Pacific Islands Fisheries Science Center
Administrative Report H-03-02

FISHERY STATISTICS OF THE WESTERN PACIFIC

VOLUME XVIII

Territory of American Samoa (2001)

Commonwealth of the Northern Mariana Islands (2001)

Territory of Guam (2001)

State of Hawaii (2001)

Compiled By

David C. Hamm, Nathan T. S. Chan,

and Craig J. Graham

NOAA Fisheries
Pacific Islands Fisheries Science Center
2570 Dole Street, Honolulu, Hawaii 96822-2396

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PREFACE

In recent years, the demand for data and information concerning marine fisheries has greatly increased. To help meet these increased needs in the central and western Pacific areas, the National Marine Fisheries Service's (NMFS) Southwest Fisheries Science Center (SWFSC) initiated the Western Pacific Fishery Information Network (WPacFIN) to assist Pacific island fisheries agencies in upgrading their data collecting, processing, and reporting capabilities.

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

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

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

This is the eighteenth volume in the series "Fishery Statistics of the Western Pacific" and contains year 2001 summaries of commercial landings for American Samoa, the Commonwealth of the Northern Mariana Islands, Guam, and Hawaii. As with previous volumes, this volume is divided into sections, one each for the major island areas.

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BACKGROUND

This report is compiled by fisheries agencies participating in the Western Pacific Fishery Information Network (WPacFIN, formerly referenced as WPACFIN), an agency collaborative between agencies in Hawaii, Guam, the Commonwealth of the Mariana Islands (CNMI) and American Samoa. WPacFIN strives to improve the availability and dissemination of fisheries information. Participating groups include

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

WPacFIN and these groups collect, computerize, edit, and process data from the islands, and ultimately WPacFIN staff at the Honolulu Laboratory create the summaries and graphs found in this document.

Data from DMWR, DAWR, and DFW are supplied on portable computer media in established WPacFIN database formats, whereas data for Hawaii are provided by HDAR via a dial-in telecommunications link. Once data from all agencies are put into the proper format on the central WPacFIN computer and appropriate edit, adjustment, and verification procedures are completed, summary reports and files are produced using software developed by WPacFIN staff specifically for this purpose. Graphs are produced using commercially available software.

PROGRESS

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

In particular, the HDAR has significantly improved its procedures for editing, updating, and processing Hawaii's data; it has reduced the lag time in data processing from about two-and-a-half years to less than three months for most data. The biggest problems still facing HDAR in improving their data systems are reducing delinquency of fishermen reporting and implementing a validation system to ensure that what gets reported by fishermen is accurate. A Dealer Reporting System is being implemented to augment the Fisherman Reporting System to help address this issue, and efforts are continuing to develop and implement other improvements to the Hawaii fisheries monitoring programs.

PRECAUTIONS

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

When using summaries contained in this report, especially if making comparisons, one should keep in mind the nature of the systems used to produce the data. For example, Hawaii's commercial landings data are based on mandatory monthly reporting by licensed commercial fishermen; CNMI's and Guam’s data are based on voluntary reporting of major fish buyers using government-provided “trip-ticket” invoices and are adjusted to represent 100% coverage; American Samoa's data are based on a complex integration of data from a boat-based creel survey and data expansion system for a portion of the fisheries, mandatory logbooks and a size frequency sampling program for the longline fishery, and a mandatory trip ticket invoice reporting system for local sales. Each system has advantages and disadvantages, and the user should be aware of them when comparing or interpreting data. In addition, WPacFIN staff and the island agencies are continually making improvements to the data collecting and processing systems in each area. Because the improvements usually result in updates to the estimates of total and commercial landings, the data in this volume may not match exactly with data in previous volumes of this report series.

The user should also be aware that species assemblages vary among island groups, as do cultural preferences and principal fishing techniques and gear. Population

size is of particular importance when making interpretations of the relative value and importance of the fisheries. To help the user, explanations of the data collecting and processing systems are provided in each island's section of this report.

Please note that Guam and CNMI data are adjusted to 100% coverage and are referenced as “Estimated Commercial Landings.”

CONTENTS

This document is divided into sections by island group. Each section contains reports on the monthly and annual landings by species or species groups for the commercial fleet.

Definitions

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

1. Fisheries Categories - These are combinations of species of similar ecological types, specifically pelagic, bottom fish, reef fish, and "other." "Other" includes groups that generally traverse these categories, such as certain sharks and jacks, or are not typically included in these groups, such as mullet and milkfish.

2. Pelagic Management Unit Species (PMUS) - The Magnuson Fishery Conservation and Management Act of 1976 was amended in 1992 to place tunas under U.S. jurisdiction for management. The Fishery Management Plan for Pacific Pelagic Species was amended to reflect this change, and the acronym PPMUS was created to refer to a new group to include tunas. However, this report series will continue to treat the tunas as a separate category for graphical purposes and use the PMUS acronym. Therefore, the PMUS category in this document includes only the billfishes, wahoo, mahimahi, and oceanic sharks.

3. Bottom Fish Management Unit Species (BMUS) - Defined as the species of initial importance in the Fishery Management Plan for bottom fish and seamount fisheries, including the major deepwater snapper, grouper, emperor, and certain jacks.

4. Tunas – All the tuna species excluding wahoo. Historically this had been predominantly skipjack and yellowfin tunas in all areas, but with the growth of longline fisheries in Hawaii and American Samoa, bigeye and albacore tuna have become much more important or even predominant in recent years.

5. Other Tunas – The definition of this category has changed from earlier volumes of FSWP and varies among the islands depending on the importance of each tuna species in the total landings. For Guam and the CNMI it remains the same and includes all tunas as defined above except skipjack and yellowfin tunas. In Hawaii and Samoa it also excludes bigeye and albacore tuna so includes only tuna with relatively minor landings.

6. Billfish - Combination of all marlin, sailfish, spearfish, and swordfish species.

Graphics

Four types of graphs are provided with each island's data. Type I graphs present summary charts of the major species and species groups for 2001. Type II graphs are seasonality plots for the major species or species groups, showing the average weight landed during each month for all years combined. Type III graphs are time series plots of annual summary statistics to help visualize the variability among years. Type IV graphs are plots of monthly landings of some of the major commercially important species and document monthly fluctuations in landings of these species over the entire time series.

AMERICAN SAMOA 2001 FISHERY STATISTICS

Compiled by

American Samoa

Department of Marine and Wildlife Resources

and the

Western Pacific Fishery Information Network

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AMERICAN SAMOA 2001 FISHERY STATISTICS

INTRODUCTION

Location: 14°S latitude, 170°W longitude
Islands: Tutuila, Aunu`u, the Manu`a Islands (Ofu, Olesaga, Ta`u), Rose Atoll (uninhabited), and Swain's Island (sparsely populated)
Population: 68,688 (80% on Tutuila)
Economy: tuna industry

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

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

During 2001, the various fishery monitoring programs in American Samoa identified 93 active vessels -- 87 home ported on Tutuila and 6 in the Manu'a islands. Many of these vessels participated in more than one fishery, and 72 of the Tutuila boats (including 24 vessels which were over 50 feet in length) did at least some longlining. Of the 93 total boats, 23 participated in the troll and bottomfish fisheries and 11 were used in other forms of fishing activities. On average, the alia fleet on Tutuila consisted of 3-man crews, fished 9 hours, and caught about 275 pounds of fish; the Manu'a-based fleet typically had 3-man crews, fished about 5 hours and landed 65 pounds of fish.

Essentially all of the longlining was based out of Tutuila, where the majority of the catch was offloaded to the canneries.

SPECIAL NOTE ON DATA REVISIONS

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

DATA COLLECTING SYSTEM

The data collecting systems used by DMWR to monitor the changing fisheries of American Samoa have evolved considerably over the past twenty years. One common factor of all systems has been that they have relied heavily on personal contacts with the fishermen and on a significant amount of dockside monitoring and interviewing.

The major systems in place today include: 1) boat-based access-point creel surveys on Tutuila and the Manu`a Islands (Offshore Creel Survey System), which are the mainstay of the monitoring program; 2) a mandatory purchase receipt “trip ticket” system for fish businesses on Tutuila (Commercial Purchase System); 3) a vessel history and tracking system for all American Samoa vessels (Vessel Classification System); 4) a Daily Effort Census System for detailed tracking of the developing longline fishery; 5) a mandatory federal Longline Logbook System; 6) a Cannery Landings System to document all landings at the two canneries made by domestic and foreign vessels; and 7) a size frequency sampling program at the canneries. Data from all these major systems are used to develop the best available data for the complex and ever changing fisheries of American Samoa. More details of these data collection systems follow.

From 1982 to 1985, DMWR obtained catch statistics by interviewing commercial fishermen at the end of their trips and kept records of as much commercial fishing activity as possible. This data collection method was accurate for trips where interviews were conducted. Yet it was very labor intensive, did not cover all trips, and did not include the small but growing recreational and subsistence fisheries.

Also, beginning in the early 1980’s, a vessel classification system was established to collect information on all vessels participating in any domestic fisheries. This system provides the following information on American Samoa vessels:

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

In October 1985 a new creel survey sampling system was implemented on Tutuila to provide better coverage and statistics on all boat-based fisheries. Soon afterwards similar monitoring programs were established in the Manu`a Islands where the fishing fleets are centrally located and small enough for statistics to be collected for nearly every trip. The surveyors in the Manu`a islands send their monitoring forms to DMWR in Tutuila for processing. The Manu`a statistics are entered and compiled on a monthly basis and are adjusted by an estimated percent coverage factor that is usually 100%.

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

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

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

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

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

- Interview Time *
- Area fished
- Home island
- Total hours fished (trip length) *
- Number of fishermen
- Number of gear used
- Total trip weight in pounds *
- Species caught *
- Number of pieces for each species
- Disposition of species*
- Weight in pounds for each species *
- Condition of species if not whole
- Length of fish (converted to weight)
- Price per pound for each species

It is not always possible to obtain information on all the items listed. However, the ones marked with an asterisk (*) are considered essential for data expansion purposes. Also, identification and weight of each species are often not obtainable; in this case a code for species groupings (e.g., miscellaneous bottom fish) is used. The interview data is later expanded to estimate the total catch per fishing trips and other CPUE measures in Tutuila. The catch per trip estimate is multiplied by the number of trips estimate for each strata to get an estimate of the total catch for Tutuila.

For several decades the two canneries have provided monthly summary statistics about their purchases of fish from all vessels, foreign and domestic. Then in September 1990, a Commercial Purchase (receipt book) System was instituted in which all businesses in Samoa that buy fish directly from fisherman were required by local law to submit a copy of their purchase receipts to DMWR. Receipt books are issued by DMWR to all fish markets, stores, hotels, and restaurants that re-sell fish, either whole of prepared. The following information is collected via these receipts.

- Invoice Date
- Invoice Number
- Buyer's Name
- Boat Name, Owner
- Area Fished
- Fishing Method
- Species bought
- Number of pieces for each species
- Weight in pounds for each species *
- Price per pound for each species

In January 1996, in response to the developing longline fishery, a federal longline logbook system was implemented by NMFS. All longline fishermen are required to obtain a federal permit which requires them to submit logs containing detailed data on each of their sets and the resulting catch. From 1996 to 1999, the logbooks submitted by the local longliners were edited by the NMFS fisheries monitoring agent in Samoa for any missing data and were then sent to the NMFS Honolulu Lab for further editing and data processing. To begin improving the monitoring of the fast-growing longline fishery, in July 1999 DMWR implemented a Daily Effort Consensus (DEC) for all federally permitted longline vessels. Six days a week DMWR staff make two visits a day to ports where longline vessels move. The staff document whether each vessel on the list is "in port" or "out fishing." The DEC data are used to track the activity of each vessel and to help ensure all fishing logsheets are submitted by the fishermen. To further improve the

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

- Set Date
- Vessel
- Date of Departure
- Port of Departure
- Date of Arrival
- Port of Arrival
- Observer on Board
- Target Species
- Bait Used
- Mainline Length
- No. of Hooks
- No. of Hooks/Float
- No. of Lightsticks Used
- Bird Catch Mitigation Measures
- Wind Detection
- Wave Height
- Sea Surface Temperature
- Wind Speed
- Begin Set Time
- Begin Set Latitude and Longitude
- End Set Time
- End Set Latitude and Longitude
- Haul Date
- Begin Haul Date
- Begin Haul Latitude and Longitude
- End Haul Time
- End Haul Latitude and Longitude
- No. of Pelagic Species kept
- No. of Pelagic Species released
- No. of Sharks finned
- No. of Sharks kept
- No. of Sharks released
- No. of Protected Species released alive
- No. of Protected Species released injured
- No. of Protected Species released dead

DATA PROCESSING SYSTEM

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

Several important principles have remained constant over time: keep data processing close to the source of data collecting; provide all of the needed software tools to ensure the quality of data; make the systems user friendly and functional for the local staff; and maintain as many standards as possible throughout the time series of data collected.

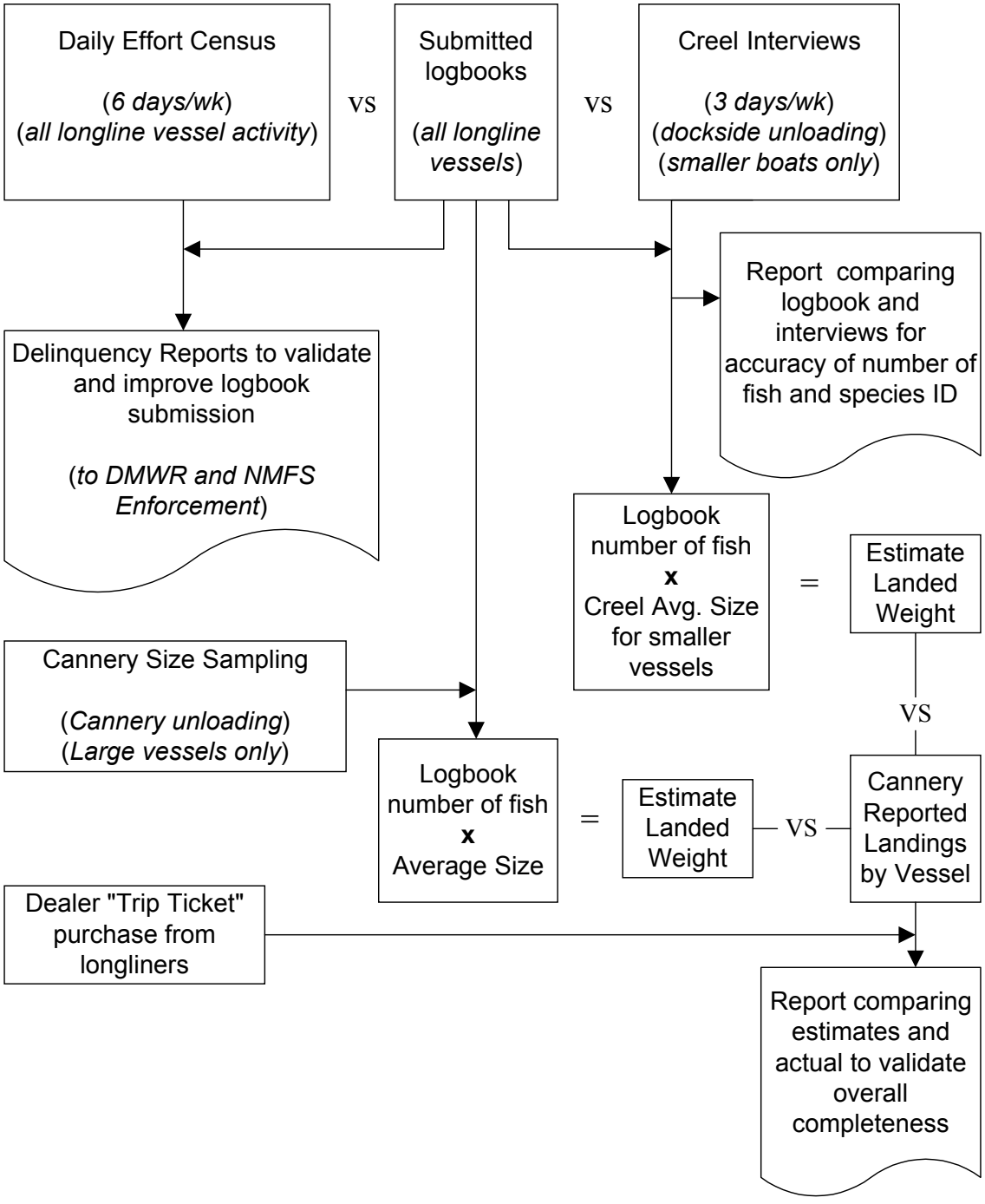
Typically, when upgrades (such as changes in expansion and reporting algorithms for the creel survey data and commercial landings data) have been made to data processing systems, the entire time series of data would be reprocessed using the same algorithms so that trends in the fisheries would remain as intact as possible. The

annual and monthly estimated commercial landings data and the corresponding time series figures included in this report were produced with the versions of data processing systems in use in May 2001. To help the reader understand the origin of the data included in this report, a general description of these processes follows. It does not include the details on many minor changes that have occurred throughout the evolutionary history of these systems.

The data from 1982-85 have been imported directly from the original Commercial Catch Monitoring System used before the implementation of the offshore creel survey. Since 1986, the boat-based creel survey data expansion system has been the central system for estimating total commercial landings in American Samoa. In short, the survey data expansion process involves multiplying the average daily participation by the average catch per trip for each stratum. For the years 1986-90, commercial sales portions of the expanded creel survey data from Tutuila and the Manu`a Islands were combined to produce estimated total commercial landings. Since 1990, with the implementation of the mandatory fish dealer receipt book system on Tutuila, further adjustments have been made to these combined creel data by using receipt book data. These adjustments made significant improvements in overall totals as they helped adjust for sales not monitored through the boat-based survey (e.g. shoreline and strictly nighttime commercial fishing). Species totals modified with these types of adjustments are flagged in reports with an asterisk. Finally, in the late 1990's when larger longline vessels began landing their catches directly at the canneries, and thus out of the monitoring capabilities of the standard creel surveys, the longline logbook system and cannery size frequency sampling data entered the algorithm to fill the gap for this portion of the fishery by adding the landings of these vessels to the other data to create a more complete picture of the estimated total commercial landings for the Territory.

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

Data Quality and Cross Validation
American Samoa Longline Example



DATA REPORTING SYSTEM

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, weight in pounds, value in dollars, and the average price per pound of each species or species group and whether or not the data was modified by Commercial Purchase System data (denoted by asterisks). The monthly data tables are based on monthly expansions of the Tutuila Offshore Creel Survey Data with enhancements by monthly Longline Logbook, Commercial Purchase System and Manu`a data as explained previously. Annual data tables are based on combined annual expansions of the creel data for the entire calendar year with similar annual enhancements from Longline Logbook, Commercial Purchase System and Manu`a data as explained previously. Since the monthly and annual data tables are based on separate monthly and annual expansion of the creel data, the annual data tables are not the exact sum of the 12 monthly data tables but fall within the standard error. These data tables are listed as Tables II.1.1 to II.1.13 in this report.

The charts that make up the rest of the report are for groups of species as well as for some of the dominant individual species. Please note that some of the charts in this volume are new or modified from earlier volumes. More emphasis has been put on Bigeye Tuna and Albacore Tuna because of their new substantial levels of catch. The species in the species groups used in the charts of this report are defined below.

I. Pelagic Management Unit Species (PMUS)

Although the Magnuson Fishery Conservation and Management of 1976 was amended in 1992 to include tunas in the PMUS (PPMUS), this report series will continue to tunas as a separate category from the PPMUS. The PMUS category includes:

Other Sharks
Blacktip reef shark
Blue shark
Mako Shark
Nurse shark
Thresher Shark
White-Tip Shark
Mahimahi
Blue marlin
Black marlin
Striped Marlin
Sailfish
Spearfish
Swordfish
Wahoo
Pomfret
Moonfish

II. Bottomfish Management Unit Species (BMUS)

Amberjack
Ambon emperor
Bigeye emperor
Bigeye trevally
Black jack
Black snapper
Blacktail snapper
Blacktip grouper
Blood snapper
Blue lined gindai
Blue lined snapper
Bluefin trevally
Blueline bream
Bottom Handline Snappers
Bottomfish (Assorted)
Brown jobfish
Ehu (squirrelfish snap.)
Emperors (misc)
Flagtail grouper
Giant grouper
Giant trevally
Gindai (flower snap)
Goldenline bream
Goldspot trevally
Gray jobfish
Groupers (misc)
Hawaiian opakapaka
Humpback snapper
Jacks (misc)
Kusakar's snapper
Lehi (silverjaw)
Longnose emperor
Lunartail grouper
Multidens snapper
Oilfish
Onaga (longtail snapper)
Onespot snapper
Orangespot emperor
Peacock grouper
Pristipomoides/Etelis
Redgill emperor
Rufous snapper
Smalltooth grouper
Snake mackerel
Spotted grouper
Stone's snapper
Striped grouper
Tomato grouper
Trevally (C.caeruleop.)
Twinspot/red snapper
Whitemouth trevally
Yellow opakapaka
Yelloweye opakapaka(P.fl.
Yellowspot grouper
Yellowtail snapper

III. Billfish

Swordfish
Blue marlin
Black marlin
Striped Marlin
Sailfish
Spearfish

IV. Tunas

Other Tunas
Skipjack Tuna
Dogtooth tuna
Albacore
Bluefin Tuna
Yellowfin Tuna
BigeyeTuna
Kawakawa

V. Other Tuna

Other Tunas	Bluefin Tuna
Dogtooth tuna	Kawakawa

VI. Fisheries Categories

A. Pelagics

Albacore	Other Sharks
Barracudas	Other Tunas
BigeyeTuna	Other birds
Black marlin	Pomfret
Blacktip reef shark	Rainbow runner
Blue marlin	Sailfish
Blue shark	Sharks
Bluefin Tuna	Silky Shark
Dogtooth tuna	Skipjack Tuna
Hammerhead Shark	Small barracuda
Kawakawa	Spearfish
Large barracuda	Striped Marlin
Mackerel	Swordfish
Mahimahi	Thresher Shark
Mako Shark	Tiger Shark
Moonfish	Wahoo
Nurse shark	White-Tip Shark
Other Pelagic Fish	Yellowfin Tuna

B. Bottom Fish

Amberjack
Ambon emperor
Bigeye emperor
Bigeye trevally
Black jack
Black snapper
Blacktail snapper
Blacktip grouper
Blood snapper
Blue lined gindai
Blue lined snapper
Bluefin trevally
Blueline bream
Bottom Handline Snappers
Bottomfish (Assorted)
Brown jobfish
Ehu (squirrelfish snap.)
Emperors (misc)
Flagtail grouper
Giant grouper
Giant trevally
Gindai (flower snap)
Goldenline bream
Goldspot trevally
Gray jobfish
Groupers (misc)
Hawaiian opakapaka
Humpback snapper
Jacks (misc)
Kusakar's snapper
Lehi (silverjaw)
Longnose emperor
Lunartail grouper
Multidens snapper
Oilfish
Onaga (longtail snapper)
Onespot snapper
Orangespot emperor
Peacock grouper
Pristipomoides/Etelis
Redgill emperor
Rufous snapper
Smalltooth grouper
Snake mackerel
Spotted grouper
Stone's snapper
Striped grouper
Tomato grouper
Trevally (C.caeruleop.)
Twinspot/red snapper
Whitemouth trevally
Yellow opakapaka
Yelloweye opakapaka(P.fl.
Yellowspot grouper
Yellowtail snapper

C. Reef Fish

Bigeye scad
Catfish
Conger eels
Crabs
Eagle ray
Eels
Flyingfish
Giant clam
Halfbeaks
Invertebrates
Kona crab
Leatherback
Limu, algae
Mackerel scad: opelu
Mangrove crab
Milkfish
Miscellaneous
Moray eels
Needlefish
Octopus
Rays
Salmon
Sea shells
Sea urchins
Shrimp
Slipper lobster
Spiny lobster
Spotted eels
Squid
Sunfish
Threadfin
Tilapia
Turban snail

D. Other

Bigeye squirrelfish
Bigeyes
Bigscale soldierfish
Brown surgeonfish
Brwn wrasse:pataotao
Butterflyfish
Cardinalfish
Convict tang
Flounders
Goatfish
Hawkfish
Inshore groupers
Inshore snappers
Lined surgeon
Mountain bass
Mullets
Naso tang
Orangespine unicornfish
Parrotfishes
Pink goatfish
Porcupinefish
Rabbitfish
Red snapper, mu
Reef fish (Assorted)
Rudderfish
Saber squirrelfish
Sargent major
Squirrelfish
Striped bristletooth
Surgeonfishes/tangs
Sweepers
Sweetlips
Terapon perch
Tilefish
Triggerfish
Unicornfishes (misc)
Whitespotted surgeonfish
Wrasse
Yellowfin surgeonfish

INTERPRETATION OF STATISTICS

The user is reminded to pay heed to the precautions and assumptions identified earlier in this document, when making interpretations of or inferences from data reported in the tables and graphs. Remember also that the commercial landings summaries are not based on a census of all the fishing activities, but on samples of those activities and on integration of data from four separate data systems. One of the major factors in expanding the creel survey data into monthly and annual estimates is the use of proportionality constants to adjust for percent coverage of the surveys. The flexibility of the survey design allows for refinement of these constants as additional information is gained on the fishing activities. If the constants are improved upon, the basic survey data can be re-expanded to create better overall estimates. However, the variability and species composition would not be expected to change since these statistics are based on the actual survey information collected from the fishermen. The estimates of total landings are considered conservative because the catch from the subsistence inshore fisheries are currently not included in this document.

Table II.1.1
American Samoa Annual 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Bigeye scad	321	$691	$2.16	*
Jacks (misc)	16	$43	$2.75	
Black jack	658	$1,207	$1.83	
Bigeye trevally	755	$1,660	$2.20	
Barracudas	1,166	$2,389	$2.05	
Mullets	23	$45	$2.00	
Groupers (misc)	90	$181	$2.00	
Peacock grouper	19	$37	$2.00	
Tomato grouper	205	$432	$2.11	
Blacktip grouper	28	$75	$2.67	
Lunartail grouper	1,519	$3,157	$2.08	
Blue lined snapper	6,008	$12,071	$2.01	
Onespot snapper	90	$236	$2.62	
Twinspot/red snapper	13	$26	$2.00	
Humpback snapper	3,599	$10,377	$2.88	
Gray jobfish	1,794	$3,596	$2.00	
Yellow opakapaka	1,679	$4,848	$2.89	
Hawaiian opakapaka	356	$768	$2.16	
Gindai (flower snap)	226	$549	$2.43	*
Yellowtail snapper	482	$1,206	$2.50	
Lehi (silverjaw)	863	$2,597	$3.01	
Onaga (longtail snapper)	3,267	$6,111	$1.87	
Ehu (squirrelfish snap.)	3,261	$9,747	$2.99	
Black snapper	42	$83	$2.00	
Bigeye emperor	120	$239	$2.00	
Emperors (misc)	10,359	$26,355	$2.54	
Longnose emperor	579	$1,157	$2.00	
Orangespot emperor	223	$445	$2.00	
Redgill emperor	2,518	$5,070	$2.01	
Oilfish	246	$369	$1.50	
Pomfret	2,604	$6,509	$2.50	
Rudderfish	46	$91	$2.00	
Surgeonfishes/tangs	5,003	$10,006	$2.00	*
Unicornfishes (misc)	1,088	$1,130	$1.04	
Squirrelfish	932	$1,847	$1.98	*
Parrotfishes	6,731	$13,338	$1.98	*
Inshore groupers	965	$1,900	$1.97	*
Triggerfish	27	$53	$2.00	
Striped Marlin	5,276	$6,595	$1.25	
Mahimahi	49,544	$78,872	$1.59	
Swordfish	1,663	$3,542	$2.13	*
Blue marlin	12,410	$14,699	$1.18	
Black marlin	2,456	$2,398	$0.98	
Sailfish	3,117	$3,336	$1.07	
Spearfish	645	$968	$1.50	
Rainbow runner	200	$401	$2.00	
Wahoo	73,549	$79,120	$1.08	
Skipjack Tuna	126,849	$74,189	$0.58	
Dogtooth tuna	1,363	$1,938	$1.42	
Albacore	7,122,030	$7,623,542	$1.07	
Yellowfin Tuna	395,607	$361,161	$0.91	
BigeyeTuna	151,336	$177,084	$1.17	
Kawakawa	3	$3	$1.00	

Table II.1.1 (Cont.)
American Samoa Annual 2001 Estimated Commercial Landings

Species	Pounds	Value	$/Lb	
Moonfish	2,898	$2,861	$0.99	
Crabs	134	$201	$1.50	
Spiny lobster	1,484	$5,048	$3.40	
Octopus	171	$355	$2.07	*
TOTAL	8,008,653	$8,566,955	$1.07	

* Data replaced or modified by Actual Commercial Landings Data

Table II.1.2

American Samoa January 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Groupers (misc)	5	$9	$2.00	
Peacock grouper	2	$4	$2.00	
Tomato grouper	6	$12	$2.00	
Lunartail grouper	4	$7	$2.08	
Blue lined snapper	81	$162	$2.00	*
Humpback snapper	31	$62	$2.00	*
Gray jobfish	15	$30	$2.00	*
Yellow opakapaka	62	$179	$2.89	
Gindai (flower snap)	137	$411	$3.00	*
Yellowtail snapper	20	$49	$2.50	
Onaga (longtail snapper)	34	$61	$1.81	
Ehu (squirrelfish snap.)	126	$378	$3.00	*
Black snapper	5	$9	$2.00	
Bigeye emperor	5	$9	$2.00	
Emperors (misc)	28	$57	$2.03	
Pomfret	73	$182	$2.50	
Surgeonfishes/tangs	1,280	$2,560	$2.00	*
Unicornfishes (misc)	59	$79	$1.34	*
Squirrelfish	136	$272	$2.00	*
Parrotfishes	1,024	$2,047	$2.00	*
Inshore groupers	40	$80	$2.00	*
Striped Marlin	162	$202	$1.25	
Mahimahi	1,271	$1,765	$1.39	
Swordfish	110	$275	$2.50	*
Blue marlin	277	$326	$1.18	*
Wahoo	1,381	$1,646	$1.19	
Skipjack Tuna	576	$434	$0.75	
Albacore	144,776	$154,847	$1.07	
Yellowfin Tuna	2,186	$1,955	$0.89	
BigeyeTuna	1,436	$1,639	$1.14	
Moonfish	4,515	$4,514	$1.00	
Spiny lobster	36	$127	$3.53	*
TOTAL	159,895	$174,388	$1.09	

* Data replaced or modified by Actual Commercial Landings Data

Table II.1.3
American Samoa February 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Bigeye scad	64	$127	$2.00	*
Groupers (misc)	65	$129	$2.00	
Peacock grouper	4	$7	$2.00	
Tomato grouper	11	$22	$2.00	
Lunartail grouper	49	$103	$2.08	
Humpback snapper	51	$111	$2.18	
Gray jobfish	53	$106	$2.00	
Yellow opakapaka	881	$2,545	$2.89	
Yellowtail snapper	281	$703	$2.50	
Onaga (longtail snapper)	479	$867	$1.81	
Ehu (squirrelfish snap.)	433	$1,299	$3.00	
Black snapper	8	$16	$2.00	
Bigeye emperor	8	$16	$2.00	
Emperors (misc)	372	$757	$2.03	
Pomfret	841	$2,101	$2.50	
Surgeonfishes/tangs	670	$1,340	$2.00	*
Unicornfishes (misc)	98	$102	$1.04	
Squirrelfish	40	$80	$2.00	*
Parrotfishes	500	$1,000	$2.00	*
Inshore groupers	131	$262	$2.00	*
Striped Marlin	485	$606	$1.25	
Mahimahi	621	$994	$1.60	*
Blue marlin	155	$173	$1.11	*
Wahoo	1,323	$1,440	$1.09	
Skipjack Tuna	954	$625	$0.66	
Albacore	173,098	$177,417	$1.02	
Yellowfin Tuna	8,474	$7,829	$0.92	
BigeyeTuna	1,031	$1,177	$1.14	
Moonfish	18	$16	$0.88	
Spiny lobster	51	$170	$3.33	*
TOTAL	191,246	$202,139	$1.06	

* Data replaced or modified by Actual Commercial Landings Data

Table II.1.4
American Samoa March 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Groupers (misc)	72	$143	$2.00	
Peacock grouper	9	$18	$2.00	
Tomato grouper	27	$53	$2.00	
Lunartail grouper	55	$114	$2.08	
Humpback snapper	64	$139	$2.18	
Gray jobfish	59	$118	$2.00	
Yellow opakapaka	976	$2,819	$2.89	
Yellowtail snapper	311	$779	$2.50	
Onaga (longtail snapper)	607	$1,099	$1.81	
Ehu (squirrelfish snap.)	549	$1,648	$3.00	
Black snapper	20	$40	$2.00	
Bigeye emperor	20	$40	$2.00	
Emperors (misc)	417	$848	$2.03	
Pomfret	1,066	$2,665	$2.50	
Surgeonfishes/tangs	927	$1,853	$2.00	
Unicornfishes (misc)	240	$251	$1.04	
Squirrelfish	138	$271	$1.97	*
Parrotfishes	597	$1,167	$1.95	*
Inshore groupers	162	$312	$1.92	*
Striped Marlin	377	$471	$1.25	
Mahimahi	484	$686	$1.42	*
Swordfish	234	$652	$2.79	*
Blue marlin	640	$713	$1.11	*
Wahoo	1,124	$1,056	$0.94	
Skipjack Tuna	2,389	$1,679	$0.70	
Dogtooth tuna	40	$44	$1.10	*
Albacore	177,819	$188,001	$1.06	
Yellowfin Tuna	17,845	$16,466	$0.92	
BigeyeTuna	1,841	$2,079	$1.13	
Moonfish	9	$8	$0.88	
Spiny lobster	65	$197	$3.02	*
TOTAL	209,181	$226,429	$1.08	

* Data replaced or modified by Actual Commercial Landings Data

Table II.1.5
American Samoa April 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Bigeye scad	179	$408	$2.28	*
Black jack	129	$236	$1.83	
Bigeye trevally	242	$530	$2.19	
Peacock grouper	5	$9	$2.00	
Tomato grouper	14	$27	$2.00	
Lunartail grouper	48	$101	$2.08	
Blue lined snapper	739	$1,479	$2.00	
Humpback snapper	111	$222	$2.00	*
Gray jobfish	431	$863	$2.00	
Yellow opakapaka	145	$419	$2.89	
Hawaiian opakapaka	258	$557	$2.16	
Yellowtail snapper	65	$161	$2.50	
Lehi (silverjaw)	306	$941	$3.07	
Onaga (longtail snapper)	734	$1,467	$2.00	
Ehu (squirrelfish snap.)	786	$2,035	$2.59	
Black snapper	10	$20	$2.00	
Bigeye emperor	10	$20	$2.00	
Emperors (misc)	587	$1,174	$2.00	
Pomfret	547	$1,367	$2.50	
Surgeonfishes/tangs	469	$938	$2.00	
Unicornfishes (misc)	122	$127	$1.04	
Squirrelfish	97	$194	$2.00	*
Parrotfishes	454	$908	$2.00	*
Inshore groupers	36	$69	$1.92	
Striped Marlin	215	$269	$1.25	
Mahimahi	522	$921	$1.76	*
Swordfish	122	$296	$2.43	*
Blue marlin	2,103	$2,528	$1.20	
Black marlin	286	$268	$0.94	
Sailfish	283	$303	$1.07	*
Spearfish	17	$25	$1.50	
Wahoo	1,403	$1,477	$1.05	
Skipjack Tuna	3,534	$1,965	$0.56	
Albacore	197,332	$195,384	$0.99	
Yellowfin Tuna	23,854	$25,067	$1.05	
BigeyeTuna	3,685	$4,669	$1.27	
Moonfish	9	$8	$0.88	
Spiny lobster	110	$384	$3.50	*
TOTAL	239,998	$247,837	$1.03	

* Data replaced or modified by Actual Commercial Landings Data

Table II.1.6

American Samoa May 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Bigeye scad	78	$156	$2.00	*
Tomato grouper	103	$207	$2.00	
Lunartail grouper	228	$473	$2.08	
Blue lined snapper	1,559	$3,118	$2.00	
Humpback snapper	360	$720	$2.00	
Gray jobfish	108	$215	$2.00	
Yellow opakapaka	207	$597	$2.89	
Hawaiian opakapaka	30	$90	$3.00	*
Gindai (flower snap)	89	$138	$1.55	*
Onaga (longtail snapper)	51	$84	$1.65	*
Ehu (squirrelfish snap.)	283	$580	$2.05	*
Bigeye emperor	72	$145	$2.00	
Emperors (misc)	3,224	$6,448	$2.00	
Pomfret	8	$20	$2.50	
Surgeonfishes/tangs	178	$356	$2.00	*
Unicornfishes (misc)	27	$44	$1.63	*
Squirrelfish	55	$110	$2.00	*
Parrotfishes	301	$602	$2.00	*
Inshore groupers	197	$393	$2.00	
Striped Marlin	54	$67	$1.25	
Mahimahi	1,174	$1,996	$1.70	
Swordfish	50	$88	$1.75	*
Blue marlin	1,894	$2,588	$1.37	
Spearfish	17	$25	$1.50	
Rainbow runner	186	$372	$2.00	
Wahoo	1,105	$1,052	$0.95	
Skipjack Tuna	3,397	$1,860	$0.55	
Albacore	333,486	$380,174	$1.14	
Yellowfin Tuna	44,729	$47,991	$1.07	
BigeyeTuna	6,294	$9,501	$1.51	
Moonfish	18	$16	$0.88	
Spiny lobster	25	$82	$3.27	*
TOTAL	399,584	$460,306	$1.15	

* Data replaced or modified by Actual Commercial Landings Data

Table II.1.7
American Samoa June 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Jacks (misc)	21	$57	$2.75	
Black jack	44	$89	$2.00	
Barracudas	83	$94	$1.13	
Blue lined snapper	446	$892	$2.00	
Twinspot/red snapper	17	$35	$2.00	
Humpback snapper	182	$364	$2.00	*
Gray jobfish	114	$228	$2.00	
Hawaiian opakapaka	135	$270	$2.00	*
Onaga (longtail snapper)	37	$74	$2.00	*
Ehu (squirrelfish snap.)	112	$361	$3.22	*
Emperors (misc)	232	$463	$2.00	
Longnose emperor	232	$463	$2.00	
Redgill emperor	214	$429	$2.00	
Pomfret	9	$23	$2.50	
Surgeonfishes/tangs	552	$1,104	$2.00	*
Unicornfishes (misc)	54	$66	$1.22	*
Squirrelfish	74	$146	$1.97	*
Parrotfishes	533	$1,059	$1.99	*
Inshore groupers	125	$242	$1.94	
Triggerfish	42	$83	$2.00	
Striped Marlin	108	$135	$1.25	
Mahimahi	3,201	$5,323	$1.66	
Swordfish	62	$186	$3.00	*
Blue marlin	1,547	$2,083	$1.35	
Black marlin	215	$201	$0.94	
Spearfish	199	$298	$1.50	
Wahoo	2,764	$2,692	$0.97	
Skipjack Tuna	4,639	$2,473	$0.53	
Dogtooth tuna	326	$475	$1.46	
Albacore	602,623	$688,368	$1.14	
Yellowfin Tuna	51,997	$46,710	$0.90	
BigeyeTuna	7,429	$10,167	$1.37	
Moonfish	22	$19	$0.88	
Spiny lobster	29	$98	$3.33	*
TOTAL	678,416	$765,771	$1.13	

* Data replaced or modified by Actual Commercial Landings Data

Table II.1.8
American Samoa July 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Bigeye trevally	287	$629	$2.19	
Barracudas	626	$1,530	$2.44	
Mullets	16	$33	$2.00	
Lunartail grouper	287	$574	$2.00	
Blue lined snapper	514	$1,028	$2.00	
Humpback snapper	76	$151	$2.00	
Gray jobfish	53	$106	$2.00	
Hawaiian opakapaka	26	$52	$2.00	*
Lehi (silverjaw)	45	$107	$2.35	
Onaga (longtail snapper)	982	$1,778	$1.81	
Ehu (squirrelfish snap.)	559	$1,582	$2.83	
Emperors (misc)	68	$136	$2.00	
Longnose emperor	151	$302	$2.00	
Orangespot emperor	151	$302	$2.00	
Oilfish	572	$858	$1.50	
Pomfret	323	$808	$2.50	
Rudderfish	33	$66	$2.00	
Surgeonfishes/tangs	673	$1,346	$2.00	
Unicornfishes (misc)	340	$356	$1.05	*
Squirrelfish	135	$264	$1.96	*
Parrotfishes	958	$1,885	$1.97	*
Inshore groupers	198	$390	$1.97	*
Striped Marlin	269	$336	$1.25	
Mahimahi	2,568	$4,180	$1.63	
Swordfish	253	$339	$1.34	*
Blue marlin	4,203	$4,203	$1.00	
Black marlin	215	$201	$0.94	
Spearfish	116	$174	$1.50	
Wahoo	5,435	$6,414	$1.18	
Skipjack Tuna	19,281	$12,818	$0.66	
Dogtooth tuna	142	$170	$1.20	
Albacore	629,509	$616,472	$0.98	
Yellowfin Tuna	41,165	$43,046	$1.05	
BigeyeTuna	5,279	$5,946	$1.13	
Moonfish	22	$19	$0.88	
Crabs	25	$37	$1.50	
Spiny lobster	296	$888	$3.00	
TOTAL	715,850	$709,526	$0.99	

* Data replaced or modified by Actual Commercial Landings Data

Table II.1.9

American Samoa August 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Black jack	94	$216	$2.29	
Barracudas	86	$136	$1.58	
Mullets	14	$28	$2.00	
Bottomfish (Assorted)	5	$11	$2.16	
Tomato grouper	5	$10	$2.00	
Lunartail grouper	227	$469	$2.06	
Blue lined snapper	525	$1,051	$2.00	
Humpback snapper	760	$3,042	$4.00	
Gray jobfish	204	$408	$2.00	
Yellow opakapaka	16	$45	$2.89	
Lehi (silverjaw)	60	$141	$2.35	
Onaga (longtail snapper)	68	$123	$1.81	
Ehu (squirrelfish snap.)	209	$1,028	$4.92	
Emperors (misc)	1,364	$5,456	$4.00	
Redgill emperor	47	$111	$2.35	
Oilfish	20	$31	$1.50	
Pomfret	25	$62	$2.50	
Rudderfish	28	$56	$2.00	
Surgeonfishes/tangs	570	$1,140	$2.00	
Unicornfishes (misc)	149	$156	$1.05	
Squirrelfish	50	$98	$1.96	
Parrotfishes	475	$941	$1.98	*
Inshore groupers	106	$209	$1.98	
Striped Marlin	592	$740	$1.25	
Mahimahi	11,908	$18,755	$1.58	
Swordfish	312	$667	$2.14	*
Blue marlin	891	$891	$1.00	
Black marlin	29	$29	$1.00	
Sailfish	415	$444	$1.07	
Spearfish	99	$149	$1.50	
Wahoo	7,204	$7,460	$1.04	
Skipjack Tuna	33,396	$18,872	$0.57	
Dogtooth tuna	235	$343	$1.46	
Albacore	1,006,403	$1,079,742	$1.07	
Yellowfin Tuna	58,812	$48,584	$0.83	
BigeyeTuna	24,177	$29,286	$1.21	
Kawakawa	3	$3	$1.00	
Moonfish	29	$25	$0.87	
Crabs	21	$31	$1.50	
Spiny lobster	251	$752	$3.00	
TOTAL	1,149,885	$1,221,742	$1.06	

* Data replaced or modified by Actual Commercial Landings Data

Table II.1.10
American Samoa September 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Black jack	52	$115	$2.22	
Barracudas	89	$151	$1.70	
Bottomfish (Assorted)	2	$5	$2.16	
Tomato grouper	4	$7	$1.80	
Blacktip grouper	3	$6	$2.00	
Lunartail grouper	131	$268	$2.05	
Blue lined snapper	223	$447	$2.00	
Onespot snapper	3	$6	$2.00	
Humpback snapper	390	$1,418	$3.64	
Gray jobfish	116	$232	$2.00	
Yellow opakapaka	6	$19	$2.89	
Gindai (flower snap)	4	$8	$2.00	
Lehi (silverjaw)	40	$89	$2.21	
Onaga (longtail snapper)	44	$83	$1.88	
Ehu (squirrelfish snap.)	100	$450	$4.51	
Emperors (misc)	560	$2,242	$4.00	
Redgill emperor	442	$891	$2.02	
Pomfret	21	$52	$2.50	
Surgeonfishes/tangs	354	$708	$2.00	
Unicornfishes (misc)	134	$134	$1.00	*
Squirrelfish	59	$116	$1.97	*
Parrotfishes	691	$1,356	$1.96	*
Inshore groupers	101	$198	$1.97	*
Striped Marlin	754	$942	$1.25	
Mahimahi	6,947	$11,121	$1.60	
Swordfish	584	$1,751	$3.00	
Blue marlin	824	$824	$1.00	
Black marlin	143	$134	$0.94	
Spearfish	132	$199	$1.50	
Wahoo	9,885	$10,130	$1.02	
Skipjack Tuna	16,616	$9,624	$0.58	
Dogtooth tuna	350	$525	$1.50	*
Albacore	1,087,117	$1,132,772	$1.04	
Yellowfin Tuna	33,327	$28,944	$0.87	
BigeyeTuna	17,848	$19,756	$1.11	
Moonfish	27	$23	$0.88	
Crabs	23	$34	$1.50	
Spiny lobster	315	$1,200	$3.81	*
Octopus	35	$86	$2.44	*
TOTAL	1,178,496	$1,227,066	$1.04	

* Data replaced or modified by Actual Commercial Landings Data

Table II.1.11
American Samoa October 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Black jack	20	$41	$2.00	
Barracudas	33	$92	$2.75	
Lunartail grouper	159	$356	$2.24	
Blue lined snapper	58	$115	$2.00	
Onespot snapper	10	$20	$2.00	
Humpback snapper	244	$532	$2.18	
Gray jobfish	102	$203	$2.00	
Lehi (silverjaw)	156	$536	$3.45	
Ehu (squirrelfish snap.)	229	$458	$2.00	*
Emperors (misc)	105	$210	$2.00	
Redgill emperor	1,333	$2,667	$2.00	
Pomfret	22	$54	$2.50	
Surgeonfishes/tangs	546	$1,091	$2.00	
Unicornfishes (misc)	102	$103	$1.01	
Squirrelfish	46	$92	$1.99	
Parrotfishes	283	$558	$1.97	*
Inshore groupers	72	$142	$1.97	*
Striped Marlin	377	$471	$1.25	
Mahimahi	4,852	$7,724	$1.59	
Swordfish	47	$100	$2.13	
Blue marlin	1,420	$1,463	$1.03	
Black marlin	413	$412	$1.00	
Spearfish	17	$25	$1.50	
Wahoo	11,215	$12,040	$1.07	
Skipjack Tuna	21,439	$11,958	$0.56	
Albacore	1,014,996	$1,166,679	$1.15	
Yellowfin Tuna	39,170	$29,448	$0.75	
BigeyeTuna	36,872	$41,255	$1.12	
Moonfish	20	$17	$0.87	
Crabs	32	$48	$1.50	
Spiny lobster	276	$1,005	$3.64	
TOTAL	1,134,664	$1,279,916	$1.13	

* Data replaced or modified by Actual Commercial Landings Data

Table II.1.12

American Samoa November 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Black jack	29	$58	$2.00	
Bigeye trevally	10	$28	$2.75	
Barracudas	173	$349	$2.02	
Tomato grouper	30	$83	$2.75	
Blacktip grouper	25	$69	$2.75	
Lunartail grouper	155	$311	$2.00	
Blue lined snapper	109	$274	$2.52	
Onespot snapper	15	$29	$2.00	
Humpback snapper	350	$763	$2.18	
Gray jobfish	156	$319	$2.05	
Lehi (silverjaw)	39	$78	$2.00	
Ehu (squirrelfish snap.)	412	$824	$2.00	*
Emperors (misc)	35	$96	$2.75	
Redgill emperor	1,913	$3,827	$2.00	
Pomfret	33	$83	$2.50	
Surgeonfishes/tangs	362	$723	$2.00	
Unicornfishes (misc)	48	$50	$1.03	
Squirrelfish	46	$92	$2.00	*
Parrotfishes	253	$506	$2.00	*
Inshore groupers	27	$53	$1.98	
Striped Marlin	915	$1,144	$1.25	
Mahimahi	1,006	$1,584	$1.57	*
Swordfish	314	$576	$1.83	*
Blue marlin	673	$1,010	$1.50	
Sailfish	663	$710	$1.07	
Spearfish	17	$25	$1.50	
Wahoo	10,422	$10,025	$0.96	
Skipjack Tuna	8,878	$4,941	$0.56	
Dogtooth tuna	30	$30	$1.00	
Albacore	922,424	$973,950	$1.06	
Yellowfin Tuna	37,696	$28,422	$0.75	
BigeyeTuna	32,265	$37,277	$1.16	
Moonfish	69	$60	$0.88	
Crabs	19	$28	$1.50	
Spiny lobster	123	$430	$3.50	
TOTAL	1,019,732	$1,068,824	$1.05	

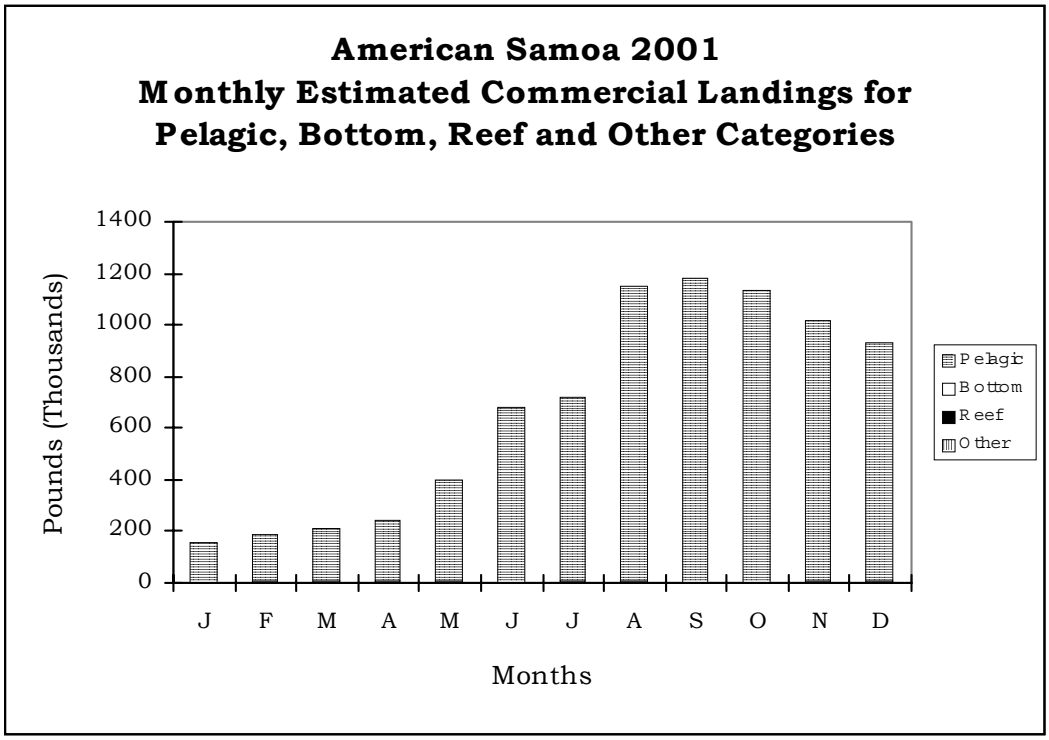
* Data replaced or modified by Actual Commercial Landings Data

Table II.1.13
American Samoa December 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Black jack	117	$147	$1.25	
Barracudas	78	$113	$1.45	
Lunartail grouper	52	$142	$2.75	
Blue lined snapper	466	$932	$2.00	
Onespot snapper	48	$133	$2.75	
Humpback snapper	117	$235	$2.00	
Gray jobfish	76	$152	$2.00	
Lehi (silverjaw)	131	$492	$3.75	
Ehu (squirrelfish snap.)	272	$544	$2.00	*
Emperors (misc)	1,288	$2,575	$2.00	
Pomfret	39	$97	$2.50	
Surgeonfishes/tangs	394	$788	$2.00	*
Unicornfishes (misc)	45	$45	$1.00	*
Squirrelfish	93	$183	$1.98	*
Parrotfishes	664	$1,309	$1.97	*
Inshore groupers	55	$108	$1.96	
Striped Marlin	969	$1,211	$1.25	
Mahimahi	2,561	$4,292	$1.68	
Swordfish	77	$77	$1.00	*
Blue marlin	1,217	$2,130	$1.75	
Black marlin	72	$67	$0.94	
Sailfish	1,537	$1,644	$1.07	
Spearfish	33	$50	$1.50	
Wahoo	18,425	$21,850	$1.19	
Skipjack Tuna	11,568	$7,408	$0.64	
Albacore	834,805	$879,900	$1.05	
Yellowfin Tuna	43,290	$45,017	$1.04	
BigeyeTuna	12,144	$14,025	$1.15	
Moonfish	51	$45	$0.88	
Spiny lobster	45	$135	$3.00	*
Octopus	136	$269	$1.98	*
TOTAL	930,864	$986,114	$1.06	

* Data replaced or modified by Actual Commercial Landings Data

Figure II.1.1



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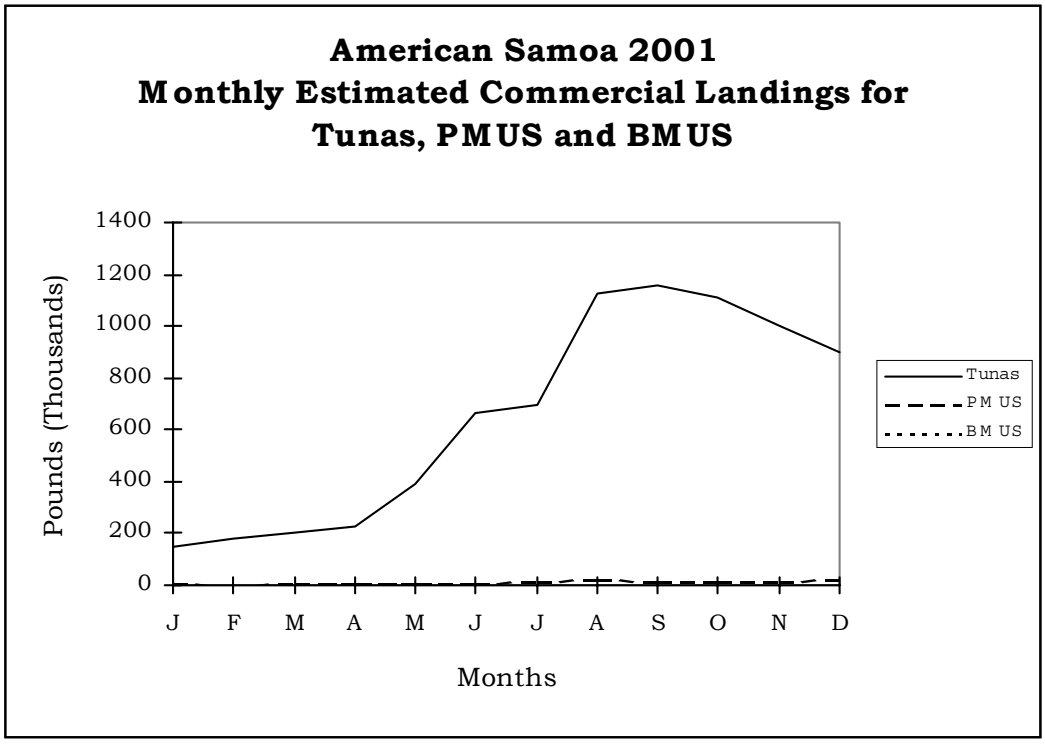

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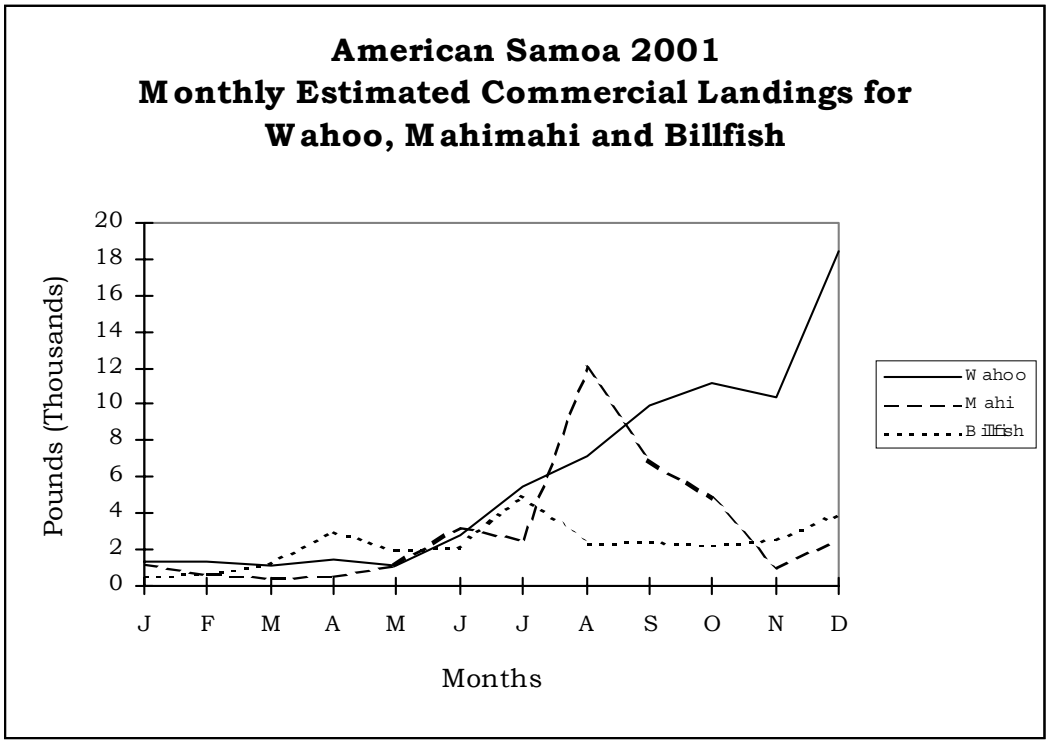

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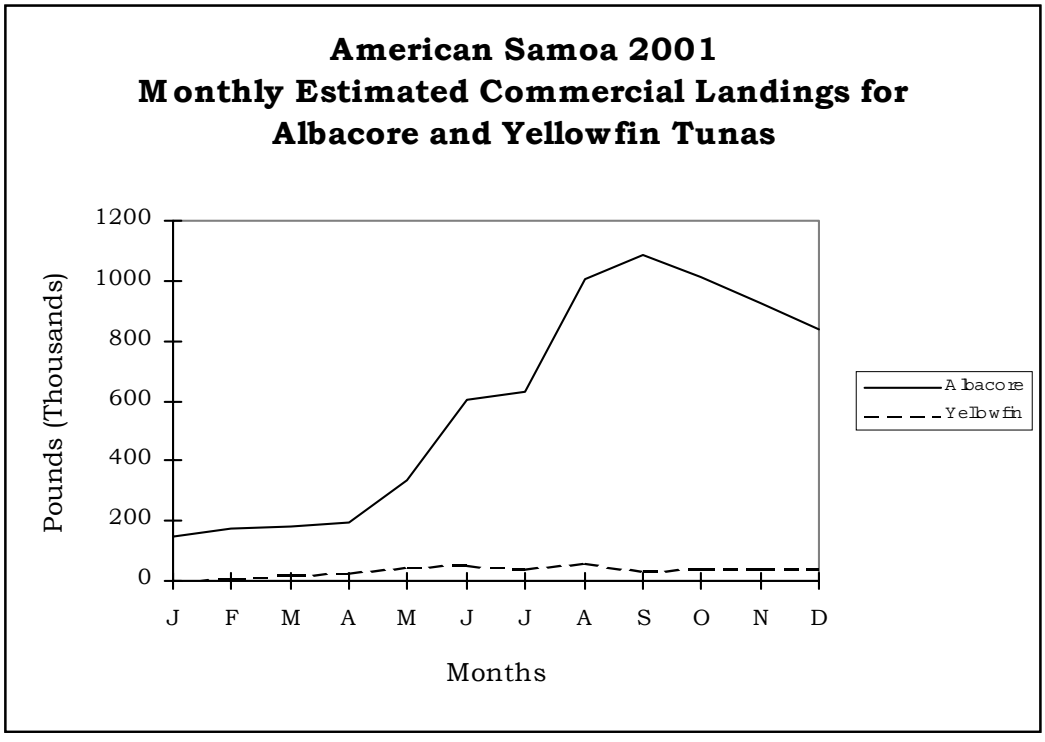

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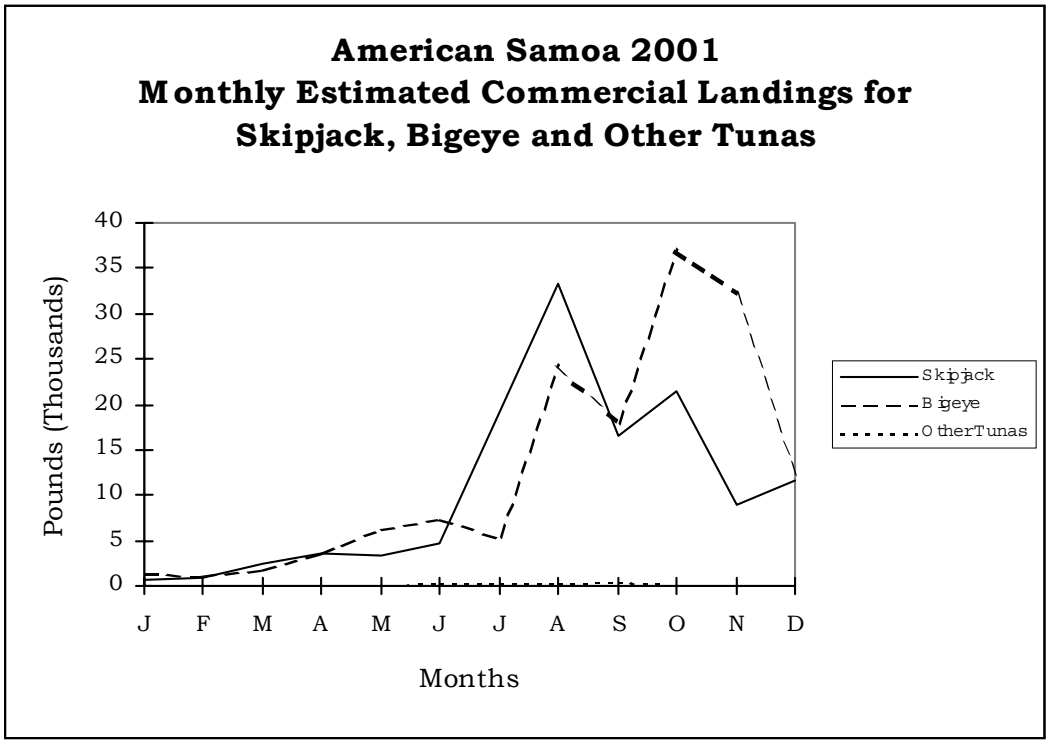

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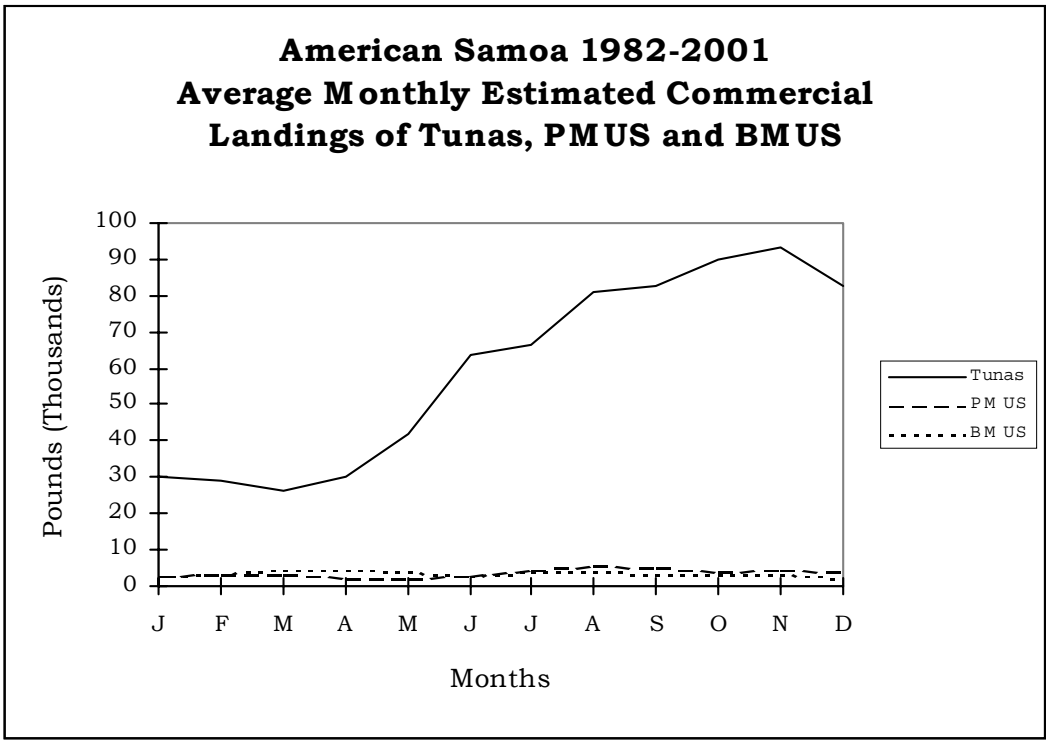

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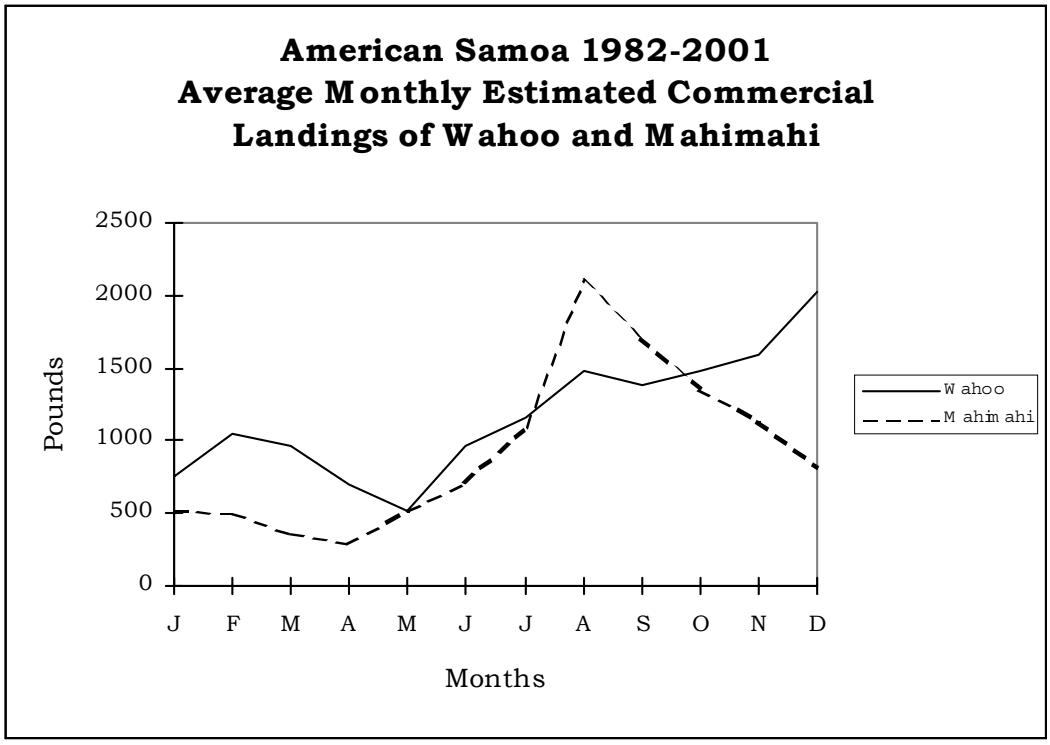

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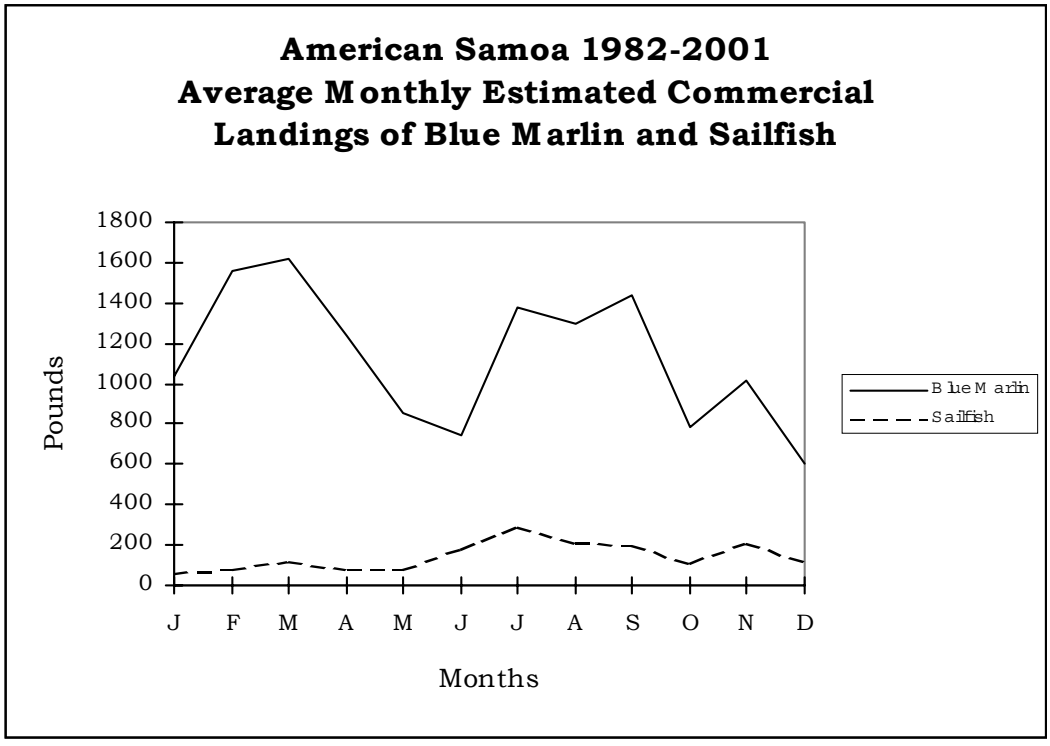

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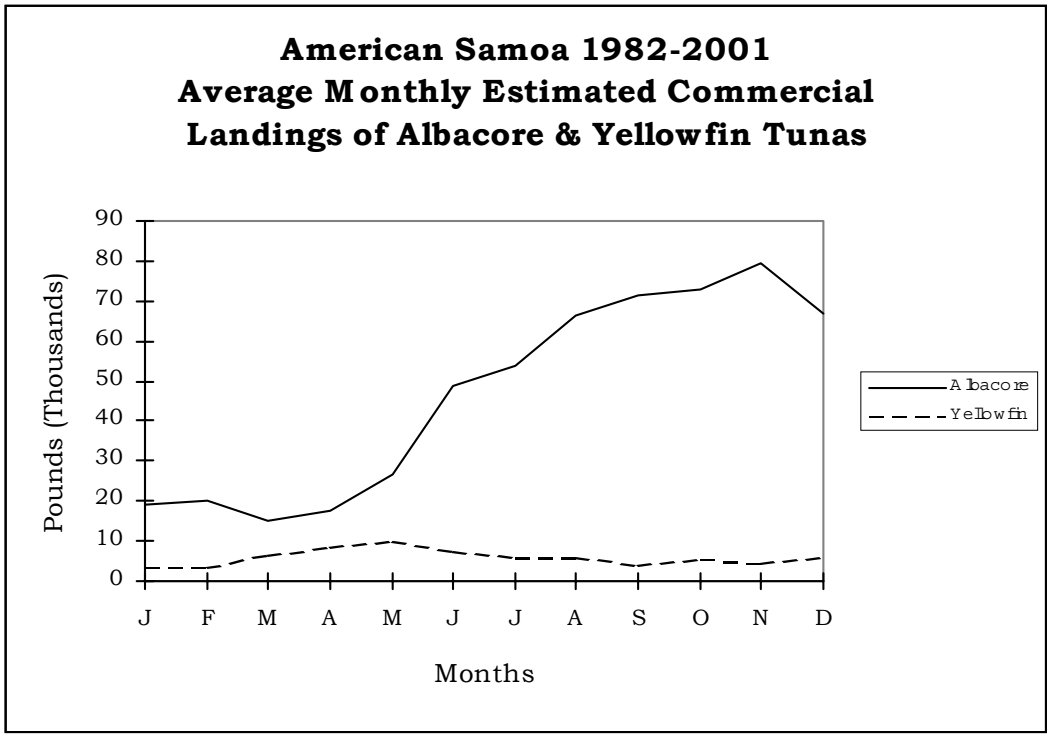

