



# Marine Scotland Science

## Scottish Sea Fisheries Employment 2015

Marine Analytical Unit

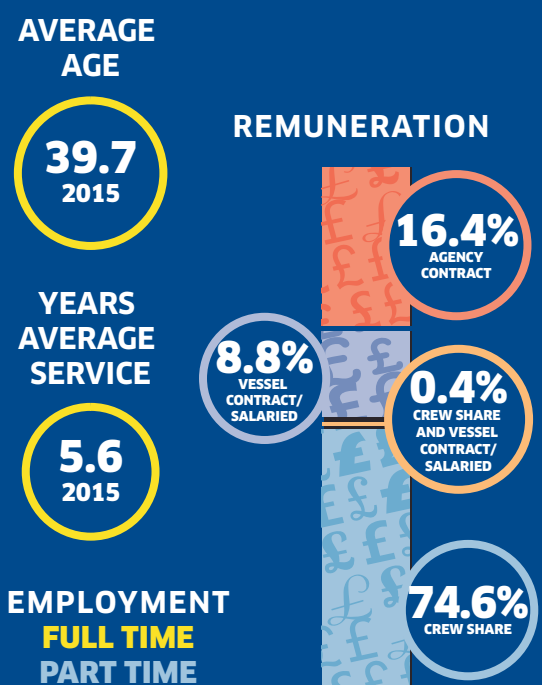
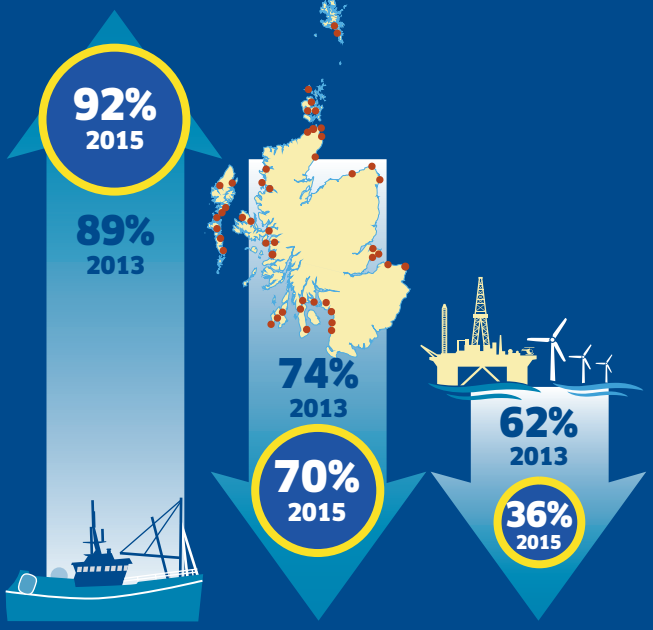
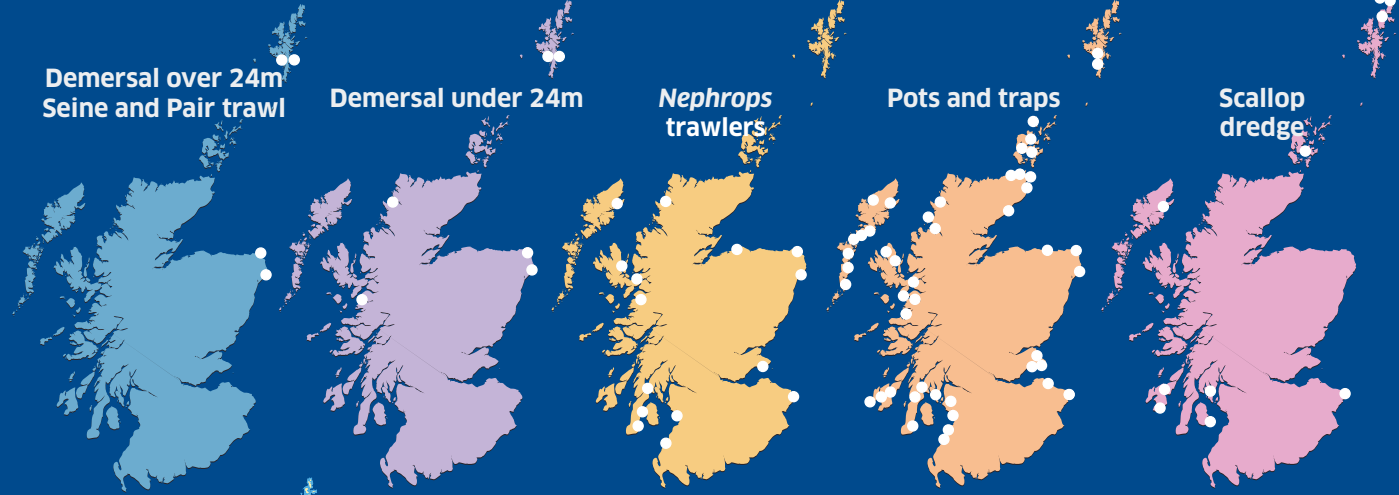
October 2016





