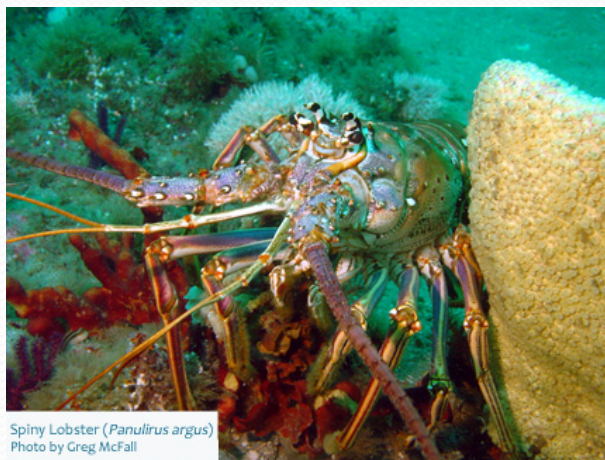




Spiny Lobster Review



Kari MacLauchlin
South Atlantic Fishery Management Council
SSC Meeting
May 4, 2016

Spiny Lobster- Background

- SEDAR 8 completed in 2005; update completed in 2010
- Assessments not accepted by the Gulf and South Atlantic SSCs- need Caribbean-wide assessment
- Gulf SSC designated spiny lobster as Tier 3a of Gulf ABC Control Rule and recommended an OFL be set as the mean of the most recent landings in the last 10 years (2000/2001 through 2009/2010) + two standard deviations. ABC set at mean landings of those 10 years + 1.5 s.d.
 - **OFL = 7.9 million pounds**
 - **ABC = 7.32 million pounds**
- Spiny Lobster Amendment 10 (effective January 2012)
 - **ACL = ABC = 7.32 million pounds**
 - **ACT = 90% ACL = 6.59 million pounds**
 - **Accountability measure- if landings exceed the ACT, convene a review panel to assess whether or not corrective action is necessary.**

