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PERSPECTIVA DE LAS ESTADISTICAS PESQUERAS DE PEQUEÑA  
ESCALA EN PUERTO RICO, 1983 - 1987

OVERVIEW OF PUERTO RICO'S SMALL - SCALE  
FISHERIES STATISTICS, 1983 - 1987



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Y/And: Carolyn Rivera Alvarez



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## DEDICATORIA

A la Dra. Yvonne Sadovy, pasada directora del Laboratorio de Investigaciones Pesqueras, excelente científica quien ha contribuido ampliamente al conocimiento del status del recurso pesquero de Puerto Rico.

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## INTRODUCCION

El Laboratorio de Investigaciones Pesqueras (LIP) del Departamento de Recursos Naturales de Puerto Rico (DRN) monitorea los desembarcos de pescado y marisco en Puerto Rico. El Programa de Estadísticas Pesqueras fue implementado en 1967 bajo el "Commercial Fisheries Research and Development Act of 1964 (PL 88-309)" para recolectar los datos de la pesquería comercial. Actualmente los fondos para sostener este proyecto son provistos por el "National Marine Fisheries Service (NOAA/NMFS)" a través de los programas "State/Federal Cooperative Fishery Statistics Program", "Interjurisdictional Commercial Fisheries Program" y por el DRN.

El objetivo de este proyecto es proveer las estadísticas pesqueras necesarias para la administración científica de los recursos pesqueros encontrados en el mar territorial del Estado Libre Asociado de Puerto Rico y las vecinas aguas de la Zona Económica Exclusiva Federal (EEZ por sus siglas en inglés). Otra meta de este proyecto es recolectar datos para proveer estimados eficientes y confiables de la cantidad y valor de los desembarcos comerciales de productos pesqueros para cada área geográfica específica de Puerto Rico.

Los datos de los desembarcos de Puerto Rico han sido publicados periódicamente (Suárez-Caabro, 1970; Juhl y

Suárez-Caabro, 1971, 1972; Suárez-Caabro, 1973; Suárez-Caabro y Rolón, 1974; Rolón, 1975; Suárez-Caabro y Abreu-Volmar, 1976; Abreu-Volmar, 1978; Weiler y Suárez-Caabro, 1980; Collazo y Calderón, 1987; Matos and Sadovy, 1990). Los datos presentados en esta publicación cubren desde enero de 1983 hasta diciembre de 1987.

## METODOS

Los desembarcos de la pesquería comercial fueron recolectados de pescadores voluntarios, acaparadores de pescado y asociaciones pesqueras en Puerto Rico. La confidencialidad de los datos ha sido mantenida para los pescadores individuales y/o para los negocios que proveyeron la información al proyecto. Los agentes pesqueros visitaron los 42 municipios costaneros, incluyendo las islas municipios de Vieques y Culebra, y los 88 centros pesqueros (área de desembarco en un municipio) identificados (Figura 1). Los datos fueron recolectados semanalmente utilizando un sistema de boletos de compra/venta (Figura 2).

Cada boleto de compra/venta incluyó la siguiente información: fecha; nombre del pescador y/o del acaparador (para evitar duplicación de datos); nombre de proeles (si alguno); municipio; centro pesquero; tipo de arte; esfuerzo pesquero (horas empleadas en la pesca); peso en libras por especie o grupo de especies; y valor en el mercado para el pescador (pre-

cio en dólares de E.U.A./libra). Los boletos de compra/venta fueron hechos utilizando los nombres comunes de especies y la identificación fue posible mediante una versión revisada del reporte técnico "Common Names of Fishes in Puerto Rico" (Erdman, 1987). Un sistema numérico de identificación de especies fue desarrollado para corresponder con el código de especies publicado por Erdman. Los peces usualmente fueron desembarcados enteros (no desbuchados), con la excepción de los pargos de aguas profundas y los meros grandes los cuales, usualmente, son desembarcados sin agallas y desbuchados. Las estadísticas del juey fueron reportadas por docenas, y se asume que cada docena produce una libra de carne.

Algunos de los desembarcos fueron reportados como una de las cuatro clases de peces (primera, segunda, tercera y brosa) reflejando su valor en el mercado: peces "brosa" tienen poco o ningún valor en el mercado. Esta clasificación explicada por Matos y Sadvoy (1990), varía un poco en sus definiciones para las distintas regiones, pero las siguientes descripciones fueron utilizadas ampliamente como las características de cada clase: peces de primera clase incluye individuos grandes del grupo de los pargos, meros, chapines y capitanes; segunda clase incluye pargos y meros pequeños, loros, salmónes y pejes puercos; tercera clase incluye los individuos más pequeños de la segunda clase y los gallos grandes; la

categoría brosa incluye las mariposas, ángeles, médicos, gallos pequeños y peces pequeños de un gran número de especies. La categoría de primera comenzó a ser reportada en los boletos de compra/venta en 1985, mientras que segunda, tercera y brosa comenzaron en 1986. Para mejorar la información requerida, en 1986 el mero cherna y el mero cabrilla fueron añadidos al sistema de boletos de compra/venta. Sin embargo, en la clasificación de "Otros Meros" se reporta también al mero cabrilla y al mero cherna, debido a que también lo venden en esta categoría. Además, en 1987, las categorías de tiburones y sábalos fueron añadidas al boleto de compra/venta. Por otra parte los pescadores reportaron la corvina añadiendo ellos mismos el nombre en el boleto de compra/venta.

Los datos de desembarcos fueron inicialmente entrados en la computadora "Apple II Plus" utilizando los programas "DEMASTER" y "STATPRO" entre 1984-1987. Luego, en 1989, los datos fueron convertidos al formato de computadoras IBM, en el programa "DBASEIII+". Desde enero de 1991 - agosto de 1992, los datos en la computadora IBM fueron revisados record por record contra los boletos de compra/venta originales. Luego los datos fueron corregidos y analizados usando "DBASEIII+", "Lotus 123" y "Microsoft Excel". Como en años anteriores (1972-82), se determinó que el 75% de los desembarcos fueron reportados por pescadores voluntarios (Weiler y Suárez-Caabro, 1980;

Collazo y Calderón, 1987). Para obtener el total de desembarcos utilizando el factor de corrección se usa la siguiente ecuación:

*Libras de Desembarcos Reportados* / 0.75 = *Total de Libras*

Toda la información presentada en este reporte son datos crudos (el factor de corrección no está incluido).

#### RESULTADOS Y DISCUSION

El total de desembarcos reportados de especies por costa de los años 1983-87 son presentados en las Tablas 1-5. Los peces más reportados en los desembarcos para los cinco años del estudio fueron varias especies de chillos principalmente Lutianus vivanus (11%), varias especies de boquicolados o roncós, principalmente Haemulon plumieri (9%), todas las especies de meros reportadas principalmente el mero cabrilla Epinephelus guttatus (9%), varias especies de loro (6%), las especies de sierras Scomberomerus cavalla y Scomberomerus regalis (5%), la colirrubia Ocyurus chrysurus (4%), el arrayado Lutianus synagris (4%), varias especies de atunes (4%), y varias especies de salmonetes un 3% (Figura 3). Las especies de mariscos más reportadas en los desembarcos fueron el carrucho Strombus gigas, y la langosta espinosa Panulirus argus las cuales constituyeron un 9% y un 8%, respectivamente, del total de desembarcos reportados (Figura 3). Los números de boletos de compra/venta

recolectados por mes para los años 1983-87 se presentan en la Tabla 6.

Los recursos pesqueros de Puerto Rico han presentado indicaciones de sobrepesca. Una de las indicaciones es que los desembarcos de pescado y mariscos han presentado un declive consistente desde 1979, cuando se reportó sobre 7.212 millones de libras (Calderón y Collazo, 1987; Matos, In press A) y para 1987 se reportaron solamente 2.149 millones de libras (Tabla 5), aún cuando el esfuerzo pesquero no disminuyó. Otra indicación de sobrepesca es que especies de peces que en el pasado no tenían valor comercial (Holocentrus ascensionis y Acanthurus spp.) al presente son fácilmente vendidas (Matos, 1993). Datos recolectados de bioestadísticas también han provisto indicaciones de sobrepesca. Por ejemplo, algunas especies de importancia comercial (Panulirus argus, Lutianus vivanus, Epinephelus guttatus, y Ocyurus chrysurus) fueron atrapadas en altos porcentajes antes de que alcanzaran el tamaño mínimo de madurez sexual (Appledoorn, et. al., 1992; Figuerola, 1991; Matos, In press A; Matos, In press B; Sadovy et. al., In press).

El valor total estimado de los desembarcos reportados para los años 1983-87 por municipio y por costa, son presentados en las tablas 7-11. El precio promedio por libra varía marcadamente por municipio y por especie. El precio promedio por libra en 1983 para todos los desembarcos fue de \$1.38, aumentando hasta \$1.59 en 1987 (Figura

4). El pescado y marisco de mayor valor a través de los cinco años del estudio (1983-87) fueron el chillo y el juey seguidos por la langosta (Tablas 1-5). Durante 1983-87 el municipio que reportó mayor cantidad de desembarcos fue el de Cabo Rojo. Para el mismo periodo, la costa que mayor cantidad de desembarcos reportó, fue la costa oeste. Desde 1972, el municipio de Cabo Rojo ha sido el de mayor productividad de los 42 municipios costaneros de Puerto Rico, igualmente la costa oeste ha continuado siendo la más productiva de todas (Weiler y Suárez-Caabro, 1980; Collazo y Calderón, 1988; Matos y Sadovy, 1990). Por otro lado, se ha observado una tendencia a disminuir los porcentajes del total de desembarcos reportados por Cabo Rojo y la costa oeste durante 1983-87 (Figura 5). Durante 1983-84 existió una controversia sobre una propuesta presentada para desarrollar un santuario marino en el municipio de Lajas, específicamente en el centro pesquero de La Parguera. Durante esta controversia, algunos pescadores asumieron que el santuario marino podría eliminar la pesquería en La Parguera y ellos trataron de presionar al gobierno mediante el cese en la entrega de sus datos de estadísticas pesqueras. Como resultado de sus esfuerzos, Lajas no reportó sus desembarcos en 1984 (Tabla 8). Después de 1985 los pescadores de Lajas han continuado voluntariamente cooperando con el programa de estadísticas pesqueras.

Desembarcos por especie y por arte para los años 1983-87 son presentados en las Tablas 12-16. La Figura 6 muestra las tendencias en el tipo de arte (definidas en Matos y Torres, 1989) en los desembarcos, donde las líneas (cala, silga, palangre y caña de pescar) y las redes (chinchorro, trasmallo, mallorquín, y atarraya) mostraron un aumento. Desembarcos capturados por mallorquines y trasmallos en este reporte fueron contabilizados ambos como trasmallos. Por otro lado, las trampas (nasas y cajones), que fueran el arte con los desembarcos más altos reportados desde 1970 (Juhl y Suárez-Caabro, 1971; Calderón y Collazo, 1987) y el buceo (incluye buceo a pulmón y buceo con tanque) han dado muestras de disminuir sus capturas. Se ha observado un problema en los recursos pesqueros mediante el cambio de las artes tradicionalmente usadas por los pescadores. Por ejemplo, una tendencia a disminuir el uso de las trampas porque los pescadores reclaman que en años anteriores este arte era más eficiente para capturar peces y mariscos que en el presente. Por otro lado, ha sido observado una tendencia a aumentar el uso de las líneas y las redes porque los pescadores reclaman que estas artes son más eficientes que las trampas. Además se ha observado una tendencia a disminuir los desembarcos del buceo, esto podría ser una indicación de un problema en los recursos del carrucho y de la langosta (ambas especies son el objetivo principal de los buzos).

Los desembarcos de especies por mes y por año para 1983-87 se presentan en las Tablas 17-21. La Figura 7 muestra los desembarcos reportados por mes para los cinco años (1983-87). También se observó una tendencia de aumento en los desembarcos entre enero-mayo y de agosto-septiembre. Una tendencia a disminuir los desembarcos es observada entre noviembre-diciembre. Esta disminución podría ser cuasada por una combinación de dos factores: el mal tiempo que impide las actividades pesqueras durante estos meses del año y una disminución en la actividad pesquera durante la celebración de Navidad por parte de los pescadores (período prolongado de aproximadamente tres semanas).

#### CONCLUSIONES

Los datos de estadísticas pesqueras indican que los recursos pesqueros de Puerto Rico están declinando. Evidencias de esto son: a) disminución en el número de libras desembarcadas; b) la venta de especies que en el pasado no tenían valor comercial; c) altos porcentajes de individuos de especies de importancia comercial que están siendo atrapados antes de alcanzar el tamaño mínimo de madurez sexual; d) la tendencia a aumentar el porcentaje de desembarcos de líneas y redes en contraste con una tendencia a disminuir el porcentaje de desembarcos de trampas y buceo.

Toda la información presentada en este reporte señala

la urgencia de la implantación de planes de administración pesquera efectivos para conservar el recurso pesquero de Puerto Rico y sus habitats (manglares, arrecifes de coral y praderas de hierbas marinas).

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**TABLAS Y FIGURAS/TABLES AND FIGURES**

TABLA 1. DESEMBARCOS DE ESPECIES POR COSTA EN 1983.  
TABLE 1. LANDINGS OF SPECIES BY COAST FOR 1983.

Especies (Species)	Norte (North)		Este (East)		Sur (South)		Oeste (West)		TOTAL (TOTAL)	
	Libras (Pounds)	*P/L **P/P	Libras (Pounds)	P/L P/P	Libras (Pounds)	P/L P/P	Libras (Pounds)	P/L P/P	Libras (Pounds)	P/L P/P
Atún (Tuna)	14,442	1.10	1,446	1.21	935	0.53	172,905	0.68	189,728	0.88
Balajú (Ballyhoo)	829	1.04	1,935	0.92	7,114	0.87	12,545	0.47	22,423	0.83
Boquicolorados (Grunts)	10,606	1.22	86,047	0.85	141,658	0.86	168,043	0.55	406,354	0.87
Capitán (Hogfish)	2,455	1.69	18,621	1.17	19,977	1.08	31,809	1.02	72,862	1.24
Chapín (Trunkfish)	267	2.00	7,596	0.73	9,411	0.80	23,162	1.03	40,436	1.14
Dorado (Dolphin)	16,311	1.35	816	1.19	6,157	0.96	19,070	0.81	42,354	1.07
Gallo (Squirrelfish)	1,523	1.46	5,955	0.78	1,490	0.69	10,258	0.35	19,226	0.82
Jarea (Mullet)	13,921	0.96	1,640	0.95	26,136	0.77	13,556	0.52	55,253	0.80
Jurel (Jack)	19,355	1.06	633	1.36	4,690	0.69	17,903	0.75	42,581	0.97
Loro (Parrotfish)	2,432	1.68	20,472	0.79	63,999	0.83	147,928	0.43	234,831	0.93
Meros (Groupers)	16,158	1.62	67,248	1.07	71,755	0.97	178,487	0.98	333,648	1.16
Mojarra (Mojarra)	8,345	0.96	1,299	0.69	518	0.78	817	0.69	10,979	0.78
Pargos (Snappers)										
Arayado (Lane)	7,480	1.56	28,587	1.14	67,274	1.02	64,298	1.08	167,639	1.20
Colirubia (Yellowtail)	44,191	1.82	47,528	1.12	32,344	1.02	44,148	1.14	168,211	1.28
Chillo (Silk)	37,394	2.00	10,198	1.24	29,541	1.62	319,356	1.62	396,489	1.62
Sama (Mutton)	4,957	1.56	7,939	1.14	28,785	1.02	23,607	1.08	65,288	1.20
Otros Pargos (Other Snappers)	21,814	1.82	4,806	1.12	13,775	1.02	25,499	1.14	65,894	1.28
Peje Puerco (Triggerfish)	2,998	1.61	15,083	0.81	20,507	0.85	51,431	0.54	90,019	0.95
Picúa (Barracuda)	10,379	1.25	1,964	0.89	5,298	0.94	7,912	0.86	25,553	0.99
Pluma (Porgy)	276	1.49	8,608	1.28	20,561	1.20	54,223	0.81	83,668	1.20
Robalo (Snook)	20,731	1.22	9,390	0.96	7,281	0.90	5,236	0.93	42,638	1.00
Salmonete (Goatfish)	485	1.69	12,286	1.08	48,488	0.86	101,819	0.55	163,078	1.04
Sardina (Sardine)	18,855	0.99	166	0.81	1,429	0.99	1,134	0.94	21,584	0.93
Sierra (Mackerel)	28,383	1.45	52,812	1.21	68,461	1.03	75,750	1.17	225,406	1.22
Otros Peces (Other Fishes)	88,754	1.13	10,474	0.83	41,227	1.04	50,372	0.73	190,827	0.93
Total Peces (Total Fishes)	393,341	1.44	423,549	0.98	738,811	0.93	1,621,268	1.01	3,176,969	1.09
Carrucho (Queen Conch)	9,132	1.49	47,596	1.21	66,564	1.53	279,218	1.25	402,510	1.37
Juey (Land Crab)	1,688	10.90	249	6.14	123	12.00	0	0.00	2,060	7.26
Langosta (Lobster)	8,162	3.91	45,633	3.45	119,697	3.31	101,449	3.48	274,941	3.53
Ostiones (Oysters)	190	0.85	0	0.00	0	0.00	49,174	1.27	49,364	0.53
Pulpo (Octopus)	2,452	2.13	1,118	1.95	15,230	2.84	1,047	1.66	19,847	2.15
Otros Mariscos (Other Shellfish)	1,603	2.88	310	3.36	578	2.84	1,426	4.25	3,917	3.33
Total Mariscos (Total Shellfish)	23,227	4.01	94,906	3.04	202,192	2.96	432,314	2.92	752,639	3.23
TOTAL (TOTAL)	416,568	1.60	518,455	1.32	941,003	1.39	2,053,582	1.30	3,929,608	1.38

\* P/L = Precio Promedio por Libra  
\*\* P/P = Average Price per Pound

TABLA 2. DESEMBARCOS DE ESPECIES POR COSTA EN 1984.  
TABLE 2. LANDINGS OF SPECIES BY COAST FOR 1984.

