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RECREATIONAL SHRIMPING IN NORTH CAROLINA WITH COMMERCIAL GEAR

For generations, tourists and North Carolina residents have harvested shrimp along the state's coast. Before 1994, recreational shrimpers had to purchase a commercial fishing license, allowing them to use shrimp-trawl gear from a boat.

In 1994, the North Carolina Division of Marine Fisheries (DMF) issued a moratorium on commercial fishing licenses. Only recreational and commercial shrimpers with a commercial license were allowed to renew their licenses.

To restore recreational shrimping in coastal waters, the DMF established a new "recreational gear license" that became effective July 1, 1999. The annual license allows recreational shrimpers to use limited amounts of commercial gear to harvest seafood for their personal consumption.

Seafood harvested under this license cannot be sold. Shrimpers using this license will be held to specified recreational size and possession limits. Unlicensed individuals can assist in fishing, but at least one person must have a recreational fishing license if any of the specified gears are used. While on a boat, the recreational possession limits of fish, crab and shellfish allowed is equal to the number of license holders onboard. The license, which cost \$35 for state residents and \$250 for nonresidents, cannot be transferred or assigned.

For more information about the recreational commercial gear license, restrictions and approved shrimping areas, call the DMF in Morehead City 800/682-2632 or visit the Web site: www.ncfisheries.net/license/.

Shrimp Trawl

The inland and near coastal waters of North Carolina produce three different types of shrimp: "brown" or summer shrimp, "white" shrimp called green tails, and "pink" or spotted shrimp. Brown shrimp are harvested in summer, white shrimp in late summer and fall, and pink shrimp in the fall and winter. All are good to eat!

Brown and pink shrimp usually stay near the

bottom. White shrimp may be found anywhere — from the bottom to throughout the water column — sometimes even jumping out of the water.

To catch these shrimp, recreational shrimpers use many different types of trawl nets, including flat, semi-balloon and balloon. Before selecting your shrimp trawl net, decide where you are going to shrimp. A local commercial shrimper could recommend the right type of net or ask at a trawl supply store.

Figure 1 (page 2) illustrates the typical net configuration for most trawls. The net will have two tows (bridles) from the chains on the doors, extending to the boat forming a "V" and attaching to the stern of your boat so the motor can pull the trawl.

In most inland water, 26-foot trawls and smaller should have a bridle at least 3/8-inch thick and 80 feet long. However, a 5/8-inch rope is easier on your hands when retrieving your net and catch.

When shrimping in very deep water, make your tows at least five times the depth of the deepest water in which you tow. For example, at a water depth of 25 feet, the tows should be at least 25 x 5 tows or 125 feet.

Although a recreational commercial gear license allows you to tow up to a 26-foot shrimp trawl, you may want to use a smaller net.

