

DESCRIPTION OF 2010 SUMMER FLOUNDER, SCUP, AND BLACK SEA BASS CHOICE EXPERIMENT SURVEY AND SAMPLING DESIGN

Sampling Design

The sampling design for the 2010 choice experiment (CE) survey was similar to the design of the 2009 CE survey. The 2010 CE survey was designed in conjunction with NMFS' Marine Recreational Fisheries Statistics Survey (MRFSS), as was the 2009 CE survey, and was administered along the coastal states in the Northeast Region (ME-NC). All anglers intercepted in the Northeast Region for the MRFSS were asked to participate in a voluntary follow-up mail survey. All anglers that agreed to participate in the follow-up were sent mail questionnaires using the same modified Dillman Tailored Design (Dillman, 2000) method used in 2009.¹ In contrast to the 2009 CE survey though, anglers in 2010 were given the option of completing the CE survey by mail or online.

Anglers were not stratified into two sample populations, based on expected per trip expenditures, as was done for the 2009 CE survey. The stratification made model analysis more complicated and only a small proportion of the species contained in the 2010 CE survey are caught by shore anglers. Thus, we did not make a distinction between shore anglers and boat anglers, based on expected per trip expenditures.

Survey Instrument

The 2010 CE questionnaire was similar to the 2009 questionnaire and consisted of the following components: (1) a species information page; (2) screener questions; (3) 8 CE

¹ Intercept brochure, mail instrument 3 to 6 weeks later, postcard reminder 2 weeks after first mailing, second mailing of survey instrument 4 weeks after first mailing.

questions; and (4) demographic questions (see Appendix I). The screener questions differed slightly from the 2009 questionnaire, but were still designed to target the angler's familiarity and avidity for summer flounder, scup, and black sea bass.

A total of 10,244 surveys were mailed to anglers that agreed to participate. Anglers participating in the survey returned 3,067 questionnaires by mail or completed the survey online for a total response rate of approximately 30%. The response rate was marginally higher for the 2009 survey (33%), but the number of returned surveys in 2010 was over double that observed in 2009 (1,491), because the number of surveys mailed out in 2010 was twice as high as mailed out in 2009 (4,577). This is because the 2009 survey was conducted only in the coastal states from Maine through New Jersey, whereas the 2010 survey was conducted from Maine through North Carolina.

Analogous to the 2009 CE survey, anglers were asked to simultaneously compare features of different hypothetical fishing trips and then to choose the trip they liked best. The attributes anglers were asked to compare across trips were similar to the 2009 survey, but several distinctions are worth pointing out.

The trip attributes (regulations, fish caught, and fish kept, total trip costs) were similar across surveys, but trip length (hours fished) was dropped from the 2010 survey. The effect of this omission on model results is uncertain, but should not likely be considerable. The variable "trip length" was significant in the RUM constructed from the 2009 survey though.

The first trip alternative shown in the 2010 survey (Trip A) asked anglers to evaluate ranges of summer flounder caught, rather than an exact number of fish caught as was done for the 2009 survey. Ranges are often included in CE surveys, but present challenges when modeling results. Typically, ranges are modeled as categorical or effects coded variables. Using

mid-points are another option, but require making strong assumptions. We will explore all modeling alternatives as necessary.

The 2010 survey included 3 trip alternatives plus an opt-out of saltwater fishing alternative, whereas the 2009 survey asked anglers to evaluate only 2 trip alternatives plus an opt-out alternative. The first two trip alternatives in the 2010 survey (Trip A and Trip B) contained the primary species of interest. These species are generally caught by bottom fishing using similar bait/lures and vary by subregion. Historical MRFSS data indicate that anglers fishing from Maine through New York often catch summer flounder, black sea bass, and fluke while bottom fishing so anglers were asked to compare trip attributes across these three species in Trip A and Trip B. In NJ, MRFSS data indicate that anglers often catch summer flounder, black sea bass, fluke, and weakfish while bottom fishing, so anglers were asked to simultaneously evaluate fishing trip features of all four species in Trip A and B. The Delaware and Maryland survey version included summer flounder, black sea bass, and weakfish in Trip A and Trip B, and the VA and North Carolina version included summer flounder, black sea bass, weakfish, and red drum as indicated by historical MRFSS data. Thus, in addition to summer flounder, scup, and black sea bass, the survey should provide angler preference data to calculate resource values for weakfish (DE – NC) and red drum (VA – NC) as well.

