

Neart na Gaoithe

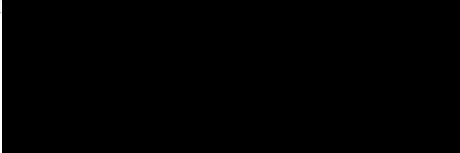
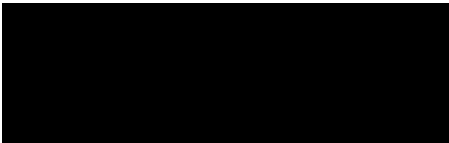
Commercial Fisheries Monitoring Report 3b – Construction

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Name (Role)	Signature	Date
Polly Tarrant (Environment Manager)		07.12.2023
Rosie Scurr (Offshore Consents Manager)		08.12.2023

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1 Introduction

1.1 Background

1. Conditions attached to the Offshore Consents granted to Neart na Gaoithe Offshore Wind Limited (NnGOWL) for the Neart na Gaoithe (NnG) wind farm require that the Project Environmental Monitoring Programme (PEMP) considers commercial fisheries. In line with this requirement, and as set out in the approved PEMP (NnGOWL, 2022, NnGOWL will undertake pre, during and post-construction commercial fisheries monitoring to better understand the effect of construction activities associated with the Project, and the presence of the operational Project, on commercial fisheries in its vicinity.
2. The Environmental Impact Assessment (EIA) for the Project did not identify any potential significant effects upon commercial fisheries, assuming proposed mitigation measures were enacted. The Fisheries Management and Mitigation Strategy (FMMS) confirms the NnGOWL commitment to mitigation. NnGOWL intend that the reporting outputs of the commercial fisheries PEMP are used to monitor any changes in the commercial fisheries activity, and inform any future updates to the FMMS. Given the range of factors that affect fishing patterns, together with the granularity /resolution of the data being monitored, it may not be possible to define any attribution of change in fishing activity specifically to the Project or other factors in isolation. Notwithstanding this caveat, the monitoring seeks to better understand the fishing activity, comparing the regional and local study areas to assess trends at different geographic scales, informed by key project timelines to ensure the mitigation that is committed to within the FMMS remains valid.

1.2 Consent Conditions

3. Consent conditions relevant to commercial fisheries monitoring are summarised in Table 1.1.

Table 1.1. NnGOWL Consent Conditions relevant to commercial fisheries

RELEVANT CONDITIONS	CONDITION SUMMARY	DISCHARGE STATUS
S36 Consent Condition 23.a.3 OfTW Marine Licence Condition 3.2.2.14 a.3	The PEMP must cover, but not be limited to the following matters: a. Pre-construction, construction (if considered appropriate by the Scottish Ministers) and post-construction monitoring or data collection as relevant in terms of the Application, and any subsequent monitoring or data collection for: 3. Commercial Fisheries;	Pre-construction: NnGOWL will seek confirmation from MS-LOT on discharge of the pre-construction element of Condition 23.a.3 at the appropriate time.
		Construction: NnGOWL will seek confirmation from MS-LOT on discharge of the construction element of Condition 23.a.3 at the appropriate time.
		Post-construction: NnGOWL will seek confirmation from MS-LOT on discharge of the post-construction element of Condition 23.a.3 at the appropriate time.
S36 Consent Condition 23.b OfTW Marine Licence Condition 3.2.2.14 b	b. The participation by the Company to contribute to data collection or monitoring of wider strategic relevance, identified and agreed by the Scottish Ministers.	Monitoring strategy developed in collaboration with FTRAG to take into account regional considerations. NnGOWL will seek confirmation from MS-LOT on discharge of the post-construction element of Condition 23.b at the appropriate time.
S36 Consent Condition 24	The Company must participate in any Forth and Tay Regional Advisory Group	Monitoring strategy developed in collaboration with FTRAG to take into account regional considerations.

Regional Monitoring	("FTRAG") or any successor group, established by the Scottish Ministers for the purpose of advising the Scottish Ministers on research, monitoring and mitigation programmes for, but not limited to, commercial fish.	Annual monitoring reports will be presented to the Forth and Tay Commercial Fisheries Working Group. NnGOWL will seek confirmation from MS-LOT on discharge of Condition 24 at the appropriate time.
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1.3 Aim and Objectives of Data Collection and Monitoring

4. The aim of the NnGOWL commercial fisheries monitoring, as outlined in the PEMP, is to better understand variations in commercial fisheries activity throughout pre-, during and post-construction works at NnG, and use this understanding to inform updates to the FMMS.
5. The objectives are to:
 - Collate data on commercial fisheries landings by port on a monthly basis;
 - Collate all other sources of evidence of commercial fisheries activity on a regular basis; and
 - Monitor data and evidence to better understand any variations and patterns in commercial fisheries activity.

1.4 Time period of this report

6. The commercial fisheries monitoring will be delivered through a number of reports for various stages of the Project, as follows:
 - Post-consent: covering period 01 January 2017 to 30 April 2019 [Report 1 - complete];
 - Pre-construction: covering period 01 May 2019 up to the start of construction in August 2020, including annual data to end of December 2020 [Report 2 - complete];
 - Construction: start of construction to end of construction, a mid-year (6- monthly) interim report will be prepared in addition to a full annual report. The interim report will not include datasets which are only issued on an annual basis. [Report 3a – complete] and [Report 3b – this report]; and
 - Post-construction phase: end of construction to three years after the completion of construction, or as agreed with Marine Scotland.
7. Construction commenced in early August 2020. The construction reporting is every 6-months, with the intention to monitor pre- and post-construction fishing activity from available data sources. Time periods of reporting during the construction phase are aligned as follows:
 - Report 3a: 01 July to 31 December 2020 [complete and presented in Section 3 of this report];
 - Report 3b: 01 January to 30 June 2021 [complete and presented in Section 4 of this report];
 - Report 3c: 01 July to 31 December 2021, and so on continuing on a 6-monthly basis to end of construction.
8. Report 3a focused on inter-annual variations of landings at a monthly level for key species, to understand fluctuations in landings across the periods of construction compared to relative levels in previous years. It is noted that construction of NnG commenced in August 2020, when landings were already heavily impacted by the Covid-19 pandemic and that, in general, a decrease in landings have been seen throughout the UK compared to previous years which is considered to be associated with the pandemic (MMO, 2021; Marine Scotland, 2021). The output of Report 3a is presented in Section 3 of this report.
9. The purpose of Report 3b (this report) is to consider landings across the period January to June 2021 to allow comparison with previous years. The method in which data is provided in the MMO iFish database has changed for the period 2021. Landings data is now available by ICES rectangle and port of landings within one dataset (previously these attributes were recorded in separate datasets that could not be correlated).
10. The next reporting output (Report 3c) will cover the period up to December 2021 and will therefore update the annual analysis that has been provided in both Report 2 and Report 3a for the 2021 annual period.

11. As defined within the PEMP (NnGOWL, 2022), with exception to the interim (6-monthly) reports during construction, a dedicated meeting with the Forth and Tay Commercial Working Group will be held following the issue of a draft version of the report, to discuss and resolve any comments.

1.5 Fisheries overview

12. A detailed characterisation of commercial fisheries in the area is available within the Commercial Fisheries Technical Report and ES Chapter (NnG, 2018), and is further supported by the Commercial Fisheries Monitoring Reports 1 and 2.
13. The fisheries in operation across the NnG offshore wind farm and export cable, and surrounding area include:
 - Lobster and crab creel fishery;
 - Nephrops demersal trawl fishery;
 - Squid demersal trawl fishery; and
 - Occasional activity from other mixed demersal trawlers and scallop dredgers.
14. Vessels land to a range of ports on the north and south side of the Firth of Forth, including but not limited to (and in no particular order): Pittenweem, Dunbar, North Berwick, Cove, Eyemouth, Port Seton, Anstruther and St Monans (sometimes also referred to as St Monance).

2 Methodology

15. The overall approach throughout this report is to analyse and present data for comparison with previous years of data, to build on the information provided in the previous reports, including the Environment Statement baseline and PEMP Reports 1, 2 and 3a.
16. This Report 3b focuses on monthly landings data by ICES rectangle and port of landing across the period 01 January to 30 June 2021.
17. The Marine Management Organisation (MMO) iFish landing statistics database has been analysed to explore any changes in trends of landings across the period 2017 to 2021, noting that construction commenced in August 2020. Landed weight is analysed to ensure that fluctuations in price trends do not skew the analysis, albeit noting that commercial fisheries often focus on specific target species in response to changing market prices i.e., that increased prices may drive increased landings and targeting of specific species.

2.1 Study area

18. Landing statistics from the period January 2017 to June 2021 are presented in this report.
19. Data across two spatial study areas are assessed as shown in Figure 2.1 and described as:
 - Commercial fisheries local study area: ICES rectangles 40E7 and 41E7
 - Commercial fisheries regional study area: 42E7-E8, 41E6-E8 and 40E6-E8.

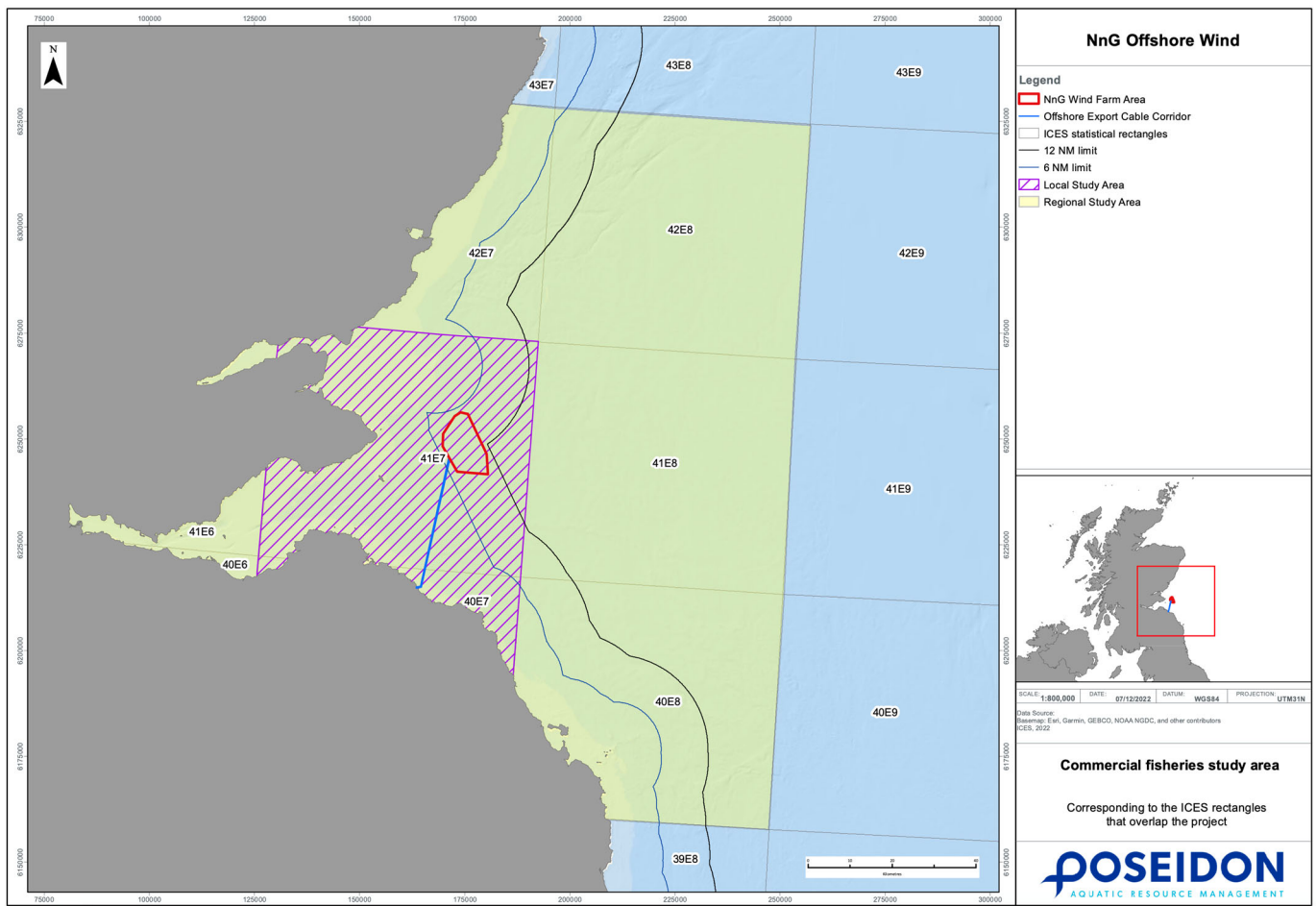


Figure 2.1. Commercial fisheries local and regional study areas.

3 Inter-annual variations for key species (Report 3a)

3.1 Nephrops

3.1.1 Nephrops: local study area

20. The monthly landings of nephrops from the local study area (ICES rectangles 40E7 and 41E7, which overlap with NnG Wind Farm Area and Offshore Export Cable Corridor) is shown in Figure 3.1 for the time series Jan 2017 to Dec 2020.
21. The majority of landings are from ICES rectangle 41E7, as expected and corroborated by previous data presented in Reports 1 and 2. Notable fluctuations in monthly landings are seen throughout the time series for nephrops, with summer and late autumn peaks.
22. Landings throughout 2020 are significantly lower than previous years, with a substantial drop in landings in April 2020, continued into May 2020, assumed to be caused by the Covid pandemic and associated restrictions and changes to the market demand.

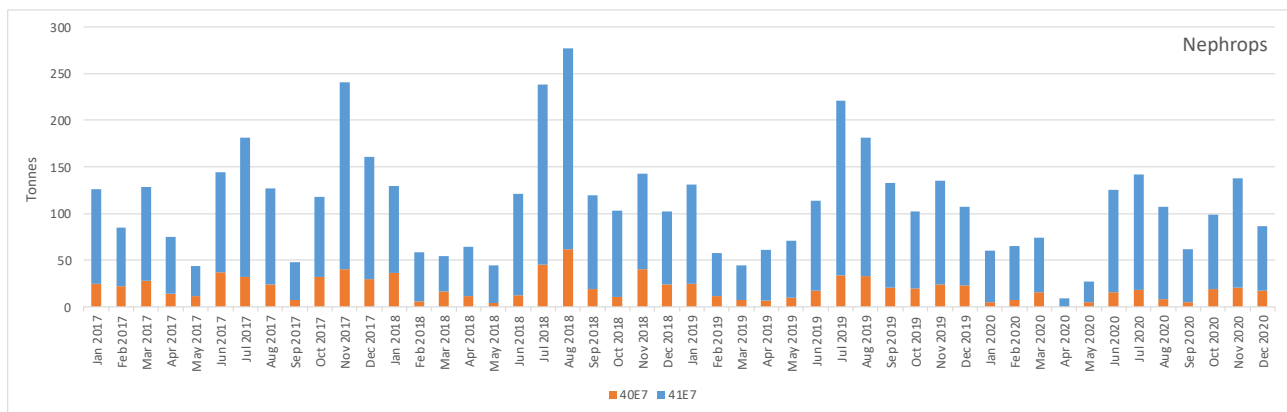


Figure 3.1. Time series of landed weight (tonnes) of nephrops by ICES rectangle from the local study area (ICES rectangles 40E7 and 41E7) (data source: MMO, 2021)

23. To further examine monthly landings of nephrops from the local study area (40E7 and 41E7) a deeper dive of analysis has been undertaken and presented in Figure 3.2, including:
 - A timeseries of monthly landings from January 2017 to December 2020;
 - A comparison of the average monthly landings in the period 2017 to 2019 (shown in green), compared with monthly landings in 2020 (shown in orange), and including linear trendlines.
 - Inter-annual variation in monthly landings compared across 2017 to 2020 to present the positive or negative proportion of change in monthly landings from:
 - 2018 compared with the previous year (2017);
 - 2019 compared with 2018; and
 - 2020 compared with 2019.
24. The linear trends show an overall decrease in landings in 2020 compared to previous three year period. There was a significant drop in April-May, as well as over the summer period. Landings were lower in August-September, coinciding with the commencement of NnG offshore construction; however, nephrops landings rose again from September 2020 to November 2020 following similar trends seen in previous years.
25. The proportion of change in inter-annual variations shows a dramatic increase in 2018 landings (compared to 2017) in the August-September months, and also reduced catches in March-April and November to December for this same period. Lower catches are noted throughout most of 2020, notably in April-May and August-September.

