

GUAM 2006 FISHERY STATISTICS

Compiled by
Guam Division of Aquatic and Wildlife Resources
and the
Western Pacific Fisheries Information Network

September 2008

CONTENTS

	Page
Introduction	C.1
Data Collecting	C.1
Data Processing	C.2
Data Reporting	C.2
Species Categories	C.3
Tables	C.6
Figures	C.20

LIST OF GUAM SUMMARY TABLES

Table	Title	Page
C-1	2006 Estimated Commercial Landings	C.6
C-2	January 2006 Estimated Commercial Landings	C.8
C-3	February 2006 Estimated Commercial Landings	C.9
C-4	March 2006 Estimated Commercial Landings	C.10
C-5	April 2006 Estimated Commercial Landings	C.11
C-6	May 2006 Estimated Commercial Landings	C.12
C-7	June 2006 Estimated Commercial Landings	C.13
C-8	July 2006 Estimated Commercial Landings	C.14
C-9	August 2006 Estimated Commercial Landings	C.15
C-10	September 2006 Estimated Commercial Landings	C.16
C-11	October 2006 Estimated Commercial Landings	C.17
C-12	November 2006 Estimated Commercial Landings	C.18
C-13	December 2006 Estimated Commercial Landings	C.19

LIST OF GUAM FIGURES

Figure	Title	Page
C-1-1	2006 Monthly Estimated Commercial Landings of Pelagic, Bottom, Reef, and Other Fish	C.20
C-1-2	2006 Monthly Estimated Commercial Landings of Tunas, PMUS, and BMUS	C.20
C-1-3	2006 Monthly Estimated Commercial Landings of Wahoo, Mahimahi, and Billfish	C.21
C-1-4	2006 Monthly Estimated Commercial Landings of Skipjack, Yellowfin, and Other Tunas	C.21
C-1-5	2006 Monthly Estimated Commercial Landings of Onaga and Bigeye Scad	C.22
C-2-1	1980-2006 Average Monthly Estimated Commercial Landings of Tunas, PMUS, and BMUS	C.23
C-2-2	1980-2006 Average Monthly Estimated Commercial Landings of Wahoo, Mahimahi, and Marlin	C.23
C-2-3	1980-2006 Average Monthly Estimated Commercial Landings of Onaga and Bigeye Scad	C.24
C-2-4	1980-2006 Average Monthly Estimated Commercial Landings of Skipjack, Yellowfin, and Other Tunas	C.24
C-2-5	1980-2006 Average Monthly Estimated Commercial Landings of Miscellaneous Reef Fish and Bottomfish	C.25
C-3-1	1980-2006 Annual Trend of Fisheries Categories: Estimated Commercial Landings of Pelagic, Bottomfish, Reef Fish, and Other Fish	C.26
C-3-2	1980-2006 Annual Total Estimated Commercial Landings (Pounds and Dollars)	C.26
C-3-3	1980-2006 Annual Estimated Commercial Landings of Tunas, PMUS, and BMUS	C.27
C-3-4	1980-2006 Annual Estimated Commercial Landings of Wahoo, Mahimahi, and Billfish	C.27
C-3-5	1980-2006 Annual Estimated Commercial Landings of Skipjack, Yellowfin, and Other Tunas	C.28
C-3-6	1980-2006 Annual Estimated Commercial Landings of Onaga and Bigeye Scad	C.28
C-3-7	1980-2006 Annual Estimated Commercial Landings of Miscellaneous Reef Fish and Bottomfish	C.29
C-4-1	1980-2006 Monthly Estimated Commercial Landings of Wahoo	C.30
C-4-2	1980-2006 Monthly Estimated Commercial Landings of Mahimahi	C.30
C-4-3	1980-2006 Monthly Estimated Commercial Landings of Marlin	C.31

LIST OF GUAM FIGURES (continued)

Figure	Title	Page
C-4-4	1980-2006 Monthly Estimated Commercial Landings of Skipjack Tuna	C.31
C-4-5	1980-2006 Monthly Estimated Commercial Landings of Yellowfin Tuna	C.32
C-4-6	1980-2006 Monthly Estimated Commercial Landings of Onaga	C.32
C-4-7	1980-2006 Monthly Estimated Commercial Landings of Bigeye Scad	C.33
C-4-8	1980-2006 Monthly Estimated Commercial Landings of Dogtooth Tuna	C.33
C-4-9	1980-2006 Monthly Estimated Commercial Landings of Miscellaneous Reef Fish	C.34
C-4-10	1980-2006 Monthly Estimated Commercial Landings of Miscellaneous Bottomfish	C.34

GUAM 2006 FISHERY STATISTICS

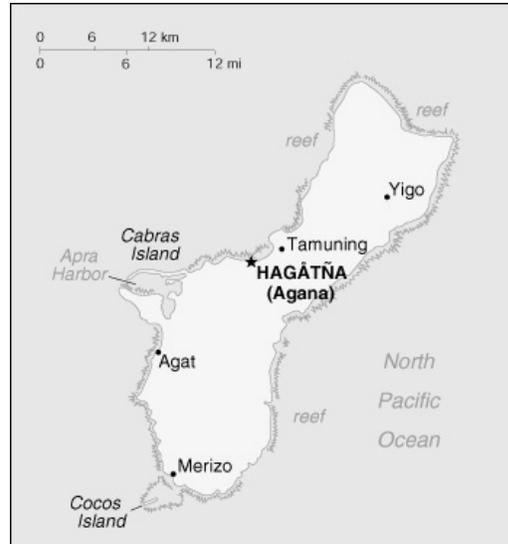
INTRODUCTION

The Territory of Guam is the southernmost, largest, and most populous island in the Mariana Archipelago.

Location: 13.4°N latitude, 144.4°E longitude

Population: about 176,000 (*The World Factbook*, 2008)

Economy: U.S. military and tourism



Guam:
Source: <https://www.cia.gov/library/publications/the-world-factbook/maps/gu-map.gif>;
The World Factbook

Fishing activities on Guam are divided into two basic categories: offshore and inshore fishing. Offshore fishing typically involves small boats (12 to 48 feet) going on 1- to 2-day trolling and bottomfishing trips. They usually originate from one of the three principal harbors located on the west coast and southern tip of the island. Inshore fishing is usually conducted without the use of a boat and consists mostly of nearshore casting, netting, and spearfishing.

In 1982, WPacFIN began working with staff of the Guam Division of Aquatic and Wildlife Resources (DAWR) and with local fish dealers to obtain information on commercial landings through voluntary use of trip ticket invoices provided by WPacFIN. The tables and graphs in this section are based on data that are summarized from receipts submitted by all participating dealers on Guam and then adjusted to create the estimated total commercial landings based on an estimated annual percent coverage factor.

DATA COLLECTING

There are three sources of fish in Guam's commercial market: (1) full-time commercial fishers; (2) part-time commercial fishers; and (3) subsistence or recreational "expense" fishers who frequently sell portions of their catch to help defray costs. Licenses are not required to sell fish in Guam, nor are there any reporting requirements for those selling fish.

In July 1979, the Guam Fishermen's Cooperative was established in Agana through government funding. It subsequently became the central distribution center for fresh local fish.

C.2

Prior to 1979 there was no central place to sell fish, and fishers had to develop their own markets and peddle fish after each trip.

In 1982, WPacFIN began working with the co-op to improve their invoicing system and to obtain data on all fish purchases. A cooperative system was established whereby the co-op would use forms and coding schemes designed by WPacFIN and supply copies of all invoices to WPacFIN for computer data entry. In return, WPacFIN would provide the co-op with document quality control and computer-generated summary statistics. All purchase data back to July 1979 were also coded and computerized. Over time, other fish markets began to operate, and DAWR and WPacFIN staff worked with them to obtain data through the voluntary receipt book program.

Although a proposed law has been introduced several times that would require reporting by dealers and possibly commercial fishers, it has never made it very far through the legislative process, and the commercial landings data collection system remains voluntary.

Data collected on commercial receipt forms include

- Date
- Number of Fishermen
- Area Fished
- Number of Pieces Caught
- Price per Pound
- Fisherman Code
- Hours Fished
- Species Caught
- Pounds Caught

DATA PROCESSING

At first, the data were processed at the central WPacFIN office in Honolulu. Beginning in 1994, however, DAWR staff took over this task using a computer and software provided by WPacFIN. The processing system for the commercial landings data collected from the fish dealers is fairly straightforward. Dealers complete a purchase form every time they purchase fish from a fisherman. On this form, catches are divided into categories for weighing by species or species group (where possible, number of pieces is also recorded).

DATA REPORTING

After completing all editing, adjusting, and quality control activities for the commercial landings data, monthly and annual summary reports by species are generated. Numerous standard reports are available, but only the monthly and annual landings by species are provided in this document.

Each table contains information on the pounds, value, and the average price per pound for each species or species group. Each monthly report contains a subtotal for the sum of all species combined for that month. Annual reports contain the estimated total landings for each species and the estimated total recorded landings for all species for the calendar year. Graphs

of some of the important statistics are included with the estimated commercial landings summary reports.

Please note that the 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>>.

SPECIES CATEGORIES

The species and species groups that are used in the tables and graphs of Guam's data are defined in this section. 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 report maintains the original species categorizations from previous FSWP reports for comparative purposes. As such, tunas are kept in a separate category.

I. Pelagic Management Unit Species (PMUS)

Mahimahi	Spearfish
Marlin	Swordfish
Sailfish	Wahoo
Sharks	

II. Bottomfish Management Unit Species (BMUS)

Alfonsin	Kalikali (pink snapper)
Amberjack	Lehi (silverjaw)
Black jack	Mafute (emperor)
Ehu (red snapper)	Onaga (red snapper)
Gindai (flower snapper)	Opakapaka (pink snapper)
Grouper	Snapper
Jacks	Uku (gray snapper)

III. Billfish

Marlin	Spearfish
Sailfish	Swordfish

IV. Tunas

Dogtooth tuna	Tunas
Kawakawa	Yellowfin tuna
Skipjack tuna (bonita)	

C.4

V. Other Tunas

Dogtooth tuna
Kawakawa

Tunas

VI. Fisheries Categories

A. Pelagic Species

Barracuda
Dogtooth tuna
Kawakawa
Mahimahi
Marlin
Monchong
Rainbow runner
Sailfish

Sharks
Skipjack tuna (bonita)
Spearfish
Swordfish
Troll fish
Tunas
Wahoo
Yellowfin tuna

B. Bottomfish

Alfonsin
Amberjack
Black jack
Bottom fish
Deep bottom
Ehu (red snapper)
Gindai (flower snapper)
Grouper

Jacks
Kalikali (pink snapper)
Lehi (silverjaw)
Mafute (emperor)
Onaga (red snapper)
Opakapaka (pink snapper)
Tagafi (red snapper)
Uku (gray snapper)

C. Reef Fish

Goatfish
Humphead parrot fish
Napoleon wrasse
Parrotfish
Rabbitfish (hitting)
Reef fish

Rudderfish (guilli)
Snapper
Squirrelfish
Surgeonfish
Unicornfish
Wrasse

D. Other

Assorted

Bigeye scad (atulai)

Coconut crab

Crabs (misc)

Eel (freshwater)

Invertebrates

Kona crab

Lemu

Lobster

Milkfish

Miscellaneous

Mullet

Octopus

Seaweeds

Shrimp (fresh water)

Shrimp (salt water)

Squid

Turtle

Table C-1
2006 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb
Assorted	129	\$360	\$2.80
Miscellaneous	81	\$213	\$2.62
Bigeye scad (atulai)	4,178	\$11,511	\$2.75
Black jack	186	\$448	\$2.41
Jacks	1,910	\$4,869	\$2.55
Mullet	9	\$24	\$2.50
Napoleon wrasse	3,765	\$10,357	\$2.75
Humphead parrot fish	413	\$1,033	\$2.50
Sharks	24	\$60	\$2.50
Eel (freshwater)	4	\$12	\$3.00
Milkfish	18	\$44	\$2.50
Bottom fish	6	\$7	\$1.25
Ehu (red snapper)	410	\$1,600	\$3.90
Gindai (flower snapper)	293	\$1,135	\$3.87
Grouper	939	\$2,568	\$2.73
Kalikali (pink snapper)	301	\$952	\$3.17
Lehi (silverjaw)	484	\$1,872	\$3.87
Onaga (red snapper)	5,096	\$23,989	\$4.71
Opakapaka (pink snapper)	421	\$1,588	\$3.77
Uku (gray snapper)	686	\$1,762	\$2.57
Tagafi (red snapper)	95	\$254	\$2.67
Amberjack	589	\$1,810	\$3.07
Reef fish	77,876	\$232,199	\$2.98
Rabbitfish	642	\$1,976	\$3.08
Rudderfish (guilli)	474	\$1,336	\$2.82
Mafute (emperor)	3,352	\$8,241	\$2.46
Squirrelfish	663	\$1,683	\$2.54
Parrotfish	514	\$1,304	\$2.54
Snapper	1,427	\$3,578	\$2.51
Surgeonfish	9,893	\$25,235	\$2.55
Unicornfish	24,118	\$62,379	\$2.59
Goatfish	141	\$362	\$2.56
Barracuda	2,454	\$4,655	\$1.90
Mahimahi	58,078	\$89,801	\$1.55
Swordfish	169	\$422	\$2.50
Marlin	22,880	\$26,657	\$1.17
Spearfish	52	\$57	\$1.10
Sailfish	1,596	\$2,315	\$1.45
Rainbow runner	2,456	\$4,486	\$1.83
Monchong	1,217	\$2,711	\$2.23
Wahoo	34,428	\$68,621	\$1.99
Tunas	9	\$9	\$1.00
Skipjack tuna (bonita)	39,980	\$45,352	\$1.13
Dogtooth tuna	3,221	\$3,962	\$1.23
Yellowfin tuna	19,851	\$43,148	\$2.17
Crabs (misc)	24	\$62	\$2.61

