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2000 Recreational Regulations Applicable to Federal Waters

Summary of recreational regulations on selected species applicable to federal waters (3 to 200 miles) off the New Jersey coastline. This information is only a guide, as regulations are constantly modified.

For additional information, please contact: National Marine Fisheries Service (NMFS), NE Region, 1 Blackburn Pl., Gloucester, MA 01930-2298

For possession limits call 978-281-9260.
For federal permit applications, 978-281-9370
Local NMFS Enforcement Office 609-528-3315 or 609-390-8303
Tuna quota updates (in season only) 301-713-1279
www.usatuna.com or call 888-USA-TUNA

Species*	Minimum Size	Possession Limit (number per angler per day unless otherwise specified)
Marlin, Blue	99 inches lower jaw - fork length	1 of either
Marlin, White	66 inches lower jaw - fork length	1 of cities
Sailfish	63 inches lower jaw - fork length	
Swordfish	47 inches, lower jaw - fork length	
Tuna		
-Bigeye & Yellowfin	27" total curve fork length	Phone toll free for permit
-Bluefin	27"	application, possession
		limits and season updates
		888-USA-TUNA

*Prohibited Species: striped bass, basking shark, whale shark, white shark, sand tiger shark, bigeye sand tiger shark

New Jersey Sixteenth Waterfowl Print & Third in a Series of Historic Boats

The 1999 New Jersey waterfowl stamp design features a pair of redheads at Barnegat Bay and a baymen's boat called the Garvey. Design artist Richard Clifton is an avid hunter of waterfowl and upland game, which influences his keen appreciation of and life-like depiction of nature's beauty and splendor. He is a native of Milford, Delaware and has designed an impressive num-

ber of state waterfowl stamps. This is the sixteenth issue of New Jersey waterfowl stamps and the third in a series of historic boats.

The Garvey or "Baymen's Boat" is a unique flat-bottomed craft that traces its origin and name to Jarvis (Gervas) Pharo who settled in the village of West Creek in the early 1700's. He brought with him a design for a "Punt Boat," a



New Jersey Division of Fish & Wildlife 2000 Marine Recreational Fishing Seasons Possession & Minimum Size Limits

			Harvest &
		Minimum	Possession Limit
Species	Open Season	Length ((per person unless noted)
Black Sea Bass	No Closed Season	10"	No Limit
		Excluding tail filaments	
Bluefish	No Closed Season	No Minimum	10
Cobia	No Closed Season	37"	2
Cod	No Closed Season	21"	No Limit
Eel, American	No Closed Season	6"	No Limit
Flounder, Summer	May 6 - Oct. 20	15 1/2"	8
Flounder, Winter	March 1 - May 31	10 1/2" *	No Limit
	Sept. 15 - Dec. 31		
Haddock	No Closed Season	21"	No Limit
Mackerel, King	No Closed Season	23"	3
Mackerel, Spanish	No Closed Season	14"	10
Pollock	No Closed Season	19"	No Limit
Porgy (Scup)	No Closed Season	7"	50
Red drum	No Closed Season	18"	5, only 1 over 27"
Shad	No Closed Season	No minimum	6
Shark+	No Closed Season	48"	2 per vessel
***except prohibited sp	ecies		
Striped bass or hybrid	striped bass		
-Del. River & tributaries	s Mar. 1 - Mar. 31		
(Route 1 bridge to Sal	em and	28"	1
River & tributaries)	June 1 - Dec. 31		
-Del. River & tributaries	s Mar. 1 - Dec. 31	 Greater or equal 	1
(upstream of Trenton	Falls)	to 24" but less than 28"	
-Atlantic Ocean	No Closed Season		
0-3 miles from shore			
-All other waters	Mar. 1 - Dec. 31		
Tautog	Oct. 10 - May 31	14"	10
	June 1 - Oct. 9	14"	1
Weakfish	No Closed Season	14"	14
No species of fish with	a minimum size limit list	ed above may be filleted or	cleaned at sea (except

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.)

Blue Crab			
- peeler or shedder	No Closed Season**	3"	
- soft	No Closed Season**	3 1/2"	1 bushel
- hard	No Closed Season**	4 1/2"	
Lobster (carapace len	gth) no closed seaso	n 3 1/4"	6
Hard Clam - license re	equired no closed seaso	n 1 1/2"	150 clams

*Effective Jan. 1, 2001, minimum size limit of winter flounder increases to 11".



long

narrow, shallow-draft vessel suitable for maneuvering in water often less than two feet deep. In many productive shell fishing beds in Barnegat Bay, the water rarely exceeds two to three feet in depth. Early Garveys were poled, rowed or sailed across the bay.

The traditional Garvey is between 14 and 30 feet long and constructed of native Atlantic White Cedar. This wood is favored for its insect resistance, durability and light weight. Many other types of boats produce a wake, causing bank erosion along shallow creeks and sedge islands. The design of Garveys allows for the wakes to be dissipated with a noticeably reduced force of wave action.

Generations of Baymen utilized this stable workboat for tonging and raking clams, oystering, crabbing and fishing. Over the years local boat builders made modifications and improvements on the original Garvey. Few of their designs and plans have ever been drawn out on paper. Fathers passed the traditional construction secrets and refinements to their sons. Today only a few Garvey builders still exist. The Garvey has evolved into a wide, flat-bottomed and very stable utility craft.

New Jersey, through an act of the State Legislature, began annually requiring waterfowl stamps in 1984. The program is administered by the New Jersey Department of Environmental Protection, Division of Fish and Wildlife for the purpose of purchasing wetlands for waterfowl habitat. Proceeds from the sale of New Jersey's duck stamps and prints total over \$3,500,000, all to acquire wetlands for waterfowl habitat and public use. To date, over 11,000 acres of waterfowl habitat have been purchased or donated.

Limited Edition, signed and numbered prints of the Sixteenth New Jersey Waterfowl stamp may be purchased from art dealers. To find the dealer nearest you, contact SPORT'EN ART, Sullivan, IL 61951, telephone (toll-free) 1-800-382-5723.

Each print includes a resident and non-resident stamp and sells for \$170.00. Stamps without prints can be purchased directly from the Division of Fish and Wildlife.

^{**}Unless using non-collapsible, Chesapeake-style crab pots. See section on crab pots, page 12.

^{***}Prohibited Sharks Species: basking shark, whale shark, white shark, sand tiger shark, bigeye tiger shark +Not including dogfish: see description on page 11.

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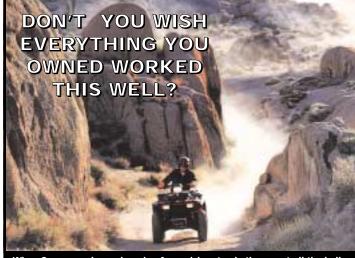
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Sea Run Brown **Trout Program**

by Mark Boriek, Principal Fisheries Biologist

October 1999 marked the third annual stocking of this five-year program. A total of 80,645, eight inch brown trout have been stocked in the reshwater/tidal and brackish portion of the Manasquan River. We anticipate these trout will migrate out to the estuary for one or two years to take advantage of the abundant forage there.

