Recreational Fisheries Science and Management Challenges

Rhode Island Division of Fish and Wildlife Perspective

Overview

- Introduction
- Change in species composition in RI waters
- Intro to MRIP data collection
- Federal catch limits and accountability measures
- Current example of challenges: black sea bass
- Conclusion

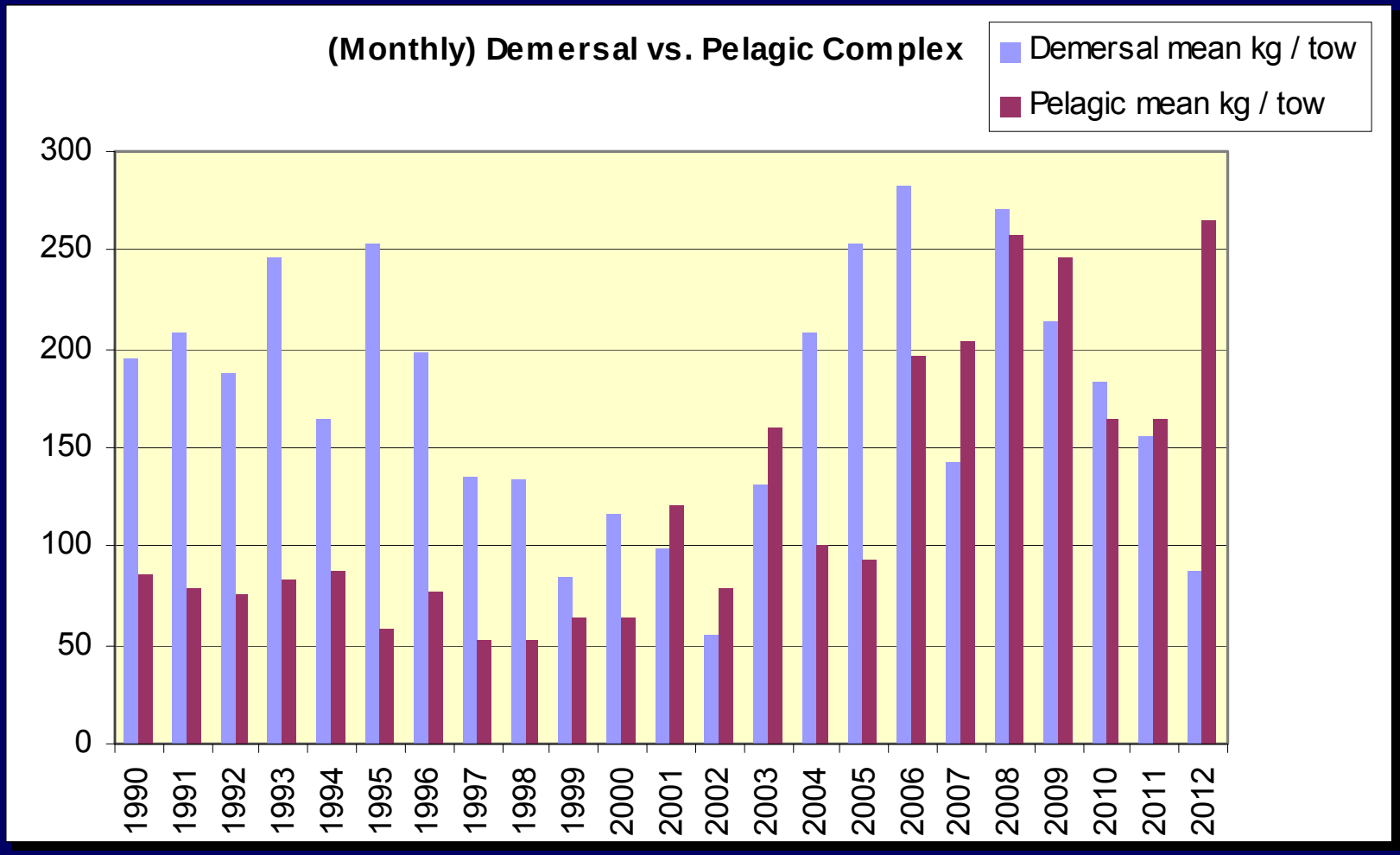
Introduction

- Recreational fisheries create unique challenges for fisheries scientists and managers
- The challenges increase as fish populations change characteristics and fishing demographics change
- Difficulties range from data collection to development of management plans for a diverse population
- In addition, the process exists across multiple layers of government

