

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 |
|---------------------------------|------|-----------------|-----------------|---------------------|-------------|
| A. Assorted Pelagic Fish | | | | | |
| 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. Assorted Reef Fish | | | | | |
| 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 | | | | | |
| C. Assorted Bottom Fish | | | | | |
| 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 | | | | | |
| D. Invertebrate | | | | | |
| 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">• Date | <ul style="list-style-type: none">• Weight (pounds) |
| <ul style="list-style-type: none">• Buyer's Name (dealer) | <ul style="list-style-type: none">• Price per Pound |
| <ul style="list-style-type: none">• Seller's Name (fisherman) | <ul style="list-style-type: none">• Value |
| <ul style="list-style-type: none">• Species or Group | <ul style="list-style-type: none">• Invoice Number |

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)

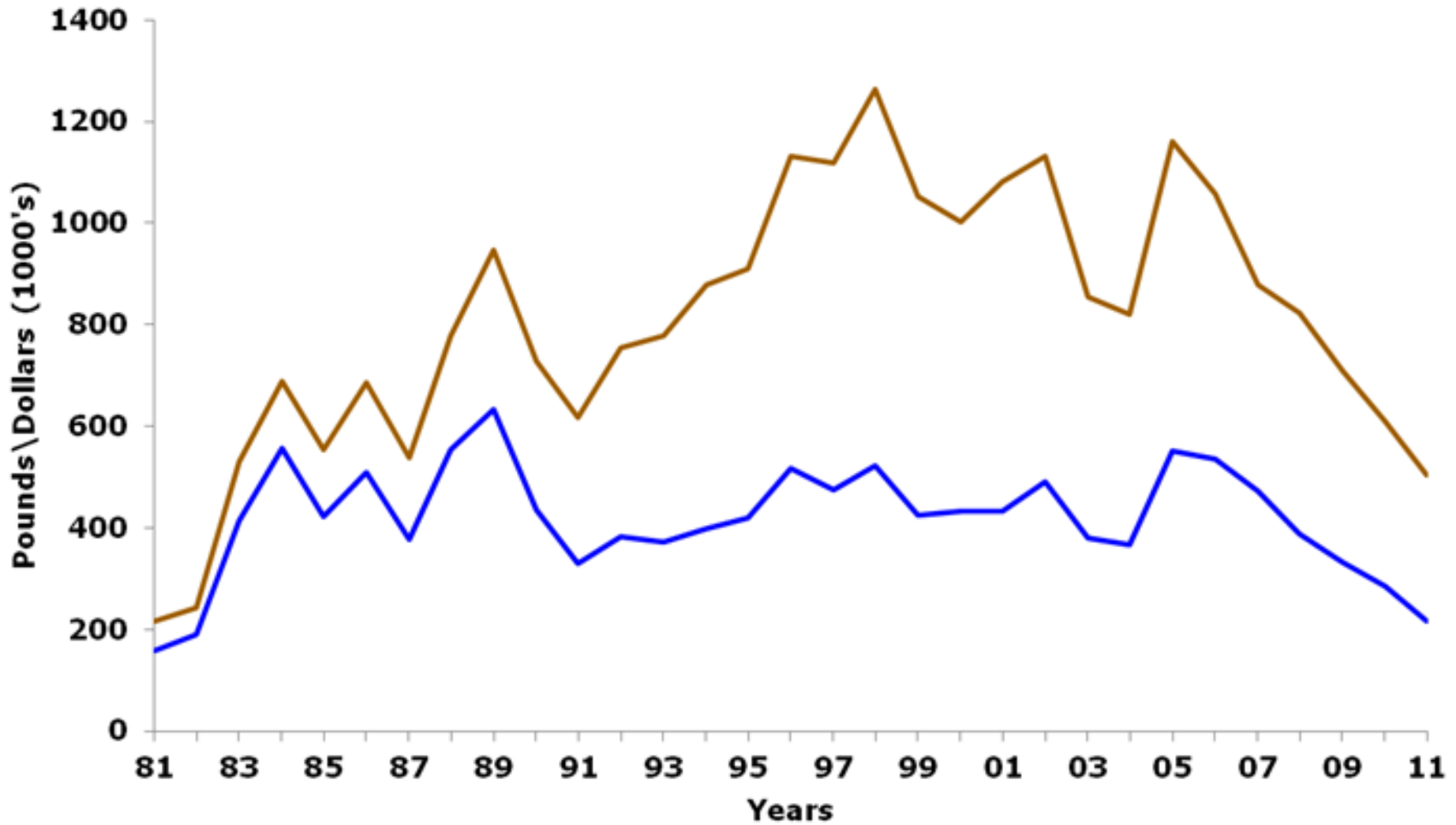
| | |
|-------------------------|--------------------------|
| Alfonsin | Jobfish (uku) |
| Amberjack | Kalikali (yellowtail) |
| Black jack | Lyretail grouper |
| Blacktip grouper | Onaga (red snapper) |
| Blue-lined snapper | Opakapaka (pink snapper) |
| Ehu (red snapper) | Redgill emperor |
| Giant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

