Overview of Puerto Rico's Small-Scale Fisheries Statistics: 1994 - 1997

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ABSTRACT

A total of 13,936,420 pounds (6,322 metric tons) of fish and shellfish were reported in Puerto Rico during 1994-97. The mentioned landings have a market value of approximately $27,407,302. The most important fish group, in terms of percentage of total pounds landed (fish and shellfish), for 1994-97, was the silk snapper (mainly *Lutjanus vivanus* and *Etelis oculatus*) 9%, yellowtail snapper (*Ocyurus chrysurus*) 7%, lane snapper (*Lutjanus synagris*) 7%, mackerel species (*Scomberomorus cavalla* and *Scomberomorus regalis*) 5%, various species of grunts mainly the white grunt (*Haemulon plumieri*) 5%, dolphinfish (*Coryphaena hippurus*) 4%, various species of tuna 4%, various species of grouper, principally red hinds (*Epinephelus guttatus*), reported 4%, various species of parrotfish 3%, and various species of trunkfish 2%. The most important of the shellfish species were the spiny lobster (*Panulirus argus*) 7% of total reported landings, and the queen conch (*Strombus gigas*) 6%.

The gear type which accounted for the highest percentage of landings by weight of the total catch during 1994-97, were lines (hand line, troll line, long line and rod and line) with 40%. Lines were followed by traps (fish pot and lobster pot) with 24%, nets (beach seine trammel net, gill net and cast net) with

Rico's fishery will be discussed.

KEY WORDS: Biostatistical data, commercial fishery statistics, Puerto Rico

INTRODUCTION

The Fisheries Research Laboratory (FRL) of the Puerto Rico Department of Natural and Environmental Resources (DNER) monitors the commercial landings of fish and shellfish in Puerto Rico. The Fisheries Statistics Program (FSP) was implemented in 1967 under the Commercial Fisheries Research and Development Act of 1964 (PL 88-309) to collect data on the commercial fishery. Currently, this project is supported by the NOAA/National Marine Fisheries Service (NMFS) through the State/Federal Cooperative and Interjurisdictional Fisheries Programs and the DNER.

The objective of the Puerto Rico Fisheries Statistics Program is to

maintain reporting services on the commercial finfish and shellfish resources of Puerto Rico, as well as manage and disseminate the fisheries statistics through coordination of activities between NMFS, FRL/DNER and other interested groups. The principal goals of this program are:

i) Collect landings data from the island of Puerto Rico ensuring coverage of all coastal municipalities and their major fishing centers.
ii) Determine the total weight of principal finfish and shellfish landed in Puerto Rico each month.
iii) Determine the ex-vessel value of principal finfish and shellfish species landed in Puerto Rico each month.
iv) Manage, correct, evaluate, summarize data and prepare semiannual and annual performance reports.
v) Collect and analyze biostatistical data of the Puerto Rico's commercial fishery.

PROCEDURES

Commercial Landings Data

Commercial fishery landings data were collected from Puerto Rico=s fishermen, fish buyers and fishing associations, whom voluntarily cooperate with the FSP. Five port agents visited the 42 coastal municipalities including the islands of Vieques and Culebra, and the 88 identified fishing centers. Port agents worked in the data collection from January 1994 - December 1997.

Efforts were made to collect the following data: fishing date, name of fish buyer, fisherman and/or helper (to avoid data duplication), municipality; fishing center (municipality landing area); number of trips; gear type; fishing effort (hours spent fishing); weight in pounds by species or taxonomic family; market value to the fisherman (price in U.S. dollars/pound); maximum and minimum fishing depth and fishing area. Trip tickets were completed using species common names and identification was possible by using an amended version of the bilingual technical report "Common Names of Fishes in Puerto Rico" (Erdman 1987). A numerical system of species identification was developed to correspond with species codes used in Erdman's publication. Fishermen usually landed fishes in the round (not eviscerated), excepting deepwater snapper and large grouper that they usually landed gilled and gutted. Lobster, oyster and octopus were also landed in the round, and conch weights included meat only. Land crab statistics were reported in number of dozens with each dozen assumed to produce 1 lb. of meat. Some landings were reported as one of four classes of fish (first, second, third and "trash" fish) reflecting their market value: "trash" fish are perceived to have little or no market value. Classification varied somewhat by region but the following descriptions were used to characterize

each class broadly: first class fish included large snappers, grouper, grunt, trunkfish and hogfish; second class included small snapper and grouper, parrotfish, goatfish, and triggerfish; third class included smaller individuals of second class fish and large squirrelfish. The "trashfish" category included butterflyfish, angelfish, surgeonfish, small squirrelfish and small fishes of a large number of species (Matos-Caraballo and Sadovy 1990).

Catch per unit of effort (CPUE) was evaluated for landings data by calculation of total pounds per trip, making a subsample by month, using only those landings trip tickets that clearly indicated a single trip.

Landings data was entered MS-DOS computer, using DBASE III+, checked against the original landing trip tickets, corrected and analyzed using DBASE III+, Microsoft FoxPro, Lotus 123 and Microsoft Excel. All data presented in this report are raw data. As in previous years (1988-97) a correction factor was used in calculations to correct for under-reporting. The correction factor was expressed as the percentage of fishermen that regularly cooperated with statistics divided by the total number of active fishermen in the Island of Puerto Rico. A total of 1,758 commercial fishermen were active during 1994-97 (Matos-Caraballo 1996). The correction factor for 1994 was 64%, for 1995 and 1996 was 71% and for 1997 was 78%. Correction factors before 1989 are discussed in Matos-Caraballo and Sadovy (1990; 1991) and Matos-Caraballo (1992; 1993; 1995).

Commercial Biostatistical Data

Biostatistical data of finfish and spiny lobster were collected by port agents. Each individual was identified by species to determine catch composition. Finfishes were measured in fork length (FL) and spiny lobster in carapace length (CL), both in millimeters (mm), and weighed in grams. Data were recorded on data sheets form. The form was designed to facilitate entry and processing of effort data. Biostatistical data were entered in Trip Interview Program (TIP) developed by NMFS Southeast Fishery Science Center. Later, the data stored in TIP was converted to FoxPro and analyzed using Microsoft Excel. The data collected include date, name of fisherman, fishing area, depth, gear, species, length, weight and effort by gear type. When possible, sex and gonad stagewere visually inspected

RESULTS

Commercial Landings Data

In Puerto Rico during 1994, it was estimated that a total of 4,421,253 pounds of fish and shellfish were landed, with a market value of $8,906,631 (using the correction factor of 71%). During 1995, it was estimated that a total of 5,223,942 pounds of fish and shellfish were landed, with a market value of

$10,186,687 (using the correction factor of 71%). For 1996, it was estimated that a total of 5,094,421 pounds of fish and shellfish were landed, with a value of $9,068,069 (using the correction factor of 71%). In 1997, it was estimated that a total of 4,994,846 pounds of fish and shellfish were landed, with a value of $9,140,568 (using the correction factor of 78%). The correction factor of 78% of total fishermen cooperating with the Program in 1997, is the highest since 1988 when 56% of fishermen cooperated.

Reported data show that from January-December 1994, a total of 2,714,402 pounds were reported, in 1995 was a total of 3,708,999 pounds were reported, for 1996 a total of 3,617,039 pounds and for 1997 a total of 3,895,980 pounds (Table 1).