Especies (Species)	Norte (North)		Este (East)		Sur (South)		Oeste (West)		TOTAL (TOTAL)	
	Libras (Pounds)	*P/L **P/P	Libras (Pounds)	P/L P/P	Libras (Pounds)	P/L P/P	Libras (Pounds)	P/L P/P	Libras (Pounds)	P/L P/P
Atún (Tuna)	5,318	1.23	791	1.15	1,198	0.48	57,744	0.74	65,051	0.90
Balajú (Ballyhoo)	722	1.07	1,284	0.78	8,947	0.90	2,315	0.58	11,268	0.83
Boquicolorados (Grunts)	8,537	1.38	60,019	0.92	82,891	0.92	179,066	0.55	330,513	0.94
Capitán (Hogfish)	1,802	1.82	6,345	1.20	21,581	1.12	41,457	1.07	70,985	1.25
Chapín (Trunkfish)	395	1.68	9,146	0.74	6,401	0.87	22,611	1.04	38,553	1.08
Dorado (Dolphin)	10,409	1.45	1,063	1.12	647	0.93	2,748	0.92	14,867	1.11
Gallo (Squirrelfish)	1,948	1.07	781	0.79	328	0.77	9,482	0.48	12,539	0.78
Jarea (Mullet)	10,285	1.01	749	0.97	19,375	0.87	8,811	0.54	39,220	0.85
Jurel (Jack)	13,563	1.12	181	0.91	2,112	0.72	14,152	0.83	30,008	0.90
Loro (Parrotfish)	1,331	1.52	9,596	0.90	47,128	0.92	173,365	0.42	231,420	0.94
Meros (Groupers)	11,039	1.58	49,867	1.17	59,227	1.01	198,610	1.02	318,743	1.20
Mojarra (Mojarra)	8,054	0.88	571	0.84	215	0.82	942	0.85	9,782	0.85
Pargos (Snappers)										
Arayado (Lane)	10,313	1.72	16,935	1.18	60,724	1.02	64,473	1.10	152,445	1.26
Colirubia (Yellowtail)	28,853	1.81	31,627	1.20	35,309	0.96	38,648	1.15	134,237	1.28
Chilio (Silk)	34,905	1.98	8,975	1.35	32,211	1.70	281,144	1.70	357,235	1.68
Sama (Mutton)	3,946	1.71	5,180	1.13	20,382	0.98	23,605	1.14	53,113	1.24
Otros Pargos (Other Snappers)	8,438	1.59	2,500	0.96	5,904	0.98	19,375	1.02	36,217	1.14
Peje Puerco (Triggerfish)	3,466	1.57	15,343	0.92	16,373	0.93	37,759	0.60	72,941	1.01
Picúa (Barracuda)	5,658	1.41	485	0.79	3,155	0.93	1,591	0.92	10,889	1.01
Pluma (Porgy)	210	1.46	7,170	0.98	8,487	0.84	51,055	0.55	66,922	0.96
Robalo (Snook)	15,121	1.28	1,880	1.09	2,766	0.93	5,371	1.03	25,138	1.08
Salmonete (Goatfish)	399	1.51	7,639	1.05	28,118	0.95	89,489	0.57	125,645	1.02
Sardina (Sardine)	17,658	1.00	326	0.58	397	1.00	775	0.80	19,156	0.85
Sierra (Mackerel)	21,921	1.47	26,923	1.22	63,657	1.05	47,064	1.21	159,565	1.24
Otros Peces (Other Fishes)	86,177	1.44	10,006	1.04	19,180	0.98	42,365	0.98	157,728	1.11
Total Peces (Total Fishes)	310,068	1.45	275,382	1.05	544,713	0.99	1,414,017	0.99	2,544,180	1.12
Carrucho (Queen Conch)	6,532	1.59	32,189	1.30	38,675	1.45	217,799	1.31	295,195	1.41
Juey (Land Crab)	1,137	7.68	272	10.00	0	0.00	0	0.00	1,409	4.42
Langosta (Lobster)	5,045	4.09	41,277	3.59	90,021	3.40	111,881	3.61	248,224	3.67
Ostiones (Oysters)	95	1.00	19	1.25	7	2.00	46,126	1.25	46,247	1.38
Pulpo (Octopus)	2,532	2.27	983	1.96	10,992	1.76	2,226	1.72	16,733	1.93
Otros Mariscos (Other Shellfish)	1,610	2.00	71	3.00	32	1.25	1,684	2.56	3,397	2.20
Total Mariscos (Total Shellfish)	16,951	3.51	74,811	3.09	139,727	3.00	379,716	3.04	611,205	3.16
TOTAL (TOTAL)	327,019	1.58	350,193	1.40	684,440	1.42	1,793,733	1.43	3,155,385	1.45

\* P/L = Precio Promedio por Libra

\*\* P/P = Average Price per Pound

TABLE 3. DESEMBARCOS DE ESPECIES POR COSTA EN 1985.  
TABLE 3. LANDINGS OF SPECIES BY COAST FOR 1985.

Especies (Species)	Norte (North)		Este (East)		Sur (South)		Oeste (West)		TOTAL (TOTAL)	
	Libras (Pounds)	*P/L **P/P	Libras (Pounds)	P/L P/P						
Alún (Tuna)	10,410	1.33	2,263	0.98	899	0.59	55,822	0.77	69,394	0.92
Balajú (Ballyhoo)	4,026	1.08	2,189	0.73	5,189	0.84	7,262	0.83	18,666	0.87
Boquicolorados (Grunts)	5,070	1.48	56,490	0.97	100,757	0.90	113,021	0.76	275,338	1.03
Capitán (Hogfish)	336	1.86	6,344	1.22	16,409	1.35	18,734	1.45	41,823	1.47
Chapín (Trunkfish)	66	1.34	5,566	0.85	4,756	0.96	23,847	1.23	34,235	1.10
Dorado (Dolphin)	8,514	1.41	701	1.36	3,405	1.06	6,626	0.87	19,246	1.18
Gallo (Squirmelfish)	1,209	1.18	3,650	0.88	999	0.96	10,073	0.52	15,931	0.89
Jarea (Mullet)	8,451	1.04	633	0.91	12,339	0.88	23,152	0.56	44,575	0.85
Jurel (Jack)	17,932	1.22	484	0.92	3,730	0.70	12,556	0.79	34,702	0.91
Loro (Parrotfish)	1,894	1.58	14,911	0.82	74,601	0.89	129,982	0.54	221,388	0.96
Meros (Groupers)	9,165	1.62	68,835	1.15	49,377	1.10	177,081	1.16	304,458	1.26
Mojarra (Mojarra)	6,595	1.14	304	0.79	303	0.95	1,802	0.63	9,004	0.88
Pargos (Snappers)										
Arrayado (Lane)	9,988	1.77	18,265	1.12	29,804	1.05	61,118	1.30	119,175	1.31
Colirubla (Yellowtail)	29,392	1.85	45,773	1.21	27,978	1.04	37,384	1.31	140,527	1.35
Chillo (Silk)	38,098	2.15	7,658	1.68	47,677	1.80	279,041	1.86	372,474	1.87
Sama (Mutton)	6,661	1.68	5,637	1.23	10,180	1.07	23,249	1.30	45,727	1.32
Otros Pargos (Other Snappers)	4,320	1.71	3,854	1.20	10,632	1.08	14,147	1.26	32,953	1.31
Peje Puerco (Triggerfish)	2,179	1.56	11,566	0.93	9,458	0.83	23,148	0.86	46,351	1.05
Picúa (Barracuda)	3,820	1.73	1,494	0.84	2,397	1.03	1,730	1.00	9,441	1.15
Pluma (Porgy)	268	1.58	7,107	1.00	6,382	0.85	8,501	0.67	22,258	1.03
Robalo (Snook)	12,749	1.25	1,921	1.12	2,272	1.00	5,741	1.06	22,683	1.11
Salmonete (Goatfish)	55	1.35	6,523	1.04	6,775	0.98	45,409	0.76	58,762	1.03
Sardina (Sardine)	17,144	1.01	785	0.57	585	0.98	1,860	0.84	20,374	0.85
Sierra (Mackerel)	17,620	1.50	49,397	1.30	30,494	1.12	34,245	1.29	131,756	1.30
Clasificado (Classified)										
Primera (First)	2,366	1.12	314	0.85	221	0.57	4,849	0.59	7,750	0.78
Otros Peces (Other Fishes)	85,564	1.14	24,548	0.80	16,037	0.77	57,129	0.76	183,278	0.87
Total Peces (Total Fishes)	303,892	1.53	347,212	1.08	473,656	1.02	1,177,509	1.12	2,302,269	1.19
Carrucho (Queen Conch)	3,001	1.74	69,384	1.32	28,761	1.52	159,959	1.54	261,105	1.53
Juey (Land Crab)	820	10.40	32	6.00	159	4.19	224	1.79	1,235	5.60
Langosta (Lobster)	5,165	4.14	34,083	3.57	88,871	3.57	83,228	3.69	211,347	3.74
Ostiones (Oysters)	695	1.48	0	0.00	0	0.00	28,663	1.22	29,358	0.68
Pulpo (Octopus)	1,968	2.26	918	1.72	11,421	1.78	16,065	1.90	30,372	1.92
Otros Mariscos (Other Shellfish)	963	2.61	200	4.25	352	1.41	2,160	1.23	3,675	2.38
Total Mariscos (Total Shellfish)	12,612	3.99	104,617	2.98	129,564	3.09	290,299	3.02	537,092	3.27
TOTAL (TOTAL)	316,504	1.69	451,829	1.34	603,220	1.46	1,467,808	1.44	2,839,361	1.48

\* P/L = Precio Promedio por Libra

\*\*P/P = Average Price per Pound

TABLA 4. DESEMBARCOS DE ESPECIES POR COSTA EN 1986.  
TABLE 4. LANDINGS OF SPECIES BY COAST FOR 1986.

Especies (Species)	Norte (North)		Este (East)		Sur (South)		Oeste (West)		TOTAL (TOTAL)	
	Libras (Pounds)	*P/L **(P/P)	Libras (Pounds)	P/L (P/P)						
Atún (Tuna)	9,442	1.21	4,532	0.96	583	0.92	69,368	0.80	83,925	0.97
Balajú (Ballyhoo)	1,690	1.02	1,091	0.85	4,141	0.85	2,973	0.95	9,895	0.92
Boquiclorados (Grunts)	9,675	1.38	45,997	1.05	77,376	0.86	58,332	0.85	191,380	1.04
Capitán (Hogfish)	790	1.72	12,534	1.30	8,555	1.38	16,907	1.60	38,786	1.50
Chapín (Trunkfish)	654	1.48	8,656	0.83	6,516	1.39	22,477	1.39	38,303	1.27
Dorado (Dolphin)	10,804	1.43	1,165	1.23	4,488	1.15	17,878	0.83	34,335	1.16
Gallo (Squirrelfish)	1,155	1.13	4,274	0.83	1,317	0.96	7,556	0.65	14,302	0.89
Jarea (Mullet)	12,062	1.00	1,865	1.09	10,959	0.91	8,960	0.73	33,846	0.93
Jurel (Jack)	24,397	1.10	5,505	0.99	3,192	1.07	14,146	0.76	47,240	0.98
Loro (Parrotfish)	2,489	1.53	15,375	0.88	46,432	0.79	47,768	0.79	112,064	1.00
Meros (Groupers)										
Cabrilla (Red Hind)	0	0.00	442	1.30	0	0.00	0	0.00	442	0.33
Cherna (Nassau)	0	0.00	57	1.30	0	0.00	0	0.00	57	0.33
Otros Meros (Other Groupers)	10,680	1.70	60,425	1.21	34,164	1.07	102,887	1.20	208,156	1.30
Mojarra (Mojarra)	5,593	0.99	1,171	1.08	1,079	1.02	2,814	0.68	10,657	0.94
Pargos (Snappers)										
Arrayado (Lane)	8,225	1.66	20,786	1.15	23,829	1.20	31,825	1.37	84,665	1.35
Colirubia (Yellowtail)	20,907	1.96	28,675	1.23	19,059	1.04	30,696	1.35	99,337	1.40
Chililo (Silk)	38,138	2.25	6,775	1.55	33,139	1.86	313,718	1.88	391,770	1.89
Sama (Mutton)	4,187	1.74	6,949	1.34	8,936	1.21	11,847	1.40	31,919	1.42
Otros Pargos (Other Snappers)	9,010	1.74	5,969	1.12	9,792	1.31	5,003	1.22	29,774	1.35
Peje Puerco (Triggerfish)	2,748	1.42	7,399	0.92	7,517	0.82	15,204	0.99	32,868	1.04
Picúa (Barracuda)	10,488	1.31	1,214	0.88	4,565	1.03	3,487	0.90	19,754	1.03
Pluma (Porgy)	404	1.27	3,784	1.12	11,772	0.92	2,858	0.90	18,818	1.05
Robalo (Snook)	15,576	1.36	3,046	1.22	2,386	1.10	4,709	1.01	25,717	1.17
Salmoneo (Goatfish)	325	1.63	6,600	1.19	4,072	0.91	10,168	0.99	21,165	1.18
Sardina (Sardine)	12,122	1.11	540	0.52	555	0.99	171	0.92	13,388	0.89
Sierra (Mackerel)	30,790	1.60	46,711	1.28	19,119	1.14	22,264	1.34	118,884	1.34
Clasificado (Classified)										
Primera (First Class)	5,030	1.12	20,511	1.19	13,068	0.94	84,684	1.17	123,293	1.11
Segunda (Second Class)	0	0.00	50	1.02	5,521	0.58	130,074	0.65	135,645	0.56
Tercera (Third Class)	0	0.00	19,044	0.86	1,088	0.53	5,863	0.73	25,995	0.53
Brosa (Trash)	0	0.00	560	0.70	0	0.00	8,973	0.50	9,533	0.30
Otros Peces (Other Fishes)	60,852	0.94	19,934	0.85	81,404	0.74	59,233	0.75	221,423	0.82
Total Peces (Total Fishes)	308,233	1.51	361,636	1.11	444,624	1.05	1,112,843	1.18	2,227,336	1.21
Carrucho (Queen Conch)	4,535	1.86	44,146	1.48	24,122	1.85	127,483	1.56	200,286	1.69
Juey (Land Crab)	536	9.34	263	13.60	441	1.51	26	1.12	1,266	6.39
Langosta (Lobster)	5,136	4.04	36,171	3.78	83,224	3.67	94,821	3.82	219,352	3.83
Ostiones (Oyster)	526	1.00	0	0.00	8	1.81	7	2.00	541	1.20
Pulpo (Octopus)	1,081	2.21	691	1.68	7,044	2.01	3,388	1.88	12,204	1.95
Otros Mariscos (Other Shellfish)	924	2.48	309	0.97	2,189	2.47	2,518	1.16	5,940	1.77
Total Mariscos (Total Shellfish)	12,738	3.72	81,580	3.39	117,028	3.24	228,243	2.95	439,589	3.33
TOTAL (TOTAL)	320,971	1.62	443,216	1.48	561,652	1.45	1,341,086	1.58	2,666,925	1.53

\*P/L = Precio Promedio por Libra  
\*\*P/P = Average Price per Pound

TABLE 5. DESEMBARCOS DE ESPECIES POR COSTA EN 1987.  
TABLE 5. LANDINGS OF SPECIES BY COAST FOR 1987.

Especies (Species)	Norte (North)		Este (East)		Sur (South)		Oeste (West)		TOTAL (TOTAL)	
	Libras (Pounds)	*P/L ** (P/P)	Libras (Pounds)	P/L (P/P)						
Atún (Tuna)	11,130	1.27	4,661	1.34	1,525	0.94	98,790	0.86	116,106	1.10
Balajú (Ballyhoo)	682	0.98	1,316	1.03	4,571	0.84	3,102	0.95	9,671	0.95
Boquicolorados (Grunts)	6,440	1.45	41,584	1.18	57,170	0.93	55,670	0.85	160,864	1.10
Capitán (Hogfish)	274	1.82	5,293	1.33	6,193	1.34	25,651	1.71	37,411	1.55
Corvina (Croaker)	6,247	1.27	49	1.05	0	0.00	0	0.00	6,296	0.58
Chapín (Trunkfish)	214	1.52	10,459	0.89	5,718	1.09	20,149	1.51	36,540	1.25
Dorado (Dolphin)	6,799	1.54	990	1.50	10,004	1.16	10,864	1.03	28,657	1.31
Gallo (Squirrelfish)	693	1.22	1,911	1.02	1,070	0.88	326	1.08	4,000	1.05
Jarea (Mullet)	14,492	1.03	1,259	1.21	6,945	0.98	6,704	0.77	29,400	1.00
Jurel (Jack)	18,300	1.19	1,862	1.11	2,015	1.11	14,859	0.81	37,036	1.06
Loro (Parrotfish)	678	1.49	10,805	0.92	28,242	0.88	37,729	1.00	77,454	1.07
Meros (Groupers)										
Cabrilla (Red Hind)	524	1.61	4,816	0.88	1,635	1.03	4,586	1.34	11,561	1.22
Cherna (Nassau)	80	1.50	35	1.15	134	1.10	70	1.18	319	1.23
Otros Meros (Other Groupers)	10,413	1.74	34,780	1.36	25,892	1.15	62,724	1.24	133,809	1.37
Mojarra (Mojarra)	6,709	1.12	564	1.20	1,173	1.19	762	0.78	9,208	1.07
Pargos (Snappers)										
Arrayado (Lane)	5,399	1.72	20,563	1.32	12,176	1.15	23,037	1.43	61,175	1.41
Colirubia (Yellowtail)	20,735	1.88	36,628	1.33	14,170	1.14	21,897	1.40	93,430	1.44
Chillo (Slik)	25,992	2.23	11,523	1.58	22,034	1.70	148,791	1.89	208,340	1.85
Sama (Mutton)	2,872	1.79	5,616	1.54	6,500	1.31	5,486	1.47	20,474	1.53
Otros Pargos (Other Snappers)	9,505	1.67	6,091	1.41	7,076	1.32	3,321	1.30	25,993	1.43
Peje Puerco (Triggerfish)	1,922	1.50	9,894	1.01	11,816	0.79	15,424	0.99	39,056	1.07
Picúa (Barracuda)	20,130	1.29	1,583	1.15	2,455	1.29	2,522	0.97	26,690	1.18
Pluma (Porgy)	429	1.21	4,069	1.23	4,100	0.99	2,326	0.88	10,924	1.08
Robalo (Snook)	15,822	1.68	5,069	1.34	3,163	1.15	5,657	1.00	29,711	1.29
Sábalo (Tarpon)	11,925	1.01	0	0.00	0	0.00	658	0.33	12,583	0.34
Salmonete (Goatfish)	537	1.34	3,581	1.33	3,129	0.96	2,831	0.97	10,078	1.15
Sardina (Sardine)	11,809	1.02	826	0.69	242	1.49	10,847	1.01	23,724	1.05
Sierra (Mackerel)	25,020	1.56	19,108	1.39	16,867	1.26	26,083	1.38	87,078	1.40
Tiburón (Shark)	4,379	1.35	1,703	1.25	2,765	1.36	4,566	0.84	13,413	1.20
Clasificado (Classified)										
Primera (First Class)	1,143	2.59	19,984	1.27	14,726	0.94	55,710	1.19	91,563	1.50
Segunda (Second Class)	90	1.00	20	1.00	9,379	0.65	132,498	0.59	141,987	0.81
Tercera (Third Class)	30	1.50	24,127	0.92	3,069	0.52	21	2.25	27,247	1.30
Brosa (Trash)	0	0.00	1,118	0.69	0	0.00	5,349	0.33	6,467	0.26
Otros Peces (Other Fishes)	100,296	1.24	6,884	0.99	46,295	0.86	41,856	35.33	195,331	9.60
Total Peces (Total Fishes)	341,710	1.55	298,771	1.20	332,249	1.07	850,866	1.22	1,823,596	1.26
Carrucho (Queen Conch)	2,285	2.28	24,058	1.64	22,168	1.84	106,802	1.65	155,313	1.85
Juey (Land Crab)	928	8.52	613	13.50	273	1.33	272	1.95	2,086	6.33
Langosta (Lobster)	4,751	4.10	30,840	3.95	53,600	3.62	67,520	3.90	156,711	3.89
Ostiones (Oyster)	72	1.00	0	0.00	0	0.00	27	1.50	99	0.63
Fulpo (Octopus)	282	1.82	216	1.67	6,074	2.05	2,461	1.94	9,033	1.87
Otros Mariscos (Other Shellfish)	911	5.06	476	2.20	260	2.83	770	2.14	2,417	3.06
Total Mariscos (Total Shellfish)	9,229	4.48	56,203	3.78	82,375	3.14	177,852	2.98	325,659	3.60
TOTAL (TOTAL)	350,939	1.67	354,974	1.61	414,624	1.47	1,028,718	1.62	2,149,255	1.59

\* P/L = Precio Promedio por Libra

\*\*P/P = Average Price per Pound

**TABLA 8. TOTAL DE BOLETOS RECOLECTADOS EN PUERTO RICO DURANTE 1983-1987.**  
**TABLE 8. TOTAL TICKETS COLLECTED IN PUERTO RICO DURING 1983-1987.**

MES (MONTH)	1983	1984	1985	1986	1987
	# BOLETOS (# TICKETS)				
Enero (January)	3,618	1,494	1,348	1,038	1,400
Febrero (February)	3,550	1,781	1,245	999	1,560
Marzo (March)	3,597	1,459	1,511	1,608	1,742
Abril (April)	3,580	1,691	1,370	1,412	1,837
Mayo (May)	3,970	1,847	1,396	1,755	1,955
Junio (June)	2,499	1,399	1,666	1,831	1,765
Julio (July)	1,167	1,103	1,306	1,723	1,617
Agosto (August)	1,627	1,759	1,683	1,858	1,973
Septiembre (September)	2,498	1,952	1,590	1,685	1,748
Octubre (October)	1,839	1,864	1,083	1,723	1,621
Noviembre (November)	2,069	1,167	1,102	1,200	1,258
Diciembre (December)	1,302	1,166	961	1,343	1,151
<b>TOTAL (TOTAL)</b>	<b>31,316</b>	<b>18,682</b>	<b>16,261</b>	<b>18,175</b>	<b>19,627</b>

TABLA 7. DESEMBARCOS POR MUNICIPIO Y COSTA EN 1983.  
TABLE 7. LANDINGS BY MUNICIPALITY AND COAST FOR 1983.

