

# PACIFIC ISLANDS FISHERIES SCIENCE CENTER



## Fishery Statistics of the Western Pacific

### Volume 31

Territory of American Samoa (2014)  
Commonwealth of the Northern Mariana Islands (2014)  
Territory of Guam (2014)  
State of Hawaii (2014)

Compiled by  
M. Kimberly Lowe, Michael M. C. Quach, Karen R. Brousseau  
Ashley S. Tomita and Toby E. Matthews

August 2016

Administrative Report H-16-09  
doi:10.25923/2mzx-tv66



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Administrative Reports may be cited as follows:

M. K. Lowe, M.M.C. Quach, K.R. Brousseau, A.S. Tomita  
and T.E. Matthews.  
2014. Fishery Statistics of the Western Pacific, Volume 31. Pacific  
Islands Fish. Sci. Cent., Natl. Mar. Fish. Serv., NOAA, Honolulu,  
HI 96822-2396. Pacific Islands Fish. Sci. Cent. Admin. Rep. H-16-  
09, var. p. <https://doi.org/10.25923/2mzx-tv66>

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August 2016

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## PREFACE

There is an increasing worldwide demand for data and information relating to marine fisheries, in order to ensure their sustainable harvest and management. To help meet this need in the central and western Pacific areas, the National Marine Fisheries Service's (NMFS) Southwest Fisheries Science Center (SWFSC), Honolulu Laboratory initiated the Western Pacific Fisheries Information Network (WPacFIN) in the early 1980s. WPacFIN is a partnership of fisheries agencies from across the US Pacific islands, which serves as a centralized data warehouse and assists the agencies in improving their data collecting, processing, and reporting capabilities.

In 1982, WPacFIN partner agencies (page 1) formed a Fisheries Data Coordinating Committee (FDCC), which delegated a FDCC Technical Subcommittee to help guide, coordinate, and plan WPacFIN fisheries data-related projects and activities. Over the ensuing decades, all participating agencies have made significant progress, particularly in the area of upgrading data collection and processing systems.

In May 1985, the FDCC took a big step towards improving and coordinating data reporting and distribution systems of the agencies, and agreed to produce a combined document that would report 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 agreed to supply the data required to produce the tables and graphs for its respective section, and WPacFIN centralized staff (in Honolulu) would produce and distribute the document as part of the Administrative Report Series.

In April 2003, NMFS created a new Pacific Islands Region (PIR) comprised 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). The reorganization placed this statistical report under affiliation with PIFSC, as opposed to with SWFSC.

Although the FDCC was formally discontinued in April 2015, the functions fulfilled by that body are now met via working groups, technical meetings, site visits, multi-media conferencing (telecom, webinar, etc.), and occasional workshops. The need for a consolidated annual summary publication for the US-associated Pacific islands also persists.

This is the 31st 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 2014. As with previous volumes, it has four sections, one for each of the major island areas. Each section contains reports regarding monthly and annual commercial landings by species and/or major groups.

## INTRODUCTION

Fisheries agency and industry partners participating in the Western Pacific Fisheries Information Network (WPacFIN), a collaborative fisheries data collection network that includes Hawaii, Guam, the Commonwealth of the Northern Mariana Islands (CNMI), and American Samoa, compiled the data in this report. WPacFIN's goal is to improve access to and dissemination of fisheries information. Participating agencies include the following:

<b>American Samoa</b>	Department of Marine and Wildlife Resources (DMWR)
	NOAA Pacific Islands Regional Office (PIRO), Fisheries Monitoring Field Office and Observer Program, American Samoa
<b>Commonwealth of the Northern Mariana Islands (CNMI)</b>	Department of Lands and Natural Resources, Division of Fish and Wildlife (DFW)
<b>Guam</b>	Department of Agriculture, Division of Aquatic and Wildlife Resources (DAWR)
	Bureau of Statistics and Plans (BSP; formerly Department of Commerce)
<b>Hawaii</b>	Department of Land and Natural Resources, Division of Aquatic Resources (DAR)
	NOAA Pacific Islands Fisheries Science Center (PIFSC)
	NOAA Pacific Islands Regional Office (PIRO)
	Western Pacific Regional Fisheries Management Council (Council)

WPacFIN and these agency partners collect, digitize, conduct quality control, edit and otherwise 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. 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 CNMI were using WPacFIN-supplied computers to process data. Since that time, these agencies have made significant improvements in their data collection methodology and have established various automated data processing systems with support from WPacFIN Central.

WPacFIN has established File Transfer Protocols (FTP) for all the island areas, with support from PIFSC Information Technology Services (ITS). Online data entry and FTP for DAR are also supported by the Department of Accounting and General Services and Hawaii ITS contractors. Once data from all agencies has reached the WPacFIN centralized data system and appropriate editing, adjustment, and validation procedures are completed, summary tables and charts are produced using freeware and commercially available database and server applications developed by WPacFIN Central staff.

## CAVEATS

Data collection, compilation, and processing systems vary greatly among Pacific Island fisheries agencies. Although a lot of effort has made to standardize data systems over the years, many unique aspects remain, resulting from differences in local requirements, resources, abilities, and other factors.

As a result, interpretation and comparison of data across islands from this report, requires recognition of several caveats. For example, Hawaii's commercial landings data summaries are based on mandatory monthly reporting by fish dealers and licensed commercial fishers, and data from federal longline logbooks. In contrast, commercial landings estimates for CNMI and Guam are based on voluntary reporting by major fish buyers, using government-provided invoices, adjusted to represent 100% coverage of estimated fishing trips (referenced throughout this report as "estimated commercial landings"). Finally, American Samoa commercial landings estimates are based on a complex integration of data from a boat-based creel survey and data expansion system for non-federal fisheries, mandatory federal logbook data, a size-frequency sampling program for the longline fishery, and data from a mandatory commercial purchase reporting system for local sales.

Each system has advantages and disadvantages the reader should be aware of when comparing or interpreting data across fisheries and island areas. In addition, island fisheries agency and WPacFIN staff are continually improving the data collecting and processing systems for each area. Because the improvements usually result in updates to the estimates of total and commercial landings, the data in this volume may not align exactly with data in previous volumes of this report series. WPacFIN Central staff is currently compiling documentation of significant changes in data collection and summary systems across the region over the past three decades, to help put into perspective the effects of these differences on trends in the data.

The reader should also be aware that species assemblages vary among island areas, as do cultural preferences and principal fishing techniques and gears. Island cultures and fisheries also change over time. Sometimes new fishing methods evolve quickly in a given area. The changing population and weather of the island group is relevant to the interpretation of the relative value and importance of its fisheries in a given year. To help provide this perspective, a brief description of island population, fisheries, data collecting, and processing systems is included in each island's section.

## DEFINITIONS OF SPECIES CATEGORIES

In addition to a description of the fisheries monitoring systems, and monthly and annual reports, each section contains graphs of statistical summaries of particular interest or importance to participating WPacFIN agencies. Species categories have been defined for each island's fisheries. Because of differences in the resolution of species identification across local monitoring systems and sectors of the fishing industry, the species within each category vary somewhat between the island areas. There is also a degree of overlap between some of the categories used for different graphs. For example, the category "bottomfish" includes some, but not all of the snappers, jacks (trevallies), and groupers. Bottomfish species are reported separately during creel surveys, but they are often grouped in reports from the markets. Each section of the report has its own documentation of species groupings.

**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, for comparative purposes, this FSWP volume maintains the original species categorizations seen throughout the series. 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 habitat, specifically pelagic, bottomfish, reef fish, and "other." The category "other" includes species or groups that may not fit these ecological categories (e.g. invertebrates, algae, bonefish, or bigeye scad), as well as species not typically included in these groups in the Pacific islands (e.g., species that are estuarine in continental ecosystems, such as mullet or 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 has continued to treat tunas as a separate category for the sake of continuity. Therefore, the PMUS category in this document includes only billfishes, wahoo, mahimahi, and oceanic sharks.
3. Bottomfish Management Unit Species (BMUS) – Defined as the species of initial importance in the Pacific Island's Fishery Management Plan for bottomfish and seamount ground fish fisheries, including the major deep-water snappers, groupers, emperors, and certain jacks.
4. Tunas – Any of fifteen species, across five genera, of the tribe *Thunnini*. All tunas are oceanic in habitat, most are worldwide in distribution. This does not include other scombrids, such as wahoo and "dogtooth tuna" (see the tables for scientific names). Historically in the Pacific islands, this group had been comprised predominantly of skipjack and yellowfin tuna; but with the growth of longline fisheries, bigeye and albacore tuna have become much more



predominant in landings from in Hawaii and American Samoa, respectively.

5. Other Scombrids – This group includes species that comprise a very small portion of the catch, unidentified tunas, and apparent misidentifications.
6. Billfishes – This group is a combination of blue, striped, and black marlins; sailfishes; spearfishes; 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 or groups, showing the estimated commercial catch for each month of the year.
- The second is a seasonality plot for the major species or 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 year-to-year variability.
- The fourth type of plot shows monthly landings of some of the major commercially important species or groups, and documents monthly fluctuations in landings of these species over the entire time series (all years for which there are data).

To see the most current data and charts, please visit <https://www.pifsc.noaa.gov/wpacfin>.

# **AMERICAN SAMOA 2014 FISHERIES STATISTICS**

Compiled by

American Samoa

Department of Marine and Wildlife Resources

and the

Western Pacific Fisheries Information Network

August 2016



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# AMERICAN SAMOA 2014 FISHERIES 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 54,343 (*The World Factbook*, July 2015 estimate), the majority (> 95%) living on Tutuila

*Economy:* Tuna fishing and tuna processing plants, with canned tuna the primary export. Tourism is a promising developing sector.



American Samoa

Source: <http://www.cia.gov/cia/publications/factbook/aq.html>;

*The World Factbook*

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

Until the mid-1990s, American Samoa's domestic fisheries had been dominated by small (28–32-ft) outboard-engine-powered catamarans called *alias* (pronounced *ah-lee-ahs*), fishing primarily single-day trips. Traditionally, trolling and bottomfishing were the major methods of fishing, with occasional small amounts of spearfishing, netting, and vertical longlining. About mid-1995, some of the traditional *alias* began converting to horizontal longline fishing. Over the course of 1996, horizontal longlining became the largest fishery in American Samoa, based on total weight of landings, although only about a third of the fleet had converted to this method. The fleet grew rapidly over the next few years, adding new and larger *alias* up to about 38 ft in length. More significantly, throughout the same period, increasingly larger monohull vessels (40-70 ft and over) also began to join the fleet. These boats could fish much longer trips, both in duration and distance. Between 1995 and 2002, vessels over 50 ft in length rapidly came to dominate the fleet, and have been responsible for over 90% of longline fishing effort annually (number of hooks set) since 2002. The primary target species for this fleet has always been albacore tuna (50-70% of catch annually), but the fishery also lands a significant amount of skipjack tuna (roughly 18-25%), and lesser amounts of yellowfin and bigeye tuna, wahoo, oilfish, blue marlin, mahimahi and other incidental species.



## A.2

During 2014, the various monitoring programs in American Samoa identified 54 active fishing vessels. Of these, 52 were home-ported on Tutuila and two in the Manu'a Islands. Many of these vessels participated in more than one fishery. Twenty-two of the Tutuila vessels, including nineteen vessels over 50 ft in length, did at least some longlining. Out of the 54 fishing vessels, thirty participated in the troll and bottomfish fisheries, and eleven were used in other types of fishing). Essentially all of the longlining in American Samoa was based out of Tutuila, where the majority of the catch was offloaded to the canneries.

During 2014, the average alia fishing vessel on Tutuila carried a three-man crew that fished nine hours and caught an estimated 161 lbs of fish and invertebrates per trip. The average Manu'a vessel-based fishing trip also had a three-man crew, but fished for only 4 hours and landed an average of 78 lbs per trip. Although fishing is generally conducted only to supply village or market demand, and fish are plentiful, this comparison demonstrates a slightly higher hourly catch rate in the less-populated Manu'a Islands (17.9 lbs/hr on Tutuila versus 19.5 lbs/hr in the Manu'a island group).

### **DATA COLLECTION PROGRAMS**

The data collection programs used by the DMWR to monitor the changing fisheries of American Samoa have evolved considerably over the past 35 years. These data collection programs have typically relied on a high level of personal contact with fishers for a significant portion of creel survey interviews and dockside monitoring programs. From 1982 to 1985, DMWR obtained catch statistics by interviewing commercial fishermen at the end of each trip, and kept a record 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 for which interviews could be conducted. However, it was very labor intensive, did not cover all trips, and did not include subsistence fishing, or the small but growing recreational fishery.

DMWR has several major data collection programs in place today and works cooperatively with NOAA Fisheries to obtain complete data for its primary commercial fisheries. Data used to develop the best estimates of commercial catch and effort for the fisheries and markets of American Samoa come from the following programs:

1. Vessel Classification Program – a vessel history and tracking system for all American Samoa vessels, managed by the Department of Public Safety.
2. Boat-based Creel Survey Program (formerly the Offshore Creel Survey System) – access-point creel surveys at boat ramps on Tutuila and in the Manu'a Islands.
3. Shore-based Creel Survey Program – roving creel surveys along the shoreline of Tutuila and the Manu'a Islands.
4. Commercial Purchase Program – a mandatory purchase receipt system for businesses on Tutuila that purchase seafood directly from fishermen.
5. Federal Longline Logbook Program – federal logbook data are collected and compiled by PIFSC, with support from the Pacific Islands Regional Office (PIRO).
6. Cannery Sampling Program – length-frequency sampling data for tunas and important pelagic species, collected by the PIRO Field Office from longline vessels offloading at

### A.3

canneries in Pago Pago (purse seine data are compiled separately by another NOAA Fisheries regional data collection).

7. Cannery Offloading Data – monitoring of the total amount of fish offloaded at the cannery by longline vessels in Pago Pago, conducted by the PIRO Field Office (purse seine data are compiled by another NOAA Fisheries regional data collection).

**Vessel Classification Program** – Beginning in the early 1980s, this program was established to collect information on all vessels participating in any domestic fisheries. It includes 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 (freeboard plus draft in feet)
- Engine Type
- Fuel Type
- Material
- Horsepower
- Port
- Methods of Fishing
- Federal Permit

**Boat-based Creel Survey Program** – Around 1985, a boat-based creel survey program was implemented on Tutuila to provide statistics on all boat-based fishing, including non-commercial trips. Similar monitoring programs were established shortly thereafter in the Manu'a Islands, where the landing sites are centrally located and the number of vessels is small enough for data to be collected on almost every trip. Creel surveyors in the Manu'a Islands send monitoring data to the DMWR office on 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 has remained a trip-based, stratified sampling program. During analysis, data are stratified by fishing method, type of day (weekday vs. weekend/holiday), port, and charter status. For cultural reasons, Sundays are not worked in American Samoa. Consequently, creel surveys do not occur on Sundays (and there is typically very little fishing activity anyway).

DMWR staff normally samples at least two weekdays and one weekend/holiday per week. In 2014, weekday sampling was conducted much more frequently. A total of 197 weekdays and 39 weekend days were surveyed for boat-based fishing. During survey days, all departing and returning fishing boats are noted on a boat-log form, and an attempt is made to complete an interview for each returning vessel. Four main ports and boat launching areas in Pago Harbor are monitored on each sampling day, including: Pago Pago, Fagatogo, Utulei, and Faga'alu. Several more remote launching areas, including Fagasa, Faga'itua, and Vatia, are monitored as well, when it is known that a vessel is departing from or returning there. It is assumed that the catch rates in these less-sampled areas are similar to those of the regularly-sampled areas. Furthermore, fishers that are interviewed are assumed to be representative of the entire fishing population and to provide accurate information.

#### A.4

Vessels out fishing are detected either by the presence of a boat trailer near a launch area or by the absence of a known boat at its designated berth. Unless contrary information is available from knowledgeable persons interviewed along the docks or in the local community, all such boats are assumed to be out fishing.

The following participation information is recorded for all boats considered to be “out fishing”:

- Survey date
- Vessel name
- Presence/absence during three observation times
- Type of day
- Fishing method
- Number of gears
- Number of fishers
- Berth or mooring location

The remaining data elements, listed below, are collected from each returning vessel if an interview can be successfully completed:

- Interview date and time \*
- Type of day \*
- Vessel name
- Fishing method \*
- Number of fishers
- Number of gears
- Hours fished
- Area fished
- Total catch weight \*
- Species caught \*, with the following information for each species
  - Individual lengths \*
  - Individual weights
  - Number caught \*
  - Landed condition
  - Disposition (% for sale vs. village or home consumption)
  - Price per pound
- Any bycatch

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. Identification and weight of each species are often not obtainable. Species groupings (e.g., “miscellaneous bottomfish”) are recorded only in cases where species-level identification is impossible.

Boat log data is expanded to estimate the total number of fishing trips on Tutuila, and interview data are used to compute the average catch per trip. Multiplying the estimated trips by the average catch per trip then provides an estimate of the total catch on Tutuila. This is done separately for each analysis stratum and summed over all strata. The Manu`a survey is considered to be a census and therefore not expanded. The Manu`a catch is added to the estimated Tutuila catch to arrive at a total catch estimate for American Samoa.

**Shore-based Creel Survey Program** – Around 1985, a shore-based creel survey sampling program was implemented on Tutuila to provide statistics on all shore-based fishing, including non-commercial activity. Similar monitoring programs were established shortly thereafter in the Manu`a Islands. The surveyors in the Manu`a Islands send monitoring data to the DMWR office on Tutuila for processing.

The details of the shore-based fishery sampling program have changed over the years to accommodate changes in the fisheries. But it has remained an hourly CPUE-based stratified random sampling program. During analysis, data are stratified by fishing method, type of day (weekday versus weekend/holiday), region, and time of day. As noted for boat-based surveys, for cultural reasons no sampling occurs on Sundays, when work is not allowed and there is very little fishing activity.

DMWR staff normally completes a minimum of 5 weekday and 2 weekend/holidays surveys per route per quarter. In 2014 weekday sampling was conducted much more frequently than necessary and few weekend days were sampled. A total of 318 weekday surveys and only 12 weekend surveys were completed. During survey days, staff drives along a designated route and records all shore-based fishing activity observed. This is termed the participation run. Any activity that involves a motorized vessel is not counted, unless the vessel: 1) is used primarily for transporting such items as gill nets, surround nets, and drag nets, and 2) was launched from a beach, not a boat ramp. On the return drive along the route, interviews are attempted with all fishermen. Fishers that are interviewed are assumed to be representative of the entire fishing population and to provide accurate information.

During participation runs, the following information is recorded:

- Survey date
- Shift time
- Route
- Run number
- Observation time
- Village
- Number of fishers
- Gear type
- Number of gears
- Weather conditions

The remaining data elements, listed below, are collected during interviews:

- Interview date and time
- Type of day
- Village
- Number of fishers
- Fishing start and stop time
- Fishing method
- Number of gears
- Location
- Proportion of catch to be sold
- Species caught, with the following information for each species:
  - Individual lengths
  - Individual weights
  - Number caught
  - Total weight
- Any bycatch

If time does not allow for the length and weight of each fish to be measured, weights can be estimated using recorded length measurements. Species groupings are used only if a species level identification cannot be made.

Participation data are expanded to estimate the total gear-hours of shore-based fishing activity on Tutuila, and interview data are used to estimate the average catch per gear-hour. Multiplying the estimated gear-hours by the average catch per gear-hour then provides an estimate of the total catch on Tutuila. This is done separately for each analysis stratum and

summed over all strata. Data from the Manu'a surveys are handled similarly and added to the estimated Tutuila catch to arrive at a total catch estimate for American Samoa.

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

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

**Federal Longline Logbook System** – In January 1996, in response to the developing longline fishery, a mandatory federal longline logbook system was implemented by NOAA's National Marine Fisheries Services (NOAA Fisheries) for American Samoa. All longline fishermen are required to obtain a federal permit and to submit logs containing detailed data on each set, including location, effort, and the number kept and released by species. In 1996, DMWR began collecting and processing the logbook data submitted by American Samoa longliners and sending it via FTP to the PIFSC-WPacFIN Central Office in Honolulu on a regular basis.

In July 1999, to improve monitoring of the quickly growing longline fishery, DMWR implemented a Daily Effort Census (DEC) for all federally permitted longline vessels. Six days a week, DMWR staff made two visits daily to the docks and mooring areas frequented by longline vessels. The staff documented whether each vessel on the list was either "in port" or "out fishing." The DEC data were used to track the activity of each vessel and help ensure that all log sheets are submitted in a timely manner.

Over the course of 1996, longlining became the largest fishery in American Samoa, based on total weight of landings, although only about a third of the fleet had converted to this method. The fleet grew rapidly over the next few years, adding new and larger vessels up to about 38 feet in length. More significantly, throughout the same period, increasingly larger monohull vessels (40-70 feet and over) also began to join the fleet. These boats could fish much longer trips, both in duration and distance. Between 1995 and 2002, vessels over 50 feet in length rapidly came to dominate the fleet. These large vessels have been responsible for over 90% of longline fishing effort (number of hooks set) annually since 2002.

By 2008, the number of vessels longlining had dwindled to just two boats and the Daily Effort Census no longer served a useful purpose. In December 2008, DMWR stopped collecting the DEC data. Instead, DMWR and PIFSC began using Vessel Activity Record data collected by PIFSC's Fisheries Monitoring Field Office and Longline Observer Program to keep track of timely submission of logbooks by the larger longline vessels.

Information recorded for each longline set in federal logbooks includes:

- Logbook Number
- Federal Longline Permit Number
- Vessel Name
- Date of Departure/Arrival
- Port of Departure/Arrival
- Observer on Board (yes/no)
- Begin and End of Set/Haul Date and Time
- Begin and End of Set/Haul Latitude and Longitude
- Target Species
- Bait Used
- Mainline Length
- Number of Hooks
- Number of Hooks between Floats
- Number of Hooks Lost
- Number of Kept by Species (including sharks)
- Number Released by Species
- Number of Protected Species Released Alive, Injured or Dead
- Bird Catch Mitigation Measures
- Number of Light Sticks Used

**Cannery Sampling (Length-Frequency) Program** – This data collection program is run by PIRO staff in the Pago Pago Fisheries Monitoring Field Office (FMFO). Tuna sampling data are collected from foreign and domestic longline and purse seine vessels offloading catches at the canneries in Pago Pago. Data on the percentage of fish sold to the cannery, local markets or kept for other uses (“percent disposition”) are also collected on the sampling form. The FMFO sampling program is primarily geared towards collecting data on size composition by species for bigeye, yellowfin, skipjack, and albacore tuna, but size composition data for other pelagic species sold to the cannery are also collected periodically.

To estimate the weight of fish landed (weight brought ashore), and the proportion of landings sold to the canneries and local markets by the American Samoa-based longline fleet, in 1998 WPacFIN helped develop a data processing system to enable DMWR staff to compile cannery sampling data collected from the PIRO FMFO, focusing specifically on data from domestic longline vessels (purse seine catch excluded). The longline cannery sampling data are used by WPacFIN to develop estimates of average weight for the species sampled. The average length data collected are converted to average weight by species, based on a length-weight regression. These average weights are applied to logbook data to estimate the weight of landings (“kept catch”). The percent disposition from cannery sampling data (percentages sold to cannery, sold to local markets and kept for village/home consumption) is applied to the total weight estimated by species in order to develop an estimated weight of commercial landings. Then market or cannery prices are applied to the appropriate percentage of the commercial weight to estimate total sales value of landings.

**Cannery Offloading Data** – This PIRO FMFO program monitors the amount of fish offloaded at the canneries in Pago Pago by longline and purse seine vessels. In order to qualify for the American Samoa Government’s tax exemption benefits, the canneries are required to report their monthly landings to the Governor’s Office and the local Department of Commerce. Previously, these Cannery Offloading Reports were also submitted to the DMWR office. These reports provide a record of the total pounds of fish offloaded at the cannery, by species and vessel.

In 1998, WPacFIN assisted DMWR in developing a data-entry system to capture and compile these data. From 1995 through 2010, the cannery offloading data were processed and stored in a DMWR database. During the first few years of the federally mandated longline logbook data system, data on the amount of domestic longline vessel landings at the canneries were used to assist PIFSC in verifying and monitoring delinquencies in reporting via federal longline logbooks.

More recently, changes in the American Samoa Government and in management of the canneries have affected the continuity of reporting to the DMWR. Cannery reporting started to fall behind in 2008, and no reports have been submitted to the DMWR since 2010. There is an ongoing effort by the DMWR to revive this data collection.

## **DATA PROCESSING**

Significant changes in American Samoa's fisheries have occurred since the mid-1990s, including the development of the longline fishery and a nighttime spear fishery, which occurs from small vessels and directly from shore. These changes, along with changes in the ability of DMWR to conduct monitoring throughout the week, at all times of day, and in all fishing areas, have introduced bias in formerly randomized processes used to collect creel survey effort and interview data in the field. By 1997, WPacFIN and DMWR identified some problems and implemented modifications to creel survey field techniques. By early 1998, it was clear that the algorithms used to expand the survey data and estimate landings for the fishery as a whole needed to be adapted to changes in the fielding methods. New data processing programs that better handled the more complex fisheries in American Samoa were implemented and used to reprocess the historical time series of data. This volume includes some of the results of new data expansion algorithms developed by WPacFIN and documented by Bak Hospital (2015).

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 utilities/applications and desktop computer systems have been used over the years to meet the growing need for fisheries data within the agencies, and to adapt to rapid changes in data processing technology. Generally speaking, these changes have placed increasing emphasis on improving data quality and employing cross-validation measures across systems, which has made the data processing systems and data collections more robust and complete, albeit more complex.

The following important principles have remained constant over time:

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

Typically, when upgrades have been made to data-processing systems (such as changes in expansion and reporting algorithms for the creel and commercial landings data), the entire time series of data is reprocessed using the new algorithms, in an effort to ensure that apparent

trends in fisheries data would not result solely from changing methodology. To help the reader understand the origin of the data included in this report, a general description of these processes follows. Please note that, although the summary does not include the details of minor changes that may have occurred throughout the evolutionary history of these systems, an effort has been made to include a description of major changes.

The data from 1982 to 1985 were imported directly from the original Commercial Catch Monitoring System, used prior to implementation of the boat-based creel survey in American Samoa. Since 1986, the boat-based creel survey data expansion system has been the central system used to estimate total commercial landings in American Samoa. Briefly, the survey data expansion process involves multiplying the average daily participation by the average catch per trip for each stratum and summing this across strata.

For the years from 1986 to 1990, the estimated commercial sales portion of expanded creel survey data from Tutuila and the Manu'a Islands were combined to produce estimated total commercial landings. Since 1990, with implementation of a mandatory fish dealer receipt book system on Tutuila (Commercial Purchase Program), further adjustments have been made to these combined creel data, based on a comparison with receipt book data. The total reported commercial receipts were compared with the estimated percent of the expanded total catch sold from creel survey data. These adjustments made significant improvements in the total commercial sales estimates provided herein, since they helped adjust for sales not detected through the boat-based survey (e.g., inshore and strictly nighttime commercial fishing). Species totals modified with these types of adjustments are marked with an asterisk (\*) in the following data summaries.

In the late 1990s, when large longline vessels began landing their catches directly at the canneries (outside the monitoring capability of standard boat-based creel survey data), the longline logbook system and cannery size-frequency sampling data began to enter into algorithms used to estimate commercial landings from this part of the fishery. Landings from those vessels were added to develop a more complete estimate of total commercial landings for American Samoa.

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 charts that make up the rest of the report are for groups of species, as well as for some individual species that are more predominant in commercial landings. The top 10 commercial species for the year are emphasized in this report, but these can change from year to year. To see the most current charts and tables, please visit the WPacFIN website (<https://www.pifsc.noaa.gov/wpacfin>).



## 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 contains the common name, estimated weight (in pounds), estimated value if all the weight were sold (in dollars), the average price per pound of each species or group, and whether the data were modified by Commercial Purchase System data (denoted by an asterisk). The monthly data tables are based on a monthly expansion of the Tutuila boat-based creel survey data, with addition or adjustment based upon monthly Longline Logbook, Commercial Purchase System, and Manu'a data, as explained previously. Annual data tables are based on an annual expansion of the creel data for the calendar year, with similar addition or adjustment based on Longline Logbook, Commercial Purchase System, and Manu'a data. Since the monthly and annual data tables are based on separate monthly and annual expansions of the creel data, for which sample size affects mean CPUE and participation, the annual data tables are not the exact sum of the 12 monthly data tables, but their sum falls within the range of the annual standard error (Tables A-1 to A-13).

## SPECIES CATEGORIES

The species and groups used in the tables and graphs of American Samoa's data are defined in this section. Some of the species groupings included in this report have been recategorized over the time series covered by these reports. There have been changes in management groupings and in some cases the taxonomy has been reviewed or revised, affecting the appropriateness of former groupings. 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. And species such as the dogtooth tuna have been recognized as not being true tunas (members of the Tribe Thunnini), although the word "tuna" is part of the common name.

To allow easy comparison, this report maintains the original species groupings from previous FSWP volumes. As such, tunas are kept in a separate category from other PMUS. The species tables are affected by differences in usage of local common names, and are currently being updated for consistency across regions. To avoid confusion in this report, the scientific names are provided, along with the most common English or in some cases US Pacific islands regional name. These tables will be revised in the next volume to more clearly associate scientific names for species and higher taxonomic groups with English, regional, and local common names. This is part of an ongoing effort to overhaul WPacFIN taxonomic references, to improve consistency and ease of interpretation for all our Pacific island partners. To see the most current taxonomic information for species caught commercially in American Samoa, and other US-associated Pacific island areas, please visit the WPacFIN website (<https://www.pifsc.noaa.gov/wpacfin>).

I. Pelagic Management Unit Species (PMUS)

Blue marlin (*Makaira mazara*)  
 Mahimahi (*Coryphaena hippurus*)  
 Striped marlin (*Kajikia audax*)

Swordfish (*Xiphias gladius*)  
 Wahoo (*Acanthocybium solandri*)

II. Bottomfish Management Unit Species (BMUS)

Black jack (*Caranx lugubris*)  
 Blue-lined snapper (*Lutjanus kasmira*)  
 Flower snapper/Gindai (*Pristipomoides zonatus*)  
 Giant trevally (*Caranx ignobilis*)  
 Goldflag jobfish (*Pristipomoides auricilla*)  
 Gray jobfish (*Aprion virescens*)

Longtail snapper/Onaga (*Etelis coruscans*)  
 Pink snapper/Opakapaka (*Pristipomoides filamentosus*)  
 Silverjaw jobfish/Lehi (*Aphareus rutilans*)  
 Redgill emperor (*Lethrinus lentjan*)  
 Ruby snapper/Ehu (*Etelis carbunculus*)  
 Yellow-edged lyretail (*Variola louti*)

III. Tunas

Albacore (*Thunnus alalunga*)  
 Bigeye tuna (*Thunnus obesus*)  
 Kawakawa (*Euthynnus affinis*)<sup>1</sup>

Skipjack tuna (*Katsuwonus pelamis*)  
 Yellowfin tuna (*Thunnus albacares*)  
 Other tunas<sup>2</sup>

IV. Other Scombrids

Dogtooth tuna (*Gymnosarda unicolor*)

(See footnote 2)

<sup>1</sup> Because of the low volume of catch, this tuna is included with “other scombrids” in some of the charts.

<sup>2</sup> This group includes species that comprise a very small portion of the catch, unidentified tunas, and apparent misidentifications (e.g. Bluefin tuna have never been credibly identified in American Samoa, but are occasionally reported by fishermen. These are thought to have been large bigeye tuna.).

## V. Fisheries Categories

### A. *Pelagic Fishes*

Albacore tuna (*Thunnus alalunga*)  
 Barracudas *up to 5 species* (*Sphyraena spp.*)  
 Bigeye tuna (*Thunnus obesus*)  
 Blue marlin (*Makaira mazara*)  
 Dogtooth tuna (*Gymnosarda unicolor*)  
 Kawakawa (*Euthynnus affinis*)  
 Mackerel (*Rastrelliger brachysoma*)

Mahimahi (*Coryphaena hippurus*, *C. equiselis*)  
 Rainbow runner (*Elagatis bipinnulata*)  
 Skipjack tuna (*Katsuwonus pelamis*)  
 Striped marlin (*Kajikia audax*)  
 Swordfish (*Xiphias gladius*)  
 Wahoo (*Acanthocybium solandri*)  
 Yellowfin tuna (*Thunnus albacares*)

### B. *Bottomfishes*

Bigeye breem (*Monotaxis grandoculis*)  
 Bigeye scad (*Selar crumenophthalmus*)  
 Black jack (*Caranx lugubris*)  
 Blue-lined snapper (*Lutjanus kasmira*)  
 Bottomfishes (unspecified<sup>4</sup>)  
 Brown jobfish (*Aphareus furca*)  
 Deep-water snappers (unspecified<sup>5</sup>)  
 Emperors (unspecified Lethrinidae)  
 Flagtail grouper (*Cephalopholis urodeta*)  
 Flower snapper/Gindai (*Pristipomoides zonatus*)  
 Giant trevally (*Caranx ignobilis*)  
 Goldflag jobfish (*Pristipomoides auricilla*)

Jacks (unspecified larger Carangidae<sup>3</sup>)  
 Longnose emperor (*Lethrinus elongatus*)  
 Longtail snapper/Onaga (*Etelis coruscans*)  
 Mackerel scad/Opelu (*Decapterus macarellus*)  
 Onespots (*Lutjanus monostigma*)  
 Peacock grouper (*Cephalopholis argus*)  
 Pink snapper/Opakapaka (*Pristipomoides filamentosus*)  
 Redgill emperor (*Lethrinus lentjan*)  
 Ruby snapper/Ehu (*Etelis carbunculus*)  
 Silverjaw jobfish/Lehi (*Aphareus rutilans*)  
 Trevallies (unspecified smaller Carangidae<sup>4</sup>)  
 White-edged lyretail (*Variola albimarginata*)

<sup>3</sup> The categories “Jacks” and “Trevallies”, when used without qualifiers, both apply to unspecified carangids (multiple species). The name used generally depends on the fish size, with “jacks” being larger species or adult fish, and “trevallies” used to refer to smaller juveniles or species that do not get very large. In American Samoa, the fish most commonly called “jacks” are of the genera *Caranx* or *Seriola*. Most of the species called “trevallies” are of the genus *Carangoides* or *Uraspis*, but some of these are also referred to at times as “jacks.” Generally, the larger the fish, the more likely it is to be referred to as a jack, and the smaller fish the more likely it will be called a “trevally.” These categories are used in this report only when the fish were not identified to species. Please note that there may be some overlap.

<sup>4</sup> This group includes multiple genera and species of snappers, groupers, lethrinids and carangids that are often grouped together in reporting by markets, because they come from a single fishery.

<sup>5</sup> This group includes any of the snappers caught by the deep bottom fishing method. They include various species of the genera *Aphareus*, *Aprion*, *Etelis*, *Lutjanus* and *Pristipomoides*. These are also listed individually, if the species was clearly indicated.

### Section A: American Samoa

Gray jobfish (*Aprion virescens*)  
 Greater amberjack (*Seriola dumerili*)  
 Groupers (unspecified Serranidae)  
 Humpback snapper (*Lutjanus gibbus*)

Whitemouth trevally (*Uraspis secunda*)  
 Yellow margined snapper (*Lutjanus fulvus*)  
 Yellow-edged lyretail (*Variola louti*)

C. *Reef Fishes*

Barred flagtail (*Kuhlia mugil*)  
 Bloch's Bigeye (*Priacanthus blochii*)  
 Goatfishes (family Mullidae)  
 Inshore groupers (family Serranidae)  
 Mulletts (family Mugilidae)  
 Parrotfishes (family Scaridae)  
 Rabbitfishes (family Siganidae)  
 Reef fishes (unspecified)

Rudderfishes (*Kyphosus* spp.)  
 Squirrelfishes (multi-species *Neoniphon*, *Sargocentron*<sup>6</sup>)  
 Surgeonfishes/Tangs (family Acanthuridae)  
 Terapon perch (*Terapon jarbua*)  
 Triggerfishes (family Balistidae)  
 Unicornfishes (multi-species *Naso* spp.)  
 Wrasses (family Labridae)

D. *Other Fishes, Algae & Invertebrates*

Conger eels (all species identified to date included *Conger* spp.)  
 Crabs (multiple families, Brachyura)  
 Eels (most are *Gymnothorax* spp.)  
 Filefishes (family Monacanthidae)  
 Gold banded fusilier (*Caesio caerulaurea*)

Needlefishes (*Strongylura incisa*, *Platybelone argalus*, other Belonidae)  
 Octopus (*Octopus cyanea*, *Octopus ornatus*)  
 Pufferfishes (family Tetraodontidae)  
 Spiny lobster (mainly *Panulirus penicillatus*)

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<sup>6</sup> This group has mistakenly included some *Priacanthus* in the past. Identifications have improved significantly in recent years.

## INTERPRETATION OF STATISTICS

When interpreting the data in the tables and graphs, please keep in mind the caveats described earlier in this section, along with the fact that these commercial landings summaries are not based on a census of all fishing activity but on a subsample of those activities, as well as on integration of data from several different programs. One of the primary tools in expanding the creel survey data into an estimate of monthly and annual catch are the proportionality constants used to adjust for the percentage of temporal and geographic coverage of the surveys. The data expansion methodology is designed to allow for refinement of these constants, as additional information is gained on the proportions of fishing activity taking place outside the survey times and areas. With constant improvement in the estimated values of these constants, the survey data expansion can be improved to create better overall estimates. Variation in species composition would not be expected to change significantly, unless gear types and fishing methods change as well. The current estimates of total landings are considered to be conservative, because the catch from inshore subsistence fisheries has not been included in these estimates.

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**Table A-1**  
**American Samoa Annual 2014 Estimated Commercial Landings**

<b>Group</b>	<b>Subgroup</b>	<b>Scientific Name</b>	<b>Common/local name</b>	<b>Lbs Sold</b>	<b>Estimated Value</b>	<b>Price/Lb</b>
<b>FISHES:</b>						
	<b>Scombridae</b>					
	<b>Tunas</b>					
		<i>Euthynnus affinis</i>	Kawakawa	25	76	3.00
		<i>Katsuwonus pelamis</i>	Skipjack tuna	276,896	212,141	0.77
		<i>Thunnus alalunga</i>	Albacore tuna	3,163,925	4,043,707	1.28
		<i>Thunnus albacares</i>	Yellowfin tuna	966,685	649,577	0.67
		<i>Thunnus obesus</i>	Bigeye tuna	175,158	98,044	0.56
		Tribe Thunnini ( <i>unspecified</i> )	Tunas	91	269	2.95
	<b>Other scombrids</b>					
		<i>Acanthocybium solandri</i>	Wahoo	167,294	82,199	0.49
		<i>Gymnosarda unicolor</i>	Dogtooth tuna	403	1,160	2.88
		<i>Rastrelliger brachysoma</i>	Mackerel	163	488	3.00
	<b>Billfishes</b>					
	<b>Istiophoridae</b>					
		<i>Istiophorus platypterus</i>	Sailfish	195	683	3.50
		<i>Makaira mazara</i>	Blue marlin	2,007	1,954	0.97
	<b>Xiphiidae</b>					
		<i>Xiphias gladius</i>	Swordfish	836	2,313	2.77
	<b>Other fishes</b>					
	<b>Acanthuridae</b> (Tangs, Surgeons, Unicornfishes)					
		<i>Acanthurus guttatus</i>	Whitespotted surgeonfish	31	97	3.18
		<i>Acanthurus lineatus</i>	Blue-banded surgeonfish	23,972	70,335	2.93
		<i>Acanthurus nigricans</i>	Whitecheek surgeonfish	11	32	3.00
		<i>Acanthurus nigricauda</i>	Blackstreak surgeonfish	4	13	3.50
		<i>Acanthurus nigrofuscus</i>	Brown surgeonfish	617	1,877	3.04
		<i>Acanthurus xanthopterus</i>	Yellowfin surgeonfish	288	891	3.09
		<i>Ctenochaetus striatus</i>	Striped bristletooth	7,941	23,524	2.96
		<i>Naso brachycentron</i>	Humpback unicornfish	22	77	3.50
		<i>Naso caesius</i>	Gray unicornfish	< 1	1	2.94
		<i>Naso lituratus</i>	Orangespine unicornfish	651	2,058	3.16
		<i>Naso</i> spp.	Unicornfishes ( <i>unspecified</i> )	5,318	15,824	2.98
		<i>Naso unicornis</i>	Bluespine unicornfish	273	963	3.53
		<i>Naso vlamingii</i>	Bignose unicornfish	4	12	3.00
	<b>Balistidae</b> (triggerfishes)					
		<i>Balistoides viridescens</i>	Titan triggerfish	2	7	3.00
		<i>Balistidae</i> ( <i>unspecified</i> )	Triggerfishes	8	23	3.00
	<b>Bramidae</b> (pomfrets)					
		<i>Taractichthys</i> , <i>Eumegistus</i> ,	Pomfret (monchong)	2	6	2.98
	<b>Carangidae</b> (jacks & trevallies)					
		<i>Caranx ignobilis</i>	Giant trevally	24	118	5.00
		<i>Caranx lugubris</i>	Black jack	303	988	3.26
		<i>Caranx melampygus</i>	Bluefin trevally	107	329	3.07
		<i>Caranx sexfasciatus</i>	Bigeye trevally	267	858	3.22

**Table A-1**  
**American Samoa Annual 2014 Estimated Commercial Landings**

Group	Subgroup	Scientific Name	Common/local name	Lbs Sold	Estimated Value	Price/Lb
<b>Other fishes Carangidae (continued)</b>						
		<i>Seriola dumerili</i>	Greater amberjack	604	2,111	3.49
		<i>Scomberoides lysan</i>	Leatherback	8	23	2.85
		<i>Selar crumenophthalmus</i>	Bigeye scad	98	293	3.00
		<i>Elagatis bipinnulata</i>	Rainbow runner	95	311	3.27
		Carangidae (large, unspecified)	Jacks	70	214	3.08
		Carangidae (small to medium,	Trevallies	102	329	3.24
<b>Chaetodontidae (butterflyfishes)</b>						
		Chaetodontidae (unspecified)	Butterflyfishes	<1	1	3.03
<b>Cichlidae (cichlids)</b>						
		<i>Oreochromis</i> sp.	Tilapia	40	73	1.82
<b>Coryphaenidae (mahimahi/dolphinfish)</b>						
		<i>Coryphaena hippurus</i> , <i>C. equiselis</i>	Mahimahi	15,896	33,157	2.09
<b>Diodontidae (porcupinefishes)</b>						
		<i>Diodon holocanthus</i>	Spiny pufferfish	42	127	3.00
<b>Gempylidae (snake mackerels)</b>						
		<i>Promethichthys prometheus</i>	Snake mackerel	< 0	1	2.96
		<i>Ruvettus pretiosus</i>	Oilfish	274	822	3.00
<b>Haemulidae (grunts)</b>						
		<i>Plectorhinchus</i> spp.	Sweetlips	14	43	3.00
<b>Holocentridae (squirrel &amp; soldierfishes)</b>						
		<i>Myripristis amaena</i>	Brick soldierfish	0	1	2.98
		<i>Myripristis berndti</i>	Bigscale soldierfish	46	158	3.43
		<i>Myripristis berndti</i>	Blotcheye soldierfish	11	36	3.23
		<i>Sargocentron spiniferum</i>	Saber squirrelfish	142	444	3.13
		<i>Sargocentron</i> , <i>Neonippon</i> spp.	Squirrelfishes	1,964	5,691	2.90
		<i>Sargocentron tiere</i>	Tahitian squirrelfish	11	37	3.50
<b>Kuhliidae (flagtails)</b>						
		<i>Kuhlia mugil</i>	Barred flagtail	3	9	3.51
<b>Kyphosidae (sea chubs)</b>						
		<i>Kyphosus</i> spp. (various)	Rudderfishes	76	242	3.17
<b>Labridae (wrasses)</b>						
		Labridae (unspecified)	Wrasses	56	175	3.10
<b>Lampridae (moonfishes opah)</b>						
		<i>Lampris guttatus</i>	Moonfish (opah)	30	30	1.00
<b>Lethrinidae (emperors)</b>						
		<i>Gnathodentex aureolineatus</i>	Yellowspot emperor	207	620	3.00
		<i>Gymnocranius grandoculis</i>	Blue-lined bream	15	46	3.00
		Lethrinidae (unspecified)	Emperors	3,926	11,596	2.95
		<i>Lethrinus amboinensis</i>	Ambon emperor	290	889	3.06
		<i>Lethrinus elongates</i>	Longnose emperor	218	703	3.22
		<i>Lethrinus erythracanthus</i>	Orangespot emperor	678	4,225	6.24
		<i>Lethrinus lentjan</i>	Redgill emperor	295	884	3.00
		<i>Monotaxis grandoculis</i>	Bigeye bream	85	263	3.09



**Table A-1**  
**American Samoa Annual 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs	Estimated	Price/
	Scientific Name	Common/local name	Sold	Value	Lb
<b>Lutjanidae</b> (snappers)					
	<i>Anhareus furca</i>	Brown jobfish	743	2,234	3.01
	<i>Aphareus rutilans</i>	Yelloweye opakapaka (lehi, silverjaw jobfish)	2,564	7,833	3.05
	<i>Aprion virescens</i>	Gray jobfish	3,466	10,433	3.01
	<i>Caesio caeruleaurea</i>	Gold banded fusilier	24	72	3.00
	<i>Etelis carbunculus</i>	Ruby snapper (ehu)	517	1,564	3.02
	<i>Etelis coruscans</i>	Longtail snapper (onaga)	3,489	12,444	3.57
	Lutjanidae ( <i>unspecified</i> )	Deep water snappers	1,385	4,167	3.01
	<i>Lutjanus bohar</i>	Twinspot/red snapper	149	450	3.01
	<i>Lutjanus fulvus</i>	Yellow margined snapper	5	14	3.00
	<i>Lutjanus gibbus</i>	Humpback snapper	5,424	17,059	3.15
	<i>Lutjanus kasmira</i>	Blue-lined snapper	2,720	8,288	3.05
	<i>Lutjanus monostigma</i>	Onespot snapper	96	306	3.20
	<i>Lutjanus rufolineatus</i>	Rufous snapper	5	15	3.00
	<i>Lutjanus timoriensis</i>	Timor snapper	66	269	4.08
	<i>Macolor niger</i>	Black snapper	45	147	3.27
	<i>Paracaesio kusakarii</i>	Kusakar's snapper	1	3	2.99
	<i>Paracaesio stonei</i>	Stone's snapper	56	156	2.78
	<i>Pristipomoides auricilla</i>	Goldflag jobfish	155	481	3.11
	<i>Pristipomoides filamentosus</i>	Pink snapper (opakapaka)	354	1,068	3.02
	<i>Pristipomoides multidentis</i>	Multidentis snapper	10	48	5.00
	<i>Pristipomoides zonatus</i>	Flower snapper (gindai)	136	409	3.00
<b>Mugilidae</b> (mullet)					
	<i>Liza vaigiensis</i>	Diamond scale mullet	68	204	3.00
	Mugilidae ( <i>unspecified</i> )	Mullet	121	374	3.09
<b>Mullidae</b> (goatfishes)					
	Mullidae ( <i>unspecified</i> )	Goatfishes	31	99	3.23
	<i>Mulloidichthys flavolineatus</i>	Yellowstripe goatfish	13	41	3.25
<b>Muraenidae</b> (moray eels)					
	<i>Gymnothorax</i> spp.	Spotted moray eels	8	22	2.75
<b>Polynemidae</b> (threadfins)					
	<i>Polydactylus sexfilis</i>	Threadfin	9	29	3.24
<b>Priacanthidae</b> (glasseyes)					
	<i>Priacanthus blochii</i>	Bloch's bigeye	11	33	3.03
<b>Scaridae</b> (parrotfishes)					
	<i>Calotomus carolinus</i>	Stareye parrotfish	68	204	3.00
	<i>Chlorurus japanensis</i>	Japanese parrotfish	134	437	3.25
	<i>Chlorurus microrhinos</i>	Steephead parrotfish	612	1,869	3.05
	Scaridae ( <i>unspecified</i> )	Parrotfishes	11,375	33,330	2.93
	<i>Scarus dimidiatus</i>	Yellowbarred parrotfish	2	5	2.99
	<i>Scarus frenatus</i>	Bridled parrotfish	2	5	2.99

**Table A-1**  
**American Samoa Annual 2014 Estimated Commercial Landings**

<b>Group</b>	<b>Subgroup</b>	<b>Scientific Name</b>	<b>Common/local name</b>	<b>Lbs Sold</b>	<b>Estimated Value</b>	<b>Price/Lb</b>
<b>Other fishes (continued)</b>						
	<b>Serranidae (groupers)</b>					
		<i>Anyperodon leucogrammicus</i>	Slender grouper	14	41	3.00
		<i>Cephalopholis argus</i>	Peacock grouper	95	283	2.97
		<i>Cephalopholis igarashiensis</i>	Yellow-banded grouper	4	13	3.00
		<i>Cephalopholis sonnerati</i>	Tomato grouper	8	25	3.00
		<i>Epinephelus fasciatus</i>	Blacktip grouper	4	13	3.00
		<i>Epinephelus maculatus</i>	Spotted grouper	219	661	3.02
		<i>Epinephelus melanostigma</i>	One-blotch grouper	39	119	3.05
		<i>Epinephelus merra</i>	Honeycomb grouper	1	3	2.49
		<i>Epinephelus morrhua</i>	Striped grouper	1	3	2.99
		<i>Epinephelus polyphkadion</i>	Smalltooth grouper	8	19	2.50
		<i>Epinephelus timorensis</i>	Yellowspot grouper	7	27	4.06
		<i>Plectropomus laevis</i>	Saddleback grouper	5	17	3.50
		Serranidae (unspecified)	Groupers	566	1,773	3.13
		Serranidae (unspecified)	Inshore groupers	1,046	3,091	2.96
		<i>Variola albimarginata</i>	White-edged lyretail	1,507	4,680	3.10
		<i>Variola louti</i>	Yellow-edged lyretail	59	171	2.88
	<b>Siganidae (rabbitfishes)</b>					
		Family: Siganidae (unspecified)	Rabbitfishes	21	69	3.27
	<b>Sphyraenidae (barracudas)</b>					
		<i>Sphyraena barracuda</i>	Great barracuda	12	62	5.00
		<i>Sphyraena forsteri</i>	Bigeye barracuda	374	1,052	2.82
		<i>Sphyraena spp.</i>	Barracudas	356	891	2.50
		<i>Sphyraena spp.</i>	Small barracudas	870	2,790	3.21
	<b>Terapontidae (terapons)</b>					
		<i>Terapon jarbua</i>	Terapon perch	37	117	3.17
	<b>Unspecified Fish Groups</b>					
		Carangidae, Lutjanidae, Lethrinidae	Bottomfishes (unspecified)	1,762	5,486	3.11
		Various (many) families	Reef fishes (unspecified)	6,917	20,299	2.93
<b>INVERTEBRATES:</b>						
	<b>Crustaceans: Crabs</b>					
		Infraorder: Brachyura	Crabs	4	12	3.00
	<b>Crustaceans: Lobsters</b>					
		<i>Panulirus penicillatus</i>	Spiny lobster	1,269	4,852	3.82
	<b>Mollusks</b>					
		<i>Octopus spp.</i>	Octopus	1,252	3,789	3.03
		<i>Tridacna derasa</i>	Giant clam	40	320	8.00
<b>Total</b>				<b>4,869,180</b>	<b>\$5,428,988</b>	<b>\$1.11</b>

**Table A-2**  
**American Samoa January 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs Sold	Estimated Value	Price/Lb
	Scientific Name	Common/local name			
<b>FISHES:</b>					
	<b>Scombridae</b>				
	<b>Tunas</b>				
	<i>Katsuwonus pelamis</i>	Skipjack tuna	3,246	2,064	0.64
	<i>Thunnus alalunga</i>	Albacore tuna	68,009	87,260	1.28
	<i>Thunnus albacares</i>	Yellowfin tuna	22,501	15,614	0.69
	<i>Thunnus obesus</i>	Bigeye tuna	4,648	2,743	0.59
	<b>Other scombrids</b>				
	<i>Acanthocybium solandri</i>	Wahoo	7,552	3,801	0
	<i>Gymnosarda unicolor</i>	Dogtooth tuna	12	47	3
	<i>Rastrelliger brachysoma</i>	Mackerel	54	161	3
	<b>Billfishes</b>				
	<b>Xiphiidae</b>				
	<i>Xiphias gladius</i>	Swordfish	239	777	3.25
	<b>Other fishes</b>				
	<b>Acanthuridae</b> (Tangs Surgeons Unicornfishes)				
	<i>Acanthurus guttatus</i>	Whitespotted surgeonfish	3	10	3.75
	<i>Acanthurus lineatus</i>	Blue-banded surgeonfish	2,556	7,456	2.92
	<i>Acanthurus nigricauda</i>	Blackstreak surgeonfish	4	13	3.50
	<i>Acanthurus nigrofuscus</i>	Brown surgeonfish	4	17	4.00
	<i>Acanthurus xanthopterus</i>	Yellowfin surgeonfish	27	102	3.75
	<i>Ctenochaetus striatus</i>	Striped bristletooth	403	1,145	2.84
	<i>Naso brachycentron</i>	Humpback unicornfish	14	50	3.50
	<i>Naso lituratus</i>	Orangespine unicornfish	15	58	3.88
	<i>Naso</i> spp.	Unicornfishes (unspecified)	284	812	2.86
	<i>Naso unicornis</i>	Bluespine unicornfish	82	319	3.88
	<b>Carangidae</b> (jacks & trevallies)				
	Carangidae (large, unspecified)	Jacks	18	54	3.00
	Carangidae (small to medium,	Trevallies	22	79	3.63
	<i>Caranx melampygus</i>	Bluefin trevally	77	230	3.00
	<i>Seriola dumerili</i>	Greater amberjack	193	579	3.00
	<i>Selar crumenophthalmus</i>	Bigeye scad	3	8	3.00
	<b>Corvinae</b> (mahimahi/dolphinfish)				
	<i>Coryphaena hippurus</i> , <i>C. equiselis</i>	Mahimahi	90	128	1.42
	<b>Holocentridae</b> (squirrel & soldierfishes)				
	<i>Myripristis berndti</i>	Bigscale soldierfish	8	27	3.54
	<i>Sargocentron spiniferum</i>	Saber squirrelfish	6	23	3.75
	<i>Sargocentron</i> , <i>Neoniphon</i> spp.	Squirrelfishes	130	381	2.92
	<b>Kyphosidae</b> (sea chubs)				
	<i>Kyphosus</i> spp. (various)	Rudderfishes	13	47	3.75
	<b>Lethrinidae</b> (emperors)				
	Lethrinidae (unspecified)	Emperors	106	396	3.75
	<i>Lethrinus amboinensis</i>	Ambon emperor	11	38	3.50
	<i>Lethrinus elongates</i>	Longnose emperor	75	245	3.25
	<i>Monotaxis grandoculis</i>	Bigeye bream	6	22	3.75
	<b>Other fishes (continued)</b>				

**Table A-2**  
**American Samoa January 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs Sold	Estimated Value	Price/Lb
	Scientific Name	Common/local name			
	<b>Lutjanidae</b> (snappers)				
	<i>Aprion virescens</i>	Gray jobfish	177	621	3.50
	<i>Etelis carbunculus</i>	Ruby snapper (ehu)	19	82	4.32
	<i>Etelis coruscans</i>	Longtail snapper (onaga)	151	528	3.50
	<i>Lutjanus gibbus</i>	Humpback snapper	220	770	3.50
	<i>Lutjanus kasmira</i>	Blue-lined snapper	34	118	3.50
	<i>Pristipomoides zonatus</i>	Flower snapper (gindai)	8	31	4.00
	<b>Mugilidae</b> (mullet)				
	Mugilidae ( <i>unspecified</i> )	Mullet	14	53	3.75
	<b>Mullidae</b> (goatfishes)				
	<i>Mulloidichthys flavolineatus</i>	Yellowstripe goatfish	2	9	3.99
	<b>Polynemidae</b> (threadfins)				
	<i>Polydactylus sexfilis</i>	Threadfin	2	7	3.00
	<b>Scaridae</b> (parrotfishes)				
	Scaridae ( <i>unspecified</i> )	Parrotfishes	756	2,234	2.96
	<b>Serranidae</b> (groupers)				
	<i>Epinephelus maculatus</i>	Spotted grouper	18	59	3.25
	Serranidae ( <i>unspecified</i> )	Groupers	66	244	3.69
	Serranidae ( <i>unspecified</i> )	Inshore groupers	294	868	2.95
	<i>Plectropomus laevis</i>	Saddleback grouper	5	17	3.50
	<i>Variola albimarginata</i>	White-edged lyretail	15	56	3.75
	<b>Sphyraenidae</b> (barracudas)				
	<i>Sphyraena forsteri</i>	Bigeye barracuda	22	77	3.50
	<i>Sphyraena spp.</i>	Small barracudas	68	221	3.25
	<b>Terapontidae</b> (terapons)				
	<i>Terapon jarbua</i>	Terapon perch	4	17	3.75
	<b>Unspecified Fish Groups</b>				
	Carangidae, Lutjanidae, Lethrinidae	Bottomfishes (unspecified)	1,762	5,486	3.11
	Various (many) families	Reef fishes (unspecified)	6,917	20,299	2.93
<b>INVERTEBRATES:</b>					
	<b>Crustaceans: Crabs</b>				
	Infraorder: Brachyura	Crabs	4	12	3.00
	<b>Crustaceans: Lobsters</b>				
	<i>Panulirus penicillatus</i>	Spiny lobster	192	831	4.33
<b>Total</b>			<b>112,921</b>	<b>\$132,779</b>	<b>\$1.18</b>

**Table A-3**  
**American Samoa February 2014 Estimated Commercial Landings**

Group	Subgroup	Scientific Name	Common/local name	Lbs Sold	Estimated Value	Price/ Lb
<b>FISHES:</b>						
	<b>Scombridae</b>					
	<b>Tunas</b>					
		<i>Katsuwonus pelamis</i>	Skipjack tuna	6,150	3,988	0.65
		<i>Thunnus alalunga</i>	Albacore tuna	36,714	46,994	1.28
		<i>Thunnus albacares</i>	Yellowfin tuna	40,070	27,559	0.69
		<i>Thunnus obesus</i>	Bigeye tuna	3,298	1,946	0.59
	<b>Other scombrids</b>					
		<i>Acanthocybium solandri</i>	Wahoo	5,146	2,573	0.50
		<i>Gymnosarda unicolor</i>	Dogtooth tuna	34	113	3.38
	<b>Billfishes</b>					
	<b>Istiophoridae</b>					
		<i>Istiophorus platypterus</i>	Sailfish	195	683	3.50
		<i>Makaira mazara</i>	Blue marlin	448	313	0.70
	<b>Other fishes</b>					
	<b>Acanthuridae</b> (Tangs. Surgeons. Unicornfishes)					
		<i>Acanthurus guttatus</i>	Whitespotted surgeonfish	2	6	3.50
		<i>Acanthurus lineatus</i>	Blue-banded surgeonfish	3,239	9,331	2.88
		<i>Ctenochaetus striatus</i>	Striped bristletooth	517	1,505	2.91
		<i>Naso lituratus</i>	Orangespine unicornfish	89	313	3.50
		<i>Naso</i> spp.	Unicornfishes (unspecified)	651	1,940	2.98
		<i>Naso unicornis</i>	Bluespine unicornfish	55	193	3.50
	<b>Carangidae</b> (jacks & trevallies)					
		<i>Caranx lugubris</i>	Black jack	46	149	3.25
		<i>Caranx sexfasciatus</i>	Bigeye trevally	29	86	3.00
		<i>Carangidae (large, unspecified)</i>	Jacks	1	3	3.04
		<i>Carangidae (small to medium,</i>	Trevallies	33	104	3.13
		<i>Seriola dumerili</i>	Greater amberjack	88	264	3.00
		<i>Selar crumenophthalmus</i>	Bigeye scad	32	97	3.00
	<b>Coryphaenidae</b> (mahimahi/dolphinfish)					
		<i>Coryphaena hippurus, C. equiselis</i>	Mahimahi	147	208	1.42
	<b>Haemulidae</b> (grunts)					
		<i>Plectorhinchus</i> spp.	Sweetlips	14	43	3.00
	<b>Holocentridae</b> (squirrel & soldierfishes)					
		<i>Myripristis berndti</i>	Bigscale soldierfish	27	95	3.50
		<i>Myripristis berndti</i>	Blotcheye soldierfish	5	16	3.50
		<i>Sargocentron spiniferum</i>	Saber squirrelfish	48	152	3.17
		<i>Sargocentron, Neoniphon</i> spp.	Squirrelfishes	228	632	2.77
		<i>Sargocentron tiere</i>	Tahitian squirrelfish	8	28	3.50
	<b>Lethrinidae</b> (emperors)					
		<i>Lethrinidae (unspecified)</i>	Emperors	207	680	3.28
		<i>Lethrinus amboinensis</i>	Ambon emperor	25	88	3.50
		<i>Lethrinus elongatus</i>	Longnose emperor	113	368	3.25
		<i>Monotaxis grandoculis</i>	Bigeye bream	7	26	3.50

**Table A-3**  
**American Samoa February 2014 Estimated Commercial Landings**

Group	Subgroup	Scientific Name	Common/local name	Lbs Sold	Estimated Value	Price/ Lb
<b>Other fishes (continued)</b>						
	<b>Lutjanidae (snappers)</b>					
		<i>Aphareus rutilans</i>	Yelloweye opakapaka (lehi, silverjaw jobfish)	35	113	3.25
		<i>Aprion virescens</i>	Gray jobfish	218	678	3.12
		<i>Etelis coruscans</i>	Longtail snapper (onaga)	45	134	3.00
		Lutjanidae ( <i>unspecified</i> )	Deep water snappers	23	68	3.00
		<i>Lutjanus gibbus</i>	Humpback snapper	317	1,041	3.28
		<i>Lutjanus kasmira</i>	Blue-lined snapper	219	712	3.25
		<i>Lutjanus monostigma</i>	Onespot snapper	35	121	3.45
		<i>Macolor niger</i>	Black snapper	5	16	3.24
		<i>Pristipomoides auricilla</i>	Goldflag jobfish	9	26	3.00
		<i>Pristipomoides zonatus</i>	Flower snapper (gindai)	1	3	2.99
	<b>Mullidae (goatfishes)</b>					
		<i>Mulloidichthys flavolineatus</i>	Yellowstripe goatfish	1	4	3.5
	<b>Muraenidae (moray eels)</b>					
		<i>Gymnothorax</i> spp.	Spotted moray eels	8	22	2.75
	<b>Scaridae (parrotfishes)</b>					
		Scaridae ( <i>unspecified</i> )	Parrotfishes	1,108	3,189	2.88
	<b>Serranidae (groupers)</b>					
		<i>Cephalopholis argus</i>	Peacock grouper	18	53	3.00
		Serranidae ( <i>unspecified</i> )	Groupers	100	333	3.32
		Serranidae ( <i>unspecified</i> )	Inshore groupers	58	171	2.94
		<i>Variola albimarginata</i>	White-edged lyretail	5	17	3.25
		<i>Variola louti</i>	Yellow-edged lyretail	9	27	3.00
	<b>Siganidae (rabbitfishes)</b>					
		Siganidae ( <i>unspecified</i> )	Rabbitfishes	3	12	3.50
	<b>Sphyraenidae (barracudas)</b>					
		<i>Sphyraena forsteri</i>	Bigeye barracuda	8	25	3.25
		<i>Sphyraena</i> spp.	Small barracudas	91	289	3.18
	<b>Unspecified Fish Groups</b>					
		Carangidae, Lutjanidae, Lethrinidae	Bottomfishes (unspecified)	1,762	5,486	3.11
		Various (many) families	Reef fishes (unspecified)	6,917	20,299	2.93
<b>INVERTEBRATES:</b>						
	<b>Crustaceans: Lobsters</b>					
		<i>Panulirus penicillatus</i>	Spiny lobsters	100	400	4.00
	<b>Mollusks</b>					
		<i>Octopus</i> spp.	Octopus	166	498	3.00
<b>Total</b>				<b>100,817</b>	<b>\$110,150</b>	<b>\$1.09</b>

**Table A-4**  
**American Samoa March 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs	Estimated	Price/
	Scientific Name	Common/local name	Sold	Value	Lb
<b>FISHES:</b>					
	<b>Scombridae</b>				
	<b>Tunas</b>				
	<i>Euthynnus affinis</i>	Kawakawa	20	59	3.00
	<i>Katsuwonus pelamis</i>	Skipjack tuna	24,508	16,029	0.65
	<i>Thunnus alalunga</i>	Albacore tuna	60,575	77,536	1.28
	<i>Thunnus albacares</i>	Yellowfin tuna	76,760	52,663	0.69
	<i>Thunnus obesus</i>	Bigeye tuna	15,242	8,993	0.59
	<b>Other scombrids</b>				
	<i>Acanthocybium solandri</i>	Wahoo	10,035	5,047	0.50
	<i>Gymnosarda unicolor</i>	Dogtooth tuna	39	135	3.50
	<i>Rastrelliger brachysoma</i>	Mackerel	70	211	3.00
	<b>Billfishes</b>				
	<b>Istiophoridae</b>				
	<i>Makaira mazara</i>	Blue marlin	209	178	0.85
	<b>Other fishes</b>				
	<b>Acanthuridae</b> (Tangs, Surgeons, Unicornfishes)				
	<i>Acanthurus lineatus</i>	Blue-banded surgeonfish	1,425	4,052	2.84
	<i>Acanthurus nigrofusus</i>	Brown surgeonfish	10	37	3.75
	<i>Acanthurus xanopterus</i>	Yellowfin surgeonfish	25	94	3.75
	<i>Ctenochaetus striatus</i>	Striped bristletooth	652	1,952	2.99
	<i>Naso lituratus</i>	Orangespine unicornfish	55	197	3.58
	<i>Naso</i> spp.	Unicornfishes (unspecified)	603	1,736	2.88
	<i>Naso unicornis</i>	Bluespine unicornfish	56	205	3.68
	<b>Carangidae</b> (jacks & trevallies)				
	<i>Caranx lugubris</i>	Black jack	5	17	3.25
	<i>Caranx melampygus</i>	Bluefin trevally	16	48	3.00
	<i>Caranx sexfasciatus</i>	Bigeye trevally	115	403	3.50
	Carangidae (large, unspecified)	Jacks	12	38	3.25
	Carangidae (small to medium,	Trevallies	5	17	3.25
	<i>Seriola dumerili</i>	Greater amberjack	69	207	3.00
	<i>Selar crumenophthalmus</i>	Bigeye scad	32	97	3.00
	<b>Coryphaenidae</b> (mahimahi/dolphinfish)				
	<i>Coryphaena hippurus</i> , <i>C. equiselis</i>	Mahimahi	417	592	1.42
	<b>Holocentridae</b> (squirrel & soldierfishes)				
	<i>Sargocentron spiniferum</i>	Saber squirrelfish	15	54	3.50
	<i>Sargocentron</i> spp., <i>Neoniphon</i>	Squirrelfishes	114	310	2.72
	<b>Kuhliidae</b> (flagtails)				
	<i>Kuhlia mugil</i>	Barred flagtail	3	9	3.51
	<b>Kyphosidae</b> (sea chubs)				
	<i>Kyphosus</i> spp. (various)	Rudderfishes	7	23	3.50

**Table A-4**  
**American Samoa March 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs	Estimated	Price/
	Scientific Name	Common/local name	Sold	Value	Lb
<b>Other fishes (continued)</b>					
<b>Lethrinidae (emperors)</b>					
	Lethrinidae ( <i>unspecified</i> )	Emperors	643	2,157	3.35
	<i>Lethrinus elongatus</i>	Longnose emperor	5	17	3.25
<b>Lutjanidae (snappers)</b>					
	<i>Aphareus furca</i>	Brown jobfish	19	63	3.25
	<i>Aphareus rutilans</i>	Yelloweye opakapaka	27	88	3.26
	<i>Aprion virescens</i>	Gray jobfish	776	2,439	3.14
	<i>Etelis carbunculus</i>	Ruby snapper (ehu)	50	161	3.25
	Lutjanidae ( <i>unspecified</i> )	Deep water snappers	45	146	3.25
	<i>Lutjanus bohar</i>	Twinspot/red snapper	6	19	3.25
	<i>Lutjanus gibbus</i>	Humpback snapper	1,074	3,559	3.31
	<i>Lutjanus kasmira</i>	Blue-lined snapper	354	1,173	3.31
	<i>Lutjanus monostigma</i>	Onespot snapper	4	12	3.25
	<i>Macolor niger</i>	Black snapper	8	27	3.25
	<i>Pristipomoides auricilla</i>	Goldflag jobfish	63	205	3.25
<b>Mullidae (goatfishes)</b>					
	Mullidae ( <i>unspecified</i> )	Goatfishes	6	20	3.54
<b>Scaridae (parrotfishes)</b>					
	Scaridae ( <i>unspecified</i> )	Parrotfishes	962	2,712	2.82
<b>Serranidae (groupers)</b>					
	Serranidae ( <i>unspecified</i> )	Groupers	88	296	3.37
	Serranidae ( <i>unspecified</i> )	Inshore groupers	49	144	2.91
	<i>Variola albimarginata</i>	White-edged lyretail	11	36	3.38
	<i>Variola louti</i>	Yellow-edged lyretail	2	6	3.26
<b>Siganidae (rabbitfishes)</b>					
	Siganidae ( <i>unspecified</i> )	Rabbitfishes	6	20	3.50
<b>Sphyraenidae (barracudas)</b>					
	<i>Sphyraena forsteri</i>	Bigeye barracuda	5	17	3.25
	<i>Sphyraena spp.</i>	Small barracudas	156	525	3.36
<b>Unspecified Fish Groups</b>					
	Various (many) families	Reef fishes	6,917	20,299	2.93
<b>INVERTEBRATES:</b>					
<b>Crustaceans: Lobsters</b>					
	<i>Panulirus penicillatus</i>	Spiny lobster	58	241	4.14
<b>Mollusks</b>					
	<i>Octopus spp.</i>	Octopus	403	1,243	3.08
<b>Total</b>			<b>196,275</b>	<b>\$187,238</b>	<b>\$0.95</b>



**Table A-5**  
**American Samoa April 2014 Estimated Commercial Landings**

Group	Subgroup	Scientific Name	Common/local name	Lbs Sold	Estimated Value	Price/Lb
<b>FISHES:</b>						
	<b>Scombridae</b>					
	<b>Tunas</b>					
		<i>Euthynnus affinis</i>	Kawakawa	6	17	3.00
		<i>Katsuwonus pelamis</i>	Skipjack tuna	9,642	5,027	0.52
		<i>Thunnus alalunga</i>	Albacore tuna	168,158	198,427	1.18
		<i>Thunnus albacares</i>	Yellowfin tuna	178,479	105,854	0.59
		<i>Thunnus obesus</i>	Bigeye tuna	10,552	5,276	0.50
	<b>Other scombrids</b>					
		<i>Acanthocybium solandri</i>	Wahoo	10,762	5,402	0.50
		<i>Rastrelliger brachysoma</i>	Mackerel	14	41	3.00
	<b>Billfishes</b>					
	<b>Istiophoridae</b>					
		<i>Makaira mazara</i>	Blue marlin	579	376	0.65
	<b>Other fishes</b>					
	<b>Acanthuridae</b> (Tangs, Surgeons, Unicornfishes)					
		<i>Acanthurus lineatus</i>	Blue-banded surgeonfish	2,083	5,977	2.87
		<i>Acanthurus nigrofusus</i>	Brown surgeonfish	3	9	3.38
		<i>Ctenochaetus striatus</i>	Striped bristletooth	795	2,334	2.93
		<i>Naso brachycentron</i>	Humpback unicornfish	8	28	3.50
		<i>Naso lituratus</i>	Orangespine unicornfish	5	16	3.32
		<i>Naso</i> spp.	Unicornfishes (unspecified)	344	1,032	3.00
		<i>Naso unicornis</i>	Bluespine unicornfish	8	27	3.38
	<b>Balistidae</b> (triggerfishes)					
		Balistidae ( <i>unspecified</i> )	Triggerfishes	1	4	3.01
	<b>Carangidae</b> (jacks & trevallies)					
		Carangidae ( <i>large, unspecified</i> )	Jacks	9	29	3.25
		Carangidae ( <i>small to medium,</i>	Trevallies	0	0	
		<i>Caranx lugubris</i>	Black jack	0	0	
		<i>Caranx melampygus</i>	Bluefin trevally	2	6	3.01
		<i>Seriola dumerili</i>	Greater amberjack	7	22	3.25
		<i>Scomberoides lysan</i>	Leatherback	4	13	2.85
	<b>Coryphaenidae</b> (mahimahi/dolphinfish)					
		<i>Coryphaena hippurus</i> , <i>C. equiselis</i>	Mahimahi	1,433	2,851	1.99
	<b>Holocentridae</b> (squirrel & soldierfishes)					
		<i>Myripristis berndti</i>	Bigscale soldierfish	< 1	1	3.00
		<i>Myripristis berndti</i>	Blotcheye soldierfish	1	1	2.98
		<i>Sargocentron</i> spp., <i>Neoniphon</i>	Squirrelfishes	173	507	2.93
	<b>Lethrinidae</b> (emperors)					
		Lethrinidae ( <i>unspecified</i> )	Emperors	320	1,077	3.36
		<i>Lethrinus amboinensis</i>	Ambon emperor	2	6	3.00
		<i>Monotaxis grandoculis</i>	Bigeye bream	3	8	3.00

**Table A-5**  
**American Samoa April 2014 Estimated Commercial Landings**

<b>Group</b>	<b>Subgroup</b>	<b>Scientific Name</b>	<b>Common/local name</b>	<b>Lbs Sold</b>	<b>Estimated Value</b>	<b>Price/ Lb</b>
<b>Other fishes (continued)</b>						
	<b>Lutjanidae (snappers)</b>					
		<i>Aprion virescens</i>	Gray jobfish	385	1,352	3.51
		<i>Etelis carbunculus</i>	Ruby snapper (ehu)	43	170	3.95
		<i>Lutjanus gibbus</i>	Humpback snapper	374	1,251	3.34
		<i>Lutjanus kasmira</i>	Blue-lined snapper	225	833	3.71
		<i>Pristipomoides zonatus</i>	Flower snapper (gindai)	28	111	3.95
	<b>Mugilidae (mullets)</b>					
		Mugilidae ( <i>unspecified</i> )	Mullet	3	9	3.00
	<b>Mullidae (goatfishes)</b>					
		Mullidae ( <i>unspecified</i> )	Goatfishes	2	9	3.75
	<b>Scaridae (parrotfishes)</b>					
		Scaridae ( <i>unspecified</i> )	Parrotfishes	1,198	3,467	2.89
	<b>Serranidae (groupers)</b>					
		Serranidae ( <i>unspecified</i> )	Groupers	46	182	3.95
		Serranidae ( <i>unspecified</i> )	Inshore groupers	49	139	2.81
		<i>Variola albimarginata</i>	White-edged lyretail	7	23	3.38
	<b>Siganidae (rabbitfishes)</b>					
		Siganidae ( <i>unspecified</i> )	Rabbitfishes	2	7	3.50
	<b>Unspecified Fish Groups</b>					
		Carangidae, Lutjanidae, Lethrinidae & Serranidae	Bottomfishes ( <i>unspecified</i> )	1,762	5,486	3.11
		Various (many) families	Reef fishes ( <i>unspecified</i> )	6,917	20,299	2.93
<b>INVERTEBRATES:</b>						
	<b>Crustaceans: Lobsters</b>					
		<i>Panulirus penicillatus</i>	Spiny lobster	32	106	3.31
	<b>Mollusks</b>					
		<i>Octopus</i> spp.	Octopus	416	1,250	3.00
<b>Total</b>				<b>386,915</b>	<b>\$345,438</b>	<b>\$0.89</b>

**Table A-6**  
**American Samoa May 2014 Estimated Commercial Landings**

Group	Subgroup	Scientific Name	Common/local name	Lbs Sold	Estimated Value	Price/Lb
<b>FISHES:</b>						
	<b>Scombridae</b>					
	<b>Tunas</b>					
		<i>Katsuwonus pelamis</i>	Skipjack tuna	8,024	4,392	0.55
		<i>Thunnus alalunga</i>	Albacore tuna	203,894	265,062	1.30
		<i>Thunnus albacares</i>	Yellowfin tuna	161,692	98,453	0.61
		<i>Thunnus obesus</i>	Bigeye tuna	10,113	2,528	0.25
	<b>Other scombrids</b>					
		<i>Acanthocybium solandri</i>	Wahoo	9,760	5,199	0.53
		<i>Rastrelliger brachysoma</i>	Mackerel	25	76	3.00
	<b>Billfishes</b>					
	<b>Istiophoridae</b>					
		<i>Makaira mazara</i>	Blue marlin	100	125	1.25
	<b>Other fishes</b>					
	<b>Acanthuridae</b> (Tangs, Surgeons, Unicornfishes)					
		<i>Acanthurus lineatus</i>	Blue-banded surgeonfish	1,588	4,640	2.92
		<i>Ctenochaetus striatus</i>	Striped bristletooth	966	2,795	2.89
		<i>Naso lituratus</i>	Orangespine unicornfish	< 1	1	3.00
		<i>Naso</i> spp.	Unicornfishes (unspecified)	438	1,300	2.97
	<b>Balistidae</b> (triggerfishes)					
		Balistidae (unspecified)	Triggerfishes	5	14	3.00
	<b>Carangidae</b> (jacks & trevallies)					
		Carangidae (large, unspecified)	Jacks	2	8	3.04
		Carangidae (small to medium, unspecified)	Trevallies	2	5	3.22
		<i>Caranx lugubris</i>	Black jack	54	155	2.86
		<i>Caranx melampygus</i>	Bluefin trevally	2	5	2.49
		<i>Caranx sexfasciatus</i>	Bigeye trevally	2	7	3.07
		<i>Seriola dumerili</i>	Greater amberjack	63	205	3.24
		<i>Scomberoides lysan</i>	Leatherback	4	10	2.85
		<i>Selar crumenophthalmus</i>	Bigeye scad	17	50	3.00
		<i>Elagatis bipinnulata</i>	Rainbow runner	5	15	2.74
	<b>Coryphaenidae</b> (mahimahi/dolphinfish)					
		<i>Coryphaena hippurus</i> , <i>C. equiselis</i>	Mahimahi	598	848	1.42
	<b>Gempylidae</b> (snake mackerels)					
		<i>Promethichthys prometheus</i>	Snake mackerel	< 1	1	2.96
	<b>Holocentridae</b> (squirrel & soldierfishes)					
		<i>Myripristis berndti</i>	Bigscale soldierfish	4	14	3.49
		<i>Myripristis berndti</i>	Blotcheye soldierfish	2	5	3.22
		<i>Sargocentron spiniferum</i>	Saber squirrelfish	13	33	2.58
		<i>Sargocentron</i> spp., <i>Neoniphon</i> spp.	Squirrelfishes	220	522	2.38
	<b>Labridae</b> (wrasses)					
		Labridae (unspecified)	Wrasses	2	6	3.08

**Table A-6**  
**American Samoa May 2014 Estimated Commercial Landings**

Group	Subgroup	Scientific Name	Common/local name	Lbs Sold	Estimated Value	Price/Lb
<b>Other fishes (continued)</b>						
<b>Lethrinidae (emperors)</b>						
		<i>Gnathodentex aureolineatus</i>	Yellowspot emperor	3	8	3.00
		Lethrinidae ( <i>unspecified</i> )	Emperors	497	1,331	2.68
		<i>Lethrinus amboinensis</i>	Ambon emperor	11	33	3.04
		<i>Lethrinus erythracanthus</i>	Orangespot emperor	13	33	2.50
		<i>Lethrinus lentjan</i>	Redgill emperor	27	80	3.00
		<i>Monotaxis grandoculis</i>	Bigeye bream	17	50	3.00
<b>Lutjanidae (snappers)</b>						
		<i>Aphareus rutilans</i>	Yelloweye opakapaka (lehi, silverjaw jobfish)	46	139	3.00
		<i>Aprion virescens</i>	Gray jobfish	489	1,133	2.32
		<i>Caesio caerulea</i>	Gold banded fusilier	15	44	3.00
		<i>Etelis carbunculus</i>	Ruby snapper (ehu)	71	213	3.00
		<i>Etelis coruscans</i>	Longtail snapper (onaga)	832	3,288	3.95
		<i>Lutjanus bohar</i>	Twinspot/red snapper	6	17	3.00
		<i>Lutjanus fulvus</i>	Yellow margined snapper	2	5	3.00
		<i>Lutjanus gibbus</i>	Humpback snapper	351	1,176	3.35
		<i>Lutjanus kasmira</i>	Blue-lined snapper	402	1,021	2.54
		<i>Lutjanus monostigma</i>	Onespot snapper	10	32	3.25
		<i>Lutjanus rufolineatus</i>	Rufous snapper	5	15	3.00
		<i>Lutjanus timoriensis</i>	Timor snapper	22	95	4.23
		<i>Macolor niger</i>	Black snapper	7	23	3.33
		<i>Paracaesio stonei</i>	Stone's snapper	28	71	2.56
		<i>Pristipomoides auricilla</i>	Goldflag jobfish	10	31	3.11
		<i>Pristipomoides filamentosus</i>	Pink snapper (opakapaka)	11	40	3.50
		<i>Pristipomoides multidentis</i>	Multidentis snapper	5	25	5.00
<b>Mugilidae (mulletts)</b>						
		Mugilidae ( <i>unspecified</i> )	Mullet	1	4	3.01
<b>Mullidae (goatfishes)</b>						
		<i>Mulloidichthys flavolineatus</i>	Yellowstripe goatfish	1	3	3.17
<b>Priacanthidae (glasseyes)</b>						
		<i>Priacanthus blochii</i>	Bloch's bigeye	2	5	3.04
<b>Scaridae (parrotfishes)</b>						
		Scaridae ( <i>unspecified</i> )	Parrotfishes	1,360	3,834	2.82
<b>Serranidae (groupers)</b>						
		<i>Cephalopholis argus</i>	Peacock grouper	6	15	2.50
		<i>Epinephelus maculatus</i>	Spotted grouper	9	27	2.98
		<i>Epinephelus melanostigma</i>	One-blotch grouper	5	16	3.04
		<i>Epinephelus merra</i>	Honeycomb grouper	1	3	2.49
		<i>Epinephelus polyphekadion</i>	Smalltooth grouper	8	19	2.50
		Serranidae ( <i>unspecified</i> )	Groupers	72	235	3.25
		Serranidae ( <i>unspecified</i> )	Inshore groupers	91	237	2.60
		<i>Variola albimarginata</i>	White-edged lyretail	1,303	4,043	3.10
		<i>Variola louti</i>	Yellow-edged lyretail	22	60	2.75

**Table A-6**  
**American Samoa May 2014 Estimated Commercial Landings**

Group	Subgroup	Scientific Name	Common/local name	Lbs Sold	Estimated Value	Price/ Lb
<b>Other fishes (continued)</b>						
	<b>Sphyraenidae (barracudas)</b>					
		<i>Sphyraena forsteri</i>	Bigeye barracuda	70	90	1.28
		<i>Sphyraena spp.</i>	Barracudas	10	26	2.50
		<i>Sphyraena spp.</i>	Small barracudas	45	143	3.21
	<b>Terapontidae (terapons)</b>					
		<i>Terapon jarbua</i>	Terapon perch	15	46	3.15
	<b>Unspecified Fish Groups</b>					
		Carangidae, Lutjanidae, Lethrinidae & Serranidae	Bottomfishes (unspecified)	1,762	5,486	3.11
		Various (many) families	Reef fishes (unspecified)	6,917	20,299	2.93
<b>INVERTEBRATES:</b>						
	<b>Crustaceans: Lobsters</b>					
		<i>Panulirus penicillatus</i>	Spiny lobster	29	132	4.52
<b>Total</b>				<b>404,536</b>	<b>\$407,275</b>	<b>\$1.01</b>

**Table A-7**  
**American Samoa June 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs	Estimated	Price/
	Scientific Name	Common/local name	Sold	Value	Lb
<b>FISHES:</b>					
	<b>Scombridae</b>				
	<b>Tunas</b>				
	<i>Katsuwonus pelamis</i>	Skipjack tuna	6,719	8,270	1.23
	<i>Thunnus alalunga</i>	Albacore tuna	334,993	428,791	1.28
	<i>Thunnus albacares</i>	Yellowfin tuna	109,265	74,389	0.68
	<i>Thunnus obesus</i>	Bigeye tuna	7,584	4,475	0.59
	<b>Other scombrids</b>				
	<i>Acanthocybium solandri</i>	Wahoo	14,651	9,411	0.64
	<i>Gymnosarda unicolor</i>	Dogtooth tuna	67	149	2.22
	<b>Billfishes</b>				
	<b>Istiophoridae</b>				
	<i>Makaira mazara</i>	Blue marlin	533	666	1.25
	<b>Other fishes</b>				
	<b>Acanthuridae</b> (Tangs, Surgeons, Unicornfishes)				
	<i>Acanthurus lineatus</i>	Blue-banded surgeonfish	1,683	4,961	2.95
	<i>Acanthurus nigrofusus</i>	Brown surgeonfish	51	159	3.11
	<i>Acanthurus xanthopterus</i>	Yellowfin surgeonfish	6	17	3.00
	<i>Ctenochaetus striatus</i>	Striped bristletooth	558	1,693	3.03
	<i>Naso lituratus</i>	Orangespine unicornfish	96	292	3.05
	<i>Naso</i> spp.	Unicornfishes (unspecified)	472	1,456	3.09
	<b>Carangidae</b> (jacks & trevallies)				
	<i>Carangidae</i> (small to medium, unspecified)	Trevallies	19	56	3.00
	<i>Caranx lugubris</i>	Black jack	105	387	3.67
	<i>Caranx melampygus</i>	Bluefin trevally	4	21	5.00
	<i>Caranx sexfasciatus</i>	Bigeye trevally	6	17	3.00
	<i>Seriola dumerili</i>	Greater amberjack	90	535	5.96
	<i>Elagatis bipinnulata</i>	Rainbow runner	8	23	3.00
	<b>Coryphaenidae</b> (mahimahi/dolphinfish)				
	<i>Coryphaena hippurus</i> , <i>C. equiselis</i>	Mahimahi	697	1,339	1.92
	<b>Diodontidae</b> (porcupinefishes)				
	<i>Diodon holocanthus</i>	Spiny pufferfish	15	46	3.00
	<b>Gempylidae</b> (snake mackerels)				
	<i>Ruvettus pretiosus</i>	Oilfish	272	816	3.00
	<b>Holocentridae</b> (squirrel & soldierfishes)				
	<i>Myripristis berndti</i>	Blotcheye soldierfish	5	14	3.00
	<i>Sargocentron spiniferum</i>	Saber squirrelfish	23	68	3.00
	<i>Sargocentron</i> spp., <i>Neoniphon</i> spp.	Squirrelfishes	143	449	3.13
	<i>Sargocentron tiere</i>	Tahitian squirrelfish	3	9	3.50
	<b>Kyphosidae</b> (sea chubs)				
	<i>Kyphosus</i> spp. (various)	Rudderfishes	4	11	3.00
	<b>Labridae</b> (wrasses)				
	<i>Labridae</i> (unspecified)	Wrasses	11	39	3.50

**Table A-7**  
**American Samoa June 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs	Estimated	Price/
	Scientific Name	Common/local name	Sold	Value	Lb
<b>Other fishes (continued)</b>					
<b>Lethrinidae (emperors)</b>					
	<i>Lethrinidae (unspecified)</i>	Emperors	192	583	3.04
	<i>Lethrinus elongatus</i>	Longnose emperor	11	32	3.00
	<i>Lethrinus erythracanthus</i>	Orangespot emperor	9	46	5.00
	<i>Lethrinus lentjan</i>	Redgill emperor	1	2	3.01
	<i>Monotaxis grandoculis</i>	Bigeye bream	4	12	3.00
<b>Lutjanidae (snappers)</b>					
	<i>Aphareus furca</i>	Brown jobfish	3	9	3.00
	<i>Aphareus rutilans</i>	Yelloweye opakapaka (lehi, silverjaw jobfish)	1,099	3,422	3.11
	<i>Aprion virescens</i>	Gray jobfish	344	1,179	3.42
	<i>Etelis carbunculus</i>	Ruby snapper (ehu)	106	419	3.95
	<i>Etelis coruscans</i>	Longtail snapper (onaga)	813	2,983	3.67
	<i>Lutjanus bohar</i>	Twinspot/red snapper	12	36	3.01
	<i>Lutjanus gibbus</i>	Humpback snapper	209	628	3.00
	<i>Lutjanus kasmira</i>	Blue-lined snapper	282	931	3.30
	<i>Lutjanus monostigma</i>	Onespot snapper	4	11	3.00
	<i>Lutjanus timoriensis</i>	Timor snapper	43	174	4.00
	<i>Macolor niger</i>	Black snapper	21	68	3.33
	<i>Pristipomoides auricilla</i>	Goldflag jobfish	45	134	3.00
	<i>Pristipomoides filamentosus</i>	Pink snapper (opakapaka)	2	7	3.50
	<i>Pristipomoides multidens</i>	Multidens snapper	5	23	5.00
	<i>Pristipomoides zonatus</i>	Flower snapper (gindai)	61	241	3.95
<b>Mugilidae (mullet)</b>					
	<i>Mugilidae (unspecified)</i>	Mullet	2	6	3.05
<b>Mullidae (goatfishes)</b>					
	<i>Mullidae (unspecified)</i>	Goatfishes	7	22	3.33
	<i>Mulloidichthys flavolineatus</i>	Yellowstripe goatfish	2	6	3.13
<b>Polynemidae (threadfins)</b>					
	<i>Polydactylus sexfilis</i>	Threadfin	4	15	3.50
<b>Scaridae (parrotfishes)</b>					
	<i>Calotomus carolinus</i>	Stareye parrotfish	2	5	2.99
	<i>Chlorurus japanensis</i>	Japanese parrotfish	134	437	3.25
	<i>Scaridae (unspecified)</i>	Parrotfishes	745	2,209	2.97
<b>Serranidae (groupers)</b>					
	<i>Cephalopholis argus</i>	Peacock grouper	18	53	3.00
	<i>Epinephelus maculatus</i>	Spotted grouper	3	9	2.98
	<i>Epinephelus melanostigma</i>	One-blotch grouper	5	17	3.32
	<i>Epinephelus timorensis</i>	Yellowspot grouper	4	19	4.25
	<i>Serranidae (unspecified)</i>	Groupers	31	103	3.33
	<i>Serranidae (unspecified)</i>	Inshore groupers	13	49	3.80
	<i>Variola albimarginata</i>	White-edged lyretail	32	101	3.18
	<i>Variola louti</i>	Yellow-edged lyretail	10	28	2.78

**Table A-7**  
**American Samoa June 2014 Estimated Commercial Landings**

<b>Group</b>	<b>Subgroup</b>		<b>Lbs</b>	<b>Estimated</b>	<b>Price/</b>
	<b>Scientific Name</b>	<b>Common/local name</b>	<b>Sold</b>	<b>Value</b>	<b>Lb</b>
<b>Other fishes (continued)</b>					
	<b>Siganidae</b> (rabbitfishes)				
	Siganidae ( <i>unspecified</i> )	Rabbitfishes	13	32	2.50
	<b>Sphyraenidae</b> (barracudas)				
	<i>Sphyraena forsteri</i>	Bigeye barracuda	6	17	3.00
	<i>Sphyraena spp.</i>	Small barracudas	70	211	3.00
	<b>Terapontidae</b> (terapons)				
	<i>Terapon jarbua</i>	Terapon perch	5	15	3.15
	<b>Unspecified Fish Groups</b>				
	Carangidae, Lutjanidae, Lethrinidae & Serranidae	Bottomfishes (unspecified)	1,762	5,486	3.11
	Various (many) families	Reef fishes (unspecified)	6,917	20,299	2.93
<b>INVERTEBRATES:</b>					
	<b>Crustaceans: Lobsters</b>				
	<i>Panulirus penicillatus</i>	Spiny lobster	236	1,039	4.40
	<b>Mollusks</b>				
	<i>Octopus spp.</i>	Octopus	12	36	3.00
<b>Total</b>			<b>483,642</b>	<b>\$556,706</b>	<b>\$1.15</b>



**Table A-8**  
**American Samoa July 2014 Estimated Commercial Landings**

Group	Subgroup			Estimated	Price/
	Scientific Name	Common/local name	Lbs Sold	Value	Lb
<b>FISHES:</b>					
	<b>Scombridae</b>				
	<b>Tunas</b>				
	<i>Katsuwonus pelamis</i>	Skipjack tuna	53,036	32,350	0.61
	<i>Thunnus alalunga</i>	Albacore tuna	602,481	771,175	1.28
	<i>Thunnus albacares</i>	Yellowfin tuna	185,924	123,978	0.67
	<i>Thunnus obesus</i>	Bigeye tuna	20,555	12,127	0.59
	<b>Other scombrids</b>				
	<i>Acanthocybium solandri</i>	Wahoo	17,696	8,891	0.50
	<b>Billfishes</b>				
	<b>Istiophoridae</b>				
	<i>Makaira mazara</i>	Blue marlin	570	832	1.46
	<b>Other fishes</b>				
	<b>Acanthuridae</b> (Tangs, Surgeons, Unicornfishes)				
	<i>Acanthurus guttatus</i>	Whitespotted surgeonfish	22	69	3.13
	<i>Acanthurus lineatus</i>	Blue-banded surgeonfish	1,573	4,603	2.93
	<i>Acanthurus nigricans</i>	Whitecheek surgeonfish	11	32	3.00
	<i>Acanthurus nigrofusus</i>	Brown surgeonfish	154	469	3.05
	<i>Acanthurus xanthopterus</i>	Yellowfin surgeonfish	209	637	3.05
	<i>Ctenochaetus striatus</i>	Striped bristletooth	838	2,435	2.90
	<i>Naso lituratus</i>	Orangespine unicornfish	241	730	3.03
	<i>Naso</i> spp.	Unicornfishes (unspecified)	404	1,211	3.00
	<i>Naso unicornis</i>	Bluespine unicornfish	72	219	3.05
	<i>Naso vlamingii</i>	Bignose unicornfish	4	12	3.00
	<b>Balistidae</b> (triggerfishes)				
	<i>Balistoides viridescens</i>	Titan triggerfish	2	7	3.00
	<b>Bramidae</b> (pomfrets)				
	<i>Taractichthys</i> , <i>Eumegistus</i> , <i>Brama</i> (unspecified)	Pomfret (monchong)	2	6	2.98
	<b>Carangidae</b> (jacks & trevallies)				
	<i>Carangidae</i> (large, unspecified)	Jacks	35	105	3.00
	<i>Caranx lugubris</i>	Black jack	61	183	3.00
	<i>Caranx melampygus</i>	Bluefin trevally	6	19	3.00
	<i>Seriola dumerili</i>	Greater amberjack	4	12	3.00
	<i>Selar crumenophthalmus</i>	Bigeye scad	13	40	3.00
	<i>Elagatis bipinnulata</i>	Rainbow runner	16	44	2.74
	<b>Coryphaenidae</b> (mahimahi/dolphinfish)				
	<i>Coryphaena hippurus</i> , <i>C. equiselis</i>	Mahimahi	3,056	3,966	1.30
	<b>Holocentridae</b> (squirrel & soldierfishes)				
	<i>Myripristis amaena</i>	Brick soldierfish	< 1	1	2.98
	<i>Sargocentron spiniferum</i>	Saber squirrelfish	4	13	3.00
	<i>Sargocentron</i> spp., <i>Neonippon</i> spp.	Squirrelfishes	90	272	3.03
	<b>Kyphosidae</b> (sea chubs)				
	<i>Kyphosus</i> spp. (various)	Rudderfishes	20	59	3.00