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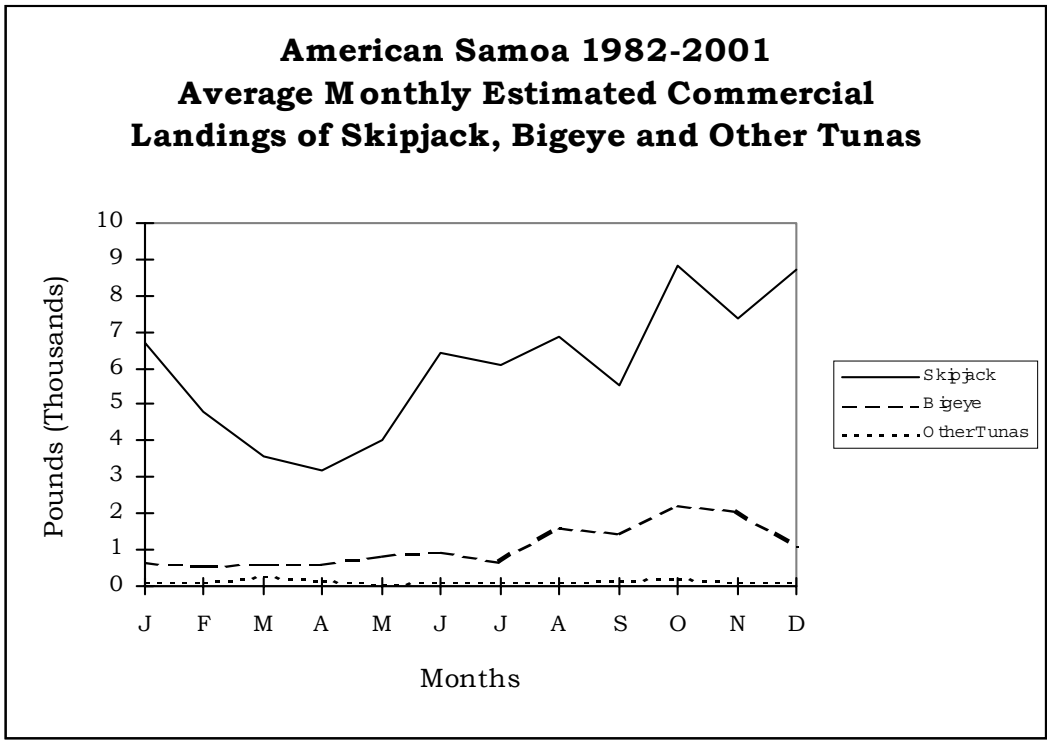

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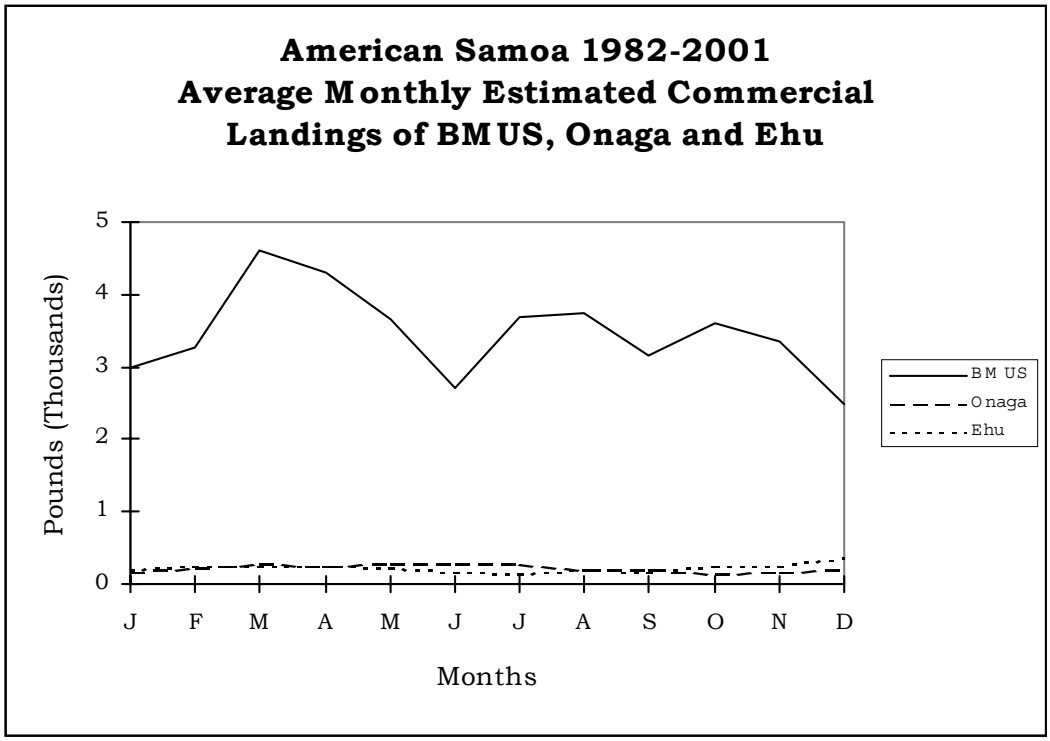

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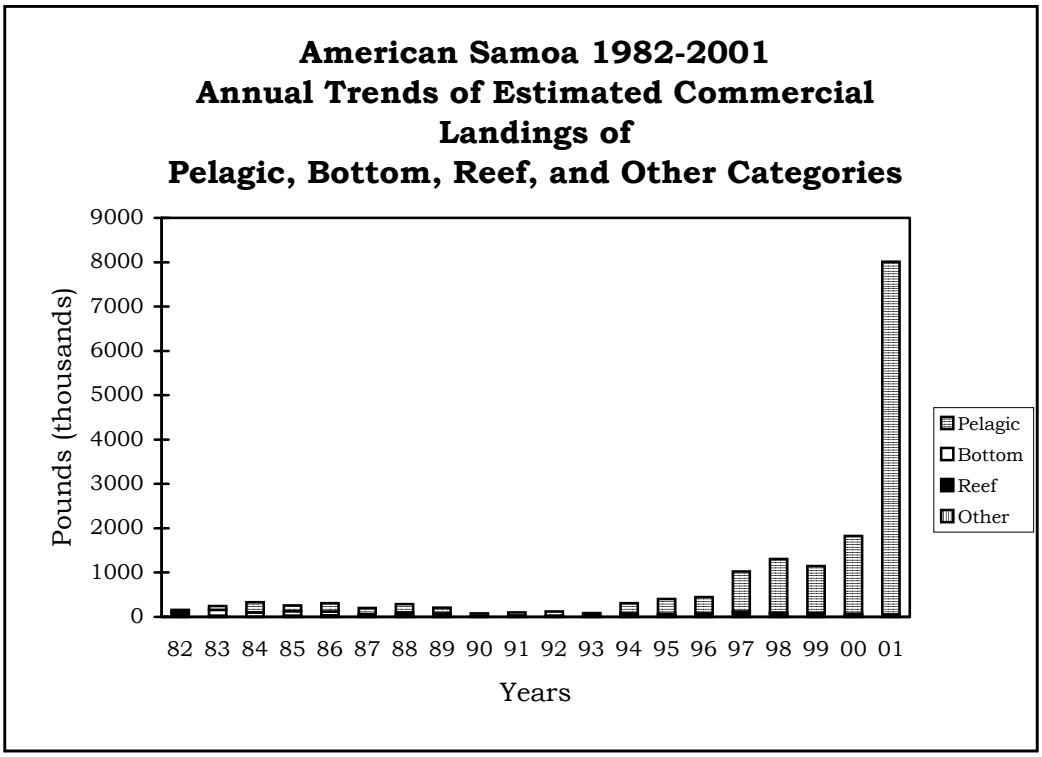

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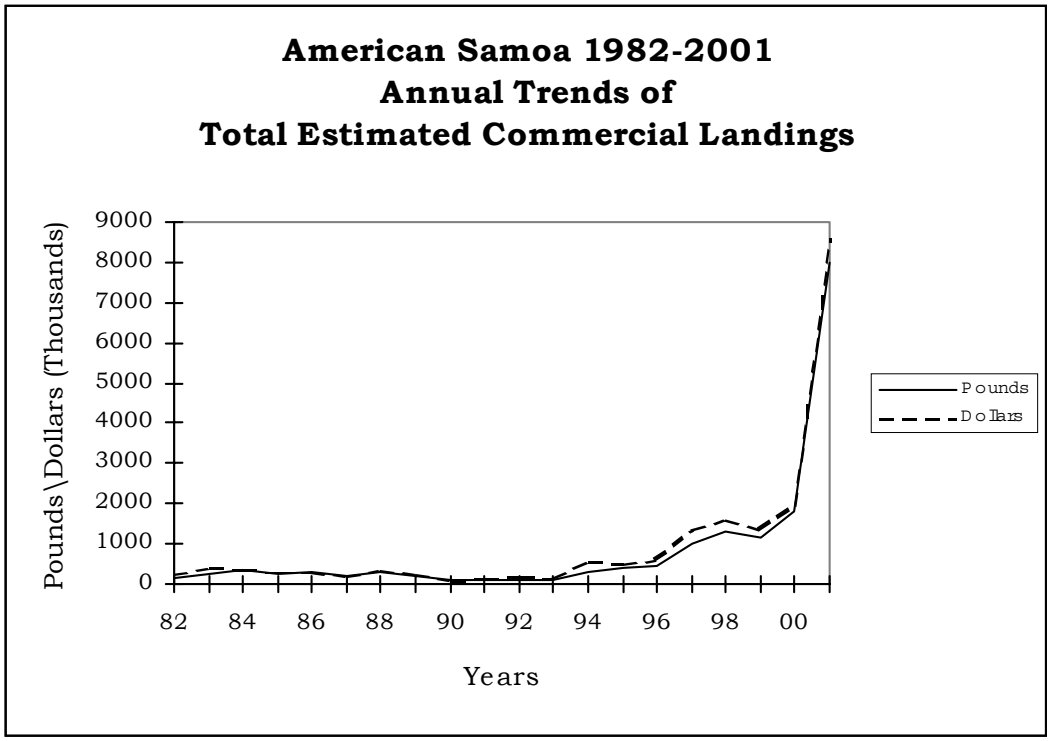

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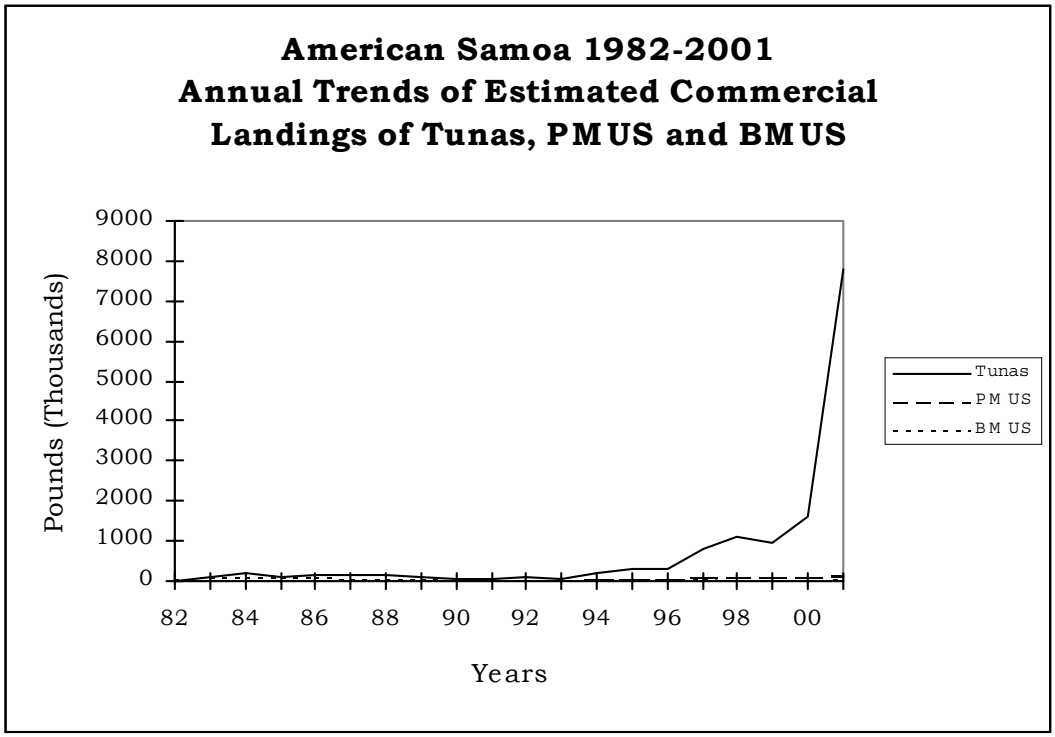

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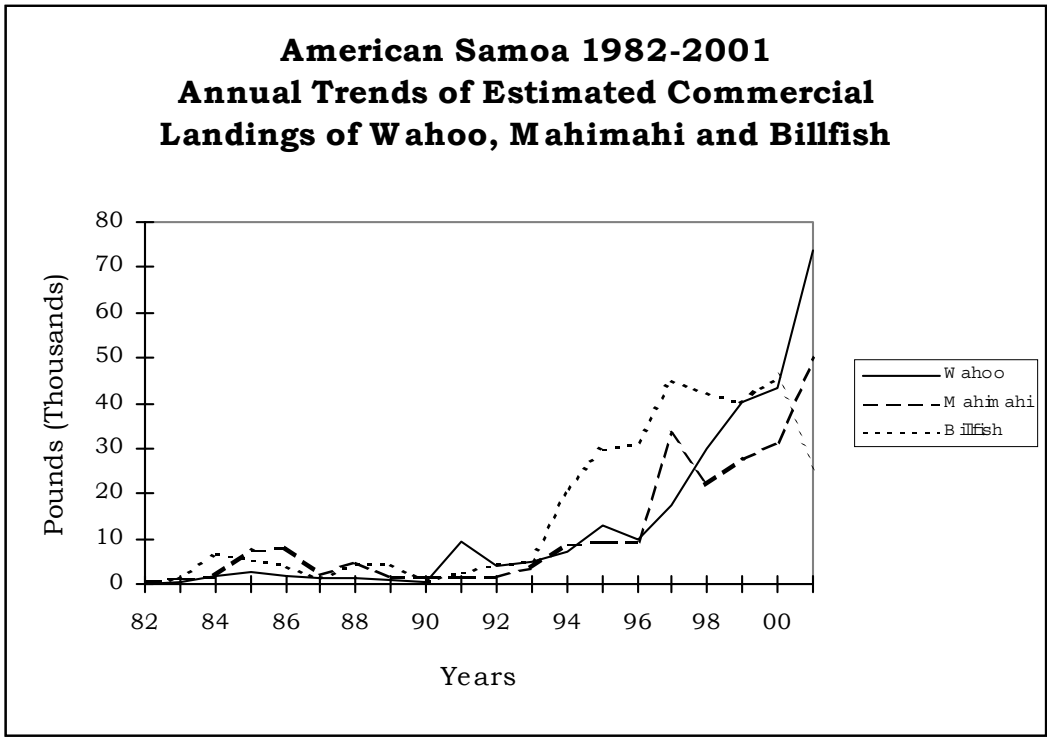

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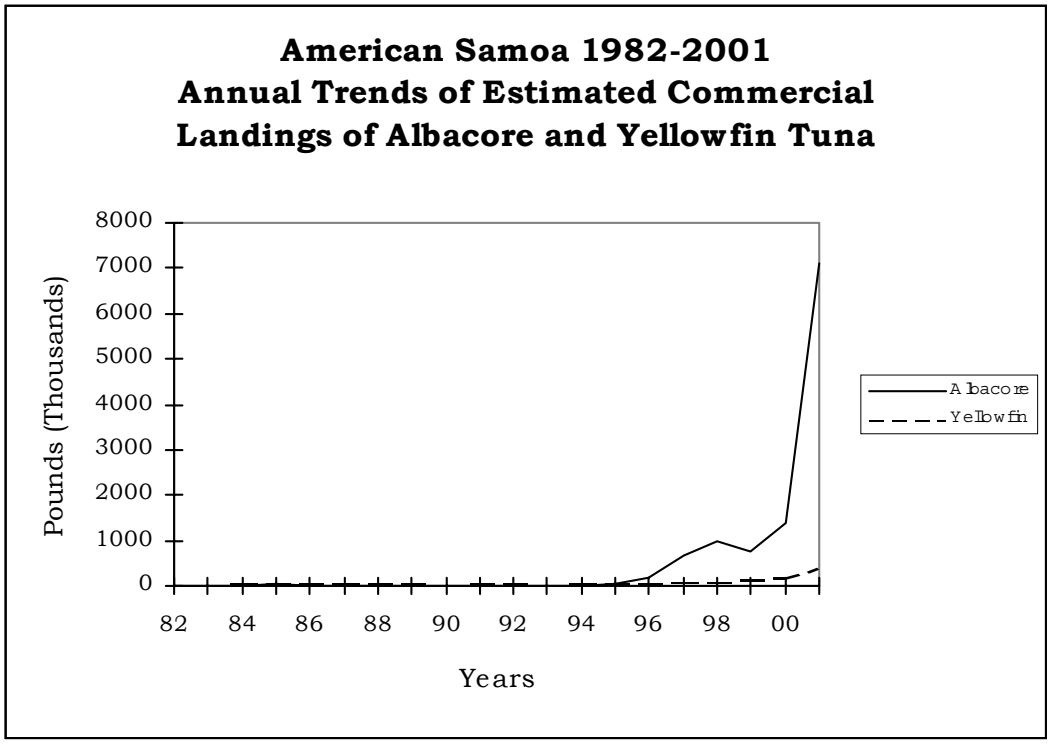

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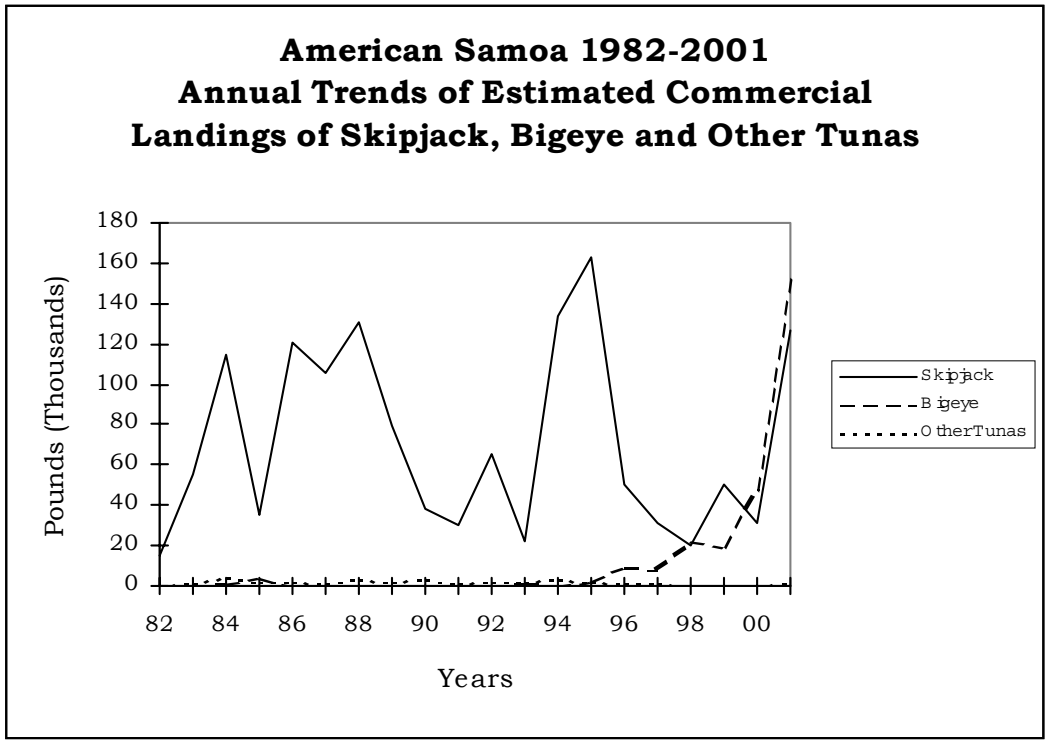

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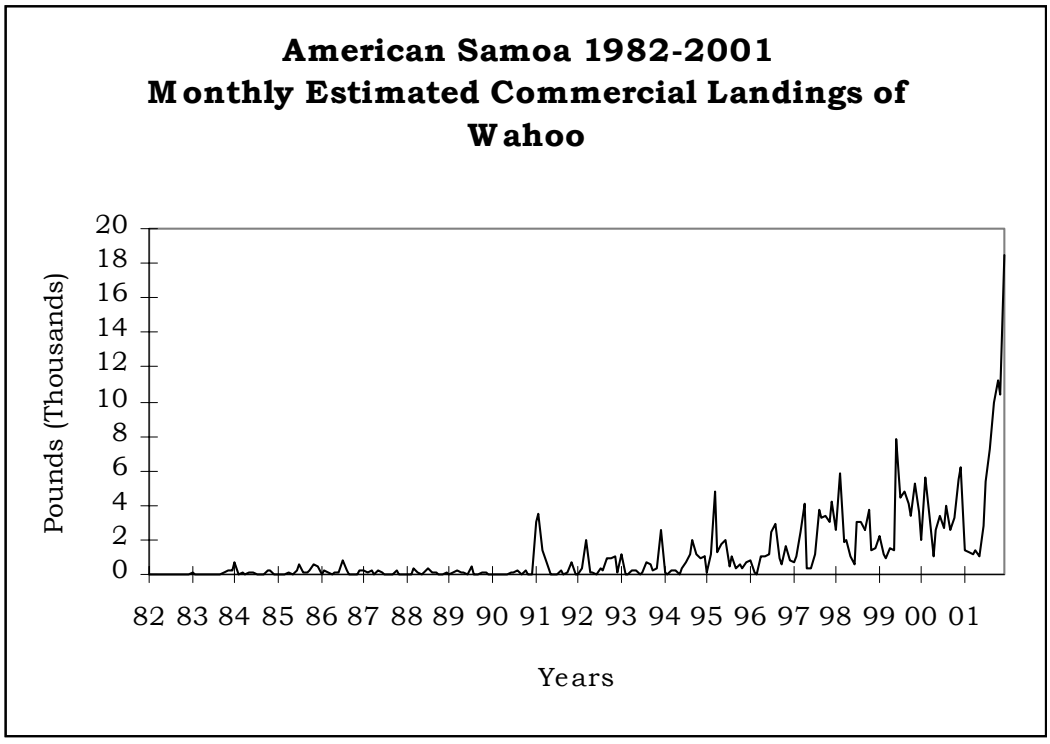

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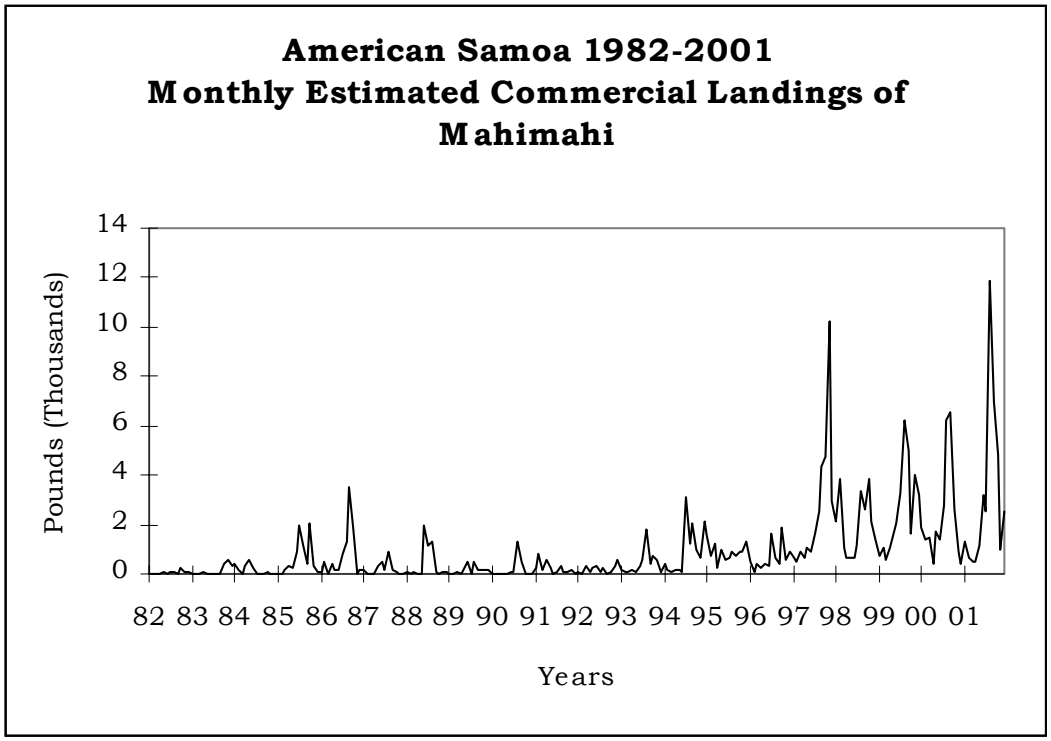

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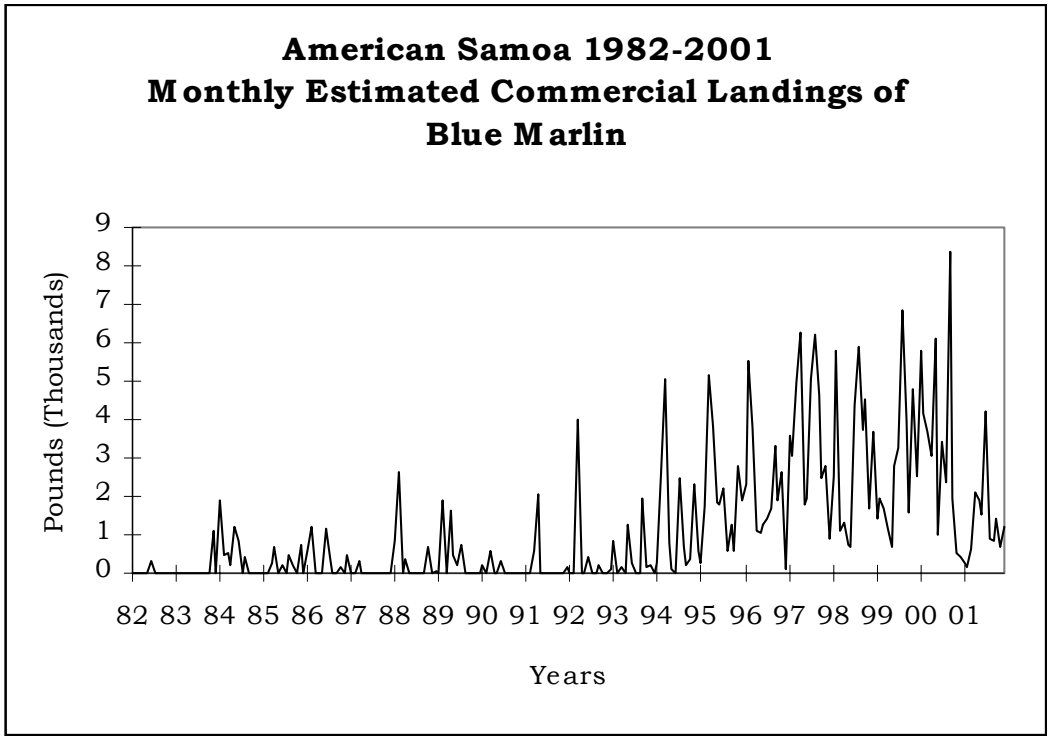

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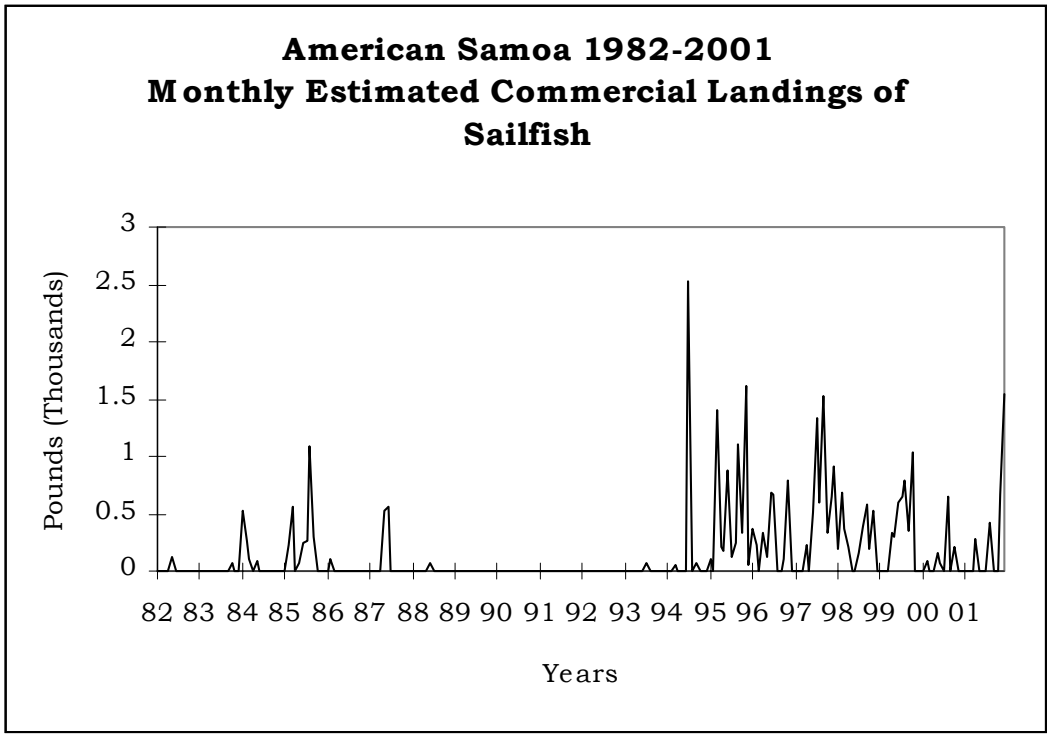

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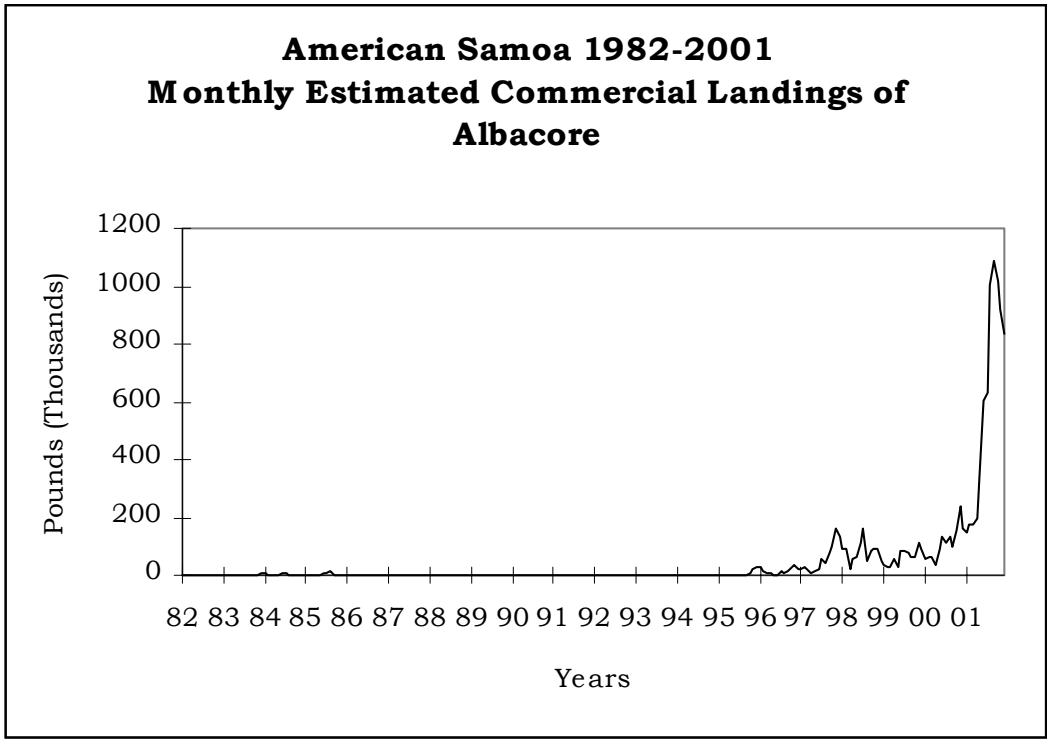
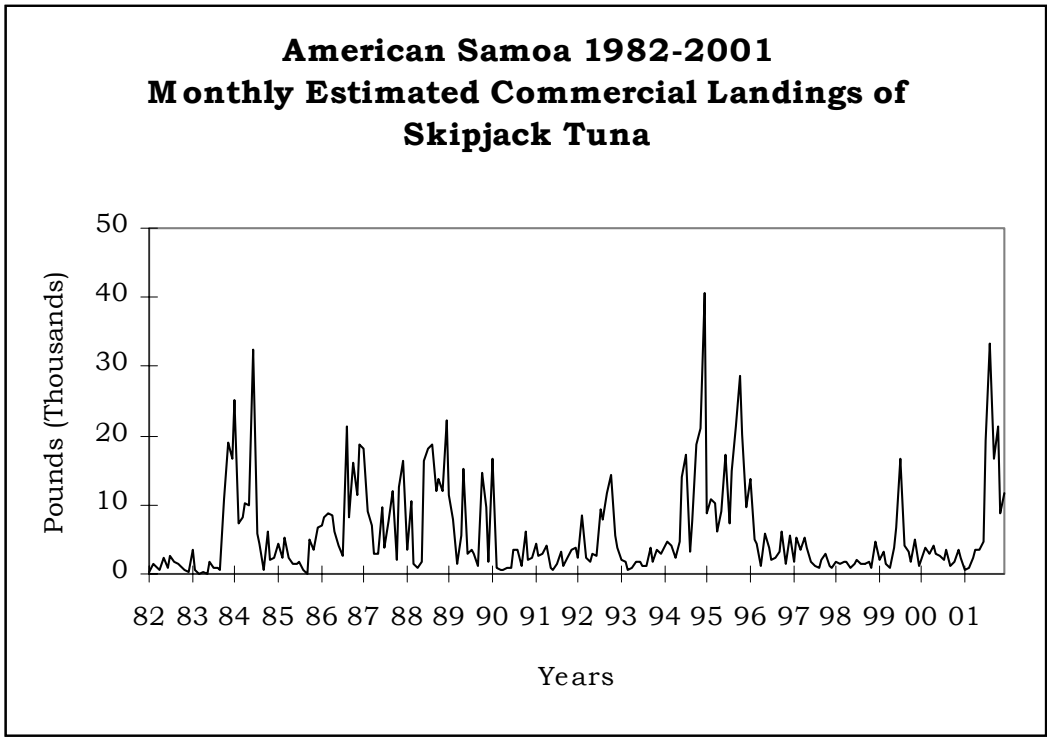


Figure II 4.6



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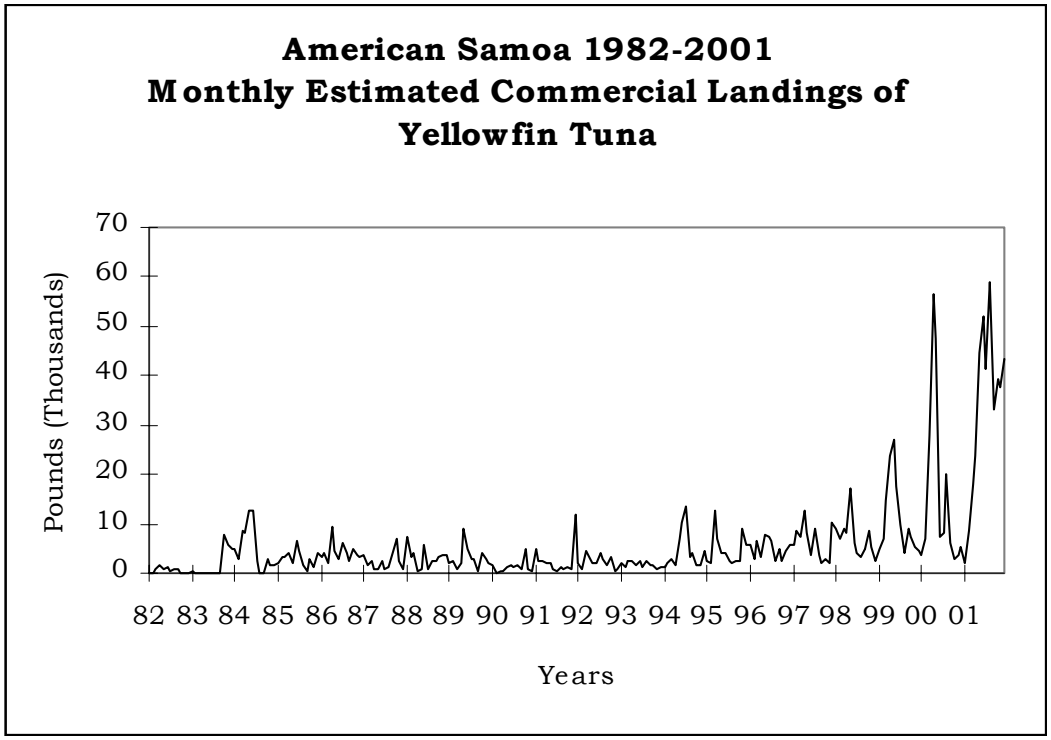

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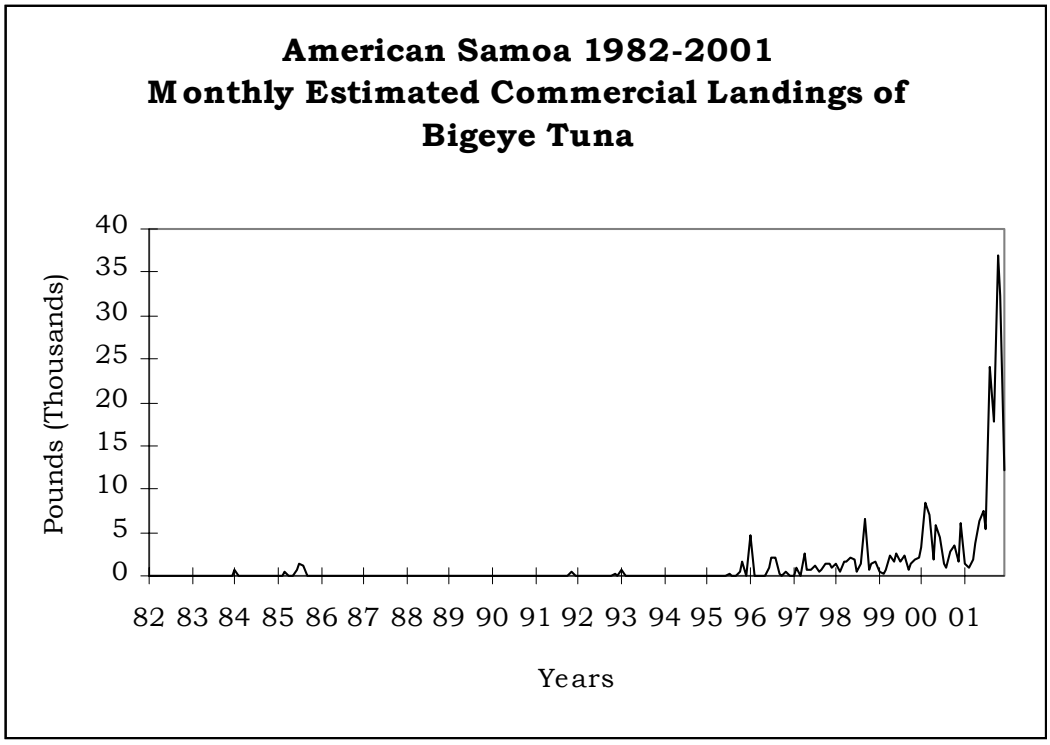

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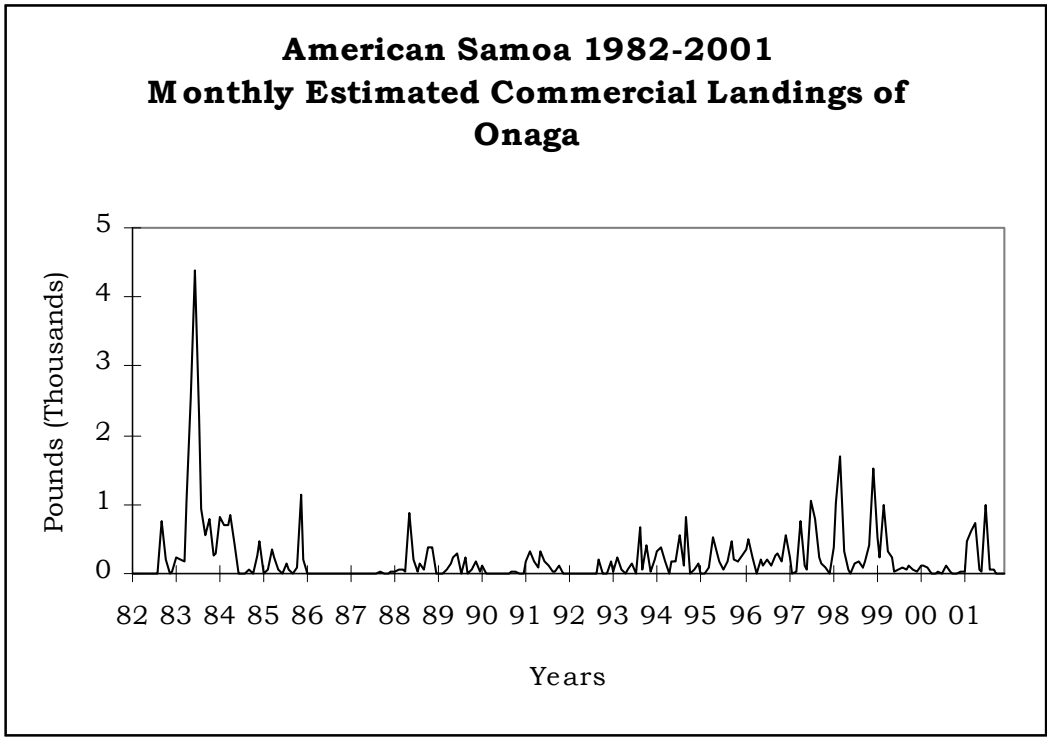

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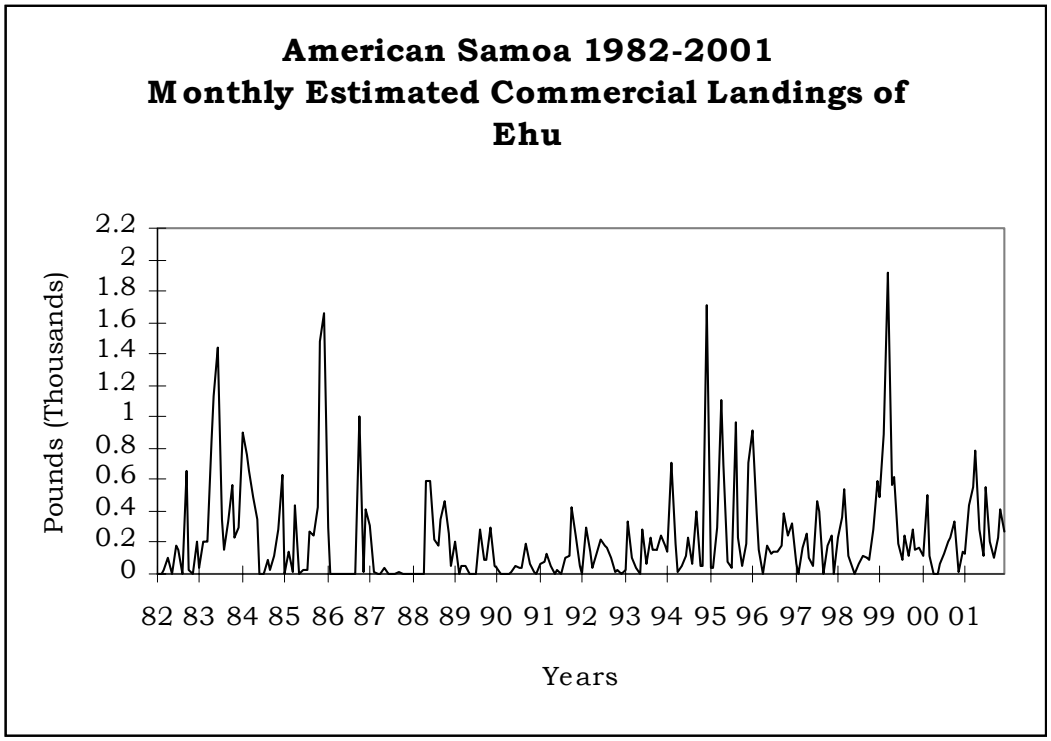

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AMERICAN SAMOA 2001 FISHERY STATISTICS

INTRODUCTION

Location: 14°S latitude, 170°W longitude
Islands: Tutuila, Aunu`u, the Manu`a Islands (Ofu, Olesaga, Ta`u), Rose Atoll (uninhabited), and Swain's Island (sparsely populated)
Population: 68,688 (80% on Tutuila)
Economy: tuna industry

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

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

During 2001, the various fishery monitoring programs in American Samoa identified 93 active vessels -- 87 home ported on Tutuila and 6 in the Manu'a islands. Many of these vessels participated in more than one fishery, and 72 of the Tutuila boats (including 24 vessels which were over 50 feet in length) did at least some longlining. Of the 93 total boats, 23 participated in the troll and bottomfish fisheries and 11 were used in other forms of fishing activities. On average, the alia fleet on Tutuila consisted of 3-man crews, fished 9 hours, and caught about 275 pounds of fish; the Manu'a-based fleet typically had 3-man crews, fished about 5 hours and landed 65 pounds of fish.

Essentially all of the longlining was based out of Tutuila, where the majority of the catch was offloaded to the canneries.

SPECIAL NOTE ON DATA REVISIONS

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

DATA COLLECTING SYSTEM

The data collecting systems used by DMWR to monitor the changing fisheries of American Samoa have evolved considerably over the past twenty years. One common factor of all systems has been that they have relied heavily on personal contacts with the fishermen and on a significant amount of dockside monitoring and interviewing.

The major systems in place today include: 1) boat-based access-point creel surveys on Tutuila and the Manu`a Islands (Offshore Creel Survey System), which are the mainstay of the monitoring program; 2) a mandatory purchase receipt “trip ticket” system for fish businesses on Tutuila (Commercial Purchase System); 3) a vessel history and tracking system for all American Samoa vessels (Vessel Classification System); 4) a Daily Effort Census System for detailed tracking of the developing longline fishery; 5) a mandatory federal Longline Logbook System; 6) a Cannery Landings System to document all landings at the two canneries made by domestic and foreign vessels; and 7) a size frequency sampling program at the canneries. Data from all these major systems are used to develop the best available data for the complex and ever changing fisheries of American Samoa. More details of these data collection systems follow.

From 1982 to 1985, DMWR obtained catch statistics by interviewing commercial fishermen at the end of their trips and kept records of as much commercial fishing activity as possible. This data collection method was accurate for trips where interviews were conducted. Yet it was very labor intensive, did not cover all trips, and did not include the small but growing recreational and subsistence fisheries.

Also, beginning in the early 1980’s, a vessel classification system was established to collect information on all vessels participating in any domestic fisheries. This system provides the following information on American Samoa vessels:

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

In October 1985 a new creel survey sampling system was implemented on Tutuila to provide better coverage and statistics on all boat-based fisheries. Soon afterwards similar monitoring programs were established in the Manu`a Islands where the fishing fleets are centrally located and small enough for statistics to be collected for nearly every trip. The surveyors in the Manu`a islands send their monitoring forms to DMWR in Tutuila for processing. The Manu`a statistics are entered and compiled on a monthly basis and are adjusted by an estimated percent coverage factor that is usually 100%.

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

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

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

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

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

- Interview Time *
- Area fished
- Home island
- Total hours fished (trip length) *
- Number of fishermen
- Number of gear used
- Total trip weight in pounds *
- Species caught *
- Number of pieces for each species
- Disposition of species*
- Weight in pounds for each species *
- Condition of species if not whole
- Length of fish (converted to weight)
- Price per pound for each species

It is not always possible to obtain information on all the items listed. However, the ones marked with an asterisk (*) are considered essential for data expansion purposes. Also, identification and weight of each species are often not obtainable; in this case a code for species groupings (e.g., miscellaneous bottom fish) is used. The interview data is later expanded to estimate the total catch per fishing trips and other CPUE measures in Tutuila. The catch per trip estimate is multiplied by the number of trips estimate for each strata to get an estimate of the total catch for Tutuila.

For several decades the two canneries have provided monthly summary statistics about their purchases of fish from all vessels, foreign and domestic. Then in September 1990, a Commercial Purchase (receipt book) System was instituted in which all businesses in Samoa that buy fish directly from fisherman were required by local law to submit a copy of their purchase receipts to DMWR. Receipt books are issued by DMWR to all fish markets, stores, hotels, and restaurants that re-sell fish, either whole of prepared. The following information is collected via these receipts.

- Invoice Date
- Invoice Number
- Buyer's Name
- Boat Name, Owner
- Area Fished
- Fishing Method
- Species bought
- Number of pieces for each species
- Weight in pounds for each species *
- Price per pound for each species

In January 1996, in response to the developing longline fishery, a federal longline logbook system was implemented by NMFS. All longline fishermen are required to obtain a federal permit which requires them to submit logs containing detailed data on each of their sets and the resulting catch. From 1996 to 1999, the logbooks submitted by the local longliners were edited by the NMFS fisheries monitoring agent in Samoa for any missing data and were then sent to the NMFS Honolulu Lab for further editing and data processing. To begin improving the monitoring of the fast-growing longline fishery, in July 1999 DMWR implemented a Daily Effort Consensus (DEC) for all federally permitted longline vessels. Six days a week DMWR staff make two visits a day to ports where longline vessels move. The staff document whether each vessel on the list is "in port" or "out fishing." The DEC data are used to track the activity of each vessel and to help ensure all fishing logsheets are submitted by the fishermen. To further improve the

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

- Set Date
- Vessel
- Date of Departure
- Port of Departure
- Date of Arrival
- Port of Arrival
- Observer on Board
- Target Species
- Bait Used
- Mainline Length
- No. of Hooks
- No. of Hooks/Float
- No. of Lightsticks Used
- Bird Catch Mitigation Measures
- Wind Detection
- Wave Height
- Sea Surface Temperature
- Wind Speed
- Begin Set Time
- Begin Set Latitude and Longitude
- End Set Time
- End Set Latitude and Longitude
- Haul Date
- Begin Haul Date
- Begin Haul Latitude and Longitude
- End Haul Time
- End Haul Latitude and Longitude
- No. of Pelagic Species kept
- No. of Pelagic Species released
- No. of Sharks finned
- No. of Sharks kept
- No. of Sharks released
- No. of Protected Species released alive
- No. of Protected Species released injured
- No. of Protected Species released dead

DATA PROCESSING SYSTEM

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

Several important principles have remained constant over time: keep data processing close to the source of data collecting; provide all of the needed software tools to ensure the quality of data; make the systems user friendly and functional for the local staff; and maintain as many standards as possible throughout the time series of data collected.

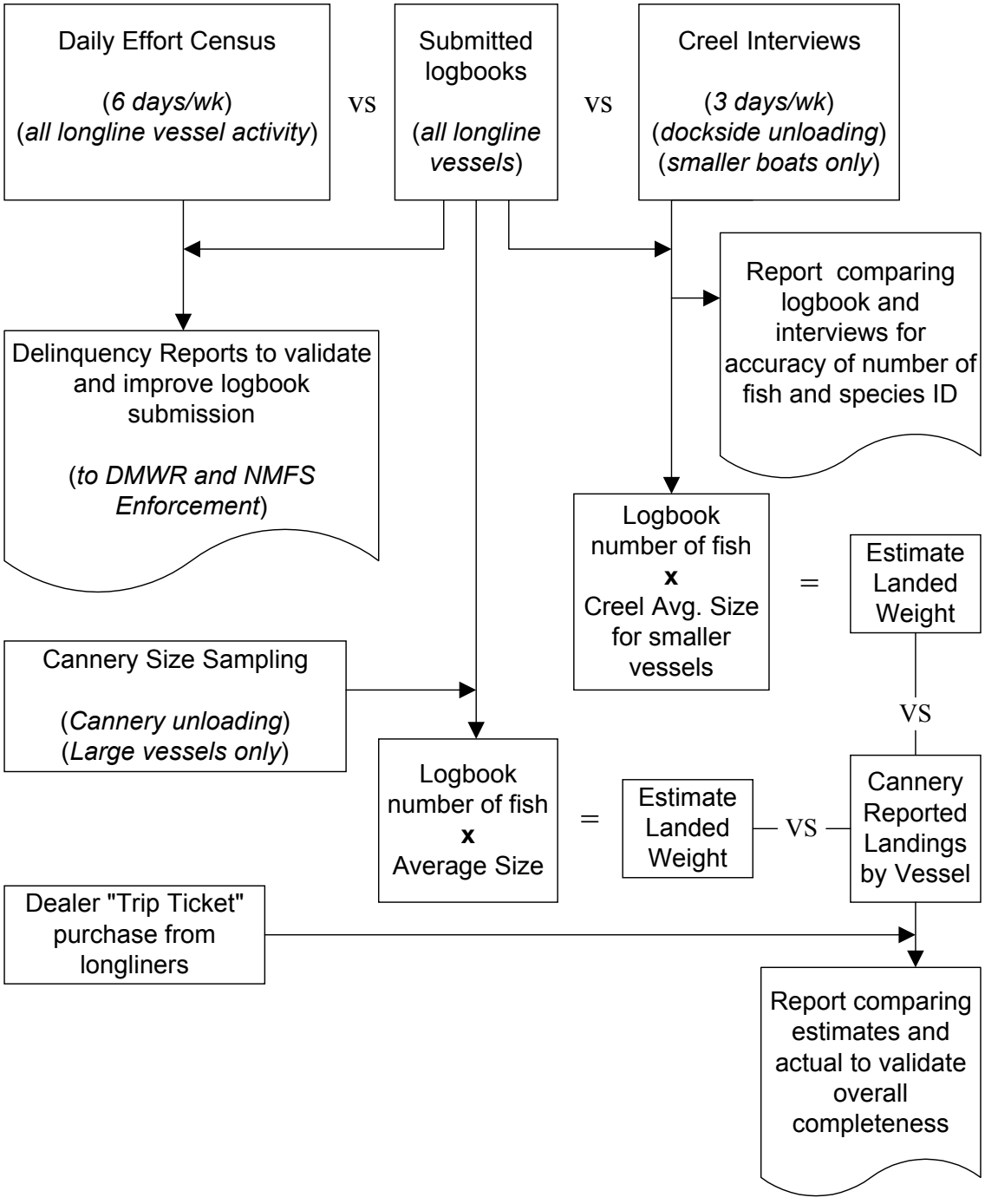
Typically, when upgrades (such as changes in expansion and reporting algorithms for the creel survey data and commercial landings data) have been made to data processing systems, the entire time series of data would be reprocessed using the same algorithms so that trends in the fisheries would remain as intact as possible. The

annual and monthly estimated commercial landings data and the corresponding time series figures included in this report were produced with the versions of data processing systems in use in May 2001. To help the reader understand the origin of the data included in this report, a general description of these processes follows. It does not include the details on many minor changes that have occurred throughout the evolutionary history of these systems.

The data from 1982-85 have been imported directly from the original Commercial Catch Monitoring System used before the implementation of the offshore creel survey. Since 1986, the boat-based creel survey data expansion system has been the central system for estimating total commercial landings in American Samoa. In short, the survey data expansion process involves multiplying the average daily participation by the average catch per trip for each stratum. For the years 1986-90, commercial sales portions of the expanded creel survey data from Tutuila and the Manu`a Islands were combined to produce estimated total commercial landings. Since 1990, with the implementation of the mandatory fish dealer receipt book system on Tutuila, further adjustments have been made to these combined creel data by using receipt book data. These adjustments made significant improvements in overall totals as they helped adjust for sales not monitored through the boat-based survey (e.g. shoreline and strictly nighttime commercial fishing). Species totals modified with these types of adjustments are flagged in reports with an asterisk. Finally, in the late 1990's when larger longline vessels began landing their catches directly at the canneries, and thus out of the monitoring capabilities of the standard creel surveys, the longline logbook system and cannery size frequency sampling data entered the algorithm to fill the gap for this portion of the fishery by adding the landings of these vessels to the other data to create a more complete picture of the estimated total commercial landings for the Territory.

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

Data Quality and Cross Validation
American Samoa Longline Example



DATA REPORTING SYSTEM

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, weight in pounds, value in dollars, and the average price per pound of each species or species group and whether or not the data was modified by Commercial Purchase System data (denoted by asterisks). The monthly data tables are based on monthly expansions of the Tutuila Offshore Creel Survey Data with enhancements by monthly Longline Logbook, Commercial Purchase System and Manu`a data as explained previously. Annual data tables are based on combined annual expansions of the creel data for the entire calendar year with similar annual enhancements from Longline Logbook, Commercial Purchase System and Manu`a data as explained previously. Since the monthly and annual data tables are based on separate monthly and annual expansion of the creel data, the annual data tables are not the exact sum of the 12 monthly data tables but fall within the standard error. These data tables are listed as Tables II.1.1 to II.1.13 in this report.

The charts that make up the rest of the report are for groups of species as well as for some of the dominant individual species. Please note that some of the charts in this volume are new or modified from earlier volumes. More emphasis has been put on Bigeye Tuna and Albacore Tuna because of their new substantial levels of catch. The species in the species groups used in the charts of this report are defined below.

I. Pelagic Management Unit Species (PMUS)

Although the Magnuson Fishery Conservation and Management of 1976 was amended in 1992 to include tunas in the PMUS (PPMUS), this report series will continue to tunas as a separate category from the PPMUS. The PMUS category includes:

Other Sharks
Blacktip reef shark
Blue shark
Mako Shark
Nurse shark
Thresher Shark
White-Tip Shark
Mahimahi
Blue marlin
Black marlin
Striped Marlin
Sailfish
Spearfish
Swordfish
Wahoo
Pomfret
Moonfish

II. Bottomfish Management Unit Species (BMUS)

Amberjack
Ambon emperor
Bigeye emperor
Bigeye trevally
Black jack
Black snapper
Blacktail snapper
Blacktip grouper
Blood snapper
Blue lined gindai
Blue lined snapper
Bluefin trevally
Blueline bream
Bottom Handline Snappers
Bottomfish (Assorted)
Brown jobfish
Ehu (squirrelfish snap.)
Emperors (misc)
Flagtail grouper
Giant grouper
Giant trevally
Gindai (flower snap)
Goldenline bream
Goldspot trevally
Gray jobfish
Groupers (misc)
Hawaiian opakapaka
Humpback snapper
Jacks (misc)
Kusakar's snapper
Lehi (silverjaw)
Longnose emperor
Lunartail grouper
Multidens snapper
Oilfish
Onaga (longtail snapper)
Onespot snapper
Orangespot emperor
Peacock grouper
Pristipomoides/Etelis
Redgill emperor
Rufous snapper
Smalltooth grouper
Snake mackerel
Spotted grouper
Stone's snapper
Striped grouper
Tomato grouper
Trevally (C.caeruleop.)
Twinspot/red snapper
Whitemouth trevally
Yellow opakapaka
Yelloweye opakapaka(P.fl.
Yellowspot grouper
Yellowtail snapper

III. Billfish

Swordfish
Blue marlin
Black marlin
Striped Marlin
Sailfish
Spearfish

IV. Tunas

Other Tunas
Skipjack Tuna
Dogtooth tuna
Albacore
Bluefin Tuna
Yellowfin Tuna
BigeyeTuna
Kawakawa

V. Other Tuna

Other Tunas	Bluefin Tuna
Dogtooth tuna	Kawakawa

VI. Fisheries Categories

A. Pelagics

Albacore	Other Sharks
Barracudas	Other Tunas
BigeyeTuna	Other birds
Black marlin	Pomfret
Blacktip reef shark	Rainbow runner
Blue marlin	Sailfish
Blue shark	Sharks
Bluefin Tuna	Silky Shark
Dogtooth tuna	Skipjack Tuna
Hammerhead Shark	Small barracuda
Kawakawa	Spearfish
Large barracuda	Striped Marlin
Mackerel	Swordfish
Mahimahi	Thresher Shark
Mako Shark	Tiger Shark
Moonfish	Wahoo
Nurse shark	White-Tip Shark
Other Pelagic Fish	Yellowfin Tuna

B. Bottom Fish

Amberjack
Ambon emperor
Bigeye emperor
Bigeye trevally
Black jack
Black snapper
Blacktail snapper
Blacktip grouper
Blood snapper
Blue lined gindai
Blue lined snapper
Bluefin trevally
Blueline bream
Bottom Handline Snappers
Bottomfish (Assorted)
Brown jobfish
Ehu (squirrelfish snap.)
Emperors (misc)
Flagtail grouper
Giant grouper
Giant trevally
Gindai (flower snap)
Goldenline bream
Goldspot trevally
Gray jobfish
Groupers (misc)
Hawaiian opakapaka
Humpback snapper
Jacks (misc)
Kusakar's snapper
Lehi (silverjaw)
Longnose emperor
Lunartail grouper
Multidens snapper
Oilfish
Onaga (longtail snapper)
Onespot snapper
Orangespot emperor
Peacock grouper
Pristipomoides/Etelis
Redgill emperor
Rufous snapper
Smalltooth grouper
Snake mackerel
Spotted grouper
Stone's snapper
Striped grouper
Tomato grouper
Trevally (C.caeruleop.)
Twinspot/red snapper
Whitemouth trevally
Yellow opakapaka
Yelloweye opakapaka(P.fl.
Yellowspot grouper
Yellowtail snapper

C. Reef Fish

Bigeye scad
Catfish
Conger eels
Crabs
Eagle ray
Eels
Flyingfish
Giant clam
Halfbeaks
Invertebrates
Kona crab
Leatherback
Limu, algae
Mackerel scad: opelu
Mangrove crab
Milkfish
Miscellaneous
Moray eels
Needlefish
Octopus
Rays
Salmon
Sea shells
Sea urchins
Shrimp
Slipper lobster
Spiny lobster
Spotted eels
Squid
Sunfish
Threadfin
Tilapia
Turban snail

D. Other

Bigeye squirrelfish
Bigeyes
Bigscale soldierfish
Brown surgeonfish
Brwn wrasse:pataotao
Butterflyfish
Cardinalfish
Convict tang
Flounders
Goatfish
Hawkfish
Inshore groupers
Inshore snappers
Lined surgeon
Mountain bass
Mullets
Naso tang
Orangespine unicornfish
Parrotfishes
Pink goatfish
Porcupinefish
Rabbitfish
Red snapper, mu
Reef fish (Assorted)
Rudderfish
Saber squirrelfish
Sargent major
Squirrelfish
Striped bristletooth
Surgeonfishes/tangs
Sweepers
Sweetlips
Terapon perch
Tilefish
Triggerfish
Unicornfishes (misc)
Whitespotted surgeonfish
Wrasse
Yellowfin surgeonfish

INTERPRETATION OF STATISTICS

The user is reminded to pay heed to the precautions and assumptions identified earlier in this document, when making interpretations of or inferences from data reported in the tables and graphs. Remember also that the commercial landings summaries are not based on a census of all the fishing activities, but on samples of those activities and on integration of data from four separate data systems. One of the major factors in expanding the creel survey data into monthly and annual estimates is the use of proportionality constants to adjust for percent coverage of the surveys. The flexibility of the survey design allows for refinement of these constants as additional information is gained on the fishing activities. If the constants are improved upon, the basic survey data can be re-expanded to create better overall estimates. However, the variability and species composition would not be expected to change since these statistics are based on the actual survey information collected from the fishermen. The estimates of total landings are considered conservative because the catch from the subsistence inshore fisheries are currently not included in this document.

