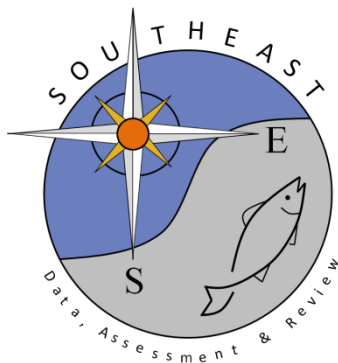


Recreational Survey Data for Puerto Rico from the Marine Recreational
Fisheries Statistics Survey (MRFSS) and the Marine Recreational
Information Program (MRIP)

Vivian M. Matter

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Recreational Survey Data for Puerto Rico from the Marine Recreational Fisheries Statistics Survey (MRFSS) and the Marine Recreational Information Program (MRIP)

by Vivian M. Matter

NOAA Fisheries
Southeast Fisheries Science Center
Fisheries Statistics Division
75 Virginia Beach Drive
Miami FL 33149

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Introduction

The Marine Recreational Fisheries Statistics Survey (MRFSS) and the Marine Recreational Information Program (MRIP) provide a time series of estimated catch per unit effort, total effort, landings, and discards for six two-month periods (waves) each year. The MRFSS/MRIP survey covers Puerto Rico recreational landings since 2000. MRFSS/MRIP provides estimates for three recreational fishing modes: shore-based fishing (SH), private and rental boat fishing (PR), and for-hire charter and guide fishing (CH).

The MRFSS/MRIP design incorporates three complementary survey methods for estimating catch and effort. Catch data are collected through angler interviews during dockside intercept surveys of recreational fishing trips after they have been completed. Effort data are collected using the Coastal Household Telephone Survey (CHTS) which uses random digit dialing of coastal households to obtain detailed information about the previous two months of recreational fishing trips from the anglers. The CHTS produces total effort estimates by wave. Catch rates from dockside intercept surveys are combined with estimates of effort from telephone interviews to estimate total landings and discards by wave, mode, and area fished (inland, state, and federal waters).

MRIP survey changes

The Marine Recreational Information Program (MRIP) generates more accurate recreational catch rates and was implemented in Puerto Rico in 2014. MRIP's improved estimation methodology incorporates the weighting information used in the data collection process. This ensures that the survey results accurately reflect an entire population by correcting for over or under sampling. MRIP also re-designed the MRFSS sampling protocol to address potential biases including port activity and time of day. The MRIP Access Point Angler Intercept Survey (APAIS) implemented a "revised sampling design that includes an updated sampling frame; eliminates interviewer latitude in selecting interviewing sites; establishes discrete sampling periods of fixed duration, including nighttime sampling; and requires interviewers to collect detailed information about the number of completed boat and angler fishing trips during the

sampling period” (MRIP Implementation Plan 2011).

Calculating landings estimates in weight

The MRFSS and the MRIP surveys use different methodologies to estimate landings in weight. To apply a consistent methodology over the entire recreational time series, the Southeast Fisheries Science Center (SEFSC) implemented a method for calculating average weights for the MRFSS/MRIP landings. This method is detailed in SEDAR32-DW-02.

PR contractor history

There have been various changes in contractors coordinating and conducting the field work for the MRFSS/MRIP over the years. Below is a brief history of these changes (personal communication, NMFS).

- 2000-2008: Macro International with Department of Natural and Environmental Resources of Puerto Rico (PR DNER) sub-contracting. Most of these years included some PR DNER staff and some direct employees of Macro working together under PR onsite supervision.
- 2009: Gulf States Marine Fisheries Commission (GSMFC) coordinates the data acquisition, processing, and delivery of data. PR DNER staff conduct the field APAIS.
- 2010: ICF-Macro coordinates the data acquisition, processing, and delivery of data. PR DNER staff conduct the field APAIS.
- 2011-2013: GSMFC coordinates the data acquisition, processing, and delivery of data. PR DNER staff conduct the field APAIS. Puerto Rico was still conducting MRFSS APAIS procedures and estimation methodologies in 2013, although new APAIS was implemented this year in the Atlantic and Gulf of Mexico.
- 2014-2015: RTI contractor coordinates the data acquisition, processing, and delivery of data. RTI staff also conduct the field APAIS with onsite field coordinator and central (remote) supervision by RTI management staff.

Stocks selected for initial data modeling

Recreational data from all species are presented below. At the SEDAR 46 Data Limited Workshop, two stocks were selected for initial data modeling for Puerto Rico, hogfish and yellowtail snapper. Data from these species are presented below in more detail than other species considered for data modeling.

Catch Estimates

Appendix 1 shows the recreational MRFSS/MRIP landings estimates summary for all species in Puerto Rico from 2000 to 2014. Landings are presented in whole weight in pounds. Table 1 shows the top species considered for data modeling for SEDAR 46. Total landings (AB1) are presented in numbers and whole weight in pounds. Total discards (B2) are presented in numbers. Tables 2 and 3 show the Puerto Rico catch estimates by year and mode for hogfish and yellowtail snapper respectively.

Intercept and Sampling Data

Appendix 2 shows a summary of the recreational intercept and sampling data available for all species in Puerto Rico from 2000 to 2014. Species are ordered from those with the highest total number of angler trips intercepted to those with the lowest number of angler trips. These angler trips are not additive, as one angler trip may intercept multiple species and the trip is counted for each species. A fish are dead fish landed in whole form and seen by the interviewer. B1 fish are dead fish reported by the angler and not seen by the interviewer (thrown back dead, used as bait, eaten, etc.). B2 fish are live discards reported by the angler. In some cases, B1 and B2 fish will be under-reported if an angler's A catch was included in the group catch but that angler was not interviewed for their individual B catches. The number of lengths and weights collected for each species for the time frame is also shown.

Table 4 shows the intercept data for the top species considered for data modeling in Puerto Rico in alphabetical order. Number of angler trips is shown, along with number of A, B1, and B2 fish intercepted. Tables 5 and 6 show the Puerto Rico intercept data by year for hogfish and yellowtail snapper, respectively.

Table 7 shows the sampling data for the top species considered for data modeling in Puerto Rico in alphabetical order. Number of lengths and weights are shown, along with the minimum, maximum, and average lengths and weights. Lengths are fork lengths in mm and weights are whole weights in pounds. Tables 8 and 9 show the Puerto Rico sampling data by year for hogfish and yellowtail snapper, respectively.

Figure 1 shows the number of lengths collected by gear for all species in Puerto Rico from 2000 to 2014. The percentage of lengths collected by each gear is shown. Figure 2 shows the number of total angler trips intercepted by gear for all species in Puerto Rico from 2000-2014. The percentage of angler trips intercepted by each gear is shown. Tables 10 and 11 show the number of lengths and trips intercepted in Puerto Rico by year and gear for hogfish and yellowtail snapper, respectively.

Tables

Table 1. Catch estimates for the top species considered for data modeling in Puerto Rico in alphabetical order. Hogfish and yellowtail snapper were prioritized at the SEDAR 46 Data Limited Workshop. Total landings (AB1) are presented in numbers and whole weight in pounds. Total discards (B2) are presented in numbers.