Costa o Municipio (Coast or Municipality)	Libras (Pounds)	Valor en Dólares de E.U.A. (Value in U.S.A. Dollars)	Precio Promedio por libra (\$) (Average Price per pound - \$)
<b>NORTE (NORTH)</b>	<b>416,568</b>	<b>598,880</b>	<b>1.60</b>
Isabela	10,660	20,303	1.85
Quebradillas	46	82	1.68
Camuy	11,499	21,490	1.87
Hatillo	19,063	26,232	1.52
Arecibo	25,468	30,795	1.27
Barceloneta	41,002	43,891	1.27
Manatí	1,742	3,963	2.52
Vega Baja	21,448	37,268	2.11
Vega Alta	8,084	15,546	2.18
Dorado	15,246	28,486	2.12
Toa Baja	2,681	3,583	1.29
Cataño	51,644	44,836	0.97
San Juan	91,807	162,287	1.75
Carolina	5,148	9,049	2.08
Lolza	58,307	64,795	1.34
Río Grande	18,455	32,126	2.00
Luquillo	34,268	54,149	1.85
<b>ESTE (EAST)</b>	<b>518,455</b>	<b>658,892</b>	<b>1.32</b>
Fajardo	96,019	125,311	1.33
Ceiba	38,831	44,164	1.14
Naguabo	77,177	95,347	1.40
Humacao	75,706	88,170	1.27
Yabucoa	52,603	71,789	1.62
Maunabo	31,352	28,501	1.10
Culebra	22,831	30,185	1.19
Vieques	123,936	175,426	1.54
<b>SUR (SOUTH)</b>	<b>941,003</b>	<b>1,244,571</b>	<b>1.39</b>
Pailillas	72,819	112,171	1.60
Arroyo	70,409	82,811	1.34
Guayama	118,332	160,628	1.14
Salinas	82,263	115,432	1.32
Santa Isabel	14,380	17,560	1.38
Juana Díaz	133,146	200,151	1.54
Ponce	24,283	30,204	1.33
Pefueñas	28,384	53,614	1.75
Guayanilla	47,498	49,074	0.96
Guánica	156,881	190,347	1.56
Lajas	192,608	232,579	1.48
<b>OESTE (WEST)</b>	<b>2,053,582</b>	<b>2,232,790</b>	<b>1.30</b>
Cabo Rojo	1,589,602	1,751,113	1.44
Mayagüez	95,775	129,301	1.42
Añasco	18,622	24,214	1.31
Rincón	55,613	66,124	1.49
Aguada	56,058	56,115	1.12
Aguadilla	237,912	205,924	0.95
<b>TOTAL (TOTAL)</b>	<b>3,929,608</b>	<b>4,735,134</b>	<b>1.38</b>

TABLA 8. DESEMBARCOS POR MUNICIPIO Y COSTA EN 1984.  
TABLE 8. LANDINGS BY MUNICIPALITY AND COAST FOR 1984.

Costa o Municipio (Coast or Municipality)	Libras (Pounds)	Valor en Dólares de E.U.A. (Value in U.S.A. Dollars)	Precio Promedio por libra (\$) (Average Price per pound - \$)
<b>NORTE (NORTH)</b>	<b>327,019</b>	<b>480,588</b>	<b>1.58</b>
Isabela	8,654	15,408	1.60
Quebradillas	38	72	2.21
Camuy	15,689	28,428	1.92
Hatillo	16,963	20,956	1.36
Arecibo	14,875	19,396	1.46
Barceloneta	17,080	25,510	1.38
Manatí	1,463	2,944	2.37
Vega Baja	12,448	21,469	1.60
Vega Alta	10,007	18,328	1.99
Dorado	13,054	22,250	1.97
Toa Baja	832	939	1.28
Cataño	42,948	37,754	0.93
San Juan	72,001	124,745	1.65
Carolina	3,738	6,824	1.99
Loíza	47,938	55,895	1.38
Río Grande	16,786	31,268	1.90
Luquillo	32,505	48,402	1.72
<b>ESTE (EAST)</b>	<b>350,193</b>	<b>491,393</b>	<b>1.40</b>
Fajardo	72,515	101,903	1.46
Ceiba	21,513	27,026	1.25
Naguabo	72,024	94,184	1.45
Humacao	36,363	47,480	1.43
Yabucoa	31,588	42,476	1.65
Maunabo	21,035	20,312	1.10
Culebra	25,417	48,493	1.28
Vieques	69,738	109,519	1.57
<b>SUR (SOUTH)</b>	<b>684,440</b>	<b>949,897</b>	<b>1.42</b>
Patillas	36,190	53,653	1.52
Arroyo	68,164	80,834	1.37
Guayama	101,759	144,094	1.22
Salinas	81,914	115,508	1.29
Santa Isabel	12,397	16,434	1.55
Juana Díaz	100,508	153,266	1.48
Ponce	19,923	24,594	1.29
Peñuelas	42,692	83,414	1.79
Guayanilla	36,552	41,523	1.05
Guánica	184,341	236,577	1.62
Lajas	0	0	0.00
<b>OESTE (WEST)</b>	<b>1,793,733</b>	<b>2,048,875</b>	<b>1.43</b>
Cabo Rojo	1,556,797	1,766,561	1.48
Mayagüez	77,193	104,367	1.41
Añasco	15,324	18,333	1.27
Rincón	43,027	57,343	1.52
Aguada	56,619	54,085	1.09
Aguadilla	44,773	48,186	1.24
<b>TOTAL (TOTAL)</b>	<b>3,155,385</b>	<b>3,970,753</b>	<b>1.45</b>

TABLA 9. DESEMBARCOS POR MUNICIPIO Y COSTA EN 1985.  
TABLE 9. LANDINGS BY MUNICIPALITY AND COAST FOR 1985.

Costa o Municipio (Coast or Municipality)	Libras (Pounds)	Valor en Dólares de E.U.A. (Value in U.S.A. Dollars)	Precio Promedio por libra (\$) (Average Price per pound - \$)
<b>NORTE (NORTH)</b>	316,504	501,528	1.69
Isabela	16,817	26,482	1.79
Quebradillas	25	70	2.67
Camuy	11,070	19,124	2.03
Hatillo	12,988	18,019	1.44
Arecibo	14,502	19,478	1.53
Barceloneta	26,999	36,173	1.33
Manatí	801	1,940	2.19
Vega Baja	15,278	29,161	1.77
Vega Alta	9,930	17,516	2.15
Dorado	14,019	24,998	1.82
Toa Baja	2,686	2,958	1.29
Cataño	39,389	42,897	1.14
San Juan	78,884	146,162	1.71
Carolina	10,844	21,078	2.09
Loíza	21,154	28,337	1.35
Río Grande	12,698	25,252	2.11
Luquillo	28,420	41,883	1.95
<b>ESTE (EAST)</b>	451,829	609,792	1.34
Fajardo	101,288	138,237	1.44
Ceiba	25,013	32,316	1.30
Naguabo	72,957	104,094	1.41
Humacao	68,581	84,343	1.20
Yabucoa	30,909	41,125	1.60
Maunabo	16,638	18,454	1.16
Culebra	22,782	39,357	1.36
Vieques	113,661	151,866	1.52
<b>SUR (SOUTH)</b>	603,220	930,407	1.46
Patillas	23,352	39,268	1.66
Arroyo	59,069	76,204	1.45
Guayama	96,887	163,011	1.29
Salinas	71,060	111,108	1.51
Santa Isabel	3,895	7,103	2.08
Juana Díaz	54,782	92,118	1.53
Ponce	8,648	9,840	1.23
Peñuelas	39,252	84,367	1.92
Guayanilla	41,488	45,413	1.06
Guánica	142,141	204,907	1.48
Lajas	62,646	97,068	1.45
<b>OESTE (WEST)</b>	1,467,808	1,967,959	1.44
Cabo Rojo	1,208,857	1,643,636	1.48
Mayagüez	83,052	113,400	1.44
Añasco	16,235	22,219	1.34
Rincón	46,523	71,779	1.63
Aguada	56,369	53,190	1.05
Aguadilla	56,772	63,735	1.25
<b>TOTAL (TOTAL)</b>	2,839,361	4,009,686	1.48

TABLA 10. DESEMBARCOS POR MUNICIPIO Y COSTA EN 1986.  
TABLE 10. LANDINGS BY MUNICIPALITY AND COAST FOR 1986.

Costa o Municipio (Coast or Municipality)	Libras (Pounds)	Valor en Dólares de E.U.A. (Value in U.S.A. Dollars)	Precio Promedio por libra (\$) (Average Price per Pound - \$)
<b>NORTE (NORTH)</b>	<b>320,971</b>	<b>488,667</b>	<b>1.62</b>
Isabela	3,520	5,808	1.45
Quebradillas	0	0	0.00
Camuy	4,924	8,843	1.78
Hatillo	5,088	6,445	1.34
Arecibo	12,936	16,656	1.54
Barceloneta	13,997	19,772	1.22
Manatí	2,152	4,860	2.28
Vega Baja	15,888	28,414	1.53
Vega Alta	19,183	33,151	1.78
Dorado	11,856	19,217	1.81
Toa Baja	3,121	3,456	1.20
Cataño	50,736	55,719	1.13
San Juan	73,160	132,374	1.72
Carolina	1,927	4,397	2.46
Lolza	38,894	49,270	1.42
Río Grande	11,958	23,784	1.86
Luquillo	51,631	76,501	1.82
<b>ESTE (EAST)</b>	<b>443,216</b>	<b>616,819</b>	<b>1.48</b>
Fajardo	87,045	121,418	1.51
Ceiba	33,352	46,023	1.43
Naguabo	99,091	146,206	1.63
Humacao	61,806	75,350	1.29
Yabucoa	26,316	38,197	1.73
Maunabo	23,218	26,115	1.46
Culebra	17,668	29,479	1.28
Vieques	94,720	134,031	1.70
<b>SUR (SOUTH)</b>	<b>561,652</b>	<b>846,548</b>	<b>1.45</b>
Patillas	11,094	19,171	1.78
Arroyo	41,688	53,967	1.60
Guayama	115,720	187,256	1.23
Salinas	65,533	119,767	1.78
Santa Isabel	1,196	2,201	2.41
Juana Díaz	39,823	62,072	1.69
Ponce	6,946	10,042	1.61
Peñuelas	50,634	98,584	1.86
Guayanilla	33,172	32,209	1.08
Guánica	74,134	96,635	1.46
Lajas	121,712	164,644	1.41
<b>OESTE (WEST)</b>	<b>1,341,086</b>	<b>1,972,791</b>	<b>1.58</b>
Cabo Rojo	1,044,973	1,601,726	1.77
Mayagüez	66,946	97,958	1.48
Añasco	10,631	16,706	1.56
Rincón	65,951	105,754	1.36
Aguada	76,912	66,992	0.97
Aguadilla	75,673	83,655	1.15
<b>TOTAL (TOTAL)</b>	<b>2,666,925</b>	<b>3,924,825</b>	<b>1.53</b>

TABLA 11. DESEMBARCOS POR MUNICIPIO Y COSTA EN 1987.  
TABLE 11. LANDINGS BY MUNICIPALITY AND COAST FOR 1987.

Costa o Municipio (Coast or Municipality)	Libras (Pounds)	Valor en Dólares de E.U.A. (Value in U. S.A. Dollars)	Precio Promedio por libra (\$) (Average Price per Pound - \$)
<b>NORTE (NORTH)</b>	<b>350,939</b>	<b>510,784</b>	<b>1.67</b>
Isabela	177	250	1.62
Quebradillas	70	134	1.75
Camuy	2,980	5,919	1.92
Hatillo	14,183	22,621	1.73
Arecibo	12,984	19,134	1.66
Barceloneta	19,461	32,478	1.36
Manatí	267	558	2.50
Vega Baja	5,197	7,228	1.76
Vega Alta	17,451	23,824	1.66
Dorado	4,362	14,618	2.10
Toa Baja	1,691	2,789	2.00
Cataño	32,746	38,764	1.46
San Juan	56,606	95,435	1.58
Carolina	21,627	31,628	2.19
Lolza	114,153	140,651	1.37
Río Grande	9,194	20,360	1.95
Luquillo	37,790	54,393	1.85
<b>ESTE (EAST)</b>	<b>354,974</b>	<b>531,571</b>	<b>1.61</b>
Fajardo	84,428	141,610	1.70
Ceiba	50,669	73,687	1.63
Naguabo	75,190	116,819	1.70
Humacao	52,118	72,764	1.59
Yabucoa	12,522	17,426	1.56
Maunabo	8,509	10,057	1.34
Culebra	19,947	25,952	1.16
Vieques	51,591	73,256	1.66
<b>SUR (SOUTH)</b>	<b>414,624</b>	<b>629,000</b>	<b>1.47</b>
Palillos	23,556	45,550	1.98
Arroyo	22,994	31,033	1.56
Guayama	104,653	162,200	1.31
Salinas	27,361	51,664	1.59
Santa Isabel	0	0	0.00
Juana Díaz	60,572	96,136	1.72
Ponce	2,244	2,778	1.41
Peñuelas	28,274	56,878	1.81
Guayanilla	8,128	5,760	0.91
Guánica	60,206	71,118	1.30
Lajas	76,636	105,883	1.43
<b>OESTE (WEST)</b>	<b>1,028,718</b>	<b>1,449,989</b>	<b>1.62</b>
Cabo Rojo	724,898	1,072,007	1.92
Mayagüez	78,222	113,944	1.45
Añasco	6,904	10,583	1.53
Rincón	39,562	69,216	1.60
Aguada	52,303	53,182	1.05
Aguadilla	126,829	131,057	1.14
<b>TOTAL (TOTAL)</b>	<b>2,149,255</b>	<b>3,121,344</b>	<b>1.59</b>

TABLA 12. DESEMBARCOS DE ESPECIES POR ARTE EN 1983.  
TABLE 12. LANDINGS OF SPECIES BY GEAR FOR 1983.

Especies (Species)	Chinchorro (Beach Seine)	Nasas (Fish Pots)	Cajones (Lobster Pots)	Trasmallo (Gill Net)	Cala (Hand Line)	Silga (Troll Line)
	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)
Atún (Tuna)	14,175	0	0	2,470	2,984	170,073
Balajú (Ballyhoo)	9,794	489	0	11,616	339	70
Boquicolorados (Grunts)	25,988	292,657	0	71,736	13,181	423
Capitán (Hogfish)	70	14,430	0	1,427	1,084	3
Chapín (Trunkfish)	242	38,164	25	989	518	26
Dorado (Dolphin)	0	0	0	278	938	41,138
Gallo (Squirrelfish)	161	17,465	0	91	1,275	8
Jarea (Mullet)	11,671	1,071	0	38,704	1,510	12
Jurel (Jack)	18,307	2,204	47	8,243	7,651	5,816
Loro (Parrotfish)	3,128	134,235	8	94,041	938	24
Meros (Groupers)	3,767	227,181	0	5,680	70,960	1,584
Mojarra (Mojarra)	1,958	401	0	7,694	398	68
Pargos (Snappers)						
Arayado (Lane)	3,260	75,736	0	10,376	55,464	0
Colimubia (Yellowtail)	15,842	52,474	0	7,024	90,460	0
Chillo (Slik)	1,232	291,984	0	2,348	99,969	0
Sama (Mutton)	3,980	37,592	0	3,368	16,285	0
Otros Pargos (Other Snappers)	2,311	18,328	0	32,098	8,127	0
Peje Puerco (Triggerfish)	498	79,903	0	296	4,921	201
Picúa (Barracuda)	13,444	713	0	1,160	3,298	6,695
Pluma (Porgy)	5,588	66,744	0	9,591	1,432	142
Robalo (Snook)	12,322	1,682	0	18,953	2,040	35
Salmonete (Goatfish)	119	162,088	0	429	309	2
Sardina (Sardine)	1,460	196	0	7,381	3,057	87
Sierra (Mackerel)	16,299	4,920	0	18,888	11,658	171,899
Otros Peces (Other Fishes)	47,016	36,991	59	58,959	27,487	13,021
Total Peces (Total Fishes)	212,632	1,557,648	139	413,840	426,283	411,327
Carrucho (Queen Conch)	0	0	0	0	0	0
Juey (Land Crab)	0	0	0	0	5	0
Langosta (lobster)	14	4,289	18,131	113	0	0
Ostiones (Oysters)	0	0	0	0	50	0
Pulpo (Octopus)	4	241	0	0	0	0
Otros Mariscos (Other Shellfish)	190	1	0	40	85	0
Total Mariscos (Total Shellfish)	208	4,532	18,131	340	157	10
TOTAL (TOTAL)	212,840	1,562,180	18,270	414,180	426,440	411,337

TABLA 12. DESEMBARCOS DE ESPECIES POR ARTE EN 1983 - Continuación.  
 TABLE 12. LANDINGS OF SPECIES BY GEAR FOR 1983 - Continued.

