

# CNMI Commercial Bottomfish Fishery



Fisheries Research Section  
CNMI Division of Fish and Wildlife



# CNMI Commercial Fisheries

- Trolling is the most common fishing method, but bottomfishing and reef fishing are also popular
- While the vast majority of the domestic catch is consumed locally, there have been some intermittent exports to Guam, Hawaii, and Japan.



# CNMI Commercial Bottomfish Fishery



- Small, 12- to 24-foot outboard-powered, runabout-type vessels.
- Several larger boats sometimes fishing for bottomfishes around the islands north of Saipan
- Various gear used from hydraulics, electric reels, homemade reels and hand lines.
- Commercial participation short lived (1-4 yrs normally)
- Small charter fleet also exists.

# CNMI Commercial Bottomfish Fishery

- Deep-water (>500ft)
  - Snappers (*Etelis* and *Pristipomoides*)
  
- Shallow-water (100-500ft)
  - Redgill Emperor *Lethrinus rubrioperculatus*



# Bottomfish Fishery Data Streams

- DFW Northern Islands Bottomfish Data
- DFW-WPFin Commercial Purchase Receipt System



# Northern Islands Bottomfishing Data

- Sampling of large vessels returning from northern islands
- 1995-2002
- Include species identifications, individual fork lengths, and sometimes weights




# Commercial Purchase Receipt System



- The Division of Fish and Wildlife (DFW) has been collecting fishery statistics about the commercial fishing fleet of Saipan since the mid-1970s. More reliable after 1983.
- They are assisted by the NMFS WPacFIN program

# Commercial Purchase Receipt System

- Samples commercial vendors
- Vendor records each purchase of fish from each fisherman
- Voluntary participation
- DFW works to minimize any ill effects of this type of data system, but some under reporting, group identification and misidentification are likely still occur.



**DIVISION OF FISH & WILDLIFE**  
 Department of Lands and Natural Resources  
 CNMI-Government  
 664-6000

**COMMERCIAL SALES DATA** **92201**

BUYER: \_\_\_\_\_ DATE: \_\_\_\_\_

SELLER: \_\_\_\_\_

SPECIES NAME	CODE	No. of Piece(s)	Price per Pound	Total Weight (Lbs.)	Total Value
<b>A. Assorted Pelagic Fish</b>					
1 Skipjack Tuna/Katsuo	452				
2 Yellowfin Tuna/Manguro	456				
3 Kawakawa/Saba	450				
4 White Tuna/Dogtooth	454				
5 Mahi-Mahi/Dolphin	404				
6 Wahoo/Saowara	412				
7 Rainbow Runner/Buri	410				
8 Sailfish	408				
9 Marlin	406				
10 Barracuda/Alu	402				
11 Other					
<b>B. Assorted Reef Fish</b>					
1 Goat fish/Satmoneti	322				
2 Squirrelfish/Sagamelon	312				
3 Mullet/Laiguan/Acguas	106				
4 Rudderfish/Guili	309				
5 Rabbitfish/Hiting	304				
6 Parrot/Palagsi/Laggua	314				
7 Unicorn/Tataga	320				
8 Surgeon/Hiyok/Hugupao	318				
9 Surgeon/Hagnon	319				
10 Wrasse/Gaddas	302				
11 Other					
<b>C. Assorted Bottom Fish</b>					
1 Gindai	204				
2 Grouper/Gadao	206				
3 Onaga	210				
4 Opakapaka	212				
5 Big-eyed Scad/Atulai	102				
6 Emperor Fish/Mafuti	310				
7 Jacks/Tarakito	104				
8 Silver-Mouth/Lehi	214				
9 Jobfish/Highway	316				
10 Other					
<b>D. Invertebrate</b>					
1 Lobster/Mahongan	504				
2 Octopus/Gamsom	506				
3 Squid	508				



# Commercial Purchase Receipt System

- The current system collects data from dealers in Saipan (Estimated 90% of all CNMI commercial landings).
- The data have been adjusted to represent 100% coverage

# Data Collected

<ul style="list-style-type: none"><li>• Date</li></ul>	<ul style="list-style-type: none"><li>• Weight (pounds)</li></ul>
<ul style="list-style-type: none"><li>• Buyer's Name (dealer)</li></ul>	<ul style="list-style-type: none"><li>• Price per Pound</li></ul>
<ul style="list-style-type: none"><li>• Seller's Name (fisherman)</li></ul>	<ul style="list-style-type: none"><li>• Value</li></ul>
<ul style="list-style-type: none"><li>• Species or Group</li></ul>	<ul style="list-style-type: none"><li>• Invoice Number</li></ul>

# Species Categories

Many of the species included in this report have been recategorized over the years.

