

Science, Service, Stewardship



The Atlantic Shark Fishery: Management Past, Present, and Future

Presented to the
HMS Advisory Panel
Shark Working Group
May 2010

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Objectives

- To review the shark fishery as a whole:
The science, the management, the fishermen, the market
- To discuss and gain an understanding of different visions for the fishery
 - What could the fishery look like?
 - How do we achieve that?



Brief Outline

- Review of the science
- Review of the management history
- Changes in the fishery over time
- Current issues
- List of potential solutions
- Discussion



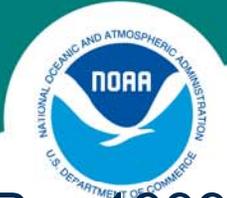
Stock Assessments

- THEN:
 - SEW: 1992, 1994, 1996, 1998, 2002 LCS
 - 2002 SCS NMFS and Mote/UFL
 - 2005 Canadian porbeagle
- NOW:
 - SEDAR-like: 2005/2006 LCS, 2007 SCS
 - NMFS: 2006 Dusky
 - SCRS: 2008 Shortfin mako, Blue; 2009 Porbeagle



Upcoming Assessments

- **SEDAR: 2010 Sandbar, Dusky, Blacknose**
—Following SEDAR Process, with changes
- **Potential: 2009 Scalloped Hammerhead**
—Peer-reviewed article
- **SCRS: 2012 (maybe) Blue and Shortfin mako**
- **Requests for other species (these are not scheduled)**
—Bignose, common thresher, blacktip – Gulf and Atlantic, hammerheads, prohibited species, smooth dogfish
—Others?



Past Commercial Regulations

- Pre-1999
 - No limited access; calendar fishing year
 - 4,000 lb dw trip limit for LCS; no trip limit for SCS or pelagics; no SCS quota until 1997; 5 prohibited species in 1997
- 1999-2008
 - Limited access; separate trip limits for directed and incidental permits; workshops for dealers and fishermen
 - Reduced LCS & SCS quotas; split pelagics grouping/quotas; ridgeback/non-ridgeback LCS split; expanded prohib. spp. list
 - Seasons/regions; re-aggregated LCS complex; removed deepwater sharks from management unit; closed areas
- Post 2008
 - Sandbar research fishery; 33 non-sandbar LCS trip limit
 - Requirement to offload sharks with fins naturally attached
 - Reduced sandbar, non-sandbar LCS, & porbeagle quotas



Past Recreational Regulations

- Pre-1999
 - No minimum size
 - 4 LCS and/or pelagics vessel/trip → 2 LCS/pelagics/SCS vessel/trip + 2 Atlantic sharpnose person/trip
 - 5 prohibited species
- 1999-2008
 - 4.5 ft size limit (except Atlantic sharpnose & bonnetheads)
 - Expanded prohib. spp. list (19 species)
 - Reduced bag limit to 1 LCS/pelagic/SCS vessel/trip + 1 Atlantic sharpnose & 1 bonnethead person/trip
- Post-2008
 - Additional prohibited spp. (21 species)



Recent Regulations ASMFC IFMP for Atlantic Coastal Sharks

- Seasonal closure in state waters of NJ thru VA
- Sharks must have tails and fins naturally attached
 - Recreationally caught sharks must also have heads attached
 - Seasonal exemption in the commercial smooth dogfish fishery
- Coordination with federal management
 - Adoption of federal prohibited species list
 - States waters close to commercial shark fishing when federal waters close
 - Federal shark dealer permit required to purchase sharks caught in state waters
- Retention Limits:
 - Recreational bag limit of 1 shark + 1 bonnethead + 1 sharpnose; smooth dogfish do not count toward retention limit ; 54” recreational minimum size (not applicable to SCS or smooth dogfish)
 - Commercial retention limits to be implemented as annually specified
- Includes authorized gears, bycatch reduction requirements



Recent Regs., cont. 2010 Shark Specs

- Final Rule published on January 5, 2010 (75 FR250).
- Management measures:
 - Adjusted the 2010 season quota based on overharvests
 - Delayed the opening of the non-sandbar LCS in the Atlantic region and SCS.
- Opening dates:
 - *January 5*—Research fishery, Blue sharks, Porbeagle sharks, Pelagic Sharks Other Than Porbeagle or Blue
 - *February 4*—Non-sandbar LCS fishery in the GOM region
 - *On effective date of Amendment 3*—SCS fishery
 - *July 15*—Non-sandbar LCS fishery in the Atlantic region to match ASMFC state closure and provide equitable opportunities



Recent Regs., cont Amendment 3

- Establish non-blacknose SCS and blacknose quotas
- Work internationally to prevent overfishing of shortfin mako
- Promote the live release of shortfin mako sharks in both commercial and recreational fisheries
- Add smooth dogfish to the management unit; Implement measures in 2012

2010 Season

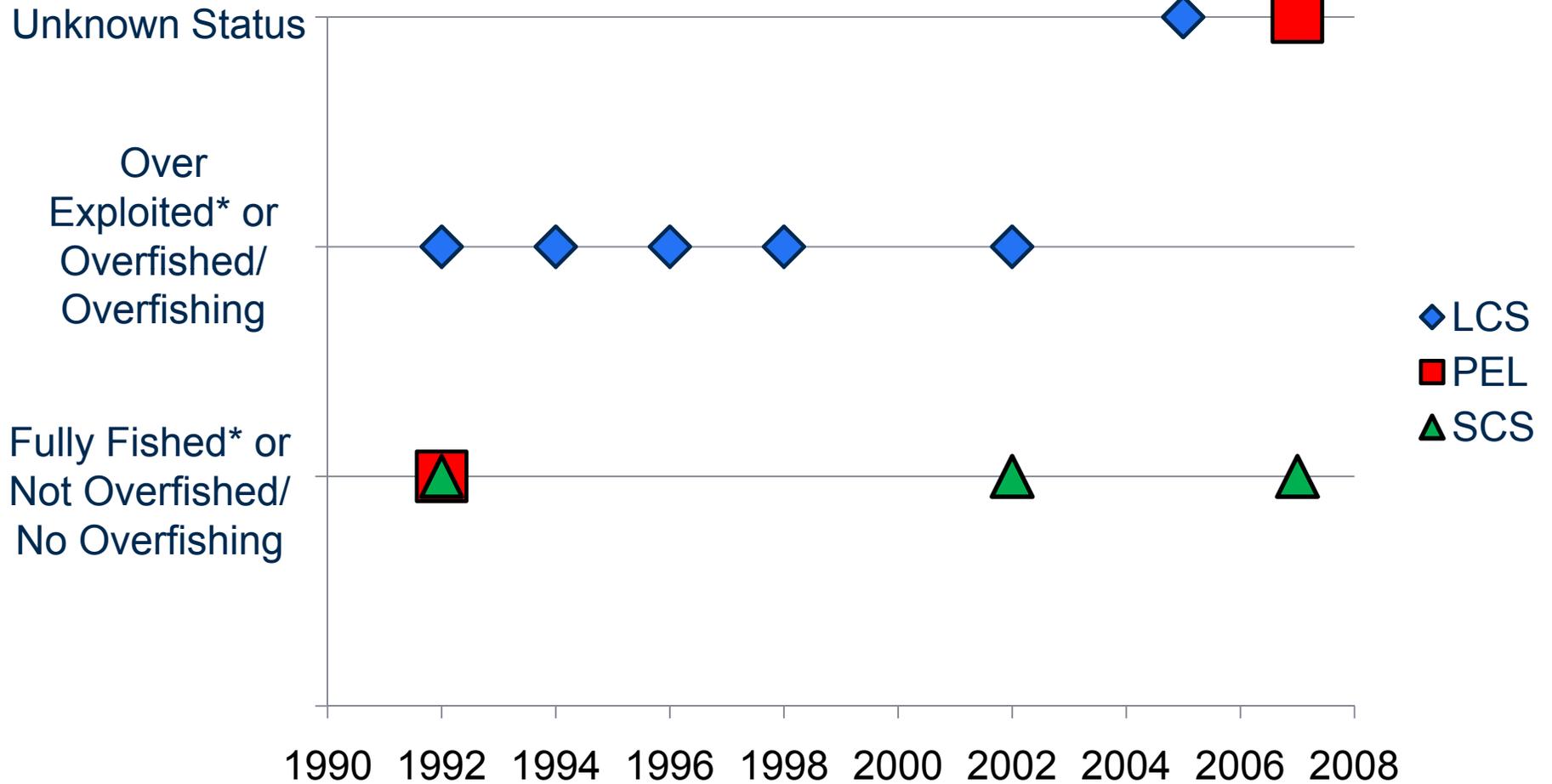
Species Group	Region	Season Opening Dates	2010 Fishing Quota	Current 2010 Landings	Percentage of Quota
Non-Sandbar Large Coastal Sharks	Gulf of Mexico	February 4 (Closed Mar. 17)	390.5 (860,896 lb dw)	402.1 (886,367 lb dw)	103%
	Atlantic	July 15	169.7 (374,121 lb dw)	0.04 (88 lb dw)	<1%
Non-Sandbar LCS Research Quota	No regional quotas	January 5	37.5 (82,673 lb dw)	8.4 (18,436 lb dw)	22%
Sandbar Research Quota		January 5	87.9 (193,784 lb dw)	14 (30,846 lb dw)	16%
<i>Non-Blacknose Small Coastal Sharks</i>		<i>Effective date of Amendment 3 final rule</i>	221.6 (488,539 lb dw)	-	-
<i>Blacknose Sharks</i>		<i>Effective date of Amendment 3 final rule</i>	19.9 (43,872 lb dw)	-	-
Blue Sharks		January 5	273 (601,856 lb dw)	0.5 (1,150 lb dw)	<1%
Porbeagle Sharks		January 5	1.5 (3,307 lb dw)	0.3 (574 lb dw)	17%
Pelagic Sharks Other Than Porbeagle or Blue		January 5	488 (1,075,856 lb dw)	33 (73,327 lb dw)	6.8%

