

# **GUAM 2004 FISHERY STATISTICS**

Compiled by

Guam Division of Aquatic and Wildlife Resources

and the

Western Pacific Fishery Information Network

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# GUAM 2004 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:* 171,000 (*The World Factbook*, 2006)

*Economy:* U.S. military and tourism



Guam

source: <http://www.cia.gov/cia/publications/factbook/geos/gq.html>

*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 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.

## COMMERCIAL LANDINGS DATA COLLECTING SYSTEM

There are three sources of fish in Guam’s commercial market: (1) full-time commercial fishermen; (2) part-time commercial fishermen; and (3) subsistence or recreational “expense” fishermen 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.

## C.2

In July 1979 the Guam Fishermen's Coop was established in Agana through government funding. It subsequently became the central distribution center for fresh local fish. Prior to 1979 there was no central place to sell fish, and fishermen had to develop their own markets and peddle fish after each trip.

In 1982, WPacFIN began working with the Coop to improve their invoicing system and to obtain data on all fish purchases. A cooperative system was established whereby the Coop would use forms and coding schemes designed by WPacFIN and would supply copies of all invoices to WPacFIN for computer data entry. In return, WPacFIN would provide the Coop with document quality control and computer-generated summary statistics. All purchase data back to July 1979 were also coded and computerized. As time progressed, 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 fishermen, it has never made it very far through the legislative process, and the commercial landings data collection system remains voluntary.

Data collected on commercial receipts forms include

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

### **COMMERCIAL LANDINGS DATA PROCESSING SYSTEM**

In earlier years 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 practicable, number of pieces is also recorded). Once all the edits, adjustments, verifications, and corrections are made, summary reports are generated. Numerous standard reports are available, but only the monthly and annual landings by species are provided in this document.



## COMMERCIAL LANDINGS DATA REPORTING SYSTEM

After completing all editing, adjusting, and quality control activities for the commercial landings data, monthly and annual summary reports by species are generated. 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. Included with the estimated commercial landings summary reports are graphs of some of the important statistics.

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 groupings of species, species categories, and abbreviations are used in the tables and graphs for Guam's commercial landings:

*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.*

- I. Pelagic Management Unit Species (PMUS)
  - Mahimahi (dolphin)
  - Marlin (probably all blue but possibly striped or black)
  - 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
  - Kalekale (pink snapper)

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### II. Bottomfish Management Unit Species (BMUS) (cont.)

Lehi (silverjaw snapper)  
Onaga (red or longtail snapper)  
Opakapaka (pink snapper)  
Uku (gray snapper)  
Emperor (mafute)

### III. Billfish

Marlin (probably all blue but possibly striped or black)  
Spearfish  
Sailfish

### IV. Tunas

Tunas (unclassified)  
Skipjack tuna  
Yellowfin tuna  
Dogtooth or white tuna  
Kawakawa

### V. Other Tuna

All the above tunas excluding skipjack and yellowfin tunas.

### VI. Fisheries Categories

#### A. Pelagic Species

All PMUS and tuna species plus the following:

Troll fish (unclassified)  
Barracuda  
Rainbow runner

#### B. Bottomfish

Same as the BMUS

## VI. Fisheries Categories (cont.)

## C. Reef Fish

Reef fish (unclassified)	Parrotfish
Giant wrasse	Snapper
Rabbitfish	Surgeonfish
Rudderfish	Unicornfish
Squirrelfish	Goatfish

## D. Other

Miscellaneous (unclassified)	Coconut crab
Bigeye scad	Lobster
Mullet	Shrimp
Eels	Octopus
Milkfish	Squid
Invertebrates (unclassified)	Seaweeds
Crabs (unclassified)	Imported

**INTERPRETATION OF STATISTICS**

The user is reminded again to pay heed to the precautions and assumptions identified earlier in this document when making interpretations of or inferences from data reported in the tables and graphs. Remember also that the commercial landings summaries are adjusted numbers based on samples of fishing activities.

## C.6

**Table C-1**  
**2004 Estimated Commercial Landings**

Species	Pounds	Value	Price/Lb.
Unknown	5	\$9	\$1.75
Miscellaneous	454	\$1,719	\$3.79
Bigeye scad (atulai)	1,412	\$3,284	\$2.33
Black jack	2,073	\$5,005	\$2.41
Jacks	3,320	\$8,422	\$2.54
Sharks	53	\$139	\$2.63
Bottom fish	106	\$283	\$2.65
Ehu (red snapper)	423	\$1,678	\$3.97
Gindai (flower snapper)	376	\$1,503	\$4.00
Grouper	3,503	\$9,877	\$2.82
Kalikali (pink snapper)	467	\$1,639	\$3.51
Lehi (silverjaw)	269	\$966	\$3.59
Onaga (red snapper)	2,262	\$11,204	\$4.95
Opakapaka (pink snapper)	765	\$3,111	\$4.07
Uku (gray snapper)	2,671	\$6,496	\$2.43
Amberjack	738	\$1,946	\$2.64
Reef fish	56,414	\$164,919	\$2.92
Wrasse	2,102	\$5,460	\$2.60
Rabbitfish	287	\$899	\$3.13
Rudderfish (guilli)	15	\$38	\$2.50
Mafute (emperor)	6,541	\$17,325	\$2.65
Parrotfish	1,296	\$2,737	\$2.11
Snapper	813	\$2,049	\$2.52
Surgeonfish	739	\$1,905	\$2.58
Unicornfish	23,590	\$62,272	\$2.64
Goatfish	606	\$1,591	\$2.63
Troll fish	72	\$168	\$2.33
Barracuda	3,846	\$7,269	\$1.89
Mahi/dolphinfish	74,428	\$112,683	\$1.51
Marlin	32,904	\$32,931	\$1.00
Spearfish	194	\$213	\$1.10
Sailfish	1,448	\$1,703	\$1.18
Rainbow runner	10,282	\$15,970	\$1.55
Monchong	558	\$1,209	\$2.17
Wahoo	64,768	\$126,513	\$1.95
Bonita/skipjack tuna	53,720	\$52,874	\$0.98
Dogtooth tuna	3,649	\$4,105	\$1.13
Yellowfin tuna	35,199	\$68,393	\$1.94
Invertebrates	4	\$13	\$3.75
Crabs (misc)	15	\$46	\$3.00
Lobster	1,966	\$7,241	\$3.68
Octopus	2,330	\$5,871	\$2.52
<b>TOTAL</b>	<b>396,683</b>	<b>\$753,678</b>	<b>\$1.90</b>

**Table C-2**  
**January 2004 Estimated Commercial Landings**

Species	Pounds	Value	Price/Lb.
Miscellaneous	16	\$41	\$2.50
Bigeye scad (atulai)	1,035	\$2,382	\$2.30
Jacks	315	\$846	\$2.69
Grouper	152	\$436	\$2.87
Lehi (silverjaw)	2	\$7	\$4.00
Onaga (red snapper)	19	\$97	\$5.00
Opakapaka (pink snapper)	13	\$52	\$4.00
Uku (gray snapper)	13	\$29	\$2.25
Reef fish	3,416	\$10,161	\$2.97
Wrasse	276	\$760	\$2.75
Mafute (emperor)	86	\$221	\$2.56
Parrotfish	61	\$184	\$3.00
Snapper	16	\$44	\$2.64
Unicornfish	1,574	\$3,978	\$2.53
Goatfish	88	\$221	\$2.50
Barracuda	158	\$316	\$2.00
Mahi/dolphinfish	15,870	\$24,168	\$1.52
Marlin	1,194	\$1,543	\$1.29
Sailfish	225	\$289	\$1.28
Rainbow runner	285	\$565	\$1.99
Monchong	51	\$114	\$2.25
Wahoo	4,822	\$9,668	\$2.00
Bonita/skipjack tuna	2,616	\$3,150	\$1.20
Dogtooth tuna	460	\$612	\$1.33
Yellowfin tuna	1,555	\$3,346	\$2.15
Invertebrates	4	\$13	\$3.75
Lobster	18	\$68	\$3.75
Octopus	404	\$1,009	\$2.50
<b>TOTAL</b>	<b>34,745</b>	<b>\$64,321</b>	<b>\$1.85</b>

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**Table C-3**  
**February 2004 Estimated Commercial Landings**

Species	Pounds	Value	Price/Lb.
Bigeye scad (atulai)	15	\$46	\$3.00
Jacks	132	\$331	\$2.51
Ehu (red snapper)	27	\$108	\$4.00
Grouper	20	\$54	\$2.76
Lehi (silverjaw)	58	\$221	\$3.83
Onaga (red snapper)	34	\$171	\$5.00
Opakapaka (pink snapper)	47	\$227	\$4.83
Uku (gray snapper)	2	\$7	\$3.00
Reef fish	2,984	\$8,866	\$2.97
Rabbitfish	7	\$21	\$3.00
Mafute (emperor)	104	\$285	\$2.75
Unicornfish	756	\$2,206	\$2.92
Barracuda	762	\$1,350	\$1.77
Mahi/dolphinfish	18,983	\$28,898	\$1.52
Marlin	1,092	\$1,476	\$1.35
Spearfish	25	\$32	\$1.25
Sailfish	20	\$20	\$1.00
Rainbow runner	388	\$738	\$1.90
Monchong	11	\$25	\$2.25
Wahoo	5,838	\$11,633	\$1.99
Bonita/skipjack tuna	1,762	\$2,191	\$1.24
Dogtooth tuna	186	\$226	\$1.22
Yellowfin tuna	862	\$1,656	\$1.92
Lobster	23	\$86	\$3.73
Octopus	79	\$199	\$2.50
<b>TOTAL</b>	<b>34,219</b>	<b>\$61,072</b>	<b>\$1.78</b>

**Table C-4**  
**March 2004 Estimated Commercial Landings**

Species	Pounds	Value	Price/Lb.
Miscellaneous	418	\$1,627	\$3.89
Bigeye scad (atulai)	82	\$165	\$2.00
Black jack	41	\$107	\$2.60
Jacks	175	\$436	\$2.49
Sharks	22	\$60	\$2.75
Bottom fish	5	\$15	\$2.75
Ehu (red snapper)	2	\$9	\$4.00
Gindai (flower snapper)	51	\$202	\$4.00
Grouper	85	\$256	\$3.00
Kalikali (pink snapper)	6	\$18	\$3.00
Lehi (silverjaw)	52	\$181	\$3.50
Onaga (red snapper)	159	\$794	\$5.00
Uku (gray snapper)	21	\$55	\$2.62
Amberjack	36	\$100	\$2.80
Reef fish	5,265	\$15,092	\$2.87
Wrasse	47	\$129	\$2.75
Mafute (emperor)	165	\$453	\$2.75
Parrotfish	6	\$19	\$3.00
Snapper	26	\$65	\$2.46
Surgeonfish	9	\$21	\$2.25
Unicornfish	2,252	\$6,182	\$2.75
Goatfish	261	\$744	\$2.85
Troll fish	9	\$19	\$2.00
Barracuda	594	\$1,187	\$2.00
Mahi/dolphinfish	12,959	\$19,439	\$1.50
Marlin	1,292	\$1,358	\$1.05
Spearfish	27	\$34	\$1.25
Sailfish	82	\$103	\$1.25
Rainbow runner	284	\$477	\$1.68
Monchong	14	\$30	\$2.25
Wahoo	9,338	\$18,625	\$1.99
Bonita/skipjack tuna	5,577	\$5,454	\$0.98
Dogtooth tuna	331	\$377	\$1.14
Yellowfin tuna	2,288	\$4,592	\$2.01
Lobster	63	\$236	\$3.75
Octopus	47	\$122	\$2.58
<b>TOTAL</b>	<b>42,093</b>	<b>\$78,784</b>	<b>\$1.87</b>

**Table C-5**  
**April 2004 Estimated Commercial Landings**

Species	Pounds	Value	Price/Lb.
Bigeye scad (atulai)	35	\$71	\$2.00
Jacks	238	\$611	\$2.57
Ehu (red snapper)	5	\$19	\$4.00
Gindai (flower snapper)	6	\$24	\$4.00
Grouper	51	\$145	\$2.88
Lehi (silverjaw)	8	\$29	\$3.50
Onaga (red snapper)	79	\$394	\$5.00
Uku (gray snapper)	27	\$69	\$2.57
Reef fish	4,576	\$13,097	\$2.86
Mafute (emperor)	94	\$263	\$2.81
Surgeonfish	33	\$82	\$2.50
Unicornfish	1,975	\$5,361	\$2.71
Barracuda	254	\$508	\$2.00
Mahi/dolphinfish	8,678	\$12,990	\$1.50
Marlin	4,050	\$4,201	\$1.04
Sailfish	35	\$35	\$1.00
Rainbow runner	719	\$1,081	\$1.50
Wahoo	10,676	\$20,802	\$1.95
Bonita/skipjack tuna	2,321	\$2,324	\$1.00
Dogtooth tuna	205	\$238	\$1.16
Yellowfin tuna	2,201	\$4,669	\$2.12
Lobster	58	\$218	\$3.75
Octopus	12	\$34	\$2.74
<b>TOTAL</b>	<b>36,336</b>	<b>\$67,262</b>	<b>\$1.85</b>



