

# South Carolina Shrimp “Sea” the Difference



Information and Practical  
Advice for Chefs

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#### PHOTO CREDITS

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All other photos as noted.

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Dear Chef,

Serving the highest quality product to our customers is a goal shared among chefs. Chefs know what characteristics make shrimp a quality ingredient in a signature dish or the main event for their restaurant. The Clemson University “*Sea*” *the Difference* project was conducted on behalf of the South Carolina shrimp industry as a way to explore use of South Carolina wild-caught shrimp by chefs. Involving chefs was central to bringing “chef descriptions or chef talk” into this work. Chefs and consumers scored our local South Carolina wild-caught shrimp as a high quality product with great flavor, aroma, texture, and appearance.

This “*Sea*” *the Difference* brochure summarizes the valuable information gathered from you and your customers regarding the unique qualities of South Carolina wild-caught shrimp. It begins by describing the advantages of certifying your restaurant under the new Wild American™ shrimp program. It also provides practical information about local shrimp harvest, restaurant purchasing and marketing of local shrimp, and where to find more information.

Shrimp industry members are working hard to provide you with a certified, quality, local wild-caught shrimp product. Many of your regular customers as well as the tourists visiting our state are in for a treat when they stop at your restaurant. Hopefully, they can savor South Carolina wild-caught shrimp in your signature dish.

We would like to thank chefs throughout the state for your support in our shrimp research and taste panel work. Please feel free to contact us with your ideas, tips, and recipes for South Carolina wild-caught shrimp.

Sincerely,

A handwritten signature in black ink that reads "Marge Condrasky". The signature is written in a cursive, flowing style.

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- *Brown*: available in June through August, sometimes as late as October. These are from the previous fall spawn.
- *White*: available in August, September and October. These shrimp are the young from that year's spring white roe shrimp. White shrimp are also the largest shrimp caught in South Carolina.

### **What is special about locally harvested shrimp?**

If you serve shrimp in your restaurant, you are probably most familiar with the imported shrimp which is usually individual quick frozen (IQF) and packaged by size for convenience. Because of increased international production over the last 10 years, more than 80% of the shrimp consumed in America is imported, pond-raised shrimp from Asia and South America. In many cases, shrimp aquaculture expansion in these countries has replaced coastal habitat (mangrove swamps) important to fish reproduction as well as protection from severe coastal storms and Tsunami.



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In comparison, South Carolina shrimp are wild-caught straight from the waters of the Atlantic Ocean! Currently, a few local producers are able to provide the IQF version processed

at sea on special boats. Also some local processors head and package South Carolina wild-caught shrimp in frozen blocks and can provide fresh, unfrozen product to discriminating restaurants. While South Carolina shrimp, and other shrimp harvested in the U.S. Southeast region, is limited in supply when compared to imported product, many believe the local shrimp tastes better.

# Becoming Wild American™ certified

## What is Wild American™ certified?

Wild American Shrimp, Inc. (WASI) is a non-profit cooperation created by the *Southern Shrimp Alliance*, a coalition of the eight U.S. Southeastern states (North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana and Texas). This coalition formed to bring awareness of the benefits of wild-caught, American shrimp and meet the growing consumer demand for natural, high-quality food products.

The program is similar in concept to Certified Angus Beef® or Vidalia Onion®, in that shrimp are certified based on standards of quality and consistency.

A Wild American™ shrimp must be wild-caught from U.S. coastal waters and meet standards for flavor, odor, and physical defects, adopted from United States Department of Commerce Grade A Standards. Wild American™ shrimp must be:

- free from off-flavor and odors
- uniform in size
- free of excessive black spots
- properly headed, veined, peeled, and cleaned depending on product type
- free from broken pieces, loose antenna or legs, and non-shrimp material
- acceptable in texture



Once certified, the shrimp can then be sold under the Wild American™ certification marks, including the Wild American™ logo. Not all wild-caught shrimp will meet the stringent quality standards. Therefore, Wild American™ shrimp will be a cut above the rest and may demand a premium price as a result.

## What are the advantages of Wild American™?

Discriminating customers seeking locally harvested shrimp will know your restaurant serves the quality wild-caught product if you are displaying the Wild American™ logo. You can enhance this experience by training your servers to provide information about the unique qualities of local wild-caught shrimp. Providing customers with information on local shrimping history and fishermen on your menu or table cards can also help.

