Don't Waste That Fish

Tips on taking care of your catch
So you caught a fish! Maybe it was your first time out, or maybe you're an old pro with rod and reel. Either way, the thrill of that nibble tugging on the line and the fight that followed is a brand of excitement that's hard to forget.

And it's spreading. More folks are taking up fishing for the fun of it every year. As more people spend weekends and vacations casting from piers, boats and beaches, the amount of fish landed by sportsmen starts adding up. Estimates are that recreational fishermen catch at least one-fourth of all the fish landed off the Carolinas and Georgia coasts.

But in too many cases, fish hauled in by sport fishermen are wasted. Too often, they're left to blister in the sun or dragged for hours on a string line—both of which lead to that "fishy" smell and taste. Many times recreational fishermen aren't sure how to clean, dress or fillet their catch—so they leave it behind. And more than one chief cook has been eyeball-to-eyeball with an unusual fish without a single clue on how to prepare it.

This booklet won't reveal any secrets on how to catch more fish. But it will help you, the recreational fisherman, take care of and make better use of the fish you land.
To keep that fish
tasting good

Cool it quick, then . . .

Quick-chill

Fish just out of the water have almost no odor. But left in the sun
or towed on a string line for several hours, they begin to smell
“fishy”. Enzymes and bacteria breaking down tissues are a major
cause of rank odors and tastes.

Ice can make the difference between freshness and fishiness. Cool
fish soon after it comes out of the water to slow the decaying action
of bacteria and enzymes.

Smothering fish in crushed ice will help lock in freshness. And by
simply adding sea water to the ice, you can lower temperatures more
quickly and slow deterioration even more. If you quick-chill your
catch, it will mean longer-lasting good flavor.

To quick chill:
—Take along a tub and some crushed ice.
—In the tub, pour sea water over the ice, creating a slush.
—Drop fish into the slush for about one-half hour.
—Remove fish from slush and smother in crushed ice until the end
of the day. Fish may be whole or gutted when iced.

. . . cool it again
at day’s end

Superchilling

If you aren’t able to freeze or cook your catch for several days, you
might try superchilling it as soon as you come ashore at the end of
each fishing day. If properly iced during the day and superchilled on
shore, fish can be held up to seven days without loss of quality.

Some fish are too large to superchill in an ice chest, as described
below. Quality of large fish can be maintained for several days if
you immediately head, gut and bleed the fish, then pack the belly
cavity and cover with crushed ice. To bleed a large fish, either
remove the tail or cut off the head and hang the carcass by the tail.

To superchill:
—Line the bottom of an insulated ice chest with about 4 inches
of crushed ice. Leave the bottom drain open.
—In another container, make a salt-ice mixture, using one pound
of coarse ice cream salt with each 20 pounds of crushed ice.
—Arrange the fish in layers in the ice chest, generously covering
each layer of fish with a salt-ice mixture.
—Always keep lid securely on cooler.
If salt is not available, crushed ice serves the purpose, but fish will
maintain quality only two or three days.
Whole fish may be superchilled in direct contact with salt-ice
mixture. But if you plan to superchill fillets, steaks or dressed fish,
first protect them by wrapping in a clear, plastic film before arrang-
ing in layers in the chest.
Getting that fish in shape

A sharp knife is the basic tool for cleaning and dressing fish.

 Scaling

Wet fish tend to scale more easily than dry. Place fish in cold water for a few minutes before scaling. Then place fish on a flat surface and hold firmly. With a knife or fish scaler, scrape off scales from tail to head. Be sure to remove scales near the base of fins and head.

Big scales are often hard to remove with a knife. A scaling tool found in most hardware stores can help.

 Cleaning

With a sharp knife, cut the entire length of the belly from tail to head. Remove the intestines and all blood and black membranes, particularly the blood streak (the kidney) running along the backbone. Cut around the pelvic fins and pull them out.

 Removing the fins

Remove the large fin on the back of the fish by cutting along each side of it. Then give the fin a quick pull toward the head and remove it with its root bones attached. Fins simply trimmed with a knife or shears will leave root bones in the fish. Wash the fish thoroughly in cold running water.

 Steaking

Large fish that are cleaned can be cut into steaks \( \frac{5}{8} \) to 1 inch thick. Place the fish on a flat surface, then cut crosswise, severing the backbone. A saw may be required to steak large fish.
Filleting your fish

It is not necessary to clean and dress fish before filleting. To fillet, cut along the back of the fish from tail or head. Just behind the collarbone, cut down to the backbone.

Skinning fillets

To skin fillets, place the fillet on a flat surface with the skin down. Hold the tail end and cut through the flesh to the skin. Flatten the knife on the skin. Cut flesh away from the skin by running the knife forward while holding the free end of the skin firmly.

