

Northumberland IFCA European Lobster (*Homarus gammarus*) Fishery Status Report 2023

Landings

Landings information is collected from monthly NIFCA shellfish catch returns submitted to NIFCA by permitted vessels. These returns detail fishing effort and landings of key commercial species and provide an insight into overall landings and effort trends within the NIFCA district. A breakdown of key statistics from the European lobster (*Homarus gammarus*) fishery within the NIFCA district have been detailed in the Multiple Indicator Framework (MIF) (Table 1).

Landings per unit effort (LPUE) is an important metric for analysing trends in the fishery, allowing for seasonal and temporal trends to be observed (Figure 1). LPUE is displayed as kilograms landed per 100 pots hauled (kg/100 pots) and has been relatively stable since 2011. LPUE changes seasonally, which accounts for range shown by the error bars in Figure 1.

Landed weight of lobster has declined since a peak in 2019 (Figure 2), however this can be attributed to lower landings in 2020 and 2021 due to COVID-19. It should be noted that whilst landings have declined, LPUE has remained relatively stable with an increase from 2021 to 2022. Despite lower landings, the landed value relative to the weight has also increased since 2019, rising from £16.75/kg in 2019 to £20.17/kg in 2022 (Table 1, Figure 2).

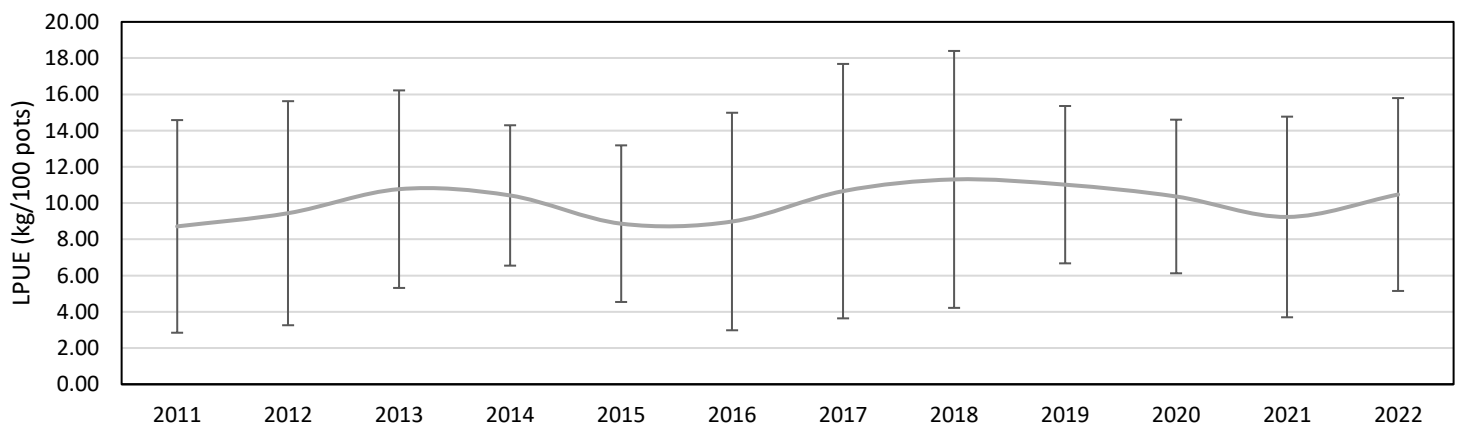


Figure 1: Mean lobster landings per unit effort (LPUE) data 2011-2022, including error bars showing the standard deviation from the mean.