Species	Total landings in number 2000-2014	Average landings in number per year	Total landings whole pounds 2000-2014	Average landings in weight per year	Total discards in number 2000-2014	Average discards in number per year
blackfin snapper	69,739	4,649	48,107	3,207	1,760	117
cero	177,212	11,814	442,026	29,468	17,033	1,136
coney	401,017	26,734	187,990	12,533	36,647	2,443
crevalle jack	165,498	11,033	586,900	39,127	55,566	3,704
dolphin	1,414,188	94,279	16,182,229	1,078,815	17,159	1,144
great barracuda	254,958	16,997	1,214,541	80,969	126,957	8,464
hogfish	27,692	1,846	80,074	5,338	4,745	316
king mackerel	131,485	8,766	1,409,089	93,939	6,813	454
lane snapper	618,938	41,263	340,601	22,707	155,279	10,352
mutton snapper	184,845	12,323	460,841	30,723	58,240	3,883
queen snapper	97,587	6,506	346,448	23,097	0	0
queen triggerfish	71,968	4,798	153,863	10,258	2,101	140
red hind	493,509	32,901	450,792	30,053	43,569	2,905
silk snapper	883,267	58,884	1,127,934	75,196	13,169	878
stoplight parrotfish	85,281	5,685	135,801	9,053	928	62
tripletail	104,401	6,960	454,522	30,301	2,259	151
vermillion snapper	216,737	14,449	126,972	8,465	3,708	247
wahoo	198,006	13,200	2,094,405	139,627	2,627	175
white grunt	76,463	5,098	42,317	2,821	37,305	2,487
yellowtail snapper	372,644	24,843	319,280	21,285	121,992	8,133

Table 2. Puerto Rico hogfish catch estimates by year and mode. Total landings (AB1) are presented in numbers and whole weight in pounds. Total discards (B2) are presented in numbers.

YEAR	CHARTER			PRIVATE			SHORE			TOTAL		
	Landings (Num)	Landings (lbs)	Discards (Num)	Landings (Num)	Landings (lbs)	Discards (Num)	Landings (Num)	Landings (lbs)	Discards (Num)	Landings (Num)	Landings (lbs)	Discards (Num)
2000	63	261	0	2,390	6,107	0	0	0	0	2,453	6,369	0
2001	16	67	0	1,036	4,568	4,290	860	3,571	0	1,912	8,206	4,290
2002	0	0	0	0	0	0	0	0	0	0	0	0
2003	0	0	0	1,099	3,454	0	0	0	0	1,099	3,454	0
2004	0	0	0	0	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0	0	0	0	0
2007	0	0	0	352	2,792	0	0	0	0	352	2,792	0
2008	0	0	0	6,086	25,280	0	0	0	0	6,086	25,280	0
2009	0	0	0	2,523	10,480	0	0	0	0	2,523	10,480	0
2010	0	0	0	1,761	9,270	455	0	0	0	1,761	9,270	455
2011	0	0	0	384	3,015	0	0	0	0	384	3,015	0
2012	0	0	0	768	3,191	0	210	46	0	978	3,237	0
2013	0	0	0	787	607	0	0	0	0	787	607	0
2014	0	0	0	9,357	7,365	0	0	0	0	9,357	7,365	0

Table 3. Puerto Rico yellowtail snapper catch estimates by year and mode. Total landings (AB1) are presented in numbers and whole weight in pounds. Total discards (B2) are presented in numbers.

YEAR	CHARTER			PRIVATE			SHORE			TOTAL		
	Landings (Num)	Landings (lbs)	Discards (Num)	Landings (Num)	Landings (lbs)	Discards (Num)	Landings (Num)	Landings (lbs)	Discards (Num)	Landings (Num)	Landings (lbs)	Discards (Num)
2000	0	0	0	20,685	17,678	384	14,359	8,925	2,701	35,044	26,603	3,085
2001	0	0	0	19,103	21,175	815	10,039	12,226	7,851	29,143	33,402	8,666
2002	0	0	495	10,649	12,951	1,992	10,601	12,580	4,139	21,250	25,530	6,626
2003	0	0	0	47,831	53,394	3,242	10,109	6,160	2,077	57,940	59,554	5,319
2004	1,292	3,560	203	25,325	26,734	5,626	6,665	6,501	1,804	33,281	36,795	7,632
2005	153	209	299	16,703	16,355	715	3,185	1,625	5,195	20,040	18,189	6,209

2006	16	5	2,481	6,991	4,035	0	11,230	2,330	7,254	18,237	6,369	9,735
2007	96	86	17	14,332	13,690	10,615	27,205	11,746	11,489	41,633	25,523	22,121
2008	37	74	0	23,017	19,127	3,207	1,491	1,001	8,529	24,546	20,202	11,737
2009	0	0	0	16,337	15,139	4,089	1,765	1,896	5,126	18,102	17,035	9,215
2010	0	0	33	9,792	9,958	7,887	459	189	932	10,251	10,147	8,853
2011	0	0	0	4,609	4,344	316	23,338	4,999	826	27,947	9,343	1,142
2012	0	0	0	16,847	15,976	0	1,588	1,272	2,044	18,435	17,249	2,044
2013	0	0	63	4,616	2,699	6,474	1,243	548	0	5,859	3,247	6,537
2014	0	0	0	10,936	10,092	9,905	0	0	3,166	10,936	10,092	13,072

Table 4. Intercept data for the top species considered for data modeling in Puerto Rico in alphabetical order. Hogfish and yellowtail snapper were prioritized at the SEDAR 46 Data Limited Workshop. **A fish** are dead fish landed in whole form and seen by the interviewer. **B1 fish** are dead fish reported by the angler and not seen by the interviewer (thrown back dead, used as bait, eaten, etc.). **B2 fish** are live discards reported by the angler. In some cases, group catches may lead to under-reporting of B1 and B2 fish.

Species	Number of Angler Trips 2000-2014	Average number of angler trips per year	Total number of A fish 2000-2014	Total number of B1 fish 2000-2014	Total number of B2 fish 2000-2014
blackfin tuna	131	9	174	48	15
Cero	295	20	475	53	47
Coney	264	18	933	108	104
crevalle jack	309	21	187	76	280
Dolphin	1,617	108	4,395	1,039	83
great barracuda	624	42	459	149	536
Hogfish	37	2	34	26	17
king mackerel	231	15	224	47	44
lane snapper	653	44	953	491	414
mutton snapper	371	25	348	85	157
queen snapper	56	4	216	39	0
queen triggerfish	98	7	110	40	10
red hind	320	21	844	267	144
silk snapper	244	16	1,720	355	28
stoplight parrotfish	61	4	204	20	1
Tripletail	146	10	259	51	10
vermillion snapper	91	6	509	77	6
Wahoo	416	28	612	121	15
white grunt	133	9	148	33	64
yellowtail snapper	446	30	707	236	265

Table 5. Intercept data for hogfish in Puerto Rico. **A fish** are dead fish landed in whole form and seen by the interviewer. **B1 fish** are dead fish reported by the angler and not seen by the interviewer (thrown back dead, used as bait, eaten, etc.). **B2 fish** are live discards reported by the angler. In some cases, group catches may lead to under-reporting of B1 and B2 fish.

year	Angler trips	A fish	B1 fish	B2 fish
2000	3	5	1	0
2001	7	4	0	16
2002				
2003	2	2	0	0
2004				
2005				
2006				
2007	1	1	0	0
2008	5	0	13	0
2009	4	7	5	0
2010	5	3	2	1
2011	3	4	0	0
2012	3	3	0	0
2013	2	3	0	0
2014	2	2	5	0

Table 6. Intercept data for yellowtail snapper in Puerto Rico. **A fish** are dead fish landed in whole form and seen by the interviewer. **B1 fish** are dead fish reported by the angler and not seen by the interviewer (thrown back dead, used as bait, eaten, etc.). **B2 fish** are live discards reported by the angler. In some cases, group catches may lead to under-reporting of B1 and B2 fish.

year	Angler trips	A fish	B1 fish	B2 fish
2000	34	47	15	4
2001	32	59	15	10
2002	22	36	6	14
2003	36	105	19	14
2004	35	78	29	30
2005	29	37	7	12
2006	21	23	0	28
2007	40	40	65	28
2008	25	48	7	18
2009	50	41	37	31
2010	26	23	1	24
2011	24	53	13	5
2012	38	92	12	15
2013	11	11	0	9
2014	23	14	10	23

Table 7. Sampling data for the top species considered for data modeling in Puerto Rico from 2000-2014 in alphabetical order. Hogfish and yellowtail snapper were prioritized at the SEDAR 46 Data Limited Workshop.