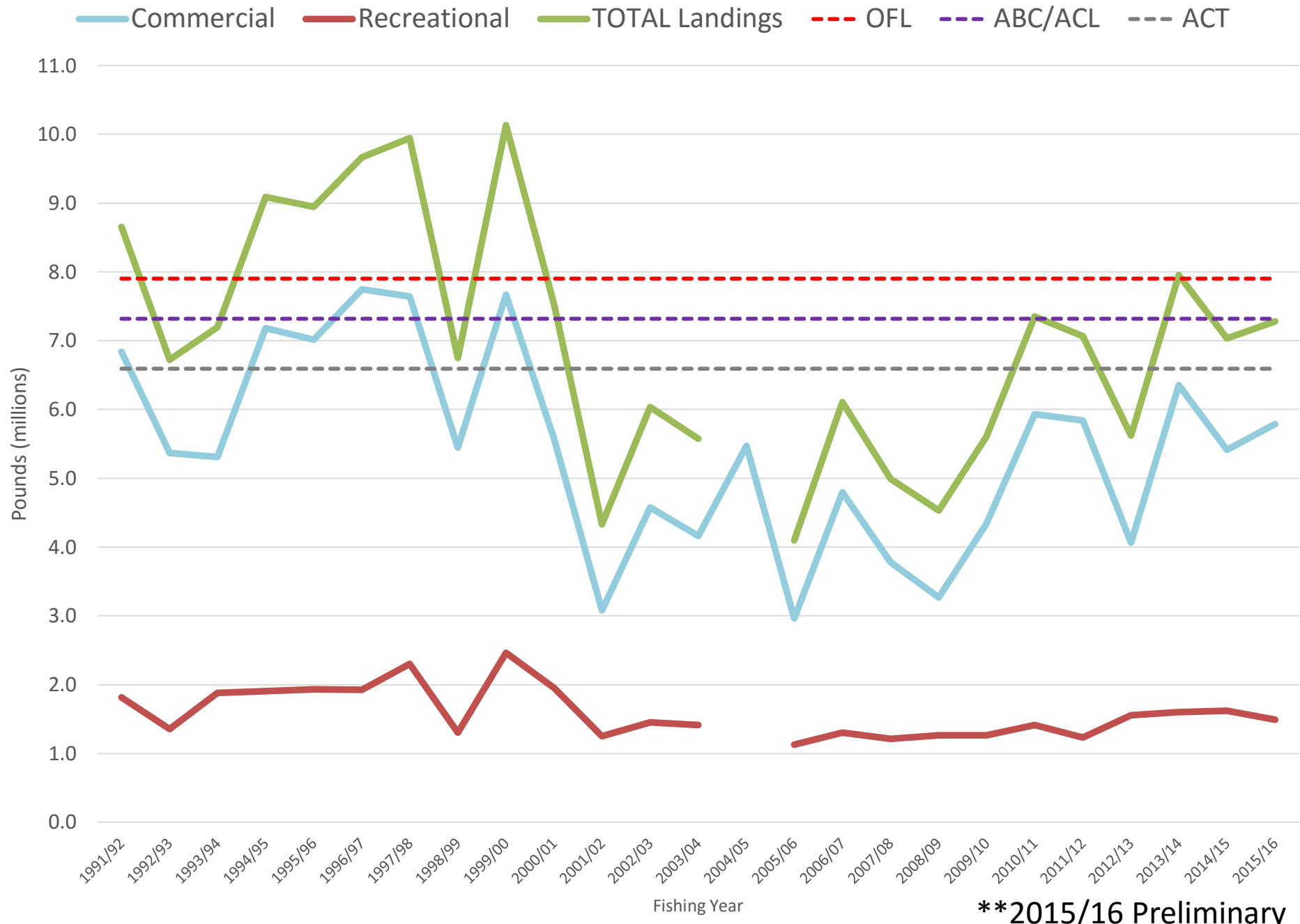


Spiny Lobster Landings

- **2012/13 5,623,212 lbs**
- **2013/14 7,956,947 lbs**
Over the ACT, ACL and OFL
Review Panel convened February 2015
- **2014/15 7,032,422 lbs**
Over the ACT
Review Panel convened March 2016
- **2015/16 (P) 7,279,427 lbs**
Over the ACT



