

U.S. Marine Recreational Fisheries

DATA COLLECTION. Detailed information on marine recreational fishing is required to support a variety of fishery management and development purposes as outlined in the Sustainable Fisheries Act, Public Law 94-265. In 1979, NMFS began the comprehensive Marine Recreational Fishery Statistical Survey (MRFSS). Although the recreational harvest is only about 6 percent of the total U.S. harvest of finfish for MRFSS states (see MRFSS coverage page), it is important to managers because the fishing activities of millions of marine anglers are directed at relatively few species. Data collected through the MRFSS show that recreational fisheries have tremendous impacts on many recreationally important species. For some species recreational landings surpass commercial landings (see figure on preceding page).

METHODOLOGY. The MRFSS consists of an intercept survey of anglers in the field and a telephone survey of coastal county households. The intercept survey collects data on species composition, catch rates, and fish lengths and weights. The telephone survey collects data on the number of marine fishing trips. These data are combined to produce estimates of catch, effort, and participation. Catch is divided into three categories – type A, type B1 and type B2. Type A catch is fish that were caught, landed whole and were available for identification, enumeration, weighing and measuring by trained MRFSS field personnel. Type B1 catch includes fish that were caught, filleted, released dead, given away, or disposed of in some other way so that the interviewer could not verify the species, sizes, or numbers reported. Fish that were caught and reported as released alive are in the Type B2 category. Estimates are generated by subregion, state, wave (bimonthly sampling period), species, mode (private/rental boat, party/charter boat, and shore), primary area fished and catch type. In addition, economic and demographic data are also obtained.

The MRFSS was conducted in 1999 in all coastal states except Texas, Alaska, and Hawaii. Sampling coverage varies across the time series (see MRFSS coverage page). Detailed information and access to the data are available on the Fisheries Statistics and Economics web page (www.st.nmfs.gov/st1). Data from other NMFS and state surveys (e.g. SE head boats, Texas, California Passenger Fishing Vessels, Oregon/Washington ocean boats, Pacific salmon, Alaska) are not included in this report.

DATA TABLES. The estimated harvest (number and weight of fish) is presented for 128 commonly caught species. The estimated harvest includes types A and B1 catch and does not include B2 type fish. Numbers of fish harvested and released alive are also presented for many important species groups. Estimated harvest is presented by subregion and primary fishing area: inland (sounds, rivers, bays), state territorial seas (ocean to 3 miles from shore, except for Florida's Gulf coast, where state territorial seas extend to 10 miles from shore), and Exclusive Economic Zone (EEZ) (ocean from the outer edge of the state territorial seas to 200 miles from shore). The total number of estimated trips and participants are presented by state.

1999 MRFSS DATA. In 1999, over 7.8 million people made 56.9 million marine recreational fishing trips to the Atlantic, Gulf and Pacific coasts. The estimated marine recreational finfish catch was 328.8 million fish. Over 59 percent of the number caught were released alive. The estimated total weight of the harvest was 198.7 million pounds.

The Atlantic coast accounted for the majority of total marine angling participants (55 percent), trips (62 percent), and total number of fish caught (54 percent). The Gulf coast (excluding Texas, see MRFSS coverage page) accounted for 25 percent of participants, 28 percent of trips, and 40 percent of the catch. The Pacific coast accounted for 20 percent of participants, 10 percent of trips, and 6 percent of the catch. Nationally, most (57 percent) of the recreational catch (in numbers of fish) came from inland waters, 30 percent from state territorial seas, and 13 percent from the EEZ. This distribution is different for the Atlantic and Gulf coasts versus the Pacific coast. On the Atlantic and Gulf the majority of the trips were taken in inland waters, while on the Pacific coast more trips were in the state territorial seas.

ATLANTIC. In 1999, 4.2 million marine recreational fishing participants took 35.0 million trips and caught a total of 178.5 million fish. Twenty-three percent of the trips were made in east Florida, followed by 14 percent in New Jersey, 13 percent in North Carolina, 9 percent in Massachusetts, 8 percent in New York, 8 percent in Maryland, and 8 percent in Virginia. Together, Connecticut, Rhode Island, and South Carolina accounted for 12 percent of the trips (4 percent each), and Delaware, Maine, Georgia, and New Hampshire accounted for 6 percent of the trips.

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The most commonly caught non-bait species (numbers of fish) were Atlantic croaker, summer flounder, striped bass, bluefish, and black sea bass. By weight, the largest harvests were striped bass, dolphin, yellowfin tuna, summer flounder, and bluefish. The average weights for some of the top species were: 24.0 pounds for yellowfin tuna, 10.1 for striped bass, 7.1 for dolphin, 2.2 for bluefish, 2.0 for summer flounder, 1.1 for black sea bass, and 0.9 pounds for Atlantic croaker.

The total catch of striped bass increased steadily and dramatically from 1.8 million fish in 1990 to 17.5 million fish in 1997. In 1998 and 1999, total catch of striped bass declined slightly to 16.6 and 14.2 million fish, respectively. Over 90 percent of the striped bass catch was released alive in 1999. Summer flounder catches increased from 9.1 million fish in 1990 to 21.4 million fish in 1999. Atlantic croaker catch has shown no real trend since 1990, ranging from a low of 10.7 million fish in 1990 to a high of 23.2 million fish in 1994, with 1997 – 1999 catches consistently reaching 20.0 million fish. Bluefish, dolphin, and black sea bass catches remained relatively stable from 1992-1999.

The most commonly caught Atlantic coast species in federally managed waters were black sea bass, Atlantic croaker, summer flounder, dolphin, and Atlantic mackerel. The state territorial sea accounted for 29 percent of the total number of fish caught in the U.S. Atlantic, and the inland catch accounted for 58 percent.

GULF OF MEXICO. In 1999, 1.9 million marine recreational fishing participants took 15.9 million trips and caught a total of 129.9 million fish (excluding Texas). Seventy-one percent of the trips were made in west Florida, followed by 17 percent in Louisiana, 7 percent in Alabama and 5 percent in Mississippi.

The most commonly caught non-bait species (numbers of fish) were spotted seatrout (19 percent of total Gulf catch for all species), sand seatrout, red drum, white grunt, Atlantic croaker, red snapper, and gray snapper. By weight, the largest harvests were spotted seatrout, red drum, red snapper, sheepshead, dolphin, king mackerel, and sand seatrout. The average weights for some of the top species were: 8.6 pounds for king mackerel, 5.3 for dolphin, 4.4 for red drum, 3.8 for red snapper, 2.7 for sheepshead, 1.5 for gray snapper, 1.3 for spotted seatrout, and 0.7 pounds for sand seatrout.

Red snapper and sand seatrout catches reached 10 year highs in 1999 with 3.2 and 6.6 million fish respectively. Red drum, king mackerel, spotted seatrout, gray snapper, and sheepshead catches have remained relatively stable since 1992. Gulf dolphin catch has shown no real trend since 1992, ranging from a low of 388 thousand fish in 1992 to a high of over 1.0 million fish in 1997.

The most commonly caught Gulf coast species in federally managed waters were red snapper, white grunt, dolphin, black sea bass, and spotted seatrout. The percent of the total Gulf catch from the state territorial sea was 29 percent, and the inland catch accounted for approximately 59 percent.

PACIFIC. In 1999, 1.6 million marine recreational fishing participants took 6.0 million trips and caught a total of 20.0 million fish. Seventy percent of the trips were made in California, followed by 21 percent in Washington, and 9 percent in Oregon.

The most commonly caught non-bait species (numbers of fish) were surf smelt, Pacific (chub) mackerel, barred sand bass, black rockfish, Pacific barracuda, kelp bass, blue rockfish, and California halibut. By weight, the largest harvests were Pacific barracuda, black rockfish, lingcod, California halibut, and yellowtail. The average weights for some of the top species were: 14.3 pounds for yellowtail (a 5.8 pound increase from the 1998 average), 10.6 for California halibut, 8.2 for lingcod, 4.6 for Pacific barracuda, and 1.8 for black rockfish.

Lingcod and black rockfish catches have remained relatively stable since 1993. California halibut catches reached a 3-year high of 645 thousand fish. Surf smelt catches dropped from a 7 year high of 4.8 million fish in 1998 to 1.2 million fish in 1999. Pacific barracuda catch has shown no real trend since 1993, ranging from a low of 584,000 fish in 1996 to a high of 1.8 million fish in 1994. Pacific (chub) mackerel hit a 7-year low in 1999 with 1.2 million fish caught.