**Table A-8**  
**American Samoa July 2014 Estimated Commercial Landings**

Group	Subgroup	Scientific Name	Common/local name	Lbs Sold	Estimated Value	Price/Lb
<b>FISHES:</b>						
<b>Other fishes (continued)</b>						
<b>Labridae (wrasses)</b>						
		Labridae ( <i>unspecified</i> )	Wrasses	43	130	3.00
<b>Lethrinidae (emperors)</b>						
		<i>Gnathodentex aureolineatus</i>	Yellowspot emperor	10	30	3.00
		<i>Gymnocranius grandoculis</i>	Blue-lined bream	15	46	3.00
		Lethrinidae ( <i>unspecified</i> )	Emperors	332	995	3.00
		<i>Lethrinus elongatus</i>	Longnose emperor	13	39	3.00
		<i>Lethrinus erythracanthus</i>	Orangespot emperor	12	37	3.00
		<i>Monotaxis grandoculis</i>	Bigeye bream	17	50	3.00
<b>Lutjanidae (snappers)</b>						
		<i>Aphareus furca</i>	Brown jobfish	667	2,001	3.00
		<i>Aphareus rutilans</i>	Yelloweye opakapaka (lehi, silverjaw jobfish)	217	650	3.00
		<i>Aprion virescens</i>	Gray jobfish	373	1,120	3.00
		<i>Caesio caeruleaurea</i>	Gold banded fusilier	1	3	3.00
		<i>Etelis carbunculus</i>	Ruby snapper (ehu)	142	426	3.00
		<i>Etelis coruscans</i>	Longtail snapper (onaga)	185	556	3.00
		Lutjanidae ( <i>unspecified</i> )	Deep water snappers	1,318	3,953	3.00
		<i>Lutjanus bohar</i>	Twinspot/red snapper	15	46	3.00
		<i>Lutjanus fulvus</i>	Yellow margined snapper	1	4	3.00
		<i>Lutjanus gibbus</i>	Humpback snapper	524	1,572	3.00
		<i>Lutjanus kasmira</i>	Blue-lined snapper	238	713	3.00
		<i>Lutjanus monostigma</i>	Onespot snapper	<0	1	3.06
		<i>Paracaesio stonei</i>	Stone's snapper	19	58	3.00
		<i>Pristipomoides filamentosus</i>	Pink snapper (opakapaka)	312	936	3.00
		<i>Pristipomoides zonatus</i>	Flower snapper (gindai)	18	55	3.00
<b>Mugilidae (mulletts)</b>						
		Mugilidae ( <i>unspecified</i> )	Mullet	5	16	3.00
<b>Mullidae (goatfishes)</b>						
		Mullidae ( <i>unspecified</i> )	Goatfishes	15	45	3.00
		<i>Mulloidichthys flavolineatus</i>	Yellowstripe goatfish	5	16	3.00
<b>Polynemidae (threadfins)</b>						
		<i>Polydactylus sexfilis</i>	Threadfin	2	6	3.00
<b>Priacanthidae (glasseyes)</b>						
		<i>Priacanthus blochii</i>	Bloch's bigeye	1	3	3.26
<b>Scaridae (parrotfishes)</b>						
		<i>Calotomus carolinus</i>	Stareye parrotfish	66	199	3.00
		<i>Chlorurus microrhinos</i>	Steephead parrotfish	612	1,869	3.05
		Scaridae ( <i>unspecified</i> )	Parrotfishes	1,531	4,646	3.03
		<i>Scarus dimidiatus</i>	Yellowbarred parrotfish	2	5	2.99
		<i>Scarus frenatus</i>	Bridled parrotfish	2	5	2.99
<b>Serranidae (groupers)</b>						
		<i>Cephalopholis argus</i>	Peacock grouper	26	79	3.00
		<i>Epinephelus fasciatus</i>	Blacktip grouper	1	2	3.00
		<i>Epinephelus melanostigma</i>	One-blotch grouper	28	85	3.00

**Table A-8**  
**American Samoa July 2014 Estimated Commercial Landings**

Group	Subgroup				
	Scientific Name	Common/local name	Lbs Sold	Estimated Value	Price/Lb
<b>FISHES:</b>					
	<b>Other fishes (continued)</b>				
	<b>Serranidae (continued)</b>				
	<i>Epinephelus timorensis</i>	Yellowspot grouper	1	3	2.99
	Serranidae ( <i>unspecified</i> )	Groupers	68	205	3.02
	Serranidae ( <i>unspecified</i> )	Inshore groupers	23	69	3.00
	<i>Variola albiguttata</i>	White-edged lyretail	28	84	3.00
	<i>Variola louti</i>	Yellow-edged lyretail	4	13	3.00
	<b>Siganidae (rabbitfishes)</b>				
	Siganidae ( <i>unspecified</i> )	Rabbitfishes	5	16	3.11
	<b>Sphyraenidae (barracudas)</b>				
	<i>Sphyraena forsteri</i>	Bigeye barracuda	36	72	2.00
	<i>Sphyraena spp.</i>	Small barracudas	60	180	3.00
	<b>Unspecified Fish Groups</b>				
	Carangidae, Lutjanidae, Lethrinidae & Serranidae	Bottomfishes (unspecified)	1,762	5,486	3.11
	Various (many) families	Reef fishes (unspecified)	6,917	20,299	2.93
<b>INVERTEBRATES:</b>					
	<b>Crustaceans: Lobsters</b>				
	<i>Panulirus penicillatus</i>	Spiny lobster	61	223	3.63
	<b>Mollusks</b>				
	<i>Octopus spp.</i>	Octopus	11	33	3.00
<b>Total</b>			<b>895,008</b>	<b>\$988,344</b>	<b>\$1.10</b>

**Table A-9**  
**American Samoa August 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs	Estimated	Price/
	Scientific Name	Common/local name	Sold	Value	Lb
<b>FISHES:</b>					
	<b>Scombridae</b>				
	<b>Tunas</b>				
	<i>Katsuwonus pelamis</i>	Skipjack tuna	51,560	34,471	0.67
	<i>Thunnus alalunga</i>	Albacore tuna	428,870	574,686	1.34
	<i>Thunnus albacares</i>	Yellowfin tuna	62,975	48,130	0.76
	<i>Thunnus obesus</i>	Bigeye tuna	17,770	11,728	0.66
	<b>Other scombrids</b>				
	<i>Acanthocybium solandri</i>	Wahoo	19,073	9,930	0.52
	<b>Billfishes</b>				
	<b>Xiphiidae</b>				
	<i>Xiphias gladius</i>	Swordfish	358	1,253	3.50
	<b>Other fishes</b>				
	<b>Acanthuridae</b> (Tangs, Surgeons, Unicornfishes)				
	<i>Acanthurus lineatus</i>	Blue-banded surgeonfish	1,567	4,592	2.93
	<i>Acanthurus nigrofusus</i>	Brown surgeonfish	100	299	3.00
	<i>Acanthurus xanthopterus</i>	Yellowfin surgeonfish	11	11	0.99
	<i>Ctenochaetus striatus</i>	Striped bristletooth	542	1,661	3.07
	<i>Naso lituratus</i>	Orangespine unicornfish	102	307	3.00
	<i>Naso</i> spp.	Unicornfishes (unspecified)	323	970	3.00
	<b>Carangidae</b> (jacks & trevallies)				
	<i>Carangidae</i> (small to medium, unspecified)	Trevallies	21	68	3.22
	<i>Caranx lugubris</i>	Black jack	19	59	3.16
	<i>Caranx sexfasciatus</i>	Bigeye trevally	14	43	3.00
	<i>Seriola dumerili</i>	Greater amberjack	64	206	3.24
	<b>Coryphaenidae</b> (mahimahi/dolphinfish)				
	<i>Coryphaena hippurus</i> , <i>C. equiselis</i>	Mahimahi	3,269	5,759	1.76
	<b>Holocentridae</b> (squirrel & soldierfishes)				
	<i>Sargocentron spiniferum</i>	Saber squirrelfish	13	43	3.29
	<i>Sargocentron</i> spp., <i>Neoniphon</i> spp.	Squirrelfishes	119	356	3.00
	<b>Kyphosidae</b> (sea chubs)				
	<i>Kyphosus</i> spp. (various)	Rudderfishes	21	64	3.00
	<b>Lethrinidae</b> (emperors)				
	<i>Lethrinidae</i> (unspecified)	Emperors	1,023	2,558	2.50
	<i>Lethrinus amboinensis</i>	Ambon emperor	146	437	3.00
	<i>Lethrinus erythracanthus</i>	Orangespot emperor	96	287	3.00
	<i>Lethrinus lentjan</i>	Redgill emperor	< 1	1	3.05
	<i>Monotaxis grandoculis</i>	Bigeye bream	8	25	3.00
	<b>Lutjanidae</b> (snappers)				
	<i>Aphareus furca</i>	Brown jobfish	5	16	3.01
	<i>Aphareus rutilans</i>	Yelloweye opakapaka (lehi, silverjaw jobfish)	476	1,429	3.00

**Table A-9**  
**American Samoa August 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs	Estimated	Price/
	Scientific Name	Common/local name	Sold	Value	Lb
<b>Other fishes Lutjanidae (continued)</b>					
	<i>Aprion virescens</i>	Gray jobfish	1,034	3,103	3.00
	<i>Caesio caerulaurea</i>	Gold banded fusilier	2	7	3.00
	<i>Etelis carbunculus</i>	Ruby snapper (ehu)	43	170	3.95
	<i>Etelis coruscans</i>	Longtail snapper (onaga)	237	712	3.00
	<i>Lutjanus gibbus</i>	Humpback snapper	1,525	4,574	3.00
	<i>Lutjanus kasmira</i>	Blue-lined snapper	621	1,864	3.00
	<i>Lutjanus monostigma</i>	Onespot snapper	36	109	3.00
	<i>Paracaesio kusakarii</i>	Kusakar's snapper	1	3	2.99
	<i>Pristipomoides auricilla</i>	Goldflag jobfish	3	10	3.00
	<i>Pristipomoides zonatus</i>	Flower snapper (gindai)	26	103	3.95
<b>Mugilidae (mullets)</b>					
	Mugilidae ( <i>unspecified</i> )	Mullet	95	286	3.00
<b>Mullidae (goatfishes)</b>					
	Mullidae ( <i>unspecified</i> )	Goatfishes	1	4	3.15
	<i>Mulloidichthys flavolineatus</i>	Yellowstripe goatfish	1	3	2.99
<b>Scaridae (parrotfishes)</b>					
	Scaridae ( <i>unspecified</i> )	Parrotfishes	2,578	7,735	3.00
<b>Serranidae (groupers)</b>					
	<i>Cephalopholis argus</i>	Peacock grouper	< 1	1	2.91
	<i>Cephalopholis igarashiensis</i>	Yellow-banded grouper	4	13	3.00
	<i>Cephalopholis sonnerati</i>	Tomato grouper	7	22	3.00
	<i>Epinephelus maculatus</i>	Spotted grouper	115	345	3.00
	<i>Epinephelus timorensis</i>	Yellowspot grouper	1	5	4.24
	Serranidae ( <i>unspecified</i> )	Groupers	84	186	2.21
	Serranidae ( <i>unspecified</i> )	Inshore groupers	18	64	3.58
	<i>Variola albimarginata</i>	White-edged lyretail	11	32	3.00
	<i>Variola louti</i>	Yellow-edged lyretail	3	10	3.00
<b>Siganidae (rabbitfishes)</b>					
	Siganidae ( <i>unspecified</i> )	Rabbitfishes	1	3	2.99
<b>Sphyracnidae (barracudas)</b>					
	<i>Sphyracna spp.</i>	Barracudas	10	26	2.50
	<i>Sphyracna spp.</i>	Small barracudas	380	1,221	3.21
<b>Unspecified Fish Groups</b>					
	Carangidae, Lutjanidae, Lethrinidae & Serranidae	Bottomfishes ( <i>unspecified</i> )	1,762	5,486	3.11
	Various (many) families	Reef fishes ( <i>unspecified</i> )	6,917	20,299	2.93
<b>INVERTEBRATES:</b>					
<b>Crustaceans: Lobsters</b>					
	<i>Panulirus penicillatus</i>	Spiny lobster	84	320	3.80
<b>Mollusks</b>					
	<i>Octopus spp.</i>	Octopus	6	18	3.00
	<i>Tridacna derasa</i>	Giant clam	40	320	8.00
<b>Total</b>			<b>596,828</b>	<b>\$724,593</b>	<b>\$1.21</b>

**Table A-9**  
**American Samoa August 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs	Estimated	Price/
	Scientific Name	Common/local name	Sold	Value	Lb

**Table A-10**  
**American Samoa September 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs	Estimated	Price/
	Scientific Name	Common/local name	Sold	Value	Lb

**FISHES:****Scombridae****Tunas**

<i>Katsuwonus pelamis</i>	Skipjack tuna	50,597	47,186	0.93
<i>Thunnus alalunga</i>	Albacore tuna	418,575	535,776	1.28
<i>Thunnus albacares</i>	Yellowfin tuna	62,141	59,000	0.95
<i>Thunnus obesus</i>	Bigeye tuna	31,384	20,064	0.64

**Other scombrids**

<i>Acanthocybium solandri</i>	Wahoo	19,102	9,510	0.50
<i>Gymnosarda unicolor</i>	Dogtooth tuna	16	27	1.68

**Billfishes****Istiophoridae**

<i>Istiophorus platypterus</i>	Sailfish	4	14	3.50
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**Other fishes****Acanthuridae** (Tangs, Surgeons, Unicornfishes)

<i>Acanthurus guttatus</i>	Whitespotted surgeonfish	4	13	3.00
<i>Acanthurus lineatus</i>	Blue-banded surgeonfish	1,802	5,350	2.97
<i>Acanthurus nigrofusus</i>	Brown surgeonfish	117	351	3.00
<i>Acanthurus xanthopterus</i>	Yellowfin surgeonfish	5	16	3.00
<i>Ctenochaetus striatus</i>	Striped bristletooth	825	2,474	3.00
<i>Naso lituratus</i>	Orangespine unicornfish	23	70	3.00
<i>Naso</i> spp.	Unicornfishes (unspecified)	659	1,946	2.95

**Carangidae** (jacks & trevallies)

<i>Caranx ignobilis</i>	Giant trevally	24	118	5.00
<i>Caranx lugubris</i>	Black jack	11	34	3.00
<i>Caranx sexfasciatus</i>	Bigeye trevally	23	68	3.00
<i>Elagatis bipinnulata</i>	Rainbow runner	19	93	5.00

**Coryphaenidae** (mahimahi/dolphinfish)

<i>Coryphaena hippurus</i> , <i>C. equiselis</i>	Mahimahi	3,315	11,103	3.35
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**Holocentridae** (squirrel & soldierfishes)

<i>Myripristis berndti</i>	Bigscale soldierfish	5	14	3.00
<i>Sargocentron spiniferum</i>	Saber squirrelfish	3	10	3.00
<i>Sargocentron</i> spp., <i>Neoniphon</i> spp.	Squirrelfishes	118	353	3.00

**Kyphosidae** (sea chubs)

<i>Kyphosus</i> spp. (various)	Rudderfishes	8	24	3.00
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**Lethrinidae** (emperors)

<i>Gnathodentex aureolineatus</i>	Yellowspot emperor	41	123	3.00
<i>Lethrinus amboinensis</i>	Ambon emperor	31	92	3.00
<i>Lethrinus elongatus</i>	Longnose emperor	1	3	3.01

**Table A-9**  
**American Samoa August 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs	Estimated	Price/
	Scientific Name	Common/local name	Sold	Value	Lb
	<i>Lethrinus erythracanthus</i>	Orangespot emperor	363	3,271	9.00
	<i>Lethrinus lentjan</i>	Redgill emperor	89	266	3.00
	<i>Monotaxis grandoculis</i>	Bigeye bream	11	34	3.00
<b>Other fishes (continued)</b>					
	<b>Lutjanidae (snappers)</b>				
	<i>Aphareus furca</i>	Brown jobfish	22	65	3.00
	<i>Aphareus rutilans</i>	Yelloweye opakapaka (lehi, silverjaw jobfish)	31	93	3.00
	<i>Aprion virescens</i>	Gray jobfish	380	1,139	3.00
	<i>Caesio caerulea</i>	Gold banded fusilier	3	9	3.00
	<i>Etelis coruscans</i>	Longtail snapper (onaga)	322	965	3.00
	<i>Lutjanus bohar</i>	Twinspot/red snapper	64	193	3.00
	<i>Lutjanus gibbus</i>	Humpback snapper	195	585	3.00
	<i>Lutjanus kasmira</i>	Blue-lined snapper	197	591	3.00
	<i>Lutjanus monostigma</i>	Onespot snapper	2	5	3.01
	<i>Paracaesio stonei</i>	Stone's snapper	6	17	3.00
	<i>Pristipomoides auricilla</i>	Goldflag jobfish	10	30	3.00
	<i>Pristipomoides zonatus</i>	Flower snapper (gindai)	113	340	3.00
	<b>Scaridae (parrotfishes)</b>				
	Scaridae (unspecified)	Parrotfishes	1,071	3,214	3.00
	<b>Serranidae (groupers)</b>				
	<i>Anyperodon leucogrammicus</i>	Slender grouper	4	12	3.00
	<i>Cephalopholis argus</i>	Peacock grouper	23	70	3.00
	<i>Epinephelus maculatus</i>	Spotted grouper	74	221	3.00
	<i>Epinephelus morrhua</i>	Striped grouper	1	3	2.99
	Serranidae (unspecified)	Groupers	18	54	3.00
	Serranidae (unspecified)	Inshore groupers	34	102	3.00
	<i>Variola albimarginata</i>	White-edged lyretail	5	16	3.00
	<b>Sphyraenidae (barracudas)</b>				
	<i>Sphyraena barracuda</i>	Great barracuda	12	62	5.00
	<i>Sphyraena forsteri</i>	Bigeye barracuda	55	210	3.79
	<i>Sphyraena spp.</i>	Barracudas	21	52	2.50
	<b>Terapontidae (terapons)</b>				
	<i>Terapon jarbua</i>	Terapon perch	13	40	3.00
	<b>Unspecified Fish Groups</b>				
	Various (many) families	Reef fishes (unspecified)	6,917	20,299	2.93
<b>INVERTEBRATES:</b>					
	<b>Crustaceans: Lobsters</b>				
	<i>Panulirus penicillatus</i>	Spiny lobster	60	237	3.97
	<b>Mollusks</b>				
	<i>Octopus spp.</i>	Octopus	10	30	3.00

**Table A-9**  
**American Samoa August 2014 Estimated Commercial Landings**

<b>Group</b>	<b>Subgroup</b>		<b>Lbs</b>	<b>Estimated</b>	<b>Price/</b>
	<b>Scientific Name</b>	<b>Common/local name</b>	<b>Sold</b>	<b>Value</b>	<b>Lb</b>
		<b>Total</b>	<b>592,552</b>	<b>\$707,229</b>	<b>\$1.19</b>



**Table A-11**  
**American Samoa October 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs	Estimated	Price/
	Scientific Name	Common/local name	Sold	Value	Lb
<b>FISHES:</b>					
	<b>Scombridae</b>				
	<b>Tunas</b>				
	<i>Katsuwonus pelamis</i>	Skipjack tuna	11,678	10,759	0.92
	<i>Thunnus alalunga</i>	Albacore tuna	245,471	294,727	1.20
	<i>Thunnus albacares</i>	Yellowfin tuna	12,102	6,658	0.55
	<i>Thunnus obesus</i>	Bigeye tuna	15,430	5,400	0.35
	<b>Other scombrids</b>				
	<i>Acanthocybium solandri</i>	Wahoo	14,130	3,301	0.23
	<i>Gymnosarda unicolor</i>	Dogtooth tuna	201	599	2.99
	<b>Billfishes</b>				
	<b>Istiophoridae</b>				
	<i>Makaira mazara</i>	Blue marlin	101	130	1.29
	<b>Xiphiidae</b>				
	<i>Xiphias gladius</i>	Swordfish	39	83	2.13
	<b>Other fishes</b>				
	<b>Acanthuridae</b> (Tangs, Surgeons, Unicornfishes)				
	<i>Acanthurus lineatus</i>	Blue-banded surgeonfish	2,138	6,415	3.00
	<i>Acanthurus nigrofusus</i>	Brown surgeonfish	15	45	3.00
	<i>Ctenochaetus striatus</i>	Striped bristletooth	430	1,284	2.99
	<i>Naso caesius</i>	Gray unicornfish	< 1	1	2.94
	<i>Naso lituratus</i>	Orangespine unicornfish	8	23	3.00
	<i>Naso</i> spp.	Unicornfishes (unspecified)	284	851	3.00
	<b>Carangidae</b> (jacks & trevallies)				
	<i>Elagatis bipinnulata</i>	Rainbow runner	18	49	2.75
	<b>Coryphaenidae</b> (mahimahi/dolphinfish)				
	<i>Coryphaena hippurus</i> , <i>C. equiselis</i>	Mahimahi	1,595	4,706	2.95
	<b>Gempylidae</b> (snake mackerels)				
	<i>Ruvettus pretiosus</i>	Oilfish	2	6	3.00
	<b>Holocentridae</b> (squirrel & soldierfishes)				
	<i>Myripristis berndti</i>	Bigscale soldierfish	2	7	3.00
	<i>Sargocentron spiniferum</i>	Saber squirrelfish	2	6	3.01
	<i>Sargocentron</i> spp., <i>Neoniphon</i>	Squirrelfishes	100	299	3.00
	<b>Kyphosidae</b> (sea chubs)				
	<i>Kyphosus</i> spp. (various)	Rudderfishes	3	10	3.00
	<b>Lethrinidae</b> (emperors)				
	<i>Gnathodentex aureolineatus</i>	Yellowspot emperor	153	460	3.00
	<i>Lethrinidae (unspecified)</i>	Emperors	65	169	2.60
	<i>Lethrinus amboinensis</i>	Ambon emperor	65	194	3.00
	<i>Lethrinus erythracanthus</i>	Orangespot emperor	182	546	3.00
	<i>Lethrinus lentjan</i>	Redgill emperor	12	37	3.00
	<i>Monotaxis grandoculis</i>	Bigeye bream	2	5	3.00

**Table A-11**  
**American Samoa October 2014 Estimated Commercial Landings**

<b>Group</b>	<b>Subgroup</b>		<b>Lbs</b>	<b>Estimated</b>	<b>Price/</b>
	<b>Scientific Name</b>	<b>Common/local name</b>	<b>Sold</b>	<b>Value</b>	<b>Lb</b>
<b>Other fishes (continued)</b>					
	<b>Lutjanidae (snappers)</b>				
	<i>Aphareus furca</i>	Brown jobfish	27	81	3.00
	<i>Aphareus rutilans</i>	Yelloweye opakapaka (lehi, silverjaw jobfish)	211	634	3.00
	<i>Aprion virescens</i>	Gray jobfish	41	123	3.00
	<i>Etelis coruscans</i>	Longtail snapper (onaga)	108	325	3.00
	<i>Lutjanus bohar</i>	Twinspot/red snapper	23	70	3.00
	<i>Lutjanus gibbus</i>	Humpback snapper	292	876	3.00
	<i>Lutjanus kasmira</i>	Blue-lined snapper	107	320	3.00
	<i>Lutjanus monostigma</i>	Onespot snapper	1	4	3.01
	<i>Macolor niger</i>	Black snapper	1	4	2.99
	<i>Pristipomoides auricilla</i>	Goldflag jobfish	3	10	3.00
	<i>Pristipomoides filamentosus</i>	Pink snapper (opakapaka)	56	196	3.50
	<i>Pristipomoides zonatus</i>	Flower snapper (gindai)	4	11	3.00
	<b>Scaridae (parrotfishes)</b>				
	Scaridae ( <i>unspecified</i> )	Parrotfishes	886	2,658	3.00
	<b>Serranidae (groupers)</b>				
	<i>Anyperodon leucogrammicus</i>	Slender grouper	10	30	3.00
	<i>Cephalopholis sonnerati</i>	Tomato grouper	1	3	3.01
	<i>Epinephelus fasciatus</i>	Blacktip grouper	4	11	3.00
	<i>Epinephelus melanostigma</i>	One-blotch grouper	< 1	1	2.96
	Serranidae ( <i>unspecified</i> )	Groupers	15	45	3.00
	Serranidae ( <i>unspecified</i> )	Inshore groupers	135	404	3.00
	<i>Variola albimarginata</i>	White-edged lyretail	4	13	3.00
	<i>Variola louti</i>	Yellow-edged lyretail	6	18	3.00
	<b>Sphyraenidae (barracudas)</b>				
	<i>Sphyraena forsteri</i>	Bigeye barracuda	23	69	3.00
	<b>Unspecified Fish Groups</b>				
	Carangidae, Lutjanidae, Lethrinidae & Serranidae	Bottomfishes ( <i>unspecified</i> )	1,762	5,486	3.11
	Various (many) families	Reef fishes ( <i>unspecified</i> )	6,917	20,299	2.93
<b>INVERTEBRATES:</b>					
	<b>Crustaceans: Lobsters</b>				
	<i>Panulirus penicillatus</i>	Spiny lobster	122	396	3.25
	<b>Mollusks</b>				
	<i>Octopus</i> spp.	Octopus	47	140	3.00
<b>Total</b>			<b>307,132</b>	<b>\$345,591</b>	<b>\$1.13</b>

**Table A-12**  
**American Samoa November 2014 Estimated Commercial Landings**

Group	Subgroup	Scientific Name	Common/local name	Lbs Sold	Estimated Value	Price/Lb
<b>FISHES:</b>						
	<b>Scombridae</b>					
	<b>Tunas</b>					
		<i>Katsuwonus pelamis</i>	Skipjack tuna	21,548	13,936	0.65
		<i>Thunnus alalunga</i>	Albacore tuna	344,621	441,269	1.28
		<i>Thunnus albacares</i>	Yellowfin tuna	26,402	19,118	0.72
		<i>Thunnus obesus</i>	Bigeye tuna	22,717	13,403	0.59
	<b>Other scombrids</b>					
		<i>Acanthocybium solandri</i>	Wahoo	25,385	13,177	0.52
		<i>Gymnosarda unicolor</i>	Dogtooth tuna	20	58	2.89
	<b>Other fishes</b>					
	<b>Acanthuridae</b> (Tangs, Surgeons, Unicornfishes)					
		<i>Acanthurus lineatus</i>	Blue-banded surgeonfish	2,787	8,360	3.00
		<i>Acanthurus nigrofusus</i>	Brown surgeonfish	127	380	3.00
		<i>Acanthurus xanthopterus</i>	Yellowfin surgeonfish	5	16	3.00
		<i>Ctenochaetus striatus</i>	Striped bristletooth	959	2,878	3.00
		<i>Naso lituratus</i>	Orangespine unicornfish	5	14	3.00
		<i>Naso</i> spp.	Unicornfishes (unspecified)	548	1,646	3.00
	<b>Balistidae</b> (triggerfishes)					
		<i>Balistidae (unspecified)</i>	Triggerfishes	2	5	3.01
	<b>Carangidae</b> (jacks & trevallies)					
		<i>Seriola dumerili</i>	Greater amberjack	8	25	3.00
		<i>Elagatis bipinnulata</i>	Rainbow runner	4	10	2.74
	<b>Chaetodontidae</b> (butterflyfishes)					
		<i>Chaetodontidae (unspecified)</i>	Butterflyfishes	< 1	1	3.03
	<b>Coryphaenidae</b> (mahimahi/dolphinfish)					
		<i>Coryphaena hippurus</i> , <i>C. equiselis</i>	Mahimahi	1,043	1,479	1.42
	<b>Diodontidae</b> (porcupinefishes)					
		<i>Diodon holocanthus</i>	Spiny pufferfish	27	81	3.00
	<b>Holocentridae</b> (squirrel & soldierfishes)					
		<i>Sargocentron spiniferum</i>	Saber squirrelfish	14	42	3.00
		<i>Sargocentron</i> , <i>Neoniphon</i> spp.	Squirrelfishes	370	1,109	3.00
	<b>Kyphosidae</b> (sea chubs)					
		<i>Kyphosus</i> spp. (various)	Rudderfishes	26	77	3.00
	<b>Lethrinidae</b> (emperors)					
		<i>Lethrinidae (unspecified)</i>	Emperors	311	934	3.00
		<i>Lethrinus erythracanthus</i>	Orangespot emperor	2	5	3.00
		<i>Lethrinus lentjan</i>	Redgill emperor	166	498	3.00
		<i>Monotaxis grandoculis</i>	Bigeye bream	11	32	3.00

**Table A-12**  
**American Samoa November 2014 Estimated Commercial Landings**

Group	Subgroup	Scientific Name	Common/local name	Lbs Sold	Estimated Value	Price/Lb
<b>Other fishes (continued)</b>						
	<b>Lutjanidae (snappers)</b>					
		<i>Aphareus rutilans</i>	Yelloweye opakapaka (lehi, silverjaw jobfish)	392	1,177	3.00
		<i>Caesio caerulea</i>	Gold banded fusilier	3	8	3.00
		<i>Etelis carbunculus</i>	Ruby snapper (ehu)	248	744	3.00
		<i>Etelis coruscans</i>	Longtail snapper (onaga)	229	688	3.00
		<i>Lutjanus bohar</i>	Twinspot/red snapper	23	69	3.01
		<i>Lutjanus fulvus</i>	Yellow margined snapper	2	5	3.01
		<i>Lutjanus gibbus</i>	Humpback snapper	288	864	3.00
		<i>Lutjanus kasmira</i>	Blue-lined snapper	110	329	3.00
		<i>Lutjanus monostigma</i>	Onespot snapper	4	12	3.00
		<i>Macolor niger</i>	Black snapper	3	9	3.00
		<i>Paracaesio stonei</i>	Stone's snapper	3	10	3.00
		<i>Pristipomoides auricilla</i>	Goldflag jobfish	12	35	3.00
		<i>Pristipomoides filamentosus</i>	Pink snapper (opakapaka)	61	168	2.75
	<b>Mugilidae (mullets)</b>					
		<i>Liza vaigiensis</i>	Diamond scale mullet	34	102	3.00
	<b>Priacanthidae (glasseyes)</b>					
		<i>Priacanthus blochii</i>	Bloch's bigeye	8	24	3.00
	<b>Scaridae (parrotfishes)</b>					
		Scaridae ( <i>unspecified</i> )	Parrotfishes	1,564	4,692	3.00
	<b>Serranidae (groupers)</b>					
		<i>Cephalopholis argus</i>	Peacock grouper	4	12	3.00
		Serranidae ( <i>unspecified</i> )	Groupers	50	149	3.00
		Serranidae ( <i>unspecified</i> )	Inshore groupers	162	485	3.00
		<i>Variola albimarginata</i>	White-edged lyretail	86	259	3.00
		<i>Variola louti</i>	Yellow-edged lyretail	3	9	3.00
	<b>Siganidae (rabbitfishes)</b>					
		Siganidae ( <i>unspecified</i> )	Rabbitfishes	1	3	3.00
	<b>Sphyraenidae (barracudas)</b>					
		<i>Sphyraena forsteri</i>	Bigeye barracuda	12	30	2.50
		<i>Sphyraena spp.</i>	Barracudas	242	605	2.50
	<b>Unspecified Fish Groups</b>					
		Carangidae, Lutjanidae, Lethrinidae & Serranidae	Bottomfishes (unspecified)	1,762	5,486	3.11
		Various (many) families	Reef fishes (unspecified)	6,917	20,299	2.93
<b>INVERTEBRATES:</b>						
	<b>Crustaceans: Lobsters</b>					
		<i>Panulirus penicillatus</i>	Spiny lobster	199	663	3.34
	<b>Mollusks</b>					
		<i>Octopus spp.</i>	Octopus	172	516	3.00
<b>Total</b>				<b>451,548</b>	<b>\$531,790</b>	<b>\$1.18</b>

**Table A-13**  
**American Samoa December 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs	Estimated	Price/
	Scientific Name	Common/local name	Sold	Value	Lb
<b>FISHES:</b>					
	<b>Scombridae</b>				
	<b>Tunas</b>				
	<i>Katsuwonus pelamis</i>	Skipjack tuna	30,188	33,670	1.12
	<i>Thunnus alalunga</i>	Albacore tuna	251,566	322,004	1.28
	<i>Thunnus albacares</i>	Yellowfin tuna	29,274	22,291	0.76
	<i>Thunnus obesus</i>	Bigeye tuna	15,865	9,360	0.59
	Tribe Thunnini ( <i>unspecified</i> )	Tunas	91	269	2.95
	<b>Other scombrids</b>				
	<i>Acanthocybium solandri</i>	Wahoo	15,293	8,245	0.54
	<i>Gymnosarda unicolor</i>	Dogtooth tuna	27	79	2.89
	<b>Billfishes</b>				
	<b>Xiphiidae</b>				
	<i>Xiphias gladius</i>	Swordfish	200	200	1.00
	<b>Other fishes</b>				
	<b>Acanthuridae</b> (Tangs, Surgeons, Unicornfishes)				
	<i>Acanthurus lineatus</i>	Blue-banded surgeonfish	1,531	4,597	3.00
	<i>Acanthurus nigrofusus</i>	Brown surgeonfish	37	111	3.00
	<i>Ctenochaetus striatus</i>	Striped bristletooth	456	1,369	3.00
	<i>Naso lituratus</i>	Orangespine unicornfish	12	37	3.00
	<i>Naso</i> spp.	Unicornfishes ( <i>unspecified</i> )	336	1,009	3.00
	<b>Carangidae</b> (jacks & trevallies)				
	<i>Caranx lugubris</i>	Black jack	1	3	3.00
	<i>Caranx sexfasciatus</i>	Bigeye trevally	78	235	3.00
	<i>Seriola dumerili</i>	Greater amberjack	19	56	3.00
	<i>Selar crumenophthalmus</i>	Bigeye scad	1	2	3.00
	<i>Elagatis bipinnulata</i>	Rainbow runner	26	78	2.97
	<b>Cichlidae</b> (cichlids)				
	<i>Oreochromis</i> sp.	Tilapia	40	73	1.82
	<b>Coryphaenidae</b> (mahimahi/dolphinfish)				
	<i>Coryphaena hippurus</i> , <i>C. equiselis</i>	Mahimahi	700	525	0.75
	<b>Holocentridae</b> (squirrel & soldierfishes)				
	<i>Sargocentron</i> spp., <i>Neonippon</i> spp.	Squirrelfishes	235	704	3.00
	<b>Kyphosidae</b> (sea chubs)				
	<i>Kyphosus</i> spp. (various)	Rudderfishes	3	9	3.00
	<b>Lampridae</b> (moonfishes, opah)				
	<i>Lampris guttatus</i>	Moonfish	30	30	1.00
	<b>Lethrinidae</b> (emperors)				
	Lethrinidae ( <i>unspecified</i> )	Emperors	268	803	3.00
	<b>Lutjanidae</b> (snappers)				
	<i>Aphareus rutilans</i>	Yelloweye opakapaka (lehi, silverjaw jobfish)	29	87	3.00
	<i>Aprion virescens</i>	Gray jobfish	74	223	3.00
	<i>Etelis coruscans</i>	Longtail snapper (onaga)	567	2,266	4.00

**Table A-13**  
**American Samoa December 2014 Estimated Commercial Landings**

<b>Group</b>	<b>Subgroup</b>	<b>Scientific Name</b>	<b>Common/local name</b>	<b>Lbs Sold</b>	<b>Estimated Value</b>	<b>Price/Lb</b>
<b>Other fishes (continued)</b>						
	<b>Lutjanidae</b> (snappers)					
		<i>Lutjanus gibbus</i>	Humpback snapper	54	163	3.00
		<i>Lutjanus kasmira</i>	Blue-lined snapper	10	30	3.00
	<b>Mugilidae</b> (mullets)					
		<i>Liza vaigiensis</i>	Diamond scale mullet	34	102	3.00
	<b>Scaridae</b> (parrotfishes)					
		Scaridae ( <i>unspecified</i> )	Parrotfishes	926	2,777	3.00
	<b>Serranidae</b> (groupers)					
		Serranidae ( <i>unspecified</i> )	Inshore groupers	120	360	3.00
	<b>Sphyraenidae</b> (barracudas)					
		<i>Sphyraena forsteri</i>	Bigeye barracuda	166	498	3.00
		<i>Sphyraena spp.</i>	Barracudas	73	182	2.50
	<b>Unspecified Fish Groups</b>					
		Various (many) families	Reef fishes (unspecified)	6,917	20,299	2.93
<b>INVERTEBRATES:</b>						
	<b>Crustaceans: Lobsters</b>					
		<i>Panulirus penicillatus</i>	Spiny lobster	124	403	3.24
	<b>Mollusks</b>					
		<i>Octopus spp.</i>	Octopus	9	26	3.00
<b>Total</b>				<b>349,158</b>	<b>\$414,961</b>	<b>\$1.19</b>

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

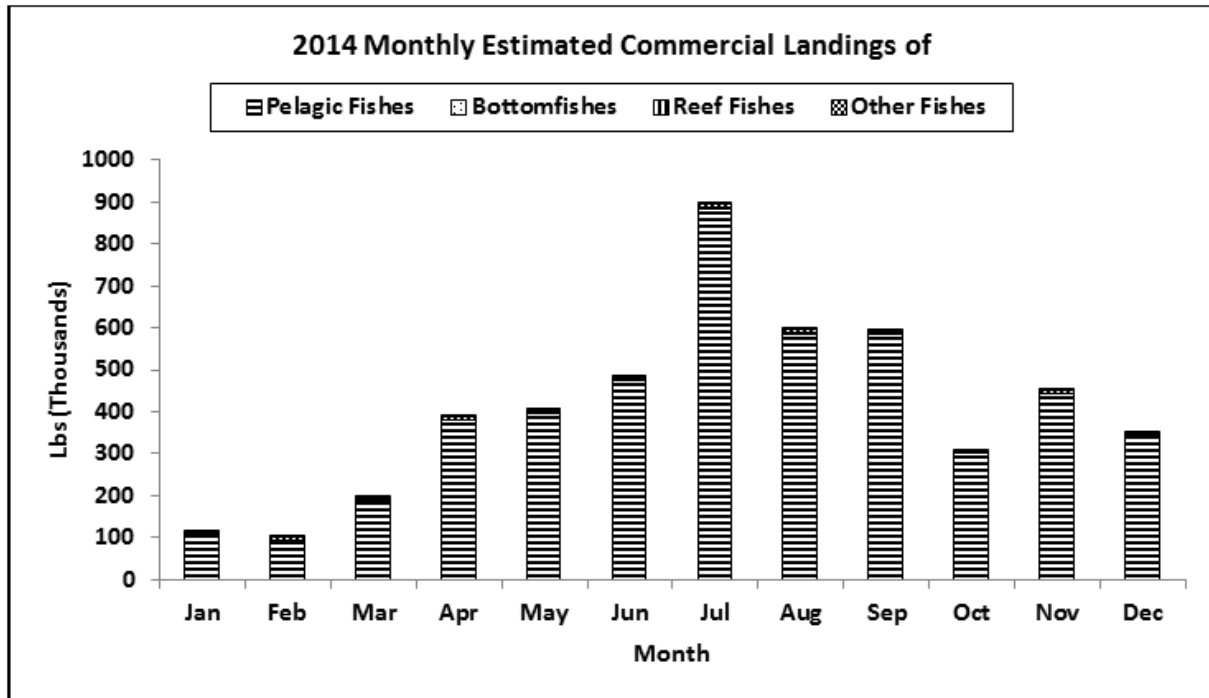


Figure A-1-1

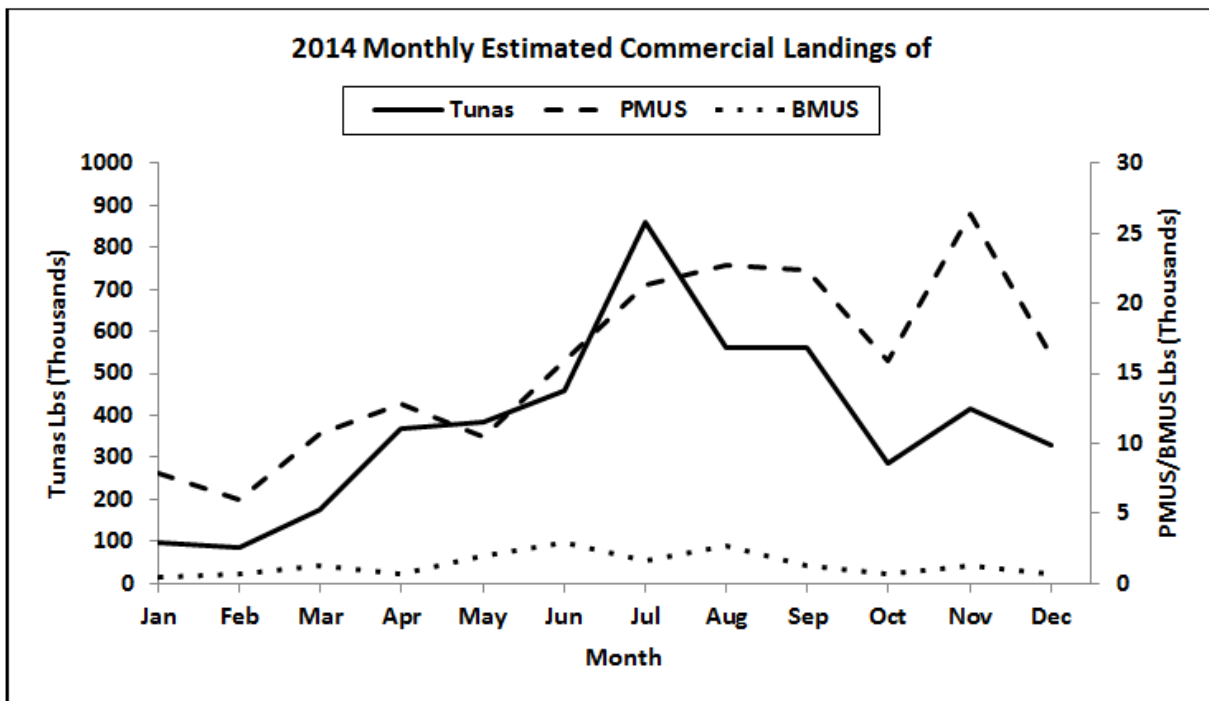


Figure A-1-2

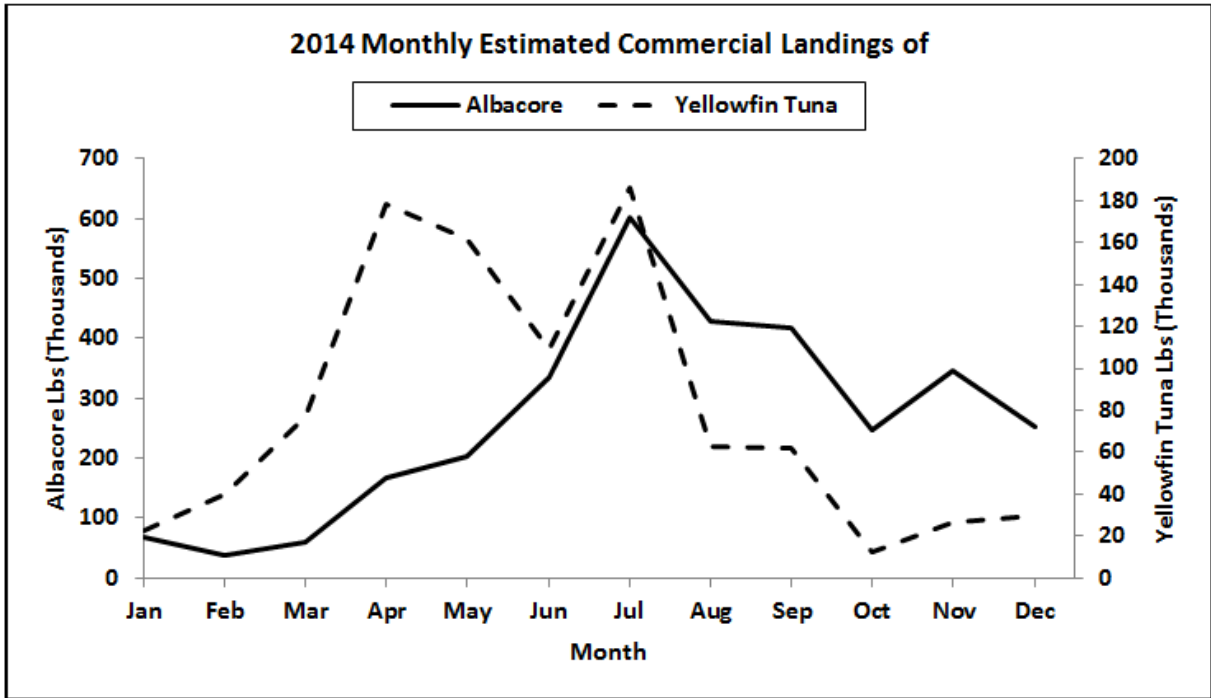


Figure A-1-3

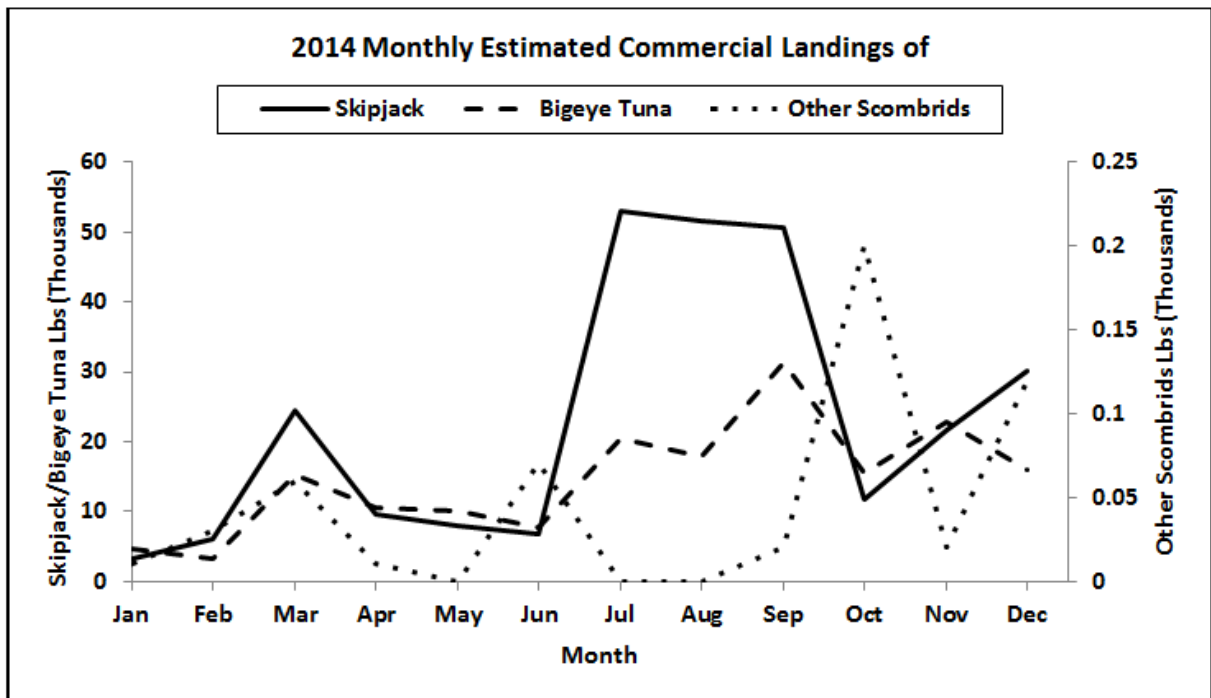


Figure A-1-4



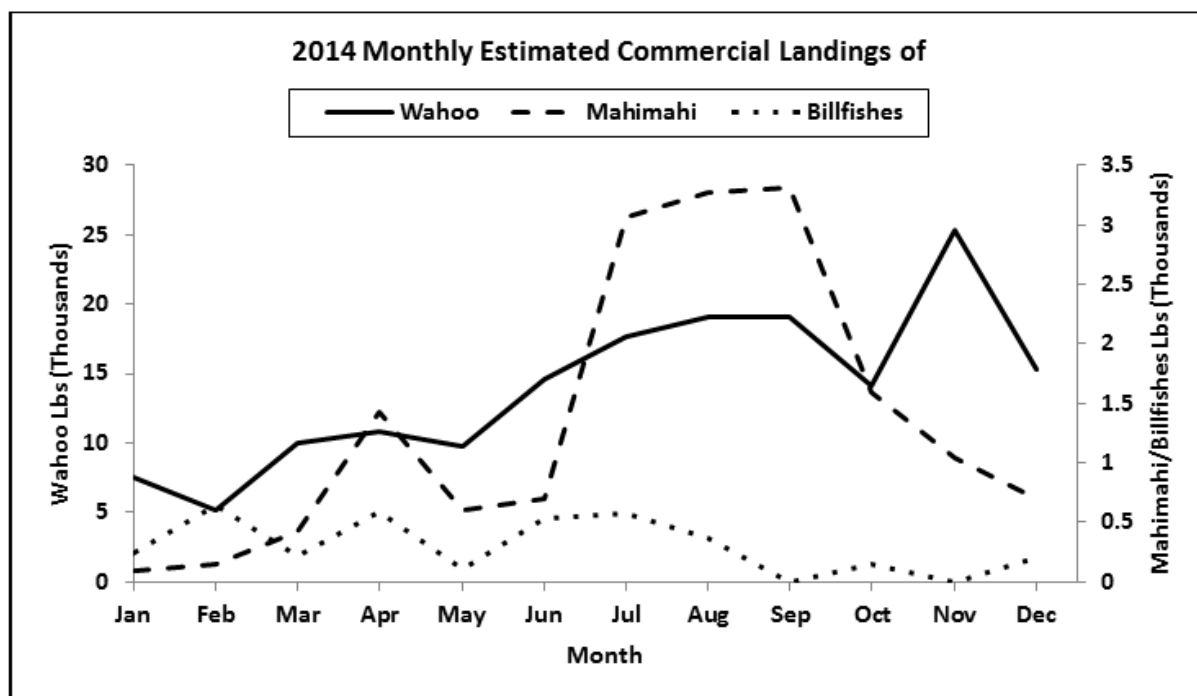


Figure A-1-5

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

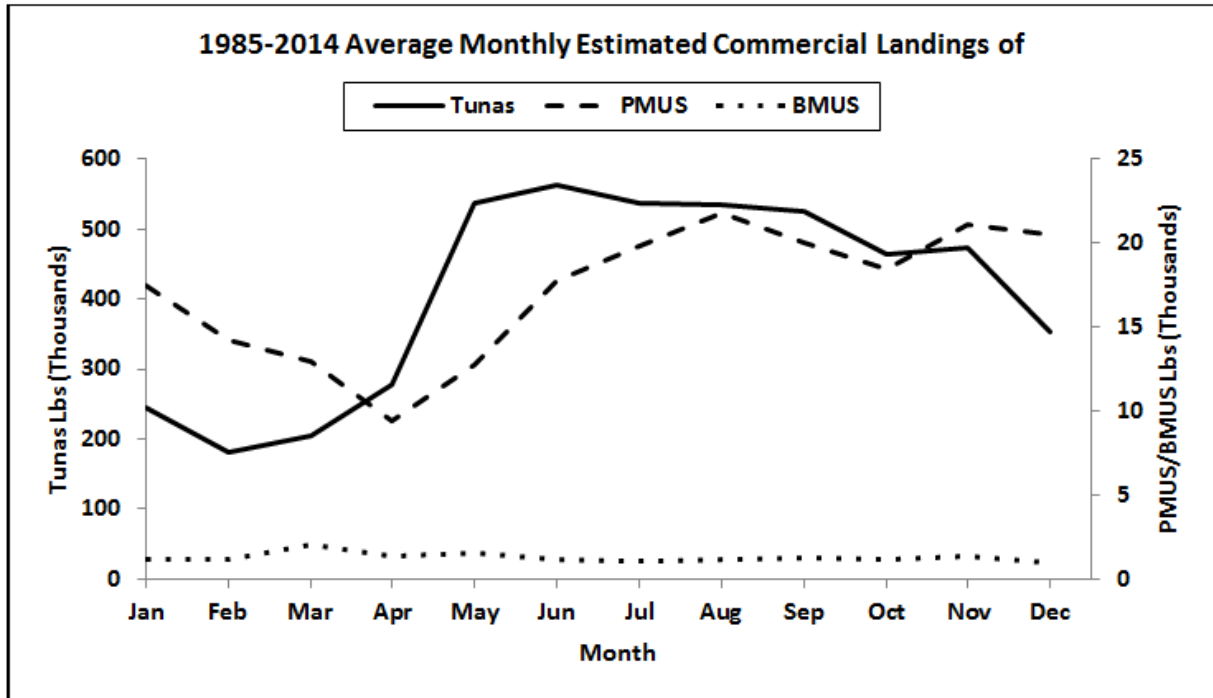


Figure A-2-1

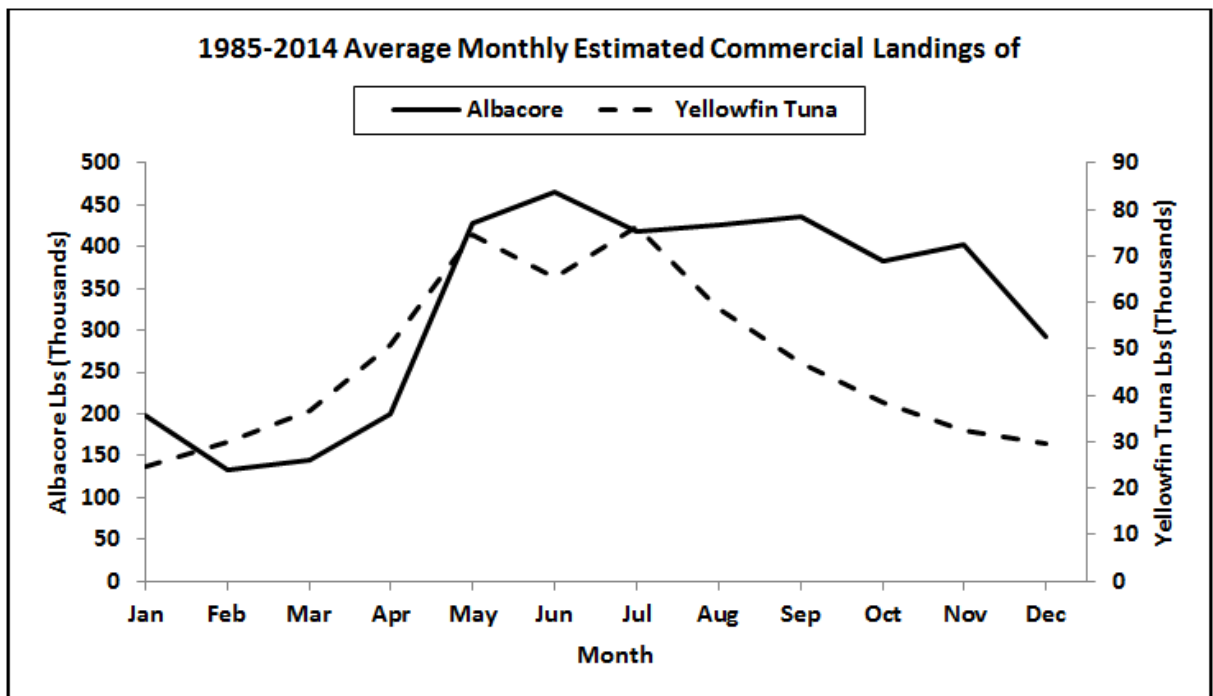


Figure A-2-2

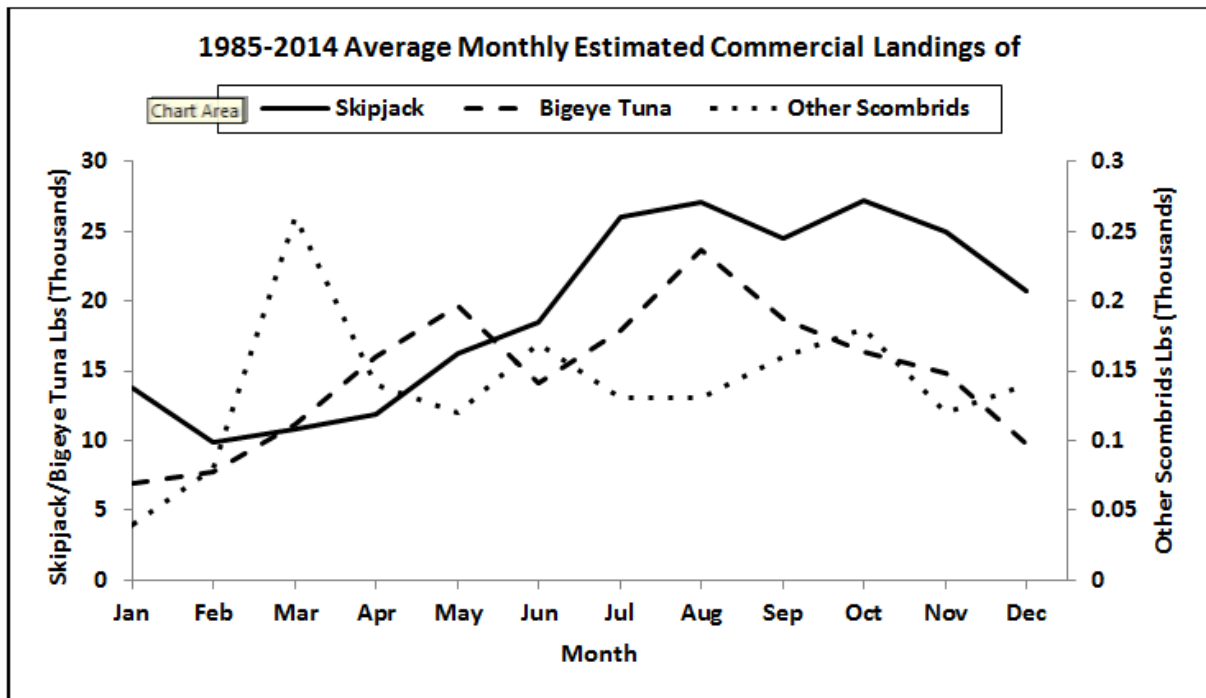


Figure A-2-3

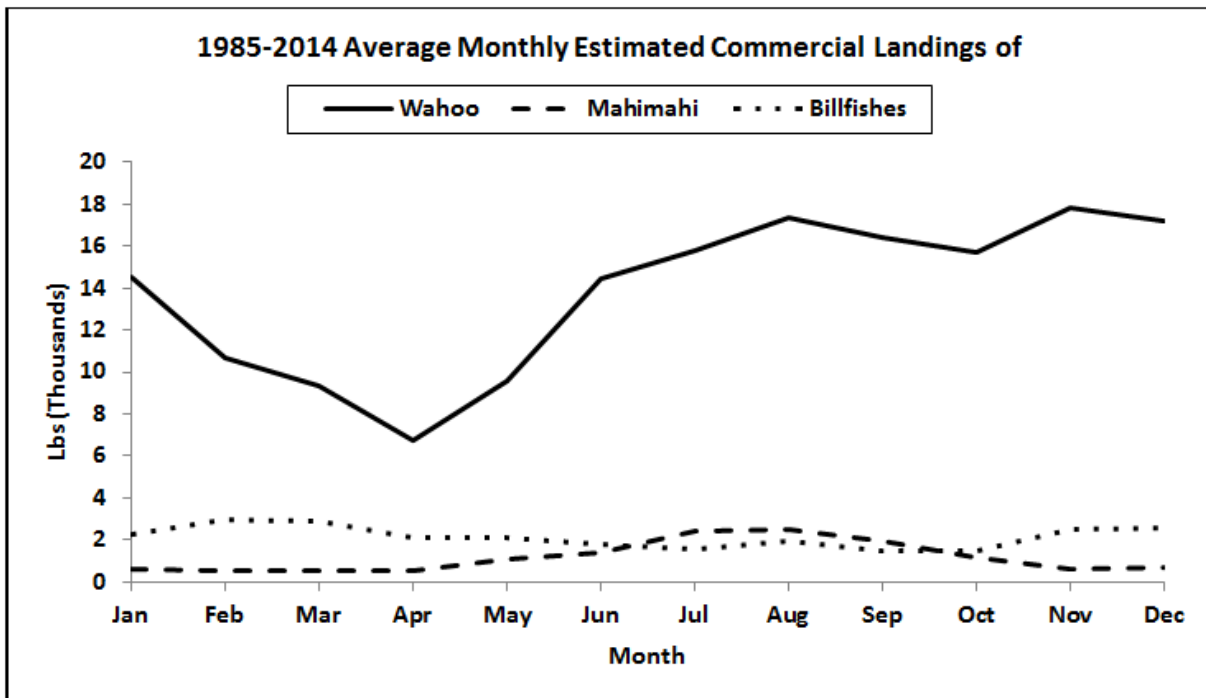


Figure A-2-4

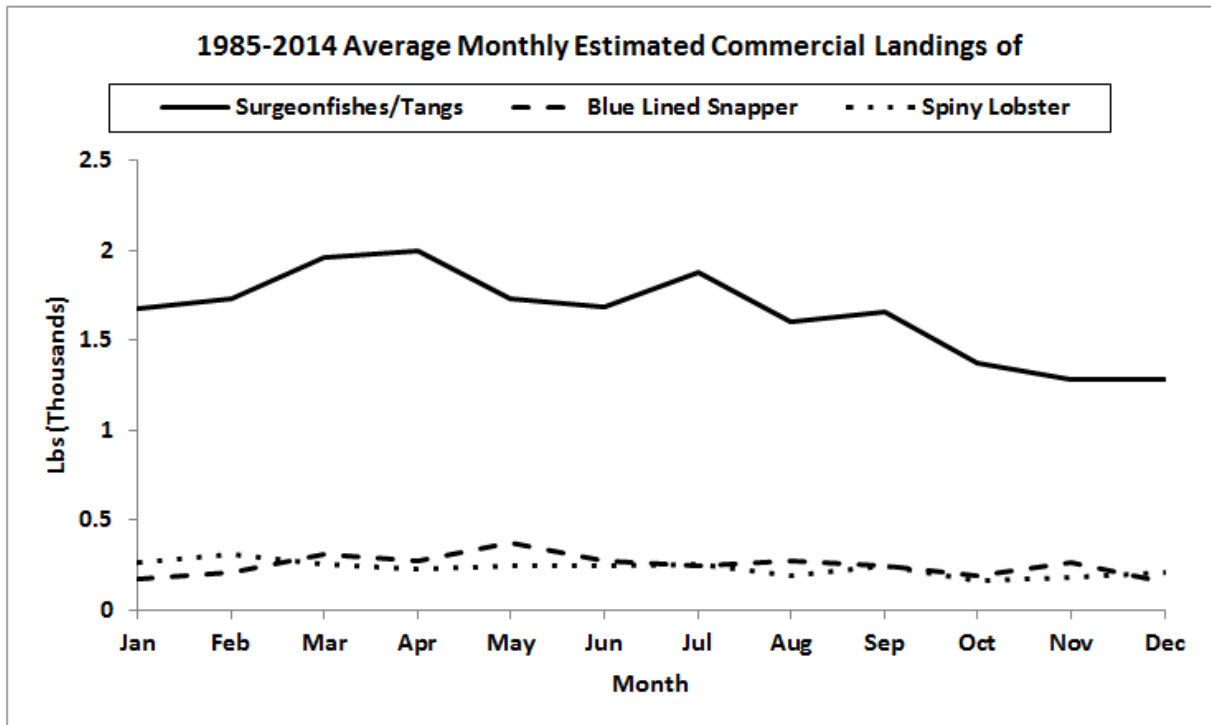


Figure A-2-5

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

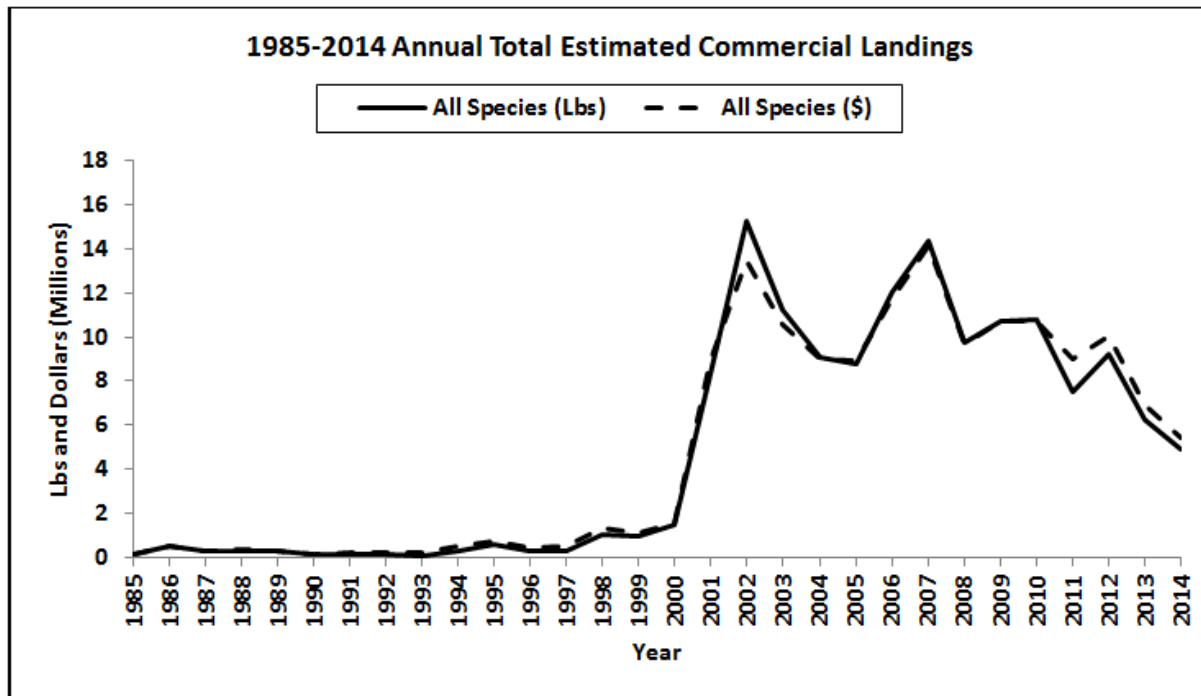


Figure A-3-1

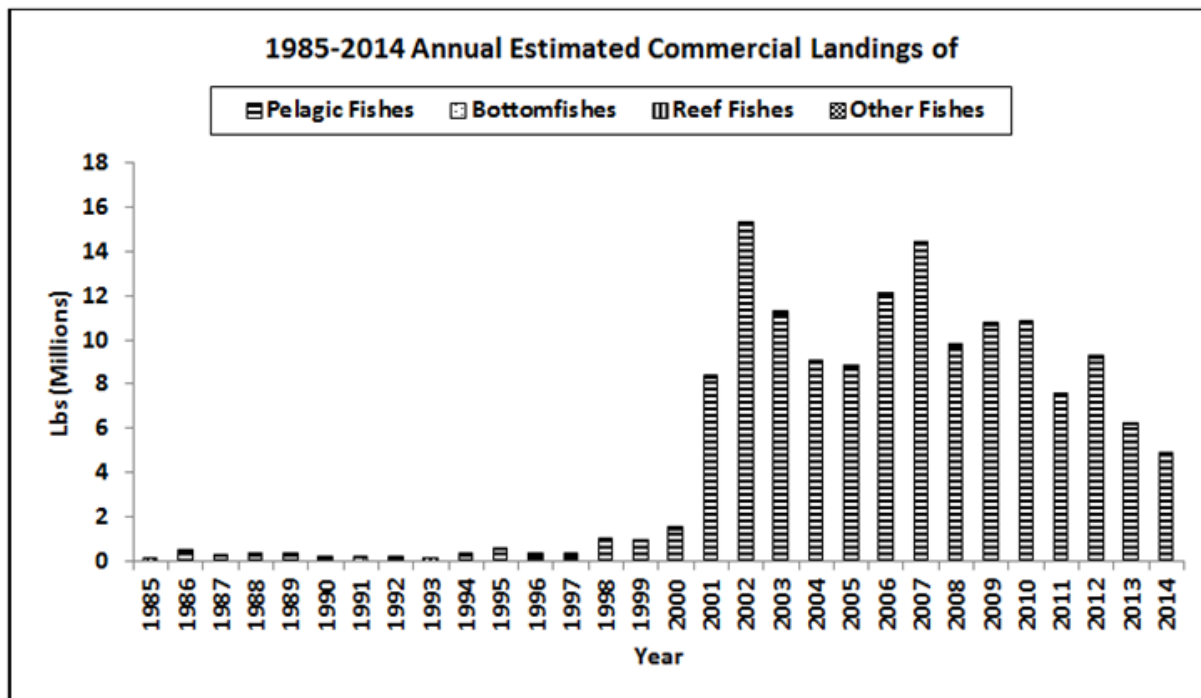


Figure A-3-2

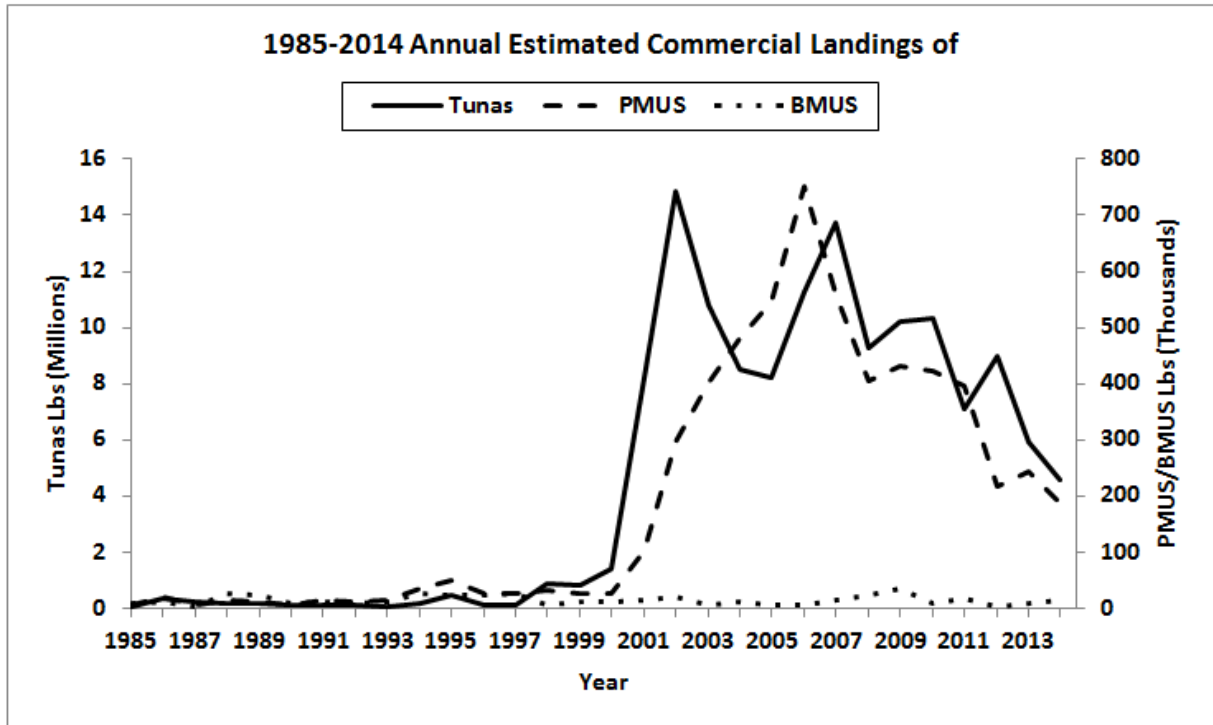


Figure A-3-3

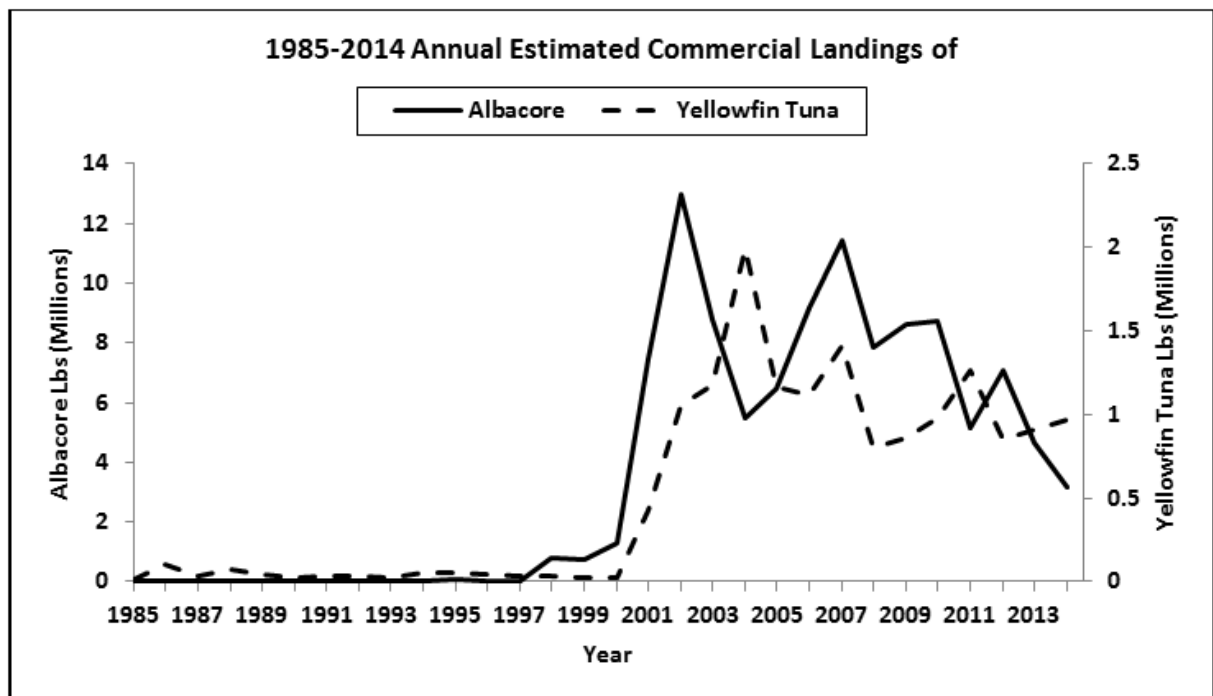


Figure A-3-4

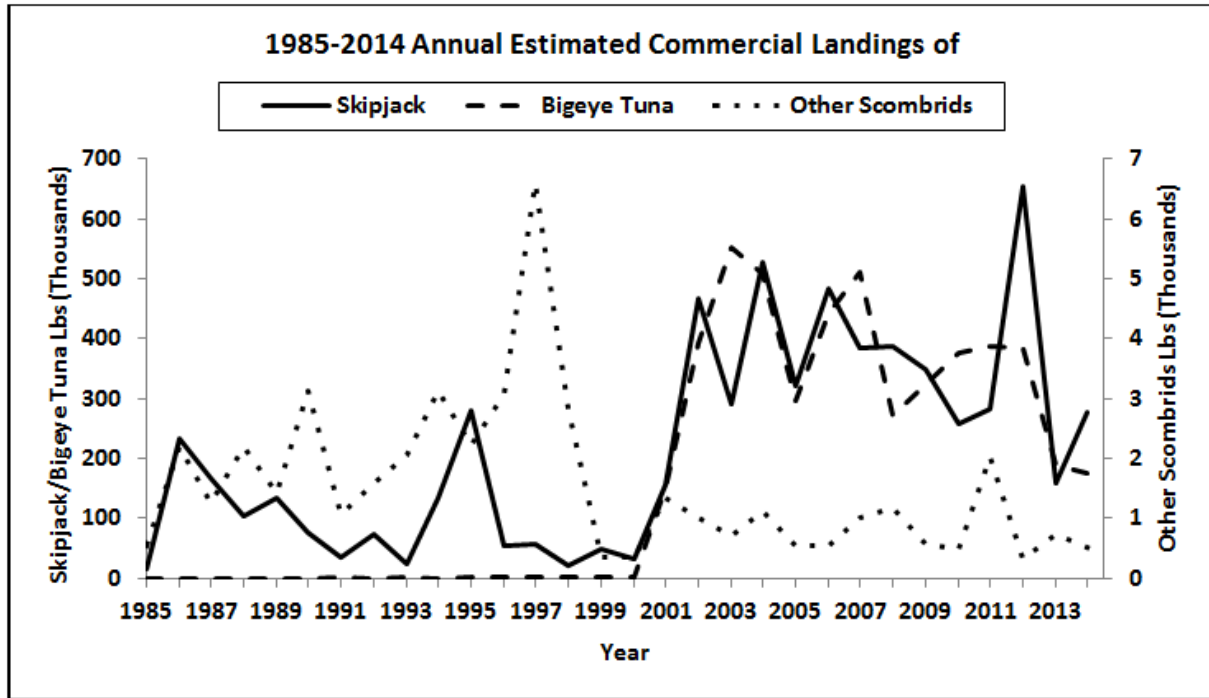


Figure A-3-5

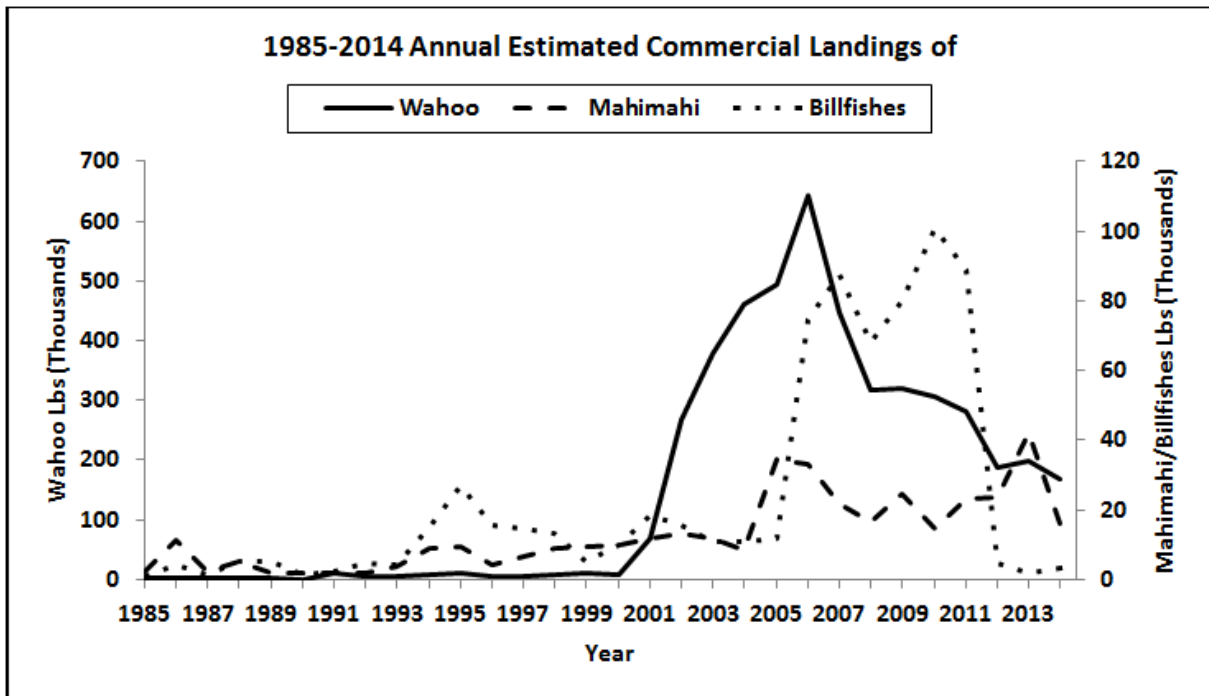


Figure A-3-6

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

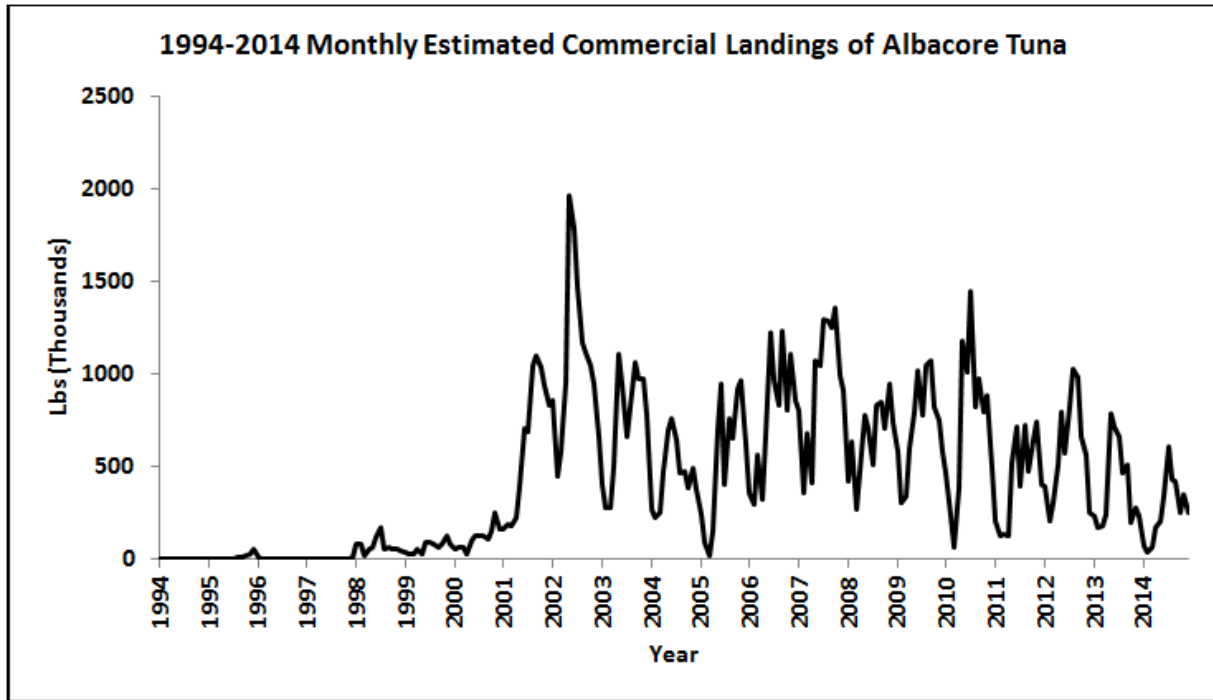


Figure A-4-1

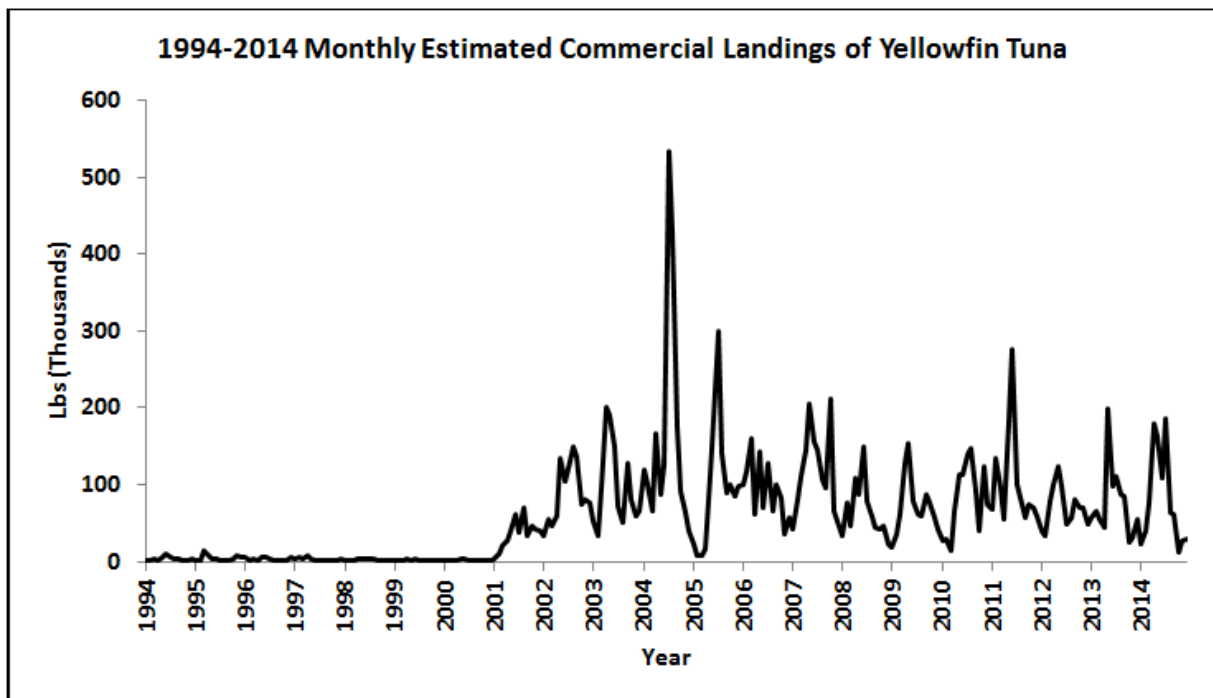


Figure A-4-2



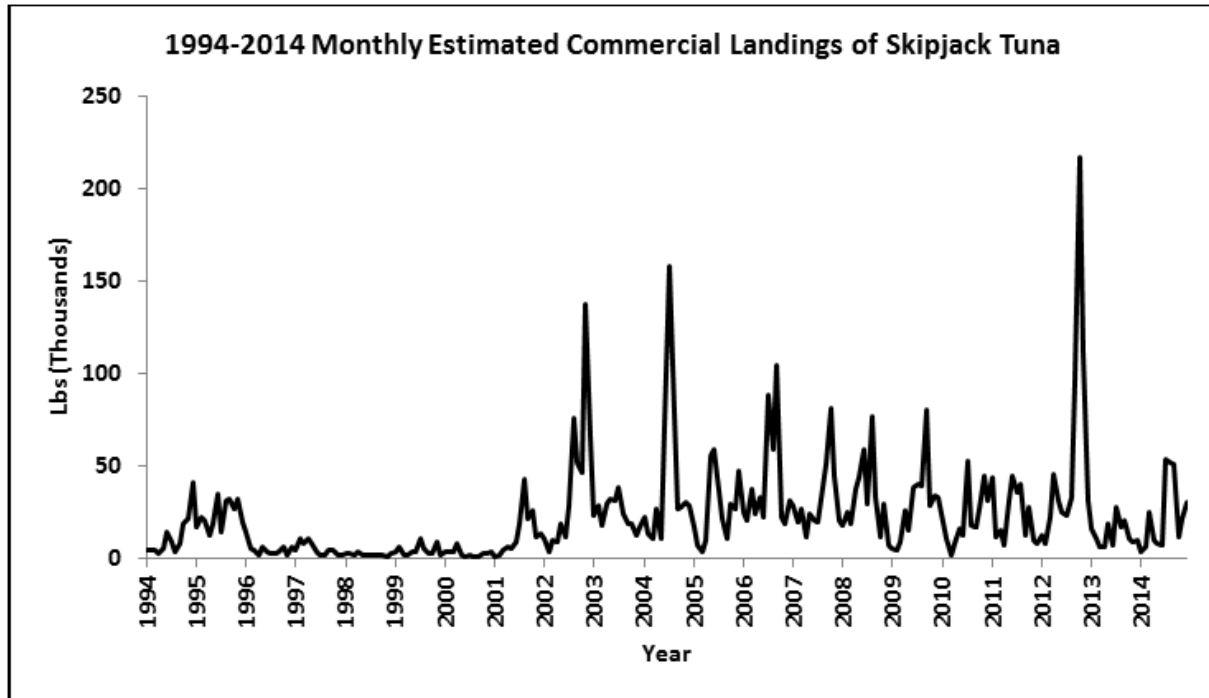


Figure A-4-3

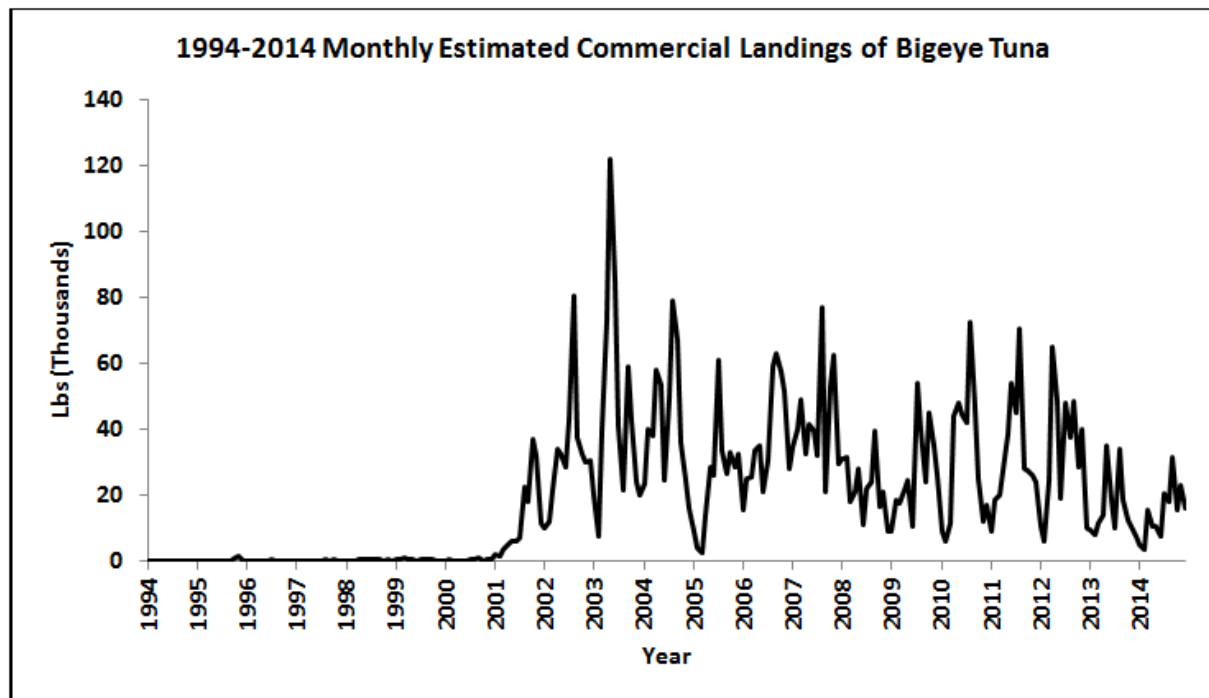


Figure A-4-4

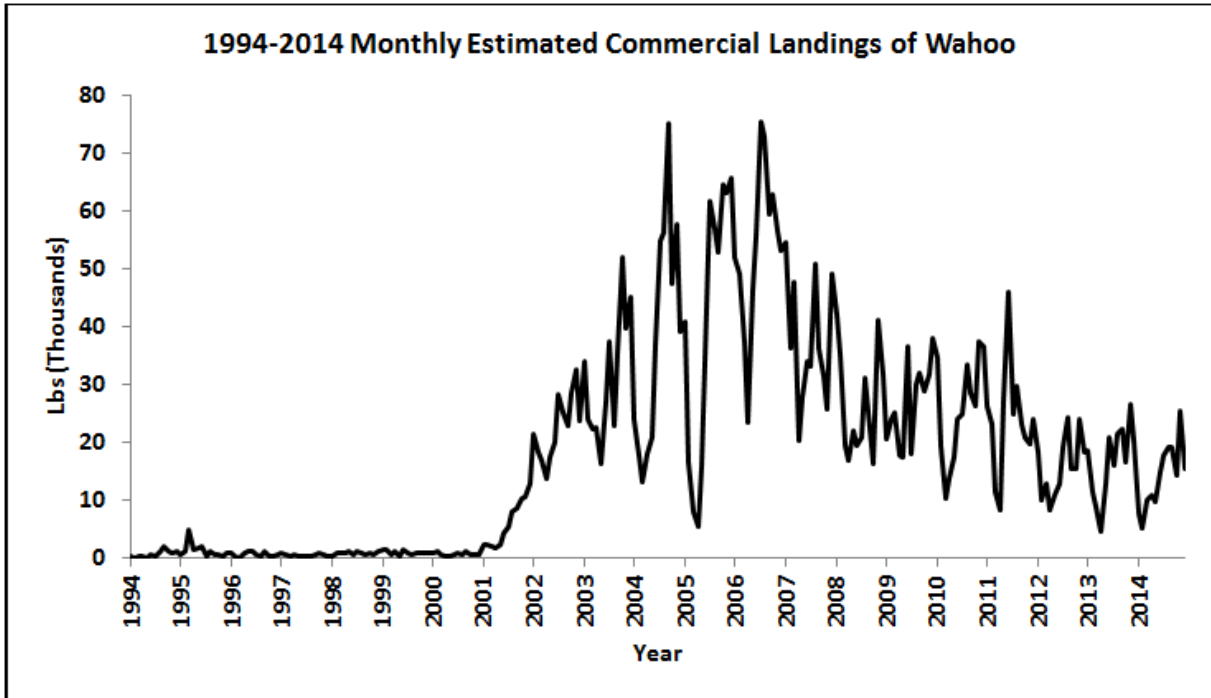


Figure A-4-5

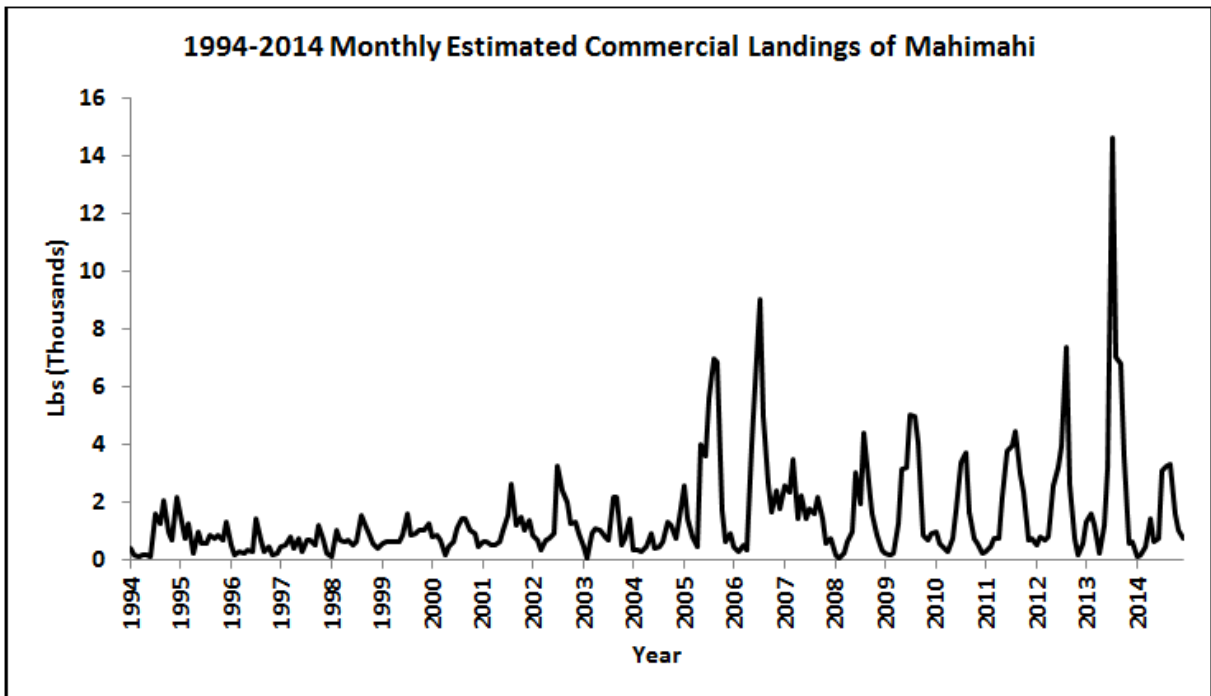


Figure A-4-6

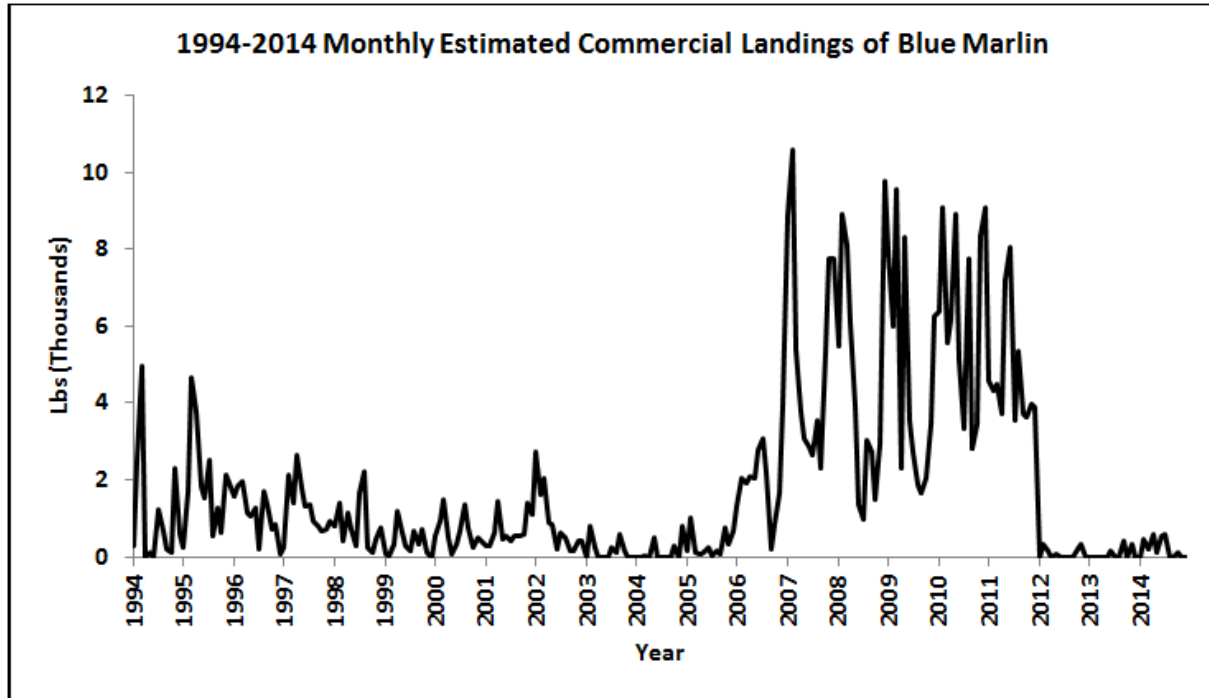


Figure A-4-7

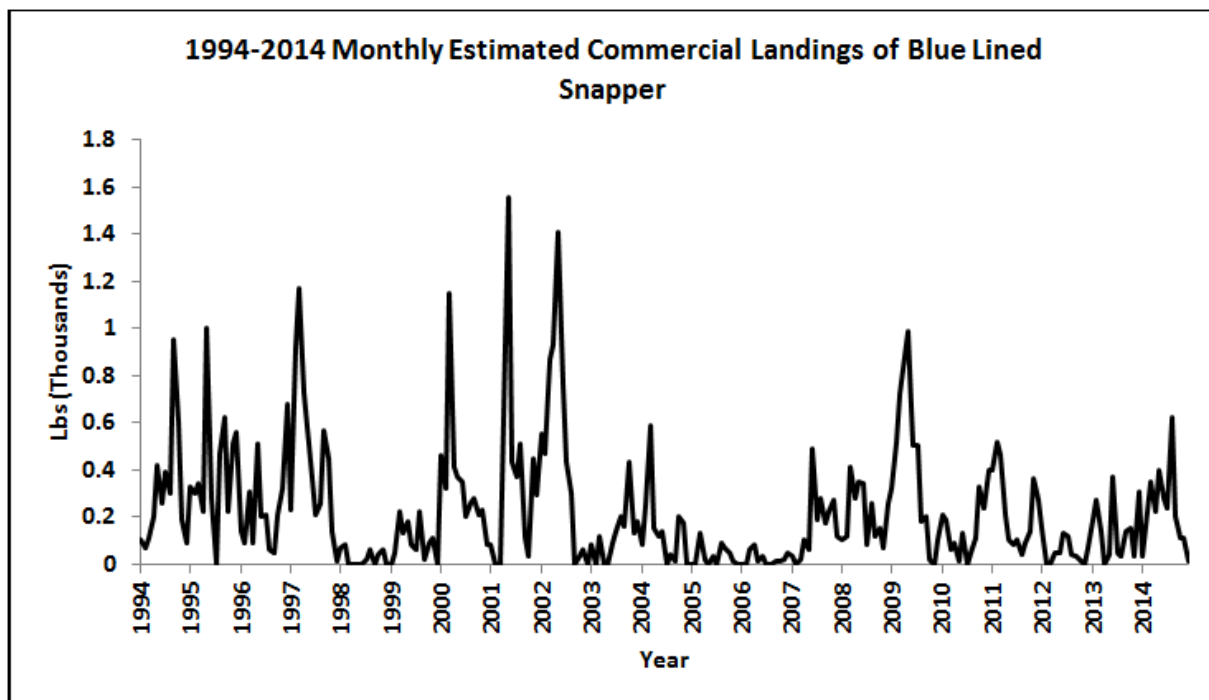


Figure A-4-8

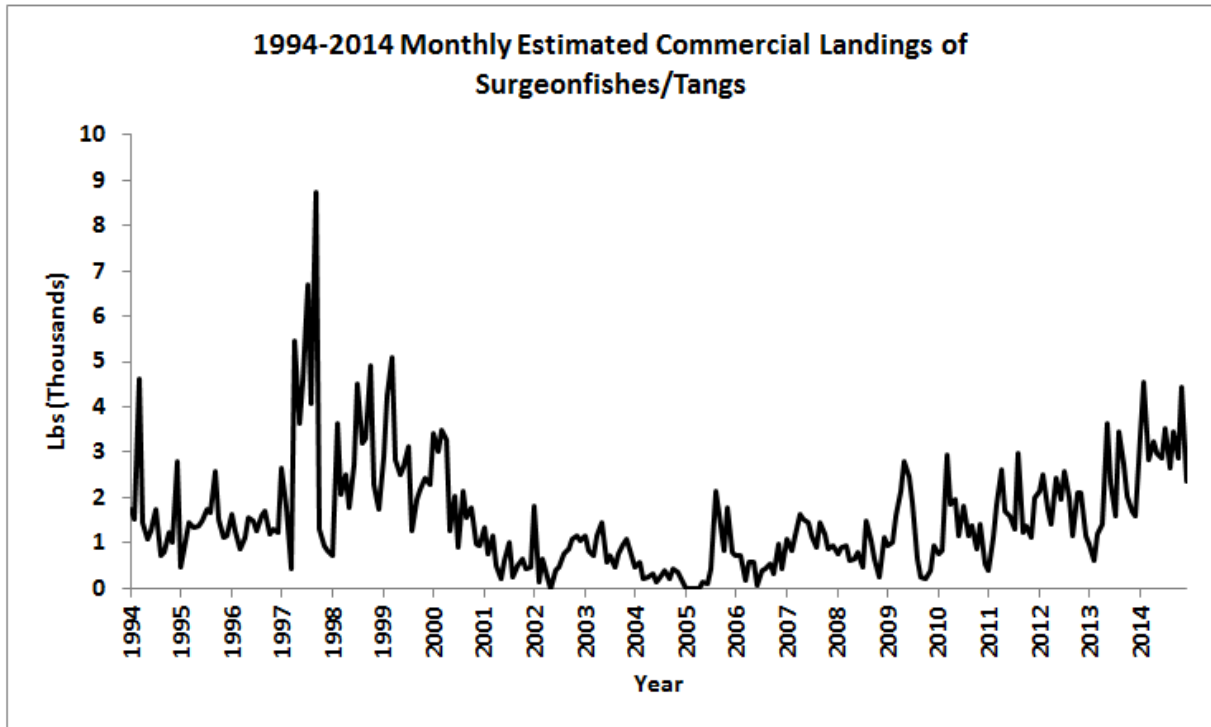


Figure A-4-9

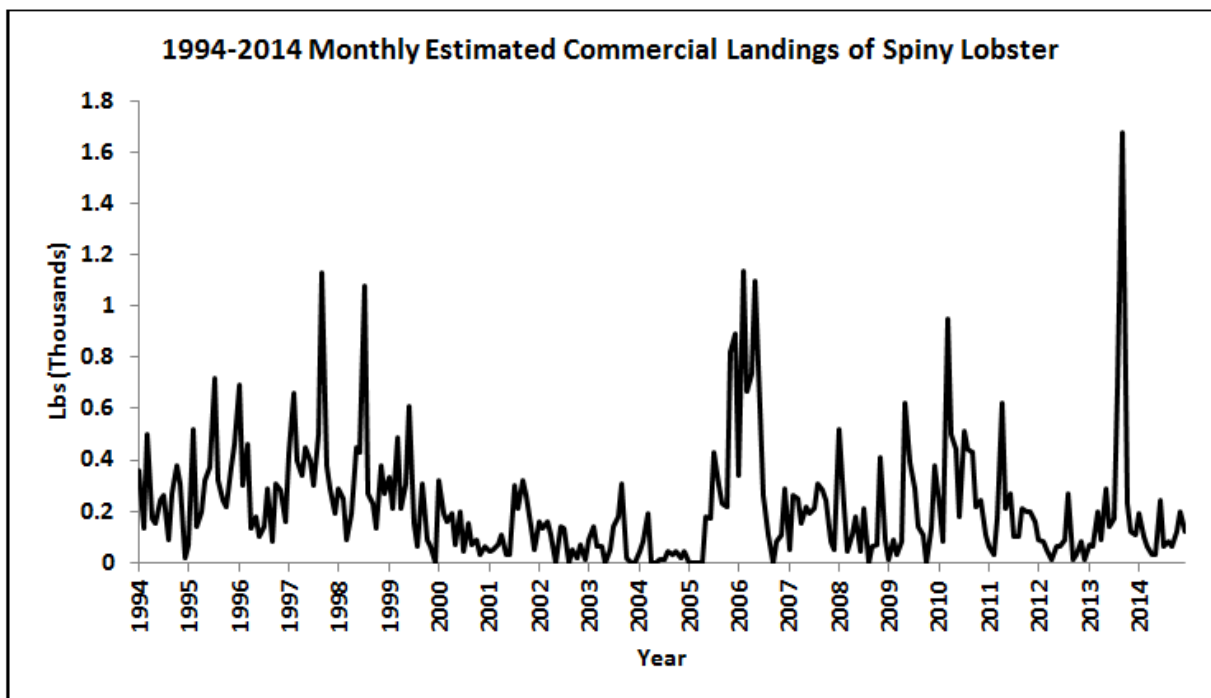


Figure A-4-10

**COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS**  
**2014 FISHERY STATISTICS**

Compiled by  
Commonwealth of the Northern Mariana Islands,  
Department of Lands and Natural Resources, Division of Fish and Wildlife  
and the  
Western Pacific Fisheries Information Network

August 2016



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# COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS

## 2014 FISHERY STATISTICS

### INTRODUCTION

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

*Main Islands:* Saipan, Rota, Tinian

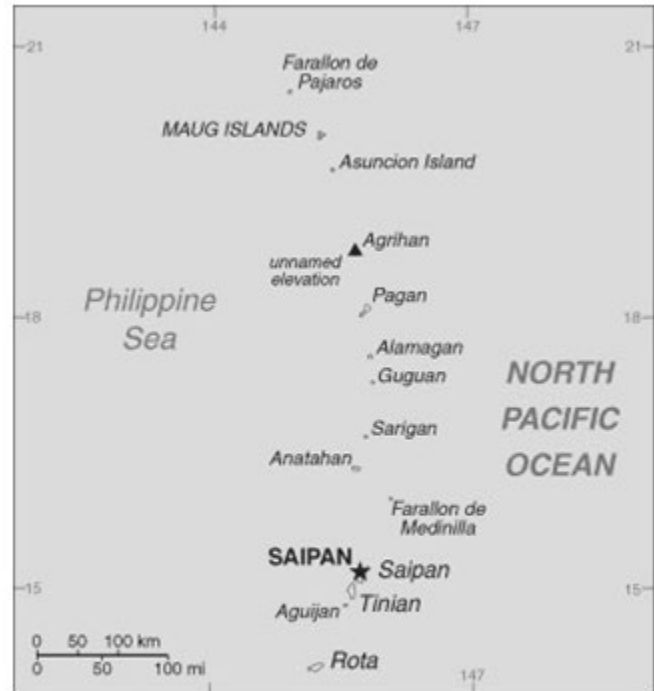
*Population:* about 52,344 (*The World Factbook*, 2015 estimate)

*Economy:* industries (tourism, banking, construction, fishing, handicrafts, other services), agriculture

The domestic commercial fishery of the Commonwealth of the Northern Mariana Islands (CNMI) is mainly a small boat, troll fishery. Most boats are 12-24 ft outboard-powered, runabout type vessels, that make trolling trips of generally a day or less in duration. A few larger boats have been used in recent years for bottomfishing around the islands north of Saipan, in addition to trolling. There is also a small charter fleet.