- BMUS

- Bottomfish

- Shallow-water Bottomfish

- Deep-water Bottomfish

- Assorted Bottomfish

# Bottomfish Management Unit Species (BMUS)

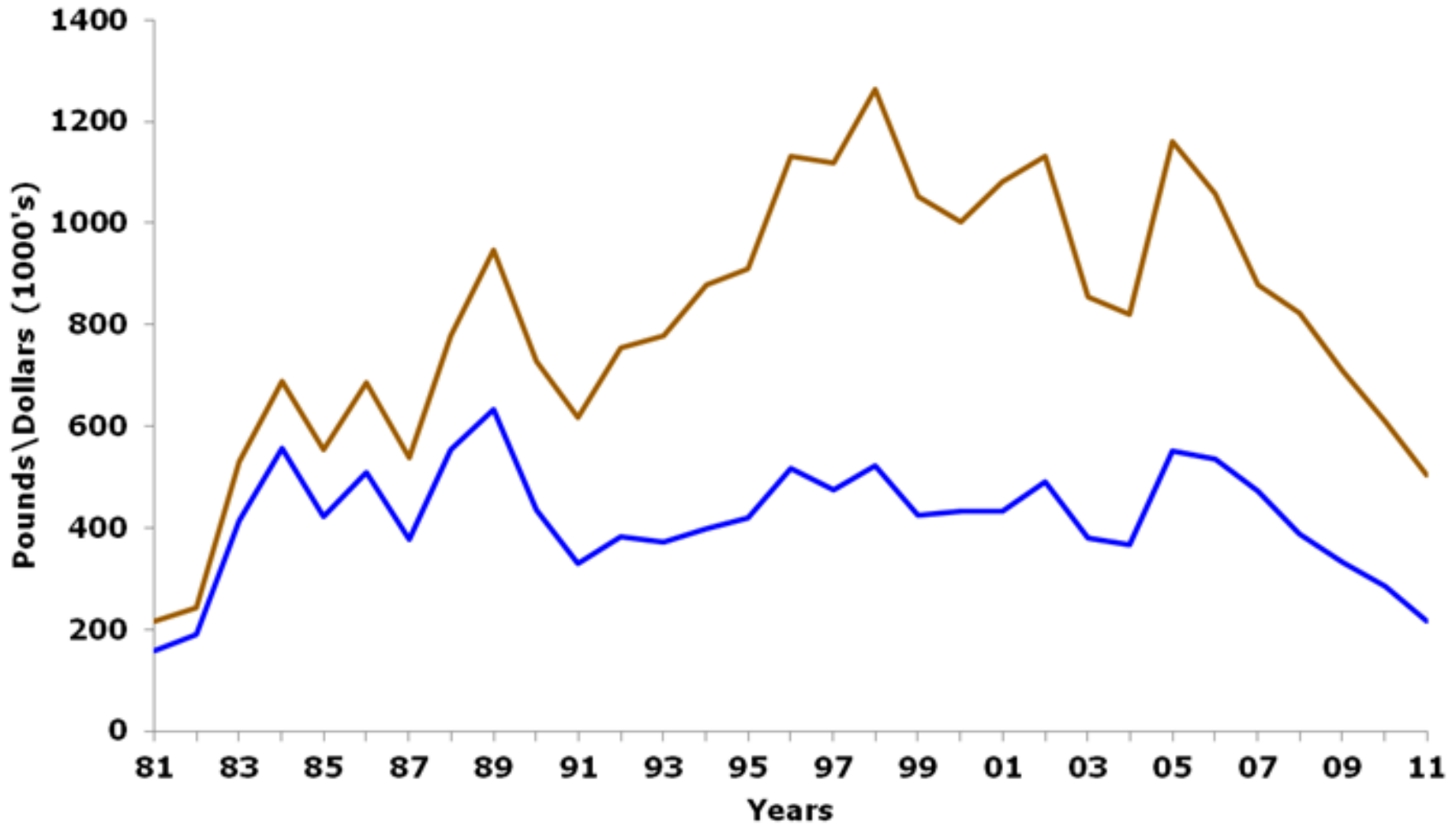
Alfonsin	Jobfish (uku)
Amberjack	Kalikali (yellowtail)
Black jack	Lyretail grouper
Blacktip grouper	Onaga (red snapper)
Blue-lined snapper	Opakapaka (pink snapper)
Ehu (red snapper)	Redgill emperor
Giant trevally	Silvermouth (deep lehi)
Gindai (flower snapper)	Yelloweye opakapaka

