Neart na Gaoithe

Commercial Fisheries Monitoring Report 3a – Construction

Revision 2

May 2023

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Contents

Figures

Tables

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 of the data being monitored, it is not the intention of the PEMP monitoring to attempt to define any attribution of change in fishing activity to the Project or other factors. The monitoring seeks to better understand the effect, rather than to attribute any changes to a specific source.

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 Regional Monitoring	The Company must participate in any Forth and Tay Regional Advisory Group ("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.	Monitoring strategy developed in collaboration with FTRAG to take into account regional considerations. 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.

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 – this report is the output of the first interim 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 [this report];
   - Report 3b: 01 January to 30 June 2021 [Report 3b will form the full annual report];
   - Report 3c: 01 July to 31 December 2021, and so on continuing on a 6-monthly basis to end of construction.

8. While the time-period of this report (Report 3a) covers a 6 month period from July to December 2020, to account for significant fluctuations in activity due to the Covid pandemic and associated restrictions, a wider time series of January to December 2020 is included.

9. The purpose of this report is to consider 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).

10. 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

11. 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.

12. 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.

13. 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

14. 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 and 2.

15. Report 3a focuses on monthly landings data by ICES rectangle for the following key species: nephrops, lobster, brown crab and squid.

16. 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 2020, 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 increase landings and targeting of specific species.

2.1 Study area

17. Landing statistics from the period January 2017 to December 2020 are presented in this report.

18. 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.

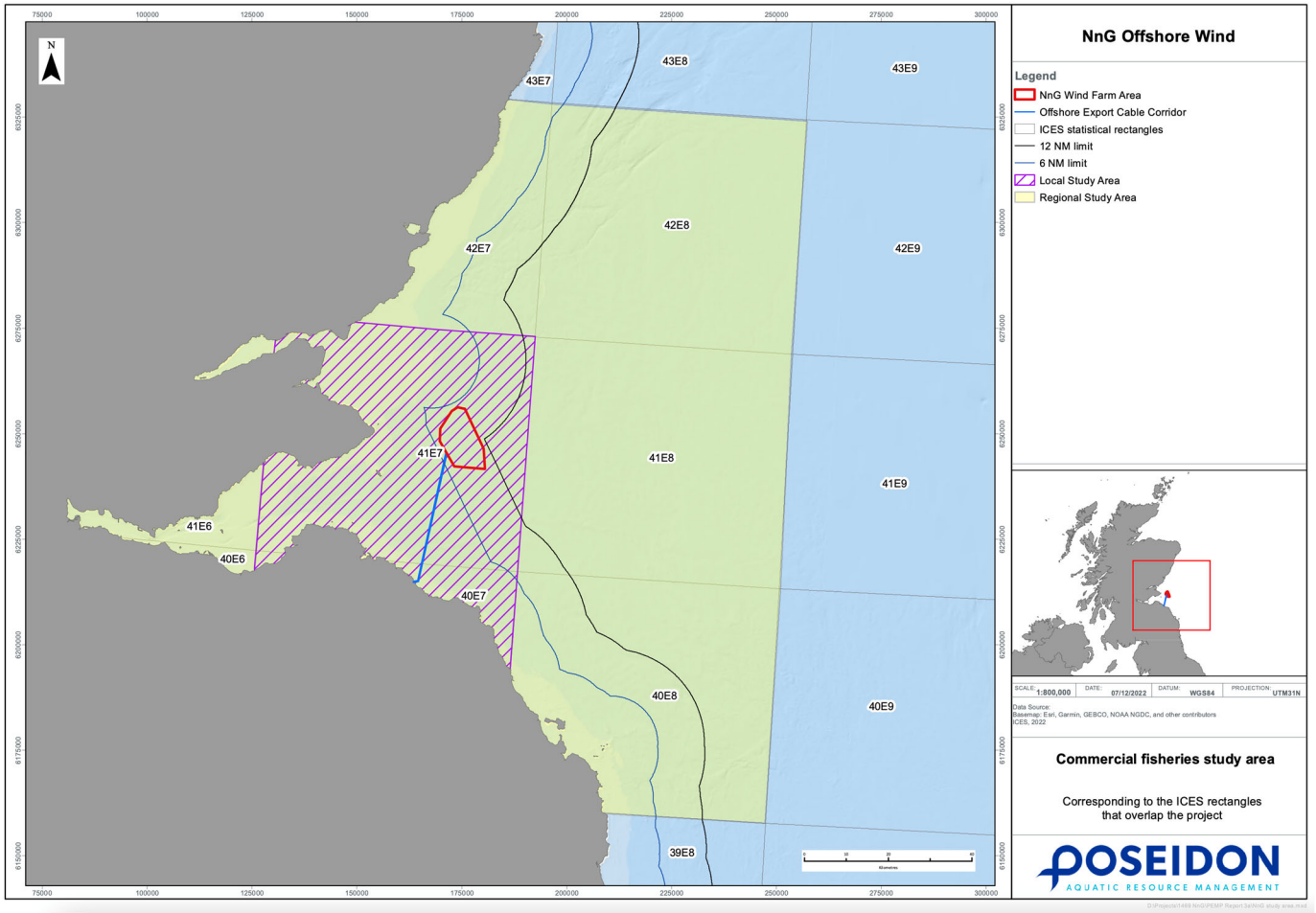

Figure 2.1. Commercial fisheries local and regional study areas.

3 Inter-annual variations

3.1 Nephrops

3.1.1 Nephrops: local study area

19. 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.

20. 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.

21. 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.

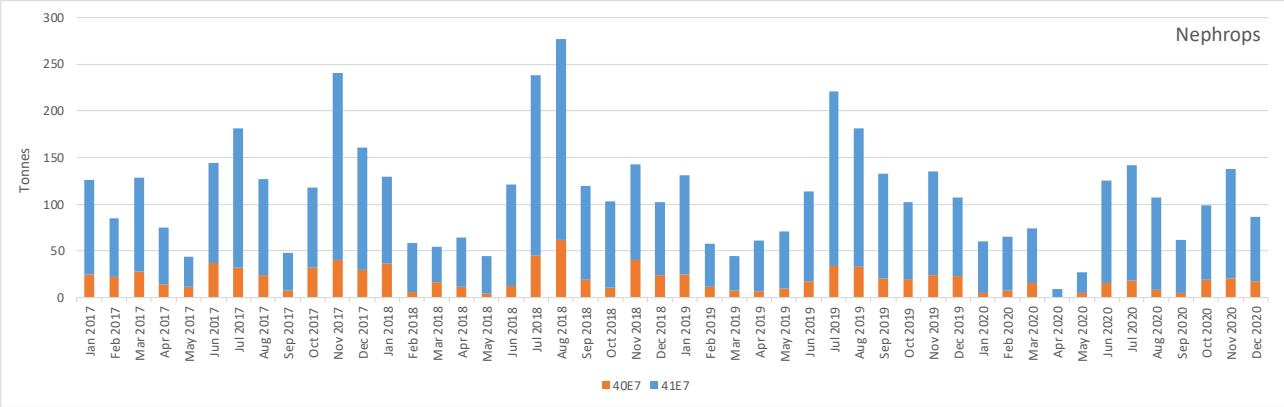

Figure 3.1. Time series of landed weight (tonnes) of nephrops by ICES rectangle from the local study area (ICES rectangles 40E7 and 41E7) (data source: MMO, 2021)

22. 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.