**Table C-6**  
**May 2004 Estimated Commercial Landings**

Species	Pounds	Value	Price/Lb.
Jacks	276	\$694	\$2.51
Ehu (red snapper)	3	\$12	\$4.00
Grouper	392	\$1,160	\$2.96
Kalikali (pink snapper)	17	\$51	\$3.00
Lehi (silverjaw)	30	\$105	\$3.50
Onaga (red snapper)	148	\$741	\$5.00
Opakapaka (pink snapper)	26	\$106	\$4.00
Uku (gray snapper)	270	\$729	\$2.70
Amberjack	2	\$7	\$3.00
Reef fish	3,605	\$10,692	\$2.97
Wrasse	51	\$139	\$2.75
Rabbitfish	26	\$78	\$3.00
Mafute (emperor)	925	\$2,541	\$2.75
Snapper	125	\$309	\$2.47
Surgeonfish	98	\$278	\$2.85
Unicornfish	2,376	\$6,354	\$2.67
Troll fish	16	\$32	\$2.00
Barracuda	228	\$456	\$2.00
Mahi/dolphinfish	1,647	\$2,711	\$1.65
Marlin	3,547	\$4,295	\$1.21
Sailfish	55	\$69	\$1.25
Rainbow runner	1,860	\$2,871	\$1.54
Wahoo	1,451	\$3,145	\$2.17
Bonita/skipjack tuna	8,041	\$7,796	\$0.97
Dogtooth tuna	211	\$255	\$1.21
Yellowfin tuna	3,849	\$7,599	\$1.97
Lobster	113	\$417	\$3.68
Octopus	36	\$91	\$2.50
<b>TOTAL</b>	<b>29,424</b>	<b>\$53,733</b>	<b>\$1.83</b>

**Table C-7**  
**June 2004 Estimated Commercial Landings**

Species	Pounds	Value	Price/Lb.
Black jack	206	\$517	\$2.51
Jacks	228	\$573	\$2.51
Ehu (red snapper)	50	\$200	\$4.00
Gindai (flower snapper)	16	\$66	\$4.00
Grouper	219	\$649	\$2.96
Kalikali (pink snapper)	10	\$30	\$3.00
Lehi (silverjaw)	28	\$99	\$3.50
Onaga (red snapper)	69	\$344	\$5.00
Opakapaka (pink snapper)	34	\$136	\$4.00
Uku (gray snapper)	260	\$639	\$2.46
Amberjack	14	\$42	\$3.00
Reef fish	5,645	\$16,257	\$2.88
Wrasse	31	\$78	\$2.50
Rabbitfish	94	\$471	\$5.00
Mafute (emperor)	1,452	\$3,871	\$2.67
Parrotfish	948	\$1,974	\$2.08
Snapper	190	\$479	\$2.52
Surgeonfish	189	\$503	\$2.66
Unicornfish	2,059	\$5,240	\$2.54
Barracuda	239	\$470	\$1.97
Mahi/dolphinfish	294	\$480	\$1.63
Marlin	2,599	\$2,778	\$1.07
Rainbow runner	1,461	\$2,191	\$1.50
Monchong	12	\$29	\$2.50
Wahoo	1,161	\$2,269	\$1.95
Bonita/skipjack tuna	4,772	\$4,311	\$0.90
Dogtooth tuna	349	\$409	\$1.17
Yellowfin tuna	4,749	\$9,087	\$1.91
Lobster	171	\$642	\$3.75
Octopus	103	\$266	\$2.58
<b>TOTAL</b>	<b>27,654</b>	<b>\$55,101</b>	<b>\$1.99</b>

**Table C-8**  
**July 2004 Estimated Commercial Landings**

Species	Pounds	Value	Price/Lb.
Bigeye scad (atulai)	6	\$16	\$2.75
Black jack	774	\$1,819	\$2.35
Jacks	488	\$1,243	\$2.55
Sharks	5	\$13	\$2.75
Bottom fish	59	\$147	\$2.47
Ehu (red snapper)	121	\$485	\$4.00
Gindai (flower snap)	128	\$510	\$4.00
Grouper	1,086	\$3,021	\$2.78
Kalikali (pink snapper)	184	\$555	\$3.02
Lehi (silverjaw)	7	\$25	\$3.50
Onaga (red snapper)	378	\$1,888	\$5.00
Opakapaka (pink snapper)	86	\$344	\$4.00
Uku (gray snapper)	741	\$1,787	\$2.41
Amberjack	215	\$503	\$2.33
Reef fish	5,949	\$17,377	\$2.92
Wrasse	185	\$508	\$2.75
Rabbitfish	99	\$168	\$1.70
Mafute (emperor)	1,710	\$4,523	\$2.65
Snapper	206	\$528	\$2.57
Unicornfish	2,584	\$6,457	\$2.50
Goatfish	6	\$17	\$3.00
Barracuda	254	\$507	\$2.00
Mahi/dolphinfish	121	\$205	\$1.69
Marlin	7,901	\$7,183	\$0.91
Sailfish	224	\$321	\$1.44
Rainbow runner	2,381	\$3,569	\$1.50
Monchong	246	\$503	\$2.04
Wahoo	1,949	\$3,885	\$1.99
Bonita/skipjack tuna	8,078	\$7,127	\$0.88
Dogtooth tuna	595	\$635	\$1.07
Yellowfin tuna	8,084	\$14,707	\$1.82
Lobster	252	\$933	\$3.71
Octopus	129	\$324	\$2.50
<b>TOTAL</b>	<b>45,228</b>	<b>\$81,832</b>	<b>\$1.81</b>

**Table C-9**  
**August 2004 Estimated Commercial Landings**

<u>Species</u>	<u>Pounds</u>	<u>Value</u>	<u>Price/Lb.</u>
Bigeye scad (atulai)	11	\$25	\$2.25
Black jack	29	\$70	\$2.38
Jacks	155	\$389	\$2.52
Ehu (red snapper)	2	\$9	\$4.00
Gindai (flower snapper)	8	\$31	\$4.00
Grouper	209	\$519	\$2.48
Kalikali (pink snapper)	11	\$32	\$3.00
Onaga (red snapper)	20	\$100	\$5.00
Opakapaka (pink snapper)	14	\$54	\$4.00
Uku (gray snapper)	88	\$208	\$2.38
Reef fish	3,069	\$9,086	\$2.96
Wrasse	400	\$1,023	\$2.56
Mafute (emperor)	53	\$142	\$2.68
Snapper	35	\$84	\$2.38
Surgeonfish	45	\$134	\$3.00
Unicornfish	1,088	\$2,984	\$2.74
Barracuda	166	\$333	\$2.00
Mahi/dolphinfish	383	\$585	\$1.53
Marlin	5,207	\$4,133	\$0.79
Rainbow runner	381	\$572	\$1.50
Wahoo	796	\$1,635	\$2.05
Bonita/skipjack tuna	4,991	\$4,768	\$0.96
Dogtooth tuna	100	\$100	\$1.00
Yellowfin tuna	2,616	\$4,815	\$1.84
Lobster	158	\$591	\$3.75
Octopus	271	\$678	\$2.50
<b>TOTAL</b>	<b>20,307</b>	<b>\$33,101</b>	<b>\$1.63</b>

**Table C-10**  
**September 2004 Estimated Commercial Landings**

Species	Pounds	Value	Price/Lb.
Miscellaneous	7	\$18	\$2.50
Bigeye scad (atulai)	149	\$383	\$2.56
Black jack	711	\$1,760	\$2.47
Jacks	703	\$1,813	\$2.58
Sharks	14	\$34	\$2.50
Bottom fish	23	\$49	\$2.13
Ehu (red snapper)	96	\$372	\$3.86
Gindai (flower snapper)	85	\$341	\$4.00
Grouper	763	\$2,167	\$2.84
Kalikali (pink snapper)	36	\$108	\$3.00
Lehi (silverjaw)	25	\$91	\$3.60
Onaga (red snapper)	291	\$1,453	\$5.00
Opakapaka (pink snapper)	214	\$833	\$3.90
Uku (gray snapper)	879	\$2,129	\$2.42
Amberjack	253	\$599	\$2.37
Reef fish	4,905	\$14,520	\$2.96
Wrasse	476	\$1,184	\$2.49
Rabbitfish	37	\$111	\$3.00
Mafute (emperor)	1,405	\$3,625	\$2.58
Parrotfish	280	\$560	\$2.00
Snapper	119	\$315	\$2.65
Surgeonfish	135	\$317	\$2.34
Unicornfish	4,140	\$10,953	\$2.65
Troll fish	47	\$118	\$2.50
Barracuda	213	\$416	\$1.95
Mahi/dolphinfish	344	\$567	\$1.65
Marlin	2,598	\$2,592	\$1.00
Sailfish	141	\$163	\$1.16
Rainbow runner	1,401	\$2,101	\$1.50
Monchong	101	\$226	\$2.25
Wahoo	4,522	\$9,050	\$2.00
Bonita/skipjack tuna	3,808	\$3,720	\$0.98
Dogtooth tuna	608	\$626	\$1.03
Yellowfin tuna	3,035	\$5,885	\$1.94
Crabs (misc)	6	\$19	\$3.00
Lobster	458	\$1,724	\$3.77
Octopus	206	\$533	\$2.59
<b>TOTAL</b>	<b>33,233</b>	<b>\$71,473</b>	<b>\$2.15</b>

**Table C-11**  
**October 2004 Estimated Commercial Landings**

Species	Pounds	Value	Price/Lb.
Bigeye scad (atulai)	9	\$26	\$2.75
Black jack	108	\$257	\$2.39
Jacks	302	\$715	\$2.37
Bottom fish	5	\$19	\$3.50
Ehu (red snapper)	41	\$165	\$4.00
Gindai (flower snapper)	73	\$292	\$4.00
Grouper	329	\$907	\$2.75
Kalikali (pink snapper)	48	\$143	\$3.00
Lehi (silverjaw)	28	\$102	\$3.60
Onaga (red snapper)	205	\$1,024	\$5.00
Opakapaka (pink snapper)	195	\$779	\$4.00
Uku (gray snapper)	233	\$522	\$2.24
Amberjack	15	\$42	\$2.77
Reef fish	5,531	\$16,284	\$2.94
Wrasse	362	\$928	\$2.56
Rudderfish (guilli)	15	\$38	\$2.50
Mafute (emperor)	116	\$307	\$2.65
Snapper	20	\$55	\$2.75
Surgeonfish	76	\$177	\$2.33
Unicornfish	1,589	\$4,136	\$2.60
Goatfish	32	\$81	\$2.50
Barracuda	268	\$514	\$1.92
Mahi/dolphinfish	915	\$1,558	\$1.70
Marlin	2,062	\$1,864	\$0.90
Sailfish	381	\$325	\$0.85
Rainbow runner	325	\$544	\$1.67
Wahoo	4,936	\$9,385	\$1.90
Bonita/skipjack tuna	4,478	\$4,414	\$0.99
Dogtooth tuna	149	\$149	\$1.00
Yellowfin tuna	1,977	\$4,214	\$2.13
Lobster	286	\$1,012	\$3.54
Octopus	142	\$356	\$2.50
<b>TOTAL</b>	<b>25,253</b>	<b>\$51,331</b>	<b>\$2.03</b>

**Table C-12**  
**November 2004 Estimated Commercial Landings**

Species	Pounds	Value	Price/Lb.
Unknown	5	\$9	\$1.75
Miscellaneous	12	\$34	\$2.71
Black jack	204	\$474	\$2.33
Jacks	184	\$479	\$2.61
Sharks	13	\$32	\$2.50
Bottom fish	14	\$54	\$4.00
Ehu (red snapper)	33	\$132	\$4.00
Gindai (flower snapper)	9	\$38	\$4.00
Grouper	197	\$562	\$2.85
Kalikali (pink snapper)	156	\$703	\$4.51
Lehi (silverjaw)	31	\$107	\$3.50
Onaga (red snapper)	341	\$1,706	\$5.00
Opakapaka (pink snapper)	99	\$392	\$3.96
Uku (gray snapper)	136	\$320	\$2.34
Amberjack	202	\$653	\$3.23
Reef fish	4,939	\$14,398	\$2.92
Wrasse	236	\$626	\$2.65
Rabbitfish	22	\$45	\$2.00
Mafute (emperor)	358	\$920	\$2.57
Snapper	54	\$123	\$2.29
Surgeonfish	88	\$229	\$2.60
Unicornfish	1,950	\$5,134	\$2.63
Goatfish	149	\$372	\$2.50
Barracuda	289	\$551	\$1.91
Mahi/dolphinfish	4,245	\$6,230	\$1.47
Marlin	1,261	\$1,346	\$1.07
Spearfish	87	\$87	\$1.00
Sailfish	241	\$334	\$1.38
Rainbow runner	509	\$782	\$1.53
Monchong	54	\$120	\$2.25
Wahoo	11,754	\$21,885	\$1.86
Bonita/skipjack tuna	3,953	\$4,195	\$1.06
Dogtooth tuna	281	\$287	\$1.02
Yellowfin tuna	2,831	\$5,470	\$1.93
Crabs (misc)	9	\$26	\$3.00
Lobster	236	\$877	\$3.72
Octopus	409	\$1,026	\$2.51
<b>TOTAL</b>	<b>35,592</b>	<b>\$70,759</b>	<b>\$1.99</b>

