A GUIDE TO THIRD EDITION FISHING AND DIVING NEW JERSEY REEFS





- * Revised and Updated
- DGPS charts of NJ's 17 reef network sites, including 3 new sites
- Over 4,000 patch reefs deployed









A GUIDE TO FISHING AND DIVING NEW JERSEY REEFS

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Third Edition: Revised and Updated

Cover Photos: Top: Sinking of Joan LaRie III on the Axel Carlson Reef. Lower left: Deploying a prefabricated reef ball. Lower right: Bill Figley (Ret. NJ Reef Coordinator) holding a black sea bass.

Acknowledgements

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New Jersey Reef Program Administration

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Department of Environmental Protection

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Division of Fish and Wildlife

David Chanda, Director Thomas McCloy, Marine Fisheries Administrator Brandon Muffley, Chief, Marine Fisheries Hugh Carberry, Reef Program Coordinator

Participating Agencies

The following agencies have worked together to make New Jersey's Reef Program a success:

FEDERAL

U.S. Fish and Wildlife Service U.S. Coast Guard U.S. Army Corps of Engineers National Oceanic and Atmospheric Admin. National Marine Fisheries Service U.S. Navy Reserves U.S. Customs Service U.S. Environmental Protection Agency

STATE

N.J. State Police N.J. State Police Marine Bureau N.J. State Agency for Surplus Property N.J. Land Use Regulation Program Southern State Correctional Facility N.J. Army National Guard

COUNTY

Ocean County Bridge Department Ocean County Department of Corrections Cape May Municipal Utilities Authority

MUNICIPAL

Atlantic City Bomb Squad

AUTHORITIES

Delaware River Port Authority Port Authority of New York and New Jersey New York City Transit Authority



The U.S. Fish and Wildlife Service has funded the Reef Program salaries and equipment through the Sport Fish Restoration Program. Sport Fish Restoration funds are the excise taxes on fishing equipment, motor boat and small engine fuels, which get distributed to the States for fisheries management programs.

New Jersey's Reef Program

New Jersey's sea floor consists of sandy plain with some mud and clay interrupted by submarine ridges. Within this relatively featureless and barren sea floor are 17 reef sites that encompass more than 25 square miles. These reefs range in size from one-half to four square miles and are strategically placed along New Jersey's 120-mile coastline near navigable inlets. Contained within these reefs are more than 4,000 "patch reefs", which are premier underwater real estate for more than 150 species of fish and marine life. New Jersey's Reef Network is unparalleled along the entire Atlantic Coast and is recognized nationally as having some of the best artificial reefs in the nation.

How Reefs Work

New Jersey's reefs are only artificial in that hard substrate structures were intentionally placed in the marine environment. Everything that occurs after that is a natural process leading to formation of an encrusting community of organisms. The encrusting phenomenon occurs because ocean water contains a living soup of larval filter feeders such as mussels, barnacles, hydroids, sponges and corals that actively seek out hard substrate to attach, grow and mature. These encrusting organisms attach themselves permanently to hard surfaces, using strong threads or cement to hold themselves in place. The attachment is so strong they remain in place during northeast storms, tropical depressions and hurricanes. Although some reef organisms resemble plants, like the seaweeds found on jetties and bulkheads, reef organisms are animals and do not photosynthesize. The average depth of New Jersey's reefs is greater than 50 feet where there is insufficient sunlight for photosynthesis to occur. The encrusting organisms are filter feeders that sustain themselves by filtering plankton and detritus that drift by.

Larval encrusting organisms cannot attach to sand grains, which quickly wash away or become covered by sediment. Deployed hard reef materials such as rock, concrete or steel become quickly encrusted and a living reef matrix envelopes the structure. This matrix can be several layers thick as different types of encrusters compete for an available toehold, often growing on top of each other. At this stage of reef development, a multitude of minute crustaceans, amphipods,



isopods, crabs, shrimps and snails take up housing in this protective matrix and form an important component of the food chain.

In terms of numbers and weights, fishes represent a small portion of the marine life found on reefs. A nine-year study on marine life colonization conducted by New Jersey Division of Fish and Wildlife showed that fishes only accounted for 4.5 percent of the biomass of reef marine life. Young-of-the-year demersal fishes such as tautog and black sea bass represented 1.2 percent of the total biomass and adult fishes represented 3.3 percent of the total. The most abundant group, forming the base of the food chain, are the sessile invertebrates such as blue mussels, barnacles, anemones, bryozoans, hydroids, tube worms and coral. These organisms account for 84.5 percent of the total reef biomass. Fishes feed on the attached and mobile invertebrates. In a healthy ecosystem, forage animals are much more abundant than the apex predator. The high forage biomass recorded for New Jersey's reefs suggest they are a healthy and productive habitat for marine fishes.

Deployed reef structure not only leads to more food for marine fish, but also increases the energy efficiency of reef feeding by dissipating underwater currents. The structure acts as a baffle, reducing current along the bottom, which allows energy from food to be used for growth rather than exertion. Additionally, as water flows over and around reef structure, eddies form, which carry food to waiting fishes.

Marine Fish Use of Reef Habitat

Some marine fish species require reef habitat to survive while others gain a direct benefit from reef habitat but can survive with out it. The following information discusses how bottom or demersal fish, baitfish and pelagic fish relate to reef habitat.

Demersal (Bottom) Fishes

Bottom dwellers such as black sea bass and tautog need reef habitat to survive. Black sea bass and tautog typically cluster under overhangs, cavities and crevices found on the reef. The nooks and crannies found in the reef matrix provide hiding areas and refuge from larger predatory fishes. These areas also provide an eclectic menu of mobile food such as rock crabs and

shrimp. As well as blue mussels and barnacles which are grazed by tog and cunner and other reef species. Reef fishes make excursions away from the food abundant reefs to feed on worms and clams and other fauna living in or on the open sandy bottom. Soon after feeding however, they return to the safety and refuge of the reef.

Schooling Baitfish

For unknown reasons, schools of baitfish such as menhaden, round herring and anchovies school around high-profile reef structure like sunken ships. Theories as to why this occurs, include these species using the high profile structure as a point of reference and using the structure's shadow to conceal themselves from roving predatory fish. Schooling baitfishes only stay near the reefs temporarily and eventually move off to other areas.

Pelagic Fishes

Pelagic (open water) species such as bluefish, amberjack, cobia and sharks are at the top of the reef food chain and use the reef as nothing more than a fast food restaurant. They are attracted to the teeming bait and other swarming fishes found around the reefs. Pelagic predators are only transients and reefs are not a requirement of their life cycle.

Key to Reef Materials

Dredge Rock

More than 90 percent of the reef material deployed by New Jersey's Reef Program is rock. This rock is obtained from dredging operations. The rocks range in size from chips to boulders as big as cars. The rock is dropped on predetermined locations via hopper scows. Various types of rock, including sandstone, granite and igneous are deployed to create underwater rock piles, rock mountains and ridges.



Rock Piles

The rock piles range in size from 300 feet long by 75 feet wide with a vertical relief



of four to six feet from the sea floor. Each icon represents one single pile.



Rock Mountains and Rock Ridges

Rock mountains are created by dropping dozens of hopper scow loads of dredge rock in a single location, resulting in a mountain that rises between 30 to 60 feet from the sea floor. Rock ridges form a continuous segment of relief along the bottom.

Demolition Concrete

The Reef Program routinely deploys concrete obtained from the demolition of bridges, sea walls and piers. This material can vary in size from boulder-sized pieces to monoliths that are as large as ten feet in length. The concrete is deployed from massive 200-foot deck barges and is pushed off piece by piece by heavy machinery such as a front-end loader. Typically, a marker buoy is set at the deployment location and a tugboat pulling the deck barge circles the buoy as the concrete is broadcast over a wide area. Multiple loads are dropped on top of each other to provide higher vertical relief from the bottom.

Concrete Castings

Concrete castings include culverts, junction boxes and many other types of prefabricated concrete structure. Usually, this material has a slight defect such as a crack or chip that makes them unsalable by the manufacturer. Concrete castings are very effective reef material due to their hollow cavities and surface area which provide many nooks and crannies for fish and lobster to hide in.

Reef Balls

A Reef Ball is a designed habitat that resembles a small igloo with many holes leading into a hollow interior cavity. In 1998, seven fiberglass molds were purchased to fabricate the concrete Reef Balls. In 1999, construction of reef ball habitats began at Southern State Correctional Facility using inmate laborers. Annually, 500 habitats are fabricated and deployed on reef sites. Fish count studies performed by scuba divers have shown that on average, more than 19 fish



will occupy or be found near a reef ball habitat.



Army Tanks

In 1994 the U.S. Navy, Coast Guard, Army and Navy Special Forces, Air Force and New Jersey National Guard began providing obsolete military vehicles for reef construction activities. Obsolete army vehicles such as M-60 and M-551 tanks, M-331 armored personnel carriers and M-578 crane vehicles were cleaned and prepared at Fort Dix by the New Jersey Army National Guard. During the six year program, a total of 397 obsolete army vehicles were placed on 11 reef sites.

Subway Cars

Subway cars are structurally complex and Redbird cars have proven to be a fully functioning safe habitat, offering trophic support to fishes by supporting invertebrate communities. Removing the doors and windows allows fishes to swim into the interior for refuge and currents to circulate. Obtained free of cost from the New York City Transit Authority, more than 250 Redbird subway cars have been deployed on six reef sites. Fish count studies have determined that on average, 323 fishes will utilize each deployed subway car.



Uncharted Wrecks

A few uncharted shipwrecks are found within the boundaries of reef sites. These vessels sank though storms, wars or accidents before the advent of New Jersey's Reef

Program. No written information is provided for the uncharted wrecks in this book.



Vessels



A variety of vessels have been sunk on New Jersey's reefs, including ferry boats, tugboats, trawlers, tankers and many more. To date, 162 vessels have been deployed on New Jersey's reefs. The vessels range in size from 32-foot U.S. Coast Guard crew boats to the 460-foot attack cargo transport the "Algol." Vessel icons are numbered so they can be identified. Each icon represents a single vessel. Consult the coordinates pages to determine the date sunk, name, size and type of vessel indicated by the icon. Each icon represents a single vessel. The orientation of the icon on the chart does not represent the orientation of the vessel on the sea floor.

How to Use the Reef Charts

The charts in this publication depict New Jersey's 17 artificial reefs sites that include two reef sites, Del-Jerseyland Inshore and Del-Jerseyland Offshore, a joint venture between the states of New Jersey, Delaware and Maryland. The symbols in the preceding key indicate the type of material used to build each patch reef within these reef sites. Uncharted wrecks, snags and structures unintentionally placed on the sea floor are also depicted. The structures are not drawn to scale of the chart dimensions and in most cases cover a much larger portion of the chart than the corresponding materials do on the actual reef site. Named patch reefs or reef structures are identified on the charts by a number. To find the exact differential global positioning system

(DGPS) coordinates of the numbered patch reef, consult the structure listing immediately following each chart.

Drift Fishing Areas

Anchoring overtop reef structure is an excellent method for catching tautog and black sea bass during the spring and fall. However, this technique requires a certain degree of experience and can be difficult for the beginner or novice to master. Conversely, drift fishing is easy to perform and can provide an immediate return to the novice angler. When summer

flounder are present on reefs (mid-summer through fall), drift fishing is the method of choice to put fish in the box for beginners and experts alike. To be an effective drift fisher all that is required is knowledge on the location of deployed reef structure. These locations should be drifted over as the wind and current move the boat along. Depending on the reef site, many targets can be drifted over in one pass, thereby increasing your chances of success. Although drift fishing areas within reef sites contain structures such as reef balls, culverts and buoy sinkers that are not as likely to snag your terminal tackle, be prepared to get hung up occasionally on the bottom and possibly lose rigs. The loss of rigs while fishing on reefs goes with the territory.

Some of New Jersey's reefs were designed specifically for drift fishing and others have a designated drift fishing area within the reef site. The designated drift fishing areas are designed to provide a defined drift fishing area and the remainder is where boats can safely anchor and scuba divers can explore wrecks without the threat of being snagged by fishing gear.

Depth Contours

The third edition Reef Guide contains depth contours of the reef sites' sea floor. The depths were obtained by running transects on the reef and recording the depths. The contours are to be used as a reference tool and not a navigational aid.