Bottomfishes

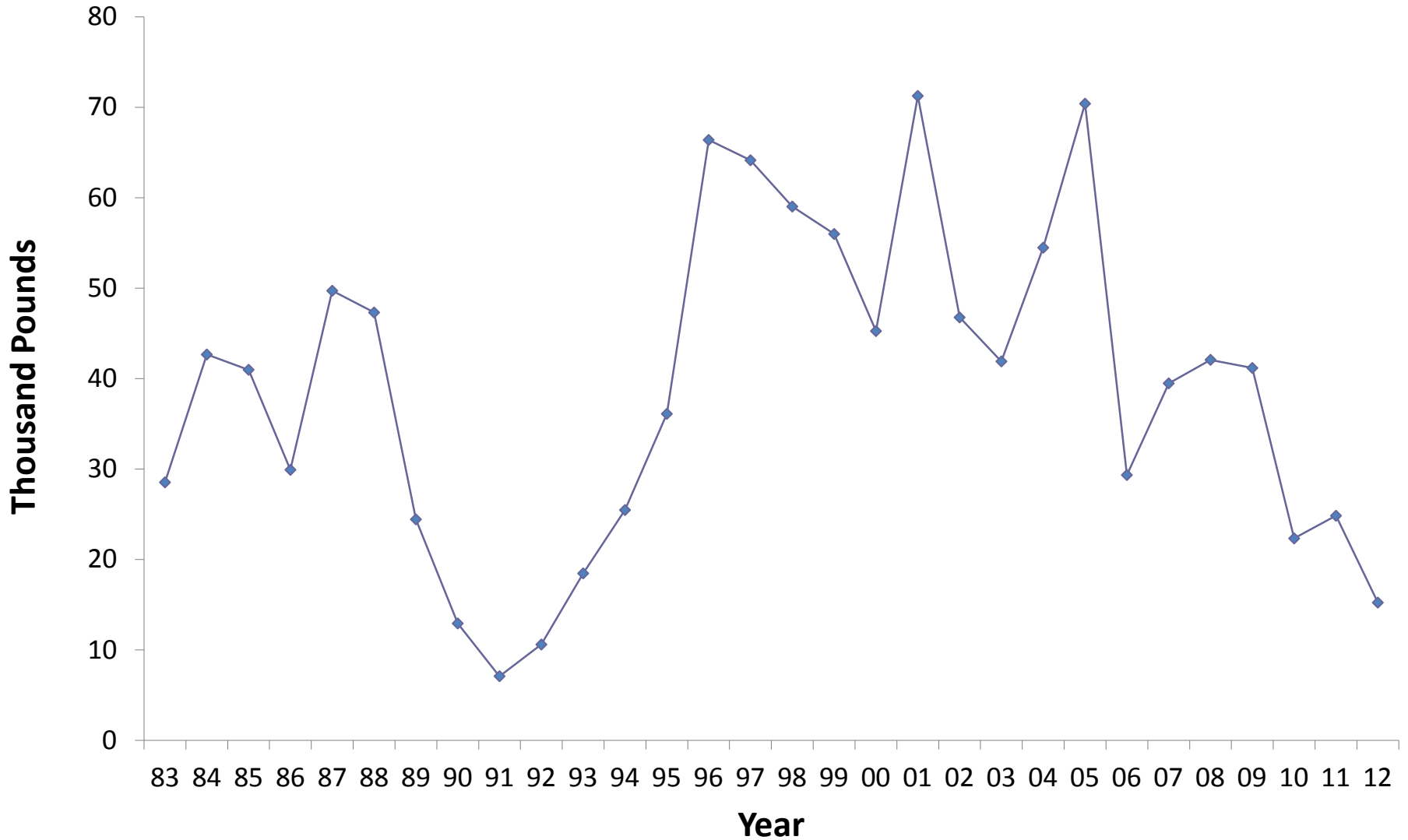
| | |
|-------------------------|------------------------------|
| Alfonsin | Kalikali (yellowtail) |
| Amberjack | Longnose emperor |
| Bigeye emperor | Lyretail grouper |
| Bigeye trevally | Marbled grouper |
| Black jack | Onaga (red snapper) |
| Blackspot emperor | Onespot snapper |
| Blacktip grouper | 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)