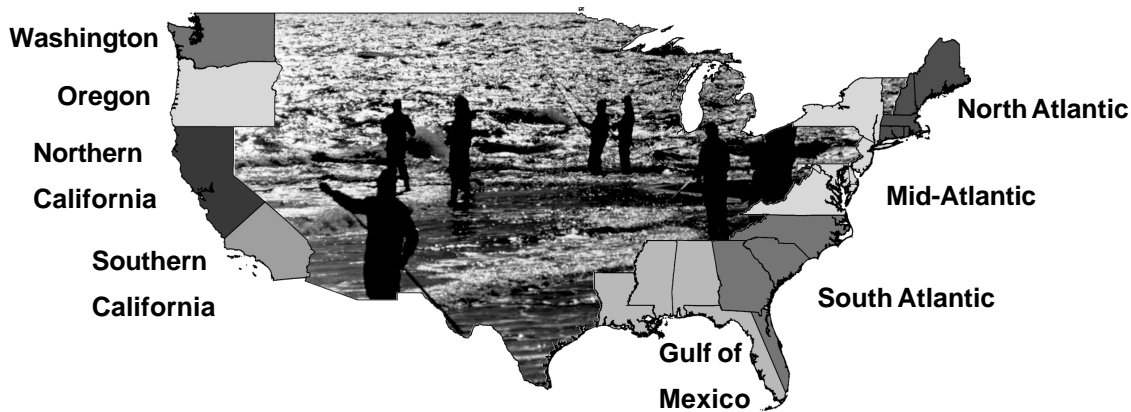
The most commonly caught Pacific coast species in federally managed waters were Pacific barracuda, yellowtail rockfish, Pacific (chub) mackerel, barred sand bass, greenspotted rockfish, California scorpionfish, and blue rockfish. The percent of the total Pacific catch from the state territorial sea was 49 percent, and the inland catch accounted for 35 percent.

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Coverage of MRFSS Survey

1979-1999

The Marine Recreational Fisheries Statistics Survey provides coverage of saltwater sport fishing (including estuarine and brackish water) from private/rental boats, charter and head boats, and the shore on the Atlantic Coast (Maine-East Florida), Gulf Coast (Louisiana-West Florida), and Pacific coast (Washington through California).



Care is advised when comparing catch estimates for the MRFSS time series because of differences in sampling coverage.

- In the South Atlantic and Gulf sub-regions (NC-LA) the MRFSS has not collected catch data from head boats since 1985, so estimates for these sub-regions now only include charter boats in the for-hire sector.
- Marine recreational fishing in Texas is monitored by the Texas Department of Parks and Wildlife and has not been surveyed by the MRFSS since 1985.
- On the Pacific coast, ocean boat trips during certain waves and salmon trips are not sampled because they are surveyed through the state natural resource agencies.
- Alaska conducts an annual mail survey and has never been surveyed by the MRFSS.
- The U.S. Caribbean, Hawaii and West Pacific territories have not been surveyed by the MRFSS since 1981.

Historically, only about 5 percent of the annual recreational catch on the Atlantic and Gulf coasts is taken during Wave 1 (January - February). Costs to sample these months are very high due to low fishing activity. Therefore, in Jan/Feb of 1981 the MRFSS was not conducted in any region. In 1982, Jan/Feb data collection resumed on the Pacific and Gulf Coasts and also on the Atlantic Coast of Florida. With a few exceptions (GA 1985-1989, SC 1988, NC 1988-1992), the MRFSS has not been conducted in Jan/Feb on the Atlantic Coast north of Florida since 1980.

Exceptions to MRFSS Coverage:

Nov/Dec (ME & NH) - 1987 to present

All Waves (CA-WA) - 1990 to 1993

Mar/Apr (ME & NH) - 1986 to present

All Waves (WA) - 1993 to 1994

Jan/Feb (No. CA-OR) - 1994

Jan/Feb (So. CA-OR) - 1995

Nov/Dec (OR) - 1994

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U.S. RECREATIONAL HARVEST (A+B1), BY SPECIES, 1998 AND 1999

Species	1998			1999			Average (1995-99) Thousand pounds
	Thousand pounds	Metric tons	Total Numbers (thousands)	Thousand pounds	Metric tons	Total Numbers (thousands)	
Anchovies**							
Northern Anchovy	(1)	(1)	3	54	24	104	12
Other Anchovies	-	-	-	(1)	(1)	(1)	(1)
Barracudas	1,162	527	150	1,192	541	139	1,531
Bluefish	12,774	5,796	4,430	8,610	3,906	3,856	12,590
California Scorpionfish	185	84	160	297	135	280	250
Cartilaginous Fishes							
Dogfish Sharks**	546	248	167	123	56	61	372
Skates/Rays**	101	46	70	195	88	81	163
Other Sharks**	2,665	1,209	286	2,790	1,266	209	4,539
Catfishes**							
Freshwater Catfishes	778	353	448	343	156	249	577
Saltwater Catfishes	885	402	525	654	297	460	963
Cods And Hakes							
Atlantic Cod	2,966	1,346	466	2,599	1,179	375	3,214
Pacific Cod	1	(1)	1	(1)	(1)	(1)	3
Pacific Hake	3	1	2	2	1	3	2
Pacific Tomcod	(1)	(1)	1	(1)	(1)	1	2
Pollock	283	128	185	196	89	218	441
Red Hake	144	65	115	59	27	118	181
Other Cods/Hakes	154	70	79	121	55	66	178
Croakers							
California Corbina	32	15	15	15	7	17	27
Queenfish	10	5	42	18	8	122	19
White Croaker	162	74	434	157	71	301	343
Other Croakers	221	100	119	499	226	93	268
Dolphins**	12,121	5,500	1,889	13,423	6,090	2,065	16,126
Drums							
Atlantic Croaker	8,211	3,726	10,010	7,628	3,461	10,090	6,575
Black Drum	2,794	1,267	715	2,012	913	723	2,238
Kingfishes	1,721	781	3,030	2,187	992	4,118	1,842
Red Drum	9,847	4,468	2,152	10,475	4,753	2,448	12,069
Sand Seatrout	1,815	823	2,808	2,833	1,285	4,998	2,032
Silver Perch	109	50	511	101	46	373	109
Spot	3,064	1,390	6,992	1,664	755	3,734	2,532
Spotted Seatrout	9,542	4,329	7,694	13,546	6,146	10,603	11,497
Weakfish**	4,044	1,835	2,390	3,143	1,426	1,652	3,132
Other Drum	98	45	218	212	96	778	152
Eels**	7	3	14	12	5	14	9
Flounders							
California Halibut**	939	426	106	1,297	588	124	1,338
Gulf Flounder	227	103	174	229	104	162	193
Rock Sole	13	6	14	7	3	5	15
Sanddabs	99	45	259	82	37	225	111
Southern Flounder	1,222	554	801	1,456	661	958	1,428
Starry Flounder	19	9	17	8	4	11	11
Summer Flounder	12,519	5,680	7,003	8,382	3,803	4,123	9,614
Winter Flounder	718	326	648	768	348	724	1,257
Other Flounders**	858	389	185	676	307	168	557

See footnotes at end of table.

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U.S. RECREATIONAL HARVEST (A+B1), BY SPECIES, 1998 AND 1999

Species	1998			1999			Average (1995-99) Thousand pounds
	Thousand pounds	Metric tons	Total Numbers (thousands)	Thousand pounds	Metric tons	Total Numbers (thousands)	
Greenlings							
Kelp Greenling	117	53	98	115	52	89	134
Lingcod	1,283	582	160	1,398	634	172	1,110
Other Greenlings	7	3	12	3	2	8	19
Grunts							
Pigfish	337	153	933	357	162	933	443
White Grunt	1,253	569	1,809	1,381	627	1,749	1,592
Other Grunts	313	142	694	300	136	577	385
Herrings**	964	437	26,927	648	294	23,278	1,119
Jacks							
Blue Runner	1,227	557	1,869	750	340	860	889
Crevalle Jack	901	409	511	1,316	597	612	1,516
Florida Pompano	691	314	522	593	269	407	473
Greater Amberjack	1,287	584	91	2,696	1,223	140	1,821
Yellowtail	5,697	2,585	673	807	366	56	2,157
Other Jacks	415	189	534	806	366	1,360	404
Mullet**	2,673	1,213	3,240	2,240	1,016	5,710	2,281
Pacific Barracuda	2,057	933	450	1,988	902	423	1,849
Porgies							
Pinfishes	2,268	1,029	7,593	1,532	695	5,112	1,705
Red Porgy	76	35	81	87	39	81	134
Scup**	875	397	1,212	1,886	856	3,251	1,493
Sheepshead	4,403	1,998	1,742	4,789	2,173	1,905	5,412
Other Porgies**	111	51	149	102	46	170	213
Puffers	63	29	148	59	27	175	105
Rockfishes							
Black Rockfish	2,459	1,116	1,178	1,706	774	956	1,525
Blue Rockfish	859	390	841	712	323	673	638
Bocaccio	124	56	40	312	141	92	167
Brown Rockfish	92	42	81	149	67	121	110
Canary Rockfish	185	84	107	271	123	163	215
Chilipepper Rockfish	18	8	9	11	5	44	23
Copper Rockfish	241	109	157	223	101	136	214
Greenspotted Rockfish	33	15	40	98	44	133	85
Olive Rockfish	110	50	77	76	34	68	84
Quillback Rockfish	97	44	53	78	35	42	65
Rockfishes	78	35	102	123	56	154	85
Widow Rockfish	98	44	67	78	35	44	58
Yellowtail Rockfish	447	203	274	718	326	403	412
Other Rockfishes**	751	341	1,108	1,641	744	1,914	1,236
Sablefishes	9	4	1	(1)	(1)	(1)	5
Sculpins							
Cabezon	293	133	91	209	95	60	226
Sculpins	18	8	38	13	6	42	20
Sea Basses							
Barred Sand Bass	685	311	408	661	300	456	969
Black Sea Bass	1,674	760	1,697	2,245	1,019	2,000	4,203
<i>Epinephelus</i> Groupers**	994	451	154	1,405	637	213	1,300
Kelp Bass	511	232	326	338	154	236	719
<i>Mycteroperca</i> Groupers**	4,493	2,038	641	4,595	2,085	652	3,702
Spotted Sand Bass	22	10	17	38	17	30	65
Other Sea Basses	99	45	317	67	30	282	114

See footnotes at end of table.