After growing to a size of 2-4 pounds or larger, they will return to the freshwater Manasquan River in the fall of the year. Although it is doubtful the existing water quality will support successful reproduction, the urge to spawn will concentrate these fish in the freshwater portion of the Manasquan River creating an exciting new fishery.

To date there have been nine confirmed catches of sea run browns in freshwater and five in saltwater. The largest, caught in the Manasquan River at Brice Park near Allenwood, Monmouth County, weighed 6 pounds and was 18 inches long. It had the characteristic silvery color and deep body of a sea run trout. Additionally, its clipped adipose fin indicated that it had been stocked in October, 1997.

The Ernest Schwiebert and Jersey Shore Chapters of Trout Unlimited provided financial support and assisted in clipping the left pelvic fin of 1999's fish.

Anglers should report all catches of such trout to 908-236-2118 or 908-637-4173.





The New Jersey Division of Fish and Wildlife has stocked brown trout in the lower Manasquan River. Fishermen are asked to report all catches of brown trout in tidal waters. These fish tend to develop a more silvery coloration, masking most of the body spots, after an extended time in salt water.

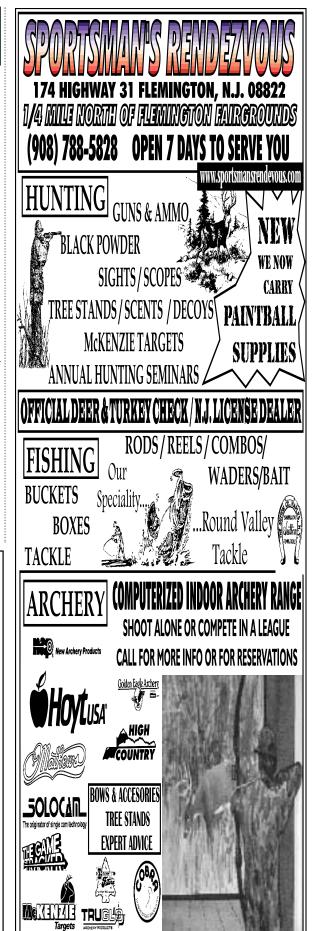
> The future of this program depends on these fish being caught and reported.

WE NEED YOUR COOPERATION

Call the Pequest State Fish Hatchery (908) 637-4173

Lebanon Fisheries Lab (908) 236-2118





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Shellfish and Non-Commercial Crab Pot License Information

Prior to harvesting any shellfish, be certain to consult the Shellfish Growing Water Classification Charts published by the Division of Watershed Management, available at any shellfish license agent, state shellfish office or Marine Police Station, or call 609-748-2000.

- Residential recreational clam, \$10.
- Harvest limit of 150 hard, soft, surf clams per day. Sale of catch prohibited
- Non-resident recreational clam, \$20. Harvest limit of 150 hard, soft, surf clams per day. Sale of catch prohibited. License valid only during the months of June, July, August and September.
- Juvenile recreational clam, \$2. For persons under 14 years of age. Subject to same restrictions as resident or nonresident adult recreational license holders.
- Commercial clam, \$50. Unlimited harvest. Clams may be sold to certified dealers only.
- •Oyster, commercial or recreational, \$10. Unlimited oyster harvest. Oysters may be sold to certified dealers only.
- · Senior Citizen recreational, FREE. NJ resident 62 years of age or older for clam/oyster license. Harvest limit of 150 clams per day. Unlimited oyster harvest. Sale of clams or oysters prohibited. There is a \$2 application fee for the Senior Citizen Recreational Shellfish License.
- Disabled veterans may apply for free recreational clamming or crab pot licenses at the following Division offices:

Trenton Office Pequest Hatchery & Ed. Ctr. Nacote Creek Research Station Northern Region Office Central Region Office Southern Region Office

For locations, see Directory, page 2

- Mussels, no license required.
- · Mussels, may only be harvested from approved waters.

NOTE: When obtaining a license from a license agent, an additional \$1 fee is charged.

SHELLFISH & NON-COMMERCIAL CRAB POT **LICENSE AGENTS**

(For over the counter sales only)

ATLANTIC COUNTY

Bayside B&T, 4401 Atl-Brigantine Blvd., Brigantine, 609-266-2819 +Gifford Marine, Inc. 124 Margate Blvd., Northfield, 609-383-9500 Jersey State Marina, 601 Bayshore Ave., Brigantine, 609-266-7011 Misty Morning Marina, 1820 Mays Ldg.-Somers Pt Rd., EH Twp., 609-927-5303 +Nacote Creek Shellfish Office, Route 9, Mile 51, Port Republic, 609-748-2021 +Sid's Servistar Hdw., 208 N. Philadelphia Ave., Egg Harbor City, 609-965-0815 #Zeus Sporting Goods, 6679 Black Horse Pike, EH Twp., 609-646-1668

CAMDEN COUNTY

*Andersen Sales, 71-75 So. White Horse Pike, Stratford, 856-783-7997 *Berlin Hunting & Fishing, Berlin Auction, 41 Clementon Rd., Berlin, 856-767-1119

CAPE MAY COUNTY

Avalon Hodge Podge, 2389 Ocean Dr., Avalon, 609-967-3274 *Budd's B&T, 109 Fullingmill Rd., Villas, 609-886-6935 Capt. Tate's Tackle Box, 450 No. Route 47, Cape May CH, 609-861-4001 +City Hall, 9th & Asbury Ave., Ocean City, 609-399-6111 Forty Third St. Dock, 319 43rd St., Sea Isle City, 609-263-2095 +Just Sports, 21 W. Mechanic St., Cape May CH, 609-465-6171 Red Dog B&T, 367 43rd St., Sea Isle City, 609-263-7914 +Upper Twp. Municipal Bldg., 2100 Tuckahoe Rd., Petersburg, 609-628-2011, Ext 200

CUMBERLAND COUNTY

+Bivalve Shellfish Office, 6959 Miller Ave., Port Norris, 856-785-0730 Maurice River Sports Ctr., 329 W. Main St., Millville, 856-825-5500 Four Star Marina, River Rd., Leesburg, 856-785-1273 *South Jersey Sportsman, 3466 Route 47, Millville, 856-825-5454

GLOUCESTER COUNTY

Washington Twp. Parks, Hurfville-Cross Keys Rd., Turnersville, 856-589-6427

HUDSON COUNTY

*Fishing Equipment, 3424 Kennedy Blvd., Jersey City, 201-798-2130

MERCER COUNTY

+NJ Div. Fish and Wildlife, 501 E. State St., 3rd Fl., Trenton, 609-292-2965

MIDDLESEX

Sayreville Sportsman Shop, 52 Washington Ave., Sayreville, 732-238-2060 MONMOUTH COUNTY