# Bottomfishes

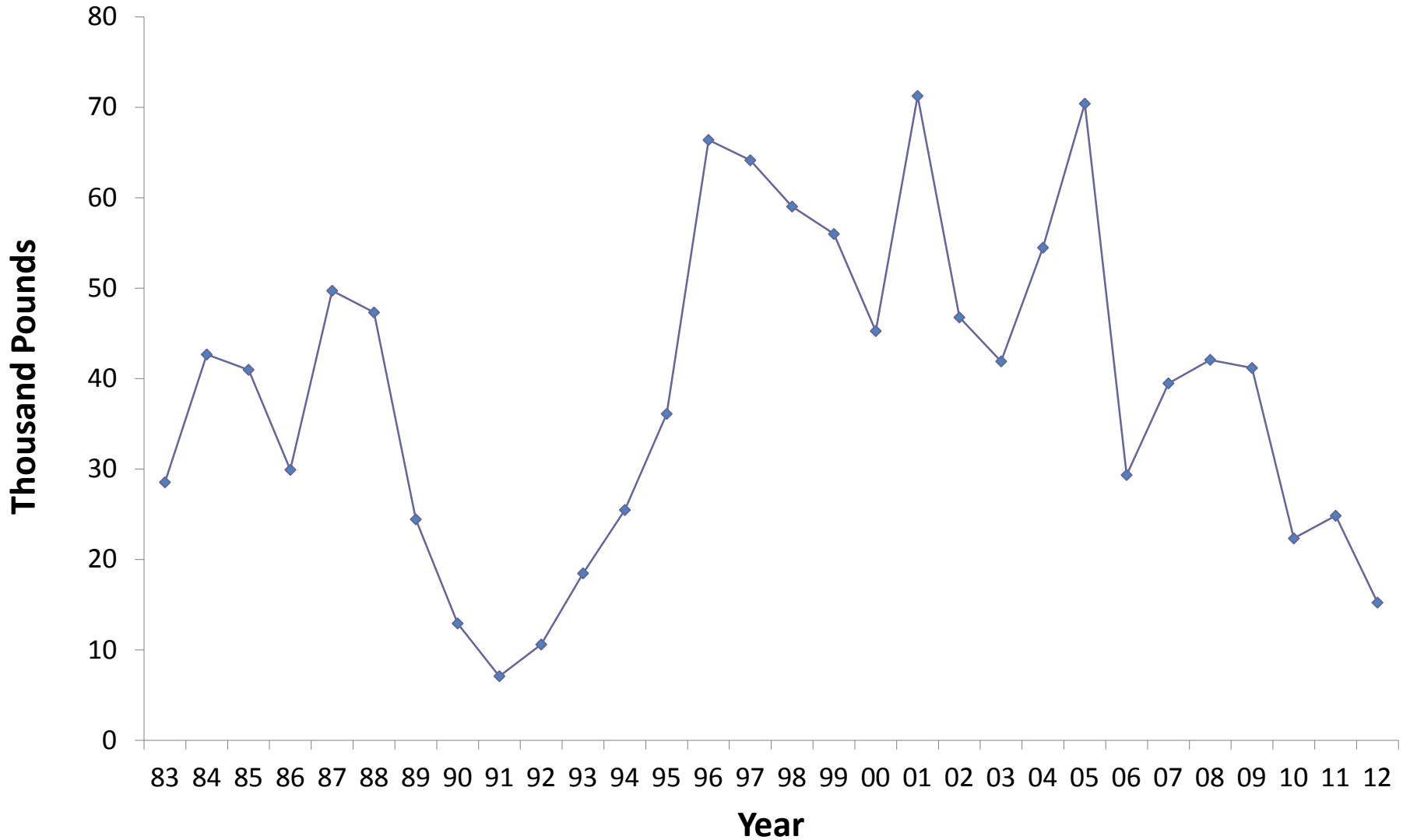
Alfonsin	Kalikali (yellowtail)
Amberjack	Longnose emperor
Bigeye emperor	Lyretail grouper
Bigeye trevally	Marbled grouper
Black jack	Onaga (red snapper)
Blackspot emperor	Onespot snapper
Blacktip grouper	Opakapaka (pink snapper)
Blue-lined gindai	Orange spotted trevally
Blue-lined snapper	Orangefin emperor
Bluefin trevally	Peacock grouper
Bottomfishes (unknown)	Pink grouper
Brassy trevally	Red snapper
Ehu (red snapper)	Redgill emperor
Eight banded grouper	Saddleback grouper
Emperors	Sickle pomfret
Flagtail grouper	Silvermouth (deep lehi)
Flametail emperor	Smalltooth jobfish
Giant coral trout	Stout emperor
Giant trevally	Tomato grouper
Gindai (flower snapper)	White-edged lyretail grouper
Groupers	Yellow banded grouper
Highfin grouper	Yellow spotted trevally
Honeycomb grouper	Yelloweye opakapaka

# 1981-2011 Annual Total Estimated Commercial Landings

— All Species (Pounds) — All Species (Dollars)

