DEPARTMENT OF NATURAL AND ENVIRONMENTAL RESOURCES

Final Report to the National Marine Fisheries Service NOAA

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Puerto Rico/NMFS Interjurisdictional Fisheries Program July 1, 2004 – June 30, 2007 NA04NMF4340063

by

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Submitted by Honorable Javier Velez-Arocho Secretary DNER

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SUMMARY

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 Commercial Fisheries Statistics Program (CFSP) 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 funded by the NOAA/National Marine Fisheries Service (NMFS) through the State/Federal Cooperative Fisheries Program, Interjurisdictional and DNER. The Puerto Rico/NMFS Interjurisdictional Program, Commercial Fisheries Statistics Program, NA04NMF4070184 started in July 1st 2004 and finished in June 30th, 2007. Through this project was funded the Job 1, Collection and electronic storage of the Puerto Rico Commercial Fisheries Landings. This job includes the following objectives: commercial fisheries landings reports and data entry of collected data into computer format. All the objectives for the project were reached.

A total of 1.86 millions pounds were reported in 2004, 1.57 million pounds in 2005, and 1.34 million pounds for 2006. For the period of January to June 2007, 611,346 pounds were reported, although data entry process continues and this amount would increase, when the whole calendar year is tabulated. A correction factor was estimated for non reported landings. The estimated correction factor for 2004 has been estimated as 61%, for a total of 3.06 million pounds were landed in Puerto Rico. In 2005, the correction factor was 50% and a total of 3.1 millions pounds landed. In 2006, the correction factor was 52% and total of 2.6 millions pounds were landed.

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Landings reported by species and by month in Puerto Rico during 2005

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INTRODUCTION

The objective of the Puerto Rico/NMFS Interjurisdictional Program, Commercial Fisheries Statistics Program, NA04NMF4070184 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 and the Commercial Fishery Statistics Program (CFSP) of the Department of Natural and Environmental Resources (DNER). This includes the processing and summary of monthly landings (by species or species group, weight, value, numbers of trips, hours fishing, gear type, etc.), which is need to manage marine resources effectively. Close cooperation in these activities will avoid duplication and promote efficiency of operations.

This report includes data from January 1st 2004 – June 30th 2007. Raw data form, have been submitted by e-mail to Joshua Bennett, and Steve Turner, Technical Monitor of the Research Management Division, NOAA/NMFS Southeast Fisheries Science Center, Miami, Florida.

The Puerto Rico/NMFS CSP has seven principal goals:

- 1. Collect landing 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. Disseminate data thru the NOAA/NMFS/Fisheries Information Network.

PROCEDURES

Job 1. Collection and electronic storage of the Puerto Rico Commercial Fisheries Landings

Commercial fishery landing data were collected from fishers, fish buyers and fishing associations from around Puerto Rico. Commercial fishery statistics has be submitted to DNER/CFSP as a compulsory requirement of Law Number 278 of November 29, 1998 and the PR Fishing Regulations of March 11, 2004. Four port agents and the principal investigator visited the 88 identified fishing centers at the 42 coastal municipalities including the islands of Vieques and Culebra, (Figure 1). The data collection covered from January 1st 2004 to June 30th 2007. Data were collected using a landing trip ticket system (Figure 2) on a monthly basis during

the project duration. The Trip Ticket System (only one trip reported by one ticket) was established by the CFSP starting in 2003. Efforts were made to collect the following data: fishing date; name of fish buyer, fisherman and/or helper (to avoid data duplication); fishing license number; 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. Species reported not included in the mentioned publication are added and numbered by CFSP's principal investigator. Fishers usually landed fishes in the round (not eviscerated), except the 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 determined as the total pounds per trip for landings data. Landings data were entered in MS-DOS computers, using Microsoft FoxPro and DBASE III+, checked against the original landing trip tickets; corrected and analyzed using, Microsoft FoxPro and Microsoft Excel. All data presented in this report are raw data. As in previous years (1988-2004) a correction factor was used in calculations to correct for under-reporting. During 2002-04, the correction factor was determined by port samplers visiting the most active fishing centers per coast, for five days in a row (when possible). The port samplers collect data of all landings occurred during those five days visits. Later these data was compared the landings data obtained by port samplers during these visits with data submitted by commercial fishers. This process is repeated two times per year, the difference between both data permitted to estimate the under reported data. For 2004 the correction factor was 61%, for 2005 was 50% and for 2006, it was estimated as 52%. Historical correction factors methods and results are shown in previous CFSP publications and reports as Matos-Caraballo and Sadovy (1990; 1991) and Matos-Caraballo (1992, 1993, 1995, 1998, 2001A, 2001B, 2004A, 2004B).

Other Data Users

The Puerto Rico's DNER use the collected fishery data to manage the resources. Other institution used the mentioned data to do biological and socioeconomic research. Some of the mentioned institutions were the University of Puerto Rico (UPR), Mayaguez Campus (Marine

Sciences Department and Biology Department), Humacao Campus and Río Piedras Campus. Data was also used by UPR Sea Grant College Program, NOAA/NMFS Caribbean Fisheries Management Council, NOAA Fisheries SEDAR, NOAA/NMFS Fisheries Information Network, P.R. Department of Agriculture (Agro-Statistics Division, Fisheries Development Program and Mayaguez Regional Office), Puerto Rico's Legislature, Puerto Rico's Planner Board, Government Developing Bank, Promoting Cooperative Administration, NOAA/NMFS SEFSC, Florida Fish and Wildlife Conservation Commission, Food and Agriculture Organization of the United Nations. Fishery data was also requested by three local newspapers (The San Juan Star, Primera Hora and El Nuevo Día). Also by TV news: Telemundo Channel 2, WIPR Channel 6 to provide information to the general public. Elementary, secondary school level students, and college (Metropolitan University, Interamerican University, Rhode Island University, North Carolina University, Miami University RSMAS) students requested fishery statistics data. Commercial fishing associations and fishers for personal affairs also used fishery statistics data. Private institutions use the statistics data, for example; Estudios Técnicos, ASC Group, Plasmath Corporation.

A very important note - Historical event that affected the commercial fisheries landings reported in Puerto Rico during 2004-07.

In March 12, 2004, Honorable Luis E. Rodríguez Rivera, DNER Secretary, offered a conference press to announce the establishment of Puerto Rico Fishing Regulation Number 6768. This document includes many important regulations to protect and improve the Puerto Rico's over fished resources. Closed seasons, permits for species of high value in the fisheries and size limits were establish to manage the fishery resources. On the other hand, under the previous Puerto Rico' Fishing Law, dated in May 1936, very few regulations were developed and implemented. The new fishing regulations were a drastic change to what fishers were used to, therefore making them very angry. The commercial fisher leaders decided that a protest to DNER was in order. Under the former fishing law they were not required to submit their catch data, being a cooperation with the Statistic Program. Therefore, they were used to make pressure stopping their cooperation of supplying the commercial trip tickets landings data. Thus many fishers followed the instructions from their leaders and stopped the submission of the trip tickets to the CFSP/DNER. Although the regulations were developed to conserve the fishery resources and keep the commercial fishery, most fishers felt that the regulations were to eliminate the commercial fishery. Many fishers also were hostile to the port samplers and principal investigator. Many fishers that were very friendly to CFSP personnel before the Fishing Regulation 6768, stopped the cooperation with the biostatistics data collection. The DNER started educational meetings around Puerto Rico to explained them the need of the regulations and the importance of the trip ticket information. It was also explained to them that they were affecting their status as fishing license holder, since by law to maintain their license they are required to submit their catch information to DNER. These meetings help commercial fishers to understand the true meaning of the regulations and they started to comply with the Fishing Regulations.

Two other events occurred in Puerto Rico that affects the landings fishery program.

During the spring of 2005, in approximately 4-5 weeks the cost of the gasoline increased from \$1.40/gallon to a record of \$3.20/gallon. Over 90% of fishers use gasoline motor in their fishing vessels, thus this price increase translated in a reduction in fishing trips frequency and increasing fishing time. The last event that affected the commercial fishery occurred in October 1st, 2006, when the Puerto Rico's government implemented the tax sales. Although, the fishers were exempt from the state tax sale they have to report monthly municipality sales tax. After the occurrence of this third event, the CFSP personnel observed that many part time commercial fishers retired from fisheries and some of them have become illegal fishers (no license, no sale tax, no reports to DNER).

Although these three mentioned events affected the fishery and the CFSP, port samplers and the principal investigator were able to collect biostatistics data and many fisher associations and fish stores keep submitting the trip ticket landings data.

RESULTS

Commercial Landings Data

A total of 1.86 millions pounds were reported in 2004, 1.57 million pounds in 2005, and 1.34 millions in 2006 (Table 1A, 1B and 1C). During January-June, 2007, a total of 611,346 pounds were reported, although data entry process continues and this number of pounds would increase. A total catch for calendar year 2007 corresponds to a different project period, and therefore will be reported with the corresponding report. A correction factor was estimate for the non reported landings. The correction factor for 2004 was estimated as 61%, a total of 3.06 millions of pounds were estimated being landed in Puerto Rico applying this factor. In 2005, the correction factor was 50% and a total of 3.1 millions pounds landed. In 2006 the correction factor was 52%, for a total of 2.6 million pounds landed.

A total of 32,639, trip tickets were collected during 2004; 27,404 during 2005, 23,607 during 2006; and 11,552 during January – June 2007 (Table 2). Landings were principally comprised by six species of shellfish and 43 categories of species, or families of finfish (Figure 2), although a total of 76 finfish groups and/or species and 10 shellfish species were reported by fishers (Table 3). The most important fish, in terms of percentage of total pounds landed (fish and shellfish), for 2004-07, were the yellowtail snapper (*Ocyurus chrysurus*) 7.5%; queen snapper (*Etelis oculatus*) 7.1%; silk snapper (mainly *Lutjanus vivanus*) 6.6%; lane snapper (*Lutjanus synagris*); 5.8%, various species of tuna 5.2%; white grunt (mainly *Haemulon plumieri*), 4.1%; dolphinfish (*Coryphaena hippurus*) 3.5%; king mackerel (*Scomberomorus cavalla*) 2.9%; various species of parrotfish 2.4%; various species of trunkfish 2.9%; red hinds (*Epinephelus guttatus*) reported 2.0%; and cero (*Scomberomorus regalis*) 1.5%; and (Table 1A, 1B and 1C). The most important of the shellfish species were the queen conch (*Strombus gigas*) 11.8% and the spiny lobster (*Panulirus argus*) 11.6% of the reported landings, and (Table 1A, 1B and 1C).

Matos-Caraballo (1998; 2001A; 2001B; 2004A; 2004B) mentioned that several fish and shellfish species, usually discarded by fishers in the past, have now become commercial species. These species did not have market value years ago, but are now sold at reasonable prices. The Table 1A, 1B and 1C shows that the squirrelfish (e.g. *Holocentrus ascensionis* and *H. rufus*) were sold in 2004-06 at an average price of \$1.33 per pound. Shellfish species in the same situation are *Carpilius corallinus* and *Mythrax spp* (Table 3). 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 Thomas and Saint Croix, USVI.

During 2004-06, prices varied markedly by species (Tables 1A, 1B and 1C) and municipality (Table 4). For example, the lowest average price per pound for fish and shellfish was obtained on the east coast, in the municipality of Yabucoa at \$1.23 during 2004 (Table 4), and the highest average price was obtained in the North Coast, in the municipality of Luquillo at \$5.40, however only 43 pounds were reported (Table 4). The highest fish price value during 2004-06, was the deep water snappers silk snapper and queen snapper, \$3.46 and \$3.42 per pound in 2006, respectively (Table 4). The most valued shellfish during 2004-06, were the land crab \$11.2 per pound during 2004 (Table 1A), and the spiny lobsters, \$6.07 per pound during 2006 (Table 1C). However, port sampler observed that the land crab landings reported were too low in number of pounds and the price. The port samplers mentioned that land crab fishers are mostly opportunistic, did not have permit, thus they did not report to CFSP. The price of land crab ranged between \$30.00 to \$40.00 per dozen (approximately one pound of meat). The most productive of the 42 municipalities during 2004-06, was Cabo Rojo accounting for 25.2% of the total landings, by weight (Table 4). The west coast reported 51.1% of the total weight, being the most productive; followed by the south coast that reported 25.1%. The east coast reported 16.5% and the north coast was the lowest with 7.3% (Tables 1A, 1B and 1C).

The gear types are defined in Matos and Torres, 1989. The highest percentage of landing, by weight during 2004-06, were lines (hand line, troll line, long line and rod and line together) capturing 43.9.0% (2,097,080 pounds) of the total catch (Table 5A, 5B and 5C). Lines were followed by divers (skin and SCUBA) that caught 24.8% (1,181,641 pounds), followed by traps (fish trap and lobster trap) with 18.6% (888,156 pounds) of total catch. Traps were followed by nets 12.7% (608,468 pounds) of the total reported catch (Table 5A, 5B and 5C).

Landings reported during 2004-06, by species and by month are in Tables 6A, 6B and 6C. Some species were reported in greater quantities in some months of the year. The dolphinfish were caught mostly during January to April (Table 6A, 6B and 6C), which corresponds to the months when they migrate close to Puerto Rico. The tunas (Scombridae) were caught in greater quantities during May–September, reflecting their migration. Yellowtail snappers were caught in great quantities year round, showing peaks during January-April and August-September (Tables 6A, 6B and 6C). Fishing activity was affected during the hurricane season, especially during August and September. In August and September 2004-06, many hurricanes and storms passed close to Puerto Rico, affecting the whole coastal areas with surge wave action, winds and rain that produced flooded areas. These conditions resulted in a decrease in commercial fishing effort.