Table C-1 (continued)
2006 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb
Lobster	4,789	\$17,733	\$3.70
Octopus	4,389	\$11,542	\$2.63
TOTAL	334,729	\$726,296	\$2.17

Table C-2
January 2006 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb
Bigeye scad (atulai)	79	\$202	\$2.55
Black jack	24	\$57	\$2.36
Jacks	126	\$317	\$2.52
Napoleon wrasse	157	\$424	\$2.70
Ehu (red snapper)	47	\$188	\$4.00
Gindai (flower snapper)	21	\$82	\$3.85
Grouper	78	\$207	\$2.66
Kalikali (pink snapper)	22	\$75	\$3.38
Lehi (silverjaw)	17	\$64	\$3.76
Onaga (red snapper)	243	\$1,215	\$5.00
Opakapaka (pink snapper)	22	\$87	\$3.89
Uku (gray snapper)	47	\$124	\$2.64
Amberjack	29	\$78	\$2.65
Reef fish	6,154	\$18,198	\$2.96
Rabbitfish	158	\$475	\$3.00
Mafute (emperor)	24	\$65	\$2.75
Parrotfish	44	\$122	\$2.75
Snapper	19	\$46	\$2.50
Surgeonfish	116	\$328	\$2.83
Unicornfish	1,567	\$4,389	\$2.80
Goatfish	17	\$48	\$2.75
Barracuda	382	\$677	\$1.77
Mahimahi	8,082	\$12,215	\$1.51
Marlin	696	\$983	\$1.41
Sailfish	101	\$150	\$1.49
Rainbow runner	18	\$26	\$1.50
Monchong	53	\$119	\$2.25
Wahoo	6,196	\$11,835	\$1.91
Skipjack tuna (bonita)	1,432	\$2,174	\$1.52
Dogtooth tuna	226	\$293	\$1.29
Yellowfin tuna	348	\$730	\$2.10
Crabs (misc)	5	\$15	\$3.00
Lobster	61	\$229	\$3.75
Octopus	204	\$559	\$2.74
TOTAL	26,819	\$56,797	\$2.12

Table C-3
February 2006 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb
Miscellaneous	32	\$81	\$2.50
Bigeye scad (atulai)	255	\$766	\$3.00
Black jack	6	\$15	\$2.50
Jacks	74	\$184	\$2.50
Napoleon wrasse	324	\$909	\$2.80
Ehu (red snapper)	8	\$33	\$4.00
Gindai (flower snapper)	19	\$75	\$4.00
Lehi (silverjaw)	127	\$621	\$4.89
Onaga (red snapper)	140	\$700	\$5.00
Opakapaka (pink snapper)	4	\$14	\$4.00
Amberjack	8	\$25	\$3.00
Reef fish	5,947	\$17,634	\$2.97
Rudderfish (guilli)	85	\$254	\$3.00
Mafute (emperor)	16	\$40	\$2.50
Surgeonfish	66	\$168	\$2.55
Unicornfish	1,759	\$4,690	\$2.67
Barracuda	33	\$66	\$2.00
Mahimahi	9,061	\$13,643	\$1.51
Marlin	235	\$327	\$1.39
Spearfish	21	\$26	\$1.25
Sailfish	59	\$74	\$1.25
Rainbow runner	13	\$19	\$1.50
Wahoo	1,304	\$2,442	\$1.87
Skipjack tuna (bonita)	1,406	\$1,751	\$1.25
Dogtooth tuna	135	\$169	\$1.25
Yellowfin tuna	274	\$553	\$2.02
Lobster	19	\$72	\$3.75
Octopus	28	\$83	\$3.00
TOTAL	21,458	\$45,432	\$2.12

Table C-4
March 2006 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb
Miscellaneous	14	\$34	\$2.50
Jacks	71	\$171	\$2.41
Napoleon wrasse	300	\$844	\$2.81
Humphead parrot fish	28	\$71	\$2.50
Bottom fish	6	\$7	\$1.25
Ehu (red snapper)	38	\$151	\$4.00
Grouper	100	\$244	\$2.44
Onaga (red snapper)	417	\$2,006	\$4.81
Uku (gray snapper)	4	\$10	\$2.75
Amberjack	96	\$241	\$2.50
Reef fish	7,744	\$22,971	\$2.97
Rabbitfish	237	\$711	\$3.00
Mafute (emperor)	64	\$165	\$2.59
Parrotfish	29	\$78	\$2.69
Snapper	43	\$104	\$2.41
Surgeonfish	106	\$270	\$2.54
Unicornfish	1,339	\$3,383	\$2.53
Goatfish	108	\$271	\$2.50
Barracuda	405	\$694	\$1.72
Mahimahi	10,757	\$16,348	\$1.52
Marlin	978	\$1,339	\$1.37
Spearfish	13	\$13	\$1.00
Sailfish	32	\$32	\$1.00
Rainbow runner	111	\$180	\$1.63
Monchong	45	\$101	\$2.25
Wahoo	3,915	\$7,644	\$1.95
Skipjack tuna (bonita)	3,720	\$4,333	\$1.16
Dogtooth tuna	318	\$413	\$1.30
Yellowfin tuna	1,242	\$2,604	\$2.10
Lobster	336	\$1,262	\$3.75
Octopus	85	\$256	\$3.00
TOTAL	32,701	\$66,950	\$2.05

Table C-5
April 2006 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb
Assorted	8	\$21	\$2.50
Jacks	106	\$281	\$2.64
Napoleon wrasse	119	\$320	\$2.69
Ehu (red snapper)	15	\$59	\$4.00
Grouper	28	\$73	\$2.58
Kalikali (pink snapper)	8	\$29	\$3.57
Lehi (silverjaw)	112	\$394	\$3.51
Onaga (red snapper)	1,109	\$4,889	\$4.41
Opakapaka (pink snapper)	139	\$534	\$3.84
Uku (gray snapper)	78	\$198	\$2.52
Amberjack	51	\$128	\$2.50
Reef fish	7,165	\$21,000	\$2.93
Rabbitfish	31	\$84	\$2.74
Mafute (emperor)	41	\$105	\$2.59
Squirrelfish	74	\$185	\$2.50
Snapper	125	\$313	\$2.50
Surgeonfish	754	\$1,899	\$2.52
Unicornfish	2,114	\$5,512	\$2.61
Barracuda	192	\$384	\$2.00
Mahimahi	7,943	\$13,334	\$1.68
Marlin	859	\$1,049	\$1.22
Sailfish	154	\$205	\$1.33
Rainbow runner	138	\$276	\$1.99
Wahoo	5,742	\$11,694	\$2.04
Skipjack tuna (bonita)	8,436	\$8,273	\$0.98
Dogtooth tuna	471	\$576	\$1.22
Yellowfin tuna	1,332	\$2,665	\$2.00
Lobster	210	\$783	\$3.73
Octopus	161	\$456	\$2.84
TOTAL	37,714	\$75,718	\$2.01

Table C-6
May 2006 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb
Miscellaneous	5	\$12	\$2.50
Black jack	9	\$21	\$2.25
Jacks	270	\$703	\$2.60
Napoleon wrasse	281	\$779	\$2.77
Milkfish	6	\$16	\$2.50
Gindai (flower snapper)	35	\$141	\$4.00
Grouper	53	\$136	\$2.56
Kalikali (pink snapper)	9	\$31	\$3.50
Lehi (silverjaw)	105	\$369	\$3.50
Onaga (red snapper)	868	\$3,904	\$4.50
Opakapaka (pink snapper)	18	\$73	\$4.00
Uku (gray snapper)	13	\$32	\$2.50
Tagafi (red snapper)	14	\$35	\$2.50
Amberjack	24	\$60	\$2.50
Reef fish	7,127	\$21,206	\$2.98
Rudderfish (guilli)	58	\$173	\$3.00
Mafute (emperor)	71	\$176	\$2.50
Squirrelfish	92	\$229	\$2.50
Snapper	71	\$174	\$2.46
Surgeonfish	1,339	\$3,349	\$2.50
Unicornfish	2,512	\$6,337	\$2.52
Goatfish	12	\$31	\$2.50
Barracuda	64	\$128	\$2.00
Mahimahi	4,945	\$7,547	\$1.53
Marlin	2,505	\$2,945	\$1.18
Sailfish	131	\$220	\$1.68
Rainbow runner	397	\$618	\$1.56
Monchong	69	\$159	\$2.31
Wahoo	2,146	\$4,380	\$2.04
Tunas	9	\$9	\$1.00
Skipjack tuna (bonita)	3,325	\$3,877	\$1.17
Dogtooth tuna	325	\$377	\$1.16
Yellowfin tuna	2,943	\$6,362	\$2.16
Lobster	653	\$2,438	\$3.74
Octopus	236	\$693	\$2.94
TOTAL	30,740	\$67,741	\$2.20

Table C-7
June 2006 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb
Jacks	158	\$441	\$2.80
Napoleon wrasse	612	\$1,676	\$2.74
Ehu (red snapper)	15	\$61	\$4.00
Gindai (flower snapper)	12	\$50	\$4.00
Grouper	145	\$398	\$2.75
Onaga (red snapper)	329	\$1,542	\$4.68
Uku (gray snapper)	48	\$116	\$2.44
Reef fish	7,266	\$21,997	\$3.03
Rabbitfish	55	\$137	\$2.50
Mafute (emperor)	131	\$341	\$2.61
Squirrelfish	39	\$99	\$2.50
Snapper	39	\$99	\$2.50
Surgeonfish	1,491	\$3,982	\$2.67
Unicornfish	2,531	\$6,656	\$2.63
Barracuda	139	\$278	\$2.00
Mahimahi	501	\$795	\$1.59
Marlin	3,127	\$4,107	\$1.31
Spearfish	18	\$18	\$1.00
Rainbow runner	218	\$524	\$2.41
Monchong	63	\$142	\$2.25
Wahoo	148	\$456	\$3.08
Skipjack tuna (bonita)	5,481	\$5,982	\$1.09
Dogtooth tuna	236	\$270	\$1.14
Yellowfin tuna	2,324	\$5,556	\$2.39
Lobster	336	\$1,237	\$3.68
Octopus	325	\$961	\$2.96
TOTAL	25,786	\$57,922	\$2.25

Table C-8
July 2006 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb
Assorted	61	\$165	\$2.71
Bigeye scad (atulai)	6	\$18	\$3.00
Black jack	8	\$21	\$2.50
Jacks	134	\$337	\$2.51
Napoleon wrasse	362	\$997	\$2.75
Eel (freshwater)	4	\$12	\$3.00
Ehu (red snapper)	59	\$228	\$3.83
Gindai (flower snapper)	49	\$195	\$4.00
Grouper	81	\$239	\$2.96
Kalikali (pink snapper)	11	\$32	\$3.00
Lehi (silverjaw)	13	\$45	\$3.50
Onaga (red snapper)	486	\$2,429	\$5.00
Opakapaka (pink snapper)	6	\$24	\$4.00
Uku (gray snapper)	46	\$132	\$2.85
Reef fish	7,878	\$23,633	\$3.00
Mafute (emperor)	205	\$553	\$2.69
Snapper	80	\$200	\$2.50
Surgeonfish	1,824	\$4,674	\$2.56
Unicornfish	2,476	\$6,356	\$2.57
Barracuda	241	\$481	\$2.00
Mahimahi	597	\$654	\$1.10
Marlin	3,380	\$4,147	\$1.23
Sailfish	56	\$90	\$1.60
Rainbow runner	657	\$1,044	\$1.59
Monchong	218	\$490	\$2.25
Wahoo	901	\$1,999	\$2.22
Skipjack tuna (bonita)	3,872	\$4,295	\$1.11
Dogtooth tuna	165	\$207	\$1.25
Yellowfin tuna	2,771	\$5,934	\$2.14
Crabs (misc)	8	\$19	\$2.50
Lobster	966	\$3,564	\$3.69
Octopus	431	\$1,139	\$2.64
TOTAL	28,053	\$64,352	\$2.29

Table C-9
August 2006 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb
Assorted	16	\$45	\$2.77
Miscellaneous	20	\$57	\$2.85
Bigeye scad (atulai)	1,259	\$3,464	\$2.75
Black jack	18	\$44	\$2.50
Jacks	293	\$765	\$2.61
Napoleon wrasse	905	\$2,486	\$2.75
Humphead parrot fish	188	\$470	\$2.50
Milkfish	11	\$28	\$2.50
Ehu (red snapper)	35	\$139	\$4.00
Gindai (flower snapper)	63	\$242	\$3.85
Grouper	183	\$518	\$2.83
Kalikali (pink snapper)	72	\$215	\$3.00
Onaga (red snapper)	426	\$2,015	\$4.72
Opakapaka (pink snapper)	21	\$63	\$3.07
Uku (gray snapper)	144	\$355	\$2.47
Reef fish	6,839	\$20,471	\$2.99
Rudderfish (guilli)	137	\$343	\$2.50
Mafute (emperor)	849	\$1,656	\$1.95
Parrotfish	15	\$40	\$2.70
Snapper	107	\$267	\$2.49
Surgeonfish	1,599	\$3,994	\$2.50
Unicornfish	2,144	\$5,376	\$2.51
Goatfish	3	\$12	\$4.00
Barracuda	120	\$239	\$2.00
Mahimahi	421	\$444	\$1.06
Swordfish	169	\$422	\$2.50
Marlin	6,804	\$6,393	\$0.94
Sailfish	180	\$225	\$1.25
Rainbow runner	261	\$519	\$1.99
Monchong	388	\$841	\$2.17
Wahoo	731	\$1,563	\$2.14
Skipjack tuna (bonita)	5,068	\$5,323	\$1.05
Dogtooth tuna	242	\$287	\$1.18
Yellowfin tuna	1,816	\$4,034	\$2.22
Lobster	996	\$3,667	\$3.68
Octopus	732	\$1,863	\$2.55
TOTAL	33,274	\$68,886	\$2.07