23. 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.

24. 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.

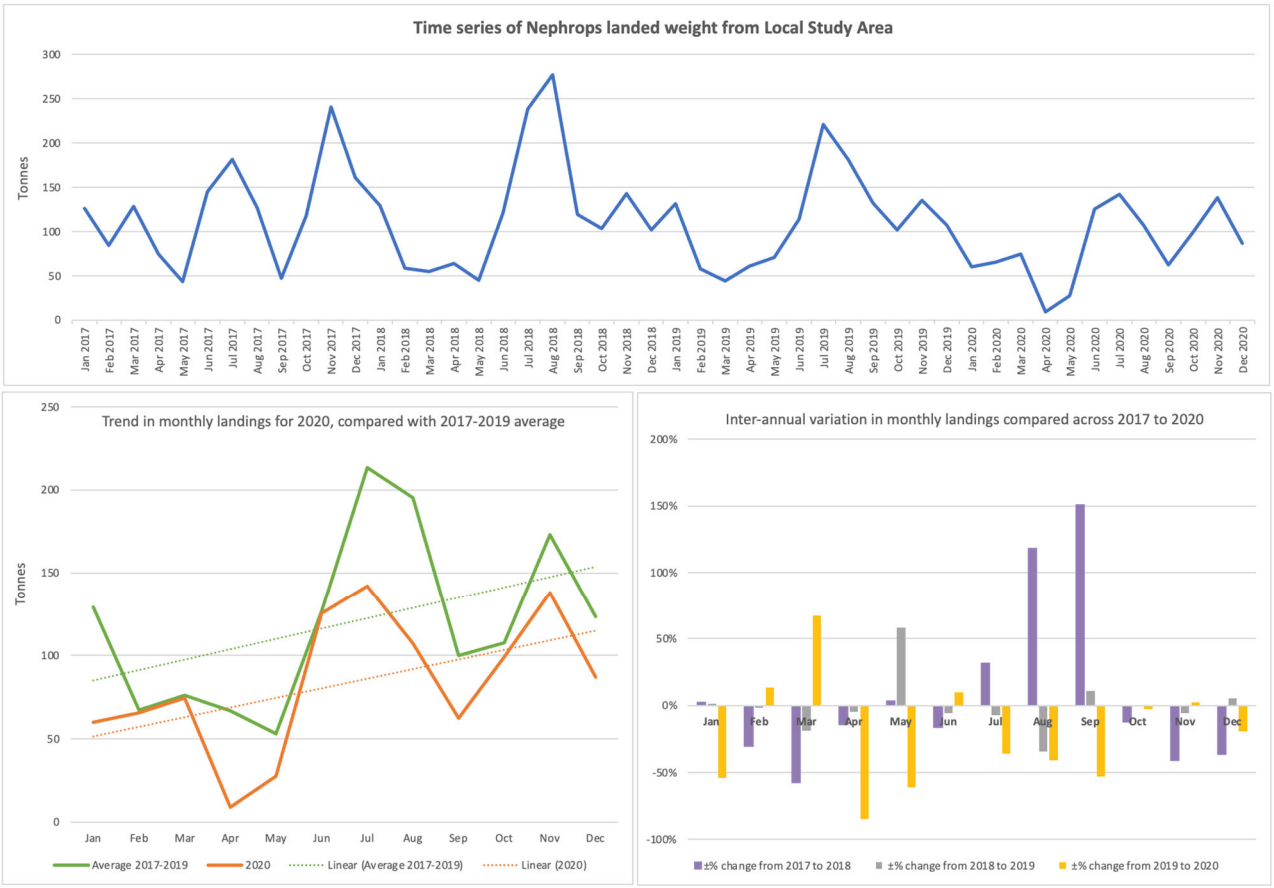

Figure 3.2. Time series, trendlines and inter-annual variation of landed weight (tonnes) of nephrops from the local study area (ICES rectangles 40E7 and 41E7) (data source: MMO, 2021)

3.1.2 Nephrops: regional study area

25. 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.

26. As corroborated by previous Reports 1 and 2, ICES rectangle 41E7 has the highest proportion of nephrops landings in the region.

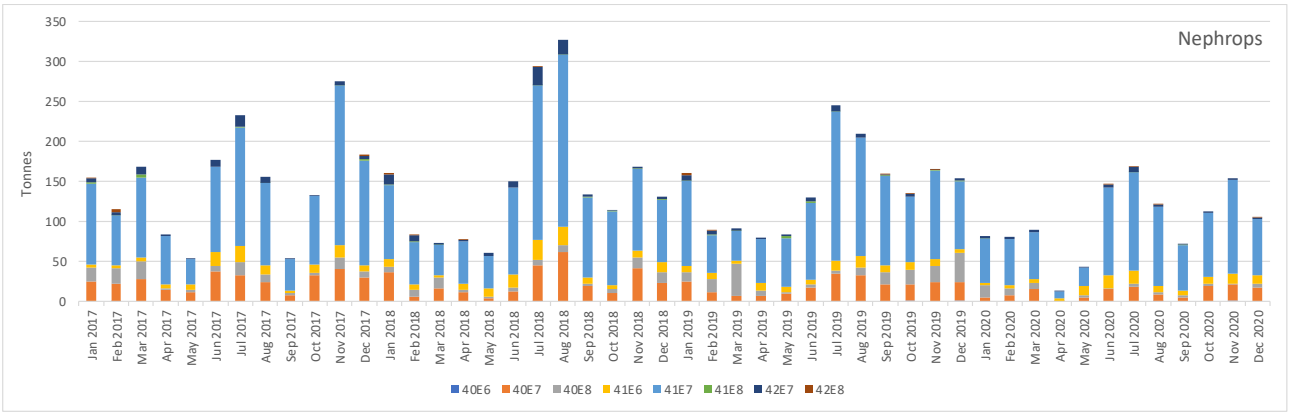

Figure 3.3. Time series of landed weight (tonnes) of nephrops by ICES rectangle from the regional study area (ICES rectangles 42E7-E8, 41E6-E8 and 40E6-E8) (data source: MMO, 2021)

27. 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.