A total of 23,882 trip tickets was collected during 1994, 39,141 throughout 1995, 38,280 for 1996 and 38,470 for 1997. Landings were principally comprised by six species of shellfish and 43 groups of species or families of finfish, although a total of 151 finfish groups and/or species and 10 shellfish species were reported by fishermen.

The most important fish group, in terms of percentage of total pounds landed (fish and shellfish), for 1994-97, were the silk snapper *Lutjanus vivanus* (few fishermen reported *Etelis oculatus* as silk snapper) 9%, yellowtail snapper (*Ocyurus chrysurus*) 7%, lane snapper (*Lutjanus synagris*) 7%, mackerel species (*Scomberomorus cavalla* and *Scomberomorus regalis*) 5%, various species of grunts mainly the white grunt (*Haemulon plumieri*) 5%, dolphinfish (*Coryphaena hippurus*) 4%, various species of tuna 4%, various species of grouper, principally red hinds (*Epinephelus guttatus*), reported 4%, various species of parrotfish 3%, and various species of trunkfish 2% (Table 1). The most important of the shellfish species were the spiny lobster (*Panulirus argus*) 7% of total reported landings, and the queen conch (*Strombus gigas*) 6% (Table 1).

Several fish and shellfish species that in the past were usually discarded by fishermen, have gained commercial importance. These species did not have market value years ago, now are easily sold at reasonable prices. For example Table 1 shows that the squirrelfish (e.g. *Holocentrus ascensionis* and *H. rufus*) was sold in 1997 at an average price of approximately $1.21 per pound. Shellfish species in the same situation are marine crabs *Carpilius corallinus* and *Mythrax spp.* On the other hand *Acanthurus spp, Holocanthus ciliaris, Pomacanthus arcuatus*, and *P. paru* are fished in the municipality island of Vieques, to be sold in the market of Saint Croix, USVI.

During 1994-97, prices varied markedly by municipality and by species (Tables 2). For example, in 1995, the lowest average price per pound for fish and shellfish was obtained on the east coast, in the municipality of Maunabo at $0.97, and the highest average price was obtained in the south coast, in the municipality of Peñuelas with $2.99/pound in 1994 (Table 2). The most produc-

tive of the 42 municipalities during 1994-97, was Cabo Rojo accounting for 22% of the total landings, by weight (Tables 2). The west coast, reported 38% of the total weight, being the most productive, followed by the south, 31%, the east, 19% and the north, 12% (Tables 2).

The gear types (as defined in Matos-Caraballo and Torres-Rosado, 1989), which accounted for the highest percentage of landings, by weight during 1994-97, were lines (hand line, troll line, long line and rod and line together) taking 40% (5,611,540 pounds) of the total catch (Tables 3-6). Lines were followed by traps (fish trap and lobster trap) taking 24% (3,291,559 pounds) of the total reported catch (Tables 3-6). Traps were followed by nets (beach seine, gill net, cast net and trammel net) that accounted for 21% (2,985,183 pounds) of the total reported catch (Tables 3-6). Nets were followed by diving (skin and SCUBA), this gear class fished 14% (1,984,849 pounds) of the total reported catch (Tables 3-6). The gears by hand and land crab trap accounted for less than 1% (63,292 pounds) of total reported landings (Tables 3-6).

From a total of 115,891 trip tickets collected during 1995-97, approximately 79% clearly indicated that the catch referred to a single fishing trip (number of trips = 1). A subsample of these data by month was made. Fishing trips are generally of a half-day duration. The CPUE for landings was 78 pounds per trip (ppt) in 1994, 80 ppt in 1995, 63 ppt in 1996, and 72 ppt in 1997.

Commercial Biostatistical Data

A total of 454 complete samples and 726 incomplete samples of biostatistical data were taken during 1994-97. A total of 25,198 finfish individuals and 2,770 spiny lobsters were measured and weighed during 1994-97. Sex determination of fishes in the field has been difficult due to the reluctance of fishermen to permit this activity, and the general limitation in available time for measuring samples, and difficulties in assessing any but the ripest individuals, for sex. However, it was attempted to collect a minimum of 25 samples of gonads monthly during 1996-97, for *Ocyurus chrysurus, Lutjanus synagris, Sparisoma chrysopterum* and *Sparisoma viride*. The success of this effort contributed to determine the minimum size of sexual maturation (MSSM) for the mentioned species. *Ocyurus chrysurus* females have an MSSM of 248 mm fork length (FL), males have 224mm FL (Figuerola et al. in press). *Lutjanus synagris* females have an MSSM of 185mm FL and males have 147 mm FL (Figuerola, et. al. in press). *Sparisoma chrysopterum* and *Sparisoma viride* are protogenic monandric hermaphrodites, thus they reproduce first as females. The MSSM of the *S. chrysopterum* females was 235mm FL and for *S. viride* females was 205 mm FL (Figuerola, et. al. in press).

The species most frequently measured from 1995-97 were *Ocyurus*

chrysurus, *Haemulon plumieri*, *Lutjanus synagris*, *Panulirus argus*, *Epinephelus fulvus*, *Epinephelus guttatus*, *Sparisoma chrysopterum*, *Lutjanus vivanus*, *Sparisoma viride*, *Scomberomorus cavalla*, and *Mycteroperca tigris*. *M. tigris* is heavily fished during their aggregation period. This event occurs in Vieques Island, approximately during the full moon of February and March each year. Personnel of the Statistics Program collect the data, but this species is not a common component of the Puerto Rico's catch composition.

Figuerola et al. (in press) indicated that *Ocyurus chrysurus* females reach MSSM at around 248mm FL and males at 224mm FL. During 1994-97, 10% of *O. chrysurus* individuals were taken below 224mm FL.

Panulirus argus has been protected under federal and local government management plans, for approximately the last 13 years. These management plans prohibit the capture and/or possession of *P. argus* below 89mm (3.5 inches) of carapace length. During 1994-97, approximately 36% of the total individuals sampled by FSP were taken below the minimum legal size (MLS). For the same period 17% of the *P. argus* males and 17% of the females were taken before reaching the MLS.

Epinephelus guttatus is the most abundant grouper species reported in Puerto Rico. Sadovy et. al. (1994) studied *E guttatus* from 1987-92, reporting that MSSM is 215mm FL. *E. guttatus* taken below 215mm FL, were 6% of the biostatistical samples during 1994-97.

Figuerola (1991) reported that *Lutjanus vivanus* females reach MMS at 410mm FL. Biostatistics data of 1994-97 show that approximately 99% of total individuals of *L. vivanus* (males and females) were taken below the MMS of 410mm.

DISCUSSION

Commercial Landings Data

The most reported groups by weight in the commercial fisheries landings for 1994-97, showed that snappers, grunts, groupers, parrotfishes, mackerels, dolphinfish and trunkfishes. Reported commercial landings data reported have been around two millions pounds per year from 1987-94 (Matos-Caraballo, in press). Since 1995, 96 and 97, an increase has been observed in the number of fishermen that cooperated with the FSP, resulting in 3.7, 3.6 and 3.8 millions pounds reported respectively. Approximately a total of 400 more commercial fishermen cooperated with FSP during 1997 than 1994. One possible reason to explain the increased landings reported might be due to an increase in the number of fishermen cooperated with the FSP during 1995-97. This increase in participation probably occurred because the PRDNER and the Puerto Rico Department of Agriculture have provided economical help to fishermen who cooperate on a regular basis to the FSP. Usually a certification from FSP is

required. When we compare the landings reported in late 70's and early 80's (around 5 - 7 million pounds), with the reported landings of 1987-97, an indication of overfishing is observed (Figure 1).