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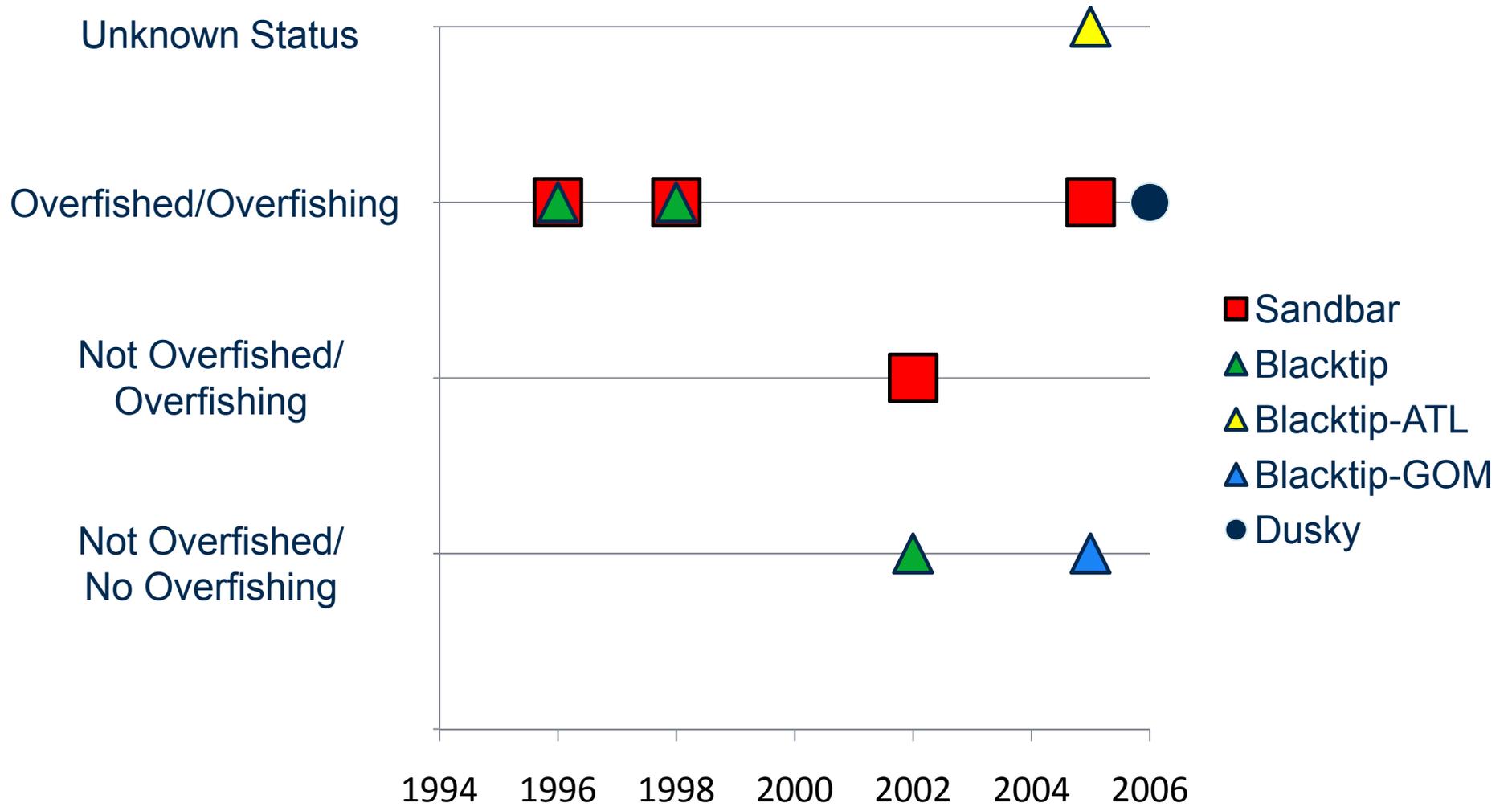


