

## **STATE OF HAWAII 2009 FISHERY STATISTICS**

Compiled by

Division of Aquatic Resources

and the

Western Pacific Fishery Information Network

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# STATE OF HAWAII 2009 FISHERY STATISTICS

## INTRODUCTION

The Hawaiian Archipelago stretches northwestward over 1500 miles.

*Location:* 19° N latitude, 155° W longitude to about 28° N latitude and 178° W longitude

*Islands:* Hawaii, Maui, Lanai, Molokai, Oahu, Kauai, Kahoolawe, and Niihau (comprise over 99% of the total land area)

*Population:* 1,287,500 (*The State of Hawaii Data Book, 2009 Update*)

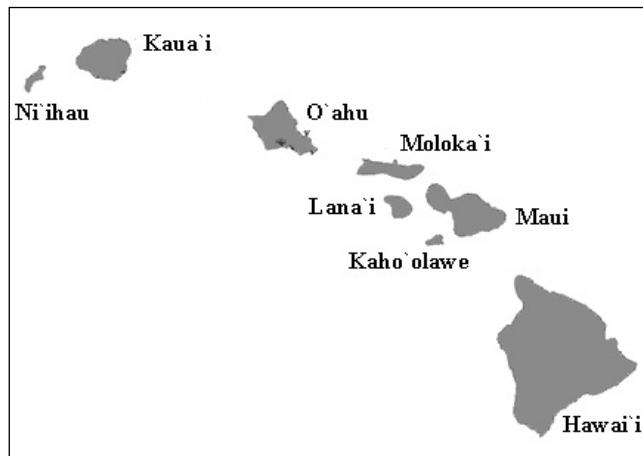
*Commercial Catch Breakdown (lbs):*

about 87% on Oahu, 5% on Hawaii (Big Island), 2% on Kona, and 6% unknown or on other islands

The commercial fisheries of the State of Hawaii are quite diverse; they vary from shore-based algae (limu) harvesting by hand to large vessel-based fisheries such as the offshore pelagic longline fishery that operates on the high seas. There are several major fisheries in Hawaii. Tuna fishing using various methods, deepwater hook-and-line bottomfishing for groupers and snappers, various forms of net fishing that target nearshore pelagic and reef fish species, and trolling for such pelagic species as tuna, marlin, wahoo (ono), and mahimahi constitute the top producing fisheries.

Commercial fishing (i.e., selling catches or providing charter fishing services) in Hawaii requires purchasing an annually renewable commercial marine license (CML). In 2009 there were 4299 licensed commercial fishers. The summary catch data for 2009 were created from a combination of Hawaii Division of Aquatic Resources' (HDAR) fishers and dealer reports processed through the Dealer Reporting System and Fisherman Reporting System, as well as additional fishery reports (including federal longline logbooks).

In 2009 the main Hawaiian Islands (MHI) deepwater bottomfish fishery was managed through the implementation of a total allowable catch (TAC) of 254,050 pounds. The implementation of the TAC was a federally mandated management measure to end overfishing of specific deepwater bottomfish species within the MHI. The managed species are known as the "deep 7" and are comprised of onaga, opakapaka, kalekale, hapuupuu, ehu, gindai, and lehi. The fishing season opened on September 1, 2009 and was closed April 20, 2010. For



Hawaiian Islands: copied and modified from:  
[http://satftp.soest.hawaii.edu/space/hawaii/maps/All\\_Islands\\_map.710x509.gif](http://satftp.soest.hawaii.edu/space/hawaii/maps/All_Islands_map.710x509.gif)  
SOEST Satlab Server

more information about this fishery, please visit <http://www.hawaiibottomfish.info>. None of the other MHI commercial fisheries are constrained by TAC management measures.

## **DATA COLLECTING**

Previously, data processed in the Reported Landings tables and charts presented in this section were collected from various Fishermen's Reporting System (FRS) forms. Beginning in October 2002, HDAR implemented several new FRS forms that no longer required sales information reporting as a trade-off for requiring improved catch, effort, and bycatch statistics. The FRS was modified to accommodate these new forms.

The Dealer Reporting System (DRS) was computerized in 2000 and is now a major source of sales data used to create the tables and charts. Data from the NOAA Fisheries Longline Logbook Program are integrated with DRS and FRS data to create the “best available” summaries presented in this report.

Dealers are required by state law to submit a Commercial Marine Dealer's Report for each month that they are in the business of purchasing marine life. Information collected includes

- Dealer Name
- Dealer Number
- Month and Year
- Date
- First and Last Name from Whom Fish was Bought
- Fisherman's Commercial Marine License Number
- Species Bought
- Pounds Bought
- Pieces Bought
- Amount Paid
- Condition

Likewise, all holders of a Commercial Marine License are required by state law to report on their fishing activity. The majority of commercial fishers use the Monthly Fishing Report, a replacement for the old General Fish Catch Report (C-3 Form). This form collects data on fishing catch and effort for each day, method, and area fished, and it is processed in the FRS. Information collected includes

- Fisherman's Name and Commercial License Number
- Boat's Name and Registration/USCG Number
- Month and Year Fished
- Day Fished
- Charter Trip (y/n)
- Buoy or Area Fished
- Fishing Method
- Hours Fished per Method/Area
- Number of Net Sets
- Number of Fishing Lines, Traps, or Net Length
- Port of Landing
- Species Name
- Number Landed
- Pounds Landed
- Number Lost
- Number Released

Other FRS data collection forms include the Net, Trap and Dive Activity Report, Tuna Handline Trip Report, Deep Sea Handline Trip Report, Aku Boat Report, NWHI Bottomfish Trip Sales Report, and NWHI Bottomfish Trip Daily Log. Commercial collectors of tropical marine fish are required to have an aquarium permit in addition to their commercial marine license, and they are required to report monthly on the C-6 Aquarium Fish Catch Report. Aquarium fish catches, however, are not included in this report's statistics.

This report assumes that the data submitted by fishers are complete and accurate. The HDAR continually attempts to improve the quality of data and decrease the time delays in receiving and processing the data.

## **DATA PROCESSING**

When HDAR receives various data reporting forms, staff code and edit the data before keypunching. Forms that fail initial editing are returned for correction and resubmission, or minor problems may be cleared up over the telephone. Delinquency notices are sent to those who fall more than a few months behind in their reporting. Once the data are keypunched, HDAR staff use computer-generated reports to verify and correct errors in the database. When the database is considered to be reasonably complete and error free, it is ready for use in producing various summary catch reports.

## **DATA REPORTING**

More than 150 marine species and species groups are recorded in HDAR's monthly landings reports, many of which are insignificant in the total catch. To help reduce this document's size and improve the usability of the tables, WPacFIN staff combined some of the less important species, reorganized the order of presentation, created a new species coding system, and translated all records in the database. The new coding system has 100 species and species groups based on flexible ecological and phylogenetic criteria. All of the commercially important pelagic and bottomfish species or unique species groups have individual codes and are reported separately.

The monthly and annual reports included in this document contain the common name, pounds caught, pounds sold, value rounded to the nearest dollar, and the average price per pound for each species. Pounds caught data is from the Longline Logbooks, Dealer Reports, and Fisherman Catch Reports; the pounds sold, value and price/pound data is from Dealer Reports. Each monthly report contains a subtotal for the sum of all species for that month.

Several types of graphs are also included. Please note that some of the charts in this volume are new or modified from earlier volumes. More up-to-date tables and charts are available at the WPacFIN website at <http://www.pifsc.noaa.gov/wpacfin>.

## SPECIES CATEGORIES

The species and species groups used in the tables and graphs 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)

Billfishes (unknown)	Sharks
Black marlin	Shortnose spearfish
Blue marlin	Striped marlin
Mahimahi	Swordfish
Sailfish	Wahoo

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

Armorhead	Lehi (silverjaw)
Butaguchi (pig-lipped ulua)	Onaga (red snapper)
Ehu (red snapper)	Opakapaka (pink snapper)
Gindai (flower snapper)	Taape (blue lined snapper)
Gunkin (black) ulua	Uku (gray snapper)
Hapuupuu (hawaiian grouper)	White ulua
Kahala (amberjack)	Yellow-tail kali
Kalekale	

### III. Billfishes

Billfishes (unknown)	Shortnose spearfish
Black marlin	Striped marlin
Blue marlin	Swordfish
Sailfish	

### IV. Tunas

Albacore tuna	Skipjack tuna
Bigeye tuna	Tunas (unknown)
Kawakawa	Yellowfin tuna

### V. Other Tunas

Kawakawa	Tunas (unknown)
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## VI. Fisheries Categories

### A. Pelagic Fishes

Albacore tuna	Pomfret
Barracudas	Rainbow runner
Bigeye tuna	Rays
Billfishes (unknown)	Sailfish
Black marlin	Sharks
Blue marlin	Shortnose spearfish
Japanese mackerel	Skipjack tuna
Kawakawa	Striped marlin
Mahimahi	Swordfish
Moonfish (opah)	Tunas (unknown)
Oilfish	Wahoo
Pelagic fishes (unknown)	Yellowfin tuna

### B. Bottomfishes

Armorhead	Lehi (silverjaw)
Blue spot grouper	Onaga (red snapper)
Blue trevally	Opakapaka (pink snapper)
Butaguchi (pig-lipped ulua)	Papa ulua
Dobe ulua	Porgy
Ehu (red snapper)	Sasa ulua
Gindai (flower snapper)	Snake mackerel
Golden kalekale	Snappers
Gunkin (black) ulua	Taape (blue lined snapper)
Hapuupuu (hawaiian grouper)	Uku (gray snapper)
Jacks	White ulua
Kahala (amberjack)	Yellow-tail kali
Kalekale	

### C. Reef Fishes

Bigeyes	Reef fishes (unknown)
Damselfishes	Reef jacks
Filefishes	Rudderfish
Flounders	Scorpionfishes
Goatfishes	Squirrelfishes
Gobies	Surgeonfishes/tangs
Hawkfish	Tilapia
Mountain bass	Trumpetfish
Parrotfishes	Wrasses
Pufferfishes	

*D. Other Fishes*

Algae	Miscellaneous
Bigeye scad (akule)	Mullets
Bonefish	Needlefishes
Clams	Octopus
Crabs	Sea turtles
Eels	Shrimp (freshwater)
Flying fishes	Shrimp (saltwater)
Freshwater fishes	Silversides
Herrings/sardines	Slipper lobsters
Invertebrates	Spiny lobsters
Leatherjacket	Squid
Limpets (saltwater)	Ten pounder
Mackerel scad	Threadfin
Milkfish	

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**Table D-1**  
**Hawaii Annual 2009 Reported Commercial Landings**

Species	Caught	Sold	Value (\$)	Price/Lb (\$)
Miscellaneous	2,596	2,596	3,649	1.41
Sharks	406,266	296,218	139,230	0.47
Rays	44	44	154	3.50
Eels	1,986	1,588	1,634	1.03
Bigeye scad (akule)	302,390	201,949	647,483	3.21
Mackerel scad	315,556	205,914	557,688	2.71
Leatherjacket	292	214	374	1.75
Ten pounder	1,938	1,645	1,663	1.01
Bonefish	8,646	7,376	8,306	1.13
Herrings/sardines	2,203	1,913	3,343	1.75
Milkfish	1,261	899	1,146	1.27
Flying fishes	8	7	12	1.83
Needlefishes	1,027	253	486	1.93
Threadfin	562	439	3,158	7.19
Mullets	8,627	7,499	30,709	4.10
Pomfret	634,395	626,619	1,377,919	2.20
Oilfish	545,164	544,590	704,424	1.29
Jacks	1,265	946	2,511	2.65
Kahala (amberjack)	13,711	518	721	1.39
Sasa ulua	814	377	1,005	2.66
Butaguchi (pig-lipped ulua)	6,324	4,841	9,802	2.02
Dobe ulua	5,198	4,081	5,681	1.39
Papa ulua	6,255	4,051	12,724	3.14
White ulua	14,518	8,646	18,698	2.16
Gunkin (black) ulua	705	293	544	1.86
Blue trevally	7,855	4,354	9,680	2.22
Hapupuu (hawaiian grouper)	24,730	19,786	92,257	4.66
Blue spot grouper	3,245	2,157	6,371	2.95
Kalekale	13,080	8,873	29,598	3.34
Snappers	4,033	3,631	13,684	3.77
Yellow-tail kali	67	39	101	2.62
Taape (blue lined snapper)	40,459	35,718	57,200	1.60
Ehu (red snapper)	32,444	22,134	121,467	5.49
Gindai (flower snapper)	5,347	3,636	14,762	4.06
Golden kalekale	219	14	32	2.30
Lehi (silverjaw)	14,425	12,200	47,597	3.90
Onaga (red snapper)	82,674	65,709	460,478	7.01
Opakapaka (pink snapper)	164,968	132,276	746,645	5.64
Uku (gray snapper)	127,089	107,022	369,224	3.45
Snake mackerel	35	21	21	1.00
Porgy	4,892	3,817	13,565	3.55
Reef fishes (unknown)	2,019	133	117	0.88
Reef jacks	238	231	870	3.77
Squirlfishes	53,993	50,354	209,155	4.15
Trumpetfish	75	23	29	1.27
Scorpionfishes	3,509	2,125	11,104	5.22

**Table D-1 (continued)**  
**Hawaii Annual 2009 Reported Commercial Landings**

Species	Caught	Sold	Value (\$)	Price/Lb (\$)
Mountain bass	4,176	3,556	12,828	3.61
Bigeyes	2,887	2,521	8,847	3.51
Goatfishes	54,555	47,282	214,619	4.54
Rudderfish	18,376	17,622	26,524	1.51
Damselfishes	2,453	2,378	7,183	3.02
Hawkfish	1,020	1,011	3,430	3.39
Tilapia	7,573	702	2,243	3.20
Wrasses	7,682	5,398	15,908	2.95
Parrotfishes	52,153	48,179	174,987	3.63
Surgeonfishes/tangs	89,190	83,991	164,033	1.95
Flounders	63	47	78	1.68
Filefishes	1,332	1,291	1,387	1.07
Pufferfishes	21	0	0	0.00
Pelagic fishes (unknown)	449	138	14	0.10
Moonfish (opah)	1,917,619	1,883,325	2,406,271	1.28
Rainbow runner	3,339	2,384	4,459	1.87
Mahimahi	1,465,097	1,281,667	2,836,999	2.21
Barracudas	23,698	20,124	17,362	0.86
Wahoo	750,783	603,071	1,665,855	2.76
Tunas (unknown)	13,330	603	1,296	2.15
Skipjack tuna	1,097,197	710,341	1,011,036	1.42
Yellowfin tuna	2,795,795	2,475,933	6,239,573	2.52
Albacore tuna	733,189	649,683	1,070,337	1.65
Bigeye tuna	10,958,620	10,746,011	39,331,215	3.66
Kawakawa	10,771	5,319	12,032	2.26
Billfishes (unknown)	1,458	75	150	2.00
Swordfish	4,327,661	3,881,216	7,334,547	1.89
Blue marlin	1,168,653	1,032,430	1,192,167	1.15
Black marlin	5,118	691	1,746	2.53
Striped marlin	654,476	643,688	945,872	1.47
Shortnose spearfish	272,421	259,378	272,371	1.05
Sailfish	30,505	22,438	20,508	0.91
Spiny lobsters	14,437	11,533	141,389	12.3
Slipper lobsters	106	0	0	0.00
Crabs	48,342	10,434	46,399	4.45
Shrimp (saltwater)	1,223	235	393	1.68
Octopus	30,455	20,983	81,445	3.88
Squid	3,905	3,137	5,648	1.80
Limpets (saltwater)	22,623	11,629	78,440	6.75
Clams	6	0	0	0.00
Invertebrates	177	121	494	4.09
Algae	11,511	7,288	54,635	7.50
<b>TOTAL</b>	<b>29,471,587</b>	<b>26,895,618</b>	<b>71,141,744</b>	<b>2.65</b>

**Table D-2**  
**Hawaii January 2009 Reported Commercial Landings**

Species	Caught	Sold	Value (\$)	Price/Lb (\$)
Miscellaneous	78	78	161	2.07
Sharks	34,650	20,725	7,053	0.34
Bigeye scad (akule)	14,156	14,156	40,179	2.84
Mackerel scad	31,173	21,503	58,264	2.71
Leatherjacket	13	13	19	1.46
Ten pounder	3	3	3	1.01
Bonefish	436	436	1,148	2.64
Needlefishes	58	58	114	1.96
Threadfin	13	7	45	6.37
Mullets	9	9	25	2.68
Pomfret	41,610	41,610	112,033	2.69
Oilfish	50,795	50,222	34,929	0.70
Jacks	28	28	61	2.22
Kahala (amberjack)	1,839	201	224	1.11
Sasa ulua	16	9	22	2.50
Butaguchi (pig-lipped ulua)	948	843	1,556	1.85
Dobe ulua	61	61	121	2.00
Papa ulua	828	253	751	2.97
White ulua	842	303	677	2.24
Blue trevally	325	113	267	2.35
Hapuupuu (hawaiian grouper)	2,043	1,091	5,950	5.45
Blue spot grouper	251	251	508	2.03
Kalekale	1,962	1,263	4,437	3.51
Snappers	86	78	246	3.15
Yellow-tail kali	12	3	8	2.73
Taape (blue lined snapper)	1,690	1,563	2,476	1.58
Ehu (red snapper)	3,050	1,854	10,027	5.41
Gindai (flower snapper)	496	164	739	4.50
Golden kalekale	19	0	0	0.00
Lehi (silverjaw)	4,115	3,491	12,486	3.58
Onaga (red snapper)	13,662	9,190	61,092	6.65
Opakapaka (pink snapper)	28,887	20,895	115,262	5.52
Uku (gray snapper)	8,333	6,576	24,458	3.72
Porgy	225	225	703	3.13
Reef fishes (unknown)	44	0	0	0.00
Squirrelfishes	2,367	2,367	10,606	4.48
Trumpetfish	9	0	0	0.00
Scorpionfishes	262	117	584	5.01
Mountain bass	42	23	86	3.73
Bigeyes	136	136	473	3.47
Goatfishes	2,228	2,228	10,034	4.50
Rudderfish	3,225	3,225	4,238	1.31
Damselfishes	65	65	201	3.11
Hawkfish	41	41	150	3.67
Tilapia	1,283	103	419	4.07
Wrasses	547	377	1,581	4.20

**Table D-2 (continued)**  
**Hawaii January 2009 Reported Commercial Landings**

<b>Species</b>	<b>Caught</b>	<b>Sold</b>	<b>Value (\$)</b>	<b>Price/Lb (\$)</b>
Parrotfishes	2,671	2,671	9,499	3.56
Surgeonfishes/tangs	6,113	5,835	11,514	1.97
Flounders	10	0	0	0.00
Filefishes	16	16	27	1.72
Pelagic fishes (unknown)	112	112	11	0.10
Moonfish (opah)	72,184	72,184	170,549	2.36
Rainbow runner	270	195	438	2.25
Mahimahi	46,037	38,483	134,958	3.51
Barracudas	984	767	898	1.17
Wahoo	22,129	19,171	81,241	4.24
Tunas (unknown)	199	58	161	2.80
Skipjack tuna	36,220	16,331	32,021	1.96
Yellowfin tuna	225,791	209,577	579,856	2.77
Albacore tuna	110,151	81,129	160,713	1.98
Bigeye tuna	829,385	829,385	3,143,728	3.79
Kawakawa	344	175	434	2.48
Swordfish	586,774	479,840	748,651	1.56
Blue marlin	59,772	46,989	60,211	1.28
Black marlin	98	0	0	0.00
Striped marlin	83,471	83,471	96,526	1.16
Shortnose spearfish	35,728	32,815	20,639	0.63
Sailfish	3,297	121	113	0.94
Spiny lobsters	1,395	1,343	15,977	11.9
Slipper lobsters	31	0	0	0.00
Crabs	3,346	475	2,105	4.43
Shrimp (saltwater)	70	34	95	2.84
Octopus	2,292	1,068	4,224	3.96
Squid	2	0	0	0.00
Limpets (saltwater)	1,403	596	4,943	8.29
Clams	6	0	0	0.00
Invertebrates	10	0	0	0.00
Algae	621	446	3,637	8.16
<b>TOTAL</b>	<b>2,383,892</b>	<b>2,129,237</b>	<b>5,807,586</b>	<b>2.73</b>