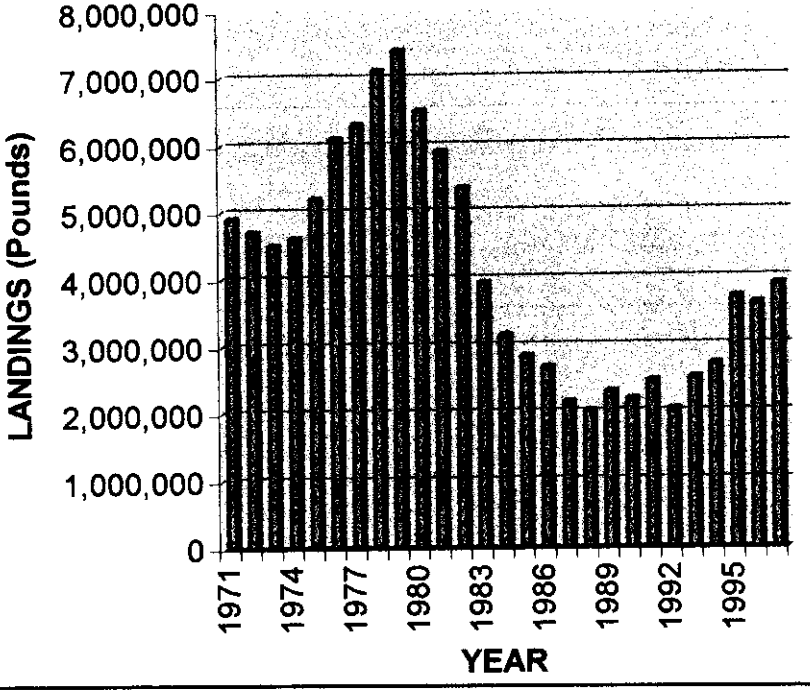

Figure 1. Total landings of fish and shellfish reported in Puerto Rico during 1971-97.

Another symptom of overfishing was observed in several species discarded by fishermen in the past, and now have become commercial species (e.g. *Holocentrus ascensionis* and *H. rufus* and *Acanthurus spp.*). These species are now marketable due to the decrease in landings of preferred species, and an increase in the demand of more fresh fish products.

The fish market of Saint Croix USVI, purchase the Vieques landings of *Acanthurus spp*, *Holocanthus ciliaris*, *Pomacanthus. arcuatus*, *P. paru* and many juvenile reef fish species. The mentioned species are subject to severe fishing pressure.

The municipality of Cabo Rojo and the west coast have continued to be the most productive municipality and coast respectively since 1972 (Weiler and Suárez-Caabro 1980, Collazo and Calderón 1988, Matos-Caraballo and Sadovy 1990 and 1991, Matos-Caraballo 1993, 1995, 1997). However, the west coast

has shown a tendency to decrease the percentage of total landings reported from 52% in 1983 to 37% in 1997 (Figure 2). Cabo Rojo shows the same tendency (Figure 2). Biostatistical data of FSP indicate that the fishing resources in the west are overfished (Matos-Caraballo, in press). The mentioned tendencies are evidence of the need of effective management and enforcement to preserve the fishing resources of Puerto Rico.

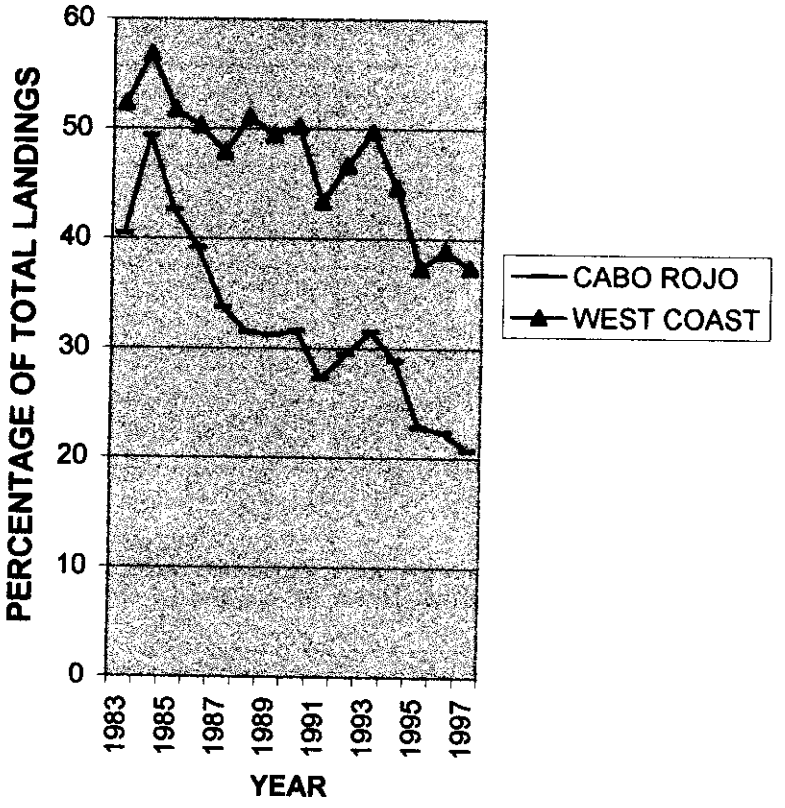

Figure 2. Percentage of total annual landings reported from Cabo Rojo and the West Coast for 1983-97.

Pots continued to show a decreasing trend in their catch percentages since 1982 (Matos-Caraballo and Sadovy 1990, 1991; Matos-Caraballo 1992, 1993, 1995, 1997), when fish traps alone caught 71.2% of the total pounds reported (Collazo and Calderón 1988) to 24% during 1994-97. On the other hand, an

increasing trend was observed in the percentage of reported landings taken by all lines combined, when compared with 1982, in which the percentage was 12.4% (Collazo and Calderón 1988) to 44% during 1994-97. Nets have shown a similar trend. For example, the gill nets and trammel nets caught 2.7% in 1982 (Collazo and Calderón 1988), while in 1995-97 they caught 21% .

Average annual catch per unit effort (CPUE) in was estimated to be 63 - 80‰ during 1994-97. Collazo and Calderón (1988) mentioned that during 1979-82, the CPUE for the vessels of 21-25 ft was 122.74 pounds/trip. This is another evidence of the overfishing symptoms of Puerto Rico's fishery resources.

Commercial Biostatistical Data

The commercial biostatistical data indicates that the Puerto Rico fishery resource is overfished. *P. argus* in Puerto Rico has a minimum legal size of 89 mm carapace length. During 1994-97, a total of 36% of *P. argus* sampled was caught below minimum legal size. Approximately 99% of individuals of *L. vivanus* sampled by FSP were caught before reaching sexual maturity during 1994-97.

CONCLUSION

In 1979, reports of landings in Puerto Rico recorded 7,212,000 pounds of fish and shellfish. During the decade of the eighties, landings decreased consistently. During 1994-97, reported landings ranged between 2.7 million and 3.8 million pounds of fish and shellfish. Landings information has shown that several fish and shellfish species that fishermen discarded in the past, and that did not have market value are now easily sold. These species are probably important because of the decreased landings of the traditional valuable species. Another symptom of overfishing is evidenced in the CPUE data. During 1979-82, average pounds per trip were 122.73 and in 1997, were 72 pounds per trip.