Changes in the Fishery Over Time – in pictures

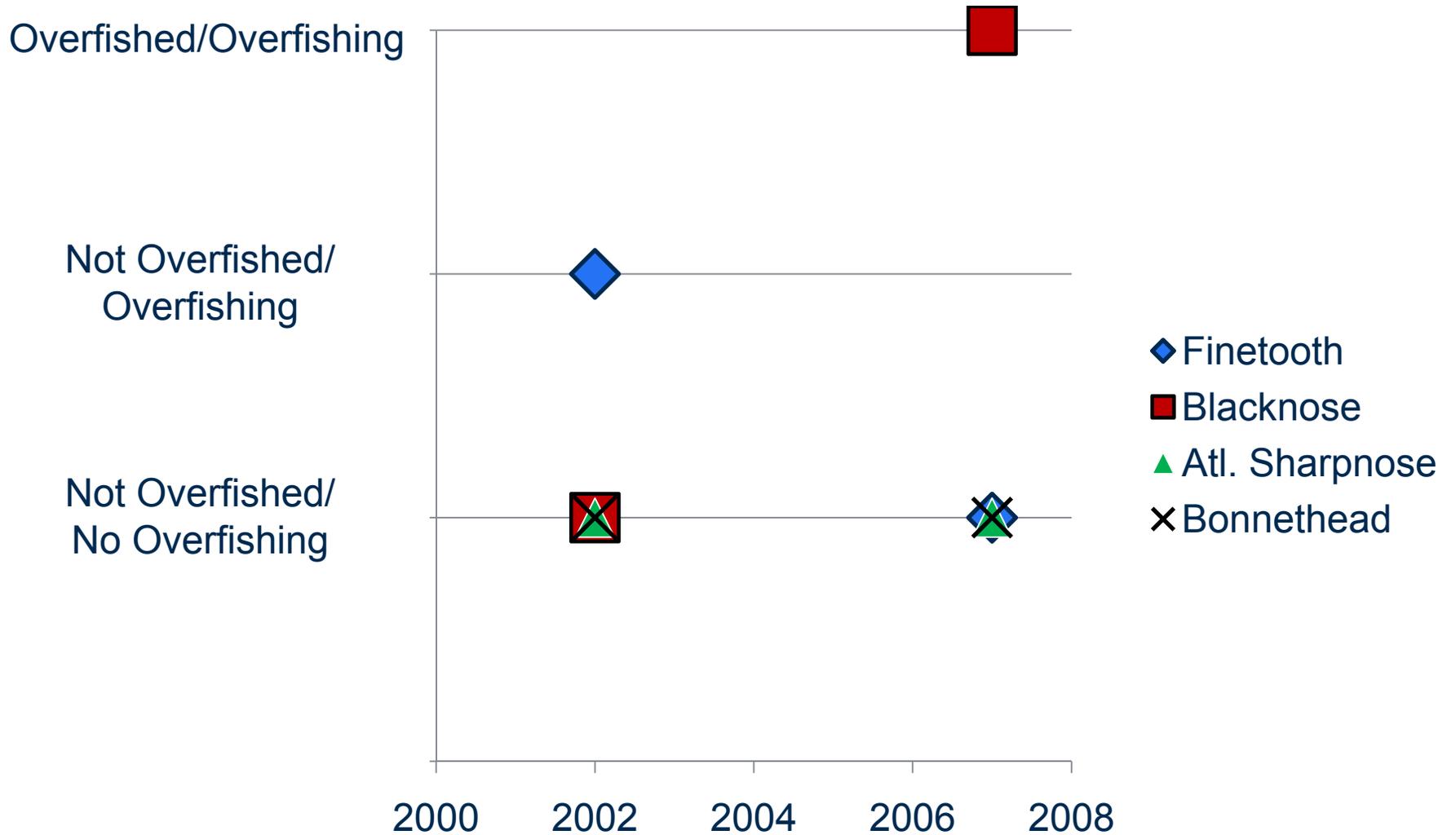
Changes in Stock Status - Complexes



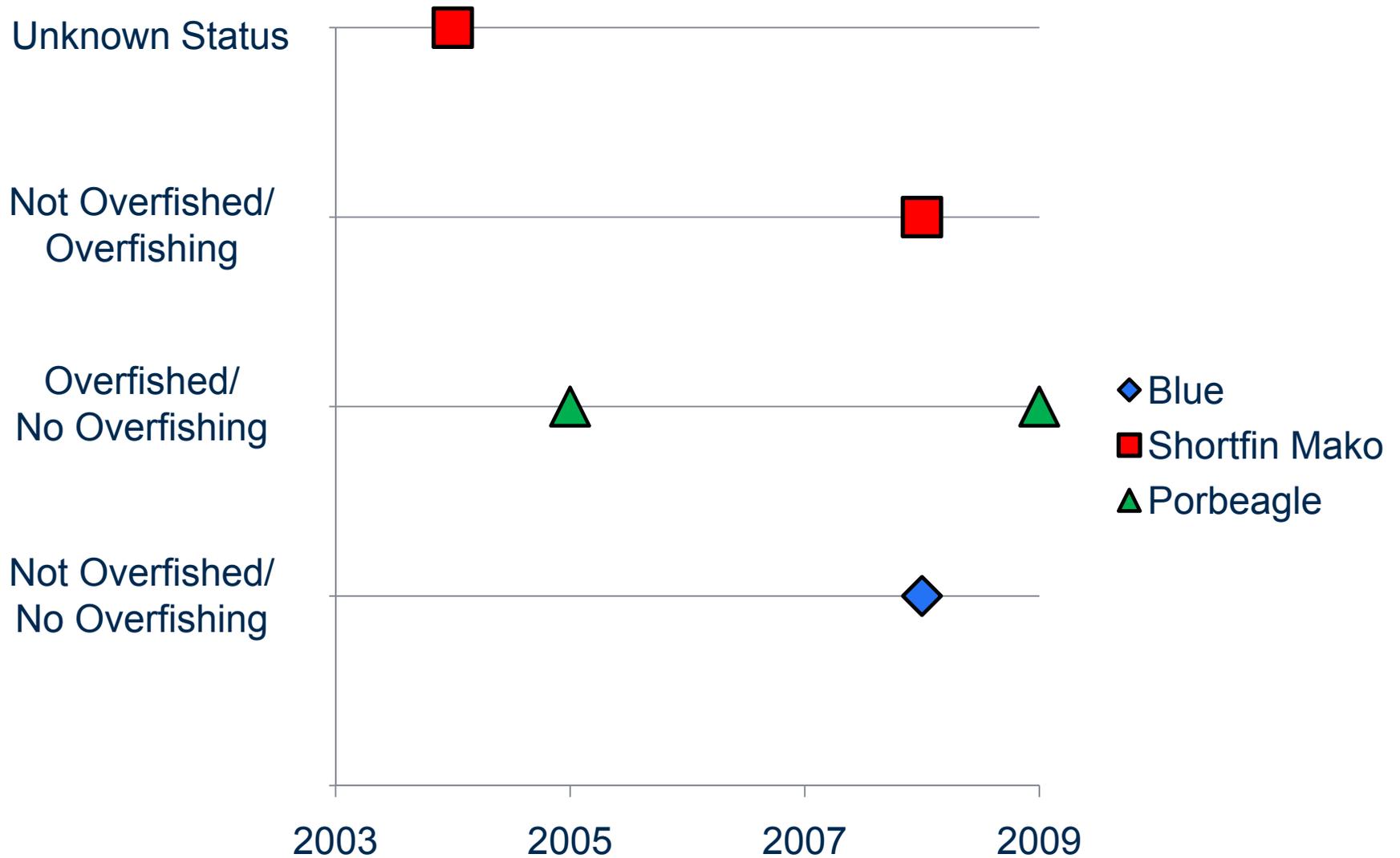
Changes in Stock Status - LCS