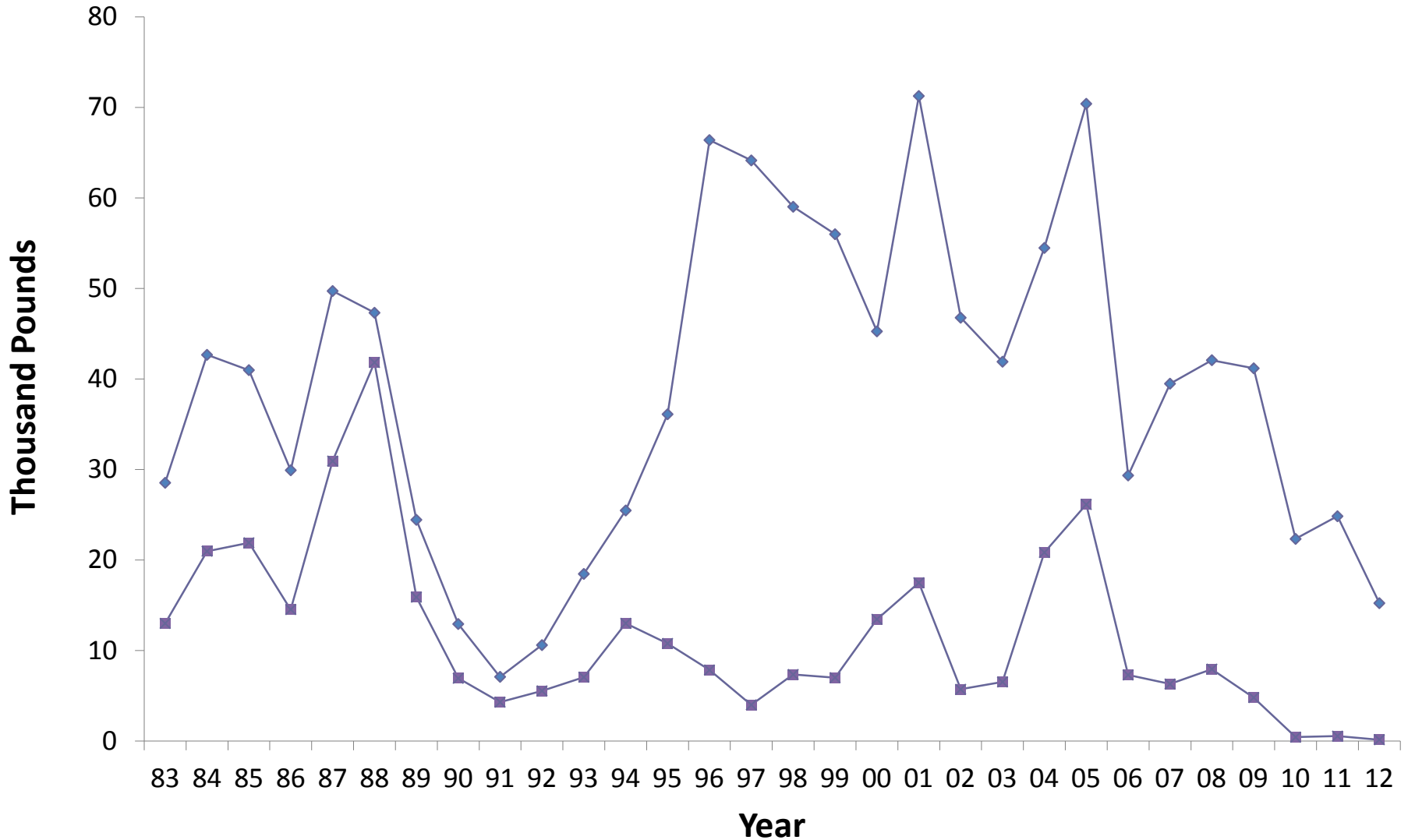


Annual Estimated Commercial Bottomfish Landings