Fishing trips are generally of half-day duration. The CPUE average for landings/trip during 2004-06, was reported in Table 7A, 7B, 7C. In 2004, the average CPUE was 62.23 pounds per trip (Tables 7A). In 2005, the average CPUE was 61.06 pounds per trip (Table 7B) and for 2006, was 59.04 pounds per trip (Table 7C). The months of February, March and April have higher average CPUE landings per trip (Table 7A, 7B and 7C), probably due to the Lent, this tradition involve an increase in human fish consumption. Table 7D shows the CPUE average landings per trip by coast during the 2004-06. The results show that the east coast obtained the highest CPUE during this period.

DISCUSSION

Commercial Landings Data

Commercial landings reported data have been around two millions pounds from 1987-94 (Matos-Caraballo, in press a). Throughout 1997-2000, it was observed that fishers cooperated more with the Statistics Program, resulting in 3.8, 3.5 and 3.3 millions pounds reported. One possible reason to explain the increased landings would be the increases of 500 more active commercial fishers that cooperated with FSP during 1987-94 (Matos-Caraballo, 1996; 2004A). Also, the increase in participation occurred because the PRDNER and the Puerto Rico Department of Agriculture provided economical help to fishers who regularly cooperated with the FSP (Matos-Caraballo, 2004A). 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 1987-96, an indication of over fishing is observed. During 2001-02 it was observed that 86% of the active commercial fishers cooperated with the CFSP. This resulted in over 3 millions pounds reported. However, in 2003, a drastic reduction in landings was reported to 2.38 millions of pounds. Two reasons were observed that explain this reduction. First, the fishers cooperation decreased from 2001-02 of 86% to 56% in 2003 (Matos-Caraballo, 2004A). The mentioned reduction occurred because the CFSP required a trip ticket system and many fishers prefers to report the whole month in a single trip ticket. Many did not report for the mentioned reason. However, many fishers that initially resisted the change at the end of the 2003 started to cooperate with CFSP. Second, since 1996 to 2002, commercial fishery had a reduction of approximately 600 active commercial fishers (Matos-Caraballo, et. al., 2005). Due to limited fishery resources many commercial fishers change to work on construction, agriculture or migrate to work in the continental USA (Matos-Caraballo, et. al., 2005).

During 2004-06, reported a decreased in landings to 1.8-1.3 million pounds. The Puerto Rico's Fishing Regulation 6768 was implemented in March 12th, 2004, affecting significantly the cooperation of the commercial fishers. The commercial fisher's leaders ordered fishers to stop report to the DNER/CFSP. The result was that 61% of the landings were reported in 2004, 50% in 2005 and 52% in 2006. Figure 3 shows the landings reported historically since 1971-2006 and Figure 4 shows the estimated landings using the correction factor for the same period. Both figures showed a decrease since 2001-2006. The decrease observed occurred probably due to

two factors. First, the over fished resources might be responsible for a reduction of 600 commercial fishers during 1996-2002 (Matos-Caraballo, 2005). Second, the Fishing Regulation 6768, establishes close seasons for mutton snapper, red hind, silk snapper and minimum size limits to several important commercial species, resulting in more commercial fishers out of the fishery and reduce the number of pounds landed. If the regulations will be enforced it is expected a significant improve in the Puerto Rico fishery stocks in the future.

Landings reported by species for 2004-2006, showed that snappers, grunts, groupers, tunas, parrotfishes, mackerels, dolphinfish and trunkfishes were the most reported groups by weight in the commercial fisheries. This CFSP has been successful to educate commercial fishers to report by species the group of deep water snappers, instead of silk snapper. In previous reports four species were reported as silk snapper. In those reports it was mentioned that 90% of the silk snapper landed were juveniles (below 420mm FL). The Fishing Regulation 6768 established a minimum legal size for silk snapper of 420 mm FL, as a result of this regulation many commercial fishers stopped catching this species. This fact explains why the queen snapper was the deep water snapper most landed in pounds during 2004 and 2005. On the other hand, the fishers requested the DNER's Secretary to change the silk snapper minimum size of 420mm FL for a closed season during October-December. The DNER Secretary accepted the recommendation and is in effect since April 2007.

Snappers (Lutjanidae) is the main fish category in pounds landed and price per pound caught in Puerto Rico's in the commercial fishery during 2001-2004. The lobster and queen conch were the most important shellfish in pounds landed and price per pound. CFSP personnel observed a reduction in landing of illegal spiny lobster under the legal size of 3.5 inches carapace length. SCUBA divers reported to CFSP that they were diving at 60-120 feet to catch queen conch. The shallow water population of this specie has been over exploited. DNER has a close season for queen conch (July 1st- September 30th) and a quota (150 queen conch per fisher or 450 queen conch per vessel per day). The Caribbean Fishery Management Council close the queen conch fishery in federal waters in 2006.

CFSP personnel observed that all closed season (queen conch, land crab, red hind and mutton snapper) should be enforced more frequently because many fishers continue to catch close season species.

The fish market of Saint Croix and Saint Thomas USVI, purchase the Vieques landings of *Acanthurus spp, Holocanthus ciliaris, Pomacanthus. arcuatus, Pomacanthus paru* and many juvenile reef fish species. The mentioned species are subject to severe fishing pressure. Thus, the CFSP must continue to monitor the exploitation of these resources.

Since 1968-99, the municipality of Cabo Rojo and the West coast had been the most productive municipality and coast respectively (Weiler and Suárez-Caabro, 1980; Collazo and Calderón, 1988; Matos-Caraballo and Sadovy, 1990 and 1991; Matos-Caraballo, 1993; 1998, 2001 A;2001B). In 2000, the south coast reported 268,923 more pounds than the west coast. This result can be associated with the silk snapper fishery and the over fished resources of the

west coast. During 2001-03, the west coast reported 31.0% and the south coast reported 30.6% (Matos-Caraballo, 2004A). During 2004-06, the west coast and Cabo Rojo returned to be the most productive municipality and coast, respectively. The CFSP personnel observed that Cabo Rojo and the municipalities of the west coast have more full time fishers that produce more fish trips than other coasts.

Various storms and hurricanes passed close to Puerto Rico during August and September 2004-06. The mentioned storms caused ocean surge action affecting negatively the fishing activity. However thanks to the good Lord, no hurricane has impacted directly Puerto Rico since 1998, thus the negative factor has not be as with Hurricane Georges (Matos-Caraballo, 2004A; 2004B).

Traps catches accounted for 22.4% of the total landings during 1997-99 (Matos-Caraballo, 2001A; 2001B). During 2000, traps catches reported 19.6%, exceeded by lines (40.0%), nets (19.7%) and diving (20.5). During 2001-04 traps reported 22.1% (Matos-Caraballo, 2004A). During 2004-06, the fish trap accounted for only 18.6%. That means this gear landings decreased during this project. CFSP's personnel observed that no new commercial fisher enter in the fish trap fishery and most of the fish trappers are over 50 years old. Another possible explanation is the low catch of this gear and the high cost of the traps. The fishers entering the fishery are using SCUBA diving gear. However, during 1982 fish traps alone caught 71.2% of the total pounds reported (Collazo and Calderón, 1988), decreasing during the late 1980's to 22%-25% during the last 10 years. On the other hand, an increasing trend was observed in the percentage of reported landings taken by all lines combined, when compared with year 1982, in which the percentage was 12.4% (Collazo and Calderón, 1988) to 40.0% during 2000-04 (Matos-Caraballo, 2004A). During 2004-06, the lines increased to 43.9%. The gill nets and trammel nets caught 2.7% in 1982 (Collazo and Calderón, 1988), while in 1997-99 they caught 21.9%, although decreased to 18.3 during 2001-03 (Matos-Caraballo, 2004B). During 2004-06, nets catch shown a decrease to only 12.7% of total catch. This decrease occurred for two main reasons. First, port samplers and principal investigator reported that many trammel net and gill net fishers retired from the commercial fishery, probably because the over fished resource did not produce the expected profit and the enactment of the Fishing Regulation 6768. Second, the Fishing Regulation 6768, forbidden the use of beach seine three years after the establishment of the fishing regulations (March 12th, 2007). Diving shows a trend to increase. Principal Investigator and port agents observed that approximately 90% of the new and young commercial fishers are divers. This observation resulted in the fact that diving was the third most productive gear category in landings reported during 2001-03 (Matos-Caraballo, 2004B), During 2004-06 continue increasing to be the second more productive gear reporting 24.8% of total landings. It is expected that the percentage of divers will increase in the following years. On the other hand, many young divers are not certified and many accidents had been reported, unfortunately some accidents were fatal.

During 2001-03, the CPUE in pounds reported by trip was steady, 71 pounds/trip in 2001, 63 in 2002 and 61 in 2003 (Matos-Caraballo, 2004A). In 1995 the annual average pounds per trip was 80. In 1996, the annual average pounds per trip were 63. In 1997, the annual

average pounds per trip were 72 (Matos-Caraballo, 1998). On the other hand the result for 1998 was 54 pounds annual average pounds per trip and 53 for 1999 (Matos-Caraballo, 2004B). In 2000, the annual average pound per trip was 71. During 2004-06, the CPUE decrease from 62.23 pounds/trip in 2004, to 59.04 pounds /trip in 2006. Commercial fishers mentioned that due to the increase in gasoline cost they decrease the number of trips and increase the fishing hours to capitalize the fishing expenses. This fact might explain the decrease in the observed CPUE. The CFSP will continue to monitor this trend in CPUE in the future.

CONCLUSION

Since 1987, Puerto Rico's reported landings of fish and shellfish have continued to be in the vicinity of 2-3 million pounds. 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 1995-2002, reported landings ranged between 3,617,039 to 3,895,980 pounds of fish and shellfish. In 2003, a decrease in landings reported occurred mainly due to the CFSP change to trip ticket system. During 2004-06, a decrease was observed, probably due to the decrease in active commercial fishers and the enactment of the PR Fishing Regulations 6768, which established close seasons and minimum legal size for many species. The mentioned regulations and the establishment of the sales tax resulted in the retirement of many active commercial fishers. On the other hand, if the fishing regulations are properly enforced, it is expected a recuperation of the over fished resources of Puerto Rico. The landings shows a steady decreased in landings since 1997-2006.

During the 70's the traps were the most productive gear. During 2004-06, the traps were the third more productive gear with 18.61% of the total pounds reported. Lines and divers were the most productive gears during 2004-06. SCUBA diver was the fishing gear that recruits more young fishers. A definitely change from passive to active gears has been observed 1997.

The DNER needs to increase the surveillance during the close seasons for the queen conch, red hind, mutton snapper and land crab.

After the analysis of these facts, it is concluded that during 2004-06, the Puerto Rico's fishery resources receive less fishing pressure due to the establishment of the Fishing Regulation 6768. These regulations resulted in a decrease in active commercial fishers. The CFSP will conduct a fishery census to determine the number of active commercial fishers at the present time. Also, the CFSP will continue to collect landings, biostatistics, effort data of the Puerto Rico's fishery to help DNER and NOAA to do a responsible management of the fishery resources.

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TABLE 1A. LANDING SPECIES FISH	NORTH		EAST		SOUTH		WEST		TOTAL	
SI LCILS I ISII	POUNDS	*P/P								
Tunas	1001(20		1001125	1/1	1001125	1,1	1001125	/ -	1001125	
Blackfin tuna	530	1.93	317	1.73	216	1.53	27,940	1.60	29,003	1.17
Little tunny	652	1.81	25	2.00	827	0.94	11,948	0.90	13,452	1.03
Skipjack tuna	346	2.02	569	2.74	487	1.54	20,994	0.84	22,396	1.07
Yellowfin tuna	562	2.05	503	2.84	98	1.57	14,390	1.11	15,553	1.35
Tuna category	883	2.15	1,154	1.64	239	1.59	6,698	0.99	8,974	1.29
Ballyhoo	2,138	1.29	5,872	1.33	13,692	1.15	5,087	1.05	26,789	1.19
White Grunt	3,469	1.71	16,662	1.42	34,118	1.65	35,064	0.85	89,313	1.40
Hogfish	277	2.89	17,057	2.19	12,065	2.74	10,477	2.48	39,876	2.51
Trunkfish	471	2.89	11,580	1.53	16,200	1.67	24,076	2.00	52,327	1.80
Dolphinfish	10,176	2.66	2,417	2.38	12,786	1.96	50,948	1.47	76,327	1.71
Squirrelfishes	1,291	1.09	1,100	1.61	4,361	1.31	360	1.22	7,112	1.33
Mullets	7,604	1.25	1,555	1.43	10,184	1.19	7,550	0.92	26,893	1.15
Jacks										
Bar jack	4,403	1.92	5,805	1.41	8,880	1.61	14,715	1.08	33,803	1.44
Horse-eye jack	701	1.73	85	1.92	126	1.32	988	1.05	1,900	1.43
Yellow jack	8	3.00	30	1.13	142	1.41	526	1.44	706	1.44
Jack Category	6,741	1.73	953	1.80	1,311	1.16	7,537	1.13	16,542	1.51
Parrotfishes	1,404	1.97	5,644	1.67	31,256	1.64	13,375	0.91	51,679	1.55
Groupers										
Coney	725	2.12	1,817	2.08	2,292	2.09	3,024	1.84	7,858	1.99
Red hind	3,158	2.72	8,733	2.23	10,473	2.31	20,720	1.93	43,084	2.17
Misty grouper	138	3.33	485	2.02	299	2.55	3,864	2.24	4,786	2.22
Nassau grouper	313	1.98	1,539	2.31	285	1.52	2,093	1.51	4,230	1.85
Yellowfin grouper	66	2.21	608	2.04	81	2.61	1,433	1.86	2,188	2.04
Grouper category	2,264	2.57	6,262	2.23	10,034	2.31	7,377	1.92	25,937	2.18