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U.S. RECREATIONAL HARVEST (A+B1), BY SPECIES, 1998 AND 1999

Species	1998			1999			Average (1995-99) Thousand pounds
	Thousand pounds	Metric tons	Total Numbers (thousands)	Thousand pounds	Metric tons	Total Numbers (thousands)	
Sea Chubs**							
Halfmoon	15	7	21	41	19	41	38
Opaleye	72	33	87	49	22	39	67
Other Sea Chubs	-	-	-	2	1	2	5
Searobins	106	48	202	78	35	122	132
Silversides							
Jacksmelt	149	68	366	102	46	272	198
Other Silversides	3	2	29	7	3	44	10
Smelts**							
Surf Smelt	357	162	4,825	28	13	1,217	220
Other Smelts	-	-	-	(1)	(1)	4	(1)
Snappers							
Gray Snapper	1,409	639	1,072	1,345	610	1,038	1,337
Lane Snapper	230	104	205	181	82	195	259
Red Snapper	4,373	1,984	1,336	4,651	2,110	1,266	3,856
Vermilion Snapper	353	160	294	541	245	540	435
Yellowtail Snapper	437	198	352	326	148	268	449
Other Snappers**	296	134	82	298	135	78	330
Sturgeons	566	257	32	617	280	19	614
Surfperches							
Barred Surfperch	534	242	646	158	72	210	314
Black Perch	62	28	94	27	12	38	57
Pile Perch	49	22	60	20	9	18	51
Redtail Surfperch	91	41	92	57	26	60	70
Shiner Perch	4	2	85	5	2	91	9
Silver Surfperch	12	5	43	29	13	86	21
Striped Seaperch	179	81	199	39	18	44	122
Walleye Surfperch	15	7	59	18	8	68	31
White Seaperch	5	2	22	9	4	21	12
Other Surfperches	55	25	135	53	24	65	56
Temperate Basses							
Striped Bass	13,459	6,107	1,483	14,409	6,538	1,451	14,212
White Perch	614	279	1,834	426	193	1,113	699
Other Temperate Basses	7	3	6	(1)	(1)	(1)	2
Toadfishes	2	1	10	(1)	(1)	9	1
Triggerfishes/Filefishes	775	351	390	757	343	390	935
Tunas And Mackerels							
Atlantic Mackerel	1,520	690	1,874	2,943	1,335	3,236	2,799
King Mackerel**	8,719	3,956	965	7,156	3,247	812	9,519
Little Tunny / Atl. Bonito**	2,913	1,322	378	2,633	1,195	382	3,044
Pacific Bonito**	347	157	71	5	2	2	208
Spanish Mackerel	2,915	1,323	1,787	3,597	1,632	2,540	3,081
Other Tunas/Mackerels**	13,933	6,321	2,132	17,592	7,982	1,359	16,798
Wrasses							
California Sheephead	153	69	49	182	83	63	147
Cunner	10	4	94	61	28	103	35
Tautog	1,479	671	358	2,532	1,149	688	2,793
Other Wrasses	114	52	71	182	83	97	222
Other Fishes**	8,834	4,008	5,931	9,854	4,471	6,759	9,511
Total Fish	199,633	90,580	140,371	198,695	90,146	135,681	--

(1) Number or pounds less than 1,000 or less than 1 metric ton.

NOTE:-- ** Fish included in these groups are not equivalent to those with similar names listed in the commercial tables.

NOTE: Small differences in 1998 values from values appearing in FUS 1998 are due to post-publication data corrections.

U.S. RECREATIONAL HARVEST (A+B1), BY MODE OF FISHING AND SPECIES GROUP, 1999

Species	Mode of fishing									Grand Total		
	Charter boat			Private/Rental boat			Shore					
	Thousand pounds	Metric tons	Total Numbers (thousands)	Thousand pounds	Metric tons	Total Numbers (thousands)	Thousand pounds	Metric tons	Total Numbers (thousands)	Thousand pounds	Metric tons	Total Numbers (thousands)
Anchovies												
Northern Anchovy	-	-	-	(1)	0	3	54	24	100	54	24	103
Other Anchovies	-	-	-	(1)	(1)	(1)	-	-	-	(1)	(1)	(1)
Barracudas	628	285	58	429	194	54	135	61	27	1,192	540	139
Bluefish	1,386	629	443	5,393	2,447	1,430	1,831	831	1,983	8,610	3,907	3,856
California Scorpionfish	197	89	199	99	45	79	1	(1)	2	297	134	280
Cartilaginous Fishes												
Dogfish Sharks**	31	14	19	82	37	35	10	4	7	123	55	61
Skates/Rays**	4	2	1	109	50	54	81	37	27	194	89	82
Other Sharks**	448	203	29	2,149	975	132	193	88	48	2,790	1,266	209
Catfishes**												
Freshwater Catfishes	(1)	(1)	(1)	313	142	228	30	14	21	343	156	249
Saltwater Catfishes	3	1	1	367	167	194	284	129	265	654	297	460
Cods And Hakes												
Atlantic Cod	1,813	822	251	785	356	124	1	1	(1)	2,599	1,179	375
Pacific Cod	-	-	-	(1)	(1)	(1)	-	-	-	(1)	(1)	(1)
Pacific Hake	(1)	(1)	2	2	1	(1)	-	-	-	2	1	(1)
Pacific Tomcod	-	-	-	0	0	(1)	(1)	(1)	1	(1)	(1)	1
Pollock	63	29	29	110	50	109	23	10	80	196	89	218
Red Hake	59	27	118	0	0	0	-	-	-	59	27	(1)
Other Cods/Hakes	81	37	55	39	18	9	1	1	3	121	56	67
Croakers												
California Corbina	-	-	-	-	-	-	15	7	17	15	7	17
Queenfish	(1)	(1)	(1)	6	3	27	12	5	95	18	8	122
White Croaker	15	7	30	88	40	157	54	24	115	157	71	302
Other Croakers	196	89	12	258	117	32	45	20	50	499	226	94
Dolphins**	6,376	2,893	964	7,046	3,197	1,100	-	-	-	13,422	6,090	2,064
Drums												
Atlantic Croaker	615	279	806	6,256	2,839	7,648	757	343	1,636	7,628	3,461	10,090
Black Drum	87	40	21	1,532	695	523	393	178	180	2,012	913	724
Kingfishes	27	12	41	1,262	573	2,251	898	408	1,826	2,187	993	4,118
Red Drum	1,036	470	171	8,592	3,898	2,112	847	384	165	10,475	4,752	2,448
Sand Seatrout	175	80	309	1,847	838	2,943	810	368	1,746	2,832	1,286	4,998
Silver Perch	(1)	(1)	(1)	66	30	204	36	16	169	102	46	373
Spot	24	11	68	982	446	1,917	658	299	1,749	1,664	756	3,734
Spotted Seatrout	812	368	602	11,768	5,340	9,322	965	438	679	13,545	6,146	10,603
Weakfish**	168	76	94	2,607	1,183	1,380	367	166	178	3,142	1,425	1,652
Other Drum	3	1	3	181	82	489	28	13	286	212	96	778
Eels**	(1)	(1)	1	12	5	6	(1)	(1)	7	12	5	14

See footnotes at end of table.