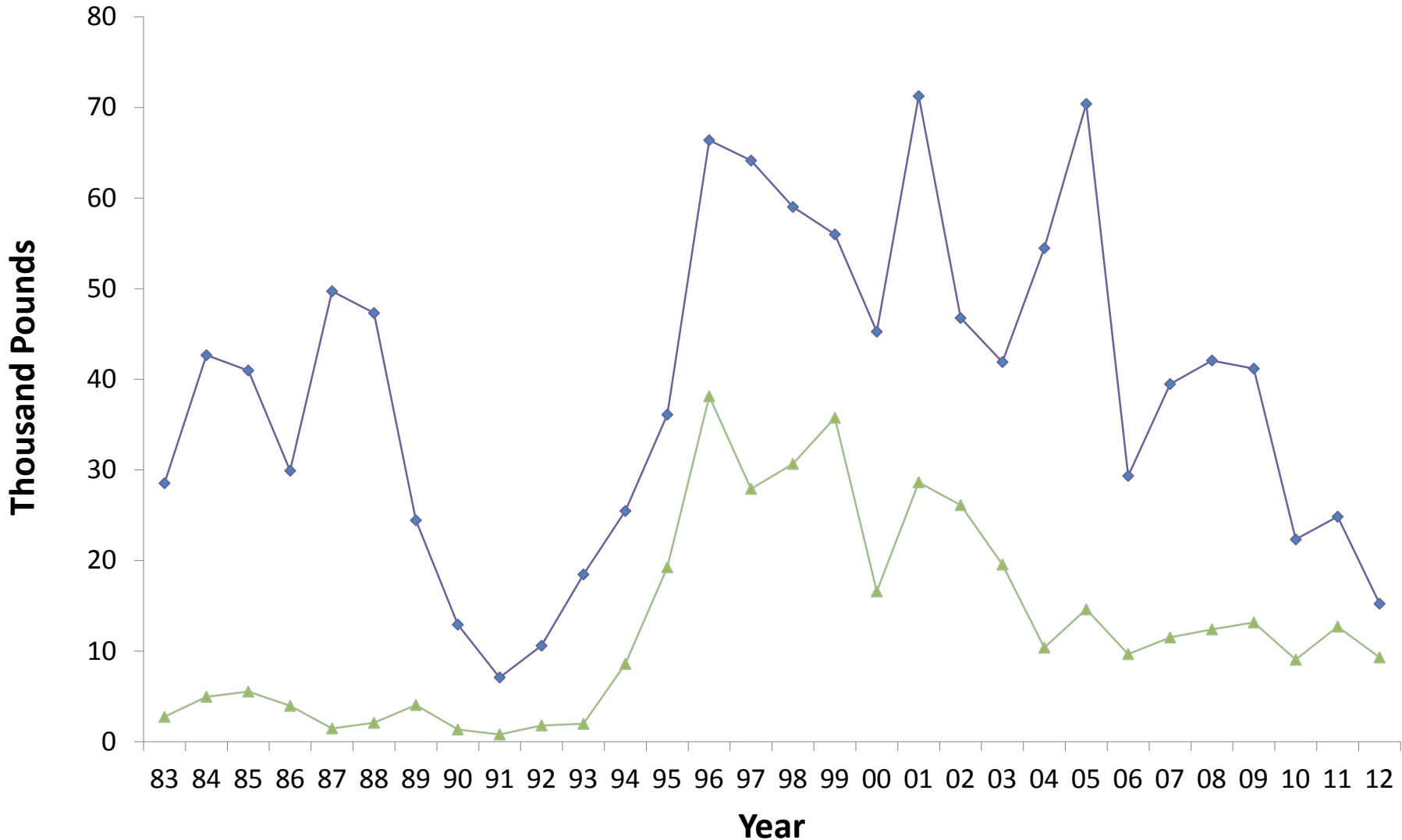
Annual Estimated Commercial Bottomfish Landings

