

SUPPORT FOR MARICULTURE AMONG RESIDENTS AND TOURISTS IN SOUTH CAROLINA AND FLORIDA COASTAL COMMUNITIES

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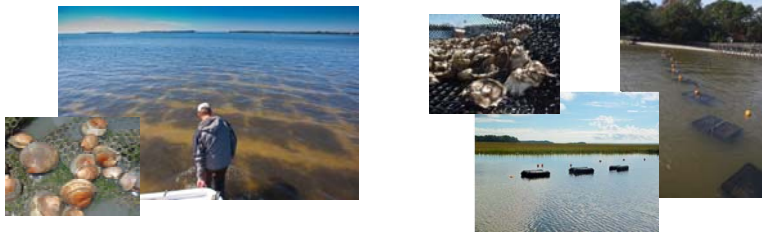
Why look at tourism & mariculture?

- ▶ Economic diversification strategies in coastal fishing communities facing the decline of wild-capture fisheries.
- ▶ Tourism growing but mariculture is limited in growth due to negative media, investment capacity, regulations, and training.
- ▶ Interest in local seafood is increasing among tourists and residents due to promotion, but supply is limited.
- ▶ Expansion of mariculture in some coastal communities has caused opposition from residents and tourists.
- ▶ The presence of mariculture in coastal communities potentially offers unique tourism experiences that also promote farmed seafood.

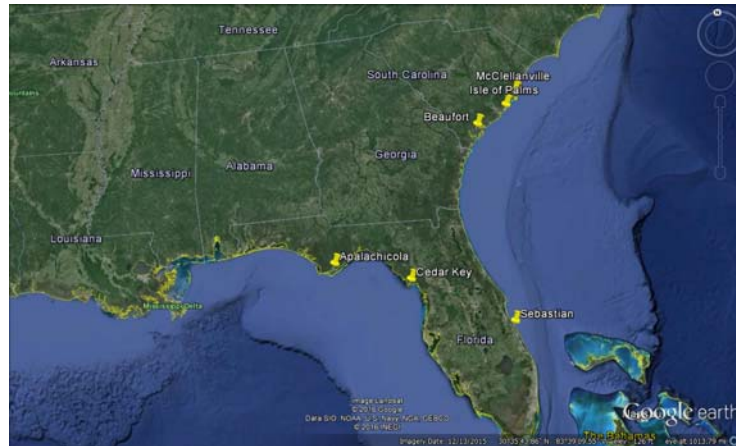


Research Questions

- ▶ What is the baseline level of knowledge, beliefs and support about mariculture in coastal tourism communities in SC and FL?
- ▶ Does knowledge, awareness, and beliefs about mariculture techniques and the seafood it produces influence tourist and resident support of mariculture?



Communities



Research Communities

Mariculture Involvement	Level of Tourism Infrastructure		
	High	Medium	Low
High	Cedar Key, FL		
Medium	Beaufort, SC Isle of Palms, SC		McClellanville, SC
Low		Sebastian, FL	Apalachicola, FL



Survey Methods

- ▶ E-mail address collection:
 - **Tourists:** Visitor intercepts at beaches, parks, aquarium, museums, other attractions, festivals, shopping areas
 - **Residents:** Purchased email addresses (all emails available for county and neighbor counties for FL)
- ▶ Online survey link sent to email address
- ▶ 3 non-response reminders
- ▶ Lottery for gift card as incentive
- ▶ **Goal:** 100 resident and 100 tourist responses per community



Survey Invites and Response

Survey Group	Invites	Completed surveys	Response Rate
FL Coastal Tourist	491 ²	273	55.6%
FL Resident	732 ¹	163	22.3%
FL Resident Intercepts	359 ²	141	39.3%
SC Coastal Tourist	856 ²	362	42.3%
SC Resident	1654 ¹	409	24.7%

¹Purchased database email invites are based on "click through", ²Invites are based on intercepts and do not currently include email bounces.



Demographics

Subgroup	Gender	Age (Mean)	Education	Household Income
Tourist	51% Male	49	64% College	42% 100K+
Resident	53% Male	61	70% College	34% 100K+

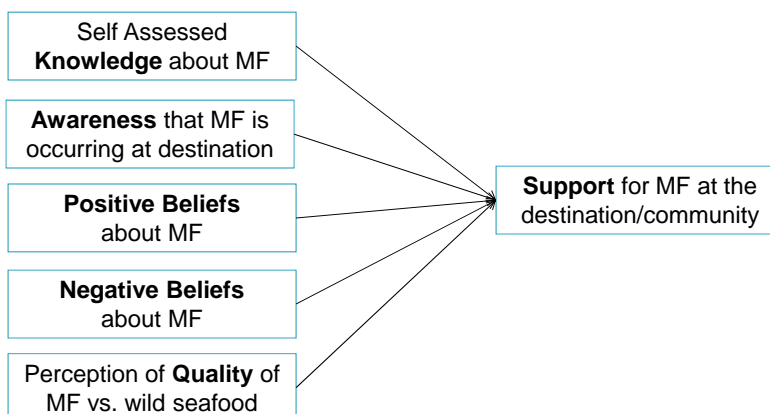


Subgroup Characteristics

- RESIDENTS (69%) and TOURISTS (76%) eat seafood at restaurants near home once or twice a month.
- Most TOURISTS were repeat visitors to the community
- RESIDENTS lived an average of 22 years in their community
- 82% of TOURISTS planned to eat local seafood at their coastal destination
- 9% of TOURISTS ate clams, 8% ate cooked oysters, 6% ate raw oysters
- Most commonly consumed seafood for TOURISTS was shrimp
- The most frequently eaten seafood types among RESIDENTS are shrimp and finfish.



