

Update of commercial landings of Spiny Lobster in Puerto Rico

David Die and Alexis Morris
 CUFER/CIMAS, RSMAS, University of Miami

The methodology for analysis of commercial landings was the same used by Mateo and Die (2004). Data were obtained through the National Marine Fisheries Service (NMFS) Cooperative Statistics Program at Miami Southeast Fisheries Science Center on June 8, 2004. The data contained in the landings database used in the current analysis was therefore different to that used by Mateo and Die, not only because of the addition of two years of data but also because of some of the historic data had been modified and corrected. Most notable revisions are the much lower estimate of landing for 1985 and the new estimates for 2002 and 2003. Importantly, since 2003 most landing records correspond to single trips (Table 1), all other values are very similar to those reported by Mateo and Die (2004). Landings extend through the year with little seasonal signal (Table 2), with the exception of trammel net landings that are clearly seasonal and are much greater from September to December (Fig. 1). Evolution of landings by gear type shows that the reported gear mix has not changed much since 1990, however, it was much more variable in the 1980s (Fig. 2).

Table 1 (updated): Annual landings (1000 lbs) of spiny lobster from the Puerto Rico Commercial fishery for 1983-2003 (values shaded are those that have changed from those reported by Mateo and Die 2004).

	All records	Only records where trip number equal 1		
	Total landings	Landings	% of landings	Number records
1983	273.7	32.8	12.0%	2620
1984	248.0	6.5	2.6%	484
1985	211.1	10.3	4.9%	670
1986	210.1	5.7	2.7%	257
1987	153.4	1.7	1.1%	90
1988	141.2	92.7	65.6%	4420
1989	185.8	111.0	59.8%	5039
1990	168.7	79.8	47.3%	4618
1991	211.6	100.3	47.4%	5643
1992	160.5	59.3	37.0%	2802
1993	168.9	78.4	46.4%	4196
1994	192.1	110.0	57.3%	5611
1995	279.2	195.5	70.0%	9021
1996	280.6	145.1	51.7%	7270
1997	283.3	139.4	49.2%	6692
1998	298.5	122.3	41.0%	4842
1999	327.1	186.8	57.1%	7427
2000	258.4	178.6	69.1%	8928
2001	280.6	214.5	76.4%	10130
2002	300.4	230.2	76.6%	9129
2003	241.9	239.2	98.9%	11990

Table 2: Average monthly landings (1000 lbs) of spiny lobster from the Puerto Rico Commercial fishery for the period 1983-2001, for all records. (values shaded are those that have changed from those reported by Mateo and Die 2004).

Month	Landing
1	22.3
2	20.7
3	21.2
4	18.1
5	18.9
6	17.2
7	18.2
8	20.5
9	18.4
10	19.2
11	19.3
12	18.1

Table 3: Landings of spiny lobster by gear type from the Puerto Rico Commercial fishery for the period 1983-2001, for all records (values shaded are those that have changed from those reported by Mateo and Die 2004).

Gear type	Landings (1000 lbs)	Percent
Scuba Diving	2110.4	43.3%
Fish Pot	1859.0	38.1%
Lobster Pot	442.7	9.1%
Trammel Net	162.2	3.3%
Bottom Line	78.7	1.6%
Spear Fishing	77.4	1.6%
Skin Diving	58.3	1.2%
Gill Net	52.6	1.1%
Other	34.0	0.7%

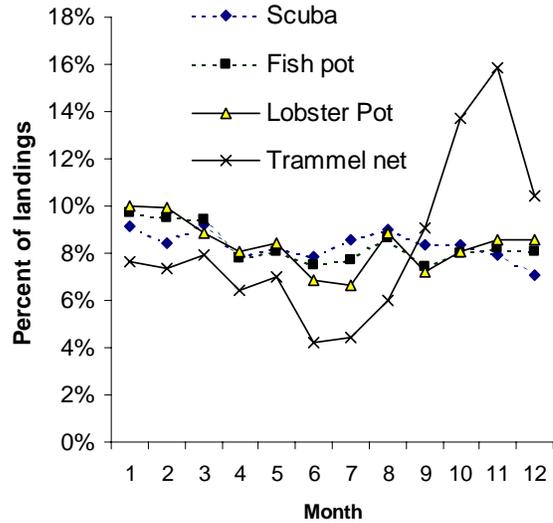


Figure 1: Monthly pattern of Reported landings for major gear types

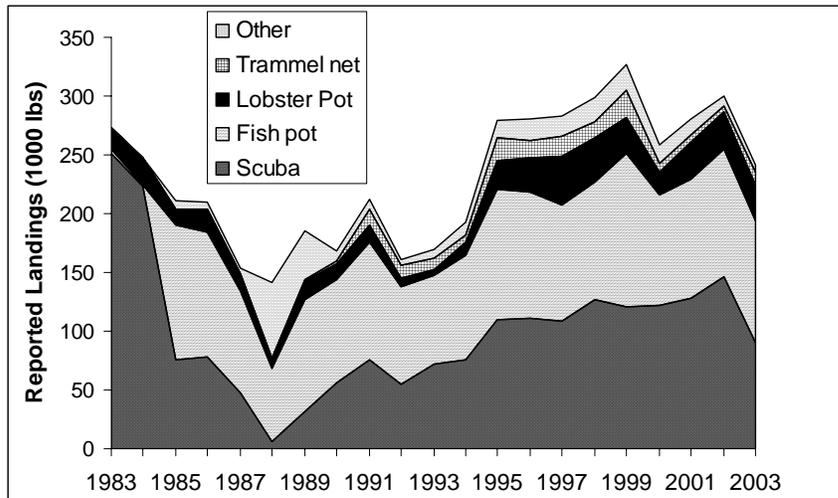


Figure 2: Reported landings of lobsters in Puerto Rico by major gear type.

Literature cited

Mateo, I. and D. Die. 2004. The Status of Spiny Lobster *Panulirus argus* in Puerto Rico Based on Commercial Landings Data. CIMAS/RSMAS Rosenstiel School of Marine Sciences and Atmospheric Science. p. 1-7