U.S. RECREATIONAL HARVEST (A+B1), BY MODE OF FISHING AND SPECIES GROUP, 1999

Species	Mode of fishing									Grand Total		
	Charter boat			Private/Rental boat			Shore					
	Thousand pounds	Metric tons	Total Numbers (thousands)	Thousand pounds	Metric tons	Total Numbers (thousands)	Thousand pounds	Metric tons	Total Numbers (thousands)	Thousand pounds	Metric tons	Total Numbers (thousands)
Flounders												
California Halibut**	157	71	18	1,126	511	104	15	7	1	1,298	589	123
Gulf Flounder	8	3	4	132	60	100	89	41	58	229	104	162
Rock Sole	1	1	1	2	1	3	4	2	1	7	4	5
Sanddabs	18	8	67	59	27	146	4	2	13	81	37	226
Southern Flounder	27	12	17	995	451	667	434	197	274	1,456	660	958
Starry Flounder	(1)	(1)	(1)	5	2	7	3	1	4	8	3	11
Summer Flounder	671	305	301	7,318	3,320	3,604	393	178	218	8,382	3,803	4,123
Winter Flounder	46	21	49	665	302	615	57	26	60	768	349	724
Other Flounders**	177	80	11	491	223	131	8	4	26	676	307	168
Greenlings												
Kelp Greenling	11	5	9	84	38	58	19	9	22	114	52	89
Lingcod	465	211	51	904	410	117	28	13	4	1,397	634	172
Other Greenlings	(1)	(1)	3	1	1	2	2	1	4	3	2	9
Grunts												
Pigfish	4	2	10	208	94	504	145	66	419	357	162	933
White Grunt	116	52	128	1,208	548	1,516	57	26	105	1,381	626	1,749
Other Grunts	3	1	22	188	85	396	110	50	159	301	136	577
Herrings**	1	(1)	36	267	121	14,976	381	173	8,266	649	294	23,278
Jacks												
Blue Runner	41	18	39	383	174	431	326	148	391	750	340	861
Creville Jack	37	17	6	764	347	405	515	234	201	1,316	598	612
Florida Pompano	3	2	2	210	95	127	380	172	278	593	269	407
Greater Amberjack	2,177	988	112	505	229	27	14	6	(1)	2,696	1,223	139
Yellowtail	373	169	25	431	196	31	2	1	(1)	806	366	56
Other Jacks	485	220	100	204	93	710	118	53	550	807	366	1,360
Mullet**	(1)	(1)	11	1,099	499	2,956	1,141	518	2,744	2,240	1,017	5,711
Pacific Barracuda	1,302	591	280	685	311	143	1	(1)	(1)	1,988	902	423
Porgies												
Pinfishes	9	4	23	842	382	2,531	681	309	2,559	1,532	695	5,113
Red Porgy	71	32	71	15	7	10	-	-	-	86	39	(1)
Scup**	459	208	822	1,336	606	2,231	90	41	198	1,885	855	3,251
Sheepshead	106	48	31	3,818	1,732	1,514	865	393	360	4,789	2,173	1,905
Other Porgies**	19	9	15	55	25	87	28	13	68	102	47	170
Puffers	(1)	(1)	(1)	14	6	60	46	21	115	60	27	175

See footnotes at end of table.

U.S. RECREATIONAL HARVEST (A+B1), BY MODE OF FISHING AND SPECIES GROUP, 1999

Species	Mode of fishing									Grand Total		
	Charter boat			Private/Rental boat			Shore					
	Thousand pounds	Metric tons	Total Numbers (thousands)	Thousand pounds	Metric tons	Total Numbers (thousands)	Thousand pounds	Metric tons	Total Numbers (thousands)	Thousand pounds	Metric tons	Total Numbers (thousands)
Rockfishes												
Black Rockfish	626	284	319	1,052	477	616	28	13	21	1,706	774	956
Blue Rockfish	453	206	421	256	116	249	3	1	3	712	323	673
Bocaccio	256	116	69	54	25	20	1	1	3	311	142	92
Brown Rockfish	32	14	29	111	50	86	6	3	6	149	67	121
Canary Rockfish	181	82	98	90	41	65	-	-	-	271	123	(1)
Chilipepper Rockfish	5	2	36	6	3	7	-	-	-	11	5	(1)
Copper Rockfish	112	51	68	109	50	67	1	1	1	222	102	136
Greenspotted Rockfish	68	31	91	30	14	41	-	-	-	98	45	132
Olive Rockfish	63	29	56	13	6	12	(1)	(1)	(1)	76	35	68
Quillback Rockfish	17	8	10	60	27	31	1	(1)	(1)	78	35	41
Rockfishes	51	23	66	72	32	88	(1)	(1)	1	123	55	155
Widow Rockfish	73	33	39	5	2	6	-	-	-	78	35	45
Yellowtail Rockfish	606	275	318	112	51	85	(1)	(1)	(1)	718	326	403
Other Rockfishes**	1,046	475	1,319	588	267	586	7	3	9	1,641	745	1,914
Sablefishes	(1)	(1)	(1)	(1)	(1)	(1)	-	-	-	(1)	(1)	(1)
Sculpins												
Cabezon	26	12	5	146	66	38	37	17	17	209	95	60
Sculpins	1	1	1	7	3	15	5	2	27	13	6	43
Sea Basses												
Barred Sand Bass	268	122	215	388	176	237	4	2	3	660	300	455
Black Sea Bass	744	337	676	1,474	669	1,290	28	13	34	2,246	1,019	2,000
Epinephelus Groupers**	273	124	40	1,130	513	171	1	(1)	2	1,404	637	213
Kelp Bass	119	54	97	216	98	136	4	2	4	339	154	237
Mycteroperca Groupers**	1,587	720	219	2,947	1,337	425	61	28	8	4,595	2,085	652
Spotted Sand Bass	(1)	(1)	(1)	37	17	29	1	(1)	1	38	17	30
Other Sea Basses	4	2	7	53	24	190	9	4	85	66	30	282
Sea Chubs**												
Halfmoon	22	10	22	19	8	19	(1)	(1)	(1)	41	18	41
Opaleye	1	(1)	1	32	14	20	16	7	18	49	21	39
Other Sea Chubs	-	-	-	-	-	-	2	1	2	2	1	2
Searobins	10	4	8	58	26	95	10	5	18	78	35	121
Silversides												
Jacksmelt	(1)	(1)	(1)	3	1	8	99	45	264	102	46	272
Other Silversides	-	-	-	(1)	(1)	(1)	7	3	43	7	3	43
Smelts												
Surf Smelt	-	-	-	(1)	(1)	(1)	28	13	1,217	28	13	1,217
Other Smelts	-	-	-	-	-	-	(1)	(1)	4	(1)	(1)	4

See footnotes at end of table.

U.S. RECREATIONAL HARVEST (A+B1), BY MODE OF FISHING AND SPECIES GROUP, 1999

Species	Mode of fishing									Grand Total		
	Charter boat			Private/Rental boat			Shore					
	Thousand pounds	Metric tons	Total Numbers (thousands)	Thousand pounds	Metric tons	Total Numbers (thousands)	Thousand pounds	Metric tons	Total Numbers (thousands)	Thousand pounds	Metric tons	Total Numbers (thousands)
Snappers												
Gray Snapper	136	62	58	1,020	463	783	189	86	197	1,345	611	1,038
Lane Snapper	27	12	23	150	68	166	4	2	5	181	82	194
Red Snapper	2,667	1,210	824	1,985	900	442	(1)	(1)	(1)	4,652	2,110	1,266
Vermilion Snapper	378	172	390	162	74	150	-	-	-	540	246	540
Yellowtail Snapper	163	74	121	161	73	145	2	1	2	326	148	268
Other Snappers**	88	40	14	190	86	52	20	9	12	298	135	78
Sturgeons	24	11	1	580	263	17	13	6	1	617	280	19
Surfperches												
Barred Surfperch	(1)	(1)	(1)	5	2	5	152	69	205	157	71	210
Black Perch	(1)	(1)	(1)	13	6	18	14	6	20	27	12	38
Pile Perch	-	-	-	6	3	5	14	6	13	20	9	18
Redtail Surfperch	-	-	-	-	-	-	57	26	60	57	26	60
Shiner Perch	-	-	-	(1)	(1)	(1)	5	2	91	5	2	91
Silver Surfperch	-	-	-	-	-	-	29	13	86	29	13	86
Striped Seaperch	-	-	-	11	5	11	28	13	33	39	18	44
Walleye Surfperch	-	-	-	1	0	2	18	8	66	19	8	68
White Seaperch	-	-	-	4	2	6	5	2	16	9	4	22
Other Surfperches	2	1	4	5	2	6	46	21	55	53	24	65
Temperate Basses												
Striped Bass	2,847	1,292	222	10,394	4,716	1,099	1,169	530	129	14,410	6,538	1,450
White Perch	(1)	(1)	(1)	283	128	709	143	65	404	426	193	1,113
Other Temperate Basses	(1)	(1)	(1)	(1)	(1)	(1)	-	-	-	(1)	(1)	(1)
Toadfishes	(1)	(1)	(1)	(1)	(1)	2	(1)	(1)	7	(1)	(1)	9
Triggerfishes/Filefishes	402	182	224	346	157	161	9	4	5	757	343	390
Tunas And Mackerels												
Atlantic Mackerel	645	293	604	2,105	955	2,238	192	87	394	2,942	1,335	3,236
King Mackerel**	3,225	1,463	403	3,810	1,729	381	121	55	28	7,156	3,247	812
Little Tunny/Atlantic Bonito**	1,739	789	240	817	371	132	77	35	10	2,633	1,195	382
Pacific Bonito**	2	1	1	3	1	1	-	-	-	5	2	5
Spanish Mackerel	529	240	359	1,853	841	1,213	1,216	552	968	3,598	1,633	2,540
Other Tunas/Mackerels**	10,732	4,869	621	6,719	3,049	468	142	64	271	17,593	7,982	1,360
Wrasses												
California Sheephead	65	29	32	116	53	30	2	1	1	183	83	63
Cunner	2	1	10	18	8	13	41	18	80	61	27	103
Tautog	529	240	129	1,739	789	462	264	120	97	2,532	1,149	688
Other Wrasses	1	1	1	179	81	92	2	1	4	182	83	97
Other Fishes**	1,563	709	299	7,168	3,252	2,355	1,122	509	4,105	9,853	4,470	6,759
Grand Total	53,444	24,248	15,401	125,305	56,854	82,567	19,940	9,049	37,716	198,689	90,151	135,103

(1) Number or pounds less than 1,000 or less than 1 metric ton.

