

PACIFIC ISLANDS FISHERIES SCIENCE CENTER



Fishery Statistics of the Western Pacific

Volume 23

Territory of American Samoa (2006)
Commonwealth of the Northern Mariana Islands (2006)
Territory of Guam (2006)
State of Hawaii (2006)

Compiled by

David C. Hamm, Michael M. C. Quach, Karen R. Brousseau,
and Craig J. Graham

September 2008



Administrative Report H-08-05

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Pacific Islands Fisheries Science Center Administrative Reports are issued to promptly disseminate scientific and technical information to marine resource managers, scientists, and the general public. Their contents cover a range of topics, including biological and economic research, stock assessment, trends in fisheries, and other subjects. Administrative Reports typically have not been reviewed outside the Center. As such, they are considered informal publications. The material presented in Administrative Reports may later be published in the formal scientific literature after more rigorous verification, editing, and peer review.

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PREFACE

Increasingly, there is a demand for data and information concerning marine fisheries. To help meet this need in the central and western Pacific areas, the National Marine Fisheries Service's (NMFS) Southwest Fisheries Science Center (SWFSC) initiated the Western Pacific Fisheries Information Network (WPacFIN) to assist Pacific island fisheries agencies improve their data collecting, data processing, and reporting capabilities.

In 1982, these agencies formed a Fisheries Data Coordinating Committee (FDCC) and an FDCC Technical Subcommittee to help guide, coordinate, and monitor all of their fisheries data-related activities. Significant progress has been made by all participating agencies, particularly in the areas of upgrading data collection and processing systems.

In a major step to improve and coordinate the data reporting and distribution systems of the agencies, the FDCC agreed in May 1985 to produce a combined document reporting each island's major fisheries statistics. Production of the document would be the responsibility of the FDCC Technical Subcommittee and would be coordinated by the WPacFIN Program Manager. Each agency would supply the data required to produce the tables and graphs for its respective section, and central WPacFIN staff would produce and distribute the document as part of the Administrative Report Series.

In April 2003, NMFS created a new Pacific Islands Region composed of the Pacific Islands Fisheries Science Center (PIFSC, formerly SWFSC's Honolulu Laboratory) and the Pacific Islands Regional Office (PIRO, formerly Southwest Regional Office's Pacific Islands Area Office). As such, this report is now affiliated with PIFSC rather than SWFSC.

This is the 23rd volume in the series, "Fishery Statistics of the Western Pacific." It contains summaries of commercial landings for American Samoa, the Commonwealth of the Northern Mariana Islands, Guam, and Hawaii for the year 2006. As with previous volumes, it is divided into sections, with one for each of the major island areas. Each section contains reports on the monthly and annual landings by species and species groups for the commercial fleet.

INTRODUCTION

This report is compiled by fisheries agencies participating in the Western Pacific Fisheries Information Network (WPacFIN, formerly referenced as WPACFIN), a collaboration among fisheries agencies in Hawaii, Guam, the Commonwealth of the Northern Mariana Islands (CNMI), and American Samoa. WPacFIN’s goal is to improve the availability and dissemination of fisheries information. Participating groups include

American Samoa	Department of Marine and Wildlife Resources (DMWR)
	Pacific Islands Regional Office (PIRO) Fisheries Monitoring Field Office, American Samoa
Commonwealth of the Northern Mariana Islands (CNMI)	Division of Fish and Wildlife (DFW)
Guam	Division of Aquatic and Wildlife Resources (DAWR)
	Bureau of Statistics and Plans (BSAP; formerly Department of Commerce)
Hawaii	Hawaii Division of Aquatic Resources (HDAR)
	Pacific Islands Fisheries Science Center (PIFSC)
	Pacific Islands Regional Office (PIRO)
	Western Pacific Regional Fisheries Management Council (WPFMC)

WPacFIN and these groups collect, computerize, edit, and process data from the islands. WPacFIN staff at the Pacific Islands Fisheries Science Center then use these data to create the summaries and graphs found in this document.

Data from DMWR, DAWR, and DFW are supplied on portable computer media in established WPacFIN database formats. Data for Hawaii are provided by HDAR through an electronic telecommunications link. Once data from all agencies are put into the proper format on the central WPacFIN computer and appropriate edit, adjustment, and verification procedures are completed, summary tables and charts are produced using software developed by WPacFIN staff and commercially available software.

PROGRESS

In 1981 when WPacFIN began assisting agencies in improving their data collecting and processing systems, only the State of Hawaii had computerized processing. By mid-1982, fisheries offices in American Samoa, Guam, and the CNMI were using WPacFIN-supplied computers to process data. Since that time, these agencies have made significant improvements to their data collecting systems and have established sound, automated data processing systems. Most agencies can now provide preliminary fishery statistics to WPacFIN within 45 days of the date of collection.

In particular, HDAR has significantly improved its procedures for editing, updating, and processing Hawaii's data; it has reduced the lag time in data processing from about 2.5 years to less than 3 months for most data. The biggest problems still facing HDAR in improving its data systems are reducing the delinquency of fisher reporting and implementing a validation system to ensure that the information reported by fishers is accurate. A Dealer Reporting System has been implemented to augment the Fishermen's Reporting System and has helped address this issue, and efforts are continuing to develop and implement other improvements to the Hawaii fisheries monitoring programs.

CAVEATS

Data collecting and processing systems vary greatly among Pacific island fisheries agencies. Although much standardization has taken place and is a continuing effort, there remain unique aspects of each island's systems based on local needs and capabilities.

Interpretation of data from this report, especially for comparative purposes, requires recognition of several caveats. For example, Hawaii's commercial landings data are based on mandatory monthly reporting by fish dealers and licensed commercial fishers as well as NOAA Fisheries longline logbooks. In contrast, data for CNMI and Guam are based on voluntary reporting of major fish buyers using government-provided trip-ticket invoices, adjusted to represent 100% coverage, and referenced as "estimated commercial landings." Finally, American Samoa's data are based on a complex integration of data from a boat-based creel survey and data expansion system for a portion of the fisheries, mandatory logbooks and a size-frequency sampling program for the longline fishery, and a mandatory trip ticket invoice reporting system for local sales. Each system has advantages and disadvantages, and the user should be aware of them when comparing or interpreting data. In addition, WPacFIN staff and the island agencies are continually improving the data collecting and processing systems in each area. Because the improvements usually result in updates to the estimates of total and commercial landings, the data in this volume may not match exactly with data in previous volumes of this report series.

The user should also be aware that species assemblages vary among island groups, as do cultural preferences and principal fishing techniques and gear. The population size of the island group is relevant to the interpretation of the relative value and importance of the fisheries. Explanations of data collecting and processing systems are provided in each island's section.

DEFINITIONS OF SPECIES CATEGORIES

In addition to a description of the data collecting systems and monthly and annual reports, each section contains graphs of summary fishery statistics of particular interest or importance to participating WPacFIN agencies. Categories have been defined for each island's fisheries. Because of differences in reporting systems and capabilities, species in each category vary among the islands but all categories are documented in each island's section. Overlap exists among some of the categories used for different graphs.

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.

Categories used in the graphs include

1. Fisheries Categories – These are combinations of species of similar ecological types, specifically pelagic, bottomfish, reef fish, and “other.” “Other” includes groups that generally traverse these categories, such as certain sharks and jacks, or are not typically included in these groups, such as mullet and milkfish.
2. Pelagic Management Unit Species (PMUS) – The Magnuson Fishery Conservation and Management Act of 1976 was amended in 1992 to place tunas under U.S. jurisdiction for management. The Fishery Management Plan for Pacific Pelagic Species was amended to reflect this change. However, this report series will continue to treat tunas as a separate category, and the PMUS category in this document includes only billfishes, wahoo, mahimahi, and oceanic sharks.
3. Bottom Fish Management Unit Species (BMUS) – Defined as the species of initial importance in the Fishery Management Plan for bottomfish and seamount fisheries, including the major deepwater snapper, grouper, emperor, and certain jacks.
4. Tunas – All the tuna species excluding wahoo. Historically this had been predominantly skipjack and yellowfin in all areas, but with the growth of longline fisheries in Hawaii and American Samoa, bigeye and albacore have become much more important or even predominant.
5. Other Tunas – The definition varies among the islands depending on the importance of each tuna species in the total landings.
6. Billfish – Combination of blue, striped, and black marlins, sailfish, spearfish, and swordfish species.

GRAPHS

Four types of graphs are provided with each island's data, as follows:

- The first is a chart of the major species and species groups, showing the estimated commercial catch for each month of the year.
- The second is a seasonality plot for the major species or species groups, showing the average weight landed during each month for all years for which there are data.
- The third is a time series plot of annual summary statistics to illustrate the variability among years.
- The fourth type of graph plots monthly landings of some of the major commercially important species and documents monthly fluctuations in landings of these species over the entire time series (all years for which there are data).

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

AMERICAN SAMOA 2006 FISHERY STATISTICS

Compiled by

American Samoa

Department of Marine and Wildlife Resources

and the

Western Pacific Fisheries Information Network

September 2008

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AMERICAN SAMOA 2006 FISHERY STATISTICS

INTRODUCTION

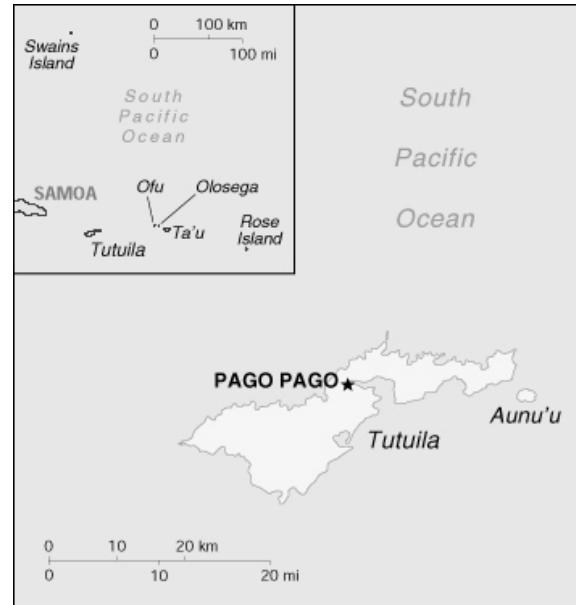
Location: 14°S latitude, 170°W longitude

Islands: Tutuila, Aunu`u, the Manu`a Islands (Ofu, Olosega, Ta`u), Rose Atoll (uninhabited), and Swains Island (sparsely populated)

Population: About 57,500 (the majority of the population lives on Tutuila); (*The World Factbook*, 2008)

Economy: tuna industry

The American Samoa Department of Marine and Wildlife Resources (DMWR; formerly the Office of Marine Resources) is located near Pago Pago on Tutuila and has been collecting commercial fisheries data from the Tutuila fleet since the early 1970s. In 1983 it extended its coverage to the Manu`a Islands, and in 1985 DMWR modified its data collection programs to include recreational and subsistence fisheries data.



American Samoa
Source: <http://www.cia.gov/cia/publications/factbook/aq.html>;
The World Factbook

American Samoa's domestic fisheries have typically been small-boat, 1-day fisheries using primarily 28 to 32-foot long, outboard-engine-powered catamarans called *alias* (pronounced *ah-lee-ahs*). Traditionally, trolling and bottomfishing were the major methods of fishing, and a little spearfishing, netting, and vertical longlining were done occasionally. Beginning in about mid-1995 some of the traditional *alias* began converting to horizontal longlining. During 1996 horizontal longlining became the largest fishery in American Samoa based on total landed weight of the catch, even though only about one-third of the fleet had converted to this method. Over the next few years the fleet grew rapidly with the addition of new *alias* up to about 38 feet in length and, more significantly, with the addition of other larger monohull vessels that fished much longer trips. The primary target species is albacore tuna, but the fishery has also resulted in significant increases in landings of yellowfin tuna, wahoo, blue marlin, mahimahi and some other incidentally caught species.

During 2006, the various fishery monitoring programs in American Samoa identified 52 active vessels – 50 homeported on Tutuila and 2 in the Manu`a Islands. Many of these vessels participated in more than one fishery, and 32 of the Tutuila boats (including 24 vessels which were over 50 feet in length) did at least some longlining. Of the 52 total boats, 12 participated in the troll and bottomfish fisheries and 1 was used in other forms of fishing activities. On average, the *alia* fleet on Tutuila consisted of 3-man crews, fished 8 hours, and caught about 375 pounds of fish; the Manu`a-based fleet typically had 3-man crews, fished about 4 hours

and landed 75 pounds of fish. Essentially all of the longlining was based out of Tutuila, where the majority of the catch was off-loaded to the canneries.

SPECIAL NOTE ON DATA REVISIONS

Significant changes in the fisheries occurred in the mid-1990s with the development of the longline fishery and a nighttime, boat-based scuba spearfishing fishery. Because of the nature of these fisheries, biases began creeping into the effort-counting and interviewing processes of the DMWR surveys. By 1997 WPacFIN staff discovered the problems, and modifications to survey techniques were implemented by DMWR staff. It became clear by early 1998 that the algorithms used to expand the survey data and estimate for the total fishery also needed to be changed. The new data processing programs that better handle the more complex nature of today's fisheries in American Samoa have been completed and were used to reprocess the historical time series. This volume includes the results of this new improved algorithm, but additional data quality control procedures and algorithm enhancements are still being made that may cause small changes in subsequent reports.

MAJOR DATA COLLECTING PROGRAMS

The data collecting programs used by DMWR to monitor the changing fisheries of American Samoa have evolved considerably over the past 20 years. One common factor of all programs has been that they have relied heavily on personal contacts with the fishermen and on a significant amount of dockside monitoring and interviewing. From 1982 to 1985, DMWR obtained catch statistics by interviewing commercial fishermen at the end of their trips and kept records of as much commercial fishing activity as possible; this was referred to as the Commercial Catch Monitoring System. This data collection method was accurate for trips where interviews were conducted. However, it was very labor intensive, did not cover all trips, and did not include the small but growing recreational and subsistence fisheries.

There are several major programs in place today. Data from these programs are used to develop the best available data for the complex, rapidly changing fisheries of American Samoa. These are

1. Vessel Classification Program – a vessel history and tracking system for all American Samoa vessels.
2. Boat-based Creel Survey Program (formerly the Offshore Creel Survey System) – access-point creel surveys on Tutuila and the Manu`a Islands, which are the mainstay of the monitoring program.
3. Commercial Purchase Program – a mandatory purchase receipt trip ticket system for fish businesses on Tutuila.
4. Federal Longline Logbook Program and Daily Effort Census Program for detailed tracking of the longline fishery.
5. Cannery Landings Program to document all landings at the two canneries made by domestic and foreign vessels.
6. Size frequency sampling program at the canneries.

Vessel Classification Program – Beginning in the early 1980s, this program was established to collect information on all vessels participating in any domestic fisheries. It provides the following information on American Samoa vessels:

- Boat Name
- Registration Number
- Propulsion
- Length
- Beam
- Number of Engines
- Type of Use
- Trailered
- Number of Crew
- Depth
- Engine Type
- Fuel Type
- Material
- Horsepower
- Port
- Methods of Fishing
- Federal Permit

Boat-based Creel Survey Program – In October 1985, a new creel survey sampling program was implemented on Tutuila to provide better coverage and statistics on all boat-based fisheries, including noncommercial information. Soon afterwards, similar monitoring programs were established in the Manu`a Islands, where the fishing fleets are centrally located and small enough for statistics to be collected for nearly every trip. The surveyors in the Manu`a Islands send their monitoring forms to DMWR in Tutuila for processing.

The details of the Tutuila boat-based fishery sampling program have changed over the years to accommodate changes in the fisheries; but it is still a systematic, random sampling program that stratifies sampling by type of day (either weekday or weekend/holiday) and by fishing method. For logistical and cultural reasons, Sundays are no longer sampled as effort is extremely low and not similar to other weekend/holiday-type days.

DMWR staff normally sample 2 weekdays and 1 weekend/holiday per week. During survey days, counts of total participation are collected, and as many returning vessels as possible are interviewed for catch, effort, and biological samples. Tutuila is divided into six sample areas, five of which are sampled. It is assumed that the nonsampled area is similar to the sampled areas in fishing activity and success rate. Furthermore, it is assumed that the fishers interviewed are representative of the entire fishing population and that they give accurate information.

Unless contrary information is available from dockside questioning of knowledgeable persons, a boat is assumed to be “out fishing” if its trailer is at a boat ramp or the boat is missing from its normal berthing area during the 18-hour survey day. The following participation information is recorded for all boats determined to be “out fishing.”

A.4

It is expanded to estimate the total number of fishing trips in Tutuila:

- Sample Date
- Boat Name
- 3 Observation Times
- Type of Day
- Fishing Method
- Sample Area

The remaining data items listed below are collected on each boat for which an interview is successfully completed:

- Interview Time *
- Area Fished
- Home Island
- Total Hours Fished (trip length) *
- Number of Fishermen
- Number of Gear Used
- Total Trip Weight in Pounds *
- Species Caught *
- Number of Pieces for Each Species
- Disposition of Species *
- Weight in Pounds for Each Species *
- Condition of Species if Not Whole
- Length of Fish (converted to weight)
- Price per Pound for Each Species

It is not always possible to obtain information on all the items listed. However, the ones marked with an asterisk (*) are considered essential for data expansion purposes. Also, identification and weight of each species are often not obtainable; in this case, a code for species groupings (e.g., miscellaneous bottomfish) is used. The interview data is later expanded to estimate the total catch per fishing trips and other catch-per-unit-of-effort (CPUE) measures in Tutuila. The catch-per-trip estimate is multiplied by the number of trips estimated for each stratum to obtain an estimate of the total catch for Tutuila. The Manu`a statistics are added to the expanded estimated data for Tutuila to arrive at a total estimate for American Samoa.

Commercial Purchase Program – For several decades the two canneries provided monthly summary statistics about their purchases of fish from all vessels, foreign and domestic. Then in September 1990, a Commercial Purchase Program was instituted in which all other businesses in Samoa that buy fish directly from fishermen were required by local law to submit a copy of their purchase receipts to DMWR. Receipt books are issued by DMWR to all fish markets, stores, hotels, and restaurants that resell fish, either whole or prepared. The following information is collected via these receipts:

- Invoice Date
- Invoice Number
- Buyer's Name
- Boat Name, Owner
- Area Fished
- Fishing Method
- Species Bought
- Number of Pieces for Each Species
- Weight in Pounds for Each Species *
- Price per Pound for Each Species

Federal Longline Logbook System and Daily Effort Census – In January 1996, in response to the developing longline fishery, a mandatory federal longline logbook system was implemented by NMFS. All longline fishermen are required to obtain a federal permit and to

submit logs containing detailed data on each of their sets and the resulting catch. From 1996 to 1999, the logbooks submitted by the local longliners were edited by the NMFS fisheries monitoring agent in Samoa for any missing data and were then sent to PIFSC (formerly the Honolulu Laboratory) for further editing and data processing.

In July 1999, to improve monitoring of the fast-growing longline fishery, DMWR implemented a Daily Effort Census (DEC) for all federally permitted longline vessels. Six days a week, DMWR staffs make two visits a day to ports where longline vessels move. The staff document whether each vessel on the list is “in port” or “out fishing.” The DEC data are used to track the activity of each vessel and to help ensure all fishing log sheets are submitted by the fishers.

To further improve the quality and timeliness of the data, beginning in January 2000, logbook data collecting, editing, and processing have been done by DMWR in Samoa and downloaded to NMFS periodically. The following information is recorded for each set these longline fishermen make:

- Set Date
- Vessel
- Date of Departure
- Port of Departure
- Date of Arrival
- Port of Arrival
- Observer on Board
- Target Species
- Bait Used
- Mainline Length
- No. of Hooks
- No. of Hooks/Float
- No. of Lightsticks Used
- Bird Catch Mitigation Measures
- Wind Detection
- Wave Height
- Sea Surface Temperature
- Wind Speed
- Begin Set Time
- Begin Set Latitude and Longitude
- End Set Time
- End Set Latitude and Longitude
- Haul Date
- Begin Haul Date
- Begin Haul Latitude and Longitude
- End Haul Time
- End Haul Latitude and Longitude
- No. of Pelagic Species Kept
- No. of Pelagic Species Released
- No. of Sharks Finned
- No. of Sharks Kept
- No. of Sharks Released
- No. of Protected Species Released Alive
- No. of Protected Species Released Injured
- No. of Protected Species Released Dead

Logbook data are also compared with cannery unloading data for Samoa-based boats on a monthly basis to identify boats that unload at the canneries, but did not turn in any longline logs or turn in just a part of the logs that they are required to.

The longline logbooks do not provide information about the pounds caught or the disposition of fish caught by large longliners, neither of which is covered by the boat-based creel survey either. Beginning in April 2001, to provide better estimates of the pounds per fish caught by the large longliners, length data from South Pacific Regional Longline Port

Sampling Forms were collected for Samoa-based longliners and converted to pounds. Disposition data were also entered in the comments section of these forms to provide sampled disposition data on the fish caught.

DATA PROCESSING

As the data collecting programs used by DMWR to monitor the fisheries in American Samoa have changed over the years, so have the data processing systems. Numerous versions of database and utility software and microcomputer systems have been used over the years to meet the growing demand for processing the collected data. Generally speaking, these changes, with their significant emphasis on improving data quality and their cross validation among systems, have made the data processing systems more robust, complex, and complete.

The following important principles have remained constant over time:

1. Keep data processing close to the source of data collecting,
2. Provide all of the needed software tools to ensure the quality of data,
3. Make systems user-friendly and functional for the local staff,
4. Maintain as many standards as possible throughout the time series of data collected,

Typically, when upgrades (such as changes in expansion and reporting algorithms for the creel survey data and commercial landings data) have been made to data processing systems, the entire time series of data would be reprocessed using the same algorithms so that trends in the fisheries would remain as intact as possible. The annual and monthly estimated commercial landings data and the corresponding time series figures included in this report were produced with the versions of data processing systems in use in May 2001. To help the reader understand the origin of the data included in this report, a general description of these processes follows. Please note that it does not include the details on many minor changes that have occurred throughout the evolutionary history of these systems.

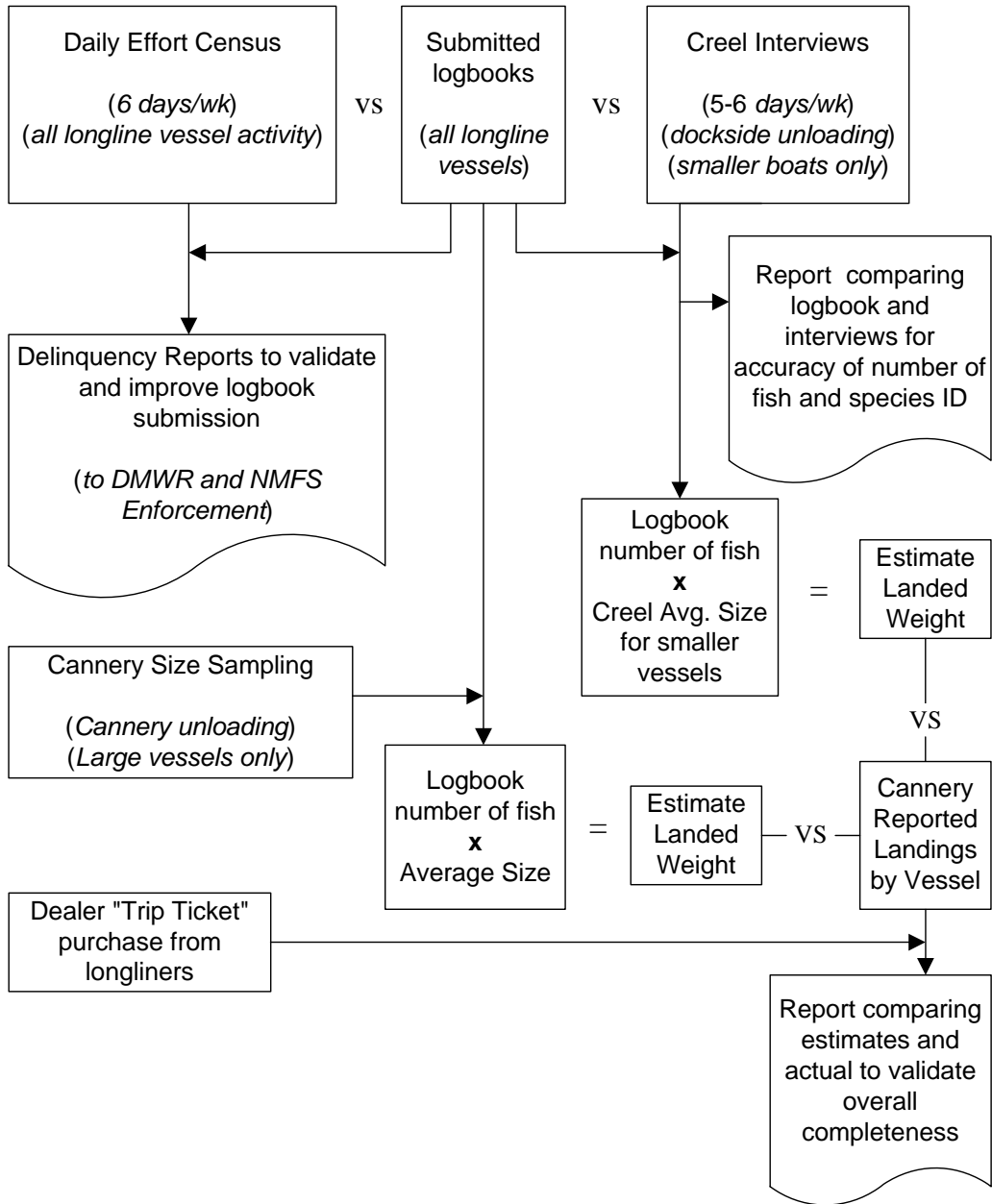
The data from 1982 to 1985 have been imported directly from the original Commercial Catch Monitoring System used prior to the implementation of the boat-based creel survey. Since 1986, the boat-based creel survey data expansion system has been the central system for estimating total commercial landings in American Samoa. In short, the survey data expansion process involves multiplying the average daily participation by the average catch per trip for each stratum. For the years 1986 to 1990, commercial sales portions of the expanded creel survey data from Tutuila and the Manu`a Islands were combined to produce estimated total commercial landings. Since 1990, with the implementation of the mandatory fish dealer receipt book system on Tutuila (Commercial Purchase Program), further adjustments have been made to these combined creel data by using receipt book data. These adjustments made significant improvements in overall totals as they helped adjust for sales not monitored through the boat-based survey (e.g., inshore and strictly nighttime commercial fishing). Species totals modified with these types of adjustments are flagged in reports with an asterisk. Finally, in the late 1990s when larger longline vessels began landing their catches directly at the canneries and thus out of the monitoring capabilities of the standard creel surveys, the longline logbook

A.7

system and cannery size frequency sampling data entered the algorithm to fill the gap for this portion of the fishery. This data added the landings of these vessels to create a more complete picture of the estimated total commercial landings for the Territory.

One of the most significant recent improvements made in the data processing systems for DMWR has been in the area of cross-system data validation and quality control. By collecting similar data from several sources using different monitoring and reporting tools, the quality of reported data can be cross-referenced between systems to provide insight into the validity and completeness of each data set. The following schematic shows some cross-system data validation relationships and features that are used in the most current version of the integrated DMWR fisheries monitoring programs (see next page).

Data Quality and Cross Validation American Samoa Longline Example



DATA REPORTING

After all editing, quality control, and data interpretation activities are completed, monthly and annual commercial landings data tables by species are generated. Each of the commercial landings data tables contain the common name, weight in pounds, value in dollars, the average price per pound of each species or species group, and whether the data was modified by Commercial Purchase System data (denoted by asterisks). The monthly data tables are based on monthly expansions of the Tutuila boat-based creel survey data with enhancements by monthly Longline Logbook, Commercial Purchase System, and Manu`a data as explained previously. Annual data tables are based on combined annual expansions of the creel data for the entire calendar year with similar annual enhancements from Longline Logbook, Commercial Purchase System, and Manu`a data. Since the monthly and annual data tables are based on separate monthly and annual expansion of the creel data, the annual data tables are not the exact sum of the 12 monthly data tables, but they fall within the standard error (Tables A-1 to A-13).

The charts that make up the rest of the report are for groups of species as well as for some of the dominant individual species. Some of the charts in this volume are new or modified from earlier volumes. To access the most up-to-date data and charts, visit the WPacFIN website at <<http://www.pifsc.noaa.gov/wpacfin>>. The top 10 commercial species for the year are emphasized, and they can change from year to year.

SPECIES CATEGORIES

The species and species groups that are used in the tables and graphs of American Samoa'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)

Sharks (misc)	Black marlin
Blacktip reef shark	Striped marlin
Blue shark	Sailfish
Shortfin mako shark	Spearfish
Nurse shark	Swordfish
Thresher shark	Wahoo
White tip oceanic shark	Pomfret
Mahimahi	Moonfish
Blue marlin	

II. Bottomfish Management Unit Species (BMUS)

Black jack	Pink snapper (opakapaka)
Amberjack	Flower snapper (gindai)
Giant trevally	Yellowtail snapper
Yelloweye opakapaka	Smalltooth jobfish (lehi)
Blacktip grouper	Longtail snapper (onaga)
Lunartail grouper	Squirrel snapper (ehu)
Blue lined snapper	Ambon emperor
Gray jobfish	Redgill emperor

III. Billfish

Swordfish	Striped marlin
Blue marlin	Sailfish
Black marlin	Spearfish

IV. Tunas

Tunas (misc)	Bluefin tuna
Skipjack tuna	Yellowfin tuna
Dogtooth tuna	Bigeye tuna
Albacore	Kawakawa

V. Other Tunas

Tunas (misc)	Bluefin tuna
Dogtooth tuna	Kawakawa

VI. Fisheries Categories

A. Pelagics

Albacore	Oilfish
All sharks	Pelagic fish (misc)
Barracudas (misc)	Pelagic thresher shark
Bigeye barracuda	Pomfret
Bigeye thresher shark	Rainbow runner
Bigeye tuna	Sailfish
Billfish (misc)	Sharks (misc)
Black marlin	Shortfin mako shark
Blacktip reef shark	Silky shark
Blue marlin	Skipjack tuna
Blue shark	Small barracuda
Bluefin tuna	Snake mackerel
Dogtooth tuna	Spearfish
Great barracuda	Striped marlin
Hammerhead shark	Swordfish
Kawakawa	Thresher shark
Longfin mako shark	Tiger shark
Mackerel	Tunas (misc)
Mahimahi	Wahoo
Moonfish	White tip oceanic shark
Nurse shark	Yellowfin tuna

B. Bottomfish

Amberjack	Longtail snapper (onaga)
Ambon emperor	Lunartail grouper
Bigeye emperor	Mackerel scad (opelu)
Bigeye scad	Multidens snapper
Bigeye trevally	Netfin grouper
Black jack	Onespot snapper
Black snapper	Orangespot emperor
Black triggerfish	Orangestripe triggerfish
Blacktip grouper	Peacock grouper
Blood snapper	Picassofish
Blue kingfish trevally	Pink snapper (opakapaka)
Blue lined gindai	Pinktail triggerfish
Blue lined snapper	Pristipomoides/Etelis
Blue triggerfish	Redgill emperor
Bluefin trevally	Rufous snapper
Blueline bream	Smalltooth grouper
Bottomfish (misc)	Smalltooth jobfish (lehi)
Bridled triggerfish	Spadefish
Brown jobfish	Spotted grouper
Deep water snappers	Squirrel snapper (ehu)
Emperors (misc)	Stone's snapper
Flagtail grouper	Striped grouper
Flower snapper (gindai)	Tomato grouper
Giant trevally	Twinspot/red snapper
Goldenline bream	Twospot bristletooth
Goldspot trevally	Whitemouth trevally
Gray jobfish	Yellow margined snapper
Groupers (misc)	Yellow-eyed bristletooth
Humpback snapper	Yelloweye opakapaka
Jacks (misc)	Yelloweye snapper
Kusakar's snapper	Yellowspot grouper
Longnose emperor	Yellowtail snapper

C. Reef Fish

Arenatus wrasse	Porcupinefish
Bandcheck wrasse	Rabbitfish
Barred flagtail	Red snapper
Barred thicklip	Reef fish (misc)
Bigeye squirrelfish	Rockmover wrasse
Bigeyes	Rudderfish
Bigscale soldierfish	Rudderfish (biggibus)
Blackeye thicklip	Rudderfish (cinerascens)
Blue-banded surgeonfish	Saber squirrelfish
Brown surgeonfish	Sergeant major
Butterflyfishes (misc)	Squirrelfish
Cardinalfish	Striped bristletooth
Checkerboard wrasse	Surgeonfishes/tangs
Christmas wrasse	Sweepers
Cigar wrasse	Sweetlips
Convict tang	Terapon perch
Flagtails	Tilefishes
Floral wrasse	Triggerfish
Flounders	Triple tail wrasse
Harlequin tuskfish	Two spotted hawkfish
Inshore groupers	Unicornfishes (misc)
Inshore snappers	Weedy surge wrasse
Mullets	Whitepatch wrasse
Napoleon wrasse	Whitespotted surgeonfish
Naso tang	Wrasses (misc)
Orange goatfish	Yellow goatfishes
Orangespine unicornfish	Yellowfin surgeonfish
Parrotfishes (misc)	

D. Other

Anchovies	Milkfish
Angler flatfish	Monogram monocle bream
Banded sergeant	Moray eels
Batfishes	Needlefish
Butterflyfish (auriga)	Octopus
Butterflyfish (melanotic)	Octopus (cyanea)
Catfish	Octopus (ornatus)
Conger eels	Pacific sailfin tang
Coral crouchers	Prettyfins
Crabs	Raccoon butterflyfish
Dottybacks	Rays
Dragon eel	Red algae
Eagle ray	Remoras
Eels	Saddleback butterflyfish
Emperor angelfish	Salmon
False mullet	Sand and coral rubble
Fish (misc)	Sea shells
Flame hawkfish	Sea urchins (misc)
Flashlightfishes	Seahorses
Flyingfish	Seaweeds
Forktail rabbitfish	Shrimp
Fringelip mullet	Slipper lobster
Frogfishes	Spiny lobster
Giant clam	Spotted moray eels
Giant moray eel	Squid
Green snails	Sunfish
Halfbeaks	Sweetlip emperor
Invertebrates (misc)	Threadfin
Kona crab	Tilapia
Leatherback	Turban snail
Longnose parrotfish	Undulated moray eel
Lowfin drummer	Western drummer
Mangrove clam	Yellowmargin moray eel
Mangrove crab	

INTERPRETATION OF STATISTICS

When interpreting the data reported in the tables and graphs, keep in mind the caveats described earlier in this section. Remember also that the commercial landings summaries are not based on a census of all the fishing activities, but on samples of those activities and on integration of data from several separate data programs. One of the major factors in expanding the creel survey data into monthly and annual estimates is the use of proportionality constants to adjust for percent coverage of the surveys. The flexibility of the survey design allows for refinement of these constants as additional information is gained on the fishing activities. If the constants are improved, the basic survey data can be expanded again to create better overall estimates. However, the variability and species composition would not be expected to change since these statistics are based on the actual survey information collected from the fishers. The estimates of total landings are considered to be conservative because the catch from the subsistence inshore fisheries are currently not included in this document.

Table A-1
American Samoa Annual 2006 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Bigeye scad	45	\$112	\$2.51	
Leatherback	4	\$8	\$2.00	
Mackerel	917	\$1,835	\$2.00	
Trevally (misc)	27	\$54	\$1.98	
Jacks (misc)	98	\$165	\$1.68	
Black jack	184	\$344	\$1.87	
Bigeye trevally	175	\$444	\$2.53	
Barracudas (misc)	2,131	\$2,876	\$1.35	
Bigeye barracuda	41	\$82	\$2.00	
Greater amberjack	2,168	\$4,576	\$2.11	
Filefishes	217	\$433	\$2.00	
Sharks (misc)	370	\$677	\$1.83	
Blacktip reef shark	263	\$217	\$0.83	
Conger eels	0	\$0	\$2.05	
Groupers (misc)	329	\$819	\$2.49	
Peacock grouper	6	\$10	\$1.75	
Tomato grouper	74	\$138	\$1.88	
Blacktip grouper	27	\$49	\$1.82	
Yellowspot grouper	10	\$21	\$2.00	
Spotted grouper	22	\$44	\$2.00	
Lunartail grouper	230	\$418	\$1.82	
Blue lined snapper	232	\$511	\$2.20	*
Rufous snapper	45	\$71	\$1.58	
Yellow margined snapper	6	\$26	\$4.23	
Onespot snapper	80	\$301	\$3.75	
Humpback snapper	680	\$1,630	\$2.40	*
Gray jobfish	486	\$810	\$1.67	
Yelloweye snapper	90	\$242	\$2.70	
Pink snapper (opakapaka)	127	\$355	\$2.79	*
Yelloweye opakapaka	47	\$64	\$1.36	
Blue lined gindai	52	\$90	\$1.72	
Flower snapper (gindai)	364	\$884	\$2.43	*
Yellowtail snapper	968	\$2,930	\$3.03	*
Smalltooth jobfish (lehi)	227	\$276	\$1.22	
Longtail snapper (onaga)	256	\$350	\$1.37	
Squirrel snapper (ehu)	949	\$2,828	\$2.98	*
Stone's snapper	153	\$226	\$1.48	
Kusakar's snapper	13	\$29	\$2.25	
Bigeye emperor	6	\$12	\$2.05	
Emperors (misc)	157	\$330	\$2.10	
Longnose emperor	80	\$174	\$2.19	
Ambon emperor	73	\$202	\$2.75	
Orangespot emperor	26	\$44	\$1.70	
Redgill emperor	380	\$855	\$2.25	
Rabbitfish	2	\$4	\$1.85	*
Cardinalfish	24	\$40	\$1.66	*
Sergeant major	112	\$280	\$2.50	
Surgeonfishes/tangs	5,782	\$11,946	\$2.07	*
Unicornfishes (misc)	720	\$1,468	\$2.04	*

Table A-1 (continued)
American Samoa Annual 2006 Estimated Commercial Landings

Species	Pounds	Value	\$/Lb	
Squirrelfish	611	\$1,263	\$2.07	*
Saber squirrelfish	43	\$128	\$2.98	
Bigeye squirrelfish	1	\$2	\$2.25	
Parrotfishes (misc)	8,352	\$19,794	\$2.37	*
Terapon perch	18	\$33	\$1.81	
Sweetlips	19	\$56	\$3.00	
Christmas wrasse	3	\$8	\$2.52	
Paeony bulleye	85	\$251	\$2.97	
Orange goatfish	5	\$16	\$3.00	
Sweepers	72	\$144	\$2.00	
Inshore groupers	346	\$717	\$2.07	*
Triggerfish	32	\$65	\$2.00	
Porcupinefish	2	\$4	\$2.20	
Inshore snappers	313	\$761	\$2.43	
Striped marlin	46	\$46	\$1.00	*
Mahimahi	10,115	\$14,251	\$1.41	
Swordfish	65,255	\$144,617	\$2.22	
Blue marlin	8,533	\$9,677	\$1.13	*
Black marlin	617	\$617	\$1.00	
Sailfish	1,726	\$4,316	\$2.50	
Spearfish	40	\$40	\$1.00	*
Rainbow runner	108	\$218	\$2.03	
Wahoo	596,841	\$362,739	\$0.61	
Skipjack tuna	428,705	\$244,050	\$0.57	
Dogtooth tuna	431	\$821	\$1.91	
Albacore	8,996,761	\$9,052,542	\$1.01	
Yellowfin tuna	1,154,354	\$1,090,076	\$0.94	
Bigeye tuna	405,493	\$450,724	\$1.11	
Kawakawa	70	\$140	\$1.99	
Moonfish	434	\$564	\$1.30	
Sunfish	181	\$226	\$1.25	
Spiny lobster	5,405	\$22,859	\$4.23	*
Octopus	1,788	\$4,329	\$2.42	*
Shrimp	508	\$1,244	\$2.45	*
Squid	24	\$40	\$1.66	*
Giant clam	15	\$15	\$1.00	*
Clams (misc)	24	\$63	\$2.61	*
Tilapia	3,882	\$4,525	\$1.17	*
Rudderfish	25	\$55	\$2.18	
Angler flatfish	220	\$433	\$1.97	*
Stocky hawkfish	27	\$62	\$2.25	
Stareye parrotfish	320	\$640	\$2.00	
Yellowband parrotfish	18	\$37	\$2.00	
Napoleon wrasse	32	\$78	\$2.43	
Barred flagtail	126	\$378	\$3.00	
Seven-11 crab	24	\$48	\$2.00	*
TOTAL	11,711,524	\$11,474,008	\$0.98	

* Data replaced or modified by Actual Commercial Landings Data

Table A-2
American Samoa January 2006 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Barracudas (misc)	13	\$22	\$1.75	
Groupers (misc)	1	\$3	\$2.25	
Lunartail grouper	1	\$2	\$2.01	
Blue lined snapper	1	\$1	\$1.98	
Onespot snapper	2	\$8	\$4.18	
Humpback snapper	71	\$82	\$1.16	*
Yelloweye snapper	5	\$14	\$2.70	
Pink snapper (opakapaka)	99	\$272	\$2.75	*
Yellowtail snapper	372	\$1,412	\$3.79	*
Longnose emperor	2	\$4	\$2.25	
Ambon emperor	6	\$17	\$2.75	
Redgill emperor	1	\$2	\$2.25	
Surgeonfishes/tangs	747	\$1,509	\$2.02	*
Unicornfishes (misc)	83	\$172	\$2.06	*
Squirrelfish	67	\$139	\$2.07	*
Parrotfishes (misc)	651	\$1,327	\$2.04	*
Inshore groupers	46	\$92	\$2.01	*
Mahimahi	246	\$295	\$1.20	*
Swordfish	4,161	\$7,784	\$1.87	*
Blue marlin	902	\$812	\$0.90	*
Sailfish	315	\$788	\$2.50	*
Rainbow runner	3	\$5	\$1.91	
Wahoo	48,727	\$29,245	\$0.60	
Skipjack tuna	24,956	\$13,988	\$0.56	
Dogtooth tuna	5	\$9	\$1.94	
Albacore	351,696	\$353,028	\$1.00	
Yellowfin tuna	98,331	\$89,201	\$0.91	
Bigeye tuna	14,818	\$16,464	\$1.11	
Spiny lobster	337	\$1,277	\$3.79	*
Octopus	151	\$376	\$2.50	*
Tilapia	640	\$737	\$1.15	*
Angler flatfish	22	\$61	\$2.75	*
TOTAL	547,476	\$519,146	\$0.95	

* Data replaced or modified by Actual Commercial Landings Data

Table A-3
American Samoa February 2006 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Black jack	30	\$17	\$0.57	
Barracudas (misc)	225	\$676	\$3.00	
Tomato grouper	13	\$13	\$1.00	
Blacktip grouper	8	\$8	\$1.00	
Lunartail grouper	25	\$17	\$0.67	
Blue lined snapper	31	\$89	\$2.88	*
Rufous snapper	15	\$15	\$1.00	
Humpback snapper	26	\$79	\$3.03	*
Gray jobfish	79	\$20	\$0.25	
Pink snapper (opakapaka)	3	\$6	\$2.00	
Yelloweye opakapaka	17	\$9	\$0.50	
Blue lined gindai	13	\$13	\$1.00	
Flower snapper (gindai)	27	\$18	\$0.67	
Yellowtail snapper	19	\$19	\$1.00	
Smalltooth jobfish (lehi)	76	\$14	\$0.18	
Longtail snapper (onaga)	89	\$26	\$0.29	
Squirrel snapper (ehu)	132	\$16	\$0.12	
Stone's snapper	45	\$20	\$0.44	
Kusakar's snapper	6	\$14	\$2.25	
Emperors (misc)	5	\$5	\$1.00	
Longnose emperor	10	\$20	\$2.00	
Surgeonfishes/tangs	536	\$1,072	\$2.00	*
Unicornfishes (misc)	58	\$116	\$2.00	*
Squirrelfish	25	\$50	\$2.00	*
Parrotfishes (misc)	977	\$2,386	\$2.44	*
Inshore groupers	52	\$104	\$2.00	*
Mahimahi	90	\$180	\$2.00	*
Swordfish	13,717	\$29,493	\$2.15	
Blue marlin	45	\$45	\$1.00	*
Black marlin	39	\$39	\$1.00	
Sailfish	9	\$24	\$2.50	
Rainbow runner	17	\$34	\$2.00	
Wahoo	46,025	\$27,637	\$0.60	
Skipjack tuna	18,144	\$9,893	\$0.55	
Dogtooth tuna	54	\$12	\$0.22	
Albacore	292,982	\$294,243	\$1.00	
Yellowfin tuna	114,335	\$104,407	\$0.91	
Bigeye tuna	24,772	\$27,493	\$1.11	
Kawakawa	15	\$30	\$2.00	
Spiny lobster	1,149	\$4,892	\$4.26	*
Octopus	83	\$207	\$2.50	*
Tilapia	415	\$428	\$1.03	*
TOTAL	514,434	\$503,895	\$0.98	

* Data replaced or modified by Actual Commercial Landings Data

Table A-4
American Samoa March 2006 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb
Black jack	39	\$71	\$1.83
Barracudas (misc)	96	\$288	\$3.00
Greater amberjack	22	\$66	\$3.00
Groupers (misc)	68	\$175	\$2.59
Tomato grouper	20	\$37	\$1.84
Blacktip grouper	7	\$12	\$1.69
Lunartail grouper	44	\$80	\$1.83
Blue lined snapper	62	\$132	\$2.13 *
Rufous snapper	18	\$32	\$1.80
Onespot snapper	54	\$238	\$4.44
Humpback snapper	189	\$428	\$2.27 *
Gray jobfish	57	\$90	\$1.58
Yelloweye snapper	144	\$389	\$2.70
Yelloweye opakapaka	11	\$17	\$1.54
Blue lined gindai	16	\$31	\$1.91
Flower snapper (gindai)	21	\$36	\$1.69
Yellowtail snapper	34	\$88	\$2.62
Smalltooth jobfish (lehi)	69	\$97	\$1.40
Longtail snapper (onaga)	77	\$143	\$1.86
Squirrel snapper (ehu)	73	\$113	\$1.54
Stone's snapper	43	\$74	\$1.71
Kusakar's snapper	7	\$16	\$2.25
Emperors (misc)	14	\$25	\$1.80
Longnose emperor	49	\$111	\$2.24
Ambon emperor	174	\$478	\$2.75
Redgill emperor	26	\$58	\$2.25
Surgeonfishes/tangs	179	\$359	\$2.00 *
Squirrelfish	46	\$138	\$3.00
Parrotfishes (misc)	712	\$1,765	\$2.48 *
Paeony bulleye	15	\$45	\$3.00
Inshore groupers	4	\$29	\$6.97 *
Mahimahi	89	\$178	\$2.00
Swordfish	15,054	\$29,506	\$1.96
Blue marlin	350	\$352	\$1.00 *
Black marlin	125	\$125	\$1.00
Sailfish	30	\$76	\$2.50
Rainbow runner	9	\$18	\$2.00
Wahoo	36,083	\$21,784	\$0.60
Skipjack tuna	34,824	\$19,973	\$0.57
Dogtooth tuna	11	\$25	\$2.30
Albacore	556,706	\$559,645	\$1.01
Yellowfin tuna	160,842	\$149,794	\$0.93
Bigeye tuna	24,628	\$27,683	\$1.12
Kawakawa	12	\$24	\$2.00
Spiny lobster	673	\$3,028	\$4.50 *
Octopus	189	\$473	\$2.50 *
Tilapia	240	\$310	\$1.29 *
Napoleon wrasse	12	\$29	\$2.43
Barred flagtail	35	\$105	\$3.00
TOTAL	832,302	\$818,787	\$0.98

* Data replaced or modified by Actual Commercial Landings Data

Table A-5
American Samoa April 2006 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Mackerel	6	\$11	\$2.00	*
Black jack	34	\$68	\$2.00	
Barracudas (misc)	56	\$168	\$3.00	
Greater amberjack	171	\$513	\$3.00	
Blacktip reef shark	57	\$114	\$2.00	
Groupers (misc)	57	\$161	\$2.84	
Tomato grouper	15	\$30	\$2.00	
Blacktip grouper	6	\$12	\$2.00	
Lunartail grouper	18	\$36	\$2.00	
Blue lined snapper	90	\$196	\$2.18	*
Rufous snapper	4	\$8	\$2.00	
Onespot snapper	40	\$144	\$3.63	
Humpback snapper	260	\$721	\$2.77	*
Gray jobfish	25	\$50	\$2.00	
Yelloweye snapper	99	\$266	\$2.70	
Pink snapper (opakapaka)	28	\$83	\$2.95	*
Yelloweye opakapaka	8	\$16	\$2.00	
Blue lined gindai	13	\$26	\$2.00	
Flower snapper (gindai)	40	\$92	\$2.31	
Yellowtail snapper	12	\$32	\$2.61	
Smalltooth jobfish (lehi)	19	\$38	\$2.00	
Longtail snapper (onaga)	36	\$72	\$2.00	
Squirrel snapper (ehu)	89	\$178	\$2.00	
Stone's snapper	23	\$46	\$2.00	
Emperors (misc)	8	\$16	\$2.00	
Longnose emperor	16	\$35	\$2.25	
Ambon emperor	56	\$154	\$2.75	
Orangespot emperor	38	\$65	\$1.70	
Redgill emperor	8	\$19	\$2.25	
Rabbitfish	2	\$4	\$1.85	*
Surgeonfishes/tangs	947	\$1,887	\$1.99	*
Unicornfishes (misc)	162	\$324	\$2.00	*
Squirrelfish	75	\$225	\$3.00	
Parrotfishes (misc)	1,525	\$4,084	\$2.68	*
Paeony bulleye	39	\$117	\$3.00	
Inshore groupers	65	\$131	\$2.00	*
Mahimahi	42	\$84	\$2.00	
Swordfish	4,194	\$8,388	\$2.00	
Blue marlin	2,068	\$1,829	\$0.88	*
Black marlin	229	\$229	\$1.00	
Sailfish	12	\$29	\$2.50	
Rainbow runner	11	\$22	\$2.00	
Wahoo	22,293	\$13,494	\$0.61	
Skipjack tuna	23,584	\$13,641	\$0.58	
Dogtooth tuna	64	\$173	\$2.70	
Albacore	317,303	\$318,762	\$1.00	
Yellowfin tuna	62,902	\$58,657	\$0.93	
Bigeye tuna	32,557	\$36,079	\$1.11	
Kawakawa	17	\$34	\$2.00	

Table A-5 (continued)
American Samoa April 2006 Estimated Commercial Landings

Species	Pounds	Value	\$/Lb	
Spiny lobster	746	\$3,019	\$4.05	*
Octopus	360	\$757	\$2.10	*
Tilapia	120	\$166	\$1.38	*
Barred flagtail	60	\$180	\$3.00	
TOTAL	470,709	\$465,682	\$0.99	

* Data replaced or modified by Actual Commercial Landings Data

Table A-6
American Samoa May 2006 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Black jack	14	\$28	\$2.00	
Barracudas (misc)	87	\$261	\$3.00	
Greater amberjack	14	\$42	\$3.00	
Sharks (misc)	134	\$245	\$1.83	
Groupers (misc)	19	\$52	\$2.72	
Tomato grouper	4	\$8	\$2.00	
Blacktip grouper	1	\$2	\$1.69	
Lunartail grouper	9	\$17	\$2.00	
Blue lined snapper	9	\$18	\$1.99	
Rufous snapper	1	\$2	\$1.80	
Onespot snapper	9	\$41	\$4.82	
Humpback snapper	24	\$61	\$2.59	
Gray jobfish	21	\$42	\$2.00	
Yelloweye snapper	61	\$166	\$2.70	
Yelloweye opakapaka	1	\$2	\$2.00	
Blue lined gindai	4	\$8	\$2.00	
Flower snapper (gindai)	23	\$53	\$2.33	
Yellowtail snapper	220	\$605	\$2.75	*
Smalltooth jobfish (lehi)	6	\$12	\$2.00	
Longtail snapper (onaga)	37	\$74	\$2.00	
Squirrel snapper (ehu)	4	\$8	\$2.00	
Stone's snapper	12	\$24	\$2.00	
Longnose emperor	12	\$26	\$2.21	
Ambon emperor	35	\$96	\$2.75	
Orangespot emperor	24	\$41	\$1.70	
Redgill emperor	5	\$12	\$2.25	
Surgeonfishes/tangs	501	\$1,009	\$2.01	*
Unicornfishes (misc)	66	\$132	\$2.00	*
Squirrelfish	64	\$128	\$2.00	*
Parrotfishes (misc)	883	\$2,046	\$2.32	*
Paeony bulleye	8	\$24	\$3.00	
Inshore groupers	100	\$199	\$2.00	*
Inshore snappers	30	\$73	\$2.43	*
Striped marlin	46	\$46	\$1.00	*
Mahimahi	285	\$476	\$1.67	
Swordfish	844	\$1,688	\$2.00	
Blue marlin	370	\$645	\$1.74	*
Sailfish	155	\$388	\$2.50	
Wahoo	42,780	\$25,824	\$0.60	
Skipjack tuna	31,732	\$18,156	\$0.57	
Dogtooth tuna	57	\$114	\$2.00	
Albacore	666,866	\$669,700	\$1.00	
Yellowfin tuna	140,611	\$126,757	\$0.90	
Bigeye tuna	34,400	\$37,971	\$1.10	
Kawakawa	6	\$12	\$2.00	
Spiny lobster	1,098	\$4,644	\$4.23	*
Octopus	63	\$157	\$2.50	*
Tilapia	324	\$329	\$1.01	*
Barred flagtail	9	\$27	\$3.00	
TOTAL	922,087	\$892,491	\$0.97	

* Data replaced or modified by Actual Commercial Landings Data

Table A-7
American Samoa June 2006 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Bigeye scad	0	\$1	\$2.53	
Mackerel	11	\$21	\$2.00	
Trevally (misc)	0	\$0	\$1.92	
Jacks (misc)	2	\$3	\$2.00	
Black jack	16	\$32	\$2.00	
Barracudas (misc)	134	\$401	\$2.99	
Greater amberjack	40	\$113	\$2.83	
Sharks (misc)	252	\$461	\$1.83	
Groupers (misc)	23	\$69	\$3.00	
Tomato grouper	7	\$14	\$2.00	
Blacktip grouper	3	\$6	\$2.00	
Lunartail grouper	5	\$10	\$2.00	
Blue lined snapper	29	\$87	\$3.00	
Rufous snapper	7	\$14	\$2.00	
Yellow margined snapper	4	\$9	\$2.16	
Onespot snapper	10	\$31	\$3.05	
Humpback snapper	71	\$180	\$2.52	*
Gray jobfish	19	\$38	\$2.00	
Yelloweye opakapaka	3	\$5	\$1.54	
Blue lined gindai	6	\$12	\$2.00	
Flower snapper (gindai)	35	\$79	\$2.25	*
Smalltooth jobfish (lehi)	31	\$62	\$2.00	
Longtail snapper (onaga)	13	\$26	\$2.00	
Squirrel snapper (ehu)	209	\$575	\$2.75	*
Stone's snapper	12	\$24	\$2.00	
Bigeye emperor	0	\$1	\$2.07	
Longnose emperor	6	\$12	\$2.00	
Surgeonfishes/tangs	60	\$119	\$2.00	*
Unicornfishes (misc)	1	\$2	\$2.00	*
Squirrelfish	29	\$88	\$2.99	
Parrotfishes (misc)	762	\$1,829	\$2.40	*
Terapon perch	0	\$0	\$1.83	
Sweetlips	0	\$0	\$3.00	
Paeony bulleye	19	\$57	\$3.00	
Inshore groupers	4	\$7	\$2.00	*
Inshore snappers	0	\$1	\$2.39	
Mahimahi	1,427	\$1,645	\$1.15	*
Swordfish	984	\$2,063	\$2.10	*
Blue marlin	540	\$904	\$1.67	*
Sailfish	837	\$2,092	\$2.50	
Rainbow runner	42	\$84	\$2.00	
Wahoo	53,306	\$32,654	\$0.61	
Skipjack tuna	20,682	\$12,068	\$0.58	
Dogtooth tuna	27	\$62	\$2.30	
Albacore	1,222,168	\$1,237,314	\$1.01	
Yellowfin tuna	67,709	\$64,679	\$0.96	
Bigeye tuna	20,851	\$24,548	\$1.18	
Kawakawa	15	\$30	\$2.00	
Spiny lobster	613	\$2,773	\$4.52	*

Table A-7 (continued)
American Samoa June 2006 Estimated Commercial Landings

Species	Pounds	Value	\$/Lb
Octopus	218	\$545	\$2.50 *
Shrimp	10	\$60	\$6.00 *
Tilapia	230	\$274	\$1.19 *
Rudderfish	0	\$0	\$2.27
Napoleon wrasse	20	\$49	\$2.43
Barred flagtail	22	\$66	\$3.00
TOTAL	1,391,524	\$1,386,297	\$1.00

* Data replaced or modified by Actual Commercial Landings Data

Table A-8
American Samoa July 2006 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Bigeye scad	10	\$26	\$2.51	
Mackerel	249	\$498	\$2.00	
Trevally (misc)	2	\$5	\$1.97	
Jacks (misc)	16	\$33	\$2.00	
Barracudas (misc)	291	\$356	\$1.22	
Greater amberjack	87	\$175	\$2.00	
Sharks (misc)	28	\$51	\$1.83	
Blacktip reef shark	59	\$30	\$0.50	
Conger eels	0	\$0	\$1.90	
Grouper (misc)	5	\$12	\$2.25	
Yellow margined snapper	1	\$9	\$8.26	
Onespot snapper	3	\$14	\$4.82	
Humpback snapper	2	\$5	\$2.47	
Flower snapper (gindai)	137	\$325	\$2.37	*
Yellowtail snapper	54	\$121	\$2.23	*
Squirrel snapper (ehu)	464	\$1,364	\$2.94	*
Bigeye emperor	3	\$6	\$2.05	
Surgeonfishes/tangs	273	\$553	\$2.03	*
Unicornfishes (misc)	55	\$110	\$2.00	*
Squirrelfish	23	\$46	\$2.00	*
Parrotfishes (misc)	516	\$1,241	\$2.40	*
Terapon perch	2	\$4	\$1.81	
Sweetlips	1	\$3	\$3.00	
Sweepers	6	\$12	\$2.00	
Inshore groupers	6	\$12	\$2.00	*
Inshore snappers	3	\$7	\$2.43	
Mahimahi	818	\$1,040	\$1.27	*
Swordfish	1,196	\$2,476	\$2.07	
Blue marlin	1,168	\$1,252	\$1.07	*
Sailfish	379	\$947	\$2.50	
Wahoo	72,033	\$43,795	\$0.61	
Skipjack tuna	70,896	\$40,271	\$0.57	
Albacore	950,734	\$960,486	\$1.01	
Yellowfin tuna	117,995	\$112,428	\$0.95	
Bigeye tuna	21,424	\$23,852	\$1.11	
Spiny lobster	265	\$1,122	\$4.24	*
Octopus	139	\$349	\$2.51	*
Tilapia	160	\$163	\$1.02	*
Rudderfish	2	\$4	\$2.17	
Stareye parrotfish	8	\$16	\$2.00	
Yellowband parrotfish	5	\$10	\$2.00	
TOTAL	1,239,519	\$1,193,227	\$0.96	

* Data replaced or modified by Actual Commercial Landings Data

Table A-9
American Samoa August 2006 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Bigeye scad	14	\$34	\$2.51	
Mackerel	226	\$453	\$2.00	
Trevally (misc)	2	\$4	\$1.99	
Jacks (misc)	13	\$21	\$1.59	
Barracudas (misc)	33	\$34	\$1.02	
Greater amberjack	110	\$219	\$2.00	
Filefishes	91	\$181	\$2.00	
Grouper (misc)	22	\$49	\$2.25	
Tomato grouper	1	\$2	\$2.52	
Spotted grouper	7	\$14	\$2.00	
Lunartail grouper	48	\$95	\$2.00	
Blue lined snapper	2	\$4	\$1.96	
Onespot snapper	0	\$1	\$4.89	
Humpback snapper	45	\$111	\$2.47	
Gray jobfish	80	\$159	\$2.00	
Yelloweye snapper	4	\$11	\$2.70	
Yellowtail snapper	72	\$159	\$2.21	*
Squirrel snapper (ehu)	50	\$175	\$3.50	*
Emperors (misc)	26	\$53	\$2.02	
Longnose emperor	8	\$19	\$2.25	
Ambon emperor	9	\$24	\$2.75	
Redgill emperor	26	\$59	\$2.25	
Surgeonfishes/tangs	368	\$736	\$2.00	*
Unicornfishes (misc)	65	\$130	\$2.00	*
Squirrelfish	33	\$67	\$2.00	*
Parrotfishes (misc)	205	\$457	\$2.23	*
Terapon perch	4	\$8	\$1.81	
Paeony bulleye	0	\$1	\$2.27	
Orange goatfish	3	\$8	\$3.00	
Sweepers	2	\$4	\$2.00	
Inshore groupers	11	\$21	\$2.00	*
Triggerfish	5	\$10	\$2.00	
Inshore snappers	79	\$191	\$2.43	
Mahimahi	985	\$1,291	\$1.31	
Swordfish	1,266	\$2,621	\$2.07	
Blue marlin	1,195	\$1,417	\$1.19	*
Spearfish	40	\$40	\$1.00	*
Wahoo	67,647	\$40,950	\$0.61	
Skipjack tuna	54,440	\$31,157	\$0.57	
Dogtooth tuna	11	\$21	\$2.00	
Albacore	735,705	\$743,179	\$1.01	
Yellowfin tuna	107,628	\$108,826	\$1.01	
Bigeye tuna	55,665	\$61,505	\$1.10	
Kawakawa	3	\$5	\$1.85	
Spiny lobster	106	\$454	\$4.28	*
Octopus	274	\$685	\$2.50	*
Giant clam	15	\$15	\$1.00	*
Tilapia	492	\$527	\$1.07	*
Angler flatfish	88	\$165	\$1.87	*