**Table C-13**  
**December 2004 Estimated Commercial Landings**

Species	Pounds	Value	Price/Lb.
Bigeye scad (atulai)	68	\$171	\$2.50
Jacks	125	\$293	\$2.34
Ehu (red snapper)	42	\$167	\$4.00
Onaga (red snapper)	520	\$2,492	\$4.79
Opakapaka (pink snapper)	38	\$188	\$5.00
Reef fish	6,529	\$19,089	\$2.92
Wrasse	37	\$83	\$2.25
Rabbitfish	2	\$5	\$3.00
Mafute (emperor)	75	\$175	\$2.32
Snapper	21	\$48	\$2.25
Surgeonfish	66	\$165	\$2.50
Unicornfish	1,247	\$3,287	\$2.64
Goatfish	69	\$156	\$2.25
Barracuda	422	\$661	\$1.57
Mahi/dolphinfish	9,988	\$14,853	\$1.49
Marlin	101	\$161	\$1.60
Spearfish	55	\$61	\$1.11
Sailfish	44	\$44	\$1.00
Rainbow runner	288	\$480	\$1.67
Monchong	71	\$160	\$2.25
Wahoo	7,523	\$14,530	\$1.93
Bonita/skipjack tuna	3,323	\$3,425	\$1.03
Dogtooth tuna	175	\$192	\$1.10
Yellowfin tuna	1,152	\$2,353	\$2.04
Lobster	130	\$436	\$3.36
Octopus	490	\$1,235	\$2.52
<b>TOTAL</b>	<b>32,600</b>	<b>\$64,909</b>	<b>\$1.99</b>