SPECIES FISH	NORTH		EAST		SOUTH		WEST		TOTAL	
	POUNDS	*P/P	POUNDS	*P/P	POUNDS	*P/P	POUNDS	*P/P	POUNDS	*P/P
Mojarras	3,435	1.76	1,004	1.54	921	1.53	1,012	1.05	6,372	1.55
Snappers										
Lane snapper	3,954	2.61	11,690	2.26	55,174	2.16	28,371	2.02	99,189	2.14
Yellowtail snapper	36,374	2.52	44,235	2.31	37,542	2.15	32,475	1.86	150,626	2.1
Silk snapper	17,133	3.13	8,701	3.01	9,799	3.44	83,233	2.98	118,866	3.0
Mutton snapper	2,764	2.63	11,680	2.33	16,478	2.18	16,136	2.11	47,058	2.2
Queen snapper	3,490	3.40	1,359	2.88	2,855	3.62	71,840	3.21	79,544	3.2
Vermillion snapper	4,715	2.45	3,887	2.11	432	2.60	515	2.52	9,549	2.3
Wenchman	473	3.12	709	1.89	619	3.53	4,476	3.25	6,277	2.9
Blackfin snapper	446	3.33	697	3.15	664	3.49	1,586	2.68	3,393	3.1
Snapper category	3,580	2.75	4,326	2.35	11,563	2.24	10,089	2.39	29,558	2.4
Triggerfishes	2,309	2.02	8,790	1.45	14,009	1.79	18,002	1.22	43,110	1.4
Barracudas	1,352	1.65	517	1.66	3,228	1.59	2,265	1.18	7,362	1.5
Porgies	435	1.61	4,974	1.58	9,747	1.69	2,746	1.33	17,902	1.5
Snooks	6,911	1.96	2,774	1.78	3,129	1.56	5,825	1.51	18,639	1.7
Tarpon	564	1.07	0	0.00	8	1.00	180	1.70	752	1.1
Goatfishes	292	1.82	3,921	2.04	3,183	2.04	868	1.12	8,264	1.8
Sardines	11,067	1.02	476	1.13	478	1.00	2,263	1.13	14,284	1.0
Mackerel	6,075	1.89	13,429	2.34	6,185	1.96	26,940	1.79	52,629	1.9
Cero	2,501	2.15	5,023	2.34	7,921	2.01	4,301	1.96	19,746	2.1
Sharks	3,397	1.83	6,130	1.90	1,732	1.79	3,826	1.29	15,085	1.6
Wahoo	25	2.00	447	3.48	185	1.78	3,879	1.59	4,536	1.7
CLASSIFFIED										·
First Class	33	2.00	11,711	2.05	1,922	2.02	8,289	2.00	21,955	2.0
Second Class	0	0.00	2,102	1.69	3,396	1.28	6,529	0.94	12,027	1.0
Third Class	8	1.00	8,026	1.15	215	1.50	0	0.00	8,249	1.1
Trash	0	0.00	0	0.00	0	0.00	0	0.00	0	0.0

TABLE 1A. LANDINGS	REPORTED	BY SP	ECIES AND	BY CO	AST IN PUE	RTO R	ICO DURIN	G 2004	.	
SPECIES FISH	NORTH		EAST		SOUTH		WEST		TOTAL	
	POUNDS	*P/P	POUNDS	*P/P	POUNDS	*P/P	POUNDS	*P/P	POUNDS	*P/P
Other fishes	2,943	2.10	924	2.09	2,684	2.02	6,590	1.83	13,141	1.93
Total Fishes	162,596	1.90	248,304	1.60	364,521	1.56	633,420	1.43	1,408,841	1.95
SHELLFISH										
Conch	60	3.50	57,772	2.50	25,679	3.31	132,529	2.13	216,040	2.42
Land crab	194	13.80	884	15.00	86	9.43	237	2.59	1,401	11.20
Lobster	3,734	6.61	47,796	5.96	70,085	5.96	90,611	5.31	212,226	5.58
Octopus	608	2.46	841	2.87	16,934	2.59	1,789	2.09	20,172	2.52
Other shellfish	856	2.10	586	2.09	2,523	2.02	2,035	1.83	6,000	1.93
Total Shellfish	5,452	5.90	107,879	5.04	115,307	4.61	227,201	3.98	455,839	4.40
TOTAL	168,048	2.03	356,183	2.16	479,828	2.09	860,621	1.96	1,864,680	2.46

^{*} P/P = Average Price Per Pound in U.S. Dollar.

SPECIES	NORTH		EAST		SOUTH		WEST		TOTAL	
STECIES	Pounds	*P/P								
FISH										
Tunas										
Blackfin tuna	840	1.37	692	1.62	438	1.73	20,069	1.06	22,039	1.45
Little tunny	2,345	1.19	0	0.00	37	2.75	5,714	1.03	8,096	1.24
Skipjack tuna	456	1.62	327	1.96	246	2.08	24,820	0.83	25,849	1.62
Yellowfin tuna	518	1.91	517	1.54	284	2.07	19,915	1.11	21,234	1.66
Tuna category	927	2.16	1,554	1.70	12	1.50	3,222	1.15	5,715	1.63
Ballyhoo	1,312	1.39	436	1.55	6,293	1.10	9,091	0.60	17,132	1.16
White Grunt	1,791	1.76	13,060	1.58	21,955	1.68	16,869	0.94	53,675	1.49
Hogfish	155	3.22	5,506	2.30	9,359	2.58	10,871	2.67	25,891	2.69
Trunkfish	90	2.63	7,626	1.60	13,949	1.57	22,931	2.05	44,596	1.96
Dolphinfish	4,956	2.52	1,086	2.10	7,888	1.97	28,883	1.58	42,813	2.04
Squirrelfishes	803	1.07	1,102	1.69	3,444	1.35	534	0.97	5,883	1.27
Mullets	3,533	1.29	1,000	1.65	7,757	1.25	3,233	1.05	15,523	1.31
Jacks										
Bar jack	2,894	1.96	5,201	1.67	7,951	1.51	6,598	1.31	22,644	1.61
Horse-eye jack	755	1.54	183	1.89	129	1.43	658	1.11	1,725	1.49
Yellow jack	30	1.75	28	2.00	25	1.72	444	1.07	527	1.64
Jack Category	1,114	1.77	2,959	1.72	906	1.48	2,734	1.29	7,713	1.57
Parrotfishes	1,160	1.86	3,974	1.80	15,543	1.68	10,455	0.94	31,132	1.57
Groupers										
Coney	206	2.18	479	2.09	1,295	2.13	2,226	1.94	4,206	2.09
Red hind	1,766	2.47	4,102	2.39	3,957	2.41	19,235	1.96	29,060	2.31
Misty grouper	93	2.60	436	2.00	85	2.57	6,781	2.39	7,395	2.39
Nassau grouper	98	2.23	469	1.87	172	1.59	1,258	1.41	1,997	1.78
Yellowfin										
grouper	4	3.00	514	2.02	83	2.30	151	2.00	752	2.33
Grouper category	2,366	2.60	1,214	2.37	6,204	2.36	5,797	2.10	15,581	2.36
Mojarras	1,327	2.01	977	2.03	792	1.52	516	1.55	3,612	1.78

SPECIES	NORTH		EAST		SOUTH		WEST		TOTAL	
	Pounds	*P/P	Pounds	*P/P	Pounds	*P/P	Pounds	*P/P	Pounds	*P/P
Snappers										
Lane snapper	2,020	2.54	9,713	2.30	51,574	2.20	24,882	2.12	88,189	2.29
Yellowtail snapper	24,722	2.51	37,462	2.47	29,740	2.23	23,032	2.02	114,956	2.31
Silk snapper	11,493	3.16	9,433	3.76	6,668	3.62	82,863	2.93	110,457	3.37
Mutton snapper	3,214	2.55	3,480	2.46	12,038	2.22	14,737	2.24	33,469	2.37
Queen snapper	2,047	3.69	2,380	2.91	2,348	3.70	149,973	2.89	156,748	3.30
Vermillion snapper	1,886	2.35	2,942	1.95	363	3.29	654	2.54	5,845	2.53
Wenchman	324	2.98	436	1.66	1,151	3.51	9,462	2.70	11,373	2.71
Blackfin snapper	88	2.63	626	3.07	762	3.50	1,421	2.18	2,897	2.85
Snapper category	3,052	2.50	4,668	2.33	9,553	2.12	8,285	2.03	25,558	2.25
Triggerfishes	1,161	1.97	3,505	1.66	10,932	1.72	16,562	1.27	32,160	1.66
Barracudas	759	1.85	330	2.21	2,322	1.68	1,716	1.43	5,127	1.79
Porgies	138	2.19	3,585	1.50	6,897	1.72	1,420	1.59	12,040	1.75
Snooks	1,136	1.89	1,386	2.03	2,080	1.83	3,523	1.66	8,125	1.85
Tarpon	28	0.88	0	0.00	0	0.00	0	0.00	28	0.22
Goatfishes	25	1.83	2,773	2.10	2,576	1.71	544	1.21	5,918	1.71
Sardines	8,042	1.04	369	1.19	727	1.27	1,678	1.85	10,816	1.34
King mackarel	13,114	2.06	3,337	2.44	9,693	1.82	20,782	1.86	46,926	2.05
Cero	3,707	2.12	6,306	2.15	16,394	1.68	3,684	1.97	30,091	1.98
Sharks	6,018	1.82	5,307	2.08	2,533	1.73	3,538	1.17	17,396	1.70
Wahoo	21	3.50	19	2.75	185	1.42	2,920	1.54	3,145	2.30
CLASSIFFIED										
First Class	0	0.00	3,677	2.05	2,115	1.75	4,077	1.94	9,869	1.44
Second Class	0	0.00	1,917	1.00	455	1.00	1,837	0.94	4,209	0.74
Third Class	2	3.00	1,363	1.21	0	0.00	3	0.75	1,368	1.24
Trash	0	0.00	0	0.00	32	0.75	40	0.90	72	0.41
Other fishes	60	2.25	11,096	2.46	3,029	2.73	10,850	1.62	25,035	2.27
Total Fishes	112,596	1.79	169,552	1.81	282,971	1.58	611,488	1.47	1,176,607	1.66

TABLE 1B. LANDI	NGS REPO	RTED	BY SPEC	CIES A	ND COAS	Γ IN PU	JERTO R	ICO IN	2005.	
SPECIES	NORTH		EAST		SOUTH		WEST		TOTAL	
	Pounds *P/P		Pounds	*P/P	Pounds	*P/P	Pounds	*P/P	Pounds	*P/P
SHELLFISH										
Conch	397	3.94	35,935	2.76	18,595	3.62	140,626	2.22	195,553	3.14
Land crab	308	7.29	1,069	6.05	1,094	3.06	1,805	6.54	4,276	5.74
Lobster	3,834	6.58	29,975	5.54	56,128	5.62	83,036	5.30	172,973	5.76
Octopus	39	2.92	231	2.89	7,739	2.68	1,591	2.00	9,600	2.62
Other shellfish	816	3.15	1,078	3.14	2,396	4.07	5,736	2.05	10,026	3.10
Total Shellfish	5,394	5.99	68,288	4.61	85,952	4.74	232,794	3.98	392,428	4.83
TOTAL	117,990	1.95	237,840	2.19	368,923	2.14	844,282	2.06	1,569,035	2.09

^{*} P/P = Average Price Per Pound in U.S. Dollar.