# SEA FISHERIES EMPLOYMENT KEY FACTS 2015

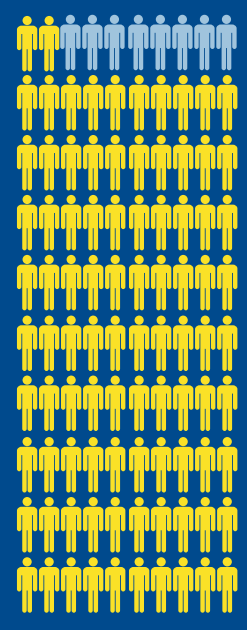
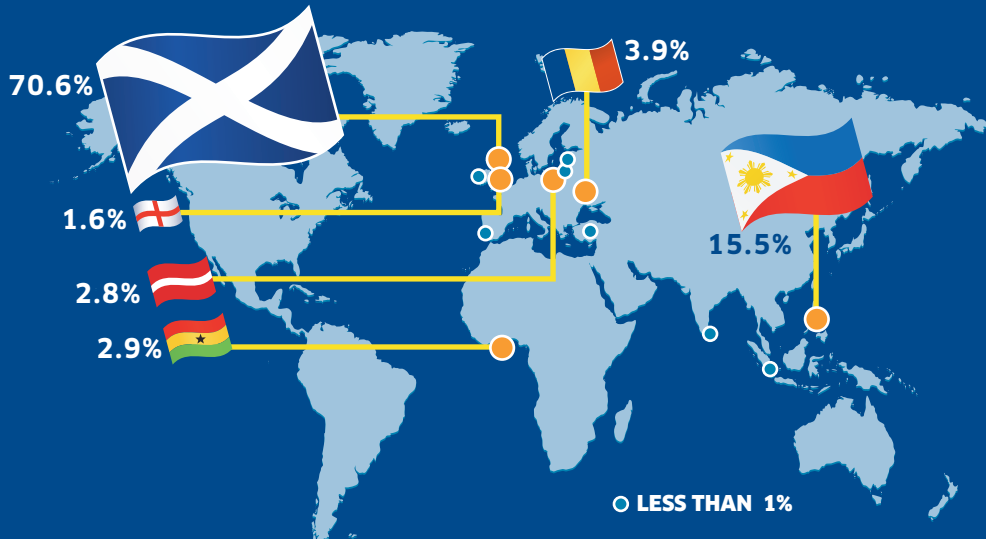
## MAIN PORTS FOR LANDING/RESTOCKING AND CHANGING CREWS



**EXPECT TO BE CREWING IN 12 MONTHS' TIME**  
**WILLINGNESS TO MOVE TO ANOTHER PORT/LOCATION**  
**WILLINGNESS TO WORK IN OTHER INDUSTRY**

**EMPLOYMENT FULL TIME PART TIME**

## NATIONALITIES OF FISHERMEN



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# 1. INTRODUCTION

Marine Scotland repeated the 'Scottish Sea Fisheries Employment' survey undertaken in 2013 between September and November 2015. The aim of the 2015 survey was to update the 2013 Scottish Sea Fisheries Employment Report to provide current information on the structure of employment and key characteristics of crews, such as age, nationality and skills. The 2015 survey also focused in detail on vessel remuneration structures.

Like the 2013 survey, 2015 data collection used face-to-face interviews, predominantly with skippers and in some cases with whole crews on the quay side of all major ports in Scotland and the majority of small harbours. The data collected on vessel remuneration structures were based on interviewees recollection of monthly income and costs rather than data from records. The survey collected data from 222 vessels, representing 15% of the Scottish fleet in 2015. The survey vessels were drawn from Scotland's five main fishing sectors which accounts for 87% of all registered vessels. At the time of survey, the 222 vessels had 753 crew members representing 16% of the total Scottish fishing workforce<sup>1</sup>. This report presents results from descriptive analysis of survey data by five main fishing sectors which are:

- **pot and trap vessels:** vessels predominantly catching *Nephrops*, crab and lobster. In 2015 there were 1,041 pot and trap vessels in the Scottish fleet. In 2014 (latest published data), they landed 16,332 tonnes of fish worth £43.8 million. The survey covered 109 or 10% of the active vessels in this sector.
- **demersal under 24 metre vessels:** smaller vessels catching predominantly demersal or whitefish (cod, haddock, anglerfish, hake) and *Nephrops*. In 2015 there were 37 vessels in this sector. In 2014 this sector landed 19,470 tonnes of fish worth £31.3 million. The survey sampled 13 vessels which account for 35% of active vessels in this sector.
- **demersal over 24 metre, seine and pair trawl vessels:** larger vessels catching predominantly whitefish which consists of cod, haddock, anglerfish, hake and saithe. In 2014 the large demersal fleet landed 86,873 tonnes of fish, worth £81.4 million. The survey covered 21 of the 59 vessels in this sector in 2015, representing 36% of the active fleet.
- ***Nephrops* trawl:** vessels catching predominantly *Nephrops*. In 2015 there were 221 vessels active in this sector which vary in length from 10 metres to over 24 metres. In 2014, Scottish *Nephrops* trawlers landed 19,764 tonnes of fish worth £63.2 million. The survey sampled 56 vessels, representing 25% of active vessels in this sector.
- **scallop dredge:** vessels exclusively targeting scallops and ranging in length from 10 metres to 40 metres. In 2014 scallop dredgers landed 22,727 tonnes of seafood, worth £34.2 million. The 2015 survey sampled 23 of the 98 vessels in this sector, which represents 23% of the scallop fleet.

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1 4,796 individuals/crew were working in fishing in 2014 in all sectors.

Table 1 summarises the distribution of vessels across the five Scottish fishing sectors together with their share of total vessels active in 2015. A number of discrete sectors were not targeted in this survey because they either consisted of a small number of vessels, were hard to reach (i.e. language barriers) or have historically been unwilling to take part in voluntarily surveys. Therefore they were removed to make best use of available resources for the five main sectors. For detailed information on the survey methodology, data collection and analysis please see Annex 1.

**Table 1: Overview of the number of active vessels in 2015 in the five key sector, the sample and the percentage of the population surveyed**

Sector	Population*	Sample size	% of population surveyed
Pots and Traps	1,041	109	10%
Demersal under 24m	37	13	35%
Demersal over 24m, seine and pair trawl	59	21	36%
<i>Nephrops</i> trawl	221	56	25%
Scallop dredge	98	23	23%
<b>Grand Total</b>	<b>1,456</b>	<b>222</b>	<b>15%</b>

\*Gillnetter, long-liners, <10m demersal trawl/seine, pelagic, beam trawl, >10 hook & line vessels and other miscellaneous vessels were not targeted by the survey and totalled 226 vessels in the Scottish fleet in 2015.

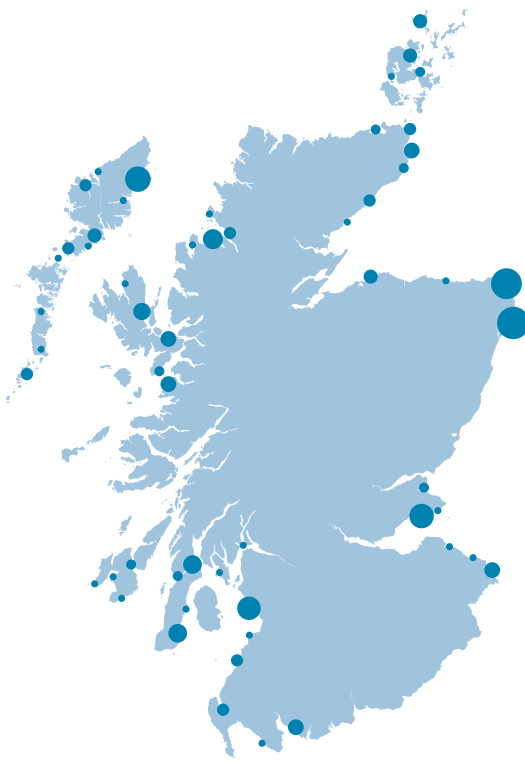
Throughout this report the number of crew or vessels included in each analysis (sample size), is stated at the bottom of each graph and in the text, e.g. (n = 156).

This report will make comparisons with the 2013 and 2015 survey results and highlight notable difference or changes between the samples. Where changes are highlighted, they **should not necessarily be interpreted as trends over time** due to differences in the samples for the 2013 and 2015 surveys.