Although trolling is the most common fishing method, 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. While the vast majority of the domestic catch is consumed locally, in recent years there have been some intermittent exports to Guam, Hawaii, Korea, and Japan.

In 1982, NMFS WPacFIN began efforts to improve fisheries monitoring data and data processing systems in the Commonwealth by providing computer hardware, software, and training. Since then, numerous system upgrades and replacements have been put in place to keep up with changing technologies and increasing demand for fisheries statistics from the CNMI and other Pacific Island Region island areas.



CNMI

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

## DATA COLLECTION

The CNMI Department of Lands and Natural Resources, Division of Fish and Wildlife (DFW), has been collecting commercial fishery statistics for the Saipan fleet since the mid-1970s. In addition to a dealer invoicing system, they have implemented a creel survey program, filling the need for direct contact with fishermen. This program includes boat ramps, ports, and shoreline areas, and is used to estimate not only commercial landings, but also the recreational and subsistence components of the catch. With assistance from NOAA Fisheries and the US Fish & Wildlife Service's Federal Aid in Sportfish Restoration Program, DFW expanded its fisheries monitoring programs to explore limited monitoring for Rota and Tinian, the two other major inhabited islands in the CNMI.

DFW has the following major data collection programs in place:

1. Commercial Purchase Program – a voluntary purchase receipt system for fish businesses on Saipan.
2. Boat-based Creel Survey Program (formerly the Offshore Creel Survey System) – access-point creel surveys at boat ramps and along a designated route, mainly on Saipan.
3. Shore-based Creel Survey Program – roving creel surveys along the shoreline, mainly on Saipan.

**Commercial Purchase Program** – DFW's principal domestic commercial fisheries data collection method is a dealer invoicing system, which has been referenced in the past as a "trip ticket system", although it is voluntary and fishers that sell to more than one vendor are represented by more than one invoice per trip. The DFW provides numbered invoices, each with a duplicate carbonless copy, to all purchasers of fresh fishery products (including hotels, restaurants, stores, fish markets, and roadside vendors). These fish vendors are supposed to complete an invoice each time they purchase fish directly from fishers, which is generally at the end of a fishing trip. One copy of the invoice goes to the DFW, and the other is maintained for the vendor's records.

Some advantages of this data collection method include that it is relatively inexpensive to implement and maintain, and makes it easy to completely cover the commercial market in this relatively small island economy with a limited number of fish vendors. Because DFW is responsible for collecting the invoices in person, another advantage is that DFW staff can provide direct feedback to vendors to ensure data accuracy and promote cooperation with this voluntary program. Some of the disadvantages that affect accuracy and completeness of data collected in this manner include: 1) dependence on non-DFW personnel (the vendors) to identify the catch and record the data, 2) limitations on the types of data that can be requested via the invoice form, 3) reliance on education and cooperation of fish purchasers to ensure the forms are filled out correctly, 4) limited direct contact with fishermen (no direct reporting by fishermen), and 5) no other means of cross-checking that fish actually sold to vendors are being reported. These and other factors, including door-to-door sales, contribute to the likelihood that a significant portion of commercial landings go unrecorded.

### B.3

Since 1982, the DFW has tried in several ways to reduce drawbacks and maximize the benefits of the vendor invoicing system. They have tried to maintain a close working relationship with fish dealers, and have maintained and updated a list of dealers, which they use to check on invoices periodically and monitor vendor reporting. DFW staff has also made periodic education and outreach efforts to fish vendors over the years.

The current commercial purchase system collects data from vendors on Saipan, where the DFW estimates more than 90% of the Commonwealth's commercial landings are made. Since 1983, these data have been adjusted to represent 100% coverage. These adjusted values are referenced as "Estimated Commercial Landings" in the tables and charts.

Information collected from fish vendors by DFW staff includes the following:

- Date of purchase
- Buyer's Name (dealer)
- Seller's Name (fisherman)
- Species
- Invoice Number
- Weight (pounds by species)
- Price per pound (by species)
- Total Sales Value

These data elements are collected for all purchases of fishery products. However, it should be noted that "species" identification is frequently made only to a family or higher taxonomic group level, especially for reef fishes.

**Boat-based Creel Survey Program** – Around the year 2000, a boat-based creel survey sampling program was implemented on Saipan to provide statistics on all boat-based fishing, including non-commercial trips. The details of the Saipan boat-based fishery sampling program have changed over the years to accommodate changes in the fisheries, but it has remained a trip-based, stratified sampling program. During analysis, data are stratified by fishing method, type of day (weekday vs. weekend/holiday), port, and charter (vs. non-charter) status. Similar programs have been present on Tinian and Rota at times, but no long-term data are available for those islands.

DFW staff normally sample 9 weekdays and 9 weekend/holidays per quarter, spread across the three main ports: Sugar Dock, Fishing Base, and Smiling Cove. During survey days, all departing and returning fishing boats are logged, and interviews are attempted with each returning vessel. Four times on each survey day, staff drives along a designated route to note any boat-based fishing activity occurring at other locations. This serves to estimate the amount of boat-based fishing occurring outside the three main ports that are surveyed. It is assumed that the catch rates in these less-sampled areas are similar to those of the three main ports. Furthermore, fishers that are interviewed are assumed to be representative of the entire fishing population and to provide accurate information.

Vessels out fishing are detected either by the presence of a boat trailer near a launch area or the absence of a known boat at its designated berth. Unless contrary information is available from knowledgeable persons interviewed along the docks or in the local community, all such boats are assumed to be out fishing.

## B.4

The following participation information is recorded for all boats, including those engaging in non-fishing activity:

- Survey date
- Location
- Type of day
- Departure time
- Return time
- Boat name or number
- Whether the trip is chartered
- Type of activity (i.e. fishing method for fishing trips)
- Whether the boat will be fishing

The remaining data elements, listed below, are collected from each returning vessel if an interview can be successfully completed:

- Interview date and time \*
- Type of day \*
- Location \*
- Boat name or number
- Whether the trip is chartered \*
- Whether the boat has a berth
- Number of people and guests on board
- Towing vehicle license number
- Weather
- Fishing method \*
- Number of gears
- Hours fished
- Area fished
- Percent of catch to be sold
- Species caught \*, with the following information for each species
  - Individual lengths \*
  - Individual weights
  - Number caught \*
  - Total weight \*
- Any bycatch

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. Identification and weight of each species are often not obtainable. Only if a species identification cannot be made, a code for species groupings (e.g., family level codes) can be used.

Boat log data and island-wide trailer counts are expanded to estimate the total number of fishing trips on Saipan, and interview data are used to compute the average catch per trip. This is conducted separately for each analysis stratum. Multiplying the estimated trips by the average catch per trip then provides an estimate of the total catch on Saipan. If data are available for the current year from creel surveys on Tinian and Rota, the expanded catch for those islands may be added in to create an estimate for all of the CNMI.

**Shore-based Creel Survey Program** – Around 2005, a shore-based creel survey sampling program was implemented on Saipan to provide statistics on all shore-based fishing, including non-commercial activity. The details of the shore-based fishery sampling program have changed over the years to accommodate changes in the fisheries. But it has remained an hourly CPUE-based stratified random sampling program. During analysis, data are stratified by fishing method, type of day, and time of day. Similar programs have been present on Tinian and Rota at times, but no long-term data are available for those islands.

## B.5

DFW staff normally conducts 16 weekday and 16 weekend/holiday surveys per quarter. If additional surveyor time is available, it is often used to conduct additional shore-based surveys. In 2014, 96 weekday and 42 weekend surveys were conducted. During participation runs, staff drives along a designated route and records all fishing activity spotted. Any activity that involves a motorized vessel is not counted, unless the vessel: 1) is used primarily for transporting such items as gill nets, surround nets, and drag nets, and 2) was launched from a beach, not a boat ramp. During interview runs, staff drives back along the designated route and attempts to interview all fishermen that are encountered. Fishers that are interviewed are assumed to be representative of the entire fishing population and to provide accurate information.

During participation runs, the following information is recorded:

- Survey date
- Type of day
- Shift time
- Start location
- Observation time
- Location
- Number of fishers
- Number of gears
- Fishing method
- Reef zone
- Weather

During interviews, the following information is recorded:

- Interview date and time
- Type of day
- Number of fishermen
- Fishing start and stop time
- Fishing method
- Number of gears
- Location
- Reef zone
- Proportion of catch to be sold
- Weather
- Species caught, with the following information for each species:
  - Individual lengths
  - Individual weights
  - Number caught
  - Total weight
- Any bycatch

If time does not allow for the length and weight of each fish to be measured, weights can be skipped and estimated using length measurements. Only if a species identification cannot be made, a code for species groupings (e.g., family level codes) may be used.

Participation data are expanded to estimate the total gear-hours of shore-based fishing activity on Saipan, and interview data are used to estimate the average catch per gear-hour. This is done separately for each analysis stratum. Multiplying the estimated gear-hours by the average catch per gear-hour then provides an estimate of the total catch on Saipan. If data are available for the current year from creel surveys on Tinian and Rota, the expanded catch for those islands may be added in to create an estimate for all of the CNMI.

## **DATA PROCESSING**

At the beginning of each month, a DFW employee visits each of the fish vendors on Saipan to collect the previous month's invoices, resolve problems, and answer any questions the dealers may have. The invoices are returned to the office for an initial visual quality control check and are then entered into the Commercial Purchase System database. After data entry, reports are generated using software developed by WPacFIN to help identify and further check their accuracy. On a monthly basis, a copy of the database is sent to the Pacific Islands Fisheries Science Center (PIFSC), in Honolulu, where the WPacFIN central office is located. The data are uploaded to a central computer system and subjected to additional quality control and validation steps, before generating the non-confidential summary reports used by WPacFIN participants and clients, including the public. The confidential data, warehoused at WPacFIN Central, remains the property of the DFW, but can be provided to authorized users with DFW approval and appropriate nondisclosure agreements in place.

## **DATA REPORTING**

After all editing, adjustment, and quality control activities have been completed, monthly and annual summaries are generated by species. Please note that commercial landings data have been adjusted to an estimated 100%, referred to as "Estimated Commercial Landings" in the charts and tables.

Each table contains the common name, estimated weight (in pounds), estimated value (in dollars), and the average price per pound by species or group. The monthly tables contain estimated subtotals for each species. The annual table contains the estimated total commercial landings for each species for the calendar year. Graphs of statistics for some of the more important commercial species or groups are also provided. To see the most current charts and tables, please visit the WPacFIN website (<https://www.pifsc.noaa.gov/wpacfin>).



## SPECIES CATEGORIES

The species, families, and other groups used in the tables and graphs of DFW data for the CNMI are described, based on the most commonly used local (island area) names in this section. Differences in local vernacular may result in different common names for the same species across the region, but to ensure these summaries are clearly understood by local clients, the most common local names are used throughout this section. Scientific names are also provided in the tables to ensure the data summaries can be compared across the region. Because of the nature of vendor data, several species (even several families), are sometimes reported together. This occurs often with bottomfish and some reef species. Vendors may not take the time to separate all fish purchased by species. They tend to weigh common fishes by lots (or coolers). However, vendors (and fishermen selling their catch) will weigh species that are more valued by consumers separately, since they command a higher price per pound.

The use of common names varies throughout the Pacific, and some of the names used in the CNMI market data are derived spellings of Hawaiian (and Japanese) names, since portions of the market were first developed in Hawaii. This publication is gradually evolving to be based upon a comprehensive species table that includes the local indigenous languages, Chamorro and Carolinian. However, this is a work in progress. As with other changes, for the time being the usual categories will be maintained for ease of comparison with historical volumes of this report. The common names and corresponding scientific names are provided in the following tables.

It should be noted that some of the species in this report have been included in different groups over the years. For example, the Magnuson Fishery Conservation and Management Act of 1976 was amended in 1992 to include tunas in the category Pelagic Management Unit Species (PMUS). However, this report will maintain the original species categories from previous volumes for easy comparison, until a comprehensive update can be completed. As such, tunas are kept in a separate category. To see the most current taxonomic information for species caught commercially in the CNMI and other US-associated Pacific island areas, please visit the WPacFIN website (<https://www.pifsc.noaa.gov/wpacfin>).

I. Pelagic Management Unit Species (PMUS)

Blue marlin (*Makaira mazara*)  
 Mahimahi (*Coryphaena hippurus*)  
 Sailfish (*Istiophorus platypterus*)

Sharks (*Isurus oxyrinchus*, *Isurus paucus*, and various *Carcharhinus* spp.)  
 Spearfish (*Tetrapturus angustirostris*)  
 Wahoo (*Acanthocybium solandri*)

II. Bottomfish Management Unit Species (BMUS)

Alfonsin (*Beryx decadactylus*)  
 Amberjack (*Seriola dumerili*)  
 Black jack (*Caranx lugubris*)  
 Blacktip grouper (*Epinephelus fasciatus*)  
 Blue-lined snapper (*Lutjanus kasmira*)  
 Ehu/Red snapper (*Etelis carbunculus*)  
 Giant trevally (*Caranx ignobilis*)  
 Gindai/Flower snapper (*Pristipomoides zonatus*)

Jobfish/Uku (*Aprion virescens*)  
 Kalikali/Yellowtail (*Pristipomoides auricilla*)  
 Lyretail grouper (*Variola louti*)  
 Onaga/Red snapper (*Etelis coruscans*)  
 Opakapaka/Pink snapper (*Pristipomoides filamentosus*)  
 Redgill emperor (*Lethrinus lentjan*)  
 Silvermouth/Deep lehi (*Aphareus rutilans*)  
 Yelloweye opakapaka (*Pristipomoides flavipinnis*)

III. Tunas

Kawakawa/Saba (*Euthynnus affinis*)  
 Skipjack tuna (*Katsuwonus pelamis*)

Tunas (unspecified)<sup>1</sup>  
 Yellowfin tuna (*Thunnus albacares*)

IV. Other Scombrids

Dogtooth tuna (*Gymnosarda unicolor*)

(See footnote 1)

---

<sup>1</sup> This group includes species that comprise a very small portion of the catch, unidentified tunas, and apparent misidentifications. Because of the small amount of catch, and the tendency of vendors to throw in the dogtooth tuna with this group (although it is not actually a tuna), this group is combined with “other scombrids” in some of the charts.

## V. Fisheries Categories

A. *Pelagic Fishes*

Barracudas *up to 5 species (Sphyraena spp.)*  
 Blue marlin (*Makaira mazara*)  
 Dogtooth tuna (*Gymnosarda unicolor*)  
 Kawakawa/Saba (*Euthynnus affinis*)  
 Mahimahi (*Coryphaena hippurus*)  
 Pelagic fishes (unspecified)  
 Rainbow runner (*Elagatis bipinnulata*)

Sailfish (*Istiophorus platypterus*)  
 Sharks (*Isurus oxyrinchus*, *Isurus paucus*, and various *Carcharhinus* spp.)  
 Skipjack tuna (*Katsuwonus pelamis*)  
 Spearfish (*Tetrapturus angustirostris*)  
 Tunas/Unspecified (*See footnote 1*)  
 Wahoo (*Acanthocybium solandri*)  
 Yellowfin tuna (*Thunnus albacares*)

B. *Bottomfishes*

Alfonsin (*Beryx decadactylus*)  
 Amberjack (*Seriola dumerili*)  
 Bigeye emperor (*Monotaxis grandoculis*)  
 Bigeye trevally (*Caranx sexfasciatus*)  
 Black jack (*Caranx lugubris*)  
 Blackspot emperor (*Lethrinus harak*)  
 Blacktip grouper (*Epinephelus fasciatus*)  
 Blue-lined gindai (*Pristipomoides argyrogrammicus*)  
 Blue-lined snapper (*Lutjanus kasmira*)  
 Bluefin trevally (*Caranx melampygus*)  
 Bottomfishes (unspecified<sup>2</sup>)  
 Brassy trevally (*Caranx papuensis*)  
 Ehu/Red snapper (*Etelis carbunculus*)  
 Eight banded grouper (*Hyporthodus octofasciatus*)  
 Emperors (various Lethrinidae)  
 Flagtail grouper (*Cephalopholis urodeta*)  
 Flametail snapper (*Lutjanus fulvus*)<sup>3</sup>  
 Giant trevally (*Caranx ignobilis*)  
 Gindai/Flower snapper (*Pristipomoides zonatus*)

Kalikali/Yellowtail (*Pristipomoides auricilla*)  
 Longnose emperor (*Lethrinus olivaceus*)  
 Lyretail grouper (*Variola louti*)  
 Marbled grouper (*Epinephelus polyphekadion*)  
 Onaga/Red snapper (*Etelis coruscans*)  
 Onespots snapper (*Lutjanus monostigma*)  
 Opakapaka/Pink snapper (*Pristipomoides filamentosus*)  
 Orangespotted trevally (*Carangoides bajad*)  
 Orange-fin emperor (*Lethrinus erythracanthus*)  
 Peacock grouper (*Cephalopholis argus*)  
 Pink grouper (*Saloptia powelli*)  
 Red snapper (various Etelinae)  
 Redgill emperor (*Lethrinus lentjan*)  
 Saddleback grouper/Giant coral trout (*Plectropomus laevis*)  
 Sickie pomfret (*Taractichthys steindachneri*)  
 Silvermouth/Deep lehi (*Aphareus rutilans*)  
 Smalltooth jobfish (*Aphareus furca*)  
 Stout emperor (*Gymnocranius* sp.)  
 Tomato grouper (*Cephalopholis sonnerati*)

<sup>2</sup> May include various deep bottom snappers (most Etelinae, some *Lutjanus* spp. listed above), groupers (Serranidae), emperors (Lethrinidae), deep jacks, and trevallies (Carangidae).

<sup>3</sup> Mistakenly referred to as a flametail “emperor” (by vendors and in previous volumes of this report), also known in the literature as blacktail snapper.

Groupers (various Serranidae)  
 Highfin grouper (*Epinephelus maculatus*)  
 Honeycomb grouper (*Epinephelus merra*)  
 Humpback snapper (*Lutjanus gibbus*)  
 Jacks (various Carangidae)  
 Jobfish/Uku (*Aprion virescens*)

White lyretail grouper (*Variola albimarginata*)  
 Yellow-banded grouper (*Cephalopholis igarashiensis*)  
 Yellowspotted trevally (*Carangoides fulvoguttatus*)  
 Yelloweye opakapaka (*Pristipomoides flavipinnis*)  
 Yellowlip emperor (*Lethrinus xanthurus*)  
 Yellowstripe emperor (*Lethrinus obsoletus*)

### C. Reef Fishes

Bigeyes/glasseyes ( <i>Priacanthus</i> spp. and <i>Heteropriacanthus cruentatus</i> )	Reef fishes (multiple families, unspecified)
Blue-banded surgeonfish ( <i>Acanthurus lineatus</i> )	Shallow snappers (generally <i>Lutjanus</i> spp.)
Bluespine unicornfish ( <i>Naso unicornis</i> )	Soldierfishes ( <i>Myripristis</i> spp., <i>Ostichthys</i> spp.)
Butterflyfishes (various Chaetodontidae)	Squirrelfishes ( <i>Sargocentron</i> spp., <i>Neoniphon</i> spp.)
Convict tang ( <i>Acanthurus triostegus</i> ) <sup>4</sup>	Surgeonfishes (various Acanthuridae)
Dash & dot goatfish ( <i>Parupeneus barberinus</i> )	Sweetlips (various Haemulidae)
Fusiliers ( <i>Caesio</i> spp., <i>Pterocaesio</i> spp.)	Triggerfishes (various Balistidae)
Goatfishes (various Mullidae)	Tripletail wrasse ( <i>Cheilinus trilobatus</i> )
Highfin rudderfish, brown ( <i>Kyphosus vaigiensis</i> )	Two-barred goatfish ( <i>Parupeneus bifasciatus</i> )
Highfin rudderfish, silver ( <i>Kyphosus cinerascens</i> )	Unicornfishes (various <i>Naso</i> spp.)
Humphead wrasse ( <i>Cheilinus undulatus</i> )	Wrasses (various Labridae)
Orangespine unicornfish ( <i>Naso lituratus</i> )	Yellowfin surgeonfish ( <i>Acanthurus xanthopterus</i> )
Parrotfishes (various Scaridae)	Yellowstripe goatfish ( <i>Mulloidichthys flavolineatus</i> )
Rabbitfishes ( <i>Siganus</i> spp.)	

<sup>4</sup> May include a small amount of the mimic convict surgeonfish *Acanthurus chronixis*.

D. *Other Fishes, Algae & Invertebrates*

Bigeye scad/Atulai (*Selar crumenophthalmus*)  
Clams/bivalves (various Bivalvia)  
Coconut crab (*Birgus latro*)  
Crabs (various Brachyura)  
Invertebrates (various, unspecified)  
Lemu/Seaweeds (various, unspecified)  
Milkfish (*Chanos chanos*)  
Mullet (various Mugilidae)

Octopus (most Octopus spp.)  
Sea cucumbers (Holothuroidea)  
Shrimp (saltwater Caridea)  
Slipper lobster (various *Scyllarides*, *Scyllarus*, and *Parribacus* spp.)  
Spiny lobster (various Panulirus spp.)  
Squids (various Teuthoidea)  
Trochus (*Trochus* spp.)

**Table B-1**  
**CNMI Annual 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs	Estimated	Price/
	Scientific Name	Common/local name	Sold	Value	Lb
<b>FISHES:</b>					
	<b>Scombridae</b>				
	<b>Tunas</b>				
	<i>Euthynnus affinis</i>	Kawakawa (saba)	1,813	3,628	2.00
	<i>Katsuwonus pelamis</i>	Skipjack tuna	161,798	372,597	2.30
	<i>Thunnus albacares</i>	Yellowfin tuna	15,102	35,366	2.34
	<b>Other scombrids</b>				
	<i>Acanthocybium solandri</i>	Wahoo	7,262	17,778	2.45
	<i>Gymnosarda unicolor</i>	Dogtooth tuna	5,345	12,251	2.29
	<b>Billfishes</b>				
	<b>Istiophoridae</b>				
	<i>Istiophorus platypterus</i>	Sailfish	87	160	1.84
	<i>Makaira mazara</i>	Blue marlin	2,547	5,503	2.16
	<b>Other fishes</b>				
	<b>Acanthuridae</b> (Tangs, Surgeons, Unicornfishes)				
	<i>Acanthurus, Ctenochaetus</i> spp.	Surgeonfishes (unspecified)	1,228	3,149	2.56
	<i>Naso</i> spp.	Unicornfishes (unspecified)	1,280	3,555	2.78
	<b>Carangidae</b> (jacks & trevallies)				
	<i>Carangidae (unspecified)</i>	Jacks	573	1,568	2.73
	<i>Seriola dumerili</i>	Greater amberjack	916	2,366	2.58
	<i>Selar crumenophthalmus</i>	Bigeye scad	2,453	6,610	2.69
	<i>Elagatis bipinnulata</i>	Rainbow runner	1,400	3,139	2.24
	<b>Coryphaenidae</b> (mahimahi/dolphinfish)				
	<i>Coryphaena hippurus, C. equiselis</i>	Mahimahi	38,084	87,319	2.29
	<b>Holocentridae</b> (squirrel & soldierfishes)				
	<i>Sargocentron, Neoniphon</i> spp.	Squirrelfishes	1,169	3,250	2.78
	<b>Labridae</b> (wrasses)				
	<i>Labridae (unspecified)</i>	Wrasses	150	437	2.92
	<b>Lethrinidae</b> (emperors)				
	<i>Lethrinidae (unspecified)</i>	Emperors	2,826	8,499	3.01
	<b>Lutjanidae</b> (snappers)				
	<i>Aphareus furca</i>	Smalltooth jobfish	1,710	6,139	3.59
	<i>Aprion virescens</i>	Jobfish (uku)	2,083	6,600	3.17
	<i>Etelis carbunculus</i>	Ehu (red snapper)	870	3,414	3.92
	<i>Etelis coruscans</i>	Onaga (red snapper)	9,580	59,710	6.23
	<i>Pristipomoides auricilla</i>	Kalikali (yellowtail)	1,052	3,438	3.27
	<i>Pristipomoides filamentosus</i>	Opakapaka (pink snapper)	2,109	8,155	3.87
	<i>Pristipomoides zonatus</i>	Gindai (flower snapper)	591	2,493	4.22
	<b>Mugilidae</b> (mulletts)				
	<i>Mugilidae (unspecified)</i>	Mullet	102	261	2.57
	<b>Mullidae</b> (goatfishes)				
	<i>Mullidae (unspecified)</i>	Goatfishes	3,595	10,046	2.79

**Table B-1**  
**CNMI Annual 2014 Estimated Commercial Landings**

<b>Group</b>	<b>Subgroup</b>		<b>Lbs</b>	<b>Estimated</b>	<b>Price/</b>
	<b>Scientific Name</b>	<b>Common/local name</b>	<b>Sold</b>	<b>Value</b>	<b>Lb</b>
<b>Other fishes (continued)</b>					
	<b>Scaridae</b> (parrotfishes)				
	Scaridae ( <i>unspecified</i> )	Parrotfishes	11,314	35,915	3.17
	<b>Serranidae</b> (groupers)				
	Serranidae ( <i>unspecified</i> )	Groupers	625	3,045	4.87
	<b>Siganidae</b> (rabbitfishes)				
	Siganidae ( <i>unspecified</i> )	Rabbitfishes	3,146	9,796	3.11
	<b>Sphyraenidae</b> (barracudas)				
	<i>Sphyraena</i> spp.	Barracudas	155	328	2.11
	<b>Unspecified Fish Groups</b>				
	Carangidae, Lutjanidae, Lethrinidae & Serranidae	Bottomfishes (unspecified)	5,668	19,261	3.40
	Unknown	Pelagic fishes (unspecified)	1,025	2,780	2.71
	Various (many) families	Reef fishes (unspecified)	24,668	63,118	2.56
	<b>Miscellaneous Seafood</b> ( <i>insufficient information</i> )				
	Unknown fish/invertebrates	Miscellaneous (unspecified)	105	282	2.67
	Unknown fish/invertebrates	Unknown	3,053	8,543	2.80
<b>INVERTEBRATES:</b>					
	<b>Crustaceans: Lobsters</b>				
	<i>Panulirus</i> spp. (any of several)	Spiny lobster	365	4,202	11.50
	<b>Mollusks</b>				
	<i>Cephalopoda: Coleoidea,</i> <i>Decapodiformes</i>	Squid	39	196	5.00
	<i>Octopus</i> spp.	Octopus	581	1,587	2.73
	<b>Invertebrates (unspecified)</b>				
	Unknown	Invertebrates (unspecified)	5,683	49,041	8.63
<b>Total</b>			<b>322,153</b>	<b>\$865,525</b>	<b>\$2.69</b>

**Table B-2**  
**CNMI January 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs	Estimated	Price/
	Scientific Name	Common/local name	Sold	Value	Lb
<b>FISHES:</b>					
<b>Scombridae</b>					
<b>Tunas</b>					
	<i>Euthynnus affinis</i>	Kawakawa (saba)	722	1,520	2.11
	<i>Katsuwonus pelamis</i>	Skipjack tuna	13,766	31,338	2.28
	<i>Thunnus albacares</i>	Yellowfin tuna	2,639	6,201	2.35
<b>Other scombrids</b>					
	<i>Acanthocybium solandri</i>	Wahoo	1,129	2,789	2.47
	<i>Gymnosarda unicolor</i>	Dogtooth tuna	574	1,178	2.05
<b>Other fishes</b>					
<b>Acanthuridae</b> (Tangs, Surgeons, Unicornfishes)					
	<i>Acanthurus, Ctenochaetus</i> spp.	Surgeonfishes (unspecified)	379	956	2.52
	<i>Naso</i> spp.	Unicornfishes (unspecified)	364	910	2.50
<b>Carangidae</b> (jacks & trevallies)					
	<i>Carangidae (unspecified)</i>	Jacks	27	68	2.50
	<i>Seriola dumerili</i>	Greater amberjack	33	83	2.50
	<i>Elagatis bipinnulata</i>	Rainbow runner	129	311	2.41
<b>Coryphaenidae</b> (mahimahi/dolphinfish)					
	<i>Coryphaena hippurus, C. equiselis</i>	Mahimahi	13,829	31,380	2.27
<b>Holocentridae</b> (squirrel & soldierfishes)					
	<i>Sargocentron, Neoniphon</i> spp.	Squirrelfishes	338	845	2.50
<b>Labridae</b> (wrasses)					
	<i>Labridae (unspecified)</i>	Wrasses	8	21	2.50
<b>Lethrinidae</b> (emperors)					
	<i>Lethrinidae (unspecified)</i>	Emperors	98	271	2.75
<b>Lutjanidae</b> (snappers)					
	<i>Etelis coruscans</i>	Onaga (red snapper)	10	50	5.00
	<i>Pristipomoides auricilla</i>	Kalikali (yellowtail)	29	77	2.62
	<i>Pristipomoides filamentosus</i>	Opakapaka (pink snapper)	43	135	3.12
	<i>Pristipomoides zonatus</i>	Gindai (flower snapper)	17	71	4.18
<b>Mugilidae</b> (mullet)					
	<i>Mugilidae (unspecified)</i>	Mullet	14	35	2.50
<b>Mullidae</b> (goatfishes)					
	<i>Mullidae (unspecified)</i>	Goatfishes	340	850	2.50
<b>Scaridae</b> (parrotfishes)					
	<i>Scaridae (unspecified)</i>	Parrotfishes	365	1,135	3.11
<b>Siganidae</b> (rabbitfishes)					
	<i>Siganidae (unspecified)</i>	Rabbitfishes	598	1,832	3.06
<b>Unspecified Fish Groups</b>					
	Various (many) families	Reef fishes (unspecified)	2,270	5,703	2.51
<b>Miscellaneous Seafood</b> (insufficient information)					
	Unknown fish/invertebrates	Unknown	300	766	2.55



**Table B-2**  
**CNMI January 2014 Estimated Commercial Landings**

<b>Group</b>	<b>Subgroup</b>	<b>Scientific Name</b>	<b>Common/local name</b>	<b>Lbs Sold</b>	<b>Estimated Value</b>	<b>Price/ Lb</b>
<b>INVERTEBRATES:</b>						
	<b>Mollusks</b>					
		<i>Octopus</i> spp.	Octopus	130	340	2.61
	<b>Invertebrates (unspecified)</b>					
		Unknown	Invertebrates (unspecified)	10	31	3.08
<b>Total</b>				<b>38,161</b>	<b>\$88,896</b>	<b>\$2.33</b>

**Table B-3**  
**CNMI February 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs Sold	Estimated Value	Price/Lb
	Scientific Name	Common/local name			
<b>FISHES:</b>					
	<b>Scombridae</b>				
	<b>Tunas</b>				
	<i>Euthynnus affinis</i>	Kawakawa (saba)	401	752	1.88
	<i>Katsuwonus pelamis</i>	Skipjack tuna	7,752	17,764	2.29
	<i>Thunnus albacares</i>	Yellowfin tuna	1,378	3,123	2.27
	<b>Other scombrids</b>				
	<i>Acanthocybium solandri</i>	Wahoo	3,506	8,101	2.31
	<i>Gymnosarda unicolor</i>	Dogtooth tuna	823	1,816	2.21
	<b>Other fishes</b>				
	<b>Acanthuridae</b> (Tangs, Surgeons, Unicornfishes)				
	<i>Acanthurus, Ctenochaetus</i> spp.	Surgeonfishes (unspecified)	365	917	2.51
	<i>Naso</i> spp.	Unicornfishes (unspecified)	143	371	2.59
	<b>Carangidae</b> (jacks & trevallies)				
	<i>Carangidae (unspecified)</i>	Jacks	340	861	2.54
	<i>Seriola dumerili</i>	Greater amberjack	130	367	2.82
	<i>Selar crumenophthalmus</i>	Bigeye scad	44	126	2.87
	<i>Elagatis bipinnulata</i>	Rainbow runner	175	202	1.15
	<b>Coryphaenidae</b> (mahimahi/dolphinfish)				
	<i>Coryphaena hippurus, C. equiselis</i>	Mahimahi	8,359	17,698	2.12
	<b>Holocentridae</b> (squirrel & soldierfishes)				
	<i>Sargocentron, Neonippon</i> spp.	Squirrelfishes	212	549	2.59
	<b>Lethrinidae</b> (emperors)				
	<i>Lethrinidae (unspecified)</i>	Emperors	167	459	2.75
	<b>Lutjanidae</b> (snappers)				
	<i>Aphareus furca</i>	Smalltooth jobfish	235	699	2.97
	<i>Aprion virescens</i>	Jobfish (uku)	15	31	2.00
	<i>Etelis carbunculus</i>	Ehu (red snapper)	98	364	3.72
	<i>Etelis coruscans</i>	Onaga (red snapper)	802	4,139	5.16
	<i>Pristipomoides auricilla</i>	Kalikali (yellowtail)	251	836	3.34
	<i>Pristipomoides filamentosus</i>	Opakapaka (pink snapper)	98	283	2.88
	<i>Pristipomoides zonatus</i>	Gindai (flower snapper)	142	560	3.94
	<b>Mugilidae</b> (mulletts)				
	<i>Mugilidae (unspecified)</i>	Mullet	16	40	2.50
	<b>Mullidae</b> (goatfishes)				
	<i>Mullidae (unspecified)</i>	Goatfishes	454	1,135	2.50
	<b>Scaridae</b> (parrotfishes)				
	<i>Scaridae (unspecified)</i>	Parrotfishes	654	1,985	3.04
	<b>Serranidae</b> (groupers)				
	<i>Serranidae (unspecified)</i>	Groupers	12	37	3.00
	<b>Siganidae</b> (rabbitfishes)				
	<i>Siganidae (unspecified)</i>	Rabbitfishes	443	1,363	3.08

**Table B-3**  
**CNMI February 2014 Estimated Commercial Landings**

<b>Group</b>		<b>Lbs</b>	<b>Estimated</b>	<b>Price/</b>
<b>Subgroup</b>		<b>Sold</b>	<b>Value</b>	<b>Lb</b>
<b>Scientific Name</b>	<b>Common/local name</b>			
<b>Other fishes (continued)</b>				
<b>Unspecified Fish Groups</b>				
Carangidae, Lutjanidae, Lethrinidae & Serranidae	Bottomfishes (unspecified)	109	273	2.50
Unknown	Pelagic fishes (unspecified)	837	2,302	2.75
Various (many) families	Reef fishes (unspecified)	2,341	5,914	2.53
<b>Miscellaneous Seafood (insufficient information)</b>				
Unknown fish/invertebrates	Miscellaneous (unspecified)	36	108	3.00
Unknown fish/invertebrates	Unknown	509	1,281	2.52
<b>INVERTEBRATES:</b>				
<b>Mollusks</b>				
<i>Octopus</i> spp.	Octopus	243	702	2.89
<b>Invertebrates (unspecified)</b>				
Unknown	Invertebrates (unspecified)	574	4,585	7.99
<b>Total</b>		<b>31,664</b>	<b>\$79,743</b>	<b>\$2.52</b>

**Table B-4**  
**CNMI March 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs	Estimated	Price/
	Scientific Name	Common/local name	Sold	Value	Lb
<b>FISHES:</b>					
	<b>Scombridae</b>				
	<b>Tunas</b>				
	<i>Euthynnus affinis</i>	Kawakawa (saba)	498	925	1.86
	<i>Katsuwonus pelamis</i>	Skipjack tuna	11,233	28,148	2.51
	<i>Thunnus albacares</i>	Yellowfin tuna	1,730	4,079	2.36
	<b>Other scombrids</b>				
	<i>Acanthocybium solandri</i>	Wahoo	1,047	2,521	2.41
	<i>Gymnosarda unicolor</i>	Dogtooth tuna	676	1,298	1.92
	<b>Billfishes</b>				
	<b>Istiophoridae</b>				
	<i>Makaira mazara</i>	Blue marlin	385	852	2.22
	<b>Other fishes</b>				
	<b>Acanthuridae</b> (Tangs, Surgeons, Unicornfishes)				
	<i>Acanthurus, Ctenochaetus</i> spp.	Surgeonfishes (unspecified)	436	1,121	2.57
	<i>Naso</i> spp.	Unicornfishes (unspecified)	299	755	2.52
	<b>Carangidae</b> (jacks & trevallies)				
	<i>Selar crumenophthalmus</i>	Bigeye scad	232	658	2.83
	<i>Elagatis bipinnulata</i>	Rainbow runner	130	300	2.31
	<b>Coryphaenidae</b> (mahimahi/dolphinfish)				
	<i>Coryphaena hippurus, C. equiselis</i>	Mahimahi	8,212	18,330	2.23
	<b>Holocentridae</b> (squirrel & soldierfishes)				
	<i>Sargocentron</i> spp., <i>Neoniphon</i> spp.	Squirrelfishes	224	572	2.55
	<b>Lethrinidae</b> (emperors)				
	Lethrinidae ( <i>unspecified</i> )	Emperors	320	943	2.95
	<b>Lutjanidae</b> (snappers)				
	<i>Etelis coruscans</i>	Onaga (red snapper)	17	110	6.50
	<b>Mugilidae</b> (mulletts)				
	Mugilidae ( <i>unspecified</i> )	Mullet	72	186	2.60
	<b>Mullidae</b> (goatfishes)				
	Mullidae ( <i>unspecified</i> )	Goatfishes	209	529	2.53
	<b>Scaridae</b> (parrotfishes)				
	Scaridae ( <i>unspecified</i> )	Parrotfishes	678	2,042	3.01
	<b>Serranidae</b> (groupers)				
	Serranidae ( <i>unspecified</i> )	Groupers	28	83	3.00
	<b>Siganidae</b> (rabbitfishes)				
	<i>Siganidae</i> ( <i>unspecified</i> )	Rabbitfishes	574	1,565	2.73
	<b>Sphyraenidae</b> (barracudas)				
	<i>Sphyraena</i> spp.	Barracudas	120	240	2.00

**Table B-4**  
**CNMI March 2014 Estimated Commercial Landings**

<b>Group</b>					
<b>Subgroup</b>					
<b>Scientific Name</b>	<b>Common/local name</b>	<b>Lbs Sold</b>	<b>Estimated Value</b>	<b>Price/Lb</b>	
<b>Other fishes (continued)</b>					
<b>Unspecified Fish Groups</b>					
Carangidae, Lutjanidae,	Bottomfishes (unspecified)	67	167	2.50	
Unknown	Pelagic fishes (unspecified)	49	123	2.50	
Various (many) families	Reef fishes (unspecified)	1,205	3,013	2.50	
<b>Miscellaneous Seafood (insufficient information)</b>					
Unknown fish/invertebrates	Unknown	501	1,254	2.50	
<b>INVERTEBRATES:</b>					
<b>Mollusks</b>					
<i>Octopus</i> spp.	Octopus	115	312	2.70	
<b>Invertebrates (unspecified)</b>					
Unknown	Invertebrates (unspecified)	8	43	5.60	
<b>Total</b>		<b>29,065</b>	<b>\$70,169</b>	<b>\$2.41</b>	

**Table B-5**  
**CNMI April 2014 Estimated Commercial Landings**

Group	Subgroup	Scientific Name	Common/local name	Lbs Sold	Estimated Value	Price/ Lb
<b>FISHES:</b>						
	<b>Scombridae</b>					
	<b>Tunas</b>					
		<i>Euthynnus affinis</i>	Kawakawa (saba)	15	38	2.50
		<i>Katsuwonus pelamis</i>	Skipjack tuna	17,594	39,645	2.25
		<i>Thunnus albacares</i>	Yellowfin tuna	1,449	3,238	2.23
	<b>Other scombrids</b>					
		<i>Acanthocybium solandri</i>	Wahoo	959	2,636	2.75
		<i>Gymnosarda unicolor</i>	Dogtooth tuna	1,619	3,755	2.32
	<b>Billfishes</b>					
	<b>Istiophoridae</b>					
		<i>Istiophorus platypterus</i>	Sailfish	55	97	1.75
		<i>Makaira mazara</i>	Blue marlin	353	802	2.27
	<b>Carangidae (jacks &amp; trevallies)</b>					
		Carangidae ( <i>unspecified</i> )	Jacks	95	322	3.40
		<i>Seriola dumerili</i>	Greater amberjack	533	1,476	2.77
		<i>Selar crumenophthalmus</i>	Bigeye scad	905	2,370	2.62
		<i>Elagatis bipinnulata</i>	Rainbow runner	115	301	2.61
	<b>Coryphaenidae (mahimahi/dolphinfish)</b>					
		<i>Coryphaena hippurus</i> , <i>C. equiselis</i>	Mahimahi	4,106	10,620	2.59
	<b>Lethrinidae (emperors)</b>					
		Lethrinidae ( <i>unspecified</i> )	Emperors	568	1,990	3.50
	<b>Lutjanidae (snappers)</b>					
		<i>Aphareus furca</i>	Smalltooth jobfish	265	917	3.46
		<i>Aprion virescens</i>	Jobfish (uku)	209	709	3.39
		<i>Etelis carbunculus</i>	Ehu (red snapper)	195	778	4.00
		<i>Etelis coruscans</i>	Onaga (red snapper)	1,523	9,257	6.08
		<i>Pristipomoides auricilla</i>	Kalikali (yellowtail)	133	483	3.63
		<i>Pristipomoides</i>	Opakapaka (pink snapper)	75	288	3.85
		<i>Pristipomoides zonatus</i>	Gindai (flower snapper)	150	660	4.40
	<b>Scaridae (parrotfishes)</b>					
		Scaridae ( <i>unspecified</i> )	Parrotfishes	1,260	4,049	3.21
	<b>Serranidae (groupers)</b>					
		Serranidae ( <i>unspecified</i> )	Groupers	257	1,413	5.50
	<b>Siganidae (rabbitfishes)</b>					
		<i>Siganidae (unspecified)</i>	Rabbitfishes	262	853	3.25
	<b>Unspecified Fish Groups</b>					
		Carangidae, Lutjanidae, Lethrinidae & Serranidae	Bottomfishes (unspecified)	214	612	2.86
		Various (many) families	Reef fishes (unspecified)	2,772	6,880	2.48
	<b>Miscellaneous Seafood (insufficient information)</b>					
		Unknown fish/invertebrates	Unknown	173	577	3.33

**Table B-5**  
**CNMI April 2014 Estimated Commercial Landings**

<b>Group</b>	<b>Subgroup</b>	<b>Scientific Name</b>	<b>Common/local name</b>	<b>Lbs Sold</b>	<b>Estimated Value</b>	<b>Price/ Lb</b>
<b>INVERTEBRATES:</b>						
	<b>Mollusks</b>					
		<i>Octopus</i> spp.	Octopus	65	162	2.50
	<b>Invertebrates</b> (unspecified)					
		Unknown	Invertebrates (unspecified)	177	1,341	7.59
<b>Total</b>				<b>36,096</b>	<b>\$96,269</b>	<b>\$2.67</b>

**Table B-6**  
**CNMI May 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs Sold	Estimated Value	Price/Lb
	Scientific Name	Common/local name			
<b>FISHES:</b>					
	<b>Scombridae</b>				
	<b>Tunas</b>				
	<i>Katsuwonus pelamis</i>	Skipjack tuna	15,755	34,565	2.19
	<i>Thunnus albacares</i>	Yellowfin tuna	1,209	2,784	2.30
	<b>Other scombrids</b>				
	<i>Acanthocybium solandri</i>	Wahoo	95	260	2.75
	<i>Gymnosarda unicolor</i>	Dogtooth tuna	174	435	2.50
	<b>Billfishes</b>				
	<b>Istiophoridae</b>				
	<i>Makaira mazara</i>	Blue marlin	288	720	2.50
	<b>Carangidae (jacks &amp; trevallies)</b>				
	Carangidae ( <i>unspecified</i> )	Jacks	81	239	2.96
	<i>Seriola dumerili</i>	Greater amberjack	15	31	2.00
	<i>Selar crumenophthalmus</i>	Bigeye scad	528	1,359	2.58
	<i>Elagatis bipinnulata</i>	Rainbow runner	302	676	2.24
	<b>Coryphaenidae (mahimahi/dolphinfish)</b>				
	<i>Coryphaena hippurus</i> , <i>C. equiselis</i>	Mahimahi	475	1,271	2.68
	<b>Lethrinidae (emperors)</b>				
	Lethrinidae ( <i>unspecified</i> )	Emperors	74	237	3.20
	<b>Lutjanidae (snappers)</b>				
	<i>Aprion virescens</i>	Jobfish (uku)	68	220	3.25
	<i>Etelis carbunculus</i>	Ehu (red snapper)	216	855	3.95
	<i>Etelis coruscans</i>	Onaga (red snapper)	88	463	5.23
	<i>Pristipomoides auricilla</i>	Kalikali (yellowtail)	79	257	3.25
	<i>Pristipomoides filamentosus</i>	Opakapaka (pink snapper)	448	1,752	3.91
	<i>Pristipomoides zonatus</i>	Gindai (flower snapper)	52	179	3.43
	<b>Scaridae (parrotfishes)</b>				
	Scaridae ( <i>unspecified</i> )	Parrotfishes	1,605	5,201	3.24
	<b>Serranidae (groupers)</b>				
	Serranidae ( <i>unspecified</i> )	Groupers	54	188	3.50
	<b>Siganidae (rabbitfishes)</b>				
	<i>Siganidae (unspecified)</i>	Rabbitfishes	152	495	3.25
	<b>Unspecified Fish Groups</b>				
	Carangidae, Lutjanidae,	Bottomfishes (unspecified)	271	794	2.93
	Various (many) families	Reef fishes (unspecified)	2,527	6,406	2.53
	<b>Miscellaneous Seafood (insufficient information)</b>				
	Unknown fish/invertebrates	Unknown	132	398	3.03



**Table B-6**  
**CNMI May 2014 Estimated Commercial Landings**

<b>Group</b>	<b>Subgroup</b>		<b>Lbs</b>	<b>Estimated</b>	<b>Price/</b>
	<b>Scientific Name</b>	<b>Common/local name</b>	<b>Sold</b>	<b>Value</b>	<b>Lb</b>
<b>INVERTEBRATES:</b>					
	<b>Mollusks</b>				
	<i>Octopus</i> spp.	Octopus	26	65	2.50
	<b>Invertebrates (unspecified)</b>				
	Unknown	Invertebrates (unspecified)	1,248	10,064	8.06
		<b>Total</b>	<b>25,962</b>	<b>\$69,914</b>	<b>\$2.69</b>

**Table B-7**  
**CNMI June 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs Sold	Estimated Value	Price/Lb
	Scientific Name	Common/local name			
<b>FISHES:</b>					
	<b>Scombridae</b>				
	<b>Tunas</b>				
	<i>Katsuwonus pelamis</i>	Skipjack tuna	15,610	34,958	2.24
	<i>Thunnus albacares</i>	Yellowfin tuna	642	1,355	2.11
	<b>Other scombrids</b>				
	<i>Acanthocybium solandri</i>	Wahoo	111	277	2.50
	<b>Billfishes</b>				
	<b>Istiophoridae</b>				
	<i>Makaira mazara</i>	Blue marlin	437	960	2.20
	<b>Other fishes</b>				
	<b>Acanthuridae</b> (Tangs, Surgeons, Unicornfishes)				
	<i>Naso</i> spp.	Unicornfishes (unspecified)	69	225	3.25
	<b>Carangidae</b> (jacks & trevallies)				
	Carangidae ( <i>unspecified</i> )	Jacks	8	19	2.50
	<i>Selar crumenophthalmus</i>	Bigeye scad	744	2,097	2.82
	<i>Elagatis bipinnulata</i>	Rainbow runner	38	77	2.00
	<b>Coryphaenidae</b> (mahimahi/dolphinfish)				
	<i>Coryphaena hippurus</i> , <i>C. equiselis</i>	Mahimahi	358	897	2.51
	<b>Holocentridae</b> (squirrel & soldierfishes)				
	<i>Sargocentron</i> spp., <i>Neoniphon</i> spp.	Squirrelfishes	97	315	3.25
	<b>Labridae</b> (wrasses)				
	Labridae ( <i>unspecified</i> )	Wrasses	65	178	2.75
	<b>Lethrinidae</b> (emperors)				
	Lethrinidae ( <i>unspecified</i> )	Emperors	517	1,343	2.60
	<b>Lutjanidae</b> (snappers)				
	<i>Aprion virescens</i>	Jobfish (uku)	140	280	2.00
	<i>Pristipomoides auricilla</i>	Kalikali (yellowtail)	104	285	2.74
	<i>Pristipomoides filamentosus</i>	Opakapaka (pink snapper)	17	47	2.75
	<i>Pristipomoides zonatus</i>	Gindai (flower snapper)	46	185	4.00
	<b>Mullidae</b> (goatfishes)				
	Mullidae ( <i>unspecified</i> )	Goatfishes	292	869	2.98
	<b>Scaridae</b> (parrotfishes)				
	Scaridae ( <i>unspecified</i> )	Parrotfishes	2,220	7,179	3.23
	<b>Serranidae</b> (groupers)				
	Serranidae ( <i>unspecified</i> )	Groupers	39	133	3.38
	<b>Siganidae</b> (rabbitfishes)				
	<i>Siganidae</i> ( <i>unspecified</i> )	Rabbitfishes	196	616	3.14
	<b>Sphyraenidae</b> (barracudas)				
	<i>Sphyraena</i> spp.	Barracudas	35	88	2.50

**Table B-7**  
**CNMI June 2014 Estimated Commercial Landings**

<b>Group</b>	<b>Subgroup</b>		<b>Lbs</b>	<b>Estimated</b>	<b>Price/</b>
	<b>Scientific Name</b>	<b>Common/local name</b>	<b>Sold</b>	<b>Value</b>	<b>Lb</b>
<b>Other fishes (continued)</b>					
	<b>Unspecified Fish Groups</b>				
	Carangidae, Lutjanidae, Lethrinidae & Serranidae	Bottomfishes (unspecified)	28	69	2.50
	Various (many) families	Reef fishes (unspecified)	3,092	8,228	2.66
	<b>Miscellaneous Seafood (insufficient information)</b>				
	Unknown fish/invertebrates	Unknown	196	630	3.21
<b>INVERTEBRATES:</b>					
	<b>Mollusks</b>				
	<i>Cephalopoda: Coleoidea,</i> <i>Decapodiformes</i>	Squid	38	188	5.00
	<b>Invertebrates (unspecified)</b>				
	Unknown	Invertebrates (unspecified)	2,012	17,942	8.92
<b>Total</b>			<b>27,151</b>	<b>\$79,440</b>	<b>\$2.93</b>

**Table B-8**  
**CNMI July 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs Sold	Estimated Value	Price/Lb
	Scientific Name	Common/local name			
<b>FISHES:</b>					
	<b>Scombridae</b>				
	<b>Tunas</b>				
	<i>Katsuwonus pelamis</i>	Skipjack tuna	17,806	40,611	2.28
	<i>Thunnus albacares</i>	Yellowfin tuna	1,556	3,675	2.36
	<b>Other scombrids</b>				
	<i>Acanthocybium solandri</i>	Wahoo	105	307	2.91
	<i>Gymnosarda unicolor</i>	Dogtooth tuna	82	192	2.36
	<b>Billfishes</b>				
	<b>Istiophoridae</b>				
	<i>Istiophorus platypterus</i>	Sailfish	32	63	2.00
	<i>Makaira mazara</i>	Blue marlin	635	1,271	2.00
	<b>Other fishes</b>				
	<b>Carangidae (jacks &amp; trevallies)</b>				
	Carangidae ( <i>unspecified</i> )	Jacks	23	58	2.50
	<i>Seriola dumerili</i>	Greater amberjack	129	258	2.00
	<i>Elagatis bipinnulata</i>	Rainbow runner	221	518	2.34
	<b>Coryphaenidae (mahimahi/dolphinfish)</b>				
	<i>Coryphaena hippurus</i> , <i>C. equiselis</i>	Mahimahi	267	657	2.46
	<b>Holocentridae (squirrel &amp; soldierfishes)</b>				
	<i>Sargocentron</i> spp., <i>Neoniphon</i> spp.	Squirrelfishes	38	125	3.25
	<b>Lethrinidae (emperors)</b>				
	Lethrinidae ( <i>unspecified</i> )	Emperors	315	793	2.52
	<b>Lutjanidae (snappers)</b>				
	<i>Aphareus furca</i>	Smalltooth jobfish	186	687	3.69
	<i>Aprion virescens</i>	Jobfish (uku)	10	33	3.25
	<i>Etelis carbunculus</i>	Ehu (red snapper)	212	817	3.86
	<i>Etelis coruscans</i>	Onaga (red snapper)	1,474	9,506	6.45
	<i>Pristipomoides auricilla</i>	Kalikali (yellowtail)	202	545	2.70
	<i>Pristipomoides filamentosus</i>	Opakapaka (pink snapper)	197	727	3.69
	<i>Pristipomoides zonatus</i>	Gindai (flower snapper)	43	182	4.21
	<b>Mullidae (goatfishes)</b>				
	Mullidae ( <i>unspecified</i> )	Goatfishes	307	957	3.12
	<b>Scaridae (parrotfishes)</b>				
	Scaridae ( <i>unspecified</i> )	Parrotfishes	702	2,167	3.09
	<b>Serranidae (groupers)</b>				
	Serranidae ( <i>unspecified</i> )	Groupers	26	144	5.50
	<b>Siganidae (rabbitfishes)</b>				
	<i>Siganidae (unspecified)</i>	Rabbitfishes	278	941	3.39

**Table B-8**  
**CNMI July 2014 Estimated Commercial Landings**

<b>Group</b>	<b>Subgroup</b>		<b>Lbs Sold</b>	<b>Estimated Value</b>	<b>Price/ Lb</b>
	<b>Scientific Name</b>	<b>Common/local name</b>			
<b>Other fishes (continued)</b>					
<b>Unspecified Fish Groups</b>					
	Carangidae, Lutjanidae,	Bottomfishes (unspecified)	435	1,492	3.43
	Unknown	Pelagic fishes (unspecified)	103	267	2.59
	Various (many) families	Reef fishes (unspecified)	2,953	7,574	2.56
<b>Miscellaneous Seafood (insufficient information)</b>					
	Unknown fish/invertebrates	Unknown	226	665	2.94
<b>INVERTEBRATES:</b>					
<b>Mollusks</b>					
	<i>Cephalopoda: Coleoidea,</i> <i>Decapodiformes</i>	Squid	2	8	4.99
<b>Invertebrates (unspecified)</b>					
	Unknown	Invertebrates (unspecified)	43	375	8.71
<b>Total</b>			<b>28,608</b>	<b>\$75,615</b>	<b>\$2.64</b>

**Table B-9**  
**CNMI August 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs	Estimated	Price/
	Scientific Name	Common/local name	Sold	Value	Lb
<b>FISHES:</b>					
	<b>Scombridae</b>				
	<b>Tunas</b>				
	<i>Euthynnus affinis</i>	Kawakawa (saba)	37	92	2.50
	<i>Katsuwonus pelamis</i>	Skipjack tuna	19,432	44,136	2.27
	<i>Thunnus albacares</i>	Yellowfin tuna	1,705	4,452	2.61
	<b>Other scombrids</b>				
	<i>Acanthocybium solandri</i>	Wahoo	72	197	2.72
	<i>Gymnosarda unicolor</i>	Dogtooth tuna	681	1,702	2.50
	<b>Other fishes</b>				
	<b>Acanthuridae</b> (Tangs, Surgeons, Unicornfishes)				
	<i>Acanthurus, Ctenochaetus</i> spp.	Surgeonfishes (unspecified)	48	155	3.25
	<b>Carangidae</b> (jacks & trevallies)				
	<i>Seriola dumerili</i>	Greater amberjack	40	80	2.00
	<i>Elagatis bipinnulata</i>	Rainbow runner	108	302	2.78
	<b>Coryphaenidae</b> (mahimahi/dolphinfish)				
	<i>Coryphaena hippurus, C.</i>	Mahimahi	9	18	2.00
	<b>Holocentridae</b> (squirrel & soldierfishes)				
	<i>Sargocentron, Neoniphon</i> spp.	Squirrelfishes	97	315	3.25
	<b>Labridae</b> (wrasses)				
	Labridae ( <i>unspecified</i> )	Wrasses	31	100	3.25
	<b>Lethrinidae</b> (emperors)				
	Lethrinidae ( <i>unspecified</i> )	Emperors	500	1,678	3.36
	<b>Lutjanidae</b> (snappers)				
	<i>Aphareus furca</i>	Smalltooth jobfish	48	179	3.75
	<i>Aprion virescens</i>	Jobfish (uku)	211	685	3.25
	<i>Etelis carbunculus</i>	Ehu (red snapper)	37	148	4.00
	<i>Etelis coruscans</i>	Onaga (red snapper)	232	1,510	6.50
	<i>Pristipomoides auricilla</i>	Kalikali (yellowtail)	233	874	3.75
	<i>Pristipomoides filamentosus</i>	Opakapaka (pink snapper)	373	1,492	4.00
	<i>Pristipomoides zonatus</i>	Gindai (flower snapper)	126	599	4.75
	<b>Mullidae</b> (goatfishes)				
	Mullidae ( <i>unspecified</i> )	Goatfishes	185	600	3.25
	<b>Scaridae</b> (parrotfishes)				
	Scaridae ( <i>unspecified</i> )	Parrotfishes	2,388	7,739	3.24
	<b>Serranidae</b> (groupers)				
	Serranidae ( <i>unspecified</i> )	Groupers	157	863	5.50
	<b>Siganidae</b> (rabbitfishes)				
	Siganidae ( <i>unspecified</i> )	Rabbitfishes	150	488	3.09
	<b>Unspecified Fish Groups</b>				
	Carangidae, Lutjanidae,	Bottomfishes (unspecified)	1,209	4,232	3.50
	Various (many) families	Reef fishes (unspecified)	2,746	7,127	2.60

**Table B-9**  
**CNMI August 2014 Estimated Commercial Landings**

<b>Group</b>				
<b>Subgroup</b>				
<b>Scientific Name</b>	<b>Common/local name</b>	<b>Lbs Sold</b>	<b>Estimated Value</b>	<b>Price/Lb</b>
<b>Miscellaneous Seafood</b> ( <i>insufficient information</i> )				
Unknown fish/invertebrates	Unknown	185	571	3.09
<b>INVERTEBRATES:</b>				
<b>Invertebrates (unspecified)</b>				
Unknown	Invertebrates (unspecified)	1,612	14,660	9.09
<b>Total</b>		<b>32,652</b>	<b>\$94,994</b>	<b>\$2.91</b>

**Table B-10**  
**CNMI September 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs Sold	Estimated Value	Price/Lb
Scientific Name	Common/local name				
<b>FISHES:</b>					
<b>Scombridae</b>					
<b>Tunas</b>					
<i>Katsuwonus pelamis</i>	Skipjack tuna		12,489	27,797	2.23
<i>Thunnus albacares</i>	Yellowfin tuna		240	648	2.70
<b>Other scombrids</b>					
<i>Acanthocybium solandri</i>	Wahoo		30	74	2.46
<b>Billfishes</b>					
<b>Istiophoridae</b>					
<i>Makaira mazara</i>	Blue marlin		449	898	2.00
<b>Other fishes</b>					
<b>Carangidae</b> (jacks & trevallies)					
<i>Elagatis bipinnulata</i>	Rainbow runner		77	154	2.00
<b>Coryphaenidae</b> (mahimahi/dolphinfish)					
<i>Coryphaena hippurus</i> , <i>C.</i>	Mahimahi		150	338	2.25
<b>Holocentridae</b> (squirrel & soldierfishes)					
<i>Sargocentron</i> spp., <i>Neoniphon</i> spp.	Squirrelfishes		51	165	3.25
<b>Labridae</b> (wrasses)					
Labridae ( <i>unspecified</i> )	Wrasses		46	138	3.00
<b>Lutjanidae</b> (snappers)					
<i>Aphareus furca</i>	Smalltooth jobfish		200	750	3.75
<i>Aprion virescens</i>	Jobfish (uku)		21	68	3.25
<i>Pristipomoides filamentosus</i>	Opakapaka (pink snapper)		93	372	4.00
<b>Mullidae</b> (goatfishes)					
Mullidae ( <i>unspecified</i> )	Goatfishes		545	1,428	2.62
<b>Scaridae</b> (parrotfishes)					
Scaridae ( <i>unspecified</i> )	Parrotfishes		540	1,734	3.21
<b>Serranidae</b> (groupers)					
Serranidae ( <i>unspecified</i> )	Groupers		42	125	3.00
<b>Siganidae</b> (rabbitfishes)					
<i>Siganidae</i> ( <i>unspecified</i> )	Rabbitfishes		212	780	3.69
<b>Unspecified Fish Groups</b>					
Carangidae, Lutjanidae,	Bottomfishes ( <i>unspecified</i> )		334	1,168	3.50
Various (many) families	Reef fishes ( <i>unspecified</i> )		1,442	3,679	2.55
<b>Miscellaneous Seafood</b> ( <i>insufficient information</i> )					
Unknown fish/invertebrates	Unknown		249	723	2.90
<b>INVERTEBRATES:</b>					
<b>Crustaceans: Lobsters</b>					
<i>Panulirus</i> spp. (any of several)	Spiny lobster		365	4,202	11.50
<b>Total</b>			<b>17,575</b>	<b>\$45,241</b>	<b>\$2.57</b>



**Table B-11**  
**CNMI October 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs	Estimated	Price/
	Scientific Name	Common/local name	Sold	Value	Lb
<b>FISHES:</b>					
	<b>Scombridae</b>				
	<b>Tunas</b>				
	<i>Euthynnus affinis</i>	Kawakawa (saba)	105	209	2.00
	<i>Katsuwonus pelamis</i>	Skipjack tuna	17,505	41,432	2.37
	<i>Thunnus albacares</i>	Yellowfin tuna	995	2,303	2.32
	<b>Other scombrids</b>				
	<i>Acanthocybium solandri</i>	Wahoo	30	91	3.00
	<i>Gymnosarda unicolor</i>	Dogtooth tuna	300	750	2.50
	<b>Other fishes</b>				
	<b>Acanthuridae</b> (Tangs, Surgeons, Unicornfishes)				
	<i>Naso</i> spp.	Unicornfishes (unspecified)	143	465	3.25
	<b>Carangidae</b> (jacks & trevallies)				
	<i>Elagatis bipinnulata</i>	Rainbow runner	68	189	2.80
	<b>Coryphaenidae</b> (mahimahi/dolphinfish)				
	<i>Coryphaena hippurus</i> , <i>C.</i>	Mahimahi	388	1,087	2.80
	<b>Holocentridae</b> (squirrel & soldierfishes)				
	<i>Sargocentron</i> spp., <i>Neoniphon</i>	Squirrelfishes	77	250	3.25
	<b>Lethrinidae</b> (emperors)				
	Lethrinidae ( <i>unspecified</i> )	Emperors	89	301	3.37
	<b>Lutjanidae</b> (snappers)				
	<i>Aphareus furca</i>	Smalltooth jobfish	18	69	3.75
	<i>Aprion virescens</i>	Jobfish (uku)	1,088	3,538	3.25
	<i>Etelis carbunculus</i>	Ehu (red snapper)	25	102	4.00
	<i>Etelis coruscans</i>	Onaga (red snapper)	1,227	7,921	6.46
	<i>Pristipomoides filamentosus</i>	Opakapaka (pink snapper)	431	1,723	4.00
	<b>Mullidae</b> (goatfishes)				
	Mullidae ( <i>unspecified</i> )	Goatfishes	469	1,444	3.08
	<b>Scaridae</b> (parrotfishes)				
	Scaridae ( <i>unspecified</i> )	Parrotfishes	233	700	3.00
	<b>Unspecified Fish Groups</b>				
	Carangidae, Lutjanidae,	Bottomfishes (unspecified)	1,101	3,800	3.45
	Various (many) families	Reef fishes (unspecified)	342	856	2.50
	<b>Miscellaneous Seafood</b> ( <i>insufficient information</i> )				
	Unknown fish/invertebrates	Unknown	146	463	3.17
<b>Total</b>			<b>24,780</b>	<b>\$67,693</b>	<b>\$2.73</b>

**Table B-12**  
**CNMI November 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs Sold	Estimated Value	Price/Lb
	Scientific Name	Common/local name			
<b>FISHES:</b>					
<b>Scombridae</b>					
<b>Tunas</b>					
	<i>Euthynnus affinis</i>	Kawakawa (saba)	35	92	2.59
	<i>Katsuwonus pelamis</i>	Skipjack tuna	6,418	16,007	2.49
	<i>Thunnus albacares</i>	Yellowfin tuna	1,084	2,433	2.24
<b>Other scombrids</b>					
	<i>Acanthocybium solandri</i>	Wahoo	177	527	2.98
<b>Other fishes</b>					
<b>Acanthuridae</b> (Tangs, Surgeons, Unicornfishes)					
	<i>Naso</i> spp.	Unicornfishes (unspecified)	77	250	3.25
<b>Carangidae</b> (jacks & trevallies)					
	<i>Seriola dumerili</i>	Greater amberjack	35	71	2.00
	<i>Elagatis bipinnulata</i>	Rainbow runner	37	110	3.00
<b>Coryphaenidae</b> (mahimahi/dolphinfish)					
	<i>Coryphaena hippurus</i> , <i>C. equiselis</i>	Mahimahi	835	2,247	2.69
<b>Holocentridae</b> (squirrel & soldierfishes)					
	<i>Sargocentron</i> , <i>Neonippon</i> spp.	Squirrelfishes	35	115	3.25
<b>Lethrinidae</b> (emperors)					
	<i>Lethrinidae (unspecified)</i>	Emperors	43	151	3.50
<b>Lutjanidae</b> (snappers)					
	<i>Aphareus furca</i>	Smalltooth jobfish	142	534	3.75
	<i>Aprion virescens</i>	Jobfish (uku)	287	970	3.38
	<i>Etelis carbunculus</i>	Ehu (red snapper)	74	295	4.00
	<i>Etelis coruscans</i>	Onaga (red snapper)	1,768	11,264	6.37
	<i>Pristipomoides auricilla</i>	Kalikali (yellowtail)	22	81	3.75
	<i>Pristipomoides filamentosus</i>	Opakapaka (pink snapper)	220	880	4.00
<b>Mullidae</b> (goatfishes)					
	<i>Mullidae (unspecified)</i>	Goatfishes	329	955	2.90
<b>Scaridae</b> (parrotfishes)					
	<i>Scaridae (unspecified)</i>	Parrotfishes	193	586	3.04
<b>Serranidae</b> (groupers)					
	<i>Serranidae (unspecified)</i>	Groupers	11	59	5.50
<b>Siganidae</b> (rabbitfishes)					
	<i>Siganidae (unspecified)</i>	Rabbitfishes	66	215	3.25
<b>Unspecified Fish Groups</b>					
	Carangidae, Lutjanidae,	Bottomfishes (unspecified)	642	2,248	3.50
	Various (many) families	Reef fishes (unspecified)	935	2,606	2.79

**Table B-12**  
**CNMI November 2014 Estimated Commercial Landings**

<b>Group</b>	<b>Subgroup</b>		<b>Lbs</b>	<b>Estimated</b>	<b>Price/</b>
	<b>Scientific Name</b>	<b>Common/local name</b>	<b>Sold</b>	<b>Value</b>	<b>Lb</b>
	<b>Miscellaneous Seafood</b> ( <i>insufficient information</i> )				
	Unknown fish/invertebrates	Unknown	167	488	2.92
		<b>Total</b>	<b>13,632</b>	<b>\$43,184</b>	<b>\$3.17</b>

**Table B-13**  
**CNMI December 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs Sold	Estimated Value	Price/Lb
	Scientific Name	Common/local name			
<b>FISHES:</b>					
	<b>Scombridae</b>				
	<b>Tunas</b>				
	<i>Katsuwonus pelamis</i>	Skipjack tuna	6,438	16,197	2.52
	<i>Thunnus albacares</i>	Yellowfin tuna	475	1,076	2.27
	<b>Other scombrids</b>				
	<i>Gymnosarda unicolor</i>	Dogtooth tuna	417	1,125	2.70
	<b>Other fishes</b>				
	<b>Acanthuridae</b> (Tangs, Surgeons, Unicornfishes)				
	<i>Naso</i> spp.	Unicornfishes (unspecified)	185	579	3.14
	<b>Coryphaenidae</b> (mahimahi/dolphinfish)				
	<i>Coryphaena hippurus</i> , <i>C.</i>	Mahimahi	1,095	2,777	2.53
	<b>Lethrinidae</b> (emperors)				
	<i>Lethrinidae (unspecified)</i>	Emperors	134	335	2.50
	<b>Lutjanidae</b> (snappers)				
	<i>Aphareus furca</i>	Smalltooth jobfish	615	2,305	3.75
	<i>Aprion virescens</i>	Jobfish (uku)	34	68	2.00
	<i>Etelis carbunculus</i>	Ehu (red snapper)	14	55	4.00
	<i>Etelis coruscans</i>	Onaga (red snapper)	2,439	15,491	6.35
	<i>Pristipomoides filamentosus</i>	Opakapaka (pink snapper)	114	455	4.00
	<i>Pristipomoides zonatus</i>	Gindai (flower snapper)	14	58	4.19
	<b>Mullidae</b> (goatfishes)				
	<i>Mullidae (unspecified)</i>	Goatfishes	466	1,280	2.75
	<b>Scaridae</b> (parrotfishes)				
	<i>Scaridae (unspecified)</i>	Parrotfishes	475	1,397	2.94
	<b>Siganidae</b> (rabbitfishes)				
	<i>Siganidae (unspecified)</i>	Rabbitfishes	215	650	3.03
	<b>Unspecified Fish Groups</b>				
	Carangidae, Lutjanidae, Lethrinidae & Serranidae	Bottomfishes (unspecified)	1,258	4,405	3.50
	Unknown	Pelagic fishes (unspecified)	35	88	2.50
	Various (many) families	Reef fishes (unspecified)	2,042	5,131	2.51
	<b>Miscellaneous Seafood</b> ( <i>insufficient information</i> )				
	Unknown fish/invertebrates	Miscellaneous (unspecified)	69	173	2.50
	Unknown fish/invertebrates	Unknown	269	725	2.69
<b>INVERTEBRATES:</b>					
	<b>Mollusks</b>				
	<i>Octopus</i> spp.	Octopus	2	6	3.99
<b>Total</b>			<b>16,805</b>	<b>\$54,376</b>	<b>\$3.24</b>

