

# Mercury Levels in Hawaiian Commercial Fish

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## Team Members

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## Fish in Hawaii

- Fishing is a major industry
- 25 million pounds sold at auction annually
- Top fish sold are tuna and billfish

## Study Design

- Fish obtained at the auction
- Weight of fish recorded
- Muscle sample obtained near tail portion
- Total mercury-EPA 6000/7000 Series Method
- 20% from each species-Methylmercury 1630, total mercury 1631

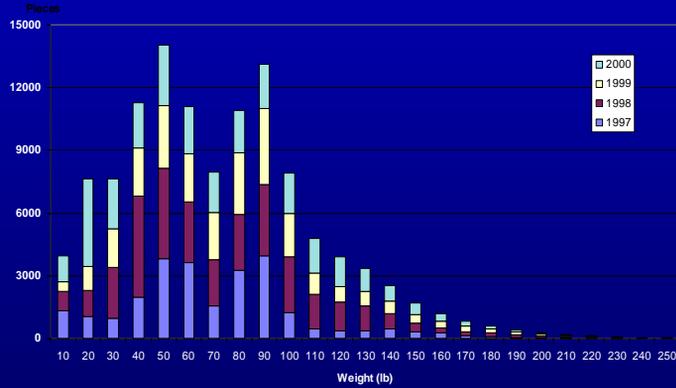


## Fish Species Sampled

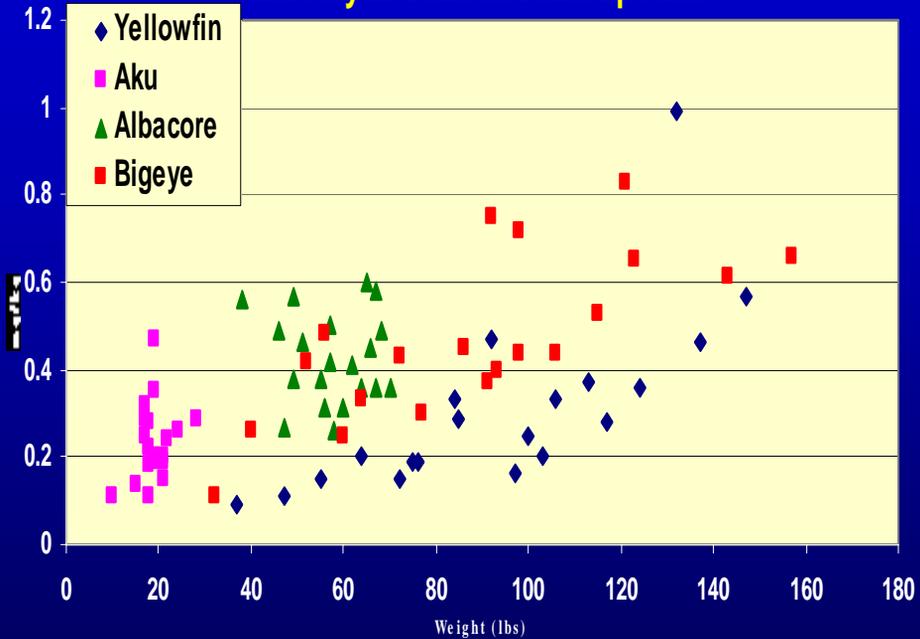
- Albacore (Tombo)
- Yellowfin Ahi
- Bigeye Ahi
- Skipjack (Aku)
- Dolphinfish (Mahimahi)
- Pacific Blue Marlin (Kajiki)
- Striped Marlin (Nairagi)
- Moonfish (Opah)
- Wahoo (Ono)