## How does my restaurant become certified?

To become a Wild American™ affiliate, a Certification Agreement must be completed. The affiliated facility can then request an authorized inspection agent to inspect their shrimp for compliance with the certification standards. Any facility wishing to display the Wild American™ Certification marks must enter the Certification Agreement and adhere to its provisions. Currently, there is no cost to be a certified facility. However, product inspections are fee-based.

Restaurants and retailers have two options for certification:

- They can advertise Wild American™ shrimp purchased from an authorized processor or producer that had the product previously certified. Written confirmation is required for this option. The facility still has to enter into a Certification Agreement for use of the logo and marks.

OR

- They can have the product certified on-site as a traditional producer or processor (for restaurants, this would be more likely if they also operate their own shrimp boat or retail market).

## For more information

Becoming an affiliate of the Wild American™ Certification Program:

- Eddie Gordon, Executive Director  
Wild American Shrimp, Inc.  
820 Jonnie Dodds Blvd., Suite B  
Mt. Pleasant, SC 29464  
843-971-3022

Training for the Wild American™ Certification process:

- Jason Goins, Shrimp Quality Extension Associate  
Clemson Extension, Charleston County  
259 Meeting St, 2<sup>nd</sup> Floor  
Charleston, SC 29401  
843-722-5940, ext. 112 (office) or 843-697-6787 (cell)

# Practical advice for chefs interested in using locally harvested shrimp

## Develop purchasing relationships with local producers and wholesalers.

Interviews with managers and chefs of South Carolina coastal seafood restaurants demonstrate that locally and regionally managed restaurants are most able to use local food products in their menus. The chefs and managers who purchase locally tend to believe local shrimp have better quality and freshness, and they prefer to serve local shrimp in their authentic Low Country recipes. Some have larger freezer space necessary for storing sufficient amounts of frozen shrimp for use throughout the year. They are also willing to pay more for local product if it is of high quality. In addition, the restaurant chefs and managers who purchase local product do so because they like to visit the supplier to see the product and like to support their local economy.

For these reasons, some local and regionally owned restaurants have developed long term relationships with local fishermen, shrimp dock owners, and shrimp wholesalers. Some own their own shrimp boat. Developing these local relationships takes time. The South Carolina Seafood Alliance and South Carolina Sea Grant Consortium can assist you with identifying local shrimp harvesters in your area (see contact list).

## Know the regulations for purchasing shrimp

In South Carolina, the initial sale of shrimp must involve a seller or buyer with a wholesale dealer license. Commercial shrimpers must also have a commercial saltwater license and equipment license and must display these licenses and vessel identification decals on their boat. These licenses are sold by the South Carolina Department of Natural Resources (SCDNR)(see contact list). Some shrimpers have wholesale dealer licenses, but restaurants wishing to purchase directly from a shrimp fisherman may want to purchase their own wholesale dealer license. When purchasing, it is important to keep records with the name of the wholesale dealer. At this time, South Carolina aquaculture products don't require a wholesale dealer license. However, before engaging in direct purchase, please contact the SCDNR to be sure you know the most current regulations.

## **Work with the tourism industry to market the “shrimp experience”**

Clemson University research on South Carolina coastal tourists demonstrates there is interest in food tourism related to the consumption of shrimp. Restaurants should partner with their local convention and visitors bureaus, chambers of commerce, welcome centers and other regional tourism organizations to market South Carolina as “the place” to come for local, wild-caught shrimp. Restaurants can also educate their customers about South Carolina wild-caught shrimp.

## **Develop collaborative outreach and marketing partnerships with the seafood industry**

The South Carolina seafood industry is already developing collaborative public outreach projects with chefs. One example is the South Carolina Seafood Alliance partnership with the Bluffton Historical Society to present BLUFFTON BRAVO-A Celebration of South Carolina Seafood. BRAVO is a culinary arts program designed to highlight local seafood specialties and provide educational information about the history and future of South Carolina seafood. This event features a series of lectures, given by SC Seafood Alliance professionals, highlighting the history and future of local seafood, as well as cooking demonstrations held by some of Bluffton’s most prominent chefs. The chefs give tips on buying, handling and preparing local seafood while guests enjoy the culinary creations. All seafood is provided by the SC Seafood Alliance.

Another example is the Sustainable Seafood Initiative which works with restaurants in Charleston, Beaufort, Hilton Head and other coastal areas in South Carolina. The partners include the South Carolina Aquarium, the South Carolina Seafood Alliance, Johnson and Wales University, the Coastal Conservation League, and the University of South Carolina, Baruch Institute. The goal is to promote wise seafood choices and the consumption of environmentally-friendly, locally captured seafood. The program organizes events such as the Charleston Sustainable Seafood Festival. The program also works with retailers such as Earth Fare™ in Columbia and Greenville.