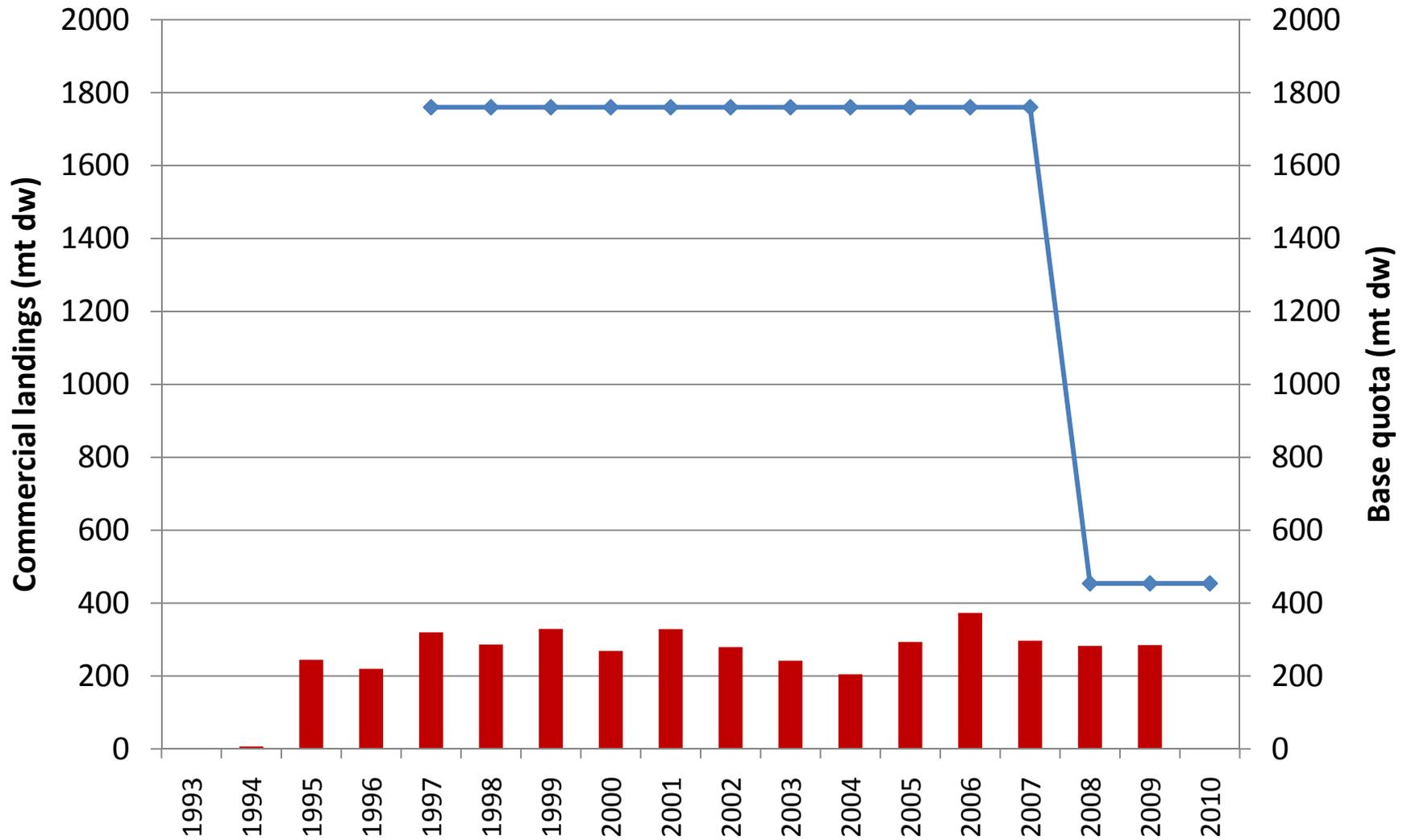
Changes in Stock Status - SCS



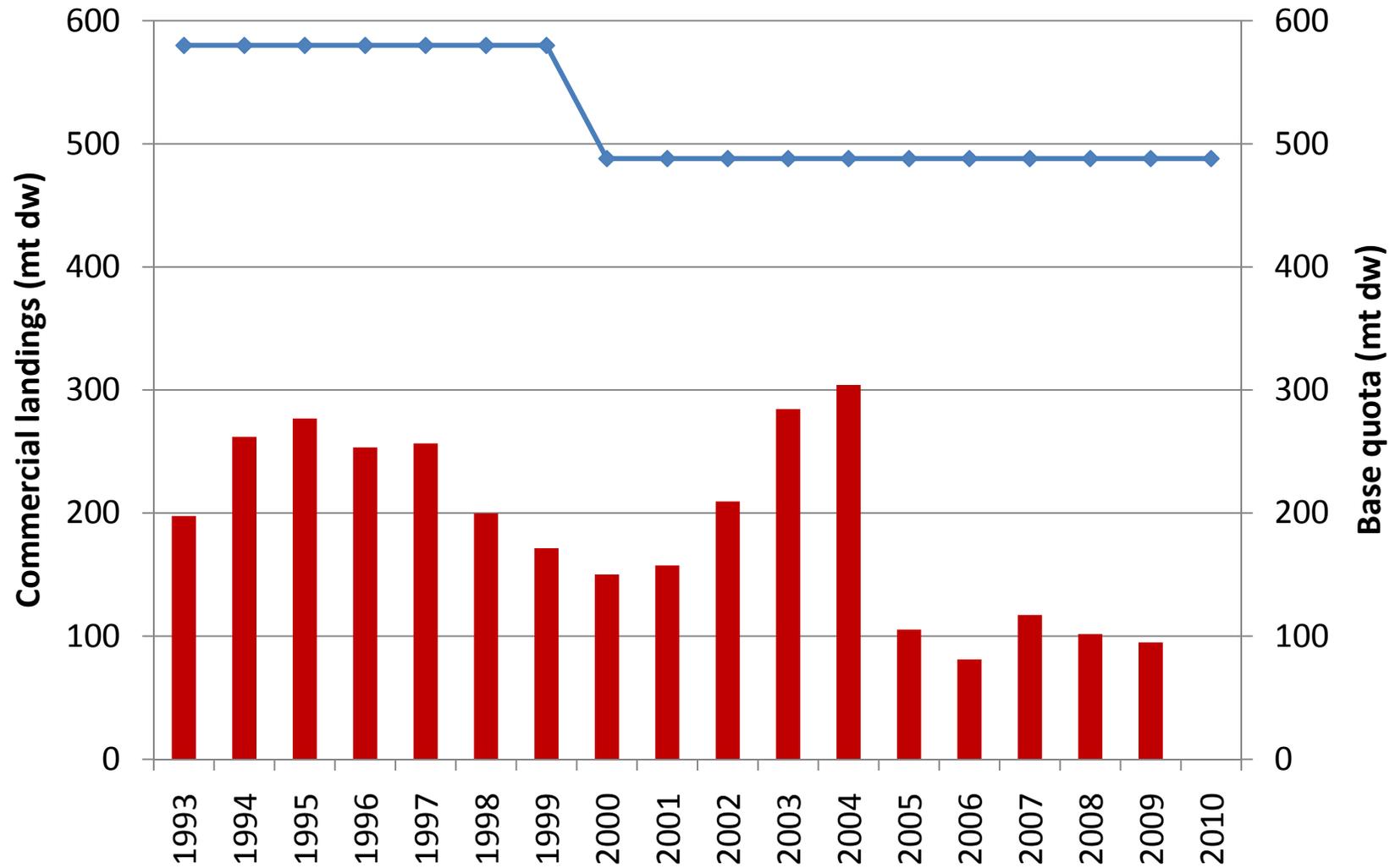
Changes in Stock Status - Pelagics



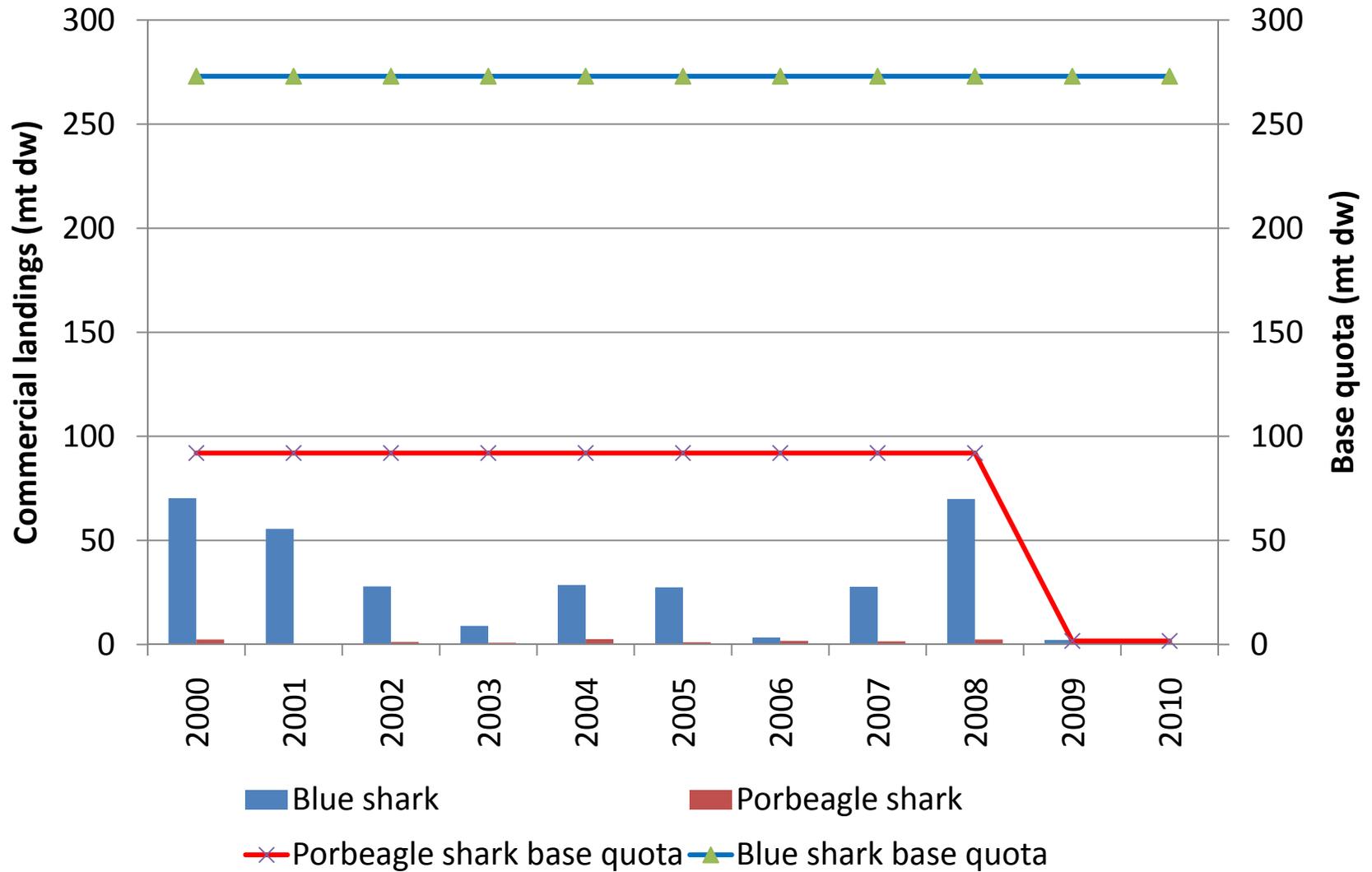
SCS Landings vs. Quota (1993 - 2009)



