

National Marine Sanctuaries
National Oceanic and Atmospheric Administration



NATIONAL MARINE
SANCTUARIES



Status of Socioeconomic Work in the Florida Keys National Marine Sanctuary

Bob Leeworthy

Sanctuary Advisory Council Meeting

August 18, 2015

Historical Work

- Recreation and Tourism
- Commercial Fisheries
- Marine Zoning/Marine Reserves
- Knowledge, Attitudes and Perceptions
- Climate Change

<http://sanctuaries.noaa.gov/science/socioeconomic/floridakeys/>

Recreation-tourism

- 1995-96 Study (Visitors & Residents)
- 2000-01 Reef Study –Artificial & Natural Reefs (Visitors & Residents)
- Spiegel Grove (2001-02 Pre & 2002-03 Post)
- 2001 Spiny Lobster
- 2005 Willingness to Pay for Bag Limits (1992 and 2001 Surveys)
- 2004 Long-term Trends in Spiny Lobsters (1992-2002)

Recreation-tourism

- 2007-08 Study (Visitors & Residents)
- 2011 Vandenberg (2007-08 Pre and 2009-10

Recreation - Tourism: Visitor Spending and the Economy					
1995-96 and 2007-08 Comparison					
				% of	% of
			%	Economy	Economy
	1995-96	2007-08	Change	1995-96	2007-08
Spending (billions of 2008 \$)	\$1.63	\$1.99	22.1	n/a	n/a
Output (billions of 2008 \$)	\$1.82	\$2.23	22.5	60.5	59.5
Income (millions of 2008 \$)	\$693	\$970	40	45	43.8
Employment (thousands full & Part-time)	21.8	32	46.8	46.5	55.3

Commercial Fisheries

- 1995 Economic Impact Study (Thomas Murray for Monroe County Commercial Fishermen)
- 1998 – 2006 Commercial Fishing Panels
- 1995-96 – 2004-05 Knowledge, Attitudes & Perceptions of Management Strategies and Regulations
- 2001 Sambos ER –Two Years after implementation

Commercial Fisheries

- Tortugas 2000 Process (Tortugas Ecological Reserve)
- 2012 Tortugas Integrated Assessment (TIA)
- TIA included Panels, Thomas Murray & Associates MARFIN Grant on Pre-Post Assessment of Tortugas ER, and updated catch & effort data for pre-post assessment

Commercial Fisheries

Commercial Fisheries and the Economy				
1994 - (2009-2013 Average) Comparison				
			% of	% of
		2009-2013	Economy	Economy
	1994	Average	1994	2009-2013
Harvest Revenue (millions 2014 \$)	\$90.25	\$55.30	-	-
Output (millions 2014 \$)	\$147.28	\$80.90	4.5	-
Income (millions 2014 \$)	\$92.97	\$50.20	5.3	2.21
Employment (number of jobs)	4,130	1,265	8.8	2.27

Marine Zoning/Marine Reserves

- 1998-2006 Commercial Fishing Panels
- 2001 Sambos ER Two-year Assessment
- Tortugas ER Process & Initial Assessment
- 1995-96 -2004-05 Knowledge, Attitudes & Perceptions (Commercial fishers, Dive Shop Owners/Operators, and members of local environmental groups)
- 2012 Tortugas Integrated Assessment

Knowledge, Attitudes & Perceptions

- 1995-96, 2000-01 & 2007-08 Importance-Satisfaction Ratings (Recreation-tourism)
- 1995-96 & 2004-05 (Commercial fishers, Dive Shop Owners/Operators, and members of local Environmental Groups)

Climate Change

- 2005 Scoping Report by Hans Hoegh-Guldberg at request of US Coral Reef Task Force for FKNMS.
- 2010 Socioeconomic Impacts of Climate Change for the FKNMS (Hans Hoegh-Guldberg for NOAA's Coral Reef Conservation Program)

Regulatory Review

- 2014 Description of the Affected Environment-Draft Environmental Impact Statement (DEIS)

This provides baselines for all the different uses and sources of income and jobs in Monroe County. Context for Socioeconomic Impact Analyses of regulations.