## 1997-2000 Bigeye Landings in Hawaii (Data from NMFS)



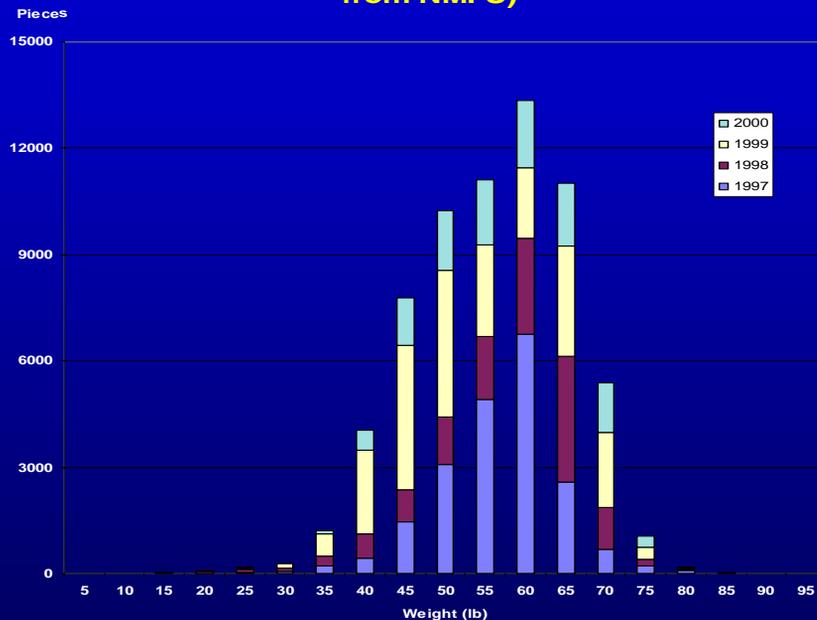
## Mercury in Various Tuna Species

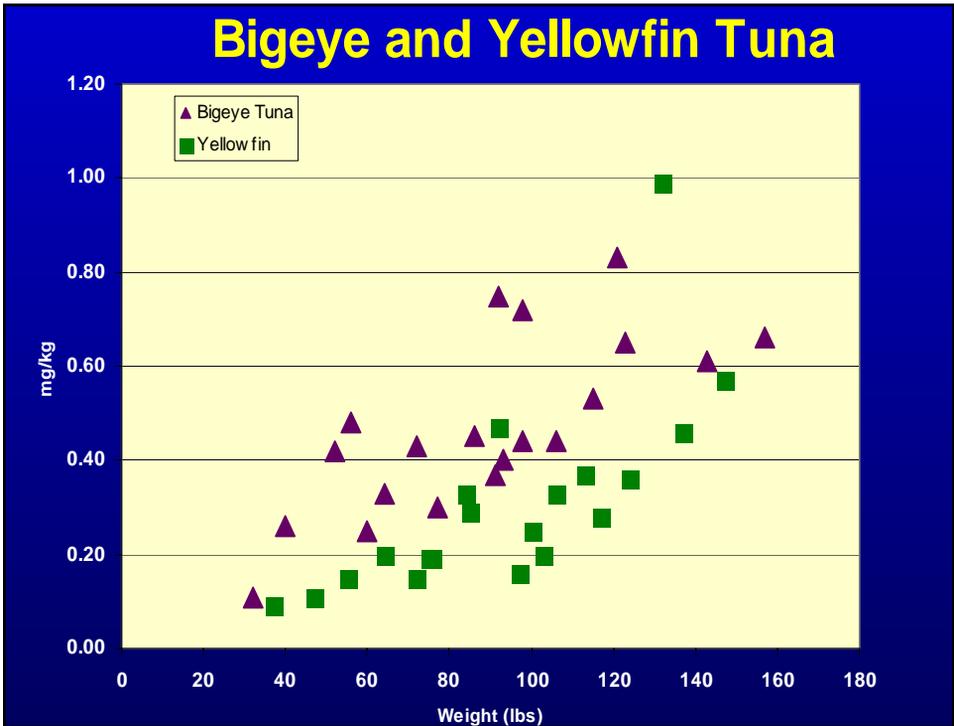
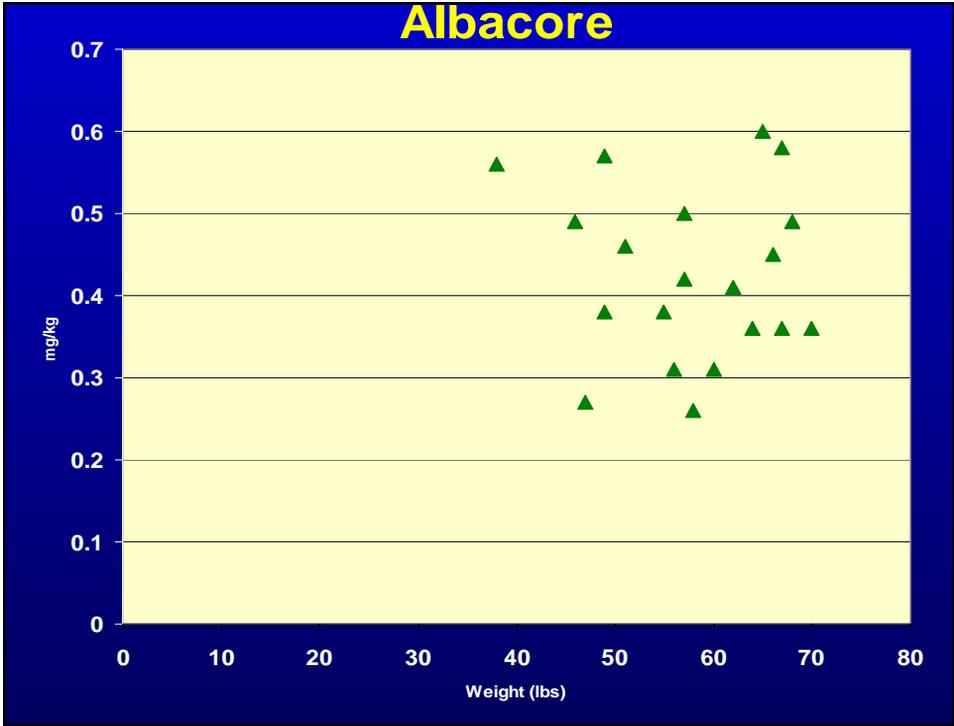