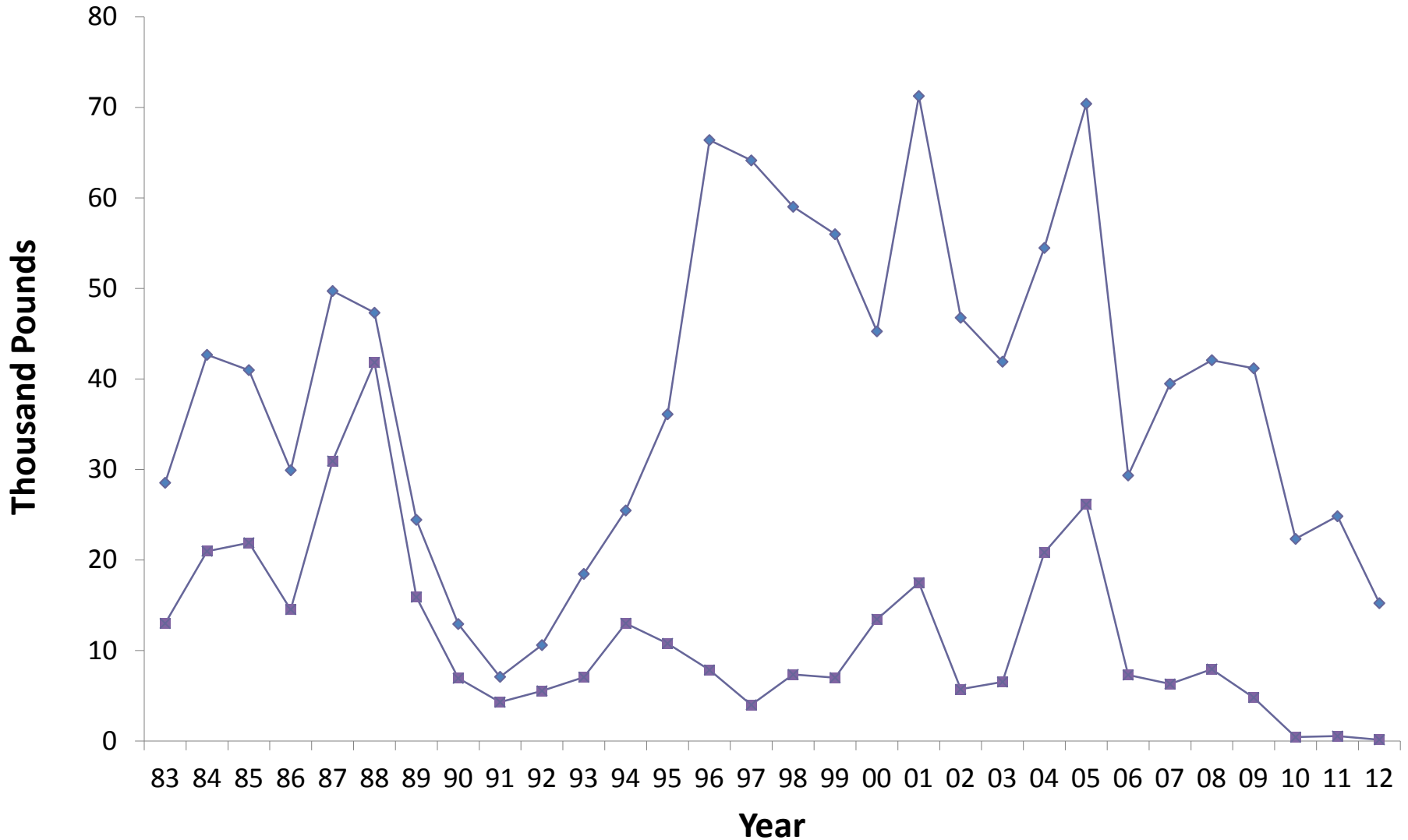


# Annual Estimated Commercial Bottomfish Landings



# Annual Estimated