The third trip alternative in the 2010 survey (Trip C) was added in an attempt to better capture species substitution. Whereas Trip A and trip B inquired about species generally caught by bottom fishing using similar bait/lures, Trip C allowed anglers to choose to go fishing for other species, which are sometimes caught using the same fishing approach, but are mostly caught by using different bait/lures and fishing methods (e.g., casting or trolling). To minimize information overload, Trip C simply identified alternative species an angler could choose to fish

for instead of the species listed under Trip A and B. Based on historical MRFSS data, the Trip C option in the survey completed by anglers fishing from Maine through Maryland was “Go fishing for striped bass or bluefish” and in Virginia and North Carolina it was “Go fishing for bluefish, cobia, Spanish mackerel, or striped bass.” Trip C will be modeled as a dummy variable in the RUM and should improve the overall fit of the model.

Another difference worth noting is that the opt-out of fishing option in the 2009 survey was shown as “Trip C” and in the 2010 survey it is presented below the trips anglers are asked to compare. Past CE studies have used both approaches and we think the change was made simply due to page size limitations: the addition of a “Trip D” would not fit on the page.

Comparable to the 2009 CE survey, the attribute levels contained in the 2010 CE survey were intended to represent historical and potential future values as best as possible. The range of regulation levels chosen reflect current size and possession limits and also account for potential future alternative measures. We believe the price (i.e., cost) vector was derived from angler expenditure data collected in 2006 in the Northeast. Although feedback from focus group participants was used to corroborate the chosen price vectors contained in the survey, the upper ranges of trip costs included the 2010 survey are lower than in the 2009 survey.

The attribute-level combinations (i.e., experimental design) used in the 2010 survey were constructed to optimize the statistical stability of the model results based on the expected number of completed surveys, as was done for the 2009 survey. The experimental designs were generated using SAS 9.2 Kuhfeld Macros which had the highest relative D-efficiency scores of all candidate designs meeting the sample size requirements (personal communication Jarvis 2011). In total, 16 versions of the survey, with varying attribute levels, were administered in each subregion.

Tabular summary of the 2010 CE survey

MRFSS intercept follow-up study conducted across wave's 2-6.

Respondents completed the survey by mail or online.

The surveys varied across four regions (ME-NY, NJ, DE-MD, VA-NC).

Sixteen versions of the survey were administered in each region.

Respondents were asked to evaluate 8 stated preference questions.

Each stated preference question included 3 alternatives (Trip A, Trip B, and Trip C) and an opt-out of fishing option was offered when the respondent was asked to choose their favorite trip.

ME-NY

Three species included in each alternative (scup, black sea bass, fluke).

Trip A includes a range of fluke caught.

Trip B drops the range and indicates a specific number of fluke caught.

Trip C is an opt out option of fishing for scup, fluke, or black sea bass and instead fish for striped bass or bluefish.

Below the stated preference section is an opt out of saltwater fishing altogether option.

NJ

Four species included in each alternative (scup, black sea bass, fluke, weakfish).

Trip A includes a range of fluke caught.

Trip B drops the range and indicates a specific number of fluke caught.

Trip C is an opt out option of fishing for scup, fluke, black sea bass, or weakfish and instead fish for striped bass or bluefish.

Below the stated preference section is an opt out of saltwater fishing altogether option.

DE-MD

Three species included in each alternative (black sea bass, fluke, weakfish).

Trip A includes a range of fluke caught.

Trip B drops the range and indicates a specific number of fluke caught.

Trip C is an opt out option of fishing for black sea bass, fluke, or weakfish and instead fish for striped bass or bluefish.

Below the stated preference section is an opt out of saltwater fishing altogether option.

VA-NC

Four species included in each alternative (black sea bass, fluke, weakfish, red drum).

Trip A includes a range of fluke caught.

Trip B drops the range and indicates a specific number of fluke caught.

Trip C is an opt out option of fishing for black sea bass, fluke, weakfish, or red drum and instead fish for bluefish, cobia, Spanish mackerel, or strip bass.

Below the stated preference section is an opt out of saltwater fishing altogether option.

Bag Limits Included in Survey

Fluke	0, 1, 2, 3, 4, 5, 6, 8
Scup	5, 10, 15, 20, 25, 40, 50, 60
Black Sea Bass	3, 5, 10, 15, 20, 22, 25, 30
Weakfish	0, 1, 2, 3, 4, 5, 6, 8
Red Drum	0, 1, 2, 3, 4, 5, 6, 7

Size Limits Included in Survey (inches)

Fluke	14, 16, 18, 20, 21, 22, 23, 24
Scup	9, 10, 10.5, 11, 11.5, 12, 12.5, 13
Black Sea Bass	9, 10, 10.5, 11, 11.5, 12, 12.5, 13
Weakfish	12, 13, 14, 15, 16, 17, 18, 20
Red Drum	14-24, 14-27, 14-28, 14-30, 15-30, 16-24, 16-26, 16-29, 17-27, 17-30, 18-24, 18-26, 18-28, 19-24, 19-27, 20-24, 20-26, 20-28, 30 or larger

