

**COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS
2004 FISHERY STATISTICS**

Compiled by
Division of Fish and Wildlife
and the
Western Pacific Fishery Information Network

June 2006

CONTENTS

	Page
Introduction	B.1
Data Collecting System	B.2
Data Processing System	B.3
Data Reporting System	B.3
Tables	B.6
Figures	B.19

LIST OF CNMI SUMMARY TABLES

Table	Title	Page
B-1	2004 Estimated Commercial Landings	B.6
B-2	January 2004 Estimated Commercial Landings	B.7
B-3	February 2004 Estimated Commercial Landings	B.8
B-4	March 2004 Estimated Commercial Landings	B.9
B-5	April 2004 Estimated Commercial Landings	B.10
B-6	May 2004 Estimated Commercial Landings	B.11
B-7	June 2004 Estimated Commercial Landings	B.12
B-8	July 2004 Estimated Commercial Landings	B.13
B-9	August 2004 Estimated Commercial Landings	B.14
B-10	September 2004 Estimated Commercial Landings	B.15
B-11	October 2004 Estimated Commercial Landings	B.16
B-12	November 2004 Estimated Commercial Landings	B.17
B-13	December 2004 Estimated Commercial Landings	B.18

LIST OF CNMI FIGURES

Figure	Title	Page
B-1-1	2004 Monthly Estimated Commercial Landings of Pelagic, Bottom, Reef, and Other Fish	B.19
B-1.2	2004 Monthly Estimated Commercial Landings of Tunas, PMUS, and BMUS	B.19
B-1-3	2004 Monthly Estimated Commercial Landings of Mahimahi, Wahoo, and Billfish	B.20
B-1-4	2004 Monthly Estimated Commercial Landings of Skipjack, Yellowfin, and Other Tunas	B.20
B-1-5	2004 Monthly Estimated Commercial Landings of Bigeye Scad, Emperors, and Onaga	B.21
B-2-1	1981-2004 Average Monthly Estimated Commercial Landings of Tunas, PMUS, and BMUS	B.21
B-2-2	1981-2004 Average Monthly Estimated Commercial Landings of Mahimahi, Wahoo, and Billfish	B.22
B-2-3	1981-2004 Average Monthly Estimated Commercial Landings of Skipjack, Yellowfin, and Other Tunas	B.22
B-2-4	1981-2004 Average Monthly Estimated Commercial Landings of Bigeye Scad, Emperors, and Onaga	B.23
B-2-5	1981-2004 Average Monthly Estimated Commercial Landings of Parrotfish, Spiny Lobster, and Rabbitfish	B.23
B-3-1	1981-2004 Annual Trend of Fisheries Categories: Estimated Commercial Landings of Pelagic, Bottom, Reef, and Other Fish	B.24
B-3-2	1981-2004 Annual Total Estimated Commercial Landings (Pounds and Dollars)	B.24
B-3-3	1981-2004 Annual Estimated Commercial Landings of Tunas, PMUS, and BMUS	B.25
B-3-4	1981-2004 Annual Estimated Commercial Landings of Mahimahi, Wahoo, and Billfish	B.25
B-3-5	1981-2004 Annual Estimated Commercial Landings of Skipjack, Yellowfin, and Other Tunas	B.26
B-3-6	1981-2004 Annual Estimated Commercial Landings of Bigeye Scad, Emperors, and Onaga	B.26
B-3-7	1981-2004 Annual Estimated Commercial Landings of Parrotfish, Spiny Lobster, and Rabbitfish	B.27

LIST OF CNMI FIGURES (cont.)

Figure	Title	Page
B-4-1	1981-2004 Monthly Estimated Commercial Landings of Wahoo	B.27
B-4-2	1981-2004 Monthly Estimated Commercial Landings of Mahimahi	B.28
B-4-3	1981-2004 Monthly Estimated Commercial Landings of Parrotfish	B.28
B-4-4	1981-2004 Monthly Estimated Commercial Landings of Dogtooth Tuna	B.29
B-4-5	1981-2004 Monthly Estimated Commercial Landings of Skipjack Tuna	B.29
B-4-6	1981-2004 Monthly Estimated Commercial Landings of Yellowfin Tuna	B.30
B-4-7	1981-2004 Monthly Estimated Commercial Landings of Emperors (Misc.)	B.30
B-4-8	1981-2004 Monthly Estimated Commercial Landings of Bigeye Scad	B.31
B-4-9	1981-2004 Monthly Estimated Commercial Landings of Onaga	B.31
B-4-10	1981-2004 Monthly Estimated Commercial Landings of Spiny Lobster	B.32
B-4-11	1981-2004 Monthly Estimated Commercial Landings of Rabbitfish	B.32

COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS 2004 FISHERY STATISTICS

INTRODUCTION

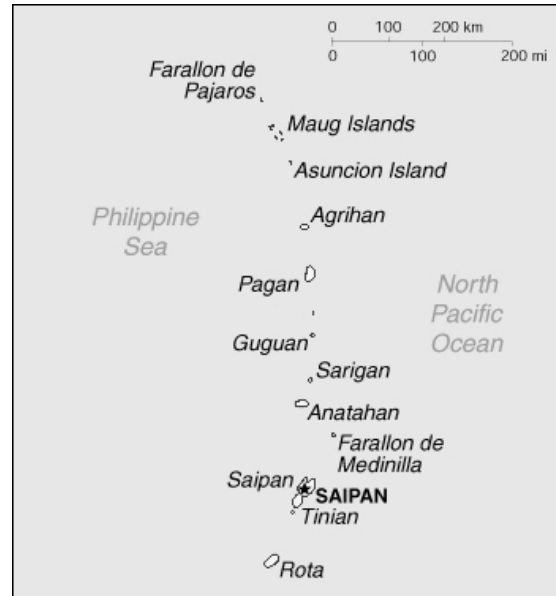
Location: 14° to 21°N latitude, 145°E longitude

Main Islands: Saipan, Rota, Tinian

Population: about 82,500; (*The World Factbook*, 2006)

Economy: tourism, agriculture, garment production

The chief domestic commercial fishery of the Commonwealth of the Northern Mariana Islands (CNMI) is a small boat, 1-day troll fishery, and most of the boats are 12- to 24-foot outboard-powered, runabout-type vessels. However, a few larger boats are used mainly for bottomfish fishing around the islands north of Saipan, and a small charter fleet also exists.



CNMI

Source: <<http://www.cia.gov/cia/publications/factbook/geos/cq.html>>;
The World Factbook

During 2004, 54 vessels were registered as full-time commercial fishing boats, and 28 were part-time. Also, 13 vessels were registered as “charter” for their primary use, and 360 boats were non-fishing or recreational.

Trolling is the most common fishing method, but bottomfishing and reef fishing are also popular. Reef fish make up a significant portion of the total commercial catch and are an important component of the local diet. In recent years, several larger boats started fishing more intensively for bottomfish around the islands north of Saipan. While the vast majority of the domestic catch is consumed locally, there have been some exports to Guam, Hawaii, and Japan.

In 1982 WPacFIN significantly improved data collecting and processing systems by providing computer hardware, software, and training. Since then numerous system upgrades and replacements have been implemented to keep up with changing technologies and the increasing demands for improved fisheries statistics.

B.2

DATA COLLECTING SYSTEM

The Division of Fish and Wildlife (DFW) has been collecting fishery statistics on the commercial fishing fleet of Saipan since the mid-1970s. With the assistance of the NMFS WPacFIN program, DFW also expanded its fisheries monitoring programs to include Rota and Tinian, the other two major inhabited islands in the CNMI.

DFW's principal method of collecting domestic commercial fisheries data is a dealer invoicing system, sometimes referred to as a "trip ticket" system. The DFW provides numbered two-part invoices to all purchasers of fresh fishery products (including hotels, restaurants, stores, fish markets, and roadside vendors). Dealers then complete an invoice each time they purchase fish directly from fishermen; one copy goes to DFW and one copy goes to their records.

Some advantages of this data collection method are that it is relatively inexpensive to implement and maintain, is fairly easy to get complete coverage of the commercial fisheries, and DFW can provide feedback to dealers and fishermen to ensure data accuracy and continued cooperation.

There are some disadvantages: (1) dependency on non-DFW personnel to identify the catch and record the data; (2) restrictions on the types of data that can be collected; (3) required education and cooperation of all fish purchasers; and (4) limited recordings of fish actually sold to dealers. Therefore, a potentially important portion of the total landings is unrecorded.

Since 1982 DFW has tried to minimize these disadvantages in several ways: (1) maintain a close working relationship with dealers; (2) add new dealers to their list and educate them; and (3) implement a creel survey to help estimate total catch, including recreational and subsistence catch.

The current system collects data from dealers in Saipan, where DFW estimates over 90% of all CNMI commercial landings are made. The DFW also estimates that the proportion of total commercial landings that have been recorded in the Saipan database since 1983 is about 90%. Previous volumes of FSWP reported only recorded landings, but in recent volumes the data have been adjusted to represent 100% coverage and are referenced as "Estimated Commercial Landings" in the tables and charts.

Information collected from the fishermen includes the following:

- Date
- Buyer's Name (dealer)
- Seller's Name (fisherman)
- Species
- Weight (pounds)
- Price per Pound
- Value
- Invoice Number

B.3

These data elements are collected for all purchases of fishery products; however, species identification is frequently made only to a group level, especially for reef fish.

DATA PROCESSING SYSTEM

At the beginning of each month, a DFW employee visits each of the dealers on Saipan to collect the previous month's invoices, to resolve problems, and to answer any questions the dealers may have. The invoices are then returned to the office for an initial visual edit during the coding process and entered into the Commercial Purchase System database. After the records are entered, reports are generated to help verify that all data were entered correctly. On a quarterly basis, copies of the database are sent to the Pacific Islands Fisheries Science Center, where the data are transferred to the central computer for additional verification before generating summary reports. These reports and databases are then ready for use by qualified WPacFIN participants.

DATA REPORTING SYSTEM

After all editing, adjustment, and quality control activities have been completed, monthly and annual summary reports by species are generated. Each monthly report contains a subtotal for the sum of all species for that month. Annual reports contain the total landings for each species and the total recorded landings for all species for the calendar year.

Please note that commercial landings data have been adjusted to reflect total coverage and are referenced as "Estimated Commercial Landings" in the charts and tables. Also, some of the charts in this volume are new or modified from earlier volumes.

To access the most up-to-date data and charts, please visit the WPacFIN Website at <http://www.pifsc.noaa.gov/wpacfin>.

The following species, species groups, and abbreviations are used in the tables and graphs of CNMI's data:

Note: Many of the species included in this report have been recategorized over the years. For example, the Magnuson Fishery Conservation and Management Act of 1976 was amended in 1992 to include tunas in the Pelagic Management Unit Species (PMUS) category. However, this FSWP volume will maintain the original species categorizations from previous volumes for comparative purposes. As such, tunas are kept in a separate category.

B.4

I. Pelagic Management Unit Species (PMUS)

Mahimahi (dolphin)
Marlin
Shortbill spearfish
Sailfish
Wahoo
Sharks

II. Bottomfish Management Unit Species (BMUS)

Jacks (unclassified, but excluding bigeye scad)
Amberjack
Bottomfish (unclassified)
Ehu (red snapper)
Gindai (flower snapper)
Grouper (unclassified)
Kalekale (pink snapper)
Lehi (silverjaw snapper)
Onaga (red or longtail snapper)
Opakapaka (pink snapper)
Uku (gray snapper)
Emperorfish

III. Billfish

Marlin (probably all blue marlin but could also include the rarely landed striped and black marlins)
Shortbill spearfish
Sailfish

IV. Tunas

Tunas (unclassified)
Skipjack tuna
Yellowfin tuna
Dogtooth tuna

V. Other Tuna

The above tunas excluding skipjack and yellowfin tunas

VI. Fisheries Categories

A. Pelagics

All PMUS and tuna species plus the following:

Troll fish (unclassified)

Barracuda

Rainbow runner

B. Bottomfish

Same as BMUS

C. Reef Fish

Reef fish (unclassified)

Giant wrasse

Rabbitfish (hitting, hitting feda, menahac, and sesjun)

Rudderfish

Squirrelfish

Parrotfish

Snapper

Surgeonfish

Unicornfish

Goatfish

D. Other

Miscellaneous

Mullet

Milkfish

Crabs (unclassified)

Lobster

Octopus

Turtle

Bigeye scad

Eels

Invertebrates (unclassified)

Coconut crab

Shrimp

Squid

Seaweeds

Imported

B.6

Table B-1
2004 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye scad	7,959	\$18,343	\$2.30
Jacks (misc)	477	\$1,216	\$2.55
Mullet	64	\$159	\$2.50
Blackjack	931	\$1,781	\$1.91
Giant trevally	91	\$250	\$2.75
Brassy trevally	27	\$55	\$2.00
Bottom fish	20,831	\$49,409	\$2.37
Sickle pomfret	559	\$1,408	\$2.52
Ehu (red snapper)	1,137	\$3,406	\$3.00
Gindai (flower snapper)	1,043	\$3,105	\$2.98
Grouper (misc)	1,073	\$3,172	\$2.96
Kalikali (yellowtail)	3,242	\$8,266	\$2.55
Onaga (red snapper)	3,160	\$12,148	\$3.84
Opakapaka (pink snapper)	849	\$2,586	\$3.05
Jobfish (uku)	1,194	\$2,252	\$1.89
Silvermouth (deep lehi)	737	\$1,882	\$2.55
Amberjack	488	\$957	\$1.96
Blueline snapper	102	\$331	\$3.25
Red snapper	204	\$407	\$2.00
Reef fish	54,682	\$140,180	\$2.56
Wrasse	136	\$477	\$3.50
Rabbitfish	3,916	\$12,688	\$3.24
Emperor (mafute/misc)	18,889	\$51,140	\$2.71
Squirrelfish	23	\$57	\$2.50
Parrotfish (misc)	1,473	\$5,006	\$3.40
Surgeonfish (misc)	113	\$239	\$2.11
Orangespine unicornfish	2	\$5	\$2.50
Unicornfish (misc)	256	\$634	\$2.48
Goatfish (misc)	53	\$123	\$2.34
Troll fish (misc)	116	\$201	\$1.73
Barracuda	165	\$317	\$1.91
Mahimahi	35,808	\$76,988	\$2.15
Blue marlin	2,001	\$2,669	\$1.33
Sailfish	433	\$871	\$2.01
Rainbow runner	4,199	\$8,394	\$2.00
Wahoo	6,936	\$16,480	\$2.38
Skipjack tuna	148,328	\$291,047	\$1.96
Dogtooth tuna	7,458	\$13,104	\$1.76
Yellowfin tuna	27,548	\$55,498	\$2.01
Saba (kawakawa)	5,455	\$9,565	\$1.75
Spiny lobster	2,948	\$19,408	\$6.58
Octopus	2,009	\$4,546	\$2.26
Squid	36	\$87	\$2.40
TOTAL	367,151	\$820,856	\$2.24