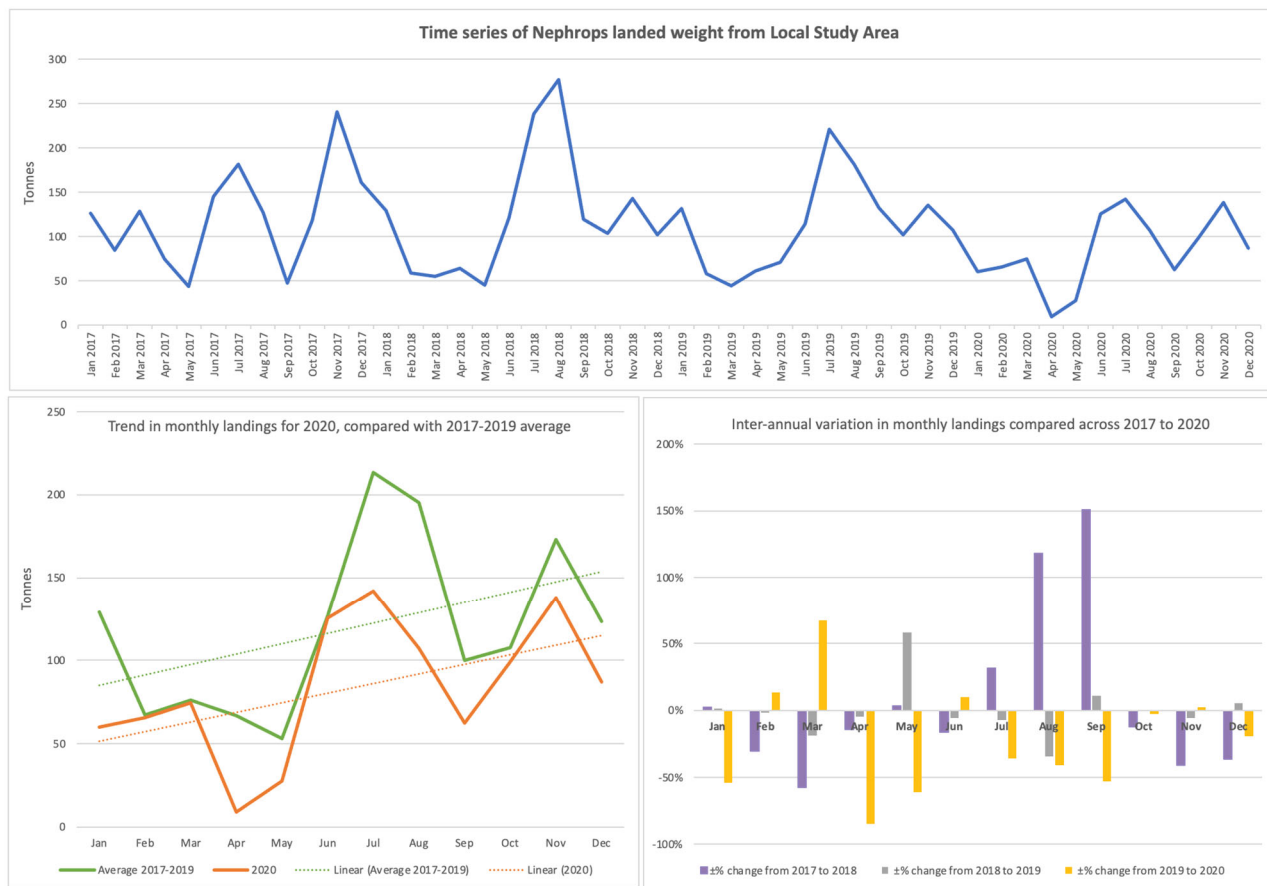


Figure 3.2. Time series, trendlines and inter-annual variation of landed weight (tonnes) of nephrops from the local study area (ICES rectangles 40E7 and 41E7) (data source: MMO, 2021)

3.1.2 Nephrops: regional study area

26. The monthly landings of nephrops from the regional study area are shown in Figure 3.3 and Figure 3.4 for the time series January 2017 to December 2020.
27. As corroborated by previous Reports 1 and 2, ICES rectangle 41E7 has the highest proportion of nephrops landings in the region.

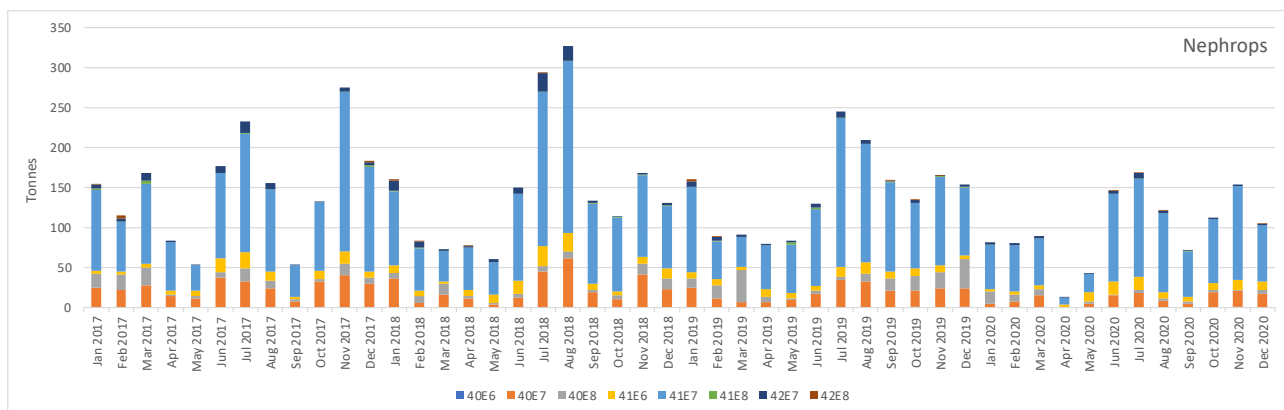


Figure 3.3. Time series of landed weight (tonnes) of nephrops by ICES rectangle from the regional study area (ICES rectangles 42E7-E8, 41E6-E8 and 40E6-E8) (data source: MMO, 2021)

28. The trends in 2020 monthly landings compared to 2017-2019 and the inter-annual variation of monthly landings mirrors the findings for the local study area.

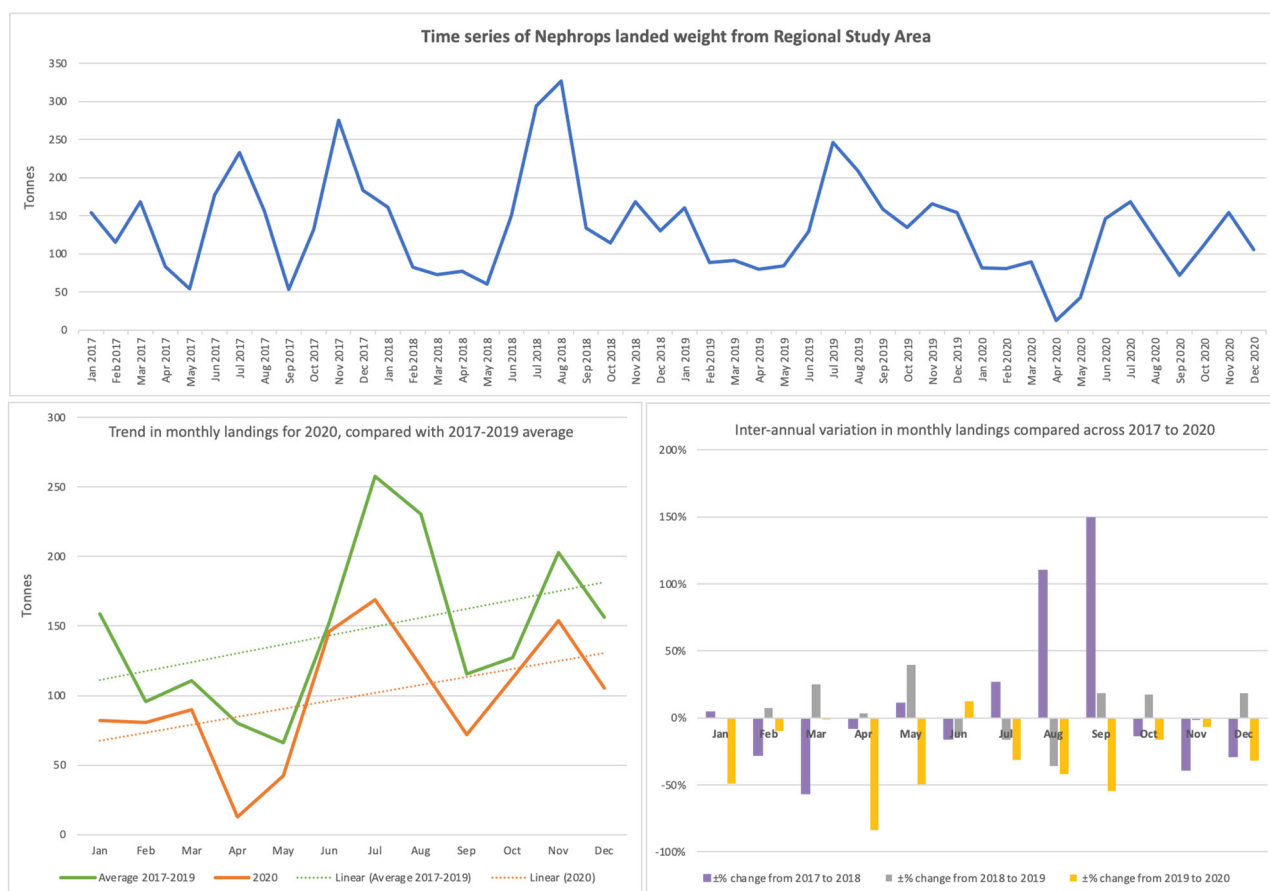


Figure 3.4. Time series, trendlines and inter-annual variation of landed weight (tonnes) of nephrops from the regional study area (ICES rectangles 42E7-E8, 41E6-E8 and 40E6-E8) (data source: MMO, 2021)

3.2 Lobster

3.2.1 Lobster: local study area

29. The monthly landings of lobster from the local study area are shown in Figure 3.5 and Figure 3.6 for the time series January 2017 to December 2020.
30. The known seasonal trend in lobster landings is clearly visible, with peaks in summer landings from July to September. Landings in 2020 are noticeable lower, and specifically the high peak in August landings is not evident in 2020.

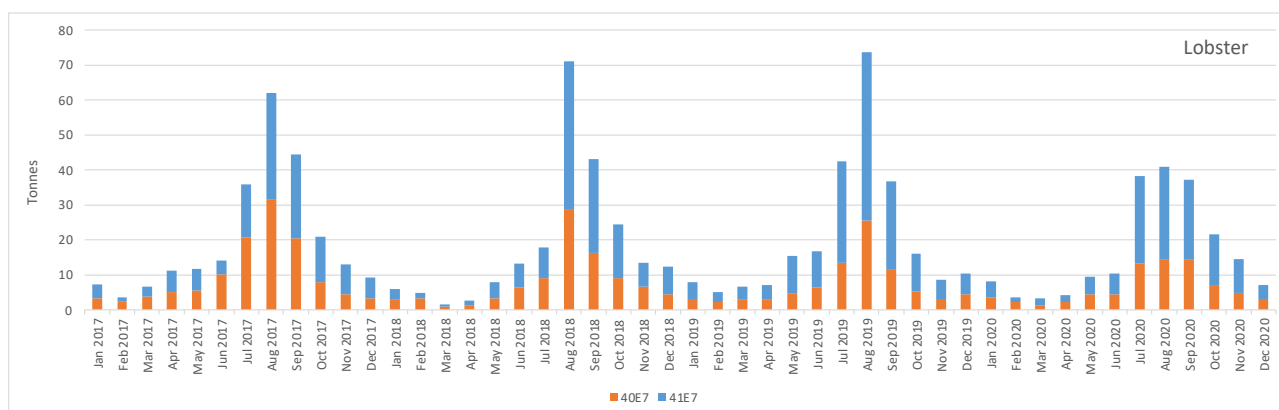


Figure 3.5. Time series of landed weight (tonnes) of lobster by ICES rectangle from the local study area (ICES rectangles 40E7 and 41E7) (data source: MMO, 2021)

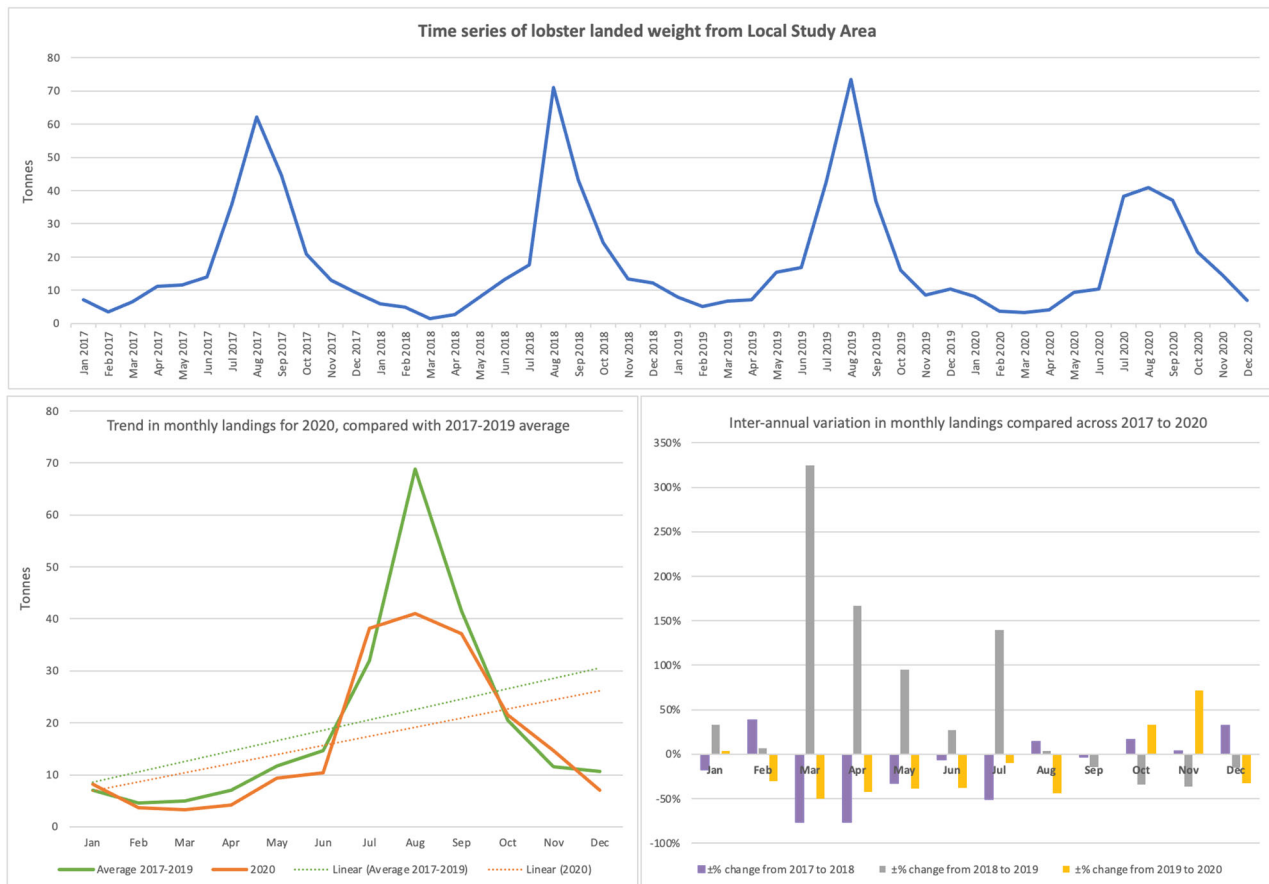


Figure 3.6. Time series, trendlines and inter-annual variation of landed weight (tonnes) of lobster from the local study area (ICES rectangles 40E7 and 41E7) (data source: MMO, 2021)

31. The trendlines in 2020 landings compared to 2017 to 2019 show a smaller variation across the periods (compared to the nephrops figures), but again, the lack of peak in August is clearly evident.
32. Inter-annual variations show significant increases from March to Jul 2019. The proportion of change from 2020 compared to 2019 is not out with the proportions seen for other years and months, but those variations are generally over months with lower catches (i.e., March to May). In August 2020 landings of lobster dropped by 44% compared to 2019 catches; when the fishery would be expected to be at its seasonal peak, this level of drop is significant.