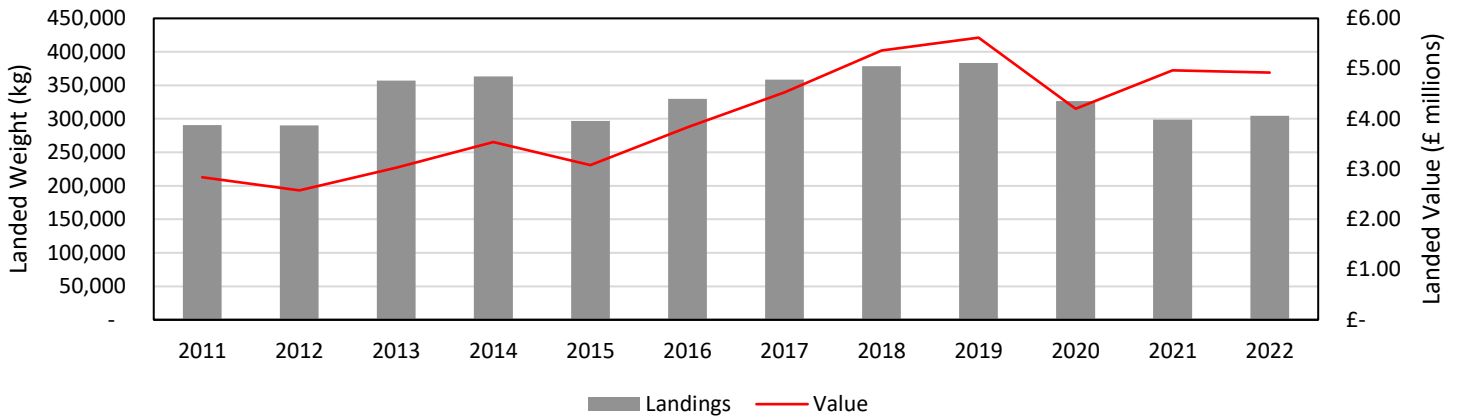


Figure 2: Lobster landed weight and landed value taken from permit returns and officer reports for price/kg.

Biometric Data

Biometric data is collected through a combination of offshore sampling onboard fishing vessels, sampling of individual fleets at sea, and shore-based sampling of landed catches. The distribution of at-sea surveys conducted between 2012 and 2022 by NIFCA officers is shown in Figure 3.

Data collected includes information on animal size to better understand the distribution of the population, both under and over the minimum conservation reference size (MCRS). The size distribution of lobsters sampled between 2012 and 2022 is shown in Figure 4. A breakdown of sample numbers, as well as average animal size and maximum size can be seen in Table 1. Since 2012, 33,949 lobsters have been measured, allowing for a better understanding of the NIFCA lobster population and an ability to identify any key trends in animal size or sex distributions.