Species	Fork length (mm)				Whole weight (lbs)			
	N	Min	Max	Mean	N	Min	Max	Mean
blackfin snapper	104	105	435	255	95	0.22	2.31	0.74
cero	278	150	1102	471	252	0.11	21.16	2.60
coney	555	95	550	235	514	0.11	7.05	0.50
crevalle jack	142	89	750	388	124	0.11	18.30	3.94
dolphin	3,210	330	1828	807	3,043	0.66	56.99	10.50
great barracuda	372	226	1321	630	344	0.11	28.00	5.46
hogfish	21	190	642	398	15	0.22	11.02	4.15
king mackerel	177	199	1512	775	187	0.22	61.19	10.85
lane snapper	782	86	800	215	650	0.02	8.99	0.55
mutton snapper	284	81	760	365	226	0.09	16.53	3.37
queen snapper	129	160	841	420	122	0.11	19.84	3.83
queen triggerfish	83	216	620	336	70	0.73	5.51	2.05
red hind	520	165	730	303	480	0.11	3.64	1.04
silk snapper	638	124	740	286	541	0.11	16.53	1.11
stoplight parrotfish	94	140	386	295	73	0.22	4.63	1.46
tripletail	193	200	900	459	178	0.44	16.75	4.49
vermillion snapper	231	155	464	229	208	0.11	3.31	0.55
wahoo	403	515	1778	939	391	2.65	70.15	12.39
white grunt	129	125	317	228	109	0.11	1.43	0.58
yellowtail snapper	500	60	550	263	445	0.11	3.97	0.85

Table 8. Sampling data for hogfish in Puerto Rico.

Year	Fork length (mm)				Whole weight (lbs)			
	N	Min	Max	Mean	N	Min	Max	Mean
2000	2	210	220	215	2	0.44	0.55	0.50
2001	3	266	485	355	1	4.41	4.41	4.41
2002								
2003	2	302	451	377	2	0.99	5.29	3.14
2004								
2005								
2006								
2007	1	573	573	573	1	7.94	7.94	7.94
2008								
2009								
2010	3	190	542	422	2	5.07	7.94	6.50
2011	4	330	642	530	4	1.46	11.02	6.98
2012	3	211	580	439	1	0.22	0.22	0.22
2013	3	240	345	277	2	0.66	0.88	0.77
2014								

Table 9. Sampling data for yellowtail snapper in Puerto Rico.

Year	Fork length (mm)				Whole weight (lbs)			
	N	Min	Max	Mean	N	Min	Max	Mean
2000	27	111	340	233	23	0.11	1.76	0.71
2001	31	130	463	272	18	0.11	3.53	0.92
2002	26	119	490	297	27	0.11	3.97	1.12
2003	36	111	418	304	49	0.11	2.43	0.95
2004	48	120	450	304	48	0.11	3.09	1.08
2005	29	132	464	300	23	0.11	3.09	1.05
2006	22	144	350	226	17	0.11	1.21	0.49
2007	33	60	437	215	25	0.11	2.31	0.77
2008	30	117	429	277	29	0.22	2.65	0.86
2009	32	161	550	289	24	0.22	2.20	0.92
2010	22	169	409	295	17	0.22	1.65	0.96
2011	52	117	339	165	47	0.11	1.54	0.30
2012	89	106	420	265	77	0.11	1.98	0.85
2013	11	150	360	277	9	0.22	1.54	0.97
2014	12	158	377	309	12	0.22	1.87	1.07

Table 10. Lengths and trips intercepted for hogfish in Puerto Rico by year and gear.

year	hook & line		spear		Total	
	lengths	trips	lengths	trips	lengths	trips
2000	2	1		2	2	3
2001		3	3	4	3	7
2002					0	0
2003			2	2	2	2
2004					0	0
2005					0	0
2006					0	0
2007			1	1	1	1
2008				5	0	5
2009		1		3	0	4
2010	1	3	2	2	3	5
2011			4	3	4	3
2012			3	3	3	3
2013			3	2	3	2
2014		1		1	0	2
Total	3	9	18	28	21	37

Table 11. Lengths and trips intercepted for yellowtail snapper in Puerto Rico by year and gear.

year	hook & line		dip/A-frame net		cast net		seine		spear		hand		other		yo-yo		Total	
	lengths	trips	lengths	trips	lengths	trips	lengths	trips	lengths	trips	lengths	trips	lengths	trips	lengths	trips	lengths	trips
2000	19	28			3	1									5	5	27	34
2001	16	21													15	11	31	32
2002	24	18	1	1					1	1						2	26	22
2003	34	34							1	1					1	1	36	36
2004	33	33					7	1							8	1	48	35
2005	25	28													4	1	29	29
2006	22	21															22	21
2007	30	38							3	2							33	40
2008	29	24											1	1			30	25
2009	32	47								3							32	50
2010	21	25													1	1	22	26
2011	14	20									38	4					52	24
2012	75	30									14	8					89	38
2013	11	11															11	11
2014	10	22			2	1											12	23
Total	395	400	1	1	5	2	7	1	5	7	52	12	1	1	34	22	500	446

Figures

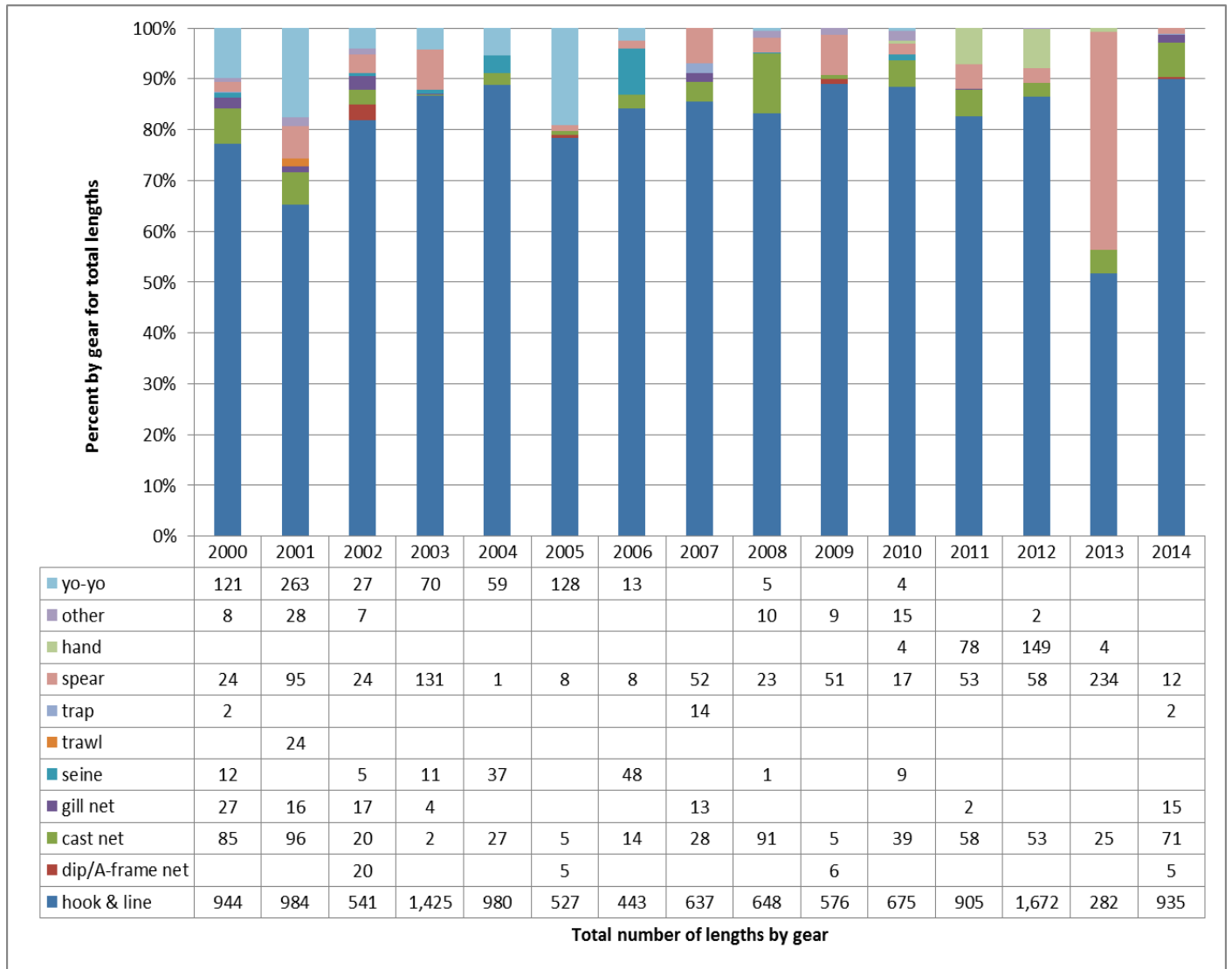


Figure 1. Number of lengths collected by gear for **all species** in Puerto Rico from 2000-2014.