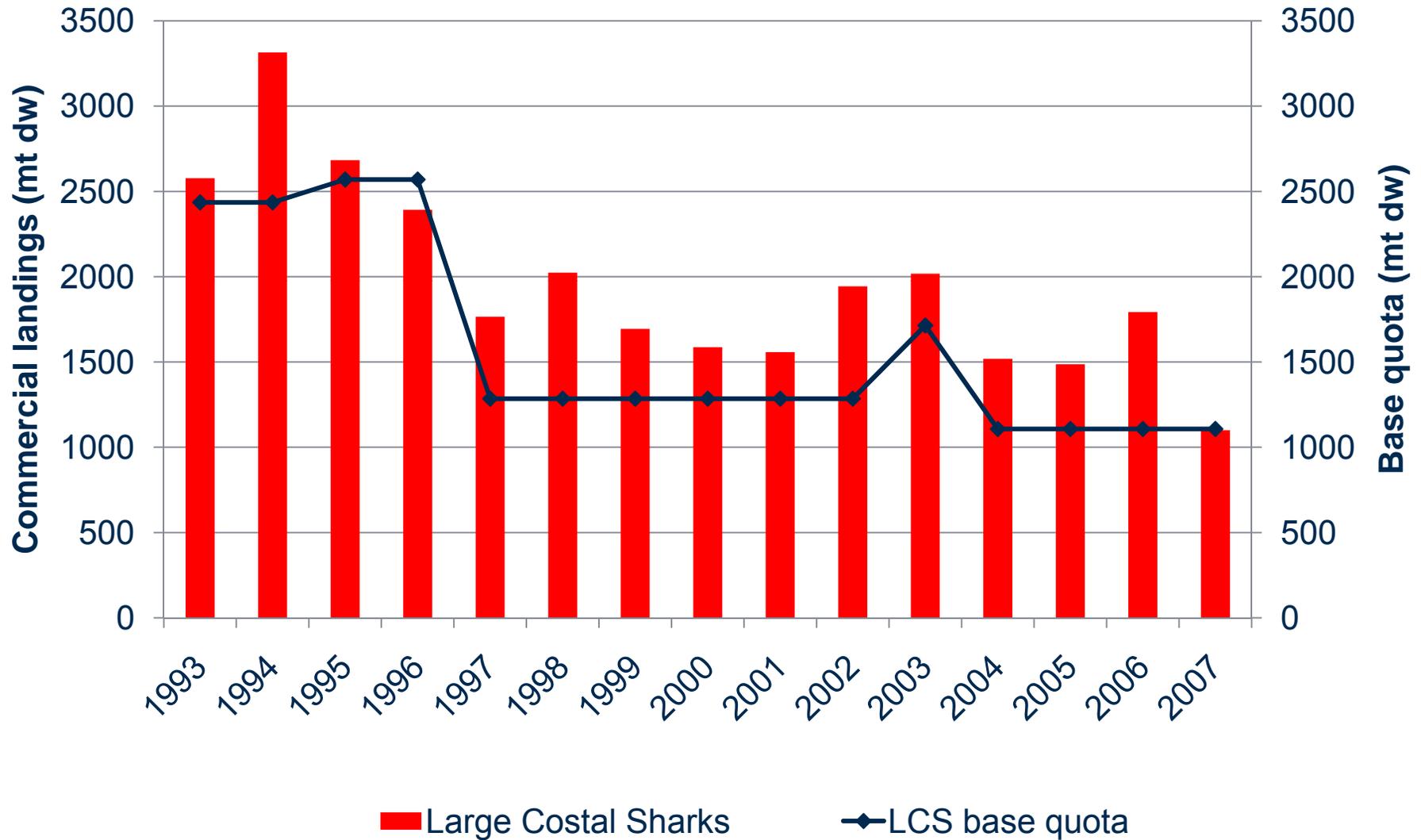
Pelagic Shark Landings vs. Quota (1993 - 2009)



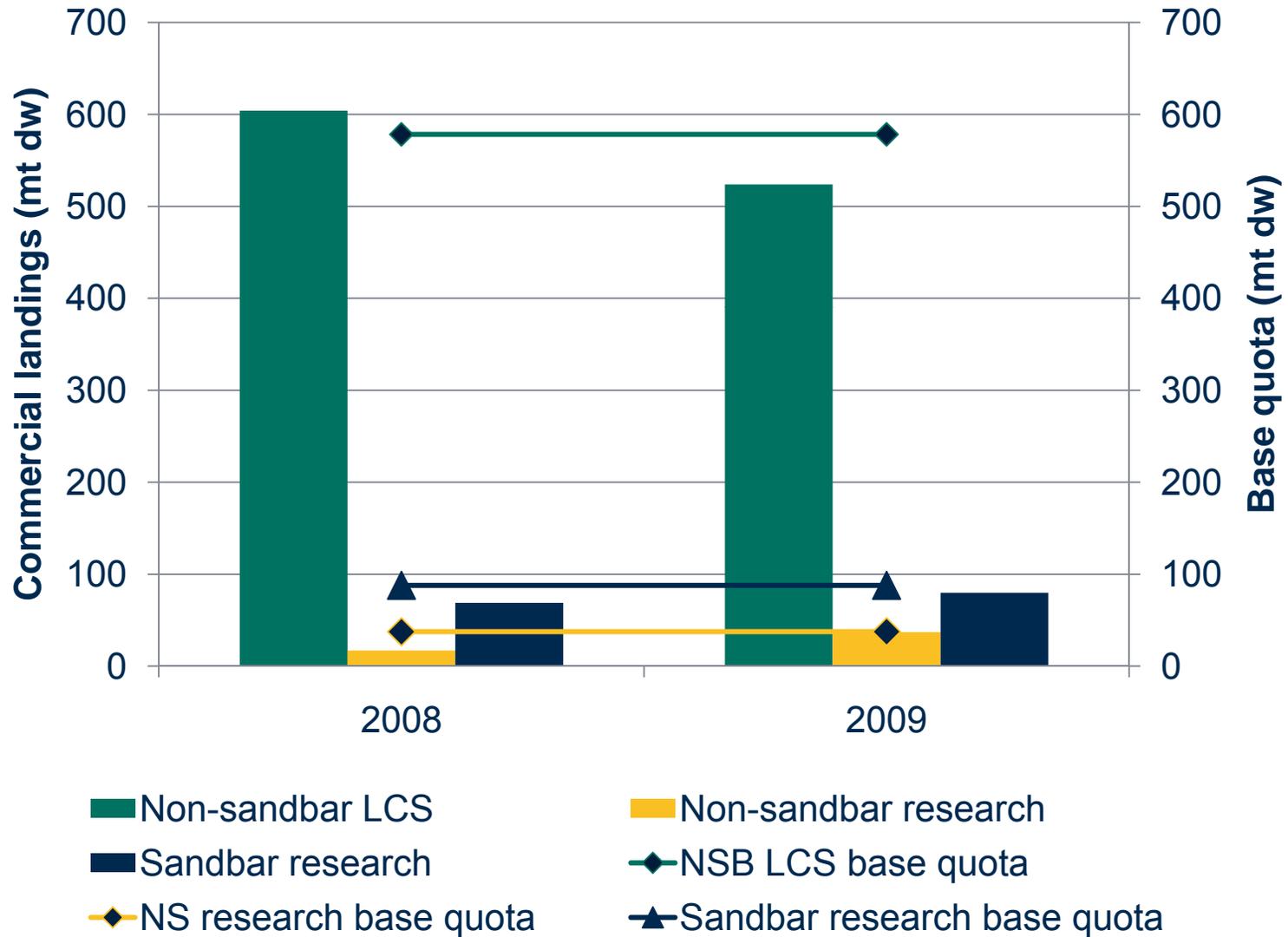
Blue and Porbeagle Landings vs. Quota (2000 – 2009)