Maximum Reef Profile

Located on each reef chart you will see a box containing the maximum reef profile for

that particular reef. The Army Corps of Engineers sets the maximum relief depth allowed on the individual reef sites. The actual depths vary from reef site to reef site.

Reef Site Coordinates

The DGPS coordinates provided in this book were obtained through direct observation, i.e. by finding each structure at sea and then recording its exact location from LORAN C and DGPS receivers. Older patch reef coordinates were obtained using LORAN C devices. More recent reef drops were recorded with DGPS machines. The 3rd edition contains only DGPS charts.

To convert the earlier reef deployment coordinates that were obtained solely from LORAN C devices into DPGS, two techniques were used. Most of the conversions were obtained by on site observations. If an on site observation was not possible, mathematical equations were used to convert from Loran C into DGPS. Unfortunately, while close, these conversions are usually not accurate enough to find reef structures. The exact locations of structures can usually be found by using a wreck search patterns. See page 13 for more information on wreck search patterns.

Help Us Correct Mistakes

Every effort was made to provide the best available information on the positioning of reef structures. However, there are many variables that may result in some degree of error for some reef structures. Users are encouraged to notify the Reef Program of suspected errors and provide correct coordinates by calling (609) 748-2020.

Report Uncharted Wrecks on Artificial Reef Sites

Fishermen and divers are encouraged to report the coordinates of any uncharted wrecks or snags located on New Jersey reef sites by calling the Reef Program at (609) 748-2020. Providing coordinates of uncharted wrecks will help ensure reef material will not be deployed on historic wrecks.

Positioning Your Vessel On Reef Structure

by Jeffery Carlson - Retired Fisheries Technician

There are several anchoring systems that may be utilized to position your vessel precisely over reef material. One method that works well is a modified bridling technique that can be accomplished using a single anchor. When fishing on shipwrecks or other reef structure, it is important to position your vessel over top of the selected target to assure maximum angling benefits.

With the ever-increasing cost of fuel it is vitally important to anchor your vessel on the first attempt. Failure to do so will result in the tedious task of retrieving the anchor and resetting. This delay not only results in consuming more fuel, but also cuts into valuable fishing time.

The modified bridling technique works very well for smaller center console and walk around vessels. This technique involves using just one anchor and enables the vessel to alter position by adjusting the steering wheel slightly.

When you are anchoring on a shipwreck you must first locate and mark the exact location using your GPS and depth finder. Once you have located the wreck, enter the exact coordinates and place two marker floats on the shipwreck, one at the bow and one marking the stern. After your floats are deployed and firmly holding bottom you may shut off your engine for several minutes, giving you the opportunity to analyze the effects of wind and tidal current. After drifting approximately 300 feet enter your current location into your GPS. Program your GPS to give you the distance and compass course to return to the marker floats. Once you have returned to the marker floats following the compass course, continue a few hundred feet on the same course past the floats to allow yourself enough room to set the anchor. Here you must take into consideration the depth of the water and the amount of anchor line needed to maintain a scope of 5:1. For example, if you are fishing in 75feet of water, you will need approximately 375feet of anchor line to maintain a firm hold on the bottom using a scope of 5:1.

When you have made the determined that you have traveled far enough up wind and up tide of the marker floats, deploy your anchor making sure you have an adequate length of anchor line. Pay out anchor line until your vessel approaches the floats marking the targeted shipwreck or structure. Hopefully you will have executed this procedure correctly and have positioned your vessel perfectly over target.



Should you discover that you are not precisely positioned due to slight variations in wind or tide, you have one more option to consider before retrieving and resetting the anchor. This option is to rig a modified bridle using 30 feet of half - inch nylon rope with a stainless steel snap hook on the end. Attach the snap hook over the primary anchor line after pulling in several feet of slack and tie off the other end on a midship cleat, either on the port side or starboard side. This will give you the ability to glide several feet towards the reef structure, simply by adjusting the steering wheel to port or starboard. Adjusting the half - inch line on the midship cleat and steering wheel position, you can slightly alter the vessel's position to find the sweet spot of the wreck. If the desired position is not achieved, try placing the half - inch nylon rope on the opposite side (port or starboard) midship cleat.

This method works quite well most of the time but it can become difficult if the wind and tide are opposing each other and there is not much drift.



Jeff Carlson, retired Fisheries Technician, aboard the R/V Reefbound, demonstrating the modified bridling technique.





How to Find a Sunken Ship 1. Enter the lat/long numbers into your GPS and hit "go to."

2. Steer your course provided by your GPS.

3. When you have reached your target begin looking at your depth recorder for the wreck.

4. If the wreck isn't found begin a search pattern at a slow speed that goes West/East or North/South.

5. Once you have located the wreck set your marker buoys.

The Art of Lobster Hunting

by Gene Peterson - Atlantic Diver

The Atlantic Lobster, *Homarus americanus*, is the most sought after diver delicacy found on the shipwrecks of New Jersey. The wreck diver's seafood shopping list can vary from a wide range of fish from scallops, mussels, crabs and clams, but the claws and tail of the Atlantic Lobster remain the most desirable entree.

The New Jersey coastal waters are naturally flat, sandy bottom free of relief with the exception of a few rare projections of rock offshore. All other objects of relief are the result of natural disasters, human error or were purposefully placed in specific locations to create artificial habitats or reefs. These unnatural habitats attract a wide variety of marine life. Crustaceans and fish seek shelter in these structures, which serve as an oasis from predation by larger species. In the shadows and innumerable crevices of these structures, lobsters can molt and mate in a relatively protected environment. Only one in ten lobster larvae survive their first year of life, floating among other plankton forms. When they finally sink to the bottom, the features of these artificial reefs make a welcome habitat for these juvenile crustaceans. There they feed on small mollusks, fish, less formidable crustaceans and even other lobster.

The nickname bug has been given to the lobster by divers due to its resemblance to a steroid inflated, roach-like cousin. Bugs can catch, crush and shred with their two claws known distinctively as the crusher and the shredder. These claws are self defining in their respective shape and function. It is interesting to note and to consider the power and potential peril of mishandling these tempered pinchers. The power of a large eight - pound lobster crushing soda bottles and cans with an awesome crusher claw is a site to behold. Soft - tissue humans wince at the mere thought of their bone crushing mandibles snapping and crimping down on a misplaced digit.

Endless mishandling stories of lobster-diver encounters serve as a warning to future hunters. One unfortunate diver had a lobster crush his dive mask when he unwarily poked his head into a hole. Another equally misfortunate diver had a lobster reach through his mesh capture bag and hold onto the anchor line as the diver swam to the surface. He abandoned the bag and his dinner to make a safe ascent. Other noteworthy pinching stories involve painful digit crunching.

Lobsters Preferred Habitat

In addition to nooks and crannies that reef habitat provides, lobsters inhabitat any low sandy or muddy area with a roof. They dig in and mark their home with debris they bulldoze out of these holes. An alert hunter will look for burrowing areas marked with darker mud, discarded mollusk shells and bones littering the hole. These crustaceans can migrate or remain in that home year round if there is an abundance of food. A home in a paint can is more like a summer home, whereas a shipwreck with thick mussel growth will be a more permanent fortress.

Lobsters are known to occupy holes with alternate escape routes. They are wary of predators and scan underwater movement and motion with their sensitive antenna, while tirelessly searching for food. They are surprisingly quick, clutching at unsuspecting fish at the right moment or scurrying back into their holes as an adversary approaches.

Their behavior is instinctual. They make the march offshore in the fall where they dig into the deeper shelf-waters. In the late spring, lobsters return to their summer habitat where there they feed, molt and mate in a protected environment.

Knowing the terrain is advantageous. Divers who have previously caught lobsters in a wreck will enjoy equal fortune by returning to the same spots. Lobster habitually return to the same area, after one lobster is caught, another of similar size will soon take its place. They tend to replenish the offshore side of the structure as they march back from the depths.

Preparing for the Hunt

An important consideration for lobster hunters is choosing a dive location where they can dive within their comfort level. Equally important is having the proper safety gear and redundancy for any dive. Adequate gas is a must. You will breathe a lot of gas during the heat of the hunt.



Bug hunting requires a few basic pieces of equipment. Since lobsters hide from the sunlight in darkened crevices, a good light is the most important tool. Attach the light to your harness D-ring so you can work with both hands. Bright, hot-white HID or eLED lantern lights are preferred and provide a wide view and allow unrestricted movement. Red lens lights are rarely used and offer limited advantages. You only need to see the location of a potential home briefly and a bright wide beam will allow you to scan a larger area.

Being nimble is important and the ability to react and move freely increases potential success. Dive clean. Canister lights with a hand mount, arm slates, compasses and computers can all cramp a "lobster draw", the ability to plunge your hand deep into a hole.

A large mesh bag will allow you to bag your bug easily. Serious hunters choose the half nylon-half mesh bags to reduce drag and to ease the sliding of the bug into the bag. A current legal gauge should be attached to the bag for easy reference. These can be made by cutting a properly sized length of aluminum or plastic.

Lobestering Techniques

Timing the hunt season is important if a diver plans to capture dinner. Hunt too early in the season and you will find lots of ling cod and ocean pouts occupying those holes. If too late in the season, the lobsters may have moved off or have already been bagged by another diver.

Dive hunters should be aware of unnecessary movement and practice controlled underwater advances. This is where lobstering becomes an art. Successful lobster dives command a stealthy approach, fully focused on the diver's own movements, anticipating the prey and exploring continuously from hole to hole. Avoid shining light directly into the eyes of lobster, this will force them back into their hiding place and out of reach.

Over-analyzing suspected homes can lead to escapes or a tug of war where the lobster pins itself into a hole with its powerful tail. When this happens, the diver may get grabbed by the lobster or the lobster may give up a claw and escape. Some divers reach in crevices without hesitation. If this technique is used, be prepared to sometimes pull out sleepy eel pouts or red hake lounging in previously occupied lobster homes.



When making the move to grab a lobster don't hesitate and move with full intent. You have to surprise them to catch them. The less warning, the more likely you are to pull out a bug without any challenges. Finding the courage to stick your hand into a dark hole with two snapping claws is an adrenaline rush. Reach high above the claws and grab the carapace. Once you get your hand on the lobster, twist and pull. If there is any struggle, let go for a second, regain your grip and continue to pull. When it's out and in your hand keep it away from body parts and equipment like your mask and regulator hose.

Missing or making a false grab will result in a quick escape or a pinched finger. If you miss, the lobster will likely retreat deep in a hole or long pipe, where it will remain for the balance of your dive time. Spending the balance of your dive trying to out fox a veteran foe is fruitless. I have watched divers sit outside a deep pipe or boiler peering into the abyss of a black hole waiting while a monster shuffles a few feet teasingly out of reach. Waving a light, banging on the wreck and tossing a smaller hostage lobster in the hole are vain endeavors. The big ones will back further away, you will get a headache from banging, or get to watch a cannibalistic struggle. Lobsters don't get that big by rolling on their back and begging uncle. Move on if you miss. There are others to catch. At the end of the dive try that spot again but this time do not hesitate to reach far and quickly.

Lobster hunters must know the difference between a male and female. The females have a broader tail with soft appendages to hold eggs. If there are eggs (purple reddish berries) under the tail, carefully put her back in her home. Some breeding females have V shaped notches cut in the tail and must also be released even if they do not have eggs. If a lobster has no berries and is not V-notched, measure the length of the carapace. During the early summer months lobsters will be molting and are most vulnerable to predators. If you capture one of these softies you should put them back safely in their home where they will not become a fish meal. There are federal and state laws governing minimum and maximum lengths and divers must know the current size limits for the hunting area. If the bug is legal, open your bag just enough to slip the bug in tail first. Lobsters swim backward and will try to slip out if you open the bag too far.

If you are catching lobsters, keep hunting. Smaller ones can be exchanged for

larger ones when the possession limit has been reached. Be aware the bigger bugs will crush the little ones. Serious divers carry two bags to keep them separated. When divers get their catch on the boat, measurements should be taken again. It is easy to make a mistake underwater and little damage will be done if short lobsters are put back in the water right away.

