutive days
- b) Ship's lifeboats
- c) Non-motorized vessels used exclusively on small lakes and ponds on private property
- d) Racing vessels with New Jersey State Marine Police permit
- e) Non-motorized inflatable device, surfboard, racing shell, dinghy, canoe or kayak
- f) Non-motorized vessel less than 12 feet in length

Title

For use on New Jersey waterways, all boats more than 12 feet in length must be titled, with the exception of ship's lifeboat, canoe, kayak, inflatable, surfboard, rowing scull, racing shell, tender/dinghy used for direct transportation between a vessel and shore for no other purposes.

For more information, visit the MVC Web site at www.nj.gov and click on the Motor Vehicle Commission link, or stop by an MVC office or call (609) 292-6500.

OPERATOR REQUIREMENTS

Motor Boat and Jet Ski Operator License

A motorboat/jet ski operator license is required to operate these on fresh, non-tidal waters such as lakes, creeks and rivers for those 16 years or older. Visit the Motor Vehicle Commission Web site or call to verify if you must take a boating safety course.

New Jersey Motor Vehicle Commission
Boat Operators License
(888) 486-3339 toll free in NJ or
(609) 292-6500 from out-of-state
www.nj.gov/mvc/

Boating safety courses: (800) 336-2628
BoatUS Foundation
www.BoatUS.com/courseline

For New Jersey State Police, boating laws clarification, call (609) 882-2000, or visit their Marine Services Bureau online at: www.nj.gov/lps/njsp/maritime/index.html

POLICE STATIONS

State Police Marine Law Enforcement Stations

Bivalve	(856) 785-1330
North Wildwood	(609) 522-0393
Atlantic City	(609) 441-3586
Burlington	(609) 387-1221
Ocean	(609) 296-5807
Point Pleasant	(732) 899-5050
Monmouth Station	(732) 842-5171
Lake Hopatcong	(973) 663-3400
Newark Bay	(973) 578-8173

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 ➤ WF Floating Line
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www.wildwaterflyfishing.com

ATTENTION MARINERS!



Help the New Jersey Endangered and Nongame Species Program conserve marine wildlife by reporting your sightings of whales, dolphins, seals, or sea turtles.

Marine Wildlife Sighting Report Forms can be found on the ENSP website: www.NJFishandWildlife.com/ensp/rprtform.htm

Your sightings will provide valuable information on New Jersey's marine species of conservation concern.



Listening to our Readers - Results from the 2007 Marine Digest Readers' Survey

By *Lindy Barry, Marine Fisheries Technician*

Thank you! to all our readers who participated in the Readers' Survey for the 2007 Marine Issue of the New Jersey Fish & Wildlife Digest. Most respondents identified themselves as a recreational fisherman, predominantly from Burlington, Ocean or Camden counties. Among our articles, the species profile on black drum garnered the most favorable reactions.

Of most interest to our readers were topics on fishing techniques plus places to fish, as well as regulation changes and enforcement efforts. Over half of you contributed further comments requesting coverage of species such as striped bass, fluke, weakfish, winter flounder, black sea bass and tautog, as well as expressing interests ranging from artificial reefs, surf and offshore fishing techniques to the habitats within our bays and estuaries.

The results and the comments you submitted figured prominently in our discussions as we planned the content for this year's marine issue of the New Jersey Fish & Wildlife Digest. For complete results from the 2007 Readers' Survey or to contribute further comments, visit our Web site at www.NJFishandWildlife.com/artdelstudy08.htm.



PUBLICATIONS AVAILABLE

The following publications are available by writing:

**Nacote Creek
 Research Station Publications
 P.O. Box 418, Port Republic, NJ 08241**

Shellfish Growing Waters Classification Charts.

This publication is available free at any shellfish license agent and online at <http://www.nj.gov/dep/bmw/waterclass.htm>

New Jersey Boaters Guide.

Send a self-addressed stamped, #10 envelope (2 oz. postage).

* * *

New Jersey Pumpout Directory – free waterproof map.

Write to:

CVA Program, New Jersey Division of Fish & Wildlife, Nacote Creek Research Station, Box 418, Port Republic, New Jersey, 08241

* * *

The following publications are also available online at: www.NJFishandWildlife.com

- Guide to New Jersey Saltwater Fishing, available online only
- NJ Reef News
- Party and Charter Boat Directory, available online only