3.2.2 Lobster: regional study area

33. The monthly landings of lobster from the regional study area are shown in Figure 3.7 and Figure 3.8 for the time series January 2017 to December 2020.
34. From the regional study area, a high proportion of landings are from ICES rectangles that do not overlap the project, including 42E7 and 40E8 (shown in navy and grey in the figure below).

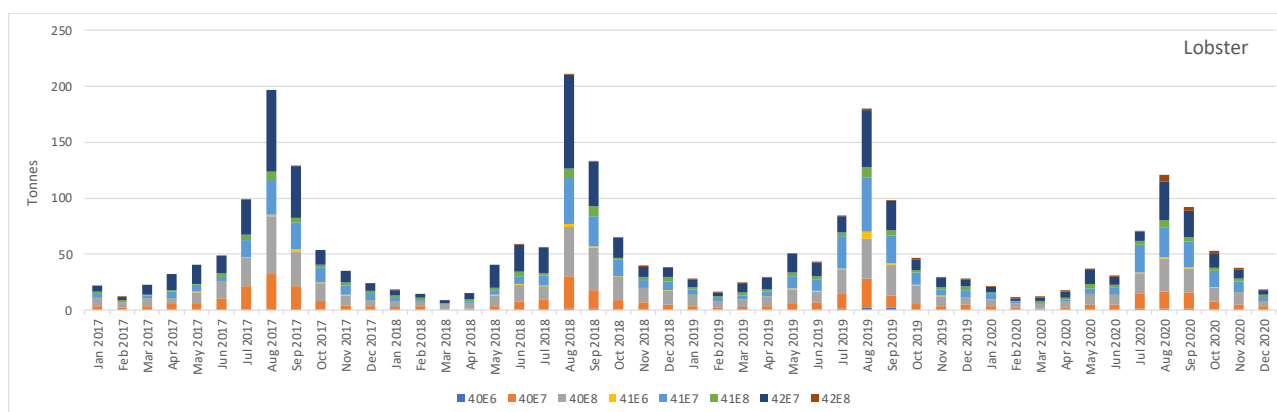


Figure 3.7. Time series of landed weight (tonnes) of lobster by ICES rectangle from the regional study area (ICES rectangles 42E7-E8, 41E6-E8 and 40E6-E8) (data source: MMO, 2021)

35. The timeseries of landings shows an overall drop in landings in 2020, as might be expected from the covid-pandemic and associated restrictions and effects. However, it is evident that the regional landings of lobster maintained the summer peak in landings, which was not seen for the local study area.
36. Figure 3.8 demonstrates that, while overall activity was reduced in 2020, the lobster landings within the regional study area maintained their summer peak. This peak in landings is from ICES rectangles outside the local study area, including 42E8 and 40E8; showing a variation in trend from the regional versus local study areas.

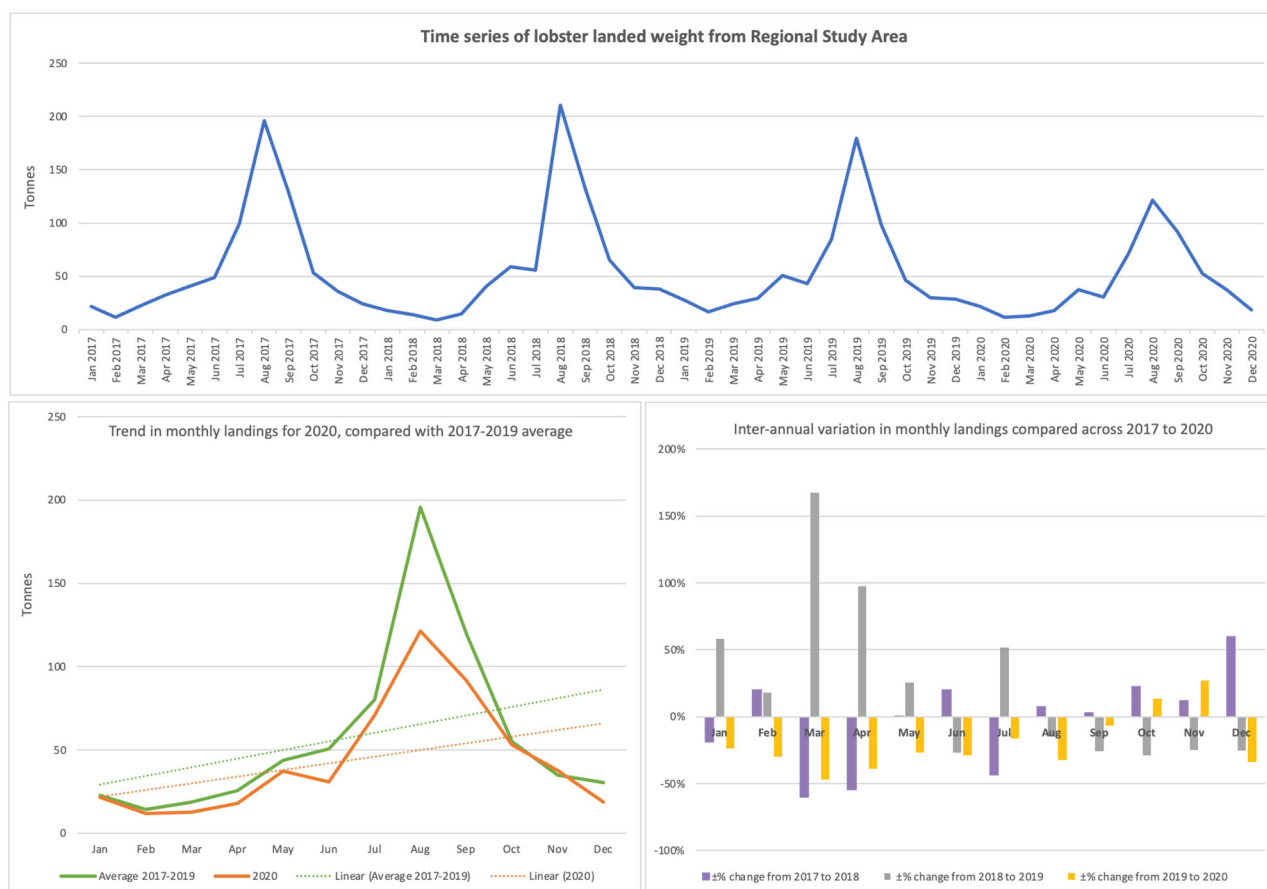


Figure 3.8. Time series, trendlines and inter-annual variation of landed weight (tonnes) of lobster from the regional study area (ICES rectangles 42E7-E8, 41E6-E8 and 40E6-E8) (data source: MMO, 2021)

3.3 Brown crab

3.3.1 Brown crab: local study area

37. The monthly landings of brown crab from the local study area are shown in Figure 3.9 and Figure 3.10 for the time series January 2017 to December 2020.
38. Landings of brown crab from both ICES rectangles 40E7 and 41E7 showed marked decline in 2020 compared to other years.

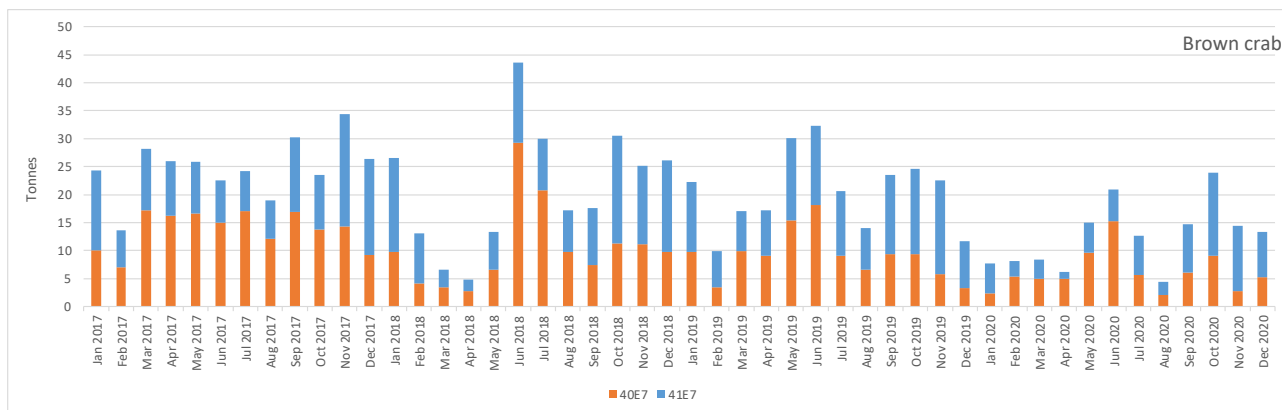


Figure 3.9. Time series of landed weight (tonnes) of brown crab by ICES rectangle from the local study area (ICES rectangles 40E7 and 41E7) (data source: MMO, 2021)

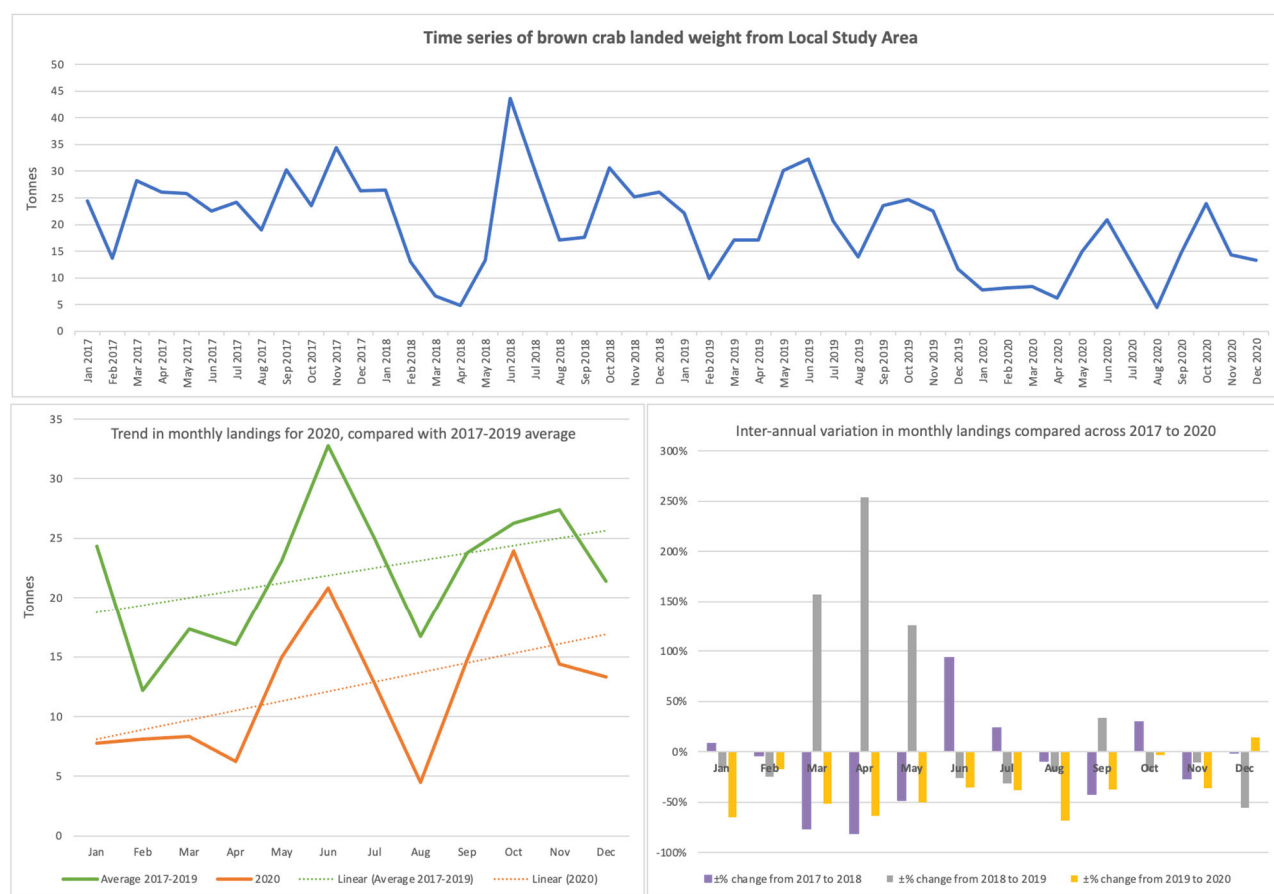


Figure 3.10. Time series, trendlines and inter-annual variation of landed weight (tonnes) of brown crab from the local study area (ICES rectangles 40E7 and 41E7) (data source: MMO, 2021)

39. The trendline for brown crab landings from the local study area is substantially lower than the 2017 to 2019 period, although it largely follows the general seasonality trends.

3.3.2 Brown crab: regional study area

40. The monthly landings of brown crab from the regional study area are shown in Figure 3.11 and Figure 3.12 for the time series January 2017 to December 2020.

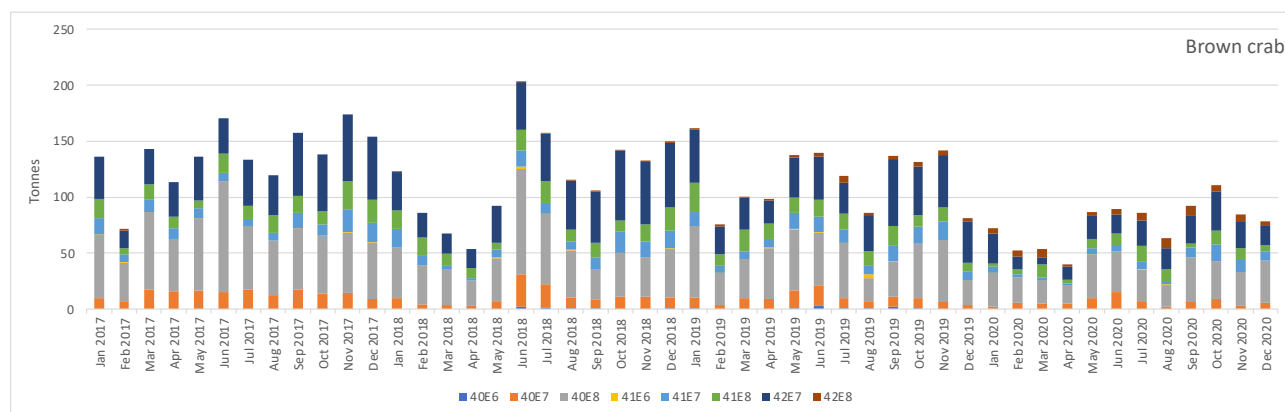


Figure 3.11. Time series of landed weight (tonnes) of brown crab by ICES rectangle from the regional study area (ICES rectangles 42E7-E8, 41E6-E8 and 40E6-E8) (data source: MMO, 2021)