Brielle Tackle, 800 Ashley Ave., Brielle, 732-528-5720

*Fishermen's Den, Belmar Marina, Route 36, Belmar, 732-681-5005

*Mac's Bait & Tackle, 1301 Highway 35, Neptune, 732-774-4360

OCEAN COUNTY

American Sportsman, 857 Mill Creek Rd., Manahawkin, 609-597-4104 Barnegat Boat Basin, 491 E. Bay Ave., Barnegat, 609-698-8581 Bruce & Pat's B&T Shop, 317 Long Beach Blvd., Surf City, 609-494-2333 +Clarke's Marine Supply, 227 E. Main St. (Route 9), Tuckerton, 609-294-0166 Downe's Bait & Tackle, 287 Brennan Concourse, Bayville, 732-269-0137 Fishermen's Headquarters, 280 W. 9th St., Ship Bottom, 609-494-5739 Forked River Freezer, 105 Route 9, Forked River, 609-693-3931 George's Sports-A-Rama, 2597 Hooper Ave., Bricktown, 732-477-6671 Mole's Bait & Tackle, 403 Route 9, Waretown, 609-693-3318 Pell's Fish & Sport Shop, 335 Mantoloking Rd., Bricktown, 732-477-2121 +Scott's Bait & Tackle, 945 Radio Rd., Little Egg Harbor Twp., 609-296-1300 Wheel House Marina, 267 24th Ave., So. Seaside Park, 732-793-3296

SALEM COUNTY

*Buck Road Sport Shoppe, 128 Buck Rd., Elmer, 856-358-3535

SOMERSET COUNTY

Efinger's Sporting Goods, 513 W. Union Ave., Bound Brook, 732-356-0604

^{*} Sell only recreational crab pot licenses

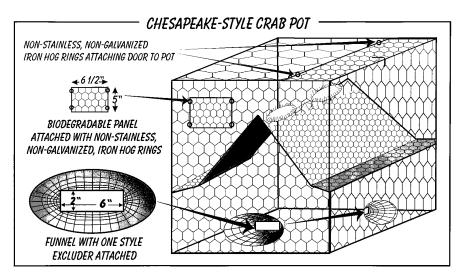
[#] Sell only clam licenses

⁺ Also sells oyster licenses

Terrapin Excluders and Biodegradable Panels Are Required on Chesapeake-Style Crab Pots

Users of non-collapsible, Chesapeake-style crab pots (self-fishing) should be aware that all pots set in any body of water less than 150 feet wide at a mean low tide or in any man-made lagoon MUST include diamond-back terrapin excluder devices. In addition, all non-collapsible, Chesapeake-style crab pots set in any body of water MUST include biodegradable panels.

The use of terrapin excluder devices and biodegradable panels on non-collapsible, Chesapeake-style crab pots will help reduce the unintentional drowning of diamondback terrapins and allow for escapement of these and other species in the event that pots are lost or abandoned. The regulations apply to both commercial and recre-



ational users of non-collapsible, Chesapeake-style crab pots.

Terrapin excluder devices must be rectangular or diamond-shaped and no larger than two inches high by six inches wide. The devices must be securely fastened inside each funnel entrance to reduce the openings to no larger than the above size.

Biodegradable panels must be oval or rectangular. The opening left when the panel falls out must measure at least six and one-half inches wide by five inches high, be located in the upper section of the crab pot, and be in a position to allow for the eventual and unobstructed escape of crabs and other marine organisms should the crab pot be lost or abandoned. The panel must be constructed of, or fas-

NJ Division of Fish and Wildlife Marine Fisheries Administration

Application for 2000 Non-Commercial Crab Pot/Trot Line License

A license is required for the recreational use of non-collapsible, Chesapeake-style crab pots or trot lines. See Summary of Marine Fish and Shellfish Regulations.

APPLICATION FEE \$2.00

Name:		
Address:		
City:		_ Zip:
Phone:	Social Security #:	·
Date of Birth:	Height:	Weight:
Eye Color:	Hair:	Sex:
Signature:	Date:	

Please make check or money order payable to: NJ Fish & Wildlife. Completed applications may be sent to any of the following offices:

NJ F&W - Crab Pot Lic. PO Box 418

NJ F&W - Crab Pot Lic. PO Box 432 Port Republic, NJ 08241 Port Norris, NJ 08349 609-748-2021 856-785-0730

NJ F&W - Crab Pot Lic. PO Box 400 Trenton, NJ 08625-0400 609-292-2965

tened to the pot, with one of the following materials: wood lath, cotton hemp, sisal or jute twine not greater than 3/16 inch in diameter, or non-stainless steel, uncoated ferrous metal not greater than 3/32 inch in 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 remember that ALL non-collapsible, Chesapeake-style crab pots, whether used for recreational or commercial purposes, 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 12; for license agents, see page 22.

Recreational license holders are limited to two non-collapsible, Chesapeake-style crab pots, cannot harvest more than one bushel of crabs per day, and cannot sell or barter their catch.

Anyone requiring further information on terrapin excluder devices, biodegradable panels, or other crabbing regulations can contact the Bureau of Marine Fisheries at 609/748-2020.

Report marine fish violations to 609-748-2050 or 24 hr. DEP Hotline 877-WARNDEP. Violators of the fillet law are subject to \$20 per fish or \$100 to \$3,000.

Winter Flounder - A Profile continued from page 7

May 31 and September 15 through December 31. The size limit is 10-1/2". Beginning January 1, 2001, the winter flounder recreational size limit will increase to 11".

References: Bigelow and Schroeder (1953), Bowman, et al. (1976), Geiser (1977), NMFS (1999), Olla, et al. (1969), Pearcy (1962), Perlmutter (1947), Phelan (1992), Scarlett (1988, 1991, 1997), Scarlett and Allen (1992).

<u>Seagrass:</u> Nature's Nursery

Seagrass: Nature's Nursery By Michael Celestino, Fisheries Biologist

Seagrasses are a group of approximately 50 species of vascular plants that complete their entire life cycle fully submerged in the marine environment. The most common and ecologically important seagrasses in New Jersey are eelgrass (Zostera marina) and widgeon grass (Ruppia maritima). Widgeon grass, however, is actually a fresh/brackish water plant with extreme salinity tolerance, and is therefore sometimes not classified as a "true" marine seagrass.

Nevertheless, both eelgrass and widgeon grass are true flowering plants with subsurface roots and root-like rhizomes that extend through unconsolidated sediments varying from pure, firm sand to fine, soft muds. Seagrasses are found worldwide in shallow coastal waters and can migrate from year to year or even from season to season within suitable habitat. In New Jersey they are most prevalent in the shallow (<5') portions of the Navesink, Shrewsbury, Manasquan and Metedeconk Rivers and in Barnegat, Manahawkin and Little Egg Harbor Bays.

Seagrasses are sometimes considered a nuisance by boaters and waterfront property owners where the vegetation can interfere with boat engines and tends to accumulate in piles of detritus on beaches. However, the ecological benefits provided by seagrasses can be shown to far outweigh any "inconveniences" to recreation or leisure.

