



# Spiny Lobster Review



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***SSC Meeting***  
***October 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.**

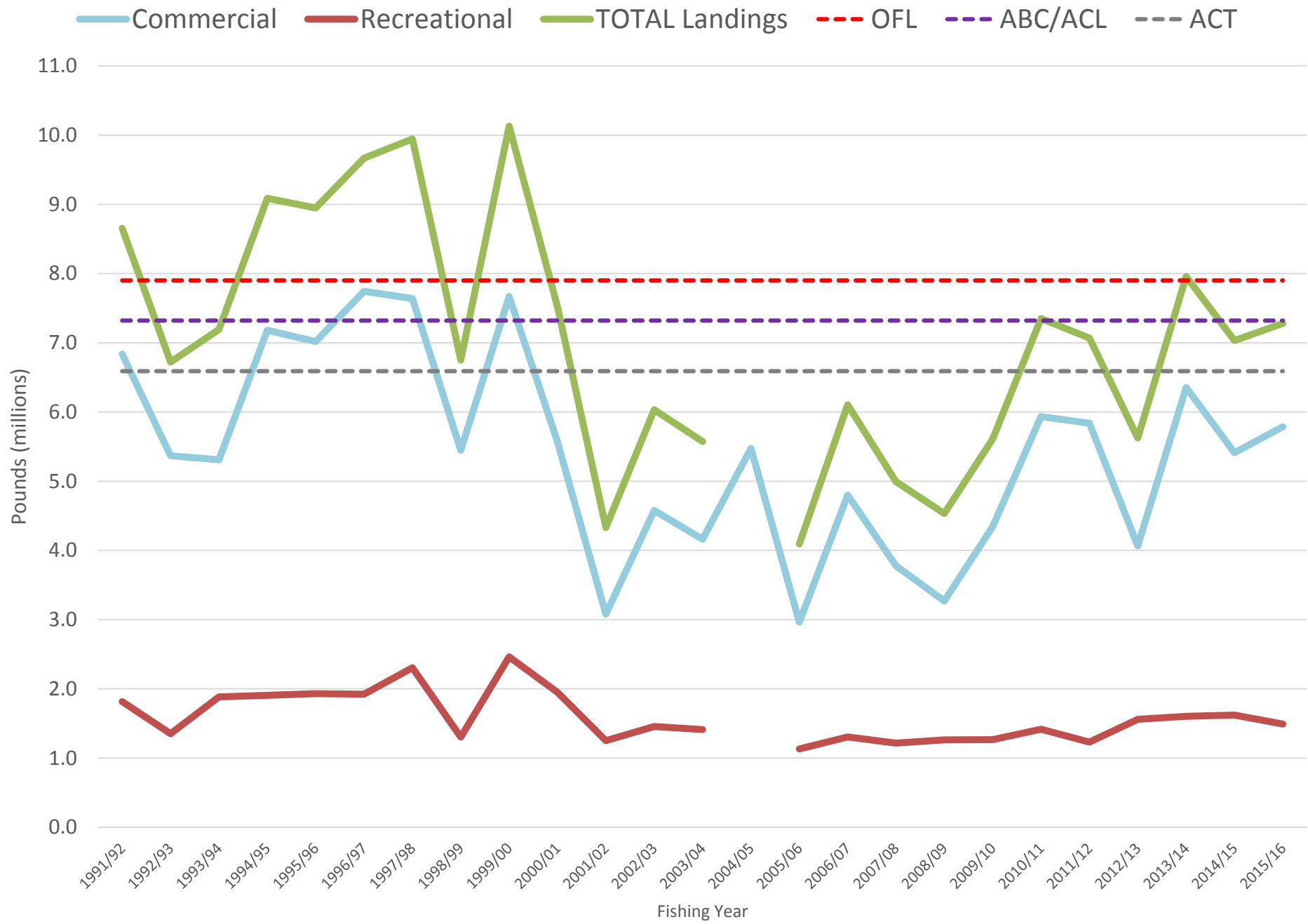


# Spiny Lobster Landings after ACL implemented

- **2012/13**      **5,623,212 lbs**
- **2013/14**      **7,975,659 lbs**  
Exceeds ACT, ACL and OFL  
Review Panel convened February 2015
- **2014/15**      **7,057,322 lbs**  
Exceeds the ACT  
Review Panel convened March 2016
- **2015/16**      **7,543,390 lbs**  
Exceeds the ACT and ACL



