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Director’s Message

BY DAVE CHANDA

Twenty years ago we had the autonomy to set seasons, bag limits and minimum sizes for New Jersey marine fish species. We managed marine fish according to how they were doing in New Jersey waters and we managed them for New Jersey anglers. That’s no longer the case for many marine fish highly sought by anglers. Today, our regulations for fish such as sea bass, fluke and 20 other species are more dependent on the condition of the entire Atlantic Coast population rather than New Jersey’s portion of the population.

That’s because the 14 Atlantic Coast states are now bound to management actions set by the Atlantic States Marine Fisheries Commission through federally mandated fisheries management plans. Since 1993, a growing number of marine fish are being managed on a coastwide basis through fisheries management plans that limit state control over season, size and bag limits. In 1988, there was only one fisheries management plan for New Jersey species. That plan was for striped bass and only mandated regulation requirements. Today, there are fisheries management plans with numerous requirements for 22 fish species sought by New Jersey anglers such as weakfish, fluke, striped bass, winter flounder and sea bass.

States must comply with each fisheries management plan’s requirements for data collection, stock assessment, law enforcement and management regulations. Failure to comply with any requirement within a management plan could lead to a state fishing moratorium for the species covered by the fisheries management plan. A fisheries management plan effectively removes state management autonomy for a species and requires the 14 Atlantic Coast states to share in the coastwide management and set sustainable harvest limits for that species. Some fisheries are managed by strict quota limits; a state’s quota allocation within a given year largely dictates state seasons, bag limits and minimum sizes. The amount and quality of an individual state’s data for a management plan species plays a role in determining that state’s access to a particular fisheries resource. Currently, the 13 other Atlantic Coast states have from two times to seven times more dollars to spend per angler on data collection than New Jersey.

The complexity of marine fisheries management has steadily increased during the last 20 years and there is no reason to expect that trend will not continue. The magnitude of modern marine fisheries management is portrayed by two articles in this issue, What Happened to Weakfish? (page 6) and What Do Fish Tell Us? (page 28). Another article, Angler Survey Needs YOU! (page 8), emphasizes the critical role of fisheries data and encourages anglers to submit their catch data for use in improving marine fishing opportunities in New Jersey.

The extreme paradigm shift that has occurred in marine fish management has far-reaching implications for us, New Jersey’s marine fish managers, and you, the marine angler. For us, one challenge is to keep pace with fisheries management plan requirements necessary to keep New Jersey fisheries open for the 22 species under existing fisheries management plans, not to mention additional species and management plans currently being considered. Another challenge is to collect the data necessary for stock assessments that will keep New Jersey competitive with the other Atlantic Coast states vying for angler shares of coastwide harvests.

Our ability to meet the challenges necessary to improve the quality of your marine fishing opportunities depends largely on the investment we make in marine fisheries resource management. New Jersey’s leading conservation organizations are currently working to find ways to secure the funding that will bring us in line with the investment other states are making in marine fisheries management. I encourage you to become engaged in the discussions and efforts to find the resources that we can invest to revitalize recreational marine fishing in New Jersey.

Dave Chanda is the Director of the Division of Fish and Wildlife.

Report Wildlife Violators
Support the responsible use of New Jersey’s marine resources. See Tips for Tips, page 10 to reach NJ Division of Fish and Wildlife’s Marine Law Enforcement office.

NATIONAL SALTWATER ANGLER REGISTRY
The National Saltwater Angler Registry Program requires most New Jersey saltwater anglers to register prior to fishing in 2010. See page 13 for details.
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New Jersey Department of Environmental Protection, Division of Fish and Wildlife
P.O. Box 400 • Trenton, NJ 08625-0400 • NJFishandWildlife.com

New Jersey Fish and Wildlife Council
Our Mission
To protect and manage the state’s fish and wildlife to maximize their long-term biological, recreational and economic value for all New Jerseyans.

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

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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.

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WHAT HAPPENED TO WEAKFISH?

By Russell L. Allen, Principal Fisheries Biologist

What happened to weakfish? Everywhere I go these days, that is the question anglers ask the most. The plight of the weakfish has been a perplexing saga involving a myriad of potential limiting factors over which fisheries managers have little or no control. There are many theories as to why weakfish have declined so rapidly in recent years but there exists little data to provide adequate insight as to the exact cause of the decline. However, before we focus on the current status of weakfish and present-day management concerns, it’s best to look back in time at the management process for a better understanding of how our knowledge of the weakfish population decline evolved.

Weakfish were overfished, by both commercial and recreational fishers, beginning in the mid-1970s through the 1980s. If you did not live the stories about overfishing in Delaware Bay, likely you heard about it. Overfishing stimulated local management measures through voluntary efforts by the states of New Jersey and Delaware, and coastwide management through the auspices of the Atlantic States Marine Fisheries Commission (ASMFC).

FISHERY MANAGEMENT PLANS EVOLVE

In 1985, the ASMFC developed and adopted a coastwide Weakfish Fishery Management Plan (Plan) in an attempt to protect the species from overfishing but it was inadequate to stop the weakfish decline. A few years later, New Jersey and Delaware formed the Bi-State Weakfish Commission, which made recommendations to the states’ fisheries agencies and adopted regulations to restrict the weakfish harvest in their waters. At the request of both states, the ASMFC also began to update the Plan. Amendment 1 was adopted in 1992 with Amendment 2 close behind in 1994. Unfortunately, management measures outlined in these documents were voluntary and went largely unheeded, so weakfish stocks continued to decline. The passage of the Atlantic Coastal Fisheries Cooperative Management Act in 1993 finally put some regulatory teeth into the ASMFC, which mandated that states fully implement the provisions of the Plan and its amendments.

By 1996, the Atlantic States Marine Fisheries Commission had adopted Amendment 3 as a long-term recovery plan to restore weakfish to healthy levels in order to maintain commercial and recreational harvests consistent with a self-sustaining spawning stock. The major objective of Amendment 3 was to restore the weakfish population over a five-year period by reducing fishing pressure 32 percent in both the commercial and recreational fisheries. The results were impressive and in the late 1990s, the outlook was better for the future of weakfish. Amendment 4 was passed in 2002 to set more appropriate fishing targets as the stock continued to rebuild.

GOING UP OR GOING DOWN?

Unfortunately, no one told Mother Nature. While managers were preparing for a weakfish resurgence, something else was happening—unknown to anyone—which would eventually cause a rapid increase in weakfish mortality. But first let’s focus on what took place.

According to the ASMFC’s 2000 stock assessment, the weakfish spawning stock had exceeded expectations and was continuing to increase while recruitment of young weakfish had reached more than 60 million per year. The percentage of older fish (six years and older) in the population had increased from a low of 0.3 percent in 1996 to a high of 6.9 percent by 2001. However, there were also disturbing signs. Landings were decreasing. Other indications from independent fishery surveys suggested that the situation was not as rosy as the assessment appeared. Some of the ASMFC’s Technical Committee members also were not convinced population growth was occurring. So the they worked diligently to analyze all available data, which eventually confirmed that the species had actually taken a turn for the worse.

The Technical Committee’s work proved that weakfish biomass had actually been declining since 1995 to an all time low by 2007.

SO WHAT HAPPENED TO WEAKFISH?

Recent analysis indicates that fishing mortality did not cause the rapid decline, but that natural mortality has increased substantially since the late 1990s. Natural mortality can be described as deaths from all non-human induced activity. Some of the more common issues potentially affecting weakfish are predation, competition, environmental stressors and lack of food.

The conventional methodologies for assessing weakfish were obviously not working, so in 2004 the ASMFC Technical Committee began working on alternative research models that take into account trophic interactions—or feeding relationships—among certain species. These interactions are especially useful when factoring in predation by striped bass and spiny dogfish on young weakfish. The results of various research models showed an increasing trend in natural mortality that has led to the weakfish being labeled as depleted. But to convince others to believe the ASMFC Technical Committee was another story. It took five years for the rest of the scientific community to fully accept the Technical Committee findings and this relatively new concept. The result is a 2009 peer-reviewed and accepted stock assessment outlining that natural mortality is the culprit behind the current depleted state of the weakfish stock.

So what are the natural mortality factors weighing on weakfish? Several scientific models were used to explore likely scenarios of increasing natural mortality. All models investigated indicate that the weakfish spawning stock was very low. The analyses found that factors such as predation, competition and changes in the environment have had a stronger influence on recent weakfish stock dynamics than has fishing mortality. Predation from striped bass and spiny dogfish definitely dominate the conversation when talking to the public, but there are many other factors that could influence a weakfish downturn. Competition with Atlantic croaker, decreasing prey items such as bay anchovy and Atlantic menhaden and increasing water temperatures may all be playing key roles in the weakfish decline. Projections suggest that little
It will take time for weakfish stocks to return to the glory days of the late 1970s and early 1980s. However, because of their prolific spawning potential, weakfish could make a rapid recovery if natural mortality declines. Current production of young weakfish has remained stable in recent years so the table is set already if these year classes are able to survive. Published articles from the 1970s documented an increase in large weakfish resulting from the last weakfish population explosion, so the potential for a strong recovery exists.

**WHERE DO WE GO FROM HERE?**

The key to a successful weakfish recovery will be to significantly increase the population in the older age classes to ensure a better age structure of the stock. (See *What Do Fish Tell Us?* for more on biological sampling, page 28.) New Jersey Division of Fish and Wildlife encourages anglers to practice catch and release during this current low level of the weakfish population. Anglers are invited to work with Fish and Wildlife by logging onto our online Volunteer Angler Survey (see page 8) whenever you catch a weakfish—or take any fishing trip for that matter—to provide us with as much information as possible. Your valuable input will go a long way towards helping biologists track the recovery of this once-plentiful fish.

**REFERENCES**

- [www.asmfc.org](http://www.asmfc.org)

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**NEW AMENDMENT REDUCES HARVEST**

Last November, the ASMFC’s management board voted to approve Addendum IV to the Weakfish Fishery Management Plan, which included a requirement to reduce harvest by more than 50 percent through a one fish recreational bag limit and 100-pound trip limit for commercial fisheries. Although many options were on the table, the ASMFC decided this was presently the best management fit. Managers realize that rebuilding the weakfish stock will also require a reduction in natural mortality, which they have limited ability to influence. However, these current regulations were enacted to allow rapid growth in the stock should natural mortality decrease.
Are you frustrated with current recreational fishery management regulations in New Jersey? If so, you are not alone. The increasing discontent over the fishery management process is no secret to fishery managers. It seems as if everywhere I go, when I mention my position with New Jersey Division of Fish and Wildlife’s Bureau of Marine Fisheries, I get the same negative reaction.

Case in point: Last June at my kids’ dentist office, the receptionist requested basic information for my file such as name, Social Security Number, occupation. After telling her I am a fishery biologist for the state, she glared over the top of her glasses and snarled, “Are you responsible for these @#$! fluke regulations?” I took a step back—just to be safe—before admitting I am involved in the process of setting regulations for many of our species. She recounted a recent fishing trip with her son where they caught a large number of “shorts” but not a single keeper, and how the regulations are killing the fishery. Conversations like this one are not uncommon. More and more people are vocal about their dissatisfaction with the marine fisheries management system.