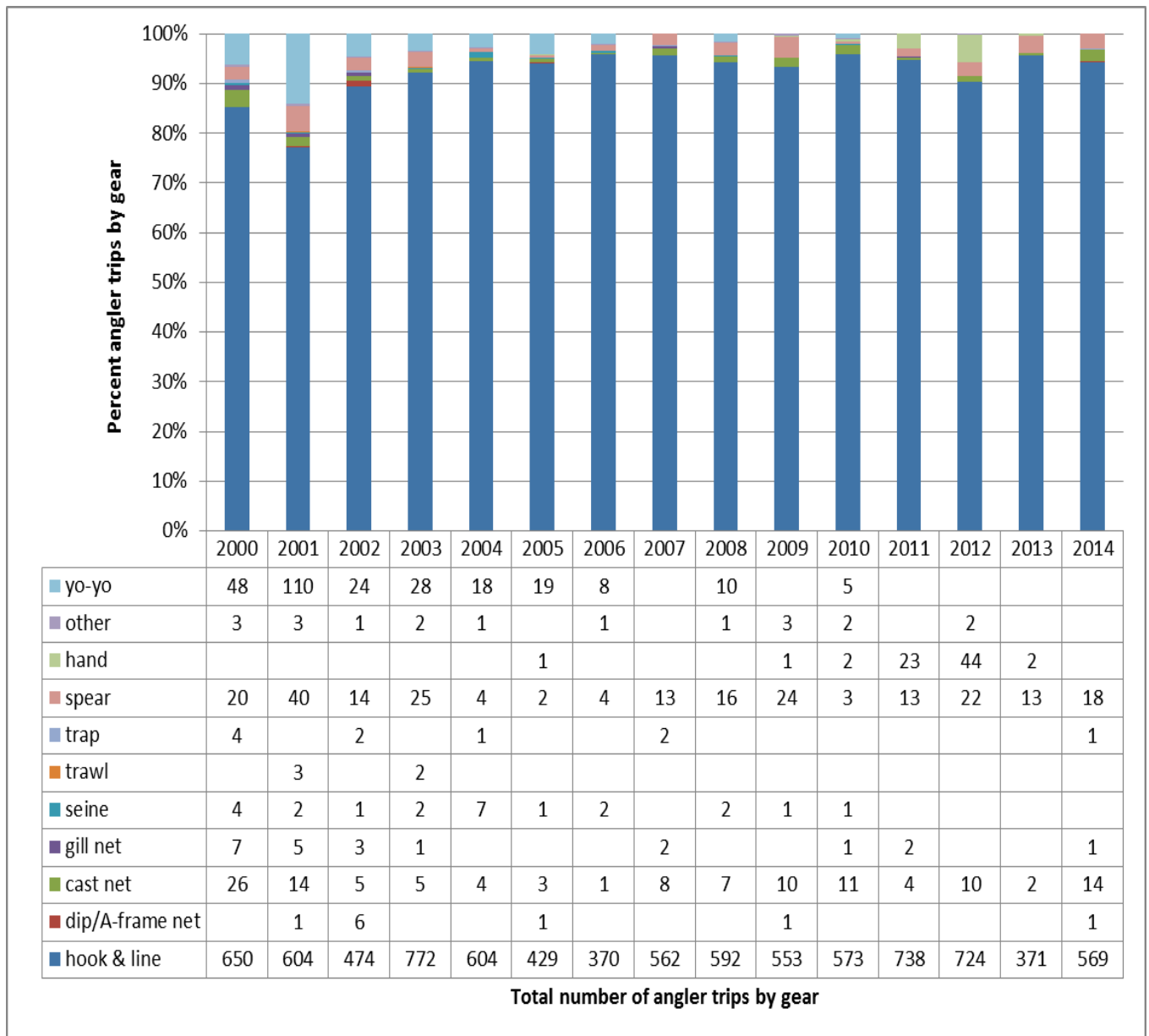


Figure 2. Number of total angler trips intercepted by gear for **all species** in Puerto Rico from 2000-2014.

Appendix 1. Puerto Rico recreational landings summary. Species ordered from highest total landings in whole weight (lbs) to lowest landings for the years 2000-2014. Boxes denote landings of species that account for approximately 50%, 75%, and 90% of total landings over the period.

Species	Total landings whole pounds 2000-2014	Average landings per year	Percent of total landings	Cumulative Frequency
dolphin	16,182,229	1,078,815	43.1803%	43.1803%
blue marlin	4,451,954	296,797	11.8795%	55.0598%
wahoo	2,094,405	139,627	5.5887%	60.6485%
king mackerel	1,409,089	93,939	3.7600%	64.4085%
great barracuda	1,214,541	80,969	3.2409%	67.6493%
silk snapper	1,127,934	75,196	3.0098%	70.6591%
crevalle jack	586,900	39,127	1.5661%	72.2251%
blackfin tuna	481,329	32,089	1.2844%	73.5095%
mutton snapper	460,841	30,723	1.2297%	74.7392%
triple tail	454,522	30,301	1.2128%	75.9520%
red hind	450,792	30,053	1.2029%	77.1549%
cero	442,026	29,468	1.1795%	78.3344%
yellowfin tuna	410,841	27,389	1.0963%	79.4307%
skipjack tuna	370,558	24,704	0.9888%	80.4195%
queen snapper	346,448	23,097	0.9245%	81.3439%
common snook	342,135	22,809	0.9129%	82.2569%
lane snapper	340,601	22,707	0.9089%	83.1657%
yellowtail snapper	319,280	21,285	0.8520%	84.0177%
blue runner	312,341	20,823	0.8334%	84.8511%
scaled sardine	231,683	15,446	0.6182%	85.4694%
little tunny	203,680	13,579	0.5435%	86.0129%
coney	187,990	12,533	0.5016%	86.5145%
tiger shark	173,955	11,597	0.4642%	86.9787%
black durgon	171,073	11,405	0.4565%	87.4351%
queen triggerfish	153,863	10,258	0.4106%	87.8457%
yellow jack	143,197	9,546	0.3821%	88.2278%
dog snapper	142,031	9,469	0.3790%	88.6068%
stoplight parrotfish	135,801	9,053	0.3624%	88.9692%
atlantic tarpon	134,437	8,962	0.3587%	89.3279%
redeer sardine	127,406	8,494	0.3400%	89.6679%
horse-eye jack	127,349	8,490	0.3398%	90.0077%
vermillion snapper	126,972	8,465	0.3388%	90.3465%
greater amberjack	126,101	8,407	0.3365%	90.6830%
schoolmaster	120,747	8,050	0.3222%	91.0052%
southern stingray	115,364	7,691	0.3078%	91.3130%
wenchman	105,013	7,001	0.2802%	91.5932%
bar jack	87,708	5,847	0.2340%	91.8273%
spanish sardine	86,428	5,762	0.2306%	92.0579%
ocean triggerfish	85,804	5,720	0.2290%	92.2868%
snapper genus	82,888	5,526	0.2212%	92.5080%
black jack	81,388	5,426	0.2172%	92.7252%
hogfish	80,074	5,338	0.2137%	92.9389%
Caribbean red snapper	78,150	5,210	0.2085%	93.1474%
trunkfish	77,268	5,151	0.2062%	93.3536%