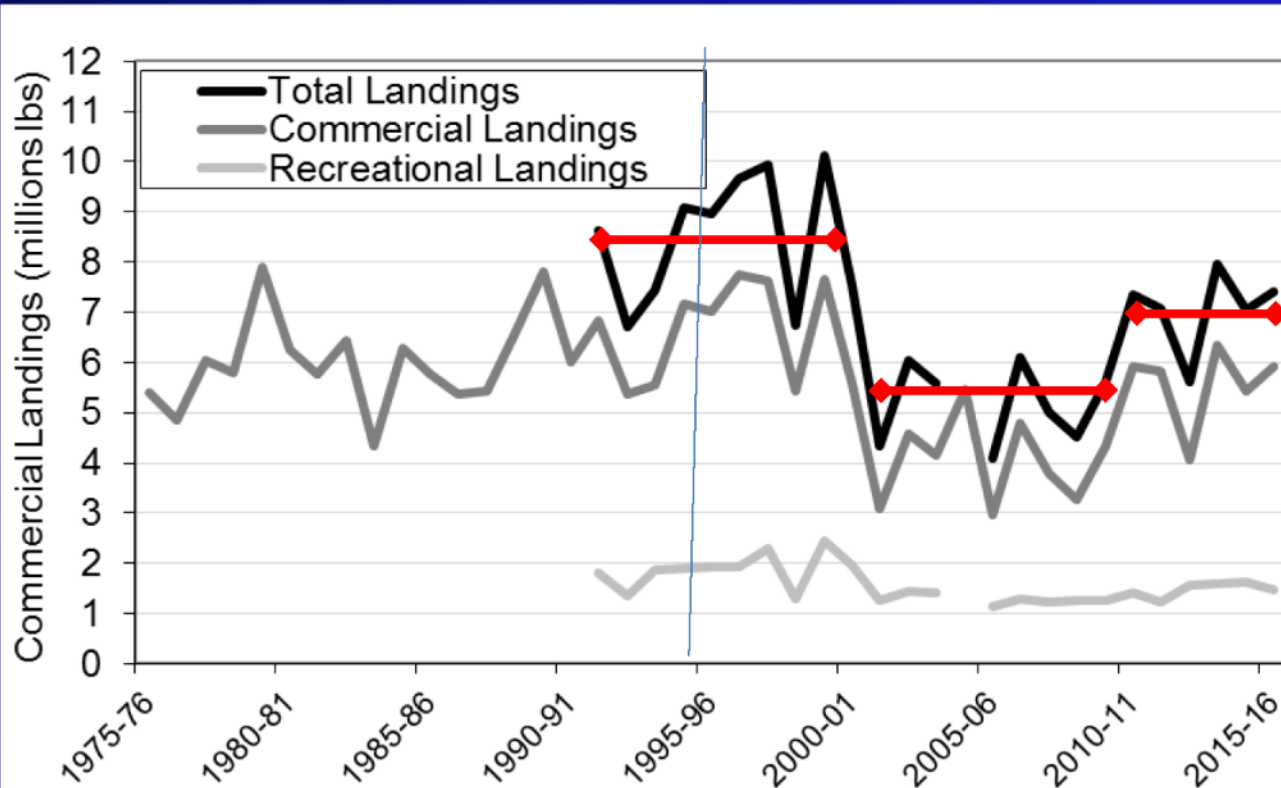
# Spiny Lobster Landings



# 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 – Current Regulations

## Florida state waters and EEZ off Florida:

- Season: August 6 – March 31
- Recreational Sport Season: last Wed and Thurs of July
- Commercial harvest: Florida restricted species and crawfish endorsement + vessel Saltwater Products License
- Commercial reporting requirements- monthly via FL trip ticket program
- Commercial diver: 250 lobsters /day + limited access commercial dive permit
- Commercial trap: trap certificate program + meet gear specifications
- 50 undersized lobsters allowed on board for use as trap attractants
- Federal commercial spiny lobster tailing permit to land tails
- Recreational harvest: Florida saltwater rec license w spiny lobster permit; 6/person/day
- Minimum size carapace length is 3 inches
- Lobster must be landed whole unless vessel has a commercial tailing permit
- Closed areas in Tortugas Natl Park, Florida Keys Natl Marine Sanctuary, John Pennekamp State Park, Biscayne Natl Park, coral closed areas
- No harvest of egg-bearing females



