

# **Summary of the RI Summer Flounder Sector Allocation Pilot Program**

**2009**



# Background Info

- One group applied to become a summer flounder sector pilot program participant in 2009, the RI Fluke Conservation Cooperative
- The sector was approved and began operations on April 12, 2009.
- The sector is comprised of 8 vessels.
- The allocation given to the sector was 11.53% of the states total allocation, based on the historical landings of the 8 vessels during the historical period of 2004 – 2008.
- In pounds the allocation = 176,370 lbs.
  - This allocation accounts for the landings that took place by the sector vessels from January 1 – April 11 (17,798 lbs)
- One of the 8 vessels was found to not have a federal permit which was a violation of the program. This oversight was made by DEM during the application review process. A settlement was reached and the vessel was removed from the group and the sector was docked 1,550 lbs.

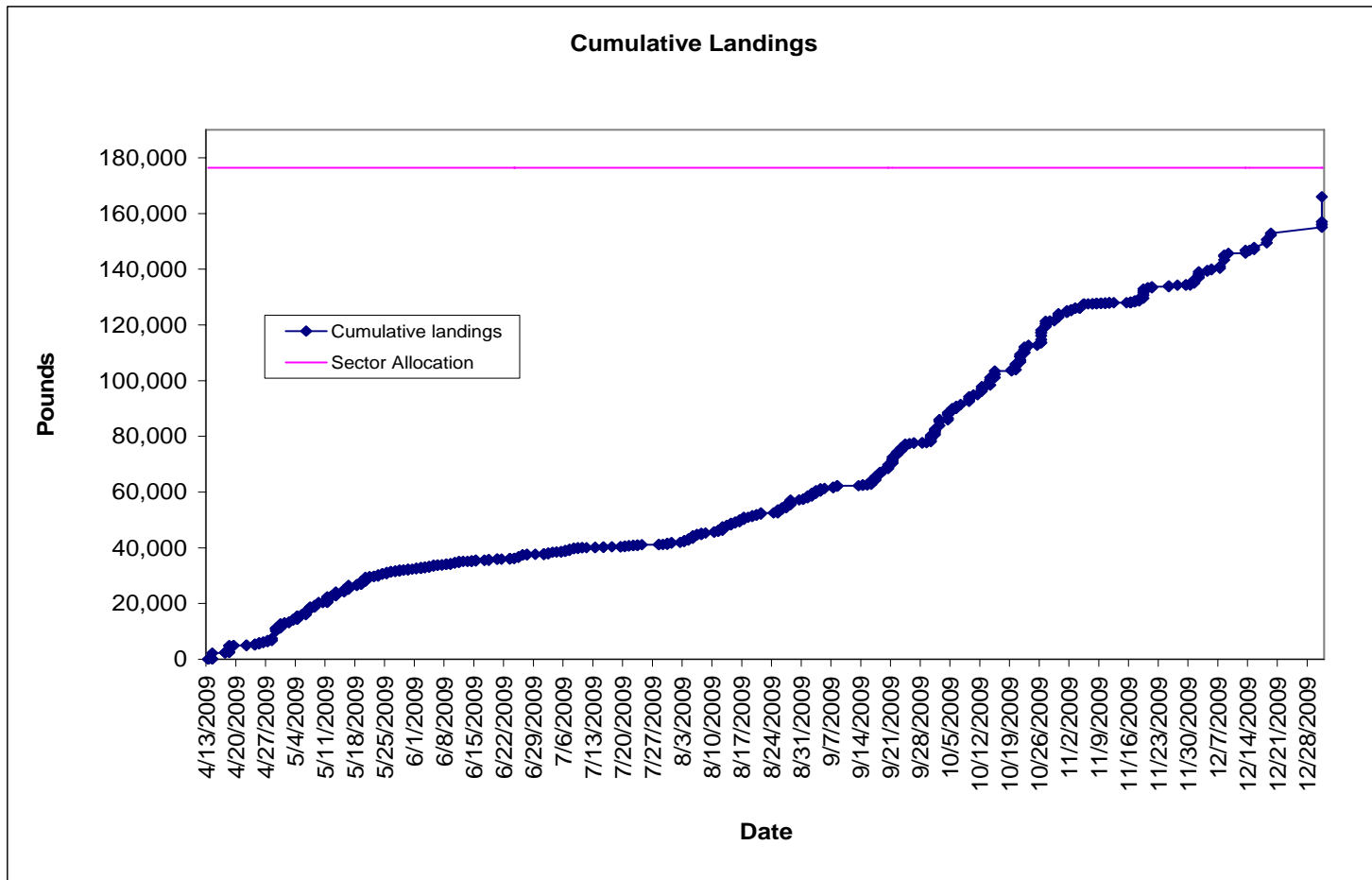


# Accuracy of Reporting

- The sector reported to the DFW on time each week
- To date 203 trips were observed through the contracted observer company and the NMFS
  - NMFS observed trips were allocated per the standard NMFS protocol
  - The contracted observer trips were allocated through a randomization program administered by RI Sea Grant. Sea Grant also collected and entered the data from the contracted observer trips.
- Analysis shows no obvious differences between observed and unobserved discards (Wilcoxon Rank Sums Test;  $p > 0.06$ )
  - Due to the non parametric test used a reanalysis was done to ensure no type 2 error
  - Data was stratified in to 2 groups (April – July and August – December)
  - Neither group indicated differences (Wilcoxon Rank Sums Test;  $p > 0.16$  and  $p > 0.30$ )
- Analysis shows no obvious differences between observed and unobserved landings (Wilcoxon Rank Sums Test;  $p > 0.05$ )
  - Data restratified as above
  - Neither group indicated differences (Wilcoxon Rank Sums Test;  $p > 0.46$  and  $p > 0.18$ )
- Analysis did indicate differences between SAFIS and reported landings (Wilcoxon Signed Rank Test;  $p < 0.01$ ) when looking at Daily Reports. No differences are seen when the data is analyzed on a weekly basis (Wilcoxon Signed Rank Test;  $p > 0.35$ )



