UF | IFAS Extension
UNIVERSITY of FLORIDA

FE965

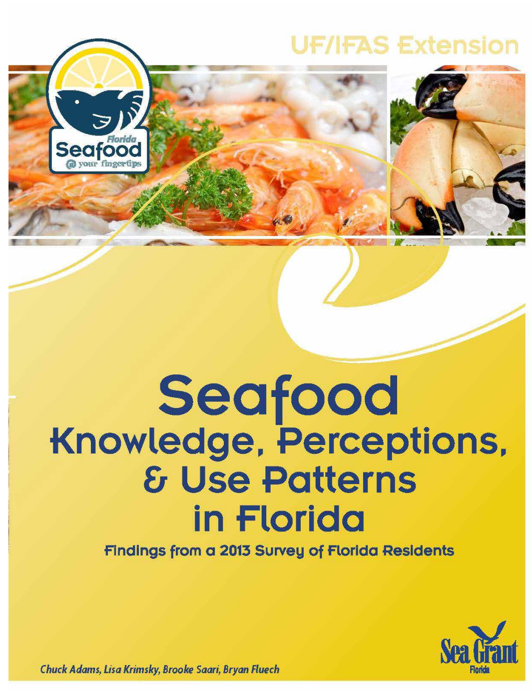
Seafood Knowledge, Perceptions, and Use Patterns in Florida: Findings from a 2013 Survey of Florida Residents[1]

Lisa Krimsky, Charles Adams, and Bryan Fluech[2]

Introduction

Much attention has been directed toward seafood consumption in the United States recently. In 2010, the United States Department of Agriculture (USDA) updated their dietary guidelines, which included a recommendation to increase consumption of seafood as part of a healthy diet (USDA/USDHHS 2010). In 2014, the United States Food and Drug Administration (FDA) and the United States Environmental Protection Agency (EPA) issued an update to their guidelines for fish consumption to be consistent with USDA dietary guidelines (FDA/EPA 2014). Despite this, the per-capita consumption of seafood in the United States has declined since 2000.

The Florida seafood industry is not only important to the state, but the nation as well. Over one hundred species are harvested in Florida and sold into local, regional, and national markets. While Floridians consume more seafood than the national average (FDACS 2007), many consumers are becoming concerned about the origin, quality, sustainability, safety, affordability, and convenience of the seafood products they purchase. The resulting media exposure regarding these issues and others, such as mislabeling and other fraud, is contributing to customer confusion and uncertainty.



To address this need for consumer-oriented education, a survey of Florida seafood consumer preferences, perceptions and concerns was conducted. The goals of the survey were to address seafood issues regarding (1) basic

1. This is EDIS document FE965, an executive summary of a report originally published September 2014 by the Florida Sea Grant College Program as TP-205 with support from the National Oceanic and Atmospheric Administration, Office of Sea Grant, U.S. Department of Commerce. Published May 2015. Please visit the EDIS website at http://edis.ifas.ufl.edu.

2. Lisa Krimsky, Sea Grant Extension agent, Miami-Dade County, UF/IFAS Extension. Charles Adams, marine Extension agent, Florida Sea Grant College Program, and professor, Food and Resource Economics Department, University of Florida, UF/IFAS Extension, Gainesville, FL 32611. Bryan Fluech, Sea Grant Extension agent, Collier County, UF/IFAS Extension.

consumption habits, (2) attitudes about purchased seafood, and (3) thoughts about seafood safety. This document presents a brief summary of survey findings (Adams et al. 2014). The full report of the 2013 survey of Florida residents is available online at https://www.flseagrant.org/wp-content/uploads/TP_205_web.pdf.

Survey Design

An online survey instrument was initiated in spring 2012 that solicited information regarding seafood purchasing and consumption patterns, as well as knowledge, attitudes, and perceptions regarding seafood. The survey was distributed via a commercial Internet marketing firm as well as on the Florida Sea Grant website and several UF/IFAS County Extension websites. A total of 717 individuals responded to the survey and provided a response to some or all of the questions, including 560 surveys that were entirely complete.