Bug hunting is an exciting and a long enjoyed diving pastime. Properly equip yourself, follow the current laws and utilization of successful bugging techniques will provide you with many dinners. If all else fails, dive at night. Lobsters are nocturnal feeders. They wander around in the dark hunting for prey and a new home. Your cooler could be that new home.

Bug Hunting Tips



- * Know the laws, limits and have proper permits.
- * Only two claws are allowed per lobster body.
- * Measure and re-measure to be sure.
- * No gigs, spears, gaffs or mechanical devices are legal for capture.

* Keep your lobster on ice or submerged at depth below the thermocline to keep them fresh.

* Drain excess water in your cooler frequently, lobsters will drown in fresh water.

* Band your lobster to protect yourself, other lobsters and most importantly the cook.

Good Hunting!



The author and his freshly caught dinner.





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mag

Sandy Hook Reef



Bridgeworks

Rocky

From	Sandy Hook Inlet	Shark River Inlet	Manasquan Inlet
Compass bearing	192 ⁰	27 [°]	24 [°]
Distance (n.m.)	5.2	11.3	17.9

Distance offshore 1.4 n.m.
Reef area 1.4 sq. mi.
Depth range 40-60 ft.



Depth Contours





Dive at your own risk



Rocks

Information not to be used as sole source navigation

SANDY HOOK REEF COORDINATES

ID - I LAK SUNK,		
NAME, STRUCTURE	DGPS	SPONSORS
15-89, V.L. Keegan,	4021.525	Spectra Services
110' Tanker	7356.110	
16-89, Dorothy,	4021.555	Spectra Services
65' Tug	7356.103	
18-89, Coleman Barge II,	4021.060	Coleman Construction
45' Deck Barge	7356.125	Company
968-02, Donny's Nub,	4023.06	Friends at Buy-Rite
Concrete	7356.20	
969-02, Jimbo's Hump,	4022.96	Family and Friends at
Concrete	7356.24	Oldbridge Buy-Rite Liquors
970-03, Daniel Carroll Reef,	4023.00	Family and Friends
Concrete	7356.00	

FACT: The Sandy Hook reef site contains 2,066,293 cubic yards of dredge rock material. Ninety-five percent of the reef material on Sandy Hook Reef is rock.



A hopper scow loaded with dredge rock material on its way to the reef.

Bluefish ~ *Pomatomus saltatrix*



Bluefish are voracious migratory species that are blue-green dorsally, fading to silver ventrally. Populations historically vary greatly in both size range and

numbers of fish. Fish one to four pounds are common, with fish over 20 pounds. Bluefish have very sharp teeth and a wire leader is almost necessary to keep their teeth from cutting the line. Almost any bait or lure will work, with reports they will even take shiny bare hooks.





Information not to be used as sole source navigation

SEA GIRT REEF COORDINATES

ID - YEAR SUNK.		
NAME, STRUCTÚRE	DGPS	SPONSORS
2-79,	4007.730	Artificial Reef Committee, National
100' Dry Dock	7356.410	Marine Fisheries Service
3-77,	4006.986	Artificial Reef Committee, National
200' Railroad Barge	7356.868	Marine Fisheries Service
4-73, Carlson II,	4006.805	Axel Carlson, Jr.
70' Clam Boat	7357.176	
6-82, Cranford,	4007.447	Ashley Development Corp.
205' Ferry Boat	7356.227	
8-86, Spartan,	4006.158	Spentonbush Red Star Companies
85' Tug	7357.198	1 1
9-86, Rockland County,	4007.942	Spentonbush Red Star Companies
95' Tug	7355.879	1
10-83, Kiley B,	4006.540	Artificial Reef Committee, National
75' Trawler	7356.827	Marine Fisheries Service
11-86, Swenson Barge I,	4007.305	Shore Dock Co., Inc.
130' Deck Barge	7356.885	
15-87, Swenson Barge II,	4006.47	Shore Dock Co., Inc.
130' Deck Barge	7357.29	
17-88, Car Float #52,	4007.135	East Coast Tender Services
270' Barge	7356.919	
23-89, Morania Barge,	4006.301	Morania Oil Company
230' Tanker	7357.424	
24-83, Dykes,	4006.965	Modern Transportation Co.
300' Schooner	7357.545	
25-89, Horsehoe Wrecks	4008.203	Spectra Services,
Pieces of Tug, 3 Barges	7355.779	Fish America Foundation
29-83, Cinderella,	4006.777	Artificial Reef Committee, National
70' Trawler	7357.860	Marine Fisheries Service
30-90,	4006.675	SEPTA
<u>5 Subway Cars</u>	7357.077	
31-93, Kenneth Truesdale Reef,	4006.486	Coffey, Graybowski, Clarks Landing
<u>62' Tug</u>	7357.224	Marina, Mercury Marine
32-94, Capt. Etzel,	4007.910	U.S. Navy,
<u>110' Barge</u>	7356.168	Clarks Landing Marina
54-96, FCO Reef,	4007.517	Fisherman's Conservation Org.,
<u>5 Tanks</u>	7356.477	N.J. Army National Guard
59-96, Ocean Wreck Divers II,	4007.251	Ocean Wreck Divers,
<u>5 Tanks</u>	7356.821	N.J. Army National Guard
64-96, G.A. Venturo,	4007.514	Sean Mowbray,
99' Tug	7356.465	Fisherman's Conservation Org.
		Continued on next page

24) SEA GIRT REEF COORDINATES (continued)

ID - YEAR SUNK.		
NAME, STRUCTURE	DGPS	SPONSORS
65-97, The Fisherman Reef,	4007.930	Spentonbush Red Star Co.,
242' Tanker	7355.942	The Sportfish Fund
67-97, Restorer,	4008.005	Bob Henry
62' Tug	7356.025	, i i i i i i i i i i i i i i i i i i i
68-97, Golden Eagle,	4008.190	Eagle Pharo Memorial
80' Trawler	7356.100	C
71-98, Ocean Wreck Divers IV,	4007.750	Ocean Wreck Divers
85' Tanker	7356.345	
72-98, Clifford Lipke Reef,	4007.608	Friends of Clifford Lipke,
15 Tanks	7356.650	N.J. Army National Guard
87-98, DVD Banana Barge,	4006.40	Delaware Valley Divers,
140' Deck Barge	7357.08	Peter King
90-01, Travis Stephen,	4008.179	Captains Nagiewicz and Crowell
96' Tug	7355.824	
91-02, Wedding Barge,	4007.370	Craig and Pat Thoman
109' Deck Barge	7356.765	
93-02, Michael A. Coakley Boy Scout	4008.40	Boy Scout Troops 59 and 333,
Memorial Reef,	7355.80	Ceramic Technology, Shark River
Concrete		Surf Anglers, and Castle Diner
		Fishing Team
102-05, James Frederick Rubino	4008.331	Edwin and Wilma Rubino
Family Memorial Reef,	7355.760	and Weeks Marine
Concrete		
103-05, James Frederick Rubino	4008.320	Edwin and Wilma Rubino
Family Memorial Reef,	7355.800	and Weeks Marine
Concrete		
105-05, Michael "Mickey" W.	4008.358	Family and Friends
Sagan Memorial Reef, Concrete	7355.791	
112-06, Trevor Dickson Memorial	4007.999	Family and Friends
Reef, Concrete	7356.249	and Pile Foundation
116-06, Bob Illes Memorial Reef,	4007.780	Family and Friends
Rock	7356.415	
118-06, Thomas Black Reef,	4006.382	Rob Hillman
Concrete	7357.153	
121-06, Earl's Family Reef,	4006.250	Earl's Family
Concrete	7357.150	
123-08, Trevor Dixon Memorial	4007.931	Belmar Chamber of Commerce
Shipwreck, 47' Crew Boat	7356.373	
124-08 Ed Bogart Memorial Reef,	4007.829	Trudy Stetter and Friends, NYC Fire
51' Fire Boat	7356.376	Department



Shark River Reef DGPS





SHARK RIVER REEF COORDINATES

Π	D	-	YEA	AR	SU	[N]	K,	
		_	_	\sim				

NAME, STRUCTÚRE	DGPS	SPONSORS
1-87, Coney Island,	4006.285	Crystal Oil Corp., N.J. Marine
250' Sludge Tanker	7341.365	Trades Assoc., The Fisherman
2-87, Alan Martin,	4006.440	Crystal Oil Corp., N.J. Marine
160' Oil Tanker	7341.130	Trades Assoc., The Fisherman
3-87, Sam Berman,	4006.440	Crystal Oil Corp., N.J. Marine
160' Oil Tanker	7341.180	Trades Assoc., The Fisherman
4-91, USS Algol,	4006.545	Federal Aid to Sportfish Restoration
460' Attack Cargo Transport	7341.450	
17-97, Billy D,	4006.320	Artificial Reef Association
80' Tug	7341.855	
18-98, Mako Mania Wreck,	4006.419	Greater Pt. Pleasant Charter Boat
174' Tanker	7341.460	Assoc., Crown Dist., Budweiser
19-00, Capt. Bart,	4007.103	Greater Pt. Pleasant Charter Boat
174' Tanker	7341.479	Assoc., Crown Dist., Budweiser
20-00, HRFA-NJ,	4006.883	Hudson River Fisherman's Assoc.
98' Tug	7341.534	
21-01, Jack's Spot,	4006.672	Meyer Family
261' Barracks Barge	7341.492	
367-03, Remo's Mt.,	4007.190	Friends
Rock Mountain	7341.410	
420-03, Stillwell's Ridge,	4007.200	Family and Friends of Harold and
Rock Mountain	7341.700	Edward Stillwell
458-03, Lester's Mountain,	4007.300	Friends and Family of Lester Van Pelt
Rock Mountain	7341.400	and Norma K III
495-03, Caputi's Train Wreck,	4006.342	New York City Transit Authority
Subway Cars	7341.589	
496-03, Muir's Submarine Express,	4006.328	New York City Transit Authority
Subway Cars	7341.202	
497-03, Dive Council Mountain,	4007.311	New York City Transit Authority
Subway Cars on Rock Mountain	7341.605	
500-03, Preim's Peak,	4006.700	Preim Family,
Rock Mountain	7341.100	Port Authority, U.S. ACOE
555-03, Jeffrey's Ledge,	4007.300	Jeffrey and Nancy Carlson, Port
Rock Mountain	7341.100	Authority, U.S. ACOE

FACT: The Shark River reef site contains 3,947,296 cubic yards of dredge rock material. Ninety-six percent of the reef material on Shark River Reef is rock.