# General Info – Cumulative Landings

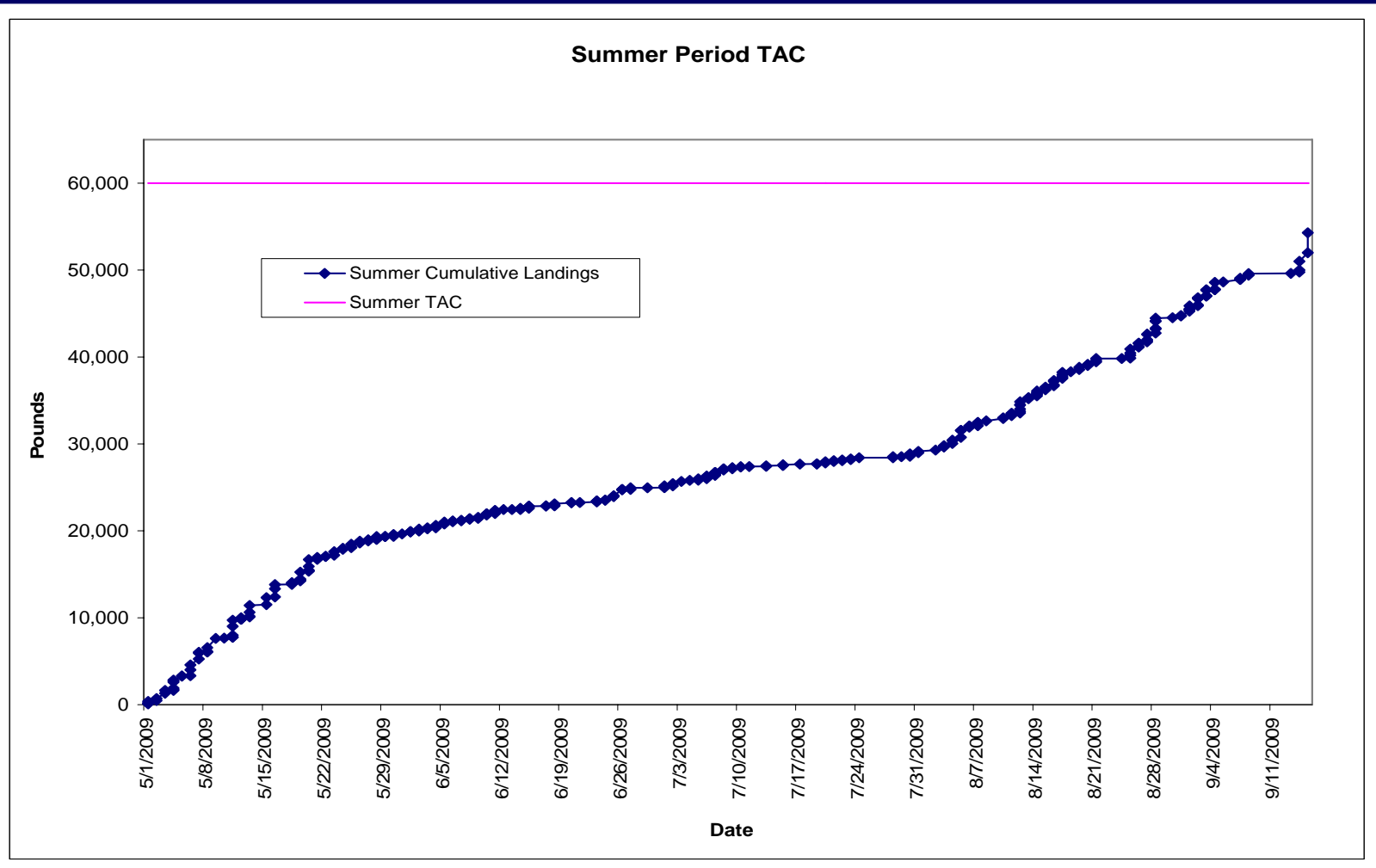


• 165,941 lbs were caught by the sector (not including discard pounds)

• This is 10,429 lbs less than the total allocation



# General Info – Summer Period Landings

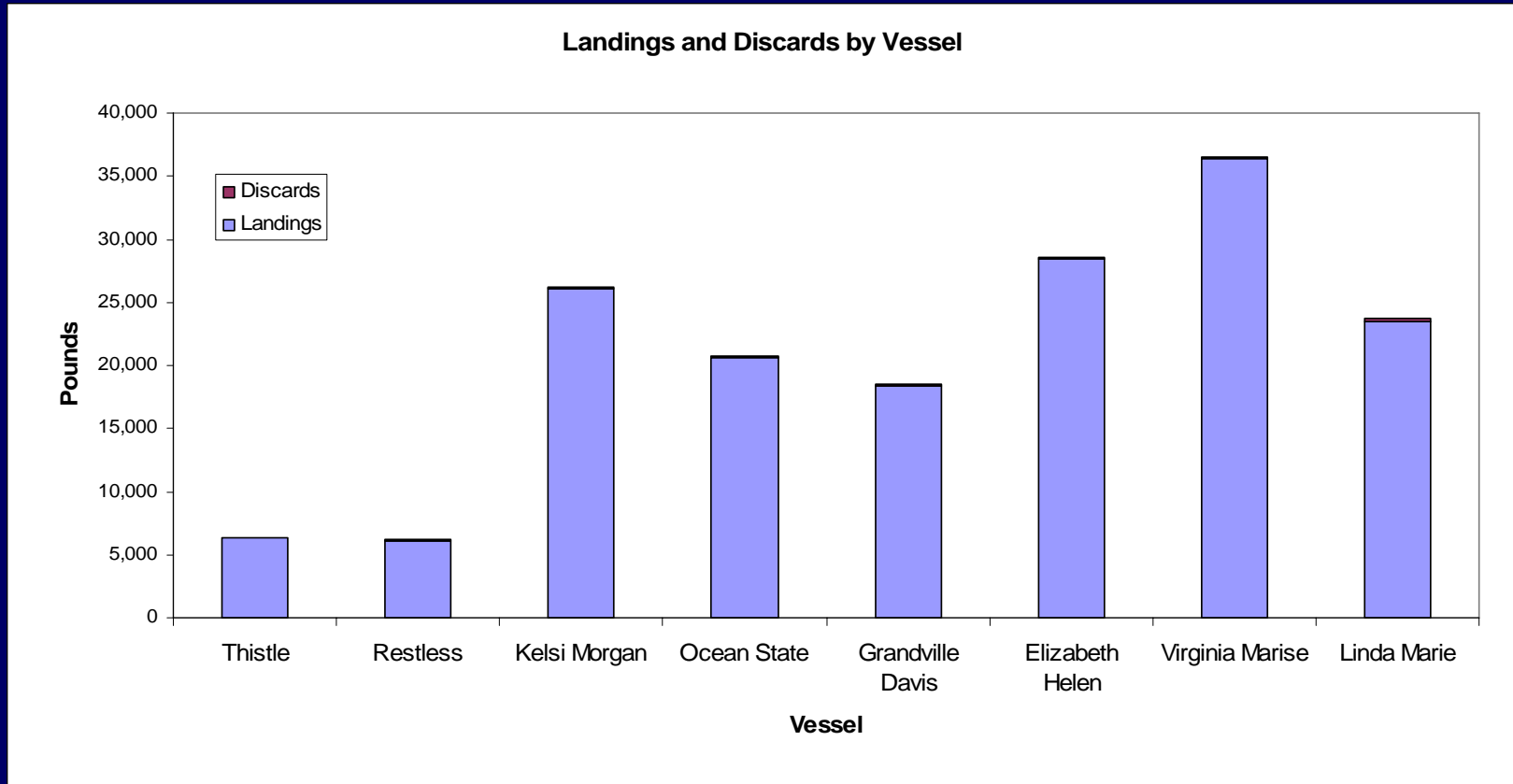


• 54,284 lbs were caught by the sector during the summer sub period (not including discard pounds)