The Federal Survey

Much of the concern stems from the types and amount of data collected in the federal recreational survey, the primary source of recreational data since 1981. The limited number of samples collected each year can lead to large swings in results from year to year, making it difficult for anglers to have faith in the data being used to set regulations. In addition, although the federal survey data is used for state-specific management, the original intent of the survey was for broad-scale purposes. As such, the survey was not designed to collect data to support state-specific applications.

This leads to data gaps and uncertainty in the management process. The National Marine Fisheries Service (NMFS) has undertaken a major redesign of their recreational data collection program to address these concerns. The new system, the Marine Recreational Information Program (MRIP), will improve survey design and performance to improve estimates of participation, fishing effort and catch. [Another useful tool improving on the old survey is the creation of the National Saltwater Angler Registry. In 2010, all saltwater anglers in New Jersey—and other certain coastal states—must register online (www.countmyfish.noaa.gov) or by phone (1-888-674-7411) before fishing for marine or anadromous species.] Yet even with these improvements, the Program still will not collect certain information necessary for state-specific fisheries management.

New Jersey’s Own Angler Survey

Because of these limitations, in 2008 New Jersey Division of Fish and Wildlife implemented an online Volunteer Angler Survey (Survey) to collect information on saltwater fishing trips, including some not collected by the federal survey. Data collected through our voluntary survey will be used to increase our understanding of New Jersey’s valuable marine resources and to investigate alternative management strategies that could improve recreational fishing opportunities here. The open access design of the Survey means you don’t have to wait for someone to ask you about your fishing trip. Everyone with Internet access can submit their information anytime by accessing the Survey Web page at NJFishandWildlife.com/marinesurvey.htm.

A Proven Management Tool...

To demonstrate the value of the state Volunteer Angler Survey, data from 2008 and 2009 were used to investigate New Jersey’s 2010 summer flounder management options, including seasons and bag limits for minimum sizes as small as 16 inches. This type of analysis...
would have been impossible without our Survey data because the federal survey has not collected information from New Jersey anglers on fluke smaller than 18 inches in recent years. Also, the New Jersey Survey can improve our understanding of participation, catch rates and fish lengths from early season fisheries such as tautog, scup and winter flounder during January and February when the federal survey is not conducted. These are just two examples of the many ways data from the Survey could benefit Garden State anglers.

...Only If Many Anglers Participate
But in order for the Volunteer Angler Survey to be really successful, we need your help! After being available for 18 months, Fish and Wildlife doesn’t have the level of participation we need from anglers. To put things into perspective, the federal survey conducts about 350 to 400 dockside angler interviews per month in New Jersey. This represents a very small sample among anglers. Consider that the same survey estimates that New Jersey has approximately 1.2 million anglers who take nearly 6.5 million fishing trips per year. In comparison, Fish and Wildlife received only about 100 Volunteer Angler Survey entries per month between June and December 2008 (the first year of our Survey). This is only about one-quarter of the anglers sampled by the federal survey. In 2009, our participation dropped to just 37 submissions per month; more than two-thirds of those submissions were from just 11 anglers—a far cry from 1.2 million! Such a miniscule sample size makes it next to impossible to justify the results of any analysis based on that data, such as the fluke management options mentioned above.

We know you are dissatisfied with the current fisheries management process. You’ve been telling us for years—and we listen. The Volunteer Angler Survey has the potential to improve the process, but you hold the key to making it work. This is a volunteer angler survey. No staff from our Marine Fisheries office will question you to collect data about your fishing trip as you walk back to your car. No calls at home to ask you how many trips you’ve taken in the last few months. No, this survey will only work if you voluntarily go to our Web site survey page and provide accurate data about your trip. If every angler in New Jersey submitted information on just one fishing trip annually, Fish and Wildlife would have 300 times more data than we do now—and much more confidence in our understanding of the fishery. Imagine the strength of our data if anglers completed the survey for multiple trips.

Increased Confidence in the Regulatory Process
Anglers now have a greater opportunity to be part of the marine fisheries management process. Submitting your fishing trip data is simple, free and entirely confidential. Accurate catch, effort, and length data reported through the Survey will help fill data gaps and provide a better understanding of our valuable marine resources. It’s up to you to provide sufficient and accurate data to make this process succeed. Your confidence in the regulatory process will climb when it’s based on your data and not an unknown sample of anglers. On the other hand, if anglers don’t participate, biologists’ understanding of the fishery will be limited to the federal survey data as in the past.

Improve Fishing Opportunities
So what are you waiting for? Spread the word about the New Jersey online Survey and encourage other anglers to submit their data. Remind your friends. Send them an e-mail with a direct link to the survey page once you’ve completed your own. Remember, data submitted through the Volunteer Angler Survey has a fantastic potential to improve our management capabilities and your recreational fishing opportunities.

The New Jersey Volunteer Angler Survey is entirely separate from both the federal survey and the National Saltwater Angler Registry.
Tips for Tips
By Captain Mark Chicketano, Marine Enforcement Region
Support the responsible use of New Jersey’s marine resources. When reporting a violation, follow these tips to assist our marine conservation officers. Contact the New Jersey Division of Fish and Wildlife Law Enforcement dispatcher listed below.

Do’s
• Leave a cell phone number. Your identity can still remain confidential.
• Get a full description of the violator’s clothing, vessel, and/or vehicle including license plate or registration. If at sea, obtain a GPS location.
• Note the locations of hidden fish.
• Call back should you see the violator leave. If possible, note their direction of travel.
• State your location, including the county and municipality along with the street and nearest cross street if on land.

Don’ts
• Do not approach the violator in any way.
• Do not allow the violator to hear your call to Law Enforcement.

Report Violators
• Monday thru Friday from 8:30 a.m. to 4:30 p.m., contact Fish and Wildlife’s Regional Marine Headquarters at (609) 748-2050.
• All other times, contact DEP’s Trenton Dispatch at (877) WARNDEP.

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New Jersey Boaters Guide
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New Jersey Pumpout Directory (free waterproof map)
Write to the Nacote Creek address above.

The following publications are also available online at NJFishandWildlife.com:
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FREE Freshwater Fishing Days
— June 5 and 6, 2010—
On these two days, residents and non-residents may fish New Jersey’s public fresh waters without a license or trout stamp. All other regulations, including size and daily catch limits, remain in effect.
The Department of Environmental Protection’s Division of Fish and Wildlife informs anglers that rules for the recreational harvest of summer flounder (fluke), winter flounder, weakfish, black sea bass and coastal sharks have changed.

- The summer flounder recreational season is now May 29–Sept. 6. The recreational minimum size and possession limit remains at 18 inches and six fish.
- In an effort to rebuild the southern New England–Mid-Atlantic winter flounder stocks, the recreational bag limit has decreased from ten to two fish.
- Due to the extremely low abundance of the coastwide weakfish stock, the recreational possession limit is now one fish, down from six fish in 2009. The weakfish season of Jan. 1–Dec. 31 and the minimum size of 13 inches remains.
- Also, the black sea bass recreational season has changed in 2010 and is now May 22–Sept. 12. Note: The black sea bass season may change during 2010. Visit our Web site at NJFishandWildlife.com or call the 24-hour marine fish “listen-only” line at (609) 292-2083 for the latest regulation updates.
- At the time of publication, recreational measures for black drum had not been adopted but are expected to become effective during 2010. For the latest information on black drum visit our Web site at NJFishandWildlife.com or call the 24-hour marine fish “listen-only” line at (609) 292-2083.
- Lastly, in order to address the various conditions of the coastal shark resources, there are numerous changes to the size, season and possession limits for the recreational shark fishery (see pages 12 and 15). These changes were implemented for New Jersey to remain in compliance with the Atlantic States Marine Fisheries Commission’s management plans for summer flounder, winter flounder, black sea bass, weakfish and coastal sharks. The new rules are aimed at providing adequate protection to these fish stocks while allowing New Jersey’s saltwater recreational anglers to participate to the fullest extent possible in these various fisheries.

New Jersey recreational marine regulations apply to all fish species when they are possessed in state waters or landed in New Jersey regardless of where they are caught.

**Resource Information**

Anyone who takes fisheries resources may be required to provide information on the species, number, weight or other information pertinent to management of resources.

**Methods of Recreational Fishing**

No person shall take, catch, kill or attempt to take, catch or kill any fish within the marine waters of the state by any means except in the manner commonly known as angling with hand line or rod and line unless specifically provided for by statute or regulation.

**Wanton Waste Prohibited**

Fish of any species which are purposely killed shall become part of the angler’s daily possession limit and shall not be returned to the water from which they were taken. This does not apply to fish which are released alive and subsequently die, but does apply even to species without size/possession limits.

**Spear Fishing**

Spear fishing may be conducted by means of a spear, harpoon or other missile while completely submerged in the marine waters of the state for any species, except lobster.

Persons who fish with a spear for species with size limits are reminded that it is their responsibility to ensure the fish meets the minimum size limits before being killed or injured.

**Prohibited Species**

It is illegal to take, possess, land, purchase, or sell any of the following species:

- Atlantic sturgeon
- basking shark
- big eye sand tiger shark
- sand tiger shark
- shortnose sturgeon
- white shark
- Autumn flounder
- striped bass

See Sharks (page 12) for the full list of prohibited shark species.

**Sea Turtles & Marine Mammals**

It is illegal to intentionally molest, kill or possess sea turtles or marine mammals, or to possess any part thereof.

**Finfish**

**Filleting**

The filleting at sea of all fish with a size limit is prohibited. No parts of any fish caught on a previous fishing trip shall be in possession. Party boats may fillet fish at sea if they obtain a Special Fillet Permit. Applications may be obtained from Fish and Wildlife’s Bureau of Marine Fisheries. See Summer Flounder, page 12.

**Black Sea Bass**

The minimum size limit for black sea bass is 12.5 inches measured along the midline from the snout to the end of the central portion of the tail, not to include the tail filaments. (See illustration above.) The possession limit is 25 fish with an open season of May 22–Sept. 12. The black sea bass season may change during 2010. Visit our Web site at NJFishandWildlife.com or call the 24-hour marine fish “listen-only” line at (609) 292-2083 for the latest regulation updates.

**Bluefish**

The possession limit for bluefish is 15 fish.

**Black Drum**

The minimum size limit for black drum is 16 inches in total length and the daily possession limit is three fish. There is no closed season for black drum.

Proposed changes for black drum include a minimum size limit of 32 inches (total length) with a daily possession limit of two fish. The “no closed season” for black drum would continue. Visit our Web site at NJFishandWildlife.com or call the 24-hour marine fish “listen-only” line at (609) 292-2083 for the latest regulation updates.

**Red Drum**

The red drum possession and size limits are one fish no less than 18 inches and not greater than 27 inches.

**Striped Bass (includes Hybrid Striped Bass)**

The possession limit for striped bass/hybrid striped bass is two fish with a minimum size limit of 28 inches for each fish. Anglers participating in the Striped Bass Bonus Program (see next page) may possess an additional striped bass at least 28 inches in length. >
It is illegal to take, catch or kill any striped bass from or in any marine waters of this state, by means of a net of any description, or by any methods other than angling with a hook and line or by spear fishing.