AXEL CARLSON REEF COORDINATES

	ID - YEAR SUNK,	
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NAME, STRUCTÚRE	DGPS	SPONSORS
4-96, Colleen GPPCBA/Budweiser	4002.794	Greater Pt. Pleasant Charter Boat
Reef,	7359.350	Assoc., Budweiser, Crown
92' Tug		Distributers
10-97, Capt. Ed Schmidiger,	4001.832	Schmidiger and Donohoe
165' Tanker Barge	7359.677	C C
11-97, Ocean Wreck Divers III,	4000.587	Ocean Wreck Divers
165' Tanker Barge	7359.555	
16-98, Joseph M. Doherty Reef,	4003.270	Friends and Family,
Tank	7359.558	N.J. Army National Guard
21-98, Manasquan Fishing Club Reef,	4003.203	Manasquan Fishing Club
Tank	7359.663	N.J. Army National Guard
24-98, The Explorer,	4003.225	The Explorer's Club
Tank	7359.672	N.J. Army National Guard
39-98, Wasabi Reef,	4001.085	Capts. Arthur and Kelly Stokes
2 Tanks	7400.045	
54-00, TNT Reef,	4003.940	Thomas and Theresa DePaola
Reef Balls	7359.600	
55-00, Bayhead Shores Fishing Club	4002.430	Bayhead Shores Fishing Club
Memorial Reef, Reef Balls	7359.580	
56-00, Sally Sheeran Reef,	4001.980	David D. Bender
Reef Balls	7359.200	
58-00, Sea Gypsies Reef,	4000.180	New York City Sea Gypsies
Reef Balls	7400.160	
59-00, Dive Council Reef,	4000.230	N.J. Council of Dive Clubs
Reef Balls	7400.120	
60-00, McGurr's Tug,	4002.473	Ocean Wreck Divers
85' Tug	7359.599	
61-00, Thal's Fin-Alley,	4000.015	James W. Thal
Reef Balls	7359.600	
62-00, Billy L. Sidney Reef,	4001.390	Wanda Sidney and Friends
Reef Balls	7359.390	
63-00, GPPCBA Reef,	4002.79	Greater Pt. Pleasant Charter Boat
Reef Balls	7359.35	Association
64-00, Salty Rinse,	4000.18	Robert C. Shawger, Jr.
Reef Balls	7400.10	
65-00, Joan LaRie III,	4003.39	Friends of Norma K
<u>95' Tug</u>	7359.55	
66-01, Jim Lynch,	4002.84	Greater Pt. Pleasant Charter Boat
178' Tanker Barge	7359.58	Association

AXEL CARLSON REEF COORDINATES (continued)

ID - YEAR SUNK,

NAME, STRUCTURE	DGPS	SPONSORS
67-07, Norma K Rock Pile,	4001.31	Friends of Norma K
Concrete	7359.48	
68-01, Vivian Johnson Reef,	4001.20	Les and Georgette Johnson
Reef Balls	7359.40	-
69-01, DVD/Feyti Reef,	4001.20	Delaware Valley Divers and
Reef Balls	7359.20	Joe Feyti
70-02, Bolger Reef,	4001.55	Gerard Bolger
Reef Balls	7359.99	_
71-02, Sam and Carly's Reef,	4001.54	Communications Cable Services Inc.
Reef Balls	7359.60	
73-02, Jim Dwyer/John Walton Reef,	4001.38	Jim Dwyer
Reef Balls	7359.98	
74-02, Karpowicz Brothers Reef,	4001.35	John Karpowicz
Reef Balls	7400.20	-
75-02, Manasquan River Marlin and	4001.27	Manasquan River Marlin and Tuna
Tuna Club Reef I, Reef Balls	7359.48	Club
76-02, E.J. Lejeune Memorial Reef,	4001.82	Joe and Linda Lejeune and Friends
Reef Balls	7359.40	
77-02, Ken Hall Memorial Reef,	4001.81	Friends and Co-workers
Reef Balls	7359.16	
78-02, Visceglia Reef,	4000.80	Summit Associates Inc.
Reef Balls	7359.99	
79-02, Michael P. Sendecki Reef,	4000.78	Family and Friends
Reef Balls	7400.40	
85-03, Barbara Ann,	4003.562	Njscuba.com, Les Swenson
75' Deck Barge	7359.300	
86-03, Patrick S. Murphy,	4003.585	CBS Friends of Patrick Murphy,
50' Deck Barge	7359.391	Les Swenson
87-03, Robert "Bob" Koch Reef,	4003.62	North East Mako Owners Club
Concrete Castings	7359.59	
88-03, Manasquan River Marlin &	4003.57	Manasquan River Marlin and Tuna
Tuna Club Reef II,	7358.79	Club
Concrete Castings		
89-03, Manasquan River Marlin &	4003.17	Manasquan River Marlin and Tuna
Tuna Club Reef II,	7358.82	Club
Concrete Castings		
90-03, Greater Pt. Pleasant Charter	4002.96	Greater Pt. Pleasant Charter Boat
Boat Assoc. Reef II,	7359.15	Assoc., Crown Distributers,
Concrete Castings		Budweiser





AXEL CARLSON REEF COORDINATES (continued)

ID - YEAR SUNK.		
NAME, STRUCTÚRE	DGPS	SPONSORS
91-03, Greater Pt. Pleasant Charter	4002.75	Greater Pt. Pleasant Charter Boat
Boat Assoc. Reef III,	7359.00	Assoc., Crown Distributers,
Concrete Castings		Budweiser
92-03, Greater Pt. Pleasant Charter	4002.36	Greater Pt. Pleasant Charter Boat
Boat Assoc. Reef IV,	7359.02	Assoc., Crown Distributers,
Concrete Castings		Budweiser
93-03, JCSA-RBBC Reef,	4001.56	Jersey Coast Shark Anglers, Riviera
Concrete Castings	7359.18	Beach Boat Club
94-03, Grady White Reef,	4000.75	N.J. Grady White Mariners Club
Concrete Castings	7359.39	
95-03, Margaret Delanoy Reef,	4000.75	Family and Friends
Concrete Castings	7359.80	
96-03, Visceglia Reef II,	4000.70	John B. Visceglia
Concrete Castings	7359.77	
97-03, Captain Donna's Ridge,	4002.423	Greater Point Pleasant Charter Boat
Rock Mountain	7359.207	Association
100-04, Marut Peak,	4000.92	The Marut Family
Rock Mountain	7359.50	
107-04, Veronica M,	4003.104	Herb Segars and Ann E. Clark
110' Tow Boat	7359.034	Foundation
114-05, MRMTC Members	4003.187	Manasquan River Marlin and Tuna
Memorial Reef, 100' Tug Boat	7359.283	Club and Ann E. Clark Foundation
115-05, Four of Clubs,	4003.181	Delaware Valley Divers, Ocean
75' Tow Boat	7359.310	Wreck Divers, MRM&TC and Ann
		E. Clark Foundation
125-05, Lyons' Family Reef,	4000.30	Lyons Family
Rock Mountain	7400.46	
127-05, Jen's Retreat,	4000.33	Family and Friends
Rock Mountain	7400.40	
136-05, Joseph Ertle Memorial Reef,	4000.43	Family
Rock Mountain	7400.40	
140-05, Joseph and Marie Ertle Me-	4001.00	Family
morial Reef, Rock Mountain	7400.40	
141-05, Drifters Reef,	4000.219	GPPCBA, MRM&TC and Ann E.
Concrete Castings	7359.584	Clark Foundation
142-05, Captain Ken Keller Reef,	4000.245	Family and Friends of Captain Ken
Concrete Castings	7359.575	Keller
149-05, Bomber's Ridge,	4001.13	Bobby and Hannah Helbig, Callie
Rock Mountain	7400.39	and Andrea Wilber

AXEL CARLSON REEF COORDINATES (continued)



4002.970

7359.372

FACT: Axel Carlson Reef site contains 1,117,980 cubic yards of dredge rock material. Ninetyseven percent of the reef material on Axel Carlson Reef is rock.

454-08, Gus Grafus Memorial Reef,

100' Deck Barge



Larry Grafus and

Mike Sonta

Lucky 7 is one of two commercial fishing boats found on the Axel Carlson reef site.







Barnegat Light Reef

DGPS

From	Manasquan Inlet	Barnegat Inlet	Little Egg Inlet
Compass bearing	194 [°]	103 [°]	46 [°]
Distance (n.m.)	20.5	3.1	21.0



Drift Fishing Reef

Distance offshore	3.0 n.m.
Reef area	- 0.85 sq. mi.
Depth range	46-58 ft.





Dive at your own risk

Depth Contours



Nutrical Miles

Information not to be used as sole source navigation

BARNEGAT LIGHT REEF COORDINATES

ID - YEAR SUNK.		
NAME, STRUCTURE	DGPS	SPONSORS
26-95, No. 9,	3945.127	Jim Lees,
40' Crew Boat	7401.297	Artificial Reef Association
32-95, PSI,	3945.016	Pressure Seals, Inc.
Tank	7401.582	
33-96, Antares,	3945.067	John Deckert, Artificial Reef
41' Sailboat	7401.892	Association
43-96, Hank A. Dukes Reef,	3945.470	Duke's Bayside Dock
Tank	7401.468	
58-97, LTC. Joseph P. Callahan, Sr.,	3945.368	Callahan Family
Tank	7401.321	
68-97, Col. Samuel R. Probasco III,	3944.782	Probasco Family
Tank	7401.362	
70-98, Harry White Reef,	3945.715	Friends
3 Tanks	7401.667	
78-98, Gilbert Reef,	3945.764	Friends
3 Tanks	7401.228	
86-98, VHFC II,	3945.054	Village Harbor Fishing Club
Tank	7401.794	
90-98, Barnegat Fishin' Hole #2,	3944.733	Barnegat Fishin' Hole
3 Tanks	7401.691	
94-98, FRTC Reef,	3944.688	Forked River Tuna Club
Tank	7401.815	
101-99, Tracy's Treasure,	3945.211	Anne Radziunas
Tank	7401.754	
102-99, William Berndt Memorial	3945.211	Manahawkin Elks Lodge 2340
Reef, Tank	7401.849	
103-99, Barnegat Fishin' Hole #3,	3945.111	Barnegat Fishin' Hole
3 Tanks	7401.717	
106-99, Joesph A. Matuska "Never	3945.521	Fish Hawks
Enough", Tank	7401.838	
107-99, In Memory of Fish Hawks	3945.515	Fish Hawks
Saltwater Anglers Reef, Tank	7401.712	
108-99, Charles B. Durborow Reef,	3945.578	Charlotta Probasco
Tank	7401.714	
109-99, Barnegat Fishin' Hole #5 in	3945.021	Barnegat Fishin' Hole
Memory of Melanie Boytos,	7401.417	
Reef Balls		
113-99, FRTC Reef II,	3945.037	Forked River Tuna Club
Reef Balls	7401.602	



BARNEGAT LIGHT REEF COORDINATES (continued)

ID - YEAR SUNK,

NAME, STRUCTURE	DGPS	SPONSORS
114-99, Michael R. Deitzler Reef,	3945.414	Family
Reef Balls	7401.618	
115-99, VHFC III,	3944.758	Village Harbour Fishing Club
Reef Balls	7401.530	
117-99, Bill Hornidge Reef,	3945.036	N.J. Division of Fish and Wildlife
Reef Balls	7401.795	
118-00, Sam Haines' Other Hot Spot,	3945.820	Bob Haines
Reef Balls	7401.720	
120-00, Woodland Family Reef,	3945.710	Friends and Members of Lacey Elks
Reef Balls	7401.820	Lodge
121-00, Frank and Elizabeth Frasco	3944.950	Frank and Fran Frasco Jr.
Reef, Reef Balls	7401.350	
122-00, Fred Ecker Memorial Reef,	3944.980	Clair Ecker
Reef Balls	7401.320	
123-00, Rick Schmidt's Reef,	3945.580	Schmidt Family and Friends
Reef Balls	7401.215	-
124-00, Jacob John Dmitruck Reef,	3944.850	Rose Dmitruck, John Racioppi
Reef Balls	7401.160	
125-00, Leary's Fishing Club Reef,	3944.850	Leary's Fishing Club
Reef Balls	7401.800	
126-02, FRTC Reef III,	3944.89	Forked River Tuna Club
Reef Balls	7401.76	
128-02, Burlington Co. Fish and	3944.85	Burlington County Fish and Game
Game Protective League Reef,	7401.56	Protective League
Reef Balls		
129-02, Edna B. Reef,	3945.78	William J. Beihl
Reef Balls	7401.46	
130-02, Hadyka's Hideaway,	3945.19	Terezsa Bezdelovs-Hadyka
Reef Balls	7401.35	
131-02, Fish Hawks Reef,	3945.84	Fish Hawks Saltwater Anglers
Reef Balls	7401.40	
132-02, Gene's Story Reef,	3944.75	Florence Krigger
Reef Balls	7401.60	
133-02, Ryon's Reef,	3944.75	David Ryon
Reef Balls	7401.38	-
134-02, Rich's Reef,	3944.76	Friends and Family of Richard Labor
Reef Balls	7401.29	
135-02, Tuna Sub,	3944.973	Albert Marine,
42' Deck Barge	7401.459	Forked River Tuna Club
136-04, Harry C. Michels Reef,	3945.40	Family and Friends
Concrete Castings	7401.80	

BARNEGAT LIGHT REEF COORDINATES (continued)

NAME, STRUCTÚRE	DGPS	SPONSORS
137-04, Fish Hawks II,	3945.80	Fish Hawks Saltwater Anglers
Concrete Castings	7401.60	
138-04, Bill Van Schoick Reef,	3945.70	Family and Friends
Concrete Castings 139-04, Bill	7401.20	-
Schoick Reef,	3945.50	Family and Friends
Concrete Castings	7401.20	
140-04, Walter Lamon Reef,	3945.45	Family and Friends
Concrete Castings	7401.35	
141-04, FRTC Pipe Reef,	3945.40	Forked River Tuna Club
Concrete Castings	7401.20	
142-04, Paul Ward Reef,	3945.25	Family and Friends
Concrete Castings	7401.41	
143-04, Sly Fox Reef,	3945.00	Friends of Ed Folio
Concrete Castings	7401.20	
144-04, Sean's Reef,	3944.90	Friends of John and Rhonda
Concrete Castings	7401.40	
145-06, Exelon Reef 1,	3945.455	Exelon Corporation
Concrete Castings	7401.260	
146-06, Exelon Reef 2,	3945.450	Exelon Corporation
Concrete Castings	7401.152	
147-06 Exelon Reef 3,	3945.352	Exelon Corporation
Concrete Castings	7401.257	
148-06 Exelon Reef 4,	3945.350	Exelon Corporation
Concrete Castings	7401.154	
149-06 Exelon Reef 5,	3945.252	Exelon Corporation
Concrete Castings	7401.221	
150-06 Exelon Reef 6,	3945.230	Exelon Corporation
Concrete Castings	7401.173	
151-06, Joe Houston Reef,	3945.078	Kevin Coleman
40' Deck Barge	7401.460	
152-06, Johnny Mesday Reef,	3945.079	Kevin Coleman
40' Deck Barge	7401.445	



Concrete castings on a barge waiting to be deployed as reef material. Castings come in various shapes and sizes, all of which make perfect homes for crabs, lobsters and fish.