Table A-9 (continued)
American Samoa August 2006 Estimated Commercial Landings

Species	Pounds	Value	\$/Lb
Stareye parrotfish	7	\$13	\$2.00 *
Seven-11 crab	24	\$48	\$2.00 *
TOTAL	1,027,252	\$996,435	\$0.97

* Data replaced or modified by Actual Commercial Landings Data

Table A-10
American Samoa September 2006 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb
Mackerel	27	\$54	\$2.00
Trevally (misc)	11	\$21	\$1.98
Jacks (misc)	13	\$20	\$1.59
Black jack	0	\$0	\$2.43
Bigeye trevally	61	\$155	\$2.53
Barracudas (misc)	325	\$177	\$0.54
Greater amberjack	262	\$523	\$2.00
Filefishes	13	\$25	\$2.00
Groupers (misc)	5	\$10	\$2.25
Lunartail grouper	8	\$15	\$2.00
Blue lined snapper	23	\$40	\$1.75 *
Onespot snapper	1	\$4	\$4.84
Humpback snapper	10	\$23	\$2.25 *
Flower snapper (gindai)	128	\$320	\$2.50 *
Yellowtail snapper	26	\$65	\$2.46 *
Smalltooth jobfish (lehi)	0	\$1	\$2.05
Squirrel snapper (ehu)	132	\$445	\$3.37 *
Longnose emperor	15	\$33	\$2.25
Redgill emperor	29	\$66	\$2.25
Sergeant major	5	\$12	\$2.50
Surgeonfishes/tangs	582	\$1,234	\$2.12 *
Unicornfishes (misc)	92	\$186	\$2.03 *
Squirrelfish	92	\$193	\$2.10 *
Parrotfishes (misc)	287	\$693	\$2.42 *
Sweetlips	4	\$11	\$3.00
Paeony bulleye	2	\$3	\$2.28
Inshore groupers	40	\$81	\$2.01 *
Porcupinefish	1	\$2	\$2.21
Inshore snappers	9	\$22	\$2.43
Pelagic fish (misc)	255	\$638	\$2.50
Mahimahi	1,920	\$2,188	\$1.14
Swordfish	1,688	\$3,613	\$2.14
Blue marlin	752	\$1,204	\$1.60
Sailfish	230	\$575	\$2.50
Wahoo	54,375	\$33,297	\$0.61
Skipjack tuna	83,451	\$46,727	\$0.56
Dogtooth tuna	28	\$55	\$2.00
Albacore	1,147,332	\$1,151,605	\$1.00
Yellowfin tuna	115,840	\$108,253	\$0.93
Bigeye tuna	49,221	\$54,405	\$1.11
Spiny lobster	5	\$18	\$3.57 *
Octopus	68	\$169	\$2.50 *
Shrimp	4	\$140	\$35.0 *
Squid	24	\$40	\$1.66 *
Tilapia	620	\$732	\$1.18 *
Stocky hawkfish	15	\$34	\$2.25
TOTAL	1,458,028	\$1,408,126	\$0.97

* Data replaced or modified by Actual Commercial Landings Data

Table A-11
American Samoa October 2006 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Jacks (misc)	14	\$18	\$1.27	
Bigeye trevally	60	\$151	\$2.53	
Barracudas (misc)	291	\$34	\$0.12	
Greater amberjack	928	\$1,856	\$2.00	
Bottomfish (misc)	566	\$1,292	\$2.28	*
Groupers (misc)	22	\$47	\$2.10	
Peacock grouper	1	\$2	\$1.74	
Blacktip grouper	2	\$9	\$5.09	
Yellowspot grouper	7	\$15	\$2.00	
Spotted grouper	2	\$4	\$1.99	
Lunartail grouper	4	\$9	\$2.00	
Blue lined snapper	16	\$31	\$1.96	
Humpback snapper	247	\$610	\$2.47	
Gray jobfish	53	\$105	\$2.00	
Flower snapper (gindai)	64	\$160	\$2.50	*
Yellowtail snapper	92	\$333	\$3.62	*
Squirrel snapper (ehu)	16	\$40	\$2.50	*
Redgill emperor	233	\$524	\$2.25	
Surgeonfishes/tangs	268	\$550	\$2.05	*
Unicornfishes (misc)	31	\$62	\$2.00	*
Squirrelfish	8	\$16	\$2.08	
Parrotfishes (misc)	116	\$281	\$2.42	*
Terapon perch	1	\$3	\$1.82	
Sweetlips	2	\$7	\$3.00	
Christmas wrasse	1	\$2	\$2.53	
Sweepers	9	\$17	\$2.00	
Inshore groupers	4	\$7	\$2.00	*
Pelagic fish (misc)	402	\$1,004	\$2.50	
Mahimahi	1,675	\$2,804	\$1.67	
Swordfish	2,368	\$5,919	\$2.50	
Blue marlin	1,147	\$1,606	\$1.40	
Wahoo	53,879	\$32,853	\$0.61	
Skipjack tuna	18,695	\$10,526	\$0.56	
Dogtooth tuna	88	\$176	\$2.00	
Albacore	868,855	\$871,287	\$1.00	
Yellowfin tuna	69,001	\$66,475	\$0.96	
Bigeye tuna	55,430	\$61,040	\$1.10	
Moonfish	55	\$71	\$1.30	
Spiny lobster	51	\$230	\$4.50	
Octopus	42	\$104	\$2.50	*
Shrimp	400	\$339	\$0.85	*
Tilapia	240	\$389	\$1.62	*
Rudderfish	5	\$11	\$2.18	
Stareye parrotfish	70	\$140	\$2.00	
TOTAL	1,075,459	\$1,061,157	\$0.99	

* Data replaced or modified by Actual Commercial Landings Data

Table A-12
American Samoa November 2006 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb
Jacks (misc)	12	\$16	\$1.27
Bigeye trevally	54	\$137	\$2.53
Barracudas (misc)	302	\$126	\$0.42
Greater amberjack	865	\$1,730	\$2.00
Blacktip reef shark	147	\$74	\$0.50
Bottomfish (misc)	470	\$1,047	\$2.23 *
Groupers (misc)	47	\$100	\$2.13
Peacock grouper	2	\$4	\$1.75
Blacktip grouper	2	\$8	\$5.11
Yellowspot grouper	7	\$13	\$2.00
Spotted grouper	3	\$6	\$2.00
Lunartail grouper	12	\$23	\$2.00
Blue lined snapper	22	\$42	\$1.96
Onespot snapper	10	\$49	\$4.82
Humpback snapper	238	\$588	\$2.47
Gray jobfish	95	\$189	\$2.00
Yellowtail snapper	132	\$235	\$1.78 *
Longtail snapper (onaga)	53	\$119	\$2.25 *
Redgill emperor	211	\$475	\$2.25
Surgeonfishes/tangs	925	\$2,065	\$2.23 *
Unicornfishes (misc)	63	\$139	\$2.20 *
Squirrelfish	209	\$442	\$2.11 *
Parrotfishes (misc)	1,073	\$2,364	\$2.20 *
Terapon perch	2	\$4	\$1.82
Sweetlips	4	\$11	\$3.00
Christmas wrasse	1	\$3	\$2.52
Sweepers	14	\$29	\$2.00
Inshore groupers	10	\$21	\$2.19 *
Pelagic fish (misc)	376	\$0	\$0.00 *
Mahimahi	754	\$1,471	\$1.95
Swordfish	13,788	\$32,539	\$2.36
Blue marlin	1,306	\$1,500	\$1.15 *
Sailfish	295	\$738	\$2.50 *
Rainbow runner	15	\$31	\$2.10
Wahoo	49,507	\$30,622	\$0.62
Skipjack tuna	15,851	\$9,097	\$0.57
Dogtooth tuna	78	\$156	\$2.00
Albacore	1,029,384	\$1,033,421	\$1.00
Yellowfin tuna	39,088	\$37,099	\$0.95
Bigeye tuna	43,880	\$49,095	\$1.12
Moonfish	561	\$730	\$1.30
Spiny lobster	110	\$414	\$3.78 *
Octopus	165	\$411	\$2.50 *
Shrimp	94	\$705	\$7.50 *
Clams (misc)	24	\$63	\$2.61 *
Tilapia	401	\$471	\$1.17 *
Rudderfish	9	\$19	\$2.18
Angler flatfish	110	\$208	\$1.89 *
Stareye parrotfish	116	\$232	\$2.00
TOTAL	1,200,892	\$1,209,078	\$1.01

* Data replaced or modified by Actual Commercial Landings Data

Table A-13
American Samoa December 2006 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Leatherback	10	\$20	\$2.00	
Jacks (misc)	1	\$2	\$2.78	
Black jack	124	\$309	\$2.50	
Barracudas (misc)	80	\$48	\$0.60	
Bigeye barracuda	45	\$90	\$2.00	
Greater amberjack	21	\$42	\$2.00	
Groupers (misc)	83	\$209	\$2.51	
Peacock grouper	1	\$1	\$1.74	
Yellowspot grouper	6	\$13	\$2.00	
Spotted grouper	1	\$2	\$2.00	
Lunartail grouper	7	\$14	\$2.06	
Blue lined snapper	43	\$96	\$2.25	
Humpback snapper	128	\$298	\$2.33	
Gray jobfish	13	\$26	\$2.00	
Yelloweye opakapaka	1	\$3	\$2.24	
Yellowtail snapper	74	\$225	\$3.03	
Smalltooth jobfish (lehi)	52	\$106	\$2.04	
Longtail snapper (onaga)	30	\$69	\$2.25	
Squirrel snapper (ehu)	78	\$229	\$2.94	*
Stone's snapper	44	\$97	\$2.20	
Bigeye emperor	2	\$4	\$2.42	
Emperors (misc)	141	\$325	\$2.30	
Cardinalfish	24	\$40	\$1.66	*
Sergeant major	7	\$17	\$2.50	
Surgeonfishes/tangs	396	\$854	\$2.16	*
Unicornfishes (misc)	44	\$95	\$2.15	*
Squirrelfish	28	\$58	\$2.08	*
Parrotfishes (misc)	646	\$1,322	\$2.05	*
Terapon perch	3	\$5	\$1.83	
Sweetlips	1	\$3	\$2.99	
Christmas wrasse	0	\$1	\$2.49	
Sweepers	45	\$90	\$2.00	
Inshore groupers	6	\$13	\$2.16	*
Triggerfish	55	\$110	\$2.00	
Pelagic fish (misc)	1,423	\$0	\$0.00	*
Mahimahi	1,775	\$3,222	\$1.82	*
Swordfish	9,322	\$24,889	\$2.67	
Blue marlin	264	\$423	\$1.60	*
Sailfish	231	\$576	\$2.50	
Rainbow runner	27	\$56	\$2.10	
Wahoo	49,815	\$29,948	\$0.60	
Skipjack tuna	29,449	\$16,599	\$0.56	
Dogtooth tuna	36	\$72	\$2.00	
Albacore	851,590	\$854,746	\$1.00	
Yellowfin tuna	53,527	\$48,702	\$0.91	
Bigeye tuna	29,812	\$33,985	\$1.14	
Sunfish	458	\$572	\$1.25	
Spiny lobster	291	\$1,164	\$3.99	*
Octopus	38	\$95	\$2.50	*

Table A-13 (continued)
American Samoa December 2006 Estimated Commercial Landings

Species	Pounds	Value	\$/Lb
Rudderfish	6	\$14	\$2.24
Stareye parrotfish	35	\$69	\$2.00
TOTAL	1,030,338	\$1,019,966	\$0.99