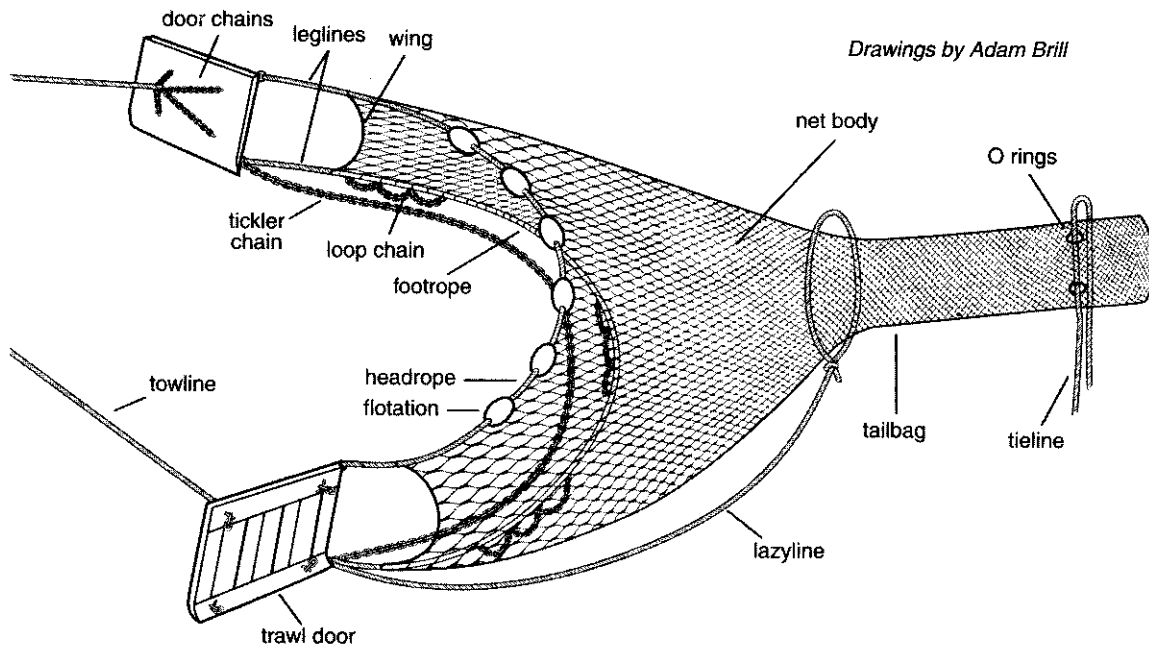


The table on page 3 provides the recommended door sizes

for 16-foot to 26-foot trawl nets. Larger doors also will spread your net more. Smaller doors will spread your net less. Large catches will reduce the net spread.

Door sizes in the table above work well with

small and large catches. All inboard engines and inboard-outboard engines "should have sufficient power" to tow a 26-foot shrimp trawl. Use at least a 75-horsepower outboard engine when towing a 26-foot shrimp trawl with 42 x 20-inch doors. Smaller outboard motors will pull this trawl but require more rpms as your catch increases to maintain a 2.5- to 4-knot average towing speed. On smaller engines, the extra rpms can bind the motor and can cause damage.



Drawings by Adam Brill

Figure 1: Shrimp Trawl

Leglines that connect the net to the doors are extensions of the head and footropes. These lines are usually three to four feet beyond the webbing of the net and should all be the same length for the net to tow properly. (Note: the recreational commercial gear license specifies a maximum headrope length from where the webbing starts and ends on the headrope. If the webbing on the head rope is more than 26 feet, your net is illegal.)

Although the headrope in Figure 1 has six floats, most recreational nets for brown and pink shrimping have only three (5-inch) floats, one in the center and one evenly spaced on each side.

When fishing for white shrimp, additional floats or even empty milk jugs are added to the headrope. This provides more vertical spread, lifting the net up higher, and increases the catch of white shrimp.

Place four to six additional floats evenly along the headrope for white shrimp and simply remove the extra floatation for pink and brown shrimp.

In Figure 1, the footrope for a 26-foot trawl should have three 3-foot chains with a 3/8-inch galvanized chain attached to the footrope. Smaller nets require less chain to hold the net on the bottom.

The trawl doors should have a tickler chain extending from door to door in front of the footrope. Since most shrimp lie on the bottom, the tickler chain forces the shrimp to jump up, allowing you to catch them and preventing your net from hanging on something and getting ripped. To prevent net damage, use a 1/4-inch or larger galvanized chain for the tickler.

The wings and body of the trawl will funnel

shrimp, fish and crabs to the tailbag (bunt or cod end). To prevent damage when the catch is retrieved, the tailbag uses heavier webbing than the wings and body. The tailbag is tied while towing

with a 2-foot piece of rope 8 to 10 inches from the end. Tie two or three slip knots on the end for easier release of your catch.

Although the lazy line is shown in Figure 1, it is rarely used by recreational shrimpers.