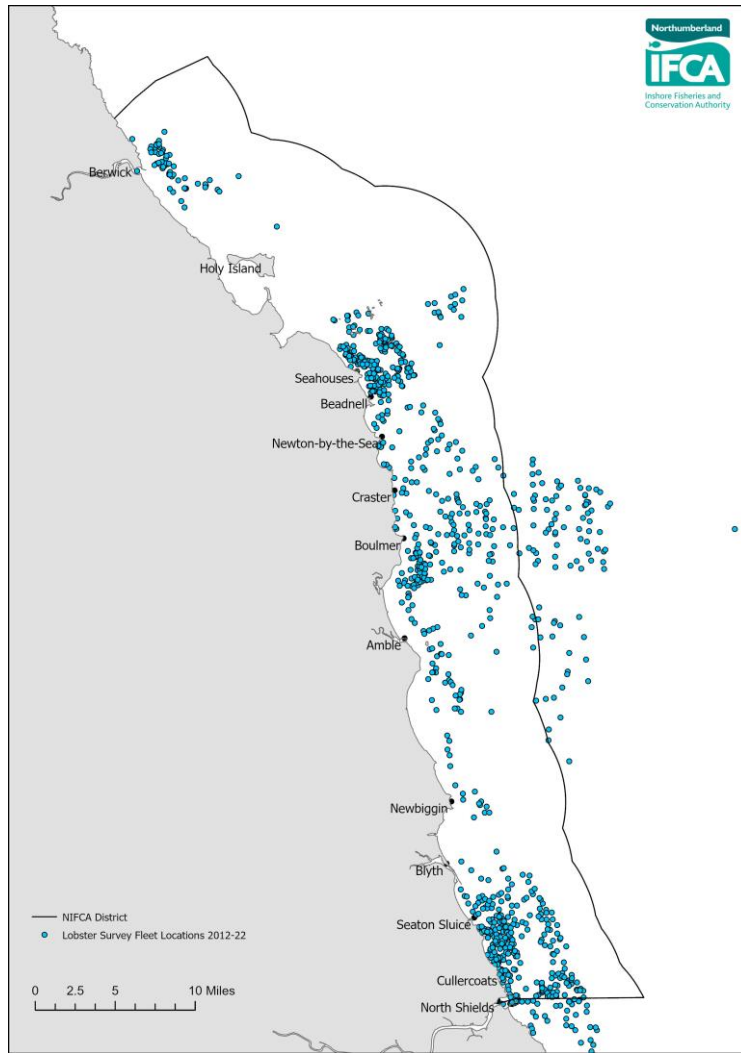


Figure 3: Distribution of fleets surveyed for lobster between 2012 and 2022 in relation to the NIFCA district.

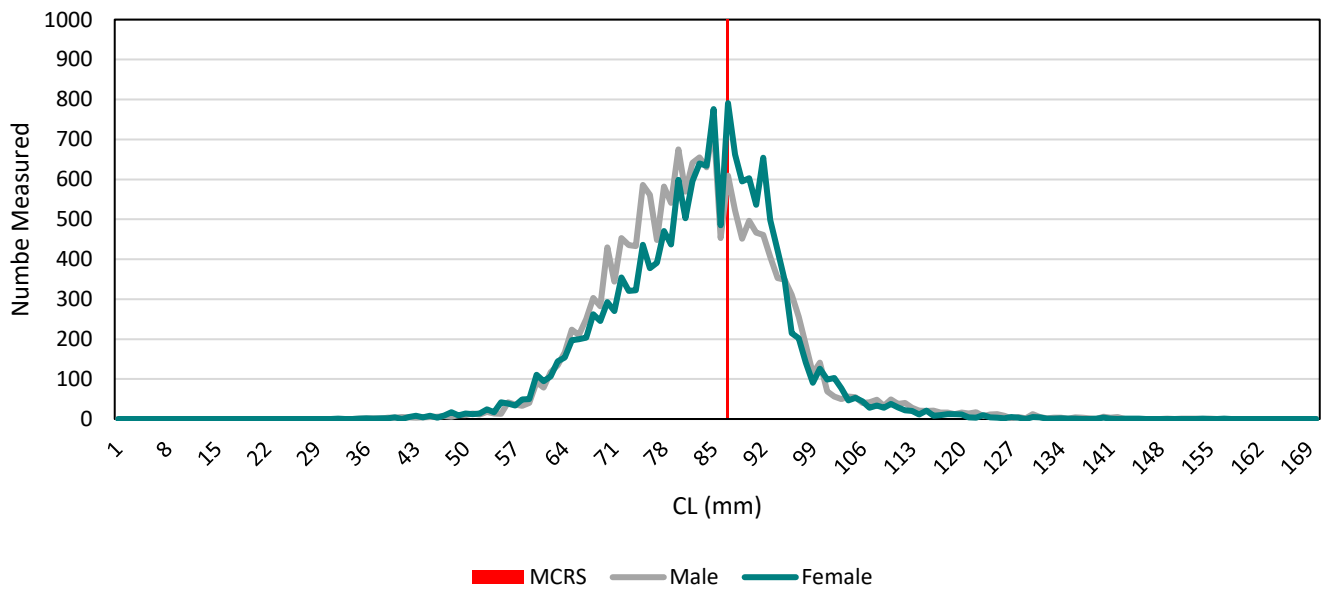


Figure 4: Size distribution of lobster measured 2012-2022. MCRS is 87mm.