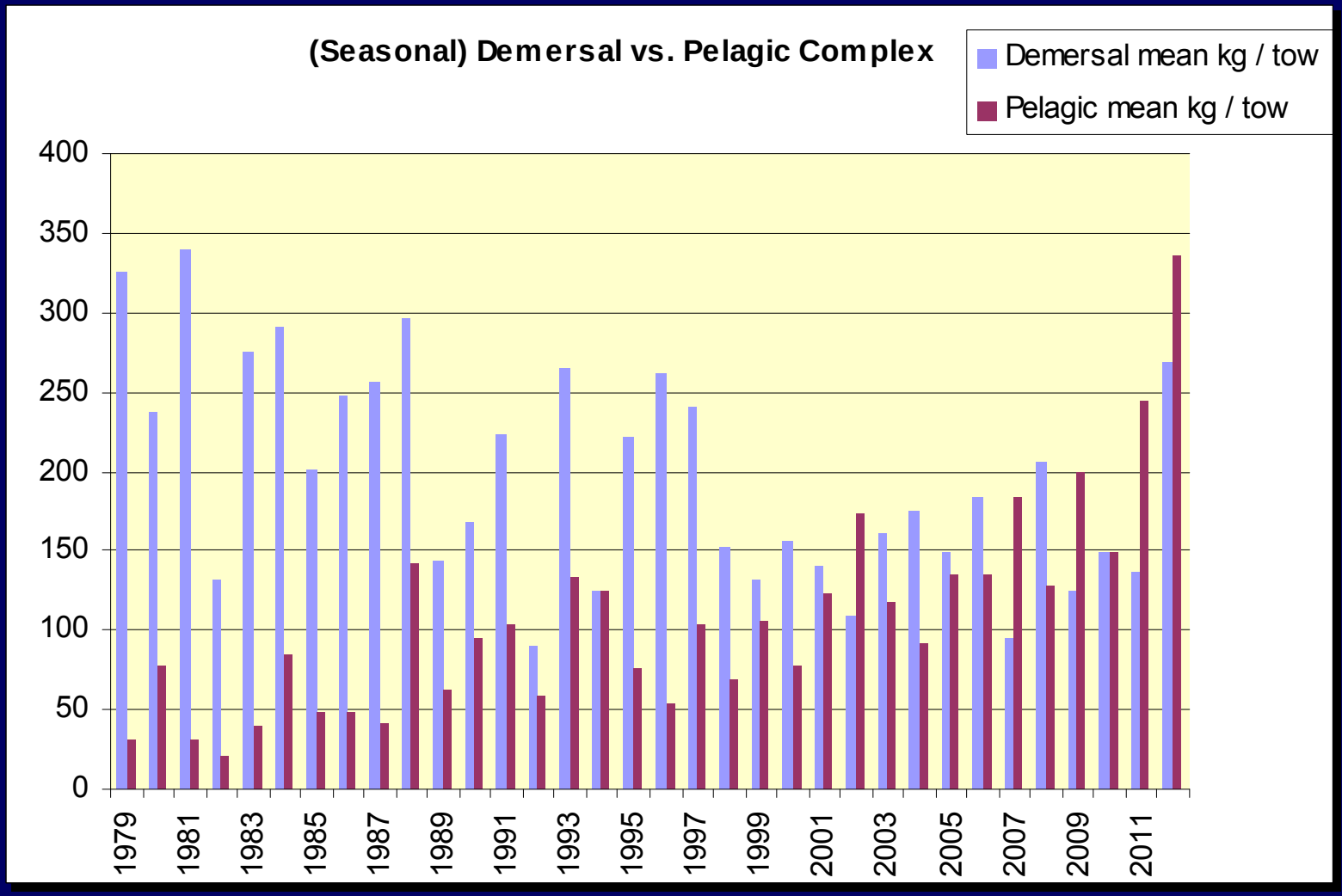
Species Composition in RI

- As discussed in the earlier climate change segments, species composition in RI waters is changing
- Demersal species such as winter flounder are being replaced by pelagic species such as bluefish
  - Seen in both the seasonal and monthly Narragansett Bay trawl surveys
- As fish populations change, the needs of RI recreational fishermen change as well