Two additional tailbag attachments in Figure 2 are now required by law: a long line with a solid hot pink buoy and a bycatch reduction device (BRD), a metal device with an opening for small fish or bycatch to escape.

The buoy, which must be at least 5 inches x 5 inches, helps other boaters see the end of your trawl and helps shrimpers retrieve gear if it gets hung on the bottom. A metal or plastic tag engraved with your last name and initials and either your North Carolina motor boat registration number or the owner's U.S. vessel documentation name must be attached to the buoy.

For BRD requirements, check with the nearest DMF office when rigging your own net. Most recreational shrimpers purchase ready-made shrimp trawls.

Gear and Equipment

To keep fish, crabs, shrimp, jellyfish and trash off the bottom of your boat, you will need to build a cull box to use for dumping your catch. Separate the seafood you want to keep from the incidental catches you want to discard in the cull box.

When deciding on the type of cull box, look at local shrimpers' boxes and select the type that fits

Table1: Door Sizes For Trawl Nets

Net Size	Rec. Door Size	Door Width
16 feet	24 inches	14 inches
18 feet	26 inches	16 inches
20 feet	32 inches	18 inches
26 feet	42 inches	20 inches

your boat's design.

For boats with sufficient stern space, the cull box can sit on the stern with no leg supports or the box may extend the width of the boat and rest on the washboard. Some cull boxes are supported on one side by the washboard and on the other side by two legs. Others are free standing.

The longer you tow and the larger your net, the larger the cull box should be.

In addition to the cull box, you also need the following gear and equipment to protect yourself and store the catch:

- Thick rubber gloves prevent damage to your fingers and hands from blue crabs and jellyfish
- Glasses protect the eyes from jellyfish parts thrown by flipping fish
- Rainwear or oil clothes keep you dry when retrieving the net and catch
- Five-gallon buckets to store the hard crabs
- Coolers and crushed ice to store shrimp, fish and soft crabs
- Extra lights for fishing at night

When preparing to go shrimping, store your net near the stern of your boat. The towlines should be on the bottom, followed by the tickler chain, the net and finally the line to the hot pink buoy. The doors can lie on their respec-

tive side flat on the bottom of the boat or lean against the net. Remember this rule: "What goes in the water first when towing your net should be on top when stored in your boat."

Setting Trawl

For the first-time shrimper, it is better to go out in the daylight. When making your first tow or set, face your boat away from the wind or current, whichever is stronger. Place your motor in neutral or turn the engine off and then follow the steps below to set the net:

- Throw the hot pink buoy over the stern of your boat and feed the line out as you drift away.
 - Feed the net over the stern, followed by the tickler chain and then the doors.
 - Drift away from the trawl until you reach the end of the towlines attached to the stern of your boat. (This prevents shrimp trawl entanglement with your motor and prop.)
 - After the shrimp trawl gear is set, put the engine in forward and move slowly ahead. The towlines will begin to spread apart as forward movement puts water pressure on your doors, opening your net.
- If the towlines do not begin to spread, your

