Proceedings of the 55th Gulf and Caribbean Fisheries Institute Meeting. Cancún, México. November 11th – 15th, 2002.

Overview of Puerto Rico's Small-Scale Fisheries Statistics 1998-2001

DANIEL MATOS-CARABALLO
Fisheries Research Laboratory/Puerto Rico DNER
P.O. Box 3665
Mayagüez PR 00681-3665

Abstract

A total of 13,620,481 pounds (6,178 metric tons) of fish and shellfish were reported in Puerto Rico during 1998-2001. 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 1998-2001, were the deep water snappers (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 tuna 5%, various species of grunts mainly the white grunt (*Haemulon plumieri*) 4%, dolphinfish (*Coryphaena hippurus*) 4%, groupers, principally red hinds (*Epinephelus guttatus*), reported 4%, parrotfishes 3%, and various species of trunkfish 3%. The most important of the shellfish species were the spiny lobster (*Panulirus argus*) accounting for 9% of total reported landings, and the queen conch (*Strombus gigas*) 8%.

The gear type which accounted for the highest percentage of landings by weight of the total catch during 1998-2001, 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 21% and diving (skin and SCUBA) with 14%. Other gears were < 1% of the total landings reported.

Highlights of the biostatistical data for most caught species in Puerto 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:

1) Collect landings data from the island of Puerto Rico ensuring coverage of all coastal municipalities and their major fishing centers.
2) Determine the total weight of principal finfish and shellfish landed in Puerto Rico each month.
3) Determine the ex-vessel value of principal finfish and shellfish species landed in Puerto Rico each month.
4) Manage, correct, evaluate, summarize data and prepare semiannual and annual performance reports.
5) 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. Four port samplers and the principal investigator visited the 42 coastal municipalities including the islands of Vieques and Culebra, and the 88 identified fishing centers. The data collected from January 1998-December 2002 are presented in this paper.

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), except 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 snapper, 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 butterfly-fish, 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 in computer, using Microsoft FoxPro 2.6, checked against the original landing trip tickets, corrected and analyzed using Microsoft FoxPro 2.6 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 1998 and 1999 was 78%, for 2000 was 57% and for 2001 was 68 %. Correction factors before 1989 are discussed in Matos-Caraballo and Sadovy (1990; 1991) and Matos-Caraballo (1992; 1993; 1995; 2001).

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 stage were visually inspected

Results

Commercial Landings Data

In Puerto Rico during 1998, it was estimated that a total of 4,427,467 pounds of fish and shellfish were landed, with a market value of $8,946,870 (using the correction factor of 78%). During 1999, it was estimated that a total of 4,265,435 pounds of fish and shellfish were landed, with a market value of $8,795,880 (using the correction factor of 78%). For 2000, it was estimated that a total of 5,756,130 pounds of fish and shellfish were landed, with a value of $11,793,159 (using the correction factor of 57%). In 2001, it was estimated that a total of 5,233,859 pounds of fish and shellfish were landed, with a value of $10,800,657 (using the correction factor of 68%). The correction factor of 78% of total fishermen cooperating with the Program in 1998-99 is the highest since 1988 when 56% of fishermen cooperated.

Reported data show that from January-December 1998, a total of 3,453,424 pounds were reported, in 1999 was a total of 3,327,039 pounds were reported, for 2000 a total of 3,280,994 pounds and for 2001 a total of 3,559,024 pounds (Table 1).

A total of 32,839 trip tickets were collected during 1998, 35,545 throughout 1999, 38,887 for 2000 and 41,949 for 2001. Landings were principally comprised by five species of shellfish and 45 groups of species or families of finfish, although a total of 155 finfish groups and/or species and 10 shellfish species were reported

by fishermen.

A total of 13,620,481 pounds (6,178 metric tons) of fish and shellfish were reported in Puerto Rico during 1998-2001. 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 1998-2001, were the deepwater snappers (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 tuna 5%, various species of grunts mainly the white grunt (*Haemulon plumieri*) 4%, dolphinfish (*Coryphaena hippurus*) 4%, groupers, principally red hinds (*Epinephelus guttatus*), reported 4%, parrotfishes 3%, and trunkfishes 3% (Table 1). The most important of the shellfish species were the spiny lobster (*Panulirus argus*) 9% of total reported landings, and the queen conch (*Strombus gigas*) 8% (Table 1).

Matos-Caraballo (2001) observed that during 1993-97, 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. During 1998-2001 this trend was observed. 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 $1.29 per pound. Shellfish species in the same situation are marine crabs *Carpilius corallinus* and *Mythrax spp* were sold at approximately $3.00/pound. On the other hand, species that have no market in Puerto Rico, *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.

The gear types (as defined in Matos-Caraballo and Torres-Rosado, 1989), which accounted for the highest percentage of landings, by weight during 1998-2001, were lines (hand line, troll line, long line and rod and line together) taking 40% of the total catch (Tables 2-5). Lines were followed by traps (fish trap and lobster trap) taking 21% of the total reported catch (Tables 2-5). Traps were followed by nets (beach seine, gill net, cast net and trammel net) that accounted for 20% of the total reported catch (Tables 2-5). Nets were followed by diving (skin and SCUBA), this gear class fished 19% of the total reported catch (Tables 2-5).

During 1998-2001, prices varied markedly by municipality (Table 6). For example, in 1999, the lowest average price per pound for fish and shellfish was obtained on the north coast, in the municipality of Isabela at $1.18, and the highest average price was obtained in the south coast, in the municipality of Patillas with $3.17/pound in 2001 (Table 6). The most productive of the 42 municipalities during 1998-2001, was Cabo Rojo accounting for 18% of the total landings, by weight (Table 6). The west coast, reported 34% of the total weight, being the most productive, followed by the south, 32%, the east, 21% and the north, 13% (Tables 6).

From a total of the trip tickets collected during 1998-2001, approximately 82% 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 54 pounds per trip (ppt) in 1998, 53 ppt in 1999, 71 ppt in 2000, and 68 ppt in 2001.

Commercial Biostatistical Data

A total of 53,027 individuals caught by commercial fishers were measured and weighed during 1998-2000. 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.

The species most frequently measured from 1998-2000 were *Ocyurus chrysurus*, *Haemulon plumieri*, *Lutjanus synagris*, *Panulirus argus*, *Epinephelus fulvus*, *Epinephelus guttatus*, *Sparisoma chrysopterum*, *Lutjanus vivanus*, *Sparisoma viride* and *Scomberomorus cavalla*..

Figuerola et. al, (in press) indicated that *Ocyurus chrysurus* females reach Minimum Size of Sexual Maturation (MSSM) at around 248mm FL and males at 224mm FL. During 1998-2000, approximately 15% 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 18 years. These management plans prohibit the capture and/or possession of *P. argus* below 89mm (3.5 inches) of carapace length. During 1998-2000, approximately 18% of the total individuals sampled by FSP were taken below the minimum legal size (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 approximately 3% of the biostatistical samples during 1998-2000.

Figuerola (1991) reported that *Lutjanus vivanus* females reach MSSM at 410mm FL. Biostatistics data of 1998-2000 show that approximately 97% 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 1998-2001, 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. An stability of this landings reports were consistently for 1998-2001. 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 million-7 million pounds), with the reported landings of 1987-97, an indication of overfishing is observed.

Another symptom of overfishing was observed in several species discarded by

fishermen in the past that now have become commercial species (e.g. *Holocentrus ascensionis*, *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, and 34% in 1998-2001. For years 2000 and 2001 the south coast reported more landings that west coast for the first time since 1972. Cabo Rojo shows the same tendency (Figure 2). Biostatistical data of FSP indicate that the fishing resources in the west coast 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.

Pots continued to show a decreasing trend in their catch percentages since 1982 (Matos-Caraballo and Sadovy, 1990, and 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, and contnues decreasing to 21% for the period of 1998-2001. 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, 40% for the period of 1998-2001. 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 1998-2001 they caught 20%. Young fishers were observed using SCUBA divers. They are very active, fishing 4-5 days per week and their main target are conch and lobsters. The diver gears reported 19% of the landings during 1998-2001.

Average annual catch per unit effort (CPUE) in was estimated to be 63ppt - 80ppt during 1994-97, for 1998-2001 was reported 53-71ppt. Collazo and Calderón (1988) mentioned that during 1979-82, the CPUE for the vessels of 21-25 ft was 122.74 pounds/trip. It was observed that vessel over 30 feets length have almost disappeared from the Puerto Rico's commercial fisheriy. This is another evidence of the overfishing symptoms of Puerto Rico's fishery resources.

Commercial Biostatistical Data

The commercial biostatistical for *L. vivanus* 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. However for the period of 1998-2000, only 18% of P. argus was caught before minimum legal size. This improvement occurred probably because the good enforcement of the FMP and because this resource has a

strong resilience to a high fishing pressure.

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 1995-2001, reported landings ranged between 3.2 million and 3.8 million pounds of fish and shellfish. The vessels of >30 feets length have been diminishing. The Puerto Rico Fishery Census is in process and probably will result in a decrease of 500 commercial active fishers compared to 1996 commercial fishery census. Landings information has shown that several fish and shellfish species that fishermen discarded in the past because did not have market value are now easily sold. These species now market value 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 2001, were 68 pounds per trip.

Another set of problems associated with the fishery resources is observed thru biostatistical data, which show that *L. vivanus* are consistently taken below the – MSSM. *P. argus* is protected by FMP that seems to be working, although this species is under heavy fishing pressure.

After the analysis of these facts, it is concluded that during 1998-2001, 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.