Especies (Species)	Palangre (Long Line)	Otras Artes (Other Gears)	Atarraya (Cast Net)	Buceo (Diving)	TOTAL (TOTAL)
	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)
Atún (Tuna)	0	0	26	0	189,728
Balajú (Ballyhoo)	0	0	59	56	22,423
Boquicolorados (Grunts)	329	0	185	1,855	406,354
Capitán (Hogfish)	0	0	0	55,848	72,862
Chapín (Trunkfish)	0	0	0	472	40,436
Dorado (Dolphin)	0	0	0	0	42,354
Gallo (Squirrelfish)	0	0	0	226	19,226
Jarea (Mullet)	0	0	1,943	342	55,253
Jurel (Jack)	50	0	22	241	42,581
Loro (Parrotfish)	0	0	0	2,457	234,831
Meros (Groupers)	1,120	0	112	23,244	333,648
Mojarra (Mojarra)	0	0	339	121	10,979
Pargos (Snappers)					
Arrayado (Lane)	22,351	0	12	440	167,639
Colirubla (Yellowtail)	1,725	0	116	570	188,211
Chillo (Silk)	497	0	153	306	396,489
Sama (Mutton)	972	0	83	3,008	65,288
Otros Pargos (Other Snappers)	37	0	40	4,953	65,894
Peje Puerco (Triggerfish)	105	0	0	4,095	90,019
Picúa (Barracuda)	8	0	0	235	25,553
Pluma (Porgy)	12	0	60	99	83,668
Robalo (Snook)	60	0	710	6,836	42,638
Salmonete (Goatfish)	0	0	131	0	163,078
Sardina (Sardine)	0	0	9,403	0	21,584
Sierra (Mackerel)	215	0	66	1,461	225,406
Otros Peces (Other Fishes)	2,097	0	2,723	2,474	190,827
Total Peces (Total Fishes)	29,578	0	16,183	109,339	3,176,969
Carrucho (Queen Conch)	0	0	0	402,510	402,510
Juey (Land Crab)	0	2,055	0	0	2,060
Langosta (lobster)	0	0	0	252,394	274,941
Ostiones (Oysters)	0	49,314	0	0	49,364
Pulpo (Octopus)	0	0	0	19,602	19,847
Otros Mariscos (Other Shellfish)	0	0	0	3,601	3,917
Total Mariscos (Total Shellfish)	0	2,055	0	727,206	752,639
TOTAL (TOTAL)	29,578	2,055	16,183	836,545	3,929,608

TABLA 13. DESEMBARCOS DE ESPECIES POR ARTE EN 1984.  
 TABLE 13. LANDINGS OF SPECIES BY GEAR FOR 1984.

Especies (Species)	Chinchorro (Beach Seine)	Nasas (Fish Pots)	Cajones (Lobster Pots)	Trasmallo (Gill Net)	Cala (Hand Line)	Siiga (Troll Line)
	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)
Atún (Tuna)	12,078	0	0	934	1,221	50,679
Balajú (Ballyhoo)	7,549	290	0	3,021	266	26
Boquicorados (Grunts)	16,637	248,242	0	55,748	8,811	476
Capitán (Hogfish)	252	68,736	0	1,089	728	172
Chapín (Trunkfish)	235	36,755	0	803	349	67
Dorado (Dolphin)	0	0	0	339	1,759	12,769
Gallo (Squirrelfish)	0	10,166	0	218	2,063	10
Jarea (Mullet)	12,576	202	0	24,760	1,249	0
Jural (Jack)	10,430	980	0	5,380	6,429	6,626
Loro (Parrotfish)	1,038	132,220	0	95,378	1,370	7
Meros (Groupers)	490	245,558	0	5,069	52,173	1,864
Mojarra (Mojarra)	1,411	65	0	7,012	546	190
Pargos (Snappers)						
Arrayado (Lane)	4,800	63,829	0	5,742	58,913	0
Colimbia (Yellowtail)	15,383	34,211	0	6,052	77,218	0
Chillo (Silk)	739	273,266	0	2,200	80,499	0
Sama (Mutton)	5,113	26,814	0	3,322	15,966	0
Otros Pargos (Other Snappers)	1,225	12,788	0	15,376	4,688	577
Peje Puerco (Triggerfish)	300	63,505	0	633	5,550	64
Pícua (Barracuda)	3,726	57	0	1,008	2,981	2,973
Pluma (Porgy)	4,505	49,569	0	11,532	1,181	12
Robalo (Snook)	6,621	300	0	16,231	1,625	0
Salmonete (Goatfish)	123	124,699	0	457	330	26
Sardina (Sardine)	1,121	107	0	994	693	120
Sierra (Mackerel)	8,381	2,249	0	12,947	13,473	121,942
Otros Peces (Other Fishes)	24,124	10,075	0	55,163	18,405	865
Total Peces (Total Fishes)	138,857	1,405,224	0	331,408	354,983	201,789
Carrucho (Queen Conch)	0	0	0	0	0	0
Juey (Land Crab)	0	0	0	0	0	0
Langosta (Lobster)	0	978	24,073	0	0	0
Ostiones (Oysters)	0	0	0	0	0	0
Pulpo (Octopus)	0	26	11	0	0	0
Otros Mariscos (Other Shellfish)	0	0	7	0	0	0
Total Mariscos (Total Shellfish)	0	1,004	24,091	0	0	0
TOTAL (TOTAL)	138,857	1,406,228	24,091	331,408	354,983	201,789

TABLA 13. DESEMBARCOS DE ESPECIES POR ARTE EN 1984- Continuación.  
 TABLE 13. LANDINGS OF SPECIES BY GEAR FOR 1984 - Continued.

Especies (Species)	Palangre (Long Line)	Otras Artes (Other Gears)	Atarraya (Cast Net)	Buceo (Diving)	TOTAL (TOTAL)
	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)
Atún (Tuna)	100	0	15	24	65,051
Balajú (Ballyhoo)	0	0	116	0	11,268
Boquicorados (Grunts)	27	0	32	540	330,513
Capitán (Hogfish)	8	0	0	0	70,985
Chapín (Trunkfish)	7	0	0	337	38,553
Dorado (Dolphin)	0	0	0	0	14,867
Gallo (Squirrelfish)	5	0	0	77	12,539
Jarea (Mullet)	37	0	355	41	39,220
Jurel (Jack)	43	0	18	102	30,008
Loro (Parrotfish)	36	0	7	1,364	231,420
Meros (Groupers)	494	0	12	13,083	318,743
Mojarra (Mojarra)	0	0	413	145	9,782
Pargos (Snappers)					
Arrayado (Lane)	18,670	0	149	342	152,445
Colirubia (Yellowtail)	616	0	111	646	134,237
Chillo (Silk)	0	0	0	531	357,235
Sama (Mutton)	1,256	0	72	570	53,113
Otros Pargos (Other Snappers)	0	0	25	1,538	36,217
Peje Puerco (Triggerfish)	36	0	0	2,853	72,941
Picúa (Barracuda)	0	0	35	109	10,889
Pluma (Porgy)	0	0	20	103	66,922
Robalo (Snook)	36	0	171	154	25,138
Salmonete (Goatfish)	0	0	10	0	125,645
Sardina (Sardine)	0	0	16,121	0	19,156
Sierra (Mackerel)	298	0	99	176	159,565
Otros Peces (Other Fishes)	247	0	422	48,427	157,728
Total Peces (Total Fishes)	21,916	0	18,203	71,800	2,544,180
Carrucho (Queen Conch)	0	0	0	295,195	295,195
Juey (Land Crab)	0	1,407	0	2	1,409
Langosta (Lobster)	0	0	0	223,173	248,224
Ostiones (Oysters)	0	46,247	0	0	46,247
Pulpo (Octopus)	0	0	0	16,696	16,733
Otros Mariscos (Other Shellfish)	0	0	2	3,388	3,397
Total Mariscos (Total Shellfish)	0	47,654	2	538,454	611,205
TOTAL (TOTAL)	21,916	47,654	18,205	610,254	3,155,385

TABLA 14. DESEMBARCOS DE ESPECIES POR ARTE EN 1985.  
TABLE 14. LANDINGS OF SPECIES BY GEAR FOR 1985.

Especies (Species)	Chinchorro (Beach Seine)	Nasas (Fish Pots)	Cajones (Lobster Pots)	Trasmallo (Gill Net)	Cala (Hand Line)	Silga (Troll Line)
	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)
Atún (Tuna)	11,402	0	0	2,920	2,799	52,068
Balajú (Ballyhoo)	6,102	330	0	11,307	495	50
Boquiclorados (Grunts)	8,216	202,908	0	50,381	13,153	283
Capitán (Hogfish)	10	38,843	0	373	2,319	4
Chapín (Trunkfish)	70	30,421	144	3,011	553	10
Dorado (Dolphin)	0	0	0	295	2,165	16,786
Gallo (Squirrelfish)	0	13,781	12	376	1,669	0
Jarea (Mullet)	2,708	478	0	39,956	1,096	0
Jurel (Jack)	7,537	1,144	0	15,052	5,147	5,710
Loro (Parrotfish)	3,612	135,725	0	77,936	3,577	410
Meros (Groupers)	235	206,301	0	4,115	92,119	233
Mojarra (Mojarra)	1,251	119	0	7,018	497	0
Pargos (Snappers)						
Arrayado (Lane)	5,506	50,855	0	11,168	38,288	0
Colirrubia (Yellowtail)	6,919	39,812	0	12,464	80,598	0
Chillo (Silk)	1,036	136,228	0	3,605	231,200	0
Sama (Mutton)	1,222	21,098	0	6,325	15,275	0
Otros Pargos (Other Snappers)	1,904	8,183	0	15,696	6,975	133
Peje Puerco (Triggerfish)	169	41,015	0	507	4,545	53
Picúa (Barracuda)	2,130	389	0	1,584	2,644	2,684
Pluma (Porgy)	2,223	14,029	0	4,644	1,359	3
Robalo (Snook)	2,332	570	9	17,788	1,773	57
Salmonete (Goatfish)	84	57,541	33	542	483	0
Sardina (Sardine)	1,682	66	0	2,810	609	266
Sierra (Mackerel)	7,638	10,366	0	15,257	15,507	82,979
Clasificado (Classified)						
Primera (First Class)	0	197	0	3,976	1,827	212
Otros Peces (Other Fishes)	24,715	52,771	25	51,139	40,769	7,773
Total Peces (Total Fishes)	98,703	1,063,170	223	360,245	567,441	169,714
Carrucho (Queen Conch)	0	3,671	0	997	10	6
Juey (Land Crab)	0	0	0	0	0	0
Langosta (Lobster)	0	699	135,166	0	0	0
Ostiones (Oysters)	0	0	0	0	0	0
Pulpo (Octopus)	0	0	0	0	0	0
Otros Mariscos (Other Shellfish)	430	1,212	0	289	772	0
Total Mariscos (Total Shellfish)	430	5,582	135,166	1,286	782	6
TOTAL (TOTAL)	99,133	1,068,752	135,389	361,531	568,223	169,720

TABLA 14. DESEMBARCOS DE ESPECIES POR ARTE EN 1985 - Continuación.  
 TABLE 14. LANDINGS OF SPECIES BY GEAR FOR 1985 - Continued.

Especies (Species)	Palangre (Long Line)	Otras Artes (Other Gears)	Atarraya (Cast Net)	Buceo (Diving)	TOTAL (TOTAL)
	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)
Atún (Tuna)	205	0	0	0	69,394
Balajú (Ballyhoo)	300	0	82	0	18,666
Boquicorados (Grunts)	323	0	49	25	275,338
Capitán (Hogfish)	37	0	170	67	41,823
Chapín (Trunkfish)	12	0	0	14	34,235
Dorado (Dolphin)	0	0	0	0	19,246
Gallo (Squirrelfish)	44	0	0	49	15,931
Jarea (Mullet)	154	0	170	13	44,575
Jurel (Jack)	61	0	51	0	34,702
Loro (Parrotfish)	82	0	4	42	221,388
Meros (Groupers)	701	0	0	754	304,458
Mojarra (Mojarra)	0	0	119	0	9,004
Pargos (Snapper)					
Arrayado (Lane)	13,265	0	93	0	119,175
Collirubia (Yellowtail)	375	0	342	17	140,527
Chillo (Silk)	323	0	82	0	372,474
Sama (Mutton)	1,807	0	0	0	45,727
Otros Pargos (Other Snappers)	0	0	0	62	32,953
Peje Puerco (Triggerfish)	62	0	0	0	46,351
Picúa (Barracuda)	10	0	0	0	9,441
Pluma (Porgy)	0	0	0	0	22,258
Robalo (Snook)	0	0	154	0	22,683
Salmonete (Goatfish)	72	0	7	0	58,762
Sardina (Sardine)	15	0	14,926	0	20,374
Sierra (Mackerel)	0	0	9	0	131,756
Clasificado (Classified)					
Primera (First Class)	1,538	0	0	0	7,750
Otros Peces (Other Fishes)	2,667	0	2,723	696	183,278
Total Peces (Total Fishes)	22,053	0	18,981	1,739	2,302,269
Carrucho (Queen Conch)	0	0	0	256,421	261,105
Juey (Land Crab)	0	1,235	0	0	1,235
Langosta (Lobster)	0	0	0	75,482	211,347
Ostiones (Oysters)	0	29,358	0	0	29,358
Pulpo (Octopus)	0	0	0	30,372	30,372
Otros Mariscos (Other Shellfish)	0	3	72	897	3,675
Total Mariscos (Total Shellfish)	0	30,596	72	363,172	537,092
<b>TOTAL (TOTAL)</b>	<b>22,053</b>	<b>30,596</b>	<b>19,053</b>	<b>364,911</b>	<b>2,839,361</b>

TABLA 15. DESEMBARCOS DE ESPECIES POR ARTE EN 1986.  
TABLE 15. LANDINGS OF SPECIES BY GEAR FOR 1986.

Especies (Species)	Chinchorro (Beach Seine)	Nasas (Fish Pots)	Cajones (Lobster Pots)	Trasmallo (Gill Net)	Cala (Hand Line)	Silga (Troll Line)
	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)
Atún (Tuna)	5,620	0	0	1,749	4,497	72,043
Balajú (Ballyhoo)	2,984	1,382	0	4,821	85	88
Boquicolorados (Grunts)	2,828	112,307	0	62,497	12,896	728
Capitán (Hogfish)	179	13,467	0	1,001	1,694	45
Chapín (Trunkfish)	322	28,200	0	6,190	1,218	0
Dorado (Dolphin)	0	0	0	34	1,605	32,696
Gallo (Squirrelfish)	306	12,365	0	400	732	55
Jarea (Mullet)	1,932	1,450	0	28,709	1,010	36
Jural (Jack)	12,042	3,134	0	20,584	7,652	3,569
Loro (Parrotfish)	547	61,240	0	45,352	3,042	55
Meros (Groupers)						
Cabrilla (Red Hind)	0	388	0	0	54	0
Cherna (Nassau)	0	57	0	0	0	0
Otros Meros (Other Groupers)	889	89,598	0	3,574	94,746	
Mojarra (Mojarra)	3,572	633	0	5,828	331	11
Pargos (Snappers)						
Arrayado (Lane)	1,163	37,106	0	10,146	30,979	0
Colimubia (Yellowtail)	5,829	20,236	0	22,570	49,226	0
Chillo (Silk)	450	41,916	0	1,877	346,880	0
Sama (Mutton)	1,082	11,619	0	6,753	8,428	0
Otros Pargos (Other Snappers)	4,452	9,613	0	7,947	6,504	0
Peje Puerco (Triggerfish)	261	25,712	0	423	3,402	96
Pcúa (Barracuda)	8,291	1,609	0	2,865	4,296	2,216
Pluma (Porgy)	2,186	6,503	0	9,366	649	38
Robalo (Snook)	4,613	790	0	16,214	1,165	2,140
Salmonete (Goatfish)	80	19,957	0	675	282	165
Sardina (Sardine)	159	1,090	0	892	723	116
Sierra (Mackerel)	7,979	0	0	23,425	16,136	70,855
Clasificado (Classified)						
Primera (First Class)	892	75,172	0	16,448	27,226	262
Segunda (Second Class)	2,012	115,452	0	17,268	757	0
Tercera (Third Class)	104	23,964	0	1,536	96	0
Brosa (Trash)	0	9,484	0	0	49	0
Otros Peces (Other Fishes)	22,471	101,078	0	50,560	24,341	13,629
Total Peces (Total Fishes)	93,245	825,522	0	369,704	650,701	198,843
Carrucho (Queen Conch)	0	0	0	0	0	0
Juey (Land Crab)	0	0	0	0	0	0
Langosta (Lobster)	0	113,088	19,359	0	0	0
Ostiones (Oyster)	0	0	0	0	0	0
Pulpo (Octopus)	0	1,069	0	0	0	0
Otros Mariscos (Other Shellfish)	351	1,152	0	0	0	0
Total Mariscos (Total Shellfish)	351	115,309	19,359	0	0	0
TOTAL (TOTAL)	93,596	940,831	19,359	369,704	650,701	198,843

TABLA 15. DESEMBARCOS DE ESPECIES POR ARTE EN 1986 - Continuación.  
 TABLE 15. LANDINGS OF SPECIES BY GEAR FOR 1986 - Continued.

Especies (Species)	Palangre	Otras Artes	Alaraya	Buceo	TOTAL
	(Long Line)	(Other Gears)	(Cast Net)	(Diving)	(TOTAL)
	Libras	Libras	Libras	Libras	Libras
	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)
Atún (Tuna)	16	0	0	0	83,925
Balajú (Ballyhoo)	40	0	495	0	9,895
Boquicorados (Grunts)	124	0	0	0	191,380
Capitán (Hogfish)	77	0	19	22,304	38,786
Chapín (Trunkfish)	0	0	0	2,373	38,303
Dorado (Dolphin)	0	0	0	0	34,335
Gallo (Squirrelfish)	0	0	37	407	14,302
Jarea (Mullet)	60	0	394	255	33,846
Jurel (Jack)	77	0	6	176	47,240
Loro (Parrotfish)	0	0	0	1,828	112,064
Meros (Groupers)					
Cabrilla (Red Hind)	0	0	0	0	442
Cherna (Nassau)	0	0	0	0	57
Otros Meros (Other Groupers)	615	0	50	18,684	208,156
Mojarra (Mojarra)	0	0	191	91	10,657
Pargos (Snappers)					
Arrayado (Lane)	4,736	0	0	535	84,665
Collirubia (Yellowtail)	351	0	542	583	99,337
Chillo (Silk)	637	0	10	0	391,770
Sama (Mutton)	917	0	84	3,036	31,919
Otros Pargos (Other Snappers)	0	0	88	1,170	29,774
Peje Puerco (Triggerfish)	82	0	55	2,837	32,868
Picúa (Barracuda)	0	0	30	447	19,754
Pluma (Porgy)	28	0	0	48	18,818
Robalo (Snook)	231	0	212	352	25,717
Salmonete (Goatfish)	0	0	6	0	21,165
Sardina (Sardine)	16	0	10,392	0	13,388
Sierra (Mackerel)	0	0	186	303	118,884
Clasificado (Classified)					
Primera (First Class)	1,903	0	10	1,380	123,293
Segunda (Second Class)	0	0	0	156	135,645
Tercera (Third Class)	0	0	0	295	25,995
Brosa (Trash)	0	0	0	0	9,533
Otros Peces (Other Fishes)	1,195	0	948	7,201	221,423
Total Peces (Total Fishes)	11,105	0	13,755	64,461	2,227,336
Carrucho (Queen Conch)	0	0	0	200,286	200,286
Juey (Land Crab)	0	1,266	0	0	1,266
Langosta (Lobster)	0	0	0	86,905	219,352
Ostiones (Oyster)	0	541	0	0	541
Pulpo (Octopus)	0	0	0	11,135	12,204
Otros Mariscos (Other Shellfish)	0	0	0	4,437	5,940
Total Mariscos (Total Shellfish)	0	1,807	0	302,763	439,589
TOTAL (TOTAL)	11,105	1,807	13,755	367,224	2,666,925

TABLE 16. DESEMBARCOS DE ESPECIES POR ARTE EN 1987.  
TABLE 16. LANDINGS OF SPECIES BY GEAR FOR 1987.