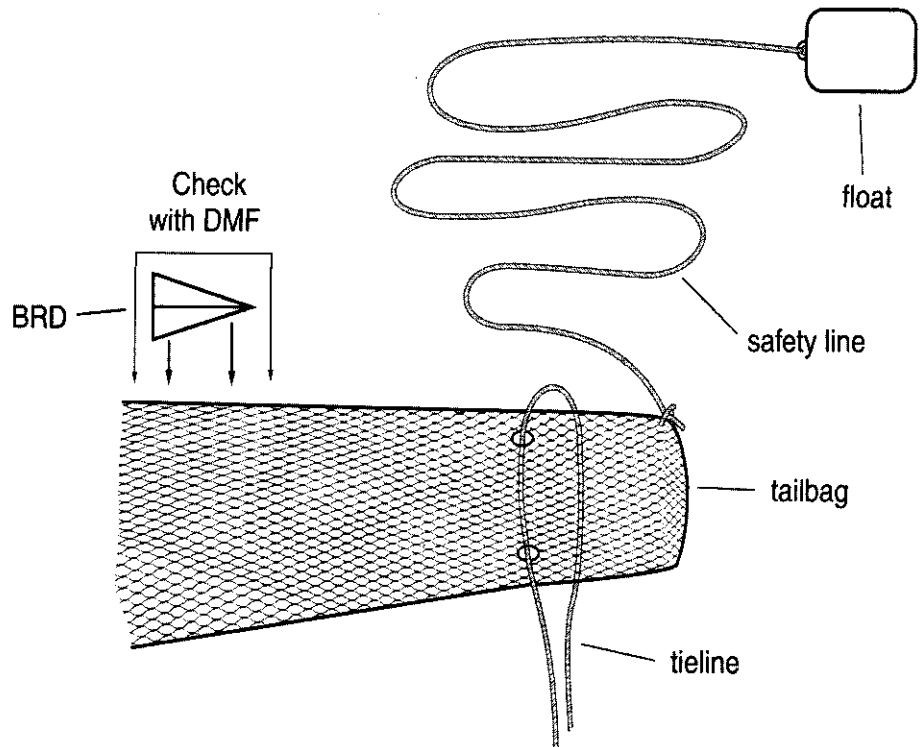


Figure 2: Tailbag Attachments

gear is fouled. Then you must retrieve your gear, correct whatever is tangled and start over.

After the trawl is set, tow between 2.5 and 4 knots. Towing too fast lifts your net off the bottom and reduces your catch. Towing too slow reduces the area covered by the net and reduces the catch. Because trawls are wide, remember to leave adequate distance when meeting or passing other shrimpers.

Retrieving the Trawl

When trawling, you can never be certain of the amount of shrimp that you will catch. Because no mechanical assistance is allowed when bringing the catch on the boat, limit the first tow to 15 minutes.

If the total accumulated weight in the net's tailbag is not too heavy to lift, you may extend your tows to 30 minutes or more. Tows in the same or different areas can vary from day to day.

After making your first tow, follow these steps:

- Steer your boat with the wind or current — whichever is greater — to retrieve your net.
- Cut off the motor.
- Grab both of the towlines and pull them into your boat if you are alone. (Teams of shrimpers can each pull a towline.)
 - Lift the doors onto the boat, followed by the tickler chain and then the net.
 - Pull the net into the boat and shake whatever is caught down the net wings and body into the tailbag.
 - Lift the catch up when you reach the front end of the tailbag and place the tailbag and the catch in the cull box.
 - Untie the back end of the tailbag and shake your catch out of the net into the cull box.

- Remove the tailbag, leaving your catch in the cull box.

- Retie the tailbag and reset your gear.

If you reset your trawl right away, you can continue to catch shrimp while sorting your catch. Of course, on the last tow of the day, do not reset your net.

When sorting the catch, work quickly. You don't want to tow so long that you cannot lift your next catch.

Put on your gloves and sunglasses and pick out the trash, then the large crabs, shrimp and legal fish. Place the hard crabs in empty boxes or buckets with no water and the shrimp and fish in coolers packed with ice. Remember to return all live creatures not legal or unwanted to the water as fast as possible.

Also follow the limits set for fish and crabs by the DMF on their Web page: www.ncfisheries.net/recguide.htm.

After setting a trawl a few times, you will be able to shrimp faster, set your net and cull your catches day or night. You also will be better able to judge the weight of your catch and regulate the length of your tow times.

For more information on rigging your own net or trawl, contact any of these North Carolina Sea Grant extension specialists: Wayne Wescott, Manteo, 252/441-3663; Bob Hines, Morehead City, 252/247-4007; Jim Bahen, Wilmington, 910/962-2492. For regulation information, contact DMF, 800/682-2632 or visit the Web site: www.ncdmf.net.

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