SC Seafood Alliance

# South Carolina Shrimp Facts

This information is provided to help you and your serving staff answer questions your customers might have about South Carolina wild-caught shrimp.



## Shrimp fishing past and present

South Carolina shrimp fishing began in the mid 1920's and the fleets were relatively small. Fishermen sailed New England "smacks" and were known as the "Mosquito fleet." During these early days, most shrimp were canned, most likely because of the lack of available ice and for ease of transportation. Following WWII, the South Carolina industry began trucking fresh shrimp on ice from the docks to restaurants and retailers across the region. During the post-war boom (1950's), many new boats (trawlers) were built, and the industry expanded significantly.

These days, the South Carolina shrimp industry is primarily small family businesses, and shrimp boats enhance the scenery of many harbors. The industry has experienced significant economic hardship because of rising fuel costs, costs associated with meeting new management regulations, fluctuations in shrimp production from year to year, and competition with imports which have increased to 80% of the U.S. market. In response to competition, the South Carolina shrimp industry, along with other states in the U.S. Southeast, is developing a premium quality market (*Wild American™*) for their wild-caught shrimp.

## How are shrimp caught?

In the U.S. Atlantic, shrimp are caught by a series of large trawl nets pulled behind a boat, primarily in offshore waters. Less than 5% of South Carolina tidal waters are trawled, and the average boat works less than 150 days per year.

Shrimp fishing regulations are set by the South Carolina Department of Natural Resources (SCDNR) Marine Division, the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries) and the South Atlantic Fishery Management Council (SAFMC). The NOAA Fisheries Office of Protected Resources requires that shrimp trawl nets have a special turtle excluder device (TED) installed to allow sea turtles accidentally caught up in the net to escape. When you see a shrimp boat at the dock, you can usually see the TED which looks like a large metal circle with vertical bars. Also, the SCDNR and SAFMC require the nets to have a bycatch reduction device (BRD), which allows unwanted fish to escape. Fishermen now work cooperatively with fisheries managers and organizations to make improvements to these devices yearly.

Shrimp fishermen must have a state permit to fish in state waters, within the first three miles of the coastal zone. At this time, NOAA Fisheries and the SAFMC are considering a federal permit requirement for boats fishing in South Atlantic federal waters (known as the Exclusive Economic Zone or EEZ which is between 3 and 200 miles offshore).



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David Medici, G&SAFF

Once the shrimp are caught, they are iced or frozen. Many South Carolina boats have recently converted from ice to brine freezing tanks and are now able to supply an excellent “fresh frozen” wild-caught product. There is little shrimp processing beyond heading and freezing available in South Carolina, so any further processing (e.g., breading) usually occurs elsewhere in U.S. South-east region.



## Shrimp is an annual crop

Shrimp live just over a year, then spawn and die. Spawning white shrimp, or “roe shrimp,” release eggs in the ocean waters typically from May to June, (and sometimes during July and August). Young shrimp live in coastal salt marshes and estuaries for about 2-3 months. When they reach about 4 inches, they return to the ocean. The primary spawning period for brown shrimp is October and November, but some spawning occurs through winter and into late spring. In contrast to some other U.S. fisheries, the U.S. South Atlantic shrimp fishery is not considered “overfished.” However, environmental conditions (water temperature and rainfall) can affect the timing of white shrimp migration from coastal estuaries to open ocean. Good water quality is also important to a good shrimp crop.



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## When is shrimp “in season”?

South Carolina shrimp are “in season” from spring (May/June) through early winter (December/January). There are three varieties of shrimp available in South Carolina.

- **Roe:** available in May or June. These are the year-old adult white shrimp that have just spawned. Biologists open this fishery after determining that an adequate supply of eggs has been released.

# What Does Research Say?

## How do South Carolina wild-caught shrimp compare to imported shrimp in taste tests?

In 2004, researchers with the Food Science and Human Nutrition department of Clemson University performed a study comparing South Carolina wild-caught shrimp (fresh and frozen block) with IQF imported shrimp. The study involved four taste panels. Two panels used steamed shrimp. The other two panels used steamed shrimp served in a low-country shrimp and grits recipe intended to highlight certain attributes about the shrimp. Taste panelists consisted of both general consumers (from the Clemson area) and South Carolina chefs. Panelists were asked to sample and rate specific attributes of the shrimp used in the study.