Table II.1.1
American Samoa Annual 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Bigeye scad	321	$691	$2.16	*
Jacks (misc)	16	$43	$2.75	
Black jack	658	$1,207	$1.83	
Bigeye trevally	755	$1,660	$2.20	
Barracudas	1,166	$2,389	$2.05	
Mullets	23	$45	$2.00	
Groupers (misc)	90	$181	$2.00	
Peacock grouper	19	$37	$2.00	
Tomato grouper	205	$432	$2.11	
Blacktip grouper	28	$75	$2.67	
Lunartail grouper	1,519	$3,157	$2.08	
Blue lined snapper	6,008	$12,071	$2.01	
Onespot snapper	90	$236	$2.62	
Twinspot/red snapper	13	$26	$2.00	
Humpback snapper	3,599	$10,377	$2.88	
Gray jobfish	1,794	$3,596	$2.00	
Yellow opakapaka	1,679	$4,848	$2.89	
Hawaiian opakapaka	356	$768	$2.16	
Gindai (flower snap)	226	$549	$2.43	*
Yellowtail snapper	482	$1,206	$2.50	
Lehi (silverjaw)	863	$2,597	$3.01	
Onaga (longtail snapper)	3,267	$6,111	$1.87	
Ehu (squirrelfish snap.)	3,261	$9,747	$2.99	
Black snapper	42	$83	$2.00	
Bigeye emperor	120	$239	$2.00	
Emperors (misc)	10,359	$26,355	$2.54	
Longnose emperor	579	$1,157	$2.00	
Orangespot emperor	223	$445	$2.00	
Redgill emperor	2,518	$5,070	$2.01	
Oilfish	246	$369	$1.50	
Pomfret	2,604	$6,509	$2.50	
Rudderfish	46	$91	$2.00	
Surgeonfishes/tangs	5,003	$10,006	$2.00	*
Unicornfishes (misc)	1,088	$1,130	$1.04	
Squirrelfish	932	$1,847	$1.98	*
Parrotfishes	6,731	$13,338	$1.98	*
Inshore groupers	965	$1,900	$1.97	*
Triggerfish	27	$53	$2.00	
Striped Marlin	5,276	$6,595	$1.25	
Mahimahi	49,544	$78,872	$1.59	
Swordfish	1,663	$3,542	$2.13	*
Blue marlin	12,410	$14,699	$1.18	
Black marlin	2,456	$2,398	$0.98	
Sailfish	3,117	$3,336	$1.07	
Spearfish	645	$968	$1.50	
Rainbow runner	200	$401	$2.00	
Wahoo	73,549	$79,120	$1.08	
Skipjack Tuna	126,849	$74,189	$0.58	
Dogtooth tuna	1,363	$1,938	$1.42	
Albacore	7,122,030	$7,623,542	$1.07	
Yellowfin Tuna	395,607	$361,161	$0.91	
BigeyeTuna	151,336	$177,084	$1.17	
Kawakawa	3	$3	$1.00	

Table II.1.1 (Cont.)
American Samoa Annual 2001 Estimated Commercial Landings

Species	Pounds	Value	$/Lb	
Moonfish	2,898	$2,861	$0.99	
Crabs	134	$201	$1.50	
Spiny lobster	1,484	$5,048	$3.40	
Octopus	171	$355	$2.07	*
TOTAL	8,008,653	$8,566,955	$1.07	

* Data replaced or modified by Actual Commercial Landings Data

Table II.1.2

American Samoa January 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Groupers (misc)	5	$9	$2.00	
Peacock grouper	2	$4	$2.00	
Tomato grouper	6	$12	$2.00	
Lunartail grouper	4	$7	$2.08	
Blue lined snapper	81	$162	$2.00	*
Humpback snapper	31	$62	$2.00	*
Gray jobfish	15	$30	$2.00	*
Yellow opakapaka	62	$179	$2.89	
Gindai (flower snap)	137	$411	$3.00	*
Yellowtail snapper	20	$49	$2.50	
Onaga (longtail snapper)	34	$61	$1.81	
Ehu (squirrelfish snap.)	126	$378	$3.00	*
Black snapper	5	$9	$2.00	
Bigeye emperor	5	$9	$2.00	
Emperors (misc)	28	$57	$2.03	
Pomfret	73	$182	$2.50	
Surgeonfishes/tangs	1,280	$2,560	$2.00	*
Unicornfishes (misc)	59	$79	$1.34	*
Squirrelfish	136	$272	$2.00	*
Parrotfishes	1,024	$2,047	$2.00	*
Inshore groupers	40	$80	$2.00	*
Striped Marlin	162	$202	$1.25	
Mahimahi	1,271	$1,765	$1.39	
Swordfish	110	$275	$2.50	*
Blue marlin	277	$326	$1.18	*
Wahoo	1,381	$1,646	$1.19	
Skipjack Tuna	576	$434	$0.75	
Albacore	144,776	$154,847	$1.07	
Yellowfin Tuna	2,186	$1,955	$0.89	
BigeyeTuna	1,436	$1,639	$1.14	
Moonfish	4,515	$4,514	$1.00	
Spiny lobster	36	$127	$3.53	*
TOTAL	159,895	$174,388	$1.09	

* Data replaced or modified by Actual Commercial Landings Data

Table II.1.3
American Samoa February 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Bigeye scad	64	$127	$2.00	*
Groupers (misc)	65	$129	$2.00	
Peacock grouper	4	$7	$2.00	
Tomato grouper	11	$22	$2.00	
Lunartail grouper	49	$103	$2.08	
Humpback snapper	51	$111	$2.18	
Gray jobfish	53	$106	$2.00	
Yellow opakapaka	881	$2,545	$2.89	
Yellowtail snapper	281	$703	$2.50	
Onaga (longtail snapper)	479	$867	$1.81	
Ehu (squirrelfish snap.)	433	$1,299	$3.00	
Black snapper	8	$16	$2.00	
Bigeye emperor	8	$16	$2.00	
Emperors (misc)	372	$757	$2.03	
Pomfret	841	$2,101	$2.50	
Surgeonfishes/tangs	670	$1,340	$2.00	*
Unicornfishes (misc)	98	$102	$1.04	
Squirrelfish	40	$80	$2.00	*
Parrotfishes	500	$1,000	$2.00	*
Inshore groupers	131	$262	$2.00	*
Striped Marlin	485	$606	$1.25	
Mahimahi	621	$994	$1.60	*
Blue marlin	155	$173	$1.11	*
Wahoo	1,323	$1,440	$1.09	
Skipjack Tuna	954	$625	$0.66	
Albacore	173,098	$177,417	$1.02	
Yellowfin Tuna	8,474	$7,829	$0.92	
BigeyeTuna	1,031	$1,177	$1.14	
Moonfish	18	$16	$0.88	
Spiny lobster	51	$170	$3.33	*
TOTAL	191,246	$202,139	$1.06	

* Data replaced or modified by Actual Commercial Landings Data

Table II.1.4
American Samoa March 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Groupers (misc)	72	$143	$2.00	
Peacock grouper	9	$18	$2.00	
Tomato grouper	27	$53	$2.00	
Lunartail grouper	55	$114	$2.08	
Humpback snapper	64	$139	$2.18	
Gray jobfish	59	$118	$2.00	
Yellow opakapaka	976	$2,819	$2.89	
Yellowtail snapper	311	$779	$2.50	
Onaga (longtail snapper)	607	$1,099	$1.81	
Ehu (squirrelfish snap.)	549	$1,648	$3.00	
Black snapper	20	$40	$2.00	
Bigeye emperor	20	$40	$2.00	
Emperors (misc)	417	$848	$2.03	
Pomfret	1,066	$2,665	$2.50	
Surgeonfishes/tangs	927	$1,853	$2.00	
Unicornfishes (misc)	240	$251	$1.04	
Squirrelfish	138	$271	$1.97	*
Parrotfishes	597	$1,167	$1.95	*
Inshore groupers	162	$312	$1.92	*
Striped Marlin	377	$471	$1.25	
Mahimahi	484	$686	$1.42	*
Swordfish	234	$652	$2.79	*
Blue marlin	640	$713	$1.11	*
Wahoo	1,124	$1,056	$0.94	
Skipjack Tuna	2,389	$1,679	$0.70	
Dogtooth tuna	40	$44	$1.10	*
Albacore	177,819	$188,001	$1.06	
Yellowfin Tuna	17,845	$16,466	$0.92	
BigeyeTuna	1,841	$2,079	$1.13	
Moonfish	9	$8	$0.88	
Spiny lobster	65	$197	$3.02	*
TOTAL	209,181	$226,429	$1.08	

* Data replaced or modified by Actual Commercial Landings Data

Table II.1.5
American Samoa April 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Bigeye scad	179	$408	$2.28	*
Black jack	129	$236	$1.83	
Bigeye trevally	242	$530	$2.19	
Peacock grouper	5	$9	$2.00	
Tomato grouper	14	$27	$2.00	
Lunartail grouper	48	$101	$2.08	
Blue lined snapper	739	$1,479	$2.00	
Humpback snapper	111	$222	$2.00	*
Gray jobfish	431	$863	$2.00	
Yellow opakapaka	145	$419	$2.89	
Hawaiian opakapaka	258	$557	$2.16	
Yellowtail snapper	65	$161	$2.50	
Lehi (silverjaw)	306	$941	$3.07	
Onaga (longtail snapper)	734	$1,467	$2.00	
Ehu (squirrelfish snap.)	786	$2,035	$2.59	
Black snapper	10	$20	$2.00	
Bigeye emperor	10	$20	$2.00	
Emperors (misc)	587	$1,174	$2.00	
Pomfret	547	$1,367	$2.50	
Surgeonfishes/tangs	469	$938	$2.00	
Unicornfishes (misc)	122	$127	$1.04	
Squirrelfish	97	$194	$2.00	*
Parrotfishes	454	$908	$2.00	*
Inshore groupers	36	$69	$1.92	
Striped Marlin	215	$269	$1.25	
Mahimahi	522	$921	$1.76	*
Swordfish	122	$296	$2.43	*
Blue marlin	2,103	$2,528	$1.20	
Black marlin	286	$268	$0.94	
Sailfish	283	$303	$1.07	*
Spearfish	17	$25	$1.50	
Wahoo	1,403	$1,477	$1.05	
Skipjack Tuna	3,534	$1,965	$0.56	
Albacore	197,332	$195,384	$0.99	
Yellowfin Tuna	23,854	$25,067	$1.05	
BigeyeTuna	3,685	$4,669	$1.27	
Moonfish	9	$8	$0.88	
Spiny lobster	110	$384	$3.50	*
TOTAL	239,998	$247,837	$1.03	

* Data replaced or modified by Actual Commercial Landings Data

Table II.1.6

American Samoa May 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Bigeye scad	78	$156	$2.00	*
Tomato grouper	103	$207	$2.00	
Lunartail grouper	228	$473	$2.08	
Blue lined snapper	1,559	$3,118	$2.00	
Humpback snapper	360	$720	$2.00	
Gray jobfish	108	$215	$2.00	
Yellow opakapaka	207	$597	$2.89	
Hawaiian opakapaka	30	$90	$3.00	*
Gindai (flower snap)	89	$138	$1.55	*
Onaga (longtail snapper)	51	$84	$1.65	*
Ehu (squirrelfish snap.)	283	$580	$2.05	*
Bigeye emperor	72	$145	$2.00	
Emperors (misc)	3,224	$6,448	$2.00	
Pomfret	8	$20	$2.50	
Surgeonfishes/tangs	178	$356	$2.00	*
Unicornfishes (misc)	27	$44	$1.63	*
Squirrelfish	55	$110	$2.00	*
Parrotfishes	301	$602	$2.00	*
Inshore groupers	197	$393	$2.00	
Striped Marlin	54	$67	$1.25	
Mahimahi	1,174	$1,996	$1.70	
Swordfish	50	$88	$1.75	*
Blue marlin	1,894	$2,588	$1.37	
Spearfish	17	$25	$1.50	
Rainbow runner	186	$372	$2.00	
Wahoo	1,105	$1,052	$0.95	
Skipjack Tuna	3,397	$1,860	$0.55	
Albacore	333,486	$380,174	$1.14	
Yellowfin Tuna	44,729	$47,991	$1.07	
BigeyeTuna	6,294	$9,501	$1.51	
Moonfish	18	$16	$0.88	
Spiny lobster	25	$82	$3.27	*
TOTAL	399,584	$460,306	$1.15	

* Data replaced or modified by Actual Commercial Landings Data

Table II.1.7
American Samoa June 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Jacks (misc)	21	$57	$2.75	
Black jack	44	$89	$2.00	
Barracudas	83	$94	$1.13	
Blue lined snapper	446	$892	$2.00	
Twinspot/red snapper	17	$35	$2.00	
Humpback snapper	182	$364	$2.00	*
Gray jobfish	114	$228	$2.00	
Hawaiian opakapaka	135	$270	$2.00	*
Onaga (longtail snapper)	37	$74	$2.00	*
Ehu (squirrelfish snap.)	112	$361	$3.22	*
Emperors (misc)	232	$463	$2.00	
Longnose emperor	232	$463	$2.00	
Redgill emperor	214	$429	$2.00	
Pomfret	9	$23	$2.50	
Surgeonfishes/tangs	552	$1,104	$2.00	*
Unicornfishes (misc)	54	$66	$1.22	*
Squirrelfish	74	$146	$1.97	*
Parrotfishes	533	$1,059	$1.99	*
Inshore groupers	125	$242	$1.94	
Triggerfish	42	$83	$2.00	
Striped Marlin	108	$135	$1.25	
Mahimahi	3,201	$5,323	$1.66	
Swordfish	62	$186	$3.00	*
Blue marlin	1,547	$2,083	$1.35	
Black marlin	215	$201	$0.94	
Spearfish	199	$298	$1.50	
Wahoo	2,764	$2,692	$0.97	
Skipjack Tuna	4,639	$2,473	$0.53	
Dogtooth tuna	326	$475	$1.46	
Albacore	602,623	$688,368	$1.14	
Yellowfin Tuna	51,997	$46,710	$0.90	
BigeyeTuna	7,429	$10,167	$1.37	
Moonfish	22	$19	$0.88	
Spiny lobster	29	$98	$3.33	*
TOTAL	678,416	$765,771	$1.13	

* Data replaced or modified by Actual Commercial Landings Data

Table II.1.8
American Samoa July 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Bigeye trevally	287	$629	$2.19	
Barracudas	626	$1,530	$2.44	
Mullets	16	$33	$2.00	
Lunartail grouper	287	$574	$2.00	
Blue lined snapper	514	$1,028	$2.00	
Humpback snapper	76	$151	$2.00	
Gray jobfish	53	$106	$2.00	
Hawaiian opakapaka	26	$52	$2.00	*
Lehi (silverjaw)	45	$107	$2.35	
Onaga (longtail snapper)	982	$1,778	$1.81	
Ehu (squirrelfish snap.)	559	$1,582	$2.83	
Emperors (misc)	68	$136	$2.00	
Longnose emperor	151	$302	$2.00	
Orangespot emperor	151	$302	$2.00	
Oilfish	572	$858	$1.50	
Pomfret	323	$808	$2.50	
Rudderfish	33	$66	$2.00	
Surgeonfishes/tangs	673	$1,346	$2.00	
Unicornfishes (misc)	340	$356	$1.05	*
Squirrelfish	135	$264	$1.96	*
Parrotfishes	958	$1,885	$1.97	*
Inshore groupers	198	$390	$1.97	*
Striped Marlin	269	$336	$1.25	
Mahimahi	2,568	$4,180	$1.63	
Swordfish	253	$339	$1.34	*
Blue marlin	4,203	$4,203	$1.00	
Black marlin	215	$201	$0.94	
Spearfish	116	$174	$1.50	
Wahoo	5,435	$6,414	$1.18	
Skipjack Tuna	19,281	$12,818	$0.66	
Dogtooth tuna	142	$170	$1.20	
Albacore	629,509	$616,472	$0.98	
Yellowfin Tuna	41,165	$43,046	$1.05	
BigeyeTuna	5,279	$5,946	$1.13	
Moonfish	22	$19	$0.88	
Crabs	25	$37	$1.50	
Spiny lobster	296	$888	$3.00	
TOTAL	715,850	$709,526	$0.99	

* Data replaced or modified by Actual Commercial Landings Data

Table II.1.9

American Samoa August 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Black jack	94	$216	$2.29	
Barracudas	86	$136	$1.58	
Mullets	14	$28	$2.00	
Bottomfish (Assorted)	5	$11	$2.16	
Tomato grouper	5	$10	$2.00	
Lunartail grouper	227	$469	$2.06	
Blue lined snapper	525	$1,051	$2.00	
Humpback snapper	760	$3,042	$4.00	
Gray jobfish	204	$408	$2.00	
Yellow opakapaka	16	$45	$2.89	
Lehi (silverjaw)	60	$141	$2.35	
Onaga (longtail snapper)	68	$123	$1.81	
Ehu (squirrelfish snap.)	209	$1,028	$4.92	
Emperors (misc)	1,364	$5,456	$4.00	
Redgill emperor	47	$111	$2.35	
Oilfish	20	$31	$1.50	
Pomfret	25	$62	$2.50	
Rudderfish	28	$56	$2.00	
Surgeonfishes/tangs	570	$1,140	$2.00	
Unicornfishes (misc)	149	$156	$1.05	
Squirrelfish	50	$98	$1.96	
Parrotfishes	475	$941	$1.98	*
Inshore groupers	106	$209	$1.98	
Striped Marlin	592	$740	$1.25	
Mahimahi	11,908	$18,755	$1.58	
Swordfish	312	$667	$2.14	*
Blue marlin	891	$891	$1.00	
Black marlin	29	$29	$1.00	
Sailfish	415	$444	$1.07	
Spearfish	99	$149	$1.50	
Wahoo	7,204	$7,460	$1.04	
Skipjack Tuna	33,396	$18,872	$0.57	
Dogtooth tuna	235	$343	$1.46	
Albacore	1,006,403	$1,079,742	$1.07	
Yellowfin Tuna	58,812	$48,584	$0.83	
BigeyeTuna	24,177	$29,286	$1.21	
Kawakawa	3	$3	$1.00	
Moonfish	29	$25	$0.87	
Crabs	21	$31	$1.50	
Spiny lobster	251	$752	$3.00	
TOTAL	1,149,885	$1,221,742	$1.06	

* Data replaced or modified by Actual Commercial Landings Data

Table II.1.10
American Samoa September 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Black jack	52	$115	$2.22	
Barracudas	89	$151	$1.70	
Bottomfish (Assorted)	2	$5	$2.16	
Tomato grouper	4	$7	$1.80	
Blacktip grouper	3	$6	$2.00	
Lunartail grouper	131	$268	$2.05	
Blue lined snapper	223	$447	$2.00	
Onespot snapper	3	$6	$2.00	
Humpback snapper	390	$1,418	$3.64	
Gray jobfish	116	$232	$2.00	
Yellow opakapaka	6	$19	$2.89	
Gindai (flower snap)	4	$8	$2.00	
Lehi (silverjaw)	40	$89	$2.21	
Onaga (longtail snapper)	44	$83	$1.88	
Ehu (squirrelfish snap.)	100	$450	$4.51	
Emperors (misc)	560	$2,242	$4.00	
Redgill emperor	442	$891	$2.02	
Pomfret	21	$52	$2.50	
Surgeonfishes/tangs	354	$708	$2.00	
Unicornfishes (misc)	134	$134	$1.00	*
Squirrelfish	59	$116	$1.97	*
Parrotfishes	691	$1,356	$1.96	*
Inshore groupers	101	$198	$1.97	*
Striped Marlin	754	$942	$1.25	
Mahimahi	6,947	$11,121	$1.60	
Swordfish	584	$1,751	$3.00	
Blue marlin	824	$824	$1.00	
Black marlin	143	$134	$0.94	
Spearfish	132	$199	$1.50	
Wahoo	9,885	$10,130	$1.02	
Skipjack Tuna	16,616	$9,624	$0.58	
Dogtooth tuna	350	$525	$1.50	*
Albacore	1,087,117	$1,132,772	$1.04	
Yellowfin Tuna	33,327	$28,944	$0.87	
BigeyeTuna	17,848	$19,756	$1.11	
Moonfish	27	$23	$0.88	
Crabs	23	$34	$1.50	
Spiny lobster	315	$1,200	$3.81	*
Octopus	35	$86	$2.44	*
TOTAL	1,178,496	$1,227,066	$1.04	

* Data replaced or modified by Actual Commercial Landings Data

Table II.1.11
American Samoa October 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Black jack	20	$41	$2.00	
Barracudas	33	$92	$2.75	
Lunartail grouper	159	$356	$2.24	
Blue lined snapper	58	$115	$2.00	
Onespot snapper	10	$20	$2.00	
Humpback snapper	244	$532	$2.18	
Gray jobfish	102	$203	$2.00	
Lehi (silverjaw)	156	$536	$3.45	
Ehu (squirrelfish snap.)	229	$458	$2.00	*
Emperors (misc)	105	$210	$2.00	
Redgill emperor	1,333	$2,667	$2.00	
Pomfret	22	$54	$2.50	
Surgeonfishes/tangs	546	$1,091	$2.00	
Unicornfishes (misc)	102	$103	$1.01	
Squirrelfish	46	$92	$1.99	
Parrotfishes	283	$558	$1.97	*
Inshore groupers	72	$142	$1.97	*
Striped Marlin	377	$471	$1.25	
Mahimahi	4,852	$7,724	$1.59	
Swordfish	47	$100	$2.13	
Blue marlin	1,420	$1,463	$1.03	
Black marlin	413	$412	$1.00	
Spearfish	17	$25	$1.50	
Wahoo	11,215	$12,040	$1.07	
Skipjack Tuna	21,439	$11,958	$0.56	
Albacore	1,014,996	$1,166,679	$1.15	
Yellowfin Tuna	39,170	$29,448	$0.75	
BigeyeTuna	36,872	$41,255	$1.12	
Moonfish	20	$17	$0.87	
Crabs	32	$48	$1.50	
Spiny lobster	276	$1,005	$3.64	
TOTAL	1,134,664	$1,279,916	$1.13	

* Data replaced or modified by Actual Commercial Landings Data

Table II.1.12

American Samoa November 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Black jack	29	$58	$2.00	
Bigeye trevally	10	$28	$2.75	
Barracudas	173	$349	$2.02	
Tomato grouper	30	$83	$2.75	
Blacktip grouper	25	$69	$2.75	
Lunartail grouper	155	$311	$2.00	
Blue lined snapper	109	$274	$2.52	
Onespot snapper	15	$29	$2.00	
Humpback snapper	350	$763	$2.18	
Gray jobfish	156	$319	$2.05	
Lehi (silverjaw)	39	$78	$2.00	
Ehu (squirrelfish snap.)	412	$824	$2.00	*
Emperors (misc)	35	$96	$2.75	
Redgill emperor	1,913	$3,827	$2.00	
Pomfret	33	$83	$2.50	
Surgeonfishes/tangs	362	$723	$2.00	
Unicornfishes (misc)	48	$50	$1.03	
Squirrelfish	46	$92	$2.00	*
Parrotfishes	253	$506	$2.00	*
Inshore groupers	27	$53	$1.98	
Striped Marlin	915	$1,144	$1.25	
Mahimahi	1,006	$1,584	$1.57	*
Swordfish	314	$576	$1.83	*
Blue marlin	673	$1,010	$1.50	
Sailfish	663	$710	$1.07	
Spearfish	17	$25	$1.50	
Wahoo	10,422	$10,025	$0.96	
Skipjack Tuna	8,878	$4,941	$0.56	
Dogtooth tuna	30	$30	$1.00	
Albacore	922,424	$973,950	$1.06	
Yellowfin Tuna	37,696	$28,422	$0.75	
BigeyeTuna	32,265	$37,277	$1.16	
Moonfish	69	$60	$0.88	
Crabs	19	$28	$1.50	
Spiny lobster	123	$430	$3.50	
TOTAL	1,019,732	$1,068,824	$1.05	

* Data replaced or modified by Actual Commercial Landings Data

Table II.1.13
American Samoa December 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb	
Black jack	117	$147	$1.25	
Barracudas	78	$113	$1.45	
Lunartail grouper	52	$142	$2.75	
Blue lined snapper	466	$932	$2.00	
Onespot snapper	48	$133	$2.75	
Humpback snapper	117	$235	$2.00	
Gray jobfish	76	$152	$2.00	
Lehi (silverjaw)	131	$492	$3.75	
Ehu (squirrelfish snap.)	272	$544	$2.00	*
Emperors (misc)	1,288	$2,575	$2.00	
Pomfret	39	$97	$2.50	
Surgeonfishes/tangs	394	$788	$2.00	*
Unicornfishes (misc)	45	$45	$1.00	*
Squirrelfish	93	$183	$1.98	*
Parrotfishes	664	$1,309	$1.97	*
Inshore groupers	55	$108	$1.96	
Striped Marlin	969	$1,211	$1.25	
Mahimahi	2,561	$4,292	$1.68	
Swordfish	77	$77	$1.00	*
Blue marlin	1,217	$2,130	$1.75	
Black marlin	72	$67	$0.94	
Sailfish	1,537	$1,644	$1.07	
Spearfish	33	$50	$1.50	
Wahoo	18,425	$21,850	$1.19	
Skipjack Tuna	11,568	$7,408	$0.64	
Albacore	834,805	$879,900	$1.05	
Yellowfin Tuna	43,290	$45,017	$1.04	
BigeyeTuna	12,144	$14,025	$1.15	
Moonfish	51	$45	$0.88	
Spiny lobster	45	$135	$3.00	*
Octopus	136	$269	$1.98	*
TOTAL	930,864	$986,114	$1.06	

* Data replaced or modified by Actual Commercial Landings Data

Figure II.1.1

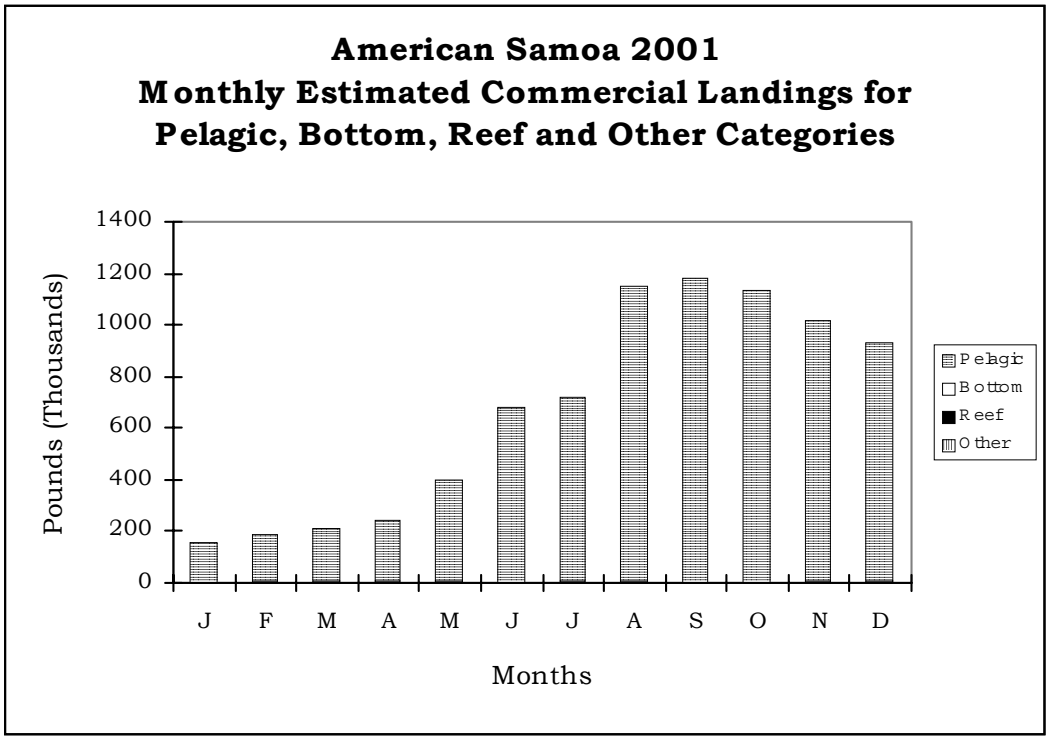


Figure II.1.2

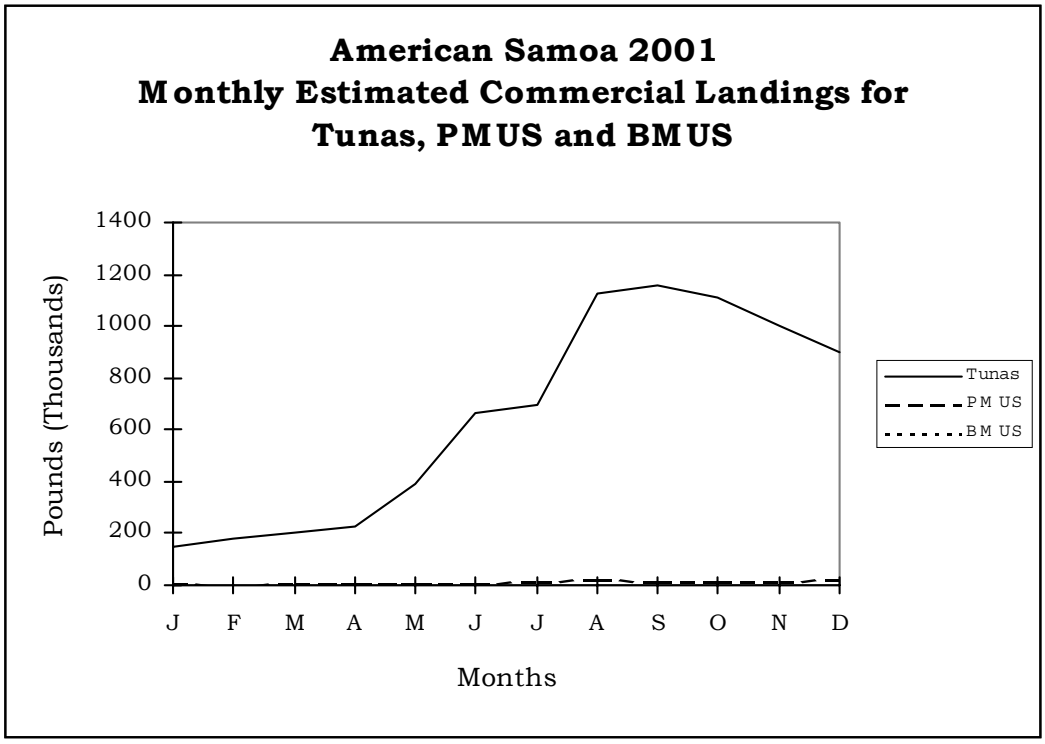


Figure II.1.3

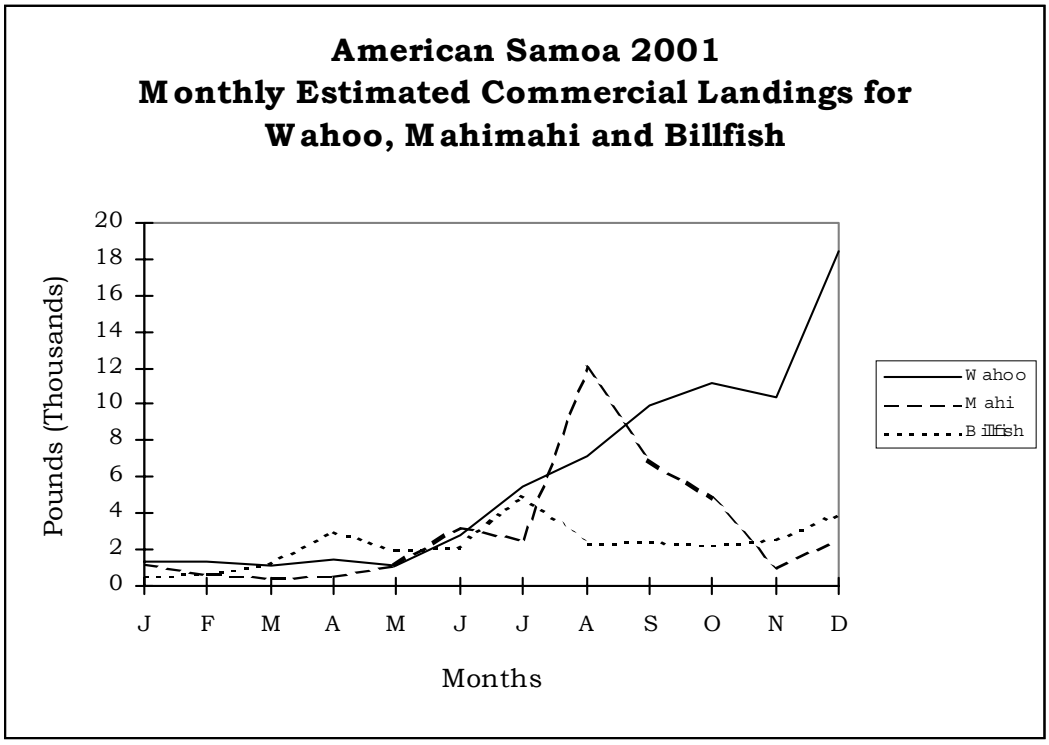


Figure II.1.4

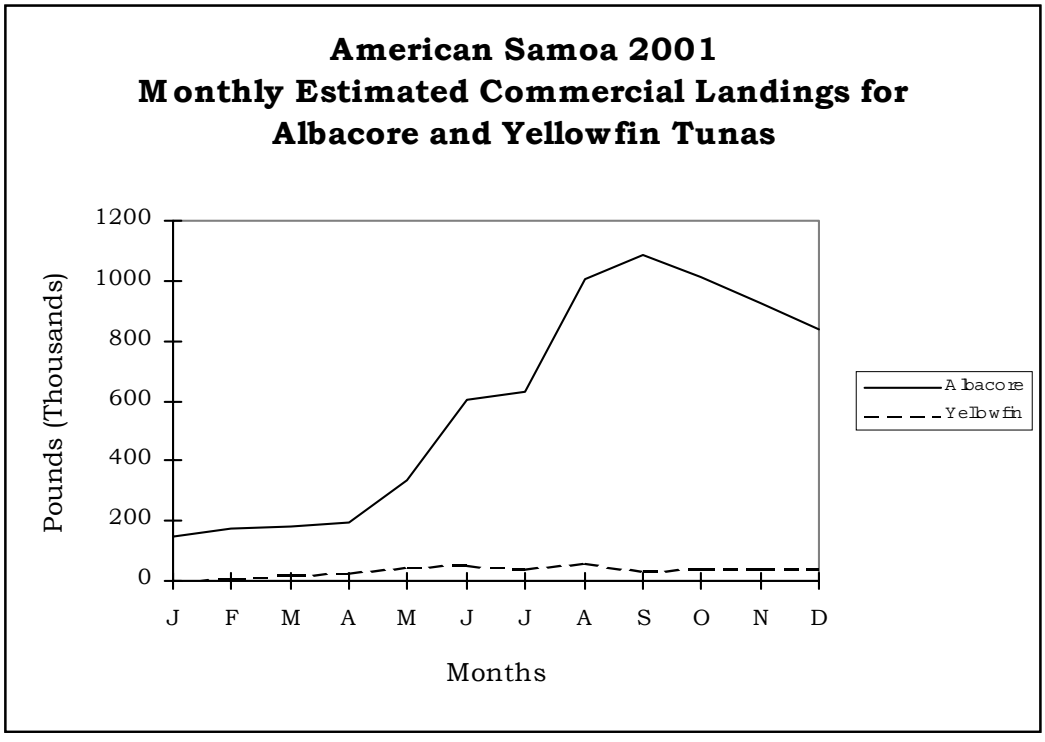


Figure II.1.5

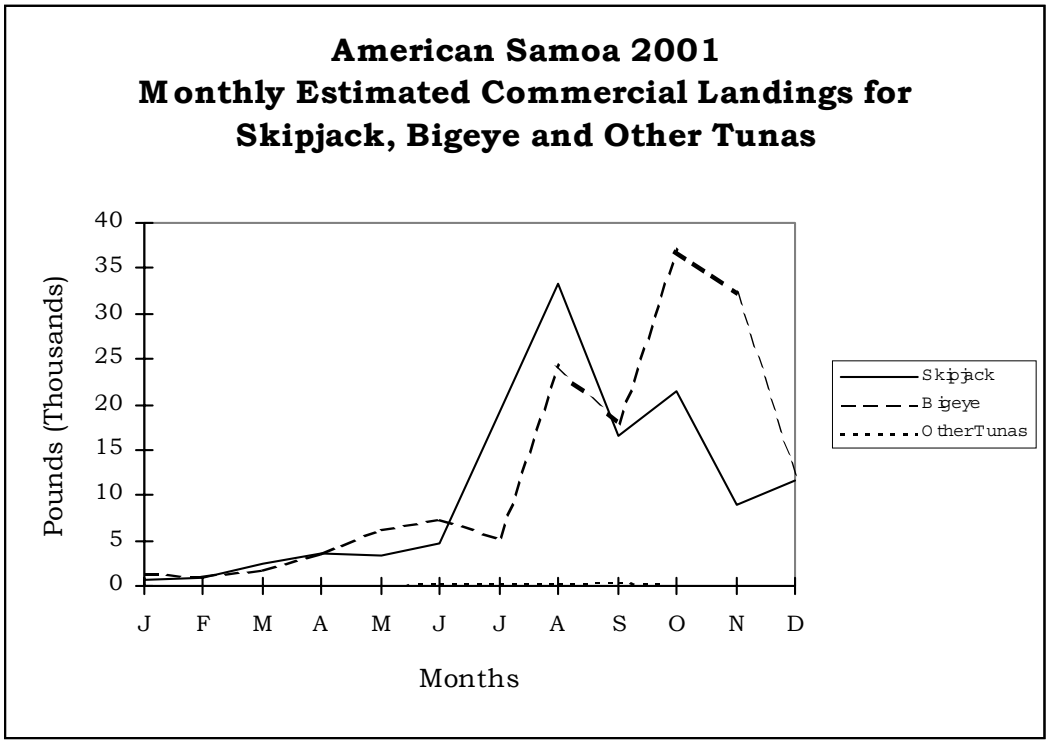


Figure II.2.1

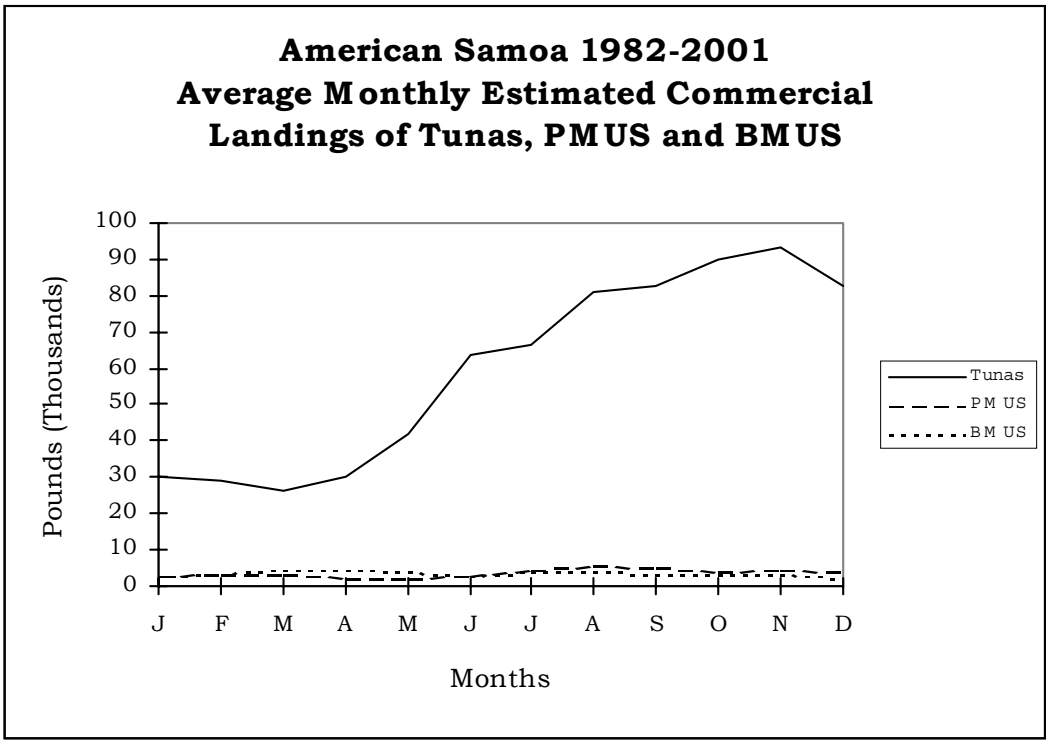


Figure II.2.2

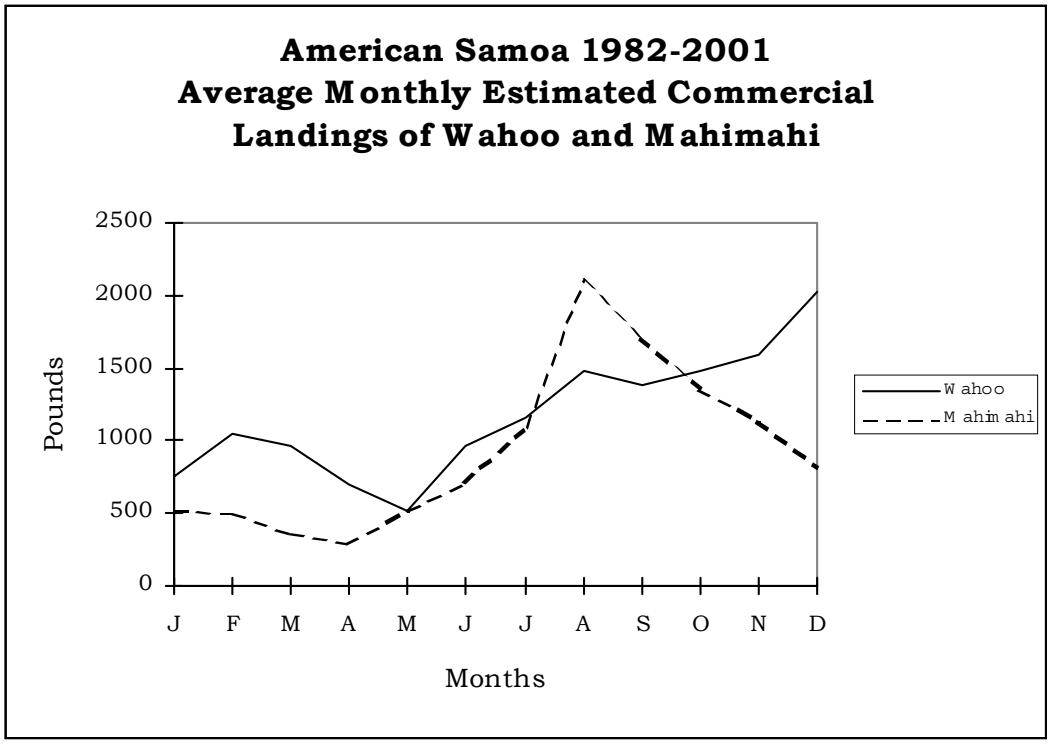


Figure II.2.3

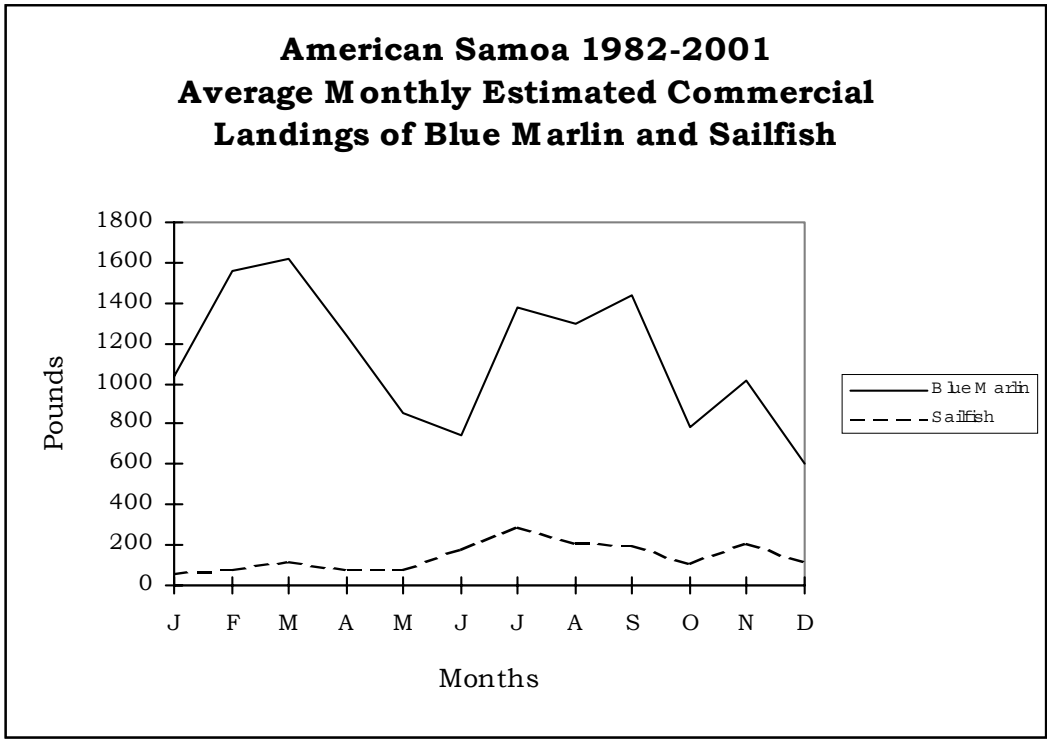


Figure II.2.4

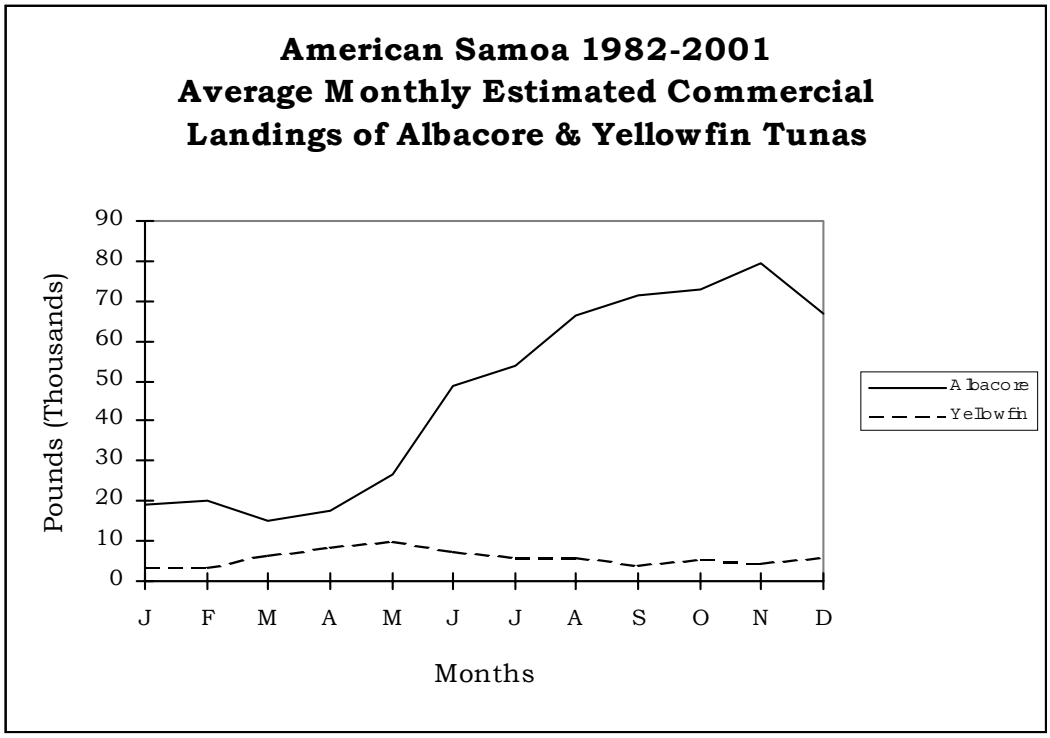


Figure II.2.5

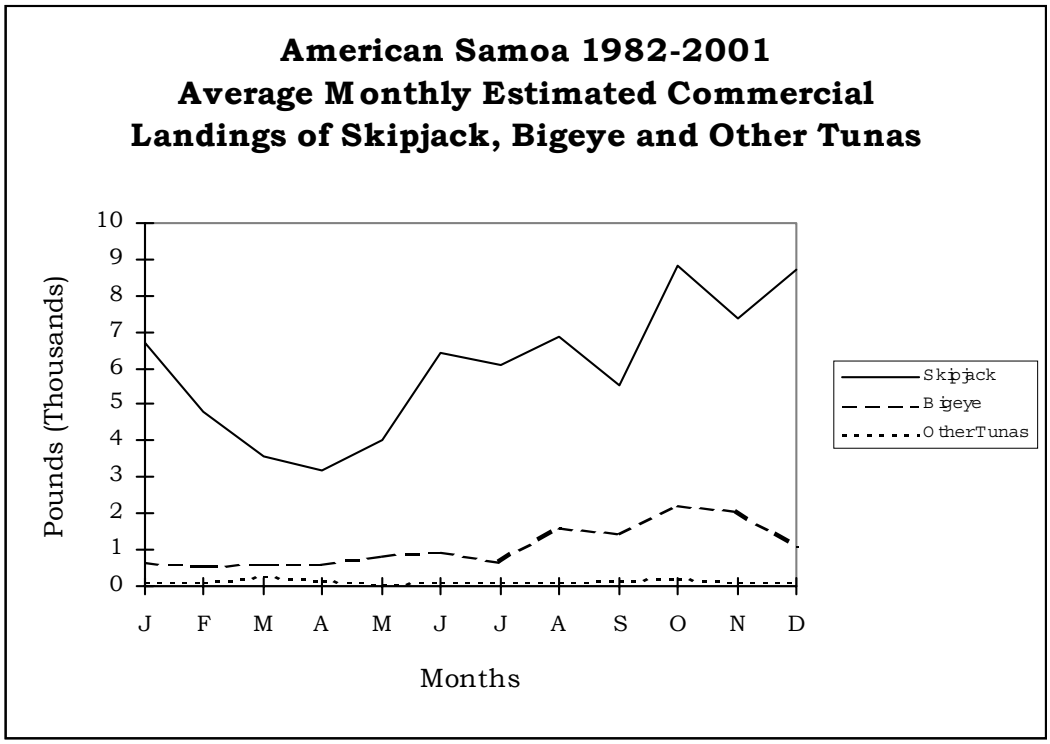


Figure II.2.6

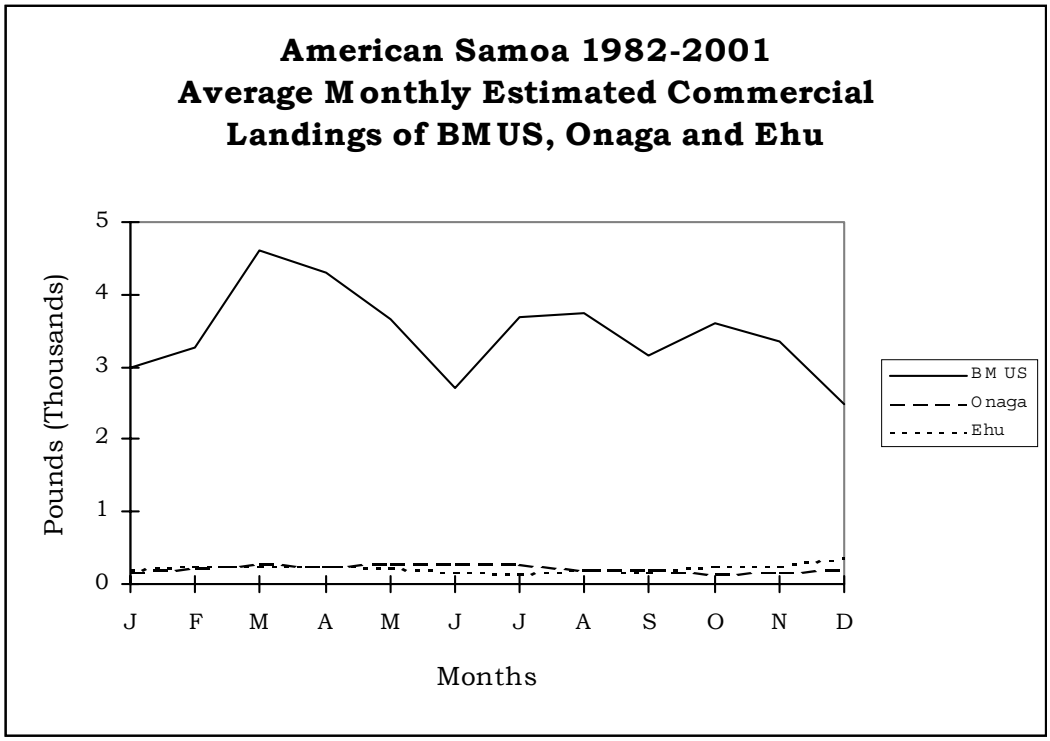


Figure II.3.1

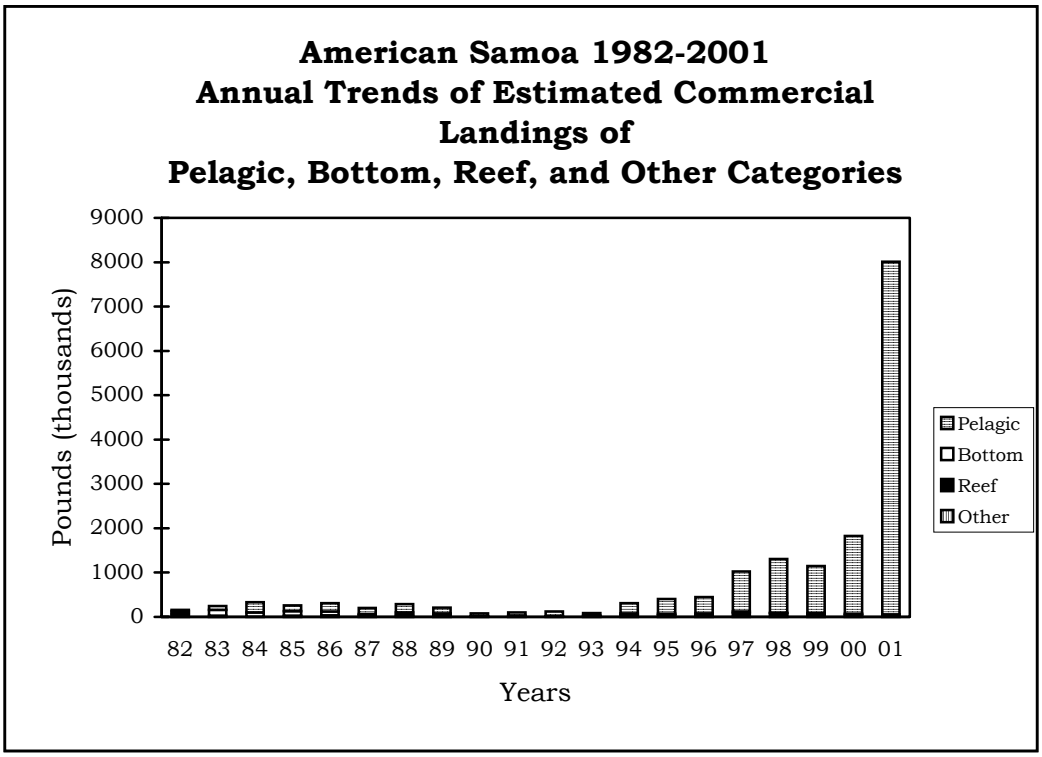


Figure II.3.2

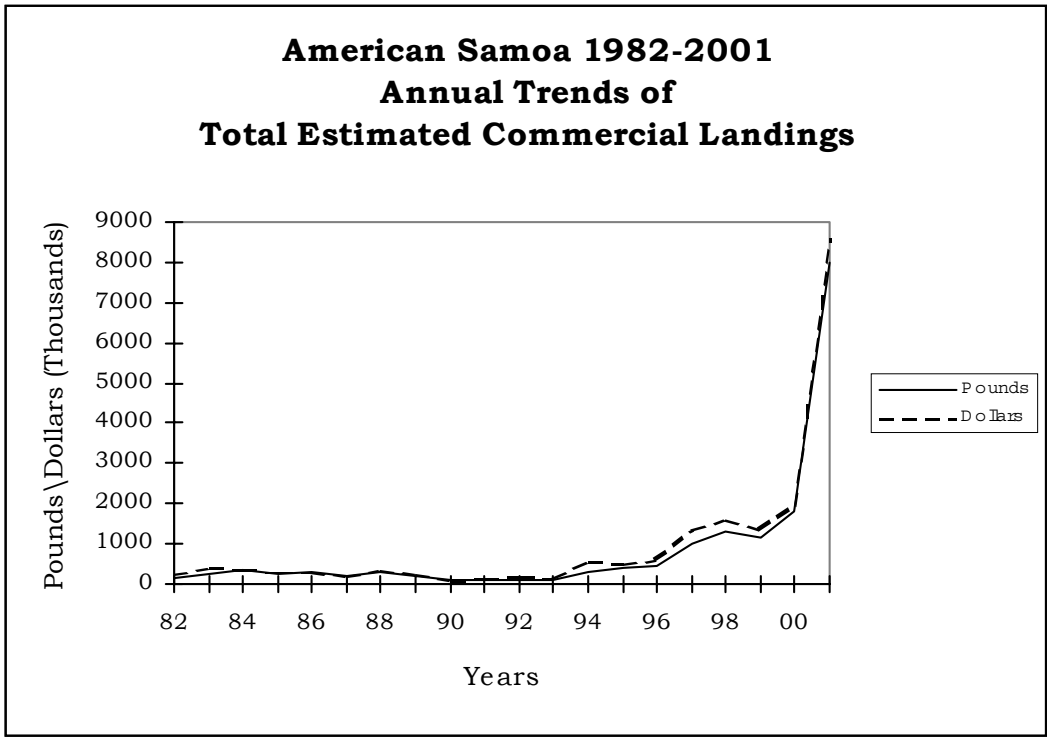


Figure II.3.3

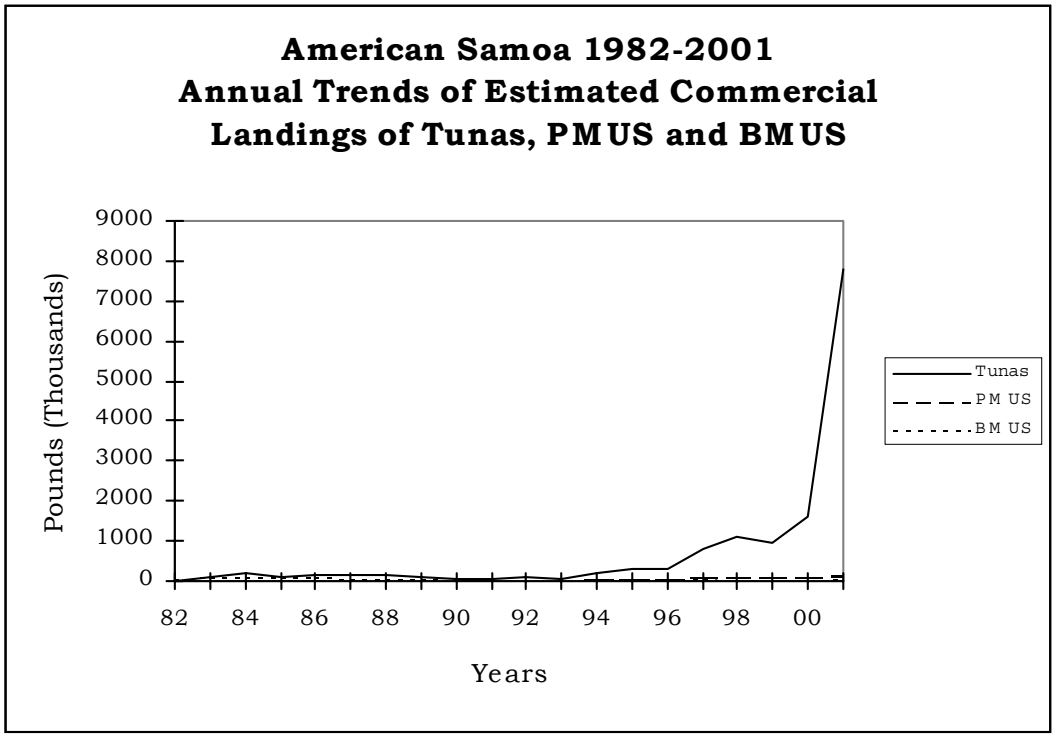


Figure II.3.4

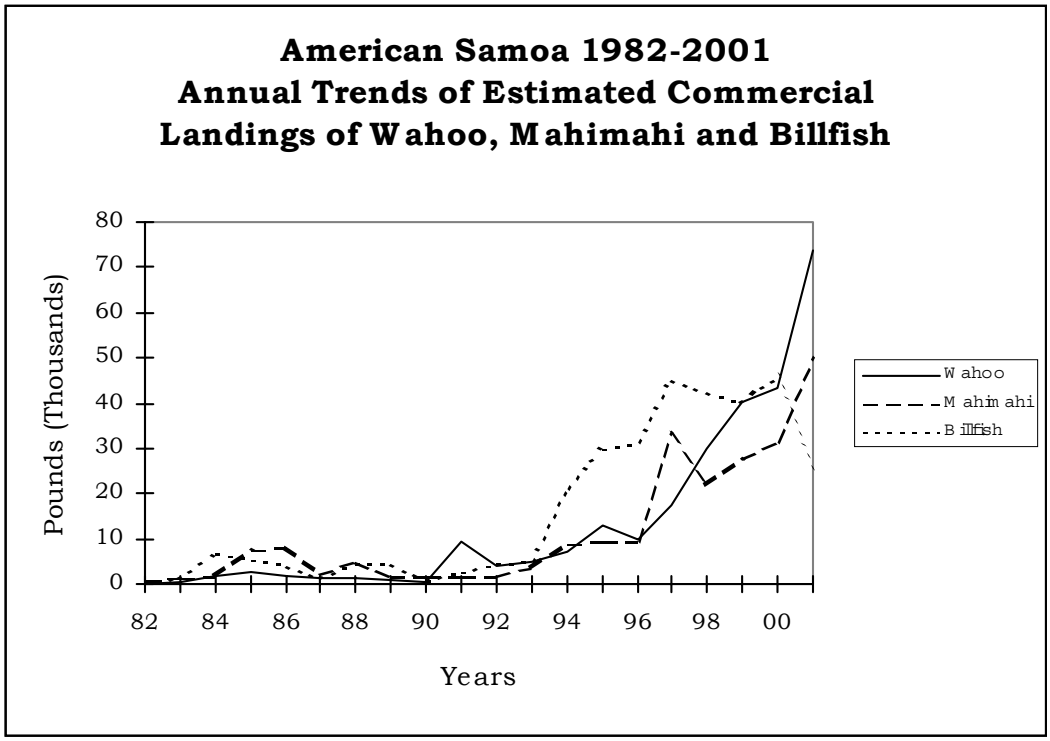


Figure II.3.5

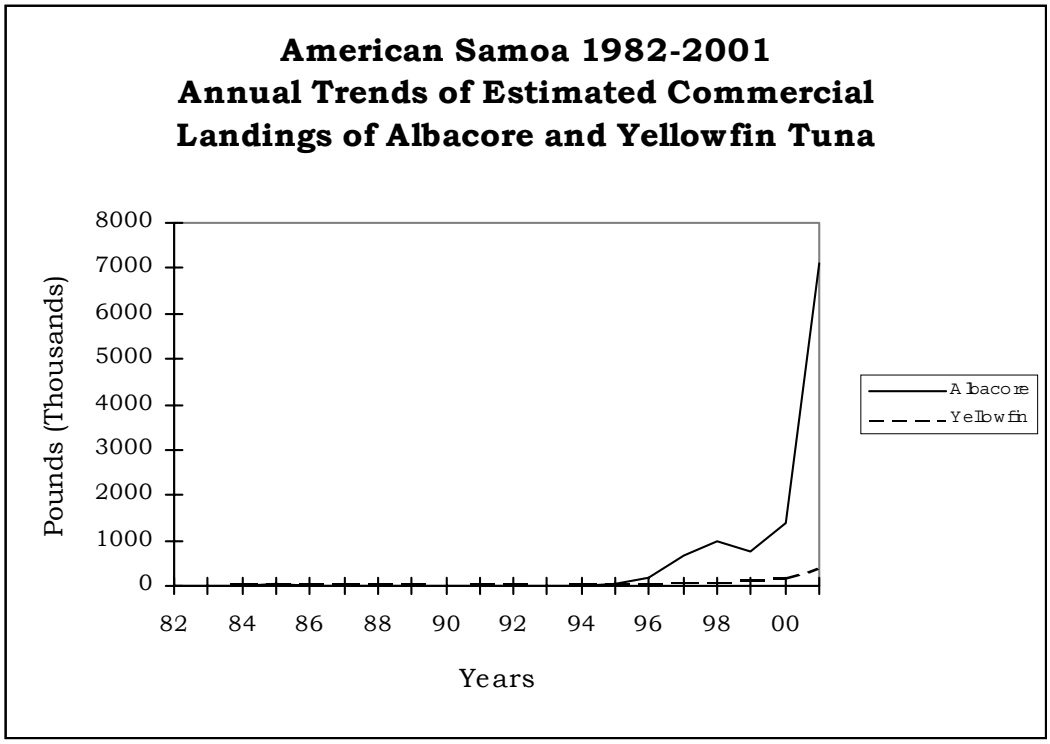


Figure II.3.6

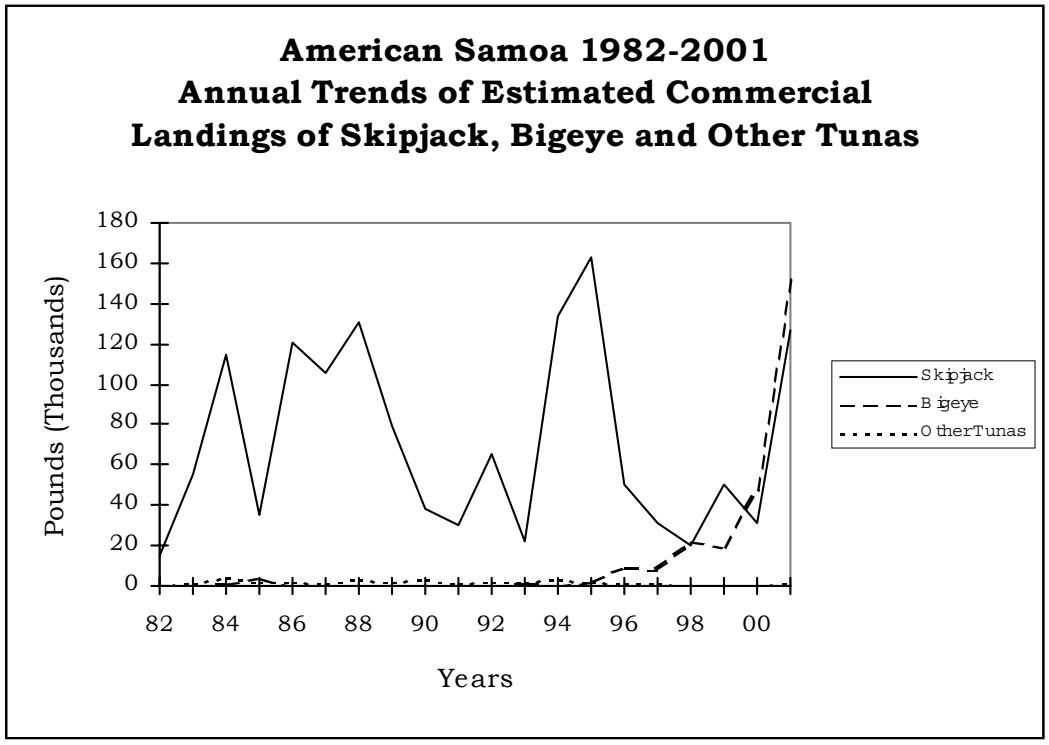


Figure II.4.1

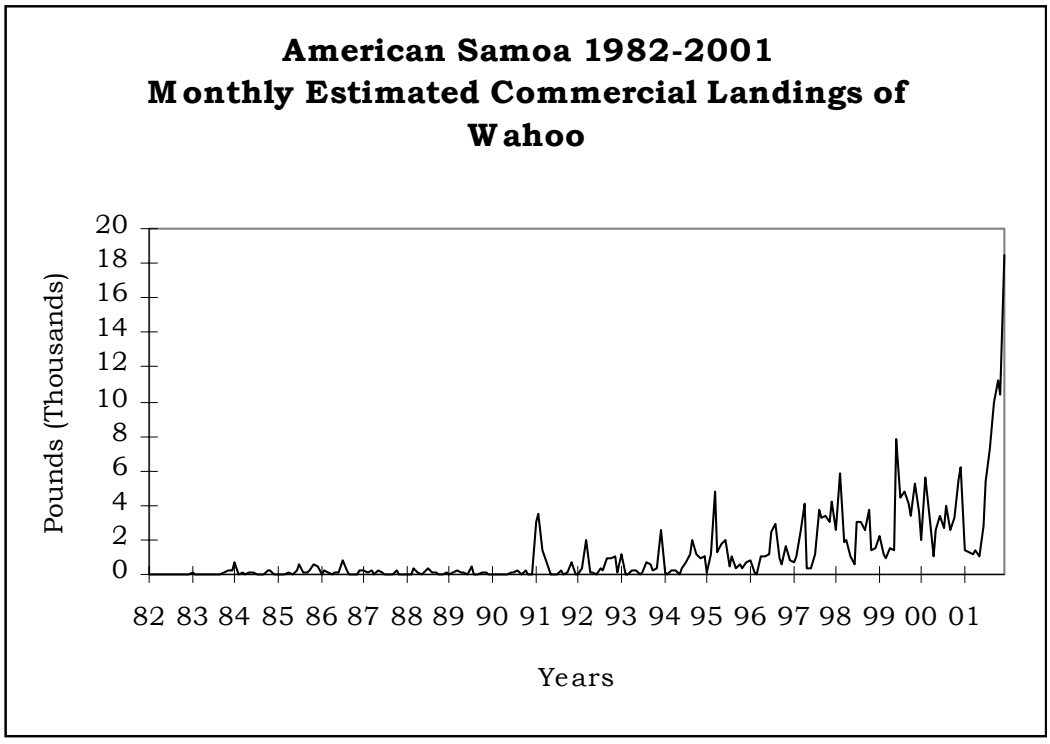


Figure II.4.2

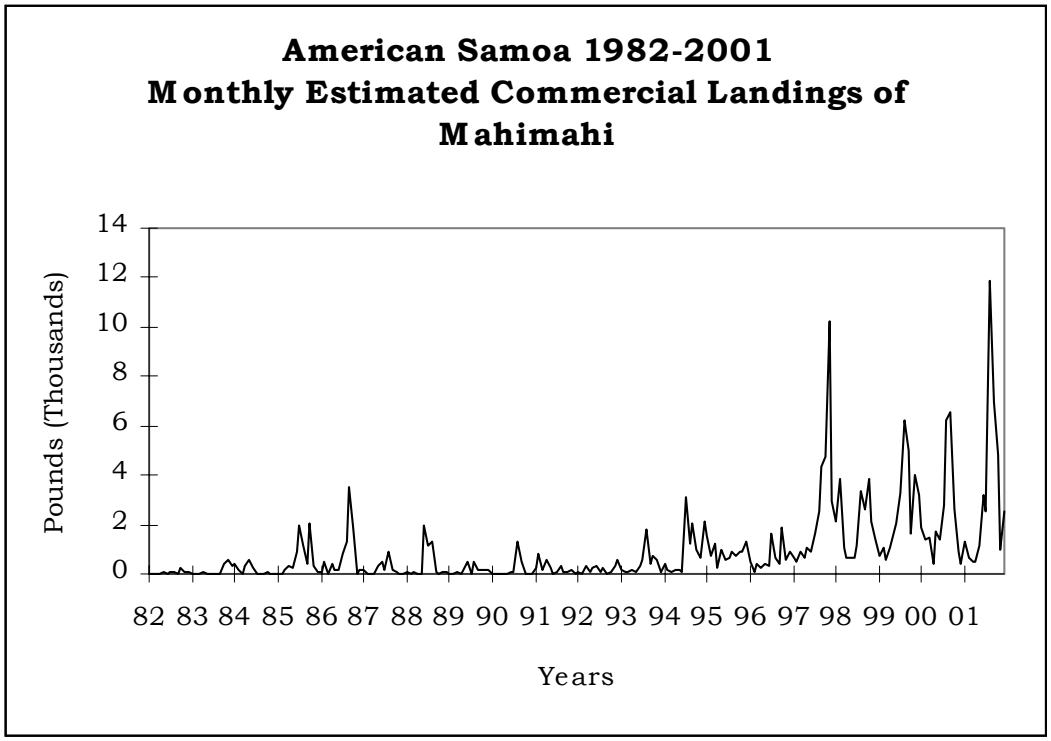


Figure II.4.3

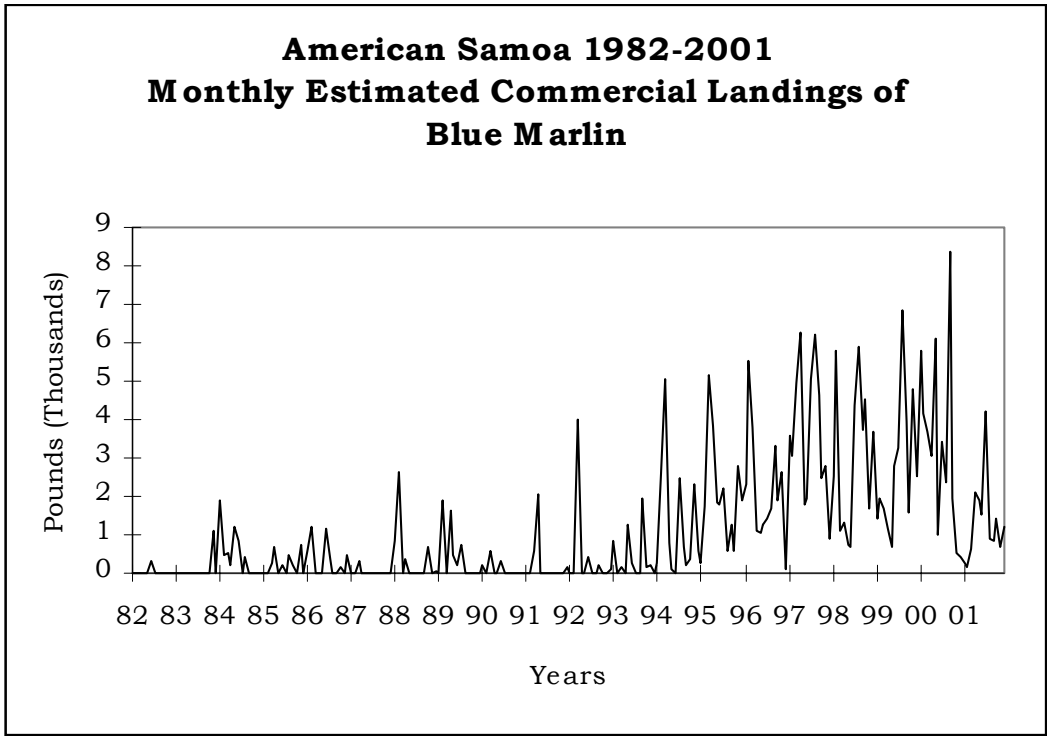
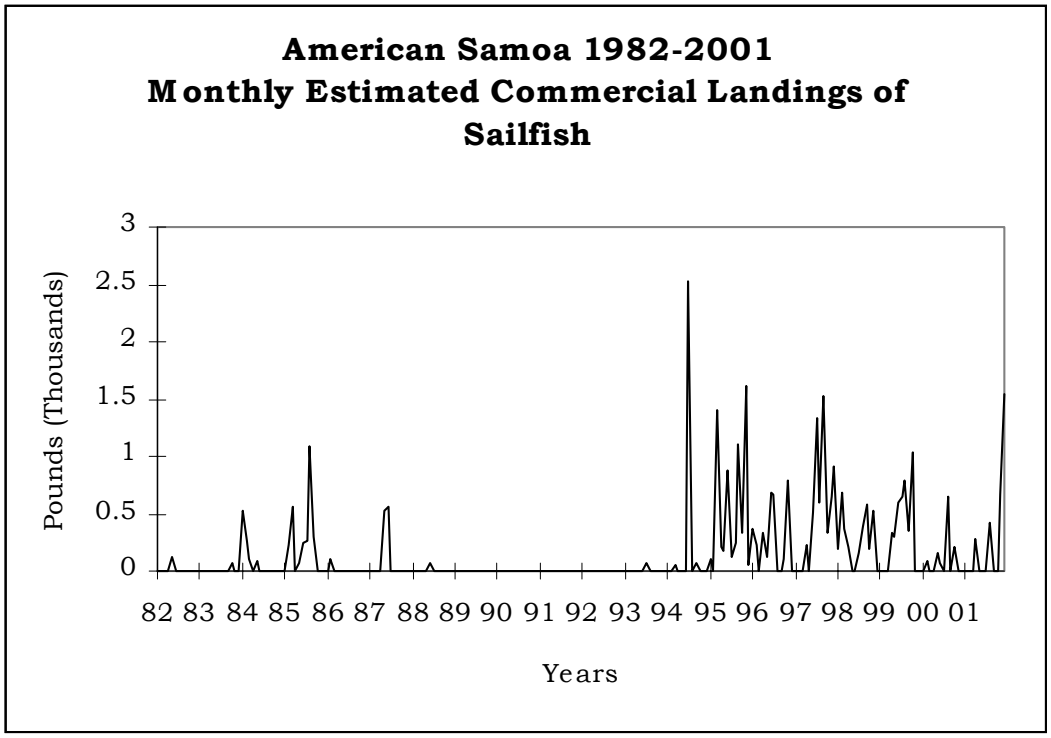


Figure II.4.4



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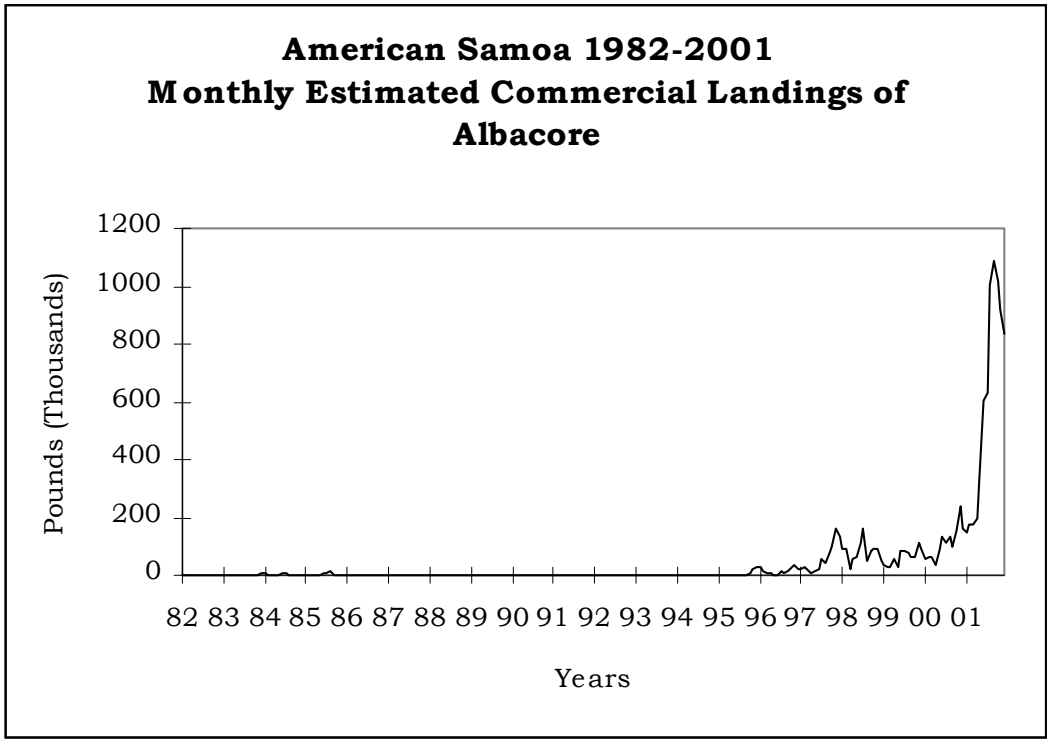