It is illegal to possess any striped bass which is less than the legal minimum size of 28 inches. A person shall not fillet, or remove the head or tail, or parts thereof, of any striped bass at sea.

Harvest and possession of striped bass from federal waters (outside three miles) is prohibited.

Sale of striped bass in New Jersey is prohibited.

**Striped Bass Closed Seasons**

No person may take, attempt to take, or have in possession any striped bass from the following closed waters:

- **Jan. 1–Feb. 28:** All waters closed except the Atlantic Ocean from zero to three miles offshore. All inlets and bays are delineated from ocean waters by a COLREGS Demarcation line.
- **April 1–May 31:** Delaware River and Bay and their tributaries closed from the upstream side of the Calhoun St. Bridge downstream to and including the Salem River and its tributaries.

(Note: Non-offset circle hooks are required to reduce striped bass bycatch mortality while fishing with natural bait during the striped bass springtime spawning area closure within the Delaware River and its tributaries. This restriction does not apply to hook sizes smaller than size 2.)

**Striped Bass Bonus Program**

The Striped Bass Bonus Program will continue this year, where anglers possessing a bonus permit may keep a third striker at 28 inches or greater.

The current allocation from the Atlantic States Marine Fisheries Commission is 321,750 pounds to be distributed between individual anglers and party/charter boats. Should New Jersey exceed this quota, any overage would be subtracted from the following year’s quota.

**Application Process:** Striped Bass Bonus Program permits are only available online. Go to WildlifeLicense.com/nj/complete the application and immediately print one bonus permit (application fee, $2). The permit is non-transferable and valid for the current calendar year. Only one permit can be used per day. Harvest reporting also must be online.

The party/charter boat segment of the program remains the same, with the applications available only by contacting Fish and Wildlife at (609) 748-2020. The party/charter boat bonus program is not online.

**Striped Bass Bonus Permit Harvest Reporting:** All information on the Bonus Permit must be completed immediately after harvest and prior to transportation. After reporting harvest information at WildlifeLicense.com/nj/, anglers are then eligible to receive another bonus permit for the $2 application fee.

**Note:** Harvest information must be reported online.

**Striped Bass Fishing Log:** All participants receive a log with their Bonus Permit and are encouraged to report all striped bass fishing activity for the calendar year. Anglers now have the option to enter their striped bass fishing log online instead of mailing their paper fishing log. Go to NJFishandWildlife.com/bonuslog.htm.

**Sharks**

The minimum size limit for any species of shark, except small coastal group and dogfish (see Note at right) is 54 inches fork length.

**Atlantic Coastal Shark Changes:** In response to the October 2008 adoption of the Atlantic States Marine Fisheries Commission’s (ASMFC) Interstate Fishery Management Plan for Atlantic Coastal Sharks, New Jersey must implement new recreational and commercial management measures for Atlantic coastal sharks regarding prohibited species, size, season and possession limits plus commercial quotas. The ASMFC compliance requirements to be implemented in 2010 were developed to complement existing federal shark regulations (see 2010 Federal Recreational Regulations table, page 18). However, the following additional proposed measures are required:

- In state waters, there is no minimum size limit for small coastal sharks* in the recreational fishery, but federal regulations include a 54-inch minimum size limit for blacknose and flinetooth small coastal sharks.
- All sharks within the large coastal group* will have a closed season within state waters from May 15 through July 15 to protect spawning female sharks during the pupping season.

* See page 18 footnote for species list defining small coastal, large coastal and pelagic sharks.

All sharks harvested by recreational fishermen must have heads, tails and fins attached naturally to the carcass until landed. Anglers may still gut and bleed the carcass as long as the tail is not removed. Filleting sharks at sea is prohibited.


These are the shark species that are prohibited from possession: Atlantic angel, basking, bigeye sixgill, bigeye thresher, bignose tiger, bignose, Caribbean reef, Caribbean sharptooth, dusky, Galapagos, longfin mako, narrowtooth, night, sandbar, sandtiger, sevengill, silky, sixgill, smalltail, whale and white sharks.

**Note:** To differentiate sharks from dogfish—the smooth dogfish has flat, tiny teeth; the spiny dogfish has strong, dorsal spines, shorter than, and in front of, the dorsal fins. Neither are present in sharks.

**Summer Flounder (Fluke)**

The possession and minimum size limit for summer flounder is six fish at 18 inches with an open season from May 29–Sept. 6.

Anglers may fillet one legal-sized summer flounder from their daily possession limit catch for use as bait. This carcass, commonly known as the rack, shall be kept intact so it can be measured for compliance with the minimum size limit. No parts of any summer flounder caught on a previous fishing trip shall be in possession; only fish just caught on this outing.

**Tautog (Blackfish)**

The minimum size limit for tautog is 14 inches. There is a four fish possession limit from Jan. 1–April 30, a zero fish possession limit from May 1–July 15 (the season is closed), a one fish possession limit from July 16 through Nov. 15 and a six fish possession limit from Nov. 16–Dec. 31.

**Weakfish (Gray & Spotted Seatrout)**

The current possession and minimum size limit for weakfish is one fish at least 13 inches in length.
Winter Flounder
The minimum possession and size limit for winter flounder is two fish at 12 inches. For winter flounder the open season is March 23–May 21.

Additional Marine Fishing Regulations
See pages 15–18 for the regulation charts and fish ID pages.

National Saltwater Angler Registry Program
The federal government’s National Saltwater Angler Registry Program requires most New Jersey saltwater anglers to register prior to fishing in 2010.

You must register if you...
• Fish for or catch anadromous species (striped bass, shad, river herring) in state tidal waters
• Fish in Federal waters (more than 3 miles from shore)

You do not have to register if you...
• Are under 16 years of age
• Only fish on federally licensed party or charter boats
• Hold a Highly Migratory Species Angling Permit
• See our Web site for additional exemptions: NJFishandWildlife.com/registryinfo.htm

Register online at www.countmyfish.noaa.gov or call toll free (888) 674-7411. Registration is free in 2010. Note: registering with the Federal Registry Program does NOT exempt anglers from obtaining any state marine fishing license required when fishing those state’s waters.

Delaware Fishing License Requirement
A Delaware fishing license is now required for anglers aged 16 and over fishing the Delaware River and Delaware Bay between the upstream tip of Artificial Island and the Delaware-Pennsylvania state line. In that section of the river, the Delaware state boundary extends to the New Jersey shoreline. When fishing from shore in New Jersey along that section of the river, a Delaware fishing license is not required. Delaware fishing license information can be found at http://www/fw.delaware.gov/Fisheries/Pages/NewFishingLicense.aspx

New York License Requirement
A New York license is now required for all anglers 16 and over fishing all waters of the Atlantic Ocean within 3 miles of the coast and all other tidal waters within the state, including the Hudson River up to the Gov. M. Wilson Tappan Zee Bridge. Visit www.dec.ny.gov/permits/50950.html.

Bait Fish
No license is required for the taking of baitfish for personal use with the following gear:
1. Dip nets 24 inches diameter or less for the taking of herring for live bait.
2. Bait seines 50 feet long or less.
3. Cast nets 20 feet in diameter or less.
4. Lift or umbrella nets four feet square or less.
5. Not more than five killipots.
6. Not more than two miniature fykes or pots for the taking of eels for bait.

Fish taken in this manner may not be sold or used for barter unless a commercial bait net license is in possession.

No person shall take more than 35 alewife or blueback herring in aggregate per day by hook and line or with the above listed gear.

No person shall take or attempt to take fish by any means from the Deal Lake flume, Lake Takanasse spillway or Wreck Pond spillway on any Monday, Wednesday or Friday during the months of April and May.

Motor Boat Registration and Title Requirements
NJ Motor Vehicle Commission (MVC)
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 (incl. electric motors), 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:
• Those not based in New Jersey or operating here less than 180 consecutive days that are operating under a federally approved numbering system from another state
• Ship’s lifeboats
• Non-motorized vessels used exclusively on small lakes and ponds on private property
• Racing vessels with New Jersey State Marine Police permit
• Non-motorized inflatable device, surfboard, racing shell, dinghy, canoe or kayak
• 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.

Boat Operator License (MVC)
An operator license is required to operate power vessels on fresh, non-tidal waters such as lakes, creeks and rivers. (Minimum age 16 years; with certain exceptions.)

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

Boat Safety Certificate (NISP)
A boat safety certificate (from an approved boat safety course; see NISP Web site, below) is required to operate a personal watercraft or power vessel, including electric motors, in NJ waters (tidal and non-tidal).

New Jersey State Police (NISP) (609) 882-2000 www.njsp.org/maritime
Mollusks & Crustaceans

Crustaceans

American Lobster
The legal possession size of whole lobsters, measured from the rear of the eye socket along a line parallel to the center line of the body shell to the rear of the body shell, shall be not less than \( \frac{3}{4} \) inches nor greater than \( \frac{5}{2} \) inches. Lobster parts may not be possessed at sea or landed.

The possession limit is six lobsters per person. No person shall possess any lobster with eggs attached or from which eggs have been removed or any female lobster with a v-notched tail, as illustrated above.

The use of spears, gigs, gaffs or other penetrating devices as a method of capture for lobsters is prohibited. A recreational lobster pot license is required to use pots or traps to capture lobsters. For details call (609) 748-2020.

Lobsters taken recreationally may not be sold or offered for sale.

Crabs
1. Crabs may be taken recreationally with hand lines, manually operated collapsible traps or scoop nets without a license. A non-commercial crab pot license is required for the use of not more than two non-collapsible Chesapeake-style crab pots (see illustration on page 19) or two trot lines to harvest crabs. See page 19 for the non-commercial crab pot license information.
2. It is illegal to harvest or possess more than one bushel of crabs per day per person or offer for sale any crabs without having in your possession a valid commercial crabbing license.
3. Minimum size for crabs that may be harvested (measured from point to point of shell) are as follows:
   a) Peeler or shedder crab: 3 inches
   b) Soft crab: \( \frac{3}{4} \) inches
   c) Hard crab: \( \frac{5}{2} \) inches (possession)
4. All female crabs with eggs attached and all undersized crabs shall be returned to the water immediately.
5. Recreational trot lines shall not exceed 150 feet in length with a maximum of 25 baits.
6. All pots and trot lines shall be marked with the identification number of the owner.
7. All crab pots must be tended at least once every 72 hours.
8. No floating line may be used on any crab pot or crab pot buoy.
9. No crab pot shall be placed in any area that would obstruct or impede navigation or in any creek less than 50 feet wide.
10. Only the owner, his agent or a law enforcement officer may raise or remove contents of a legally set fishing device.
11. Crabs taken with a bait seine may be retained for personal use only if the fisherman possesses a bait net license, and may not be bartered or sold unless the fisherman possesses a commercial crab license.
12. No crabs may be harvested from the Newark Bay Complex. For more information, see Health Advisory on page 22.
13. Crab Pot/Trot Line seasons:
   Delaware Bay and tributaries: April 6 – Dec. 4
   All other waters: March 15 – Nov. 30
   The following waters are closed to the use of crab pots and trot lines: Cumberland Co.: Cohansey River and creeks named Back, Cedar, Nantuxent, Fortescue, Oranoken and Dividing; Cape May Co.: West and

Horseshoe Crabs
The harvest of horseshoe crabs is prohibited. Possession of horseshoe crabs is also prohibited except for those individuals holding a scientific collecting permit for research and education and those fishermen that can provide suitable documentation that the horseshoe crabs in their possession were harvested outside the State of New Jersey.