Specifically, seagrass communities help stabilize sediments, dampen wave energy, buffer shorelines from erosion and improve/enhance water clarity and quality. Seagrasses also serve an especially important role in the production of fishery resources. Extensive data indicate that seagrass meadows provide a high quality habitat for fishes and invertebrates. For exam-

ple, the physical structure provided by seagrass beds along with associated epiphytes (attached algae) and drift algae enhances the habitat for invertebrates by providing attachment sites and refuge from predators. In addition, the rhizome layer may protect shallow dwelling hard clams, whereas on exposed sand flats, whelks and other predators easily detect and capture clams. Similarly, seagrasses serve as nursery areas for juvenile and subadult finfish, providing abundant and varied food resources as well as refuge and protection from larger predators. Many fishery organisms occur in seagrass beds at some stage in their life history, including juveniles of open water coastal fisheries (menhaden, summer flounder, bluefish, Atlantic croaker, Pacific herring, spot, weakfish, silver perch, mullet, and blue crabs).

While juvenile fish can utilize other types of shelter, the bulk of shelter habitat in many estuaries is provided by seagrasses. Its loss, therefore, will likely lead to declines in juvenile fish recruitment. Entire fisheries have completely crashed as a result of eelgrass loss. This was dramatically illustrated in the 1930's when a disease epidemic virtually eliminated eelgrass from the entire eastern US coastline. Scallops, clams, oysters, crabs and many species of fish suffered dramatic declines from the loss of productive habitat with the concomitant siltation, creation of mudflats and erosion that occurred because eelgrass no longer anchored bottom sediments.

While the catastrophic loss of eelgrass in the 1930's may have resulted from a very unique event, any activity that degrades seagrass habitat, reduces light penetration, or physically destroys seagrass will limit the plant's growth and survival. At the extreme, chronic levels of these disturbances could ultimately lead to the severe declines experienced in the 1930's.

Seagrass meadows are often subject to tremendous damage by even the most seemingly "innocent" human activities. For example, walking through seagrass meadows can drive shoots deep into the muddy bottom, which often kills them. More dramatic and systemic declines stem from decreased water clarity resulting from boat propeller wash and vessel wakes that can dislodge sediments and even uproot seagrasses. This is most commonly seen when vessels operate in or have wakes that reach shallow waters. The resuspension of sediments through turbulence generated by vessels can greatly reduce light penetration which in turn limits the distribution of suitable habitat for seagrasses.

Similarly, shading from docks and other structures also leads to seagrass loss. Light penetration and availability are thought to be the most important factors affecting and regulating the density, productivity, growth and survival of seagrasses. In fact, reductions in the amount of light reaching seagrass blades is widely considered the major reason for seagrass decline in coastal waters.

Likewise, boat propeller scarring (severing of seagrass leaves, roots and/or rhizomes with a boat propeller) resulting from boaters taking "shortcuts", misjudging water depths or grounding are particularly destructive to seagrasses. Slow recovery (up to 10 years or more) from scarring, coupled with increased scarring rates, elevates the rate of cumulative loss of seagrasses and their habitat values.

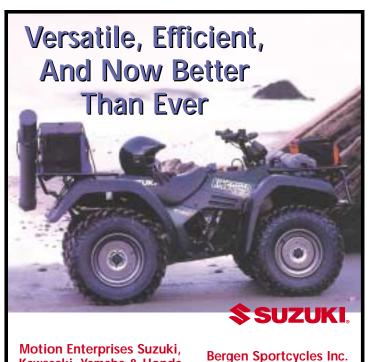
Losses of seagrass due to chronic disturbances are difficult to reverse because the sediment stabilization and water column filtration benefits of the seagrass cover have been lost. Sediments are therefore easily re-suspended, adding to the turbidity of the water column and decreasing the likelihood of effective restoration.

Even if the affected areas resulting from any of these activities are relatively small compared to the size of the seagrass bed, these impacts fragment and disrupt the beds, making the entire habitat more susceptible to damage from other stresses like meteorological events such as storms. These and other disturbances may be acting together to result in large scale declines in seagrass distribution.

Eelgrass is an important part of our coastal ecosystem and its health is an indicator of the overall health of bays and estuaries. The longevity of seagrass meadows, coupled with their complex physical structure and high rates of primary production, enable them to form the base of an abundant and diverse faunal community. For many fishery organisms there is no one reason why they should be attracted to seagrass meadows, but rather there are a combination of features providing many essential resources. The benefits provided by seagrass systems are furnished free of charge, provided we act responsibly and protect this valuable resource.

References

Brown-Peterson, N.J. et al., 1993; Burdick, D.N. & F.T. Short, 1998; Fonseca, M.S. et al., 1979; Fonseca, M.S., W. J. Kenworthy & G.W. Thayer, 1992; Good, R.E. et al., 1978; Kenworthy, W.J. & D.E. Haunert (eds.), 1991; Lockwood, J.C., 1990; Lockwood, J.C., 1991; New Jersey Administrative Code Rules on Coastal Zone Management, 1994; Sargent, F.J. et al., 1995; Short, F.T., 1988; Stevenson, J.C &L.W. Staver, 1990.



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Sharks frequently caught by New Jersey anglers

Mako - Isurus oxyrinchus

Distinctive characters: Flattened caudal peduncle and crescent-shaped tail. The mako is separable from the white shark by its teeth and more slender form; also by the relative position of the second dorsal and anal fins.

Color: Deep blue-gray above when fresh caught, but appearing cobalt or ultramarine blue in the water; snow-white below; dirty gray on lower surface of pectoral fins. Maximum size: 12 feet. Size at birth: Unknown.

Range: An oceanic species of the tropical and warm-temperate Atlantic; Gulf of Maine to Brazil.

Remarks: Strong-swimming, pelagic shark, known to leap from the water under natural conditions and when hooked. It is a fisheater, preying upon schools of mackerel, herring and squid. It is considered to be the only natural enemy of the broadbill swordfish.

Blue Shark - Prionace glauca

Distinctive characters: Distinguished from other western Atlantic sharks by combination of long pointed snout, long sickle-shaped pectoral fin, and blue color. **Color:** Blue on upper surface, shading to pure white below.

Maximum size: 12 feet 7 inches. Size at birth: About 21 inches.

Range: Worldwide in tropical and temperate seas; common along the northeastern United States during warmer months.

Remarks: Reputedly the most numerous of the large oceanic sharks; it is the one with which sperm whalers were most familiar, and the one around which many superstitions about sharks have developed. Its diet includes herring, mackerel, other small fishes, squid and garbage.

Sandbar Shark (Brown Shark) - Carcharhinus plumbeus

Distinctive characters: Distinct ridge along back between dorsal fins; separated from similar species by its larger first dorsal (vertical height exceeds 10% of shark's total length – less than 10% in dusky sharks), also the first dorsal is further forward in relation to the pectoral fins.

Color: Gray to brown above. Paler below. Fin margins slightly darker.

Maximum size: 7 feet 8 inches. Size at birth: About 25 inches.

Range: Common in inshore and offshore waters along east coast of the United States from Cape Cod to Florida.

Remarks: This is the most common large shark reported from New York-New Jersey coastal waters. Adult females enter bays in this area to give birth to their young. Large males are seldom taken and probably remain farther offshore. Its diet is similar to that of the dusky.

<u>Dusky Shark – Carcharhinus obscurus</u>

Distinctive characters: Distinct ridge along back between dorsal fins. Distinguished from the sandbar shark (above) by the size and position of its first dorsal fin.

Color: Lead gray, bluish, or copper above, white below.