SPECIES	NORTH		EAST		SOUTH		WEST		TOTAL	
	POUNDS	*P/P								
FISH										
Tunas										
Blackfin tuna	93	2.11	263	2.16	219	1.58	19,912	1.08	20,487	1.7
Little tunny	1,232	1.15	0	0.00	600	1.46	6,779	0.98	8,611	0.9
Skipjack tuna	61	1.03	36	2.38	233	2.29	22,157	0.80	22,487	1.6
Yellowfin tuna	370	1.89	508	2.25	1,700	2.04	18,162	1.13	20,740	1.8
Tuna category	1,902	1.42	1,248	2.24	588	2.04	1,997	0.98	5,735	1.6
Ballyhoo	54	1.75	740	1.51	3,763	1.39	11,667	0.81	16,224	1.3
White Grunt	936	1.93	10,849	1.65	15,548	1.80	24,380	1.30	51,713	1.6
Hogfish	121	3.50	7,367	2.27	9,701	2.83	11,012	2.83	28,201	2.8
Trunkfish	13	2.00	5,776	1.74	11,240	1.76	22,929	2.16	39,958	1.9
Dolphinfish	6,122	2.27	966	2.08	7,169	3.27	33,127	1.69	47,384	2.3
Squirrelfishes	458	1.18	761	1.72	2,998	1.38	306	1.05	4,523	1.3
Mullets	770	1.28	548	1.55	7,966	1.24	3,524	1.29	12,808	1.3
Jacks										
Bar jack	810	1.88	3,284	1.49	3,922	1.45	8,671	1.14	16,687	1.4
Horse-eye jack	260	1.75	29	2.00	15	0.78	692	1.02	996	1.3
Yellow jack	27	2.00	0	0.00	147	1.82	76	1.75	250	1.3
Jack Category	1,753	1.79	565	1.57	842	1.37	3,622	1.12	6,782	1.4
Parrotfishes	318	1.88	2,725	1.83	19,861	1.71	9,109	1.53	32,013	1.7
Groupers										
Coney	22	2.60	161	2.18	911	2.10	3,880	1.60	4,974	2.1
Red hind	360	2.49	2,161	2.46	2,468	2.52	17,299	2.08	22,288	2.3
Misty grouper	12	2.67	522	2.00	582	3.17	4,477	2.58	5,593	2.6
Nassau grouper	6	2.00	169	2.71	28	2.20	1,547	1.49	1,750	2.1
Yellowfin	0	0.00	604	2.04	134	1.63	237	2.00	975	1.4

SPECIES	NORTH		EAST		SOUTH		WEST		TOTAL	
	POUNDS	*P/P	POUNDS	*P/P	POUNDS	*P/P	POUNDS	*P/P	POUNDS	*P/P
grouper										
Grouper category	709	2.53	3,664	2.26	2,639	2.51	7,607	2.13	14,619	2.36
Mojarras	518	1.60	329	2.02	922	1.45	188	1.71	1,957	1.70
Snappers										
Lane snapper	1,037	2.33	13,205	2.33	47,886	2.28	25,078	2.17	87,206	2.28
Yellowtail snapper	13,520	2.51	27,721	2.45	24,864	2.32	27,789	2.13	93,894	2.33
Silk snapper	5,886	3.14	9,843	3.75	9,100	3.87	58,482	3.09	83,311	3.4
Mutton snapper	1,035	2.48	3,030	2.49	7,300	2.33	14,118	2.31	25,483	2.4
Queen snapper	1,338	3.82	828	2.60	2,590	3.89	98,126	3.37	102,882	3.4
Vermillion snapper	1,396	2.51	869	1.82	350	2.59	536	2.72	3,151	2.4
Wenchman	277	3.09	396	1.72	440	4.37	2,775	3.38	3,888	3.1
Blackfin snapper	112	2.68	429	2.77	540	3.93	2,379	2.38	3,460	2.9
Snapper category	1,907	2.66	4,715	2.29	7,029	2.16	6,557	2.15	20,208	2.3
Triggerfishes	466	1.62	3,321	1.68	10,261	1.90	13,460	1.33	27,508	1.6
Barracudas	578	1.81	184	2.07	2,257	1.67	2,035	1.59	5,054	1.7
Porgies	47	2.50	3,092	1.56	5,057	1.93	779	1.40	8,975	1.8
Snooks	1,581	2.11	1,028	1.78	2,414	1.73	3,828	1.77	8,851	1.8
Tarpon	0	0.00	0	0.00	0	0.00	32	1.13	32	0.2
Goatfishes	34	1.71	1,737	2.08	2,669	2.16	286	1.17	4,726	1.7
Sardines	2,134	1.22	216	1.06	1,369	1.33	2,023	0.84	5,742	1.1
Mackerel	2,917	2.01	9,605	2.53	4,243	1.82	19,929	1.88	36,694	2.0
Cero	2,105	2.09	1,573	2.36	16,122	1.71	4,248	1.94	24,048	2.0
Sharks	4,574	1.69	4,200	2.08	3,614	1.71	9,975	1.50	22,363	1.7
Wahoo	97	1.92	0	0.00	267	2.18	4,020	1.71	4,384	1.4
CLASSIFFIED										

TABLE 1C. LAND	INGS REPO	RTED BY	SPECIES A	ND COAS	ST IN PUER	TO RICO	O IN 2006.			
SPECIES	NORTH		EAST		SOUTH		WEST		TOTAL	
	POUNDS	*P/P	POUNDS	*P/P	POUNDS	*P/P	POUNDS	*P/P	POUNDS	*P/P
First Class	0	0.00	2,220	2.11	10	2.00	2,604	1.94	4,834	1.51
Second Class	0	0.00	1,624	1.30	19	1.00	1,022	0.98	2,665	0.82
Third Class	0	0.00	343	1.24	0	0.00	0	0.00	343	0.31
Trash	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Other fishes	2,051		75		6,794		7,384		16,304	
Total Fishes	60,019	1.87	133,529	1.86	249,391	1.77	540,822	1.61	983,761	1.78
			0		0		0			
SHELLFISH										
Conch	126	3.50	32,170	3.14	15,734	4.51	105,431	3.18	153,461	3.58
Land crab	216	6.02	102	8.03	4,457	6.06	302	7.54	5,077	6.91
Lobster	1,620	6.76	27,060	6.05	57,149	5.81	83,269	5.66	169,098	6.07
Octopus	0	0.00	692	4.29	16,818	3.03	2,521	2.23	20,031	2.39
Other shellfish	140	3.00	621	2.83	2,840	4.29	3,895	2.44	7,496	3.14
Total Shellfish	2,102	6.14	60,645	5.02	96,998	5.11	195,418	4.56	355,163	5.21
TOTAL	62,121	2.02	194,174	2.34	346,389	2.66	736,240	2.37	1,338,924	2.35

^{*} P/P = Average Price Per Pound in U.S. Dollar.

	TRIP TICKETS COLLEC	TED IN PUERTO RICO) BY MONTH FROM JA	ANUARY 2004 TO
MARCH 2007.		T	T	T
MONTH	2004	2005	2006	2007
	NUMBER OF	NUMBER OF	NUMBER OF	NUMBER OF
	TICKETS	TICKETS	TICKETS	TICKETS
JANUARY	3,611	1,513	2,460	1,817
FEBRUARY	3,049	1,633	2,539	1,607
MARCH	2,950	2,996	2,491	2,229
APRIL	3,057	3,158	1,974	2,102
MAY	2,737	2,914	2,298	2,032
JUNE	2,591	2,922	2,155	1,765
JULY	2,513	2,669	1,996	
AUGUST	2,598	3,009	2,192	
SEPTEMBER	2,193	2,522	2,192	
OCTOBER	2,875	2,059	2,144	
NOVEMBER	2,223	1,594	1,919	
DECEMBER	2,280	927	1,624	
TOTAL	32,677	27,916	25,984	11,552

TABLE 3. LIST OF FISH AND SHELLFISH REPORTED IN PUERTO RICO LANDINGS DATA DURING 2004-07.												
FAMILY	GENUS	SPECIES										
Albulidae	Albula	vulpes										
Balistidae	Balistes	vetula										
Belonidae	Ablennes	hians										
Belonidae	Tylosurus	crocodilus										
Carangidae	Caranx	bartholomaei										
Carangidae	Caranx	crysos										
Carangidae	Caranx	latus										
Carangidae	Caranx	ruber										
Carangidae	Chloroscombrus	chrysurus										
Carangidae	Selar	crumenophthalmus										
Carangidae	Seriola	rivoliana										
Carangidae	Trachinotus	falcatus										
Carangidae	Vomer	setapinnis										
Carangidae												
Carcharhinidae	Prionace	glauca										
Centrarchidae	Lepomis	macrochirus										
Centropomidae	Centropomus	parallelus										
Centropomidae	Centropomus	undecimalis										
Clupeidae												
Coryphaenidae	Coryphaena	hippurus										
Coryphaenidae												
Dasyatidae	Dasyatis	americana										
Elopidae	Megalops	atlanticus										
Elopidae												
Exocoetidae	Hemiramphus	brasiliensis										
Gerreidae												
Holocentridae	Holocentrus	ascensionis										
Kyphosidae												
Labridae	Lachnolaimus	maximus										

	TABLE 3. LIST OF FISH AND SHELLFISH REPORTED IN PUERTO RICO LANDINGS DATA DURING 2004-07.											
FAMILY	GENUS	SPECIES										
Lamnidae												
Lutjanidae	Apsilus	dentatus										
Lutjanidae	Etelis	oculatus										
Lutjanidae	Lutjanus	analis										
Lutjanidae	Lutjanus	buccanella										
Lutjanidae	Lutjanus	synagris										
Lutjanidae	Lutjanus	vivanus										
Lutjanidae	Ocyurus	chrysurus										
Lutjanidae	Pristipomoides	macrophtalmus										
Lutjanidae	Rhomboplites	aurorubens										
Lutjanidae												
Mobulidae	Manta	birostris										
Mugilidae	Mugil	curema										
Mullidae	Mulloidichthys	martinicus										
Mullidae	Pseudupeneus	maculatus										
Ostraciidae												
Pomadasydae	Haemulon	album										
Pomadasydae	Haemulon	plumieri										
Scaridae												
Sciaenidae	Micropogonias	furnieri										
Sciaenidae	Odontoscion	dentex										
Scombridae	Acanthocybium	solanderi										
Scombridae	Euthynnus	alletteratus										
Scombridae	Euthynnus	pelamis										
Scombridae	Scomberomorus	cavalla										
Scombridae	Scomberomorus	regalis										
Scombridae	Thunnus	alalunga										
Scombridae	Thunnus	albacares										
Scombridae	Thunnus	atlanticus										
Scombridae												

TABLE 3. LIST OF FISH AND SHELLFISH REPORTED IN PUERTO RICO LANDINGS DATA DURING 2004-07.											
FAMILY	GENUS	SPECIES									
Serranidae	Cephalopholis	fulvus									
Serranidae	Epinephelus	guttatus									
Serranidae	Epinephelus	mystacinus									
Serranidae	Epinephelus	striatus									
Serranidae	Mycteroperca	venenosa									
Serranidae	Myctoperca	bonaci									
Serranidae											
Sparidae											
Sphyraenidae	Sphyraena	guachancho									
Sphyraenidae	Sphyraena	picudilla									
Sphyraenidae											
Trichiuridae	Trichiurus	lepturus									
Trichiuridae											
Other fishes											
First class											
Second class											
Third class											
	List of Shellfish										
COMMON NAME	GENUS	SPECIES									
Land crab	Cardisoma	quanhumi									
Mangrove oyster	Crassostrea	rhizophorae									
Octopus	Octopus	spp.									
Queen conch	Strombus	gigas									
Spiny lobster	Panulirus	argus									
Marine Crab	Mithrax	spinosissimus									
Coral crab	Carpilius	corallinus									
Whelk	Cittarium	pica									

TABLE 4. LANDINGS REPORTED BY MUNICIPALITY AND BY COAST IN PUERTO RICO DURING 2004.

	2004			2005			2006			
LOCATION	POUNDS	VALUE	<i>P/P</i> *	POUNDS	VALUE	<i>P/P</i> *	POUNDS	VALUE	<i>P/P</i> *	
NORTH	168,048	390,451	2.03	117,990	269,202	1.95	62,121	149,102	2.03	
Isabela	854	2,781	3.08	968	3,928	3.73	928	4,058	4.03	
Quebradillas	0	0	0.00	0	0	0.00	0	0	0.00	
Camuy	4,070	7,822	1.88	7,237	20,480	2.36	1,639	4,018	1.80	
Hatillo	993	2,964	1.27	0	0	0.00	55	193	3.50	
Arecibo	20,771	54,172	2.37	22,091	47,701	1.61	9,657	21,292	1.02	
Barceloneta	5,435	14,003	1.94	4,423	11,715	1.75	3,821	7,255	1.75	
Manatí	0	0	0.00	1,565	2,821	1.96	0	0	0.00	
Vega Baja	5,518	16,459	2.48	1,899	5,662	2.43	773	2,436	2.95	
Vega Alta	5,962	14,482	2.05	5,144	10,635	1.69	1,995	4,025	1.79	
Dorado	5,938	14,241	2.21	4,679	10,473	2.03	3,650	6,634	2.00	
Toa Baja	766	3,099	2.50	0	0	0.00	0	0	0.00	
Cataño	19,407	47,379	2.34	12,330	29,938	2.33	8,113	20,754	2.81	
San Juan	55,475	126,592	2.13	35,858	77,842	2.16	22,882	54,222	2.21	
Carolina	0	0	0.00	748	748	0.50	1,326	3,396	3.06	
Loíza	20,381	37,560	1.31	10,357	21,574	1.37	2,011	6,165	2.15	
Río Grande	19,976	43,277	1.55	10,321	24,633	1.72	5,228	14,390	2.05	
Luquillo	2,502	5,622	2.04	370	1,052	2.48	43	264	5.40	
EAST	356,183	927,459	2.16	237,840	658,324	2.19	194,174	566,311	2.34	
Fajardo	92,087	275,993	2.06	77,691	244,036	2.12	54,425	177,326	2.38	
Ceiba	43,386	102,706	1.94	25,086	70,978	1.90	15,930	45,604	1.92	
Naguabo	66,529	168,206	2.52	44,422	119,865	2.49	18,756	52,604	2.53	
Humacao	57,314	140,524	2.39	35,290	97,755	2.42	41,300	119,821	2.52	
Yabucoa	7,995	16,093	1.23	18,756	36,533	1.84	20,682	46,261	1.76	
Maunabo	5,116	13,495	2.72	3,925	8,981	2.27	3,788	10,887	2.91	
Culebra	6,833	19,773	2.78	425	1,256	2.55	1,437	5,297	3.77	
Vieques	76,923	190,669	1.88	32,245	78,920	1.86	37,856	108,511	2.29	
SOUTH	479,828	1,243,362	2.11	368,923	1,010,151	2.15	346,389	1,049,970	2.67	

TABLE 4. LANDINGS REPORTED BY MUNICIPALITY AND BY COAST IN PUERTO RICO DURING 2004.