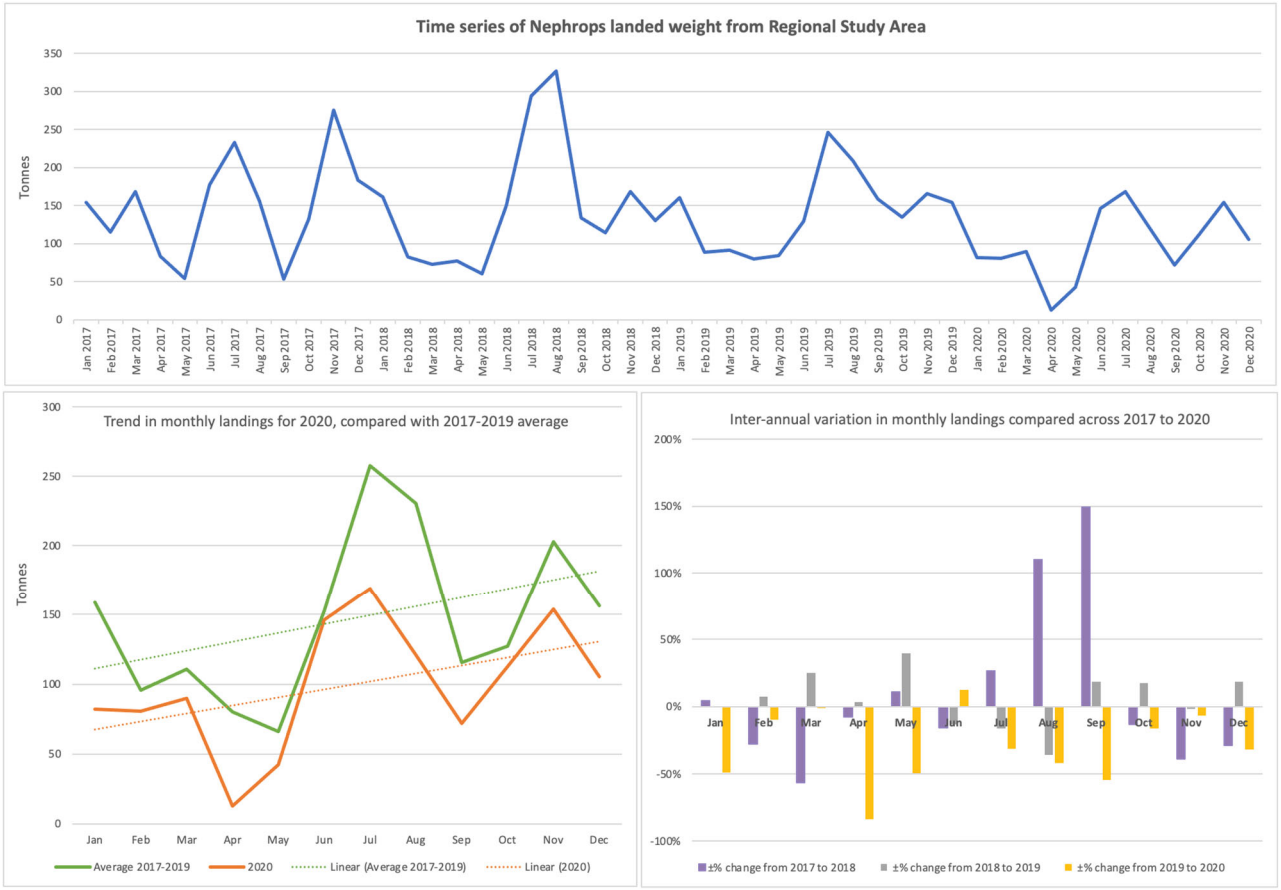

Figure 3.4. Time series, trendlines and inter-annual variation of landed weight (tonnes) of nephrops from the regional study area (ICES rectangles 42E7-E8, 41E6-E8 and 40E6-E8) (data source: MMO, 2021)

3.2 Lobster

3.2.1 Lobster: local study area

28. 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.

29. 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.

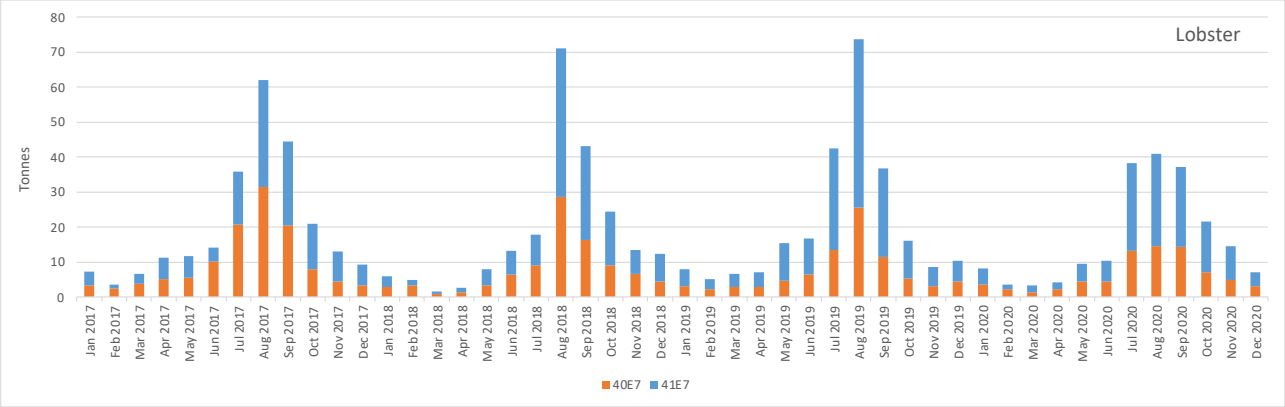

Figure 3.5. Time series of landed weight (tonnes) of lobster by ICES rectangle from the local study area (ICES rectangles 40E7 and 41E7) (data source: MMO, 2021)