**Table D-3**  
**Hawaii February 2009 Reported Commercial Landings**

Species	Caught	Sold	Value (\$)	Price/Lb (\$)
Miscellaneous	77	77	114	1.48
Sharks	35,197	29,612	10,257	0.35
Eels	20	20	20	1.00
Bigeye scad (akule)	10,538	8,814	27,300	3.10
Mackerel scad	22,661	17,052	48,756	2.86
Leatherjacket	3	1	2	2.00
Ten pounder	17	0	0	0.00
Bonefish	48	48	59	1.25
Herrings/sardines	72	72	180	2.50
Needlefishes	17	13	48	3.56
Threadfin	7	7	41	6.27
Mullets	66	66	189	2.86
Pomfret	58,687	57,974	130,913	2.26
Oilfish	60,372	60,372	48,194	0.80
Jacks	35	13	29	2.30
Kahala (amberjack)	875	0	0	0.00
Sasa ulua	50	0	0	0.00
Butaguchi (pig-lipped ulua)	102	102	229	2.25
Dobe ulua	55	55	149	2.71
Papa ulua	573	390	1,225	3.15
White ulua	600	386	859	2.23
Gunkin (black) ulua	15	0	0	0.00
Blue trevally	333	59	156	2.65
Hapuupuu (hawaiian grouper)	1,859	724	3,670	5.07
Blue spot grouper	54	21	55	2.64
Kalekale	441	290	1,147	3.96
Snappers	32	28	104	3.77
Yellow-tail kali	11	11	27	2.57
Taape (blue lined snapper)	1,383	1,072	1,424	1.33
Ehu (red snapper)	1,431	1,283	6,692	5.22
Gindai (flower snapper)	217	129	491	3.82
Golden kalekale	1	0	0	0.00
Lehi (silverjaw)	1,252	1,245	5,294	4.25
Onaga (red snapper)	4,662	4,662	34,847	7.47
Opakapaka (pink snapper)	10,618	9,748	57,817	5.93
Uku (gray snapper)	4,466	4,466	17,778	3.98
Porgy	356	356	1,330	3.73
Reef fishes (unknown)	88	43	22	0.50
Squirlfishes	1,342	1,342	5,881	4.38
Trumpetfish	5	0	0	0.00
Scorpionfishes	141	82	425	5.20
Mountain bass	127	127	572	4.50
Bigeyes	172	162	687	4.23
Goatfishes	1,352	1,352	6,332	4.68
Rudderfish	590	590	913	1.55
Damselfishes	79	77	222	2.90

**Table D-3 (continued)**  
**Hawaii February 2009 Reported Commercial Landings**

<b>Species</b>	<b>Caught</b>	<b>Sold</b>	<b>Value (\$)</b>	<b>Price/Lb (\$)</b>
Hawkfish	14	14	49	3.42
Wrasses	498	282	1,605	5.68
Parrotfishes	2,183	2,183	7,826	3.58
Surgeonfishes/tangs	7,466	6,474	12,532	1.94
Filefishes	64	64	109	1.70
Pelagic fishes (unknown)	48	0	0	0.00
Moonfish (opah)	113,144	112,368	180,819	1.61
Rainbow runner	357	298	609	2.04
Mahimahi	43,239	36,217	115,213	3.18
Barracudas	1,014	410	609	1.48
Wahoo	15,677	12,517	53,788	4.30
Tunas (unknown)	504	154	315	2.05
Skipjack tuna	21,186	8,046	17,203	2.14
Yellowfin tuna	213,726	187,404	477,354	2.55
Albacore tuna	95,575	82,841	134,530	1.62
Bigeye tuna	1,018,682	975,923	3,344,786	3.43
Kawakawa	159	108	222	2.06
Billfishes (unknown)	180	0	0	0.00
Swordfish	516,469	466,551	1,101,427	2.36
Blue marlin	62,828	52,459	85,837	1.64
Striped marlin	53,428	53,428	105,649	1.98
Shortnose spearfish	23,605	21,782	28,989	1.33
Sailfish	1,378	63	63	1.00
Spiny lobsters	1,464	1,214	13,976	11.5
Crabs	2,502	541	2,283	4.22
Shrimp (saltwater)	315	80	104	1.31
Octopus	2,478	1,474	5,882	3.99
Squid	63	33	67	2.00
Limpets (saltwater)	1,847	782	5,980	7.64
Invertebrates	10	0	0	0.00
Algae	793	497	4,520	9.10
<b>TOTAL</b>	<b>2,421,992</b>	<b>2,227,147</b>	<b>6,116,794</b>	<b>2.75</b>

**Table D-4**  
**Hawaii March 2009 Reported Commercial Landings**

Species	Caught	Sold	Value (\$)	Price/Lb (\$)
Miscellaneous	29	29	91	3.10
Sharks	47,597	31,551	26,257	0.83
Rays	8	8	28	3.50
Eels	85	72	72	1.00
Bigeye scad (akule)	40,382	13,852	45,790	3.31
Mackerel scad	24,485	15,811	50,339	3.18
Leatherjacket	2	2	2	1.00
Ten pounder	235	235	235	1.00
Bonefish	36	0	0	0.00
Herrings/sardines	561	561	842	1.50
Milkfish	275	0	0	0.00
Needlefishes	3	3	6	2.10
Threadfin	41	41	327	8.00
Mullets	117	62	178	2.87
Pomfret	45,655	42,418	127,848	3.01
Oilfish	54,533	54,533	84,388	1.55
Jacks	38	4	11	2.50
Kahala (amberjack)	962	10	5	0.50
Sasa ulua	156	96	240	2.50
Butaguchi (pig-lipped ulua)	349	346	830	2.40
Papa ulua	422	338	1,156	3.42
White ulua	936	414	947	2.29
Gunkin (black) ulua	105	0	0	0.00
Blue trevally	137	101	283	2.82
Hapuupuu (hawaiian grouper)	5,668	5,668	21,764	3.84
Blue spot grouper	142	56	217	3.86
Kalekale	1,028	788	2,652	3.37
Snappers	346	346	1,539	4.45
Yellow-tail kali	5	5	20	3.71
Taape (blue lined snapper)	1,284	712	1,186	1.67
Ehu (red snapper)	2,658	1,749	9,960	5.70
Gindai (flower snapper)	481	481	1,547	3.22
Golden kalekale	12	0	0	0.00
Lehi (silverjaw)	1,529	1,418	6,250	4.41
Onaga (red snapper)	4,960	3,851	26,947	7.00
Opakapaka (pink snapper)	14,733	12,105	66,695	5.51
Uku (gray snapper)	2,930	2,689	11,892	4.42
Snake mackerel	9	0	0	0.00
Porgy	307	281	1,096	3.90
Reef fishes (unknown)	132	18	22	1.23
Squirlfishes	2,165	2,144	9,202	4.29
Trumpetfish	8	0	0	0.00
Scorpionfishes	152	87	498	5.69
Mountain bass	141	116	486	4.20
Bigeyes	165	74	225	3.05
Goatfishes	2,640	2,027	9,145	4.51

**Table D-4 (continued)**  
**Hawaii March 2009 Reported Commercial Landings**

<b>Species</b>	<b>Caught</b>	<b>Sold</b>	<b>Value (\$)</b>	<b>Price/Lb (\$)</b>
Rudderfish	1,125	1,125	1,774	1.58
Damselfishes	92	92	304	3.32
Hawkfish	29	29	123	4.27
Wrasses	314	101	297	2.95
Parrotfishes	3,979	3,963	14,897	3.76
Surgeonfishes/tangs	6,677	6,677	13,992	2.10
Filefishes	84	70	120	1.72
Moonfish (opah)	161,391	155,323	252,764	1.63
Rainbow runner	173	118	227	1.93
Mahimahi	75,773	61,408	214,676	3.50
Barracudas	1,687	1,527	1,789	1.17
Wahoo	30,832	26,636	112,861	4.24
Tunas (unknown)	290	24	59	2.42
Skipjack tuna	34,230	20,803	46,545	2.24
Yellowfin tuna	109,391	97,789	322,579	3.30
Albacore tuna	42,278	34,731	81,319	2.34
Bigeye tuna	529,554	507,778	2,366,404	4.66
Kawakawa	870	697	1,858	2.67
Swordfish	610,303	524,106	1,294,725	2.47
Blue marlin	51,741	46,186	87,244	1.89
Striped marlin	31,239	31,239	78,375	2.51
Shortnose spearfish	19,845	18,407	35,089	1.91
Sailfish	222	0	0	0.00
Spiny lobsters	801	639	7,821	12.2
Slipper lobsters	29	0	0	0.00
Crabs	1,807	235	1,161	4.95
Shrimp (saltwater)	285	31	46	1.50
Octopus	1,776	1,090	4,264	3.91
Squid	4	0	0	0.00
Limpets (saltwater)	2,760	1,318	9,945	7.55
Invertebrates	44	34	134	4.00
Algae	609	565	6,367	11.3
<b>TOTAL</b>	<b>1,978,867</b>	<b>1,737,836</b>	<b>5,468,977</b>	<b>3.15</b>

**Table D-5**  
**Hawaii April 2009 Reported Commercial Landings**

Species	Caught	Sold	Value (\$)	Price/Lb (\$)
Miscellaneous	431	431	343	0.80
Sharks	40,025	27,260	14,472	0.53
Rays	36	36	126	3.50
Eels	341	334	334	1.00
Bigeye scad (akule)	16,511	10,739	37,624	3.50
Mackerel scad	20,114	12,111	34,331	2.83
Leatherjacket	20	8	15	2.00
Ten pounder	14	14	14	1.00
Bonefish	102	65	69	1.06
Herrings/sardines	604	604	1,106	1.83
Milkfish	73	62	135	2.17
Needlefishes	25	13	15	1.15
Threadfin	45	19	140	7.29
Mullets	2,587	2,382	9,888	4.15
Pomfret	79,960	79,960	111,964	1.40
Oilfish	52,275	52,275	69,217	1.32
Jacks	102	96	281	2.93
Kahala (amberjack)	1,379	59	109	1.85
Sasa ulua	83	53	133	2.52
Butaguchi (pig-lipped ulua)	1,349	1,169	1,871	1.60
Dobe ulua	8	0	0	0.00
Papa ulua	425	314	981	3.13
White ulua	1,254	505	1,027	2.03
Gunkin (black) ulua	78	0	0	0.00
Blue trevally	362	134	318	2.37
Hapupuu (hawaiian grouper)	2,546	1,186	5,578	4.70
Blue spot grouper	293	93	326	3.49
Kalekale	1,207	532	1,969	3.70
Snappers	682	682	2,870	4.21
Taape (blue lined snapper)	3,470	2,978	5,280	1.77
Ehu (red snapper)	3,764	2,239	12,711	5.68
Gindai (flower snapper)	717	374	1,740	4.66
Golden kalekale	17	0	0	0.00
Lehi (silverjaw)	2,150	1,943	7,834	4.03
Onaga (red snapper)	6,049	4,770	34,130	7.16
Opakapaka (pink snapper)	16,139	13,084	73,263	5.60
Uku (gray snapper)	6,803	5,009	18,922	3.78
Snake mackerel	3	0	0	0.00
Porgy	142	101	311	3.07
Reef fishes (unknown)	42	12	7	0.63
Reef jacks	6	6	21	3.75
Squirlfishes	2,956	2,956	12,323	4.17
Trumpetfish	3	0	0	0.00
Scorpionfishes	289	167	821	4.92
Mountain bass	197	133	568	4.27
Bigeyes	459	278	999	3.60

**Table D-5 (continued)**  
**Hawaii April 2009 Reported Commercial Landings**

<b>Species</b>	<b>Caught</b>	<b>Sold</b>	<b>Value (\$)</b>	<b>Price/Lb (\$)</b>
Goatfishes	4,770	4,385	23,483	5.36
Rudderfish	628	628	1,295	2.06
Damselfishes	211	211	565	2.68
Hawkfish	53	53	126	2.39
Tilapia	140	130	390	3.00
Wrasses	577	429	926	2.16
Parrotfishes	5,742	5,742	19,151	3.34
Surgeonfishes/tangs	6,152	6,152	12,072	1.96
Filefishes	169	169	233	1.38
Pelagic fishes (unknown)	48	0	0	0.00
Moonfish (opah)	128,522	128,522	175,673	1.37
Rainbow runner	403	403	754	1.87
Mahimahi	110,555	90,727	277,159	3.05
Barracudas	3,776	2,645	1,999	0.76
Wahoo	123,312	103,031	233,051	2.26
Tunas (unknown)	3,017	0	0	0.00
Skipjack tuna	81,453	33,730	56,533	1.68
Yellowfin tuna	225,785	194,080	455,729	2.35
Albacore tuna	66,967	65,750	107,004	1.63
Bigeye tuna	753,855	710,217	2,622,897	3.69
Kawakawa	1,112	517	1,268	2.45
Billfishes (unknown)	180	0	0	0.00
Swordfish	937,422	751,468	1,423,369	1.89
Blue marlin	97,606	81,975	86,934	1.06
Black marlin	279	270	201	0.75
Striped marlin	69,036	68,931	91,302	1.32
Shortnose spearfish	24,466	23,485	24,317	1.04
Sailfish	1,350	341	240	0.71
Spiny lobsters	2,190	2,132	27,607	12.9
Slipper lobsters	23	0	0	0.00
Crabs	4,103	1,847	8,574	4.64
Shrimp (saltwater)	460	58	98	1.69
Octopus	2,533	1,066	4,250	3.99
Squid	573	500	941	1.88
Limpets (saltwater)	2,643	1,277	9,037	7.07
Invertebrates	20	0	0	0.00
Algae	508	349	18,085	51.8
<b>TOTAL</b>	<b>2,926,769</b>	<b>2,506,397</b>	<b>6,149,449</b>	<b>2.45</b>

**Table D-6**  
**Hawaii May 2009 Reported Commercial Landings**

Species	Caught	Sold	Value (\$)	Price/Lb (\$)
Miscellaneous	439	439	433	0.99
Sharks	25,984	22,842	13,751	0.60
Eels	257	257	239	0.93
Bigeye scad (akule)	56,280	34,354	107,782	3.14
Mackerel scad	20,717	11,525	30,432	2.64
Leatherjacket	15	6	11	1.70
Ten pounder	32	32	32	1.00
Bonefish	2,180	2,141	2,216	1.04
Herrings/sardines	618	618	1,099	1.78
Milkfish	126	126	130	1.03
Flying fishes	6	6	9	1.62
Needlefishes	4	4	6	1.50
Threadfin	47	37	295	7.91
Mullets	1,232	1,091	4,749	4.35
Pomfret	78,376	78,376	100,392	1.28
Oilfish	35,863	35,863	68,717	1.92
Jacks	146	146	462	3.16
Kahala (amberjack)	1,480	42	66	1.59
Sasa ulua	52	27	67	2.50
Butaguchi (pig-lipped ulua)	613	613	1,104	1.80
Dobe ulua	4,959	3,888	5,218	1.34
Papa ulua	969	575	1,600	2.78
White ulua	2,136	644	1,422	2.21
Gunkin (black) ulua	237	181	297	1.64
Blue trevally	508	190	432	2.27
Hapuupuu (hawaiian grouper)	2,434	2,434	11,095	4.56
Blue spot grouper	353	225	427	1.90
Kalekale	1,650	1,288	3,811	2.96
Snappers	431	431	1,651	3.83
Yellow-tail kali	1	1	3	2.50
Taape (blue lined snapper)	7,264	6,292	10,294	1.64
Ehu (red snapper)	5,648	3,390	17,271	5.09
Gindai (flower snapper)	902	751	2,825	3.76
Golden kalekale	20	0	0	0.00
Lehi (silverjaw)	1,870	1,394	5,527	3.97
Onaga (red snapper)	10,446	7,688	51,244	6.67
Opakapaka (pink snapper)	14,311	11,854	62,612	5.28
Uku (gray snapper)	17,676	13,506	39,095	2.89
Porgy	510	510	1,849	3.62
Reef fishes (unknown)	342	0	0	0.00
Reef jacks	5	0	0	0.00
Squirlfishes	6,548	6,548	26,917	4.11
Trumpetfish	3	0	0	0.00
Scorpionfishes	442	336	1,603	4.76
Mountain bass	243	215	886	4.12
Bigeyes	521	516	1,777	3.45

**Table D-6 (continued)**  
**Hawaii May 2009 Reported Commercial Landings**

<b>Species</b>	<b>Caught</b>	<b>Sold</b>	<b>Value (\$)</b>	<b>Price/Lb (\$)</b>
Goatfishes	6,748	6,748	31,699	4.70
Rudderfish	2,724	2,531	3,961	1.56
Damselfishes	247	247	729	2.95
Hawkfish	135	135	435	3.22
Tilapia	95	91	273	3.00
Wrasses	1,034	686	2,123	3.10
Parrotfishes	8,108	7,658	29,804	3.89
Surgeonfishes/tangs	11,433	11,283	23,008	2.04
Filefishes	182	182	311	1.72
Moonfish (opah)	137,864	127,394	162,288	1.27
Rainbow runner	425	425	710	1.67
Mahimahi	86,203	65,458	178,151	2.72
Barracudas	3,551	3,551	1,936	0.55
Wahoo	127,870	92,716	203,298	2.19
Tunas (unknown)	609	16	22	1.40
Skipjack tuna	92,291	54,434	83,047	1.53
Yellowfin tuna	199,044	168,602	408,675	2.42
Albacore tuna	26,658	26,230	54,644	2.08
Bigeye tuna	720,395	720,395	2,980,657	4.14
Kawakawa	2,061	1,356	2,669	1.97
Billfishes (unknown)	90	0	0	0.00
Swordfish	751,565	751,565	1,199,223	1.60
Blue marlin	120,222	109,683	100,522	0.92
Black marlin	764	275	137	0.50
Striped marlin	96,162	96,162	85,273	0.89
Shortnose spearfish	23,140	23,140	15,081	0.65
Sailfish	1,678	820	303	0.37
Crabs	1,596	242	1,459	6.03
Shrimp (saltwater)	93	33	50	1.50
Octopus	1,432	1,269	5,084	4.01
Squid	184	164	245	1.50
Limpets (saltwater)	3,036	1,053	6,594	6.26
Algae	1,959	1,959	4,008	2.05
<b>TOTAL</b>	<b>2,734,487</b>	<b>2,527,899</b>	<b>6,166,266</b>	<b>2.44</b>

**Table D-7**  
**Hawaii June 2009 Reported Commercial Landings**

<b>Species</b>	<b>Caught</b>	<b>Sold</b>	<b>Value (\$)</b>	<b>Price/Lb (\$)</b>
Miscellaneous	285	285	323	1.13
Sharks	25,624	19,873	8,629	0.43
Eels	156	137	137	1.00
Bigeye scad (akule)	29,448	24,563	77,568	3.16
Mackerel scad	19,756	11,286	31,073	2.75
Leatherjacket	9	8	13	1.62
Ten pounder	238	233	233	1.00
Bonefish	263	225	225	1.00
Milkfish	54	54	59	1.10
Flying fishes	1	0	0	0.00
Needlefishes	2	0	0	0.00
Mullets	309	211	947	4.50
Pomfret	55,098	55,098	117,840	2.14
Oilfish	36,983	36,983	63,686	1.72
Jacks	235	235	363	1.54
Kahala (amberjack)	177	8	10	1.25
Sasa ulua	8	0	0	0.00
Butaguchi (pig-lipped ulua)	59	59	142	2.40
Dobe ulua	9	0	0	0.00
Papa ulua	576	217	643	2.96
White ulua	1,193	1,193	2,690	2.26
Blue trevally	909	406	869	2.14
Hapuupuu (hawaiian grouper)	919	919	4,631	5.04
Blue spot grouper	261	149	603	4.05
Kalekale	542	542	1,608	2.97
Snappers	323	298	1,212	4.07
Yellow-tail kali	5	5	14	2.75
Taape (blue lined snapper)	3,551	3,243	5,576	1.72
Ehu (red snapper)	1,364	1,364	7,695	5.64
Gindai (flower snapper)	263	263	946	3.60
Golden kalekale	4	0	0	0.00
Lehi (silverjaw)	473	365	1,219	3.34
Onaga (red snapper)	2,859	1,869	14,038	7.51
Opakapaka (pink snapper)	6,268	4,232	24,521	5.79
Uku (gray snapper)	18,068	18,068	51,290	2.84
Porgy	364	351	1,245	3.55
Reef fishes (unknown)	280	14	7	0.50
Squirrelfishes	2,805	2,325	9,771	4.20
Trumpetfish	7	3	4	1.07
Scorpionfishes	208	192	910	4.74
Mountain bass	200	192	759	3.96
Bigeyes	171	104	294	2.83
Goatfishes	3,841	3,659	15,708	4.29
Rudderfish	868	868	1,547	1.78
Damselfishes	127	127	357	2.82
Hawkfish	92	92	342	3.73

**Table D-7 (continued)**  
**Hawaii June 2009 Reported Commercial Landings**

<b>Species</b>	<b>Caught</b>	<b>Sold</b>	<b>Value (\$)</b>	<b>Price/Lb (\$)</b>
Tilapia	1,555	0	0	0.00
Wrasses	525	401	1,276	3.18
Parrotfishes	5,021	5,021	18,588	3.70
Surgeonfishes/tangs	5,107	5,107	9,825	1.92
Flounders	2	2	5	3.25
Filefishes	133	133	131	0.99
Moonfish (opah)	130,979	128,244	177,416	1.38
Rainbow runner	266	165	195	1.18
Mahimahi	73,902	62,174	141,446	2.28
Barracudas	3,235	2,222	1,872	0.84
Wahoo	92,482	72,405	181,819	2.51
Tunas (unknown)	1,233	4	14	3.50
Skipjack tuna	87,972	44,356	66,841	1.51
Yellowfin tuna	326,898	246,150	613,196	2.49
Albacore tuna	25,457	23,576	50,804	2.15
Bigeye tuna	721,046	720,298	2,602,280	3.61
Kawakawa	1,774	735	1,757	2.39
Swordfish	462,492	462,492	837,929	1.81
Blue marlin	167,997	152,865	129,893	0.85
Black marlin	801	0	0	0.00
Striped marlin	76,577	73,533	74,610	1.01
Shortnose spearfish	23,942	20,805	16,468	0.79
Sailfish	3,724	3,724	1,995	0.54
Crabs	2,574	89	612	6.87
Octopus	1,509	801	3,305	4.12
Squid	60	15	47	3.18
Limpets (saltwater)	1,119	757	4,568	6.04
Algae	866	756	1,782	2.36
<b>TOTAL</b>	<b>2,434,499</b>	<b>2,217,141</b>	<b>5,388,421</b>	<b>2.43</b>