Garden State North Reef

From —

	Distance offshore -	6.5 n.m.	From	Inlet	Inlet	
	Reef area	1.1 sq. mi.	Compass bearing	172 [°]	60 [°]	
	Deptillange	00-05 11.	Distance (n.m.)	7.7	14.4	
DRIFT FISHING AF Recommend to diving or ancho	Value 200	001.50 FX 1001.00	001.10 ⁰ 47 15 15 15 15 15 15 15 15 15 15 15 15 15	24,00.90 ¹	000 001 39°37 39°37.80 39°37.60' 39°37.60' 39°37.50' 39°37.40' 39°37.30' 39°37.20'	38.00' .90' 80')'
	Shallow		eep	39 [°] 37	.10' N	
Maximum	Shallow					
Reef Profile			Depth C	ontours	4	
50'		Dive at your own risk	65 - 70 - 75 - 2	70 ft 75 ft 80 ft		
65'		0 1/4	1/2			mad.
77'					r	nay.

Nautical Miles

Information not to be used as sole source navigation

Barnegat Little Egg

GARDEN STATE NORTH REEF COORDINATES

ID - YEAR SUNK.		
NAME, STRUCTURE	DGPS	SPONSORS
3-85, Shirley Ann,	3937.399	
80' Deck Barge	7401.668	
8-86, A.H. Dumont,	3937.727	Spentonbush Red Star Co., The
247' Tanker	7401.079	Fisherman Magazine
11-87, Aqua II,	3937.474	Eklof Marine Co., N.J. Marine Trades
110' Water Supply Barge	7401.217	Assoc., The Fisherman Magazine
12-88, Molasses Barge,	3937.498	Charles Bobowicz
250' Tanker Barge	7401.412	
13-88, Fatuk,	3937.609	U.S. Customs Service, Fish America,
166' Freighter	7401.037	Sportfish Fund
23-90, Mary C,	3937.168	Eklof Marine Co., Fish America, Atl.
240' Tanker Barge	7401.720	Co. Reef Society, Princeton Dive
		Club, Village Harbour Fishing Club,
		Fish Hawks
24-91, Choctaw,	3937.894	Spentonbush Red Star Co., Beach
90' Tug	7401.284	Haven Marlin & Tuna Club, Fish
		America, Atl. Co. Reef Society
50-92, Coleman II,	3937.296	Coleman Construction Co., Fish
60' Deck Barge	7401.214	America, Artificial Reef Assoc.
60-94, Vincent Paul Pessolano,	3937.697	Carbon Service Corp., Pessolano
97' Tug	7401.113	Family
62-95, Weeks 218,	3937.628	Penn Reels Reef, N.J. Army National
108' Barge, 5 Tanks	7401.643	Guard, GDF
66-95, Bear's Reef,	3937.325	Bear Advertising, Inc., N.J. Army
Tank	7401.700	National Guard
72-95, Penn Reels Reef,	3937.500	Penn Reels, N.J. Army National
5 Tanks	7401.812	Guard
74-96, John Dobilas,	3937.564	Friends, McGraw-Hill Foundation
165' Tanker and 5 Tanks	7401.341	
80-97, Jerry,	3937.710	Artificial Reef Association
42' Tug	7400.028	
89-99, Penn Reels Reef,	3937.569	Penn Reels
Reef Balls	7401.600	
91-99, John Killian Memorial Reef,	3937.177	Members of the Manahawkin Elks
Reef Balls	7401.841	
101-99, LBI Scuba Reef,	3937.894	LBI Scuba
Reef Balls	7401.284	
104-00, Edward N. Headley Reef,	3937.840	Tom Headley
Reef Balls	7401.770	



GARDEN STATE NORTH REEF COORDINATES (continued)

OTTATZ

DGPS	SPONSORS
3937.332	New York City Transit Authority
7401.984	
3937.533	New York City Transit Authority
7401.242	
3937.577	Barnegat Fishin' Hole,
7401.217	New York City Transit Authority
3937.902	New York City Transit Authority
7401.781	
3937.801	New York City Transit Authority
7401.572	
3937.807	New York City Transit Authority,
7401.513	Jersey Coast Anglers Assoc.
3937.856	Commissioner's Initiative
7400.986	
	DGPS3937.3327401.9843937.5337401.2423937.5777401.2173937.9027401.7813937.8017401.5723937.8077401.5133937.8567400.986

FACT: Garden State North reef site is home to 15 vessels that total 33,384 cubic yards. Seventy-one percent of the reef material is made up of vessels.



The 15th vessel deployed on the Garden State North Reef. The Helis is a 170' motorized tanker that was named after a beluga whale that came up the Delware River during 2004.

Scup ~ Stenotomus chrysops

Scup are dull silver in color and may have indistinct black bars on the body. They can grow to 18 inches and 4 pounds but are commonly caught around 12

inches and one to two pounds. Scup are also known as porgy and congregate

around wrecks and structure in small schools where they feed at or near the bottom on mussels, barnacles and small crabs.



Nautical Miles



GARDEN STATE SOUTH REEF COORDINATES ID - YEAR SUNK

NAME, STRUCTURE	DGPS	SPONSORS
9-88, The Rhino,	3933.693	Caldwell's Diving Co., Absecon
50' Crew Boat	7406.123	Saltwater Sportsmen
13-89, Miller,	3933.621	Caldwell's Diving Co., Fish America
90' Deck Barge	7406.528	Foundation
25-94, Starcraft,	3933.528	Eklof Marine, Artificial Reef Assoc.,
150' Deck Barge	7406.309	Ocean Wreck Divers, Village Har-
C C		bour Fishing Club
26-94, Holgate 1,	3933.404	Farreny Boat Yard, Beach Haven
65' Commercial Fishing Boat	7406.452	Marlin & Tuna Club, Alliance for a
		Living Ocean
28-95, VHFC,	3933.496	Village Harbour Fishing Club
44' Coast Guard Cutter	7405.991	
30-95, Ocean Wreck Divers I,	3933.426	Ocean Wreck Divers
44' Coast Guard Cutter	7405.973	
34-95, BHMTC,	3933.556	Beach Haven Marlin and Tuna Club,
Tank	7406.431	N.J. Army National Guard
44-99, BHMTC V,	3933.463	Beach Haven Marlin and Tuna Club,
Tank	7407.154	N.J. Army National Guard
51-99, BHMTC VI,	3933.609	Beach Haven Marlin and Tuna Club,
Tank	7407.090	N.J. Army National Guard
58-99, Wittle Wet Wabbit Weef in	3933.661	Res Rats
Memory of William T. Gleason, Tank	7406.501	
64-00 Beach Haven Marlin and Tuna	3933.560	Beach Haven Marlin and Tuna Club
Club Reef, Reef Balls	7406.090	
66-00 Marion and Cliff's Reef,	3933.63	Kleimenhagens, Gablers, Roshellis
Reef Balls	7405.93	and Figleys
68-00, Beach Haven Yacht Club Reef,	3933.398	Beach Haven Yacht Club
Reef Balls	7406.656	
69-00, Morrison's Marina &	3933.475	Morrison's Seafood Inc.
Restaurant Reef, Reef Balls	7406.635	
71-00, BHM&TC Reef,	3933.590	Beach Haven Marlin and Tuna Club
Reef Balls	7406.390	
72-00, Kirkenir's Reef,	3933.590	John H. Kirkenir
Reef Balls	7406.500	
74-00, Materazzi Reef,	3933.55	Village Harbour Fishing Club
Reef Balls	7406.07	
75-00, Miss Dawnie,	3933.660	Walter Herrmann
Reef Balls	7405.835	
76-02, Arnie Becker,	3933.460	Leonard Berman
Reef Balls	7406.160	

GARDEN STATE SOUTH REEF COORDINATES (continued)

ID - YEAR SUNK,	
NAME STDUCTÍDE	

NAME, STRUCTÚRE	DGPS	SPONSORS
77-02. Ronald A. Speck, Sr.,	3933.360	Friends of Ronald Speck
Reef Balls	7406.270	
81-02, Hal the Pal,	3933.460	Amtrak Electric Traction
Reef Balls	7406.900	Department
82-05, Ed Hall,	3933.661	Beach Haven Marlin and Tuna Club
62' Tour Boat	7406.204	
83-05, Bill Da Butch Reef,	3933.755	Wednesday Crew of the Mary M III
Reef Balls	7406.901	and Sam Rascigno
84-05, Fishin' Hole Reef,	3933.713	Barnegat Light Fishin' Hole
Reef Balls	7406.695	
85-05, Michael C. Pluta Reef,	3933.412	Family and Friends
Reef Balls	7406.802	
86-05, Woody's Reef,	3933.407	Friends
Reef Balls	7407.001	
87-05, FRTC South Reef,	3933.396	Forked River Tuna Club
Reef Balls	7407.211	
88-05, Joe Marshall Reef,	3933.564	James Slim, Joseph and Joy
Reef Balls	7407.202	Gemberling

FACT: Garden State South reef site is home to 10 vessels that total 5,779 cubic yards. Forty-seven percent of the reef material is made up of vessels.



The 10th vessel deployed on the Garden State South Reef. The boat, formally known as the Lollipop, is a 62' tour boat.

Cunner ~ *Tautogolabrus adspersus*



Cunner are usually an olive brown color with some blotchy patterning; the area under their mouths fades to white. They can grow up to 15 inches and to a weight just over two pounds. These aggressive fish frequently inhabit

rocky areas in small schools and are crafty bait stealers.





Little Egg Inlet	From-	Absecon Inlet
93 ⁰	Compass bearing	53 [°]
5.05	Distance (n.m.)	12.37

Distance offshore 3.8 n.m.
Reef area 1.5 sq. mi.
Depth range 48-60 ft.