Especies (Species)	Chinchorro (Beach Seine)	Nasas (Fish Pots)	Cajones (Lobster Pots)	Trasmallo (Gill Net)	Cala (Hand Line)	Silga (Troll Line)
	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)
Atún (Tuna)	9,791	0	0	1,238	3,474	101,401
Balajú (Ballyhoo)	1,378	903	0	6,502	319	25
Boquicolorados (Grunts)	4,184	93,425	0	52,855	9,241	214
Capitán (Hogfish)	559	9,278	0	1,850	638	0
Corvina (Croaker)	84	64	0	6,033	78	0
Chapín (Trunkfish)	268	27,220	0	7,434	888	0
Dorado (Dolphin)	48	0	0	995	2,984	24,630
Gallo (Squirrelfish)	201	2,747	0	378	630	0
Jarea (Mullet)	1,349	2,948	0	24,470	440	0
Jurel (Jack)	14,463	2,758	0	8,664	8,119	2,443
Loro (Parrotfish)	2,253	35,589	0	35,592	1,447	35
Meros (Groupers)						
Cabrilla (Red Hind)	0	4,773	0	400	5,992	30
Cherna (Nassau)	0	203	0	0	116	0
Otros Meros (Other Groupers)	268	61,419	0	2,390	59,273	418
Mojarra (Mojarra)	2,410	370	0	5,770	291	32
Pargos (Snappers)						
Arrayado (Lane)	879	24,836	0	8,173	23,518	0
Colirubia (Yellowtail)	1,397	19,021	0	16,713	54,762	0
Chillo (Silk)	0	39,177	0	1,665	164,496	0
Sama (Mutton)	1,478	6,427	0	3,440	6,967	0
Otros Pargos (Other Snappers)	2,873	6,084	0	6,623	8,731	0
Peje Puerco (Triggerfish)	88	30,651	0	876	4,250	70
Picúa (Barracuda)	5,226	764	0	13,667	5,694	1,154
Pluma (Porgy)	1,257	6,622	0	2,382	562	22
Robalo (Snook)	4,481	1,584	0	21,002	1,027	57
Sábalo (Tarpon)	2,134	295	0	8,232	1,708	183
Salmonete (Goatfish)	598	8,786	0	341	270	63
Sardina (Sardine)	5,685	0	0	1,047	1,386	97
Sierra (Mackerel)	6,659	2,962	0	14,612	20,272	40,696
Tiburón (Shark)	0	0	0	2,762	8,230	518
Clasificado (Classified)						
Primera (First Class)	58	74,836	0	8,553	5,493	11
Segunda (Second Class)	0	121,069	0	19,880	314	0
Tercera (Third Class)	53	24,658	0	359	1,264	16
Brosa (Trash)	0	6,378	0	0	89	0
Otros Peces (Other Fishes)	54,266	66,320	0	46,125	12,887	5,783
Total Peces (Total Fishes)	124,388	682,167	0	330,023	415,850	177,898
Carrucho (Queen Conch)	0	0	0	0	0	0
Juey (Land Crab)	0	14	0	6	50	0
Langosta (Lobster)	0	89,361	15,097	2,698	0	0
Ostiones (Oyster)	0	0	0	0	0	0
Pulpo (Octopus)	0	0	0	0	0	0
Otros Mariscos (Other Shellfish)	223	701	0	298	612	0
Total Mariscos (Total Shellfish)	223	90,076	15,097	3,002	662	0
TOTAL (TOTAL)	124,611	772,243	15,097	333,025	416,512	177,898

TABLE 16. DESEMBARCOS DE ESPECIES POR ARTE EN 1987 - Continuación.  
TABLE 16. LANDINGS OF SPECIES BY GEAR FOR 1987 - Continued.

Especies (Species)	Palangre (Long Line)	Otras Artes (Other Gears)	Atarraya (Cast Net)	Buceo Diving	TOTAL (TOTAL)
	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)
Alún (Tuna)	202	0	0	0	116,106
Balajú (Ballyhoo)	0	0	537	7	9,671
Boquicolorados (Grunts)	230	0	233	482	160,864
Capitán (Hogfish)	0	0	25	25,061	37,411
Corvina (Croaker)	0	0	37	0	6,296
Chapín (Trunkfish)	14	0	5	711	36,540
Dorado (Dolphin)	0	0	0	0	28,657
Gallo (Squirrelfish)	15	0	25	4	4,000
Jarea (Mullet)	0	0	144	49	29,400
Jurel (Jack)	350	0	10	229	37,036
Loro (Parrotfish)	0	0	345	2,193	77,454
Meros (Groupers)					
Cabrilla (Red Hind)	14	0	0	352	11,561
Cherna (Nassau)	0	0	0	0	319
Otros Meros (Other Groupers)	830	0	272	8,939	133,809
Mojarra (Mojarra)	0	0	110	225	9,208
Pargos (Snappers)					
Arrayado (Lane)	3,141	0	324	304	61,175
Colirubia (Yellowtail)	669	0	85	1,783	93,430
Chillo (Silk)	2,802	0	200	0	208,340
Sama (Mutton)	810	0	197	1,155	20,474
Otros Pargos (Other Snappers)	44	0	51	1,567	25,993
Peje Puerco (Triggerfish)	88	0	99	2,934	39,056
Picúa (Barracuda)	56	0	9	120	26,690
Pluma (Porgy)	33	0	9	37	10,924
Robalo (Snook)	65	0	141	1,354	29,711
Sábalo (Tarpon)	0	0	0	31	12,583
Salmonete (Goatfish)	20	0	0	0	10,078
Sardina (Sardine)	0	0	15,509	0	23,724
Sierra (Mackerel)	0	0	1,087	790	87,078
Tiburón (Shark)	1,793	0	0	110	13,413
Clasificado (Classified)					
Primera (First Class)	39	0	0	2,573	91,563
Segunda (Second Class)	0	0	0	724	141,987
Tercera (Third Class)	0	0	0	897	27,247
Brosa (Trash)	0	0	0	0	6,467
Otros Peces (Other Fishes)	660	0	277	9,013	195,331
Total Peces (Total Fishes)	11,875	0	19,731	61,664	1,823,596
Carrucho (Queen Conch)	0	0	0	155,313	155,313
Juey (Land Crab)	0	1,610	0	406	2,086
Langosta (Lobster)	0	0	0	49,555	156,711
Ostiones (Oyster)	0	99	0	0	99
Pulpo (Octopus)	0	0	0	9,033	9,033
Otros Mariscos (Other Shellfish)	0	0	0	583	2,417
Total Mariscos (Total Shellfish)	0	1,709	0	214,890	325,659
TOTAL (TOTAL)	11,875	1,709	19,731	276,554	2,149,255

TABLA 17. DESEMBARCOS DE ESPECIES POR MES EN 1983.  
TABLE 17. LANDINGS OF SPECIES BY MONTH FOR 1983.

Especies (Species)	Enero	Febrero	Marzo	Abril	Mayo	Junio
	(January)	(February)	(March)	(April)	(May)	(June)
	Libras	Libras	Libras	Libras	Libras	Libras
	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)
Atún (Tuna)	44,389	12,444	5,880	10,720	24,624	18,912
Balajú (Ballyhoo)	5,265	2,316	1,217	622	1,128	1,601
Boquicolorados (Grunts)	34,563	35,887	42,159	34,792	34,581	32,158
Capitán (Hogfish)	5,328	4,578	2,874	6,379	7,069	6,921
Chapín (Trunkfish)	2,784	3,449	3,276	3,951	4,326	3,619
Dorado (Dolphin)	6,848	6,513	4,324	3,616	8,022	2,179
Gallo (Squirrelfish)	935	1,131	1,065	564	2,558	1,037
Jarea (Mullet)	4,178	6,759	7,476	4,593	3,026	6,165
Jurel (Jack)	2,567	4,991	2,576	2,950	3,489	4,124
Loro (Parrotfish)	16,590	17,548	21,341	19,272	18,145	17,742
Meros (Groupers)	48,934	33,953	22,528	24,945	27,123	27,234
Mojarra (Mojarra)	565	1,235	444	1,643	1,421	1,097
Pargos (Snappers)						
Arrayado (Lane)	13,805	16,068	16,140	15,897	14,430	11,472
Colimubia (Yellowtail)	13,167	13,101	17,010	17,417	17,804	10,004
Chillo (Slik)	33,817	42,655	31,150	37,216	44,520	32,213
Sama (Mutton)	5,667	5,265	7,006	6,115	6,112	5,869
Otros Pargos (Other Snappers)	5,607	4,808	4,016	4,898	5,411	6,516
Peje Puerco (Triggerfish)	6,120	7,269	8,199	7,825	8,961	9,611
Picúa (Barracuda)	3,473	3,015	2,237	3,214	3,476	931
Pluma (Porgy)	3,857	5,220	4,919	5,986	5,982	9,184
Robalo (Snook)	2,919	2,878	2,607	2,604	3,736	4,147
Salmonete (Goatfish)	17,352	13,857	10,477	9,559	11,082	10,598
Sardina (Sardine)	3,103	2,549	2,818	1,830	1,997	932
Sierra (Mackerel)	16,196	22,154	15,227	19,999	28,333	28,162
Otros Peces (Other Fishes)	31,586	25,418	18,055	21,553	18,606	11,983
Total Peces (Total Fishes)	329,614	295,060	255,020	268,162	305,964	264,410
Carrucho (Queen Conch)	35,218	31,418	34,583	40,164	44,219	37,439
Juey (Land Crab)	0	14	113	129	223	228
Langosta (Lobster)	28,238	26,606	29,119	25,647	23,181	19,413
Ostiones (Oysters)	4,475	4,110	5,425	4,465	4,135	4,150
Pulpo (Octopus)	1,857	1,547	1,095	1,436	1,317	687
Otros Mariscos (Other Shellfish)	396	430	507	173	485	221
Total Mariscos (Total Shellfish)	70,184	64,125	70,842	72,014	73,560	62,138
TOTAL (TOTAL)	399,798	359,185	325,862	340,176	379,524	326,548

TABLA 17. DESEMBARCOS DE ESPECIES POR MES EN 1983 - Continuación.  
TABLE 17. LANDINGS OF SPECIES BY MONTH FOR 1983 - Continued.

Especies (Species)	Julio (July)	Agosto (August)	Septiembre (September)	Octubre (October)	Noviembre (November)	Diciembre (December)	TOTAL (TOTAL)
	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)
Atún (Tuna)	12,576	24,938	21,072	11,206	2,217	750	189,728
Balajú (Ballyhoo)	1,350	404	2,162	2,195	2,558	1,605	22,423
Boquiclorados (Grunts)	28,549	36,352	38,007	34,350	33,664	21,292	406,354
Capitán (Hogfish)	6,136	8,493	8,106	5,993	6,634	4,351	72,862
Chapín (Trunkfish)	2,519	4,521	4,378	2,589	2,465	2,559	40,436
Dorado (Dolphin)	220	62	295	1,400	1,206	7,669	42,354
Gallo (Squirrelfish)	3,215	722	3,013	2,123	1,796	1,067	19,226
Jarea (Mullet)	3,688	3,871	6,319	4,525	3,400	1,253	55,253
Jurel (Jack)	7,875	5,095	3,375	2,880	1,559	1,100	42,581
Loro (Parrotfish)	19,079	21,793	26,357	22,186	16,926	17,852	234,831
Meros (Groupers)	21,100	24,203	26,533	30,734	24,128	22,233	333,648
Mojarra (Mojarra)	679	414	1,487	1,239	527	228	10,979
Pargos (Snappers)							
Arrayado (Lane)	11,035	14,618	18,434	13,966	13,939	7,835	167,639
Collirubia (Yellowtail)	10,102	11,645	16,837	19,405	15,146	6,573	168,211
Chilio (Slik)	16,998	18,903	26,112	32,008	46,711	34,186	396,489
Sama (Mutton)	4,178	5,471	5,609	5,760	4,631	3,605	65,288
Otros Pargos (Other Snappers)	14,390	3,881	5,211	5,184	3,691	2,281	65,894
Peje Puerco (Triggerfish)	5,381	7,901	6,688	8,694	5,370	8,000	90,019
Picúa (Barracuda)	1,539	651	2,373	2,763	1,169	712	25,553
Pluma (Porgy)	11,089	10,624	7,743	8,063	5,328	5,673	83,668
Robalo (Snook)	2,320	2,337	11,631	1,973	3,327	2,159	42,638
Salmonete (Goatfish)	10,293	10,727	14,366	16,328	23,151	15,288	163,078
Sardina (Sardine)	490	1,213	1,556	1,938	2,295	863	21,584
Sierra (Mackerel)	21,356	19,637	22,818	13,959	8,857	8,708	225,406
Otros Peces (Other Fishes)	6,933	11,277	15,047	12,192	9,670	8,507	190,827
Total Peces (Total Fishes)	223,090	249,753	295,529	263,653	240,365	186,349	3,176,969
Carrucho (Queen Conch)	28,588	30,529	29,221	32,362	31,958	26,811	402,510
Juey (Land Crab)	143	49	335	724	68	34	2,060
Langosta (Lobster)	16,754	20,363	24,689	23,829	21,773	15,329	274,941
Ostiones (Oysters)	4,245	2,140	4,570	3,975	3,929	3,745	49,364
Pulpo (Octopus)	610	1,880	2,484	4,357	1,875	702	19,847
Otros Mariscos (Other Shellfish)	41	520	335	526	220	63	3,917
Total Mariscos (Total Shellfish)	50,381	55,481	61,634	65,773	59,823	46,684	752,639
TOTAL (TOTAL)	273,471	305,234	357,163	329,426	300,188	233,033	3,929,608

TABLA 18. DESEMBARCOS DE ESPECIES POR MES EN 1984.  
TABLE 18. LANDINGS OF SPECIES BY MONTH FOR 1984.

Especies (Species)	Enero (January)	Febrero (February)	Marzo (March)	Abril (April)	Mayo (May)	Junio (June)
	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)
Alún (Tuna)	4,632	1,951	1,400	2,899	5,708	14,727
Balajú (Ballyhoo)	1,568	1,172	1,220	1,952	637	323
Boquicolorados (Grunts)	27,655	25,772	27,183	27,437	30,929	24,457
Capitán (Hogfish)	6,116	5,785	6,808	3,974	5,296	5,599
Chapín (Trunkfish)	2,185	2,846	2,275	2,973	3,248	3,874
Dorado (Dolphin)	2,980	2,388	282	678	624	698
Galfo (Squirrelfish)	259	1,077	1,112	1,091	2,506	2,472
Jarea (Mullet)	3,099	4,279	2,731	3,517	3,905	2,821
Jurel (Jack)	2,844	1,981	2,197	4,430	4,607	2,866
Loro (Parrotfish)	16,255	14,566	16,247	15,694	16,282	17,929
Meros (Groupers)	36,764	31,287	27,096	24,372	25,748	27,751
Mojarra (Mojarra)	1,011	1,007	1,110	1,061	1,616	565
Pargos (Snappers)						
Arrayado (Lane)	10,998	11,346	13,566	13,870	12,905	17,738
Colirubia (Yellowtail)	8,001	15,057	17,618	11,301	6,140	7,711
Chillo (Silk)	25,149	32,364	33,548	35,498	35,888	26,879
Sama (Mutton)	5,254	5,411	4,535	5,356	3,173	3,665
Otros Pargos (Other Snappers)	3,582	3,052	2,885	2,794	3,161	2,838
Peje Puerco (Triggerfish)	7,941	7,991	9,371	7,334	6,441	5,144
Picúa (Barracuda)	1,343	1,198	1,567	1,332	761	510
Pluma (Porgy)	4,258	6,451	5,422	4,312	7,839	8,093
Robalo (Snook)	1,115	2,027	1,660	2,749	4,230	1,311
Salmonete (Goatfish)	16,232	14,452	10,862	9,652	7,508	8,439
Sardina (Sardine)	2,535	2,243	1,739	2,987	947	1,451
Sierra (Mackerel)	8,061	11,203	16,701	14,388	14,283	20,437
Otros Peces (Other Fishes)	11,016	12,651	19,918	13,111	10,682	10,298
Total Peces (Total Fishes)	210,853	219,557	229,053	214,762	214,864	218,596
Carrucho (Queen Conch)	40,209	24,041	29,803	28,622	25,273	18,534
Juey (Land Crab)	55	16	35	121	804	119
Langosta (Lobster)	23,840	23,901	24,237	20,111	20,148	16,918
Ostiones (Oysters)	7,014	3,665	3,404	3,630	3,699	5,060
Pulpo (Octopus)	1,482	959	818	911	834	928
Otros Mariscos (Other Shellfish)	81	212	324	799	278	495
Total Mariscos (Total Shellfish)	72,681	52,794	58,621	54,194	51,036	42,054
TOTAL (TOTAL)	283,534	272,351	287,674	268,956	265,900	260,650

TABLA 18. DESEMBARCOS DE ESPECIES POR MES EN 1984 - Continuación.  
 TABLE 18. LANDINGS OF SPECIES BY MONTH FOR 1984 - Continued.

Especies (Species)	Julio (July)	Agosto (August)	Septiembre (September)	Octubre (October)	Noviembre (November)	Diciembre (December)	TOTAL (TOTAL)
	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)
Atún (Tuna)	6,242	3,506	3,589	15,575	2,615	2,207	65,051
Balajú (Ballyhoo)	584	613	474	1,471	763	491	11,268
Boquicolorados (Grunts)	28,699	31,089	29,731	27,273	26,576	23,712	330,513
Capitán (Hogfish)	4,780	5,861	7,803	7,774	5,626	5,563	70,985
Chapín (Trunkfish)	2,934	4,339	3,652	3,658	4,022	2,547	38,553
Dorado (Dolphin)	20	283	365	514	2,958	3,077	14,867
Gallo (Squirrelfish)	884	1,065	764	950	40	319	12,539
Jarea (Mullet)	1,305	4,420	3,930	4,129	3,064	2,020	39,220
Jurel (Jack)	2,769	1,454	1,909	3,280	1,089	582	30,008
Loro (Parrotfish)	19,614	24,239	19,500	27,161	24,707	19,226	231,420
Meros (Groupers)	22,725	29,720	29,841	20,095	21,360	21,984	318,743
Mojarra (Mojarra)	538	757	572	566	412	567	9,782
Pargos (Snappers)							
Arrayado (Lane)	12,619	14,606	10,864	12,819	12,340	8,774	152,445
Collirubia (Yellowtail)	7,531	10,539	11,556	18,019	12,233	8,531	134,237
Chilio (Silk)	20,181	28,941	28,307	34,424	31,394	24,862	357,235
Sama (Mutton)	5,973	4,597	4,272	3,880	4,433	2,564	53,113
Otros Pargos (Other Snappers)	2,279	3,801	2,062	4,593	3,068	2,102	36,217
Peje Puerco (Triggerfish)	4,657	7,316	5,362	5,373	3,047	2,964	72,941
Picúa (Barracuda)	334	589	484	1,526	732	513	10,889
Pluma (Porgy)	6,432	6,763	5,279	4,600	4,935	2,538	66,922
Robalo (Snook)	1,624	3,403	2,337	2,231	1,616	835	25,138
Salmonete (Goatfish)	7,561	12,941	10,123	9,543	10,068	8,264	125,645
Sardina (Sardine)	743	1,469	1,296	2,104	1,130	512	19,156
Sierra (Mackerel)	15,090	14,988	14,110	5,810	9,972	14,522	159,565
Otros Peces (Other Fishes)	15,976	23,390	9,096	14,314	7,446	9,830	157,728
Total Peces (Total Fishes)	192,094	240,689	207,278	231,682	195,646	169,106	2,544,180
Carrucho (Queen Conch)	20,385	28,718	20,563	24,431	15,329	19,287	295,195
Juey (Land Crab)	177	8	40	32	0	2	1,409
Langosta (Lobster)	15,193	20,489	19,924	21,586	23,847	18,030	248,224
Ostiones (Oysters)	1,257	4,270	2,822	3,715	4,177	3,534	46,247
Pulpo (Octopus)	454	1,161	2,278	3,032	2,525	1,351	16,733
Otros Mariscos (Other Shellfish)	287	628	45	48	0	200	3,397
Total Mariscos (Total Shellfish)	37,753	55,274	45,672	52,844	45,878	42,404	611,205
TOTAL (TOTAL)	229,847	295,963	252,950	284,526	241,524	211,510	3,155,385

TABLA 19. DESEMBARCOS DE ESPECIES POR MES EN 1985.  
 TABLE 19. LANDINGS OF SPECIES BY MONTH FOR 1985.