* Data replaced or modified by Actual Commercial Landings Data

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

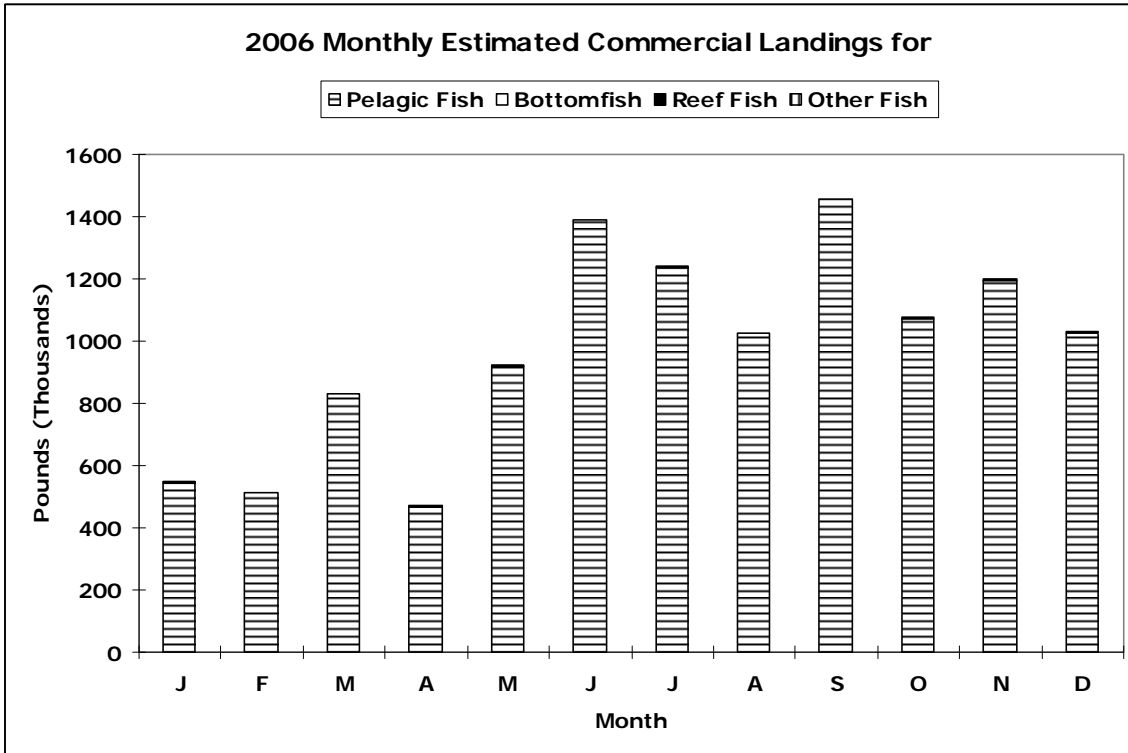


Figure A-1-1

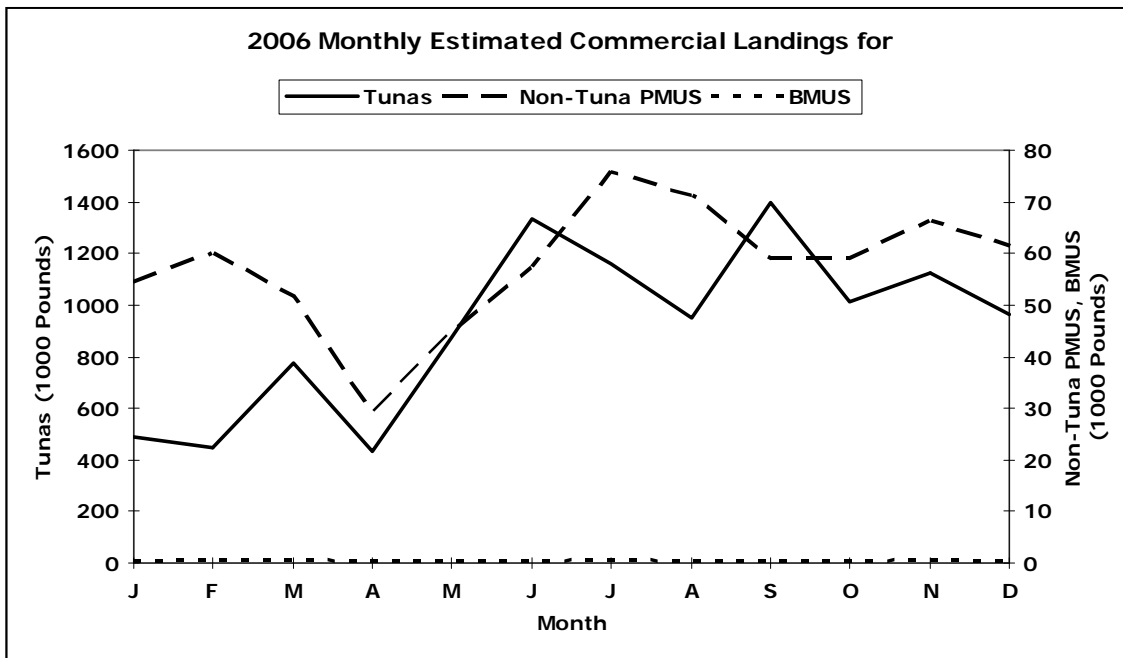


Figure A-1-2

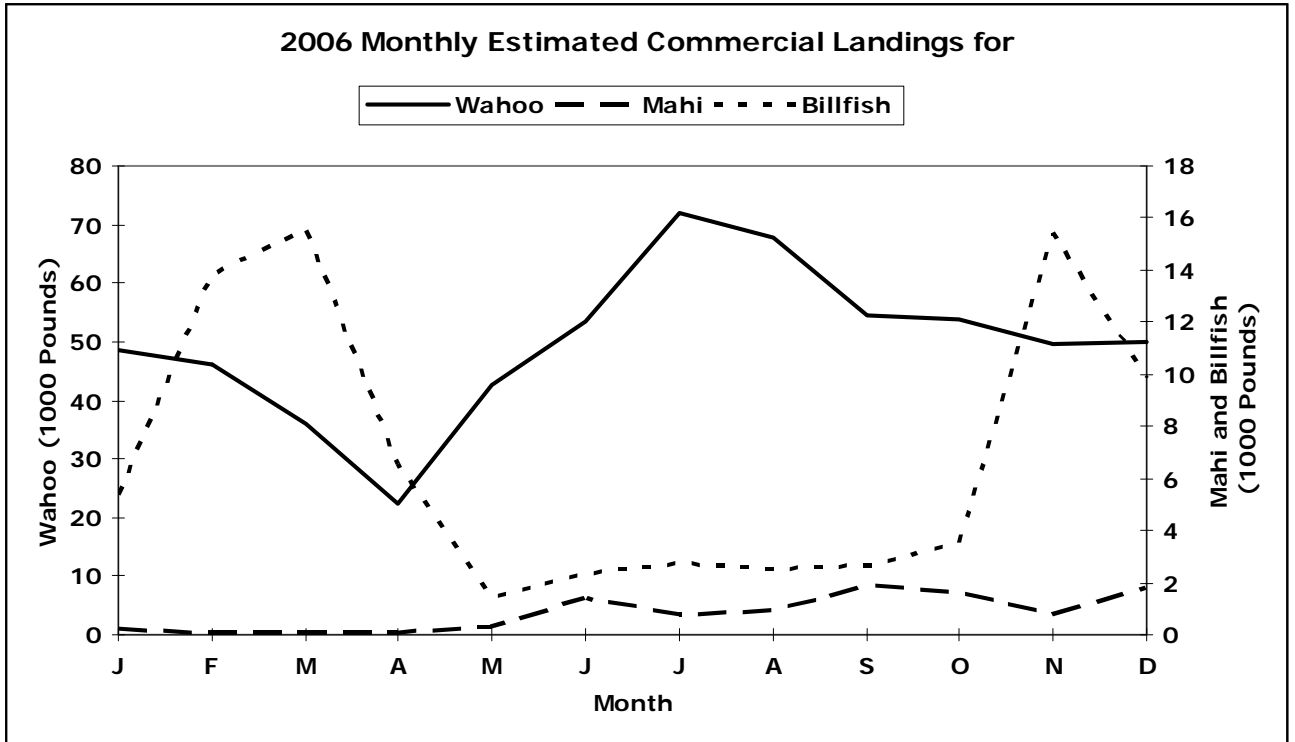


Figure A-1-3

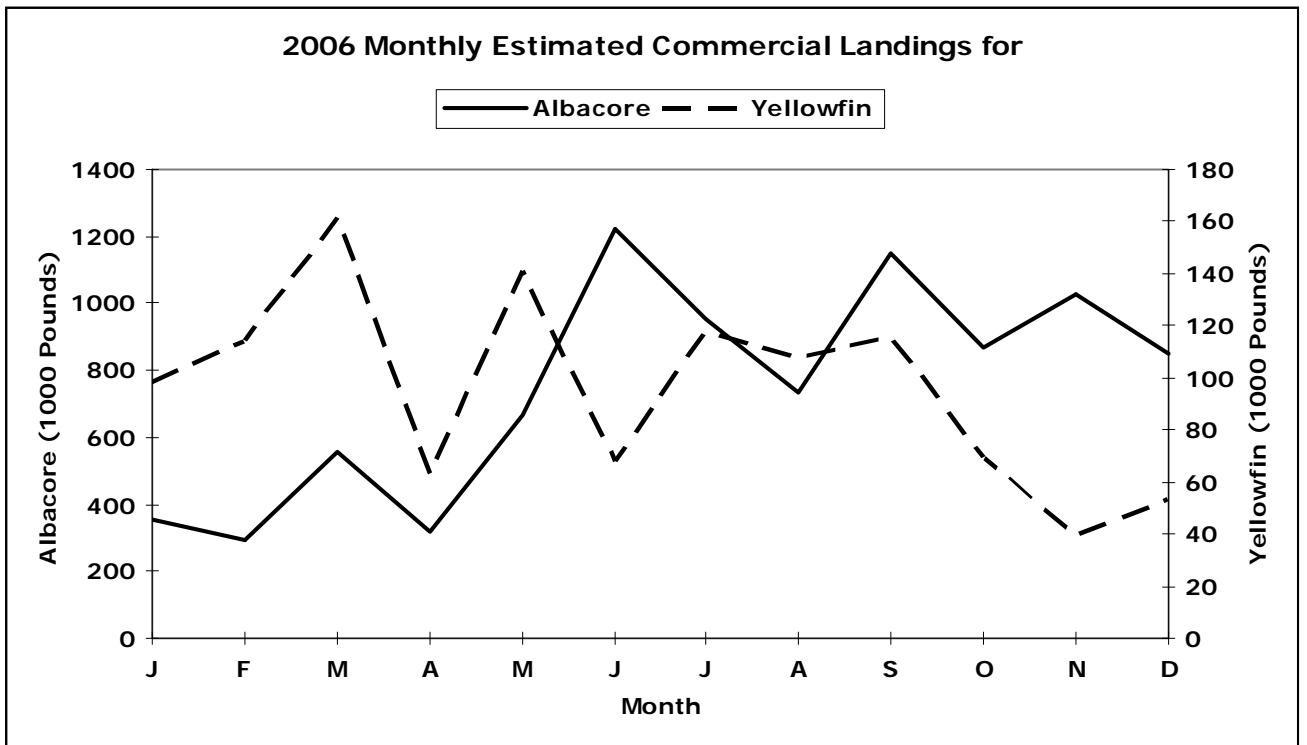


Figure A-1-4

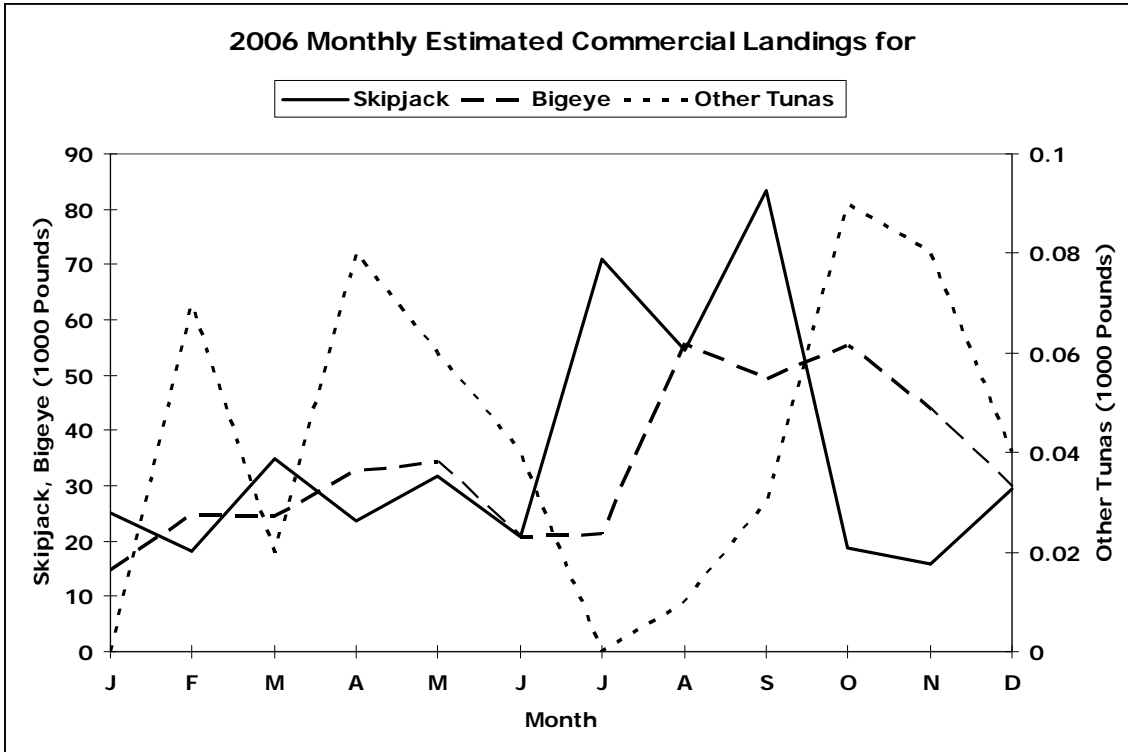


Figure A-1-5

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

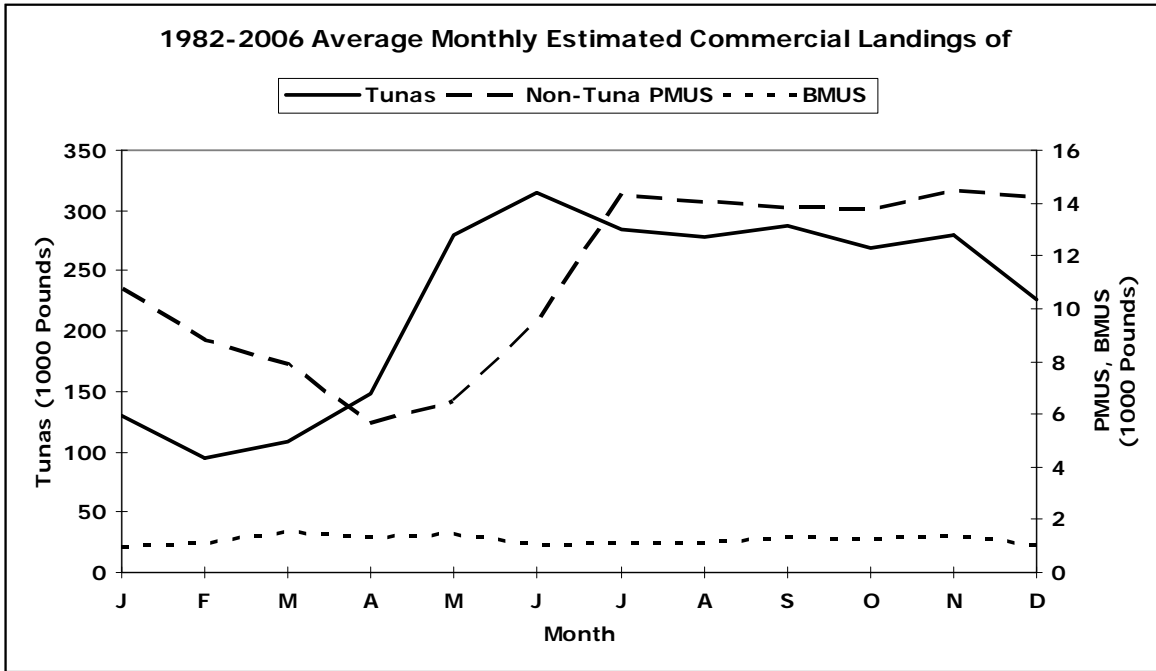


Figure A-2-1

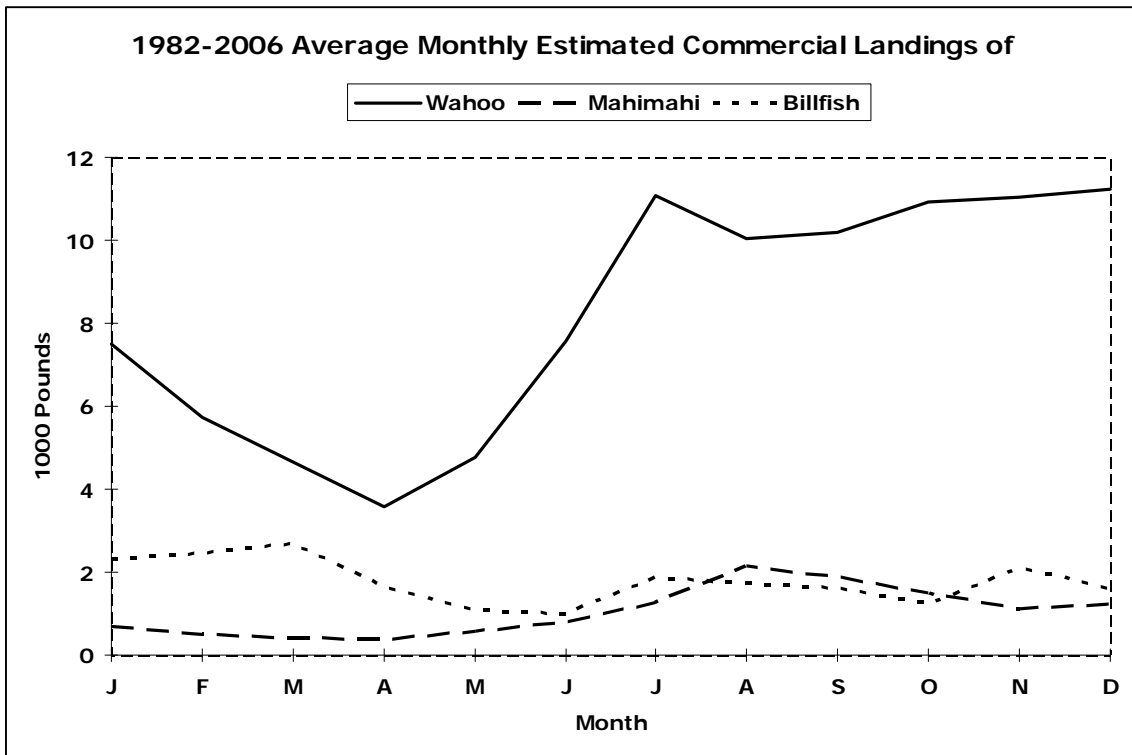


Figure A-2-2

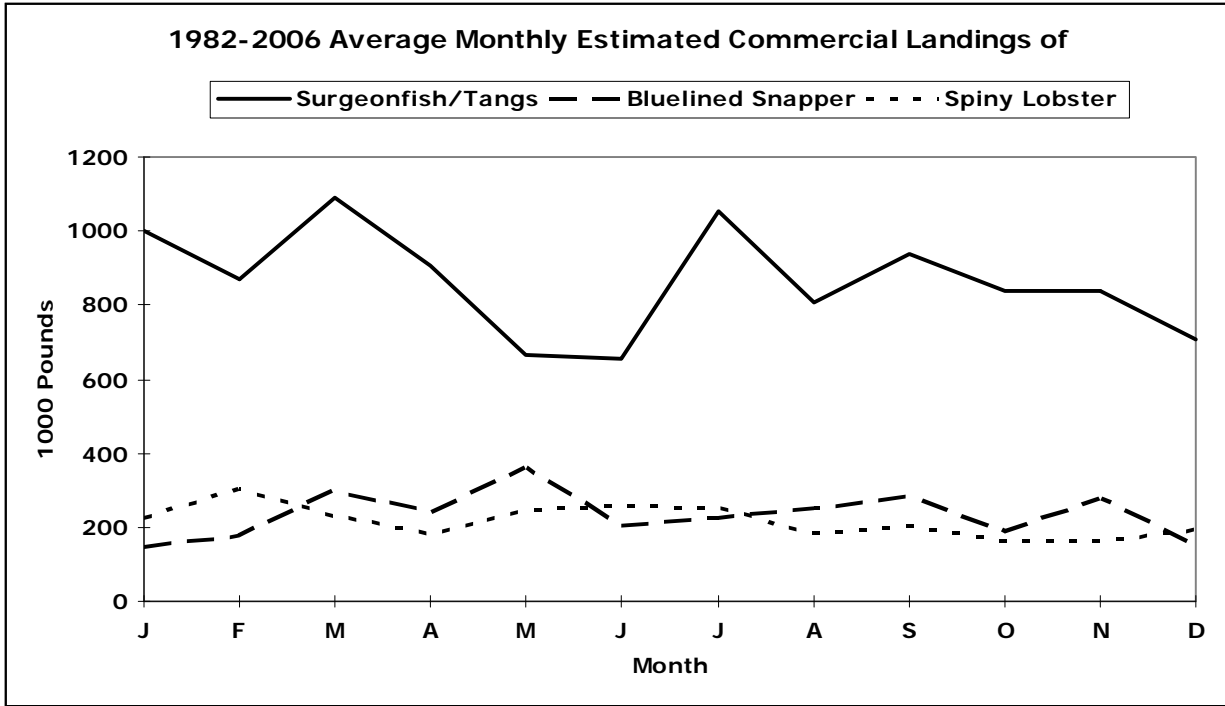


Figure A-2-3

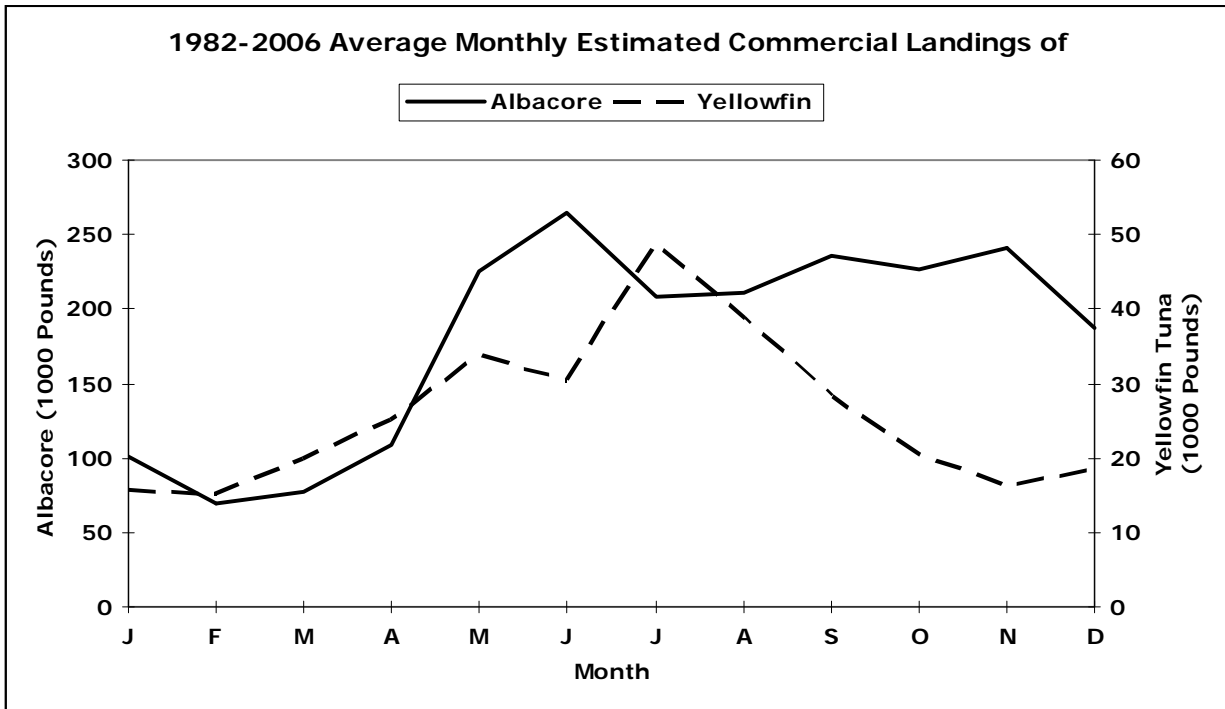


Figure A-2-4

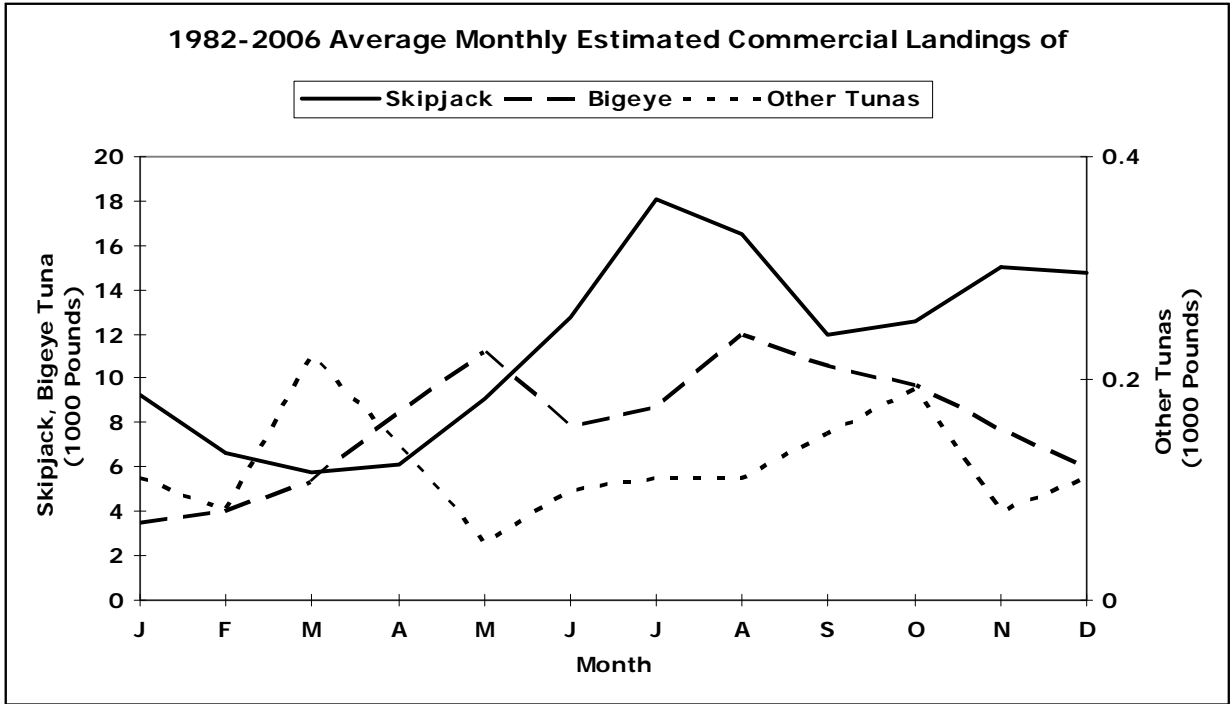


Figure A-2-5

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

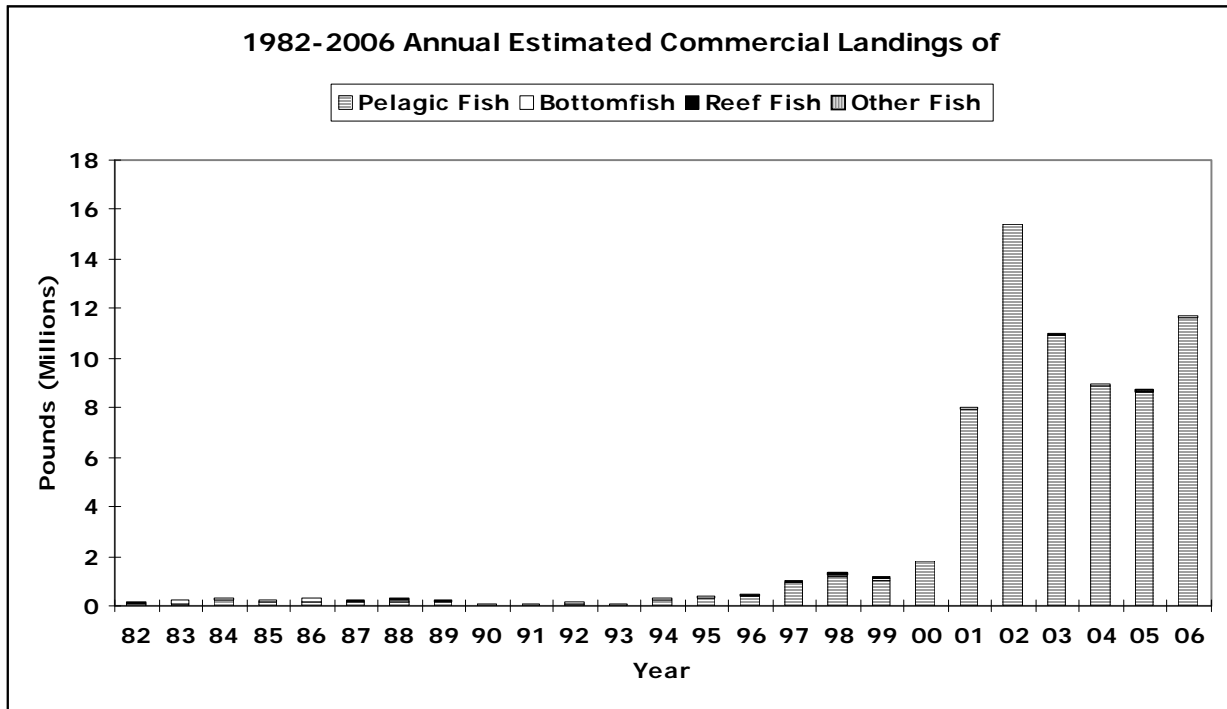


Figure A-3-1

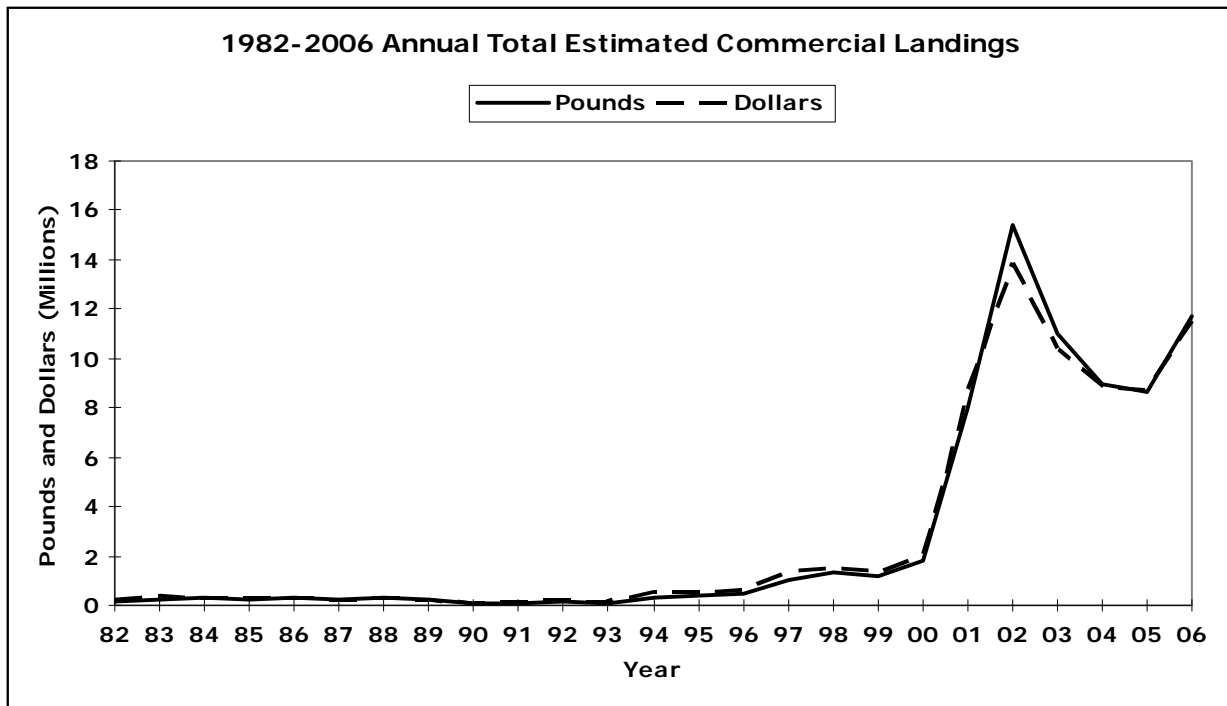


Figure A-3-2

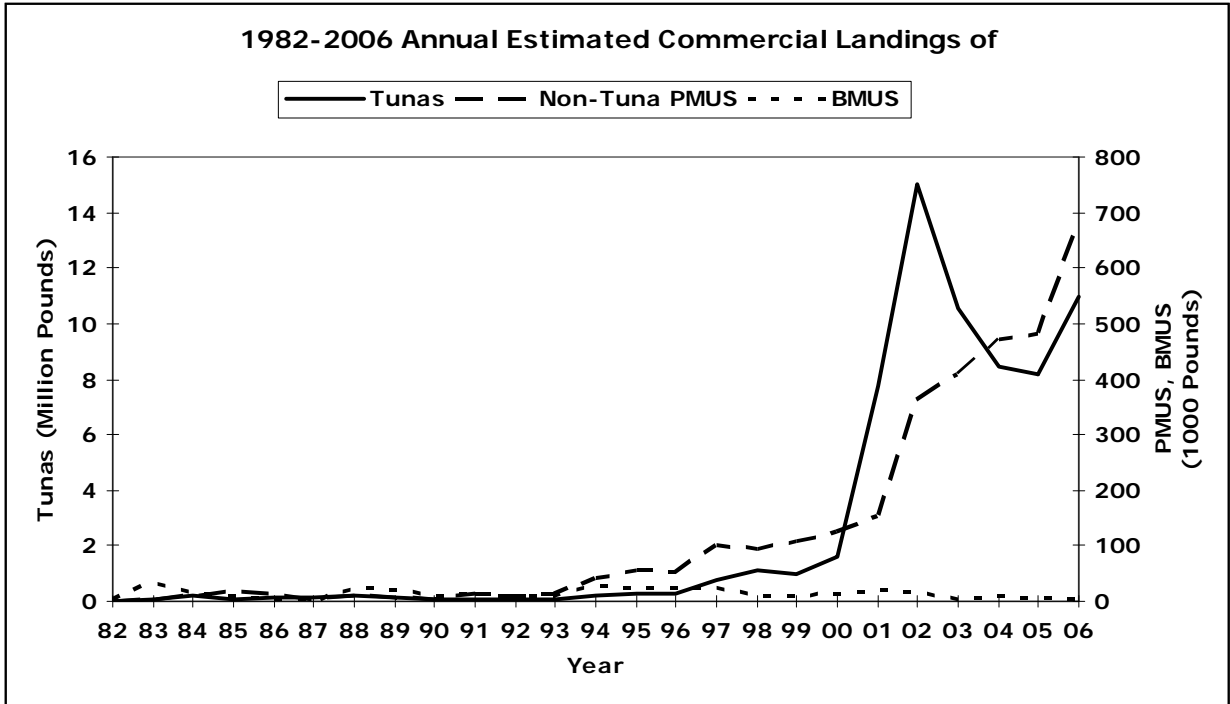


Figure A-3-3

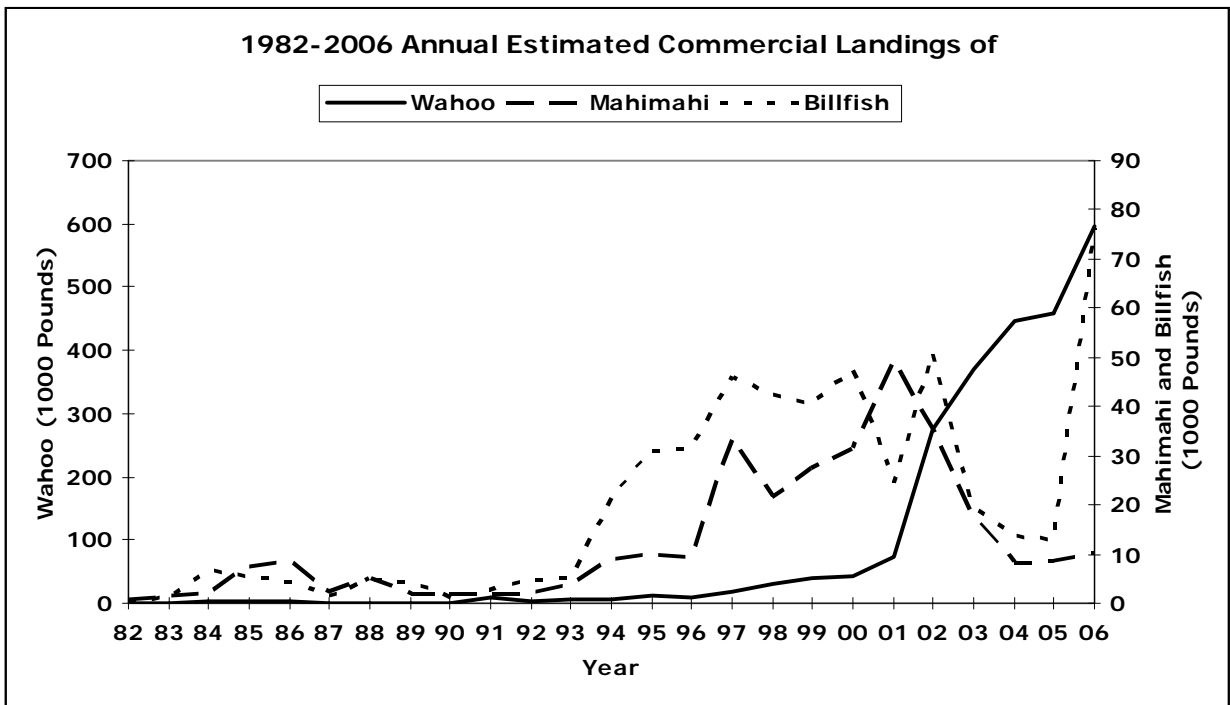


Figure A-3-4

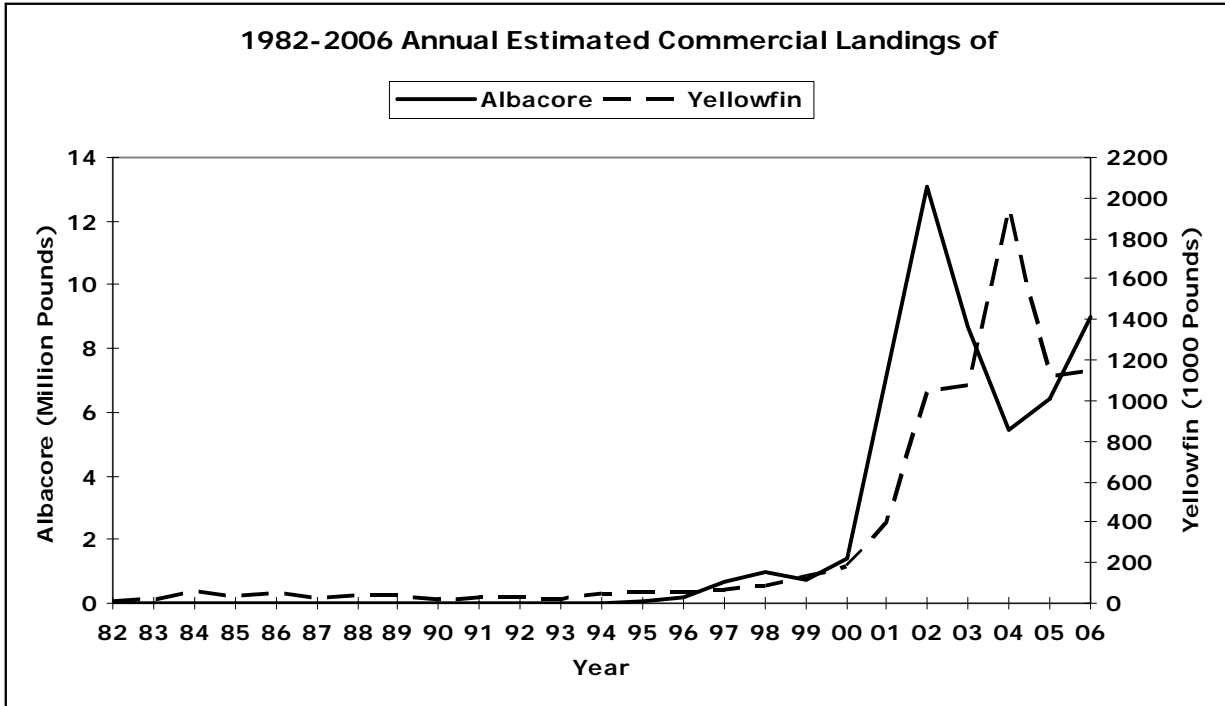


Figure A-3-5

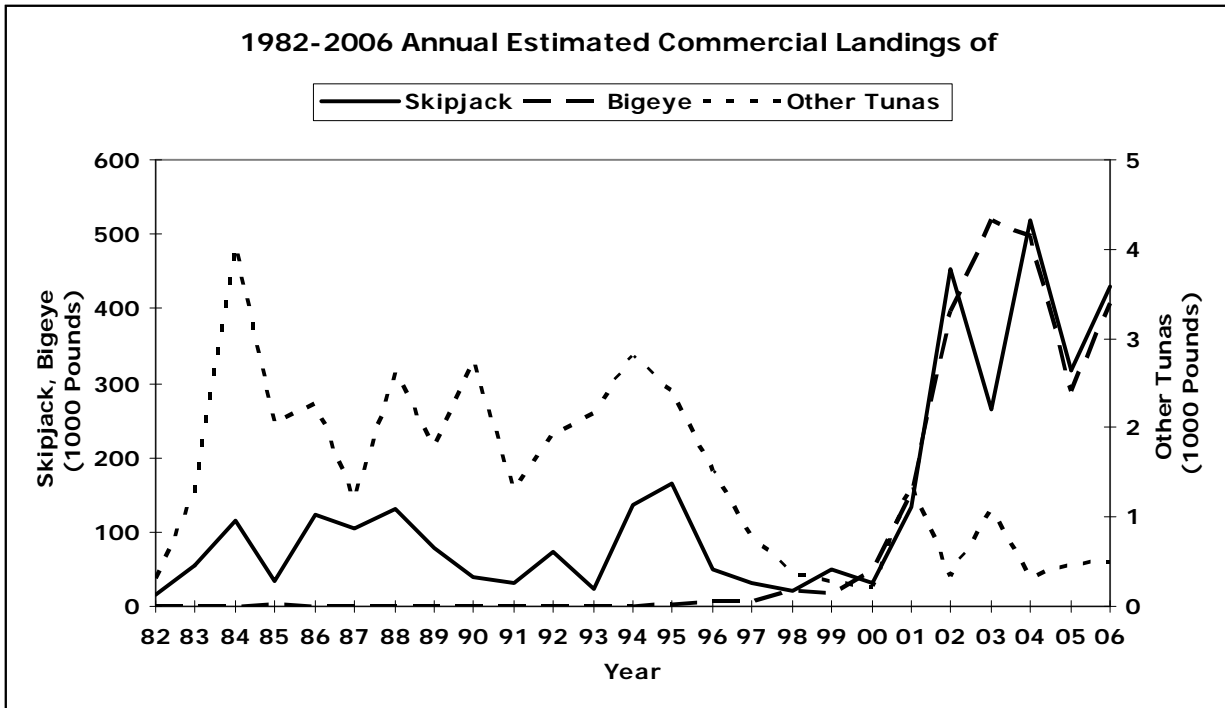


Figure A-3-6

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

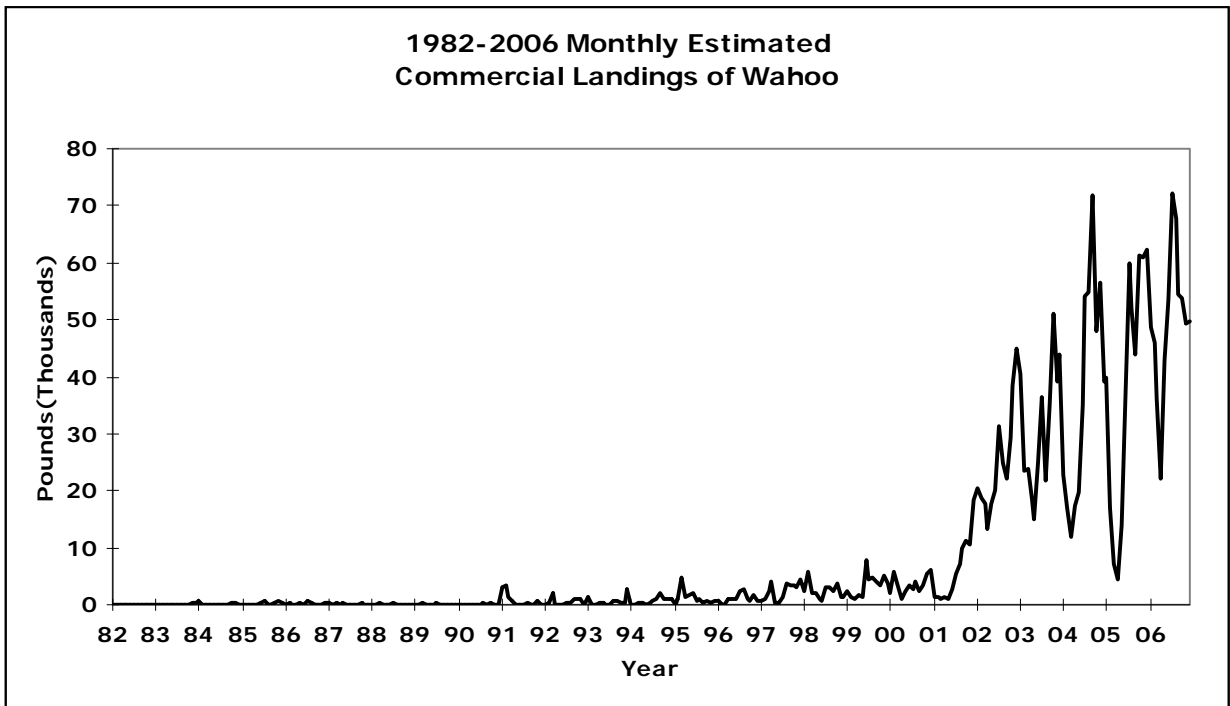


Figure A-4-1

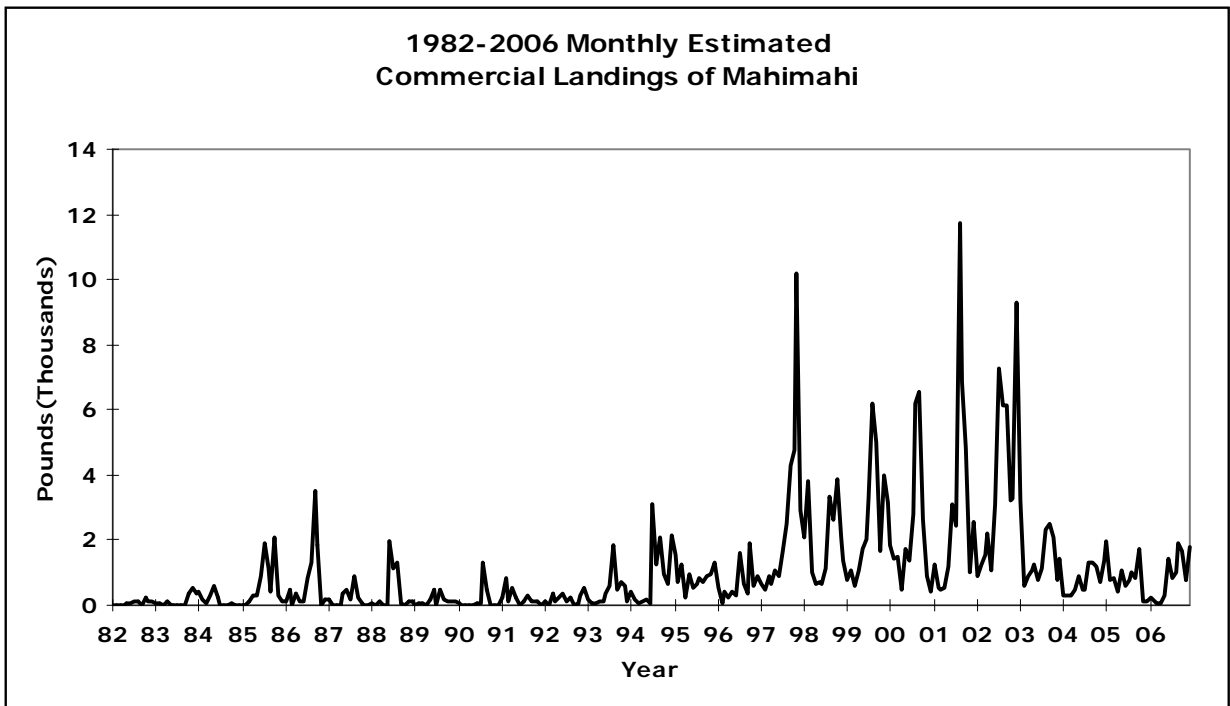


Figure A-4-2

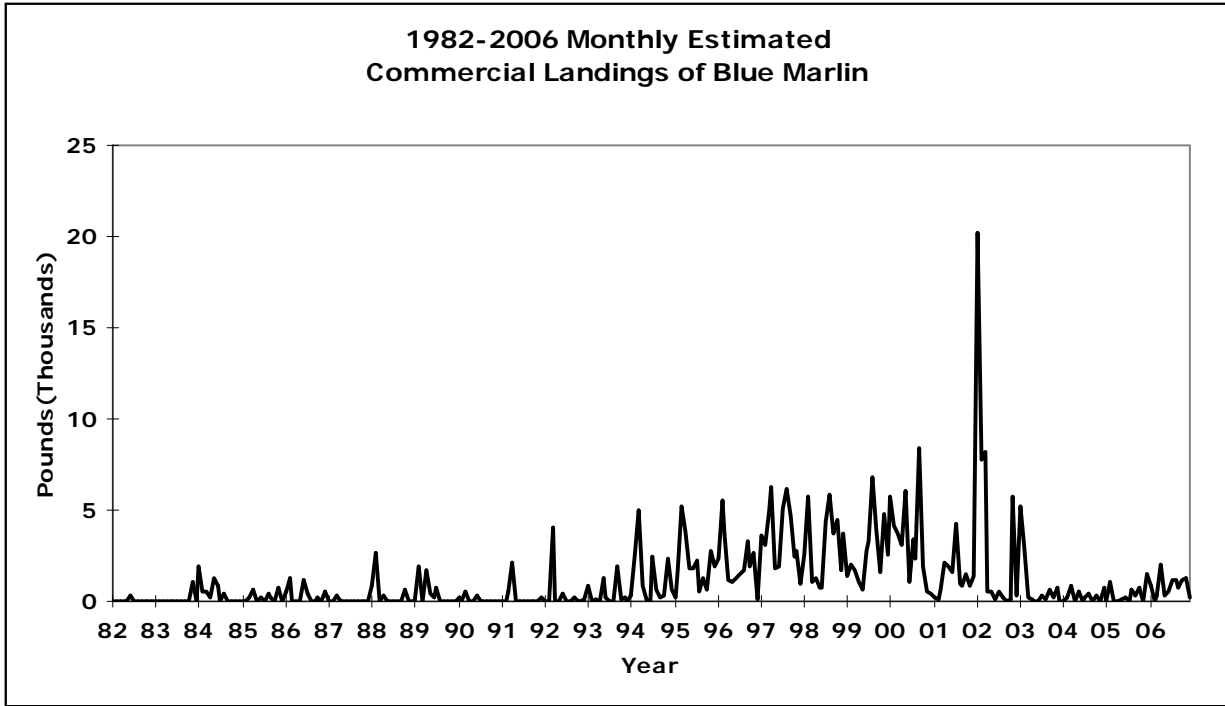


Figure A-4-3

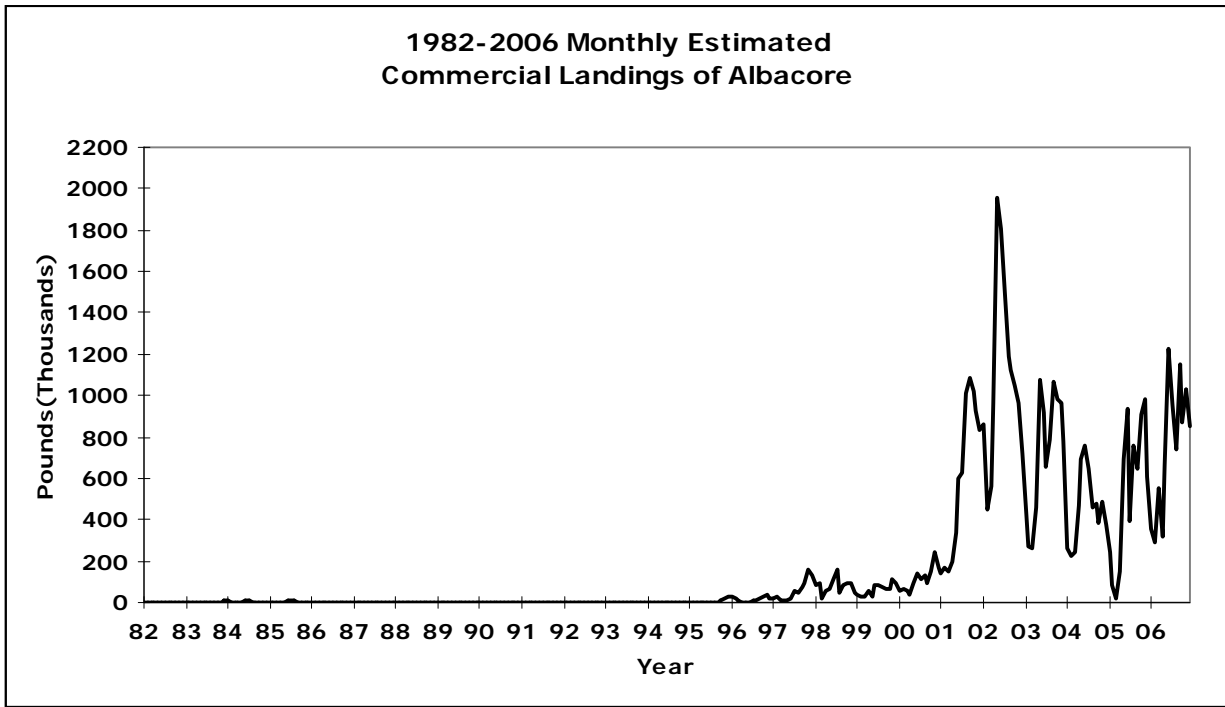


Figure A-4-4

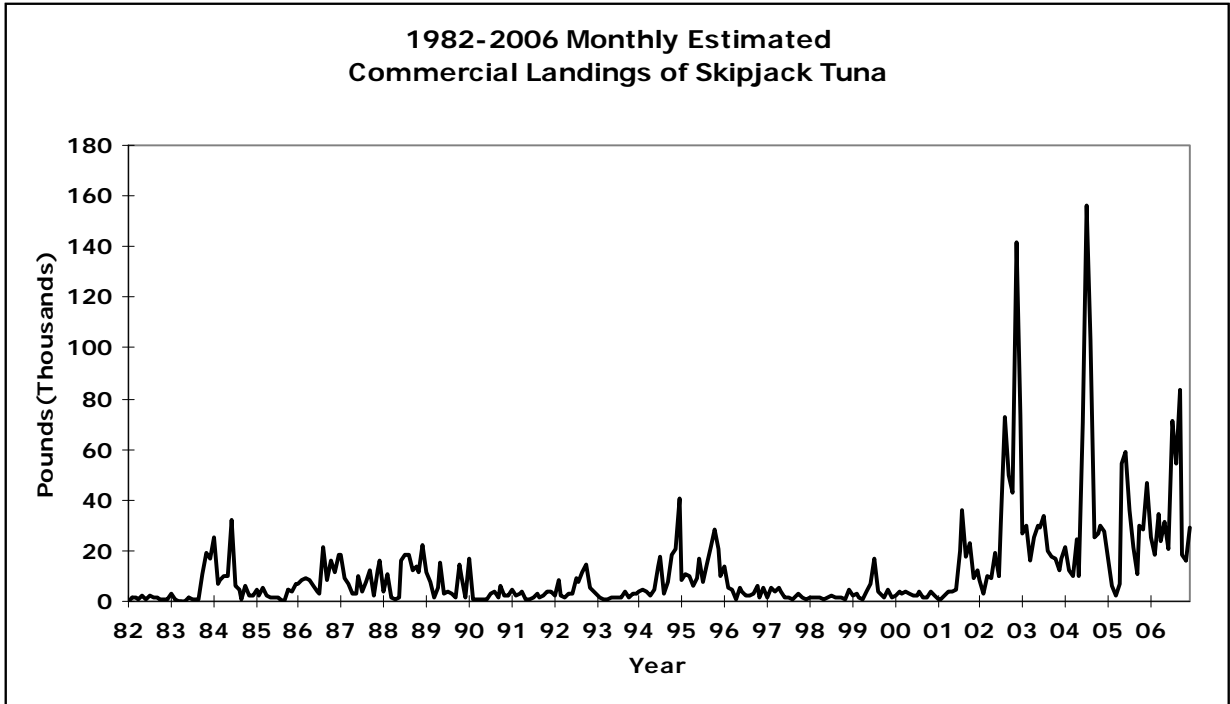


Figure A-4-5

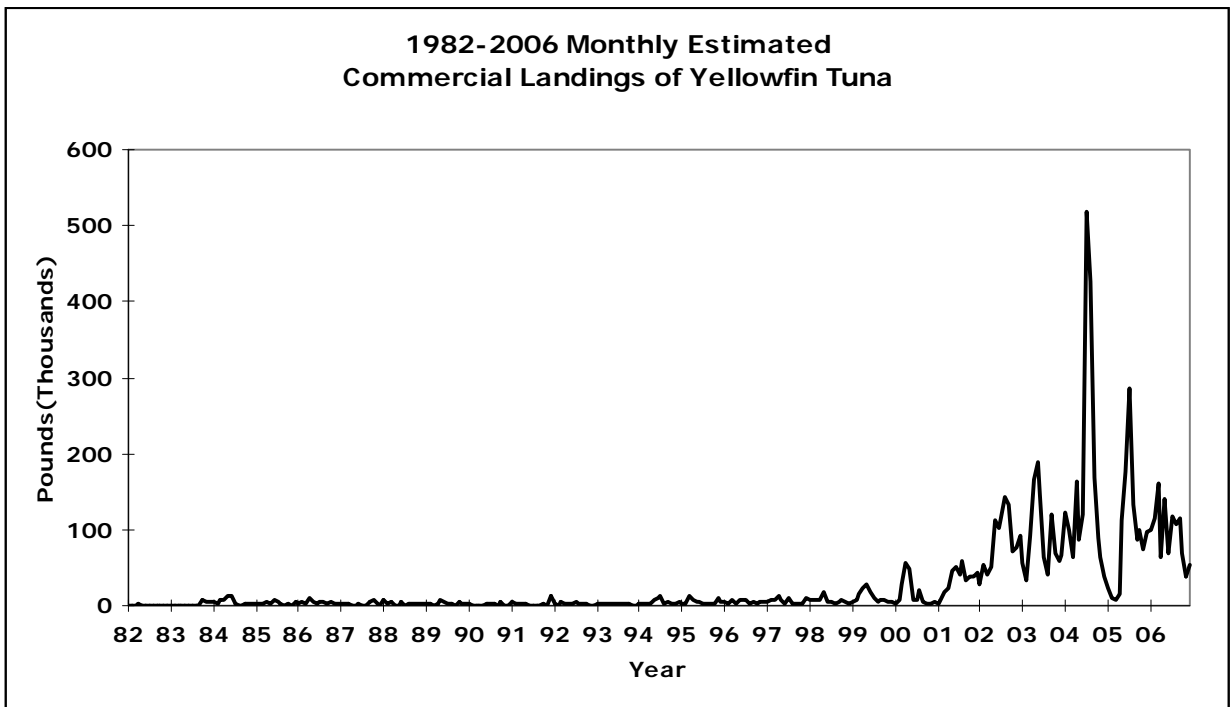


Figure A-4-6

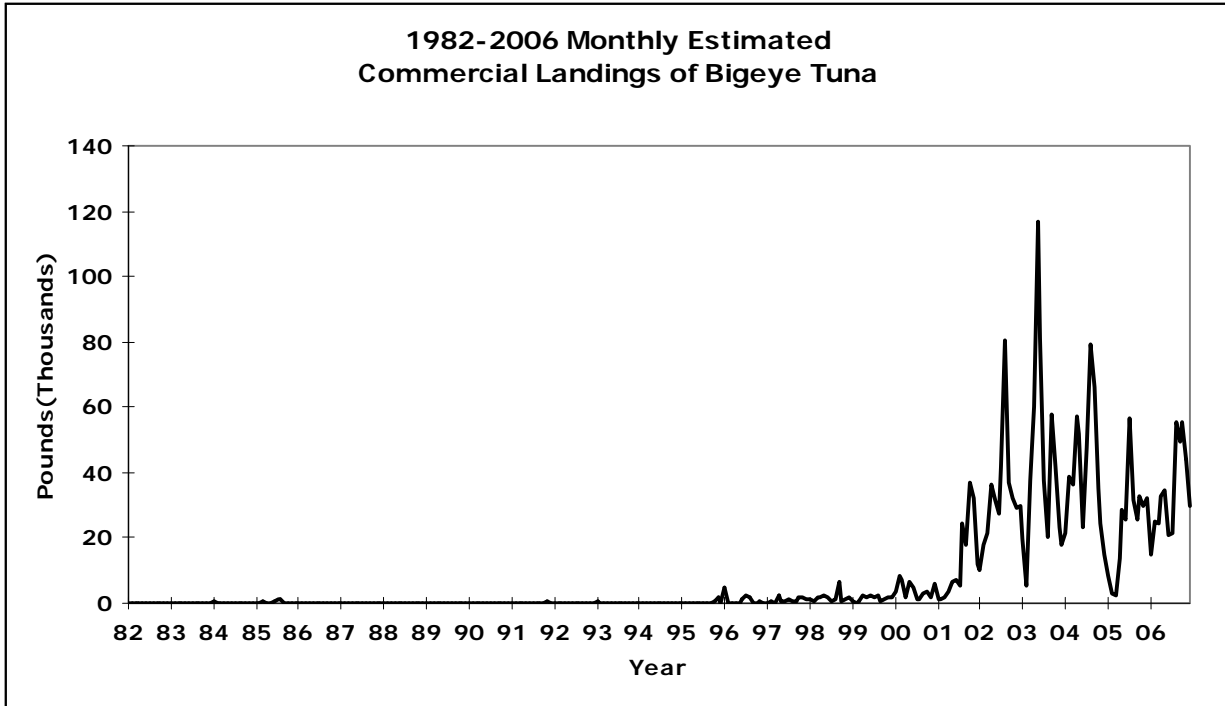


Figure A-4-7

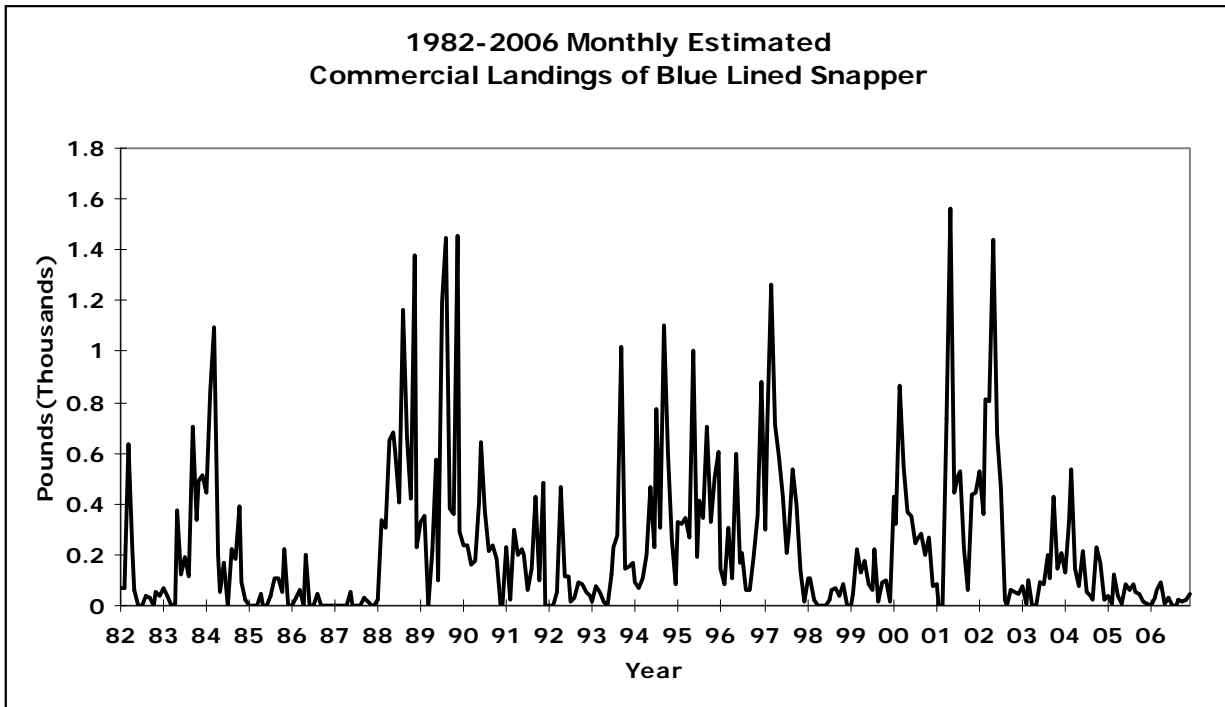


Figure A-4-8

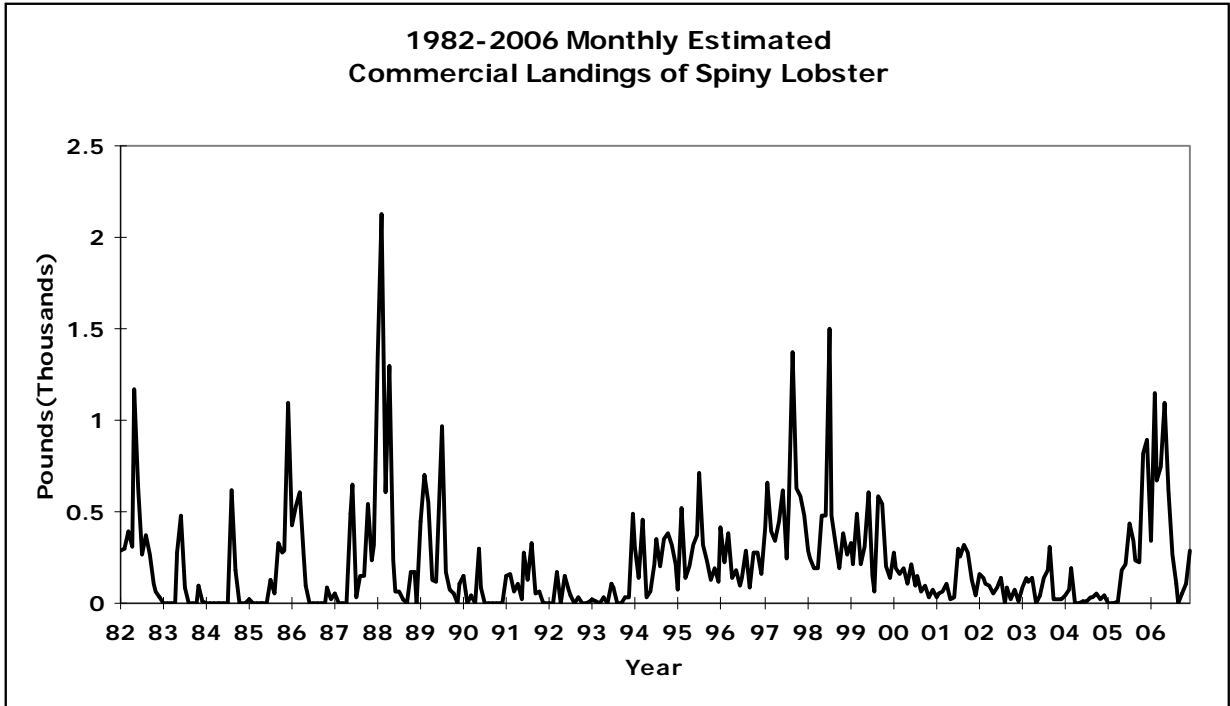


Figure A-4-9

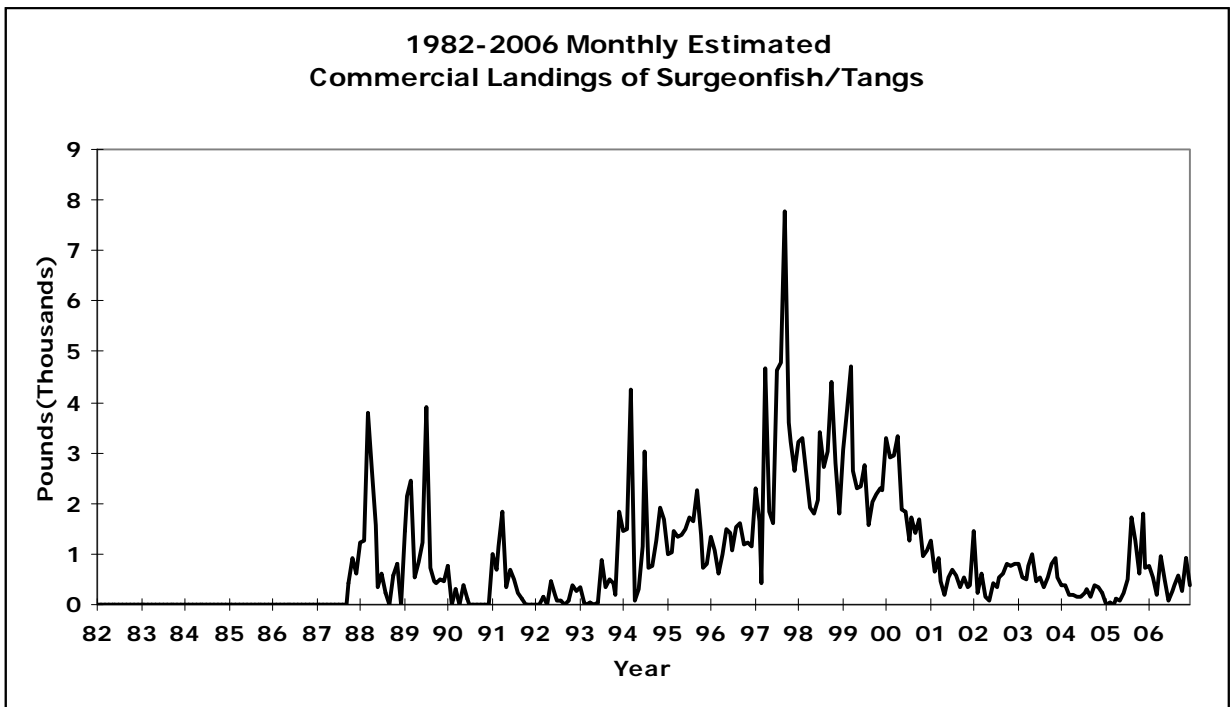


Figure A-4-10

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**NORTHERN MARIANA ISLANDS
2006 FISHERY STATISTICS**

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

September 2008

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COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS 2006 FISHERY STATISTICS

INTRODUCTION

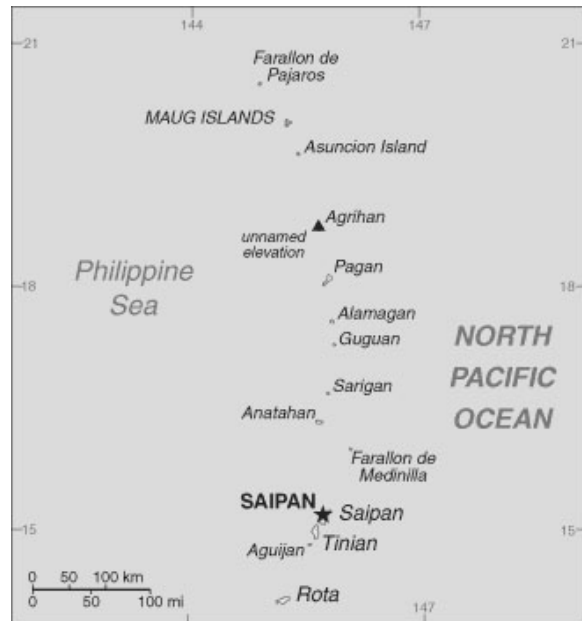
Location: 14° to 21°N latitude, 145°E longitude

Main Islands: Saipan, Rota, Tinian

Population: about 87,000 (*The World Factbook*, 2008)

Economy: tourism, agriculture, garment production

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



CNMI

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

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

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

DATA COLLECTING

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

B.2

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

Some advantages of this data collection method are that it is relatively inexpensive to implement and maintain and is fairly easy to completely cover the commercial fisheries. DFW can also provide feedback to dealers and fishers to ensure data accuracy and continued cooperation.

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

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

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

Information collected from the fishers includes the following:

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

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

DATA PROCESSING

At the beginning of each month, a DFW employee visits each of the dealers on Saipan to collect the previous month's invoices, to resolve problems, and to answer any questions the dealers may have. The invoices are then returned to the office for an initial visual edit during the coding process and entered into the Commercial Purchase System database. After the records are entered, reports are generated to help verify that all the data were entered correctly.

B.3

On a quarterly basis, copies of the database are sent to the Pacific Islands Fisheries Science Center, where the data are transferred to the central computer for additional verification before generating summary reports. These reports and databases are then ready for use by qualified WPacFIN participants.

DATA REPORTING

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

Please note that commercial landings data have been adjusted to reflect total coverage and are referenced as “Estimated Commercial Landings” in the charts and tables. Also, some of the charts in this volume are new or modified from earlier volumes. To access the most up-to-date data and charts, please visit the WPacFIN website at <<http://www.pifsc.noaa.gov/wpacfin>>.

SPECIES CATEGORIES

The species and species groups that are used in the tables and graphs of CNMI’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)

Blue marlin	Sharks
Mahimahi	Spearfish
Sailfish	Wahoo

B.4

II. Bottomfish Management Unit Species (BMUS)

Alfonsin	Kalikali (yellowtail)
Amberjack	Lyretail grouper
Blackjack	Maitai (blk-tipped grper)
Blueline snapper	Onaga (red snapper)
Ehu (red snapper)	Opakapaka (pink snp)
Giant trevally	Redgill emperor
Gindai (flower snap)	Silvermouth (deep lehi)
Jobfish (uku)	Yelloweye opakapaka

III. Billfish

Blue marlin	Spearfish
Sailfish	

IV. Tunas

Dogtooth tuna	Tunas (misc.)
Saba (kawakawa)	Yellowfin tuna
Skipjack tuna	

V. Other Tunas

Dogtooth tuna	Tunas (misc.)
Saba (kawakawa)	

VI. Fisheries Categories

A. Pelagics

Barracuda	Sharks
Blue marlin	Skipjack tuna
Dogtooth tuna	Spearfish
Mahimahi	Troll fish (misc.)
Rainbow runner	Tunas (misc.)
Saba (kawakawa)	Wahoo
Sailfish	Yellowfin tuna

B. Bottomfish

Alfonsin	Longnose emperor
Amberjack	Lyretail grouper
Bigeye emperor	Maitai (blk-tipped grper)
Bigeye trevally	Marbled grouper
Blackjack	Onaga (red snapper)
Blackspot emperor	Onespot snapper
Blue lined gindai	Opakapaka (pink snp)
Bluefin trevally	Orange spotted trevally
Blueline snapper	Orangefin emperor
Bottom fish	Peacock grouper
Brassy trevally	Pink grouper
Ehu (red snapper)	Red snapper
Eight banded grouper	Redgill emperor
Emperor (mafute/misc.)	Saddleback grouper
Flagtail grouper	Sickle pomfret (w/woman)
Flametail emperor	Silvermouth (deep lehi)
Giant coral trout	Smalltooth jobfish
Giant trevally	Stout emperor
Gindai (flower snap)	Tomato grouper
Grouper (misc.)	White lyretail grouper
Highfin grouper	Yellow banded grouper
Honeycomb grouper	Yellow spotted trevally
Humpback snapper	Yelloweye opakapaka
Jacks (misc.)	Yellowlips emperor
Jobfish (uku)	Yellowstripe emperor
Kalikali (yellowtail)	

C. Reef Fish

Angel/butterfly	Reef fish
Bigeye/glasseye	Snapper (misc. shallow)
Bluebanded surgeonfish	Soldierfish (misc.)
Bluespine unicornfish	Squirrelfish
Convict tang	Surgeonfish (misc.)
Dash & dot goatfish	Sweetlips
Fusilier (misc.)	Triggerfish (misc.)
Goatfish (misc.)	Tripletail wrasse
Highfin rudderfish brown	Two-barred goatfish
Highfin rudderfish silver	Unicornfish (misc.)
Humphead wrasse	Wrasse
Orangespine unicornfish	Yellowfin surgeonfish
Parrotfish (misc.)	Yellowstripe goatfish
Rabbitfish (hitting)	

D. Other

Bigeye scad
Clam/bivalve
Coconut crab
Crabs (misc)
Eel (freshwater)
Invertebrates
Kona crab
Lemu
Milkfish
Miscellaneous
Mullet

Octopus
Sea cucumber
Seaweeds
Shrimp (freshwater)
Shrimp (saltwater)
Slipper lobster
Spiny lobster
Squid
Trochus
Turtle

Table B-1
2006 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb
Bigeye scad	14,942	\$40,263	\$2.69
Jacks (misc)	1,978	\$4,694	\$2.37
Mullet	76	\$191	\$2.50
Blackjack	277	\$698	\$2.52
Bottom fish	7,299	\$19,844	\$2.72
Sickle pomfret	1,065	\$2,747	\$2.58
Alfonsin	25	\$51	\$2.00
Ehu (red snapper)	989	\$3,383	\$3.42
Gindai (flower snapper)	1,990	\$6,701	\$3.37
Grouper (misc)	1,317	\$4,513	\$3.43
Kalikali (yellowtail)	3,004	\$7,908	\$2.63
Onaga (red snapper)	2,025	\$8,761	\$4.33
Opakapaka (pink snapper)	1,482	\$4,027	\$2.72
Jobfish (uku)	230	\$613	\$2.66
Silvermouth (deep lehi)	324	\$1,035	\$3.20
Amberjack	170	\$534	\$3.14
Blueline snapper	1,747	\$4,468	\$2.56
Red snapper	35	\$89	\$2.50
Reef fish	88,904	\$225,600	\$2.54
Wrasse	143	\$417	\$2.92
Rabbitfish	8,452	\$26,920	\$3.19
Emperor (misc)	6,297	\$16,005	\$2.54
Squirrelfish	47	\$117	\$2.50
Parrotfish (misc)	21,000	\$64,869	\$3.09
Surgeonfish (misc)	7,598	\$15,341	\$2.02
Orangespine unicornfish	70	\$170	\$2.42
Unicornfish (misc)	131	\$321	\$2.45
Goatfish (misc)	552	\$1,522	\$2.76
Bigeye emperor	151	\$411	\$2.72
Troll fish (misc)	62	\$116	\$1.88
Barracuda	33	\$65	\$2.00
Mahimahi	17,360	\$36,249	\$2.09
Blue marlin	1,402	\$2,304	\$1.64
Sailfish	315	\$590	\$1.87
Rainbow runner	4,038	\$7,309	\$1.81
Wahoo	3,267	\$6,786	\$2.08
Tunas (misc)	15	\$15	\$1.00
Skipjack tuna	273,715	\$409,006	\$1.49
Dogtooth tuna	3,435	\$6,512	\$1.90
Yellowfin tuna	43,220	\$84,017	\$1.94
Saba (kawakawa)	8,779	\$13,157	\$1.50
Spiny lobster	4,392	\$21,503	\$4.90
Octopus	4,346	\$8,823	\$2.03
Shrimp (saltwater)	23	\$136	\$6.00
Squid	2	\$4	\$2.00
TOTAL	536,724	\$1,058,804	\$1.97

Table B-2
January 2006 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb
Bigeye scad	48	\$120	\$2.50
Jacks (misc)	287	\$738	\$2.57
Blackjack	11	\$20	\$1.75
Bottom fish	228	\$617	\$2.70
Sickle pomfret	631	\$1,735	\$2.75
Ehu (red snapper)	49	\$172	\$3.50
Gindai (flower snapper)	146	\$500	\$3.43
Grouper (misc)	11	\$39	\$3.50
Kalikali (yellowtail)	145	\$389	\$2.69
Onaga (red snapper)	491	\$2,034	\$4.14
Opakapaka (pink snapper)	8	\$21	\$2.75
Jobfish (uku)	35	\$60	\$1.75
Silvermouth (deep lehi)	33	\$106	\$3.25
Amberjack	27	\$82	\$3.00
Blueline snapper	65	\$164	\$2.50
Reef fish	7,895	\$19,830	\$2.51
Rabbitfish	857	\$2,769	\$3.23
Emperor (misc)	1,117	\$2,760	\$2.47
Parrotfish (misc)	154	\$503	\$3.27
Surgeonfish (misc)	767	\$1,535	\$2.00
Troll fish (misc)	62	\$116	\$1.88
Mahimahi	1,428	\$3,148	\$2.20
Sailfish	99	\$175	\$1.77
Rainbow runner	334	\$677	\$2.03
Wahoo	75	\$176	\$2.37
Skipjack tuna	16,269	\$33,197	\$2.04
Dogtooth tuna	738	\$1,557	\$2.11
Yellowfin tuna	2,335	\$4,746	\$2.03
Saba (kawakawa)	109	\$218	\$2.00
Spiny lobster	73	\$348	\$4.78
Octopus	222	\$451	\$2.03
TOTAL	34,749	\$79,003	\$2.27

Table B-3
February 2006 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb
Jacks (misc)	29	\$73	\$2.50
Bottom fish	210	\$525	\$2.50
Sickle pomfret	46	\$116	\$2.50
Ehu (red snapper)	38	\$132	\$3.50
Gindai (flower snapper)	55	\$177	\$3.25
Grouper (misc)	49	\$147	\$3.00
Kalikali (yellowtail)	15	\$39	\$2.50
Onaga (red snapper)	100	\$400	\$4.00
Jobfish (uku)	20	\$50	\$2.50
Silvermouth (deep lehi)	33	\$106	\$3.25
Reef fish	9,417	\$23,581	\$2.50
Rabbitfish	784	\$2,541	\$3.24
Emperor (misc)	691	\$1,772	\$2.57
Parrotfish (misc)	263	\$810	\$3.07
Surgeonfish (misc)	646	\$1,293	\$2.00
Mahimahi	3,177	\$6,635	\$2.09
Sailfish	180	\$360	\$2.00
Rainbow runner	280	\$522	\$1.87
Wahoo	101	\$278	\$2.75
Skipjack tuna	23,160	\$45,068	\$1.95
Dogtooth tuna	89	\$230	\$2.58
Yellowfin tuna	4,786	\$9,559	\$2.00
Saba (kawakawa)	238	\$476	\$2.00
Spiny lobster	68	\$338	\$5.00
Octopus	442	\$917	\$2.07
TOTAL	44,918	\$96,145	\$2.14

Table B-4
March 2006 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb
Jacks (misc)	73	\$124	\$1.70
Mullet	76	\$191	\$2.50
Blackjack	69	\$190	\$2.75
Bottom fish	1,245	\$3,415	\$2.74
Sickle pomfret	59	\$163	\$2.75
Ehu (red snapper)	54	\$161	\$3.00
Gindai (flower snapper)	35	\$109	\$3.14
Onaga (red snapper)	59	\$266	\$4.50
Silvermouth (deep lehi)	97	\$305	\$3.14
Amberjack	31	\$93	\$3.00
Blueline snapper	471	\$1,176	\$2.50
Red snapper	35	\$89	\$2.50
Reef fish	11,409	\$28,635	\$2.51
Rabbitfish	624	\$2,027	\$3.25
Emperor (misc)	485	\$1,214	\$2.50
Parrotfish (misc)	1,443	\$4,267	\$2.96
Surgeonfish (misc)	1,637	\$3,274	\$2.00
Orangespine unicornfish	31	\$77	\$2.50
Mahimahi	5,802	\$12,068	\$2.08
Rainbow runner	473	\$917	\$1.94
Wahoo	1,138	\$2,275	\$2.00
Skipjack tuna	21,087	\$38,643	\$1.83
Dogtooth tuna	82	\$150	\$1.83
Yellowfin tuna	4,892	\$9,493	\$1.94
Spiny lobster	456	\$2,020	\$4.43
Octopus	357	\$713	\$2.00
TOTAL	52,219	\$112,053	\$2.15

Table B-5
April 2006 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb
Jacks (misc)	113	\$259	\$2.30
Blackjack	42	\$104	\$2.50
Bottom fish	1,785	\$5,096	\$2.86
Sickle pomfret	20	\$50	\$2.50
Ehu (red snapper)	71	\$236	\$3.33
Gindai (flower snapper)	390	\$1,278	\$3.27
Grouper (misc)	342	\$1,196	\$3.50
Kalikali (yellowtail)	66	\$181	\$2.75
Onaga (red snapper)	64	\$198	\$3.11
Opakapaka (pink snapper)	169	\$465	\$2.75
Jobfish (uku)	40	\$140	\$3.50
Silvermouth (deep lehi)	32	\$111	\$3.50
Amberjack	26	\$92	\$3.50
Blueline snapper	57	\$143	\$2.50
Reef fish	6,838	\$19,258	\$2.82
Rabbitfish	385	\$1,242	\$3.23
Emperor (misc)	1,165	\$3,014	\$2.59
Parrotfish (misc)	1,601	\$4,800	\$3.00
Surgeonfish (misc)	489	\$978	\$2.00
Unicornfish (misc)	22	\$55	\$2.50
Goatfish (misc)	38	\$95	\$2.50
Mahimahi	1,714	\$3,724	\$2.17
Rainbow runner	888	\$1,134	\$1.28
Wahoo	422	\$842	\$2.00
Skipjack tuna	25,230	\$37,136	\$1.47
Dogtooth tuna	474	\$957	\$2.02
Yellowfin tuna	3,699	\$7,148	\$1.93
Spiny lobster	892	\$4,511	\$5.06
Octopus	244	\$488	\$2.00
Squid	2	\$4	\$2.00
TOTAL	47,318	\$94,935	\$2.01

Table B-6
May 2006 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb
Jacks (misc)	245	\$618	\$2.53
Bottom fish	897	\$2,268	\$2.53
Sickle pomfret	20	\$40	\$2.00
Ehu (red snapper)	10	\$33	\$3.25
Gindai (flower snapper)	231	\$757	\$3.28
Grouper (misc)	18	\$64	\$3.50
Kalikali (yellowtail)	467	\$1,109	\$2.37
Onaga (red snapper)	265	\$1,269	\$4.80
Opakapaka (pink snapper)	163	\$442	\$2.72
Silvermouth (deep lehi)	12	\$38	\$3.25
Amberjack	30	\$105	\$3.50
Blueline snapper	78	\$194	\$2.50
Reef fish	6,639	\$16,598	\$2.50
Rabbitfish	594	\$1,922	\$3.23
Emperor (misc)	446	\$1,116	\$2.50
Parrotfish (misc)	2,533	\$7,720	\$3.05
Surgeonfish (misc)	995	\$2,041	\$2.05
Goatfish (misc)	181	\$533	\$2.94
Mahimahi	1,828	\$3,547	\$1.94
Blue marlin	178	\$356	\$2.00
Rainbow runner	153	\$304	\$1.99
Wahoo	42	\$78	\$1.86
Skipjack tuna	35,417	\$34,413	\$0.97
Dogtooth tuna	758	\$1,003	\$1.32
Yellowfin tuna	4,354	\$7,900	\$1.81
Saba (kawakawa)	61	\$114	\$1.87
Spiny lobster	1,111	\$5,553	\$5.00
Octopus	239	\$477	\$2.00
Shrimp (saltwater)	23	\$136	\$6.00
TOTAL	57,988	\$90,750	\$1.56

Table B-7
June 2006 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb
Jacks (misc)	7	\$20	\$2.75
Bottom fish	356	\$1,052	\$2.95
Ehu (red snapper)	76	\$253	\$3.31
Gindai (flower snapper)	247	\$844	\$3.42
Grouper (misc)	289	\$947	\$3.28
Kalikali (yellowtail)	365	\$943	\$2.59
Onaga (red snapper)	91	\$438	\$4.82
Opakapaka (pink snapper)	259	\$713	\$2.75
Jobfish (uku)	16	\$27	\$1.75
Silvermouth (deep lehi)	74	\$242	\$3.29
Reef fish	6,696	\$16,729	\$2.50
Wrasse	33	\$106	\$3.25
Rabbitfish	589	\$1,913	\$3.25
Emperor (misc)	98	\$245	\$2.50
Parrotfish (misc)	2,407	\$7,395	\$3.07
Surgeonfish (misc)	644	\$1,287	\$2.00
Orangespine unicornfish	22	\$49	\$2.25
Unicornfish (misc)	26	\$53	\$2.00
Goatfish (misc)	71	\$204	\$2.87
Mahimahi	113	\$252	\$2.23
Rainbow runner	448	\$881	\$1.97
Wahoo	52	\$67	\$1.30
Skipjack tuna	34,744	\$37,031	\$1.07
Yellowfin tuna	4,781	\$8,529	\$1.78
Spiny lobster	368	\$1,836	\$4.99
Octopus	331	\$666	\$2.01
TOTAL	53,202	\$82,722	\$1.55

Table B-8
July 2006 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb
Bigeye scad	79	\$202	\$2.56
Jacks (misc)	323	\$819	\$2.53
Blackjack	14	\$32	\$2.33
Bottom fish	310	\$791	\$2.55
Sickle pomfret	51	\$102	\$2.00
Ehu (red snapper)	55	\$194	\$3.50
Gindai (flower snapper)	114	\$398	\$3.50
Grouper (misc)	64	\$191	\$3.00
Kalikali (yellowtail)	156	\$428	\$2.74
Onaga (red snapper)	165	\$608	\$3.68
Opakapaka (pink snapper)	23	\$68	\$3.00
Amberjack	5	\$9	\$2.00
Blueline snapper	61	\$147	\$2.40
Reef fish	8,633	\$21,696	\$2.51
Wrasse	20	\$65	\$3.25
Rabbitfish	458	\$1,487	\$3.25
Emperor (misc)	39	\$96	\$2.47
Parrotfish (misc)	1,982	\$6,323	\$3.19
Surgeonfish (misc)	302	\$604	\$2.00
Goatfish (misc)	41	\$127	\$3.12
Blue marlin	182	\$182	\$1.00
Sailfish	36	\$55	\$1.50
Rainbow runner	24	\$47	\$2.00
Skipjack tuna	27,320	\$38,035	\$1.39
Dogtooth tuna	189	\$473	\$2.50
Yellowfin tuna	1,703	\$2,858	\$1.68
Saba (kawakawa)	251	\$399	\$1.59
Spiny lobster	185	\$749	\$4.04
Octopus	557	\$1,126	\$2.02
TOTAL	43,340	\$78,310	\$1.81

Table B-9
August 2006 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb
Bigeye scad	4,268	\$12,753	\$2.99
Jacks (misc)	487	\$1,197	\$2.46
Bottom fish	728	\$1,919	\$2.64
Sickle pomfret	113	\$239	\$2.12
Ehu (red snapper)	104	\$348	\$3.36
Gindai (flower snapper)	332	\$1,070	\$3.22
Grouper (misc)	79	\$214	\$2.71
Kalikali (yellowtail)	579	\$1,464	\$2.53
Opakapaka (pink snapper)	299	\$820	\$2.74
Jobfish (uku)	73	\$208	\$2.86
Silvermouth (deep lehi)	18	\$49	\$2.70
Blueline snapper	477	\$1,274	\$2.67
Reef fish	8,764	\$22,204	\$2.53
Wrasse	25	\$80	\$3.25
Rabbitfish	493	\$1,600	\$3.25
Emperor (misc)	720	\$1,834	\$2.55
Squirrelfish	37	\$93	\$2.50
Parrotfish (misc)	3,361	\$10,482	\$3.12
Surgeonfish (misc)	564	\$1,187	\$2.10
Unicornfish (misc)	46	\$128	\$2.75
Goatfish (misc)	12	\$30	\$2.50
Mahimahi	189	\$395	\$2.09
Blue marlin	369	\$738	\$2.00
Rainbow runner	271	\$547	\$2.02
Skipjack tuna	29,396	\$42,939	\$1.46
Dogtooth tuna	601	\$1,124	\$1.87
Yellowfin tuna	2,135	\$4,396	\$2.06
Saba (kawakawa)	9	\$14	\$1.50
Spiny lobster	502	\$2,414	\$4.81
Octopus	336	\$673	\$2.00
TOTAL	55,388	\$112,433	\$2.03

Table B-10**September 2006 Estimated Commercial Landings**

Species	Pounds	Value	Price/Lb
Bigeye scad	3,532	\$9,756	\$2.76
Jacks (misc)	98	\$258	\$2.64
Blackjack	36	\$91	\$2.50
Bottom fish	1,070	\$2,776	\$2.59
Ehu (red snapper)	217	\$757	\$3.49
Gindai (flower snapper)	222	\$775	\$3.49
Grouper (misc)	98	\$336	\$3.44
Kalikali (yellowtail)	957	\$2,621	\$2.74
Onaga (red snapper)	312	\$1,393	\$4.47
Opakapaka (pink snapper)	284	\$780	\$2.75
Jobfish (uku)	13	\$32	\$2.50
Silvermouth (deep lehi)	25	\$76	\$3.00
Amberjack	51	\$153	\$3.00
Blueline snapper	429	\$1,073	\$2.50
Reef fish	5,253	\$13,542	\$2.58
Rabbitfish	523	\$1,660	\$3.17
Emperor (misc)	624	\$1,630	\$2.61
Parrotfish (misc)	3,445	\$10,569	\$3.07
Surgeonfish (misc)	284	\$567	\$2.00
Unicornfish (misc)	9	\$18	\$2.00
Goatfish (misc)	155	\$385	\$2.49
Bigeye emperor	116	\$325	\$2.79
Barracuda	33	\$65	\$2.00
Mahimahi	37	\$85	\$2.27
Rainbow runner	537	\$1,048	\$1.95
Wahoo	228	\$459	\$2.01
Skipjack tuna	22,474	\$34,331	\$1.53
Yellowfin tuna	1,259	\$2,803	\$2.23
Saba (kawakawa)	2,458	\$3,541	\$1.44
Spiny lobster	580	\$2,905	\$5.01
Octopus	337	\$738	\$2.19
TOTAL	45,695	\$95,548	\$2.09

Table B-11
October 2006 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb
Bigeye scad	5,099	\$12,570	\$2.47
Jacks (misc)	64	\$161	\$2.50
Bottom fish	193	\$552	\$2.86
Sickle pomfret	125	\$303	\$2.41
Ehu (red snapper)	5	\$17	\$3.50
Grouper (misc)	106	\$383	\$3.60
Kalikali (yellowtail)	38	\$95	\$2.50
Onaga (red snapper)	162	\$728	\$4.50
Opakapaka (pink snapper)	92	\$253	\$2.75
Reef fish	6,271	\$15,751	\$2.51
Wrasse	65	\$165	\$2.53
Rabbitfish	1,480	\$4,536	\$3.07
Emperor (misc)	66	\$177	\$2.67
Squirrelfish	10	\$24	\$2.50
Parrotfish (misc)	1,934	\$6,065	\$3.14
Surgeonfish (misc)	777	\$1,572	\$2.02
Orangespine unicornfish	17	\$43	\$2.50
Unicornfish (misc)	27	\$68	\$2.50
Goatfish (misc)	55	\$149	\$2.73
Mahimahi	611	\$1,272	\$2.08
Blue marlin	636	\$955	\$1.50
Rainbow runner	85	\$162	\$1.91
Wahoo	335	\$767	\$2.29
Skipjack tuna	7,549	\$14,313	\$1.90
Dogtooth tuna	120	\$240	\$2.00
Yellowfin tuna	2,183	\$5,362	\$2.46
Saba (kawakawa)	2,307	\$3,431	\$1.49
Spiny lobster	158	\$829	\$5.26
Octopus	510	\$1,020	\$2.00
TOTAL	31,079	\$71,962	\$2.32

Table B-12
November 2006 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb
Bigeye scad	1,326	\$3,245	\$2.45
Jacks (misc)	243	\$411	\$1.69
Blackjack	105	\$261	\$2.50
Bottom fish	33	\$82	\$2.50
Ehu (red snapper)	267	\$935	\$3.50
Gindai (flower snapper)	117	\$410	\$3.50
Grouper (misc)	54	\$174	\$3.25
Kalikali (yellowtail)	178	\$535	\$3.00
Onaga (red snapper)	60	\$231	\$3.85
Opakapaka (pink snapper)	186	\$466	\$2.50
Blueline snapper	92	\$253	\$2.75
Reef fish	5,961	\$14,877	\$2.50
Rabbitfish	839	\$2,554	\$3.05
Emperor (misc)	133	\$332	\$2.50
Parrotfish (misc)	1,336	\$4,236	\$3.17
Surgeonfish (misc)	380	\$777	\$2.04
Bigeye emperor	35	\$86	\$2.50
Mahimahi	993	\$2,186	\$2.20
Blue marlin	36	\$73	\$2.00
Rainbow runner	391	\$751	\$1.92
Wahoo	572	\$1,292	\$2.26
Tunas (misc)	15	\$15	\$1.00
Skipjack tuna	7,955	\$14,306	\$1.80
Dogtooth tuna	385	\$779	\$2.02
Yellowfin tuna	3,018	\$6,180	\$2.05
Saba (kawakawa)	2,752	\$4,023	\$1.46
Octopus	420	\$844	\$2.01
TOTAL	27,880	\$60,314	\$2.16

Table B-13
December 2006 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb
Bigeye scad	591	\$1,615	\$2.73
Jacks (misc)	9	\$18	\$2.00
Bottom fish	244	\$750	\$3.07
Alfonsin	25	\$51	\$2.00
Ehu (red snapper)	43	\$145	\$3.40
Gindai (flower snapper)	102	\$382	\$3.75
Grouper (misc)	207	\$821	\$3.96
Kalikali (yellowtail)	38	\$105	\$2.75
Onaga (red snapper)	256	\$1,196	\$4.67
Jobfish (uku)	35	\$95	\$2.75
Blueline snapper	16	\$45	\$2.75
Reef fish	5,127	\$12,900	\$2.52
Rabbitfish	827	\$2,669	\$3.23
Emperor (misc)	711	\$1,815	\$2.55
Parrotfish (misc)	540	\$1,698	\$3.14
Surgeonfish (misc)	113	\$226	\$2.00
Mahimahi	1,468	\$2,938	\$2.00
Rainbow runner	155	\$318	\$2.06
Wahoo	305	\$552	\$1.81
Skipjack tuna	23,116	\$39,594	\$1.71
Yellowfin tuna	8,075	\$15,043	\$1.86
Saba (kawakawa)	593	\$941	\$1.59
Octopus	352	\$710	\$2.02
TOTAL	42,947	\$84,629	\$1.97