The data were analyzed to determine statistical significance of the attribute ratings. The results provide some information on attributes that chefs, restaurants and retailers may want to highlight about South Carolina wild-caught shrimp. Table 1 summarizes these results.

*Table 1. Results of chef and consumer taste panels for fresh and frozen wild-caught South Carolina shrimp vs. imported pond-raised shrimp.*

Type	Tasting Panel	% of panelists preferring SC shrimp*	Attributes affecting preferences for SC shrimp over imported IQF	
			Fresh	Frozen
Steamed	#1 Chefs	16% (fresh) 51% (frozen)	Pleasant aroma, texture, flavor, sweetness, band markings	flavor
	#2 Consumers	32% (fresh) 20% (frozen)	Pleasant aroma, flavor	flavor
Shrimp and Grits Recipe	#3 Chefs	34% (fresh) 20% (frozen)	Overall flavor; how flavor accompanied the dish, color of the shrimp, appearance of the shrimp in the dish	Texture, overall flavor; how flavor accompanied the dish, color of the shrimp, appearance of the shrimp in the dish
	#4 Consumers	35% (fresh) 35% (frozen)	Overall flavor; how the flavor accompanied the dish	Overall flavor; how the flavor accompanied the dish

\*The remainder of panelists preferred the imported product, for example, for #1, 16% preferred fresh SC, 51% preferred frozen SC, and 33% preferred imported IQF.

## Are coastal tourists interested in local shrimp?

Eating seafood is one of the many things tourists do when they visit the coast every year. However, are South Carolina coastal tourists interested in a unique culinary experience highlighting local wild-caught shrimp? Specifically, do they care if the shrimp they eat is locally harvested, or are they satisfied with just any kind of shrimp? Is the South Carolina shrimp fishing industry important to the coastal tourist experience?



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Researchers in the Recreation, Travel and Tourism Institute (RTTI) of Clemson University surveyed 356 South Carolina coastal tourists in the summer and fall of 2004 in order to

answer these and other related questions. This *Clemson South Carolina Coastal Tourism Survey* was designed to identify subgroups of tourists related to their food and dining out preferences.

### ***Are there any South Carolina coastal tourists who are “culinary tourists”?***

The Clemson University researchers discovered three types of South Carolina coastal tourists —“culinary tourists,” “experiential tourists,” and “general tourists,” relative to food preferences at their travel destination. Table 2 indicates how these groups differ. Of particular interest are “culinary tourists,” who want to experience unique regional foods and cuisines and focus on participating in food related activities at the destination. These activities include dining at restaurants, visiting food producers, purchasing local food products, and visiting food festivals.

*Table 2. Percentage of South Carolina Coastal Tourists in each food preference subgroup and their preferences.*

Tourist Type	% of survey respondents	Preference at tourist destination	
		dining and purchasing local foods, elite dining, local beverages	familiar foods, fast food outlets, chain restaurants
Culinary	30%	High	Low
Experiential	39%	Medium	High
General	31%	Low	High

### ***What do we know about coastal culinary tourists and shrimp?***

Clemson researchers asked the same coastal tourists about their shrimp preferences. They determined that the South Carolina coastal culinary tourist is...

- 🌐 **More likely to prefer shrimp-related tourism experiences** than other tourists (examples—shrimp cooked in traditional Southern recipes, timing their visit when fresh locally harvested shrimp is available)
- 🌐 **More likely to select shrimp that tastes good and is of premium quality** and consume shrimp based on the appearance, reputation of the vendor and reputation of the restaurant
- 🌐 **More knowledgeable about shrimp** than other tourists, particularly regarding cooking and preparation, nutritional benefits, selecting quality shrimp for purchase, safety of shrimp, seasonal differences in shrimp, marine environmental sustainability, and history of shrimp fishing in South Carolina.

### **What can chefs do?**

How can restaurants attract SC coastal tourist's interested in eating shrimp? In general, Clemson research on South Carolina coastal tourists suggests...

- 🌐 Tourists are interested in premium quality, freshly caught local shrimp;
- 🌐 Restaurants need to emphasize availability of local shrimp dishes cooked in traditional and regional recipes;
- 🌐 Tourists' overall knowledge about shrimp issues, cooking shrimp, and differences between domestic and imported shrimp is low.

As part of the “Sea” the Difference project, a brochure regarding South Carolina wild-caught shrimp will be distributed to tourists at welcome centers and other venues (contact Clemson RTTI for copies). Restaurants, chefs, the local shrimp industry, and distributors could partner in educating tourists about wild-caught shrimp.