**Table D-8**  
**Hawaii July 2009 Reported Commercial Landings**

<b>Species</b>	<b>Caught</b>	<b>Sold</b>	<b>Value (\$)</b>	<b>Price/Lb (\$)</b>
Miscellaneous	300	300	359	1.20
Sharks	29,144	27,486	14,403	0.52
Eels	261	176	178	1.01
Bigeye scad (akule)	31,931	24,063	75,485	3.14
Mackerel scad	23,089	16,365	44,092	2.69
Leatherjacket	4	1	1	1.25
Bonefish	1,742	1,536	1,547	1.01
Milkfish	301	300	362	1.21
Flying fishes	1	1	3	3.00
Needlefishes	17	14	20	1.44
Threadfin	2	2	14	6.00
Mullets	493	408	1,813	4.45
Pomfret	58,047	58,047	131,558	2.27
Oilfish	39,341	39,341	73,992	1.88
Jacks	37	37	117	3.20
Kahala (amberjack)	125	5	5	1.00
Sasa ulua	14	8	21	2.50
Butaguchi (pig-lipped ulua)	317	0	0	0.00
Dobe ulua	10	6	25	4.08
Papa ulua	310	310	870	2.81
White ulua	1,248	895	2,059	2.30
Gunkin (black) ulua	40	0	0	0.00
Blue trevally	1,451	922	2,119	2.30
Hapuupuu (hawaiian grouper)	1,570	792	3,499	4.42
Blue spot grouper	360	223	705	3.17
Kalekale	162	107	347	3.24
Snappers	282	282	981	3.48
Taape (blue lined snapper)	3,314	2,915	5,117	1.76
Ehu (red snapper)	451	345	1,860	5.39
Gindai (flower snapper)	121	15	73	5.06
Golden kalekale	9	0	0	0.00
Lehi (silverjaw)	122	0	0	0.00
Onaga (red snapper)	2,756	2,756	15,826	5.74
Opakapaka (pink snapper)	3,140	2,146	12,559	5.85
Uku (gray snapper)	14,145	13,053	47,884	3.67
Porgy	729	597	2,163	3.62
Reef fishes (unknown)	385	1	1	0.50
Squirrelfishes	3,245	3,141	13,411	4.27
Scorpionfishes	181	103	377	3.67
Mountain bass	113	69	282	4.12
Bigeyes	82	82	315	3.84
Goatfishes	3,323	2,978	12,981	4.36
Rudderfish	2,714	2,551	3,585	1.41
Damselfishes	273	200	473	2.37
Hawkfish	109	109	391	3.57
Tilapia	1,703	0	0	0.00

**Table D-8 (continued)**  
**Hawaii July 2009 Reported Commercial Landings**

<b>Species</b>	<b>Caught</b>	<b>Sold</b>	<b>Value (\$)</b>	<b>Price/Lb (\$)</b>
Wrasses	630	330	560	1.70
Parrotfishes	4,075	3,590	13,894	3.87
Surgeonfishes/tangs	6,727	6,564	12,504	1.90
Flounders	13	7	11	1.50
Filefishes	106	91	87	0.95
Moonfish (opah)	186,793	186,793	214,056	1.15
Rainbow runner	192	101	203	2.01
Mahimahi	199,106	183,485	356,122	1.94
Barracudas	2,591	2,591	1,441	0.56
Wahoo	104,073	88,614	216,403	2.44
Tunas (unknown)	936	39	54	1.41
Skipjack tuna	164,407	115,622	144,050	1.25
Yellowfin tuna	277,648	243,566	671,376	2.76
Albacore tuna	106,810	98,928	146,589	1.48
Bigeye tuna	766,246	766,246	3,202,993	4.18
Kawakawa	900	269	495	1.84
Billfishes (unknown)	111	75	150	2.00
Swordfish	342,211	342,211	435,253	1.27
Blue marlin	157,897	146,598	135,643	0.93
Black marlin	413	0	0	0.00
Striped marlin	51,091	51,091	59,544	1.17
Shortnose spearfish	24,531	24,531	17,389	0.71
Sailfish	5,461	5,461	3,288	0.60
Crabs	3,518	136	619	4.57
Octopus	2,505	1,897	7,378	3.89
Squid	391	391	680	1.74
Limpets (saltwater)	1,388	686	5,019	7.32
Invertebrates	21	21	82	4.00
Algae	3,539	1,343	6,444	4.80
<b>TOTAL</b>	<b>2,641,841</b>	<b>2,473,960</b>	<b>6,124,198</b>	<b>2.48</b>

**Table D-9**  
**Hawaii August 2009 Reported Commercial Landings**

<b>Species</b>	<b>Caught</b>	<b>Sold</b>	<b>Value (\$)</b>	<b>Price/Lb (\$)</b>
Miscellaneous	65	65	60	0.93
Sharks	24,062	17,993	15,692	0.87
Eels	235	92	114	1.24
Bigeye scad (akule)	15,761	11,196	38,868	3.47
Mackerel scad	24,576	17,737	47,291	2.67
Leatherjacket	8	1	1	1.25
Ten pounder	983	773	773	1.00
Bonefish	703	259	273	1.05
Milkfish	10	10	10	1.00
Needlefishes	23	6	11	1.93
Threadfin	4	4	26	6.00
Mullets	524	449	1,952	4.35
Pomfret	37,914	35,996	120,562	3.35
Oilfish	35,633	35,633	74,527	2.09
Jacks	29	27	109	4.00
Kahala (amberjack)	90	0	0	0.00
Sasa ulua	35	25	78	3.10
Butaguchi (pig-lipped ulua)	312	312	738	2.37
Papa ulua	129	106	370	3.49
White ulua	851	651	1,311	2.01
Gunkin (black) ulua	52	0	0	0.00
Blue trevally	859	518	1,370	2.64
Hapuupuu (hawaiian grouper)	624	624	3,269	5.24
Blue spot grouper	486	406	1,314	3.23
Kalekale	56	56	224	4.00
Snappers	298	238	937	3.94
Taape (blue lined snapper)	2,153	1,743	2,537	1.46
Ehu (red snapper)	80	39	207	5.32
Gindai (flower snapper)	118	75	310	4.13
Golden kalekale	8	0	0	0.00
Onaga (red snapper)	103	0	0	0.00
Opakapaka (pink snapper)	287	287	2,083	7.26
Uku (gray snapper)	12,190	6,327	31,295	4.95
Porgy	349	188	596	3.17
Reef fishes (unknown)	309	4	18	3.98
Squirrelfishes	3,518	2,804	11,670	4.16
Trumpetfish	2	0	0	0.00
Scorpionfishes	97	94	313	3.32
Mountain bass	74	61	234	3.83
Bigeyes	81	81	223	2.77
Goatfishes	4,158	4,158	18,455	4.44
Rudderfish	3,131	3,071	4,322	1.41
Damselfishes	231	231	681	2.95
Hawkfish	143	143	464	3.24
Tilapia	1,681	223	696	3.12
Wrasses	553	241	505	2.10

**Table D-9 (continued)**  
**Hawaii August 2009 Reported Commercial Landings**

<b>Species</b>	<b>Caught</b>	<b>Sold</b>	<b>Value (\$)</b>	<b>Price/Lb (\$)</b>
Parrotfishes	3,978	3,569	12,653	3.55
Surgeonfishes/tangs	8,767	8,767	15,519	1.77
Flounders	3	3	3	1.25
Filefishes	72	61	45	0.74
Pufferfishes	15	0	0	0.00
Pelagic fishes (unknown)	48	0	0	0.00
Moonfish (opah)	196,890	187,160	256,709	1.37
Rainbow runner	228	101	236	2.33
Mahimahi	252,630	219,392	423,442	1.93
Barracudas	3,425	3,425	2,652	0.77
Wahoo	70,809	53,116	176,719	3.33
Tunas (unknown)	910	0	0	0.00
Skipjack tuna	132,315	105,812	152,507	1.44
Yellowfin tuna	299,034	261,388	661,842	2.53
Albacore tuna	78,860	73,266	107,177	1.46
Bigeye tuna	771,645	742,228	3,091,430	4.17
Kawakawa	615	166	286	1.73
Billfishes (unknown)	421	0	0	0.00
Swordfish	40,101	38,466	119,629	3.11
Blue marlin	156,591	139,792	165,296	1.18
Black marlin	2,238	76	912	12.0
Striped marlin	40,479	34,478	52,642	1.53
Shortnose spearfish	16,163	15,626	22,571	1.44
Sailfish	3,881	3,881	3,790	0.98
Crabs	5,960	229	921	4.03
Octopus	3,318	2,605	10,313	3.96
Squid	910	464	760	1.64
Limpets (saltwater)	1,341	667	4,456	6.69
Algae	1,025	342	2,522	7.38
<b>TOTAL</b>	<b>2,266,255</b>	<b>2,038,025</b>	<b>5,669,523</b>	<b>2.78</b>

**Table D-10**  
**Hawaii September 2009 Reported Commercial Landings**

Species	Caught	Sold	Value (\$)	Price/Lb (\$)
Miscellaneous	273	273	267	0.98
Sharks	33,046	25,797	10,109	0.39
Eels	322	314	345	1.10
Bigeye scad (akule)	14,212	10,008	35,280	3.53
Mackerel scad	37,157	25,415	67,196	2.64
Leatherjacket	12	0	0	0.50
Ten pounder	68	7	7	1.00
Bonefish	177	93	161	1.73
Herrings/sardines	0	0	1	1.50
Milkfish	45	15	22	1.45
Needlefishes	27	20	36	1.84
Threadfin	103	98	743	7.57
Mullets	1,063	869	3,179	3.66
Pomfret	35,714	35,714	88,565	2.48
Oilfish	22,731	22,731	53,232	2.34
Jacks	184	184	537	2.91
Kahala (amberjack)	910	32	57	1.80
Sasa ulua	89	89	236	2.66
Butaguchi (pig-lipped ulua)	256	256	647	2.53
Dobe ulua	28	23	56	2.42
Papa ulua	158	111	451	4.05
White ulua	1,367	861	2,161	2.51
Gunkin (black) ulua	29	29	52	1.80
Blue trevally	984	623	1,374	2.21
Hapuupuu (hawaiian grouper)	1,012	990	5,244	5.30
Blue spot grouper	370	239	828	3.47
Kalekale	853	640	2,030	3.17
Snappers	206	162	594	3.67
Yellow-tail kali	10	1	3	3.00
Taape (blue lined snapper)	2,182	1,730	2,016	1.17
Ehu (red snapper)	1,723	1,312	7,714	5.88
Gindai (flower snapper)	346	299	1,198	4.01
Golden kalekale	21	0	0	0.00
Lehi (silverjaw)	811	722	3,061	4.24
Onaga (red snapper)	6,159	5,386	34,982	6.50
Opakapaka (pink snapper)	10,844	8,397	48,567	5.78
Uku (gray snapper)	10,517	10,517	34,709	3.30
Porgy	365	187	599	3.21
Reef fishes (unknown)	68	0	0	0.00
Squirlfishes	5,088	5,088	21,679	4.26
Trumpetfish	11	0	0	0.00
Scorpionfishes	286	178	1,026	5.77
Mountain bass	160	102	416	4.10
Bigeyes	249	249	877	3.52
Goatfishes	6,180	3,185	14,979	4.70
Rudderfish	566	566	993	1.76

**Table D-10 (continued)**  
**Hawaii September 2009 Reported Commercial Landings**

<b>Species</b>	<b>Caught</b>	<b>Sold</b>	<b>Value (\$)</b>	<b>Price/Lb (\$)</b>
Damselfishes	230	230	663	2.88
Hawkfish	132	132	414	3.13
Tilapia	925	0	0	0.00
Wrasses	541	347	1,069	3.09
Parrotfishes	4,760	4,657	16,588	3.56
Surgeonfishes/tangs	6,888	6,869	13,506	1.97
Filefishes	99	99	84	0.85
Moonfish (opah)	206,225	206,225	178,457	0.87
Rainbow runner	156	75	148	1.98
Mahimahi	202,115	186,673	312,013	1.67
Barracudas	1,299	1,150	1,430	1.24
Wahoo	51,375	41,396	120,216	2.90
Tunas (unknown)	241	4	9	2.20
Skipjack tuna	131,806	107,324	148,362	1.38
Yellowfin tuna	343,244	329,551	653,653	1.98
Albacore tuna	107,604	96,404	118,707	1.23
Bigeye tuna	844,365	844,365	2,815,276	3.33
Kawakawa	537	207	379	1.84
Billfishes (unknown)	296	0	0	0.00
Swordfish	13,577	13,577	35,623	2.62
Blue marlin	114,350	108,016	136,640	1.27
Black marlin	328	71	496	7.03
Striped marlin	19,873	19,873	41,398	2.08
Shortnose spearfish	14,344	13,504	17,761	1.32
Sailfish	4,195	4,195	5,037	1.20
Spiny lobsters	2,933	2,136	27,918	13.1
Slipper lobsters	7	0	0	0.00
Crabs	6,485	1,988	8,107	4.08
Octopus	2,664	2,151	7,971	3.71
Squid	1,202	1,083	1,960	1.81
Limpets (saltwater)	937	759	6,895	9.09
Invertebrates	5	0	0	0.00
Algae	572	409	1,893	4.63
<b>TOTAL</b>	<b>2,281,284</b>	<b>2,156,975</b>	<b>5,118,899</b>	<b>2.37</b>

**Table D-11**  
**Hawaii October 2009 Reported Commercial Landings**

Species	Caught	Sold	Value (\$)	Price/Lb (\$)
Miscellaneous	172	172	376	2.19
Sharks	23,586	16,868	8,204	0.49
Eels	177	110	113	1.03
Bigeye scad (akule)	19,833	14,232	49,115	3.45
Mackerel scad	38,242	24,387	59,653	2.45
Leatherjacket	107	81	149	1.84
Ten pounder	129	129	144	1.12
Bonefish	2,473	2,186	2,197	1.01
Milkfish	142	135	167	1.24
Needlefishes	585	29	47	1.63
Threadfin	124	86	654	7.60
Mullets	770	715	3,096	4.33
Pomfret	46,984	46,483	98,283	2.11
Oilfish	26,660	26,660	68,000	2.55
Jacks	225	24	60	2.50
Kahala (amberjack)	1,567	73	130	1.78
Sasa ulua	205	3	7	2.50
Butaguchi (pig-lipped ulua)	899	120	505	4.21
Dobe ulua	20	0	0	0.00
Papa ulua	680	680	2,072	3.05
White ulua	1,925	1,207	2,568	2.13
Gunkin (black) ulua	94	28	83	2.96
Blue trevally	982	397	877	2.21
Hapuupuu (hawaiian grouper)	2,798	2,456	11,630	4.74
Blue spot grouper	244	127	413	3.25
Kalekale	1,285	844	2,985	3.54
Snappers	582	438	1,679	3.83
Yellow-tail kali	3	0	0	0.00
Taape (blue lined snapper)	7,301	7,301	10,939	1.50
Ehu (red snapper)	3,082	2,206	11,486	5.21
Gindai (flower snapper)	597	414	1,822	4.40
Golden kalekale	54	2	4	1.80
Lehi (silverjaw)	622	494	1,893	3.84
Onaga (red snapper)	10,640	9,006	57,911	6.43
Opakapaka (pink snapper)	22,961	18,708	99,333	5.31
Uku (gray snapper)	13,595	8,901	31,676	3.56
Snake mackerel	2	0	0	0.00
Porgy	725	617	2,247	3.64
Reef fishes (unknown)	181	41	41	1.00
Reef jacks	4	4	14	4.00
Squirlfishes	11,532	9,619	39,659	4.12
Trumpetfish	8	4	6	1.56
Scorpionfishes	414	220	1,363	6.19
Mountain bass	264	215	999	4.64
Bigeyes	402	402	1,490	3.71
Goatfishes	7,299	6,592	32,171	4.88

**Table D-11 (continued)**  
**Hawaii October 2009 Reported Commercial Landings**

<b>Species</b>	<b>Caught</b>	<b>Sold</b>	<b>Value (\$)</b>	<b>Price/Lb (\$)</b>
Rudderfish	2,094	2,094	3,099	1.48
Damselfishes	277	277	829	2.99
Hawkfish	107	107	329	3.07
Tilapia	191	155	465	3.00
Wrasses	1,382	1,382	3,607	2.61
Parrotfishes	4,073	3,477	12,294	3.54
Surgeonfishes/tangs	9,408	8,315	15,863	1.91
Flounders	35	35	59	1.67
Filefishes	158	158	95	0.60
Moonfish (opah)	264,927	262,853	227,873	0.87
Rainbow runner	257	132	235	1.78
Mahimahi	160,400	148,615	285,307	1.92
Barracudas	754	462	938	2.03
Wahoo	52,301	41,247	123,940	3.00
Tunas (unknown)	3,393	47	86	1.83
Skipjack tuna	111,835	82,949	98,164	1.18
Yellowfin tuna	190,167	183,813	399,427	2.17
Albacore tuna	43,874	40,431	50,959	1.26
Bigeye tuna	1,156,943	1,156,943	3,316,065	2.87
Kawakawa	880	308	688	2.23
Swordfish	15,848	15,576	40,326	2.59
Blue marlin	79,854	69,505	87,495	1.26
Striped marlin	39,400	39,180	69,780	1.78
Shortnose spearfish	15,329	14,859	21,410	1.44
Sailfish	3,206	3,206	4,761	1.49
Spiny lobsters	1,854	1,293	14,423	11.2
Slipper lobsters	7	0	0	0.00
Crabs	6,637	2,040	8,132	3.99
Octopus	5,888	4,303	16,528	3.84
Squid	334	309	498	1.61
Limpets (saltwater)	1,640	1,204	6,963	5.78
Invertebrates	35	33	132	4.00
Algae	138	138	843	6.13
<b>TOTAL</b>	<b>2,424,797</b>	<b>2,288,860</b>	<b>5,417,870</b>	<b>2.37</b>

**Table D-12**  
**Hawaii November 2009 Reported Commercial Landings**

Species	Caught	Sold	Value (\$)	Price/Lb (\$)
Miscellaneous	109	109	724	6.67
Sharks	38,368	24,181	6,884	0.28
Eels	82	27	27	1.00
Bigeye scad (akule)	20,385	17,302	53,939	3.12
Mackerel scad	31,408	19,872	53,487	2.69
Leatherjacket	40	40	74	1.86
Ten pounder	139	139	139	1.00
Bonefish	353	260	283	1.09
Herrings/sardines	58	58	116	2.00
Milkfish	77	38	56	1.50
Needlefishes	191	55	106	1.93
Threadfin	97	57	391	6.90
Mullets	1,382	1,165	4,521	3.88
Pomfret	50,359	48,952	101,117	2.07
Oilfish	42,552	42,552	34,847	0.82
Jacks	84	84	276	3.29
Kahala (amberjack)	405	22	44	2.00
Sasa ulua	55	28	85	2.99
Butaguchi (pig-lipped ulua)	716	716	1,128	1.58
Dobe ulua	49	49	112	2.30
Papa ulua	414	307	1,067	3.47
White ulua	584	284	650	2.29
Blue trevally	246	235	431	1.83
Hapupuu (hawaiian grouper)	747	747	4,518	6.04
Blue spot grouper	269	261	632	2.42
Kalekale	362	282	942	3.34
Snappers	410	403	1,036	2.57
Taape (blue lined snapper)	1,995	1,733	3,126	1.80
Ehu (red snapper)	846	702	4,037	5.75
Gindai (flower snapper)	95	64	269	4.21
Lehi (silverjaw)	169	159	547	3.45
Onaga (red snapper)	2,798	2,482	19,119	7.70
Opakapaka (pink snapper)	4,206	4,206	25,392	6.04
Uku (gray snapper)	6,187	6,187	17,015	2.75
Porgy	536	120	415	3.46
Reef fishes (unknown)	75	0	0	0.00
Reef jacks	203	203	758	3.74
Squirrelfishes	4,227	4,227	17,486	4.14
Trumpetfish	8	8	12	1.44
Scorpionfishes	67	34	216	6.44
Mountain bass	230	134	709	5.28
Bigeyes	104	104	357	3.44
Goatfishes	2,066	1,367	6,054	4.43
Rudderfish	212	50	85	1.72
Damselfishes	205	205	622	3.04
Hawkfish	76	67	250	3.71