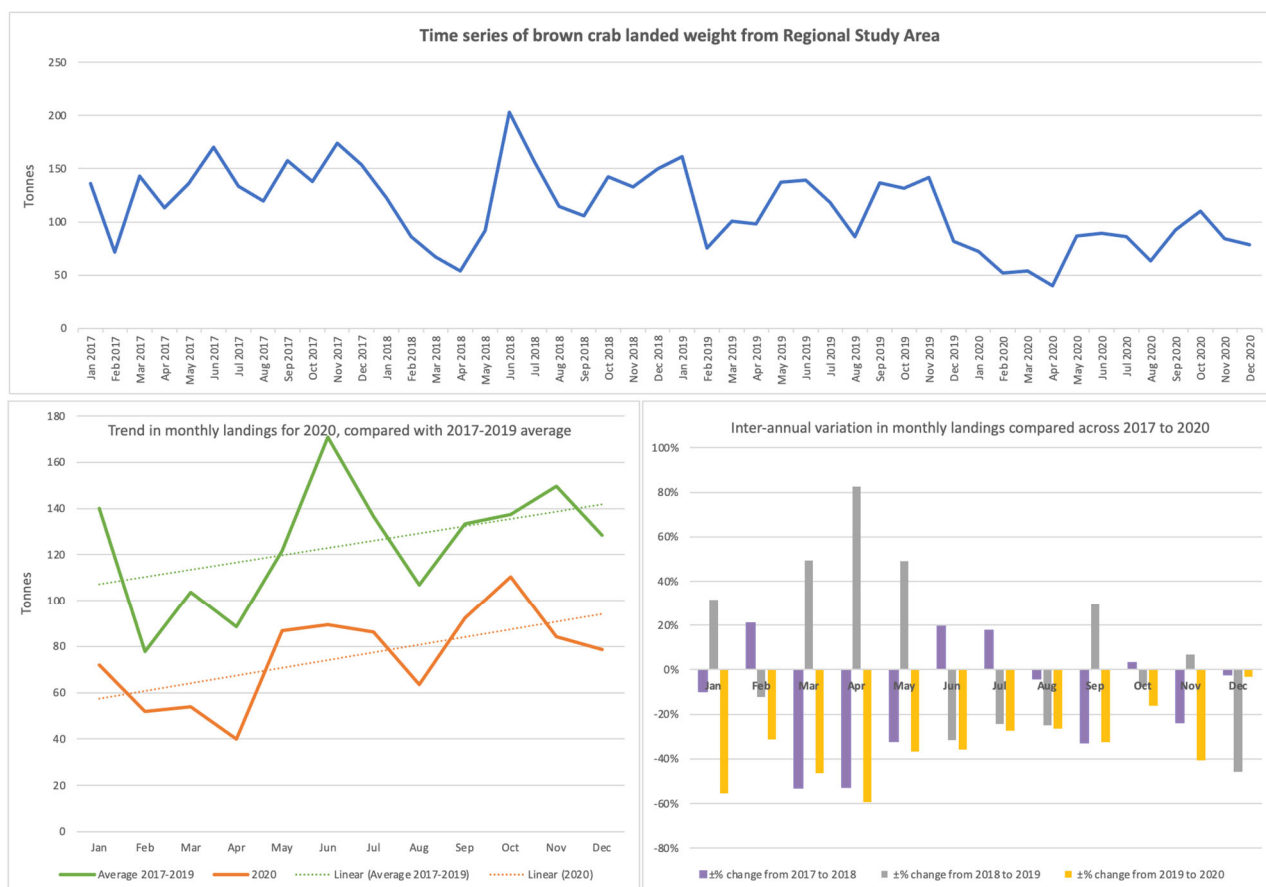


Figure 3.12. Time series, trendlines and inter-annual variation of landed weight (tonnes) of brown crab from the regional study area (ICES rectangles 42E7-E8, 41E6-E8 and 40E6-E8) (data source: MMO, 2021)

41. The trendline in regional landings illustrates that catches of brown crab were overall lower in 2020 compared to 2017 to 2019. Generally, they experienced the seasonality trends expected, but without the noticeable spring and early summer peak. Regionally brown crab landings did not experience their normal peak in May-June, while they did experience this peak in the local study area.
42. Inter-annual variations show a decline in landings from every month in the 2020 period. Generally, the proportion of change is similar to that seen in previous years (e.g., from 2017 to 2018), although a notable drop is noted in January 2020.

3.4 Squid

3.4.1 Squid: local study area

43. The monthly landings of squid from the local study area are shown in Figure 3.13 and Figure 3.14 for the time series January 2017 to December 2020.
44. Squid landings are highly seasonal in the local study area, occurring during the summer and early autumn months (July to September). The trendline indicates a lower overall catch of squid in 2020 and a slight shift to an earlier fishery (in July).
45. Interannual trends show the high variability in this fishery, which is not unique to 2020.

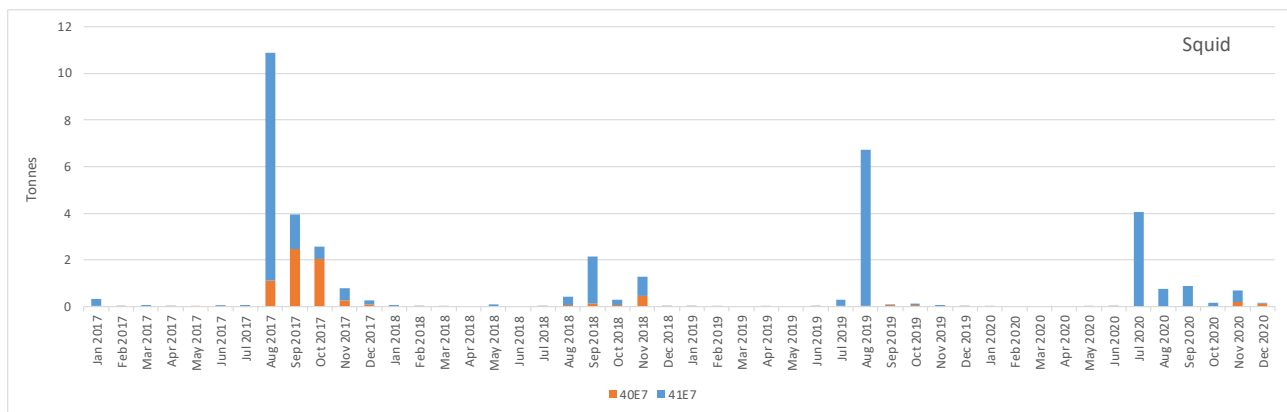


Figure 3.13. Time series of landed weight (tonnes) of squid by ICES rectangle from the local study area (ICES rectangles 40E7 and 41E7) (data source: MMO, 2021)

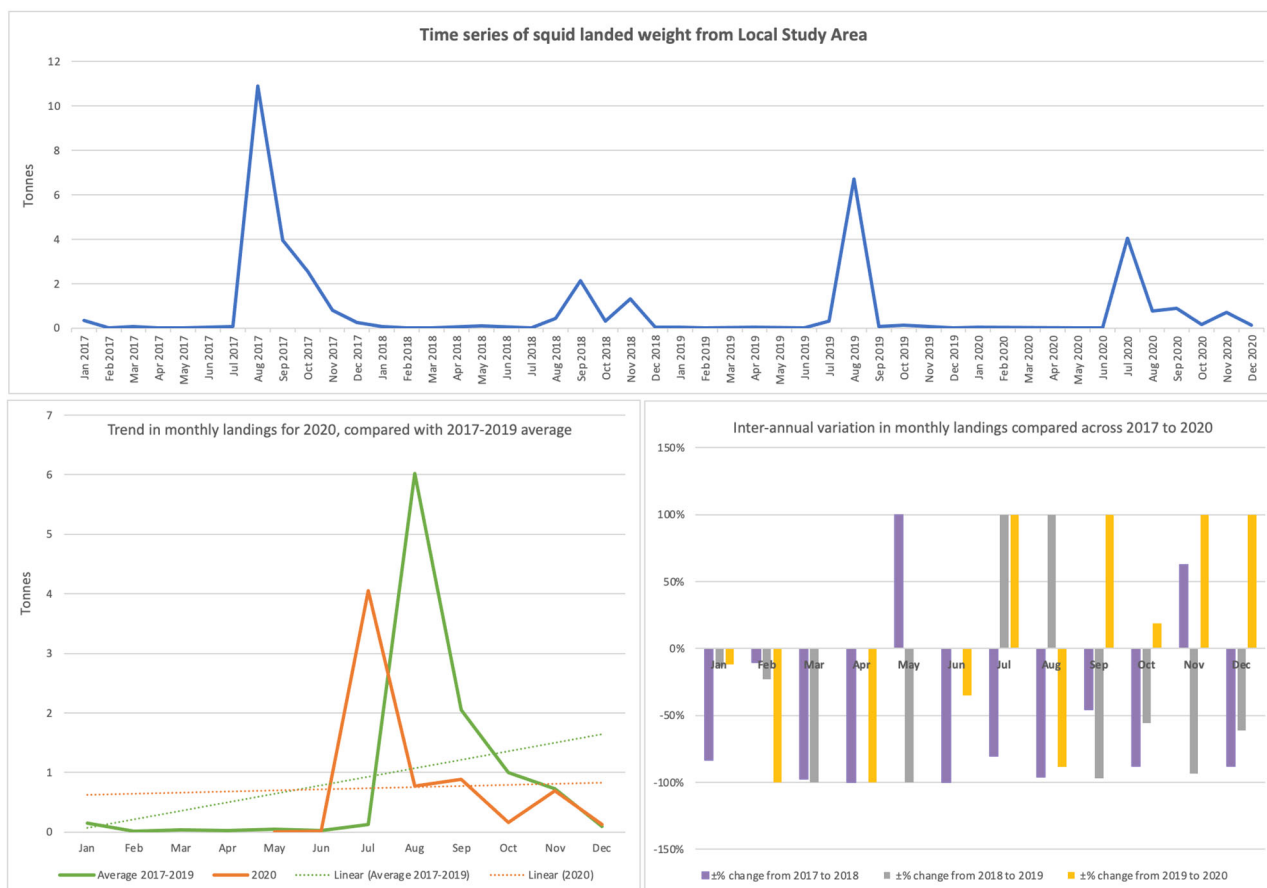


Figure 3.14. Time series, trendlines and inter-annual variation of landed weight (tonnes) of squid from the local study area (ICES rectangles 40E7 and 41E7) (data source: MMO, 2021)

3.4.2 Squid: regional study area

46. The monthly landings of squid from the regional study area are shown in Figure 3.15 and Figure 3.16 for the time series January 2017 to December 2020. The regional landings corroborate the main season for squid across summer and early autumn; and illustrate the sporadic nature of catches.
47. The 2020 regional landings saw a substantial increase in landing compared to 2018 and 2019, on account of substantial catches from ICES rectangle 42E7 in July 2020.

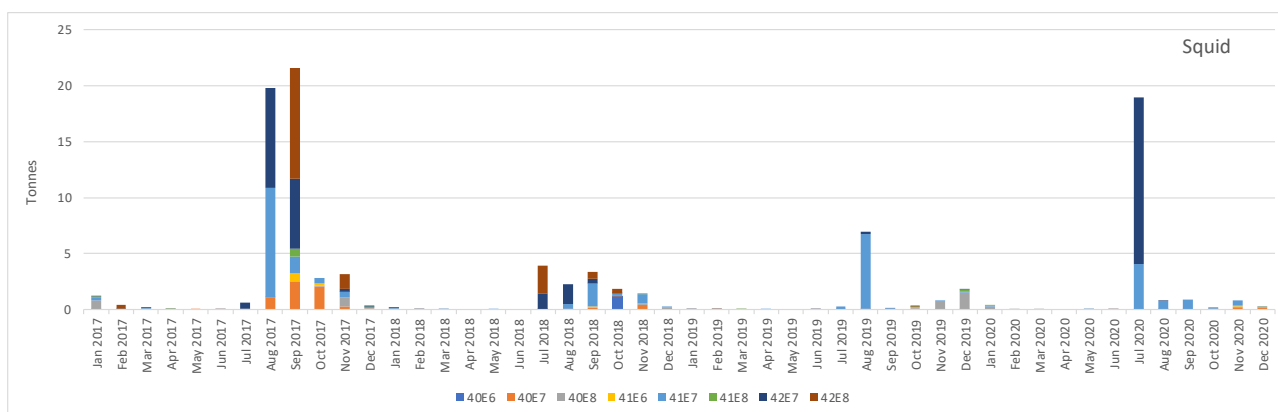


Figure 3.15. Time series of landed weight (tonnes) of squid by ICES rectangle from the regional study area (ICES rectangles 42E7-E8, 41E6-E8 and 40E6-E8) (data source: MMO, 2021)

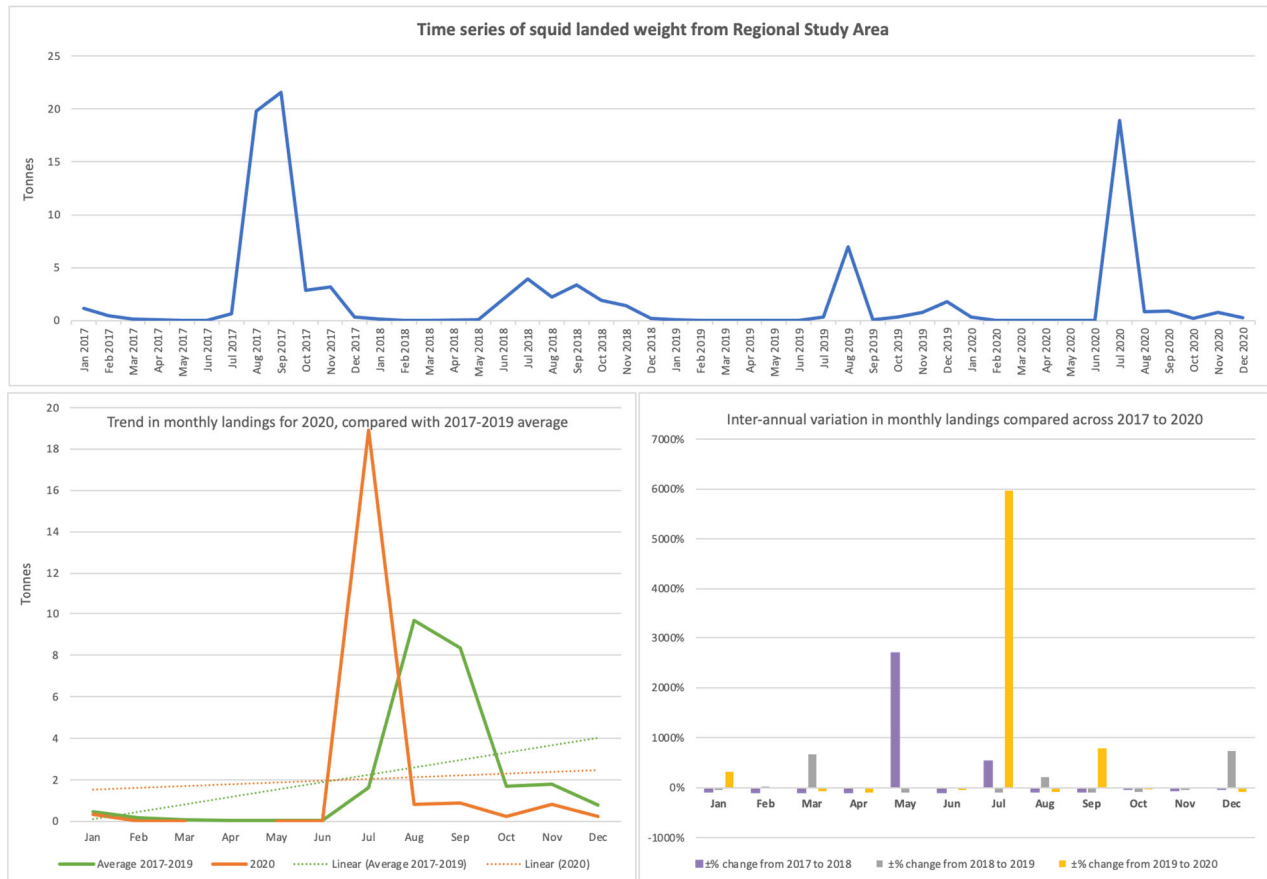


Figure 3.16. Time series, trendlines and inter-annual variation of landed weight (tonnes) of squid from the regional study area (ICES rectangles 42E7-E8, 41E6-E8 and 40E6-E8) (data source: MMO, 2021)

4 Landings by port from January to June 2021 (Report 3b)

48. This section of the report provides analysis of the 2021 MMO landings dataset which (for the first time) allows concurrent analysis across both ICES rectangles and port of landing. Pre-2021 landings data were provided as two separate datasets: (i) landings by ICES rectangles and (ii) landings by port, and therefore pre-2021 it was not possible to determine where catches from specific ICES rectangles were landed. The 2021 MMO dataset has been analysed to understand which ports of landings are important across the local and regional study area.
49. This section of the report covers the six month period January to June 2021 and represents the second report (Report 3b) from the constriction phase.
50. An overview of landings by port is provided below for the local and regional study areas, followed by individual port profiles.

4.1 Overview

51. During the period January to June 2021 a total of 576 tonnes were landed from the local study area, with a first sales value of £2.7 million (Table 4.1). Across the same period, 1,523 tonnes and £6 million were landed from the regional study area (8 ICES rectangles).
52. Approximately 44% of the landed value from the regional study area was caught from within the local study area, highlighting the relative importance of these grounds.

Table 4.1. Total landings from local and regional study areas during period January to June 2021 (data source: MMO, 2023)

STUDY AREA	ICES RECTANGLES	LANDED WEIGHT (TONNES)	FIRST SALES VALUE (£)
Local study area	40E7, 41E7	575.81	£2,652,818
Regional study area	42E7, 42E8, 41E6, 41E7, 41E8, 40E6, 40E7, 40E8.	1,522.70	£5,992,258
Proportion of regional landings from the local study area		37.82%	44.27%

53. Landed weight and value from January to June 2021 (Figure 4.1) indicates a peak in landings during June and lower activity during February.