NOTE:- ** Fish included in these groups are not equivalent to those with similar names listed in the commercial tables.

U.S. RECREATIONAL HARVEST (A+B1), BY DISTANCE FROM SHORE AND SPECIES GROUP, 1999

Species	Distance from U.S. shores									Grand Total		
	Inland			0 to 3 miles (2) (State Territorial Sea)			3 to 200 miles (Exclusive Economic Zone)					
	Thousand pounds	Metric tons	Total Numbers (thousands)	Thousand pounds	Metric tons	Total Numbers (thousands)	Thousand pounds	Metric tons	Total Numbers (thousands)	Thousand pounds	Metric tons	Total Numbers (thousands)
Anchovies												
Northern Anchovy	54	24	102	(1)	(1)	2	-	-	-	54	24	104
Other Anchovies	-	-	-	(1)	(1)	(1)	-	-	-	(1)	(1)	(1)
Barracudas	101	46	29	463	210	47	628	285	63	1,192	541	139
Bluefish	3,384	1,535	2,118	3,679	1,669	1,300	1,546	702	438	8,609	3,906	3,856
California Scorpionfish	10	5	9	202	92	187	84	38	83	296	135	279
Cartilaginous Fishes												
Dogfish Sharks**	73	33	28	38	17	17	13	6	16	124	56	61
Skates/Rays**	91	41	56	102	46	24	2	1	1	195	88	81
Other Sharks**	337	153	65	547	248	84	1,906	865	59	2,790	1,266	208
Catfishes**												
Freshwater Catfishes	343	156	249	(1)	(1)	(1)	(1)	(1)	(1)	343	156	249
Saltwater Catfishes	512	232	337	139	63	121	3	1	1	654	296	459
Cods And Hakes												
Atlantic Cod	1	1	(1)	265	120	51	2,332	1,058	324	2,598	1,179	375
Pacific Cod	(1)	(1)	(1)	(1)	(1)	(1)	-	-	-	(1)	(1)	(1)
Pacific Hake	-	-	-	-	-	-	2	1	3	2	1	3
Pacific Tomcod	(1)	(1)	1	(1)	(1)	(1)	-	-	-	(1)	(1)	1
Pollock	56	25	118	48	22	51	93	42	49	197	89	218
Red Hake	-	-	-	-	-	-	59	27	118	59	27	118
Other Cods/Hakes	1	1	4	11	5	3	109	49	59	121	55	66
Croakers												
California Corbina	1	1	1	14	6	15	-	-	-	15	7	16
Queenfish	10	4	74	8	4	49	(1)	(1)	(1)	18	8	123
White Croaker	104	47	192	49	22	101	4	2	9	157	71	302
Other Croakers	42	19	46	448	203	46	8	4	1	498	226	93
Dolphins**	101	46	17	880	399	154	12,442	5,645	1,894	13,423	6,090	2,065
Drums												
Atlantic Croaker	6,090	2,763	7,953	1,009	458	1,385	530	240	751	7,629	3,461	10,089
Black Drum	1,550	703	541	383	174	163	78	36	19	2,011	913	723
Kingfishes	1,018	462	1,834	1,104	501	2,175	66	30	109	2,188	993	4,118
Red Drum	8,052	3,653	2,049	1,985	901	342	439	199	57	10,476	4,753	2,448
Sand Seatrout	1,709	775	3,210	998	453	1,605	126	57	183	2,833	1,285	4,998
Silver Perch	67	30	194	34	15	176	(1)	(1)	3	101	45	373
Spot	970	440	2,275	691	314	1,453	2	1	5	1,663	755	3,733
Spotted Seatrout	9,871	4,479	8,348	3,322	1,507	2,032	352	160	224	13,545	6,146	10,604
Weakfish**	2,091	949	1,079	909	413	481	142	65	91	3,142	1,427	1,651
Other Drum	95	43	566	47	21	151	70	32	61	212	96	778
Eels**	(1)	(1)	9	12	5	2	(1)	(1)	3	12	5	14

See footnotes at end of table.

U.S. RECREATIONAL HARVEST (A+B1), BY DISTANCE FROM SHORE AND SPECIES GROUP, 1999

Species	Distance from U.S. shores									Grand Total		
	Inland			0 to 3 miles (2) (State Territorial Sea)			3 to 200 miles (Exclusive Economic Zone)					
	Thousand pounds	Metric tons	Total Numbers (thousands)	Thousand pounds	Metric tons	Total Numbers (thousands)	Thousand pounds	Metric tons	Total Numbers (thousands)	Thousand pounds	Metric tons	Total Numbers (thousands)
Flounders												
California Halibut**	275	125	26	948	430	92	74	33	6	1,297	588	124
Gulf Flounder	97	44	70	106	48	78	26	12	14	229	104	162
Rock Sole	6	3	4	1	(1)	1	(1)	(1)	(1)	7	3	5
Sanddabs	37	17	89	32	15	92	12	5	44	81	37	225
Southern Flounder	1,105	502	740	263	119	193	87	40	26	1,455	661	959
Starry Flounder	6	3	9	2	1	1	(1)	(1)	1	8	4	11
Summer Flounder	4,927	2,236	2,372	2,423	1,099	1,268	1,032	468	482	8,382	3,803	4,122
Winter Flounder	686	311	642	68	31	69	14	6	13	768	348	724
Other Flounders**	213	97	113	19	9	34	443	201	21	675	307	168
Greenlings												
Kelp Greenling	62	28	47	52	24	41	(1)	(1)	(1)	114	52	88
Lingcod	228	104	24	720	327	99	449	204	49	1,397	635	172
Other Greenlings	1	1	3	2	1	5	(1)	(1)	(1)	3	2	8
Grunts												
Pigfish	210	95	544	129	59	347	18	8	43	357	162	934
White Grunt	223	101	302	380	173	596	778	353	852	1,381	627	1,750
Other Grunts	131	59	155	152	69	258	16	7	164	299	135	577
Herrings**	534	242	14,888	114	52	6,296	1	(1)	2,094	649	294	23,278
Jacks												
Blue Runner	109	49	140	489	222	525	152	69	195	750	340	860
Crevalle Jack	791	359	453	432	196	131	94	43	28	1,317	598	612
Florida Pompano	259	117	149	309	140	244	25	11	13	593	268	406
Greater Amberjack	14	6	(1)	500	227	23	2,182	990	117	2,696	1,223	140
Yellowtail	-	-	-	744	338	51	63	28	6	807	366	57
Other Jacks	153	69	129	192	87	782	462	210	449	807	366	1,360
Mullet**	1,807	820	4,245	402	182	1,274	32	14	191	2,241	1,016	5,710
Pacific Barracuda	12	5	3	1,471	668	313	505	229	107	1,988	902	423
Porgies												
Pinfishes	971	440	3,113	481	218	1,720	81	37	279	1,533	695	5,112
Red Porgy	(1)	(1)	(1)	16	7	22	70	32	59	86	39	81
Scup**	1,361	618	2,295	375	170	676	150	68	280	1,886	856	3,251
Sheepshead	3,289	1,492	1,398	1,034	469	385	465	211	122	4,788	2,172	1,905
Other Porgies**	26	12	75	39	18	58	36	16	38	101	46	171
Puffers	21	10	102	33	15	68	5	2	5	59	27	175

See footnotes at end of table.