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

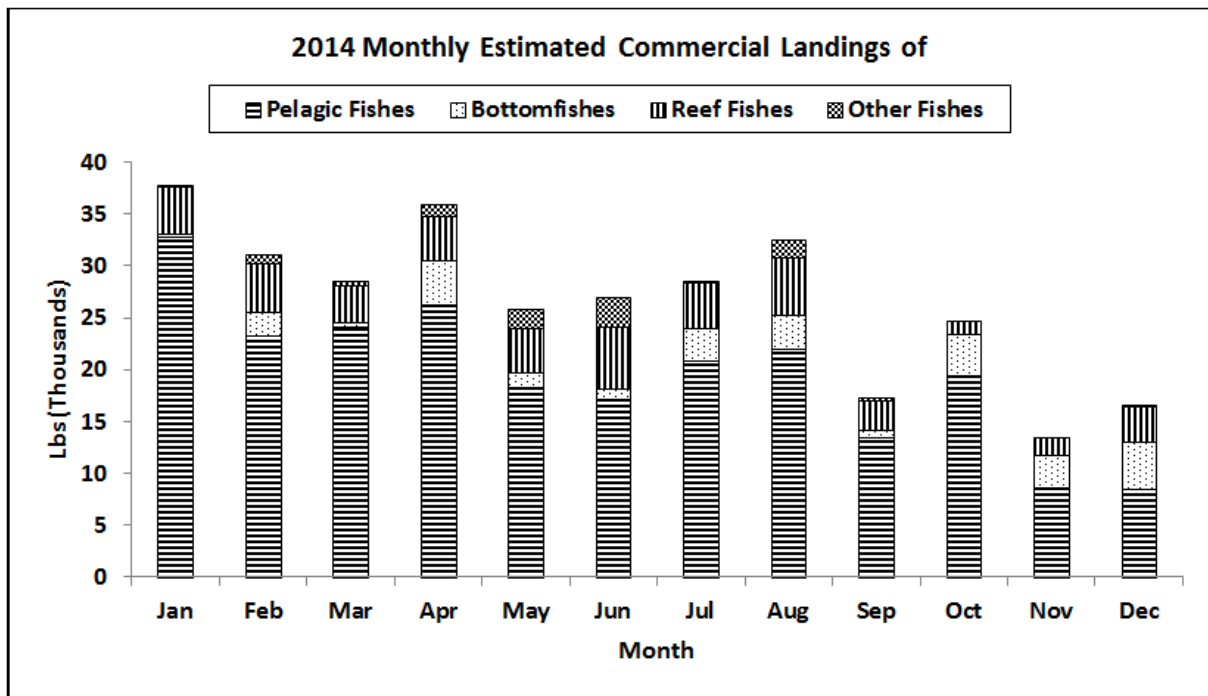


Figure B-1-1

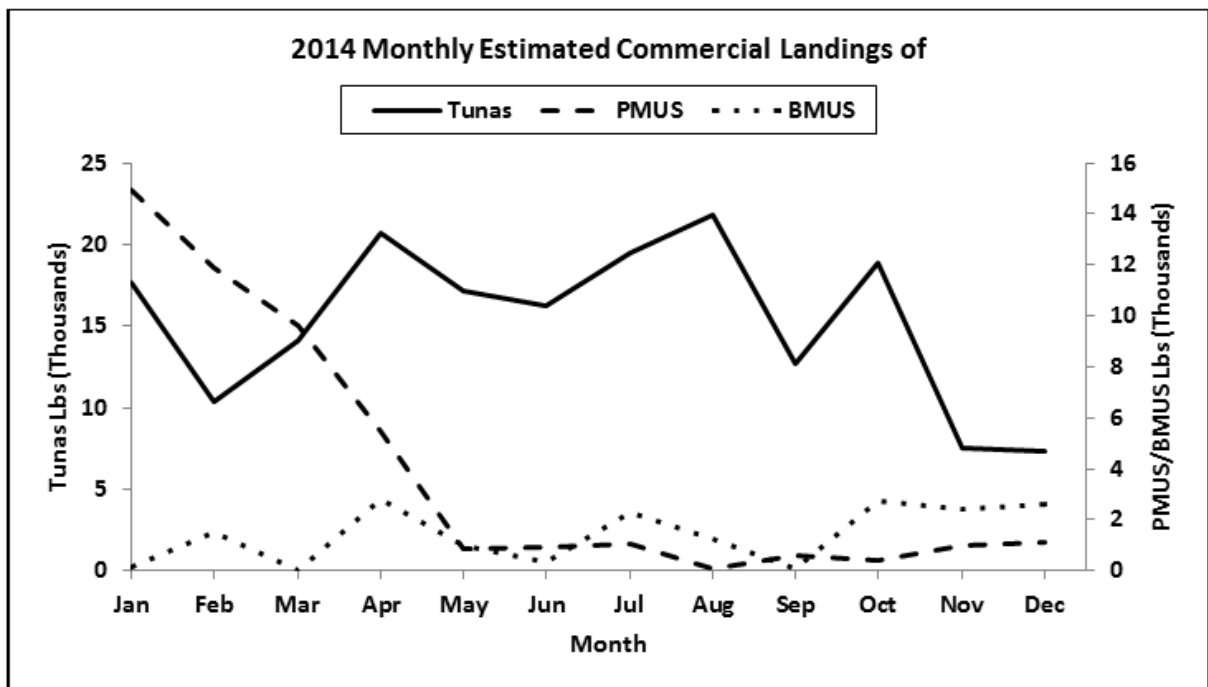


Figure B-1-2

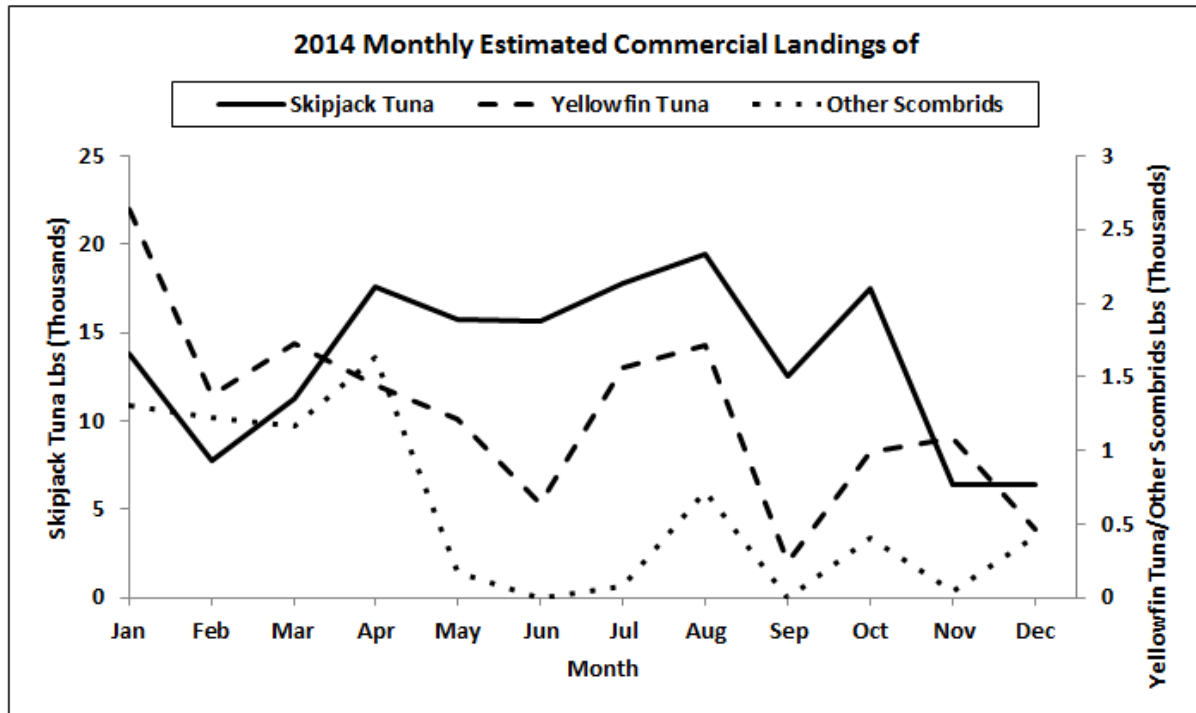


Figure B-1-3

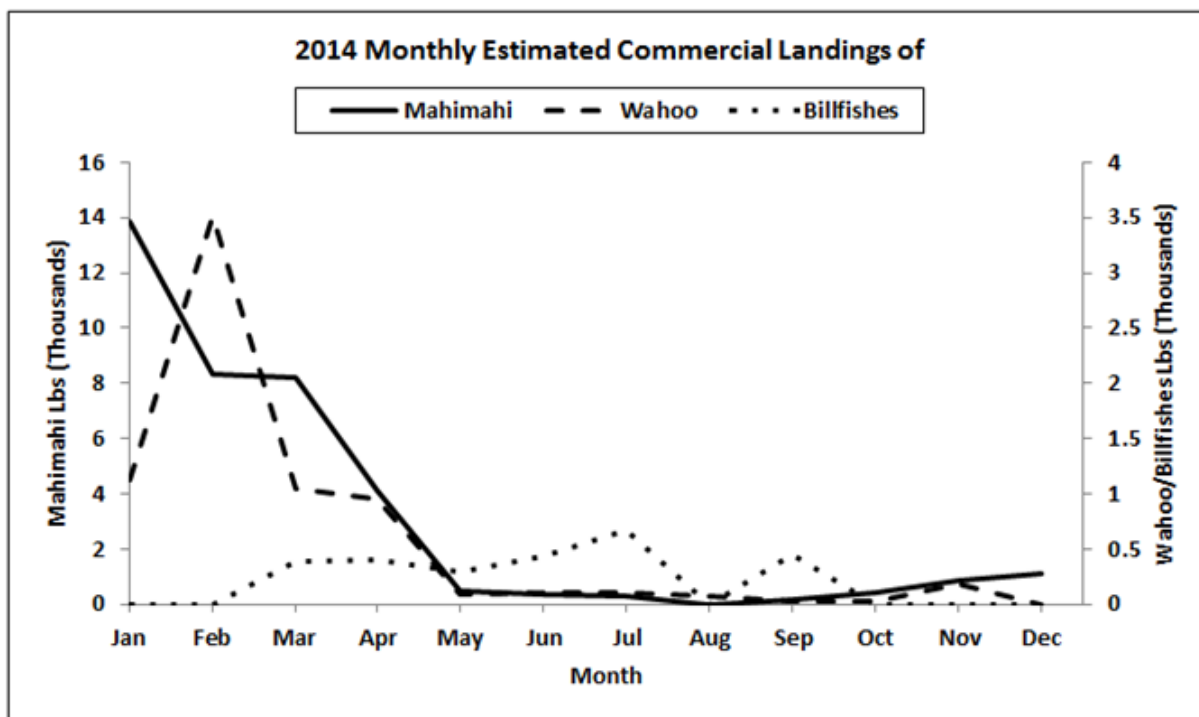


Figure B-1-4

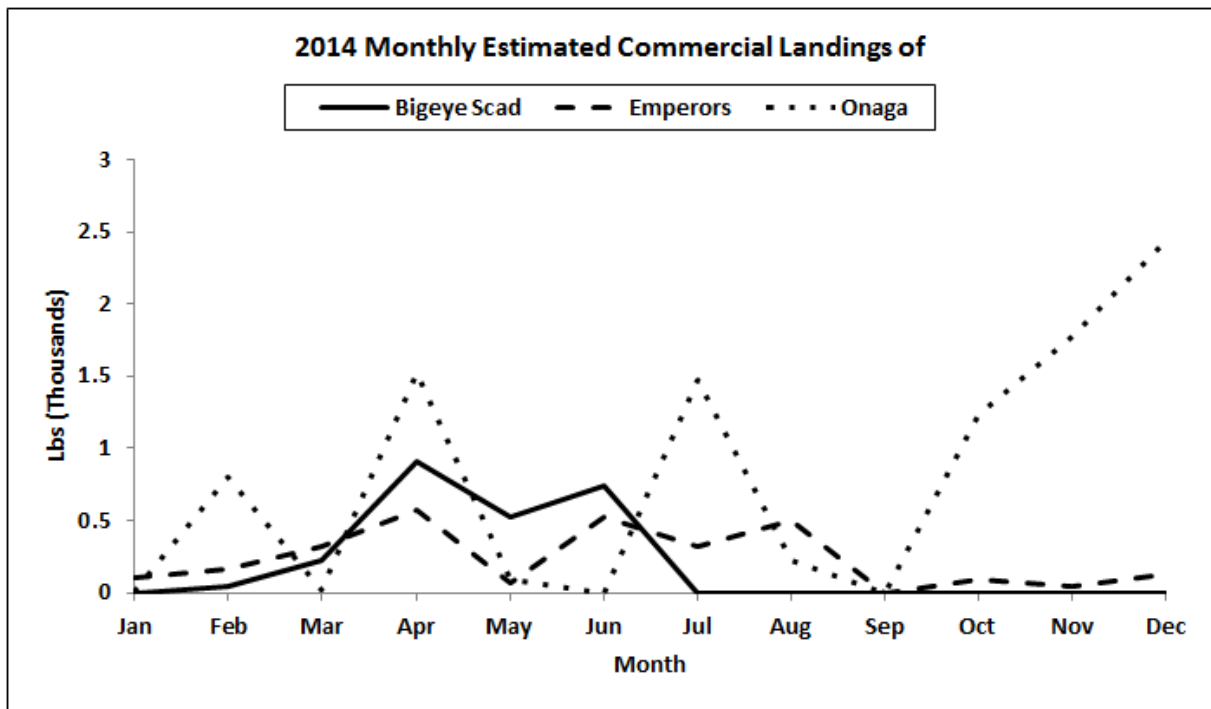


Figure B-1-5

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

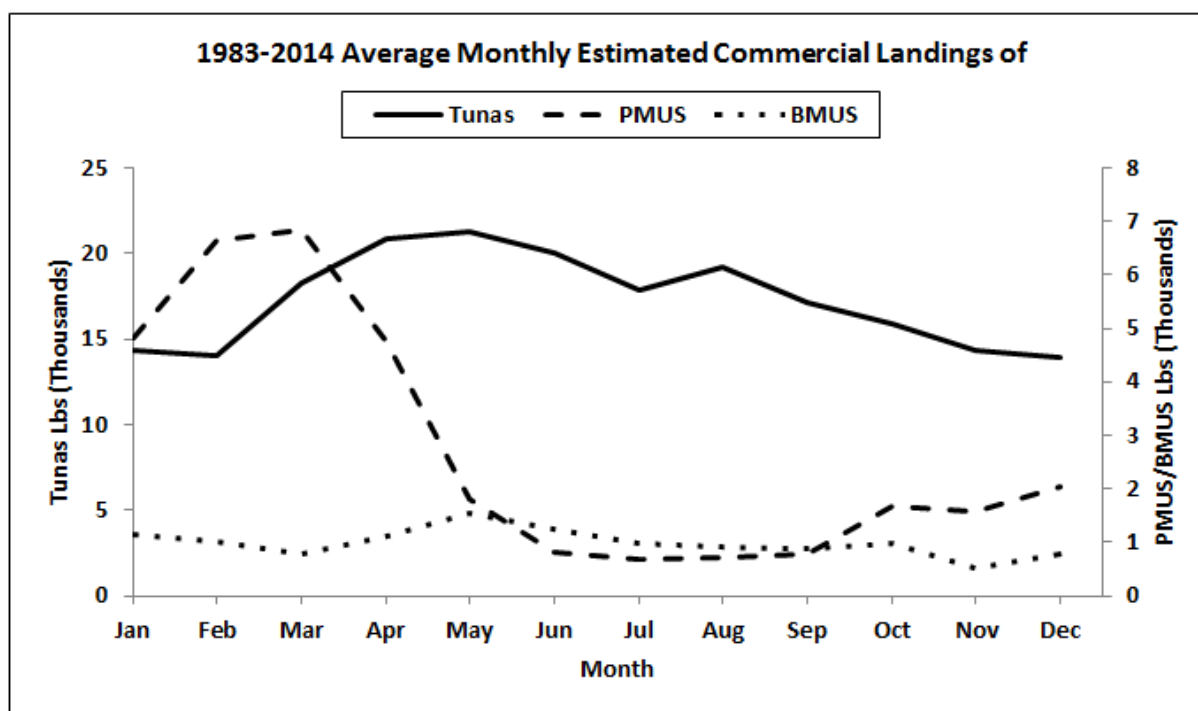


Figure B-2-1

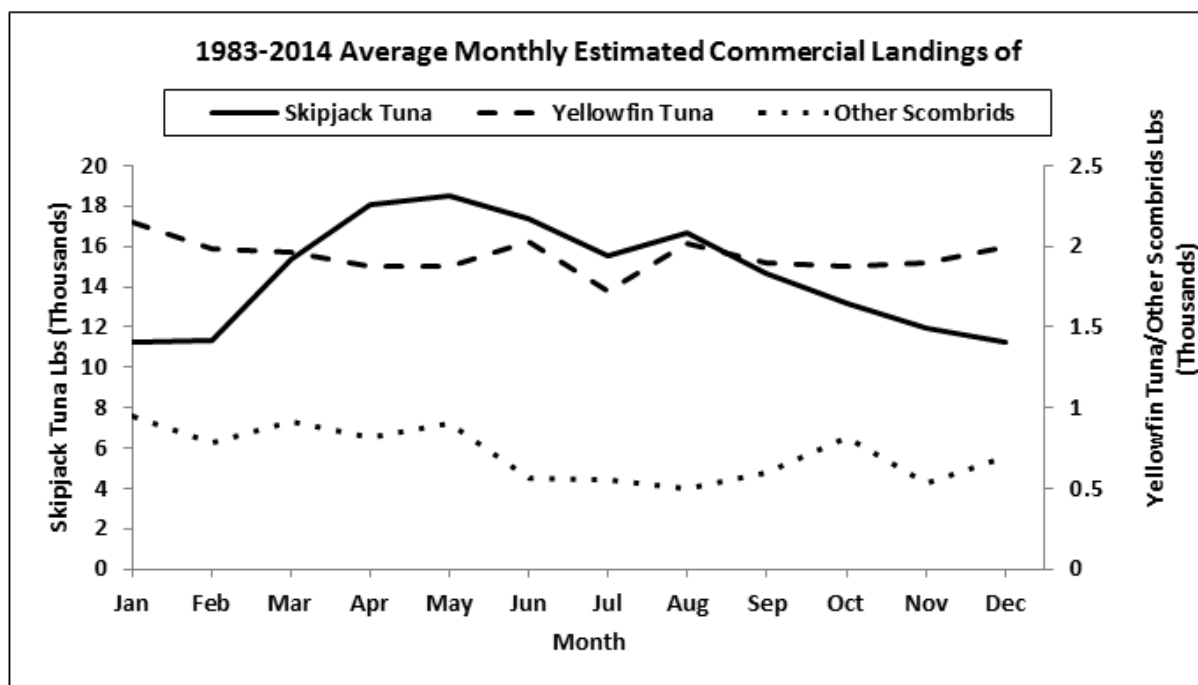


Figure B-2-2



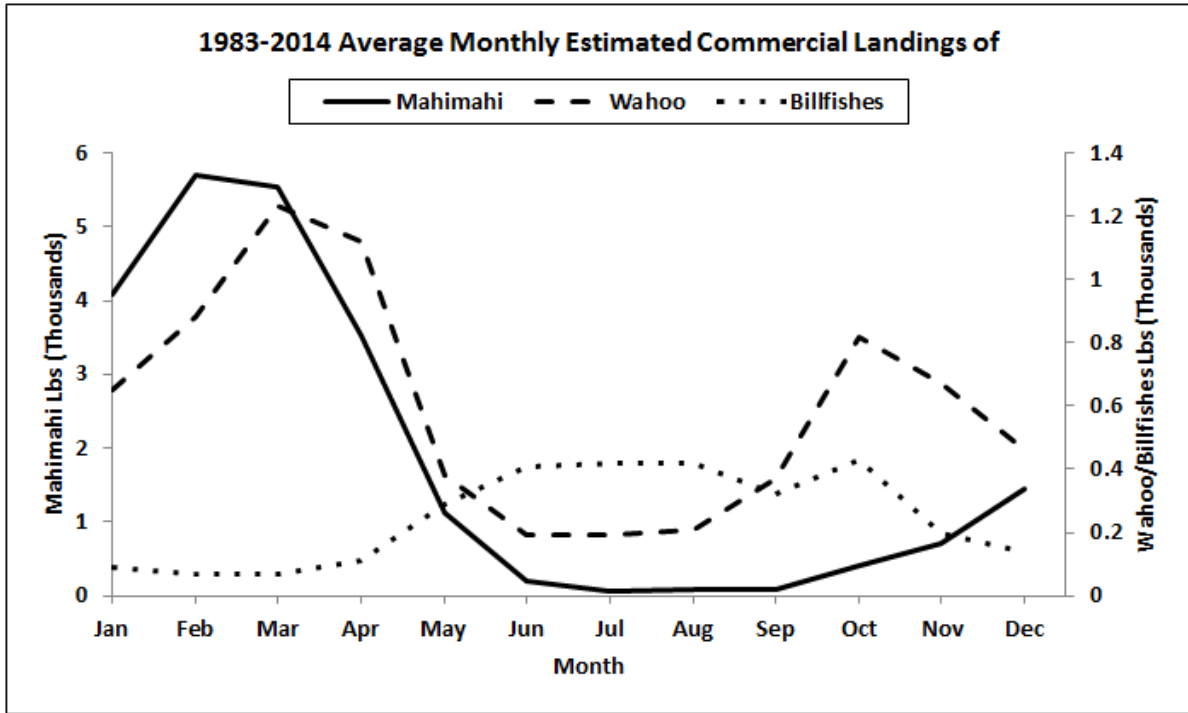


Figure B-2-3

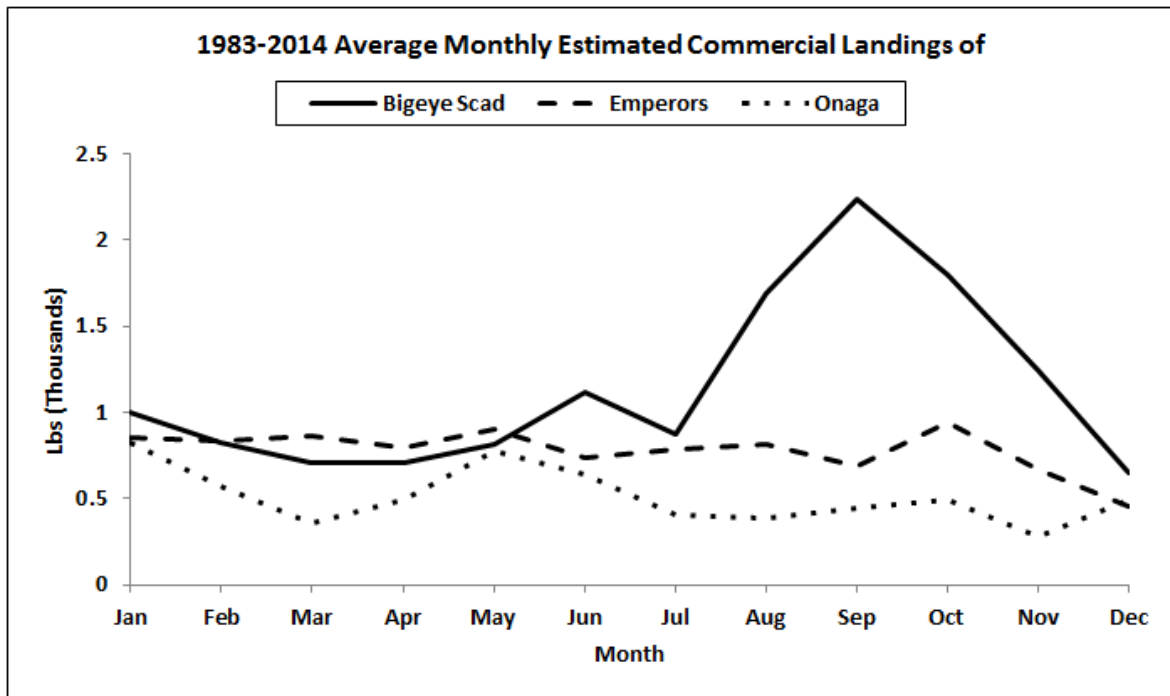


Figure B-2-4

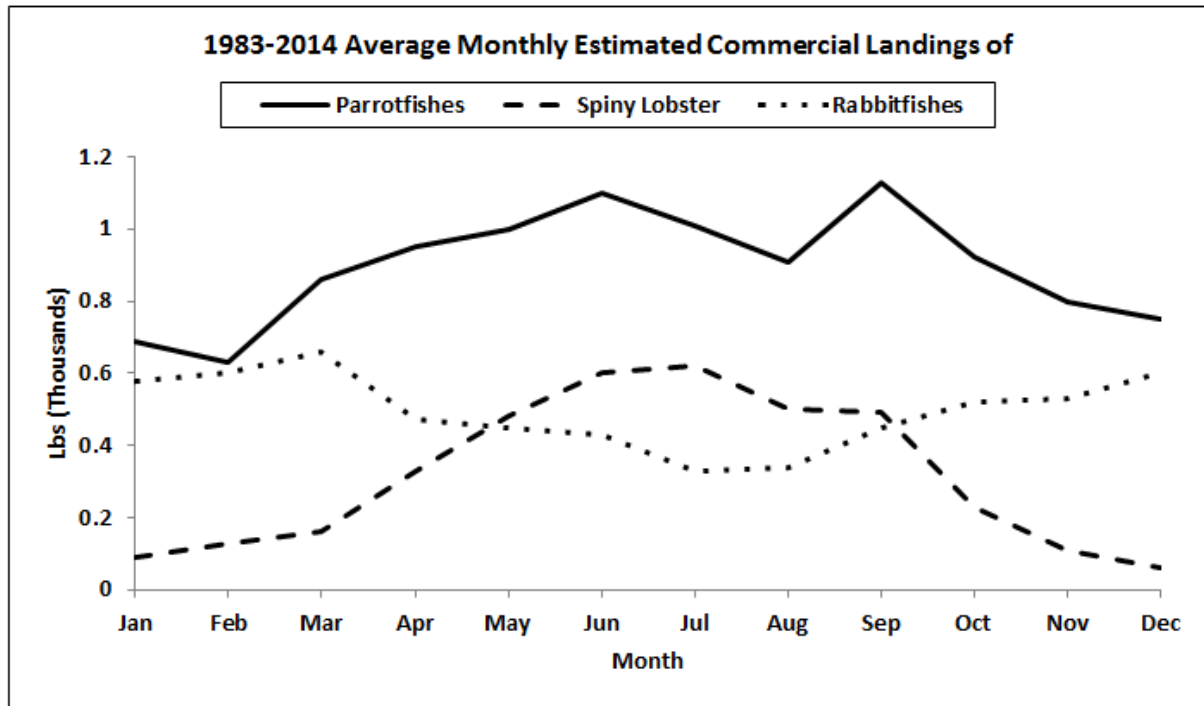


Figure B-2-5

The following graphs plot annual summary statistics to illustrate inter-annual variability:

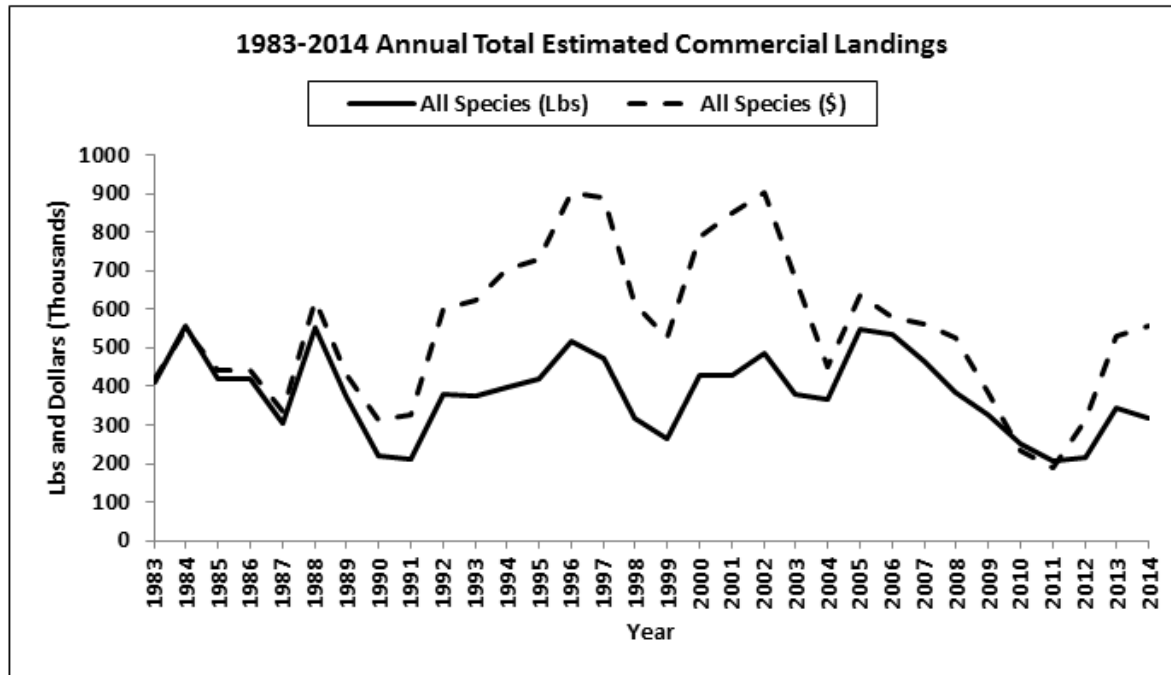


Figure B-3-1

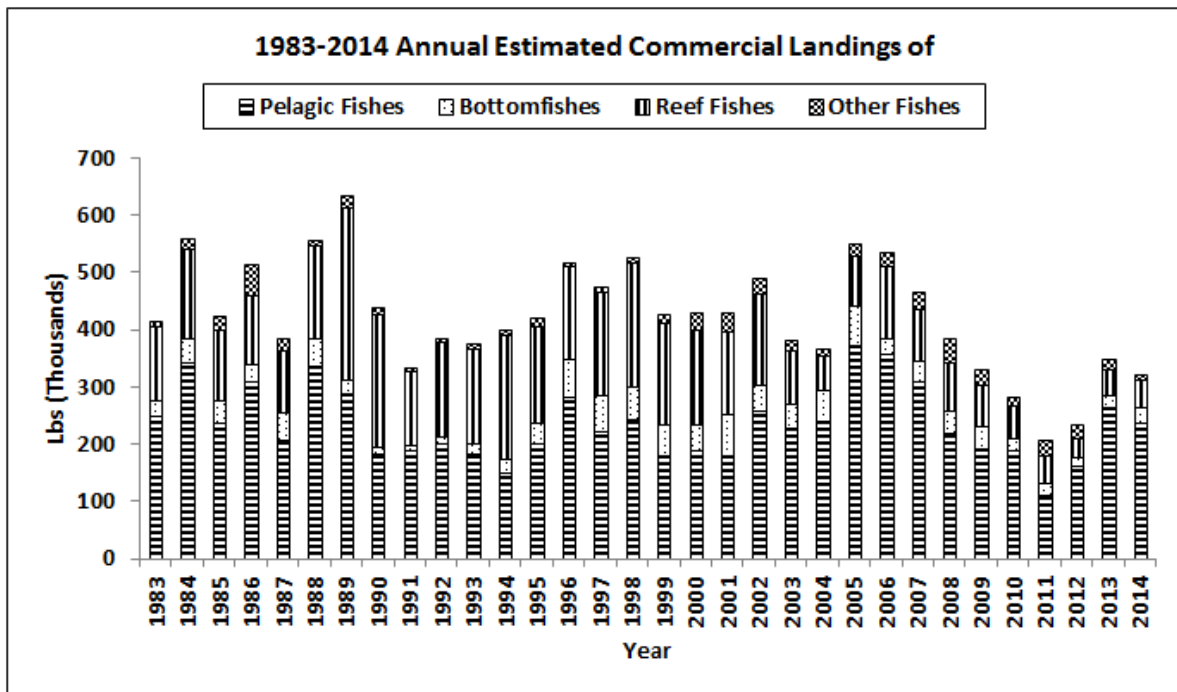


Figure B-3-2

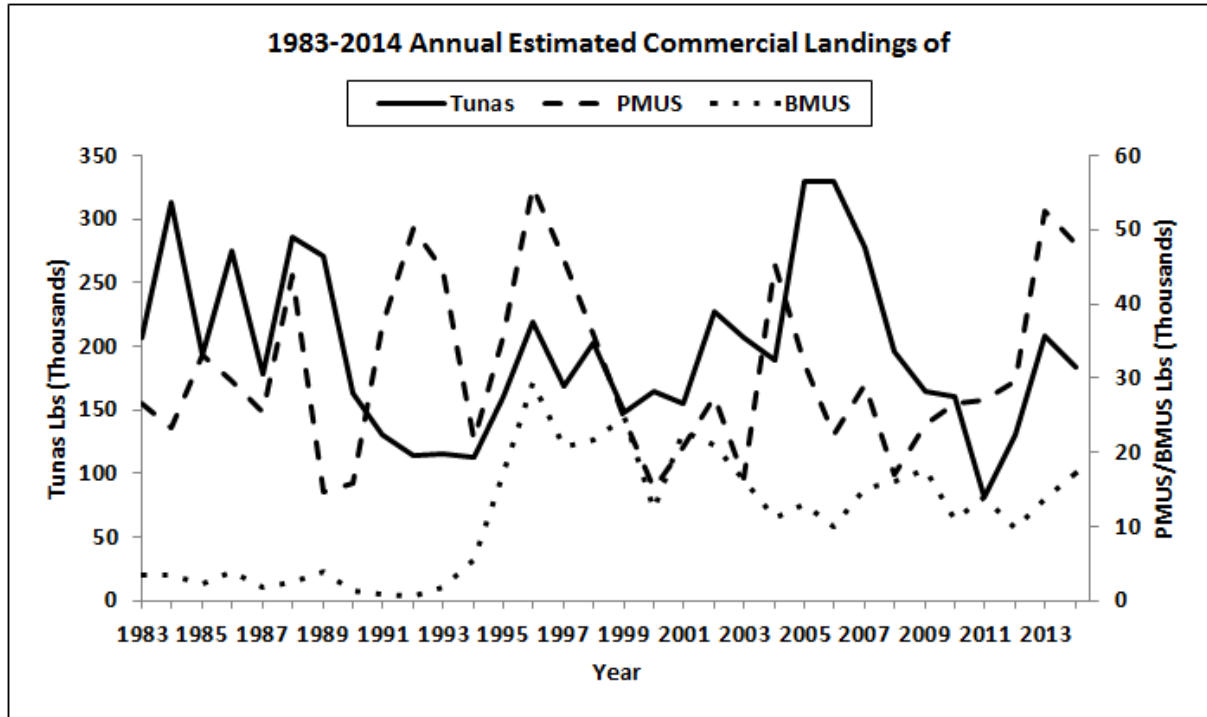


Figure B-3-3

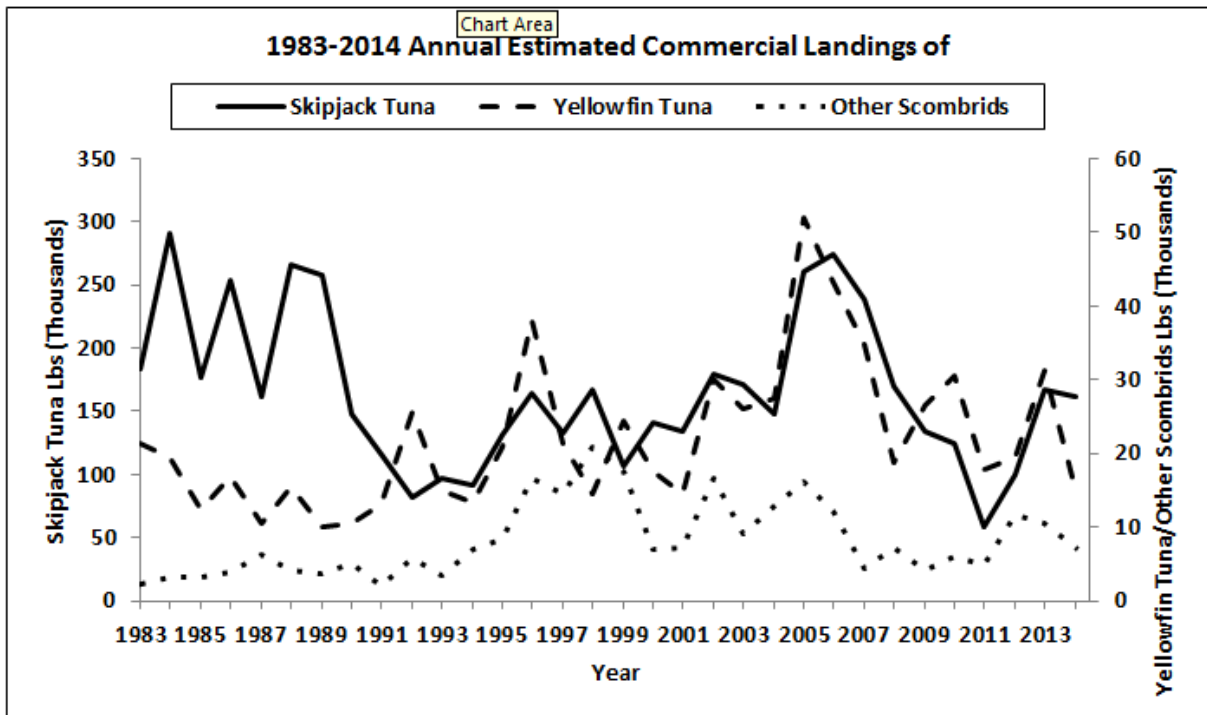


Figure B-3-4

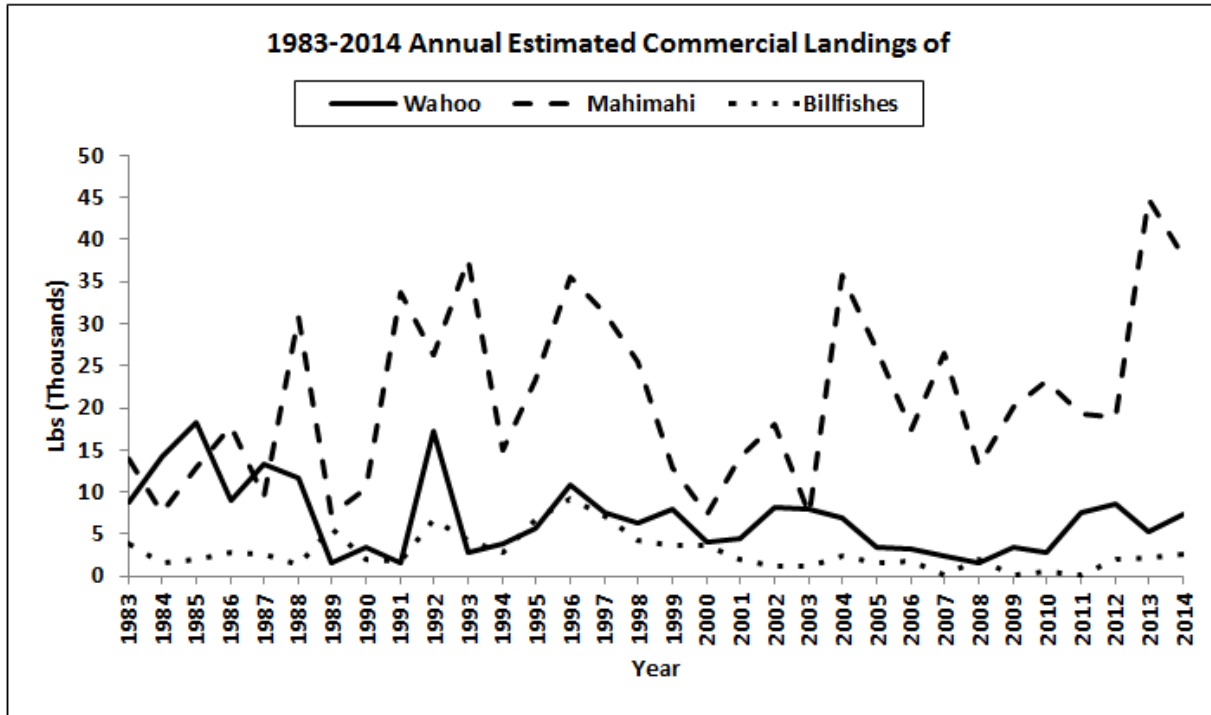


Figure B-3-5

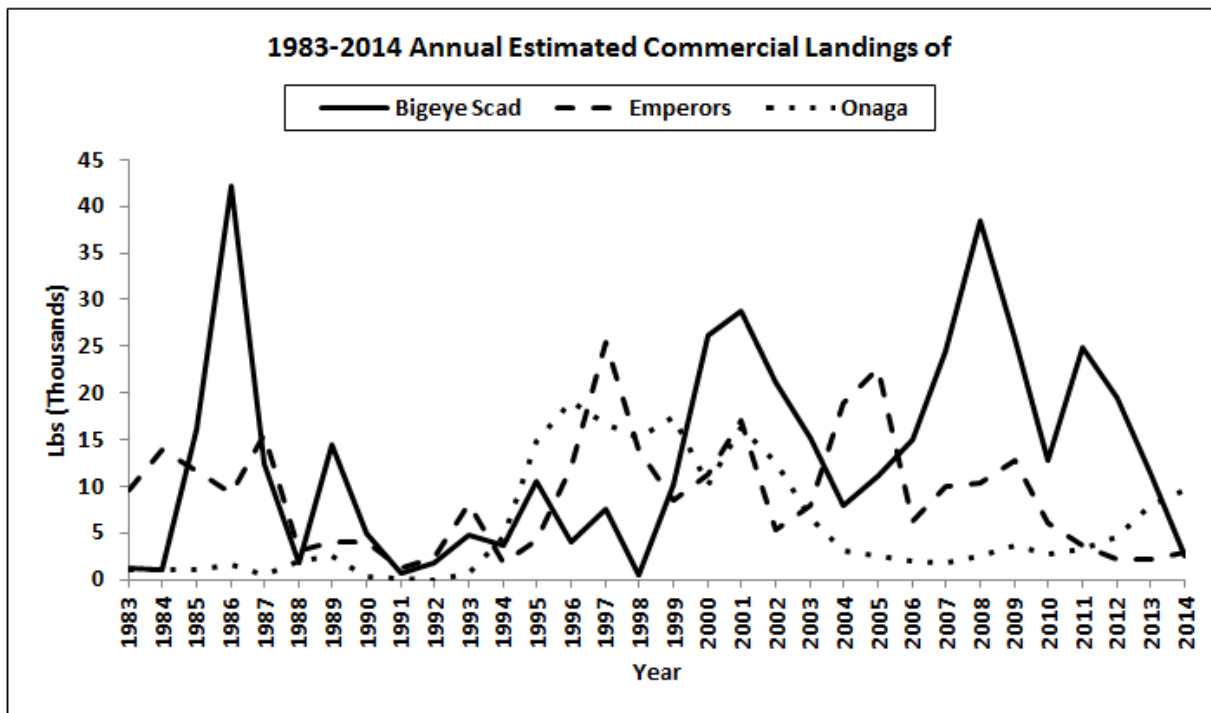


Figure B-3-6

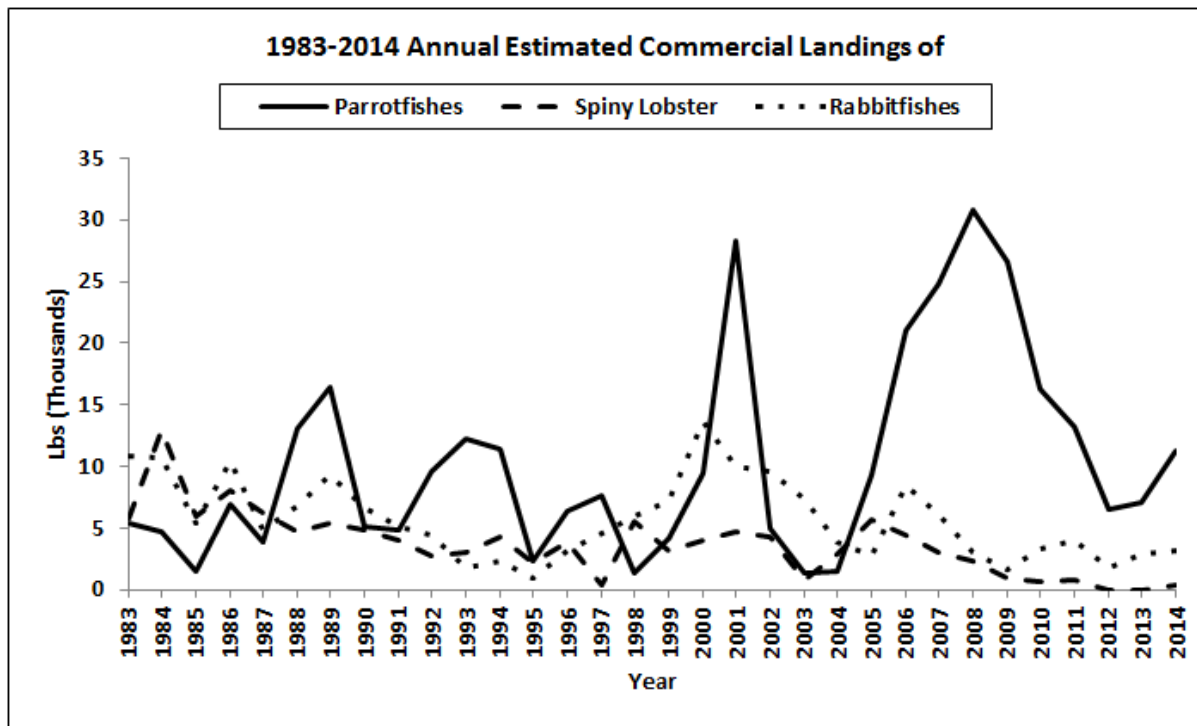


Figure B-3-7

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:

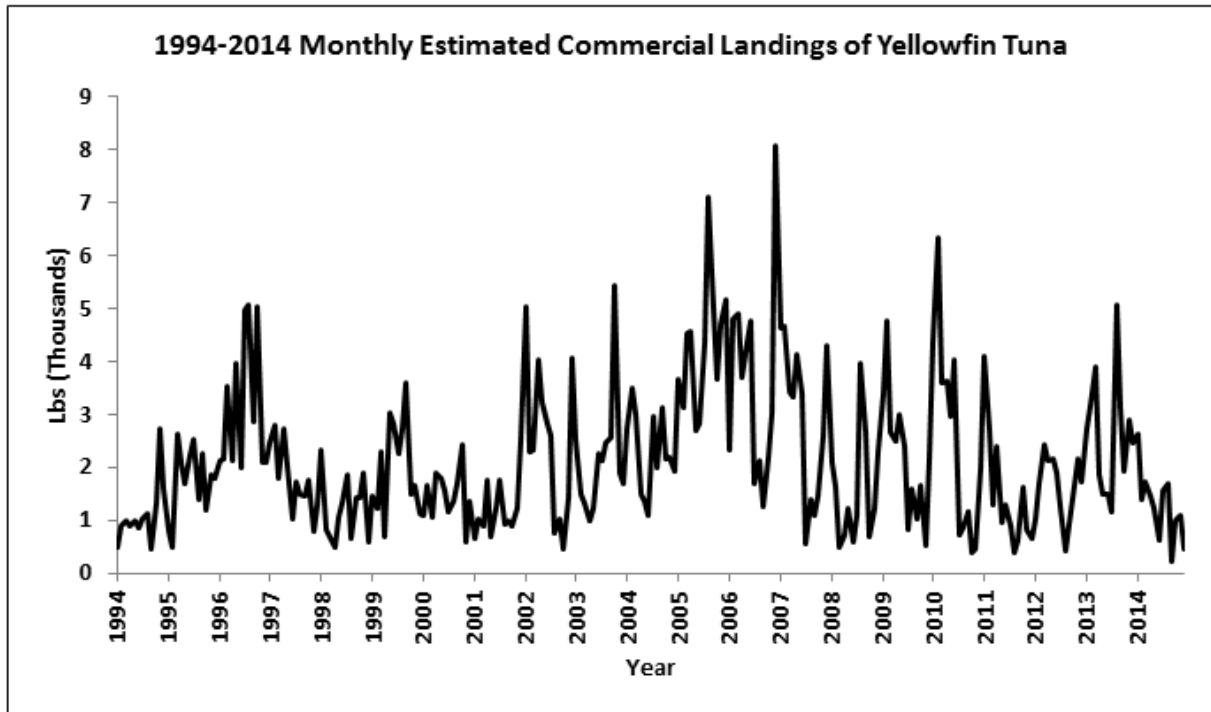


Figure B-4-1

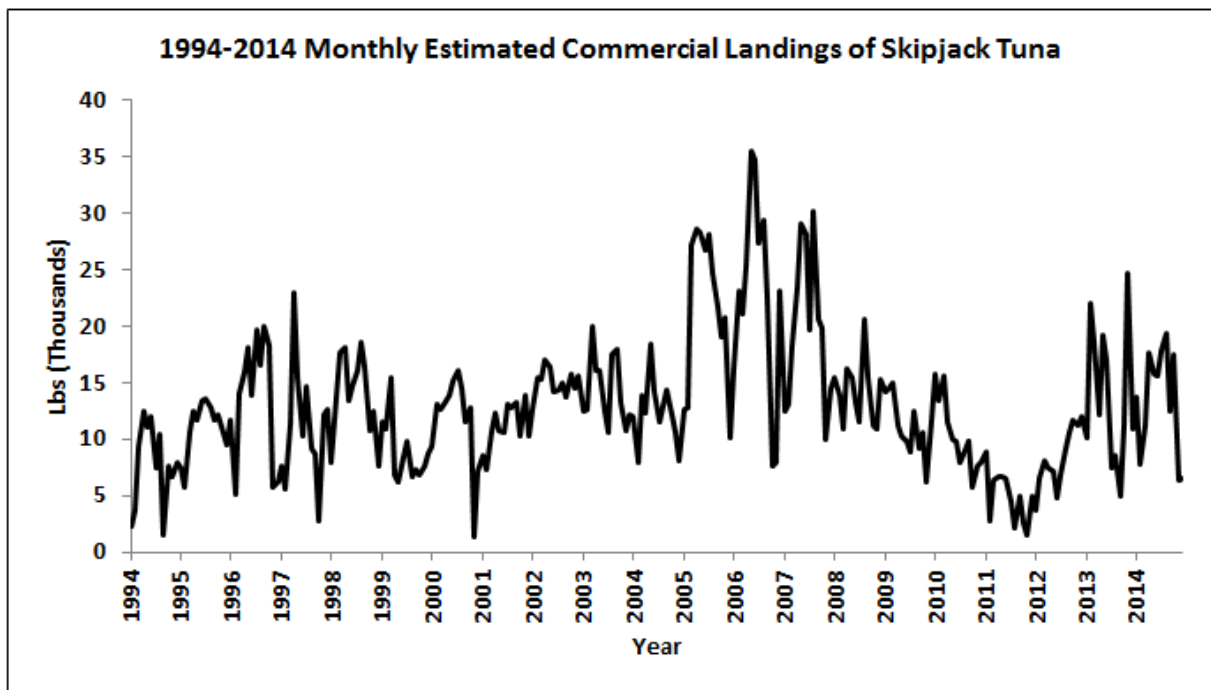


Figure B-4-2

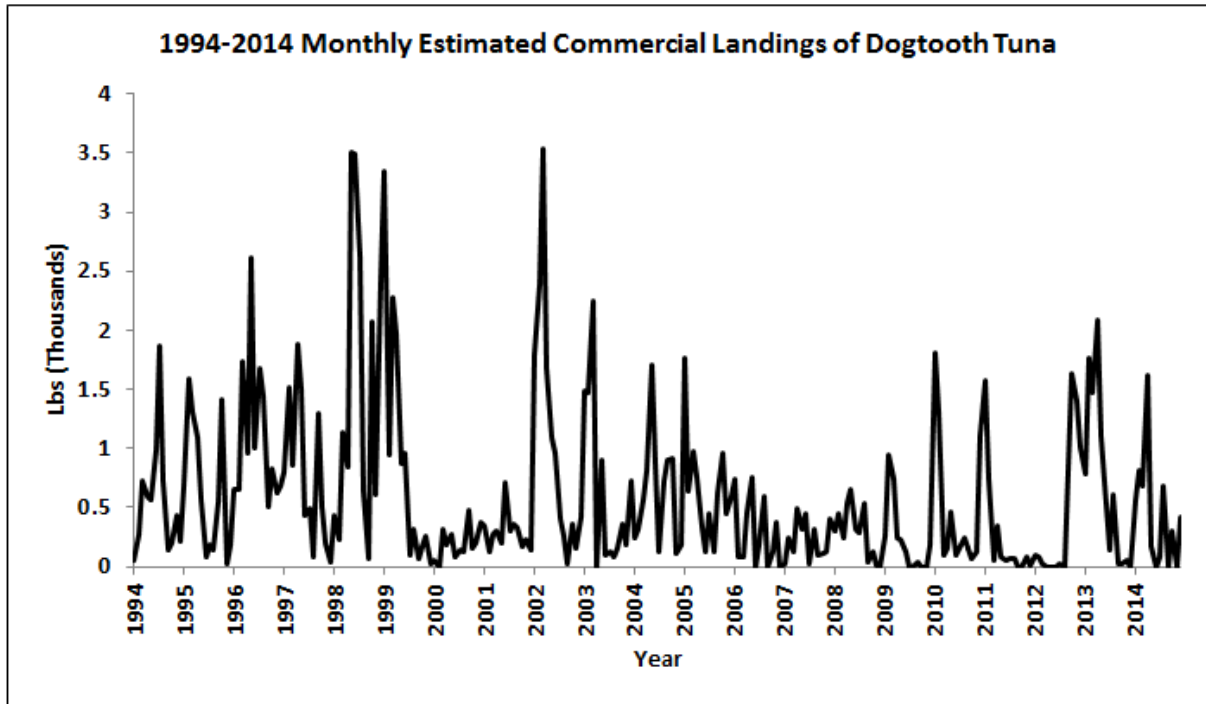


Figure B-4-3

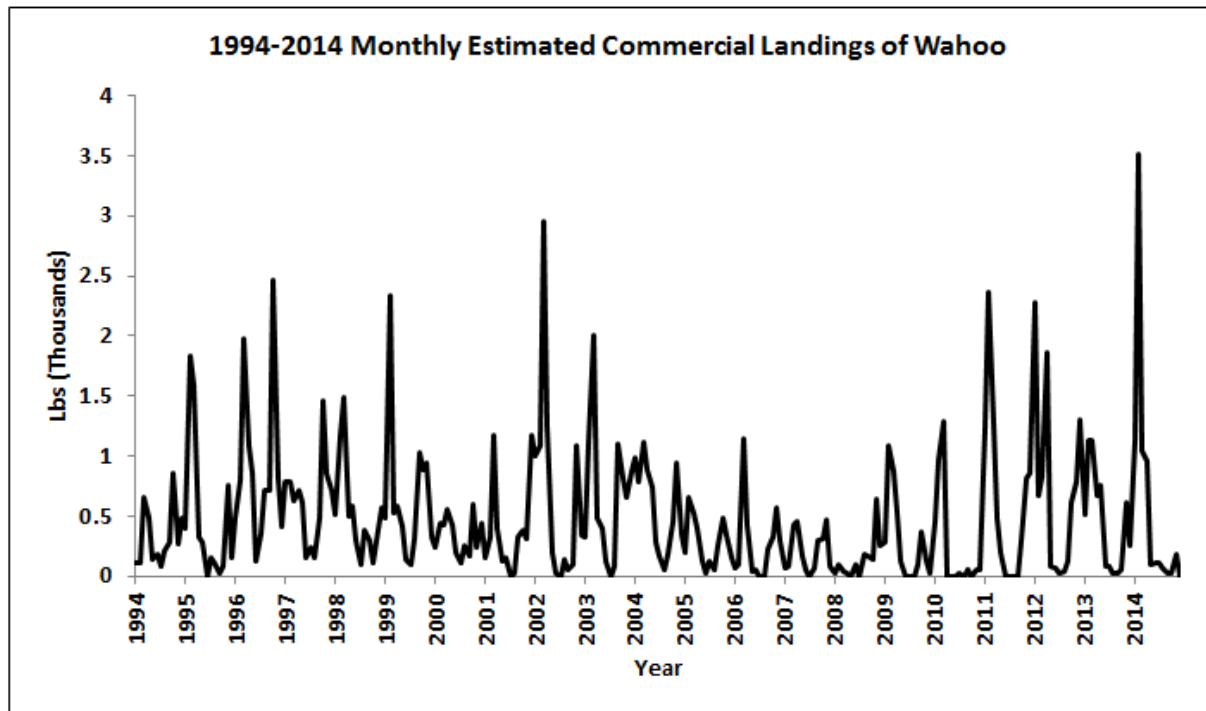


Figure B-4-4



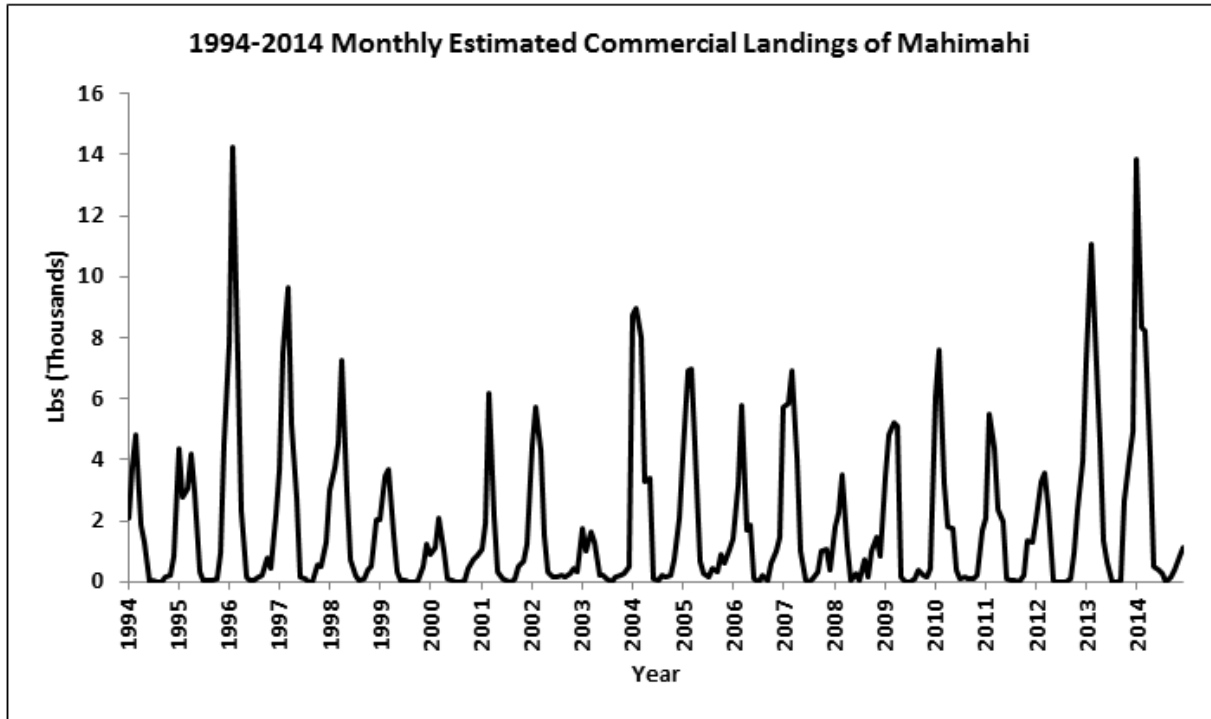


Figure B-4-5

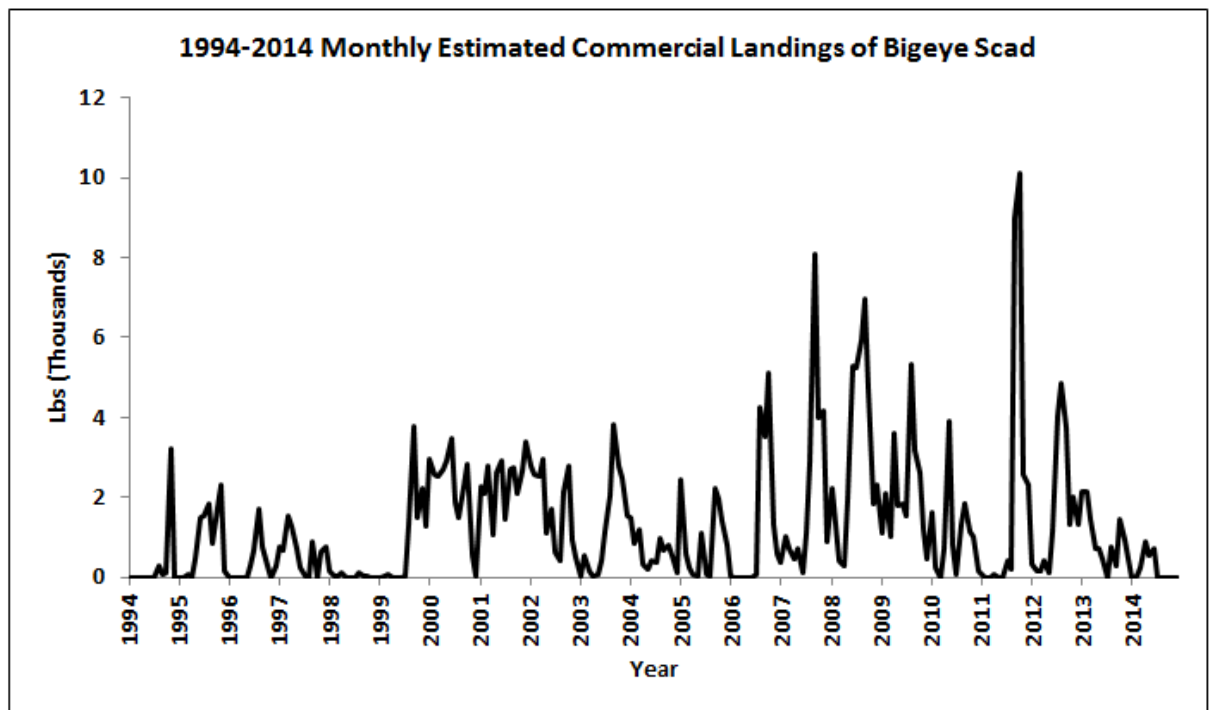


Figure B-4-6

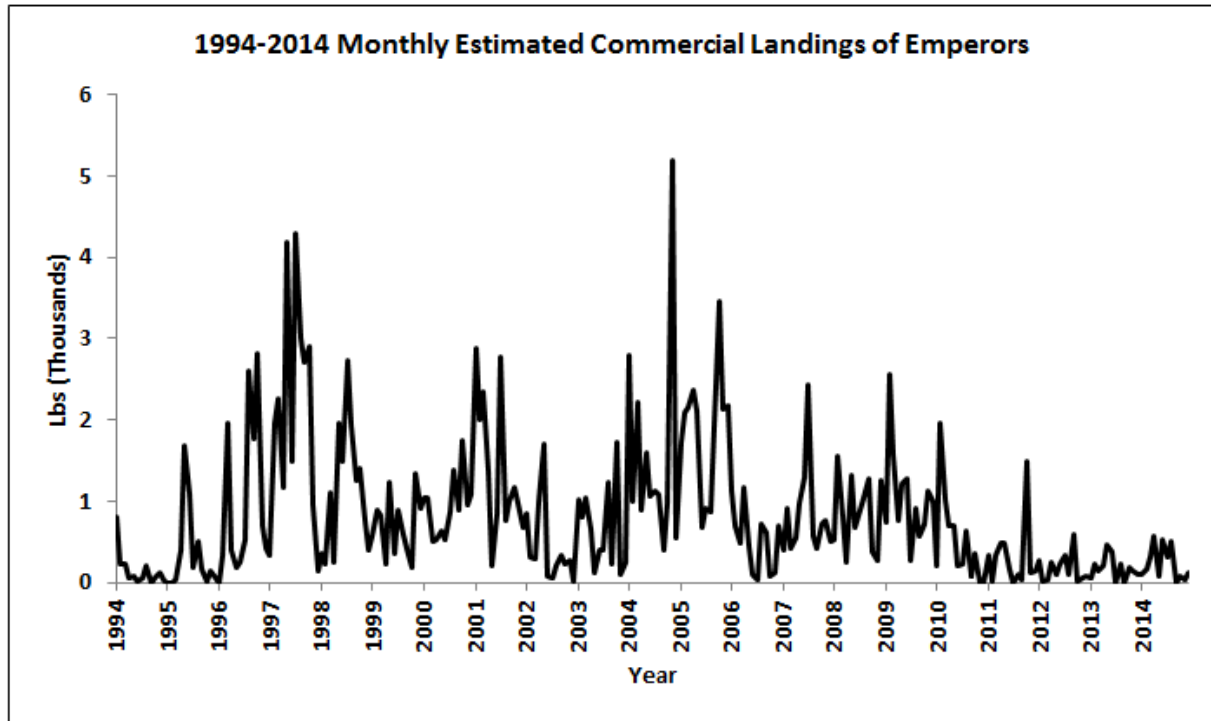


Figure B-4-7

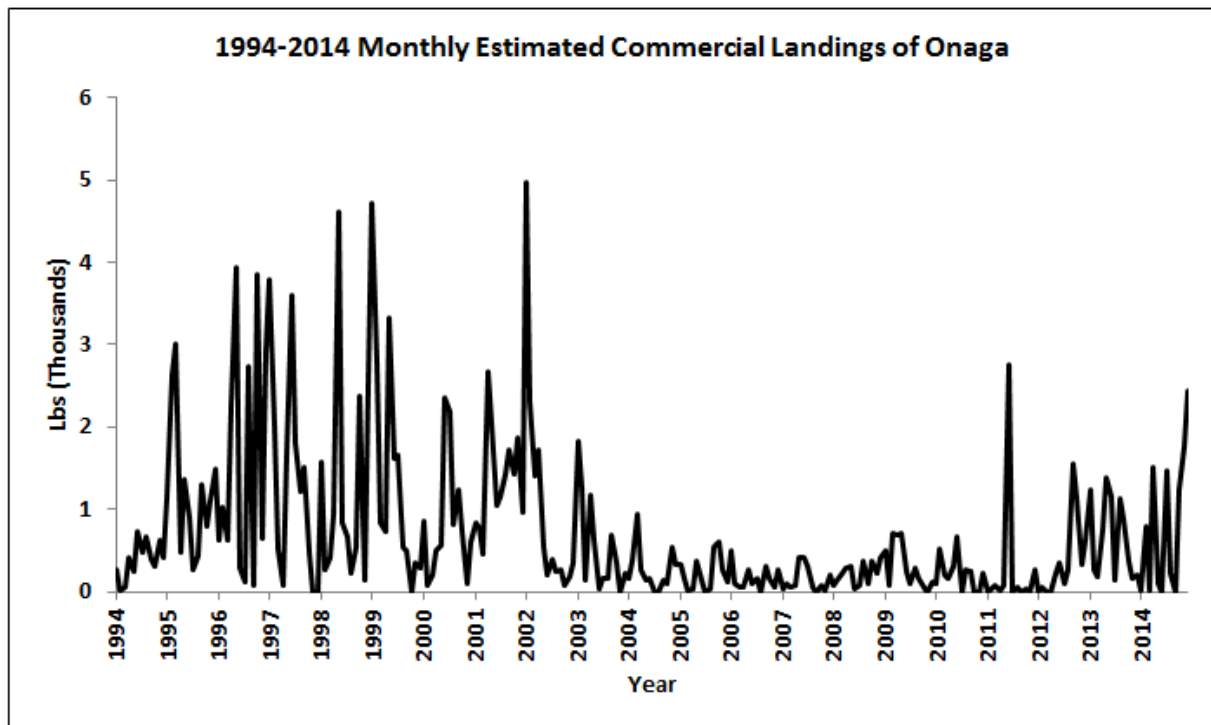


Figure B-4-8

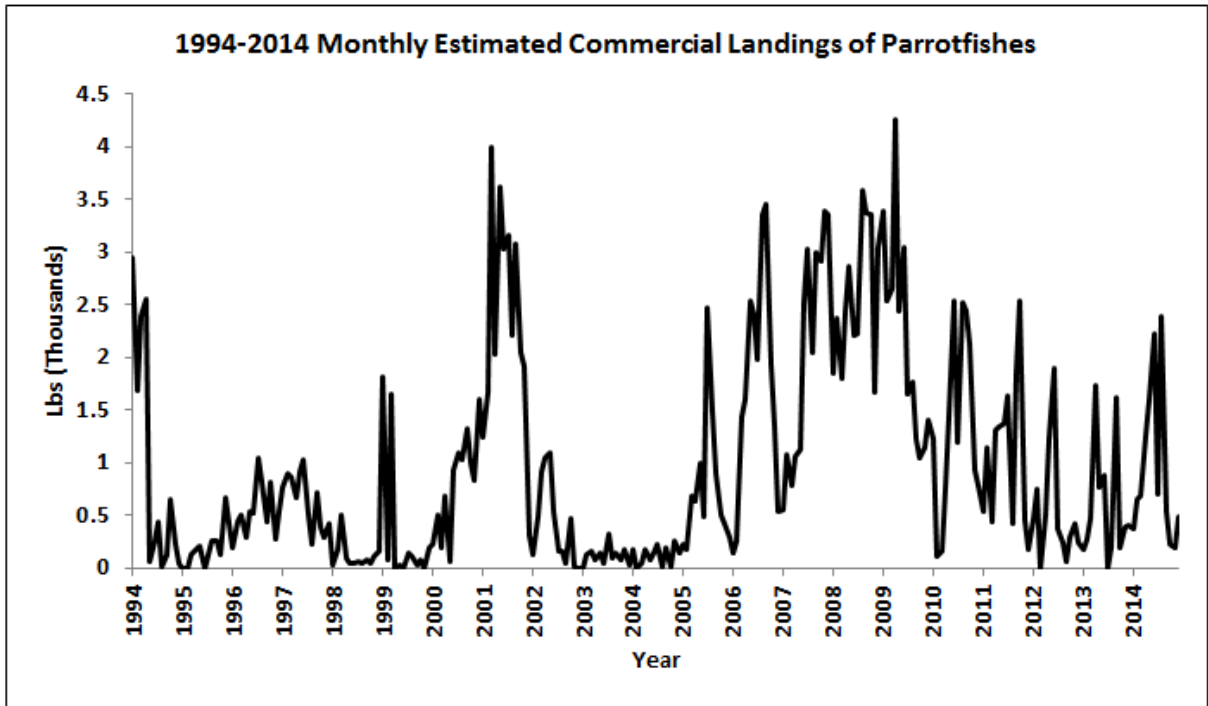


Figure B-4-9

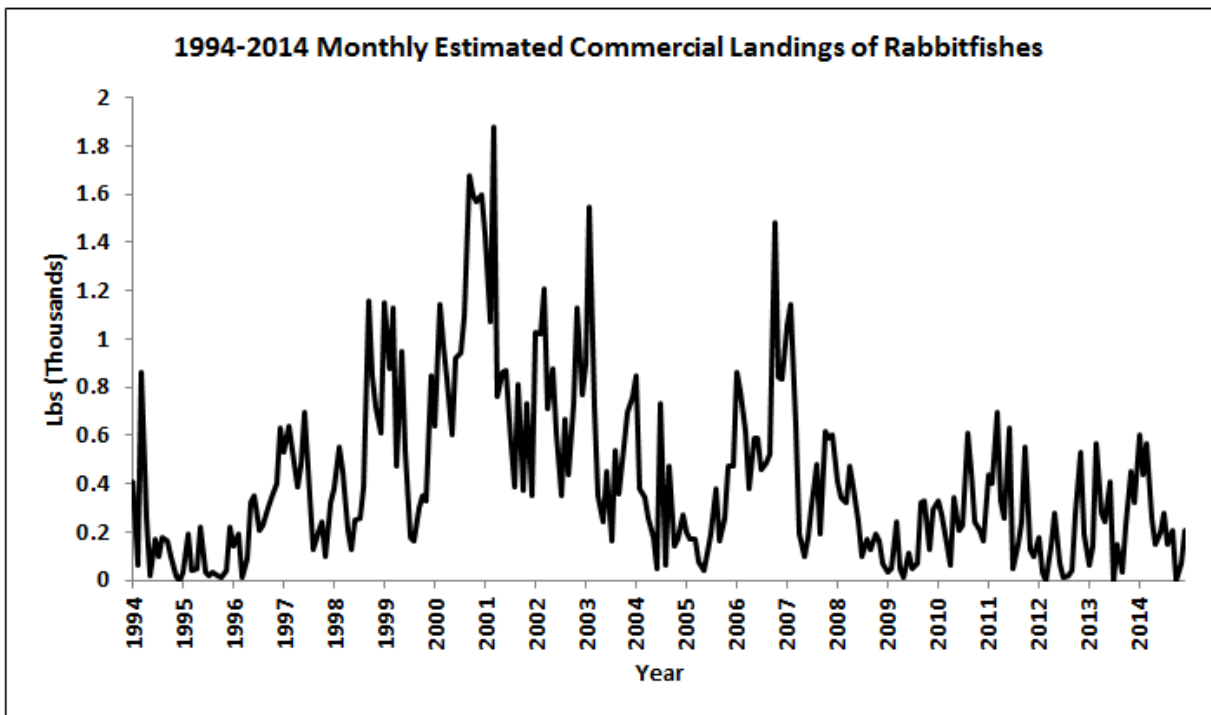


Figure B-4-10

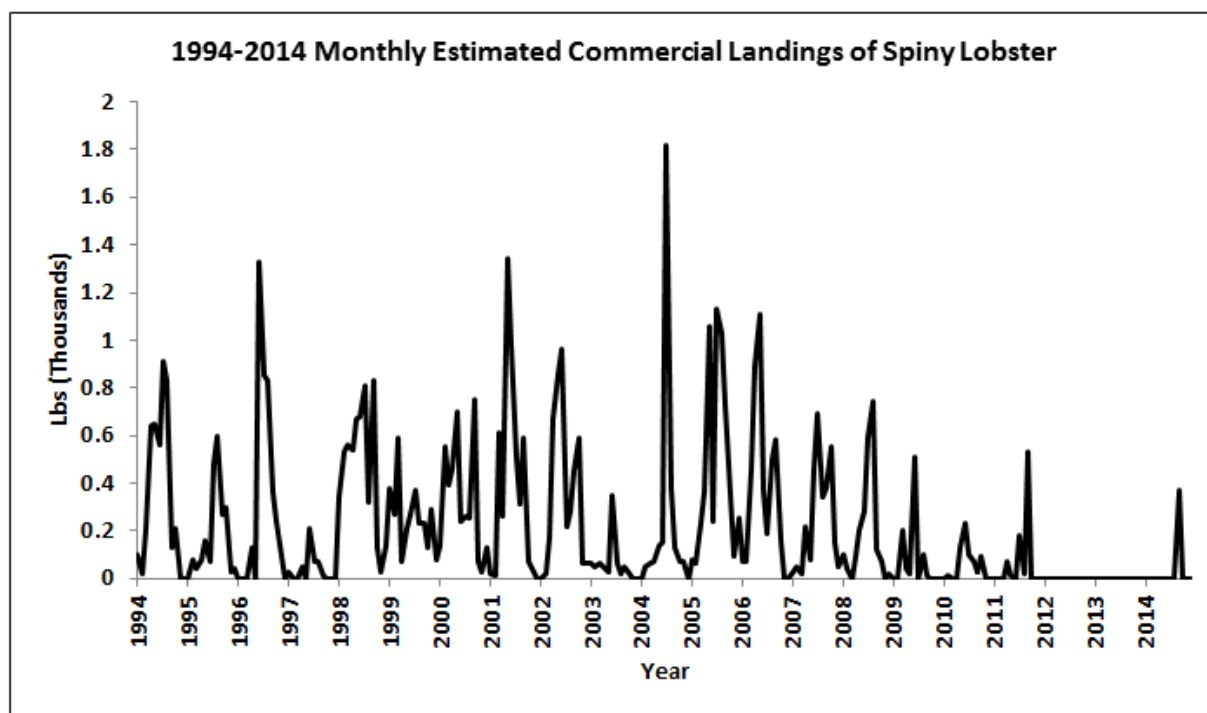


Figure B-4-11

# **GUAM 2014 FISHERY STATISTICS**

Compiled by  
Guam, Department of Agriculture,  
Division of Aquatic and Wildlife Resources  
and the  
Western Pacific Fishery Information Network

August 2016



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# GUAM 2014 FISHERY STATISTICS

## INTRODUCTION

The Territory of Guam is made up of the southernmost, largest, and most populous island in the Mariana Archipelago and its surrounding banks, fringing and barrier reefs and islets.

*Location:* 13.3°N latitude, 144.5°E longitude

*Population:* about 161,785 (*The World Factbook*, July 2015 estimate)

*Economy:* largely based on U.S. military and international tourism



Guam:

Source: <https://www.cia.gov/library/publications/the-world-factbook/maps/gq-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 (12-48 ft in length), which engage in one-to-two-day trolling and bottomfishing trips to nearby banks, isles, and pelagic areas. These trips usually originate from one of three principal harbors (Hagåtña Boat Basin, Agat Marina or Merizo Pier), located on the west coast and southern tip of the island (leeward shores during the prevailing March-August trade winds). Inshore fishing is usually conducted without the use of a boat and consists mainly of shore casting (rod & reel fishing), throw-netting, and spearfishing.

Besides imports, there are three sources of fish in Guam's commercial markets: 1) full-time commercial fishers, 2) part-time commercial fishers, and 3) subsistence or recreational "expense fishers" who sell part of their catch to help defray costs. A license is not required to sell fish on Guam, nor are there any reporting requirements for those who sell fish to the markets.

## DATA COLLECTION

The Guam Department of Agriculture, Division of Aquatic and Wildlife Resources (DAWR) fisheries monitoring has evolved considerably over the past 30 years. In 1982, WPacFIN began working with DAWR and local fish dealers to obtain information on commercial landings through voluntary use of a fish receipt form. DAWR has also implemented boat-based and shore-based creel surveys over the years. Although the creel survey field work is funded through the US Fish and Wildlife Service's Federal Aid in Sportfish Restoration Program, data entry and data processing activities are supported by WPacFIN in several forms, including software development, hands-on assistance with computer networking technology, and staffing for data entry and quality control. To put Guam's historical landings data into perspective, DAWR also collaborates with WPacFIN to conduct comparisons between commercial landings estimates based solely on market data, and creel survey estimates of total landings, which include both the commercial and non-commercial sectors.

DAWR has the following major data collection programs in place:

1. Commercial Purchase Program – a voluntary purchase receipt program for fish businesses (receipt forms, data collection and data entry support provided by WPacFIN).
2. Boat-based Creel Survey Program (field work mainly conducted by DAWR staff) – access-point creel surveys at boat ramps and known fishing areas across the island.
3. Shore-based Creel Survey Program – roving creel surveys along the shoreline, including aerial surveys (also by DAWR staff).

**Commercial Purchase Program** – In 1982, DAWR and local fish dealers began to obtain information on commercial landings through voluntary use of a fish receipt form provided by WPacFIN. This form has been referred to as a “trip ticket”, because it generally represents the catch delivered to a vendor from one fishing trip. Although there is no requirement that fishermen sell to only one vendor, the existence of a major fishing cooperative on Guam, with an excellent relationship amongst its members, provides a fairly stable and reliable trip-level reporting basis for many members of the fishing community.

In July 1979, the Guam Fishermen's Cooperative Association (GFCA) was established through government funding. It is located in Hagåtña (Agana). The GFCA subsequently became the central distribution center for fresh local fish. 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 GFCA to improve their invoicing system and obtain data on all fish purchases. A system was established, whereby GFCA would use forms and coding schemes designed by WPacFIN, and supply copies of all invoices to WPacFIN for data entry. In return, WPacFIN would provide GFCA with document quality control and computer-generated summary statistics. At that time, historical purchase data through July 1979 were also entered into a database.

Over time, other fish markets began to operate, and DAWR and WPacFIN have continued to work with them to obtain data through the voluntary receipt book program. The tables and graphs in this section are based on data summarized from receipts submitted by all participating fish dealers on Guam. The values recorded have been adjusted to create an estimate of total

commercial landings, based on an annually-estimated proportion of the local commercial market represented in voluntary monitoring data.

Data collected on commercial receipt forms include:

- Date of sale
- Number of Fishermen
- Area Fished
- Number Caught by Species
- Fisherman Code (primary seller)
- Hours Fished
- Pounds Caught by Species
- Price per Pound by Species

Although a proposed law has been introduced several times over the years that would require reporting by dealers, and possibly commercial fishers, the proposal has never made it through the legislative process. Therefore, commercial fisheries landings data collection on Guam remains voluntary.

**Boat-based Creel Survey Program** – In the late 1970s, a boat-based creel survey sampling program was implemented on Guam to provide statistics on all boat-based fishing activity, including non-commercial trips. The details of the Guam boat-based fishery sampling program have changed over the years to accommodate changes in the fisheries, but it has remained a trip-based, stratified sampling program. During analysis, data are stratified by fishing method, type of day (weekday vs. weekend/holiday), port, and charter (versus non-charter) status.

DAWR staff normally samples on four weekdays and four weekend/holidays per month, covering the three main ports: Agana Boat Basin, Agat Marina, and Merizo Pier. During survey days, all departing and returning fishing boats are registered, and interviews are attempted with each returning vessel. On two additional weekdays and weekend/holidays per month, staff counts boat trailers across the island as part of the boat-based participation count, while also compiling gear counts by fishing area for the shore-based participation survey. This serves to estimate the amount of boat-based fishing occurring outside the three main ports. It is assumed that catch rates from boats launched at these less-sampled areas are similar to those surveyed at the three main ports, where interviews are conducted regularly. Furthermore, fishers that are interviewed are assumed to be representative of the entire fishing population and to provide accurate information.

Vessels out fishing are detected either by the presence of a boat trailer near a launch area or the absence of a known boat at its designated berth. Unless contrary information is available from knowledgeable persons interviewed along the docks or in the local community, all such boats are assumed to be out fishing. The following participation information is recorded for all boats, including those engaging in non-fishing activity:

- Survey date
- Location
- Type of day
- Departure time
- Return time
- Boat name or number
- Whether the boat will be fishing
- Whether the trip is chartered
- Type of activity (i.e. fishing method for fishing trips)
- Towing vehicle license number

## C.4

The remaining data elements, listed below, are collected from each returning vessel if an interview can be successfully completed:

- Interview date and time \*
- Type of day \*
- Location \*
- Boat name or number
- Whether the trip is chartered \*
- Whether the boat has a berth
- Towing vehicle license number
- Fishing method \*
- Number of gears
- Hours fished
- Area fished
- Number of people and guests on board
- Weather
- Species caught \*, with the following information for each species
  - Individual lengths \*
  - Individual weights
  - Number caught \*
  - Total weight \*
- Disposition of fish landed
- Any bycatch

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. Identification and weight of each species are often not obtainable. Only if a species identification cannot be made, a code for species groupings (e.g., family level codes) can be used.

Boat log data and island-wide trailer counts are expanded to estimate the total number of fishing trips on Guam, and interview data are used to compute the average catch per trip. This is done separately for each analysis stratum. Multiplying the estimated trips by the average catch per trip, and summing these over all the analysis strata, provides an estimate of the total catch on Guam.

**Shore-based Creel Survey Program** – Around 1985, a shore-based creel survey sampling program was implemented on Guam to provide statistics on all shore-based fishing, including non-commercial activity. The details of the shore-based fishery sampling program have changed over the years to accommodate changes in the fisheries. But it has remained an hourly CPUE-based stratified random sampling program. During analysis, data are stratified by fishing method, type of day, region, and time of day.

The shore-based creel survey includes separate sampling days to gather fishing participation data and interviews (“survey type”). In addition to participation surveys conducted from a car or truck, supplemental aerial surveys are conducted once a month to gather participation data for areas that are difficult to access by road. The aerial flight path covers almost the entire perimeter of Guam. DAWR staff normally conducts two weekday- and two weekend/holiday-surveys per month of each type (participation or interview). Aerial participation surveys are conducted on one weekday and one weekend/holiday per month. On participation survey days, staff drives along a designated route and records all fishing activity they see. Any activity that involves a motorized vessel is not included in shore-based participation counts, unless the vessel: 1) is used primarily for transporting such items as gill nets, surround nets, and drag nets to a shoreline fishing spot, and 2) was launched from a beach, not a boat ramp. Aerial participation counts are based on similar criteria, in order to distinguish fishing activity that is truly shore-based and avoid double counting fishing trips covered by the boat-based survey. On interview survey

days, staff drives along a designated route and attempts to interview all fishermen that are encountered. Fishers that are interviewed are assumed to be representative of the entire fishing population and to provide accurate information. It is also assumed that catch rates in the areas not covered by the interview surveys are similar to those in the sampled areas.

During participation surveys, the following information is recorded:

- Survey date
- Type of day
- Shift time
- Observation time
- Location
- Number of fishers
- Number of gears
- Fishing method
- Reef zone
- Weather

During interviews, the following information is recorded:

- Interview date and time
- Type of day
- Number of fishermen
- Fishing start and stop time
- Fishing method
- Number of gears
- Location
- Reef zone
- Proportion of catch to be sold
- Weather
- Species caught, with the following information for each species:
  - Individual lengths
  - Individual weights
  - Number caught
  - Total weight
- Any bycatch

During aerial surveys, the following information is recorded:

- Survey date
- Type of day
- Start and stop time
- Observation time
- Location
- Number of fishers
- Number of gears
- Fishing method
- Reef zone
- Large marine animal observed
- Number of animals
- Weather

If time does not allow for the length and weight of each fish to be measured, weights can be skipped and estimated using length measurements. Only if a species identification cannot be made, a code for species groupings (e.g., family level codes) may be used.

Participation and aerial data are expanded to estimate the total gear-hours of shore-based fishing activity on Guam, and interview data are used to estimate the average catch per gear-hour. This is done separately for each analysis stratum. Multiplying the estimated gear-hours by the average catch per gear-hour, and summing over all the analysis strata, provides an estimate of the total catch on Guam.

## **DATA PROCESSING**

Initially, in the early 1980s to the mid-1990s, Guam fisheries monitoring data were processed at the PIFSC WPacFIN central office in Honolulu. Since 1994, DAWR has taken over this task, leveraging IT support, software and data entry funding from WPacFIN. The processing system for commercial landings data collected from fish dealers is fairly simple. Dealers complete a purchase form whenever they purchase fish directly from a fisherman. The form helps categorize the catch, and records the weight and sales value by species or major group. When possible, the number of fish or invertebrates purchased is also recorded by species or group.

## **DATA REPORTING**

Once data entry is completed, WPacFIN software assists with editing, quality control, and weight adjustment for factors such as condition of sale (e.g., gilled/gutted weights converted to whole weight, etc.). The software also generates monthly and annual summary reports by species, based on the estimated percentage of commercial sales registered on a monthly basis. WPacFIN customized software creates various standardized reports, which assist DAWR and WPacFIN staff with quality control and automated summary reporting to clients, such as the Council, fish dealers and the public.

Please note that the commercial landings data have been adjusted to reflect an estimated 100% of commercial landings, based on the proportion of commercial vendors and landings data available via Guam's voluntary monitoring system. The adjusted totals are referenced as "Estimated Commercial Landings" in the charts and tables. Only non-confidential estimates of monthly and annual commercial landings by species are provided in this document. Confidential data reported voluntarily remain the property of WPacFIN partners, including individual vendors and the GFCA.

Each table contains the common name, estimated weight (in pounds), estimated value (in dollars), and the average price per pound by species or group. The monthly tables contain estimated subtotals for each species. The annual table contains the estimated total commercial landings for each species for the calendar year. Graphs of statistics for some of the more important commercial species or groups are also provided. To see the most current charts and estimates, please visit the WPacFIN website (<https://www.pifsc.noaa.gov/wpacfin>).



## **SPECIES CATEGORIES**

The species and taxonomic groups used in the tables and graphs for Guam are defined in this section. Many of these species and groups have been placed into different management categories over the years. For example, in 1992, the Magnuson Fishery Conservation and Management Act of 1976, was amended to include tunas in the Pelagic Management Unit Species (PMUS). However, in order to make comparison across these reports more intuitive, this summary maintains the original species categories from previous FSWP volumes. As such, tunas are kept in a separate category. To see the most current taxonomic information and groupings for species caught commercially in Guam, and in other US-associated Pacific island areas, please visit the WPacFIN website (<https://www.pifsc.noaa.gov/wpacfin>).

## I. Pelagic Management Unit Species (PMUS)

Mahimahi ( <i>Coryphaena hippurus</i> )	Spearfish ( <i>Tetrapturus angustirostris</i> )
Marlins ( <i>Makaira mazara</i> , <i>Kajikia audax</i> , <i>Istiompax indica</i> )	Swordfish ( <i>Xiphias gladius</i> )
Sailfish ( <i>Istiophorus platypterus</i> )	Wahoo ( <i>Acanthocybium solandri</i> )
Sharks ( <i>Isurus oxyrinchus</i> , <i>Isurus paucus</i> , and <i>Carcharhinus</i> spp.)	

## II. Bottomfish Management Unit Species (BMUS)

Alfonsin ( <i>Beryx decadactylus</i> )	Kalikali/Pink snapper ( <i>Pristipomoides sieboldii</i> <sup>1</sup> )
Amberjack ( <i>Seriola dumerili</i> )	Lehi/Silverjaw ( <i>Aphareus rutilans</i> )
Black jack ( <i>Caranx lugubris</i> )	Mafute/Emperor (various Lethrinidae)
Ehu/Red snapper ( <i>Etelis carbunculus</i> )	Onaga/Red snapper ( <i>Etelis coruscans</i> )
Gindai/Flower snapper ( <i>Pristipomoides zonatus</i> )	Opakapaka/Pink snapper ( <i>Pristipomoides filamentosus</i> )
Groupers (various Serranidae)	Snappers (most Etelinae, some <i>Lutjanus</i> spp.)
Jacks (various Carangidae)	Uku/Gray snapper ( <i>Aprion virescens</i> )

## III. Tunas

Kawakawa ( <i>Euthynnus affinis</i> )	Tunas (unspecified) <sup>2</sup>
Skipjack tuna ( <i>Katsuwonus pelamis</i> )	Yellowfin tuna ( <i>Thunnus albacares</i> )

## IV. Other Scombrids

Dogtooth tuna ( <i>Gymnosarda unicolor</i> )	(See footnote 2)
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<sup>1</sup> Please note that in the CNMI, the kalikali is typically the “yellowtail Kalikali,” *Pristipomoides auricilla*, but on Guam this market category refers to the “pink Kalikali,” *Pristipomoides sieboldii*. This is one of the reasons scientific names are provided as a reference for common names used for each island area throughout this report.

<sup>2</sup> This group includes species that comprise a very small portion of the catch, unidentified tunas, and apparent misidentifications. Because of the small amount of catch, and the tendency of vendors to throw in the dogtooth tuna with this group (although it is not actually a tuna), this group is combined with “other scombrids” in some of the charts.

## V. Fisheries Categories

### A. *Pelagic Fishes*

Barracudas up to 7 species (*Sphyraena* spp.)  
 Dogtooth tuna (*Gymnosarda unicolor*)  
 Kawakawa (*Euthynnus affinis*)  
 Mahimahi (*Coryphaena hippurus*)  
 Marlins (*Makaira mazara*, *Kajikia audax*, *Istiompax indica*)  
 Monchong (*Taractichthys steindachneri*)  
 Pelagic fishes (unspecified)<sup>3</sup>  
 Rainbow runner (*Elagatis bipinnulata*)

Sailfish (*Istiophorus platypterus*)  
 Sharks (*Isurus oxyrinchus*, *Isurus paucus*, and various *Carcharhinus* spp.)  
 Skipjack tuna (*Katsuwonus pelamis*)  
 Spearfish (*Tetrapturus angustirostris*)  
 Swordfish (*Xiphias gladius*)  
 Tunas/Unspecified (see footnote 2)  
 Wahoo (*Acanthocybium solandri*)  
 Yellowfin tuna (*Thunnus albacares*)

### B. *Bottomfishes*

Alfonsin (*Beryx decadactylus*)  
 Amberjack (*Seriola dumerili*)  
 Black jack (*Caranx lugubris*)  
 Bottomfishes (unspecified)<sup>4</sup>  
 Deep bottomfishes (unspecified)<sup>5</sup>  
 Ehu/Red snapper (*Etelis carbunculus*)  
 Gindai/Flower snapper (*Pristipomoides zonatus*)  
 Groupers/Unspecified (various Serranidae)

Jacks/Unspecified (various Carangidae)  
 Kalikali/Pink snapper (*Pristipomoides sieboldii*)  
 Lehi/Silverjaw (*Aphareus rutilans*)  
 Mafute/Emperor (various Lethrinidae)  
 Onaga/Red snapper (*Etelis coruscans*)  
 Opakapaka/Pink snapper (*Pristipomoides filamentosus*)  
 Tagafi/Red snapper (*Etelis* spp. *Pristipomoides* spp.)  
 Uku/Gray snapper (*Aprion virescens*)

### C. *Reef Fishes*

Goatfishes (various Mullidae)

Snappers (*Lutjanus* spp.<sup>6</sup>)

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<sup>3</sup> May include any of the members of the larger group, which the vendor weighed as a lot to save time.

<sup>4</sup> May include various deep bottom snappers (most *Etelinae*, some *Lutjanus* spp. listed above), groupers (Serranidae), emperors (Lethridae), deep jacks and trevallies (Carangidae).

<sup>5</sup> Another catch all group, not necessarily distinct from “Bottomfishes.”

Humphead parrotfish (*Bolbometopon muricatum*)  
 Napoleon wrasse (*Cheilinus undulatus*)  
 Parrotfishes (various Scaridae)  
 Rabbitfishes (*Siganus* spp.)  
 Reef fishes/Unspecified (diverse fish taxa)  
 Rudderfish/Guilli (*Kyphosus* spp.)

D. *Other Fishes, Algae & Invertebrates*

Bigeye scad/Atulai (*Selar crumenophthalmus*)  
 Lobsters (various Scyllaridae & Palinuridae)  
 Milkfish (*Chanos chanos*)

Squirrelfishes (*Sargocentron* spp., *Neoniphon* spp.)  
 Surgeonfishes (various Acanthuridae)  
 Sweetlips (various Haemulidae)  
 Unicornfishes (various *Naso* spp.)  
 Wrasses (various Labridae)

Mulletts (various Mugilidae)  
 Octopus (mainly *Octopus* spp.)  
 Squid (various Teuthoidea)

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<sup>6</sup> Eteline snappers are found only in bottomfishing catch; inshore near reefs, they are mainly species of *Lutjanus*.