Mollusks
1. All persons must be licensed to harvest any shellfish. See page 19. Shellfish means any species of benthic mollusks (except conch) including hard and soft clams, oysters, surf clams, bay scallops and mussels.
2. It is illegal to harvest shellfish from condemned waters, even for bait purposes.
3. It is illegal to harvest shellfish including surf clams from beaches adjacent to water classified as condemned. Shellfish water classification charts are available from license agents or any state shellfish office. See page 19 for shellfish license information. Charts are updated annually.
4. Shellfish harvesting is prohibited before sunrise, after sunset and on Sunday, except in the seasonally-approved areas of the Navesink and Shrewsbury rivers.
5. Harvesting shellfish on public grounds is restricted to the use of hand implements.
6. It is illegal to harvest shellfish from leased grounds. These grounds are delineated by stakes or buoys set by the lease holder. Charts of the leases may be examined at Fish and Wildlife’s Nacote Creek or Delaware Bay shellfish offices during regular business hours. Invasion onto leased grounds is punishable by penalties up to $3,000 and loss of all equipment.

Recreational Shellfish License
1. No holder of any recreational shellfish license may take more than a total of 150 shellfish (in aggregate) per day. See page 19.
2. A non-resident recreational shellfish license is valid only during the months of June, July, August and September.
3. Anyone engaged in any shellfish harvesting activity with someone holding a commercial shellfish license must also possess their own commercial shellfish license.
4. It is illegal to dredge shellfish. Hand implements are the only legal harvest methods.
5. The minimum size of hard clams that may be harvested is 1½ inches in length. Clams less than 1½ inches in length must immediately be returned to the bottom from which they were taken. Specific seasons, regulations and size limits exist for oyster beds in Great Bay, Delaware Bay, plus the Mullica, Great Egg Harbor and Tuckahoe rivers. Check with the nearest shellfish office (Nacote Creek or Delaware Bay) for these detailed regulations.

6. It is illegal to harvest shellfish on Sunday except in the seasonal waters of the Navesink and Shrewsbury rivers between Nov. 1 and April 30.

7. Shells taken in the process of harvesting oysters must be culled from the live oysters and returned immediately to the area from where they were taken.

Commercial Shellfish License

1. Shellfish may be sold only to certified dealers. All persons selling shellfish commercially must tag each container listing date of harvest, name and address of the harvester and the waters from which the shellfish were harvested.

2. It is illegal to dredge shellfish on public grounds. All harvesting on public grounds is restricted to the use of hand implements.

3. Shells taken in the process of harvesting oysters must be culled from the live oysters and immediately returned to the area from where they were taken.

4. The minimum size of hard clams that may be harvested is 1½ inches in length. Clams less than 1½ inches must immediately be returned to the bottom from which they were taken. Specific seasons, regulations and size limits exist for oyster beds in Great Bay, Delaware Bay, plus the Mullica, Great Egg Harbor, and Tuckahoe rivers. Check with the nearest shellfish office (Nacote Creek or Delaware Bay) for these detailed regulations.

5. It is illegal to harvest shellfish on Sunday except in the seasonal waters of the Navesink and Shrewsbury rivers between Nov. 1 and April 30 when it is legal.

2010 New Jersey Recreational Fishing Seasons, Minimum Size and Possession Limits

<table>
<thead>
<tr>
<th>Species</th>
<th>Open Season</th>
<th>Minimum Length</th>
<th>Harvest &amp; Possession Limit (per person unless noted)</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Eel</td>
<td>No Closed Season</td>
<td>6’</td>
<td>50</td>
</tr>
<tr>
<td>Black Drum a</td>
<td>No Closed Season</td>
<td>16’</td>
<td>3</td>
</tr>
<tr>
<td>Black Sea Bass a</td>
<td>May 22–Sept. 12</td>
<td>12.5’</td>
<td>25</td>
</tr>
<tr>
<td>Bluefish</td>
<td>No Closed Season</td>
<td>None</td>
<td>15</td>
</tr>
<tr>
<td>Cobia</td>
<td>No Closed Season</td>
<td>37’</td>
<td>2</td>
</tr>
<tr>
<td>Cod</td>
<td>No Closed Season</td>
<td>21’</td>
<td>No Limit</td>
</tr>
<tr>
<td>Haddock</td>
<td>No Closed Season</td>
<td>21’</td>
<td>No Limit</td>
</tr>
<tr>
<td>King Mackerel</td>
<td>No Closed Season</td>
<td>23’</td>
<td>3</td>
</tr>
<tr>
<td>Pollock</td>
<td>No Closed Season</td>
<td>19’</td>
<td>No Limit</td>
</tr>
<tr>
<td>Red Drum</td>
<td>No Closed Season</td>
<td>18’</td>
<td>1 not greater than 27’</td>
</tr>
<tr>
<td>River Herring</td>
<td>No Closed Season</td>
<td>None</td>
<td>35</td>
</tr>
<tr>
<td>Scup (Porgy)</td>
<td>Jan. 1–Feb. 28</td>
<td>9’</td>
<td>50</td>
</tr>
<tr>
<td>Shad</td>
<td>No Closed Season</td>
<td>None</td>
<td>6</td>
</tr>
<tr>
<td>Shark b, c</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Large coastal group †</td>
<td>Jan. 1–May 14</td>
<td>54’ fork length</td>
<td>One Shark (of any species, except prohibited species) per vessel per trip; plus one Atlantic sharpnose shark per person per trip (no minimum size); plus one bonnethead shark per person per trip (no minimum size).</td>
</tr>
<tr>
<td>Small coastal group †</td>
<td>No closed season</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Pelagic group †</td>
<td>No closed season</td>
<td>54’ fork length</td>
<td></td>
</tr>
<tr>
<td>Smooth Dogfish</td>
<td>No Closed Season</td>
<td>None</td>
<td>No Limit</td>
</tr>
<tr>
<td>Spanish Mackerel</td>
<td>No Closed Season</td>
<td>14’</td>
<td>10</td>
</tr>
<tr>
<td>Striped Bass or Hybrid Striped Bass</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delaware River &amp; tributaries**</td>
<td>March 1–March 31 and June 1–Dec. 31</td>
<td>28’</td>
<td>2</td>
</tr>
<tr>
<td>Delaware River &amp; tributaries**</td>
<td>March 1–Dec. 31</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Atlantic Ocean² (0–3 nautical miles from shore)</td>
<td>No Closed Season</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rivers, bay and estuaries</td>
<td>March 1–Dec. 31</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3–200 nautical miles (federal waters)</td>
<td>Prohibited</td>
<td>–</td>
<td>0</td>
</tr>
<tr>
<td>Summer Flounder</td>
<td>May 29–Sept. 6</td>
<td>18’</td>
<td>6</td>
</tr>
<tr>
<td>Tautog</td>
<td>Jan. 1–April 30</td>
<td>14’</td>
<td>4</td>
</tr>
<tr>
<td>Winter Flounder</td>
<td>March 23–May 21</td>
<td>12’</td>
<td>2</td>
</tr>
</tbody>
</table>

Note: No species of fish with a minimum size limit listed above may be filleted or cleaned at sea (except striped bass if fillet is at least 28’ long). Party boats licensed to carry 15 or more passengers may apply for a permit to fillet the above species, except striped bass, at sea. See Summer Flounder, page 12.

Blue Crab

- peeler or shedder: No Closed Season 3’ 1 bushel
- soft: No Closed Season 3½’
- hard: No Closed Season 4½’
- Lobster (carapace length): No Closed Season 3½’ 6
- Hard Clam (license required): No Closed Season 1½’ 150 clams

a Regulation changes possible during 2010.

b Not including dogfish; see description on page 12 under Sharks.

c See page 11 for a list of Prohibited Species.

d Atlantic Ocean greater than three miles from shore: harvest and possession prohibited.

e Unless using non-collapsible, Chesapeake-style crab pots. See sections on crab pots, pages 14 and 19.

fExcluding tail filaments. (See illustration, page 11.)

g See Closed Seasons page 12 for specifics of springtime non-offset circle hook requirements.

† See page 18 for Federal Recreational Regulations.
### 2010 Federal Recreational Regulations for Minimum Size, Possession Limits and Seasons

See New Jersey Division of Fish and Wildlife Recreational Fishing Seasons Minimum Size and Possession Limits (page 15) for state waters listings of species not included in these federal waters regulations (from 3–200nm). For federal regulation questions, please contact the National Marine Fisheries Service at (978) 281-9260, or go to www.nmfs.noaa.gov.