**Table D-12 (continued)**  
**Hawaii November 2009 Reported Commercial Landings**

<b>Species</b>	<b>Caught</b>	<b>Sold</b>	<b>Value (\$)</b>	<b>Price/Lb (\$)</b>
Wrasses	329	228	449	1.97
Parrotfishes	2,835	1,359	5,082	3.74
Surgeonfishes/tangs	6,298	3,792	7,431	1.96
Filefishes	32	32	18	0.57
Moonfish (opah)	194,110	191,669	216,261	1.13
Rainbow runner	280	172	427	2.48
Mahimahi	160,595	143,846	281,201	1.95
Barracudas	503	494	756	1.53
Wahoo	27,033	23,923	70,590	2.95
Tunas (unknown)	1,106	0	0	0.00
Skipjack tuna	60,698	38,133	54,276	1.42
Yellowfin tuna	143,783	125,050	330,621	2.64
Albacore tuna	11,607	10,535	23,931	2.27
Bigeye tuna	1,238,462	1,164,190	3,730,254	3.20
Kawakawa	728	558	1,413	2.53
Billfishes (unknown)	180	0	0	0.00
Swordfish	15,781	15,781	46,898	2.97
Blue marlin	52,787	41,558	57,598	1.39
Striped marlin	43,500	42,082	77,411	1.84
Shortnose spearfish	15,360	14,456	20,161	1.39
Sailfish	477	477	796	1.67
Spiny lobsters	992	545	5,732	10.5
Slipper lobsters	6	0	0	0.00
Crabs	2,725	460	2,755	5.99
Octopus	2,287	1,852	6,963	3.76
Squid	181	180	450	2.50
Limpets (saltwater)	1,663	1,351	7,938	5.88
Invertebrates	14	14	61	4.50
Algae	266	126	715	5.70
<b>TOTAL</b>	<b>2,198,860</b>	<b>2,003,137</b>	<b>5,314,290</b>	<b>2.65</b>

**Table D-13**  
**Hawaii December 2009 Reported Commercial Landings**

Species	Caught	Sold	Value (\$)	Price/Lb (\$)
Miscellaneous	340	340	398	1.17
Sharks	48,985	32,029	3,520	0.11
Eels	50	50	55	1.10
Bigeye scad (akule)	32,954	18,670	58,553	3.14
Mackerel scad	22,179	12,851	32,774	2.55
Leatherjacket	59	54	87	1.62
Ten pounder	82	82	85	1.03
Bonefish	134	128	128	1.00
Herrings/sardines	290	0	0	0.00
Milkfish	161	161	205	1.28
Needlefishes	76	38	77	2.05
Threadfin	81	81	482	5.97
Mullets	75	73	171	2.34
Pomfret	45,992	45,992	136,843	2.98
Oilfish	87,427	87,427	30,696	0.35
Jacks	124	69	206	2.99
Kahala (amberjack)	3,902	67	72	1.06
Sasa ulua	51	40	117	2.95
Butaguchi (pig-lipped ulua)	405	306	1,053	3.44
Papa ulua	772	450	1,538	3.42
White ulua	1,582	1,303	2,328	1.79
Gunkin (black) ulua	55	55	111	2.05
Blue trevally	762	656	1,186	1.81
Hapuupuu (hawaiian grouper)	2,511	2,155	11,409	5.29
Blue spot grouper	162	107	343	3.21
Kalekale	3,532	2,241	7,446	3.32
Snappers	355	246	834	3.39
Yellow-tail kali	20	13	26	2.08
Taape (blue lined snapper)	4,874	4,436	7,228	1.63
Ehu (red snapper)	8,348	5,653	31,805	5.63
Gindai (flower snapper)	995	609	2,802	4.60
Golden kalekale	54	12	29	2.38
Lehi (silverjaw)	1,313	972	3,486	3.59
Onaga (red snapper)	17,581	14,049	110,343	7.85
Opakapaka (pink snapper)	32,575	26,615	158,540	5.96
Uku (gray snapper)	12,179	11,725	43,212	3.69
Snake mackerel	21	21	21	1.00
Porgy	284	284	1,013	3.57
Reef fishes (unknown)	74	0	0	0.00
Reef jacks	22	20	78	4.00
Squirlfishes	8,202	7,795	30,550	3.92
Trumpetfish	11	7	7	0.99
Scorpionfishes	969	516	2,969	5.75
Mountain bass	2,383	2,169	6,831	3.15
Bigeyes	345	334	1,131	3.38
Goatfishes	9,949	8,604	33,577	3.90

**Table D-13 (continued)**  
**Hawaii December 2009 Reported Commercial Landings**

<b>Species</b>	<b>Caught</b>	<b>Sold</b>	<b>Value (\$)</b>	<b>Price/Lb (\$)</b>
Rudderfish	501	325	711	2.19
Damselfishes	418	418	1,538	3.68
Hawkfish	89	89	357	4.03
Wrasses	754	596	1,911	3.21
Parrotfishes	4,729	4,289	14,711	3.43
Surgeonfishes/tangs	8,155	8,155	16,269	2.00
Filefishes	219	218	125	0.57
Pufferfishes	6	0	0	0.00
Pelagic fishes (unknown)	192	26	3	0.10
Moonfish (opah)	124,590	124,590	193,406	1.55
Rainbow runner	333	199	277	1.39
Mahimahi	54,540	45,188	117,314	2.60
Barracudas	880	880	1,041	1.18
Wahoo	32,891	28,299	91,927	3.25
Tunas (unknown)	892	258	576	2.23
Skipjack tuna	142,784	82,801	111,486	1.35
Yellowfin tuna	241,286	228,962	665,264	2.91
Albacore tuna	17,349	15,864	33,960	2.14
Bigeye tuna	1,608,044	1,608,044	6,114,445	3.80
Kawakawa	791	225	564	2.51
Swordfish	35,119	19,583	51,495	2.63
Blue marlin	47,009	36,805	58,853	1.60
Black marlin	197	0	0	0.00
Striped marlin	50,220	50,220	113,361	2.26
Shortnose spearfish	35,969	35,969	32,497	0.90
Sailfish	1,636	151	121	0.80
Spiny lobsters	2,808	2,232	27,935	12.5
Slipper lobsters	4	0	0	0.00
Crabs	7,088	2,153	9,672	4.49
Octopus	1,775	1,407	5,283	3.75
Squid	3	0	0	0.00
Limpets (saltwater)	2,847	1,180	6,102	5.17
Invertebrates	20	20	85	4.21
Algae	616	359	3,819	10.6
<b>TOTAL</b>	<b>2,778,044</b>	<b>2,589,005</b>	<b>8,399,471</b>	<b>3.24</b>