Another set of problems associated with the fishery resources is observed through biostatistical data, which show that species such as *P. argus*, and *L. vivanus* are consistently taken below the MSSM, although *P. argus* is protected by Fishery Management Plan. Clearly more enforcement is needed.

After the analysis of these facts, it is concluded that during 1994-97, several fishery resources in Puerto Rico have continued to decline, despite an increase in the number of landings reported, due to an increase in the number of fishermen that cooperates with FSP. The information presented in this report urges the need for measures to protect the fishery resources of Puerto Rico, including the improvement of the enforcement of the existing fishing regulations and Fishery Management Plans.

Table 1. Landings reported by species in Puerto Rico during 1994-1997.

SPECIES	1994		1995		1996		1997		TOTAL	
	POUNDS	*P/P	POUNDS	*P/P	POUNDS	*P/P	POUNDS	*P/P	POUNDS	*P/P
FISH										
TUNA	90,826	1.25	115,237	1.31	137,232	1.21	216,568	1.17	559,863	1.24
BALLYHOO	34,422	0.94	56,930	1.02	58,277	0.93	58,436	1.12	208,065	1.00
GRUNTS	142,137	1.35	142,689	1.39	172,059	1.36	164,152	1.40	621,037	1.38
HOGFISH	32,328	2.04	49,476	1.89	60,855	1.83	69,087	1.99	211,746	1.94
TRUNKFISH	53,559	1.73	68,964	1.90	67,704	1.90	82,230	1.86	272,457	1.85
DOLPHINFISH	91,172	1.68	198,117	1.46	152,718	1.46	166,887	1.56	608,894	1.54
SQUIRRELFISH	9,005	1.09	14,132	1.19	15,626	1.13	21,632	1.21	60,395	1.16
MULLET	29,551	1.25	57,448	1.12	53,587	1.08	55,583	1.18	196,169	1.16
JACKS	49,342	1.36	67,614	1.20	59,667	1.16	82,436	1.17	259,059	1.22
PARROTFISH	116,106	1.90	80,330	1.44	103,537	1.31	111,264	1.41	411,237	1.52
GROUPERS										
RED HIND	28,738	1.84	42,383	1.77	53,431	1.84	60,223	1.96	184,775	1.85
NASSAU GROUPER	7,737	1.66	7,772	1.58	12,679	1.52	15,513	1.60	43,701	1.59
GROUPER CATEGORY	85,936	1.90	100,815	1.80	93,301	1.74	79,201	1.89	359,253	1.83
MOJARRA	28,917	1.56	32,262	1.40	25,610	1.23	23,768	1.27	110,557	1.37
SNAPPERS										
LANE SNAPPER	134,254	1.97	242,336	1.92	272,243	1.73	270,461	1.91	919,294	1.88
YELLOWTAIL SNAPPER	186,703	1.94	292,400	1.86	275,075	1.71	273,823	1.82	1,028,001	1.83
SILK SNAPPER	338,163	2.47	363,811	2.29	312,535	2.22	285,907	2.28	1,300,416	2.32
MUTTON SNAPPER	39,718	2.03	79,936	1.83	76,674	1.62	76,583	1.80	272,911	1.82
OTHER SNAPPER	48,430	1.97	69,559	1.83	61,606	1.78	82,800	1.88	262,395	1.87
TRIGGERFISH	46,430	1.43	68,844	1.38	63,969	1.34	73,187	1.49	252,430	1.41
BARRACUDA	14,045	1.25	20,178	1.29	22,802	1.10	27,847	1.34	84,872	1.25
PORGY	11,192	1.41	18,788	1.37	30,736	1.23	28,463	1.34	89,179	1.34
SNOOK	34,624	1.60	49,162	1.27	49,422	1.32	52,896	1.38	186,104	1.39
TARPON	4,654	0.69	1,795	0.98	103	0.64	1,432	0.96	7,984	0.96
GOATFISH	10,044	1.84	14,564	1.53	21,133	1.47	18,812	1.50	64,553	1.59
SARDINES	25,713	1.16	28,684	0.96	27,867	1.05	32,474	0.90	114,738	1.02
MACKERELS	121,619	1.81	188,706	1.56	166,959	1.40	203,887	1.45	681,171	1.56
SHARKS	36,256	1.43	74,809	1.17	59,847	1.17	61,268	1.14	232,180	1.23
MARGATE	2,315	1.76	2,821	1.43	4,043	1.36	3,610	1.46	12,789	1.50
CLASSIFFIED										
FIRST CLASS	174,204	1.62	239,808	1.70	150,958	1.61	141,691	1.54	706,661	1.62
SECOND CLASS	144,367	0.97	132,663	0.87	148,013	0.78	102,048	1.01	527,091	0.91
THIRD CLASS	38,464	1.03	87,898	0.58	71,463	0.73	122,081	0.92	319,906	0.82
TRASH	922	1.26	2,831	0.77	2,560	0.60	2,016	0.70	8,329	0.83
OTHER FISHES	99,934		159,140		142,656		247,980		649,710	
TOTAL FISHES	2,311,827	1.67	3,172,902	1.59	3,026,947	1.55	3,316,246	1.59	11,827,922	1.60
SHELLFISH										
CONCH	170,720	2.67	215,488	2.32	242,720	1.69	238,887	2.09	867,815	2.19
LAND CRAB	2,015	14.94	5,730	5.39	12,928	4.03	10,066	13.71	30,739	9.52
LOBSTER	192,181	4.60	280,438	4.11	282,610	3.68	284,222	3.97	1,039,451	4.09
OYSTER	2,889	0.00	6,831	2.80	8,209	2.32	608	1.88	18,537	1.75
OCTOPUS	25,837	1.67	19,393	2.01	37,196	1.78	38,740	1.69	121,166	1.79
OTHER SHELLFISH	8,933	3.58	8,217	3.59	6,429	1.67	7,211	2.57	30,790	2.85
TOTAL SHELLFISH	402,575	4.62	536,097	3.95	590,092	3.25	579,734	3.59	2,108,498	3.85
TOTAL	2,714,402	2.10	3,708,999	1.94	3,617,039	1.79	3,895,980	1.87	13,936,420	1.93

* P/P = Average Price Per Pound

Table 2. Landings reported by municipality and by coast in Puerto Rico during 1994-1997.