<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
<th>Minimum Size</th>
<th>Possession Limit (number per angler per day unless otherwise specified)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dolphin (Mahi mahi)</td>
<td>Year round</td>
<td>None</td>
<td>10, not to exceed 60 per vessel, which ever is less — except on a charter or headboat, then 10 per paying passenger.</td>
<td>For current federal waters regulations (3–200nm), refer to <a href="http://www.nmfs.noaa.gov/sfa/hms/">www.nmfs.noaa.gov/sfa/hms/</a> or call (727) 824-5399.</td>
</tr>
<tr>
<td>Marlin, White</td>
<td>Year round</td>
<td>66” lower jaw fork length</td>
<td>None</td>
<td>Billfish require Highly Migratory Species (HMS) permit when fishing in federal waters (3–200 nm). For permits refer to <a href="http://www.hmspermits.gov">www.hmspermits.gov</a> or call (888) 872-8862.</td>
</tr>
<tr>
<td>Marlin, Blue</td>
<td>Year round</td>
<td>99” lower jaw fork length</td>
<td>None</td>
<td>During any sanctioned billfish tournaments offering prize money, non-offset circle hooks are required for lures with natural bait or natural/artificial bait combos. Refer to <a href="http://www.nmfs.noaa.gov/sfa/hms/">www.nmfs.noaa.gov/sfa/hms/</a> or call (978) 281-9260. All non-tournament billfish landings must be reported to NMFS within 24 hours, either online at <a href="http://www.hmspermits.gov">www.hmspermits.gov</a> or by calling (800) 894-5528. For current regulations refer to <a href="http://www.nmfs.noaa.gov/sfa/hms/">www.nmfs.noaa.gov/sfa/hms/</a> or call (727) 824-5399.</td>
</tr>
<tr>
<td>Sailfish</td>
<td>Year round</td>
<td>63” lower jaw fork length</td>
<td>None</td>
<td>Swordfish, tuna and sharks require an HMS permit when fishing in federal waters (3–200 nm). For permits, refer to <a href="http://www.hmspermits.gov">www.hmspermits.gov</a> or call (888) 872-8862.</td>
</tr>
<tr>
<td>Spearfish, Longbill</td>
<td>None</td>
<td>None</td>
<td>Prohibited</td>
<td></td>
</tr>
<tr>
<td>Golden Tilefish</td>
<td>Year round</td>
<td>None</td>
<td>None</td>
<td>For current federal waters regulations (3–200nm), refer to <a href="http://www.nmfs.noaa.gov/sfa/hms/">www.nmfs.noaa.gov/sfa/hms/</a> or call (978) 281-9260.</td>
</tr>
<tr>
<td>Swordfish</td>
<td>January 1, 2010 to December 31, 2010 or until season is closed.</td>
<td>47” lower jaw fork length</td>
<td>For anglers: 1 per person, no more than 4 per vessel per trip.</td>
<td>Swordfish, tuna and sharks require an HMS permit when fishing in federal waters (3–200 nm). For permits, refer to <a href="http://www.hmspermits.gov">www.hmspermits.gov</a> or call (888) 872-8862.</td>
</tr>
<tr>
<td>Tuna, Albacore (Longfin)</td>
<td>Year round</td>
<td>27” curved fork length</td>
<td>None</td>
<td>Bluefin Note: These regulations for bluefin tuna may change during the season. Contact (978) 281-9260 prior to fishing. All non-tournament swordfish landings must be reported to NMFS within 24 hours either online at <a href="http://www.hmspermits.gov">www.hmspermits.gov</a> or by calling (800) 894-5528. For current federal waters regulations (3–200nm), refer to <a href="http://www.nmfs.noaa.gov/sfa/hms/">www.nmfs.noaa.gov/sfa/hms/</a> or call (301) 713-2347 for swordfish/sharks or (978) 281-9260 for tunas.</td>
</tr>
<tr>
<td>Tuna, Bigeye</td>
<td>Year round</td>
<td>None</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Tuna, Bluefin</td>
<td>January 1, 2010 to December 31, 2010 or until season is closed.</td>
<td>27” to &lt;73” curved fork length</td>
<td>1 BFT per vessel per trip per day.</td>
<td>All non-tournament swordfish landings must be reported to NMFS within 24 hours either online at <a href="http://www.hmspermits.gov">www.hmspermits.gov</a> or by calling (888) 872-8862. For current federal waters regulations (3–200nm), refer to <a href="http://www.nmfs.noaa.gov/sfa/hms/">www.nmfs.noaa.gov/sfa/hms/</a> or call (301) 713-2347 for swordfish/sharks or (978) 281-9260 for tunas.</td>
</tr>
<tr>
<td>Tuna, Skipjack</td>
<td>Year round</td>
<td>None</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Tuna, Yellowfin</td>
<td>Year round</td>
<td>27” curved fork length</td>
<td>3 per person per trip</td>
<td>Swordfish, tuna and sharks require an HMS permit when fishing in federal waters (3–200 nm). For permits, refer to <a href="http://www.hmspermits.gov">www.hmspermits.gov</a> or call (888) 872-8862. Recreational fishermen those that do not have a limited access commercial shark permit can not sell, barter or trade any Atlantic shark or shark pieces.</td>
</tr>
<tr>
<td>Shark, Large Coastal*</td>
<td>Year round</td>
<td>&gt;54”, 4.5 ft, or 1.37m fork length</td>
<td>One</td>
<td>See below for list of shark groups which MAY be kept or MUST be released. Swordfish, tuna and sharks require an HMS permit when fishing in federal waters (3–200 nm). For permits, refer to <a href="http://www.hmspermits.gov">www.hmspermits.gov</a> or call (888) 872-8862. Recreational fishermen those that do not have a limited access commercial shark permit can not sell, barter or trade any Atlantic shark or shark pieces.</td>
</tr>
<tr>
<td>Shark, Small Coastal*</td>
<td>Year round</td>
<td>None</td>
<td>Shark Species That MUST Be Released: Atlantic striped shark per person per trip (no minimum size); plus one bonnethead shark per person per trip (no minimum size).</td>
<td></td>
</tr>
<tr>
<td>Shark, Pelagic*</td>
<td>Year round</td>
<td>None</td>
<td>Shark Species That MAY Be Kept: Large Coastal Shark—blacktip, bull, lemon, nurse, tiger, spinner, scalloped hammerhead, smooth hammerhead, great hammerhead; Small Coastal Shark—Atlantic sharpnose, bonnethead, blacknose, finetooth; Pelagic Shark—Shortfin mako, blue, porbeagle, oceanic whitetip and common thresher. Regulations concerning highly migratory species (HMS) such as tuna, swordfish, shark and billfish, are subject to change. For questions/clarification of the federal highly migratory species regulations, contact the National Marine Fisheries Service at (301) 713-2347 or go to <a href="http://www.nmfs.noaa.gov">www.nmfs.noaa.gov</a>.</td>
<td></td>
</tr>
</tbody>
</table>

*Shark Species That May Be Kept: Large Coastal Shark—blacktip, bull, lemon, nurse, tiger, spinner, scalloped hammerhead, smooth hammerhead, great hammerhead; Small Coastal Shark—Atlantic sharpnose, bonnethead, blacknose, finetooth; Pelagic Shark—Shortfin mako, blue, porbeagle, oceanic whitetip and common thresher. Shark Species That MUST Be Released: Atlantic striped shark per person per trip (no minimum size); plus one bonnethead shark per person per trip (no minimum size). Regulations concerning highly migratory species (HMS) such as tuna, swordfish, shark and billfish, are subject to change. For questions/clarification of the federal highly migratory species regulations, contact the National Marine Fisheries Service at (301) 713-2347 or go to www.nmfs.noaa.gov.
**SHELLFISH LICENSE INFORMATION**

A claming license is now called a shellfish license and is required for harvesting of all species of benthic mollusks (with the exception of conchs, addressed in the commercial marine fisheries regulations), including, but not limited to, hard and soft clams, surf clams, oysters, bay scallops and mussels. Other specific commercial shellfish licenses exist such as surf clam dredge, Delaware Bay oyster dredge boat, and Delaware Bay licenses to harvest in Areas 1, 2 and 3.

Prior to harvesting any shellfish, be certain to consult the Shellfish Growing Water Classification Charts published by DEP’s Bureau of Marine Water Monitoring, available at any shellfish license agent, state shellfish offices, online at http://www.nj.gov/dep/bmw/waterclass.htm or call the Bureau of Marine Water Monitoring at (609) 748-2000. Shellfish licenses are available for purchase online at WildlifeLicense.com/NJ.

**Shellfish License Fees**

- **Resident recreational shellfish**: $10
  - Harvest limit of 150 shellfish (in aggregate) per day. Sale of catch prohibited.
- **Non-resident recreational shellfish**: $20
  - Harvest limit of 150 shellfish (in aggregate) per day. Sale of catch prohibited.
  - License valid only during the months of June, July, August and September.
- **Juvenile recreational shellfish**: $2
  - For persons under 14 years of age. Subject to same restrictions as resident or nonresident adult recreational license holders.
- **Resident commercial shellfish**: $50
  - Unlimited harvest. Shellfish may be sold only to certified dealers.
- **Non-resident Commercial Shellfish**: $250
  - Unlimited harvest. Shellfish may be sold to certified dealers only.
- **Senior citizen recreational shellfish license**: FREE ($2 application fee)
  - NJ residents age 62 years or older. Harvest limit, 150 shellfish (in aggregate) per day. Sale of shellfish prohibited.
- **Disabled veterans**: Fish and Wildlife-certified disabled veterans are eligible for free shellfish license at any shellfish license agent location.
  - For more information on how to become certified, call (908) 637-4125.

**Crab licenses are available at all agent locations:**

Recreational Crab Pot/Trot Line Licenses and Non-Commercial Crab Dredge Licenses are available for purchase online at: WildlifeLicense.com/nj/ or at any Fish and Wildlife-certified license agent including those license agents listed at right. For a current list of Fish and Wildlife-certified license agents, look in future hunting issues of the New Jersey Fish & Wildlife Digest or go to NJFishandWildlife.com/agentlst.htm.

- **Recreational crab pot/trot line license**: $2
  - Harvest limit of one bushel per day. Refer to the shellfish regulations on page 14 for all recreational crabbing regulations.
- **Non-commercial crab dredge license**: $15
  - Harvest limit of one bushel per day during the crab dredge season. Refer to the crab regulations on page 14 for all recreational crabbing regulations.

**TERRAPIN EXCLUDERS AND BIODEGRADABLE PANELS ARE REQUIRED ON CHESAPEAKE-STYLE CRAB POTS**

Users of non-collapsible, Chesapeake-style crab pots should be aware that all pots set in any body of water less than 150-feet wide at mean low tide or in any manmade lagoon MUST include diamondback terrapin exclusion devices. In addition, all non-collapsible, Chesapeake-style crab pots set in any body of water MUST include biodegradable panels.

These crab pot modifications will help reduce the unintentional drowning of terrapins and allow for escapement of these and other species in the event that pots are lost or abandoned. Terrapin excluder devices must be no larger than 2-inch high by 6-inch wide and securely fastened inside each funnel entrance. Biodegradable panels must measure at least 6½-inch wide by 5-inch high and be located in the upper section of the crab pot. The panel must be constructed of, or fastened to the pot with wood lath, cotton, hemp, sisal or jute twine not greater than ½ inch diameter, or non-stainless steel, uncoated ferrous metal not greater than ½ inch diameter. The door or a side of the pot may serve as the biodegradable panel ONLY if it is fastened to the pot with any of the material specified above. Crabbers should be aware that ALL non-collapsible, Chesapeake-style crab pots MUST be licensed and marked with the gear identification number of the owner. For crab pot license information and regulations, see the regulations on page 14 and license agents below.

**SHELLFISH AND NON-COMMERCIAL CRAB POT LICENSE AGENTS** (For over-the-counter sales only)

**ATLANTIC COUNTY**

- Egg Harbor True Value, 208 N. Philadelphia Ave., Egg Harbor City ...(609) 965-0815
- Fish Finder Marina, 3645 Atlantic-Brittingham Blvd., Brigantine ...(609) 457-5384
- Main Street Hardware, 6016 Main St., Mays Landing...(609) 625-4941
- NJ Div. Fish and Wildlife, 360 Rt. 9 N (milpost 51) ...(609) 748-2021
- Zeus Sporting Goods, 6679 Black Horse Pike, Egg Harbor Twp...(609) 646-1668

**CAMDEN COUNTY**

- Towne News, 81 So. Whitehorse Pike, Berlin ...(856) 768-9132
- Avalon Hodge Lodge, 2389 Ocean Dr., Avalon ...(609) 967-3274
- Belleplain Supply, 346 Handsmill Rd., Bellplain ...(609) 861-2345
- Budd’s Bait & Tackle, 109 Fullingmill Rd., Villas ...(609) 886-6935
- Capt. Tate’s Tackle Box, 450 No. Route 47, Cape May CH. ...(609) 861-4001
- City of Ocean City, 861 Asbury Ave., Ocean City ...(609) 525-9328
- Smuggler’s Cove, 370 83rd St., Stone Harbor ...(609) 386-1700
- Upper Township, 2100 Tuckahoe Rd., Tuckahoe ...(609) 628-2805
- Wal*Mart, 3159 Rt. 9S., Rio Grande ...(609) 465-7760

