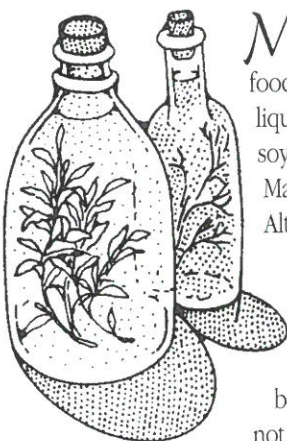


Mariner's Menu

SEAFOOD INFORMATION FROM UNC SEA GRANT

Seafood Marinades

Summer 1993



Marinades are flavored liquids that enhance or add flavor to foods. They usually contain an acidic liquid such as citrus juice, vinegar or soy sauce, along with seasonings. Marinades add variety to seafood. Although the distinctive flavors of fish and shellfish are always delicious when prepared simply, occasionally we like to vary them. However, marinades should be used to enhance the true flavor, not to mask or overcome it.

Any seafood can be marinated, but fish, shrimp and scallops are the most popular.

Marinating times vary with foods. Since seafood is more tender than other meats, it requires less time. But marinating times also differ among seafood. For example, fish such as flounder and snapper require less marinating time than firmer fish such as catfish and grouper.

If marinated too long, fish undergo a change in texture. We tried a flounder marinade containing both soy sauce and wine and left the fillets in the liquid too long. The fillets, when cooked, were mushy and unappetizing.

Always use a nonreactive container for marinating. Choose glass, stainless steel or a plastic bag. Some metals can combine with ingredients to produce a chemical reaction or an undesirable flavor.

Unless the pieces are too large or there is too much quantity, plastic bags are really convenient for marinating seafood. You can turn them over instead of turning the food.

Always marinate seafood in the refrigerator, never at room temperature.

Fillets may be marinated skinless or with the skin on. It's a personal preference.

Pan-dressed fish take longer to marinate and may need to be turned more often than fillets. When marinating dressed fish, make several slits on each side.

You may have noticed that many recipes for marinated food suggest grilling as the cooking method. Some of those contained

here, such as the citrus marinated fillets, are easily adapted to the grill.

And this is the season for grilling. Several of you have written, requesting a *Mariner's Menu* on cookouts. We hope to produce one soon.

Generally, you can switch to the grill for any seafood recipe that calls for broiling or baking, unless the instructions specify a topping that would not adhere or that would burn.

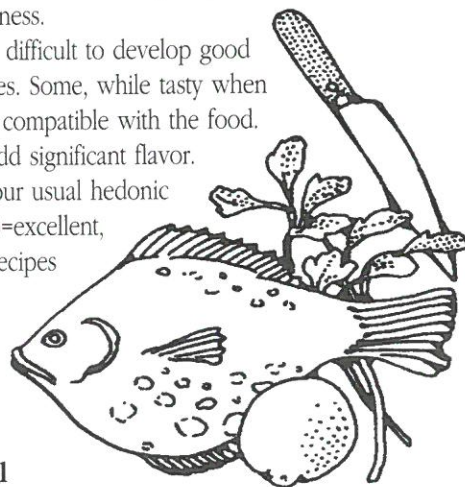
When grilling seafood, you may want to baste it once or twice. Remember to reserve marinade for basting before it comes in contact with raw food. Do not use the same liquid in which the seafood has marinated.

If you use a marinade that does not contain oil, you may want to brush the seafood lightly with oil or melted margarine when grilling or cooking in the oven. If so, do so sparingly.

Never reuse marinades. They may contain harmful bacteria that can cause illness.

We found it difficult to develop good seafood marinades. Some, while tasty when mixed, were not compatible with the food. Others did not add significant flavor.

Judged on our usual hedonic scale of 1 to 5 (5=excellent, 1=good), these recipes received an average evaluation of 4.5 or higher.