	2004			2005			2006		
Patillas	19,438	59,638	2.80	10,016	28,452	2.43	789	4,064	4.93
Arroyo	42,530	103,717	1.89	9,697	19,267	1.65	9,019	19,554	1.94
Guayama	80,128	226,130	2.19	50,127	154,795	2.29	59,417	190,095	2.54
Salinas	57,482	168,769	2.38	51,031	164,295	2.55	47,449	166,307	2.84
Santa Isabel	17,428	49,981	2.53	21,055	68,409	2.44	9,557	31,039	3.07
Juana Díaz	64,785	169,379	1.88	50,969	141,381	2.02	35,700	93,779	2.04
Ponce	45,079	101,013	1.82	71,734	170,518	1.92	56,112	137,378	2.00
Peñuelas	49,456	172,846	2.48	32,630	122,011	2.59	68,366	256,656	3.09
Guayanilla	16,087	28,273	1.38	13,874	30,587	1.78	16,406	49,792	3.21
Guánica	22,121	47,094	2.02	8,368	20,443	1.91	22,307	58,050	2.70
Lajas	65,294	116,522	1.68	49,422	89,993	1.71	21,267	43,256	1.92
WEST	860,621	1,956,347	1.96	844,282	12,067,618	2.06	736,240	2,008,144	2.37
Cabo Rojo	440,399	1,072,261	2.09	404,978	11,003,676	2.25	358,517	1,123,916	2.64
Mayaguez	84,606	193,260	2.04	88,283	214,866	2.21	71,210	160,571	2.25
Añasco	17,736	56,194	1.89	18,489	58,295	1.52	4,735	13,318	1.71
Rincón	113,719	339,463	1.96	185,312	561,048	1.92	139,381	458,924	2.23
Aguada	87,595	122,303	1.52	31,301	53,660	1.73	56,210	85,099	1.72
Aguadilla	116,566	172,867	1.34	115,919	176,073	1.28	106,187	166,316	1.46
TOTAL	1,864,680	4,517,619	2.05	1,569,035	14,005,295	2.10	1,338,924	3,773,527	2.45

 $P/P^* = Price per Pound.$

TABLE 5A. LAN	DINGS REPO	RTED BY SP	ECIES AND GE	EAR IN PUER	TO RICO 1N 20	04.								
SPECIES	ВЕАСН	FISH	LOBSTER	GILL	ВОТТОМ	TROLL	LONG	LAND CRAB	CAST	ROD AND	SKIN	SCUBA	TRAMMEL	TOTAL
SPECIES	SEINE	TRAP	TRAP	NET	LINE	LINE	LONG	TRAP	NET	LINE	DIVING	DIVING	NET	IOIAL
	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)
FISH	(Founds)	(Founds)	(Founds)	(Founds)	(Founds)	(Founds)	(Founds)	(Founds)	(Founds)	(Founds)	(Founds)	(Founds)	(Founds)	(Founds)
Tunas														
Blackfin tuna	896	0	0	229	4,922	22,870	0	0	0	2	0	84	0	29,003
Little tunny	7,102	0	0	347	1,057	4,891	0	0	12	0	0	35	8	13,452
Skipjack tuna	624	50	0	550	4,020	17,111	0	0	0	10	0	31	0	22,396
Yellowfin					ĺ									
tuna Tuna	40	0	0	122	3,709	11,632	0	0	0	0	0	50	0	15,553
category	51	100	0	72	2,157	6,523	0	0	0	20	0	51	0	8,974
Ballyhoo	4,557	146	0	20,098	142	232	126	0	39	0	0	960	489	26,789
White grunt	10,773	36,416	19	13,242	6,720	43	444	0	0	0	4	432	21,220	89,313
Hogfish	213	12,168	132	674	1,225	112	0	0	0	0	264	24,420	668	39,876
Trunkfish	1,217	32,352	1,371	2,414	947	16	10	0	8	0	11	11,329	2,652	52,327
Dolphinfish	190	0	0	203	16,481	58,271	0	0	0	532	0	650	0	76,327
Squirrelfishes	43	4,269	4	608	1,731	0	13	0	0	3	0	326	115	7,112
Mullets	1,661	404	61	21,157	1,095	10	0	0	745	0	0	71	1,689	26,893
Jacks														
Bar jack	6,758	2,455	0	12,115	10,216	40	253	0	0	10	0	235	1,721	33,803
Horse-eye jack	298	18	0	339	1,126	69	10	0	0	0	0	28	12	1,900
Yellow jack	3	63	0	376	178	0	0	0	0	0	0	86	0	706
Jack			U			-	-	0	0		0	00		
Category	5,326	255	0	3,123	6,917	643	22	0	21	22	0	149	64	16,542
Parrotfishes	4,331	14,899	0	9,977	1,149	0	35	0	0	0	143	5,708	15,437	51,679
Groupers														
Coney	14	3,492	0	516	3,507	0	59	0	0	0	56	72	142	7,858
Red hind	70	10,879	135	438	19,647	0	339	0	0	0	21	11,310	245	43,084
Misty grouper	0	377	0	129	4,045	0	133	0	0	0	0	102	0	4,786
Nassau					ĺ									
grouper	0	244	0	127	2,576	0	0	0	0	0	0	1,283	0	4,230

TABLE 5A. LANI	DINGS REPO	ORTED BY SP	ECIES AND GE	EAR IN PUER	TO RICO 1N 20	04.								
SPECIES	ВЕАСН	FISH	LOBSTER	GILL	ВОТТОМ	TROLL	LONG	LAND CRAB	CAST	ROD AND	SKIN	SCUBA	TRAMMEL	TOTAL
	SEINE	TRAP	TRAP	NET	LINE	LINE	LINE	TRAP	NET	LINE	DIVING	DIVING	NET	
X7 11 6*	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)
Yellowfin grouper	0	433	0	34	935	0	0	0	0	0	0	786	0	2,188
Grouper														
category	280	5,314	0	838	6,619	132	69	0	0	0	69	12,478	138	25,937
Mojarras	202	341	0	4,611	648	0	28	0	210	0	0	306	26	6,372
Snappers														
Lane snapper	1,113	34,152	133	14,621	31,875	128	15,707	0	28	0	8	894	530	99,189
Yellowtail snapper	7,235	14,089	0	5,485	118,977	646	833	0	0	86	3	1,563	1,709	150,626
Silk snapper	0	21,081	0	146	97,435	0	204	0	0	0	0	0	0	118,866
Mutton		21,001		140	71,433	0	204	· ·	0	0	_	<u> </u>	0	110,000
snapper	1,321	13,826	96	4,550	18,860	277	1,382	0	0	0	42	6,022	682	47,058
Queen snapper	0	350	0	44	78,924	0	226	0	0	0	0	0	0	79,544
Vermillion					ŕ	Ü	-							
snapper	0	2,067	0	61	7,322	0	99	0	0	0	0	0	0	9,549
Wenchman	0	71	0	640	5,454	0	112	0	0	0	0	0	0	6,277
Blackfin snapper	0	1,048	0	25	2,320	0	0	0	0	0	0	0	0	3,393
Snapper category	446	6,660	0	5,881	7,566	140	64	0	5	36	69	7,364	1,327	29,558
Triggerfish	418	22,271	50	289	6,647	210	73	0	6	7	72	12,669	398	43,110
Barracudas	1,864	234	0	1,571	3,125	381	2	0	73	0	0	64	48	7,362
Porgies	326	9,127	0	4,800	1,564	2	73	0	0	0	0	1,002	1,008	17,902
Snooks	3,410	745	0	10,752	1,975	61	80	0	309	0	30	1,076	201	18,639
Tarpon	111	0	0	469	138	0	0	0	34	0	0	0	0	752
Goatfishes	269	6,384	45	826	535	49	0	0	0	0	0	102	54	8,264
Sardines	224	0	0	479	820	0	0	0	12,758	0	0	3	0	14,284
King Mackerels	1,810	750	0	3,925	30,717	14,559	88	0	92	76	0	565	47	52,629
Cero	108	210	42	3,393	10,834	4,731	12	0	20	247	0	146	3	19,746
Sharks	183	218	0	2,645	7,151	224	4,004	0	33	102	0	160	365	15,085
Wahoo	40	15	0	0	480	3,904	0	0	0	50	0	47	0	4,536
CLASSIFFIED	-				-		-	-	-	-		-	-	,

TABLE 5A. LAN	DINGS REPO	RTED BY SP	ECIES AND GI	EAR IN PUER	TO RICO 1N 20	04.								
SPECIES	ВЕАСН	FISH	LOBSTER	GILL	ВОТТОМ	TROLL	LONG	LAND CRAB	CAST	ROD AND	SKIN	SCUBA	TRAMMEL	TOTAL
	SEINE	TRAP	TRAP	NET	LINE	LINE	LINE	TRAP	NET	LINE	DIVING	DIVING	NET	
	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)
First Class	0	10,371	0	739	1,822	52	0	0	0	0	0	8,811	160	21,955
Second Class	5	8,337	0	2,471	298	0	0	0	0	0	0	844	72	12,027
Third Class	0	5,376	0	0	600	23	0	0	0	0	0	2,250	0	8,249
Trash	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other fishes	778	1,306	0	3,579	4,061	482	1	0	1,280	0	1	1,599	54	13,141
Total Fishes	64,310	283,363	2,088	159,730	541,269	148,464	24,501	0	15,673	1,203	793	116,163	51,284	1,408,841
SHELLFISH														
Conch	10	1,475	0	227	0	0	0	0	0	0	7,526	206,732	70	216,040
Land crab	0	0	0	0	0	0	0	1,401	0	0	0	0	0	1,401
Lobster	364	64,655	28,889	3,236	301	0	0	0	0	0	2,705	101,169	10,907	212,226
Octopus	16	788	6	29	189	18	0	0	0	0	8,016	11,098	12	20,172
Other shellfish	0	1,660	0	385	96	186	0	0	182	0	522	2,394	575	6,000
Total Shellfish	390	68,578	28,895	3,877	586	204	0	1,401	182	0	18,769	321,393	11,564	455,839
TOTAL	64,700	351,941	30,983	163,607	541,855	148,668	24,501	1,401	15,855	1,203	19,562	437,556	62,848	1,864,680

SPECIES	ВЕАСН	FISH	LOBSTER	GILL	ВОТТОМ	TROLL	LONG	LAND CRAB	CAST	ROD AND	SKIN	SCUBA	TRAMMEL	TOTAL
SI ECIES	SEINE	TRAP	TRAP	NET	LINE	LINE	LINE	TRAP	NET	LINE	DIVING	DIVING	NET	TOTAL
	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)
FISH	(1 0 11 14 15)	(1 ountas)	(1 ounus)	(1 ounus)	(100000)	(1 0 0 0 0 0 0 0 0	(1 0 0 0 0 0 0 0	(100000)	(1 ounus)	(1 0 11 11 11 1)	(1 ounus)	(100000)	(1 oursus)	(100000)
Tunas														
Blackfin tuna	462	291	0	593	7,427	12,618	107	12	0	21	0	508	0	22,039
Little tunny	727	278	0	30	3,351	3,591	0	0	32	87	0	0	0	8,096
Skipjack tuna	164	222	0	131	6,310	18,866	0	17	0	10	0	129	0	25,849
Yellowfin tuna	209	19	0	8	6,402	14,304	20	0	0	0	23	249	0	21,234
Tuna category	11	50	0	26	2,134	3,478	0	0	0	0	0	0	16	5,715
Ballyhoo	3,507	181	0	10,410	1,579	778	0	0	28	0	0	639	10	17,132
White grunt	787	24,792	166	8,910	5,529	469	251	0	37	60	8	554	12,112	53,675
Hogfish	0	4,936	348	226	2,923	300	0	0	0	0	92	16,727	339	25,891
Trunkfish	247	24,156	3,347	1,614	2,142	301	0	0	0	0	17	10,447	2,325	44,596
Dolphinfish	0	486	27	121	13,800	27,622	0	0	0	0	0	757	0	42,813
Squirrelfishes	266	3,453	49	360	1,620	40	54	0	0	0	0	8	33	5,883
Mullets	927	386	0	12,381	902	443	0	0	343	0	0	112	29	15,523
Jacks														
Bar jack	1,067	1,018	0	8,323	9,855	325	282	0	707	12	0	357	698	22,644
Horse-eye jack	57	0	0	228	1,342	53	31	0	0	14	0	0	0	1,725
Yellow jack	72	16	0	0	368	32	0	0	0	0	0	39	0	527
Jack Category	598	227	0	1,455	4,961	213	50	0	10	69	0	130	0	7,713
Parrotfishes	1,083	12,537	141	5,098	1,411	15	9	0	0	0	56	2,160	8,622	31,132
Groupers														
Coney	2,014	0	0	96	1,562	162	0	0	0	0	0	372	0	4,206
Red hind	4,586	0	0	216	14,663	674	20	0	0	0	0	8,861	40	29,060
Misty grouper	0	469	0	0	5,057	1,865	4	0	0	0	0	0	0	7,395
Nassau grouper	45	342	7	10	1,062	334	9	0	0	0	0	188	0	1,997
Yellowfin grouper	0	494	0	8	129	0	0	0	0	0	0	121	0	752
Grouper category	154	1,185	12	144	5,914	644	22	0	0	50	67	7,370	19	15,581
Mojarras	70	297	0	2,237	827	33	25	0	93	0	0	30	0	3,612