**CUMBERLAND COUNTY**

- Beaver Dam Boat Rentals, 514 Old Beaver Dam Rd., Newport ...(856) 447-3633
- Big Daddy’s Sport Haven, 595 Sherman Ave., Millville ...(856) 453-9009
- Delaware Bay Office, 1672 E. Buckshutem Rd., Millville ...(609) 785-0730
- Shire Products, 389 S. Lincoln Ave., Vineland ...(609) 692-3646

**GLOUCESTER COUNTY**

- Sportsman’s Outpost, 2517 Fries Mill Rd., Williamstown ...(856) 881-3244
- Casso’s Gun-A-Rama, 176 Danforth Ave., Jersey City ...(201) 435-5099

**HUDSON COUNTY**

- Brielle Tackle, 800 Ashley Ave., Brielle ...(732) 529-5720
- L & H Woods and Water, 2045 Rt. 35, Wall ...(732) 282-1812

**OCEAN COUNTY**

- American Sportsman, 857 Mill Creek Rd., Manahawkin ...(609) 597-4104
- Bob Keislin’s, 1214 Rt. 37 East, Toms River ...(732) 929-9350
- Chumbucket, 381 Rt. 9, West Creek ...(609) 294-2500
- Downes Bait & Tackle, 287 Brennan Concourse, Bayville ...(732) 269-0137
- Fish Bonez Bait & Tackle, 103 Lacey Rd., Forked River ...(609) 971-2928
- Grizz’s Forked River Bait & Tackle, 232 N. Main St., Forked River ...(609) 242-1812
- Pell’s Fish & Sport Shop, 335 Mantoloking Rd., Bricktown ...(732) 477-2121
- Surf City Bait & Tackle, 317 Long Beach Blvd., Surf City ...(609) 494-2333
- Tip’s Hardware, 218 Main St., West Creek ...(732) 971-2500

**SOMERSET COUNTY**

- Elinger Sporting Goods, 513 W. Union Ave., Bound Brook ...(732) 356-0604
Species Profile

Weakfish

by Russell L. Allen, Principal Fisheries Biologist; Illustration by Diane Peebles

The species profile on these pages traditionally includes useful fishing tactics to help our fellow anglers enjoy catching and eating the featured species. But the uncertain status of weakfish suggests a different slant. Marine biologists recommend a more conservative approach and suggest that anglers refrain from targeting weakfish during this time of low population. Instead of focusing on fishing tips, read on for the life history, interesting facts and statistics on this fish with the misnomer of a name. For an excellent perspective on weakfish stock assessment and management issues, be sure to read the article on page 6, What Happened to Weakfish?

Scientific name
Cynoscion regalis

Common names
Weakfish, squeteague, trout, seatrout, tiderruner, gray trout, squit, chickwick, drummer, and yellow-finned trout

Biological characteristics
The weakfish body color radiates from a greenish grey on top to silvery below. The back and sides are burnished with purple, green, blue and gold spots with small spots forming undulating dotted lines. Weakfish pelvic and anal fins are yellowish. A pair of large, canine-like teeth are set at the tip of its upper jaw.

Habitat
Larval nursery habitats include nearshore ocean waters as well as bays and estuaries. Juvenile weakfish inhabit the deeper waters of estuaries including their tributary rivers. They also use the nearshore ocean waters as a nursery area. Juveniles are associated with moderate depths of moderate salinity and sand or silt/eelgrass bottom. Adult weakfish reside in both estuarine and nearshore ocean habitats. Weakfish are important carnivores, feeding along the edges of eelgrass habitats as well as other edge habitats such as along channel edges, rock, and oyster reefs.

Spawning
Spawning occurs in nearshore ocean and estuarine areas from March through September, with a peak during April to June. Weakfish are indeterminate batch spawners where females release their eggs over a period of time rather than all at once. In other words, they continuously produce eggs during spawning season and may release a batch of eggs as often as every 2–3 days—or as infrequently as every two weeks or so—depending on the environment. Male weakfish rapidly flex specially adapted abdominal muscles attached to the wall of their swim bladder (a gas-filled organ used primarily for buoyancy control and important for hearing in some fishes) to produce distinctive “drumming” sounds associated with courtship and spawning behavior.

Growth/Feeding
The young remain in nursery areas until fall of their first year, after which the juveniles migrate to the coast. Juvenile weakfish feed on crustaceans (such as shrimp) and small fish, especially bay anchovies. Growth is rapid during their first year and they reach an average length of about 10 inches by the end of the growing season, although growth is highly variable (see What Do Fish Tell Us? page 28). Adult diets are dominated by Atlantic menhaden and bay anchovy, while spot, squid and a variety of other fish (including small weakfish) appear in stomach samples. Size and weight alone do not indicate the age of these fish. For instance, in New Jersey, a 25-inch weakfish can be anywhere from three to eight years of age (Figure 1). Variability of size within year classes is due to the extended spawning period along the coast. Weakfish may grow as large as 38 inches and reach 19 pounds. Some have been aged to 17 years old. The New Jersey record weakfish is 18 pounds, 8 ounces from Delaware Bay in 1986 (see New Jersey Record Fish, page 25).
Management

The current stock status for weakfish is depleted; overfishing is not occurring. Over
the past decade, the weakfish stock has declined to an all-time low. New Jersey’s 2009
recreational and commercial harvest were also the lowest of their respective time
series (Figure 2). Between 1982 and 1990, weakfish declined drastically coastwide,
with high fishing mortality rates driving the decline. The stock was overfished
at that time. Implementation of management measures in the early to mid-1990s
reduced fishing mortality and resulted in an increase in the population. After a slight
decline through 2000, the stock began another drastic decline to current levels. The
recent decline in the weakfish stock is not attributed to fishing mortality, which has
remained relatively low and stable. Rather, natural mortality has increased to be two
to four times the level of fishing mortality in recent years. For additional management
information see What Happened to Weakfish? on page 6.

![Figure 1. Weakfish Mean Length at Age for New Jersey](image)

![Figure 2. NJ Weakfish Landings: 1950–2009](image)

**Fabulous Weakfish Facts**

- There are two theories as to how weakfish got their name. Early Dutch settlers on
  Manhattan Island in New York gave it the name “weekies” from old Dutch meaning
  “soft fish.” The second is that the name weakfish refers to the tender, easily torn
  membrane of the fish’s mouth. It sure does not refer to its fighting ability while on the
  line!

- Fortescue is known as the “Weakfish Capital of the World.” It is estimated that in
  its peak, more than 250,000 people a year visited Fortescue primarily to
  target weakfish in the Delaware Bay.

- Weakfish can live 17 years (the oldest aged so far) or longer, but most fish become
  sexually mature at one year of age. All are sexually mature by two years.

- To age weakfish, scientists use otoliths or the “earbones,”
  counting each distinct ring to get an accurate age.

- The official IGFA all-tackle world record weakfish of
  19 lbs, 12 ounces was caught by David Alu of Jackson,
  NJ (photo with Rich Swisstack of Shore Catch Guide
  Service) on May 6, 2008 from the New York shoreline
  in Raritan Bay on a bunker chunk.

- The East Carolina University (ECU) Scienid Acoustics
  Research Team has identified at least two types of weakfish
  sounds. Males make a purring sound by drumming their
  swim bladders; an aggregation of spawning weakfish
  can sound like static. These sounds can be heard at
  the ECU Scienid Acoustics Research Team website:
  http://personal.ecu.edu/spraguej/drumming.html

- There are distinct spawning stocks of weakfish along
  the coast that return to the same estuaries to spawn
each year.

References:

- www.fnr.state.md.us/fisheries/fishfacts/weakfish.asp
- www.odu.edu/sci/cqfe/Research/Chesapeake%20Bay/Weakfish/Weakfish.htm
- www.fshbase.org
- www.asmfc.org
The 19th Annual Governor’s Surf Fishing Tournament will be held Sunday, Oct. 3, 2010. Once again anglers from New Jersey and neighboring states will descend upon the beaches of Island Beach State Park in hopes of catching the longest fish of the day. The tournament aims to encourage youngsters and adults to learn more about surf fishing while taking advantage of a great family activity. Funds raised by the tournament go toward marine resource conservation and education.

Despite a foggy start to the 18th annual tournament, over 800 participants enjoyed a day of fishing off the beaches of Island Beach State Park. Contestants caught blackfish, bluefish, kingfish, striped bass and weakfish. A total of thirty prizes were awarded in categories for children, teens and adults. However, the grand prize went to Gene Brendel of Nutley, with a 32-inch striped bass. DEP Division of Fish and Wildlife Director, Dave Chanda congratulated Mr. Brendel with a plaque and two rod-and-reel combinations. Also, Mr. Brendel’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 $120,000 for various marine education and restoration efforts, construction of access ramps for disabled saltwater anglers, surf fishing instruction programs and equipment, specialized wheel chairs that provide beach access to the disabled and elderly, plus the purchase of the first mobile automatic heart defibrillator for use at Island Beach State Park.

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

New Jersey Division of Fish and Wildlife (along with our co-sponsors: New Jersey Division of Parks and Forestry, New Jersey State Federation of Sportsmen’s Clubs, Jersey Coast Anglers Association and New Jersey Beach Buggy Association) would like to thank the following organizations for contributing to the success of the 18th Annual Governor’s Surf Fishing Tournament in 2009:

- Canyon Gear
- Eagle Claw Fishing Tackle Company
- Grumpy’s Bait & Tackle
- Legal Limits Company
- Manns Bait Company
- O Mustad & Son, Inc.
- Sportsman’s Center
- Stanley Jigs, Inc.
- Surf Rocket
- Tru-Turn, Inc.
- TTI-Blakemore Fishing Group
- Wright & McGill Company
- Stanley Jigs, Inc.
- Manns Bait Company
- O Mustad & Son, Inc.
- Sportsman’s Center
- Stanley Jigs, Inc.
- Surf Rocket
- Tru-Turn, Inc.
- TTI-Blakemore Fishing Group
- Wright & McGill Company

A special thanks to Kathy Johnston of Kathy Johnston Custom Artwork for creating the annual tournament t-shirt design.

Also thanks to Cannon Gear for printing the t-shirts.

Despite a foggy start to the 18th annual tournament, over 800 participants enjoyed a day of fishing off the beaches of Island Beach State Park.

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

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 statewide, 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.

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.

For a complete list of state and federal marine fish consumption advisories visit: FishSmartEatSmartNJ.org.

The fish consumption advisories and Fish Smart-Eat Smart Web site are updated periodically and are available online or from the Office of Science at (609) 984-6070.
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Skillful Angler Awards Program

The Skillful Angler Awards Program is designed to supplement the New Jersey Record Fish Program. It is comprised of 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. Well-composed, high resolution photos may be selected for printing in future Digests. 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 authorized Fish and Wildlife fisheries biologists.

Learn more online at NJFishandWildlife.com/skflang.htm.

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 ________

Location __________________________

Caught from (check only one):
☐ Boat ☐ Shore ☐ Surf ☐ Jetty
☐ Other (specify) __________________________

Minimum Entry Requirements:

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

The New Jersey State Record Fish Program requires a separate application and is based on weight alone. Scale certification documentation and a weighmaster’s signature are necessary. Other rules apply. Visit Fish and Wildlife’s Web site at NJFishandWildlife.com for a complete list of current state records. See also page 25.