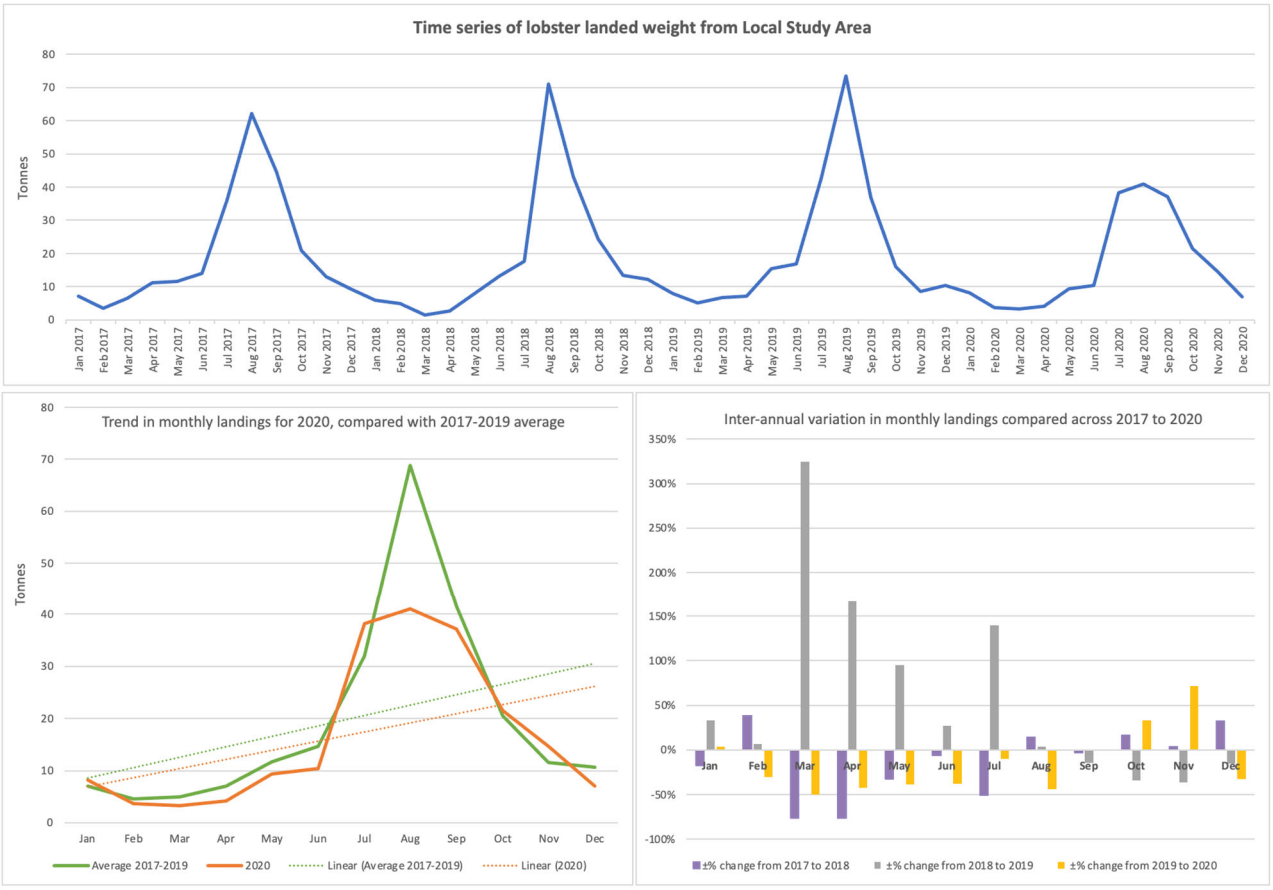

Figure 3.6. Time series, trendlines and inter-annual variation of landed weight (tonnes) of lobster from the local study area (ICES rectangles 40E7 and 41E7) (data source: MMO, 2021)

30. 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.

31. 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

32. 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.

33. 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).

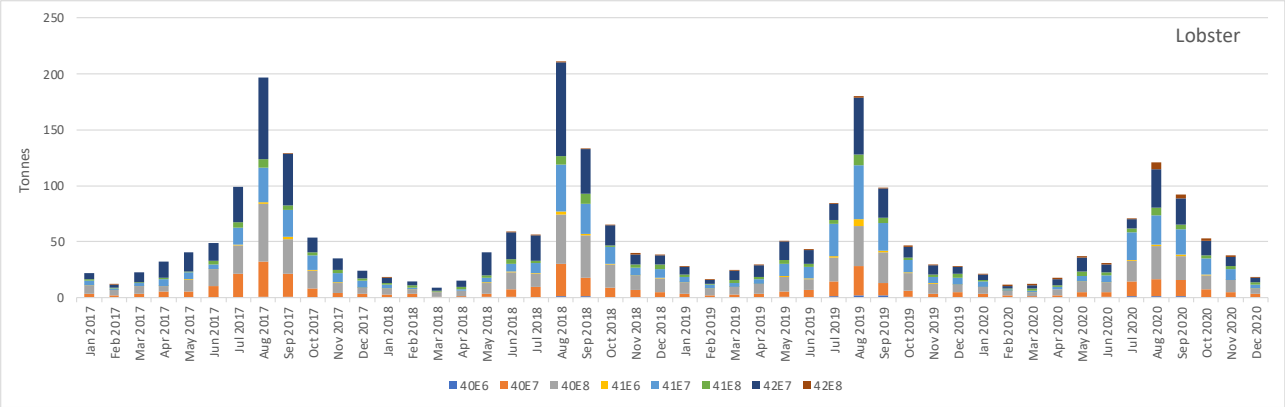

Figure 3.7. Time series of landed weight (tonnes) of lobster by ICES rectangle from the regional study area (ICES rectangles 42E7-E8, 41E6-E8 and 40E6-E8) (data source: MMO, 2021)

34. 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.

35. 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.