• This was approximately 90% of the summer sub period allocation



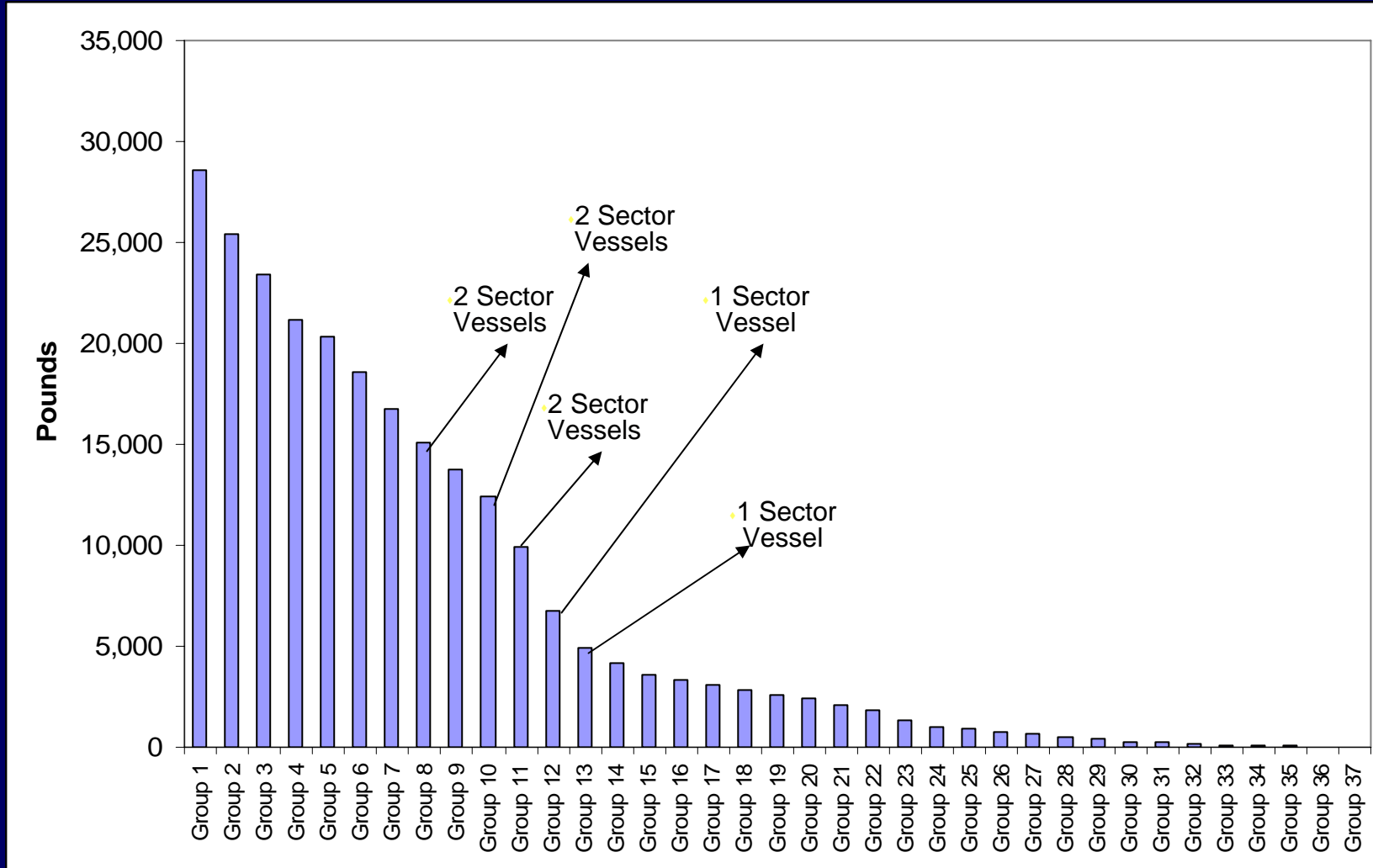
# General Info – Total Vessel Landings and Discards