								LAND		ROD				
SPECIES	BEACH	FISH	LOBSTER	GILL	BOTTOM	TROLL	LONG	CRAB	CAST	AND	SKIN	SCUBA	TRAMMEL	TOTAL
	SEINE	TRAP	TRAP	NET	LINE	LINE	LINE	TRAP	NET	LINE	DIVING	DIVING	NET	
	(Pounds)													
Snappers														
Lane snapper	382	30,842	413	7,380	34,494	868	11,642	0	3	49	0	1,979	137	88,189
Yellowtail snapper	2,214	7,778	26	3,292	96,776	2,688	889	0	0	96	14	613	570	114,956
Silk snapper	0	10,643	0	92	99,415	0	172	0	0	0	0	0	135	110,457
Mutton snapper	231	8,610	174	2,357	14,839	1,181	958	0	0	0	3	5,046	70	33,469
Queen snapper	0	194	0	0	156,485	0	69	0	0	0	0	0	0	156,748
Vermillion	Ü	17.			,		0,						Ů	100,7.10
snapper	0	628	0	160	4,891	0	94	0	0	0	0	72	0	5,845
Wenchman Blackfin	0	108	0	734	10,466	0	65	0	0	0	0	0	0	11,373
snapper	0	456	0	16	2,403	0	22	0	0	0	0	0	0	2,897
Snapper			-	-	,	-			-			-	-	· · · · · · · · · · · · · · · · · · ·
category	103	4,529	10	3,927	8,472	379	112	0	3	0	83	7,522	418	25,558
Triggerfish	149	14,774	425	190	4,791	435	0	0	0	0	50	11,128	218	32,160
Barracudas	1,569	214	0	444	2,304	233	0	0	0	180	0	138	45	5,127
Porgies	163	7,390	140	2,887	1,051	9	64	0	15	0	0	137	184	12,040
Snooks	1,110	0	0	5,569	1,264	42	30	0	2	0	0	108	0	8,125
Tarpon	0	0	0	28	0	0	0	0	0	0	0	0	0	28
Goatfishes	0	5,736	0	182	0	0	0	0	0	0	0	0	0	5,918
Sardines	214	19	0	26	835	0	35	0	9,687	0	0	0	0	10,816
King Mackerels	654	755	0	1,242	25,565	16,438	0	0	15	73	3	2,163	18	46,926
Cero	151	70	0	997	19,883	8,311	35	0	33	232	0	359	20	30,091
Sharks	75	0	0	2,386	7,661	394	5,949	0	0	0	0	613	318	17,396
Wahoo	90	0	0	0	1,824	1,231	0	0	0	0	0	0	0	3,145
CLASSIFFIED														
First Class	0	3,616	0	94	2,802	0	0	0	0	0	0	3,283	74	9,869
Second Class	0	3,167	0	117	689	4	0	0	0	0	0	146	86	4,209
Third Class	0	606	0	46	0	0	0	0	0	0	0	716	0	1,368
Trash	0	21	0	0	49	0	0	0	0	0	0	2	0	72
Other fishes	1.192	1.025	376	1,382	12,724	3,013	543	0	943	987	456	1,497	897	25,035

TADLE 5D LAND	ABLE 5B, LANDINGS REPORTED BY SPECIES AND GEAR IN PUERTO RICO 1N 2005.													
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)
Total Fishes	25,350	177,016	5,661	86,173	610,953	122,386	21,563	(Founds) 29	11,951	1,940	(Founds) 872	85,280	27,433	1,176,607
SHELLFISH														
Conch	0	454	30	25	14	0	0	0	10	0	1,098	193,670	252	195,553
Land crab	0	0	0	0	0	0	0	4,276	0	0	0	0	0	4,276
Lobster	34	49,223	27,930	178	2,075	136	0	30	22	0	578	86,540	6,227	172,973
Octopus	0	480	0	31	87	11	0	0	22	0	3,429	5,530	10	9,600
Other shellfish	689	4,082	0	1,643	502	10	0	21	535	0	57	2,193	294	10,026
Total Shellfish	723	54,239	27,960	1,877	2,678	157	0	4,327	589	0	5,162	287,933	6,783	392,428
TOTAL	26,073	231,255	33,621	88,050	613,631	122,543	21,563	4,356	12,540	1,940	6,034	373,213	34,216	1,569,035

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	1,611	25	0	45	9,702	9,038	0	0	0	0	0	66	0	20,487
Little tunny	3,220	142	0	110	3,226	1,913	0	0	0	0	0	0	0	8,611
Skipjack tuna	298	124	0	39	11,039	10,937	0	0	0	0	0	50	0	22,487
Yellowfin tuna	161	0	0	0	10,921	9,518	0	0	0	0	0	140	0	20,740
Tuna category	112	0	0	250	1,003	4,090	14	0	0	0	0	266	0	5,735
Ballyhoo	2,083	1,011	0	8,591	1,676	2,367	0	0	0	0	0	456	40	16,224
White grunt	567	18,593	243	4,930	9,946	186	99	0	0	0	28	1,419	15,702	51,713
Hogfish	4	4,164	395	64	953	1,372	20	0	0	0	287	20,178	764	28,201
Trunkfish	200	19,009	1,557	1,193	2,426	136	0	0	0	0	103	9,552	5,782	39,958
Dolphinfish	176	0	0	10	12,551	32,164	0	0	0	0	0	2,481	2	47,384
Squirrelfishes	88	2,986	0	499	766	117	61	0	0	0	2	0	4	4,523
Mullets	3,070	87	0	8,078	910	62	0	0	541	0	0	60	0	12,808
Jacks														0
Bar jack	1,739	1,941	10	2,299	8,272	396	199	0	18	0	0	105	1,708	16,687
Horse-eye jack	12	91	0	9	803	81	0	0	0	0	0	0	0	996
Yellow jack	7	105	0	21	116	0	0	0	0	0	0	1	0	250
Jack Category	2,463	80	0	1,481	2,565	61	25	0	0	0	30	77	0	6,782
Parrotfishes	604	9,782	2	7,296	1,190	0	2	0	0	0	259	3,382	9,496	32,013
Groupers														
Coney	0	2,840	0	296	1,426	246	0	0	0	0	5	137	24	4,974
Red hind	0	5,669	0	121	6,622	3,036	69	0	0	0	325	6,401	45	22,288
Misty grouper	0	510	0	0	4,319	0	0	0	0	0	0	764	0	5,593
Nassau grouper	21	38	0	0	1,316	239	0	0	0	0	0	136	0	1,750
Yellowfin grouper	0	513	0	53	161	19	0	0	0	0	4	225	0	975
Grouper category	44	1,808	54	142	3,935	0	27	0	0	0	25	8,584	0	14,619

TABLE 5C. LANDI	NGS REPO	RTED BY S	SPECIES ANI	GEAR IN	PUERTO RI	CO 1N 2006.								
SPECIES	ВЕАСН	FISH	LOBSTER	GILL	ВОТТОМ	TROLL	LONG	LAND CRAB	CAST	ROD AND	SKIN	SCUBA	TRAMMEL	TOTAL
	SEINE	TRAP	TRAP	NET	LINE	LINE	LINE	TRAP	NET	LINE	DIVING	DIVING	NET	
	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)
Mojarras	9	186	0	1,311	362	0	55	0	32	0	0	2	0	1,957
Snappers														0
Lane snapper	360	28,840	696	3,101	37,979	1,867	11,305	0	29	0	118	2,559	352	87,206
Yellowtail snapper	280	6,779	121	2,322	81,117	39	801	0	7	0	48	1,670	710	93,894
Silk snapper	0	7,981	0	40	75,259	0	31	0	0	0	0	0	0	83,311
Mutton snapper	429	5,792	61	1,901	12,574	130	558	0	3	0	54	3,886	95	25,483
Queen snapper	0	419	0	0	102,463	0	0	0	0	0	0	0	0	102,882
Vermillion	U	419	0	0	102,403	0	0	0	0	0	0	U	0	102,002
snapper	0	1,030	0	17	2,021	0	13	0	0	0	0	70	0	3,151
Wenchman	0	0	0	297	3,591	0	0	0	0	0	0	0	0	3,888
Blackfin snapper	0	1,204	0	12	2,202	0	42	0	0	0	0	0	0	3,460
Snapper			-		Í				-		-	-		
category	140	5,971	0	2,237	6,027	0	0	0	0	0	119	5,158	556	20,208
Triggerfish	131	12,866	243	59	3,770	1,030	128	0	0	0	138	8,464	679	27,508
Barracudas	1,679	100	0	398	2,593	183	22	0	28	0	0	38	13	5,054
Porgies	223	6,549	0	1,457	460	34	20	0	0	0	4	40	188	8,975
Snooks	1,814	174	0	4,329	1,469	395	28	0	4	0	0	598	40	8,851
Tarpon	24	0	0	0	0	0	0	0	0	0	0	8	0	32
Goatfishes	112	4,251	0	210	71	62	0	0	0	0	0	20	0	4,726
Sardines	0	71	0	11	884	507	25	0	4,244	0	0	0	0	5,742
King Mackerels	678	106	0	1,426	28,581	4,990	154	0	24	0	0	735	0	36,694
Cero	440	65	0	735	16,063	6,276	226	0	15	22	0	206	0	24,048
Sharks	55	0	0	974	9,249	2,641	6,617	0	0	0	29	1,845	953	22,363
Wahoo	287	0	0	0	642	3,384	0	0	0	0	0	71	0	4,384
CLASSIFFIED														
First Class	0	2,916	0	23	1,234	0	0	0	0	0	0	661	0	4,834
Second Class	0	2,548	0	0	22	0	0	0	0	0	0	95	0	2,665
Third Class	0	262	0	0	0	0	0	0	0	0	0	81	0	343
Trash	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TABLE 5C. LANI	INGS REPO	RTED BY S	SPECIES ANI	GEAR IN	PUERTO RI	CO 1N 2006.								
SPECIES	BEACH SEINE	FISH TRAP	LOBSTER TRAP	GILL NET	BOTTOM LINE	TROLL LINE	LONG LINE	LAND CRAB TRAP	CAST NET	ROD AND LINE	SKIN DIVING	SCUBA DIVING	TRAMMEL NET	TOTAL
	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)
Other fishes	411	5,623	385	3,629	3,057	302	(1 ounus) 456	0	489	22	297	1,561	72	16,304
Total Fishes	23,552	163,251	3,767	60,016	487,534	97,818	20,997	0	5,434	44	1,875	82,248	37,225	983,761
SHELLFISH														
Conch	0	367	0	163	0	0	0	0	0	0	1,375	148,732	2,824	153,461
Land crab	0	0	0	0	0	0	0	5,077	0	0	0	0	0	5,077
Lobster	509	47,548	22,954	988	775	250	0	0	0	0	637	87,474	7,963	169,098
Octopus	3	421	66	19	42	122	0	0	0	0	3,374	15,885	99	20,031
Other shellfish	40	1,982	0	1,036	14	24	16	0	266	0	667	3,009	442	7,496
Total Shellfish	552	50,318	23,020	2,206	831	396	16	5,077	266	0	6,053	255,100	11,328	355,163
TOTAL	24,104	213,569	26,787	62,222	488,365	98,214	21,013	5,077	5,700	44	7,928	337,348	48,553	1,338,924

SPECIES	JAN	FEB	MARCH	APRIL	MAY	JUNE	JUL	AUG	SEP.	OCT	NOV	DEC	TOTAL
	(Pounds)												
FISH													
Tunas													
Blackfin tuna	2,322	982	2,122	3,793	4,093	2,487	2,702	3,089	3,647	1,471	1,021	1,274	29,003
Little tunny	653	380	970	1,331	1,042	1,309	1,372	1,250	1,405	2,999	421	320	13,452
Skipjack tuna	1,905	984	740	1,109	2,435	4,425	2,548	1,484	2,029	909	1,510	2,318	22,396
Yellowfin tuna	861	423	662	811	2,415	3,159	1,639	1,846	2,334	542	531	330	15,553
Tuna category	1,287	573	685	713	832	538	1,067	1,333	124	588	869	365	8,974
Ballyhoo	3,524	2,037	2,269	2,174	1,949	1,081	1,593	3,529	1,671	3,160	2,013	1,789	26,789
White grunt	13,533	8,699	8,046	6,589	6,502	6,099	5,717	8,331	6,006	7,928	6,013	5,850	89,313
Hogfish	4,379	2,970	3,054	3,877	2,460	2,900	4,886	4,637	2,964	3,541	2,368	1,840	39,876
Trunkfish	5,556	4,773	4,124	3,847	3,752	3,947	4,309	6,278	4,197	4,468	3,339	3,737	52,327
Dolphinfish	17,881	8,286	5,380	5,209	4,319	1,660	757	833	1,923	3,833	8,331	17,915	76,327
Squirrelfishes	838	917	514	617	490	577	465	692	454	528	570	450	7,112
Mullets	2,913	3,217	3,040	2,814	1,338	2,249	2,276	2,211	2,001	1,891	1,662	1,281	26,893
Jacks													
Bar jack	3,379	2,555	2,973	2,831	1,986	3,675	3,222	2,886	3,223	3,197	1,644	2,232	33,803
Horse-eye jack	191	162	177	180	65	113	315	124	114	203	138	118	1,900
Yellow jack	38	48	116	157	37	52	68	81	40	18	37	14	706
Jack Category	1,317	994	998	925	958	2,312	1,041	2,132	1,951	1,199	393	2,322	16,542
Parrotfishes	5,328	7,152	6,580	4,420	3,730	3,008	3,688	4,012	4,519	3,766	2,415	3,061	51,679
Groupers													
Coney	1,303	1,283	736	702	479	460	372	769	442	589	449	274	7,858
Red hind	9,716	5,669	3,072	3,486	2,100	2,773	2,339	3,434	3,228	3,689	2,117	1,461	43,084
Misty grouper	366	1,069	623	586	538	96	331	175	257	534	82	129	4,786
Nassau grouper	623	563	411	462	442	187	243	411	469	346	40	33	4,230
Yellowfin													
grouper	355	393	230	244	397	74	62	110	21	226	63	13	2,188
Grouper category	6,003	4,038	2,016	1,276	1,055	1,823	1,631	2,164	2,143	1,886	1,044	858	25,937
Mojarras	732	894	779	499	339	399	709	779	292	323	336	291	6,372
Snappers	,32	0,1	117	127	337	3,7	, 0)	,,,	2,2	323	220	2/1	0,572