Species	Total landings whole pounds 2000-2014	Average landings per year	Percent of total landings	Cumulative Frequency
nassau grouper	74,170	4,945	0.1979%	93.5515%
yellowfin grouper	68,553	4,570	0.1829%	93.7344%
parrotfish family	68,314	4,554	0.1823%	93.9167%
rainbow parrotfish	63,737	4,249	0.1701%	94.0868%
black margate	58,661	3,911	0.1565%	94.2433%
spotted eagle ray	58,354	3,890	0.1557%	94.3990%
striped mojarra	54,890	3,659	0.1465%	94.5455%
guaguanche	52,988	3,533	0.1414%	94.6869%
false pilchard	49,612	3,307	0.1324%	94.8193%
yellowfin mojarra	49,015	3,268	0.1308%	94.9501%
permit	48,729	3,249	0.1300%	95.0801%
african pompano	48,283	3,219	0.1288%	95.2089%
blackfin snapper	48,107	3,207	0.1284%	95.3373%
squirrelfish	45,139	3,009	0.1204%	95.4577%
lemon shark	44,380	2,959	0.1184%	95.5762%
rainbow runner	43,475	2,898	0.1160%	95.6922%
bigeye scad	42,343	2,823	0.1130%	95.8052%
white grunt	42,317	2,821	0.1129%	95.9181%
goliath grouper	39,003	2,600	0.1041%	96.0221%
white mullet	38,954	2,597	0.1039%	96.1261%
snapper family	38,113	2,541	0.1017%	96.2278%
ballyhoo	37,719	2,515	0.1006%	96.3284%
irish pompano	37,206	2,480	0.0993%	96.4277%
cupera snapper	36,103	2,407	0.0963%	96.5240%
sailfish	34,870	2,325	0.0930%	96.6171%
red snapper	33,560	2,237	0.0896%	96.7066%
gray triggerfish	31,025	2,068	0.0828%	96.7894%
ladyfish	30,246	2,016	0.0807%	96.8701%
liza	28,819	1,921	0.0769%	96.9470%
queen parrotfish	28,629	1,909	0.0764%	97.0234%
porcupinefish	27,689	1,846	0.0739%	97.0973%
agujon	25,835	1,722	0.0689%	97.1663%
spanish mackerel	25,016	1,668	0.0668%	97.2330%
jack family	24,590	1,639	0.0656%	97.2986%
silky shark	24,293	1,620	0.0648%	97.3634%
devil ray	23,977	1,598	0.0640%	97.4274%
redfin parrotfish	23,683	1,579	0.0632%	97.4906%
redtail parrotfish	23,474	1,565	0.0626%	97.5533%
puddingwife	23,381	1,559	0.0624%	97.6157%
palometa	22,608	1,507	0.0603%	97.6760%
bigeye tuna	22,521	1,501	0.0601%	97.7361%
pluma porgy	22,250	1,483	0.0594%	97.7954%
misty grouper	21,406	1,427	0.0571%	97.8526%
gray snapper	21,267	1,418	0.0567%	97.9093%
rock hind	21,018	1,401	0.0561%	97.9654%
dusky shark	20,968	1,398	0.0560%	98.0213%
round scad	20,031	1,335	0.0535%	98.0748%
grouper genus				
Mycteroperca	19,105	1,274	0.0510%	98.1258%
graysby	18,697	1,246	0.0499%	98.1757%
reef shark	18,642	1,243	0.0497%	98.2254%

Species	Total landings whole pounds 2000-2014	Average landings per year	Percent of total landings	Cumulative Frequency
blacktip shark	18,103	1,207	0.0483%	98.2737%
burro grunt	17,939	1,196	0.0479%	98.3216%
atlantic cutlassfish	17,913	1,194	0.0478%	98.3694%
southern sennet	17,682	1,179	0.0472%	98.4166%
barbu	15,762	1,051	0.0421%	98.4586%
sailors choice	14,834	989	0.0396%	98.4982%
rough triggerfish	14,455	964	0.0386%	98.5368%
checkered puffer	13,879	925	0.0370%	98.5738%
barred grunt	12,713	848	0.0339%	98.6077%
drum family	12,447	830	0.0332%	98.6409%
lesser amberjack	12,264	818	0.0327%	98.6737%
bluestriped grunt	12,227	815	0.0326%	98.7063%
almaco jack	12,207	814	0.0326%	98.7389%
porkfish	12,073	805	0.0322%	98.7711%
atlantic moonfish	11,453	764	0.0306%	98.8016%
green moray	11,036	736	0.0294%	98.8311%
bonefish	10,129	675	0.0270%	98.8581%
littlescale threadfin	10,091	673	0.0269%	98.8850%
sandbar shark	9,710	647	0.0259%	98.9110%
striped croaker	9,484	632	0.0253%	98.9363%
smalltail shark	9,451	630	0.0252%	98.9615%
turkeyfish	9,391	626	0.0251%	98.9865%
sand tilefish	9,368	625	0.0250%	99.0115%
sand drum	9,218	615	0.0246%	99.0361%
amberjack genus	8,381	559	0.0224%	99.0585%
atlantic thread				
herring	8,077	538	0.0216%	99.0801%
nurse shark	7,627	508	0.0204%	99.1004%
tarpon snook	7,602	507	0.0203%	99.1207%
princess parrotfish	7,218	481	0.0193%	99.1399%
leatherjacket family	7,154	477	0.0191%	99.1590%
french angelfish	7,149	477	0.0191%	99.1781%
spanish hogfish	7,003	467	0.0187%	99.1968%
houndfish	6,732	449	0.0180%	99.2148%
redband parrotfish	6,545	436	0.0175%	99.2322%
caesar grunt	6,406	427	0.0171%	99.2493%
blue parrotfish	6,294	420	0.0168%	99.2661%
wrasse family	6,089	406	0.0162%	99.2824%
spotfin mojarra	5,958	397	0.0159%	99.2983%
atlantic bumper	5,779	385	0.0154%	99.3137%
smooth puffer	5,744	383	0.0153%	99.3290%
jolthead porgy	5,688	379	0.0152%	99.3442%
grouper genus				
Epinephelus	5,518	368	0.0147%	99.3589%
spanish grunt	5,507	367	0.0147%	99.3736%
scalloped				
hammerhead	5,479	365	0.0146%	99.3882%
tiger grouper	5,414	361	0.0144%	99.4027%
pompano dolphin	5,292	353	0.0141%	99.4168%
atlantic spadefish	4,994	333	0.0133%	99.4301%
atlantic bonito	4,927	328	0.0131%	99.4433%