U.S. RECREATIONAL HARVEST (A+B1), BY DISTANCE FROM SHORE AND SPECIES GROUP, 1999

Species	Distance from U.S. shores									Grand Total		
	Inland			0 to 3 miles (2) (State Territorial Sea)			3 to 200 miles (Exclusive Economic Zone)					
	Thousand pounds	Metric tons	Total Numbers (thousands)	Thousand pounds	Metric tons	Total Numbers (thousands)	Thousand pounds	Metric tons	Total Numbers (thousands)	Thousand pounds	Metric tons	Total Numbers (thousands)
Rockfishes												
Black Rockfish	72	33	55	1,522	691	824	111	51	76	1,705	775	955
Blue Rockfish	10	5	12	591	268	560	110	50	102	711	323	674
Bocaccio	3	1	1	85	38	30	224	102	61	312	141	92
Brown Rockfish	8	4	7	124	56	102	16	7	12	148	67	121
Canary Rockfish	2	1	1	126	57	95	144	65	67	272	123	163
Chilipepper Rockfish	-	-	-	1	(1)	2	10	4	41	11	4	43
Copper Rockfish	67	31	42	107	49	72	48	22	22	222	102	136
Greenspotted Rockfish	-	-	-	10	5	18	88	40	115	98	45	133
Olive Rockfish	(1)	(1)	(1)	54	25	53	21	10	15	75	35	68
Quillback Rockfish	46	21	23	27	12	16	5	2	3	78	35	42
Rockfishes	(1)	(1)	(1)	106	48	137	16	7	17	122	55	154
Widow Rockfish	-	-	-	10	5	8	68	31	36	78	36	44
Yellowtail Rockfish	3	2	2	226	103	173	488	221	228	717	326	403
Other Rockfishes**	17	8	16	936	425	940	687	312	958	1,640	745	1,914
Sablefishes	-	-	-	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Sculpins												
Cabezon	49	22	13	144	65	42	16	7	5	209	94	60
Sculpins	9	4	33	3	1	9	1	(1)	(1)	13	5	42
Sea Basses												
Barred Sand Bass	71	32	44	442	200	312	148	67	100	661	299	456
Black Sea Bass	162	74	197	445	202	424	1,638	743	1,379	2,245	1,019	2,000
Epinephelus Groupers**	37	17	5	149	68	34	1,219	553	175	1,405	638	214
Kelp Bass	5	2	5	309	140	214	24	11	17	338	153	236
Mycteroperca Groupers**	295	134	43	841	382	134	3,459	1,570	474	4,595	2,086	651
Spotted Sand Bass	36	16	28	2	1	2	(1)	(1)	(1)	38	17	30
Other Sea Basses	12	6	62	14	6	88	40	18	132	66	30	282
Sea Chubs**												
Halfmoon	2	1	2	39	18	39	1	(1)	(1)	42	19	41
Opaleye	16	7	17	33	15	22	-	-	-	49	22	39
Other Sea Chubs	1	(1)	(1)	2	1	1	-	-	-	3	1	1
Searobins	25	11	33	38	17	53	15	7	35	78	35	121
Silversides												
Jacksmelt	86	39	224	16	7	48	(1)	(1)	(1)	102	46	272
Other Silversides	6	3	37	1	(1)	6	-	-	-	7	3	43
Smelts												
Surf Smelt	28	13	1,217	-	-	-	-	-	-	28	13	1,217
Other Smelts	(1)	(1)	4	-	-	-	-	-	-	(1)	(1)	4

See footnotes at end of table.

U.S. RECREATIONAL HARVEST (A+B1), BY DISTANCE FROM SHORE AND SPECIES GROUP, 1999

Species	Distance from U.S. shores									Grand Total		
	Inland			0 to 3 miles (2) (State Territorial Sea)			3 to 200 miles (Exclusive Economic Zone)					
	Thousand pounds	Metric tons	Total Numbers (thousands)	Thousand pounds	Metric tons	Total Numbers (thousands)	Thousand pounds	Metric tons	Total Numbers (thousands)	Thousand pounds	Metric tons	Total Numbers (thousands)
Snappers												
Gray Snapper	506	229	570	324	147	254	516	234	214	1,346	610	1,038
Lane Snapper	19	9	24	53	24	69	109	50	102	181	83	195
Red Snapper	45	21	8	815	370	258	3,791	1,720	1,000	4,651	2,111	1,266
Vermilion Snapper	(1)	(1)	(1)	91	41	106	450	204	434	541	245	540
Yellowtail Snapper	1	(1)	1	88	40	73	237	108	194	326	148	268
Other Snappers**	21	9	14	92	42	28	185	84	36	298	135	78
Sturgeons	605	275	18	12	6	1	(1)	(1)	(1)	617	281	19
Surfperches												
Barred Surfperch	2	1	3	155	70	207	-	-	-	157	71	210
Black Perch	14	6	21	13	6	17	-	-	-	27	12	38
Pile Perch	16	7	14	5	2	3	-	-	-	21	9	17
Redtail Surfperch	12	5	11	45	21	49	-	-	-	57	26	60
Shiner Perch	5	2	84	0	0	7	-	-	-	5	2	91
Silver Surfperch	11	5	43	18	8	43	-	-	-	29	13	86
Striped Seaperch	22	10	28	17	8	16	-	-	-	39	18	44
Walleye Surfperch	11	5	35	8	4	33	-	-	-	19	9	68
White Seaperch	5	2	9	4	2	12	-	-	-	9	4	21
Other Surfperches	37	17	31	16	7	32	(1)	(1)	1	53	24	64
Temperate Basses												
Striped Bass	7,760	3,521	988	5,824	2,642	404	826	375	59	14,410	6,538	1,451
White Perch	420	191	1,088	5	2	25	(1)	(1)	(1)	425	193	1,113
Other Temperate Basses	(1)	(1)	(1)	-	-	-	-	-	-	(1)	(1)	(1)
Toadfishes	(1)	(1)	5	(1)	(1)	4	(1)	(1)	(1)	(1)	(1)	9
Triggerfishes/Filefishes	13	6	10	155	70	97	588	267	284	756	343	391
Tunas And Mackerels												
Atlantic Mackerel	423	192	607	1,274	578	1,502	1,245	565	1,127	2,942	1,335	3,236
King Mackerel**	39	18	18	2,550	1,157	322	4,567	2,072	472	7,156	3,247	812
Little Tunny/Atlantic Bonito**	33	15	5	919	417	149	1,682	763	228	2,634	1,195	382
Pacific Bonito**	(1)	(1)	(1)	5	2	1	(1)	(1)	(1)	5	2	1
Spanish Mackerel	956	434	758	1,967	892	1,391	674	306	391	3,597	1,632	2,540
Other Tunas/Mackerels**	186	84	169	740	336	360	16,667	7,562	830	17,593	7,982	1,359
Wrasses												
California Sheephead	2	1	1	172	78	58	8	4	4	182	83	63
Cunner	52	24	77	7	3	16	2	1	10	61	28	103
Tautog	1,434	651	385	722	328	218	376	171	85	2,532	1,150	688
Other Wrasses	(1)	(1)	2	49	22	33	134	61	62	183	83	97
Other Fishes**	3,387	1,537	4,936	3,087	1,401	1,363	3,380	1,533	460	9,854	4,471	6,759
Grand Total	71,393	32,395	75,720	54,950	24,933	39,568	72,342	32,823	20,385	198,685	90,151	135,673

(1) Number or pounds less than 1,000 or less than 1 metric ton.

(2) Except West Florida where the state territorial seas extend 0 to 10 miles.

NOTE:-- ** Fish included in these groups are not equivalent to those with similar names listed in the commercial tables.

U.S. Marine Recreational Fisheries

U.S. RECREATIONAL HARVEST (A+B1) AND TOTAL LIVE RELEASES (B2), BY SPECIES GROUP, 1990-1999

Year	Barracudas			Bluefish		
	<u>Pounds</u>	<u>Number</u>	<u>Number</u>	<u>Pounds</u>	<u>Number</u>	<u>Number</u>
	<u>harvested</u> (thousand)	<u>Harvested</u> (thousands)	<u>Released</u> (thousands)	<u>harvested</u> (thousand)	<u>Harvested</u> (thousands)	<u>Released</u> (thousands)
1990	1,225	158	301	30,905	11,567	5,306
1991	1,349	227	755	33,957	12,420	6,831
1992	1,105	173	627	24,775	7,479	4,511
1993	1,323	196	592	20,636	5,917	4,384
1994	1,656	211	695	15,988	6,056	6,349
1995	1,627	246	673	14,897	5,411	5,552
1996	1,956	229	616	12,116	4,426	5,591
1997	1,718	162	437	14,555	5,585	7,609
1998	1,162	150	396	12,774	4,430	5,340
1999	1,192	139	393	8,610	3,856	8,022
Year	Cartilaginous Fishes			Catfishes		
	<u>Pounds</u>	<u>Number</u>	<u>Number</u>	<u>Pounds</u>	<u>Number</u>	<u>Number</u>
	<u>harvested</u> (thousand)	<u>Harvested</u> (thousands)	<u>Released</u> (thousands)	<u>harvested</u> (thousand)	<u>Harvested</u> (thousands)	<u>Released</u> (thousands)
1990	4,983	640	3,253	2,285	1,774	12,642
1991	2,466	682	4,067	3,770	2,479	16,741
1992	5,074	544	4,113	2,180	1,704	12,862
1993	5,294	646	4,708	2,158	1,764	12,017
1994	4,349	596	5,903	1,886	1,595	14,223
1995	9,953	602	5,449	1,565	1,259	13,496
1996	4,954	557	6,107	1,585	1,008	8,334
1997	4,048	565	6,791	1,886	916	8,573
1998	3,312	523	6,787	1,663	973	7,961
1999	3,108	351	6,181	997	709	7,702
Year	Cods and Hakes			Dolphins		
	<u>Pounds</u>	<u>Number</u>	<u>Number</u>	<u>Pounds</u>	<u>Number</u>	<u>Number</u>
	<u>harvested</u> (thousand)	<u>Harvested</u> (thousands)	<u>Released</u> (thousands)	<u>harvested</u> (thousand)	<u>Harvested</u> (thousands)	<u>Released</u> (thousands)
1990	9,750	3,255	1,037	12,773	1,840	85
1991	10,561	2,802	951	17,205	2,618	524
1992	2,994	1,178	473	9,788	1,318	166
1993	7,484	1,953	1,477	10,894	1,762	177
1994	5,123	1,636	1,590	12,795	2,215	236
1995	6,019	1,648	1,600	19,565	2,268	337
1996	3,906	877	832	12,508	1,668	241
1997	3,651	1,043	782	23,015	2,283	234
1998	3,551	849	1,049	12,121	1,889	187
1999	2,977	781	974	13,423	2,065	217