Fish Caught in Survey

Fluke	1, 2, 3, 4, 6, 8, 10, 15, 0-2, 0-4, 0-5, 0-6, 0-7, 0-8, 0-9, 1-3, 1-7, 1-11, 2-4, 3-5, 3-9, 3-13, 5-7, 5-11, 5-15, 7-9, 7-13, 9-11, 10-20, 12-18, 14-16
Scup	3, 5, 10, 20, 30, 40, 60, 80
Black Sea Bass	8 or smaller, 9, 10, 11, 12, 13, 14, 16 or larger
Weakfish	1, 2, 3, 4, 5, 7, 9, 11
Red Drum	2, 3, 4, 5, 7, 9, 11

Size of Fish Caught in Survey

Fluke	10 or smaller, 12, 15, 17, 20, 22, 25, 27 or larger
Scup	6 or smaller, 8, 9, 10, 12, 13, 14, 16 or larger
Black Sea Bass	8 or smaller, 9, 10, 11, 12, 13, 14, 16 or larger
Weakfish	10 or smaller, 12, 14, 15, 16, 18, 20, 22 or larger
Red Drum	11 or smaller, 14, 18, 22, 25, 28, 30, 33 or larger

Number of Fish Kept in Survey

Fluke	0, 1, 2, 3, 4, 5, 6, 8, 0-1, 0-2, 0-3, 0-4, 0-5, 0-6, 0-7, 0-8, 1-2, 1-3, 1-4, 1-5, 1-6, 2-3, 2-4, 3-4, 3-5, 3-6, 3-8, 5-6, 5-7, 5-8, 7-8
Scup	0, 3, 5, 10, 15, 20, 25, 30, 40, 50, 60
Black Sea Bass	0, 1, 3, 5, 10, 15, 20, 22, 25
Weakfish	0, 1, 2, 3, 4, 5, 6, 7, 8
Red Drum	0, 1, 2, 3, 4, 5, 6, 7

Trip Cost Numbers in Survey (\$'s)

10, 20, 30, 45, 60, 75, 90, 105, 130, 160, 190, 225, 260, 300, 340, 380

Saltwater Recreational Fishing Survey



Improve your fishing experiences!



Sponsored by NOAA Fisheries (National Marine Fisheries Service), Office of Science and Technology
<http://www.st.nmfs.noaa.gov/st5/index.html>

This survey is voluntary and all responses are confidential.

Questions? Contact Sonia Jarvis at 301.713.2328 ext. 104 or email Sonia.Jarvis@NOAA.gov

OMB Control Number 0468-0052 expires 04/30/2011

ATLANTIC SALTWATER FISH IN THIS SURVEY

Black Sea Bass



- Average catch is 1-3lbs., 12" to 20" total length
- Largest published recreational catch was 10lbs. 4oz.
- Minimum legal size varies by state, ranging from 10" to 13" total length
- Possession limit varies by state, ranging from 20 to 25 fish
- Popular bait include squid strips and small baitfish

Bluefish



- Average catch is 6-8lbs., 18" to 36" total length
- Largest published recreational catch was 31lbs. 12oz.
- Minimum legal size varies by state, ranging from no requirements to 12" total length
- Possession limit varies by state, ranging from 10 to 15 fish
- Popular bait include squid strips, silversides, and sand eels

Fluke/Summer Flounder



- Average catch is 2-5lbs., 14" to 20" total length
- Largest published recreational catch was 22lbs. 7oz.
- Minimum legal size varies by state, ranging from 14" to 21" total length
- Possession limit varies by state, ranging from 1 to 8 fish
- Popular bait include squid, small baitfish, and bluefish belly

Scup/Porgy



- Average catch is 1-2lbs., 10" to 14" total length
- Largest published recreational catch was 4lbs. 9oz.
- Minimum legal size varies by state, ranging from 8" to 11" total length
- Possession limit varies by state, ranging from 8 to 50 fish
- Popular bait include squid strips, small fish, sea worms, and clams

Striped Bass



- Average catch is 10-18lbs., 30" to 36" total length
- Largest published recreational catch was 125lbs.
- Minimum legal size varies by state, ranging from 18" to 32" total length
- Possession limit varies by state, ranging from 0 to 2 fish
- Popular bait include herring, menhaden, and mackerel

Section A: Your Saltwater Fishing Activities

The following questions help us understand the types of fishing trips anglers take.