Table C-10
September 2006 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb
Assorted	43	\$129	\$3.00
Miscellaneous	11	\$30	\$2.74
Black jack	121	\$290	\$2.41
Jacks	194	\$501	\$2.58
Napoleon wrasse	421	\$1,158	\$2.75
Humphead parrot fish	92	\$231	\$2.50
Sharks	24	\$60	\$2.50
Ehu (red snapper)	105	\$420	\$4.00
Gindai (flower snapper)	86	\$318	\$3.71
Grouper	192	\$525	\$2.73
Kalikali (pink snapper)	179	\$569	\$3.18
Lehi (silverjaw)	27	\$90	\$3.30
Onaga (red snapper)	426	\$2,129	\$5.00
Opakapaka (pink snapper)	62	\$194	\$3.13
Uku (gray snapper)	211	\$538	\$2.55
Tagafi (red snapper)	81	\$219	\$2.70
Amberjack	379	\$1,278	\$3.37
Reef fish	6,023	\$18,028	\$2.99
Rabbitfish	67	\$300	\$4.50
Rudderfish (guilli)	33	\$82	\$2.50
Mafute (emperor)	1,174	\$3,175	\$2.71
Squirrelfish	25	\$63	\$2.50
Snapper	286	\$715	\$2.50
Surgeonfish	1,144	\$2,860	\$2.50
Unicornfish	2,436	\$6,203	\$2.55
Barracuda	202	\$411	\$2.04
Mahimahi	1,469	\$2,469	\$1.68
Marlin	1,722	\$2,118	\$1.23
Sailfish	91	\$120	\$1.32
Rainbow runner	237	\$483	\$2.04
Monchong	231	\$520	\$2.25
Wahoo	3,136	\$6,258	\$2.00
Skipjack tuna (bonita)	2,469	\$3,182	\$1.29
Dogtooth tuna	776	\$975	\$1.26
Yellowfin tuna	2,385	\$5,236	\$2.20
Lobster	608	\$2,271	\$3.73
Octopus	592	\$1,495	\$2.52
TOTAL	27,761	\$65,642	\$2.36

Table C-11
October 2006 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb
Bigeye scad (atulai)	221	\$664	\$3.00
Jacks	259	\$632	\$2.44
Napoleon wrasse	193	\$531	\$2.75
Humphead parrot fish	105	\$262	\$2.50
Grouper	46	\$131	\$2.85
Onaga (red snapper)	118	\$588	\$5.00
Opakapaka (pink snapper)	134	\$536	\$4.00
Uku (gray snapper)	44	\$121	\$2.75
Reef fish	6,690	\$20,066	\$3.00
Rabbitfish	66	\$199	\$3.00
Mafute (emperor)	214	\$566	\$2.65
Parrotfish	36	\$91	\$2.50
Snapper	65	\$172	\$2.66
Surgeonfish	731	\$1,876	\$2.57
Unicornfish	1,907	\$5,028	\$2.64
Barracuda	269	\$501	\$1.86
Mahimahi	4,724	\$7,531	\$1.59
Marlin	1,678	\$1,977	\$1.18
Sailfish	175	\$274	\$1.56
Rainbow runner	103	\$206	\$2.00
Monchong	28	\$64	\$2.25
Wahoo	1,900	\$3,780	\$1.99
Skipjack tuna (bonita)	2,500	\$3,269	\$1.31
Dogtooth tuna	72	\$78	\$1.09
Yellowfin tuna	2,615	\$5,619	\$2.15
Crabs (misc)	11	\$28	\$2.50
Lobster	390	\$1,459	\$3.74
Octopus	729	\$1,824	\$2.50
TOTAL	26,025	\$58,073	\$2.23

Table C-12
November 2006 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb
Bigeye scad (atulai)	2,049	\$5,469	\$2.67
Jacks	139	\$350	\$2.52
Mullet	9	\$24	\$2.50
Napoleon wrasse	37	\$89	\$2.40
Ehu (red snapper)	46	\$163	\$3.50
Grouper	34	\$99	\$2.94
Lehi (silverjaw)	62	\$217	\$3.51
Onaga (red snapper)	236	\$1,182	\$5.00
Uku (gray snapper)	39	\$107	\$2.75
Reef fish	4,177	\$12,441	\$2.98
Mafute (emperor)	348	\$916	\$2.63
Squirrelfish	152	\$380	\$2.50
Parrotfish	224	\$561	\$2.50
Snapper	87	\$224	\$2.58
Surgeonfish	382	\$984	\$2.58
Unicornfish	1,697	\$4,336	\$2.56
Barracuda	166	\$320	\$1.93
Mahimahi	3,954	\$6,207	\$1.57
Marlin	515	\$768	\$1.49
Sailfish	328	\$492	\$1.50
Rainbow runner	146	\$284	\$1.94
Monchong	123	\$277	\$2.25
Wahoo	4,017	\$8,214	\$2.04
Skipjack tuna (bonita)	1,189	\$1,538	\$1.29
Dogtooth tuna	86	\$107	\$1.25
Yellowfin tuna	676	\$1,472	\$2.18
Lobster	101	\$340	\$3.37
Octopus	636	\$1,589	\$2.50
TOTAL	21,654	\$49,148	\$2.27

Table C-13
December 2006 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb
Bigeye scad (atulai)	309	\$928	\$3.00
Jacks	86	\$187	\$2.17
Napoleon wrasse	52	\$144	\$2.75
Ehu (red snapper)	42	\$159	\$3.81
Gindai (flower snapper)	8	\$32	\$4.00
Lehi (silverjaw)	21	\$72	\$3.50
Onaga (red snapper)	298	\$1,388	\$4.65
Opakapaka (pink snapper)	16	\$64	\$4.00
Uku (gray snapper)	13	\$29	\$2.25
Reef fish	4,866	\$14,553	\$2.99
Rabbitfish	28	\$70	\$2.50
Rudderfish (guilli)	161	\$484	\$3.00
Mafute (emperor)	217	\$483	\$2.22
Squirrelfish	280	\$726	\$2.59
Parrotfish	165	\$413	\$2.50
Snapper	506	\$1,265	\$2.50
Surgeonfish	341	\$852	\$2.50
Unicornfish	1,635	\$4,113	\$2.52
Barracuda	242	\$477	\$1.97
Mahimahi	5,623	\$8,613	\$1.53
Marlin	381	\$504	\$1.32
Sailfish	288	\$432	\$1.50
Rainbow runner	158	\$305	\$1.94
Wahoo	4,291	\$8,357	\$1.95
Skipjack tuna (bonita)	1,082	\$1,355	\$1.25
Dogtooth tuna	168	\$210	\$1.25
Yellowfin tuna	1,124	\$2,382	\$2.12
Lobster	114	\$412	\$3.63
Octopus	230	\$625	\$2.72
TOTAL	22,746	\$49,635	\$2.18

The following are summary charts of the major species and species groups by month:

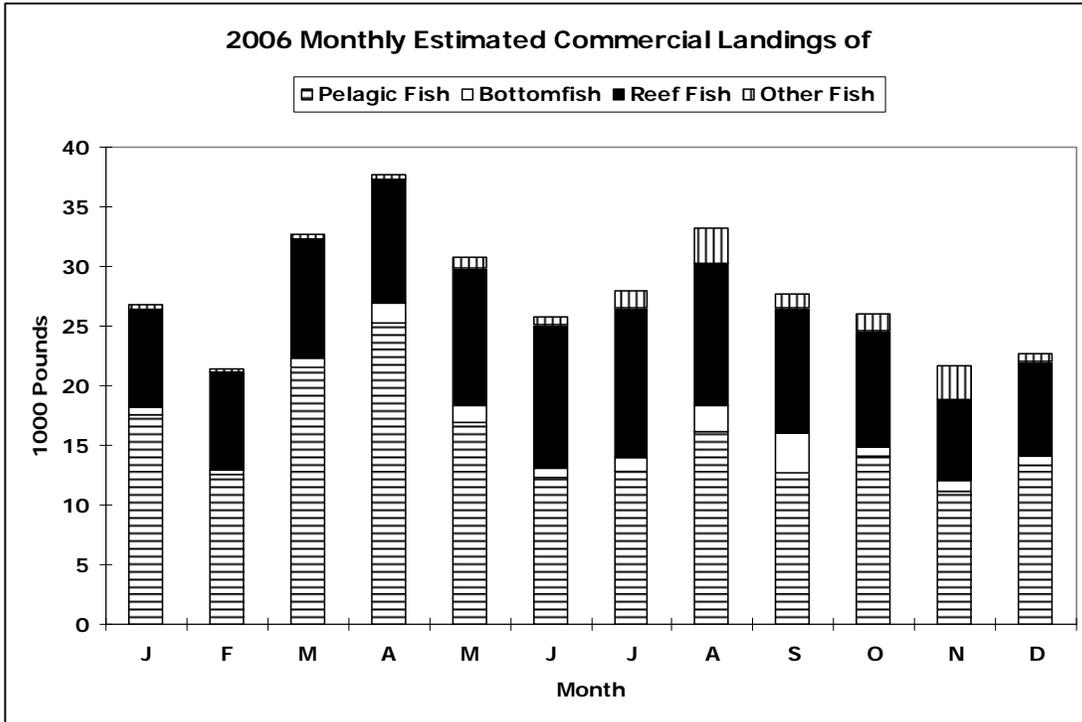


Figure C-1-1

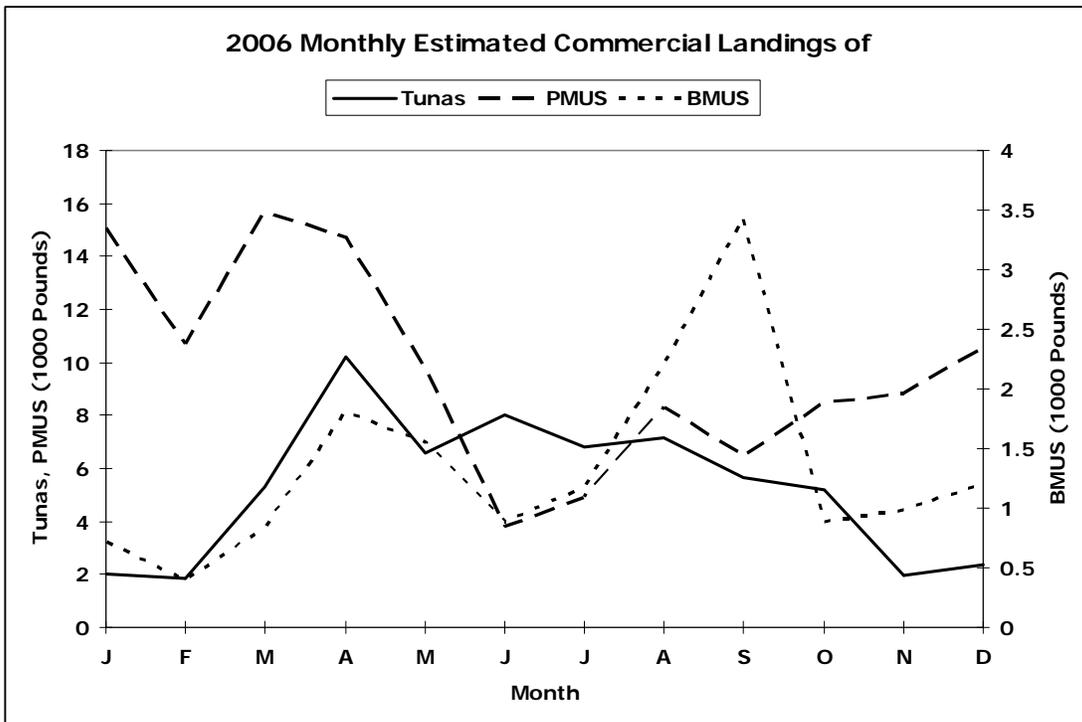


Figure C-1-2

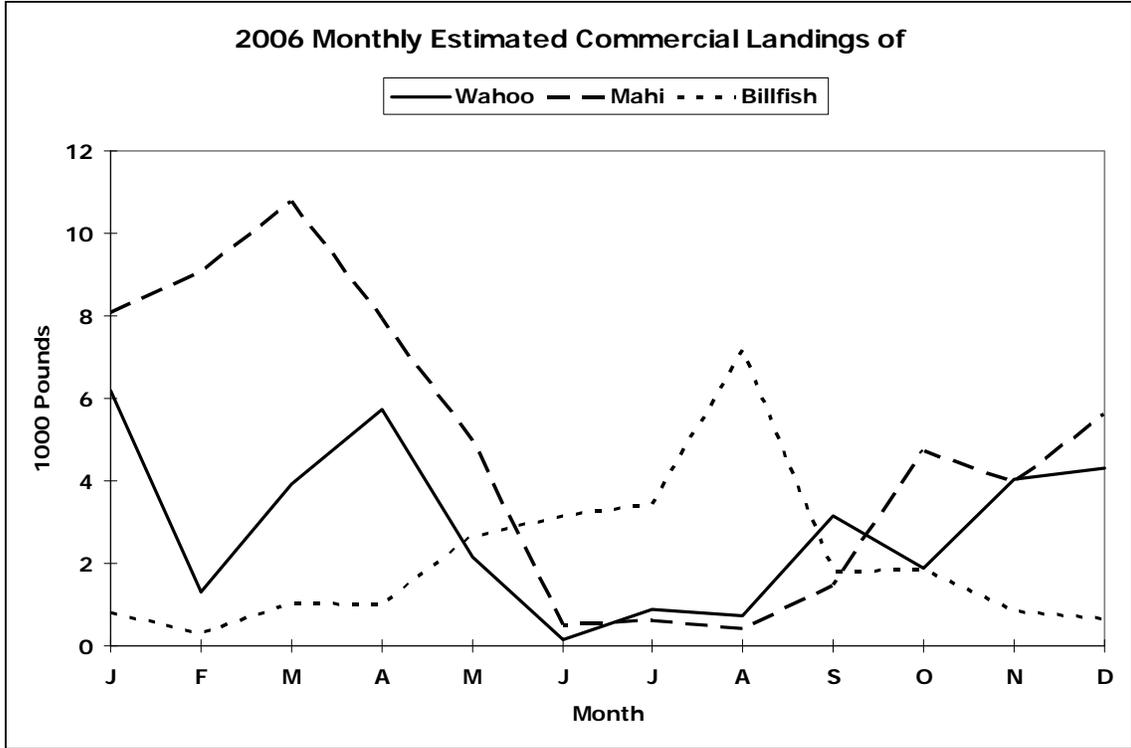


Figure C-1-3

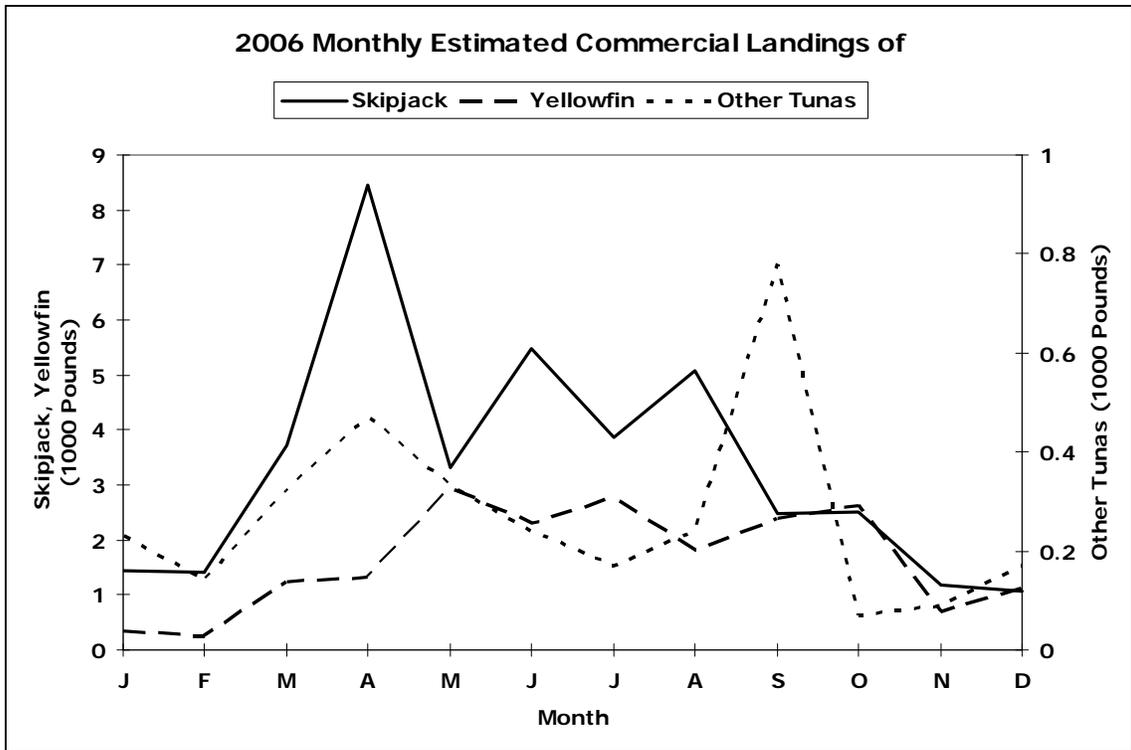


Figure C-1-4

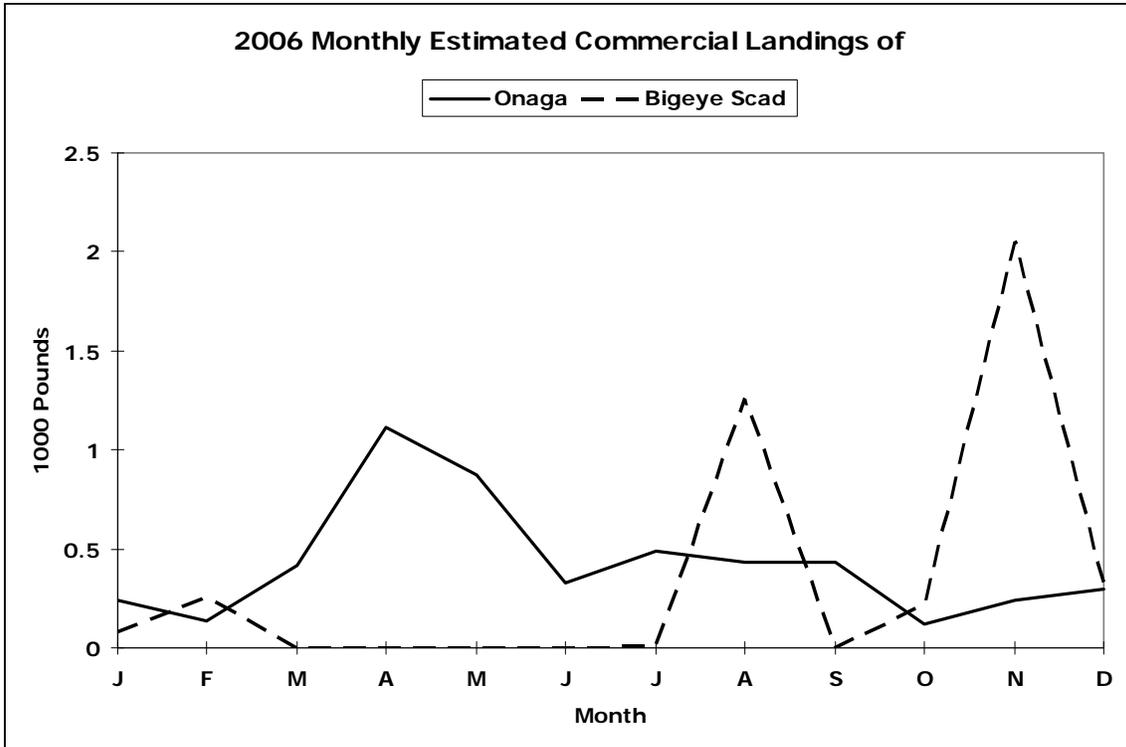


Figure C-1-5

The following are seasonality plots for the major species or species groups, showing the average weight landed during each month for all years combined:

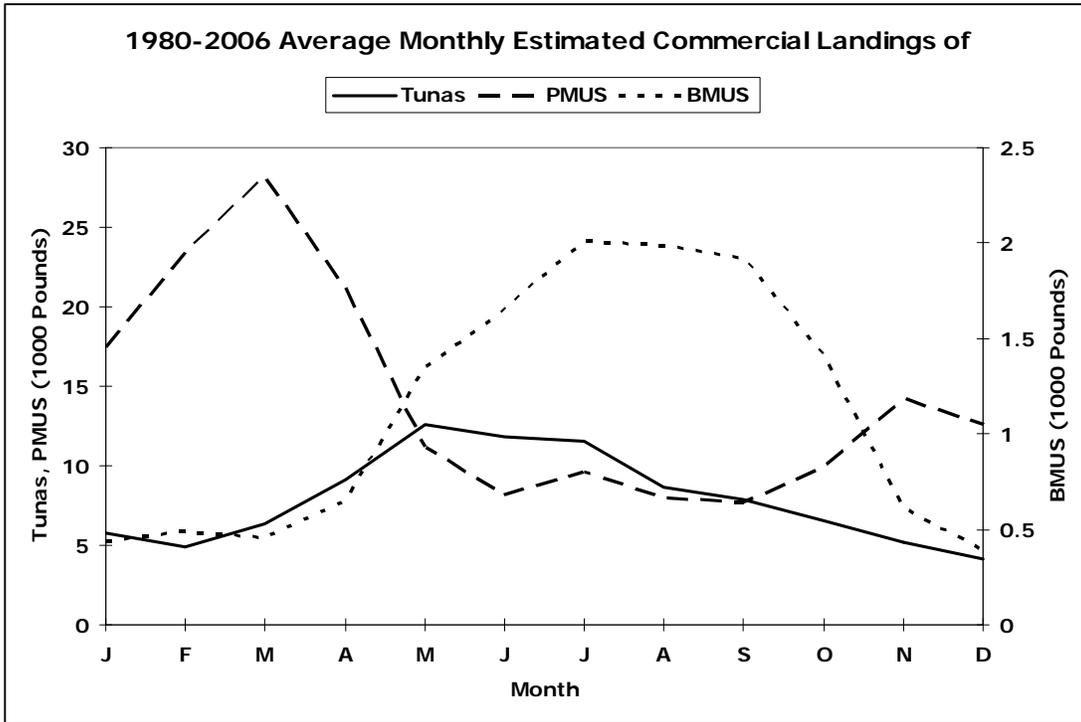


Figure C-2-1

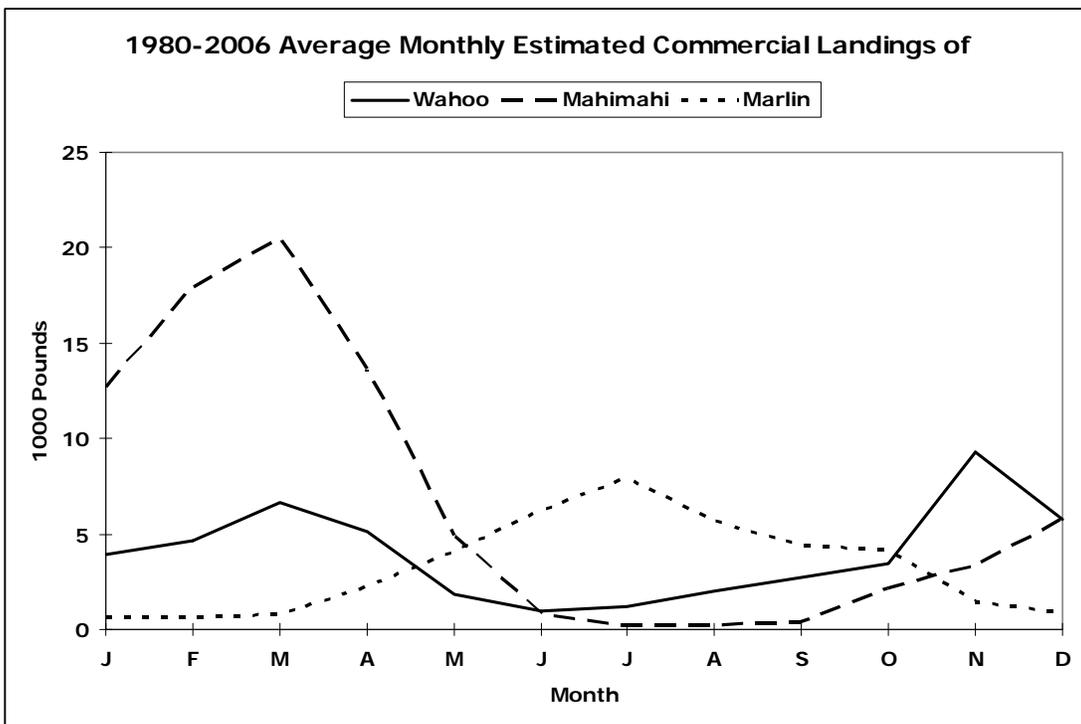


Figure C-2-2

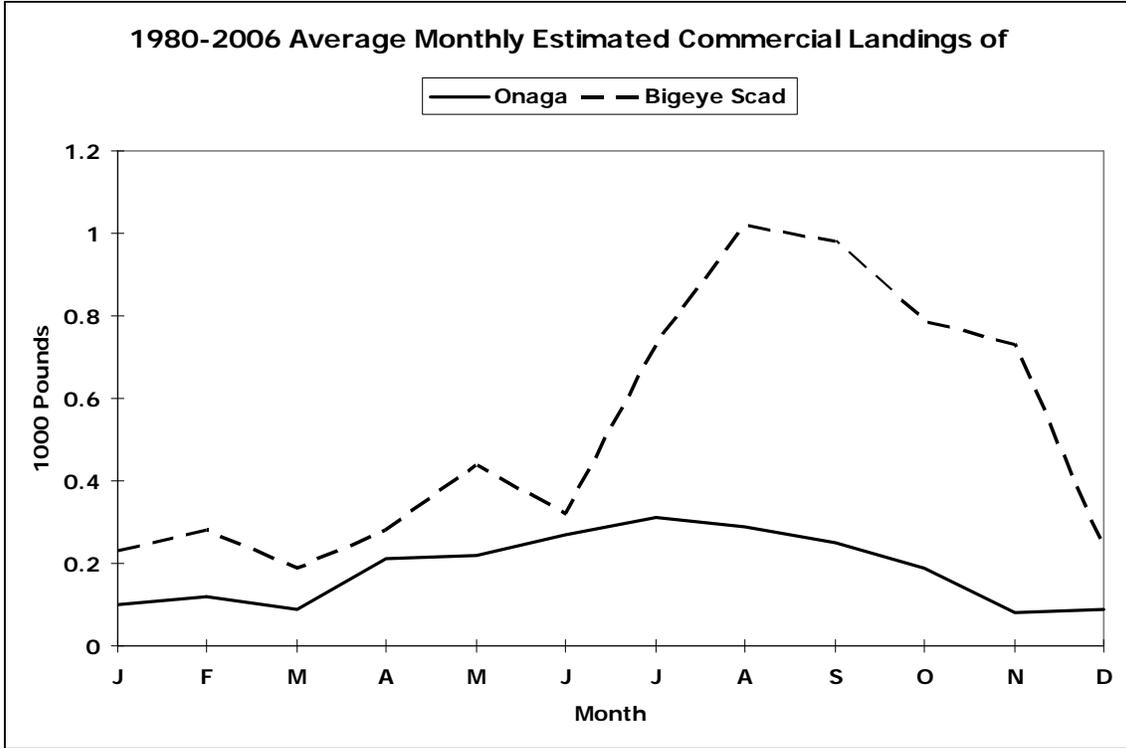


Figure C-2-3

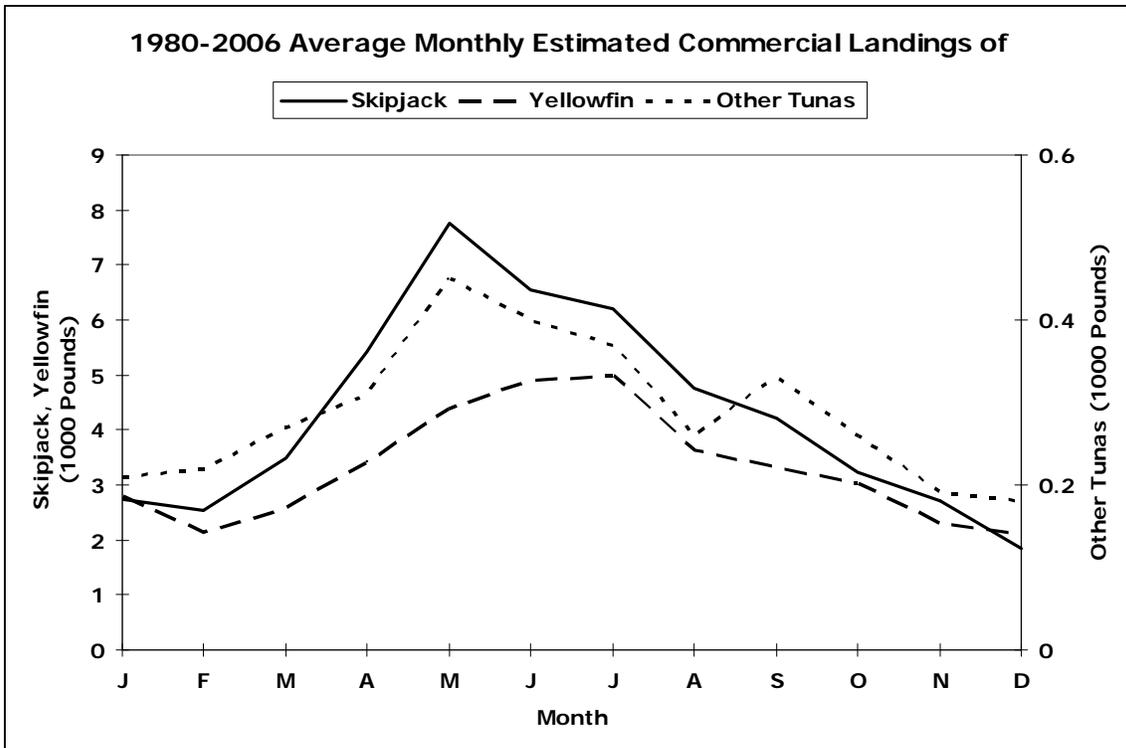


Figure C-2-4

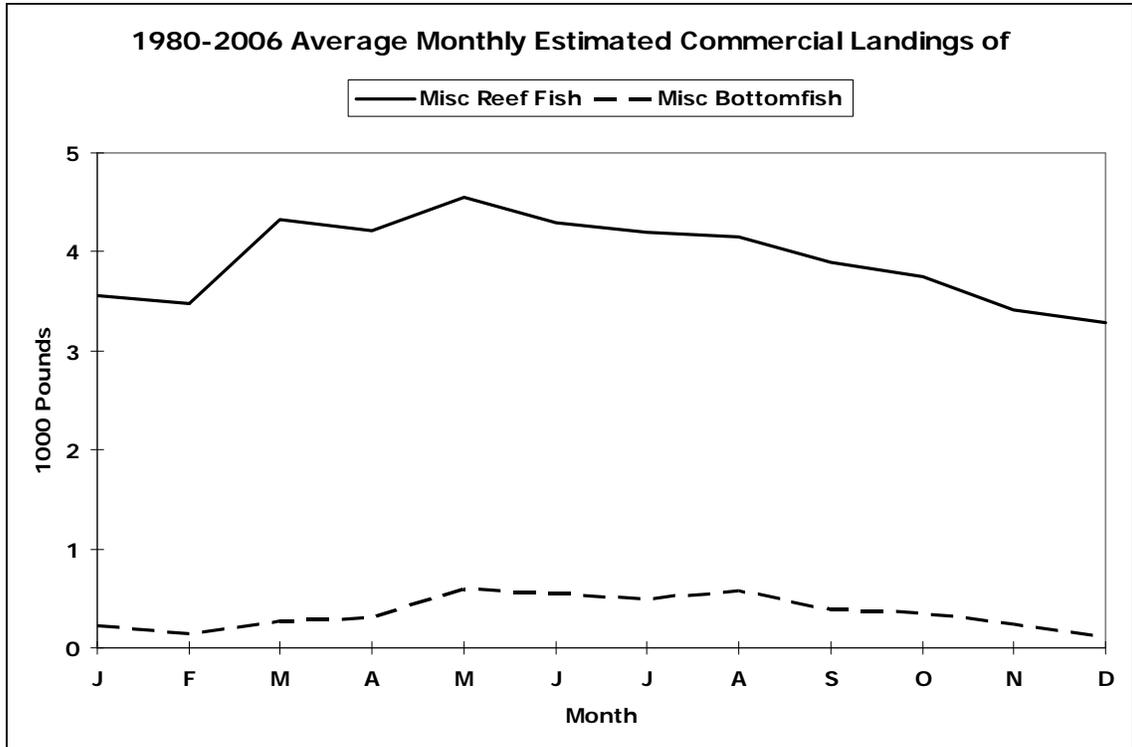


Figure C-2-5

The following graphs plot annual summary statistics to illustrate the variability among years:

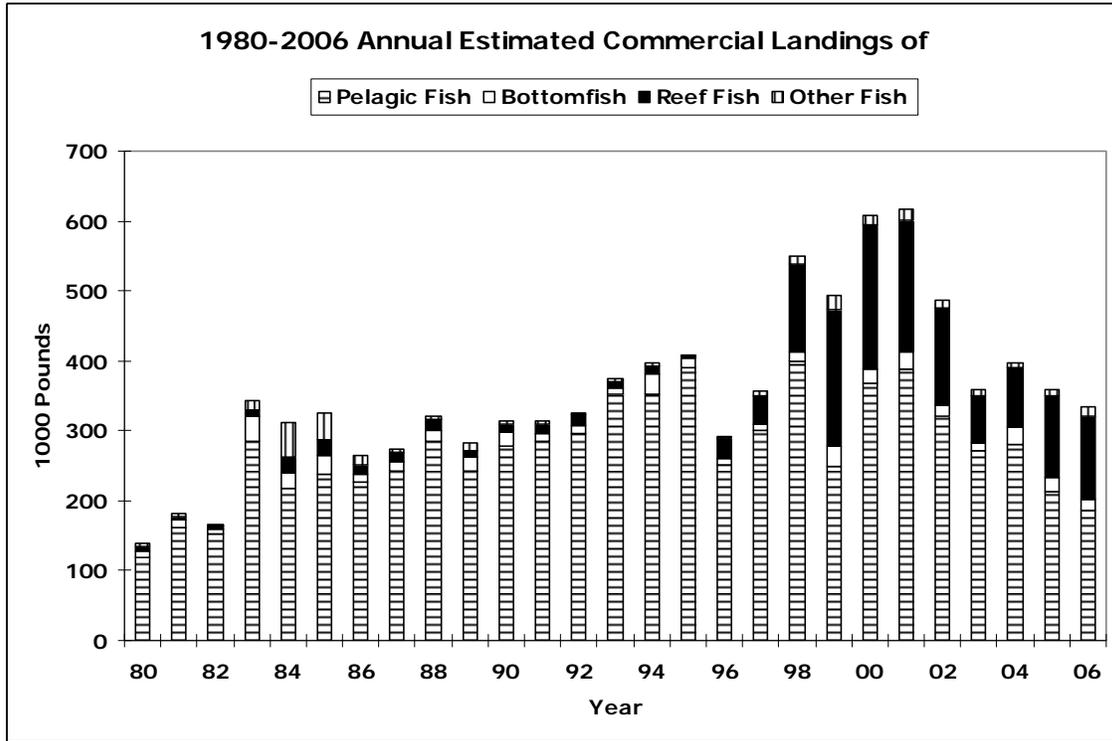


Figure C-3-1

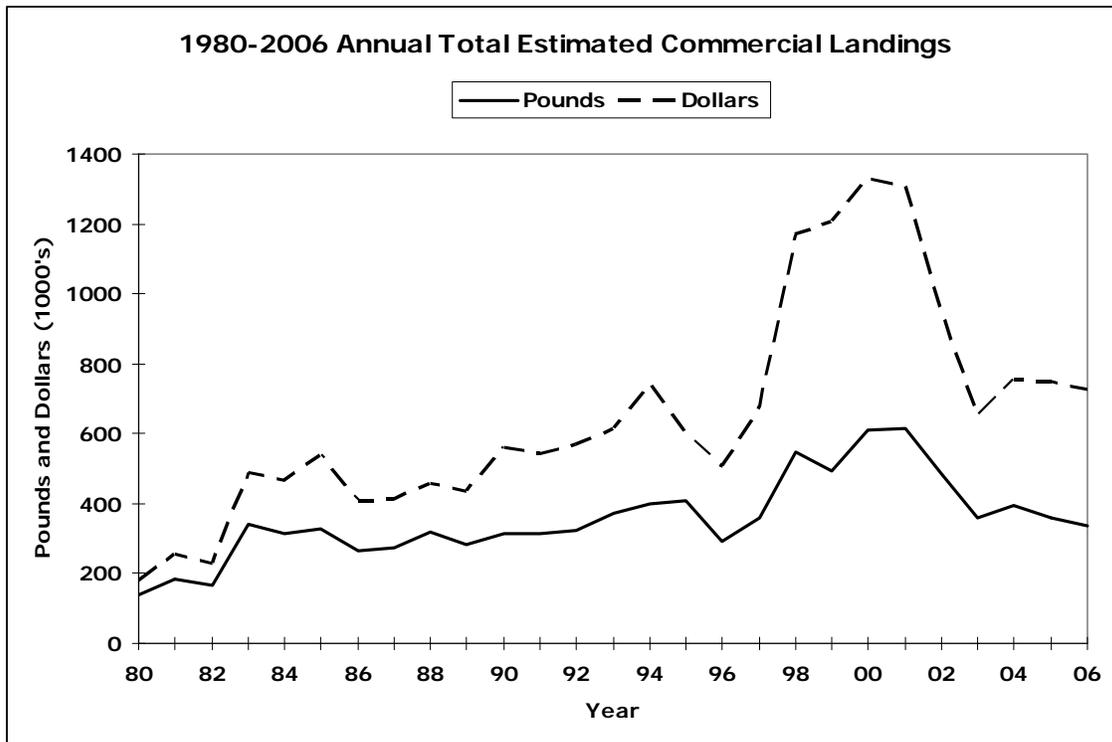


Figure C-3-2

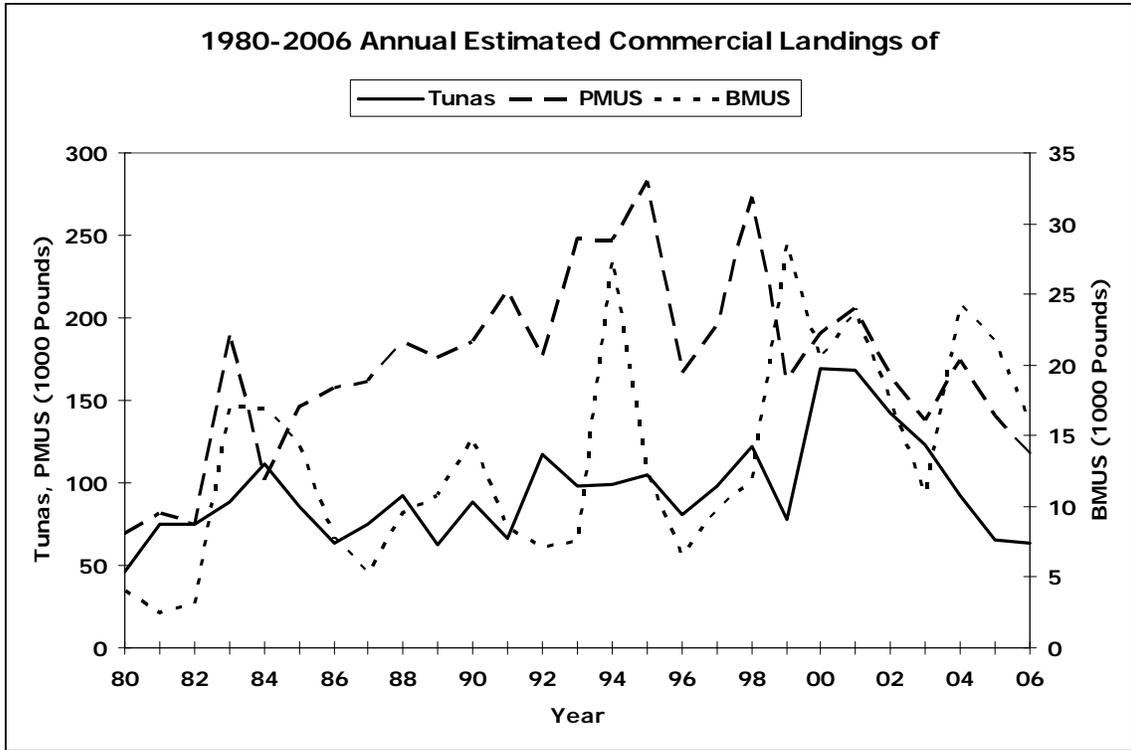


Figure C-3-3

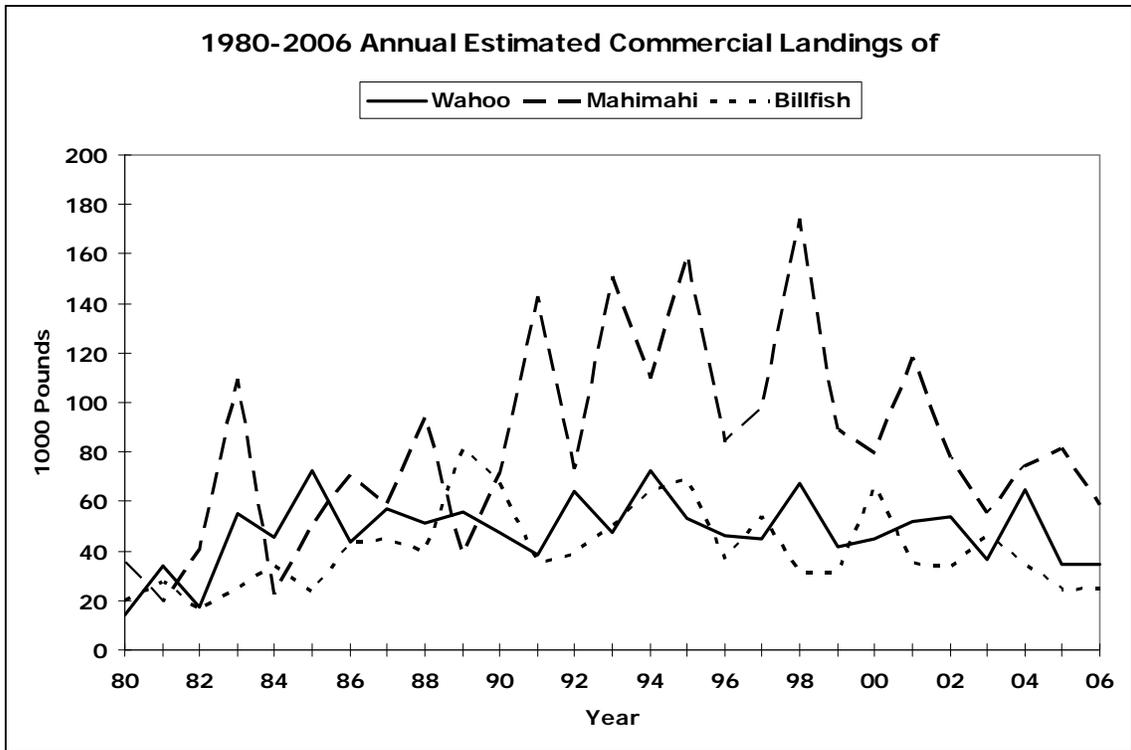


Figure C-3-4

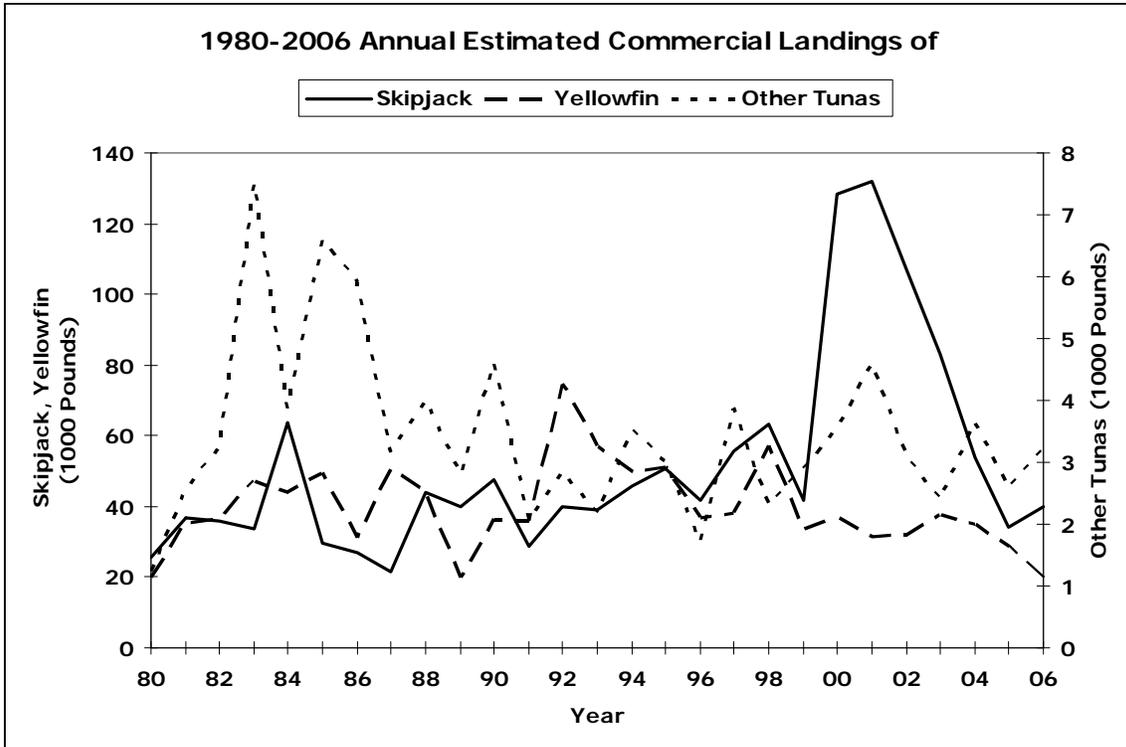


Figure C-3-5

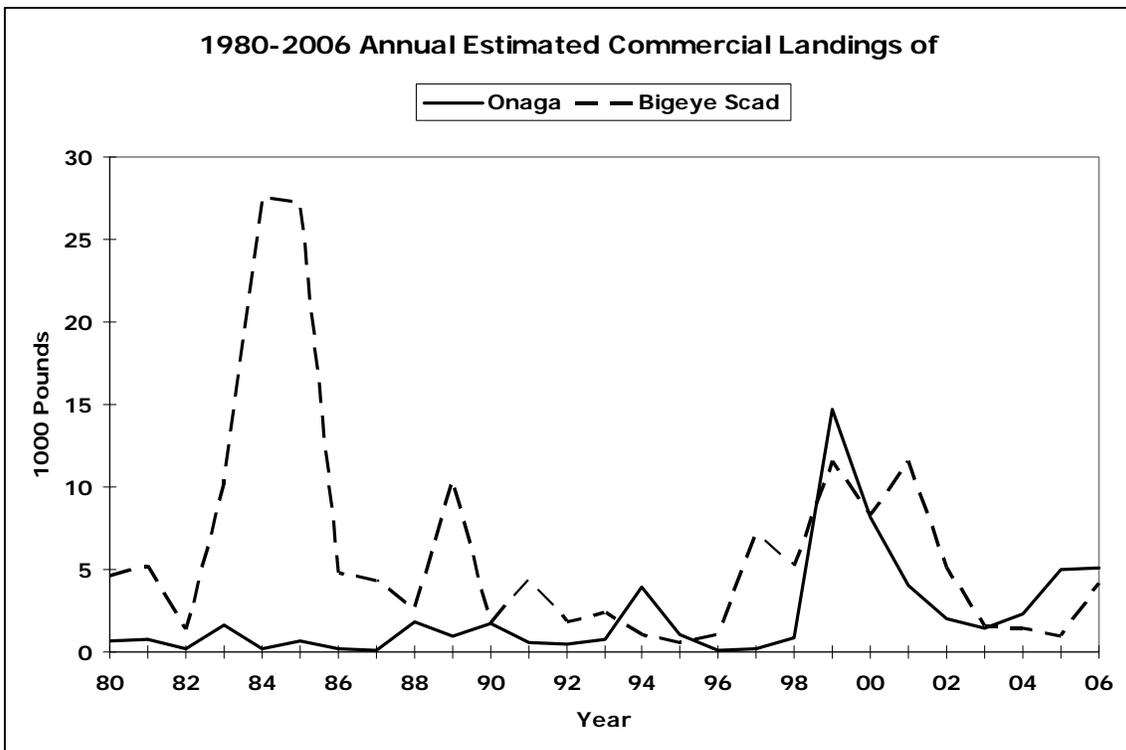


Figure C-3-6

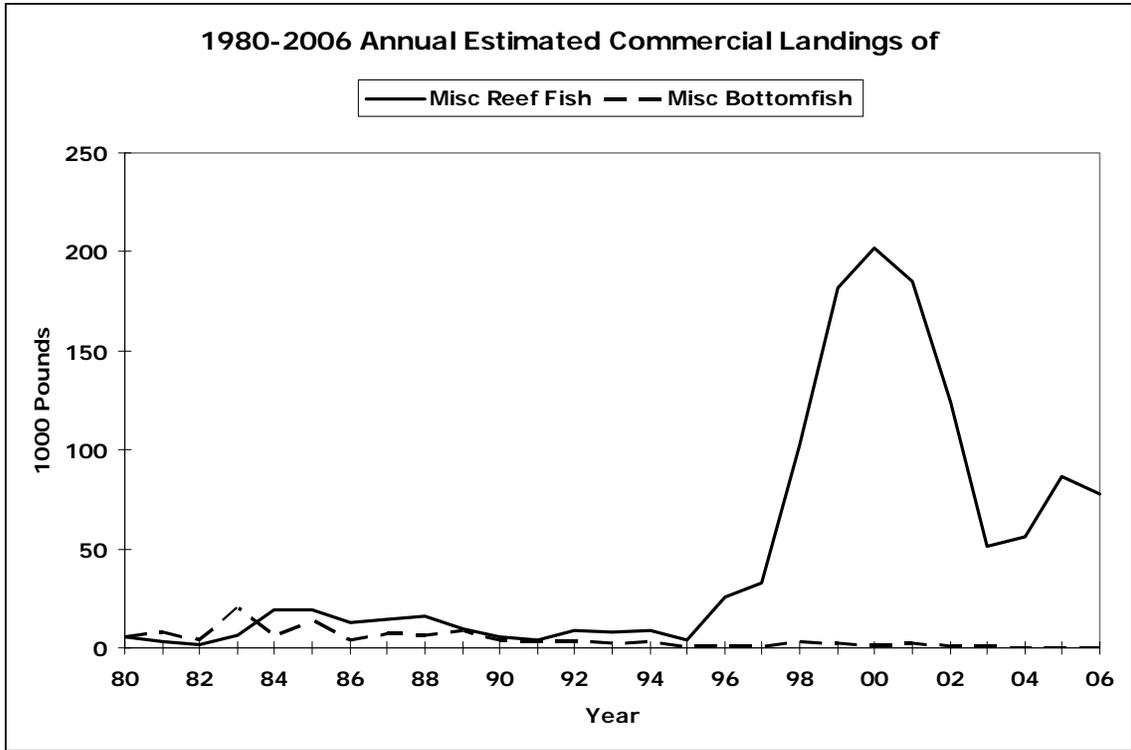


Figure C-3-7

The following graphs plot monthly landings of some commercially important species and document monthly fluctuations over the time series:

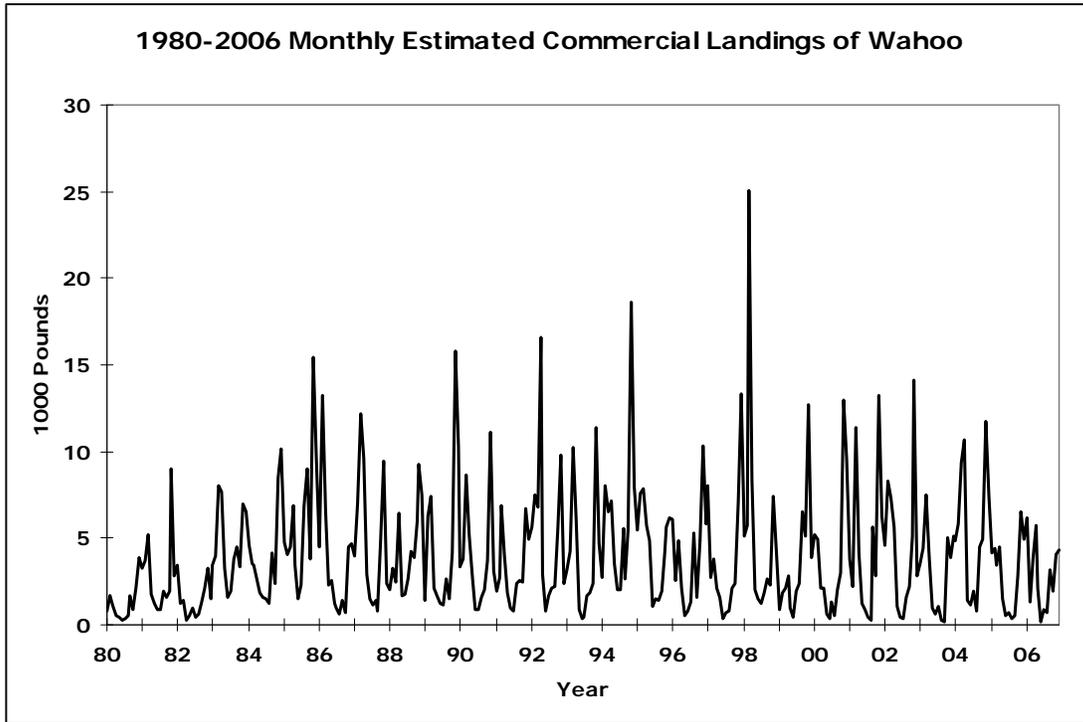


Figure C-4-1

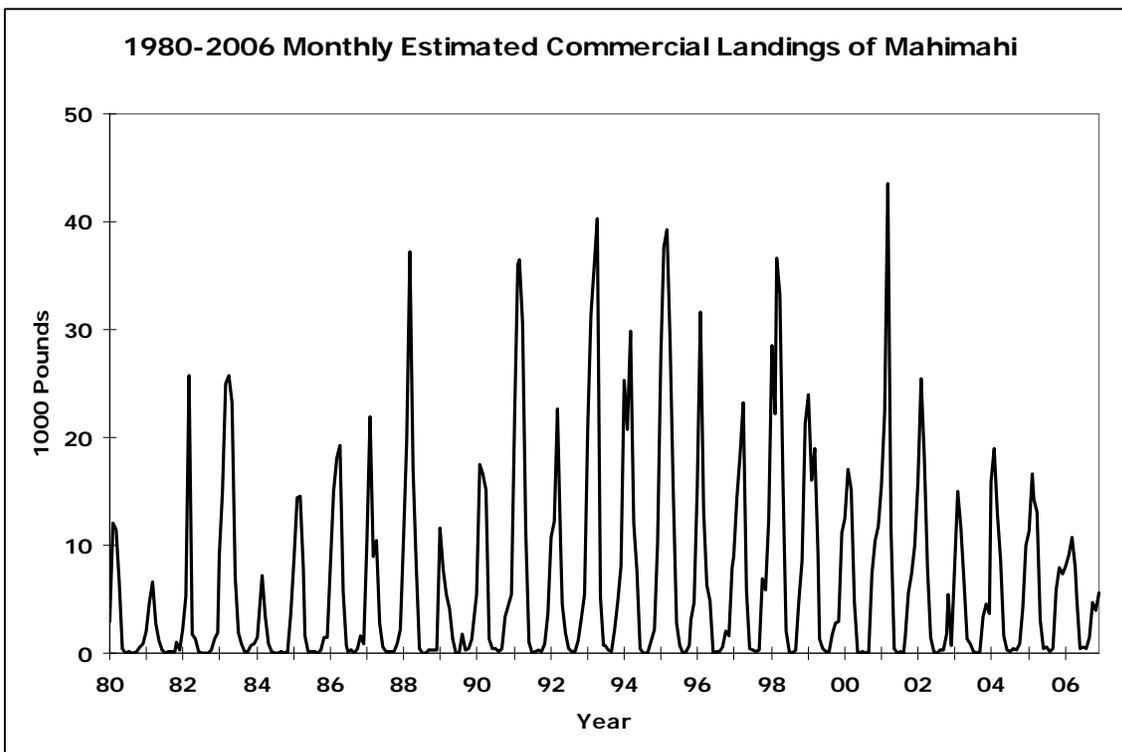


Figure C-4-2

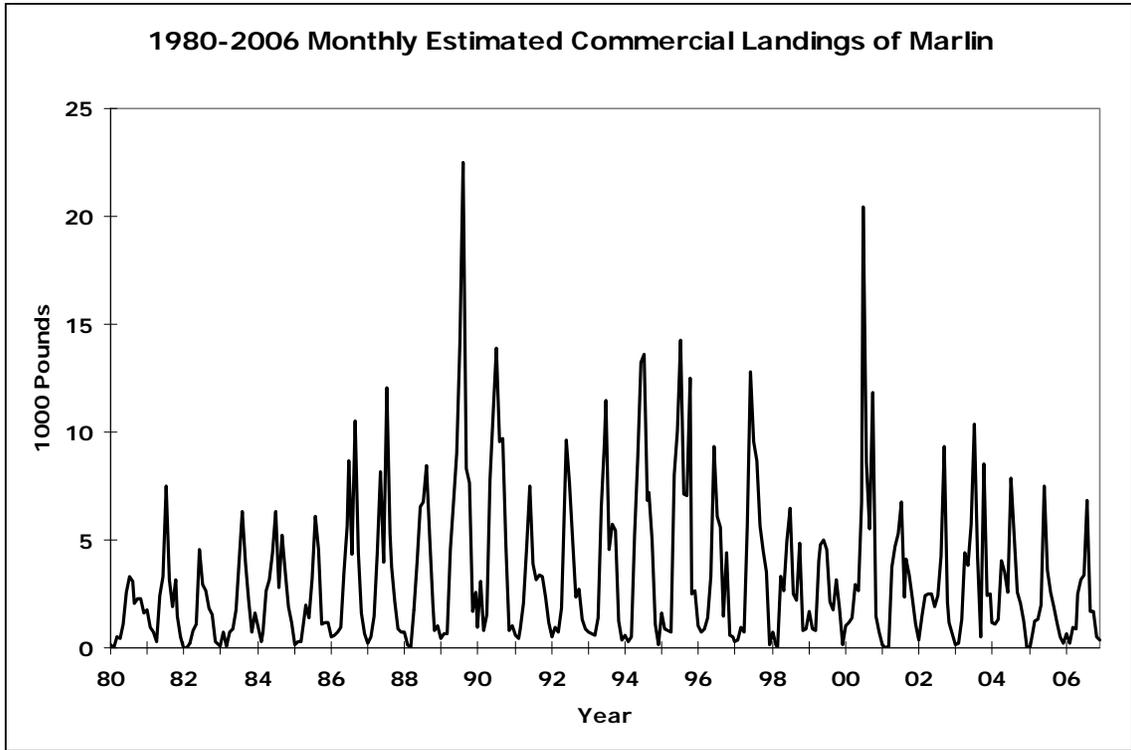


Figure C-4-3

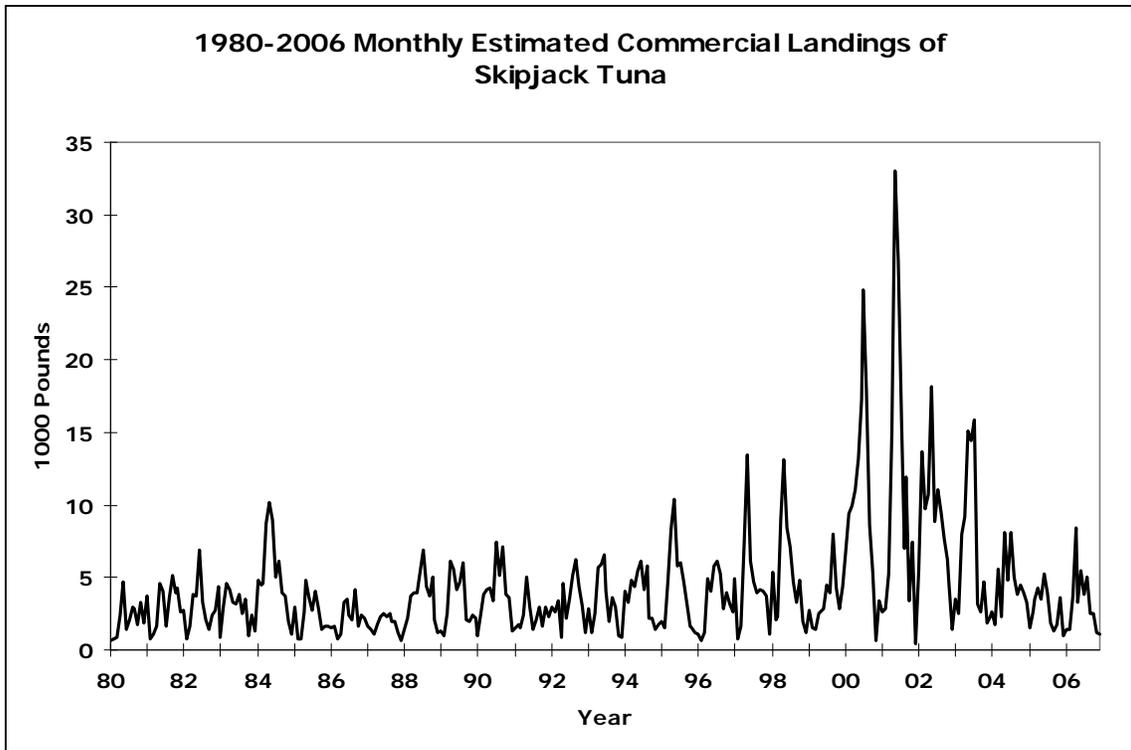


Figure C-4-4

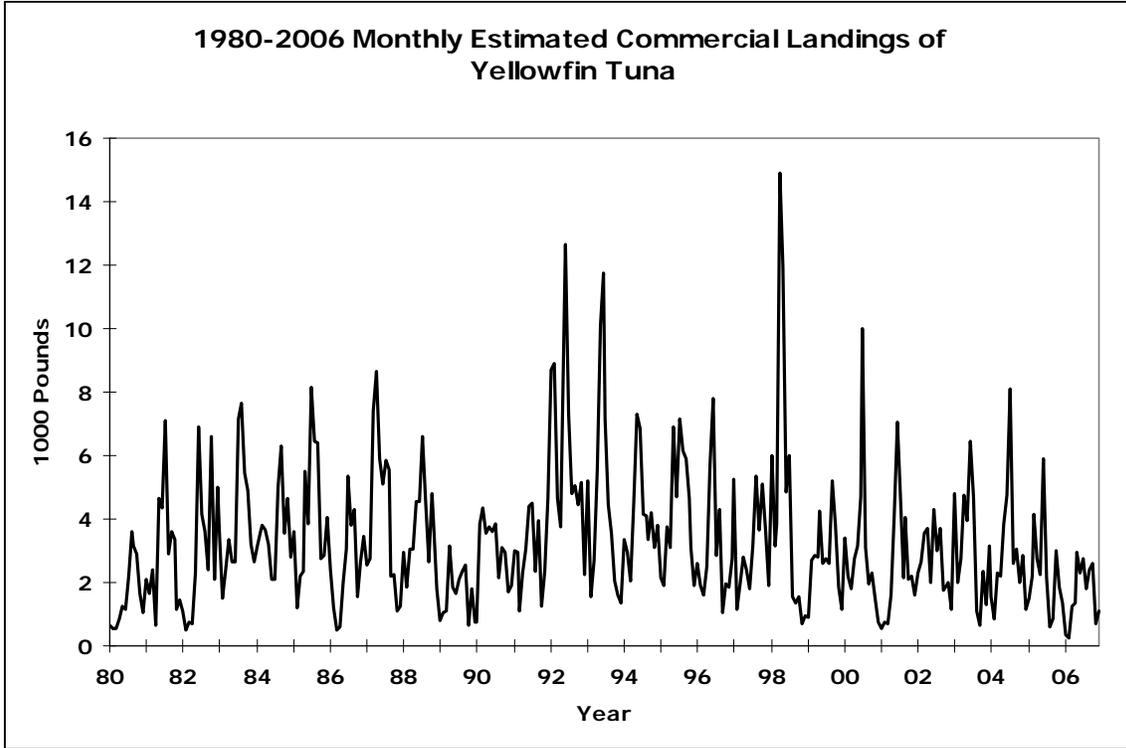


Figure C-4-5