See footnotes at end of table.

U.S. Marine Recreational Fisheries

U.S. RECREATIONAL HARVEST (A+B1) AND TOTAL LIVE RELEASES (B2), BY SPECIES GROUP, 1990-1999

Year	Drums			Flounders		
	<u>Pounds harvested</u> (thousand)	<u>Number Harvested</u> (thousands)	<u>Number Released</u> (thousands)	<u>Pounds harvested</u> (thousand)	<u>Number Harvested</u> (thousands)	<u>Number Released</u> (thousands)
1990	23,937	30,261	31,030	9,855	8,311	8,129
1991	40,235	49,310	56,405	13,136	10,954	12,772
1992	35,270	40,647	35,462	10,101	7,303	8,775
1993	33,673	38,143	39,676	13,252	10,525	20,420
1994	38,698	48,715	48,958	13,815	9,890	15,376
1995	42,200	41,412	41,611	11,270	6,666	16,079
1996	39,059	35,128	38,042	14,858	10,526	16,087
1997	44,586	39,757	50,684	16,967	10,286	16,849
1998	41,245	36,520	44,142	16,614	9,207	19,214
1999	43,801	39,517	49,966	12,905	6,500	19,855

Year	Grunts			Herrings		
	<u>Pounds harvested</u> (thousand)	<u>Number Harvested</u> (thousands)	<u>Number Released</u> (thousands)	<u>Pounds harvested</u> (thousand)	<u>Number Harvested</u> (thousands)	<u>Number Released</u> (thousands)
1990	2,384	4,503	4,705	903	13,516	7,331
1991	3,176	5,125	10,713	3,082	31,300	2,641
1992	2,979	4,831	6,757	2,034	23,974	4,959
1993	2,347	4,462	7,107	753	28,244	6,499
1994	2,890	5,632	8,256	762	26,411	12,137
1995	3,111	5,534	7,868	976	26,010	4,947
1996	2,449	3,962	6,395	1,096	22,735	8,402
1997	2,596	4,558	6,798	1,913	36,824	3,966
1998	1,903	3,436	5,805	964	26,927	7,316
1999	2,038	3,259	7,210	648	23,278	7,625

Year	Jacks			Mulletts		
	<u>Pounds harvested</u> (thousand)	<u>Number Harvested</u> (thousands)	<u>Number Released</u> (thousands)	<u>Pounds harvested</u> (thousand)	<u>Number Harvested</u> (thousands)	<u>Number Released</u> (thousands)
1990	4,230	2,044	3,981	2,061	2,283	1,522
1991	7,479	5,185	5,240	5,036	4,883	796
1992	5,935	5,550	6,017	5,185	5,240	331
1993	8,423	5,783	6,659	2,389	3,947	239
1994	6,270	4,151	7,197	3,095	3,893	495
1995	4,878	3,318	5,630	2,115	4,180	594
1996	6,057	3,625	5,091	1,902	2,796	937
1997	8,179	4,954	7,179	2,473	2,857	401
1998	10,218	4,200	7,959	2,673	3,240	516
1999	6,968	3,435	6,775	2,240	5,710	904

See footnotes at end of page.

U.S. Marine Recreational Fisheries

U.S. RECREATIONAL HARVEST (A+B1) AND TOTAL LIVE RELEASES (B2), BY SPECIES GROUP, 1990-1999

Year	Porgies			Puffers		
	<u>Pounds</u>	<u>Number</u>	<u>Number</u>	<u>Pounds</u>	<u>Number</u>	<u>Number</u>
	<u>harvested</u>	<u>Harvested</u>	<u>Released</u>	<u>harvested</u>	<u>Harvested</u>	<u>Released</u>
	(thousand)	(thousands)	(thousands)	(thousand)	(thousands)	(thousands)
1990	8,967	14,091	8,076	176	381	830
1991	14,608	23,440	14,999	302	830	2,066
1992	13,390	17,502	12,316	359	743	1,357
1993	11,373	15,738	10,584	167	338	986
1994	10,055	13,659	13,049	97	248	893
1995	10,982	14,696	12,175	132	255	694
1996	9,180	13,475	11,115	115	247	579
1997	8,495	13,113	14,589	153	284	762
1998	7,733	10,777	13,803	63	148	615
1999	8,396	10,519	12,630	59	175	1,117
Year	Sculpins			Sea Basses		
	<u>Pounds</u>	<u>Number</u>	<u>Number</u>	<u>Pounds</u>	<u>Number</u>	<u>Number</u>
	<u>harvested</u>	<u>Harvested</u>	<u>Released</u>	<u>harvested</u>	<u>Harvested</u>	<u>Released</u>
	(thousand)	(thousands)	(thousands)	(thousand)	(thousands)	(thousands)
1990	1	5	118	7,743	6,929	12,428
1991	2	2	53	10,401	9,003	14,985
1992	7	9	45	9,759	6,628	12,587
1993	278	245	858	14,289	10,715	13,853
1994	187	87	289	11,787	7,921	14,503
1995	191	140	453	15,323	10,970	17,394
1996	294	164	386	10,893	7,413	12,838
1997	213	138	468	11,315	7,927	15,895
1998	311	129	319	8,478	3,560	11,888
1999	222	102	228	9,349	3,869	14,627
Year	Searobins			Snappers		
	<u>Pounds</u>	<u>Number</u>	<u>Number</u>	<u>Pounds</u>	<u>Number</u>	<u>Number</u>
	<u>harvested</u>	<u>Harvested</u>	<u>Released</u>	<u>harvested</u>	<u>Harvested</u>	<u>Released</u>
	(thousand)	(thousands)	(thousands)	(thousand)	(thousands)	(thousands)
1990	188	329	4,980	4,712	3,389	3,089
1991	317	486	7,788	7,669	5,485	11,338
1992	205	261	4,507	7,430	4,208	7,447
1993	156	245	7,481	8,213	4,989	7,940
1994	48	125	4,582	7,227	4,083	6,397
1995	22	101	4,710	6,158	3,534	6,591
1996	212	193	5,094	5,150	2,674	6,147
1997	242	238	5,528	7,585	3,504	8,259
1998	106	202	3,796	7,098	3,341	7,361
1999	78	122	5,950	7,342	3,385	7,332

See footnotes at end of table.