Nautical Miles

Information not to be used as sole source navigation

LITTLE EGG REEF COORDINATES

ID - YEAR SUNK.		
NAME, STRUCTURE	DGPS	SPONSORS
4-96, Absecon Saltwater	3928.732	Absecon Saltwater Sportsmen, N.J.
Sportsmen Memorial Reef, Tank	7410.337	Army National Guard
5-96, Marin's Reef,	3928.708	Shelly Marin, N.J. Army National
Tank	7410.337	Guard
6-96, BHMTC Tank II,	3928.735	Beach Haven Marlin and Tuna Club
Tank	7410.284	
7-96, Kochka's Reef,	3928.838	Village Harbour Fishing Club
Tank	7410.331	
10-96, J. Drew Messler Reef	3928.735	Laurie, J.D. and Michael
Tank	7410.361	
11-96, J. Drew Messler Reef	3928.743	Laurie, J.D. and Michael
Tank	7410.334	
15-97, Jessie C,	3928.501	Caldwell's Diving Company
65' Crew Boat	7411.631	
16-97, BHMTC Tank III,	3928.816	Beach Haven Marlin and Tuna Club,
Tank	7411.545	N.J. Army National Guard
20-97, 5 Bitts,	3928.727	Family
Tank	7411.593	
33-97, Marc R. Stroud Memorial	3928.247	Family and Friends
Reef, 3 Tanks	7410.996	
40-97, BHMTC Tank IV,	3928.444	Beach Haven Marlin and Tuna Club,
Tank	7410.349	N.J. Army National Guard
41-99, Waldorf,	3928.755	Caldwell's Diving Company
110' Deck Barge	7411.287	
42-02, Southwick's Wreck,	3928.546	Berman Family, Buterick
62' Deck Barge	7411.071	Bulkheading
43-02, Nan and Lou Fuller Reef,	3928.20	Lindsay and David Fuller
Concrete Castings	7410.20	
44-02, Welkom Reef,	3928.60	Linda Welkom
Concrete Castings	7410.20	
45-02, Silver Bullet Reef,	3928.20	Scott Graham
Concrete Castings	7410.60	
46-02, Donald A. Mower	3928.40	Friends and Family
Memorial Reef,	7410.60	
Concrete Castings		
47-02, Stefanie B. Reef,	3928.60	Denis Boyle, Family and Friends
Concrete Castings	7410.60	
48-02, James "Big Jim" Ryan Reef,	3928.80	Wife, Family and Friends
Concrete Castings	7410.80	



LITTLE EGG REEF COORDINATES (continued)

ID - YEAR SUNK.		
NAME, STRUCTURE	DGPS	SPONSORS
49-02, Sargent's Reef,	3928.70	Kenneth D. Barnett
Concrete Castings	7411.20	
50-02, Tommy Russinelli Reef,	3928.70	Manahawkin Elks Fishing Club,
Concrete Castings	7411.40	Zajac and Nichnewitz Families
51-02, Commodore's Reef,	3928.70	Beach Haven Marlin and Tuna Club
Concrete Castings	7411.80	
52-03, Carole's Reef,	3928.87	Carole M. Hoffman
Reef Balls	7411.82	
53-03, TheBassBarn.com Reef,	3928.45	TheBassBarn.com
Reef Balls	7411.80	
54-03, Beach Haven Moose Reef,	3928.17	Beach Haven Moose Lodge 1575
Reef Balls	7411.81	_
55-03, Nicole Hiller Reef,	3928.18	Beach Haven Marlin and Tuna Club
Reef Balls	7411.60	
56-03, Tom Russinelli Reef II,	3928.50	Manahawkin Elks Fishing Club
Reef Balls	7411.39	_
57-03, Anna B. Crann Reef,	3928.18	Daniel F. Crann
Reef Balls	7411.41	
58-03, Bill Messler Reef,	3928.18	Family
Reef Balls	7411.20	
59-03, Kids Fishin' Hole,	3928.51	Chase Rivera, Shane Rivera,
Reef Balls	7410.78	Marley Hoffman
60-03, Kayleigh's Reef,	3928.28	Joseph F. Duffy
Reef Balls	7410.79	
61-03, Marlin and Tuna Reef,	3928.18	Beach Haven Marlin and Tuna Club
Reef Balls	7410.37	
62-03, Lucille Kirkenir Reef,	3928.40	John H. Kirkenir
Reef Balls	7410.14	
63-03, Debra Herrick Reef,	3928.86	Beach Haven Marlin and Tuna Club
Reef Balls	7410.15	
64-05, Patrick F. Madison Reef,	3928.911	Family, Friends and Mar-Vel
Reef Balls	7411.401	International
65-05, Charles A. Blumenfeld Reef,	3928.900	Alan, Helene, Hana and Joey
Reef Balls	7411.206	Blumenfeld
66-05, Jersey Fresh Reef,	3928.906	Jersey Fresh Seafood Festival
Reef Balls	7411.008	
67-05, Kurt Horensky Reef,	3928.101	Beach Haven Marlin and Tuna Club
Reef Balls	7411.299	
68-05, John V. Slowe Reef,	3928.908	Carrie Zipf Slowe
Reef Balls	7410.801	

Continued on next page



LITTLE EGG REEF COORDINATES (continued)

VEAD SUNK

ID - I LAN SUNN,		
NAME, STRUCTÚRE	DGPS	SPONSORS
69-05, Ballinger-Liss Reef,	3928.902	Linda Foster
Reef Balls	7410.500	
70-05, M.T. Foster's Reef,	3928.100	Beach Haven Marlin and Tuna Club
Reef Balls	7410.500	Reef
71-05, Shawn Dilkes Reef,	3928.101	Family and Friends
Reef Balls	7410.800	
72-05, Thomas Mankowski Reef,	3928.099	TheBassBarn.com
Reef Balls	7411.010	
73-05, Bass Barn Reef,	3928.102	Ballinger and Liss Families
Reef Balls	7411.697	

FACT: Little Egg reef site is one of the shallowest artificial reefs in New Jersey. The water depth on this reef ranges from 50 to 59 feet. Since the maximum clearance is 50 feet, all reef material must have a vertical profile of 9 feet or less.



A barge load of demolition concrete. One barge load can contain 500 to over 5,000 tons of material.

Gray Tiggerfish ~ Balistes capriscus



The gray triggerfish is olive gray color, has rough plate-like scales and blotchy fins. The area on the dorsal surface has dark striations and the first dorsal fin has prominent spines. Gray triggerfish grow to one foot in length and aver-

age between one and three pounds. They feed on barnacles, shrimp, clams and mussels with their strong jaws and incisor-like teeth.



ATLANTIC CITY REEF COORDINATES

ID - YEAR SUNK.		
NAME, STRUCTURE	DGPS	SPONSORS
2-85, Pauline Marie,	3913.763	Seacoast Products, Inc.,
165' Freighter	7412.182	The Fisherman Magazine
3-85, The American,	3913.855	Cold Springs Dock
125' Schooner	7412.332	
4-85, First Lady,	3913.703	M & P Boat Inc.
93' Clam Dredge	7412.486	
6-85, Morania Abaco,	3914.133	Morania Oil Company, Army
265' Tanker	7412.154	Reserve, Navy EOD
7-86, Francis S. Bushy,	3914.203	Spentonbush Red Star Company
247' Tanker	7412.148	
8-89, Nils S.,	3913.610	Gifford Marine Ent., Ocean City
122' Clam Dredge	7413.045	Marlin & Tuna Club, Fish America
		Foundation
9-89, A.C. Wescoat,	3915.540	A.C. Wescoat Co., Atlantic County
60' Deck Barge	7414.691	Party & Charter Boat Assoc., Fish
		America Foundation
10-89, Vicki-Pat,	3915.255	Vicki-Pat, Inc.
64' Clam Dredge	7414.818	
11-90, Troy,	3915.290	Joe Williams, Ocean City Marlin &
90' Tug	7414.061	Tuna Club, Atlantic County Party &
		Charter Boat Association
12-90, Point Pub,	3915.449	Atlantic County Reef Society, Fish
110' Tug	7414.173	America, 1000 Fathom Club
13-90, Margaret Nancy,	3915.117	Atlantic County Reef Society, Fish
75' Clam Dredge	7413.898	America, Crestwood Village Fishing
		Club, and Bob Keller
18-91, Ada Adelia,	3915.539	Adelia, Inc., Captain Andy Applegate
65' Clam Dredge	7413.893	
19-91, Spaghetti Pile,	3914.146	U.S. Navy, AT&T Longlines
Cable	7413.105	
21-92, Beach Haven,	3915.340	Gifford Marine Co., Fish America
125' Clam Dredge	7414.017	Foundation, Artificial Reef Assoc.
23-94, Boston,	3915.444	Atlantic County, Trump Casino,
128' Lightship	7414.004	Artificial Reef Assoc., Atlantic City
		Seafood Festival, Atlantic Co. Party
		& Charter Boat Assoc.
25-94, Blue Crown,	3914.138	Coors Brewing Co., U.S. Army, U.S.
205' Freighter	7412.357	Customs Svc., Sportfish Fund, ARA
27-95, Big Mama,	3913.961	Hays Tug & Launch, Jersey Fresh
103' Tug	7412.926	Seafood Festival and GDF
		Continued on next page





ATLANTIC CITY REEF COORDINATES (continued)

NAME, STRUCTÚRE	DGPS	SPONSORS
38-95, JR's Tank,	3916.065	PECO Energy, Peach Bottom Dive
Tank	7415.363	Team
40-95, N.J. State Aquarium,	3915.927	N.J. State Aquarium
Tank	7415.363	
41-99, Phil Weintraub Memorial,	3916.443	Family and Friends,
<u>3 Tanks</u>	7415.361	N.J. Army National Guard
47-99, Joseph J. Palladino Reef,	3915.723	Friends and Family
<u>6 Tanks</u>	7415.336	
73-01, Applejack Reef,	3916.23	Captain Andy Applegate
Concrete Castings	7414.75	
84-03, RFA Redbird Reef,	3915.78	Dedicated to Recreational Fishing
Subway Cars	7414.47	Alliance
94-03, Redbird Reef,	3915.30	New York City Transit Authority
Subway Cars	7414.35	
111-03, Redbird Reef,	3915.01	New York City Transit Authority
Subway Cars	7413.35	
115-03, Redbird Reef,	3914.56	New York City Transit Authority
Subway Cars	7413.03	
132-03, Redbird Reef,	3913.52	New York City Transit Authority
Subway Cars	7412.70	
133-03, Jersey Fresh Reef,	3916.19	New Jersey Fresh Seafood Festival
Reef Balls	7415.79	
134-03, Gus Picone Reef,	3915.58	Friends of Gus
Reef Balls	7415.12	
135- Gus Picone Reef II,	3913.61	Friends of Gus
Reef Balls	7412.72	
138-05, Captain Applegate,	3913.85	Cleanwater of New York
170' Tanker	7412.51	
139-08, Stainless Steel Subway,	3915.550	New York City Transit Authority
Subway Cars	7441.475	
154-08, Stainless Steel Subway,	3915.341	New York City Transit Authority
Subway Cars	7414.567	
167-08, Stainless Steel Subway,	3914.053	New York City Transit Authority
Subway Cars	7412.732	



Captain Applegate, a 170' tanker barge, is the only boat of its kind on the AC Reef.

FACT: Atlantic City reef site is home to 17 vessels. Seventy-five percent, or 48,929 cubic yards, of the reef material is made up of vessels.



Great Egg Reef DGPS

Distance offshore -----7.0 n.m. Reef area ------ 1.0 sq. mi. Depth range ------ 47-70 ft.

From —	Great Egg Inlet	Absecon Inlet	Corson's Inlet	
Compass bearing	110 °	165 [°]	82 [°]	
Distance (n.m.)	9.2	8.0	13.4	

Drift Fishing Reef





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Dive at your own risk





GREAT EGG REEF COORDINATES

Π	D	-	YE	AR	. Sl	JN	К,	
	T A						- T	

NAME, STRUCTURE	DGPS	SPONSORS
8-96, 1000 Fathom Reef,	3914.818	1000 Fathom Club,
Tank	7421.488	N.J. Army National Guard
9-96, OCMTC I,	3914.903	Ocean City Marlin and Tuna Club,
Tank	7421.449	N.J. Army National Guard
10-96, OCMTC II,	3914.877	Ocean City Marlin and Tuna Club,
Tank	7421.343	N.J. Army National Guard
11-96, OCMTC III,	3914.852	Ocean City Marlin and Tuna Club,
Tank	7421.296	N.J. Army National Guard
12-96, OCMTC IV,	3914.812	Ocean City Marlin and Tuna Club,
Tank	7421.249	N.J. Army National Guard
13-96, OCMTC V,	3914.738	Ocean City Marlin and Tuna Club,
Tank	7421.380	N.J. Army National Guard
14-96, Jersey Fresh I,	3914.737	Jersey Fresh Seafood Festival,
5 Tanks	7421.465	N.J. Army National Guard
31-97, Atlantic County Sportsmen's	3914.481	Atlantic County Federation of
Reef, 5 Tanks	7421.339	Sportsmen's Club
38-97, Bud Evans Reef,	3914.583	Ocean City Marlin and Tuna Club
Tanks	7421.821	
45-98, Rothenbach Reef II,	3914.498	Rothenbach Family,
165' Tanker Barge	7421.483	U.S. Navy
46-01, Bill Harvey Reef,	3914.82	William and Shirley Harvey
Concrete Castings	7421.75	
47-03, Bill Quenzer Fathead Reef,	3914.12	Bill's Fishing Buddies -
Concrete Castings	7421.10	The Fatheads
48-03, Fisherman's Reef,	3914.36	Atlantic County Fisherman's
Concrete Castings	7421.21	Association
52-04, Frank Burt Smoot Conserva-	3914.144	Friends
tion Reef, Reef Balls	7421.840	
54-04, Jim Ivins Reef,	3914.406	Friends
Reef Balls	7421.898	
55-04, Marlin and Tuna Club Reef,	3914.573	Ocean City Marlin and Tuna Club
Reef Balls	7421.592	
56-04, Michael Capizola Reef,	3914.878	Family
Reef Balls	7421.893	
57-04, Fisherman's Reef II,	3914.907	Atlantic County Fisherman's
Reef Balls	7421.584	Association
58-04, Robert Almeda Reef,	3914.897	Friends and Family
Reef Balls	7421.068	
59-04, THEBASSBARN.COM Reef	3914.602	THEBASSBARN.COM
V, Reef Balls	7421.294	

GREAT EGG REEF COORDINATES (continued)				
ID - YEAR SUNK,				
NAME, STRUCTÚRE	DGPS	SPONSORS		
60-04, Jerry "Togman" Slemmer Reef,	3914.493	Carol and Suzanne Slemmer, Family		
Reef Balls	7421.102	and Friends		
61-04, Bruce Alan Ballinger Reef,	3914.196	Friends and Family		
Reef Balls	7421.310			

FACT: Great Egg reef site is home to only one vessel. The Rothenbach II is a 165' tanker barge.