Analysis Model



Knowledge about Marine Farming

Knowledge about Marine Farming	Tourist (N=551)		Resident (N=637)	
	Mean ¹	SD	Mean	SD
Quality of marine farmed and wild-caught seafood*	1.76	0.99	2.08	1.08
Economic impacts of the marine farming industry*	1.70	0.96	1.98	1.09
Safety of seafood produced by marine farming*	1.70	0.95	1.98	1.03
Environmental sustainability of marine farms*	1.68	0.90	1.95	1.04
Nutritional benefits of seafood produced by marine farming*	1.62	0.92	1.88	1.02
History of marine farming*	1.40	0.76	1.71	1.03
When marine farmed seafood is available for purchase*	1.56	0.93	1.82	1.06
Growing techniques used by marine farmers*	1.54	0.86	1.94	1.08
Where marine farmed areas are located in the water*	1.47	0.84	2.02	1.16
Marine farming regulations and permitting*	1.32	0.73	1.52	0.86
Composite mean*	1.57	0.74	1.89	0.91

¹Scale is 1=Not at all Knowledgeable, 5=Extremely knowledgeable; *Significantly different at p<.05.



Awareness of Marine Farming

Subgroup	% Aware
Resident (N=663)	63.3
Tourist (N=582)	44.2

$\chi^2 (1, N = 1245) = 46.01, p < .001$



Beliefs about Marine Farming

Marine farming...	Tourist (N=519)		Resident (N=591)	
	Mean ¹	SD	Mean	SD
Positive				
creates local jobs.	3.67	0.79	3.75	0.72
helps the local economy.	3.65	0.76	3.69	0.75
increases availability of sustainable local seafood.	3.61	0.74	3.69	0.73
helps preserve the fishing culture.	3.35	0.79	3.38	0.83
helps preserve the rural culture.	3.25	0.78	3.22	0.80
benefits marine wildlife.	3.24	0.76	3.30	0.81
enhances recreational fishing.	3.23	0.74	3.15	0.78
enhances the marine environment.	3.12	0.75	3.15	0.76
attracts tourism to the area.*	2.99	0.81	2.86	0.86
helps improve local water quality.	2.99	0.75	3.00	0.81
makes the scenery interesting.	2.92	0.71	2.85	0.79
increases my personal attachment to the area.	2.83	0.83	2.81	0.91
Composite Mean	3.24	0.56	3.24	0.58
Negative				
conflicts with marine boating.	2.82	0.74	2.78	0.74
causes me to use other areas for my recreation.	2.68	0.80	2.68	0.80
Composite Mean	2.75	0.68	2.73	0.68

¹Scale is 1=Strongly Disagree, 5=Strongly Agree; *Significantly different at p<.05.



Quality of Farmed vs. Wild Seafood

Farmed seafood is _____ than wild caught seafood.	Tourist (N=502)		Resident (N=619)	
	Mean ¹	SD	Mean	SD
more available for purchase*	3.54	0.89	3.36	0.83
more environmentally sustainable	3.37	0.92	3.35	0.92
a better value for the money*	3.23	0.84	3.07	0.87
safer	2.98	0.89	2.92	0.91
cleaner	2.96	0.92	2.92	0.94
fresher	2.96	0.88	2.87	0.90
healthier	2.85	0.92	2.79	0.90
better tasting	2.80	0.85	2.68	0.79
better in quality	2.79	0.91	2.72	0.89
Composite Mean*	3.05	0.69	2.97	0.68

¹Scale is 1=Strongly Disagree, 5=Strongly Agree; *Significantly different at p<.05.



Support for Marine Farming

How did marine farming operations in your most recent coastal destination/in your community affect your opinions about the area in relation to the factors mentioned?	Tourist (N=549)		Resident (N=619)	
	Mean ¹	SD	Mean	SD
Your support of the local seafood industry*	3.47	0.81	3.61	0.81
Your willingness to revisit (tourist) /Your interest in continuing to live in the area (resident)	3.36	0.73	3.35	0.70
Your perception of the area	3.28	0.70	3.32	0.70
The natural environment	3.22	0.67	3.19	0.73
Your key recreational activities*	3.17	0.59	3.08	0.55
Its impact on the scenery*	3.15	0.61	3.05	0.62
Your overall support of marine farming in the area	3.39	0.80	3.47	0.87
Composite mean ²	3.29	0.60	3.29	0.58

¹Scale is 1=Very Negative, 5=Very Positive; ²Composite mean includes "Your willingness to revisit" for tourists and "Your interest in continuing to live in the area" for residents; *Significantly different at p<.05



Best Predictors of Support for Marine Farming

Variable ¹	Tourists			Residents		
	B	SE B	Beta	B	SE B	Beta
(Constant)	1.433	0.159		1.174	0.122	
Knowledge	0.143	0.035	0.182***	0.109	0.021	0.173***
Awareness	0.142	0.052	0.118**	0.024	0.039	0.020
Belief (pos)	0.459	0.051	0.436***	0.628	0.033	0.634***
Beliefs (neg)	-0.036	0.036	-0.041	-0.124	0.024	-0.145***
Quality	0.061	0.040	0.070	0.068	0.027	0.079**
R ²		0.342			0.602	
Adjusted R ²		0.334			0.598	
F		44.359***			157.50**	



Conclusions & Recommendations

- Positive beliefs and knowledge are the most important for support.
 - Focus on outreach that highlights the positive attributes and sustainability of marine farming in the community
 - Integrate outreach with seafood experiences (restaurant, retail, festivals) and nature-based tourism
- Residents and tourists are similar in support of marine farming, however, tourists are more positive about marine farming impacts on their recreational activities and the scenery.



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