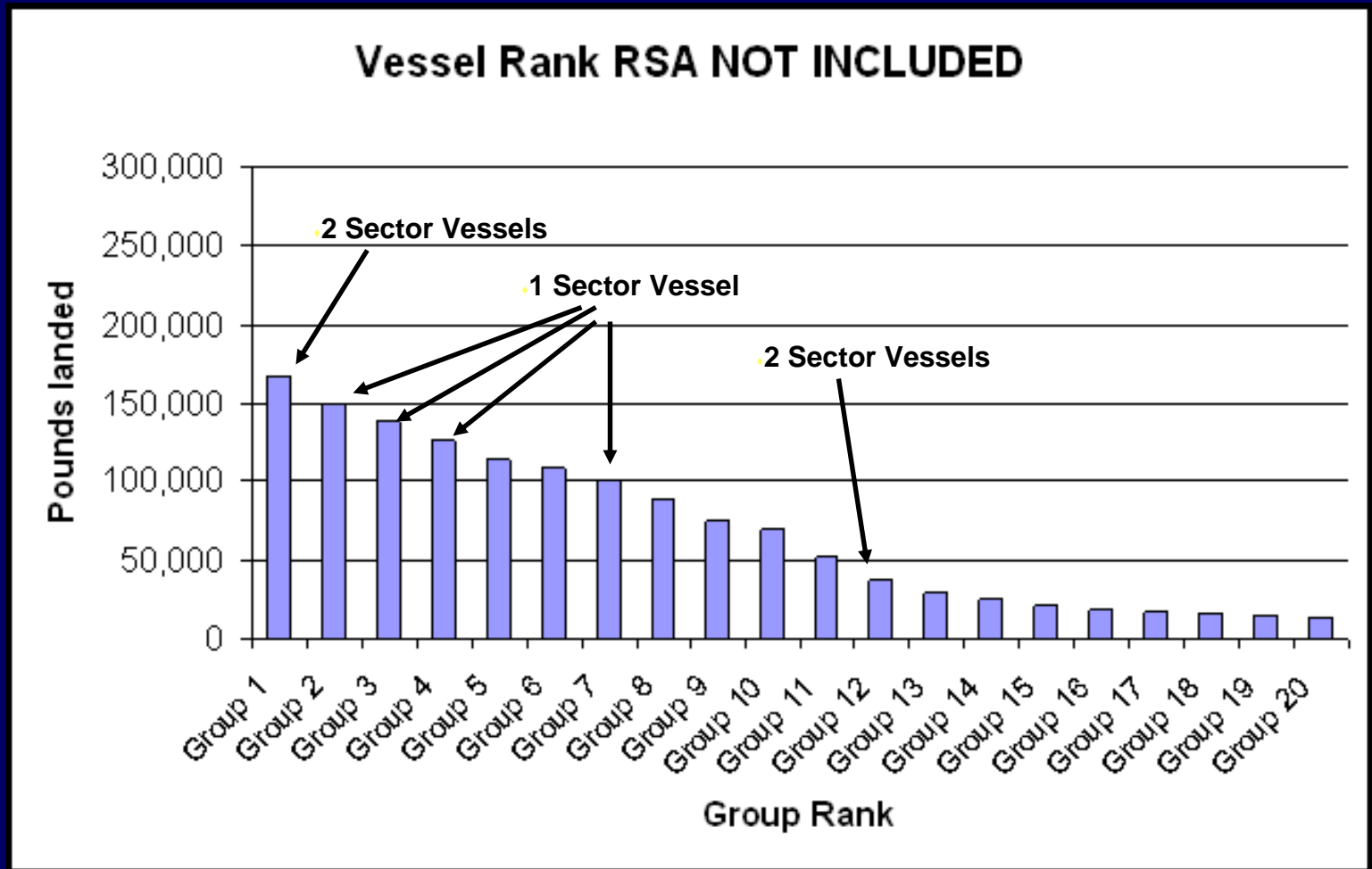
• Total discards were 993 lbs for the entire year