A load of reef balls on a deck barge awaiting deployment.

Black Sea Bass ~ Centropristis Striata



Black sea bass are a very common fish around New Jersey's artificial reefs due to their tendency to flock to structure. These fish congregate around wrecks and rocky substrate. They are easily identifiable due to their striking deep blueish-

black or brown coloration, sharp dorsal spines and round caudal fin, which in older fish may extend at the top to a thin strand. During the spawning season males may take on a striking bluegreen hump in front of the dorsal fin. Black sea bass 8 inches to 15 inches are commonly caught and rarely grow to a maximum of 24 inches. Black sea bass are commonly caught with a 2-hook top and bottom rig that can be baited with almost any type of bait year round.







OCEAN CITY REEF COORDINATES

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ID - I LAK SUNK, NAME STDUCTUDE	DCDS	CDONCODC
NAME, SIRUCIURE	DGP5	SPUNSURS
20-94, Katny,	3910./19	Rita Santman, Ocean City Mariin
65 Deck Barge	/433.239	and Tuna Club, Cape May Party and
	2010 014	Charter Boat Assoc.
21-94, Maria,	3910.814	Rita Santman, Ocean City Marlin
65' Deck Barge	7433.044	and Iuna Club, Cape May Party and
	2010 2 (0	Charter Boat Assoc.
27-95, Nash's Reef,	3910.260	Carol Nash
	7433.879	
32-97, L1bra,	3910.801	Hay's Tug and Launch
<u>195' Hopper Barge</u>	7432.741	
34-97, Klus Mermaid Reef,	3909.710	Family
<u>3 Tanks</u>	7434.343	
46-97, Joseph J. Palladino Redhook	3910.402	Friends and Family
Reef, 3 Tanks	7433.397	
52-97, Fred Eckardt Reef,	3910.750	Ocean City Marlin and Tuna Club
Tank	7432.874	
60-01, Jack Clements Reef,	3910.70	Strathmere Fishing and
Concrete Castings	7433.20	Environmental Club
66-02, PECO Energy Reef,	3910.34	PECO Energy Company
Concrete	7433.47	
68-02, Irv Hurd Reef,	3910.24	Gwyn Hurd
Concrete	7433.56	
75-03, Shawn's Lobster House,	3909.61	The McDaniel Family
Concrete Castings	7434.58	
77-03, Jack Clements Reef,	3910.61	Strathmere Fishing and
Concrete Castings	7433.41	Environmental Club
80-04, Jack Clements Reef,	3910.420	Strathmere Fishing and
Reef Balls	7433.792	Environmental Club
81-04 GEHMTC Reef,	3910.903	Great Egg Harbor Marlin and Tuna
Reef Balls	7432.995	Club
83-05, Shamrock Towing Reef,	3909.935	TowBoat US, Shamrock Towing, John
48' Deck Barge	7433.940	Ryan
85-06, AC Westcoat Reef,	3909.819	AC Westcoat
60' Deck Barge	7434.310	
88-07, Smoot Reef,	3910.032	The Brotherhood of the Jungle Cock
100' Deck Barge	7434.008	Fishing Club & Ann E. Clark
6		Foundation

FACT: Ocean City reef site contains 22,895 cubic yards of reef material. Forty-one percent, or 9,680 cubic yards, of the material is concrete.



Townsends Inlet Reef GPS

From	Corson's Inlet	Townsends Inlet	Hereford Inlet
Compass bearing	182 ⁰	110 ⁰	66 ⁰
Distance (n.m.)	5.73	3.8	9.31

Distance offshore ------ 3.8 n.m. Reef area ----- 0.52 sq. mi. Depth range----- 45-70 ft.



Depth Contours

45 - 50 ft 50 - 55 ft

55 - 60 ft

60 - 65 ft

Dive at your own risk

Nautical Miles

0

Recommend



l ag

Information not to be used as sole source navigation

TOWNSENDS INLET REEF COORDINATES

ID - YEAR SUNK.		
NAME, STRUCTURE	DGPS	SPONSORS
1-05, Bay Jack,	3906.461	Acting Governor Cody's Coastal
60' Tug	7436.025	Initiative
2-05, Donna's Star,	3906.36	Friends,
82' Commercial Fishing Boat	7436.30	Atlantic Cape Fisheries
3-06, Margie Starns,	3906.306	Townsends Inlet Fluke Tournament,
<u>31' Crew Boat</u>	7436.109	Budget Towing
4-06, Charles "Chuck" Holland Reef,	3906.300	Friends & Family
Concrete Castings	7437.000	
5-06, John Knowles Memorial Reef,	3906.400	Family & Friends
Concrete Castings	7437.000	
6-06, Joe Murray Sr. Reef,	3906.500	Family & Friends
Concrete Castings	7437.000	
7-06, theBassBarn.Com Reef,	3906.600	thebassbarn.com
Concrete Castings	7437.000	
8-06, Dr. James F. Bonner Reef,	3906.600	William Sheridan
Concrete Castings	7436.900	
9-06, Michael J. Venezia Memorial	3906.500	Family, Friends and Co-workers
Reef, Concrete Castings	7436.900	
10-06, Michael J. Venezia Memorial	3906.400	Family, Friends and Co-workers
Reef, Concrete Castings	7436.900	
11-06, Michael J. Venezia Memorial	3906.300	Family, Friends and Co-workers
Reef, Concrete Castings	7436.900	
12-06, TheBassBarn.Com Reef,	3906.300	thebassbarn.com
Reef Balls	7437.100	
13-06, TheBassBarn.Com Reef,	3906.400	thebassbarn.com
Reef Balls	7437.100	
14-06, George Buckman III Reef,	3906.500	Family & Friends
Reef Balls	7437.100	
15-06, Strathmere Fishing and	3906.600	Strathmere Fishing and
Environmental Club Reef,	7437.100	Environmental Club
Reef Balls		
16-06, Knight's Reef,	3906.300	Avalon Hodge Podge and Patrons
Reef Balls	7437.200	
17-06, Michael J. Venezia Memorial	3906.400	Family, Friends and Co-workers
Reef, Concrete Castings	7437.200	
18-06, Michael J. Venezia Memorial	3906.500	Family, Friends and Co-workers
Reef, Concrete Castings	7437.200	
19-06, Fred Snyder Memorial Reef,	3906.600	Friends and Co-workers
Reef Balls	7437.200	

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ID - YEAR SUNK,		
NAME, STRUCTÚRE	DGPS	SPONSORS
20-07, TI Fluke 06,	3906.476	2006 Townsends Inlet Fluke Tourn.,
77' Commercial Fishing Boat	7436.471	Ann E. Clark Foundation
21-07, TI Fluke 07,	3906.605	2007 Townsends Inlet Fluke Tourn.,
77' Commercial Fishing Boat	7436.177	Ann E. Clark Foundation

FACT: Townsends Inlet reef site is the newest addition to the New Jersey artificial reef network. Since 2005, 8,406 cubic yards of reef material have been placed on the reef.



The 5th vessel deployed on the Townsends Inlet Reef, a 77-foot commercial fishing boat.



Rock Crab ~ Cancer irroratus Rock crab is a local species that grows to 5.25 inches across the shell. They are

dull yellow in color with small brown or deep purple spots on its back. These crabs prefer a sandy bottom and feed on worms and bivalves.

Summer Flounder ~ *Paralichthys dentatus*



Summer flounder are mottled brown with dark spots on the upper surface; five spots are consistent on all fish. Two spots are under the dorsal fin which are almost directly opposite two that are directly above the anal fin with one in between both pairs along the lateral line. As suggested by their name these fish are typically found in New Jersey waters only during the warm water months. These bottom dwellers can grow to 37 inches and around 26 pounds. Fish just off the bottom with moving bait such as squid strips or live killifish or silversides that will entice these ambush predators to strike.



Deepwater Reef

From	Little Egg	Absecon Inlet	Great Egg	Townsends Inlet	Hereford Inlet	Cape May Inlet
Compass bearing	183 ⁰	168 [°]	153 [°]	122 [°]	103 [°]	99 [°]
Distance (n.m.)	28.3	25.0	23.6	24.4	27.4	31.5





ID

DEEPWATER REEF COORDINATES

ID - I LAK SUNK,		
NAME, STRUCTURE	DGPS	SPONSORS
4-02, thebassbarn.com,	3858.688	thebassbarn.com, Ann E. Clark Foun-
224' Tanker Barge	7411.410	dation, PSE&G Habitat Restoration
		Fund, K-Sea Transportation
5-02, Capt. Walt Hendee,	3858.385	Cape May Party & Charter Boat
244' Tanker	7411.429	Assoc., Ann E. Clark Foundation,
		PSE&G Habitat Restoration Fund,
		Reinaur Transportation Co.
7-03, Redbird Reef I,	3858.56	New York City Transit Authority
Subway Cars	7410.65	
16-03, Redbird Reef VII,	3858.93	New York City Transit Authority
Subway Cars	7411.24	
26-03, Redbird Reef VIII,	3858.34	New York City Transit Authority
Subway Cars	7410.63	
36-03, Redbird Reef IX,	3858.20	New York City Transit Authority
Subway Cars	7411.05	
46-03, Redbird Reef X,	3858.14	New York City Transit Authority
Subway Cars	7410.71	
57-03, Ann E. Clark,	3858.004	Ann E. Clark Foundation, PSE&G
120' Tug	7410.721	Habitat Restoration Fund
58-03, The Diver's Abyss,	3857.984	Abyss Dive Club, Cape May Party &
104' Tug	7410.771	Charter Boat Assoc., PSE&G Habitat
		Restoration Fund



FACT: Deepwater reef site is located 23 n.m. offshore, the furthest offshore of all the reefs.

Carbon steel subway cars, moments away from becoming an artificial reef. Carbon steel cars are also known as the Redbird Cars.