Table B-2
January 2004 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye scad	1,514	\$3,354	\$2.22
Jacks (misc)	83	\$192	\$2.32
Brassy trevally	27	\$55	\$2.00
Bottom fish	324	\$1,001	\$3.09
Sickle pomfret	75	\$189	\$2.50
Ehu (red snapper)	98	\$295	\$3.00
Grouper (misc)	77	\$232	\$3.00
Kalikali (yellowtail)	456	\$1,174	\$2.57
Onaga (red snapper)	165	\$675	\$4.08
Opakapaka (pink snapper)	151	\$528	\$3.50
Jobfish (uku)	42	\$73	\$1.75
Silvermouth (deep lehi)	40	\$140	\$3.50
Reef fish	7,429	\$19,461	\$2.62
Rabbitfish	853	\$2,780	\$3.26
Emperor (mafute/misc)	2,789	\$7,275	\$2.61
Parrotfish (misc)	175	\$595	\$3.39
Mahimahi	8,741	\$18,798	\$2.15
Blue marlin	491	\$736	\$1.50
Sailfish	85	\$193	\$2.28
Rainbow runner	798	\$1,464	\$1.83
Wahoo	993	\$2,577	\$2.60
Skipjack tuna	12,047	\$26,706	\$2.22
Dogtooth tuna	248	\$496	\$2.00
Yellowfin tuna	2,726	\$5,649	\$2.07
Saba (kawakawa)	971	\$1,910	\$1.97
Octopus	357	\$850	\$2.38
Squid	29	\$73	\$2.50
TOTAL	41,786	\$97,470	\$2.33

B.8

Table B-3
February 2004 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye scad	833	\$1,710	\$2.05
Bottom fish	307	\$785	\$2.55
Sickle pomfret	66	\$166	\$2.50
Ehu (red snapper)	20	\$60	\$3.00
Gindai (flower snapper)	218	\$655	\$3.00
Grouper (misc)	87	\$262	\$3.00
Kalikali (yellowtail)	216	\$541	\$2.50
Onaga (red snapper)	375	\$1,218	\$3.24
Opakapaka (pink snapper)	140	\$477	\$3.41
Reef fish	4,371	\$11,601	\$2.65
Rabbitfish	384	\$1,287	\$3.36
Emperor (mafute/misc)	995	\$2,943	\$2.96
Unicornfish (misc)	90	\$232	\$2.58
Goatfish (misc)	5	\$16	\$3.00
Mahimahi	8,954	\$18,200	\$2.03
Blue marlin	85	\$85	\$1.00
Sailfish	71	\$166	\$2.34
Rainbow runner	462	\$899	\$1.95
Wahoo	779	\$2,119	\$2.72
Skipjack tuna	7,882	\$18,390	\$2.33
Dogtooth tuna	309	\$600	\$1.94
Yellowfin tuna	3,503	\$7,243	\$2.07
Saba (kawakawa)	827	\$1,594	\$1.93
Spiny lobster	55	\$382	\$7.00
Octopus	117	\$251	\$2.14
TOTAL	31,152	\$71,880	\$2.31

Table B-4
March 2004 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye scad	1,184	\$2,769	\$2.34
Jacks (misc)	9	\$23	\$2.50
Blackjack	169	\$319	\$1.88
Bottom fish	504	\$1,571	\$3.12
Sickle pomfret	89	\$223	\$2.50
Ehu (red snapper)	175	\$524	\$3.00
Gindai (flower snapper)	47	\$142	\$3.00
Grouper (misc)	275	\$863	\$3.13
Kalikali (yellowtail)	451	\$1,140	\$2.53
Onaga (red snapper)	954	\$3,627	\$3.80
Opakapaka (pink snapper)	178	\$613	\$3.44
Jobfish (uku)	227	\$455	\$2.00
Amberjack	140	\$280	\$2.00
Reef Fish	5,996	\$15,793	\$2.63
Rabbitfish	339	\$1,110	\$3.28
Emperor (mafute/misc)	2,223	\$6,247	\$2.81
Parrotfish (misc)	45	\$117	\$2.62
Unicornfish (misc)	75	\$206	\$2.74
Mahimahi	7,977	\$16,522	\$2.07
Sailfish	117	\$233	\$1.98
Rainbow runner	294	\$505	\$1.72
Wahoo	1,107	\$2,612	\$2.36
Skipjack tuna	13,836	\$30,234	\$2.19
Dogtooth tuna	557	\$1,038	\$1.86
Yellowfin tuna	3,007	\$6,048	\$2.01
Saba (kawakawa)	441	\$882	\$2.00
Spiny lobster	64	\$445	\$7.00
Octopus	181	\$385	\$2.12
TOTAL	40,661	\$94,924	\$2.33

Table B-5
April 2004 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye scad	320	\$654	\$2.04
Mullet	5	\$11	\$2.50
Bottom fish	2,134	\$5,333	\$2.50
Sickle pomfret	95	\$249	\$2.61
Ehu (red snapper)	22	\$65	\$3.00
Gindai (flower snapper)	436	\$1,339	\$3.07
Grouper (misc)	85	\$256	\$3.00
Kalikali (yellowtail)	144	\$503	\$3.50
Onaga (red snapper)	259	\$1,019	\$3.94
Amberjack	164	\$327	\$2.00
Reef fish	4,933	\$12,387	\$2.51
Rabbitfish	258	\$832	\$3.22
Emperor (mafute/misc)	904	\$2,847	\$3.15
Squirrelfish	8	\$21	\$2.50
Parrotfish (misc)	176	\$518	\$2.94
Surgeonfish (misc)	26	\$64	\$2.50
Orangespine unicornfish	2	\$5	\$2.50
Unicornfish (misc)	15	\$43	\$2.77
Troll fish (misc)	53	\$105	\$2.00
Barracuda	11	\$11	\$1.00
Mahimahi	3,267	\$7,174	\$2.20
Sailfish	91	\$159	\$1.75
Rainbow runner	271	\$524	\$1.93
Wahoo	895	\$2,216	\$2.48
Skipjack tuna	12,342	\$25,754	\$2.09
Dogtooth tuna	817	\$1,607	\$1.97
Yellowfin tuna	1,492	\$3,719	\$2.49
Saba (kawakawa)	182	\$364	\$2.00
Spiny lobster	66	\$448	\$6.78
Octopus	55	\$123	\$2.25
TOTAL	29,527	\$68,677	\$2.33

B.11

Table B-6
May 2004 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye scad	201	\$489	\$2.43
Jacks (misc)	21	\$63	\$3.00
Bottom fish	4,500	\$9,996	\$2.22
Sickle pomfret	47	\$118	\$2.50
Ehu (red snapper)	127	\$382	\$3.00
Gindai (flower snapper)	176	\$529	\$3.00
Grouper (misc)	321	\$887	\$2.77
Kalikali (yellowtail)	530	\$1,034	\$1.95
Onaga (red snapper)	142	\$573	\$4.04
Opakapaka (pink snapper)	24	\$77	\$3.25
Blueline snapper	102	\$331	\$3.25
Reef fish	6,199	\$15,995	\$2.58
Rabbitfish	181	\$556	\$3.07
Emperor (mafute/misc)	1,595	\$5,105	\$3.20
Squirrelfish	15	\$36	\$2.50
Parrotfish (misc)	70	\$256	\$3.66
Unicornfish (misc)	73	\$145	\$2.00
Barracuda	122	\$244	\$2.00
Mahimahi	3,393	\$7,820	\$2.30
Blue marlin	789	\$789	\$1.00
Sailfish	69	\$121	\$1.75
Rainbow runner	268	\$645	\$2.41
Wahoo	735	\$1,824	\$2.48
Skipjack tuna	18,385	\$34,701	\$1.89
Dogtooth tuna	1,695	\$3,077	\$1.82
Yellowfin tuna	1,349	\$2,808	\$2.08
Saba (kawakawa)	533	\$1,065	\$2.00
Spiny lobster	137	\$892	\$6.50
Octopus	34	\$72	\$2.11
TOTAL	41,835	\$90,631	\$2.17

Table B-7
June 2004 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye scad	420	\$990	\$2.35
Jacks (misc)	119	\$325	\$2.74
Blackjack	205	\$372	\$1.81
Bottom fish	1,190	\$3,004	\$2.53
Sickle pomfret	25	\$64	\$2.50
Ehu (red snapper)	164	\$491	\$3.00
Kalikali (yellowtail)	309	\$890	\$2.88
Onaga (red snapper)	164	\$655	\$4.00
Opakapaka (pink snapper)	98	\$245	\$2.50
Jobfish (uku)	51	\$95	\$1.86
Reef fish	3,625	\$9,440	\$2.60
Rabbitfish	53	\$172	\$3.22
Emperor (mafute/misc)	1,072	\$2,685	\$2.50
Parrotfish (misc)	145	\$533	\$3.67
Goatfish (misc)	20	\$40	\$2.00
Barracuda	33	\$62	\$1.90
Mahimahi	89	\$226	\$2.54
Rainbow runner	240	\$478	\$1.99
Wahoo	280	\$612	\$2.19
Skipjack tuna	14,187	\$27,005	\$1.90
Dogtooth tuna	871	\$1,312	\$1.51
Yellowfin tuna	1,088	\$2,175	\$2.00
Saba (kawakawa)	20	\$30	\$1.50
Spiny lobster	148	\$1,034	\$6.98
Octopus	43	\$105	\$2.47
Squid	7	\$14	\$2.00
TOTAL	24,665	\$53,052	\$2.15

Table B-8
July 2004 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye scad	366	\$907	\$2.48
Jacks (misc)	235	\$598	\$2.55
Blackjack	74	\$136	\$1.85
Bottom fish	3,784	\$8,666	\$2.29
Ehu (red snapper)	4	\$5	\$1.50
Gindai (flower snapper)	62	\$139	\$2.24
Grouper (misc)	5	\$8	\$1.50
Kalikali (yellowtail)	817	\$2,216	\$2.71
Jobfish (uku)	91	\$202	\$2.21
Silvermouth (deep lehi)	47	\$118	\$2.50
Amberjack	78	\$117	\$1.50
Reef Fish	4,460	\$11,359	\$2.55
Rabbitfish	733	\$2,330	\$3.18
Emperor (mafute/misc)	1,119	\$2,781	\$2.48
Parrotfish (misc)	227	\$789	\$3.47
Unicornfish (misc)	3	\$8	\$3.00
Mahimahi	29	\$87	\$3.00
Rainbow runner	304	\$642	\$2.11
Wahoo	174	\$395	\$2.27
Skipjack tuna	11,470	\$22,530	\$1.96
Dogtooth tuna	118	\$295	\$2.50
Yellowfin tuna	2,959	\$6,320	\$2.14
Spiny lobster	1,821	\$11,824	\$6.49
Octopus	182	\$441	\$2.42
TOTAL	29,162	\$72,914	\$2.50

Table B-9
August 2004 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye scad	968	\$2,360	\$2.44
Blackjack	29	\$58	\$2.00
Giant trevally	91	\$250	\$2.75
Bottom fish	1,225	\$2,604	\$2.13
Ehu (red snapper)	73	\$219	\$3.00
Gindai (flower snapper)	36	\$109	\$3.00
Grouper (misc)	36	\$109	\$3.00
Kalikali (yellowtail)	89	\$223	\$2.50
Jobfish (uku)	25	\$51	\$2.00
Amberjack	59	\$150	\$2.54
Red snapper	204	\$407	\$2.00
Reef fish	4,194	\$10,559	\$2.52
Rabbitfish	58	\$177	\$3.03
Emperor (mafute/misc)	1,079	\$2,705	\$2.51
Parrotfish (misc)	13	\$34	\$2.50
Surgeonfish (misc)	87	\$175	\$2.00
Goatfish (misc)	5	\$11	\$2.00
Troll fish (misc)	38	\$57	\$1.50
Mahimahi	200	\$502	\$2.51
Rainbow runner	451	\$924	\$2.05
Wahoo	58	\$87	\$1.50
Skipjack tuna	12,980	\$24,014	\$1.85
Dogtooth tuna	728	\$1,092	\$1.50
Yellowfin tuna	2,010	\$3,768	\$1.87
Saba (kawakawa)	89	\$134	\$1.50
Spiny lobster	382	\$2,455	\$6.43
Octopus	355	\$765	\$2.16
TOTAL	25,566	\$53,999	\$2.11