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

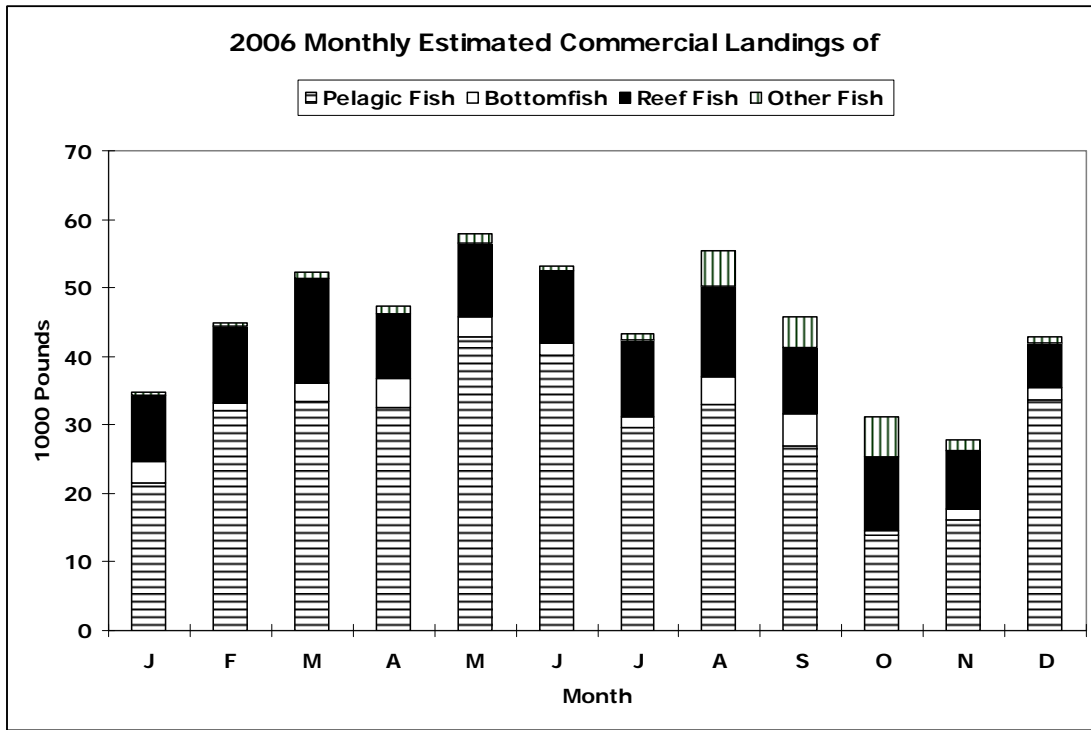


Figure B-1-1

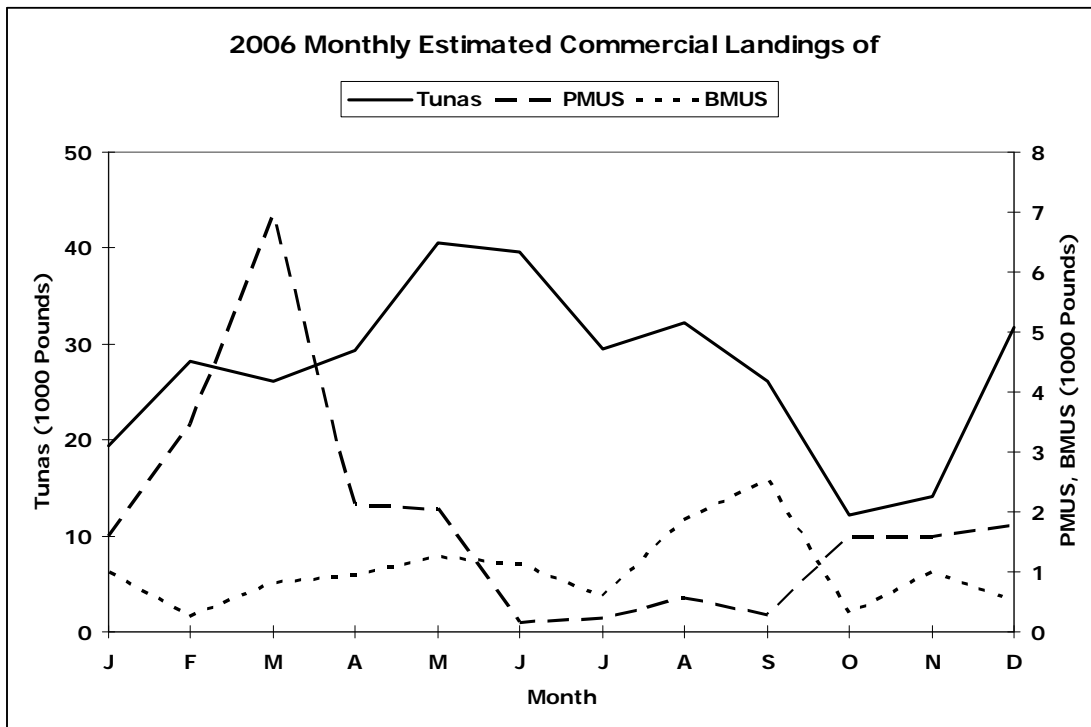


Figure B-1-2

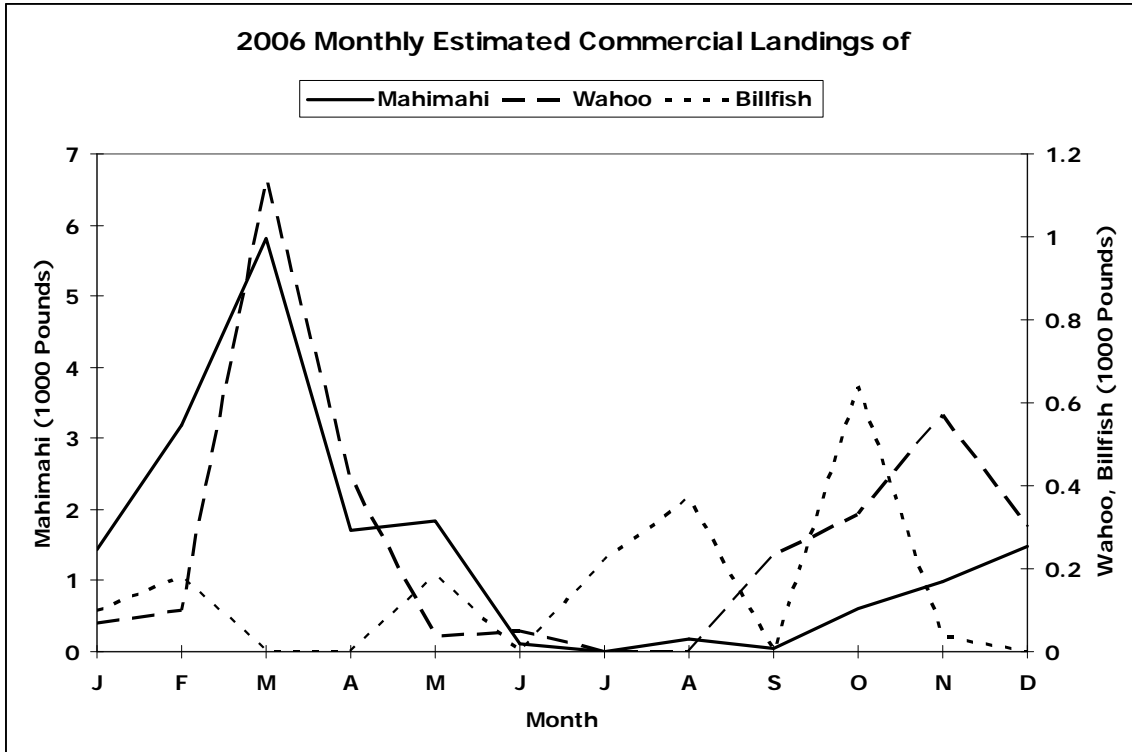


Figure B-1-3

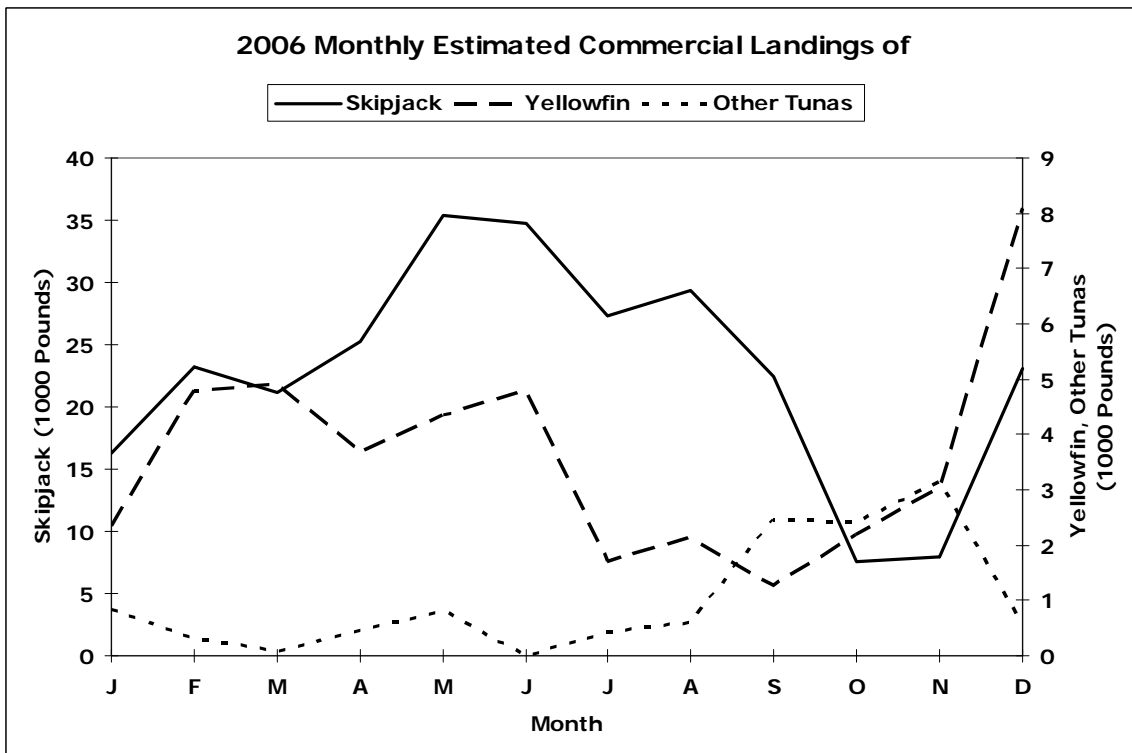


Figure B-1-4

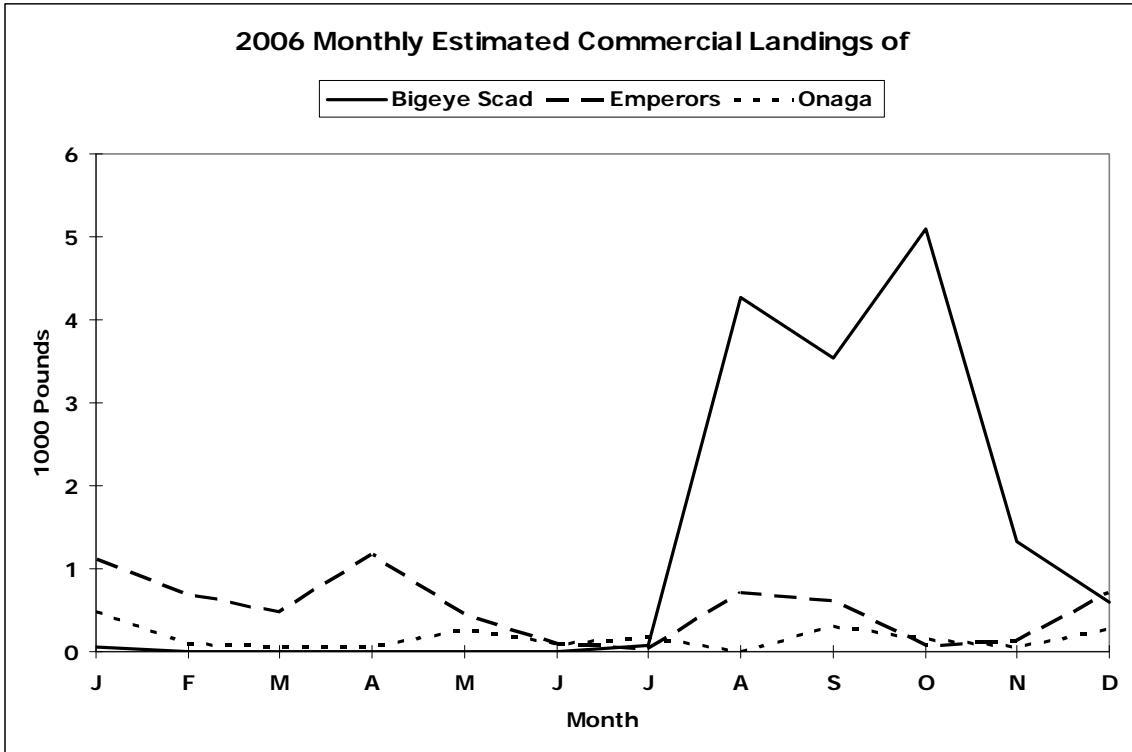


Figure B-1-5

B.23

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

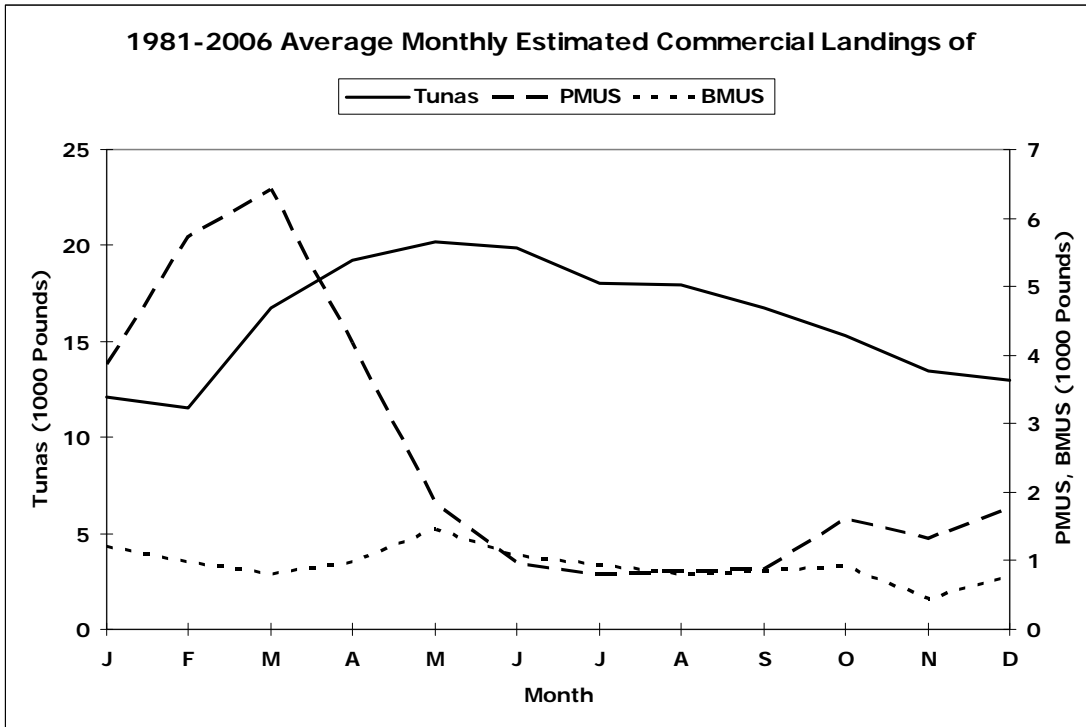


Figure B-2-1

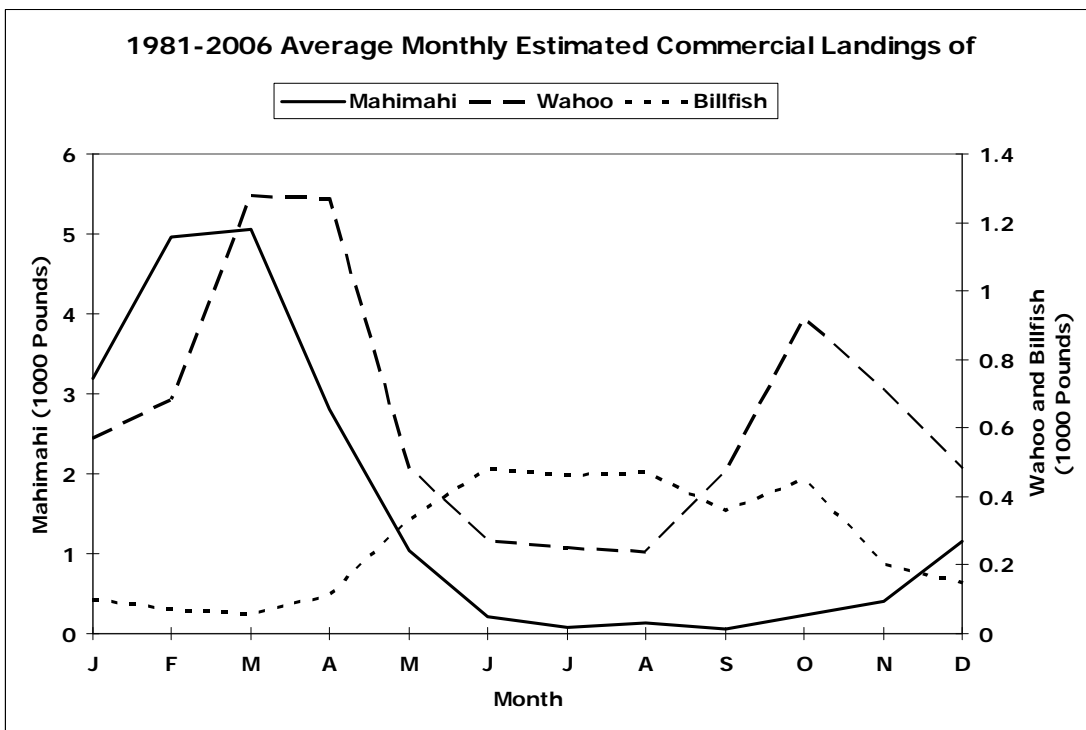


Figure B-2-2

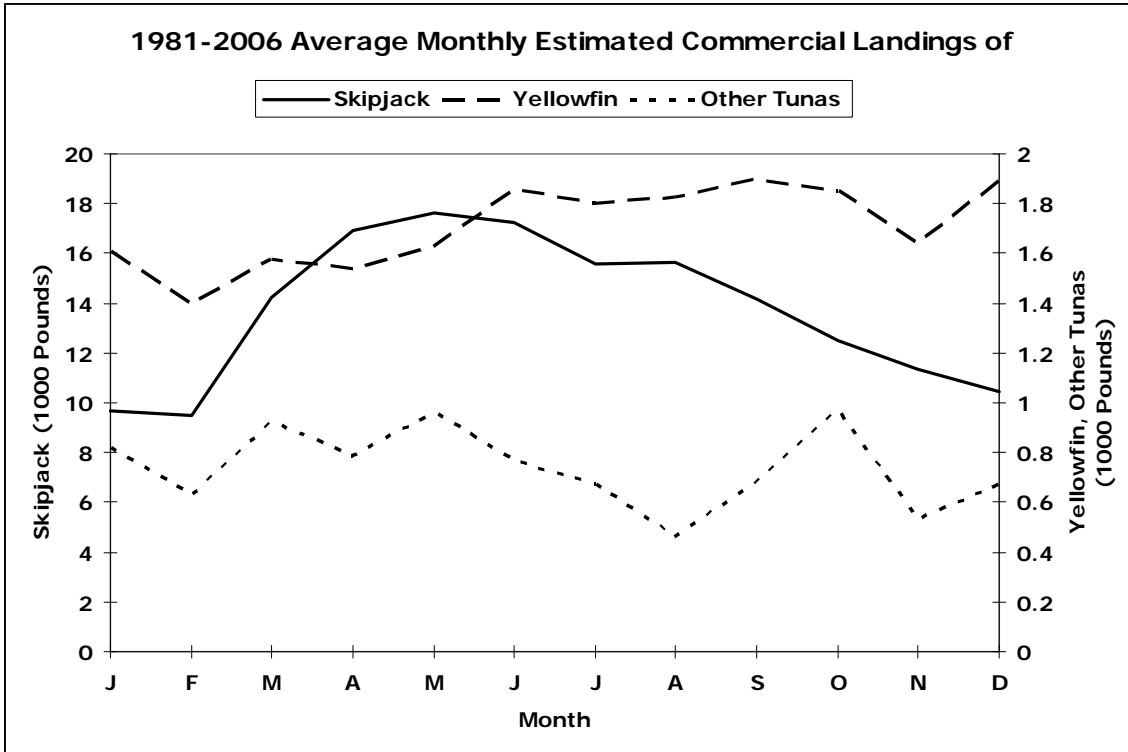


Figure B-2-3

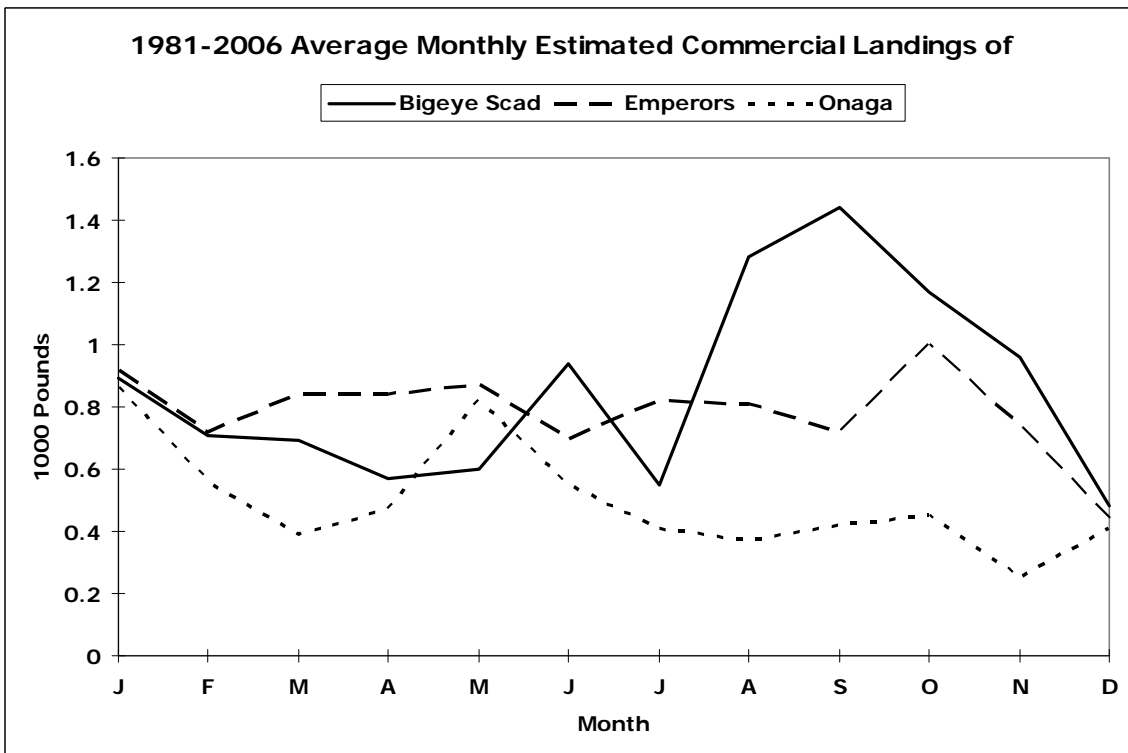


Figure B-2-4

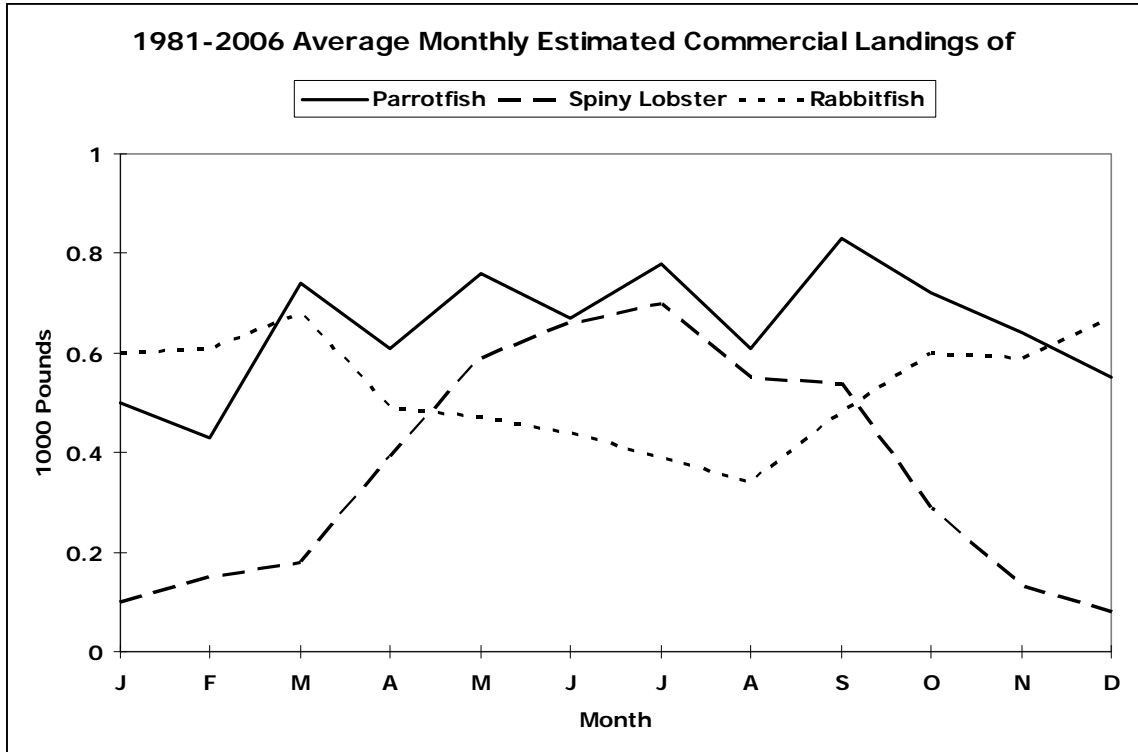


Figure B-2-5

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

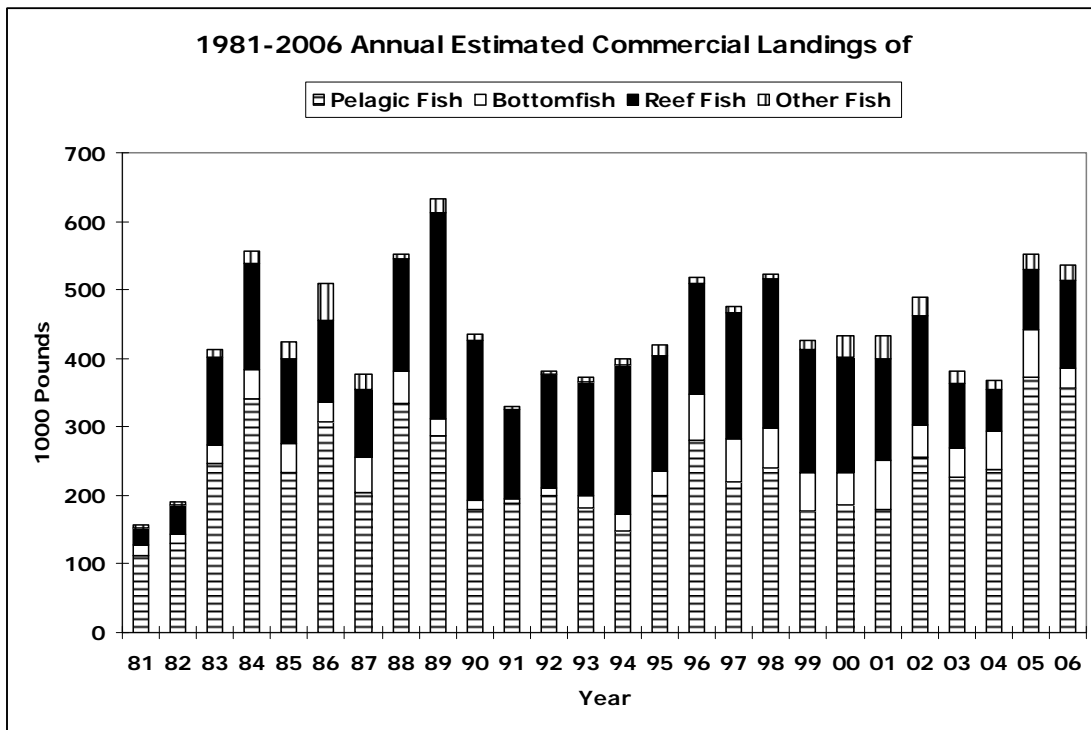


Figure B-3-1

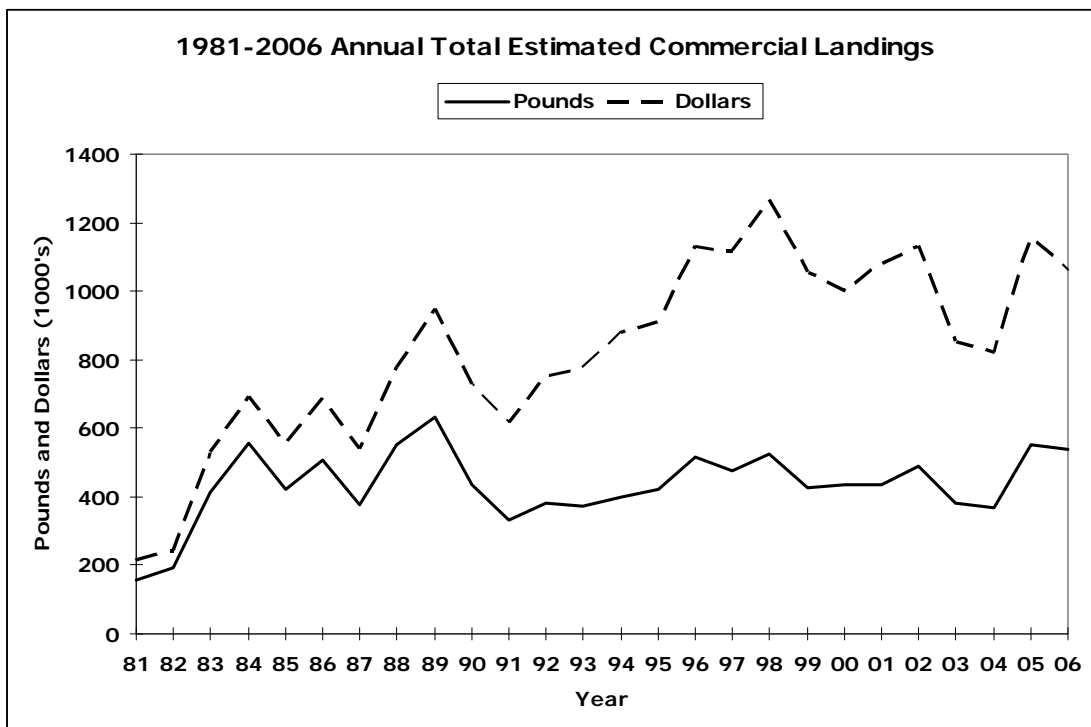


Figure B-3-2

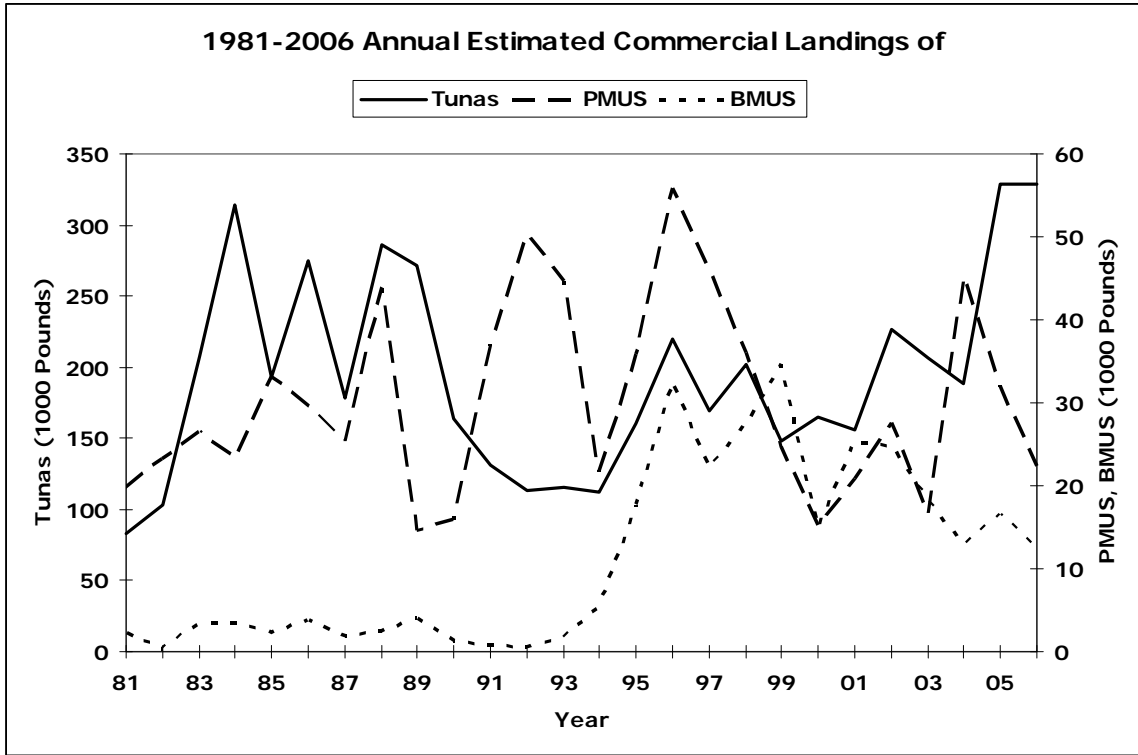


Figure B-3-3

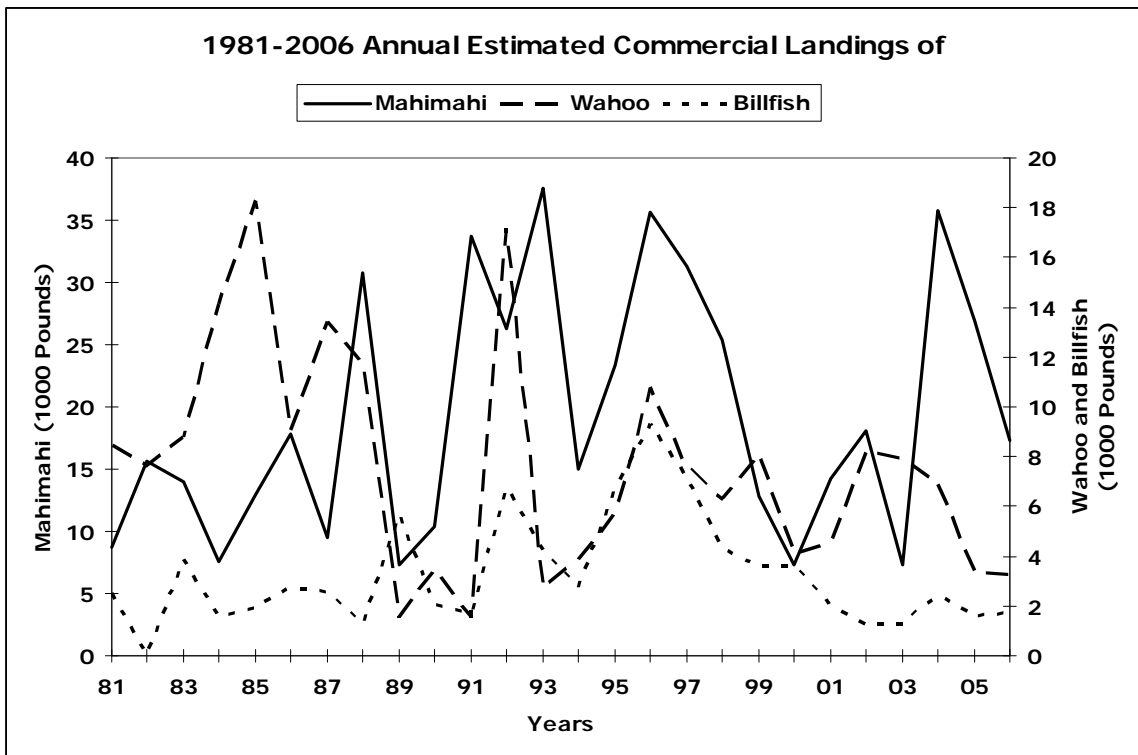


Figure B-3-4

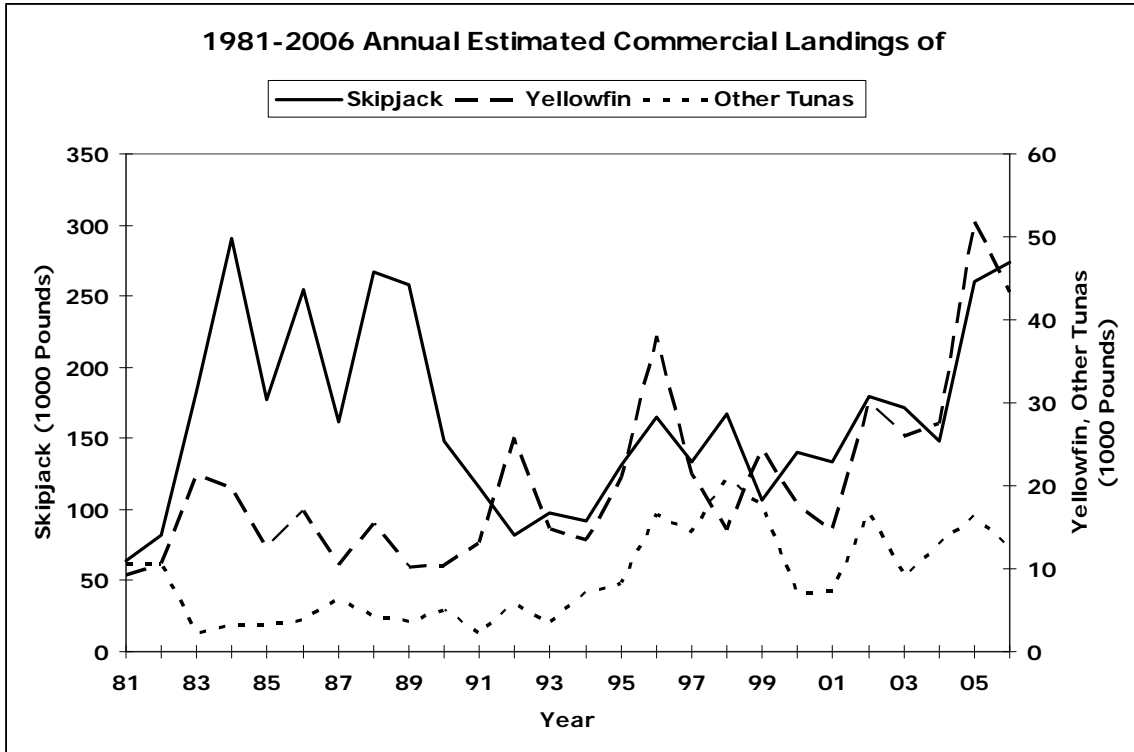


Figure B-3-5

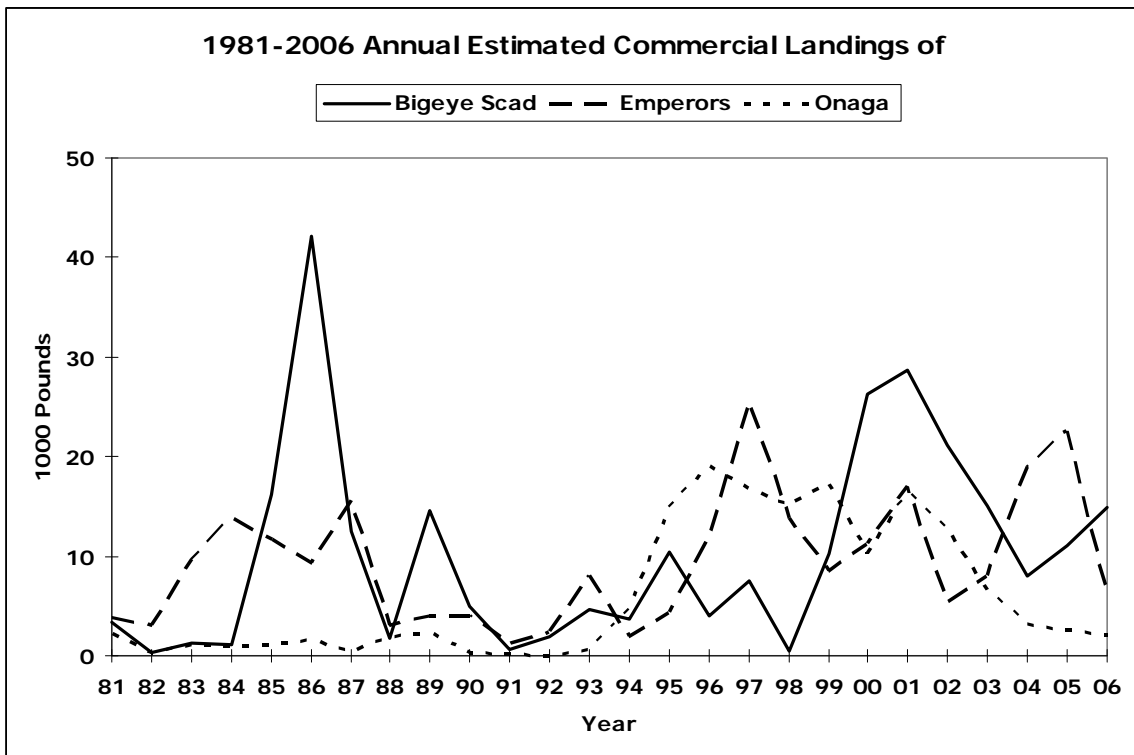


Figure B-3-6

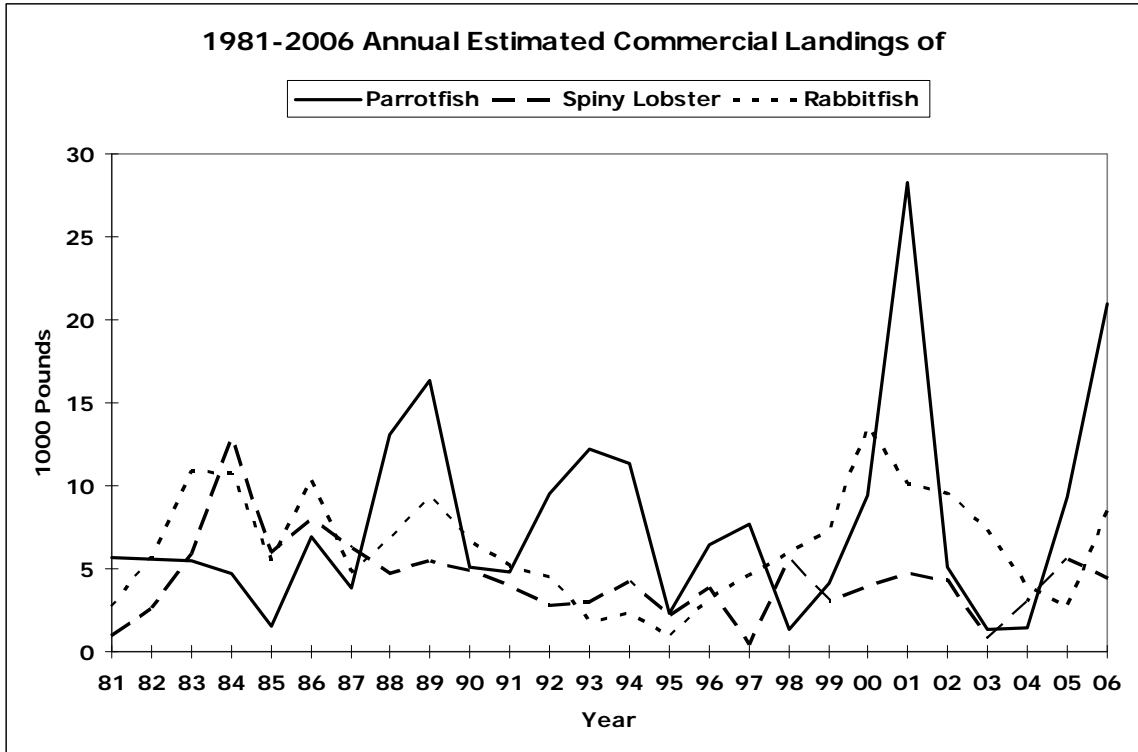


Figure B-3-7

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

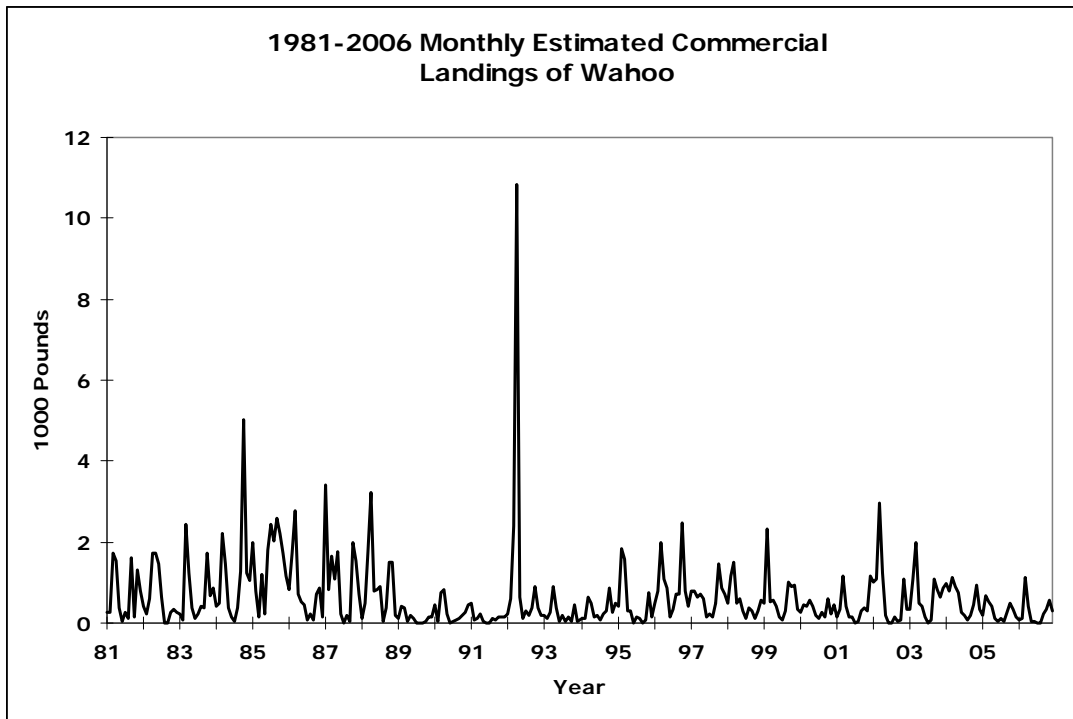


Figure B-4-1

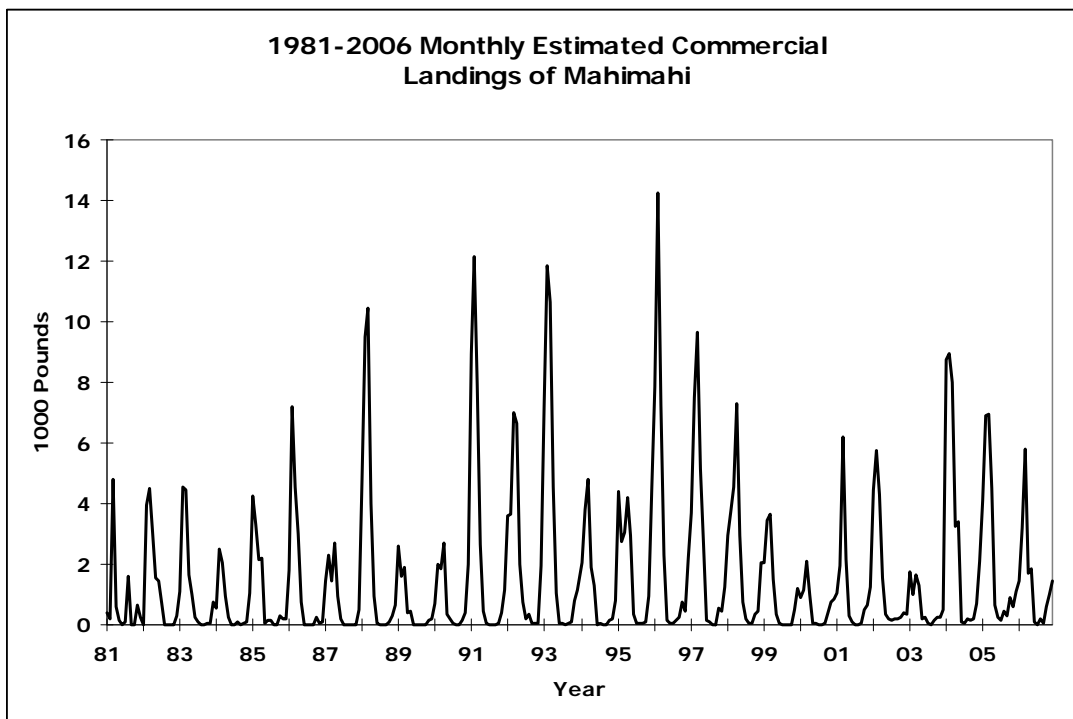


Figure B-4-2

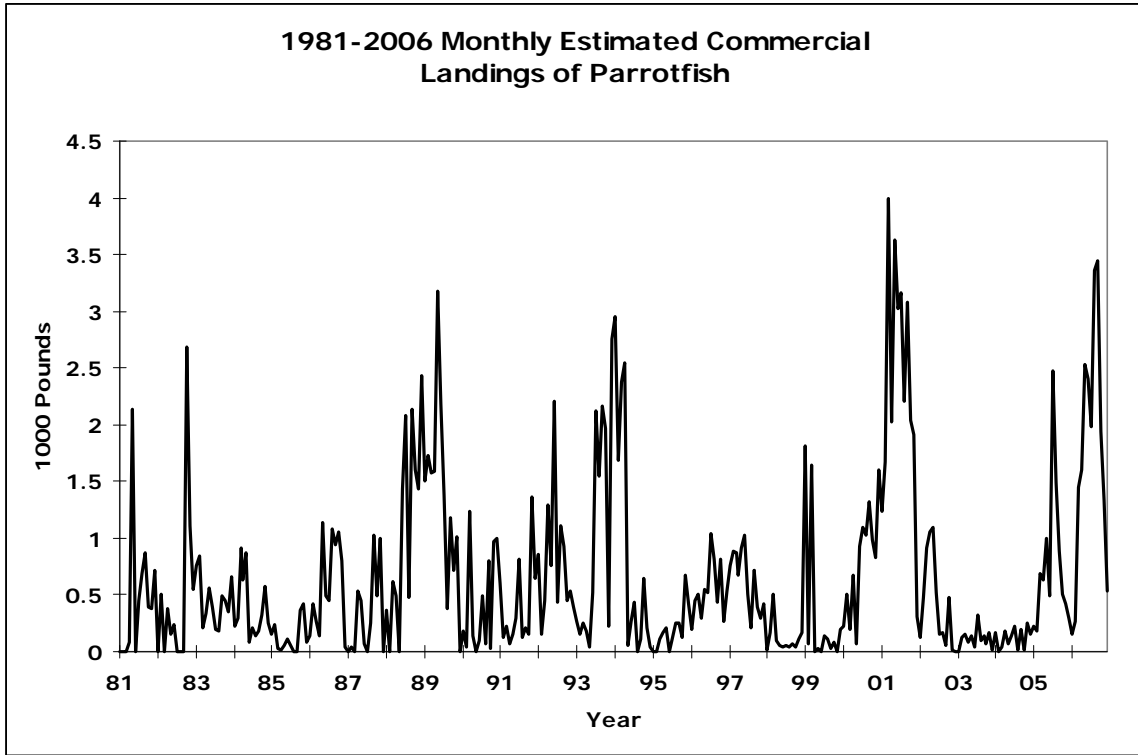


Figure B-4-3

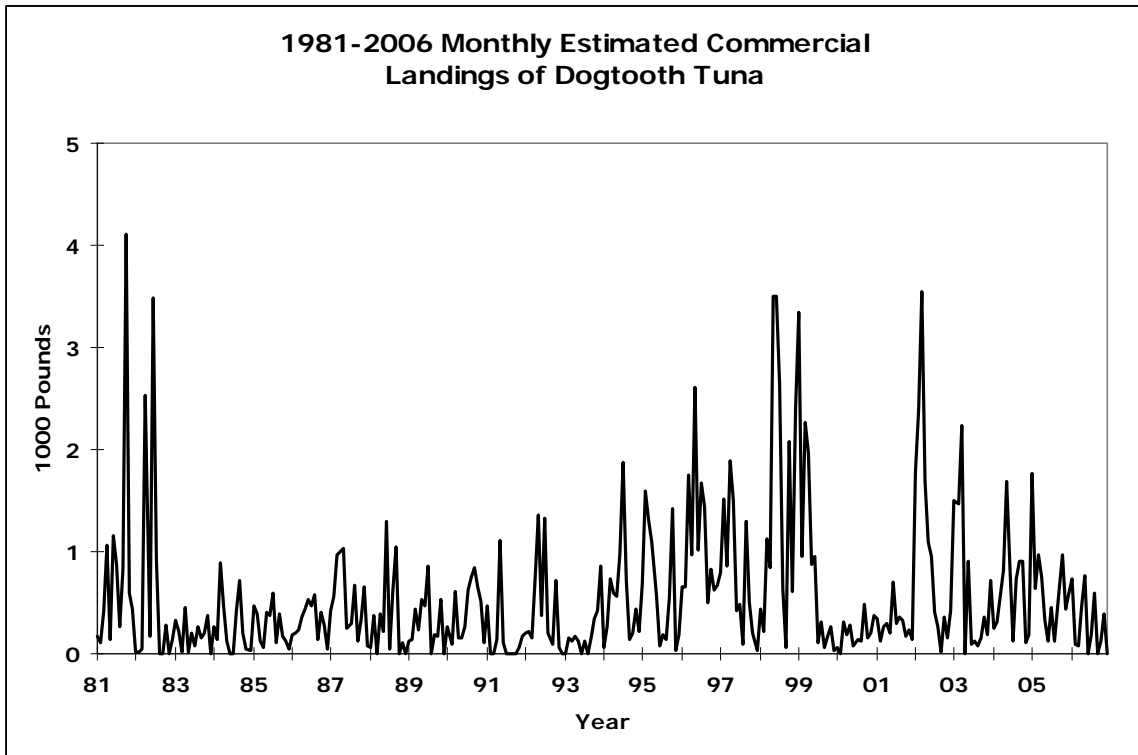


Figure B-4-4

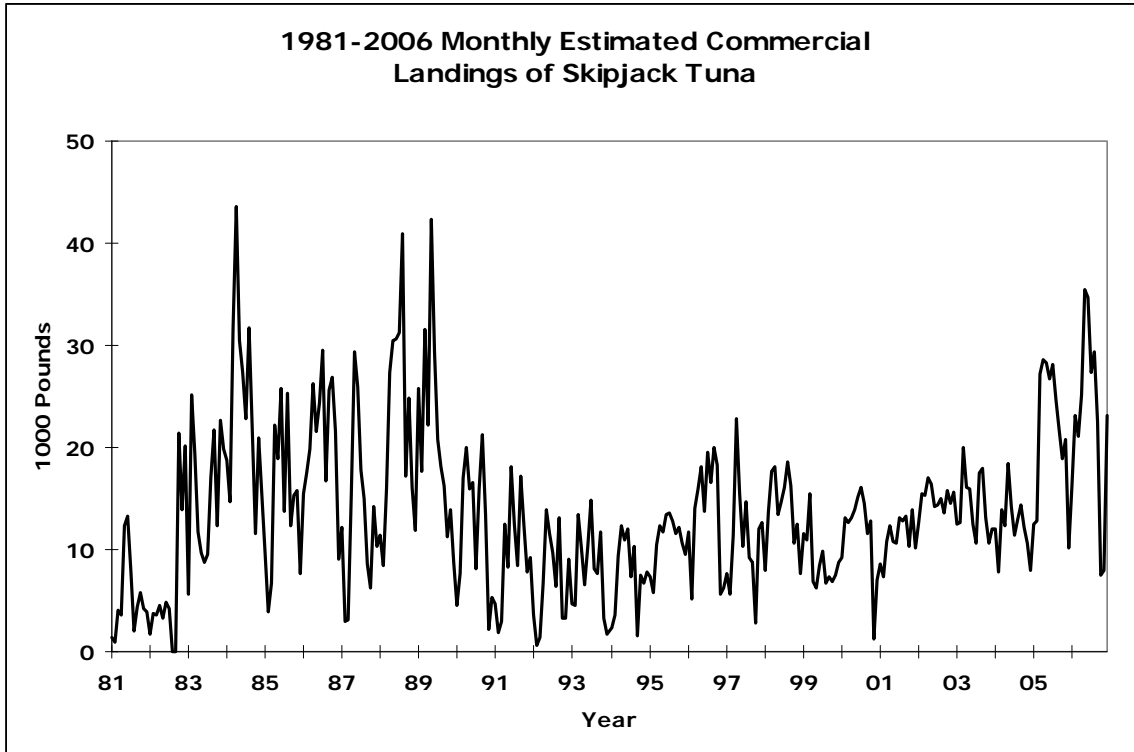


Figure B-4-5

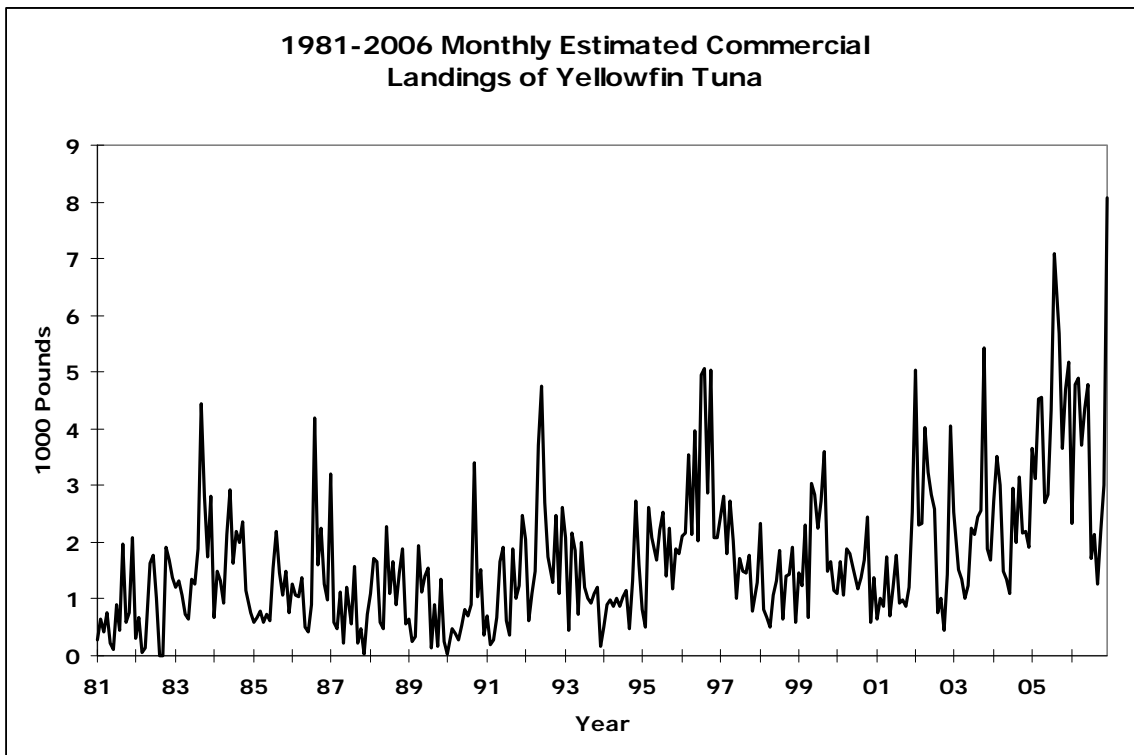


Figure B-4-6

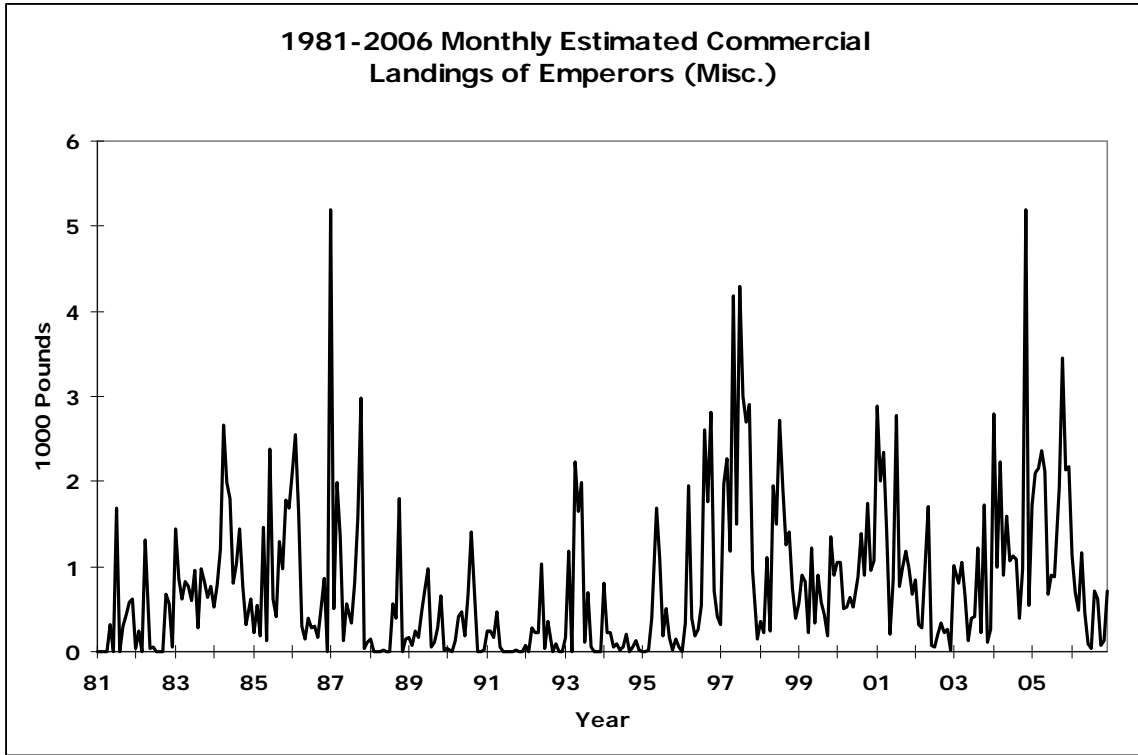


Figure B-4-7

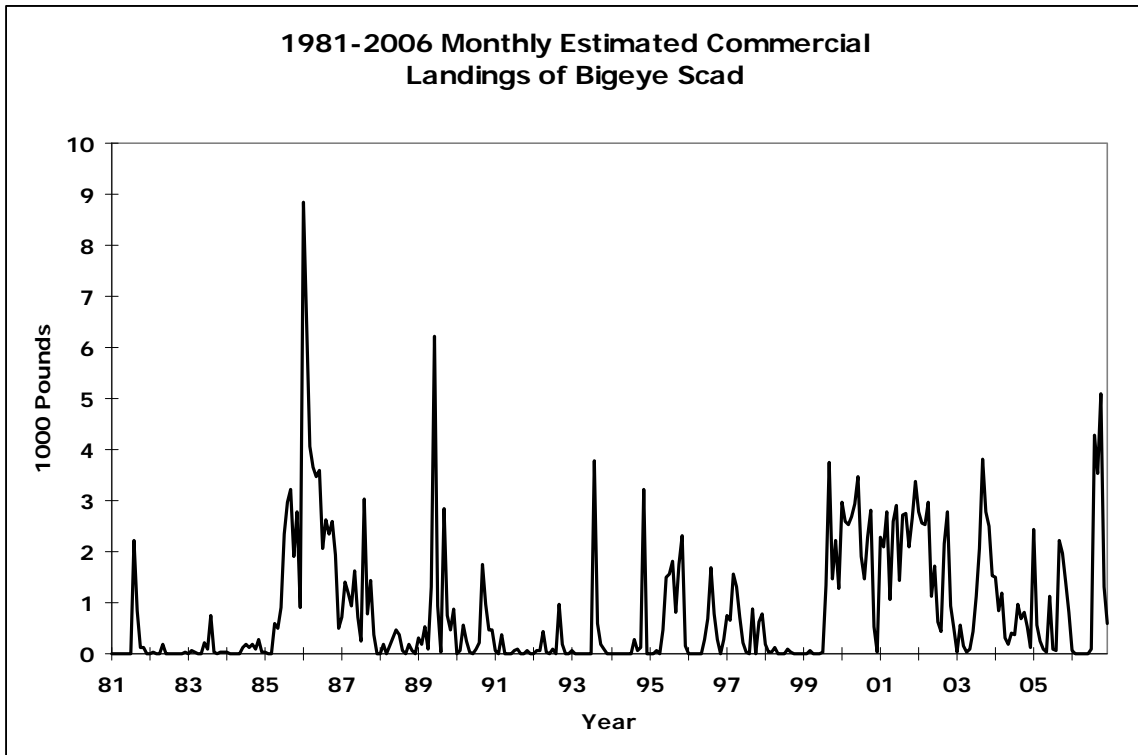


Figure B-4-8

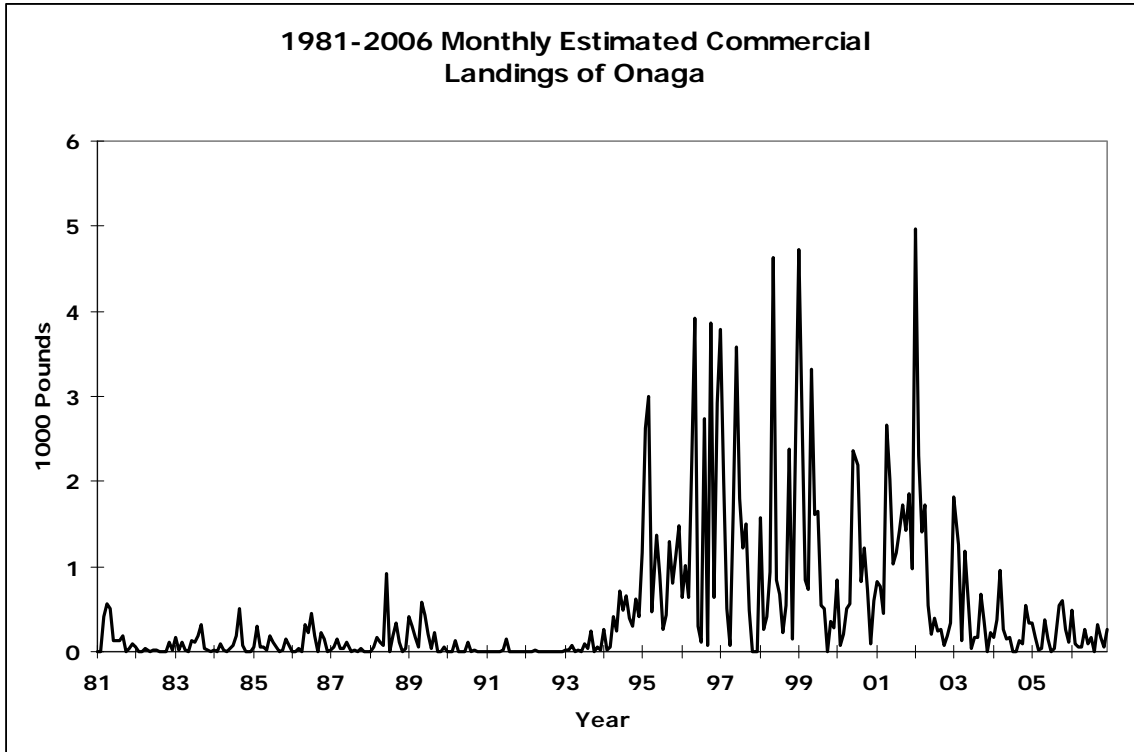


Figure B-4-9

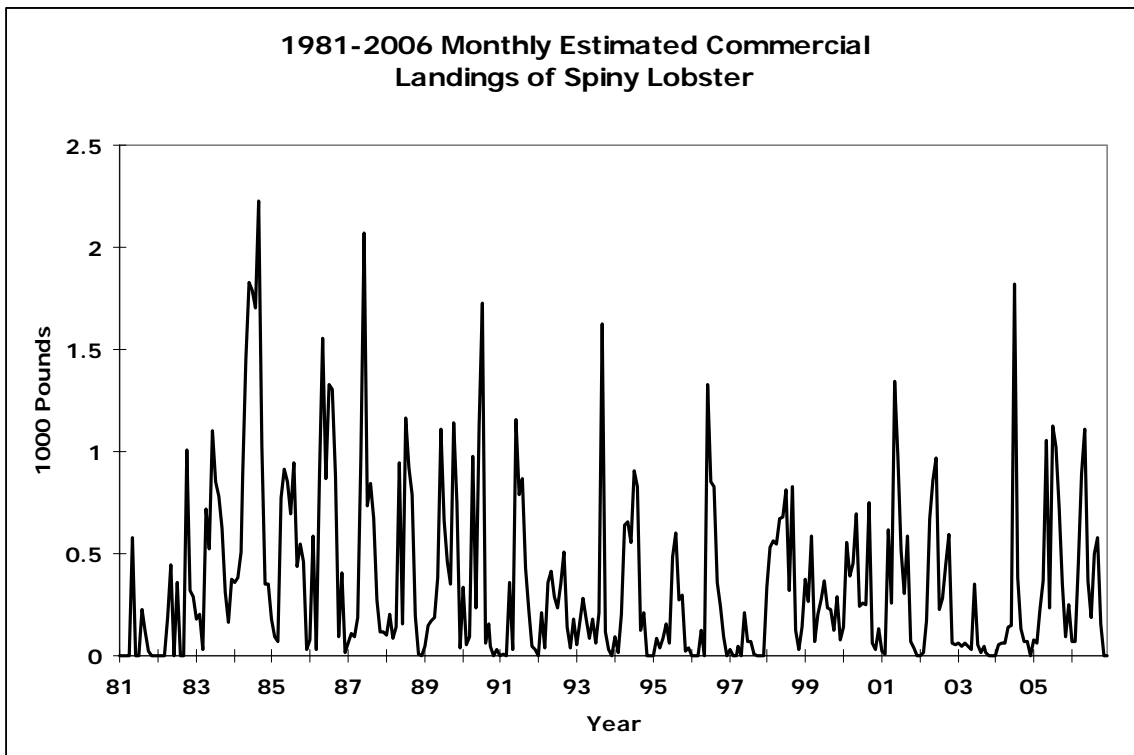


Figure B-4-10

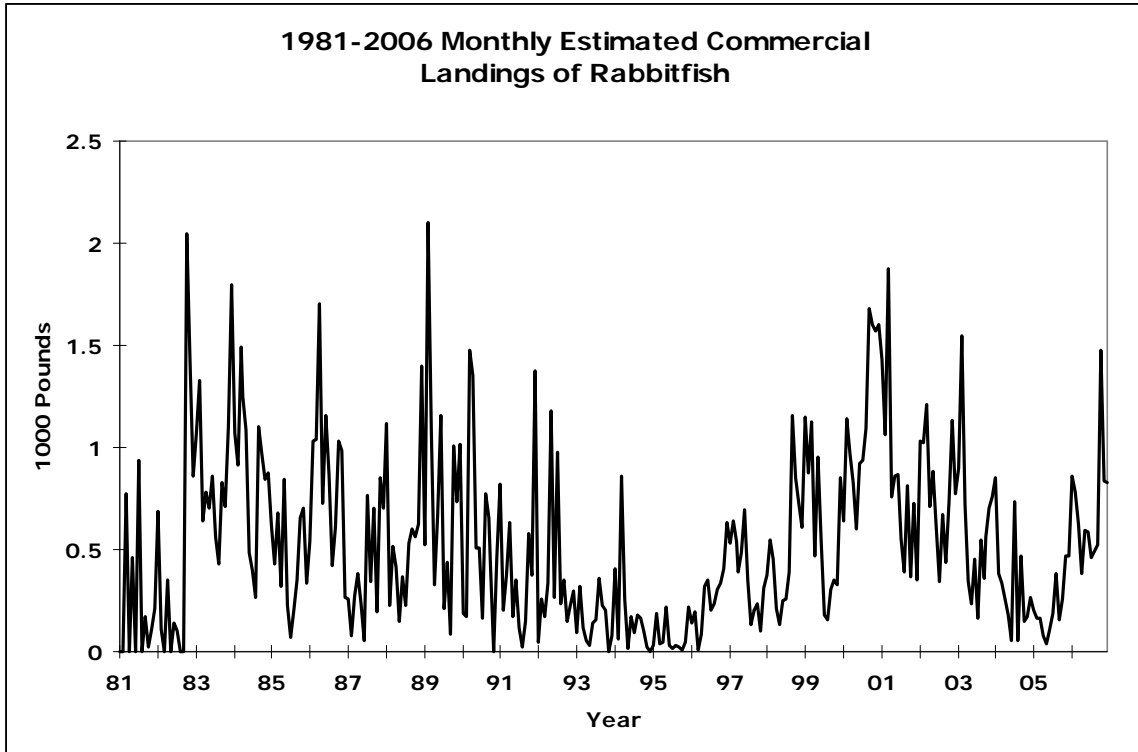


Figure B-4-11

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GUAM 2006 FISHERY STATISTICS

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

September 2008

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GUAM 2006 FISHERY STATISTICS

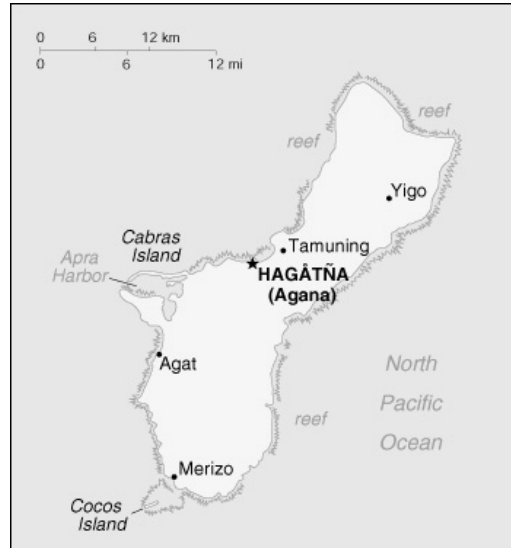
INTRODUCTION

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.