Maximum size: 11 feet, 8 inches. Size at birth: 38 to 48 inches.

Range: Common in inshore and offshore waters along east coast of United States from Cape Cod to Florida.

Remarks: One of the most common sharks in New Jersey waters. Feeds primarily on bottom fishes including searobins, skates, goosefish and flatfish.

Smooth Dogfish - Mustelus canis

Distinctive characters: Both dorsal fins triangular and of nearly the same size. Separated from the sand tiger sharks by the position of the first dorsal fin, and from all sharks in this region by its minute, flat, pavementlike teeth. Sometimes confused with the spiny dogfish (below) from which it is distinguished by the presence of an anal fin and the absence of dorsal spines.

Color: Gray to brown above and grayish white below.

Maximum size: 5 feet. Size at birth: About 13 inches.

Range: Cape Cod as far south as Uruguay.

Remarks: One of our most abundant sharks. Preys primarily on crabs, but also on lobsters and small fishes.

Spiny Dogfish - Squalus acanthias

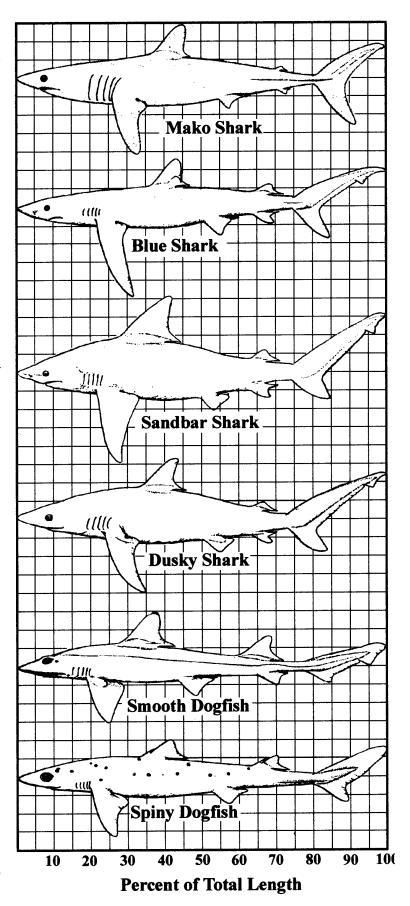
Distinctive characters: Lacks anal fin. Distinguished from the smooth dogfish (above) by the presence of dorsal spines.

Color: Slate colored above, pale gray to white below; young specimens with white spots scattered on body.

Maximum size: 4 feet. Size at birth: 6 1/2 to 13 inches.

Range: Worldwide in temperate and subarctic latitudes.

Remarks: One of our most common sharks found inshore and to depths up to 100 fathoms. It feeds on smaller fishes, squid, worms, shrimps and jellyfish. The spines are mildly poisonous.



Prohibited Sharks (Illegal to take, possess or land protected species)

Whale Shark - Rhincodon typus

Distinctive characters: Unique because of its great size and spotted color pattern; its mouth is at tip of snout; prominent ridges on the sides of the body.

Color: Dark gray to redish or greenish brown and sides; marked with round white or yellow spots and a number of white or yellow transverse bars; white or yellow below.

Maximum size: 45 feet. Size at birth: Unknown.

Range: All tropical oceans; reported as far north as Long Island.
Remarks: This offshore species is the largest living fish known to man. It does not bear its young alive, but deposits egg capsules. Its diet is composed mainly of plankton and small fishes.

Basking Shark - Cetorhinus maximus

Distinctive characters: The combination of a crescent-shaped tail, enormously long gill openings, long gill rakers and numerous minute teeth sets the basking shark apart from all others.

Color: Grayish brown to slaty gray or nearly black above, underside may be same color or lighter than the back, sometimes with a triangular white patch under the snout and two pale bands on the belly.

Maximum size: 45 feet. Size at birth: 5 to 6 feet.

Range: Has been reported in the Gulf of Maine and off northeastern shores. Only one report farther south than North Carolina. In the past, there have been numerous reports of basking sharks off Massachusetts and on occasion off New York and New Jersey.

Remarks: Basking sharks often gather in schools and swim sluggishly near the surface. In the winter it is assumed they retire to deeper water. Their diet consists of plankton which they sift out of the water by means of their gill rakers.

White Shark - Carcharodon carcharias

Distinctive characters: Flattened caudal peduncle and crescent-shaped tail. The large, triangular, saw-edged teeth and more rearward position of the anal fin (relative to the second dorsal fin) separate the white shark from the mako.

Color: Slaty brown, dull slate blue, leaden gray or even almost black above, shading to dirty white below; may have a black spot in the axil of the pectoral; the dorsals and caudal darker along rear edges.

Maximum size: 36 1/2 feet. Size at birth: About 50 inches.

Range: Widespread in tropical, subtropical and warm-temperate belts of all the oceans.

Remarks: Occurs both inshore and offshore. The white shark feeds often on large prey which it devours practically intact, as illustrated by the presence of other sharks (4 to 7 feet), as well as sea lions, seals, sturgeons and tuna in the stomachs of some specimens. The white shark is credited with numerous attacks on man in tropical and temperate waters the world over and has thus been given the name "meneater."

Sand Tiger Shark - Carcharias odontastis

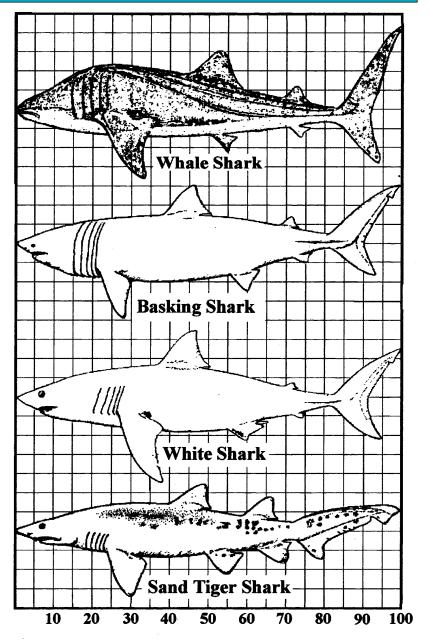
Distinctive characters: Both dorsal fins triangular and of nearly the same size as in the smooth dogfish; easily distinguished from the smooth dogfish by its sharp pointed teeth and more rearward position of the first dorsal fin.

Color: Gray-brown above becoming grayish white below; in some specimens darker spots cover the posterior section of the trunk.

Maximum size: 10 feet 5 inches. Size at birth: About 36 inches.

Range: Gulf of Maine to Florida.

Remarks: One of our most common large sharks during the summer months. The diet of this inshore species includes black drum, bluefish, butterfish, eels, flatfishes, menhaden and others; reported to travel in schools and surround other fishes.