TABLE 6A. LAND	INGS REPO	RTED IN PUI	ERTO RICO	BY SPECIE	ES AND MO	NTH DURIN	NG 2004.						
SPECIES	J AN	FEB	MARCH	APRIL	MAY	JUNE	JUL	AUG	SEP.	OCT	NOV	DEC	TOTAL
	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)
Lane snapper	11,684	11,099	9,787	8,498	7,546	5,441	6,301	8,006	6,863	9,235	7,318	7,411	99,189
Yellowtail			40.004	42.550	0.010	40.55	44.00=	1= = =	44.004	4 4 9 4 9			150 (0)
snapper	23,487	12,225	12,291	13,579	8,212	12,075	11,827	17,562	11,024	14,313	6,561	7,470	150,626
Silk snapper	12,227	10,566	8,089	11,610	8,674	7,582	10,092	11,173	10,724	12,900	8,760	6,469	118,866
Mutton snapper	4,865	6,070	4,052	5,224	4,147	3,894	2,615	3,690	3,957	2,889	2,599	3,056	47,058
Queen snapper	11,761	10,146	7,227	7,682	7,120	2,805	3,848	6,952	6,064	7,407	4,167	4,365	79,544
Vermillion	1,082	817	1,014	1,036	193	514	932	1,442	858	1,053	520	88	9,549
snapper	,		, , , , , , , , , , , , , , , , , , ,		715	_	498		461	403			
Wenchman Blackfin	741	405	415	1,066	/13	173	498	843	401	403	258	299	6,277
snapper	455	456	303	130	210	204	184	223	271	411	411	135	3,393
Snapper													,
category	2,801	2,618	2,280	2,494	2,792	2,191	1,803	2,775	3,018	3,000	2,064	1,722	29,558
Triggerfishes	4,013	4,441	4,466	3,915	3,498	2,959	3,884	5,119	3,339	2,661	2,528	2,287	43,110
Barracudas	1,490	746	770	586	282	650	818	565	490	401	366	198	7,362
Porgies	1,766	1,917	1,602	1,178	1,176	1,126	1,180	1,903	1,630	1,368	1,056	2,000	17,902
Snooks	2,182	1,494	1,789	830	1,498	1,902	1,790	1,722	1,486	1,321	1,484	1,141	18,639
Tarpon	80	44	43	37	42	71	31	11	47	0	136	210	752
Goatfishes	966	583	440	143	254	567	486	1,011	1,157	913	734	1,010	8,264
Sardines	1,508	1,015	1,889	1,564	1,538	1,279	975	1,079	683	1,174	744	836	14,284
King Mackarels	8,651	3,738	5,488	3,471	6,921	5,327	5,007	3,760	1,621	4,141	2,132	2,372	52,629
Cero	2,479	1,353	1,421	2,605	1,883	1,550	2,549	1,436	655	1,444	1,101	1,270	19,746
Sharks	1,754	620	906	1,622	1,806	710	1,542	561	2,269	620	1,226	1,449	15,085
Wahoo	1,107	123	185	231	263	1,213	410	69	288	450	48	149	4,536
CLASSIFFIED	,					,							,
First Class	2,946	1,449	993	1,295	1,785	1,665	2,353	1,575	2,312	2,388	1,615	1,579	21,955
Second Class	1,883	845	655	921	755	699	1,201	1,060	1,343	1,033	782	850	12,027
Third Class	650	503	657	715	531	279	797	713	1,001	1,117	676	610	8,249
Trash	030	0	037	0	0	0	0	0	0	0	0/0	0	0,249
Other fishes	1,696	888	1,631	1,439	425	764	1,762	1,482	1,017	1,623	401	13	13,141
Total Fishes	187,277	133,222	118,710	120,523	106,019	101,043	106,237	127,322	108,032	120,099	85,093	95,264	1,408,841

TABLE 6A. LAND	INGS REPO	RTED IN PU	ERTO RICO	BY SPECII	ES AND MO	NTH DURIN	NG 2004.						
SPECIES	JAN	FEB	MARCH	APRIL	MAY	JUNE	JUL	AUG	SEP.	OCT	NOV	DEC	TOTAL
	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)
SHELLFISH													
Conch	22,511	21,477	25,901	26,536	19,611	19,094	141	165	213	33,528	21,135	25,728	216,040
Land crab	44	46	55	42	529	198	57	14	75	75	244	22	1,401
Lobster	20,140	16,353	17,180	17,172	17,433	14,040	16,309	19,241	24,360	19,390	15,724	14,884	212,226
Octopus	2,548	1,603	1,547	1,353	1,276	971	1,337	1,231	1,578	2,501	2,037	2,190	20,172
Other shellfish	454	752	756	430	546	351	638	564	384	508	347	270	6,000
Total Shellfish	45,697	40,231	45,439	45,533	39,395	34,654	18,482	21,215	26,610	56,002	39,487	43,094	455,839
TOTAL	232,974	173,453	164,149	166,056	145,414	135,697	124,719	148,537	134,642	176,101	124,580	138,358	1,864,680

TABLE 6B. LAND	INGS REPO	RTED IN PU	JERTO RIC	CO BY SPEC	CIES AND M	10NTH DU	RING 2005	<u> </u>					
SPECIES	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL
	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)
FISH													
Tunas													
Blackfin tuna	566	594	3,868	4,296	2,174	1,741	1,953	1,633	1,454	997	2,000	763	22,039
Little tunny	663	47	1,147	506	861	1,052	1,288	896	1,067	154	203	212	8,096
Skipjack tuna	483	210	1,585	3,355	3,751	3,261	4,704	2,073	1,695	2,006	1,540	1,186	25,849
Yellowfin tuna	411	565	4,113	2,214	3,138	2,875	1,951	2,097	2,299	853	585	133	21,234
Tuna category	344	266	558	1,998	399	325	443	418	240	275	214	235	5,715
Ballyhoo	1,815	1,200	2,429	2,452	1,579	1,067	2,007	1,221	561	368	708	1,725	17,132
White grunt	2,870	3,953	6,253	6,497	5,761	5,033	4,712	5,909	4,884	3,212	3,068	1,523	53,675
Hogfish	1,934	1,533	2,644	2,465	2,190	1,880	3,544	2,834	3,037	2,344	849	637	25,891
Trunkfish	2,826	2,907	4,667	4,896	5,132	4,567	4,010	5,160	4,258	2,770	2,400	1,003	44,596
Dolphinfish	11,018	4,621	5,862	5,668	2,374	1,307	594	382	1,374	2,002	5,190	2,421	42,813
Squirrelfishes	320	317	561	603	622	615	528	699	461	334	412	411	5,883
Mullets	658	774	1,280	1,276	2,245	2,211	2,424	1,594	1,074	641	727	619	15,523
Jacks													
Bar jack	1,522	1,658	3,084	2,292	1,678	2,604	1,847	2,275	1,872	1,655	1,235	922	22,644
Horse-eye jack	95	59	226	116	160	276	135	79	326	147	75	31	1,725
Yellow jack	12	0	172	0	27	97	61	56	30	21	41	10	527
Jack Category	125	197	658	1,065	1,059	1,169	720	1,163	840	474	132	111	7,713
Parrotfishes	1,544	2,268	3,453	3,195	3,010	3,368	2,304	3,321	3,178	1,598	2,280	1,613	31,132
Groupers													
Coney	309	270	327	384	302	281	522	562	436	308	428	77	4,206
Red hind	1,597	1,302	2,548	2,296	1,465	3,347	3,717	3,595	3,598	3,309	2,155	131	29,060
Misty grouper	225	92	1,262	870	568	911	1,165	701	339	556	379	327	7,395
Nassau grouper	64	44	283	245	184	147	203	290	233	169	128	7	1,997
Yellowfin	40	2.1	2.7	7 ·	110	62	(3	1		(0)	50		7.50
grouper Grouper	49	21	37	71	110	83	63	111	72	68	53	14	752
category	3,555	574	1,086	1,004	1,088	1,560	1,486	1,861	1,679	950	489	249	15,581
Mojarras	137	77	404	348	581	220	514	271	291	307	445	17	3,612

TABLE 6B. LAND									anne	0.67	11011	5.50	mom
SPECIES	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL
	(Pounds)												
Snappers													
Lane snapper	4,503	4,325	10,244	11,431	7,960	7,259	8,890	11,488	7,667	6,068	5,400	2,954	88,189
Yellowtail snapper	4,560	7,035	21,410	14,260	9,823	11,603	10,723	15,389	10,810	5,056	2,743	1,544	114,956
Silk snapper	7,301	6,751	10,428	13,146	9,541	11,624	10,769	14,799	12,287	5,501	4,746	3,564	110,457
Mutton snapper	1,768	1,602	3,941	6,437	2,820	3,223	3,228	3,510	2,747	2,229	1,359	605	33,469
Queen snapper	1,750	1,871	22,762	15,227	16,608	16,465	20,066	13,347	13,119	12,540	12,562	10,431	156,748
Vermillion		1,071	22,702	10,227	,	10,100	20,000	10,017			12,002	10,101	100,710
snapper	231	193	1,033	936	481	309	707	753	481	222	298	201	5,845
Wenchman	143	176	1,804	922	1,842	911	1,591	1,147	1,178	902	402	355	11,373
Blackfin	220	100	103	102	230	£ 40	250	142	227	1.40	152	89	2.907
snapper Snapper	220	180	103	103	230	548	352	442	337	140	153	89	2,897
category	1,111	1,201	2,709	3,065	2,359	2,187	3,513	3,437	2,624	1,819	1,058	475	25,558
Triggerfishes	1,397	1,515	3,255	3,352	2,760	3,163	4,023	4,671	3,184	2,214	1,723	903	32,160
Barracudas	128	374	697	323	536	511	480	558	594	625	171	130	5,127
Porgies	1,628	523	1,405	1,165	1,158	1,107	999	1,280	1,101	602	776	296	12,040
Snooks	196	1,310	755	537	1,004	725	1,009	880	616	452	376	265	8,125
Tarpon	0	0	0	13	15	0	0	0	0	0	0	0	28
Goatfishes	612	801	646	613	474	397	321	528	585	581	284	76	5,918
Sardines	1,050	590	917	664	912	770	1,012	2,069	838	1,270	549	175	10,816
King Mackarels	1,307	1,630	5,128	9,098	11,049	5,837	4,610	3,040	1,654	1,039	940	1,594	46,926
Cero	418	569	3,736	5,576	6,039	2,107	4,541	2,919	1,459	767	1,025	935	30,091
Sharks	299	464	1,431	1,592	1,867	1,439	2,054	2,528	2,447	1,109	1,781	385	17,396
Wahoo	21	115	1,138	350	0	3	0	0	502	572	42	402	3,145
CLASSIFFIED													
First Class	1,523	514	1,360	1,465	1,001	548	1,085	689	967	415	190	112	9,869
Second Class	254	384	697	673	302	513	137	523	541	121	64	0	4,209
Third class	596	161	5	0	250	105	0	146	105	0	0	0	1,368
Trash	0	0	9	2	10	21	0	0	30	0	0	0	72
Other fishes	1,567	2,345	1,578	2,345	1,678	1,987	2,567	1,987	1,432	3,070	2,345	2,134	25,035

TABLE 6B. LAND	OINGS REPO	RTED IN PU	JERTO RIC	O BY SPEC	CIES AND M	10NTH DU	RING 2005	•					
SPECIES	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL
	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)
Total Fishes	65,725	58,178	145,698	141,407	121,177	113,359	123,572	125,331	102,603	72,832	64,723	42,002	1,176,607
SHELLFISH													
Conch	15,869	19,714	26,868	26,541	24,694	26,330	264	181	731	24,117	18,130	12,114	195,553
Land crab	40	80	567	791	1,573	624	250	73	22	186	36	34	4,276
Lobster	10,373	13,350	16,025	14,941	14,153	16,132	18,392	18,357	16,671	14,696	11,448	8,435	172,973
Octopus	1,171	1,362	747	799	986	549	581	857	978	706	595	269	9,600
Other shellfish	143	922	1,756	790	1,224	944	1,192	574	1,220	353	698	210	10,026
Total Shellfish	27,596	35,428	45,963	43,862	42,630	44,579	20,679	20,042	19,622	40,058	30,907	21,062	392,428
TOTAL	93,321	93,606	191,661	185,269	163,807	157,938	144,251	145,373	122,225	112,890	95,630	63,064	1,569,035