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**Table C-1**  
**Guam Annual 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs	Estimated	Price/
	Scientific Name	Common/local name	Sold	Value	Lb
<b>FISHES:</b>					
	<b>Scombridae</b>				
	<b>Tunas</b>				
	<i>Katsuwonus pelamis</i>	Skipjack tuna	40,084	74,054	1.85
	<i>Thunnus albacares</i>	Yellowfin tuna	7,983	18,029	2.26
	Tribe Thunnini ( <i>unspecified</i> )	Tunas	81	183	2.25
	<b>Other scombrids</b>				
	<i>Acanthocybium solandri</i>	Wahoo	14,282	32,986	2.31
	<i>Gymnosarda unicolor</i>	Dogtooth tuna	1,271	2,291	1.80
	<b>Billfishes</b>				
	<b>Istiophoridae</b>				
	<i>Istiophorus platypterus</i>	Sailfish	407	706	1.73
	<i>Makaira mazara</i> , <i>Makaira</i>	Marlins ( <i>unspecified</i> )	23,223	36,387	1.57
	<i>Tetrapturus angustirostris</i>	Spearfish	28	42	1.50
	<b>Other fishes</b>				
	<b>Acanthuridae</b> (Tangs, Surgeons, Unicornfishes)				
	<i>Acanthurus</i> , <i>Ctenochaetus</i> spp.	Surgeonfishes ( <i>unspecified</i> )	3,274	10,111	3.09
	<i>Naso</i> spp.	Unicornfishes ( <i>unspecified</i> )	17,301	56,800	3.28
	<b>Carangidae</b> (jacks & trevallies)				
	<i>Carangidae</i> ( <i>unspecified</i> )	Jacks	511	1,573	3.08
	<i>Seriola dumerili</i>	Greater amberjack	66	203	3.06
	<i>Selar crumenophthalmus</i>	Bigeye scad (atulai)	1,562	3,998	2.56
	<i>Elagatis bipinnulata</i>	Rainbow runner	1,895	4,209	2.22
	<b>Coryphaenidae</b> (mahimahi/dolphinfish)				
	<i>Coryphaena hippurus</i> , <i>C.</i>	Mahimahi	30,650	70,044	2.29
	<b>Holocentridae</b> (squirrel & soldierfishes)				
	<i>Sargocentron</i> , <i>Neoniphon</i> spp.	Squirrelfishes	66	228	3.46
	<b>Kyphosidae</b> (sea chubs)				
	<i>Kyphosus</i> spp. (various)	Rudderfish (guilli)	51	165	3.25
	<b>Labridae</b> (wrasses)				
	<i>Labridae</i> ( <i>unspecified</i> )	Wrasses	22	70	3.25
	<b>Lethrinidae</b> (emperors)				
	<i>Lethrinidae</i> ( <i>unspecified</i> )	Mafute (emperor)	2,211	6,800	3.08
	<b>Lutjanidae</b> (snappers)				
	<i>Aphareus rutilans</i>	Lehi (silverjaw)	92	384	4.16
	<i>Aprion virescens</i>	Uku (gray snapper)	174	531	3.06
	<i>Etelis carbunculus</i>	Ehu (red snapper)	102	433	4.25
	<i>Etelis coruscans</i>	Onaga (red snapper)	336	1,978	5.89
	<i>Lutjanidae</i> ( <i>unspecified</i> )	Snappers	112	380	3.40
	<i>Pristipomoides filamentosus</i>	Opakapaka (pink snapper)	264	1,124	4.25
	<i>Pristipomoides sieboldii</i>	Kalikali (pink snapper)	461	1,851	4.02
	<i>Pristipomoides zonatus</i>	Gindai (flower snapper)	131	535	4.09

**Table C-1**  
**Guam Annual 2014 Estimated Commercial Landings**

<b>Group</b>	<b>Subgroup</b>		<b>Lbs</b>	<b>Estimated</b>	<b>Price/</b>
	<b>Scientific Name</b>	<b>Common/local name</b>	<b>Sold</b>	<b>Value</b>	<b>Lb</b>
<b>Other fishes (continued)</b>					
	<b>Mugilidae</b> (mullets)				
	Mugilidae ( <i>unspecified</i> )	Mullet	224	676	3.01
	<b>Mullidae</b> (goatfishes)				
	Mullidae ( <i>unspecified</i> )	Goatfishes	818	2,610	3.19
	<b>Scaridae</b> (parrotfishes)				
	Scaridae ( <i>unspecified</i> )	Parrotfishes	15,975	55,740	3.49
	<b>Serranidae</b> (groupers)				
	Serranidae ( <i>unspecified</i> )	Groupers	990	3,270	3.30
	<b>Siganidae</b> (rabbitfishes)				
	Siganidae ( <i>unspecified</i> )	Rabbitfishes	1,187	3,947	3.32
	<b>Sphyraenidae</b> (barracudas)				
	<i>Sphyraena</i> spp.	Barracudas	1,650	3,557	2.16
	<b>Unspecified Fish Groups</b>				
	Carangidae, Lutjanidae,	Bottomfishes (unspecified)	719	2,443	3.40
	Various (many) families	Reef fishes (unspecified)	19,075	60,949	3.20
	<b>Miscellaneous Seafood</b> ( <i>insufficient information</i> )				
	Unknown fish/invertebrates	Miscellaneous (unspecified)	829	1,395	1.68
	Unknown fish/invertebrates	Unknown	1,670	5,964	3.57
<b>INVERTEBRATES:</b>					
	<b>Crustaceans: Crabs</b>				
	Infraorder: Brachyura	Crabs	42	222	5.32
	<b>Crustaceans: Lobsters</b>				
	Infraorder: Achelata	Lobsters	1,878	7,204	3.84
	<b>Mollusks</b>				
	<i>Octopus</i> spp.	Octopus	413	1,387	3.36
<b>Total</b>			<b>192,111</b>	<b>\$475,459</b>	<b>\$2.47</b>

**Table C-2**  
**Guam January 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs	Estimated	Price/
	Scientific Name	Common/local name	Sold	Value	Lb
<b>FISHES:</b>					
	<b>Scombridae</b>				
	<b>Tunas</b>				
	<i>Katsuwonus pelamis</i>	Skipjack tuna	2,889	5,649	1.96
	<i>Thunnus albacares</i>	Yellowfin tuna	420	909	2.16
	<b>Other scombrids</b>				
	<i>Acanthocybium solandri</i>	Wahoo	1,210	2,965	2.45
	<i>Gymnosarda unicolor</i>	Dogtooth tuna	47	95	2.00
	<b>Billfishes</b>				
	<b>Istiophoridae</b>				
	<i>Makaira mazara</i> , <i>Makaira</i>	Marlins (unspecified)	65	114	1.75
	<b>Other fishes</b>				
	<b>Acanthuridae</b> (Tangs, Surgeons, Unicornfishes)				
	<i>Acanthurus</i> , <i>Ctenochaetus</i> spp.	Surgeonfishes (unspecified)	4	14	3.25
	<i>Naso</i> spp.	Unicornfishes (unspecified)	938	3,047	3.25
	<b>Carangidae</b> (jacks & trevallies)				
	<i>Carangidae (unspecified)</i>	Jacks	11	34	3.00
	<i>Elagatis bipinnulata</i>	Rainbow runner	108	237	2.19
	<b>Coryphaenidae</b> (mahimahi/dolphinfish)				
	<i>Coryphaena hippurus</i> , <i>C.</i>	Mahimahi	10,930	23,869	2.18
	<b>Lethrinidae</b> (emperors)				
	<i>Lethrinidae (unspecified)</i>	Mafute (emperor)	56	183	3.25
	<b>Lutjanidae</b> (snappers)				
	<i>Aprion virescens</i>	Uku (gray snapper)	4	12	3.25
	<i>Etelis carbunculus</i>	Ehu (red snapper)	1	4	4.24
	<i>Pristipomoides zonatus</i>	Gindai (flower snapper)	1	5	4.25
	<b>Scaridae</b> (parrotfishes)				
	<i>Scaridae (unspecified)</i>	Parrotfishes	393	1,276	3.25
	<b>Sphyraenidae</b> (barracudas)				
	<i>Sphyraena</i> spp.	Barracudas	65	134	2.06
	<b>Unspecified Fish Groups</b>				
	Carangidae, Lutjanidae,	Bottomfishes (unspecified)	33	108	3.25
	Various (many) families	Reef fishes (unspecified)	782	2,540	3.25
<b>Total</b>			<b>17,957</b>	<b>\$41,195</b>	<b>2.29</b>



**Table C-3**  
**Guam February 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs	Estimated	Price/
	Scientific Name	Common/local name	Sold	Value	Lb
<b>FISHES:</b>					
	<b>Scombridae</b>				
	<b>Tunas</b>				
	<i>Katsuwonus pelamis</i>	Skipjack tuna	713	1,432	2.01
	<i>Thunnus albacares</i>	Yellowfin tuna	135	259	1.91
	<b>Other scombrids</b>				
	<i>Acanthocybium solandri</i>	Wahoo	2,557	6,236	2.44
	<i>Gymnosarda unicolor</i>	Dogtooth tuna	81	148	1.82
	<b>Billfishes</b>				
	<b>Istiophoridae</b>				
	<i>Istiophorus platypterus</i>	Sailfish	52	104	2.00
	<i>Makaira mazara</i> , <i>Makaira</i>	Marlins (unspecified)	170	298	1.75
	<b>Other fishes</b>				
	<b>Acanthuridae</b> (Tangs, Surgeons, Unicornfishes)				
	<i>Acanthurus</i> , <i>Ctenochaetus</i> spp.	Surgeonfishes (unspecified)	20	65	3.25
	<i>Naso</i> spp.	Unicornfishes (unspecified)	777	2,524	3.25
	<b>Carangidae</b> (jacks & trevallies)				
	<i>Elagatis bipinnulata</i>	Rainbow runner	138	311	2.25
	<b>Coryphaenidae</b> (mahimahi/dolphinfish)				
	<i>Coryphaena hippurus</i> , <i>C.</i>	Mahimahi	9,807	21,961	2.24
	<b>Lutjanidae</b> (snappers)				
	<i>Aphareus rutilans</i>	Lehi (silverjaw)	1	5	4.25
	<i>Aprion virescens</i>	Uku (gray snapper)	4	12	3.25
	<b>Mullidae</b> (goatfishes)				
	Mullidae ( <i>unspecified</i> )	Goatfishes	148	482	3.25
	<b>Scaridae</b> (parrotfishes)				
	Scaridae ( <i>unspecified</i> )	Parrotfishes	393	1,278	3.25
	<b>Serranidae</b> (groupers)				
	Serranidae ( <i>unspecified</i> )	Groupers	27	82	3.07
	<b>Sphyraenidae</b> (barracudas)				
	<i>Sphyraena</i> spp.	Barracudas	765	1,647	2.15
	<b>Unspecified Fish Groups</b>				
	Carangidae, Lutjanidae,	Bottomfishes (unspecified)	28	89	3.25
	Various (many) families	Reef fishes (unspecified)	415	1,349	3.25
	<b>Miscellaneous Seafood</b> ( <i>insufficient information</i> )				
	Unknown fish/invertebrates	Unknown	31	94	3.00
<b>Total</b>			<b>16,262</b>	<b>\$38,376</b>	<b>\$2.36</b>

**Table C-4**  
**Guam March 2014 Estimated Commercial Landings**

<b>Group</b>	<b>Subgroup</b>		<b>Lbs</b>	<b>Estimated</b>	<b>Price/</b>
	<b>Scientific Name</b>	<b>Common/local name</b>	<b>Sold</b>	<b>Value</b>	<b>Lb</b>
<b>FISHES:</b>					
	<b>Scombridae</b>				
	<b>Tunas</b>				
	<i>Katsuwonus pelamis</i>	Skipjack tuna	440	945	2.15
	<i>Thunnus albacares</i>	Yellowfin tuna	143	358	2.51
	<b>Other scombrids</b>				
	<i>Acanthocybium solandri</i>	Wahoo	820	2,073	2.53
	<i>Gymnosarda unicolor</i>	Dogtooth tuna	121	234	1.94
	<b>Billfishes</b>				
	<b>Istiophoridae</b>				
	<i>Istiophorus platypterus</i>	Sailfish	41	62	1.50
	<i>Makaira mazara</i> , <i>Makaira</i>	Marlins (unspecified)	304	532	1.75
	<b>Other fishes</b>				
	<b>Acanthuridae</b> (Tangs, Surgeons, Unicornfishes)				
	<i>Naso</i> spp.	Unicornfishes (unspecified)	508	1,652	3.25
	<b>Carangidae</b> (jacks & trevallies)				
	<i>Selar crumenophthalmus</i>	Bigeye scad (atulai)	108	352	3.25
	<i>Elagatis bipinnulata</i>	Rainbow runner	32	72	2.25
	<b>Coryphaenidae</b> (mahimahi/dolphinfish)				
	<i>Coryphaena hippurus</i> , <i>C.</i>	Mahimahi	3,133	7,611	2.43
	<b>Lethrinidae</b> (emperors)				
	Lethrinidae ( <i>unspecified</i> )	Mafute (emperor)	11	37	3.25
	<b>Lutjanidae</b> (snappers)				
	<i>Pristipomoides zonatus</i>	Gindai (flower snapper)	12	36	3.00
	<b>Scaridae</b> (parrotfishes)				
	Scaridae ( <i>unspecified</i> )	Parrotfishes	203	708	3.48
	<b>Sphyraenidae</b> (barracudas)				
	<i>Sphyraena</i> spp.	Barracudas	43	90	2.07
	<b>Unspecified Fish Groups</b>				
	Various (many) families	Reef fishes (unspecified)	628	2,039	3.25
	<b>Miscellaneous Seafood</b> ( <i>insufficient information</i> )				
	Unknown fish/invertebrates	Unknown	70	228	3.25
<b>Total</b>			<b>6,617</b>	<b>\$17,029</b>	<b>\$2.57</b>

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**Table C-5**  
**Guam April 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs Sold	Estimated Value	Price/Lb
	Scientific Name	Common/local name			
<b>FISHES:</b>					
	<b>Scombridae</b>				
	<b>Tunas</b>				
	<i>Katsuwonus pelamis</i>	Skipjack tuna	1,476	3,015	2.04
	<i>Thunnus albacares</i>	Yellowfin tuna	315	694	2.20
	<b>Other scombrids</b>				
	<i>Acanthocybium solandri</i>	Wahoo	654	1,635	2.50
	<i>Gymnosarda unicolor</i>	Dogtooth tuna	81	172	2.13
	<b>Billfishes</b>				
	<b>Istiophoridae</b>				
	<i>Makaira mazara</i> , <i>Makaira</i>	Marlins (unspecified)	527	960	1.82
	<b>Other fishes</b>				
	<b>Acanthuridae</b> (Tangs, Surgeons, Unicornfishes)				
	<i>Acanthurus</i> , <i>Ctenochaetus</i> spp.	Surgeonfishes (unspecified)	59	192	3.25
	<i>Naso</i> spp.	Unicornfishes (unspecified)	1,348	4,382	3.25
	<b>Carangidae</b> (jacks & trevallies)				
	<i>Carangidae (unspecified)</i>	Jacks	88	281	3.21
	<i>Selar crumenophthalmus</i>	Bigeye scad (atulai)	605	1,476	2.44
	<i>Elagatis bipinnulata</i>	Rainbow runner	107	240	2.25
	<b>Coryphaenidae</b> (mahimahi/dolphinfish)				
	<i>Coryphaena hippurus</i> , <i>C.</i>	Mahimahi	2,253	5,639	2.50
	<b>Lethrinidae</b> (emperors)				
	<i>Lethrinidae (unspecified)</i>	Mafute (emperor)	248	744	3.00
	<b>Lutjanidae</b> (snappers)				
	<i>Aphareus rutilans</i>	Lehi (silverjaw)	27	112	4.15
	<i>Etelis coruscans</i>	Onaga (red snapper)	14	83	6.00
	<i>Pristipomoides filamentosus</i>	Opakapaka (pink snapper)	7	29	4.25
	<i>Pristipomoides sieboldii</i>	Kalikali (pink snapper)	1	5	3.98
	<b>Scaridae</b> (parrotfishes)				
	<i>Scaridae (unspecified)</i>	Parrotfishes	724	2,507	3.46
	<b>Serranidae</b> (groupers)				
	<i>Serranidae (unspecified)</i>	Groupers	77	239	3.11
	<b>Siganidae</b> (rabbitfishes)				
	<i>Siganidae (unspecified)</i>	Rabbitfishes	48	154	3.25
	<b>Sphyraenidae</b> (barracudas)				
	<i>Sphyraena</i> spp.	Barracudas	89	184	2.07
	<b>Unspecified Fish Groups</b>				
	<i>Carangidae</i> , <i>Lutjanidae</i> ,	Bottomfishes (unspecified)	17	59	3.50
	Various (many) families	Reef fishes (unspecified)	1,147	3,743	3.26
	Unknown fish/invertebrates	Miscellaneous (unspecified)	52	168	3.25

**Table C-5**  
**Guam April 2014 Estimated Commercial Landings**

<b>Group</b>	<b>Subgroup</b>		<b>Lbs</b>	<b>Estimated</b>	<b>Price/</b>
	<b>Scientific Name</b>	<b>Common/local name</b>	<b>Sold</b>	<b>Value</b>	<b>Lb</b>
<b>INVERTEBRATES:</b>					
	<b>Mollusks</b>				
	<i>Octopus</i> spp.	Octopus	48	157	3.25
<b>Total</b>			<b>10,012</b>	<b>\$26,870</b>	<b>\$2.68</b>

**Table C-6**  
**Guam May 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs	Estimated	Price/
	Scientific Name	Common/local name	Sold	Value	Lb
<b>FISHES:</b>					
	<b>Scombridae</b>				
	<b>Tunas</b>				
	<i>Katsuwonus pelamis</i>	Skipjack tuna	6,639	12,726	1.92
	<i>Thunnus albacares</i>	Yellowfin tuna	1,743	4,229	2.43
	<b>Other scombrids</b>				
	<i>Acanthocybium solandri</i>	Wahoo	400	954	2.38
	<i>Gymnosarda unicolor</i>	Dogtooth tuna	267	408	1.53
	<b>Billfishes</b>				
	<b>Istiophoridae</b>				
	<i>Makaira mazara</i> , <i>Makaira</i>	Marlins (unspecified)	3,440	5,703	1.66
	<b>Other fishes</b>				
	<b>Acanthuridae</b> (Tangs, Surgeons, Unicornfishes)				
	<i>Acanthurus</i> , <i>Ctenochaetus</i> spp.	Surgeonfishes (unspecified)	72	233	3.25
	<i>Naso</i> spp.	Unicornfishes (unspecified)	2,731	8,876	3.25
	<b>Carangidae</b> (jacks & trevallies)				
	Carangidae ( <i>unspecified</i> )	Jacks	18	48	2.75
	<i>Seriola dumerili</i>	Greater amberjack	23	68	3.00
	<i>Elagatis bipinnulata</i>	Rainbow runner	437	950	2.18
	<b>Coryphaenidae</b> (mahimahi/dolphinfish)				
	<i>Coryphaena hippurus</i> , <i>C.</i>	Mahimahi	661	1,633	2.47
	<b>Lethrinidae</b> (emperors)				
	Lethrinidae ( <i>unspecified</i> )	Mafute (emperor)	149	485	3.25
	<b>Lutjanidae</b> (snappers)				
	<i>Aphareus rutilans</i>	Lehi (silverjaw)	16	65	4.00
	<i>Aprion virescens</i>	Uku (gray snapper)	7	22	3.25
	<i>Etelis carbunculus</i>	Ehu (red snapper)	13	54	4.25
	<i>Etelis coruscans</i>	Onaga (red snapper)	167	965	5.78
	Lutjanidae ( <i>unspecified</i> )	Snappers	50	163	3.25
	<i>Pristipomoides sieboldii</i>	Kalikali (pink snapper)	13	52	4.00
	<i>Pristipomoides zonatus</i>	Gindai (flower snapper)	12	50	4.25
	<b>Scaridae</b> (parrotfishes)				
	Scaridae ( <i>unspecified</i> )	Parrotfishes	1,628	5,683	3.49
	<b>Serranidae</b> (groupers)				
	Serranidae ( <i>unspecified</i> )	Groupers	32	104	3.25
	<b>Siganidae</b> (rabbitfishes)				
	<i>Siganidae</i> ( <i>unspecified</i> )	Rabbitfishes	74	262	3.53
	<b>Sphyraenidae</b> (barracudas)				
	<i>Sphyraena</i> spp.	Barracudas	90	192	2.13
	<b>Unspecified Fish Groups</b>				
	Carangidae, Lutjanidae,	Bottomfishes (unspecified)	152	560	3.69
	Various (many) families	Reef fishes (unspecified)	1,986	6,471	3.26

**Table C-6**  
**Guam May 2014 Estimated Commercial Landings**

<b>Group</b>	<b>Subgroup</b>		<b>Lbs</b>	<b>Estimated</b>	<b>Price/</b>
	<b>Scientific Name</b>	<b>Common/local name</b>	<b>Sold</b>	<b>Value</b>	<b>Lb</b>
	<b>Miscellaneous Seafood</b> ( <i>insufficient information</i> )				
	Unknown fish/invertebrates	Miscellaneous (unspecified)	73	159	2.20
	Unknown fish/invertebrates	Unknown	145	461	3.17
<b>INVERTEBRATES:</b>					
	<b>Crustaceans: Crabs</b>				
	Infraorder: Brachyura	Crabs	17	54	3.25
	<b>Crustaceans: Lobsters</b>				
	Infraorder: Achelata	Lobsters	73	272	3.75
	<b>Mollusks</b>				
	<i>Octopus</i> spp.	Octopus	163	525	3.22
<b>Total</b>			<b>21,292</b>	<b>\$52,426</b>	<b>\$2.46</b>

**Table C-7**  
**Guam June 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs	Estimated	Price/
	Scientific Name	Common/local name	Sold	Value	Lb
<b>FISHES:</b>					
	<b>Scombridae</b>				
	<b>Tunas</b>				
	<i>Katsuwonus pelamis</i>	Skipjack tuna	5,449	10,483	1.92
	<i>Thunnus albacares</i>	Yellowfin tuna	854	1,953	2.29
	<b>Other scombrids</b>				
	<i>Acanthocybium solandri</i>	Wahoo	210	525	2.50
	<i>Gymnosarda unicolor</i>	Dogtooth tuna	61	121	2.00
	<b>Billfishes</b>				
	<b>Istiophoridae</b>				
	<i>Istiophorus platypterus</i>	Sailfish	97	204	2.10
	<i>Makaira mazara</i> , <i>Makaira</i>	Marlins (unspecified)	1,666	2,796	1.68
	<b>Other fishes</b>				
	<b>Acanthuridae</b> (Tangs, Surgeons, Unicornfishes)				
	<i>Acanthurus</i> , <i>Ctenochaetus</i> spp.	Surgeonfishes (unspecified)	68	223	3.30
	<i>Naso</i> spp.	Unicornfishes (unspecified)	1,106	3,594	3.25
	<b>Carangidae</b> (jacks & trevallies)				
	<i>Carangidae (unspecified)</i>	Jacks	113	339	3.01
	<i>Seriola dumerili</i>	Greater amberjack	26	79	3.00
	<i>Elagatis bipinnulata</i>	Rainbow runner	406	898	2.21
	<b>Coryphaenidae</b> (mahimahi/dolphinfish)				
	<i>Coryphaena hippurus</i> , <i>C.</i>	Mahimahi	152	367	2.41
	<b>Lethrinidae</b> (emperors)				
	<i>Lethrinidae (unspecified)</i>	Mafute (emperor)	145	466	3.21
	<b>Lutjanidae</b> (snappers)				
	<i>Aphareus rutilans</i>	Lehi (silverjaw)	33	141	4.23
	<i>Aprion virescens</i>	Uku (gray snapper)	69	202	2.91
	<i>Etelis carbunculus</i>	Ehu (red snapper)	28	119	4.25
	<i>Pristipomoides filamentosus</i>	Opakapaka (pink snapper)	119	505	4.25
	<i>Pristipomoides sieboldii</i>	Kalikali (pink snapper)	286	1,137	3.98
	<i>Pristipomoides zonatus</i>	Gindai (flower snapper)	65	275	4.23
	<b>Mugilidae</b> (mullet)				
	<i>Mugilidae (unspecified)</i>	Mullet	12	38	3.25
	<b>Scaridae</b> (parrotfishes)				
	<i>Scaridae (unspecified)</i>	Parrotfishes	2,762	9,583	3.47
	<b>Serranidae</b> (groupers)				
	<i>Serranidae (unspecified)</i>	Groupers	288	903	3.14
	<b>Siganidae</b> (rabbitfishes)				
	<i>Siganidae (unspecified)</i>	Rabbitfishes	42	111	2.66
	<b>Sphyraenidae</b> (barracudas)				
	<i>Sphyraena</i> spp.	Barracudas	113	232	2.05



**Table C-7**  
**Guam June 2014 Estimated Commercial Landings**

<b>Group</b>	<b>Subgroup</b>		<b>Lbs</b>	<b>Estimated</b>	<b>Price/</b>
	<b>Scientific Name</b>	<b>Common/local name</b>	<b>Sold</b>	<b>Value</b>	<b>Lb</b>
<b>Other fishes (continued)</b>					
<b>Unspecified Fish Groups</b>					
	Carangidae, Lutjanidae,	Bottomfishes (unspecified)	29	95	3.25
	Various (many) families	Reef fishes (unspecified)	2,786	9,043	3.25
<b>Miscellaneous Seafood</b> ( <i>insufficient information</i> )					
	Unknown fish/invertebrates	Miscellaneous (unspecified)	11	33	3.00
	Unknown fish/invertebrates	Unknown	460	1,457	3.17
<b>INVERTEBRATES:</b>					
<b>Crustaceans: Lobsters</b>					
	Infraorder: Achelata	Lobsters	863	3,235	3.75
<b>Mollusks</b>					
	<i>Octopus</i> spp.	Octopus	48	154	3.25
<b>Total</b>			<b>18,367</b>	<b>\$49,311</b>	<b>\$2.68</b>

**Table C-8**  
**Guam July 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs Sold	Estimated Value	Price/Lb
	Scientific Name	Common/local name			
<b>FISHES:</b>					
	<b>Scombridae</b>				
	<b>Tunas</b>				
	<i>Katsuwonus pelamis</i>	Skipjack tuna	3,819	6,136	1.61
	<i>Thunnus albacares</i>	Yellowfin tuna	335	837	2.50
	<b>Other scombrids</b>				
	<i>Acanthocybium solandri</i>	Wahoo	43	108	2.50
	<i>Gymnosarda unicolor</i>	Dogtooth tuna	135	217	1.61
	<b>Billfishes</b>				
	<b>Istiophoridae</b>				
	<i>Makaira mazara</i> , <i>Makaira</i>	Marlins (unspecified)	2,903	5,343	1.84
	<i>Tetrapturus angustirostris</i>	Spearfish	28	42	1.50
	<b>Other fishes</b>				
	<b>Acanthuridae</b> (Tangs, Surgeons, Unicornfishes)				
	<i>Acanthurus</i> , <i>Ctenochaetus</i> spp.	Surgeonfishes (unspecified)	164	516	3.14
	<i>Naso</i> spp.	Unicornfishes (unspecified)	1,806	5,869	3.25
	<b>Carangidae</b> (jacks & trevallies)				
	<i>Elagatis bipinnulata</i>	Rainbow runner	122	275	2.25
	<b>Lethrinidae</b> (emperors)				
	<i>Lethrinidae (unspecified)</i>	Mafute (emperor)	182	563	3.09
	<b>Lutjanidae</b> (snappers)				
	<i>Pristipomoides filamentosus</i>	Opakapaka (pink snapper)	9	40	4.25
	<i>Pristipomoides zonatus</i>	Gindai (flower snapper)	4	11	3.00
	<b>Mullidae</b> (goatfishes)				
	<i>Mullidae (unspecified)</i>	Goatfishes	167	500	3.00
	<b>Scaridae</b> (parrotfishes)				
	<i>Scaridae (unspecified)</i>	Parrotfishes	1,248	4,401	3.53
	<b>Serranidae</b> (groupers)				
	<i>Serranidae (unspecified)</i>	Groupers	79	258	3.25
	<b>Siganidae</b> (rabbitfishes)				
	<i>Siganidae (unspecified)</i>	Rabbitfishes	114	422	3.70
	<b>Sphyraenidae</b> (barracudas)				
	<i>Sphyraena spp.</i>	Barracudas	35	78	2.25
	<b>Unspecified Fish Groups</b>				
	Carangidae, Lutjanidae,	Bottomfishes (unspecified)	33	113	3.48
	Various (many) families	Reef fishes (unspecified)	1,203	3,911	3.25
	Unknown Fish or Invertebrates	Miscellaneous (unspecified)	5	15	3.00

**Table C-8**  
**Guam July 2014 Estimated Commercial Landings**

<b>Group</b>	<b>Subgroup</b>		<b>Lbs</b>	<b>Estimated</b>	<b>Price/</b>
	<b>Scientific Name</b>	<b>Common/local name</b>	<b>Sold</b>	<b>Value</b>	<b>Lb</b>
<b>INVERTEBRATES:</b>					
	<b>Crustaceans: Lobsters</b>				
	Infraorder: Achelata	Lobsters	253	934	3.70
	<b>Mollusks</b>				
	<i>Octopus</i> spp.	Octopus	58	194	3.33
<b>Total</b>			<b>12,745</b>	<b>\$30,783</b>	<b>\$2.42</b>

**Table C-9**  
**Guam August 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs Sold	Estimated Value	Price/Lb
	Scientific Name	Common/local name			
<b>FISHES:</b>					
	<b>Scombridae</b>				
	<b>Tunas</b>				
	<i>Katsuwonus pelamis</i>	Skipjack tuna	3,567	7,422	2.08
	<i>Thunnus albacares</i>	Yellowfin tuna	1,260	2,898	2.30
	<b>Other scombrids</b>				
	<i>Acanthocybium solandri</i>	Wahoo	788	1,964	2.49
	<i>Gymnosarda unicolor</i>	Dogtooth tuna	43	87	2.00
	<b>Billfishes</b>				
	<b>Istiophoridae</b>				
	<i>Istiophorus platypterus</i>	Sailfish	166	242	1.46
	<i>Makaira mazara</i> , <i>Makaira</i>	Marlins (unspecified)	11,647	16,378	1.41
	<b>Other fishes</b>				
	<b>Acanthuridae</b> (Tangs, Surgeons, Unicornfishes)				
	<i>Acanthurus</i> , <i>Ctenochaetus</i> spp.	Surgeonfishes (unspecified)	888	2,833	3.19
	<i>Naso</i> spp.	Unicornfishes (unspecified)	2,245	7,423	3.31
	<b>Carangidae</b> (jacks & trevallies)				
	<i>Seriola dumerili</i>	Greater amberjack	11	34	3.20
	<i>Selar crumenophthalmus</i>	Bigeye scad (atulai)	402	822	2.05
	<i>Elagatis bipinnulata</i>	Rainbow runner	101	227	2.25
	<b>Coryphaenidae</b> (mahimahi/dolphinfish)				
	<i>Coryphaena hippurus</i> , <i>C. equiselis</i>	Mahimahi	254	514	2.02
	<b>Lethrinidae</b> (emperors)				
	Lethrinidae ( <i>unspecified</i> )	Mafute (emperor)	459	1,403	3.06
	<b>Lutjanidae</b> (snappers)				
	<i>Aprion virescens</i>	Uku (gray snapper)	28	89	3.25
	<i>Etelis carbunculus</i>	Ehu (red snapper)	11	45	4.25
	<i>Pristipomoides filamentosus</i>	Opakapaka (pink snapper)	50	213	4.25
	<i>Pristipomoides sieboldii</i>	Kalikali (pink snapper)	98	401	4.12
	<i>Pristipomoides zonatus</i>	Gindai (flower snapper)	27	116	4.25
	<b>Mugilidae</b> (mullet)				
	Mugilidae ( <i>unspecified</i> )	Mullet	95	285	3.00
	<b>Mullidae</b> (goatfishes)				
	Mullidae ( <i>unspecified</i> )	Goatfishes	193	580	3.00
	<b>Scaridae</b> (parrotfishes)				
	Scaridae ( <i>unspecified</i> )	Parrotfishes	2,196	7,774	3.54
	<b>Serranidae</b> (groupers)				
	Serranidae ( <i>unspecified</i> )	Groupers	102	332	3.27
	<b>Siganidae</b> (rabbitfishes)				
	Siganidae ( <i>unspecified</i> )	Rabbitfishes	503	1,533	3.05
	<b>Sphyraenidae</b> (barracudas)				
	<i>Sphyraena</i> spp.	Barracudas	233	522	2.25

**Table C-9**  
**Guam August 2014 Estimated Commercial Landings**

<b>Group</b>	<b>Subgroup</b>		<b>Lbs</b>	<b>Estimated</b>	<b>Price/</b>
	<b>Scientific Name</b>	<b>Common/local name</b>	<b>Sold</b>	<b>Value</b>	<b>Lb</b>
<b>Other fishes (continued)</b>					
	<b>Unspecified Fish Groups</b>				
	Carangidae, Lutjanidae,	Bottomfishes (unspecified)	183	613	3.36
	Various (many) families	Reef fishes (unspecified)	2,113	6,688	3.17
	<b>Miscellaneous Seafood</b> ( <i>insufficient information</i> )				
	Unknown fish/invertebrates	Miscellaneous (unspecified)	85	234	2.75
	Unknown fish/invertebrates	Unknown	411	1,428	3.48
<b>INVERTEBRATES:</b>					
	<b>Crustaceans: Lobsters</b>				
	Infraorder: Achelata	Lobsters	330	1,269	3.84
<b>Total</b>			<b>28,489</b>	<b>\$64,369</b>	<b>\$2.26</b>

**Table C-10**  
**Guam September 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs	Estimated	Price/
	Scientific Name	Common/local name	Sold	Value	Lb
<b>FISHES:</b>					
	<b>Scombridae</b>				
	<b>Tunas</b>				
	<i>Katsuwonus pelamis</i>	Skipjack tuna	5,191	9,551	1.84
	<i>Thunnus albacares</i>	Yellowfin tuna	1,375	2,992	2.17
	<b>Other scombrids</b>				
	<i>Acanthocybium solandri</i>	Wahoo	1,095	1,995	1.82
	<i>Gymnosarda unicolor</i>	Dogtooth tuna	351	640	1.83
	<b>Billfishes</b>				
	<b>Istiophoridae</b>				
	<i>Makaira mazara</i> , <i>Makaira</i>	Marlins (unspecified)	699	1,156	1.65
	<b>Other fishes</b>				
	<b>Acanthuridae</b> (Tangs, Surgeons, Unicornfishes)				
	<i>Acanthurus</i> , <i>Ctenochaetus</i> spp.	Surgeonfishes (unspecified)	928	2,784	3.00
	<i>Naso</i> spp.	Unicornfishes (unspecified)	1,363	4,592	3.37
	<b>Carangidae</b> (jacks & trevallies)				
	Carangidae ( <i>unspecified</i> )	Jacks	97	316	3.25
	<i>Seriola dumerili</i>	Greater amberjack	7	22	3.25
	<i>Selar crumenophthalmus</i>	Bigeye scad (atulai)	424	1,272	3.00
	<i>Elagatis bipinnulata</i>	Rainbow runner	166	374	2.25
	<b>Coryphaenidae</b> (mahimahi/dolphinfish)				
	<i>Coryphaena hippurus</i> , <i>C. equiselis</i>	Mahimahi	180	387	2.15
	<b>Holocentridae</b> (squirrel & soldierfishes)				
	<i>Sargocentron</i> spp., <i>Neoniphon</i>	Squirrelfishes	66	228	3.46
	<b>Lethrinidae</b> (emperors)				
	Lethrinidae ( <i>unspecified</i> )	Mafute (emperor)	611	1,850	3.03
	<b>Lutjanidae</b> (snappers)				
	<i>Aphareus rutilans</i>	Lehi (silverjaw)	12	50	4.25
	<i>Aprion virescens</i>	Uku (gray snapper)	55	169	3.08
	<i>Etelis carbunculus</i>	Ehu (red snapper)	47	199	4.25
	<i>Etelis coruscans</i>	Onaga (red snapper)	91	546	6.00
	Lutjanidae ( <i>unspecified</i> )	Snappers	36	134	3.70
	<i>Pristipomoides filamentosus</i>	Opakapaka (pink snapper)	61	260	4.25
	<i>Pristipomoides sieboldii</i>	Kalikali (pink snapper)	34	139	4.12
	<i>Pristipomoides zonatus</i>	Gindai (flower snapper)	10	43	4.25
	<b>Mugilidae</b> (mullet)				
	Mugilidae ( <i>unspecified</i> )	Mullet	59	178	3.00
	<b>Mullidae</b> (goatfishes)				
	Mullidae ( <i>unspecified</i> )	Goatfishes	200	600	3.00
	<b>Scaridae</b> (parrotfishes)				
	Scaridae ( <i>unspecified</i> )	Parrotfishes	1,796	6,289	3.50
	<b>Serranidae</b> (groupers)				
	Serranidae ( <i>unspecified</i> )	Groupers	163	565	3.47

**Table C-10**  
**Guam September 2014 Estimated Commercial Landings**

<b>Group</b>	<b>Subgroup</b>		<b>Lbs</b>	<b>Estimated</b>	<b>Price/</b>
	<b>Scientific Name</b>	<b>Common/local name</b>	<b>Sold</b>	<b>Value</b>	<b>Lb</b>
<b>Other fishes (continued)</b>					
	<b>Siganidae</b> (rabbitfishes)				
	<i>Siganidae (unspecified)</i>	Rabbitfishes	89	277	3.11
	<b>Sphyraenidae</b> (barracudas)				
	<i>Sphyraena spp.</i>	Barracudas	38	90	2.37
	<b>Unspecified Fish Groups</b>				
	Carangidae, Lutjanidae,	Bottomfishes (unspecified)	173	562	3.25
	Various (many) families	Reef fishes (unspecified)	1,926	5,975	3.10
	<b>Miscellaneous Seafood</b> ( <i>insufficient information</i> )				
	Unknown fish/invertebrates	Unknown	380	1,594	4.20
<b>INVERTEBRATES:</b>					
	<b>Crustaceans: Lobsters</b>				
	Infraorder: Achelata	Lobsters	251	1,062	4.23
	<b>Mollusks</b>				
	<i>Octopus spp.</i>	Octopus	95	356	3.75
<b>Total</b>			<b>18,069</b>	<b>\$47,247</b>	<b>\$2.61</b>

**Table C-11**  
**Guam October 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs	Estimated	Price/
	Scientific Name	Common/local name	Sold	Value	Lb
<b>FISHES:</b>					
	<b>Scombridae</b>				
	<b>Tunas</b>				
	<i>Katsuwonus pelamis</i>	Skipjack tuna	5,856	12,536	2.14
	<i>Thunnus albacares</i>	Yellowfin tuna	68	153	2.25
	Tribe Thunnini ( <i>unspecified</i> )	Tunas	81	183	2.25
	<b>Other scombrids</b>				
	<i>Acanthocybium solandri</i>	Wahoo	404	1,010	2.50
	<b>Billfishes</b>				
	<b>Istiophoridae</b>				
	<i>Makaira mazara</i> , <i>Makaira</i>	Marlins ( <i>unspecified</i> )	917	1,402	1.53
	<b>Other fishes</b>				
	<b>Acanthuridae</b> (Tangs, Surgeons, Unicornfishes)				
	<i>Acanthurus</i> , <i>Ctenochaetus</i> spp.	Surgeonfishes ( <i>unspecified</i> )	710	2,137	3.01
	<i>Naso</i> spp.	Unicornfishes ( <i>unspecified</i> )	2,215	7,532	3.40
	<b>Carangidae</b> (jacks & trevallies)				
	Carangidae ( <i>unspecified</i> )	Jacks	67	201	3.00
	<i>Elagatis bipinnulata</i>	Rainbow runner	138	311	2.25
	<b>Coryphaenidae</b> (mahimahi/dolphinfish)				
	<i>Coryphaena hippurus</i> , <i>C.</i>	Mahimahi	132	327	2.47
	<b>Labridae</b> (wrasses)				
	Labridae ( <i>unspecified</i> )	Wrasses	22	70	3.25
	<b>Lethrinidae</b> (emperors)				
	Lethrinidae ( <i>unspecified</i> )	Mafute (emperor)	341	1,042	3.06
	<b>Lutjanidae</b> (snappers)				
	<i>Aprion virescens</i>	Uku (gray snapper)	8	24	3.25
	<i>Etelis coruscans</i>	Onaga (red snapper)	19	116	6.00
	Lutjanidae ( <i>unspecified</i> )	Snappers	4	12	3.25
	<i>Pristipomoides filamentosus</i>	Opakapaka (pink snapper)	8	32	4.25
	<i>Pristipomoides sieboldii</i>	Kalikali (pink snapper)	8	34	4.00
	<b>Mugilidae</b> (mullet)				
	Mugilidae ( <i>unspecified</i> )	Mullet	58	175	3.00
	<b>Mullidae</b> (goatfishes)				
	Mullidae ( <i>unspecified</i> )	Goatfishes	110	448	4.07
	<b>Scaridae</b> (parrotfishes)				
	Scaridae ( <i>unspecified</i> )	Parrotfishes	2,003	7,000	3.50
	<b>Serranidae</b> (groupers)				
	Serranidae ( <i>unspecified</i> )	Groupers	201	710	3.54
	<b>Siganidae</b> (rabbitfishes)				
	<i>Siganidae</i> ( <i>unspecified</i> )	Rabbitfishes	248	944	3.80
	<b>Sphyraenidae</b> (barracudas)				
	<i>Sphyraena</i> spp.	Barracudas	78	171	2.19



**Table C-11**  
**Guam October 2014 Estimated Commercial Landings**

<b>Group</b>	<b>Subgroup</b>		<b>Lbs</b>	<b>Estimated</b>	<b>Price/</b>
	<b>Scientific Name</b>	<b>Common/local name</b>	<b>Sold</b>	<b>Value</b>	<b>Lb</b>
<b>Other fishes (continued)</b>					
	<b>Unspecified Fish Groups</b>				
	Carangidae, Lutjanidae,	Bottomfishes (unspecified)	64	209	3.25
	Various (many) families	Reef fishes (unspecified)	2,545	8,004	3.14
	<b>Miscellaneous Seafood</b> ( <i>insufficient information</i> )				
	Unknown fish/invertebrates	Unknown	149	630	4.22
<b>INVERTEBRATES:</b>					
	<b>Crustaceans: Lobsters</b>				
	Infraorder: Achelata	Lobsters	102	404	3.95
<b>Total</b>			<b>16,556</b>	<b>\$45,817</b>	<b>\$2.77</b>

**Table C-12**  
**Guam November 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs Sold	Estimated Value	Price/Lb
	Scientific Name	Common/local name			
<b>FISHES:</b>					
	<b>Scombridae</b>				
	<b>Tunas</b>				
	<i>Katsuwonus pelamis</i>	Skipjack tuna	2,824	3,658	1.30
	<i>Thunnus albacares</i>	Yellowfin tuna	778	1,913	2.46
	<b>Other scombrids</b>				
	<i>Acanthocybium solandri</i>	Wahoo	4,468	9,627	2.15
	<i>Gymnosarda unicolor</i>	Dogtooth tuna	58	114	1.97
	<b>Billfishes</b>				
	<b>Istiophoridae</b>				
	<i>Istiophorus platypterus</i>	Sailfish	51	94	1.85
	<i>Makaira mazara</i> , <i>Makaira</i>	Marlins (unspecified)	391	740	1.89
	<b>Other fishes</b>				
	<b>Acanthuridae</b> (Tangs, Surgeons, Unicornfishes)				
	<i>Acanthurus</i> , <i>Ctenochaetus</i> spp.	Surgeonfishes (unspecified)	330	1,011	3.06
	<i>Naso</i> spp.	Unicornfishes (unspecified)	1,212	3,888	3.21
	<b>Carangidae</b> (jacks & trevallies)				
	<i>Carangidae</i> (unspecified)	Jacks	83	248	3.00
	<i>Elagatis bipinnulata</i>	Rainbow runner	29	66	2.25
	<b>Coryphaenidae</b> (mahimahi/dolphinfish)				
	<i>Coryphaena hippurus</i> , <i>C.</i>	Mahimahi	321	795	2.47
	<b>Kyphosidae</b> (sea chubs)				
	<i>Kyphosus</i> spp. (various)	Rudderfish (guilli)	51	165	3.25
	<b>Lethrinidae</b> (emperors)				
	<i>Lethrinidae</i> (unspecified)	Mafute (emperor)	8	27	3.25
	<b>Lutjanidae</b> (snappers)				
	<i>Aphareus rutilans</i>	Lehi (silverjaw)	3	11	4.00
	<i>Etelis carbunculus</i>	Ehu (red snapper)	2	7	4.25
	<i>Etelis coruscans</i>	Onaga (red snapper)	45	268	6.00
	<i>Pristipomoides filamentosus</i>	Opakapaka (pink snapper)	11	45	4.25
	<i>Pristipomoides sieboldii</i>	Kalikali (pink snapper)	16	63	4.00
	<b>Scaridae</b> (parrotfishes)				
	<i>Scaridae</i> (unspecified)	Parrotfishes	1,578	5,557	3.52
	<b>Serranidae</b> (groupers)				
	<i>Serranidae</i> (unspecified)	Groupers	11	38	3.45
	<b>Siganidae</b> (rabbitfishes)				
	<i>Siganidae</i> (unspecified)	Rabbitfishes	69	244	3.53
	<b>Sphyraenidae</b> (barracudas)				
	<i>Sphyraena</i> spp.	Barracudas	25	57	2.25
	<b>Unspecified Fish Groups</b>				
	Various (many) families	Reef fishes (unspecified)	1,860	5,819	3.13
	Unknown Fish or Invertebrates	Miscellaneous (unspecified)	550	610	1.11

**Table C-12**  
**Guam November 2014 Estimated Commercial Landings**

<b>Group</b>	<b>Subgroup</b>	<b>Scientific Name</b>	<b>Common/local name</b>	<b>Lbs Sold</b>	<b>Estimated Value</b>	<b>Price/ Lb</b>
<b>INVERTEBRATES:</b>						
	<b>Crustaceans: Lobsters</b>					
	Infraorder: Achelata					
			Lobsters	8	28	3.75
			<b>Total</b>	<b>14,782</b>	<b>\$35,093</b>	<b>\$2.37</b>

Table C-13

<i>Katsuwonus pelamis</i>	Skipjack tuna	1,223	501	0.41
<i>Thunnus albacares</i>	Yellowfin tuna	557	834	1.50
<b>Other scombrids</b>				
<i>Acanthocybium solandri</i>	Wahoo	1,633	3,895	2.39
<i>Gymnosarda unicolor</i>	Dogtooth tuna	27	55	2.00
<b>Billfishes</b>				
<b>Istiophoridae</b>				
<i>Makaira mazara</i> , <i>Makaira</i>	Marlins (unspecified)	493	965	1.96
<b>Other fishes</b>				
<b>Acanthuridae</b> (Tangs, Surgeons, Unicornfishes)				
<i>Acanthurus</i> , <i>Ctenochaetus</i> spp.	Surgeonfishes (unspecified)	32	103	3.25
<i>Naso</i> spp.	Unicornfishes (unspecified)	1,053	3,421	3.25
<b>Carangidae</b> (jacks & trevallies)				
Carangidae ( <i>unspecified</i> )	Jacks	35	106	3.03
<i>Selar crumenophthalmus</i>	Bigeye scad (atulai)	23	76	3.25
<i>Elagatis bipinnulata</i>	Rainbow runner	111	249	2.23
<b>Coryphaenidae</b> (mahimahi/dolphinfish)				
<i>Coryphaena hippurus</i> , <i>C.</i>	Mahimahi	2,828	6,943	2.46
<b>Lutjanidae</b> (snappers)				
<i>Etelis carbunculus</i>	Ehu (red snapper)	1	4	4.24
Lutjanidae ( <i>unspecified</i> )	Snappers	22	71	3.25
<i>Pristipomoides sieboldii</i>	Kalikali (pink snapper)	5	20	4.00
<b>Scaridae</b> (parrotfishes)				
Scaridae ( <i>unspecified</i> )	Parrotfishes	1,051	3,683	3.50
<b>Serranidae</b> (groupers)				
Serranidae ( <i>unspecified</i> )	Groupers	11	39	3.50
<b>Sphyraenidae</b> (barracudas)				
<i>Sphyraena</i> spp.	Barracudas	75	160	2.14
<b>Unspecified Fish Groups</b>				
Carangidae, Lutjanidae,	Bottomfishes (unspecified)	8	35	4.25
Various (many) families	Reef fishes (unspecified)	1,686	5,367	3.18
<b>Miscellaneous Seafood</b> ( <i>insufficient information</i> )				
Unknown fish/invertebrates	Miscellaneous (unspecified)	54	176	3.25
Unknown fish/invertebrates	Unknown	24	73	3.00

**Table C-13**  
**Guam December 2014 Estimated Commercial Landings**

Group		Lbs Sold	Estimated Value	Price/Lb	
Subgroup	Scientific Name				Common/local name
INVERTEBRATES:					
Crustaceans: Crabs					
	Infraorder: Brachyura	Crabs	25	168	6.70
		Total	10,977	\$26,944	\$2.45

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

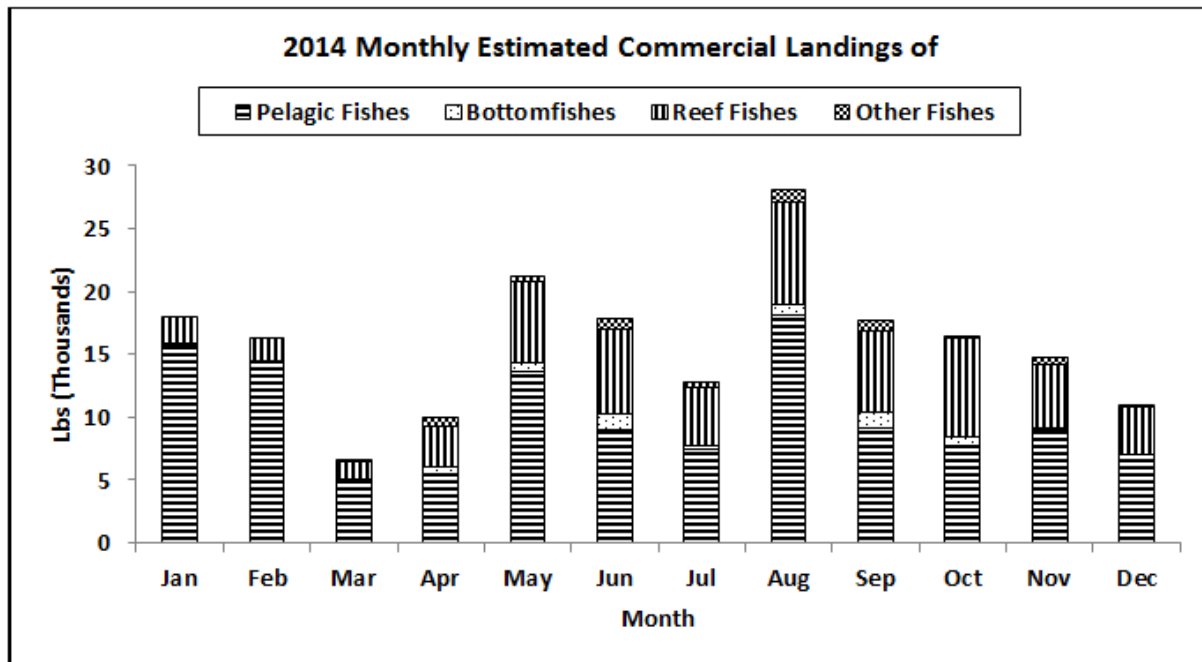


Figure C-1-1

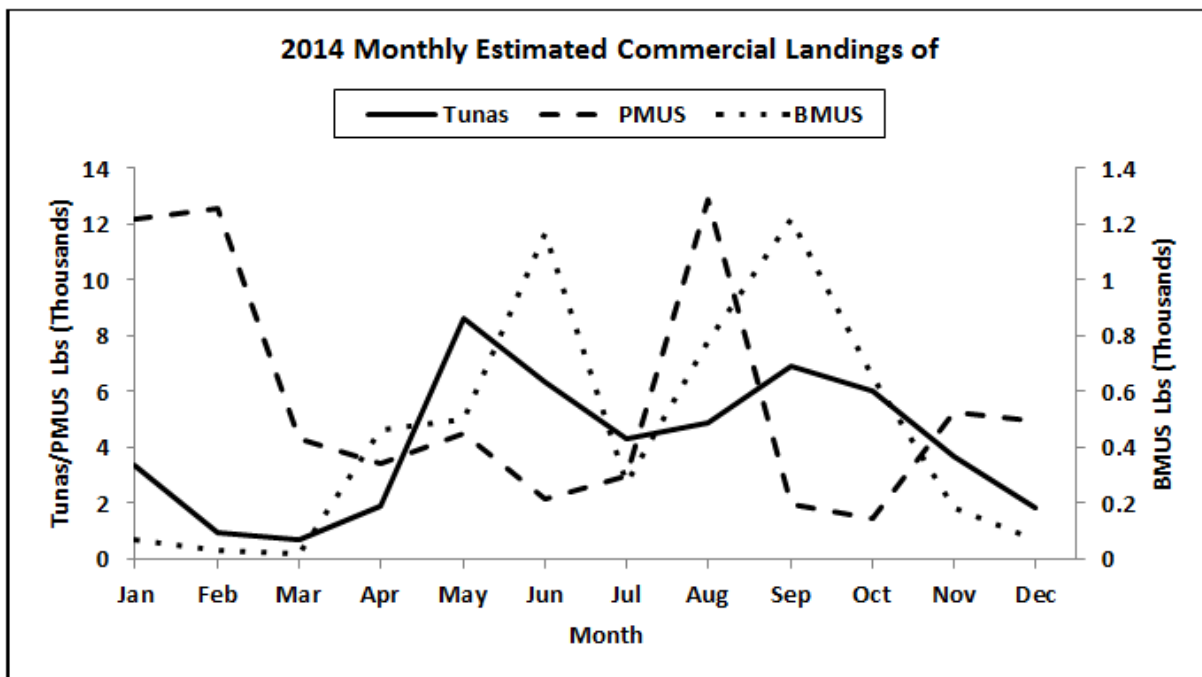


Figure C-1-2

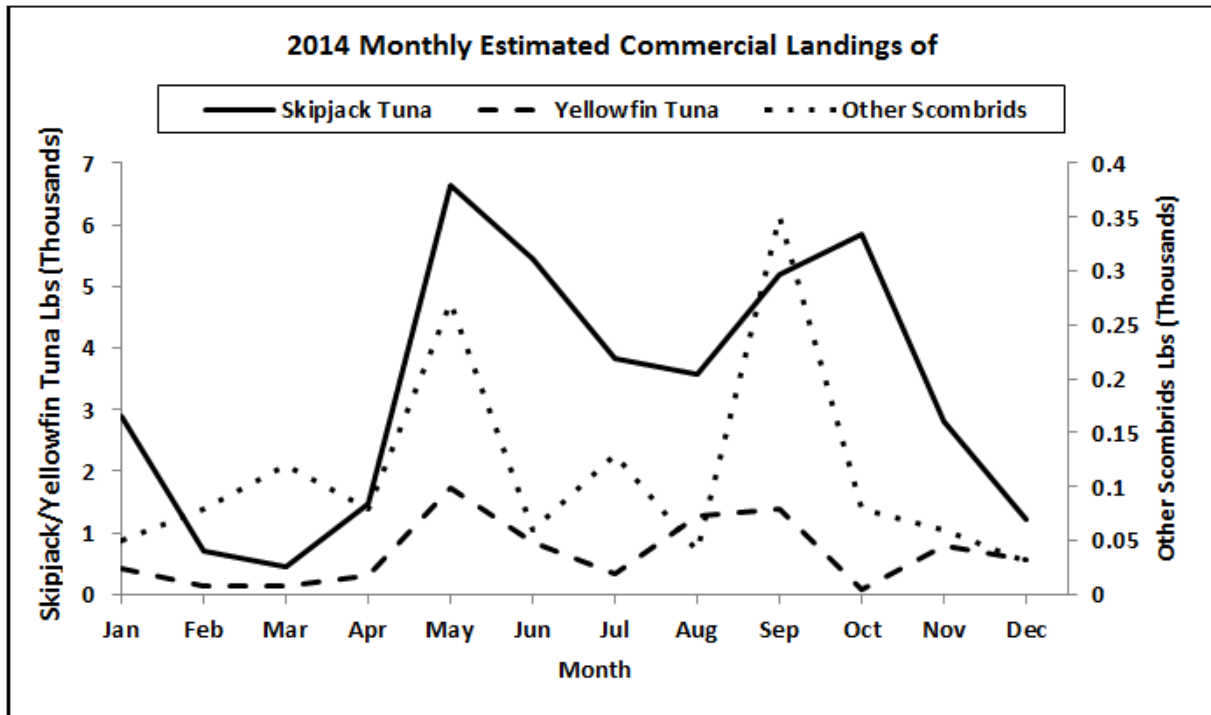


Figure C-1-3

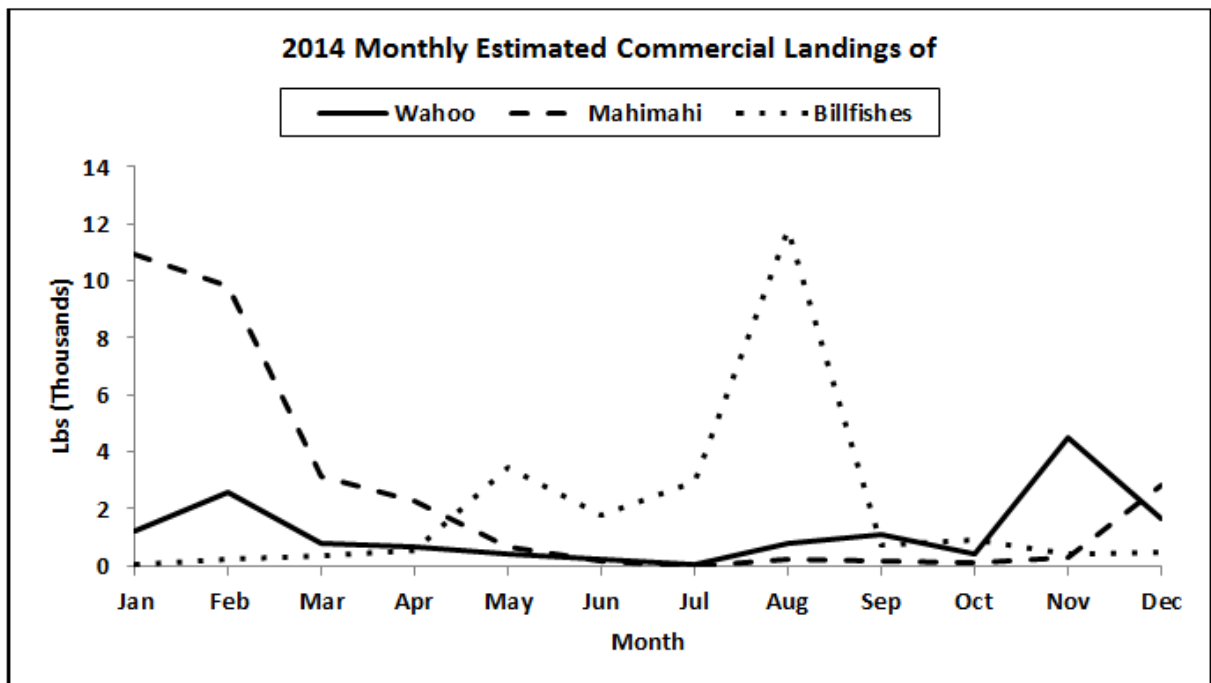


Figure C-1-4

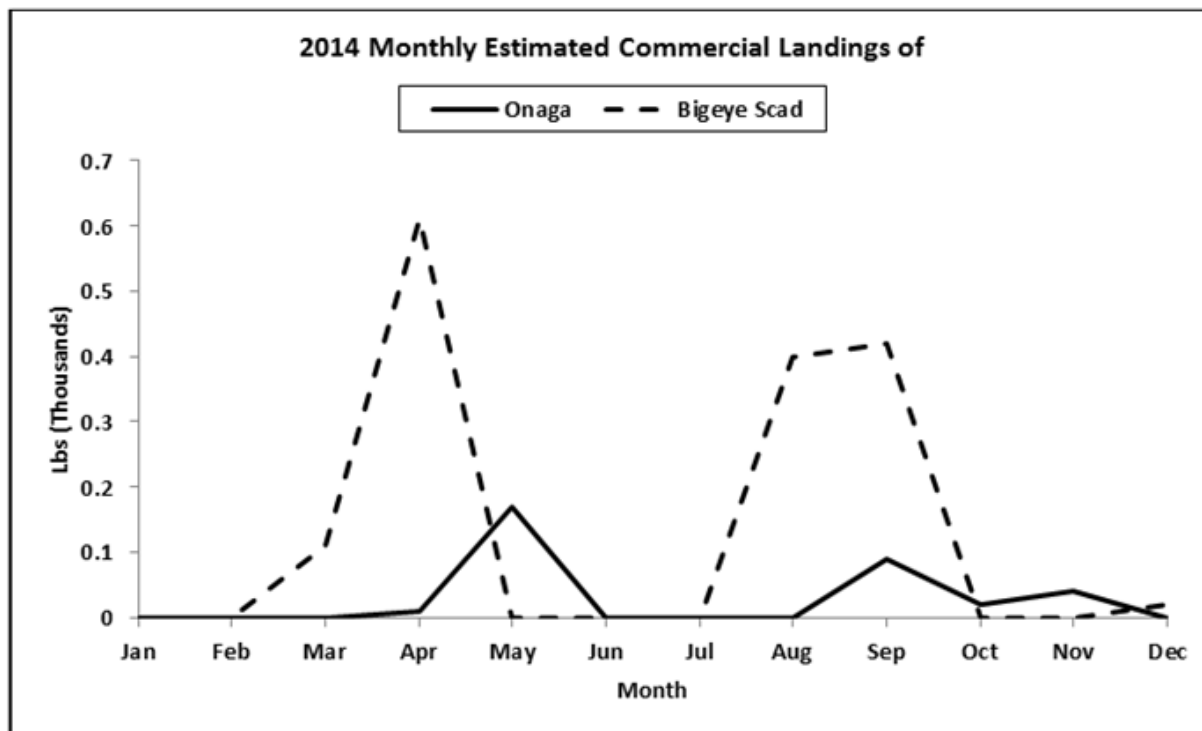


Figure C-1-5



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

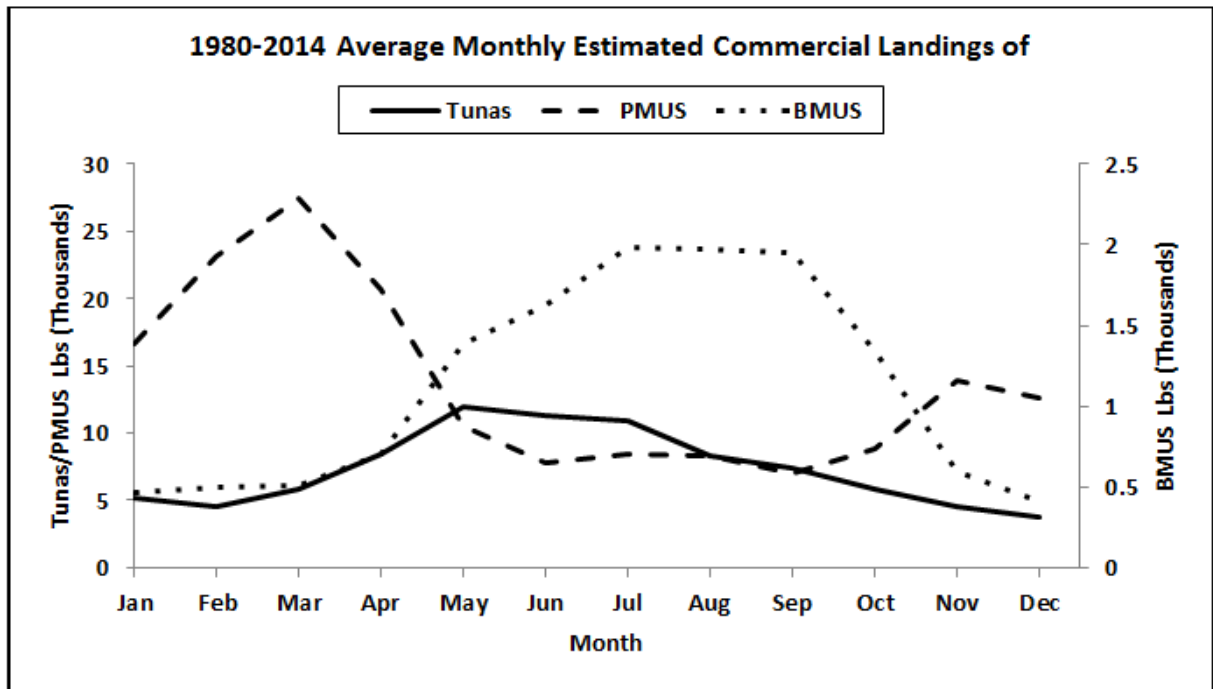


Figure C-2-1

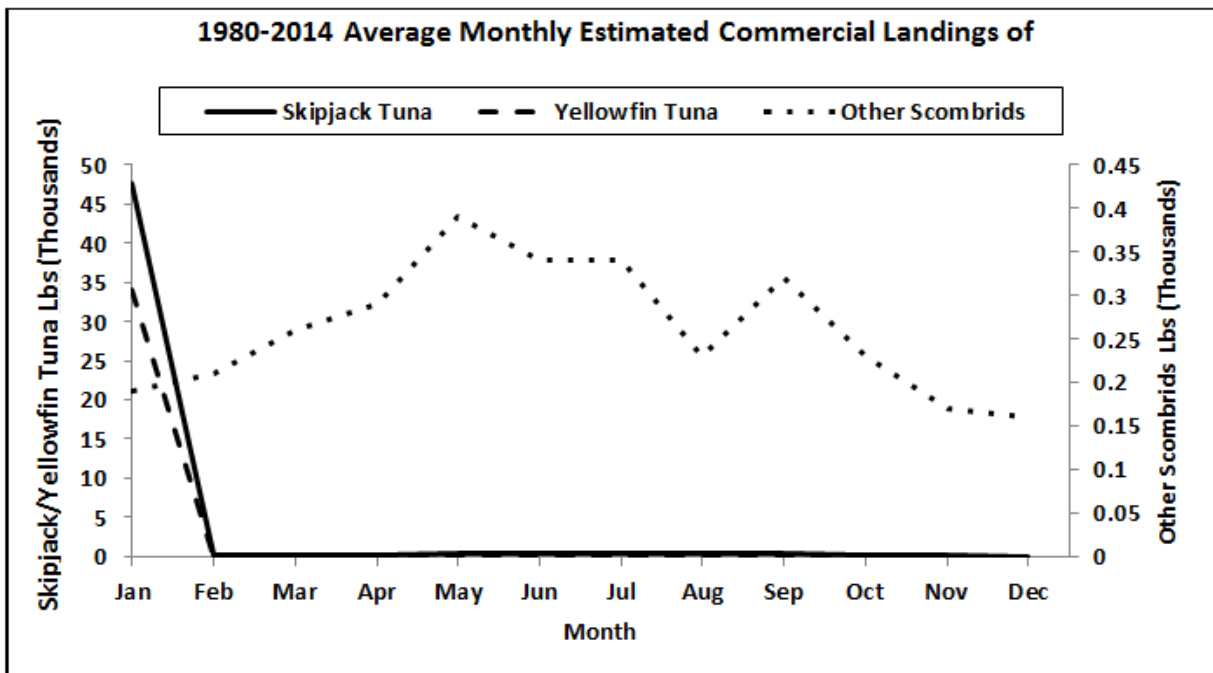


Figure C-2-2

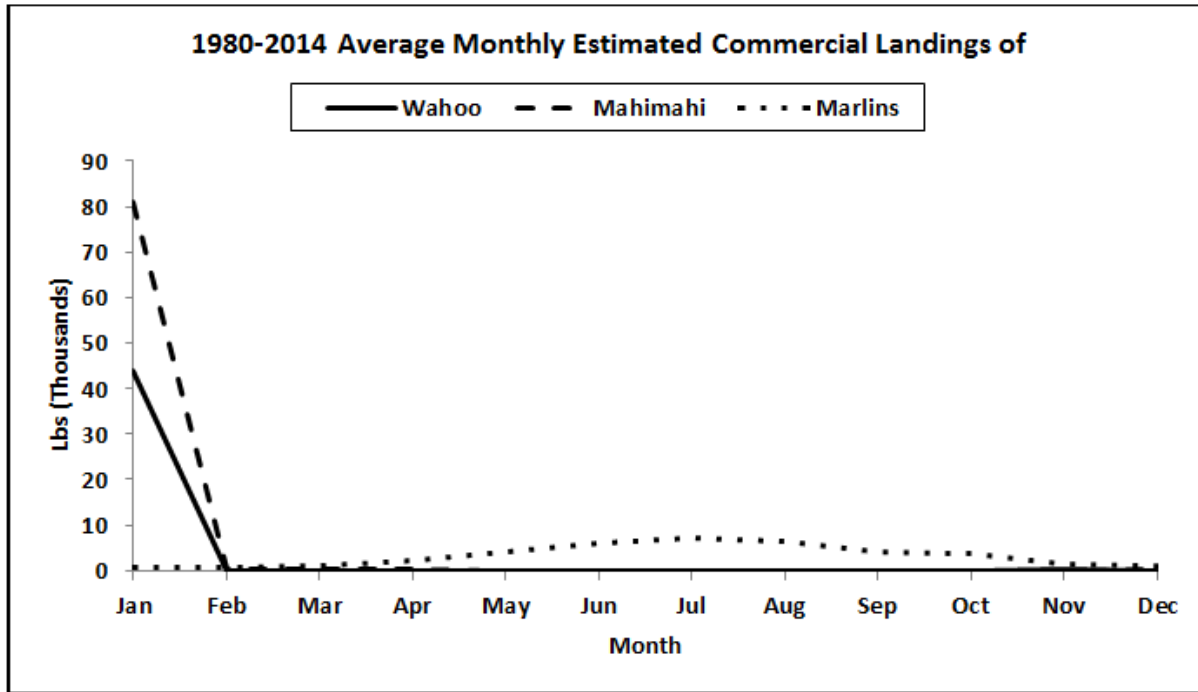


Figure C-2-3

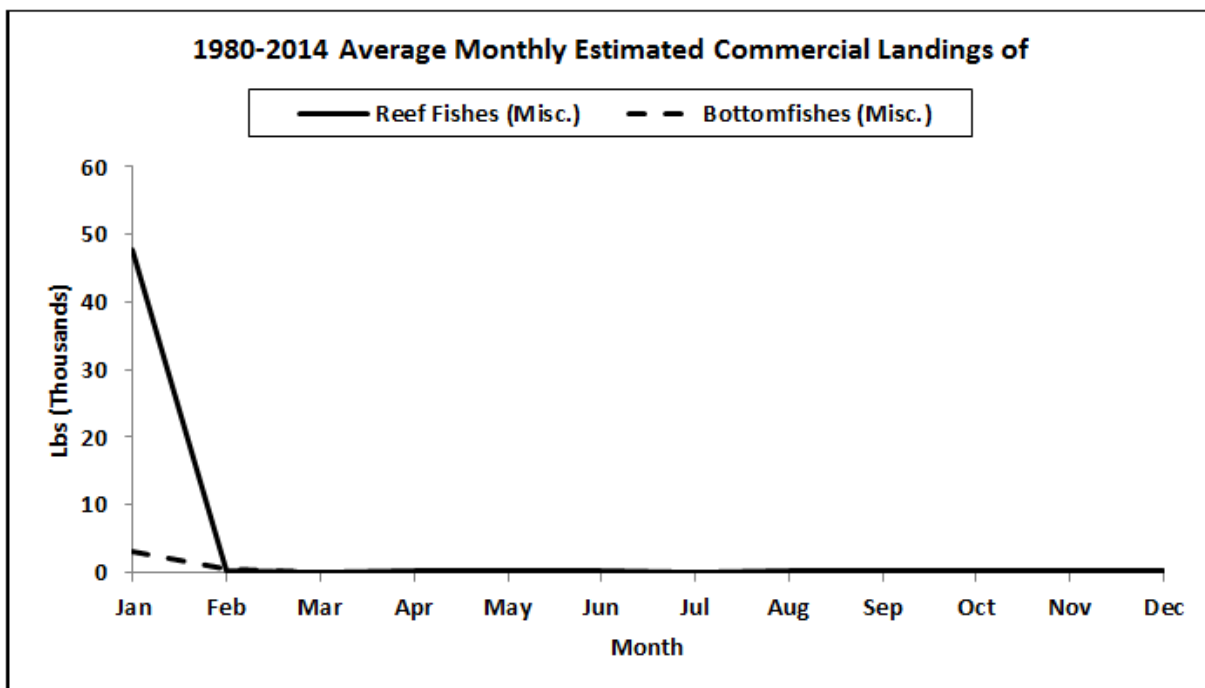


Figure C-2-4

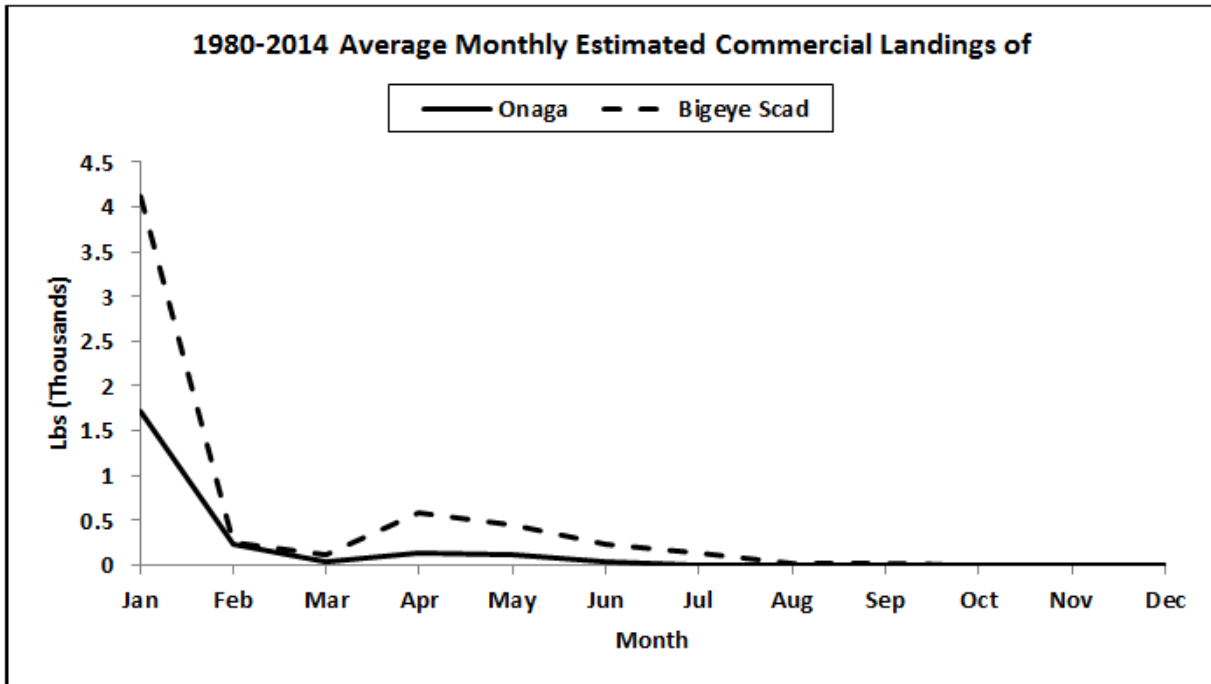


Figure C-2-5

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

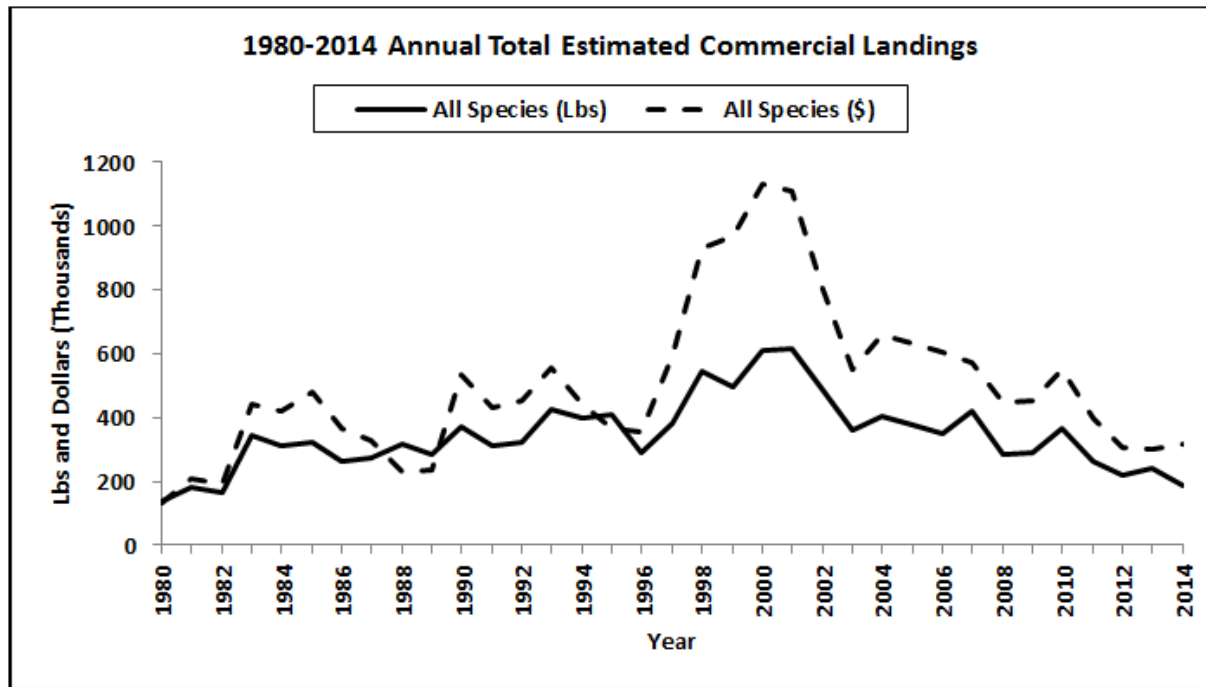


Figure C-3-1

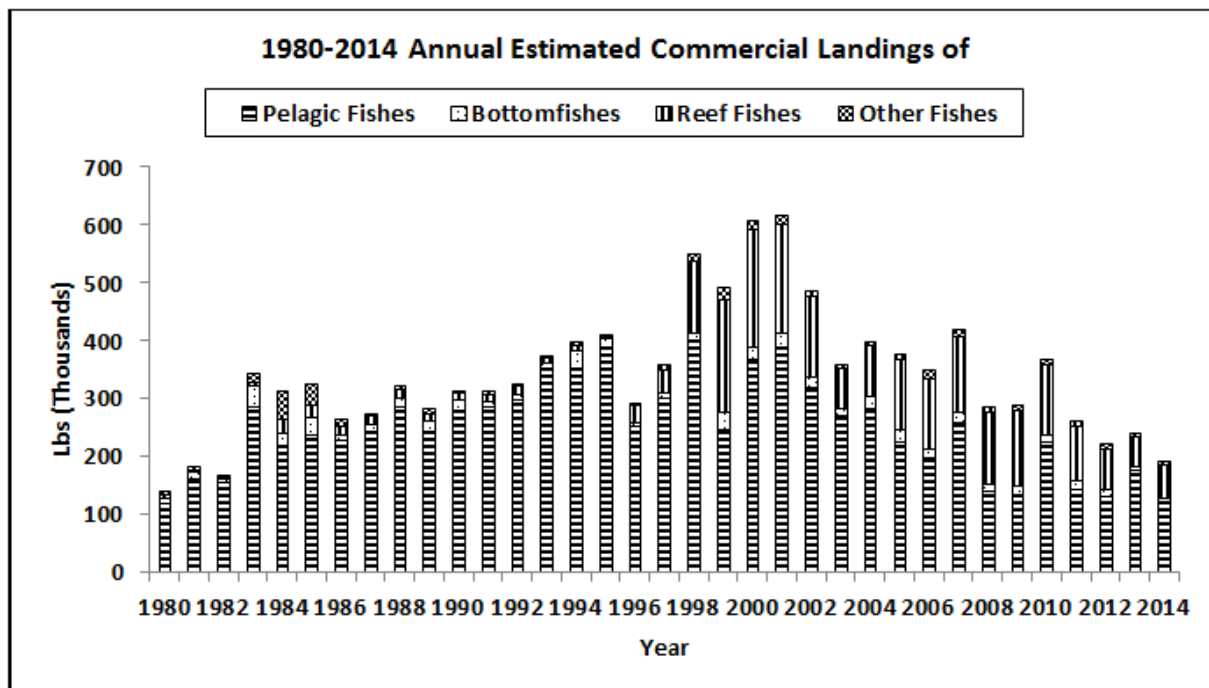


Figure C-3-2

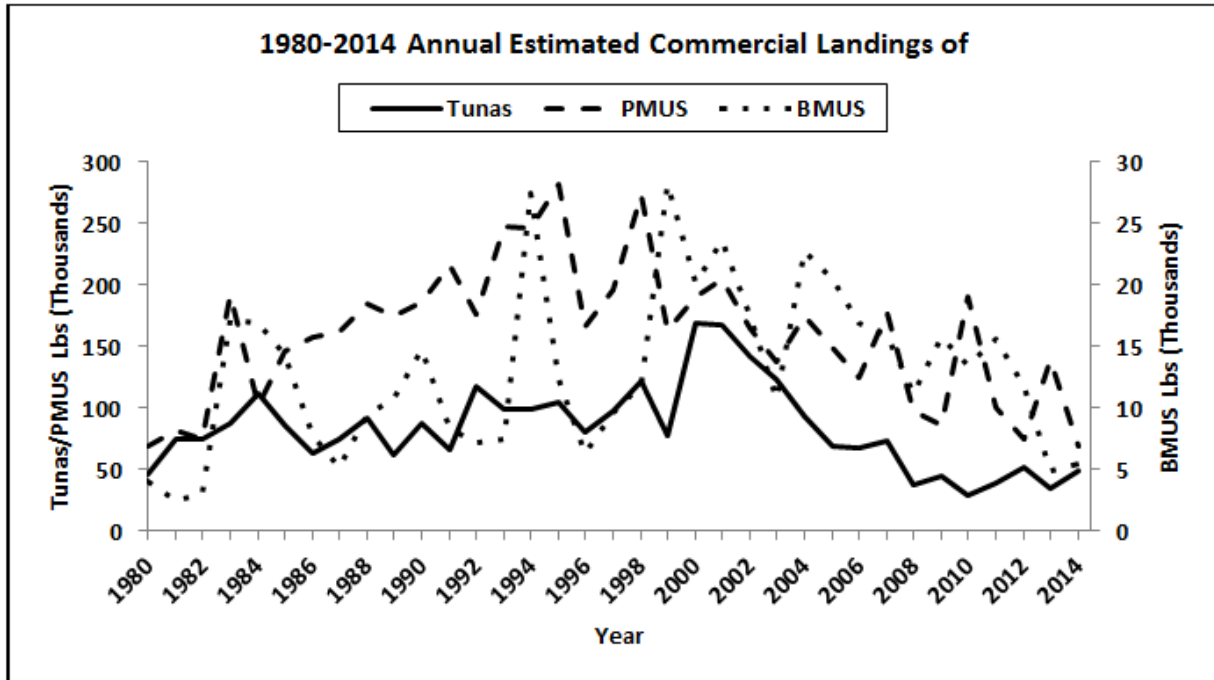


Figure C-3-3

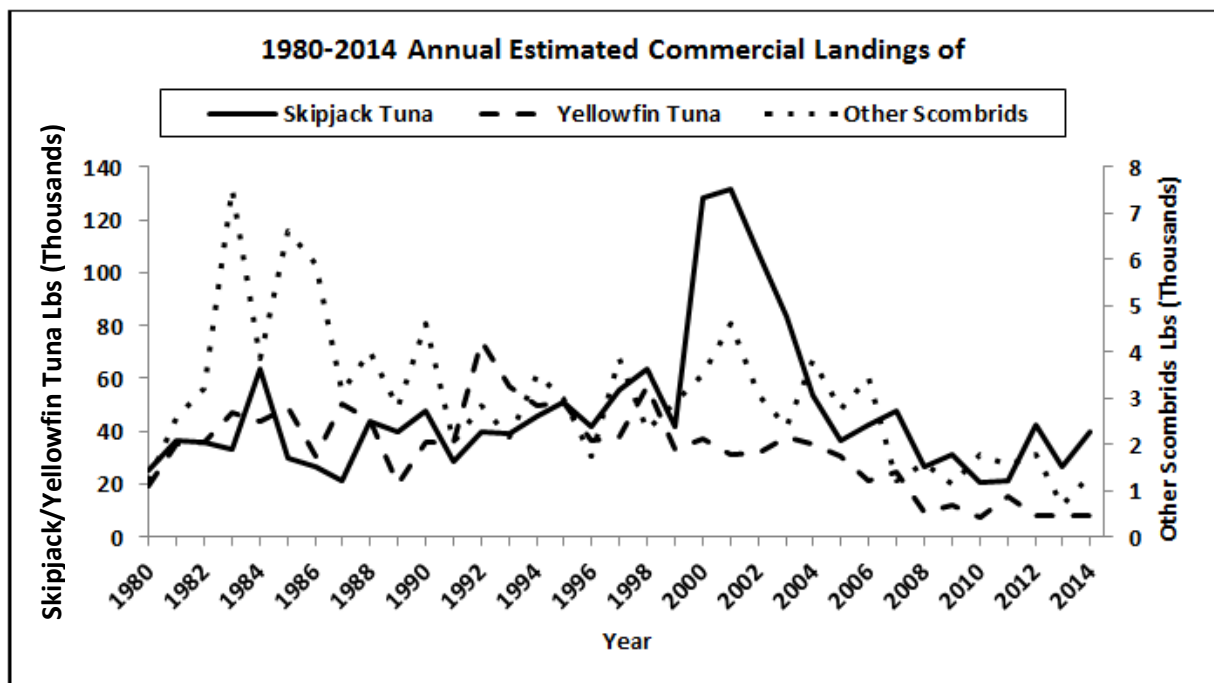


Figure C-3-4

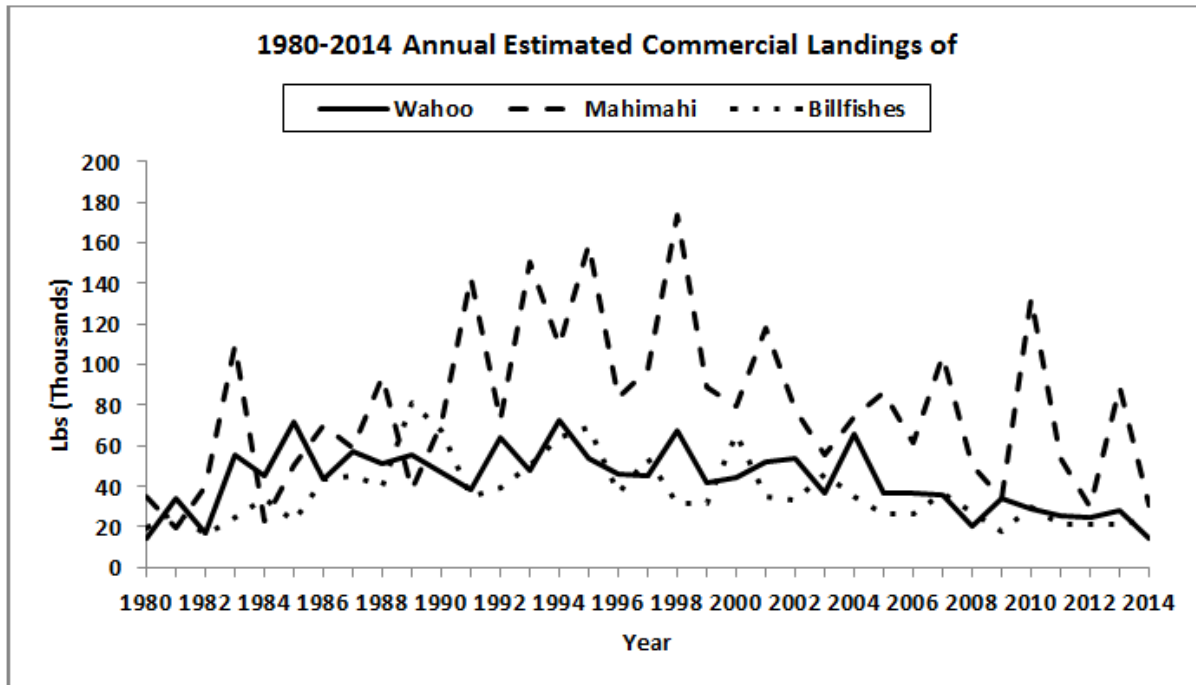


Figure C-3-5

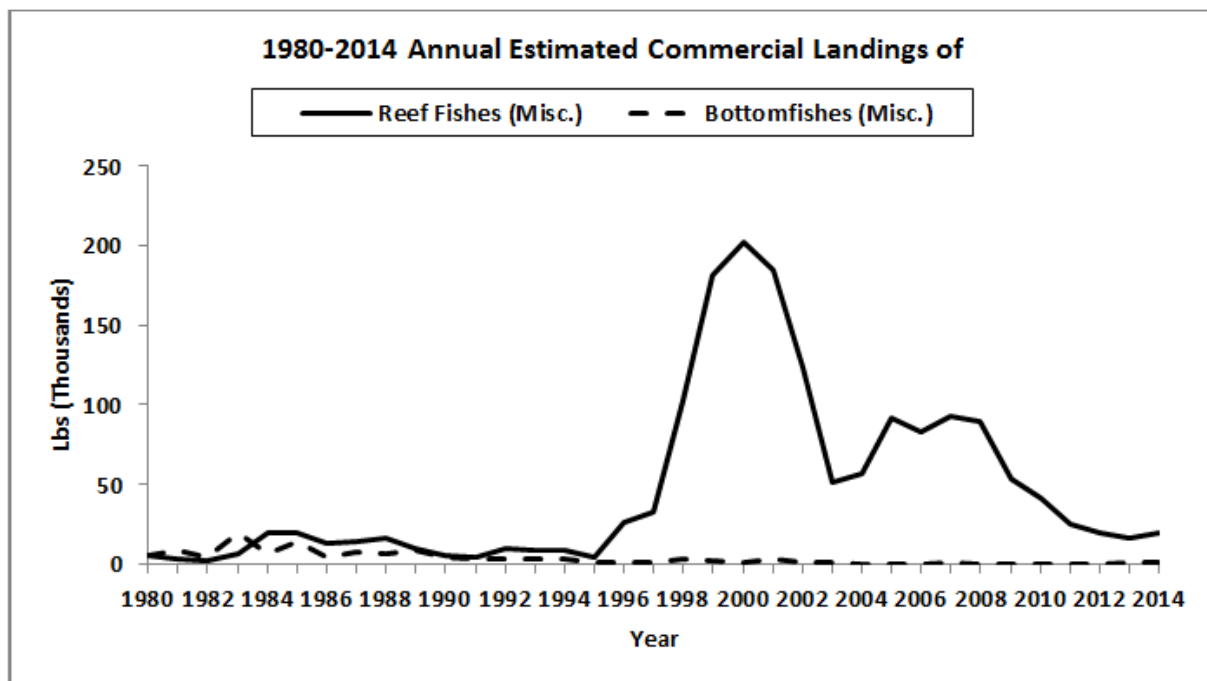


Figure C-3-6

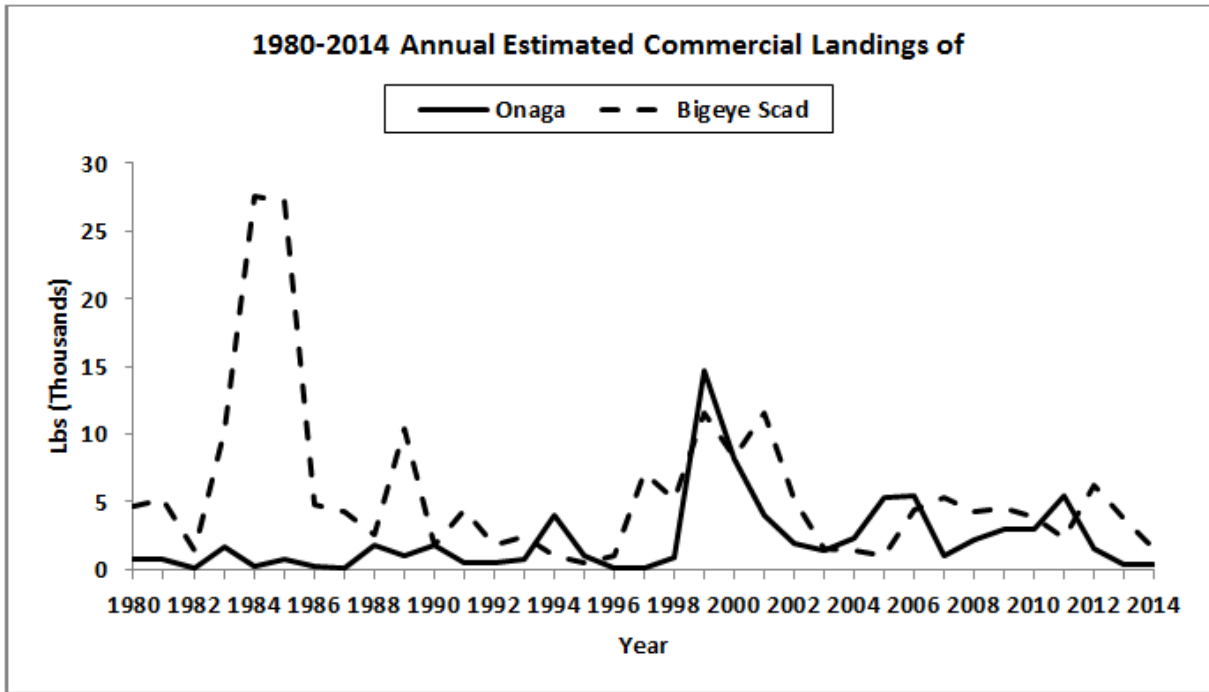


Figure C-3-7

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

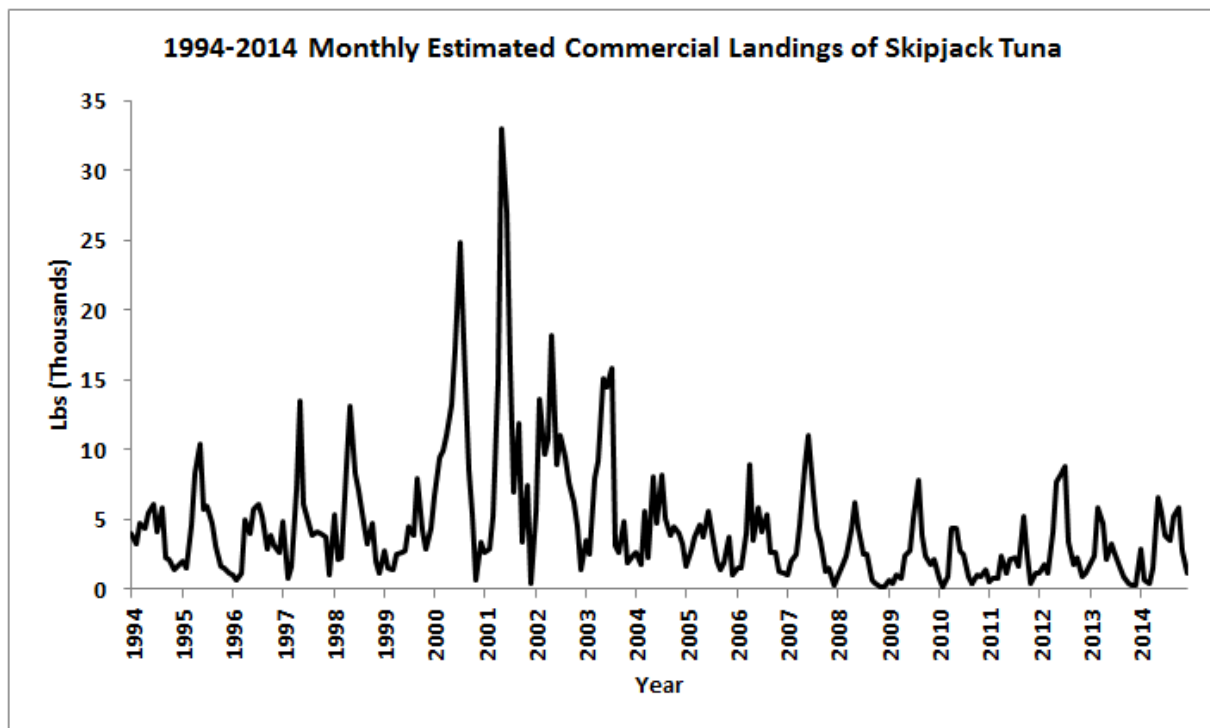


Figure C-4-1

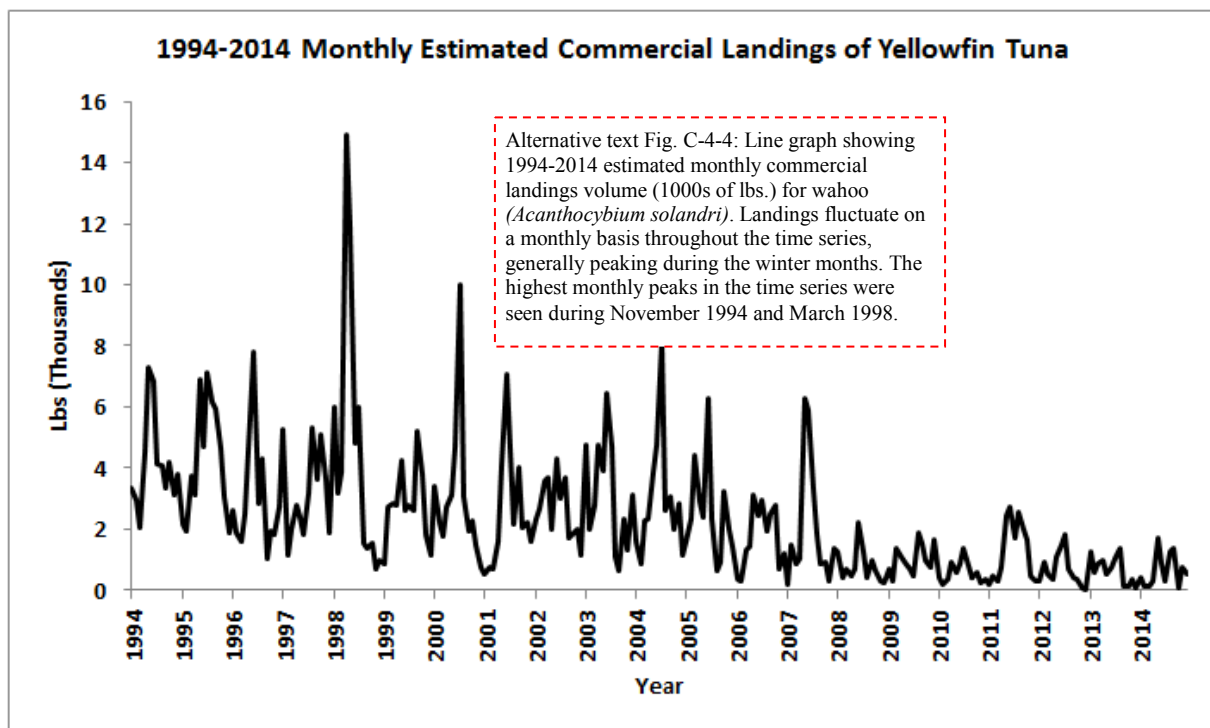


Figure C-4-2



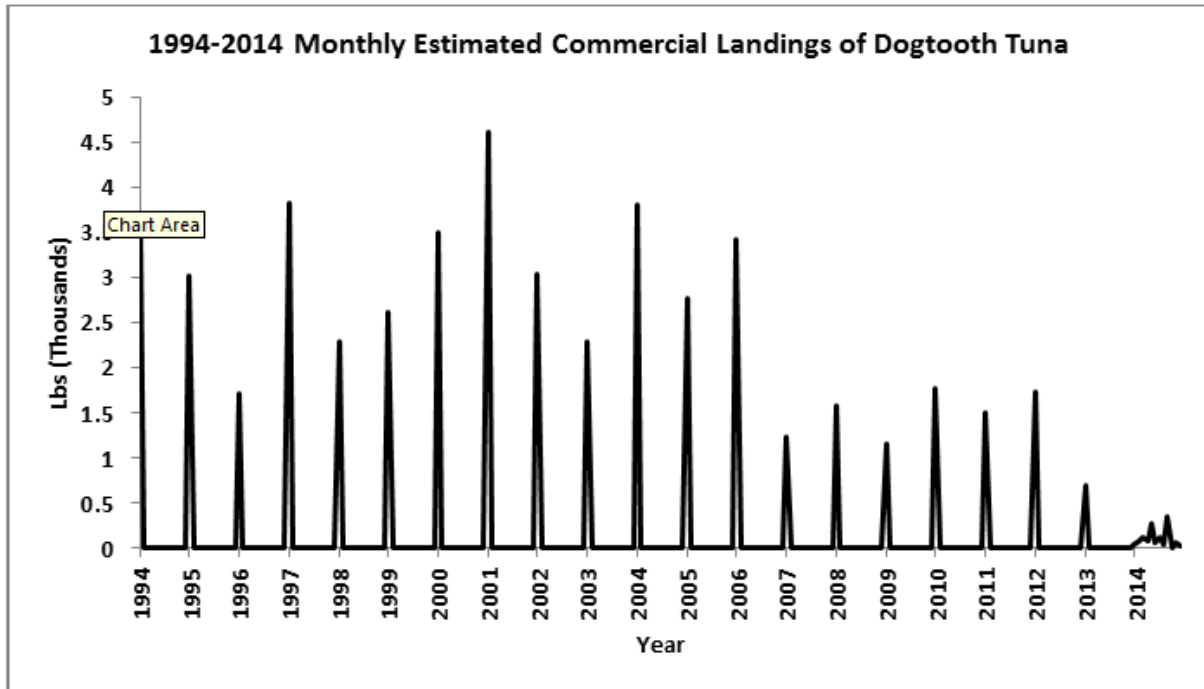


Figure C-4-3

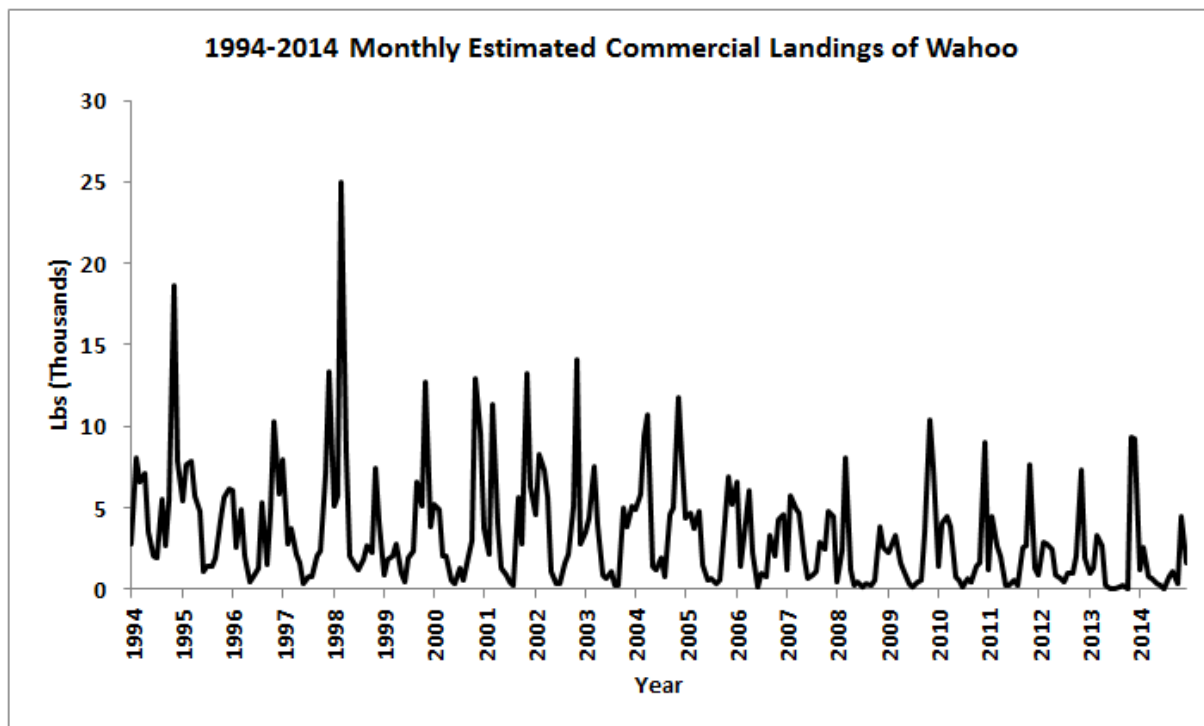


Figure C-4-4

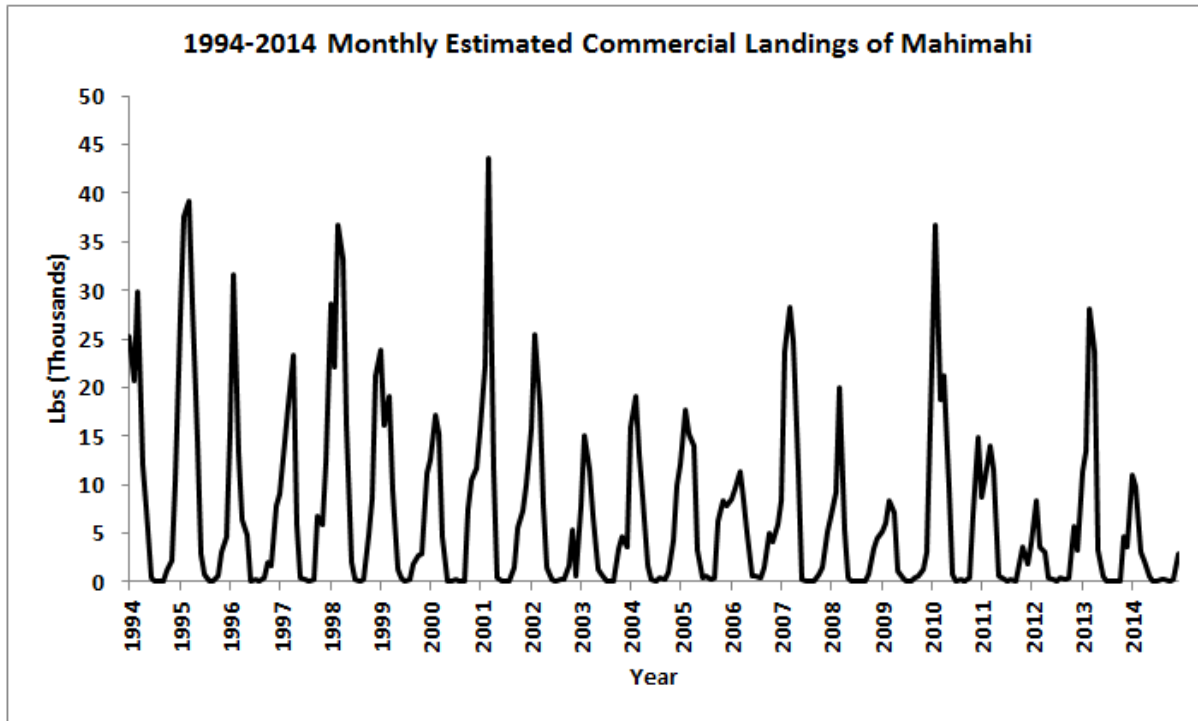


Figure C-4-5

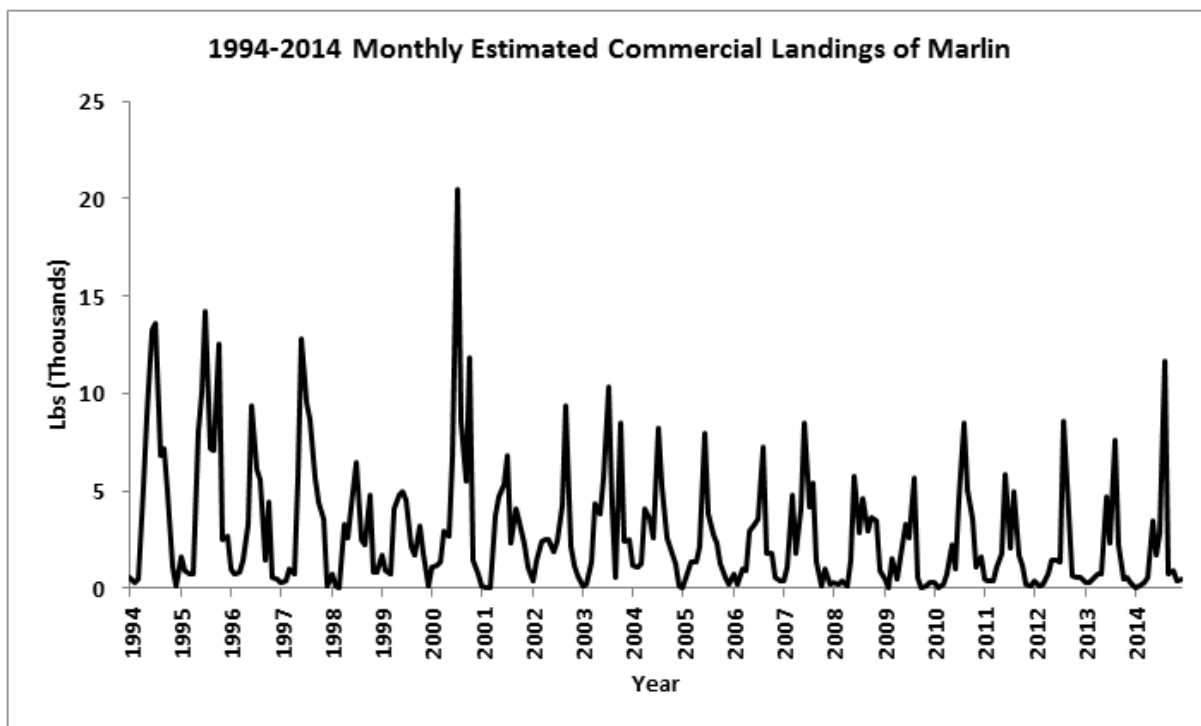


Figure C-4-6

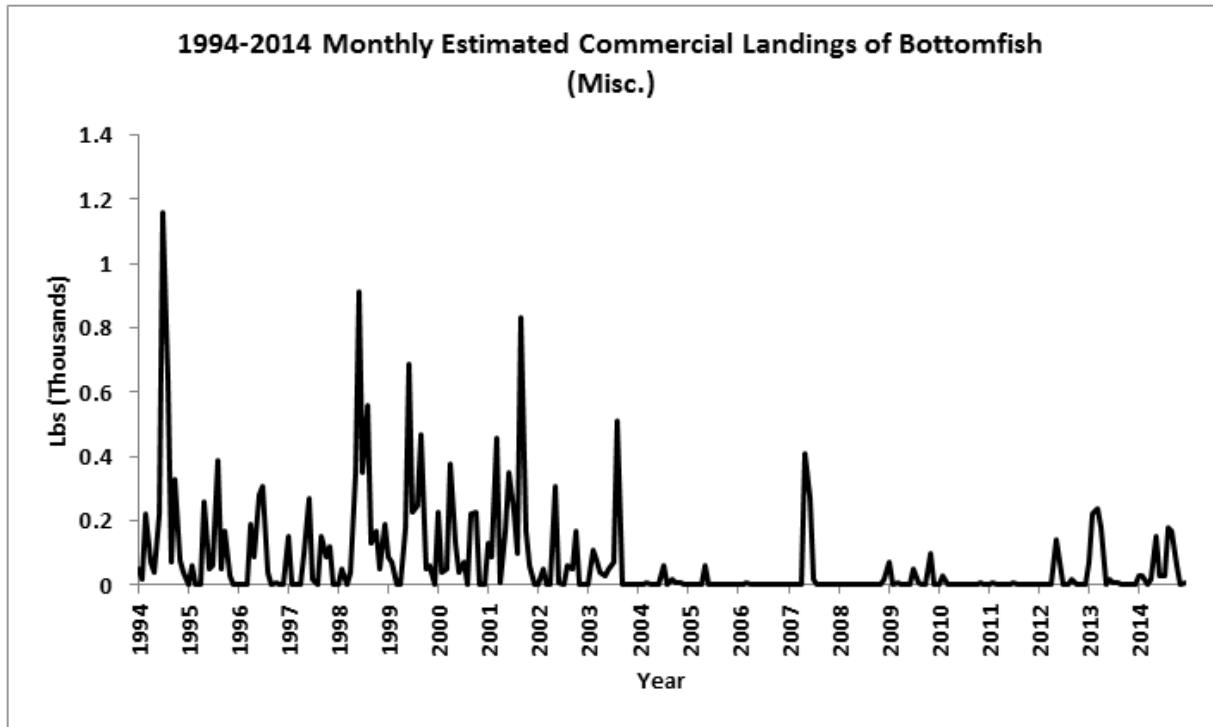


Figure C-4-7

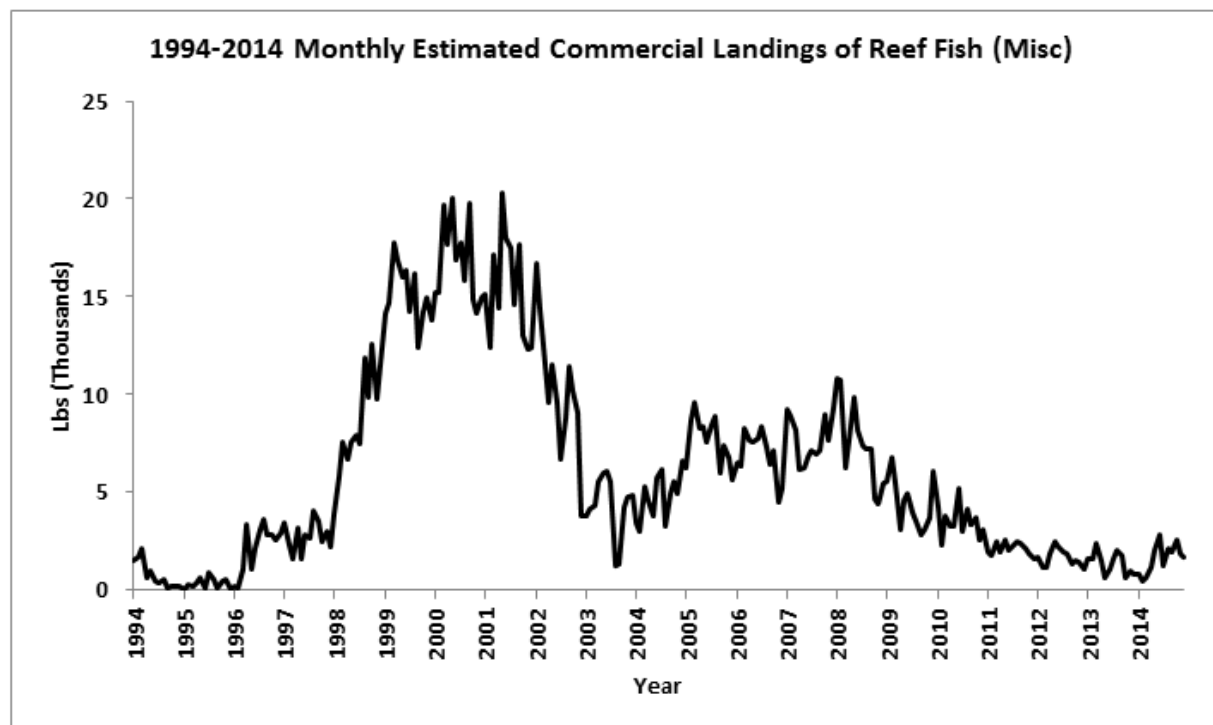


Figure C-4-8

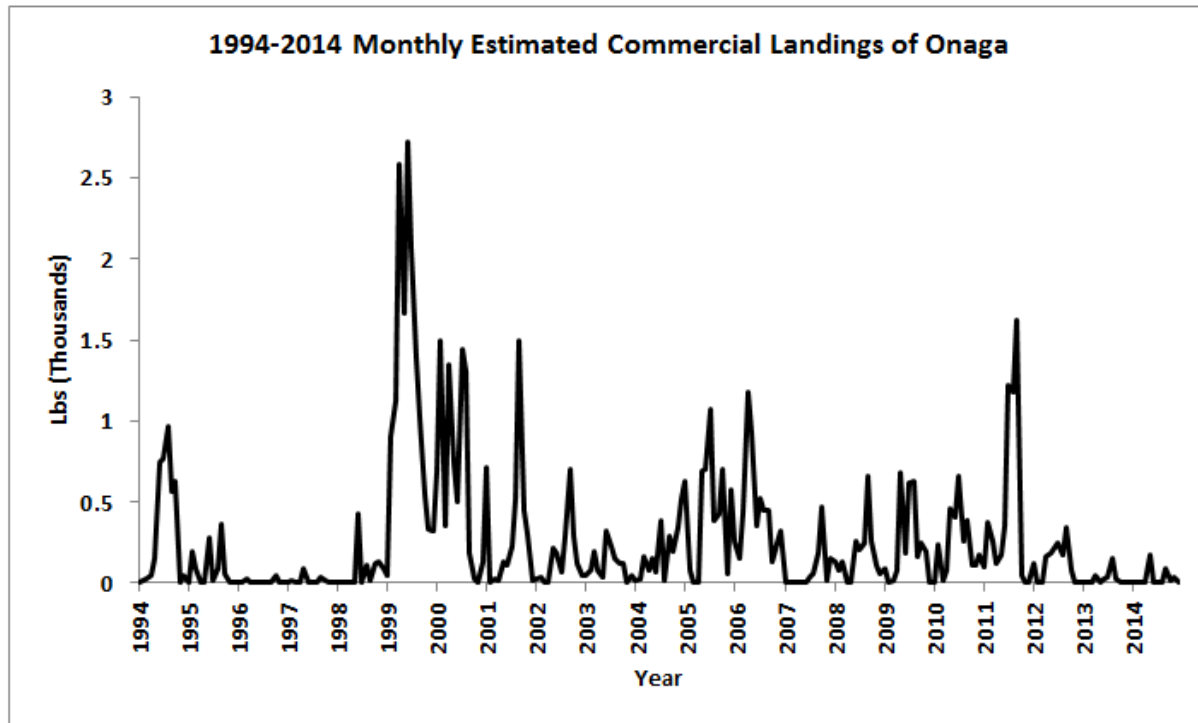


Figure C-4-9

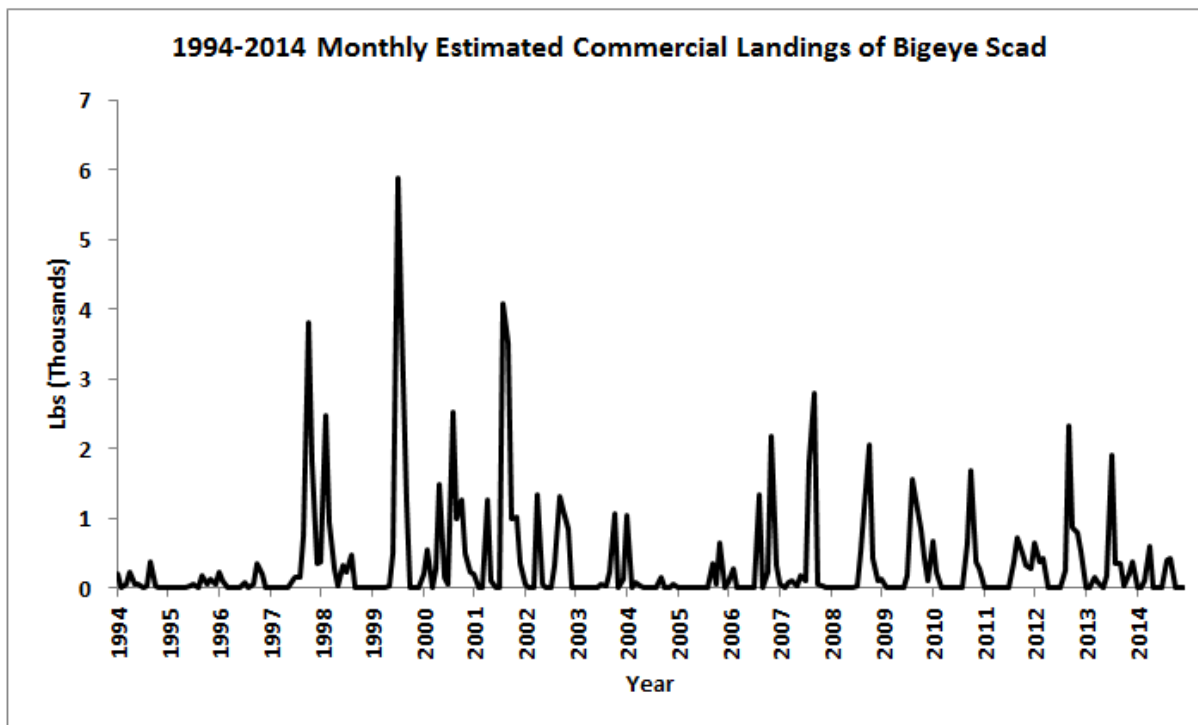


Figure C-4-10

# **STATE OF HAWAII 2014 FISHERY STATISTICS**

Compiled by  
Hawaii Department of Land & Natural Resources,  
Division of Aquatic Resources  
and the  
Western Pacific Fishery Information Network

August 2016



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# STATE OF HAWAII 2014 FISHERY STATISTICS

## INTRODUCTION

The Hawaiian Archipelago stretches across about 1,500 miles in the Northwestern Pacific, from its most northwestern remote atoll (Kure) to its most southeastern and largest island (Hawai'i).