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

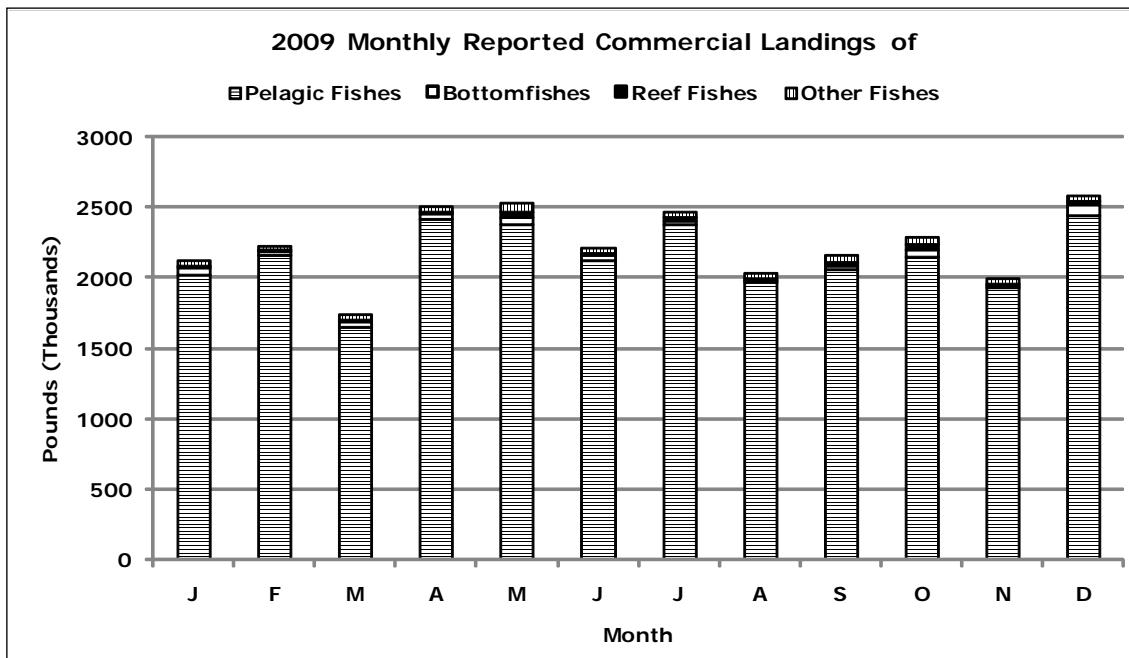


Figure D-1-1

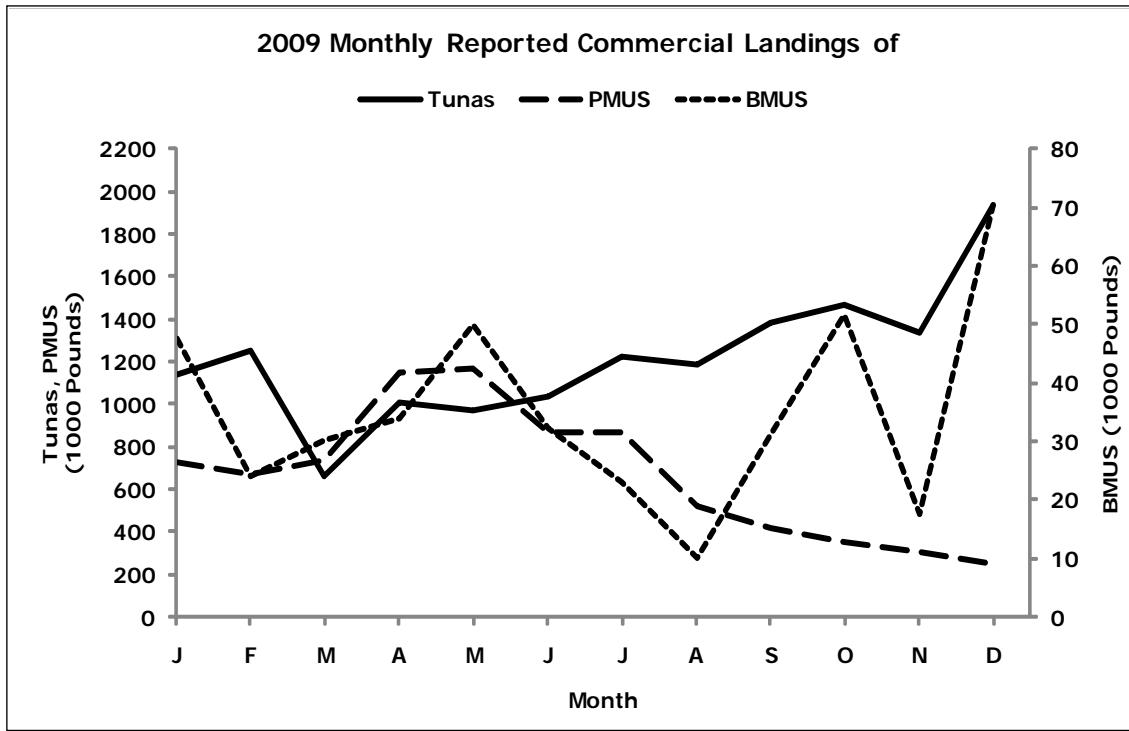


Figure D-1-2

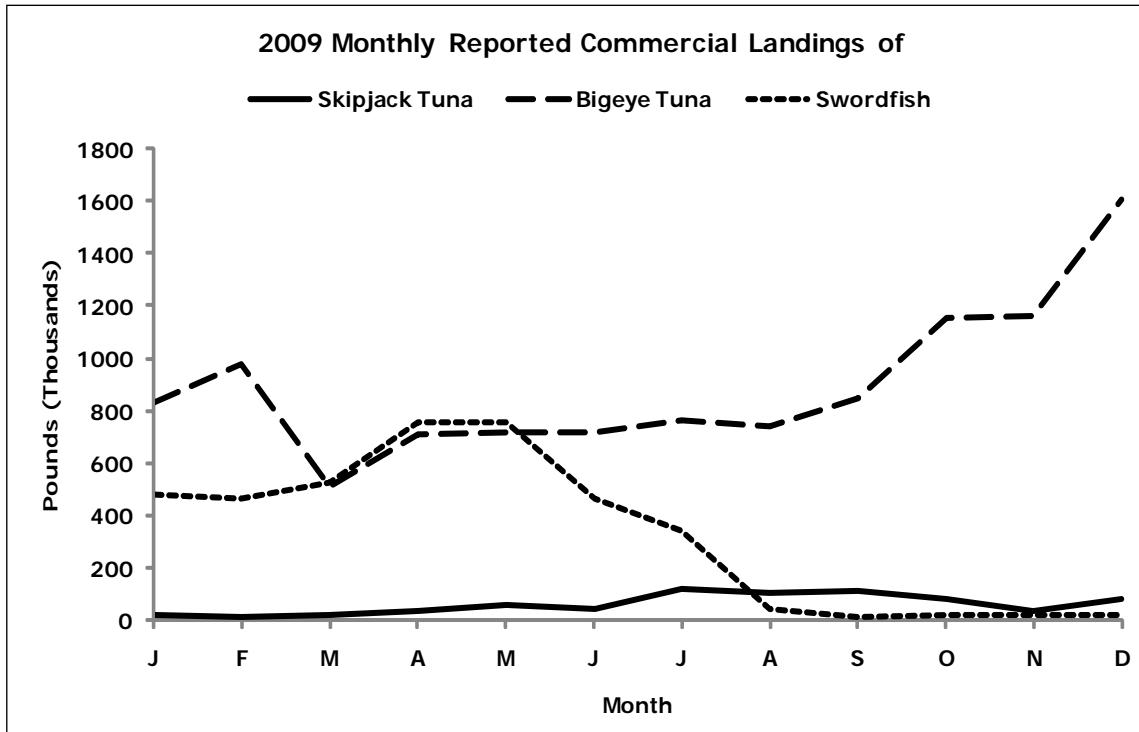


Figure D-1-3

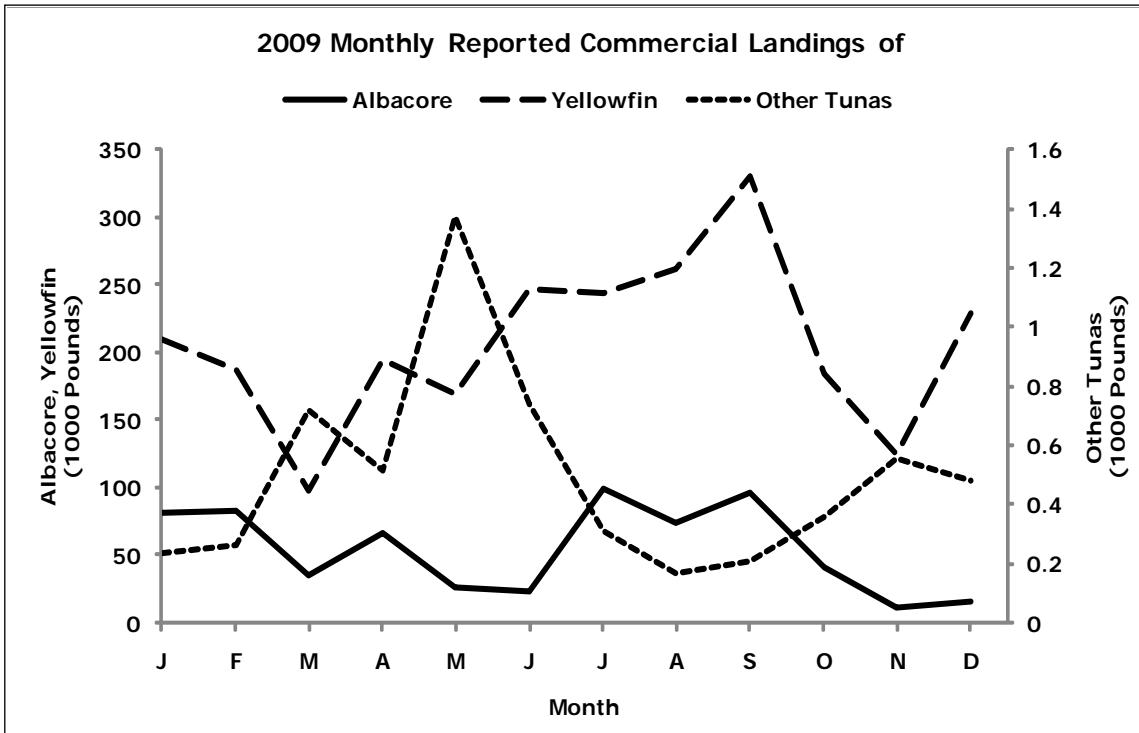


Figure D-1-4

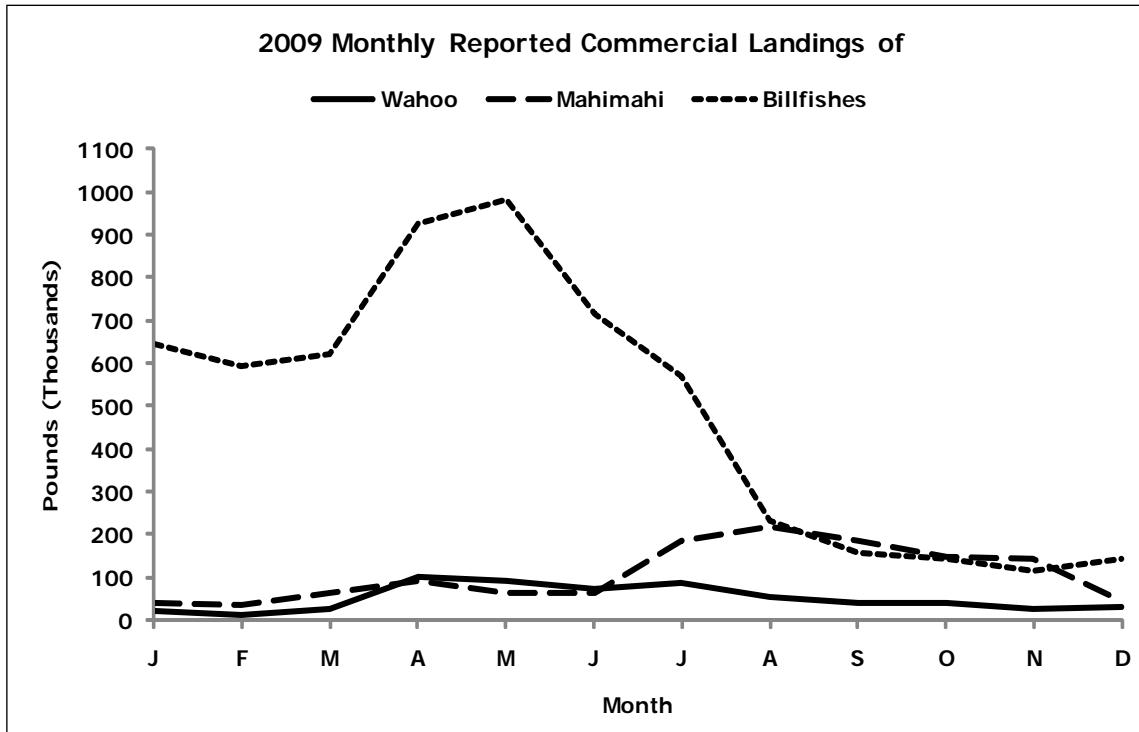


Figure D-1-5

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

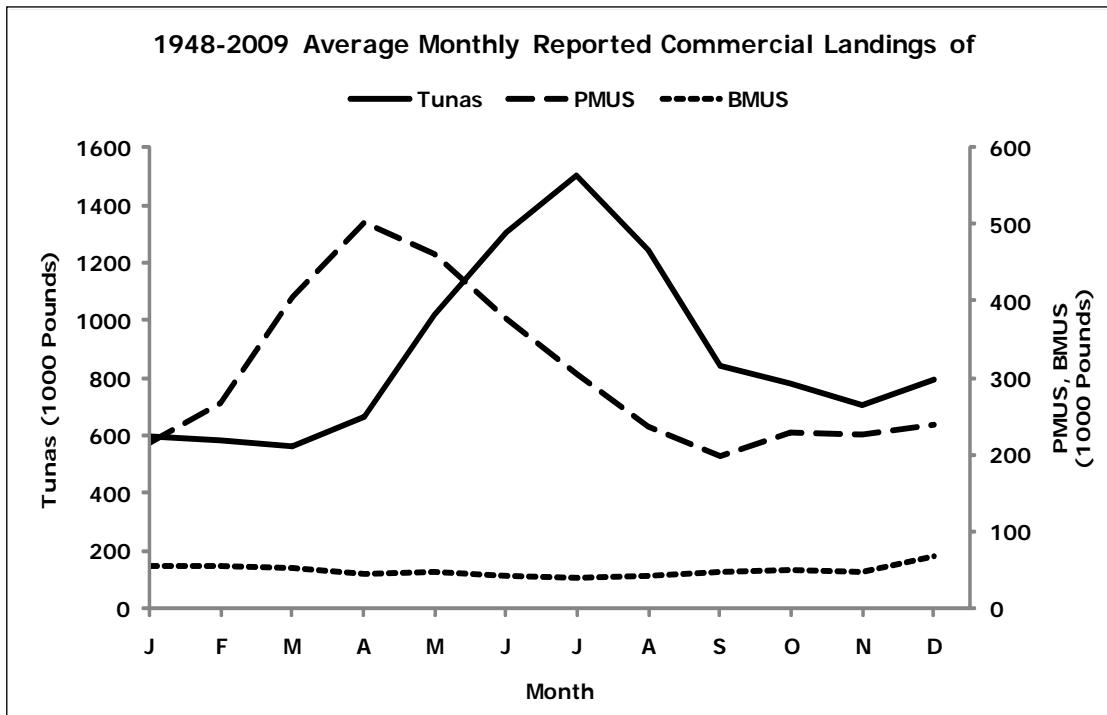


Figure D-2-1

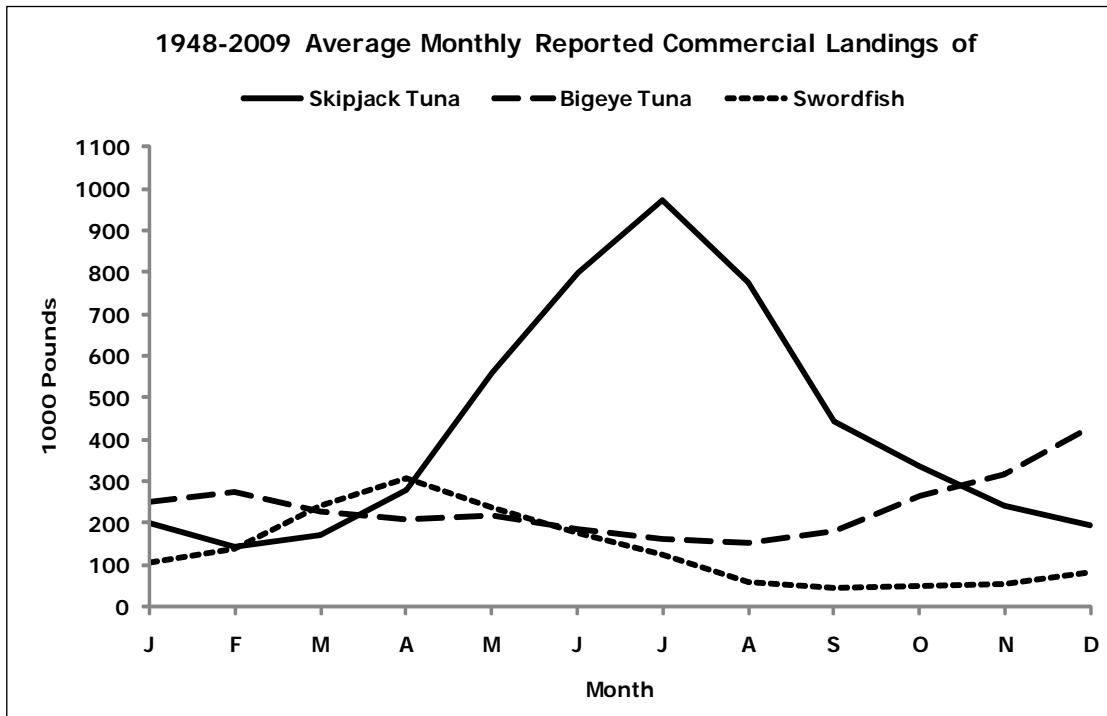


Figure D-2-2

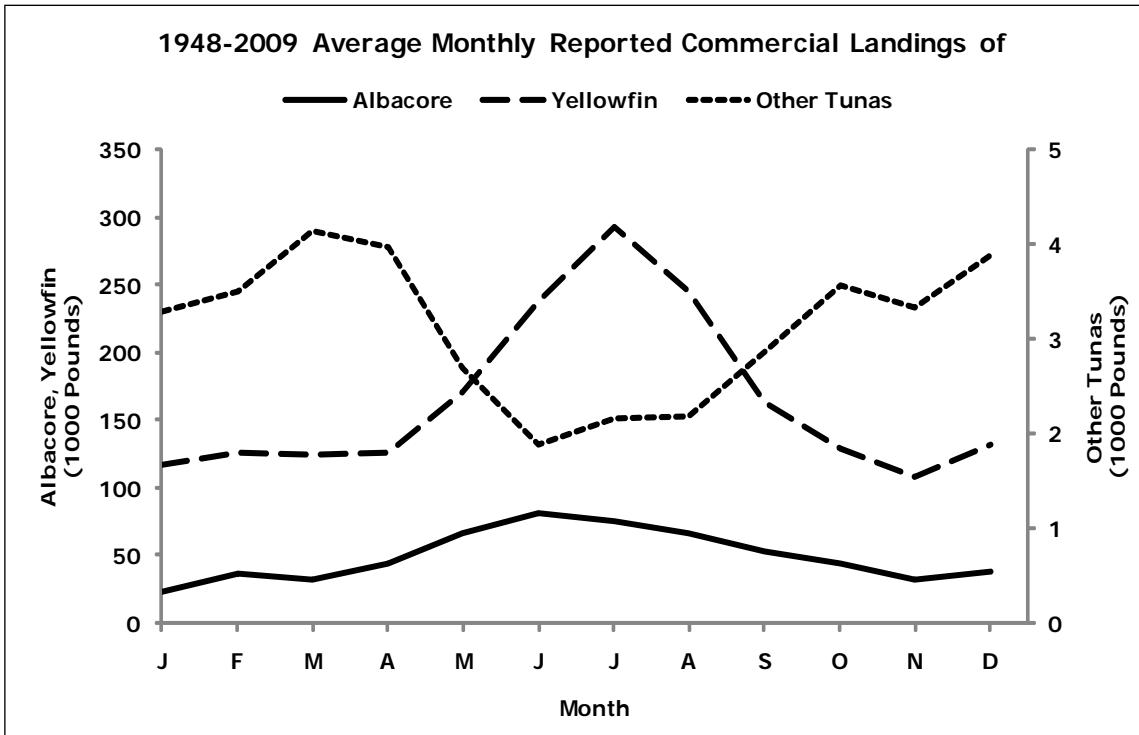


Figure D-2-3