◆ Bottomfish Species Total ■ Assorted

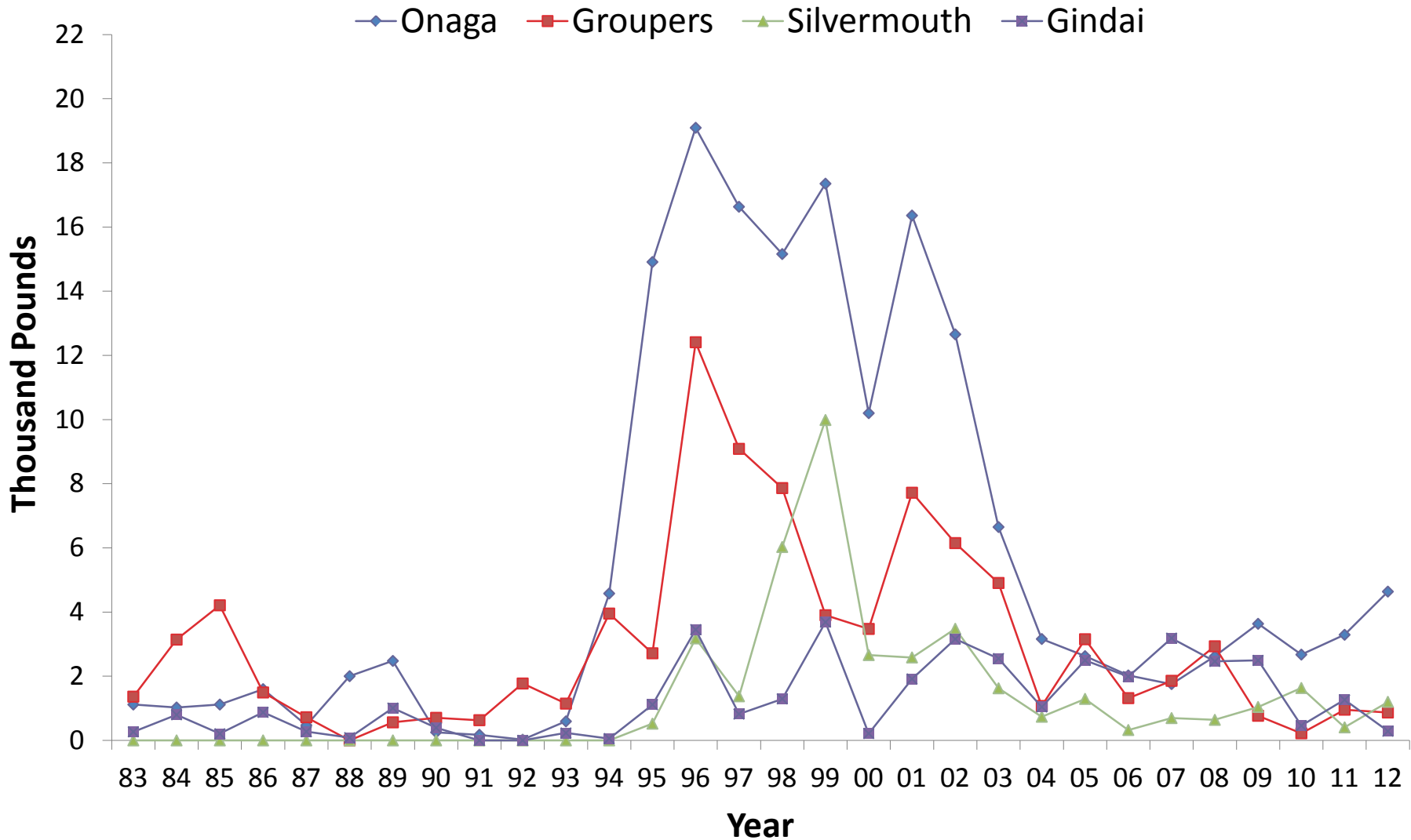


Annual Estimated Commercial Bottomfish Landings