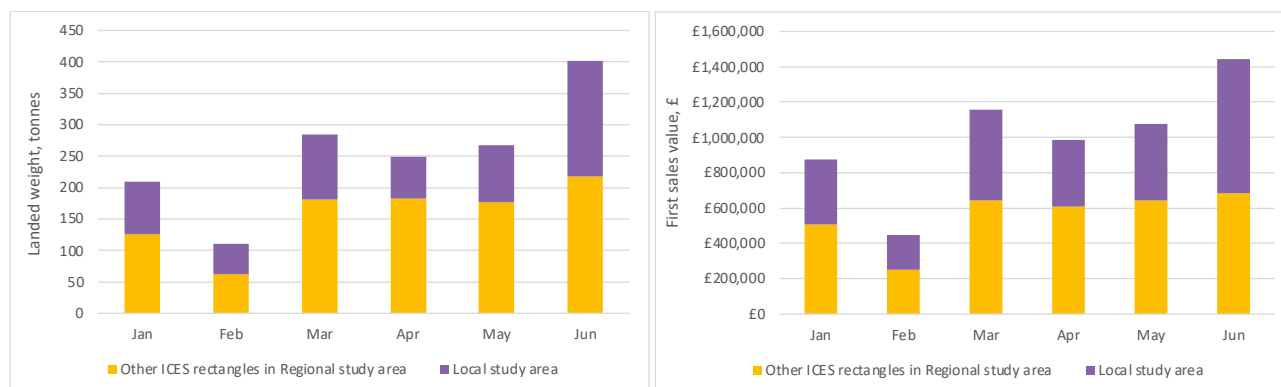


Figure 4.1. Landed weight and first sales value landed from January to June 2021 from the total regional study area (ICES rectangles 42E7-E8, 41E6-E8 and 40E6-E8), indicating the portion landed from the local study area (40E7 and 41E7) (data source: MMO, 2023)

54. Landed weight and value from January to June 2021 is presented by port of landing and ICES rectangle in Figure 4.2 for the regional study area, which includes ICES rectangles 40E7 and 41E7 (which make up the local study area).

55. The highest quantity and value is landed into Pittenweem, from ICES rectangle 41E7. Landings into Dunbar are almost exclusively from ICES rectangles 40E7 and 41E7, while Eyemouth also lands from these areas, as well as other ICES rectangles in the regional study area. Notable landings into Peterhead, Arbroath and Burnmouth are predominately from outside the local study area.

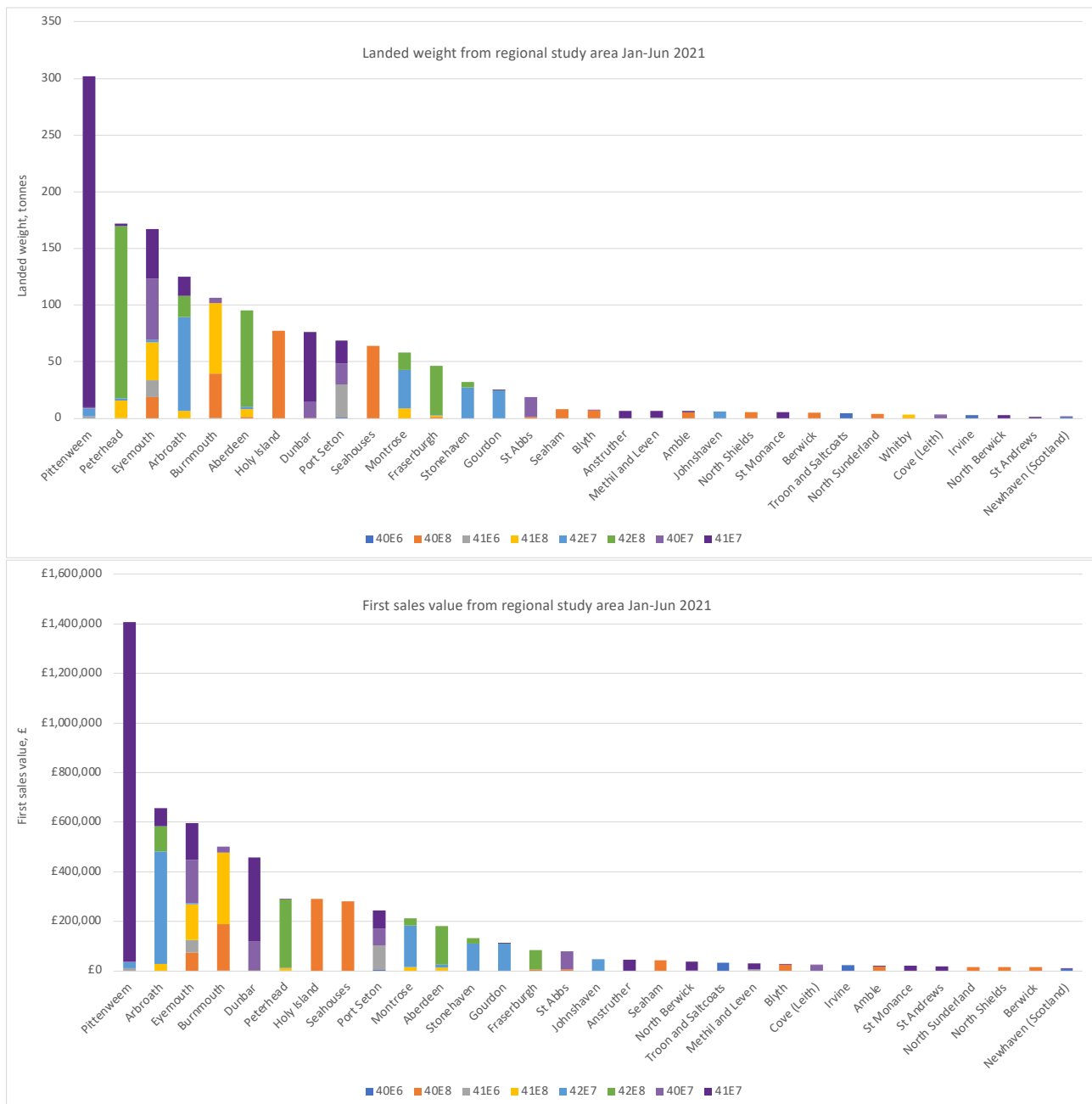


Figure 4.2. Landed weight and first sales value by port of landing from January to June 2021 from the total regional study area (ICES rectangles 42E7-E8, 41E6-E8 and 40E6-E8) (data source: MMO, 2023)

56. Landed weight and value from January to June 2021 is presented by port of landing and month in Figure 4.3 for the local study area. As per previous figures, the highest quantity is landed into Pittenweem, followed by Eyemouth, Dunbar, Port Seton and Arbroath. Profiles of landings into these ports (and others) for commercial catches from the local study area is provided in Section 4.2.

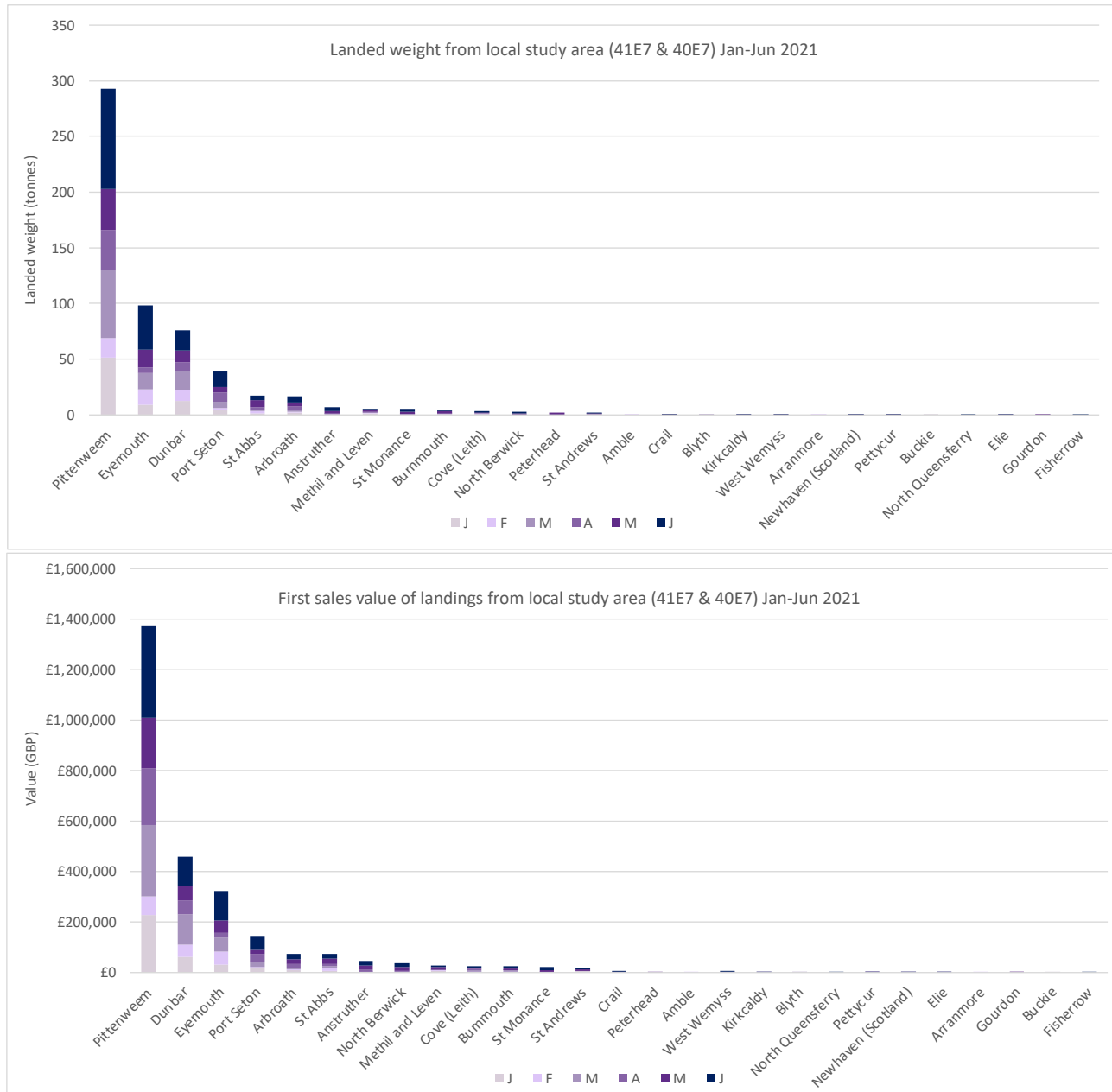


Figure 4.3. Landed weight and first sales value by port of landing from January to June 2021 from the local study area (ICES rectangles 40E7 and 41E7) (data source: MMO, 2023)

4.2 Port profiles

57. This section provides a profile of landings for each of the key ports detailing commercial catches from the local study area.

4.2.1 Pittenweem

58. Commercial species caught by UK vessels of all lengths fishing within the local study area (ICES rectangles 40E7 and 41E7) and landed into Pittenweem from January to June 2021 are presented in Figure 4.4 by species and Figure 4.5 by gear type and vessel length category.

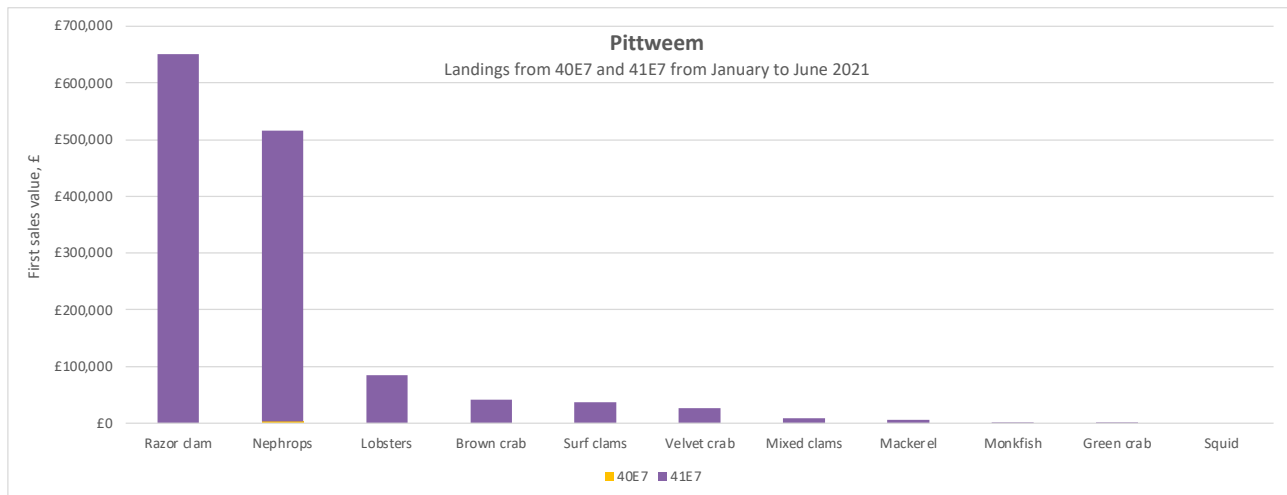


Figure 4.4. First sales value of species landed into Pittenweem from January to June 2021 from the local study area (ICES rectangles 40E7 and 41E7) indicating species (data source: MMO, 2023)

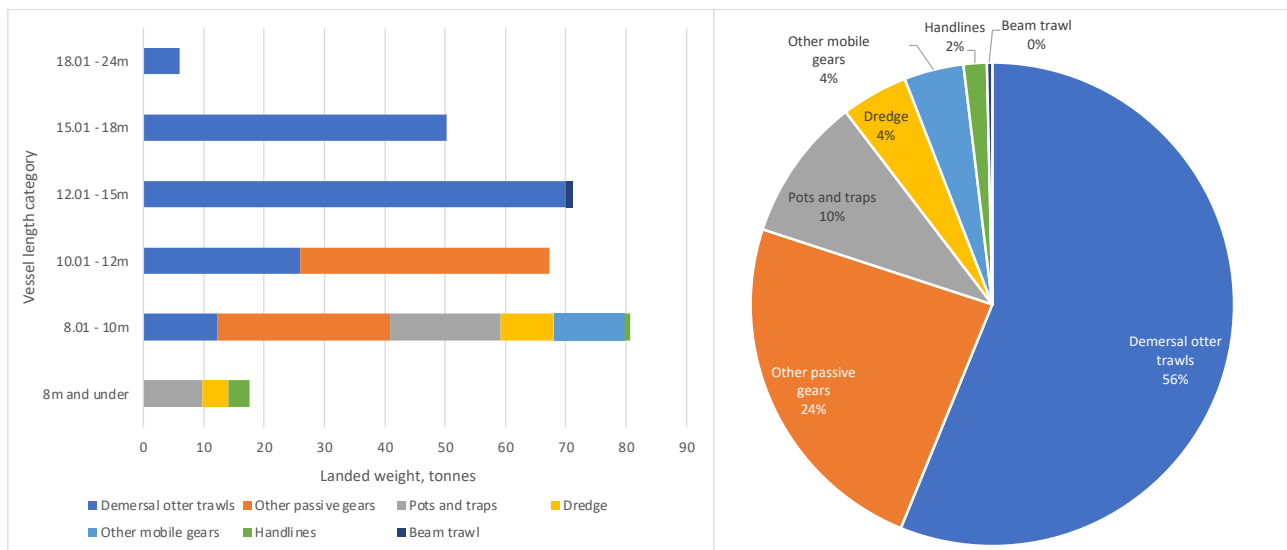


Figure 4.5. Landed weight (tonnes) of landings into Pittenweem from January to June 2021 from the local study area (ICES rectangles 40E7 and 41E7) indicating gear type and vessel length category (data source: MMO, 2023)

59. The first sales value of landings from the local study area into Pittenweem from January to June 2021 was £1.4 million, with almost all of the catches taken from ICES rectangle 41E7, which overlaps the NnG Wind Farm Area. The highest value species over this period was razor clam (£651,000), followed by nephrops (£516,000) and lobster and brown crab (£125,000 combined).
60. Demersal otter trawls landed the highest proportion by weight (56%), with the majority of vessels being above 12m in length, but also some landings from vessels under 12m. Razor clams are caught by 'other passive gears', which is likely to include electrofishing for this species. By weight 'other passive gears' accounted for 24% of the landings and were taken by vessels between 8 to 12m in length.
61. Other gears include pots and traps targeting lobster and brown crab and hydraulic/suction dredge targeting surf clams and mixed clams. A small quantity of mackerel was caught using handlines in June.