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

*Main Hawaiian Islands:* Hawai'i, Maui, Lana'i, Moloka'i, O'ahu, Kaua'i, Kaho'olawe, and Ni'ihau (the eight islands at the southeast end of the Archipelago that include over 99% of the total land area and population)

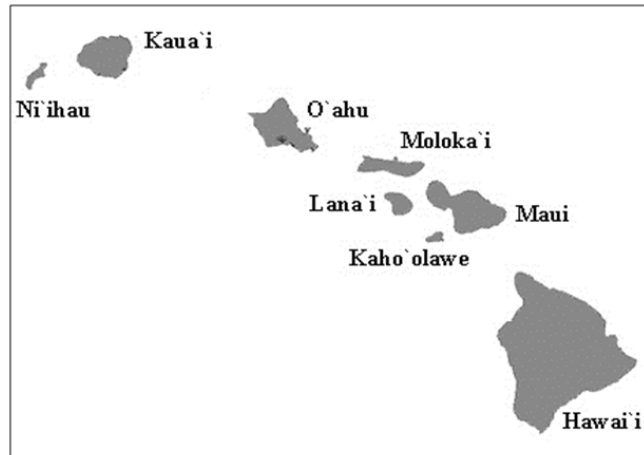
*Population:* 1,419,561  
(<https://data.hawaii.gov>, July 2014)

*Commercial Catch Breakdown by Island (lbs):*

About 89% landed on O'ahu, 8% on Hawai'i ("the Big Island"), 1.5% on Maui, 1% on Kaua'i, and less than 1% on each of the other islands (or in some cases amount unspecified)

The commercial fisheries of the State of Hawaii are quite diverse. They vary from shore-based harvesting of *limu* (marine algae) and invertebrates by hand, to large vessel-based offshore fisheries, such as the high seas pelagic longline fishery. There are several major fisheries (highest volume and economic value), including various types of tuna fishing (longline and a variety of smaller pelagic gears); deepwater hook-and-line (bottomfishing) using hydraulic reals for snappers, carangids, and an endemic Hawaiian grouper; various forms of net fishing that target near-shore pelagic, estuarine and reef fishes, and inshore and offshore crabs; and trolling for pelagic species such as tuna, billfishes, *ono* (wahoo), and mahimahi.

Hawaii Revised Statutes (HRS §189-2 and §189-3) define commercial fishing to include anyone who sells any portion of their catch (even a single fish), including charter fishing services. Commercial fishers have been required for decades to purchase an annually renewable commercial marine license and report their catch and effort to the Hawaii Department of Land and Natural Resources (DLNR), Division of Aquatic Resources (DAR), on a monthly basis. Since 1999, commercial fish dealers have also had reporting requirements to DAR. In 2014, there were 3,720 licensed commercial fishers. The summary catch data presented in this volume for 2014 were created from a combination of fisher and dealer reported data, processed through DAR's Dealer Reporting System (DRS) and Fisherman



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

## D.2

Reporting System (FRS), and federal longline logbook data, processed by PIFSC's Fisheries Research and Monitoring Division (FRMD).

Since October 2007, federal and state fisheries management mandates have required implementation of a fishing quota to end overfishing of seven deepwater bottomfish species within the main Hawaiian Islands (MHI). Known as the "Deep 7", these species include six eteline snappers and the endemic Hawaiian grouper. They are listed individually in the Species Categories section (*page D.10*). This additional management requirement made it necessary for DAR and NOAA Fisheries to develop a system to closely monitor the fishery and forecast when the cumulative landings limit would be reached, in order to implement timely closure. This monitoring system was designed to provide sufficient leeway to accommodate uncertainty related to the delay in receiving monthly fishing reports, as required by law. For the fishing years 2008 through 2011, the quota was referred to as the "Total Allowable Catch" (TAC). In each of the first 4 fishing years under management via the TAC, the cumulative Deep 7 landings quota was exceeded. The first few years of TAC management employed a variable closed season during the late spring to early fall. The beginning of the fishing year varied somewhat initially, but settled on September 1 after the first two years, in keeping with the implementation date of the Magnuson-Stevenson Reauthorization Act of 2006 (MSRA).

Beginning in September 2011, in accordance with MSRA, the MHI Deep 7 bottomfish fishery came under management via an Annual Catch Limit (ACL), with more rigorous constraints than had existed under the TAC. Under the new management regime, an Annual Catch Target (ACT) was set at 6% below the quota and used to monitor and manage the fishery to avoid exceeding the ACL. Additionally, in 2011 DAR implemented a bottomfish trip-level reporting requirement, with a five-day deadline for reporting after the end of each trip. The new trip reporting requirements, along with measures such as online reporting were developed to increase timeliness and make it possible to track bottomfish landings on a near real-time basis, reducing uncertainty and making it more feasible to avoid exceeding the ACL. In 2013, the high compliance rate with trip reporting requirements eliminated the need for the ACT. Since ACL management has been established, the fishery has never been closed.

In 2014, the fishing season opened on September 1, 2014, without an ACL. The Council recommended an ACL, based on an updated Bottomfish Stock Assessment Report. The Council Scientific and Statistical Committee (SSC) recommended a phased-in annual ACL reduction for the MHI Deep 7 over the next three years, ending in 2018. At that time, NOAA Fisheries will be providing another stock assessment report.

In 2014, NOAA fisheries used the 2011 Bottomfish Stock Assessment Report as the best available information (updated with landings for 2011 through 2013) and set the ACL at 346,000 pounds. The fishing season closed at midnight on August 31, 2015, with 306,054 pounds landed (88.45% of the ACL), and reopened on September 1, 2015 (the next day). For more information about this fishery, please visit <http://www.hawaiibottomfish.info>.

Since 1975, commercial collectors of tropical marine fishes and invertebrates in Hawaii have been required to have an aquarium permit. If they intended to sell their harvest, they are also required to obtain a commercial marine license and submit monthly catch reports, using the Aquarium Fish Catch Report form (also found on the WPacFIN website). In January 2012,

### D.3

the commercial Aquarium Fishing Report was amended to include more detailed information on the fishing methods used, percentage of time fishing with each, and net length (if a barrier was used). The new aquarium data collection form (also on the WPacFIN website) includes vessel identification, dive time, total harvest and amount of the catch sold.

Around this time, DAR also made revisions to the fishing area map used in reporting for the aquarium fishery, which subdivided fishing zones on the Northwestern and Western (Kona) coast of the island of Hawai'i. Hawaii Administrative Rule (HAR §13-60.4) codified changes for the West Hawaii Regional Fishery Management Area (WHRFMA), which became effective on December 26, 2013. In May 2014, the revised WHRFMA Aquarium Fishing Report form was provided to Kona fishermen for reporting purposes. This localized report includes the new WHRFMA sub-zones, lists only the 40 species that fishermen are allowed to take in the WHRFMA ("White List Species"), and collects size and sex data for selected species. Only fishers fishing in the WHRFMA for white list species are required to report on this form. For more information, please reference HAR §13-60.4 at <http://dlnr.hawaii.gov/dar/files/2014/05/ch60.4.pdf>.

DLNR uses the fishing catch and effort data collected for the aquarium fishery and other commercial fisheries to monitor and manage this important coral reef ecosystem and the fisheries it sustains. Although some organisms harvested for the aquarium industry are juveniles and adults of species that are also caught for food, the majority are smaller ornamental species. Historically, trends in the aquarium (live ornamental) fishery have been evaluated separately from non-aquarium fisheries. Therefore, aquarium fish catch statistics are currently not included in this report.

### **NORTHWESTERN HAWAII ISLANDS MARINE NATIONAL MONUMENT**

On June 15, 2006, a presidential proclamation established the Northwestern Hawaiian Islands (NWHI) as the Papahānaumokuākea Marine National Monument. The NWHI bottomfish fishery was slated to close in June 2011, under the Executive Orders that created the NWHI Coral Reef Ecosystem Reserve. However, a "buyout" program for fishing permits was completed in January 2010, which effectively closed the fishery when all of the permit holders surrendered their permits in return for federal compensation. For more information about the Monument, please visit <http://www.papahanaumokuakea.gov>.

## DATA COLLECTION

Prior to 2002, data processed in the Reported Landings tables and charts presented in this section were collected from various Fishermen's Reporting System (FRS) forms. Beginning in October 2002, DAR implemented the use of several new FRS forms that no longer required sales information from fishermen. At the same time, fishermen submitting FRS data were asked to provide more detailed catch, effort, and bycatch statistics. Sales and value data collection from fish dealers (instead of fishermen) were phased in, over roughly the same time period. The FRS data processing and summary system was modified to accommodate the use of these new forms.

In February 2010, DAR launched an Online Fishing Report System (OFRS) that allows licensed commercial fishers to file the Monthly Fishing Report electronically. The Monthly Fishing Report accounts for about 95% of commercial landings reports received by DAR. In 2014, nearly 66% of the monthly fishing reports were filed online. This trend towards increased online reporting has produced benefits for both fishers and DAR. Online reporting has reduced paper work and postage for both parties, and as well as printing expenses for DAR. It has also encouraged fishers to file their monthly reports on time and receive instant confirmation that the report was received and credited. DAR requires less staff time to enter fishing report data into the FRS, and the electronic fish report records have fewer discrepancies, because data validation tables are built into the online reporting application. This reduces the need for follow up by staff to correct or verify reporting issues. MHI Deep 7 bottomfish fishing trip reports can also be filed online, making it easier to meet the 5-day post trip reporting requirement. During 2014, about 76% of the Deep 7 trip reports were filed electronically.

The fishing reports collect data on catch (by species) and fishing effort for each day, method, and area fished. These data are processed in the FRS. Information collected includes:

- Fisherman's Name and Commercial License Number
- Boat's Name and Registration/USCG Number
- Day, Month, and Year Fished
- Charter Trip (y/n)
- Buoy (fish aggregation device) or Area Fished
- Fishing Method
- Hours Fished per Method/Area
- Number of Net Sets
- Number of Fishing Lines or Traps
- Net Length (if applicable)
- Port of Landing
- Species
- Number Landed
- Pounds Landed (estimated by fisher)
- 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, the NWHI Bottomfish Trip Daily Log, and the Aquarium Fish Trip Report. These forms can be viewed on the WPacFIN website. In September 2011, the use of a MHI Deep 7 Bottomfishing Trip Report form was implemented, to help track and validate landings of Deep 7 species more quickly and manage the ACL. A copy of this report form, which records data listed above (fields applicable to bottomfishing), is also available on the website.

In 2000, the Dealer Reporting System (DRS) data processing and summary system was fully implemented, and is now a major source of sales data used to create the tables and charts provided in this publication. Dealers are required to submit a Commercial Marine Dealer's Report under DLNR Administrative Rules (authorized under HRS §189-10) for each month that they are in the business of purchasing marine life. Information collected includes:

- Dealer Name
- Dealer License Number
- Date, Month, and Year
- First and Last Name from Whom Fish was Bought
- Fisherman's Commercial Marine License Number
- Condition sold (whole, gilled, gutted, fillet, etc.)
- Species
- Pounds Purchased
- Number of Pieces
- Amount Paid

Data from the NOAA Fisheries Longline Logbook Program are integrated with DRS and FRS data to create the summaries presented in this report. The dealer data are used to estimate weight and value of the catch. This report assumes that the data submitted by fishers are complete and accurate. DAR and PIFSC continually strive to improve quality and decrease time lags in receiving and processing the data. For more information on Hawaii fisher and fish dealer licensing and reporting requirements, please visit <http://hawaii.gov/dlnr/dar>. For more information on federal longline logbooks, please visit <https://www.pifsc.noaa.gov/frmd>.

### **CIVIL RESOURCES VIOLATION SYSTEM**

When fishers obtain a commercial marine license, they are required by Hawaii Administrative Rules (HAR) to report their fishing activities within 10 days after the end of the month.<sup>1</sup> Prior to 2009, nearly 67% of licensed fishers failed to comply with the report submission deadline. In June 2009, DLNR-DAR implemented a Civil Resources Violation System (CRVS), to issue citations to licensed fishers who either did not comply with the deadline or submitted inaccurate data. The fishers who report late are assessed a small fine for the first offense, which increases progressively for subsequent offenses.

In 2014, 75% of the fishing reports were submitted on or before the report deadline. The compliance rate increased to about the mid-90<sup>th</sup> percentile by the following month. The CRVS is also used for noncompliance with MHI Deep 7 bottomfish fishing trip reporting requirements. In 2014, nearly 84% of bottomfish trip reports were received on or before the deadline. Based upon the significant reduction in the fish catch reporting delinquency rate, one of the primary goals of the CRVS has been achieved.

DLNR-DAR plans to pursue the secondary goal of the CRVS, which was to increase the accuracy of fish catch reporting. Policies and procedures, designed to match the fish catch reports (FRS) with the commercial fish dealer reports (DRS), and to contact both fishers and dealers to correct reporting discrepancies are being established. Fishers who do not cooperate or comply with the fish report data accuracy requirement may be subject to CRVS action. DLNR-DAR is attempting to establish HAR to issue a commercial marine dealer license as

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<sup>1</sup> Only the MHI Deep 7 Bottomfishing Trip Reports are required to be submitted within 5 days after the trip ends.

well, which would enable DLNR to better monitor and enforce accurate fish sales reporting requirements for marine dealers.

## **DATA PROCESSING**

When DAR receives fishing report forms in the mail, staff reviews and enters the data into the OFRS. Data entered online are imported into the FRS electronically. Once in the system, the staff checks and edits the data, as necessary. Reports that fail initial quality control screening and editing are returned for correction and resubmittal, or minor problems may be cleared up over the telephone. The CRVS issues citations to fishers who are either delinquent or have reported inaccurate data. When the data are considered to be reasonably complete and error free, they are ready for use in producing various summary reports.

## **DATA REPORTING**

More than 150 marine species and/or groups are recorded in DAR's monthly landings reports, many of which represent an insignificant portion of the total catch. To help reduce this document's size and improve the utility of the tables, WPacFIN staff has combined some of the lower volume and value species into groups, reorganized the order of presentation, and created a system to translate these groupings from the database (which is now under review). The current data summary system has 100 species or groups, based on flexible ecological and phylogenetic criteria. Data are reported separately for most commercially important pelagic and bottomfish species, and unique groups. Some of the other higher taxonomic categories (e.g., herrings/sardines), are the sum of the totals by species reported by commercial fishermen. This is distinctive from reports for the other island areas, where groups generally represent data not identified to species by fishermen or vendors (referenced as "unspecified" throughout all sections of this report).

The monthly and annual tables included in this document contain the scientific and common name, pounds landed ("caught"), pounds sold, estimated sales value (rounded to the nearest dollar), and average price per pound for each species. Data on the weight landed are based on the numbers reported by fishermen in federal longline logbooks and FRS catch reports. Weights for non-longline data are cross-checked, using FRS and DRS data. The value and price per pound data are calculated from DRS data. 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 have been modified from earlier volumes. To see the most current data and charts, please visit the WPacFIN website (<https://www.pifsc.noaa.gov/wpacfin>).



## **SPECIES CATEGORIES**

The species and/or groups used in the tables and graphs are described in the following section. Many of the species included in this report have been placed into different management categories 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 categories from previous FSWP reports for ease of comparison across historical volumes. As such, tunas are kept in a separate category. To see the most current taxonomic information for species caught commercially in Hawaii, and in other US-associated Pacific island areas, please visit the WPacFIN website.

## I. Pelagic Management Unit Species (PMUS)

Billfishes/Unspecified (*includes marlins, swordfish, sailfish and shortnose spearfish*)

Black marlin (*Istiompax indica*)

Blue marlin (*Makaira mazara*)

Mahimahi (most *Coryphaena hippurus*, some *C. equiselis*)

Sailfish (*Istiophorus platypterus*)

Sharks (mainly *Isurus oxyrinchus*, *Isurus paucus*, and *Carcharhinus* spp.)

Shortnose spearfish (*Tetrapturus angustirostris*)

Striped marlin (*Kajikia audax*)

Swordfish (*Xiphias gladius*)

Wahoo (*Acanthocybium solandri*)

## II. Bottomfish Management Unit Species (BMUS)

Armorhead (*Pseudopentaceros wheeleri*)<sup>2</sup>

Butaguchi/Pig-lipped ulua (*Pseudocaranx dentex*)

Ehu/Red snapper (*Etelis carbunculus*)

Gindai/Flower snapper (*Pristipomoides zonatus*)

Gunkin/Black ulua (*Caranx lugubris*)

Hapu'upu'u/Hawaiian grouper (*Hyporthodus quernus*)

Kahala/Amberjack (*Seriola dumerili*)

Kalekale (*Pristipomoides sieboldii*)

Lehi/Silverjaw (*Aphareus rutilans*)

Onaga/Red snapper (*Etelis coruscans*)

Opakapaka/Pink snapper (*Pristipomoides filamentosus*)

Ta'ape/Blue-lined snapper (*Lutjanus kasmira*)

Uku/Gray snapper (*Aprion virescens*)

White ulua<sup>3</sup>/Giant trevally (*Caranx ignobilis*)

Yellow-tail kali (*Pristipomoides auricilla*)

## III. Billfishes

Billfishes/Unspecified (*described above in PMUS*)

Black marlin (*Istiompax indica*)

Blue marlin (*Makaira mazara*)

Sailfish (*Istiophorus platypterus*)

Shortnose spearfish (*Tetrapturus angustirostris*)

Striped marlin (*Kajikia audax*)

Swordfish (*Xiphias gladius*)

<sup>2</sup> Armorhead are seamount groundfish, formerly managed along with BMUS.

<sup>3</sup> *Ulua* is a general term for adult jacks and trevallies.

## IV. Tunas

Albacore tuna (*Thunnus alalunga*)  
 Bigeye tuna (*Thunnus obesus*)  
 Kawakawa (*Euthynnus affinis*)

Skipjack tuna (*Katsuwonus pelamis*)  
 Tunas (unspecified)<sup>4</sup>  
 Yellowfin tuna (*Thunnus albacares*)

## V. Other Scombrids

Dogtooth tuna (*Gymnosarda unicolor*)

(See footnote 4)

## VI. Fisheries Categories

## A. Pelagic Fishes

Albacore tuna (*Thunnus alalunga*)  
 Barracudas (various *Spyraena* spp.)  
 Bigeye tuna (*Thunnus obesus*)  
 Billfishes/Unspecified (described above in PMUS and Billfishes)  
 Black marlin (*Istiompax indica*)  
 Blue marlin (*Makaira mazara*)  
 Japanese mackerel (*Scomber japonicus*)  
 Kawakawa (*Euthynnus affinis*)  
 Mahimahi (*Coryphaena hippurus*, *C. equiselis*)  
 Moonfish/Opah (*Lampris guttatus*)  
 Oilfish (*Ruvettus pretiosus*, *Thyrisitoides marleyi*)  
 Pelagic fishes (unspecified)

Pomfret (*Taractichthys steindachneri*, *Eumegistus illustris*, *Bramma* spp.)  
 Rainbow runner (*Elagatis bipinnulata*)  
 Rays (most common *Aetobatus narinari*)  
 Sailfish (*Istiophorus platypterus*)  
 Sharks (described above in PMUS)  
 Shortnose spearfish (*Tetrapturus angustirostris*)  
 Skipjack tuna (*Katsuwonus pelamis*)  
 Striped marlin (*Kajikia audax*)  
 Swordfish (*Xiphias gladius*)  
 Tunas/Unspecified (See footnote 4)  
 Wahoo (*Acanthocybium solandri*)  
 Yellowfin tuna (*Thunnus albacares*)

<sup>4</sup> This group includes species that comprise a very small portion of the tuna catch, including unidentified tunas. Because DAR has a single code for “miscellaneous tunas”, that is also used for dogtooth “tuna” (which are not actually tunas), this group is combined with “other scombrids” in some of the charts.

B. *Bottomfishes (and one Seamount Groundfish)* “Deep 7 Bottomfish” are marked with an asterisk (\*)

- |   |  |
|---|--|
| Armorhead ( <i>Pseudopentaceros wheeleri</i> )                            | *Onaga/Red snapper ( <i>Etelis coruscans</i> )                 |
| Blue trevally ( <i>Carangoides ferdau</i> )                               | *Opakapaka/Pink snapper ( <i>Pristipomoides filamentosus</i> ) |
| Butaguchi/Pig-lipped ulua ( <i>Pseudocaranx dentex</i> )                  | Papa ulua ( <i>Caranx orthogrammus</i> )                       |
| Dobe ulua ( <i>Uraspis helvola</i> )                                      | Porgy/Mu/Bigeye emperor ( <i>Monotaxis grandoculis</i> )       |
| *Ehu/Red snapper ( <i>Etelis carbunculus</i> )                            | Roi/Blue spot grouper ( <i>Cephalopholis argus</i> )           |
| *Gindai/Flower snapper ( <i>Pristipomoides zonatus</i> )                  | Sasa ulua ( <i>Caranx sexfasciatus</i> )                       |
| Golden kalekale ( <i>Erythrocles schlegelii</i> , <i>E. scintillans</i> ) | Snake mackerel (various Gempylids)                             |
| Gunkin/Black ulua ( <i>Caranx lugubris</i> )                              | Snappers (unspecified) (various Lutjanids)                     |
| *Hapu’upu’u/Hawaiian grouper ( <i>Hyporthodus quernus</i> )               | Ta’ape/Blue-lined snapper ( <i>Lutjanus kasmira</i> )          |
| Jacks/Unspecified (various Carangids)                                     | Uku/Gray snapper ( <i>Aprion virescens</i> )                   |
| Kahala/Amberjack ( <i>Seriola dumerili</i> )                              | White ulua /Giant trevally ( <i>Caranx ignobilis</i> )         |
| *Kalekale ( <i>Pristipomoides seiboldii</i> )                             | Yellow-tail kali ( <i>Pristipomoides auricilla</i> )           |
| *Lehi/Silverjaw ( <i>Aphareus rutilans</i> )                              |  |

C. *Reef Fishes*

- |  |  |
|--|--|
| Aholehole/Hawaiian flagtail ( <i>Kuhlia sandvicensis</i> )                                     | Reef fishes (multiple families, unspecified)   |
| Bigeyes/glasseyes ( <i>Heteropriacanthus cruentatus</i> , and various <i>Priacanthus</i> spp.) | Reef jacks ( <i>Caranx melampygus</i> , <i>Gnathanodon speciosus</i> , <i>Alectis ciliaris</i> , various other <i>Caranx</i> spp.) |
| Damselfishes ( <i>Abudefduf sordidus</i> , <i>A. vaigiensis</i> , <i>A. abdominalis</i> )      | Rudderfishes (up to six <i>Kyphosus</i> spp.)  |
| Filefishes (various Monacanthidae)   | Scorpionfishes (various Scorpaenidae)  |
| Flounders ( <i>Bothus mancus</i> , <i>Bothus pantherinus</i> )                                 | Squirrelfishes ( <i>Sargocentron</i> spp., <i>Neoniphon</i> spp.)  |
| Goatfishes (various Mullidae)  | Surgeonfishes/tangs (many Acanthuridae)  |
| Gobies (various Gobiidae, including endemics)  | Tilapia ( <i>Oreochromis</i> sp., introduced)  |
| Hawkfish ( <i>Cirrhitis pinnulatus</i> )   | Trumpetfishes (various Aulostomidae & Fistulariidae)   |
| Parrotfishes (various Scaridae)  | Wrasses (diverse Labridae)   |
| Pufferfishes (Diodontidae and Tetraodontidae)  |  |

D. *Other Fishes, Algae & Invertebrates*

Algae/Limu (*mainly Asparagopsis taxiformis*, various *Gracilaria* spp.)  
 Bigeye scad/Akule (*Selar crumenophthalmus*)  
 Bonefishes (up to four *Albula* spp.)  
 Clams (various Bivalvia)  
 Crabs (*Ranina ranina*, various Brachyura)  
 Eels (*mainly Gymnothorax* spp.)  
 Flying fishes (various Exocoetidae)  
 Herrings/sardines (*Etrumeus sadina*, various Clupeidae)  
 Invertebrates/Other (black coral, various urchins, holothurians, gastropods, etc.)  
 Leatherjacket (*Scomberoides lysan*)  
 Milkfish (*Chanos chanos*)  
 Mulletts (*mainly Mugil cephalus*)

Needlefishes (various Belonidae)  
 Octopus (*mainly Octopus cyanea*)  
 Opihi/Limpets (saltwater *Cellana* spp.)  
 ‘Opelu/Mackerel scad (*Decapterus macarellus*)  
 Shrimp, saltwater (*Heterocarpus laevigatus*, *Heterocarpus ensifer*)  
 Silversides (*Iso hawaiiensis*)  
 Slipper lobsters (*mainly Scyllarides squammosus*)  
 Spiny lobsters (*Panulirus marginatus*, *P. penicillatus*)  
 Squid (various Teuthoidea)  
 Ten pounder (*Elops hawaiiensis*)  
 Threadfin (*Polydactylus sexfilis*)

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**Table D-1**  
**Hawaii Annual 2014 Estimated Commercial Landings**

Group	Subgroup	Scientific Name	Common/local name	Lbs. Caught	Estimated Lbs. Sold	Estimated Value of Sold Portion (\$)	Price/Lb.
<b>FISHES:</b>							
	<b>Scombridae</b>						
	<b>Tunas</b>						
		<i>Euthynnus affinis</i>	Kawakawa	26,284	12,627	35,195	2.79
		<i>Katsuwonus pelamis</i>	Skipjack tuna	653,613	498,227	675,072	1.35
		<i>Thunnus alalunga</i>	Albacore tuna	536,664	502,596	996,827	1.98
		<i>Thunnus albacares</i>	Yellowfin tuna	3,520,031	3,313,417	11,256,486	3.40
		<i>Thunnus obesus</i>	Bigeye tuna	16,377,228	15,948,589	60,704,446	3.81
		Tribe Thunnini ( <i>unspecified</i> )	Tunas (unspecified)	4,269	3,684	12,466	3.38
	<b>Other scombrids</b>						
		<i>Acanthocybium solandri</i>	Wahoo	1,167,870	1,055,994	2,801,682	2.65
		<i>Scomberoides lysan</i>	Leatherback	272	272	654	2.40
	<b>Billfishes</b>						
		Suborder: Xiphioidae	Billfishes (unspecified)	1,528	382	627	1.64
	<b>Istiophoridae</b>						
		<i>Istiompax indica</i>	Black marlin	21,719	21,719	33,623	1.55
		<i>Istiophorus platypterus</i>	Sailfish	45,304	34,466	33,403	0.97
		<i>Kajikia audax</i>	Striped marlin	1,076,485	1,076,485	1,557,080	1.45
		<i>Makaira mazara</i>	Blue marlin	1,507,813	1,220,253	1,606,730	1.32
		<i>Tetrapturus angustirostris</i>	Shortnose spearfish	512,795	499,939	520,300	1.04
	<b>Xiphiidae</b>						
		<i>Xiphias gladius</i>	Broadbill swordfish	3,142,186	2,479,617	5,404,584	2.18
	<b>Other fishes</b>						
	<b>Acanthuridae</b> (tang, surgeons, unicornfishes)						
		<i>Acanthurus</i> spp., <i>Ctenochaetus</i> spp.	Surgeons/tangs (unspecified)	105,574	98,688	188,184	1.91
	<b>Albulidae</b> (bonefishes)						
		<i>Albula glossodonta</i> , <i>A. neoguinaica</i>	Oio (bonefish)	7,887	5,431	7,852	1.45
	<b>Aulostomidae</b> (trumpetfishes)						
		<i>Aulostomus</i> spp.	Trumpetfish	347	165	245	1.49
	<b>Belonidae</b> (needlefishes)						
		Belonidae ( <i>unspecified</i> )	Needlefish	653	653	1,903	2.91
	<b>Bothidae</b> (left-eye flounders)						
		Bothidae ( <i>unspecified</i> )	Flounders	23	23	44	1.94
	<b>Bramidae</b> (pomfrets)						
		<i>Taractichthys</i> , <i>Eumegistus</i> , <i>Brama</i> ( <i>unspecified</i> )	Pomfret	1,243,354	1,243,354	2,466,869	1.98
	<b>Carangidae</b> (jacks & trevallies)						
		Carangidae ( <i>unspecified</i> )	Ulua/Jacks (unspecified)	2,740	450	1,303	2.90
		Carangidae ( <i>unspecified</i> )	Reef jacks (uluu)	132	132	532	4.04
		<i>Carangoides ferdau</i>	Barred ulua	7,618	2,800	8,412	3.00
		<i>Carangoides orthogrammus</i>	Papa ulua	7,696	7,019	29,880	4.26

**Table D-1**  
**Hawaii Annual 2014 Estimated Commercial Landings**

Group	Subgroup	Scientific Name	Common/local name	Lbs. Caught	Estimated Lbs. Sold	Estimated Value of Sold Portion (\$)	Price/Lb.
		<i>Caranx ignobilis</i>	White ulua	11,979	7,902	22,830	2.89
		<i>Caranx lugubris</i>	Black ulua	460	460	1,096	2.38
		<i>Caranx sexfasciatus</i>	Sasa ulua	288	57	164	2.88
		<i>Pseudocaranx dentex</i>	Butaguchi (pig-lipped ulua)	420	336	948	2.82
		<i>Seriola dumerili</i>	Kahala (amberjack )	12,977	2,699	5,614	2.08
		<i>Uraspis helvola</i>	Dobe ulua	4,149	2,198	6,030	2.74
		<i>Decapterus macarellus</i>	Mackerel scad (ōpelu)	243,784	158,546	458,747	2.89
		<i>Selar crumenophthalmus</i>	Bigeye scad (akule)	292,779	197,621	669,524	3.39
		<i>Elagatis bipinnulata</i>	Kamanu (rainbow runner)	5,114	4,586	8,610	1.88
	<b>Chanidae</b> (milkfish)						
		<i>Chanos chanos</i>	Milkfish (awa)	1,938	1,938	3,052	1.57
	<b>Cichlidae</b> (cichlids)						
		<i>Oreochromis</i> sp.	Tilapia	3,032	242	857	3.54
	<b>Cirrhitidae</b> (hawkfishes)						
		<i>Cirrhitus pinnulatus</i>	Po'opa'a (hawkfish)	1,305	1,305	4,099	3.14
	<b>Clupeidae, Dussumieriidae</b> (sardines/herrings)						
		Clupeidae, Dussumieriidae (unspecified)	Herring/sardine	7,876	5,393	11,736	2.18
	<b>Coryphaenidae</b> (mahimahi/dolphinfish)						
		<i>Coryphaena hippurus</i> , <i>C. equiselis</i>	Mahimahi	1,820,804	1,690,283	4,415,756	2.61
	<b>Elopidae</b> (ladyfishes, tarpons, tenpounders)						
		<i>Elops hawaiiensis</i>	Hawaiian ladyfish (awa'awa)	689	323	462	1.43
	<b>Emmelichthyidae</b> (rovers)						
		<i>Erythrocles scintillans</i>	Golden kalekale	241	49	168	3.42
	<b>Gempylidae</b> (snake mackerels)						
		<i>Ruvettus pretiosus</i>	Oilfish (walu)	531,556	531,556	406,883	0.77
	<b>Holocentridae</b> (squirrel & soldierfishes)						
		<i>Sargocentron</i> spp.	Squirrelfish	53,541	52,745	238,439	4.52
	<b>Kuhliidae</b> (flagtails)						
		<i>Kuhlia</i> spp.	Aholehole (flagtails)	1,694	1,446	6,889	4.76
	<b>Kyphosidae</b> (sea chubs)						
		<i>Kyphosus</i> spp. (various)	Nenu (rudderfish)	16,638	15,218	28,157	1.85
	<b>Labridae</b> (wrasses)						
		Labridae (unspecified)	Hinalea (wrasse)	7,316	4,963	23,503	4.74
	<b>Lampridae</b> (moonfishes, opah)						
		<i>Lampris guttatus</i>	Moonfish (opah)	2,214,492	2,004,422	2,909,738	1.45
	<b>Lethrinidae</b> (emperors)						
		<i>Monotaxis grandoculis</i>	Mu (bigeye emperor)	3,549	3,549	12,348	3.48



**Table D-1**  
**Hawaii Annual 2014 Estimated Commercial Landings**

Group	Subgroup	Scientific Name	Common/local name	Lbs. Caught	Estimated Lbs. Sold	Estimated Value of Sold Portion (\$)	Price/Lb.
<b>Lutjanidae (snappers)</b>							
		<i>Aphareus rutilans</i>	Lehi (silverjaw)	8,568	8,401	39,152	4.66
		<i>Aprion virescens</i>	Uku (gray snapper)	96,813	82,436	366,142	4.44
		<i>Etelis carbunculus</i>	Ehu (red snapper)	28,539	22,563	136,452	6.05
		<i>Etelis coruscans</i>	Onaga (red snapper)	79,440	68,910	557,240	8.09
		Lutjanidae ( <i>unspecified</i> )	Snappers	5,303	4,026	16,636	4.13
		<i>Lutjanus kasmira</i>	Ta'ape (blue-lined snapper)	30,271	16,842	28,875	1.71
		<i>Pristipomoides auricilla</i>	Yellow-tail kalekale	37	36	107	3.02
		<i>Pristipomoides filamentosus</i>	Opakapaka (pink snapper)	165,308	148,822	1,011,797	6.80
		<i>Pristipomoides sieboldii</i>	Kalekale	18,557	14,596	57,126	3.91
		<i>Pristipomoides zonatus</i>	Gindai (flower snapper)	3,076	2,213	10,625	4.80
<b>Monacanthidae (filefishes)</b>							
		<i>Aluterus monoceros</i>	Filefish	1,360	1,180	2,243	1.90
<b>Mugilidae (mullets)</b>							
		Mugilidae ( <i>unspecified</i> )	Mullet	7,818	7,705	32,912	4.27
<b>Mullidae (goatfishes)</b>							
		Mullidae ( <i>unspecified</i> )	Goatfish	74,882	53,598	245,087	4.57
<b>Muraenidae, Congridae (marine eels)</b>							
		<i>Gymnothorax, Conger</i> spp.	Eels	2,585	986	1,358	1.38
<b>Polynemidae (threadfins)</b>							
		<i>Polydactylus sexfilis</i>	Threadfin (moi)	428	181	1,338	7.41
<b>Pomacentridae (damsel-fishes)</b>							
		<i>Abudefduf</i> spp.	Damselfish ( <i>unspecified</i> )	960	861	2,875	3.34
<b>Priacanthidae (glasseyes)</b>							
		<i>Priacanthus</i> spp.	Bigeyes/glasseyes	7,283	6,918	27,502	3.98
<b>Scaridae (parrotfishes)</b>							
		Scaridae ( <i>unspecified</i> )	Uhu (parrotfishes)	73,732	73,686	288,609	3.92
<b>Scorpaenidae (scorpionfishes)</b>							
		Scorpaenidae (many species)	Scorpionfish (nohu)	2,276	1,762	11,783	6.69
<b>Sharks (Selachii)</b>							
		Infraclass: Selachii (multiple orders)	Sharks	130,934	103,945	112,630	1.08
<b>Serranidae (groupers)</b>							
		<i>Cephalopholis argus</i>	Roi	1,472	1,289	3,910	3.03
		<i>Hyporthodus quernus</i>	Hapuupuu (Hawaiian grouper)	9,940	8,319	46,285	5.56

**Table D-1**  
**Hawaii Annual 2014 Estimated Commercial Landings**

Group	Subgroup	Scientific Name	Common/local name	Lbs. Caught	Estimated Lbs. Sold	Estimated Value of Sold Portion (\$)	Price/Lb.
	<b>Sphyraenidae</b>	(barracudas)					
		<i>Sphyraena</i> spp.	Barracudas	18,591	18,591	18,277	0.98
	<b>Unspecified Fish Groups</b>						
		Unknown	Pelagic fishes (unspecified)	33	33	3	0.10
		Various families (unspecified)	Reef fishes	540	77	75	0.98
	<b>Miscellaneous Seafood</b>	(insufficient information)					
		Unknown fish/invertebrates	Miscellaneous (unspecified)	3,748	3,597	5,237	1.46
<b>INVERTEBRATES:</b>							
	<b>Crustaceans: Crabs</b>						
		Infraorder: Brachyura (unspecified)	Crabs	36,440	25,686	112,382	4.38
	<b>Crustaceans: Lobsters</b>						
		<i>Panulirus penicillatus</i> , <i>P. marginatus</i>	Spiny lobster	10,971	9,537	104,028	10.91
		<i>Scyllarides</i> spp.	Slipper lobster	170	105	840	8.00
	<b>Crustaceans: Shrimps</b>						
		<i>Heterocarpus</i> spp., <i>Penaeus marginatus</i>	Shrimp (saltwater)	48,707	15,594	101,446	6.51
	<b>Mollusks</b>						
		<i>Cellana</i> spp.	Limpets (saltwater)	22,508	11,139	72,691	6.53
		Cephalopoda, Decapodiformes (unspecified)	Squid	4,312	3,137	10,586	3.37
		<i>Octopus</i> spp.	Octopus	34,330	20,343	92,665	4.56
	<b>Invertebrates (unspecified)</b>						
		Invertebrates (multiple phyla)	Invertebrates	1,705	1,496	117,820	78.76
<b>ALGAE:</b>							
		Phyla: Rhodophyta, Chlorophyta (unspecified)	Algae (limu, unspecified)	6,295	6,070	64,612	10.64
<b>Total</b>				<b>36,144,638</b>	<b>33,459,499</b>	<b>\$101,281,395</b>	<b>\$3.03</b>

*Note: Species with any amount of annual sales are included in Tables D-1 through D-13, although no commercial sales are registered for some of them during one or more months.*

**Table D-2**  
**Hawaii January 2014 Estimated Commercial Landings**

Group	Subgroup	Scientific Name	Common/local name	Lbs. Caught	Estimated Lbs. Sold	Estimated Value of Sold Portion (\$)	Price/Lb.
<b>FISHES:</b>							
	<b>Scombridae</b>						
	<b>Tunas</b>						
		<i>Euthynnus affinis</i>	Kawakawa	552	81	232	2.87
		<i>Katsuwonus pelamis</i>	Skipjack tuna	106,991	95,747	100,116	1.05
		<i>Thunnus alalunga</i>	Albacore tuna	57,249	52,173	128,581	2.46
		<i>Thunnus albacares</i>	Yellowfin tuna	388,065	388,065	1,556,177	4.01
		<i>Thunnus obesus</i>	Bigeye tuna	1,236,425	1,236,425	5,506,529	4.45
		Tribe Thunnini (unspecified)	Tunas (unspecified)	388	300	708	2.36
	<b>Other scombrids</b>						
		<i>Acanthocybium solandri</i>	Wahoo	66,002	62,754	195,617	3.12
		<i>Scomberoides lysan</i>	Leatherback	9	6	13	2.16
	<b>Billfishes</b>						
	<b>Istiophoridae</b>						
		<i>Istiompax indica</i>	Black marlin	1,692	1,692	4,105	2.43
		<i>Istiophorus platypterus</i>	Sailfish	6,412	495	1,021	2.06
		<i>Kajikia audax</i>	Striped marlin	112,984	112,984	190,894	1.69
		<i>Makaira mazara</i>	Blue marlin	49,728	34,812	85,903	2.47
		<i>Tetrapturus angustirostris</i>	Shortnose spearfish	91,154	85,265	54,012	0.63
	<b>Xiphiidae</b>						
		<i>Xiphias gladius</i>	Broadbill swordfish	136,750	20,216	73,554	3.64
	<b>Other fishes</b>						
	<b>Acanthuridae</b> (tang, surgeons, unicornfishes)						
		<i>Acanthurus, Ctenochaetus</i> spp.	Surgeons/tangs (unspecified)	8,343	7,602	14,991	1.97
	<b>Albulidae</b> (bonefishes)						
		<i>Albula glossodonta, A. neoguinaica</i>	Oio (bonefish)	762	138	183	1.33
	<b>Aulostomidae</b> (trumpetfishes)						
		<i>Aulostomus</i> spp.	Trumpetfish	6	6	12	1.95
	<b>Belonidae</b> (needlefishes)						
		Belonidae (unspecified)	Needlefish	99	99	324	3.27
	<b>Bramidae</b> (pomfrets)						
		<i>Taractichthys, Eumegistus, Brama</i> (unspecified)	Pomfret	97,880	97,880	203,744	2.08
	<b>Carangidae</b> (jacks & trevallies)						
		Carangidae (unspecified)	Ul原因/Jacks (unspecified)	36	13	26	2.00
		<i>Carangoides ferdau</i>	Barred ulua	279	62	180	2.91
		<i>Carangoides orthogrammus</i>	Papa ulua	442	442	1,545	3.49
		<i>Caranx ignobilis</i>	White ulua	1,281	577	1,942	3.37
		<i>Caranx lugubris</i>	Black ulua	35	35	112	3.25
		<i>Caranx sexfasciatus</i>	Sasa ulua	35	6	18	3.00

**Table D-2**  
**Hawaii January 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs.	Estimated	Estimated	Price/
	Scientific Name	Common/local name	Caught	Lbs. Sold	Value of Sold Portion (\$)	Lb.
	<i>Pseudocaranx dentex</i>	Butaguchi (pig-lipped ulua)	56	0	0	0
	<i>Seriola dumerili</i>	Kahala (amberjack )	1,334	46	106	2.31
	<i>Uraspis helvola</i>	Dobe ulua	148	114	228	2.00
	<i>Decapterus macarellus</i>	Mackerel scad (ōpelu)	17,806	14,230	41,782	2.94
	<i>Selar crumenophthalmus</i>	Bigeye scad (akule)	13,451	7,436	26,072	3.51
	<i>Elagatis bipinnulata</i>	Kamanu (rainbow runner)	419	272	428	1.57
<b>Chanidae</b> (milkfish)						
	<i>Chanos chanos</i>	Milkfish (awa)	87	41	88	2.15
<b>Cirrhitidae</b> (hawkfishes)						
	<i>Cirrhitus pinnulatus</i>	Po'opa'a (hawkfish)	245	245	758	3.10
<b>Coryphaenidae</b> (mahimahi/dolphinfish)						
	<i>Coryphaena hippurus, C. equiselis</i>	Mahimahi	48,603	43,070	148,173	3.44
<b>Elopidae</b> (ladyfishes, tarpons, tenpounders)						
	<i>Elops hawaiiensis</i>	Hawaiian ladyfish (awa'awa)	39	39	48	1.25
<b>Emmelichthyidae</b> (rovers)						
	<i>Erythrocles scintillans</i>	Golden kalekale	31	7	19	2.71
<b>Gempylidae</b> (snake mackerels)						
	<i>Ruvettus pretiosus</i>	Oilfish (walu)	60,893	60,523	30,651	0.51
<b>Holocentridae</b> (squirrel & soldierfishes)						
	<i>Sargocentron</i> spp.	Squirrelfish	3,057	2,736	12,900	4.72
<b>Kuhliidae</b> (flagtails)						
	<i>Kuhlia</i> spp.	Aholehole (flagtails)	143	117	604	5.18
<b>Kyphosidae</b> (sea chubs)						
	<i>Kyphosus</i> spp. (various)	Nenu (rudderfish)	480	404	846	2.09
<b>Labridae</b> (wrasses)						
	Labridae ( <i>unspecified</i> )	Hinalea (wrasse)	548	407	2,137	5.25
<b>Lampridae</b> (moonfishes, opah)						
	<i>Lampris guttatus</i>	Moonfish (opah)	75,505	73,292	221,578	3.02
<b>Lethrinidae</b> (emperors)						
	<i>Monotaxis grandoculis</i>	Mu (bigeye emperor)	178	178	537	3.02
<b>Lutjanidae</b> (snappers)						
	<i>Aphareus rutilans</i>	Lehi (silverjaw)	1,205	1,166	5,074	4.35
	<i>Aprion virens</i>	Uku (gray snapper)	6,731	4,530	20,491	4.52
	<i>Etelis carbunculus</i>	Ehu (red snapper)	3,579	2,956	15,144	5.12
	<i>Etelis coruscans</i>	Onaga (red snapper)	11,445	9,612	74,772	7.78

**Table D-2**  
**Hawaii January 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs.	Estimated	Estimated	Price/
	Scientific Name	Common/local name	Caught	Lbs. Sold	Value of Sold Portion (\$)	Lb.
	Lutjanidae ( <i>unspecified</i> )	Snappers ( <i>unspecified</i> )	157	150	576	3.85
	<i>Lutjanus kasmira</i>	Ta'ape (blue-lined snapper)	1,509	1,063	2,026	1.91
	<i>Pristipomoides filamentosus</i>	Opakapaka (pink snapper)	25,837	20,480	138,292	6.75
	<i>Pristipomoides sieboldii</i>	Kalekale	2,720	1,997	7,385	3.70
	<i>Pristipomoides zonatus</i>	Gindai (flower snapper)	500	366	1,622	4.43
	<b>Monacanthidae</b> (filefishes)					
	<i>Aluterus monoceros</i>	Filefish	64	64	127	1.98
	<b>Mugilidae</b> (mullet)					
	Mugilidae ( <i>unspecified</i> )	Mullet	48	48	144	3.00
	<b>Mullidae</b> (goatfishes)					
	Mullidae ( <i>unspecified</i> )	Goatfish	4,889	4,281	19,756	4.62
	<b>Muraenidae, Congridae</b> (marine eels)					
	<i>Gymnothorax</i> spp., <i>Conger</i> spp.	Eels	60	19	29	1.55
	<b>Polynemidae</b> (threadfins)					
	<i>Polydactylus sexfilis</i>	Threadfin (moi)	17	1	8	8.00
	<b>Pomacentridae</b> (damselfishes)					
	<i>Abudefduf</i> spp.	Damselfish ( <i>unspecified</i> )	115	104	353	3.39
	<b>Priacanthidae</b> (glasseyes)					
	<i>Priacanthus</i> spp.	Bigeyes/glasseyes	691	560	2,083	3.72
	<b>Scaridae</b> (parrotfishes)					
	Scaridae ( <i>unspecified</i> )	Uhu (parrotfishes)	5,069	5,069	19,344	3.82
	<b>Scorpaenidae</b> (scorpionfishes)					
	Scorpaenidae (many species)	Scorpionfish (nohu)	239	180	1,074	5.95
	<b>Sharks</b> (Selachii)					
	Infraclass: Selachii (multiple orders)	Sharks	12,074	7,312	8,093	1.11
	<b>Serranidae</b> (groupers)					
	<i>Cephalopholis argus</i>	Roi	166	151	440	2.90
	<i>Hyporthodus quernus</i>	Hapuupuu (Hawaiian grouper)	914	650	3,403	5.23
	<b>Sphyraenidae</b> (barracudas)					
	<i>Sphyraena</i> spp.	Barracudas	457	422	652	1.55

**Table D-2**  
**Hawaii January 2014 Estimated Commercial Landings**

<b>Group</b>	<b>Subgroup</b>	<b>Scientific Name</b>	<b>Common/local name</b>	<b>Lbs. Caught</b>	<b>Estimated Lbs. Sold</b>	<b>Estimated Value of Sold Portion (\$)</b>	<b>Price/Lb.</b>
<b>Unspecified Fish Groups</b>							
	Unknown		Pelagic fishes (unspecified)	21	21	2	0.10
	Various families (unspecified)		Reef fishes (unspecified)	14	0	0	0
<b>Miscellaneous Seafood (insufficient information)</b>							
	Unknown fish/invertebrates		Miscellaneous (unspecified)	123	123	345	2.81
<b>INVERTEBRATES:</b>							
<b>Crustaceans: Crabs</b>							
	Infraorder: Brachyura (unspecified)		Crabs	4,020	3,226	12,382	3.84
<b>Crustaceans: Lobsters</b>							
	<i>Panulirus penicillatus</i> , <i>P. marginatus</i>		Spiny lobster	1,775	1,293	14,381	11.13
<b>Crustaceans: Shrimps</b>							
	<i>Heterocarpus</i> spp., <i>Penaeus marginatus</i>		Shrimp (saltwater)	11,656	1,400	10,145	7.25
<b>Mollusks</b>							
	<i>Cellana</i> spp.		Limpets (saltwater)	2,175	865	5,563	6.43
	<i>Octopus</i> spp.		Octopus	2,584	1,082	4,845	4.48
<b>Invertebrates (unspecified)</b>							
	Invertebrates (multiple phyla)		Invertebrates	371	25	47	1.91
<b>ALGAE:</b>							
	Phyla: Rhodophyta, Chlorophyta (unspecified)		Algae (limu, unspecified)	471	435	5,421	12.47
<b>Total</b>				<b>2,688,318</b>	<b>2,470,683</b>	<b>\$8,981,513</b>	<b>\$3.64</b>

**Table D-3**  
**Hawaii February 2014 Estimated Commercial Landings**

Group	Subgroup	Scientific Name	Common/local name	Lbs. Caught	Estimated Lbs. Sold	Estimated Value of Sold Portion (\$)	Price/Lb.
<b>FISHES:</b>							
	<b>Scombridae</b>						
	<b>Tunas</b>						
		<i>Euthynnus affinis</i>	Kawakawa	692	386	1,203	3.12
		<i>Katsuwonus pelamis</i>	Skipjack tuna	50,834	38,618	36,875	0.95
		<i>Thunnus alalunga</i>	Albacore tuna	57,568	50,808	130,122	2.56
		<i>Thunnus albacares</i>	Yellowfin tuna	415,269	415,269	1,571,546	3.78
		<i>Thunnus obesus</i>	Bigeye tuna	1,090,773	1,050,319	4,133,134	3.94
		Tribe Thunnini (unspecified)	Tunas (unspecified)	696	496	2,366	4.77
	<b>Other scombrids</b>						
		<i>Acanthocybium solandri</i>	Wahoo	73,155	66,701	206,783	3.10
		<i>Scomberoides lysan</i>	Leatherback	19	5	11	2.50
	<b>Billfishes</b>						
		Suborder: Xiphioidae	Billfishes (unspecified)	255	0	0	
	<b>Istiophoridae</b>						
		<i>Istiompax indica</i>	Black marlin	2,603	2,603	6,564	2.52
		<i>Istiophorus platypterus</i>	Sailfish	3,442	378	815	2.16
		<i>Kajikia audax</i>	Striped marlin	102,971	102,971	173,855	1.69
		<i>Makaira mazara</i>	Blue marlin	73,774	37,529	80,944	2.16
		<i>Tetrapturus angustirostris</i>	Shortnose spearfish	86,448	75,790	57,348	0.76
	<b>Xiphiidae</b>						
		<i>Xiphias gladius</i>	Broadbill swordfish	523,917	313,284	620,350	1.98
	<b>Other fishes</b>						
	<b>Acanthuridae</b> (tang, surgeons, unicornfishes)						
		<i>Acanthurus</i> spp., <i>Ctenochaetus</i> spp.	Surgeons/tangs (unspecified)	7,257	6,696	13,202	1.97
	<b>Albulidae</b> (bonefishes)						
		<i>Albula glossodonta</i> , <i>A. neoguinaica</i>	Oio (bonefish)	538	187	217	1.16
	<b>Aulostomidae</b> (trumpetfishes)						
		<i>Aulostomus</i> spp.	Trumpetfish	41	16	22	1.38
	<b>Belonidae</b> (needlefishes)						
		<i>Belonidae</i> (unspecified)	Needlefish	66	66	264	4.00
	<b>Bothidae</b> (left-eye flounders)						
		<i>Bothidae</i> (unspecified)	Flounders	1	1	1	1.00
	<b>Bramidae</b> (pomfrets)						
		<i>Taractichthys</i> , <i>Eumegistus</i> , <i>Brama</i> (unspecified)	Pomfret	91,805	91,805	265,057	2.89
	<b>Carangidae</b> (jacks & trevallies)						
		<i>Carangidae</i> (unspecified)	Ulua/Jacks (unspecified)	16	0	0	0
		<i>Carangoides ferdau</i>	Barred ulua	406	74	230	3.11
		<i>Carangoides orthogrammus</i>	Papa ulua	519	378	1,135	3.01
		<i>Caranx ignobilis</i>	White ulua	1,102	517	1,818	3.52
		<i>Caranx lugubris</i>	Black ulua	16	0	0	0

**Table D-3**  
**Hawaii February 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs.	Estimated Lbs.	Estimated	Price/
	Scientific Name	Common/local name	Caught	Sold	Value of Sold Portion (\$)	Lb.
	<i>Caranx sexfasciatus</i>	Sasa ulua	6	6	17	3.00
	<i>Pseudocaranx dentex</i>	Butaguchi (pig-lipped ulua)	58	27	80	3.00
	<i>Seriola dumerili</i>	Kahala (amberjack )	1,846	149	677	4.56
	<i>Uraspis helvola</i>	Dobe ulua	496	496	1,168	2.35
	<i>Decapterus macarellus</i>	Mackerel scad (ōpelu)	22,943	19,270	56,856	2.95
	<i>Selar crumenophthalmus</i>	Bigeye scad (akule)	10,184	9,780	36,350	3.72
	<i>Elagatis bipinnulata</i>	Kamanu (rainbow runner)	295	189	307	1.63
	<b>Chanidae</b> (milkfish)					
	<i>Chanos chanos</i>	Milkfish (awa)	100	100	250	2.50
	<b>Cirrhitidae</b> (hawkfishes)					
	<i>Cirrhitus pinnulatus</i>	Po'opa'a (hawkfish)	56	56	169	3.00
	<b>Clupeidae, Dussumieriidae</b> (sardines/herrings)					
	<i>Clupeidae, Dussumieriidae (unspecified)</i>	Herring/sardine	4,560	3,347	6,694	2.00
	<b>Coryphaenidae</b> (mahimahi/dolphinfish)					
	<i>Coryphaena hippurus, C. equiselis</i>	Mahimahi	96,296	85,230	282,401	3.31
	<b>Elopidae</b> (ladyfishes, tarpons, tenpounders)					
	<i>Elops hawaiiensis</i>	Hawaiian ladyfish (awa'awa)	15	12	13	1.06
	<b>Emmelichthyidae</b> (rovers)					
	<i>Erythrocles scintillans</i>	Golden kalekale	41	10	43	4.50
	<b>Gempylidae</b> (snake mackerels)					
	<i>Ruvettus pretiosus</i>	Oilfish (walu)	59,018	56,443	18,015	0.32
	<b>Holocentridae</b> (squirrel & soldierfishes)					
	<i>Sargocentron</i> spp.	Squirrelfish	2,793	2,464	10,877	4.41
	<b>Kuhliidae</b> (flagtails)					
	<i>Kuhlia</i> spp.	Aholehole (flagtails)	68	47	235	4.97
	<b>Kyphosidae</b> (sea chubs)					
	<i>Kyphosus</i> spp. (various)	Nenu (rudderfish)	2,018	2,004	3,198	1.60
	<b>Labridae</b> (wrasses)					
	<i>Labridae (unspecified)</i>	Hinalea (wrasse)	546	431	2,233	5.18
	<b>Lampridae</b> (moonfishes, opah)					
	<i>Lampris guttatus</i>	Moonfish (opah)	70,271	66,471	208,958	3.14
	<b>Lethrinidae</b> (emperors)					
	<i>Monotaxis grandoculis</i>	Mu (bigeye emperor)	279	273	866	3.17
	<b>Lutjanidae</b> (snappers)					
	<i>Aphareus rutilans</i>	Lehi (silverjaw)	960	804	3,976	4.94
	<i>Aprion virescens</i>	Uku (gray snapper)	5,301	4,890	22,292	4.56
	<i>Etelis carbunculus</i>	Ehu (red snapper)	2,754	1,993	11,775	5.91



**Table D-3**  
**Hawaii February 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs.	Estimated Lbs.	Estimated	Price/
	Scientific Name	Common/local name	Caught	Sold	Value of Sold Portion (\$)	Lb.
	<i>Etelis coruscans</i>	Onaga (red snapper)	9,934	8,577	65,654	7.65
	Lutjanidae ( <i>unspecified</i> )	Snappers ( <i>unspecified</i> )	178	155	645	4.17
	<i>Lutjanus kasmira</i>	Ta'ape (blue-lined snapper)	1,138	698	1,266	1.81
	<i>Pristipomoides filamentosus</i>	Opakapaka (pink snapper)	25,177	21,848	155,277	7.11
	<i>Pristipomoides sieboldii</i>	Kalekale	2,215	1,930	7,864	4.07
	<i>Pristipomoides zonatus</i>	Gindai (flower snapper)	372	291	1,498	5.15
	<b>Monacanthidae</b> (filefishes)					
	<i>Aluterus monoceros</i>	Filefish	214	186	410	2.21
	<b>Mugilidae</b> (mullet)					
	Mugilidae ( <i>unspecified</i> )	Mullet	70	70	215	3.07
	<b>Mullidae</b> (goatfishes)					
	Mullidae ( <i>unspecified</i> )	Goatfish	4,524	3,421	17,092	5.00
	<b>Muraenidae, Congridae</b> (marine eels)					
	<i>Gymnothorax</i> , <i>Conger</i> spp.	Eels	70	28	31	1.10
	<b>Polynemidae</b> (threadfins)					
	<i>Polydactylus sexfilis</i>	Threadfin (moi)	73	0	0	0
	<b>Pomacentridae</b> (damselfishes)					
	<i>Abudefduf</i> spp.	Damselfish ( <i>unspecified</i> )	58	36	92	2.56
	<b>Priacanthidae</b> (glasseyes)					
	<i>Priacanthus</i> spp.	Bigeyes/glasseyes	366	338	1,419	4.20
	<b>Scaridae</b> (parrotfishes)					
	Scaridae ( <i>unspecified</i> )	Uhu (parrotfishes)	7,889	7,889	30,018	3.81
	<b>Scorpaenidae</b> (scorpionfishes)					
	Scorpaenidae (many species)	Scorpionfish (nohu)	132	109	756	6.96
	<b>Sharks</b> (Selachii)					
	Infraclass: Selachii (multiple orders)	Sharks	10,384	8,658	7,709	0.89
	<b>Serranidae</b> (groupers)					
	<i>Cephalopholis argus</i>	Roi	298	278	776	2.80
	<i>Hyporthodus quernus</i>	Hapuupuu (Hawaiian grouper)	1,230	1,169	6,428	5.50
	<b>Sphyraenidae</b> (barracudas)					
	<i>Sphyraena</i> spp.	Barracudas	850	773	1,201	1.55
	<b>Unspecified Fish Groups</b>					
	Unknown	Pelagic fishes ( <i>unspecified</i> )	5	5	1	0.10
	Various families ( <i>unspecified</i> )	Reef fishes ( <i>unspecified</i> )	36	0	0	0

**Table D-3**  
**Hawaii February 2014 Estimated Commercial Landings**

Group	Subgroup	Scientific Name	Common/local name	Lbs. Caught	Estimated Lbs. Sold	Estimated Value of Sold Portion (\$)	Price/ Lb.
<b>Miscellaneous Seafood</b> ( <i>insufficient information</i> )							
		Unknown fish/invertebrates	Miscellaneous (unspecified)	195	80	121	1.52
<b>INVERTEBRATES:</b>							
	<b>Crustaceans: Crabs</b>						
		Infraorder: Brachyura ( <i>unspecified</i> )	Crabs	2,733	1,934	8,554	4.42
	<b>Crustaceans: Lobsters</b>						
		<i>Panulirus penicillatus</i> , <i>P. marginatus</i>	Spiny lobster	1,429	1,397	15,329	10.97
		<i>Scyllarides</i> spp.	Slipper lobster	11	4	34	8.00
	<b>Crustaceans: Shrimps</b>						
		<i>Heterocarpus</i> spp., <i>Penaeus marginatus</i>	Shrimp (saltwater)	6,141	1,122	7,955	7.09
	<b>Mollusks</b>						
		<i>Cellana</i> spp.	Limpets (saltwater)	2,223	978	6,267	6.41
		Cephalopoda, Decapodiformes ( <i>unspecified</i> )	Squid	21	19	143	7.53
		<i>Octopus</i> spp.	Octopus	2,086	1,080	4,846	4.49
	<b>Invertebrates (unspecified)</b>						
		Invertebrates (multiple phyla)	Invertebrates	439	439	38,321	87.23
<b>ALGAE:</b>							
		Phyla: Rhodophyta, Chlorophyta ( <i>unspecified</i> )	Algae (limu, unspecified)	387	325	4,105	12.63
<b>Total</b>				<b>2,945,965</b>	<b>2,573,226</b>	<b>\$8,355,339</b>	<b>\$3.25</b>

**Table D-4**  
**Hawaii March 2014 Estimated Commercial Landings**

Group	Subgroup	Scientific Name	Common/local name	Lbs. Caught	Estimated Lbs. Sold	Estimated Value of Sold Portion (\$)	Price/Lb.
<b>FISHES:</b>							
<b>Scombridae</b>							
<b>Tunas</b>							
		<i>Euthynnus affinis</i>	Kawakawa	502	209	733	3.52
		<i>Katsuwonus pelamis</i>	Skipjack tuna	41,865	34,518	42,021	1.22
		<i>Thunnus alalunga</i>	Albacore tuna	62,856	53,129	131,519	2.48
		<i>Thunnus albacares</i>	Yellowfin tuna	322,830	322,830	1,153,373	3.57
		<i>Thunnus obesus</i>	Bigeye tuna	1,112,698	1,101,308	4,996,260	4.54
		Tribe Thunnini ( <i>unspecified</i> )	Tunas (unspecified)	210	44	110	2.52
<b>Other scombrids</b>							
		<i>Acanthocybium solandri</i>	Wahoo	108,466	105,472	292,029	2.77
		<i>Scomberoides lysan</i>	Leatherback	3	3	4	1.60
<b>Billfishes</b>							
		Suborder: Xiphioidae	Billfishes (unspecified)	127	0	0	
<b>Istiophoridae</b>							
		<i>Istiompax indica</i>	Black marlin	2,145	2,145	3,660	1.71
		<i>Istiophorus platypterus</i>	Sailfish	5,897	1,027	1,389	1.35
		<i>Kajikia audax</i>	Striped marlin	85,338	85,338	124,297	1.46
		<i>Makaira mazara</i>	Blue marlin	90,668	79,812	114,917	1.44
		<i>Tetrapturus angustirostris</i>	Shortnose spearfish	60,588	58,579	50,431	0.86
<b>Xiphiidae</b>							
		<i>Xiphias gladius</i>	Broadbill swordfish	601,585	376,416	832,231	2.21
<b>Other fishes</b>							
<b>Acanthuridae</b> (tang, surgeons, unicornfishes)							
		<i>Acanthurus</i> spp., <i>Ctenochaetus</i> spp.	Surgeons/tangs (unspecified)	7,290	6,564	12,683	1.93
<b>Albulidae</b> (bonefishes)							
		<i>Albula glossodonta</i> , <i>A. neoguinaica</i>	Oio (bonefish)	794	677	981	1.45
<b>Aulostomidae</b> (trumpetfishes)							
		<i>Aulostomus</i> spp.	Trumpetfish	32	14	26	1.90
<b>Bothidae</b> (left-eye flounders)							
		<i>Bothidae (unspecified)</i>	Flounders	3	3	6	2.00
<b>Bramidae</b> (pomfrets)							
		<i>Taractichthys</i> , <i>Eumegistus</i> , <i>Brama (unspecified)</i>	Pomfret	124,302	124,302	226,867	1.83
<b>Carangidae</b> (jacks & trevallies)							
		<i>Carangidae (unspecified)</i>	Ul原因/Jacks (unspecified)	79	19	65	3.47
		<i>Carangoides ferdau</i>	Barred ulua	256	98	317	3.23
		<i>Carangoides orthogrammus</i>	Papa ulua	555	555	2,485	4.48
		<i>Caranx ignobilis</i>	White ulua	706	679	2,117	3.12
		<i>Caranx lugubris</i>	Black ulua	43	0	0	0
		<i>Pseudocaranx dentex</i>	Butaguchi (pig-lipped ulua)	4	0	0	0

**Table D-4**  
**Hawaii March 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs.	Estimated Lbs.	Estimated	
	Scientific Name	Common/local name	Caught	Sold	Value of Sold Portion (\$)	Price/Lb.
	<i>Seriola dumerili</i>	Kahala (amberjack )	519	63	132	2.09
	<i>Uraspis helvola</i>	Dobe ulua	1,493	642	1,930	3.01
	<i>Decapterus macarellus</i>	Mackerel scad (ōpelu)	23,247	16,069	45,974	2.86
	<i>Selar crumenophthalmus</i>	Bigeye scad (akule)	15,623	12,115	44,009	3.63
	<i>Elagatis bipinnulata</i>	Kamanu (rainbow runner)	440	393	639	1.63
	<b>Chanidae (milkfish)</b>					
	<i>Chanos chanos</i>	Milkfish (awa)	60	60	130	2.17
	<b>Cirrhitidae (hawkfishes)</b>					
	<i>Cirrhitus pinnulatus</i>	Po'opa'a (hawkfish)	175	175	587	3.35
	<b>Clupeidae, Dussumieriidae (sardines/herrings)</b>					
	Clupeidae, Dussumieriidae (unspecified)	Herring/sardine	300	0	0	0
	<b>Coryphaenidae (mahimahi/dolphinfish)</b>					
	<i>Coryphaena hippurus, C. equiselis</i>	Mahimahi	165,484	158,784	414,678	2.61
	<b>Elopidae (ladyfishes, tarpons, tenpounders)</b>					
	<i>Elops hawaiiensis</i>	Hawaiian ladyfish (awa'awa)	105	105	151	1.44
	<b>Emmelichthyidae (rovers)</b>					
	<i>Erythrocles scintillans</i>	Golden kalekale	31	14	59	4.33
	<b>Gempylidae (snake mackerels)</b>					
	<i>Ruvettus pretiosus</i>	Oilfish (walu)	66,714	66,714	26,090	0.39
	<b>Holocentridae (squirrel &amp; soldierfishes)</b>					
	<i>Sargocentron</i> spp.	Squirrelfish	2,287	2,222	10,237	4.61
	<b>Kuhliidae (flagtails)</b>					
	<i>Kuhlia</i> spp.	Aholehole (flagtails)	395	340	1,416	4.16
	<b>Kyphosidae (sea chubs)</b>					
	<i>Kyphosus</i> spp. (various)	Nenu (rudderfish)	539	474	894	1.88
	<b>Labridae (wrasses)</b>					
	Labridae (unspecified)	Hinalea (wrasse)	345	195	742	3.82
	<b>Lampridae (moonfishes, opah)</b>					
	<i>Lampris guttatus</i>	Moonfish (opah)	115,628	109,453	211,789	1.93
	<b>Lethrinidae (emperors)</b>					
	<i>Monotaxis grandoculis</i>	Mu (bigeye emperor)	153	153	594	3.88
	<b>Lutjanidae (snappers)</b>					
	<i>Aphareus rutilans</i>	Lehi (silverjaw)	482	482	2,403	4.98
	<i>Aprion virescens</i>	Uku (gray snapper)	6,164	5,663	25,657	4.53
	<i>Etelis carbunculus</i>	Ehu (red snapper)	1,905	1,771	10,743	6.07
	<i>Etelis coruscans</i>	Onaga (red snapper)	3,939	3,839	30,877	8.04
	Lutjanidae (unspecified)	Snappers (unspecified)	216	182	749	4.12
	<i>Lutjanus kasmira</i>	Ta'ape (blue-lined snapper)	1,575	814	1,453	1.78
	<i>Pristipomoides auricilla</i>	Yellow-tail kalekale	3	3	5	2.00

**Table D-4**  
**Hawaii March 2014 Estimated Commercial Landings**

Group	Subgroup	Scientific Name	Common/local name	Lbs. Caught	Estimated Lbs. Sold	Estimated Value of Sold Portion (\$)	Price/Lb.
		<i>Pristipomoides filamentosus</i>	Opakapaka (pink snapper)	12,929	12,929	93,291	7.22
		<i>Pristipomoides sieboldii</i>	Kalekale	1,377	1,088	4,627	4.25
		<i>Pristipomoides zonatus</i>	Gindai (flower snapper)	176	171	792	4.62
	<b>Monacanthidae</b> (filefishes)						
		<i>Aluterus monoceros</i>	Filefish	160	105	119	1.13
	<b>Mugilidae</b> (mullet)						
		Mugilidae ( <i>unspecified</i> )	Mullet	225	115	328	2.84
	<b>Mullidae</b> (goatfishes)						
		Mullidae ( <i>unspecified</i> )	Goatfish	5,584	4,807	20,769	4.32
	<b>Muraenidae, Congridae</b> (marine eels)						
		<i>Gymnothorax</i> spp., <i>Conger</i> spp.	Eels	138	71	77	1.08
	<b>Polynemidae</b> (threadfins)						
		<i>Polydactylus sexfilis</i>	Threadfin (moi)	113	75	502	6.72
	<b>Pomacentridae</b> (damselfishes)						
		<i>Abudefduf</i> spp.	Damselfish ( <i>unspecified</i> )	22	5	14	2.90
	<b>Priacanthidae</b> (glasseyes)						
		<i>Priacanthus</i> spp.	Bigeyes/glasseyes	288	269	1,074	3.99
	<b>Scaridae</b> (parrotfishes)						
		Scaridae ( <i>unspecified</i> )	Uhu (parrotfishes)	6,029	5,314	21,671	4.08
	<b>Scorpaenidae</b> (scorpionfishes)						
		Scorpaenidae (many species)	Scorpionfish (nohu)	122	122	791	6.48
	<b>Sharks</b> (Selachii)						
		Infraclass: Selachii (multiple orders)	Sharks	12,914	10,543	10,456	0.99
	<b>Serranidae</b> (groupers)						
		<i>Cephalopholis argus</i>	Roi	101	44	129	2.92
		<i>Hyporthodus quernus</i>	Hapuupuu (Hawaiian grouper)	380	380	2,190	5.77
	<b>Sphyraenidae</b> (barracudas)						
		<i>Sphyraena</i> spp.	Barracudas	1,134	1,134	1,842	1.62
	<b>Unspecified Fish Groups</b>						
		Unknown	Pelagic fishes ( <i>unspecified</i> )	7	7	1	0.10
		Various families ( <i>unspecified</i> )	Reef fishes ( <i>unspecified</i> )	66	0	0	0

**Miscellaneous Seafood** (*insufficient information*)

**Table D-4**  
**Hawaii March 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs.	Estimated Lbs.	Estimated	
	Scientific Name	Common/local name	Caught	Sold	Value of Sold Portion (\$)	Price/Lb.
	Unknown fish/invertebrates	Miscellaneous (unspecified)	101	101	481	4.78
<b>INVERTEBRATES:</b>						
	<b>Crustaceans: Crabs</b>					
	Infraorder: Brachyura (unspecified)	Crabs	2,615	1,828	8,913	4.88
	<b>Crustaceans: Lobsters</b>					
	<i>Panulirus penicillatus</i> , <i>P. marginatus</i>	Spiny lobster	827	821	8,252	10.05
	<i>Scyllarides</i> spp.	Slipper lobster	16	9	75	8.00
	<b>Crustaceans: Shrimps</b>					
	<i>Heterocarpus</i> spp., <i>Penaeus marginatus</i>	Shrimp (saltwater)	9,839	1,490	9,189	6.17
	<b>Mollusks</b>					
	<i>Cellana</i> spp.	Limpets (saltwater)	2,266	795	5,016	6.31
	<i>Octopus</i> spp.	Octopus	1,805	856	3,880	4.53
	<b>Invertebrates (unspecified)</b>					
	Invertebrates (multiple phyla)	Invertebrates	13	13	24	1.92
<b>ALGAE:</b>						
	Phyla: Rhodophyta, Chlorophyta (unspecified)	Algae (limu, unspecified)	580	497	5,980	12.03
<b>Total</b>			<b>3,097,491</b>	<b>2,778,055</b>	<b>\$9,020,942</b>	<b>\$3.25</b>

**Table D-5**  
**Hawaii April 2014 Estimated Commercial Landings**

Group	Subgroup	Scientific Name	Common/local name	Lbs. Caught	Estimated Lbs. Sold	Estimated Value of Sold Portion (\$)	Price/Lb.
<b>FISHES:</b>							
	<b>Scombridae</b>						
	<b>Tunas</b>						
		<i>Euthynnus affinis</i>	Kawakawa	693	80	257	3.20
		<i>Katsuwonus pelamis</i>	Skipjack tuna	34,442	22,431	44,732	1.99
		<i>Thunnus alalunga</i>	Albacore tuna	19,965	18,078	50,793	2.81
		<i>Thunnus albacares</i>	Yellowfin tuna	221,107	191,190	754,638	3.95
		<i>Thunnus obesus</i>	Bigeye tuna	1,000,918	968,482	4,745,845	4.90
		Tribe Thunnini ( <i>unspecified</i> )	Tunas (unspecified)	322	119	374	3.16
	<b>Other scombrids</b>						
		<i>Acanthocybium solandri</i>	Wahoo	113,845	111,485	292,900	2.63
		<i>Scomberoides lysan</i>	Leatherback	91	91	234	2.56
	<b>Billfishes</b>						
		Suborder: Xiphioidae	Billfishes (unspecified)	127	0	0	
	<b>Istiophoridae</b>						
		<i>Istiompax indica</i>	Black marlin	2,408	2,408	3,844	1.60
		<i>Istiophorus platypterus</i>	Sailfish	2,771	2,023	3,020	1.49
		<i>Kajikia audax</i>	Striped marlin	43,420	43,420	89,706	2.07
		<i>Makaira mazara</i>	Blue marlin	106,519	100,086	149,097	1.49
		<i>Tetrapturus angustirostris</i>	Shortnose spearfish	27,440	27,440	48,609	1.77
	<b>Xiphiidae</b>						
		<i>Xiphias gladius</i>	Broadbill swordfish	625,129	625,129	1,218,575	1.95
	<b>Other fishes</b>						
	<b>Acanthuridae</b> (tang, surgeons, unicornfishes)						
		<i>Acanthurus</i> spp., <i>Ctenochaetus</i> spp.	Surgeons/tangs (unspecified)	7,447	6,732	13,228	1.96
	<b>Albulidae</b> (bonefishes)						
		<i>Albula glossodonta</i> , <i>A. neoguinaica</i>	Oio (bonefish)	1,528	1,303	1,950	1.50
	<b>Aulostomidae</b> (trumpetfishes)						
		<i>Aulostomus</i> spp.	Trumpetfish	11	10	30	3.16
	<b>Belonidae</b> (needlefishes)						
		<i>Belonidae (unspecified)</i>	Needlefish	25	25	63	2.56
	<b>Bramidae</b> (pomfrets)						
		<i>Taractichthys</i> , <i>Eumegistus</i> , <i>Brama (unspecified)</i>	Pomfret	124,874	124,874	170,914	1.37
	<b>Carangidae</b> (jacks & trevallies)						
		<i>Carangidae (unspecified)</i>	Ul原因/Jacks (unspecified)	197	14	39	2.91
		<i>Carangidae (unspecified)</i>	Reef jacks (ulua)	85	85	346	4.07
		<i>Carangoides ferdau</i>	Barred ulua	255	102	365	3.57
		<i>Carangoides orthogrammus</i>	Papa ulua	722	614	3,008	4.90
		<i>Caranx ignobilis</i>	White ulua	837	456	1,381	3.03

**Table D-5**  
**Hawaii April 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs.	Estimated Lbs.	Estimated	
	Scientific Name	Common/local name	Caught	Sold	Value of Sold Portion (\$)	Price/Lb.
	<i>Caranx lugubris</i>	Black ulua	12	0	0	0
	<i>Caranx sexfasciatus</i>	Sasa ulua	5	0	0	0
	<i>Pseudocaranx dentex</i>	Butaguchi (pig-lipped ulua)	7	0	0	0
	<i>Seriola dumerili</i>	Kahala (amberjack )	362	138	271	1.96
	<i>Uraspis helvola</i>	Dobe ulua	630	630	1,748	2.78
	<i>Decapterus macarellus</i>	Mackerel scad (ōpelu)	23,286	12,421	33,430	2.69
	<i>Selar crumenophthalmus</i>	Bigeye scad (akule)	22,527	17,819	63,487	3.56
	<i>Elagatis bipinnulata</i>	Kamanu (rainbow runner)	553	509	879	1.73
<b>Chanidae</b>	(milkfish)					
	<i>Chanos chanos</i>	Milkfish (awa)	192	192	267	1.39
<b>Cirrhitidae</b>	(hawkfishes)					
	<i>Cirrhitus pinnulatus</i>	Po'opa'a (hawkfish)	96	96	340	3.55
<b>Coryphaenidae</b>	(mahimahi/dolphinfish)					
	<i>Coryphaena hippurus</i> , <i>C. equiselis</i>	Mahimahi	175,220	162,133	507,827	3.13
<b>Elopidae</b>	(ladyfishes, tarpons, tenpounders)					
	<i>Elops hawaiiensis</i>	Hawaiian ladyfish (awa'awa)	34	34	49	1.46
<b>Emmelichthyidae</b>	(rovers)					
	<i>Erythrocles scintillans</i>	Golden kalekale	14	0	0	0
<b>Gempylidae</b>	(snake mackerels)					
	<i>Ruvettus pretiosus</i>	Oilfish (walu)	52,176	52,176	48,456	0.93
<b>Holocentridae</b>	(squirrel & soldierfishes)					
	<i>Sargocentron</i> spp.	Squirrelfish	2,113	2,019	9,702	4.81
<b>Kuhliidae</b>	(flagtails)					
	<i>Kuhlia</i> spp.	Aholehole (flagtails)	96	54	345	6.36
<b>Kyphosidae</b>	(sea chubs)					
	<i>Kyphosus</i> spp. (various)	Nenu (rudderfish)	602	533	995	1.87
<b>Labridae</b>	(wrasses)					
	Labridae ( <i>unspecified</i> )	Hinalea (wrasse)	177	66	153	2.32
<b>Lampridae</b>	(moonfishes, opah)					
	<i>Lampris guttatus</i>	Moonfish (opah)	274,316	264,468	241,644	0.91
<b>Lethrinidae</b>	(emperors)					
	<i>Monotaxis grandoculis</i>	Mu (bigeye emperor)	108	108	365	3.38
<b>Lutjanidae</b>	(snappers)					
	<i>Aphareus rutilans</i>	Lehi (silverjaw)	239	239	1,285	5.37
	<i>Aprion virescens</i>	Uku (gray snapper)	5,413	4,791	22,747	4.75
	<i>Etelis carbunculus</i>	Ehu (red snapper)	1,140	998	6,408	6.42
	<i>Etelis coruscans</i>	Onaga (red snapper)	1,334	1,138	9,701	8.53
	Lutjanidae ( <i>unspecified</i> )	Snappers ( <i>unspecified</i> )	309	309	1,400	4.53



**Table D-5**  
**Hawaii April 2014 Estimated Commercial Landings**

Group	Subgroup	Scientific Name	Common/local name	Lbs. Caught	Estimated Lbs. Sold	Estimated Value of Sold Portion (\$)	Price/Lb.
		<i>Lutjanus kasmira</i>	Ta'ape (blue-lined snapper)	746	381	667	1.75
		<i>Pristipomoides auricilla</i>	Yellow-tail kalekale	2	2	5	3.00
		<i>Pristipomoides filamentosus</i>	Opakapaka (pink snapper)	4,137	4,137	32,614	7.88
		<i>Pristipomoides sieboldii</i>	Kalekale	777	703	3,127	4.45
		<i>Pristipomoides zonatus</i>	Gindai (flower snapper)	138	130	656	5.06
		<b>Monacanthidae</b> (filefishes)					
		<i>Aluterus monoceros</i>	Filefish	300	236	364	1.54
		<b>Mugilidae</b> (mullet)					
		Mugilidae ( <i>unspecified</i> )	Mullet	1,793	1,782	7,513	4.22
		<b>Mullidae</b> (goatfishes)					
		Mullidae ( <i>unspecified</i> )	Goatfish	4,395	3,053	13,121	4.30
		<b>Muraenidae, Congridae</b> (marine eels)					
		<i>Gymnothorax</i> spp., <i>Conger</i> spp.	Eels	279	42	52	1.25
		<b>Polynemidae</b> (threadfins)					
		<i>Polydactylus sexfilis</i>	Threadfin (moi)	93	22	202	9.01
		<b>Pomacentridae</b> (damsel-fishes)					
		<i>Abudefduf</i> spp.	Damsel-fish ( <i>unspecified</i> )	101	101	328	3.25
		<b>Priacanthidae</b> (glasseyes)					
		<i>Priacanthus</i> spp.	Bigeyes/glasseyes	848	841	3,511	4.17
		<b>Scaridae</b> (parrotfishes)					
		Scaridae ( <i>unspecified</i> )	Uhu (parrotfishes)	5,475	4,949	20,106	4.06
		<b>Scorpaenidae</b> (scorpionfishes)					
		Scorpaenidae (many species)	Scorpionfish (nohu)	96	91	555	6.13
		<b>Sharks</b> (Selachii)					
		Infraclass: Selachii (multiple orders)	Sharks	6,409	6,387	4,585	0.72
		<b>Serranidae</b> (groupers)					
		<i>Cephalopholis argus</i>	Roi	104	58	163	2.82
		<i>Hyporthodus quernus</i>	Hapuupuu (Hawaiian grouper)	400	302	1,544	5.12
		<b>Sphyraenidae</b> (barracudas)					
		<i>Sphyraena</i> spp.	Barracudas	1,069	1,069	1,519	1.42
		<b>Unspecified Fish Groups</b>					
		Various families ( <i>unspecified</i> )	Reef fishes ( <i>unspecified</i> )	19	0	0	0