B.15

Table B-10
September 2004 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye scad	681	\$1,719	\$2.52
Bottom fish	2,451	\$5,603	\$2.29
Sickle pomfret	115	\$286	\$2.50
Ehu (red snapper)	27	\$82	\$3.00
Kalikali (yellowtail)	64	\$159	\$2.50
Onaga (red snapper)	140	\$583	\$4.15
Jobfish (uku)	111	\$304	\$2.75
Reef fish	3,021	\$8,422	\$2.79
Wrasse	136	\$477	\$3.50
Rabbitfish	469	\$1,523	\$3.25
Emperor (mafute/misc)	391	\$1,035	\$2.65
Parrotfish (misc)	203	\$732	\$3.61
Mahimahi	135	\$397	\$2.94
Rainbow runner	521	\$1,160	\$2.23
Wahoo	176	\$374	\$2.12
Skipjack tuna	14,359	\$25,485	\$1.77
Dogtooth tuna	903	\$1,396	\$1.55
Yellowfin tuna	3,141	\$5,447	\$1.73
Saba (kawakawa)	49	\$74	\$1.50
Spiny lobster	132	\$923	\$7.00
Octopus	272	\$630	\$2.31
TOTAL	27,497	\$56,811	\$2.07

Table B-11
October 2004 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye scad	808	\$1,865	\$2.31
Jacks (misc)	11	\$16	\$1.50
Blackjack	281	\$594	\$2.11
Bottom fish	2,492	\$5,489	\$2.20
Ehu (red snapper)	175	\$524	\$3.00
Gindai (flower snapper)	17	\$45	\$2.68
Kalikali (yellowtail)	100	\$249	\$2.50
Onaga (red snapper)	89	\$356	\$4.00
Jobfish (uku)	514	\$842	\$1.64
Silvermouth (deep lehi)	539	\$1,348	\$2.50
Reef fish	3,646	\$8,853	\$2.43
Rabbitfish	145	\$471	\$3.25
Emperor (mafute/misc)	981	\$2,493	\$2.54
Parrotfish (misc)	8	\$29	\$3.50
Mahimahi	222	\$557	\$2.51
Blue marlin	418	\$732	\$1.75
Rainbow runner	418	\$764	\$1.83
Wahoo	463	\$950	\$2.05
Skipjack tuna	12,176	\$21,866	\$1.80
Dogtooth tuna	909	\$1,434	\$1.58
Yellowfin tuna	2,152	\$3,922	\$1.82
Saba (kawakawa)	143	\$214	\$1.50
Spiny lobster	71	\$496	\$7.00
Octopus	259	\$591	\$2.28
TOTAL	27,036	\$54,700	\$2.02

Table B-12
November 2004 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye scad	543	\$1,206	\$2.22
Mullet	59	\$148	\$2.50
Blackjack	40	\$70	\$1.75
Bottom fish	902	\$2,539	\$2.81
Ehu (red snapper)	206	\$617	\$3.00
Grouper (misc)	138	\$413	\$3.00
Kalikali (yellowtail)	25	\$38	\$1.50
Onaga (red snapper)	540	\$2,103	\$3.89
Jobfish (uku)	133	\$230	\$1.73
Reef fish	3,344	\$7,932	\$2.37
Rabbitfish	174	\$575	\$3.30
Emperor (mafute/misc)	5,201	\$13,589	\$2.61
Parrotfish (misc)	257	\$884	\$3.44
Goatfish (misc)	22	\$56	\$2.56
Mahimahi	718	\$1,683	\$2.34
Rainbow runner	102	\$175	\$1.72
Wahoo	936	\$1,960	\$2.09
Skipjack tuna	10,651	\$19,755	\$1.85
Dogtooth tuna	112	\$209	\$1.87
Yellowfin tuna	2,197	\$4,078	\$1.86
Saba (kawakawa)	989	\$1,484	\$1.50
Spiny lobster	73	\$509	\$7.00
Octopus	82	\$187	\$2.28
TOTAL	27,445	\$60,440	\$2.20

Table B-13
December 2004 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye scad	121	\$320	\$2.65
Blackjack	133	\$232	\$1.75
Bottom fish	1,019	\$2,819	\$2.77
Sickle pomfret	45	\$114	\$2.50
Ehu (red snapper)	47	\$142	\$3.00
Gindai (flower snapper)	49	\$147	\$3.00
Grouper (misc)	47	\$142	\$3.00
Kalikali (yellowtail)	40	\$100	\$2.50
Onaga (red snapper)	332	\$1,338	\$4.03
Opakapaka (pink snapper)	258	\$645	\$2.50
Silvermouth (deep lehi)	111	\$276	\$2.50
Amberjack	47	\$83	\$1.75
Reef fish	3,465	\$8,378	\$2.42
Rabbitfish	269	\$875	\$3.25
Emperor (mafute/misc)	538	\$1,434	\$2.67
Parrotfish (misc)	153	\$519	\$3.40
Troll fish (misc)	25	\$38	\$1.50
Mahimahi	2,082	\$5,022	\$2.41
Blue marlin	218	\$327	\$1.50
Rainbow runner	71	\$213	\$3.00
Wahoo	340	\$754	\$2.22
Skipjack tuna	8,011	\$14,609	\$1.82
Dogtooth tuna	190	\$547	\$2.88
Yellowfin tuna	1,924	\$4,319	\$2.24
Saba (kawakawa)	1,211	\$1,816	\$1.50
Octopus	72	\$146	\$2.03
TOTAL	20,819	\$45,357	\$2.18