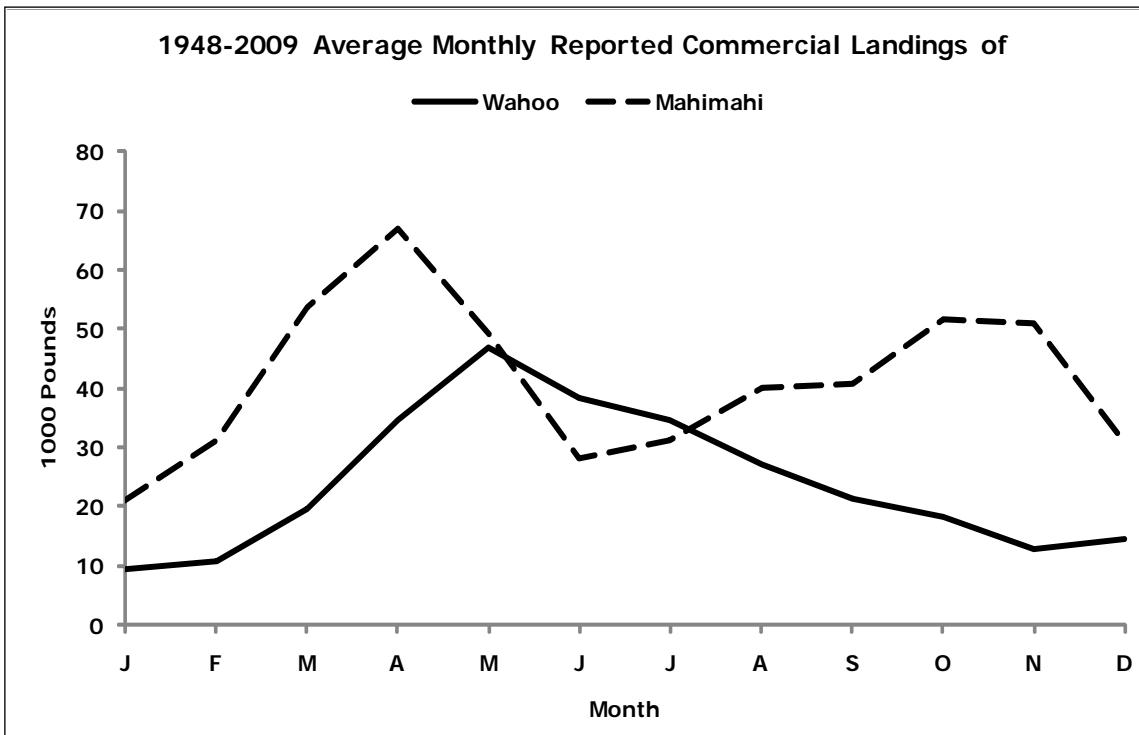


Figure D-2-4

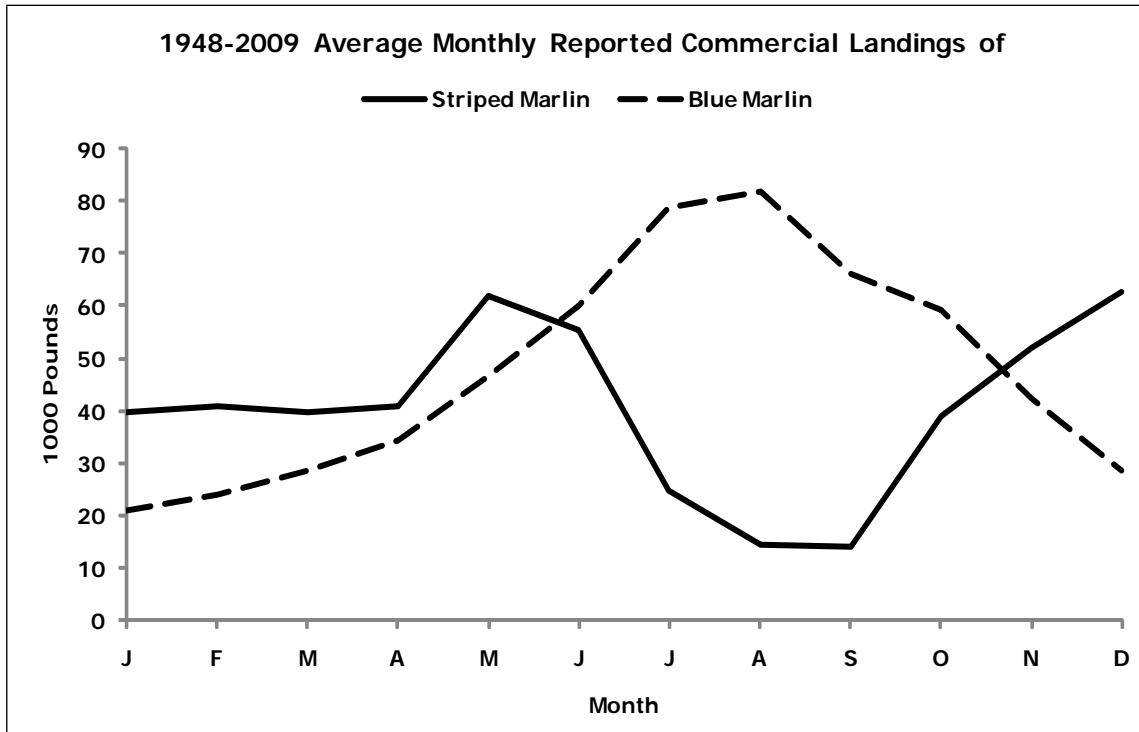


Figure D-2-5

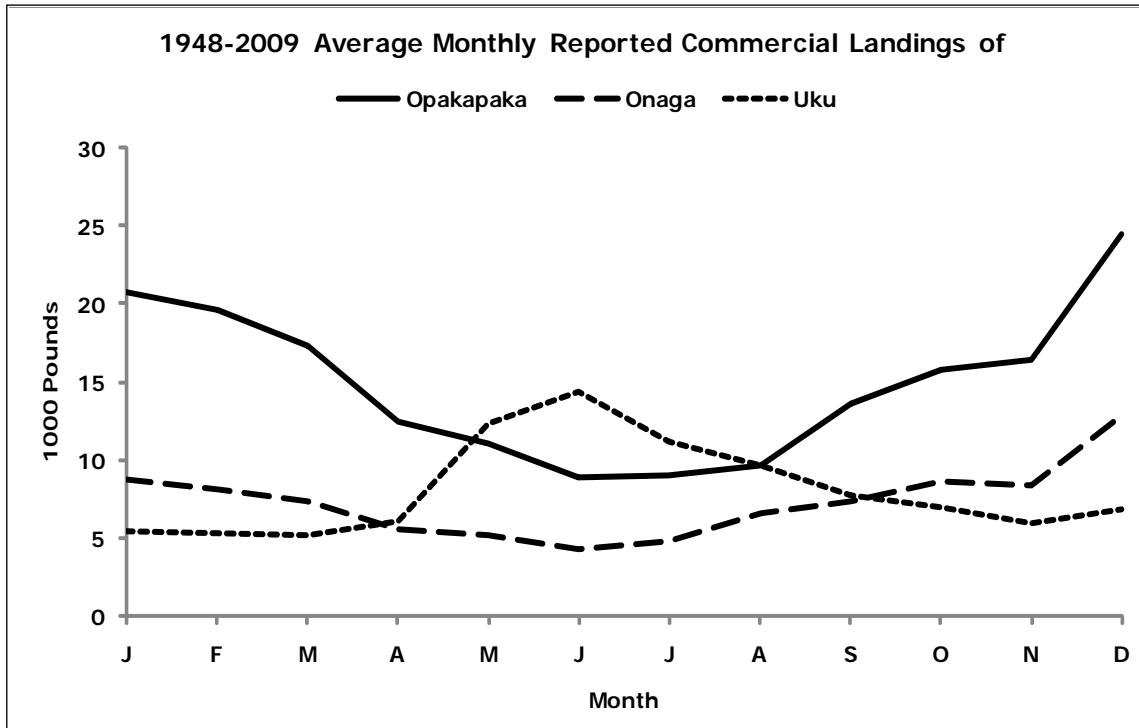


Figure D-2-6

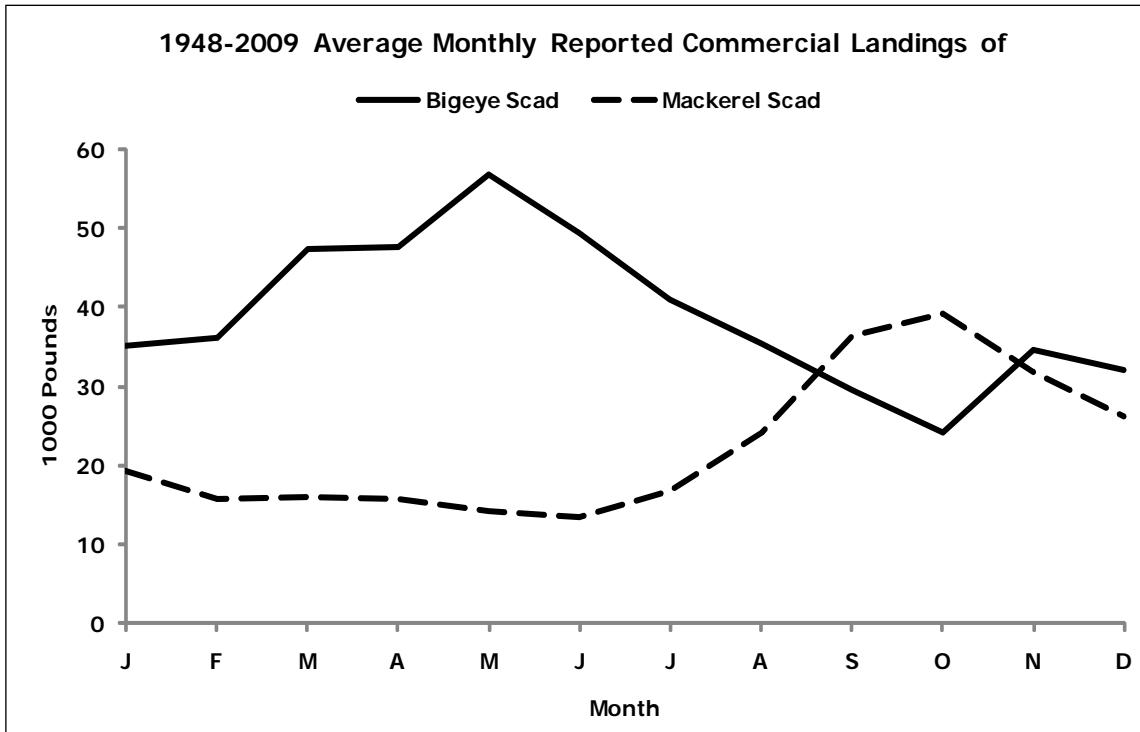


Figure D-2-7

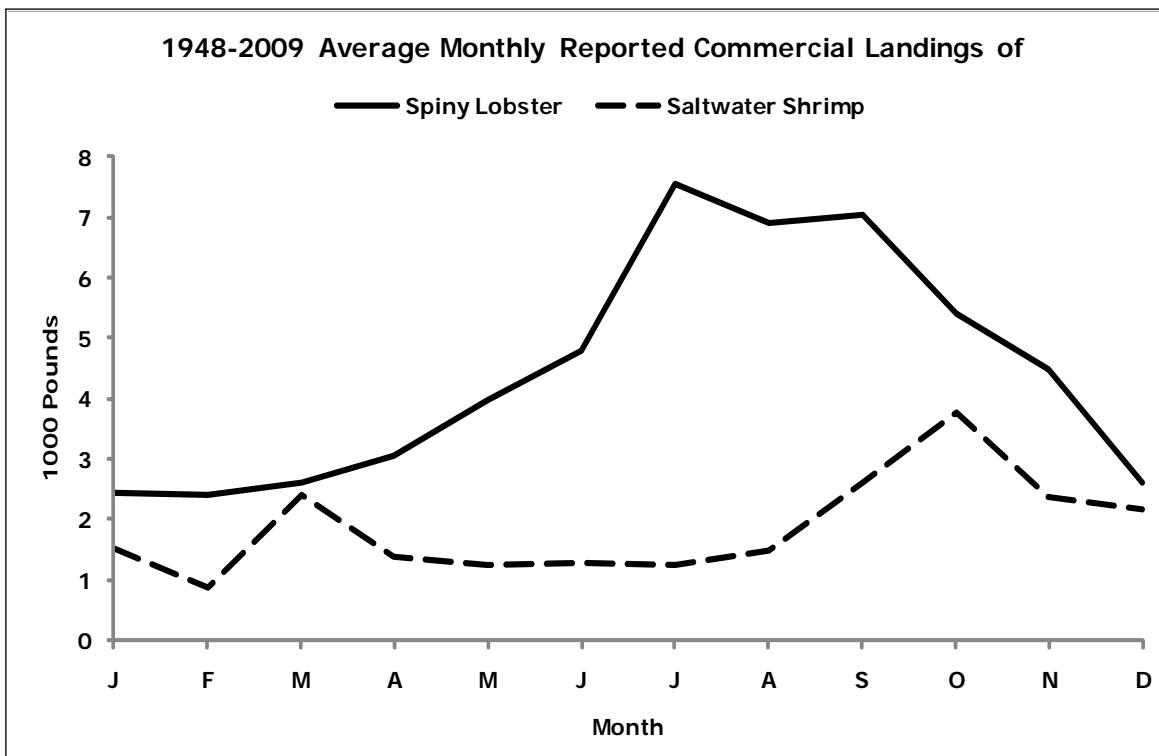


Figure D-2-8

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

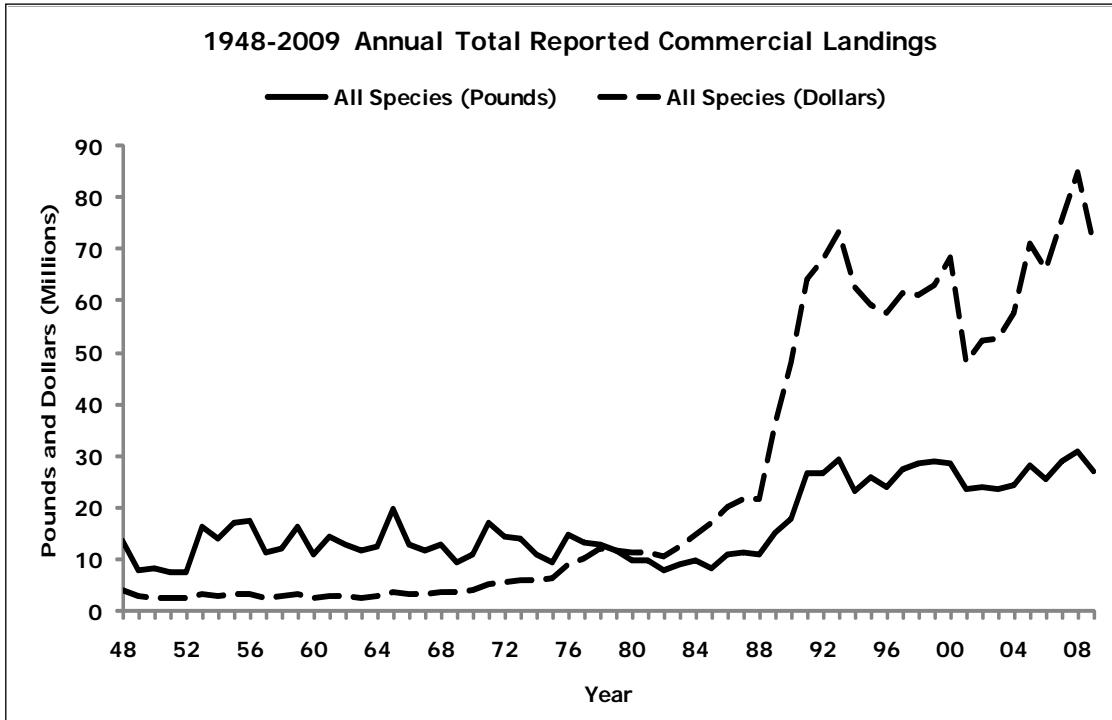


Figure D-3-1

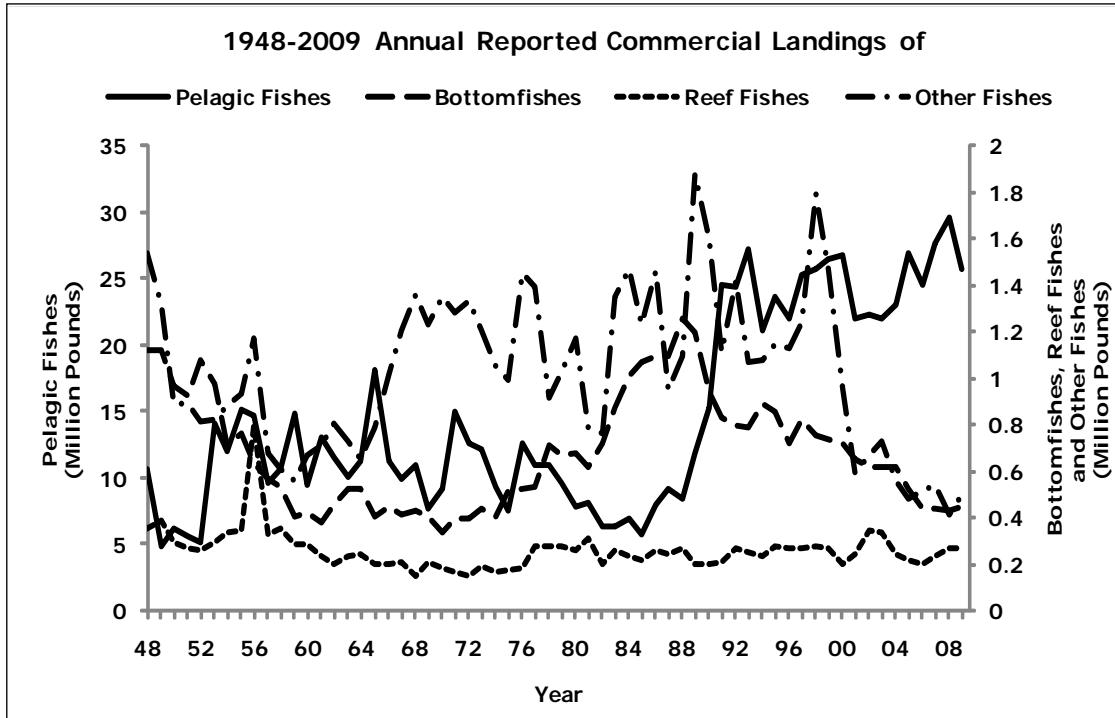


Figure D-3-2

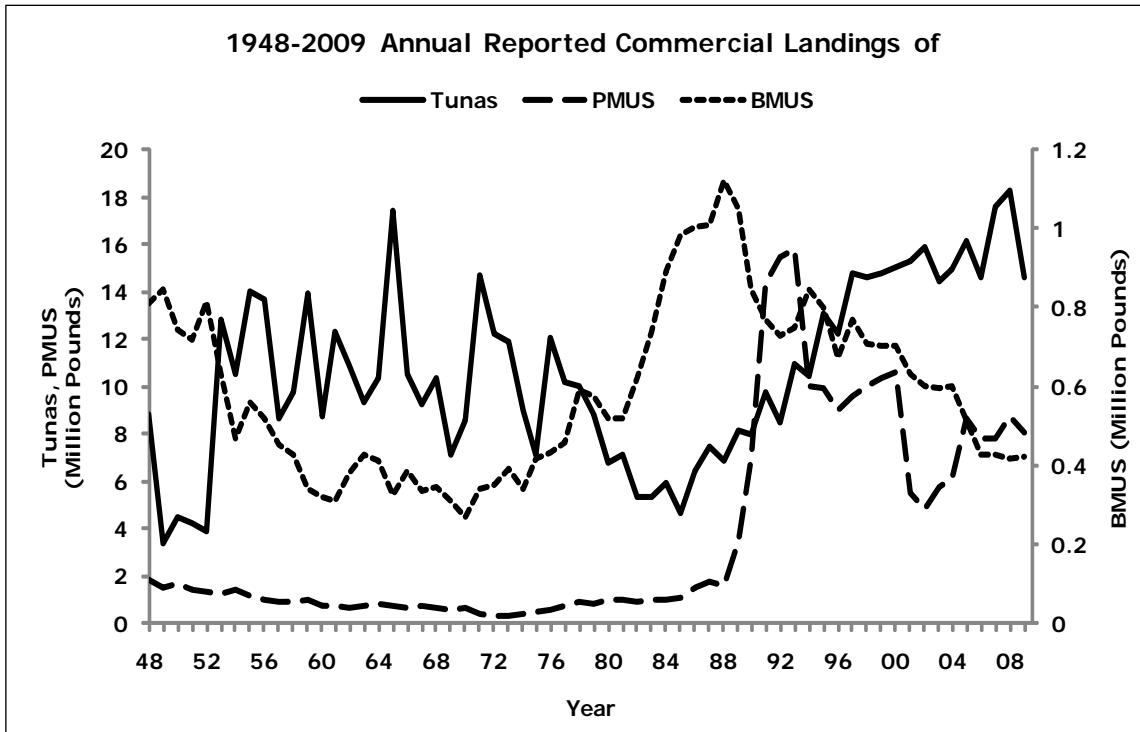


Figure D-3-3

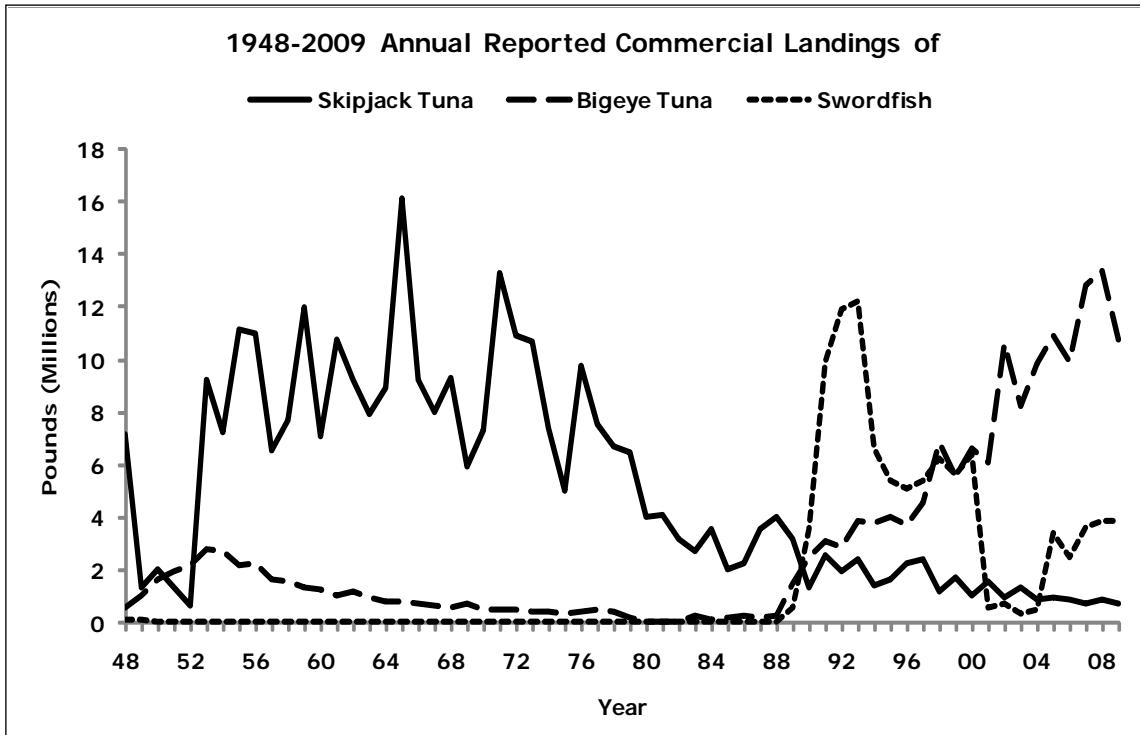


Figure D-3-4

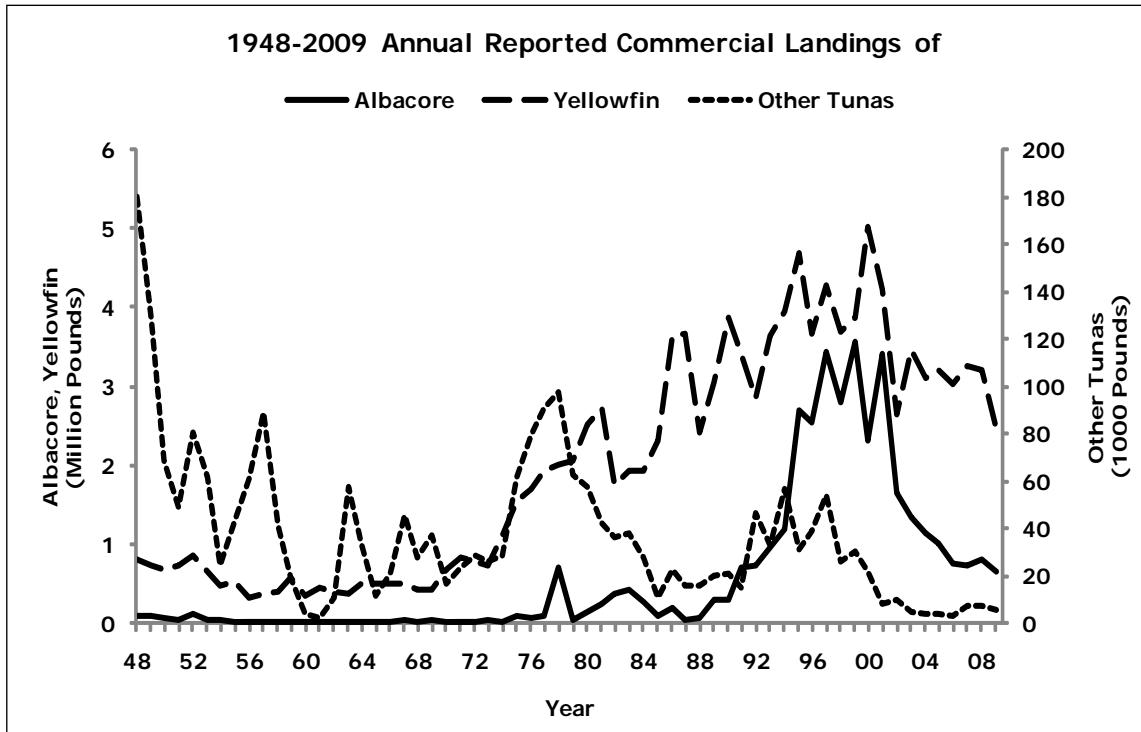