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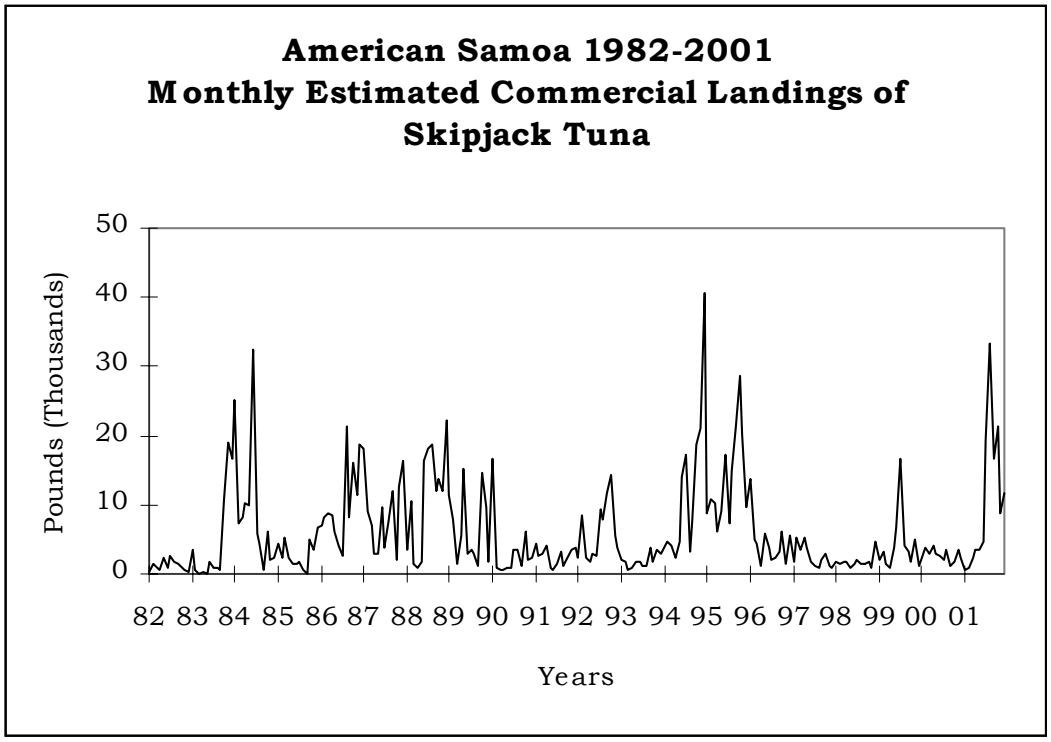

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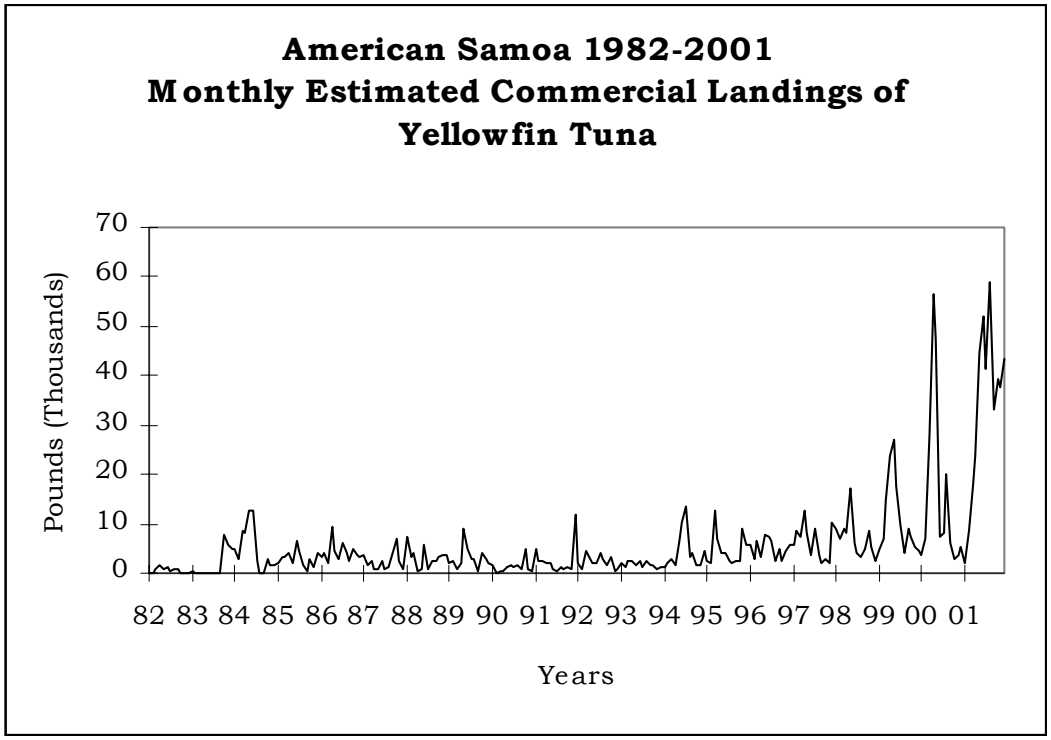

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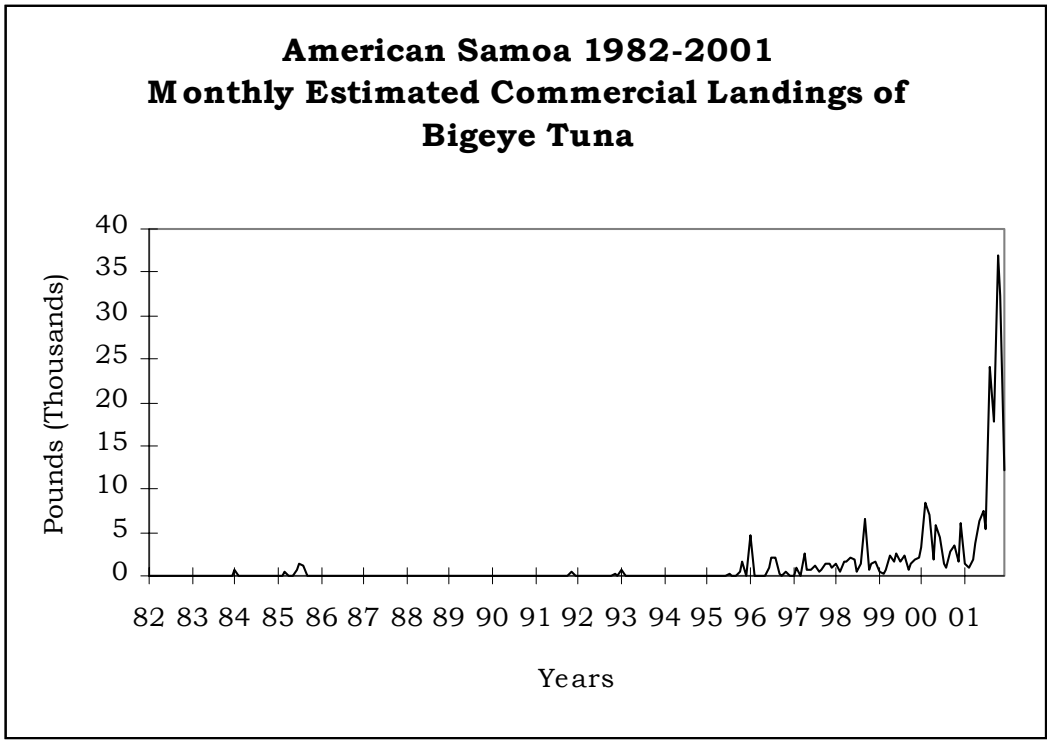

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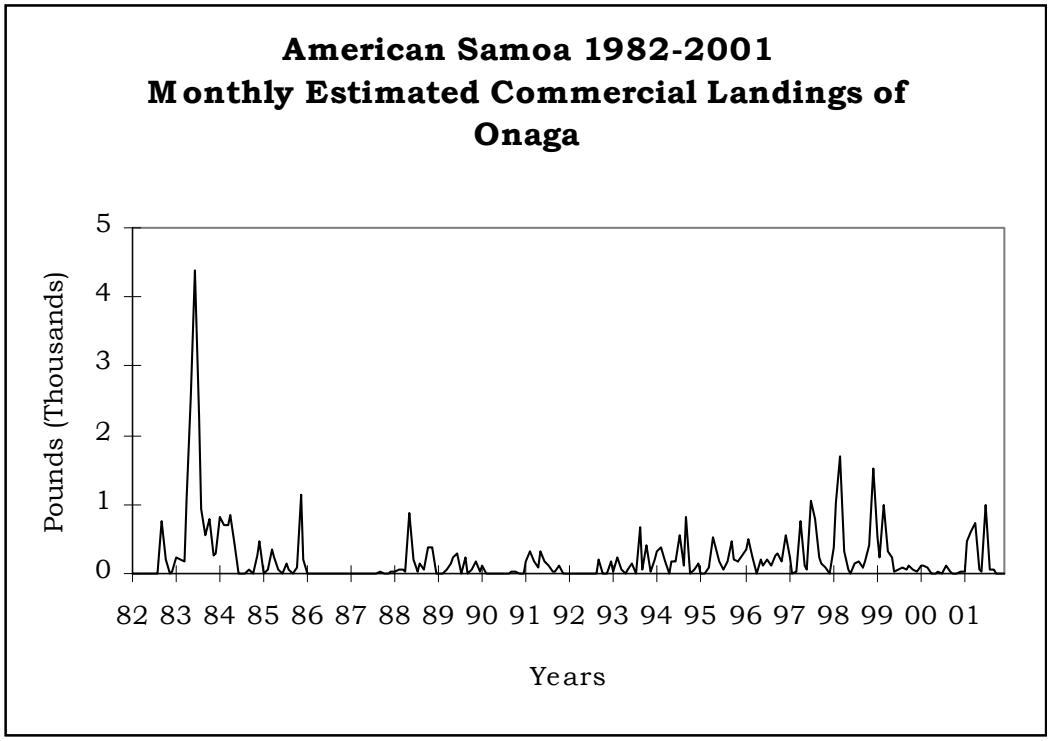

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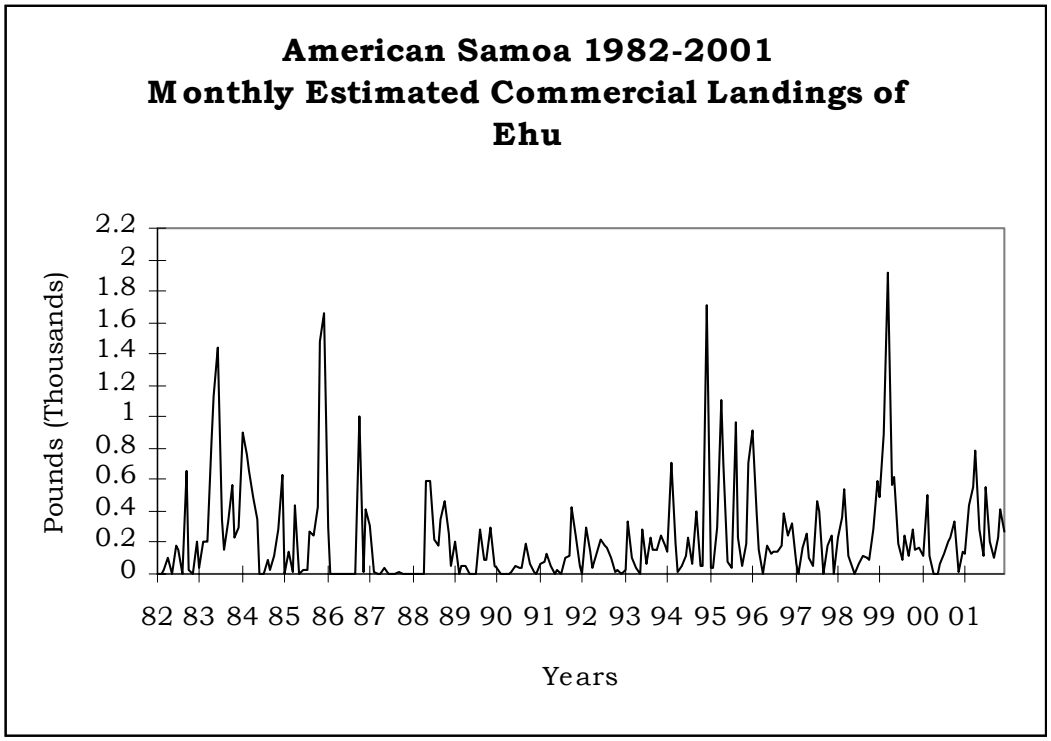

COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS
2001 FISHERY STATISTICS

Compiled by

Division of Fish and Wildlife

and the

Western Pacific Fishery Information Network

August 2003

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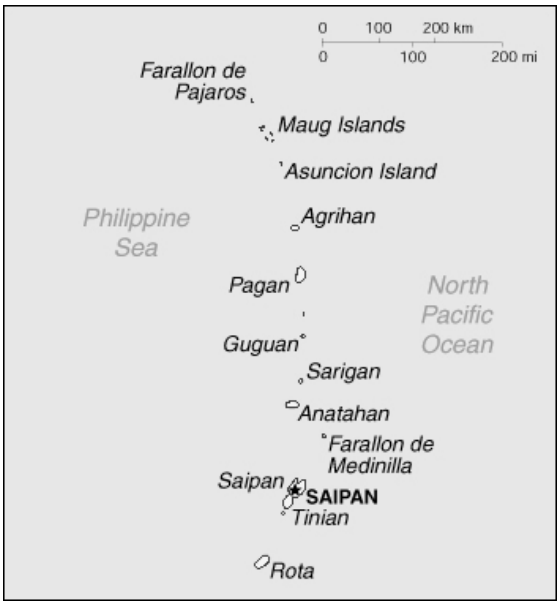
COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS
2001 FISHERY STATISTICS

INTRODUCTION

Location: 14º to 21ºN latitude, 145ºE longitude
Main Islands: Saipan, Rota, Tinian
Population: 77,311
Economy: tourism, agriculture, garment production

The Division of Fish and Wildlife (DFW) has been collecting fishery statistics on the commercial fishing fleet of Saipan since the mid-1970's. It also began collecting information on vessels transshipping tuna out of Tinian in 1983.



CNMI
source: <http://www.cia.gov/cia/publications/factbook/cq.html>; *The World Factbook*

The chief domestic commercial fishery of the CNMI is a small boat, one-day troll fishery, and most of the boats are 12- to 24-foot outboard-powered, runabout-type vessels. However, a few larger boats are used mainly for bottomfish fishing around the islands north of Saipan, and a small charter fleet also exists. During 2001, 27 vessels were registered as “charter” for their primary use; this was up from 20 vessels the previous year. Also in 2001, 142 boats were registered to fish for subsistence or recreation, and another 121 boats were registered as either part-time or full-time commercial fishing boats.

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

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

DATA COLLECTING SYSTEM

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

Some advantages of this data collection method are that it is relatively inexpensive to implement and maintain, it is fairly easy to get complete coverage of the commercial fisheries, and DFW can provide feedback to dealers and fishermen to ensure data accuracy and continued cooperation.

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

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

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

Information collected from the fishermen includes the following:

- Date
- Buyer's name (dealer)
- Seller's name (fisherman)
- Species
- Weight (pounds)
- Price per pound
- Value
- Invoice number

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

DATA PROCESSING SYSTEM

At the beginning of each month, a DFW employee visits each of the dealers on Saipan to collect the previous month's invoices, to resolve problems, and to answer any questions the dealers may have. The invoices are then returned to the office for an initial visual edit during the coding process and entered into the "Purchase" database. After the records are entered, reports are generated to help verify that all data were entered correctly. On a quarterly basis, copies of the database are sent to the Honolulu Laboratory, where the data are transferred to the central computer for additional verification before generating summary reports. These reports and databases are then ready for use by qualified WPacFIN participants.

DATA REPORTING SYSTEM

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

Please note that commercial landings data have been adjusted to reflect total coverage and are referenced as “Estimated Commercial Landings” in the charts and tables. Also, some of the charts in this volume are new or modified from earlier volumes.

The following species, species groups, and abbreviations are used in the tables and graphs of CNMI's data:

I. Pelagic Management Unit Species (PMUS)

Although the Magnuson Fishery Conservation and Management Act of 1976 was amended in 1992 to include tunas in the Pacific PMUS (PPMUS), this report series will continue to specify tunas as a separate category from the PPMUS. The PMUS category in this report includes:

Mahimahi (dolphin)
Marlin
Shortbill spearfish
Sailfish
Wahoo
Sharks

II. Bottomfish Management Unit Species (BMUS)

Jacks (unclassified, but excluding bigeye scad)
Amberjack
Bottom fish (unclassified)
Ehu (red snapper)
Gindai (flower snapper)
Grouper (unclassified)
Kalekale (pink snapper)
Lehi (silverjaw snapper)
Onaga (red or longtail snapper)
Opakapaka (pink snapper)
Uku (gray snapper)
Emperorfish

III. Billfish

Marlin (probably all blue marlin but could also include the rarely landed striped and black marlin)
Shortbill spearfish
Sailfish

IV. Tunas

Tunas (unclassified)
Skipjack tuna

IV. Tunas (cont.)

Yellowfin tuna
Dogtooth tuna

V. Other Tuna

The above tunas excluding skipjack and yellowfin tuna

VI. Fisheries Categories

A. Pelagics

All PMUS and tuna species plus the following:
Troll fish (unclassified)
Barracuda
Rainbow runner

B. Bottom Fish

Same as BMUS

C. Reef Fish

Reef fish (unclassified)
Giant wrasse
Rabbitfish (hitting, hitting feda, menahac, and sesjun)
Rudderfish
Squirrelfish
Parrotfish
Snapper
Surgeonfish
Unicornfish
Goatfish

D. Other

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

Table III.1.1

CNMI 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	28,715	$77,217	$2.69
Jacks (Misc.)	3,761	$11,258	$2.99
Bottom Fish	17,485	$47,258	$2.70
Sickle Pomfret	404	$719	$1.78
Alfonsin	40	$100	$2.50
Ehu (Red Snapper)	8	$23	$3.00
Gindai (Flower Snap)	1,916	$5,741	$3.00
Grouper (Misc.)	7,719	$19,928	$2.58
Onaga (Red Snapper)	16,358	$59,661	$3.65
Opakapaka (Pink Snp)	3,951	$13,633	$3.45
Jobfish (Uku)	425	$1,243	$2.92
Silvermouth (Deep Lehi)	2,585	$8,611	$3.33
Amberjack	21	$64	$3.00
Reef Fish	83,024	$189,370	$2.28
Wrasse	923	$2,787	$3.02
Rabbitfish	10,068	$34,035	$3.38
Emperor (Mafute/misc.)	16,987	$50,943	$3.00
Squirrelfish	2,135	$6,859	$3.21
Parrotfish (Misc.)	28,294	$90,302	$3.19
Surgeonfish (Misc.)	5,198	$15,931	$3.07
Orangespine Unicornfish	4,500	$13,943	$3.10
Unicornfish (Misc.)	12,156	$37,049	$3.05
Goatfish (Misc.)	2,945	$9,134	$3.10
Troll Fish (Misc.)	229	$517	$2.26
Barracuda	4	$6	$1.50
Mahimahi	14,229	$30,609	$2.15
Blue Marlin	1,924	$2,702	$1.40
Sailfish	91	$183	$2.00
Rainbow Runner	2,134	$5,735	$2.69
Wahoo	4,550	$10,775	$2.37
Tunas (Misc.)	223	$278	$1.25
Skipjack Tuna	133,884	$261,924	$1.96
Dogtooth Tuna	3,472	$7,258	$2.09
Yellowfin Tuna	14,543	$30,735	$2.11
Saba (Kawakawa)	3,610	$7,389	$2.05
Spiny Lobster	4,733	$27,276	$5.76
Octopus	704	$1,757	$2.50
Shrimp (Saltwater)	6	$94	$15.00
TOTAL	433,950	$1,083,046	$2.50

Table III.1.2

CNMI January 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	2,268	$6,319	$2.79
Jacks (Misc.)	172	$495	$2.88
Bottom Fish	1,835	$4,874	$2.66
Grouper (Misc.)	114	$341	$2.98
Onaga (Red Snapper)	829	$3,202	$3.86
Opakapaka (Pink Snp)	86	$293	$3.41
Silvermouth (Deep Lehi)	163	$501	$3.07
Reef Fish	7,745	$17,607	$2.27
Wrasse	310	$930	$3.00
Rabbitfish	1,428	$4,682	$3.28
Emperor (Mafute/misc.)	2,891	$8,803	$3.04
Squirrelfish	14	$41	$3.00
Parrotfish (Misc.)	1,236	$3,933	$3.18
Surgeonfish (Misc.)	98	$293	$3.00
Orangespine Unicornfish	294	$881	$3.00
Unicornfish (Misc.)	481	$1,444	$3.00
Goatfish (Misc.)	170	$510	$3.00
Mahimahi	1,038	$2,268	$2.18
Rainbow Runner	59	$170	$2.86
Wahoo	147	$315	$2.14
Skipjack Tuna	8,633	$19,449	$2.25
Dogtooth Tuna	337	$794	$2.36
Yellowfin Tuna	649	$1,488	$2.29
Saba (Kawakawa)	708	$1,243	$1.76
Spiny Lobster	21	$106	$5.00
Octopus	81	$202	$2.50
TOTAL	31,806	$81,181	$2.55

Table III.1.3

CNMI February 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	2,088	$5,933	$2.84
Jacks (Misc.)	158	$507	$3.22
Bottom Fish	909	$2,466	$2.71
Grouper (Misc.)	245	$835	$3.41
Onaga (Red Snapper)	776	$2,816	$3.63
Opakapaka (Pink Snp)	98	$268	$2.75
Silvermouth (Deep Lehi)	61	$245	$4.00
Reef Fish	8,870	$20,230	$2.28
Wrasse	253	$758	$3.00
Rabbitfish	1,065	$3,573	$3.35
Emperor (Mafute/misc.)	2,002	$5,813	$2.90
Squirrelfish	26	$66	$2.50
Parrotfish (Misc.)	1,673	$5,105	$3.05
Surgeonfish (Misc.)	69	$194	$2.83
Orangespine Unicornfish	205	$609	$2.97
Unicornfish (Misc.)	589	$1,596	$2.71
Goatfish (Misc.)	218	$610	$2.80
Troll Fish (Misc.)	109	$219	$2.00
Mahimahi	1,945	$4,498	$2.31
Rainbow Runner	317	$707	$2.23
Wahoo	328	$790	$2.41
Skipjack Tuna	7,299	$15,944	$2.18
Dogtooth Tuna	126	$269	$2.13
Yellowfin Tuna	1,016	$2,388	$2.35
Saba (Kawakawa)	116	$223	$1.93
Spiny Lobster	9	$53	$6.00
Octopus	70	$175	$2.50
TOTAL	30,638	$76,888	$2.51

Table III.1.4

CNMI March 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	2,767	$7,854	$2.84
Jacks (Misc.)	581	$1,710	$2.95
Bottom Fish	2,123	$5,654	$2.66
Gindai (Flower Snap)	12	$45	$3.75
Grouper (Misc.)	185	$558	$3.02
Onaga (Red Snapper)	459	$1,966	$4.28
Opakapaka (Pink Snp)	203	$698	$3.44
Jobfish (Uku)	52	$160	$3.11
Silvermouth (Deep Lehi)	228	$729	$3.20
Reef Fish	9,453	$20,966	$2.22
Wrasse	219	$666	$3.04
Rabbitfish	1,876	$6,420	$3.42
Emperor (Mafute/misc.)	2,336	$7,099	$3.04
Squirrelfish	449	$1,423	$3.17
Parrotfish (Misc.)	3,998	$13,107	$3.28
Surgeonfish (Misc.)	428	$1,358	$3.18
Orangespine Unicornfish	670	$2,080	$3.10
Unicornfish (Misc.)	1,054	$3,283	$3.12
Goatfish (Misc.)	718	$2,237	$3.11
Troll Fish (Misc.)	119	$298	$2.50
Mahimahi	6,184	$13,084	$2.12
Blue Marlin	55	$110	$2.00
Rainbow Runner	415	$1,326	$3.19
Wahoo	1,168	$2,788	$2.39
Skipjack Tuna	10,757	$23,664	$2.20
Dogtooth Tuna	270	$663	$2.45
Yellowfin Tuna	881	$1,874	$2.13
Saba (Kawakawa)	1,578	$3,933	$2.49
Spiny Lobster	614	$3,627	$5.90
Octopus	94	$234	$2.50
TOTAL	49,945	$129,611	$2.60

Table III.1.5

CNMI April 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	1,078	$2,951	$2.74
Jacks (Misc.)	1,050	$3,171	$3.02
Bottom Fish	2,174	$6,120	$2.81
Ehu (Red Snapper)	8	$23	$3.00
Gindai (Flower Snap)	383	$1,078	$2.82
Grouper (Misc.)	418	$888	$2.13
Onaga (Red Snapper)	2,664	$9,442	$3.54
Opakapaka (Pink Snp)	219	$760	$3.46
Jobfish (Uku)	55	$150	$2.73
Silvermouth (Deep Lehi)	700	$2,292	$3.27
Reef Fish	5,925	$13,208	$2.23
Wrasse	40	$130	$3.25
Rabbitfish	758	$2,608	$3.44
Emperor (Mafute/misc.)	1,368	$4,002	$2.93
Squirrelfish	276	$893	$3.23
Parrotfish (Misc.)	2,020	$6,917	$3.42
Surgeonfish (Misc.)	141	$459	$3.25
Orangespine Unicornfish	476	$1,501	$3.15
Unicornfish (Misc.)	651	$2,117	$3.25
Goatfish (Misc.)	373	$1,152	$3.09
Mahimahi	2,154	$4,556	$2.11
Blue Marlin	155	$291	$1.88
Sailfish	91	$183	$2.00
Rainbow Runner	189	$486	$2.58
Wahoo	399	$935	$2.34
Skipjack Tuna	12,470	$25,201	$2.02
Dogtooth Tuna	303	$583	$1.93
Yellowfin Tuna	1,752	$3,813	$2.18
Saba (Kawakawa)	264	$507	$1.92
Spiny Lobster	255	$1,386	$5.43
Octopus	148	$369	$2.50
TOTAL	38,954	$98,171	$2.52

Table III.1.6

CNMI May 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	2,597	$6,879	$2.65
Jacks (Misc.)	305	$966	$3.17
Bottom Fish	3,444	$9,393	$2.73
Gindai (Flower Snap)	339	$990	$2.92
Grouper (Misc.)	1,998	$5,125	$2.57
Onaga (Red Snapper)	2,031	$7,293	$3.59
Opakapaka (Pink Snp)	470	$1,625	$3.46
Jobfish (Uku)	24	$59	$2.50
Silvermouth (Deep Lehi)	23	$60	$2.59
Reef Fish	8,809	$20,022	$2.27
Rabbitfish	863	$3,000	$3.48
Emperor (Mafute/misc.)	202	$483	$2.40
Squirrelfish	297	$965	$3.25
Parrotfish (Misc.)	3,622	$11,704	$3.23
Surgeonfish (Misc.)	688	$2,126	$3.09
Orangespine Unicornfish	490	$1,548	$3.16
Unicornfish (Misc.)	1,450	$4,477	$3.09
Goatfish (Misc.)	294	$926	$3.15
Barracuda	4	$6	$1.50
Mahimahi	296	$625	$2.11
Rainbow Runner	156	$299	$1.92
Wahoo	134	$290	$2.16
Tunas (Misc.)	223	$278	$1.25
Skipjack Tuna	10,707	$17,920	$1.67
Dogtooth Tuna	204	$366	$1.79
Yellowfin Tuna	701	$1,438	$2.05
Saba (Kawakawa)	200	$272	$1.36
Spiny Lobster	1,344	$7,491	$5.57
Octopus	57	$143	$2.50
TOTAL	41,971	$106,771	$2.54

Table III.1.7

CNMI June 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	2,913	$8,175	$2.81
Jacks (Misc.)	397	$1,156	$2.91
Bottom Fish	2,310	$6,100	$2.64
Gindai (Flower Snap)	250	$790	$3.16
Grouper (Misc.)	525	$1,435	$2.73
Onaga (Red Snapper)	1,036	$3,962	$3.83
Opakapaka (Pink Snp)	241	$778	$3.22
Silvermouth (Deep Lehi)	299	$1,061	$3.55
Reef Fish	6,963	$15,915	$2.29
Rabbitfish	867	$3,014	$3.48
Emperor (Mafute/misc.)	837	$2,373	$2.84
Squirrelfish	269	$873	$3.25
Parrotfish (Misc.)	3,026	$9,716	$3.21
Surgeonfish (Misc.)	956	$2,920	$3.05
Orangespine Unicornfish	584	$1,784	$3.06
Unicornfish (Misc.)	1,688	$5,197	$3.08
Goatfish (Misc.)	276	$896	$3.25
Mahimahi	80	$181	$2.27
Rainbow Runner	213	$546	$2.57
Wahoo	161	$387	$2.41
Skipjack Tuna	10,564	$16,697	$1.58
Dogtooth Tuna	706	$1,501	$2.12
Yellowfin Tuna	1,223	$2,480	$2.03
Saba (Kawakawa)	81	$81	$1.00
Spiny Lobster	976	$5,782	$5.93
TOTAL	37,437	$93,800	$2.51

Table III.1.8

CNMI July 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	1,433	$3,931	$2.74
Jacks (Misc.)	213	$586	$2.75
Bottom Fish	621	$1,611	$2.60
Sickle Pomfret	261	$460	$1.76
Gindai (Flower Snap)	280	$849	$3.03
Grouper (Misc.)	360	$1,008	$2.80
Onaga (Red Snapper)	1,160	$4,584	$3.95
Opakapaka (Pink Snp)	897	$3,175	$3.54
Jobfish (Uku)	23	$48	$2.11
Silvermouth (Deep Lehi)	81	$239	$2.97
Reef Fish	5,464	$12,632	$2.31
Rabbitfish	557	$1,985	$3.57
Emperor (Mafute/misc.)	2,781	$7,825	$2.81
Squirrelfish	276	$898	$3.25
Parrotfish (Misc.)	3,163	$9,952	$3.15
Surgeonfish (Misc.)	335	$1,023	$3.05
Orangespine Unicornfish	234	$733	$3.13
Unicornfish (Misc.)	1,369	$4,135	$3.02
Goatfish (Misc.)	268	$846	$3.16
Mahimahi	18	$35	$2.00
Rainbow Runner	291	$735	$2.53
Skipjack Tuna	13,065	$24,642	$1.89
Dogtooth Tuna	304	$644	$2.12
Yellowfin Tuna	1,767	$3,463	$1.96
Saba (Kawakawa)	123	$165	$1.34
Spiny Lobster	514	$3,100	$6.03
Octopus	9	$20	$2.25
TOTAL	35,863	$89,323	$2.49

Table III.1.9

CNMI August 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	2,720	$7,392	$2.72
Jacks (Misc.)	147	$452	$3.08
Bottom Fish	290	$795	$2.74
Sickle Pomfret	143	$259	$1.82
Gindai (Flower Snap)	254	$726	$2.86
Grouper (Misc.)	1,560	$4,043	$2.59
Onaga (Red Snapper)	1,426	$5,144	$3.61
Opakapaka (Pink Snp)	406	$1,451	$3.58
Jobfish (Uku)	72	$216	$3.00
Silvermouth (Deep Lehi)	52	$189	$3.64
Reef Fish	4,515	$11,131	$2.47
Wrasse	101	$304	$3.00
Rabbitfish	393	$1,355	$3.45
Emperor (Mafute/misc.)	766	$2,538	$3.31
Squirrelfish	150	$488	$3.25
Parrotfish (Misc.)	2,205	$7,015	$3.18
Surgeonfish (Misc.)	383	$1,160	$3.03
Orangespine Unicornfish	381	$1,181	$3.10
Unicornfish (Misc.)	1,155	$3,523	$3.05
Goatfish (Misc.)	165	$526	$3.18
Mahimahi	13	$31	$2.50
Blue Marlin	150	$300	$2.00
Rainbow Runner	144	$413	$2.87
Wahoo	24	$49	$2.00
Skipjack Tuna	12,754	$24,749	$1.94
Dogtooth Tuna	356	$713	$2.00
Yellowfin Tuna	938	$1,845	$1.97
Saba (Kawakawa)	225	$316	$1.40
Spiny Lobster	308	$1,812	$5.88
TOTAL	32,197	$80,111	$2.49

Table III.1.10

CNMI September 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	2,727	$7,144	$2.62
Jacks (Misc.)	284	$841	$2.96
Bottom Fish	2,066	$5,585	$2.70
Alfonsin	40	$100	$2.50
Gindai (Flower Snap)	28	$103	$3.75
Grouper (Misc.)	656	$1,551	$2.36
Onaga (Red Snapper)	1,726	$5,716	$3.31
Opakapaka (Pink Snp)	620	$2,120	$3.42
Jobfish (Uku)	68	$207	$3.07
Silvermouth (Deep Lehi)	80	$207	$2.59
Reef Fish	8,242	$18,630	$2.26
Rabbitfish	813	$2,783	$3.42
Emperor (Mafute/misc.)	985	$3,137	$3.18
Squirrelfish	218	$698	$3.21
Parrotfish (Misc.)	3,080	$9,648	$3.13
Surgeonfish (Misc.)	808	$2,477	$3.07
Orangespine Unicornfish	450	$1,409	$3.13
Unicornfish (Misc.)	1,383	$4,214	$3.05
Goatfish (Misc.)	179	$572	$3.19
Mahimahi	73	$145	$2.00
Blue Marlin	719	$927	$1.29
Rainbow Runner	169	$481	$2.85
Wahoo	316	$720	$2.28
Skipjack Tuna	13,257	$24,822	$1.87
Dogtooth Tuna	326	$625	$1.92
Yellowfin Tuna	995	$1,943	$1.95
Saba (Kawakawa)	199	$398	$2.00
Spiny Lobster	586	$3,274	$5.59
Octopus	127	$318	$2.50
TOTAL	41,216	$100,793	$2.45

Table III.1.11

CNMI October 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	2,066	$4,746	$2.30
Jacks (Misc.)	188	$546	$2.91
Bottom Fish	438	$1,182	$2.70
Gindai (Flower Snap)	35	$131	$3.75
Grouper (Misc.)	481	$1,238	$2.57
Onaga (Red Snapper)	1,427	$5,344	$3.74
Opakapaka (Pink Snp)	381	$1,281	$3.36
Jobfish (Uku)	16	$49	$3.00
Silvermouth (Deep Lehi)	208	$735	$3.53
Amberjack	21	$64	$3.00
Reef Fish	7,209	$16,058	$2.23
Rabbitfish	368	$1,224	$3.32
Emperor (Mafute/misc.)	1,179	$3,808	$3.23
Squirrelfish	129	$414	$3.22
Parrotfish (Misc.)	2,045	$6,398	$3.13
Surgeonfish (Misc.)	630	$1,918	$3.04
Orangespine Unicornfish	416	$1,295	$3.11
Unicornfish (Misc.)	1,169	$3,552	$3.04
Goatfish (Misc.)	198	$577	$2.91
Mahimahi	500	$1,098	$2.20
Rainbow Runner	70	$239	$3.41
Wahoo	382	$834	$2.18
Skipjack Tuna	10,301	$20,136	$1.95
Dogtooth Tuna	174	$369	$2.12
Yellowfin Tuna	877	$1,816	$2.07
Spiny Lobster	68	$421	$6.21
Octopus	36	$89	$2.50
TOTAL	31,012	$75,561	$2.44

Table III.1.12

CNMI November 2001 Estimated Commercial Landings

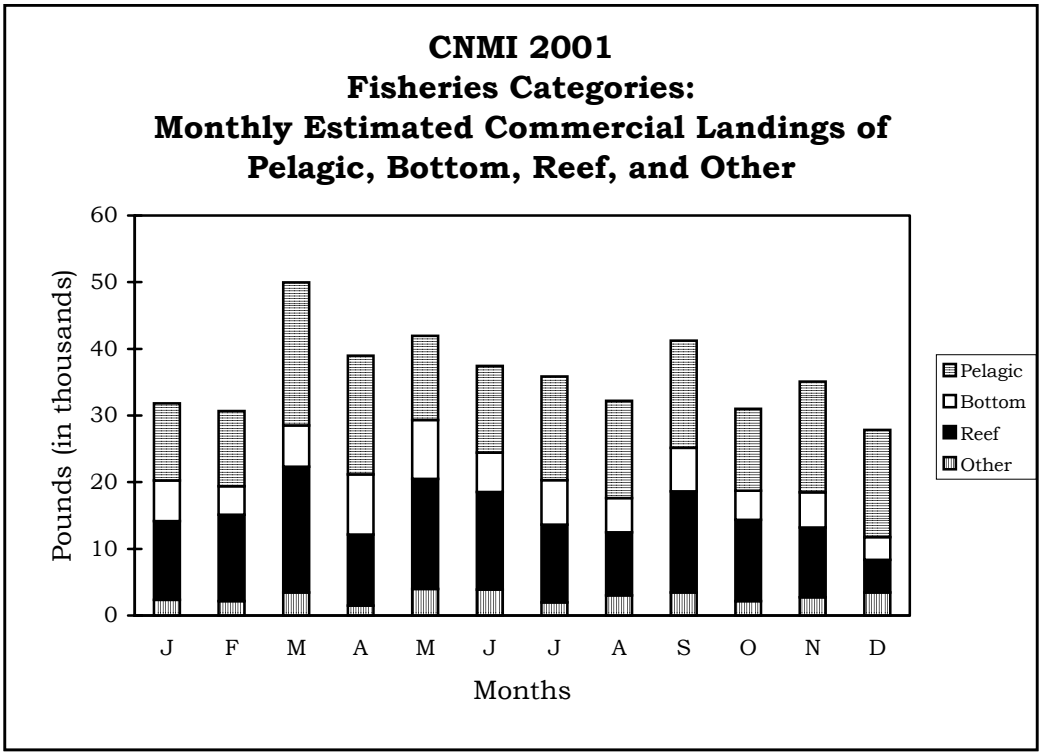
Species	Pounds	Value	Price/Lb.
Bigeye Scad	2,666	$6,126	$2.30
Jacks (Misc.)	233	$718	$3.09
Bottom Fish	742	$1,965	$2.65
Gindai (Flower Snap)	202	$612	$3.03
Grouper (Misc.)	398	$956	$2.40
Onaga (Red Snapper)	1,858	$6,543	$3.52
Opakapaka (Pink Snp)	196	$718	$3.66
Jobfish (Uku)	88	$261	$2.96
Silvermouth (Deep Lehi)	589	$2,014	$3.42
Reef Fish	6,035	$13,765	$2.28
Rabbitfish	729	$2,323	$3.19
Emperor (Mafute/misc.)	975	$3,224	$3.31
Squirrelfish	26	$85	$3.25
Parrotfish (Misc.)	1,913	$5,851	$3.06
Surgeonfish (Misc.)	531	$1,604	$3.02
Orangespine Unicornfish	246	$759	$3.08
Unicornfish (Misc.)	914	$2,758	$3.02
Goatfish (Misc.)	60	$192	$3.20
Mahimahi	668	$1,382	$2.07
Blue Marlin	181	$272	$1.50
Rainbow Runner	70	$228	$3.25
Wahoo	313	$658	$2.10
Skipjack Tuna	13,855	$26,772	$1.93
Dogtooth Tuna	231	$444	$1.92
Yellowfin Tuna	1,212	$2,589	$2.14
Saba (Kawakawa)	56	$113	$2.00
Spiny Lobster	38	$225	$5.90
Octopus	35	$87	$2.50
Shrimp (Saltwater)	6	$94	$15.00
TOTAL	35,066	$83,336	$2.38

Table III.1.13

CNMI December 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	3,392	$9,768	$2.88
Jacks (Misc.)	35	$109	$3.12
Bottom Fish	533	$1,512	$2.84
Gindai (Flower Snap)	134	$416	$3.11
Grouper (Misc.)	779	$1,950	$2.50
Onaga (Red Snapper)	967	$3,649	$3.78
Opakapaka (Pink Snp)	134	$467	$3.48
Jobfish (Uku)	29	$93	$3.25
Silvermouth (Deep Lehi)	100	$339	$3.39
Reef Fish	3,794	$9,205	$2.43
Rabbitfish	353	$1,068	$3.03
Emperor (Mafute/misc.)	666	$1,839	$2.76
Squirrelfish	5	$16	$3.25
Parrotfish (Misc.)	313	$958	$3.06
Surgeonfish (Misc.)	133	$399	$3.01
Orangespine Unicornfish	54	$164	$3.05
Unicornfish (Misc.)	254	$753	$2.97
Goatfish (Misc.)	26	$92	$3.48
Mahimahi	1,263	$2,707	$2.14
Blue Marlin	664	$802	$1.21
Rainbow Runner	42	$105	$2.50
Wahoo	1,178	$3,010	$2.56
Skipjack Tuna	10,222	$21,928	$2.15
Dogtooth Tuna	135	$289	$2.14
Yellowfin Tuna	2,531	$5,600	$2.21
Saba (Kawakawa)	61	$141	$2.30
Octopus	48	$120	$2.50
TOTAL	27,843	$67,501	$2.42

Figure III.1.1



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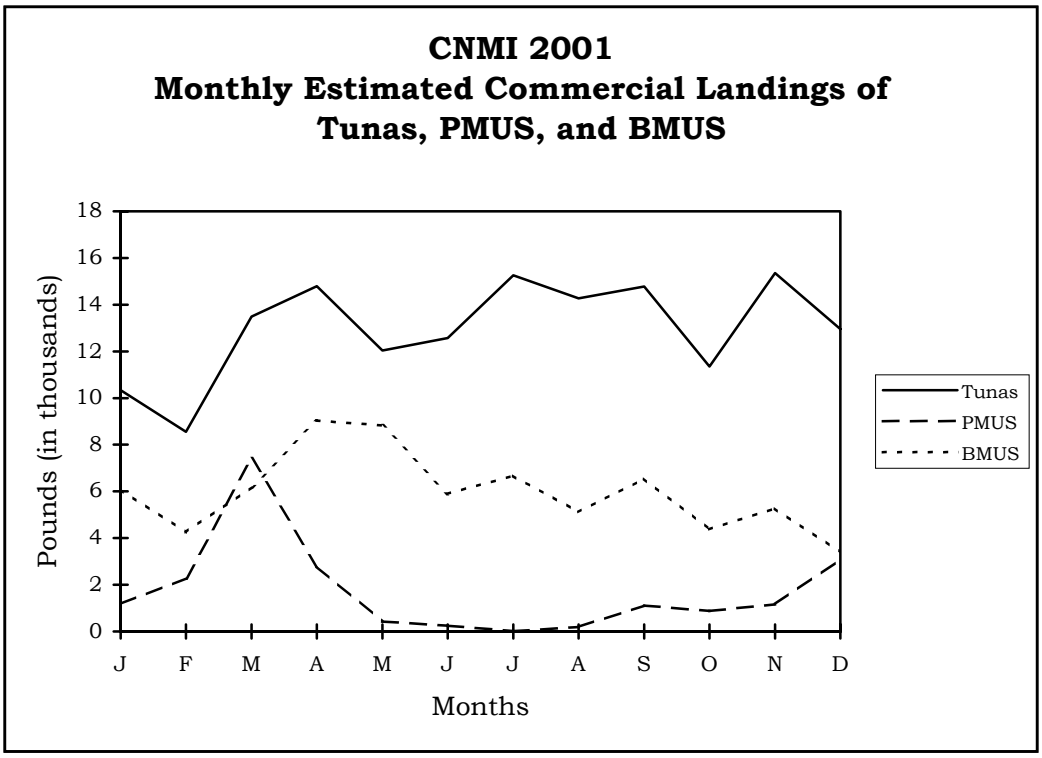

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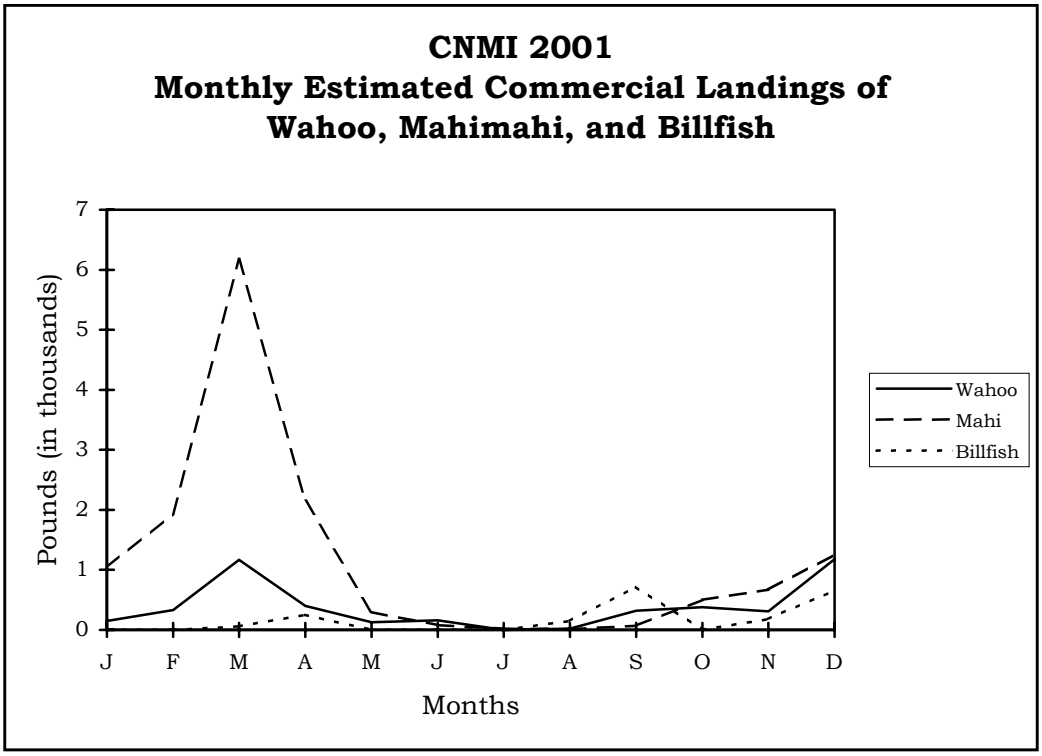

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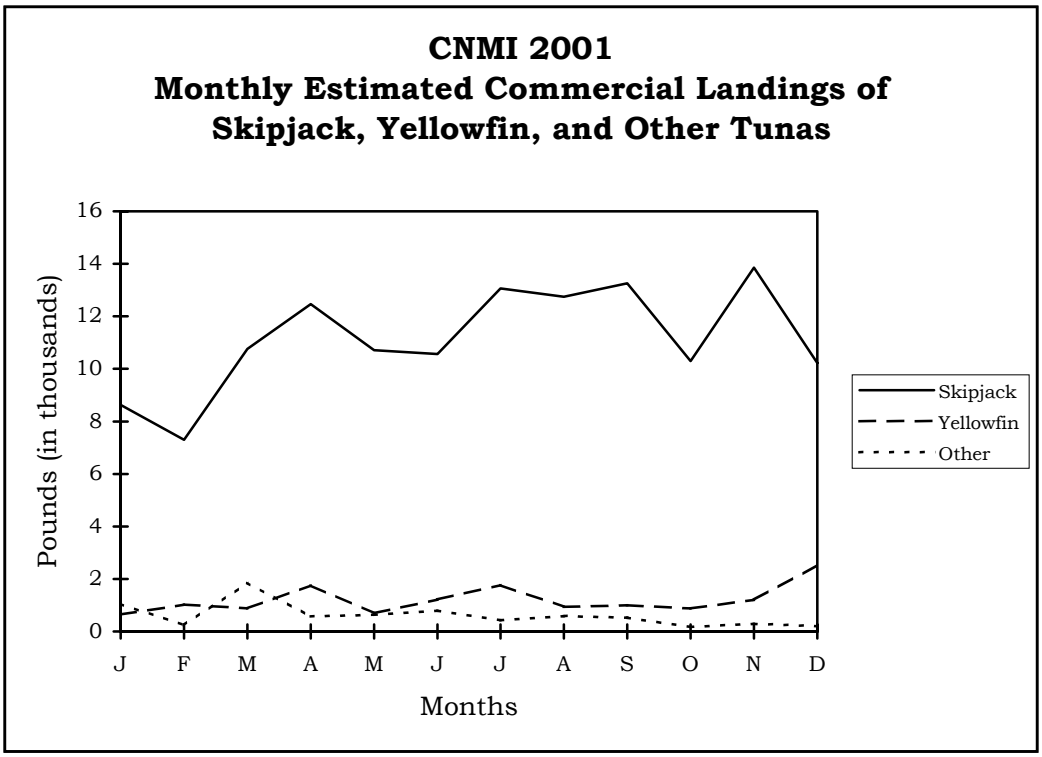

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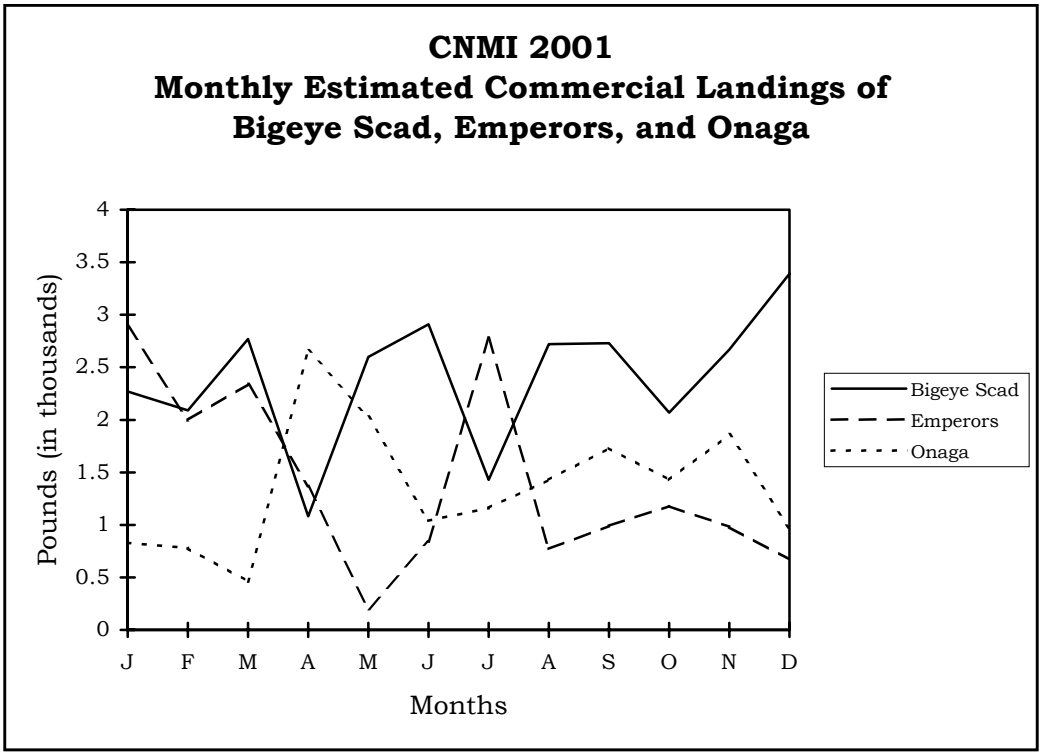

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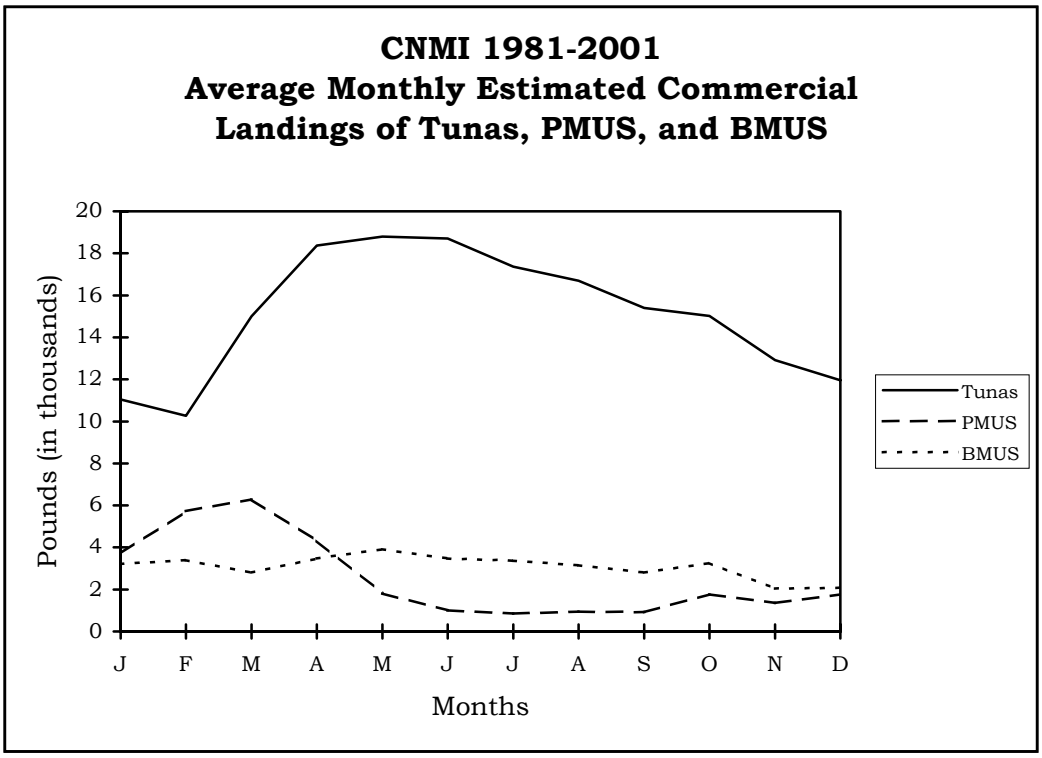

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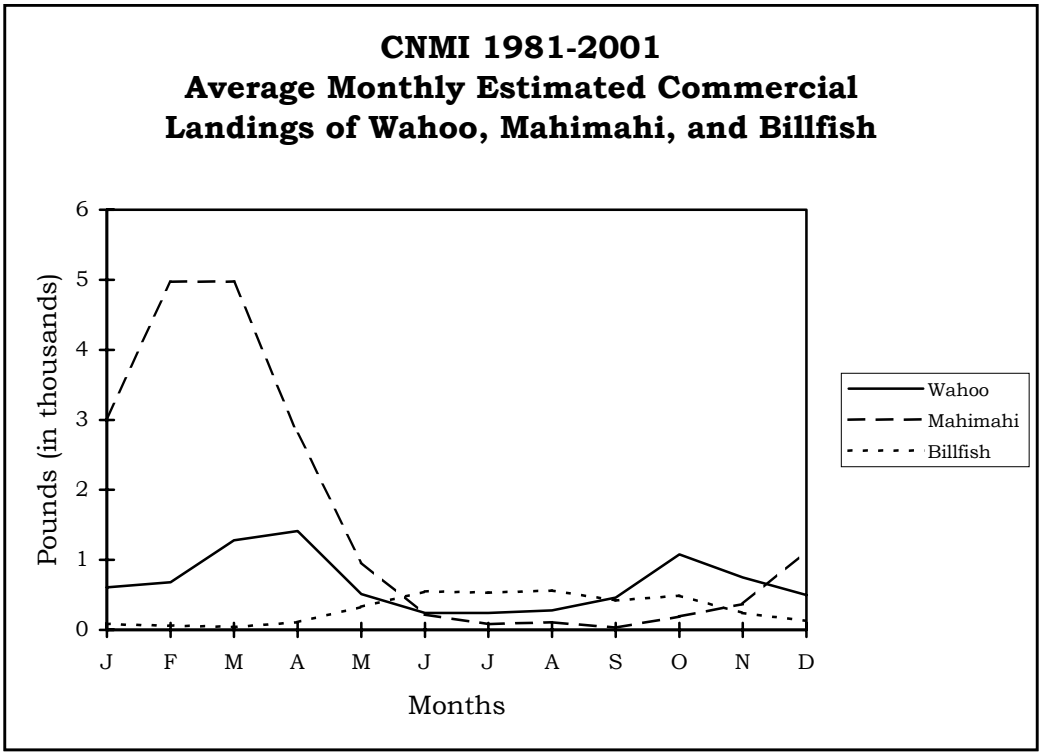

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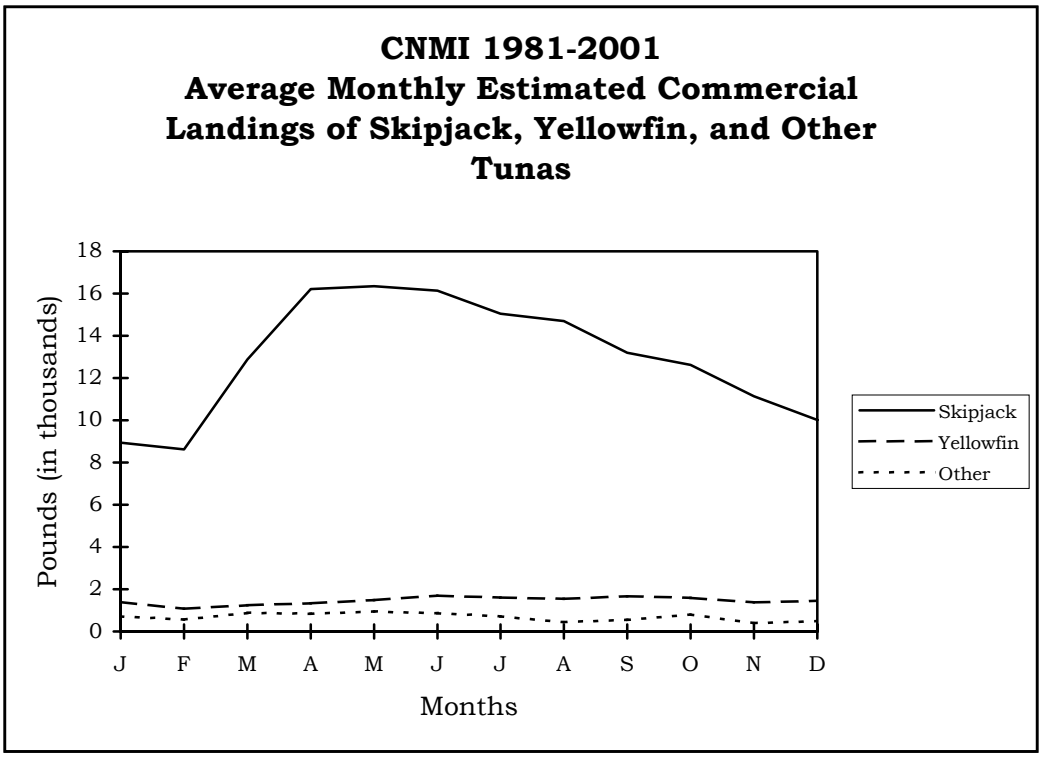

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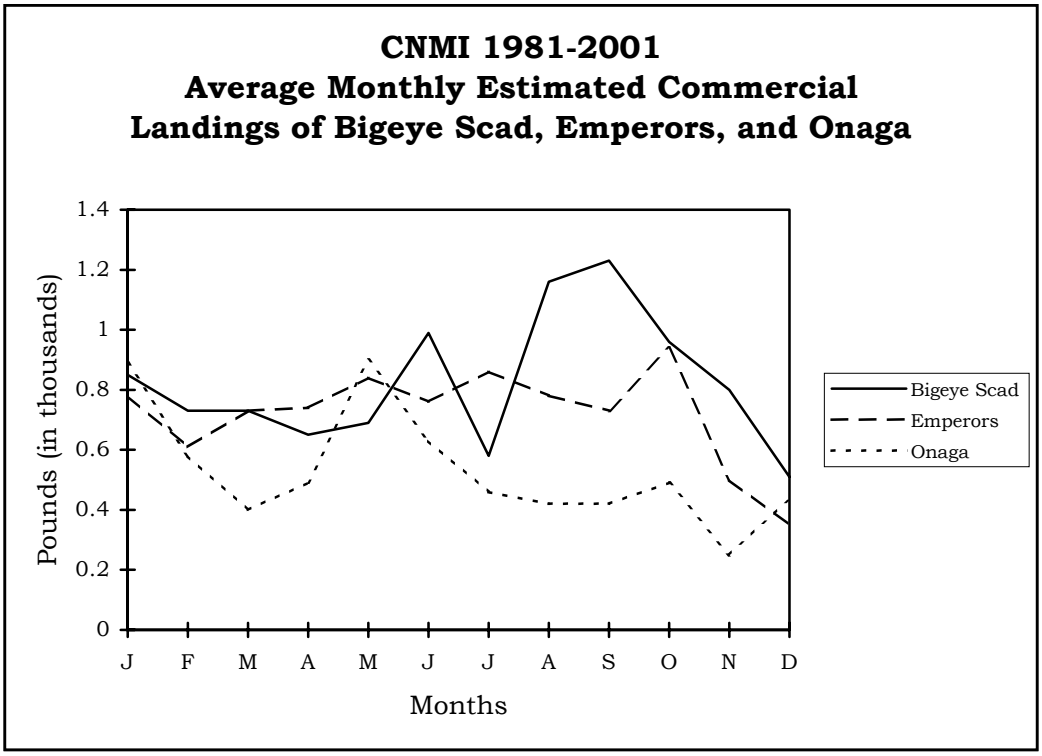

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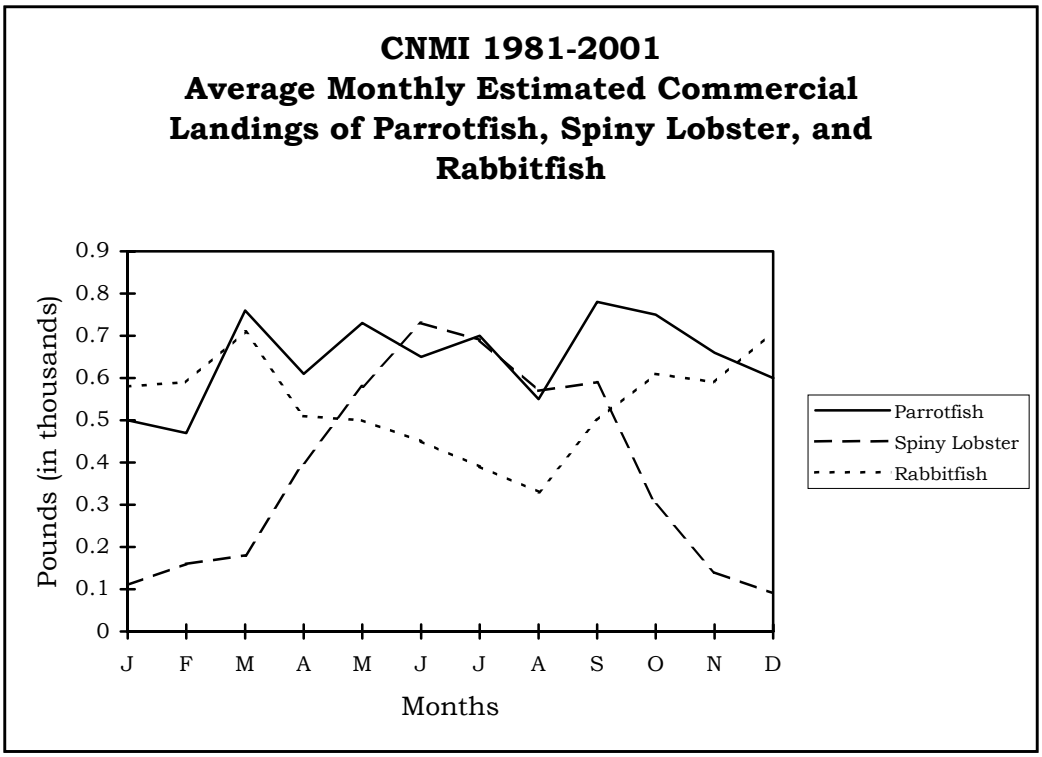

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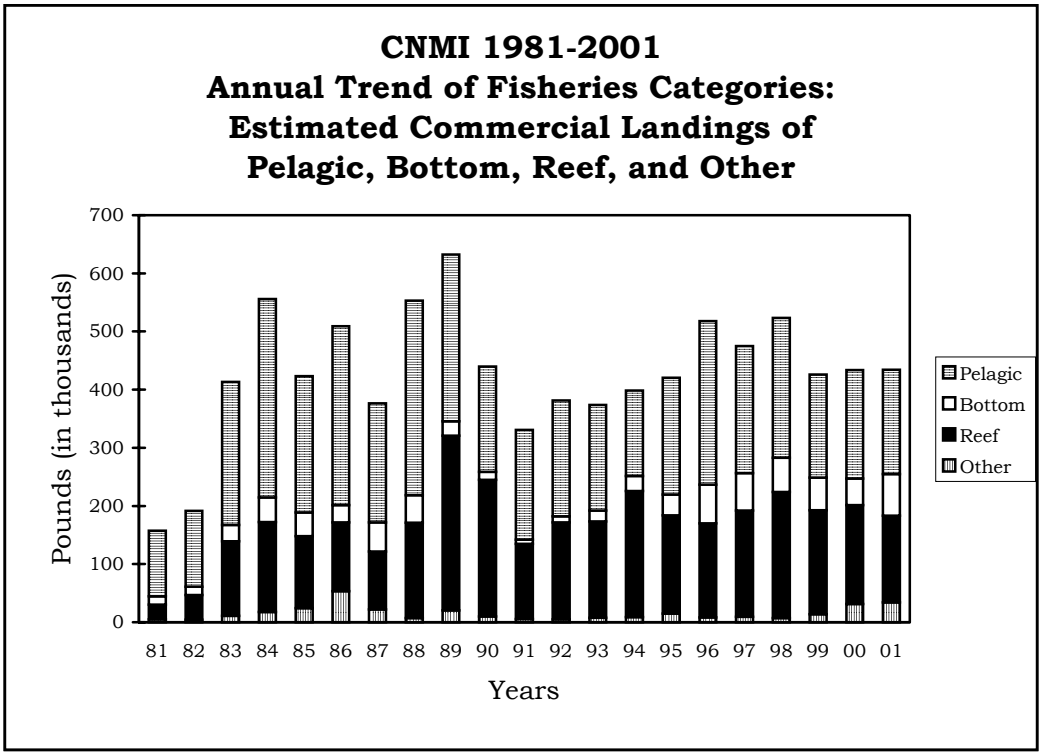

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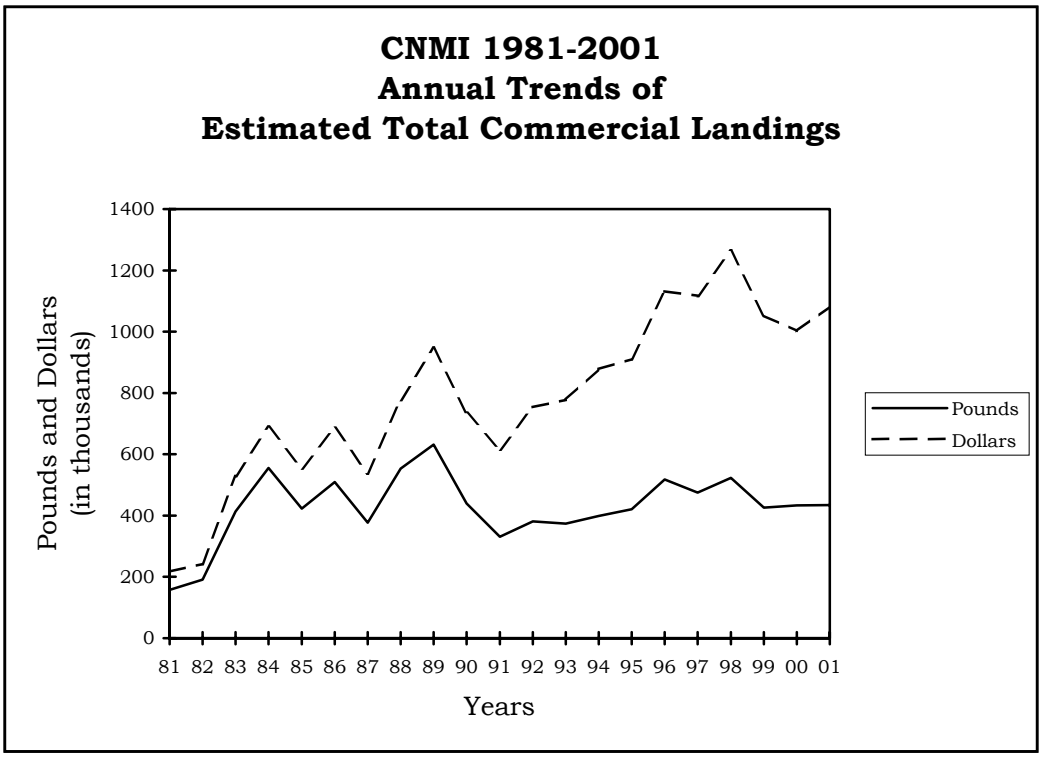

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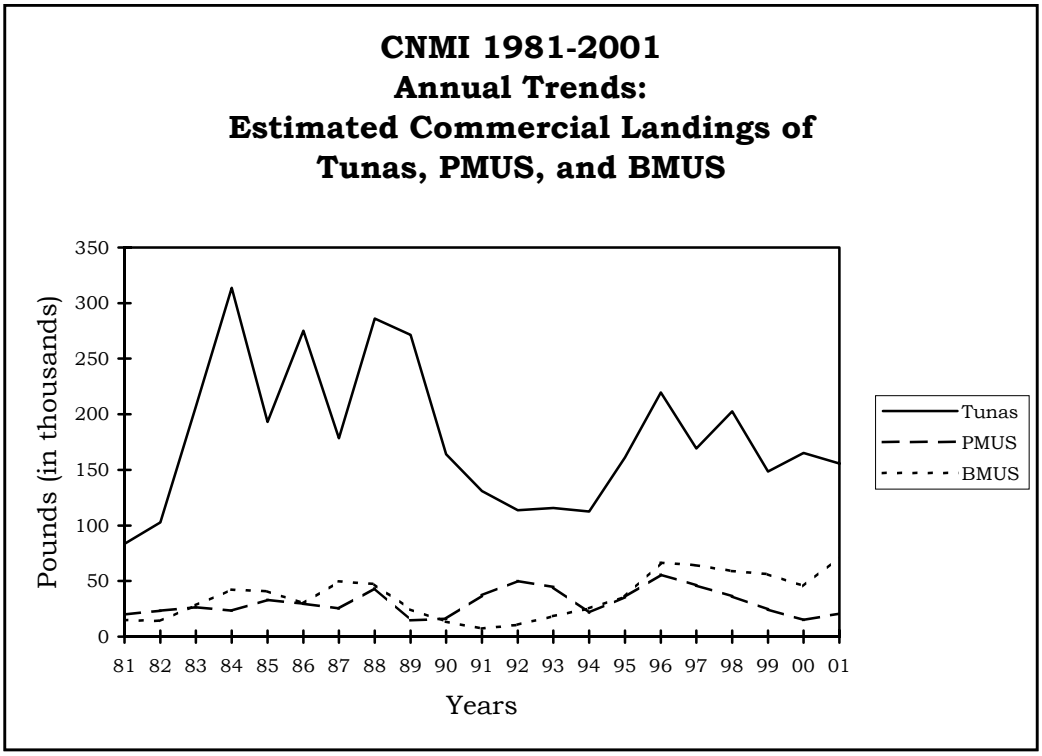