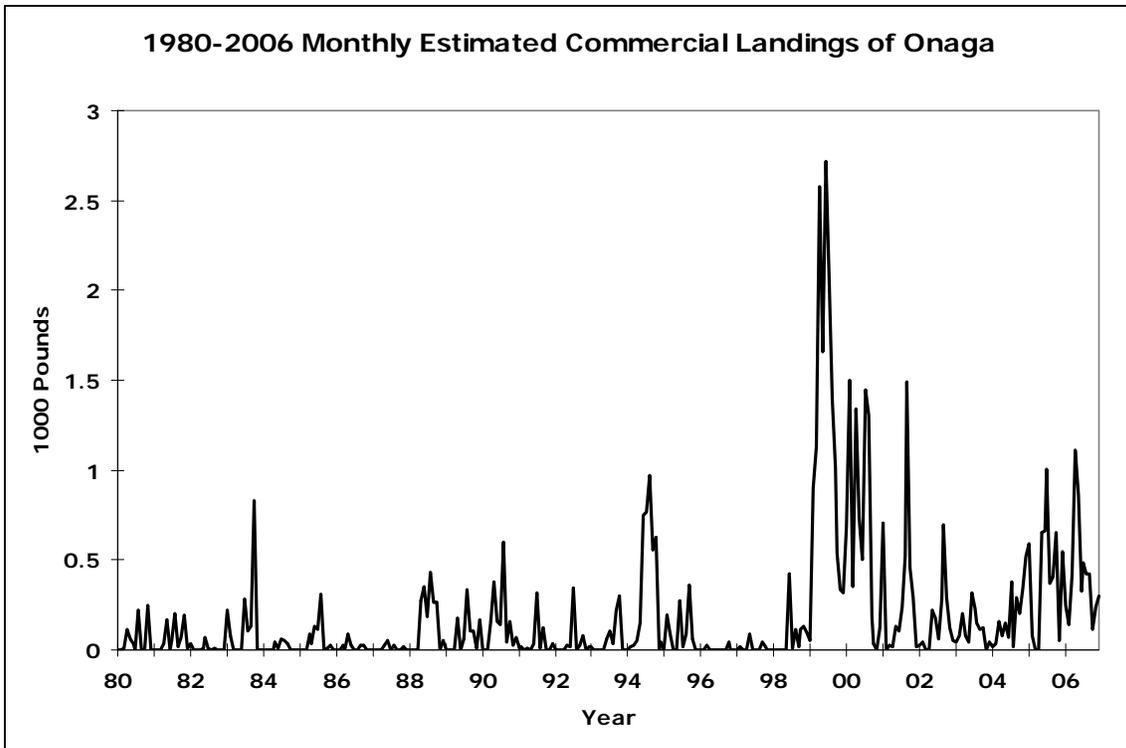


Figure C-4-6

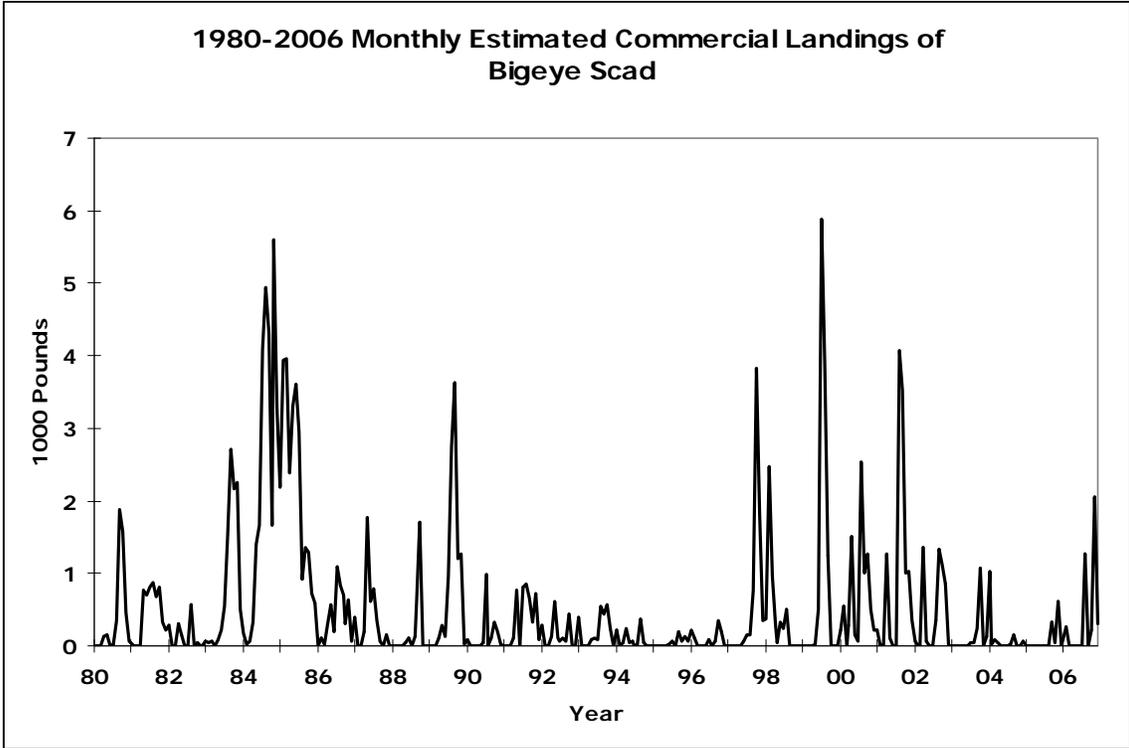


Figure C-4-7

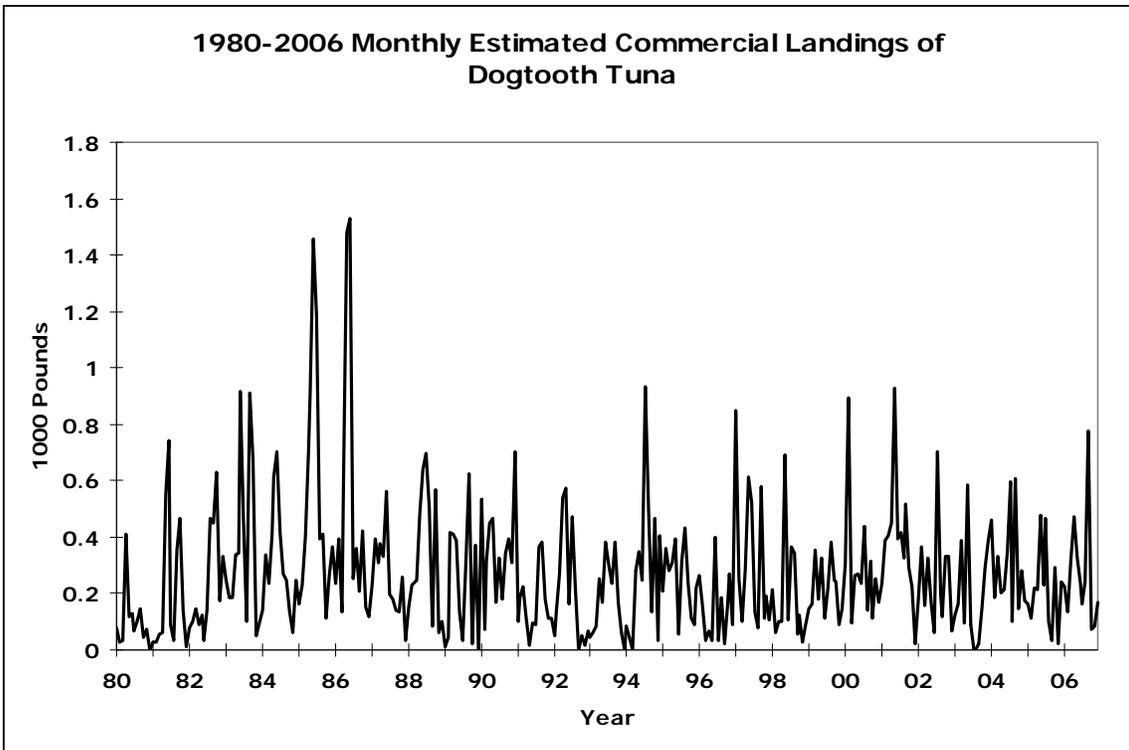


Figure C-4-8

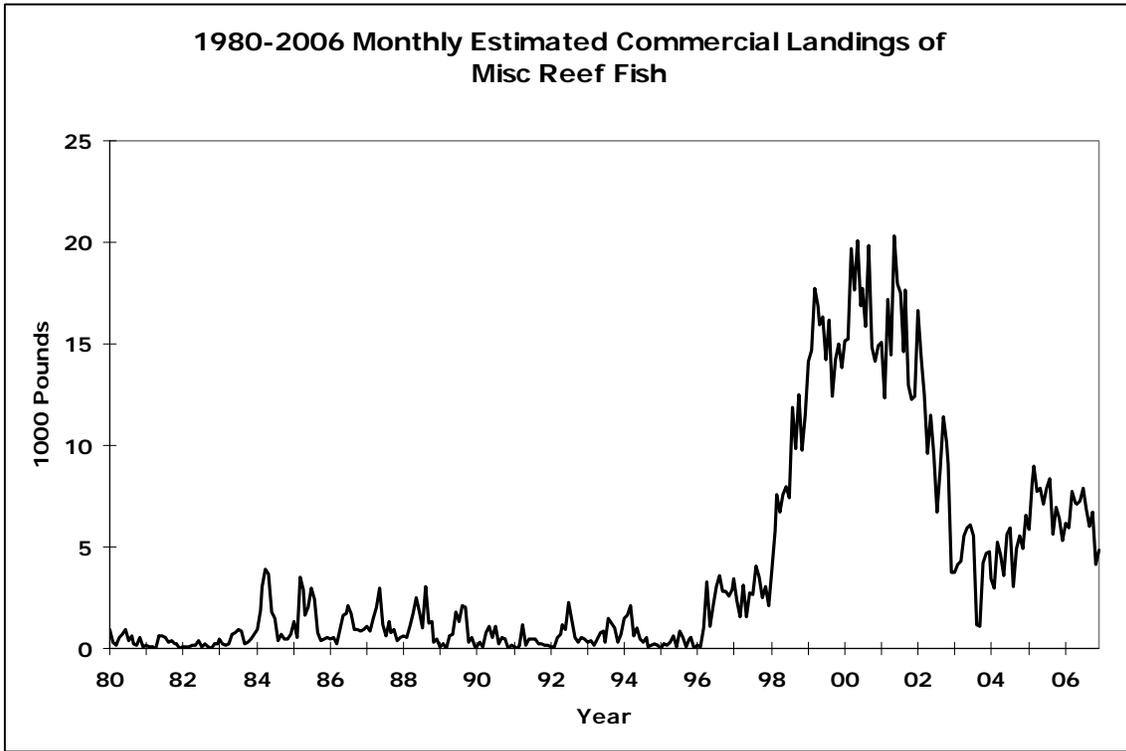


Figure C-4-9

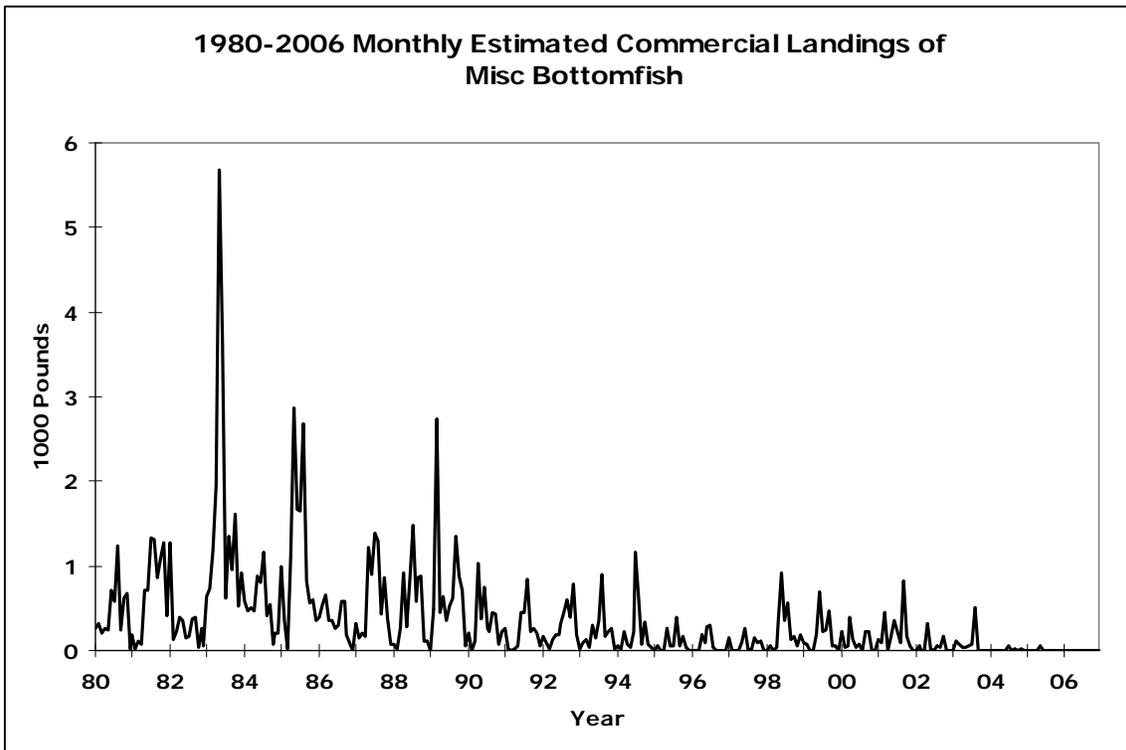


Figure C-4-10