Acknowledgements

I wish to express my gratitude to all the people who contribute to the completion of this report. Port samplers Walter Irizarry, Jesús León, Héctor Y. López and Luis A. Rivera, who help in the data collection. Statistic clerk Lucía T. Vargas and Albaliz Mercado handled, entered and corrected the data. To Miguel Figuerola and Iván Mateo for reviewing this manuscript. In particular, I wish to acknowledge the cooperation of the commercial fishermen for assisting the Fisheries Statistics Project: without their help this report would not have been possible.

Literature Cited

Collazo, J. and J. A. Calderón. 1988. Status of the Fisheries in Puerto Rico 1979-1982. Technical Report. CODREMAR 1 (2): 1-30.

Erdman, D. S. 1987. Common names of fishes in Puerto Rico. Technical Report. CODREMAR. 3(2): 1-44.

Figuerola, M. 1991. Aspectos reproductivos del chillo *Lutjanus vivanus* (Cuvier, 1828) (Pisces: Lutjanidae) en el oeste de Puerto Rico y sus implicaciones para el manejo pesquero. Memorias del XVII Simposio de los Recursos Naturales. Departamento de Recursos Naturales de Puerto Rico. Noviembre de 1991.

Figuerola, M. , D. Matos-Caraballo and W. Torres In press. Maturation and reproductive seasonality of four reef fish species in Puerto Rico. Proc. Gulf and Carib. Fish. Inst. 50:

Matos-Caraballo, D. In press. Status of the fishery in Puerto Rico, 1990-93. Proc. Gulf and Carib. Fish. Inst. 47:

Matos-Caraballo, D. 1992. Commercial Fisheries Statistics: Puerto Rico/State Federal Cooperative Fisheries Statistics Program. Department of Natural Resources. Annual Report to the National Marine Fisheries Service 55 p.

Matos-Caraballo, D. 1993. Commercial Fisheries Statistics: Puerto Rico Intejurisdictional Fisheries Program. Department of Natural Resources. Annual Report to the National Marine Fisheries Service. 64 p.

Matos-Caraballo, D. 1995. Commercial Fisheries Statistics: Puerto Rico Intejurisdictional Fisheries Program 1992-95. Department of Natural and Environmental Resources. Final Report to the National Marine Fisheries Service. 82 p.

Matos-Caraballo, D. 1996. Puerto Rico Fishery Census, 1995-96. Department of Natural and Environmental Resources. Final Report to Saltonstall-Kennedy Program/NMFS. 21p.

Matos-Caraballo, D. 1997. Commercial Fisheries Statistics: Puerto Rico/State Federal Cooperative Fisheries Statistics Program 1994-96. Department of Natural Resources. Final Report to the National Marine Fisheries Service. 74 p.

Matos-Caraballo, D. 2001. Overview of Puerto Rico's Small-Scale fisheries statistics 1998-2001. Proc. Gulf and Carib. Fish. Inst. 52: 197-203

Matos-Caraballo, D. and Y. Sadovy. 1990. Overview of Puerto Rico Small Scale Fisheries Statistics 1988-89. Technical Report. CODREMAR. 1(4): 1-17.

Matos-Caraballo, D. and Y. Sadovy. 1991. Commercial Fisheries Statistics: Puerto Rico/State Federal Cooperative Fisheries Statistics Program. Department of Natural Resources Annual Report to the National Marine Fisheries Service. 53 p.

Matos-Caraballo, D. y Z. Torres-Rosado. 1989. Censo Comprensivo de Pesquería Comercial de Puerto Rico, 1988. Informe Técnico. CODREMAR. 1(3): 1-55.

Sadovy, Y. and A. Rosario and A. Román. 1 994. Spawning dynamics in an aggregating grouper, the red hind, *Epinephelus guttatus*. Env. Biol. Fish.41:269-286

Weiler, D. y J. Suárez-Caabro. 1980. Perspectivas de las Estadísticas de la Pesca en Pequeña Escala de Puerto Rico, 1972-1978. CODREMAR. Informe Técnico. 1(1): 1-27.

TABLE 1. LANDINGS REPORTED BY SPECIES AND BY COAST IN PUERTO RICO DURING 1998-2001.

	1998		1999		2000		2001		TOTAL
SPECIES	POUNDS	*P/P	POUNDS	*P/P	POUNDS	*P/P	POUNDS	*P/P	POUNDS
FISH									
Tunas									
Blackfin tuna	450	1.28	982	1.05	3,274	1.10	25,286	1.08	29,992
Little tunny	21,076	0.96	18,310	0.95	17,176	1.03	20,323	1.08	76,885
Skipjack tuna	51,922	1.12	40,318	1.18	32,174	1.14	38,391	1.07	162,805
Yellowfin tuna	41,053	1.21	48,915	1.22	46,755	1.17	35,392	1.31	172,715
Tuna category	83,720	1.13	46,620	1.14	38,165	1.25	26,147	1.33	194,652
Ballyhoo	49,449	1.26	50,048	1.24	56,934	1.27	60,905	1.28	217,936
Grunts	115,613	1.51	118,255	1.52	118,344	1.48	156,641	1.43	508,853
Hogfish	49,843	2.10	46,519	2.10	58,419	2.17	68,843	2.25	223,624
Trunkfish	90,893	1.82	83,884	1.76	83,795	1.69	77,814	1.78	336,386
Dolphinfish	137,033	1.60	130,055	1.62	137,729	1.57	111,075	1.89	515,892
Squirrelfishes	18,999	1.29	14,696	1.35	16,038	1.27	18,313	1.23	68,046
Mullets	53,451	1.30	61,935	1.22	54,106	1.25	61,129	1.23	230,621
Jacks									
Bar jack	27,166	1.38	40,895	1.43	45,265	1.35	50,845	1.41	164,171
Horse-eye jack	6,121	1.45	5,106	1.42	7,568	1.58	6,607	1.40	25,402
Yellow jack	3,313	1.36	2,021	1.24	2,460	1.58	3,934	1.29	11,728
Jack Category	61,517	1.57	38,774	1.62	30,405	1.45	38,168	1.41	168,864
Parrotfishes	97,559	1.43	80,719	1.47	73,973	1.55	99,255	1.46	351,506
Groupers									
Coney	13,900	1.90	10,254	1.92	11,671	2.00	16,091	1.88	51,916
Red hind	54,974	2.08	65,912	2.05	61,239	2.09	69,098	2.16	251,223
Misty grouper	5,558	2.20	6,717	2.13	5,264	2.12	6,222	2.18	23,761
Nassau grouper	19,095	1.54	14,967	1.63	12,965	1.65	18,706	1.85	65,733
Yellowfin grouper	1,791	1.90	3,348	2.18	11,208	2.10	3,708	2.16	20,055
Grouper category	43,385	2.04	47,892	2.05	40,761	2.16	54,180	2.22	186,218
Mojarras	19,383	1.57	22,072	1.65	18,249	1.69	19,445	1.60	79,149
Snappers									
Lane snapper	220,886	1.97	196,483	2.05	211,517	2.04	186,225	2.12	815,111
Yellowtail snapper	252,016	2.02	279,373	2.12	363,508	1.93	328,998	2.14	1,223,895
Silk snapper	213,124	2.72	229,277	2.78	198,483	2.66	291,722	2.88	932,606
Mutton snapper	77,393	2.05	96,346	2.11	86,807	2.03	90,583	2.13	351,129
Queen snapper	46,069	2.85	66,682	2.84	82,866	2.76	107,671	2.88	303,288
Vermillion snapper	16,581	2.35	17,237	2.43	22,397	2.30	44,891	2.34	101,106
Wenchman	2,302	2.44	3,644	2.33	4,952	2.31	7,731	2.72	18,629
Snapper category	56,545	2.03	63,031	2.04	50,237	1.98	60,114	2.06	229,927
Triggerfishes	64,392	1.55	49,921	1.56	41,986	1.59	60,929	1.50	217,228
Barracudas	33,784	1.68	24,939	1.47	26,066	1.50	19,888	1.50	104,677
Porgies	26,545	1.57	34,577	1.52	29,563	1.52	37,031	1.51	127,716
Snooks	100	1.16	138	1.63	394	1.77	11,830	1.60	12,462
Tarpon	2,343	1.21	2,374	1.04	354	1.06	2,193	0.87	7,264
Goatfishes	15,009	1.65	26,203	1.87	20,703	1.95	22,475	1.95	84,390
Sardines	23,065	1.22	27,621	1.25	25,251	1.14	25,398	1.20	101,935
King Mackarels	108,407	1.84	127,697	1.92	124,496	1.70	101,572	1.94	462,172
Cero	71,403	1.84	63,924	1.99	53,769	1.90	84,711	1.92	273,807
Rays	16,161	0.98	3,149	0.84	10,201	0.97	3,637	1.07	33,148
Sharks	47,409	1.52	46,878	1.52	43,077	1.44	45,169	1.57	182,533
Wahoo	1,154	2.30	6,697	1.86	2,160	1.58	8,341	1.60	18,355
CLASSIFFIED									
First Class	137,856	1.50	103,248	1.77	85,684	1.79	96,539	1.98	423,327
Second Class	120,050	0.77	106,771	0.70	58,463	0.81	32,775	1.31	318,059
Third Class	65,703	1.14	33,090	1.18	49,562	1.17	46,655	1.01	195,010
Trash	80	1.09	475	1.29	568	1.46	515	1.52	1,644
Other fishes	143,640	0.29	115,481	0.28	98,079	0.47	83,572	1.80	440,772
Total Fishes	2,830,487	1.61	2,725,070	1.62	2,675,080	1.62	2,887,986	1.70	11,118,323
SHELLFISH									
Conch	260,990	2.22	213,739	2.25	281,702	2.23	328,467	2.44	1,084,898
Land crab	4,604	13.87	2,000	14.88	2,130	15.71	6,322	14.26	15,656
Lobster	298,389	5.24	326,914	5.27	258,154	5.05	285,018	2.53	1,168,475
Octopus	39,483	2.15	43,601	2.58	48,703	2.29	33,939	2.58	165,726
Marine crabs	2,478	2.94	2,513	2.41	2,211	2.09	3,351	2.50	10,553
Other shellfish	16,993	3.14	12,602	3.80	13,014	3.16	14,241	3.83	56,850
Total Shellfish	622,937	4.98	601,969	5.20	605,914	5.09	671,338	4.69	2,502,158
TOTAL	3,453,424	2.02	3,327,039	2.06	3,280,994	2.05	3,559,024	2.06	13,620,481

* P/P = Average Price Per Pound

TABLE 1A. LANDINGS REPORTED BY SPECIES AND BY COAST IN PUERTO RICO DURING 1998-1999.