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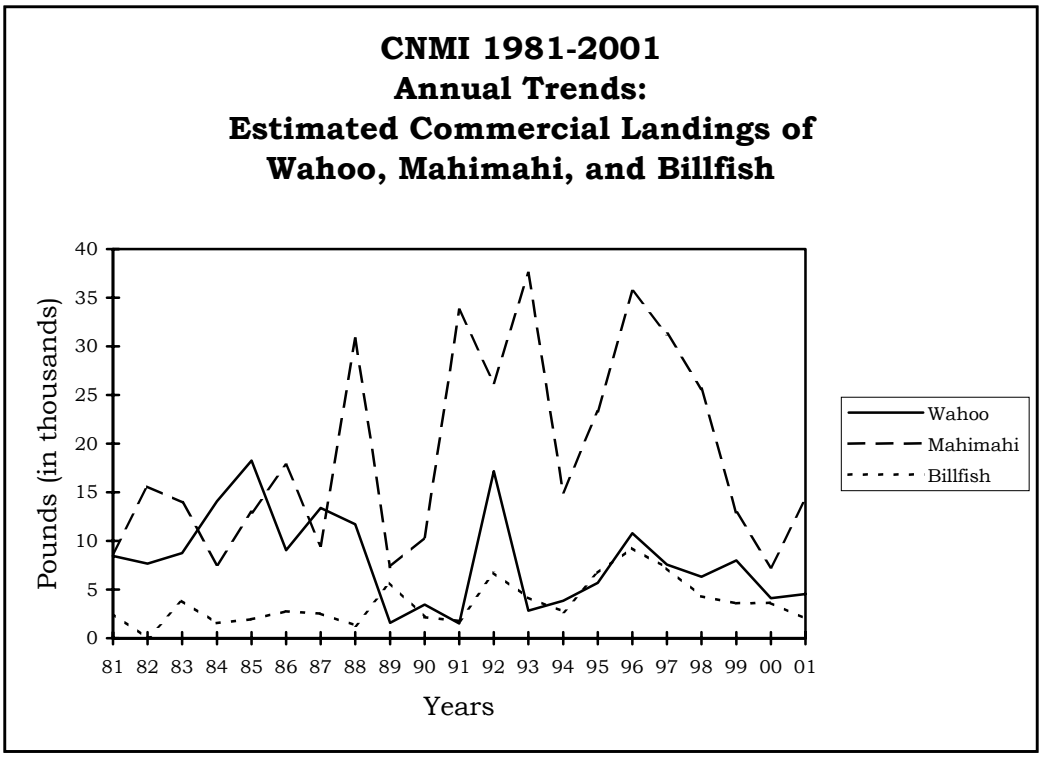

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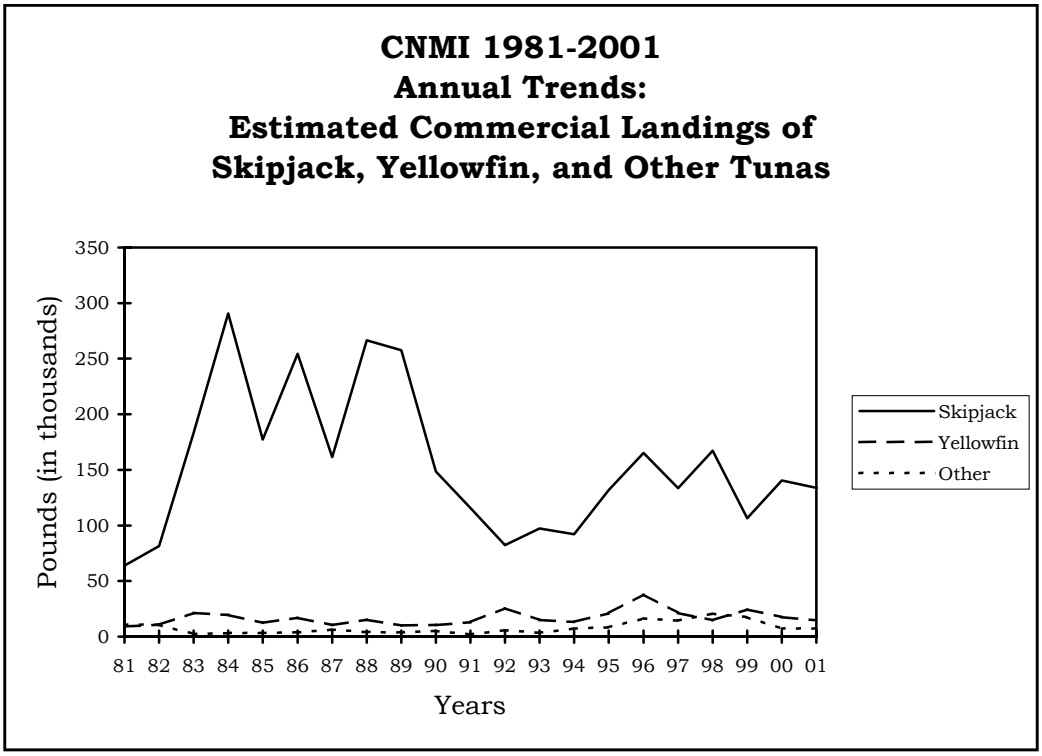

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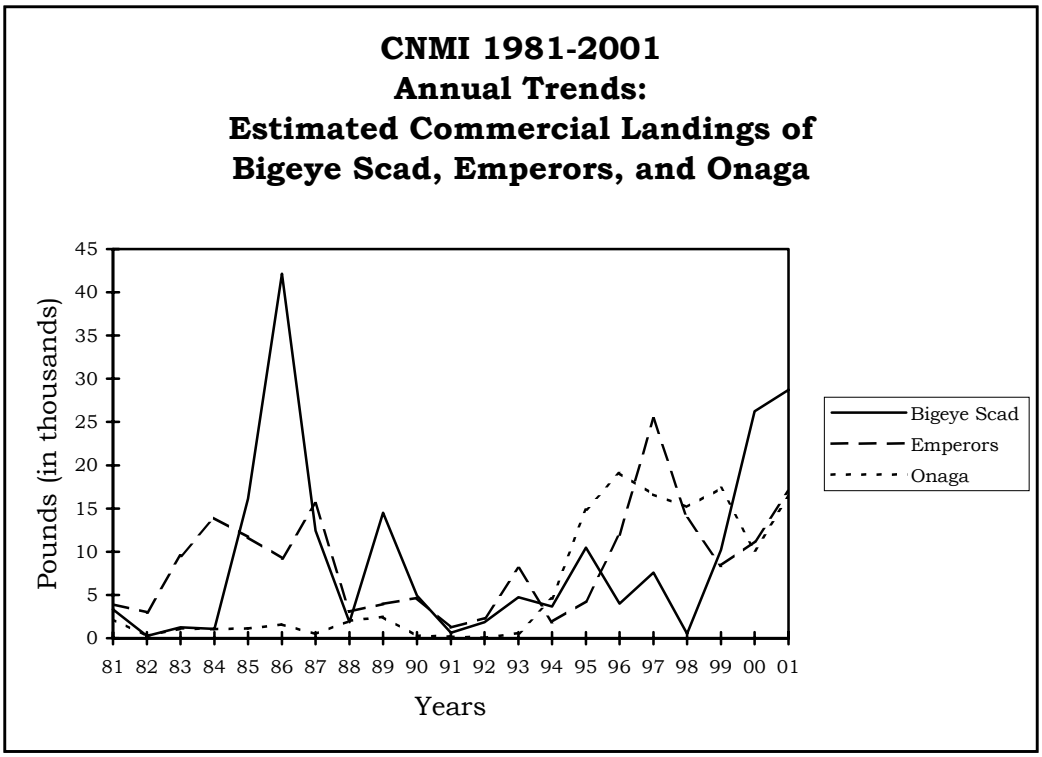

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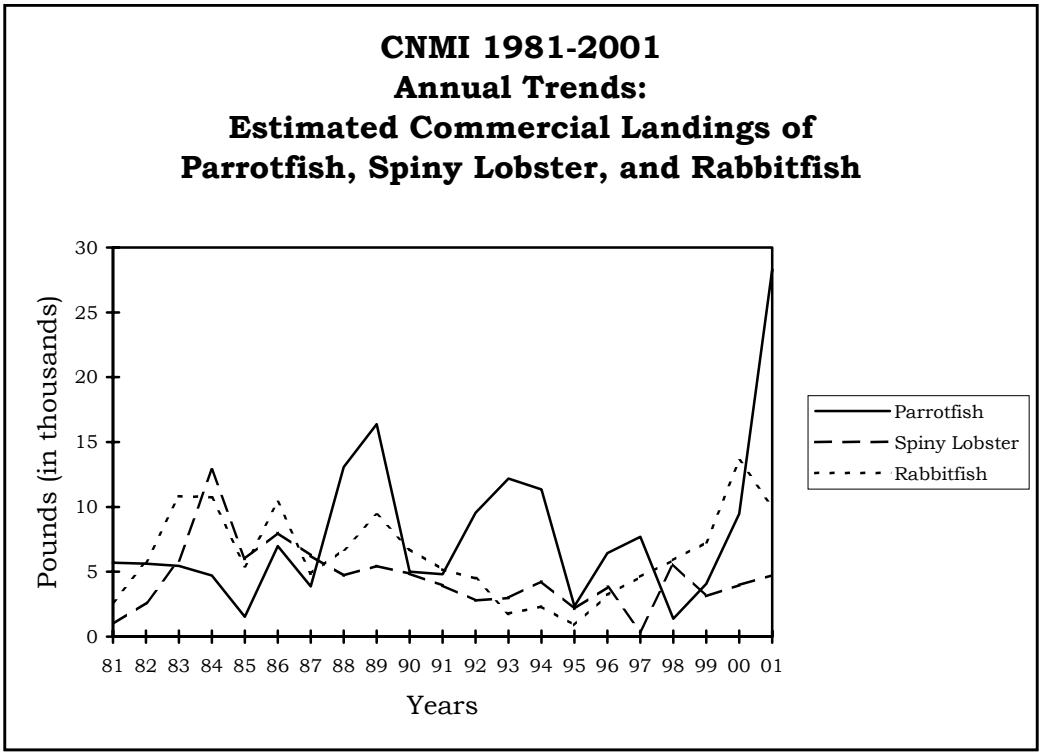

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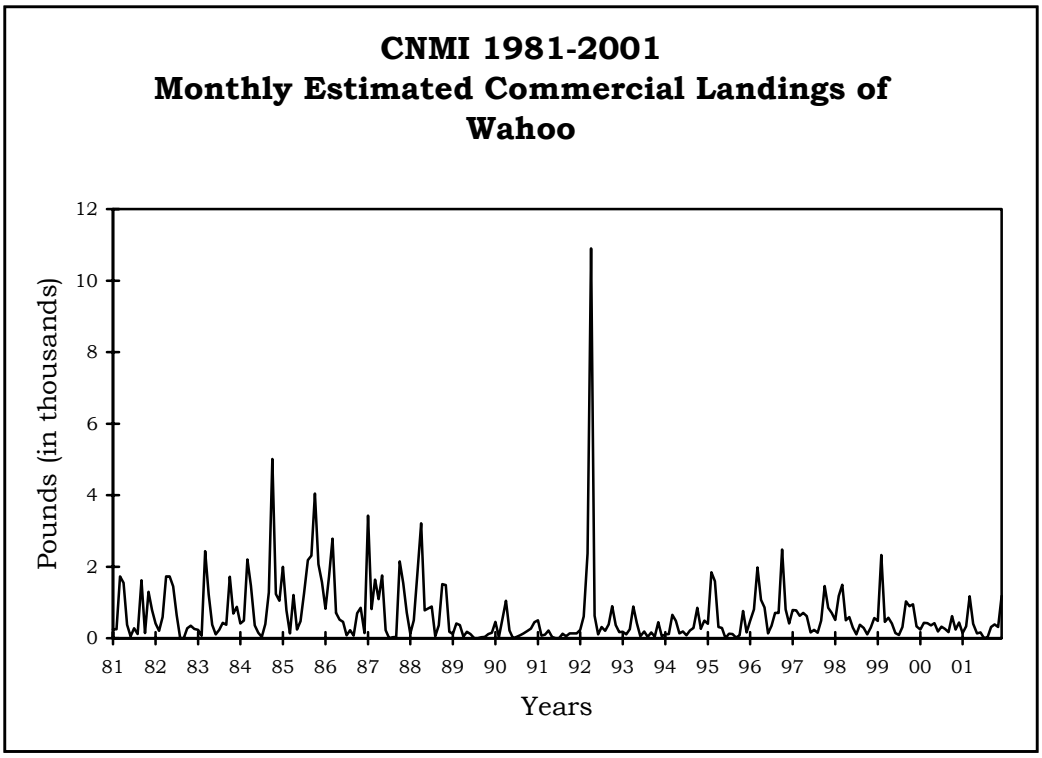

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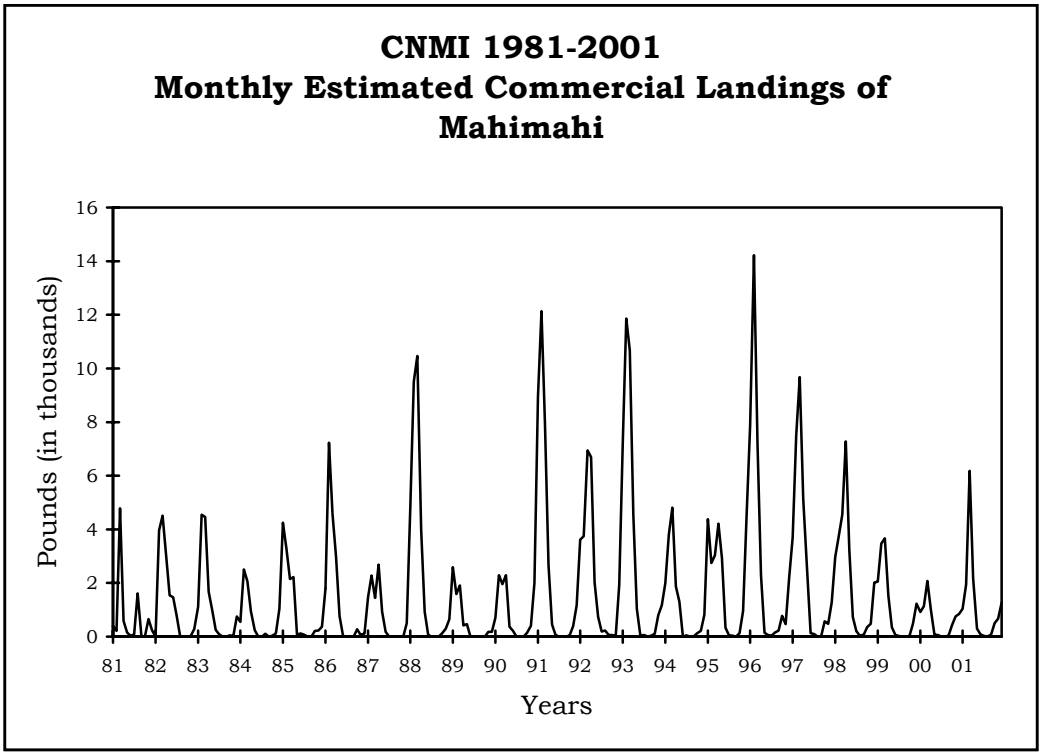

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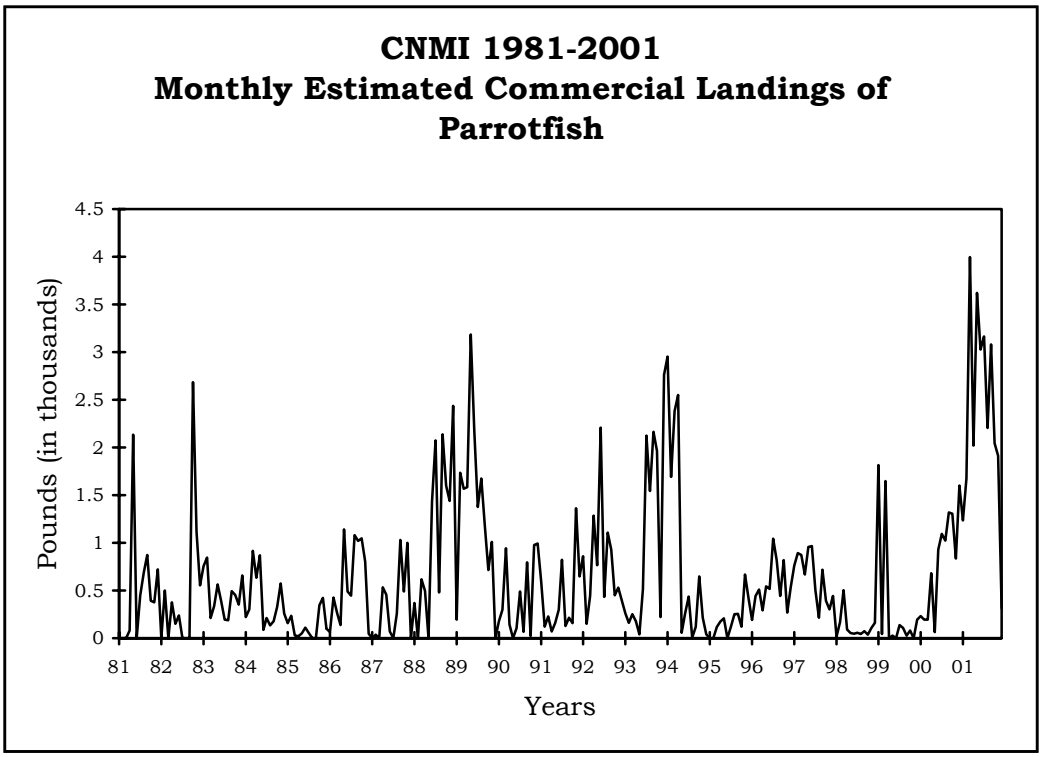

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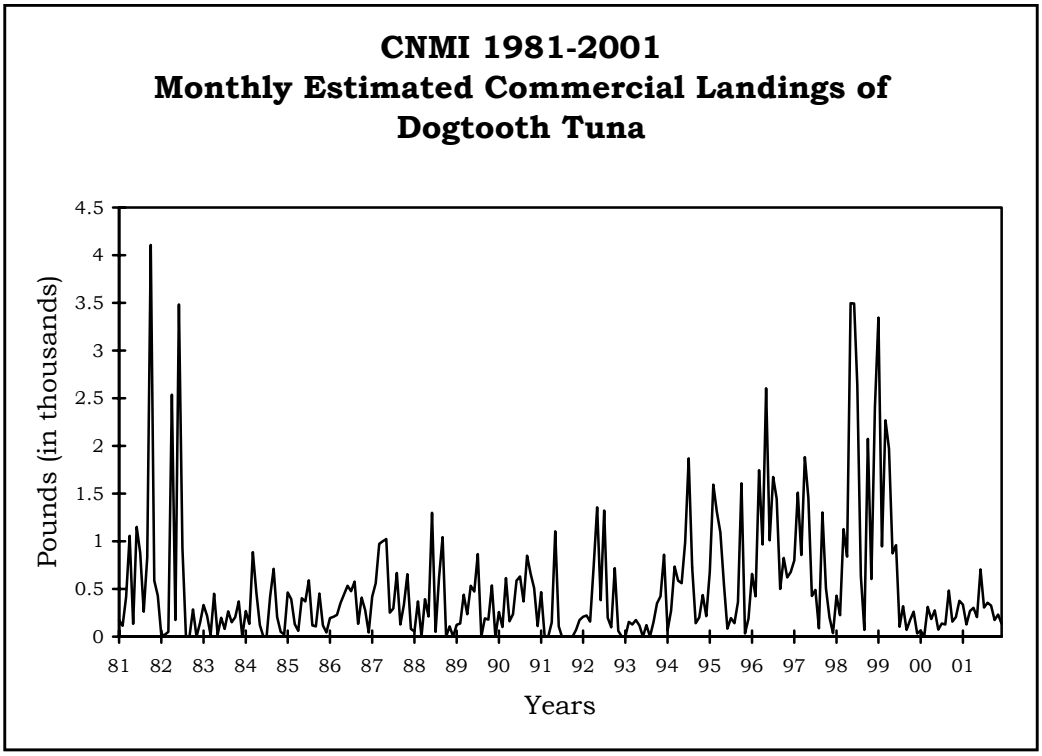

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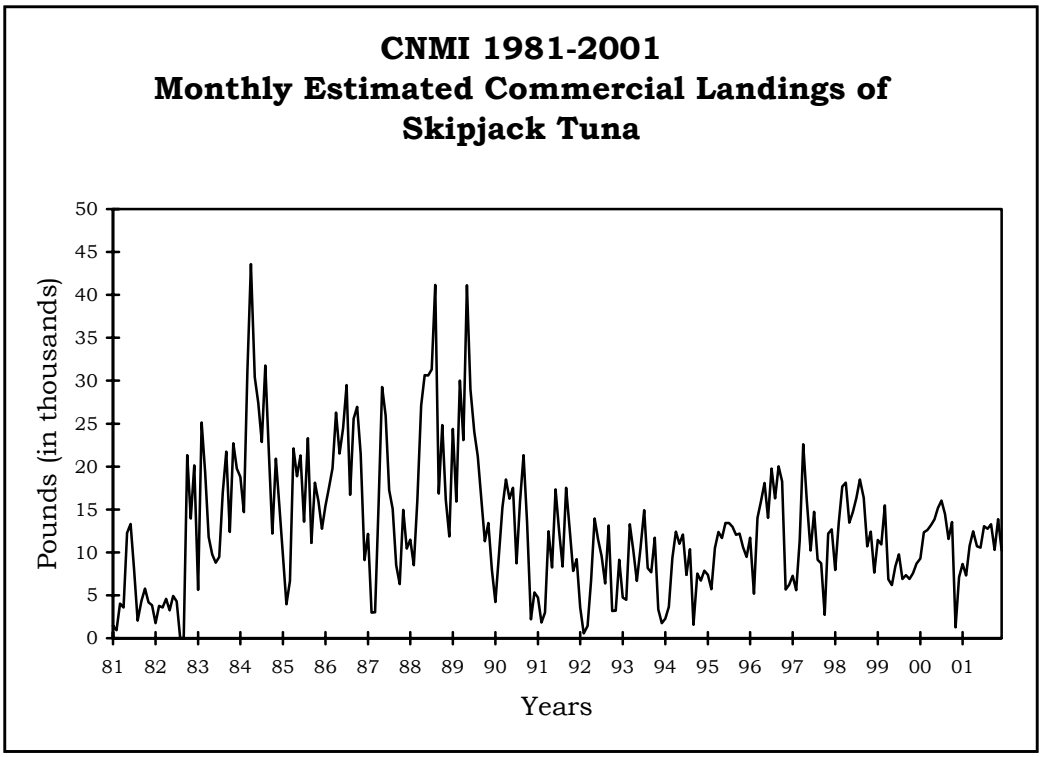

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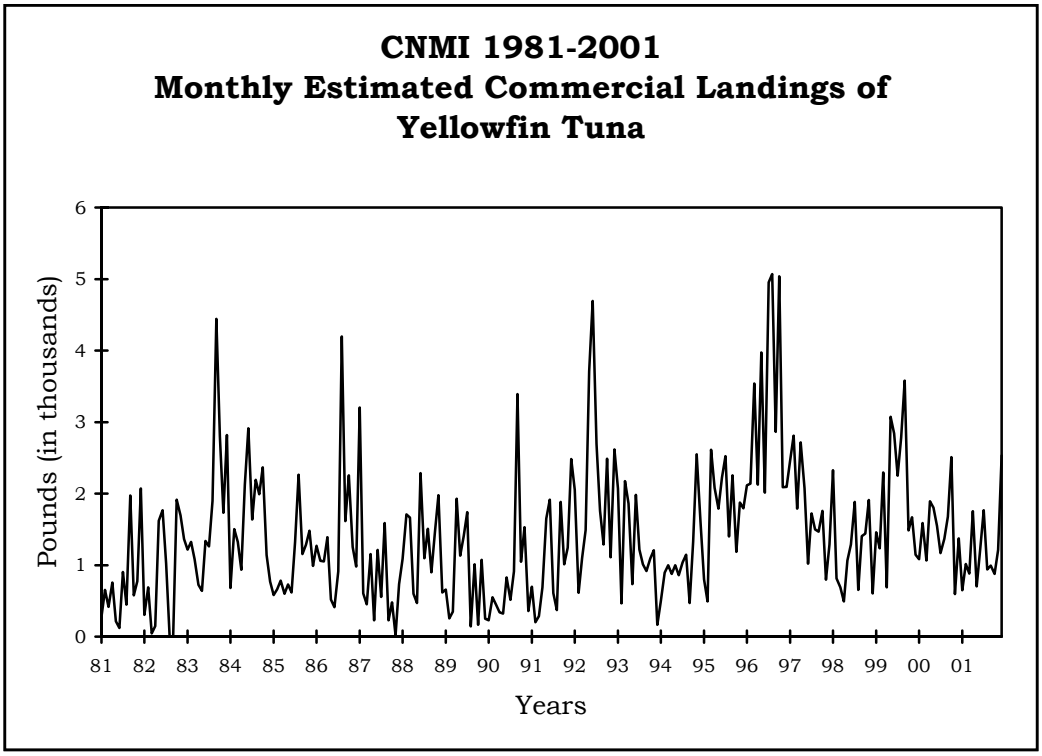

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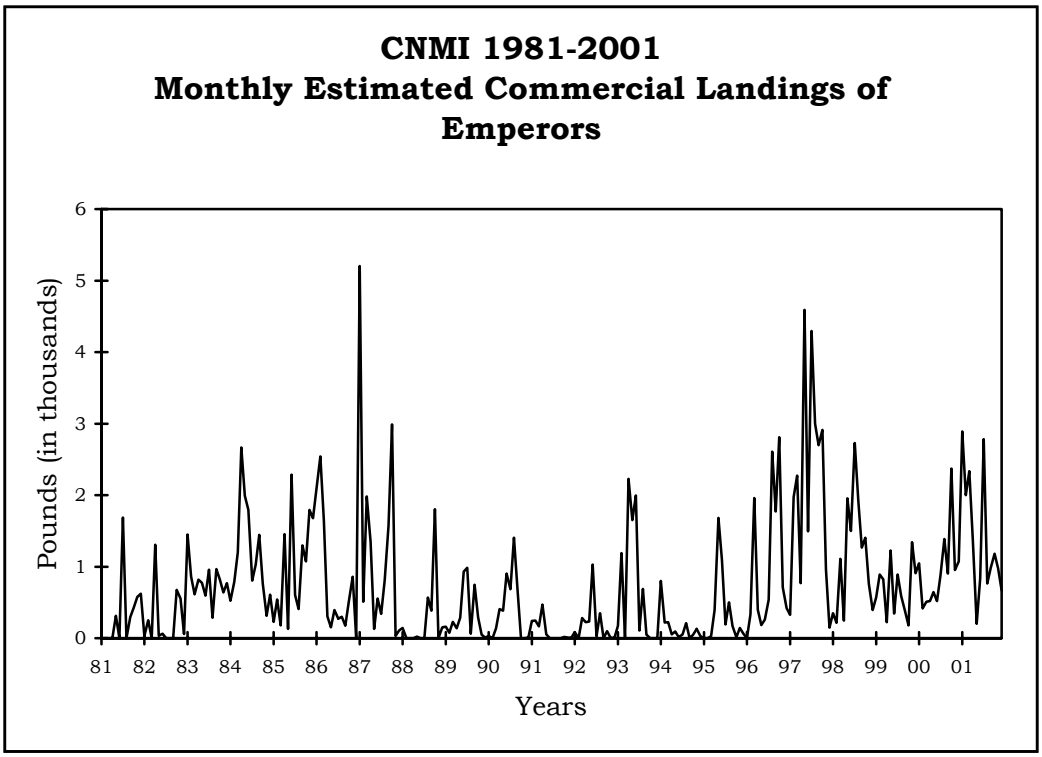

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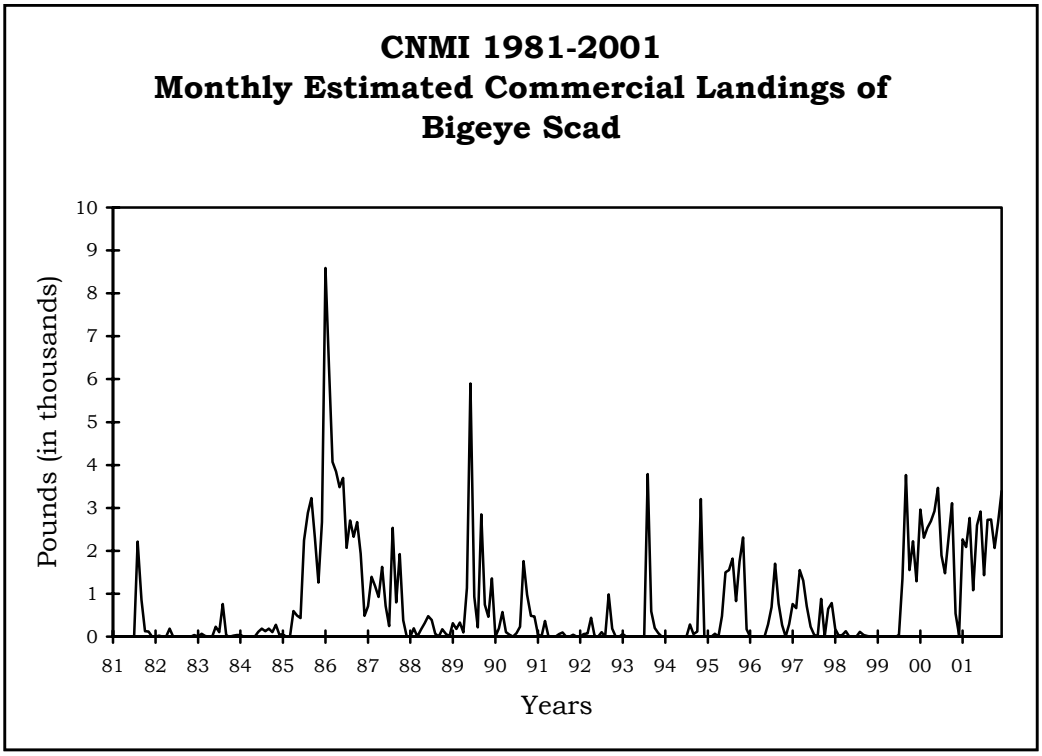

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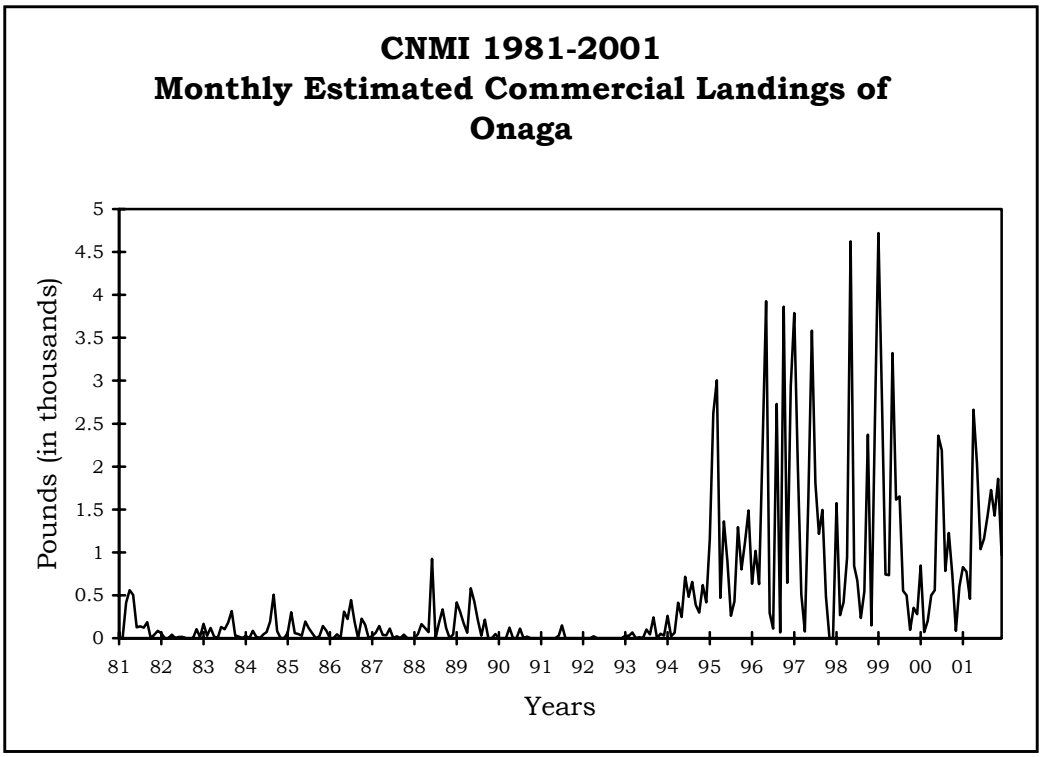

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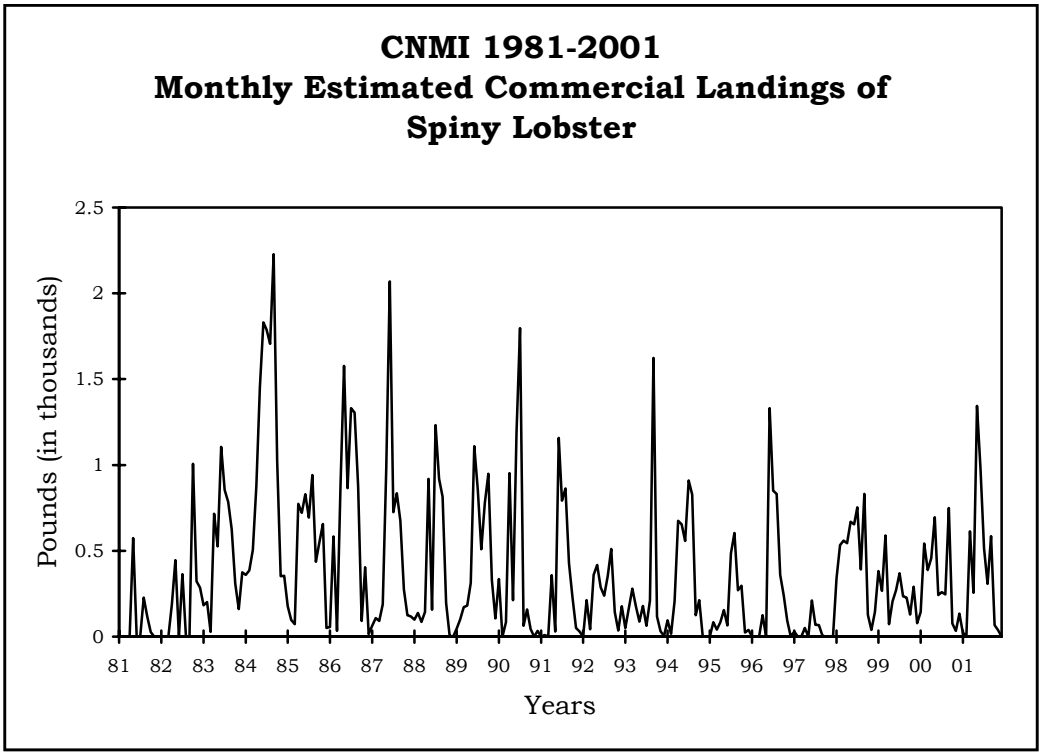

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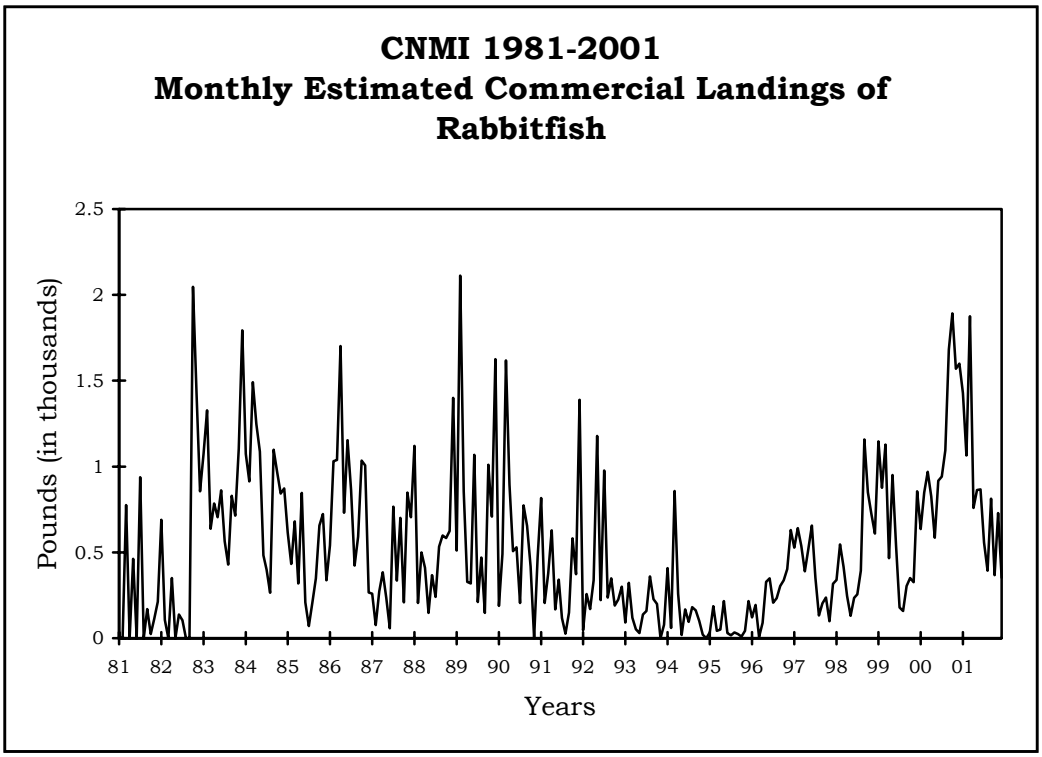

GUAM 2001 FISHERY STATISTICS

Compiled by

Guam Division of Aquatic and Wildlife Resources

and the

Western Pacific Fishery Information Network

August 2003

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GUAM 2001 FISHERY STATISTICS

INTRODUCTION

The Territory of Guam is the southernmost, largest, and most populous island (about 161,000) in the Mariana Archipelago.

Location: 13.4ºN latitude, 144.4ºE longitude
Population: 151,716
Economy: US military, tourism, and fish and handicrafts exports

Guam
source: <http://www.cia.gov/cia/publications/factbook/gq.html>; *The World Factbook*

Fishing activities on Guam are divided into two basic categories: offshore and inshore fishing. Offshore fishing typically involves small boats (12 to 48 feet) going on 1 to 2-day trolling and bottomfishing trips. They usually originate from one of the three principal harbors located on the west coast and southern tip of the island. Inshore fishing is usually conducted without the use of a boat and consists mostly of nearshore casting, netting, and spearfishing. From the late 1980's to about 1996, the sportfishing charter boat industry grew significantly due to a strong Asian economy. Since 1996, declines in the Asian economy have resulted in a downturn in the industry. However, charter boats still contribute considerably to the commercial landings on Guam since much of their catch is sold.

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

COMMERCIAL LANDINGS DATA COLLECTION SYSTEM

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

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

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

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

Data collected on commercial receipts forms include:

- Date
- Number of fishermen
- Area fished
- Number of pieces caught
- Price per pound
- Fisherman code
- Hours fished
- Species caught
- Pounds caught

COMMERCIAL LANDINGS DATA PROCESSING SYSTEM

In earlier years data processing was done at the central WPacFIN office in Honolulu, but beginning in 1994 DAWR staff took over this task using a computer and software provided by WPacFIN. The processing system for the commercial landings data collected from the fish dealers is fairly straightforward. Dealers complete a purchase form every time they purchase fish from a fisherman. On this form, catches

are divided into categories for weighing by species or species group (where practicable, number of pieces is also recorded). Once all the edits, adjustments, verifications, and corrections are made, summary reports are generated. Numerous standard reports are available, but only the monthly and annual landings by species are provided in this document.

COMMERCIAL LANDINGS DATA REPORTING SYSTEM

After completing all editing, adjusting, and quality control activities for the commercial landings data, monthly and annual summary reports by species are generated. Each table contains information on the pounds, value and the average price per pound for each species or species group. Each monthly report contains a subtotal for the sum of all species combined for that month. Annual reports contain the estimated total landings for each species and the estimated total recorded landings for all species for the calendar year. Included with the estimated commercial landings summary reports are graphs of some of the important statistics.

Please note that commercial landings data have been adjusted to reflect total coverage and are referenced as “Estimated Commercial Landings” in the charts and tables. Also, some of the charts in this volume are new or modified from earlier volumes.

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

I. Pelagic Management Unit Species (PMUS)

Although the Magnuson Fishery Conservation and Management Act of 1976 was amended in 1992 to include tunas in the Pacific PMUS (PPMUS), this report series will continue to specify tunas as a separate category from the PPMUS. The PMUS category in this report includes:

Mahimahi (dolphin)
Marlin (probably all blue but possibly striped or black)
Spearfish
Sailfish
Wahoo
Sharks

II. Bottomfish Management Unit Species (BMUS)

Jacks (unclassified but excluding bigeye scad)
Amberjack

II. Bottomfish Management Unit Species (BMUS) cont.

Bottom fish (unclassified)
Ehu (red snapper)
Gindai (flower snapper)
Grouper
Kalekale (pink snapper)
Lehi (silverjaw snapper)
Onaga (red or longtail snapper)
Opakapaka (pink snapper)
Uku (gray snapper)
Emperor (mafute)

III. Billfish

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

IV. Tunas

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

V. Other Tuna

All the above tunas excluding skipjack and yellowfin tunas.

VI. Fisheries Categories

A. Pelagic Species

All PMUS and tuna species plus the following:

Troll fish (unclassified)
Barracuda
Rainbow runner

B. Bottom Fish

Same as the BMUS

C. Reef Fish

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

D. Other

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

INTERPRETATION OF STATISTICS

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

Table IV.1.1

Guam 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Miscellaneous	11	$21	$2.00
Bigeye Scad (Atulai)	11,579	$23,089	$1.99
Black Jack	124	$307	$2.48
Jacks	2,652	$6,344	$2.39
Mullet	78	$166	$2.13
Bottom Fish	2,599	$8,255	$3.18
Ehu (Red Snapper)	694	$2,767	$3.98
Gindai (Flower Snap)	1,010	$4,036	$4.00
Grouper	1,679	$4,730	$2.82
Kalikali (Pink Snap)	2,266	$7,149	$3.15
Lehi (Silverjaw)	1,458	$5,803	$3.98
Onaga (Red Snapper)	4,013	$17,743	$4.42
Opakapaka (Pink Snp)	989	$3,954	$4.00
Uku (Gray Snapper)	822	$2,147	$2.61
Amberjack	524	$1,340	$2.56
Reef Fish	184,869	$534,523	$2.89
Wrasse	1,606	$3,929	$2.45
Rabbitfish	15	$46	$3.00
Emperor (Mafute)	7,083	$19,478	$2.75
Parrotfish	185	$406	$2.20
Snapper	376	$945	$2.51
Surgeonfish	16	$49	$3.00
Unicornfish	69	$174	$2.50
Troll Fish	451	$878	$1.95
Barracuda	9,577	$20,533	$2.14
Dolphin (Mahimahi)	117,992	$223,995	$1.90
Marlin	33,900	$38,864	$1.15
Spearfish	111	$138	$1.25
Sailfish	1,238	$1,450	$1.17
Rainbow Runner	3,727	$8,021	$2.15
Monchong	226	$544	$2.40
Wahoo	52,181	$114,182	$2.19
Skipjack Tuna	131,927	$165,563	$1.26
Dogtooth Tuna	4,596	$5,961	$1.30
Yellowfin Tuna	31,439	$63,085	$2.01
Kawakawa	3	$4	$1.25
Invertebrates	41	$115	$2.80
Crabs (Misc)	3	$11	$3.75
Lobster	1,296	$4,966	$3.83
Octopus	3,379	$9,469	$2.80
TOTAL	616,805	$1,305,181	$2.12

Table IV.1.2

Guam January 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad (Atulai)	216	$606	$2.80
Jacks	318	$744	$2.34
Mullet	8	$23	$3.00
Bottom Fish	134	$461	$3.45
Ehu (Red Snapper)	9	$35	$4.00
Gindai (Flower Snap)	27	$108	$4.00
Kalikali (Pink Snap)	45	$143	$3.16
Lehi (Silverjaw)	62	$263	$4.22
Onaga (Red Snapper)	709	$2,845	$4.01
Opakapaka (Pink Snp)	7	$27	$4.00
Uku (Gray Snapper)	56	$162	$2.87
Reef Fish	15,091	$44,385	$2.94
Wrasse	19	$52	$2.75
Barracuda	539	$1,014	$1.88
Dolphin (Mahimahi)	15,539	$31,009	$2.00
Marlin	115	$172	$1.50
Sailfish	120	$150	$1.25
Rainbow Runner	55	$111	$2.03
Wahoo	3,781	$8,519	$2.25
Skipjack Tuna	2,635	$3,896	$1.48
Dogtooth Tuna	235	$333	$1.41
Yellowfin Tuna	541	$1,157	$2.14
Lobster	78	$302	$3.87
Octopus	264	$749	$2.84
TOTAL	40,602	$97,266	$2.40

Table IV.1.3

Guam February 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Jacks	136	$297	$2.19
Bottom Fish	92	$367	$4.00
Gindai (Flower Snap)	9	$35	$4.00
Kalikali (Pink Snap)	11	$39	$3.50
Lehi (Silverjaw)	37	$148	$4.00
Opakapaka (Pink Snp)	8	$33	$4.00
Uku (Gray Snapper)	18	$49	$2.75
Reef Fish	12,366	$36,586	$2.96
Emperor (Mafute)	19	$51	$2.64
Barracuda	896	$1,979	$2.21
Dolphin (Mahimahi)	22,365	$46,831	$2.09
Spearfish	29	$36	$1.25
Sailfish	96	$121	$1.25
Rainbow Runner	124	$286	$2.30
Wahoo	2,171	$5,214	$2.40
Skipjack Tuna	2,886	$4,207	$1.46
Dogtooth Tuna	388	$506	$1.31
Yellowfin Tuna	771	$1,125	$1.46
Crabs (Misc)	3	$11	$3.75
Lobster	45	$177	$3.90
Octopus	211	$635	$3.02
TOTAL	42,681	$98,734	$2.31

Table IV.1.4

Guam March 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad (Atulai)	21	$62	$3.00
Jacks	186	$382	$2.05
Bottom Fish	458	$1,374	$3.00
Gindai (Flower Snap)	-	$2	$4.00
Kalikali (Pink Snap)	12	$43	$3.50
Lehi (Silverjaw)	28	$111	$4.00
Onaga (Red Snapper)	26	$129	$5.00
Opakapaka (Pink Snp)	8	$32	$4.00
Uku (Gray Snapper)	12	$35	$2.85
Amberjack	15	$45	$3.00
Reef Fish	17,159	$50,594	$2.95
Wrasse	19	$47	$2.50
Emperor (Mafute)	41	$117	$2.84
Troll Fish	339	$671	$1.98
Barracuda	855	$1,902	$2.22
Dolphin (Mahimahi)	43,545	$78,513	$1.80
Marlin	59	$89	$1.50
Spearfish	49	$62	$1.25
Sailfish	39	$49	$1.25
Rainbow Runner	82	$171	$2.09
Monchong	156	$391	$2.50
Wahoo	11,381	$26,801	$2.35
Skipjack Tuna	5,284	$7,247	$1.37
Dogtooth Tuna	404	$524	$1.30
Yellowfin Tuna	696	$1,310	$1.88
Lobster	46	$169	$3.69
Octopus	387	$1,062	$2.74
TOTAL	81,309	$171,935	$2.11

Table IV.1.5

Guam April 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad (Atulai)	1,271	$2,413	$1.90
Jacks	157	$361	$2.30
Mullet	2	$7	$3.00
Bottom Fish	9	$35	$4.00
Ehu (Red Snapper)	41	$165	$4.00
Gindai (Flower Snap)	27	$108	$4.00
Grouper	3	$9	$3.00
Kalikali (Pink Snap)	8	$29	$3.50
Lehi (Silverjaw)	18	$73	$4.00
Onaga (Red Snapper)	18	$91	$5.00
Opakapaka (Pink Snp)	34	$136	$4.00
Uku (Gray Snapper)	42	$112	$2.69
Reef Fish	14,442	$42,355	$2.93
Wrasse	201	$492	$2.44
Emperor (Mafute)	284	$851	$3.00
Barracuda	1,712	$3,831	$2.24
Dolphin (Mahimahi)	11,507	$21,654	$1.88
Marlin	3,715	$4,173	$1.12
Spearfish	14	$18	$1.25
Sailfish	406	$508	$1.25
Rainbow Runner	388	$865	$2.23
Monchong	38	$85	$2.25
Wahoo	4,108	$9,701	$2.36
Skipjack Tuna	14,990	$18,523	$1.24
Dogtooth Tuna	450	$564	$1.25
Yellowfin Tuna	1,582	$3,116	$1.97
Invertebrates	4	$7	$2.00
Lobster	109	$418	$3.83
Octopus	527	$1,380	$2.62
TOTAL	56,109	$112,080	$2.00

Table IV.1.6

Guam May 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad (Atulai)	114	$341	$3.00
Jacks	162	$398	$2.46
Bottom Fish	173	$520	$3.00
Ehu (Red Snapper)	56	$224	$4.00
Gindai (Flower Snap)	66	$264	$4.00
Grouper	21	$64	$3.00
Kalikali (Pink Snap)	128	$447	$3.50
Lehi (Silverjaw)	40	$160	$4.00
Onaga (Red Snapper)	134	$671	$5.00
Opakapaka (Pink Snp)	294	$1,176	$4.00
Uku (Gray Snapper)	24	$61	$2.61
Amberjack	11	$26	$2.50
Reef Fish	20,338	$59,754	$2.94
Wrasse	20	$50	$2.50
Rabbitfish	15	$46	$3.00
Emperor (Mafute)	80	$240	$3.00
Barracuda	1,838	$4,107	$2.23
Dolphin (Mahimahi)	490	$1,060	$2.16
Marlin	4,670	$5,263	$1.13
Rainbow Runner	680	$1,478	$2.17
Wahoo	1,277	$3,425	$2.68
Skipjack Tuna	33,004	$41,159	$1.25
Dogtooth Tuna	930	$1,219	$1.31
Yellowfin Tuna	4,089	$8,004	$1.96
Invertebrates	9	$24	$2.50
Lobster	222	$848	$3.81
Octopus	403	$1,129	$2.80
TOTAL	69,288	$132,158	$1.91

Table IV.1.7

Guam June 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad (Atulai)	2	$7	$3.00
Jacks	212	$518	$2.45
Bottom Fish	353	$1,194	$3.39
Ehu (Red Snapper)	175	$698	$4.00
Gindai (Flower Snap)	269	$1,078	$4.00
Grouper	76	$217	$2.86
Kalikali (Pink Snap)	389	$1,373	$3.53
Lehi (Silverjaw)	404	$1,614	$4.00
Onaga (Red Snapper)	109	$510	$4.69
Opakapaka (Pink Snp)	90	$360	$4.00
Uku (Gray Snapper)	229	$582	$2.54
Amberjack	174	$471	$2.70
Reef Fish	17,992	$53,246	$2.96
Wrasse	45	$112	$2.50
Emperor (Mafute)	708	$2,040	$2.88
Snapper	49	$148	$3.03
Troll Fish	24	$54	$2.25
Barracuda	1,167	$2,626	$2.25
Dolphin (Mahimahi)	66	$146	$2.22
Marlin	5,327	$6,232	$1.17
Sailfish	42	$53	$1.25
Rainbow Runner	894	$1,950	$2.18
Wahoo	893	$2,157	$2.41
Skipjack Tuna	26,885	$33,498	$1.25
Dogtooth Tuna	394	$533	$1.35
Yellowfin Tuna	7,065	$14,601	$2.07
Lobster	204	$798	$3.92
Octopus	289	$868	$3.00
TOTAL	64,526	$127,684	$1.98

Table IV.1.8

Guam July 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Jacks	209	$492	$2.35
Bottom Fish	225	$676	$3.00
Ehu (Red Snapper)	92	$367	$4.00
Gindai (Flower Snap)	103	$413	$4.00
Grouper	165	$494	$3.00
Kalikali (Pink Snap)	484	$1,510	$3.12
Lehi (Silverjaw)	253	$1,013	$4.00
Onaga (Red Snapper)	235	$1,174	$5.00
Opakapaka (Pink Snp)	222	$889	$4.00
Uku (Gray Snapper)	77	$205	$2.66
Amberjack	31	$79	$2.57
Reef Fish	17,528	$51,838	$2.96
Wrasse	106	$293	$2.75
Emperor (Mafute)	1,123	$3,095	$2.76
Barracuda	453	$955	$2.11
Dolphin (Mahimahi)	100	$218	$2.18
Marlin	6,794	$7,276	$1.07
Spearfish	18	$23	$1.25
Rainbow Runner	746	$1,606	$2.15
Wahoo	484	$1,195	$2.47
Skipjack Tuna	16,133	$19,982	$1.24
Dogtooth Tuna	417	$548	$1.31
Yellowfin Tuna	4,621	$9,538	$2.06
Lobster	177	$682	$3.85
Octopus	535	$1,546	$2.89
TOTAL	51,333	$106,106	$2.07

Table IV.1.9

Guam August 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad (Atulai)	4,066	$8,220	$2.02
Black Jack	58	$146	$2.50
Jacks	187	$494	$2.64
Bottom Fish	100	$317	$3.19
Ehu (Red Snapper)	49	$194	$4.00
Gindai (Flower Snap)	136	$542	$4.00
Grouper	137	$410	$3.00
Kalikali (Pink Snap)	256	$768	$3.00
Lehi (Silverjaw)	76	$306	$4.00
Onaga (Red Snapper)	519	$2,444	$4.71
Opakapaka (Pink Snp)	29	$118	$4.00
Uku (Gray Snapper)	89	$230	$2.58
Amberjack	42	$93	$2.19
Reef Fish	14,609	$42,866	$2.93
Wrasse	183	$486	$2.66
Emperor (Mafute)	987	$2,716	$2.75
Parrotfish	72	$145	$2.00
Snapper	10	$25	$2.50
Barracuda	34	$68	$2.00
Dolphin (Mahimahi)	64	$140	$2.20
Marlin	2,364	$2,551	$1.08
Rainbow Runner	52	$115	$2.22
Wahoo	229	$572	$2.50
Skipjack Tuna	7,009	$8,567	$1.22
Dogtooth Tuna	329	$343	$1.04
Yellowfin Tuna	2,154	$4,127	$1.92
Invertebrates	28	$85	$3.00
Lobster	113	$435	$3.84
Octopus	246	$728	$2.97
TOTAL	34,228	$78,250	$2.29

Table IV.1.10

Guam September 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Miscellaneous	11	$21	$2.00
Bigeye Scad (Atulai)	3,515	$6,945	$1.98
Black Jack	42	$104	$2.50
Jacks	753	$1,936	$2.57
Mullet	68	$136	$2.00
Bottom Fish	826	$2,589	$3.13
Ehu (Red Snapper)	185	$738	$3.99
Gindai (Flower Snap)	230	$919	$4.00
Grouper	749	$2,209	$2.95
Kalikali (Pink Snap)	480	$1,441	$3.00
Lehi (Silverjaw)	318	$1,244	$3.92
Onaga (Red Snapper)	1,495	$6,606	$4.42
Opakapaka (Pink Snp)	220	$879	$4.00
Uku (Gray Snapper)	201	$520	$2.59
Amberjack	115	$293	$2.55
Reef Fish	17,660	$51,594	$2.92
Wrasse	402	$985	$2.45
Emperor (Mafute)	3,253	$8,845	$2.72
Snapper	318	$773	$2.43
Surgeonfish	16	$49	$3.00
Barracuda	495	$974	$1.97
Dolphin (Mahimahi)	1,532	$2,907	$1.90
Marlin	4,090	$5,157	$1.26
Sailfish	156	$193	$1.23
Rainbow Runner	450	$885	$1.97
Wahoo	5,632	$12,758	$2.27
Skipjack Tuna	11,878	$14,375	$1.21
Dogtooth Tuna	515	$692	$1.34
Yellowfin Tuna	4,047	$8,297	$2.05
Kawakawa	3	$4	$1.25
Lobster	149	$569	$3.81
Octopus	263	$738	$2.80
TOTAL	60,067	$136,375	$2.27

Table IV.1.11

Guam October 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad (Atulai)	998	$1,990	$2.00
Black Jack	12	$29	$2.50
Jacks	136	$311	$2.29
Bottom Fish	165	$575	$3.48
Ehu (Red Snapper)	79	$318	$4.00
Gindai (Flower Snap)	102	$408	$4.00
Grouper	456	$1,136	$2.49
Kalikali (Pink Snap)	377	$1,131	$3.00
Lehi (Silverjaw)	136	$546	$4.00
Onaga (Red Snapper)	455	$1,858	$4.09
Opakapaka (Pink Snp)	76	$304	$4.00
Uku (Gray Snapper)	35	$88	$2.53
Amberjack	88	$211	$2.41
Reef Fish	13,001	$35,192	$2.71
Wrasse	200	$422	$2.11
Emperor (Mafute)	230	$614	$2.67
Troll Fish	8	$10	$1.30
Barracuda	306	$585	$1.91
Dolphin (Mahimahi)	5,546	$10,126	$1.83
Marlin	3,417	$3,887	$1.14
Sailfish	48	$48	$1.00
Rainbow Runner	99	$212	$2.15
Monchong	32	$68	$2.11
Wahoo	2,782	$5,662	$2.04
Skipjack Tuna	3,359	$4,315	$1.28
Dogtooth Tuna	290	$363	$1.25
Yellowfin Tuna	2,076	$4,215	$2.03
Lobster	117	$436	$3.74
Octopus	108	$272	$2.51
TOTAL	34,734	$75,333	$2.17

Table IV.1.12

Guam November 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad (Atulai)	1,024	$1,988	$1.94
Black Jack	12	$28	$2.25
Jacks	144	$310	$2.15
Bottom Fish	64	$145	$2.25
Ehu (Red Snapper)	9	$28	$3.00
Gindai (Flower Snap)	41	$159	$3.91
Grouper	72	$192	$2.66
Kalikali (Pink Snap)	75	$225	$3.00
Lehi (Silverjaw)	86	$325	$3.80
Onaga (Red Snapper)	295	$1,335	$4.52
Uku (Gray Snapper)	39	$103	$2.65
Amberjack	49	$123	$2.52
Reef Fish	12,259	$33,291	$2.72
Wrasse	187	$464	$2.48
Emperor (Mafute)	307	$771	$2.51
Unicornfish	69	$174	$2.50
Troll Fish	66	$115	$1.75
Barracuda	901	$1,732	$1.92
Dolphin (Mahimahi)	7,294	$12,873	$1.76
Marlin	2,276	$2,931	$1.29
Sailfish	252	$252	$1.00
Rainbow Runner	92	$207	$2.24
Wahoo	13,215	$25,763	$1.95
Skipjack Tuna	7,466	$9,292	$1.24
Dogtooth Tuna	223	$307	$1.38
Yellowfin Tuna	2,211	$4,460	$2.02
Lobster	20	$76	$3.75
Octopus	13	$29	$2.23
TOTAL	48,764	$97,698	$2.00

Table IV.1.13

Guam December 2001 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad (Atulai)	352	$517	$1.47
Jacks	51	$101	$2.00
Onaga (Red Snapper)	18	$79	$4.50
Reef Fish	12,424	$32,822	$2.64
Wrasse	224	$526	$2.36
Emperor (Mafute)	49	$139	$2.81
Parrotfish	112	$262	$2.33
Troll Fish	14	$27	$2.00
Barracuda	381	$759	$1.99
Dolphin (Mahimahi)	9,945	$18,519	$1.86
Marlin	1,074	$1,133	$1.06
Sailfish	76	$76	$1.00
Rainbow Runner	65	$136	$2.08
Wahoo	6,227	$12,413	$1.99
Skipjack Tuna	399	$502	$1.26
Dogtooth Tuna	20	$30	$1.51
Yellowfin Tuna	1,586	$3,134	$1.98
Lobster	15	$54	$3.75
Octopus	133	$332	$2.50
TOTAL	33,163	$71,563	$2.16

Figure IV.1.1

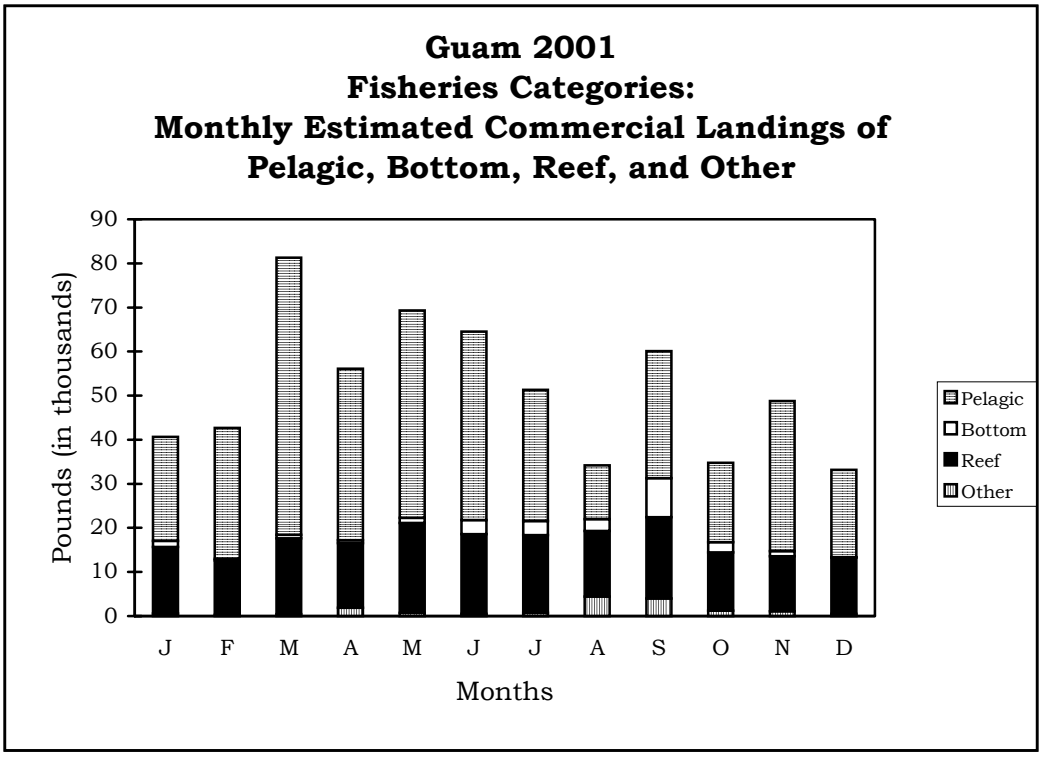


Figure IV.1.2

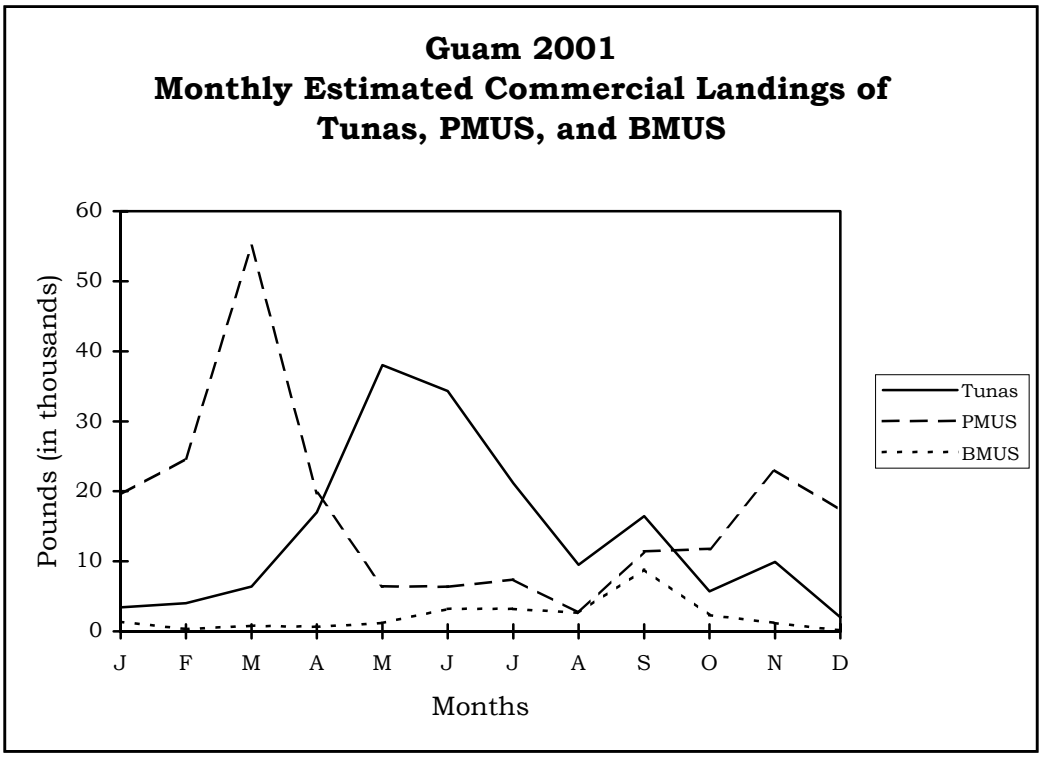


Figure IV.1.3

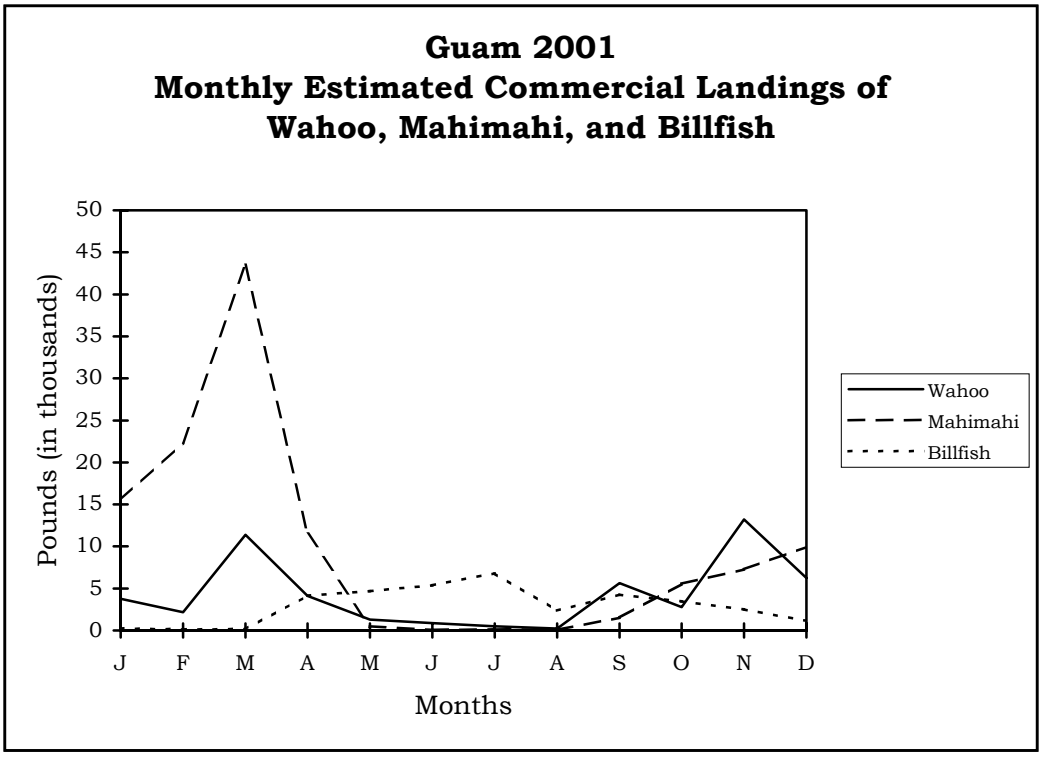


Figure IV.1.4

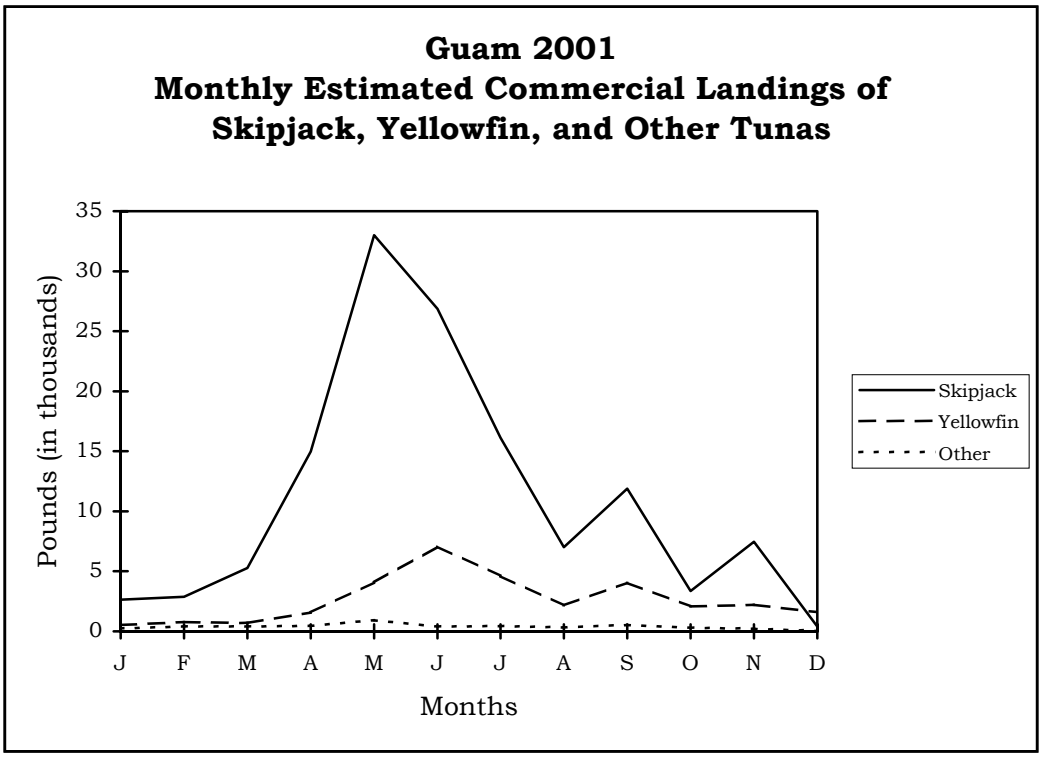


Figure IV.1.5

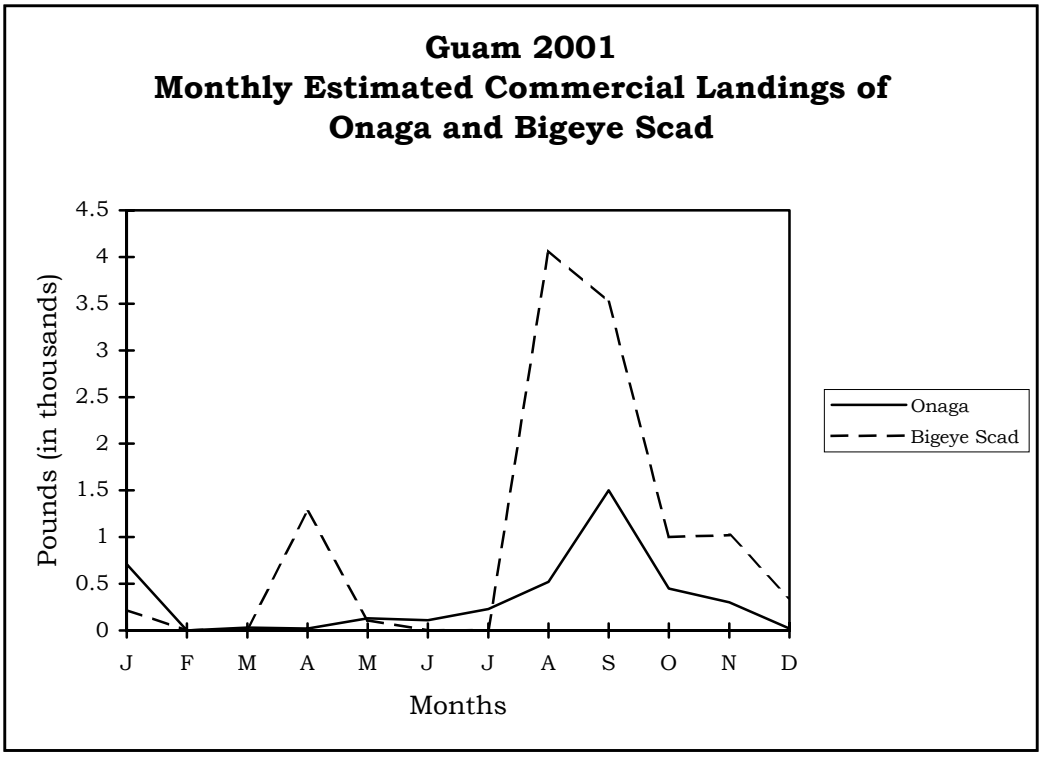
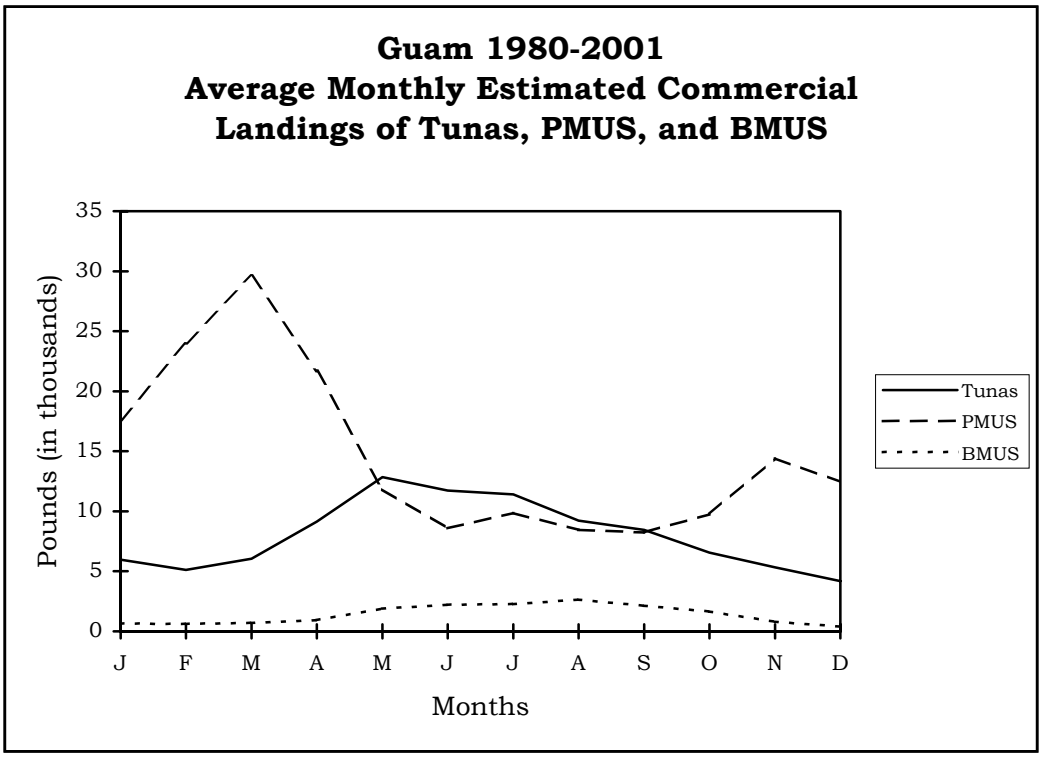