	1994			1995			1996			1997		
LOCATION	POUNDS	VALUE (US DOLLAR)	AVERAGE PRICE PER POUND	POUNDS	VALUE (US DOLLAR)	AVERAGE PRICE PER POUND	POUNDS	VALUE (US DOLLAR)	AVERAGE PRICE PER POUND	POUNDS	VALUE (US DOLLAR)	AVERAGE PRICE PER POUND
NORTH	381,871	788,118	2.17	559,034	1,173,089	2.09	383,595	798,621	1.88	481,385	1,070,222	2.10
Isabela	6,068	11,291	1.97	19,953	29,776	1.43	21,137	36,431	1.35	21,012	38,934	1.44
Quebradillas	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
Camuy	0	0	0.00	5,158	12,039	2.04	5,817	15,208	2.03	17,453	38,952	1.93
Hatillo	2,059	2,999	1.69	5,891	10,246	1.49	8,614	19,773	1.61	13,809	27,217	1.59
Arecibo	42,121	93,695	2.37	52,785	118,773	2.20	52,757	132,484	2.42	47,090	114,579	2.44
Barceloneta	15,234	29,237	2.05	21,687	40,205	1.72	18,236	26,516	1.31	35,990	69,362	1.80
Manati	6,324	10,777	1.75	14,208	28,074	2.04	5,656	12,680	2.13	11,853	24,013	2.04
Vega Baja	5,312	14,080	2.60	9,550	27,203	2.53	12,274	26,673	2.11	19,878	57,702	2.72
Vega Alta	9,316	19,573	2.25	18,181	41,545	2.11	10,811	22,862	1.84	19,520	44,753	2.22
Dorado	27,054	54,997	2.14	30,224	67,858	2.21	26,328	58,149	2.05	21,429	50,727	2.07
Toa Baja	0	0	0.00	1,692	3,059	1.58	8,403	12,296	1.03	3,576	5,501	1.47
Cataño	59,905	130,145	2.39	87,405	196,186	2.23	38,217	83,475	1.89	62,690	140,536	2.31
San Juan	84,158	183,435	2.25	95,601	215,879	2.20	59,722	131,106	2.23	84,096	201,250	2.35
Carolina	22,288	36,010	2.00	45,111	66,524	1.39	17,444	30,865	1.88	21,085	34,918	1.57
Loiza	92,181	178,720	1.87	96,426	185,071	1.81	59,374	106,282	1.70	58,210	109,410	1.72
Rio Grande	4,652	10,893	2.19	25,243	73,070	2.78	19,575	43,265	2.19	19,030	60,522	2.78
Luquillo	5,199	12,266	1.77	29,919	57,581	2.43	19,230	40,380	2.01	24,664	51,846	2.05
EAST	335,015	686,821	2.21	686,191	1,387,159	1.93	677,072	1,388,558	1.85	729,644	1,558,601	1.95
Fajardo	84,003	198,522	2.38	188,870	430,043	1.86	150,043	321,902	1.73	157,645	343,180	1.85
Ceiba	34,472	68,574	2.30	64,575	134,676	2.18	56,572	119,864	2.20	67,033	150,137	2.09
Naguabo	98,248	208,575	2.33	136,067	305,208	2.01	80,722	190,242	2.06	81,781	191,914	2.14
Humacao	56,452	101,038	2.06	72,548	132,859	1.91	90,202	163,861	1.83	104,665	213,533	1.99
Yabucoa	26,078	45,676	1.87	39,081	78,930	1.92	35,280	68,281	1.85	35,767	71,845	2.01
Maunabo	8,140	14,896	2.27	9,517	13,010	0.97	38,529	64,661	1.33	44,896	148,269	1.59
Culebra	18,870	35,747	1.88	27,620	48,386	1.87	25,048	53,737	2.16	29,562	62,127	2.04
Vieques	8,752	13,793	2.14	147,913	244,047	1.82	200,676	406,011	1.86	208,295	377,596	1.87
SOUTH	784,883	1,581,248	2.21	1,077,592	2,279,162	2.08	1,148,796	2,441,726	1.85	1,226,665	2,600,272	1.86
Patillas	22,359	51,270	2.38	69,233	176,092	2.51	44,518	117,146	2.46	63,559	170,013	2.51
Arroyo	44,336	72,451	2.25	59,109	112,108	2.23	60,190	110,750	1.80	57,205	106,936	1.74
Guayama	105,362	245,755	2.21	141,032	323,724	2.05	152,130	345,175	1.96	163,425	372,078	1.89
Salinas	59,982	139,969	2.22	95,877	223,855	2.19	138,386	304,078	1.87	180,194	403,803	1.99
Santa Isabel	31,374	63,296	2.28	50,874	122,122	2.30	69,904	167,587	2.07	72,763	155,521	1.97
Juana Diaz	100,040	218,051	2.43	141,233	326,127	2.30	155,751	350,958	1.73	226,120	500,206	1.71
Ponce	75,821	149,366	1.94	81,836	166,384	2.05	107,307	237,118	1.93	85,245	183,134	2.01
Peñuelas	54,535	159,817	2.99	59,376	184,104	2.43	69,050	214,771	2.33	49,056	146,808	2.37
Guayanilla	12,260	17,034	1.76	35,755	52,917	1.29	38,814	48,119	1.14	34,850	51,291	1.29
Guánica	167,091	296,594	2.15	174,461	318,021	1.85	151,945	284,416	1.63	116,112	213,663	1.70
Lajas	111,723	167,645	1.66	168,806	273,708	1.74	160,801	260,439	1.61	178,136	296,819	1.59
WEST	1,212,633	2,113,106	1.85	1,386,182	2,445,681	1.68	1,407,576	2,429,113	1.59	1,458,286	2,665,805	1.58
Cabo Rojo	783,624	1,428,016	2.08	844,861	1,565,174	1.92	808,211	1,429,212	1.79	806,016	1,460,320	1.80
Mayaguez	109,657	200,060	2.11	109,951	200,895	1.83	146,585	278,852	1.70	122,059	221,129	1.69
Añasco	27,974	60,176	2.02	34,463	72,002	1.63	45,581	102,727	1.64	36,373	84,937	1.71
Rincón	84,558	171,617	1.96	87,297	191,472	1.79	93,540	222,137	1.62	72,532	178,586	1.63
Aguada	88,038	99,643	1.19	99,755	125,334	1.16	96,953	118,535	1.09	114,280	169,409	1.22
Aguadilla	118,782	153,594	1.46	209,855	290,804	1.32	216,706	277,650	1.19	307,026	551,424	1.18
TOTAL	2,714,402	5,169,293	2.10	3,708,999	7,285,091	1.95	3,617,039	7,058,018	1.78	3,895,980	7,894,900	1.83

Table 3. Landings reported by species and by gear in Puerto Rico during 1994.