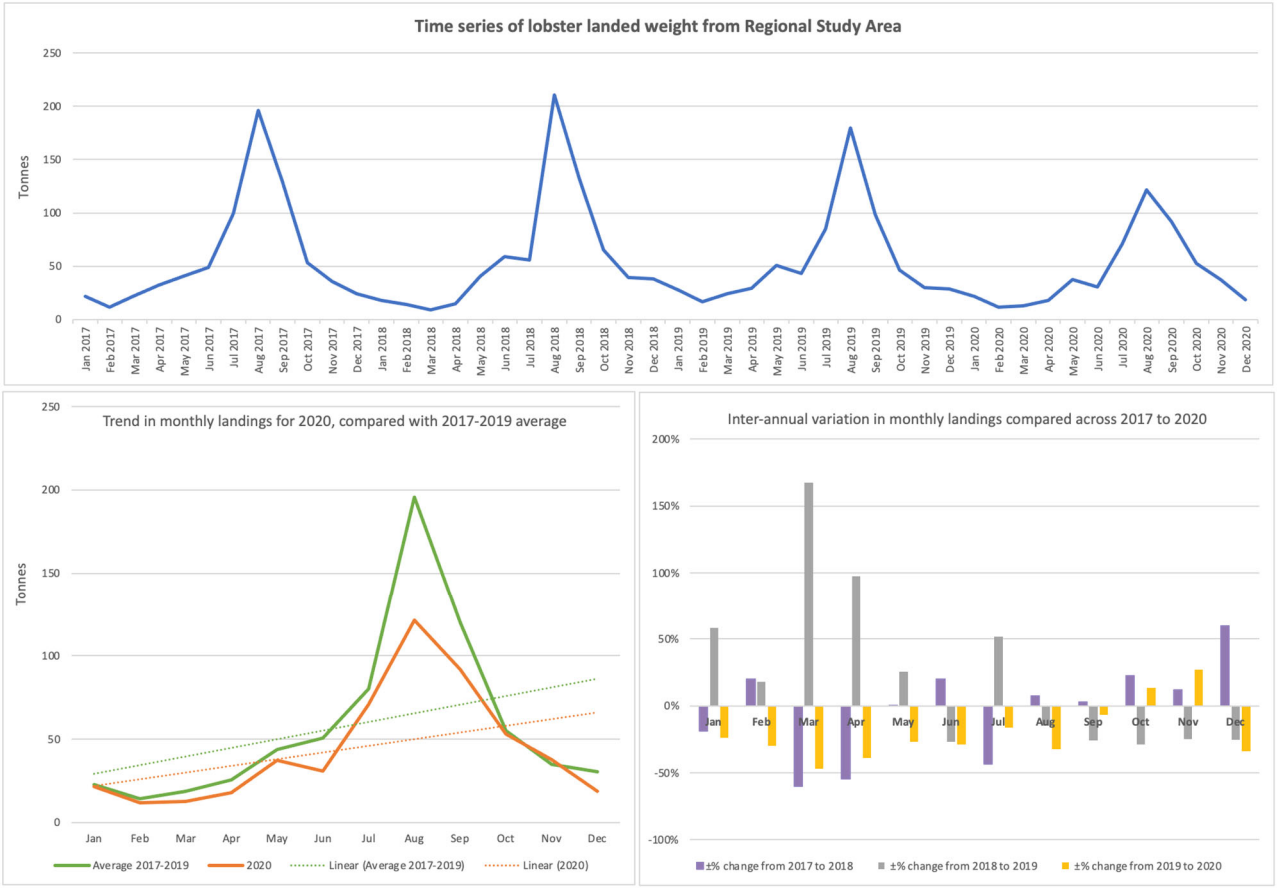

Figure 3.8. Time series, trendlines and inter-annual variation of landed weight (tonnes) of lobster from the regional study area (ICES rectangles 42E7-E8, 41E6-E8 and 40E6-E8) (data source: MMO, 2021)

3.3 Brown crab

3.3.1 Brown crab: local study area

36. 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.

37. Landings of brown crab from both ICES rectangles 40E7 and 41E7 showed marked decline in 2020 compared to other years.

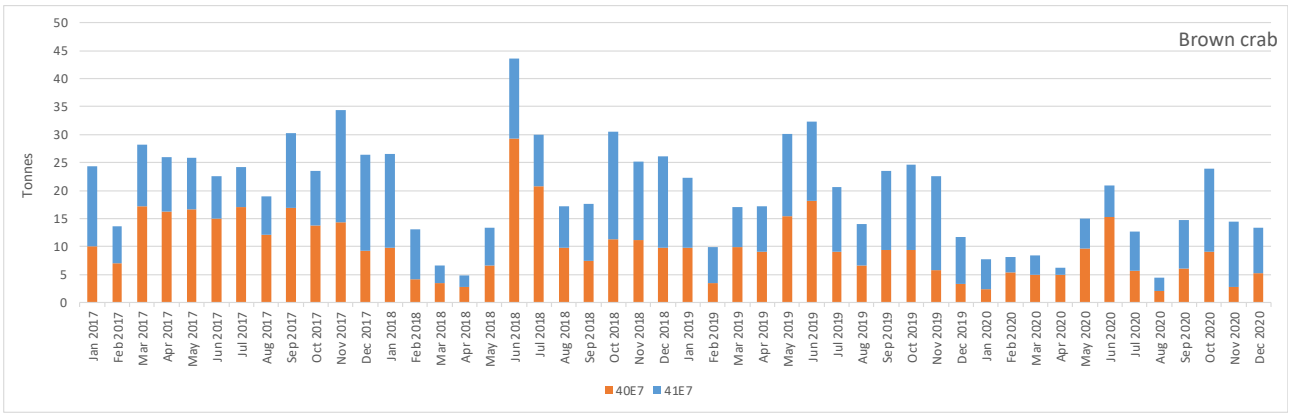

Figure 3.9. Time series of landed weight (tonnes) of brown crab by ICES rectangle from the local study area (ICES rectangles 40E7 and 41E7) (data source: MMO, 2021)