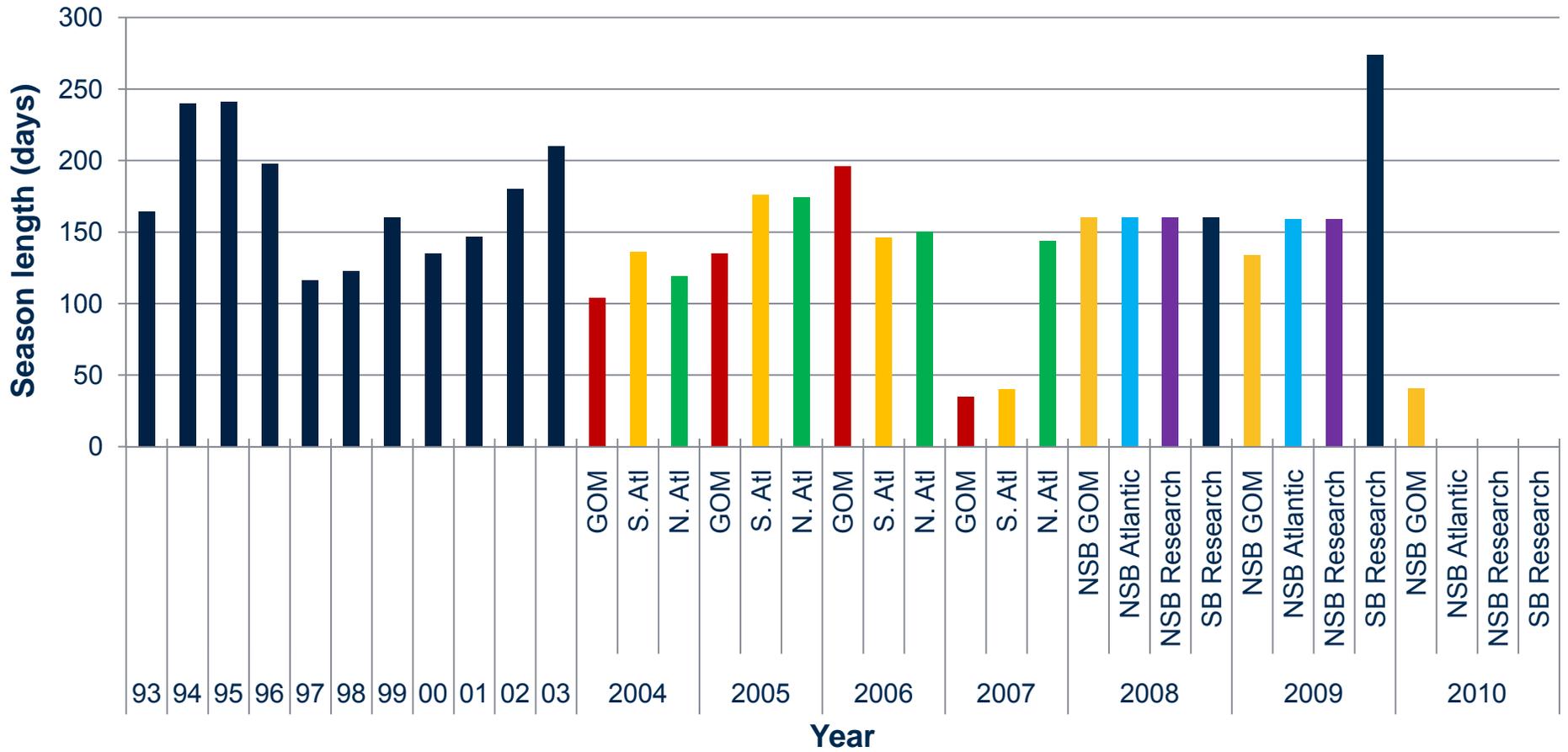
LCS Landings vs. Quota (1993 – 2007)



LCS Landings vs. Quota (2008 – 2009)



Season Length of LCS (1993-2010)