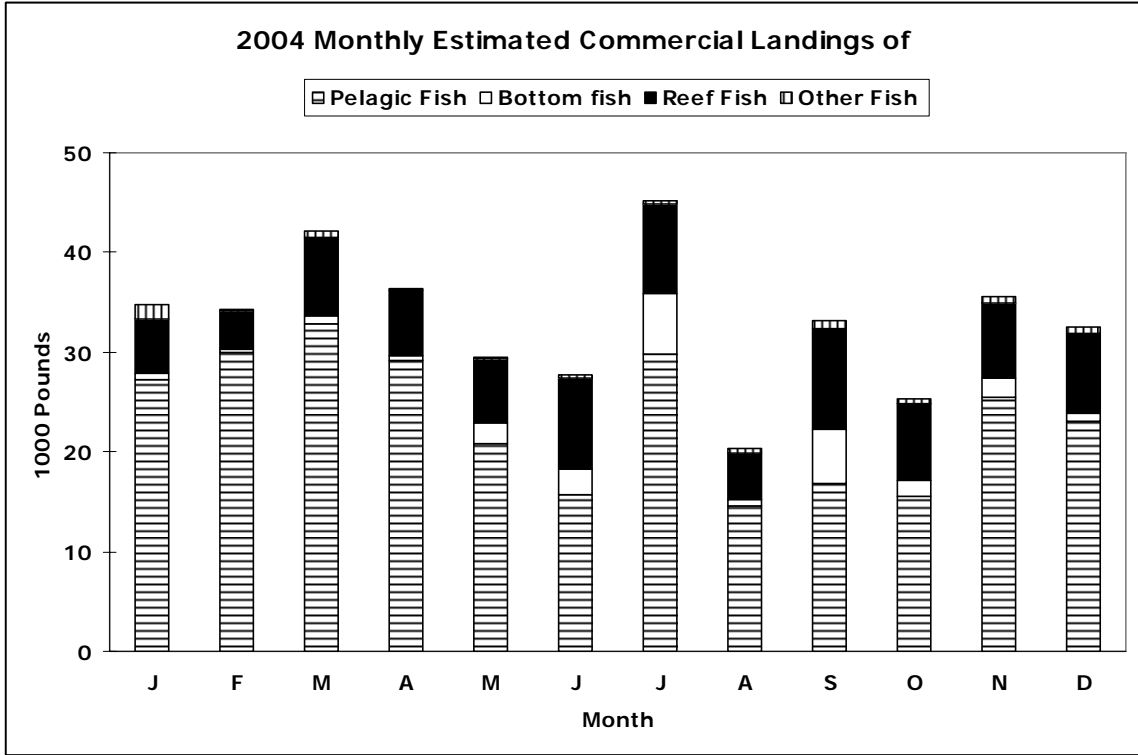


Figure C-1-1

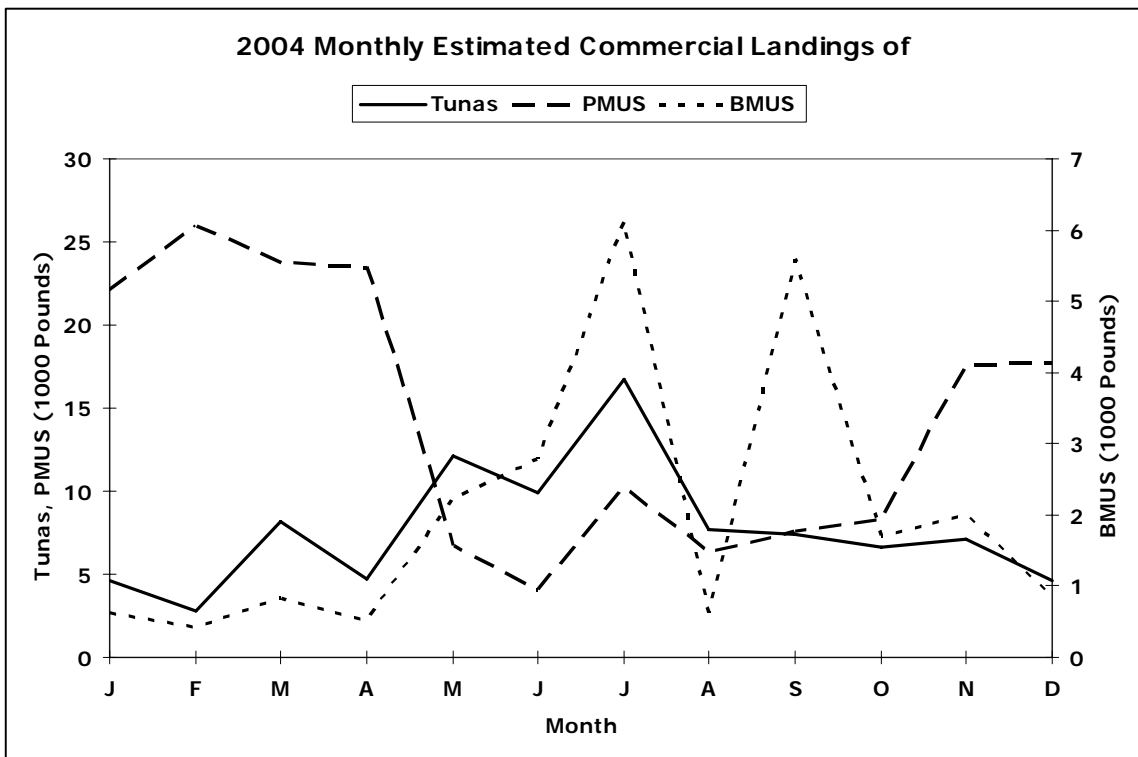


Figure C-1-2

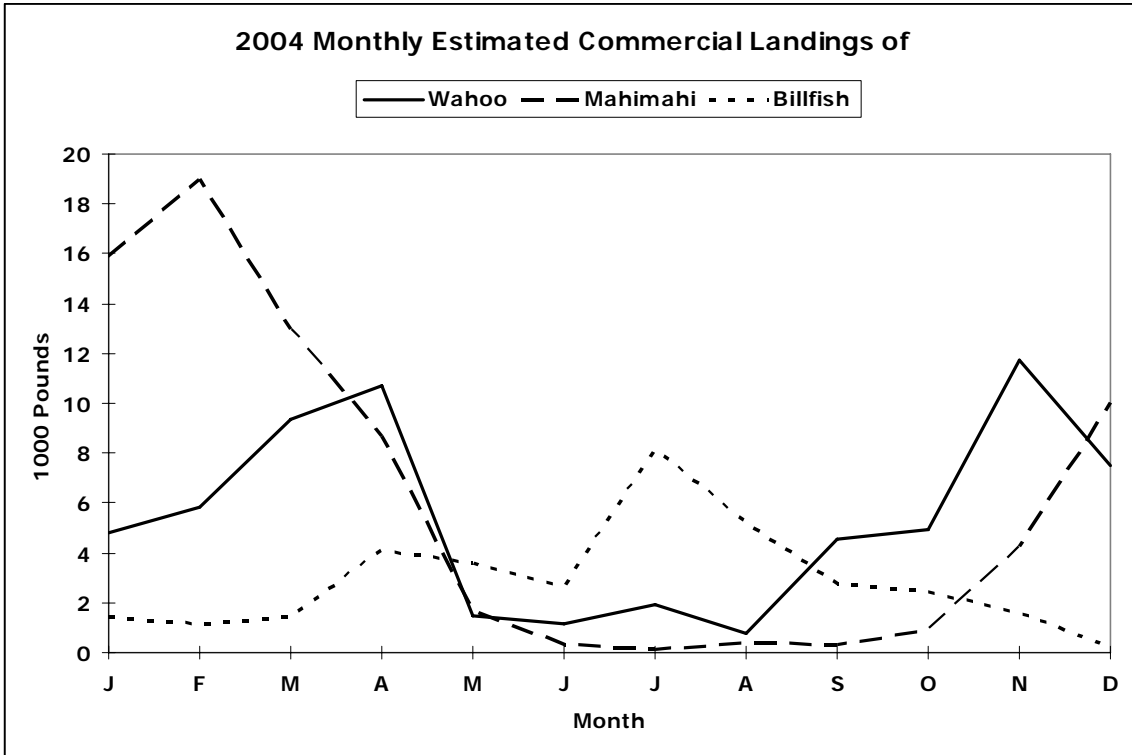


Figure C-1-3

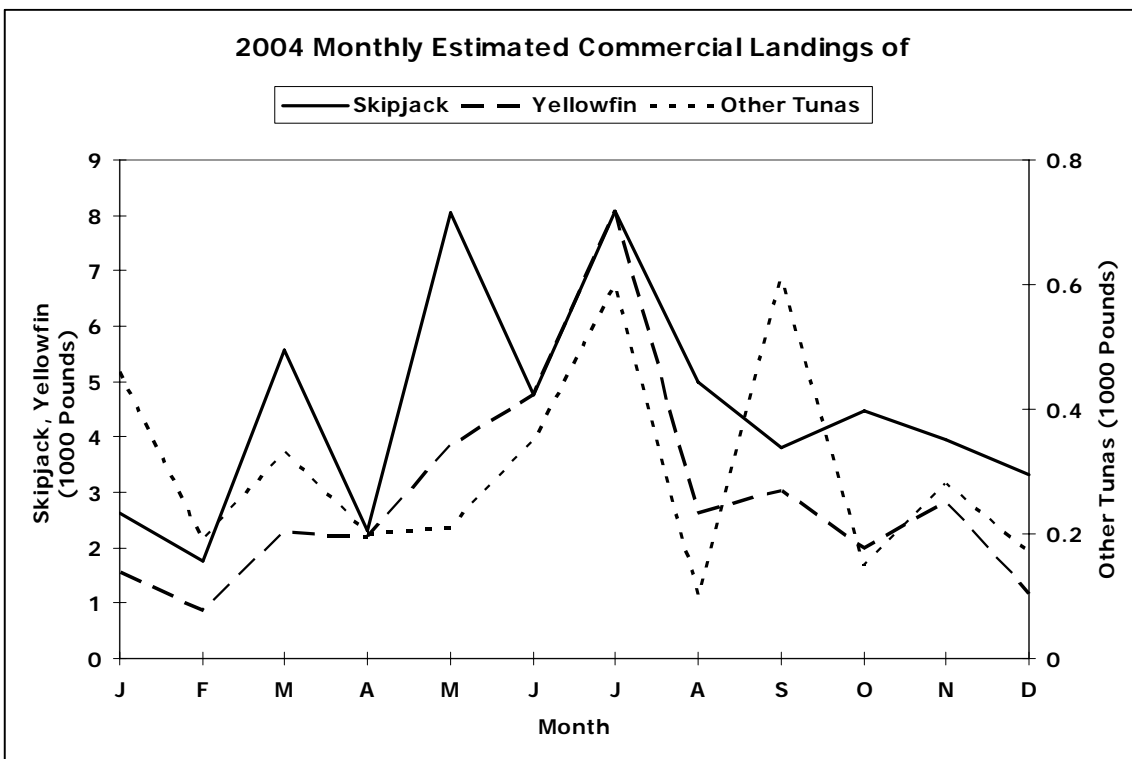


Figure C-1-4

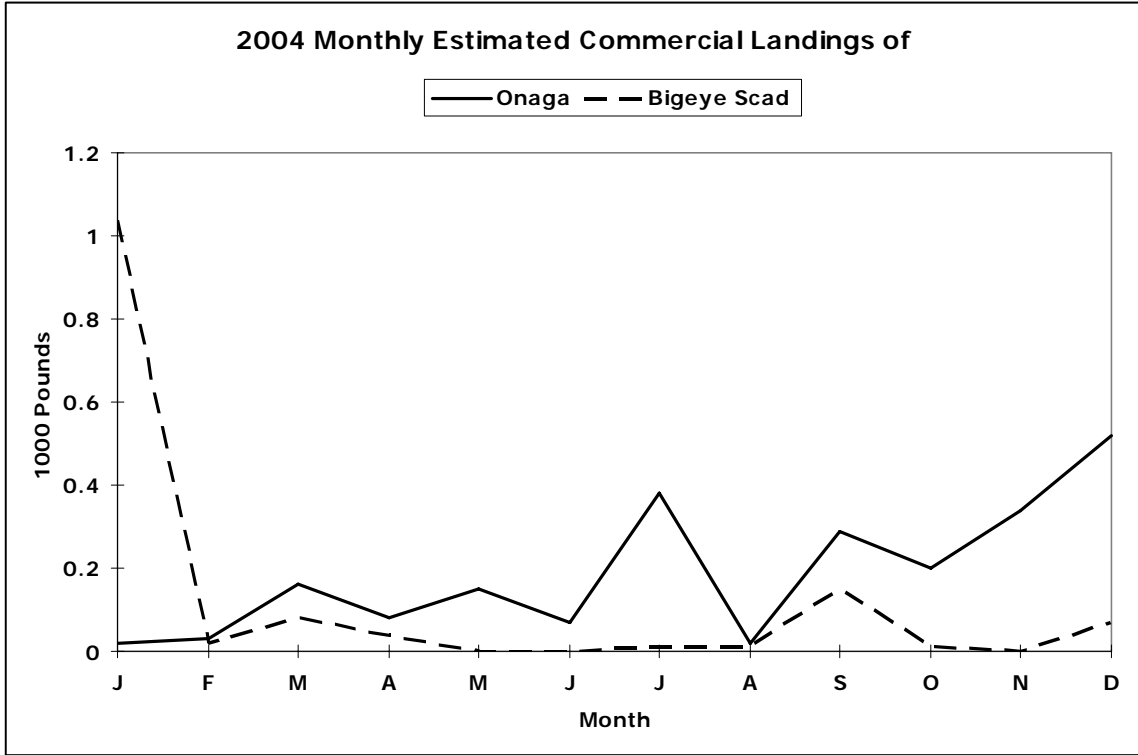


Figure C-1-5

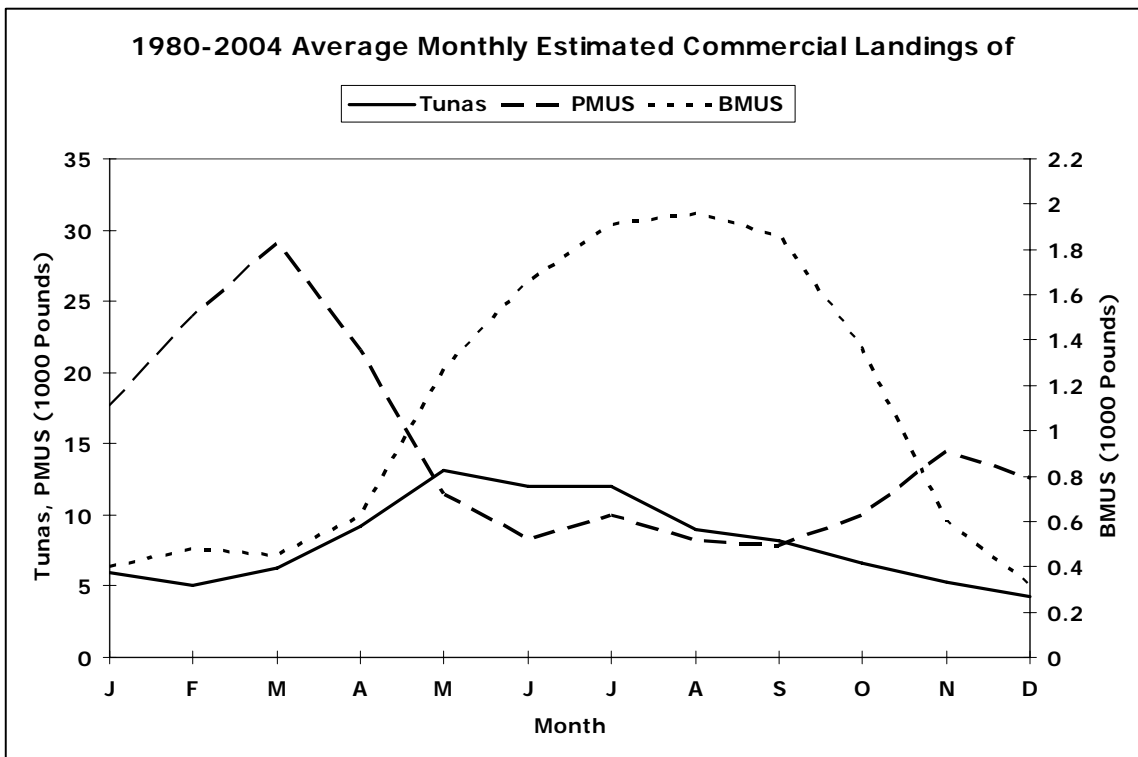


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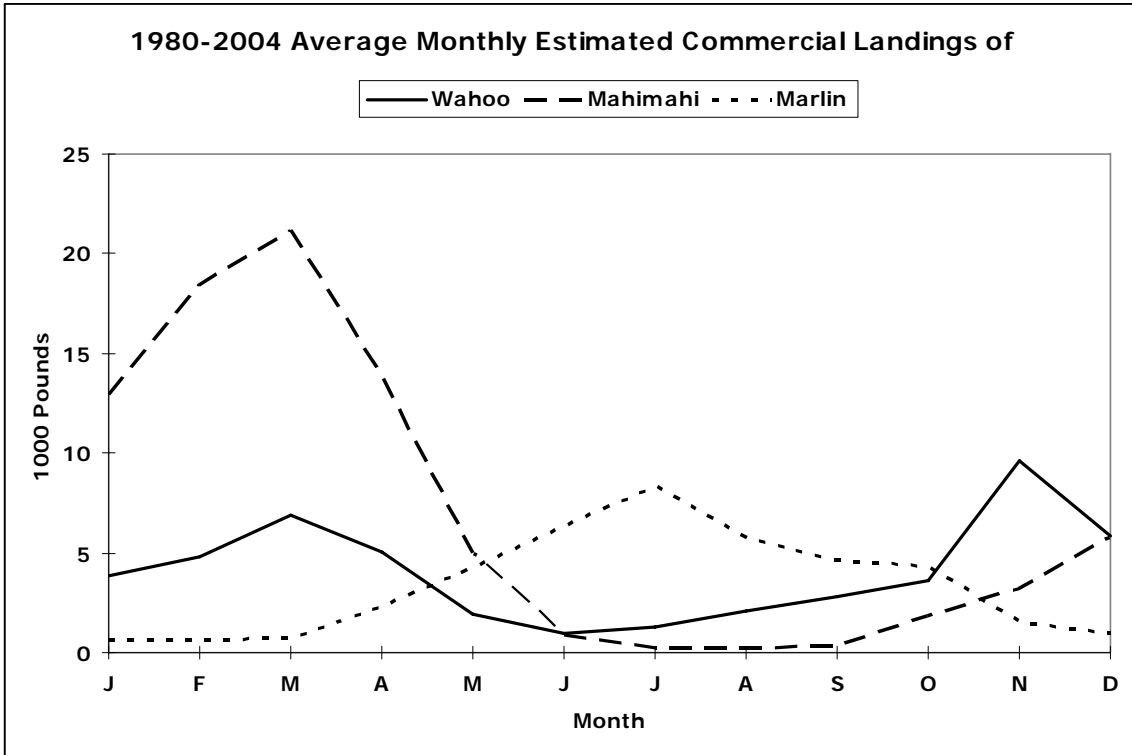


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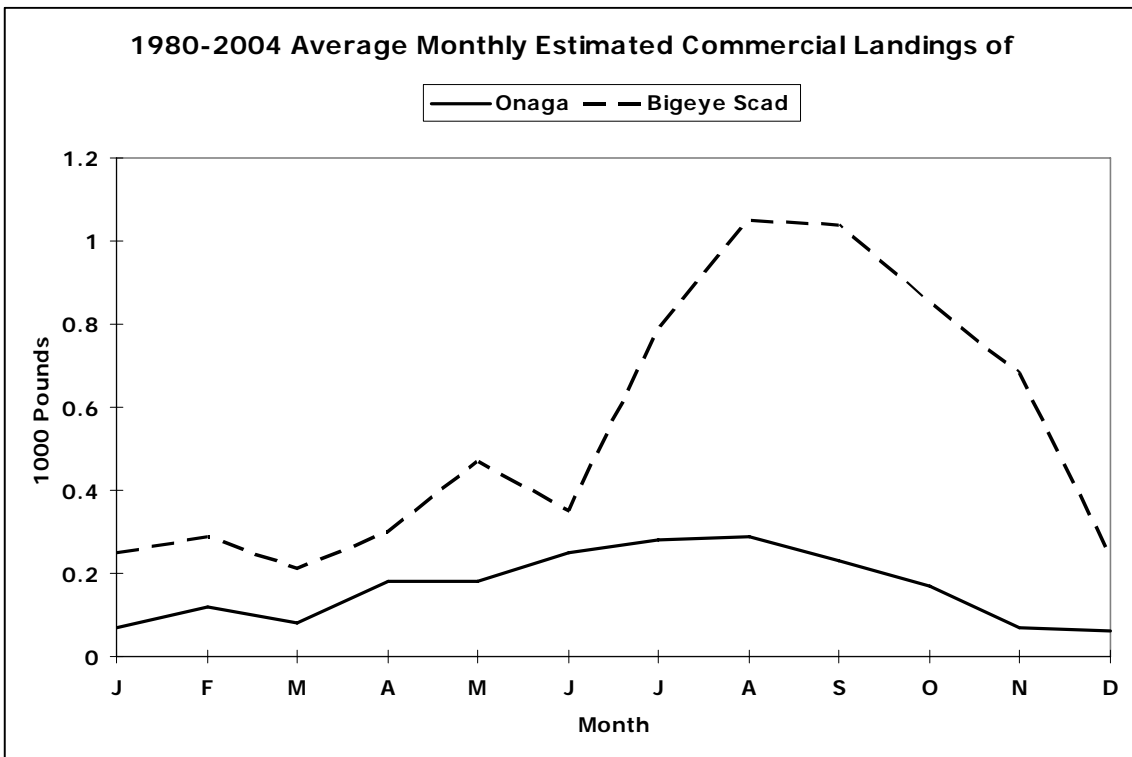