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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:

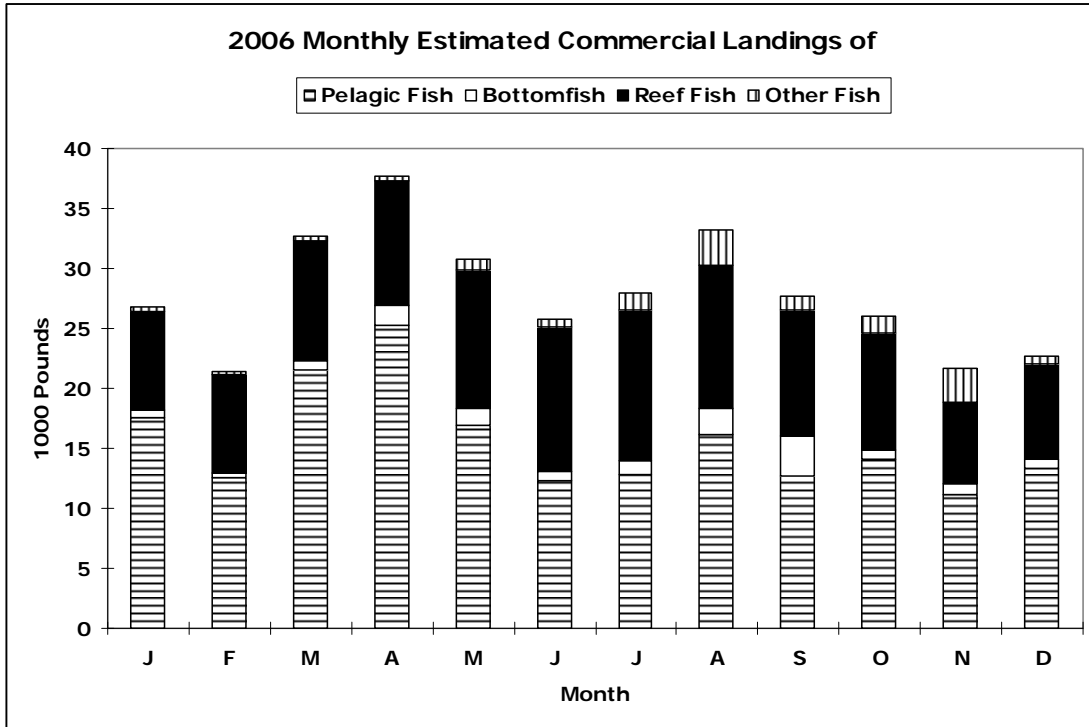


Figure C-1-1

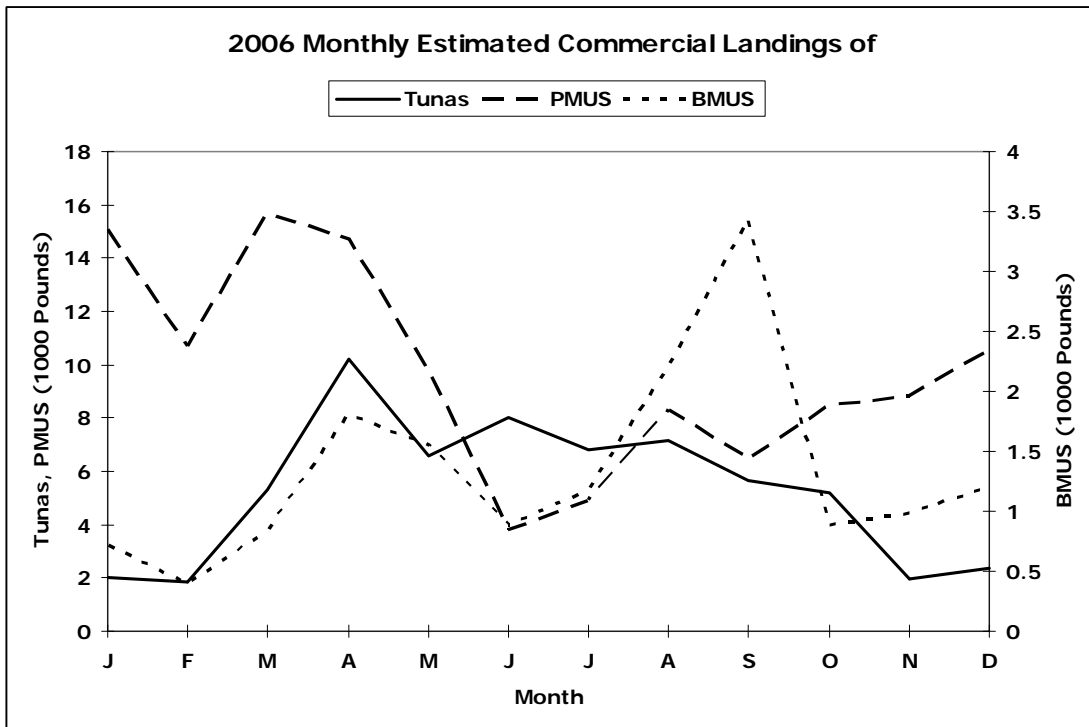


Figure C-1-2

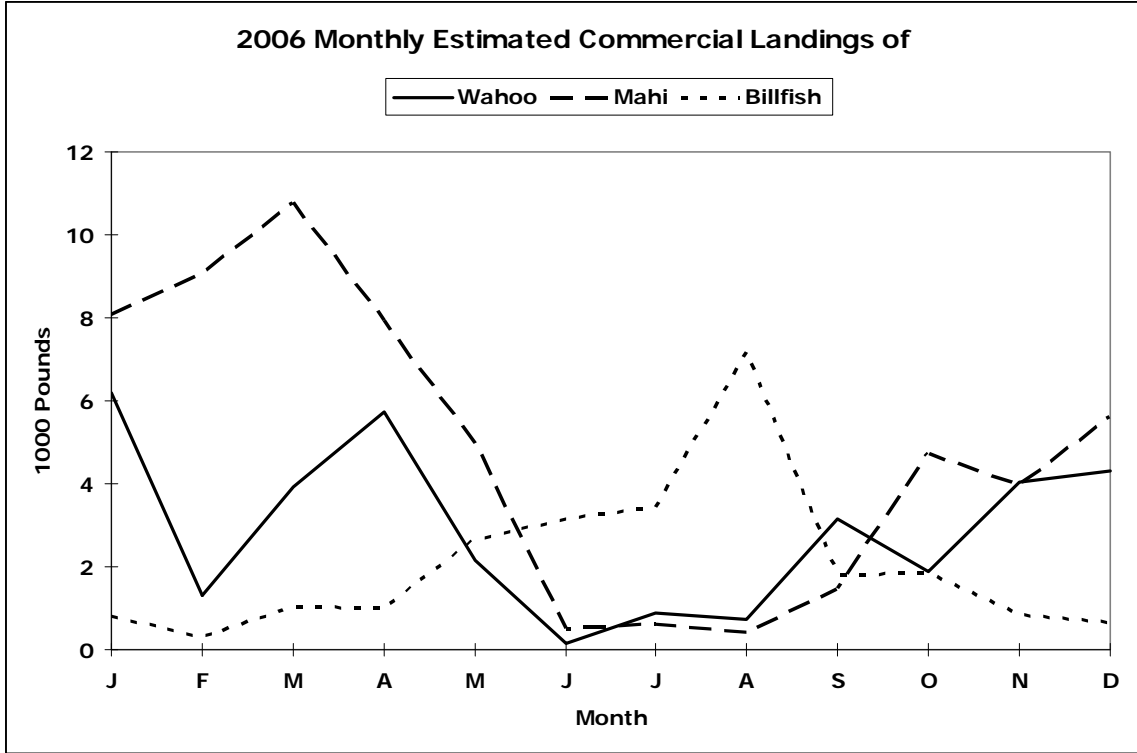


Figure C-1-3

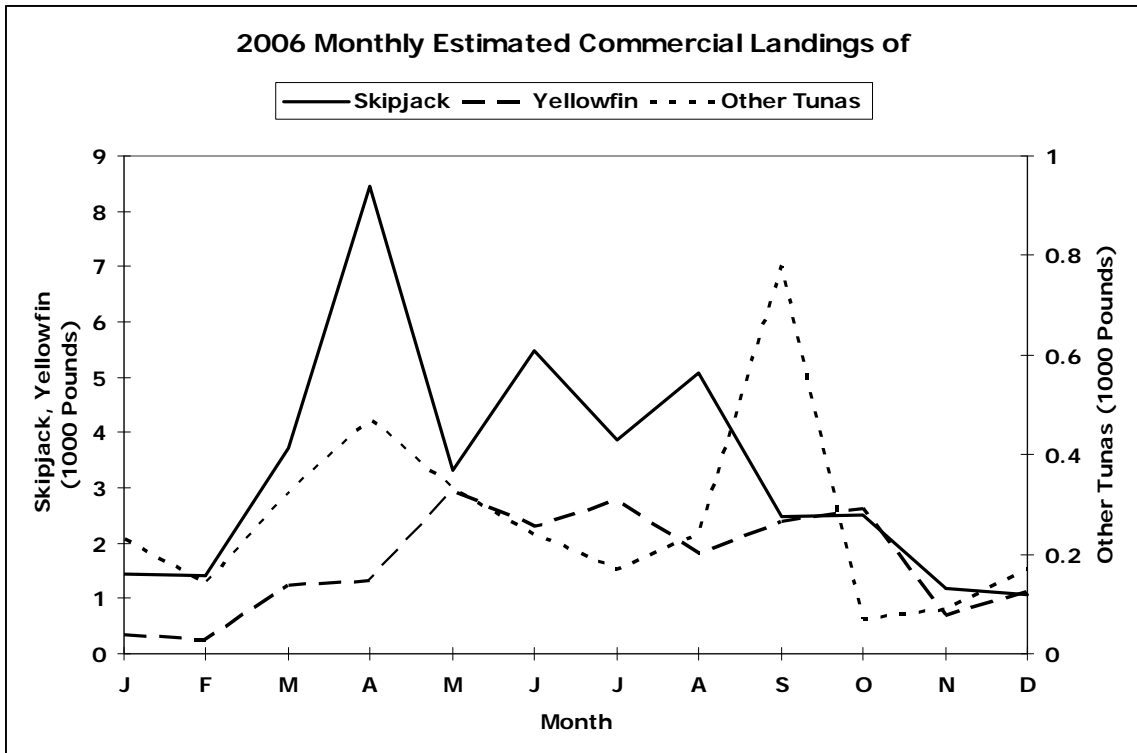


Figure C-1-4

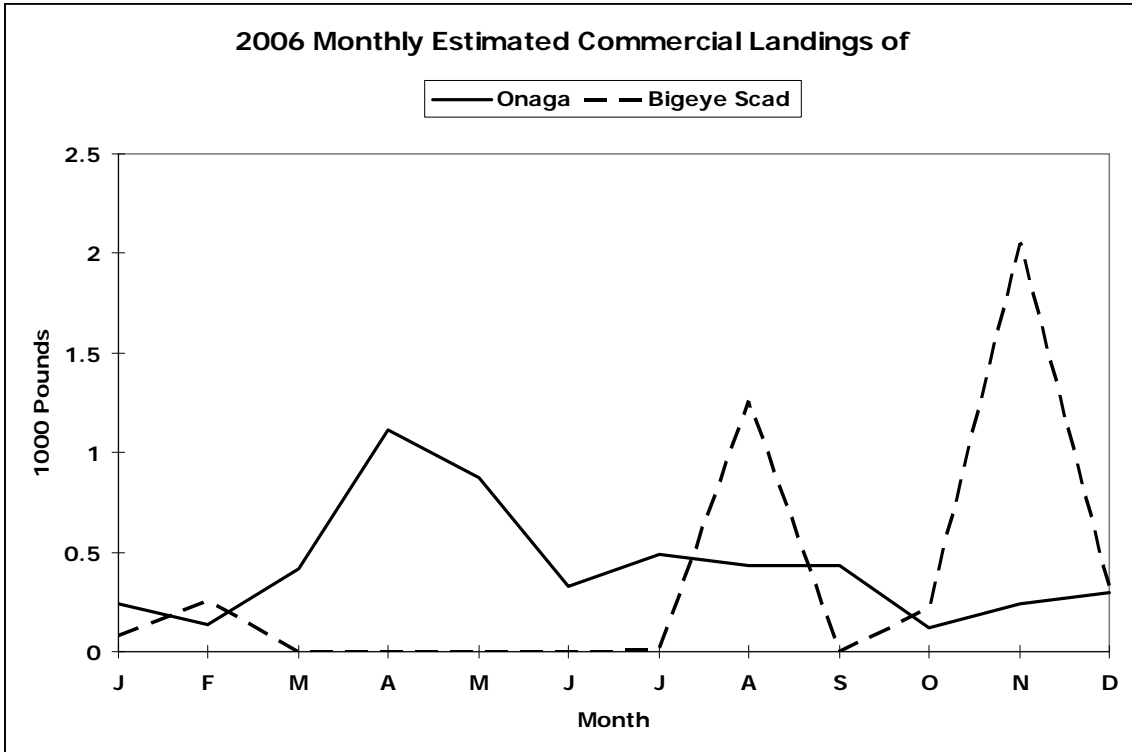


Figure C-1-5

C.23

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

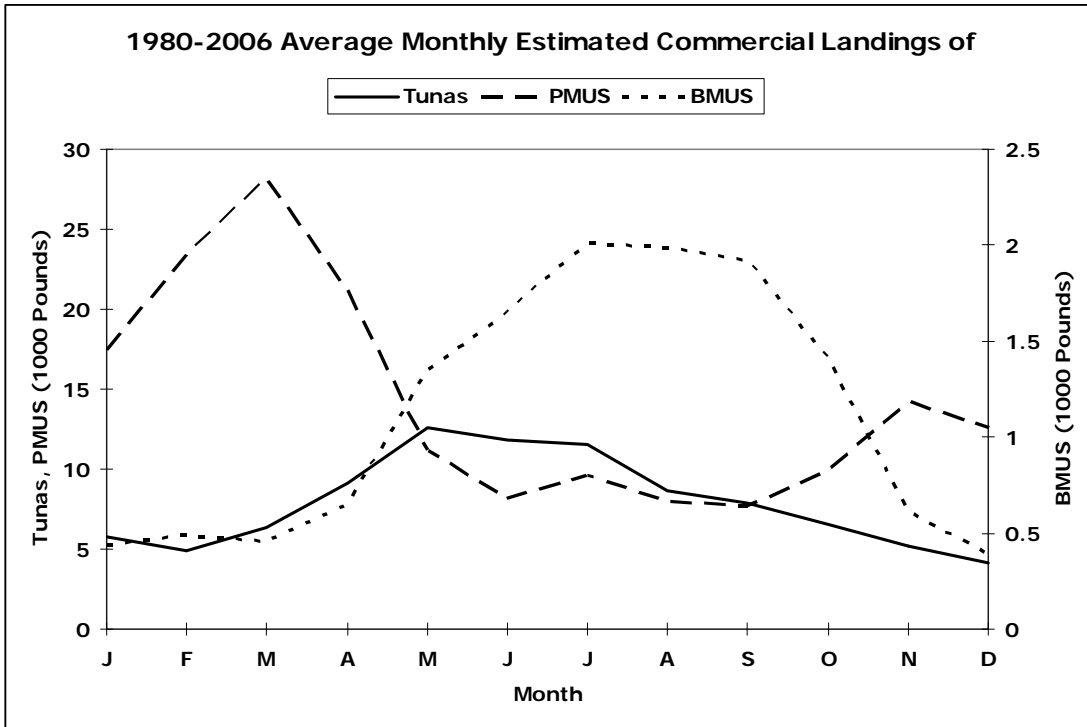


Figure C-2-1

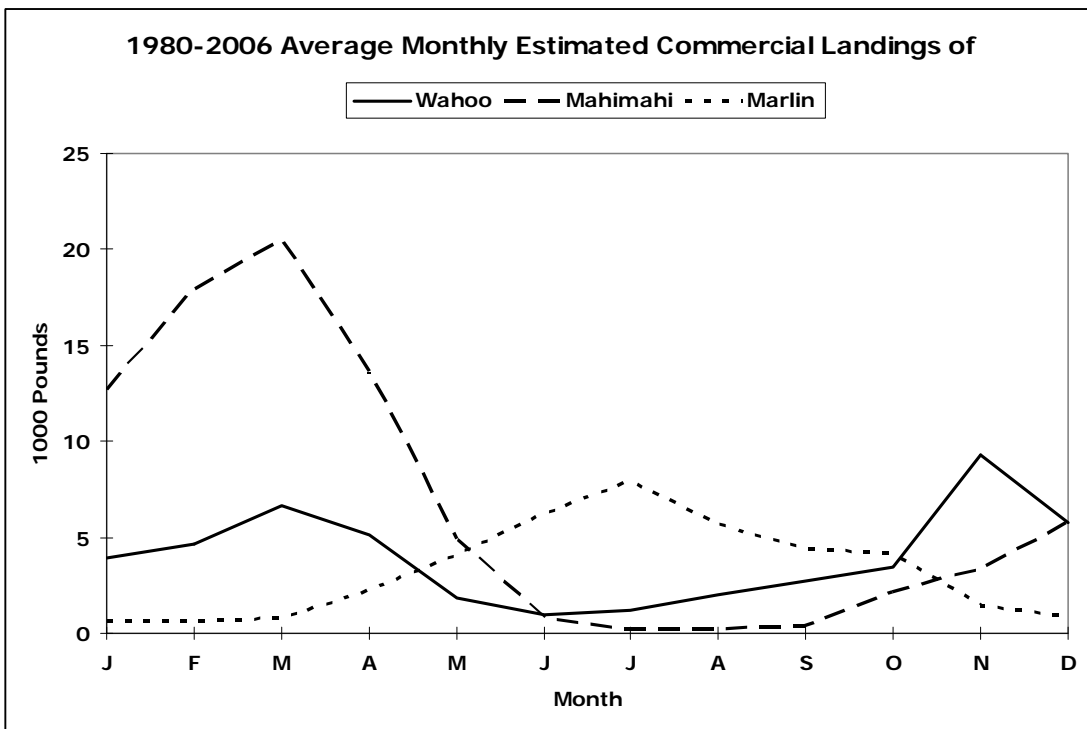


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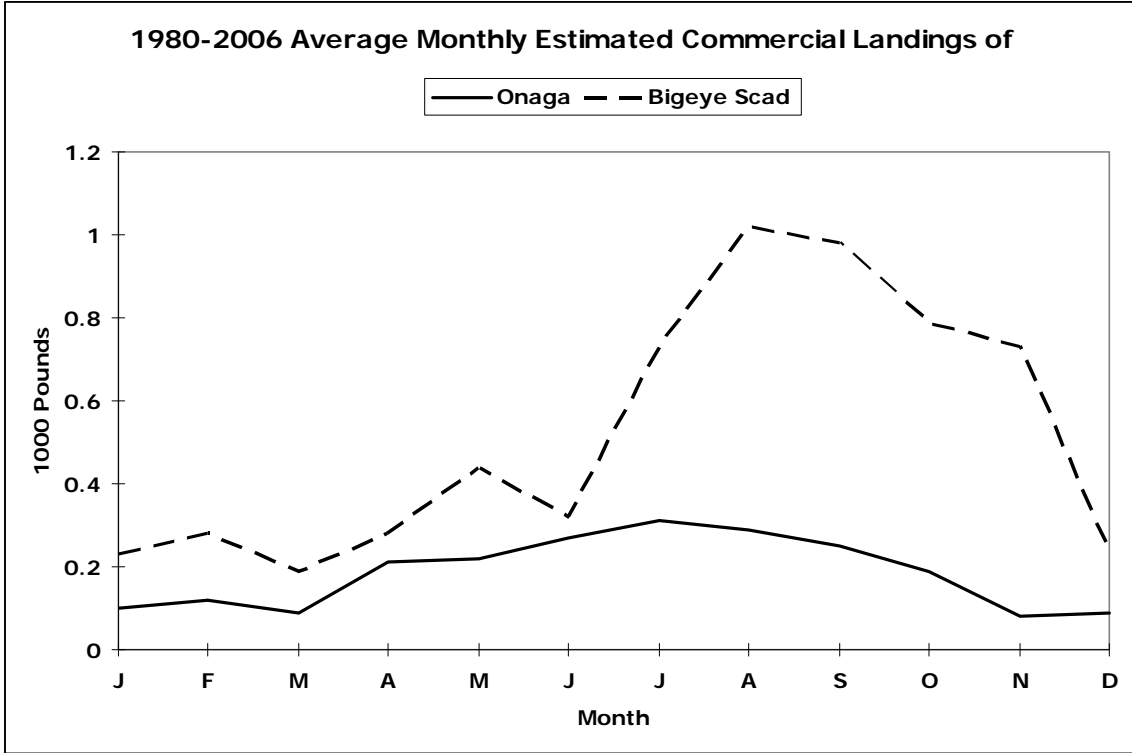