Taste Test Panel

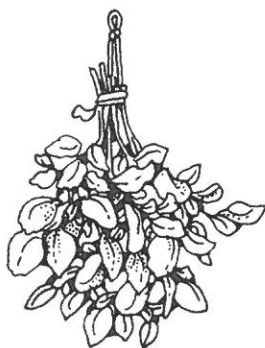
Seafood Lab health, food and nutrition leaders who participated in this work are Dolena Bell, Judy Blessing, Vera Gaskins, Martha Giles, Johnny Greene, Kay Holm, Anne Lawton, Lissie McNamee, Mary Dudley Price, Valaree Stanley, Beulah Toll and Dot Whitley.

Mariner's Menu Goes Quarterly

Because of rising printing and mailing costs, *Mariner's Menu* will now become a quarterly publication.

Basil-Parmesan Marinated Flounder

- 4 medium flounder fillets
- 1/3 cup chopped fresh basil
- 2 tablespoons vegetable oil
- 2 tablespoons white wine vinegar
- 8 tablespoons freshly grated Parmesan cheese
- 1/4 teaspoon pressed garlic
- 1/8 teaspoon freshly ground black pepper
- 1/8 teaspoon salt

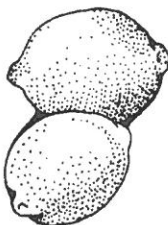


In small, nonreactive bowl, combine basil, oil, vinegar, 6 tablespoons Parmesan, garlic, pepper and salt. Place fillets in baking dish and pour marinade over. Marinate in refrigerator 30 minutes, turning once.

Remove remaining marinade. Sprinkle 2 tablespoons Parmesan over fillets. Bake at 375 F until fish flakes easily with a fork, about 12 to 15 minutes. Serves 8.

Citrus Marinated Fillets

- 4 medium snapper (or other white) fillets
- 1/2 cup fresh orange juice
- 1/4 cup fresh lemon juice
- 1/4 cup fresh lime juice
- 2 tablespoons vegetable oil
- 4 teaspoons fresh rosemary, crushed
- 1/4 teaspoon salt
- 1/8 teaspoon freshly ground white pepper



Combine orange juice, lemon juice, lime juice, oil, rosemary, salt and pepper in small nonreactive bowl. Place fish in baking dish and pour marinade over. Marinate in refrigerator about one hour, turning once.

Remove fish from marinade and place on lightly greased broiler pan. Broil about 4 inches from heat source for 10 to 12 minutes, or until fish flakes easily when tested with a fork. Serves 8.

Italian Marinated Catfish

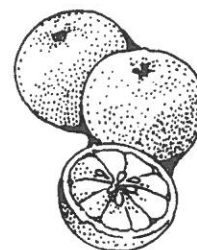
- 4 medium catfish fillets
- 2 tablespoons light olive oil
- 1/4 cup white wine vinegar
- 1/2 teaspoon salt
- 1/4 cup chopped fresh parsley
- 1/2 teaspoon chopped fresh oregano
- self-rising yellow cornmeal
- vegetable oil

Mix olive oil, vinegar, salt, parsley and oregano in small, nonreactive bowl. Place fillets in baking dish and pour marinade over. Marinate in refrigerator one hour, turning once. Remove fish from marinade.

Dredge fillets in cornmeal. Fry in hot vegetable oil until golden brown on one side, about 4 to 5 minutes. Turn and repeat on other side. Drain on paper towels. Serves 8.

Orange Marinated Snapper

- 4 medium snapper (or other white) fillets
- 1/4 cup fresh orange juice
- 3 tablespoons fresh lemon juice
- 1 teaspoon salt
- 1/2 teaspoon freshly ground black pepper
- 3/4 cup dry white wine
- 3/4 teaspoon pressed garlic
- 1/4 cup melted margarine



In small, nonreactive bowl, combine orange juice, lemon juice, salt, pepper, wine and garlic. Place fillets in baking dish and pour marinade over. Marinate in refrigerator for 1/2 hour, turning once. Remove excess marinade.

Brush fish with melted margarine. Bake at 375 F for 10 to 12 minutes, or until fish flakes easily when tested with a fork. Serves 8.