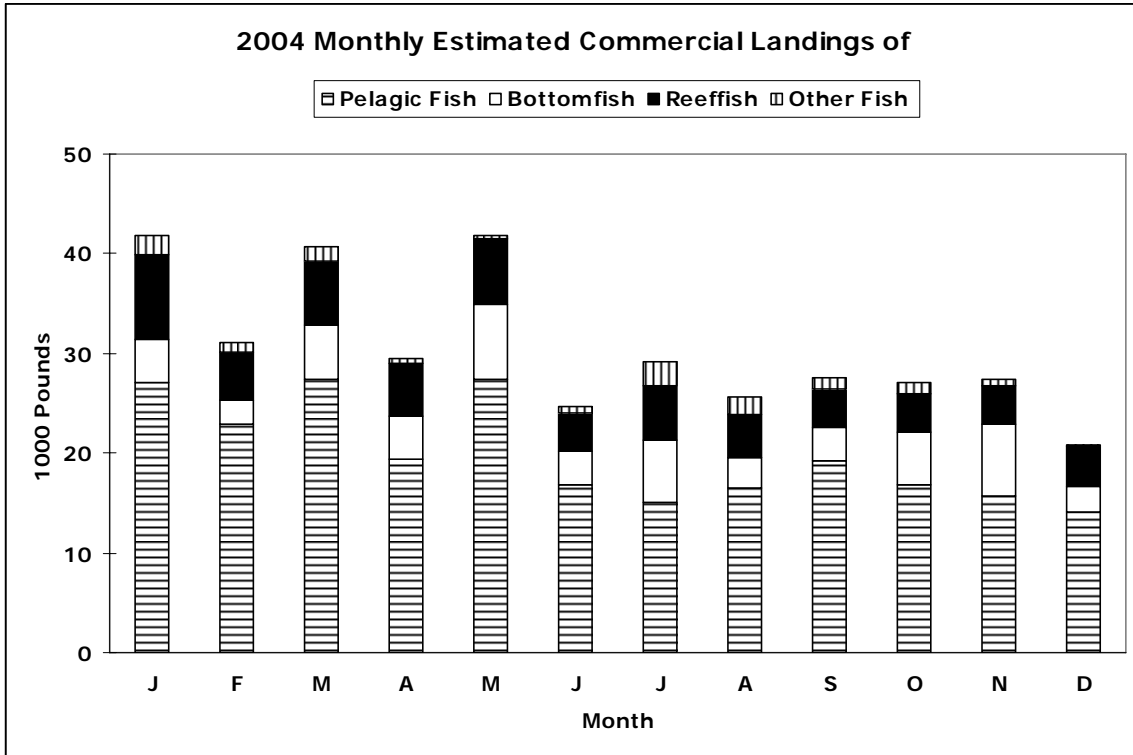


Figure B-1-1

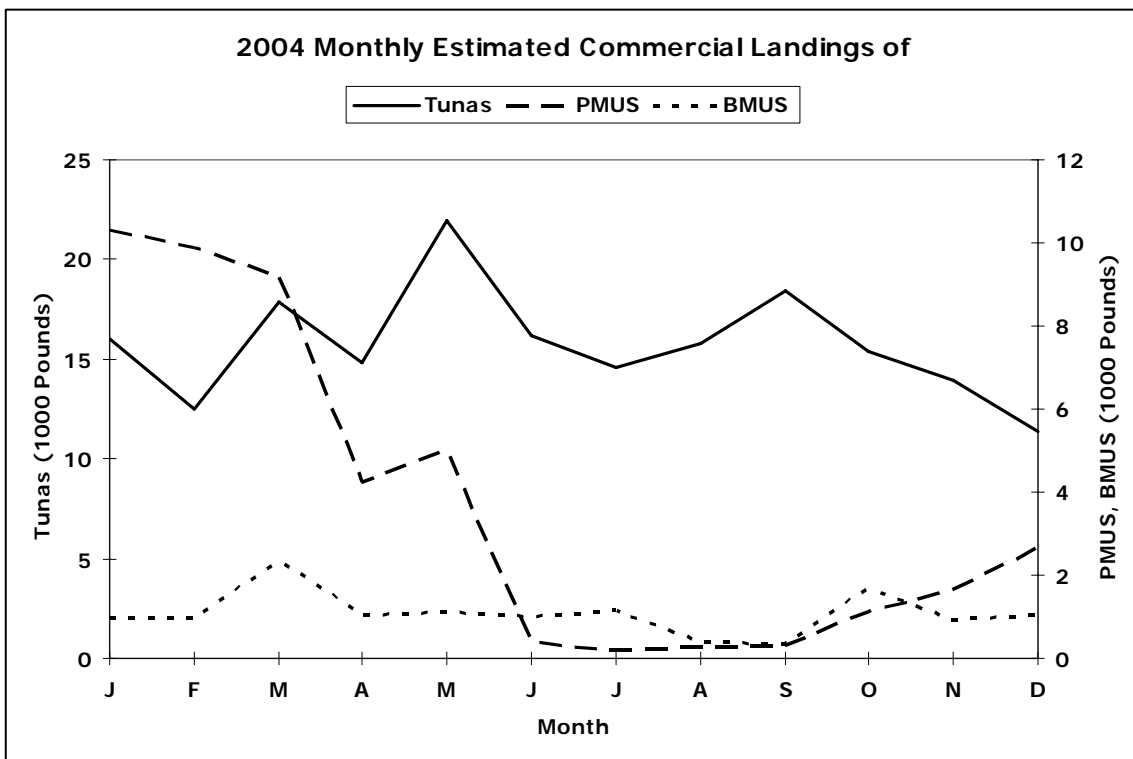


Figure B-1-2

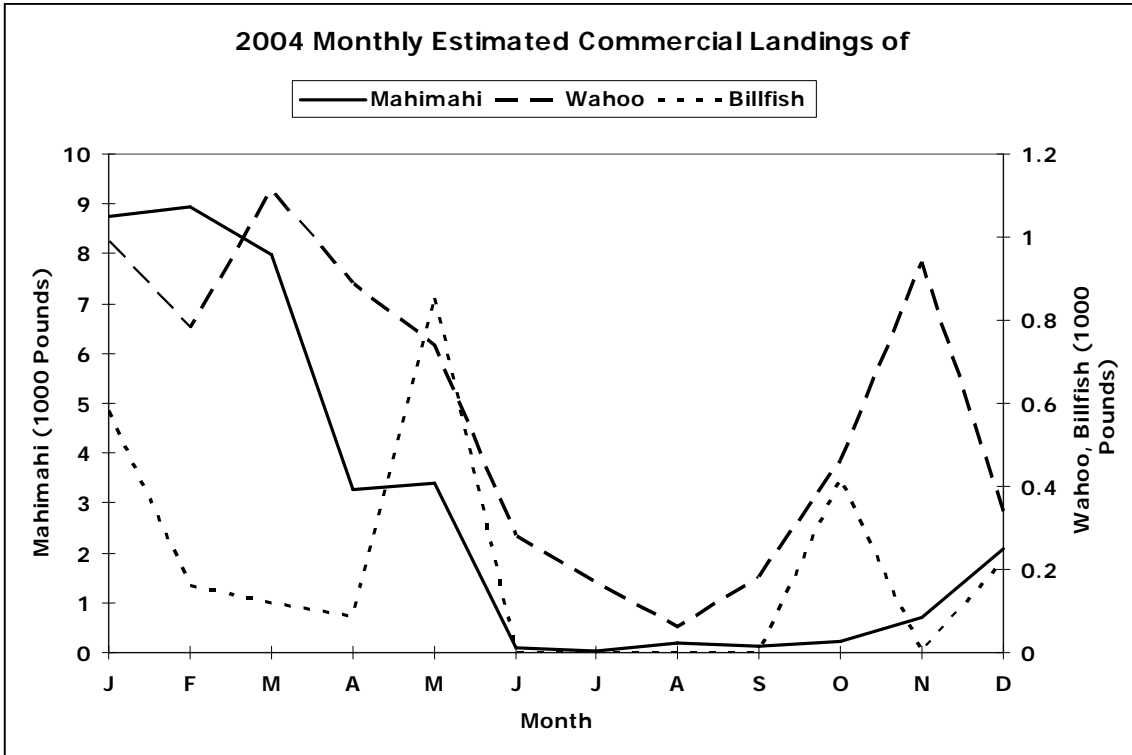


Figure B-1-3

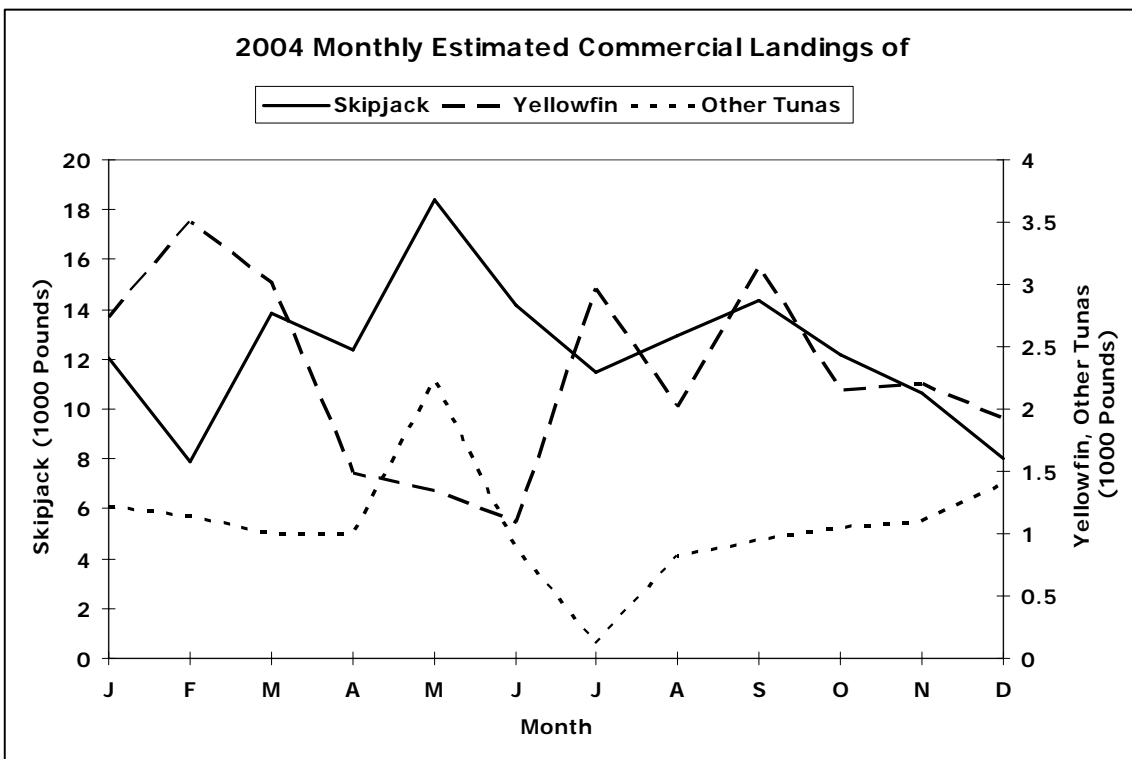


Figure B-1-4

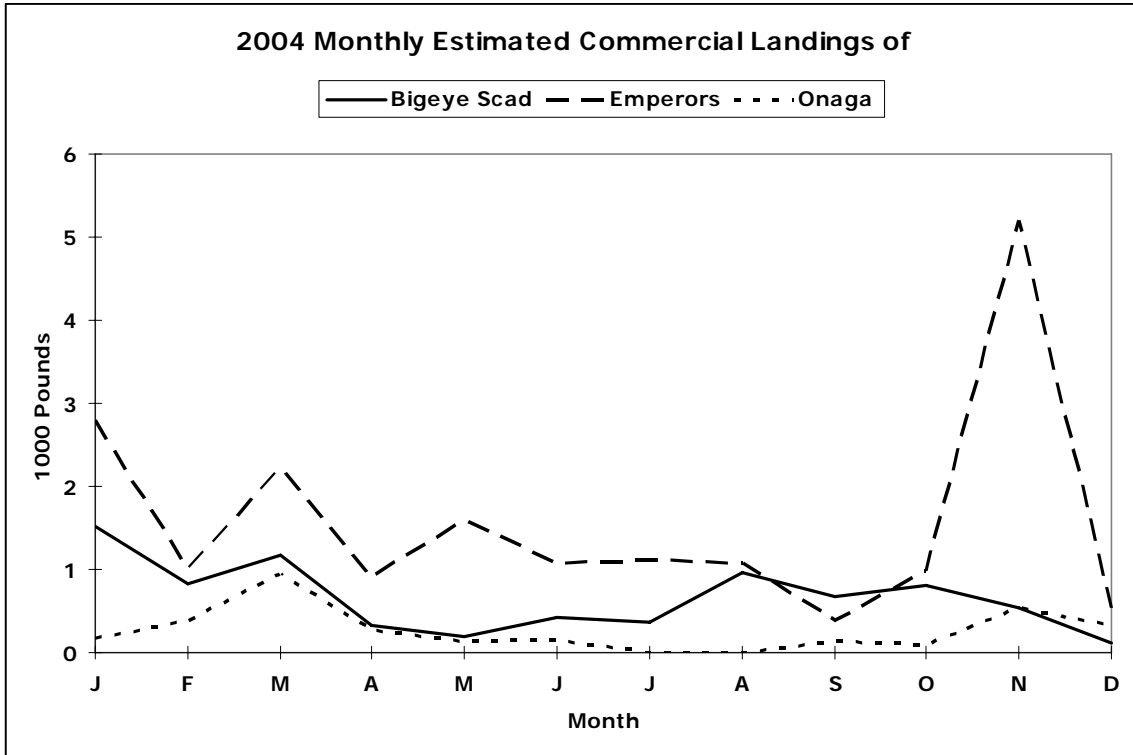


Figure B-1-5

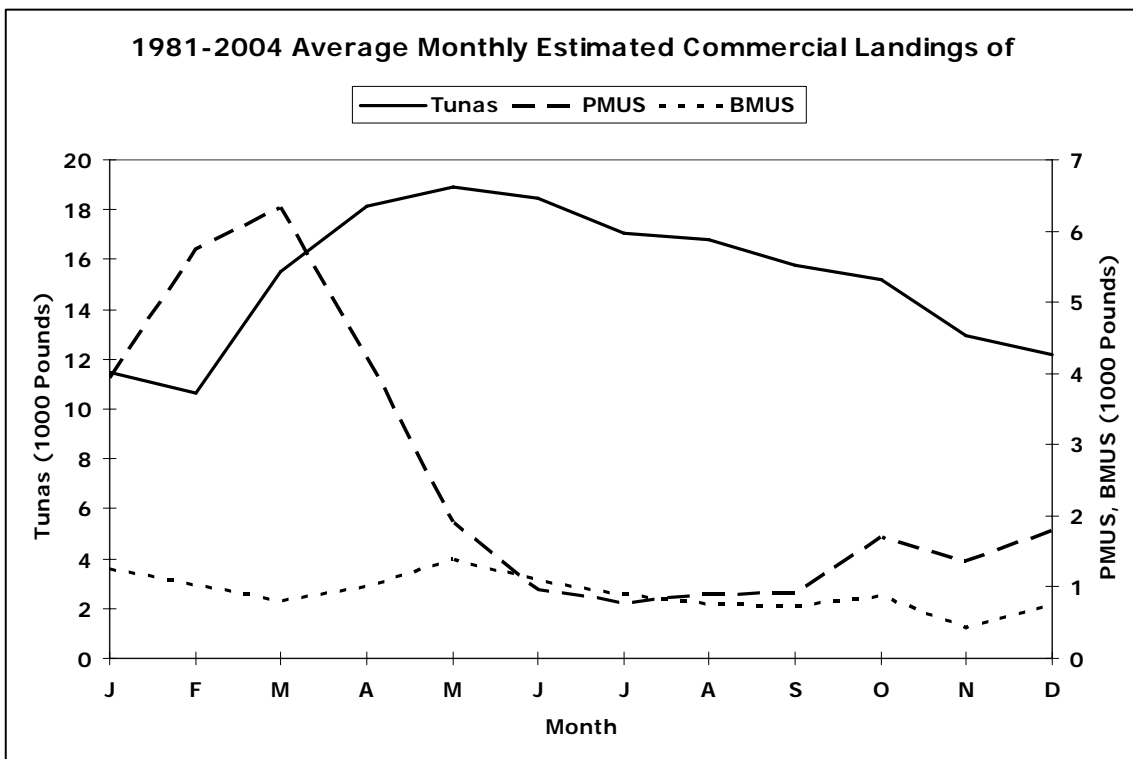