# General Info – Landings Performance In Pounds Relative to Entire Fishery – Early Graph

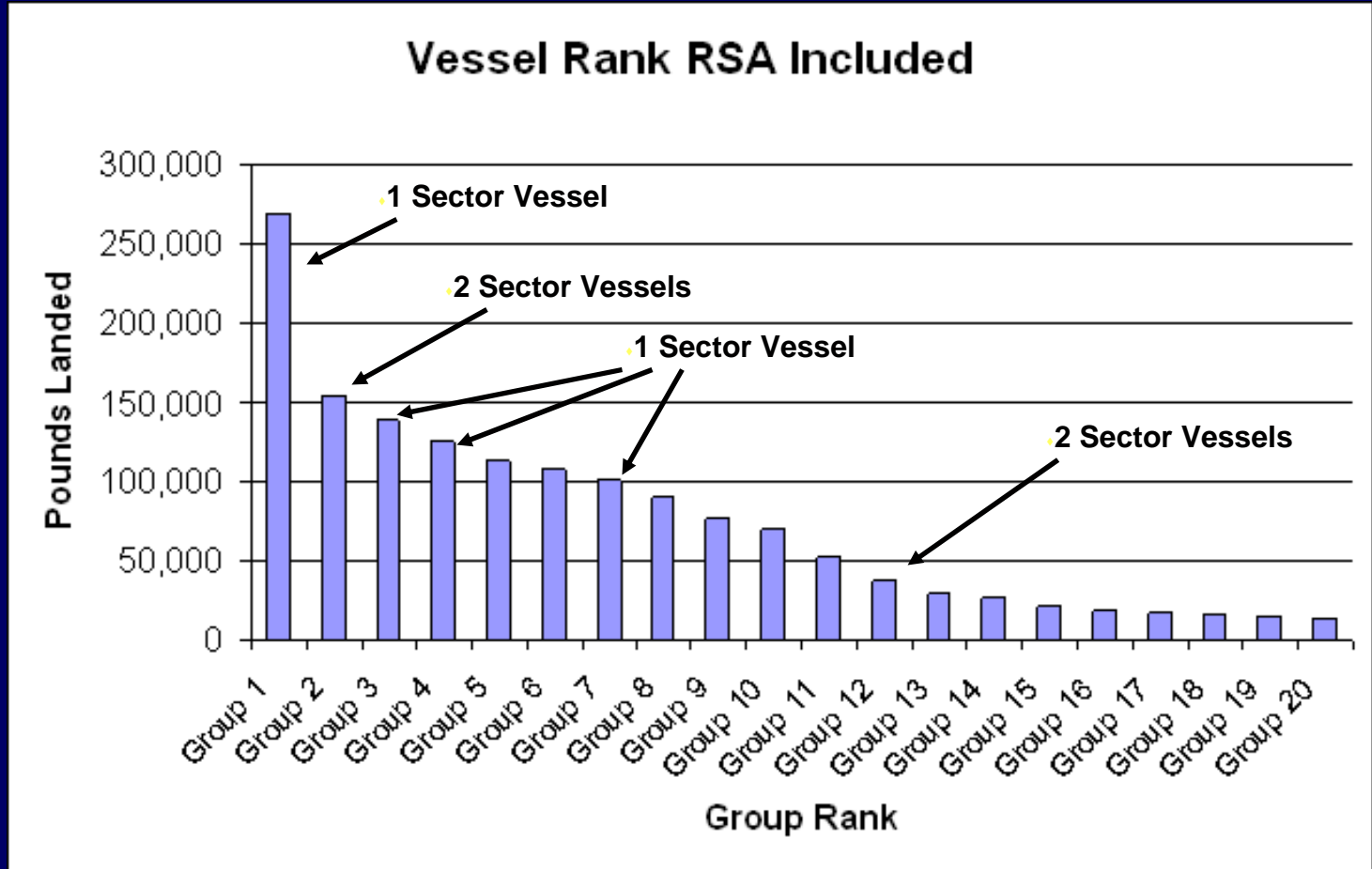


# General Info – Landings Performance In Pounds Relative to Entire Fishery – Final Graph No RSA





# General Info – Landings Performance In Pounds Relative to Entire Fishery – Final Graph With RSA

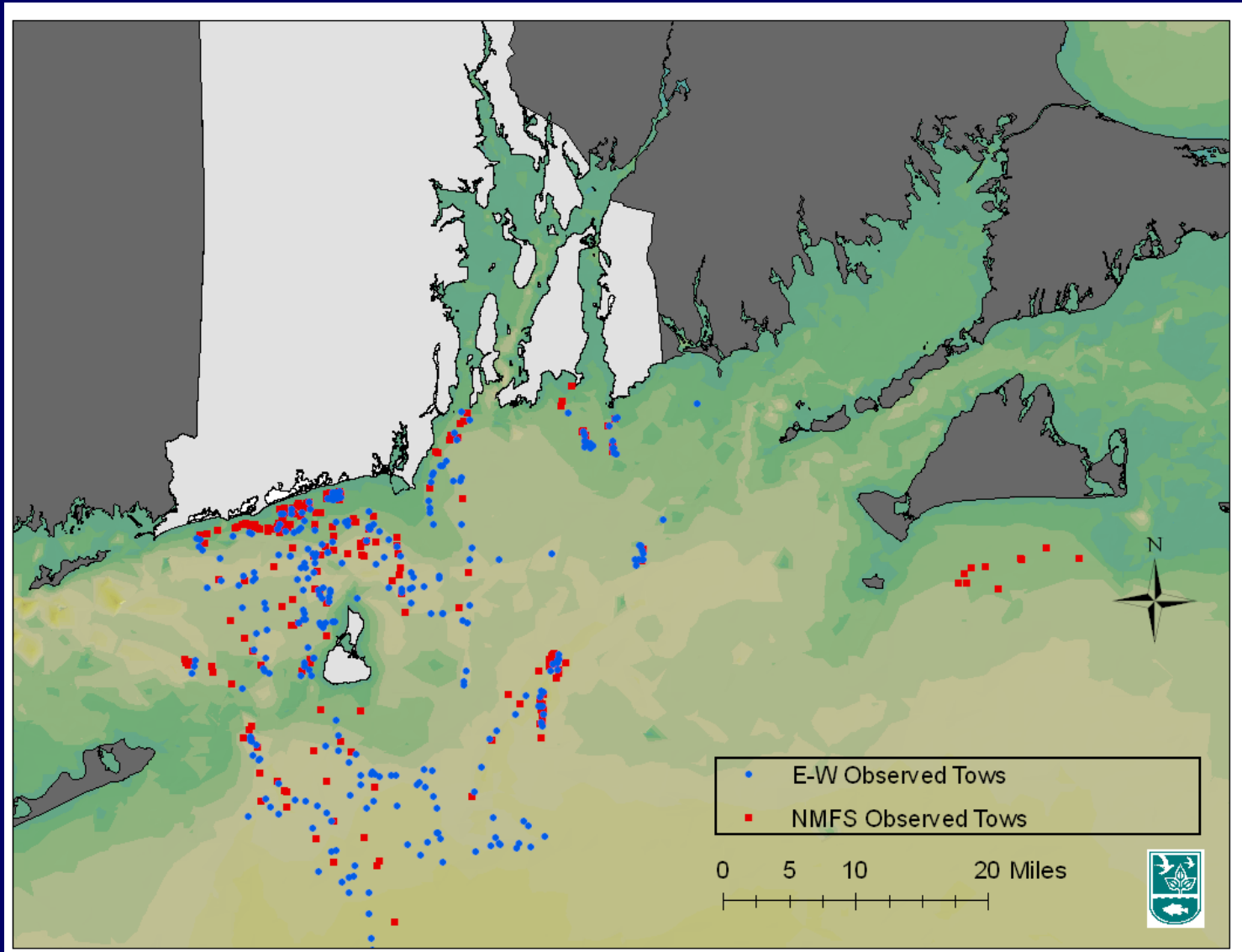


# Discard Analysis

- Three data sources used for these analyses:
  - 2009 NMFS observer information
  - 2009 contracted observer information (East-West Observers)
  - 2008 NMFS observer data from the RI fishery
- The reason for using 2008 data instead of 2009 was due to the inability to get 2009 data for the entire RI fishery in a timely manner
- The 2009 data has been requested and will be analyzed at a future date, but in order to complete this report in a useful time frame, 2008 data was used for comparison
- It is felt that the 2008 data is an appropriate analog for the general performance of the RI fishery and would be in fact more indicative of a normal fishing year relative to 2009, where a large overage was incurred during the winter sub period
- To ensure the validity of comparisons between years the RI DFW Trawl survey data was analyzed for size distribution differences of summer flounder between 2008 and 2009