Species	Total landings whole pounds 2000-2014	Average landings per year	Percent of total landings	Cumulative Frequency
striped mullet	4,925	328	0.0131%	99.4564%
leatherjack	4,914	328	0.0131%	99.4695%
french grunt	4,908	327	0.0131%	99.4826%
grunt family	4,837	322	0.0129%	99.4955%
sea bream	4,567	304	0.0122%	99.5077%
chain moray	4,395	293	0.0117%	99.5194%
red grouper	4,376	292	0.0117%	99.5311%
lookdown	4,329	289	0.0116%	99.5427%
black snapper	4,326	288	0.0115%	99.5542%
mahogany snapper	4,246	283	0.0113%	99.5655%
tomtate	4,161	277	0.0111%	99.5766%
yellow goatfish	4,011	267	0.0107%	99.5873%
atlantic croaker	3,882	259	0.0104%	99.5977%
purplemouth moray	3,807	254	0.0102%	99.6079%
doctorfish	3,717	248	0.0099%	99.6178%
bigeye	3,679	245	0.0098%	99.6276%
blackedge moray	3,669	245	0.0098%	99.6374%
peacock flounder	3,648	243	0.0097%	99.6471%
sheepshead porgy	3,507	234	0.0094%	99.6565%
unicorn filefish	3,472	231	0.0093%	99.6657%
longspine				
squirrelfish	3,466	231	0.0092%	99.6750%
spotted trunkfish	3,435	229	0.0092%	99.6842%
orange filefish	3,388	226	0.0090%	99.6932%
jack genus	3,363	224	0.0090%	99.7022%
sergeant major	3,361	224	0.0090%	99.7111%
blackline tilefish	3,348	223	0.0089%	99.7201%
moray family	3,345	223	0.0089%	99.7290%
whitemouth croaker	3,320	221	0.0089%	99.7379%
fat snook	3,042	203	0.0081%	99.7460%
bermuda chub	3,001	200	0.0080%	99.7540%
swordspine snook	2,986	199	0.0080%	99.7620%
bigeye mojarra	2,959	197	0.0079%	99.7699%
black grouper	2,851	190	0.0076%	99.7775%
boxfish genus	2,811	187	0.0075%	99.7850%
flagfin mojarra	2,719	181	0.0073%	99.7922%
sand diver	2,596	173	0.0069%	99.7991%
northern sennet	2,551	170	0.0068%	99.8060%
whitespotted filefish	2,508	167	0.0067%	99.8126%
porgy family	2,401	160	0.0064%	99.8191%
smooth trunkfish	2,375	158	0.0063%	99.8254%
emerald parrotfish	2,308	154	0.0062%	99.8315%
hairy blenny	2,246	150	0.0060%	99.8375%
gray angelfish	2,207	147	0.0059%	99.8434%
bigmouth sleeper	2,045	136	0.0055%	99.8489%
reef croaker	2,023	135	0.0054%	99.8543%
saucereye porgy	1,959	131	0.0052%	99.8595%
slippery dick	1,907	127	0.0051%	99.8646%
spotted goatfish	1,775	118	0.0047%	99.8693%
atlantic threadfin	1,747	116	0.0047%	99.8740%
littlehead porgy	1,615	108	0.0043%	99.8783%

Species	Total landings whole pounds 2000-2014	Average landings per year	Percent of total landings	Cumulative Frequency
largemouth bass	1,614	108	0.0043%	99.8826%
banded rudderfish	1,590	106	0.0042%	99.8869%
spotted moray	1,544	103	0.0041%	99.8910%
margate	1,476	98	0.0039%	99.8949%
yellow chub	1,413	94	0.0038%	99.8987%
smallmouth grunt	1,335	89	0.0036%	99.9022%
timucu	1,327	88	0.0035%	99.9058%
spotted scorpionfish	1,316	88	0.0035%	99.9093%
Darwins slimehead	1,284	86	0.0034%	99.9127%
star drum	1,268	85	0.0034%	99.9161%
honeycomb cowfish	1,234	82	0.0033%	99.9194%
painted wrasse	1,200	80	0.0032%	99.9226%
balao	1,189	79	0.0032%	99.9258%
unidentified grouper	1,188	79	0.0032%	99.9289%
yellowedge grouper	1,185	79	0.0032%	99.9321%
smooth dogfish	1,117	74	0.0030%	99.9351%
striped anchovy	1,112	74	0.0030%	99.9381%
mountain mullet	1,069	71	0.0029%	99.9409%
yellow stingray	1,056	70	0.0028%	99.9437%
glasseye snapper	1,030	69	0.0027%	99.9465%
squirrelfish family	1,022	68	0.0027%	99.9492%
yellowtail				
damselfish	935	62	0.0025%	99.9517%
scorpionfish family	898	60	0.0024%	99.9541%
banded moray	828	55	0.0022%	99.9563%
midnight parrotfish	733	49	0.0020%	99.9583%
rosy razorfish	704	47	0.0019%	99.9601%
greater soapfish	682	45	0.0018%	99.9619%
brown chromis	608	41	0.0016%	99.9636%
american eel	605	40	0.0016%	99.9652%
florida pompano	570	38	0.0015%	99.9667%
sea bass genus	548	37	0.0015%	99.9682%
blue croaker	525	35	0.0014%	99.9696%
atlantic needlefish	491	33	0.0013%	99.9709%
night sergeant	486	32	0.0013%	99.9722%
pigfish	481	32	0.0013%	99.9735%
greenblotch				
parrotfish	480	32	0.0013%	99.9747%
bandtail puffer	478	32	0.0013%	99.9760%
warsaw grouper	469	31	0.0013%	99.9773%
bluehead	446	30	0.0012%	99.9785%
sea bass family	440	29	0.0012%	99.9796%
red goatfish	429	29	0.0011%	99.9808%
ocean surgeon	426	28	0.0011%	99.9819%
scrawled cowfish	423	28	0.0011%	99.9830%
striped grunt	411	27	0.0011%	99.9841%
damselfish family	366	24	0.0010%	99.9851%
sheepshead	362	24	0.0010%	99.9861%
snakefish	361	24	0.0010%	99.9870%
red drum	352	23	0.0009%	99.9880%
reef squirrelfish	343	23	0.0009%	99.9889%

blackear wrasse	328	22	0.0009%	99.9898%
bay whiff	285	19	0.0008%	99.9905%
blue tang	265	18	0.0007%	99.9912%
tattler	250	17	0.0007%	99.9919%
Species	Total landings whole pounds 2000-2014	Average landings per year	Percent of total landings	Cumulative Frequency
mottled mojarra	229	15	0.0006%	99.9925%
longjaw squirrelfish	223	15	0.0006%	99.9931%
blue chromis	221	15	0.0006%	99.9937%
striped parrotfish	212	14	0.0006%	99.9943%
saddle stargazer	205	14	0.0005%	99.9948%
squirrelfish genus	197	13	0.0005%	99.9953%
least puffer	190	13	0.0005%	99.9958%
atlantic herring	183	12	0.0005%	99.9963%
viper moray	165	11	0.0004%	99.9968%
jackknife-fish	141	9	0.0004%	99.9972%
bigeye soldierfish	133	9	0.0004%	99.9975%
kingfish genus	130	9	0.0003%	99.9979%
dusky damselfish	114	8	0.0003%	99.9982%
bullet mackerel	104	7	0.0003%	99.9984%
porgy genus	85	6	0.0002%	99.9987%
highfin goby	85	6	0.0002%	99.9989%
southern kingfish	81	5	0.0002%	99.9991%
banded drum	74	5	0.0002%	99.9993%
mimic blenny	67	4	0.0002%	99.9995%
cocoa damselfish	48	3	0.0001%	99.9996%
fat sleeper	47	3	0.0001%	99.9997%
goatfish family	45	3	0.0001%	99.9999%
northern puffer	22	1	0.0001%	99.9999%
whitebone porgy	12	1	0.0000%	99.9999%
clown wrasse	11	1	0.0000%	100.0000%
belted sandfish	8	1	0.0000%	100.0000%

Appendix 2. Puerto Rico recreational intercept and sampling summary. Species are ordered from those with the highest total number of angler trips intercepted to those with the lowest number of angler trips for the years 2000-2014. **A fish** are dead fish landed in whole form and seen by the interviewer. **B1 fish** are dead fish reported by the angler and not seen by the interviewer (thrown back dead, used as bait, eaten, etc.). **B2 fish** are live discards reported by the angler. In some cases, group catches may lead to under-reporting of B1 and B2 fish.