Figure D-3-5

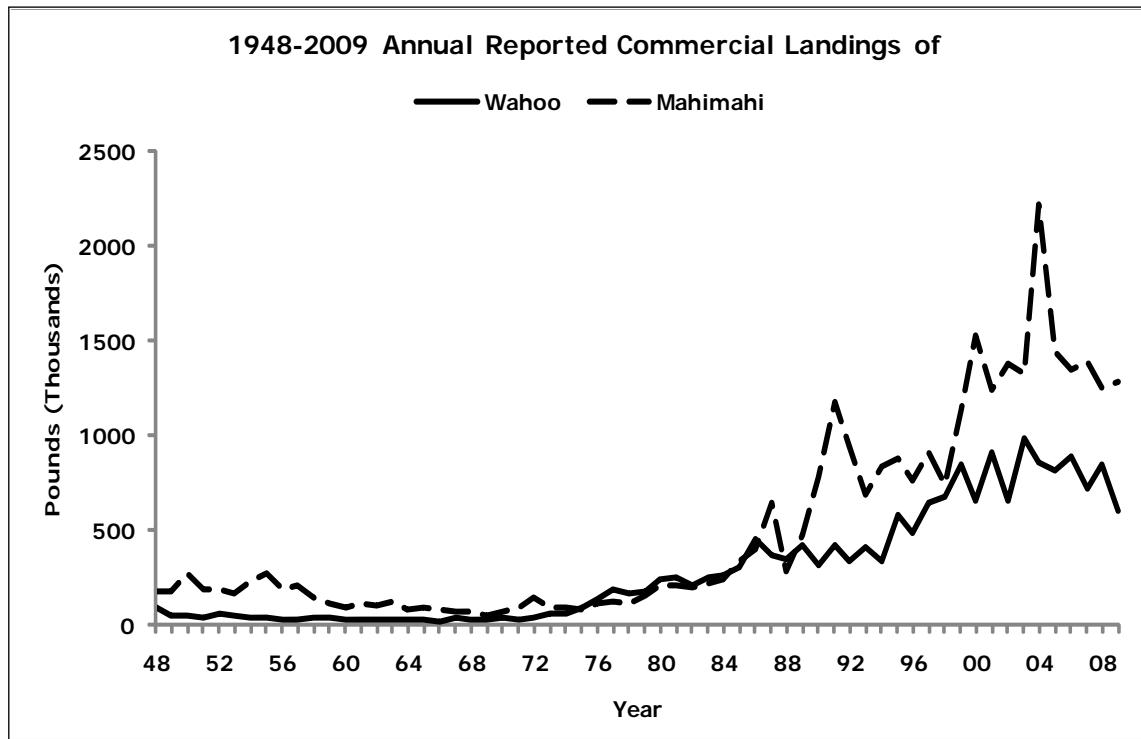


Figure D-3-6

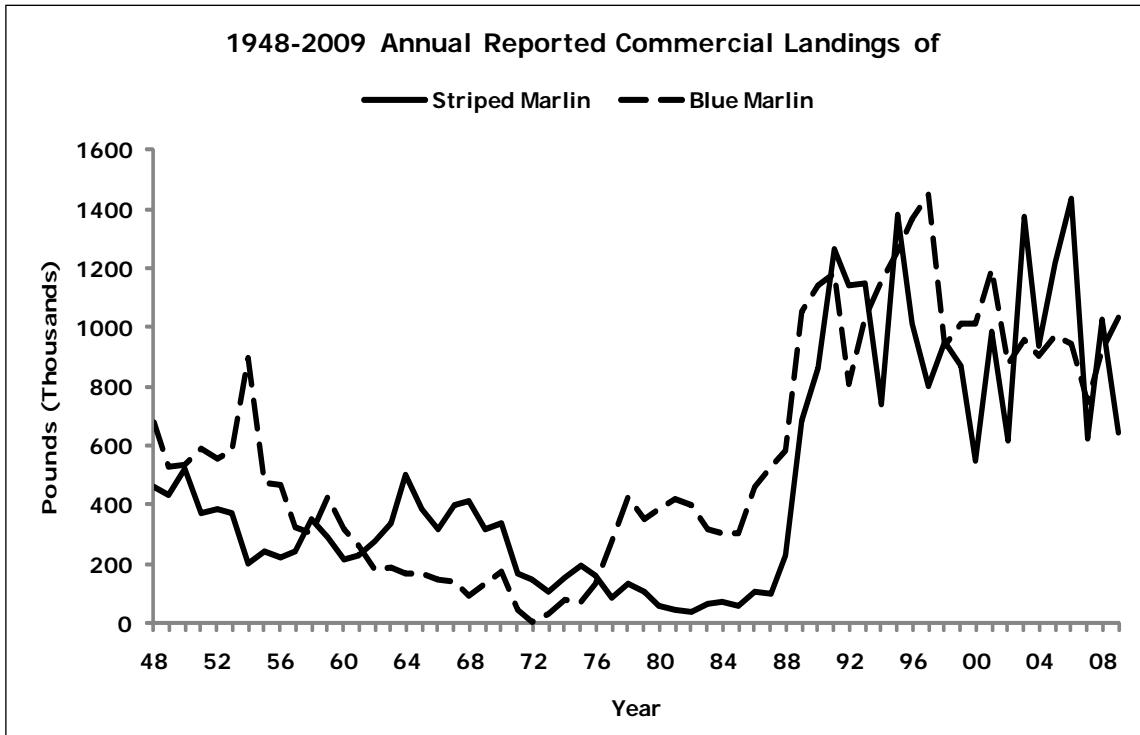


Figure D-3-7

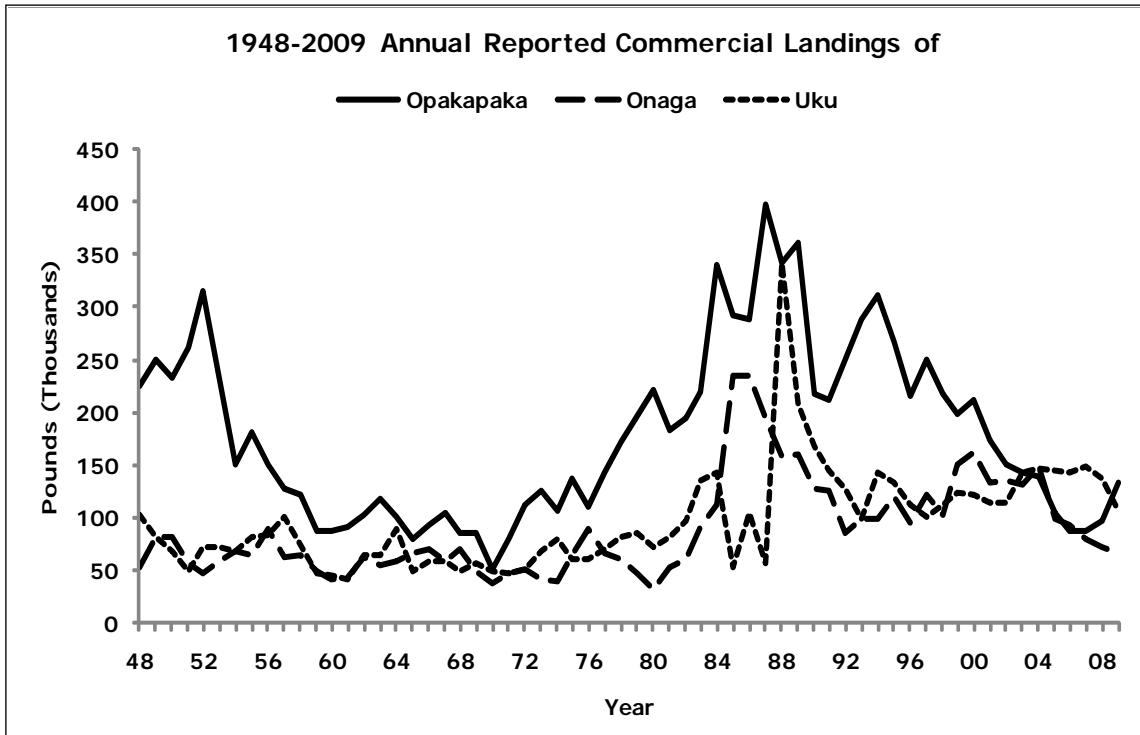


Figure D-3-8

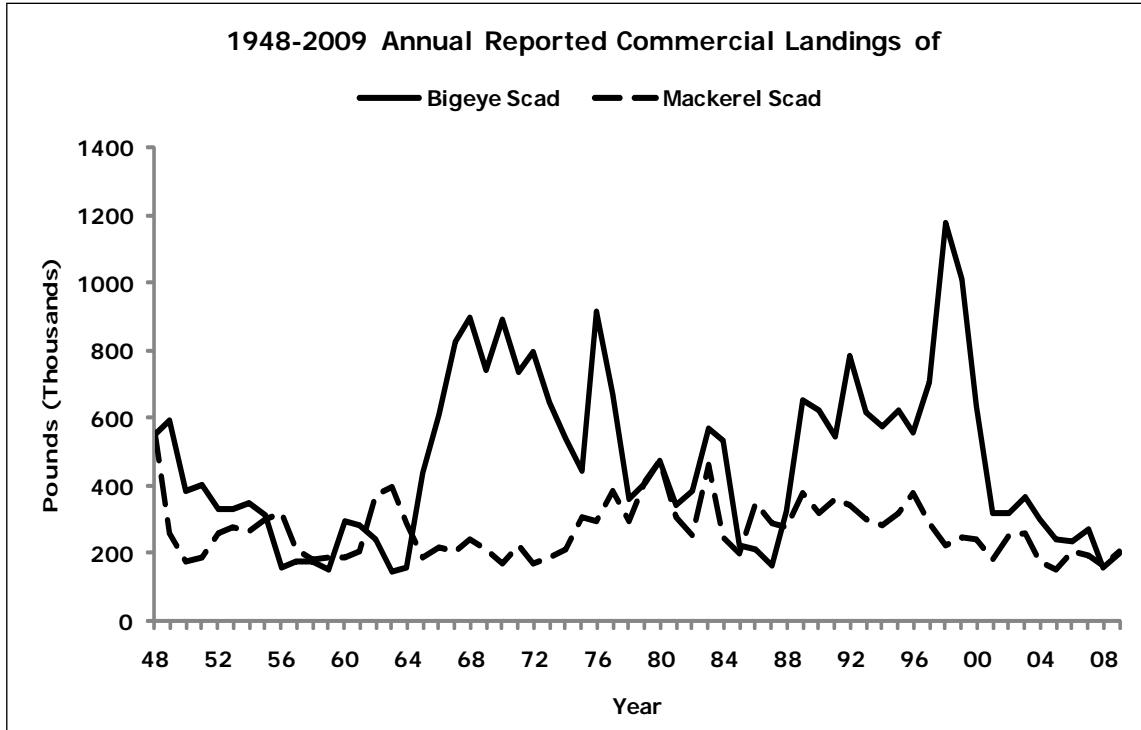


Figure D-3-9

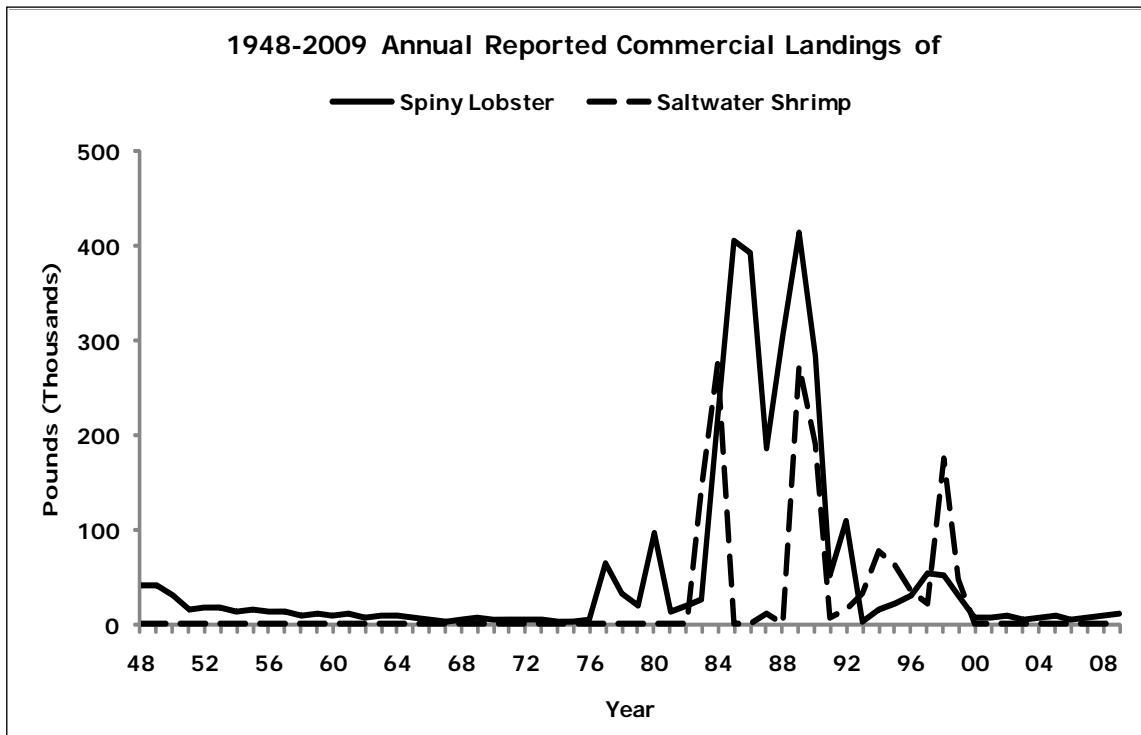


Figure D-3-10

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

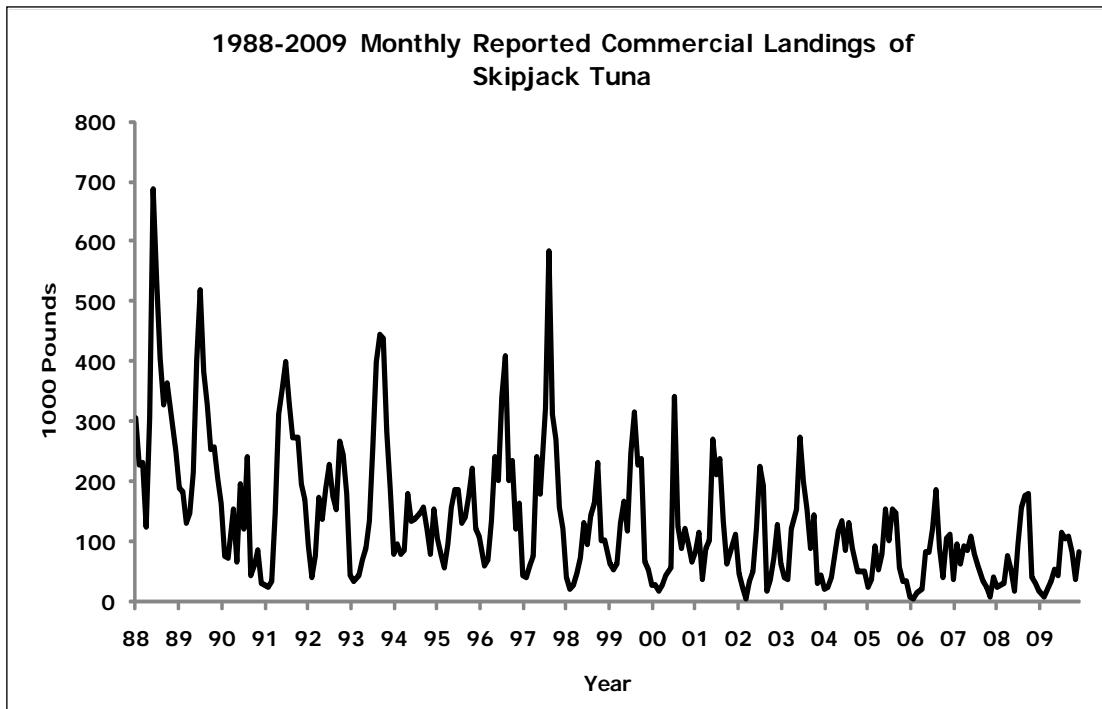


Figure D-4-1

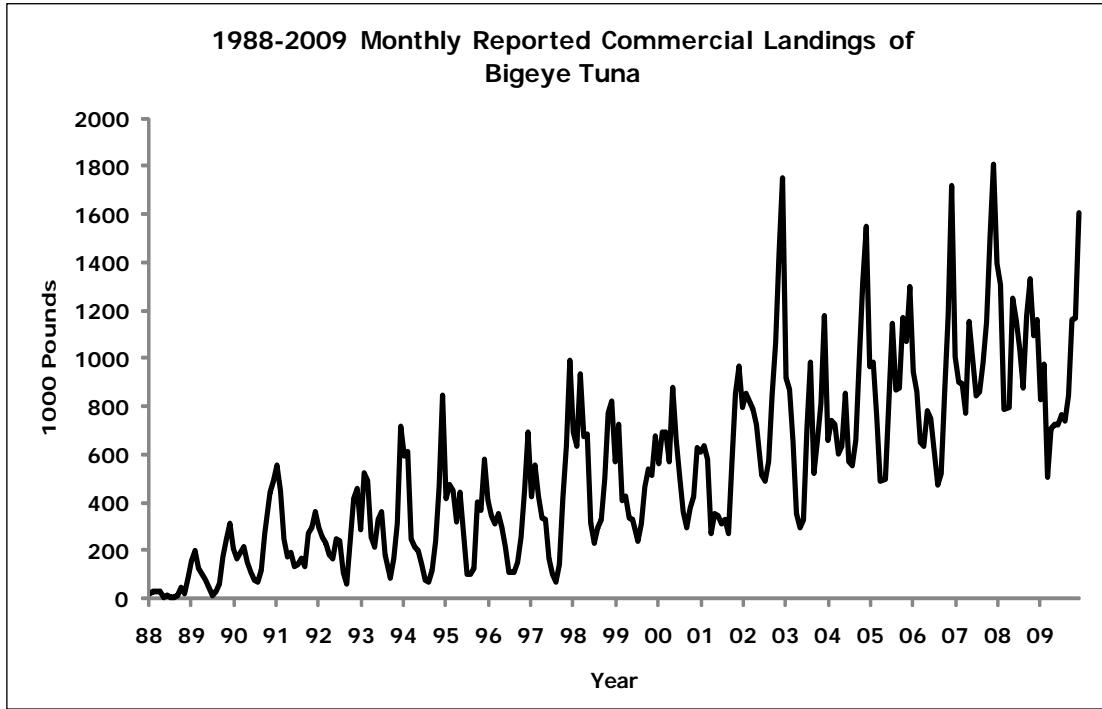


Figure D-4-2

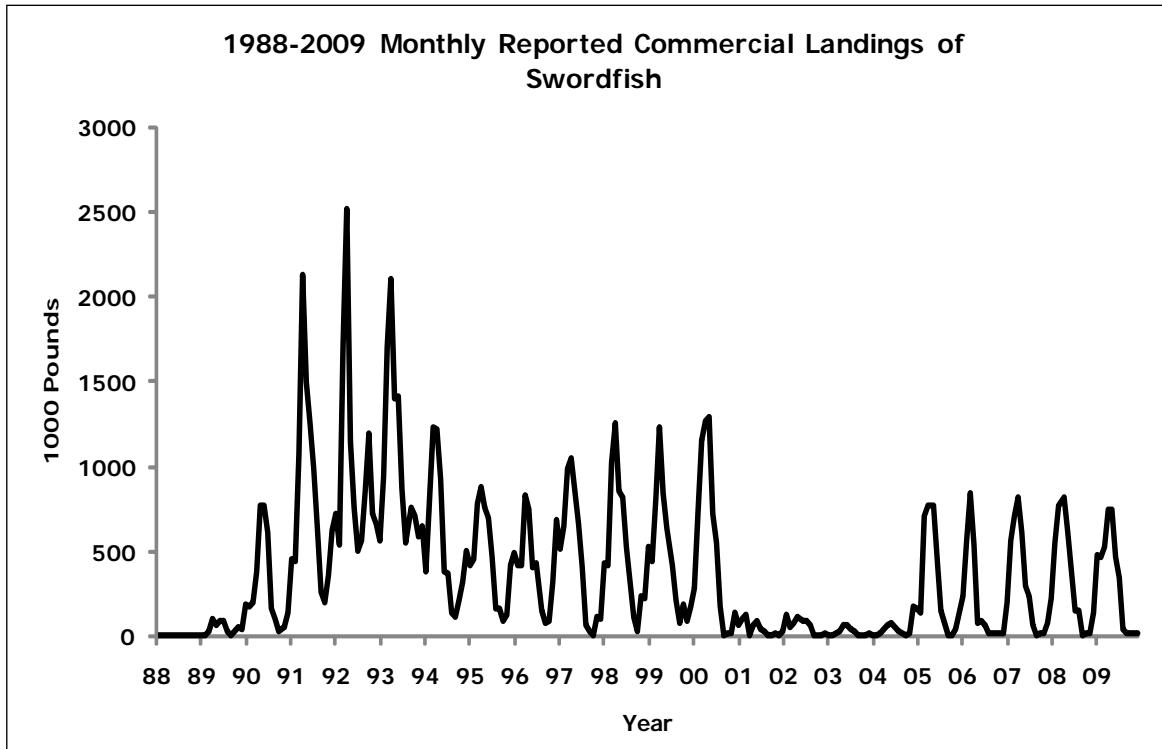


Figure D-4-3

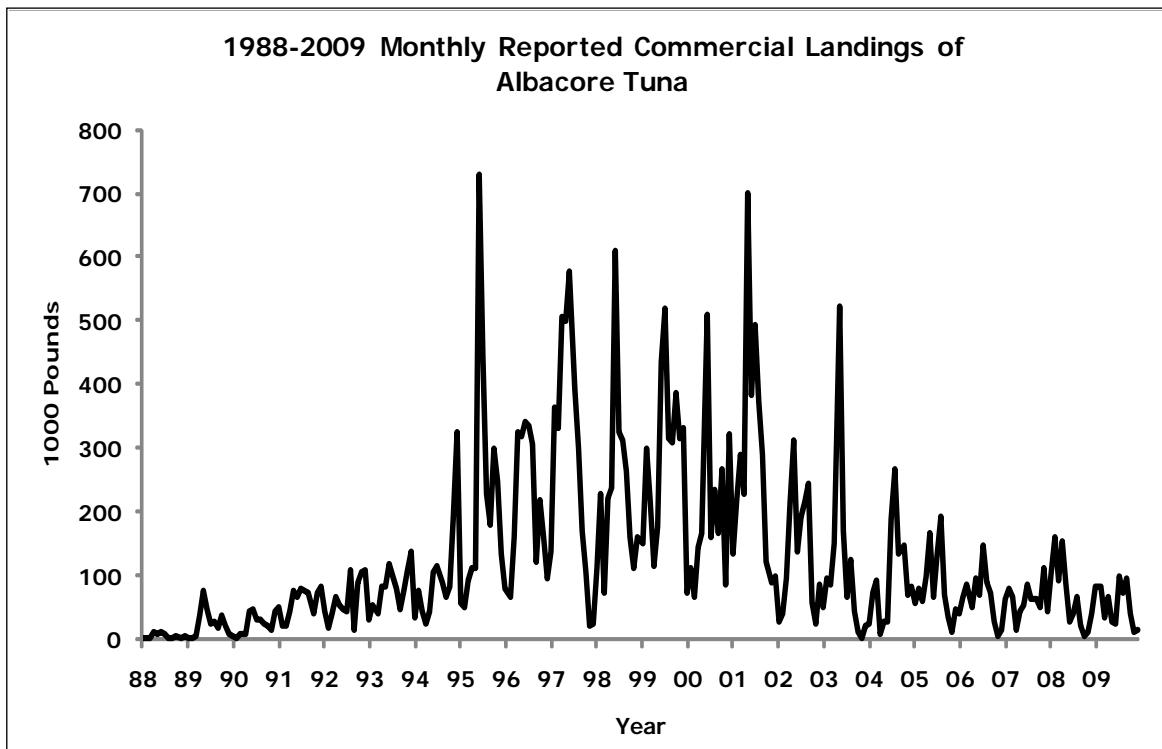