4.2.2 Dunbar

62. Commercial species caught by UK vessels of all lengths fishing within the local study area (ICES rectangles 40E7 and 41E7) and landed into Dunbar from January to June 2021 are presented in Figure 4.6 by species and Figure 4.7 by gear type and vessel length category.

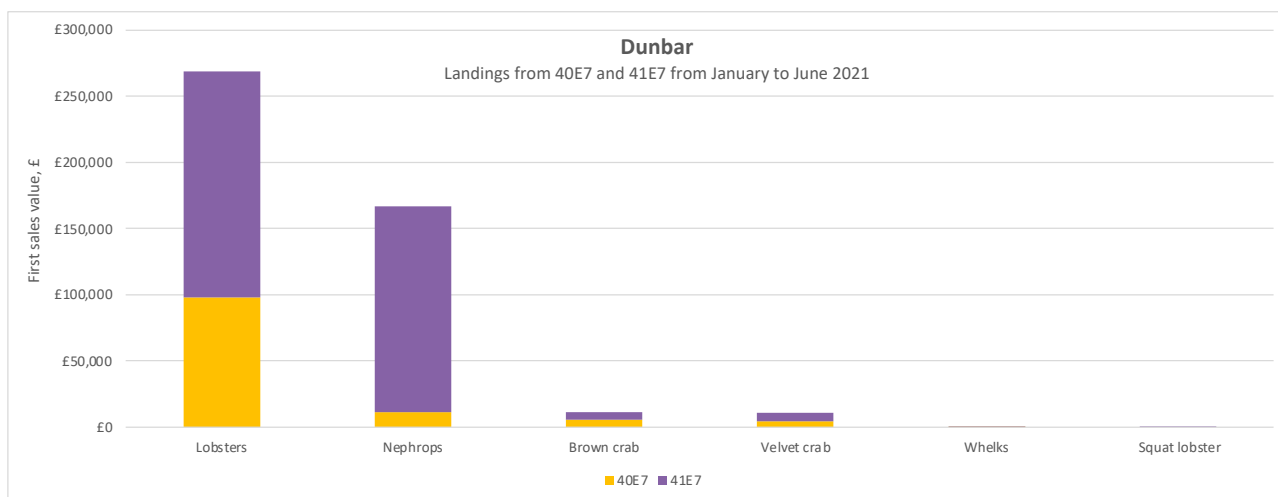


Figure 4.6. First sales value of species landed into Dunbar from January to June 2021 from the local study area (ICES rectangles 40E7 and 41E7) indicating species (data source: MMO, 2023)

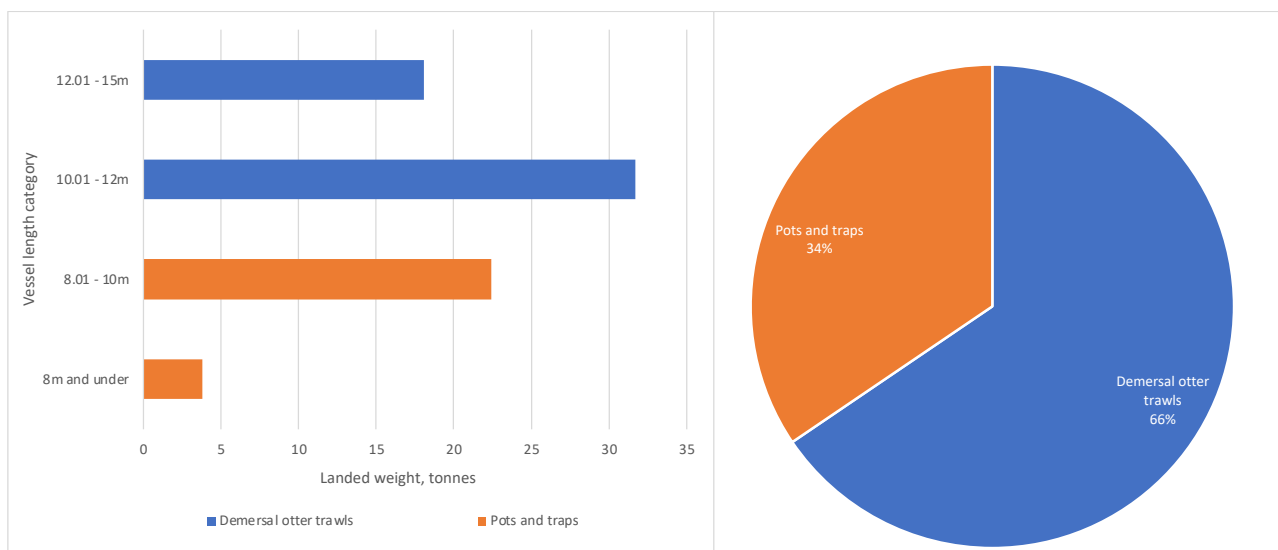


Figure 4.7. Landed weight (tonnes) of landings into Dunbar from January to June 2021 from the local study area (ICES rectangles 40E7 and 41E7) indicating gear type and vessel length category (data source: MMO, 2023)

63. The first sales value of landings from the local study area into Dunbar from January to June 2021 was £457,000, with the catches taken from both ICES rectangles. The highest value species over this period was lobster (£269,000), followed by nephrops (£167,000) and brown crab and velvet crab (£22,000 combined).
64. Demersal otter trawls landed the highest proportion by weight (66%), with the majority of vessels between 10 to 12m in length, with additional landings from vessels between 12 to 15m. Lobster and crab species are caught by pots and traps which make up the remainder of the catches landed into Dunbar by vessels which are all 10m and under.
65. Lobster is caught across both 40E7 and 41E7, while the nephrops fishery is focused across ICES rectangle 41E7.

4.2.3 Eyemouth

66. Commercial species caught by UK vessels of all lengths fishing within the local study area (ICES rectangles 40E7 and 41E7) and landed into Eyemouth from January to June 2021 are presented in Figure 4.8 Figure 4.6 by species and Figure 4.9 by gear type and vessel length category.

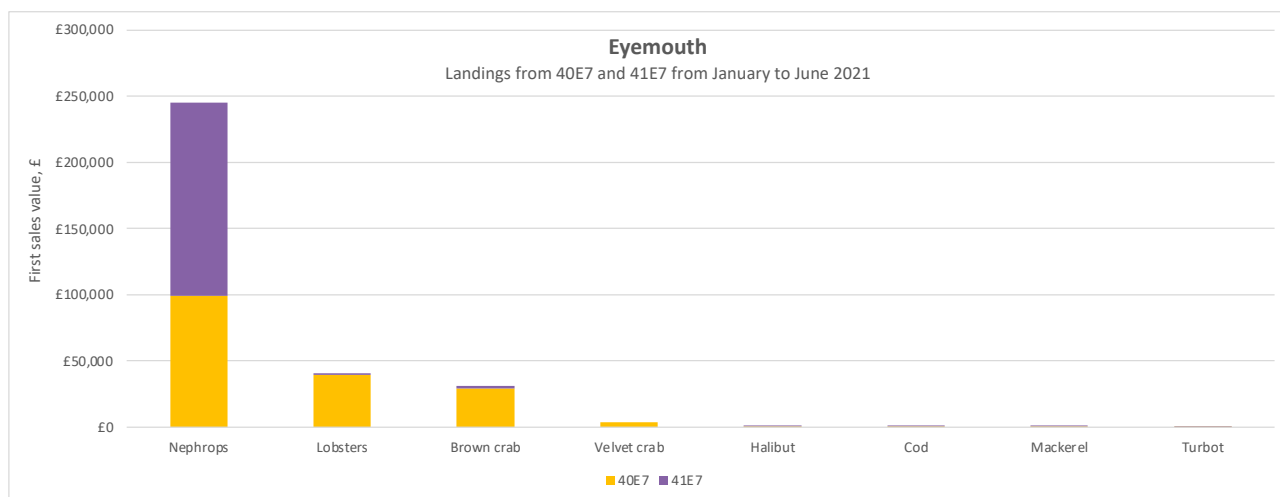


Figure 4.8. First sales value of species landed into Eyemouth from January to June 2021 from the local study area (ICES rectangles 40E7 and 41E7) indicating species (data source: MMO, 2023)

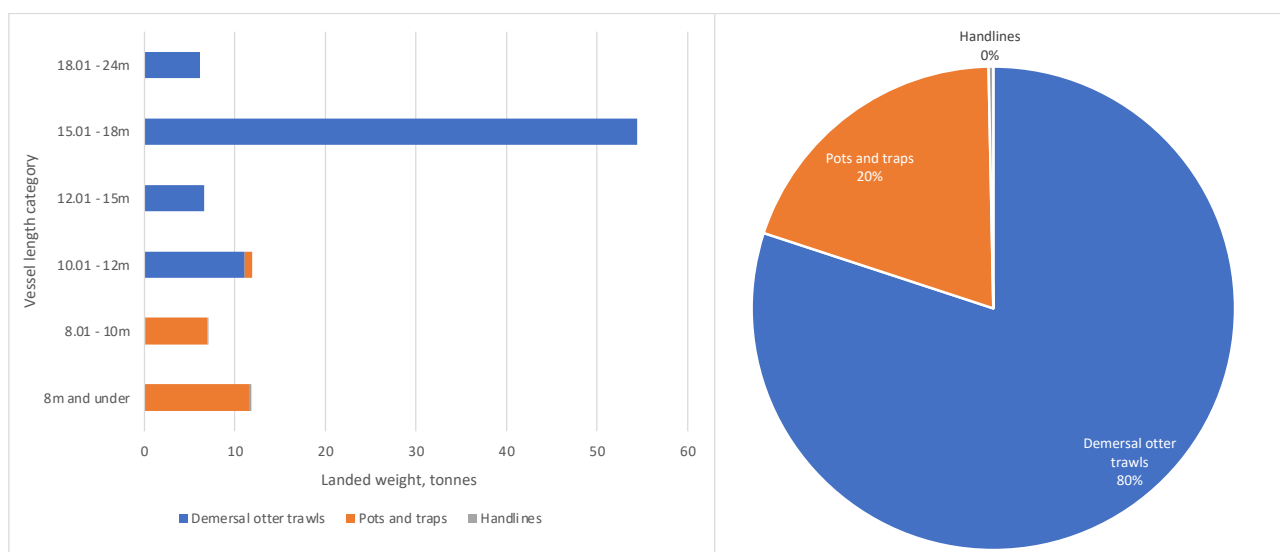


Figure 4.9. Landed weight (tonnes) of landings into Eyemouth from January to June 2021 from the local study area (ICES rectangles 40E7 and 41E7) indicating gear type and vessel length category (data source: MMO, 2023)

67. The first sales value of landings from the local study area into Eyemouth from January to June 2021 was £323,000, with the catches taken from both ICES rectangles. The highest value species over this period was nephrops (£245,000), followed by lobster (£41,000) and brown crab and velvet crab (£35,000 combined).

68. Demersal otter trawls landed the highest proportion by weight (80%), with the majority of vessels between 15 to 18m in length, with additional landings from vessels between 10 to 15m and 18 to 24m. Lobster and crab species are caught by pots and traps which make up the remainder of the catches landed into Eyemouth by vessels which are all 10m and under.

69. Nephrops are caught across both 40E7 and 41E7, while the potting fishery for lobster and crab is focused across ICES rectangle 40E7, which overlaps the Offshore Export Cable Corridor.

4.2.4 Port Seton

70. Commercial species caught by UK vessels of all lengths fishing within the local study area (ICES rectangles 40E7 and 41E7) and landed into Port Seton from January to June 2021 are presented in Figure 4.10 Figure 4.6 by species and Figure 4.11 by gear type and vessel length category.

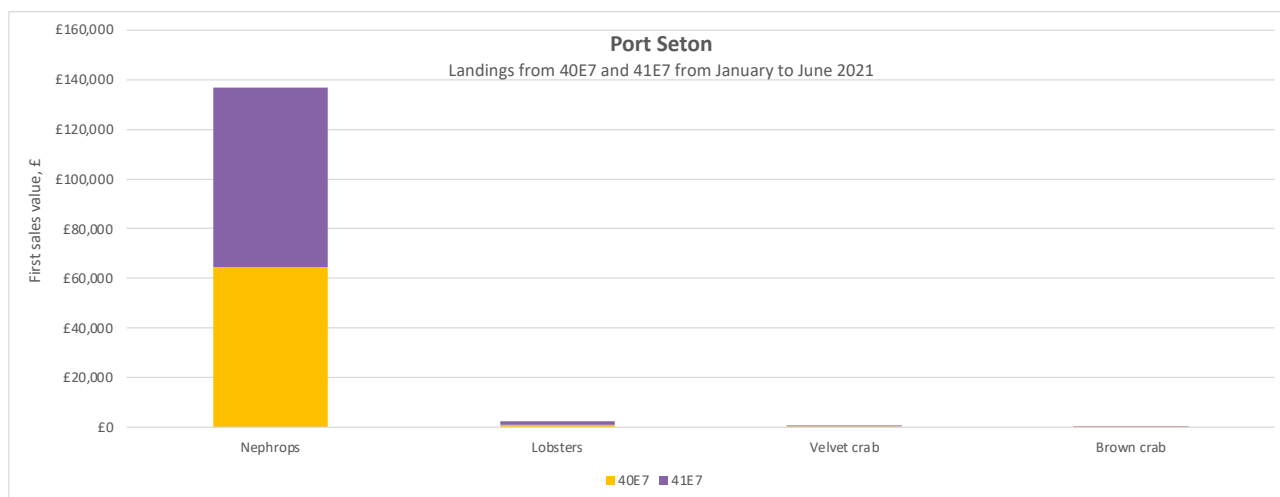


Figure 4.10. First sales value of species landed into Port Seton from January to June 2021 from the local study area (ICES rectangles 40E7 and 41E7) indicating species (data source: MMO, 2023)

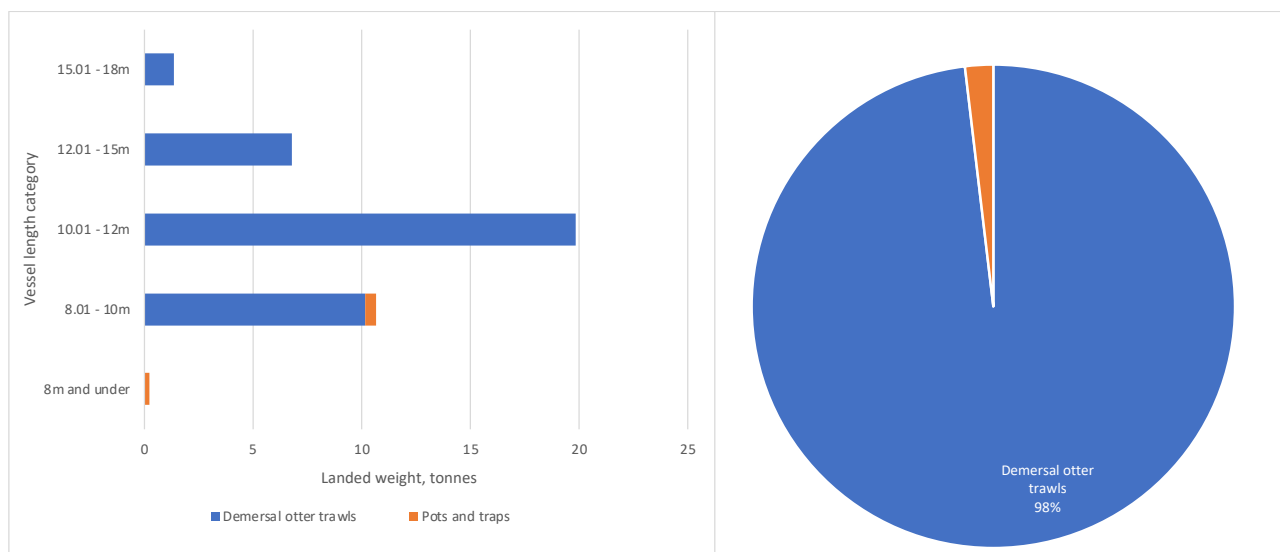


Figure 4.11. Landed weight (tonnes) of landings into Port Seton from January to June 2021 from the local study area (ICES rectangles 40E7 and 41E7) indicating gear type and vessel length category (data source: MMO, 2023)

71. The first sales value of landings from the local study area into Port Seton from January to June 2021 was £323,000, with the catches taken from both ICES rectangles. The highest value species over this period was nephrops (£137,000), with negligible catches of other species.
72. Demersal otter trawls landed the highest proportion by weight (98%), with the majority of vessels between 10 to 12m in length, with additional landings from vessels between 10 to 18m and 8 to 10m. The remaining 2% of landings by weight are landed by potting vessels under 10m in length.
73. Nephrops landed into Port Seton are caught across both 40E7 and 41E7.