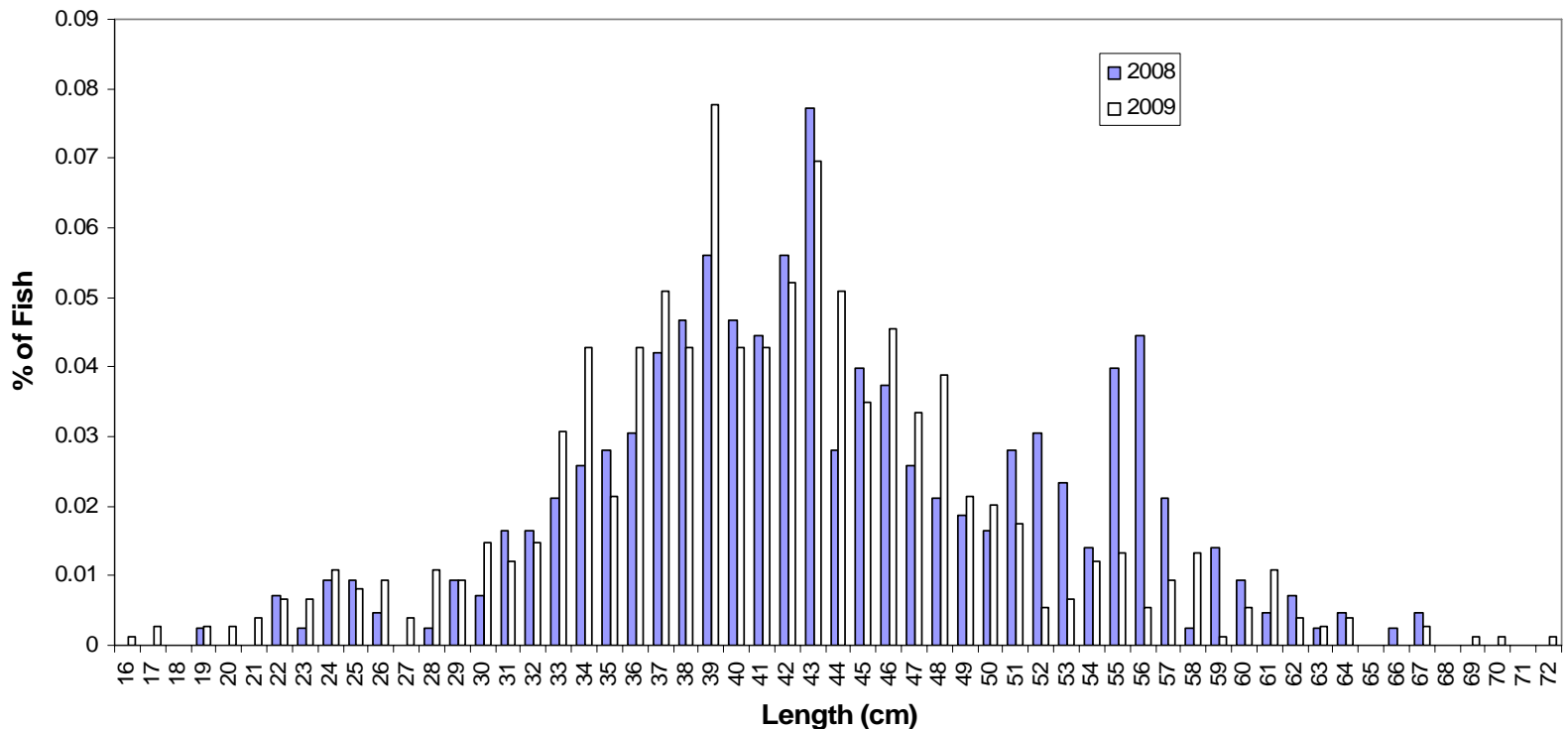


# Discard Analysis – Map of Observed Trips



# Discard Analysis – Length Frequency Distribution

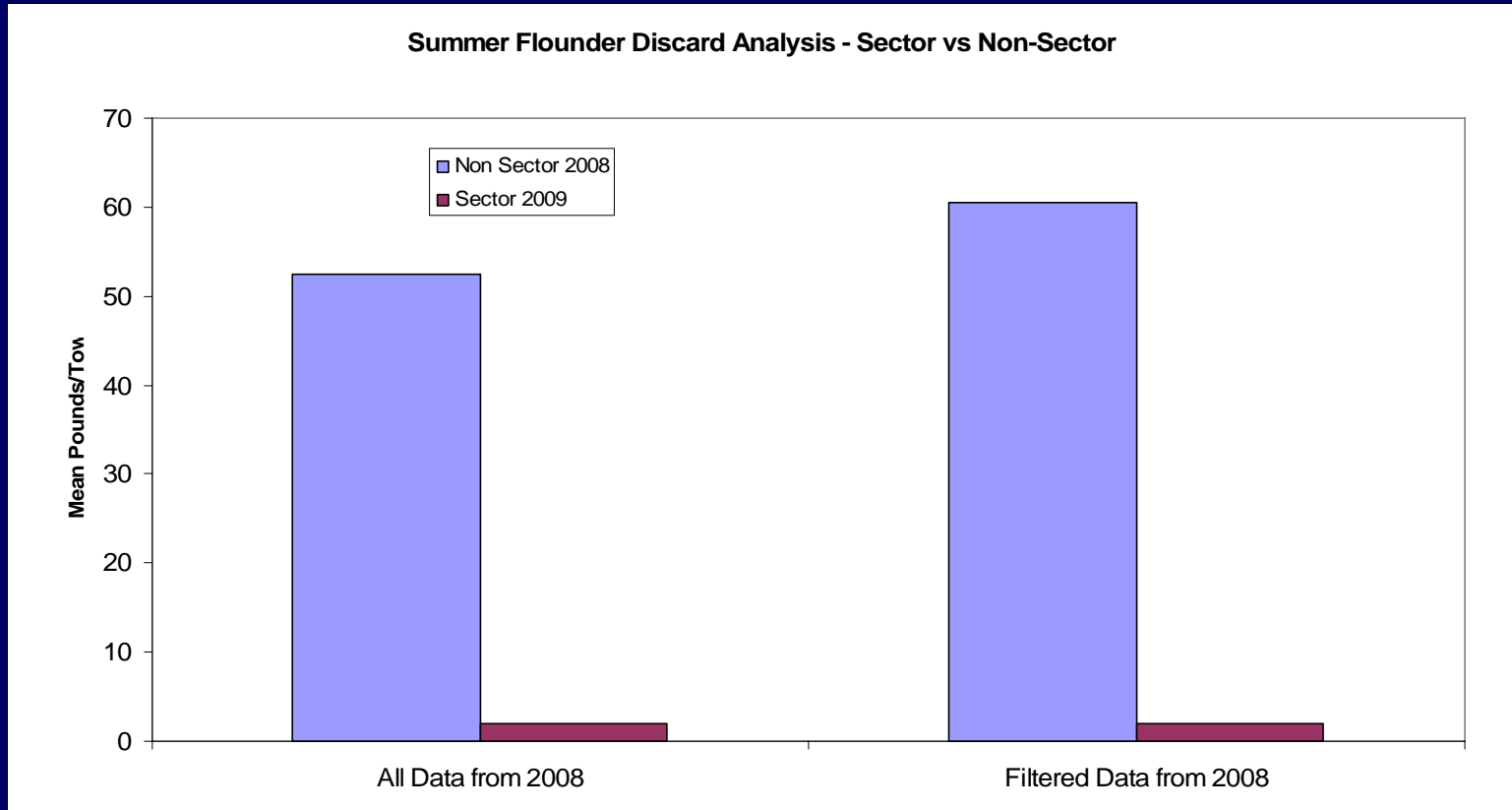
Proportion of Summer Flounder per 1 Centimeter Size Bins - 2008 and 2009



- Distributions are statistically different (KS test)
- Proportion of sub legal summer flounder is higher in 2009, therefore discards should increase