Species	Angler trips	A fish	B1 fish	B2 fish	Lengths	Weights
dolphin	1,617	4,395	1,039	83	3,210	3,043
atlantic tarpon	1,424	15	18	2,542	12	10
lane snapper	653	953	491	414	782	650
great barracuda	624	459	149	536	372	344
common snook	547	303	31	778	253	229
yellowtail snapper	446	707	236	265	500	445
wahoo	416	612	121	15	403	391
blue runner	386	769	159	135	644	595
mutton snapper	371	348	85	157	284	226
red hind	320	844	267	144	520	480
crevalle jack	309	187	76	280	142	124
cero	295	475	53	47	278	252
blue marlin	280	25	2	271	15	10
coney	264	933	108	104	555	514
horse-eye jack	261	296	40	108	241	219
silk snapper	244	1,720	355	28	638	541
king mackerel	231	224	47	44	177	187
schoolmaster	214	235	43	215	174	142
little tunny	176	179	100	137	110	105
dog snapper	152	181	35	39	144	123
triple tail	146	259	51	10	193	178
bar jack	142	179	37	64	152	137
white grunt	133	148	33	64	129	109
blackfin tuna	131	174	48	15	120	124
yellowfin mojarra	128	178	117	95	141	122
ladyfish	119	46	8	119	26	24
scaled sardine	110	1,702	1,187	346	198	81
skipjack tuna	102	185	45	11	119	110
striped mojarra	102	251	26	37	179	165
jack family	98	0	47	115		
queen triggerfish	98	110	40	10	83	70
squirrelfish	98	148	51	80	75	73
gray snapper	93	82	15	148	54	46
vermillion snapper	91	509	77	6	231	208
black durgon	85	306	32	65	149	147
palometa	82	84	21	41	77	68
checkered puffer	74	71	11	54	51	50

Species	Angler trips	A fish	B1 fish	B2 fish	Lengths	Weights
yellow jack	72	90	62	28	65	77
yellowfin tuna	71	70	14	2	50	37
wenchman	69	306	22	10	184	157
trunkfish	66	64	22	10	56	53
blackfin snapper	61	160	28	5	104	95
stoplight parrotfish	61	204	20	1	94	73
sailfish	59	2	0	67	1	1
queen snapper	56	216	39	0	129	122
graysby	54	91	10	19	59	51
burro grunt	52	109	21	58	76	79
guaguanche	52	96	23	39	62	59
unidentified fish	51	0	32	87		
white mullet	47	77	61	4	70	54
puddingwife	46	50	11	5	38	37
snapper family	46	0	120	23		
tomtate	46	85	14	50	50	36
tilapia genus	44	0	148	55		
barbu	43	95	16	49	68	62
southern sennet	43	66	23	18	37	17
mojarra family	42	0	57	69		
white marlin	42	0	0	42		
black jack	41	31	5	26	24	20
spanish sardine	40	693	1,343	23	135	40
parrotfish family	39	0	216	22		
irish pompano	38	99	11	42	31	31
hogfish	37	34	26	17	21	15
redear sardine	37	373	1,260	0	109	66
snapper genus	37	0	172	19		
barred grunt	36	51	11	10	25	24
pluma porgy	36	74	1	2	59	53
bluestriped grunt	35	35	9	5	29	25
greater amberjack	35	50	1	17	33	24
black margate	34	59	1	1	36	30
bonefish	34	30	6	17	27	27
southern stingray	34	5	2	30	5	2
rock hind	33	61	8	4	49	32
herring family	31	0	228	245		
rainbow runner	30	72	13	1	60	60
sand drum	30	61	0	0	40	34
spotfin mojarra	30	64	4	8	54	52
hairy blenny	29	21	7	15	13	10
snook genus	29	0	8	40		
reef shark	28	9	2	23	8	8

sand tilefish	28	48	2	2	34	33
ocean triggerfish	26	28	16	3	25	26
Species	Angler trips	A fish	B1 fish	B2 fish	Lengths	Weights
queen parrotfish	26	46	17	1	34	23
billfish family	25	0	0	27		
agujon	24	49	2	5	36	40
almaco jack	24	29	1	4	27	26
cichlid family	24	0	79	22		
french grunt	24	44	1	4	28	26
puffer family	24	0	26	24		
permit	23	33	3	5	31	11
green moray	22	13	12	11	4	3
red snapper	22	165	85	3	48	47
cubera snapper	21	14	4	9	13	10
drum family	21	0	73	8		
redtail parrotfish	21	37	3	0	24	22
sailors choice	21	45	1	0	25	18
grunt family	20	0	20	11		
tarpon snook	20	3	1	56	2	2
atlantic thread herring	19	139	42	1	85	71
blue tilapia genus	19	0	48	29		
sergeant major	19	21	3	7	9	8
striped croaker	19	84	4	0	32	35
atlantic bumper	18	40	14	3	37	20
peacock flounder	18	14	3	7	10	9
barracuda genus	17	0	20	27		
caesar grunt	17	21	0	6	17	15
grouper genus Epinephelus	17	0	23	48		
reef croaker	17	31	4	1	21	19
unidentified sharks	17	0	24	4		
bigeye mojarra	16	30	9	0	22	21
littlescale threadfin	16	57	0	2	22	16
atlantic spadefish	15	16	1	2	13	8
gray triggerfish	15	45	0	0	37	37
longspine squirrelfish	15	27	0	11	24	14
mahogany snapper	15	17	0	4	17	15
porcupinefish	15	9	1	6	6	6
porkfish	15	28	0	0	11	6
redfin parrotfish	15	29	0	0	23	17
tuna genus	15	0	20	11		
atlantic bonito	14	15	4	8	5	5
bandtail puffer	14	4	1	22	4	4
largemouth bass	14	3	7	23	3	3

lemon shark	14	14	1	4	5	6
liza	14	19	5	7	11	11
lookdown	14	20	2	3	15	15
Species	Angler trips	A fish	B1 fish	B2 fish	Lengths	Weights
nassau grouper	14	13	4	1	13	10
blacktip shark	13	5	1	30	4	4
conger eel family	13	0	6	10		
mackerel family	13	0	16	5		
nurse shark	13	2	1	11	1	1
sand diver	13	5	3	9	5	5
spanish hogfish	13	14	1	1	14	9
atlantic croaker	12	12	0	10	9	7
bigeye scad	12	87	32	0	42	9
mackerel genus	12	0	16	7		
sea bream	12	26	4	0	16	12
ballyhoo	11	38	25	2	12	11
houndfish	11	6	5	5	3	3
scalloped hammerhead	11	12	0	5	7	6
yellow goatfish	11	22	0	1	13	12
amberjack genus	10	0	4	8		
jolthead porgy	10	11	1	0	10	9
moray family	10	0	4	6		
princess parrotfish	10	14	3	0	13	13
silky shark	10	12	0	0	12	9
slippery dick	10	14	2	2	10	10
spotted trunkfish	10	10	0	1	9	7
african pompano	9	8	1	0	6	5
atlantic cutlassfish	9	170	4	6	5	5
bigeye tuna	9	12	0	0	12	11
Caribbean red snapper	9	32	0	0	8	13
false pilchard	9	260	374	0	193	86
flagfin mojarra	9	27	0	0	25	20
porgy family	9	0	14	0		
smallmouth grunt	9	11	0	0	6	4
spanish grunt	9	12	1	2	9	10
spanish mackerel	9	11	2	1	2	2
atlantic moonfish	8	23	25	5	23	23
goliath grouper	8	6	8	1	4	2
leatherjack	8	5	5	7	4	3
leatherjacket family	8	0	9	1		
margate	8	5	2	3	5	4
redband parrotfish	8	8	10	0	8	8
spotted scorpionfish	8	3	0	5	3	3
tarpon family	8	0	2	13		