1 How many **total** fishing trips for **saltwater** species did you make in 2009 during...

...the spring (March-May)?	<input style="width: 50px; height: 20px;" type="text"/>	...the fall (September-October)?	<input style="width: 50px; height: 20px;" type="text"/>
...the summer (June-August)?	<input style="width: 50px; height: 20px;" type="text"/>	...the winter (November-February)?	<input style="width: 50px; height: 20px;" type="text"/>

2 On how many of the trips in Q1 did you go fishing for the following species? If you fished for more than one species on a single trip, please attribute the trip to the species that was most important to you.

Check this box if you go fishing sometimes without any particular species in mind:

Bluefish	<input style="width: 50px; height: 20px;" type="text"/>	Scup (Porgy)	<input style="width: 50px; height: 20px;" type="text"/>
Black Sea Bass	<input style="width: 50px; height: 20px;" type="text"/>	Striped Bass	<input style="width: 50px; height: 20px;" type="text"/>
Fluke (Summer Flounder)	<input style="width: 50px; height: 20px;" type="text"/>	Other Fish	<input style="width: 50px; height: 20px;" type="text"/>
Other Flounders (not Fluke)	<input style="width: 50px; height: 20px;" type="text"/>		

3 Of the trips you listed above for Black Sea Bass, Fluke, and Scup, how many were...

...from shore?

...on a boat owned or rented by you or a friend?

...on a party boat or head boat (passenger fee covers a seat on the boat, usually 25 or more people fishing per boat)?

...on a private charter boat (charter fee pays for the entire boat and captain's services, usually 1-10 people per boat)?

4 Rate your fishing preference for the following species from 1 (least preferred) to 6 (most preferred):

Bluefish	<input style="width: 30px; height: 20px;" type="text"/>	Scup (Porgy)	<input style="width: 30px; height: 20px;" type="text"/>
Black Sea Bass	<input style="width: 30px; height: 20px;" type="text"/>	Striped Bass	<input style="width: 30px; height: 20px;" type="text"/>
Fluke (Summer Flounder)	<input style="width: 30px; height: 20px;" type="text"/>	Other Fish	<input style="width: 30px; height: 20px;" type="text"/>
Other Flounders (not Fluke)	<input style="width: 30px; height: 20px;" type="text"/>		

5 Rate the impact of these factors on your decision to go fishing from 1 (no impact) to 6 (high impact):

Size Limits (the smallest sized fish you can legally keep)	<input style="width: 30px; height: 20px;" type="text"/>
Bag Limits (how many fish you can legally keep per day)	<input style="width: 30px; height: 20px;" type="text"/>
Number of fish you expect to catch	<input style="width: 30px; height: 20px;" type="text"/>
Number of fish you expect to keep	<input style="width: 30px; height: 20px;" type="text"/>
Number of fish you have to throw back until you get a keeper	<input style="width: 30px; height: 20px;" type="text"/>
Timing of the open fishing season	<input style="width: 30px; height: 20px;" type="text"/>
Trip Length	<input style="width: 30px; height: 20px;" type="text"/>
Trip Cost	<input style="width: 30px; height: 20px;" type="text"/>
Weather	<input style="width: 30px; height: 20px;" type="text"/>

SECTION B: SALTWATER FISHING TRIPS

The following questions help us understand tradeoffs made by anglers when they go fishing.

Compare Trip A, Trip B, and Trip C in the table below, then **answer** questions **1A** and **1B**.

Compare **only the trips on this page**. Do **not** compare these trips to trips on other pages in this survey.

Trip Features		Trip A	Trip B	Trip C
Summer Flounder (Fluke)	Regulations	4 Fluke, 23" or larger	2 Fluke, 24" or larger	Go fishing for striped bass or bluefish
	Fish Caught	0 to 6 Fluke, 15" TL	15 Fluke, 20" TL	
	Fish Kept	0 Fluke	Same as Trip A	
Black Sea Bass	Regulations	15 Bl. S. Bass, 13" or larger	22 Bl. S. Bass, 10" or larger	
	Fish Caught	3 Bl. S. Bass, 14" TL	1 Bl. S. Bass, 11" TL	
	Fish Kept	3 Black Sea Bass	1 Black Sea Bass	
Scup (Porgy)	Regulations	15 Scup, 12.5" or larger	25 Scup, 13" or larger	
	Fish Caught	5 Scup, 6" TL or smaller	80 Scup, 12" TL	
	Fish Kept	0 Scup	Same as Trip A	
Total Trip Cost		\$75	\$130	\$260

Definitions:

- **Regulations:** The legal minimum size restriction and bag limit for this trip.
- **Fish caught:** The number of fish caught on this trip and the total length (TL) of those fish.
- **Fish kept:** The number of fish you can legally keep on this trip.
- **Total trip cost: *Your portion*** of the costs associated with this trip, including bait, ice, fishing equipment purchase or rental, daily license fees, boat rental fees, boat fuel, trip fees, and round trip transportation costs associated with traveling to and from the fishing location. Travel costs may include vehicle fuel, car rental, tolls, airfare, and parking.