GOM and Atlantic

GOM

NSBGOM

S. Atlantic

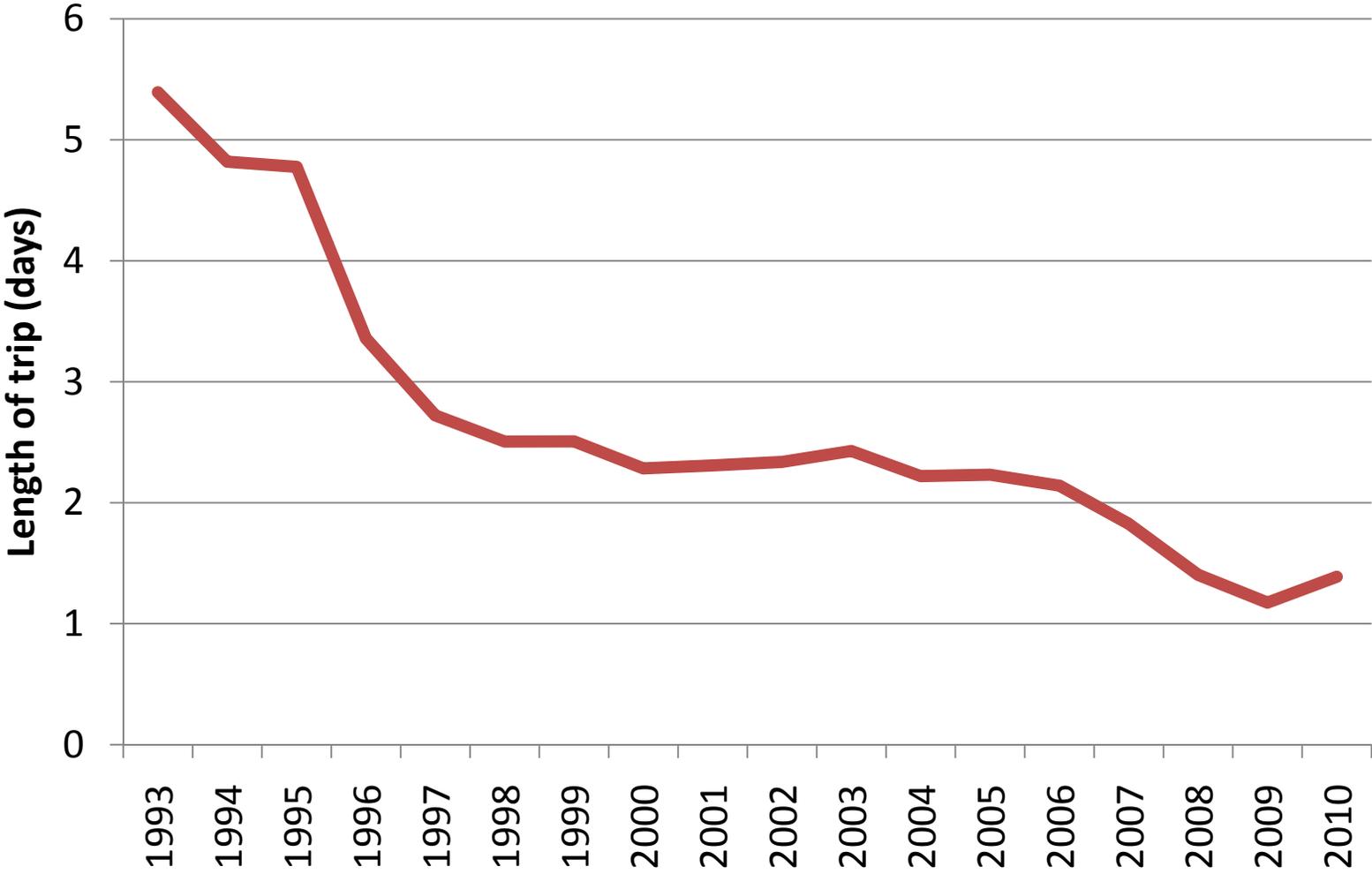
NSB Atlantic

N. Atlantic

NSB Research

SB Research

Average Shark Trip Duration

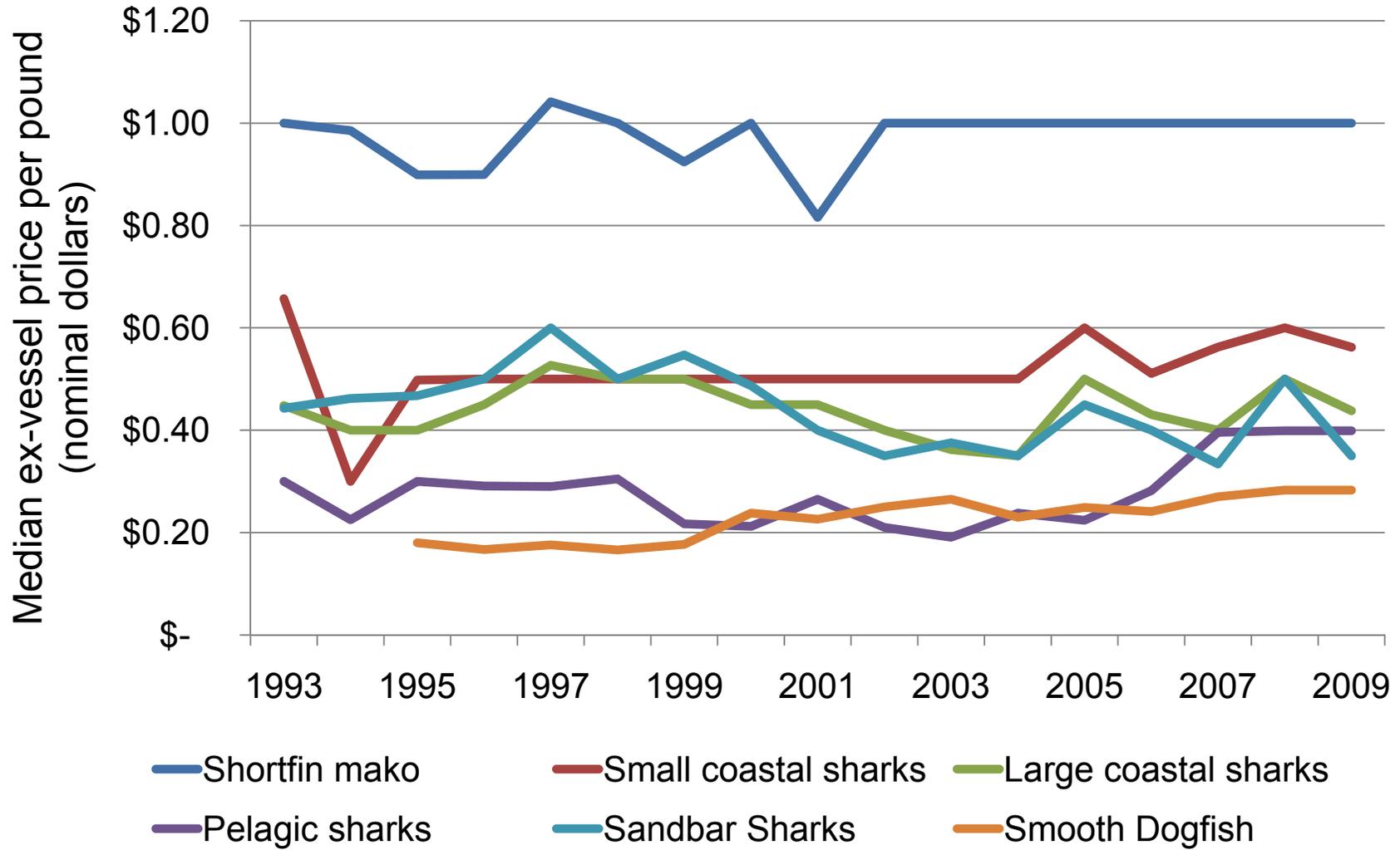


Number of Permits

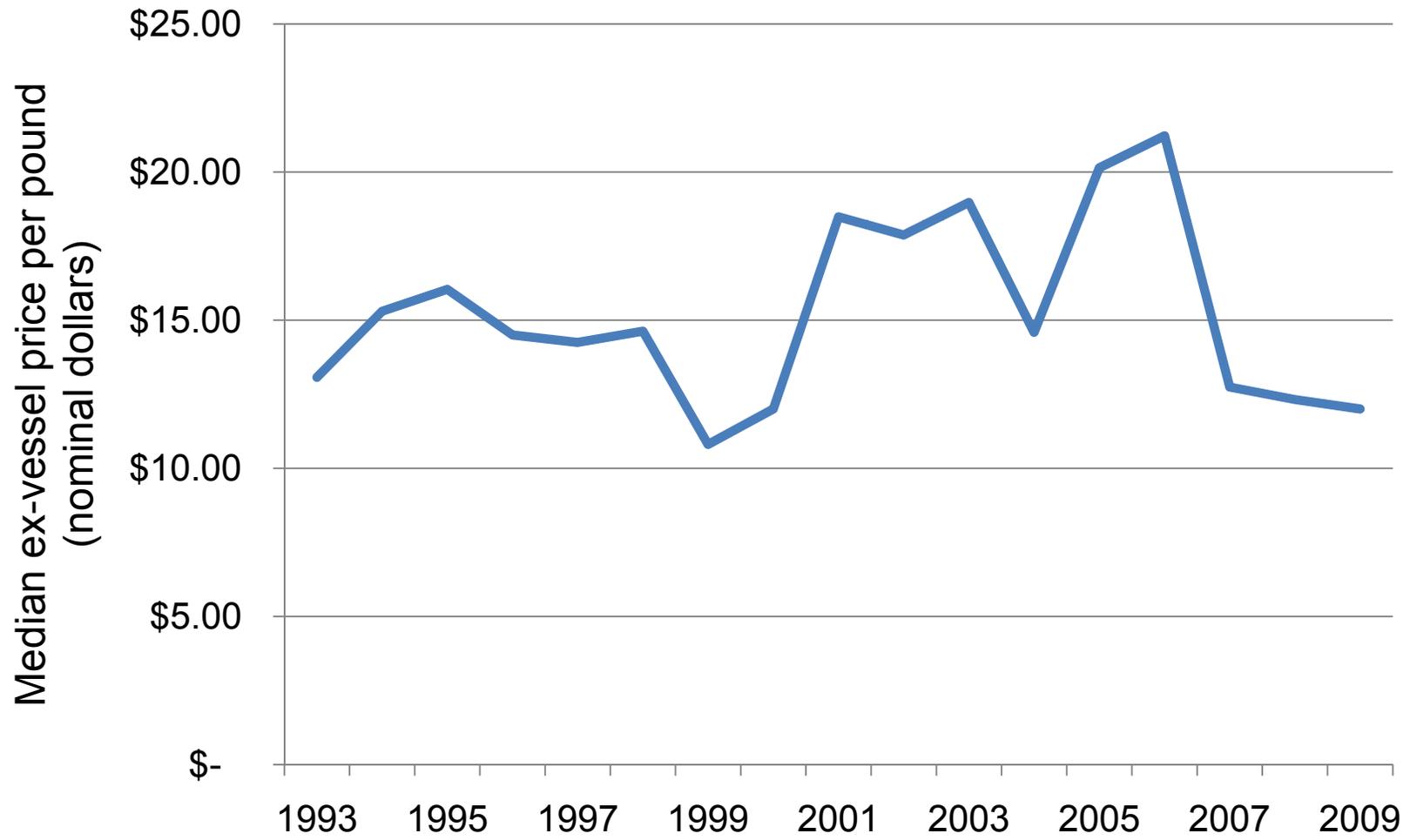
Before Limited Access, there were ~2,200 permits