SPECIES	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL
	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)
FISH													
Tunas													
Blackfin tuna	1,443	3,491	1,691	1,550	1,781	2,409	901	2,405	1,995	773	492	1,556	20,487
Little tunny	340	2,394	1,795	410	903	687	341	200	815	388	57	281	8,611
Skipjack tuna	1,031	1,629	1,379	1,842	696	2,067	2,922	5,100	1,644	1,867	396	1,914	22,487
Yellowfin tuna	1,026	1,094	763	1,937	2,884	4,971	2,114	2,347	2,155	569	359	521	20,740
Tuna category	56	143	82	440	861	1,068	815	583	990	398	98	201	5,735
Ballyhoo	1,204	819	1,638	786	1,128	1,077	859	1,621	1,983	2,224	1,673	1,212	16,224
White grunt	5,453	6,056	5,057	3,378	4,868	5,322	4,135	4,594	4,536	4,591	2,335	1,388	51,713
Hogfish	2,385	2,255	1,705	1,287	2,021	2,437	3,431	3,736	2,959	1,992	2,312	1,681	28,201
Trunkfish	3,932	3,549	2,914	3,010	4,393	3,708	3,703	3,350	3,360	3,199	2,504	2,336	39,958
Dolphinfish	7,351	9,151	8,550	5,210	5,054	916	858	1,262	1,253	2,226	2,243	3,310	47,384
Squirrelfishes	528	494	453	194	382	367	347	365	377	413	359	244	4,523
Mullets	1,481	1,987	846	1,108	1,029	1,270	1,367	1,168	737	816	394	605	12,808
Jacks													
Bar jack	1,450	2,563	2,295	885	1,114	1,105	1,384	1,221	2,226	981	901	562	16,687
Horse-eye jack	102	183	39	73	30	33	38	60	82	174	115	67	996
Yellow jack	105	0	14	0	0	21	75	20	8	7	0	0	250
Jack Category	749	992	909	307	423	293	600	415	539	567	451	537	6,782
Parrotfishes	2,439	2,835	2,992	3,051	3,464	3,233	3,277	2,823	2,517	2,842	1,426	1,114	32,013
Groupers													
Coney	299	258	424	361	361	1,060	454	456	444	209	438	210	4,974
Red hind	136	219	2,554	2,786	2,280	1,464	2,330	3,101	3,367	2,321	1,684	46	22,288
Misty grouper	1,005	803	622	289	340	293	175	447	544	265	480	330	5,593
Nassau grouper	37	193	430	157	206	115	54	68	138	118	222	12	1,750
Yellowfin grouper	154	111	104	9	85	109	60	57	72	92	58	64	975
Grouper category	358	438	1,082	941	946	919	1,985	1,990	2,733	1,040	888	1,299	14,619
Mojarras	258	182	210	97	137	118	280	273	122	80	118	82	1,957
Snappers													,

TABLE 6C. LANDIN	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	ОСТ	NOV	DEC	TOTAL
SFECIES	(Pounds)												
Lane snapper	8,357	10,396	8,198	7,081	7,148	6,608	6,934	7,648	6,470	6,000	6,559	5,807	87,206
Yellowtail	0,337	10,390	0,190	7,001	7,140	0,008	0,934	7,046	0,470	0,000	0,339	3,007	87,200
snapper	6,879	10,310	13,181	9,202	6,741	6,210	4,130	7,732	9,604	10,480	6,448	2,977	93,894
Silk snapper	6,337	5,472	6,861	8,103	8,341	8,012	7,104	10,601	9,002	6,255	3,355	3,868	83,311
Mutton snapper	2,480	2,088	2,715	1,883	638	1,369	2,356	2,512	3,388	2,114	1,837	2,103	25,483
Queen snapper	12,321	10,392	12,000	7,136	3,306	3,696	2,980	5,194	12,222	12,212	12,847	8,576	102,882
Vermillion snapper	242	300	291	129	310	181	398	432	682	69	114	3	3,151
Wenchman	554	309	573	173	329	187	227	537	629	91	144	135	3,888
Blackfin snapper	295	143	482	150	291	237	916	420	302	56	88	80	3,460
Snapper category	1,484	1,499	1,860	2,505	1,754	1,365	1,677	2,076	2,694	1,365	1,297	632	20,208
Triggerfishes	1,908	2,241	2,100	1,912	2,617	2,453	3,750	3,501	2,506	1,666	1,646	1,208	27,508
Barracudas	724	679	291	522	303	690	483	314	195	217	412	224	5,054
Porgies	1,115	906	640	367	718	931	852	894	782	719	644	407	8,975
Snooks	678	806	778	531	878	855	600	1,013	936	878	604	294	8,851
Tarpon	0	0	8	0	0	0	0	0	24	0	0	0	32
Goatfishes	378	367	243	210	373	478	312	595	660	517	304	289	4,726
Sardines	988	518	494	519	416	613	316	403	268	858	223	126	5,742
King Mackarels	2,489	3,016	5,483	4,067	3,961	2,870	3,291	3,530	2,693	2,076	1,695	1,523	36,694
Cero	1,663	3,396	1,735	4,292	4,992	1,923	1,772	812	713	892	902	956	24,048
Sharks	2,524	1,628	2,312	1,547	2,913	1,932	1,143	3,077	2,866	1,634	609	178	22,363
Wahoo	92	346	0	517	504	1,085	15	76	0	544	432	773	4,384
CLASSIFFIED													
First Class	354	315	368	814	511	377	1,055	269	285	72	176	238	4,834
Second Class	226	132	272	395	501	412	401	84	0	0	120	122	2,665
Third class	0	0	0	0	22	13	46	41	221	0	0	0	343
Trash	0	0	0	0	0	0	0	0	0	0	0	0	0
Other fishes	211	1,053	2,323	2,369	1,266	1,264	1,193	1,184	1,693	1,310	1,219	1,219	16,304
Total Fishes	85,621	98,151	101,756	84,532	84,219	78,823	74,456	90,607	94,431	78,177	61,678	51,310	983,761
SHELLFISH													

TABLE 6C. LANDI	NGS REPOR	TED IN PUI	ERTO RICO	BY SPECII	ES AND MC	NTH DUR	ING 2006.						
SPECIES	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL
	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)
Conch	19,692	18,510	19,211	13,228	19,888	20,558	126	304	574	17,042	13,016	11,312	153,461
Land crab	555	585	679	517	775	838	160	89	70	221	374	214	5,077
Lobster	19,486	15,722	13,355	9,277	12,077	13,628	14,489	15,010	18,899	12,707	12,667	11,781	169,098
Octopus	1,383	2,268	2,753	1,299	1,903	1,033	1,454	1,594	1,554	1,815	1,688	1,287	20,031
Other shellfish	1,069	943	861	483	608	575	594	549	583	397	409	425	7,496
Total Shellfish	42,185	38,028	36,859	24,804	35,251	36,632	16,823	17,546	21,680	32,182	28,154	25,019	355,163
TOTAL	127,806	136,179	138,615	109,336	119,470	115,455	91,279	108,153	116,111	110,359	89,832	76,329	1,338,924

Table 7A. AVERAGE POUND PER TRIP IN PUERTO RICO BY MONYH DURING 2004.

Month	Number of trips	Average Pounds Landed by Trip	Standard Deviation
January	3,182	65.63	206.33
February	3,049	59.45	206.46
March	2,950	56.91	186.86
April	3,057	58.11	154.25
May	2,737	55.43	184.49
June	2,591	58.03	399.98
July	2,513	55.37	120.36
August	2,598	60.10	162.65
September	2,193	74.43	159.17
October	2,875	71.69	225.30
November	2,223	61.11	175.47
December	2,280	71.21	146.57
Total	32,248	62.11	199.56

Table 7B. AVERAGE POUND PER TRIP IN PUERTO RICO BY MONYH DURING 2005.

Month	Number of trips	Average Pounds Landed by Trip	Standard Deviation
January	1,513	75.97	212.40
February	1,633	60.08	177.21
March	2,996	70.66	182.66
April	3,158	60.98	221.02
May	2,914	55.81	164.22
June	2,922	59.25	174.65
July	2,669	60.28	185.08
August	3,009	56.15	197.23
September	2,522	56.55	149.05
October	2,059	56.89	128.43
November	1,594	62.70	117.85
December	927	59.62	206.96
Total	27,916	61.06	178.20

Table 7C. AVERAGE POUND PER TRIP IN PUERTO RICO BY MONYH DURING 2006.

Month	Number of trips	Average Pounds Landed by Trip	Standard Deviation
January	2,460	59.42	236.66
February	2,539	67.08	172.21
March	2,491	61.52	170.91
April	1,974	57.55	136.03
May	2,298	57.77	151.49
June	2,155	59.38	142.23
July	1,996	51.84	160.15
August	2,192	57.04	243.17
September	2,192	64.71	175.51
October	2,144	61.71	251.26
November	1,919	57.81	95.02
December	1,624	50.31	119.47
Total	25,984	59.04	178.79

Table 7D. AVERAGE POUND PER TRIP IN PUERTO RICO BY COAST DURING 2004-06.

Coast	Number of trips	Average Pounds Landed by Trip	Standard Deviation	
2004				
North	3,414	59.14	257.61	
East	5,319	68.93	153.88	
South	8,965	61.85	229.54	
West	14,977	60.03	226.46	
2005				
North	2,502	51.20	132.41	
East	3,790	74.45	129.52	
South	7,281	57.68	150.82	
West	14,320	63.00	244.69	
2006				
North	1,537	45.42	72.00	
East	2,923	69.63	152.27	
South	8,075	54.54	155.93	
West	13,461	65.42	242.98	

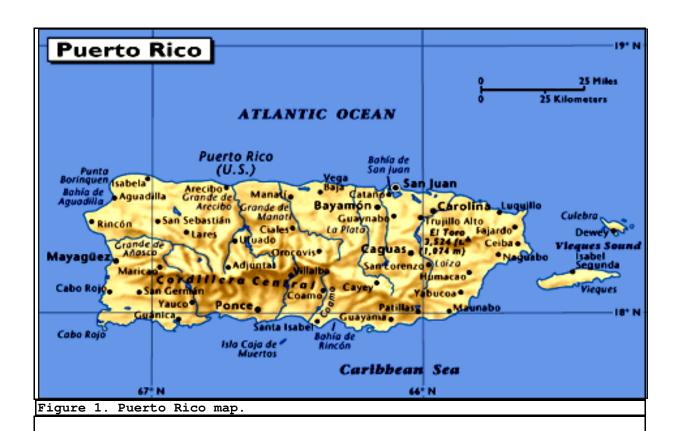


Figure 2. Trip ticket use in Puerto Rico during 2004 -07.

Estado Libre Asociado de Puerto Rico DEPARTAMENTO DE RECURSOS NATURALES Y AMBIENTALES



Laboratorio De Investigaciones Pesqueras

P.O. Box 3665 Mayagüez, P.R. 00681

Teléfono: (787) 833-2025 PROGRAMA DE ESTADISTICAS PESQUERAS SISTEMA DE UN BOLETO POR VIAJE

	Fecha de desembarco/				
		M	les	Día	Año
Pueblo					
Centro de desembarco	Uso Ofic	cial			
Número de teléfono	Número	de horas pes	cano	do	
Nombre del pescador 1					
Número licencia del pescador 1		Fecha de Ex	ф		
Nombre del pescador 2					
Número licencia del pescador 2	· · · · · · · · · · · · · · · · · · ·	Fecha de Ex	ф		
Nombre del pescador 3					
Número licencia del pescador 3		Fecha de Ex	ф. <u></u>		
Profundidad máxima en brazas P	rofundidad m	nínima en bra	zas_		
Area donde capturó la pesca: LatMin	nL	_ong	_Mir	1	
Pesca capturada a una distancia de la costa:					
Mayor de 10 millas Meno	or de 10 milla	as			

(226) ATUN ALETA AMARILLA		
(228) BONITO		
(230) VACA		
(229) BACORA		
(225) ATUNES		
(055) BALAJU		
(155) BOQUICOLORADO		
(189) CAPITAN		
(256) CHAPINES		
(128) DORADO		
(064) GALLOS		
(199) JAREA		
(155) COJINUA		
(116) GUAYMEN AMARILLO		
(118) JUREL OJON		
(109) JURELES		
(192) LOROS		
(088) CABRILLA		
(089) CHERNA		
(091) GUAJIL		
(086) GUASA		
(080) MANTEQUILLA		
(079) MEROS		
(147) MOJARRAS		
(136) ARRAYADO		
(142) BESUGO		

CLASE DE PESCADO	PESO	PRECIO POR LIBRA	ARTE	CANTIDAD O TAMAÑO DE ARTE
(143) CARTUCHO				
(140) COLIRRUBIA				
(139) CHILLO				
(144) MUNIAMA DE AFUERA				
(138) NEGRA O ALINEGRA				
(134) SAMA				
(130) PARGO				
(251) PEJE PUERCO				
(202) PICUAS				
(164) PLUMAS				
(076) ROBALOS				
(176) SALMONETE AMARILLO				
(175) SALMONETE COLORADO				
(036) SARDINAS				
(234) SIERRA ALASANA				
(233) SIERRA CARITE				
(008) TIBURONES				
(906) CANGREJOS MARINOS				
(900) CARRUCHO				
(904) JUEY DE TIERRA				
(901) LANGOSTA				
(903) OSTION				
(902) PULPO				
(905) OTROS MARISCOS				