Figure IV.2.1



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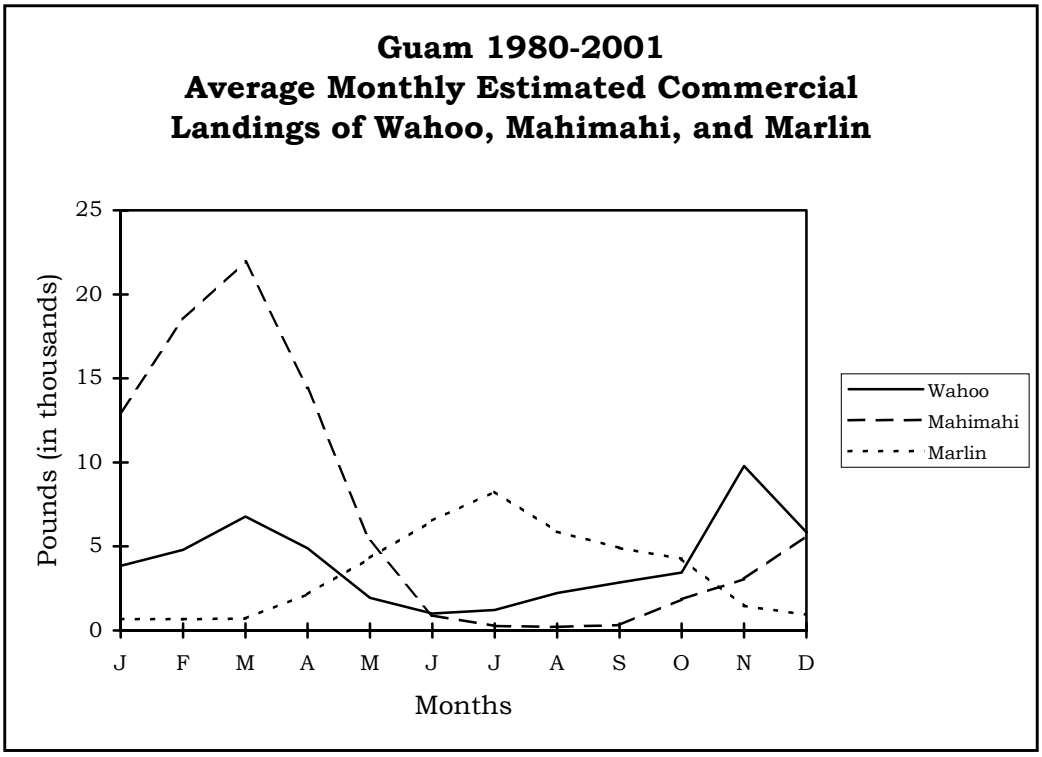

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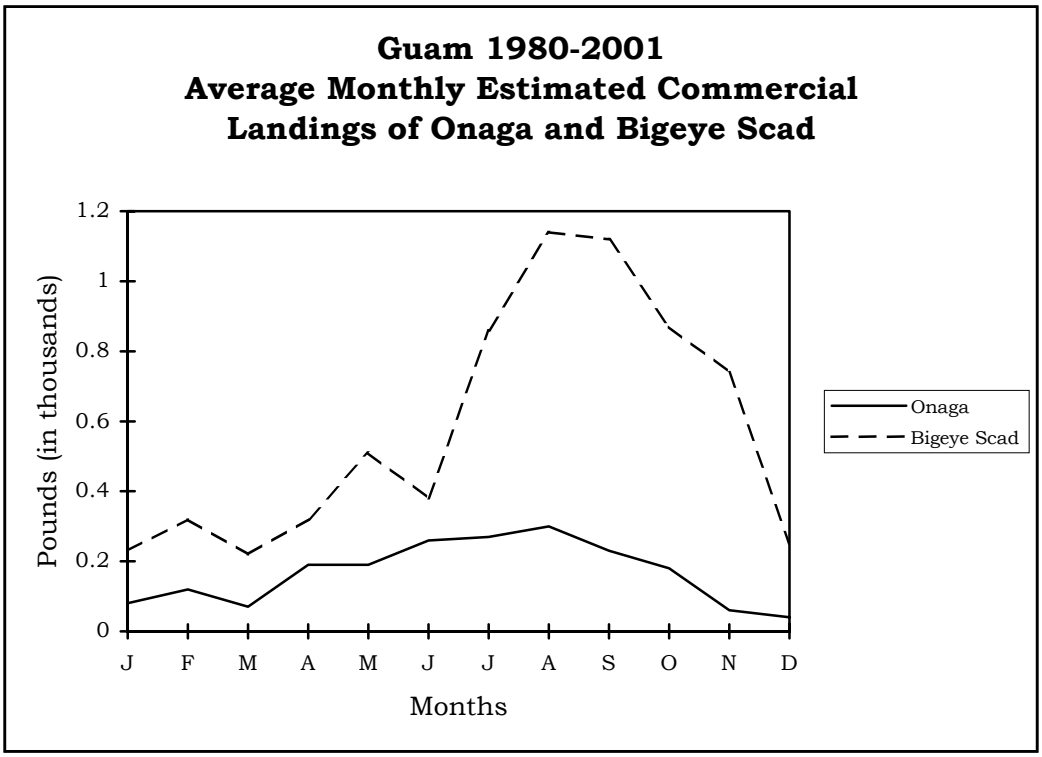

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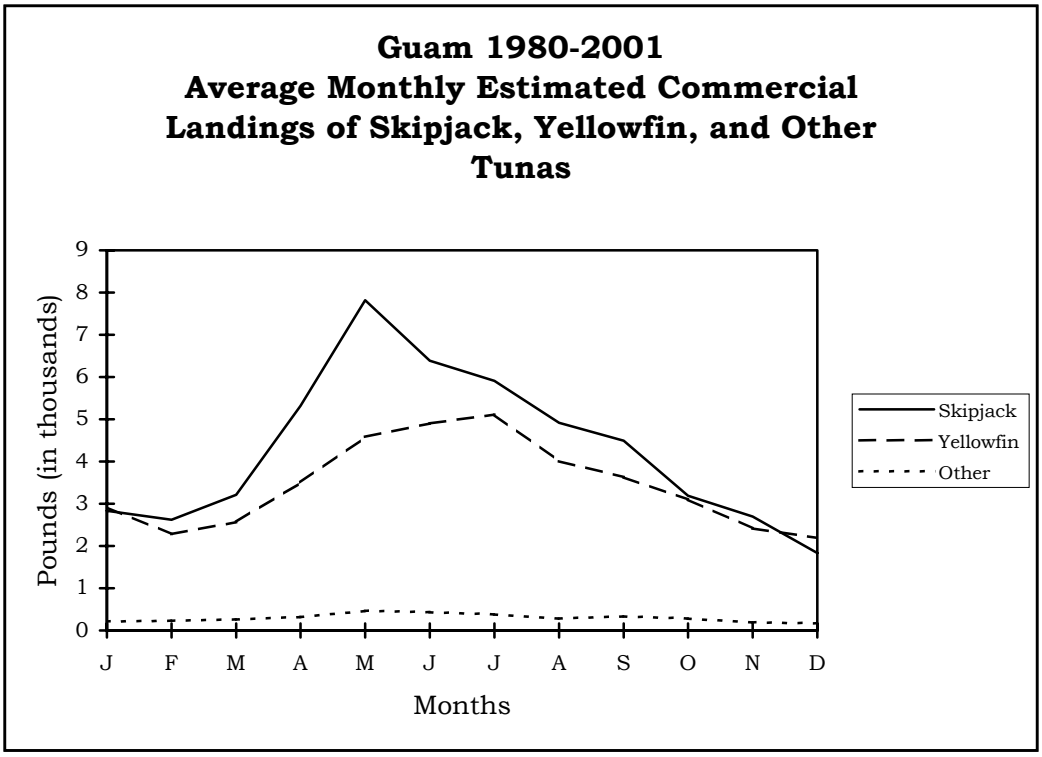

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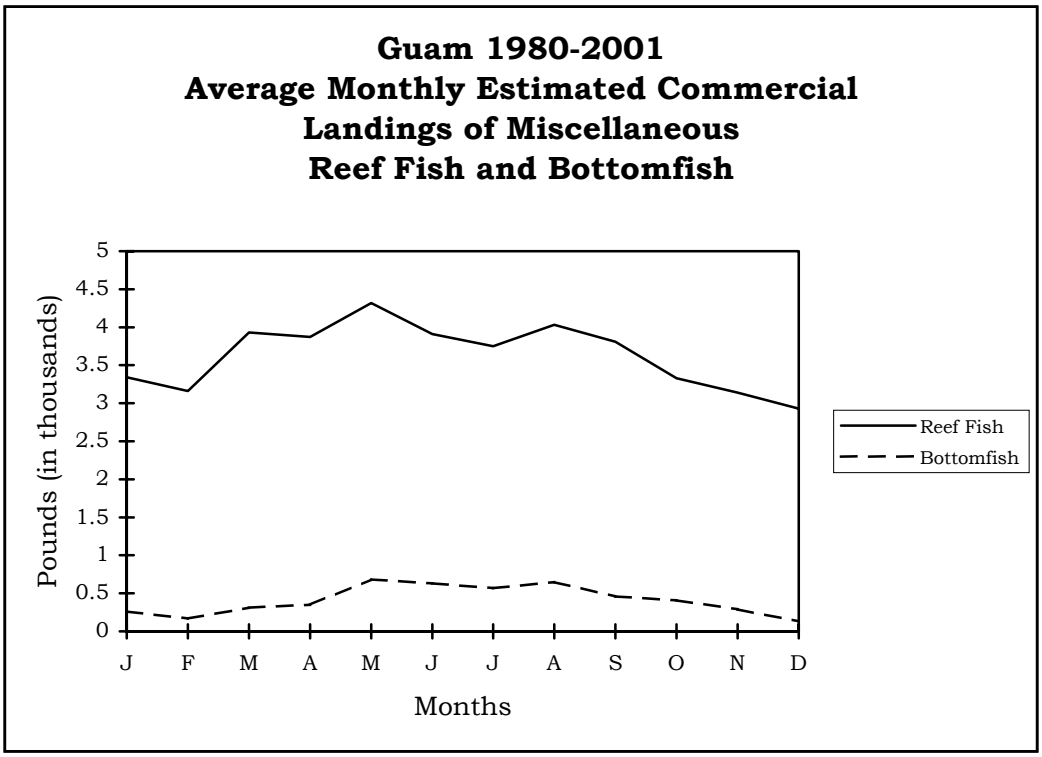

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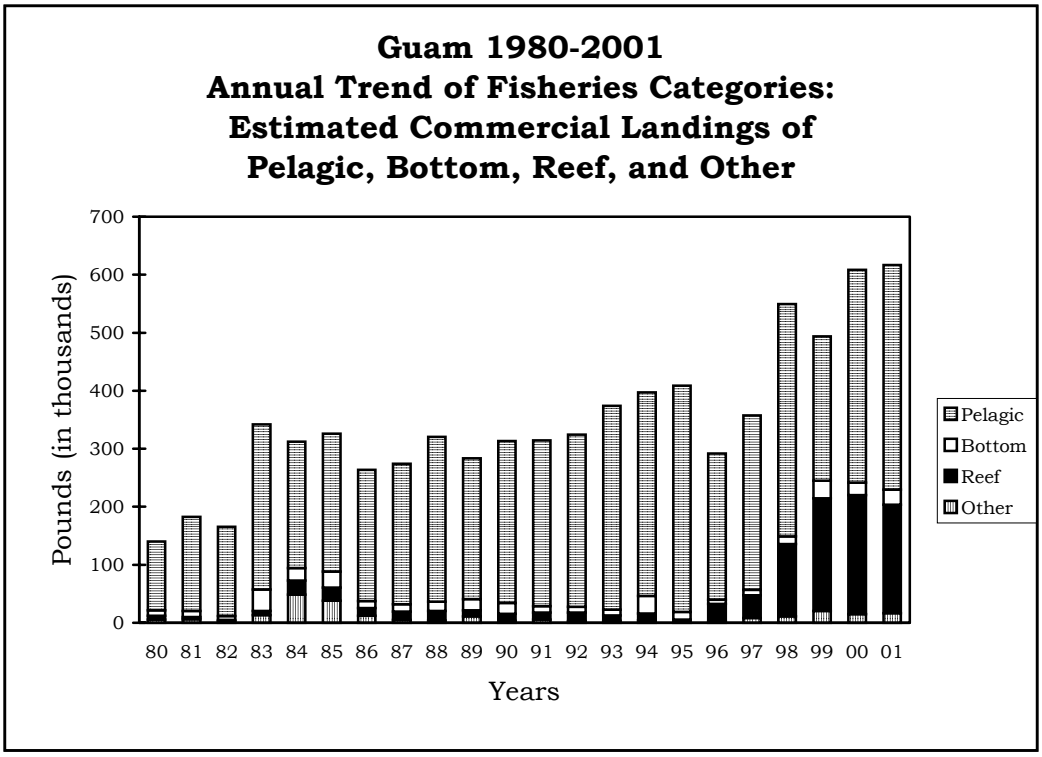

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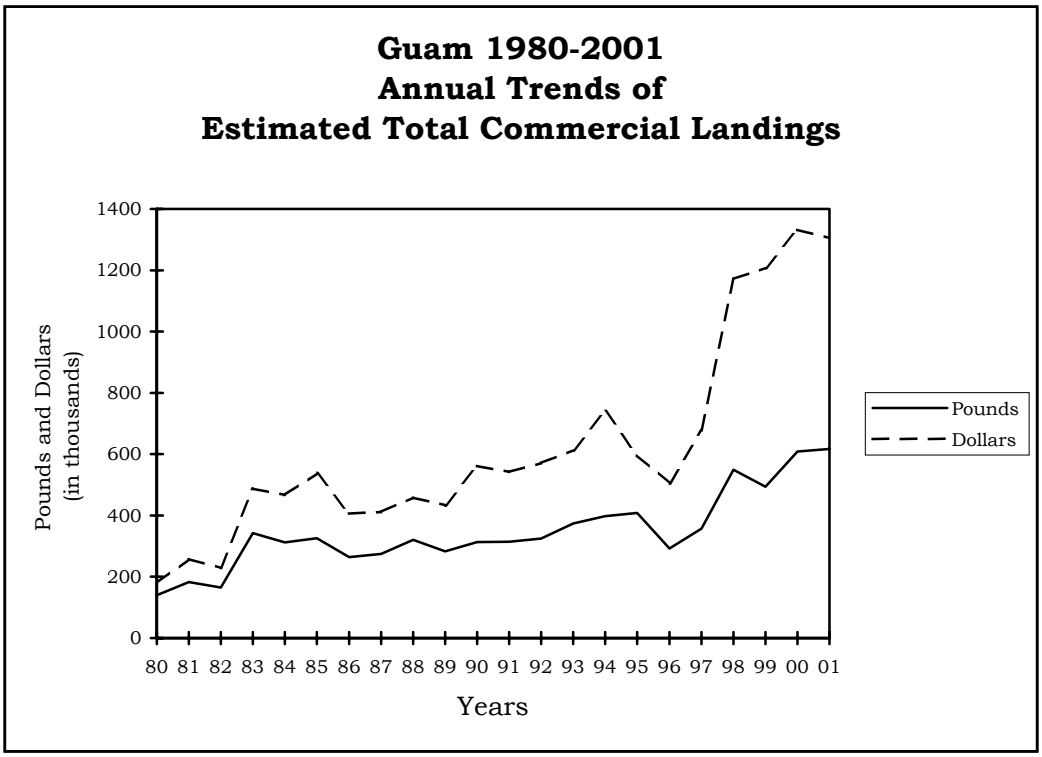

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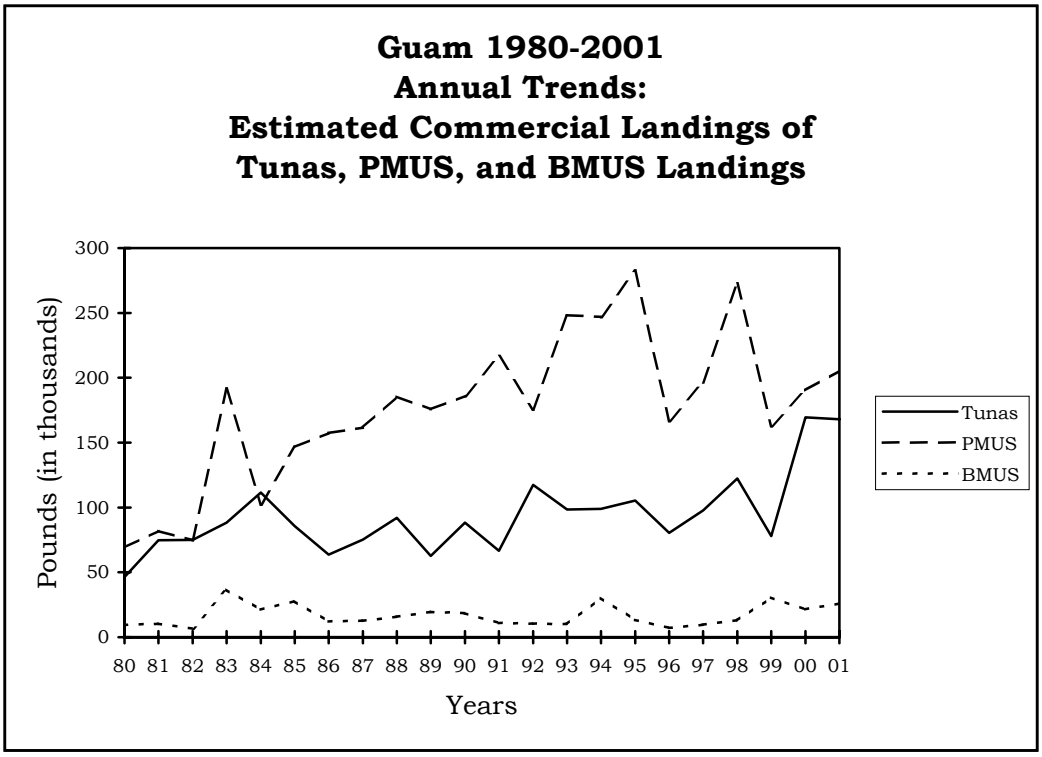

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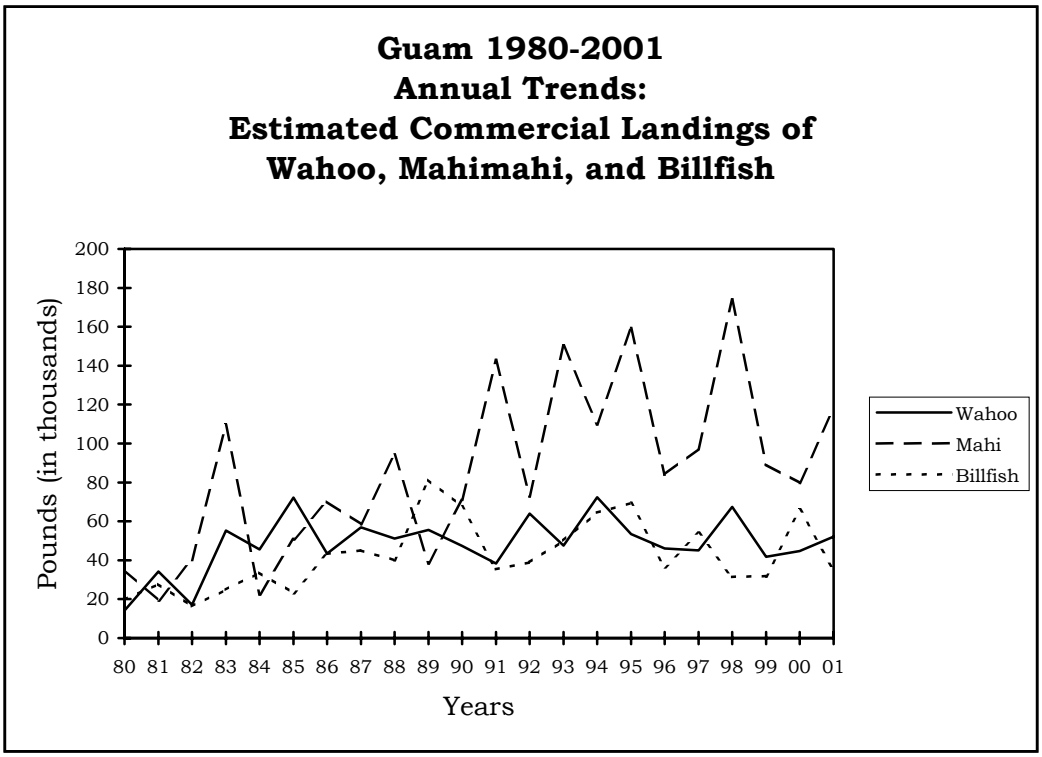

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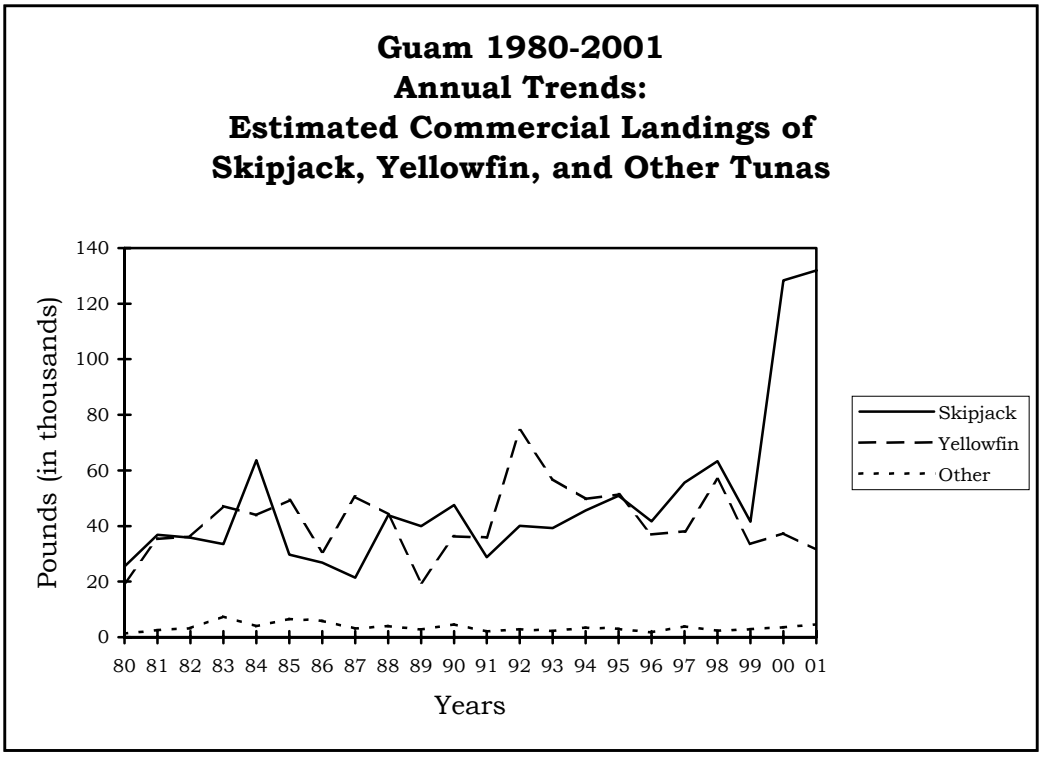

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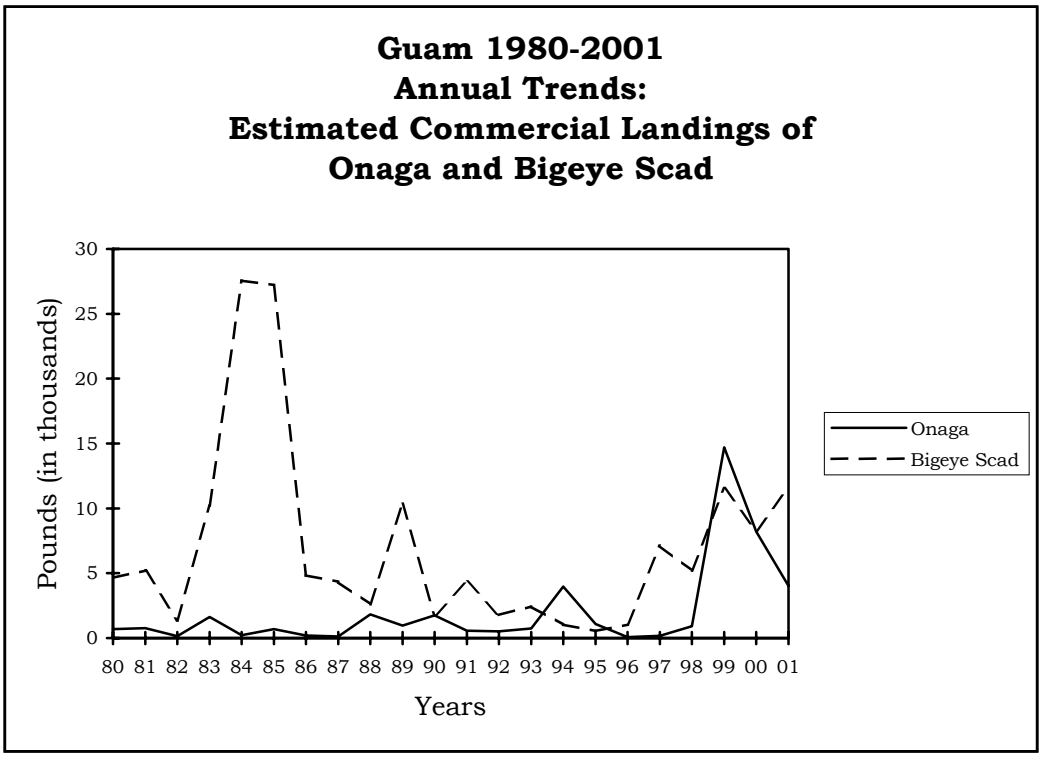

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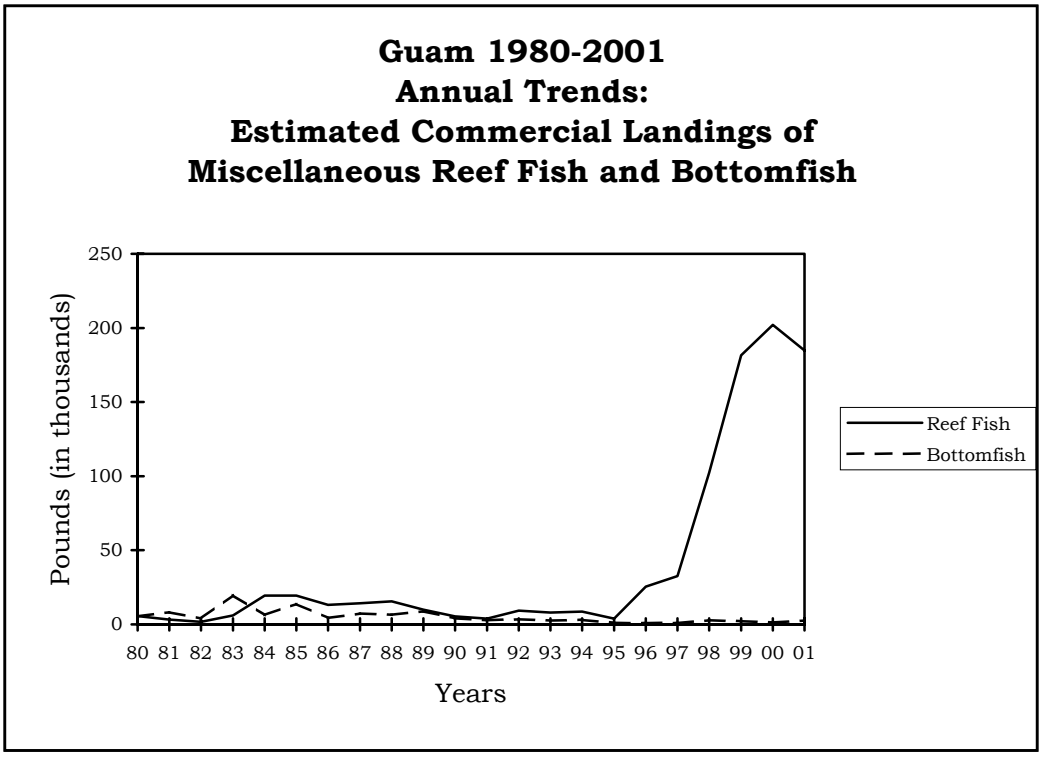

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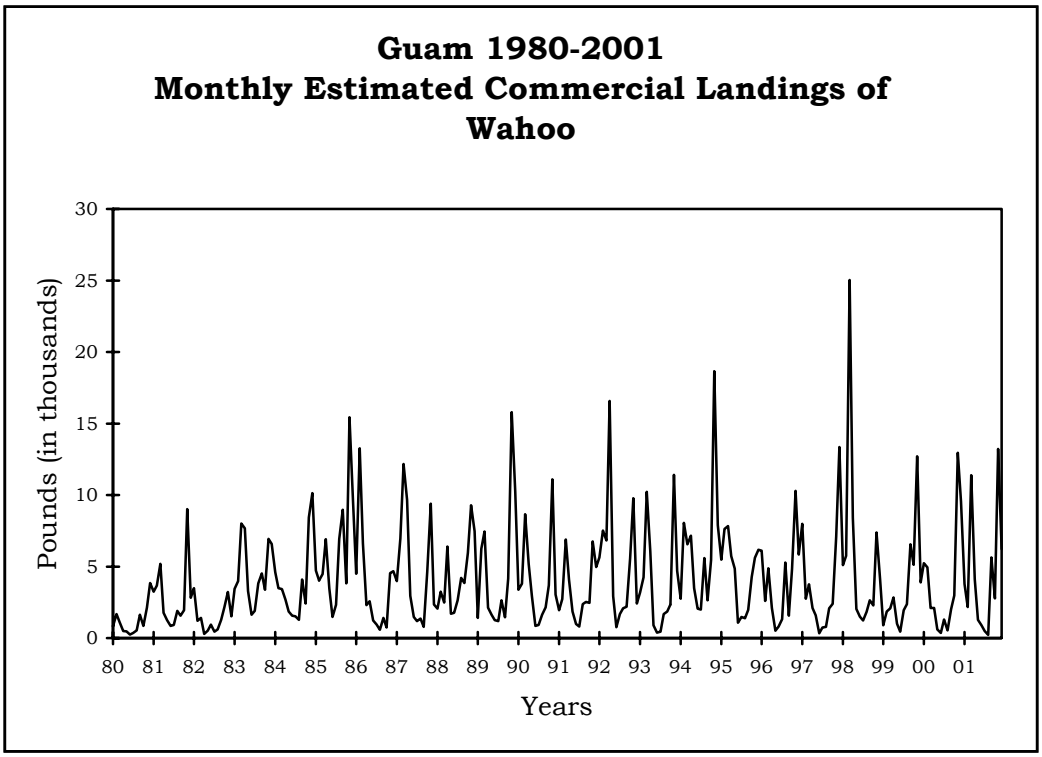

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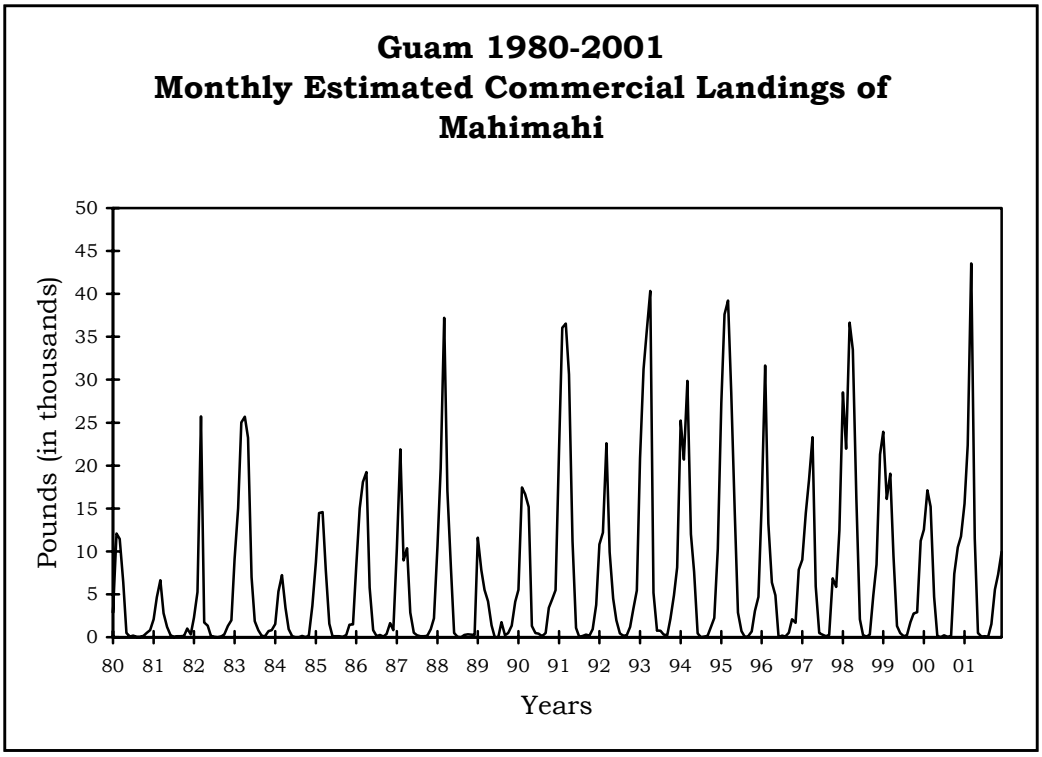

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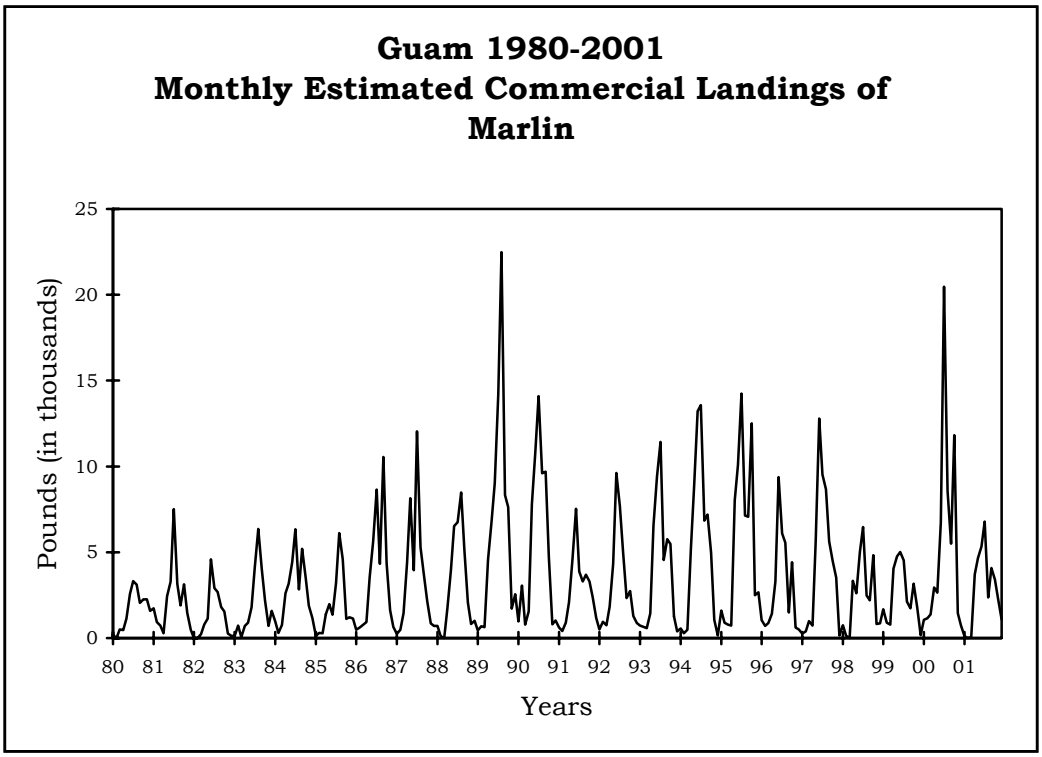

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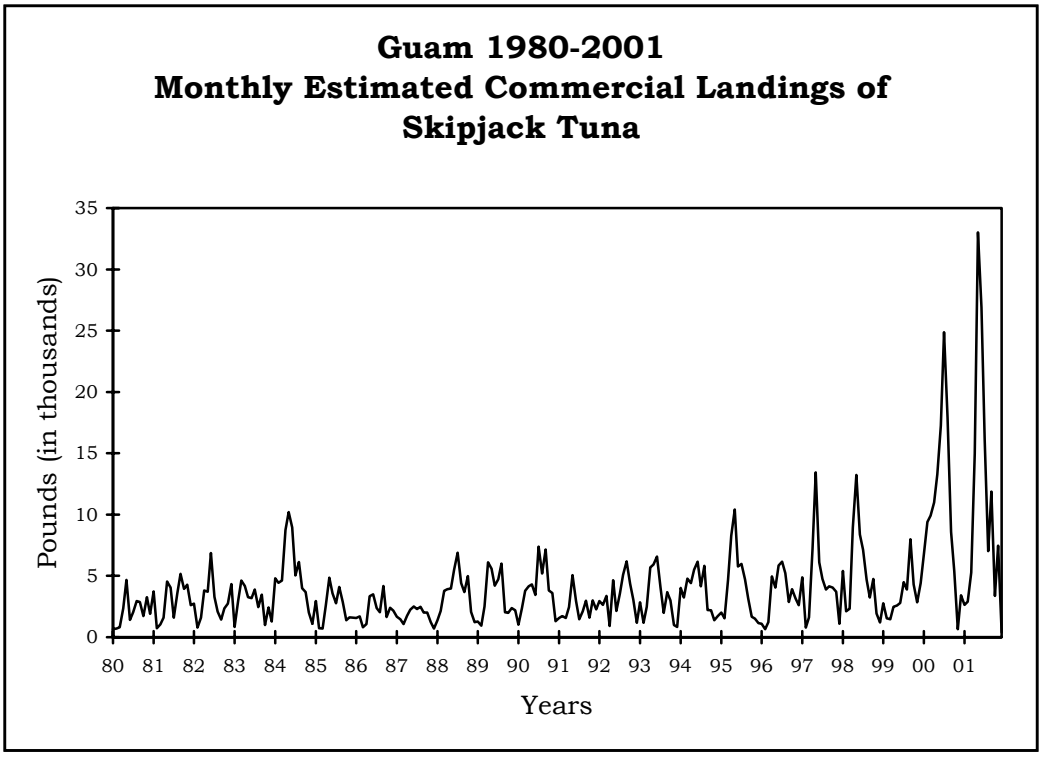

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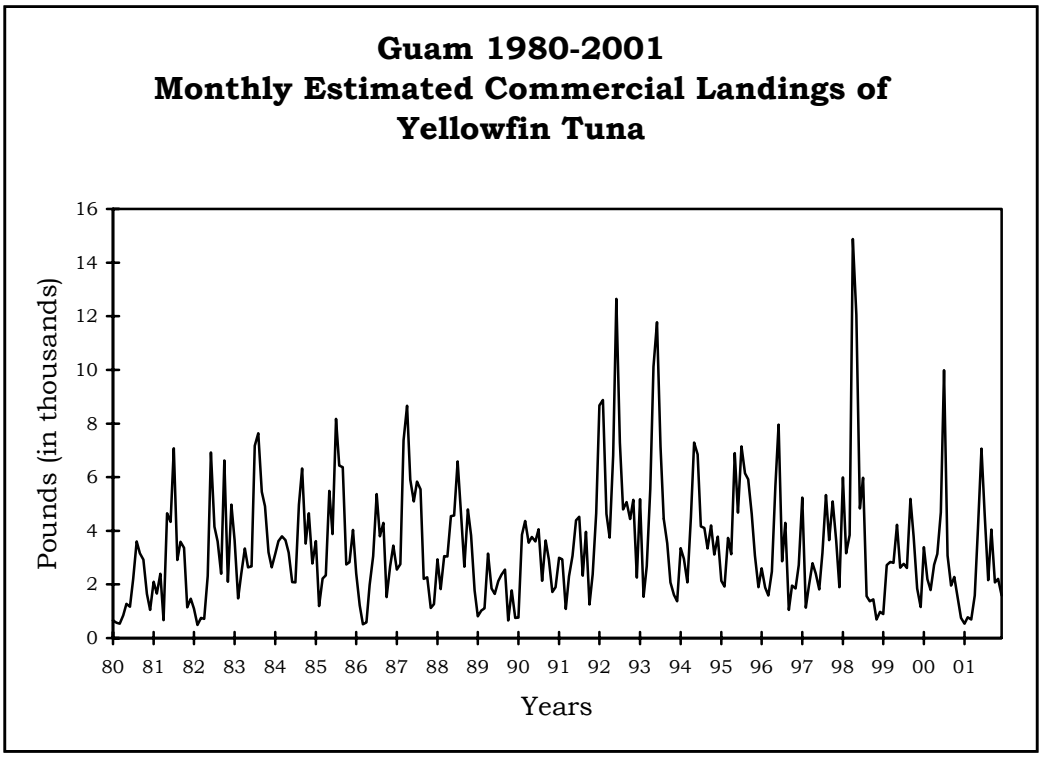

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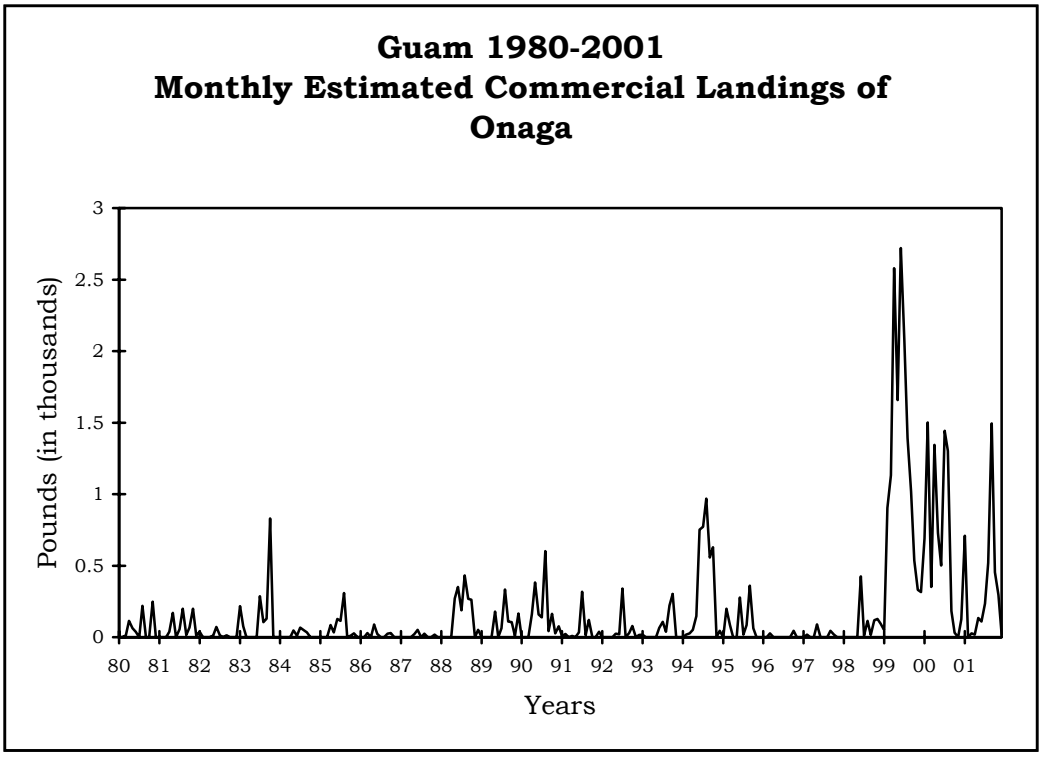

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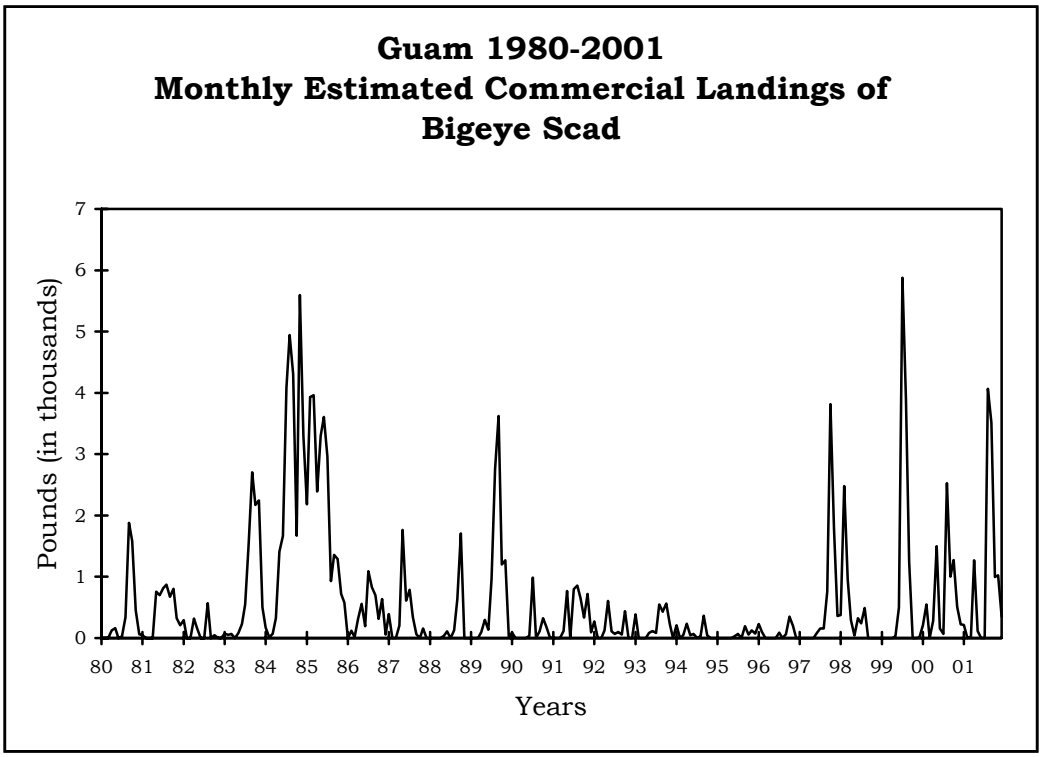

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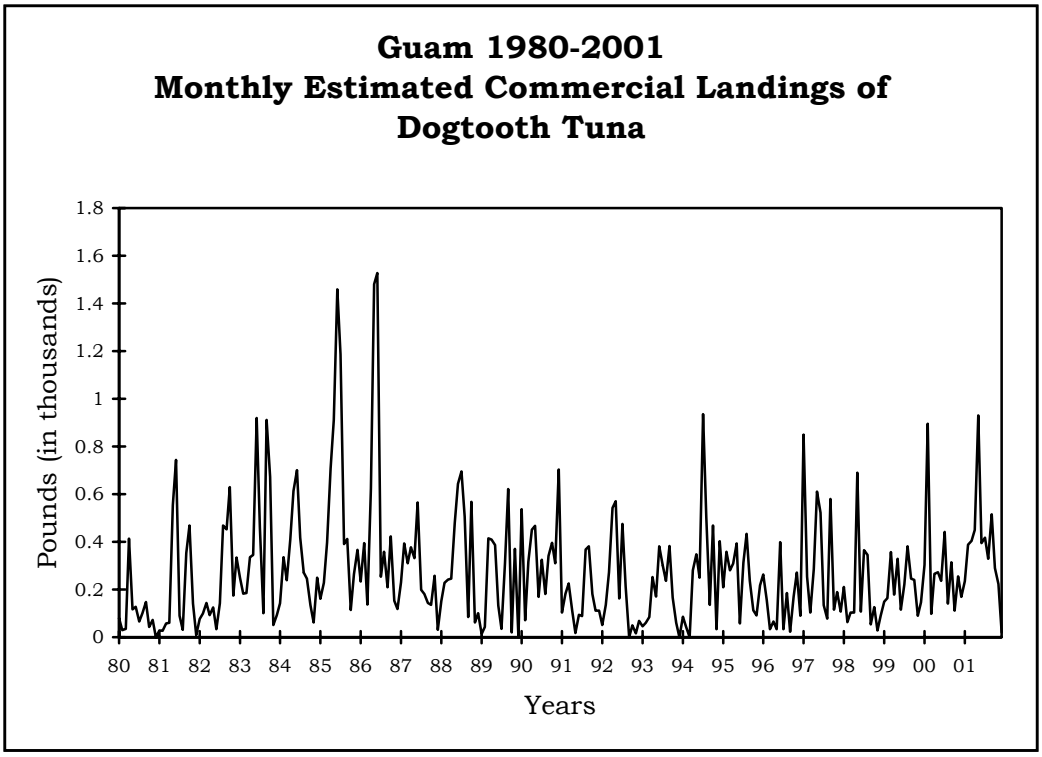

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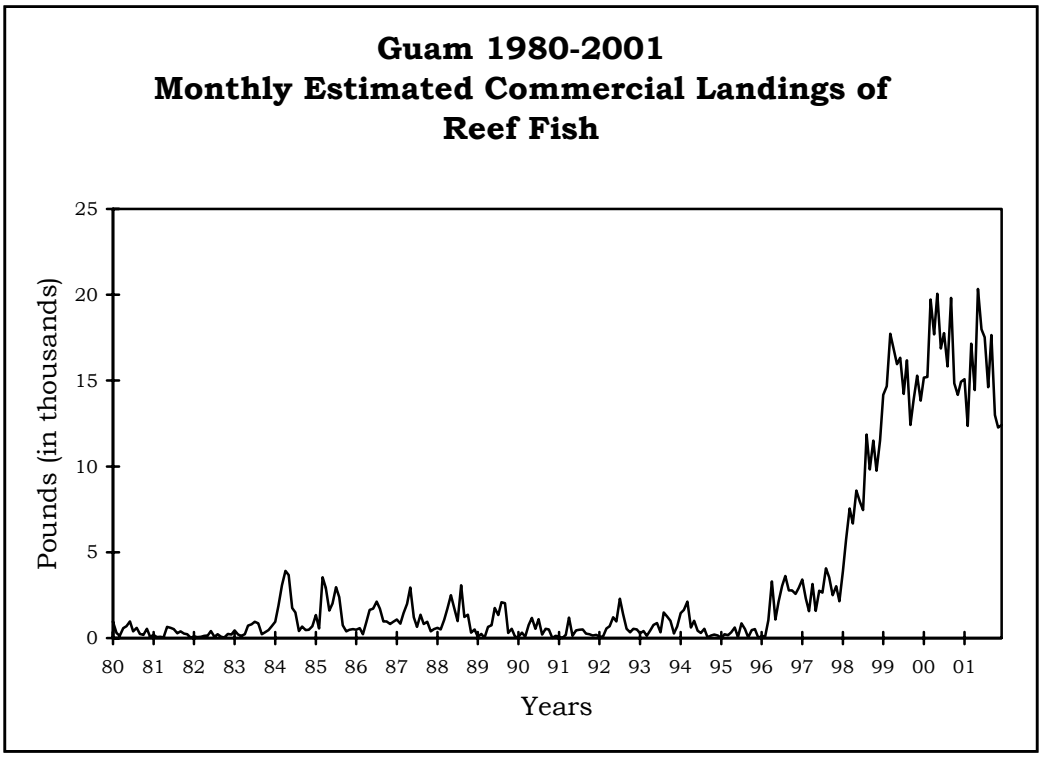

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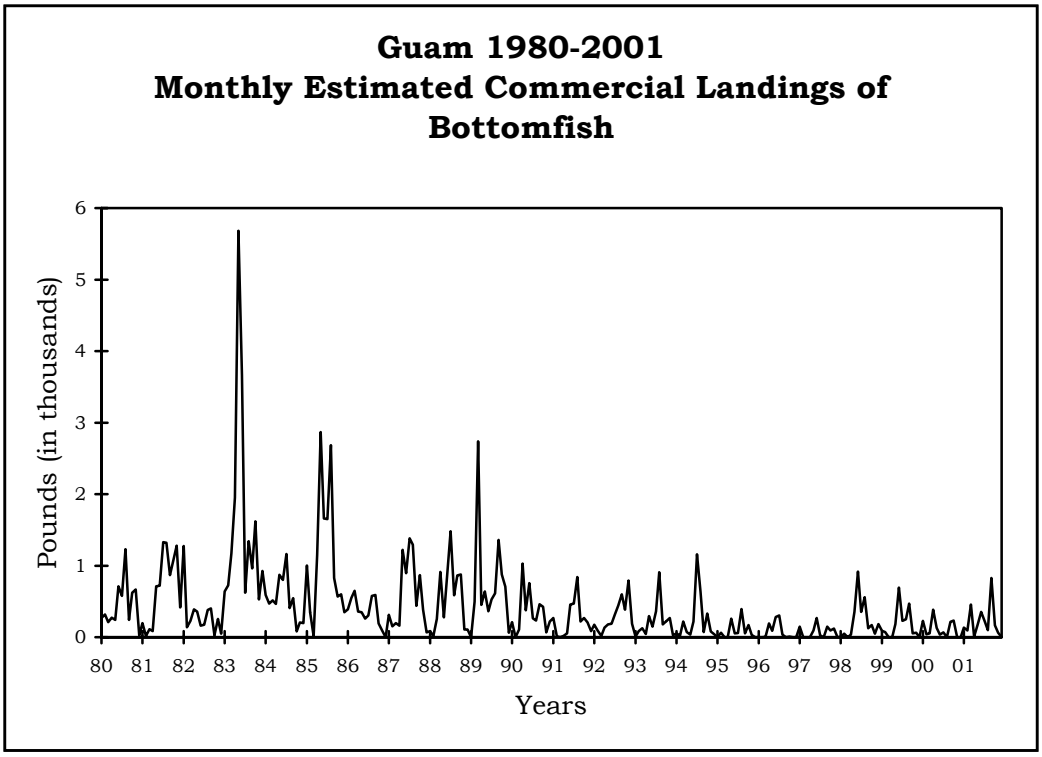

STATE OF HAWAII 2001 FISHERY STATISTICS

Compiled by

Division of Aquatic Resources

and the

Western Pacific Fishery Information Network

August 2003

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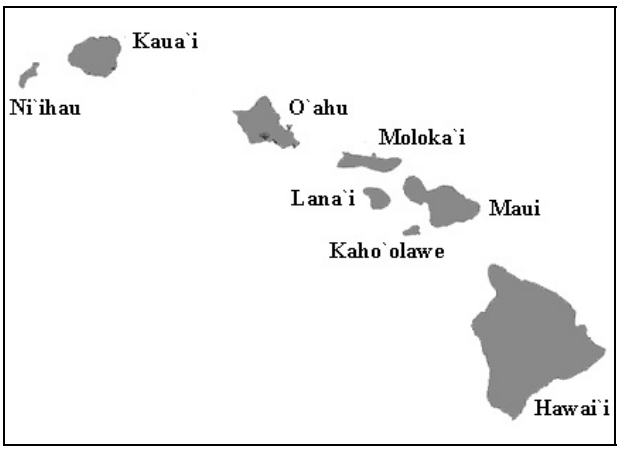
STATE OF HAWAII 2001 FISHERY STATISTICS

INTRODUCTION

The Hawaiian Archipelago stretches northwestward over 1,500 miles.

Location: 19° N latitude, 155° W longitude to about 28° N latitude and 178° W longitude.
Islands: Hawaii, Maui, Lanai, Molokai, Oahu, Kauai, and Niihau (comprise over 99% of the total land area)
Population: over 1.3 million
Commercial Catch Breakdown: over 80% on Oahu, about 13% on Hawaii, 4% on Kauai, 2% on Maui, and less than 1% on other islands.



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

The Department of Land and Natural Resources' Hawaii Division of Aquatic Resources (HDAR) has been collecting statistics on Hawaii's commercial fisheries for over 50 years.

The fisheries of the State of Hawaii are quite diverse; they vary from shore-based algae harvesting by hand to large-vessel fisheries such as longlining and lobster fishing. There are several major fisheries: tuna fishing through various methods, lobster trapping, hook-and-line bottom fishing for the grouper-snapper-jack complex, net fishing for such species as the bigeye scad, and trolling for such pelagic species as marlin, wahoo, and mahimahi. In 2001, prohibitions were placed on landing shark fins without their associated carcasses and on making shallow-sets with longline gear to target swordfish. Since then, shark and swordfish catches have dropped dramatically.

Commercial fishing (i.e., selling catches or providing charter fishing services) in Hawaii requires purchasing a commercial marine fishing license. In 2001, there were about 3,600 licensed commercial fishermen; 2,700 were required to submit monthly reports to HDAR, and approximately 2,500 boats were used in their activities. The summary 2001 data provided in this document were created from licensed commercial fishermen reports processed by HDAR as of February 2003, and it is believed to represent about 99% of what may eventually be submitted and processed.

DATA COLLECTING SYSTEM

HDAR's primary data collecting system is based on a State law that requires commercial fishermen to report their catches on a monthly basis. Several different data collection forms are used because of the diversity of fishing methods and the need to obtain specific information on some of these methods. The vast majority of commercial fishermen use the standard C-3 Fish Catch Report, which is submitted each month and requires the following information for each trip taken:

- Fisherman's name and commercial license number
- Boat's name and its registration number
- Date
- Area or buoy fished
- Type of gear used
- Species caught
- Number caught
- Pounds caught
- Pounds sold
- Value of sales
- Port of landing

The other forms used to report commercial catches are for specific fisheries. These include the C-4 Aku Catch Report for the pole-and-line or bait-boat fishery for skipjack tuna, the C-5 Flagline Catch Report for the longline fishery for tunas and other pelagic species, the Albacore Trolling Trip Report, and the Pond Operator's Monthly Fish Report for operators of saltwater fish ponds. All of the forms request basic catch and revenue information by species, plus additional fishery-specific information such as effort and bait. Commercial collectors of tropical marine fish are required to have an aquarium permit in addition to their commercial marine license and are required to report monthly on the C-6 Aquarium Fish Catch Report. The aquarium fish catch, however, is not included in the statistics provided in this document.

Some of the advantages of a mandatory fisherman-reporting system are its relative efficiency, low cost, the potential for excellent percent coverage, and the amount of information that can be collected directly from the fishermen. The major disadvantage is that it places the responsibility for data recording and timely data submission on the fishermen.

The assumption is made, therefore, that the data submitted by the fishermen are complete and accurate. The HDAR continually attempts to improve the quality of data and decrease the time delays in receiving and processing the data. No real measurement is available for what percent of the total commercial catch is actually reported to HDAR, but estimates have ranged from about 10% to over 99%, depending on the species and fishery. The overall percent coverage was probably over 80% in 2001.

Special Note: This is the last year Fishery Statistics of the Western Pacific (FSWP) will use the methods previously described for summarizing Hawaii commercial fishery statistics. In 2002, HDAR implemented new fishery reporting forms that no longer required sales information reporting. This was done as a "tradeoff" for requiring improved catch, effort, and bycatch statistics. In the future, sales information will be obtained directly from the Dealer Reporting System (DRS) that HDAR implemented several years ago. Its coverage has grown and is now a better representation of total commercial landings than the Fisherman Reporting System (FRS). FRS reported only about 80% of the total value of sales recorded through the DRS.

Data on the WPacFIN website (http://wpacfin.nmfs.hawaii.edu) reflects summaries produced from the DRS and therefore do not match the summary data in this report.

DATA PROCESSING SYSTEM

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

DATA REPORTING SYSTEM

More than 150 marine species and species groups are recorded in HDAR's monthly landings reports, many of which are insignificant in the total catch. To help reduce this document's size and improve the usability of the tables, WPacFIN staff combined some of the less important species, reorganized the order of presentation, created a new species coding system, and translated all records in the database. The new coding system has 100 species and species groups based on flexible ecological and phylogenetic criteria. All of the commercially important pelagic and bottom fish species or unique species groups have individual codes and are reported separately. Marine pond catches are included in the species totals, but make up less than 0.4% of the total landings for each year.

The monthly and annual reports included in this document contain the common name, weight in pounds, value rounded to the nearest dollar, and the average price per pound for each species. The annual report also includes a column that shows weight sold. Each monthly report contains a subtotal for the sum of all species for that month. Annual reports contain the total landings for each species and the total recorded landings for all species combined for the calendar year. Several types of graphs are also included. Please note that some of the charts in this volume are new or modified from earlier volumes.

The following species, species groups, and abbreviations are used in the tables and graphs of Hawaii's fishery statistics:

I. Pelagic Management Unit Species (PMUS)

Although the Magnuson Fishery Conservation and Management Act of 1976 was amended in 1992 to include tunas in the Pacific PMUS (PPMUS), this report series will continue to specify tunas as a separate category from the PPMUS. The PMUS category in this report includes:

Mahimahi (dolphin)	Wahoo
Blue marlin	Black marlin
Striped marlin	Shortnose spearfish
Sailfish	Broadbill swordfish
Sharks	Billfish (misc.)