**Table D-5**  
**Hawaii April 2014 Estimated Commercial Landings**

Group	Subgroup	Scientific Name	Common/local name	Lbs. Caught	Estimated Lbs. Sold	Estimated Value of Sold Portion (\$)	Price/ Lb.
<b>Miscellaneous Seafood</b> ( <i>insufficient information</i> )							
		Unknown fish/invertebrates	Miscellaneous (unspecified)	223	217	443	2.04
<b>INVERTEBRATES:</b>							
<b>Crustaceans: Crabs</b>							
		Infraorder: Brachyura ( <i>unspecified</i> )	Crabs	2,795	1,824	7,994	4.38
<b>Crustaceans: Lobsters</b>							
		<i>Panulirus penicillatus</i> , <i>P. marginatus</i>	Spiny lobster	821	820	8,630	10.52
		<i>Scyllarides</i> spp.	Slipper lobster	45	28	224	8.00
<b>Crustaceans: Shrimps</b>							
		<i>Heterocarpus</i> spp., <i>Penaeus marginatus</i>	Shrimp (saltwater)	2,903	1,410	9,689	6.87
<b>Mollusks</b>							
		<i>Cellana</i> spp.	Limpets (saltwater)	2,205	722	4,445	6.16
		Cephalopoda, Decapodiformes ( <i>unspecified</i> )	Squid	238	180	342	1.90
		<i>Octopus</i> spp.	Octopus	1,723	695	2,567	3.70
<b>Invertebrates (unspecified)</b>							
		Invertebrates (multiple phyla)	Invertebrates	242	238	21,384	90.00
<b>ALGAE:</b>							
		Phyla: Rhodophyta, Chlorophyta ( <i>unspecified</i> )	Algae (limu, unspecified)	900	871	9,441	10.84
<b>Total</b>				<b>2,935,415</b>	<b>2,798,839</b>	<b>\$8,701,238</b>	<b>\$3.11</b>

**Table D-6**  
**Hawaii May 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs.	Estimated Lbs.	Estimated	
	Scientific Name	Common/local name	Caught	Sold	Value of Sold Portion (\$)	Price/ Lb.
<b>FISHES:</b>						
	<b>Scombridae</b>					
	<b>Tunas</b>					
	<i>Euthynnus affinis</i>	Kawakawa	1,242	1,080	2,225	2.06
	<i>Katsuwonus pelamis</i>	Skipjack tuna	91,589	66,432	104,987	1.58
	<i>Thunnus alalunga</i>	Albacore tuna	61,101	57,663	82,334	1.43
	<i>Thunnus albacares</i>	Yellowfin tuna	382,613	324,123	1,051,479	3.24
	<i>Thunnus obesus</i>	Bigeye tuna	1,195,197	1,162,950	4,642,569	3.99
	Tribe Thunnini ( <i>unspecified</i> )	Tunas ( <i>unspecified</i> )	16	6	11	1.83
	<b>Other scombrids</b>					
	<i>Acanthocybium solandri</i>	Wahoo	213,044	183,599	324,222	1.77
	<i>Scomberoides lysan</i>	Leatherback	44	44	107	2.43
	<b>Billfishes</b>					
	<b>Istiophoridae</b>					
	<i>Istiompax indica</i>	Black marlin	1,973	1,973	2,077	1.05
	<i>Istiophorus platypterus</i>	Sailfish	3,901	3,901	1,951	0.50
	<i>Kajikia audax</i>	Striped marlin	72,487	70,226	81,552	1.16
	<i>Makaira mazara</i>	Blue marlin	199,332	191,666	164,891	0.86
	<i>Tetrapturus angustirostris</i>	Shortnose spearfish	41,831	40,990	22,349	0.55
	<b>Xiphiidae</b>					
	<i>Xiphias gladius</i>	Broadbill swordfish	499,883	484,735	889,440	1.83
	<b>Other fishes</b>					
	<b>Acanthuridae</b> (tang, surgeons, unicornfishes)					
	<i>Acanthurus</i> , <i>Ctenochaetus</i> spp.	Surgeons/tangs ( <i>unspecified</i> )	9,408	7,999	15,709	1.96
	<b>Albulidae</b> (bonefishes)					
	<i>Albula glossodonta</i> , <i>A.</i> <i>neoguinaica</i>	Oio (bonefish)	686	435	644	1.48
	<b>Aulostomidae</b> (trumpetfishes)					
	<i>Aulostomus</i> spp.	Trumpetfish	28	1	1	1.00
	<b>Belonidae</b> (needlefishes)					
	<i>Belonidae</i> ( <i>unspecified</i> )	Needlefish	31	31	92	2.95
	<b>Bramidae</b> (pomfrets)					
	<i>Taractichthys</i> , <i>Eumegistus</i> , <i>Brama</i> ( <i>unspecified</i> )	Pomfret	142,320	142,320	141,266	0.99
	<b>Carangidae</b> (jacks & trevallies)					
	<i>Carangidae</i> ( <i>unspecified</i> )	Ulua/Jacks ( <i>unspecified</i> )	260	10	31	3.00
	<i>Carangidae</i> ( <i>unspecified</i> )	Reef jacks (ulua)	46	46	186	4.00
	<i>Carangoides ferdau</i>	Barred ulua	1,570	1,088	2,927	2.69
	<i>Carangoides orthogrammus</i>	Papa ulua	1,624	1,383	6,330	4.58
	<i>Caranx ignobilis</i>	White ulua	1,274	888	2,672	3.01
	<i>Caranx lugubris</i>	Black ulua	107	107	247	2.30
	<i>Caranx sexfasciatus</i>	Sasa ulua	24	24	72	3.06

**Table D-6**  
**Hawaii May 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs.	Estimated Lbs.	Estimated	Price/
	Scientific Name	Common/local name	Caught	Sold	Value of Sold Portion (\$)	Lb.
	<i>Pseudocaranx dentex</i>	Butaguchi (pig-lipped ulua)	179	179	450	2.52
	<i>Seriola dumerili</i>	Kahala (amberjack )	984	231	626	2.71
	<i>Uraspis helvola</i>	Dobe ulua	23	19	68	3.60
	<i>Decapterus macarellus</i>	Mackerel scad (ōpelu)	17,430	11,725	31,982	2.73
	<i>Selar crumenophthalmus</i>	Bigeye scad (akule)	40,849	26,070	88,761	3.40
	<i>Elagatis bipinnulata</i>	Kamanu (rainbow runner)	596	506	1,058	2.09
	<b>Chanidae</b> (milkfish)					
	<i>Chanos chanos</i>	Milkfish (awa)	45	45	65	1.45
	<b>Cirrhitidae</b> (hawkfishes)					
	<i>Cirrhitus pinnulatus</i>	Po'opa'a (hawkfish)	98	98	339	3.47
	<b>Coryphaenidae</b> (mahimahi/dolphinfish)					
	<i>Coryphaena hippurus, C. equiselis</i>	Mahimahi	131,388	117,829	344,254	2.92
	<b>Elopidae</b> (ladyfishes, tarpons, tenpounders)					
	<i>Elops hawaiiensis</i>	Hawaiian ladyfish (awa'awa)	30	9	12	1.40
	<b>Emmelichthyidae</b> (rovers)					
	<i>Erythrocles scintillans</i>	Golden kalekale	6	0	0	0
	<b>Gempylidae</b> (snake mackerels)					
	<i>Ruvettus pretiosus</i>	Oilfish (walu)	41,833	41,833	36,334	0.87
	<b>Holocentridae</b> (squirrel & soldierfishes)					
	<i>Sargocentron</i> spp.	Squirrelfish	6,801	5,628	26,438	4.70
	<b>Kuhliidae</b> (flagtails)					
	<i>Kuhlia</i> spp.	Aholehole (flagtails)	174	156	769	4.93
	<b>Kyphosidae</b> (sea chubs)					
	<i>Kyphosus</i> spp. (various)	Nenu (rudderfish)	1,690	1,422	3,121	2.19
	<b>Labridae</b> (wrasses)					
	Labridae ( <i>unspecified</i> )	Hinalea (wrasse)	790	499	2,772	5.56
	<b>Lampridae</b> (moonfishes, opah)					
	<i>Lampris guttatus</i>	Moonfish (opah)	176,717	176,717	213,452	1.21
	<b>Lethrinidae</b> (emperors)					
	<i>Monotaxis grandoculis</i>	Mu (bigeye emperor)	567	529	2,236	4.23
	<b>Lutjanidae</b> (snappers)					
	<i>Aphareus rutilans</i>	Lehi (silverjaw)	712	712	3,469	4.87
	<i>Aprion virescens</i>	Uku (gray snapper)	16,335	14,367	60,380	4.20
	<i>Etelis carbunculus</i>	Ehu (red snapper)	2,387	1,947	12,427	6.38
	<i>Etelis coruscans</i>	Onaga (red snapper)	3,318	2,696	22,438	8.32
	Lutjanidae ( <i>unspecified</i> )	Snappers ( <i>unspecified</i> )	586	586	2,510	4.28

**Table D-6**  
**Hawaii May 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs.	Estimated Lbs.	Estimated	Price/
	Scientific Name	Common/local name	Caught	Sold	Value of Sold Portion (\$)	Lb.
	<i>Lutjanus kasmira</i>	Ta'ape (blue-lined snapper)	1,656	1,522	2,853	1.87
	<i>Pristipomoides auricilla</i>	Yellow-tail kalekale	18	18	63	3.50
	<i>Pristipomoides filamentosus</i>	Opakapaka (pink snapper)	10,045	8,294	57,226	6.90
	<i>Pristipomoides sieboldii</i>	Kalekale	1,031	812	3,524	4.34
	<i>Pristipomoides zonatus</i>	Gindai (flower snapper)	218	158	829	5.26
	<b>Monacanthidae</b> (filefishes)					
	<i>Aluterus monoceros</i>	Filefish	137	95	209	2.21
	<b>Mugilidae</b> (mullets)					
	Mugilidae ( <i>unspecified</i> )	Mullet	762	456	1,552	3.40
	<b>Mullidae</b> (goatfishes)					
	Mullidae ( <i>unspecified</i> )	Goatfish	10,395	5,351	22,071	4.12
	<b>Muraenidae, Congridae</b> (marine eels)					
	<i>Gymnothorax</i> , <i>Conger</i> spp.	Eels	309	27	29	1.09
	<b>Polynemidae</b> (threadfins)					
	<i>Polydactylus sexfilis</i>	Threadfin (moi)	14	14	124	9.01
	<b>Pomacentridae</b> (damsel fishes)					
	<i>Abudefduf</i> spp.	Damselfish ( <i>unspecified</i> )	54	51	162	3.19
	<b>Priacanthidae</b> (glasseyes)					
	<i>Priacanthus</i> spp.	Bigeyes/glasseyes	639	633	2,848	4.50
	<b>Scaridae</b> (parrotfishes)					
	Scaridae ( <i>unspecified</i> )	Uhu (parrotfishes)	8,678	8,352	34,514	4.13
	<b>Scorpaenidae</b> (scorpionfishes)					
	Scorpaenidae (many species)	Scorpionfish (nohu)	200	158	1,268	8.01
	<b>Sharks</b> (Selachii)					
	Infraclass: Selachii (multiple orders)	Sharks	8,895	8,217	6,649	0.81
	<b>Serranidae</b> (groupers)					
	<i>Cephalopholis argus</i>	Roi	232	232	707	3.05
	<i>Hyporthodus quernus</i>	Hapuupuu (Hawaiian grouper)	919	891	5,486	6.15
	<b>Sphyraenidae</b> (barracudas)					
	<i>Sphyraena</i> spp.	Barracudas	7,061	7,041	3,894	0.55
	<b>Unspecified Fish Groups</b>					
	Various families ( <i>unspecified</i> )	Reef fishes ( <i>unspecified</i> )	134	38	36	0.95

**Table D-6**  
**Hawaii May 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs.	Estimated Lbs.	Estimated	Price/
	Scientific Name	Common/local name	Caught	Sold	Value of Sold Portion (\$)	Lb.
<b>Miscellaneous Seafood</b> ( <i>insufficient information</i> )						
	Unknown fish/invertebrates	Miscellaneous (unspecified)	341	72	52	0.72
<b>INVERTEBRATES:</b>						
	<b>Crustaceans: Crabs</b>					
	Infraorder: Brachyura ( <i>unspecified</i> )	Crabs	1,391	680	3,687	5.42
	<b>Crustaceans: Shrimps</b>					
	<i>Heterocarpus</i> spp., <i>Penaeus marginatus</i>	Shrimp (saltwater)	3,959	2,405	15,848	6.59
	<b>Mollusks</b>					
	<i>Cellana</i> spp.	Limpets (saltwater)	3,323	1,504	10,392	6.91
	Cephalopoda, Decapodiformes (unspecified)	Squid	178	178	444	2.50
	<i>Octopus</i> spp.	Octopus	1,827	639	3,051	4.78
	<b>Invertebrates (unspecified)</b>					
	Invertebrates (multiple phyla)	Invertebrates	274	0	0	
<b>ALGAE:</b>						
	Phyla: Rhodophyta, Chlorophyta ( <i>unspecified</i> )	Algae (limu, unspecified)	1,588	1,345	15,146	11.26
<b>Total</b>			<b>3,429,447</b>	<b>3,196,706</b>	<b>\$8,586,996</b>	<b>\$2.69</b>

**Table D-7**  
**Hawaii June 2014 Estimated Commercial Landings**

Group	Subgroup	Scientific Name	Common/local name	Lbs. Caught	Estimated Lbs. Sold	Estimated Value of Sold Portion (\$)	Price/Lb.
<b>FISHES:</b>							
	<b>Scombridae</b>						
	<b>Tunas</b>						
		<i>Euthynnus affinis</i>	Kawakawa	348	112	240	2.14
		<i>Katsuwonus pelamis</i>	Skipjack tuna	73,904	60,949	81,169	1.33
		<i>Thunnus alalunga</i>	Albacore tuna	50,774	45,671	95,764	2.10
		<i>Thunnus albacares</i>	Yellowfin tuna	419,401	365,489	1,175,214	3.22
		<i>Thunnus obesus</i>	Bigeye tuna	1,100,867	1,020,673	4,046,641	3.96
		Tribe Thunnini ( <i>unspecified</i> )	Tunas ( <i>unspecified</i> )	58	58	388	6.67
	<b>Other scombrids</b>						
		<i>Acanthocybium solandri</i>	Wahoo	169,410	146,304	292,001	2.00
		<i>Scomberoides lysan</i>	Leatherback	35	35	70	2.01
	<b>Billfishes</b>						
		Suborder: Xiphioidae	Billfishes ( <i>unspecified</i> )	382	382	627	1.64
	<b>Istiophoridae</b>						
		<i>Istiompax indica</i>	Black marlin	1,535	1,535	1,343	0.88
		<i>Istiophorus platypterus</i>	Sailfish	5,193	5,193	1,962	0.38
		<i>Kajikia audax</i>	Striped marlin	73,728	71,228	67,697	0.95
		<i>Makaira mazara</i>	Blue marlin	250,515	229,474	147,194	0.64
		<i>Tetrapturus angustirostris</i>	Shortnose spearfish	31,067	29,267	23,074	0.79
	<b>Xiphiidae</b>						
		<i>Xiphias gladius</i>	Broadbill swordfish	233,241	226,159	620,307	2.74
	<b>Other fishes</b>						
	<b>Acanthuridae</b> (tangs, surgeons, unicornfishes)						
		<i>Acanthurus</i> , <i>Ctenochaetus</i> spp.	Surgeons/tangs ( <i>unspecified</i> )	11,059	9,987	18,247	1.83
	<b>Albulidae</b> (bonefishes)						
		<i>Albula glossodonta</i> , <i>A. neoguinaica</i>	Oio (bonefish)	731	377	500	1.33
	<b>Aulostomidae</b> (trumpetfishes)						
		<i>Aulostomus</i> spp.	Trumpetfish	31	16	39	2.39
	<b>Belonidae</b> (needlefishes)						
		Belonidae ( <i>unspecified</i> )	Needlefish	28	28	73	2.64
	<b>Bramidae</b> (pomfrets)						
		<i>Taractichthys</i> , <i>Eumegistus</i> , <i>Brama</i> ( <i>unspecified</i> )	Pomfret	142,669	142,669	159,830	1.12
	<b>Carangidae</b> (jacks & trevallies)						
		Carangidae ( <i>unspecified</i> )	Ulua/Jacks ( <i>unspecified</i> )	311	68	176	2.59
		<i>Carangoides ferdau</i>	Barred ulua	1,308	217	682	3.15
		<i>Carangoides orthogrammus</i>	Papa ulua	1,200	1,200	5,860	4.88
		<i>Caranx ignobilis</i>	White ulua	763	374	886	2.37
		<i>Caranx sexfasciatus</i>	Sasa ulua	7	7	10	1.50
		<i>Seriola dumerili</i>	Kahala (amberjack )	451	31	39	1.25
		<i>Decapterus macarellus</i>	Mackerel scad (ōpelu)	17,722	9,989	27,358	2.74
		<i>Selar crumenophthalmus</i>	Bigeye scad (akule)	36,537	19,483	67,004	3.44

**Table D-7**  
**Hawaii June 2014 Estimated Commercial Landings**

Group	Subgroup	Scientific Name	Common/local name	Lbs. Caught	Estimated Lbs. Sold	Estimated Value of Sold Portion (\$)	Price/Lb.
		<i>Elagatis bipinnulata</i>	Kamanu (rainbow runner)	369	369	621	1.68
	<b>Chanidae</b> (milkfish)						
		<i>Chanos chanos</i>	Milkfish (awa)	148	148	210	1.42
	<b>Cirrhitidae</b> (hawkfishes)						
		<i>Cirrhitis pinnulatus</i>	Po'opa'a (hawkfish)	147	147	506	3.45
	<b>Coryphaenidae</b> (mahimahi/dolphinfish)						
		<i>Coryphaena hippurus, C. equiselis</i>	Mahimahi	106,546	95,067	302,484	3.18
	<b>Elopidae</b> (ladyfishes, tarpons, tenpounders)						
		<i>Elops hawaiiensis</i>	Hawaiian ladyfish (awa'awa)	14	3	4	1.25
	<b>Emmelichthyidae</b> (rovers)						
		<i>Erythrocles scintillans</i>	Golden kalekale	4	0	0	0
	<b>Gempylidae</b> (snake mackerels)						
		<i>Ruvettus pretiosus</i>	Oilfish (walu)	38,844	38,844	40,345	1.04
	<b>Holocentridae</b> (squirrel & soldierfishes)						
		<i>Sargocentron</i> spp.	Squirrelfish	3,309	2,988	13,680	4.58
	<b>Kuhliidae</b> (flagtails)						
		<i>Kuhlia</i> spp.	Aholehole (flagtails)	111	108	510	4.72
	<b>Kyphosidae</b> (sea chubs)						
		<i>Kyphosus</i> spp. (various)	Nenu (rudderfish)	2,581	2,581	4,721	1.83
	<b>Labridae</b> (wrasses)						
		Labridae ( <i>unspecified</i> )	Hinalea (wrasse)	452	339	1,048	3.09
	<b>Lampridae</b> (moonfishes, opah)						
		<i>Lampris guttatus</i>	Moonfish (opah)	138,739	126,007	210,269	1.67
	<b>Lethrinidae</b> (emperors)						
		<i>Monotaxis grandoculis</i>	Mu (bigeye emperor)	274	274	904	3.30
	<b>Lutjanidae</b> (snappers)						
		<i>Aphareus rutilans</i>	Lehi (silverjaw)	378	373	1,899	5.09
		<i>Aprion virescens</i>	Uku (gray snapper)	9,277	8,978	40,734	4.54
		<i>Etelis carbunculus</i>	Ehu (red snapper)	1,273	1,157	8,501	7.35
		<i>Etelis coruscans</i>	Onaga (red snapper)	2,246	2,246	18,399	8.19
		Lutjanidae ( <i>unspecified</i> )	Snappers ( <i>unspecified</i> )	594	591	2,681	4.54
		<i>Lutjanus kasmira</i>	Ta'ape (blue-lined snapper)	1,770	1,565	2,132	1.36
		<i>Pristipomoides filamentosus</i>	Opakapaka (pink snapper)	3,225	3,116	22,920	7.36
		<i>Pristipomoides sieboldii</i>	Kalekale	470	385	1,893	4.92
		<i>Pristipomoides zonatus</i>	Gindai (flower snapper)	38	17	88	5.19
	<b>Monacanthidae</b> (filefishes)						
		<i>Aluterus monoceros</i>	Filefish	187	187	346	1.85



**Table D-7**  
**Hawaii June 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs.	Estimated Lbs.	Estimated	Price/
	Scientific Name	Common/local name	Caught	Sold	Value of Sold Portion (\$)	Lb.
	<b>Mugilidae</b> (mullets)					
	Mugilidae ( <i>unspecified</i> )	Mullet	256	167	806	4.81
	<b>Mullidae</b> (goatfishes)					
	Mullidae ( <i>unspecified</i> )	Goatfish	7,856	4,713	18,574	3.94
	<b>Muraenidae, Congridae</b> (marine eels)					
	<i>Gymnothorax, Conger</i> spp.	Eels	398	113	169	1.49
	<b>Pomacentridae</b> (damsel-fishes)					
	<i>Abudefduf</i> spp.	Damselfish ( <i>unspecified</i> )	98	93	326	3.49
	<b>Priacanthidae</b> (glasseyes)					
	<i>Priacanthus</i> spp.	Bigeyes/glasseyes	276	266	1,066	4.02
	<b>Scaridae</b> (parrotfishes)					
	Scaridae ( <i>unspecified</i> )	Uhu (parrotfishes)	8,432	8,402	32,285	3.84
	<b>Scorpaenidae</b> (scorpionfishes)					
	Scorpaenidae (many species)	Scorpionfish (nohu)	132	83	652	7.87
	<b>Sharks</b> (Selachii)					
	Infraclass: Selachii (multiple orders)	Sharks	6,151	4,482	6,928	1.55
	<b>Serranidae</b> (groupers)					
	<i>Cephalopholis argus</i>	Roi	131	128	445	3.48
	<i>Hyporthodus quernus</i>	Hapuupuu (Hawaiian grouper)	211	194	1,352	6.99
	<b>Sphyraenidae</b> (barracudas)					
	<i>Sphyraena</i> spp.	Barracudas	2,009	2,009	1,716	0.85
	<b>Unspecified Fish Groups</b>					
	Various families ( <i>unspecified</i> )	Reef fishes ( <i>unspecified</i> )	53	0	0	
	<b>Miscellaneous Seafood</b> ( <i>insufficient information</i> )					
	Unknown fish/invertebrates	Miscellaneous ( <i>unspecified</i> )	741	192	403	2.10
<b>INVERTEBRATES:</b>						
	<b>Crustaceans: Crabs</b>					
	Infraorder: Brachyura ( <i>unspecified</i> )	Crabs	602	259	1,972	7.62
	<b>Crustaceans: Shrimps</b>					
	<i>Heterocarpus</i> spp., <i>Penaeus marginatus</i>	Shrimp (saltwater)	1,678	1,039	6,247	6.01
	<b>Mollusks</b>					
	<i>Cellana</i> spp.	Limpets (saltwater)	1,311	999	6,444	6.45

**Table D-7**  
**Hawaii June 2014 Estimated Commercial Landings**

Group	Subgroup	Scientific Name	Common/local name	Lbs. Caught	Estimated Lbs. Sold	Estimated Value of Sold Portion (\$)	Price/ Lb.
		Cephalopoda, Decapodiformes (unspecified)	Squid	137	60	204	3.43
		<i>Octopus</i> spp.	Octopus	1,773	369	1,606	4.35
	<b>Invertebrates (unspecified)</b>						
		Invertebrates (multiple phyla)	Invertebrates	446	446	37,198	83.33
<b>ALGAE:</b>							
		Phyla: Rhodophyta, Chlorophyta ( <i>unspecified</i> )	Algae (limu, unspecified)	773	743	6,797	9.15
<b>Total</b>				<b>2,967,735</b>	<b>2,697,222</b>	<b>\$7,634,480</b>	<b>\$2.83</b>

**Table D-8**  
**Hawaii July 2014 Estimated Commercial Landings**

Group	Subgroup	Scientific Name	Common/local name	Lbs. Caught	Estimated Lbs. Sold	Estimated Value of Sold Portion (\$)	Price/Lb.
<b>FISHES:</b>							
	<b>Scombridae</b>						
	<b>Tunas</b>						
		<i>Euthynnus affinis</i>	Kawakawa	2,013	896	1,699	1.90
		<i>Katsuwonus pelamis</i>	Skipjack tuna	50,869	34,887	61,560	1.76
		<i>Thunnus alalunga</i>	Albacore tuna	49,177	49,177	86,732	1.76
		<i>Thunnus albacares</i>	Yellowfin tuna	312,769	277,558	878,337	3.16
		<i>Thunnus obesus</i>	Bigeye tuna	1,240,140	1,230,718	4,668,799	3.79
		Tribe Thunnini (unspecified)	Tunas (unspecified)	363	342	3,072	8.99
	<b>Other scombrids</b>						
		<i>Acanthocybium solandri</i>	Wahoo	110,802	99,107	276,647	2.79
		<i>Scomberoides lysan</i>	Leatherback	35	35	83	2.40
	<b>Billfishes</b>						
	<b>Istiophoridae</b>						
		<i>Istiompax indica</i>	Black marlin	1,905	1,905	2,034	1.07
		<i>Istiophorus platypterus</i>	Sailfish	2,501	2,501	2,376	0.95
		<i>Kajikia audax</i>	Striped marlin	63,368	63,368	107,401	1.69
		<i>Makaira mazara</i>	Blue marlin	147,149	111,937	181,152	1.62
		<i>Tetrapturus angustirostris</i>	Shortnose spearfish	26,484	26,484	38,988	1.47
	<b>Xiphiidae</b>						
		<i>Xiphias gladius</i>	Broadbill swordfish	197,354	197,354	562,960	2.85
	<b>Other fishes</b>						
	<b>Acanthuridae</b> (tang, surgeons, unicornfishes)						
		<i>Acanthurus</i> spp., <i>Ctenochaetus</i> spp.	Surgeons/tangs (unspecified)	12,140	11,631	22,086	1.90
	<b>Albulidae</b> (bonefishes)						
		<i>Albula glossodonta</i> , <i>A. neoguinaica</i>	Oio (bonefish)	153	133	199	1.50
	<b>Aulostomidae</b> (trumpetfishes)						
		<i>Aulostomus</i> spp.	Trumpetfish	6	6	11	2.00
	<b>Belonidae</b> (needlefishes)						
		<i>Belonidae (unspecified)</i>	Needlefish	16	10	25	2.50
	<b>Bothidae</b> (left-eye flounders)						
		<i>Bothidae (unspecified)</i>	Flounders	3	3	6	1.82
	<b>Bramidae</b> (pomfrets)						
		<i>Taractichthys</i> , <i>Eumegistus</i> , <i>Brama (unspecified)</i>	Pomfret	103,572	103,572	218,879	2.11
	<b>Carangidae</b> (jacks & trevallies)						
		<i>Carangidae (unspecified)</i>	Ulua/Jacks (unspecified)	86	12	64	5.33
		<i>Carangoides ferdau</i>	Barred ulua	355	204	650	3.18

**Table D-8**  
**Hawaii July 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs.	Estimated Lbs.	Estimated	Price/
	Scientific Name	Common/local name	Caught	Sold	Value of Sold Portion (\$)	Lb.
	<i>Carangoides orthogrammus</i>	Papa ulua	257	218	908	4.16
	<i>Caranx ignobilis</i>	White ulua	563	256	617	2.41
	<i>Seriola dumerili</i>	Kahala (amberjack )	259	12	60	5.00
	<i>Uraspis helvola</i>	Dobe ulua	2	2	5	3.00
	<i>Decapterus macarellus</i>	Mackerel scad (ōpelu)	14,646	9,983	28,743	2.88
	<i>Selar crumenophthalmus</i>	Bigeye scad (akule)	26,569	17,698	63,597	3.59
	<i>Elagatis bipinnulata</i>	Kamanu (rainbow runner)	273	205	488	2.38
	<b>Chanidae</b> (milkfish)					
	<i>Chanos chanos</i>	Milkfish (awa)	775	775	1,209	1.56
	<b>Cirrhitidae</b> (hawkfishes)					
	<i>Cirrhitus pinnulatus</i>	Po'opa'a (hawkfish)	126	126	445	3.53
	<b>Coryphaenidae</b> (mahimahi/dolphinfish)					
	<i>Coryphaena hippurus, C. equiselis</i>	Mahimahi	179,132	168,941	415,859	2.46
	<b>Elopidae</b> (ladyfishes, tarpons, tenpounders)					
	<i>Elops hawaiiensis</i>	Hawaiian ladyfish (awa'awa)	28	1	3	4.00
	<b>Emmelichthyidae</b> (rovers)					
	<i>Erythrocles scintillans</i>	Golden kalekale	3	0	0	0
	<b>Gempylidae</b> (snake mackerels)					
	<i>Ruvettus pretiosus</i>	Oilfish (walu)	35,804	35,804	44,584	1.25
	<b>Holocentridae</b> (squirrel & soldierfishes)					
	<i>Sargocentron</i> spp.	Squirrelfish	3,176	3,050	14,450	4.74
	<b>Kuhliidae</b> (flagtails)					
	<i>Kuhlia</i> spp.	Aholehole (flagtails)	102	45	229	5.09
	<b>Kyphosidae</b> (sea chubs)					
	<i>Kyphosus</i> spp. (various)	Nenue (rudderfish)	1,252	1,251	2,792	2.23
	<b>Labridae</b> (wrasses)					
	Labridae ( <i>unspecified</i> )	Hinalea (wrasse)	536	330	1,333	4.04
	<b>Lampridae</b> (moonfishes, opah)					
	<i>Lampris guttatus</i>	Moonfish (opah)	264,595	250,824	277,557	1.11
	<b>Lethrinidae</b> (emperors)					
	<i>Monotaxis grandoculis</i>	Mu (bigeye emperor)	330	330	1,057	3.21
	<b>Lutjanidae</b> (snappers)					
	<i>Aphareus rutilans</i>	Lehi (silverjaw)	49	28	139	5.00
	<i>Aprion virescens</i>	Uku (gray snapper)	3,218	2,791	15,168	5.44
	<i>Etelis carbunculus</i>	Ehu (red snapper)	951	951	6,930	7.29
	<i>Etelis coruscans</i>	Onaga (red snapper)	1,006	1,006	8,610	8.56

**Table D-8**  
**Hawaii July 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs.	Estimated Lbs.	Estimated	Price/
	Scientific Name	Common/local name	Caught	Sold	Value of Sold Portion (\$)	Lb.
	Lutjanidae ( <i>unspecified</i> )	Snappers (unspecified)	652	652	2,616	4.02
	<i>Lutjanus kasmira</i>	Ta'ape (blue-lined snapper)	4,531	1,628	2,881	1.77
	<i>Pristipomoides filamentosus</i>	Opakapaka (pink snapper)	3,898	3,863	33,009	8.54
	<i>Pristipomoides sieboldii</i>	Kalekale	291	273	1,445	5.30
	<i>Pristipomoides zonatus</i>	Gindai (flower snapper)	40	22	107	4.95
	<b>Monacanthidae</b> (filefishes)					
	<i>Aluterus monoceros</i>	Filefish	104	104	186	1.80
	<b>Mugilidae</b> (mullet)					
	Mugilidae ( <i>unspecified</i> )	Mullet	458	333	1,392	4.18
	<b>Mullidae</b> (goatfishes)					
	Mullidae ( <i>unspecified</i> )	Goatfish	6,058	3,186	15,308	4.80
	<b>Muraenidae, Congridae</b> (marine eels)					
	<i>Gymnothorax, Conger</i> spp.	Eels	360	90	134	1.48
	<b>Polynemidae</b> (threadfins)					
	<i>Polydactylus sexfilis</i>	Threadfin (moi)	3	3	12	4.00
	<b>Pomacentridae</b> (damsel-fishes)					
	<i>Abudefduf</i> spp.	Damselfish ( <i>unspecified</i> )	61	57	196	3.44
	<b>Priacanthidae</b> (glasseyes)					
	<i>Priacanthus</i> spp.	Bigeyes/glasseyes	293	293	1,175	4.01
	<b>Scaridae</b> (parrotfishes)					
	Scaridae ( <i>unspecified</i> )	Uhu (parrotfishes)	8,902	8,900	34,620	3.89
	<b>Scorpaenidae</b> (scorpionfishes)					
	Scorpaenidae (many species)	Scorpionfish (nohu)	118	82	508	6.16
	<b>Sharks</b> (Selachii)					
	Infraclass: Selachii (multiple orders)	Sharks	10,995	9,784	13,354	1.36
	<b>Serranidae</b> (groupers)					
	<i>Cephalopholis argus</i>	Roi	67	67	194	2.87
	<i>Hyporthodus quernus</i>	Hapuupuu (Hawaiian grouper)	168	168	898	5.34
	<b>Sphyraenidae</b> (barracudas)					
	<i>Sphyraena</i> spp.	Barracudas	2,715	2,646	2,473	0.93

**Table D-8**  
**Hawaii July 2014 Estimated Commercial Landings**

Group						
Subgroup	Scientific Name	Common/local name	Lbs. Caught	Estimated Lbs. Sold	Estimated Value of Sold Portion (\$)	Price/Lb.
<b>Unspecified Fish Groups</b>						
	Various families ( <i>unspecified</i> )	Reef fishes (unspecified)	105	2	2	0.95
<b>Miscellaneous Seafood</b> ( <i>insufficient information</i> )						
	Unknown fish/invertebrates	Miscellaneous (unspecified)	69	39	75	1.94
<b>INVERTEBRATES:</b>						
<b>Crustaceans: Crabs</b>						
	Infraorder: Brachyura ( <i>unspecified</i> )	Crabs	1,575	1,203	6,748	5.61
<b>Crustaceans: Shrimps</b>						
	<i>Heterocarpus</i> spp., <i>Penaeus marginatus</i>	Shrimp (saltwater)	1,957	1,009	6,591	6.53
<b>Mollusks</b>						
	<i>Cellana</i> spp.	Limpets (saltwater)	1,774	1,017	6,575	6.46
	Cephalopoda, Decapodiformes (unspecified)	Squid	452	288	955	3.31
	<i>Octopus</i> spp.	Octopus	3,208	1,401	6,824	4.87
<b>Invertebrates (unspecified)</b>						
	Invertebrates (multiple phyla)	Invertebrates	85	63	120	1.89
<b>ALGAE:</b>						
	Phyla: Rhodophyta, Chlorophyta ( <i>unspecified</i> )	Algae (limu, unspecified)	685	467	3,658	7.84
<b>Total</b>			<b>2,904,536</b>	<b>2,744,107</b>	<b>\$8,140,599</b>	<b>\$2.97</b>

**Table D-9**  
**Hawaii August 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs.	Estimated Lbs.	Estimated	Price/
	Scientific Name	Common/local name	Caught	Sold	Value of Sold Portion (\$)	Lb.
<b>FISHES:</b>						
	<b>Scombridae</b>					
	<b>Tunas</b>					
	<i>Euthynnus affinis</i>	Kawakawa	2,329	1,330	3,485	2.62
	<i>Katsuwonus pelamis</i>	Skipjack tuna	42,286	32,728	63,350	1.94
	<i>Thunnus alalunga</i>	Albacore tuna	51,492	51,492	93,293	1.81
	<i>Thunnus albacares</i>	Yellowfin tuna	318,493	302,113	839,865	2.78
	<i>Thunnus obesus</i>	Bigeye tuna	1,639,395	1,617,860	5,117,268	3.16
	Tribe Thunnini ( <i>unspecified</i> )	Tunas ( <i>unspecified</i> )	1,644	327	2,808	8.58
	<b>Other scombrids</b>					
	<i>Acanthocybium solandri</i>	Wahoo	75,609	64,354	215,554	3.35
	<i>Scomberoides lysan</i>	Leatherback	13	13	32	2.50
	<b>Billfishes</b>					
	Suborder: Xiphioidae	Billfishes ( <i>unspecified</i> )	127	0	0	
	<b>Istiophoridae</b>					
	<i>Istiompax indica</i>	Black marlin	2,213	2,213	3,711	1.68
	<i>Istiophorus platypterus</i>	Sailfish	3,034	2,690	4,555	1.69
	<i>Kajikia audax</i>	Striped marlin	32,667	28,451	63,064	2.22
	<i>Makaira mazara</i>	Blue marlin	104,882	100,519	184,029	1.83
	<i>Tetrapturus angustirostris</i>	Shortnose spearfish	31,881	31,881	55,021	1.73
	<b>Xiphiidae</b>					
	<i>Xiphias gladius</i>	Broadbill swordfish	155,831	149,580	318,297	2.13
	<b>Other fishes</b>					
	<b>Acanthuridae</b> (tang, surgeons, unicornfishes)					
	<i>Acanthurus, Ctenochaetus</i> spp.	Surgeons/tangs ( <i>unspecified</i> )	11,482	10,759	20,000	1.86
	<b>Albulidae</b> (bonefishes)					
	<i>Albula glossodonta, A.</i> <i>neoguinaica</i>	Oio (bonefish)	78	78	108	1.39
	<b>Aulostomidae</b> (trumpetfishes)					
	<i>Aulostomus</i> spp.	Trumpetfish	5	3	5	1.95
	<b>Belonidae</b> (needlefishes)					
	Belonidae ( <i>unspecified</i> )	Needlefish	129	92	336	3.67
	<b>Bothidae</b> (left-eye flounders)					
	Bothidae ( <i>unspecified</i> )	Flounders	4	4	8	2.22
	<b>Bramidae</b> (pomfrets)					
	<i>Taractichthys, Eumegistus,</i> <i>Brama (unspecified)</i>	Pomfret	106,894	106,894	211,237	1.98
	<b>Carangidae</b> (jacks & trevallies)					
	Carangidae ( <i>unspecified</i> )	Ulua/Jacks ( <i>unspecified</i> )	309	12	30	2.50
	<i>Carangoides ferdau</i>	Barred ulua	574	354	1,201	3.39
	<i>Carangoides orthogrammus</i>	Papa ulua	329	210	946	4.51
	<i>Caranx ignobilis</i>	White ulua	1,033	531	1,359	2.56

**Table D-9**  
**Hawaii August 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs.	Estimated Lbs.	Estimated	Price/
	Scientific Name	Common/local name	Caught	Sold	Value of Sold Portion (\$)	Lb.
	<i>Caranx lugubris</i>	Black ulua	20	0	0	
	<i>Caranx sexfasciatus</i>	Sasa ulua	26	0	0	
	<i>Seriola dumerili</i>	Kahala (amberjack )	374	100	200	2.00
	<i>Uraspis helvola</i>	Dobe ulua	7	7	22	3.00
	<i>Decapterus macarellus</i>	Mackerel scad (ōpelu)	23,673	14,674	43,744	2.98
	<i>Selar crumenophthalmus</i>	Bigeye scad (akule)	16,062	11,064	42,217	3.82
	<i>Elagatis bipinnulata</i>	Kamanu (rainbow runner)	487	262	771	2.94
	<b>Chanidae</b> (milkfish)					
	<i>Chanos chanos</i>	Milkfish (awa)	102	102	205	2.00
	<b>Cichlidae</b> (cichlids)					
	<i>Oreochromis</i> sp.	Tilapia	910	168	588	3.50
	<b>Cirrhitidae</b> (hawkfishes)					
	<i>Cirrhitus pinnulatus</i>	Po'opa'a (hawkfish)	58	58	208	3.60
	<b>Clupeidae, Dussumieriidae</b> (sardines/herrings)					
	Clupeidae, Dussumieriidae (unspecified)	Herring/sardine	200	0	0	
	<b>Coryphaenidae</b> (mahimahi/dolphinfish)					
	<i>Coryphaena hippurus, C. equiselis</i>	Mahimahi	132,224	114,147	339,482	2.97
	<b>Elopidae</b> (ladyfishes, tarpons, tenpounders)					
	<i>Elops hawaiiensis</i>	Hawaiian ladyfish (awa'awa)	94	4	5	1.50
	<b>Emmelichthyidae</b> (rovers)					
	<i>Erythrocles scintillans</i>	Golden kalekale	14	0	0	
	<b>Gempylidae</b> (snake mackerels)					
	<i>Ruvettus pretiosus</i>	Oilfish (walu)	28,248	28,248	44,123	1.56
	<b>Holocentridae</b> (squirrel & soldierfishes)					
	<i>Sargocentron</i> spp.	Squirrelfish	4,277	3,873	18,360	4.74
	<b>Kuhliidae</b> (flagtails)					
	<i>Kuhlia</i> spp.	Aholehole (flagtails)	57	44	182	4.11
	<b>Kyphosidae</b> (sea chubs)					
	<i>Kyphosus</i> spp. (various)	Nenu (rudderfish)	2,310	1,956	3,167	1.62
	<b>Labridae</b> (wrasses)					
	Labridae (unspecified)	Hinalea (wrasse)	563	290	960	3.31
	<b>Lampridae</b> (moonfishes, opah)					
	<i>Lampris guttatus</i>	Moonfish (opah)	329,996	306,120	291,170	0.95
	<b>Lethrinidae</b> (emperors)					
	<i>Monotaxis grandoculis</i>	Mu (bigeye emperor)	346	293	999	3.41
	<b>Lutjanidae</b> (snappers)					
	<i>Aphareus rutilans</i>	Lehi (silverjaw)	430	414	1,992	4.81

Section D: Hawaii



**Table D-9**  
**Hawaii August 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs.	Estimated Lbs.	Estimated	Price/
	Scientific Name	Common/local name	Caught	Sold	Value of Sold Portion (\$)	Lb.
	<i>Aprion virescens</i>	Uku (gray snapper)	5,725	4,261	20,529	4.82
	<i>Etelis carbunculus</i>	Ehu (red snapper)	1,319	1,040	7,400	7.11
	<i>Etelis coruscans</i>	Onaga (red snapper)	3,334	2,294	18,868	8.23
	<i>Lutjanidae (unspecified)</i>	Snappers (unspecified)	398	297	1,244	4.19
	<i>Lutjanus kasmira</i>	Ta'ape (blue-lined snapper)	5,494	2,494	4,142	1.66
	<i>Pristipomoides filamentosus</i>	Opakapaka (pink snapper)	7,526	6,662	55,061	8.26
	<i>Pristipomoides sieboldii</i>	Kalekale	593	465	2,121	4.56
	<i>Pristipomoides zonatus</i>	Gindai (flower snapper)	137	53	260	4.95
	<b>Monacanthidae (filefishes)</b>					
	<i>Aluterus monoceros</i>	Filefish	38	38	88	2.32
	<b>Mugilidae (mulletts)</b>					
	<i>Mugilidae (unspecified)</i>	Mullet	1,107	1,107	5,261	4.75
	<b>Mullidae (goatfishes)</b>					
	<i>Mullidae (unspecified)</i>	Goatfish	4,974	2,339	12,250	5.24
	<b>Muraenidae, Congridae (marine eels)</b>					
	<i>Gymnothorax, Conger spp.</i>	Eels	522	257	413	1.61
	<b>Polynemidae (threadfins)</b>					
	<i>Polydactylus sexfilis</i>	Threadfin (moi)	2	2	14	9.00
	<b>Pomacentridae (damselfishes)</b>					
	<i>Abudefduf spp.</i>	Damselfish ( <i>unspecified</i> )	76	32	101	3.18
	<b>Priacanthidae (glasseyes)</b>					
	<i>Priacanthus spp.</i>	Bigeyes/glasseyes	538	422	1,591	3.77
	<b>Scaridae (parrotfishes)</b>					
	<i>Scaridae (unspecified)</i>	Uhu (parrotfishes)	5,457	5,452	21,505	3.94
	<b>Scorpaenidae (scorpionfishes)</b>					
	Scorpaenidae (many species)	Scorpionfish (nohu)	136	87	456	5.22
	<b>Sharks (Selachii)</b>					
	Infraclass: Selachii (multiple orders)	Sharks	10,806	9,485	12,172	1.28
	<b>Serranidae (groupers)</b>					
	<i>Cephalopholis argus</i>	Roi	62	62	222	3.61
	<i>Hyporthodus quernus</i>	Hapuupuu (Hawaiian grouper)	431	310	1,631	5.26
	<b>Sphyraenidae (barracudas)</b>					
	<i>Sphyraena spp.</i>	Barracudas	951	905	1,137	1.26
	<b>Unspecified Fish Groups</b>					
	Various families ( <i>unspecified</i> )	Reef fishes ( <i>unspecified</i> )	48	0	0	0

**Table D-9**  
**Hawaii August 2014 Estimated Commercial Landings**

Group						
Subgroup	Scientific Name	Common/local name	Lbs. Caught	Estimated Lbs. Sold	Estimated Value of Sold Portion (\$)	Price/ Lb.
<b>Miscellaneous Seafood</b> ( <i>insufficient information</i> )						
	Unknown fish/invertebrates	Miscellaneous (unspecified)	321	312	526	1.69
<b>INVERTEBRATES:</b>						
<b>Crustaceans: Crabs</b>						
	Infraorder: Brachyura ( <i>unspecified</i> )	Crabs	4,207	3,251	13,786	4.24
<b>Crustaceans: Shrimps</b>						
	<i>Heterocarpus</i> spp., <i>Penaeus marginatus</i>	Shrimp (saltwater)	2,344	2,203	11,784	5.35
<b>Mollusks</b>						
	<i>Cellana</i> spp.	Limpets (saltwater)	1,430	657	3,841	5.84
	Cephalopoda, Decapodiformes ( <i>unspecified</i> )	Squid	790	651	2,263	3.47
	<i>Octopus</i> spp.	Octopus	4,063	2,430	10,889	4.48
<b>Invertebrates (unspecified)</b>						
	Invertebrates (multiple phyla)	Invertebrates	11	11	20	1.90
<b>ALGAE:</b>						
	Phyla: Rhodophyta, Chlorophyta ( <i>unspecified</i> )	Algae (limu, unspecified)	304	208	1,743	8.38
<b>Total</b>			<b>3,186,355</b>	<b>3,034,099</b>	<b>\$8,199,275</b>	<b>\$2.70</b>

**Table D-10**  
**Hawaii September 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs.	Estimated Lbs.	Estimated	
	Scientific Name	Common/local name	Caught	Sold	Value of Sold Portion (\$)	Price/ Lb.
FISHES:						
Scombridae						
Tunas						
	<i>Euthynnus affinis</i>	Kawakawa	3,491	2,340	6,727	2.87
	<i>Katsuwonus pelamis</i>	Skipjack tuna	22,994	13,736	26,683	1.94
	<i>Thunnus alalunga</i>	Albacore tuna	76,916	73,430	107,718	1.47
	<i>Thunnus albacares</i>	Yellowfin tuna	203,142	203,142	595,967	2.93
	<i>Thunnus obesus</i>	Bigeye tuna	1,552,514	1,472,517	4,564,544	3.10
	Tribe Thunnini (unspecified)	Tunas (unspecified)	38	6	17	3.10
Other scombrids						
	<i>Acanthocybium solandri</i>	Wahoo	55,090	47,603	176,232	3.70
	<i>Scomberoides lysan</i>	Leatherback	14	11	25	2.23
Billfishes						
	Suborder: Xiphioidei	Billfishes (unspecified)	382	0	0	0
Istiophoridae						
	<i>Istiompax indica</i>	Black marlin	654	654	1,455	2.22
	<i>Istiophorus platypterus</i>	Sailfish	6,898	6,898	7,466	1.08
	<i>Kajikia audax</i>	Striped marlin	65,014	65,014	117,099	1.80
	<i>Makaira mazara</i>	Blue marlin	126,683	76,024	145,853	1.92
	<i>Tetrapturus angustirostris</i>	Shortnose spearfish	20,508	20,508	42,164	2.06
Xiphiidae						
	<i>Xiphias gladius</i>	Broadbill swordfish	23,782	22,647	70,892	3.13
Other fishes						
Acanthuridae (tang, surgeons, unicornfishes)						
	<i>Acanthurus</i> spp., <i>Ctenochaetus</i> spp.	Surgeons/tangs (unspecified)	11,676	10,796	20,386	1.89
Albulidae (bonefishes)						
	<i>Albula glossodonta</i> , <i>A. neoguinaica</i>	Oio (bonefish)	300	118	160	1.35
Aulostomidae (trumpetfishes)						
	<i>Aulostomus</i> spp.	Trumpetfish	10	1	1	1.50
Belonidae (needlefishes)						
	<i>Belonidae (unspecified)</i>	Needlefish	42	37	92	2.45
Bothidae (left-eye flounders)						
	<i>Bothidae (unspecified)</i>	Flounders	3	3	5	1.85
Bramidae (pomfrets)						
	<i>Taractichthys</i> , <i>Eumegistus</i> , <i>Brama (unspecified)</i>	Pomfret	84,532	84,532	223,317	2.64
Carangidae (jacks & trevallies)						
	<i>Carangidae (unspecified)</i>	Ulua/Jacks (unspecified)	564	0	0	0
	<i>Carangoides ferdau</i>	Barred ulua	867	263	865	3.29
	<i>Carangoides orthogrammus</i>	Papa ulua	510	510	1,863	3.66
	<i>Caranx ignobilis</i>	White ulua	1,437	1,243	3,363	2.71

**Table D-10**  
**Hawaii September 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs.	Estimated Lbs.	Estimated	Price/
	Scientific Name	Common/local name	Caught	Sold	Value of Sold Portion (\$)	Lb.
	<i>Caranx lugubris</i>	Black ulua	23	23	41	1.77
	<i>Caranx sexfasciatus</i>	Sasa ulua	48	15	47	3.09
	<i>Seriola dumerili</i>	Kahala (amberjack )	827	391	739	1.89
	<i>Uraspis helvola</i>	Dobe ulua	18	8	21	2.75
	<i>Decapterus macarellus</i>	Mackerel scad (ōpelu)	23,593	15,857	46,814	2.95
	<i>Selar crumenophthalmus</i>	Bigeye scad (akule)	17,068	11,617	45,154	3.89
	<i>Elagatis bipinnulata</i>	Kamanu (rainbow runner)	407	317	815	2.58
	<b>Chanidae (milkfish)</b>					
	<i>Chanos chanos</i>	Milkfish (awa)	282	282	348	1.24
	<b>Cichlidae (cichlids)</b>					
	<i>Oreochromis</i> sp.	Tilapia	928	60	210	3.50
	<b>Cirrhitidae (hawkfishes)</b>					
	<i>Cirrhitus pinnulatus</i>	Po'opa'a (hawkfish)	161	161	413	2.56
	<b>Coryphaenidae (mahimahi/dolphinfish)</b>					
	<i>Coryphaena hippurus</i> , <i>C. equiselis</i>	Mahimahi	244,976	239,106	408,348	1.71
	<b>Elopidae (ladyfishes, tarpons, tenpounders)</b>					
	<i>Elops hawaiiensis</i>	Hawaiian ladyfish (awa'awa)	182	8	11	1.50
	<b>Emmelichthyidae (rovers)</b>					
	<i>Erythrocles scintillans</i>	Golden kalekale	22	1	2	2.20
	<b>Gempylidae (snake mackerels)</b>					
	<i>Ruvettus pretiosus</i>	Oilfish (walu)	21,514	21,514	44,517	2.07
	<b>Holocentridae (squirrel &amp; soldierfishes)</b>					
	<i>Sargocentron</i> spp.	Squirrelfish	9,193	9,193	40,417	4.40
	<b>Kuhliidae (flagtails)</b>					
	<i>Kuhlia</i> spp.	Aholehole (flagtails)	110	88	480	5.49
	<b>Kyphosidae (sea chubs)</b>					
	<i>Kyphosus</i> spp. (various)	Nenue (rudderfish)	1,706	1,566	2,948	1.88
	<b>Labridae (wrasses)</b>					
	Labridae ( <i>unspecified</i> )	Hinalea (wrasse)	1,141	928	5,355	5.77
	<b>Lampridae (moonfishes, opah)</b>					
	<i>Lampris guttatus</i>	Moonfish (opah)	241,621	210,140	290,393	1.38
	<b>Lethrinidae (emperors)</b>					
	<i>Monotaxis grandoculis</i>	Mu (bigeye emperor)	920	519	1,942	3.74
	<b>Lutjanidae (snappers)</b>					
	<i>Aphareus rutilans</i>	Lehi (silverjaw)	1,156	1,096	4,901	4.47
	<i>Aprion virescens</i>	Uku (gray snapper)	12,946	10,146	40,411	3.98
	<i>Etelis carbunculus</i>	Ehu (red snapper)	2,202	1,844	10,339	5.61
	<i>Etelis coruscans</i>	Onaga (red snapper)	11,881	11,224	80,437	7.17
	Lutjanidae ( <i>unspecified</i> )	Snappers ( <i>unspecified</i> )	1,209	452	1,769	3.91

**Table D-10**  
**Hawaii September 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs.	Estimated Lbs.	Estimated	Price/
	Scientific Name	Common/local name	Caught	Sold	Value of Sold Portion (\$)	Lb.
	<i>Lutjanus kasmira</i>	Ta'ape (blue-lined snapper)	6,741	2,441	4,207	1.72
	<i>Pristipomoides filamentosus</i>	Opakapaka (pink snapper)	18,986	17,695	103,627	5.86
	<i>Pristipomoides sieboldii</i>	Kalekale	2,629	1,812	6,840	3.78
	<i>Pristipomoides zonatus</i>	Gindai (flower snapper)	377	251	1,152	4.58
	<b>Monacanthidae</b> (filefishes)					
	<i>Aluterus monoceros</i>	Filefish	80	23	34	1.48
	<b>Mugilidae</b> (mullet)					
	Mugilidae ( <i>unspecified</i> )	Mullet	1,630	1,626	7,785	4.79
	<b>Mullidae</b> (goatfishes)					
	Mullidae ( <i>unspecified</i> )	Goatfish	6,934	5,614	27,695	4.93
	<b>Muraenidae, Congridae</b> (marine eels)					
	<i>Gymnothorax</i> , <i>Conger</i> spp.	Eels	310	177	206	1.16
	<b>Polynemidae</b> (threadfins)					
	<i>Polydactylus sexfilis</i>	Threadfin (moi)	35	35	222	6.37
	<b>Pomacentridae</b> (damsel fishes)					
	<i>Abudefduf</i> spp.	Damselfish ( <i>unspecified</i> )	82	78	239	3.07
	<b>Priacanthidae</b> (glasseyes)					
	<i>Priacanthus</i> spp.	Bigeyes/glasseyes	916	913	3,653	4.00
	<b>Scaridae</b> (parrotfishes)					
	Scaridae ( <i>unspecified</i> )	Uhu (parrotfishes)	7,421	7,416	28,105	3.79
	<b>Scorpaenidae</b> (scorpionfishes)					
	Scorpaenidae (many species)	Scorpionfish (nohu)	374	310	1,763	5.68
	<b>Sharks</b> (Selachii)					
	Infraclass: Selachii (multiple orders)	Sharks	13,126	8,067	12,267	1.52
	<b>Serranidae</b> (groupers)					
	<i>Cephalopholis argus</i>	Roi	141	141	492	3.50
	<i>Hyporthodus quernus</i>	Hapuupuu (Hawaiian grouper)	1,787	1,786	9,361	5.24
	<b>Sphyraenidae</b> (barracudas)					
	<i>Sphyraena</i> spp.	Barracudas	596	596	831	1.39
	<b>Unspecified Fish Groups</b>					
	Various families ( <i>unspecified</i> )	Reef fishes ( <i>unspecified</i> )	40	0	0	
	<b>Miscellaneous Seafood</b> ( <i>insufficient information</i> )					
	Unknown fish/invertebrates	Miscellaneous ( <i>unspecified</i> )	1,168	1,157	1,186	1.02

**Table D-10**  
**Hawaii September 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs.	Estimated Lbs.	Estimated	Price/
	Scientific Name	Common/local name	Caught	Sold	Value of Sold Portion (\$)	Lb.
<b>INVERTEBRATES:</b>						
	<b>Crustaceans: Crabs</b>					
	Infraorder: Brachyura (unspecified)	Crabs	4,934	3,393	13,154	3.88
	<b>Crustaceans: Lobsters</b>					
	<i>Panulirus penicillatus</i> , <i>P. marginatus</i>	Spiny lobster	2,604	1,979	21,267	10.75
	<i>Scyllarides</i> spp.	Slipper lobster	14	0	0	0
	<b>Crustaceans: Shrimps</b>					
	<i>Heterocarpus</i> spp., <i>Penaeus marginatus</i>	Shrimp (saltwater)	1,651	1,364	8,907	6.53
	<b>Mollusks</b>					
	<i>Cellana</i> spp.	Limpets (saltwater)	1,459	696	4,876	7.00
	Cephalopoda, Decapodiformes (unspecified)	Squid	1,121	999	3,396	3.40
	<i>Octopus</i> spp.	Octopus	4,611	3,443	15,560	4.52
	<b>Invertebrates (unspecified)</b>					
	Invertebrates (multiple phyla)	Invertebrates	12	12	84	6.81
<b>ALGAE:</b>						
	Phyla: Rhodophyta, Chlorophyta (unspecified)	Algae (limu, unspecified)	383	383	4,256	11.13
<b>Total</b>			<b>2,932,357</b>	<b>2,700,996</b>	<b>\$7,420,931</b>	<b>\$2.75</b>

**Table D-11**  
**Hawaii October 2014 Estimated Commercial Landings**

Group	Subgroup	Scientific Name	Common/local name	Lbs. Caught	Estimated Lbs. Sold	Estimated Value of Sold Portion (\$)	Price/Lb.
<b>FISHES:</b>							
	<b>Scombridae</b>						
	<b>Tunas</b>						
		<i>Euthynnus affinis</i>	Kawakawa	3,542	1,830	5,967	3.26
		<i>Katsuwonus pelamis</i>	Skipjack tuna	19,741	10,551	21,228	2.01
		<i>Thunnus alalunga</i>	Albacore tuna	5,225	4,815	12,239	2.54
		<i>Thunnus albacares</i>	Yellowfin tuna	142,497	132,200	448,951	3.40
		<i>Thunnus obesus</i>	Bigeye tuna	1,580,225	1,527,540	5,459,407	3.57
		Tribe Thunnini ( <i>unspecified</i> )	Tunas (unspecified)	76	49	99	2.00
	<b>Other scombrids</b>						
		<i>Acanthocybium solandri</i>	Wahoo	45,834	40,353	156,125	3.87
		<i>Scomberoides lysan</i>	Leatherback	82	22	55	2.46
<b>Billfishes</b>							
	<b>Istiophoridae</b>						
		<i>Istiompax indica</i>	Black marlin	1,544	764	438	0.57
		<i>Istiophorus platypterus</i>	Sailfish	6,702	6,702	6,213	0.93
		<i>Kajikia audax</i>	Striped marlin	115,653	115,653	142,066	1.23
		<i>Makaira mazara</i>	Blue marlin	144,027	113,397	134,538	1.19
		<i>Tetrapturus angustirostris</i>	Shortnose spearfish	27,460	26,671	33,427	1.25
	<b>Xiphiidae</b>						
		<i>Xiphias gladius</i>	Broadbill swordfish	16,580	16,580	45,282	2.73
<b>Other fishes</b>							
	<b>Acanthuridae</b> (tangs, surgeons, unicornfishes)						
		<i>Acanthurus</i> spp., <i>Ctenochaetus</i> spp.	Surgeons/tangs (unspecified)	8,999	8,320	14,915	1.79
	<b>Albulidae</b> (bonefishes)						
		<i>Albula glossodonta</i> , <i>A. neoguinaica</i>	Oio (bonefish)	1,561	1,450	2,126	1.47
	<b>Aulostomidae</b> (trumpetfishes)						
		<i>Aulostomus</i> spp.	Trumpetfish	83	83	82	0.99
	<b>Belonidae</b> (needlefishes)						
		<i>Belonidae (unspecified)</i>	Needlefish	75	75	190	2.53
	<b>Bothidae</b> (left-eye flounders)						
		<i>Bothidae (unspecified)</i>	Flounders	4	3	5	1.72
	<b>Bramidae</b> (pomfrets)						
		<i>Taractichthys</i> , <i>Eumegistus</i> , <i>Brama</i> ( <i>unspecified</i> )	Pomfret	109,949	109,949	216,958	1.97
	<b>Carangidae</b> (jacks & trevallies)						
		<i>Carangidae (unspecified)</i>	Ulua/Jacks (unspecified)	242	46	119	2.62
		<i>Carangoides ferdau</i>	Barred ulua	535	156	504	3.24
		<i>Carangoides orthogrammus</i>	Papa ulua	523	523	2,109	4.04

**Table D-11**  
**Hawaii October 2014 Estimated Commercial Landings**

Group	Subgroup					
	Scientific Name	Common/local name	Lbs. Caught	Estimated Lbs. Sold	Estimated Value of Sold Portion (\$)	Price/Lb.
	<i>Caranx ignobilis</i>	White ulua	1,193	844	2,406	2.85
	<i>Caranx lugubris</i>	Black ulua	158	158	407	2.58
	<i>Caranx sexfasciatus</i>	Sasa ulua	111	0	0	0
	<i>Pseudocaranx dentex</i>	Butaguchi (pig-lipped ulua)	5	0	0	0
	<i>Seriola dumerili</i>	Kahala (amberjack )	984	421	842	2.00
	<i>Uraspis helvola</i>	Dobe ulua	156	64	190	2.99
	<i>Decapterus macarellus</i>	Mackerel scad (ōpelu)	25,153	16,339	47,500	2.91
	<i>Selar crumenophthalmus</i>	Bigeye scad (akule)	12,096	9,597	38,121	3.97
	<i>Elagatis bipinnulata</i>	Kamanu (rainbow runner)	468	468	908	1.94
	<b>Chanidae (milkfish)</b>					
	<i>Chanos chanos</i>	Milkfish (awa)	163	163	240	1.48
	<b>Cichlidae (cichlids)</b>					
	<i>Oreochromis</i> sp.	Tilapia	599	14	59	4.21
	<b>Cirrhitidae (hawkfishes)</b>					
	<i>Cirrhitus pinnulatus</i>	Po'opa'a (hawkfish)	86	86	180	2.10
	<b>Clupeidae, Dussumieriidae (sardines/herrings)</b>					
	Clupeidae, Dussumieriidae (unspecified)	Herring/sardine	2,066	1,096	2,192	2.00
	<b>Coryphaenidae (mahimahi/dolphinfish)</b>					
	<i>Coryphaena hippurus</i> , <i>C. equiselis</i>	Mahimahi	250,874	243,794	510,551	2.09
	<b>Elopidae (ladyfishes, tarpons, tenpounders)</b>					
	<i>Elops hawaiiensis</i>	Hawaiian ladyfish (awa'awa)	125	68	102	1.50
	<b>Emmelichthyidae (rovers)</b>					
	<i>Erythrocles scintillans</i>	Golden kalekale	46	9	19	2.21
	<b>Gempylidae (snake mackerels)</b>					
	<i>Ruvettus pretiosus</i>	Oilfish (walu)	30,527	30,527	44,039	1.44
	<b>Holocentridae (squirrel &amp; soldierfishes)</b>					
	<i>Sargocentron</i> spp.	Squirrelfish	8,493	8,420	37,166	4.41
	<b>Kuhliidae (flagtails)</b>					
	<i>Kuhlia</i> spp.	Aholehole (flagtails)	314	314	1,478	4.70
	<b>Kyphosidae (sea chubs)</b>					
	<i>Kyphosus</i> spp. (various)	Nenue (rudderfish)	1,067	992	1,629	1.64
	<b>Labridae (wrasses)</b>					
	Labridae (unspecified)	Hinalea (wrasse)	1,196	927	3,913	4.22
	<b>Lampridae (moonfishes, opah)</b>					
	<i>Lampris guttatus</i>	Moonfish (opah)	228,208	216,753	266,107	1.23



**Table D-11**  
**Hawaii October 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs.	Estimated Lbs.	Estimated	Price/
	Scientific Name	Common/local name	Caught	Sold	Value of Sold Portion (\$)	Lb.
<b>Lethrinidae</b> (emperors)						
	<i>Monotaxis grandoculis</i>	Mu (bigeye emperor)	532	532	1,618	3.04
<b>Lutjanidae</b> (snappers)						
	<i>Aphareus rutilans</i>	Lehi (silverjaw)	1,166	1,166	4,768	4.09
	<i>Aprion virescens</i>	Uku (gray snapper)	6,068	6,068	27,258	4.49
	<i>Etelis carbunculus</i>	Ehu (red snapper)	2,581	1,674	8,419	5.03
	<i>Etelis coruscans</i>	Onaga (red snapper)	8,416	8,416	63,580	7.55
	Lutjanidae ( <i>unspecified</i> )	Snappers ( <i>unspecified</i> )	309	309	1,205	3.90
	<i>Lutjanus kasmira</i>	Ta'ape (blue-lined snapper)	2,398	1,966	3,386	1.72
	<i>Pristipomoides auricilla</i>	Yellow-tail kalekale	25	0	0	0
	<i>Pristipomoides filamentosus</i>	Opakapaka (pink snapper)	14,146	14,146	81,523	5.76
	<i>Pristipomoides sieboldii</i>	Kalekale	1,967	1,624	5,405	3.33
	<i>Pristipomoides zonatus</i>	Gindai (flower snapper)	251	197	869	4.41
<b>Monacanthidae</b> (filefishes)						
	<i>Aluterus monoceros</i>	Filefish	26	26	34	1.35
<b>Mugilidae</b> (mullet)						
	Mugilidae ( <i>unspecified</i> )	Mullet	1,175	1,044	3,779	3.62
<b>Mullidae</b> (goatfishes)						
	Mullidae ( <i>unspecified</i> )	Goatfish	8,101	6,167	33,344	5.41
<b>Muraenidae, Congridae</b> (marine eels)						
	<i>Gymnothorax</i> , <i>Conger</i> spp.	Eels	124	101	146	1.44
<b>Polynemidae</b> (threadfins)						
	<i>Polydactylus sexfilis</i>	Threadfin (moi)	44	9	81	8.66
<b>Pomacentridae</b> (damsel-fishes)						
	<i>Abudefduf</i> spp.	Damselfish ( <i>unspecified</i> )	130	130	454	3.51
<b>Priacanthidae</b> (glasseyes)						
	<i>Priacanthus</i> spp.	Bigeyes/glasseyes	1,220	1,064	4,132	3.88
<b>Scaridae</b> (parrotfishes)						
	Scaridae ( <i>unspecified</i> )	Uhu (parrotfishes)	6,014	5,824	21,203	3.64
<b>Scorpaenidae</b> (scorpionfishes)						
	Scorpaenidae (many species)	Scorpionfish (nohu)	234	159	904	5.68
<b>Sharks</b> (Selachii)						
	Infraclass: Selachii (multiple orders)	Sharks	8,172	7,933	8,931	1.13
<b>Serranidae</b> (groupers)						
	<i>Cephalopholis argus</i>	Roi	122	14	38	2.71
	<i>Hyporthodus quernus</i>	Hapuupuu (Hawaiian grouper)	1,308	1,254	6,909	5.51

**Table D-11**  
**Hawaii October 2014 Estimated Commercial Landings**

Group						
Subgroup	Scientific Name	Common/local name	Lbs. Caught	Estimated Lbs. Sold	Estimated Value of Sold Portion (\$)	Price/Lb.
<b>Sphyraenidae</b> (barracudas)						
	<i>Sphyraena spp.</i>	Barracudas	976	950	1,170	1.23
<b>Unspecified Fish Groups</b>						
	Various families ( <i>unspecified</i> )	Reef fishes (unspecified)	37	37	37	1.00
<b>Miscellaneous Seafood</b> ( <i>insufficient information</i> )						
	Unknown fish/invertebrates	Miscellaneous (unspecified)	539	531	589	1.11
<b>INVERTEBRATES:</b>						
<b>Crustaceans: Crabs</b>						
	Infraorder: Brachyura ( <i>unspecified</i> )	Crabs	4,098	2,617	11,008	4.21
<b>Crustaceans: Lobsters</b>						
	<i>Panulirus penicillatus</i> , <i>P. marginatus</i>	Spiny lobster	1,104	927	9,772	10.54
	<i>Scyllarides</i> spp.	Slipper lobster	46	28	220	7.99
<b>Crustaceans: Shrimps</b>						
	<i>Heterocarpus</i> spp., <i>Penaeus marginatus</i>	Shrimp (saltwater)	1,835	621	4,460	7.18
<b>Mollusks</b>						
	<i>Cellana</i> spp.	Limpets (saltwater)	1,125	633	5,090	8.04
	Cephalopoda, Decapodiformes (unspecified)	Squid	856	511	1,875	3.67
	<i>Octopus</i> spp.	Octopus	4,673	3,680	16,268	4.42
<b>Invertebrates (unspecified)</b>						
	Invertebrates (multiple phyla)	Invertebrates	12	12	23	1.87
<b>ALGAE:</b>						
	Phyla: Rhodophyta, Chlorophyta ( <i>unspecified</i> )	Algae (limu, unspecified)	237	210	1,340	6.40
<b>Total</b>			<b>2,875,314</b>	<b>2,719,366</b>	<b>\$7,990,930</b>	<b>\$2.94</b>

**Table D-12**  
**Hawaii November 2014 Estimated Commercial Landings**

Group	Subgroup	Scientific Name	Common/local name	Lbs. Caught	Estimated Lbs. Sold	Estimated Value of Sold Portion (\$)	Price/Lb.
<b>FISHES:</b>							
	<b>Scombridae</b>						
	<b>Tunas</b>						
		<i>Euthynnus affinis</i>	Kawakawa	6,208	2,323	7,126	3.07
		<i>Katsuwonus pelamis</i>	Skipjack tuna	22,847	14,782	31,602	2.14
		<i>Thunnus alalunga</i>	Albacore tuna	6,793	4,181	11,751	2.81
		<i>Thunnus albacares</i>	Yellowfin tuna	160,857	141,849	406,526	2.87
		<i>Thunnus obesus</i>	Bigeye tuna	1,616,482	1,480,186	4,863,953	3.29
		Tribe Thunnini (unspecified)	Tunas (unspecified)	1,775	1,775	2,194	1.24
	<b>Other scombrids</b>						
		<i>Acanthocybium solandri</i>	Wahoo	56,599	48,254	146,610	3.04
		<i>Scomberoides lysan</i>	Leatherback	6	6	14	2.54
	<b>Billfishes</b>						
	<b>Istiophoridae</b>						
		<i>Istiompax indica</i>	Black marlin	1,914	1,914	1,883	0.98
		<i>Istiophorus platypterus</i>	Sailfish	2,660	2,162	2,049	0.95
		<i>Kajikia audax</i>	Striped marlin	148,382	148,382	160,958	1.08
		<i>Makaira mazara</i>	Blue marlin	132,914	79,604	98,359	1.24
		<i>Tetrapturus angustirostris</i>	Shortnose spearfish	25,528	24,856	33,045	1.33
	<b>Xiphiidae</b>						
		<i>Xiphias gladius</i>	Broadbill swordfish	47,397	15,089	47,721	3.16
	<b>Other fishes</b>						
	<b>Acanthuridae</b> (tang, surgeons, unicornfishes)						
		<i>Acanthurus</i> spp., <i>Ctenochaetus</i> spp.	Surgeons/tangs (unspecified)	5,796	5,246	10,377	1.98
	<b>Albulidae</b> (bonefishes)						
		<i>Albula glossodonta</i> , <i>A. neoguinaica</i>	Oio (bonefish)	362	145	225	1.56
	<b>Aulostomidae</b> (trumpetfishes)						
		<i>Aulostomus</i> spp.	Trumpetfish	18	10	14	1.38
	<b>Belonidae</b> (needlefishes)						
		<i>Belonidae</i> (unspecified)	Needlefish	84	84	236	2.81
	<b>Bothidae</b> (left-eye flounders)						
		<i>Bothidae</i> (unspecified)	Flounders	3	3	6	2.50
	<b>Bramidae</b> (pomfrets)						
		<i>Taractichthys</i> , <i>Eumegistus</i> , <i>Brama</i> (unspecified)	Pomfret	54,697	54,697	172,279	3.15
	<b>Carangidae</b> (jacks & trevallies)						
		<i>Carangidae</i> (unspecified)	Ulua/Jacks (unspecified)	343	7	21	3.00
		<i>Carangoides ferdau</i>	Barred ulua	707	145	366	2.53
		<i>Carangoides orthogrammus</i>	Papa ulua	445	355	1,305	3.68
		<i>Caranx ignobilis</i>	White ulua	864	634	1,801	2.84

**Table D-12**  
**Hawaii November 2014 Estimated Commercial Landings**

Group	Subgroup					
	Scientific Name	Common/local name	Lbs. Caught	Estimated Lbs. Sold	Estimated Value of Sold Portion (\$)	Price/Lb.
	<i>Caranx lugubris</i>	Black ulua	138	138	290	2.10
	<i>Caranx sexfasciatus</i>	Sasa ulua	5	0	0	0
	<i>Pseudocaranx dentex</i>	Butaguchi (pig-lipped ulua)	34	34	85	2.50
	<i>Seriola dumerili</i>	Kahala (amberjack )	1,602	524	768	1.46
	<i>Uraspis helvola</i>	Dobe ulua	89	87	260	3.00
	<i>Decapterus macarellus</i>	Mackerel scad (ōpelu)	15,779	8,596	23,923	2.78
	<i>Selar crumenophthalmus</i>	Bigeye scad (akule)	56,234	41,194	107,892	2.62
	<i>Elagatis bipinnulata</i>	Kamanu (rainbow runner)	632	632	973	1.54
	<b>Chanidae (milkfish)</b>					
	<i>Chanos chanos</i>	Milkfish (awa)	104	23	28	1.25
	<b>Cichlidae (cichlids)</b>					
	<i>Oreochromis</i> sp.	Tilapia	595	0	0	
	<b>Cirrhitidae (hawkfishes)</b>					
	<i>Cirrhitus pinnulatus</i>	Po'opa'a (hawkfish)	53	41	104	2.55
	<b>Coryphaenidae (mahimahi/dolphinfish)</b>					
	<i>Coryphaena hippurus</i> , <i>C. equiselis</i>	Mahimahi	191,616	170,852	449,900	2.63
	<b>Elopidae (ladyfishes, tarpons, tenpounders)</b>					
	<i>Elops hawaiiensis</i>	Hawaiian ladyfish (awa'awa)	116	8	12	1.50
	<b>Emmelichthyidae (rovers)</b>					
	<i>Erythrocles scintillans</i>	Golden kalekale	6	5	13	2.85
	<b>Gempylidae (snake mackerels)</b>					
	<i>Ruvettus pretiosus</i>	Oilfish (walu)	37,232	34,566	16,859	0.49
	<b>Holocentridae (squirrel &amp; soldierfishes)</b>					
	<i>Sargocentron</i> spp.	Squirrelfish	6,494	6,371	27,060	4.25
	<b>Kuhliidae (flagtails)</b>					
	<i>Kuhlia</i> spp.	Aholehole (flagtails)	74	74	383	5.15
	<b>Kyphosidae (sea chubs)</b>					
	<i>Kyphosus</i> spp. (various)	Nenu (rudderfish)	1,345	1,073	2,027	1.89
	<b>Labridae (wrasses)</b>					
	Labridae ( <i>unspecified</i> )	Hinalea (wrasse)	486	302	1,792	5.94
	<b>Lampridae (moonfishes, opah)</b>					
	<i>Lampris guttatus</i>	Moonfish (opah)	162,460	115,614	222,563	1.93
	<b>Lethrinidae (emperors)</b>					
	<i>Monotaxis grandoculis</i>	Mu (bigeye emperor)	206	206	726	3.53
	<b>Lutjanidae (snappers)</b>					
	<i>Aphareus rutilans</i>	Lehi (silverjaw)	898	832	3,632	4.36
	<i>Aprion virescens</i>	Uku (gray snapper)	7,478	5,876	26,036	4.43
	<i>Etelis carbunculus</i>	Ehu (red snapper)	2,909	1,993	11,081	5.56

**Table D-12**  
**Hawaii November 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs.	Estimated Lbs.	Estimated	Price/
	Scientific Name	Common/local name	Caught	Sold	Value of Sold Portion (\$)	Lb.
	<i>Etelis coruscans</i>	Onaga (red snapper)	7,735	5,583	45,552	8.16
	Lutjanidae ( <i>unspecified</i> )	Snappers ( <i>unspecified</i> )	356	235	1,055	4.49
	<i>Lutjanus kasmira</i>	Ta'ape (blue-lined snapper)	1,487	1,171	1,922	1.64
	<i>Pristipomoides auricilla</i>	Yellow-tail kalekale	2	2	6	3.10
	<i>Pristipomoides filamentosus</i>	Opakapaka (pink snapper)	12,449	10,777	69,004	6.40
	<i>Pristipomoides sieboldii</i>	Kalekale	1,587	1,043	3,816	3.66
	<i>Pristipomoides zonatus</i>	Gindai (flower snapper)	386	270	1,196	4.43
	<b>Monacanthidae</b> (filefishes)					
	<i>Aluterus monoceros</i>	Filefish	27	12	33	2.68
	<b>Mugilidae</b> (mullet)					
	Mugilidae ( <i>unspecified</i> )	Mullet	796	796	3,553	4.46
	<b>Mullidae</b> (goatfishes)					
	Mullidae ( <i>unspecified</i> )	Goatfish	4,820	3,920	17,567	4.48
	<b>Muraenidae, Congridae</b> (marine eels)					
	<i>Gymnothorax, Conger</i> spp.	Eels	67	36	42	1.20
	<b>Polynemidae</b> (threadfins)					
	<i>Polydactylus sexfilis</i>	Threadfin (moi)	20	15	132	9.01
	<b>Pomacentridae</b> (damsel fishes)					
	<i>Abudefduf</i> spp.	Damselfish ( <i>unspecified</i> )	143	137	502	3.66
	<b>Priacanthidae</b> (glasseyes)					
	<i>Priacanthus</i> spp.	Bigeyes/glasseyes	794	789	2,727	3.46
	<b>Scaridae</b> (parrotfishes)					
	Scaridae ( <i>unspecified</i> )	Uhu (parrotfishes)	2,959	2,871	12,029	4.19
	<b>Scorpaenidae</b> (scorpionfishes)					
	Scorpaenidae (many species)	Scorpionfish (nohu)	211	154	1,007	6.54
	<b>Sharks</b> (Selachii)					
	Infraclass: Selachii (multiple orders)	Sharks	15,567	8,600	8,258	0.96
	<b>Serranidae</b> (groupers)					
	<i>Cephalopholis argus</i>	Roi	83	83	198	2.39
	<i>Hyporthodus quernus</i>	Hapuupuu (Hawaiian grouper)	1,425	439	2,456	5.59
	<b>Sphyraenidae</b> (barracudas)					
	<i>Sphyraena</i> spp.	Barracudas	475	393	886	2.25
	<b>Unspecified Fish Groups</b>					
	Various families ( <i>unspecified</i> )	Reef fishes ( <i>unspecified</i> )	10	0	0	

**Table D-12**  
**Hawaii November 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs.	Estimated Lbs.	Estimated	Price/
	Scientific Name	Common/local name	Caught	Sold	Value of Sold Portion (\$)	Lb.
<b>Miscellaneous Seafood</b> ( <i>insufficient information</i> )						
	Unknown fish/invertebrates	Miscellaneous (unspecified)	426	402	583	1.45
<b>INVERTEBRATES:</b>						
<b>Crustaceans: Crabs</b>						
	Infraorder: Brachyura ( <i>unspecified</i> )	Crabs	3,939	2,739	11,977	4.37
<b>Crustaceans: Lobsters</b>						
	<i>Panulirus penicillatus</i> , <i>P. marginatus</i>	Spiny lobster	917	845	9,254	10.95
	<i>Scyllarides</i> spp.	Slipper lobster	26	6	50	8.00
<b>Crustaceans: Shrimps</b>						
	<i>Heterocarpus</i> spp., <i>Penaeus marginatus</i>	Shrimp (saltwater)	2,825	585	4,234	7.24
<b>Mollusks</b>						
	<i>Cellana</i> spp.	Limpets (saltwater)	1,881	1,215	7,510	6.18
	Cephalopoda, Decapodiformes (unspecified)	Squid	514	236	902	3.82
	<i>Octopus</i> spp.	Octopus	3,910	2,998	14,420	4.81
<b>Invertebrates (unspecified)</b>						
	Invertebrates (multiple phyla)	Invertebrates	298	8	16	1.90
<b>ALGAE:</b>						
	Phyla: Rhodophyta, Chlorophyta ( <i>unspecified</i> )	Algae (limu, unspecified)	192	146	1,504	10.31
<b>Total</b>			<b>2,846,593</b>	<b>2,462,236</b>	<b>\$7,119,219</b>	<b>\$2.89</b>

**Table D-13**  
**Hawaii December 2014 Estimated Commercial Landings**

Group	Subgroup	Scientific Name	Common/local name	Lbs. Caught	Estimated Lbs. Sold	Estimated Value of Sold Portion (\$)	Price/ Lb.
<b>FISHES:</b>							
<b>Scombridae</b>							
<b>Tunas</b>							
		<i>Euthynnus affinis</i>	Kawakawa	4,674	1,960	5,301	2.70
		<i>Katsuwonus pelamis</i>	Skipjack tuna	95,252	72,850	60,748	0.83
		<i>Thunnus alalunga</i>	Albacore tuna	41,978	41,978	65,981	1.57
		<i>Thunnus albacares</i>	Yellowfin tuna	257,166	249,590	824,413	3.30
		<i>Thunnus obesus</i>	Bigeye tuna	2,079,612	2,079,612	7,959,499	3.83
		Tribe Thunnini ( <i>unspecified</i> )	Tunas (unspecified)	393	163	320	1.96
<b>Other scombrids</b>							
		<i>Acanthocybium solandri</i>	Wahoo	80,015	80,007	226,963	2.84
		<i>Scomberoides lysan</i>	Leatherback	2	2	6	2.75
<b>Billfishes</b>							
		Suborder: Xiphioidae	Billfishes (unspecified)	382	0	0	
<b>Istiophoridae</b>							
		<i>Istiompax indica</i>	Black marlin	1,913	1,913	2,510	1.31
		<i>Istiophorus platypterus</i>	Sailfish	2,456	497	586	1.18
		<i>Kajikia audax</i>	Striped marlin	169,452	169,452	238,490	1.41
		<i>Makaira mazara</i>	Blue marlin	81,622	65,392	119,853	1.83
		<i>Tetrapturus angustirostris</i>	Shortnose spearfish	52,210	52,210	61,833	1.18
<b>Xiphiidae</b>							
		<i>Xiphias gladius</i>	Broadbill swordfish	97,402	32,429	104,975	3.24
<b>Other fishes</b>							
<b>Acanthuridae</b> (tang, surgeons, unicornfishes)							
		<i>Acanthurus</i> spp., <i>Ctenochaetus</i> spp.	Surgeons/tangs (unspecified)	7,114	6,357	12,361	1.94
<b>Albulidae</b> (bonefishes)							
		<i>Albula glossodonta</i> , <i>A. neoguinaica</i>	Oio (bonefish)	419	391	559	1.43
<b>Aulostomidae</b> (trumpetfishes)							
		<i>Aulostomus</i> spp.	Trumpetfish	79	2	4	2.50
<b>Belonidae</b> (needlefishes)							
		Belonidae ( <i>unspecified</i> )	Needlefish	106	106	208	1.96
<b>Bothidae</b> (left-eye flounders)							
		Bothidae ( <i>unspecified</i> )	Flounders	4	4	7	1.84
<b>Bramidae</b> (pomfrets)							
		<i>Taractichthys</i> , <i>Eumegistus</i> , <i>Brama</i> ( <i>unspecified</i> )	Pomfret	59,861	59,861	256,521	4.29
<b>Carangidae</b> (jacks & trevallies)							
		Carangidae ( <i>unspecified</i> )	Ulua/Jacks (unspecified)	365	250	732	2.93
		<i>Carangoides ferdau</i>	Barred ulua	507	37	124	3.38
		<i>Carangoides orthogrammus</i>	Papa ulua	1,103	633	2,385	3.77
		<i>Caranx ignobilis</i>	White ulua	927	905	2,468	2.73
		<i>Caranx lugubris</i>	Black ulua	17	0	0	0

**Table D-13**  
**Hawaii December 2014 Estimated Commercial Landings**

Group	Subgroup	Scientific Name	Common/local name	Lbs. Caught	Estimated Lbs. Sold	Estimated Value of Sold Portion (\$)	Price/Lb.
		<i>Caranx sexfasciatus</i>	Sasa ulua	25	0	0	0
		<i>Pseudocaranx dentex</i>	Butaguchi (pig-lipped ulua)	130	97	333	3.45
		<i>Seriola dumerili</i>	Kahala (amberjack )	3,437	592	1,154	1.95
		<i>Uraspis helvola</i>	Dobe ulua	1,185	130	391	3.00
		<i>Decapterus macarellus</i>	Mackerel scad (ōpelu)	18,521	9,394	30,642	3.26
		<i>Selar crumenophthalmus</i>	Bigeye scad (akule)	25,600	13,750	46,858	3.41
		<i>Elagatis bipinnulata</i>	Kamanu (rainbow runner)	467	467	724	1.55
	<b>Chanidae</b> (milkfish)						
		<i>Chanos chanos</i>	Milkfish (awa)	83	8	12	1.50
	<b>Cirrhitidae</b> (hawkfishes)						
		<i>Cirrhitus pinnulatus</i>	Po'opa'a (hawkfish)	18	18	51	2.91
	<b>Clupeidae, Dussumieriidae</b> (sardines/herrings)						
		Clupeidae, Dussumieriidae (unspecified)	Herring/sardine	950	950	2,850	3.00
	<b>Coryphaenidae</b> (mahimahi/dolphinfish)						
		<i>Coryphaena hippurus, C. equiselis</i>	Mahimahi	98,443	91,331	291,799	3.19
	<b>Elopidae</b> (ladyfishes, tarpons, tenpounders)						
		<i>Elops hawaiiensis</i>	Hawaiian ladyfish (awa'awa)	34	34	51	1.50
	<b>Emmelichthyidae</b> (rovers)						
		<i>Erythrocles scintillans</i>	Golden kalekale	24	5	14	2.72
	<b>Gempylidae</b> (snake mackerels)						
		<i>Ruvettus pretiosus</i>	Oilfish (walu)	72,224	64,365	12,870	0.20
	<b>Holocentridae</b> (squirrel & soldierfishes)						
		<i>Sargocentron</i> spp.	Squirrelfish	3,783	3,783	17,152	4.53
	<b>Kuhliidae</b> (flagtails)						
		<i>Kuhlia</i> spp.	Aholehole (flagtails)	71	58	258	4.42
	<b>Kyphosidae</b> (sea chubs)						
		<i>Kyphosus</i> spp. (various)	Nenu (rudderfish)	1,088	964	1,819	1.89
	<b>Labridae</b> (wrasses)						
		Labridae (unspecified)	Hinalea (wrasse)	545	251	1,064	4.24
	<b>Lampridae</b> (moonfishes, opah)						
		<i>Lampris guttatus</i>	Moonfish (opah)	140,110	88,563	254,259	2.87
	<b>Lethrinidae</b> (emperors)						
		<i>Monotaxis grandoculis</i>	Mu (bigeye emperor)	154	154	502	3.26
	<b>Lutjanidae</b> (snappers)						
		<i>Aphareus rutilans</i>	Lehi (silverjaw)	1,155	1,089	5,615	5.16
		<i>Aprion virescens</i>	Uku (gray snapper)	12,414	10,076	44,439	4.41
		<i>Etelis carbunculus</i>	Ehu (red snapper)	5,703	4,240	27,285	6.44
		<i>Etelis coruscans</i>	Onaga (red snapper)	15,076	12,280	118,354	9.64



**Table D-13**  
**Hawaii December 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs.	Estimated Lbs.	Estimated	Price/
	Scientific Name	Common/local name	Caught	Sold	Value of Sold Portion (\$)	Lb.
	Lutjanidae ( <i>unspecified</i> )	Snappers ( <i>unspecified</i> )	434	110	186	1.70
	<i>Lutjanus kasmira</i>	Ta'ape (blue-lined snapper)	1,226	1,098	1,940	1.77
	<i>Pristipomoides auricilla</i>	Yellow-tail kalekale	12	12	29	2.48
	<i>Pristipomoides filamentosus</i>	Opakapaka (pink snapper)	27,224	24,875	169,952	6.83
	<i>Pristipomoides sieboldii</i>	Kalekale	2,900	2,465	9,080	3.68
	<i>Pristipomoides zonatus</i>	Gindai (flower snapper)	442	288	1,555	5.39
	<b>Monacanthidae</b> (filefishes)					
	<i>Aluterus monoceros</i>	Filefish	104	104	292	2.80
	<b>Mugilidae</b> (mullet)					
	Mugilidae ( <i>unspecified</i> )	Mullet	159	159	585	3.67
	<b>Mullidae</b> (goatfishes)					
	Mullidae ( <i>unspecified</i> )	Goatfish	7,593	6,747	27,540	4.08
	<b>Muraenidae, Congridae</b> (marine eels)					
	<i>Gymnothorax, Conger</i> spp.	Eels	56	26	30	1.15
	<b>Polynemidae</b> (threadfins)					
	<i>Polydactylus sexfilis</i>	Threadfin (moi)	34	5	41	7.67
	<b>Pomacentridae</b> (damsel fishes)					
	<i>Abudefduf</i> spp.	Damselfish ( <i>unspecified</i> )	80	38	108	2.87
	<b>Priacanthidae</b> (glasseyes)					
	<i>Priacanthus</i> spp.	Bigeyes/glasseyes	656	530	2,222	4.19
	<b>Scaridae</b> (parrotfishes)					
	Scaridae ( <i>unspecified</i> )	Uhu (parrotfishes)	3,260	3,251	13,209	4.06
	<b>Scorpaenidae</b> (scorpionfishes)					
	Scorpaenidae (many species)	Scorpionfish (nohu)	312	226	2,049	9.09
	<b>Sharks</b> (Selachii)					
	Infraclass: Selachii (multiple orders)	Sharks	17,067	14,478	13,227	0.91
	<b>Serranidae</b> (groupers)					
	<i>Cephalopholis argus</i>	Roi	39	33	106	3.26
	<i>Hyporthodus quernus</i>	Hapuupuu (Hawaiian grouper)	837	777	4,627	5.96
	<b>Sphyraenidae</b> (barracudas)					
	<i>Sphyraena</i> spp.	Barracudas	658	654	957	1.46
	<b>Unspecified Fish Groups</b>					
	Various families ( <i>unspecified</i> )	Reef fishes ( <i>unspecified</i> )	10	0	0	0
	<b>Miscellaneous Seafood</b> ( <i>insufficient information</i> )					
	Unknown fish/invertebrates	Miscellaneous ( <i>unspecified</i> )	385	373	433	1.16

**Table D-13**  
**Hawaii December 2014 Estimated Commercial Landings**

Group	Subgroup		Lbs.	Estimated Lbs.	Estimated	Price/
	Scientific Name	Common/local name	Caught	Sold	Value of Sold Portion (\$)	Lb.
<b>INVERTEBRATES:</b>						
	<b>Crustaceans: Crabs</b>					
	Infraorder: Brachyura ( <i>unspecified</i> )	Crabs	3,541	2,733	12,208	4.47
	<b>Crustaceans: Lobsters</b>					
	<i>Panulirus penicillatus</i> , <i>P. marginatus</i>	Spiny lobster	1,496	1,455	17,143	11.79
	<i>Scyllarides</i> spp.	Slipper lobster	35	30	238	8.00
	<b>Crustaceans: Shrimps</b>					
	<i>Heterocarpus</i> spp., <i>Penaeus marginatus</i>	Shrimp (saltwater)	1,919	947	6,397	6.76
	<b>Mollusks</b>					
	<i>Cellana</i> spp.	Limpets (saltwater)	1,335	1,058	6,671	6.31
	Cephalopoda, Decapodiformes ( <i>unspecified</i> )	Squid	16	16	62	4.00
	<i>Octopus</i> spp.	Octopus	2,102	1,670	7,909	4.74
	<b>Invertebrates (unspecified)</b>					
	Invertebrates (multiple phyla)	Invertebrates	229	229	20,583	90.00
<b>ALGAE:</b>						
	Phyla: Rhodophyta, Chlorophyta ( <i>unspecified</i> )	Algae (limu, <i>unspecified</i> )	441	441	5,222	11.84
<b>Total</b>			<b>3,510,873</b>	<b>3,284,028</b>	<b>\$11,129,944</b>	<b>\$3.39</b>