A note about large fish

To fit large fish into a cooler or refrigerator, cleaning and dressing, skinning and filleting may be required. It is usually easier to fillet the fish before skinning. Just follow directions above for skinning fillets. Strong flavors in some fish can be reduced if darker meat is trimmed away. Some fish often harbor parasitic worms which are harmless, yet unsightly, to humans. To remove the parasites, cut off the tail section, fillet and trim off parts that appear infested.
Before you freeze

In getting set to freeze fish, keep these tips in mind:

- No matter what freezing method you use, be careful not to overload your freezer. Pay close attention to manufacturer’s recommendations on amounts your freezer can safely handle. Temperatures should be maintained at 0°F or lower.

- Your chest freezer should freeze seafood in 24 hours. Generally, two pounds of seafood per cubic foot of space will freeze in a 24-hour period.

- If the catch exceeds the capacity of the freezer, hold the remainder of your fish at superchilled temperatures (28°F) and begin freezing the next day.

- Fish should not be held in the freezer compartment of your refrigerator more than a week.

- Date packages as you put them in the freezer. For best results, most frozen fish should be used within three months. Most will remain acceptable for six to nine months. High-fat species, such as salmon and mackerel, have a shorter storage life than others, but should maintain good quality for three months if handled properly.

- In storing fish that have been headed and gutted, be sure to remove all extraneous matter, including blood and black membranes.

- Frozen fish can equal fresh in taste, aroma, and appearance. But if you want fresh-tasting fish out of the freezer, they’ve got to be fresh when you start and you must follow recommended freezing procedures.

Even frozen fish can taste good

Here’s how

One method of freezing fish that keeps freshness locked in begins with glazing fish in a protective solution that you make right at home. Applied to whole, dressed or filleted fish, the glaze helps keep your catch tasting, smelling and looking fresh because it slows the interaction of oxygen with fish fats, a major cause of rank odors and flavors.

You’ll need unflavored gelatin, lemon juice and water to make the glaze.

1. Measure 2 fluid ounces (¼ c.) of lemon juice into a pint container. Fill the rest of the container with water.

2. Dissolve one packet of unflavored gelatin into 4 fluid ounces (¼ c.) of the lemon juice-water mixture.

3. Heat the remaining liquid to boiling.

4. Stir the dissolved gelatin into the boiling liquid.

5. Cool the mixture to room temperature before use.

Dip and drain fish in the mixture. Make sure you apply glaze heavily to exposed surfaces of steaks and fillets to reduce deterioration. Wrap immediately.

Lock out bad odors and flavors by glazing fish and wrapping properly before freezing.
Wrapping for freezing

Immediately after applying glaze, wrap fish in protective plastic film. To wrap, tear off 12 to 18 inches of plastic wrap. Arrange small fish “sardine” style. Place fillets with meat side down on plastic. Lap plastic over sides, then ends, making sure that folds are away from fillet surfaces. (Saran wrap provides excellent protection.)

Freezing fish in water

Freezing fish in water is a popular way to preserve your catch. Frozen this way, fish are placed in a waxed carton, covered with water and placed in the freezer. Allow about ½ inch head space for expansion. Allow seafood and water to freeze before sealing containers. Sterilize and cool all freezing containers before filling them.

When using this method, you should be careful to use as little water as possible as water tends to draw nutrients out of fish. Be sure that ample freezer space is available so that water and fish will freeze rapidly.

<table>
<thead>
<tr>
<th>Thawing</th>
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<tr>
<td>• Plan ahead so that fish will be cooked soon after they are thawed. You can safely hold thawed fish in the refrigerator for a day before cooking.</td>
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<td>• A fast-thaw method, which also enhances flavor, is to place unwrapped frozen fish in a weak salt solution of 8 tablespoons salt to 1 gallon cold water. Using this method, it is possible to thaw fillets in 15-20 minutes and small fish in one-half hour.</td>
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<tr>
<td>• Do not thaw fish at room temperature or in warm water.</td>
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<td>• Do not re-freeze uncooked fish.</td>
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<tr>
<td>• Frozen fillets and steaks may be cooked without thawing but cooking time will be longer. Fillets or steaks to be breaded or stuffed should be thawed.</td>
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<tr>
<td>• For best results, most frozen fish should be used within three months. Most will remain in acceptable condition for six to nine months. High fat species, such as mullet and spot, have a shorter storage life than others, but should maintain good quality for three months if they have been handled properly.</td>
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Cooking to capture flavor

Probably the most common mistake in cooking fish is overcooking. Fish are done when the flesh, pierced at its thickest point with a knife or fork, flakes easily.

Most cooked fish break up easily. Handle as gently as possible during and after cooking to preserve appearance.