	1998										1999									
SPECIES	EAST		NORTH		SOUTH		WEST		TOTAL		EAST		NORTH		SOUTH		WEST		TOTAL	
	POUNDS	*P/P	POUNDS	*P/P	POUNDS	*P/P	POUNDS	*P/P	POUNDS	*P/P	POUNDS	*P/P	POUNDS	*P/P	POUNDS	*P/P	POUNDS	*P/P	POUNDS	*P/P
FISH																				
Tunas																				
Blackfin tuna	87	1.75					363	1.14	450	1.28			96	2.38	32	2.00	854	0.86	982	1.05
Little tunny	100	1.92	3,817	1.24	915	1.21	16,244	0.86	21,076	0.96	97	1.49	4,679	1.30	163	1.57	13,371	0.84	18,310	0.95
Skipjack tuna	274	1.52	3,337	1.60	1,485	1.20	46,826	1.04	51,922	1.12	3,061	1.43	3,915	1.72	2,185	1.21	31,157	1.07	40,318	1.18
Yellowfin tuna	1,011	1.18	4,910	1.62	655	1.34	35,077	1.10	41,653	1.21	9,610	2.09	2,484	1.93	749	1.48	36,072	1.08	48,915	1.22
Tuna category	5,342	1.43	11,248	1.71	2,583	1.44	64,547	0.96	83,720	1.13	6,789	1.57	5,987	1.71	2,549	1.58	31,295	0.76	46,620	1.14
Ballyhoo	6,149	1.17	4,491	1.31	18,458	1.30	20,351	1.17	49,449	1.26	11,154	1.38	6,847	1.21	25,160	1.20	7,487	1.21	50,648	1.24
Grunts	29,326	1.54	7,736	1.87	44,513	1.60	34,008	0.87	115,613	1.51	33,899	1.60	8,417	1.95	56,120	1.51	19,819	0.91	118,255	1.52
Hogfish	11,846	2.04	3,754	2.35	20,495	2.11	13,748	2.01	49,843	2.10	15,744	2.11	1,048	2.37	19,700	2.06	10,027	2.16	46,519	2.10
Trunkfish	11,056	1.35	1,662	3.45	26,456	1.82	51,719	1.93	90,893	1.82	15,386	1.44	1,093	2.73	22,919	1.80	44,486	1.98	83,884	1.76
Dolphinfish	2,466	2.28	15,964	2.25	47,683	1.77	70,920	1.31	137,033	1.60	3,106	2.47	11,805	2.28	43,129	1.81	72,015	1.31	130,055	1.62
Squirrelfishes	3,206	1.27	5,215	1.50	6,837	1.26	3,741	0.96	18,999	1.29	3,784	1.38	3,107	1.43	6,786	1.35	1,019	1.06	14,696	1.35
Mullets	2,774	1.58	22,664	1.33	21,052	1.32	6,961	0.94	53,451	1.30	4,737	1.33	24,066	1.33	24,392	1.22	8,740	0.86	61,935	1.22
Jacks																				
Bar jack	7,491	1.30	5,430	1.70	4,657	1.51	9,588	1.14	27,166	1.38	11,210	1.37	7,400	1.86	11,459	1.47	10,826	1.12	40,895	1.43
Horse-eye jack	267	1.16	4,187	1.75	329	1.29	1,338	0.92	6,121	1.45	84	1.33	2,976	1.71	398	1.19	1,648	1.05	5,106	1.42
Yellow jack	7	1.25	540	1.71	654	1.21	2,112	1.48	3,313	1.36	94	1.94	229	2.08	960	1.08	738	1.23	2,021	1.24
Jack Category	1,759	1.72	17,262	1.74	12,906	1.42	29,590	1.36	61,517	1.57	4,554	1.53	16,786	1.75	4,488	1.43	12,946	1.56	38,774	1.62
Parrotfishes	13,017	1.42	4,647	1.99	42,389	1.51	37,506	0.84	97,559	1.43	12,733	1.54	3,297	2.04	47,705	1.50	16,984	0.94	80,719	1.47
Groupers																				
Coney	3,053	1.87	3,856	2.34	2,853	2.02	4,138	1.43	13,900	1.90	3,002	1.84	1,319	2.26	3,594	1.93	2,339	1.78	10,254	1.92
Red hind	8,016	2.01	9,201	2.37	14,105	2.06	23,652	1.89	54,974	2.08	14,525	1.94	7,260	2.40	17,792	2.08	26,335	1.94	65,912	2.05
Misty grouper	287	2.21	1,597	2.36	687	2.22	2,987	2.04	5,558	2.20	507	1.89	2,638	2.51	1,074	2.02	2,498	2.00	6,717	2.13
Nassau grouper	984	1.93	3,086	2.05	820	1.75	14,205	1.23	19,095	1.54	1,561	2.10	3,389	1.98	1,264	1.71	8,753	1.30	14,967	1.63
Yellowfin grouper	275	1.94	754	2.30	311	1.57	452	1.67	1,791	1.90	519	2.31	439	2.41	398	2.14	1,992	1.89	3,348	2.18
Grouper category	7,412	2.16	8,149	2.34	10,358	1.97	17,466	1.84	43,385	2.04	10,996	2.19	8,300	2.32	10,081	1.94	18,515	1.85	47,892	2.05
Mojarras	2,194	1.53	13,195	1.66	2,714	1.65	1,280	1.17	19,383	1.57	3,531	1.68	14,917	1.79	2,616	1.53	1,008	1.09	22,072	1.65
Snappers																				
Lane snapper	29,152	2.04	13,191	2.36	134,000	1.94	44,543	1.82	220,886	1.97	32,223	2.09	11,534	2.44	127,003	1.98	25,723	2.03	196,483	2.05
Yellowtail snapper	62,939	2.08	47,453	2.39	93,692	1.95	47,932	1.73	252,016	2.02	72,294	2.21	52,912	2.47	107,003	2.00	47,164	1.85	279,373	2.12
Silk snapper	11,606	2.42	45,673	2.79	21,842	2.98	134,003	2.64	213,124	2.72	14,364	2.87	46,171	2.86	26,739	2.74	142,003	2.74	229,277	2.78
Mutton snapper	12,165	2.22	9,427	2.47	36,699	1.97	19,102	1.86	77,393	2.05	12,821	2.24	8,806	2.58	49,475	2.00	25,244	2.08	96,346	2.11
Queen snapper	654	2.29	4,381	2.78	6,577	3.03	34,457	2.81	46,069	2.85	1,618	2.44	17,024	3.00	5,871	3.09	42,169	2.76	66,682	2.84
Vermillion snapper	6,666	2.09	5,283	2.36	837	2.39	3,795	2.94	16,581	2.35	8625	2.27	2,518	2.51	581	2.84	513	2.87	17,237	2.43
Wenchman	307	1.34	262	2.71	881	2.60	852	2.74	2,302	2.44	521	1.55	994	2.14	1,512	3.03	617	2.70	3,644	2.33
Snapper category	9,890	2.12	12,091	2.46	17,572	1.93	16,992	1.67	56,545	2.03	9,536	2.17	10,005	2.45	30,805	1.97	12,685	1.74	63,031	2.04
Triggerfishes	11,795	1.52	9,223	2.02	22,057	1.70	21,317	1.11	64,392	1.55	9,792	1.66	5,597	1.99	18,002	1.75	16,530	1.14	49,921	1.56
Barracudas	1,907	1.70	5,798	1.60	12,390	1.61	13,689	1.90	33,784	1.68	2,738	1.52	7,067	1.69	9,613	1.58	5,521	1.07	24,939	1.47
Porgies	11,705	1.53	801	2.04	10,610	1.64	3,429	1.21	26,545	1.57	13,343	1.58	704	2.35	16,980	1.50	3,550	1.10	34,577	1.52
Snooks			70	3.00	25	1.83	5	0.25	100	1.16			103	2.00			35	0.88	138	1.63
Tarpon			1,500	1.18			843	1.38	2,343	1.21			2,325	1.05			49	1.00	2,374	1.04
Goatfishes	5,617	1.91	665	2.16	6,435	1.64	2,292	0.90	15,009	1.65	17,903	2.09	582	2.24	6,977	1.69	741	1.11	26,203	1.87
Sardines	977	1.89	16,223	1.19	2,545	1.27	3,920	1.15	23,665	1.22	1,326	1.19	18,318	1.23	6,277	1.37	1,700	1.17	27,621	1.25
King Mackarels	24,215	2.09	17,373	1.91	24,955	1.81	41,861	1.67	108,407	1.84	30,164	2.15	15,264	1.95	22,920	1.77	59,349	1.82	127,697	1.92
Cero	11,877	1.98	11,524	2.05	40,412	1.72	7,590	1.71	71,403	1.84	13,221	1.99	9,992	2.18	30,262	1.94	10,449	1.90	63,924	1.99
Rays			297	1.05	1,760	0.77	14,104	1.23	16,161	0.98	534	1.10			460	0.83	2,155	0.72	3,149	0.84
Sharks	6,697	1.61	12,368	1.87	9,617	1.67	18,727	1.25	47,409	1.52	12,018	1.68	10,706	1.76	8,436	1.80	15,718	1.15	46,878	1.52
Wahoo			1,105	2.36	21	2.00	28	1.88	1,154	2.30	232	2.35	277	2.00	4,734	1.50	1,454	1.85	6,697	1.86
CLASSIFIED																				
First Class	60,402	1.93	4,567	1.31	15,845	1.06	57,042	1.37	137,856	1.50	44,439	2.05	344	1.97	13,275	1.27	45,190	1.60	103,248	1.77
Second Class	20,653	0.45	4,247	0.82	24,414	0.69	70,736	0.84	120,050	0.77	124	1.58	554	1.63	23,704	0.63	82,389	0.75	106,771	0.70
Third Class	60,557	1.18	2,024	0.75	2,457	1.04	665	0.66	65,703	1.14	32,170	1.19	210	1.00	366	0.86	344	0.70	33,090	1.18
Trash	38	1.88			18	0.50	30	0.25	86	1.09	222	1.54			150	0.65	103	0.75	475	1.29
Other fishes	8,245	0.11	29,251	0.59	83,608	0.32	22,536	0.22	143,640	0.29	19,819	0.25	27,337	0.70	58,801	0.23	9,524	0.14	115,481	0.28
Total Fishes	476,463	1.69	411,498	1.93	853,214	1.63	1,089,311	1.40	2,830,485	1.66	520,729	1.78	396,838	1.99	873,659	1.66	931,843	1.42	2,723,069	1.62
SHELLFISH																				
Conch	71,711	2.16	2,151	3.02	46,125	2.26	141,003	2.16	260,990	2.22	52,068	2.25	1,581	3.27	44,087	2.34	116,003	2.08	213,739	2.25
Land crab	1,008	12.45	1,061	12.95	2,246	14.58	289	15.51	4,604	13.87	312	14.38	1,394	14.13	551	12.50	343	18.50	2,600	14.88
Lobster	55,700	5.28	16,683	6.20	125,003	5.13	101,003	5.14	298,389	5.24	72,885	5.50	14,023	6.03	133,003	5.08	107,003	5.18	326,914	5.27
Octopus	2,263	2.50	2,506	2.55	30,545	2.50	4,169	2.19	39,483	2.45	2,498	2.51	2,348	3.09	32,781	2.62	5,974	2.28	43,601	2.58
Marine crabs	8	2.50	427	5.31	817	2.21	1,226	2.22	2,478	2.94	77	3.14	285	3.46	1,849	2.14	302	2.50	2,513	2.41
Other shellfish	109	3.62	1,698	2.79	2,638	3.68	12,218	2.15	16,993	3.14	1,076	3.50	4,059	3.62	3,143	1.27	1,324	2.63	12,602	3.80
Total Shellfish	131,099	4.75	24,526	5.46	207,374	5.06	259,938	4.95	622,936	5.05	128,916	5.21	23,690	5.60	215,414	4.83	233,949	5.53	601,969	5.29
TOTAL	607,562	2.09	436,024	2.38	1,060,587	2.07	1,349,249	1.83	3,453,421	2.02	649,645	2.22	420,528	2.45	1,091,073	2.06	1,165,792	1.92	3,327,038	2.06