4.2.5 Arbroath

74. Commercial species caught by UK vessels of all lengths fishing within the local study area (ICES rectangles 40E7 and 41E7) and landed into Arbroath from January to June 2021 are presented in Figure 4.12 by species and Figure 4.13 by gear type and vessel length category.

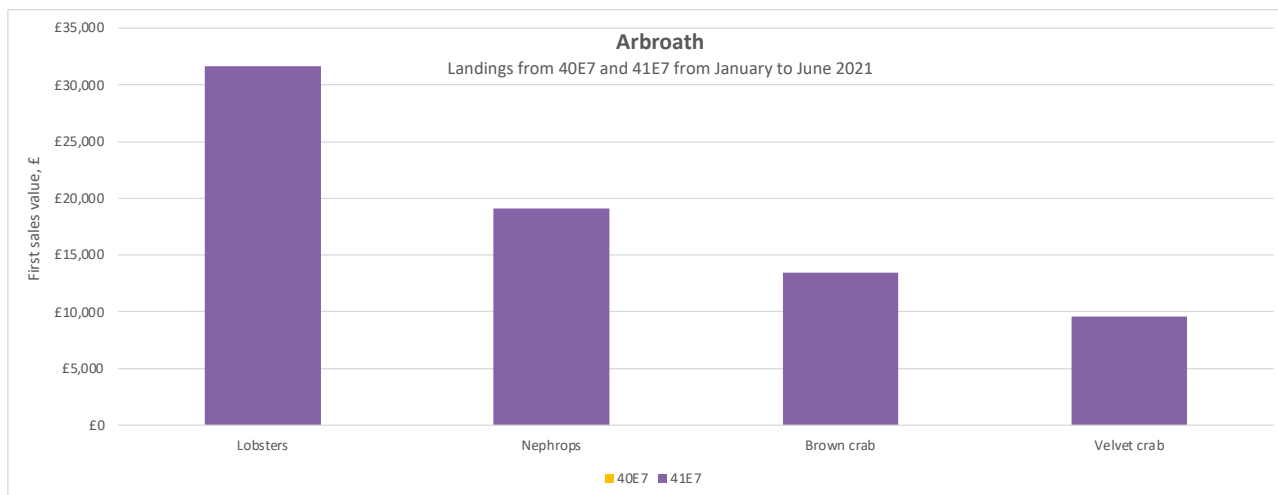


Figure 4.12. First sales value of species landed into Arbroath from January to June 2021 from the local study area (ICES rectangles 40E7 and 41E7) indicating species (data source: MMO, 2023)

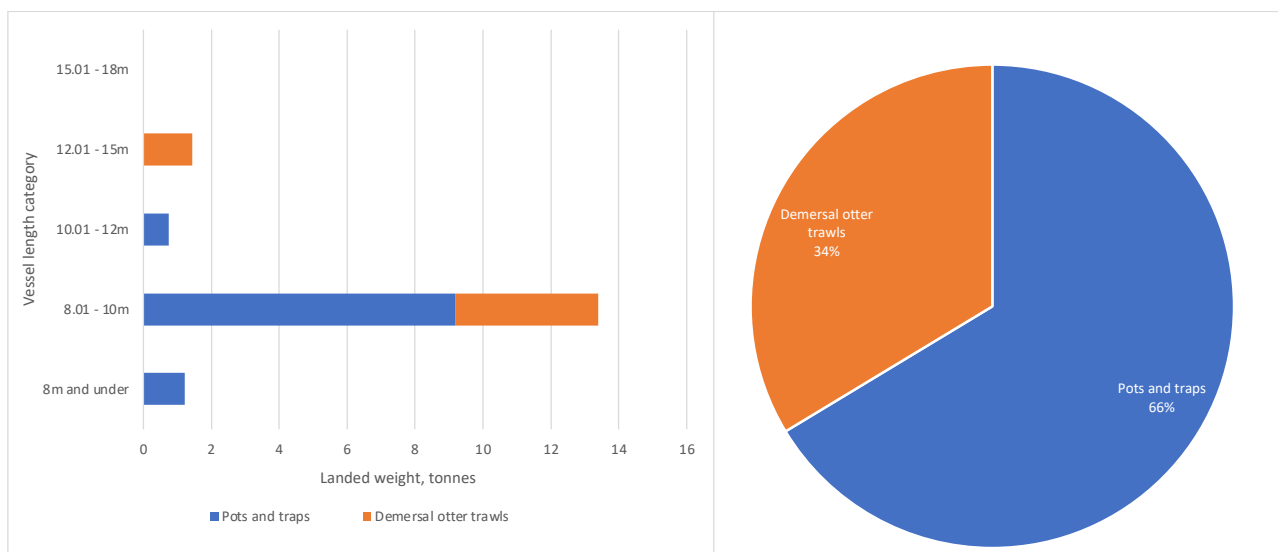


Figure 4.13. Landed weight (tonnes) of landings into Arbroath from January to June 2021 from the local study area (ICES rectangles 40E7 and 41E7) indicating gear type and vessel length category (data source: MMO, 2023)

75. The first sales value of landings from the local study area into Arbroath from January to June 2021 was £74,000, with all of the catches taken from ICES rectangle 41E7. The highest value species over this period was lobster (£32,000), followed by nephrops (£19,000) and brown crab and velvet crab (£23,000 combined).

76. The highest proportion by weight was landed by pots and traps (66%), with the majority of vessels between 8 to 10m in length, with additional landings from vessels between 10 to 12m and 8m and under. Demersal otter trawls targeting nephrops account for the remaining 34% of landings by weight, with the majority taken by vessels 8 to 10 in length, and also vessels 12 to 15m.

77. Stakeholder consultation indicates that the first sales values reported in landing statistics for Arbroath appear low. This will be monitored further in future PEMP reporting outputs.

4.2.6 St Abbs

78. Commercial species caught by UK vessels of all lengths fishing within the local study area (ICES rectangles 40E7 and 41E7) and landed into St Abbs from January to June 2021 are presented in Figure 4.14 by species and Figure 4.15 by gear type and vessel length category.

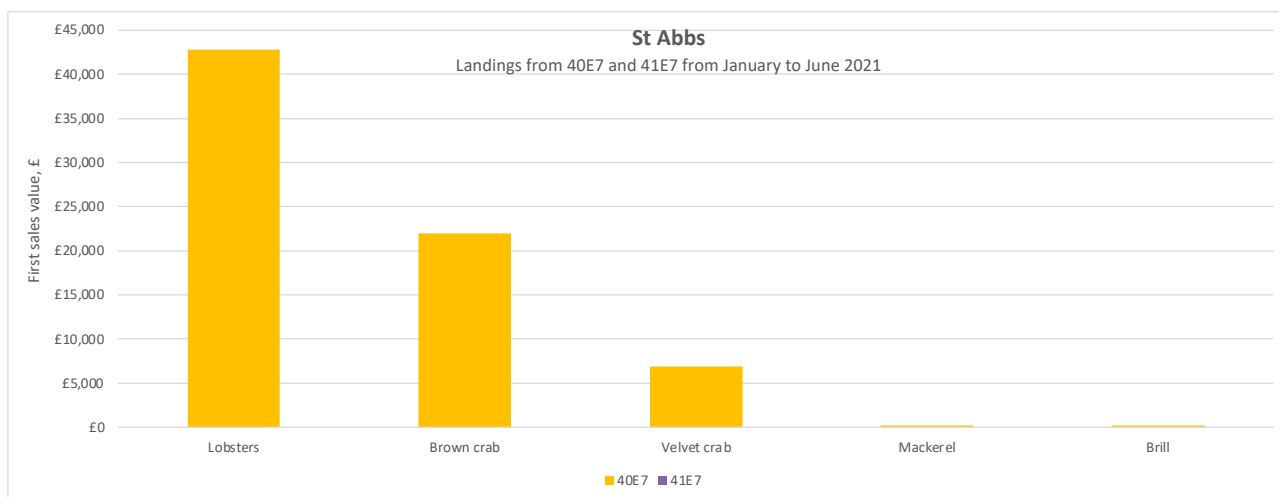


Figure 4.14. First sales value of species landed into St Abbs from January to June 2021 from the local study area (ICES rectangles 40E7 and 41E7) indicating species (data source: MMO, 2023)

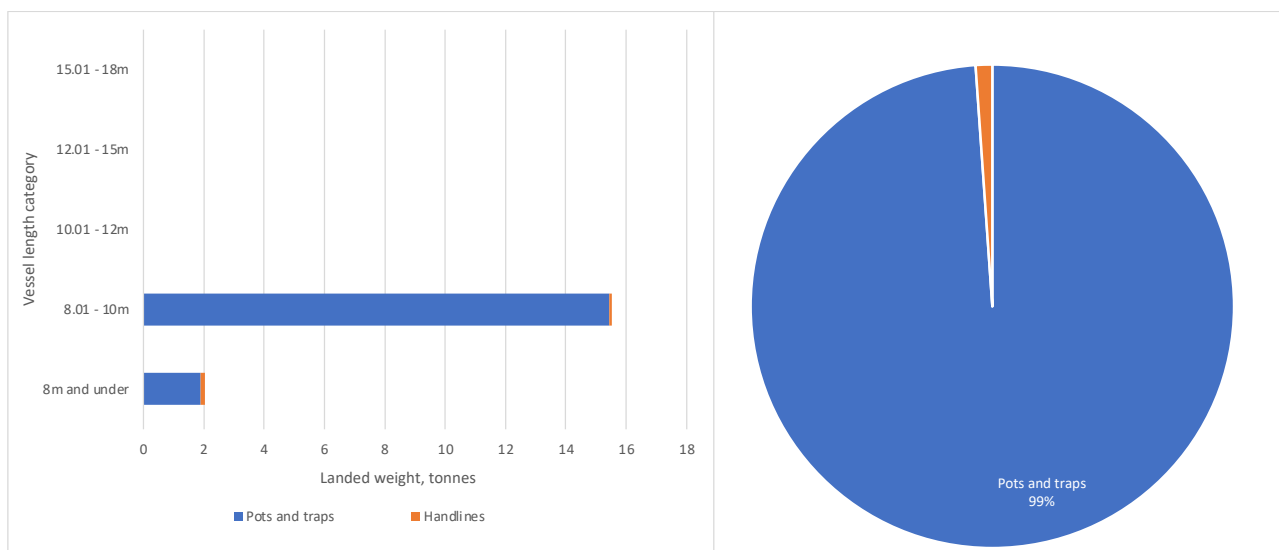


Figure 4.15. Landed weight (tonnes) of landings into St Abbs from January to June 2021 from the local study area (ICES rectangles 40E7 and 41E7) indicating gear type and vessel length category (data source: MMO, 2023)

79. The first sales value of landings from the local study area into St Abbs from January to June 2021 was £72,000, with all of the catches taken from ICES rectangle 40E7, which overlaps the Offshore Export Cable Corridor. The highest value species over this period was lobster (£43,000), followed by brown crab and velvet crab (£29,000 combined).

80. Almost all landings are taken by pots and traps (99%), with the majority of vessels between 8 to 10m in length, with additional landings from vessels 8m and under. Handlines account for the remaining 1% of landings by weight, by vessels 8m and under targeting mackerel.

4.2.7 Anstruther

81. Commercial species caught by UK vessels of all lengths fishing within the local study area (ICES rectangles 40E7 and 41E7) and landed into Anstruther from January to June 2021 are presented in Figure 4.16 by species and Figure 4.17 by gear type and vessel length category.

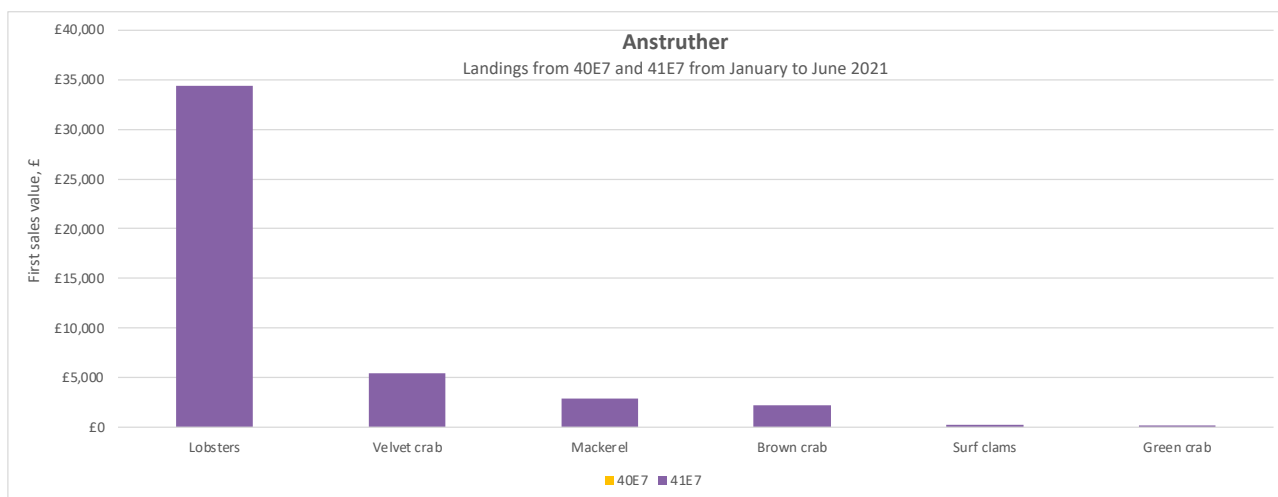


Figure 4.16. First sales value of species landed into Anstruther from January to June 2021 from the local study area (ICES rectangles 40E7 and 41E7) indicating species (data source: MMO, 2023)

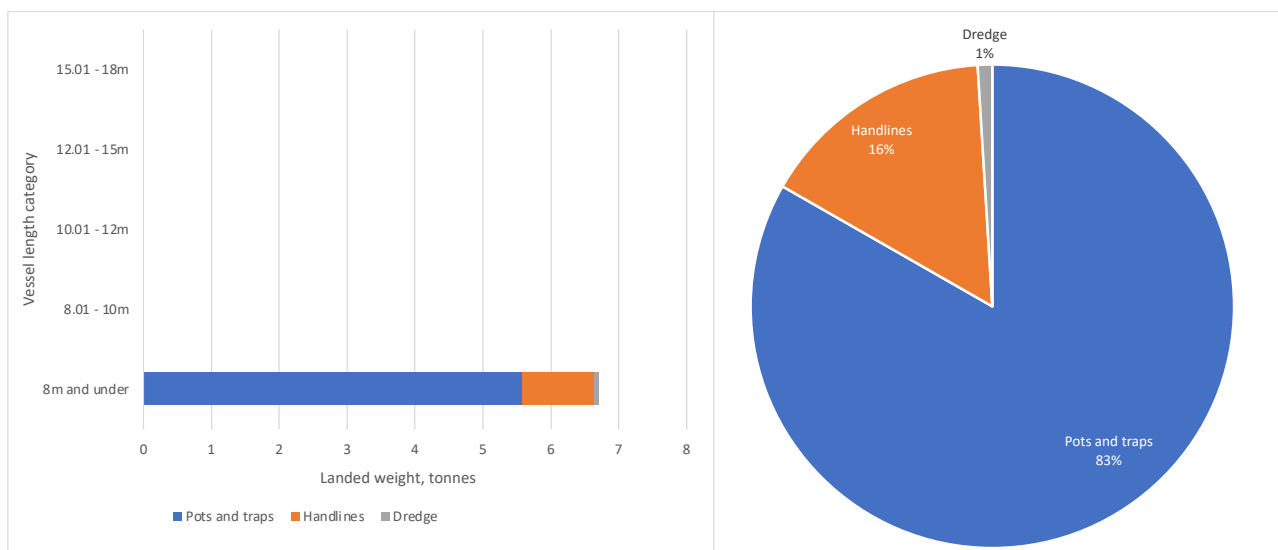


Figure 4.17. Landed weight (tonnes) of landings into Anstruther from January to June 2021 from the local study area (ICES rectangles 40E7 and 41E7) indicating gear type and vessel length category (data source: MMO, 2023)

82. The first sales value of landings from the local study area into Anstruther from January to June 2021 was £45,000, with all of the catches taken from ICES rectangle 41E7, which overlaps the NnG Wind Farm Area. The highest value species over this period was lobster (£34,000), followed by velvet crab (£5,000), mackerel (£3,000) and brown crab (£2,000).
83. The majority of landings by weight are taken by pots and traps (83%), with all vessels 8m and under in length. Handlines account for 16% of landings by weight, by vessels 8m and under targeting mackerel, with the remaining 1% taken by dredge targeting surf clams.