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

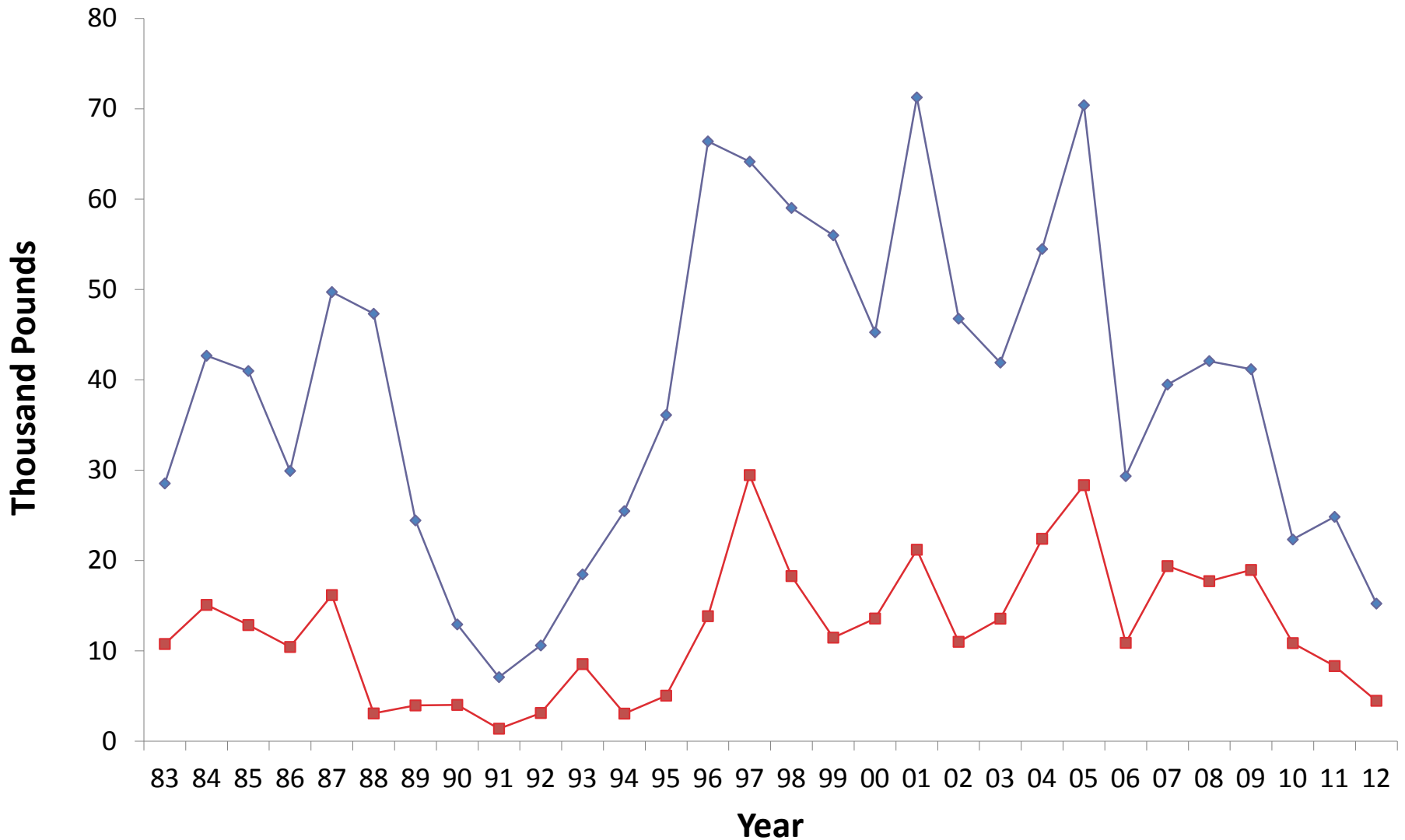


Commercial bottomfish landings