SPECIES	BEACH SEINE (Pounds)	FISH TRAP (Pounds)	LOBSTER TRAP (Pounds)	GILL NET (Pounds)	BOTTOM LINE (Pounds)	TROLL LINE (Pounds)	LONG LINE (Pounds)	LAND CRAB TRAP (Pounds)	CAST NET (Pounds)	ROD AND LINE (Pounds)	SKIN DIVING (Pounds)	BY HAND (Pounds)	SCUBA DIVING (Pounds)	TRAMMEL NET (Pounds)	TOTAL (Pounds)
FISH															
TUNA	1,805	5,946	0	396	12,882	69,524	28	0	0	243	0	0	0	0	90,826
BALLYHOO	9,598	1,508	0	9,484	10,186	1,069	7	0	148	0	0	0	0	21	32,422
GRUNTS	2,156	54,570	0	32,767	29,641	588	267	0	211	0	0	0	86	2,056	142,137
HOGFISH	86	6,107	0	3,291	1,414	64	7	0	0	0	0	0	1,705	19,656	32,328
TRUNKFISH	337	27,454	1	6,403	6,853	168	74	0	0	0	0	0	235	1,840	53,559
DOLPHINFISH	0	0	0	261	31,290	37,598	1,598	0	0	325	0	0	0	110	91,173
SQUIRRELFISH	474	4,810	0	2,413	1,615	182	227	0	69	0	0	0	3	2	9,005
MULLET	973	387	0	21,426	1,099	284	46	0	294	0	0	0	4,845	29,331
JACK	9,128	5,229	0	10,491	15,993	7,316	2,753	0	270	0	0	0	3	157	49,342
PARROTFISH	214	36,812	0	50,616	3,529	95	26	0	0	0	0	0	257	24,557	116,106
GROUPERS															
RED HIND	181	12,348	19	3,031	11,048	265	125	0	54	0	0	0	63	1,598	28,734
NASSAU GROUPER	14	3,214	0	340	3,194	71	20	0	0	0	0	0	589	185	7,737
GROUPER, CATEGORY	273	22,366	41	215	61,386	944	165	0	62	0	0	0	193	187	85,936
MOJARRA	2,875	2,920	0	19,289	1,778	28	25	0	644	0	0	0	0	1,258	28,917
SNAPPERS															
LANE SNAPPER	1,631	37,356	3	3,276	85,135	577	1,046	0	947	0	0	0	3,222	1,066	134,254
YELLOWTAIL SNAPPER	1,404	93,986	23	14,579	74,566	2,836	6,478	0	250	205	0	0	1,248	1,256	186,705
SILK SNAPPER	0	113,717	0	0	220,633	0	1,814	0	0	0	0	0	0	0	336,165
MUTTON SNAPPER	5,427	7,872	202	4,222	13,744	3,079	0	0		0	122	0	2,080	983	39,731
OTHER SNAPPERS	848	11,689	0	7,330	12,992	409	483	0	191	0	211	0	7,603	3,561	48,450
TRIGGERFISH	71	24,202	8	3,371	9,180	158	50	0	26	0	39	0	5,710	3,492	46,430
BARRACUDA	5,456	1,264	0	1,899	1,524	2,085	780	0	70	0	0	0	784	75	14,045
PORGY	1,857	5,039	0	80	1,287	7	1,370	0	10	0	0	0	221	1,121	11,192
SNOOK	7,887	1,802	0	19,000	5,450	833	216	0	442	0	90	0	493	847	34,624
TARPON	333	39	0	3,119	1,107	543	106	0	615	0	0	0	0	0	4,654
GOATFISH	16	6,583	0	2,197	1,029	236	0	0	0	0	0	0	0	0	10,044
SARDINES	805	674	0	1,140	2,021	127	50	0	20,896	0	0	0	0	0	25,713
MACKERELS	8,439	3,952	0	4,686	56,361	48,496	223	0	218	0	62	0	0	0	121,619
SHARKS	413	0	0	5,296	21,427	2,815	1,953	0	0	0	230	0	1,417	2,705	36,256
MARGATE	12	74	0	1,152	620	0	0	0	0	0	0	0	0	427	2,315
CLASSIFIED															
FIRST CLASS	17,031	88,775	0	13,632	23,911	40	642	0	41	0	96	0	16,808	9,238	174,204
SECOND CLASS	5,433	12,547	0	37,014	90,005	33	342	0	0	0	8	0	1,016	37,819	144,267
THIRD CLASS	92	20,475	0	39	7,247	151	0	0	341	0	75	0	9,286	2,738	40,464
TRASH	270	587	0	8	57	0	0	0	0	0	0	0	0	0	922
OTHER FISHES	1,590	7,587	207	3,000	20,256	8,849	1,253	0	0	0	1,247	0	31,967	22,077	99,934
TOTAL FISHES	87,129	622,483	606	308,623	803,446	209,139	22,526	0	25,774	875	3,181	0	84,989	144,056	2,311,827
SHELLFISH															
CONCH	36	0	0	0	0	0	0	0	0	0	1,110	0	169,180	0	170,720
LAND CRAB	0	0	0	0	0	0	0	2,015	0	0	0	0	0	0	2,015
LOBSTER	160	74,019	11,852	2,971	2,089	33	12	0	0	0	1,949	0	83,930	14,237	192,181
OYSTER	0	0	0	0	0	0	0	0	0	0	0	2,889	0	0	2,889
OCTOPUS	28	979	141	311	0	0	0	0	0	0	20,273		4,092	3	25,827
OTHER SHELLFISH	119	2,586	1,204	2,560	279	0	0	0	0	0	0	0	770	1,674	8,953
TOTAL SHELLFISH	347	77,384	13,197	6,542	2,368	33	12	2,015	0	0	23,332	2,889	258,392	15,864	402,575
TOTAL	87,476	700,067	13,803	315,165	805,814	209,172	22,538	2,015	25,774	875	25,515	2,889	343,381	159,920	2,714,402

Table 4. Landings reported by species and by gear in Puerto Rico during 1995.

SPECIES	BEACH SEINE (Pounds)	FISH TRAP (Pounds)	LOBSTER TRAP (Pounds)	GILL NET (Pounds)	BOTTOM LINE (Pounds)	TROLL LINE (Pounds)	LONG LINE (Pounds)	LAND CRAB TRAP (Pounds)	CAST NET (Pounds)	ROD AND LINE (Pounds)	SKIN DIVING (Pounds)	BY HAND (Pounds)	SCUBA DIVING (Pounds)	TRAMMEL NET (Pounds)	TOTAL (Pounds)
FISH															
TUNA	15,418	0	0	5,477	20,320	73,392	0	0	204	21	0	0	0	0	115,237
BALLYHOO	13,211	0	0	20,503	3,076	1,915	0	0	780	0	0	0	0	6343	56,930
GRUNTS	4,273	38,711	1,811	26,481	24,752	1,296	0	0	694	0	0	0	0	44209	142,689
HOGFISH	917	6,581	15	2,766	3,712	0	16	0	56	11	611	0	22007	12988	49,476
TRUNKFISH	907	37,545	257	2,497	5,814	0	775	0	163	0	85	0	5267	12762	68,964
DOLPHINFISH	645	0	0	4,936	41,860	148,280	0	0	0	0	0	0	0	1096	196,817
SQUIRRELFISH	376	4,571	9	1,309	6,716	898	0	0	291	0	0	0	0	261	14,732
MULLET	6,994	1,146	0	43,777	3,812	485	75	0	514	0	0	0	0	543	57,446
JACKS	14,809	1,779	129	0	14,309	19,899	11,482	0	904	0	0	0	215	789	67,514
PARROTFISH	1,852	16,573	29	14,628	5,240	45	0	0	53	0	404	0	7294	34079	80,200
GROUPERS															
RED HIND	168	8,944	522	1,537	25,148	0	666	0	692	0	29	0	3552	424	42,245
NASSAU GROUPER	2	3,031	0	52	3,995	0	92	0	59	0	0	0	521	20	7,772
GROUPER CATEGORY	520	22,413	27	1,274	67,732	0	533	0	249	30	197	0	12786	54	100,815
MOJARRA	4,276	856	0	22,322	5,495	161	100	0	783	0	0	0	0	279	32,267
SNAPPERS															
LANE SNAPPER	5,770	101,032	180	26,485	70,497	1,886	22,891	0	122	24	121	0	5733	7396	242,336
YELLOWTAIL SNAPPER	6,029	22,295	31	7,619	234,497	12,532	9	0	1,336	9	7	0	1390	2646	292,400
SILK SNAPPER	0	56,136	0	0	206,274	0	0	0	0	1401	0	0	0	0	263,811
MUTTON SNAPPER	1,737	14,090	74	6,778	30,114	1,153	1,482	0	716	55	24	0	2143	772	79,936
OTHER SNAPPER	1,685	11,351	6	8,577	30,510	845	338	0	606	0	289	0	4793	7571	69,589
TRIGGERFISH	148	25,383	126	2,152	24,206	902	200	0	243	3	109	0	9131	2107	64,644
BARRACUDA	6,937	483	0	2,949	5,113	4,057	43	0	86	16	0	0	276	219	20,178
PORGY	1,291	6,891	10	5,243	3,758	61	176	0	19	3	9	0	290	824	18,788
SNOOK	13,253	547	0	25,735	3,290	909	142	0	571	0	52	0	0	444	45,143
TARPON	373	105	0	1,256	62	0	0	0	0	0	0	0	0	0	1,795
GOATFISH	59	11,433	0	468	3,074	75	0	0	0	0	0	0	0	455	14,564
SARDINES	2,620	402	0	2,819	0	0	0	0	22,480	0	0	0	0	42	28,684
MACKERELS	8,944	2,812	0	9,288	102,479	63,090	270	0	247	90	0	164	486	824	188,706
SHARKS	409	10,430	0	4,717	33,481	8,281	3,746	0	91	29	0	0	2992	9633	74,809
MARGATE	293	487	0	1,010	554	0	0	0	5	100	0	0	0	372	2,821
CLASSIFIED															
FIRST CLASS	1,490	120,848	143	7,375	54,215	96	1,661	0	1,013	18	143	0	32044	20761	339,808
SECOND CLASS	1,519	79,176	0	5,765	33,284	0	0	0	0	0	0	0	105	32816	152,665
THIRD CLASS	14	55,145	42	1,909	8,642	221	0	0	21	5	0	0	21800	99	87,898
TRASH	0	3,257	3	39	0	0	0	0	0	0	0	0	191	341	3,831
OTHER FISHES	19,252	42,649	0	25,235	41,007	970	0	0	0	0	256	0	25,719	4,252	159,140
TOTAL FISHES	139,289	709,702	3,690	304,019	1,220,861	342,147	44,088	0	33,003	1,854	2,336	164	160,948	210,200	3,172,302
SHELLFISH															
CONCH	0	0	0	0	0	0	0	0	0	0	0	12852	201636	0	215,488
LAND CRAB	0	0	0	0	0	0	0	5,730	0	0	0	0	0	0	5,730
LOBSTER	345	119,266	23,811	2,122	0	0	0	0	741	0	2619	0	110375	19858	280,458
OYSTER	0	0	0	0	0	0	0	0	0	0	0	6821	0	0	6,821
OCTOPUS	9	1,591	113	180	0	0	0	0	14	0	8740	0	8736	0	19,393
OTHER SHELLFISH	184	2,753	0	917	0	0	0	0	0	0	5305	0	1935	1868	8,217
TOTAL SHELLFISH	548	124,110	23,924	3,220	0	0	0	5,730	755	0	12979	20643	322672	21526	536,097
TOTAL	139,837	833,812	27,614	307,238	1,220,861	342,147	44,088	5,730	33,760	1,854	15,263	20,847	483,620	231,726	3,708,999