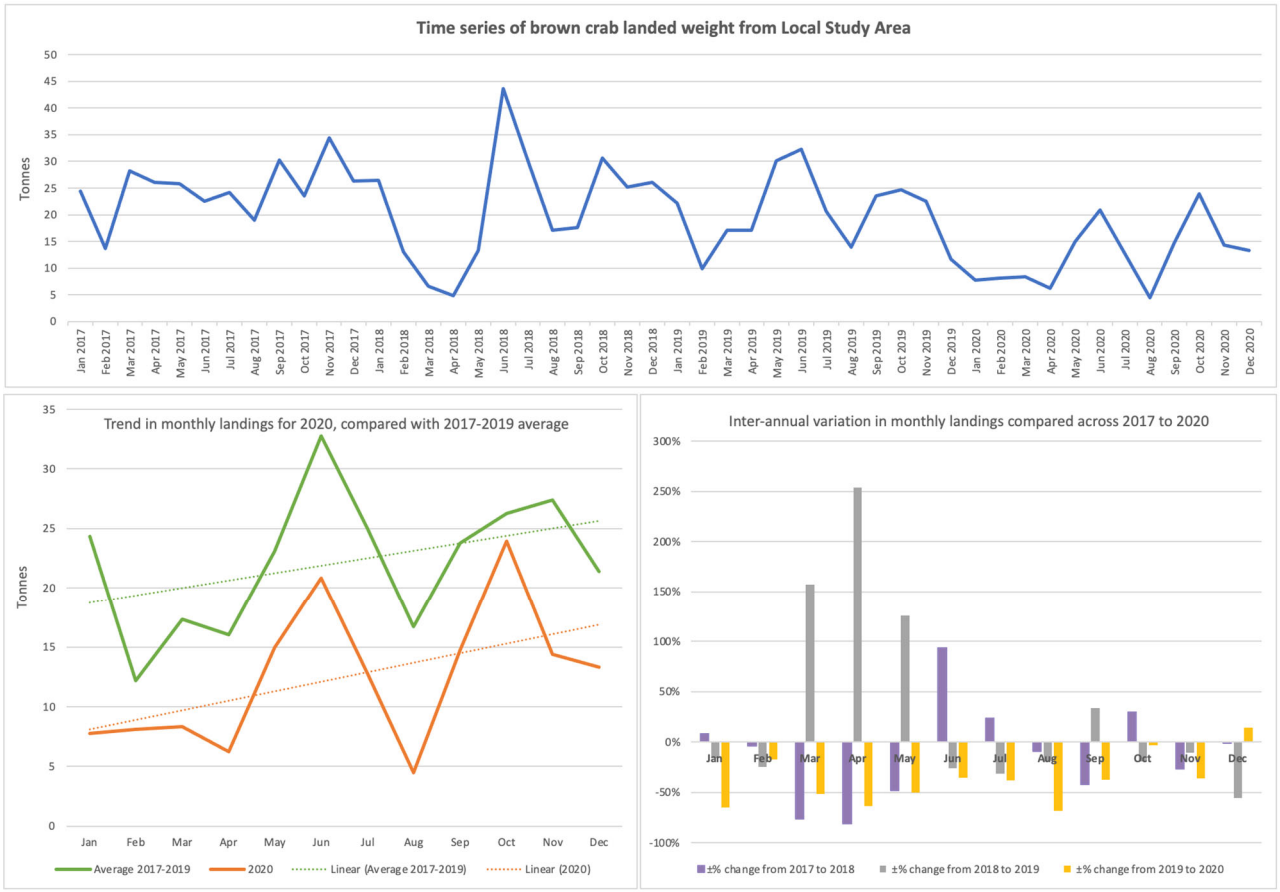

Figure 3.10. Time series, trendlines and inter-annual variation of landed weight (tonnes) of brown crab from the local study area (ICES rectangles 40E7 and 41E7) (data source: MMO, 2021)

38. 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

39. 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.

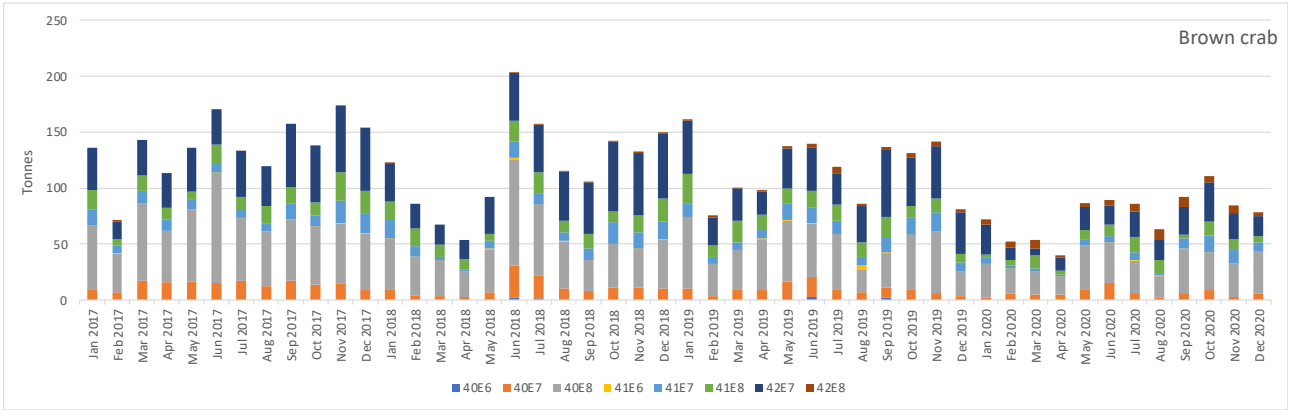

Figure 3.11. Time series of landed weight (tonnes) of brown crab by ICES rectangle from the regional study area (ICES rectangles 42E7-E8, 41E6-E8 and 40E6-E8) (data source: MMO, 2021)

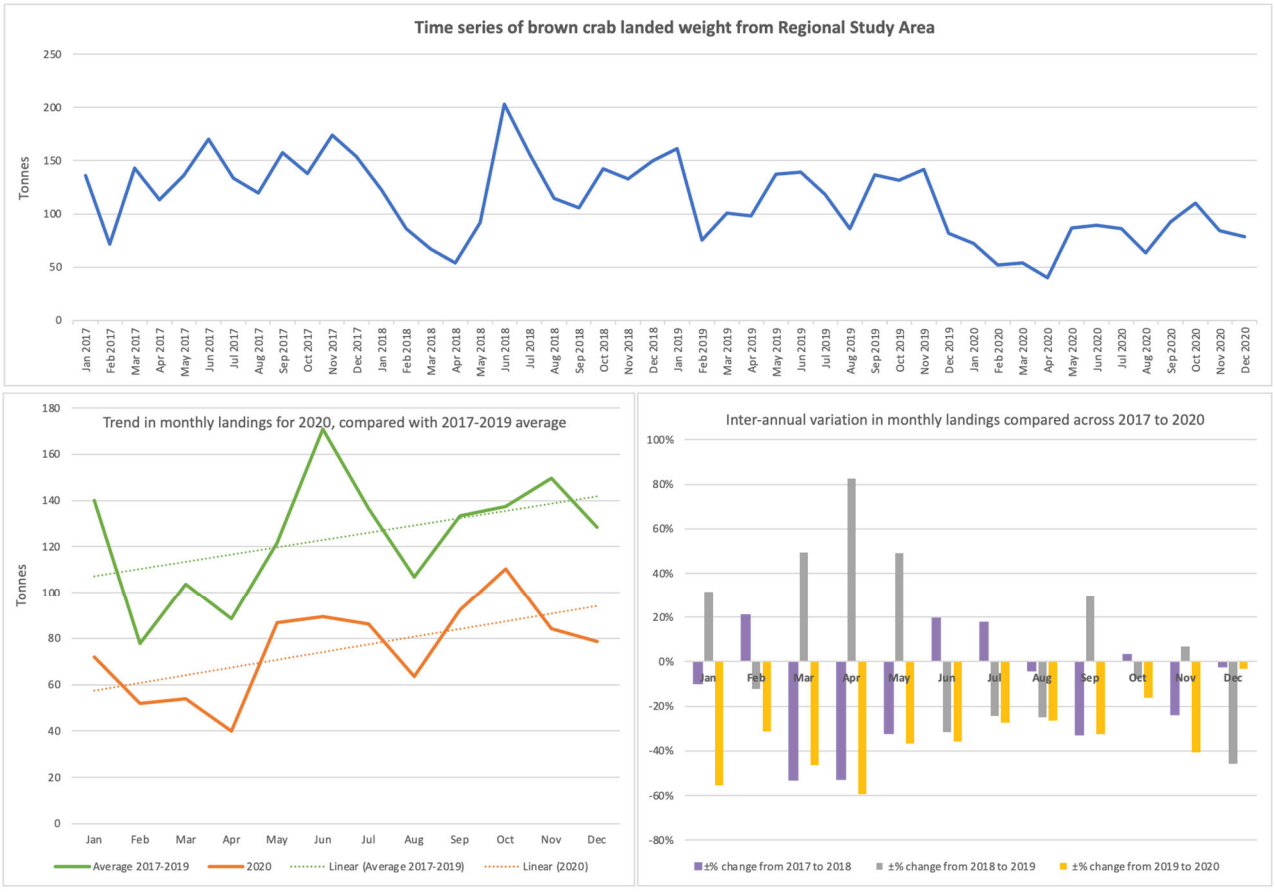

Figure 3.12. Time series, trendlines and inter-annual variation of landed weight (tonnes) of brown crab from the regional study area (ICES rectangles 42E7-E8, 41E6-E8 and 40E6-E8) (data source: MMO, 2021)

40. The trendline in regional landings illustrates that catches of brown crab where 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.