Table 1: European Lobster (*Homarus gammarus*) multiple indicator framework.

Fishery Overview	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Value Ref	Data Source
Total Landings (NIFCA)	290.85	290.37	356.90	363.13	297.06	330.06	359.09	378.10	383.23	326.72	298.92	304.56	Tonnes	NIFCA Returns
Amble Landings	61.89	69.37	61.32	63.62	54.93	65.45	70.76	65.22	62.25	47.12	43.52	40.56	Tonnes	NIFCA Returns
Blyth Landings	32.67	30.65	32.21	26.32	23.99	32.54	28.12	33.19	44.73	38.53	33.54	33.76	Tonnes	NIFCA Returns
Burnmouth Landings	33.86	5.81	47.85	53.57	43.46	52.03	40.65	65.30	56.57	46.34	46.55	44.65	Tonnes	NIFCA Returns
Holy Island Landings	48.73	56.77	69.62	62.51	52.14	61.13	69.85	61.85	57.25	50.79	45.50	47.29	Tonnes	NIFCA Returns
Seahouses Landings	46.15	53.10	53.02	69.58	57.57	47.85	64.30	71.09	82.38	77.40	58.76	69.98	Tonnes	NIFCA Returns
Total Effort (Pots Hauled)	2.79	2.63	2.89	3.14	3.02	3.12	2.91	2.89	3.12	2.75	2.77	2.47	Million	NIFCA Returns
Total Effort (Pots Set)	33.33	32.82	35.22	37.98	36.58	33.80	34.39	35.94	37.74	39.64	39.70	35.71	Thousand	NIFCA Returns
Q1 Catch Distribution (% of Annual Total)	7	7	7	10	9	6	10	7	13	9	8	7	Q1 %	NIFCA Returns
Q2 Catch Distribution (% of Annual Total)	11	13	15	17	19	13	12	12	16	14	11	15	Q2 %	NIFCA Returns
Q3 Catch Distribution (% of Annual Total)	61	61	51	54	50	61	61	54	55	56	59	58	Q3 %	NIFCA Returns
Q4 Catch Distribution (% of Annual Total)	21	19	27	19	22	21	16	27	16	21	22	20	Q4 %	NIFCA Returns
Primary Reference Points	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Value Ref	Data Source
LPUE	8.71	9.44	10.77	10.42	8.86	8.98	10.66	11.30	11.02	10.36	9.23	10.47	KG/100ph	NIFCA Returns
Economic	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Value Ref	Data Source
Average Annual Price	9.74*	8.87*	8.49*	9.74*	10.37*	11.61*	12.62*	14.16*	16.75	14.71	18.83	20.17	£/kg	NIFCA IFCO Reports
Gross Catch Value	2.83	2.58	3.03	3.54	3.08	3.83	4.53	5.35	5.62	4.20	4.97	4.92	£ Million	NIFCA Returns
No. Active Vessels	81	72	83	80	75	70	73	85	74	89	82	77	#	NIFCA Returns
No. Employment**	170	151	174	168	158	147	153	179	155	187	172	162	#	Effort Survey
Biometric	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Value Ref	Data Source
Average Carapace Length M (mm)	x	79	82	80	80	81	79	80	77	68	79	83	mm	NIFCA Survey
Average Carapace Length F (mm)	x	78	82	81	81	81	81	80	81	71	78	83	mm	NIFCA Survey
Max Carapace Length M (mm)	x	100	130	142	142	153	136	140	125	128	122	149	mm	NIFCA Survey
Max Carapace Length F (mm)	x	103	120	145	154	128	143	135	112	126	105	123	mm	NIFCA Survey
Sex Ratio (% Female)	x	42.5	44.1	49.6	47.5	48.2	51.9	47.9	61.4	48.2	52.0	50.1	%	NIFCA Survey

*This was taken from MMO landings data but has not changed to IFCO reports to allow for more region-specific figures.

**This is calculated by using an approximate crew number of 2.1 per vessel throughout the district.