Table 5. Landings reported by species and by gear in Puerto Rico during 1996.

SPECIES	BEACH SEINE (Pounds)	FISH TRAP (Pounds)	LOBSTER TRAP (Pounds)	GILL NET (Pounds)	BOTTOM LINE (Pounds)	TROLL LINE (Pounds)	LONG LINE (Pounds)	LAND CRAB TRAP (Pounds)	CAST NET (Pounds)	ROD AND LINE (Pounds)	SKIN DIVING (Pounds)	BY HAND (Pounds)	SCUBA DIVING (Pounds)	TRAMMEL NET (Pounds)	TOTAL (Pounds)
FISH															
TUNA	8,260	2,670	9	2,558	28,310	95,032	282	0	3	16	0	0	84	17	137,252
BALLYHOO	14,743	1,520	11	26,044	2,380	487	25	0	360	0	0	0	6	1,701	58,277
GRUNTS	4,858	53,143	62	42,650	20,252	254	1,191	0	206	0	44	0	1,778	47,521	172,059
HOGFISH	194	9,583	0	2,219	5,262	256	43	0	0	0	473	0	24,036	18,989	60,855
TRUNKFISH	692	37,775	173	4,202	6,014	68	161	0	113	0	345	0	4,574	13,585	67,704
DOLPHINFISH	75	1,245	9	3,252	40,352	105,142	39	0	489	0	0	0	620	84	152,710
SQUIRRELFISH	152	7,149	20	1,666	6,024	180	227	0	107	0	11	0	49	40	15,626
MULLET	3,983	1,461	57	39,375	3,582	244	92	0	0	0	0	0	854	1,360	51,587
JACKS	12,622	3,004	0	11,073	27,992	3,201	210	0	367	62	24	0	527	481	59,667
PARROTFISH	1,739	20,511	0	22,480	4,521	275	52	0	62	0	720	0	7,724	45,433	105,537
GROUPERS															
RED HIND	84	15,520	62	1,610	29,723	274	742	0	34	12	46	0	5,208	117	53,431
NASSAU GROUPER	0	1,481	0	226	9,147	404	53	0	11	0	2	0	1,314	41	12,679
GROUPER CATEGORY	113	13,894	0	3,026	50,809	0	104	0	0	0	417	0	21,410	1,270	90,301
MOJARRA	3,283	406	0	14,801	5,537	120	18	0	1,282	0	93	0	148	23	25,430
SNAPPERS															
LANE SNAPPER	4,230	112,232	154	29,257	71,313	219	31,286	0	615	0	111	0	3,950	8,686	272,242
YELLOWTAIL SNAPPER	3,092	24,190	29	16,989	209,512	88	4,767	0	496	0	118	0	1,346	7,802	275,875
SILK SNAPPER	0	47,827	0	0	264,708	0	0	0	0	0	0	0	0	0	312,535
MUTTON SNAPPER	1,385	13,700	140	10,018	40,491	139	2,286	0	337	0	207	0	3,256	2,512	76,474
OTHER SNAPPER	2,129	11,482	14	10,302	24,991	793	544	0	168	0	126	0	2,863	6,862	61,406
TRIGGERFISH	348	32,592	57	1,812	17,450	378	285	0	69	0	66	0	9,407	1,309	63,969
BARRACUDA	6,458	613	37	4,125	8,890	2,546	40	0	47	21	12	0	356	68	22,802
PORGY	1,641	13,201	14	8,052	4,856	343	225	0	55	2	24	0	286	1,065	30,736
SNOOK	10,713	919	6	24,726	10,458	1,139	12	0	605	22	132	0	519	171	49,422
TARPON	0	5	0	32	66	0	0	0	0	0	0	0	0	0	103
GOATFISH	90	15,361	32	1,988	1,868	170	152	0	24	0	9	0	672	787	21,153
SARDINES	6,024	428	0	5,694	7,579	296	422	0	9,378	0	0	0	0	46	27,867
MACKERELS	5,611	2,146	40	15,679	101,848	37,940	624	0	337	0	647	0	1,134	993	166,959
SHARKS	423	0	0	4,854	32,088	2,126	5,918	0	0	12	89	0	2,254	12,081	59,847
MARGATE	0	1,712	0	868	299	0	18	0	85	0	5	0	310	455	4,043
CLASSIFIED															
FIRST CLASS	3,617	77,216	168	6,698	18,421	252	2,154	0	12	0	0	0	18,271	24,049	150,958
SECOND CLASS	4,007	47,034	12	11,844	2,840	74	0	0	0	66	0	0	682	81,451	148,013
THIRD CLASS	1,590	54,040	134	1,779	5,810	144	54	0	0	0	0	0	7,240	1,489	71,440
TRASH	1,100	1,350	0	0	7	0	0	0	0	0	0	0	102	1	2,560
OTHER FISHES	16,251	18,648	56	21,228	24,657	19,018	980	0	9,309	0	503	0	22,014	0	142,666
TOTAL FISHES	120,416	652,769	1,276	381,173	1,089,157	272,426	53,086	0	24,351	233	4,266	0	144,433	283,089	3,026,947
SHELLFISH															
CONCH	329	0	0	91	0	0	0	0	0	0	4,882	0	237,417	0	242,720
LAND CRAB	0	0	0	0	0	0	0	12,928	0	0	0	0	0	0	12,928
LOBSTER	404	107,215	30,936	1,498	0	0	0	0	0	0	2,744	0	112,202	26,488	282,610
OYSTER	0	0	0	0	0	0	0	0	0	0	0	8,209	0	0	8,209
OCTOPUS	43	10,173	66	130	0	0	0	0	0	0	14,595	0	12,183	5	37,196
OTHER SHELLFISH	5	1,456	1	268	11	9	1	0	588	0	1,614	0	2,476	0	6,429
TOTAL SHELLFISH	785	118,843	31,023	1,987	11	9	1	12,928	588	0	23,836	8,209	364,279	26,493	590,092
TOTAL	121,201	771,710	32,299	384,163	1,089,168	272,435	53,087	12,928	24,939	233	28,102	8,209	508,714	309,582	3,617,039