# Spiny Lobster – Current Regulations

## EEZ off Georgia/South Carolina/North Carolina

- Season: All year
- Commercial harvest: Federal spiny lobster commercial permit
- Federal commercial spiny lobster tailing permit to land tails
- Minimum size carapace length is 3 inches and tails minimum 5.5"
- Commercial and recreational limit of 2/person/day
- OK to use traps or dive, but Councils will consider trap limits in GA/SC/NC in next amendment



# 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).



# Gulf Spiny Lobster SSC Recommendation

June 2016

- recommendation to use the time series of 1991-2015/2016 for an ABC/OFL calculation for Spiny Lobster.

<http://portal.gulfcouncil.org/SpinyLobster/>

## Current

- **OFL = 7.9 million pounds**
- **ABC = 7.32 mp**
  
- **ACL = ABC = 7.32 mp**
- **ACT = 90% ACL = 6.59 mp**

## Gulf SSC Recommendation

- **OFL = 10,461,592 lbs**
- **ABC = 9,599,587 lbs**
  
- **ACL = ABC = 9.6 mp**
- **ACT = 90% ACL = 8,639,629 lbs**



# South Atlantic SSC Action

## SSC Review in October 2016

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"><li>a. <math>ABC = \text{mean of the landings} + 1.5 * \text{standard deviation}</math> (risk of exceeding OFL = 31%)</li><li>b. <math>ABC = \text{mean of the landings} + 1.0 * \text{standard deviation}</math> (default) (risk of exceeding OFL = 16%)</li><li>c. <math>ABC = \text{mean of the landings} + 0.5 * \text{standard deviation}</math> (risk of exceeding OFL = 7%)</li><li>d. <math>ABC = \text{mean of the landings}</math> (risk of exceeding OFL = 2.3%)</li></ul>

Fishing Season	Commercial Landings							Recreational Landings				Total
	Trap	Dive	Bully	Other	Mixed	Unk	Total	Special	Regular	SRL	Total	
1991/92	3,368,835	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	3,931,991	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	4,978,674	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	6,843,718	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	6,639,750	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	7,319,956	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	7,143,583	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	5,036,341	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	6,994,124	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	4,862,624	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	2,621,748	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	3,989,822	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	3,726,732	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	5,104,913	310,394	34,111	1,577	395	0	5,451,391	**	**	34,136	**	**
2005/06	2,686,701	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	4,541,462	251,319	29,764	813	754	0	4,824,111	320,474	957,062	26,974	1,304,511	6,128,622
2007/08	3,467,858	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	3,007,289	246,089	29,873	639	67	922	3,284,879	422,311	824,585	16,612	1,263,508	4,548,387
2010/11	4,181,282	156,154	54,833	517	137	1,047	4,393,970	419,795	835,054	10,727	1,265,576	5,659,545
2011/12	5,739,252	166,160	58,206	3,607	930	1,797	5,969,950	437,575	971,920	6,971	1,416,466	7,386,416
2012/13	5,580,904	201,517	67,167	2,983	1,065	538	5,854,173	324,221	902,523	3,665	1,230,408	7,084,582
2013/14	3,899,828	128,539	47,997	284		1,546	4,064,217	384,466	1,174,529	N/A	1,558,995	5,623,212
2014/15	5,938,766	214,810	216,060	1,406	1,728	235	6,373,005	328,422	1,274,232	N/A	1,602,654	7,975,659
2015/16	5,062,509	199,886	187,615	1,655	271	482	5,436,140	328,136	1,293,046	N/A	1,621,182	7,057,322
	5,722,524	176,860	144,465	2,700	197	2,124	6,051,903	371,946	1,119,542	N/A	1,491,487	7,543,390