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

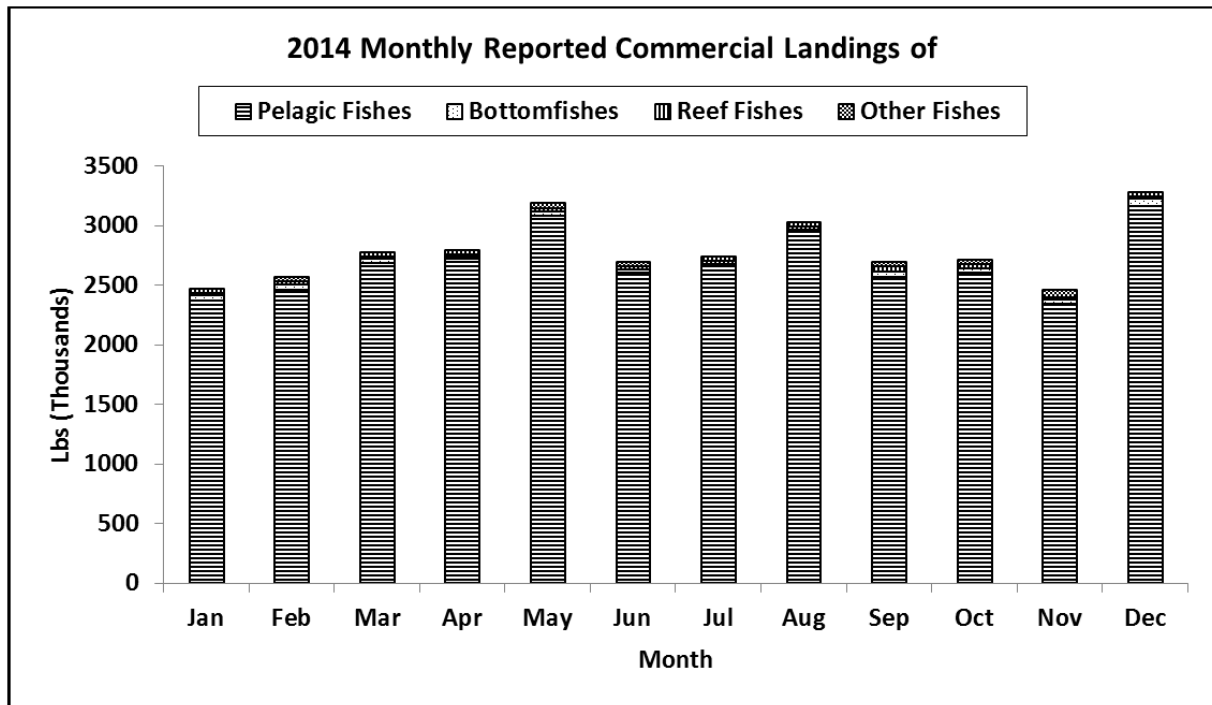


Figure D-1-1

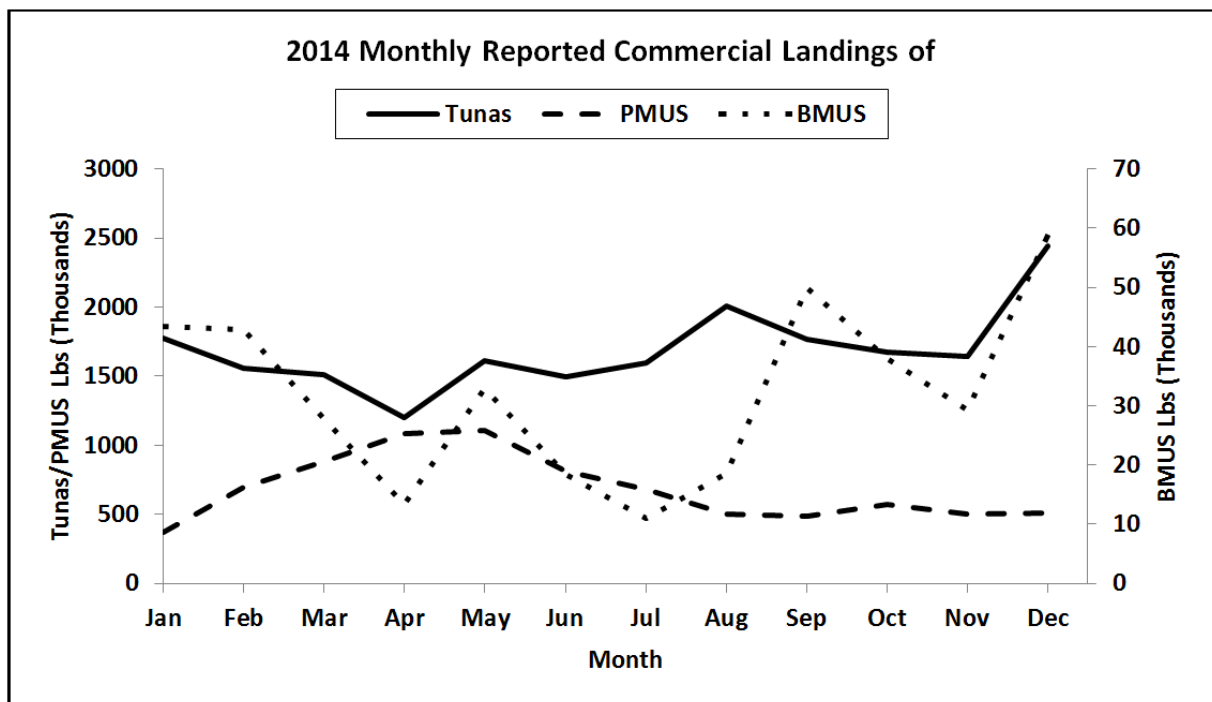


Figure D-1-2

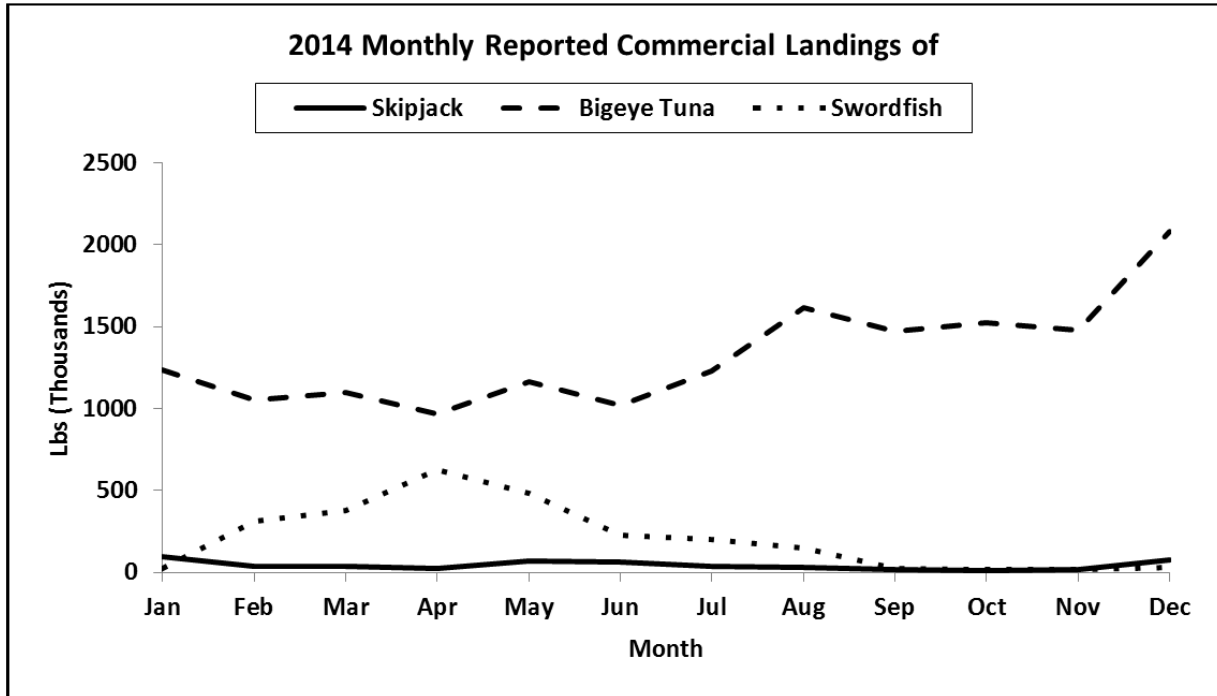


Figure D-1-3

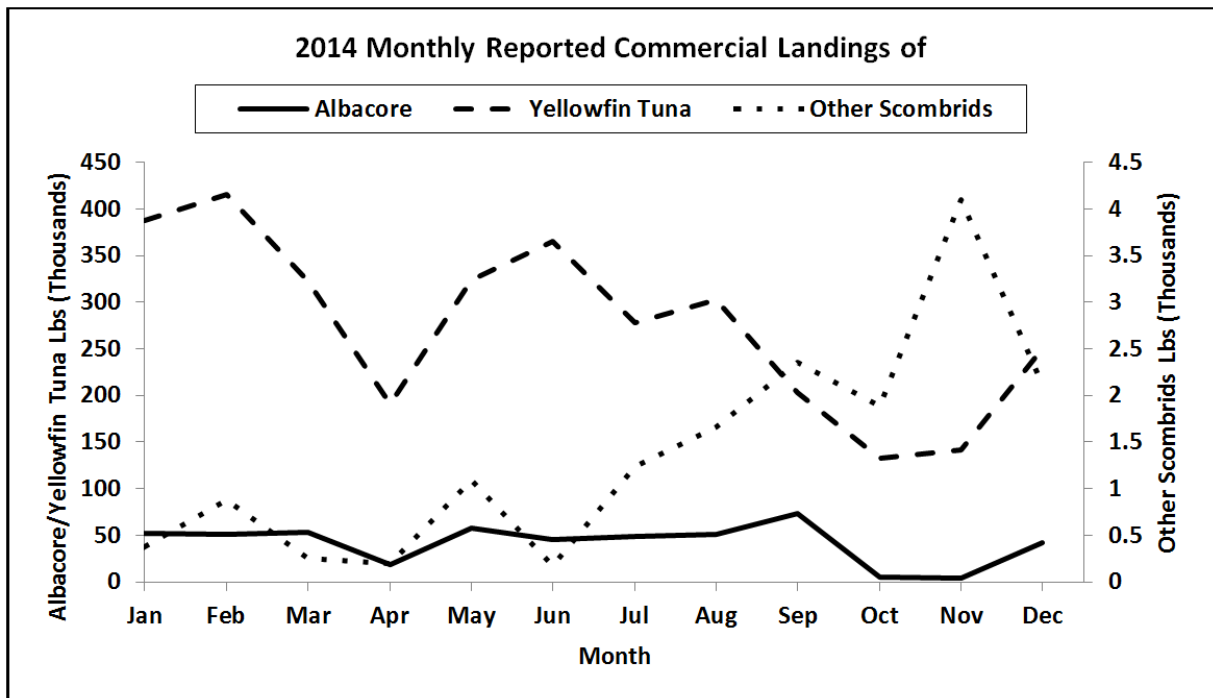


Figure D-1-4

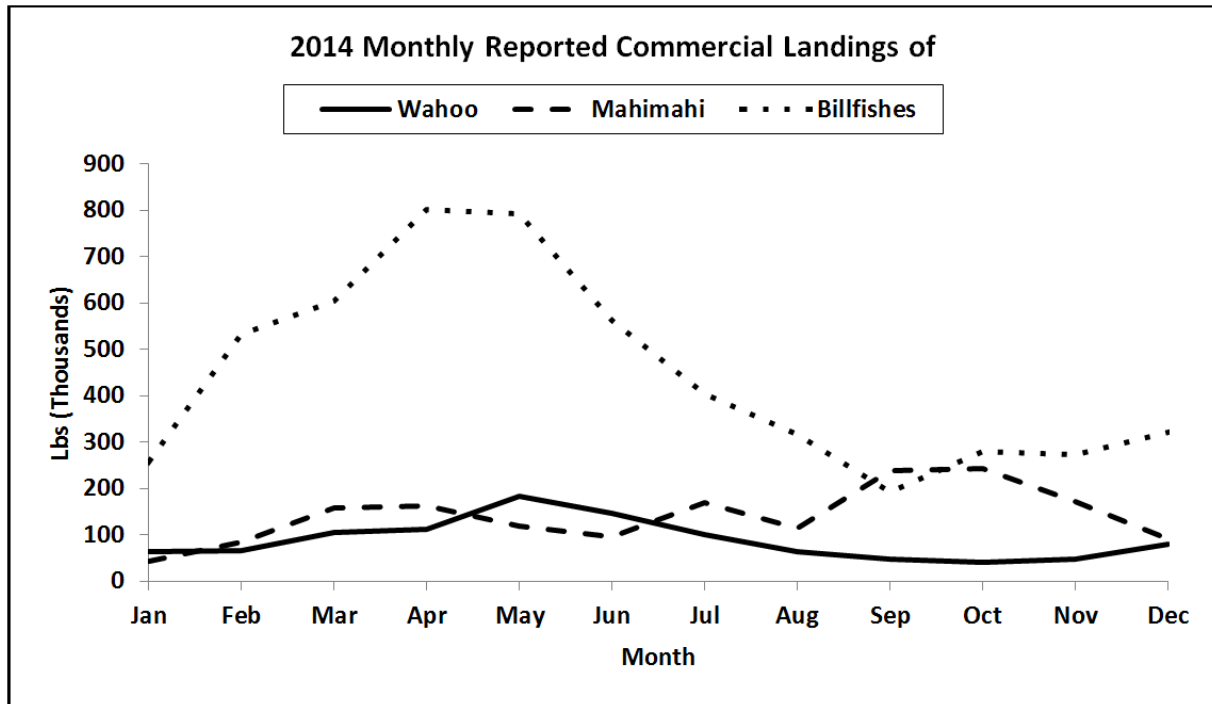


Figure D-1-5

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

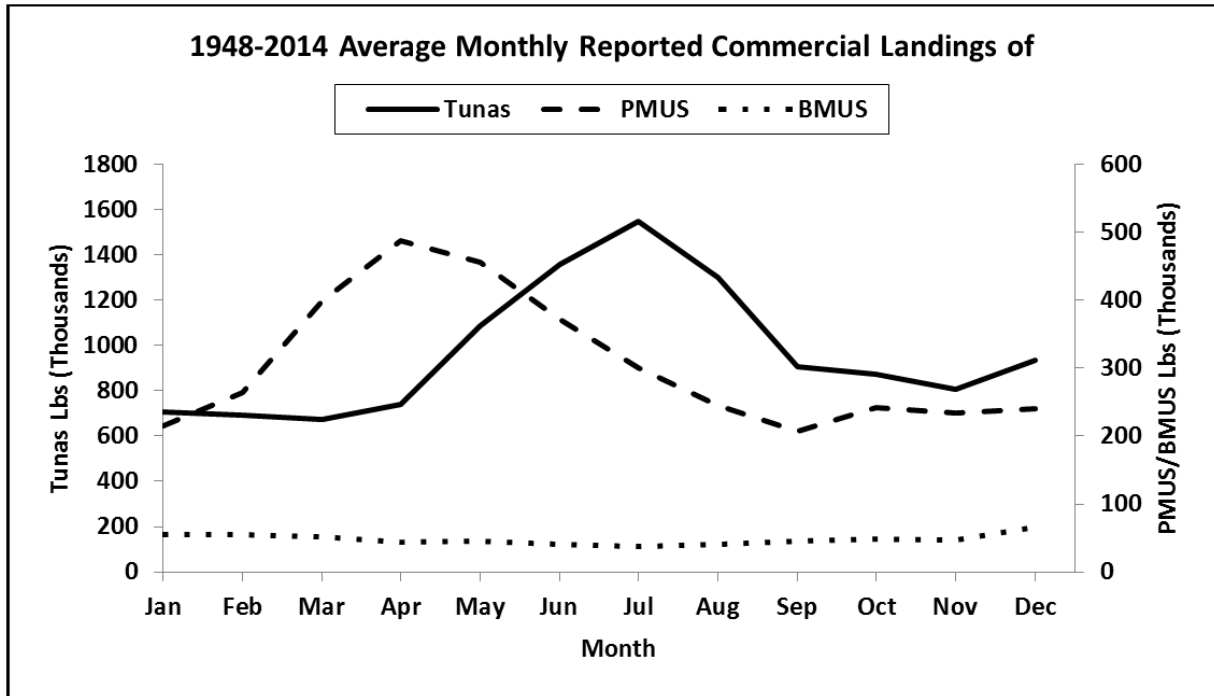


Figure D-2-1

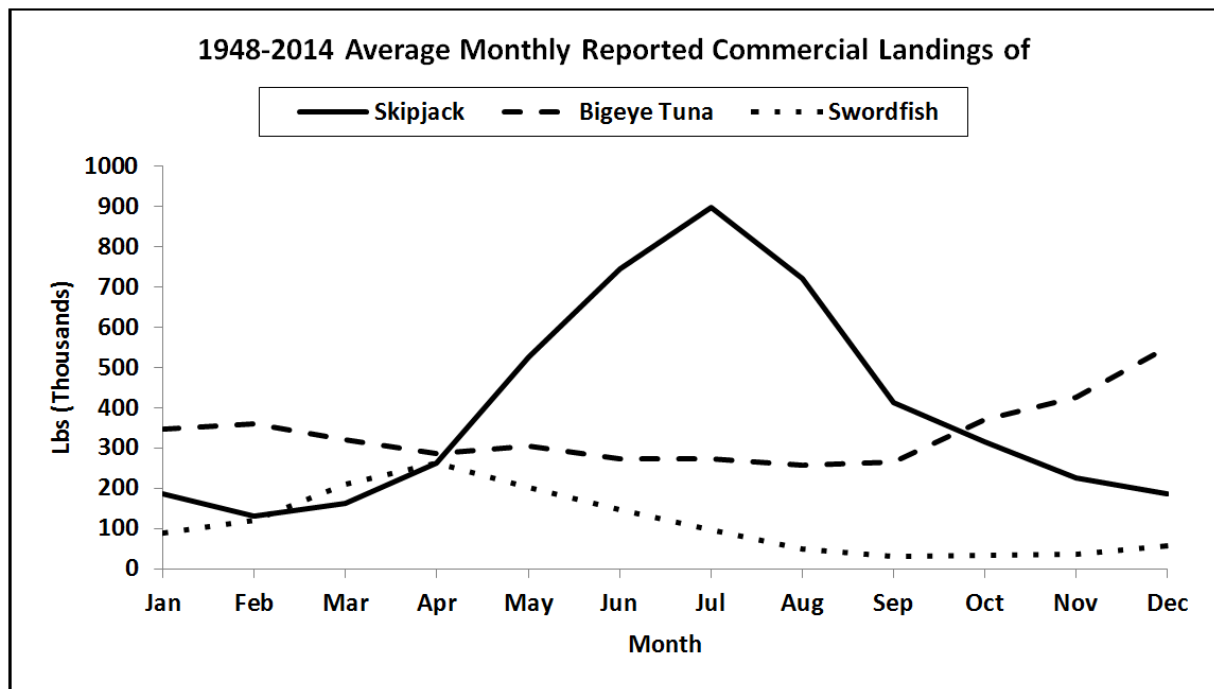


Figure D-2-2

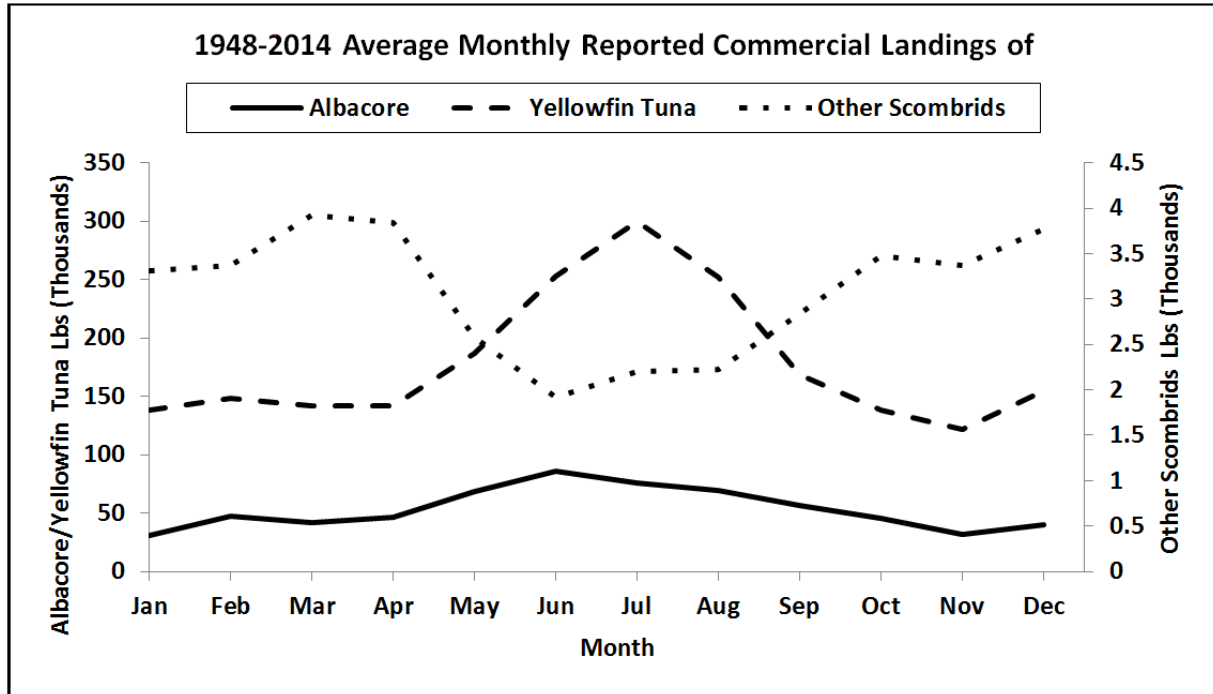


Figure D-2-3

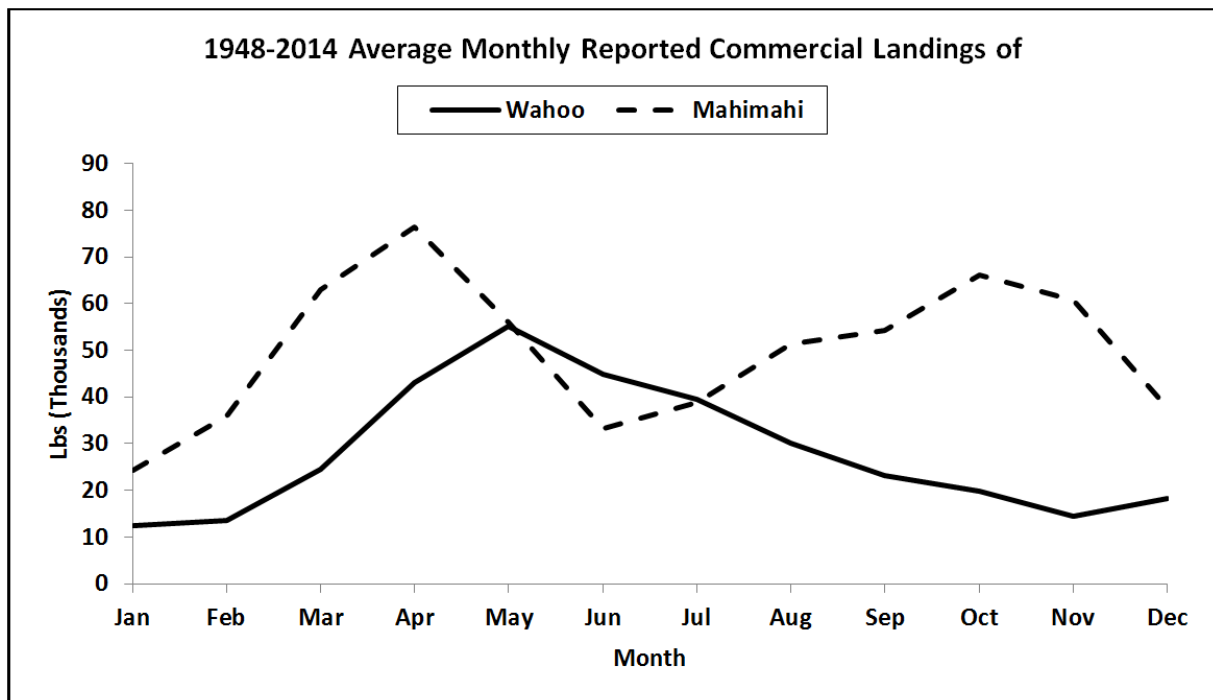


Figure D-2-4



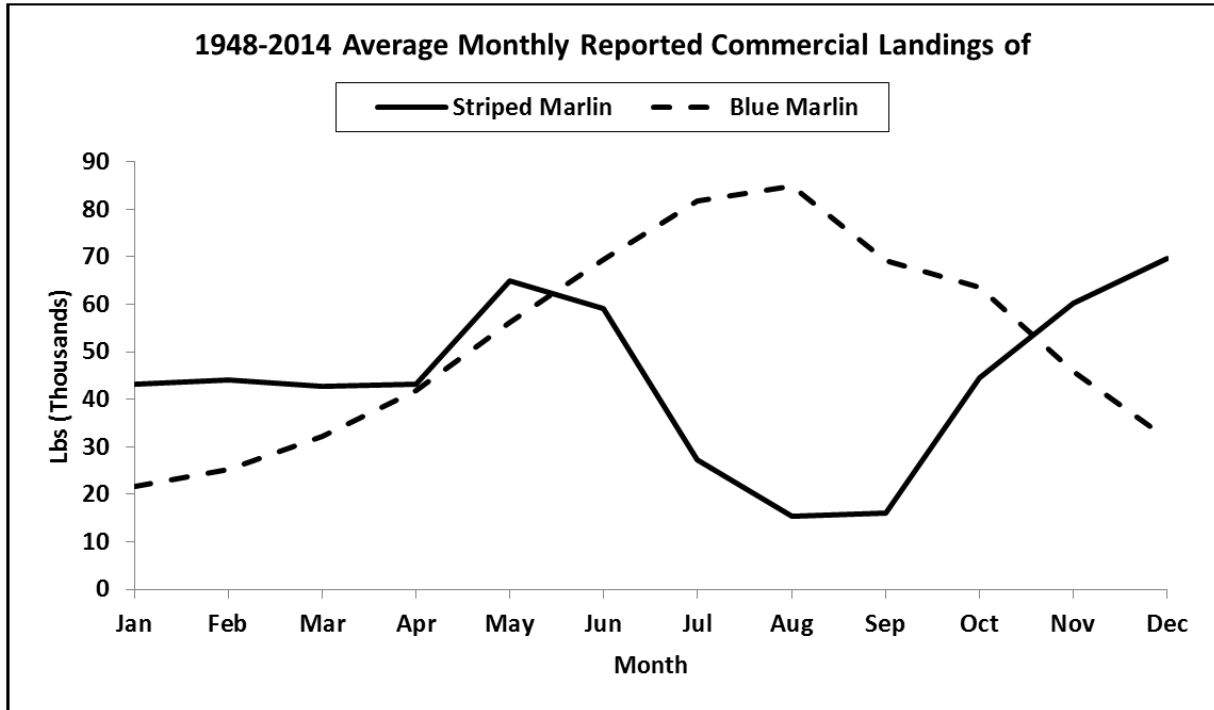


Figure D-2-5

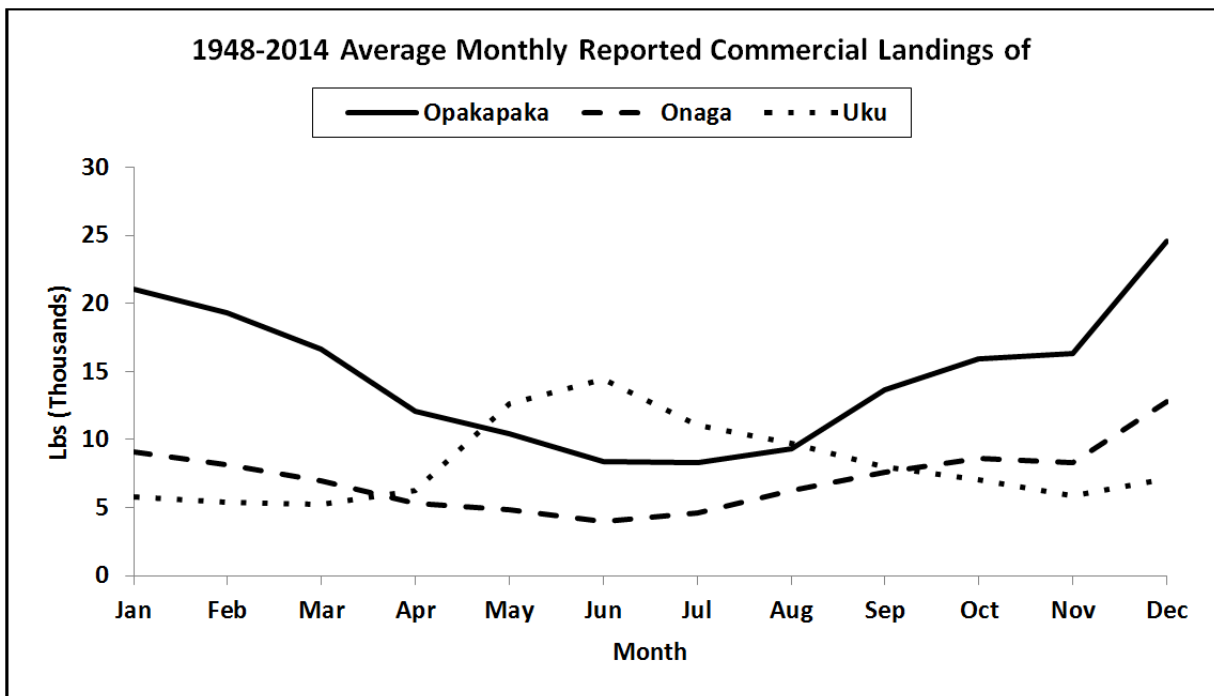


Figure D-2-6

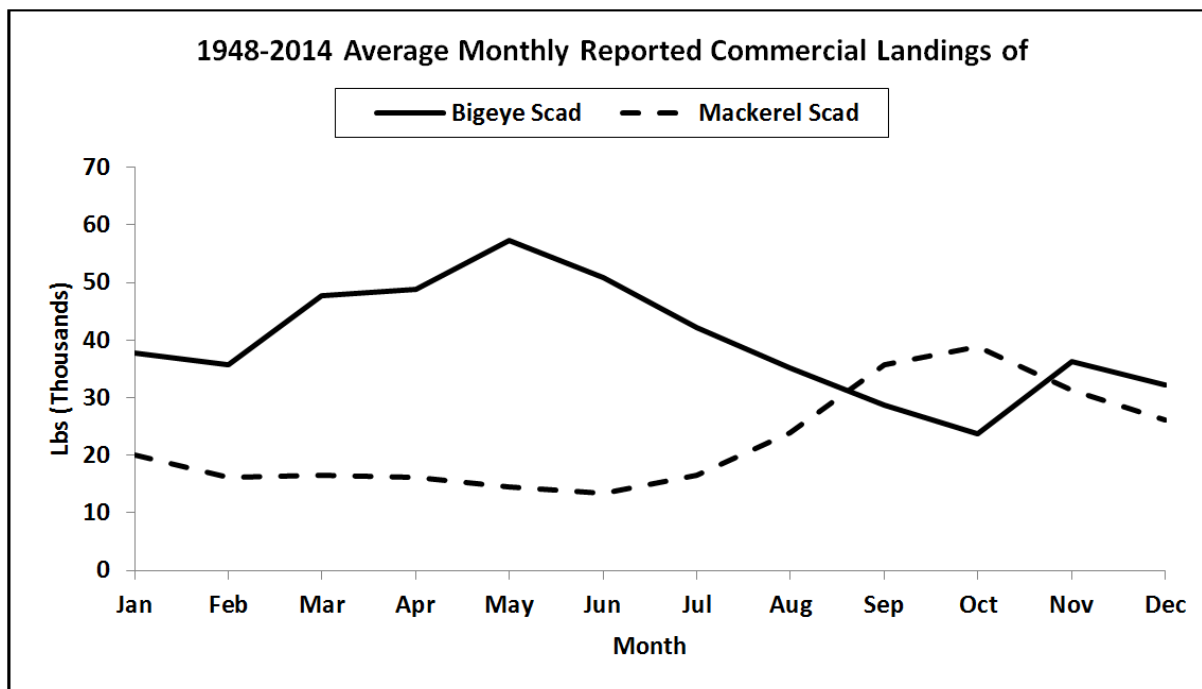


Figure D-2-7

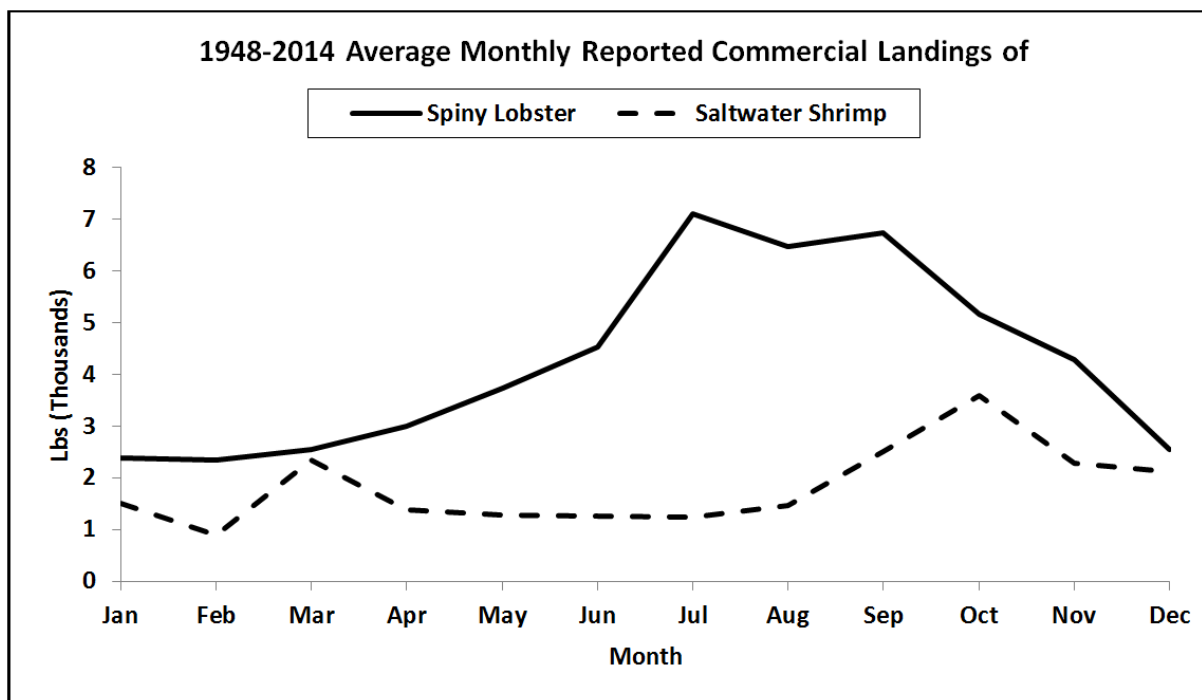


Figure D-2-8

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

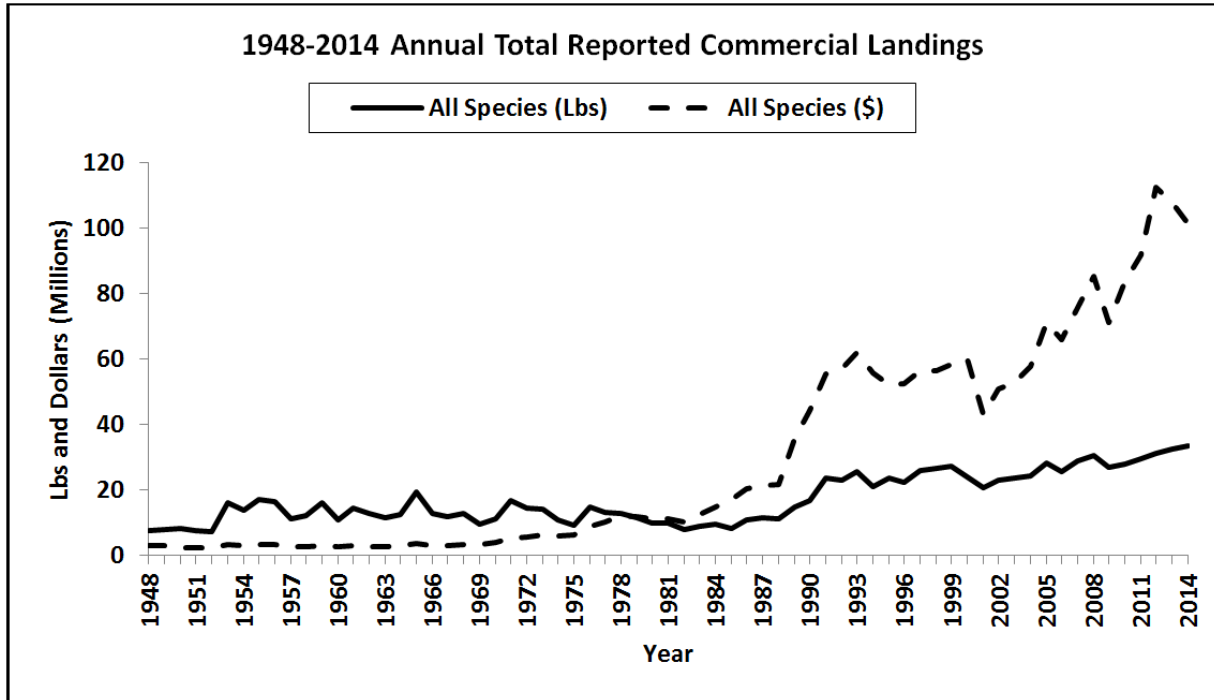


Figure D-3-1

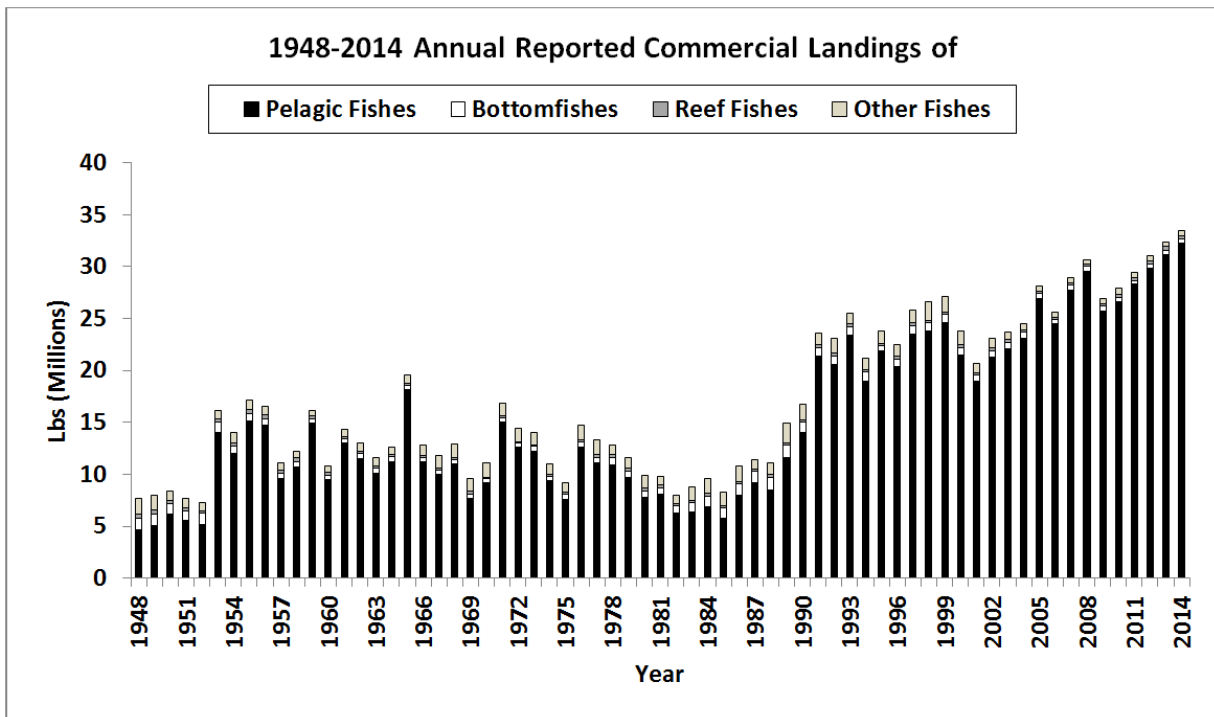


Figure D-3-2

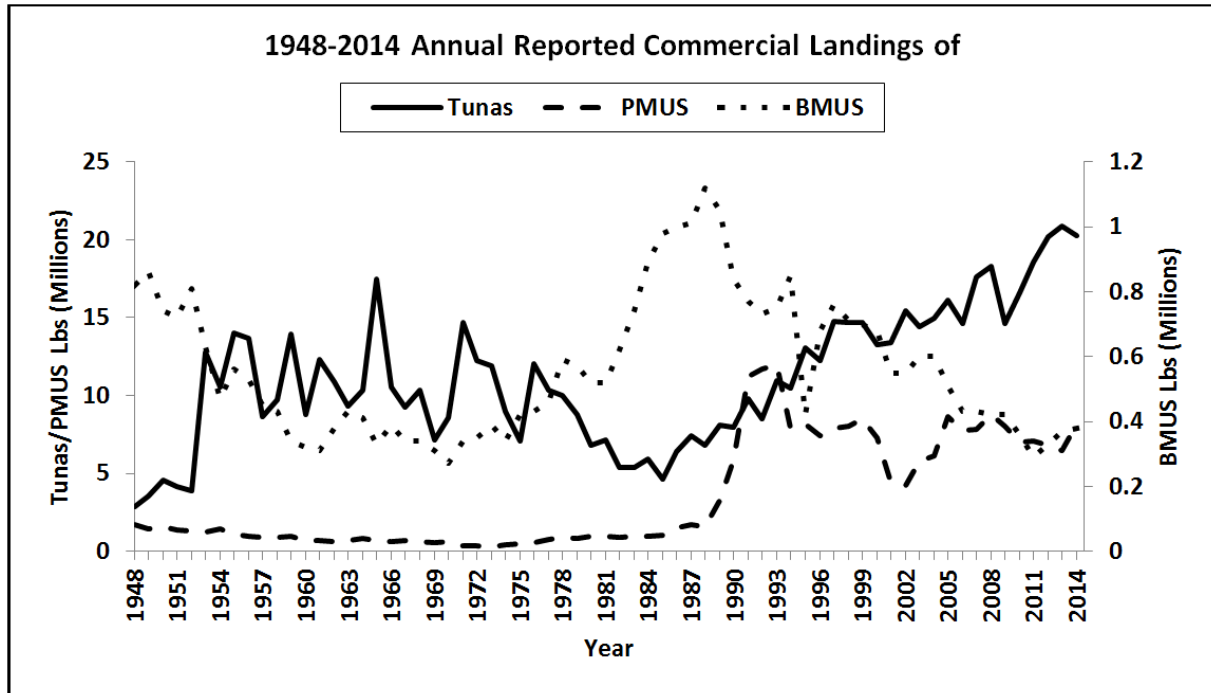


Figure D-3-3

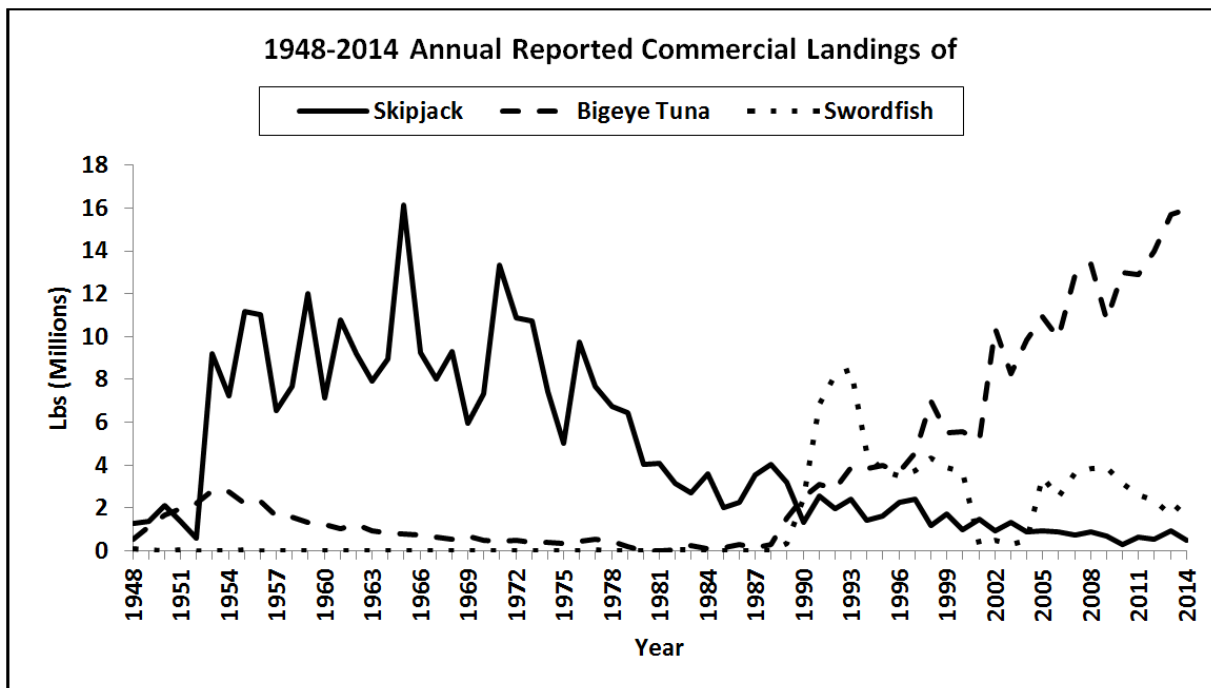


Figure D-3-4

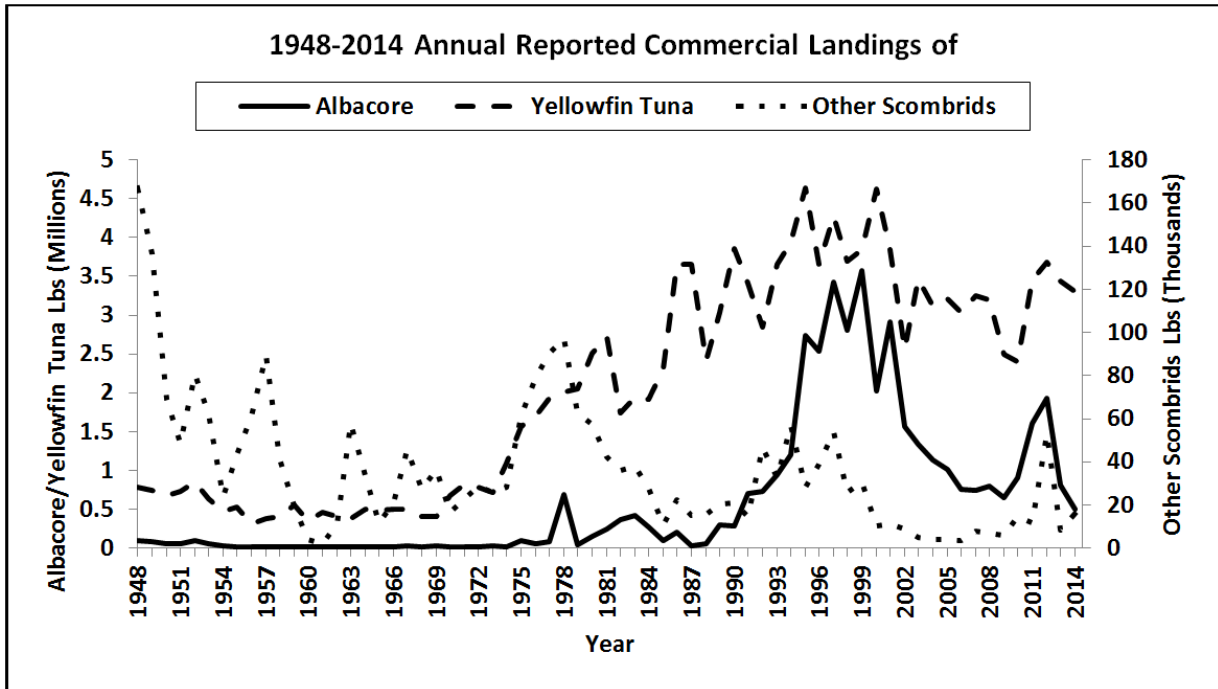


Figure D-3-5

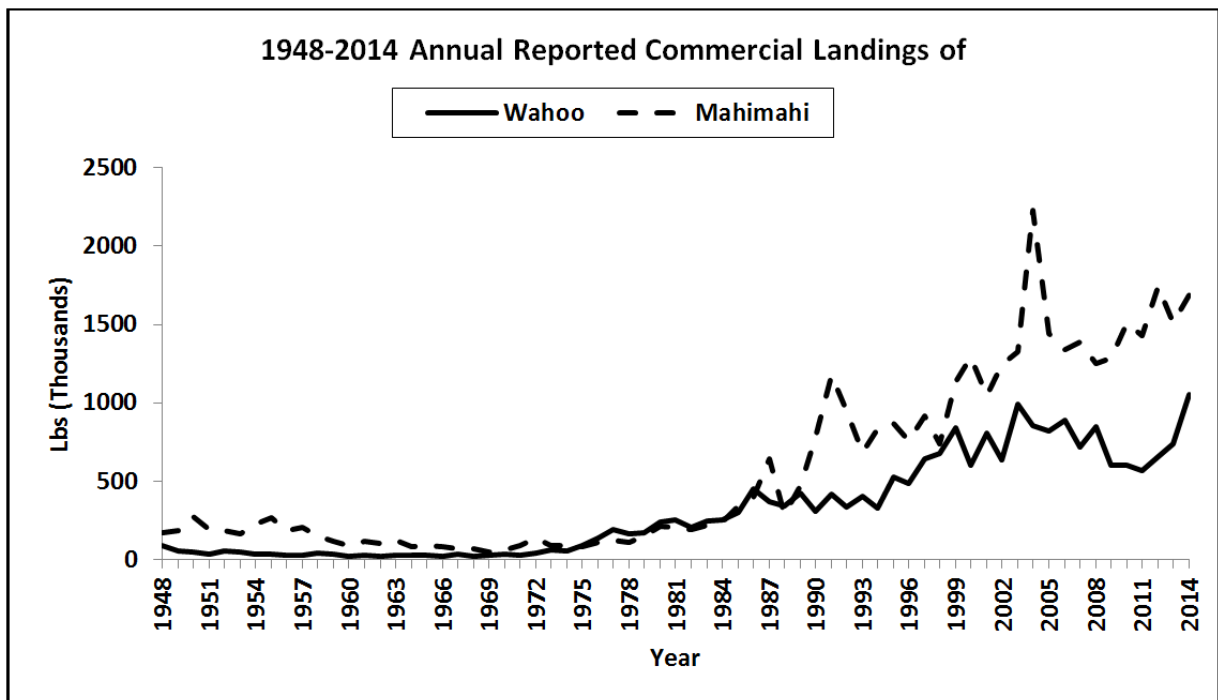


Figure D-3-6

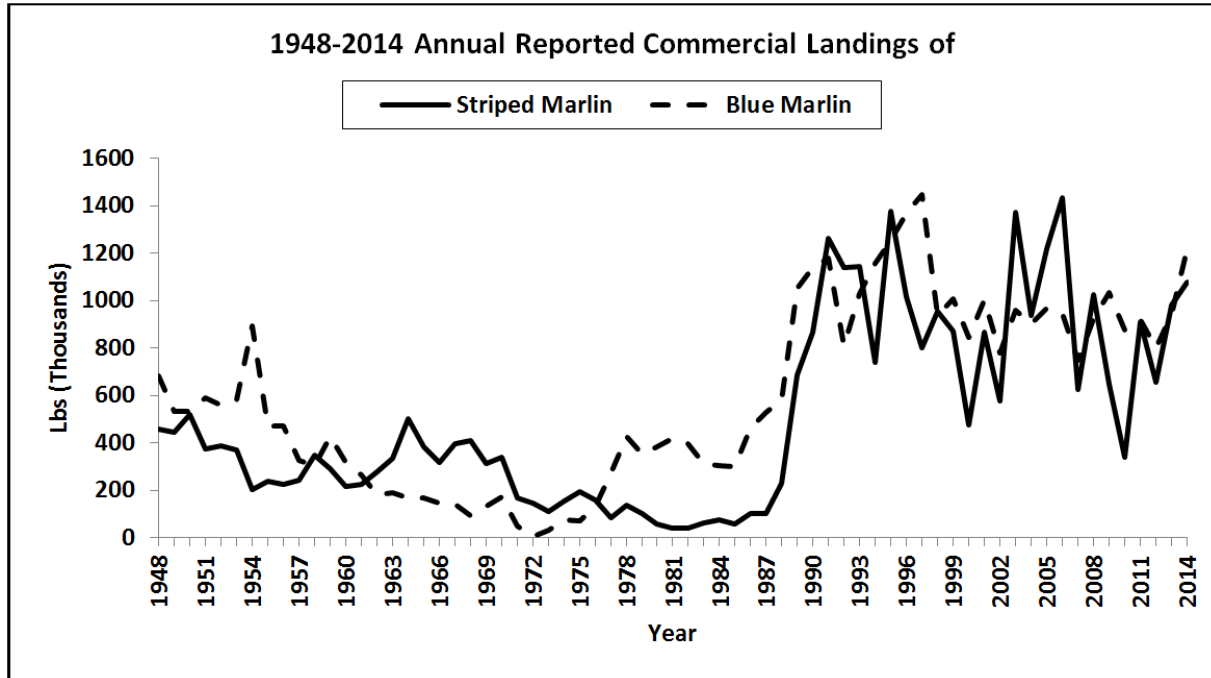


Figure D-3-7

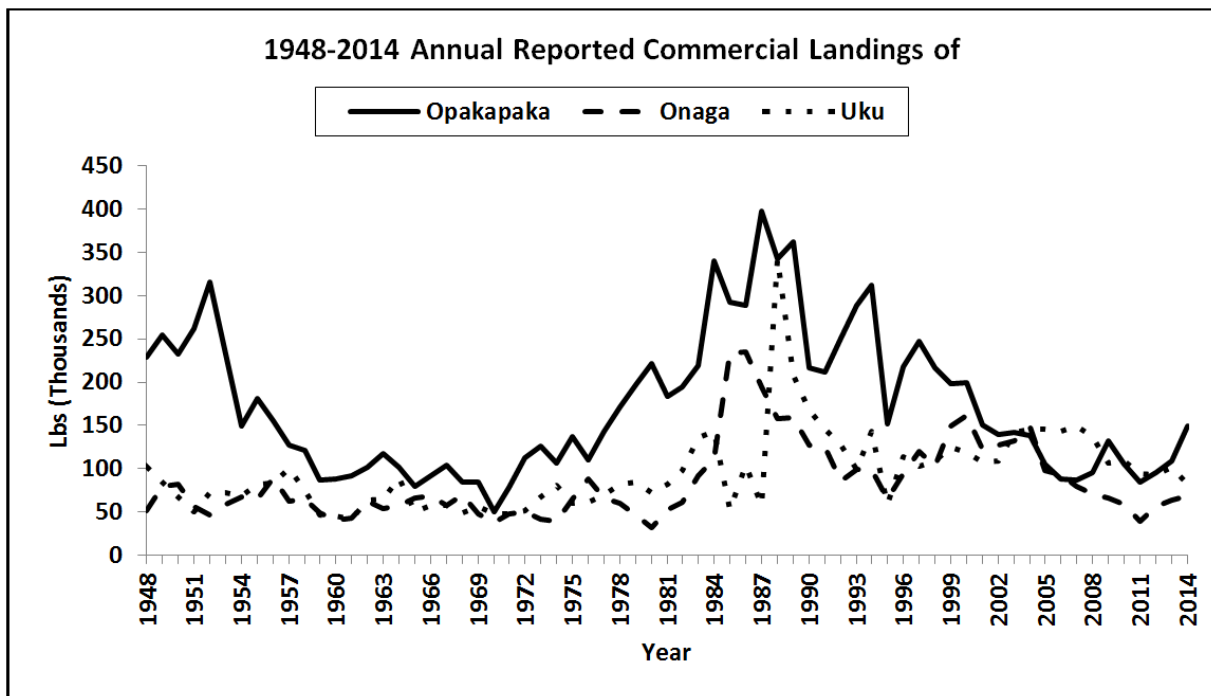


Figure D-3-8

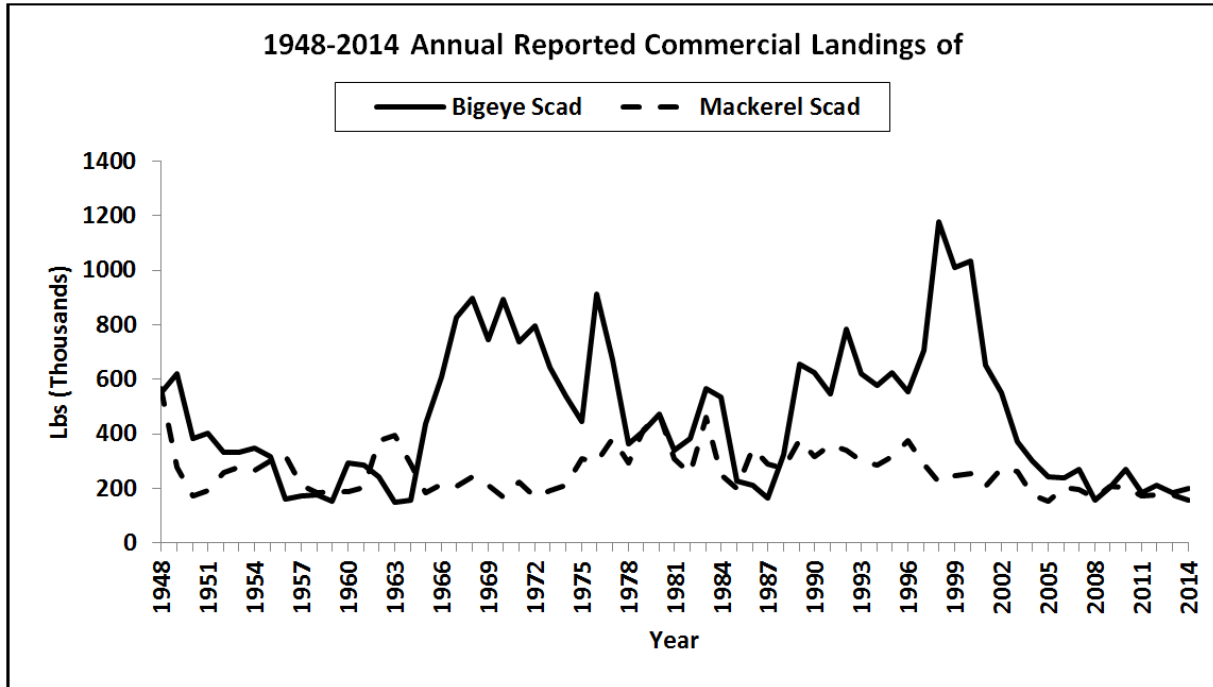


Figure D-3-9

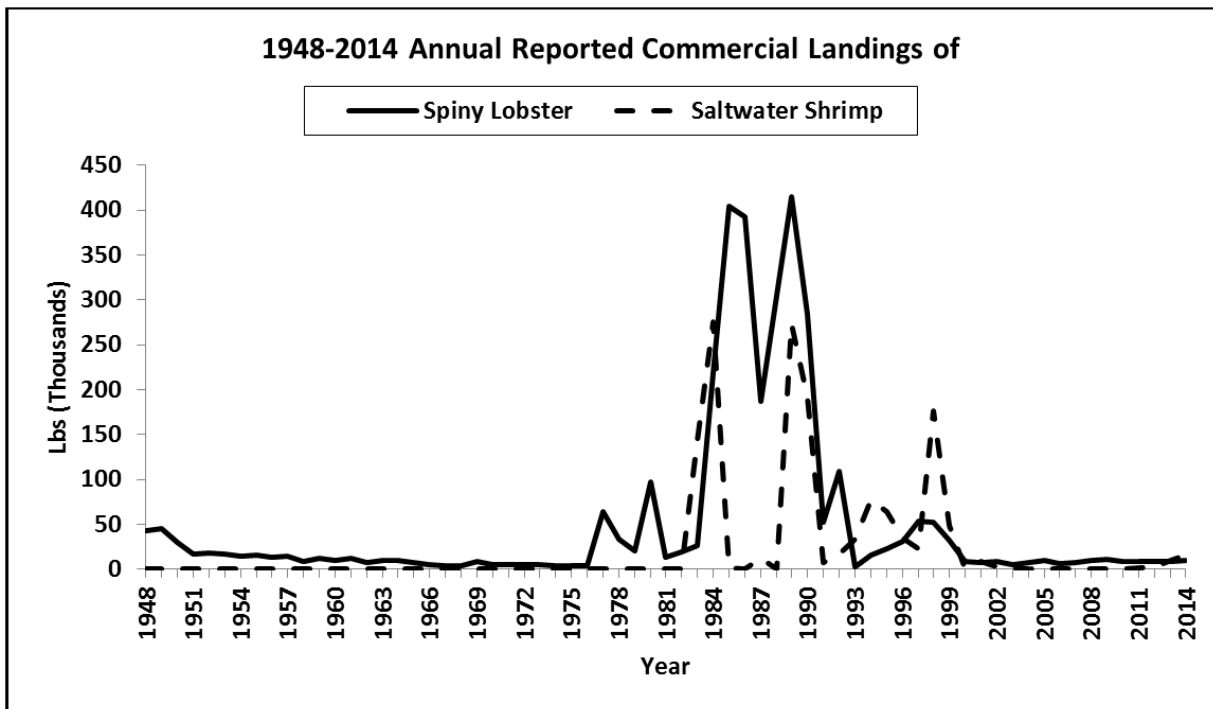


Figure D-3-10

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

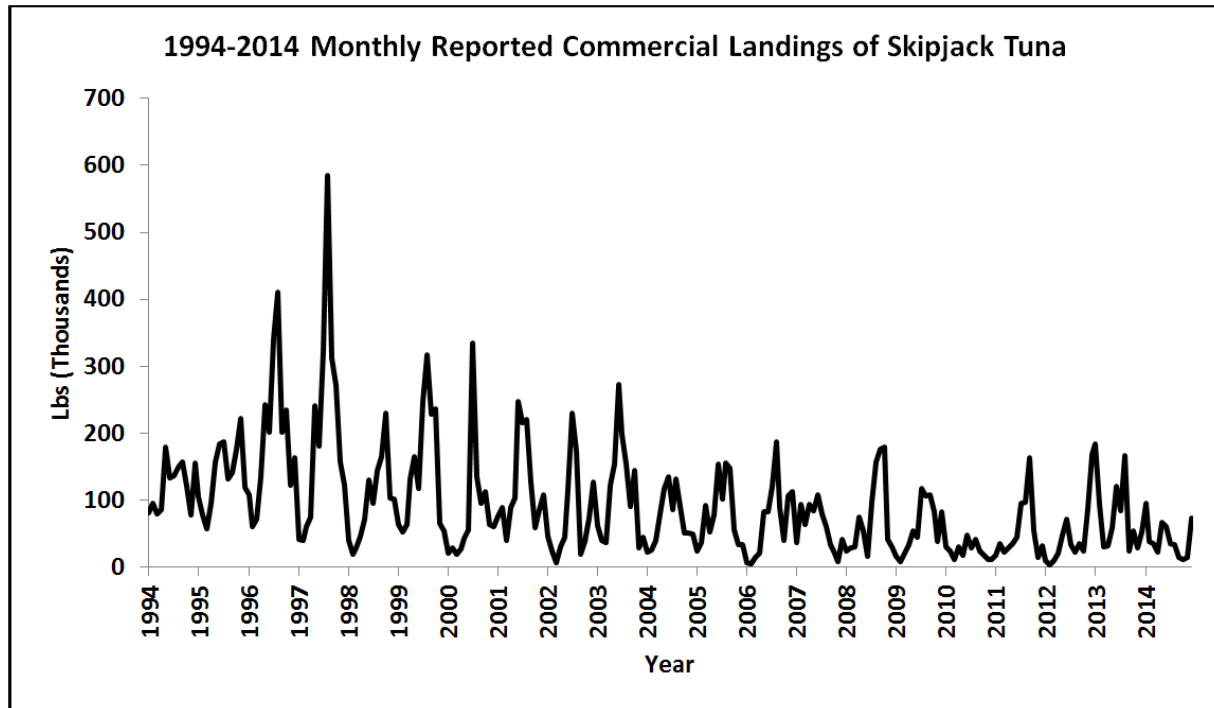


Figure D-4-1

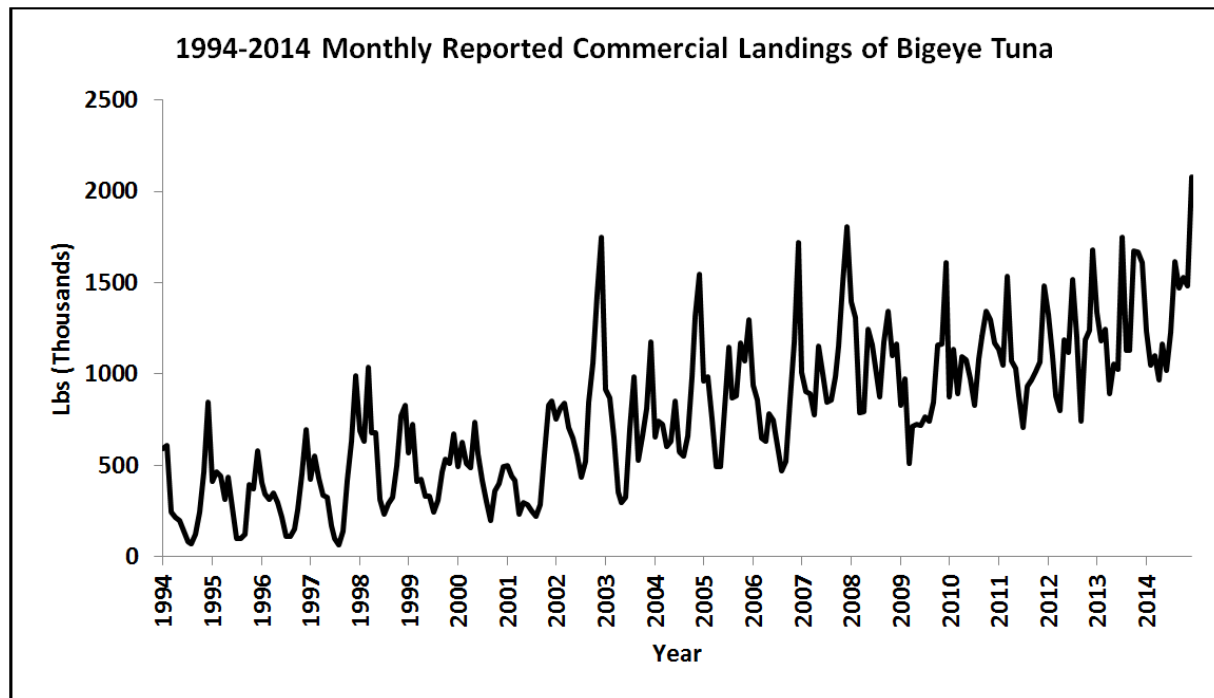


Figure D-4-2



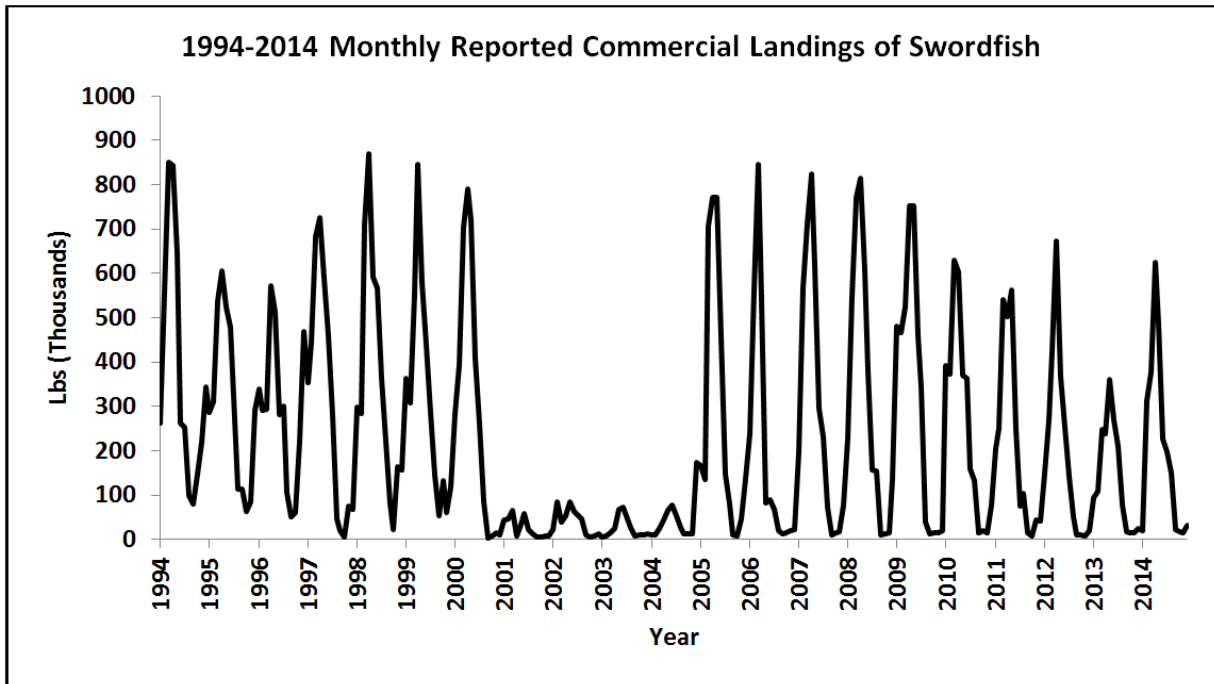


Figure D-4-3

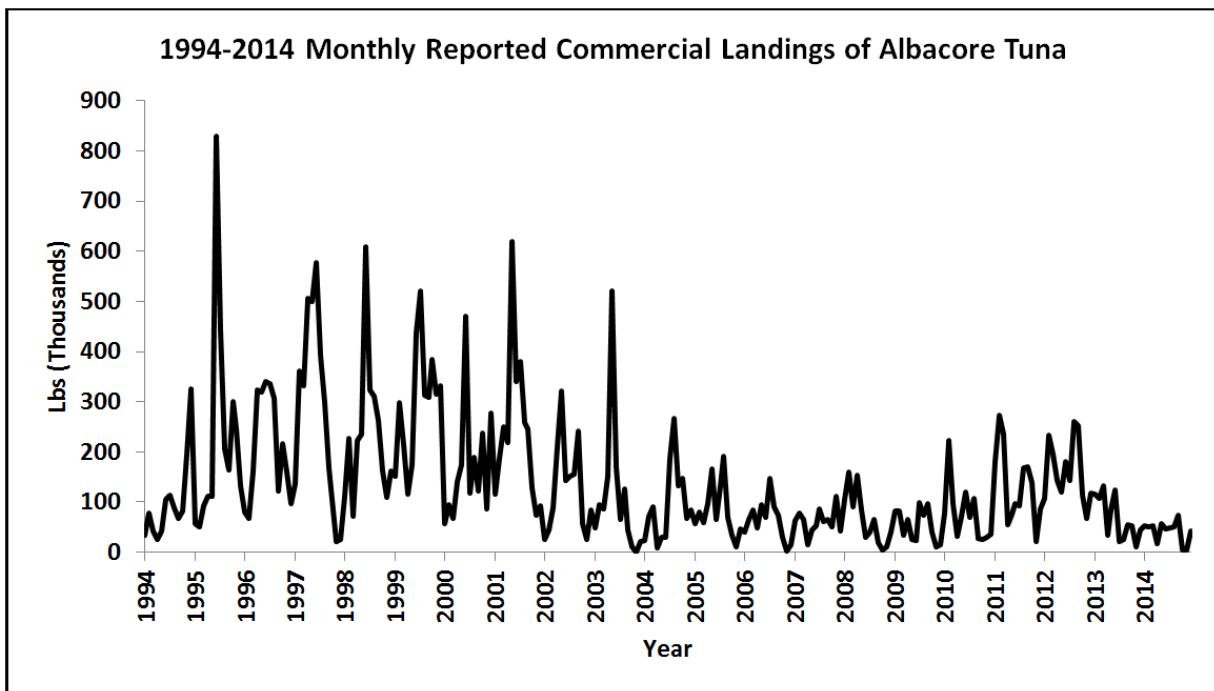


Figure D-4-4

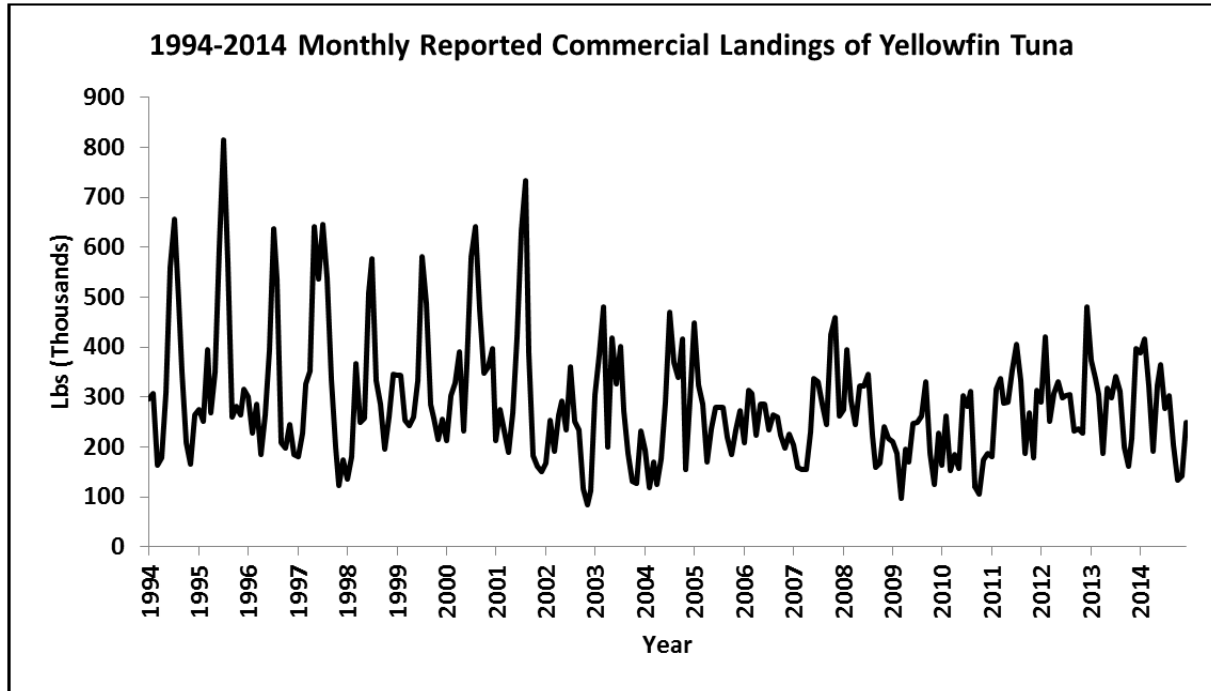


Figure D-4-5

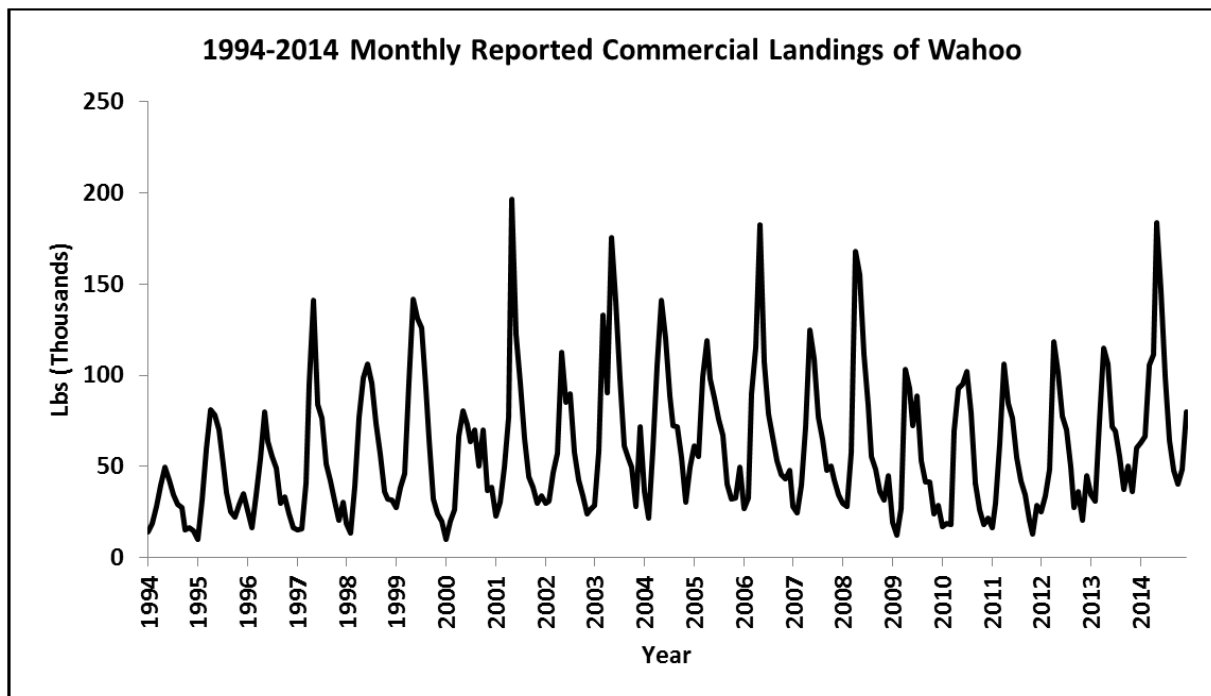


Figure D-4-6

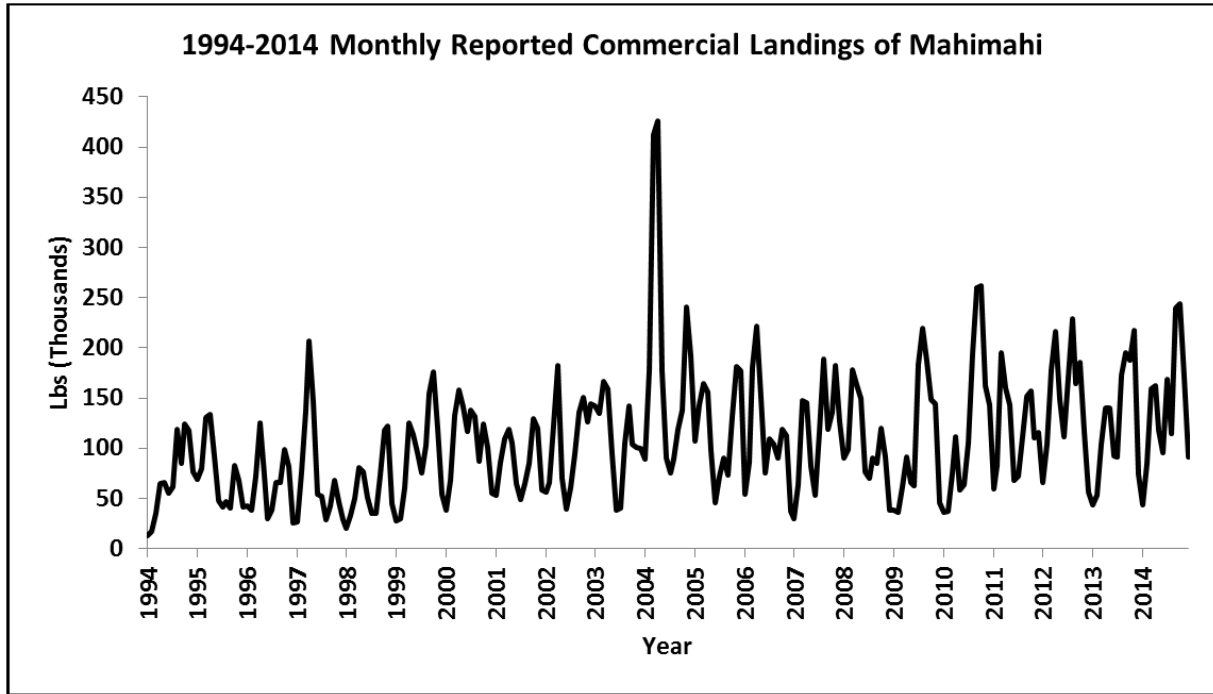


Figure D-4-7

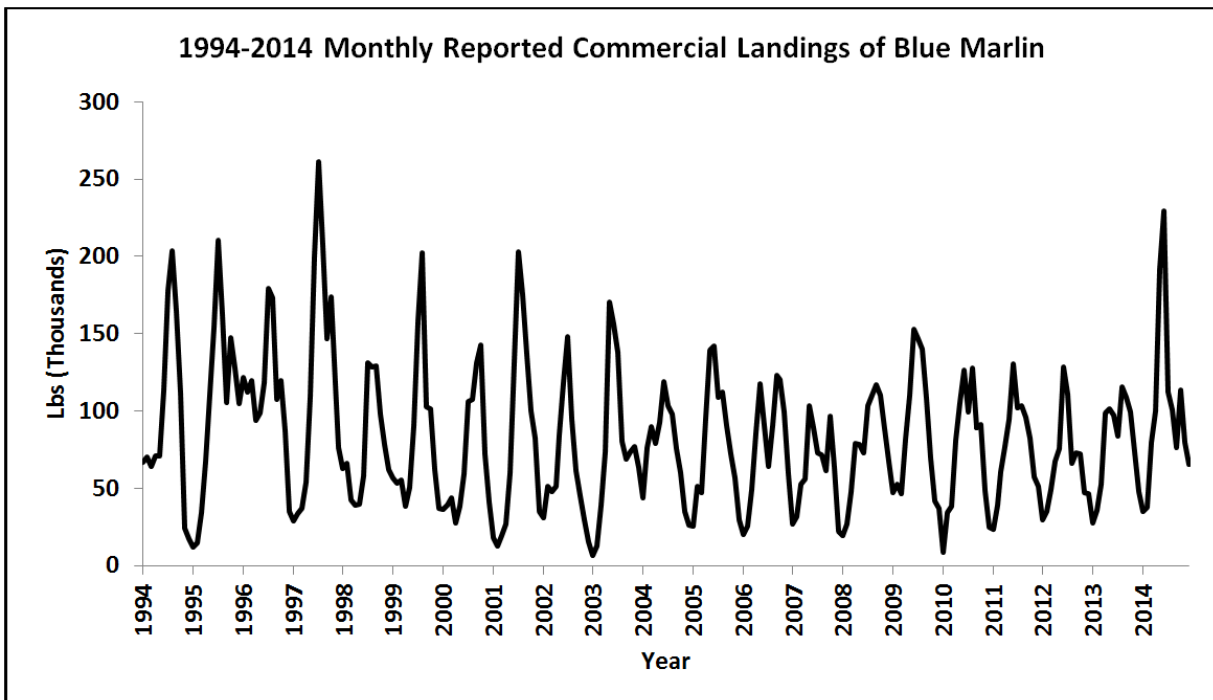


Figure D-4-8

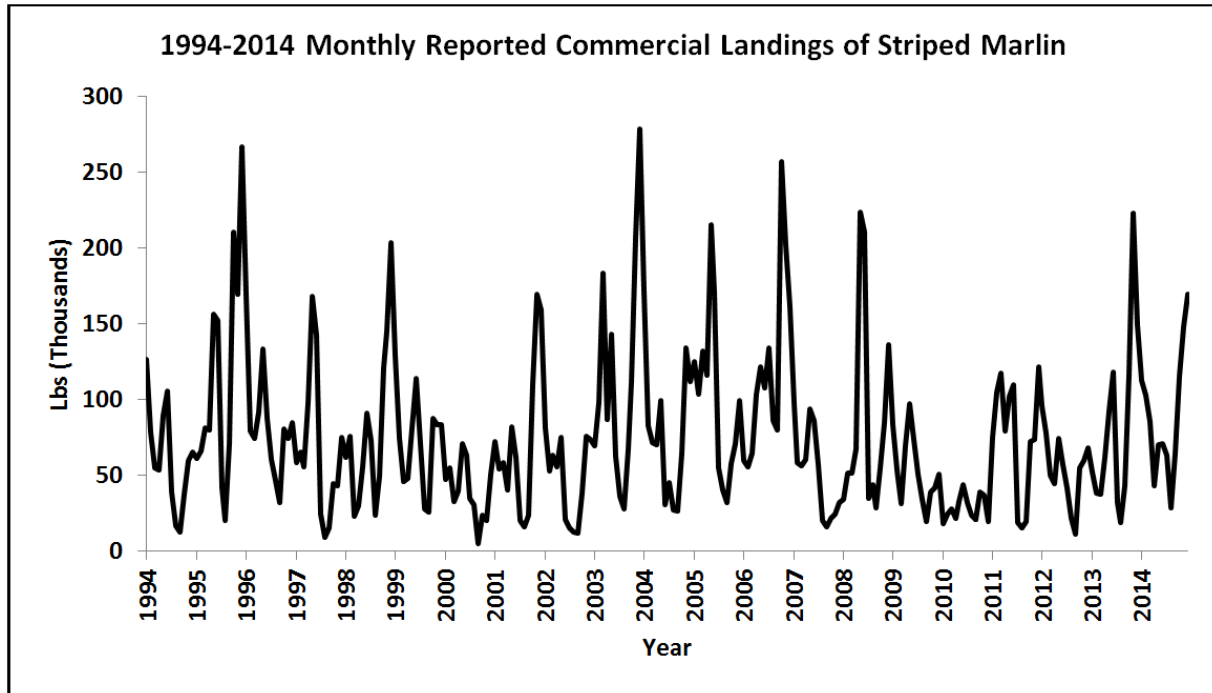


Figure D-4-9

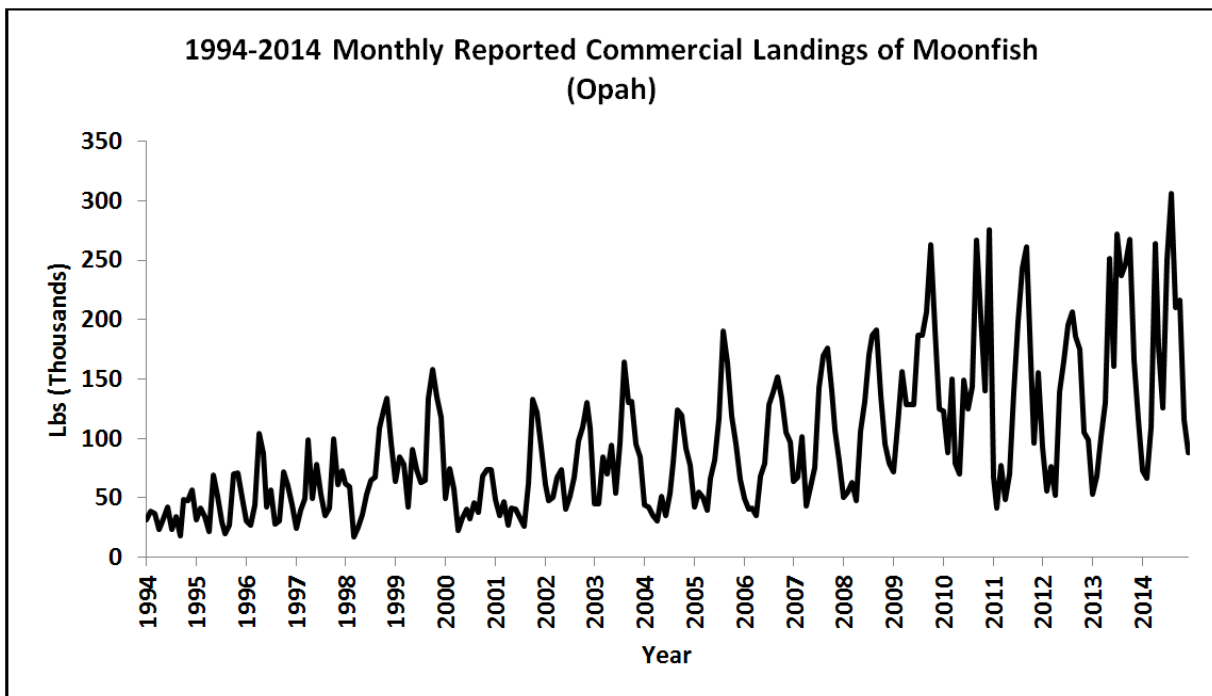


Figure D-4-10

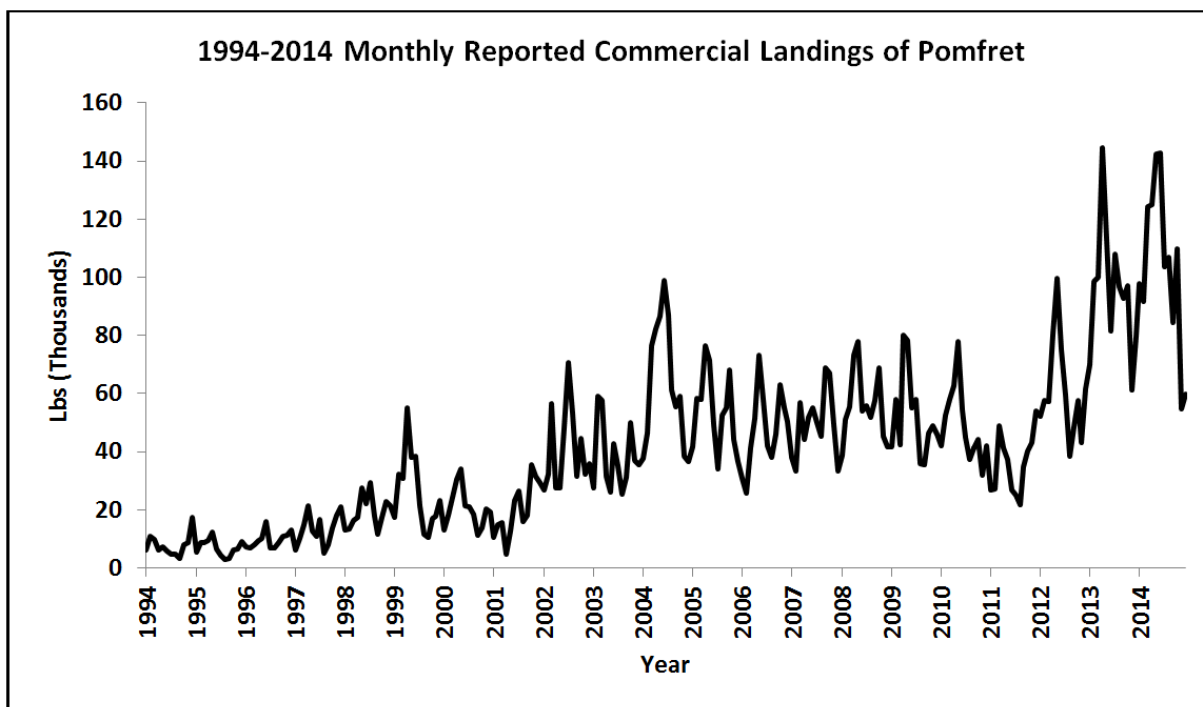


Figure D-4-11

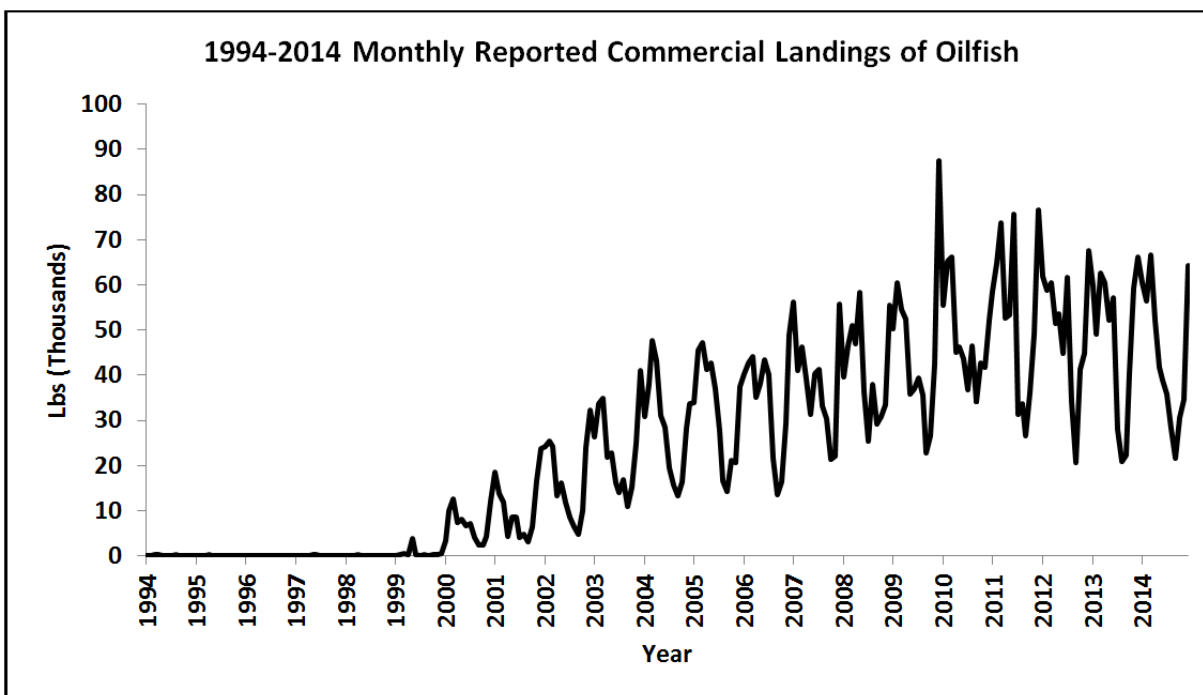


Figure D-4-12

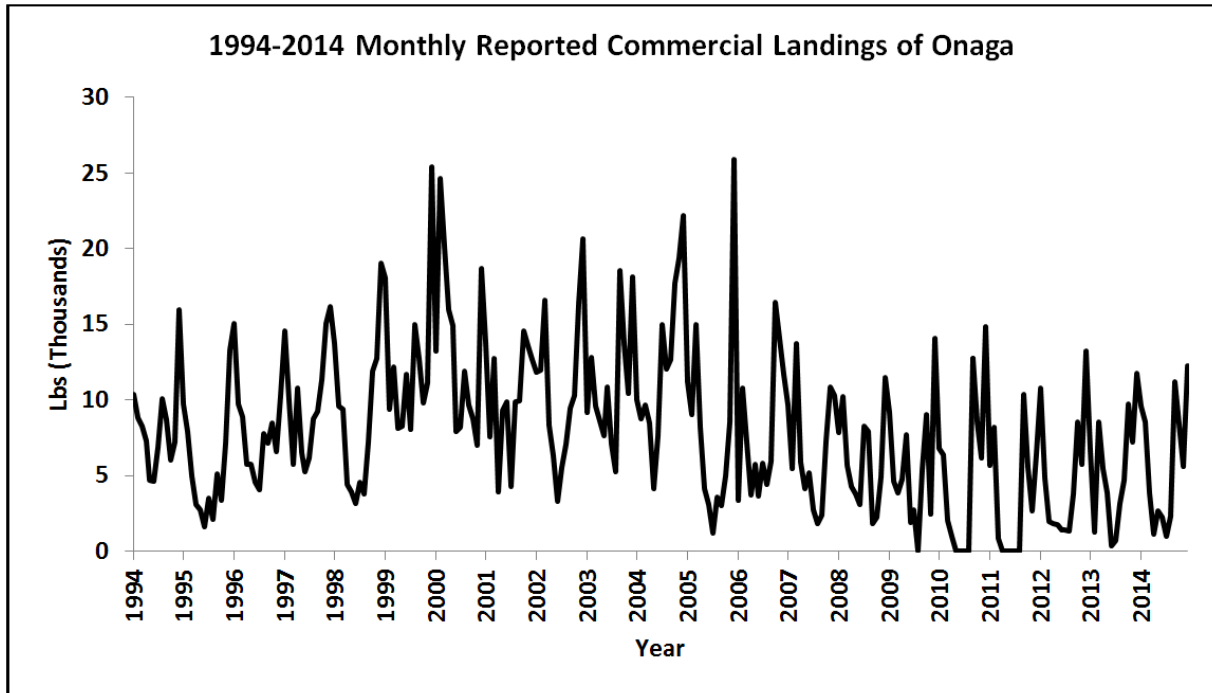


Figure D-4-13

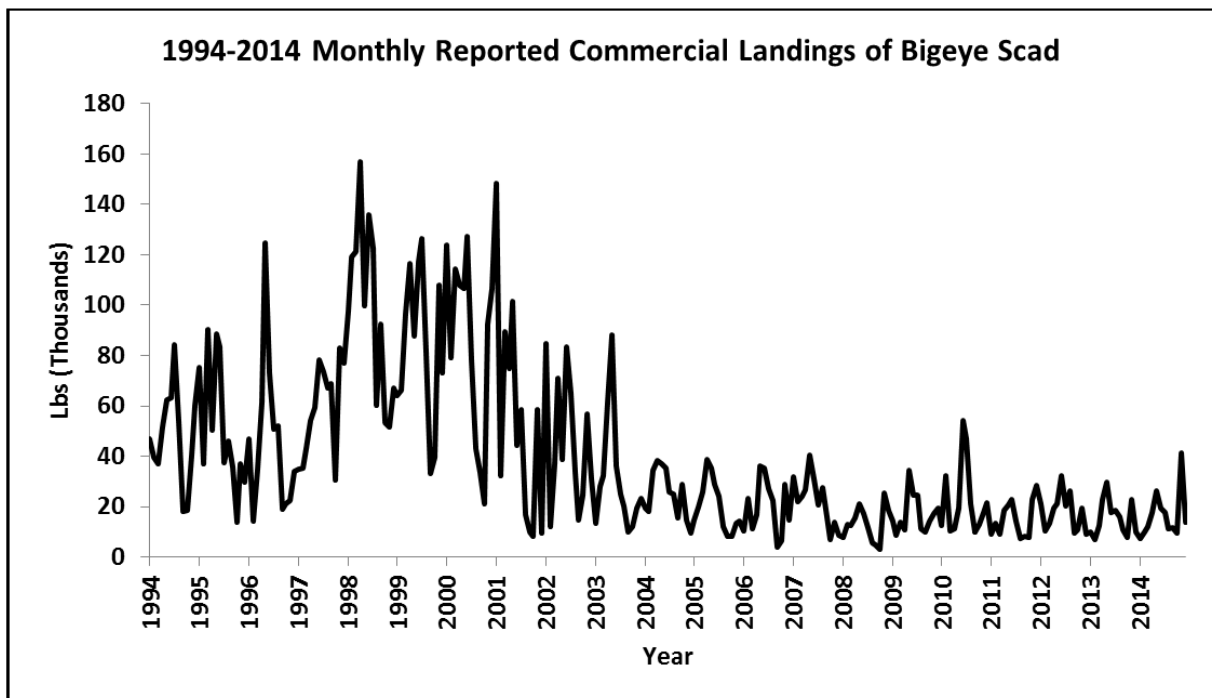


Figure D-4-14

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