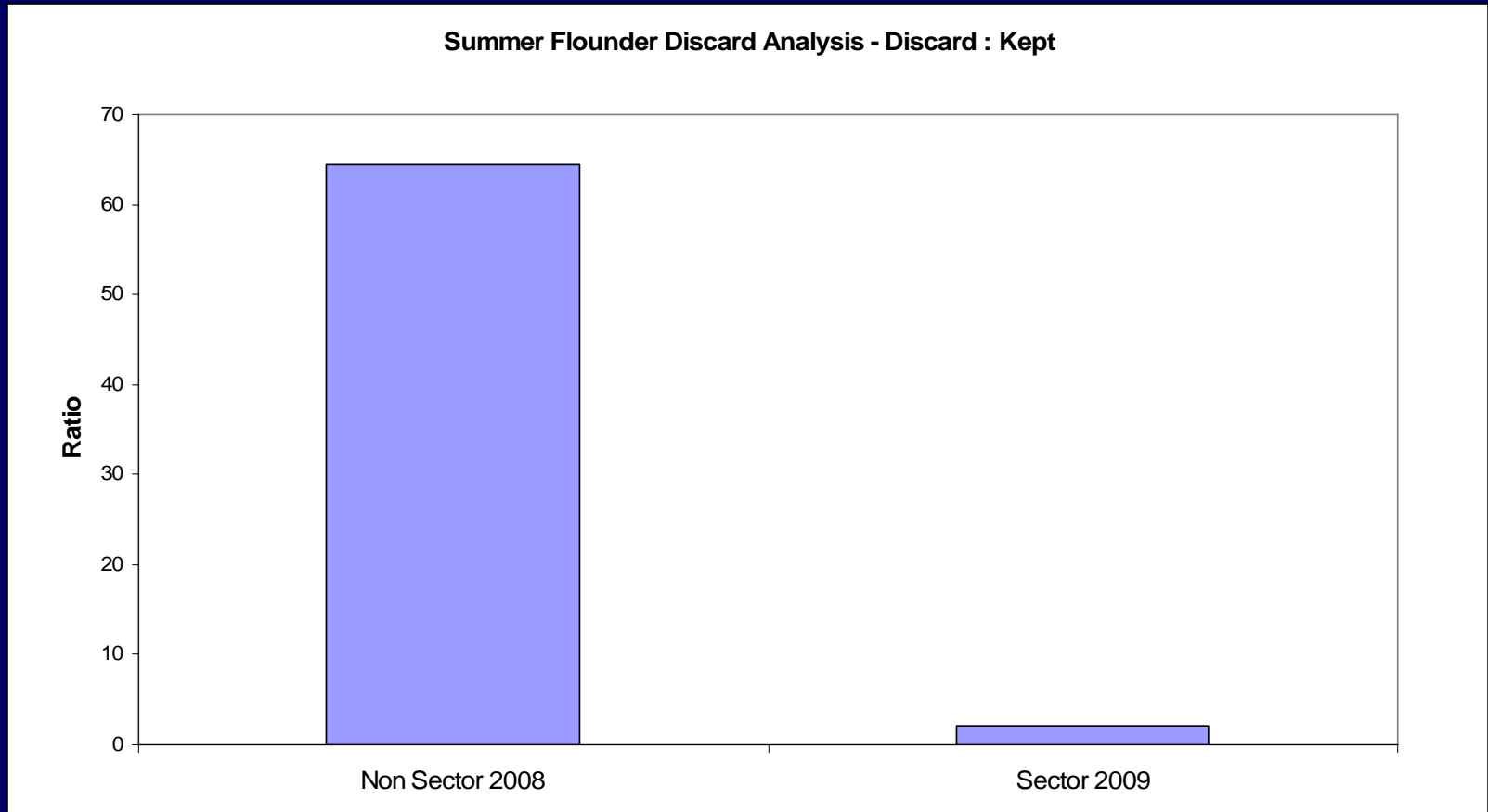
# Discard Analysis – Sector Vessels 2009 vs. Non Sector Vessels in 2008