Figure C-2-3

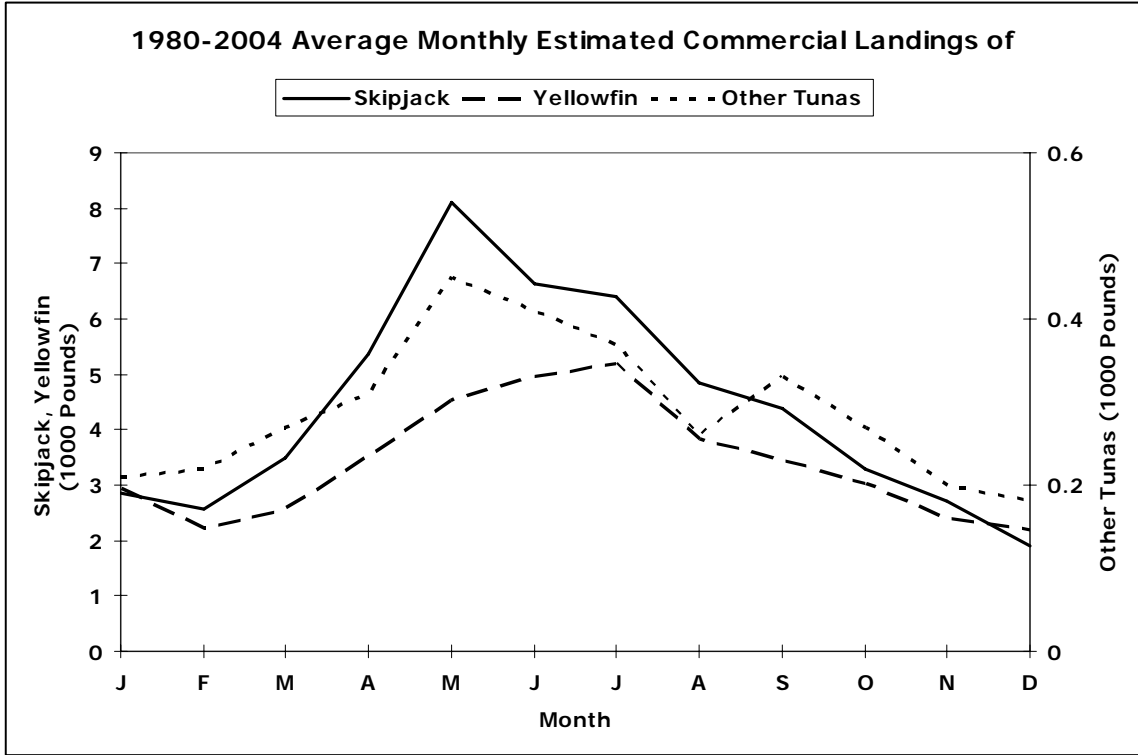


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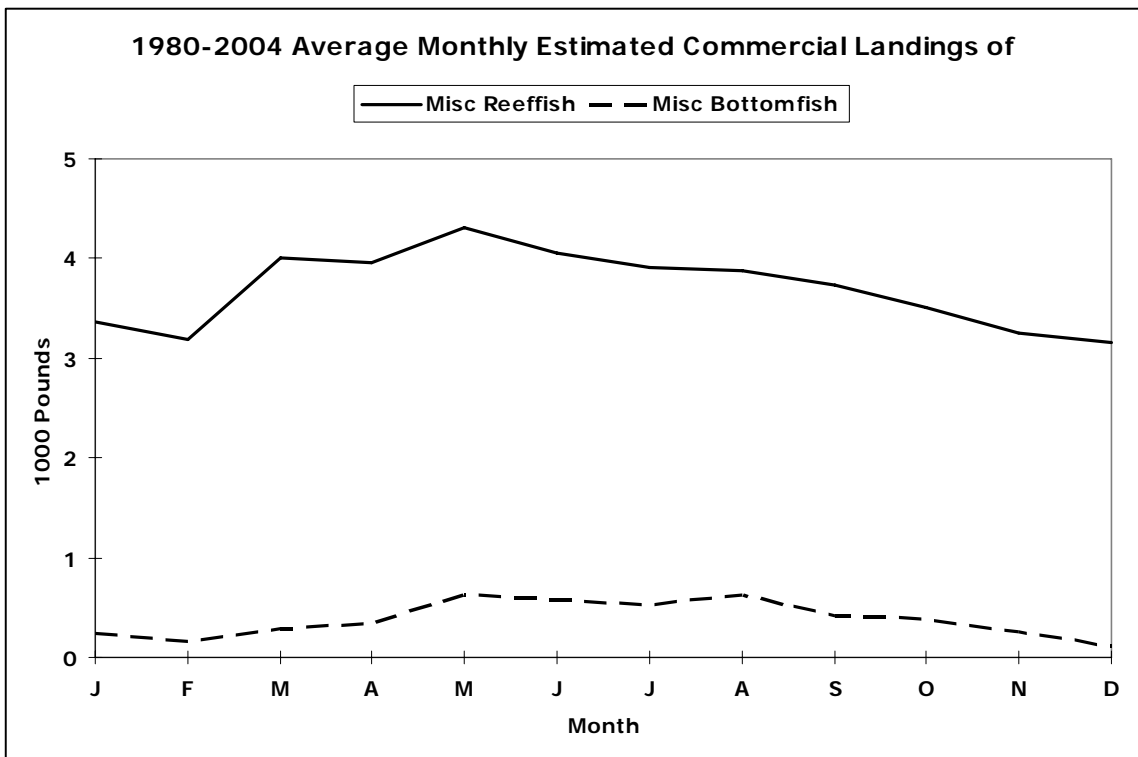