TABLE 1B. LANDINGS REPORTED BY SPECIES AND BY COAST IN PUERTO RICO DURING 2000-2001.

	2000										2001									
SPECIES	EAST		NORTH		SOUTH		WEST		TOTAL		EAST		NORTH		SOUTH		WEST		TOTAL	
	POUNDS	*P/P	POUNDS	*P/P	POUNDS	*P/P	POUNDS	*P/P	POUNDS	*P/P	POUNDS	*P/P	POUNDS	*P/P	POUNDS	*P/P	POUNDS	*P/P	POUNDS	*P/P
FISH																				
Tunas																				
Blackfin tuna	18	2.00	112	1.50	36	1.50	3,108	1.06	3,274	1.10	551	1.87	1,050	1.51	895	1.01	22,790	1.04	25,286	1.08
Little tunny	161	2.11	2,795	1.32	976	1.44	13,241	1.26	17,176	1.03	669	1.31	8,372	1.39	383	1.60	10,899	0.86	20,323	1.08
Skipjack tuna	2,555	1.73	3,674	1.65	3,355	1.33	22,590	0.90	32,174	1.14	3,180	1.20	4,811	1.49	2,399	1.34	28,001	0.87	38,391	1.07
Yellowfin tuna	2,850	2.90	2,240	1.35	1,681	1.18	39,984	0.89	46,755	1.17	1,961	2.29	4,273	1.46	950	1.65	28,208	1.03	35,392	1.31
Tuna category	5,125	1.49	3,766	1.43	2,694	1.54	26,580	1.04	38,165	1.25	6,387	1.51	6,479	1.55	1,317	1.62	11,964	0.93	26,147	1.33
Ballyhoo	6,519	1.44	6,253	1.23	23,862	1.23	20,300	1.27	56,934	1.27	14,164	1.34	7,118	1.29	22,534	1.24	17,089	1.27	60,905	1.28
Grunts	29,541	1.66	7,651	1.90	55,468	1.45	25,684	0.98	118,344	1.48	46,528	1.55	13,390	1.69	60,859	1.46	35,864	0.84	156,641	1.43
Hogfish	18,032	2.18	1,115	2.42	28,326	2.18	10,946	2.10	58,419	2.17	25,178	2.20	3,007	2.32	30,296	2.30	10,362	2.22	68,843	2.25
Trunkfish	16,580	1.39	872	2.79	23,127	1.71	43,216	1.91	83,795	1.69	19,097	1.53	2,828	2.19	19,694	1.82	36,195	1.99	77,814	1.78
Dolphinfish	2,738	3.00	17,918	2.08	69,010	1.35	57,063	1.41	137,729	1.57	3,980	2.31	20,220	2.24	37,284	2.12	49,591	1.54	111,075	1.89
Squirrelfishes	3,442	1.43	3,099	1.37	7,297	1.30	2,200	0.74	16,038	1.27	4,109	1.33	5,927	1.28	6,109	1.30	2,168	0.78	18,313	1.23
Mullets	3,711	1.44	19,128	1.32	24,782	1.23	6,485	1.09	54,106	1.25	4,241	1.43	27,580	1.35	23,252	1.16	6,056	0.92	61,129	1.23
Jacks																				
Bar jack	9,236	1.44	8,048	1.76	16,017	1.28	11,964	1.04	45,265	1.35	10,606	1.36	12,931	1.71	15,072	1.50	12,236	1.06	50,845	1.41
Horse-eye jack	98	1.89	1,281	1.83	732	1.25	2,457	1.13	7,568	1.58	694	1.96	2,925	1.61	674	1.11	2,314	0.94	6,607	1.40
Yellow jack	221	2.94	662	1.85	923	1.44	654	1.38	2,460	1.58	247	0.95	270	1.83	1,341	1.42	2,073	1.08	3,934	1.29
Jack Category	1,937	1.76	15,805	1.72	7,924	1.15	4,739	1.27	30,405	1.45	1,959	1.30	19,028	1.57	3,438	1.31	13,743	1.20	38,168	1.41
Parrotfishes	19,629	1.54	3,337	2.06	41,259	1.62	9,748	0.96	73,973	1.55	26,722	1.43	8,195	1.74	46,954	1.56	17,384	0.81	99,255	1.46
Groupers																				
Coney	3,122	2.28	1,460	2.25	1,219	1.82	2,870	1.78	11,671	2.00	4,901	2.02	3,990	2.18	4,707	1.74	2,493	1.60	16,091	1.88
Red hind	12,932	2.09	6,647	2.38	21,987	2.06	19,673	1.96	61,239	2.09	18,293	2.09	9,666	2.42	20,267	2.17	20,872	2.03	69,098	2.16
Misty grouper	628	1.96	511	2.49	957	2.18	3,168	2.04	5,264	2.12	587	2.09	2,189	2.45	1,257	2.08	2,189	2.13	6,222	2.18
Nassau grouper	1,242	2.04	1,848	2.18	1,818	1.72	8,057	1.29	12,965	1.65	5,413	1.92	4,333	2.30	1,331	1.63	7,629	1.46	18,706	1.85
Yellowfin grouper	230	1.96	274	2.37	10,225	2.09	479	2.00	11,208	2.10	1,491	2.07	608	2.41	801	2.18	808	2.01	3,708	2.16
Grouper category	7,789	2.35	6,434	2.23	13,867	2.18	12,671	1.84	40,761	2.16	22,924	2.32	11,021	2.33	11,126	2.18	9,109	1.90	54,180	2.22
Mojarras	4,062	1.68	8,293	1.78	4,371	1.52	1,523	1.78	18,249	1.69	2,371	1.67	13,259	1.71	2,272	1.53	1,543	1.06	19,445	1.60
Snappers																				
Lane snapper	31,114	2.21	8,263	2.37	145,003	2.00	27,137	1.89	211,517	2.04	32,929	2.19	12,577	2.35	108,003	2.08	32,716	2.04	186,225	2.12
Yellowtail snapper	70,545	2.27	51,359	2.27	189,003	1.73	52,601	1.75	363,508	1.93	119,003	2.27	65,975	2.30	90,233	2.06	53,787	1.86	328,998	2.14
Silk snapper	13,903	2.78	34,818	2.59	28,759	2.81	121,003	2.62	198,483	2.66	55,818	2.88	64,922	2.84	29,979	3.08	141,003	2.80	291,722	2.88
Mutton snapper	15,224	2.26	8,128	2.35	46,925	1.95	16,530	1.90	86,807	2.03	17,970	2.30	15,692	2.30	37,745	2.06	19,176	1.94	90,583	2.13
Queen snapper	2,084	2.55	5,572	2.85	4,390	3.04	70,820	2.70	82,866	2.76	4,194	2.45	18,953	2.88	9,035	3.33	75,489	2.79	107,671	2.88
Vermillion snapper	9,917	1.97	6,872	2.42	722	2.88	4,886	2.48	22,397	2.30	31,624	2.15	8,824	2.36	593	2.49	3,850	2.93	44,891	2.34
Wenchman	973	1.89	400	2.11	1,228	2.61	2,351	2.84	4,952	2.31	1,255	2.05	622	2.79	1,557	3.01	4,297	2.94	7,731	2.72
Snapper category	7,450	2.23	7,126	2.23	29,854	1.92	5,807	1.65	50,237	1.98	10,628	2.20	13,718	2.24	24,265	1.98	11,503	1.87	60,114	2.06
Triggerfishes	10,978	1.57	3,939	1.98	11,758	1.72	12,311	1.27	41,986	1.59	18,777	1.40	6,445	1.87	22,658	1.70	13,049	1.15	60,929	1.50
Barracudas	1,595	1.78	4,331	1.62	16,172	1.51	3,968	1.13	26,066	1.50	1,370	1.54	5,833	1.49	10,362	1.58	2,323	1.22	19,888	1.50
Porgies	10,912	1.51	591	1.99	14,599	1.53	3,461	1.38	29,563	1.52	14,162	1.48	2,714	1.51	18,194	1.59	1,961	1.24	37,031	1.51
Snooks	7	1.50	88	2.25			299	1.60	394	1.77	1,625	1.71	3,621	1.75	4,659	1.69	1,925	1.12	11,830	1.60
Tarpon			329	1.06			25	1.00	354	1.06	20	0.63	1,872	1.17			301	0.47	2,193	0.87
Goatfishes	12,030	2.22	465	1.95	7,216	1.71	992	0.96	20,703	1.95	12,071	2.15	1,614	1.80	8,221	1.74	569	1.10	22,475	1.95
Sardines	782	1.33	15,221	1.04	7,039	1.32	2,209	1.05	25,251	1.14	879	1.23	19,053	1.21	3,612	1.24	1,854	0.98	25,398	1.20
King Mackarels	21,895	2.13	11,440	1.78	51,283	1.53	39,878	1.61	124,496	1.70	21,304	2.16	21,510	1.85	23,150	2.00	35,608	1.75	101,572	1.94
Cero	14,687	2.12	14,644	1.75	19,718	1.81	4,720	1.81	53,769	1.90	29,350	2.18	8,270	1.96	40,470	1.61	6,621	1.94	84,711	1.92
Rays	1,146	1.21			1,363	0.75	7,692	0.82	10,201	0.97	1,005	1.33	1,151	0.98	45	2.50	1,436	0.92	3,637	1.07
Sharks	12,182	1.73	8,291	1.56	6,597	1.61	16,007	1.06	43,077	1.44	9,980	1.82	19,160	1.65	6,465	1.78	9,564	1.07	45,169	1.57
Wahoo			1,268	1.82	120	1.43	772	1.48	2,160	1.58			180	2.04	1,108	1.64	7,056	1.56	8,344	1.60
CLASSIFFIED																				
First Class	47,502	2.01	507	2.00	10,119	1.25	27,556	1.74	85,684	1.79	60,045	2.04	131	1.61	15,567	2.06	20,796	1.78	96,539	1.98
Second Class	722	1.04			18,637	0.71	39,104	0.97	58,463	0.81	15,124	1.53	116	1.00	5,498	1.08	12,037	1.02	32,775	1.31
Third Class	44,895	1.22			4,667	0.64			49,562	1.17	36,038	1.06	19	1.00	10,501	0.80	97	0.83	46,655	1.01
Trash	61	1.74			467	1.54	40	0.50	568	1.46	17	1.00	25	1.00	393	1.59	80	1.50	515	1.52
Other fishes	7,142	0.48	15,865	1.01	64,191	0.37	10,881	0.47	98,079	0.47	6,568	1.84	20,961	1.97	50,231	1.81	5,812	1.40	83,572	1.80
Total Fishes	490,144	1.88	323,740	1.92	1,038,743	1.62	820,433	1.43	2,675,080	1.72	728,009	1.76	507,428	1.84	837,759	1.78	814,490	1.47	2,887,686	1.70
SHELLFISH																				
Conch	98,610	2.31	1,308	2.63	45,781	2.33	136,003	2.00	281,702	2.23	96,686	2.55	2,313	2.71	41,465	2.55	188,003	2.16	328,467	2.44
Land crab	1,081	20.32	536	14.59	474	14.02	39	13.90	2,130	15.71	1,527	14.71	1,261	14.35	397	13.69	3,137	14.28	6,322	14.26
Lobster	68,437	5.44	10,837	5.51	112,003	4.85	66,877	4.92	258,154	5.05	97,141	5.79	20,955	5.96	110,004	5.35	56,918	5.26	285,018	5.53
Octopus	2,393	2.73	1,371	2.45	41,417	2.28	3,522	1.93	48,703	2.29	2,837	2.86	2,500	2.61	25,987	2.58	2,615	2.24	33,939	2.58
Marine crabs	344	2.02	135	3.00	1,456	2.13	276	1.82	2,211	2.09	286	2.16	560	3.74	1,859	2.28	646	1.94	3,351	2.50
Other shellfish	2,698	3.45	2,191	2.75	4,268	3.38	3,857	1.90	13,011	3.16	1,988	4.00	4,800	2.53	2,942	4.68	4,511	2.77	14,241	3.83
Total Shellfish	173,563	6.05	16,378	5.16	205,399	4.83	210,574	4.41	605,914	5.09	200,465	5.35	32,389	5.32	182,654	5.19	255,830	4.78	671,338	5.16
TOTAL	663,707	2.41	342,118	2.34	1,244,142	2.03	1,031,027	1.82	3,280,994	2.05	928,474	2.21	539,817	2.26	1,020,413	2.21	1,070,320	1.87	3,559,024	2.14

TABLE 2. LANDINGS REPORTED BY SPECIES AND BY GEAR IN PUERTO RICO DURING 1998.