Line Test Used __________________ Reel Type __________________

Rod Type __________________ Lure/Bait __________________

Certification for Adult and Junior Categories

Name of Establishment ____________________________________________

Telephone Number_______________________________________________

Weightmaster’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).

☐ I have enclosed a clear, side-view photo.

Applicant’s Signature __________________________ Date ____________

* 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
Skillful Angler Awards Program
Pequest Natural Resource Education Center
605 Pequest Rd.
Oxford, NJ 07863
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.

Over the years, revisions have been 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 on 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 historic 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 NJFishandWildlife.com/fishing.htm.

New Jersey State Record Marine Fish

<table>
<thead>
<tr>
<th>Species</th>
<th>Lbs.</th>
<th>Oz.</th>
<th>Year</th>
<th>Angler</th>
<th>Where Caught</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amberjack, greater</td>
<td>85</td>
<td>0</td>
<td>1993</td>
<td>Edwin Metzner</td>
<td>Off Cape May</td>
</tr>
<tr>
<td>Bass, black sea</td>
<td>8</td>
<td>2</td>
<td>1992</td>
<td>Tony Cunha</td>
<td>Inshore Wreck</td>
</tr>
<tr>
<td>Bluefish</td>
<td>27</td>
<td>1</td>
<td>1997</td>
<td>Roger Kastorsky</td>
<td>S Fathom Bank</td>
</tr>
<tr>
<td>Bonito, Atlantic</td>
<td>13</td>
<td>8</td>
<td>1945</td>
<td>Frank Lykes, Jr.</td>
<td>Off Sandy Hook</td>
</tr>
<tr>
<td>Cobia</td>
<td>87</td>
<td>0</td>
<td>1999</td>
<td>John Shanchuk</td>
<td>Off Sea Bright</td>
</tr>
<tr>
<td>Cod</td>
<td>81</td>
<td>0</td>
<td>1967</td>
<td>Joseph Chesla</td>
<td>Off Brielle</td>
</tr>
<tr>
<td>Crab, blue</td>
<td>8¼*</td>
<td>pt. to pt.</td>
<td>2009</td>
<td>Raymond Ponik</td>
<td>Bayonne</td>
</tr>
<tr>
<td>Croaker, Atlantic</td>
<td>5</td>
<td>8</td>
<td>1981</td>
<td>Frederick Brown</td>
<td>Delaware Bay</td>
</tr>
<tr>
<td>*Cunner</td>
<td>2</td>
<td>9</td>
<td>2006</td>
<td>Nick Honachefsky</td>
<td>Mud Hole</td>
</tr>
<tr>
<td>Dogfish, smooth</td>
<td>19</td>
<td>8</td>
<td>2000</td>
<td>Michael LaTorre</td>
<td>Pleasantville</td>
</tr>
<tr>
<td>Dogfish, spiny</td>
<td>15</td>
<td>12</td>
<td>1990</td>
<td>Jeff Pennick</td>
<td>Off Cape May</td>
</tr>
<tr>
<td>Dolphin</td>
<td>63</td>
<td>3</td>
<td>1974</td>
<td>Scott Smith, Jr.</td>
<td>Baltimore Canyon</td>
</tr>
<tr>
<td>Drum, black</td>
<td>109</td>
<td>0</td>
<td>2008</td>
<td>Nick Henry</td>
<td>Delaware Bay</td>
</tr>
<tr>
<td>Drum, red</td>
<td>55</td>
<td>0</td>
<td>1985</td>
<td>Daniel Yenio</td>
<td>Great Bay</td>
</tr>
<tr>
<td>Eel, American</td>
<td>9</td>
<td>13</td>
<td>1988</td>
<td>Warren Campbell</td>
<td>Atlantic City</td>
</tr>
<tr>
<td>Fluke</td>
<td>19</td>
<td>12</td>
<td>1953</td>
<td>Walter Lubin</td>
<td>Off Cape May</td>
</tr>
<tr>
<td>Flounder, winter</td>
<td>5</td>
<td>11</td>
<td>1993</td>
<td>Jimmy Swanson</td>
<td>Off Barnegat Light</td>
</tr>
<tr>
<td>Hake, white</td>
<td>41</td>
<td>7</td>
<td>1989</td>
<td>Wayne Eble</td>
<td>Off Barnegat Light</td>
</tr>
<tr>
<td>Kingfish, Northern</td>
<td>2</td>
<td>8</td>
<td>2004</td>
<td>Chester Urbanski</td>
<td>Barnegat Bay</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Species</th>
<th>Lbs.</th>
<th>Oz.</th>
<th>Year</th>
<th>Angler</th>
<th>Where Caught</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ling (red hake)</td>
<td>11</td>
<td>1</td>
<td>2002</td>
<td>Natalie Jones</td>
<td>Off Brielle</td>
</tr>
<tr>
<td>Mackerel, Atlantic</td>
<td>4</td>
<td>1</td>
<td>1983</td>
<td>Abe Elkin</td>
<td>Manasquan Ridge</td>
</tr>
<tr>
<td>Mackerel, king</td>
<td>54</td>
<td>0</td>
<td>1998</td>
<td>Fernando Alfaiate</td>
<td>Off Cape May</td>
</tr>
<tr>
<td>*Mackerel, Spanish</td>
<td>9</td>
<td>12</td>
<td>1990</td>
<td>Donald Kohler</td>
<td>Off Cape May</td>
</tr>
<tr>
<td>Marlin, blue</td>
<td>1,046</td>
<td>0</td>
<td>1986</td>
<td>Phil Infantolino</td>
<td>Hudson Canyon</td>
</tr>
<tr>
<td>Marlin, white</td>
<td>137</td>
<td>8</td>
<td>1980</td>
<td>Mike Marchell</td>
<td>Hudson Canyon</td>
</tr>
<tr>
<td>Perch, white</td>
<td>2</td>
<td>12</td>
<td>1998</td>
<td>Michael King</td>
<td>Little Beach Creek</td>
</tr>
<tr>
<td>*Pollack</td>
<td>46</td>
<td>7</td>
<td>1975</td>
<td>John Holton</td>
<td>Off Brielle</td>
</tr>
<tr>
<td>Porgy</td>
<td>5</td>
<td>14</td>
<td>1976</td>
<td>Victor Rone</td>
<td>Delaware Bay</td>
</tr>
<tr>
<td>Sailfish</td>
<td>43</td>
<td>4</td>
<td>2006</td>
<td>Dr. John Tallia</td>
<td>Linden Kohl Canyon</td>
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<tr>
<td>Seatrout, spotted</td>
<td>11</td>
<td>2</td>
<td>1974</td>
<td>Bert Harper</td>
<td>Holgate Surf</td>
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<tr>
<td>Shad, American</td>
<td>7</td>
<td>0</td>
<td>1967</td>
<td>Rodger West</td>
<td>Great Bay</td>
</tr>
<tr>
<td>Shad, hickory</td>
<td>Vacant</td>
<td></td>
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<td></td>
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<tr>
<td>Shark, blue</td>
<td>366</td>
<td>0</td>
<td>1996</td>
<td>William Young, Jr.</td>
<td>Mud Hole</td>
</tr>
<tr>
<td>Shark, bull</td>
<td>Vacant</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Shark, dusky</td>
<td>530</td>
<td>0</td>
<td>1987</td>
<td>Brian Dunlevy</td>
<td>Off Great Egg Inlet</td>
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<tr>
<td>Shark, hammerhead</td>
<td>365</td>
<td>0</td>
<td>1985</td>
<td>Walter Thacara</td>
<td>Mud Hole</td>
</tr>
<tr>
<td>Shark, porbeagle</td>
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<tr>
<td>Shark, sarban</td>
<td>168</td>
<td>8</td>
<td>1987</td>
<td>John Norton</td>
<td>Little Egg Inlet</td>
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<tr>
<td>Shark, s-fin mako</td>
<td>856</td>
<td>0</td>
<td>1994</td>
<td>Christopher Palmer</td>
<td>Wilmington Canyon</td>
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<tr>
<td>Shark, thresher</td>
<td>683</td>
<td>0</td>
<td>2009</td>
<td>Bennett Fogelberg</td>
<td>Fingers</td>
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<tr>
<td>Shark, tiger</td>
<td>880</td>
<td>0</td>
<td>1988</td>
<td>Billy DeJohn</td>
<td>Off Cape May</td>
</tr>
<tr>
<td>Sheepshead</td>
<td>17</td>
<td>3</td>
<td>2003</td>
<td>Paul Lowe</td>
<td>Manahawkin Bay</td>
</tr>
<tr>
<td>Spadefish</td>
<td>11</td>
<td>6</td>
<td>1998</td>
<td>Cliff Low</td>
<td>Delaware Bay</td>
</tr>
<tr>
<td>Spearfish, longbill</td>
<td>42</td>
<td>0</td>
<td>1989</td>
<td>George Algard</td>
<td>Poor Man’s Canyon</td>
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<tr>
<td>Spot</td>
<td>0</td>
<td>13</td>
<td>2003</td>
<td>Robert Belsky, Jr.</td>
<td>Little Sheepshead Creek</td>
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<tr>
<td>*Striped Bass</td>
<td>78</td>
<td>8</td>
<td>1982</td>
<td>Al McReynolds</td>
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<tr>
<td>Swordfish</td>
<td>530</td>
<td>0</td>
<td>1964</td>
<td>Edmund Levitt</td>
<td>Wilmington Canyon</td>
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<tr>
<td>*Tautog</td>
<td>25</td>
<td>0</td>
<td>1998</td>
<td>Anthony Monica</td>
<td>Off Ocean City</td>
</tr>
<tr>
<td>Tilefish, golden</td>
<td>63</td>
<td>8</td>
<td>2009</td>
<td>Dennis Muhlenforth</td>
<td>Linden Kohl Canyon</td>
</tr>
<tr>
<td>Tilefish, gray</td>
<td>18</td>
<td>7</td>
<td>2007</td>
<td>Joseph Sanzone</td>
<td>Tom’s Canyon</td>
</tr>
<tr>
<td>Triggerfish, gray</td>
<td>5</td>
<td>12</td>
<td>2008</td>
<td>Ronald Pires</td>
<td>High Bar Harbor</td>
</tr>
<tr>
<td>Tuna, albacore</td>
<td>77</td>
<td>15</td>
<td>1984</td>
<td>Dr. S. Scannapiego</td>
<td>Spencer Canyon</td>
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<tr>
<td>Tuna, big-eye</td>
<td>364</td>
<td>14</td>
<td>1984</td>
<td>George Krenick</td>
<td>Hudson Canyon</td>
</tr>
<tr>
<td>Tuna, bluefin</td>
<td>1,030</td>
<td>6</td>
<td>1981</td>
<td>Royal Parsons</td>
<td>Off Pt. Pleasant</td>
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<tr>
<td>Tuna, skipjack</td>
<td>13</td>
<td>4</td>
<td>1999</td>
<td>Craig Eberbach</td>
<td>Wilmington Canyon</td>
</tr>
<tr>
<td>Tuna, yellowfin</td>
<td>290</td>
<td>0</td>
<td>1980</td>
<td>Wayne Brinkerhoff</td>
<td>Hudson Canyon</td>
</tr>
<tr>
<td>Tunny, little</td>
<td>24</td>
<td>15</td>
<td>1977</td>
<td>Mark Niemczyk</td>
<td>Off Sea Bright</td>
</tr>
<tr>
<td>Wahoo</td>
<td>123</td>
<td>12</td>
<td>1992</td>
<td>Robert Carr</td>
<td>28-Mile Wreck</td>
</tr>
<tr>
<td>Weakfish</td>
<td>18</td>
<td>8</td>
<td>1986</td>
<td>Karl Jones</td>
<td>Delaware Bay</td>
</tr>
<tr>
<td>Whiting (silver hake)</td>
<td>Vacant</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

* 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 NJFishandWildlife.com.
Longest Vessel to Become Reef

By Hugh Carberry, Reef Coordinator

New Jersey’s anglers and scuba divers will soon have the opportunity to catch fish and explore one of the largest artificial reefs in the world. The former U.S. Navy warship, the U.S.S. Arthur W. Radford is currently being cleaned and prepared to be sunk as a reef later this year at the Del-Jersey-Land Reef, which is located 30 miles south of Cape May.