41. 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 in noted in January 2020.

3.4 Squid

3.4.1 Squid: local study area

42. 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.

43. 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).

44. Interannual trends show the high variability in this fishery, which is not unique to 2020.

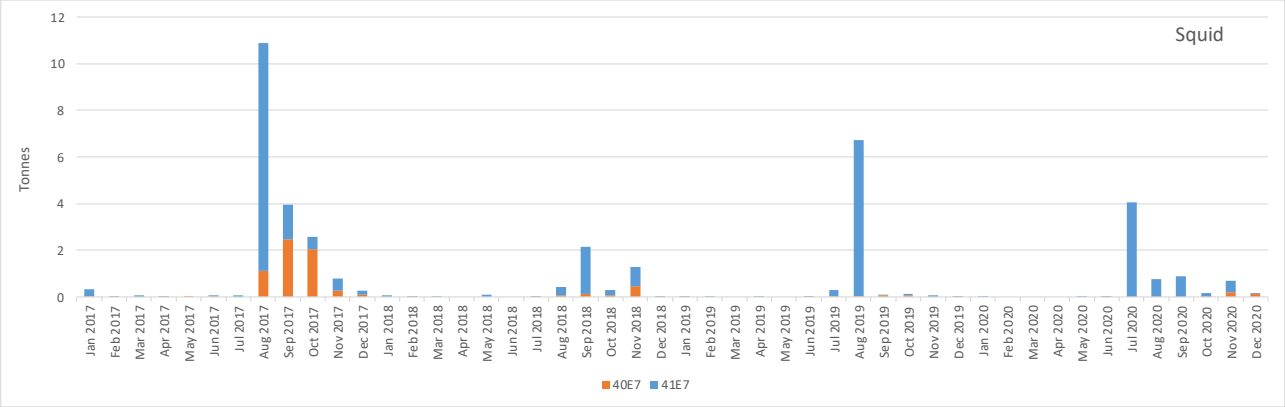

Figure 3.13. Time series of landed weight (tonnes) of squid by ICES rectangle from the local study area (ICES rectangles 40E7 and 41E7) (data source: MMO, 2021)

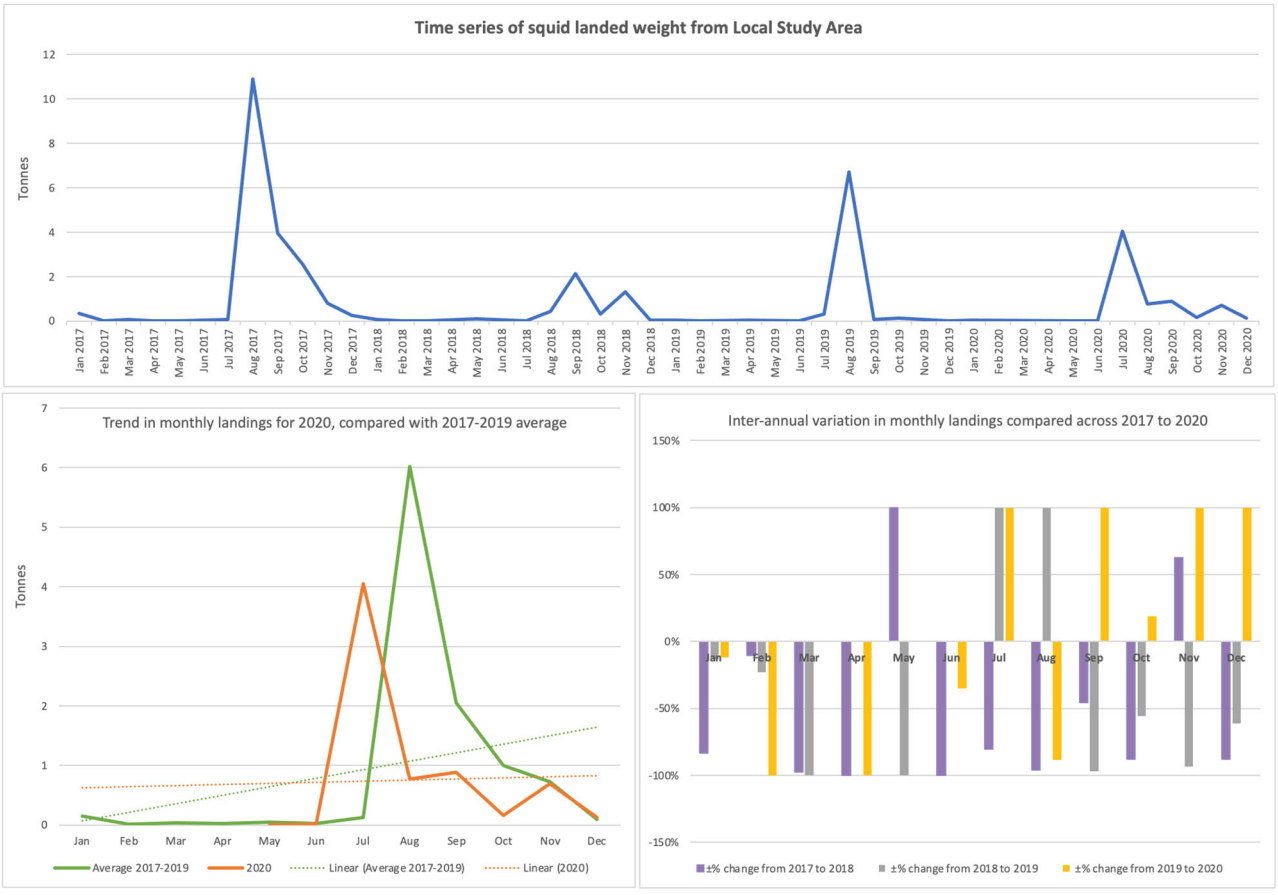

Figure 3.14. Time series, trendlines and inter-annual variation of landed weight (tonnes) of squid from the local study area (ICES rectangles 40E7 and 41E7) (data source: MMO, 2021)

3.4.2 Squid: regional study area

45. 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.