Regulatory Review – Commercial Fisheries

- 2009 – 2013 Spatial Catch & Value of Catch to Fishermen for 10 FWRI Statistical Areas that best overlay the FKNMS.
- Grouper-Snapper, Other Reef Fish, King Mackerel, Sharks, Pelagics, Food Shrimp, Spiny Lobsters, Stone Crabs, Sponges, and Marine Life Collection (Fish and Invertebrates)

Regulatory Review-Commercial Fisheries

Average Catch: 2009 to 2013

Grouper/Snapper (pounds)

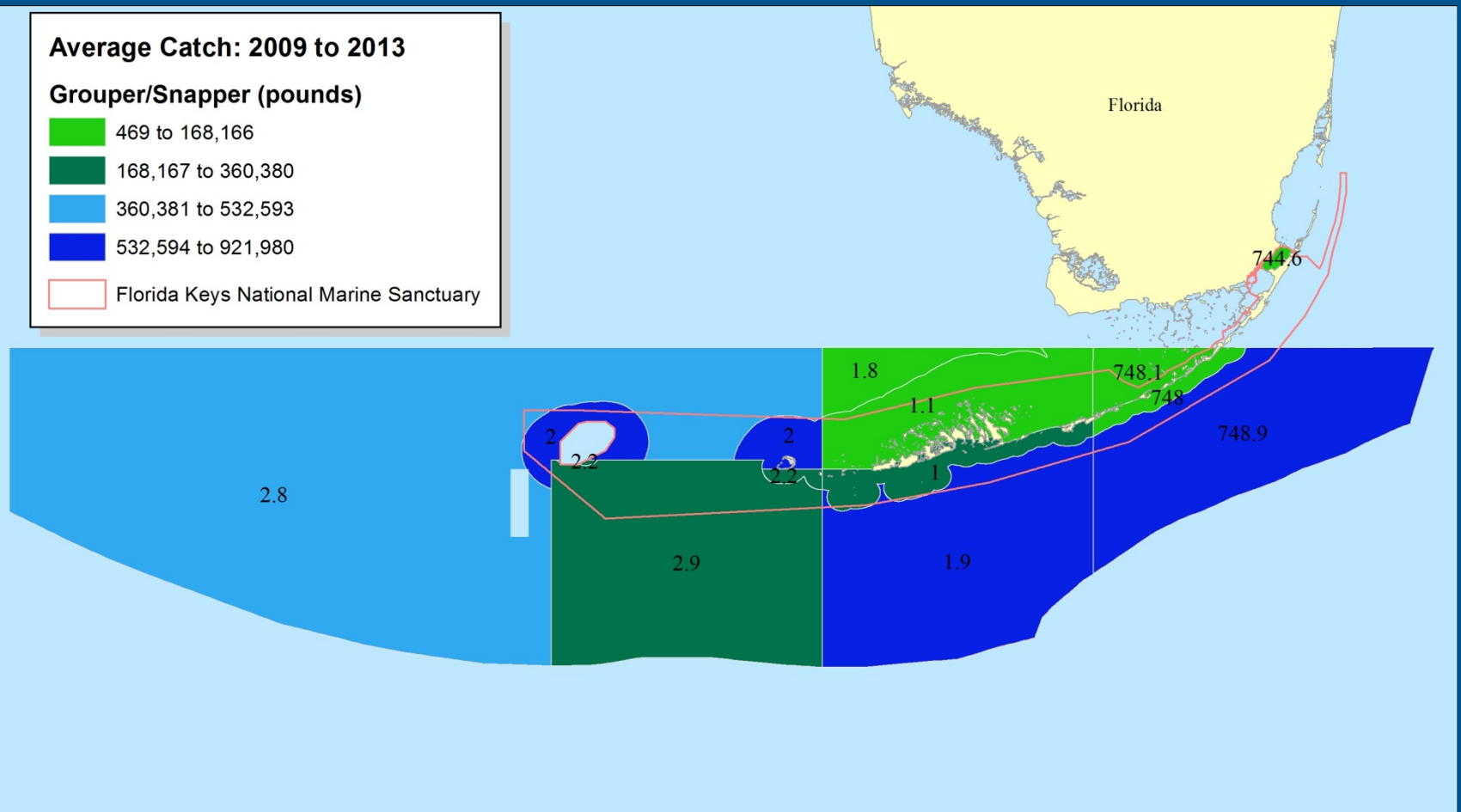
469 to 168,166

168,167 to 360,380

360,381 to 532,593

532,594 to 921,980

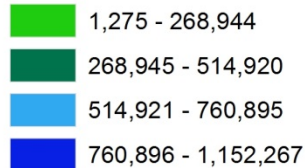
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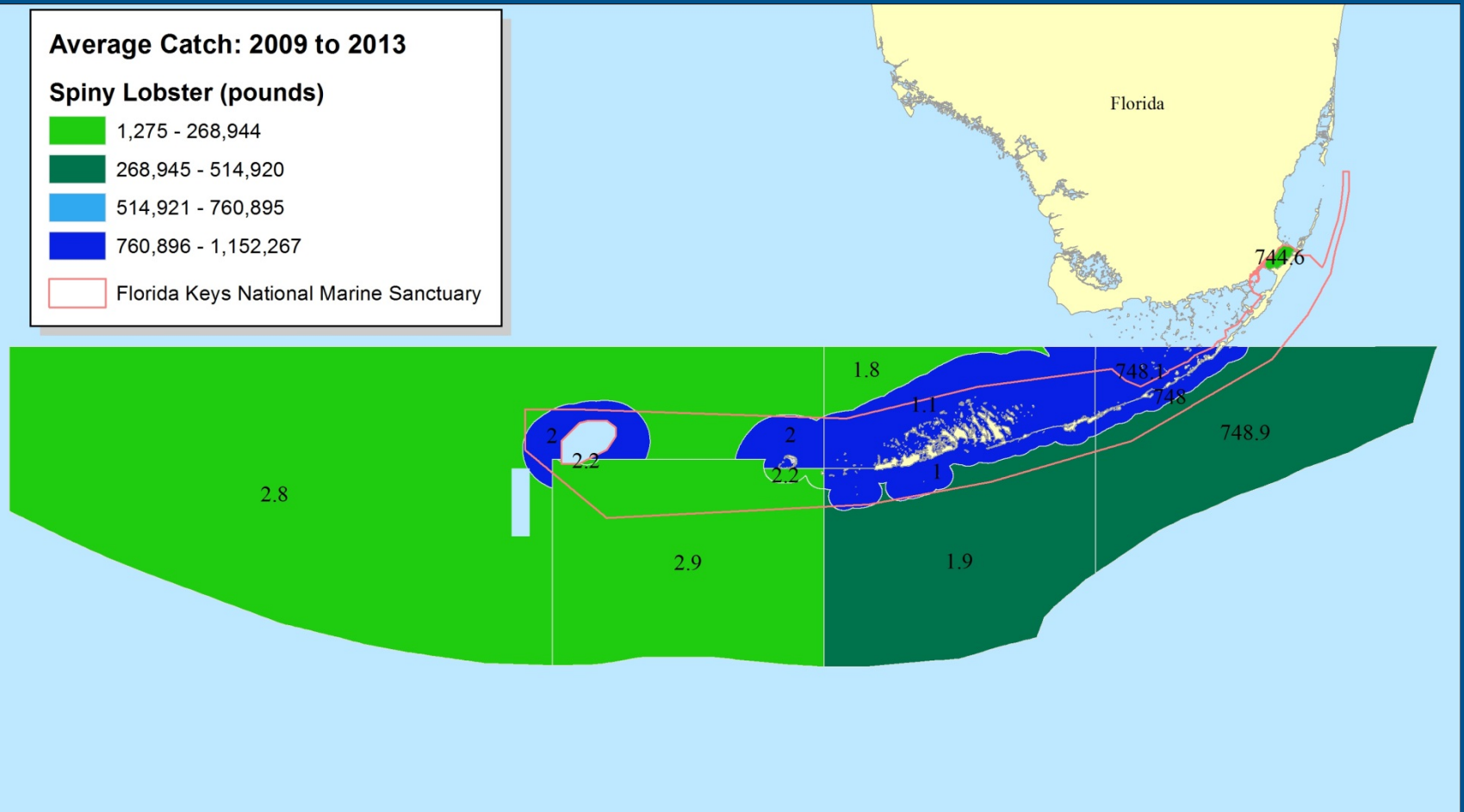
Regulatory Review-Commercial Fisheries

Average Catch: 2009 to 2013

Spiny Lobster (pounds)



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Regulatory Review-Recreational Fisheries

- NOAA Fisheries, Marine Recreational Fishing Statistics Program 2010 – 2014 Average of catch and effort by species/species groups for East (Atlantic) and West (Gulf) side of FKNMS.
- FWRI Recreational Spiny Lobster Catch and Effort 2010-2014 average
- Ault spatial catch & effort for backcountry/flats fishing

Regulatory Review – Fisheries Spatial Distributions

- NOAA/NOS/ National Centers for Coastal Ocean Science (NCCOS) Biogeography Group
- Working with them to determine if we can develop spatial catch distributions by species/species groups using habitat distributions and known relationships between species and habitats.
- This would provide the ability to quantify “potential” impacts of zoning alternatives.

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