Figure C-2-5

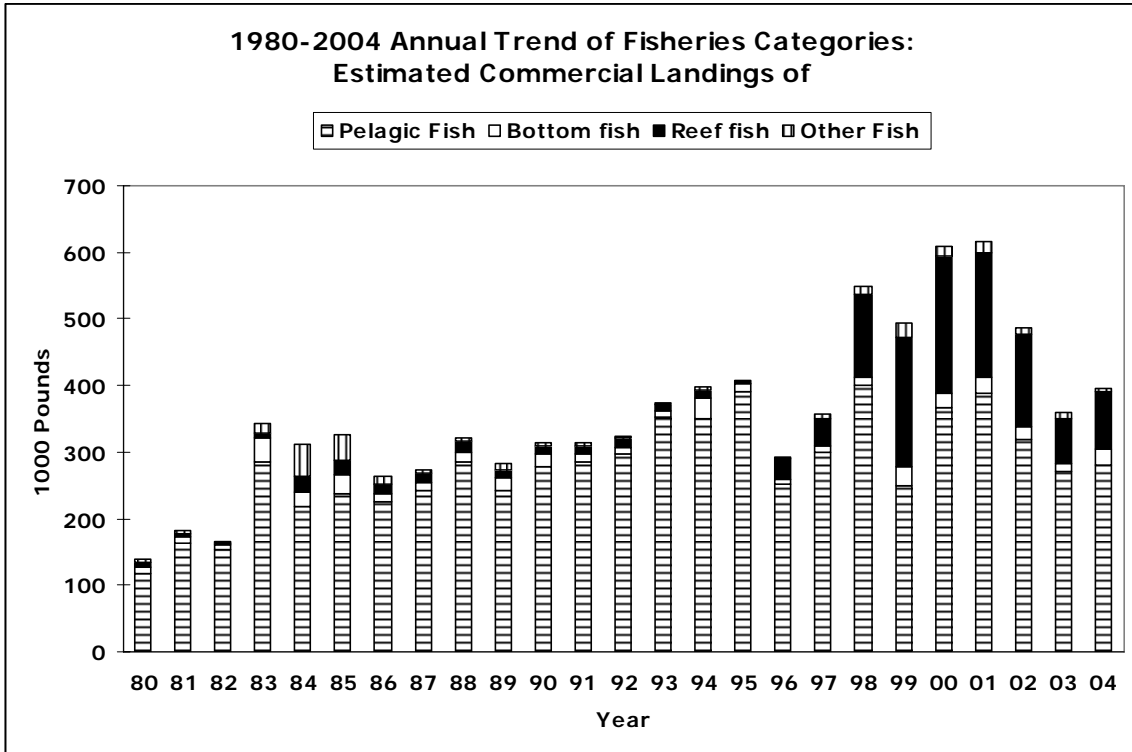


Figure C-3-1

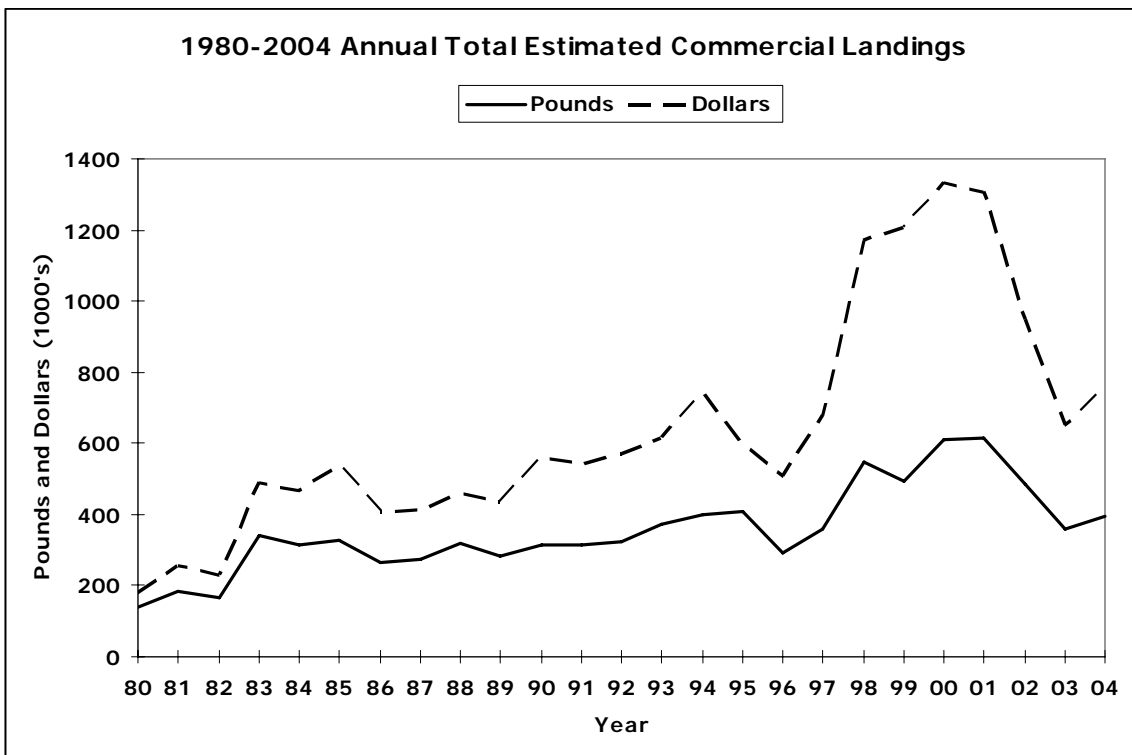


Figure C-3-2

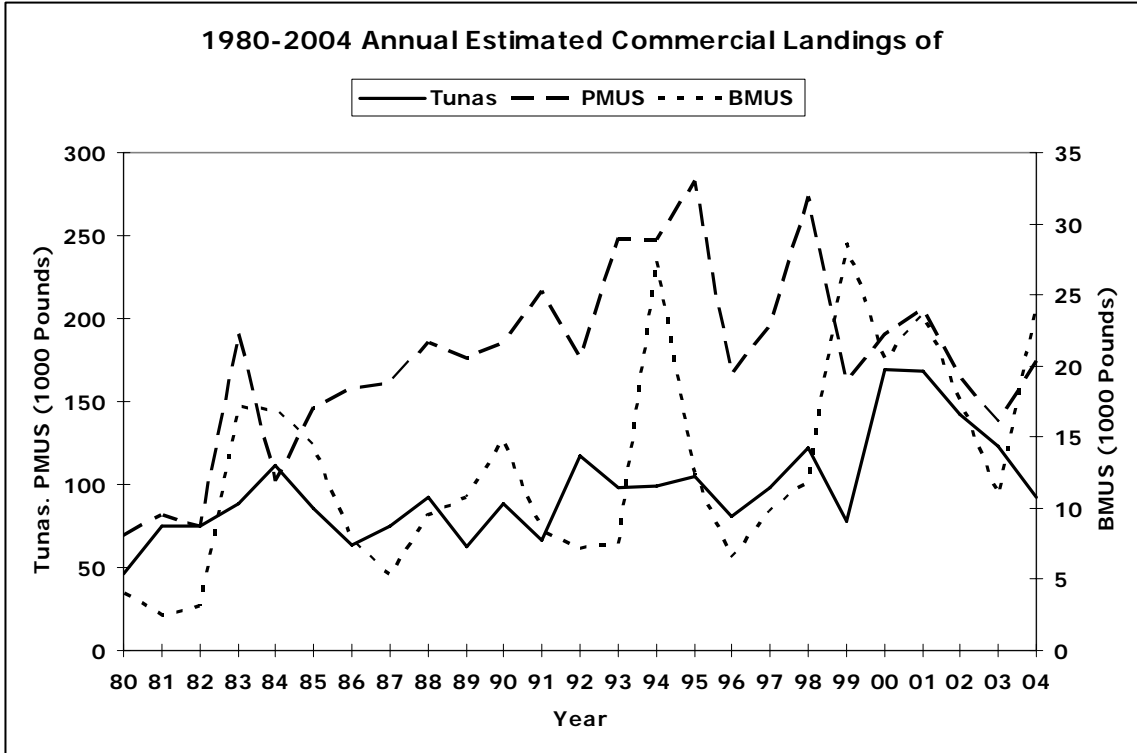


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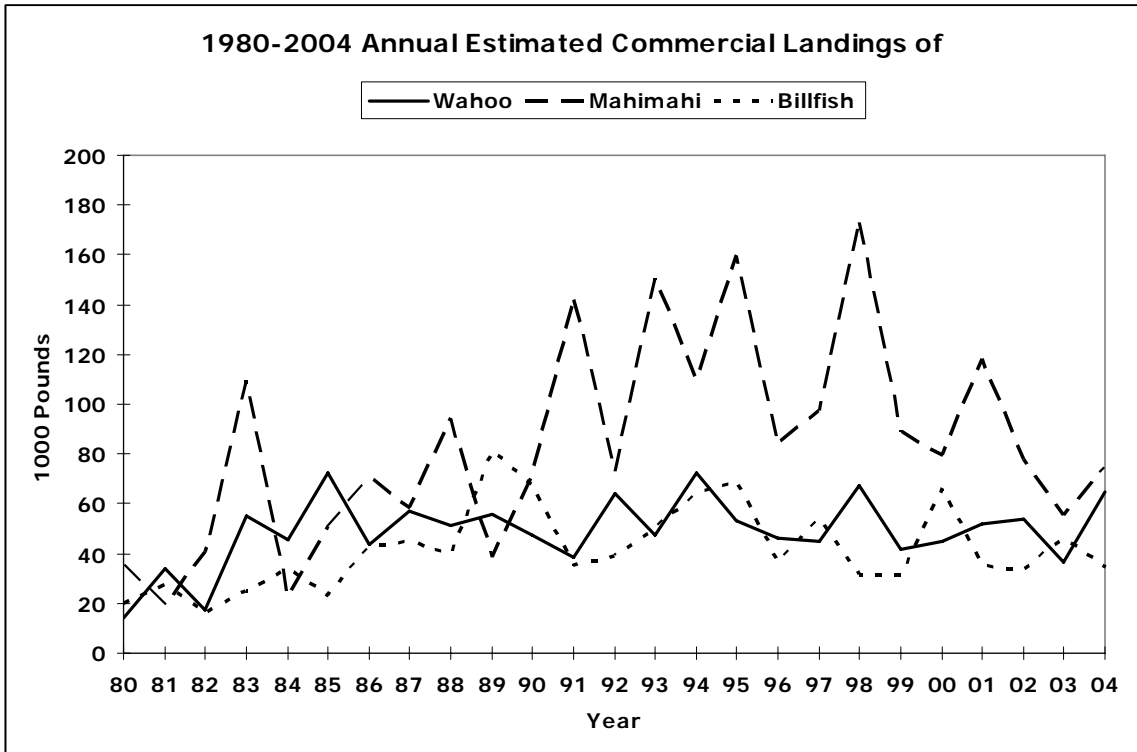


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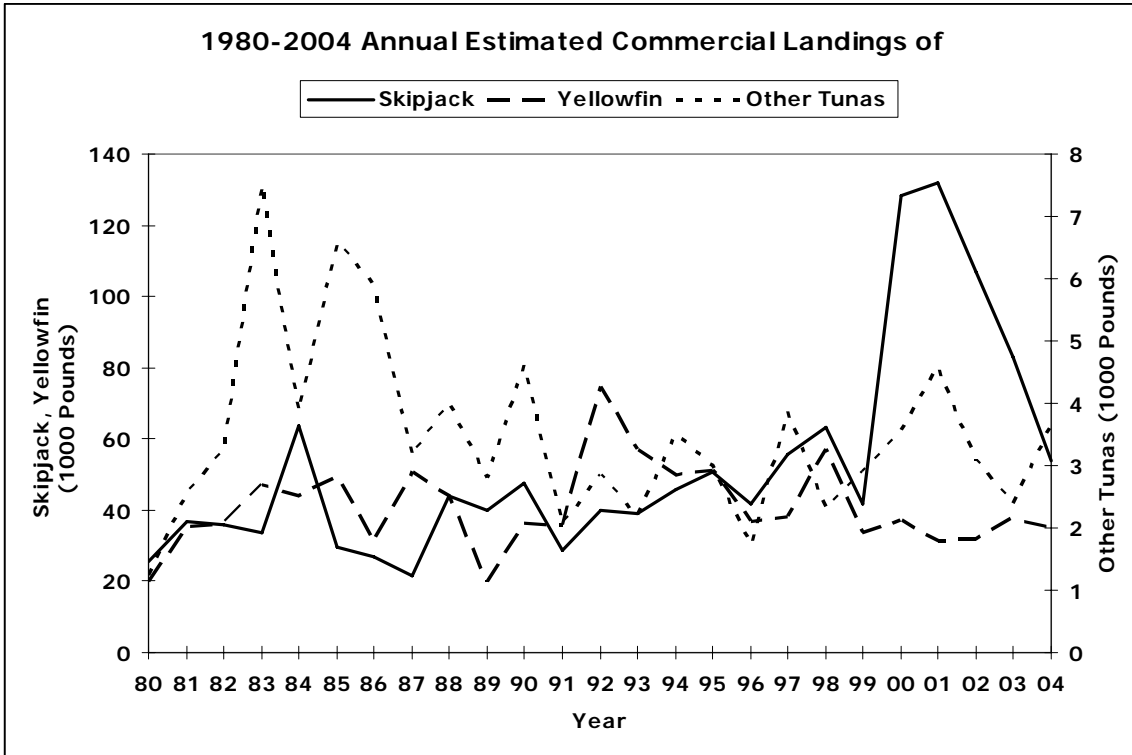


Figure C-3-5

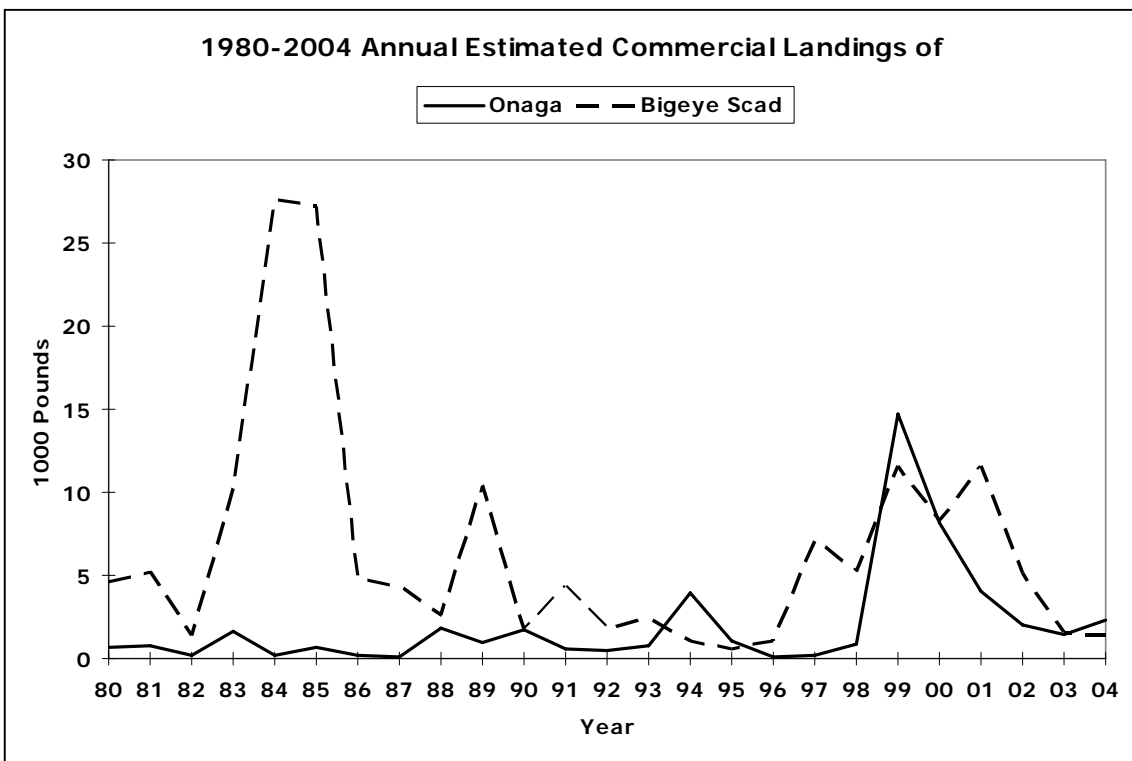


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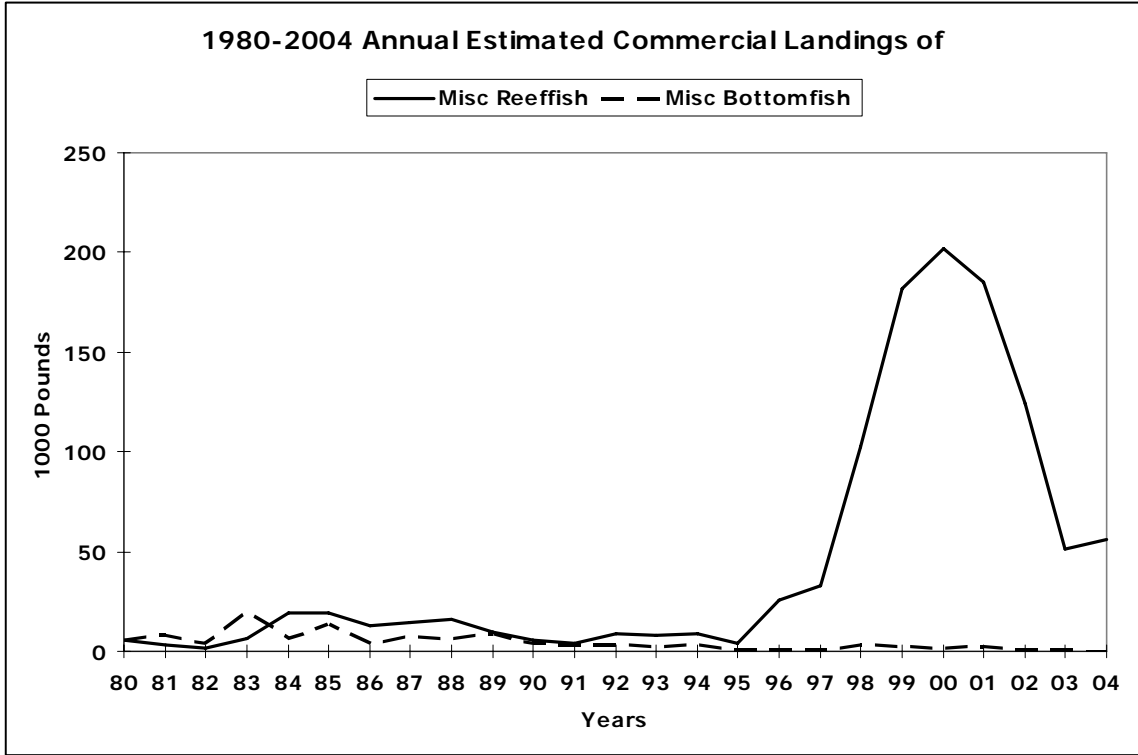