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)	SCUBA DIVING (Pounds)	TRAMMEL NET (Pounds)	TOTAL (Pounds)
FISH														
Tunas														
Blacktin tuna	0	0	0	0	450	0	0	0	0	0	0	0	0	450
Little tunny	1,494	0	0	753	3,929	11,728	0	0	27	0	0	0	145	21,076
Skipjack tuna	4,723	0	0	1,092	8,196	37,890	21	0	0	0	0	0	0	51,922
Yellowfin tuna	443	0	816	59	6,370	33,965	0	0	0	0	0	0	0	41,653
Tuna category	7,399	0	0	2,488	20,295	53,368	70	0	0	0	0	0	0	83,720
Ballyhoo	1,339	1,554	3	43,450	2,335	457	126	0	159	0	35	0	35	49,449
Grunts	1,539	47,271	58	25,730	14,524	661	517	0	169	0	0	1,578	23,566	115,613
Hogfish	26	11,454	91	3,454	2,585	230	213	0	0	0	417	29,176	2,197	49,843
Trunkfish	195	58,898	3,010	6,192	3,093	221	1	0	228	0	77	9,126	9,852	90,893
Dolphinfish	0	0	0	1,340	32,049	103,511	0	0	0	0	0	0	133	137,033
Squirrelfishes	20	9,135	0	2,568	5,625	341	31	0	17	0	0	120	1,142	18,999
Mullets	957	2,166	67	46,225	2,255	99	44	0	783	0	25	48	782	53,451
Jacks														
Bar jack	3,373	1,671	0	8,286	10,590	1,774	243	0	25	0	350	371	471	27,166
Horse-eye jack	20	87	0	1,079	1,561	191	41	0	32	0	20	60	30	3,121
Yellow jack	0	288	0	306	2,114	41	0	0	0	0	70	194	0	3,513
Jack Category	6,405	1,663	0	10,231	37,682	496	3,381	0	256	0	69	330	804	61,517
Parrotfishes	253	24,701	0	15,725	0	0	351	0	95	0	0	15,269	41,481	97,559
Groupers														
Coney	3	4,897	0	703	6,123	54	253	0	17	0	129	958	703	13,900
Red hind	16	17,441	186	852	23,511	236	938	0	53	10	65	11,130	536	54,974
Misty grouper	0	324	0	90	4,241	83	714	0	0	0	0	130	0	5,558
Nassau grouper	0	3,617	18	210	14,173	112	76	0	8	0	90	806	0	19,005
Yellowfin grouper	0	156	0	115	831	0	36	0	0	0	0	653	0	1,791
Grouper category	5	8,318	0	1,478	23,332	194	781	0	0	0	38	9,025	214	43,385
Mojarras	1,662	1,030	0	14,587	1,219	45	96	0	569	0	0	112	63	19,383
Snappers														
Lane snapper	3,044	79,869	122	40,473	61,083	0	30,025	0	324	0	0	2,051	3,895	220,886
Yellowtail snapper	2,773	19,985	35	9,195	209,900	0	1,429	0	213	0	111	1,435	3,550	252,016
Silk snapper	0	17,981	0	0	165,051	0	0	0	92	0	0	0	0	213,124
Mutton snapper	1,310	18,567	214	7,627	40,728	0	1,550	0	187	0	4	4,690	2,516	77,393
Queen snapper	0	724	0	0	45,345	0	0	0	0	0	0	0	0	46,069
Vermillion snapper	0	4,102	0	0	12,434	0	0	0	45	0	0	0	0	16,581
Wenchman	0	135	0	418	1,749	0	0	0	0	0	0	0	0	2,302
Snapper category	1,168	10,442	3	8,800	20,714	0	369	0	42	0	0	10,676	4,231	56,545
Triggerfish	15,422	11,669	0	14,573	22,109	0	31	0	77	0	0	166	50	64,392
Barracudas	5,169	804	0	9,391	13,532	2,775	911	0	169	0	19	675	1,159	33,784
Porgies	167	11,690	60	9,407	4,038	66	218	0	58	0	0	150	991	26,545
Snooks	0	0	0	0	83	0	0	0	0	0	0	0	0	100
Tarpon	169	46	0	1,169	341	0	0	0	0	0	0	618	0	2,343
Goatfishes	18	11,961	25	1,103	1,073	0	0	0	25	0	0	49	755	15,009
Sardines	547	481	0	3,456	2,260	0	0	0	16,897	0	0	0	24	23,665
King Mackarels	2,931	0	0	14,456	57,571	32,315	202	0	0	0	339	528	95	108,407
Cero	888	0	0	9,548	28,124	31,832	224	0	0	177	130	309	171	71,403
Rays	0	0	0	2,074	172	65	60	0	0	0	0	130	13,660	16,161
Sharks	844	0	0	5,817	22,882	1,424	10,755	0	0	0	0	1,103	4,584	47,409
Wahoo	0	0	0	15	133	1,006	0	0	0	0	0	0	0	1,154
CLASSIFFIED														
First Class	0	44,504	0	6,493	25,386	85	0	0	0	0	0	28,992	32,390	137,856
Second Class	997	46,524	0	10,564	5,710	12	131	0	0	0	0	429	55,801	120,050
Third Class	0	32,520	4	1,972	3,739	0	0	0	0	0	0	27,428	40	65,703
Trash	0	55	0	0	28	0	0	0	0	0	0	3	0	86
Other fishes	10,777	46,712	12	62,745	9,814	1,031	1,078	0	2,944	0	130	3,195	5,202	143,640
Total Fishes	79,193	582,845	4,724	406,594	984,072	316,268	56,662	0	23,511	187	2,074	182,021	211,096	2,830,487
SHELLFISH														
Conch	96	137	0	2,812	3,741	6,413	0	0	0	0	7,536	240,058	197	260,990
Land crab	0	0	0	0	0	0	0	4,604	0	0	0	0	0	4,604
Lobster	2,050	101,266	40,086	1,052	0	0	0	0	0	0	7,541	132,091	14,303	298,389
Octopus	94	1,475	272	184	0	0	0	0	0	0	20,503	16,706	249	39,483
Marine crabs	0	1,320	0	54	0	0	0	0	25	0	0	1,043	36	2,478
Other shellfish	2,038	1,201	86	920	0	0	0	0	218	0	0	12,447	83	16,993
Total Shellfish	4,278	105,399	40,444	5,022	3,741	6,413	0	4,604	243	0	35,580	402,345	14,868	622,937
TOTAL	83,471	688,244	45,168	411,616	988,713	322,721	56,662	4,604	23,754	187	37,654	564,366	226,264	3,453,424

TABLE 3. LANDINGS REPORTED BY SPECIES AND BY GEAR IN PUERTO RICO DURING 1999.