46. 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.

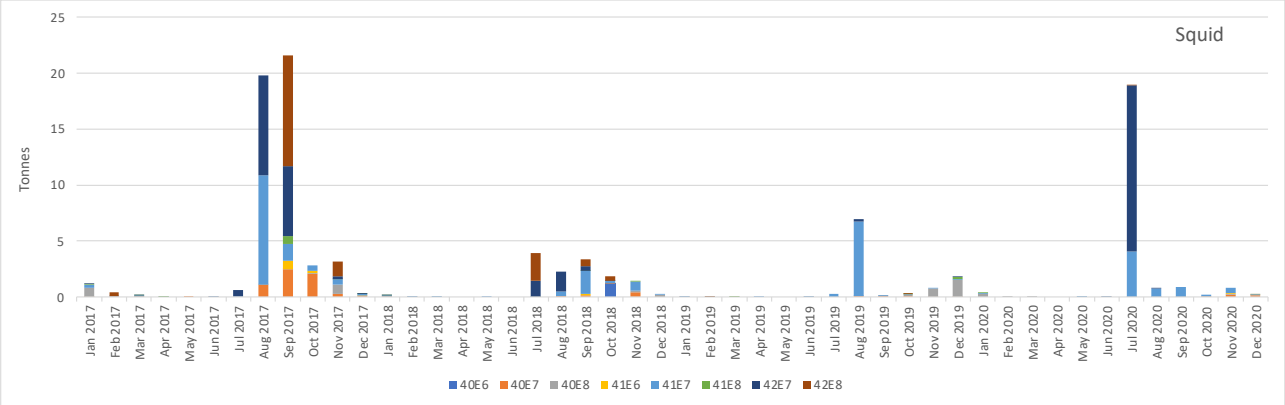

Figure 3.15. Time series of landed weight (tonnes) of squid by ICES rectangle from the regional study area (ICES rectangles 42E7-E8, 41E6-E8 and 40E6-E8) (data source: MMO, 2021)

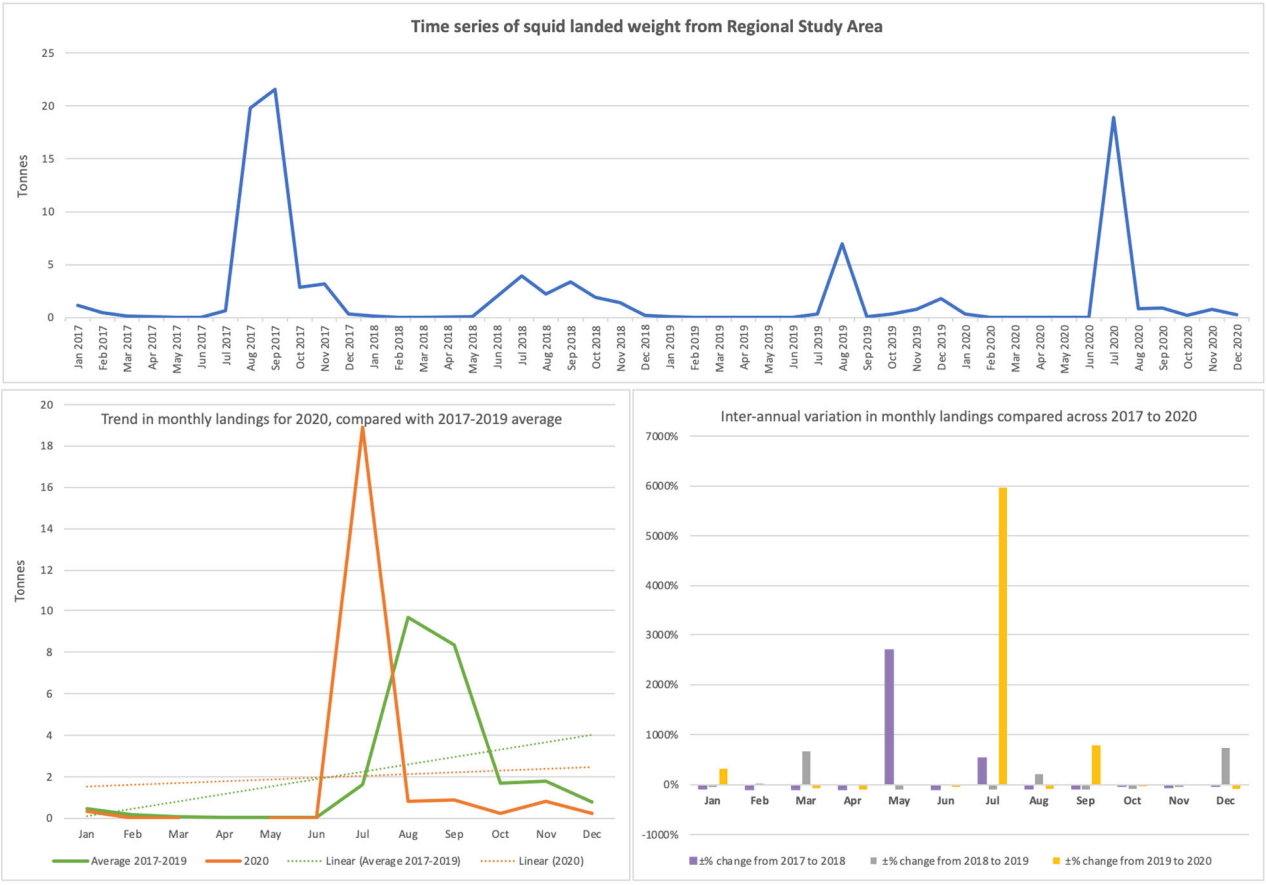

Figure 3.16. Time series, trendlines and inter-annual variation of landed weight (tonnes) of squid from the regional study area (ICES rectangles 42E7-E8, 41E6-E8 and 40E6-E8) (data source: MMO, 2021)

4 Conclusion

47. This commercial fisheries monitoring report for the first construction period (Report 3a) presents monthly trend analysis for key target species across the period 2017 to 2020. A comprehensive report for landings in 2021 will be provided in Report 3b.

48. 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.

49. 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.

50. 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).

51. 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.

52. This Report 3a will be followed by Report 3b, which will extend analysis for the full 2021 annual period. Report 3b will include and extend upon this interim Report 3a, so that all findings will be presented and discussed at the Forth and Tay Commercial Fisheries Working Group.

5 References

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