Figure C-2-3

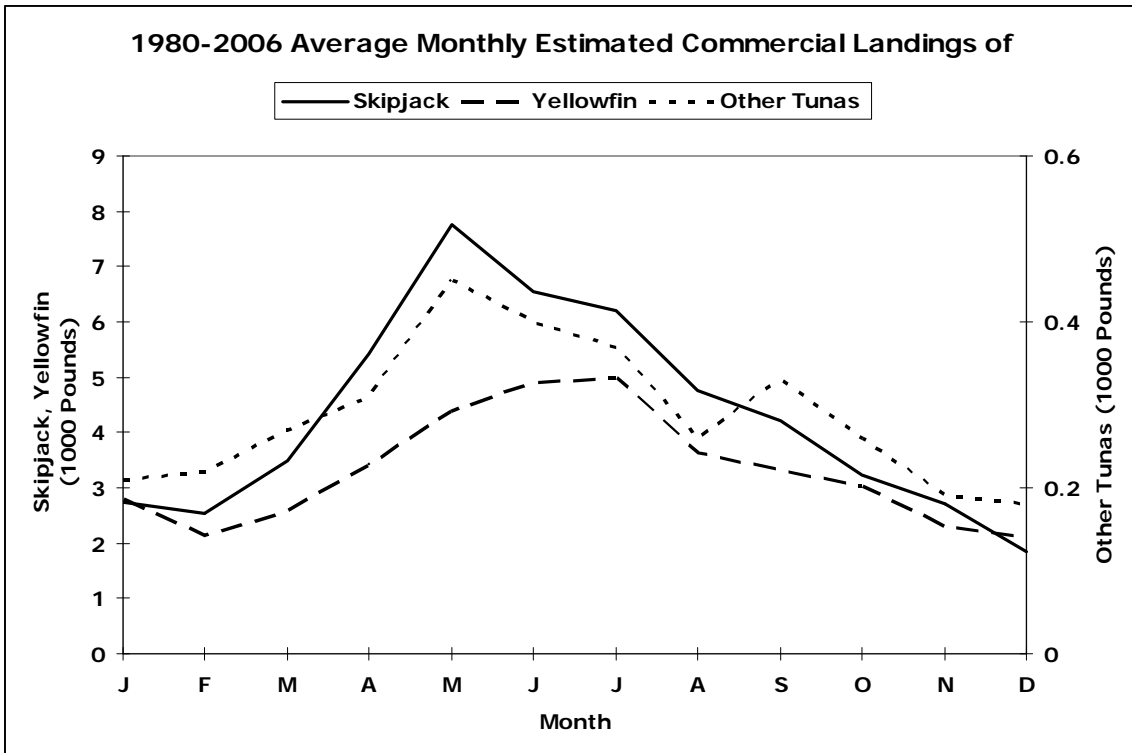


Figure C-2-4

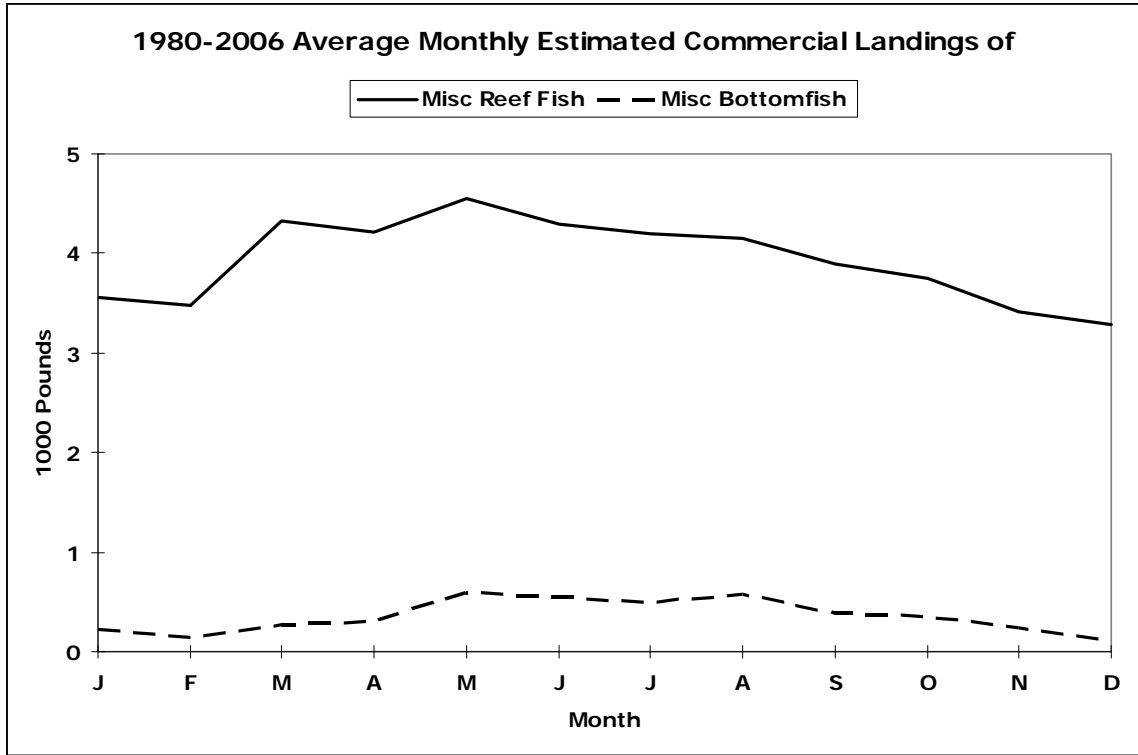


Figure C-2-5

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

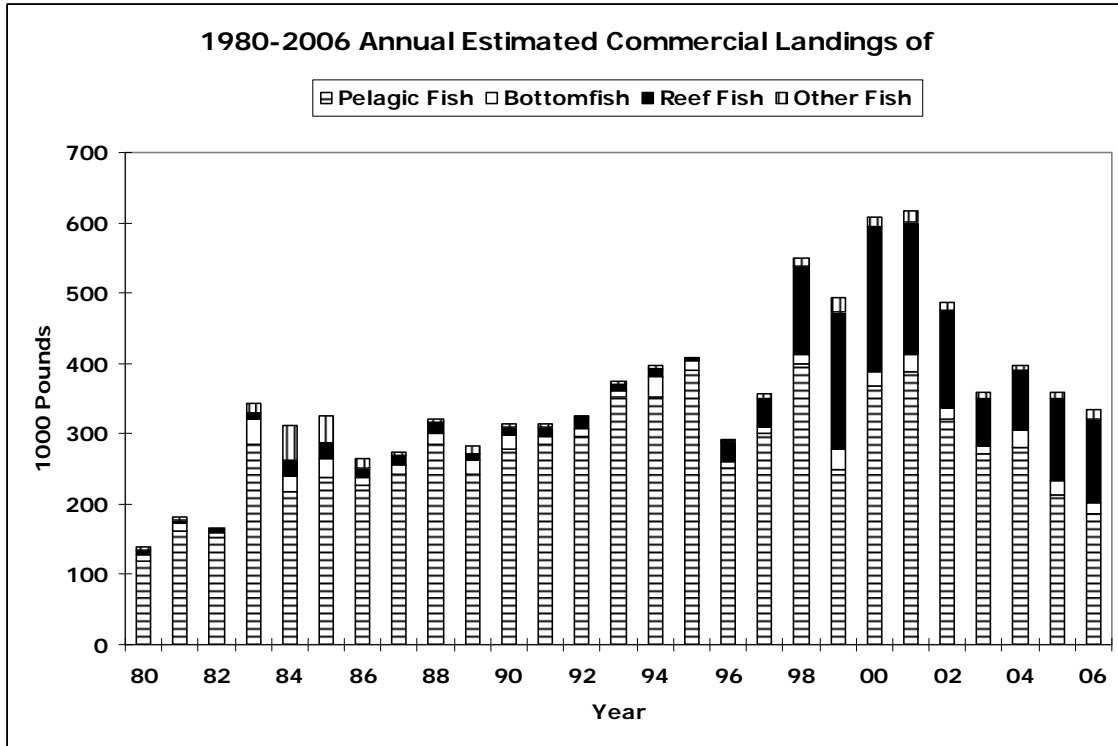


Figure C-3-1

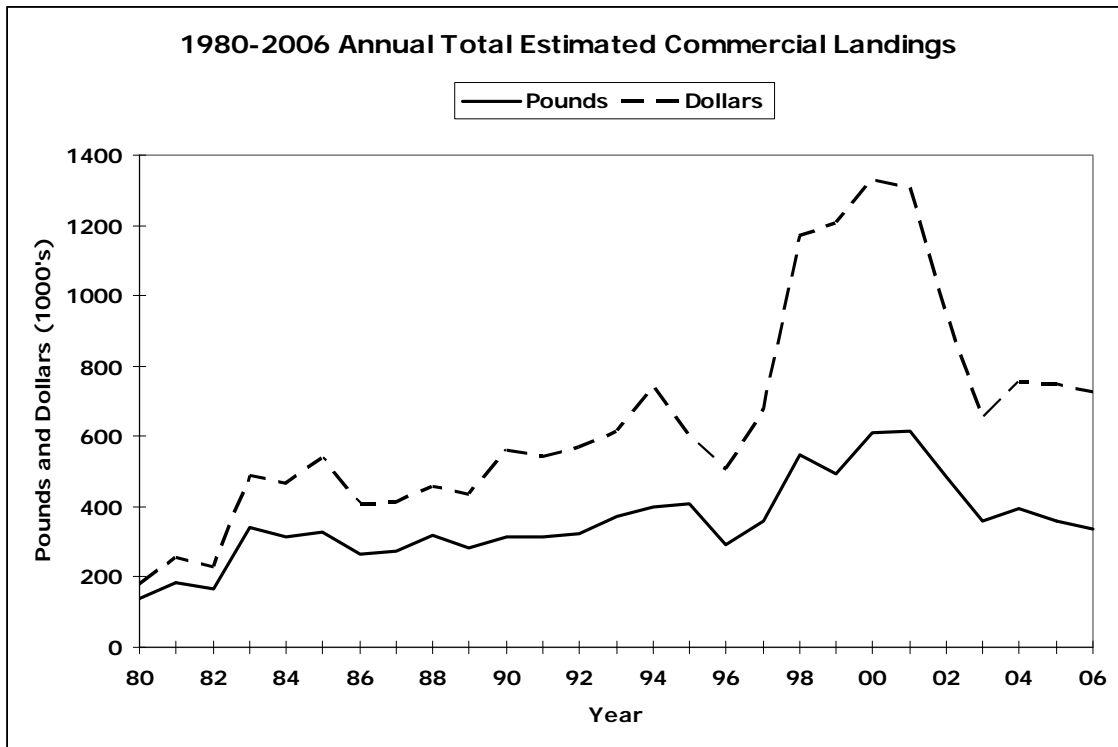


Figure C-3-2

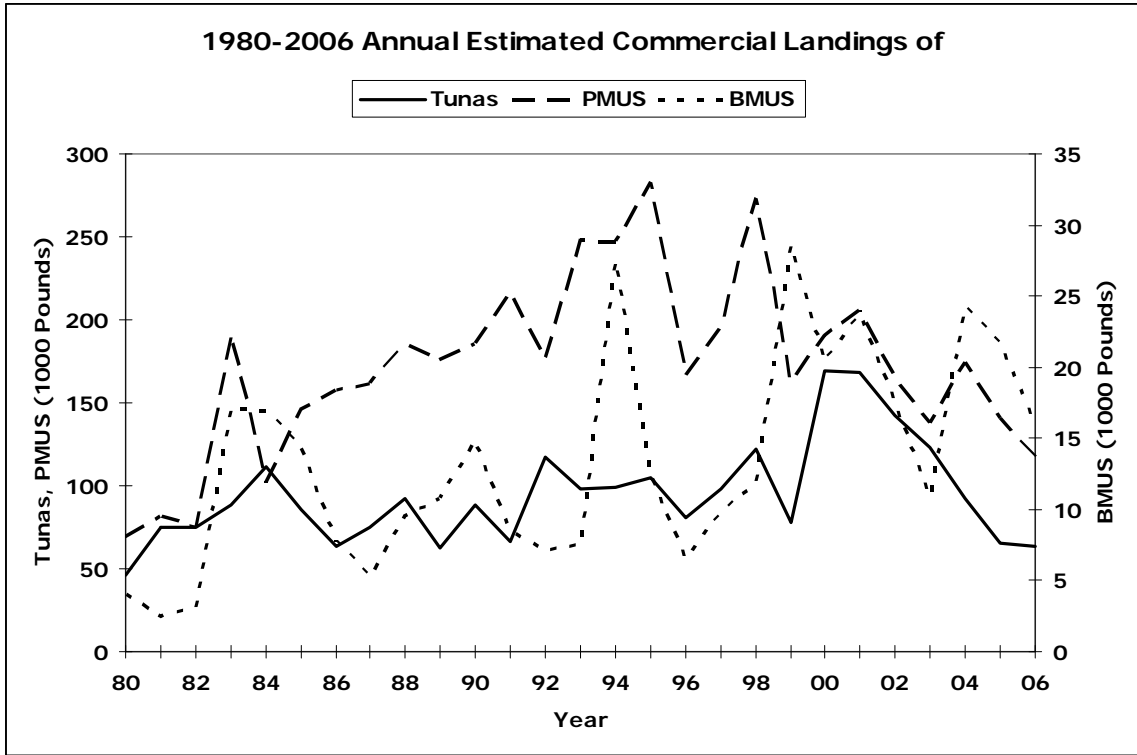


Figure C-3-3

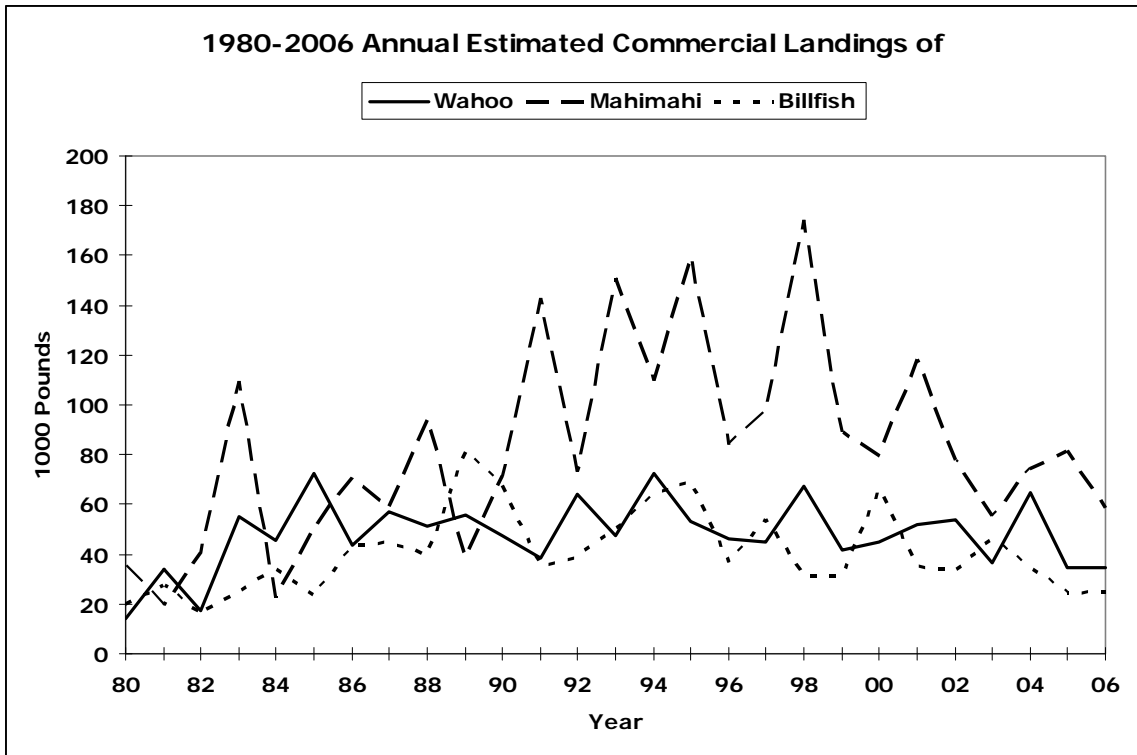


Figure C-3-4

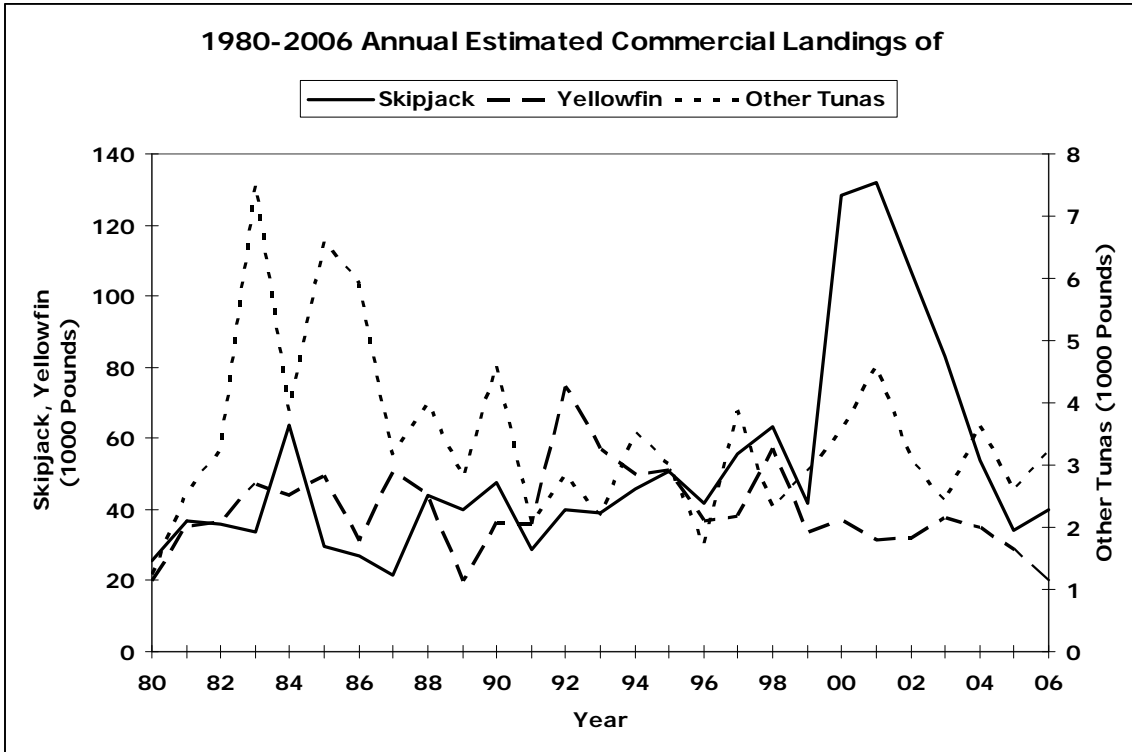


Figure C-3-5

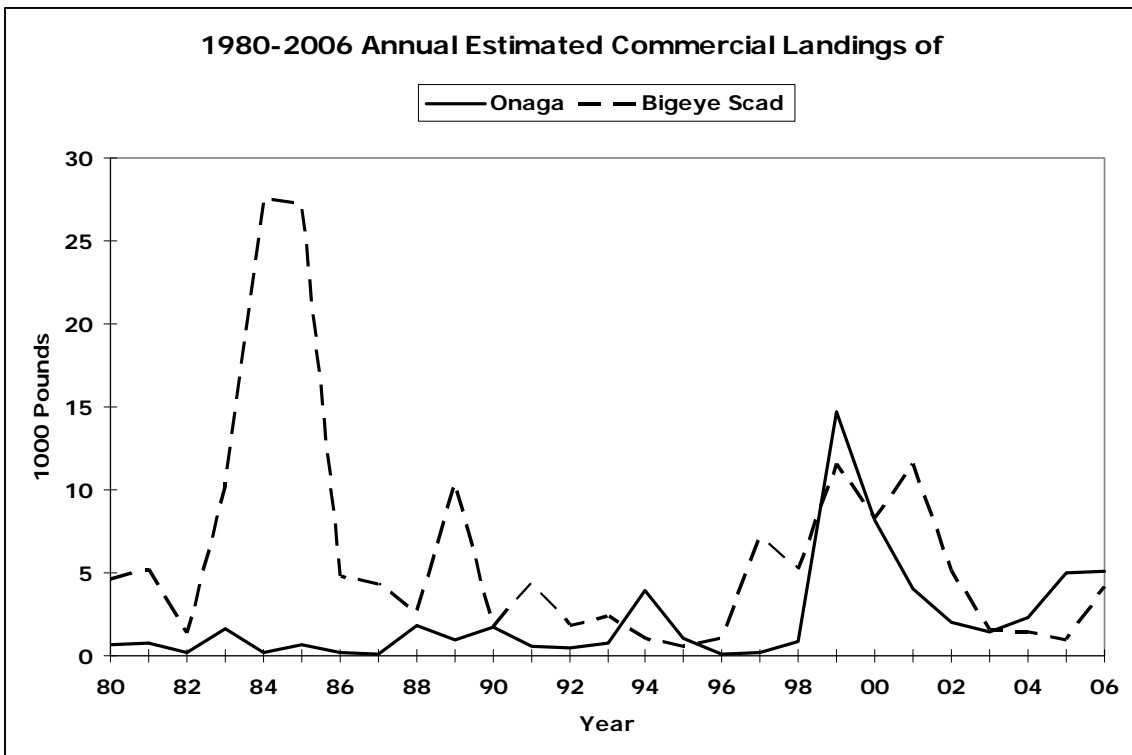


Figure C-3-6

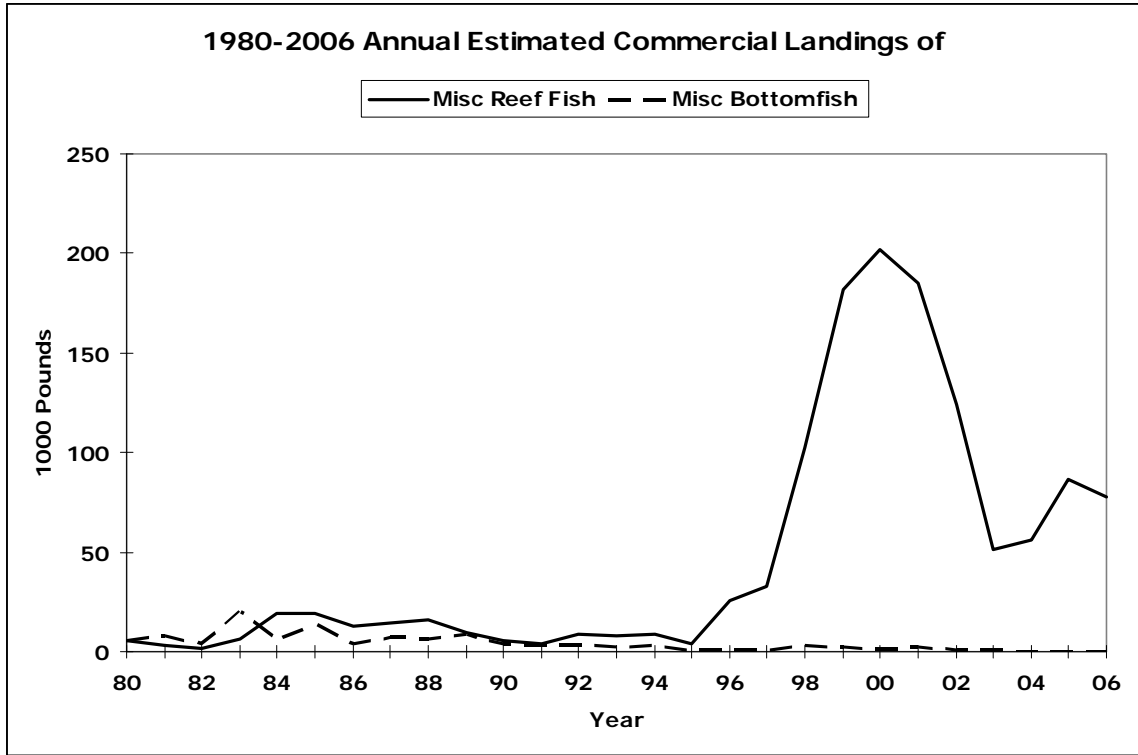


Figure C-3-7

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

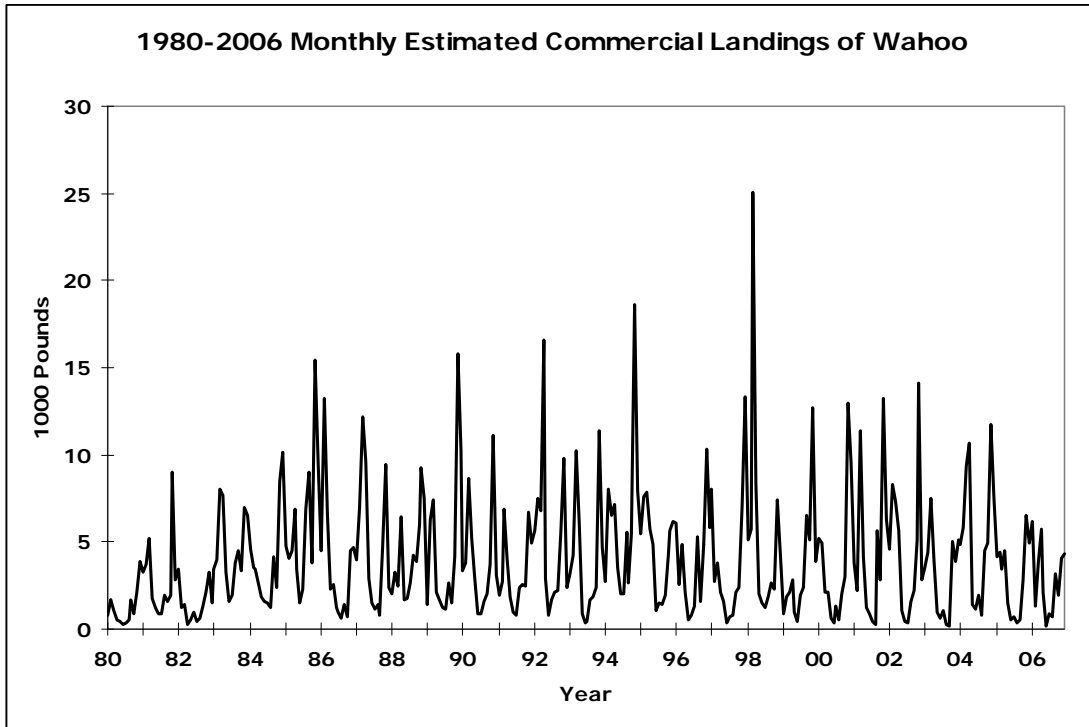


Figure C-4-1

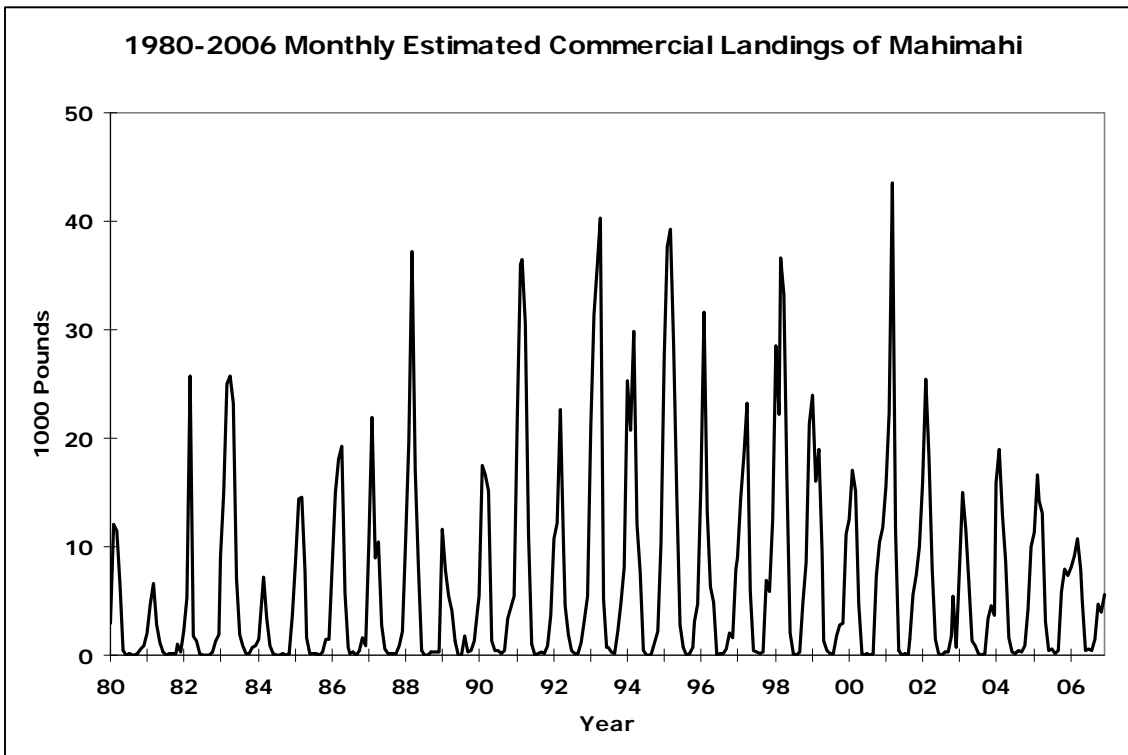


Figure C-4-2

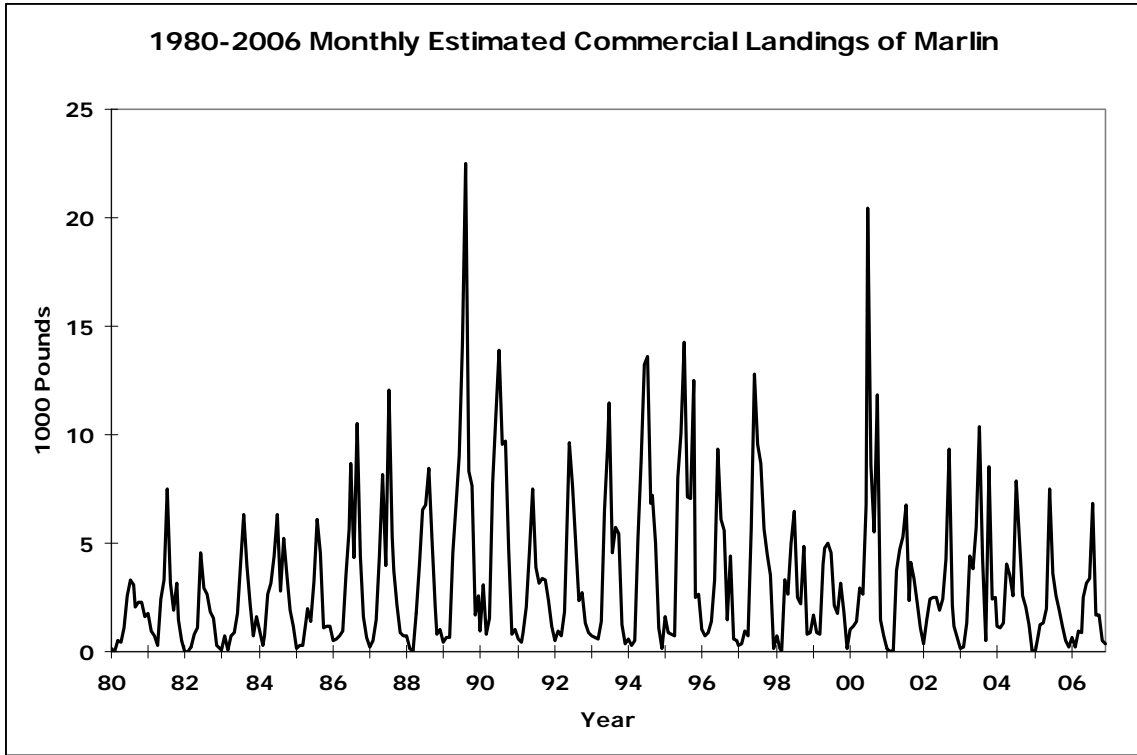


Figure C-4-3

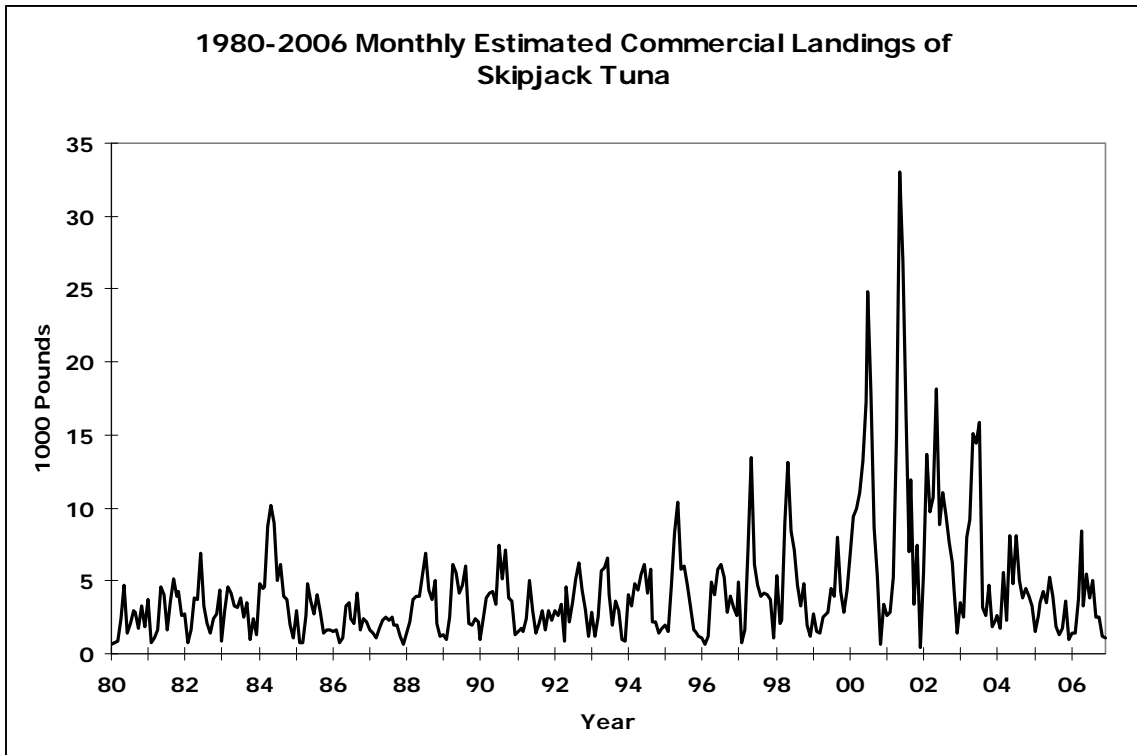


Figure C-4-4

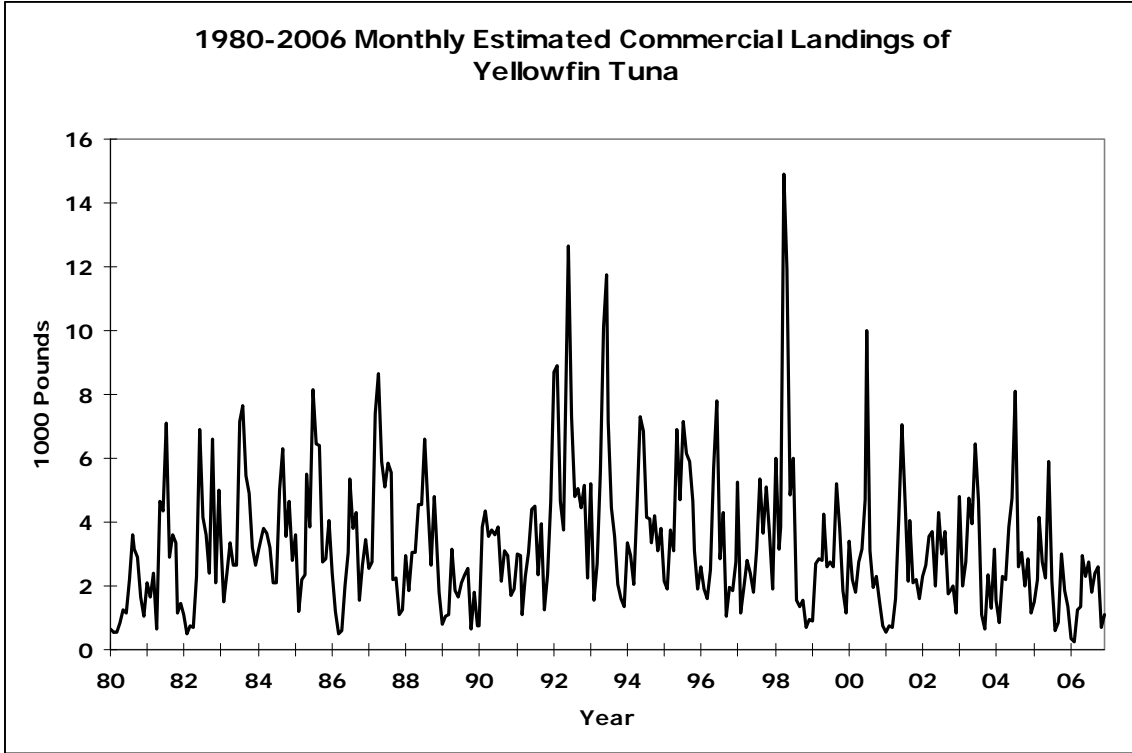


Figure C-4-5

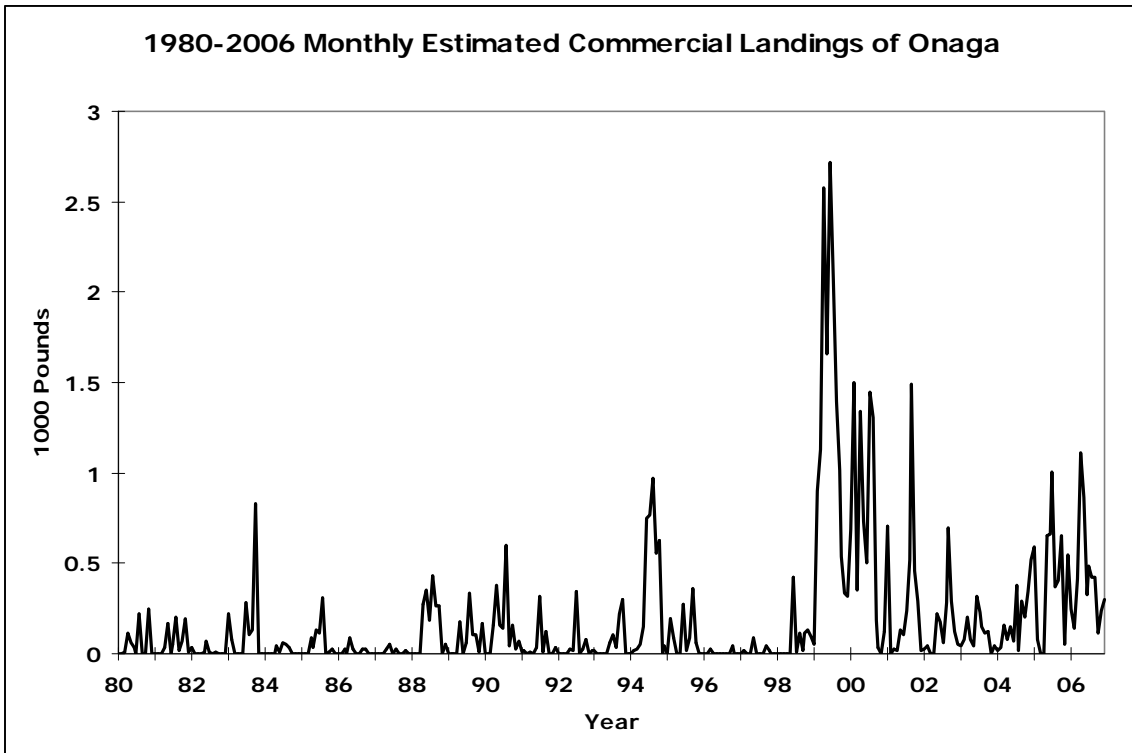


Figure C-4-6

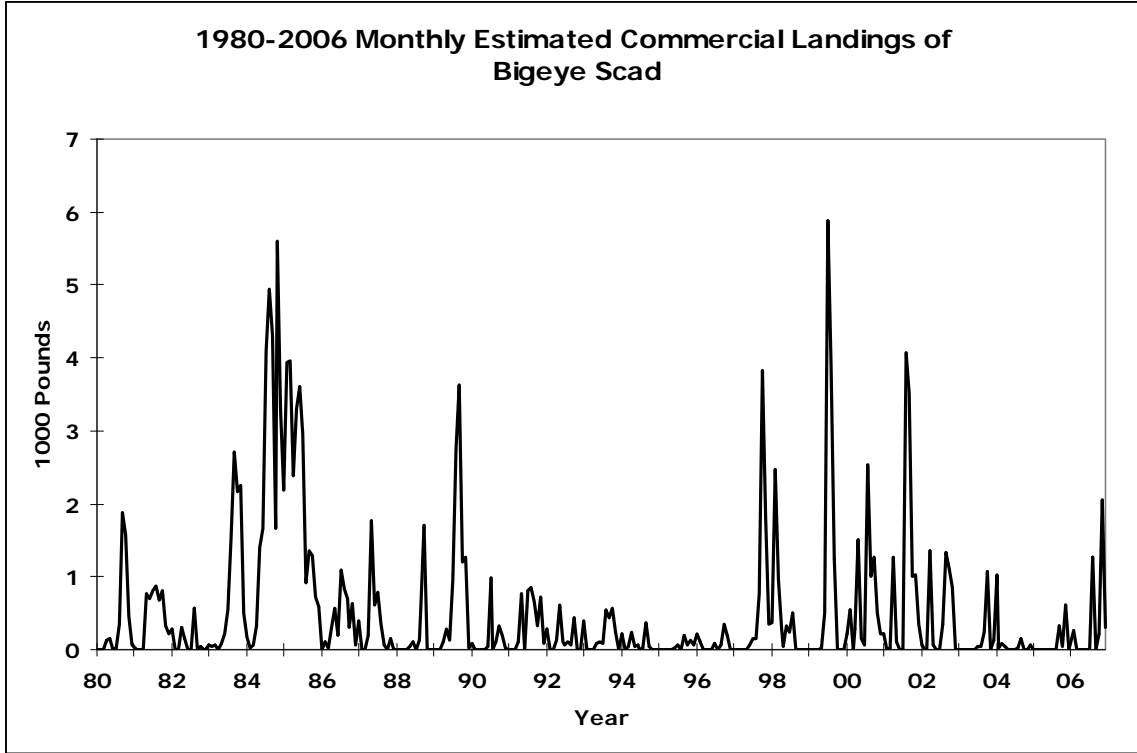


Figure C-4-7

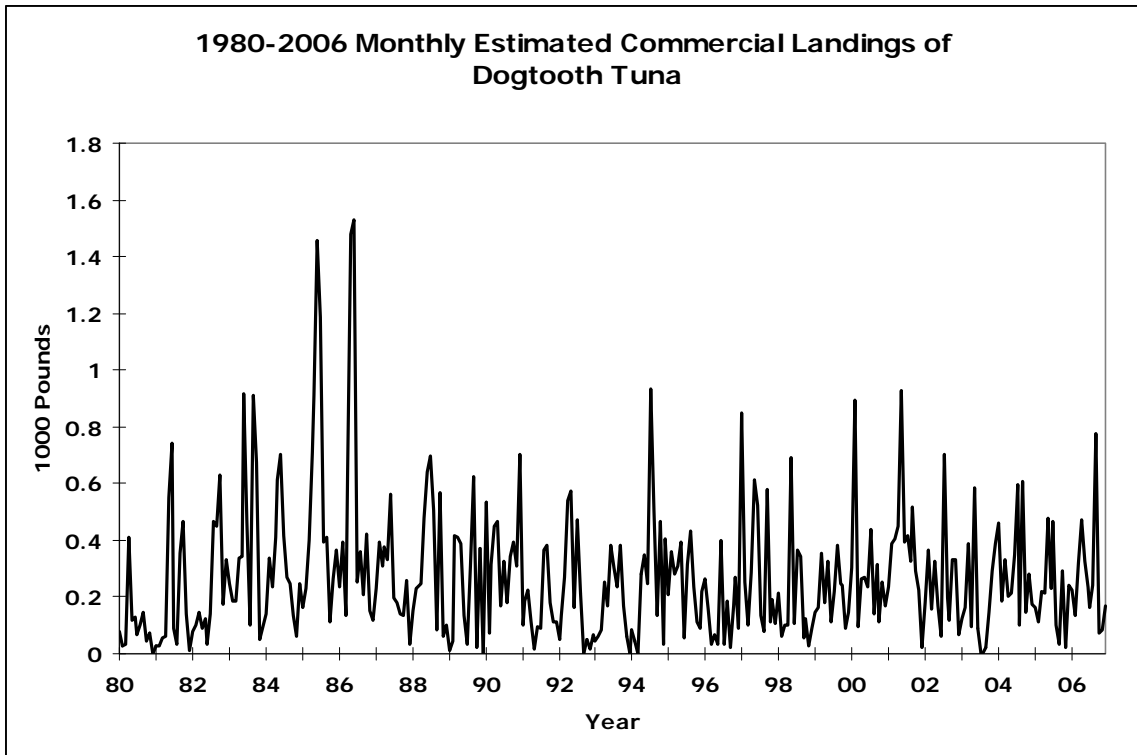


Figure C-4-8

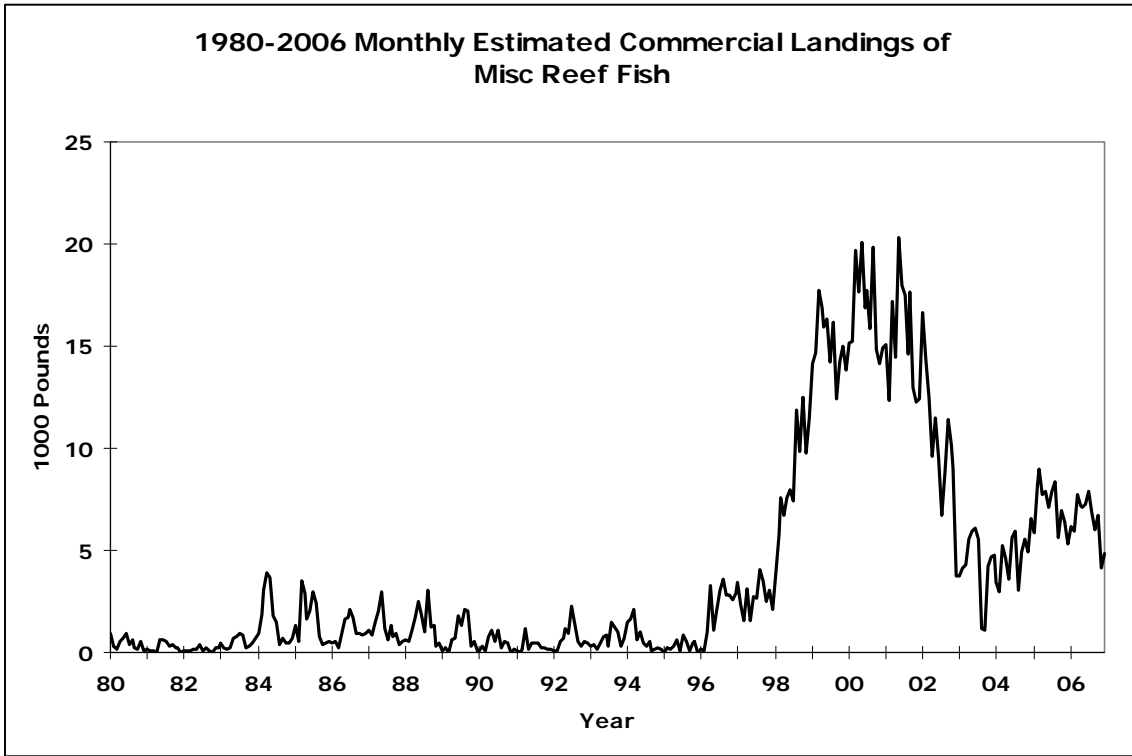


Figure C-4-9

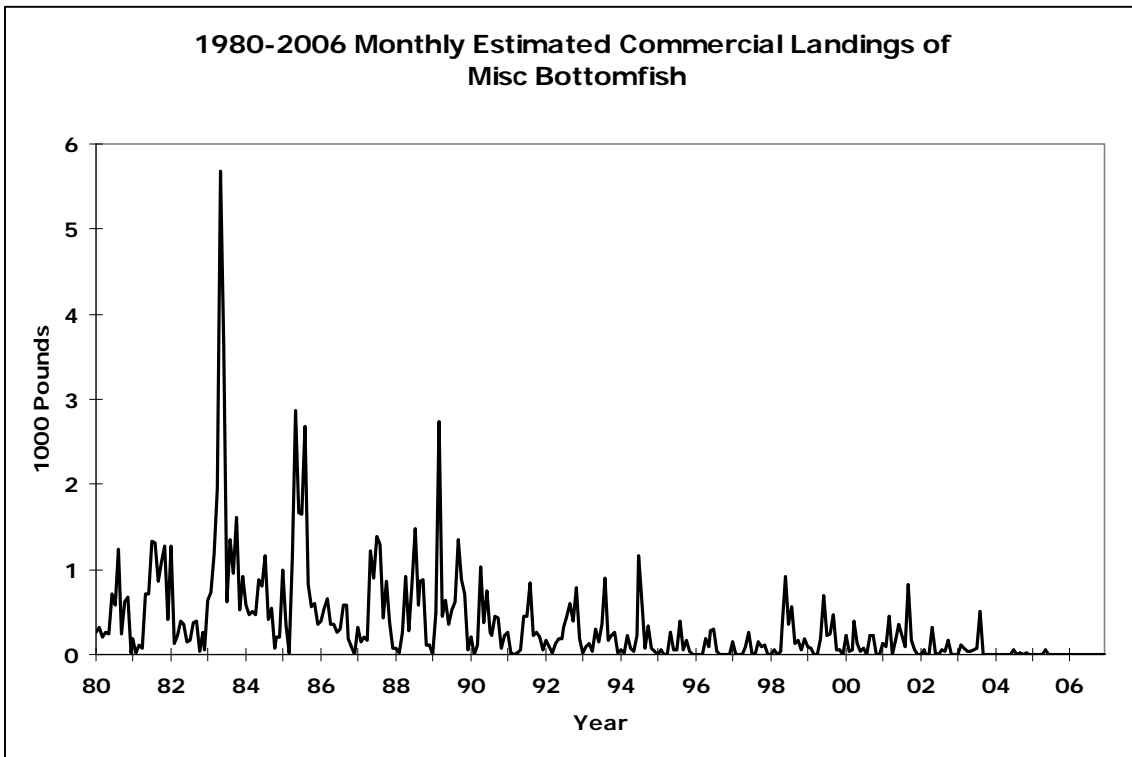


Figure C-4-10

STATE OF HAWAII 2006 FISHERY STATISTICS

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

September 2008

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STATE OF HAWAII 2006 FISHERY STATISTICS

INTRODUCTION

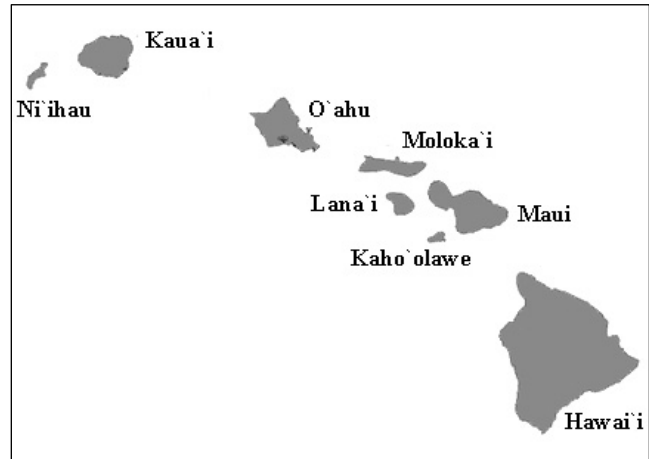
The Hawaiian Archipelago stretches northwestward over 1,500 miles.

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

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

Population: 1,286,000 (*The State of Hawaii Data Book, 2006 Update*)

Commercial Catch Breakdown (lbs):
86% on Oahu, 11% on Hawaii (Big Island), 2% on Maui, and about 1% on other islands



Hawaiian Islands: copied and modified from:
http://satftp.soest.hawaii.edu/space/hawaii/maps/All_Islands_map.710x509.gif
SOEST Satlab Server

The fisheries of the State of Hawaii are quite diverse; they vary from shore-based algae harvesting by hand to large-vessel fisheries such as longlining and lobster fishing. There are several major fisheries: tuna fishing through various methods, lobster trapping, hook-and-line bottomfishing for the grouper-snapper-jack complex, net fishing for species such as the bigeye scad, and trolling for such pelagic species as marlin, wahoo, and mahimahi.

In 2001, prohibitions were placed on landing shark fins without their associated carcasses and on making shallow-sets with longline gear to target swordfish. Shark and swordfish catches dropped dramatically, and longline effort significantly shifted from swordfish to tunas.

In 2004, the swordfish fishery was reopened due to new technology that reduced sea turtle bycatch. With the reopening, new regulations were implemented that required fishing vessels to have a shallow-set certificate for each deployment of shallow-set longline fishing gear. A limited number of certificates were made available for purchase each year. In addition, the swordfish fishery would close for the remainder of the year if the number of allowable interactions with leatherback (16) or loggerhead (17) sea turtles was reached.

Commercial fishing (i.e., selling catches or providing charter fishing services) in Hawaii requires purchasing a commercial marine fishing license. In year 2006, there were 3166 licensed commercial fishers. The summary catch data for 2006 were created from a combination of Hawaii Division of Aquatic Resources' (HDAR) fishers and dealer reporting forms processed through their Dealer Reporting System (DRS) and Fisherman Reporting System (FRS), as well as fishery reporting forms (including federal longline logbooks). It is believed to represent over 95% of what may eventually be submitted and processed.

DATA COLLECTING PROGRAMS

Previously, data processed in the Reported Landings tables and charts presented in this section were collected from various 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 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.

D.3

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.

No real measurement is available for what percent of the total commercial catch is actually reported to HDAR via fishers and dealers, but estimates have ranged from about 10% to over 99%, depending on the species and fishery. The overall percent coverage was probably over 80% for all commercial fisheries combined in 2006.

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. Marine pond catches are included in the species totals, but make up less than 0.4% of the total landings for each year.

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 that are used in the tables and graphs of Hawaii'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 (dolphin) Wahoo
 - Blue marlin Black marlin
 - Striped marlin Shortnose spearfish
 - Sailfish Broadbill swordfish
 - Sharks Billfish (misc)

- II. Bottomfish Management Unit Species (BMUS)
 - Pig-lipped ulua Blue-lined snapper
 - Hawaiian grouper Gindai (flower snapper)
 - Ehu (red snapper) Lehi (silverjaw)
 - Golden kalekale Opakapaka (pink snapper)
 - Onaga (red snapper) Black ulua
 - Uku (gray snapper) Porgy
 - Amberjack Yellow-tail kali
 - White ulua

- III. Billfish
 - Billfish (misc) Blue marlin
 - Black marlin Striped marlin
 - Shortnose spearfish Sailfish
 - Broadbill swordfish

- IV. Tunas
 - Yellowfin tuna Skipjack tuna
 - Bigeye tuna Albacore

- V. Other Tunas
 - Tunas (misc)
 - Kawakawa

VI. Fisheries Categories

- A. Pelagic Species (All PMUS and tuna species including the following:)
- | | |
|-------------------|---------------------|
| Barracuda | Pelagic fish (misc) |
| Japanese mackerel | Rainbow runner |
| Moonfish (opah) | Pomfret |
| Oil fish | Rays |
- B. Bottomfish (All BMUS plus the following:)
- | | |
|-------------------|----------------|
| Blue trevally | Jacks (misc) |
| Papa ulua | Snake mackerel |
| Dobe ulua | Snappers |
| Blue spot grouper | |
- C. Reef Fish
- | | |
|---------------|-------------------|
| Bigeyes | Reef fish (misc) |
| Damselfish | Reef jacks (misc) |
| Filefish | Rudderfish |
| Flounders | Scorpionfish |
| Goatfish | Squirrelfish |
| Gobies | Surgeon/tangs |
| Hawkfish | Tilapia |
| Mountain bass | Triggerfish |
| Parrotfish | Trumpetfish |
| Pufferfish | Wrasse |
- D. Other
- | | |
|---------------------|---------------------|
| Miscellaneous | Silversides |
| Eels | Algae |
| Mackerel scad | Bigeye scad (akule) |
| Armorhead | Leatherjacket |
| Bonefish | Ten pounder |
| Milkfish | Herring/sardine |
| Needlefish | Flying fish |
| Threadfin | Mullet |
| Freshwater fish | Spiny lobster |
| Slipper lobster | Crabs |
| Shrimp (freshwater) | Shrimp (saltwater) |
| Octopus | Squid |
| Limpets (saltwater) | Sea turtles |
| Clams | Invertebrates |

Table D-1
Hawaii 2006 Annual Reported Commercial Landings

Species	Caught	Sold	Value	Price /Lb
Miscellaneous	5,794	4,958	\$5,980	\$1.21
Sharks	375,902	270,718	\$150,045	\$0.55
Rays	18	0	\$0	\$0.00
Eels	933	933	\$1,047	\$1.12
Bigeye scad (akule)	556,865	237,129	\$553,597	\$2.33
Mackerel scad	318,454	203,882	\$463,250	\$2.27
Leatherjacket	555	420	\$762	\$1.82
Ten pounder	1,365	1,016	\$1,021	\$1.01
Bonefish	6,222	4,127	\$4,406	\$1.07
Milkfish	3,142	2,279	\$2,949	\$1.29
Needlefish	553	314	\$512	\$1.63
Threadfin	892	404	1,945	\$4.81
Mullet	8,627	8,011	\$28,264	\$3.53
Pomfret	596,360	575,815	\$1,310,697	\$2.28
Oilfish	414,145	414,145	\$832,939	\$2.01
Jacks (misc)	1,605	1,316	\$2,731	\$2.08
Amberjack	4,582	323	\$530	\$1.64
Sasa ulua	954	512	\$679	\$1.33
Pig-lipped ulua	10,609	9,323	\$24,030	\$2.58
Dobe ulua	1,369	439	\$1,293	\$2.95
Papa ulua	4,438	3,102	\$10,506	\$3.39
White ulua	11,015	7,686	\$16,392	\$2.13
Black ulua	1,092	367	\$543	\$1.48
Blue trevally	4,162	2,626	\$5,276	\$2.01
Hawaiian grouper	32,154	26,742	\$139,156	\$5.20
Blue spot grouper	724	222	\$635	\$2.86
Snappers	2,460	1,950	\$7,334	\$3.76
Yellow-tail kali	58	2	\$9	\$3.75
Blue lined snapper	31,452	22,237	\$29,382	\$1.32
Ehu (red snapper)	23,267	18,406	\$93,991	\$5.11
Gindai (flower snapper)	3,894	3,199	\$10,544	\$3.30
Golden kalekale	8,084	6,794	\$23,595	\$3.47
Lehi (silverjaw)	7,420	7,021	\$24,027	\$3.42
Onaga (red snapper)	106,837	92,868	\$633,466	\$6.82
Opakapaka (pink snapper)	104,194	88,314	\$507,289	\$5.74
Uku (gray snapper)	162,061	143,083	\$446,718	\$3.12
Snake mackerel	3	1	\$2	\$1.91
Porgy	1,316	1,222	\$3,906	\$3.20
Reef fish (misc)	420	415	\$419	\$1.01
Reef jacks	70	27	\$93	\$3.50
Squirrelfish	27,988	27,304	\$105,048	\$3.85
Trumpetfish	38	35	\$60	\$1.72
Scorpionfish	2,721	2,104	\$8,089	\$3.84
Mountain bass	1,399	840	\$3,179	\$3.79
Bigeyes	3,283	3,055	\$9,795	\$3.21
Goatfish	41,990	30,854	\$92,763	\$3.01

Table D-1
Hawaii 2006 Annual Reported Commercial Landings (continued)

Species	Caught	Sold	Value	Price/Lb
Rudderfish	36,162	35,085	\$36,073	\$1.03
Damselfish	2,210	1,253	\$3,204	\$2.56
Hawkfish	369	365	\$916	\$2.51
Tilapia	8,210	605	\$1,145	\$1.89
Wrasse	5,043	3,489	\$15,822	\$4.54
Parrotfish	31,606	25,889	\$85,630	\$3.31
Surgeon/tangs	74,622	66,043	\$111,533	\$1.69
Flounders	135	125	\$284	\$2.28
Filefish	1,550	1,516	\$2,906	\$1.92
Pufferfish	1	0	\$0	\$0.00
Other pelagic	625	43	\$5	\$0.12
Moonfish (opah)	1,089,224	1,071,178	\$1,873,179	\$1.75
Rainbow runner	1,994	1,788	\$3,665	\$2.05
Mahimahi (dolphin)	1,527,525	1,342,465	\$3,642,280	\$2.71
Barracudas	33,616	31,662	\$30,352	\$0.96
Wahoo	1,005,367	891,298	\$2,329,190	\$2.61
Tunas (misc)	14,814	344	\$1,028	\$2.99
Skipjack tuna	1,081,805	867,532	\$1,195,866	\$1.38
Yellowfin tuna	3,200,420	3,031,474	\$7,938,078	\$2.62
Albacore	788,327	765,692	\$1,283,705	\$1.68
Bigeye tuna	10,523,651	9,965,857	\$33,665,656	\$3.38
Kawakawa	10,822	2,927	\$5,342	\$1.83
Other billfish	9,237	271	\$347	\$1.28
Broadbill swordfish	3,200,205	2,513,807	\$5,125,026	\$2.04
Blue marlin	1,216,168	946,133	\$971,012	\$1.03
Black marlin	10,882	8,947	\$9,873	\$1.10
Striped marlin	1,434,630	1,434,388	\$1,577,279	\$1.10
Shortnose spearfish	379,591	356,160	\$372,053	\$1.04
Sailfish	23,651	18,184	\$15,303	\$0.84
Spiny lobster	7,896	6,339	\$61,226	\$9.66
Slipper lobster	18	3	\$24	\$8.00
Crabs	28,920	8,672	\$37,505	\$4.32
Shrimp (saltwater)	42,750	5	\$30	\$5.82
Octopus	21,085	18,144	\$61,591	\$3.39
Squid	2,057	1,902	\$4,711	\$2.48
Limpets (saltwater)	11,160	5,072	\$57,042	\$11.2
Invertebrates	3,410	366	\$7,332	\$20.0
Algae	7,456	6,820	\$33,808	\$4.96
TOTAL	28,728,695	25,658,378	\$66,118,917	\$2.58

Table D-2
Hawaii January 2006 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb
Miscellaneous	42	42	\$64	\$1.52
Sharks	24,901	20,925	\$10,137	\$0.48
Eels	53	53	\$53	\$1.01
Bigeye scad (akule)	24,886	10,272	\$24,173	\$2.35
Mackerel scad	25,666	16,361	\$35,776	\$2.19
Leatherjacket	28	23	\$31	\$1.36
Ten pounder	55	14	\$14	\$1.00
Bonefish	141	130	\$203	\$1.56
Milkfish	85	28	\$34	\$1.25
Needlefish	5	5	\$6	\$1.25
Threadfin	260	98	\$513	\$5.26
Mullet	41	0	\$0	\$0.00
Pomfret	33,788	30,868	\$87,446	2.83
Oilfish	40,248	40,248	\$63,168	\$1.57
Jacks (misc)	98	98	\$231	\$2.36
Amberjack	714	61	\$60	\$0.98
Sasa ulua	6	6	\$15	\$2.42
Pig-lipped ulua	1,098	854	\$2,243	\$2.63
Dobe ulua	202	4	\$5	\$1.50
Papa ulua	283	277	\$1,008	\$3.64
White ulua	446	358	\$901	\$2.52
Black ulua	263	65	\$97	\$1.50
Blue trevally	324	324	\$340	\$1.05
Hawaiian grouper	1,735	962	\$5,570	\$5.79
Blue spot grouper	65	5	\$12	\$2.59
Snappers	52	16	\$41	\$2.57
Yellow-tail kali	6	0	\$0	\$0.00
Blue lined snapper	1,760	1,060	\$1,265	\$1.19
Ehu (red snapper)	1,246	630	\$3,417	\$5.42
Gindai (flower snapper)	157	97	\$362	\$3.73
Golden kalekale	645	307	\$1,124	\$3.66
Lehi (silverjaw)	674	674	\$2,181	\$3.24
Onaga (red snapper)	7,241	3,361	\$25,212	\$7.50
Opakapaka (pink snapper)	8,955	3,859	\$23,315	\$6.04
Uku (gray snapper)	12,349	8,273	\$32,618	\$3.94
Porgy	29	23	\$67	\$2.93
Reef fish (misc)	5	5	\$2	\$0.31
Reef jacks	2	0	\$0	\$0.00
Squirrelfish	1,378	1,378	\$3,908	\$2.84
Trumpetfish	8	8	\$18	\$2.25
Scorpionfish	122	76	\$283	\$3.74
Mountain bass	244	115	\$751	\$6.51
Bigeyes	176	132	\$388	\$2.95
Goatfish	2,678	1,270	\$4,323	\$3.40
Rudderfish	4,040	4,040	\$4,081	\$1.01
Damselfish	157	68	\$189	\$2.80

Table D-2
Hawaii January 2006 Reported Commercial Landings (continued)

Species	Caught	Sold	Value	Price/Lb
Hawkfish	35	35	\$92	\$2.67
Tilapia	537	377	\$660	\$1.75
Wrasse	508	508	\$2,195	\$4.32
Parrotfish	829	379	\$1,073	\$2.83
Surgeon/tangs	5,465	3,911	\$5,761	\$1.47
Flounders	67	67	\$173	\$2.59
Filefish	111	111	\$192	\$1.73
Pufferfish	1	0	\$0	\$0.00
Other pelagic	240	14	\$1	\$0.10
Moonfish (opah)	50,860	49,125	\$123,781	\$2.52
Rainbow runner	119	90	\$222	\$2.47
Mahimahi (dolphin)	63,207	54,579	\$153,059	\$2.80
Barracudas	637	265	\$130	\$0.49
Wahoo	30,267	27,074	\$92,436	\$3.41
Tunas (misc)	248	0	\$0	\$0.00
Skipjack tuna	16,793	6,774	\$8,152	\$1.20
Yellowfin tuna	219,950	207,480	\$475,418	\$2.29
Albacore	45,389	40,411	\$80,496	\$1.99
Bigeye tuna	1,046,258	940,926	\$3,061,728	\$3.25
Kawakawa	381	182	\$330	\$1.82
Other billfish	61	61	\$137	\$2.25
Broadbill swordfish	286,339	238,848	\$687,078	\$2.88
Blue marlin	30,543	20,176	\$34,607	\$1.72
Black marlin	96	96	\$224	2.32
Striped marlin	59,948	59,948	\$129,029	\$2.15
Shortnose spearfish	32,952	29,272	\$42,690	\$1.46
Sailfish	1,072	115	\$144	\$1.26
Spiny lobster	1,364	1,067	\$10,397	\$9.74
Crabs	2,539	945	\$3,392	\$3.59
Shrimp (saltwater)	6,158	0	\$0	\$0.00
Octopus	1,738	1,165	\$3,835	\$3.29
Squid	370	370	\$1,110	\$3.00
Limpets (saltwater)	650	179	\$3,000	\$16.7
Invertebrates	600	0	\$0	\$0.00
Algae	1,094	1,094	\$4,732	\$4.32
TOTAL	2,104,778	1,833,110	\$5,261,922	\$2.87

**Table D-3
Hawaii February 2006 Reported Commercial Landings**

Species	Caught	Sold	Value	Price/Lb
Miscellaneous	102	92	\$58	\$0.63
Sharks	22,065	19,679	\$10,816	\$0.55
Eels	84	84	\$84	\$1.00
Bigeye scad (akule)	69,079	23,251	\$52,397	\$2.25
Mackerel scad	19,958	10,178	\$24,396	\$2.40
Leatherjacket	27	4	\$5	\$1.50
Ten pounder	6	6	\$6	\$1.00
Bonefish	1,046	1,046	\$1,057	\$1.01
Milkfish	50	0	\$0	\$0.00
Threadfin	81	23	\$111	\$4.94
Mullet	3	0	0	\$0.00
Pomfret	26,840	25,940	77,941	\$3.00
Oilfish	42,737	42,737	\$91,394	\$2.14
Jacks (misc)	50	46	\$58	\$1.26
Amberjack	778	63	\$78	\$1.23
Sasa ulua	10	9	\$22	\$2.42
Pig-lipped ulua	2,258	2,258	\$4,815	\$2.13
Dobe ulua	250	50	\$125	\$2.50
Papa ulua	394	394	\$1,256	\$3.19
White ulua	1,127	737	1,524	\$2.07
Black ulua	180	180	\$228	\$1.27
Blue trevally	226	226	\$509	\$2.26
Hawaiian grouper	2,767	2,522	\$13,432	\$5.33
Blue spot grouper	76	0	\$0	\$0.00
Snappers	130	122	\$493	\$4.05
Yellow-tail kali	23	0	\$0	\$0.00
Blue lined snapper	3,116	3,116	\$3,952	\$1.27
Ehu (red snapper)	2,814	2,677	\$11,896	\$4.44
Gindai (flower snapper)	569	569	\$1,992	\$3.50
Golden kalekale	991	962	\$3,516	\$3.66
Lehi (silverjaw)	1,002	978	\$3,285	\$3.36
Onaga (red snapper)	11,976	10,694	\$68,383	\$6.39
Opakapaka (pink snapper)	15,362	12,854	\$73,948	\$5.75
Uku (gray snapper)	15,141	11,272	\$34,097	\$3.02
Snake mackerel	1	1	\$2	\$1.91
Porgy	65	65	\$199	\$3.06
Reef fish (misc)	33	33	\$33	\$1.00
Squirrelfish	1,482	1,482	\$5,454	\$3.68
Trumpetfish	18	18	\$34	\$1.85
Scorpionfish	214	120	\$484	\$4.03
Mountain bass	206	148	\$454	3.06
Bigeyes	240	240	\$748	\$3.12
Goatfish	3,786	1,683	\$4,708	\$2.80
Rudderfish	96	69	\$96	\$1.38
Damselfish	118	20	\$61	\$2.98
Hawkfish	13	13	\$33	\$2.50

Table D-3
Hawaii February 2006 Reported Commercial Landings (continued)

Species	Caught	Sold	Value	Price/Lb
Tilapia	785	0	\$0	\$0.00
Wrasse	354	354	\$1,906	\$5.39
Parrotfish	1,576	1,576	\$4,935	\$3.13
Surgeon/tangs	5,324	5,324	\$9,145	\$1.72
Flounders	5	5	\$5	\$1.00
Filefish	202	202	\$345	\$1.71
Other pelagic	48	9	\$2	\$0.20
Moonfish (opah)	42,400	40,613	\$117,832	\$2.90
Rainbow runner	122	122	\$311	\$2.56
Mahimahi (dolphin)	105,561	86,039	\$226,120	\$2.63
Barracudas	881	521	\$709	\$1.36
Wahoo	36,937	32,996	\$125,825	\$3.81
Misc tunas	441	0	\$0	\$0.00
Skipjack tuna	18,631	4,448	\$6,609	\$1.49
Yellowfin tuna	329,539	313,308	\$910,904	\$2.91
Albacore	70,636	66,224	\$121,253	\$1.83
Bigeye tuna	899,624	860,016	\$3,027,891	\$3.52
Kawakawa	499	260	\$647	\$2.49
Broadbill swordfish	623,675	562,993	\$1,402,137	\$2.49
Blue marlin	31,885	25,796	\$51,398	\$1.99
Black marlin	509	415	\$975	\$2.35
Striped marlin	55,646	55,646	\$126,046	\$2.27
Shortnose spearfish	49,030	46,413	\$58,524	\$1.26
Sailfish	409	112	\$192	\$1.72
Spiny lobster	965	876	\$8,492	\$9.69
Crabs	1,546	698	\$3,428	\$4.91
Shrimp (saltwater)	21,638	0	\$0	\$0.00
Octopus	1,912	1,566	\$4,950	\$3.16
Limpets (saltwater)	1,121	579	\$5,546	\$9.57
Invertebrates	1,080	14	\$43	\$3.00
Algae	648	648	\$3,063	\$4.73
TOTAL	2,551,213	2,284,429	\$6,713,412	\$2.94

**Table D-4
Hawaii March 2006 Reported Commercial Landings**

Species	Caught	Sold	Value	Price/Lb
Miscellaneous	2,938	2,938	\$2,344	\$0.80
Sharks	23,707	20,451	\$12,846	\$0.63
Eels	38	38	\$40	\$1.05
Bigeye scad (akule)	23,302	11,093	\$27,427	\$2.47
Mackerel scad	10,610	6,526	\$16,199	\$2.48
Leatherjacket	11	11	\$13	\$1.20
Ten pounder	8	8	\$8	\$1.00
Bonefish	83	83	\$101	\$1.21
Milkfish	28	28	\$47	\$1.72
Needlefish	35	12	\$18	\$1.50
Threadfin	78	22	\$82	\$3.73
Mullet	11	11	\$30	\$2.73
Pomfret	43,964	41,334	\$112,130	\$2.71
Oilfish	44,559	44,559	\$85,571	\$1.92
Jacks (misc)	33	0	\$0	\$0.00
Amberjack	240	20	\$34	1.72
Sasa ulua	23	23	\$51	\$2.26
Pig-lipped ulua	1,754	1,337	\$3,560	\$2.66
Dobe ulua	143	143	\$491	\$3.43
Papa ulua	391	178	\$581	\$3.26
White ulua	969	498	\$1,131	\$2.27
Black ulua	25	0	\$0	\$0.00
Blue trevally	112	112	\$195	\$1.74
Hawaiian grouper	3,316	1,599	\$10,353	\$6.47
Blue spot grouper	65	49	\$123	\$2.50
Snappers	33	33	\$95	\$2.94
Blue lined snapper	1,613	1,395	\$2,144	\$1.54
Ehu (red snapper)	2,059	1,642	\$7,370	\$4.49
Gindai (flower snapper)	415	142	\$571	\$4.03
Golden kalekale	320	268	\$1,059	\$3.95
Lehi (silverjaw)	449	397	\$1,341	\$3.37
Onaga (red snapper)	7,240	7,240	\$48,022	\$6.63
Opakapaka (pink snapper)	6,710	6,710	\$39,908	\$5.95
Uku (gray snapper)	16,944	16,406	\$51,716	\$3.15
Porgy	78	78	\$250	\$3.20
Reef fish (misc)	34	34	\$41	\$1.22
Squirrelfish	1,145	1,145	\$4,639	\$4.05
Scorpionfish	183	183	\$596	\$3.26
Mountain bass	66	26	\$102	\$3.90
Bigeyes	83	83	\$279	\$3.38
Goatfish	1,886	1,886	\$5,511	\$2.92
Rudderfish	1,606	1,018	\$1,317	\$1.29
Damselfish	155	155	\$396	\$2.55
Hawkfish	13	10	\$26	\$2.70
Tilapia	1,271	0	\$0	\$0.00
Wrasse	198	150	\$1,091	\$7.26

Table D-4
Hawaii March 2006 Reported Commercial Landings (continued)

Species	Caught	Sold	Value	Price/Lb
Parrotfish	803	619	\$1,792	\$2.90
Surgeon/tangs	5,207	5,207	\$8,844	\$1.70
Flounders	2	2	\$4	\$2.00
Filefish	163	163	\$254	\$1.56
Moonfish (opah)	43,090	41,932	\$117,453	\$2.80
Rainbow runner	29	29	\$66	\$2.32
Mahimahi (dolphin)	204,508	181,990	\$413,414	\$2.27
Barracudas	2,845	2,845	\$3,340	\$1.17
Wahoo	99,573	90,269	\$236,058	\$2.62
Tunas (misc)	205	54	\$194	\$3.59
Skipjack tuna	25,697	14,296	\$27,600	\$1.93
Yellowfin tuna	321,944	311,205	\$890,858	\$2.86
Albacore	85,964	85,964	\$156,935	\$1.83
Bigeye tuna	676,548	654,626	\$2,366,149	\$3.61
Kawakawa	992	431	\$1,118	\$2.59
Other billfish	210	210	\$210	\$1.00
Broadbill swordfish	1,414,715	845,629	\$1,441,574	\$1.70
Blue marlin	54,969	49,286	\$66,962	\$1.36
Black marlin	471	0	\$0	\$0.00
Striped marlin	65,455	65,455	\$124,345	\$1.90
Shortnose spearfish	44,892	44,892	\$47,113	\$1.05
Sailfish	756	205	\$488	\$2.38
Spiny lobster	859	849	\$7,958	\$9.37
Crabs	2,963	1,216	\$5,881	\$4.84
Shrimp (saltwater)	12,269	0	\$0	\$0.00
Octopus	1,322	835	\$2,728	\$3.27
Squid	207	207	\$673	\$3.25
Limpets (saltwater)	1,618	630	\$4,870	\$7.73
Invertebrates	990	0	\$0	\$0.00
Algae	693	693	\$3,536	\$5.10
TOTAL	3,268,897	2,569,814	\$6,370,264	\$2.48

Table D-5
Hawaii April 2006 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb
Miscellaneous	199	117	\$139	\$1.19
Sharks	19,697	18,222	\$12,504	\$0.69
Eels	37	37	\$38	\$1.02
Bigeye scad (akule)	56,498	16,708	\$40,753	\$2.44
Mackerel scad	17,929	12,237	\$28,238	\$2.31
Leatherjacket	61	61	\$91	\$1.48
Ten pounder	189	189	\$194	\$1.03
Bonefish	549	127	\$147	\$1.16
Milkfish	222	222	\$273	\$1.23
Needlefish	21	21	\$31	\$1.53
Threadfin	131	48	\$268	\$5.58
Mullet	1,227	1,227	\$4,262	\$3.47
Pomfret	51,551	51,551	\$113,393	\$2.20
Oilfish	35,052	35,052	\$70,198	\$2.00
Jacks (misc)	53	11	\$44	\$4.00
Amberjack	162	26	\$40	\$1.50
Sasa ulua	14	4	\$7	\$1.98
Pig-lipped ulua	1,367	908	\$2,550	\$2.81
Dobe ulua	206	206	\$602	\$2.93
Papa ulua	203	116	\$300	\$2.59
White ulua	1,018	501	\$848	\$1.69
Black ulua	40	23	\$44	\$1.90
Blue trevally	299	169	\$374	\$2.21
Hawaiian grouper	2,751	2,470	\$10,650	\$4.31
Blue spot grouper	51	20	\$47	\$2.40
Snappers	118	118	\$445	\$3.76
Blue lined snapper	2,574	2,574	\$3,297	\$1.28
Ehu (red snapper)	1,323	925	\$3,910	\$4.23
Gindai (flower snapper)	368	368	\$638	\$1.73
Golden kalekale	287	136	\$552	\$4.05
Lehi (silverjaw)	116	83	\$279	\$3.37
Onaga (red snapper)	4,216	3,723	\$20,772	\$5.58
Opakapaka (pink snapper)	6,056	4,710	\$22,336	\$4.74
Uku (gray snapper)	26,298	21,307	\$47,977	\$2.25
Porgy	233	233	\$763	\$3.28
Reef fish (misc)	5	0	\$0	\$0.00
Reef jacks	5	0	\$0	\$0.00
Squirrelfish	2,244	2,244	\$7,558	\$3.37
Trumpetfish	2	0	\$0	\$0.00
Scorpionfish	114	74	\$310	\$4.19
Mountain bass	61	3	\$15	\$4.50
Bigeyes	280	280	\$774	2.77
Goatfish	4,086	4,086	\$9,683	\$2.37
Rudderfish	2,096	2,096	\$2,123	\$1.01
Damselfish	92	90	\$261	\$2.91
Hawkfish	37	37	\$93	\$2.50

Table D-5
Hawaii April 2006 Reported Commercial Landings (continued)

Species	Caught	Sold	Value	Price/Lb
Tilapia	994	228	\$485	\$2.13
Wrasse	127	125	\$472	\$3.77
Parrotfish	3,352	2,452	\$8,381	\$3.42
Surgeon/tangs	3,394	3,177	\$5,203	\$1.64
Filefish	186	186	\$306	\$1.65
Moonfish (opah)	35,894	34,725	\$95,527	\$2.75
Rainbow runner	65	63	\$88	\$1.41
Mahimahi (dolphin)	246,827	222,575	\$517,263	\$2.32
Barracudas	6,287	6,287	\$6,596	\$1.05
Wahoo	134,103	115,660	\$239,747	\$2.07
Tunas (misc)	682	2	\$2	\$1.00
Skipjack tuna	40,701	20,341	\$36,405	\$1.79
Yellowfin tuna	231,124	224,282	\$640,980	\$2.86
Albacore	53,307	49,378	\$101,583	\$2.06
Bigeye tuna	644,035	630,737	2,625,948	\$4.16
Kawakawa	864	261	\$576	\$2.21
Other billfish	810	0	\$0	\$0.00
Broadbill swordfish	538,909	538,909	\$757,622	\$1.41
Blue marlin	104,745	86,058	\$83,362	\$0.97
Black marlin	749	749	\$619	\$0.83
Striped marlin	103,290	103,290	\$118,826	\$1.15
Shortnose spearfish	40,550	40,550	\$34,153	\$0.84
Sailfish	613	201	\$177	\$0.88
Spiny lobster	756	642	\$6,304	\$9.81
Slipper lobster	4	0	\$0	\$0.00
Crabs	3,966	1,646	\$8,553	\$5.20
Shrimp (saltwater)	2,504	0	\$0	\$0.00
Octopus	1,343	1,343	\$4,439	\$3.30
Limpets (saltwater)	1,185	138	\$2,234	\$16.2
Algae	549	346	\$2,236	\$6.47
TOTAL	2,442,045	2,267,709	\$5,705,906	\$2.52

**Table D-6
Hawaii May 2006 Reported Commercial Landings**

Species	Caught	Sold	Value	Price/Lb
Miscellaneous	147	147	\$192	\$1.30
Sharks	27,596	23,274	\$9,817	\$0.42
Eels	123	123	\$135	\$1.10
Bigeye scad (akule)	87,891	36,293	\$81,968	\$2.26
Mackerel scad	20,795	12,730	\$31,026	\$2.44
Leatherjacket	75	26	\$45	\$1.71
Ten pounder	290	118	\$118	\$1.00
Bonefish	88	72	\$72	\$1.00
Milkfish	223	100	\$115	\$1.15
Needlefish	22	22	\$24	\$1.13
Threadfin	95	34	\$133	\$3.98
Mullet	339	214	\$769	\$3.59
Pomfret	74,780	73,379	\$113,225	\$1.54
Oilfish	38,123	38,123	\$78,994	\$2.07
Jacks (misc)	698	698	\$1,438	\$2.06
Amberjack	191	11	\$22	\$2.00
Sasa ulua	41	3	\$8	\$2.75
Pig-lipped ulua	1,331	1,331	\$3,304	\$2.48
Dobe ulua	529	0	\$0	\$0.00
Papa ulua	340	308	\$1,123	\$3.64
White ulua	408	347	\$766	\$2.21
Black ulua	76	38	\$72	\$1.91
Blue trevally	402	95	\$159	\$1.67
Hawaiian grouper	3,486	3,486	\$16,121	\$4.62
Blue spot grouper	22	22	\$75	\$3.38
Snappers	144	91	\$287	\$3.15
Yellow-tail kali	2	0	\$0	\$0.00
Blue lined snapper	1,511	1,511	\$2,020	\$1.34
Ehu (red snapper)	1,846	1,846	\$8,265	\$4.48
Gindai (flower snapper)	343	343	\$786	\$2.29
Golden kalekale	290	290	\$961	\$3.32
Lehi (silverjaw)	348	253	\$856	\$3.38
Onaga (red snapper)	5,888	5,721	\$37,262	\$6.51
Opakapaka (pink snapper)	6,353	6,353	\$35,646	\$5.61
Uku (gray snapper)	13,891	13,551	\$36,688	\$2.71
Porgy	19	19	\$60	\$3.21
Reef fish (misc)	40	40	\$40	\$1.00
Reef jacks	37	21	\$74	\$3.50
Squirrelfish	2,015	2,015	\$7,764	\$3.85
Scorpionfish	165	156	\$701	\$4.51
Mountain bass	129	129	\$351	\$2.71
Bigeyes	151	151	\$540	\$3.58
Goatfish	3,986	2,918	\$8,338	\$2.86
Rudderfish	334	273	\$343	\$1.26
Damselfish	102	102	\$285	\$2.80
Hawkfish	63	63	\$156	\$2.48

Table D-6
Hawaii May 2006 Reported Commercial Landings (continued)

Species	Caught	Sold	Value	Price/Lb
Tilapia	1,145	0	\$0	\$0.00
Wrasse	130	130	\$534	\$4.09
Parrotfish	2,408	2,066	\$6,889	\$3.33
Surgeon/tangs	2,890	2,049	\$4,046	\$1.97
Filefish	427	427	\$1,077	\$2.52
Moonfish (opah)	71,638	68,216	\$125,996	\$1.85
Rainbow runner	83	83	\$168	\$2.03
Mahimahi (dolphin)	156,506	151,037	\$445,619	\$2.95
Barracudas	6,168	5,462	\$4,685	\$0.86
Wahoo	200,715	182,748	\$326,700	\$1.79
Tunas (misc)	630	0	\$0	\$0.00
Skipjack tuna	122,813	82,921	\$119,321	\$1.44
Yellowfin tuna	315,642	285,777	\$761,382	\$2.66
Albacore	95,239	95,239	\$150,970	\$1.59
Bigeye tuna	832,040	781,350	\$3,049,254	\$3.90
Kawakawa	1,235	391	\$476	\$1.22
Other billfish	400	0	\$0	\$0.00
Broadbill swordfish	85,797	82,619	214,708	\$2.60
Blue marlin	123,707	117,874	\$111,758	\$0.95
Black marlin	1,353	1,353	\$1,310	\$0.97
Striped marlin	121,976	121,976	\$129,042	\$1.06
Shortnose spearfish	50,885	48,346	\$33,883	\$0.70
Sailfish	1,890	1,340	\$884	\$0.66
Crabs	891	225	\$1,240	\$5.51
Octopus	980	980	\$3,250	\$3.32
Squid	28	28	\$70	\$2.50
Limpets (saltwater)	1,451	193	\$928	\$4.81
Invertebrates	81	81	\$294	\$3.66
Algae	994	985	\$6,234	\$6.33
TOTAL	2,495,907	2,260,735	\$5,981,860	\$2.65

Table D-7
Hawaii June 2006 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb
Miscellaneous	558	492	\$1,170	\$2.38
Sharks	20,865	17,482	\$12,666	\$0.72
Eels	69	69	\$86	\$1.25
Bigeye scad (akule)	71,696	35,494	\$81,715	\$2.30
Mackerel scad	17,799	13,531	\$30,758	\$2.27
Leatherjacket	54	25	\$42	\$1.69
Ten pounder	261	261	\$261	\$1.00
Bonefish	2,040	1,567	\$1,664	\$1.06
Milkfish	361	62	\$93	\$1.50
Needlefish	123	123	\$219	\$1.78
Threadfin	11	11	\$47	\$4.43
Mullet	401	290	\$1,068	\$3.69
Pomfret	59,496	58,152	\$113,998	\$1.96
Oilfish	43,470	43,470	\$71,197	\$1.64
Jacks (misc)	24	11	\$26	\$2.40
Amberjack	317	75	\$75	\$0.99
Sasa ulua	47	24	\$23	\$0.96
Pig-lipped ulua	597	597	\$1,699	\$2.85
Papa ulua	589	589	\$2,027	\$3.44
White ulua	1,089	682	\$1,275	\$1.87
Black ulua	50	38	\$79	\$2.11
Blue trevally	426	426	\$1,007	\$2.36
Hawaiian grouper	2,739	2,269	\$12,022	\$5.30
Blue spot grouper	45	16	\$52	\$3.36
Snappers	396	338	\$1,300	\$3.84
Yellow-tail kali	10	0	\$0	\$0.00
Blue lined snapper	2,512	2,512	\$3,129	\$1.25
Ehu (red snapper)	1,919	1,779	\$8,069	\$4.54
Gindai (flower snapper)	218	172	\$484	\$2.82
Golden kalekale	361	302	\$1,124	\$3.73
Lehi (silverjaw)	127	127	\$411	\$3.23
Onaga (red snapper)	4,208	3,646	\$22,727	\$6.23
Opakapaka (pink snapper)	3,768	3,623	\$20,412	\$5.63
Uku (gray snapper)	13,360	11,240	\$32,024	\$2.85
Porgy	219	219	\$624	\$2.84
Reef fish (misc)	80	80	\$80	\$1.00
Reef jacks	26	6	\$19	\$3.50
Squirrelfish	2,265	2,231	\$9,089	\$4.07
Trumpetfish	4	3	\$2	\$0.75
Scorpionfish	181	145	\$684	\$4.71
Mountain bass	98	20	\$49	\$2.48
Bigeyes	469	399	\$1,180	\$2.96
Goatfish	3,758	2,585	\$8,385	\$3.24
Rudderfish	6,567	6,567	\$6,718	\$1.02
Damselfish	438	227	\$515	\$2.27
Hawkfish	28	28	\$71	\$2.48

Table D-7
Hawaii June 2006 Reported Commercial Landings (continued)

Species	Caught	Sold	Value	Price/Lb
Tilapia	850	0	\$0	\$0.00
Wrasse	312	164	\$500	\$3.04
Parrotfish	4,545	4,073	\$13,731	\$3.37
Surgeon/tangs	5,796	4,531	\$7,778	\$1.72
Flounders	11	0	\$0	\$0.00
Filefish	146	124	\$239	\$1.94
Moonfish (opah)	84,367	79,480	\$138,538	\$1.74
Rainbow runner	35	27	\$43	\$1.59
Mahimahi (dolphin)	88,358	75,396	\$275,971	\$3.66
Barracudas	3,780	3,780	\$4,163	\$1.10
Wahoo	124,768	107,400	\$235,367	\$2.19
Tunas (misc)	2,538	0	\$0	\$0.00
Skipjack tuna	119,688	83,085	\$125,513	\$1.51
Yellowfin tuna	296,158	285,565	\$721,846	\$2.53
Albacore	74,502	69,861	\$119,774	\$1.71
Bigeye tuna	811,108	745,551	\$2,638,844	\$3.54
Kawakawa	939	373	\$558	\$1.50
Other billfish	178	0	\$0	\$0.00
Broadbill swordfish	92,671	89,233	\$198,011	\$2.22
Blue marlin	133,220	90,245	\$91,834	\$1.02
Black marlin	1,018	1,018	\$1,149	\$1.13
Striped marlin	108,113	108,113	\$134,571	\$1.24
Shortnose spearfish	28,365	25,964	\$27,613	\$1.06
Sailfish	2,949	2,286	\$1,738	\$0.76
Spiny lobster	7	7	\$78	\$12.0
Crabs	78	78	\$426	\$5.46
Octopus	1,316	1,316	\$4,542	\$3.45
Squid	138	85	\$137	\$1.61
Limpets (saltwater)	1,265	306	\$5,623	\$18.4
Invertebrates	4	4	\$15	\$3.75
Algae	991	991	\$2,544	\$2.57
TOTAL	2,252,348	1,991,055	\$5,201,509	\$2.61

Table D-8
Hawaii July 2006 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb
Miscellaneous	366	366	\$1,142	\$3.12
Sharks	26,903	18,029	\$11,772	\$0.65
Rays	18	0	\$0	\$0.00
Eels	18	18	\$20	\$1.07
Bigeye scad (akule)	72,544	27,227	\$61,218	\$2.25
Mackerel scad	21,209	14,654	\$35,855	\$2.45
Leatherjacket	29	16	\$20	\$1.25
Ten pounder	277	277	\$277	\$1.00
Bonefish	1,483	734	\$744	\$1.01
Milkfish	365	220	\$276	\$1.25
Needlefish	47	14	\$18	\$1.32
Mullet	1,483	1,325	\$4,565	\$3.45
Pomfret	44,036	41,912	\$119,690	\$2.86
Oilfish	39,993	39,993	\$69,939	\$1.75
Jacks (misc)	38	0	\$0	\$0.00
Amberjack	115	0	\$0	\$0.00
Sasa ulua	444	326	\$383	\$1.18
Pig-lipped ulua	239	220	\$629	\$2.86
Dobe ulua	27	27	\$52	\$1.98
Papa ulua	207	147	\$526	\$3.58
White ulua	984	324	\$830	\$2.56
Black ulua	25	0	\$0	\$0.00
Blue trevally	360	66	\$189	\$2.89
Hawaiian grouper	1,572	1,554	9,205	\$5.92
Blue spot grouper	103	10	\$33	\$3.26
Snappers	491	422	\$1,623	\$3.85
Yellow-tail kali	13	0	\$0	\$0.00
Blue lined snapper	4,745	2,806	\$3,422	\$1.22
Ehu (red snapper)	1,075	947	\$4,671	\$4.93
Gindai (flower snapper)	240	196	\$696	\$3.55
Golden kalekale	379	298	\$1,355	\$4.55
Lehi (silverjaw)	647	557	\$2,133	\$3.83
Onaga (red snapper)	5,996	5,846	\$37,873	\$6.48
Opakapaka (pink snapper)	4,370	4,301	\$25,267	\$5.88
Uku (gray snapper)	7,170	6,836	\$23,820	\$3.48
Porgy	74	74	\$253	\$3.43
Reef fish (misc)	53	53	\$53	\$1.00
Squirrelfish	2,619	2,619	\$10,449	\$3.99
Scorpionfish	149	146	\$518	\$3.56
Mountain bass	76	39	\$83	\$2.10
Bigeyes	278	272	\$752	\$2.77
Goatfish	3,077	2,788	\$7,821	\$2.81
Rudderfish	1,710	1,710	\$1,805	\$1.06
Damselfish	205	140	\$345	\$2.47
Hawkfish	41	41	\$111	\$2.72
Tilapia	710	0	\$0	\$0.00

Table D-8
Hawaii July 2006 Reported Commercial Landings (continued)

Species	Caught	Sold	Value	Price/Lb
Wrasse	368	205	\$713	\$3.47
Parrotfish	3,642	2,058	\$7,166	\$3.48
Surgeon/tangs	9,564	7,210	\$11,930	\$1.65
Filefish	74	74	\$145	\$1.96
Moonfish (opah)	128,950	128,950	\$196,368	\$1.52
Rainbow runner	104	79	\$113	\$1.43
Mahimahi (dolphin)	121,108	109,115	\$345,386	\$3.17
Barracudas	1,874	1,874	\$2,190	\$1.17
Wahoo	94,823	78,999	\$254,560	\$3.22
Tunas (misc)	3,198	1	\$3	\$3.00
Skipjack tuna	124,404	121,081	\$201,547	\$1.66
Yellowfin tuna	239,969	234,277	\$698,324	\$2.98
Albacore	147,636	147,636	\$189,121	\$1.28
Bigeye tuna	638,291	606,624	\$2,541,900	\$4.19
Kawakawa	2,358	270	\$451	\$1.67
Other billfish	194	0	\$0	\$0.00
Broadbill swordfish	67,376	67,376	\$188,199	\$2.79
Blue marlin	118,240	64,160	\$79,197	\$1.23
Black marlin	1,633	1,633	\$2,056	\$1.26
Striped marlin	134,096	134,096	\$162,930	\$1.22
Shortnose spearfish	21,817	18,068	\$27,359	\$1.51
Sailfish	2,205	974	\$1,053	\$1.08
Crabs	628	67	\$397	\$5.92
Octopus	1,222	1,195	\$4,027	\$3.37
Squid	319	319	\$428	\$1.34
Limpets (saltwater)	917	346	\$4,128	\$11.9
Invertebrates	18	18	\$59	\$3.25
Algae	782	782	\$3,521	\$4.50
TOTAL	2,112,812	1,905,030	\$5,363,697	\$2.82