Percent of Total Length



What you need to know about recreational fishing and crabbing

May 2000 Edition

Christine Todd Whitman, Governor • Robert C. Shinn, Jr., Commissioner, NJ Dept. of Environmental Protection

IMPORTANT HEALTH INFORMATION

.982, when research began to show elevated levels of potentially harmful contaminant's in certain fish and crabs in some New Jersey waters, advisories were adopted to guide citizens on safe consumption nealthy, well-balanced diet. Many people enjoy cooking and eating their own catch. However, since Fish are an excellent source of protein, minerals and vitamins and play a role in maintaining a

and mercury in the aquatic species in the water bodies listed in the charts. You should read both charts These advisories were developed with reference to federal guidelines for dioxin, PCBs, chlordane thoroughly before going fishing.

Dioxin, PCBs and chlordane are classified by the United States Environmental Protection Agency as probable cancer-causing substances in humans. Mercury can pose health risks to the human

follow the guidelines below when preparing and eating the species taken from the areas mentioned The following charts contain advisories and prohibitions in effect for specific fish and crabs in each To minimize exposure to these potentially harmful contaminant's and to protect your health, water body as of January 1999. (See the note on the advisory updates.) nervous system, particularly to developing fetuses.

These charts also contain information about advisories issued by the states of Pennsylvania and Delaware that cover the Delaware River and the Chesapeake and Delaware Canal. These areas are common fishing spots for New Jersey residents.

BOUND BROOK INTERIM FISH ADVISOF

Sound Brook and its tributaries, including New Market Pond and Spring Lake. This action follows an identified in the fish collected from the Bound Brook. This final NJDEP advisory warns the public "do conducted by EPA identified level of PCBs in excess of the FDA action level. All waterways have been oublications. Should you want any additional information concerning this matter, contact the agencies Superfund site in South Plainfield, NJ excessive polychlorinated biphenyls (PCBs) contamination was oosted accordingly and public information on these toxic contaminant's is available in this and other Bound Brook to include Spring Lake (tributary to the Bound Brook) as a second round of fish testing not consume any fish from the waters described above". This final advisory extends beyond the In August 1998, NJDEP issued a final fish consumption advisory for the entire length of the interim advisory issued in 1997, when as part of an EPA investigation of the Cornell-Dublier isted below

CATCH & RELEASE FISHING

NJ Division of Fish and Wildlife 609-748-2020 NJ Chapter Hudson River Fishermen's Assoc. 201-857-2400 number on the tag and the date and location of capture. Many programs offer small rewards for this information. For additional information on catch and release or tag and release, contact: Some fish have been tagged as part of ongoing scientific programs. If you capture a tagged fish, record the name and address of the tagging agency or program printed on the tag along with the American Littoral Society 1-800-8BAYKPR US Fish & Wildlife Service 1-800-448-8322

PREPARATION AND COOKING GUIDELINES FOR FISH UNDER ADVISORIES

You can reduce the level of PCBs, dioxins and most other chemicals (but not mercury) by properly cleaning, skinning and trimming species affected by most advisories and by following the cooking recommendations below. However, do not eat prohibited fish (see charts at right).

FISH: • Before cooking, remove and do not eat, the organs, head, skin, and the dark fatty tissue along the back bone, belty and lateral line (sides). • Avoid batter or breading, because they hold in the liquid which may contain contaminant's. • Bake or broil the fish on an elevated rack that allows fats to drain to the pan below, do not fry in a pan. • After cooking, discard all liquids. Do not reuse. Often relptivil guidelines to reduce exposure to contaminant s: • Eat smaller-sized fish (within state size regulations), instead of larger fish. Smaller, younger fish have lower levels of contaminant's than larger, older fish. • Eat a variety of fish from different locations.

BLUE CRABS: Eating, selling or taking (harvesting) blue crabs from Newark Bay Complex is prohibited. The highest levels of chemical contaminant's are found in the hepatopancreas, commonly known as the tomalley or green gland. It is the yellowish green gland under the gills. If blue crabs are taken from the water bodies other than Newark Bay Complex, the following preparation techniques can be followed to reduce exposure to some contaminant's: • Do not eat the green gland (hepatopancreas). • Remove green gland (hepatopancreas) before cooking, After cooking, discard the cooking water. • Do not use cooking water or green gland (hepatopancreas) in any juices, sauces or soups.

FISH AND CRAB ALLOCATION	VISORIES BASED ON PCB, I SPECIES	FISH AND CRAB ADVISORIES BASED ON PCB, DIOXINS AND CHIORDANE CONTAMINATION SPECIES GENERAL POPULATION HIGH R	TAMINATION HIGH RISK INDIVIDUAL!
NEW JERSEY STATEWIDE			
Note: local advisories	American eel	do not eat more than	do not eat
for the same species.	bluefish (over 6 lbs.)	do not eat more than	do not eat
	striped bass*	consumption advisories vary by area; see below	consumption advisories vary by area see below
	American lobsters	do not eat green glands	do not eat green glands
NEWARK BAY COMPLEX			
This complex includes Newark Bay, Hackensack River downstream of Oradell	striped bass*	do not eat	do not eat
Dam, Arthur Kill, Kill Van Kull, tidal portions of all rivers and streams that	American eel*	do not eat more than once a week	do not eat
feed into these water bodies and	blue crab*	do not eat or harvest2	do not eat or harvest ²
	bluefish (over 6 lbs.), white perch and white catfish	do not eat more than once a week	do not eat
Passaic River downstream of Dundee Dam and streams that feed into this	all fish and shellfish*	307116	27
HIDSON DIVIS			
Hudson River includes the river	American eel*	do not eat more than	do not eat
downstream of NY-NJ border (about 4 miles above Alpine, NJ)	striped bass*	once a week do not eat more than	do not eat
and Upper New York Bay.	bluefish (over 6 lbs.), white	once a week do not eat more than	do not eat
	perch and white catfish blue crab	once a week do not eat green øland (henatonancreas) ³	do not eat green gland (henatonancreas) ³
RARITAN BAY COMPLEX			
This complex includes the New Jersey portions of Sandy Hook and	striped bass*	do not eat more than once a week	do not eat
Karitan bays, the tidal portions of the Raritan River (downstream of the Rt. 1 bridge in New Brunswick) and the tidal	bluefish (over 6 lbs.), white perch and white caffish	do not eat more than once a week	do not eat
portions of all rivers and streams that feed into these water bodies.	blue crab	do not eat green gland (hepatopancreas)³	do not eat green gland (hepatopancreas)³
NORTHERN COASTAL WATERS			
This area includes all coastal waters from Raritan Bay south to the Barnegat Inlet	striped bass*	do not eat more than once a week	do not eat
CAMDEN AREA See additional advisories below			
This area includes Strawbridge Lake, Pennsauken Creek (north and south branches) Cooper River and its drainage, Cooper River Lake, Stewart Lake and Newton Lake.	all fish, shellfish and crustaceans*	do not eat	do not eat
LOWER DELAWARE RIVER & BAY NJ is honoring DE and PA advisories See additional advisories on other chart.			
Delaware River from Yardley, PA to	American eel	do not eat	
up to the head of tide	striped bass*	do not eat more than one meal a month	nonth
	channel catfish*	do not eat more than one meal every two months	ery two months
from Cana	All finfish	do not eat	
Delaware River from the C& D Canal south to the mouth of Delaware bay	Striped bass Channel catfish White catfish American eel White perch	For species listed do not eat more that one 8-oz meal per year	that one 8-oz meal per year

- High risk individuals include: infants, children under the age of 15, pregnant women, nursing mothers and women of childbearing age. They are advised not to eat any such fish or crabs taken from the designated regions since these contaminant's have a greater impact on the developing Selling any of these species from designated water bodies is prohibited in New Jersey.
- No harvest means no taking or attempting to take any blue crabs from these waters.
- Interim recommendation based on research showing elevated levels of chemical contaminant's in the blue crab hepatopancreas (green gland).