Attracting tourists to your restaurant depends on your target market. At least 20% of South Carolina coastal tourists surveyed have heard advertising encouraging purchase of and dining on locally harvested shrimp. Culinary and experiential tourists are already more likely to be interested in eating locally harvested shrimp. Here are some other considerations depending on your target market.



## TARGET MARKET: CULINARY TOURISTS

### • What matters?

1. Reputation of the restaurant
2. Availability of seasonal shrimp
3. Origin of the shrimp

### • Recommendations

1. Serve shrimp cooked in traditional southern recipes.
2. Emphasize the availability of seasonal fresh shrimp.
3. Emphasize the quality of the local shrimp.

## TARGET MARKET: EXPERIENTIAL TOURISTS

### • What matters?

1. Availability of seasonal shrimp
2. Regional brand name
3. Certification

### • Recommendations

1. Emphasize the availability of seasonal fresh shrimp.
2. Provide information about whether the shrimp is *Wild American*<sup>TM</sup> and/or another local brand name.
3. Acquire *Wild American*<sup>TM</sup> restaurant certification.

## TARGET MARKET: GENERAL TOURISTS

### • What matters?

1. Shrimp which tastes good
2. Health and safety issues
3. A marine setting or atmosphere

### • Recommendations

1. Serve popular Low Country shrimp dishes which highlight flavor.
2. Provide information on availability of quality, safe wild-caught shrimp.
3. Have a marine view for the restaurant (e.g: shrimp boats).

# Further Reading

**Coastal Heritage, Vol. 19, No. 1, Summer 2004**

*Hanging in the Balance: America's Fishing Industry.* John H. Tibbetts.  
[www.scseagrant.org/pdf\\_files/ch\\_sum\\_04.pdf](http://www.scseagrant.org/pdf_files/ch_sum_04.pdf)

**Coastal Heritage, Vol. 16, No. 1, Summer 2001**

*Shrimp Aquaculture: Challenges and Potential.* John H. Tibbetts.  
[www.scseagrant.org/pdf\\_files/ch\\_summer\\_01.pdf](http://www.scseagrant.org/pdf_files/ch_summer_01.pdf)

**South Carolina Regulations on Shrimping and Sale of Shrimp**  
[saltwaterfishing.sc.gov/pdf/mr\\_act\\_2000.pdf](http://saltwaterfishing.sc.gov/pdf/mr_act_2000.pdf)

**Shrimp in South Carolina**

[www.dnr.state.sc.us/marine/pub/seascience/shrimp.html](http://www.dnr.state.sc.us/marine/pub/seascience/shrimp.html)

# Contacts for Further Information

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**Clemson University Shrimp Industry Partnership**

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**Southern Shrimp Alliance (SSA)**

[www.shrimpalliance.com](http://www.shrimpalliance.com)

**South Carolina Seafood Alliance**

[Seafood@sc.rr.com](mailto:Seafood@sc.rr.com)

[www.scseafood.org](http://www.scseafood.org)

**Wild American Shrimp, Inc. (WASI)**

[www.wildamericanshrimp.com](http://www.wildamericanshrimp.com)

**South Carolina Sea Grant Consortium**

843.727.2078

[www.scseagrant.org](http://www.scseagrant.org)

**Gulf and South Atlantic Fisheries Foundation**

813.286.8390

[gulfsouthfdn@worldnet.att.net](mailto:gulfsouthfdn@worldnet.att.net)

[www.gulfsouthfoundation.org](http://www.gulfsouthfoundation.org)

**South Carolina Aquarium, Sustainable Seafood Initiative**

[sustainableseafood@scaquarium.org](mailto:sustainableseafood@scaquarium.org)

<http://www.scaquarium.org/conservation/ssi.html>

**South Carolina Department of Natural Resources**

**Marine Resources Division**

843.953.9300

[www.dnr.state.sc.us/marine](http://www.dnr.state.sc.us/marine)

**South Carolina Department of Parks, Recreation & Tourism**

803-734-1700

[www.discoversouthcarolina.com](http://www.discoversouthcarolina.com)

**South Atlantic Fishery Management Council**

toll free 866.SAFMC-10

[safmc@safmc.net](mailto:safmc@safmc.net)

**National Oceanic and Atmospheric Administration**

**National Marine Fisheries Service**

**(NOAA Fisheries Service)**

[www.nmfs.noaa.gov](http://www.nmfs.noaa.gov)

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