Figure D-4-4

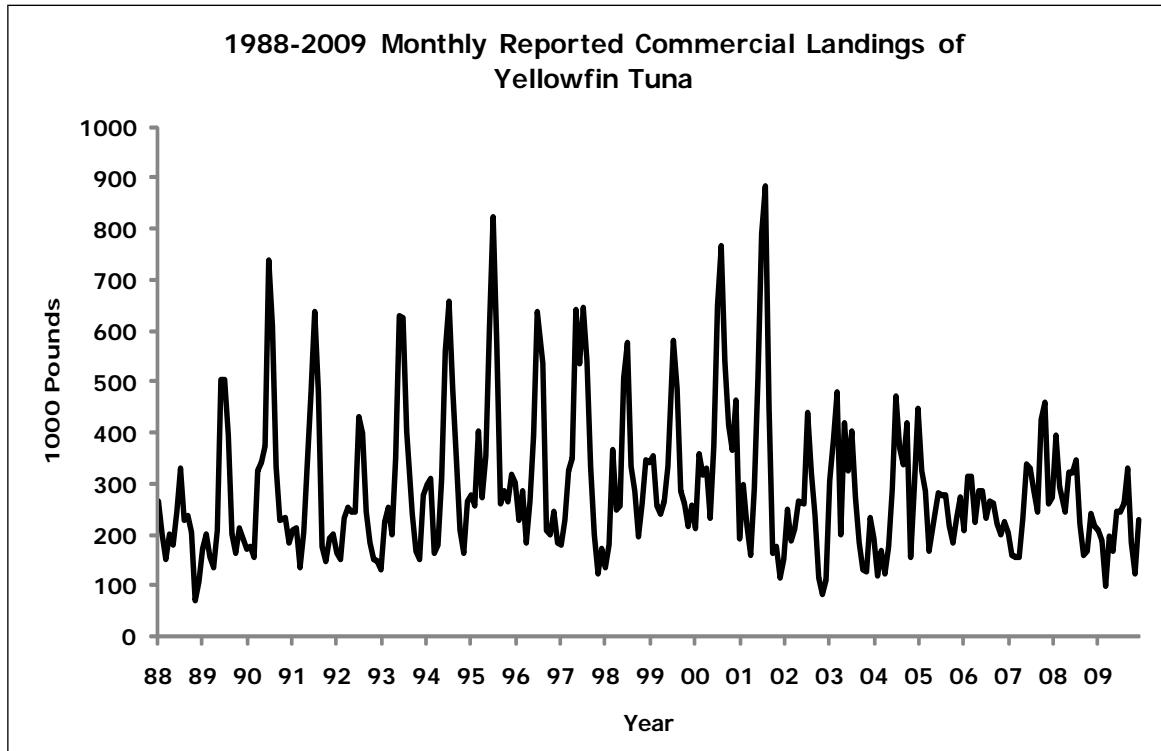


Figure D-4-5

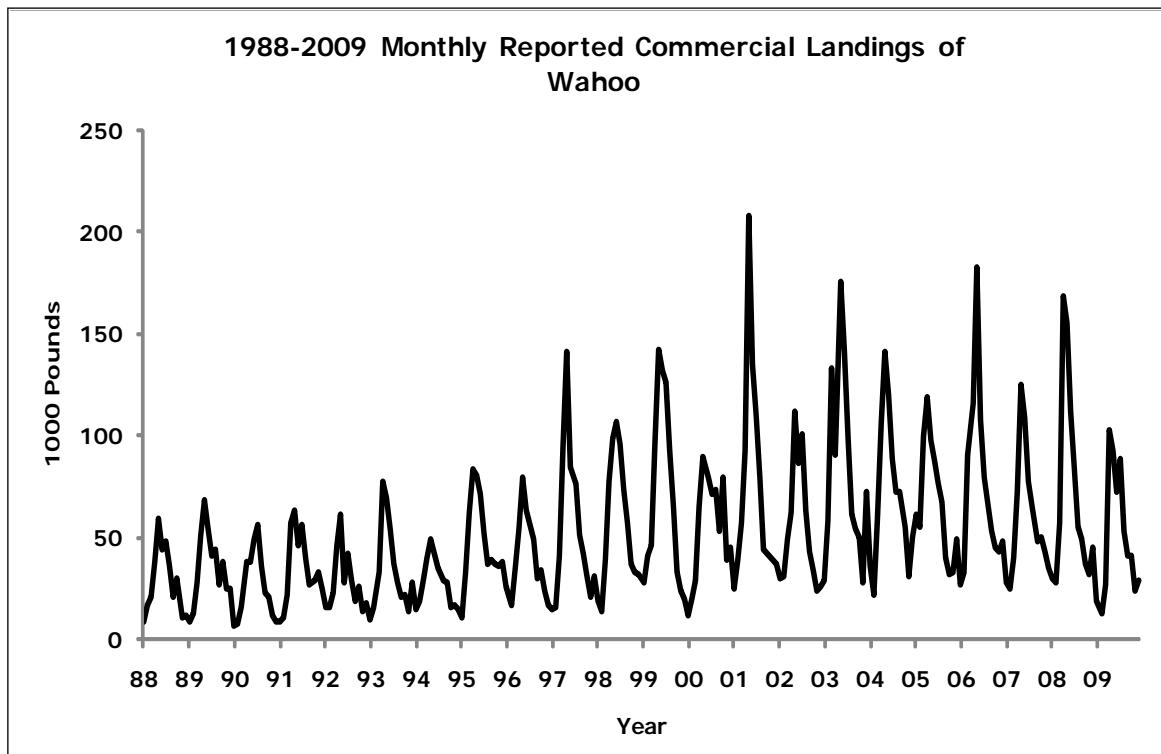


Figure D-4-6

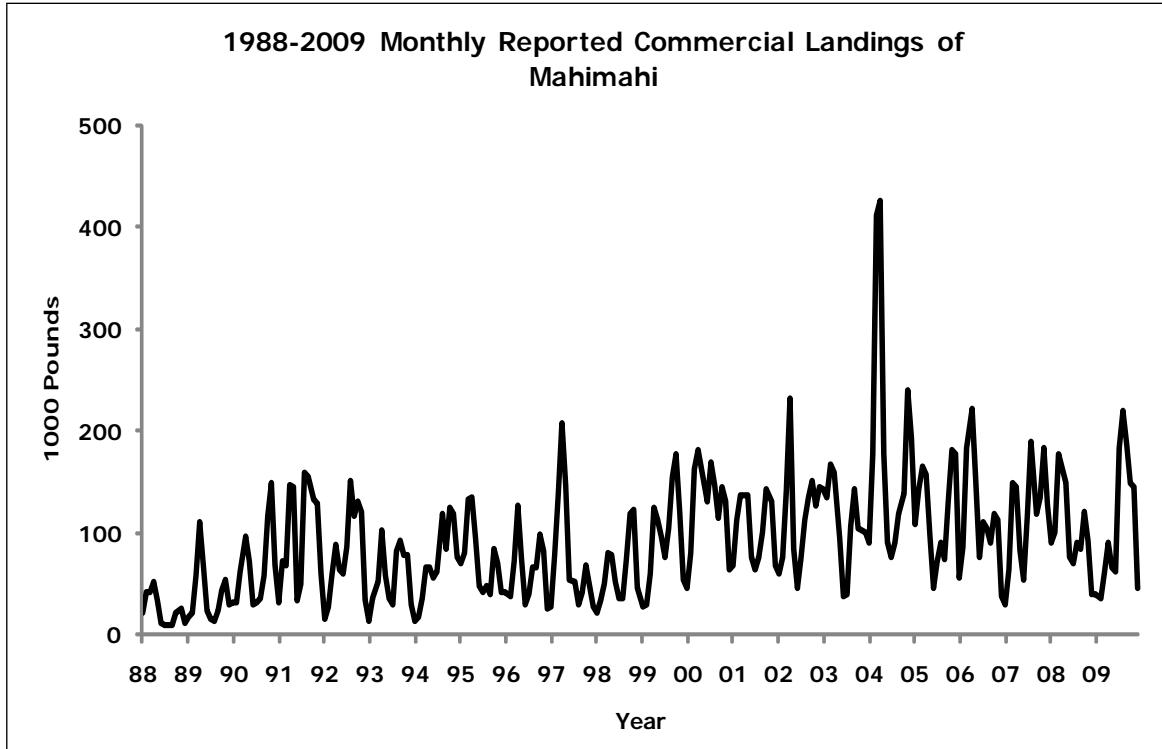


Figure D-4-7

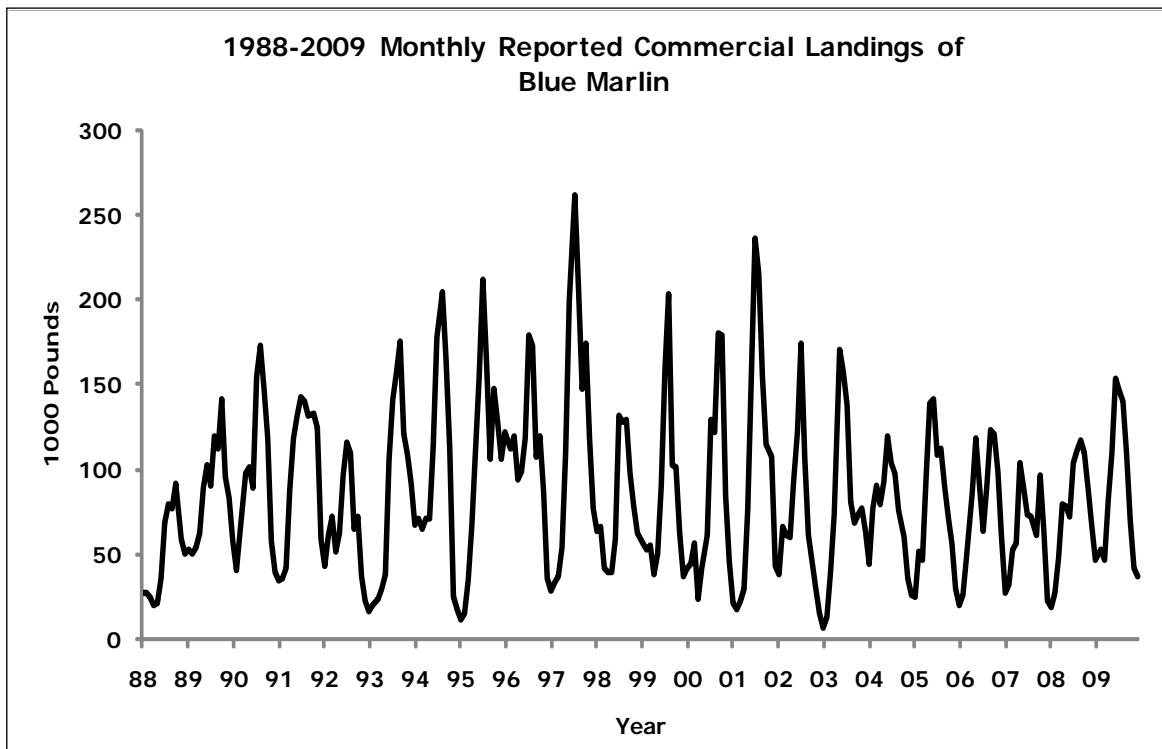


Figure D-4-8

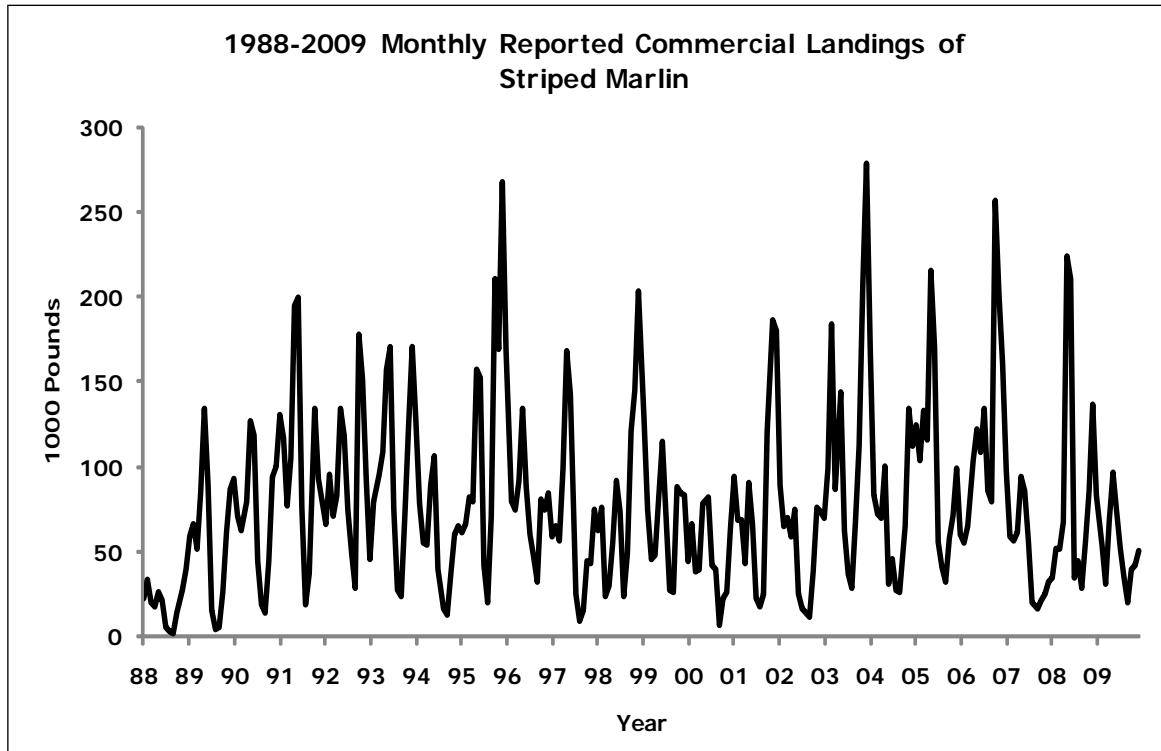


Figure D-4-9

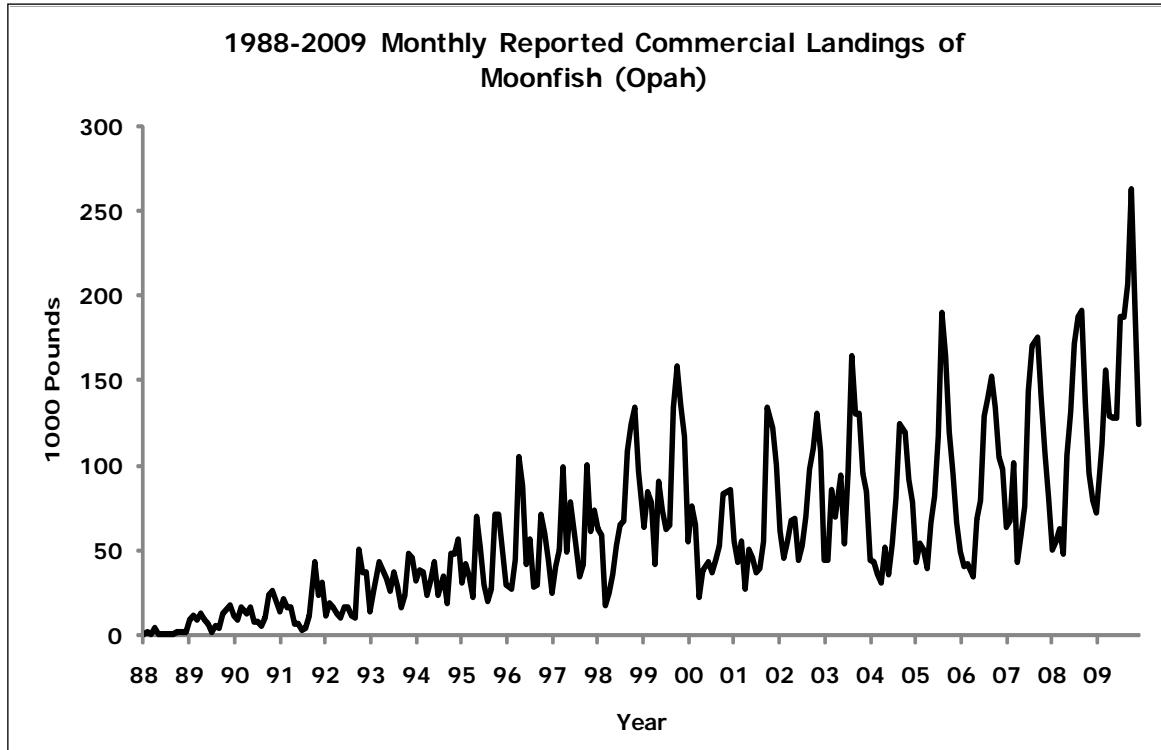


Figure D-4-10

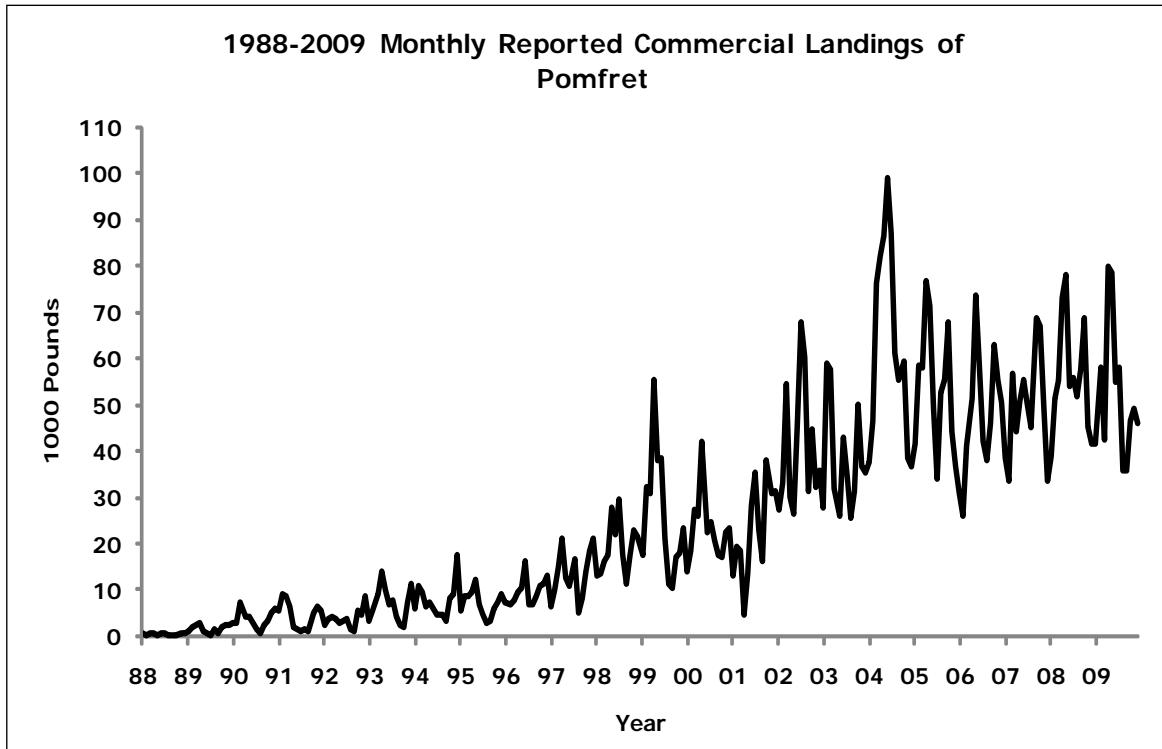


Figure D-4-11

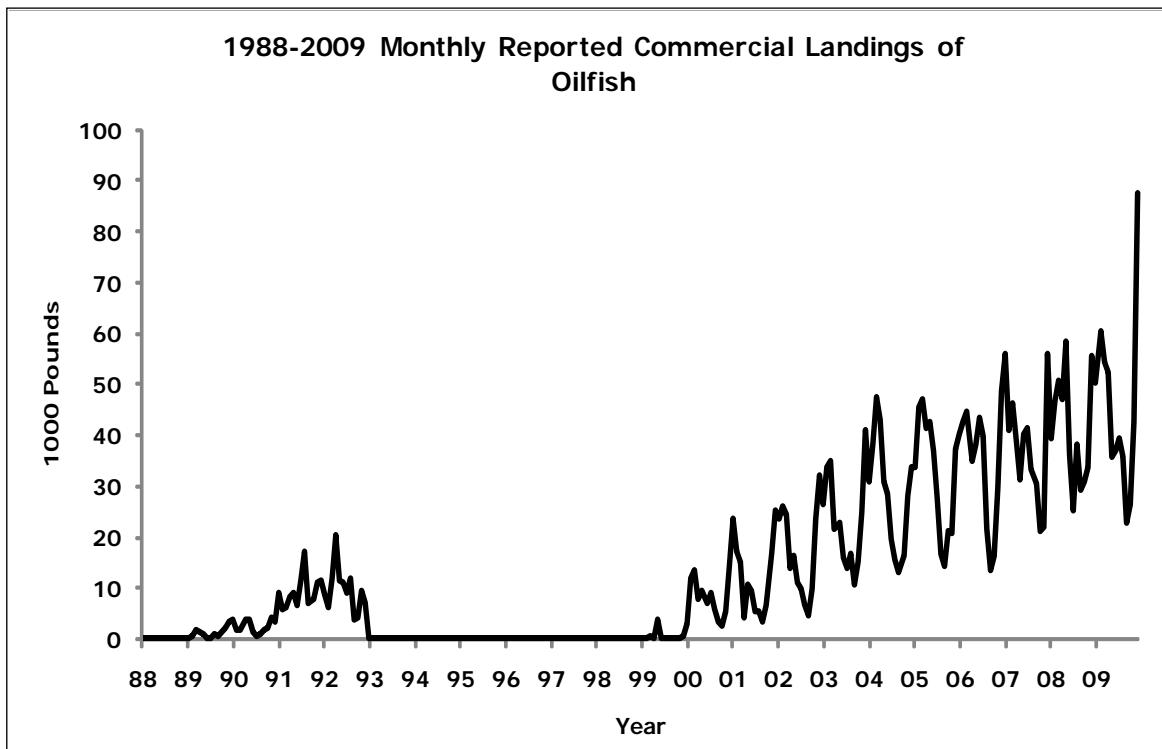


Figure D-4-12

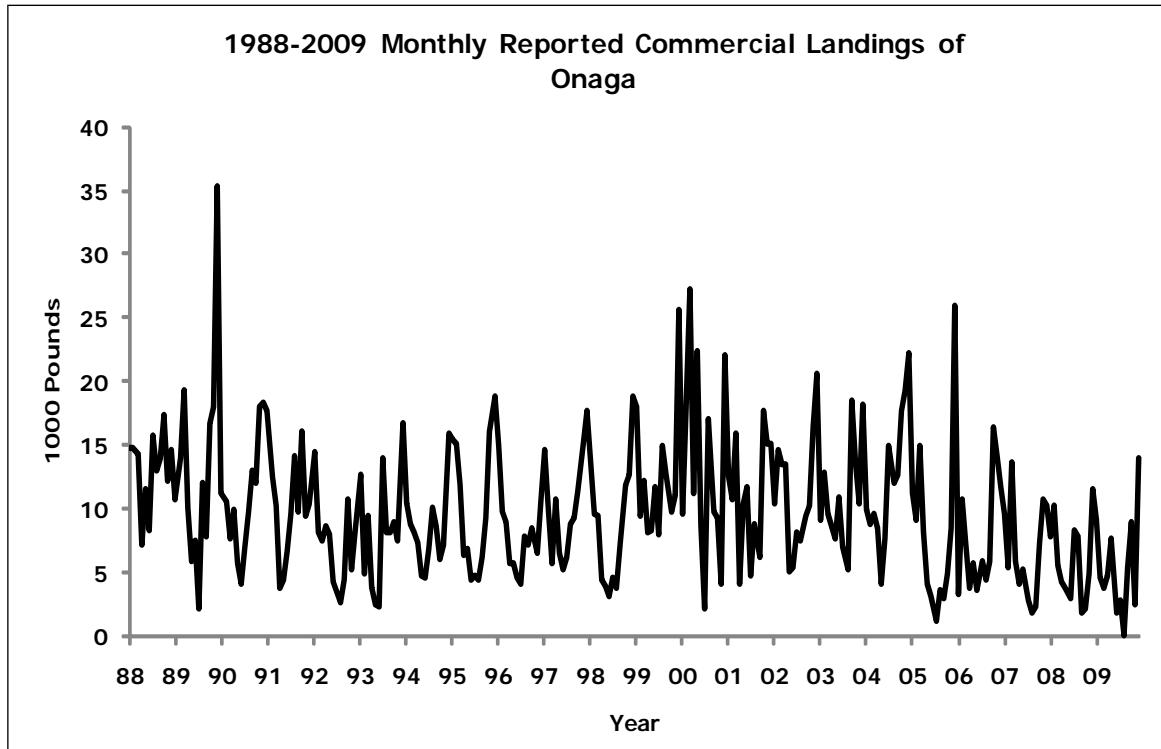


Figure D-4-13

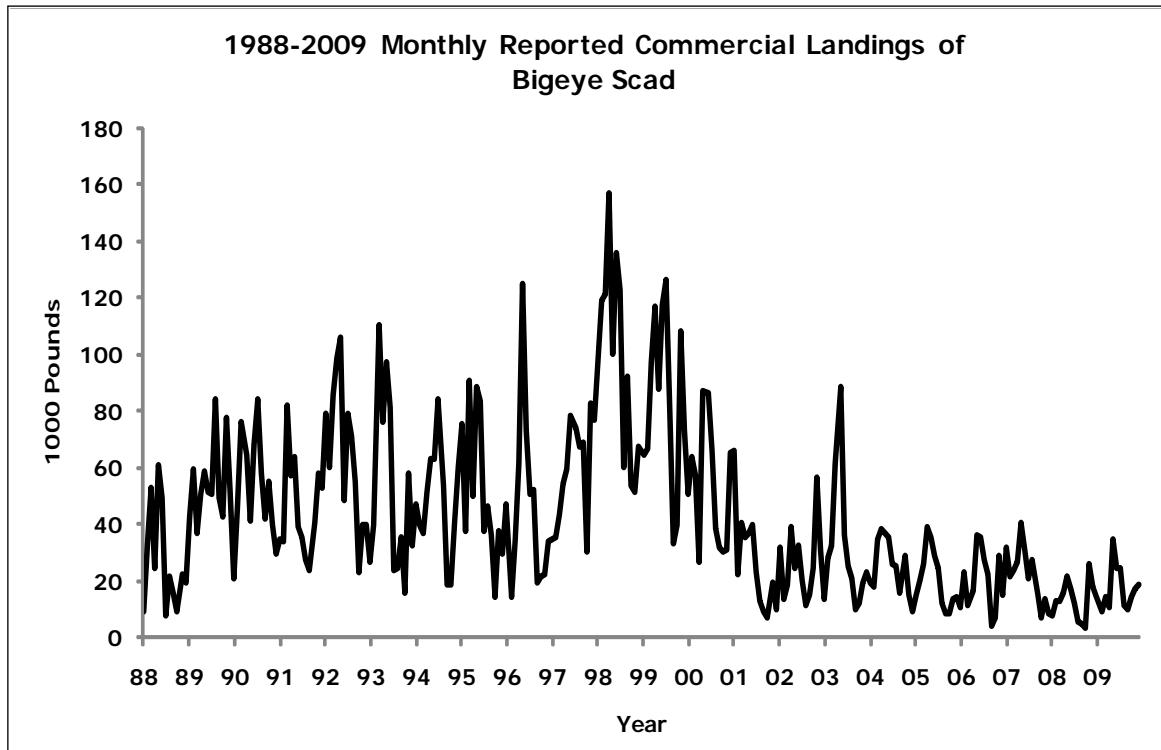


Figure D-4-14