WILDWOOD REEF COORDINATES

ID -	YEAR SUNK,

NAME, STRUCTÚRE	DGPS	SPONSORS
3-95, Reinhart's Reef,	3857.664	Richard Reinhart, N.J. Army National
Tank	7441.364	Guard
11-95, Philip A. Cameron, Jr. Reef,	3857.791	Cameron Family
Tank	7441.384	-
12-96, Michael DePalma Reef I,	3856.970	Creedon Tug & Barge Works, Friends
70' Deck Barge	7441.337	of Michael DePalma, Cape May
C		Party & Charter Boat Assoc.
32-96, Michael DePalma Reef II,	3857.489	Friends of Michael DePalma, N.J.
5 Tanks	7441.731	Army National Guard
45-02, Rotary Club of Blackwood	3856.78	Blackwood Rotary Club
Reef, Reef Balls	7441.30	-
46-02, John A. Laboy Reef,	3856.78	Family and Friends
Reef Balls	7441.48	-
47-02, Ursinus College Reef,	3857.69	Ursinus College Dive Team
Reef Balls	7441.92	C
48-02, Captain's Reef,	3857.69	Cape May Party and Charter Boat
Reef Balls	7442.08	Association
49-02, Homeport Reef,	3857.10	The Shudas
Reef Balls	7441.60	
50-02, Mullin Reef,	3857.15	Karen Pappler
Reef Balls	7441.78	
51-02, Pappler Reef,	3857.05	Karen Pappler
Reef Balls	7441.78	
52-03, Bass Barn II Reef,	3857.425	thebassbarn,com
Concrete Castings	7440.513	
53-03, Charles Boehm Middle School	3857.475	Charles Boehm Middle School
Reef, Concrete Castings	7440.500	
54-03, Party Reef,	3858.121	Cape May Party and Charter Boat
Concrete Castings	7440.502	Association
56-03, John D. Fergone Reef,	3858.502	Family and Friends
Concrete Castings	7440.905	
58-04, Capt. Ray Vandergrift Wreck,	3857.414	Family and Friends,
85' Commercial Fishing Boat	7441.500	Ann E. Clark Foundation
59-04, Fallen Friends Wreck,	3857.71	thebassbarn.com, Deep Foundations
40' Deck Barge	7440.99	Co.
60-05, The Bass Barn-Maelstrom,	3857.412	thebassbarn.com and Atlantic Cape
71' Commercial Fishing Boat	7441.346	Fisheries
61-05, Pair of Kings,	3858.03	thebassbarn.com and Ann E. Clark
132' Tanker Barge	7441.07	Foundation





CAPE MAY REEF COORDINATES

ID -	YEAR SUNK,

NAME, STRUCTURE	DGPS	SPONSORS
3-86, Laita,	3850.680	Eirek's Dock, The Fisherman
106' Clam Dredge	7442.965	Magazine
6-87, Peggy Diana,	3850.830	949th Army Transportation Corps
56' Landing Craft	7442.510	
7-88, Ben Franklin Bridge,	3853.230	Delaware River Port Authority
4700 Concrete Slabs	7440.252	
36-89, Winthrop,	3850.825	Eirek's Dock, Fish America
120' Trawler	7442.312	Foundation
55-90, Captain Henry,	3851.200	Bureau of Coastal Engineering, Cape
56' Landing Craft	7442.280	May Party & Charter Boat Assoc.,
		Fish America Foundation
56-90, Lisa Michelle,	3853.505	McNeil's Marina, Fish America
110' Deck Barge	7440.075	Foundation, Cape May Party &
		Charter Boat Association
67-91, Becky Lee,	3853.110	Atlantic Cape Fisheries, Cape May
85' Clam Dredge	7441.030	Party & Charter Boat Association
76-91, Wyoming,	3852.976	Wyoming Boat Corp., Cape May
100, Clam Dredge	7440.620	Party & Charter Boat Association,
_		Fish America Foundation
81-92, Sea Transporter,	3853.118	Atlantic Cape Fisheries, Cape May
135' Clam Dredge	7440.190	Party & Charter Boat Association,
		Artificial Reef Association
83-93, Salt Barge,	3850.959	U.S. Navy, Cape May Party &
150' Deck Barge & 228 Tire Units	7442.385	Charter Boat Association, Artificial
		Reef Assoc., N.J. Dive Council,
		Carbon Service
84-93, Onandaga,	3853.770	Carbon Service, Philadelphia Navy
205' Tanker	7439.975	Yard, Sportfish Fund, Artificial Reef
		Association, Cape May Party &
		Charter Boat Association
86-93, Celia Brown,	3852.950	Sportfish Fund, Artificial Reef
85' Tug	7440.200	Association, Cape May Party &
		Charter Boat Association
87-93, Cape Strait,	3851.060	U.S. Coast Guard,
95' Coast Guard Cutter	7442.125	N.J. State Police
91-97, Rothenbach Reef I,	3853.368	Rothenbach Family, Cape May Party
165' Tanker Barge	7439.800	& Charter Boat Association
96-98, George B. Shuda Reef,	3851.893	Family and Friends,
Tank	7442.024	N.J. Army National Guard

CAPE MAY REEF COORDINATES (continued)

ID - YEAR SUNK,

NAME, STRUCTURE	DGPS	SPONSORS
99-98, Roy C. Titus Memorial Reef, 2	3851.888	Family and Friends
Tanks	7442.013	2
127-99, Red Oak,	3853.125	South Jersey Fishing Center, U.S.
157' Buoy Tender	7440.816	Coast Guard
128-00, Point Swift,	3853.62	Cape May Party and Charter Boat
83' Coast Guard Cutter	7440.60	Association
129-01, Dr. Tom's Reef,	3852.81	Natoli Family
120' Coast Guard Cutter	7440.59	-
130-02, Dr Tom's Reef,	3852.80	Family and Friends
Reef Balls	7440.52	
131-02, Archie Faulkner Sr. Reef,	3852.78	Pauline Faulkner and Family
Reef Balls	7440.70	
132-02, Prowler Reef,	3852.77	Nontas Kontes
Reef Balls	7440.90	
133-02, John "Wild Bill" Beatty Reef,	3852.75	Robert Beatty, Family and Friends
Reef Balls	7441.08	
134-02, Lorraine Messner Reef,	3852.57	James Messner, Jr.
Reef Balls	7440.50	
135-02, Capt. James Albright Reef,	3852.55	Don and Marge Albright
Reef Balls	7440.66	
136-02, Hillman's Reef,	3852.38	H.M. Hilman Brass Co.
Reef Balls	7440.90	
137-02, Bruce H. Brong Reef,	3852.40	Family and Friends
Concrete Castings	7441.08	
139-03, Redbird Reef I,	3853.56	New York City Transit Authority
Subway Cars	7440.27	
146-03, Redbird Reef II,	3853.20	New York City Transit Authority
Subway Cars	7439.89	
156-03, Redbird Reef III,	3851.32	New York City Transit Authority
Subway Cars	7441.51	
165-03, Redbird Reef IV,	3851.02	New York City Transit Authority
Subway Cars	7441.82	
179-09, Redbird Reef V,	3850.65	New York City Transit Authority
Subway Cars	7441.84	
186-04, Allan R.,	3851.475	Ann E. Clark Foundation
<u>110' Tug</u>	7442.029	
187-04, Guido's Tug	3851.456	South Jersey Fishing Center
<u>110' Tug</u>	7442.016	
188-05, Elizabeth,	3850.682	Commissioner's Coastal Initiative
194' Ferry	7443.080	





CAPE MAY REEF COORDINATES (continued)

ID - YEAK SUNK,		
NAME, STRUCTÚRE	DGPS	SPONSORS
190-08, Miss Beth,	3853.237	Atlantic Cape Fisheries
80' Trawler	7440.545	
191-08, Stainless Steel Subway,	3853.648	New York City Transit Authority
15 Subway Cars	7440.368	
206-08, Stainless Steel Subway,	3851.436	New York City Transit Authority
13 Subway Cars	7442.418	
206-08, Stainless Steel Subway,	3850.557	New York City Transit Authority
23 Subway Cars	7442.167	
206-08, Stainless Steel Subway,	3850.647	New York City Transit Authority
21 Subway Cars	7442.598	
219-08, Stainless Steel Subway,	3850.607	New York City Transit Authority
23 Subway Cars	7442.177	
242-08, Stainless Steel Subway,	3850.648	New York City Transit Authority
21 Subway Cars	7442.500	

FACT: Cape May Reef encompasses an area of 4.5 square miles and is the largest reef site in the New Jersey artificial reef network.



The Miss Beth, an 80' commercial fishing boat was the 22nd boat to be sunk on the Cape May Reef site.

Tautog ~ Tautoga onitis



Tautog is a stout, heavy fish with thick rubbery lips, strong jaws and hardy teeth used to crush muscles, barnacles, small crabs and other bottom crustaceans. They have an average weight of one to three pounds with a maximum length

of three feet. Tautogs are dark gray to olive brown and have a speckled or blotched color pattern that extends into their spiny dorsal fin. They can be tricky to catch due to their tendency to dart back into the wreck or other structure after taking the bait. A bottom rig baited with clam, sand fleas or green crabs is often used to catch tautog.





Del-Jerseyland Offshore DGPS

Distance offshore 66.16 n.m.
Reef area 1.55 sq. mi.
Depth range 183.192 ft.

From —	Townsends Inlet	Hereford Inlet	Cape May Inlet
Compass bearing	143 [°]	135 [°]	128 [°]
Distance (n.m.)	60.8	60.7	62.1







Information not to be used as sole source navigation



Artificial Reef Etiquette

- Be courteous. On the reefs, it's first come, first served. Give anchored boats a wide berth.
- Watch for divers. Stay away from boats displaying a "diver down" flag (see back cover).
- Release alive all fish and shellfish you are not planning to eat.
- Don't be a fish hog. Limit your catch to a reasonable number of fish. Save some for the next trip.
- Observe all State and Federal fishing regulations.
- Do not litter. Do not throw any trash overboard. Plastic bags and fishing line kill fish, turtles and birds.
- Do not tamper with commercial fishing gear.



A side-scan sonar image of New Jersey's largest artificial reef, the Algol. The Algol is a 460' Attack Cargo Transport that was sunk on the Shark River Reef site in 1991.

Use Caution When Diving

- Complete all of the dive courses and obtain all of the certifications necessary for your level of diving.
- Divers should proceed with caution when exploring artificial reef structures:
 - * shipwrecks may contain surfaces of sharp, jagged metal
 - * recently deployed reef structures may be unstable, resulting in shifting and falling materials
 - * fishing lines, hooks and net lines fouled in reef structures may snare diving equipment
- Divers should not penetrate into the hulls of shipwrecks; the water inside may be dark and murky.
- Divers should discontinue dives when visibility is poor or there is a strong storm surge, since these conditions magnify the chances of an accident.
- Due to the intensity of boat traffic on artificial reef sites, all diving should be done from an anchored vessel.
- Divers are advised not to dive in "drift fishing areas" on artificial reefs, due to the presence of moving fishing boats and fishing gear.
- Display a "diver down" flag when divers are in the water.
- Follow all appropriate diving safety protocol.
- Dive at your own risk.

For More Information About the Reef Program

Write: Reef Program NJ Division of Fish and Wildlife Nacote Creek Research Station P.O. Box 418 Port Republic, NJ 08241 Phone: (609) 748-2020 FAX: (609) 748-2032

BE SURE TO CHECK OUR WEBSITE OFTEN FOR OUR LATEST REEF BUILDING ACTIVITIES www.njfishandwildlife.com/artreef.htm

IMPORTANT PHONE NUMBERS

DEPARTMENT OF ENVIRONMENTAL PROTECTION

New Jersey Marine Law Enforcement: (609) 748-2050 DEP Action Line (24 hours): (877) 927-6377 Operation Game Thief: (800) 222-0456 Marine Fisheries: (609) 748-2020

NEW JERSEY MARINE POLICE

Monmouth Station: (732) 842-5171 Point Pleasant Beach: (732) 899-5050 Ocean Station: (609) 296-5807 Atlantic City Station: (609) 441-3586 North Wildwood Station: (609) 522-0393

U.S. COAST GUARD

Station Sandy Hook: (732) 872-0326 Station Manasquan: (732) 899-0131 Station Barnegat Light: (609) 494-2661 Station Atlantic City: (609) 344-6594 Station Cape May: (609) 898-6995



NOTES



BOATERS! DO YOU KNOW THESE FLAGS?





Diver Down

The federal government now requires the "A" flag to be displayed from all boats conducting diving operations.

New Jersey state law requires boats to stay at least 50 feet from this flag if displayed from a buoy, boat or float.

ALWAYS PROCEED WITH CAUTION IF ANYWHERE NEAR "DIVER DOWN" FLAGS. WATCH FOR BUBBLES!!!

This guide was prepared by:



New Jersey Department of Environmental Protection



New Jersey Division of Fish and Wildlife

Division of Fish and Wildlife