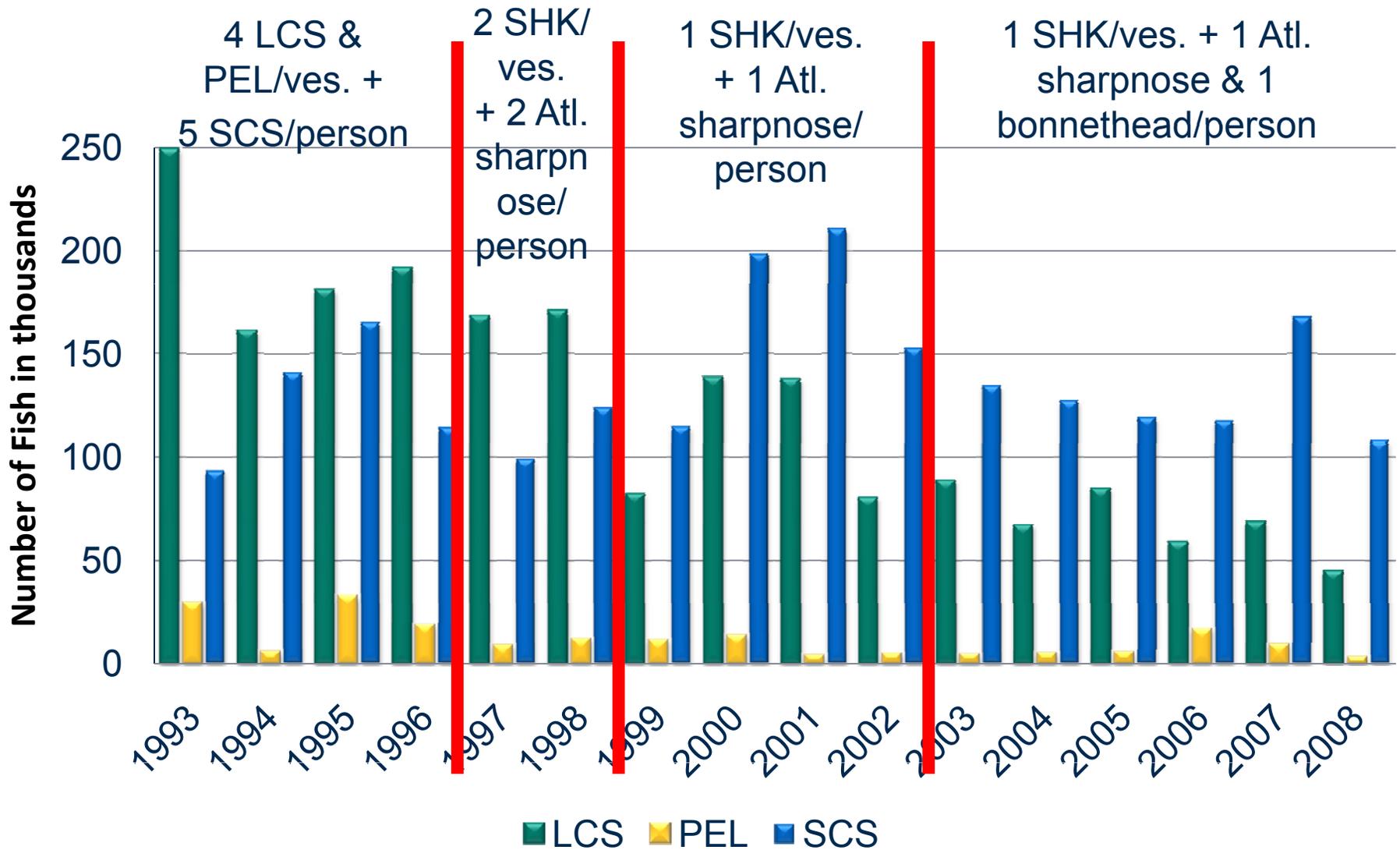
Shark Ex-Vessel Prices



Shark Fin Ex-Vessel Prices



Recreational Landings & Bag Limits





Some Continuing Issues

This is a short list; there are more

- Changing stock status
- Changing quotas (reductions, over/underages, species specific, etc)
- Short seasons
- Overcapacity
- Unstable markets
- Safety at sea
- Splitting trips
- Recreational landings fluctuate and include prohibited species
- Increasingly complex regulations
- Increasing involvement at international level
- Bycatch in unauthorized gears



Amendment 2 – an example

- Intent simplified:
 - Implement rebuilding plan for sandbar sharks and provide for a sustainable fishery for non-sandbar LCS
 - Reduce non-sandbar LCS landings per trip to lengthen season year-round
 - Expected that fishermen would no longer direct on non-sandbar LCS
 - Keeping season open => fewer regulatory dead discards
 - Longer season => Stable market, higher prices
- Result:
 - Fishermen continue to direct effort on non-sandbar LCS
 - Seasons still short – around 150 days in 2008 and 2009 – but only 50 in GOM so far in 2010
 - Prices appear relatively unchanged compared to previous years
 - Need for more regulations?

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What should the future look like?

Here are some, not all, ideas mentioned over the years.....



Potential Ideas

- Continue with current management
 - All the issues raised above likely to continue - short seasons, too many vessels, reduced quotas, etc
 - Regulations likely to continue to change frequently to address ongoing issues – i.e., reactive to current conditions such as changes in status of stock, overharvests, etc.



Potential ideas, cont.

- Change Quota Structure
 - Change species groups
 - Only complexes, no species-specific quotas
 - Ridgeback/non-ridgeback for LCS
 - All species-specific quotas, no complexes
 - Move species between complexes and adjust quota – e.g., move blacktip to SCS
 - Re-consider regions, time/area closures, and/or seasons
 - Establish bycatch quotas – e.g., for prohibited species in shark fishery, for sharks caught in unauthorized gears, for protected species
 - Limit quotas by gear and/or type of permit – e.g., gillnet quota, longline quota, regional quota, recreational quota



Potential Ideas, cont.

- **Change Permit Structure**
 - Use or lose for all or some permits – e.g., don't use permit for 2 years, lose permit
 - Match permit capacity to quota – e.g., limit number of permits to the match the effort needed to catch the quota over the entire year
 - Permit stacking – allow multiple permits and trip limits on each vessel (3 permits = 3 trip limits)



Potential ideas, cont.

- Catch Shares
 - Would be designed specifically for the shark fishery (address issues above and others such as bycatch, protected resources, communities, fishermen's concerns)
 - Would be based on needs of all sectors, gear users, and state-only fishermen
 - Would need lots of input from fishermen, NGOs, states, and interested parties
 - Would be designed with specific goals in mind – e.g., increase market stability, reduce quota over/underharvests, reduce capacity
 - Would not be immediate



Discussion

- What could the fishery look like?
- How do we achieve that?
- What are pros and cons of those ideas?
- What is the best way to engage interested parties?

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More thoughts?

If you have other ideas, please feel free to share them:

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