1A Choose your favorite trip. (Please mark only **one** trip with a or a)

Trip A

Trip B

Trip C

I would not go saltwater fishing

1B Rate the trips in the table above from 1 (least preferred) to 6 (most preferred).

Trip A

Trip B

Trip C

SECTION B: SALTWATER FISHING TRIPS

The following questions help us understand tradeoffs made by anglers when they go fishing.

Compare Trip A, Trip B, and Trip C in the table below, then **answer** questions **2A** and **2B**.

Compare **only the trips on this page**. Do **not** compare these trips to trips on other pages in this survey.

Trip Features		Trip A	Trip B	Trip C
Summer Flounder (Fluke)	Regulations	2 Fluke, 20" or larger	1 Fluke, 23" or larger	Go fishing for striped bass or bluefish
	Fish Caught	7 to 13 Fluke, 22" TL	3 Fluke, 20" TL	
	Fish Kept	2 Fluke	0 Fluke	
Black Sea Bass	Regulations	20 Bl. Sea Bass, 12" or larger	10 Bl. Sea Bass, 12.5" or larger	
	Fish Caught	25 Bl. Sea Bass, 14" TL	30 Bl. Sea Bass, 13" TL	
	Fish Kept	20 Black Sea Bass	10 Black Sea Bass	
Scup (Porgy)	Regulations	20 Scup, 11" or larger	40 Scup, 13" or larger	
	Fish Caught	3 Scup, 12" TL	10 Scup, 6" TL or smaller	
	Fish Kept	3 Scup	0 Scup	
Total Trip Cost		\$30	\$105	\$160

Definitions:

- **Regulations:** The legal minimum size restriction and bag limit for this trip.
- **Fish caught:** The number of fish caught on this trip and the total length (TL) of those fish.
- **Fish kept:** The number of fish you can legally keep on this trip.
- **Total trip cost: *Your portion*** of the costs associated with this trip, including bait, ice, fishing equipment purchase or rental, daily license fees, boat rental fees, boat fuel, trip fees, and round trip transportation costs associated with traveling to and from the fishing location. Travel costs may include vehicle fuel, car rental, tolls, airfare, and parking.

2A Choose your favorite trip. (Please mark only **one** trip with a or a)

Trip A

Trip B

Trip C

I would not go saltwater fishing

2B Rate the trips in the table above from 1 (least preferred) to 6 (most preferred).

Trip A

Trip B

Trip C

SECTION B: SALTWATER FISHING TRIPS

The following questions help us understand tradeoffs made by anglers when they go fishing.

Compare Trip A, Trip B, and Trip C in the table below, then **answer** questions **3A** and **3B**.

Compare **only the trips on this page**. Do **not** compare these trips to trips on other pages in this survey.

Trip Features		Trip A	Trip B	Trip C
Summer Flounder (Fluke)	Regulations	2 Fluke, 18" or larger	8 Fluke, 20" or larger	Go fishing for striped bass or bluefish
	Fish Caught	5 to 7 Fluke, 12" TL	8 Fluke, 17" TL	
	Fish Kept	0 Fluke	Same as Trip A	
Black Sea Bass	Regulations	20 Bl. Sea Bass, 13" or larger	22 Bl. Sea Bass, 12" or larger	
	Fish Caught	3 Bl. Sea Bass, 16" TL or larger	10 Bl. Sea Bass, 8" TL or smaller	
	Fish Kept	3 Black Sea Bass	0 Black Sea Bass	
Scup (Porgy)	Regulations	60 Scup, 13" or larger	40 Scup, 12.5" or larger	
	Fish Caught	40 Scup, 14" TL	5 Scup, 8" TL	
	Fish Kept	40 Scup	0 Scup	
Total Trip Cost		\$105	\$225	\$60

Definitions:

- **Regulations:** The legal minimum size restriction and bag limit for this trip.
- **Fish caught:** The number of fish caught on this trip and the total length (TL) of those fish.
- **Fish kept:** The number of fish you can legally keep on this trip.
- **Total trip cost: *Your portion*** of the costs associated with this trip, including bait, ice, fishing equipment purchase or rental, daily license fees, boat rental fees, boat fuel, trip fees, and round trip transportation costs associated with traveling to and from the fishing location. Travel costs may include vehicle fuel, car rental, tolls, airfare, and parking.

3A Choose your favorite trip. (Please mark only **one** trip with a or a)

Trip A

Trip B

Trip C

I would not go saltwater fishing

3B Rate the trips in the table above from 1 (least preferred) to 6 (most preferred).