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)	SCUBA DIVING (Pounds)	TRAMMEL NET (Pounds)	TOTAL (Pounds)
FISH														
Tunas														
Blackfin tuna	0	0	0	500	78	404	0	0	0	0	0	0	0	982
Little tunny	4,151	0	0	327	1,774	12,058	0	0	0	0	0	0	0	18,310
Skipjack tuna	2,399	0	0	2,362	6,146	29,246	55	0	25	0	0	0	85	40,318
Yellowfin tuna	0	0	0	1,039	3,961	43,915	0	0	0	0	0	0	0	48,915
Tuna category	1,494	0	0	1,829	13,344	29,724	60	0	124	0	0	0	45	46,620
Ballyhoo	236	189	0	47,478	1,534	520	73	0	539	0	0	52	27	50,648
Grunts	3,611	50,025	15	34,590	14,587	314	790	0	5	0	0	1,336	12,982	118,255
Hogfish	0	10,758	0	1,883	2,152	121	30	0	0	0	0	30,977	598	46,519
Trunkfish	95	56,520	653	4,879	3,464	64	44	0	88	0	0	8,632	9,445	83,884
Dolphinfish	0	0	0	1,641	14,791	113,303	275	0	0	0	0	0	45	130,055
Squirrelfishes	39	7,005	0	1,942	5,272	108	107	0	25	0	0	31	167	14,696
Mullets	2,176	1,588	96	53,585	1,657	140	197	0	2,129	0	0	57	310	61,935
Jacks														
Bar jack	3,914	2,095	0	17,342	14,382	2,101	399	0	135	24	65	351	87	40,895
Horse-eye jack	15	91	0	919	3,902	109	36	0	17	0	16	1	0	5,106
Yellow jack	0	139	0	722	1,020	55	0	0	0	0	0	85	0	2,021
Jack Category	9,268	706	0	12,127	14,427	325	247	0	1,046	0	227	167	234	38,774
Parrotfishes	110	20,389	46	18,868	0	0	9	0	318	0	694	17,407	22,881	80,719
Groupers														
Coney	0	3,832	7	1,364	4,609	72	48	0	0	0	0	289	33	10,254
Red hind	30	12,745	26	1,326	30,939	66	289	0	48	268	18	19,861	296	65,912
Misty grouper	0	646	0	360	4,965	39	472	0	0	0	0	235	0	6,717
Nassau grouper	14	4,339	0	547	9,236	46	63	0	0	0	34	654	34	14,967
Yellowfin grouper	0	148	0	63	623	1	0	0	0	0	0	2,513	0	3,348
Grouper category	62	9,810	0	2,491	25,075	219	336	0	108	70	30	9,603	28	47,892
Mojarras	937	1,248	0	16,930	1,460	35	20	0	1,187	0	0	0	255	22,072
Snappers														
Lane snapper	3,133	71,484	0	32,005	51,931	0	33,953	0	1,509	474	10	931	1,053	196,483
Yellowtail snapper	4,117	22,711	5	14,170	227,069	0	6,761	0	127	2,243	147	1,347	676	279,373
Silk snapper	0	52,407	0	0	173,957	0	2,913	0	0	0	0	0	0	229,277
Mutton snapper	1,211	22,635	30	10,988	53,361	0	2,029	0	106	0	13	5,025	948	96,346
Queen snapper	0	1,371	0	0	54,918	0	10,393	0	0	0	0	0	0	66,682
Vermillion snapper	0	3,177	0	0	14,035	0	25	0	0	0	0	0	0	17,237
Wenchman	0	104	0	0	3,076	0	464	0	0	0	0	0	0	3,644
Snapper category	2,043	9,201	9	12,250	19,984	804	689	0	10	0	5	14,508	3,528	63,031
Triggerfishes	188	24,084	15	1,373	10,595	147	7	0	36	0	0	12,289	1,187	49,921
Barracudas	5,422	0	0	5,573	8,562	4,379	31	0	77	0	6	166	723	24,939
Porgies	1,244	12,841	0	13,781	5,445	69	72	0	0	0	0	209	916	34,577
Snooks	0	0	0	48	90	0	0	0	0	0	0	0	0	138
Tarpon	0	0	0	1,835	463	0	0	0	0	0	76	0	0	2,374
Goatfishes	0	11,784	0	11,041	3,035	86	12	0	75	0	0	145	25	26,203
Sardines	789	0	0	2,573	1,627	0	0	0	22,632	0	0	0	0	27,621
King Mackarels	1,897	0	0	12,771	61,168	49,138	1,293	0	164	0	835	383	48	127,697
Cero	1,604	0	0	15,273	25,783	18,595	1,173	0	879	0	377	190	50	63,924
Rays	91	0	0	421	587	0	0	0	0	0	0	81	1,969	3,149
Sharks	596	0	0	8,314	27,405	1,094	4,863	0	22	0	10	1,480	3,094	46,878
Wahoo	0	0	0	4,003	273	2,421	0	0	0	0	0	0	0	6,697
CLASSIFFIED														
First Class	1,703	34,250	55	5,892	15,005	292	0	0	0	0	0	22,538	23,513	103,248
Second Class	1,800	34,611	0	9,169	1,051	0	0	0	0	0	0	307	59,833	106,771
Third Class	117	21,268	0	210	4,590	29	0	0	0	0	0	6,876	0	33,090
Trash	0	295	0	150	30	0	0	0	0	0	0	0	0	475
Other fishes	8,303	31,525	47	56,689	9,963	3,865	848	0	766	0	190	1,519	1,766	115,481
Total Fishes	62,809	536,021	1,004	443,643	953,401	313,904	69,073	0	32,197	3,079	2,753	160,305	146,881	2,725,070
SHELLFISH														
Conch	0	0	0	0	0	0	0	0	0	0	12,736	201,003	0	213,739
Land crab	0	0	0	0	0	0	0	2,600	0	0	0	0	0	2,600
Lobster	456	130,003	30,207	2,767	0	0	0	0	191	0	10,547	129,490	23,253	326,914
Octopus	69	2,087	204	558	0	0	0	0	54	0	18,994	21,467	168	43,601
Marine crabs	0	1,584	19	74	0	0	0	0	96	0	0	321	419	2,513
Other shellfish	54	5,601	0	2,443	0	0	0	0	0	0	0	4,347	157	12,602
Total Shellfish	579	139,275	30,430	5,842	0	0	0	2,600	341	0	12,277	356,628	23,997	691,969
TOTAL	63,388	675,296	31,434	449,485	953,401	313,904	69,073	2,600	32,538	3,079	45,030	516,933	170,878	3,327,039

TABLE 4. LANDINGS REPORTED BY SPECIES AND BY GEAR IN PUERTO RICO DURING 2000.