Marinated Grilled Shrimp

- 1 pound large shrimp, peeled
- 1/4 cup pineapple juice
- 1/2 teaspoons fresh lemon juice
- 1 1/2 teaspoon soy sauce
- 1/4 teaspoon pressed garlic
- 1/8 teaspoon freshly ground black pepper



In medium, nonreactive bowl, combine pineapple juice, lemon juice, soy sauce, garlic and pepper. Reserve 2 tablespoons marinade. Add shrimp. Marinate in refrigerator for 45 minutes, stirring occasionally. Remove from marinade.

Thread on skewers. Grill or broil about 4 inches from heat until golden on one side, about 4 to 5 minutes. Brush with remaining marinade. Turn and repeat on other side. Serves 4.

Mariner's Menu Survey and Purge

Mariner's Menu is a free newsletter published quarterly and mailed to about 4,000 subscribers. We want to meet your needs. Your opinions and suggestions are valuable to Sea Grant. Please take a few minutes to complete the following survey as soon as possible. Detach this entire page (to include your mailing label on the reverse side), and mail it to *Mariner's Menu* Survey, Sea Grant, Box 8605, N.C. State University, Raleigh, NC 27695-8605. We are happy to send you this free newsletter, but we must ensure that it is being used. If we don't receive a response, we will have to delete your name from our mailing list. Please feel free to comment on anything not specifically addressed in this questionnaire. If you don't want to fill out the survey, that's fine. But you must return your mailing label to stay on the list. Thanks for your cooperation!

1. As a result of reading *Mariner's Menu*, do you (check all that apply):
- ☐ eat seafood more often?
 - ☐ feel more confident buying fish and shellfish?
 - ☐ feel more confident cooking seafood?
 - ☐ eat a greater variety of fish and shellfish?
 - ☐ feel better able to choose "fresh," high quality seafood?
 - ☐ know more about the nutritional value of seafood?
 - ☐ know more about how to safely handle seafood at home?
 - ☐ ask seafood retailers more questions about the quality and safety of the fish and shellfish they sell?
 - ☐ cook seafood in a greater variety of ways (i.e. grilling, poaching, baking, casseroles, etc.)?
 - ☐ order Sea Grant publications about seafood?
2. On a scale of 1 to 5, how visually attractive do you find *Mariner's Menu*?
- ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
- not attractive very attractive
3. How do you find the complexity of the recipes?
- ☐ too easy ☐ just right ☐ too hard
4. On a scale of 1 to 5, how do you find the recipe ingredient lists and instructions?
- ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
- very easy not easy
to follow to follow
5. Do you ever catch your own fish and shellfish?
- ☐ yes ☐ no
6. From each issue of *Mariner's Menu* that you receive, how many recipes do you try?
- ☐ none ☐ one ☐ 2 to 5 ☐ more
7. How often do you eat seafood?
- ☐ 2 to 3 times a week ☐ once a week
☐ once every two weeks ☐ once a month
☐ never
8. If you do not eat seafood often, the reason you do not is:
- ☐ lack of a source of good, fresh seafood
 - ☐ too expensive
 - ☐ don't feel confident selecting seafood
 - ☐ don't feel confident cooking seafood
 - ☐ concerned about seafood safety, i.e. contamination, spoilage, etc.
9. What could *Mariner's Menu* do to improve?
- ☐ happy the way it is
 - ☐ provide more safety information
 - ☐ provide more nutritional information
 - ☐ provide more species information
 - ☐ provide more information about seafood seasonality and species substitution
10. Would you like to see a question-and-answer column to respond to reader questions about fish and shellfish, seafood safety and the quality of the catch?

11. What question do you have about seafood that you would like Joyce Taylor to answer?

12. Would you consider paying \$2 to \$5 per year for a subscription to *Mariner's Menu* if Sea Grant could no longer afford to provide it free?