II. Bottomfish Management Unit Species (BMUS)

Deep water jacks (misc.)	Amberjack
Pig-lipped ulua (jack)	White Ulua
Giant sea bass	Blue lined snapper
Ehu (red snapper)	Gindai (flower snapper)
Kalekale (pink snapper)	Lehi (silverjaw snapper)
Onaga (long tailed snapper)	Opakapaka (pink snapper)
Uku (gray snapper)	Snappers

III. Billfish

Billfish	Blue Marlin
Black Marlin	Striped Marlin
Shortnose spearfish	Sailfish
Broadbill swordfish	

IV. Tunas

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

V. Other Tunas

All of the previous tunas excluding skipjack and yellowfin tuna

VI. Fisheries Categories

A. Pelagic Species

All PMUS and tuna species including the following:

Rainbow runner	Barracuda
Japanese mackerel	Frigate tuna
Ocean sunfish	Ocean moonfish

B. Bottom Fish

All BMUS plus the following:

Blue crevally	Dobe ulua
Paapaa ulua	Blue spot grouper
Porgy	

C. Reef Fish

Reef jacks (misc.)	Squirrelfish
Trumpetfish	Scorpionfish
Mountain bass	Bigeyes
Cardinalfish	Goatfish
Rudderfish	Butterflyfish

C. Reef Fish (cont.)

Damselfish	Hawkfish
Tipapia	Wrasse
Parrotfish	Gobies
Surgeonfish-tangs	Flounders
Triggerfish	Filefish
Pufferfish	

D. Other

Miscellaneous	Rays
Eels	Bigeye scad (akule)
Mackerel scad (opelu)	Leatherback
Anchovy	Ten pounder
Bonefish	Herring-sardine
Milkfish	Flyingfish

D. Other (cont.)

Needlefish	Halfbeaks
Threadfin	Mullet
Pomfret	Snake mackerel
Freshwater fish	Spiny lobster
Slipper lobster	Crabs
Shrimp (freshwater)	Shrimp (saltwater)
Octopus	Squid
Limpets (saltwater)	Limpets (freshwater)
Clams	Stoney corals
Precious Corals	Sea urchins
Sea cucumbers	Sea turtles
Algae	

Table V.1.1

Hawaii 2001 Annual Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	5,753	4,543	$4,727	$1.04
Sharks	145,765	138,797	$91,543	$0.66
Shark fins	800	-	$0	$0.00
Rays	4	-	$0	$0.00
Eels	364	323	$301	$0.93
Alfonsin	7	7	$25	$3.50
Bigeye scad (akule)	729,669	652,141	$1,021,625	$1.57
Mackerel scad	213,542	205,267	$376,385	$1.83
Leatherback	538	470	$781	$1.66
Ten pounder	125	121	$137	$1.14
Bonefish	8,029	7,334	$7,332	$1.00
Herring/sardine	23	9	$11	$1.22
Milkfish	849	849	$949	$1.12
Needlefish	316	306	$382	$1.25
Threadfin	270	189	$813	$4.30
Mullet	6,894	6,500	$22,911	$3.52
Pomfret	217,982	217,727	$315,633	$1.45
Snake mackerel	112,645	112,503	$170,550	$1.52
Jacks (misc)	25,299	19,993	$40,689	$2.04
Amberjack	14,530	1,373	$1,568	$1.14
Blue crevally	3,073	2,232	$4,362	$1.95
Pig-lipped ulua	29,663	26,999	$47,301	$1.75
Dobe ulua	721	721	$1,512	$2.10
Paapaa ulua	1,623	1,414	$2,743	$1.94
White ulua	10,002	8,766	$14,160	$1.62
Black ulua	424	414	$632	$1.53
Hawaiian Grouper	36,478	34,389	$129,717	$3.77
Blue spot grouper	724	582	$1,652	$2.84
Snappers	2,350	2,288	$7,965	$3.48
Blue lined snapper	47,598	41,529	$42,939	$1.03
Ehu (red snapper)	35,394	32,090	$120,752	$3.76
Gindai (flower snapper)	5,174	4,307	$12,319	$2.86
Kalekale(pink snapper)	15,474	13,624	$40,476	$2.97
Lehi (silverjaw)	10,452	9,505	$27,808	$2.93
Onaga (red snapper)	129,447	121,919	$580,201	$4.76
Opakapaka (pink snapper)	157,086	148,442	$647,531	$4.36
Uku (gray snapper)	113,690	106,799	$260,226	$2.44
Porgy	2,020	1,960	$5,400	$2.76
Reef jacks	33	20	$56	$2.78
Squirrelfish	35,730	33,597	$106,956	$3.18
Trumpetfish	128	117	$284	$2.43

Table V.1.1 (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Scorpionfish	2,516	2,212	$8,946	$4.04
Mountain bass	2,310	2,059	$7,715	$3.75
Bigeyes	3,410	3,232	$9,347	$2.89
Goatfish	43,080	39,872	$117,324	$2.94
Rudderfish	11,750	11,438	$18,933	$1.66
Damselfish	1,897	1,873	$3,645	$1.95
Hawkfish	431	401	$741	$1.85
Tilapia	96	95	$113	$1.19
Wrasse	7,204	5,860	$21,129	$3.61
Parrotfish	21,838	20,656	$51,942	$2.51
Surgeon/tangs	106,897	105,082	$140,429	$1.34
Flounders	15	15	$15	$0.97
Triggerfish	98	82	$122	$1.48
Filefish	6,958	6,952	$6,202	$0.89
Pufferfish	7	-	$0	$0.00
Rainbow runner	3,010	2,493	$3,710	$1.49
Mahimahi (dolphin)	1,079,117	998,140	$1,821,873	$1.83
Barracudas	24,906	23,253	$15,982	$0.69
Wahoo	882,678	789,219	$1,436,340	$1.82
Tunas	6,450	6,275	$8,165	$1.30
Skipjack tuna	1,534,748	1,447,951	$1,776,938	$1.23
Yellowfin tuna	3,884,851	3,785,448	$8,735,280	$2.31
Albacore	2,850,567	2,834,273	$3,122,760	$1.10
Bigeye tuna	4,674,742	4,630,315	$14,743,883	$3.18
Kawakawa	10,106	7,035	$8,251	$1.17
Bluefin Tuna	840	840	$4,717	$5.62
Frigate tuna	282	104	$142	$1.36
Other Billfish	5,885	5,885	$7,187	$1.22
Broadbill swordfish	313,535	313,126	$1,058,864	$3.38
Blue marlin	1,144,933	966,006	$820,327	$0.85
Black marlin	17,504	16,974	$15,239	$0.90
Striped marlin	831,877	796,666	$884,877	$1.11
Shortnose spearfish	247,186	229,098	$196,867	$0.86
Sailfish	11,692	10,733	$9,678	$0.90
Ocean sunfish	346	346	$72	$0.21
Ocean moonfish	640,803	640,470	$836,290	$1.31
Spiny lobster	7,813	7,145	$85,933	$12.03
Slipper lobster	67	32	$238	$7.44
Crabs	16,164	12,263	$51,881	$4.23
Shrimp (saltwater)	9,313	9,298	$76,071	$8.18
Octopus	25,503	20,039	$57,077	$2.85
Squid	1,826	1,022	$2,791	$2.73

Table V.1.1 (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Limpets (saltwater)	12,518	12,098	$63,142	$5.22
Precious corals	15,820	2,141	$58,878	$27.50
Sea urchins	16	13	$102	$7.85
Sea cucumbers	25	25	$63	$2.50
Algae	16,882	15,640	$46,001	$2.94
TOTAL	20,601,200	19,744,361	$40,447,571	$2.05

Table V.1.2

Hawaii January 2001 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	142	109	$88	$0.81
Sharks	13,191	13,167	$9,691	$0.74
Eels	3	3	$4	$1.29
Bigeye scad (akule)	165,545	148,533	$214,171	$1.44
Mackerel scad	23,080	22,169	$39,627	$1.79
Leatherback	34	32	$63	$1.95
Ten pounder	12	12	$10	$0.80
Bonefish	80	53	$60	$1.13
Milkfish	107	107	$110	$1.03
Needlefish	150	150	$150	$1.00
Threadfin	42	42	$188	$4.47
Mullet	92	92	$405	$4.40
Pomfret	10,497	10,497	$24,225	$2.31
Snake mackerel	18,638	18,635	$20,575	$1.10
Jacks (misc)	2,198	1,975	$3,648	$1.85
Amberjack	2,702	341	$372	$1.09
Blue crevally	146	104	$239	$2.30
Pig-lipped ulua	4,082	3,538	$5,916	$1.67
Dobe ulua	10	10	$26	$2.62
Paapaa ulua	195	190	$587	$3.09
White ulua	285	223	$408	$1.83
Black ulua	72	72	$60	$0.83
Hawaiian Grouper	5,006	4,922	$17,333	$3.52
Blue spot grouper	33	26	$73	$2.82
Snappers	132	119	$311	$2.62
Blue lined snapper	5,735	4,893	$4,675	$0.96
Ehu (red snapper)	3,736	3,409	$12,354	$3.62
Gindai (flower snapper)	611	541	$1,646	$3.04
Kalekale(pink snapper)	2,880	2,517	$6,840	$2.72
Lehi (silverjaw)	2,465	2,268	$6,615	$2.92
Onaga (red snapper)	14,537	13,732	$71,197	$5.18
Opakapaka (pink snapper)	31,409	29,844	$126,109	$4.23
Uku (gray snapper)	9,982	9,017	$26,679	$2.96
Porgy	35	35	$107	$3.05
Reef jacks	1	1	$1	$1.00
Squirrelfish	2,362	2,282	$7,054	$3.09
Scorpionfish	295	248	$984	$3.97
Mountain bass	58	42	$114	$2.71
Bigeyes	624	602	$1,608	$2.67
Goatfish	4,652	4,242	$11,736	$2.77
Rudderfish	398	389	$555	$1.43

Table V.1.2 (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Damselfish	11	11	$19	$1.70
Hawkfish	32	30	$44	$1.45
Tilapia	45	45	$38	$0.84
Wrasse	641	489	$1,436	$2.94
Parrotfish	1,199	1,161	$2,896	$2.49
Surgeon/tangs	3,934	3,847	$5,038	$1.31
Flounders	2	2	$3	$1.70
Filefish	1,396	1,396	$1,304	$0.93
Rainbow runner	168	130	$168	$1.29
Mahimahi (dolphin)	57,011	53,371	$94,662	$1.77
Barracudas	701	636	$805	$1.27
Wahoo	24,035	23,010	$66,023	$2.87
Tunas	214	214	$685	$3.20
Skipjack tuna	79,934	76,727	$96,147	$1.25
Yellowfin tuna	219,593	213,238	$559,417	$2.62
Albacore	116,399	116,243	$216,659	$1.86
Bigeye tuna	505,759	498,183	$1,793,680	$3.60
Kawakawa	1,375	1,009	$1,056	$1.05
Frigate tuna	23	-	$0	$0.00
Other Billfish	1,942	1,942	$1,221	$0.63
Broadbill swordfish	42,990	42,990	$143,855	$3.35
Blue marlin	21,285	18,283	$24,967	$1.37
Black marlin	240	240	$358	$1.49
Striped marlin	78,651	72,635	$115,223	$1.59
Shortnose spearfish	26,986	25,339	$27,362	$1.08
Sailfish	23	-	$0	$0.00
Ocean sunfish	74	74	$14	$0.19
Ocean moonfish	48,583	48,573	$78,329	$1.61
Spiny lobster	984	877	$10,701	$12.20
Crabs	1,505	1,372	$4,464	$3.25
Shrimp (saltwater)	630	630	$5,366	$8.52
Octopus	1,760	1,551	$4,258	$2.75
Limpets (saltwater)	1,604	1,599	$8,446	$5.28
Precious corals	2,550	2,141	$58,878	$27.50
Algae	864	691	$3,041	$4.40
TOTAL	1,569,397	1,507,862	$3,943,174	$2.62

Table V.1.3

Hawaii February 2001 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	81	76	$67	$0.89
Sharks	11,832	11,724	$11,730	$1.00
Eels	11	11	$14	$1.24
Alfonsin	7	7	$25	$3.50
Bigeye scad (akule)	33,892	32,182	$55,363	$1.72
Mackerel scad	13,133	12,393	$23,757	$1.92
Leatherback	23	23	$41	$1.80
Bonefish	224	107	$160	$1.49
Milkfish	2	2	$2	$1.10
Threadfin	20	20	$81	$4.04
Mullet	107	107	$461	$4.31
Pomfret	14,971	14,971	$29,175	$1.95
Snake mackerel	13,690	13,690	$29,447	$2.15
Jacks (misc)	2,073	1,776	$3,593	$2.02
Amberjack	2,229	137	$149	$1.09
Blue crevally	86	86	$246	$2.86
Pig-lipped ulua	5,629	5,228	$9,306	$1.78
Dobe ulua	203	203	$385	$1.90
Paapaa ulua	154	131	$255	$1.94
White ulua	1,316	1,291	$2,985	$2.31
Black ulua	12	12	$49	$4.10
Hawaiian Grouper	3,132	2,783	$11,232	$4.04
Blue spot grouper	12	12	$27	$2.22
Snappers	647	647	$2,539	$3.92
Blue lined snapper	6,434	5,935	$6,158	$1.04
Ehu (red snapper)	2,993	2,789	$11,921	$4.27
Gindai (flower snapper)	409	329	$1,138	$3.46
Kalekale(pink snapper)	1,712	1,477	$4,657	$3.15
Lehi (silverjaw)	785	742	$2,528	$3.41
Onaga (red snapper)	8,049	7,524	$41,370	$5.50
Opakapaka (pink snapper)	22,390	20,951	$84,988	$4.06
Uku (gray snapper)	7,012	6,738	$20,310	$3.01
Porgy	8	8	$18	$2.23
Squirrelfish	2,022	1,976	$6,368	$3.22
Trumpetfish	43	43	$59	$1.38
Scorpionfish	312	300	$1,347	$4.49
Mountain bass	311	291	$841	$2.89
Bigeyes	164	161	$443	$2.75
Goatfish	5,307	5,085	$13,903	$2.73
Rudderfish	718	718	$1,007	$1.40
Damselfish	15	15	$27	$1.82

Table V.1.3 (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Hawkfish	24	24	$41	$1.72
Tilapia	5	5	$2	$0.40
Wrasse	639	563	$1,886	$3.35
Parrotfish	2,030	1,960	$5,281	$2.69
Surgeon/tangs	7,783	7,623	$9,799	$1.29
Filefish	1,788	1,788	$1,612	$0.90
Rainbow runner	47	47	$62	$1.31
Mahimahi (dolphin)	92,018	86,173	$125,316	$1.45
Barracudas	1,475	1,400	$1,587	$1.13
Wahoo	31,518	30,155	$85,754	$2.84
Tunas	162	162	$162	$1.00
Skipjack tuna	96,592	89,717	$121,774	$1.36
Yellowfin tuna	280,674	274,697	$662,019	$2.41
Albacore	186,174	186,049	$258,607	$1.39
Bigeye tuna	451,046	440,988	$1,365,636	$3.10
Kawakawa	587	318	$344	$1.08
Frigate tuna	53	19	$22	$1.18
Other Billfish	1,808	1,808	$2,198	$1.22
Broadbill swordfish	46,485	46,485	$202,396	$4.35
Blue marlin	15,980	12,923	$16,635	$1.29
Black marlin	190	190	$344	$1.81
Striped marlin	59,334	54,073	$93,941	$1.74
Shortnose spearfish	53,199	49,029	$38,686	$0.79
Sailfish	130	92	$96	$1.04
Ocean sunfish	36	36	$4	$0.10
Ocean moonfish	35,459	35,459	$76,104	$2.15
Spiny lobster	885	862	$10,317	$11.97
Slipper lobster	7	-	$0	$0.00
Crabs	1,002	830	$3,373	$4.06
Shrimp (saltwater)	957	957	$8,439	$8.82
Octopus	1,213	1,097	$3,289	$3.00
Limpets (saltwater)	966	951	$5,030	$5.29
Precious corals	1,320	-	$0	$0.00
Algae	1,245	1,150	$3,592	$3.12
TOTAL	1,535,001	1,480,331	$3,482,520	$2.35

Table V.1.4

Hawaii March 2001 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	158	157	$139	$0.88
Sharks	16,258	15,725	$16,465	$1.05
Eels	41	32	$28	$0.89
Bigeye scad (akule)	98,337	89,561	$146,582	$1.64
Mackerel scad	12,726	12,203	$24,342	$1.99
Leatherback	35	34	$60	$1.76
Ten pounder	16	16	$16	$0.98
Bonefish	111	57	$51	$0.90
Milkfish	119	119	$160	$1.34
Needlefish	13	13	$19	$1.42
Threadfin	19	14	$64	$4.57
Mullet	1,531	1,415	$4,653	$3.29
Pomfret	15,602	15,567	$29,747	$1.91
Snake mackerel	11,859	11,859	$31,739	$2.68
Jacks (misc)	3,180	2,244	$4,792	$2.14
Amberjack	2,223	404	$385	$0.95
Blue crevally	154	113	$263	$2.33
Pig-lipped ulua	980	918	$1,820	$1.98
Paapaa ulua	311	306	$615	$2.01
White ulua	341	273	$457	$1.67
Black ulua	18	18	$44	$2.47
Hawaiian Grouper	3,325	3,198	$11,260	$3.52
Blue spot grouper	66	63	$154	$2.45
Snappers	71	59	$173	$2.93
Blue lined snapper	5,013	4,552	$4,570	$1.00
Ehu (red snapper)	5,018	4,838	$18,117	$3.74
Gindai (flower snapper)	529	506	$1,602	$3.17
Kalekale(pink snapper)	1,601	1,516	$4,693	$3.10
Lehi (silverjaw)	498	483	$1,271	$2.63
Onaga (red snapper)	13,096	12,722	$60,885	$4.79
Opakapaka (pink snapper)	14,207	13,818	$58,746	$4.25
Uku (gray snapper)	7,764	7,516	$19,881	$2.65
Porgy	48	48	$133	$2.76
Reef jacks	5	5	$13	$2.65
Squirrelfish	2,493	2,418	$7,396	$3.06
Trumpetfish	13	13	$20	$1.53
Scorpionfish	338	312	$1,333	$4.27
Mountain bass	134	119	$444	$3.73
Bigeyes	329	320	$809	$2.53
Goatfish	4,733	4,339	$12,239	$2.82
Rudderfish	309	297	$432	$1.46

Table V.1.4 (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Damselfish	163	163	$285	$1.75
Hawkfish	8	8	$21	$2.60
Tilapia	11	11	$11	$1.00
Wrasse	654	515	$2,078	$4.04
Parrotfish	1,745	1,673	$3,896	$2.33
Surgeon/tangs	5,604	5,446	$7,765	$1.43
Triggerfish	5	5	$5	$0.90
Filefish	793	793	$648	$0.82
Pufferfish	3	-	$0	$0.00
Rainbow runner	207	164	$186	$1.13
Mahimahi (dolphin)	117,528	108,856	$173,336	$1.59
Barracudas	2,515	2,452	$2,695	$1.10
Wahoo	52,299	49,771	$116,336	$2.34
Tunas	32	32	$43	$1.35
Skipjack tuna	44,827	39,699	$41,017	$1.03
Yellowfin tuna	236,918	230,967	$616,940	$2.67
Albacore	250,334	250,334	$337,632	$1.35
Bigeye tuna	420,825	417,526	$1,395,904	$3.34
Kawakawa	1,585	1,290	$1,552	$1.20
Bluefin Tuna	302	302	$2,746	$9.09
Frigate tuna	78	59	$73	$1.23
Broadbill swordfish	65,910	65,910	$197,170	$2.99
Blue marlin	24,715	19,700	$24,406	$1.24
Black marlin	242	192	$192	$1.00
Striped marlin	64,085	58,027	$91,391	$1.58
Shortnose spearfish	53,375	49,034	$45,540	$0.93
Sailfish	297	297	$688	$2.32
Ocean sunfish	66	66	$10	$0.15
Ocean moonfish	47,249	47,249	$98,724	$2.09
Spiny lobster	518	508	$6,198	$12.20
Slipper lobster	20	20	$135	$6.75
Crabs	2,178	1,574	$6,910	$4.39
Shrimp (saltwater)	1,278	1,278	$11,345	$8.88
Octopus	1,486	1,288	$3,952	$3.07
Squid	21	21	$82	$3.90
Limpets (saltwater)	1,355	1,355	$7,225	$5.33
Precious corals	2,550	-	$0	$0.00
Sea cucumbers	6	6	$16	$2.60
Algae	1,700	1,569	$2,434	$1.55
TOTAL	1,627,109	1,566,350	$3,666,196	$2.34

Table V.1.5

Hawaii April 2001 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	169	169	$169	$1.00
Sharks	7,479	7,299	$9,798	$1.34
Eels	17	10	$10	$1.01
Bigeye scad (akule)	93,712	74,894	$116,875	$1.56
Mackerel scad	15,007	14,494	$28,043	$1.93
Leatherback	26	21	$41	$1.93
Ten pounder	6	6	$4	$0.73
Bonefish	100	47	$87	$1.85
Threadfin	54	15	$64	$4.23
Mullet	369	286	$796	$2.78
Pomfret	4,931	4,925	$14,368	$2.92
Snake mackerel	4,324	4,324	$10,061	$2.33
Jacks (misc)	2,249	2,033	$4,110	$2.02
Amberjack	133	11	$17	$1.50
Blue crevally	63	59	$150	$2.55
Pig-lipped ulua	2,979	2,921	$5,290	$1.81
Dobe ulua	61	61	$214	$3.50
Paapaa ulua	65	65	$145	$2.24
White ulua	202	187	$236	$1.26
Black ulua	41	31	$54	$1.75
Hawaiian Grouper	3,653	3,437	$12,363	$3.60
Blue spot grouper	26	8	$29	$3.68
Snappers	68	58	$198	$3.41
Blue lined snapper	4,539	4,076	$4,458	$1.09
Ehu (red snapper)	2,008	1,731	$6,481	$3.74
Gindai (flower snapper)	288	224	$753	$3.36
Kalekale (pink snapper)	632	522	$1,548	$2.97
Lehi (silverjaw)	171	171	$448	$2.62
Onaga (red snapper)	4,372	3,919	$22,134	$5.65
Opakapaka (pink snapper)	12,247	11,747	$47,640	$4.06
Uku (gray snapper)	2,777	2,535	$7,425	$2.93
Porgy	150	144	$395	$2.74
Reef jacks	11	11	$33	$3.00
Squirrelfish	2,069	1,976	$5,675	$2.87
Scorpionfish	85	67	$276	$4.12
Mountain bass	105	80	$360	$4.50
Bigeyes	119	97	$242	$2.50
Goatfish	2,947	2,650	$7,378	$2.78
Rudderfish	774	751	$864	$1.15
Damselfish	138	138	$281	$2.04
Hawkfish	53	53	$84	$1.58

Table V.1.5 (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Tilapia	5	5	$4	$0.80
Wrasse	387	347	$1,707	$4.92
Parrotfish	1,854	1,736	$3,887	$2.24
Surgeon/tangs	7,433	7,314	$9,863	$1.35
Triggerfish	10	-	$0	$0.00
Filefish	756	750	$727	$0.97
Pufferfish	3	-	$0	$0.00
Rainbow runner	100	81	$113	$1.40
Mahimahi (dolphin)	125,944	117,119	$224,246	$1.91
Barracudas	1,863	1,588	$1,235	$0.78
Wahoo	85,297	77,099	$146,209	$1.90
Tunas	6	6	$6	$0.92
Skipjack tuna	94,855	88,237	$90,870	$1.03
Yellowfin tuna	194,143	188,982	$447,388	$2.37
Albacore	218,042	218,037	$256,617	$1.18
Bigeye tuna	235,409	232,237	$688,720	$2.97
Kawakawa	1,700	1,372	$2,156	$1.57
Frigate tuna	18	6	$12	$1.94
Other Billfish	1,647	1,647	$3,410	$2.07
Broadbill swordfish	6,535	6,535	$21,108	$3.23
Blue marlin	32,131	26,414	$33,963	$1.29
Black marlin	1,756	1,756	$2,167	$1.23
Striped marlin	41,619	40,214	$66,709	$1.66
Shortnose spearfish	8,622	7,405	$9,654	$1.30
Sailfish	388	388	$659	$1.70
Ocean moonfish	27,232	27,232	$58,232	$2.14
Spiny lobster	477	380	$4,394	$11.56
Crabs	2,140	883	$3,459	$3.92
Shrimp (saltwater)	650	635	$5,254	$8.27
Octopus	1,041	726	$2,170	$2.99
Squid	3	-	$0	$0.00
Limpets (saltwater)	1,198	1,072	$5,602	$5.23
Precious corals	1,600	-	$0	$0.00
Sea urchins	2	-	$0	$0.00
Sea cucumbers	4	4	$9	$2.31
Algae	1,722	1,642	$4,374	$2.66
TOTAL	1,265,811	1,198,102	$2,404,520	$2.01

Table V.1.6

Hawaii May 2001 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	77	72	$57	$0.79
Sharks	14,861	14,436	$7,126	$0.49
Shark fins	800	-	$0	$0.00
Eels	40	40	$30	$0.74
Bigeye scad (akule)	110,508	101,619	$155,381	$1.53
Mackerel scad	23,273	22,574	$41,868	$1.85
Leatherback	37	27	$61	$2.25
Ten pounder	32	32	$32	$1.00
Bonefish	1,788	1,606	$1,428	$0.89
Herring/sardine	1	-	$0	$0.00
Milkfish	30	30	$35	$1.18
Needlefish	3	-	$0	$0.00
Threadfin	35	32	$126	$3.94
Mullet	140	135	$495	$3.66
Pomfret	12,929	12,912	$22,166	$1.72
Snake mackerel	8,571	8,571	$11,480	$1.34
Jacks (misc)	3,526	3,104	$6,008	$1.94
Amberjack	1,223	127	$127	$1.00
Blue crevally	351	259	$555	$2.14
Pig-lipped ulua	3,583	2,370	$4,781	$2.02
Dobe ulua	12	12	$21	$1.75
Paapaa ulua	168	116	$210	$1.81
White ulua	627	518	$775	$1.50
Black ulua	41	41	$62	$1.50
Hawaiian Grouper	2,719	2,600	$9,017	$3.47
Blue spot grouper	66	27	$58	$2.14
Snappers	261	244	$828	$3.39
Blue lined snapper	4,996	4,552	$4,806	$1.06
Ehu (red snapper)	3,336	3,141	$11,153	$3.55
Gindai (flower snapper)	719	564	$1,406	$2.49
Kalekale(pink snapper)	1,160	948	$2,715	$2.86
Lehi (silverjaw)	1,036	994	$2,410	$2.42
Onaga (red snapper)	9,677	9,328	$41,779	$4.48
Opakapaka (pink snapper)	12,578	12,169	$49,042	$4.03
Uku (gray snapper)	12,569	12,219	$28,819	$2.36
Porgy	410	374	$1,026	$2.74
Reef jacks	9	-	$0	$0.00
Squirrelfish	3,932	3,555	$11,212	$3.15
Trumpetfish	1	1	$1	$1.13
Scorpionfish	323	301	$1,154	$3.83
Mountain bass	189	186	$540	$2.90

Table V.1.6 (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Bigeyes	260	228	$596	$2.61
Goatfish	4,373	4,181	$12,652	$3.03
Rudderfish	1,869	1,840	$3,244	$1.76
Damselfish	124	123	$199	$1.62
Hawkfish	47	46	$51	$1.11
Tilapia	1	-	$0	$0.00
Wrasse	658	605	$1,239	$2.05
Parrotfish	2,254	2,124	$4,951	$2.33
Surgeon/tangs	9,003	8,820	$11,710	$1.33
Flounders	2	2	$2	$1.00
Triggerfish	75	75	$111	$1.47
Filefish	791	791	$482	$0.61
Rainbow runner	195	182	$227	$1.25
Mahimahi (dolphin)	115,289	104,823	$185,791	$1.77
Barracudas	5,673	5,550	$1,758	$0.32
Wahoo	228,304	196,136	$197,291	$1.01
Tunas	46	24	$16	$0.65
Skipjack tuna	115,596	103,419	$135,687	$1.31
Yellowfin tuna	284,203	268,273	$700,404	$2.61
Albacore	619,285	619,118	$428,736	$0.69
Bigeye tuna	295,089	294,893	$930,145	$3.15
Kawakawa	770	415	$555	$1.34
Other Billfish	488	488	$357	$0.73
Broadbill swordfish	34,051	33,967	$114,749	$3.38
Blue marlin	68,091	59,906	$50,204	$0.84
Black marlin	398	398	$533	$1.34
Striped marlin	84,174	81,921	$67,572	$0.82
Shortnose spearfish	26,859	24,853	$11,542	$0.46
Sailfish	589	557	$166	$0.30
Ocean moonfish	41,554	41,554	$56,876	$1.37
Spiny lobster	12	12	$93	$7.78
Crabs	161	158	$575	$3.64
Shrimp (saltwater)	2,062	2,062	$16,178	$7.85
Octopus	1,740	1,392	$4,129	$2.97
Limpets (saltwater)	1,082	1,082	$5,553	$5.13
Precious corals	3,000	-	$0	$0.00
Sea cucumbers	13	13	$34	$2.58
Algae	2,451	2,373	$4,866	$2.05
TOTAL	2,187,269	2,082,240	$3,368,060	$1.62

Table V.1.7

Hawaii June 2001 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	3,226	3,226	$3,662	$1.14
Sharks	11,991	11,741	$5,747	$0.49
Rays	4	-	$0	$0.00
Eels	29	29	$30	$1.03
Bigeye scad (akule)	49,087	44,189	$69,773	$1.58
Mackerel scad	17,586	16,933	$31,176	$1.84
Leatherback	43	42	$69	$1.63
Bonefish	1,846	1,836	$1,847	$1.01
Herring/sardine	1	-	$0	$0.00
Milkfish	92	92	$88	$0.95
Needlefish	11	4	$5	$1.31
Threadfin	10	10	$40	$3.96
Mullet	368	364	$1,485	$4.08
Pomfret	23,244	23,244	$23,133	$1.00
Snake mackerel	8,573	8,573	$13,577	$1.58
Jacks (misc)	2,174	1,791	$3,861	$2.16
Amberjack	510	-	$0	$0.00
Blue crevally	76	67	$100	$1.49
Pig-lipped ulua	1,590	1,463	$2,053	$1.40
Paapaa ulua	104	104	$146	$1.40
White ulua	245	245	$296	$1.21
Hawaiian Grouper	2,116	2,023	$7,897	$3.90
Blue spot grouper	205	160	$533	$3.33
Snappers	142	142	$534	$3.76
Blue lined snapper	2,634	2,189	$2,270	$1.04
Ehu (red snapper)	2,509	2,350	$8,360	$3.56
Gindai (flower snapper)	281	259	$569	$2.20
Kalekale(pink snapper)	703	647	$1,829	$2.83
Lehi (silverjaw)	568	536	$1,421	$2.65
Onaga (red snapper)	10,284	9,875	$38,737	$3.92
Opakapaka (pink snapper)	7,676	7,507	$34,508	$4.60
Uku (gray snapper)	10,957	10,503	$23,398	$2.23
Porgy	115	105	$301	$2.87
Squirrelfish	2,278	2,130	$6,327	$2.97
Trumpetfish	7	1	$0	$0.25
Scorpionfish	78	75	$268	$3.57
Mountain bass	3	-	$0	$0.00
Bigeyes	213	208	$613	$2.95
Goatfish	3,037	2,838	$8,626	$3.04
Rudderfish	1,735	1,636	$2,959	$1.81
Damselfish	66	50	$95	$1.90

Table V.1.7 (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Hawkfish	68	63	$166	$2.64
Wrasse	370	331	$799	$2.42
Parrotfish	1,773	1,573	$3,885	$2.47
Surgeon/tangs	8,346	8,195	$10,711	$1.31
Filefish	501	501	$452	$0.90
Rainbow runner	169	131	$189	$1.44
Mahimahi (dolphin)	71,056	64,289	$137,581	$2.14
Barracudas	2,366	2,173	$1,294	$0.60
Wahoo	141,484	121,558	$177,281	$1.46
Tunas	11	-	$0	$0.00
Skipjack tuna	262,011	246,772	$246,597	$1.00
Yellowfin tuna	439,547	419,510	$836,517	$1.99
Albacore	348,066	339,503	$342,571	$1.01
Bigeye tuna	286,540	286,220	$840,619	$2.94
Kawakawa	664	512	$474	$0.93
Frigate tuna	24	-	$0	$0.00
Broadbill swordfish	58,431	58,431	$190,797	$3.27
Blue marlin	160,948	130,049	$98,982	$0.76
Black marlin	4,602	4,602	$3,444	$0.75
Striped marlin	64,164	61,905	$54,869	$0.89
Shortnose spearfish	16,821	15,443	$9,798	$0.63
Sailfish	1,450	1,450	$584	$0.40
Ocean moonfish	40,180	40,180	$54,238	$1.35
Crabs	233	231	$809	$3.50
Shrimp (saltwater)	797	797	$6,398	$8.03
Octopus	1,433	1,153	$3,360	$2.91
Squid	34	16	$50	$3.15
Limpets (saltwater)	822	782	$4,427	$5.66
Precious corals	200	-	$0	$0.00
Algae	2,545	2,462	$5,416	$2.20
TOTAL	2,082,073	1,966,019	$3,328,640	$1.69

Table V.1.8

Hawaii July 2001 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	103	17	$43	$2.52
Sharks	11,237	7,734	$4,648	$0.60
Eels	72	70	$55	$0.79
Bigeye scad (akule)	62,633	58,335	$85,790	$1.47
Mackerel scad	15,247	14,931	$27,461	$1.84
Leatherback	57	55	$96	$1.75
Bonefish	3,335	3,314	$3,334	$1.01
Herring/sardine	2	-	$0	$0.00
Milkfish	142	142	$152	$1.07
Needlefish	16	16	$25	$1.53
Mullet	945	829	$3,127	$3.77
Pomfret	26,554	26,554	$29,147	$1.10
Snake mackerel	4,213	4,154	$6,517	$1.57
Jacks (misc)	1,906	1,365	$2,847	$2.09
Amberjack	442	47	$82	$1.75
Blue crevally	670	542	$984	$1.82
Pig-lipped ulua	3,189	3,189	$3,674	$1.15
Dobe ulua	18	18	$32	$1.75
Paapaa ulua	53	53	$61	$1.15
White ulua	665	665	$730	$1.10
Black ulua	84	84	$105	$1.25
Hawaiian Grouper	3,629	3,377	$11,707	$3.47
Blue spot grouper	58	57	$182	$3.20
Snappers	155	155	$594	$3.83
Blue lined snapper	3,077	2,456	$2,551	$1.04
Ehu (red snapper)	1,951	1,743	$6,227	$3.57
Gindai (flower snapper)	384	319	$724	$2.27
Kalekale (pink snapper)	1,156	1,034	$2,497	$2.41
Lehi (silverjaw)	642	636	$2,201	$3.46
Onaga (red snapper)	4,411	4,240	$23,148	$5.46
Opakapaka (pink snapper)	7,789	7,745	$35,332	$4.56
Uku (gray snapper)	19,631	16,959	$32,498	$1.92
Porgy	475	475	$1,344	$2.83
Squirrelfish	3,502	3,439	$11,898	$3.46
Trumpetfish	21	21	$82	$3.90
Scorpionfish	118	116	$428	$3.69
Mountain bass	206	138	$427	$3.10
Bigeyes	143	134	$410	$3.06
Goatfish	2,160	1,926	$5,862	$3.04
Rudderfish	3,054	3,021	$5,218	$1.73
Damselfish	133	133	$279	$2.10

Table V.1.8 (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Hawkfish	27	25	$48	$1.92
Wrasse	451	324	$1,149	$3.55
Parrotfish	2,235	2,194	$6,041	$2.75
Surgeon/tangs	13,607	13,488	$16,754	$1.24
Flounders	3	3	$2	$0.80
Filefish	251	251	$227	$0.90
Rainbow runner	325	275	$437	$1.59
Mahimahi (dolphin)	55,837	48,785	$127,977	$2.62
Barracudas	2,517	2,317	$1,457	$0.63
Wahoo	109,913	95,222	$177,453	$1.86
Tunas	2,466	2,445	$4,414	$1.81
Skipjack tuna	227,697	215,246	$202,833	$0.94
Yellowfin tuna	651,628	632,633	$1,321,746	$2.09
Albacore	382,467	378,994	$307,262	$0.81
Bigeye tuna	249,868	249,361	$665,687	$2.67
Kawakawa	690	255	$207	$0.81
Frigate tuna	10	-	$0	$0.00
Broadbill swordfish	22,815	22,609	$72,085	$3.19
Blue marlin	246,923	202,606	$140,626	$0.69
Black marlin	4,585	4,285	$2,351	$0.55
Striped marlin	23,740	20,332	$22,349	$1.10
Shortnose spearfish	13,791	12,394	$12,957	$1.05
Sailfish	3,221	2,845	$2,148	$0.76
Ocean moonfish	33,774	33,774	$45,537	$1.35
Crabs	598	586	$2,241	$3.82
Shrimp (saltwater)	563	563	$4,193	$7.45
Octopus	2,093	1,912	$5,584	$2.92
Squid	35	18	$36	$2.00
Limpets (saltwater)	879	859	$4,703	$5.48
Precious corals	2,400	-	$0	$0.00
Sea urchins	1	-	$0	$0.00
Algae	1,948	1,881	$6,023	$3.20
TOTAL	2,241,636	2,116,720	$3,467,042	$1.64

Table V.1.9

Hawaii August 2001 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	366	145	$179	$1.23
Sharks	7,508	7,013	$1,979	$0.28
Eels	14	14	$13	$0.89
Bigeye scad (akule)	18,342	16,817	$32,361	$1.92
Mackerel scad	12,773	12,569	$23,826	$1.90
Leatherback	48	48	$79	$1.65
Ten pounder	4	-	$0	$0.00
Bonefish	102	102	$110	$1.08
Herring/sardine	5	-	$0	$0.00
Milkfish	21	21	$21	$1.02
Mullet	750	732	$2,780	$3.80
Pomfret	15,853	15,853	$31,990	$2.02
Snake mackerel	4,743	4,743	$9,913	$2.09
Jacks (misc)	1,358	826	$2,123	$2.57
Amberjack	231	56	$94	$1.68
Blue crevally	240	151	$360	$2.39
Pig-lipped ulua	1,690	1,657	$3,803	$2.30
Paapaa ulua	40	20	$53	$2.67
White ulua	445	412	$798	$1.94
Hawaiian Grouper	1,822	1,595	$6,849	$4.29
Blue spot grouper	62	62	$171	$2.75
Snappers	277	277	$1,054	$3.80
Blue lined snapper	4,329	3,784	$3,952	$1.04
Ehu (red snapper)	1,920	1,784	$6,153	$3.45
Gindai (flower snapper)	274	178	$471	$2.65
Kalekale(pink snapper)	516	367	$1,171	$3.19
Lehi (silverjaw)	394	311	$1,180	$3.80
Onaga (red snapper)	10,028	9,811	$44,298	$4.52
Opakapaka (pink snapper)	5,587	5,319	$26,073	$4.90
Uku (gray snapper)	9,783	9,522	$24,698	$2.59
Porgy	101	101	$242	$2.39
Squirrelfish	3,575	3,384	$10,865	$3.21
Trumpetfish	20	20	$68	$3.41
Scorpionfish	85	79	$313	$3.96
Mountain bass	161	159	$624	$3.93
Bigeyes	178	172	$484	$2.81
Goatfish	2,951	2,801	$9,124	$3.26
Rudderfish	632	623	$867	$1.39
Damselfish	150	145	$340	$2.34
Hawkfish	40	40	$76	$1.90
Wrasse	491	343	$1,253	$3.65

Table V.1.9 (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Parrotfish	1,813	1,768	$4,587	$2.59
Surgeon/tangs	12,606	12,461	$16,795	$1.35
Flounders	5	5	$4	$0.84
Filefish	161	161	$176	$1.09
Rainbow runner	292	245	$436	$1.78
Mahimahi (dolphin)	72,166	64,719	$163,778	$2.53
Barracudas	4,253	4,147	$2,057	$0.50
Wahoo	71,378	65,119	$161,688	$2.48
Tunas	74	-	$0	$0.00
Skipjack tuna	228,855	219,803	$268,250	$1.22
Yellowfin tuna	739,127	732,653	$1,728,450	$2.36
Albacore	259,850	258,284	$270,867	$1.05
Bigeye tuna	222,411	222,391	$847,379	$3.81
Kawakawa	258	92	$130	$1.41
Bluefin Tuna	298	298	$1,371	$4.60
Frigate tuna	20	20	$35	$1.75
Broadbill swordfish	12,347	12,307	$36,904	$3.00
Blue marlin	217,359	174,161	$157,120	$0.90
Black marlin	2,226	2,046	$2,005	$0.98
Striped marlin	16,881	16,047	$25,843	$1.61
Shortnose spearfish	9,932	8,686	$9,935	$1.14
Sailfish	1,936	1,749	$2,508	$1.43
Ocean moonfish	26,134	26,134	$33,608	$1.29
Crabs	368	368	$1,216	$3.30
Shrimp (saltwater)	967	967	$7,602	$7.86
Octopus	3,995	3,092	$8,817	$2.85
Squid	550	257	$656	$2.55
Limpets (saltwater)	1,194	1,179	$6,210	$5.27
Precious corals	2,200	-	$0	$0.00
Sea urchins	1	1	$35	$35.00
Sea cucumbers	2	2	$4	$2.04
Algae	1,448	1,389	$3,995	$2.88
TOTAL	2,019,016	1,932,607	$4,013,268	$2.08

Table V.1.10

Hawaii September 2001 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	27	25	$33	$1.30
Sharks	6,191	6,066	$4,041	$0.67
Eels	23	20	$26	$1.29
Bigeye scad (akule)	11,634	9,847	$21,362	$2.17
Mackerel scad	21,283	20,421	$37,951	$1.86
Leatherback	97	83	$100	$1.21
Ten pounder	51	51	$70	$1.37
Bonefish	182	120	$145	$1.21
Herring/sardine	4	-	$0	$0.00
Milkfish	328	328	$371	$1.13
Needlefish	48	48	$85	$1.77
Threadfin	40	38	$178	$4.70
Mullet	764	721	$2,476	$3.43
Pomfret	15,301	15,283	$19,712	$1.29
Snake mackerel	2,559	2,529	$4,651	$1.84
Jacks (misc)	1,988	1,676	$3,170	$1.89
Amberjack	501	54	$67	$1.23
Blue crevally	453	367	$718	$1.96
Pig-lipped ulua	2,148	2,052	$2,672	$1.30
Paapaa ulua	273	196	$223	$1.14
White ulua	813	746	$1,240	$1.66
Black ulua	62	62	$86	$1.39
Hawaiian Grouper	1,583	1,471	$5,624	$3.82
Blue spot grouper	75	52	$113	$2.18
Snappers	131	125	$401	$3.21
Blue lined snapper	2,761	2,266	$2,410	$1.06
Ehu (red snapper)	2,847	2,201	$7,980	$3.63
Gindai (flower snapper)	240	176	$545	$3.10
Kalekale(pink snapper)	945	837	$2,723	$3.25
Lehi (silverjaw)	642	549	$1,589	$2.89
Onaga (red snapper)	10,946	9,958	$39,182	$3.93
Opakapaka (pink snapper)	5,933	5,213	$22,694	$4.35
Uku (gray snapper)	12,252	11,807	$24,270	$2.06
Porgy	153	153	$430	$2.81
Reef jacks	3	3	$8	$2.75
Squirrelfish	3,967	3,562	$11,400	$3.20
Trumpetfish	5	5	$3	$0.67
Scorpionfish	129	82	$309	$3.77
Mountain bass	190	159	$595	$3.74
Bigeyes	336	323	$914	$2.83
Goatfish	3,486	3,224	$9,618	$2.98

Table V.1.10 (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Rudderfish	1,032	1,013	$1,881	$1.86
Damselfish	363	361	$821	$2.27
Hawkfish	27	27	$41	$1.52
Tilapia	20	20	$40	$2.00
Wrasse	774	590	$1,991	$3.38
Parrotfish	2,505	2,413	$6,260	$2.59
Surgeon/tangs	11,759	11,542	$16,030	$1.39
Flounders	3	3	$3	$0.83
Triggerfish	2	2	$7	$3.30
Filefish	261	261	$261	$1.00
Pufferfish	1	-	$0	$0.00
Rainbow runner	661	593	$973	$1.64
Mahimahi (dolphin)	83,142	77,354	$146,635	$1.90
Barracudas	1,307	1,123	$993	$0.88
Wahoo	40,516	37,922	$87,336	$2.30
Tunas	184	184	$321	$1.74
Skipjack tuna	129,075	123,950	$186,850	$1.51
Yellowfin tuna	339,604	335,229	$794,926	$2.37
Albacore	218,335	216,363	$262,448	$1.21
Bigeye tuna	243,442	230,113	$817,815	$3.55
Kawakawa	779	547	$463	$0.85
Frigate tuna	3	-	$0	$0.00
Broadbill swordfish	5,284	5,284	$17,592	$3.33
Blue marlin	139,342	122,540	$101,750	$0.83
Black marlin	433	433	$582	$1.34
Striped marlin	20,774	20,373	$23,832	$1.17
Shortnose spearfish	6,310	6,143	$6,360	$1.04
Sailfish	1,380	1,175	$1,374	$1.17
Ocean moonfish	50,952	50,952	$48,024	$0.94
Spiny lobster	1,858	1,684	$22,192	$13.18
Slipper lobster	19	-	$0	$0.00
Crabs	2,833	1,789	$8,073	$4.51
Shrimp (saltwater)	205	205	$1,725	$8.41
Octopus	4,165	3,254	$8,791	$2.70
Squid	586	324	$952	$2.94
Limpets (saltwater)	843	736	$3,024	$4.11
Sea urchins	12	12	$67	$5.58
Algae	898	793	$3,702	$4.67
TOTAL	1,421,083	1,358,206	$2,804,318	$2.06

Table V.1.11

Hawaii October 2001 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	156	149	$120	$0.80
Sharks	9,815	9,415	$7,934	$0.84
Eels	30	30	$36	$1.20
Bigeye scad (akule)	9,538	8,168	$18,542	$2.27
Mackerel scad	22,521	21,409	$38,092	$1.78
Leatherback	29	26	$36	$1.40
Ten pounder	4	4	$6	$1.54
Bonefish	41	41	$48	$1.18
Herring/sardine	7	6	$8	$1.33
Milkfish	1	1	$1	$0.88
Threadfin	20	16	$62	$3.88
Mullet	520	515	$1,660	$3.22
Pomfret	27,483	27,432	$29,958	$1.09
Snake mackerel	4,950	4,950	$6,571	$1.33
Jacks (misc)	1,338	846	$1,759	$2.08
Amberjack	970	26	$24	$0.92
Blue crevally	395	279	$408	$1.46
Pig-lipped ulua	445	411	$1,092	$2.66
Paapaa ulua	112	100	$198	$1.98
White ulua	1,307	960	$1,533	$1.60
Black ulua	34	34	$66	$1.94
Hawaiian Grouper	2,591	2,540	$11,198	$4.41
Blue spot grouper	52	52	$153	$2.94
Snappers	179	179	$576	$3.22
Blue lined snapper	3,179	2,747	$2,793	$1.02
Ehu (red snapper)	3,052	2,831	$10,499	$3.71
Gindai (flower snapper)	443	398	$1,241	$3.12
Kalekale(pink snapper)	1,221	1,123	$3,949	$3.52
Lehi (silverjaw)	1,255	1,146	$3,450	$3.01
Onaga (red snapper)	14,806	14,553	$62,541	$4.30
Opakapaka (pink snapper)	8,757	8,412	$38,782	$4.61
Uku (gray snapper)	6,114	5,867	$14,244	$2.43
Porgy	297	293	$748	$2.55
Squirrelfish	4,177	3,870	$12,651	$3.27
Trumpetfish	5	5	$18	$3.60
Scorpionfish	157	126	$482	$3.82
Mountain bass	361	347	$1,622	$4.67
Bigeyes	260	230	$778	$3.38
Goatfish	2,626	2,395	$8,217	$3.43
Rudderfish	513	483	$957	$1.98
Damselfish	183	183	$387	$2.11

Table V.1.11 (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Hawkfish	30	19	$42	$2.18
Tilapia	9	9	$18	$2.00
Wrasse	641	540	$2,054	$3.80
Parrotfish	1,664	1,542	$3,863	$2.51
Surgeon/tangs	8,045	7,935	$10,473	$1.32
Triggerfish	2	-	$0	$0.00
Filefish	51	51	$50	$0.99
Rainbow runner	284	244	$320	$1.31
Mahimahi (dolphin)	119,478	112,449	$183,441	$1.63
Barracudas	623	477	$354	$0.74
Wahoo	36,893	34,861	$80,504	$2.31
Tunas	15	15	$24	$1.61
Skipjack tuna	60,626	57,722	$113,368	$1.96
Yellowfin tuna	168,808	164,382	$421,160	$2.56
Albacore	97,452	97,185	$151,218	$1.56
Bigeye tuna	425,897	425,267	$1,443,472	$3.39
Kawakawa	401	257	$426	$1.66
Frigate tuna	7	-	$0	$0.00
Broadbill swordfish	4,590	4,590	$16,691	$3.64
Blue marlin	90,239	81,716	$68,900	$0.84
Black marlin	161	161	$242	$1.50
Striped marlin	94,357	93,716	$82,031	$0.88
Shortnose spearfish	8,026	7,845	$6,406	$0.82
Sailfish	1,268	1,205	$822	$0.68
Ocean moonfish	113,677	113,614	$100,013	$0.88
Spiny lobster	254	145	$1,205	$8.31
Slipper lobster	1	1	$9	$8.50
Crabs	2,765	2,477	$11,740	$4.74
Shrimp (saltwater)	842	842	$6,790	$8.06
Octopus	3,657	2,355	$6,683	$2.84
Squid	368	180	$504	$2.80
Limpets (saltwater)	1,087	1,075	$5,728	$5.33
Algae	748	591	$2,773	$4.69
TOTAL	1,372,910	1,336,066	$3,004,763	$2.25

Table V.1.12

Hawaii November 2001 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	361	361	$148	$0.41
Sharks	18,392	17,606	$6,634	$0.38
Eels	62	42	$36	$0.87
Bigeye scad (akule)	66,347	58,367	$85,414	$1.46
Mackerel scad	22,933	21,983	$37,506	$1.71
Leatherback	65	52	$95	$1.83
Bonefish	152	40	$51	$1.28
Herring/sardine	3	3	$3	$1.00
Milkfish	7	7	$9	$1.35
Needlefish	53	53	$66	$1.25
Threadfin	15	2	$12	$5.75
Mullet	949	945	$3,206	$3.39
Pomfret	27,507	27,454	$26,948	$0.98
Snake mackerel	14,291	14,271	$11,556	$0.81
Jacks (misc)	2,207	1,733	$3,660	$2.11
Amberjack	1,459	103	$156	$1.51
Blue crevally	248	116	$190	$1.64
Pig-lipped ulua	1,728	1,663	$3,273	$1.97
Dobe ulua	235	235	$468	$1.99
Paapaa ulua	87	86	$172	$1.99
White ulua	1,607	1,222	$1,836	$1.50
Black ulua	60	60	$105	$1.76
Hawaiian Grouper	3,332	3,129	$11,566	$3.70
Blue spot grouper	32	30	$73	$2.45
Snappers	110	107	$328	$3.06
Blue lined snapper	2,916	2,459	$2,390	$0.97
Ehu (red snapper)	3,435	3,103	$10,620	$3.42
Gindai (flower snapper)	677	588	$1,538	$2.62
Kalekale(pink snapper)	1,488	1,379	$3,614	$2.62
Lehi (silverjaw)	992	896	$2,195	$2.45
Onaga (red snapper)	14,524	13,602	$58,039	$4.27
Opakapaka (pink snapper)	13,999	13,126	$55,675	$4.24
Uku (gray snapper)	7,526	7,281	$16,172	$2.22
Porgy	214	212	$615	$2.90
Squirrelfish	2,941	2,696	$8,815	$3.27
Scorpionfish	267	225	$924	$4.11
Mountain bass	65	44	$204	$4.63
Bigeyes	175	161	$405	$2.51
Goatfish	3,631	3,402	$10,126	$2.98
Rudderfish	248	223	$322	$1.45
Damselfish	190	190	$399	$2.10

Table V.1.12 (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Hawkfish	40	40	$71	$1.77
Wrasse	853	708	$3,258	$4.60
Parrotfish	1,774	1,622	$4,056	$2.50
Surgeon/tangs	9,633	9,447	$13,116	$1.39
Filefish	133	133	$148	$1.11
Rainbow runner	335	261	$360	$1.38
Mahimahi (dolphin)	114,730	108,444	$164,372	$1.52
Barracudas	1,182	1,047	$1,319	$1.26
Wahoo	31,423	29,776	$66,864	$2.25
Skipjack tuna	87,829	84,147	$117,218	$1.39
Yellowfin tuna	170,936	168,167	$294,748	$1.75
Albacore	76,832	76,832	$104,053	$1.35
Bigeye tuna	704,971	700,968	$1,747,941	$2.49
Kawakawa	622	512	$428	$0.84
Bluefin Tuna	240	240	$600	$2.50
Frigate tuna	18	-	$0	$0.00
Broadbill swordfish	8,502	8,486	$27,504	$3.24
Blue marlin	90,230	84,969	$60,487	$0.71
Black marlin	995	995	$1,266	$1.27
Striped marlin	150,575	147,533	$91,043	$0.62
Shortnose spearfish	11,117	10,967	$8,090	$0.74
Sailfish	843	808	$433	$0.54
Ocean moonfish	99,722	99,639	$82,039	$0.82
Spiny lobster	1,286	1,182	$15,422	$13.05
Slipper lobster	19	11	$95	$8.60
Crabs	1,728	1,509	$6,611	$4.38
Octopus	2,060	1,578	$4,294	$2.72
Squid	227	206	$510	$2.48
Limpets (saltwater)	729	699	$3,601	$5.15
Algae	789	682	$3,477	$5.10
TOTAL	1,785,903	1,740,865	$3,188,986	$1.83

Table V.1.13

Hawaii December 2001 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	887	37	$23	$0.62
Sharks	17,010	16,871	$5,752	$0.34
Eels	22	22	$20	$0.91
Bigeye scad (akule)	10,094	9,629	$20,009	$2.08
Mackerel scad	13,980	13,188	$22,737	$1.72
Leatherback	44	27	$40	$1.48
Bonefish	68	11	$12	$1.07
Needlefish	22	22	$33	$1.50
Threadfin	15	-	$0	$0.00
Mullet	359	359	$1,368	$3.81
Pomfret	23,110	23,035	$35,063	$1.52
Snake mackerel	16,234	16,204	$14,462	$0.89
Jacks (misc)	1,102	624	$1,118	$1.79
Amberjack	1,907	67	$97	$1.44
Blue crevally	191	89	$147	$1.65
Pig-lipped ulua	1,620	1,589	$3,620	$2.28
Dobe ulua	182	182	$367	$2.02
Paapaa ulua	61	47	$78	$1.67
White ulua	2,149	2,024	$2,868	$1.42
Hawaiian Grouper	3,570	3,314	$13,671	$4.13
Blue spot grouper	37	33	$85	$2.59
Snappers	177	176	$429	$2.44
Blue lined snapper	1,985	1,620	$1,908	$1.18
Ehu (red snapper)	2,589	2,170	$10,887	$5.02
Gindai (flower snapper)	319	225	$687	$3.05
Kalekale(pink snapper)	1,460	1,257	$4,241	$3.37
Lehi (silverjaw)	1,004	773	$2,502	$3.24
Onaga (red snapper)	14,717	12,655	$76,893	$6.08
Opakapaka (pink snapper)	14,514	12,591	$67,941	$5.40
Uku (gray snapper)	7,323	6,835	$21,832	$3.19
Porgy	14	12	$43	$3.58
Reef jacks	4	-	$0	$0.00
Squirrelfish	2,412	2,309	$7,294	$3.16
Trumpetfish	13	8	$32	$4.00
Scorpionfish	329	281	$1,128	$4.01
Mountain bass	527	494	$1,944	$3.94
Bigeyes	609	596	$2,047	$3.43
Goatfish	3,177	2,789	$7,844	$2.81
Rudderfish	468	444	$625	$1.41
Damselfish	361	361	$514	$1.42
Hawkfish	35	26	$57	$2.20

Table V.1.13 (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Wrasse	645	505	$2,278	$4.51
Parrotfish	992	890	$2,339	$2.63
Surgeon/tangs	9,144	8,964	$12,376	$1.38
Triggerfish	4	-	$0	$0.00
Filefish	76	76	$114	$1.50
Rainbow runner	227	140	$240	$1.71
Mahimahi (dolphin)	54,918	51,758	$94,737	$1.83
Barracudas	431	343	$429	$1.25
Wahoo	29,618	28,590	$73,602	$2.57
Tunas	3,240	3,193	$2,495	$0.78
Skipjack tuna	106,851	102,512	$156,326	$1.53
Yellowfin tuna	159,670	156,717	$351,567	$2.24
Albacore	77,331	77,331	$186,090	$2.41
Bigeye tuna	633,485	632,168	$2,206,886	$3.49
Kawakawa	675	456	$459	$1.01
Frigate tuna	28	-	$0	$0.00
Broadbill swordfish	5,595	5,532	$18,014	$3.26
Blue marlin	37,690	32,739	$42,287	$1.29
Black marlin	1,676	1,676	$1,757	$1.05
Striped marlin	133,523	129,890	$150,073	$1.16
Shortnose spearfish	12,148	11,960	$10,536	$0.88
Sailfish	167	167	$201	$1.20
Ocean sunfish	170	170	$44	$0.26
Ocean moonfish	76,287	76,110	$104,567	$1.37
Spiny lobster	1,539	1,495	$15,409	$10.31
Slipper lobster	1	-	$0	$0.00
Crabs	653	486	$2,409	$4.96
Shrimp (saltwater)	362	362	$2,781	$7.68
Octopus	860	641	$1,750	$2.73
Squid	2	-	$0	$0.00
Limpets (saltwater)	759	709	$3,594	$5.07
Algae	524	417	$2,307	$5.53
TOTAL	1,493,992	1,458,993	$3,776,084	$2.59

Figure V.1.1

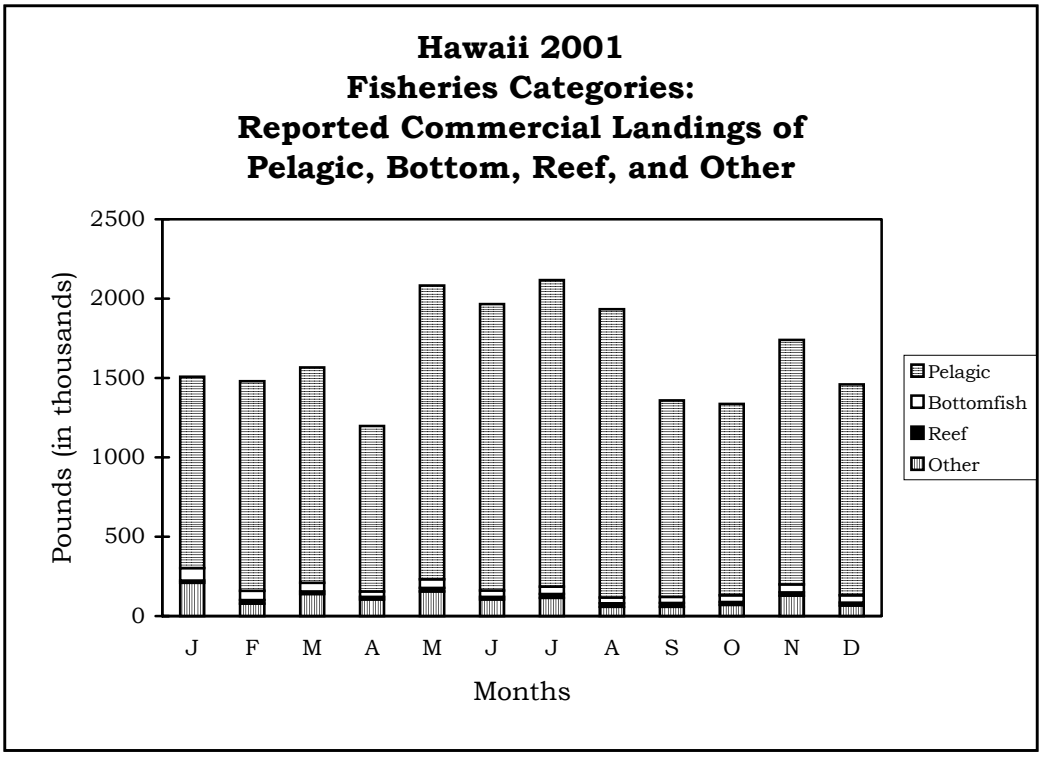
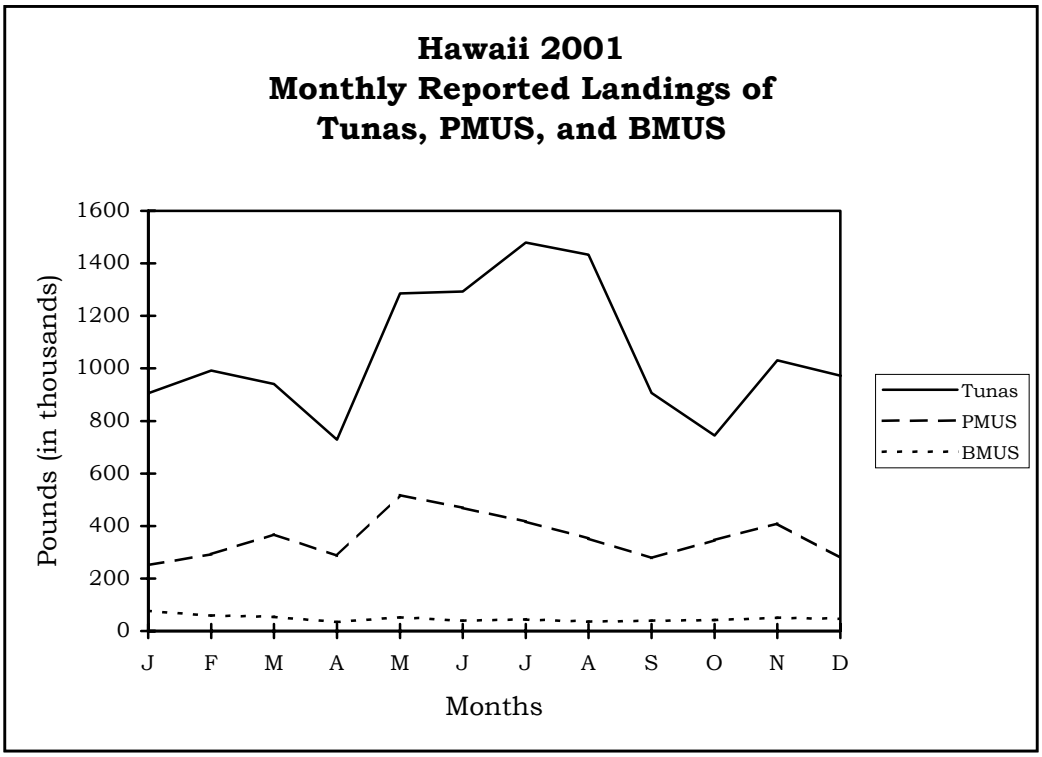


Figure V.1.2



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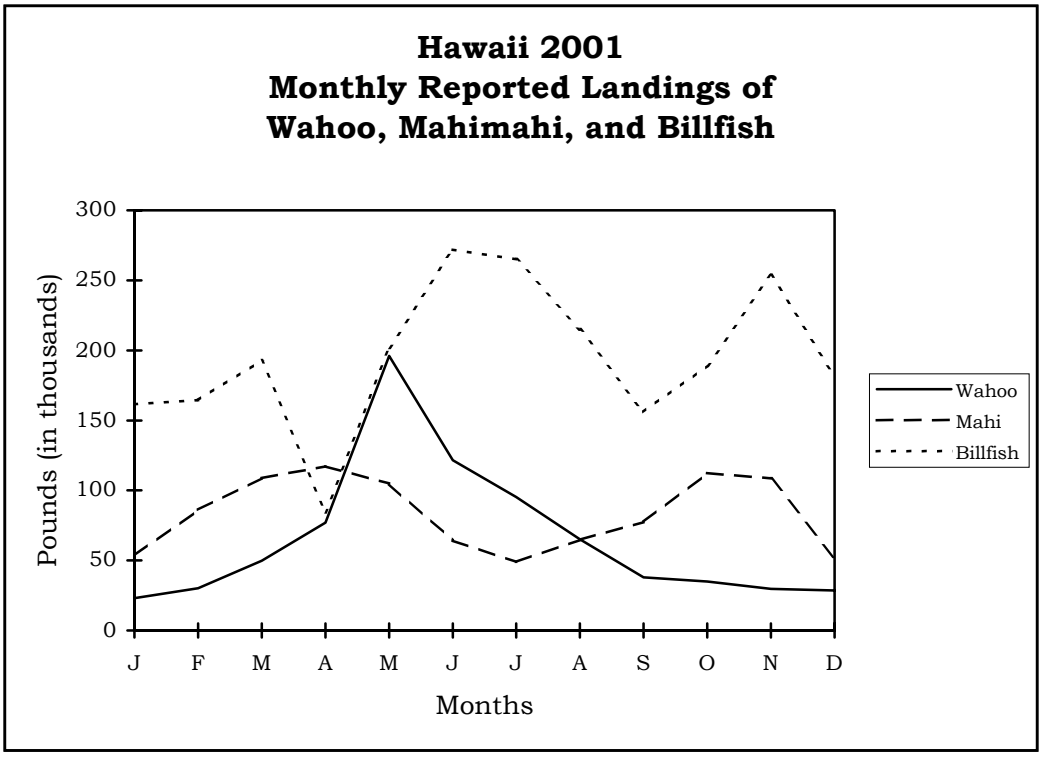

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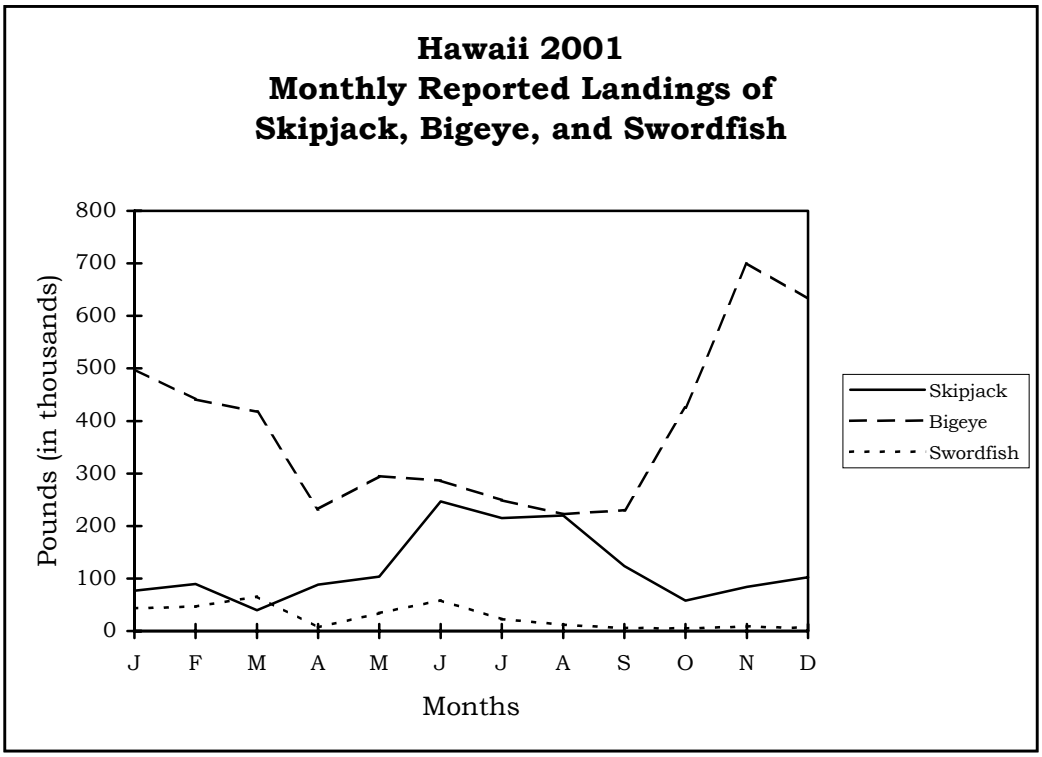
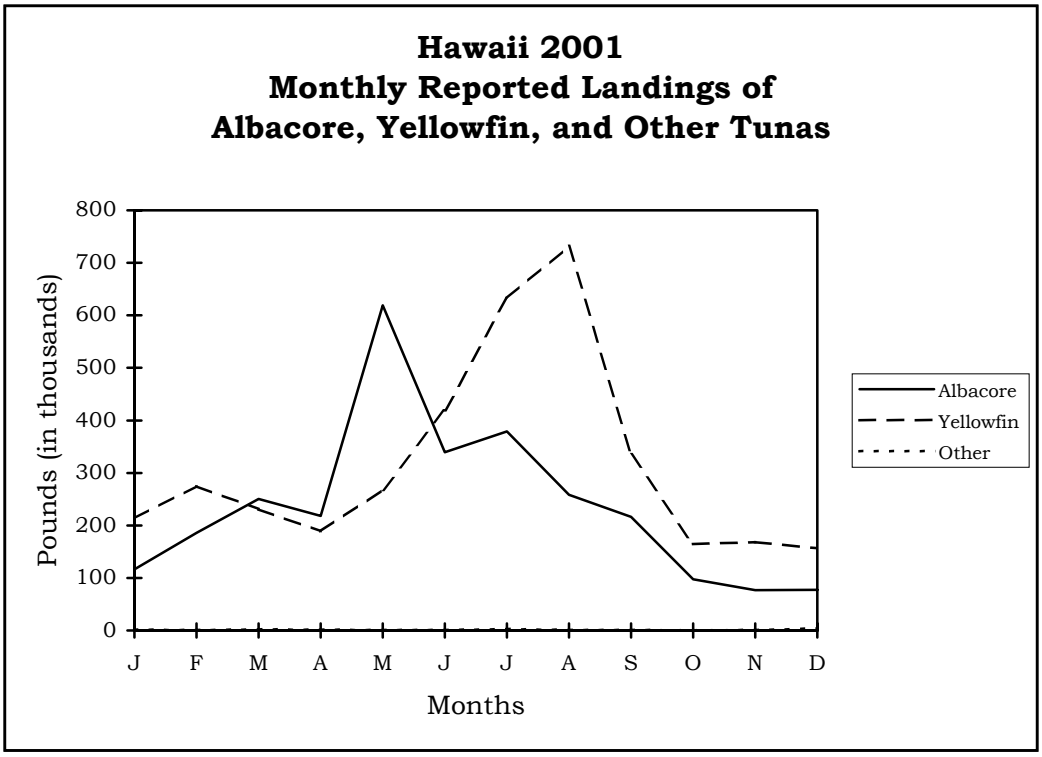


Figure V.1.5



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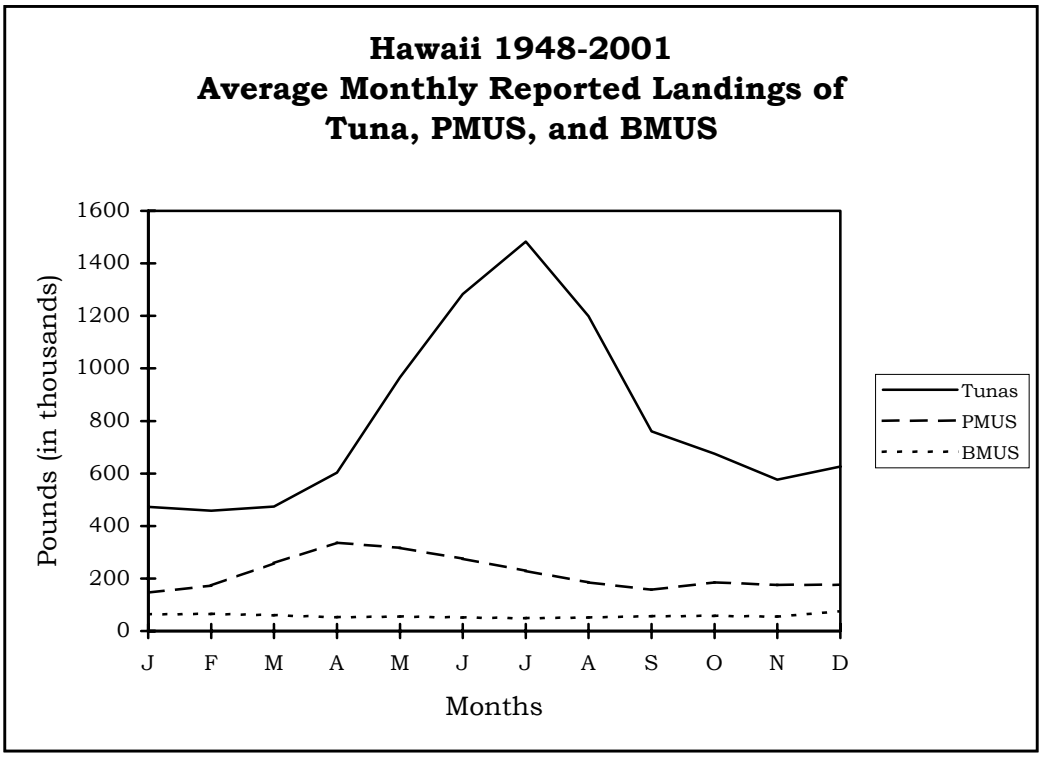

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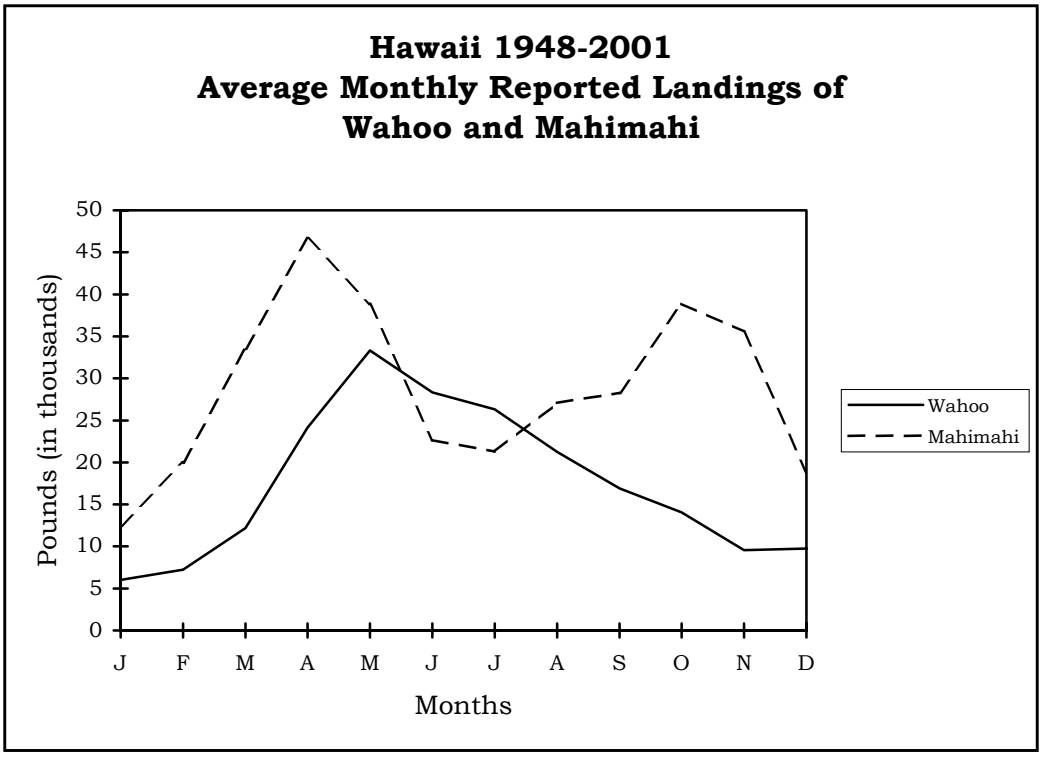

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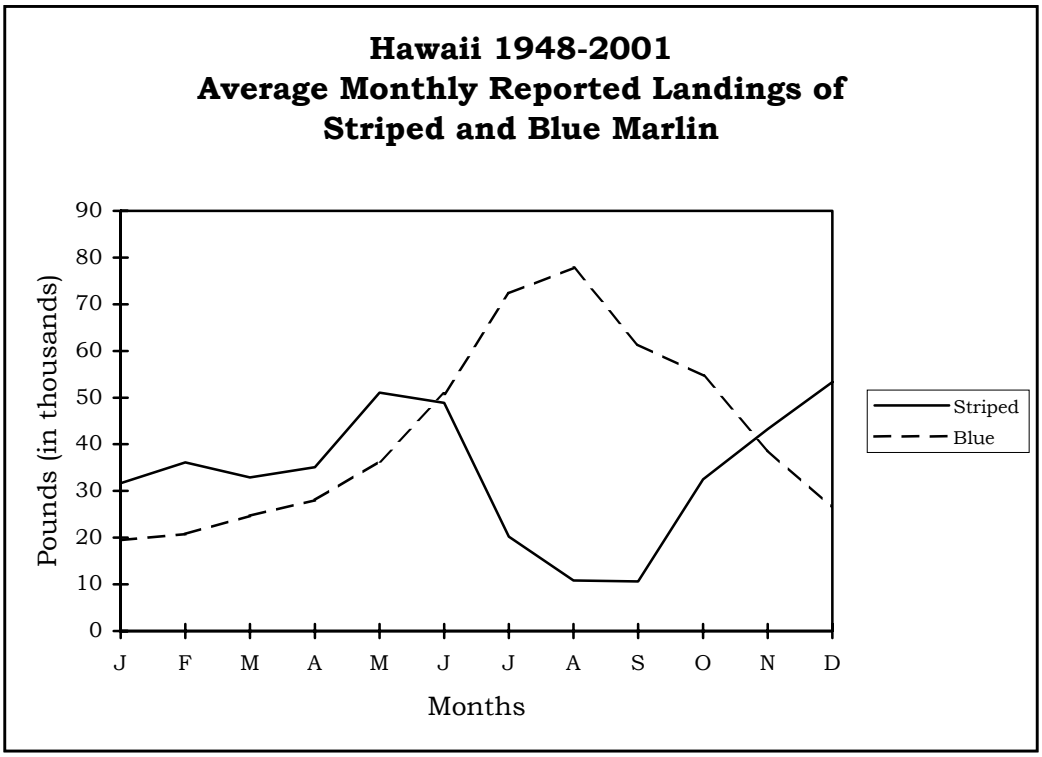

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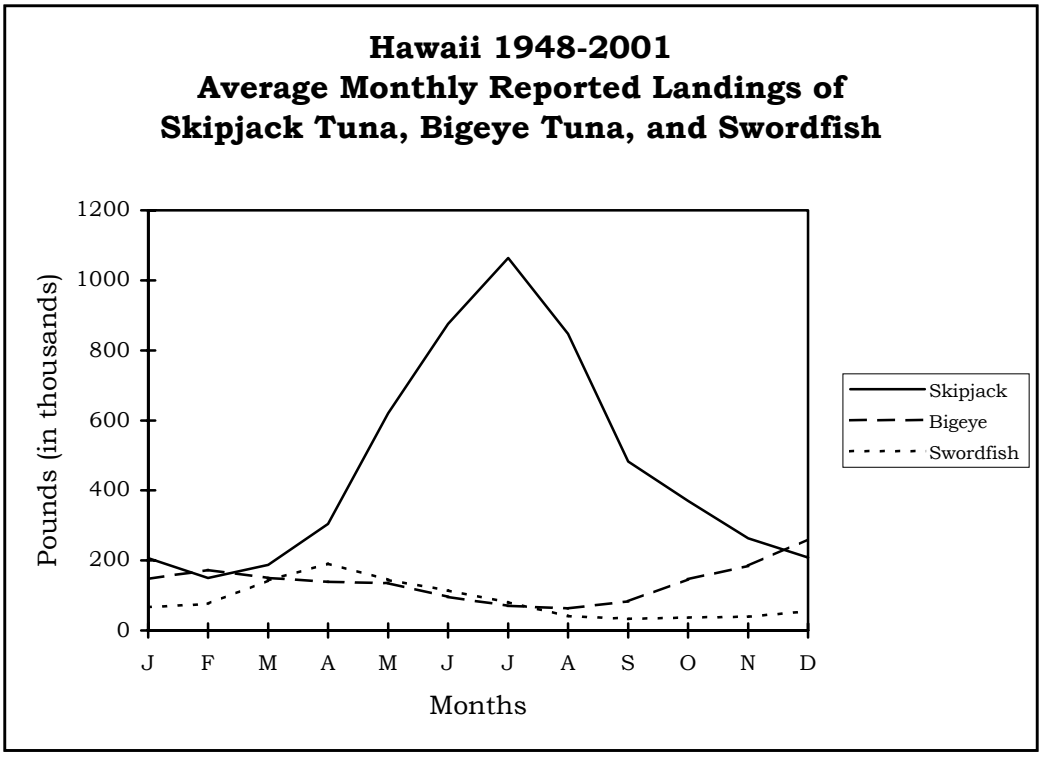