**Table D-9
Hawaii August 2006 Reported Commercial Landings**

Species	Caught	Sold	Value	Price/Lb
Miscellaneous	430	128	\$110	\$0.86
Sharks	36,556	25,588	\$15,603	\$0.61
Eels	127	127	\$155	\$1.22
Bigeye scad (akule)	79,221	22,509	\$47,774	\$2.12
Mackerel scad	31,851	23,824	\$58,318	\$2.45
Leatherjacket	40	39	\$57	\$1.47
Ten pounder	177	72	\$72	\$1.00
Bonefish	127	49	\$49	\$1.00
Milkfish	323	298	\$427	\$1.44
Needlefish	26	23	\$33	\$1.45
Mullet	81	81	\$297	\$3.67
Pomfret	41,841	38,080	\$120,929	\$3.18
Oilfish	21,503	21,503	\$57,359	\$2.67
Jacks (misc)	98	29	\$63	\$2.16
Amberjack	103	9	\$9	\$1.00
Sasa ulua	55	38	\$97	\$2.57
Pig-lipped ulua	596	467	\$1,344	\$2.88
Papa ulua	246	176	\$601	\$3.42
White ulua	1,123	1,070	\$2,176	\$2.03
Blue trevally	738	417	\$948	\$2.27
Hawaiian grouper	4,285	3,419	\$16,929	\$4.95
Blue spot grouper	73	20	\$65	\$3.22
Snappers	434	406	\$1,631	4.02
Blue lined snapper	2,948	1,447	\$2,087	\$1.44
Ehu (red snapper)	1,105	871	\$4,806	\$5.52
Gindai (flower snapper)	431	409	\$1,380	\$3.37
Golden kalekale	576	430	\$1,349	\$3.14
Lehi (silverjaw)	285	285	\$1,045	\$3.67
Onaga (red snapper)	5,706	4,448	\$33,100	\$7.44
Opakapaka (pink snapper)	6,350	4,346	\$27,529	\$6.33
Uku (gray snapper)	10,647	10,647	\$43,534	\$4.09
Porgy	145	76	\$255	\$3.35
Reef fish (misc)	28	28	\$28	\$1.00
Squirrelfish	2,960	2,960	\$12,106	\$4.09
Scorpionfish	370	233	\$785	\$3.37
Mountain bass	142	142	\$590	\$4.17
Bigeyes	371	264	\$825	\$3.13
Goatfish	3,287	2,789	\$9,249	\$3.32
Rudderfish	8,606	8,298	\$8,541	\$1.03
Damselfish	383	120	\$301	\$2.51
Hawkfish	40	40	\$92	\$2.29
Tilapia	308	0	\$0	\$0.00
Wrasse	374	374	\$1,324	\$3.54
Parrotfish	4,869	3,974	\$13,314	\$3.35
Surgeon/tangs	11,160	8,999	\$14,863	\$1.65
Flounders	18	18	\$35	\$2.00

Table D-9
Hawaii August 2006 Reported Commercial Landings (continued)

Species	Caught	Sold	Value	Price/Lb
Filefish	166	166	\$239	\$1.43
Moonfish (opah)	139,736	139,736	\$224,319	1.61
Rainbow runner	235	224	\$435	\$1.94
Mahimahi (dolphin)	118,902	103,511	\$328,965	\$3.18
Barracudas	3,196	3,025	\$2,346	\$0.78
Wahoo	78,557	65,984	\$244,389	\$3.70
Tunas (misc)	2,880	15	\$45	\$3.00
Skipjack tuna	216,210	187,431	\$229,368	\$1.22
Yellowfin tuna	282,630	264,632	\$825,225	\$3.12
Albacore	90,495	90,495	\$159,736	\$1.77
Bigeye tuna	490,628	470,411	\$2,027,733	\$4.31
Kawakawa	1,905	184	\$321	\$1.74
Broadbill swordfish	18,917	18,917	\$60,916	\$3.22
Blue marlin	114,314	90,509	\$126,653	\$1.40
Black marlin	734	734	\$1,258	\$1.71
Striped marlin	85,988	85,988	\$145,522	\$1.69
Shortnose spearfish	14,197	11,838	\$21,704	\$1.83
Sailfish	2,455	2,455	\$3,295	\$1.34
Crabs	1,762	315	\$1,084	\$3.45
Octopus	2,304	1,664	\$5,562	\$3.34
Squid	228	228	\$317	1.39
Limpets (saltwater)	841	587	\$7,771	\$13.2
Algae	1,199	887	\$5,748	\$6.48
TOTAL	1,949,635	1,729,498	\$4,925,137	\$2.85

Table D-10
Hawaii September 2006 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb
Miscellaneous	221	71	\$66	\$0.93
Sharks	29,006	24,886	\$17,999	\$0.72
Eels	86	86	\$92	\$1.07
Bigeye scad (akule)	7,513	4,061	\$10,818	\$2.66
Mackerel scad	37,014	25,239	\$57,285	\$2.27
Leatherjacket	15	15	\$17	1.16
Ten pounder	20	17	\$17	\$1.00
Bonefish	48	48	\$55	\$1.14
Milkfish	182	182	\$206	\$1.13
Needlefish	61	22	\$39	\$1.75
Threadfin	39	28	\$119	\$4.19
Mullet	2,059	1,922	\$6,635	\$3.45
Pomfret	46,959	46,171	\$104,684	\$2.27
Oilfish	13,655	13,655	\$40,660	\$2.98
Jacks (misc)	125	62	\$192	\$3.11
Amberjack	121	0	\$0	\$0.00
Sasa ulua	46	22	\$54	\$2.44
Pig-lipped ulua	33	33	\$80	\$2.43
Dobe ulua	2	2	\$5	\$2.50
Papa ulua	385	77	\$266	\$3.44
White ulua	1,049	754	\$1,744	\$2.31
Black ulua	18	0	\$0	\$0.00
Blue trevally	400	162	\$359	\$2.21
Hawaiian grouper	2,190	1,461	\$7,783	\$5.33
Blue spot grouper	30	22	\$78	\$3.51
Snappers	147	147	\$537	\$3.65
Yellow-tail kali	2	0	\$0	\$0.00
Blue lined snapper	1,419	1,075	\$1,554	\$1.44
Ehu (red snapper)	930	631	\$4,337	\$6.88
Gindai (flower snapper)	202	137	\$581	\$4.23
Golden kalekale	419	360	\$604	\$1.68
Lehi (silverjaw)	348	254	\$828	\$3.25
Onaga (red snapper)	7,734	5,928	\$41,543	\$7.01
Opakapaka (pink snapper)	5,230	4,179	\$24,800	\$5.93
Uku (gray snapper)	9,385	8,508	\$31,440	\$3.70
Snake mackerel	2	0	\$0	\$0.00
Porgy	105	95	\$338	\$3.55
Reef fish (misc)	48	48	\$48	\$1.00
Squirrelfish	3,612	3,362	\$13,514	\$4.02
Scorpionfish	206	178	\$560	\$3.15
Mountain bass	94	26	\$89	\$3.39
Bigeyes	470	470	\$1,672	\$3.56
Goatfish	4,656	2,088	\$6,961	\$3.33
Rudderfish	2,499	2,499	\$2,861	\$1.14
Damselfish	193	185	\$493	\$2.66
Hawkfish	17	17	\$46	\$2.67

Table D-10
Hawaii September 2006 Reported Commercial Landings (continued)

Species	Caught	Sold	Value	Price/Lb
Wrasse	685	616	\$2,944	\$4.78
Parrotfish	2,837	2,742	\$8,879	\$3.24
Surgeon/tangs	9,745	9,745	\$16,576	\$1.70
Flounders	14	14	\$29	\$2.00
Filefish	43	43	\$75	\$1.75
Other pelagic	96	0	\$0	\$0.00
Moonfish (opah)	151,848	151,848	\$171,488	\$1.13
Rainbow runner	668	633	\$1,350	\$2.13
Mahimahi (dolphin)	98,924	89,573	\$245,584	\$2.74
Barracudas	4,362	4,362	\$2,935	\$0.67
Wahoo	57,914	53,335	\$154,809	\$2.90
Tunas (misc)	1,286	126	\$378	\$3.00
Skipjack tuna	88,908	88,908	\$149,105	\$1.68
Yellowfin tuna	260,049	260,049	\$660,489	\$2.54
Albacore	73,165	73,165	\$111,553	\$1.52
Bigeye tuna	528,188	520,084	\$1,842,724	\$3.54
Kawakawa	524	146	\$257	\$1.76
Other billfish	297	0	\$0	\$0.00
Broadbill swordfish	12,980	12,831	\$39,028	\$3.04
Blue marlin	125,025	122,799	\$113,871	\$0.93
Black marlin	1,313	180	\$164	\$0.91
Striped marlin	80,238	79,997	\$89,272	\$1.12
Shortnose spearfish	17,789	17,387	\$20,225	\$1.16
Sailfish	3,897	3,897	\$4,018	\$1.03
Spiny lobster	1,168	920	\$8,655	\$9.41
Slipper lobster	8	0	\$0	\$0.00
Crabs	2,704	330	\$1,013	\$3.07
Octopus	1,949	1,949	\$6,895	\$3.54
Squid	122	91	\$417	\$4.56
Limpets (saltwater)	356	356	\$4,095	\$11.5
Invertebrates	58	58	\$201	\$3.50
Algae	213	213	\$1,008	\$4.74
TOTAL	1,706,363	1,645,575	\$4,040,090	\$2.46

Table D-11
Hawaii October 2006 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb
Miscellaneous	353	126	\$96	\$0.77
Sharks	25,810	18,295	\$13,108	\$0.72
Eels	99	99	\$115	\$1.16
Bigeye scad (akule)	9,303	6,566	\$18,884	\$2.88
Mackerel scad	37,436	24,510	\$55,216	\$2.25
Leatherjacket	43	36	\$61	\$1.71
Ten pounder	51	26	\$26	\$1.00
Bonefish	65	65	\$109	\$1.68
Milkfish	774	774	\$970	\$1.25
Needlefish	54	18	\$27	\$1.50
Threadfin	95	95	\$488	\$5.17
Mullet	1,477	1,436	\$5,167	\$3.60
Pomfret	64,693	62,903	\$113,445	\$1.80
Oilfish	16,462	16,462	\$55,940	\$3.40
Jacks (misc)	320	320	\$580	\$1.81
Amberjack	567	0	\$0	\$0.00
Sasa ulua	85	11	\$11	\$1.00
Pig-lipped ulua	210	193	\$545	\$2.83
Papa ulua	580	186	\$569	\$3.06
White ulua	841	798	\$1,727	\$2.16
Black ulua	323	24	\$24	\$1.00
Blue trevally	334	232	\$439	\$1.89
Hawaiian grouper	2,845	2,845	\$14,036	\$4.93
Blue spot grouper	88	28	\$59	\$2.13
Snappers	370	111	\$387	\$3.49
Yellow-tail kali	1	1	\$4	\$3.50
Blue lined snapper	5,110	2,688	\$3,573	\$1.33
Ehu (red snapper)	2,792	2,106	\$10,685	\$5.07
Gindai (flower snapper)	314	314	\$1,053	\$3.35
Golden kalekale	1,140	1,140	\$3,831	\$3.36
Lehi (silverjaw)	1,388	1,388	\$4,253	\$3.06
Onaga (red snapper)	17,859	16,445	\$102,112	\$6.21
Opakapaka (pink snapper)	14,072	13,739	\$72,546	\$5.28
Uku (gray snapper)	11,329	10,948	\$36,111	\$3.30
Porgy	188	188	\$561	\$2.99
Reef fish (misc)	47	47	\$47	\$1.00
Squirrelfish	4,198	4,198	\$16,552	\$3.94
Scorpionfish	300	270	\$999	\$3.70
Mountain bass	175	168	\$604	3.59
Bigeyes	294	294	\$1,063	\$3.62
Goatfish	3,094	2,583	\$7,356	\$2.85
Rudderfish	297	297	\$530	\$1.79
Damselfish	232	83	\$186	\$2.23
Hawkfish	25	25	\$60	\$2.37
Wrasse	732	332	\$1,429	\$4.30
Parrotfish	1,794	1,665	\$5,132	\$3.08

Table D-11
Hawaii October 2006 Reported Commercial Landings (continued)

Species	Caught	Sold	Value	Price/Lb
Surgeon/tangs	4,171	4,171	\$7,161	\$1.72
Filefish	6	6	\$10	\$1.75
Other pelagic	96	0	\$0	\$0.00
Moonfish (opah)	134,843	133,922	\$169,393	\$1.26
Rainbow runner	302	279	\$500	\$1.79
Mahimahi (dolphin)	134,872	118,663	\$311,458	\$2.62
Barracudas	1,956	1,849	\$1,800	\$0.97
Wahoo	50,340	45,310	\$143,008	\$3.16
Tunas (misc)	1,841	0	\$0	\$0.00
Skipjack tuna	52,294	40,065	\$56,380	\$1.41
Yellowfin tuna	233,914	222,002	\$489,602	\$2.21
Albacore	33,151	28,896	\$54,508	\$1.89
Bigeye tuna	873,039	857,128	\$2,833,960	\$3.31
Kawakawa	454	132	\$155	\$1.17
Other billfish	236	0	\$0	\$0.00
Broadbill swordfish	15,094	13,746	\$35,071	\$2.55
Blue marlin	174,372	120,556	\$72,166	\$0.60
Black marlin	552	316	\$148	\$0.47
Striped marlin	256,874	256,874	\$122,328	\$0.48
Shortnose spearfish	21,959	20,880	\$16,054	\$0.77
Sailfish	3,972	3,972	\$1,835	\$0.46
Spiny lobster	906	649	\$6,314	\$9.72
Crabs	3,952	924	\$3,127	\$3.38
Shrimp (saltwater)	176	0	\$0	\$0.00
Octopus	2,184	1,583	\$5,753	\$3.63
Squid	481	481	\$1,417	\$2.95
Limpets (saltwater)	469	469	\$4,518	\$9.63
Invertebrates	460	92	\$3,220	\$35.0
Algae	53	5	\$39	\$7.76
TOTAL	2,231,675	2,068,042	\$4,890,635	\$2.36

Table D-12
Hawaii November 2006 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb
Miscellaneous	117	117	\$62	\$0.53
Sharks	42,397	28,579	\$13,162	\$0.46
Eels	43	43	\$56	\$1.31
Bigeye scad (akule)	38,574	28,868	\$69,634	\$2.41
Mackerel scad	44,347	24,203	\$51,013	\$2.11
Leatherjacket	128	128	\$314	\$2.46
Bonfish	182	139	\$139	\$1.00
Milkfish	253	253	\$341	\$1.35
Needlefish	119	23	\$32	\$1.43
Threadfin	39	2	\$2	\$1.00
Mullet	1,493	1,493	\$5,431	\$3.64
Pomfret	58,075	55,191	\$113,130	\$2.05
Oilfish	29,515	29,515	\$62,937	\$2.13
Jacks (misc)	44	23	\$58	\$2.58
Amberjack	551	42	\$189	\$4.50
Sasa ulua	139	3	\$4	\$1.17
Pig-lipped ulua	765	765	\$2,204	\$2.88
Dobe ulua	10	8	\$12	\$1.50
Papa ulua	479	479	\$1,652	\$3.45
White ulua	1,137	995	\$1,954	\$1.96
Black ulua	83	0	\$0	\$0.00
Blue trevally	364	319	\$587	\$1.84
Hawaiian grouper	1,906	1,749	\$10,244	\$5.86
Blue spot grouper	59	0	\$0	\$0.00
Snappers	104	104	\$351	\$3.39
Yellow-tail kali	1	1	\$5	\$4.00
Blue lined snapper	2,232	1,530	\$2,186	\$1.43
Ehu (red snapper)	2,032	1,633	\$9,114	\$5.58
Gindai (flower snapper)	224	186	\$849	\$4.57
Golden kalekale	1,223	1,223	\$3,984	\$3.26
Lehi (silverjaw)	1,046	1,035	\$3,805	\$3.68
Onaga (red snapper)	15,509	14,104	\$100,300	\$7.11
Opakapaka (pink snapper)	14,112	14,112	\$81,752	\$5.79
Uku (gray snapper)	12,321	10,869	\$39,505	\$3.63
Porgy	99	99	\$370	\$3.74
Squirrelfish	2,287	2,287	\$8,785	\$3.84
Scorpionfish	288	226	\$859	\$3.80
Mountain bass	29	14	\$68	\$5.00
Bigeyes	162	162	\$559	\$3.45
Goatfish	5,314	4,448	\$13,845	\$3.11
Rudderfish	1,052	959	\$1,209	\$1.26
Damselfish	115	56	\$155	\$2.78
Hawkfish	40	40	\$92	\$2.27
Tilapia	1,000	0	\$0	\$0.00
Wrasse	725	413	\$2,123	\$5.15
Parrotfish	2,593	2,270	\$7,226	\$3.18

Table D-12
Hawaii November 2006 Reported Commercial Landings (continued)

Species	Caught	Sold	Value	Price/Lb
Surgeon/tangs	6,966	6,779	\$11,418	\$1.68
Flounders	7	7	\$14	\$2.00
Filefish	9	9	\$15	\$1.75
Moonfish (opah)	108,208	105,241	\$192,012	\$1.82
Rainbow runner	162	116	\$207	\$1.79
Mahimahi (dolphin)	135,087	112,845	\$274,502	\$2.43
Barracudas	1,006	827	\$834	\$1.01
Wahoo	49,242	43,396	\$132,039	\$3.04
Tunas (misc)	600	1	\$1	\$1.10
Skipjack tuna	119,764	105,805	\$116,202	\$1.10
Yellowfin tuna	231,926	198,359	\$405,019	\$2.04
Albacore	3,710	3,292	\$8,237	\$2.50
Bigeye tuna	1,362,269	1,176,782	\$3,092,435	\$2.63
Kawakawa	512	232	\$355	\$1.53
Other billfish	352	0	\$0	\$0.00
Broadbill swordfish	21,381	20,354	\$48,966	\$2.41
Blue marlin	132,819	99,073	\$71,313	\$0.72
Black marlin	1,012	1,012	\$650	\$0.64
Striped marlin	202,042	202,042	\$120,228	\$0.60
Shortnose spearfish	27,827	24,203	\$19,513	\$0.81
Sailfish	2,322	2,233	\$1,166	\$0.52
Spiny lobster	897	615	\$5,914	\$9.61
Slipper lobster	4	3	\$24	\$8.00
Crabs	3,377	717	\$2,565	\$3.58
Shrimp (saltwater)	5	5	\$30	\$5.82
Octopus	2,531	2,264	\$7,875	\$3.48
Squid	86	62	\$109	\$1.76
Limpets (saltwater)	779	779	\$8,473	\$10.9
Invertebrates	120	100	\$3,500	\$35.0
Algae	139	139	\$768	\$5.54
TOTAL	2,698,485	2,335,996	\$5,134,684	\$2.20

Table D-13
Hawaii December 2006 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb
Miscellaneous	322	322	\$538	\$1.67
Sharks	76,400	35,309	\$9,615	\$0.27
Eels	158	158	\$175	\$1.10
Bigeye scad (akule)	16,360	14,787	\$36,836	\$2.49
Mackerel scad	33,840	19,888	\$39,169	\$1.97
Leatherjacket	44	37	\$66	\$1.78
Ten pounder	33	30	\$30	\$1.00
Bonefish	370	68	\$68	\$1.00
Milkfish	277	114	\$167	\$1.47
Needlefish	41	33	\$63	\$1.93
Threadfin	66	46	\$183	\$4.01
Mullet	14	14	\$42	\$3.00
Pomfret	50,338	50,338	\$120,686	\$2.40
Oilfish	48,829	48,829	\$85,582	\$1.75
Jacks (misc)	25	19	\$42	\$2.28
Amberjack	724	16	\$24	\$1.50
Sasa ulua	44	44	\$4	\$0.10
Pig-lipped ulua	361	361	\$1,057	\$2.93
Papa ulua	341	173	\$596	\$3.45
White ulua	824	623	\$1,517	\$2.43
Black ulua	10	0	\$0	\$0.00
Blue trevally	177	77	\$171	\$2.23
Hawaiian grouper	2,563	2,406	\$12,811	\$5.32
Blue spot grouper	46	30	\$91	\$3.00
Snappers	42	42	\$144	\$3.43
Blue lined snapper	1,913	524	\$754	\$1.44
Ehu (red snapper)	4,127	2,719	17,450	\$6.42
Gindai (flower snapper)	413	266	\$1,152	\$4.33
Golden kalekale	1,455	1,079	\$4,138	\$3.84
Lehi (silverjaw)	992	990	\$3,610	\$3.65
Onaga (red snapper)	13,264	11,713	\$96,162	\$8.21
Opakapaka (pink snapper)	12,856	9,528	\$59,829	\$6.28
Uku (gray snapper)	13,227	13,227	\$37,187	\$2.81
Porgy	63	53	\$167	\$3.15
Reef fish (misc)	49	49	\$49	\$1.00
Squirrelfish	1,784	1,383	\$5,232	\$3.78
Trumpetfish	6	6	\$6	\$1.00
Scorpionfish	427	298	\$1,310	\$4.39
Mountain bass	79	9	\$25	\$2.72
Bigeyes	311	311	\$1,015	\$3.27
Goatfish	2,381	1,730	6,583	\$3.80
Rudderfish	7,260	7,260	\$6,451	\$0.89
Damselfish	21	8	\$17	\$2.14
Hawkfish	15	15	\$44	\$2.84
Tilapia	610	0	\$0	\$0.00
Wrasse	531	117	\$591	\$5.05

Table D-13
Hawaii December 2006 Reported Commercial Landings (continued)

Species	Caught	Sold	Value	Price/Lb
Parrotfish	2,360	2,014	\$7,113	\$3.53
Surgeon/tangs	4,941	4,941	\$8,807	\$1.78
Flounders	12	12	\$24	\$2.00
Filefish	17	6	\$11	\$1.75
Other pelagic	144	20	\$2	\$0.10
Moonfish (opah)	97,390	97,390	\$200,473	\$2.06
Rainbow runner	72	46	\$161	\$3.52
Mahimahi (dolphin)	53,664	37,142	\$104,939	\$2.83
Barracudas	623	568	\$622	\$1.10
Wahoo	48,128	48,128	\$144,253	\$3.00
Tunas (misc)	265	145	\$404	\$2.79
Skipjack tuna	135,903	112,377	\$119,665	\$1.06
Yellowfin tuna	237,576	224,537	\$458,030	\$2.04
Albacore	15,133	15,133	\$29,539	\$1.95
Bigeye tuna	1,721,623	1,721,623	\$4,557,088	\$2.65
Kawakawa	159	65	\$97	\$1.49
Other billfish	6,499	0	\$0	\$0.00
Broadbill swordfish	22,353	22,353	\$51,717	\$2.31
Blue marlin	72,331	59,602	\$67,889	\$1.14
Black marlin	1,442	1,442	\$1,322	\$0.92
Striped marlin	160,966	160,966	\$175,141	\$1.09
Shortnose spearfish	29,329	28,347	\$23,223	\$0.82
Sailfish	1,112	393	\$314	\$0.80
Spiny lobster	975	714	\$7,114	\$9.97
Slipper lobster	2	0	\$0	\$0.00
Crabs	4,517	1,511	\$6,399	\$4.23
Octopus	2,283	2,283	\$7,735	\$3.39
Squid	79	32	\$35	\$1.10
Limpets (saltwater)	510	510	\$5,858	\$11.5
Algae	103	39	\$380	\$9.73
TOTAL	2,914,538	2,767,386	\$6,529,802	\$2.36