Cooked fish can be stored in the refrigerator or freezer. Place cooked fishery products in a covered container for storing in the refrigerator and do not hold longer than 3 or 4 days. To store in the freezer, wrap in a moisture-vapor-proof material. Use within three months.

Following are basic directions for a variety of ways to prepare fish.

Poaching

Poaching is simmering fish in a liquid. Use a shallow pan, wide enough to hold fish without crowding. Barely cover the fish with a liquid such as water, wine or milk seasoned with salt, herbs and spices. Cover the pan and simmer 5 to 10 minutes until flesh flakes. Serve as a main dish or in casseroles and salads. The poaching liquid, full of flavorful juices, is often reduced and thickened to make a sauce for fish.
**Baking**

Baking is cooking with dry heat. In using this method care should be taken to retain moisture.

Place fish on a greased baking dish. Bake uncovered in moderate heat (350°F) for a relatively short time. Fish not baked in a sauce or with a topping should be basted with melted butter or butter-lemon juice mixture. Season with salt, pepper and spices.

Fish can be baked from a frozen state but time for thawing should be allowed in the baking process. Special handling such as stuffing or rolling requires that fish be thawed.

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**Planking**

Planking is baking on a wooden board. Oil a hardwood plank or board (or a bake-and-serve platter). Place in a 225°F oven to heat slowly. Remove plank or platter and raise oven temperature to 350°F. Place fish on the plank or platter, brush with fat and bake until flesh flakes. Dressed and pan-dressed fish, fillets or steaks which are about 1 inch thick over thinner cuts. Frozen fish should be thawed.

To broil, place fish on a well-greased oven-proof platter and baste with sauce, oil or melted fat. Generally fish surfaces should be 3 to 4 inches from the heat source with thicker cuts placed farther away. Baste all types of fish at least once during cooking. Baste lean fish and shellfish more often to prevent drying.

Cooking time depends on thickness and distance from the heat. Fillets and split fish usually broil in 6 to 10 minutes without turning. Steaks cook in 6 to 16 minutes. Turn whole fish and thicker pieces once.

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**Charcoal broiling**

Pan-dressed fish, fillets and steaks are suitable for cooking over the coals. If frozen, fish should be thawed. For juicy, flavorful fish, baste generously with a sauce containing fat before and during cooking. Fish are usually cooked about 4 inches from moderately hot coals for 10 to 20 minutes, depending on the thickness.
Pan frying

Pan frying is a popular way to cook dressed fish or fillets over an open fire or in the kitchen. Two things are essential in successful frying—the kind of fat used and the cooking temperature. Choose a fat that can be heated to a high temperature without smoking.

Smoking fat gives food an unpleasant flavor. Vegetable oils and fats are preferred over those from animals since they smoke only at higher temperatures.

Cooking temperature should be at 350° F. Temperatures that are too high will brown the outside of the fish before the center is cooked. Too low temperatures will make the fish soggy and grease-soaked.

To fry, heat about ½ inch fat in fry pan. Bread with corn meal. Arrange fish in pan without crowding. Fry at moderate temperature on one side until light brown. Turn once. Total cooking time is usually 5 to 10 minutes. Drain on absorbent paper.

Using unusual fish

Don't be afraid to try new kinds of fish. You can make unusual fish more appetizing by cutting edible parts into shapes and sizes with which you and your family are familiar.

Puffers, or “sea squab,” are often thrown away by fishermen who are unaware of their tasty flavor. But before eating puffer, take care to clean the fish thoroughly to remove toxic tissues, particularly the kidney. To clean a puffer, place it on a flat surface, belly side down. Make a vertical cut just behind the gill openings, severing the backbone and cutting through the meat. Do not cut through the skin on the under side of the fish. Bend the head downward and peel off the skin and viscera with a motion toward the tail. Be sure to remove the kidney located near a bloodstreak which runs along the bottom of the backbone. Puffer meat should be immediately washed and completely cleaned of organs and extraneous matter.
What did you catch?

Inshore

Drawings on the following pages may help identify fish caught in North Carolina waters. The thin black lines point to distinguishing features.

Fish pictured on this and the following page would probably be landed near shore by sportsmen fishing from a boat, pier or the beach.
Off-shore

Fish on this page might be landed while fishing further offshore.

WAHOO

SPANISH MACKEREL

BLUEFISH

DOLPHIN

Bottom fishing

If you fish on a headboat, you may pull in one of these.

RED SNAPPER

RED GROUPER

LONGSPINE PORGY
### Dressing and cooking guide

<table>
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<th>Kinds of Fish</th>
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<th>Head</th>
<th>Gut</th>
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* soak in salt water overnight
** except if charcoal broiling
*** see page 15

For more information:
Some of the information included here was adapted from the following publications:
"Let's Cook Fish," published by the National Marine Fisheries Service, National Oceanic and Atmospheric Administration, U. S. Department of Commerce;
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