• There are statistical differences between each group compared



# Discard Analysis – Sector Vessels 2009 vs. Non Sector Vessels in 2008



• These groups are statistically different

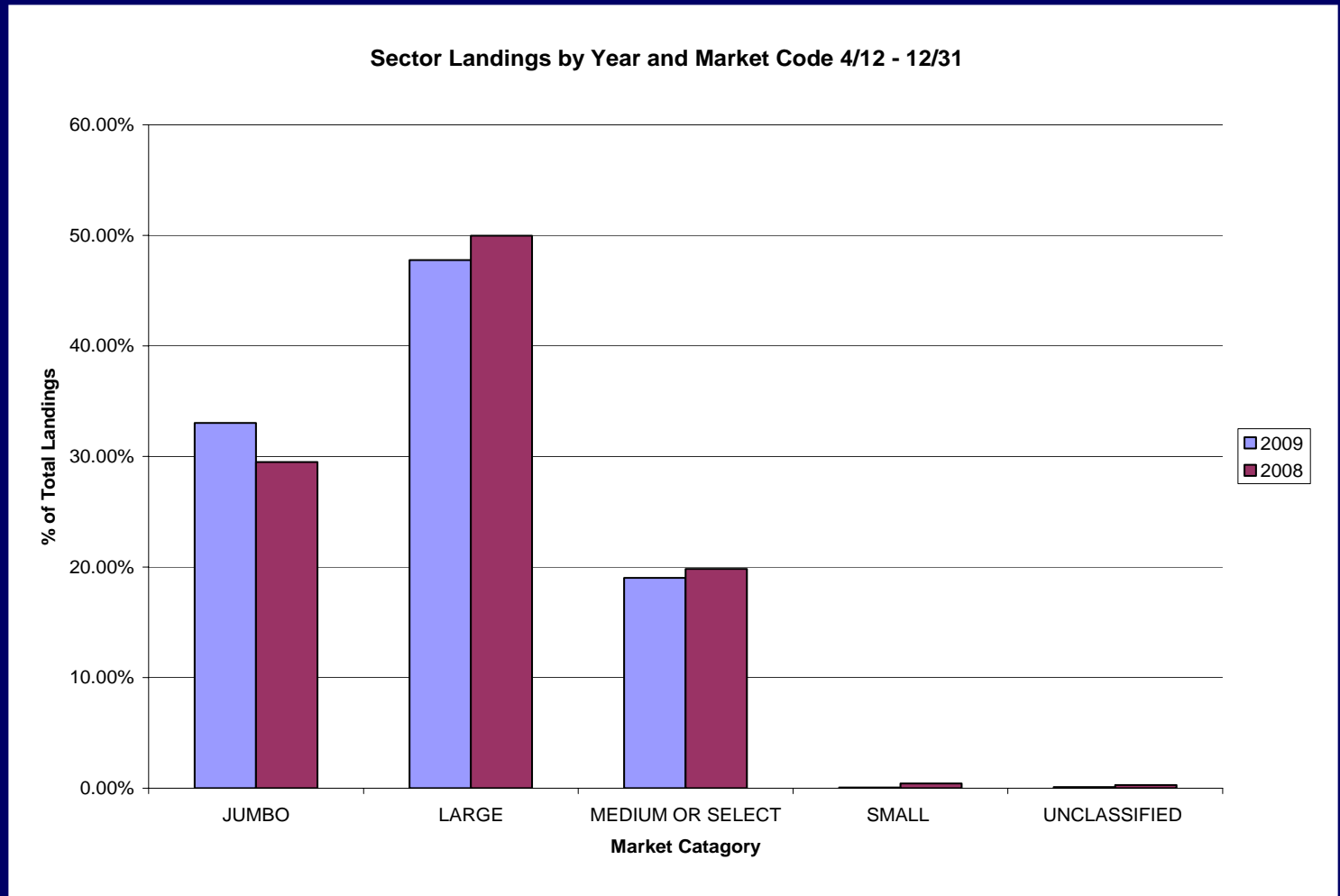


# Market Category Analysis

- The data source used for these analyses is SAFIS
- The data were queried for date, vessels, species (summer flounder), pounds landed, gear type, and market category
- The data were then filtered for the Sector vessels in 2008 (not operating in a sector mode) and 2009 (operating in sector mode) for a similar season (April – December) in the first analysis
- The data were then filtered for Sector vessels and Non Sector vessels in 2009 for the second analysis, and then further filtered for the same season (April – December) and similar gear types for the Non Sector data
- No statistical analysis was done on the Small and Unclassified market categories due to very low sample size ( $n < 10$  for each group), however they were indicated on the figures



# Market Category Analysis – Sector Vessels 2008 - 2009



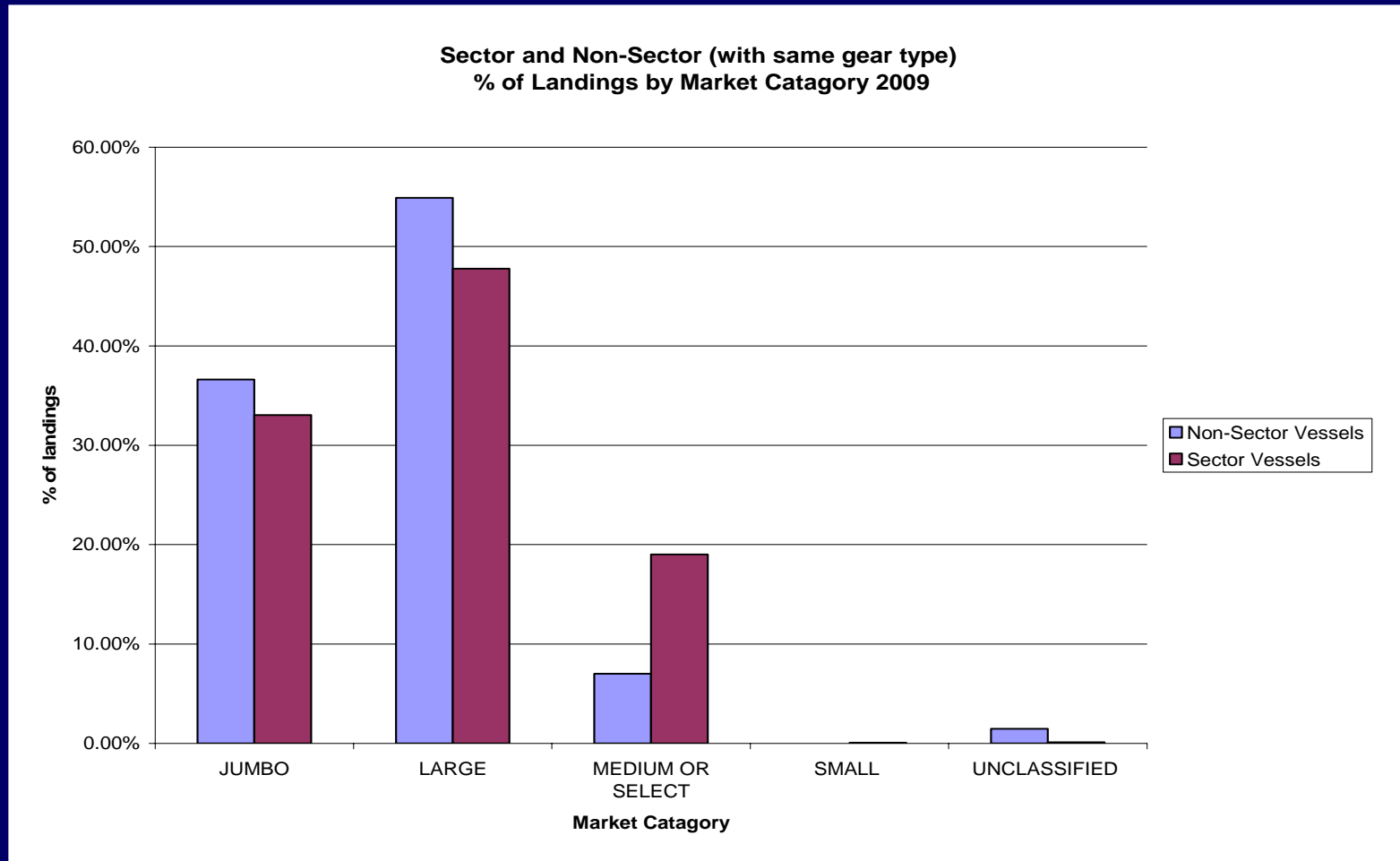
• SAFIS data used for analysis

• Data filtered for Sector vessels in 2008 and 2009





# Market Category Analysis – Sector Vessels vs. Non Sector Vessels in 2009



• SAFIS data used for analysis

• Non Sector data filtered for season (April – December) and similar gear (gillnets and otter trawls)



# Sector Analysis – Summary

- While some inaccuracies were found in the daily reporting from the Sector, the inaccuracies were small and the data were accurate over a longer time frame (week)
- The inaccuracies that occurred would not have impacted the monitoring of the TAC and was a back up to the monitoring of SAFIS landings
- No observer effect was indicated by the data, therefore there is confidence in accurate reporting of discards
- The interplay of discards in the calculation of the TAC needs to be considered, as does the potential underperformance of a Sector relative to the TAC
- The Sector program had a significant impact on discards, decreasing the amount of summer flounder that were discarded during fishing operations relative to 2008
- The market category analysis also indicated benefit to the resource by indicating that there was not high-grading occurring in the catch, and the catch was distributed across more market categories and by proxy a larger size range



# Sector Analysis – Further Work

- The DFW intends to do a discard analysis using the NMFS 2009 observer data for the whole fishery when available
- An additional set of analysis that the DFW would like to perform is to examine fishery independent data from both the NEMAP and RI DFW trawl surveys (see chart)