yellowfin grouper	8	9	8	0	9	7
balloonfish	7	0	0	8		
bermuda chub	7	7	1	1	6	5
blue parrotfish	7	4	14	0	4	4
Species	Angler trips	A fish	B1 fish	B2 fish	Lengths	Weights
jack genus	7	0	1	16		
lesser amberjack	7	10	0	0	8	5
needlefish family	7	0	0	8		
saucereye porgy	7	5	2	0	4	2
sea bass family	7	0	1	16		
spotted goatfish	7	17	0	1	15	15
anchovy family	6	0	104	0		
bigeye	6	10	3	0	8	8
black snapper	6	8	0	9	5	3
doctorfish	6	5	6	1	2	2
french angelfish	6	10	0	0	8	8
purplemouth moray	6	1	7	1	1	1
rainbow parrotfish	6	5	2	1	2	2
smooth trunkfish	6	8	0	0	4	4
squirrelfish family	6	0	4	9		
threadfin shad	6	0	145	0		
unidentified bottom fish	6	0	0	38		
blue tang	5	2	0	3	2	2
dusky shark	5	3	1	1	3	3
glasseye snapper	5	6	0	0	4	4
honeycomb cowfish	5	3	0	3	3	3
littlehead porgy	5	2	3	0	2	2
misty grouper	5	6	0	0	6	4
scorpionfish family	5	0	2	4		
striped mullet	5	7	5	0	7	7
turkeyfish	5	2	10	1	2	2
unidentified eel	5	0	5	1		
whitemouth croaker	5	7	0	4	6	5
wrasse family	5	0	5	1		
albacore	4	20	0	0	1	
lizardfish family	4	0	1	3		
northern sennet	4	8	0	2	8	8
orange filefish	4	5	0	0	5	4
smooth puffer	4	5	0	0	5	5
snakefish	4	3	0	1	3	3
spotted eagle ray	4	2	6	1	2	2
tiger shark	4	4	0	1	1	1
unidentified grouper	4	0	3	2		
yellow chub	4	5	0	0	4	1

yellowtail damselfish	4	5	0	0		
american eel	3	1	1	2	1	1
atlantic threadfin	3	2	5	0	2	2
black grouper	3	1	1	5	1	
blackline tilefish	3	5	0	0	3	3
Species	Angler trips	A fish	B1 fish	B2 fish	Lengths	Weights
chain moray	3	3	0	0	1	1
conger eel	3	1	0	2	1	
emerald parrotfish	3	5	25	0	5	5
grouper genus Mycteroperca	3	0	7	1		
longbill spearfish	3	0	0	3		
mottled mojarra	3	4	0	0	3	3
red goatfish	3	6	0	0	6	5
rough triggerfish	3	8	17	0	4	4
spotted moray	3	0	2	1		
atlantic herring	2	4	0	0	4	4
atlantic needlefish	2	3	0	0	1	1
atlantic stingray	2	0	0	3		
balao	2	91	0	0	15	5
banded rudderfish	2	2	3	0	2	2
bay whiff	2	4	0	0	3	1
bigmouth sleeper	2	1	12	0	1	1
blackear wrasse	2	2	0	0	2	
blue croaker	2	5	4	0	1	
blue tilapia	2	0	0	6		
bluegill	2	0	2	2		
bluehead	2	0	1	1		
blunthead puffer	2	0	0	6		
brown chromis	2	3	0	0		
bull shark	2	0	0	2		
clinid family	2	0	0	2		
clown wrasse	2	1	1	0	1	1
damselfish family	2	0	2	0		
devil ray	2	2	0	0	2	2
fat sleeper	2	5	0	0	4	1
fat snook	2	2	0	0	2	2
flat needlefish	2	0	0	2		
florida pompano	2	2	0	0	2	2
goatfish family	2	0	1	1		
gray angelfish	2	3	0	0	1	1
inshore lizardfish	2	2	0	0		
manta family	2	0	2	0		
mullet family	2	0	2	0		

night sergeant	2	2	0	0	1	1
ocean surgeon	2	1	1	4	1	1
pigfish	2	1	1	0		
puffer genus sphaeroides	2	0	1	2		
red grouper	2	2	0	0	2	2
remora family	2	0	0	2		
Species	Angler trips	A fish	B1 fish	B2 fish	Lengths	Weights
requiem shark family	2	0	1	4		
scrawled cowfish	2	2	0	0	2	2
searobin family	2	0	0	2		
sharksucker	2	0	0	2		
shortfin mako	2	1	0	2	1	
silver jenny	2	4	0	0	3	
sleeper family	2	0	1	1		
smalltail shark	2	1	1	0	1	1
squirrelfish genus	2	0	1	1		
stingray family	2	0	0	2		
striped grunt	2	4	0	0	4	1
striped parrotfish	2	2	0	0	2	2
swordfish	2	1	0	1		
swordspine snook	2	10	0	0	4	4
tattler	2	2	0	0	2	2
unidentified surface fish	2	0	0	3		
whitespotted filefish	2	2	0	0		1
yellow stingray	2	2	0	0	2	2
atlantic flyingfish	1	0	1	0		
banded butterflyfish	1	1	0	0	1	
banded drum	1	1	0	0	1	1
banded moray	1	1	0	0	1	1
bandtail searobin	1	0	0	1		
bank sea bass	1	0	0	1		
belted sandfish	1	1	0	0	1	1
bigeye soldierfish	1	1	0	3	1	1
blackedge moray	1	0	2	0		
blue chromis	1	0	1	0		
bluefin tuna	1	0	1	0		
boxfish genus	1	0	1	0		
bullet mackerel	1	1	0	0	1	1
burrfish genus	1	0	2	0		
butterflyfish genus	1	0	0	1		
cobia	1	1	0	0	1	
cocoa damselfish	1	2	0	0		
Darwins slimehead	1	1	0	0	1	1
downy blenny	1	0	0	1		

dusky anchovy	1	18	0	0	2	
dusky damselfish	1	1	0	0		
flyingfish family	1	0	15	0		
frigate mackerel	1	0	2	0		
gag	1	1	0	0	1	1
goby family	1	0	0	1		
goldspotted eel	1	0	0	1		
Species	Angler trips	A fish	B1 fish	B2 fish	Lengths	Weights
great hammerhead	1	0	0	1		
greater soapfish	1	1	0	0	1	1
greenblotch parrotfish	1	1	0	0	1	1
grunt genus	1	0	0	1		
highfin goby	1	1	0	0	1	1
jackknife-fish	1	1	0	0		
kingfish genus	1	0	1	0		
least puffer	1	1	0	0	1	1
lefteye flounder family	1	0	0	1		
lefteye flounder genus	1	0	0	1		
lizardfish genus	1	0	1	0		
longjaw squirrelfish	1	1	0	0	1	1
midnight parrotfish	1	1	0	0	1	1
mimic blenny	1	1	0	0	1	1
mountain mullet	1	1	0	0	1	1
mullet genus	1	0	1	0		
needlefish genus	1	0	0	1		
northern puffer	1	2	0	0		2
ocean whitetip shark	1	0	0	1		
offshore lizardfish	1	1	0	0		
orangespot sardine	1	40	0	0		
painted wrasse	1	3	0	0	3	
pomfret family	1	0	1	0		
pompano dolphin	1	1	0	0	1	1
porgy genus	1	0	1	0		
red drum	1	2	0	0		
red lizardfish	1	0	0	1		
reef squirrelfish	1	2	0	0	2	2
remora genus	1	0	0	2		
requiem shark genus	1	0	1	0		
rosy razorfish	1	1	0	0		
round scad	1	24	0	0		
saddle stargazer	1	2	0	0	2	2
sandbar shark	1	2	0	0	2	2
sea bass genus	1	0	1	0		
sea chub genus	1	0	0	1		

sheepshead	1	1	0	0	1	1
sheepshead porgy	1	1	0	0		1
shoal flounder	1	1	0	0		
silver porgy	1	0	0	1		
six gill shark	1	1	0	0		
slender mojarra	1	1	0	0	1	
smooth dogfish	1	1	0	0	1	1
snake eel family	1	0	1	0		
Species	Angler trips	A fish	B1 fish	B2 fish	Lengths	Weights
southern kingfish	1	1	0	0		
southern puffer	1	0	0	1		
star drum	1	7	0	0	2	2
stingray genus	1	0	1	0		
striped anchovy	1	8	0	0	8	8
surgeonfish genus	1	0	0	1		
threadfin genus	1	0	2	0		
tiger grouper	1	1	0	0		
tilefish	1	1	0	0		
timucu	1	1	0	0	1	1
unicorn filefish	1	6	0	0	6	6
unidentified skate or ray	1	0	0	1		
viper moray	1	1	0	0	1	
warsaw grouper	1	1	0	0	1	
whitebone porgy	1	1	0	0	1	1
yellowedge grouper	1	1	0	0		1