Commercial Bottomfish Landings

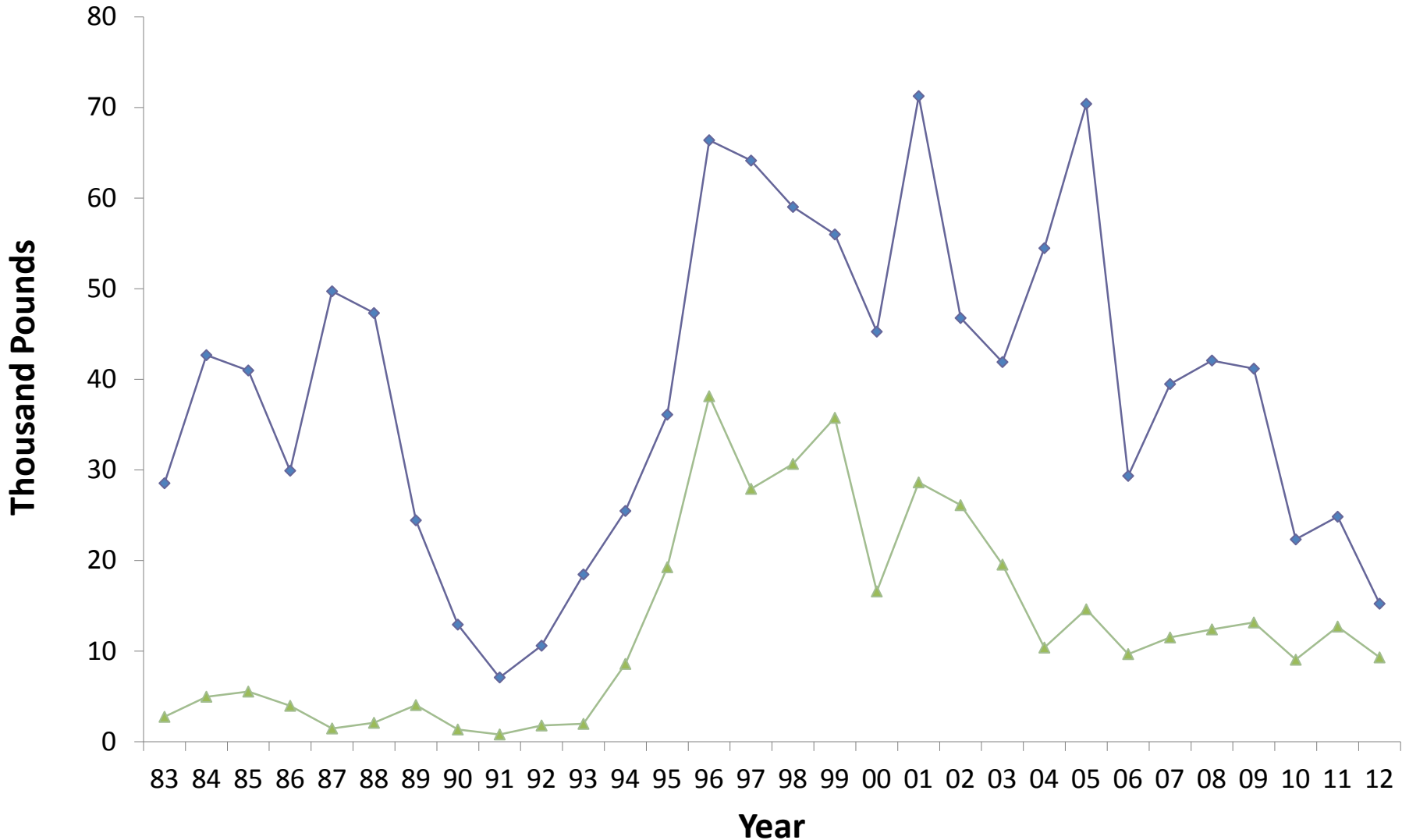
◆ Bottomfish Species Total      ■ Assorted