Trip A

Trip B

Trip C

SECTION B: SALTWATER FISHING TRIPS

The following questions help us understand tradeoffs made by anglers when they go fishing.

Compare Trip A, Trip B, and Trip C in the table below, then **answer** questions **4A** and **4B**.

Compare **only the trips on this page**. Do **not** compare these trips to trips on other pages in this survey.

Trip Features		Trip A	Trip B	Trip C
Summer Flounder (Fluke)	Regulations	3 Fluke, 22" or larger	4 Fluke, 20" or larger	Go fishing for striped bass or bluefish
	Fish Caught	0 to 9 Fluke, 27" TL or larger	8 Fluke, 20" TL	
	Fish Kept	0 to 3 Fluke	4 Fluke	
Black Sea Bass	Regulations	22 Bl. Sea Bass, 15" or larger	10 Bl. Sea Bass, 14" or larger	
	Fish Caught	10 Bl. Sea Bass, 10" TL	20 Bl. Sea Bass, 14" TL	
	Fish Kept	0 Black Sea Bass	10 Black Sea Bass	
Scup (Porgy)	Regulations	20 Scup, 9" or larger	60 Scup, 10.5" or larger	
	Fish Caught	80 Scup, 6" TL or smaller	40 Scup, 16" TL or larger	
	Fish Kept	0 Scup	40 Scup	
Total Trip Cost		\$45	\$60	\$190

Definitions:

- **Regulations:** The legal minimum size restriction and bag limit for this trip.
- **Fish caught:** The number of fish caught on this trip and the total length (TL) of those fish.
- **Fish kept:** The number of fish you can legally keep on this trip.
- **Total trip cost: *Your portion*** of the costs associated with this trip, including bait, ice, fishing equipment purchase or rental, daily license fees, boat rental fees, boat fuel, trip fees, and round trip transportation costs associated with traveling to and from the fishing location. Travel costs may include vehicle fuel, car rental, tolls, airfare, and parking.

4A Choose your favorite trip. (Please mark only **one** trip with a or a .)

Trip A

Trip B

Trip C

I would not go saltwater fishing

4B Rate the trips in the table above from 1 (least preferred) to 6 (most preferred).

Trip A

Trip B

Trip C

SECTION B: SALTWATER FISHING TRIPS

The following questions help us understand tradeoffs made by anglers when they go fishing.

Compare Trip A, Trip B, and Trip C in the table below, then **answer** questions **5A** and **5B**.

Compare **only the trips on this page**. Do **not** compare these trips to trips on other pages in this survey.

Trip Features		Trip A	Trip B	Trip C
Summer Flounder (Fluke)	Regulations	0 Fluke of any size	6 Fluke, 16" or larger	Go fishing for striped bass or bluefish
	Fish Caught	3 to 9 Fluke, 25" TL	1 Fluke, 10" TL or smaller	
	Fish Kept	0 Fluke	Same as Trip A	
Black Sea Bass	Regulations	10 Bl. Sea Bass, 14" or larger	20 Bl. Sea Bass, 10" or larger	
	Fish Caught	10 Bl. Sea Bass, 10" TL	10 Bl. Sea Bass, 14" TL	
	Fish Kept	0 Black Sea Bass	10 Black Sea Bass	
Scup (Porgy)	Regulations	25 Scup, 11" or larger	10 Scup, 12" or larger	
	Fish Caught	30 Scup, 8" TL	80 Scup, 16" TL or larger	
	Fish Kept	0 Scup	10 Scup	
Total Trip Cost		\$340	\$380	\$380

Definitions:

- **Regulations:** The legal minimum size restriction and bag limit for this trip.
- **Fish caught:** The number of fish caught on this trip and the total length (TL) of those fish.
- **Fish kept:** The number of fish you can legally keep on this trip.
- **Total trip cost: *Your portion*** of the costs associated with this trip, including bait, ice, fishing equipment purchase or rental, daily license fees, boat rental fees, boat fuel, trip fees, and round trip transportation costs associated with traveling to and from the fishing location. Travel costs may include vehicle fuel, car rental, tolls, airfare, and parking.

5A Choose your favorite trip. (Please mark only **one** trip with a or a)

Trip A

Trip B

Trip C

I would not go saltwater fishing

5B Rate the trips in the table above from 1 (least preferred) to 6 (most preferred).

Trip A

Trip B

Trip C

SECTION B: SALTWATER FISHING TRIPS

The following questions help us understand tradeoffs made by anglers when they go fishing.

Compare Trip A, Trip B, and Trip C in the table below, then **answer** questions **6A** and **6B**.

Compare **only the trips on this page**. Do **not** compare these trips to trips on other pages in this survey.