Demographic Profile of Respondents

By design, this survey targeted adult seafood consumers (ages 18 years old and over) within the state of Florida. Survey responses were received from 52 of Florida's 67 counties, indicating statewide participation. Methods used for survey recruitment (discussed in the full report) may have resulted in greater numbers of respondents from counties with a stronger Extension presence, as well as a bias toward Caucasians.

Respondents were predominately female and older than the US Census populations for Florida, although this age discrepancy may be associated with the study's requirement that survey respondents must be at least 18 years of age. Household income of respondents varied widely and a greater percentage of respondents had higher levels of education than the average level of education of the total Florida population.

Basic Consumption Patterns

Virtually all of the survey respondents indicated that they do consume seafood. Of the three percent who do not, the primary reasons were that they do not like the taste of seafood, they are vegetarian, or because the primary household meal preparer does not cook seafood. Due to the survey delivery methodologies, we anticipated that only those respondents who regularly consume and/or purchase seafood were likely to click on the seafood survey link, and the results for this survey may underestimate the number of people who do not consume seafood. However, since a key purpose of this survey was to assess seafood consumption and purchasing patterns, as well as attitudes regarding seafood consumption, this lack of non-consumer respondents should not detract from the usefulness of the survey findings.

Of those respondents who do consume seafood, the majority eat seafood one to two times per week. This is consistent with a 2007 Florida Seafood Study conducted by the Florida Department of Agriculture and Consumer Services (FDACS 2007), and suggests that Floridians consume seafood more frequently than the national average. Despite this, results of our study suggest that approximately forty percent of Floridians are not consuming the USDA-recommended dietary guidelines of two servings of seafood each week. Encouragingly, seafood consumption patterns did show an increasing trend as compared with five to ten years ago, due largely to the recognized health benefits and increased availability of seafood. However, the perceived higher cost of seafood and environmental concerns associated with wild seafood harvesting and aquaculture production was associated with a decrease in seafood consumption for twenty-one percent of survey respondents over the last five to ten years.

Consumer Preferences Regarding Seafood

The majority of seafood consumed in the state of Florida is purchased at grocery stores and restaurants, with local seafood markets providing a third option. Seafood freshness was the most important determinant when choosing the point of purchase. Location, price, and local seafood availability were other important factors. Similarly, freshness, price, and flavor/taste preferences are the top three factors that influence consumer purchasing decisions.

Survey results suggest that the origin of seafood is important to Floridians. Respondents were asked to rate seafood source options, including foreign country, United States (US), Gulf of Mexico (GOM), and Florida, on a preference scale of one to five, with one (1) being the *most negative* and five (5) being the *most positive*. Seafood from within the United States, regardless of specific geographic locale, was all rated preferentially, whereas seafood from foreign countries was rated unfavorably. These preferences were consistent with the revealed purchasing decisions of respondents.

When respondents were asked why they would choose to purchase seafood caught/raised in Florida, the top two reasons were to support local fishermen and the economy, and the freshness of locally sourced seafood. The biggest barriers to purchasing Florida seafood were that respondents did not know where to find it, did not know what types of seafood are found in Florida, and were unwilling to pay the higher cost of local seafood. Despite the negative connotations associated with imported seafood, the majority of respondents did not indicate that Florida seafood was safer to eat than imported seafood.

In general, respondents were not very confident in their ability to identify whether their seafood came from Florida, regardless of the point of purchase. Respondents were asked what steps, if any, they take to determine whether the seafood they purchase is caught or raised in Florida. Survey findings indicate that consumers attempt to address this issue by buying directly from a certified fishermen dealer, looking for the *Fresh from Florida* logo, and asking a waiter or store attendant, although knowledge of restaurant wait-staff was ranked lowest as the reason why respondents purchase seafood where they do.

Thoughts about Seafood Safety

Respondents were asked about their level of confidence in the safety of seafood caught/raised in foreign countries, the United States, the Gulf of Mexico, and Florida. As with previous questions, confidence in the safety of foreign seafood is low, whereas confidence was higher for domestic, regional, and local origins.

Bacteria and chemicals were identified as the top seafood safety concerns for foreign imported seafood. However, mercury, oil, and chemicals were identified as concerns for US, GOM, and Florida seafood. This finding could be due to the fact that the 2010 Deepwater Horizon Oil Spill may have still been fresh in the minds of many seafood consumers and survey respondents, especially those in the Panhandle region who may have witnessed the effects of the oil spill firsthand.

