Economic Contribution of the 2018 Recreational Red Snapper Season in the South Atlantic

Produced for the:

American Sportfishing Association (ASA)

SOUTHWICK ASSOCIATES

PO Box 6435 ■ Fernandina Beach, FL 32035 ■ Office (904) 277-9765

Executive Summary

This study estimates the economic contributions that can be reasonably attributed to the six-day red snapper season in August 2018 based on activities within the states of North Carolina, South Carolina, Georgia, and Florida. Roughly 61,000 recreational trips targeting red snapper took place. Average expenditures associated with these trips are estimated to be $61.40 and $323.53 for trip-related and durable goods, respectively.

Table ES 1. Total recreational red snapper fishing trips and average spending per trip in the South Atlantic

	Total red snapper trips ('000)	Trip-related spending per trip	Durable good spending per trip
South Atlantic region	61.4	$61.40	$323.53

Red snapper anglers spent an estimated $3.8 million in trip-related goods and services such as food and fuel. They also spent an estimated $19.9 million on durable goods items such as rods & reels and tackle. Collectively, spending associated with the season was an estimated $23.6 million.

Table ES 2. Total recreational angler spending associated with red snapper trips in the South Atlantic

	Trip-related spending (million)	Durable good spending (million)	Total spending (million)
South Atlantic region	$3.8	$19.9	$23.7

The economic contributions of direct spending associated with the season's recreational red snapper fishing activity were calculated using the latest state-level modeling data available from IMPLAN and NOAA's economic models. These effects are created when anglers' spending, known as the direct effects, cycles through the regional economy generating additional rounds of economic activity. Total economic contributions generated coastwide were $24.9 million in GDP, 324 jobs and $15.7 million in salaries & wages, and $6.8 million in local, state and federal tax revenues.

Table ES 3. Economic contributions from spending related to red snapper fishing in the South Atlantic

South Atlantic region	Jobs	Salaries & wages (million)	GDP (million)	Total Output (million)	Federal, State, & Local Taxes (million)
Direct effects	185	$9.2	$13.6	$18.9	$4.1
Multiplier effects	139	$6.5	$11.3	$20.4	$2.7
Total effects	**324**	**$15.7**	**$24.9**	**$39.3**	**$6.8**

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Introduction

In 2018, the red snapper recreational fishing season was opened in the South Atlantic for limited harvests over a six-day period during the month of August. This study estimates the economic contributions that can be reasonably attributed to that season based on activities within the states of North Carolina, South Carolina, Georgia, and Florida. The study utilized participation and spending data provided by both NOAA and the states. Economic contribution estimates used NOAA-based economic impact models. The results report economic contributions that occurred within the four state South Atlantic region.

Approach

Effort Data

Effort data was obtained from two sources. Following the completion of state-level research, Florida provided their detailed report of the 2018 recreational red snapper season including participation and effort along the east coast of Florida. Participation and effort data for the other three states relied on effort data provided through NOAA's Fisheries Marine Recreational Information Program (MRIP). All participation data were reported as a per-trip measure.

Spending Data

Trip-related and equipment spending specific to recreational trips targeting red snapper are not available from existing sources. Instead we use proxy data under the assumption that the average spending for red snapper trips is similar to the average spending across recreational trips targeting other coastal species. State-level trip and equipment spending data was obtained from NOAA's *Fisheries Economics of the United States* report and data portal.

The average trip-related spending per trip for all marine fishing was calculated using the reported estimated total trips from the same data source. Unlike trip-related expenditures, durable goods, by nature, are not dedicated to a specific fishing trip but rather utilized across multiple fishing trips. However, with each trip these goods are consumed or deteriorate and are eventually replaced. Therefore, a similar approach is utilized for both expenditure types. These average trip-related and equipment spending per trip amounts were then multiplied by the trips specific to red snapper to estimate the annual spending attributable to red snapper fishing.

Economic Modeling

Input-output models describe how sales in one industry affect other industries. For example, once a consumer makes a purchase, the retailer buys more merchandise from wholesalers, who buy more from manufacturers, who, in turn, purchase new inputs and supplies. In addition, the salaries and wages paid by these businesses stimulate more economic activity as workers spend their incomes (in this case the portion of their incomes directly or indirectly associated to the red snapper fishery). Simply, the first purchase creates numerous rounds of spending. Input-output analysis quantifies the flow of dollars from the consumer through all of the businesses that are affected, either directly or indirectly.

Dollars spent by anglers or others, known as their "direct spending", cycle through the economy generating additional rounds of spending by businesses who provide supporting services and goods. This is known as the multiplier effect and includes 1) indirect contributions arising from spending by businesses supporting those who serve anglers as well as 2) induced contributions generated by employees of directly or indirectly affected businesses. The total economic contribution from red snapper angling as provided in this report is a sum of the direct effects of anglers' retail spending plus the measurable effects of indirect and induced spending. All economic contributions in this study were estimated using the latest state-level modeling data built using IMPLAN© (2016) as provided by NOAA (personal communications) with inflation adjustments to reflect 2018 spending. To allocate red snapper spending within the IMPLAN model, each specific expenditure was matched to the appropriate industry sector that received the initial purchase based on NOAA's economic models.