of deep-water species

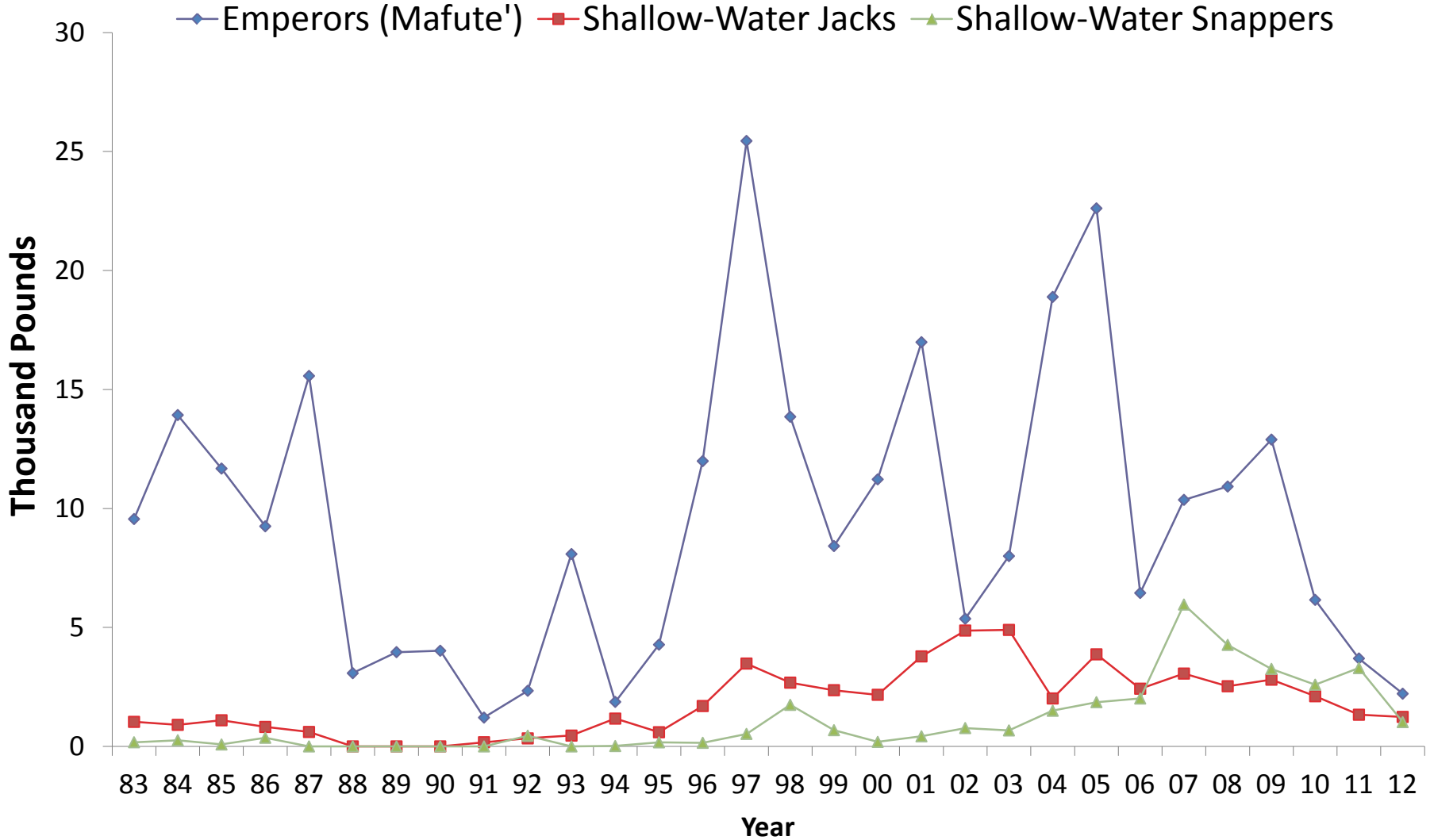


Annual Estimated Commercial Bottomfish Landings