☐ yes ☐ no

13. Where do you live?

- ☐ Coastal North Carolina
☐ Piedmont North Carolina
☐ Mountains North Carolina
☐ Out-of-state

14. What do you like most about *Mariner's Menu*?

15. What do you like least about *Mariner's Menu*?

16. Other comments/suggestions:

IMPORTANT: To continue to receive your free *Mariner's Menu* newsletter, please correct the address below, if necessary, and return this page, front and back, to *Mariner's Menu* Survey, Sea Grant, Box 8605, N.C. State University, Raleigh, NC 27695-8605.

THANK YOU!



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Mariner's Menu

SEAFOOD INFORMATION FROM UNC SEA GRANT

Seafood — A Southern Tradition

From their earliest time, Southerners established a tradition of fish and shellfish cookery. No doubt the early settlers took advantage of the indigenous seafoods partly due to necessity; today, however, most of us choose them because of the eating pleasure and nutrition they offer.

The South has a history of good foods and superior cooking. It is famous for plantation fare as well as city hospitality, and is known for its flair for entertaining and its culinary efforts.

The evolution of Southern seafood cooking developed naturally. A diversity of waters — bayous, bays, streams, sounds, ocean — produced a diversity of foods — snapper, trout, oysters, blue crabs, shrimp, clams, scallops.

Diversity in cuisine, too, was natural. Early French and Spanish soon blended, the English brought their style, and African-Americans added a unique touch. Other cultures have since brought new preparations. All have contributed to the South's versatility in seafood cooking.

Some people mistakenly think only of fried fish or shrimp when asked for examples of Southern seafood cooking. The record, however, shows a range of differently prepared dishes — court bouillons, baked and poached fish, étouffées, soups and more.

On our scale of 1-5 (5=excellent, 1=poor), all these Southern preparations received average evaluations of 4.5 or higher.

Cleaning Shells for Cooking

Seafood recipes often call for baking in individual shells or dishes. When shells are used, they must be thoroughly cleaned and sanitized.

Be sure that shells are free of any meat or debris. Then, if possible, wash them in the dishwasher. If you do not have a dishwasher, scrub them with a stiff brush in hot detergent water. Re-

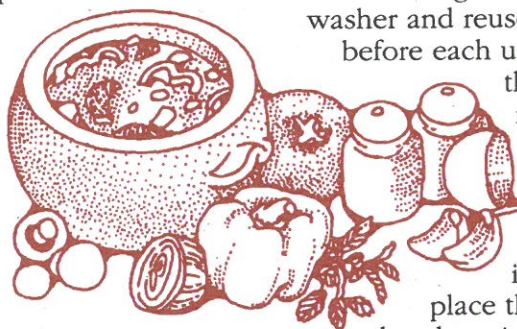
member that this will not clean them as well as the dishwasher, since the detergent is not as strong and the water not as hot.

After washing and rinsing, place in a pot and cover with water. Bring to a boil and leave for several minutes to kill any bacteria. If you wish to lighten the shells, add one tablespoon of chlorine bleach to one gallon of water. After boiling, rinse thoroughly.

Grease shells lightly before each use. After the first cleaning and sanitizing, wash in the dishwasher and reuse. It is a good idea to boil them

before each use. Remember that even though they have been cleaned in this manner, this home method does not meet the same standards for cleanliness as dishes.

Hint: small shells may fly about in the dishwasher. To prevent this, place them in a large mesh bag. Be sure that there is enough space for water to reach all areas.



Questions and Answers

On the *Mariner's Menu* survey that you returned to us, many of you asked questions about seafood. Some I answered individually. Others I'll answer from time to time in the newsletter.

One question asked was, "What herbs and spices go best with fish?" Among those that are most compatible are sweet basil, bay leaves, cayenne pepper, chervil, dill, garlic powder, onion powder, oregano, paprika, parsley, black pepper, white pepper, rosemary, tarragon and thyme.

Others, not as frequently used, but also compatible, are allspice, anise, celery seed, cumin, curry powder, fennel, ginger, mace, marjoram, mustard seed, nutmeg, sage, saffron, summer savory, sesame seed and turmeric.

When using herbs, remember that cooking time is based on whether the herb is fresh or dried

Continued on page 4