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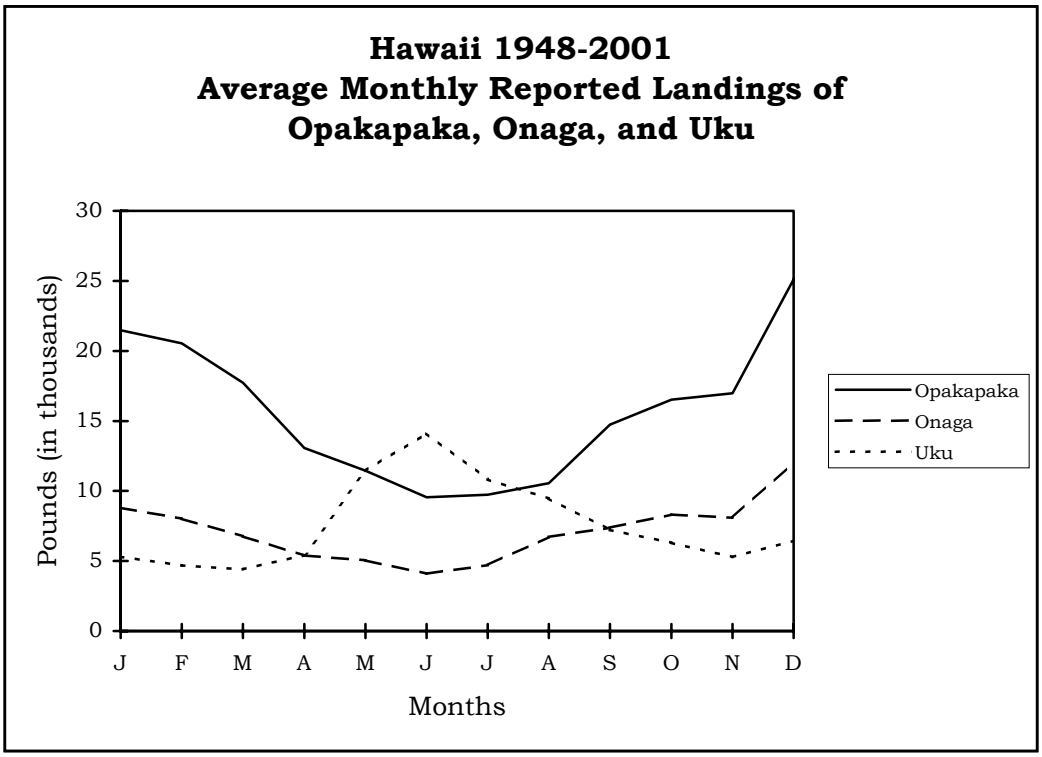

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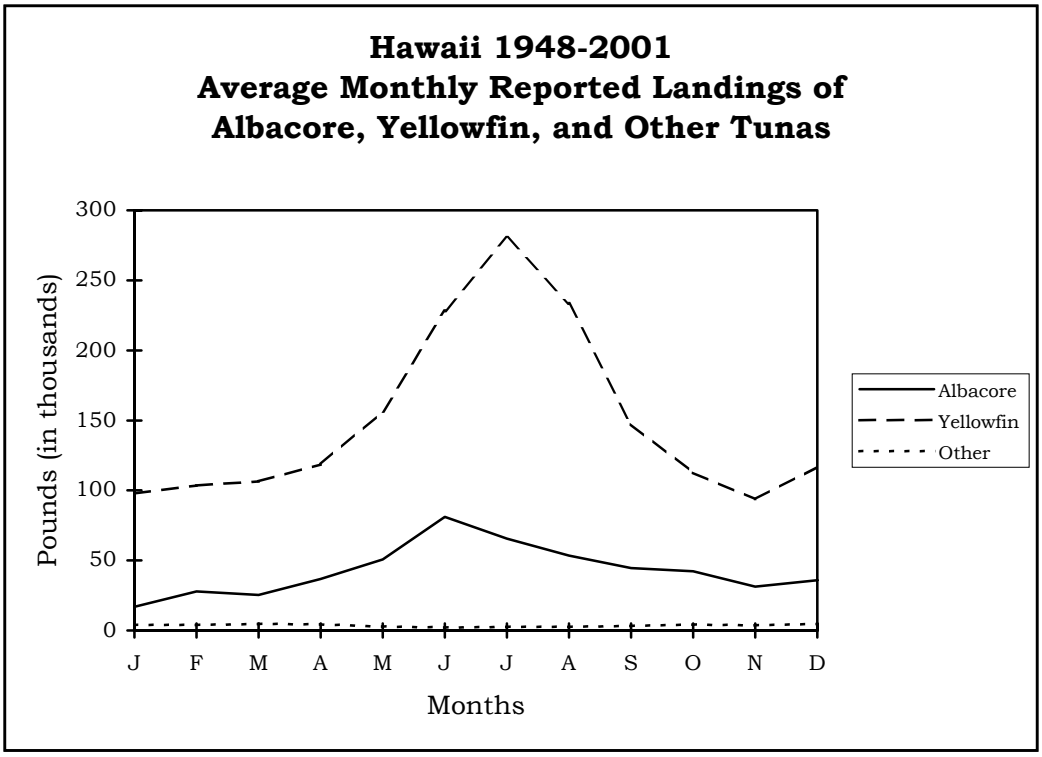

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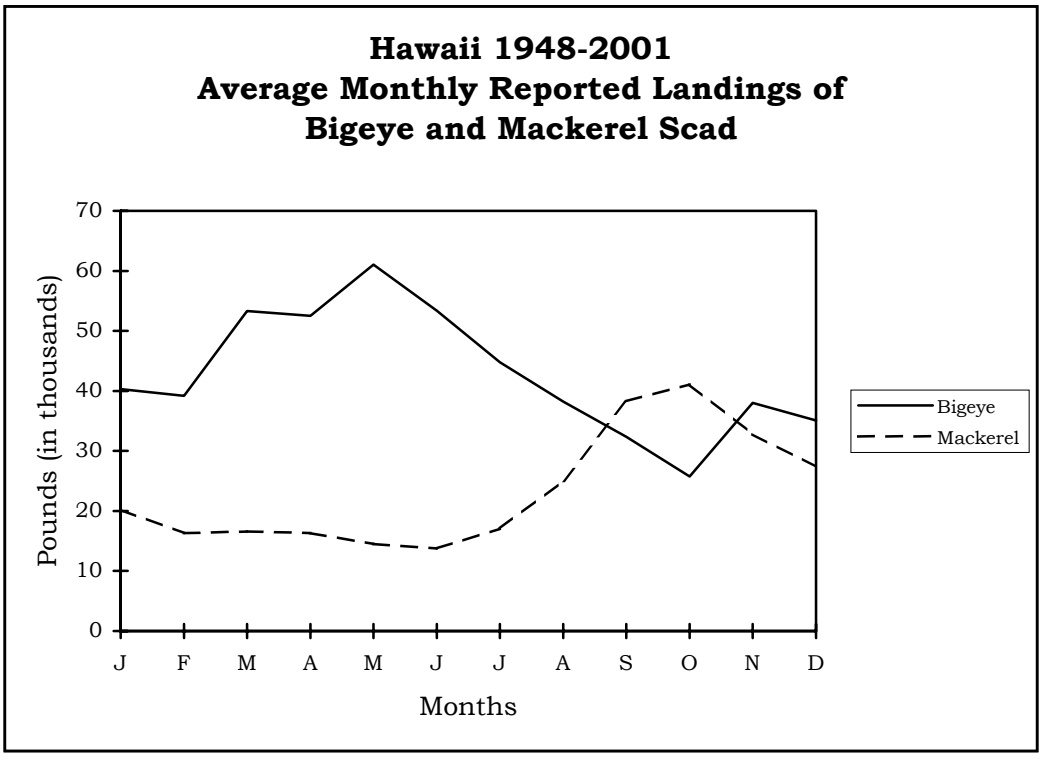

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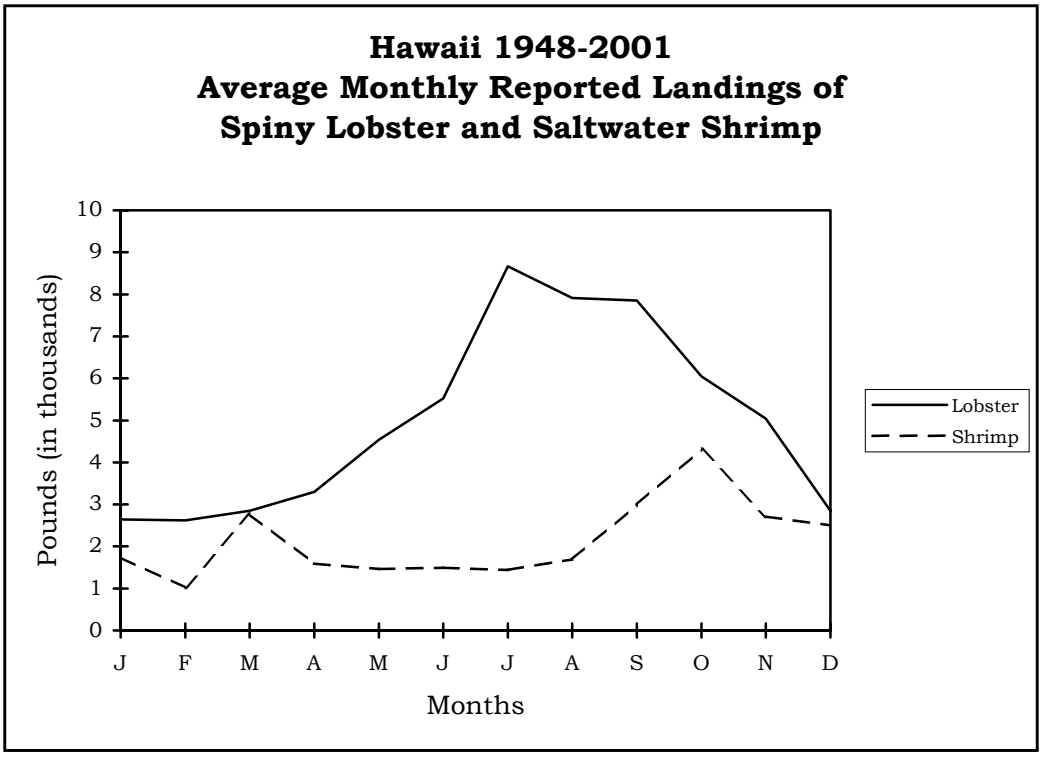

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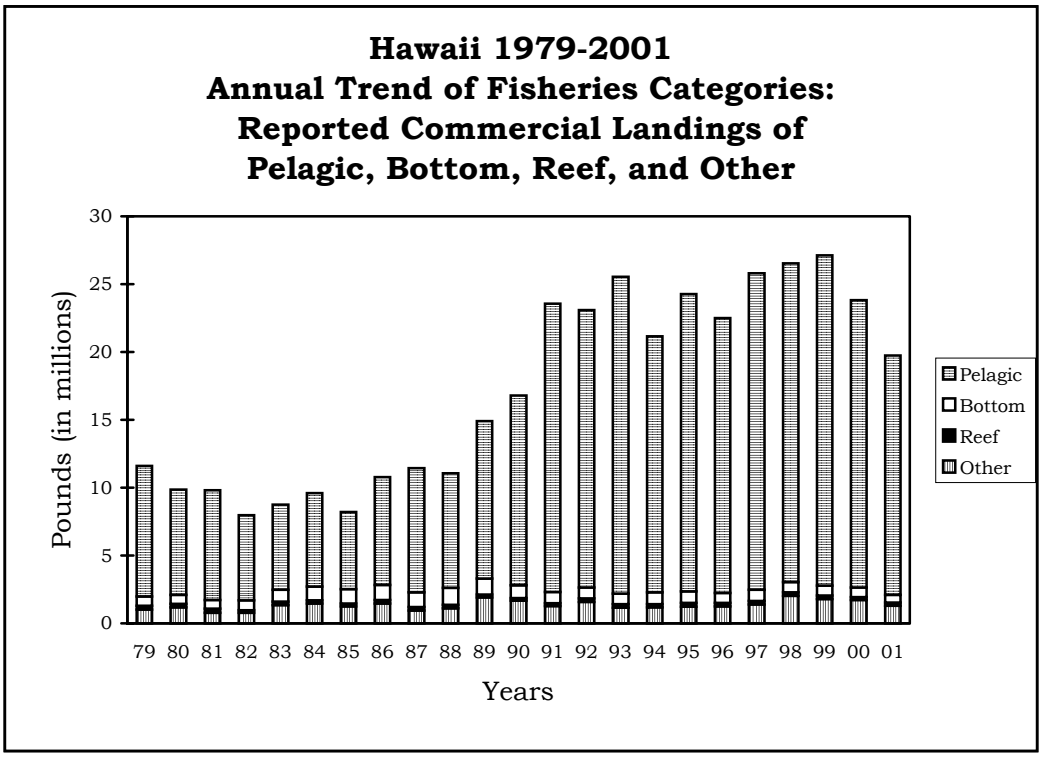

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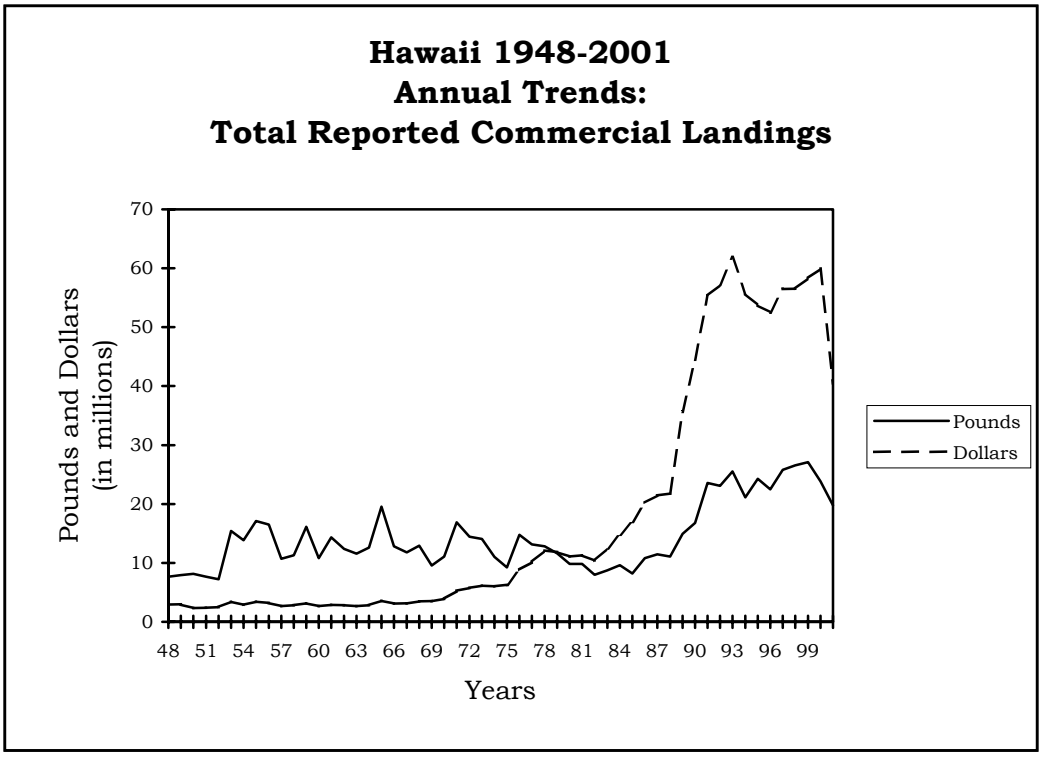

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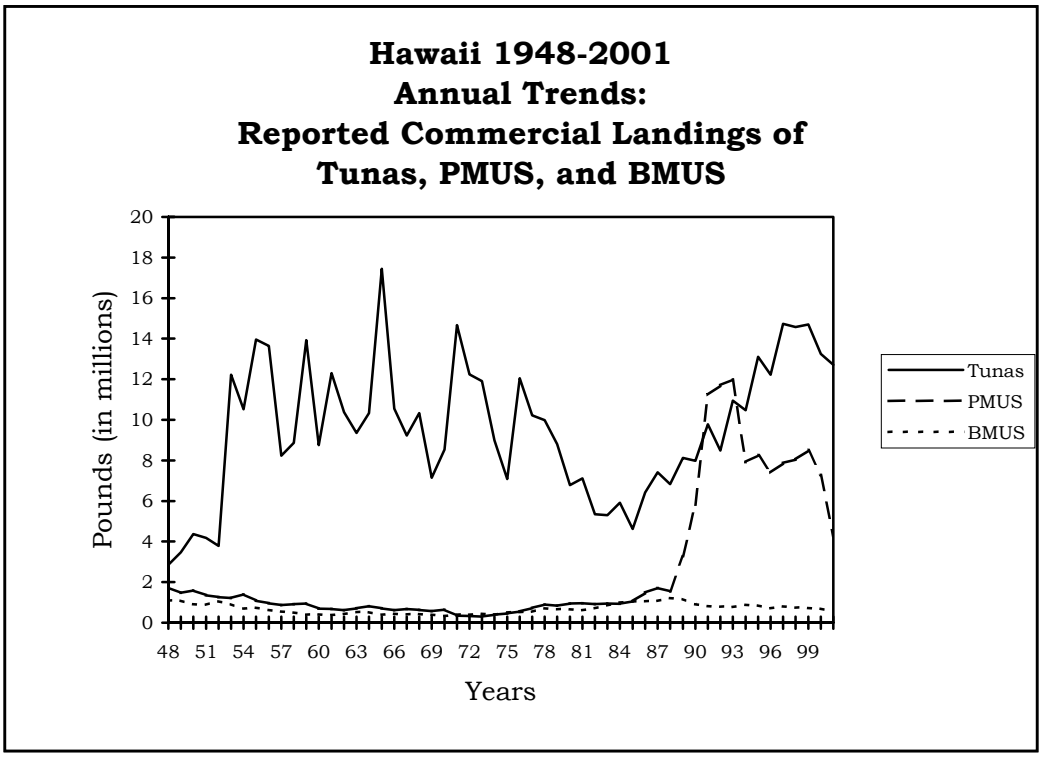

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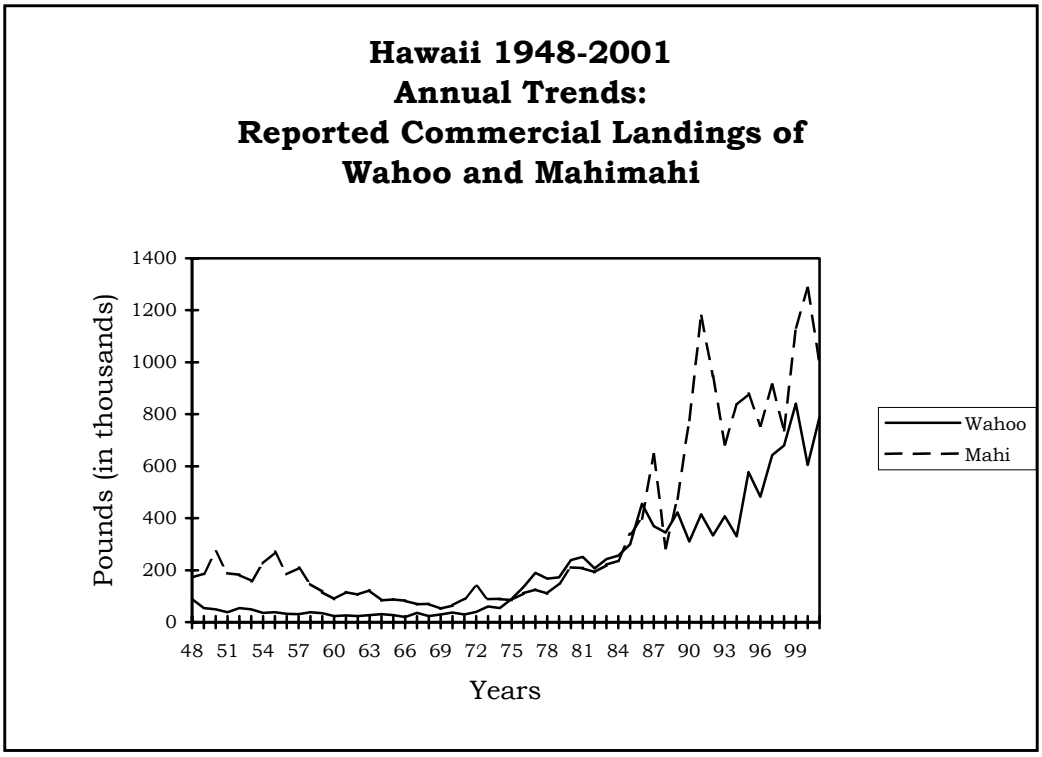

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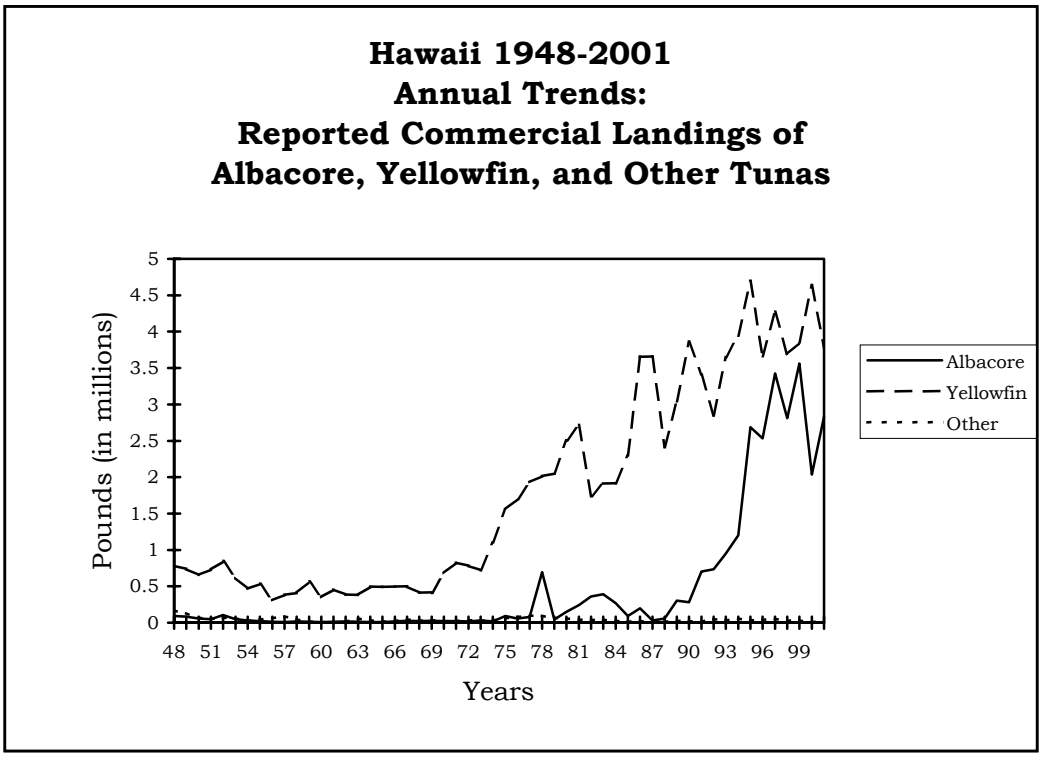

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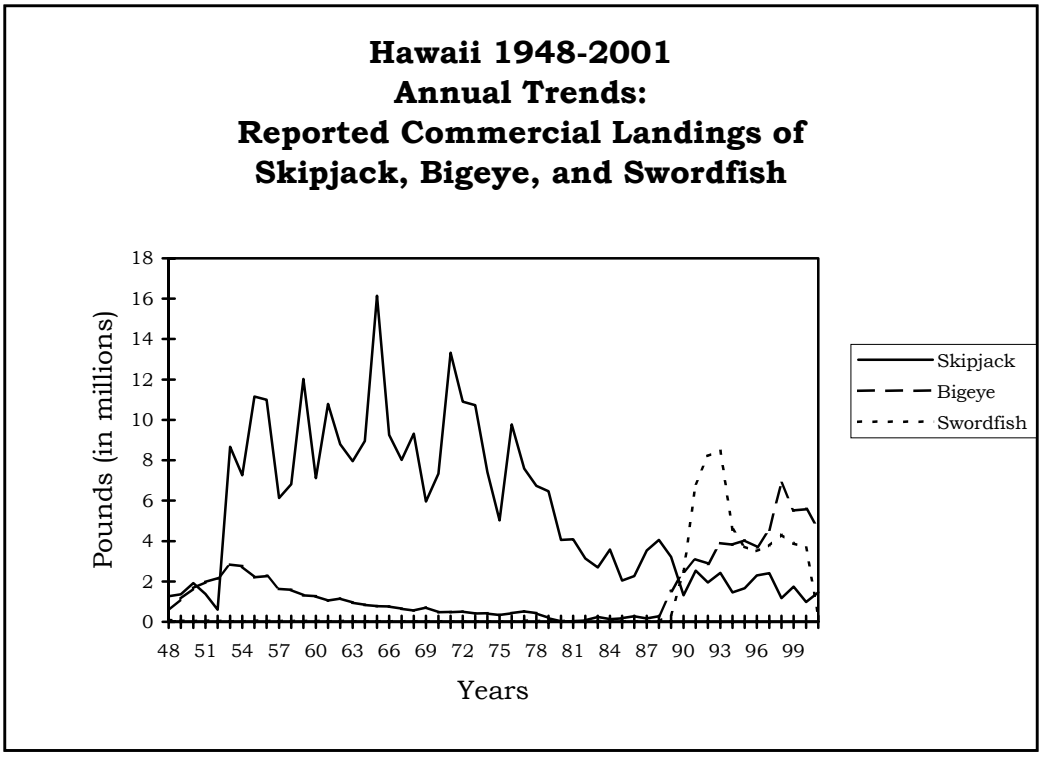

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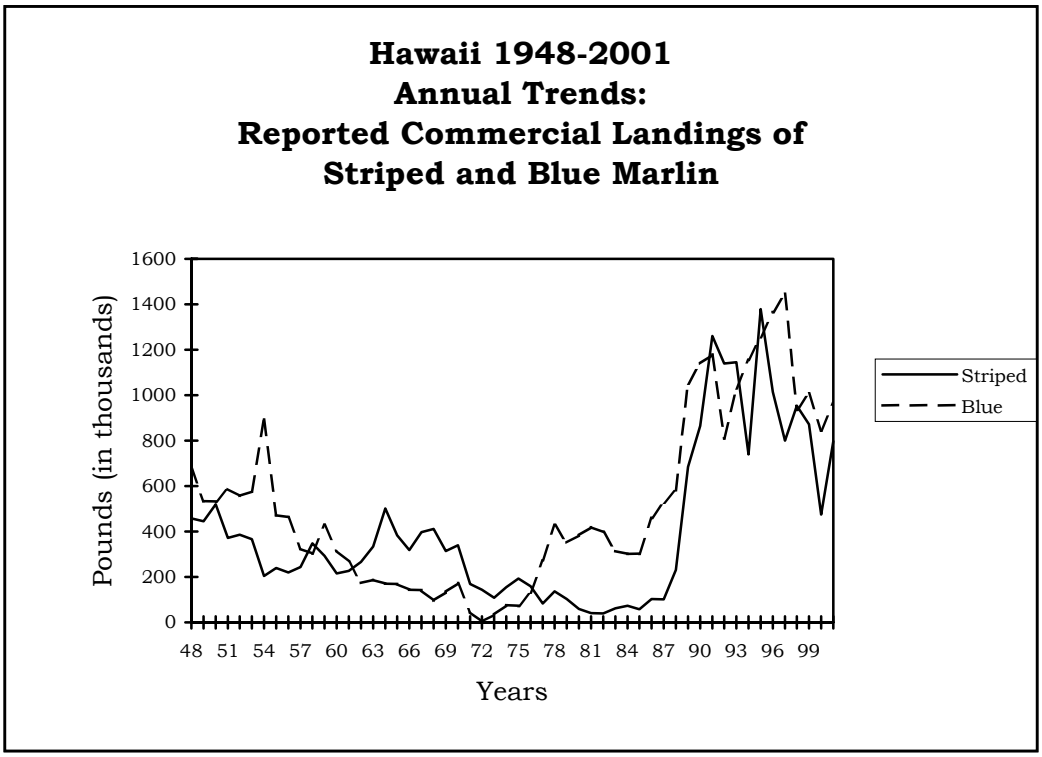

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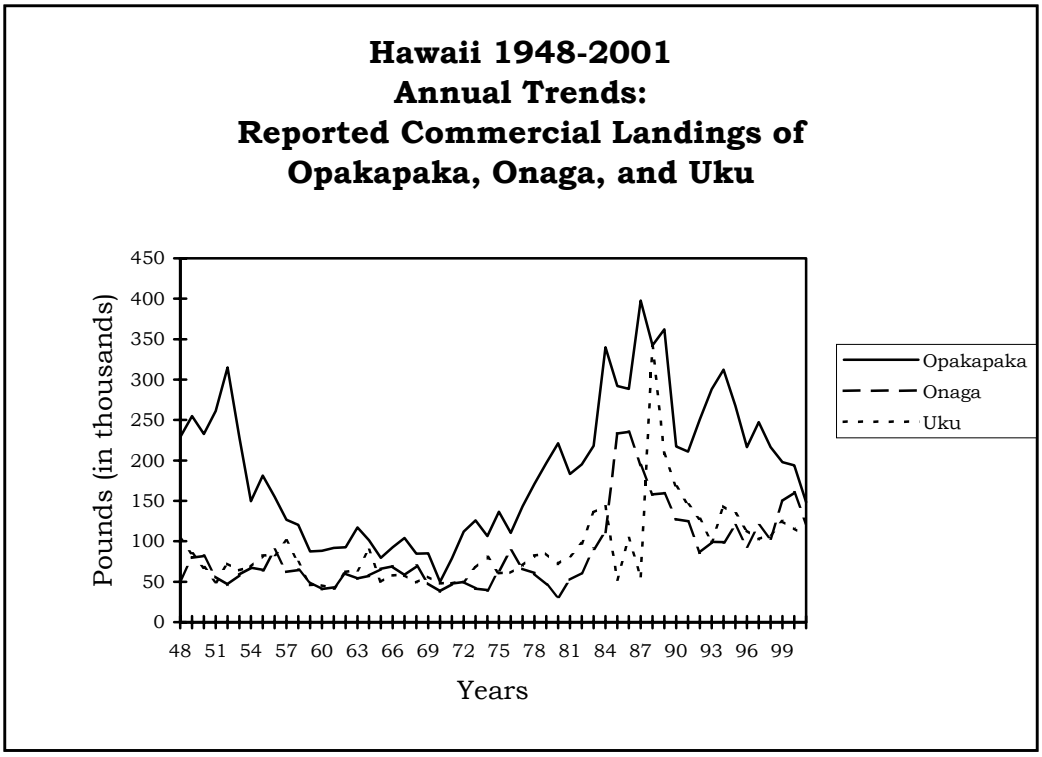

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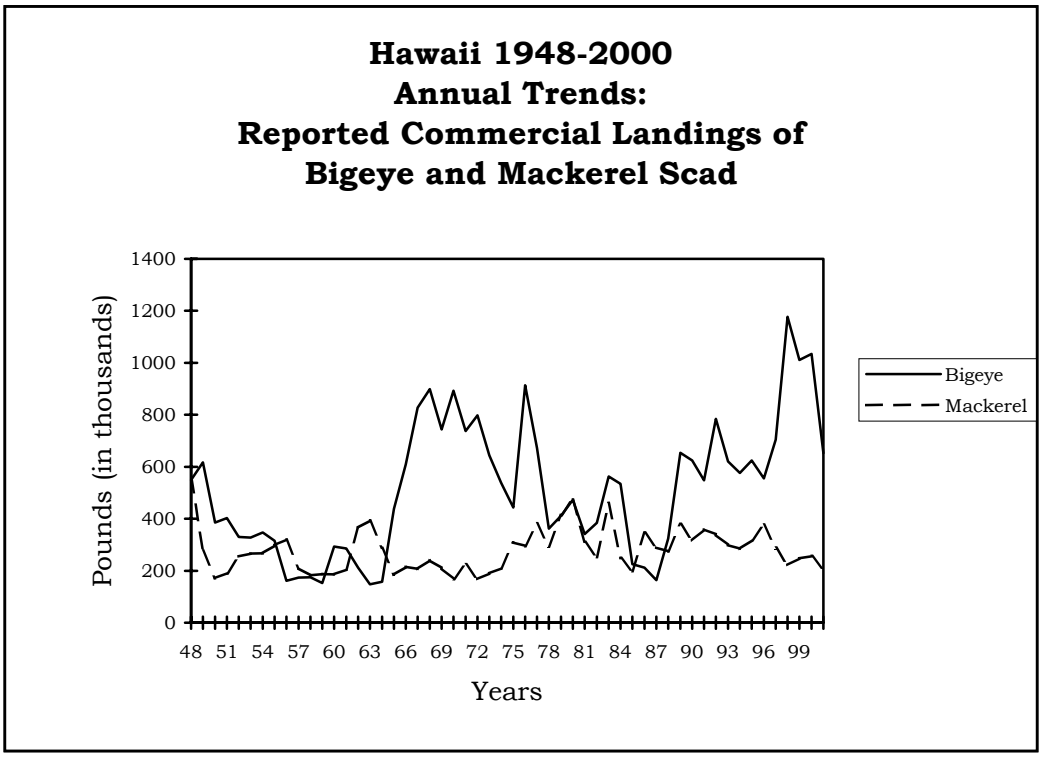


Figure V.3.10

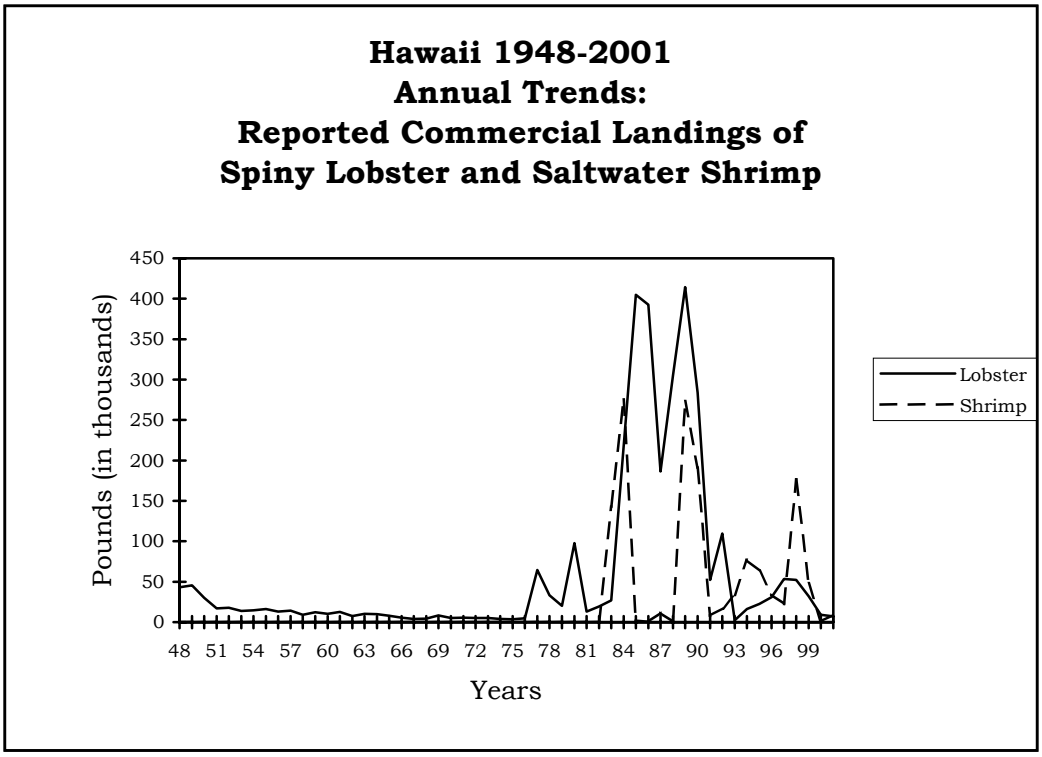


Figure V.4.1

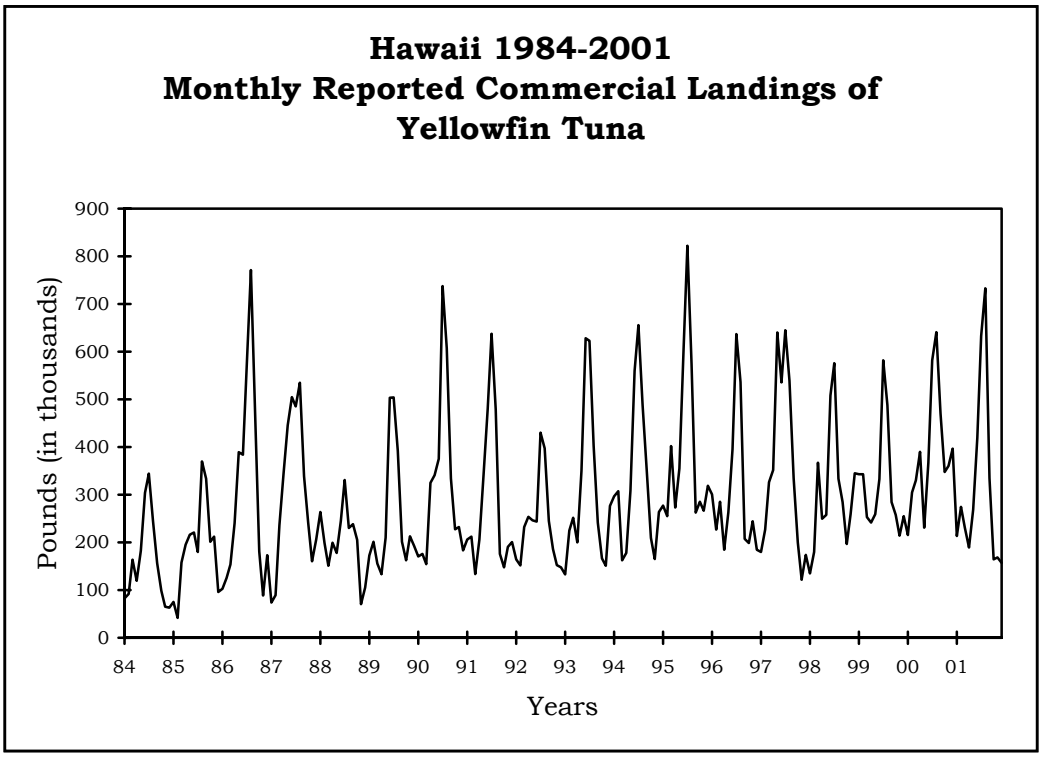
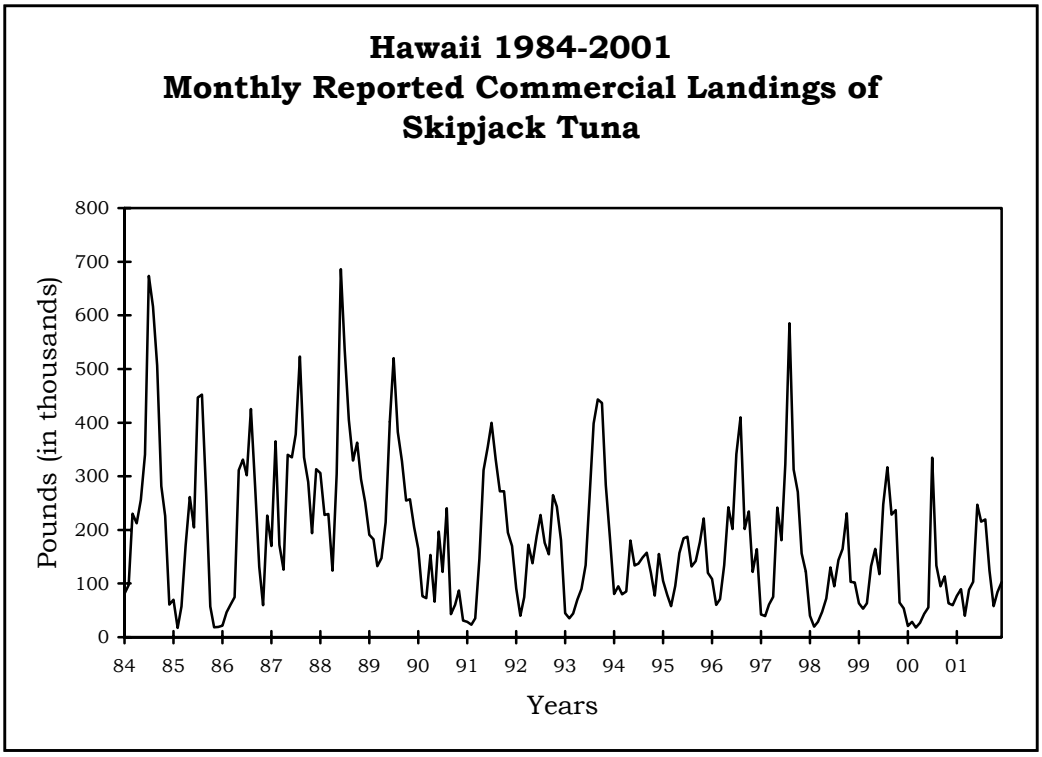


Figure V.4.2



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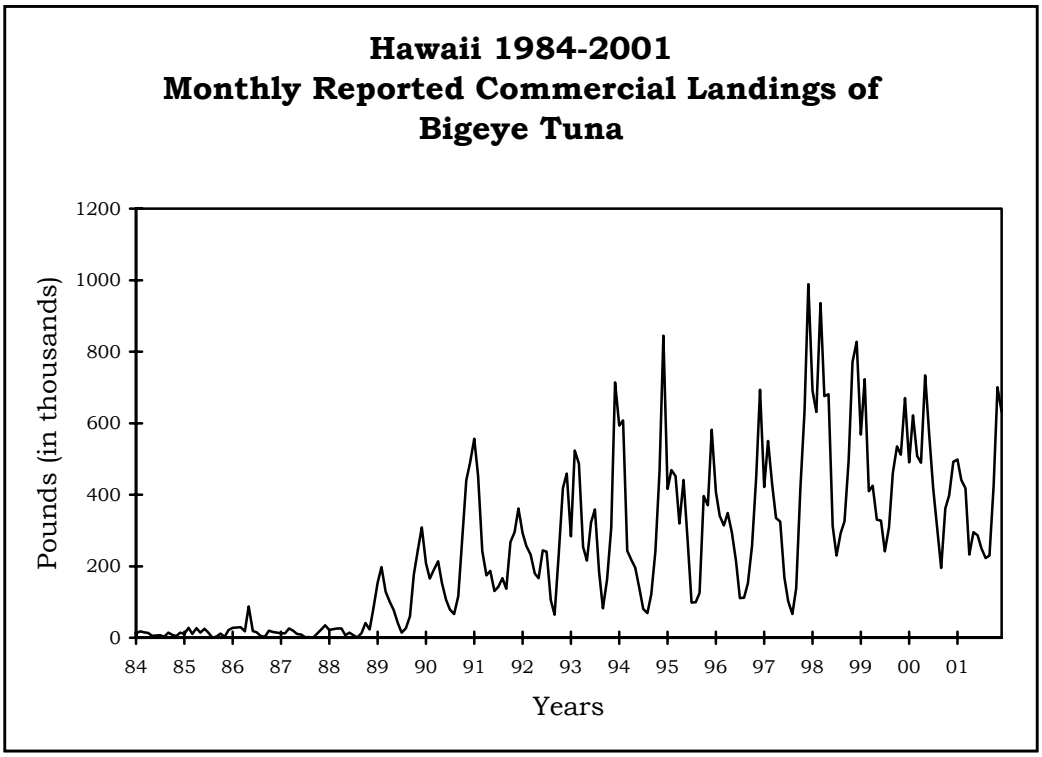

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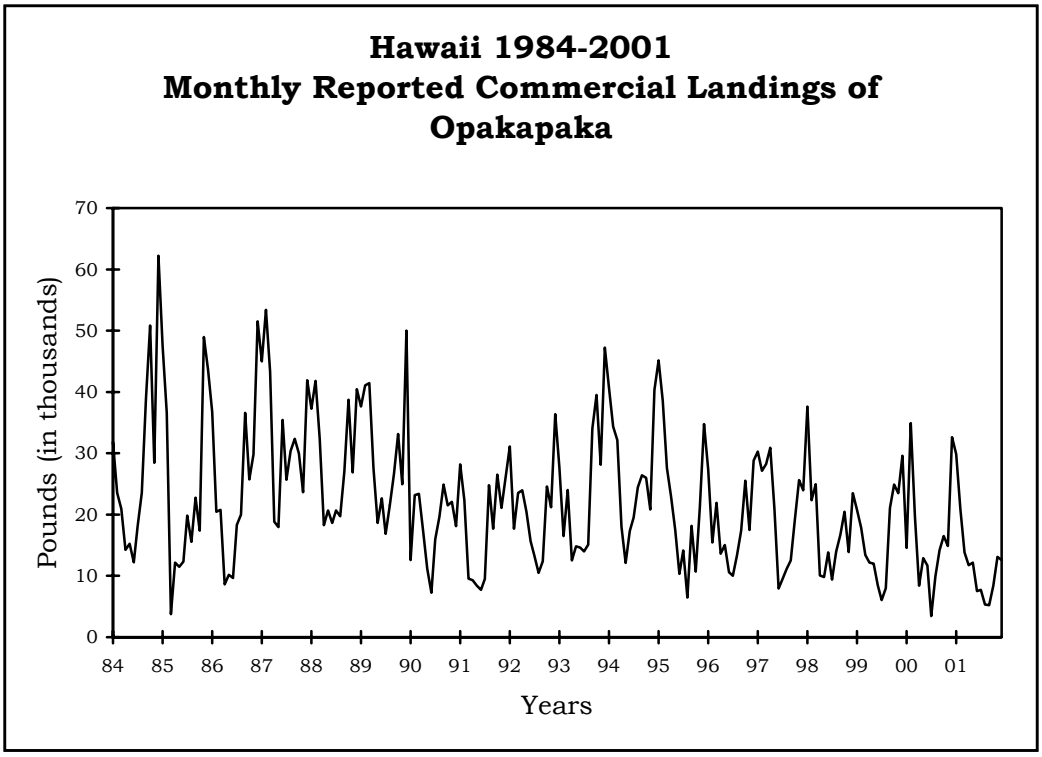

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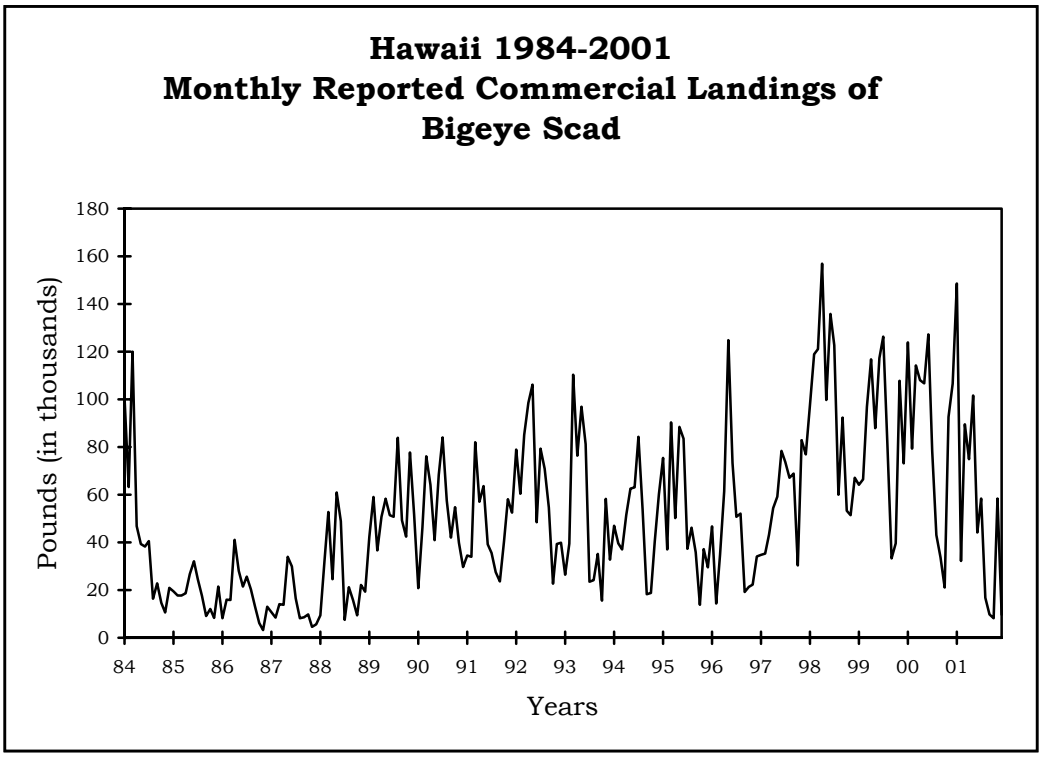

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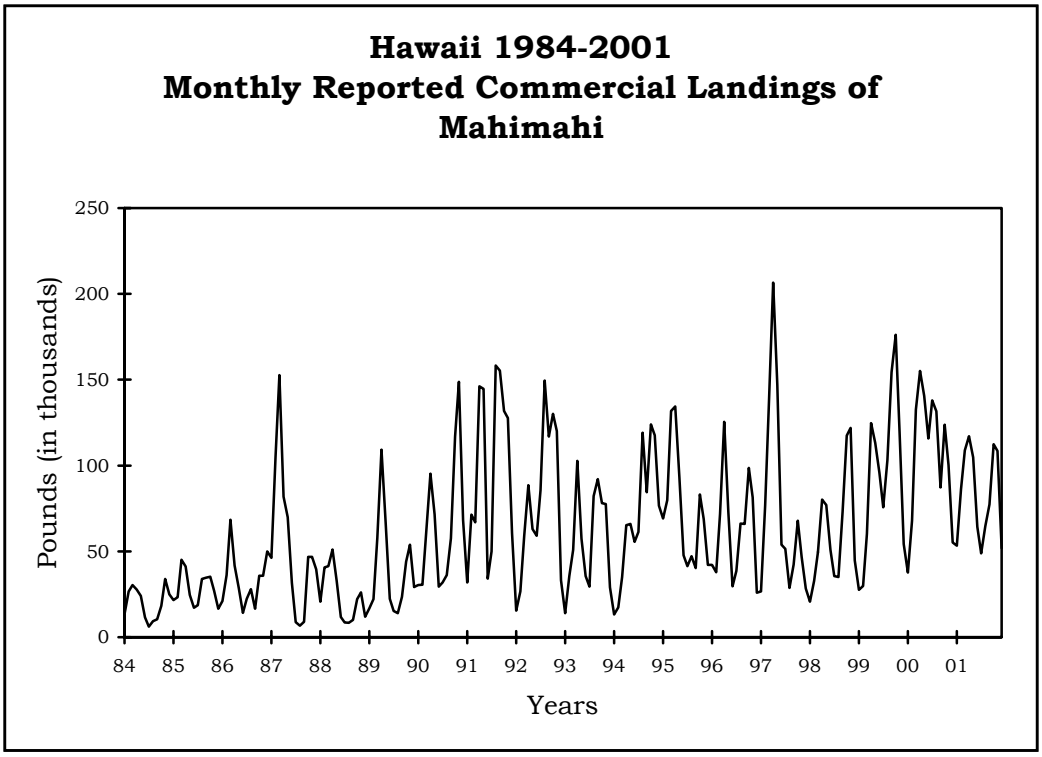

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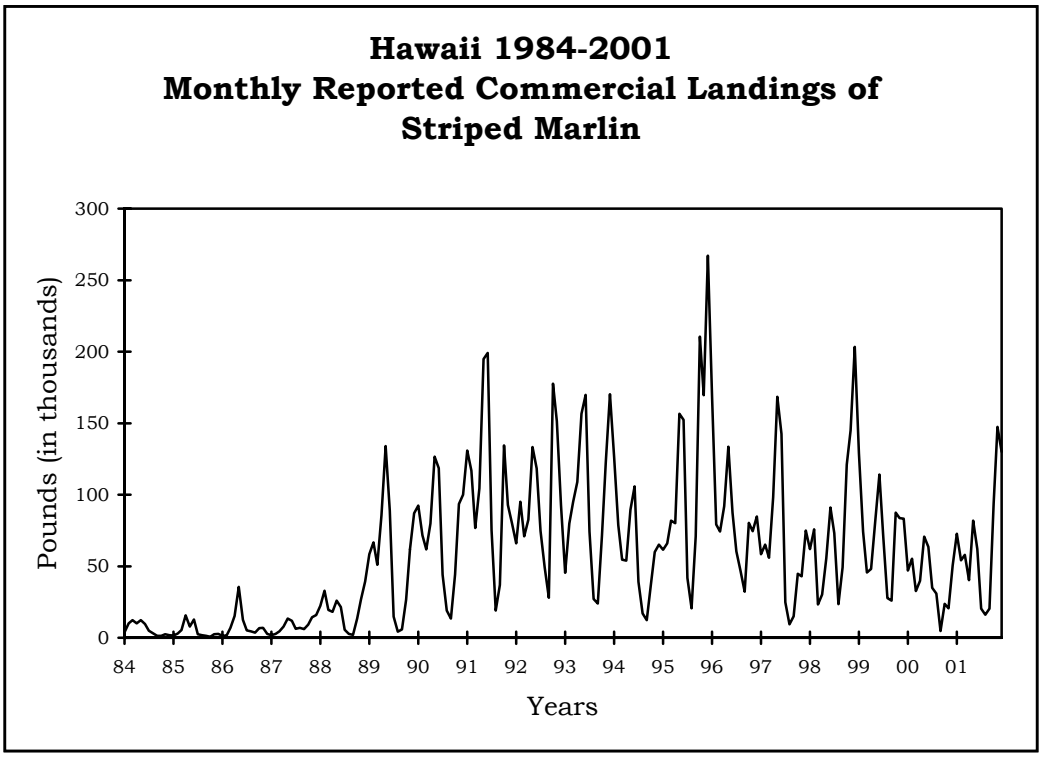


Figure V.4.8

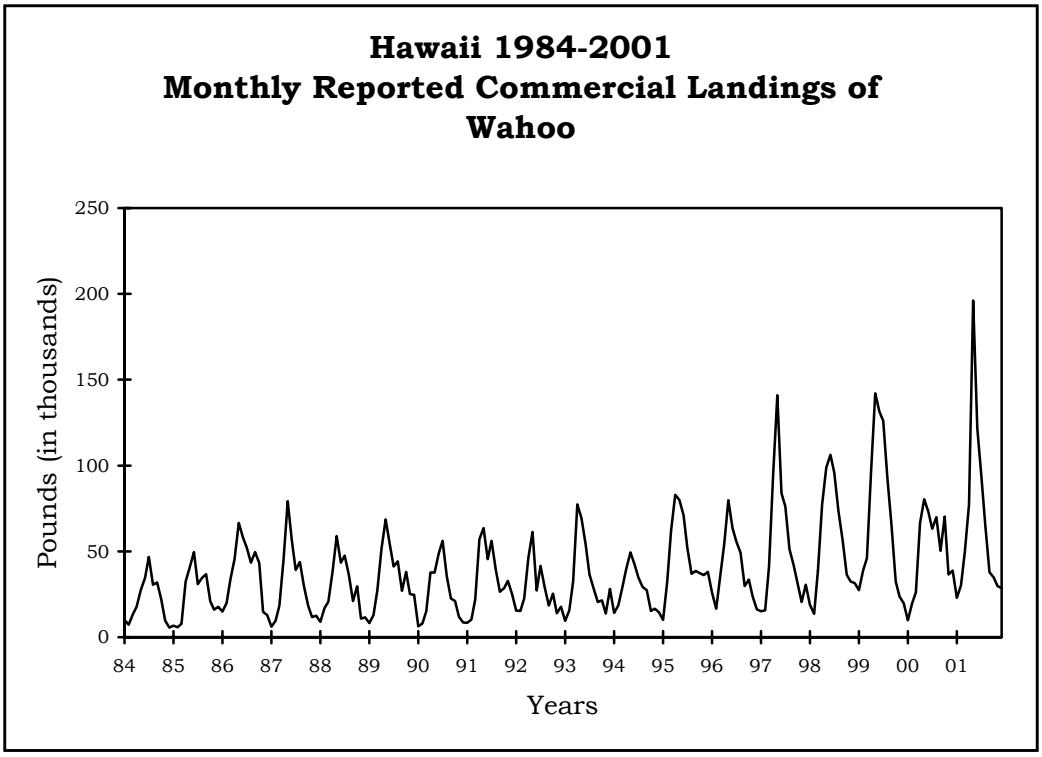


Figure V.4.9

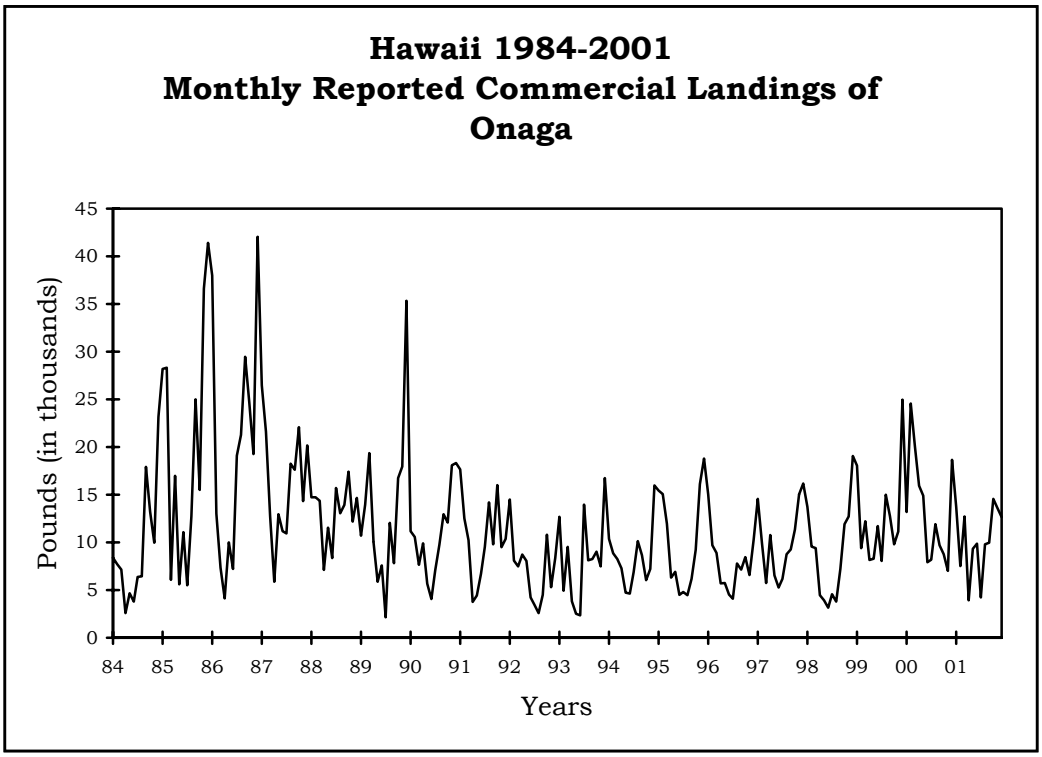


Figure V.4.10

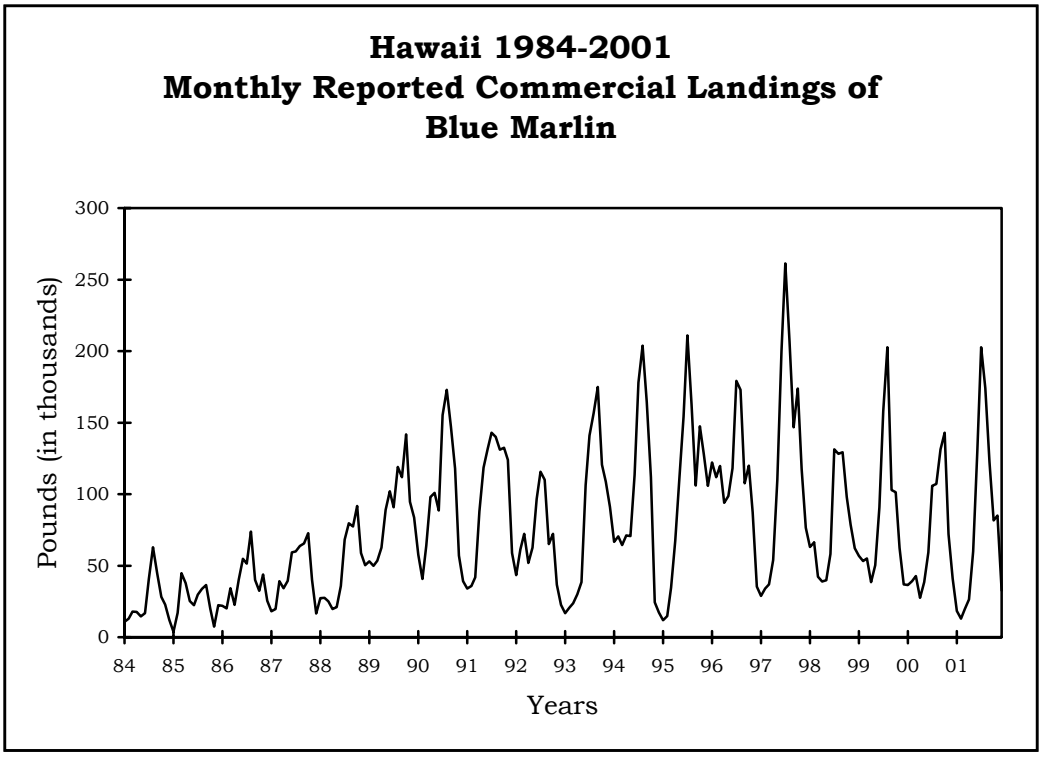


Figure V.4.11

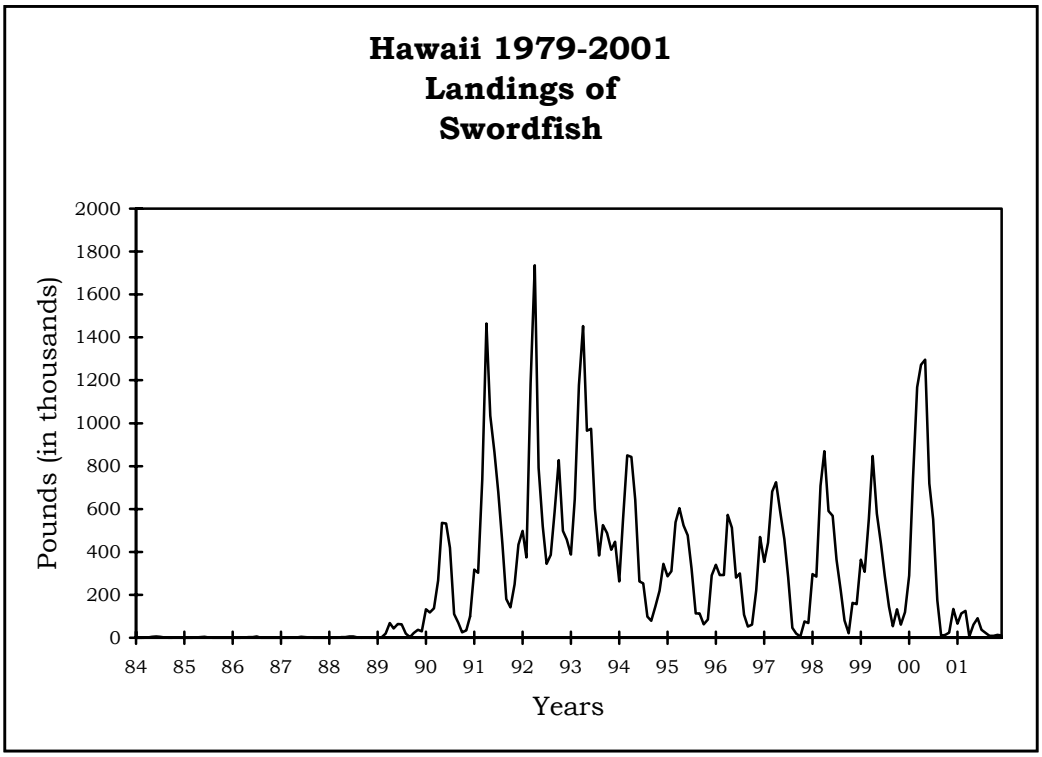


Figure V.4.12

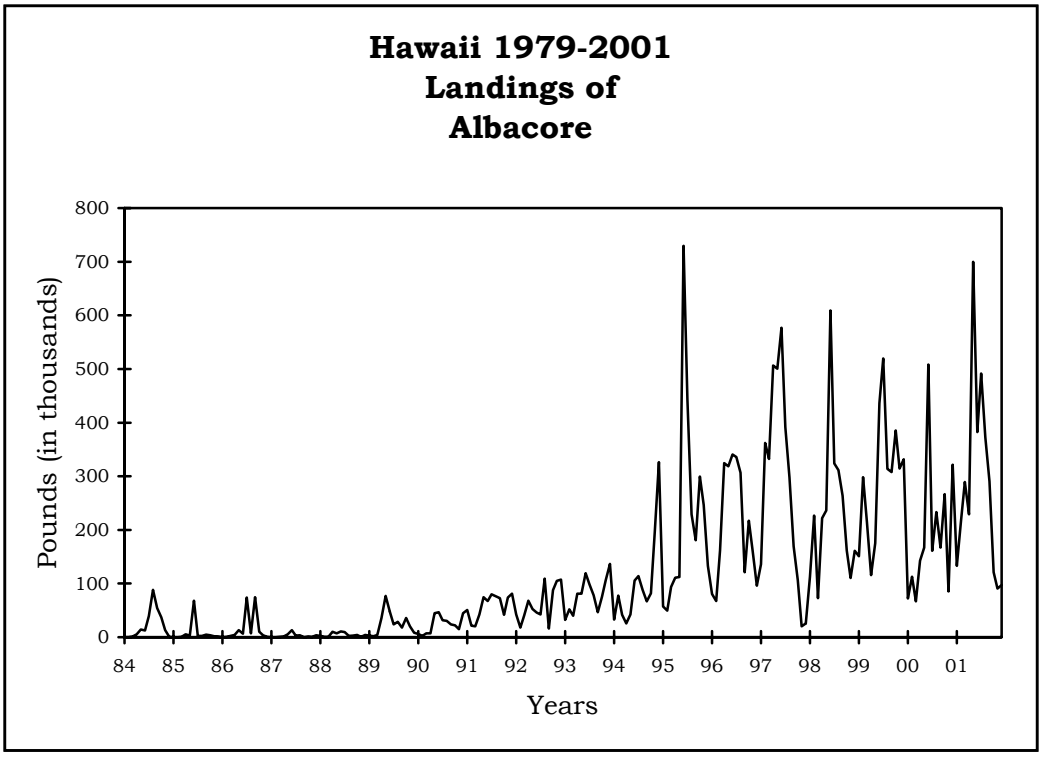


Figure V.4.13

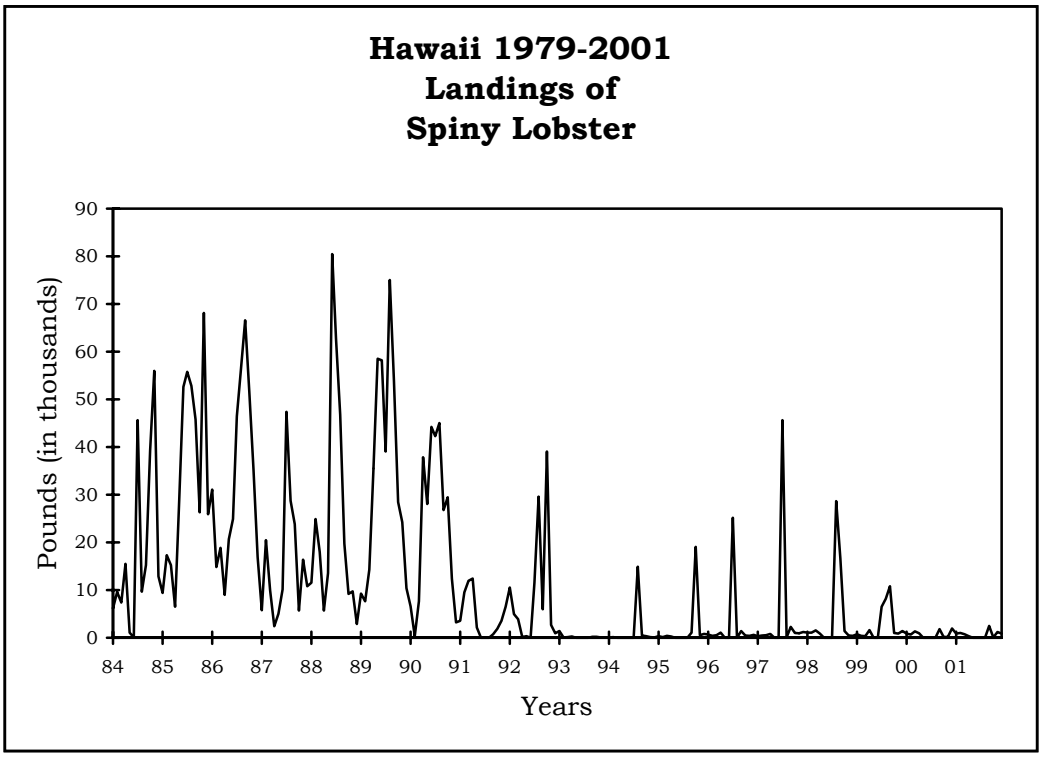
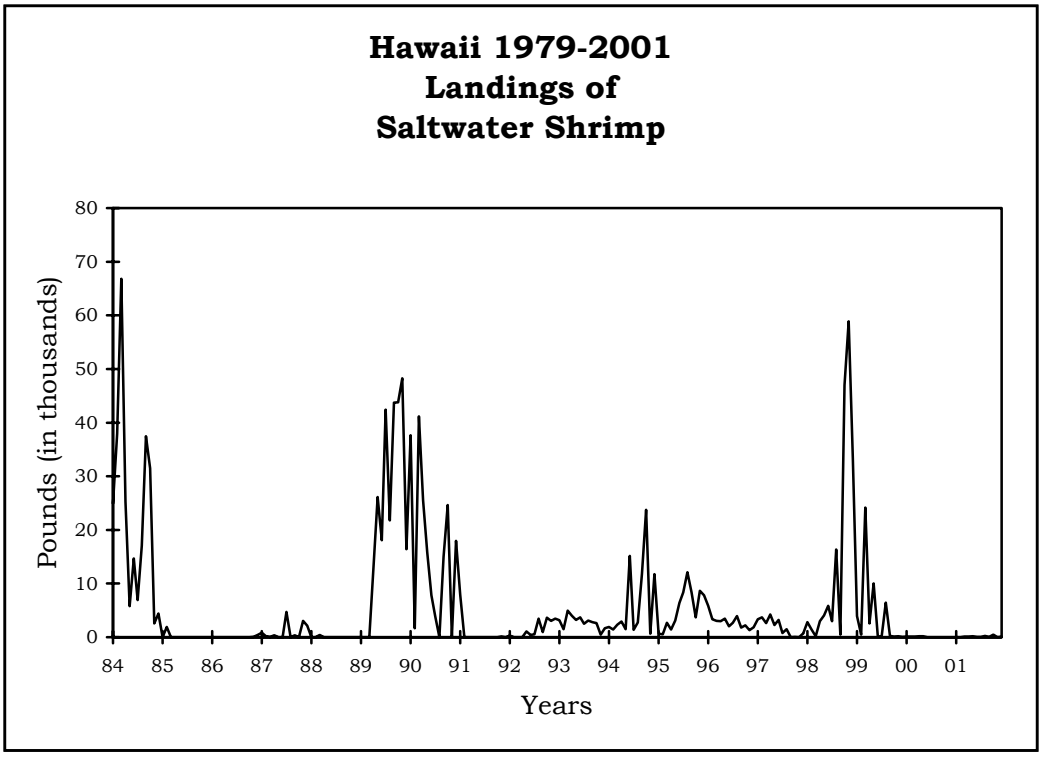


Figure V.4.14


Hawaii 1979-2001
Landings of
Saltwater Shrimp
Pounds (in thousands)
80
70
60
50
40
30
20
10
0
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
00
01
Years