Especies (Species)	Enero (January)	Febrero (February)	Marzo (March)	Abril (April)	Mayo (May)	Junio (June)
	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)
Alún (Tuna)	3,287	3,078	4,649	4,943	9,906	11,687
Balaú (Ballyhoo)	1,569	621	1,329	803	416	719
Boquicolorados (Grunts)	20,319	20,365	21,977	14,096	25,758	19,741
Capitán (Hogfish)	6,109	3,825	3,689	707	1,428	1,943
Chapín (Trunkfish)	3,441	3,335	3,768	1,113	3,498	2,871
Dorado (Dolphin)	2,020	1,507	743	729	2,621	1,362
Gallo (Squirrelfish)	495	1,048	1,002	446	868	767
Jarea (Mullet)	3,700	3,080	3,869	2,594	2,518	3,468
Jurel (Jack)	1,881	2,077	1,312	2,487	2,971	3,237
Loro (Parrotfish)	22,895	25,213	31,023	12,090	20,746	15,462
Meros (Groupers)	34,583	21,380	21,527	12,237	32,795	20,378
Mojarra (Mojarra)	808	570	1,225	1,155	485	318
Pargos (Snappers)						
Arrayado (Lane)	7,935	9,465	11,433	9,336	7,908	7,668
Colirrubia (Yellowtail)	9,304	11,391	18,645	12,031	7,439	8,203
Chillo (Silk)	24,215	24,495	31,549	14,649	55,045	30,869
Sama (Mutton)	2,771	3,036	4,550	2,240	4,953	5,138
Otros Pargos (Other Snappers)	3,120	2,363	2,590	2,374	2,537	2,328
Peje Puerco (Triggerfish)	3,962	4,165	5,233	2,783	4,123	1,878
Picúa (Barracuda)	676	506	1,049	822	748	874
Pluma (Porgy)	2,521	1,941	5,092	2,702	817	489
Robalo (Snook)	816	1,619	1,556	1,355	2,829	3,086
Salmonete (Goatfish)	8,547	9,604	8,247	2,847	763	888
Sardina (Sardine)	985	1,429	2,214	1,447	2,370	1,552
Sierra (Mackerel)	10,056	7,025	9,698	12,548	18,161	17,949
Clasificado (Classified)						
Primera (First Class)	0	75	85	0	34	94
Otros Peces (Other Fishes)	11,524	9,617	15,993	10,818	15,690	19,131
Total Peces (Total Fishes)	187,539	172,830	214,047	129,352	227,427	182,100
Carrucho (Queen Conch)	24,889	17,399	26,198	18,122	26,868	22,197
Juey (Land Crab)	32	0	163	36	411	170
Langosta (Lobster)	20,175	17,528	20,570	11,339	15,269	10,100
Ostiones (Oysters)	1,965	1,900	2,260	1,330	2,100	0
Pulpo (Octopus)	1,536	714	914	711	427	608
Otros Mariscos (Other Shellfish)	15	100	422	65	189	714
Total Mariscos (Total Shellfish)	48,612	37,641	50,527	31,603	45,264	33,789
TOTAL (TOTAL)	236,151	210,471	264,574	160,955	272,691	215,889

TABLA 19. DESEMBARCOS DE ESPECIES POR MES EN 1985 - Continued.  
 TABLE 19. LANDINGS OF SPECIES BY MONTH FOR 1985 - Continuación.

Especies (Species)	Julio	Agosto	Septiembre	Octubre	Noviembre	Diciembre	TOTAL
	(July)	(August)	(September)	(October)	(November)	(December)	(TOTAL)
	Libras	Libras	Libras	Libras	Libras	Libras	Libras
	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)	(Pounds)
Atún (Tuna)	10,306	6,252	2,473	3,462	2,718	6,633	69,394
Balajú (Ballyhoo)	1,044	952	1,316	2,341	5,504	2,052	18,666
Boquicolorados (Grunts)	19,224	32,617	30,500	25,073	23,800	21,868	275,338
Capitán (Hogfish)	4,558	4,063	3,881	3,444	4,349	3,827	41,823
Chapín (Trunkfish)	3,171	3,412	1,946	2,697	1,693	3,290	34,235
Dorado (Dolphin)	987	531	381	615	2,422	5,328	19,246
Gallo (Squirrelfish)	1,615	1,527	1,895	1,977	2,612	1,679	15,931
Jarea (Mullet)	6,021	4,951	4,509	4,007	3,583	2,275	44,575
Jurel (Jack)	2,517	7,379	6,243	1,388	1,821	1,389	34,702
Loro (Parrotfish)	17,926	22,687	18,213	11,212	11,617	11,304	221,388
Meros (Groupers)	29,205	35,905	26,520	24,048	23,786	22,094	304,458
Mojarra (Mojarra)	1,492	1,468	353	472	327	331	9,004
Pargos (Snappers)							
Arrayado (Lane)	10,311	16,052	10,096	9,115	9,133	10,723	119,175
Colirubia (Yellowtail)	9,643	15,203	14,909	13,353	11,853	8,553	140,527
Chillo (Silk)	38,813	30,051	27,308	37,701	28,581	29,198	372,474
Sama (Mutton)	3,427	4,793	5,669	3,116	2,192	3,842	45,727
Otros Pargos (Other Snappers)	2,708	4,025	3,434	3,223	2,286	1,965	32,953
Peje Puerco (Triggerfish)	3,952	4,313	4,590	2,868	5,099	3,385	46,351
Picúa (Barracuda)	484	784	505	930	485	1,578	9,441
Pluma (Porgy)	973	2,791	1,622	946	991	1,373	22,258
Robalo (Snook)	2,402	1,884	2,245	2,493	1,748	650	22,683
Salmonete (Goatfish)	2,277	3,462	3,082	6,169	7,294	5,582	58,762
Sardina (Sardine)	2,623	1,732	2,028	1,585	1,298	1,111	20,374
Sierra (Mackerel)	14,458	13,961	6,464	4,617	7,677	9,142	131,756
Clasificado (Classified)							
Primera (First Class)	2,076	2,565	947	734	822	318	7,750
Otros Peces (Other Fishes)	11,330	20,118	20,270	17,989	13,703	17,095	183,278
Total Peces (Total Fishes)	203,543	243,478	202,399	185,575	177,394	176,585	2,302,269
Carrucho (Queen Conch)	18,710	42,652	18,099	14,116	14,089	17,766	261,105
Juey (Land Crab)	0	109	239	27	28	20	1,235
Langosta (Lobster)	12,889	20,769	19,584	18,912	21,504	22,708	211,347
Osliones (Oysters)	868	145	9,500	0	9,290	0	29,358
Pulpo (Octopus)	904	2,357	1,991	2,332	5,114	12,764	30,372
Otros Mariscos (Other Shellfish)	1,045	324	120	355	247	79	3,675
Total Mariscos (Total Shellfish)	34,416	66,356	49,533	35,742	50,272	53,337	537,092
TOTAL (TOTAL)	237,959	309,834	251,932	221,317	227,666	229,922	2,839,361

TABLA 20. DESEMBARCOS DE ESPECIES POR MES EN 1986.  
TABLE 20. LANDINGS OF SPECIES BY MONTH FOR 1986.

Especies (Species)	Enero (January)	Febrero (February)	Marzo (March)	Abril (April)	Mayo (May)	Junio (June)
	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)
Atún (Tuna)	12,957	10,353	1,896	4,320	7,400	15,433
Balajú (Ballyhoo)	795	780	1,129	377	1,032	398
Boquicolorados (Grunts)	20,866	27,035	26,740	16,566	11,021	10,929
Capitán (Hogfish)	3,486	3,207	3,217	2,745	1,420	2,761
Chapín (Trunkfish)	2,945	5,269	3,440	3,489	1,810	2,596
Dorado (Dolphin)	9,855	3,656	1,037	1,233	1,447	2,041
Gallo (Squirrelfish)	2,157	3,506	1,174	1,890	616	750
Jarea (Mullet)	3,314	4,314	4,300	2,008	2,869	3,625
Jurel (Jack)	9,207	4,868	5,568	4,616	2,738	5,009
Loro (Parrotfish)	16,340	22,475	14,194	14,322	5,077	4,318
Meros (Groupers)						
Cabrilla (Red Hind)	0	0	0	0	0	0
Cherna (Nassau)	0	0	0	0	0	0
Otros Meros (Other Groupers)	33,886	35,531	20,794	20,150	10,066	7,825
Mojarra (Mojarra)	1,387	1,528	2,283	887	1,150	1,072
Pargos (Snappers)						
Arrayado (Lane)	9,448	9,050	11,286	11,238	3,969	6,004
Collirubia (Yellowtail)	11,072	13,036	11,622	12,314	6,614	5,196
Chillo (Silk)	31,627	79,619	38,248	28,850	35,435	25,839
Sama (Mutton)	3,080	4,332	4,481	3,040	2,507	2,320
Otros Pargos (Other Snappers)	1,810	3,308	2,332	2,292	3,457	3,354
Peje Puerco (Triggerfish)	4,648	3,305	4,513	2,864	1,562	1,826
Picúa (Barracuda)	4,237	3,825	2,468	533	1,457	1,824
Pluma (Porgy)	1,299	1,118	1,076	1,598	1,805	2,343
Robalo (Snook)	2,202	2,311	2,155	2,690	3,568	1,974
Salmonete (Goatfish)	5,824	3,654	2,474	2,203	745	782
Sardina (Sardine)	2,165	1,234	2,125	760	1,110	699
Sierra (Mackerel)	13,204	8,058	8,133	9,722	11,712	16,227
Clasificado (Classified)						
Primera (First Class)	2,515	2,486	1,060	469	13,954	16,357
Segunda (Second Class)	0	0	0	0	12,690	15,488
Tercera (Third Class)	0	0	0	0	2,376	2,729
Brosa (Trash)	0	0	0	0	4,298	4,856
Otros Peces (Other Fishes)	23,470	25,540	29,757	12,392	9,101	9,675
Total Peces (Total Fishes)	233,796	283,398	207,502	163,568	163,006	174,250
Carrucho (Queen Conch)	16,486	16,408	21,506	23,239	12,595	15,934
Juey (Land Crab)	57	26	353	78	166	192
Langosta (Lobster)	19,319	22,476	21,016	20,114	15,710	15,176
Ostiones (Oyster)	0	0	500	0	26	0
Pulpo (Octopus)	1,630	1,798	1,357	504	488	299
Otros Mariscos (Other Shellfish)	789	489	720	270	400	568
Total Mariscos (Total Shellfish)	38,281	41,196	45,452	44,205	29,386	32,169
TOTAL (TOTAL)	272,077	324,594	252,954	207,773	192,392	206,419

TABLA 20. DESEMBARCOS DE ESPECIES POR MES EN 1986 - Continuación.  
 TABLE 20. LANDINGS OF SPECIES BY MONTH FOR 1986 - Continued.

Especies (Species)	Julio (July)	Agosto (August)	Septiembre (September)	Octubre (October)	Noviembre (November)	Diciembre (December)	TOTAL (TOTAL)
	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)
Atún (Tuna)	8,450	6,065	6,233	4,416	2,606	3,796	83,925
Balajú (Ballyhoo)	381	336	622	1,830	587	1,628	9,895
Boquicorados (Grunts)	14,592	11,856	13,755	12,951	10,554	14,515	191,380
Capitán (Hogfish)	2,968	3,202	3,499	4,888	3,671	3,722	38,786
Chapín (Trunkfish)	4,971	3,146	2,102	2,072	2,987	3,476	38,303
Dorado (Dolphin)	814	794	524	913	3,345	8,676	34,335
Gallo (Squirrelfish)	722	882	1,049	436	723	397	14,302
Jarea (Mullet)	2,296	3,646	2,227	2,348	1,307	1,592	33,846
Jurel (Jack)	2,454	3,453	3,054	2,419	1,674	2,180	47,240
Loro (Parrotfish)	5,933	5,906	6,812	5,691	6,252	4,744	112,064
Meros (Groupers)							
Cabrilla (Red Hind)	0	0	168	274	0	0	442
Cherna (Nassau)	0	0	57	0	0	0	57
Otros Meros (Other Groupers)	8,923	12,755	17,242	14,005	11,862	15,117	208,156
Mojarra (Mojarra)	756	505	279	357	261	192	10,657
Pargos (Snappers)							
Arrayado (Lane)	5,565	7,897	5,743	4,365	4,670	5,430	84,665
Collirubia (Yellowtail)	6,463	4,942	8,413	7,696	5,009	6,960	99,337
Chillo (Slik)	19,379	27,961	40,322	29,326	13,994	21,170	391,770
Sama (Mutton)	2,180	1,942	2,078	3,260	1,443	1,256	31,919
Otros Pargos (Other Snappers)	3,294	3,530	2,010	1,137	1,464	1,786	29,774
Peje Puerco (Triggerfish)	2,030	2,354	2,820	2,491	1,974	2,481	32,868
Picúa (Barracuda)	771	1,041	671	1,404	715	808	19,754
Pluma (Porgy)	1,883	1,226	3,382	768	1,021	1,299	18,818
Robalo (Snook)	1,910	4,467	1,648	1,145	1,060	587	25,717
Salmonete (Goatfish)	342	506	1,146	1,455	923	1,111	21,165
Sardina (Sardine)	1,015	1,113	886	1,261	262	758	13,388
Sierra (Mackerel)	20,965	13,130	6,358	4,180	2,384	4,811	118,884
Clasificado (Classified)							
Primera (First Class)	11,744	16,557	20,396	18,476	10,014	9,265	123,293
Segunda (Second Class)	14,277	12,122	30,106	20,746	15,006	15,210	135,645
Tercera (Third Class)	3,346	7,251	2,615	2,080	2,993	2,605	25,995
Brosa (Trash)	14	11	52	116	64	122	9,533
Otros Peces (Other Fishes)	24,887	23,798	17,346	15,821	13,765	15,871	221,423
Total Peces (Total Fishes)	173,325	182,394	203,615	168,327	122,590	151,565	2,227,336
Carrucho (Queen Conch)	21,550	17,469	18,244	18,094	11,761	7,000	200,286
Juey (Land Crab)	157	53	50	69	11	54	1,266
Langosta (Lobster)	14,937	17,077	16,882	18,831	16,502	21,312	219,352
Ostiones (Oyster)	2	6	7	0	0	0	541
Puipo (Octopus)	641	459	972	1,393	1,338	1,325	12,204
Otros Mariscos (Other Shellfish)	1,037	1,082	316	109	126	34	5,940
Total Mariscos (Total Shellfish)	38,324	36,146	36,471	38,496	29,738	29,725	439,589
TOTAL (TOTAL)	211,649	218,540	240,086	206,823	152,328	181,290	2,666,925

TABLA 21. DESEMBARCOS DE ESPECIES POR MES EN 1987.  
TABLE 21. LANDINGS OF SPECIES BY MONTH FOR 1987.

Especies (Species)	Enero (January)	Febrero (February)	Marzo (March)	Abril (April)	Mayo (May)	Junio (June)
	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)
Atún (Tuna)	4,054	3,498	4,511	5,915	11,172	19,754
Balajú (Ballyhoo)	464	401	1,007	122	383	51
Boquicolorado (Grunts)	12,764	13,826	15,448	15,971	13,222	16,155
Capitán (Hogfish)	3,182	2,166	4,466	2,590	3,151	3,407
Corvina (Croaker)	555	575	611	1,257	257	479
Chapín (Trunkfish)	2,115	3,214	4,590	3,168	2,951	4,716
Dorado (Dolphin)	4,271	3,125	1,802	1,979	2,313	1,296
Gallo (Squirrelfish)	434	250	505	680	364	261
Jarea (Mullet)	2,886	2,544	4,659	2,476	2,059	1,911
Jurel (Jack)	1,832	1,019	2,170	5,638	2,346	3,200
Loro (Parrotfish)	4,014	10,056	11,526	6,878	3,660	3,242
Meros (Groupers)						
Cabrilla (Red Hind)	148	46	17	1,658	627	554
Cherna (Nassau)	0	0	3	0	0	75
Otros Meros (Other Groupers)	13,139	11,566	13,340	18,174	15,530	8,188
Mojarra (Mojarra)	544	486	1,079	1,486	832	431
Pargos (Snappers)						
Arrayado (Lane)	3,131	3,450	7,477	12,179	5,390	3,953
Colimbla (Yellowtail)	7,185	10,148	12,117	8,703	10,761	5,393
Chillo (Silk)	15,304	17,845	24,956	28,809	22,466	18,364
Sama (Mutton)	1,844	1,810	2,407	2,064	1,922	1,650
Otros Pargos (Other Snappers)	1,391	1,294	3,164	1,727	1,790	1,113
Peje Puerco (Triggerfish)	2,322	2,899	3,836	3,518	4,354	3,512
Picúa (Barracuda)	814	500	1,194	2,730	2,578	794
Pluma (Porgy)	736	776	1,510	1,101	529	738
Robalo (Snook)	1,189	1,105	1,477	2,353	2,604	1,597
Sábalo (Tarpon)	661	763	978	541	341	418
Salmonete (Goatfish)	1,564	526	986	926	183	416
Sardina (Sardine)	1,238	1,120	1,288	1,114	3,011	1,375
Sierra (Mackerel)	3,540	4,386	5,881	9,321	12,822	14,361
Tiburón (Shark)	175	298	356	1,074	1,170	1,383
Clasificado (Classified)						
Primera (First Class)	8,105	8,630	9,132	6,595	10,057	6,696
Segunda (Second Class)	16,808	11,084	12,850	9,730	18,740	11,743
Tercera (Third Class)	2,062	2,158	2,140	2,352	2,473	1,950
Brosa (Trash)	0	76	73	89	138	102
Otros Peces (Other Fishes)	8,463	13,032	15,536	60,597	26,738	8,986
Total Peces (Total Fishes)	126,934	134,472	173,092	223,515	186,934	148,264
Carrucho (Queen Conch)	10,661	13,414	11,023	10,615	14,430	13,326
Juey (Land Crab)	49	100	44	215	218	128
Langosta (Lobster)	16,224	17,414	18,084	15,237	14,113	11,630
Ostiones (Oyster)	0	0	0	8	91	0
Pulpo (Octopus)	288	482	464	525	475	322
Otros Mariscos (Other Shellfish)	23	345	119	297	610	188
Total Mariscos (Total Shellfish)	27,245	31,755	29,734	26,897	29,937	25,594
TOTAL (TOTAL)	154,179	166,227	202,826	250,412	216,871	173,858

TABLA 21. DESEMBARCOS DE ESPECIES POR MES EN 1987 - Continuación.  
 TABLE 21. LANDINGS OF SPECIES BY MONTH FOR 1987 - Continued.