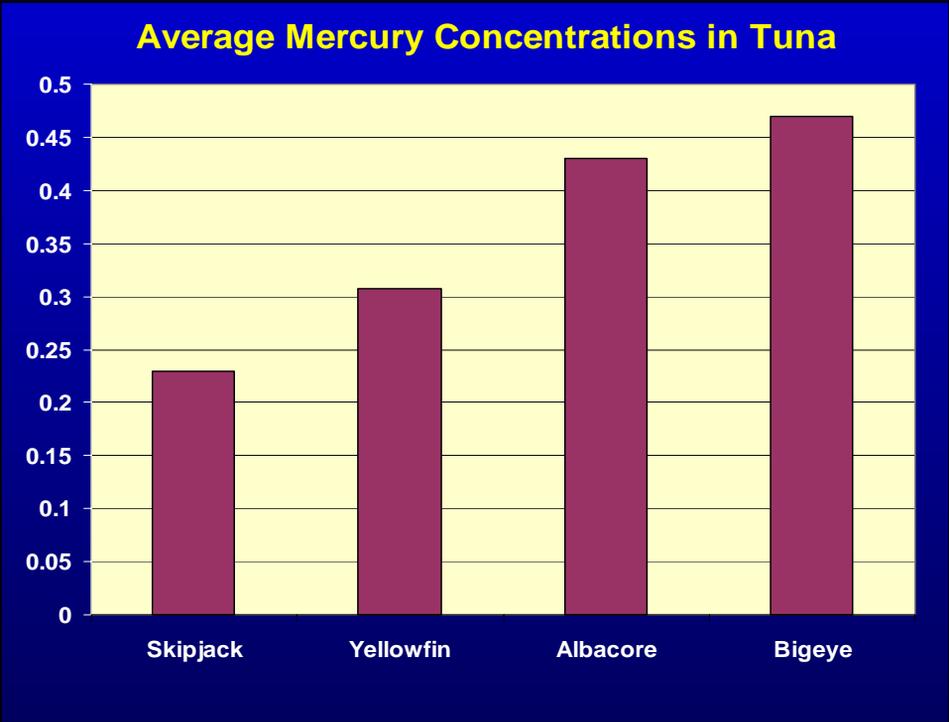
## Mercury/weight correlations

- Positive correlation between weight and mercury concentration in bigeye and yellowfin tuna
- No apparent correlation in skipjack or albacore in the size ranges sampled

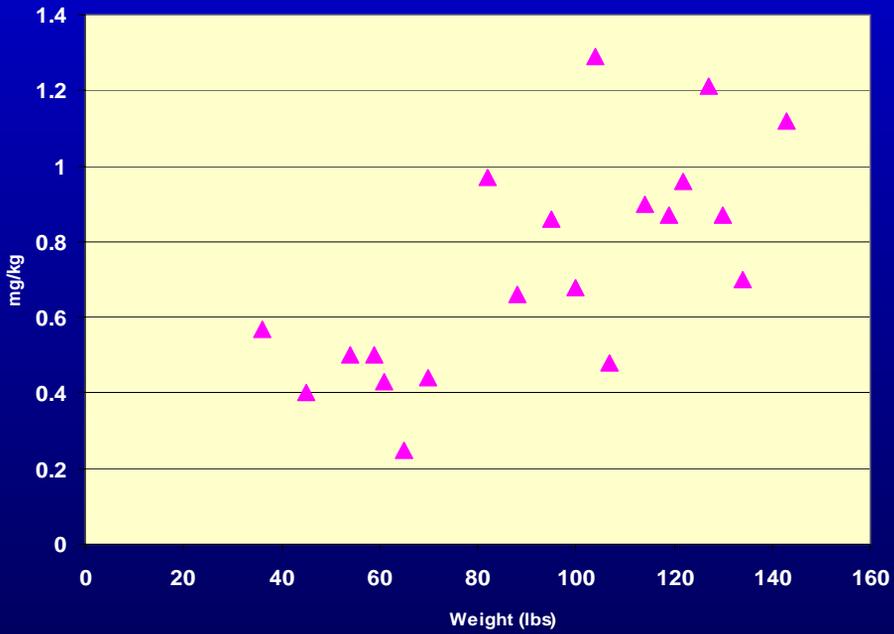
1997-2000 Albacore Landings In Hawaii (Data from NMFS)