Figure B-2-1

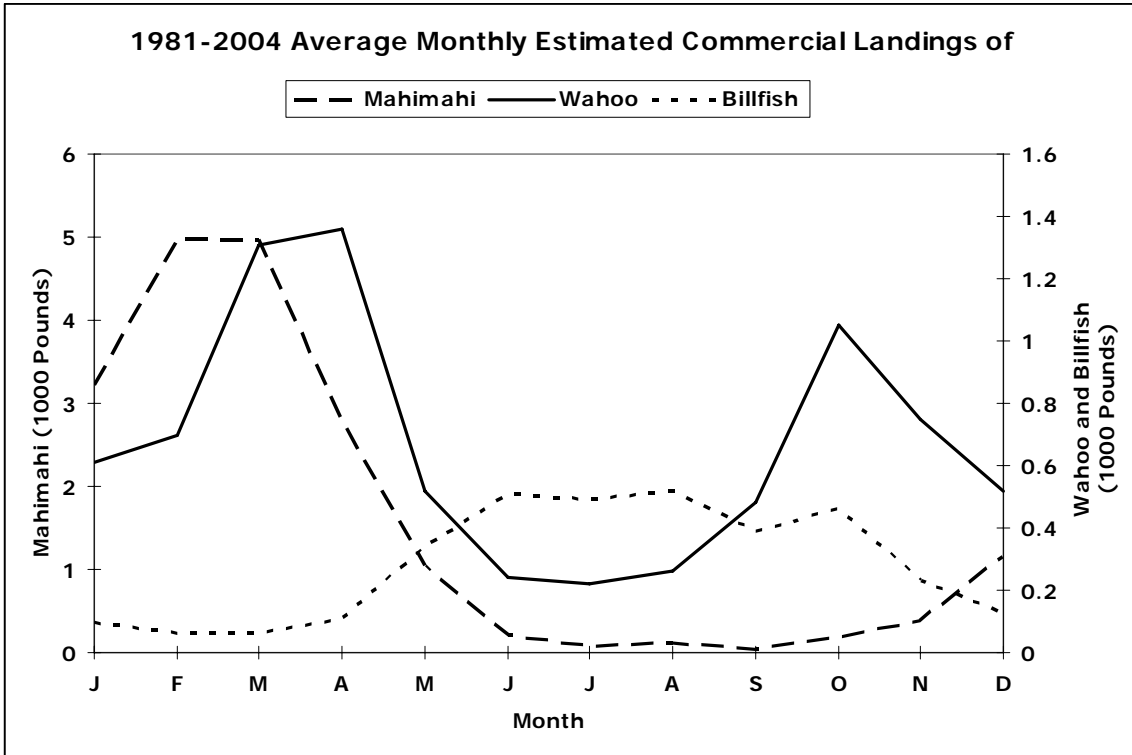


Figure B-2-2

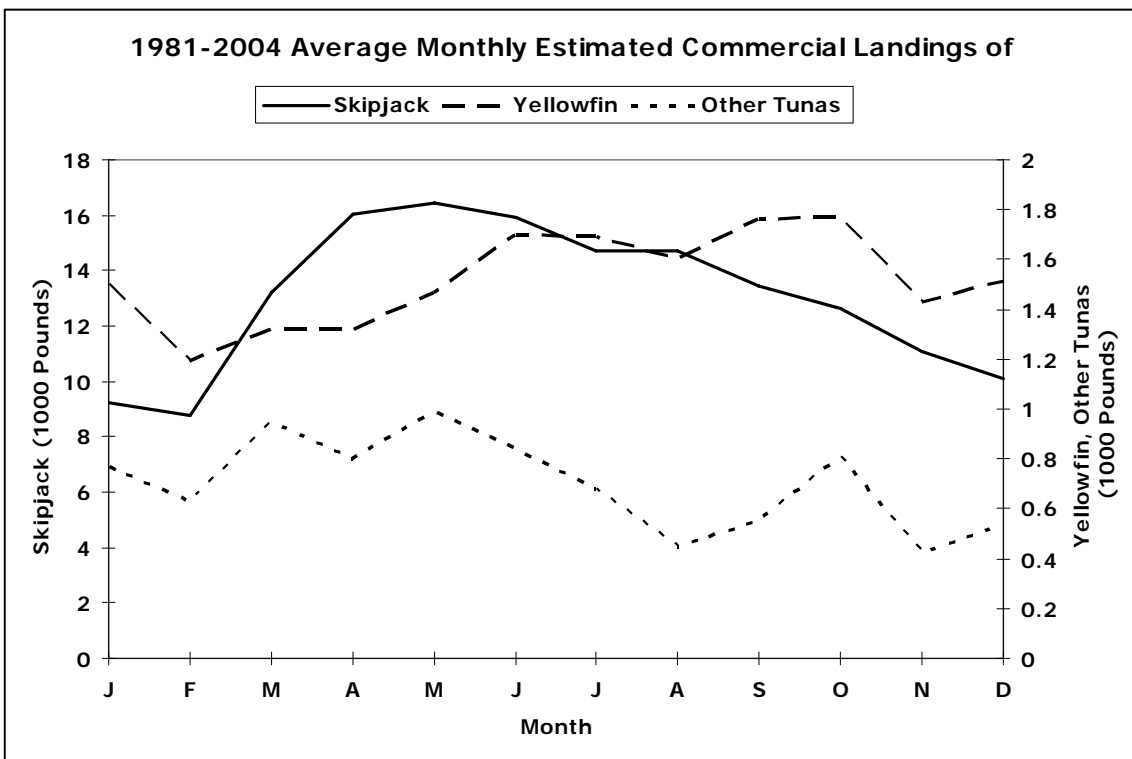


Figure B-2-3

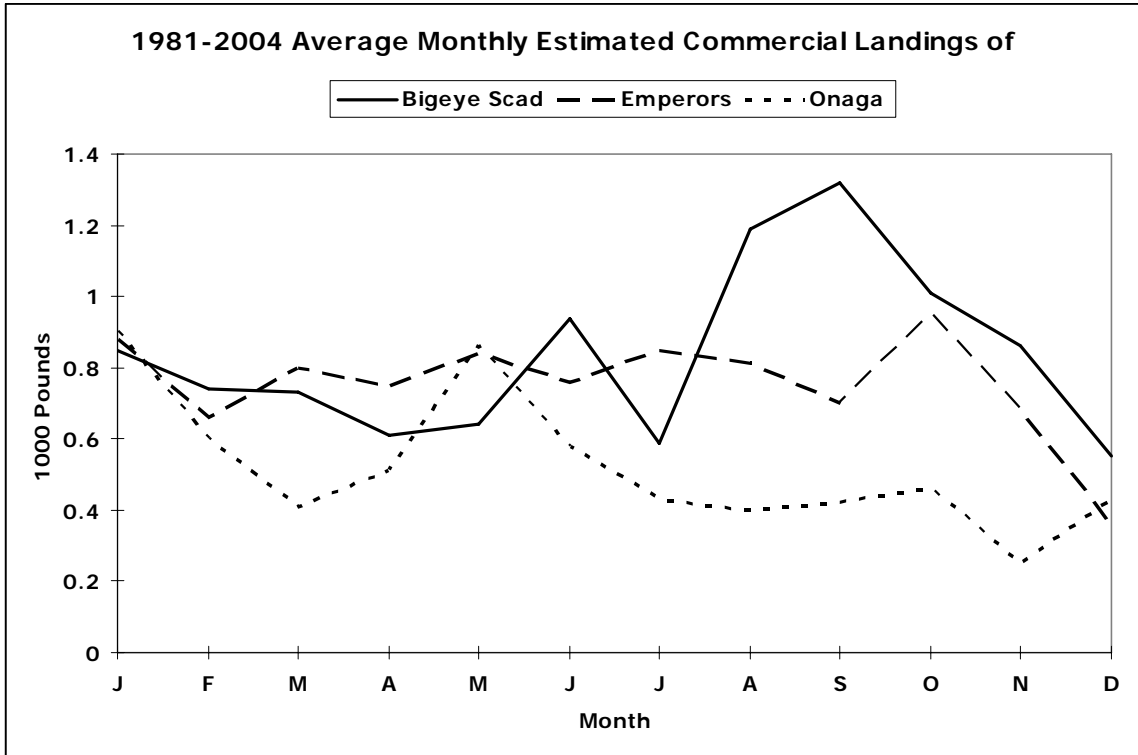


Figure B-2-4

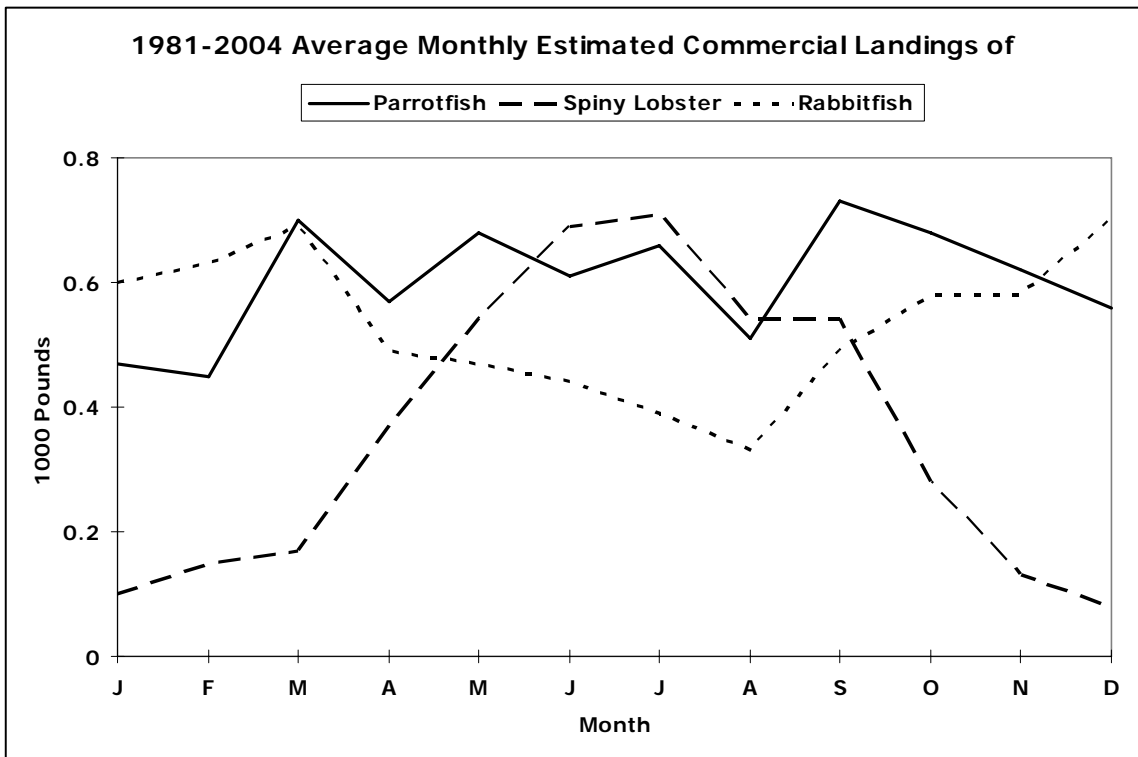


Figure B-2-5

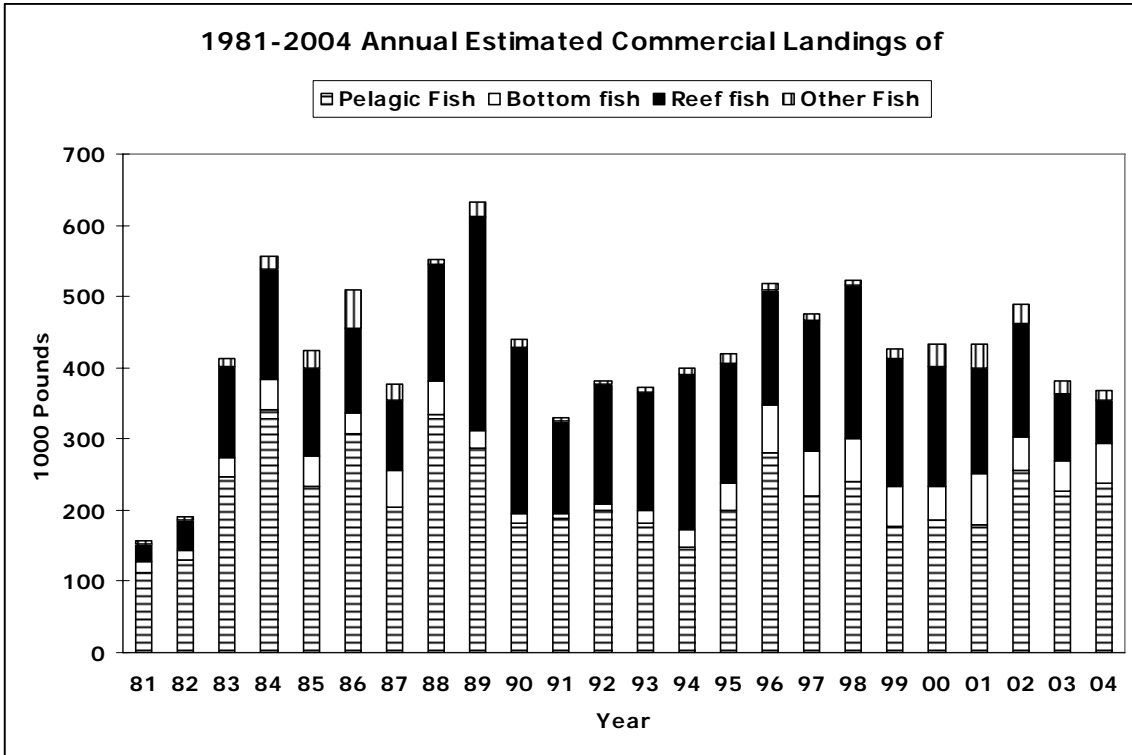


Figure B-3-1

