

What are the Factors Affecting Trip Satisfaction for the For-hire Fishery in South Carolina in Relation to the Black Sea Bass Bag Limit?

¿Cuáles son los Factores que Afectan la Satisfacción del Viaje para la Industria de Alquiler en Carolina del Sur en Relación con el Límite de la Bolsa de Bajos del Lubina?

Quels sont les Facteurs qui Influencent la Satisfaction du Voyage pour L'industrie à but Lucratif en Caroline du Sud par Rapport à La limite du Black Sea Bass Bag?

STACEY WEINSTOCK

College of Charleston, South Atlantic Fishery Management Council,
66 George Street, Charleston, South Carolina 29424 USA.
weinstocksa@g.cofc.edu

EXTENDED ABSTRACT

Introduction

The marine charter/head boat industry is a worldwide economically important recreational activity that thrives in tourist destinations such as the Gulf and Caribbean. Trip satisfaction for clients is important to understand in order to inform regulation and aid for-hire fishing businesses. In South Carolina, located in the South Atlantic region of the United States, black sea bass (*Centropomus striata*) are an important marine recreational for-hire fishery. In recent years recreational harvest limits have undergone several management changes including a 2017 increase in black sea bass bag limits. This bag limit change provided an opportunity to further research trip satisfaction in the marine for-hire industry. The purpose of this study was to determine how managers can better understand stakeholder perceptions toward recreational harvest limits. Perceptions and impacts of recreational bag limits were used to assess the affect of bag limits on trip satisfaction on charter/headboats. By being able to define the parameters that effect trip satisfaction in the for-hire industry fishery managers can continue to alter regulations to increase angler satisfaction and aid for-hire businesses. Three questions were evaluated to determine these factors:

- i) How does catch rate and retention affect trip satisfaction on for-hire trips,
- ii) Does the bag limit of Black Sea Bass affect trip satisfaction, and
- iii) Do the factors driving trip satisfaction differ between charter and head boat crews?

Methods

To evaluate the factors that determine trip satisfaction and assess how bag limits affect trip satisfaction, a multi-method research design was employed using qualitative and quantitative methods. Captain, crew and customers were the target audiences and grouped by private and head boat charters. The study area included coastal South Carolina specifically targeting Charleston, Hilton Head and Myrtle Beach (Figure 1). Participant observation was employed on charter and head boat trips to discern the interactions of the customers, captain and crew and to begin to identify what factors contribute to their satisfaction. Direct behavior observation was employed to quantify fishing trip satisfaction for catch rate, fight with fish and taking home fish. Field notes were produced from these trips to inform survey results. While on board, interviews were conducted with crew of the charter and head boat business. These interviews included questions concerning fishing trip satisfaction for both crew and customers. Transcripts were produced from interviews and recounted crew and customer desires and perceptions toward trip satisfaction. Lastly, a 27-questionnaire survey was provided to customers online and through dockside surveys. The survey quantified perceptions towards fishing and bag limits. Customers were recruited with an offer to enter to win a \$100 gift card.

Preliminary Results

Six trips were taken on charter and head boats in each study area. Field notes were produced and fishing behaviors were quantified. Fourteen interviews were conducted with six captains and eight fishing mates. Transcripts were produced

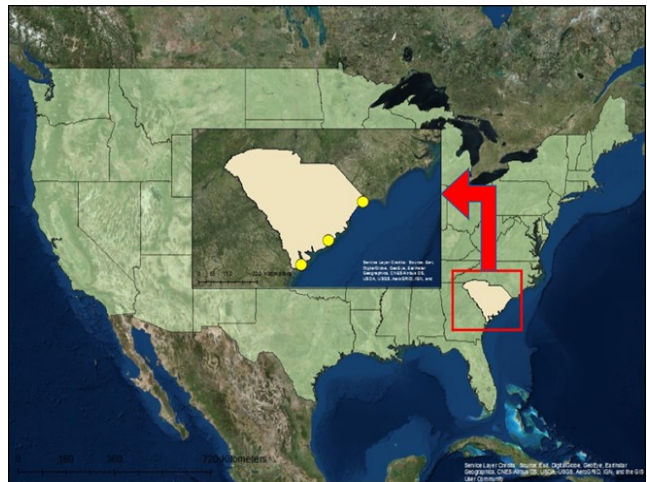


Figure 1. Geographical location of South Carolina and location of study areas

and recounted perceptions towards fishing trip satisfaction for both customers and crew. For questionnaire surveys, 287 were completed with 167 in person and 120 online. Table 1 shows survey responses of fishing perceptions. For strongly agreeing 42.2% perceive catching a fish to be a successful trip. While strongly agreeing 27.9% taking home fish, 23.7% fight with fish and 10.8% with catching a trophy fish. While Table 2 shows responses towards the bag limit believing it's too low (22.3%), just right (16.7%), and too high (5.2 %) while 54.0% were neutral.

Discussion

For customers, catching a fish, whether black sea bass or not, and taking home fish are drivers of trip satisfaction. Field notes, surveys and interviews all informed that if catch rate is high, trip satisfaction is high. While the majority of customers wanted to take fish home, they did not desire a large quantity. Interviews indicate that the factors driving trip satisfaction did not seem to differ between headboat and charter boat crews. Additionally through observations, discards seemed to have some effect on customers. The more fish thrown back, the noticeable disappointment in customers. Early survey results also indicate that bag limits seem to have no effect on trip satisfaction. The majority of survey respondents and customers on board were unaware of bag limits. It seems, that for captains and crew, bag limits seem to have some effect on trip satisfaction, however, size limits seem to be the greatest factor. For future research, size limits and discards should be considered to determine their effect on trip satisfaction.

Management Implications

When managers are considering recreational bag and size limits, it is important to consider the potential impacts on trip satisfaction, which in turn can have an economic impact on the for-hire industry. If management is too restrictive, this can negatively impact trip satisfaction and thus reduce returned business. It is important to be aware of these impacts particularly in the Gulf and Caribbean region. The results of this study have relevance to the Gulf and Caribbean region which experiences similar tourism volume. The use of this multi-method research design could be applied in concentrated areas of charter businesses to evaluate trip satisfaction in the Gulf and Caribbean region aiding fisheries managers and charter businesses alike.

KEYWORDS: Trip satisfaction, for-hire fishery, black sea bass, *Centropomus striata*, South Carolina

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Table 1. Survey responses to fishing trip success

A FISHING	Strongly Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Strongly Agree	MEAN		
	%	%	%	%	%			
I catch a fish	4.2	5.6	5.2	5.6	16	20.2	42.2	5.56
I take home fish	8.4	9.8	6.6	16.4	18.8	11.1	27.9	4.74
I have an exciting	3.8	7.7	3.5	15	26.5	18.5	23.7	5.06
I catch a trophy	10.5	19.2	8.7	31	12.2	6.3	10.8	3.78

Table 3. Survey responses to bag limits

	Too Low	Just Right	Too High	Neutral	Mean
	%	%	%	%	
Do you think the bag limit of Black Sea Bass is too high, too low, or just right?	22.3	16.7	52	54.0	2.9