Trip Features		Trip A	Trip B	Trip C
Summer Flounder (Fluke)	Regulations	4 Fluke, 21" or larger	8 Fluke, 20" or larger	Go fishing for striped bass or bluefish
	Fish Caught	7 to 13 Fluke, 27" TL or larger	4 Fluke, 10" TL or smaller	
	Fish Kept	4 Fluke	0 Fluke	
Black Sea Bass	Regulations	5 Bl. Sea Bass, 10" or larger	3 Bl. Sea Bass, 12.5" or larger	
	Fish Caught	1 Bl. Sea Bass, 13" TL	3 Bl. Sea Bass, 16" TL or larger	
	Fish Kept	1 Black Sea Bass	3 Black Sea Bass	
Scup (Porgy)	Regulations	40 Scup, 12.5" or larger	5 Scup, 12" or larger	
	Fish Caught	20 Scup, 13" TL	10 Scup, 10" TL	
	Fish Kept	20 Scup	0 Scup	
Total Trip Cost		\$60	\$300	\$90

Definitions:

- **Regulations:** The legal minimum size restriction and bag limit for this trip.
- **Fish caught:** The number of fish caught on this trip and the total length (TL) of those fish.
- **Fish kept:** The number of fish you can legally keep on this trip.
- **Total trip cost:** *Your portion* of the costs associated with this trip, including bait, ice, fishing equipment purchase or rental, daily license fees, boat rental fees, boat fuel, trip fees, and round trip transportation costs associated with traveling to and from the fishing location. Travel costs may include vehicle fuel, car rental, tolls, airfare, and parking.

6A Choose your favorite trip. (Please mark only **one** trip with a or a)

Trip A

Trip B

Trip C

I would not go saltwater fishing

6B Rate the trips in the table above from 1 (least preferred) to 6 (most preferred).

Trip A

Trip B

Trip C

SECTION B: SALTWATER FISHING TRIPS

The following questions help us understand tradeoffs made by anglers when they go fishing.

Compare Trip A, Trip B, and Trip C in the table below, then **answer** questions **7A** and **7B**.

Compare **only the trips on this page**. Do **not** compare these trips to trips on other pages in this survey.

Trip Features		Trip A	Trip B	Trip C
Summer Flounder (Fluke)	Regulations	0 Fluke of any size	Same as Trip A	Go fishing for striped bass or bluefish
	Fish Caught	10 to 20 Fluke, 17" TL	3 Fluke, 25" TL or larger	
	Fish Kept	0 Fluke	Same as Trip A	
Black Sea Bass	Regulations	3 Bl. Sea Bass, 12" or larger	25 Bl. Sea Bass, 15" or larger	
	Fish Caught	30 Bl. Sea Bass, 9" TL	15 Bl. Sea Bass, 14" TL	
	Fish Kept	0 Black Sea Bass	Same as Trip A	
Scup (Porgy)	Regulations	60 Scup, 11" or larger	20 Scup, 10" or larger	
	Fish Caught	10 Scup, 16" TL or larger	40 Scup, 14" TL	
	Fish Kept	10 Scup	20 Scup	
Total Trip Cost		\$380	\$225	\$75

Definitions:

- **Regulations:** The legal minimum size restriction and bag limit for this trip.
- **Fish caught:** The number of fish caught on this trip and the total length (TL) of those fish.
- **Fish kept:** The number of fish you can legally keep on this trip.
- **Total trip cost: *Your portion*** of the costs associated with this trip, including bait, ice, fishing equipment purchase or rental, daily license fees, boat rental fees, boat fuel, trip fees, and round trip transportation costs associated with traveling to and from the fishing location. Travel costs may include vehicle fuel, car rental, tolls, airfare, and parking.

7A Choose your favorite trip. (Please mark only **one** trip with a or a)

Trip A

Trip B

Trip C

I would not go saltwater fishing

7B Rate the trips in the table above from 1 (least preferred) to 6 (most preferred).

Trip A

Trip B

Trip C

SECTION B: SALTWATER FISHING TRIPS

The following questions help us understand tradeoffs made by anglers when they go fishing.

Compare Trip A, Trip B, and Trip C in the table below, then **answer** questions **8A** and **8B**.

Compare **only the trips on this page**. Do **not** compare these trips to trips on other pages in this survey.