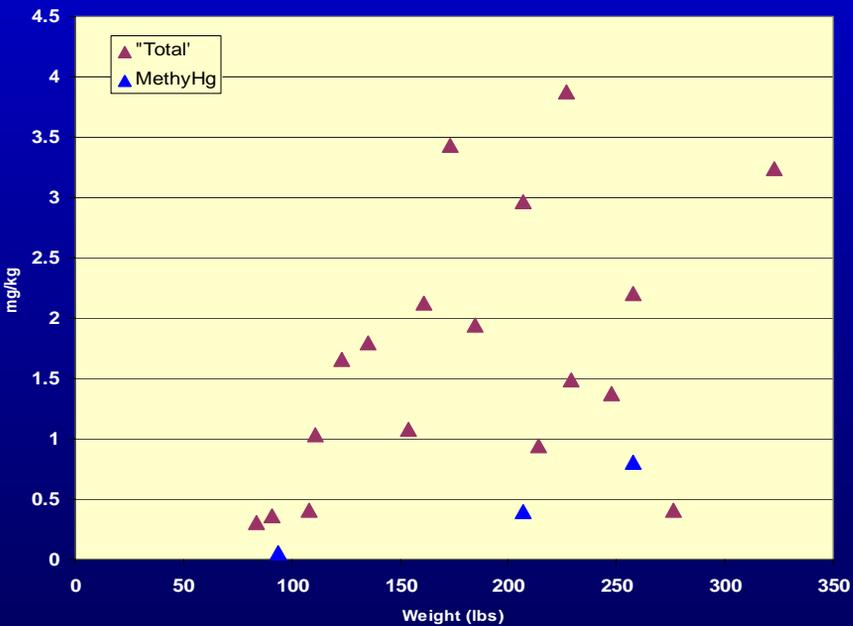




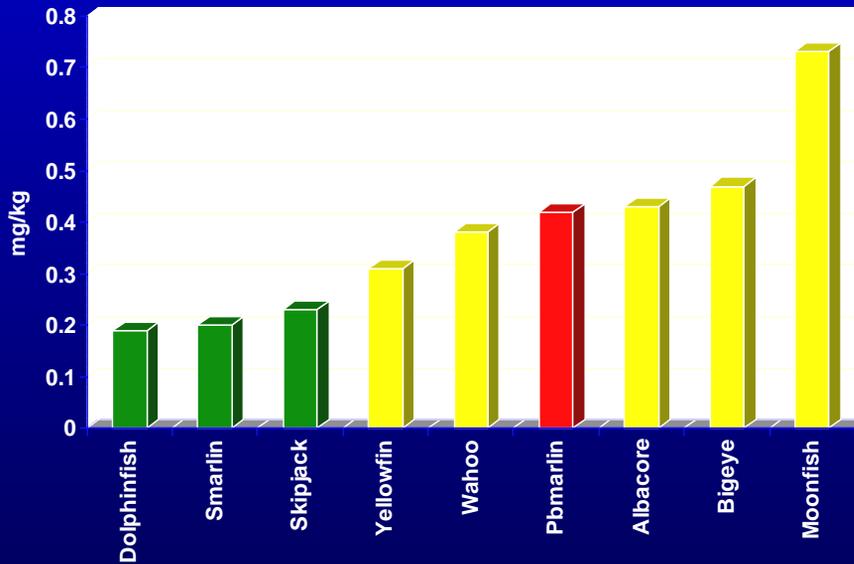
## Moonfish (Opah)



## Pacific Blue Marlin



## Average Methylmercury Concentrations in Hawaiian Commercial Fish



## Summary: Pregnant Women, Nursing Mothers and Young children

- Do not eat-Pacific blue marlin
- Once every two weeks-Bigeye, yellowfin, albacore, wahoo, moonfish
- Once a week-Skipjack, dolphinfish, striped marlin

## Future Studies

- Retail study of commonly consumed fish
- Study of exposure in Hawaii
  - Fish consumption surveys
  - Hair samples in fish eaters
  - Blood samples in population
- Impact of the volcano on mercury levels in the environment