Table 6. Landings reported by species and by gear in Puerto Rico during 1997.

SPECIES	BEACH SEINE (Pounds)	FISH TRAP (Pounds)	LOBSTER TRAP (Pounds)	GILL NET (Pounds)	BOTTOM LINE (Pounds)	TROLL LINE (Pounds)	LONG LINE (Pounds)	LAND CRAB TRAP (Pounds)	CAST NET (Pounds)	ROD AND LINE (Pounds)	SKIN DIVING (Pounds)	BY HAND (Pounds)	SCUBA DIVING (Pounds)	TRAMMEL NET (Pounds)	TOTAL (Pounds)
FISH															
TUNA	20,998	0	0	4,193	50,736	150,253	158	0	5	173	0	0	0	60	216,548
BALLYHOO	8,419	135	0	47,840	0	0	153	0	392	0	0	0	0	1,506	58,436
GRUNTS	3,785	57,736	0	59,857	21,495	90	317	0	433	0	12	0	2,304	37,817	184,152
HOGFISH	182	10,372	15	4,151	3,688	19	68	0	0	0	348	0	21,910	24,333	69,087
TRUNKFISH	932	48,254	1,118	5,486	4,543	0	422	0	453	9	320	0	7,421	13,463	82,230
DOLPHINFISH	0	0	0	1,805	22,472	127,141	28	0	0	5,075	0	0	0	411	166,887
SQUIRRELFISH	181	9,157	0	2,420	6,739	0	211	0	125	0	163	0	10	1,593	21,621
MULLET	3,208	591	0	44,858	4,663	49	18	0	1,213	0	32	0	45	534	55,583
JACKS	18,793	3,273	0	18,835	34,411	2,592	751	0	147	0	249	0	863	2,369	82,436
PARROTFISH	1,489	21,809	24	23,942	3,504	0	127	0	135	0	776	0	16,247	41,061	111,264
GROUPERS															
RED HIND	354	14,229	0	1,505	30,433	5	1,125	0	15	0	143	0	11,757	836	60,223
NASSAU GROUPER	11	2,463	0	201	11,017	19	50	0	33	0	66	0	1,579	74	15,513
GROUPER CATEGORY	120	11,634	0	1,793	30,836	0	1,057	0	36	0	197	0	13,272	56	79,201
MOJARRA	2,008	517	0	16,072	2,704	10	57	0	1,182	0	90	0	47	1,001	23,768
SNAPPERS															
LANE SNAPPER	2,323	107,445	349	47,181	81,305	1,482	25,269	0	728	0	117	0	1,489	2,275	270,463
YELLOWTAIL SNAPPER	4,297	24,405	0	16,373	209,272	4,998	3,592	0	52	0	104	0	185	5,547	273,825
SILK SNAPPER	0	47,150	0	0	236,757	0	0	0	0	0	0	0	0	0	283,907
MUTTON SNAPPER	1,707	17,894	98	9,640	35,585	2,851	2,529	0	13	0	293	0	3,144	2,851	76,585
OTHER SNAPPER	2,129	13,834	78	800	46,108	1,474	1,580	0	45	0	352	0	7,541	8,339	82,800
TRIGGERFISH	212	37,292	65	1,923	18,106	171	46	0	103	0	57	0	10,827	4,385	73,187
BARRACUDA	8,555	0	0	8,700	1,594	7,729	26	0	357	0	126	0	485	377	27,847
PORGY	1,003	11,449	0	9,260	3,580	193	163	0	29	0	0	0	281	2,525	28,463
SNOOK	9,527	333	0	34,914	6,004	680	119	0	282	0	203	0	429	405	52,896
TARPON	80	0	0	1,110	153	0	0	0	0	0	0	0	0	99	1,432
GOATFISH	118	11,893	0	2,126	2,111	0	16	0	40	0	0	0	0	2,308	18,812
SARDINES	3,561	217	0	4,952	0	0	0	0	23,690	0	0	0	0	54	32,474
MACKERELS	9,473	1,027	0	29,208	102,865	12,680	217	0	324	0	1,660	0	399	5,934	203,847
SHARKS	470	0	0	8,488	27,936	1,722	13,113	0	73	0	607	0	1,831	8,001	61,268
MARGATE	0	1,256	0	1,135	654	0	0	0	70	0	0	0	0	545	3,610
CLASSIFIED															
FIRST CLASS	889	86,580	0	6,744	17,244	137	158	0	0	0	115	0	14,939	14,665	141,691
SECOND CLASS	602	49,470	9,796	1,012	377	159	165	0	70	42	304	0	29,133	0	102,048
THIRD CLASS	285	93,297	6	947	15,807	121	226	0	466	0	0	0	0	10,935	122,081
TRASH	0	1,630	0	10	456	0	0	0	0	0	0	0	0	0	2,016
OTHER FISHES	20,097	57,091	0	56,245	77,394	0	14,472	0	0	145	505	0	22,013	0	247,980
TOTAL FISHES	133,740	744,636	11,549	458,414	1,171,530	354,967	65,184	0	30,603	5,994	6,649	0	182,991	197,589	3,316,246
SHELLFISH															
CONCH	0	0	0	0	0	0	0	0	0	0	4,501	0	234,386	0	238,887
LAND CRAB	0	0	0	0	0	0	0	10,066	0	0	0	0	0	0	10,066
LOBSTER	178	111,614	41,440	1,405	0	0	0	0	307	0	2,418	0	109,337	17,202	284,222
OYSTER	0	0	0	0	0	0	0	0	0	0	0	608	0	0	608
OCTOPUS	0	1,544	581	141	0	0	0	0	0	0	22,901	0	13,644	129	38,740
OTHER SHELLFISH	208	866	4	252	0	0	0	0	1,934	0	232	0	3,675	0	7,211
TOTAL SHELLFISH	386	114,024	42,045	1,798	0	0	0	10,066	2,461	0	30,072	608	360,842	17,432	579,734
TOTAL	134,126	858,660	53,594	460,212	1,172,530	354,967	65,184	10,066	33,064	5,994	36,721	608	543,833	215,021	3,895,980

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