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)	SCUBA DIVING (Pounds)	TRAMMEL NET (Pounds)	TOTAL (Pounds)
FISH														
Tunas														
Blackfin tuna	0	0	0	36	164	3,044	0	0	0	0	30	0	0	3,274
Little tunny	4,264	0	0	1,203	768	10,262	0	0	0	0	676	3	0	17,176
Skipjack tuna	1,207	0	10	2,183	4,328	24,446	0	0	0	0	0	0	0	32,174
Yellowfin tuna	0	0	0	1,145	1,682	43,309	0	0	0	0	0	318	301	46,755
Tuna category	2,643	0	0	648	7,607	27,056	0	0	0	0	27	171	13	38,165
Ballyhoo	3,556	0	15	49,750	1,044	1,227	20	0	312	0	0	81	929	56,934
Grunts	10,924	41,019	0	38,671	17,046	117	647	0	410	0	37	615	8,858	118,344
Hogfish	296	11,293	10	1,796	1,955	37	3	0	0	0	92	41,369	1,568	58,419
Trunkfish	1,516	55,395	491	5,502	3,404	136	143	0	8	0	16	8,468	8,716	83,795
Dolphinfish	0	0	0	1,304	13,373	120,003	2,436	0	0	0	0	0	613	137,729
Squirrelfishes	770	5,284	0	2,148	7,029	273	66	0	29	0	9	186	244	16,038
Mullets	3,072	640	77	45,999	2,290	165	118	0	1,387	0	0	53	305	54,106
Jacks														
Bar jack	3,429	2,014	0	22,201	14,315	1,430	423	0	205	0	368	312	568	45,265
Horse-eye jack	64	229	0	1,802	5,181	157	21	0	30	0	28	47	9	7,568
Yellow jack	51	360	0	587	1,100	0	40	0	20	0	14	288	0	2,460
Jack Category	3,391	720	6	14,119	11,094	317	166	0	100	0	167	176	149	30,405
Parrotfishes	185	19,278	0	20,971	154	7	0	0	12	0	12	19,814	13,540	73,973
Groupers														
Coney	0	3,741	0	1,511	5,624	233	25	0	0	0	200	271	66	11,671
Red hind	6	12,974	0	2,021	33,782	320	199	0	80	0	386	11,070	401	61,239
Misty grouper	0	580	0	163	2,891	0	1,177	0	27	0	0	426	0	5,264
Nassau grouper	0	2,311	16	499	9,062	243	80	0	0	0	300	448	0	12,965
Yellowfin grouper	0	9,775	0	144	373	0	28	0	0	0	0	888	0	11,208
Grouper category	602	7,156	0	1,935	19,036	370	1,005	0	111	0	0	10,086	460	40,761
Mojarras	885	1,468	27	12,166	1,012	91	540	0	1,643	0	11	127	279	18,249
Snappers														
Lane snapper	1,240	63,738	35	37,377	74,142	175	24,746	0	4,995	0	10	4,443	616	211,517
Yellowtail snapper	8,782	26,066	31	18,134	302,168	155	3,707	0	1,212	0	414	1,400	1,439	363,508
Silk snapper	0	52,206	0	560	125,350	0	20,367	0	0	0	0	0	0	198,483
Mutton snapper	380	21,364	27	15,219	39,722	0	2,652	0	174	0	60	5,915	1,294	86,807
Queen snapper	0	427	0	107	32,516	0	49,725	0	91	0	0	0	0	82,866
Vermillion snapper	10	5,331	0	720	15,499	0	837	0	0	0	0	0	0	22,397
Wenchman	24	62	0	1,159	3,461	0	246	0	0	0	0	0	0	4,952
Snapper category	139	7,831	10	14,450	19,932	48	458	0	50	0	39	6,135	1,145	50,237
Triggerfishes	334	19,803	16	1,614	8,816	236	85	0	13	183	56	9,950	880	41,986
Barracudas	2,578	445	0	11,988	6,323	4,299	10	0	22	36	90	234	41	26,066
Porgies	741	11,441	0	11,930	3,746	122	19	0	18	0	10	358	1,178	29,563
Snooks	140	0	0	85	15	128	0	0	10	0	0	0	16	394
Tarpon	0	0	0	311	25	18	0	0	0	0	0	0	0	354
Goatfishes	18	15,103	0	2,884	2,347	0	3	0	62	0	0	84	202	20,703
Sardines	776	173	0	1,505	1,272	0	2,277	0	19,018	0	0	0	230	25,251
King Mackarels	1,164	0	0	13,524	61,977	44,698	303	0	158	0	369	638	1,065	124,496
Cero	296	0	0	13,017	32,088	6,611	145	0	502	0	320	151	639	53,769
Rays	0	0	0	238	81	96	0	0	0	0	0	861	8,925	10,201
Sharks	121	0	0	4,933	18,726	1,392	8,970	0	0	284	0	1,104	7,547	43,077
Wahoo	0	0	0	0	576	1,584	0	0	0	0	0	0	0	2,160
CLASSIFFIED														
First Class	406	26,745	228	3,006	9,360	29	0	0	0	0	0	41,765	4,145	85,684
Second Class	4,497	22,802	0	4,662	1,876	0	0	0	0	0	0	1,068	23,558	58,463
Third Class	0	19,353	0	62	3,646	0	0	0	0	0	0	26,492	9	49,562
Trash	0	169	0	220	103	30	0	0	0	0	0	0	46	568
Other fishes	5,563	32,848	20	41,932	11,975	2,675	163	0	726	0	38	2,079	60	98,079
Total Fishes	64,070	500,144	1,019	428,141	940,056	295,539	121,850	0	31,431	503	3,779	197,894	90,654	2,675,080
SHELLFISH														
Conch	36	0	0	175	0	0	0	0	0	0	27	277,605	3,859	281,702
Land crab	0	0	0	0	0	0	0	2,130	0	0	0	0	0	2,130
Lobster	314	93,809	18,908	2,599	0	0	18	0	42	0	0	134,710	7,754	258,154
Octopus	3	1,421	13	837	0	0	0	0	93	0	26,529	19,493	314	48,703
Marine crabs	0	1,452	0	12	79	0	3	0	35	0	0	385	245	2,211
Other shellfish	180	3,004	44	1,212	1,410	145	0	0	1,037	0	0	2,159	223	13,014
Total Shellfish	833	99,686	18,965	7,835	1,489	145	21	2,130	1,207	0	26,556	434,652	12,395	605,914
TOTAL	64,903	599,830	19,984	435,976	941,545	295,684	121,871	2,130	32,638	503	30,335	632,546	103,049	3,280,994

TABLE 5. LANDINGS REPORTED BY SPECIES AND BY GEAR IN PUERTO RICO DURING 2001.