The State of Pennsylvania and the State of Delaware do not differentiate advisories between General Population and High Risk Populations, but do recognize that certain sub-populations may be at a higher exposure and should take additional steps when consuming fish under their advisories. (Issued 6/99)

AMERICAN LOBSTERS: A recent regional study of the American lobster has shown elevated levels of PCBs, cadmium and dioxin in the green gland (tomalley or hepatopancreas). This finding is consistent with other lobster studies conducted in waters of the northeastern coastal states. Therefore, consumers are advised to remove and not consume the green gland of all American lobsters caught from Maine to NJ, as well as avoid products made from the lobster green gland. This advisory does not apply to other edible portions of the lobster.

ADVISORY UPDATES

Advisories on fish consumption can change to protect public health as new data are collected and reviewed by state and federal agencies. Also, these agencies on occasion offer different advice for fish consumption. New Jersey is working with other agencies and is committed to developing the most useful, consistent advice possible. For the latest information, call one of the numbers below.

A GUIDE TO MERCURY HEALTH ADVISORIES FOR EATING FISH FROM NEW JERSEY FRESHWATERS

Recent research on largemouth bass and chain pickerel prompted the Department of Environmental Protection and the Department of Health & Senior Services to issue consumption advisories due to elevated levels of mercury found in these species. Mercury, a toxic metal, accumulates in fish tissue through the food chain. Since larger fish feed on smaller fish, mercury collects in their tissue as well, so that larger fish at the top of the food chain—such as largemouth bass and chain nickerel—are more likely to have elevated levels of mercury

and chain pickerel—are more likely to have elevated levels of mercury.

It is very unlikely that the levels of mercury found in these fish would cause immediate health effects. However, repeated consumption of contaminated fish poses potential health effects. Of

rects. Frowever, repeated consumption of confaminated itsi posses potential reatin effects. Or particular concern is the potential effect on the nervous system of developing fetuses. Although data show elevated levels of mercury in certain fish, it does not affect the quality of the

waters used for drinking and bathing.

The charts provide general and specific information on the statewide and the Pinelands area advisories. The Pinelands area covers much of the seven counties in the southeastern portion of the state: Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester and Ocean counties. Some but not all of the water bodies covered under these general advisories have been tested. More testing is under way.

See recently issued advice below by the federal government regarding mercury in saltwater fish.

FEDERAL ADVICE ON MERCURY IN SALTWATER FISH

In the September 1994 issue of FDA Consumer magazine, the US Food and Drug Administration (FDA) issued advice on eating shark and swordfish based on elevated levels of mercury contamination. Pregnant women and women of childbearing age who may become pregnant are advised by the FDA to limit their consumption of shark and swordfish to not more than one 7-ounce meal a month. For the general population, the FDA advises that consumption of shark and swordfish be limited to no more than one 7-ounce meal per week.

Some evidence suggests, however, that shark and swordfish should be consumed less frequently.

Some evidence suggests, however, that shark and swordfish should be consumed less frequently. This information is based on a US Environmental Protection Agency June 1994 report and on average mercury levels in shark and swordfish as reported by the FDA. Based on this evidence, women of childbearing age would be advised to eat no more than one 8-ounce portion of shark or swordfish every two months. The general population would be advised to eat shark no more than twice a month and swordfish no more than three times a month. Children under seven would be advised not to eat shark and swordfish at all.

If you would like further information, please call the New Jersey Department of Health & Senior Services at (609) 588-3123. You may also consider discussing this matter with your family physician.

FOR MORE INFORMATION

Some of the advisories listed herein may be changing. For the most up-to-date information, please contact:

NJ Department of Environmental Protection Division of Science & Research (609) 984-6070 Division of Fish & Wildlife (609) 748-2020 NJ Department of Health & Senior Services Consumer & Environmental Health Services (609) 588-3123 For background information on the advisories in the chart, local libraries can refer you to NJ Administrative Code 7:25-14, 18A

For information on New York health advisories, contact: NY Department of Environmental Conservation (518) 457-6178

DE Department of Health and Social Services (302) 739-5617

For information on Delaware Health Advisories, contact:

For information on Pennsylvania health advisories, contact: PA Department of Environmental Resources (717) 787-9633 For information on health advice regarding saltwater fish, contact: US Food and Drug Administration Seafood Hotline at (800) FDA-4010

LOCATION	SPECIES	LOCATION SPECIES AND SIGNIFICATION SPECIES ADDITIONAL SPECIES ADDITIONS ADVISORY:	ORY†
NEW JERSEY STATEWIDE For all freshwater bodies (except those listed below)	bass and pickerel	GENERAL POPULATION do not eat more than once a week	HIGH RISK INDIVIDUAL do not eat more than once a month
PINELANDS AREA For all water bodies (except those listed below)	bass and pickerel	do not eat more than once a month	do not eat
SITE-SPECIFIC PINELANDS Lake Lenape	bass	do not eat more than once a month	do not eat
	pickerel	do not eat more than once a week	do not eat more than once a month
Mirror Lake	bass	no restrictions	do not eat more than once a month
	pickerel	no restrictions	do not eat more than once a week
Stafford Forge	bass	do not eat more than once a month	do not eat
	pickerel	do not eat more than once a week	do not eat
Wading River	bass	do not eat more than once a month	do not eat
	pickerel	do not eat more than once a week	do not eat
SITE-SPECIFIC STATEWIDE			
Assunpink Creek	bass	no restrictions	do not eat more than once a week
	pickerel	do not eat more than once a week	do not eat more than once a month
Atlantic City Reservoir - No Fishing Allowed	bass	do not eat	do not eat
	pickerel	do not eat	do not eat
Big Timber Creek	bass pickerel	no restrictions do not eat more than once a week	do not eat more than once a week do not eat more than once a month
Canistear Reservoir	bass	do not eat more than once a week	do not eat
	pickerel	do not eat more than once a week	do not eat more than once a month
Clinton Reservoir	bass	do not eat more than once a week	do not eat
	pickerel	do not eat more than once a week	do not eat more than once a month
Cranberry Lake	bass	do not eat more than once a week	do not eat more than once a month
	pickerel	no restrictions	do not eat more than once a month
Crosswicks Creek	bass	no restrictions	do not eat more than once a week
	pickerel	do not eat more than once a week	do not eat more than once a month
Crystal Lake (Burlington County)	bass	no restrictions	do not eat more than once a week
	pickerel	do not eat more than once a week	do not eat more than once a month
Delaware River (Easton to Trenton)	bass	no restrictions	do not eat more than once a month
	pickerel	do not eat more than once a week	do not eat more than once a month
Delaware River (Trenton to Camden)	bass	no restrictions	do not eat more than once a week
See additional advisories above	pickerel	do not eat more than once a week	do not eat more than once a month
Lake Carasaljo	bass	do not eat more than once a week	do not eat
	pickerel	no restrictions	do not eat more than once a month
Lake Hopatcong	bass	no restrictions	do not eat more than once a month
	pickerel	no restrictions	do not eat more than once a month
Manasquan Reservoir	bass	do not eat more than once a month	do not eat
	pickerel	do not eat more than once a week	do not eat more than once a month
Merrill Creek Reservoir	bass	do not eat more than once a week	do not eat
	pickerel	do not eat more than once a week	do not eat more than once a month
Monksville Reservoir	bass	do not eat more than once a week	do not eat
	pickerel	do not eat more than once a week	do not eat more than once a month
Rockaway River	bass	do not eat more than once a week	do not eat more than once a month
	pickerel	no restrictions	do not eat more than once a month
Round Valley Reservoir	bass	no restrictions	do not eat more than once a month
	pickerel	do not eat more than once a week	do not eat more than once a month
Shadow Lake	bass	no restrictions	do not eat more than once a week
	pickerel	do not eat more than once a week	do not eat more than once a month
Spruce Run Reservoir	bass	no restrictions	do not eat more than once a month
	pickerel	do not eat more than once a week	do not eat more than once a month
Swartswood Lake	bass	do not eat more than once a week	do not eat more than once a month
	pickerel	no restrictions	do not eat more than once a week
Union Lake	bass	do not eat more than once a month	do not eat
	pickerel	do not eat more than once a month	do not eat
Wanaque Reservoir	bass	do not eat more than once a week	do not eat
	pickerel	do not eat more than once a week	do not eat
Wilson Lake	bass	do not eat more than once a week	do not eat more than once a month
	pickerel	do not eat more than once a week	do not eat
Woodstown Memorial Lake	bass	no restrictions	do not eat more than once a month
	pickerel	do not eat more than once a week	do not eat more than once a month