4.2.8 North Berwick

84. Commercial species caught by UK vessels of all lengths fishing within the local study area (ICES rectangles 40E7 and 41E7) and landed into North Berwick from January to June 2021 are presented in Figure 4.18 Figure 4.16 by species and Figure 4.19 by gear type and vessel length category.

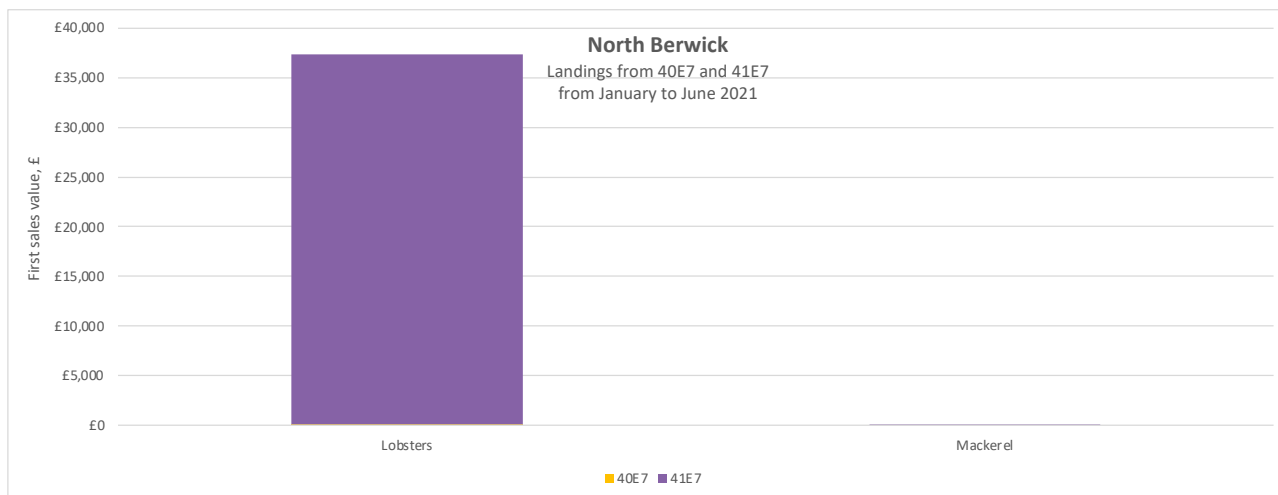


Figure 4.18. First sales value of species landed into North Berwick from January to June 2021 from the local study area (ICES rectangles 40E7 and 41E7) indicating species (data source: MMO, 2023)

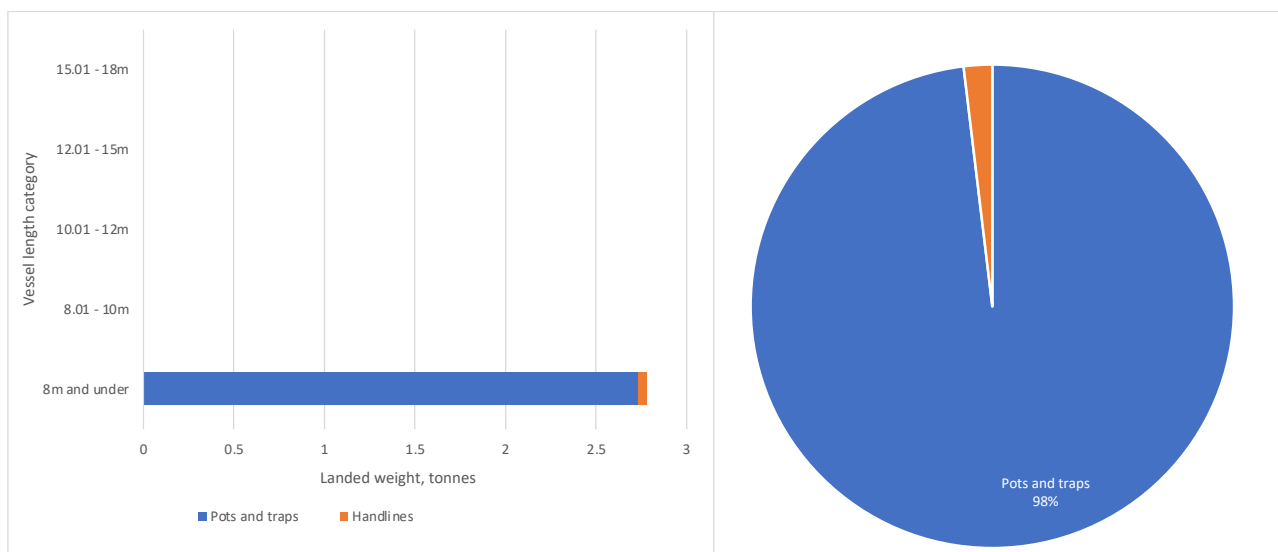


Figure 4.19. Landed weight (tonnes) of landings into North Berwick from January to June 2021 from the local study area (ICES rectangles 40E7 and 41E7) indicating gear type and vessel length category (data source: MMO, 2023)

85. The first sales value of landings from the local study area into North Berwick from January to June 2021 was £37,000, with all of the catches taken from ICES rectangle 41E7, which overlaps the NnG Wind Farm Area. The highest value species over this period was lobster (£37,000), with small value of mackerel also taken (<£100).
86. Lobster is caught using pots (83%), with all vessels 8m and under in length. Handlines account for the remaining 2% of landings by weight, by vessels 8m and under targeting mackerel.

4.2.9 Other ports

87. Commercial species caught by UK vessels of all lengths fishing within the local study area (ICES rectangles 40E7 and 41E7) and landed into five other ports: Methil & Leven, Cove (Leith), Burnmouth, St Monance and St Andrews from January to June 2021 are presented in Figure 4.20 by ICES rectangle, Figure 4.21 by species and Figure 4.22 by gear type and vessel length category.
88. The first sales value of landings from the local study area into these five ports from January to June 2021 ranged from £26,000 (Methil and Leven) to £18,000 (St Andrews). Landings into Cove (Leith) and Burnmouth were predominately caught from ICES rectangle 40E7, which overlaps the Offshore Export Cable Corridor; while landings into Methil and Leven, St Monance and St Andrews were caught from ICES rectangle 41E7, which overlaps the NnG Wind Farm Area.
89. The key target species includes lobster, velvet crab and brown crab. Nephrops are also landed into St Monance and Methil and Leven.

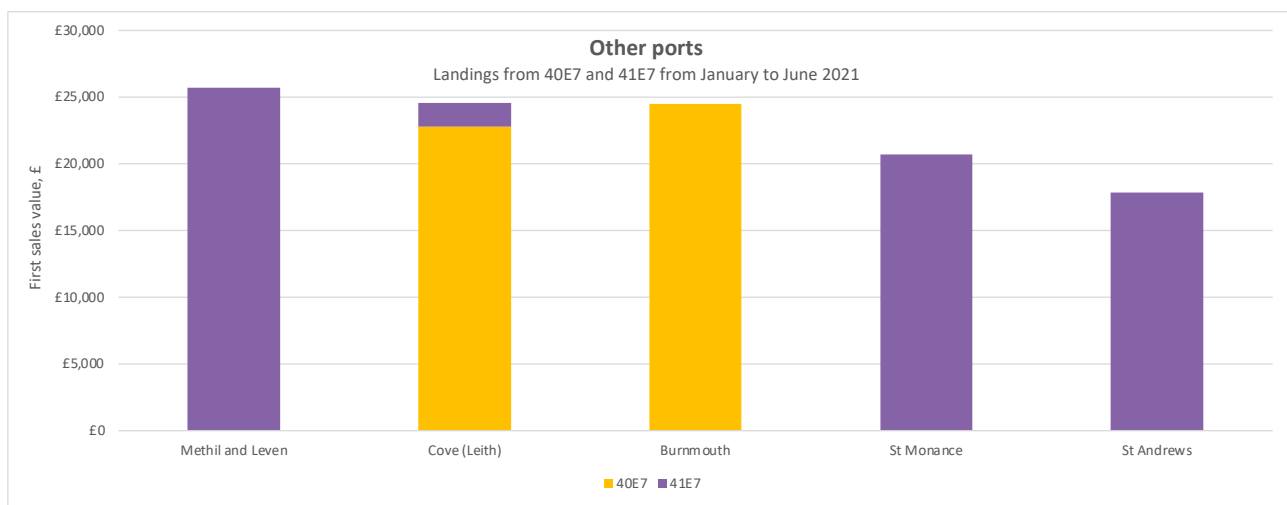


Figure 4.20. First sales value of species landed into Methil & Leven, Cove (Leith), Burnmouth, St Monance and St Andrews from January to June 2021 from the local study area (ICES rectangles 40E7 and 41E7) (data source: MMO, 2023)

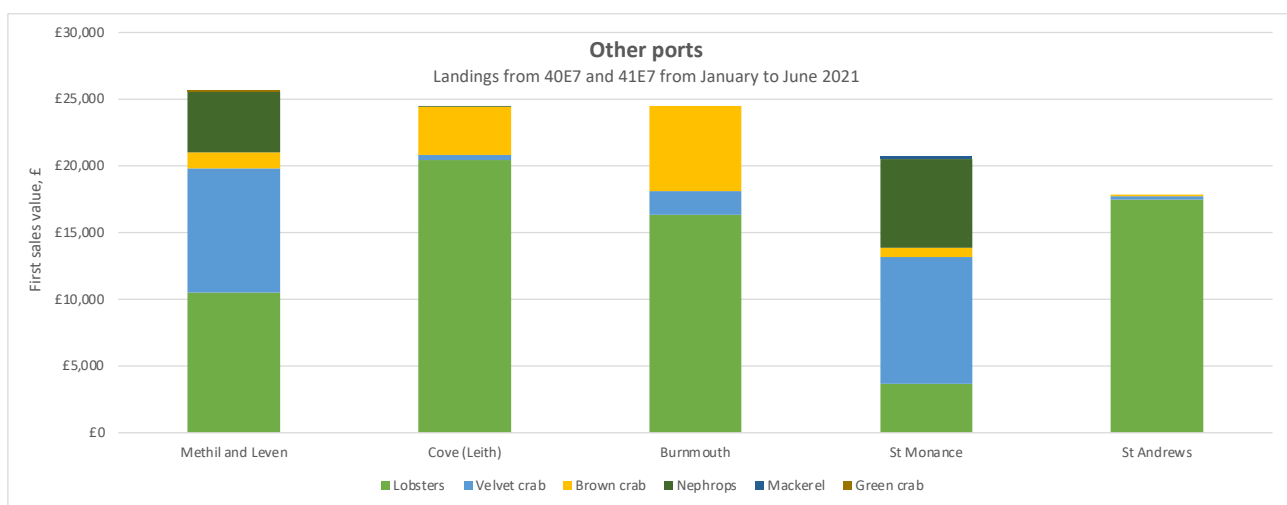


Figure 4.21. First sales value of species landed into Methil & Leven, Cove (Leith), Burnmouth, St Monance and St Andrews from January to June 2021 from the local study area (ICES rectangles 40E7 and 41E7) indicating species (data source: MMO, 2023)

90. The majority of landings by weight are taken by pots and traps (82%), with all vessels 10m and under in length. Demersal otter trawls account for 17% of landings by weight, by vessels ranging from 8 to 18m in length, with the remaining 1% taken by handline targeting mackerel.

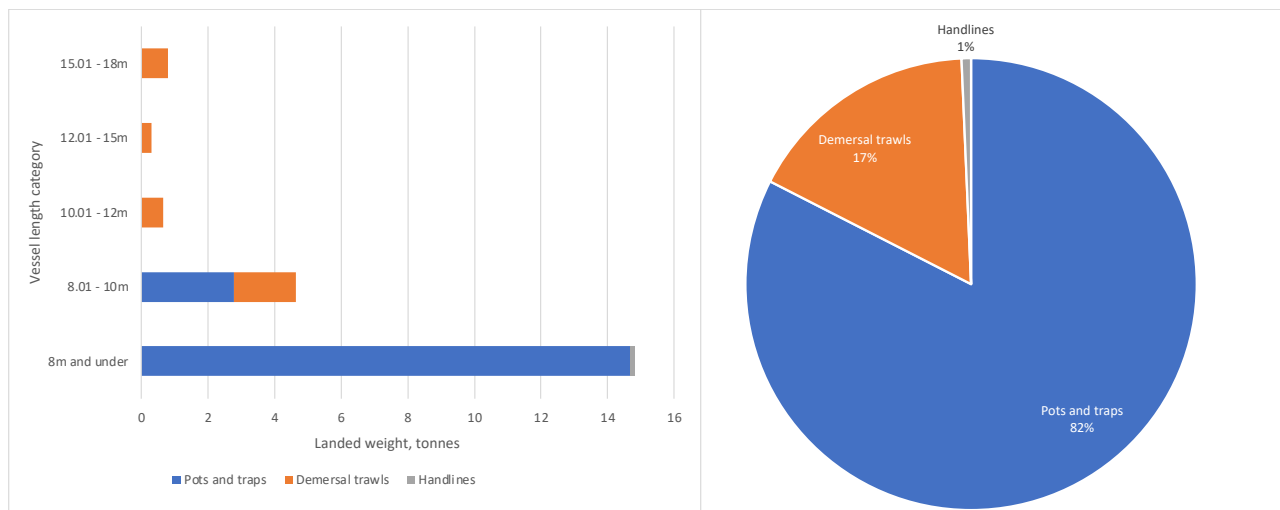


Figure 4.22. Landed weight (tonnes) of landings into Methil & Leven, Cove (Leith), Burnmouth, St Monance and St Andrews from January to June 2021 from the local study area (ICES rectangles 40E7 and 41E7) indicating gear type and vessel length category (data source: MMO, 2023)

5 Conclusion

91. This commercial fisheries monitoring report for the first and second construction periods constitutes the following reporting outputs:
 - Report 3a: presented in Section 3 providing monthly trend analysis for key target species across the period 2017 to 2020.
 - Report 3b: presented in Section 4 providing analysis of 2021 data from January to June by port of landing.
92. A comprehensive report for landings across the full annual period of 2021 will be provided in Report 3c.
93. The key fisheries in the region that operate across the NnG Project include demersal otter trawlers targeting nephrops and potting targeting lobster and crab. Detailed analysis of seasonality of monthly landings by species for the local and regional study areas has been presented to allow comparison with future commercial fisheries monitoring reports.
94. In general, a decrease in landings has been seen throughout 2020, compared to previous years (2017 to 2019). This trend has been noted across the UK and is considered to be associated with the Covid-19 pandemic, as well as potential trade issues associated with the UK-exit from the EU.
95. Landing trends showing this decrease throughout 2020 were consistent across regional and local study areas for nephrops and brown crab. A peak in 2020 is notable for squid (landed from a regional ICES rectangle outside the local study area).
96. Landing trends for lobster showed some variation when comparing regional and local study areas; for the regional study area landings in 2020 were lower than previous years, but followed the seasonal trend with a marked peak in August. However, the local study area showed a much smaller peak in August 2020 landings, comparable to both previous years and the regional landings in 2020. Specifically, in August 2020 landings of lobster from the local study area dropped by 44% compared to 2019 catches. The fishery would be expected to be at its seasonal peak during this summer period and this level of drop is considered significant. This coincided with a period of mitigation (in the form of justifiable disturbance payment) due to the commencement of pile driving in the Array area. The impact to the fishery was predicted in the EIA, mitigated for within the FMMS and the effects are evidenced in 2020 landings statistics.
97. The 2021 landings data allows (for the first time) concurrent analysis across both ICES rectangles and port of landing, so that fishing vessels operating within the commercial fisheries local and regional study areas can be attributed to specific landing ports. This has improved the understanding of the activity in the region, including key ports and commercial landing attributes for species, gear and vessel length categories. The highest value from the local study area is landed into Pittenweem, followed by Dunbar, Eyemouth and Port Seton. Port profiles have been created to describe the target species, gear and vessel categories.
98. The full annual dataset for 2021 will be compared with these findings within Report 3c which forms the next reporting output.

6 References

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