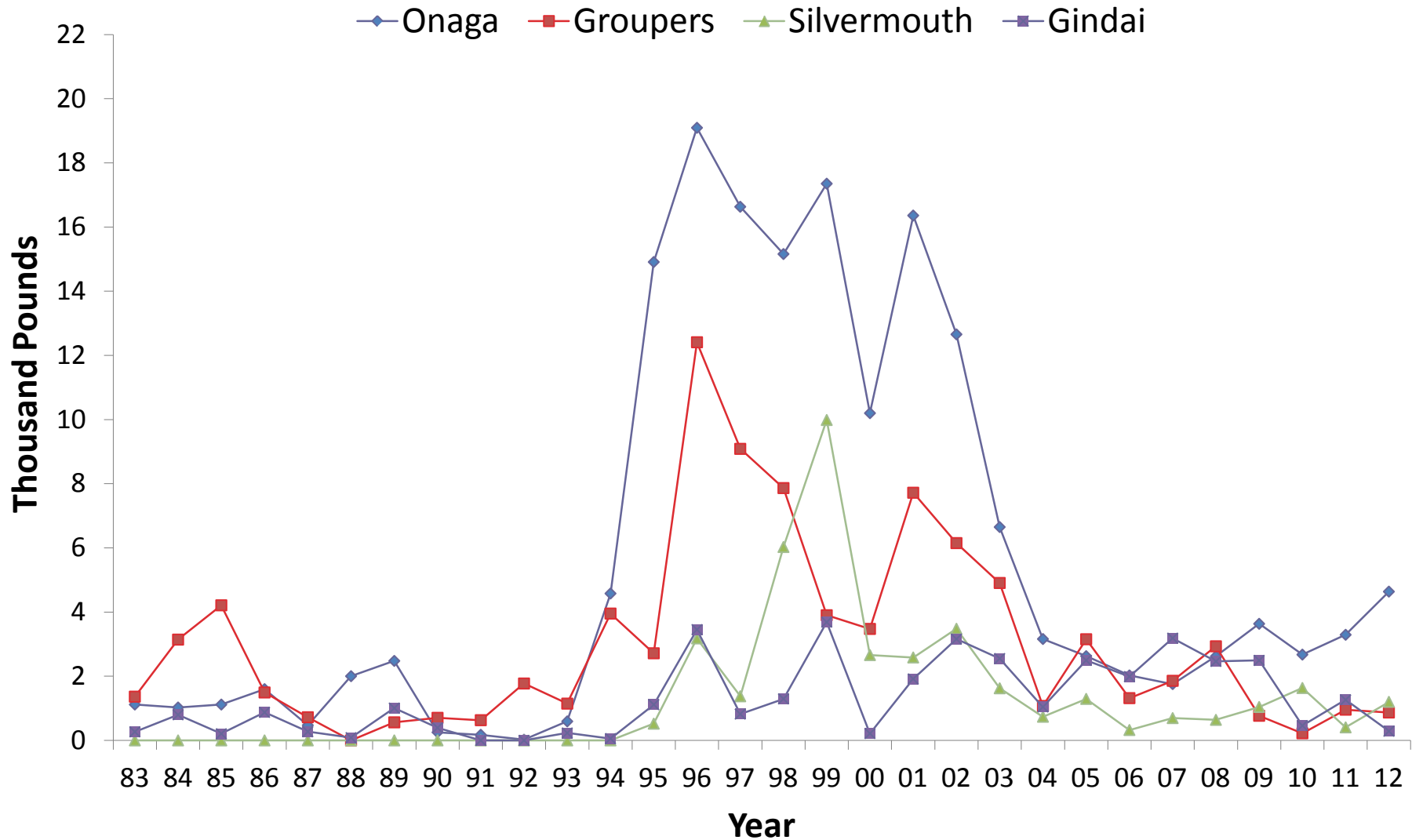


# Annual Estimated Commercial Bottomfish Landings

—◆— Bottomfish Species Total      —▲— Deep-Water

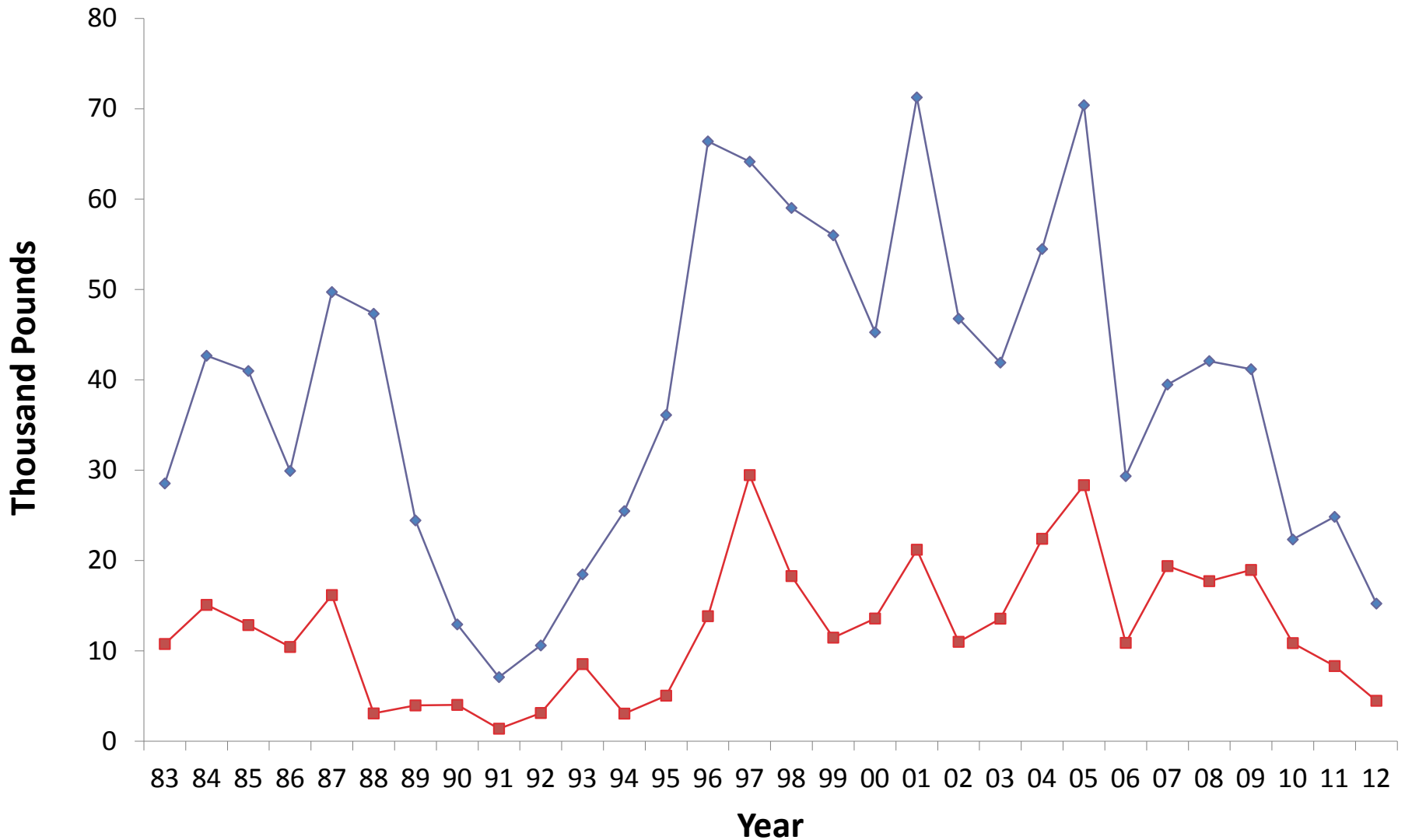


# Commercial bottomfish landings of deep-water species

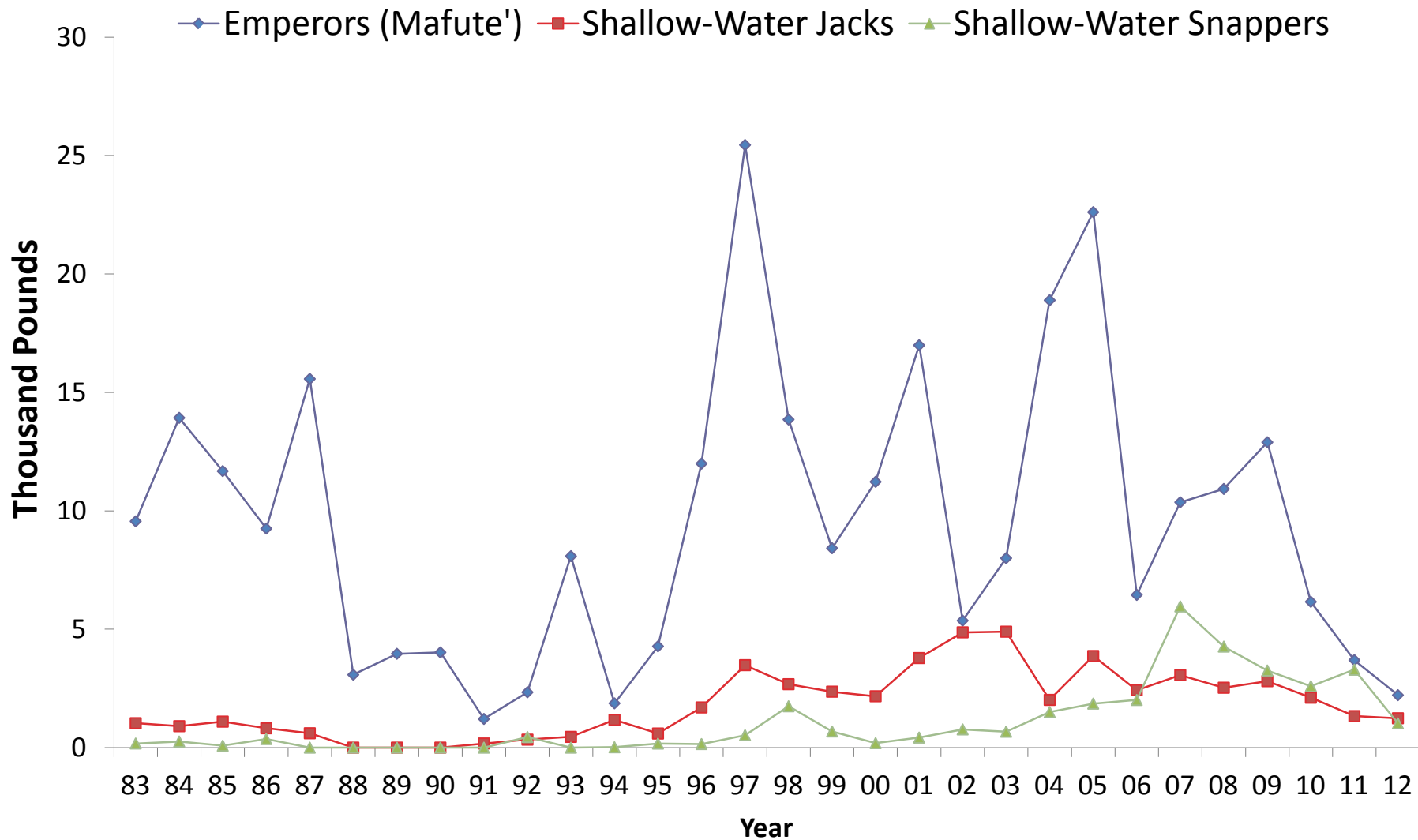


# Annual Estimated Commercial Bottomfish Landings

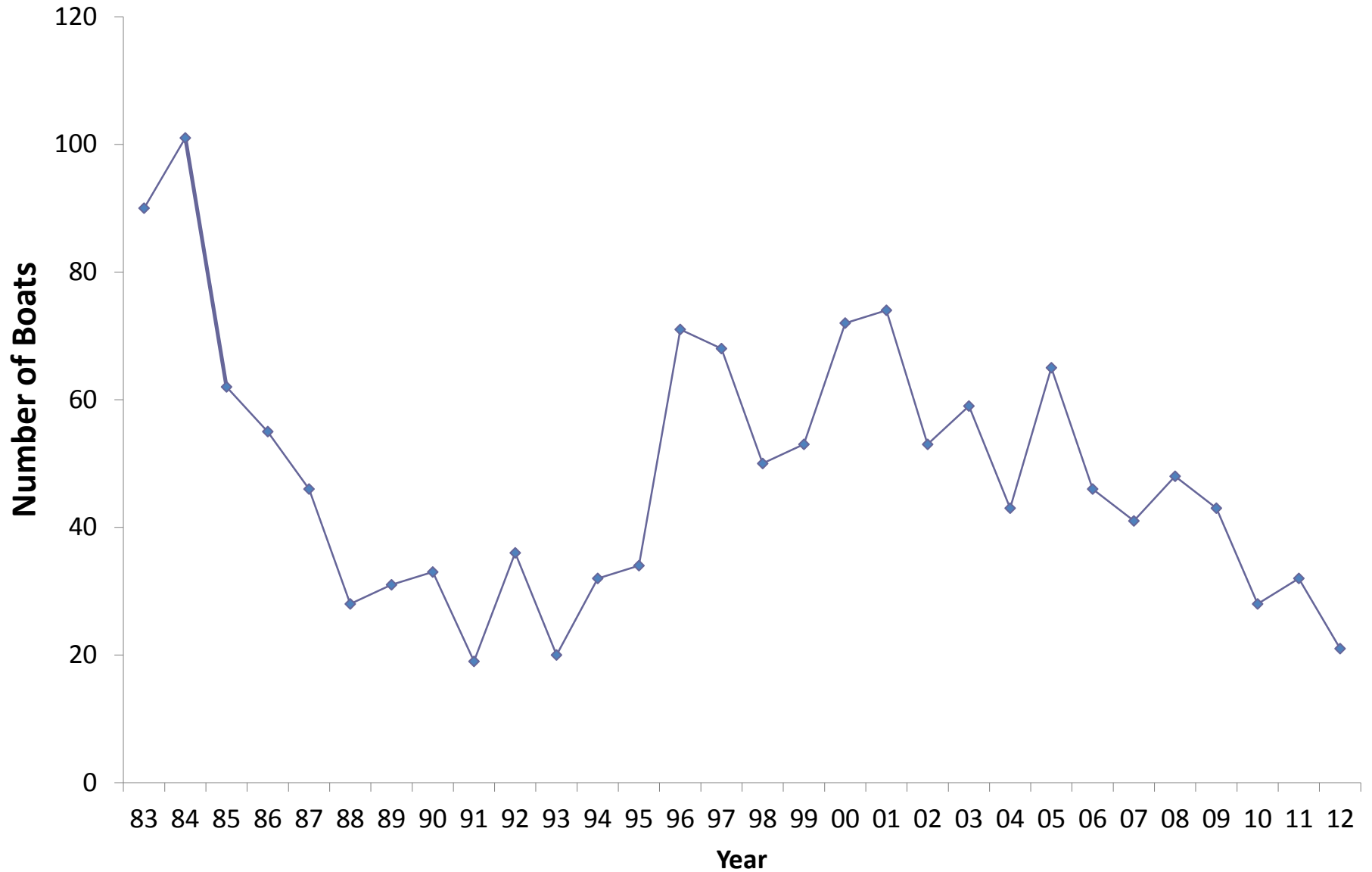
◆ Bottomfish Species Total      ■ Shallow-Water



# Commercial bottomfish landings of shallow-water species group



# Number of Fishermen (Boats) Making Bottomfish Landings



# CNMI Bottomfish Fishery

- # trips was high from 1983 through 1989 as a result of consistent fishing activity centered on the island of Farallon de Medinilla.
- This fishery subsequently largely ceased in 1990, resulting in a drop in bottomfish trips in the early 1990s.
- In 1994, consistent fishing activity in the northern islands began once more the mid 2000s.

# CNMI Bottomfish Fishery

- Small proportion of the total fisheries
- Onaga and Mafute are most common fish
- Variable effort
- Vessels capable of landing large amounts of onaga are usually larger vessels fishing the northern islands. The difficulty of maintaining the equipment, vessel, and crew to consistently and routinely make these trips successful appears to be difficult in the long term for fishermen in the CNMI,
- Bottomfishes are not commanding the high prices they once. Local buyers seem to increasingly prefer reef fishes.

# Possible Future Research

- Bottomfish connectivity between islands
  - Genetics
  - Movement
- Life History information for individual species
  - Length-weight relationship
  - Length at age
  - Age at maturity
  - Seasonal gonad development
- Better stock assessment



# Questions



**Information in the presentation**

<http://www.pifsc.noaa.gov/wpacfin/>