Figure C-3-7

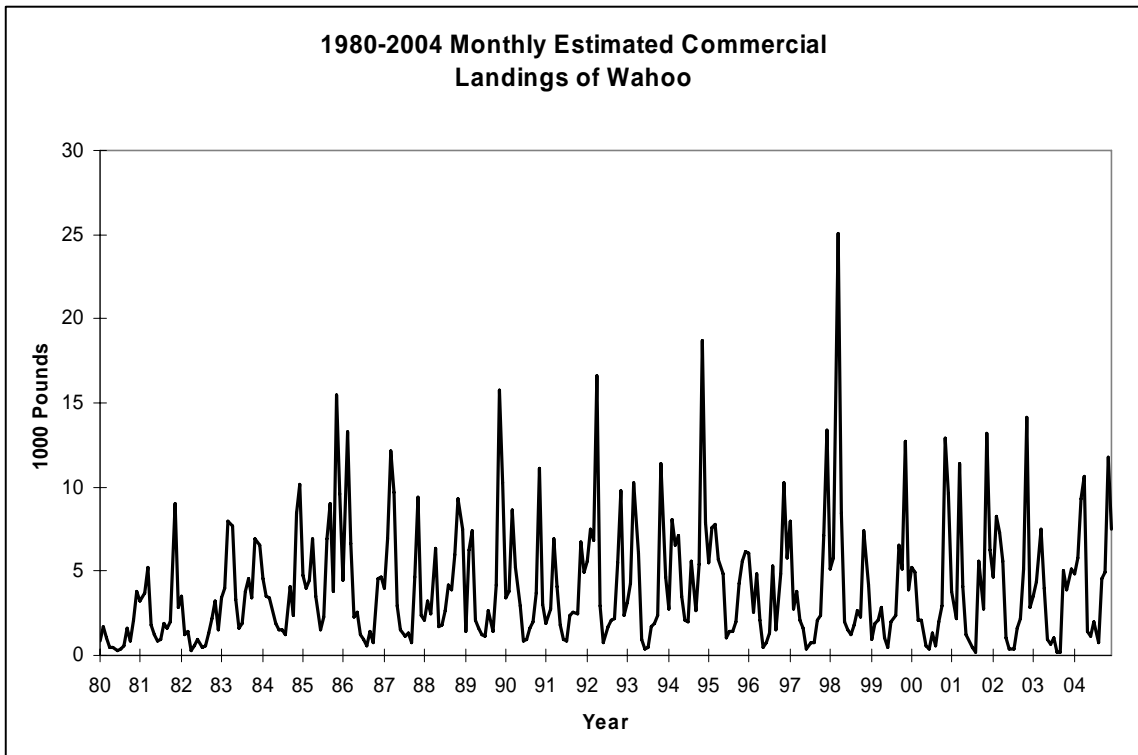


Figure C-4-1

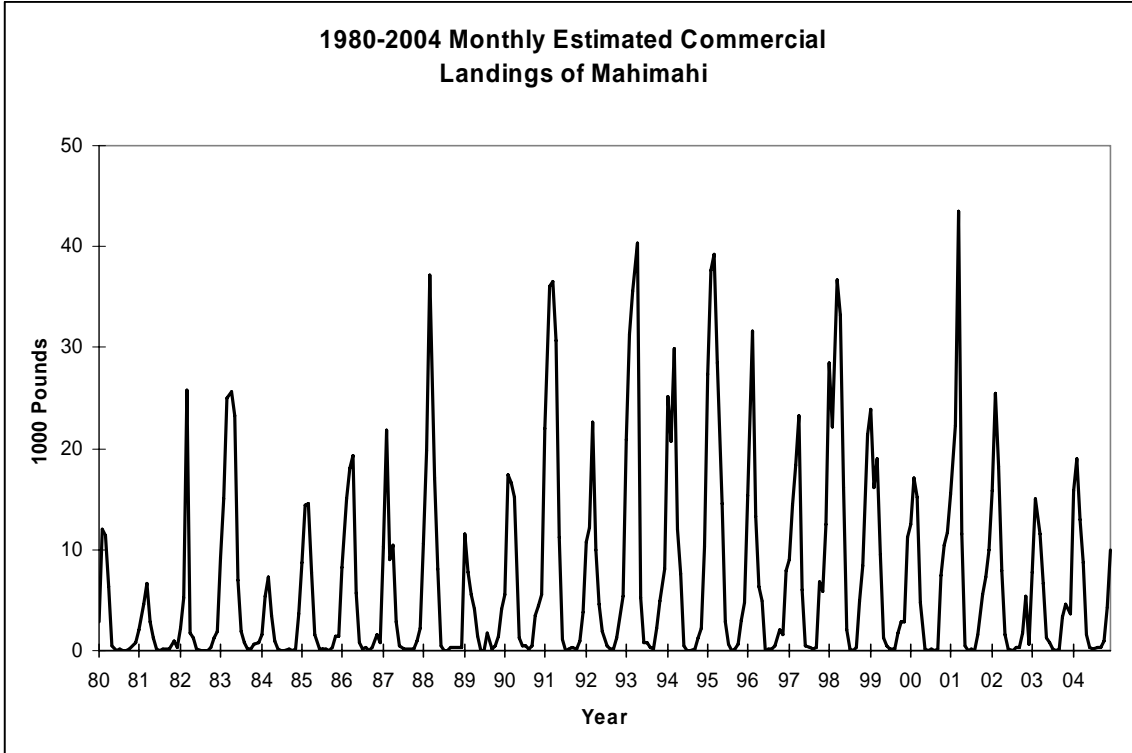


Figure C-4-2

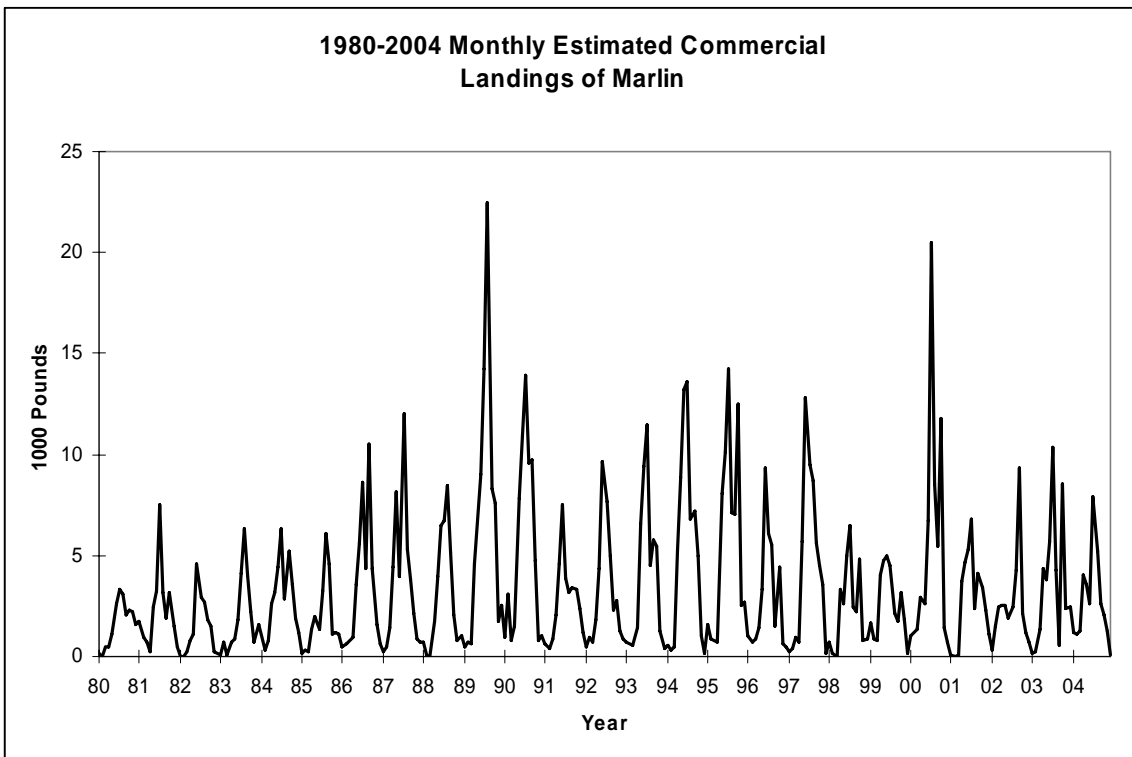


Figure C-4-3

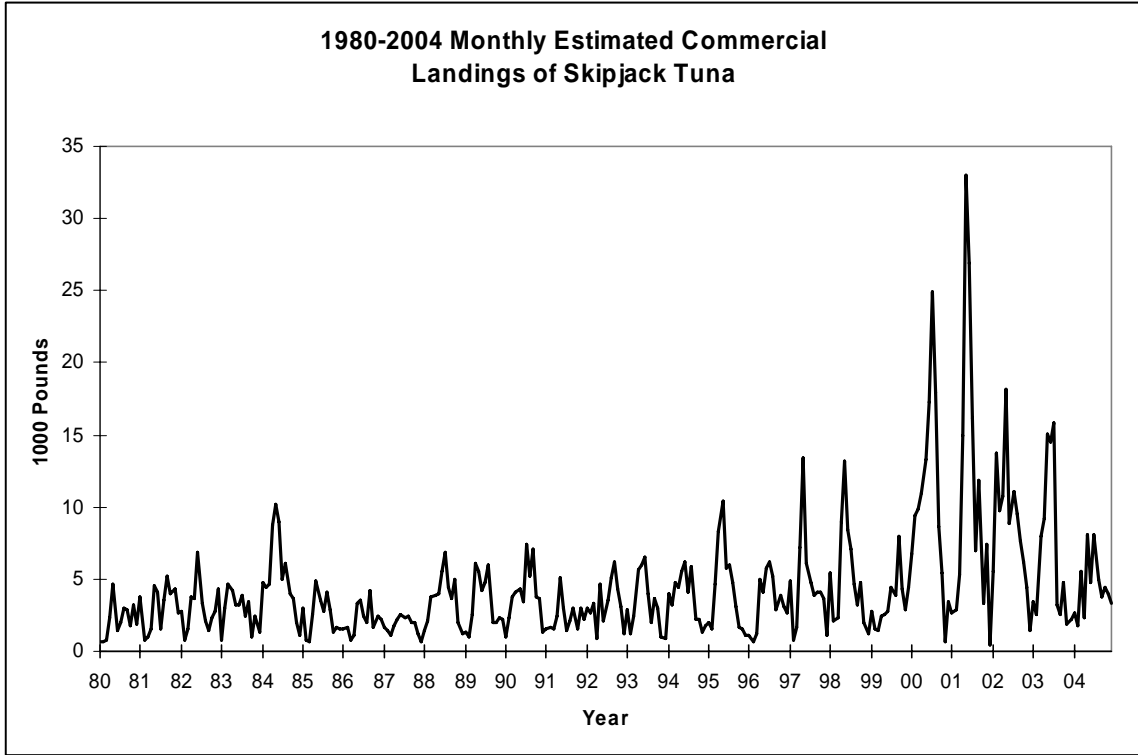


Figure C-4-4

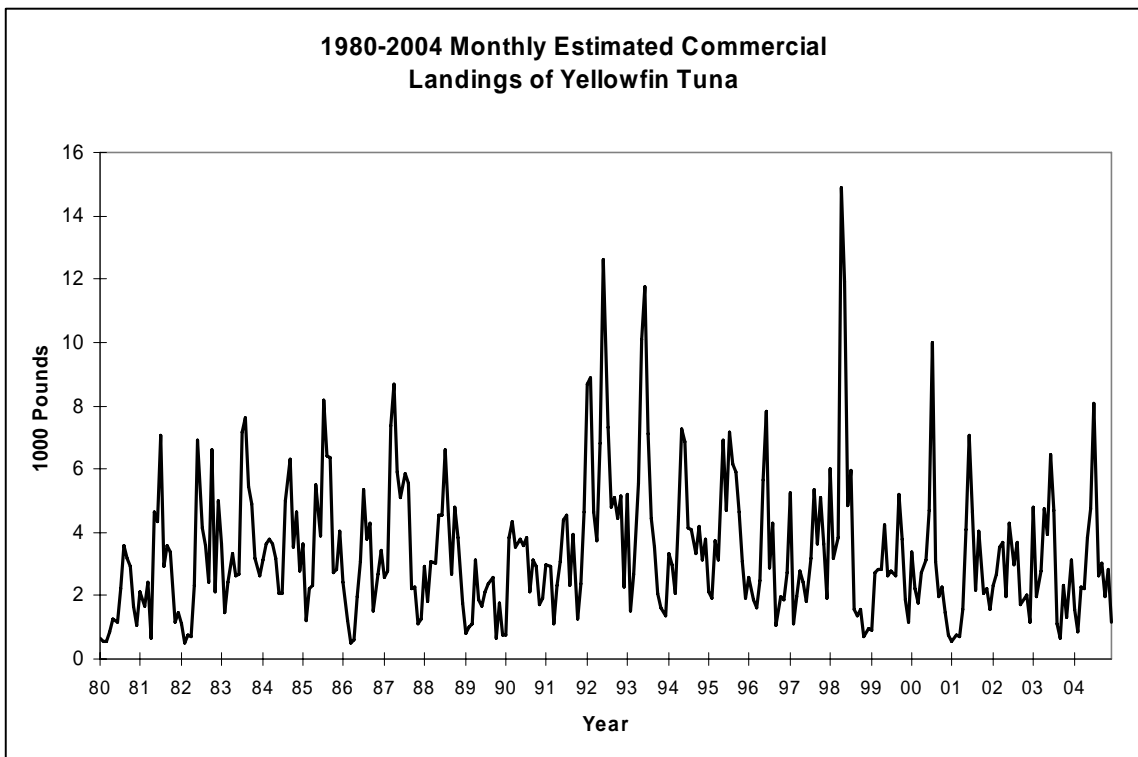


Figure C-4-5