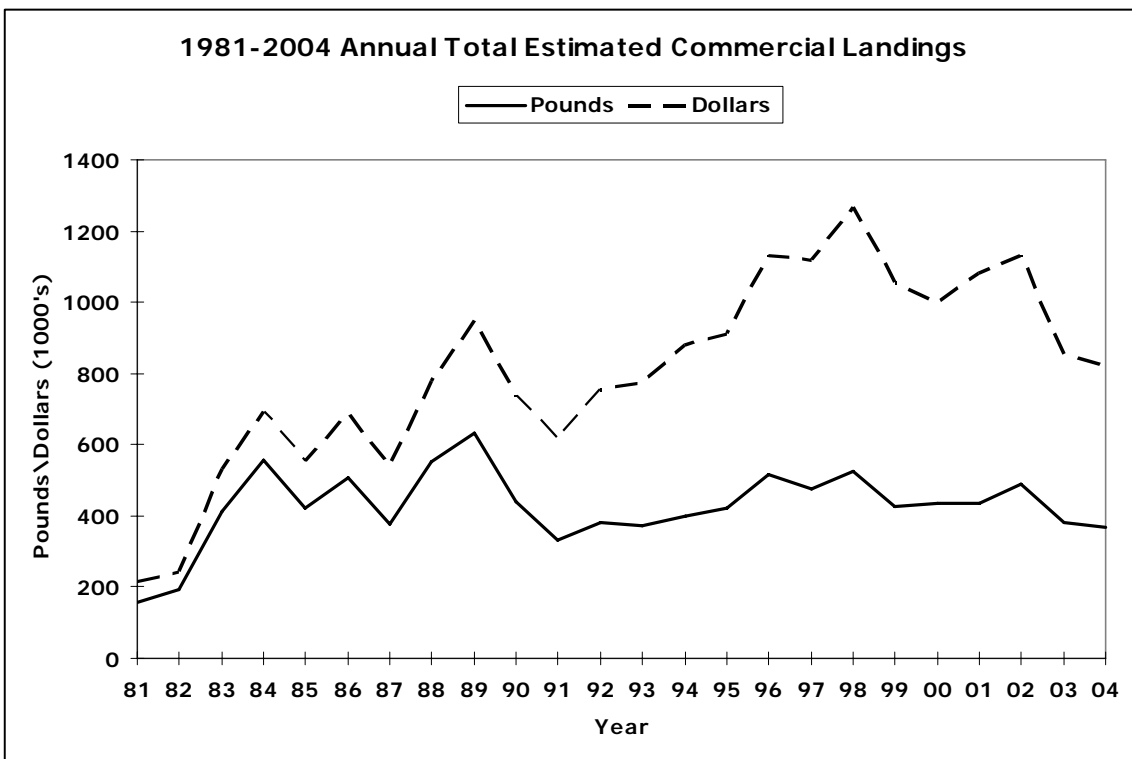


Figure B-3-2

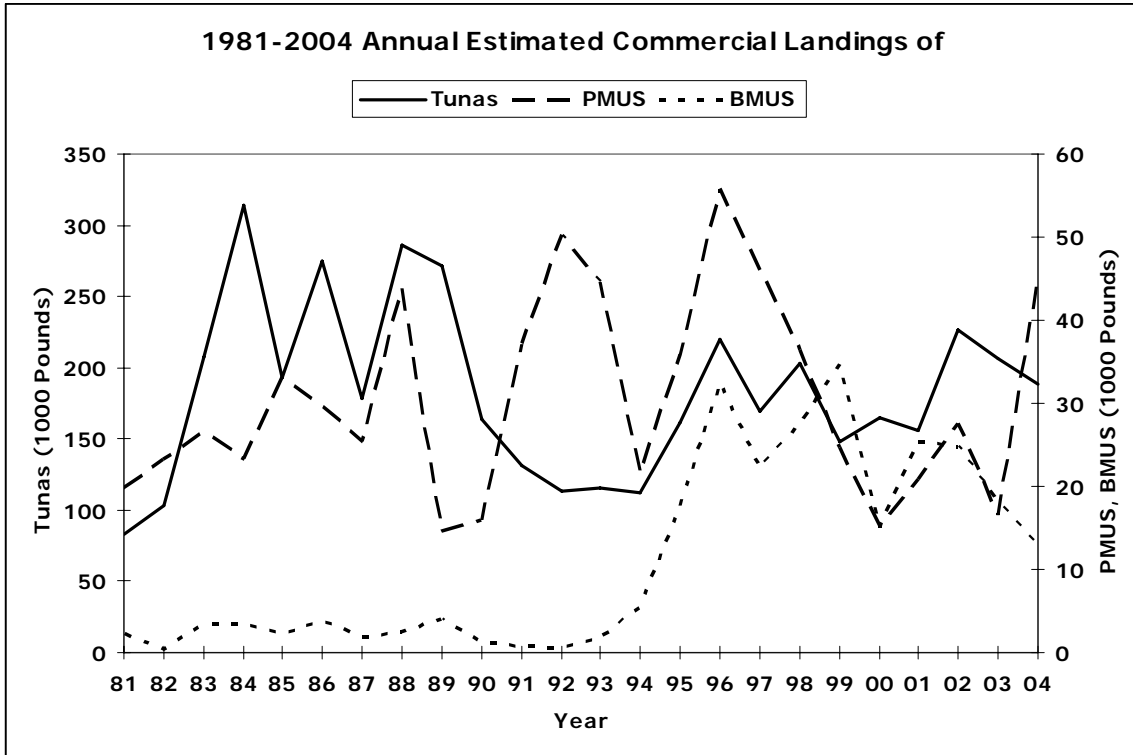


Figure B-3-3

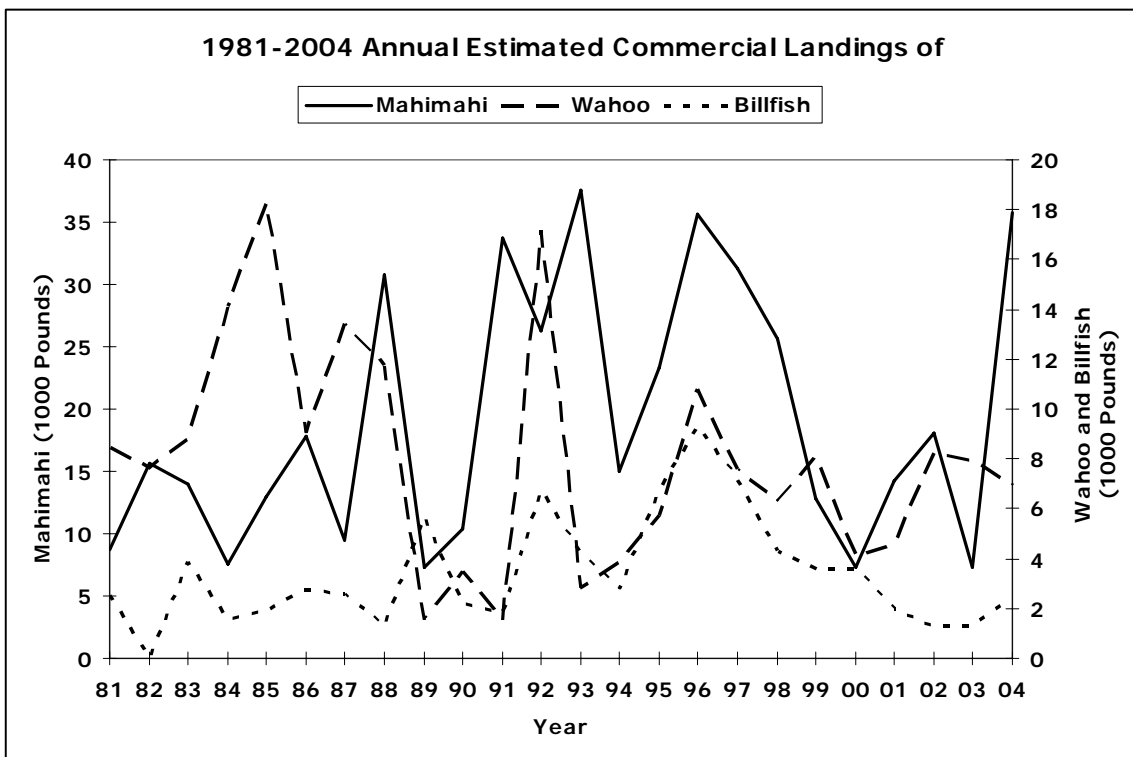


Figure B-3-4

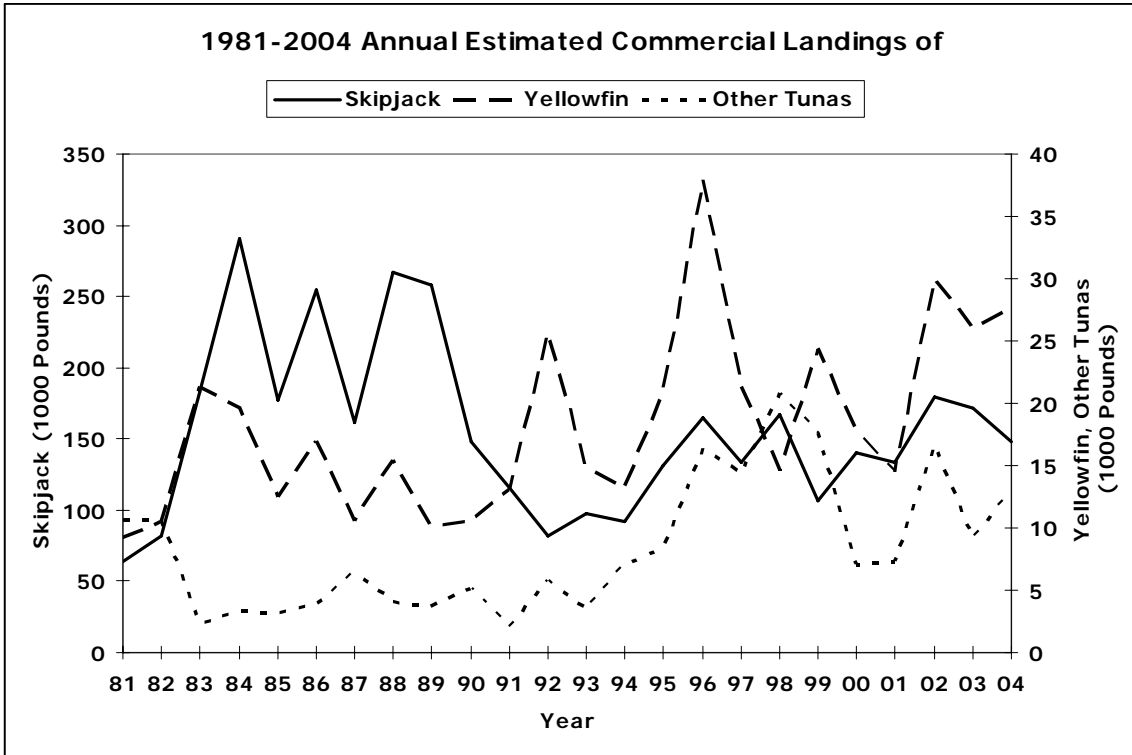


Figure B-3-5

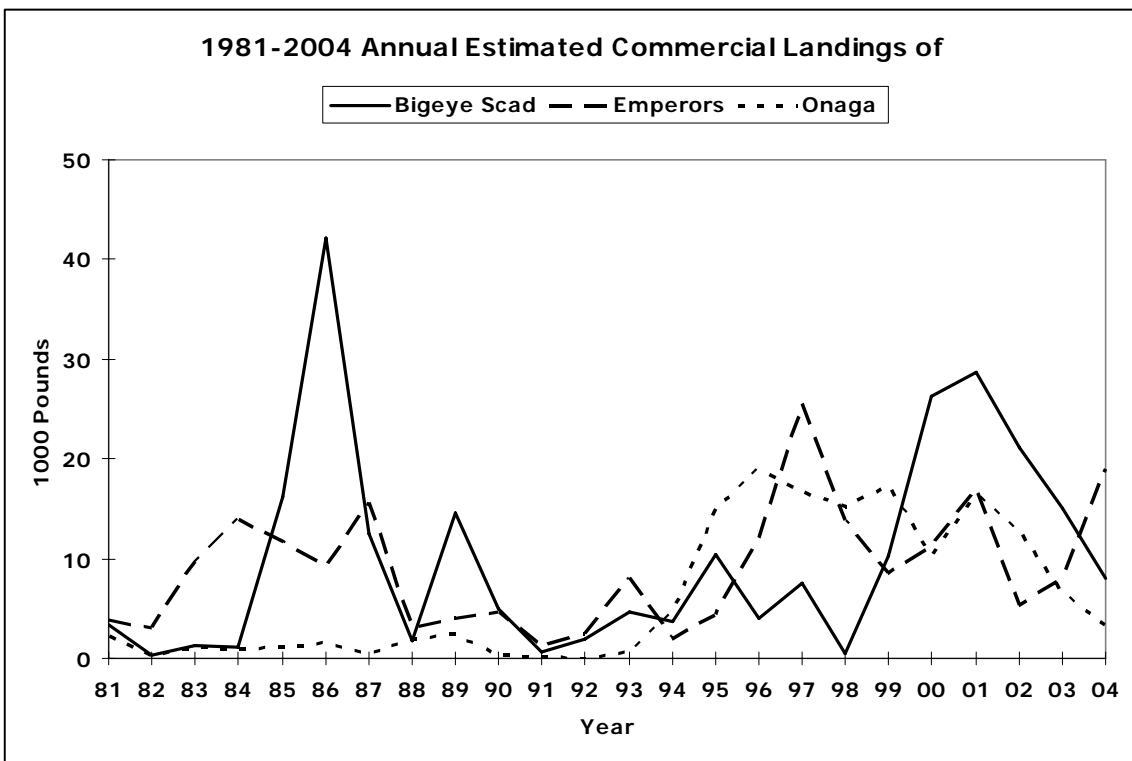


Figure B-3-6

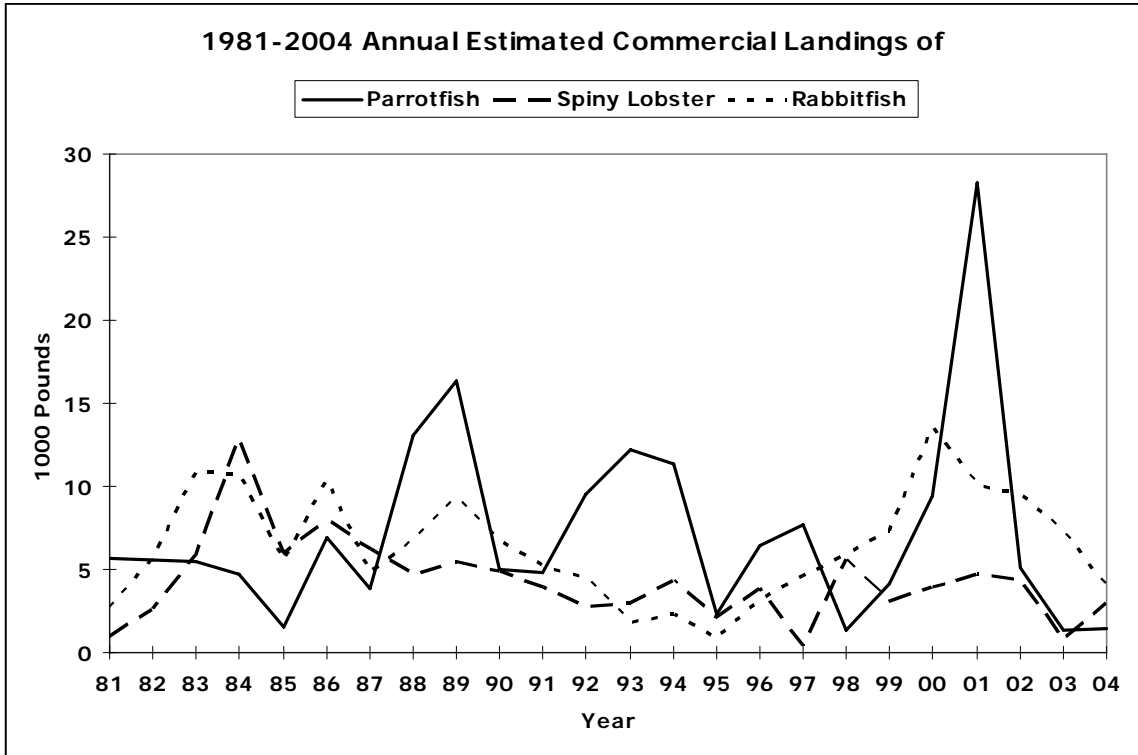