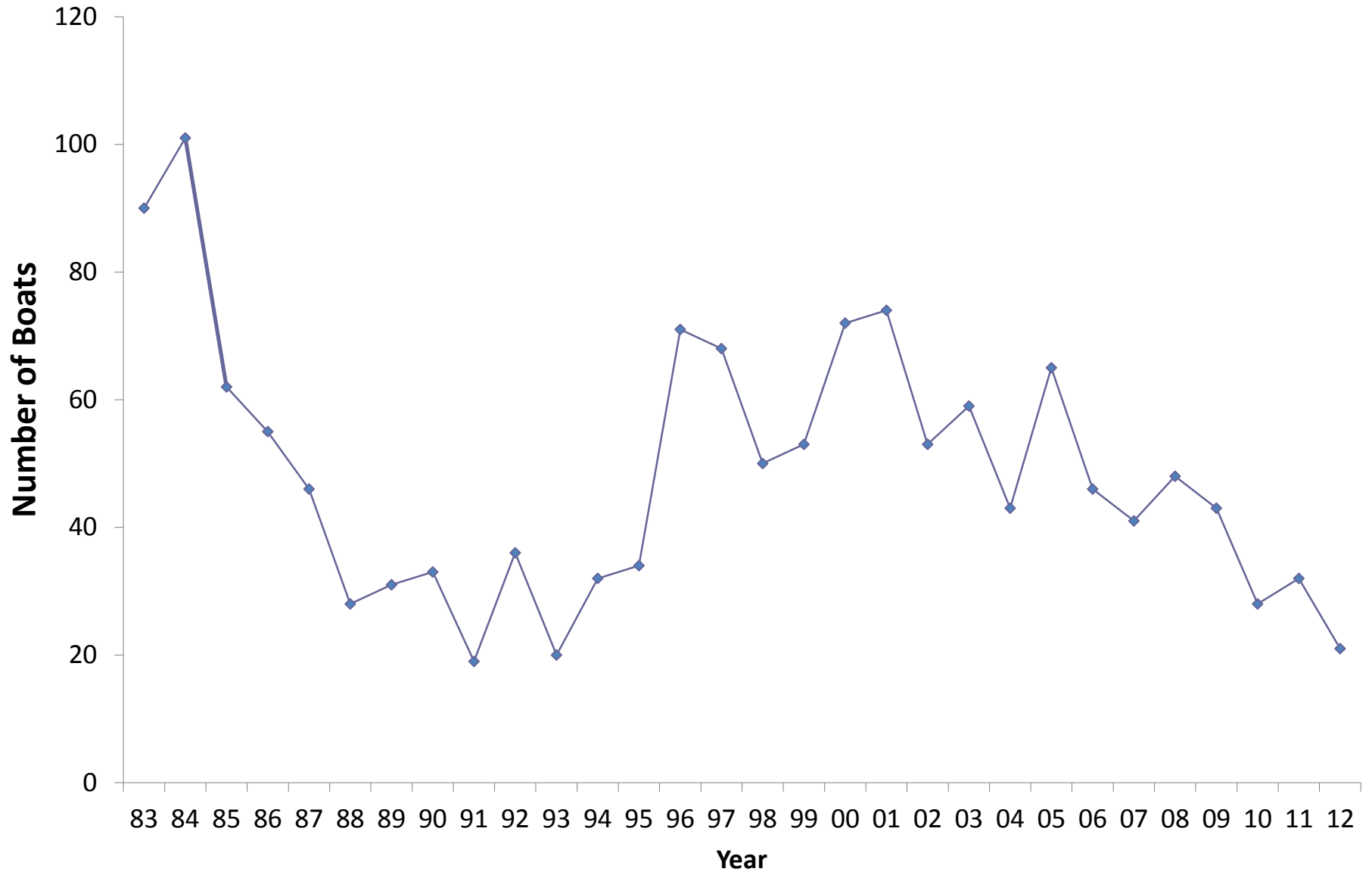
◆ Bottomfish Species Total ■ Shallow-Water



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/>