Especies (Species)	Julio (July)	Agosto (August)	Septiembre (September)	Octubre (October)	Noviembre (November)	Diciembre (December)	TOTAL (TOTAL)
	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)	Libras (Pounds)
Atún (Tuna)	17,940	16,024	8,588	14,290	8,198	2,162	116,106
Balajú (Ballyhoo)	383	1,059	922	1,098	1,312	2,469	9,671
Boquicolorados (Grunts)	13,526	13,408	14,716	14,367	10,505	6,956	160,864
Capitán (Hogfish)	4,108	2,993	2,446	4,058	2,340	2,504	37,411
Corvina (Croaker)	881	506	418	396	204	157	6,296
Chapín (Trunkfish)	3,514	2,819	1,968	3,148	2,301	2,036	36,540
Dorado (Dolphin)	158	623	938	1,361	4,348	6,443	28,657
Gallo (Squirrelfish)	342	218	259	448	158	81	4,000
Jarea (Mullet)	1,764	2,389	2,990	2,012	1,994	1,716	29,400
Jurel (Jack)	7,768	3,103	3,349	3,414	820	2,377	37,036
Loro (Parrotfish)	5,354	7,583	9,740	8,530	3,391	3,480	77,454
Meros (Groupers)							
Cabrilla (Red Hind)	3,374	842	956	1,560	730	1,049	11,561
Cherna (Nassau)	0	28	38	62	63	50	319
Otros Meros (Other Groupers)	12,612	11,949	8,971	8,366	7,362	4,612	133,809
Mojarra (Mojarra)	1,050	844	956	766	352	382	9,208
Pargos (Snappers)							
Arrayado (Lane)	5,006	4,367	4,594	3,868	4,031	3,729	61,175
Colirubia (Yellowtail)	4,890	6,367	11,350	7,605	6,344	2,567	93,430
Chillo (Silk)	13,509	11,107	12,740	17,392	11,555	14,293	208,340
Sama (Mutton)	1,621	1,631	1,806	1,428	1,207	1,284	20,474
Otros Pargos (Other Snappers)	3,201	3,788	4,015	2,007	1,016	1,487	25,993
Peje Puerco (Triggerfish)	3,962	3,440	3,170	2,898	3,306	1,839	39,056
Picúa (Barracuda)	13,955	1,118	1,406	820	334	447	26,690
Pluma (Porgy)	1,263	677	1,404	620	784	786	10,924
Robalo (Snook)	2,304	3,220	3,756	3,262	4,548	2,296	29,711
Sábalo (Tarpon)	2,857	2,321	1,366	1,320	88	929	12,583
Salmonete (Goatfish)	467	720	790	1,484	1,174	842	10,078
Sardina (Sardine)	1,155	1,317	6,173	4,614	539	580	23,724
Sierra (Mackerel)	11,544	7,622	6,003	5,292	1,856	4,450	87,078
Tiburón (Shark)	1,776	1,817	897	2,077	1,431	959	13,413
Clasificado (Classified)							
Primera (First Class)	7,370	6,328	7,650	5,864	8,308	6,828	91,563
Segunda (Second Class)	15,186	10,104	11,070	8,502	9,015	7,155	141,987
Tercera (Third Class)	1,300	1,422	1,906	2,312	4,634	2,538	27,247
Brosa (Trash)	3,747	61	274	927	885	95	6,467
Otros Peces (Other Fishes)	20,015	7,090	6,326	6,426	8,169	13,953	195,331
Total Peces (Total Fishes)	187,902	138,905	143,951	142,794	113,302	103,531	1,823,596
Carrucho (Queen Conch)	15,776	19,553	14,033	10,279	9,577	12,626	155,313
Juey (Land Crab)	798	149	34	158	151	42	2,086
Langosta (Lobster)	11,657	13,098	10,927	10,059	9,430	8,838	156,711
Ostiones (Oyster)	0	0	0	0	0	0	99
Pulpo (Octopus)	594	1,064	782	2,404	846	787	9,033
Otros Mariscos (Other Shellfish)	262	149	61	251	54	58	2,417
Total Mariscos (Total Shellfish)	29,087	34,013	25,837	23,151	20,058	22,351	325,659
TOTAL (TOTAL)	216,989	172,918	169,788	165,945	133,360	125,882	2,149,255

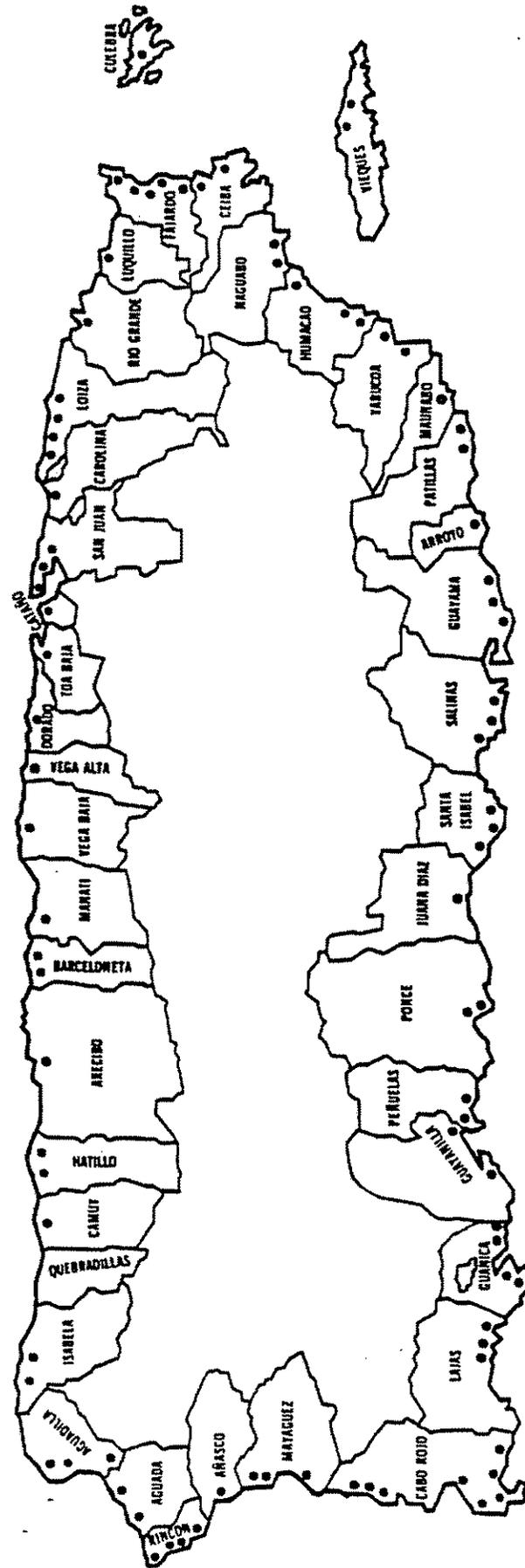


FIGURA 1. MUNICIPIOS COSTANEROS DE PUERTO RICO INDICANDO LOS CENTROS PESQUEROS (•).  
 FIGURE 1. PUERTO RICO'S COASTAL MUNICIPALITIES SHOWING FISHING CENTERS (•).

Núm.	Cen.	No. Pescador

Núm. Salidas   
(No. Trips)

FECHA   
(Date) Mes (Month) Día (Day) Año (Year)

Núm. Horas Pescando   
(No. Hours Fishing)

PUEBLO  COMPRADOR   
(Town) (Buyer)

NOMBRE  PESCADOR   
(Name) (Fisherman)

NUM. PROEL(ES)  NOMBRE(S)   
(No. Helpers) (Name(s))

LE COMPRA A   
(Bought from)

NOMBRE EMBARCACION  TAMAÑO   
(Name Vessel) (Size)

Clase de Pescado (Fish class)	Peso Total (Total Weight)	Precio por Libra (Price per Pound)	Artes (Gears)	Num. Masas - Num. Anzuelos (No. of Fish traps - No. of Hooks)
(136) Arrayado				
(225) Atún				
(56) Balajú				
(152) (153) (155) Ronco, Viejo Blanco, Boquicolorado				
(189) (190) Capitán, Loro				
(257) Chapín				
(139) (140) (142) (143) Chillo, Colirrubia, Besugo, Cartucho				
(128) Dorado				
(65) Gallo				
(199) Jarea				
(109) Jurel				
(239) Marlin Azul				
(79) (85) (88) (89) Mero, Guasa, Cabrilla, Cherna				
(80) (91) Mantequilla, Guajil				
(147) Mojarra				
(130) Otros Pargos				
(251) Peje Puerco				
(202) Picúa				
(164) Pluma				
(75) Robalo				
(175) (176) Salmonete Colorao, Salmonete Amarillo				
(134) Sama				
(36) Sardina				
(233) Sierra				
(8) Tiburón				
(900) (901) (902) (903) Carrucho, Langosta, Pulpo, Ostión				
(904) (905) Juey, Otros Mariscos				

Figura 2: Boleto Compra/Venta  
Figure 2: Trip Ticket

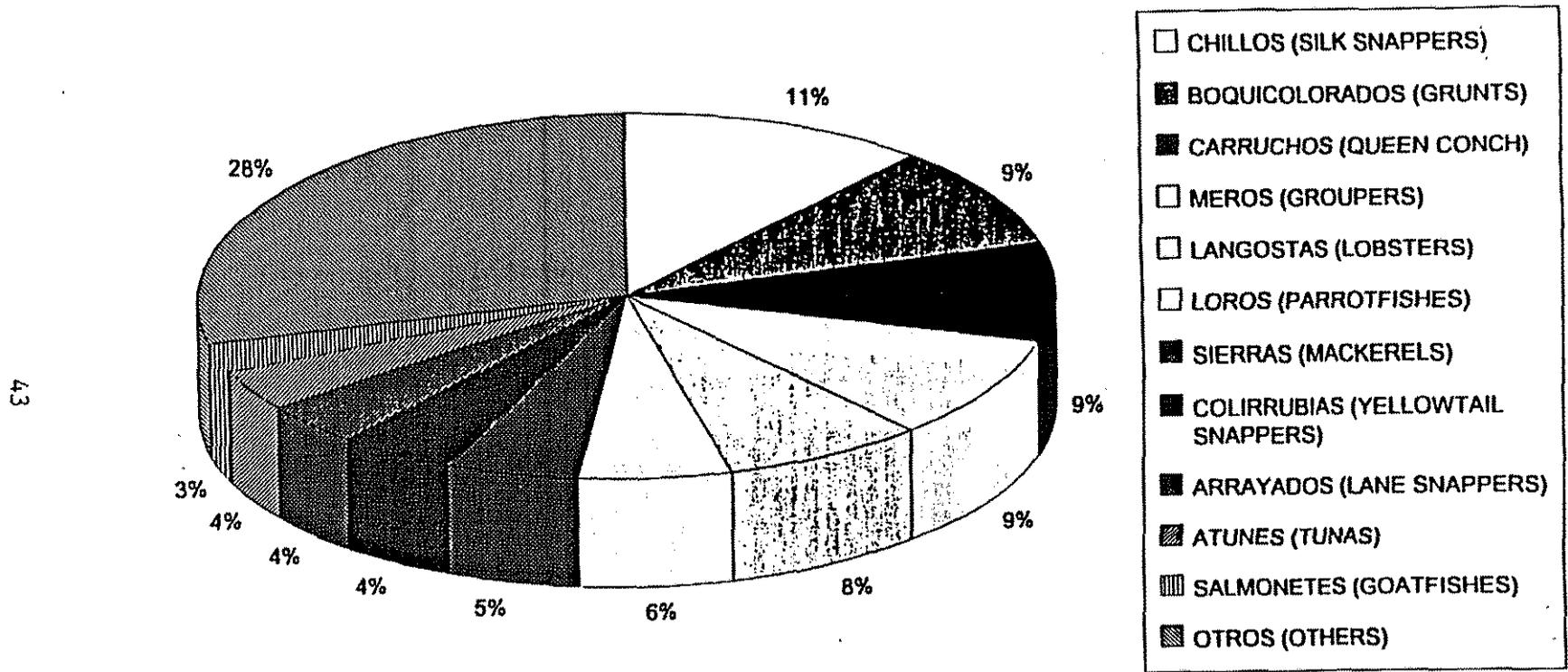
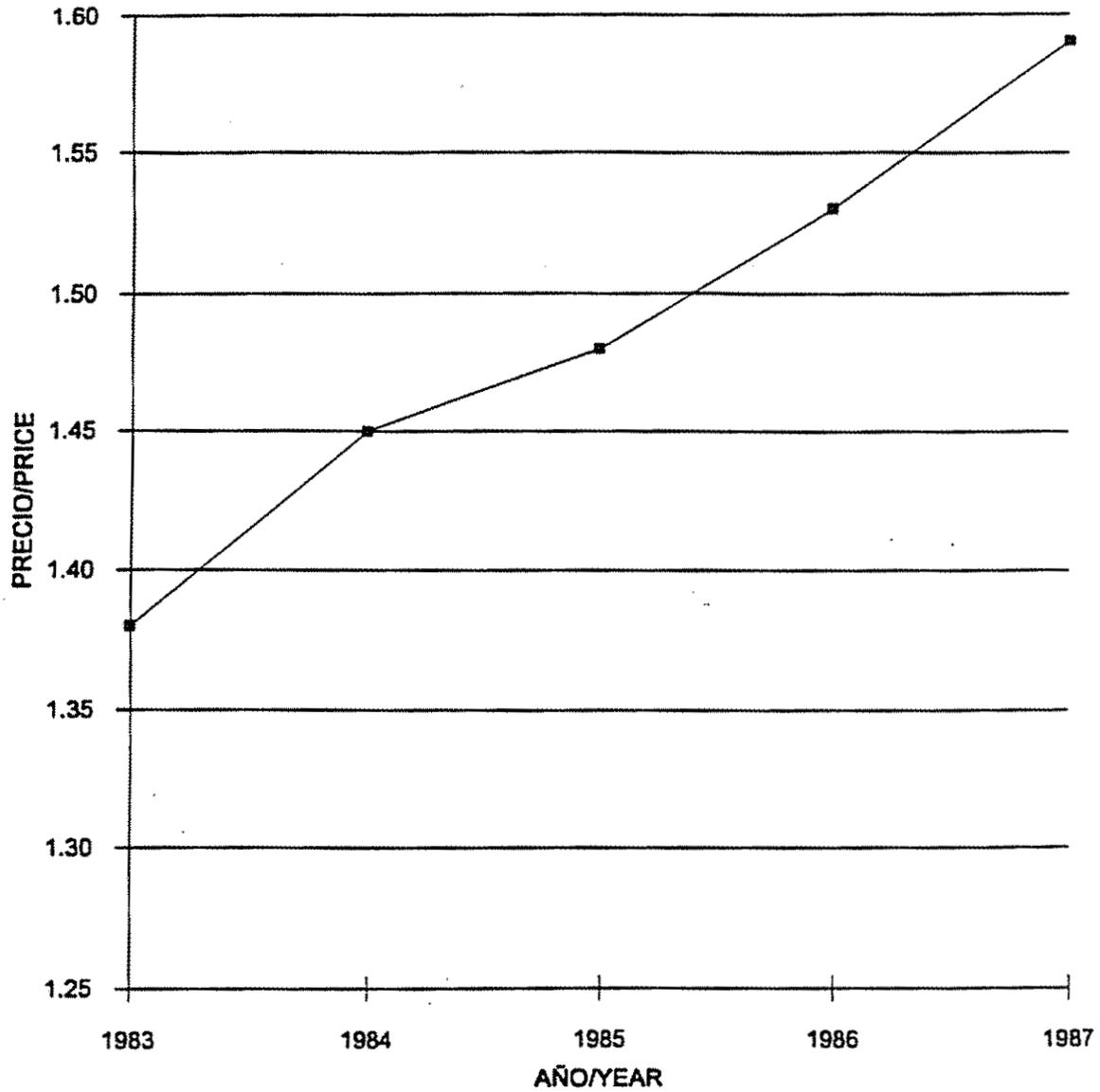


FIGURA 3. GRUPOS Y/O ESPECIES MAS REPORTADOS EN LOS DESEMBARCOS DE PUERTO RICO 1983-87.

FIGURE 3. GROUPS OR SPECIES MOST REPORTED IN PUERTO RICO LANDINGS BETWEEN 1983-87.



**FIGURA 4. PRECIO PROMEDIO POR LIBRA DE PESCADO Y MARISCO REPORTADO EN PUERTO RICO ENTRE 1983-87.**

**FIGURE 4. AVERAGE PRICE PER POUND OF FISH AND SHELLFISH REPORTED IN PUERTO RICO BETWEEN 1983-87.**

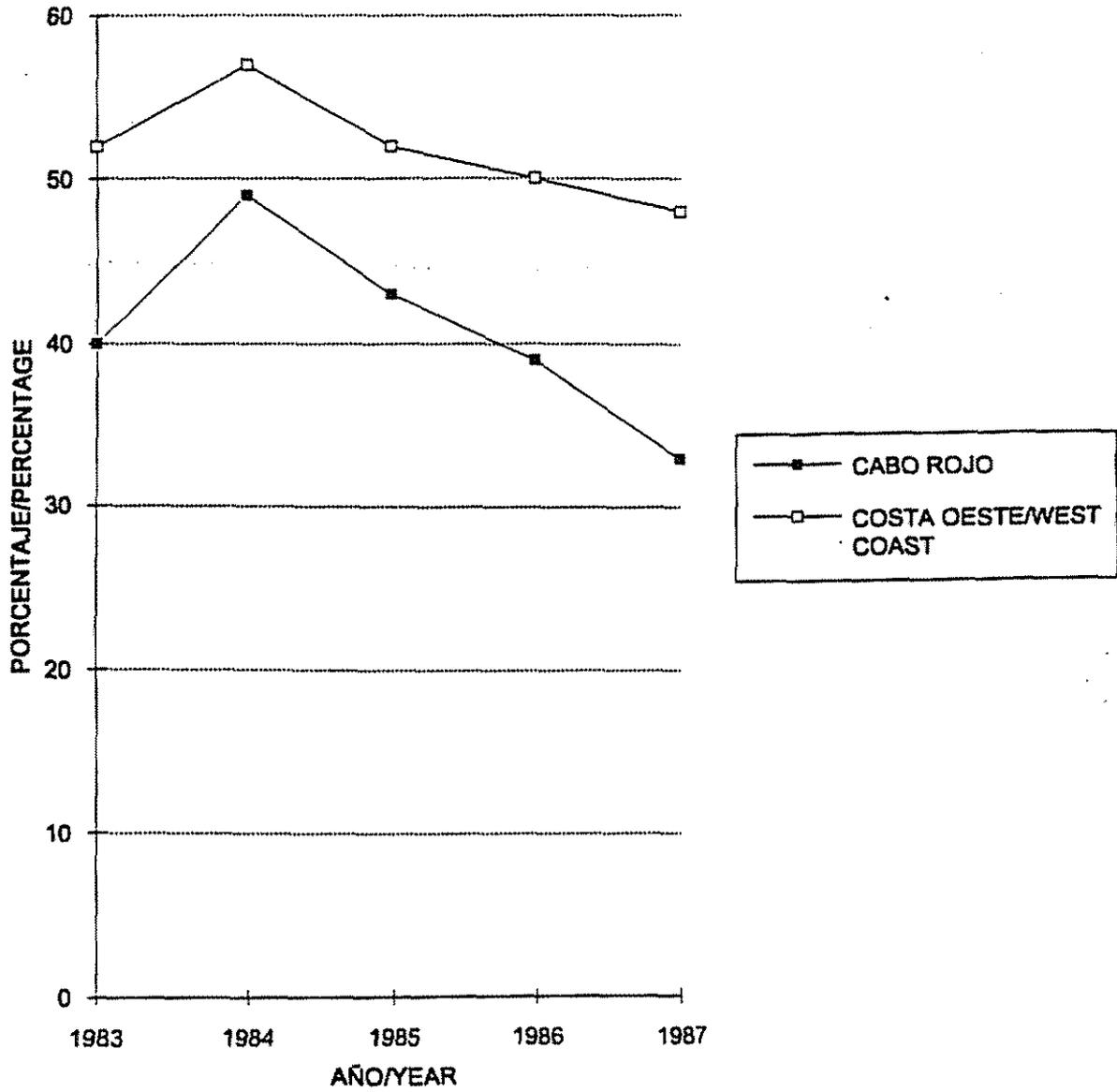


FIGURA 5. PORCENTAJE DE DESEMBARCOS TOTALES REPORTADOS POR EL MUNICIPIO DE CABO ROJO Y LA COSTA OESTE ENTRE 1983-87.  
 FIGURA 5. PERCENTAGE OF REPORTED LANDINGS BY MUNICIPALITY OF CABO ROJO AND WEST COAST DURING 1983-87.