Figure B-3-7

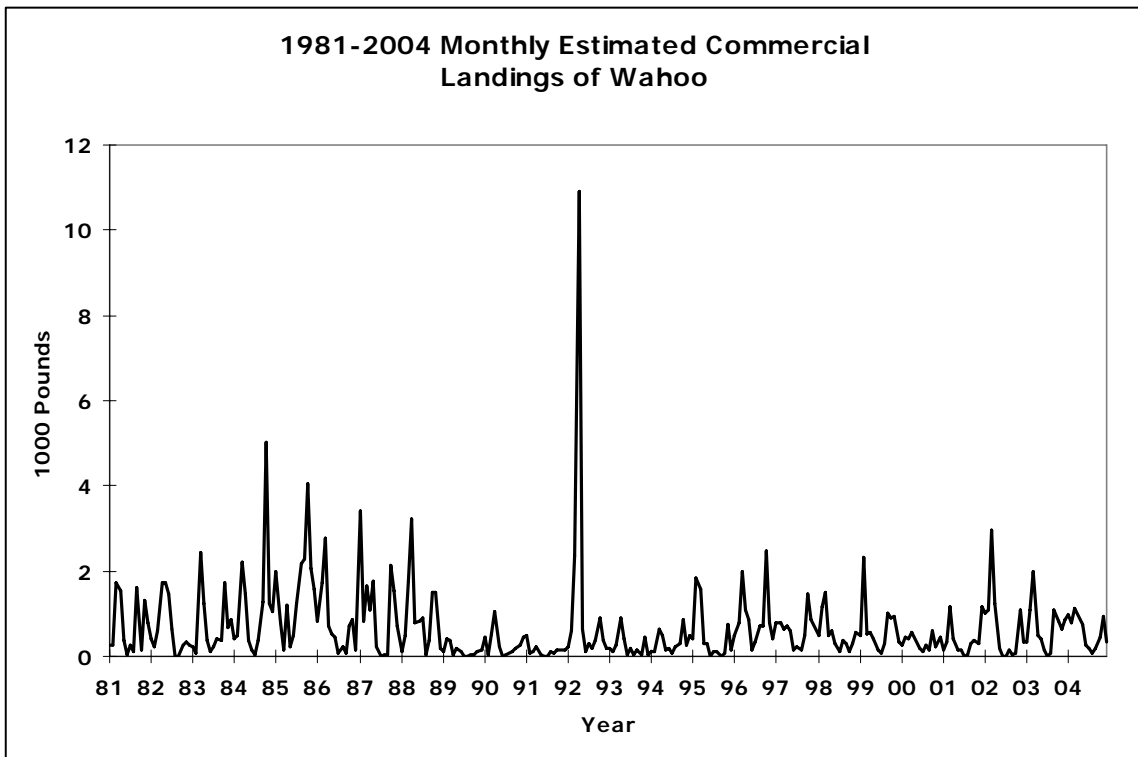


Figure B-4-1

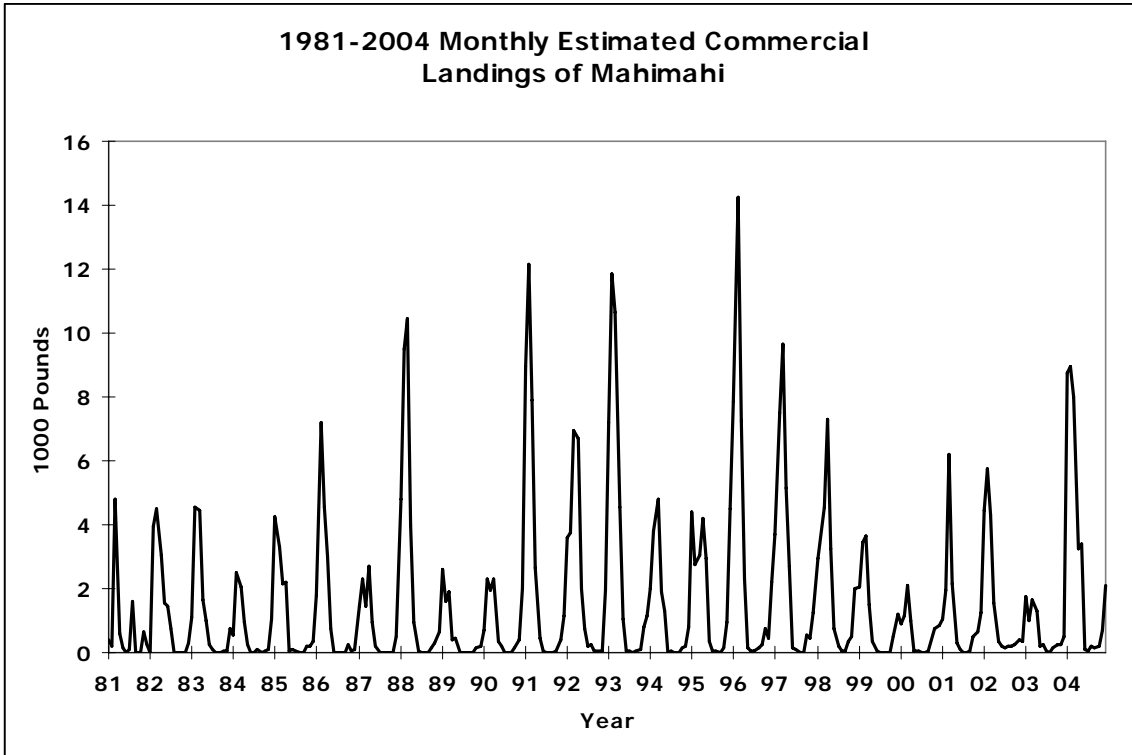


Figure B-4-2

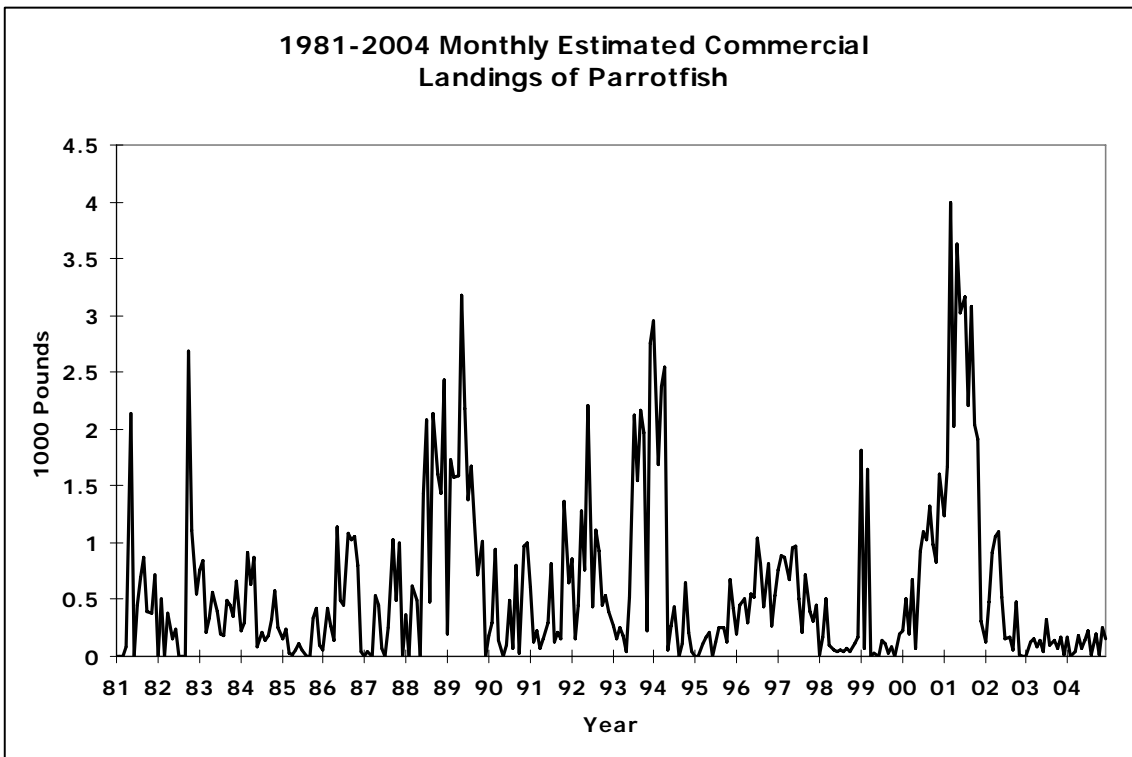


Figure B-4-3

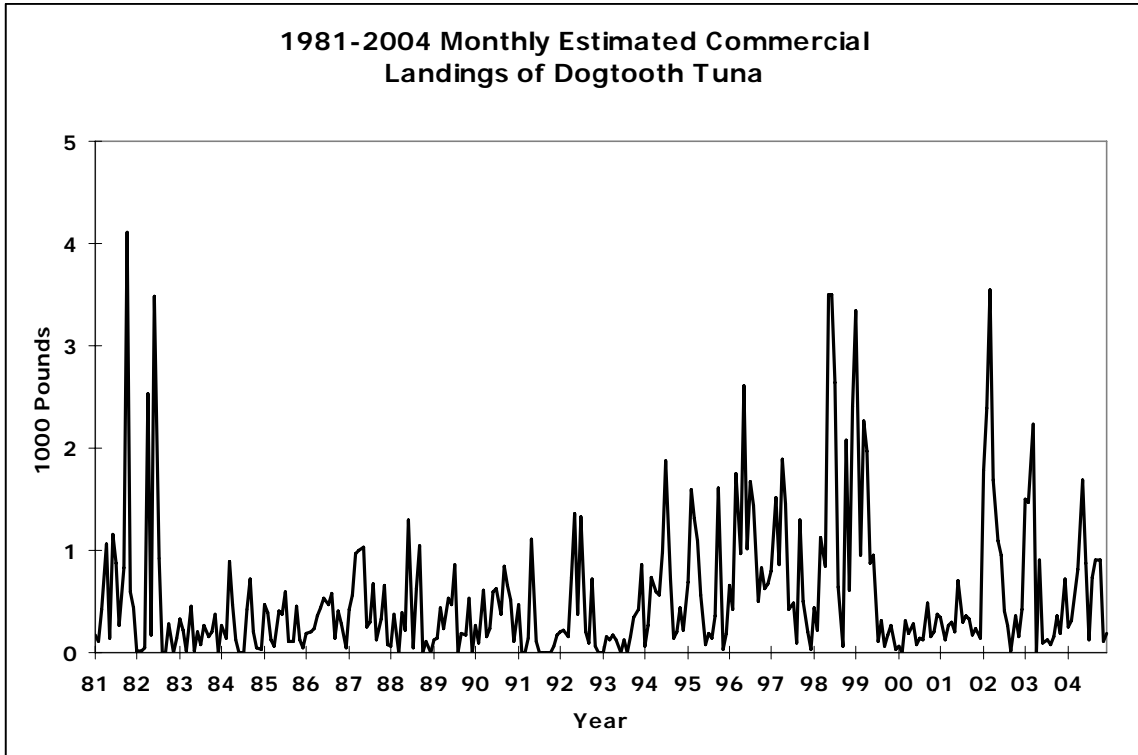


Figure B-4-4

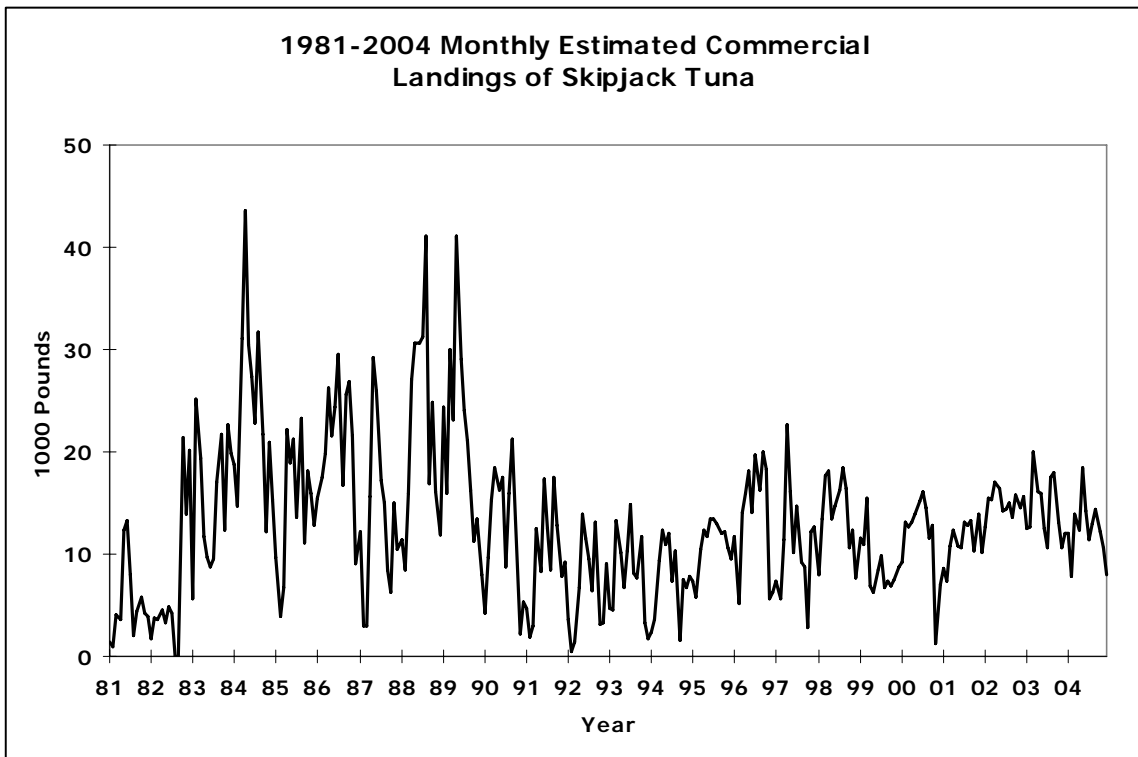


Figure B-4-5

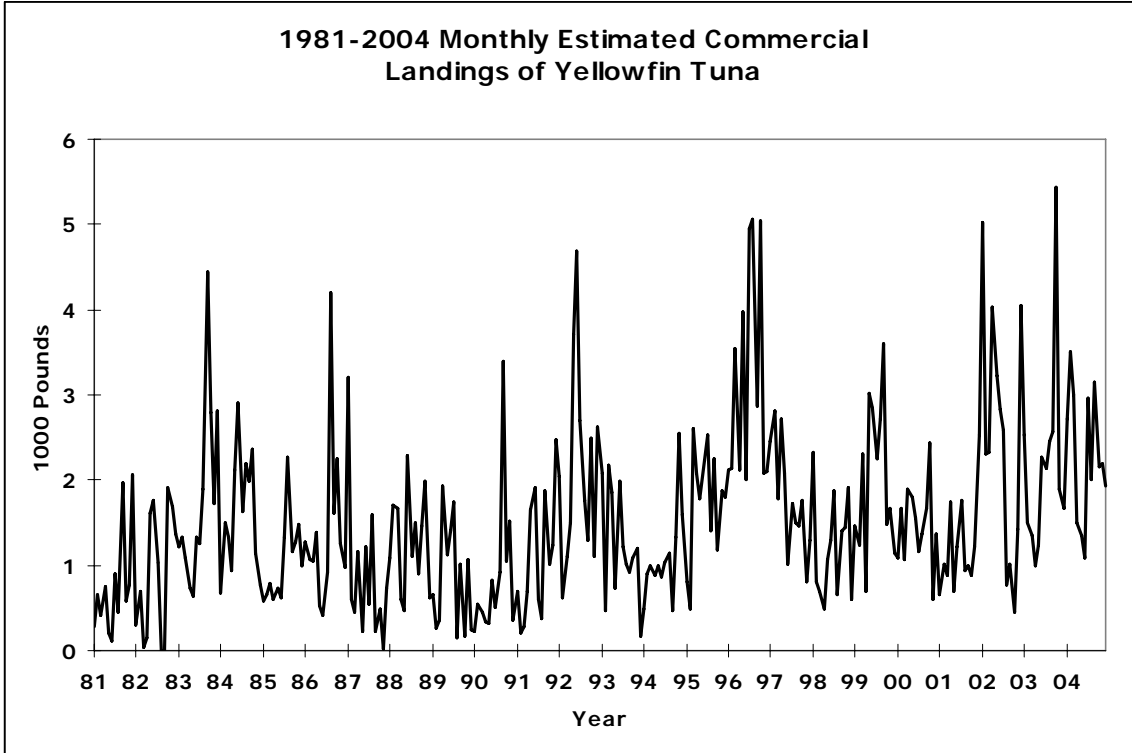