Spiny Lobster Landings

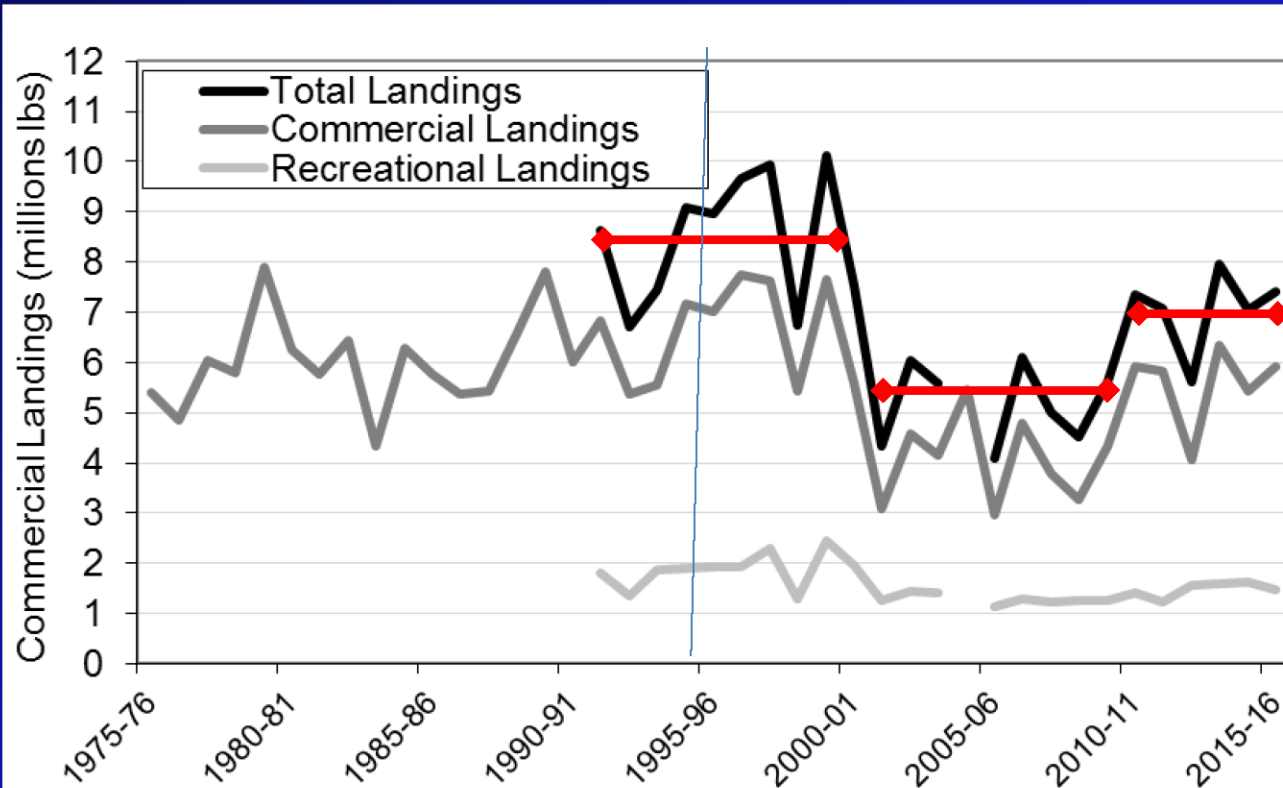


****2015/16 Preliminary**

Lobster Landings

There are three time periods relevant to current issues in the lobster fishery

- Before 2000, historic landings period
- 2000 through 2009, ACL benchmark and low landings period
- 2010 to present, ACL evaluation period



From FWC
Presentation
to APs

Spiny Lobster Review Panel Recommendations

2015 Review Panel

- Increase in landings due to higher landings in Jan/Feb for live market to China
- Do not recommend a new stock assessment
- ACL is the wrong methodology to manage spiny lobster
- OFL should be redefined as MFMT
- No recommended changes to accountability measures

2016 Review Panel

- Calculate ACL based on landings from 1991/92 through most recent (2015/16) - captures the dynamics of the stock and fishery
- Examine setting the ACL based on a rolling average
- Examine setting the ACL trigger based on landings and the landings to effort index.



Spiny Lobster Advisory Panel

Recommendations

Joint AP Meeting- April 25, 2016

- The Council should accept the recommendation of the review panel: “to calculate the ACL based on landings from 1991 through the most recent landings (2015-2016)”.

Rationale:

- Landings are increasing but not as high as in the 90s, but the APs felt that this indicated that the stock is improving.
 - Mortality from ghost traps has decreased because of incentives and regulations to retrieve the derelict traps.
 - Live wells on vessels has decreased mortality of shorts (undersized lobsters used as attractants).
 - Commercial effort is capped and recreational effort is stable and not expected to have a substantial increase.
-
- In federal and state trip intercept programs, lobster be made a priority species for size monitoring.
 - Recommend that there be a lower landing trigger based on the average of the three low landings years (2001-2002, 2002-2003, 2003-2004) that would initiate a review panel, if below this average for two consecutive years (5.3 mp total catch).



Next Steps

June 2016 SAFMC and GMFMC meetings

- Each Council will review the recommendations of the Review Panel and the APs

SSC Review in October 2016 (tentative)

- Evaluate the OFL and ABC recommendations for spiny lobster



Questions?



Gulf SSC Tier 3a

Tier 3a Acceptable Biological Catch Control Rule

Condition for Use*	No assessment is available, but landings data exist. The probability of exceeding the overfishing limit in a given year can be approximated from the variance about the mean of recent landings to produce a buffer between the overfishing limit and acceptable biological catch. Based on expert evaluation of the best scientific information available, recent historical landings are without trend, landings are small relative to stock biomass, or the stock is unlikely to undergo overfishing if future landings are equal to or moderately higher than the mean of recent landings. For stock complexes, the determination of whether a stock complex is in Tier 3a or 3b will be made using all the information available, including stock specific catch trends.
OFL	Set the overfishing limit equal to the mean of recent landings plus two standard deviations. A time series of at least ten years is recommended to compute the mean of recent landings, but a different number of years may be used to attain a representative level of variance in the landings.
ABC	<p>Set acceptable biological catch using a buffer from the overfishing limit that represents an acceptable level of risk due to scientific uncertainty. The buffer will be predetermined for each stock or stock complex by the Council with advice from the SSC as:</p> <ul style="list-style-type: none">a. $ABC = \text{mean of the landings} + 1.5 * \text{standard deviation}$ (risk of exceeding OFL = 31%)b. $ABC = \text{mean of the landings} + 1.0 * \text{standard deviation}$ (default) (risk of exceeding OFL = 16%)c. $ABC = \text{mean of the landings} + 0.5 * \text{standard deviation}$ (risk of exceeding OFL = 7%)d. $ABC = \text{mean of the landings}$ (risk of exceeding OFL = 2.3%)