[†] One meal is defined as an eight-ounce serving.

[·] High risk individuals are pregnant women, women planning pregnancy within one year, nursing mothers and children under five years old.

Boat Ramp Maintenance Permit

Any vehicle used to transport or launch a vessel or water conveyance on the following WMAs must have affixed to the lower corner of the driver's side rear window a Boat Ramp Maintenance Permit or applicant's copy from a valid hunting, fishing or trapping license. Boat Ramp Maintenance Permits may be purchased for a fee of \$15.00 from division offices at the Pequest Trout Hatchery Natural Resource Education Center, Northern, Central and Southern Region, Nacote Creek, Bivalve, Tuckahoe, Lebanon and Trenton offices. Boat Ramp Maintenance Permits may also be purchased through the mail from N.J. Division of Fish and Wildlife, PO Box 400, Trenton, N.J. 08625, Att: Boat Ramp Permit.

- 1. Round Valley Angler Access
- 2. Kingwood
- 3. Assunpink
- 4. Dennis Creek
- 5. Tuckahoe

- 6. Mad Horse Creek
- 7. Union Lake
- 8. Menantico Ponds
- 9. Prospertown Lake

Clean Vessel Act Program

KEEP OUR

WATER CLEAN

USE PUMPOUTS

by John F. Makai, Supervising Biologist

In 1992, the Clean Vessel Act (CVA) was passed by Congress to help reduce pollution from vessel sewage discharges. Sewage from boats degrades coastal water quality leading to closure of shellfish beds and swimming areas.

Organic matter in sewage is decomposed by bacteria which consume oxygen, resulting in less oxygen for fish and other aquatic animals.

Under U.S. Coast Guard regulations, if a boat has an installed toilet it will be required to have a certified Marine Sanitation
Device (MSD). The sewage disposal system selected will depend on boat design, space configuration and electrical system. Any MSD selected must be certified by the U.S. Coast Guard.

Recreational boaters can select a treatment device, holding tank or a combination of the two. Equipment options include manual, electrical or vacuum toilets; pipes or hoses; and flexible or rigid tanks. Owners of smaller crafts can choose less costlyportable toilets.

Direct discharge of untreated waste into waters within three miles of shore is prohibited, unless operating under a waiver granted by the U.S. Coast Guard. Sewage from holding tanks and portable toilets must be pumped out at shoreside marinas. To date, the Division has received 152 applications from marinas inter-

ested in receiving federal funds administered through the U.S. Fish and Wildlife Service, to install a pumpout station and/or dump station.

In addition to the 115 marinas that have completed construction, there are approximately 40 more marinas coastwide that already provide sewage pumpout services. CVA participating marinas can charge a pumpout fee not

to exceed \$5.00 – a small price to pay for preserving the water quality of our estuaries. A single overboard discharge of human waste can be detected in up to a one square mile area of shallow, enclosed water and close shell-fish beds for harvesting.

The Borough of Seaside Park again will be operating a sewage pumpout boat in Barnegat Bay. The "Circle of Life" will be available to pump out recreational boats – free of charge – Friday through Monday. During

the 1999 boating season, 557 boaters took advantage of this service and prevented over 7,500 gallons of sewage from entering our coastal waterways.

For information on the location of pumpout and/or dump stations in New Jersey waters, contact the Division of Fish and Wildlife's Office of Information and Education at 609-748-2056 or the Marine Trades Association at 732-206-1400 or 1-800-ASK-FISH. Also, look for CVA information on the Internet – visit the Division's web site at: www.state.nj.us/dep/fgw.

PUBLICATIONS AVAILABLE

The following publications are available by writing:

Nacote Creek
Research Station Publications
PO Box 418 • Port Republic, NJ 08241

- Shellfish Growing waters Classification Charts.
 Send postage stamps in the amount of \$0.77.
 Note: this publication is available free at any shellfish license agent.
- NJ Reef News leaflet is available free. Sent postage stamps in the amount of \$0.55 to address above
- New Jersey Wildlife Profiles Vol 1. This full color, 112 page book features wildlife art by Carol Decker with species profiles, reprinted from NJ Outdoors magazines. Available at the Trenton or Pequest offices for \$23.95, or send check or money order for \$28 to Profiles, NJ F&W, PO Box 400, Trenton, NJ 08625-0400. For more information call 609-292-9450.
- Party and Charter Boat Directory. Send postage stamps in the amount of \$0.77.
- A Guide to Fishing and Diving New Jersey Reefs.
 See this Digest, page 15, for details.



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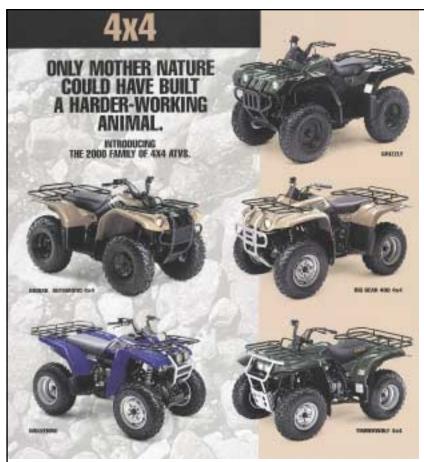
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