Trip Features		Trip A	Trip B	Trip C
Summer Flounder (Fluke)	Regulations	6 Fluke, 24" or larger	2 Fluke, 21" or larger	Go fishing for striped bass or bluefish
	Fish Caught	0 to 9 Fluke, 22" TL	8 Fluke, 25" TL or larger	
	Fish Kept	0 Fluke	2 Fluke	
Black Sea Bass	Regulations	15 Bl. Sea Bass, 12.5" or larger	25 Bl. Sea Bass, 13" or larger	
	Fish Caught	20 Bl. Sea Bass, 9" TL	10 Bl. Sea Bass, 13" TL	
	Fish Kept	0 Black Sea Bass	10 Black Sea Bass	
Scup (Porgy)	Regulations	40 Scup, 10.5" or larger	10 Scup, 9" or larger	
	Fish Caught	30 Scup, 14" TL	10 Scup, 9" TL	
	Fish Kept	30 Scup	10 Scup	
Total Trip Cost		\$130	\$75	\$10

Definitions:

- **Regulations:** The legal minimum size restriction and bag limit for this trip.
- **Fish caught:** The number of fish caught on this trip and the total length (TL) of those fish.
- **Fish kept:** The number of fish you can legally keep on this trip.
- **Total trip cost: *Your portion*** of the costs associated with this trip, including bait, ice, fishing equipment purchase or rental, daily license fees, boat rental fees, boat fuel, trip fees, and round trip transportation costs associated with traveling to and from the fishing location. Travel costs may include vehicle fuel, car rental, tolls, airfare, and parking.

8A Choose your favorite trip. (Please mark only **one** trip with a or a)

Trip A

Trip B

Trip C

I would not go saltwater fishing

8B Rate the trips in the table above from 1 (least preferred) to 6 (most preferred).

Trip A

Trip B

Trip C

SECTION C: ABOUT YOU AND YOUR HOUSEHOLD

The questions on this page are only to ensure that we have a representative sample of the angling population and will not be used to identify any specific individuals. Your answers are completely confidential.

1 Are you male or female? Male Female

2 What is your year of birth?

3 What is the highest level of education you have completed? (Please mark only **one** category)

- | | |
|--|--|
| <input type="checkbox"/> Less than 9 th Grade | <input type="checkbox"/> Bachelor's Degree (ex: BA or BS) |
| <input type="checkbox"/> 9 th to 12 th Grade | <input type="checkbox"/> Some graduate school |
| <input type="checkbox"/> High school graduate or GED | <input type="checkbox"/> Master's Degree (ex: MA, MS, MEng, MEd, MSW, MBA) |
| <input type="checkbox"/> Some college, no degree | <input type="checkbox"/> Professional Degree (ex: MD, DDS, DVM, LLB, JD) |
| <input type="checkbox"/> Associate Degree (ex: AA or AS) | <input type="checkbox"/> Doctorate Degree (ex: PhD, EdD) |

4 Are you of Hispanic, Latino, or Spanish origin?

- No**, not of Hispanic, Latino, or Spanish Origin
- Yes, Mexican, Mexican American, Chicano
- Yes, Puerto Rican
- Yes, Cuban
- Yes, another Hispanic, Latino, or Spanish Origin: _____

5 What is your race? (Check **all** that apply)

- | | |
|---|---|
| <input type="checkbox"/> White | <input type="checkbox"/> Korean |
| <input type="checkbox"/> Black, African Am., or Negro | <input type="checkbox"/> Vietnamese |
| <input type="checkbox"/> American Indian or Alaska Native | <input type="checkbox"/> Native Hawaiian |
| <input type="checkbox"/> Asian Indian | <input type="checkbox"/> Guamanian or Chamorro |
| <input type="checkbox"/> Chinese | <input type="checkbox"/> Samoan |
| <input type="checkbox"/> Filipino | <input type="checkbox"/> Other Asian or Pacific Islander: _____ |
| <input type="checkbox"/> Japanese | <input type="checkbox"/> Other: _____ |

6 Which of the following categories best describes your household's **total annual income before taxes** in 2009? (Please mark only **one** category)

- | | |
|---|--|
| <input type="checkbox"/> Less than \$20,000 | <input type="checkbox"/> \$80,000-\$99,999 |
| <input type="checkbox"/> \$20,000-\$39,999 | <input type="checkbox"/> \$100,000-\$149,999 |
| <input type="checkbox"/> \$40,000-\$59,999 | <input type="checkbox"/> \$150,000-\$199,999 |
| <input type="checkbox"/> \$60,000-\$79,999 | <input type="checkbox"/> \$200,000 or more |

7 Was this survey completed by the person to whom it was mailed? Yes No

Fish images courtesy of Massachusetts Division of Marine Fisheries. Notwithstanding any other provisions of the law, no person is required to respond to, nor shall any person be subject to a penalty fee for failure to comply with a collection of information subject to the requirement of the Paperwork Reduction Act, unless that collection of information displays a currently valid OMB Control Number. Public reporting burden for this survey is estimated to average 20 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Sonia Jarvis, NMFS F/ST5, 1315 East West Highway, Silver Spring, MD 20901 or email Sonia.Jarvis@NOAA.gov.