Consumer Knowledge about Seafood

Respondents were asked a number of questions used to assess knowledge about seafood and were graded right or wrong based on the responses. The responses to these questions provide insight into the knowledge level of all respondents, collectively. A correct response to a question by eighty percent of the respondents was considered subject mastery across all survey respondents. The collective responses to only two questions met the subject mastery score of eighty percent. These questions dealt with seafood freshness (84%) and seafood processor safety standards (82%). Respondents exhibited lower levels of knowledge concerning recommended seafood consumption levels, seafood dealer license requirements, recommended seafood cooking temperatures, and other topics. The majority of respondents (84%) were either wrong or unsure about the purpose of FDA Consumer Advisories about mercury in seafood. These findings suggest Florida seafood consumers have a low level of knowledge about a variety of seafood-related issues. This finding suggests a need for additional seafood educational programs and information dissemination to Florida's seafood consuming public.

Sources of Seafood Information

Respondents were asked about the source from which their seafood information was obtained. The Internet was the top source, followed by printed educational materials and then newspapers. Podcasts and mobile apps were ranked the lowest, with a majority of respondents never using these information outlets. Respondents were then asked to identify their level of trust toward sources of seafood information. Respondents ranked each group on a level of one to five, with one (1) being the *least trustful* and five (5) being the *most trustful*. Universities and the Cooperative Extension Service were identified as the most trustful sources, followed by health care professionals, family and friends, governmental agencies, store attendants and fish mongers, and non-governmental organizations. Industry was considered to be the least trustful of all groups. Since many survey respondents accessed the seafood survey via a county Cooperative Extension website, these responses are likely skewed toward government/education information sources since they were already Extension clientele.

Summary

The results of the online survey indicate that UF/IFAS Extension has an opportunity to deliver focused, seafood-based educational programs for Florida residents. The following are suggestions for seafood educational programs:

- Floridians, on a per-capita basis, consume more seafood than the national average and recognize seafood as part of a healthy diet, although the higher cost of seafood may be becoming a barrier to increased consumption. Educational programs could provide information on low-cost and seasonal options for Florida seafood commodities to address these trends.
- During the past several years, the influx of lower-cost, imported seafood has displaced local seafood in many

commercial markets. Florida consumers want to purchase local seafood but find it difficult to locate and identify. Specific educational programs could focus on developing a "train-the-trainer" model for restaurant and retail staff. Such a program would help these workers better address customer questions and needs, and promote Florida seafood.

- General knowledge about seafood is low for Florida consumers, especially regarding the safety of imported seafood. Floridians may be decreasing their seafood consumption due to these misconceptions. The University of Florida and the Florida Cooperative Extension Service have an opportunity to address these gaps, as they are recognized as respected outlets for seafood information.
- Educational programs should utilize appropriate outreach materials, including both traditional (educational brochures) and non-traditional (internet, social media) strategies.

It is strongly recommended that Extension faculty and educators refer to the full report (https://www.flseagrant.org/wp-content/uploads/TP_205_web.pdf) to examine regional trends and specific quantitative findings to ensure that educational programming addresses local needs and concerns (Adams et al. 2014).

References

Adams, C., L. Krimsky, B. Saari, and B. Fluech. 2014. Seafood knowledge, perceptions, and use patterns in Florida—findings from a 2013 survey of Florida residents. TP-205, Florida Sea Grant Program, University of Florida, Gainesville, FL.

FDA/EPA. 2014. *Fish: What Pregnant Women and Parents Should Know*. Report by the United States Food and Drug Administration and the United States Environmental Protection Agency (FDA/EPA), Washington, DC. (June).

FDACS 2007. *Florida Seafood Study Survey Overview*. Unpublished report to Bureau of Seafood and Aquaculture Marketing. Florida Department of Agriculture and Consumer Services (FDACS), Tallahassee, FL.

USDA/DHHS. 2010. *Dietary Guidelines for Americans, 2010*, 7th Edition [U.S. Department of Agriculture and United States Department of Health and Human Services]. Washington, DC: United States Government Printing Office (December).