Lobster Landings

Fishing Season	Commercial Landings								Recreational Landings				Total
	Trap	Stone Crab	Dive	Bully	Other	Mixed	Unk	Total	Special	Regular	SRL4	Total	
1991/92	3,368,812	23	91,968	3,180	6,335	1,238	3,364,507	6,836,063	459,848	1,355,943		1,815,791	8,651,854
1992/93	3,931,080	911	147,879	1,905	6,216	4,389	1,276,719	5,369,099	543,785	808,658		1,352,443	6,721,542
1993/94	4,977,920	754	168,025	6,134	9,583	4,898	143,230	5,310,544	356,987	1,526,128		1,883,114	7,193,658
1994/95	6,807,782	35,936	252,028	20,305	4,674	1,238	95,614	7,217,577	394,395	1,436,710	74,890	1,905,995	9,123,572
1995/96	6,635,837	3,913	307,251	19,464	3,581	422	50,579	7,021,047	249,394	1,614,178	67,145	1,930,718	8,951,765
1996/97	7,318,120	1,836	337,388	29,815	2,620	160	56,017	7,745,956	382,535	1,485,450	54,612	1,922,596	9,668,552
1997/98	7,143,469	114	395,122	28,129	12,143	4,733	56,581	7,640,291	497,297	1,756,794	50,096	2,304,186	9,944,477
1998/99	5,036,129	212	351,145	12,147	3,369	2,026	42,718	5,447,746	289,299	963,885	49,493	1,302,677	6,750,423
1999/00	6,993,791	334	588,105	17,459	7,499	1,766	59,313	7,668,265	567,643	1,832,888	61,449	2,461,981	10,130,245
2000/01	4,862,247	377	634,574	12,193	3,756	318	55,843	5,569,306	398,618	1,512,348	38,096	1,949,062	7,518,368
2001/02	2,621,452	297	446,691	8,561	797	1,323	0	3,079,121	282,861	935,929	32,291	1,251,081	4,330,201
2002/03	3,988,334	1,488	560,739	19,854	1,298	602	333	4,572,648	355,184	1,055,648	44,466	1,455,298	6,027,946
2003/04	3,723,709	3,023	406,588	21,743	1,003	2,632	0	4,158,698	375,119	997,408	38,981	1,411,509	5,570,206
2004/05	5,097,675	7,238	310,394	34,111	1,577	395	0	5,451,391	**	**	34,136	**	**
2005/06	2,679,048	7,653	266,115	14,760	1,450	94	0	2,969,121	331,388	773,199	26,427	1,131,014	4,100,135
2006/07	4,515,206	26,256	251,319	29,764	813	754	0	4,824,111	320,474	957,062	26,974	1,304,511	6,128,622
2007/08	3,455,756	12,102	292,531	29,776	2,875	27	0	3,793,068	354,669	839,471	20,929	1,215,068	5,008,136
2008/09	2,992,905	14,383	246,089	29,873	639	67	922	3,284,879	422,311	824,585	16,612	1,263,508	4,548,387
2009/10	4,153,852	27,431	156,154	54,833	517	137	1,047	4,393,970	419,795	835,054	10,727	1,265,576	5,659,545
2010/11	5,704,647	34,605	166,160	58,206	3,607	930	1,797	5,969,950	437,575	971,920	6,971	1,416,466	7,386,416
2011/12	5,569,227	11,676	201,517	67,167	2,983	1,065	538	5,854,173	324,221	902,523	3,665	1,230,408	7,084,582
2012/13	3,882,471	17,357	128,539	47,997	284		1,546	4,064,217	384,466	1,174,529		1,558,995	5,623,212
2013/14	5,922,412	16,354	214,810	216,060	1,406	1,728	235	6,373,005	328,422	1,274,232		1,602,654	7,975,659
2014/15	5,050,959	11,550	199,886	187,615	1,655	271	482	5,436,140	328,136	1,293,046		1,621,182	7,057,322
2015/16	5,451,892	14,467	173,195	143,336	2,782	197	2,070	5,787,939	371,946	1,119,542		1,491,487	7,279,427

Values in red do not include the whole fishing season or are preliminary