Five types of economic activity are measured and reported:

- *Jobs*: The number of full- and part-time jobs created or supported as a result of red snapper fishing;
- *Salaries and wages*: Total payroll, including salaries, wages and benefits paid to employees and business owners;
- *GDP:* This represents the total contribution (or "value-added") to the state or national economy from red snapper fishing;
- *Total Output:* The total value of all economic activity by businesses throughout the economy under study associated with red snapper fishing; and
- *Tax Revenue*: All local, state, and federal taxes generated as a result of the economic activity associated with red snapper fishing.

The results estimate the economic contributions that occurred within the four state South Atlantic region. The results do not include any economic activity or indirect contributions that leak out of a given region, of which a portion would be captured by national models.

Results

A total of 61,000 recreational trips targeting red snapper took place over the six-day season in August, 2018 (Table 1). The overwhelming majority (94%) taken were un-chartered. Within the region, the largest proportion of trips were reported to have been taking along the East Coast of Florida.

Table 1. Total recreational red snapper fishing trips in the South Atlantic and percent by mode and average spending per trip

	Trips by mode			Average trip spending by mode		Average durable good spending
	Charter	Private	Total	Charter	Private	
North Carolina	389	*	389	$405.42	na	$340.38
South Carolina	*	2,199	2,199	na	$46.24	$184.24
Georgia	180	3,621	3,801	$253.18	$42.28	$159.55
Florida (East Coast)	2,969	52,029	54,998	$429.62	$39.13	$228.69
South Atlantic region	**3,538**	**57,849**	**61,387**	**$417.98**	**$39.60**	**$323.53**

*NOAA's MRIP database did not report private trips in North Carolina or charter trips in South Carolina. If trips indeed did occur in those locations, the estimates of economic contributions could be considered conservative.

Total direct spending associated with recreational red snapper fishing during the 2018 season was estimated to be $23 million dollars. Trip-related spending was estimated to be $3.8 million and durable goods spending estimated to be $19.9 million, the majority being realized in Florida

Table 2. Total spending attributed to red snapper fishing in the South Atlantic region

	Trip spending by mode ('000)			Durable good spending ('000)	Total spending ('000)
	Charter	Private	Total		
North Carolina	$157.7	*	$157.7	$88.9	$246.7
South Carolina	*	$101.7	101.7	$350.8	$452.5
Georgia	$45.6	$153.1	$198.7	$700.3	$898.9
Florida (East Coast)	$1,275.5	$2,035.8	$3,311.3	$18,720.3	$22,031.7
South Atlantic region	**$1,478.8**	**$2,290.6**	**$3,769.4**	**$19,860.5**	**$23,629.8**

The economic contributions of direct spending associated with the season's recreational red snapper fishing activity was estimated to have generated $13.6 million in GDP, supported 185 jobs providing $9.2 million in salaries & wages, and $4.1 million in tax revenue. Total economic contributions, which includes both the direct and the multiplier

effects, was estimated to have generated $24.9 million in GDP, supported 324 jobs providing $15.7 million in salaries & wages, and $6.8 million in tax revenue.

Table 3. Economic contributions from spending related to red snapper fishing in the South Atlantic

	Jobs	Salaries & wages ('000)	GDP ('000)	Total Output ('000)	Federal, State, & Local Taxes ('000)
Direct effects					
North Carolina	2	$86.2	$124.2	$223.4	$30.0
South Carolina	4	$166.1	$255.9	$380.2	$78.8
Georgia	8	$359.1	$547.0	$694.8	$162.8
Florida (East Coast)	171	$8,555.5	$12,653.6	$17,615.4	$3,857.4
South Atlantic region	185	$9,166.8	$13,580.7	$18,913.9	$4,129.1
Multiplier effects					
North Carolina	1	$64.7	$109.3	$197.5	$24.0
South Carolina	2	$84.0	$149.1	$276.5	$34.9
Georgia	5	$231.9	$406.3	$716.0	$89.3
Florida (East Coast)	131	$6,155.2	$10,625.2	$19,235.2	$2,533.3
South Atlantic region	139	$6,535.8	$11,289.8	$20,425.3	$2,681.5
Total effects					
North Carolina	3	$150.9	$233.5	$420.9	$54.0
South Carolina	6	$250.0	$405.0	$656.8	$113.8
Georgia	13	$591.0	$953.3	$1,410.8	$252.1
Florida (East Coast)	302	$14,710.6	$23,278.8	$36,850.7	$6,390.7
South Atlantic region	324	$15,702.6	$24,870.5	$39,339.2	$6,810.6

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