U.S. Marine Recreational Fisheries

U.S. RECREATIONAL HARVEST (A+B1) AND TOTAL LIVE RELEASES (B2), BY SPECIES GROUP, 1990-1999

Year	Temperate Basses			Toadfishes		
	<u>Pounds harvested</u> (thousand)	<u>Number Harvested</u> (thousands)	<u>Number Released</u> (thousands)	<u>Pounds harvested</u> (thousand)	<u>Number Harvested</u> (thousands)	<u>Number Released</u> (thousands)
1990	2,915	1,601	3,850	7	32	2,633
1991	4,541	2,494	5,396	7	134	2,867
1992	4,683	1,977	5,538	19	152	1,631
1993	6,783	2,895	7,321	17	39	2,638
1994	7,888	2,827	10,490	28	61	1,720
1995	13,439	2,382	12,303	1	30	1,618
1996	14,538	3,560	14,882	1	14	1,048
1997	17,677	4,314	20,155	(1)	33	1,120
1998	14,080	3,323	18,577	2	10	998
1999	14,835	2,564	15,526	(1)	9	911
Year	Triggerfishes/Filefishes			Tunas And Mackerels		
	<u>Pounds harvested</u> (thousand)	<u>Number Harvested</u> (thousands)	<u>Number Released</u> (thousands)	<u>Pounds harvested</u> (thousand)	<u>Number Harvested</u> (thousands)	<u>Number Released</u> (thousands)
1990	2,365	1,084	259	31,457	8,397	3,264
1991	2,428	1,000	427	33,098	10,783	2,949
1992	1,654	796	307	24,513	7,067	3,027
1993	1,547	767	232	31,258	8,603	5,487
1994	1,414	740	179	36,281	12,039	5,507
1995	1,207	671	192	37,424	9,257	5,811
1996	848	468	268	34,412	9,164	6,477
1997	1,086	511	232	41,142	11,500	6,619
1998	775	390	233	30,347	7,207	4,114
1999	757	390	196	33,926	8,331	3,916
Year	Wrasses			California Scorpionfish		
	<u>Pounds harvested</u> (thousand)	<u>Number Harvested</u> (thousands)	<u>Number Released</u> (thousands)	<u>Pounds harvested</u> (thousand)	<u>Number Harvested</u> (thousands)	<u>Number Released</u> (thousands)
1990	5,424	2,837	3,739	-	-	-
1991	8,696	3,518	4,611	-	-	-
1992	8,238	3,088	3,313	-	-	-
1993	6,536	2,879	3,532	166	148	72
1994	4,148	1,761	2,484	258	242	126
1995	5,129	2,058	3,287	224	212	139
1996	3,547	1,292	1,740	339	342	234
1997	2,596	929	1,820	206	243	132
1998	1,756	572	2,053	185	160	66
1999	2,957	951	3,101	297	280	105

See footnotes at end of table.

U.S. Marine Recreational Fisheries

U.S. RECREATIONAL HARVEST (A+B1) AND TOTAL LIVE RELEASES (B2), BY SPECIES GROUP, 1990-1999

Year	Croakers			Greenlings		
	<u>Pounds harvested</u> (thousand)	<u>Number Harvested</u> (thousands)	<u>Number Released</u> (thousands)	<u>Pounds harvested</u> (thousand)	<u>Number Harvested</u> (thousands)	<u>Number Released</u> (thousands)
1993	583	1,217	1,145	1,814	497	174
1994	446	739	521	1,016	294	109
1995	695	1,132	673	962	252	144
1996	919	1,544	864	1,369	408	285
1997	556	774	712	1,061	299	244
1998	425	610	355	1,407	270	299
1999	689	533	469	1,516	269	248
Year	Pacific Barracuda			Rockfishes		
	<u>Pounds harvested</u> (thousand)	<u>Number Harvested</u> (thousands)	<u>Number Released</u> (thousands)	<u>Pounds harvested</u> (thousand)	<u>Number Harvested</u> (thousands)	<u>Number Released</u> (thousands)
1993	1,687	428	822	6,087	4,901	1,447
1994	2,015	526	1,239	4,810	3,797	698
1995	2,490	563	816	4,188	2,918	666
1996	1,011	234	350	4,811	3,740	808
1997	1,699	374	475	3,796	2,986	679
1998	2,057	450	752	5,592	4,134	735
1999	1,988	423	475	6,196	4,943	478
Year	Sea Chubs			Silversides		
	<u>Pounds harvested</u> (thousand)	<u>Number Harvested</u> (thousands)	<u>Number Released</u> (thousands)	<u>Pounds harvested</u> (thousand)	<u>Number Harvested</u> (thousands)	<u>Number Released</u> (thousands)
1993	87	129	59	439	1,078	152
1994	106	107	42	138	323	96
1995	224	217	31	317	801	171
1996	78	72	18	296	658	120
1997	66	58	12	169	492	242
1998	87	108	46	152	395	158
1999	92	82	13	109	316	96
Year	Smelts			Surfperches		
	<u>Pounds harvested</u> (thousand)	<u>Number Harvested</u> (thousands)	<u>Number Released</u> (thousands)	<u>Pounds harvested</u> (thousand)	<u>Number Harvested</u> (thousands)	<u>Number Released</u> (thousands)
1993	159	1,628	31	756	1,364	608
1994	90	1,208	(1)	442	819	365
1995	122	1,416	(1)	710	1,181	648
1996	474	4,351	4	950	1,464	686
1997	120	1,617	9	640	1,179	755
1998	357	4,825	9	1,006	1,435	488
1999	28	1,221	7	415	701	356

(1) Number or pounds less than 1,000 or less than 1 metric ton.

NOTE: The MRFSS was not conducted on the Pacific Coast from 1990 to 1992.

U.S. Marine Recreational Fisheries

U.S. RECREATIONAL FINFISH HARVEST (A+B1) AND RELEASED (B2), BY STATE, 1998 and 1999

State	1998		
	<u>Pounds Harvested</u> (thousands)	<u>Number Harvested</u> (thousands)	<u>Number Released</u> (thousands)
Maine	705	666	945
New Hampshire	588	399	511
Massachusetts	9,252	2,753	10,018
Rhode Island	3,567	1,488	2,012
Connecticut	3,424	1,478	3,223
New York	8,458	3,684	5,460
New Jersey	13,632	5,668	15,904
Delaware	2,463	1,628	3,988
Maryland	8,311	6,425	14,542
Virginia	13,993	12,041	15,295
North Carolina	15,370	7,248	10,374
South Carolina	3,356	2,516	4,418
Georgia	1,049	864	745
Florida	57,742	59,623	67,747
Alabama	5,093	3,628	2,336
Mississippi	2,623	1,791	2,001
Louisiana	18,081	9,595	13,883
Washington	5,121	5,218	1,844
Oregon	3,775	1,713	528
California	23,021	11,947	7,203
Grand Total	199,624	140,373	182,977

State	1999		
	<u>Pounds Harvested</u> (thousands)	<u>Number Harvested</u> (thousands)	<u>Number Released</u> (thousands)
Maine	802	944	917
New Hampshire	833	606	526
Massachusetts	7,626	3,731	7,218
Rhode Island	3,817	2,191	2,675
Connecticut	2,575	1,366	3,191
New York	9,733	4,028	9,541
New Jersey	14,181	5,627	22,082
Delaware	2,021	1,486	3,592
Maryland	5,396	4,100	13,079
Virginia	11,507	9,518	12,851
North Carolina	18,034	6,392	10,256
South Carolina	2,628	2,190	2,722
Georgia	1,772	1,792	485
Florida	60,483	59,837	75,436
Alabama	6,568	3,678	4,631
Mississippi	3,027	3,090	1,656
Louisiana	20,977	12,444	14,477
Washington	3,088	2,480	1,776
Oregon	2,927	1,154	265
California	20,682	9,002	5,768
Grand Total	198,677	135,656	193,144

U.S. Marine Recreational Fisheries

U.S. RECREATIONAL NUMBERS OF ANGLERS AND TRIPS BY STATES, 1998 AND 1999

State	1998			
	Out-of-State Anglers	In-State Anglers		Number of Angler Trips
		From Coastal Counties	From Non-Coastal Counties	
----- Numbers in thousands -----				
Maine	115	103	16	676
New Hampshire	58	57	8	277
Massachusetts	228	342	65	3,451
Rhode Island	187	96	-	1,100
Connecticut	73	290	-	1,292
New York	42	427	6	3,431
New Jersey	357	400	29	4,308
Delaware	188	103	-	920
Maryland	307	423	29	2,839
Virginia	291	302	38	2,956
North Carolina	635	312	143	4,461
South Carolina	416	137	85	1,714
Georgia	19	69	28	572
Florida	2,439	2,344	-	22,324
Alabama	100	101	56	968
Mississippi	68	82	25	828
Louisiana	106	434	41	2,673
Washington	42	326	21	1,463
Oregon	51	168	13	649
California	198	1,099	65	4,905
Grand Total	5,920	7,615	668	61,807

State	1999			
	Out-of-State Anglers	In-State Anglers		Number of Angler Trips
		From Coastal Counties	From Non-Coastal Counties	
----- Numbers in thousands -----				
Maine	95	112	10	629
New Hampshire	60	55	8	285
Massachusetts	174	240	57	2,983
Rhode Island	214	108	-	1,262
Connecticut	55	243	-	1,319
New York	28	337	11	2,903
New Jersey	303	493	30	4,825
Delaware	168	69	-	800
Maryland	349	383	41	2,883
Virginia	187	309	66	2,694
North Carolina	805	324	164	4,555
South Carolina	221	132	61	1,213
Georgia	20	59	32	473
Florida	2,282	2,154	-	19,491
Alabama	143	131	92	1,170
Mississippi	75	76	26	806
Louisiana	91	409	33	2,621
Washington	31	329	23	1,256
Oregon	55	184	14	554
California	158	956	53	4,150
Grand Total	5,514	7,103	721	56,872

NOTE: All counties in RI, CT, DE, and FL are considered coastal.

NOTE: Small differences in 1998 values from values appearing in FUS 1998 are due to post-publication data corrections.