THE ARTHUR W. RADFORD is a Spruance-class destroyer that measures 563 feet in length, 55-feet in beam and displaces more than 9,000 tons. Sinking a vessel of this magnitude will provide immediate ecological, recreational and economic benefits and will last more than 100 years on the sea floor, providing essential marine habitat and recreational angling and diving opportunities for generations to come.

The Radford Reefing Project is being accomplished through a collaborative effort between the U.S. Navy and the states of New Jersey, Delaware and Maryland. Each participant contributes equally toward the cost of cleaning, towing and scuttling which is the deliberate sinking by allowing water into the hull. New Jersey’s entire share of the cost is being covered by a donation made to the Program by the Ann E. Clark Foundation. The Foundation has made significant contributions toward reef construction efforts over the past ten years accounting for hundreds of patch reefs throughout New Jersey’s reef network.

Once the Radford is sunk it will lie in approximately 135 feet of water. The distance from the surface to top of the vessel will be 60 feet so novice scuba divers as well as experienced technical divers will be able to explore, spear gun hunt and catch lobsters. It is anticipated that the massive reef will be the premier dive attraction in the northeast.

The Radford’s immense structure on the seafloor will provide unmatched habitat for pelagic and demersal fishes, meaning those that live in the open ocean not near the bottom and also fishes living on or near the sea floor, respectively. This vessel will be a great location to troll for bluefin tuna, drift for mako sharks or catch reef-associated species such as tautog and black sea bass.

U.S.S. ARTHUR W. RADFORD FACTS

• Original Homeport: Norfolk, Virginia
• Keel: Laid in 1974
• Launched: March 1, 1975
• Commissioned: April 16, 1977
• Decommissioned: March 18, 2003
• Highlights: Deployed in Operation Enduring Freedom
• Visits to: Venezuela, Panama, Argentina, Brazil, Senegal, Oman, Bahrain, Nova Scotia, Italy, Turkey and Azores.
2010 New Jersey Marine Digest
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http://pub.jfgriffin.com/doc/jfgriffin/10NJMD
What Do Fish Tell Us?

By Peter Clarke, New Jersey Coordinator, Atlantic Coastal Cooperative Statistics Program

One of the key elements to fisheries stock assessments is the comprehensive biological data collection including age, length, weight, and sex information for each species studied. As the importance of stock assessments grew and the lack of biological data loomed, New Jersey developed wide-ranging biological sampling programs through funds dedicated to help manage state fisheries and which were provided by the Atlantic Coastal Cooperative Statistics Program. The New Jersey sampling program focuses on port as well as at-sea sampling of the commercial fishing industry using age data collected for both recreational and commercial management.

Commercial port sampling encompasses age, length, and weight data for weakfish, American shad, American eel, Atlantic croaker, and Atlantic menhaden. At-sea observer coverage for American lobster and tautog includes length and sex information for both species, additional weight measurements for tautog while a sub-sample of tautog are retained for aging.

In light of current weakfish management revisions in New Jersey, a step-by-step case study of the stock assessment process is worth reviewing. The following case study for weakfish focuses on the commercial landings and biological samples collected through New Jersey’s sampling program. The same type of information is also collected and analyzed from the recreational fishery. This process is commonly used for all species listed above although some technical details do vary.

Case Study: Weakfish

Multiple steps are required between the time the fishing vessels catch and harvest the fish to the time the data is used for stock assessment models and management.

- Weakfish commercially harvested by gillnets, otter trawl, and pound nets are landed at a commercial dock for sale to the public. Landings (in pounds) are reported through an online electronic reporting system by dealers.
- When landings occur, Atlantic Coastal Cooperative Statistics Program staff in New Jersey arrive at commercial docks and collect random samples of the day’s catch. Generally 100 samples per trip are collected. Measurements taken include weight and length of each fish. Fish ear bones (otoliths) are removed for aging, processed, then aged like counting the rings of a tree trunk’s cross-section.
- The age and all other physical data collected are combined into the state biological characterization database.
- All age, length and weight data is provided to Fish and Wildlife’s stock assessment biologists for inclusion in the coastwide stock assessment. This assessment combines biological data from all east coast states that sample for weakfish including Rhode Island, New Jersey, Delaware, Maryland, Virginia and North Carolina. The stock assessment looks at the data in a multitude of ways such as by region, state, year, gear type and season. Landings are converted from total pounds landed to total number of fish landed by age. This type of analysis is called an age structured stock assessment and helps biologists estimate fishing mortality, biomass, recruitment and the overall status of the stock by individual age classes of the fish.
- Once the stock assessment models are completed, the findings are sent for peer review through an independent scientific organization.
- If the peer review finds the assessment is sound in its approach, the findings are presented to the Atlantic States Marine Fisheries Commission Weakfish Management Board (the Board).
- The Board accepts the assessment and discusses the findings to determine if a management strategy change is appropriate. If necessary, the Board sends the decision back to the Weakfish Technical Committee, which must create management options such as trip limits, bag limits, seasons and/or size limits.
- Once the management options are approved by the Board, the options are presented for public comment. The Board considers all public comment when making final management decisions. The new management strategy is then communicated to all east coast states for agency implementation.
- States are required to implement the new management strategy and the associated actions. If failure to implement occurs on the state level, that state is found to be out of compliance and the state’s fishery is closed. See page 6 for more on the 2010 New Jersey weakfish management plan.

State-specific samples are important given the large data variation occurring across regions and between states. For example, during the last weakfish stock assessment, weakfish harvested in the north were significantly larger and older than weakfish found in the south. Consequently, if the total landed pounds were converted using southern stock characteristics, the outcome would have shown New Jersey harvested much smaller and younger fish than had actually occurred. In the end, since fish tell us a great deal about the health and structure of their population, it is particularly important to conduct studies such as these to help fisheries managers make sound and accurate decisions.
**WARNING: WILDLIFE HAZARD**

Please properly dispose of all fishing line. Plastic debris can endanger aquatic life and snare propellers.

---

**ATTENTION BOATERS**

**Keep Our Waters Clean - Use pumpouts for boat holding tanks and portable toilets.**

Visit marina pumpout facilities or contact one of the pumpout boats, ready to serve boaters.

- **Name TBD** – Serving Raritan/Sandy Hook Bays
  - Royal Flush – Serving Navesink/Shrewsbury Rivers and Sandy Hook Bay
  - Bay Saver – Serving northern Barnegat Bay
  - Water Warrior – Serving the Silver Bay Area
  - Circle of Life – Serving central Barnegat Bay

- **Name TBD** – Serving Manahawkin Bay and Northern Little Egg Harbor Bay
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*Note - Operation is pending for 2010*

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**Keep Our Water Clean – Use Pumpouts**
Identifying the Chinese Mitten Crab

By Linda Barry, Assistant Fisheries Biologist

The non-native and invasive Chinese mitten crab first appeared on the Atlantic coast of the United States in 2006 when a male crab was caught at the mouth of Maryland’s Patapsco River. Since then these crabs have been observed in the Chesapeake Bay, Delaware Bay, New Jersey coastal waters and the Hudson River. Last year, thanks to the vigilance of commercial and recreational fishermen, fifty specimens of the Chinese mitten crabs were collected from New Jersey waters. Of these crabs, 28 were male and 22 were female, four of which had egg masses.

The locations spanned the state’s coastline from the lower Hudson River and Raritan Bay to Delaware Bay, and included sightings in Belford, Matawan and Cheesequake creeks, the Navesink, Shrewsbury and Manasquan rivers plus Barnegat Bay. The vast majority of the crabs (39) were caught in Raritan Bay and its surrounding waters.

To help identify these invasives, listed below are identifying characteristics of the mitten crab as well as those for two New Jersey common crabs often mistaken for mitten crabs.

Chinese Mitten Crab (*Eriocheir sinensis*)

- Smooth, round carapace, olive green to brown in color
- Four spines with a deep, central notch between the eyes, and four spines along the margin to the side of each eye (last spine is very small)
- Thick, furry “mittens” covering equal-sized claws with white tips protruding.
- No swimming legs and eight long, slender, sharp-tipped walking legs
- Size to 4-inch carapace width

Spider Crab (*Libinia dubia* and *Libinia emarginata*)

- Teardrop-shaped, globular brown carapace covered with many small spines and tubercles, pointed rostrum extending outward between the eyes
- Six (*L. dubia*) or nine (*L. emarginata*) prominent spines progressing along the midline of the back, and six spines to the side of each eye
- Very fine, very short fibers on carapace and legs
- Small, white-tipped claws
- No swimming legs and eight very long, spindly, walking legs giving the crab a spider-like appearance
- Size to 4-inch carapace length

Green Crab (*Carcinus maenas*)

- Finely grained, hexagonal or fan-shaped carapace with a blotched or mottled pattern of olive to dark green to brown above, tinted yellow to red below
- Three small, rounded spines between the eyes without a central notch, and five spines to the side of each eye
- Equal-sized, hairless claws with small black spots on the palm and black stripes in the grooves
- Last pair of legs slightly flattened
- Size to 3.5-inch carapace width

New Jersey Division of Fish and Wildlife thanks those anglers who reported sightings of the Chinese mitten crab and asks all who fish and crab New Jersey’s waters to continue reporting each observation of this invasive species. If a mitten crab is caught, do not release it! Contact the Nacote Creek Marine Fisheries office at (609) 748-2020. Fish and Wildlife continues to work with the Smithsonian Environmental Research Center, the lead investigator documenting and analyzing Chinese mitten crab occurrences along the Atlantic coast. Information about the crab’s whereabouts and the collection of specimens for genetic analysis is crucial in establishing their status on our shores. More information on the Chinese mitten crab can be found on Fish and Wildlife’s Web site at NJFishandWildlife.com/news/2009/mittencrab09.htm.

By Linda Barry, Assistant Fisheries Biologist, NJ Div. Fish and Wildlife

Chris Fitzsimmons—Seasonal Technician, NJ Div. Fish and Wildlife
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