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)	SCUBA DIVING (Pounds)	TRAMMEL NET (Pounds)	TOTAL (Pounds)
FISH														
Tunas														
Blackfin tuna	405	0	0	816	2,905	20,455	705	0	0	0	0	0	0	25,286
Little tunny	5,205	0	0	2,224	4,346	8,461	87	0	0	0	0	0	0	20,323
Skipjack tuna	707	0	0	3,673	8,702	24,222	0	0	0	1,087	0	0	0	38,391
Yellowfin tuna	199	0	0	530	2,542	30,844	1,159	0	0	0	0	0	118	35,392
Tuna category	978	0	0	2,428	9,387	10,375	340	0	0	2,497	0	0	142	26,147
Ballyhoo	578	898	155	56,695	1,951	82	0	0	476	0	25	0	45	60,905
Grunts	16,573	57,938	205	40,607	21,026	2,191	414	0	69	0	12	2,223	15,383	156,641
Hogfish	436	14,108	49	2,400	3,702	134	0	0	118	0	0	46,751	1,145	68,843
Trunkfish	2,175	54,624	520	6,597	3,285	171	32	0	121	0	0	7,329	2,960	77,814
Dolphinfish	0	0	0	1,815	20,117	84,649	1,781	0	0	2,547	0	0	166	111,075
Squirrelfishes	1,498	7,362	25	2,668	5,664	427	15	5	136	0	0	329	184	18,313
Mullets	1,800	1,037	19	51,693	2,975	591	20	0	2,369	0	0	286	339	61,129
Jacks														
Bar jack	3,663	3,261	21	20,244	18,294	1,121	355	0	272	0	124	854	2,636	50,845
Horse-eye jack	51	650	0	1,090	4,044	319	10	0	30	0	23	316	74	6,607
Yellow jack	897	177	1	1,050	887	30	0	0	0	0	0	435	457	3,934
Jack Category	6,629	1,723	0	10,299	16,239	2,125	43	0	381	0	167	232	330	38,168
Parrotfishes	864	23,695	17	21,396	841	55	31	0	344	0	541	23,533	27,938	99,255
Groupers														
Coney	0	4,978	0	1,947	7,017	0	241	0	101	0	50	935	822	16,091
Red hind	0	15,244	0	2,759	38,795	0	530	0	177	0	103	11,103	387	69,098
Misty grouper	0	635	0	519	3,672	0	1,134	0	0	0	0	119	143	6,222
Nassau grouper	34	2,406	0	722	9,755	0	32	0	8	0	79	4,722	948	18,706
Yellowfin grouper	0	553	0	191	1,222	0	0	0	0	0	0	1,742	0	3,708
Grouper category	100	18,930	0	2,528	21,872	249	879	0	10	0	30	9,544	38	54,180
Mojarras	279	1,000	0	14,629	1,648	40	19	0	1,361	0	0	409	60	19,445
Snappers														
Lane snapper	4,480	58,339	336	32,503	66,659	571	17,482	0	148	0	8	4,972	727	186,225
Yellowtail snapper	12,858	23,371	175	15,700	265,728	354	2,577	0	162	347	230	5,646	1,850	328,998
Silk snapper	0	109,003	0	0	177,003	0	5,716	0	0	0	0	0	0	291,722
Mutton snapper	2,800	20,511	111	12,508	46,329	0	1,241	0	216	0	75	5,677	1,115	90,583
Queen snapper	0	2,724	0	0	94,581	0	10,366	0	0	0	0	0	0	107,671
Vermillion snapper	0	27,845	0	0	17,014	0	32	0	0	0	0	0	0	44,891
Wenchman	0	1,764	0	0	5,850	0	117	0	0	0	0	0	0	7,731
Snapper category	844	8,904	13	12,498	24,866	528	600	0	159	536	59	9,011	2,096	60,114
Triggerfishes	59	29,325	57	2,263	12,159	1,015	288	0	132	390	60	14,773	408	60,929
Barracudas	1,775	0	0	6,315	6,384	1,814	72	0	55	0	0	419	54	19,888
Porgies	519	13,100	8	17,134	4,319	382	67	0	47	0	6	625	824	37,031
Snooks	1,241	0	0	7,017	2,635	793	0	0	110	0	0	34	0	11,830
Tarpon	152	0	0	1,833	142	66	0	0	0	0	0	0	0	2,193
Goatfishes	0	16,932	0	3,803	1,422	0	12	0	0	0	0	0	306	22,475
Sardines	1,051	669	0	3,246	2,539	0	211	0	17,682	0	0	0	0	25,398
King Mackarels	526	0	0	14,520	53,628	28,044	248	0	134	2,580	250	1,259	383	101,572
Cero	548	0	0	10,023	39,773	30,415	293	0	23	2,049	437	1,112	38	84,711
Rays	255	0	0	490	1,085	0	0	0	0	0	0	310	1,497	3,637
Sharks	631	0	0	7,267	21,058	993	9,311	0	200	2,369	0	1,378	1,962	45,169
Wahoo	0	141	0	28	6,395	1,180	0	0	0	0	0	600	0	8,344
CLASSIFFIED														
First Class	80	45,353	151	427	14,475	102	15	0	0	0	0	35,057	879	96,539
Second Class	180	20,701	559	1,501	1,162	0	0	0	0	0	0	8,118	554	32,775
Third Class	533	28,402	0	221	7,811	0	0	0	0	0	0	9,688	0	46,655
Trash	0	124	0	26	130	27	0	0	0	0	0	48	160	515
Other fishes	5,773	20,866	28	45,308	7,923	1,019	37	0	586	0	75	1,324	633	83,572
Total Fishes	80,376	637,293	2,450	444,151	1,091,958	253,844	56,512	5	25,627	14,402	2,354	210,913	67,801	2,887,686
SHELLFISH														
Conch	0	0	0	203	0	0	0	0	0	0	12,547	315,457	260	328,467
Land crab	0	0	0	0	0	0	0	6,322	0	0	0	0	0	6,322
Lobster	281	102,003	32,198	1,480	0	0	0	0	317	0	4,587	138,565	5,587	285,018
Octopus	0	1,482	363	212	0	0	0	0	10	0	15,187	16,642	43	33,939
Marine crabs	15	1,903	15	157	0	0	0	0	10	0	0	1,011	240	3,351
Other shellfish	9	3,747	3	1,418	0	0	0	0	829	0	2,625	5,606	1	14,241
Total Shellfish	305	109,135	32,579	3,470	0	0	0	6,322	1,166	0	34,946	477,281	6,134	671,338
TOTAL	80,681	746,428	35,029	447,621	1,091,958	253,844	56,512	6,327	26,793	14,402	37,300	688,194	73,935	3,559,024

TABLE 6. LANDINGS REPORTED BY MUNICIPALITY AND BY COAST IN PUERTO RICO DURING 1998-2001.

	1998		1999		2000		2001	
LOCATION	POUNDS	P/P*	POUNDS	P/P*	POUNDS	P/P*	POUNDS	P/P*
NORTH	436,026	1.84	420,522	1.82	342,113	1.91	569,893	2.14
Isabela	13,690	1.52	12,963	1.18	7,849	2.46	11,735	3.56
Quebradillas	0	0.00	0	0.00	0	0.00	0	0.00
Camuy	22,910	1.64	5,927	1.78	6,813	1.70	4,060	2.68
Hatillo	4,580	1.36	5,164	1.95	1,762	1.48	4,232	2.28
Arecibo	40,980	2.05	56,206	2.13	38,480	2.20	73,812	2.47
Barceloneta	37,280	2.23	19,198	2.13	21,858	1.88	36,736	2.26
Manati	18,328	2.33	14,127	1.91	11,301	1.97	17,361	2.04
Vega Baja	35,898	2.90	28,412	2.15	35,899	2.37	68,169	2.41
Vega Alta	15,371	2.13	9,071	2.19	17,596	2.10	28,694	2.15
Dorado	13,864	2.04	15,794	2.75	13,576	2.24	28,069	2.70
Toa Baja	1,136	1.23	2,819	1.41	4,846	2.31	1,010	1.49
Cataño	42,650	2.12	46,419	2.24	21,097	2.18	23,769	2.34
San Juan	80,590	2.25	96,594	2.15	91,082	1.98	133,003	2.10
Carolina	28,135	1.78	32,799	1.60	27,054	1.83	56,785	1.73
Loiza	43,069	1.52	28,599	1.68	10,950	1.87	43,752	1.97
Río Grande	16,570	2.31	32,583	1.99	21,188	1.85	34,254	2.08
Luquillo	20,975	1.94	13,847	1.76	10,762	2.13	4,452	2.05
EAST	608,379	1.86	650,043	2.05	664,287	2.24	948,758	2.37
Fajardo	135,003	1.77	150,003	2.06	128,003	2.22	179,003	2.20
Ceiba	67,064	1.76	58,111	1.81	78,839	2.34	139,003	2.42
Naguabo	88,869	1.97	159,003	2.19	159,003	2.35	178,003	2.53
Humacao	63,415	2.14	99,565	2.46	101,003	2.67	111,003	2.71
Yabucoa	12,666	1.88	30,269	2.16	48,568	2.03	39,869	2.03
Maunabo	25,911	1.67	67,827	1.65	21,689	1.89	23,120	2.20
Culebra	451	1.71	28,977	2.06	24,179	2.17	21,754	2.39
Vieques	215,000	1.95	56,288	1.98	103,003	2.24	257,003	2.47
SOUTH	1,059,601	2.03	1,090,326	1.96	1,243,346	2.02	1,040,871	2.43
Patillas	38,876	2.55	32,863	2.51	48,061	2.51	47,939	3.17
Arroyo	42,353	1.83	43,845	1.74	41,700	1.90	56,950	2.15
Guayama	145,656	2.05	142,003	2.01	107,003	1.94	106,592	2.26
Salinas	91,035	2.13	79,622	2.14	95,842	2.10	83,597	2.40
Santa Isabel	52,611	2.31	53,647	2.34	62,297	2.32	54,992	2.77
Juana Diaz	163,003	1.84	135,003	1.99	135,003	2.01	143,003	2.60
Ponce	112,003	1.96	94,244	1.93	137,003	1.67	103,003	2.16
Peñuelas	53,129	2.43	53,608	2.16	68,427	3.09	69,042	3.26
Guayanilla	21,929	1.42	54,988	1.08	80,004	1.13	69,747	1.53
Guánica	124,003	2.01	157,003	1.83	247,003	1.75	107,003	2.42
Lajas	215,003	1.81	243,500	1.78	221,003	1.85	199,003	1.99
WEST	1,349,418	1.81	1,166,148	1.86	1,031,248	1.87	999,502	2.14
Cabo Rojo	755,003	2.02	629,003	2.18	545,003	2.16	491,062	2.27
Mayaguez	105,003	1.78	107,003	1.86	94,643	1.95	87,763	2.04
Añasco	69,316	2.47	34,524	2.29	45,625	2.14	44,847	2.68
Rincón	88,355	1.82	106,003	2.09	121,003	1.94	122,003	2.58
Aguada	93,738	1.51	79,612	1.41	79,971	1.61	96,824	1.71
Aguadilla	238,003	1.23	210,003	1.33	145,003	1.43	157,003	1.54
TOTAL	3,453,424	1.88	3,327,039	1.92	3,280,994	2.01	3,559,024	2.27