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

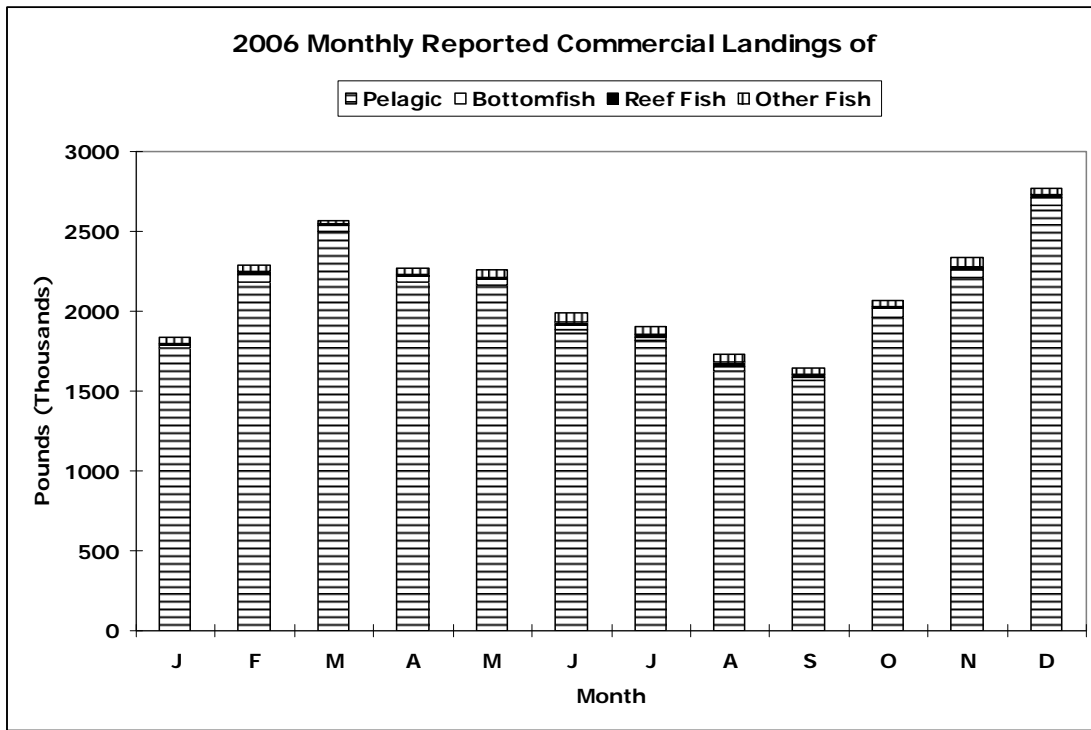


Figure D-1-1

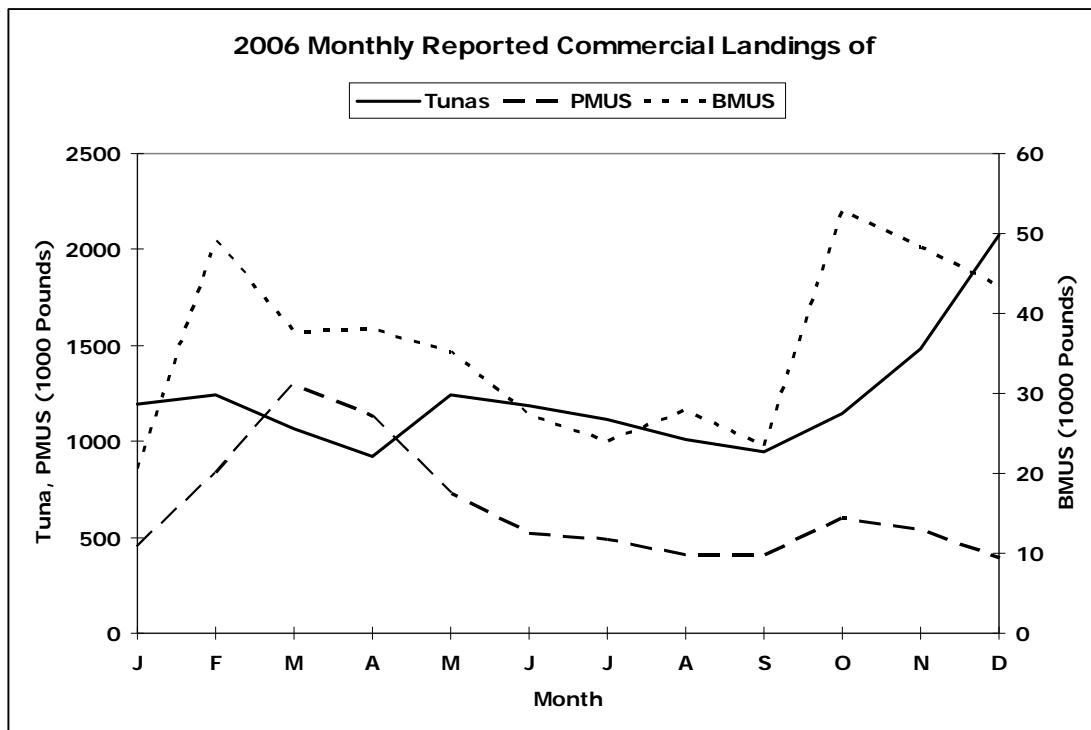


Figure D-1-2

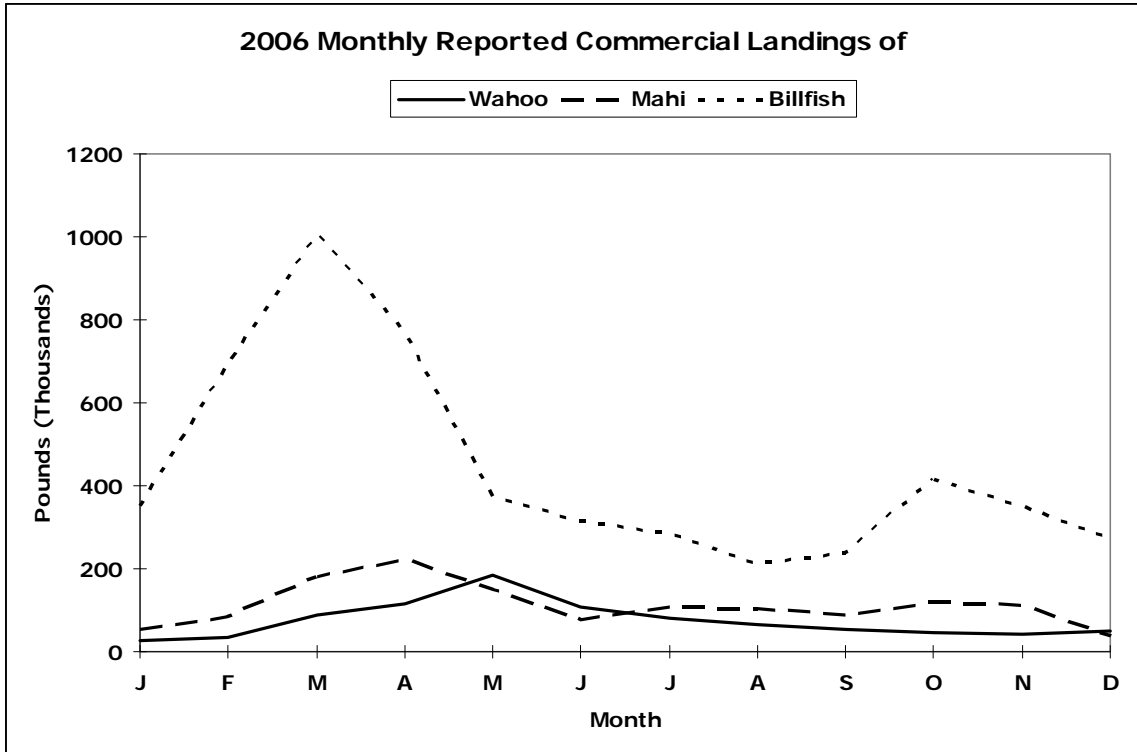


Figure D-1-3

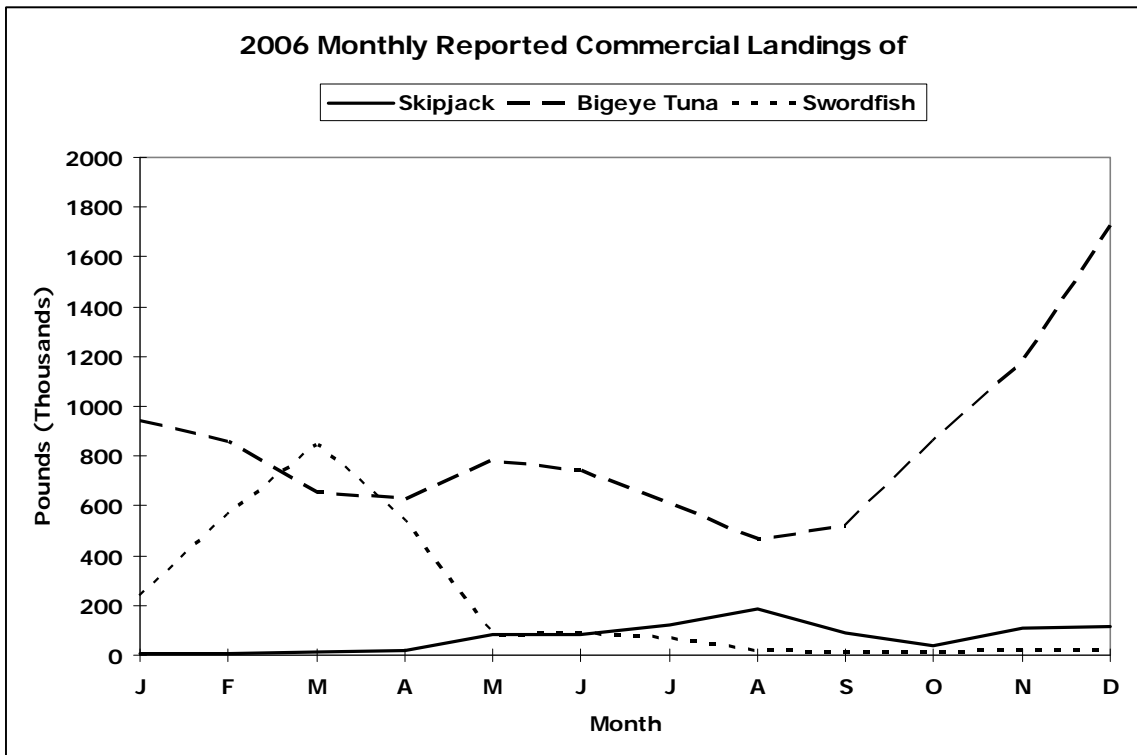


Figure D-1-4

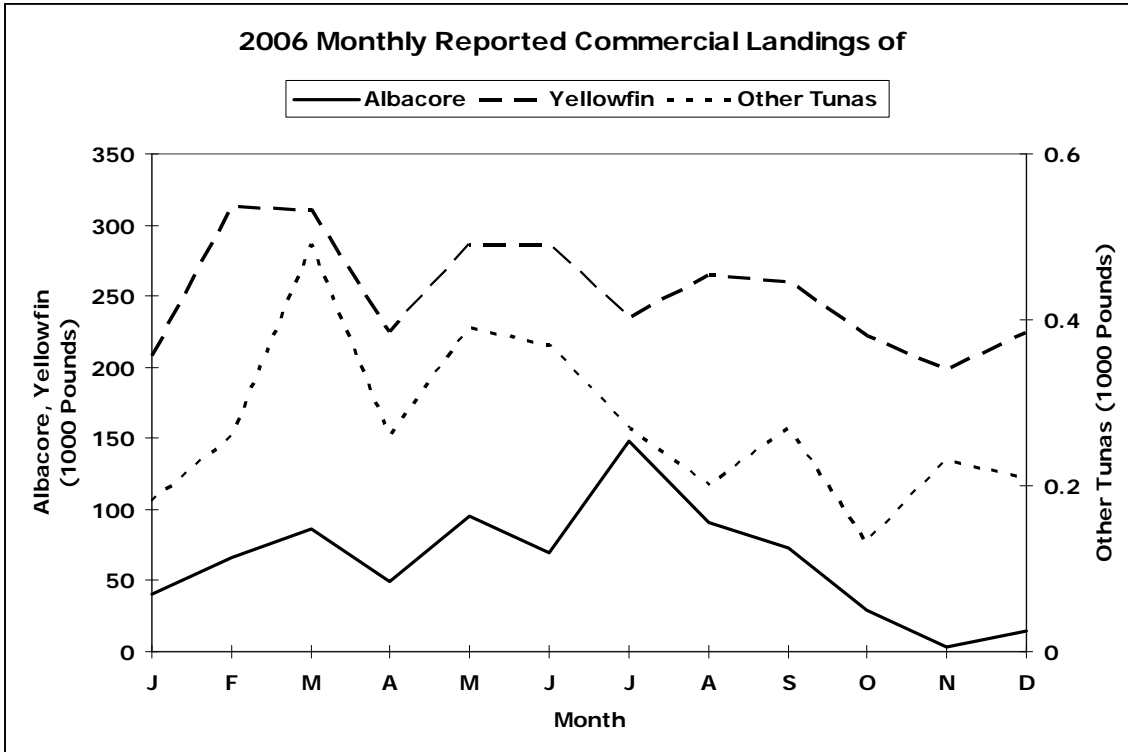


Figure D-1-5

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

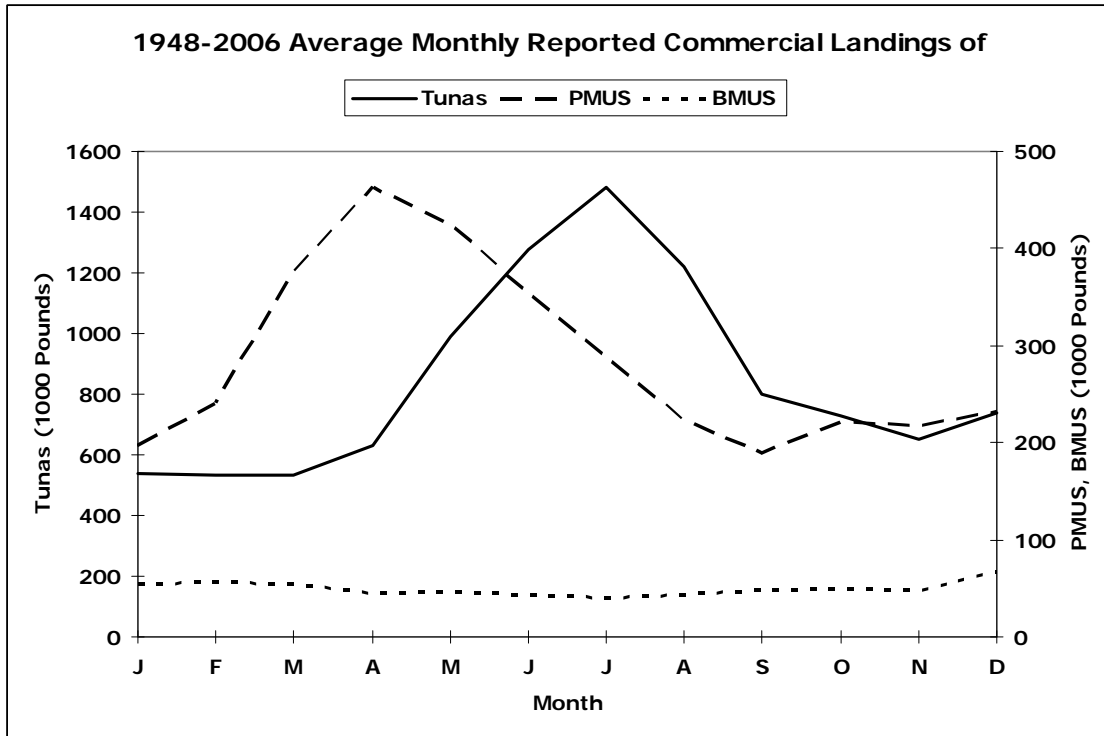


Figure D-2-1

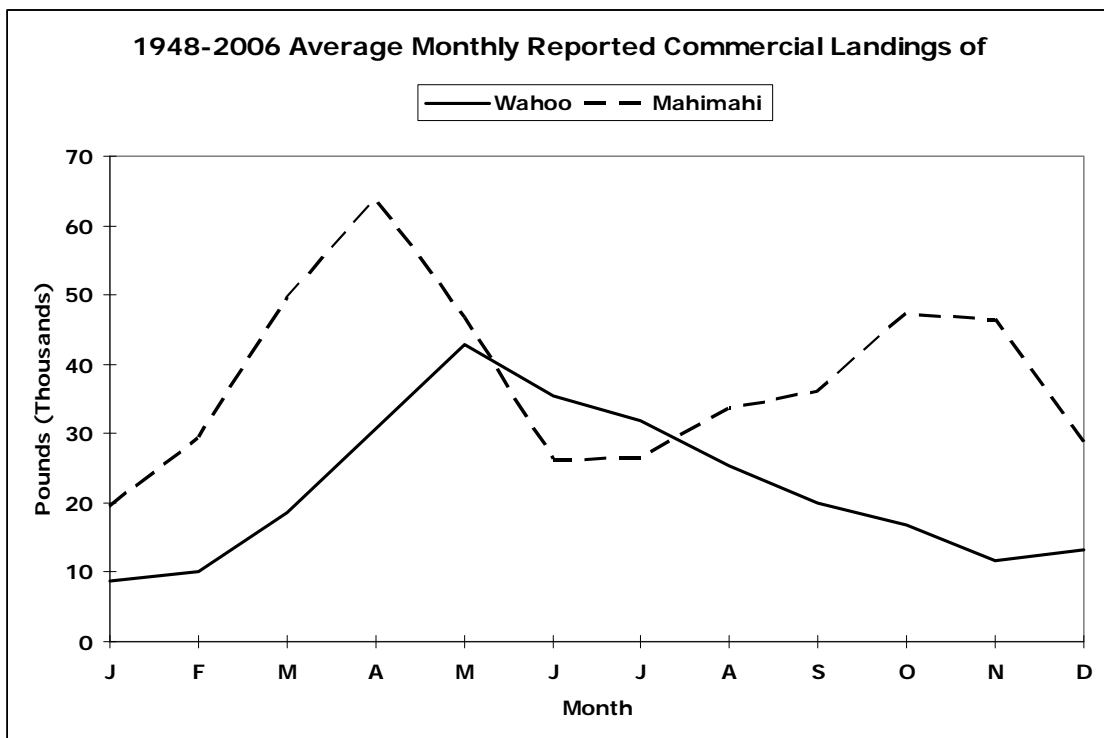


Figure D-2-2

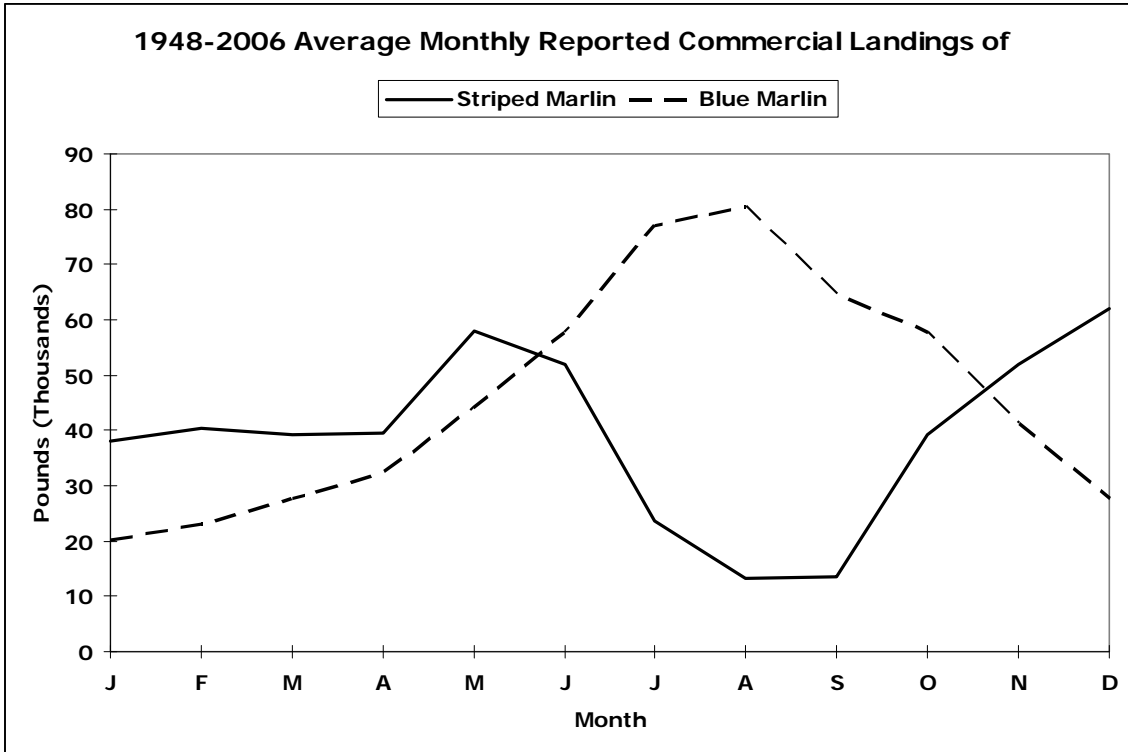


Figure D-2-3

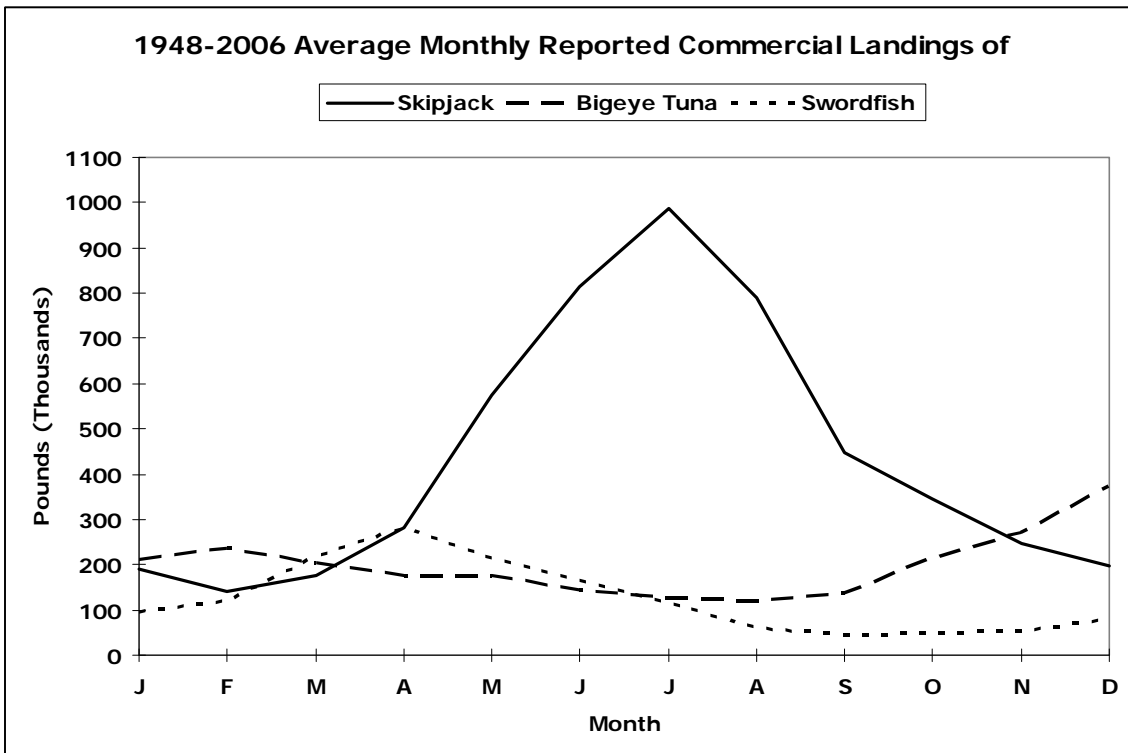


Figure D-2-4

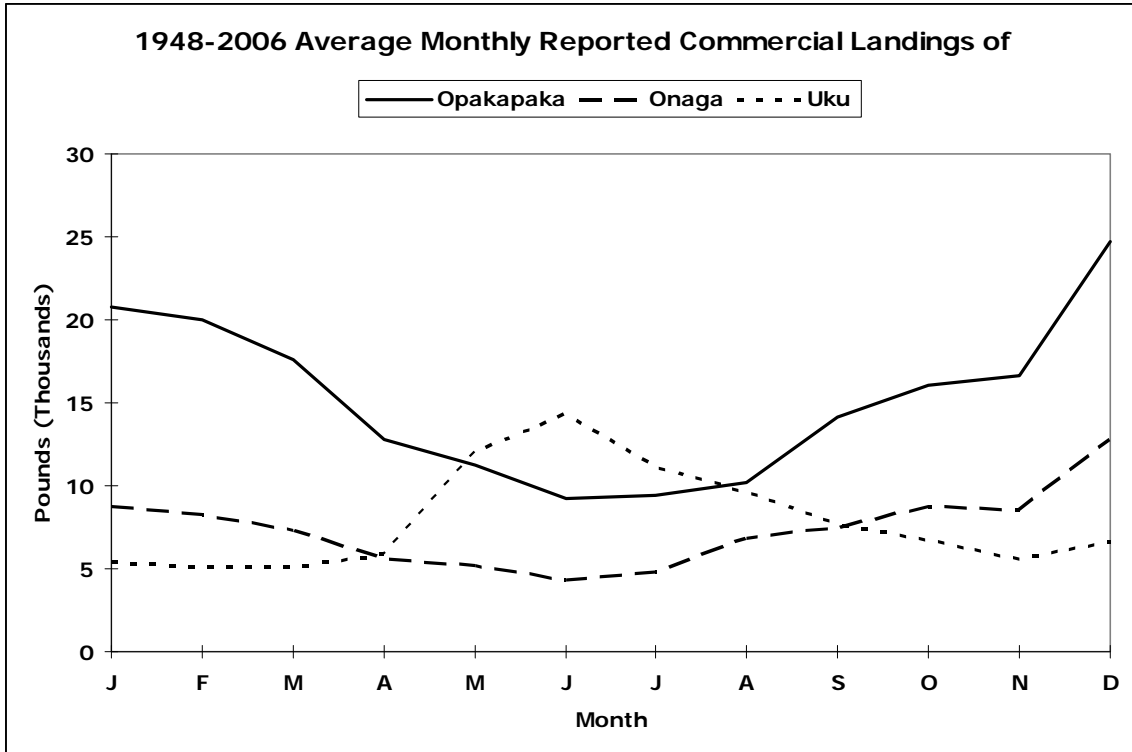


Figure D-2-5

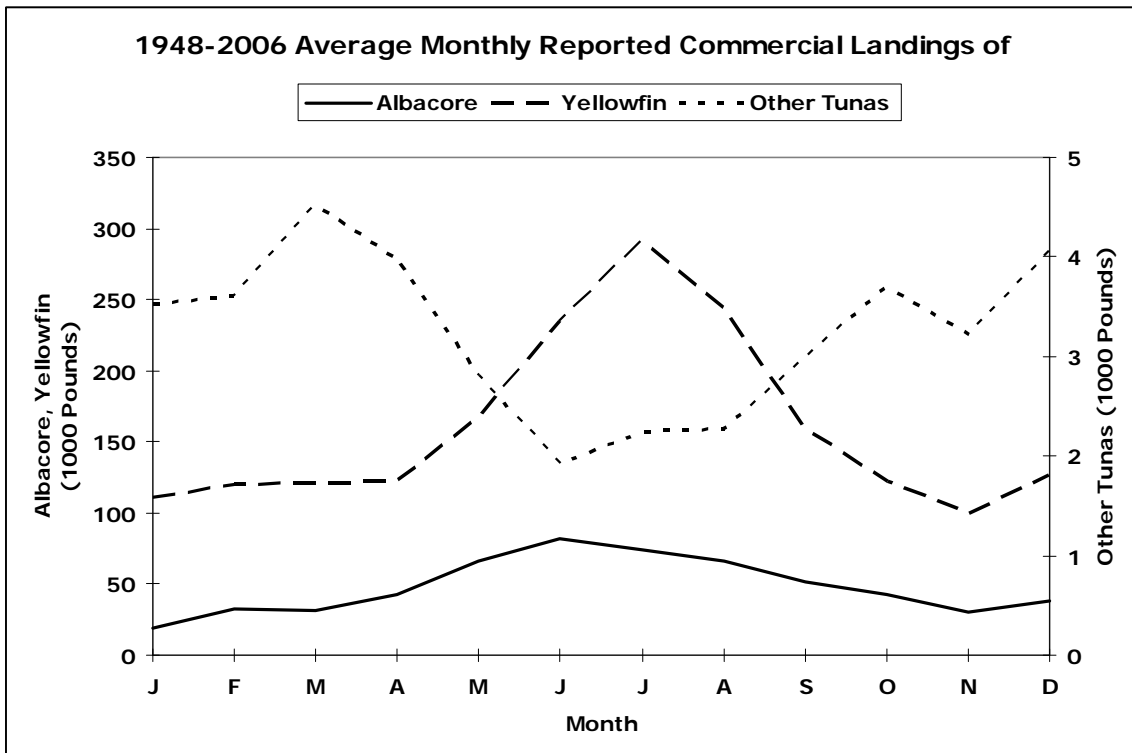


Figure D-2-6

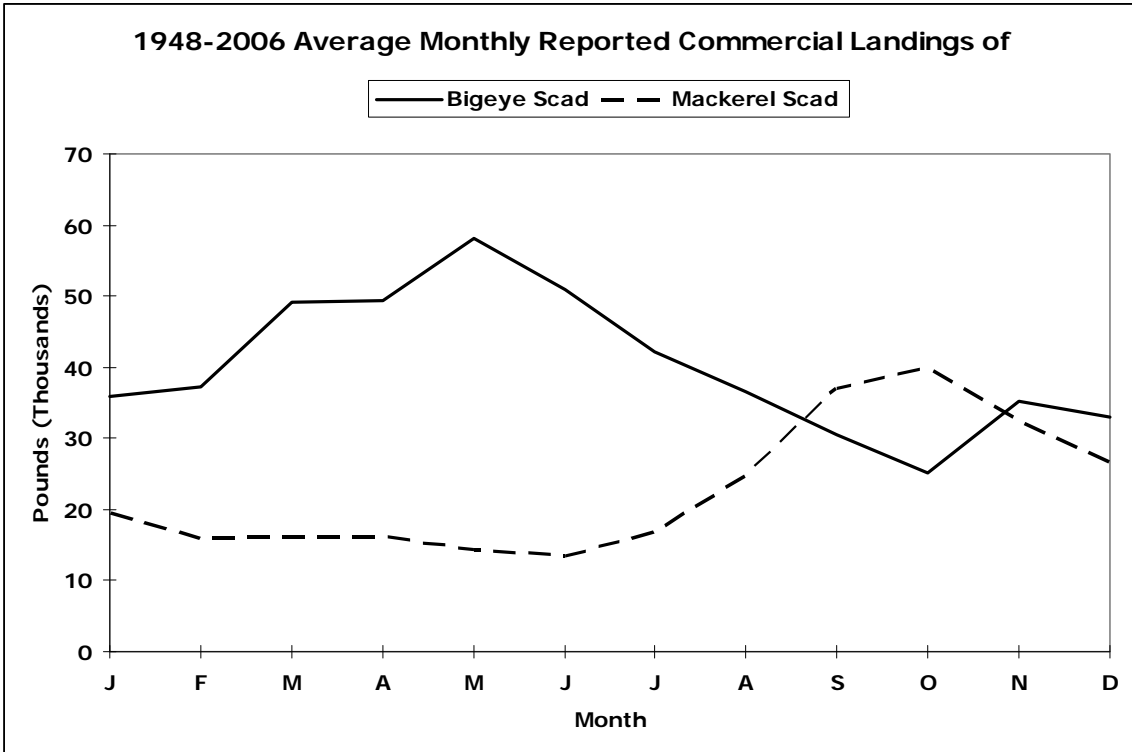


Figure D-2-7

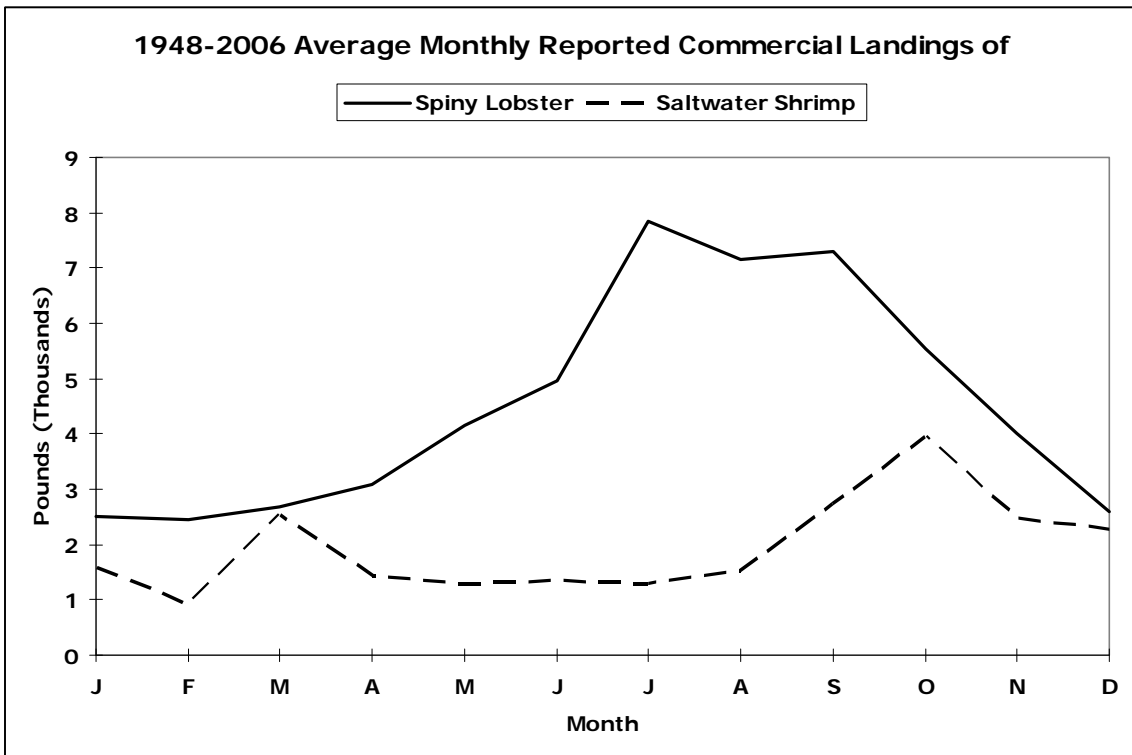


Figure D-2-8

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

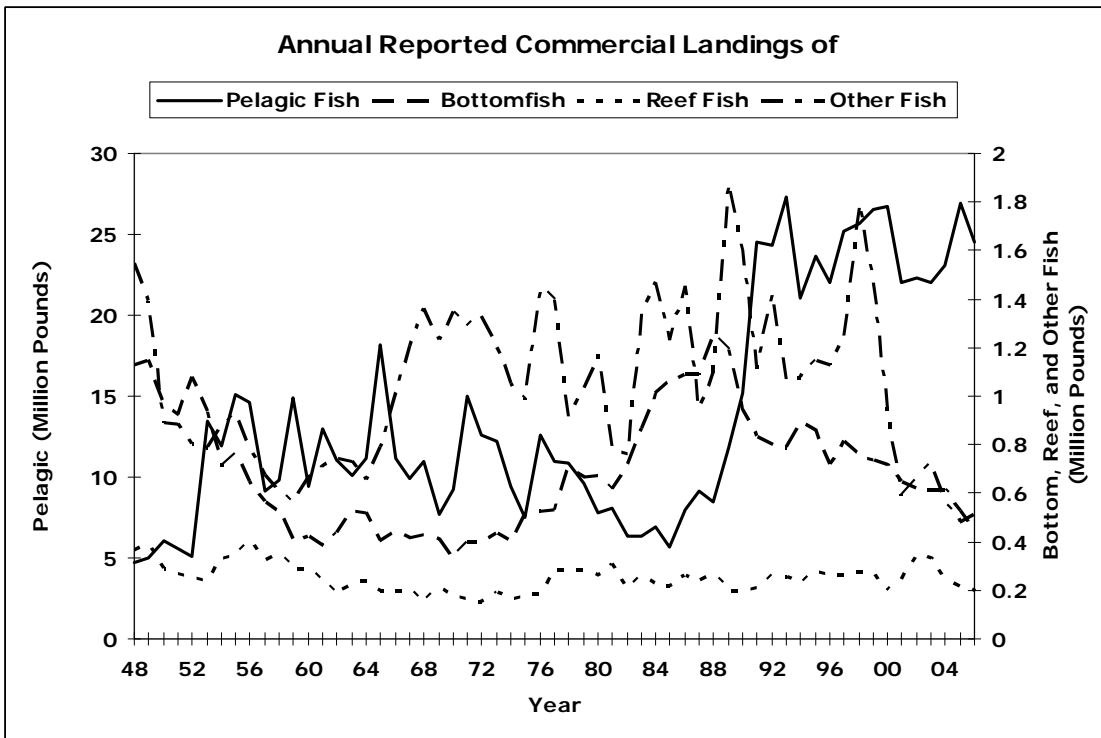


Figure D-3-1

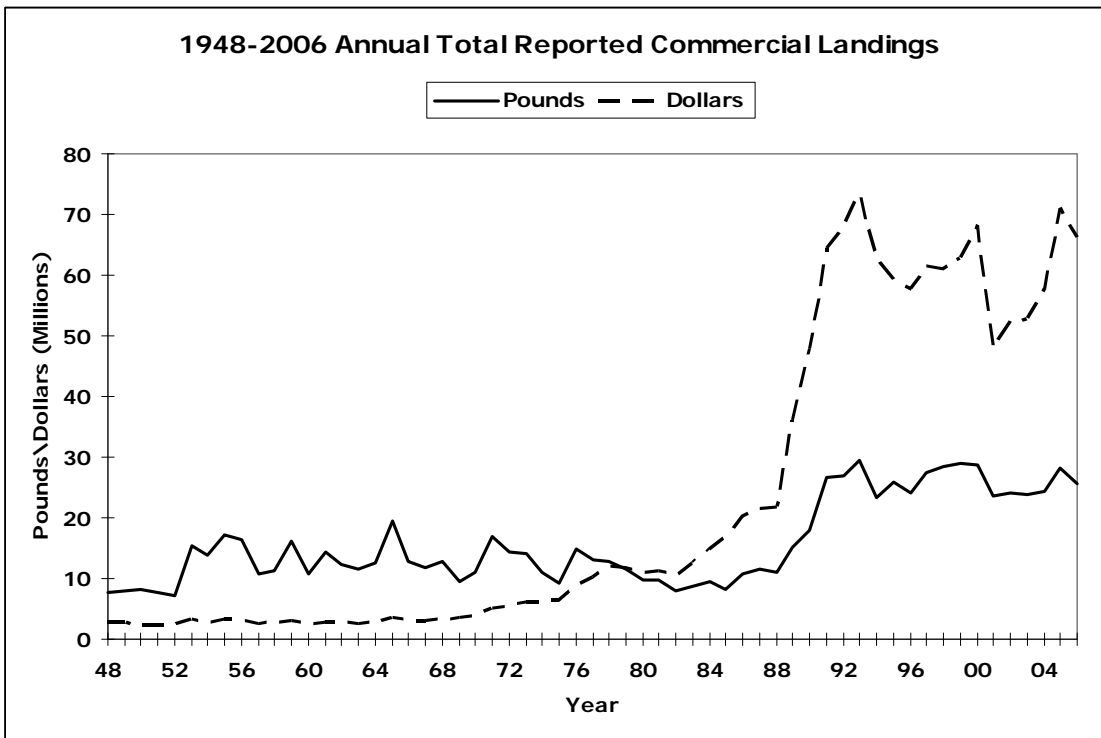


Figure D-3-2

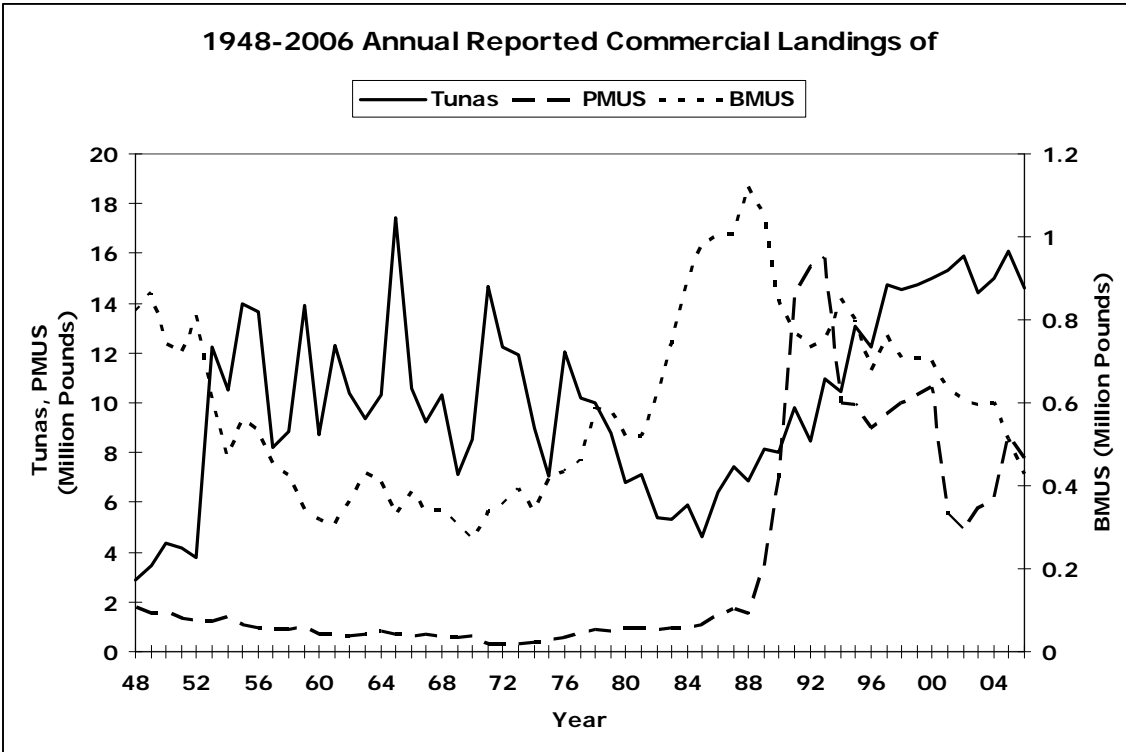


Figure D-3-3

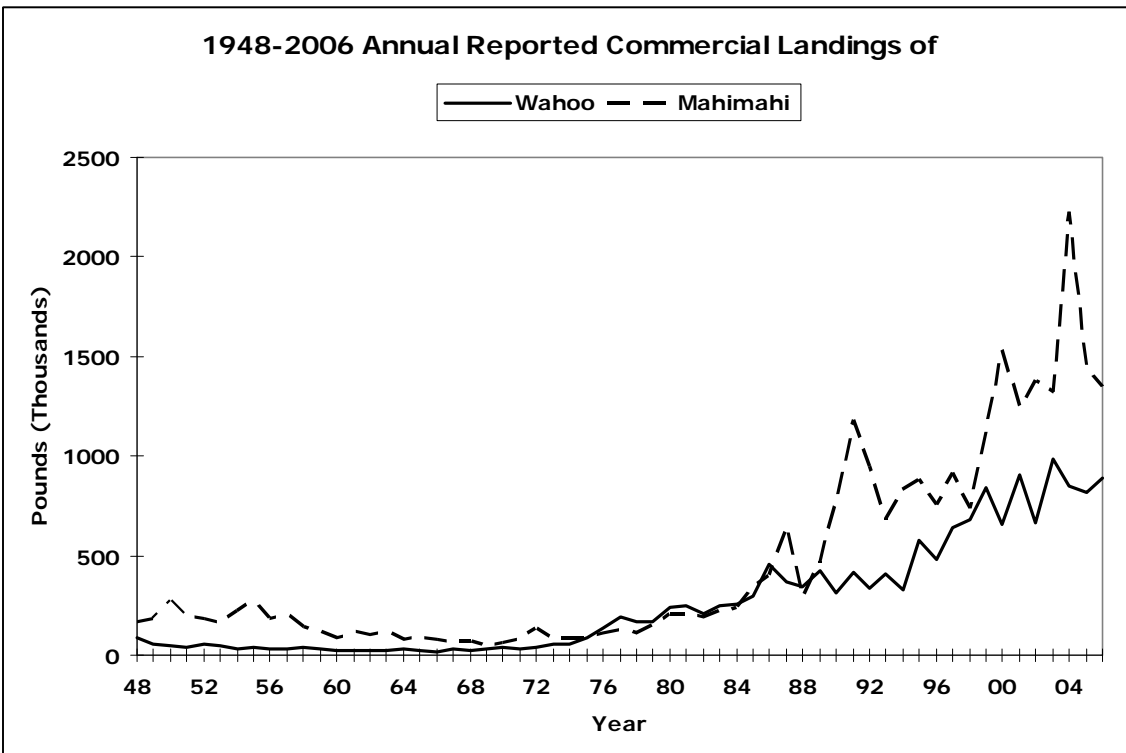


Figure D-3-4

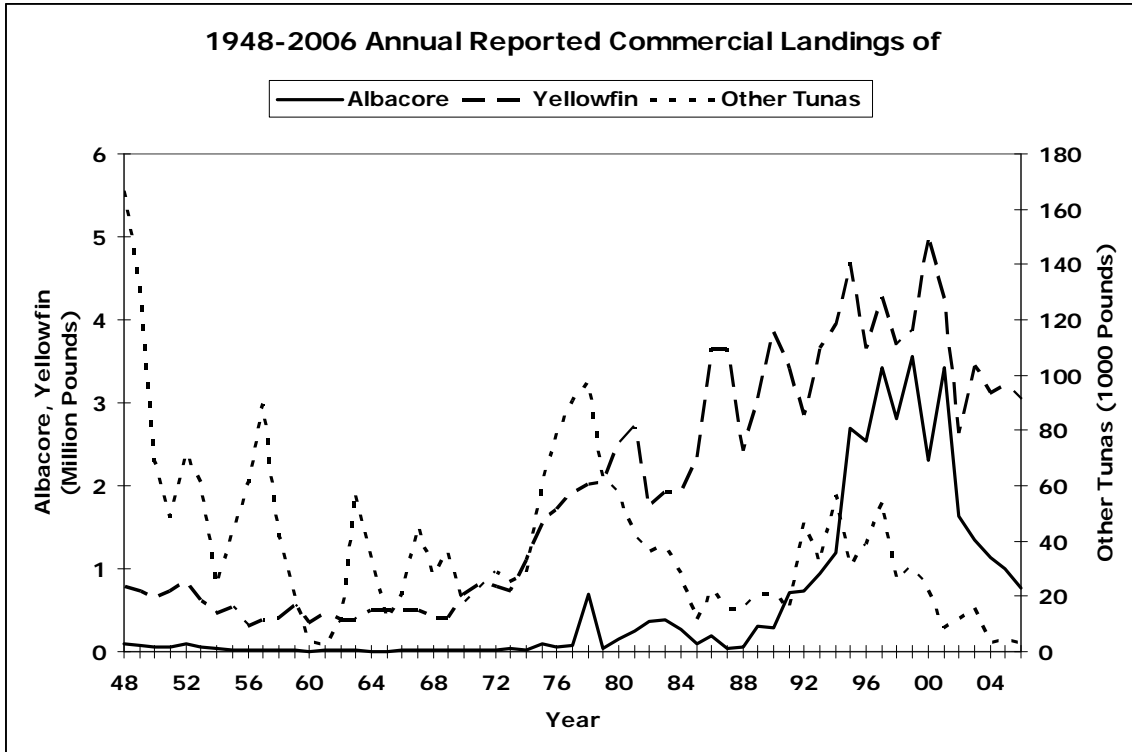


Figure D-3-5

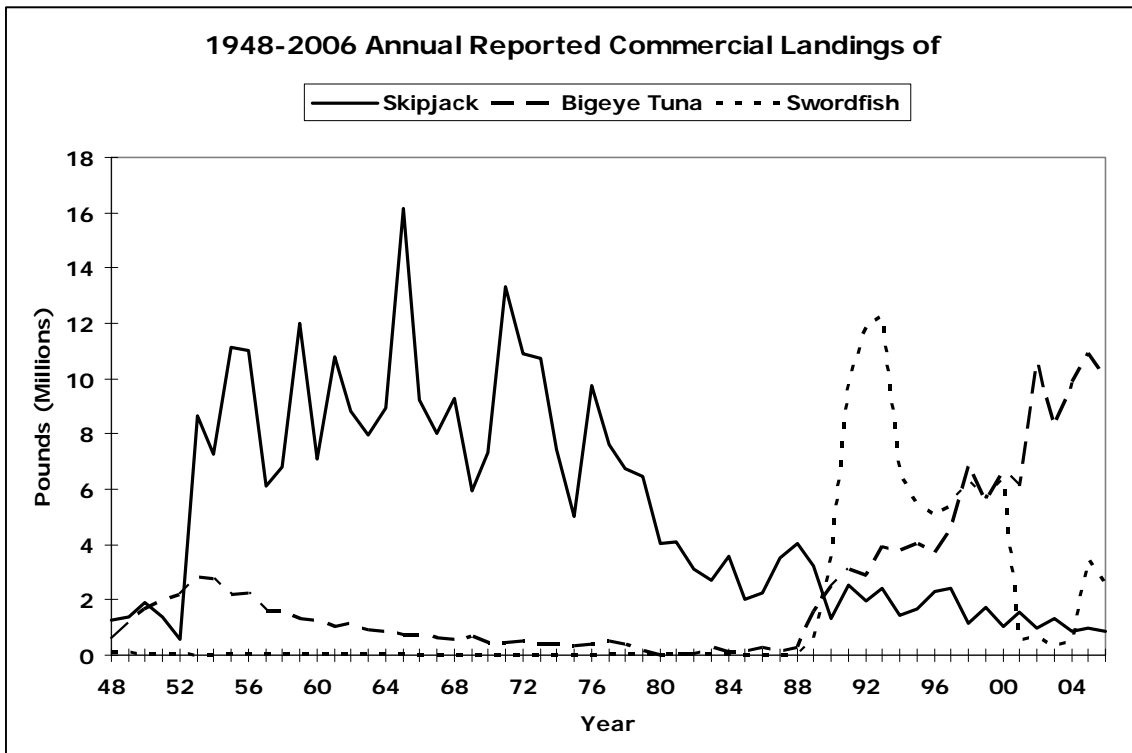


Figure D-3-6

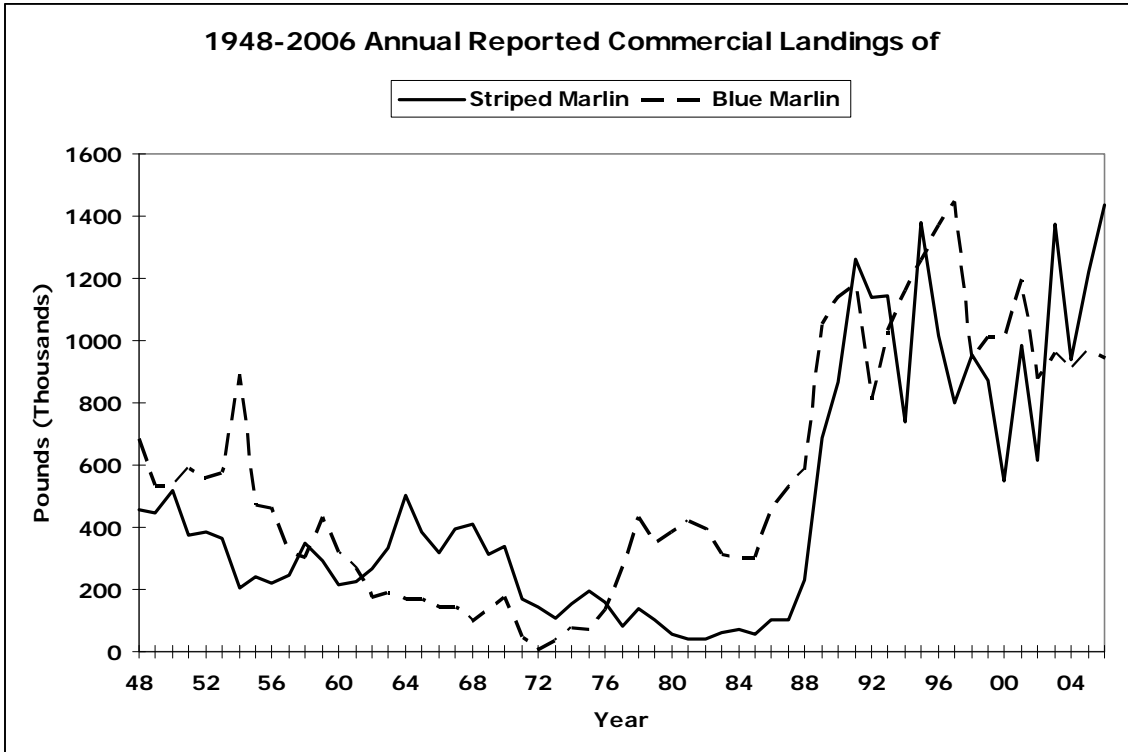


Figure D-3-7

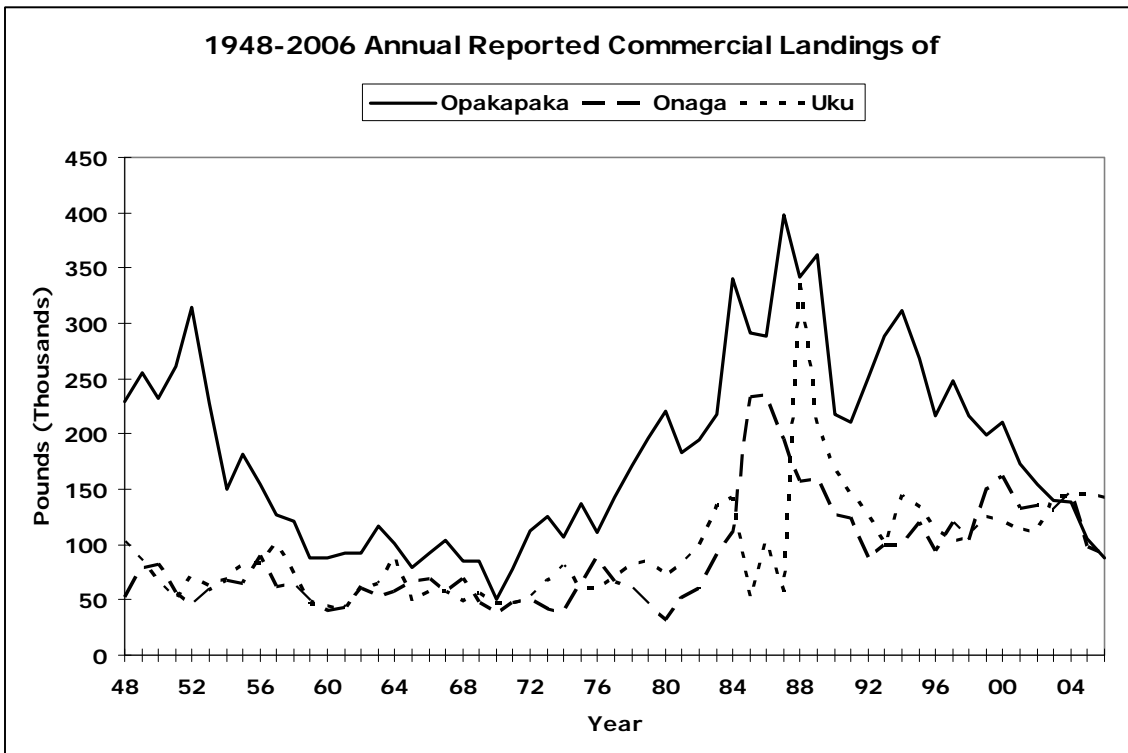


Figure D-3-8

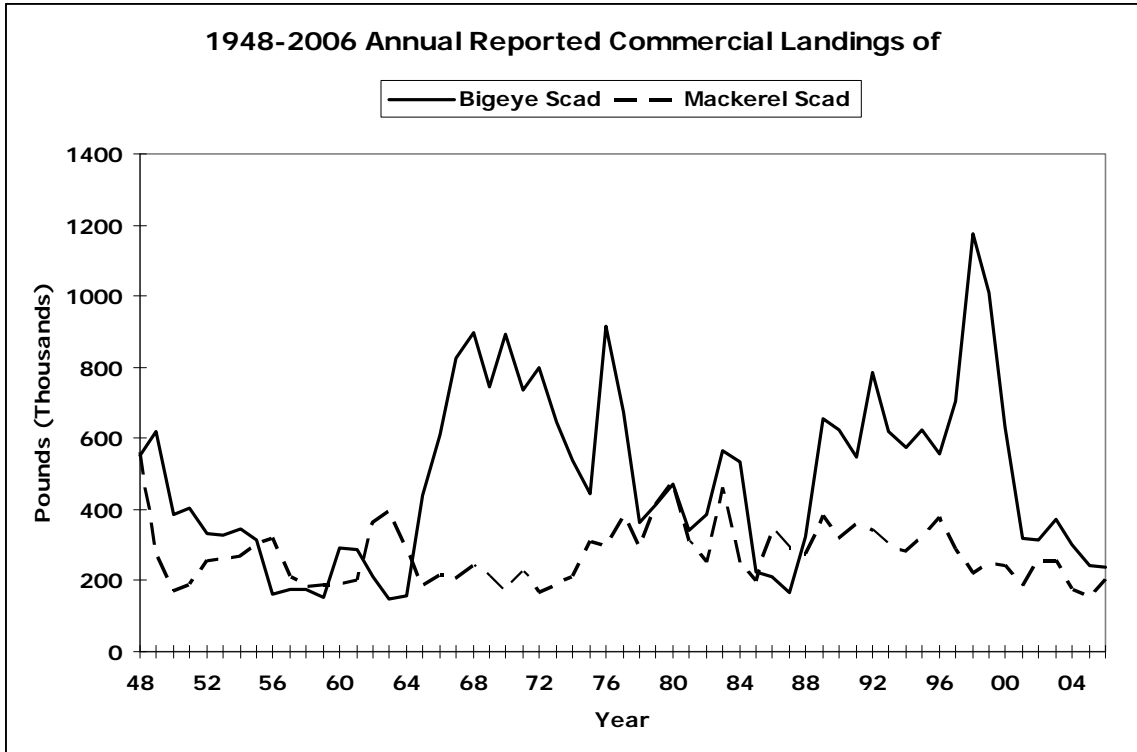


Figure D-3-9

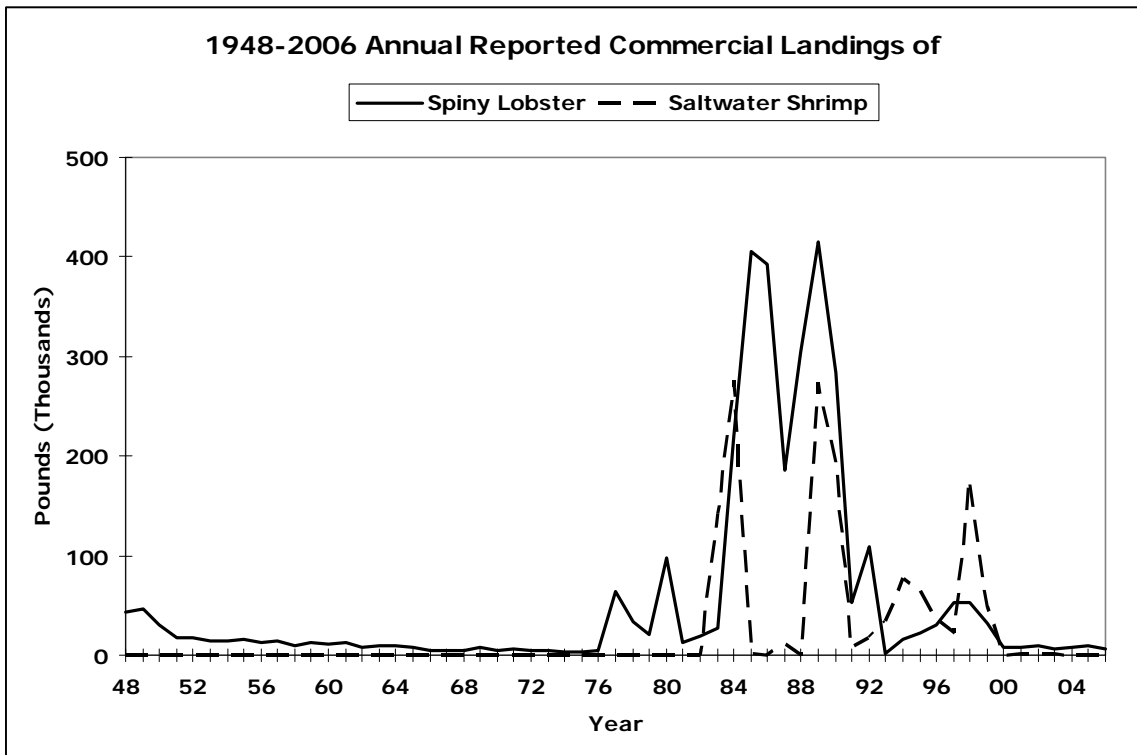


Figure D-3-10

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

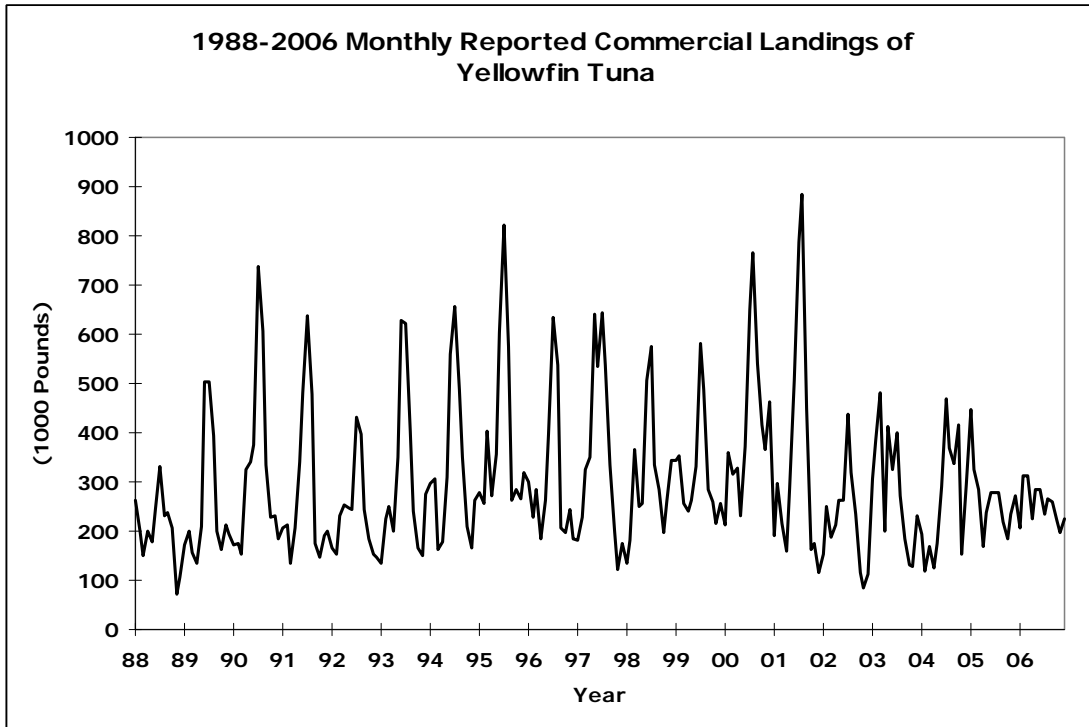


Figure D-4-1

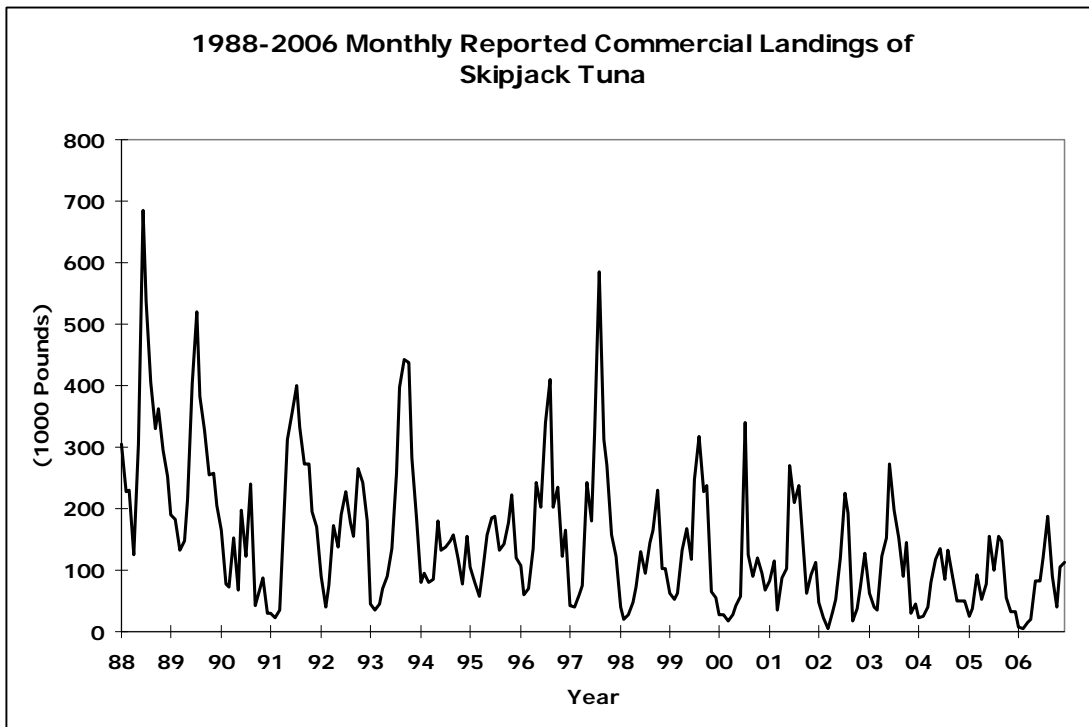


Figure D-4-2

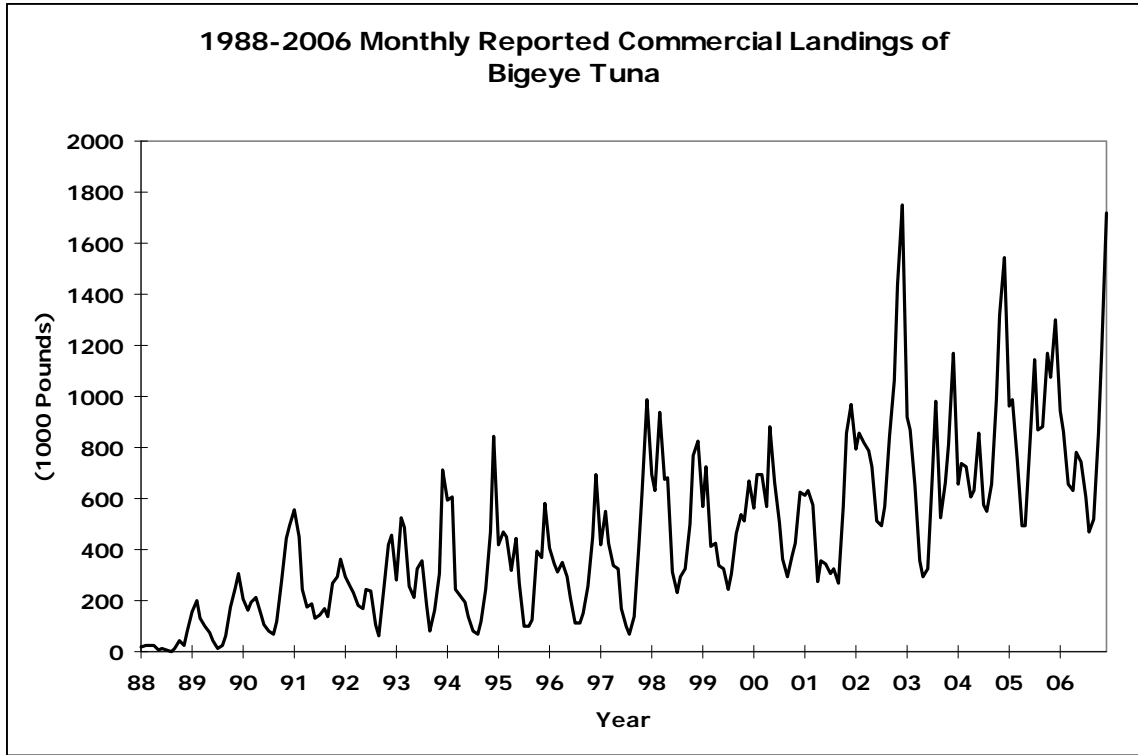


Figure D-4-3

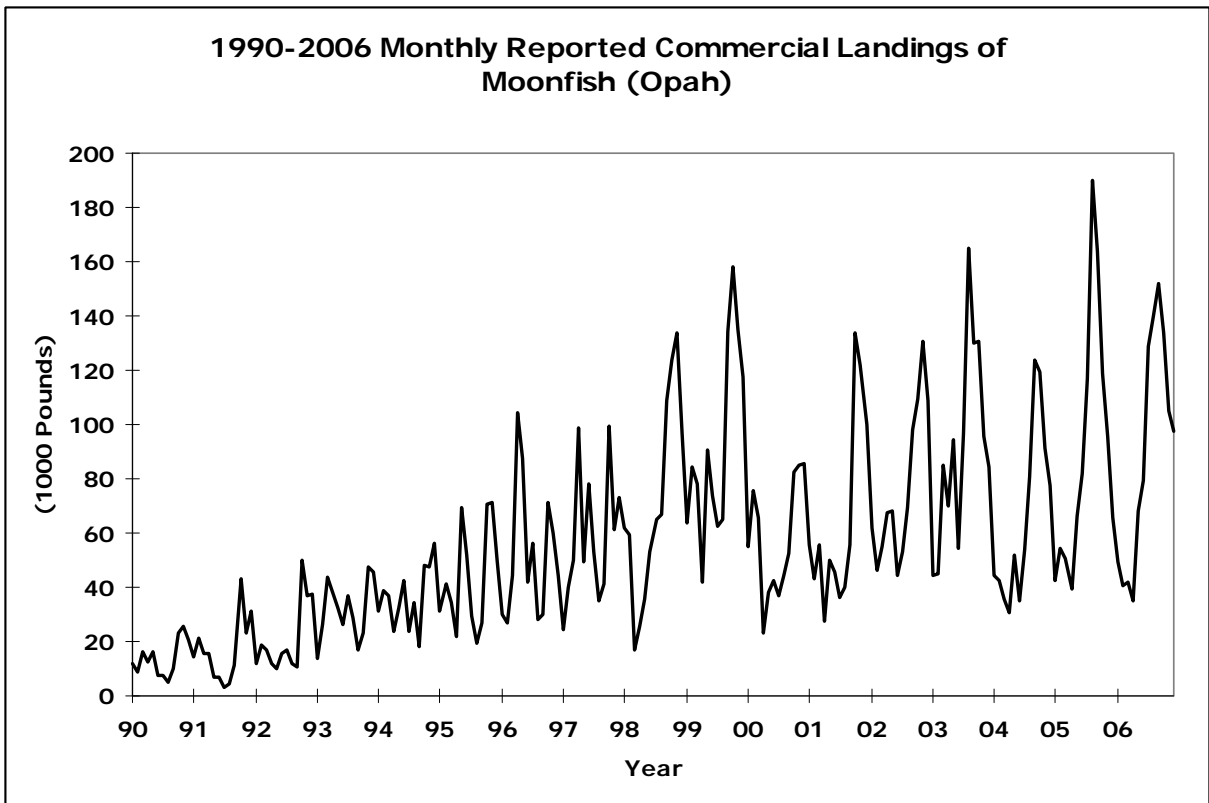


Figure D-4-4

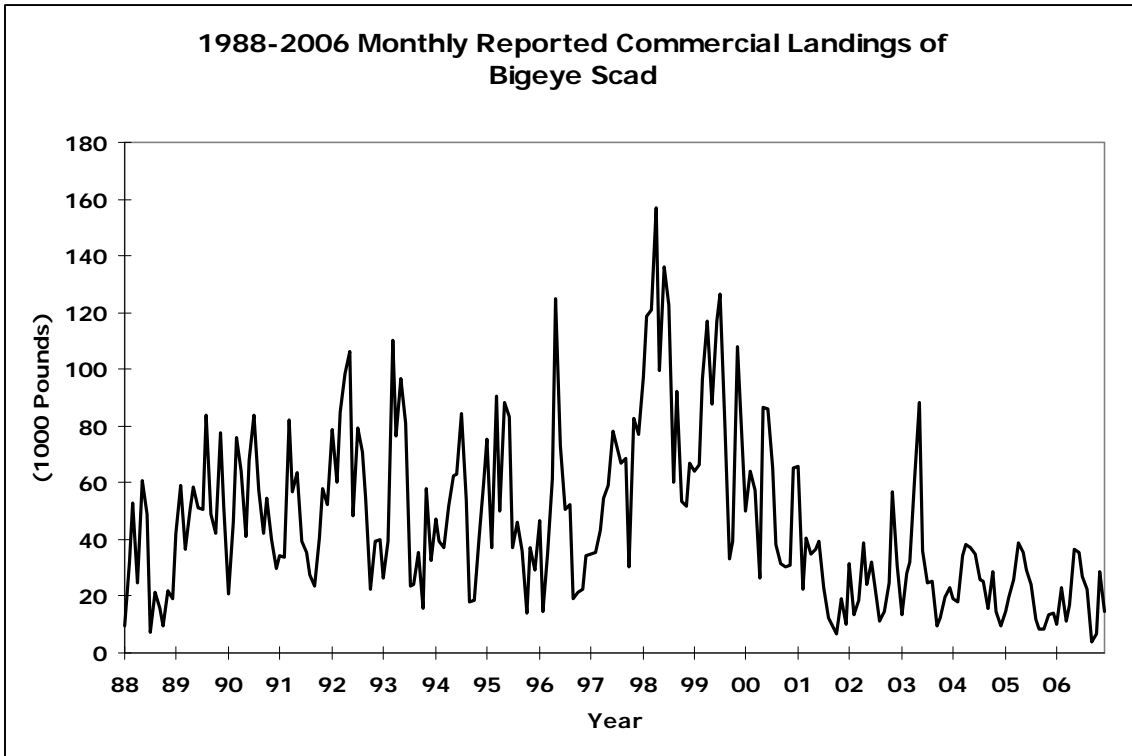


Figure D-4-5

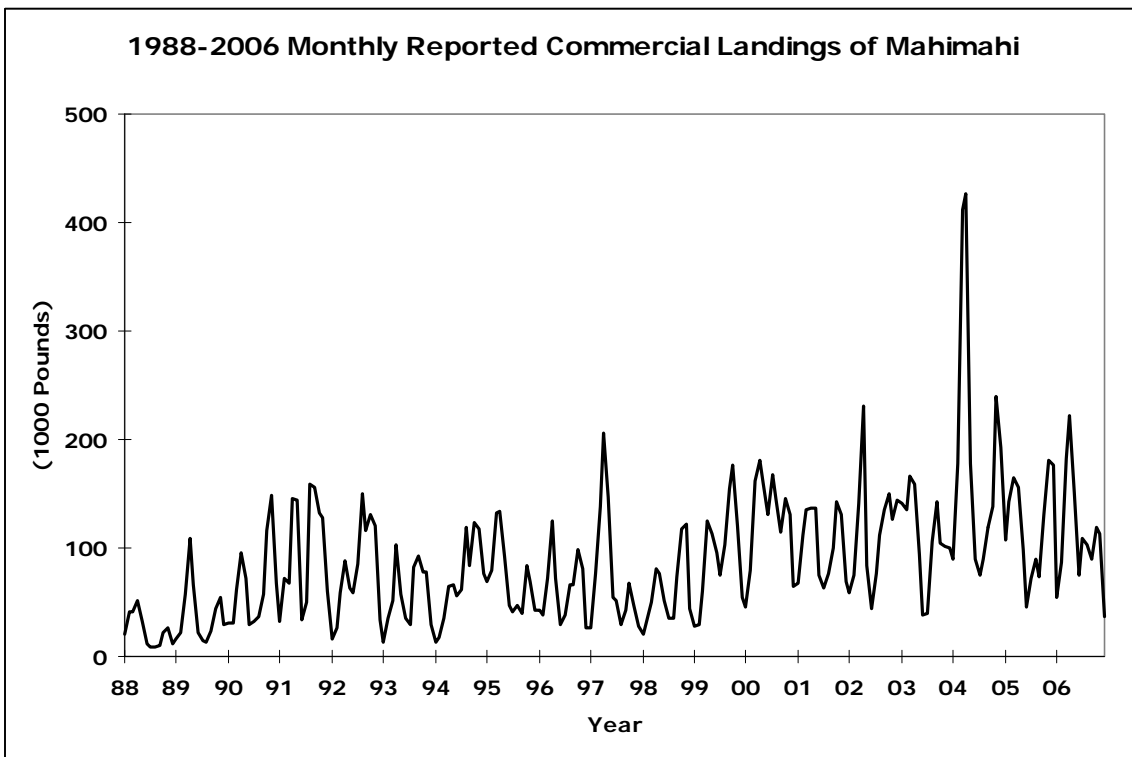


Figure D-4-6

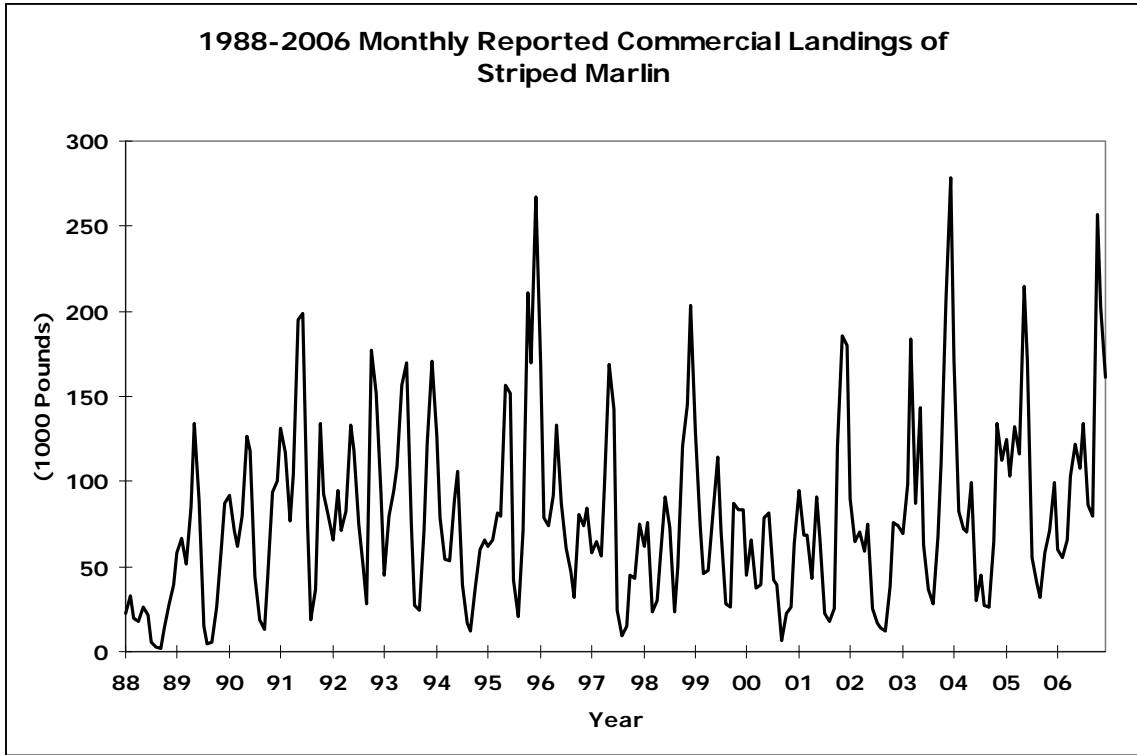


Figure D-4-7

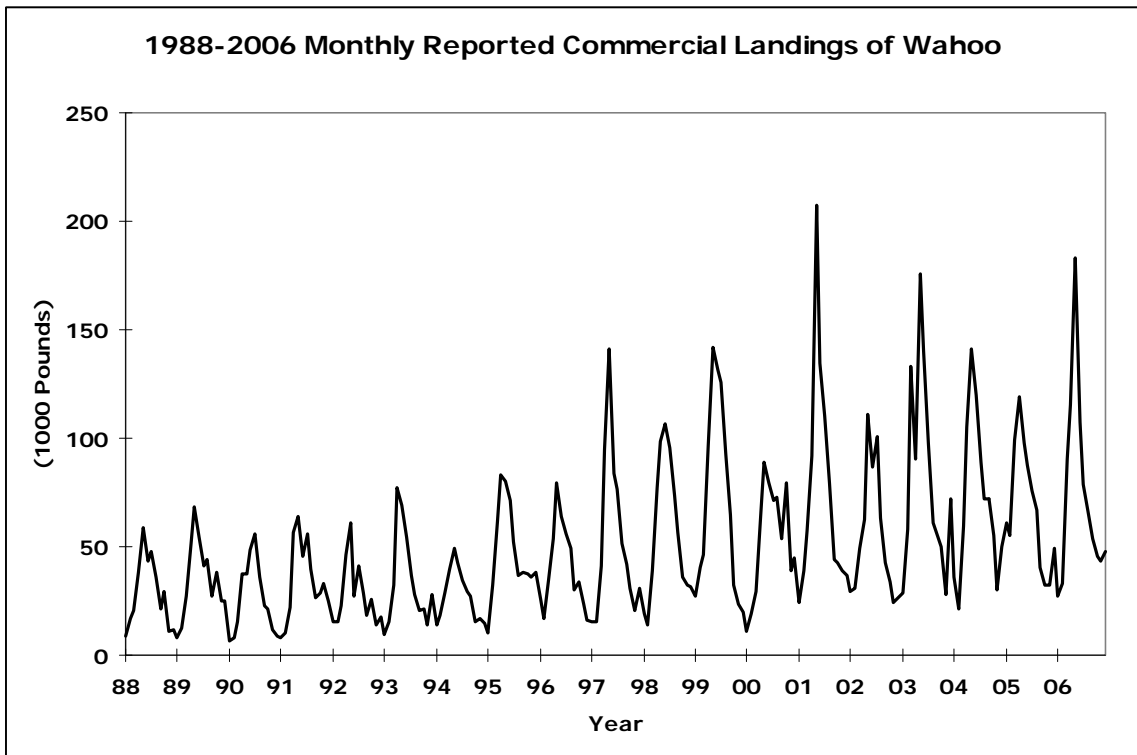


Figure D-4-8

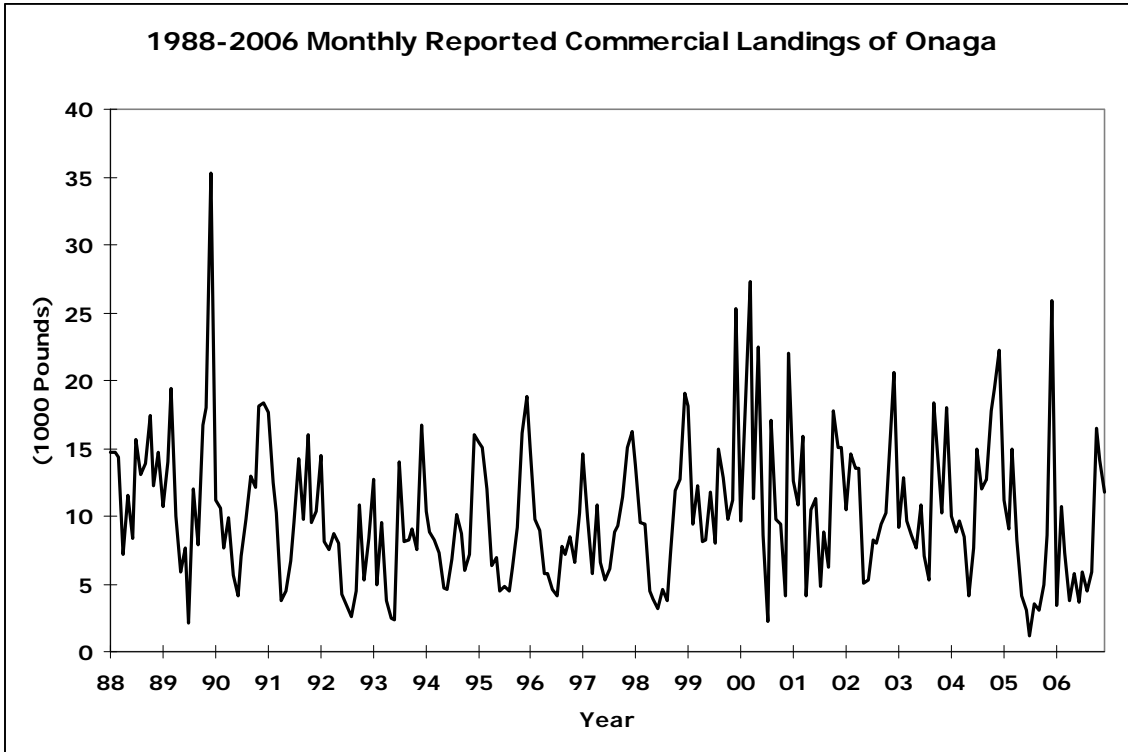


Figure D-4-9

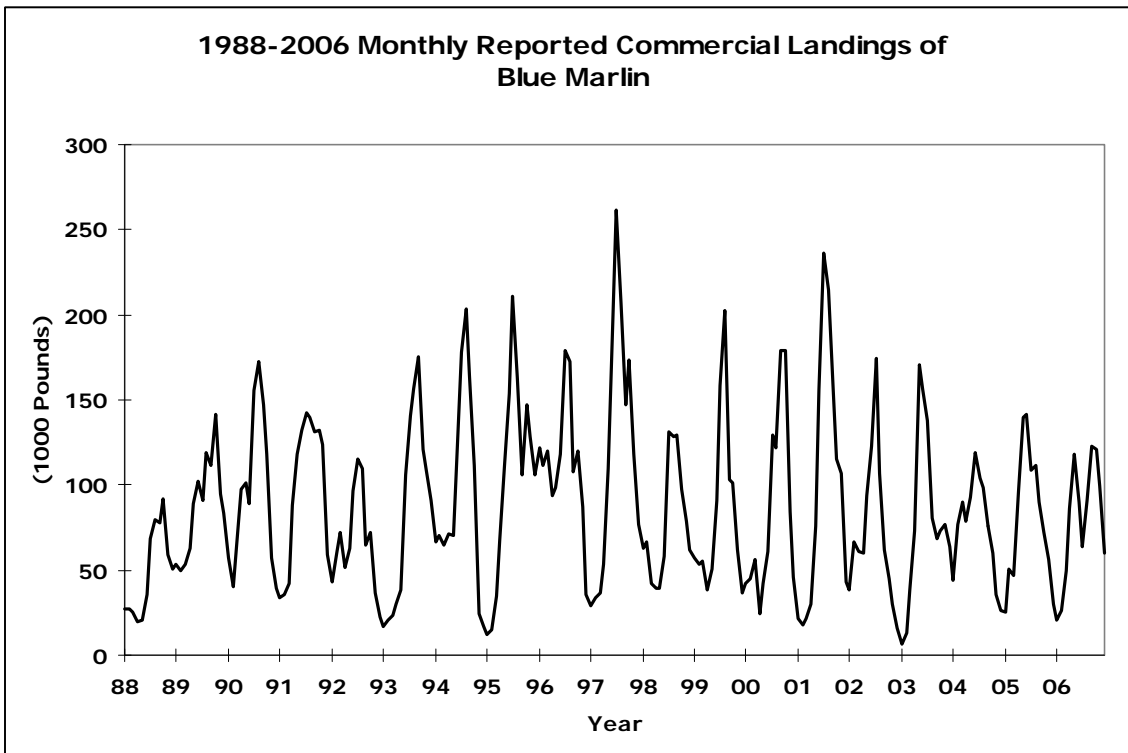


Figure D-4-10

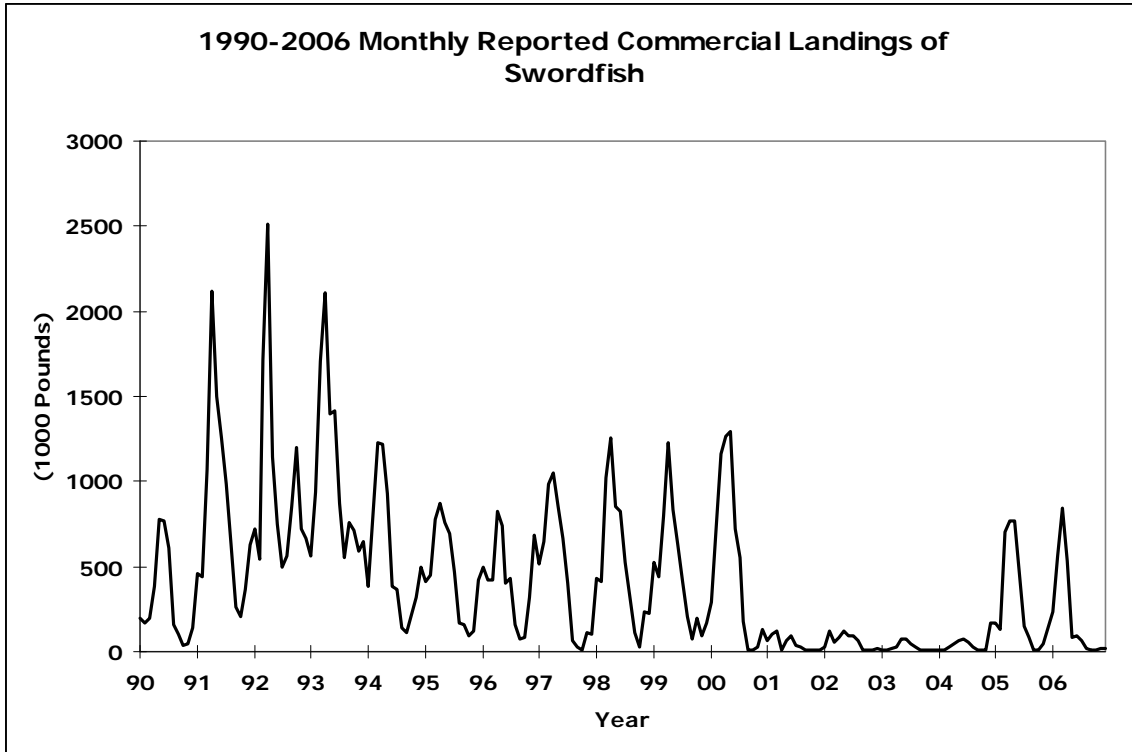


Figure D-4-11

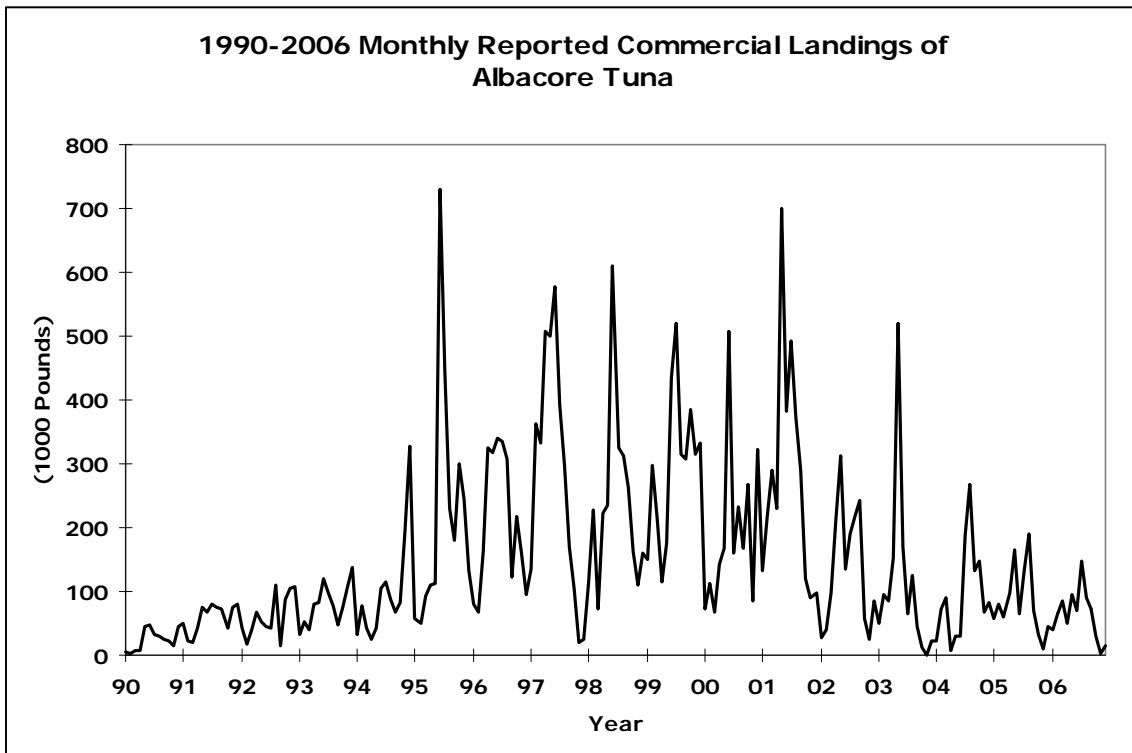


Figure D-4-12

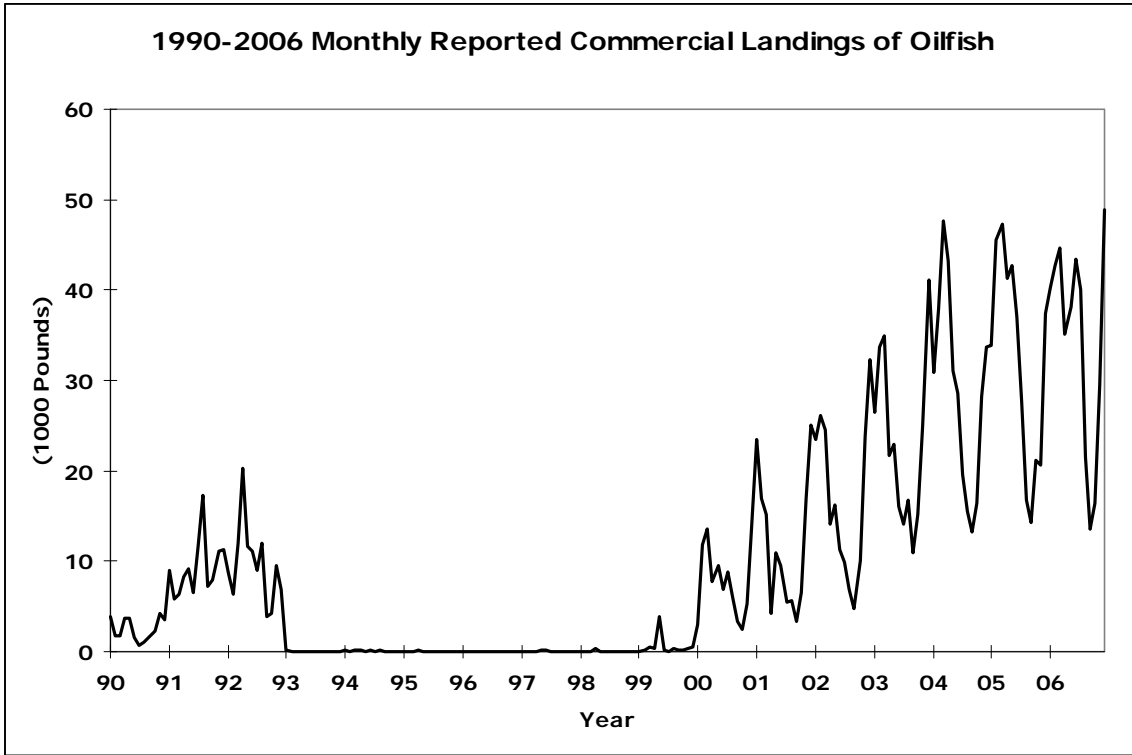


Figure D-4-13

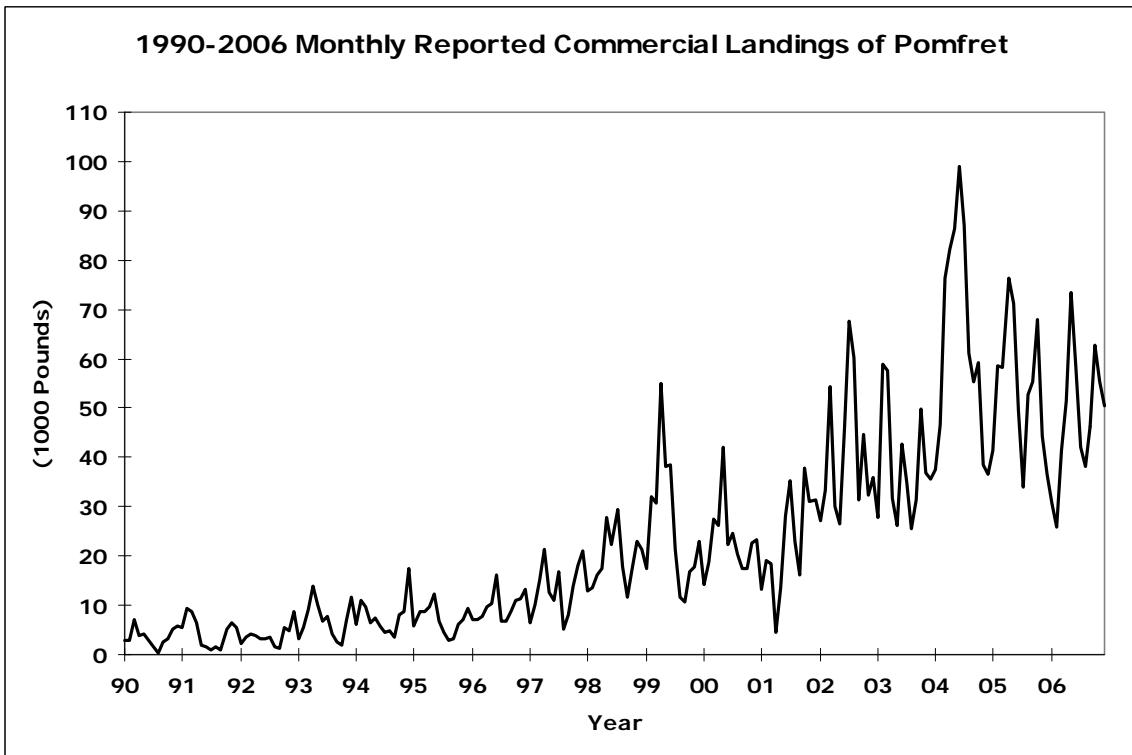


Figure D-4-14