Figure B-4-6

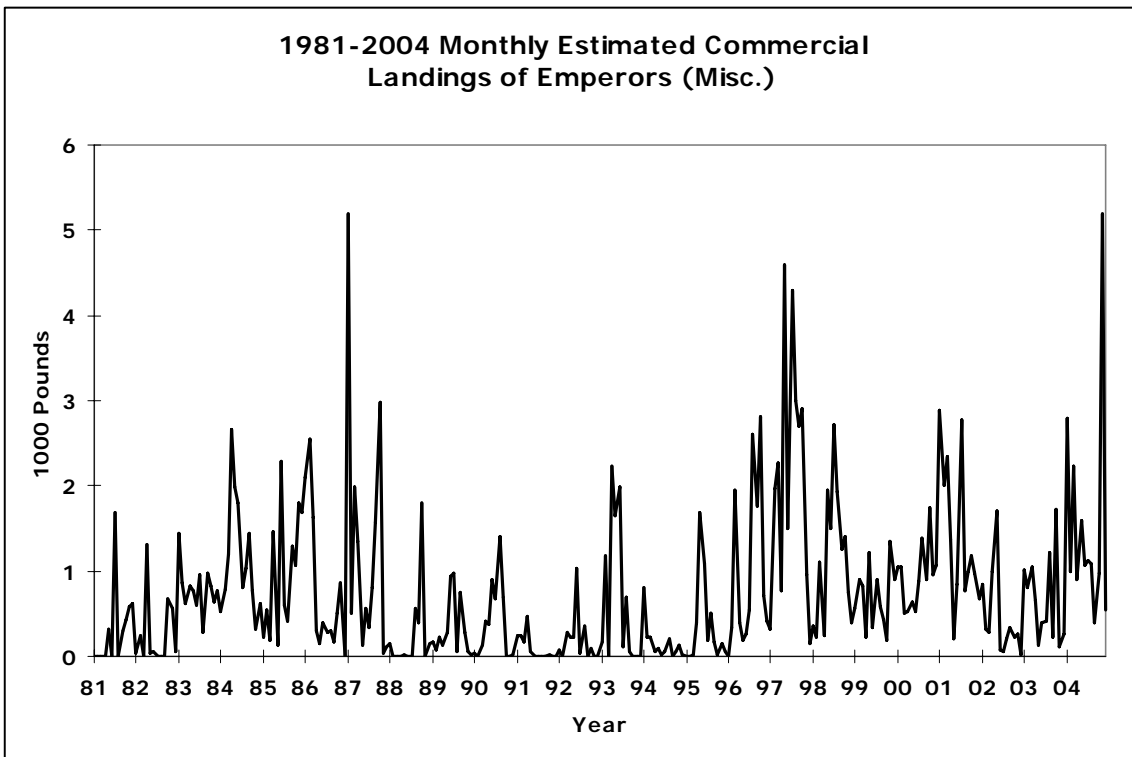


Figure B-4-7

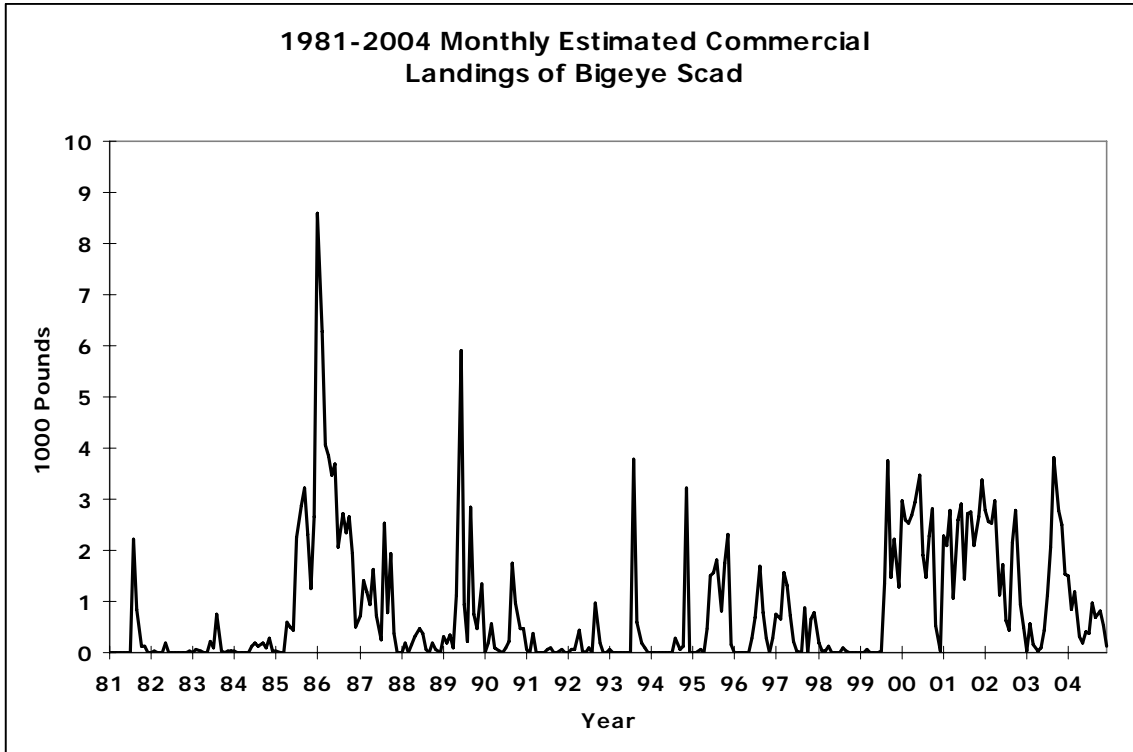


Figure B-4-8

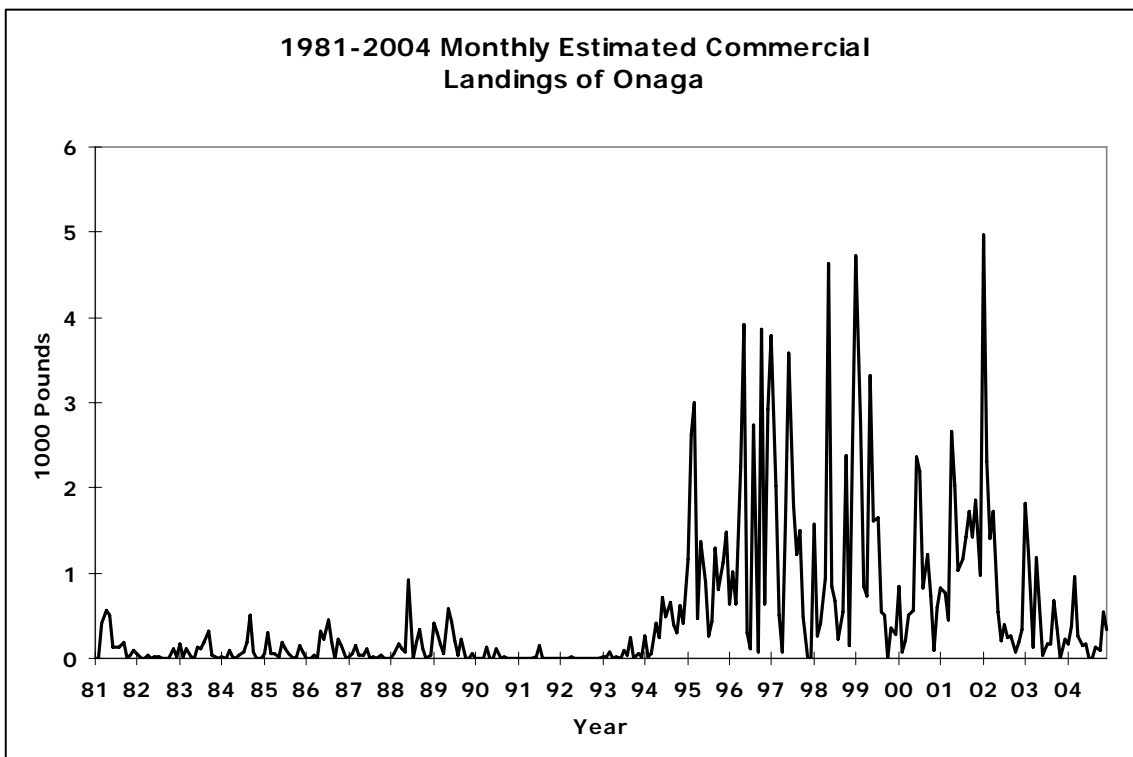


Figure B-4-9

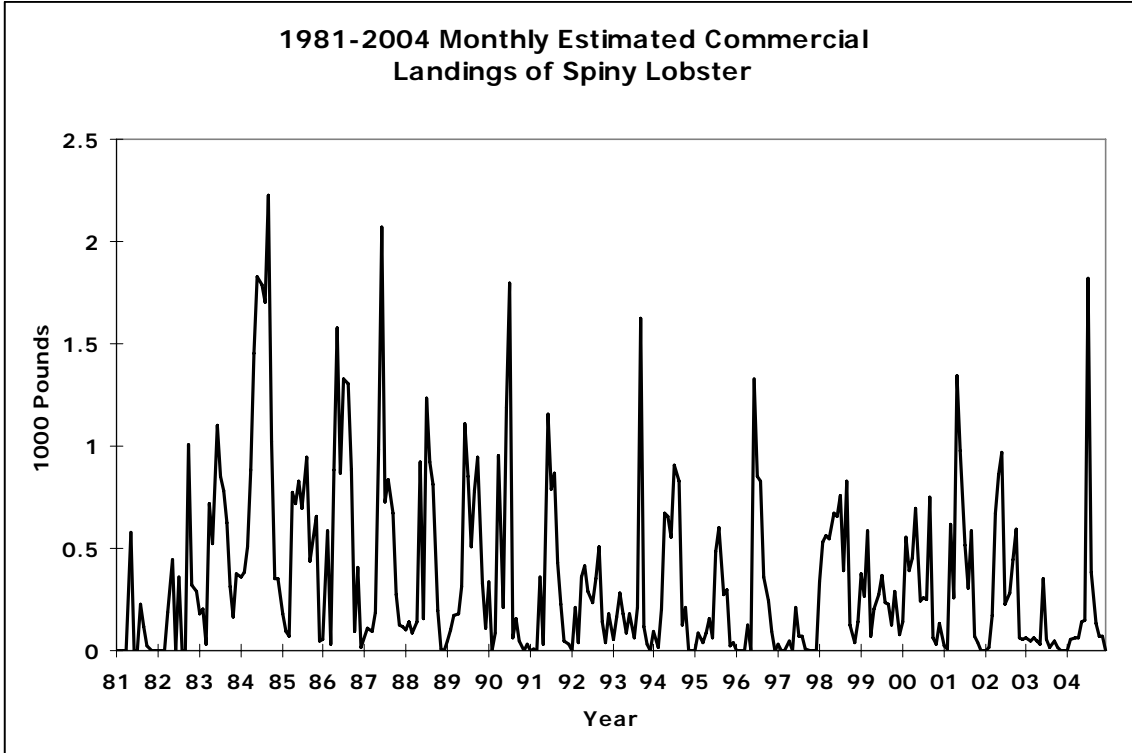


Figure B-4-10

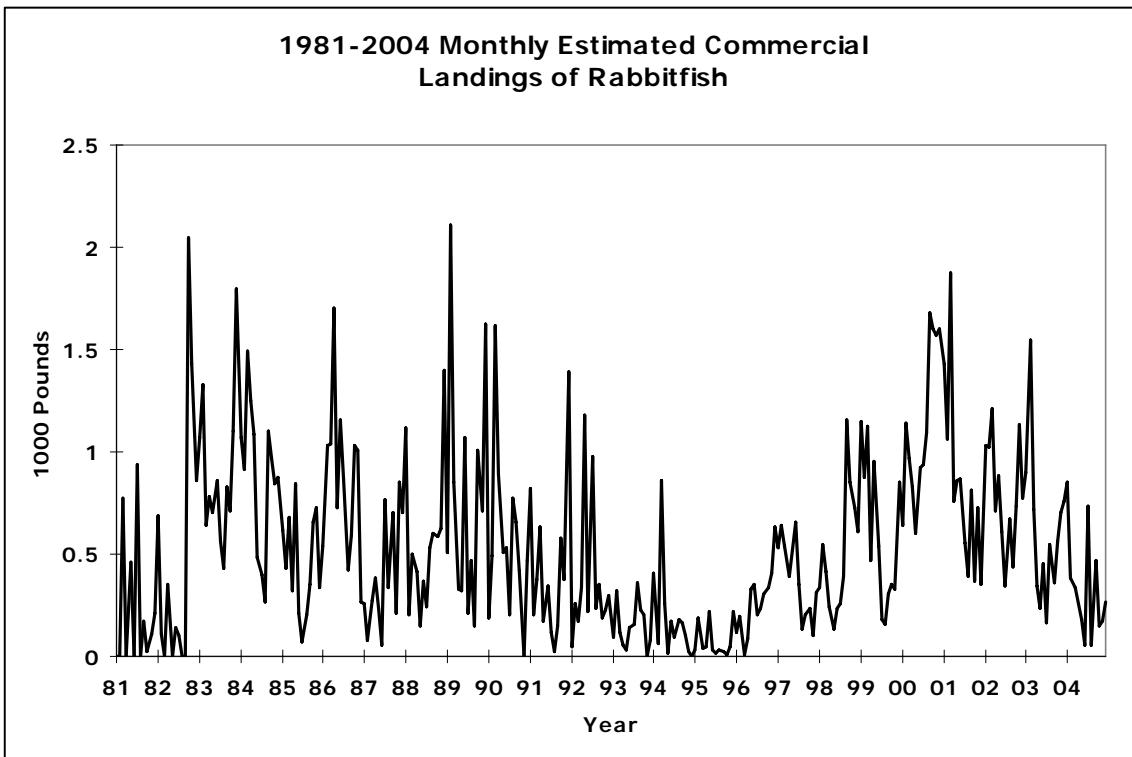


Figure B-4-11