Species Composition in RI



Species Composition in RI



MRIP Data

- MRIP is a program that has replaced the previous recreational sampling program – MRFSS
- The job of MRIP is to account for recreational harvest and effort
- This information is used in part to decide how many fish can be taken recreationally without negatively affecting the sustainability of individual fisheries
- It's impossible to count every angler or observe every fishing trip
- We rely upon statistical sampling to estimate the number of trips recreational anglers are taking and what they are catching

MRIP Data

- Because MRIP is a “sampling” program, there are inherent inaccuracies and imprecisions in the program
- Depending on how the data is used (i.e. broken down to state, wave, and mode level) the harvest estimate can be highly variable
- In addition, species with more specialized fisheries (i.e. tautog) are problematic for the broad sampling framework to accommodate
- New MRIP methodologies should improve some of these issues

Federal Catch Limits and Accountability

- There are two main federal bodies that control catch limits
- The Regional Councils are set up under the MSA, the main ones RI is concerned with are the NEFMC and the MAFMC
- In addition to the RCs, there is a pact created by the Atlantic coast states, the ASMFC
- In the case of many species of recreational importance, there is overlap in authority between these agencies (scup, fluke, black sea bass)
- Increases the complexity of management, but allows for broader consideration for migratory species

Federal Catch Limits and Accountability

Federal (3-200 miles)

- Magnuson Stevens Act → Regional Councils and NOAA Fisheries
- Key FMPs (NEFMC): groundfish, monkfish, skates, dogfish, sea herring, scallops
- Key FMPs (MAFMC): squid/mackerel/butterfish, fluke/scup/black sea bass

Interstate (0-3 miles, coastwide)

- ACFMA → ASMFC
- Key FMPs: lobster, striped bass, fluke/scup/black sea bass, tautog, menhaden, river herring, dogfish, winter flounder

State (0-3 miles, RI waters)

Title 20 → RIMFC → RIDEM

Black Sea Bass

- Black sea bass is a current and extreme illustration of the complexity of administering fisheries science and management for a recreational species
- Update assessment produced in early summer 2012; not overfished, overfishing not occurring
- Update assessment went to the SSC in July 2012
- SSC designated the assessment as Tier 4, requires constant catch and does not use assessment results for quota setting

Black Sea Bass

- Recreational harvest calculated for information available (only waves 1 – 4) in December 2012
- Harvest was estimated to have exceeded harvest target (harvest target set according to constant catch, which in turn was set for a period of time prior to now)
- Information sent to the MCs and TCs for inclusion of management uncertainty and recommended ways to achieve the needed reductions in harvest
- Recommendations were then sent to Management Board

Black Sea Bass

- Management Board remanded the species back to the SSC for reconsideration
- SSC reconsidered in January 2013 and increased constant catch value based on more contemporary harvest levels
- The new harvest limits were calculated and sent back to the TC and then MB, where management decisions are still being considered at this time
- This is an extreme example, but illustrates the many considerations that need to occur before we get to setting the recreational management plan in each year

Conclusion

- Multiple Issues and challenges facing fisheries scientists and managers
  - Challenges are increasing with:
    - Changes in fish populations
    - Changes in fishing demographics
- Inaccuracies and imprecision of MRIP
  - Can not observe/sample every angler or fishing trip
  - Problems with specialized fisheries (i.e. tautog)
  - New methodologies to improve the program
- Recreational management process involves multiple layers of government
  - Increases complexity of management