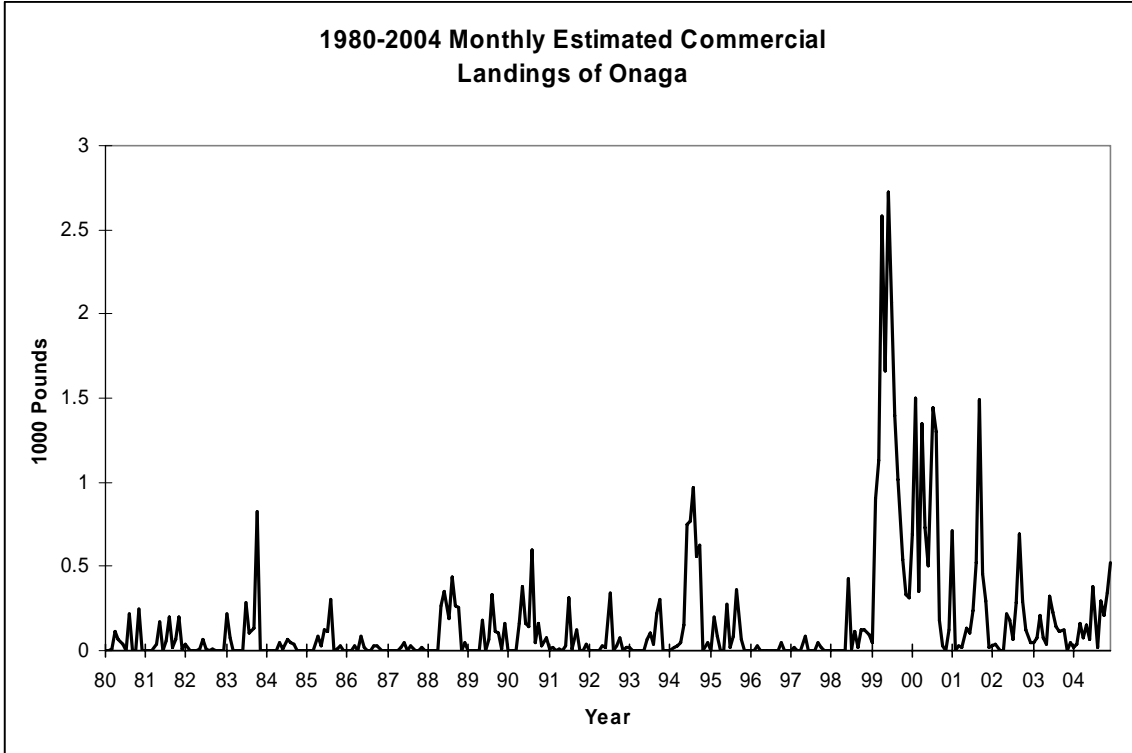


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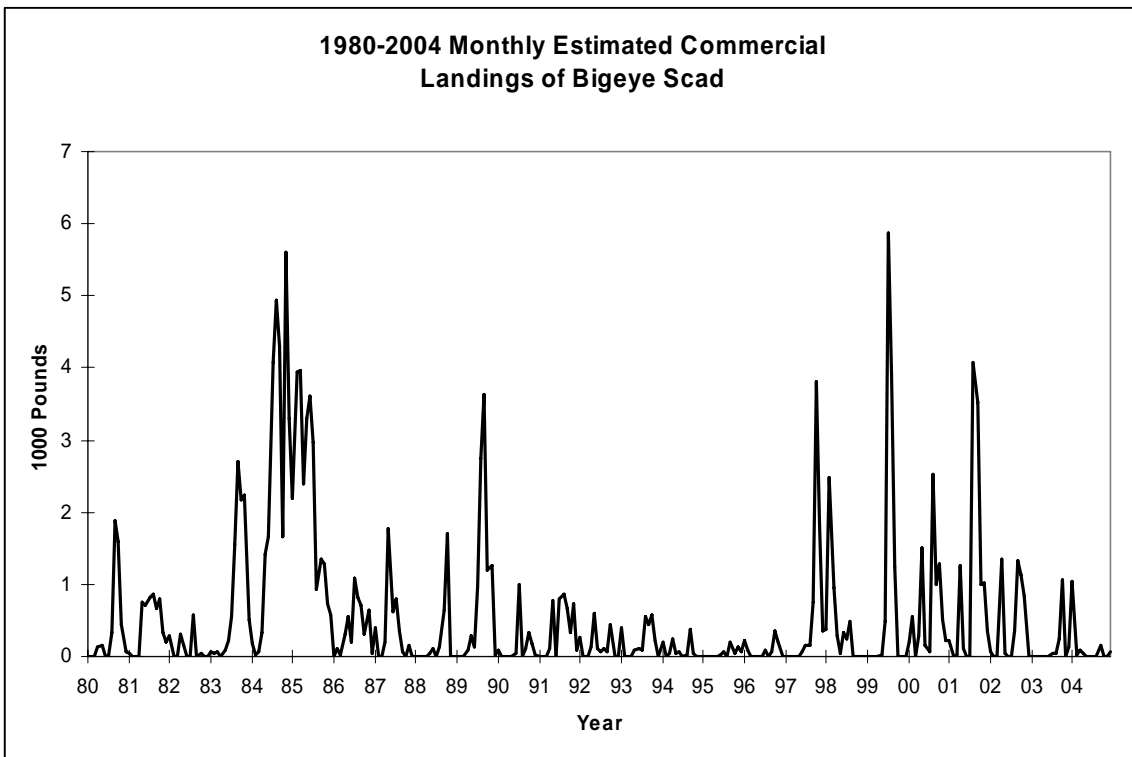


Figure C-4-7

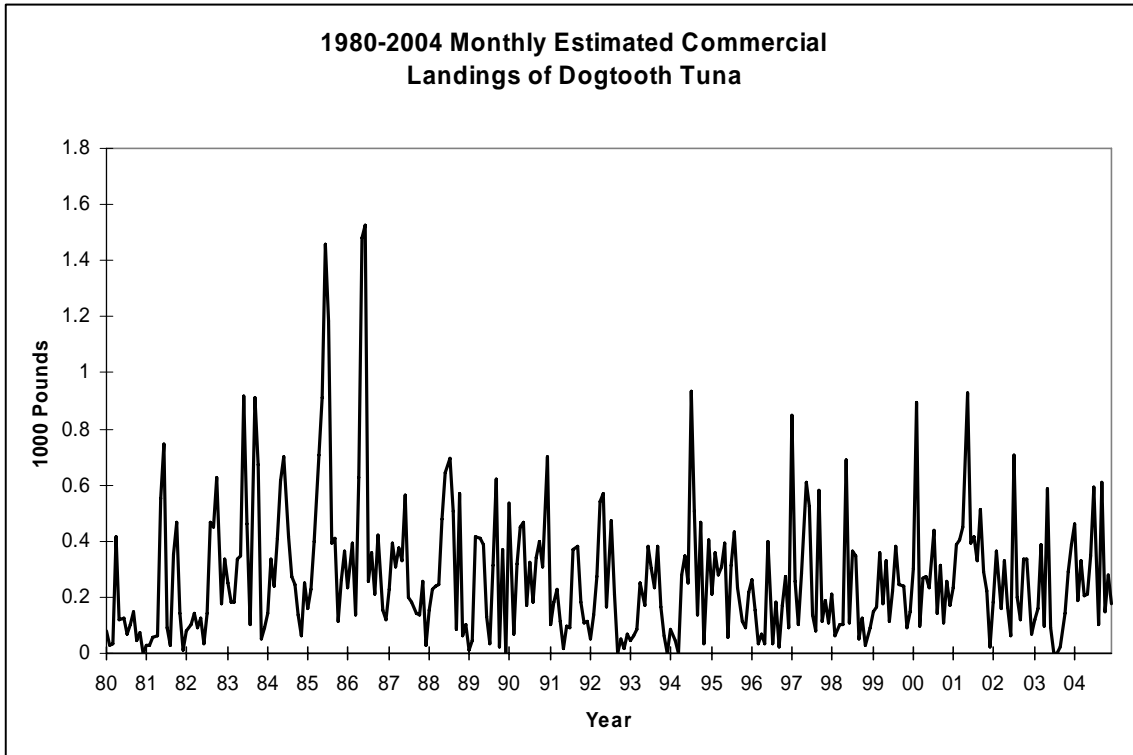


Figure C-4-8

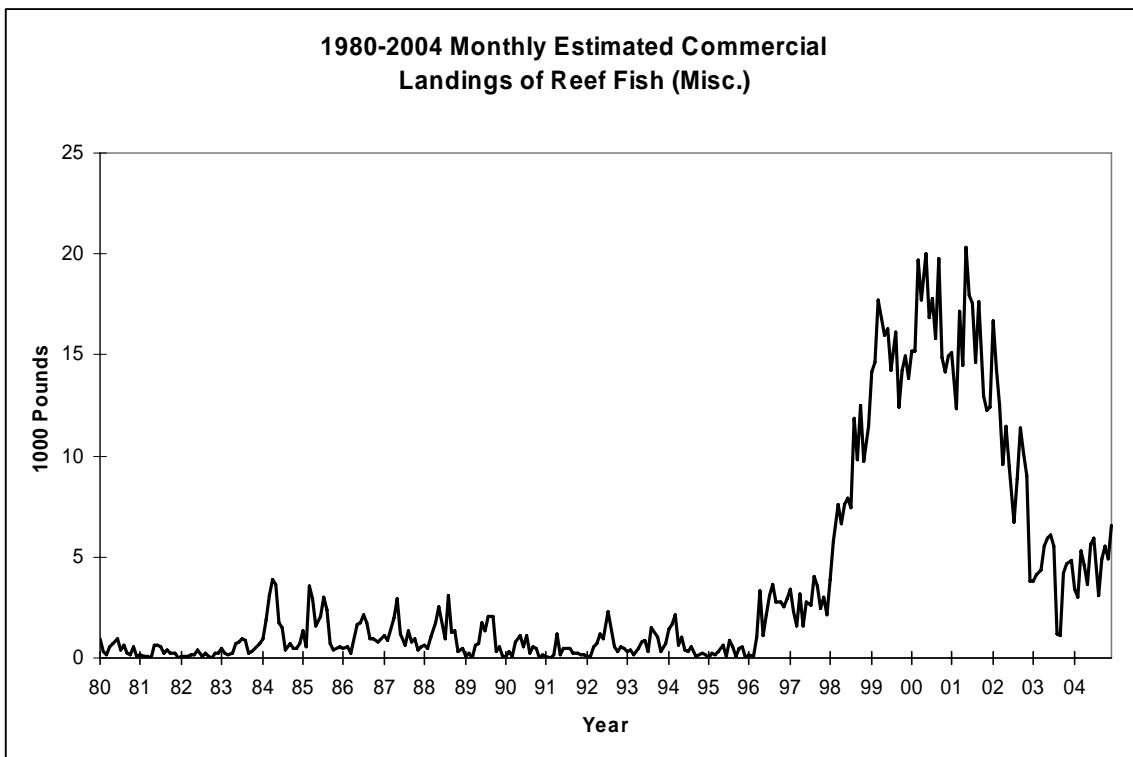


Figure C-4-9

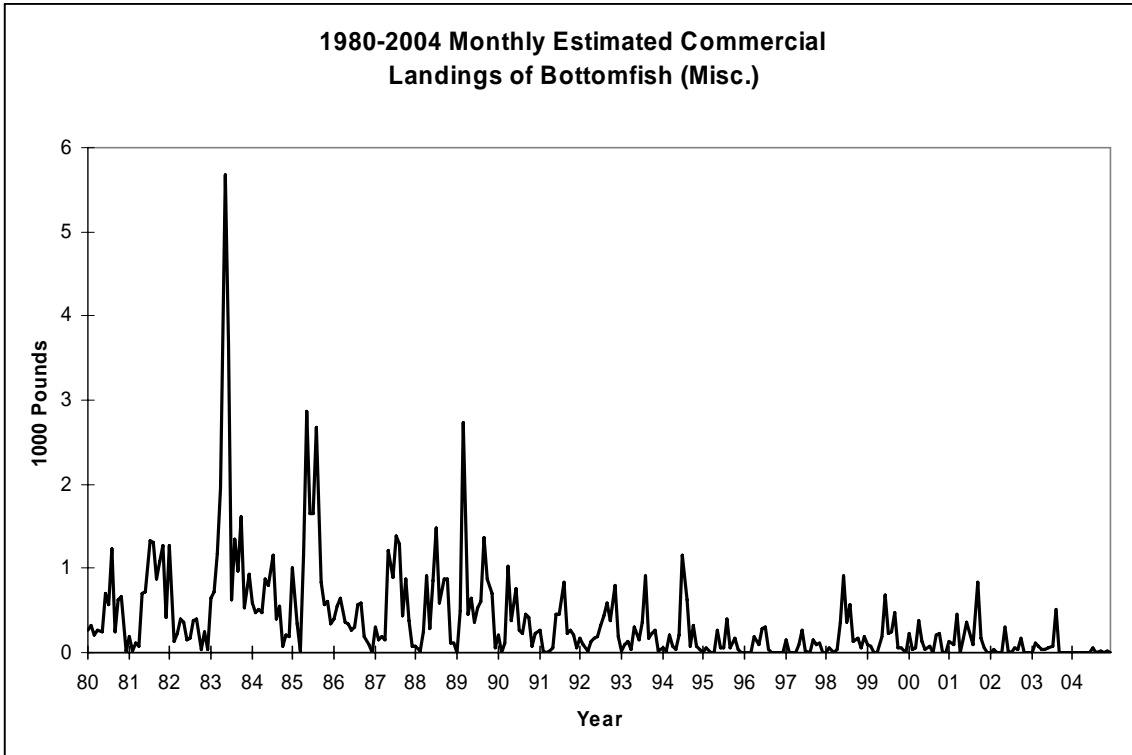


Figure C-4-10