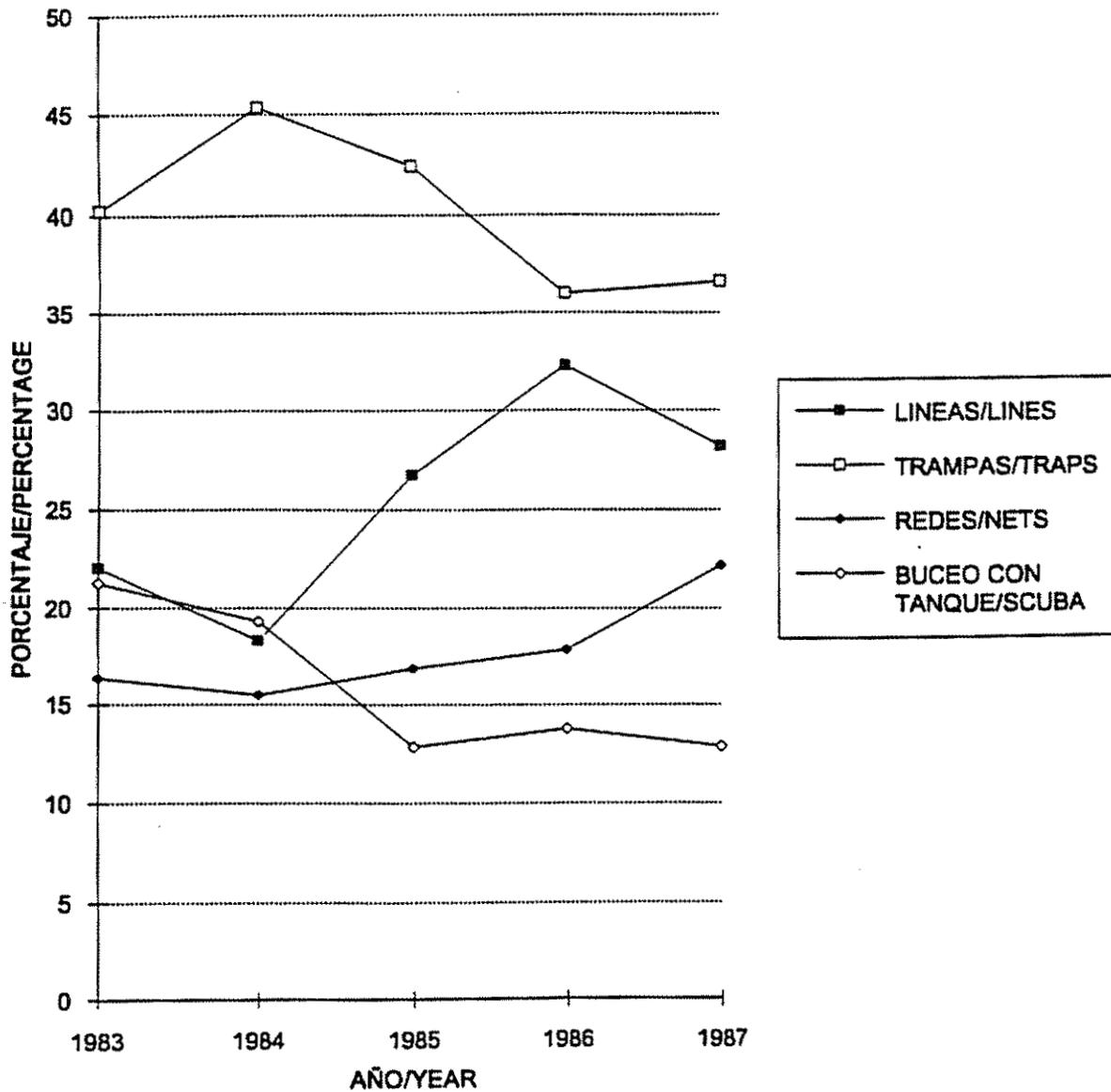


FIGURA 6. PORCENTAJE DE DESEMBARCOS REPORTADOS POR ARTE POR ARTE EN PUERTO RICO DURANTE 1983-87.  
 FIGURE 6. REPORTED LANDINGS PERCENTAGES BY GEAR IN PUERTO RICO DURING 1983-87.

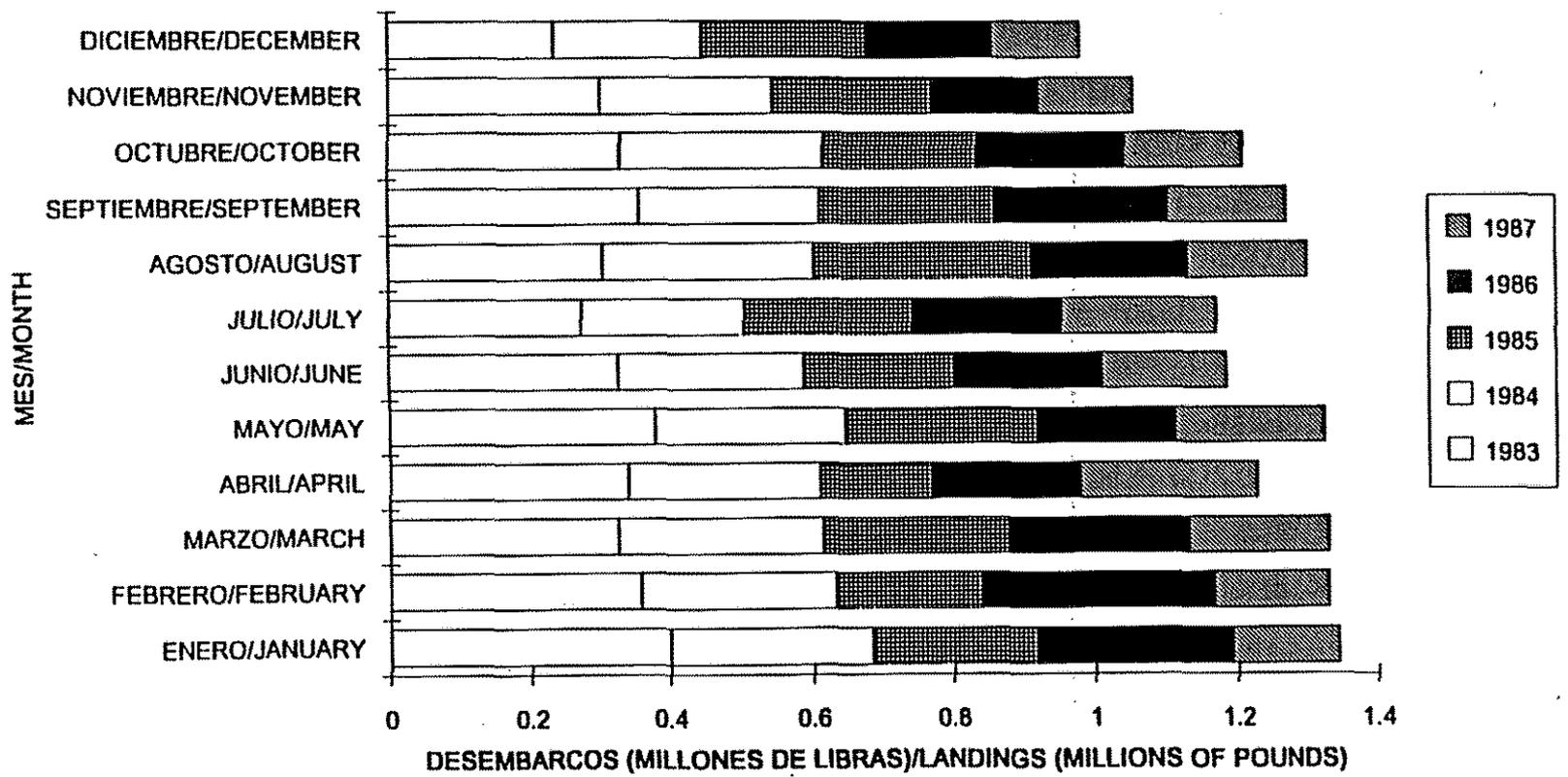


FIGURA 7. DESEMBARCOS POR MES Y POR AÑO (1983-87) EN PUERTO RICO.  
 FIGURE 7. LANDINGS BY MONTH AND BY YEAR (1983-87) IN PUERTO RICO.

#### DEDICATORY

To Dr. Yvonne Sadovy, former director of Fisheries Research Laboratory, excellent scientist who has contributed widely to the knowledge of Puerto Rico's fishery resource status.

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## INTRODUCTION

The Fisheries Research Laboratory (FRL) of the Puerto Rico Department of Natural Resources (DNR) monitors the commercial landings of fish and shellfish in Puerto Rico. The Fisheries Statistics Program 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 National Marine Fisheries Service (NMFS/NOAA) through the State/Federal Cooperative Fishery Statistics Program, Interjurisdictional Commercial Fisheries Program and DNR.

The objective of this project is to provide fishery statistics necessary for scientific management of fishery resources found in the Territorial Sea of the Commonwealth of Puerto Rico and contiguous Exclusive Economic Zone (EEZ) waters. Another goal of this project is to collect data that will provide efficient and reliable estimates of the quantity and value of the commercial landings of fishery products for specific geographical areas of Puerto Rico.

Puerto Rico landings data have been published periodically (Suárez-Caabro, 1970; Juhl and Suárez-Caabro, 1971, 1972; Suárez-Caabro, 1973; Suárez-Caabro and Rolón, 1974; Rolón, 1975; Suárez-Caabro and Abreu-Volmar, 1976; Abreu-Volmar, 1978; Weiler and Suárez-Caabro, 1980; Collazo and Calderón, 1987; Matos and Sadovy, 1990). The data presented in

this publication are from January 1983 to December 1987.

## METHODS

Commercial fishery landings data were collected from voluntary fishermen, fish buyers and fishing associations from around Puerto Rico. Confidentiality is maintained for individual fishermen or businesses that cooperate by providing data to the program. The 42 coastal municipalities including the islands of Vieques and Culebra, and the 88 identified fishing centers or municipality landing area (Figure 1), were visited by port agents. Data were collected using a landing trip ticket system (Figure 2), usually on a weekly basis.

Each trip ticket included: date; name of fishermen and/or fish buyer (to avoid data duplication); name of helpers (if any); municipality; fishing center; gear type; fishing effort (hours spent fishing); weight in pounds by species or species groups; and market value to the fishermen (price in U.S. dollars/pound). Trip tickets were completed using the species common names and species 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. Fishes were usually landed in the round (not eviscerated), with the exception of deep water snappers and large groupers which were usu-

ally 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 by the dozen, assuming that each dozen produced 1 lb. of meat.

Some of the 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 as explained by Matos and Sadovy (1990), varied somewhat by region but the following descriptions were used to broadly characterize each class: first class fish included large snappers, groupers, grunts, trunkfishes and hogfish; second class included small snappers and groupers, parrotfishes, goatfishes, and triggerfishes; third class fish included smaller individuals of second class fish and large squirrelfishes. The "trash-fish" category included butterflyfishes, angelfishes, surgeonfishes, small squirrelfishes and small fishes of a large number of species. The category of first class fish, started to appear reported in trip tickets in 1985, and second, third and trash categories started to appear in 1986. To clarify the information requested, in 1986 the nassau grouper and red hind were added to the trip tickets system. However, the classification of "Other groupers" includes red hind and nassau grouper because both are also sold in this category. Furthermore, in 1987, the categories of sharks and tarpon were added to the trip

ticket. Fishermen reported croackers in 1987.

Landings data were initially entered into an Apple II Plus computer using DBMASTER and STATPRO softwares between 1984-87. Later, in 1989, data were converted to IBM PC computer format, in DBASEIII+ software format. From January 1991 - August 1992, IBM computer data were checked record by record against the original landing trip tickets. Data was then corrected and analyzed using DBASEIII+, Lotus 123 and Microsoft Excel. As in previous years (1972-82), a correction factor determined that 75% of the landings were reported by volunteering fishermen (Weiler and Suárez-Caabro, 1980; Collazo and Calderón, 1987). To obtain the total landings by the correction factor, the following equation is used:

$$\text{Pounds of Landings Reported} / 0.75 = \text{Total Pounds}$$

All information presented in this report are raw data (correction factor is not included).

## RESULTS AND DISCUSSION

Total landings reported by species by coast from years 1983-87 are shown in Tables 1-5. The most landed reported fishes for the five year study were various species of the silk snapper mainly Lutjanus vivanus (11%), various species of grunts, mainly white grunt Haemulon plumieri (9%), all grouper species reported principally red hind Epinephelus

guttatus (9%), various species of parrotfish (6%), mackerel species Scomberomorus cavalla and Scomberomorus regalis (5%), yellowtail snapper Ocyurus chrysurus (4%), lane snapper Lutianus synagris (4%), various species of tuna (4%), and goatfish 3% (Figure 3). The most landed shellfish species were the queen conch Strombus gigas, and the spiny lobster Panulirus argus which constituted 9% and 8%, respectively, of total reported landings (Figure 3). The number of trip tickets collected by month and by year from 1983-87 appear in Table 6.

Puerto Rico's fishery resources have shown indications of overfishing. One indication is that landings of fish and shellfish have shown a consistent decline since 1979, when 7.212 millions of pounds were reported (Calderón y Collazo, 1987; Matos, In press A) and when in 1987 while fishing effort did not decrease, only 2.149 millions of pounds were reported (Table 5). Another indication of overfishing is that fish species that in the past did not have commercial value (e.g. Holocentrus ascensionis and Acanthurus spp.) are now easily being sold (Matos, 1993). Biostatistical data collected have also provided indications of overfishing. For example some important commercial species (e.g. Panulirus argus, Lutianus vivanus, Epinephelus guttatus and Ocyurus chrysurus) were caught in large percentages before reaching minimum size of sexual maturation (Appeldoorn, et. al., 1992; Figuerola, 1991; Matos, In press A; Matos, In press B; Sadovy, et. al., In

press).

The total estimated value of reported landings for the years 1983-87 by municipality and coast, are presented in tables 7-11. Average price per pound varied markedly by municipality and species. The 1983 average price per pound for all landings which was \$1.38, increased to \$1.59 in 1987 (Figure 4). The most valued fish and shellfish throughout the five years (1983-87) were the silk snapper and the land crab followed by the lobster (Tables 1-5). During 1983-87 the municipality that reported the largest amount of landings was Cabo Rojo. During the same period, the coast that reported the largest amount of landings was the west coast. Since 1972, the municipality of Cabo Rojo has been the most productive of the 42 coastal municipalities of Puerto Rico. Also, the most productive coast has continued to be the west coast (Weiler and Suárez-Caabro, 1980; Collazo and Calderón, 1988; Matos and Sadovy, 1990). On the other hand, a decreasing trend in the percentages of total landings reported by Cabo Rojo and the west coast was observed during 1983-87 (Figure 5). Throughout 1983-84, a controversy existed about a proposal to develop a marine sanctuary in the municipality of Lajas, specifically in the La Parguera fishing center. During this controversy, some fishermen assumed that the marine sanctuary would eliminate the fishery in La Parguera and they tried to pressure the government by not submitting their fisheries statistics data. As a result of their

effort, Lajas did not report landings in 1984 (Table 8). After 1985, Lajas fishermen continued to voluntarily cooperate with the fisheries statistics program.

Landings of species by gear for years 1983-87 is presented in Tables 12-16. Figure 6 shows trends in gear type (as defined in Matos and Torres, 1989), in landings, where lines (hand line, troll line, long line and rod and reel) and nets (beach seine, gill net, trammel net and cast net) showed an increase. In this report landings caught by trammel nets and gill nets were accounted together as gill nets. On the other hand, traps (fish and lobster pots) which had been the gear with the highest amount of landings reported since 1970 (Juhl and Suárez-Caabro, 1971; Calderón and Collazo, 1987), and diving (including skin and SCUBA) showed a decrease in their catches. A problem with the fisheries resource has been observed thru the change of gears traditionally used by fishermen. For example, a decreasing trend has been observed in the use of traps because fishermen claim that this gear is presently not as efficient catching fish and shellfish as in the past. On the other hand, a trend has been observed in the increasing use of lines and nets because fishermen claim that these gears are more efficient than traps. Also, a decreasing trend has been observed in landings of divers, which could be an indication of a problem in conch and lobster resources (both species are the main target of divers).

Landings of species by month and by year for 1983-87 are presented in Tables 17-21. Figure 7 shows the reported landings by month for the five

years (1983-87). A tendency of increase in landings was observed during the months of January-May and during August-September. A decrease tendency in landings occurred during November-December. These decreases could be caused by a combination of two factors: common bad weather occurring normally during these months thereby impeding fishing activities, and a decrease in fishing activity by fishermen during the Christmas celebration (prolonged period of approximately three weeks).

#### CONCLUSION

Fisheries statistics data indicates that the Puerto Rico fisheries resource is declining. Evidences of this are: a) decrease in number of pounds landed; b) the selling of species that in the past did not have commercial value; c) large percentages of individuals of commercially important species being caught before reaching minimum size of sexual maturation; d) the increased tendency of landings percentage thru the use of lines and nets, contrasting with the trend in the percentage of landings to decrease thru the use of traps and diving.

All the information presented in this report urges the need for the implementation of effective fisheries management plans to conserve Puerto Rico's fisheries resource and their habitats (mangroves, coral reefs and marine grass beds).

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