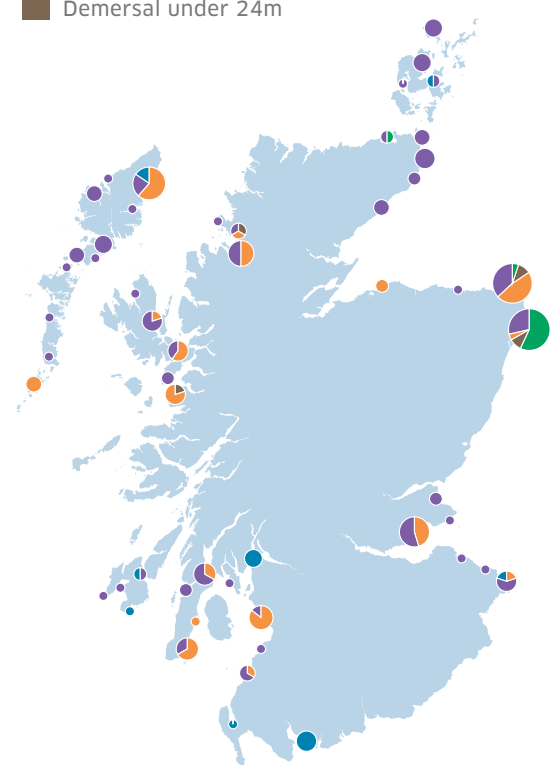
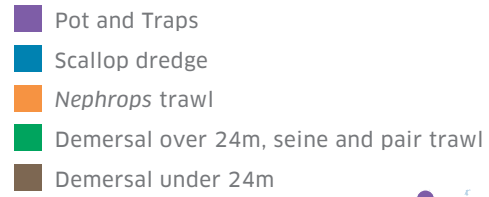
# 2. OVERVIEW SAMPLE VESSELS

## TOTAL VESSELS PER PORT

Number of vessels

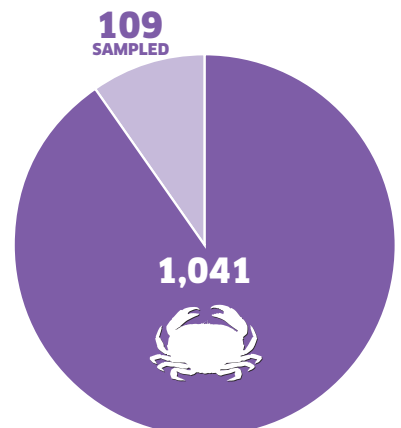
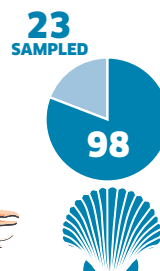
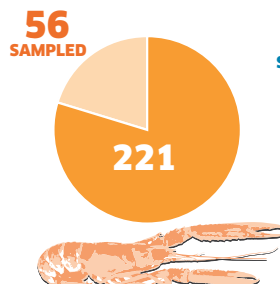
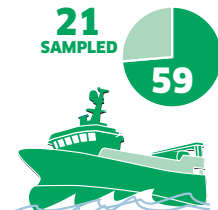
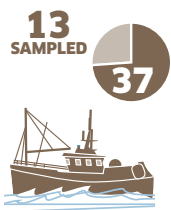


## TYPE OF VESSELS PER PORT



## VESSELS AND CREWS SAMPLED

### VESSEL POPULATION



Demersal <24 m vessels

Demersal >24m, seine and pair trawls

Nephrops trawlers

Scallop dredgers

Pots and traps vessels

### CREW SAMPLED



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# 3. NATIONALITY OF CREW ON SCOTTISH VESSELS

A range of nationalities were represented in the 753 crews from sampled vessels. Respondents from the United Kingdom identified their nationality as Scotland, Shetland<sup>2</sup> and England<sup>3</sup>, and accounted for 67.7%, 2.5% and 1.6%, respectively (Table 2). Crews from the European Economic Area (EEA) totalled 8.1% of those sampled and came from six countries – Ireland, Latvia, Lithuania, Poland, Romania and Spain. Crews from non-EEA countries totalled 19.3% and came from four countries – Philippines, Ghana, Sri-Lanka and Belarus.

From the sampled crews, Romanian and Latvian crews accounted for the majority of fishers from the EEA – 48% and 35%, respectively. Filipino and Ghanaian crews account for the majority of crews from non-EEA countries – 80% and 15%, respectively. Between the 2013 and the 2015 survey, the percentage of Ghanaian crew sampled has changed from 1.3% in 2013 to 2.9% 2015. Romanian crew, who were absent in the 2013 sample, made up 3.9% of the sampled crew in 2015 (Table 2).

**Table 2: Percentage nationality of crew in the Scottish fleet (n = 753)**

UK		EEA		non-EEA	
Scotland	67.7%	Ireland	0.1%	Philippines	15.4%
Shetland	2.5%	Latvia	2.8%	Sri Lanka	0.9%
England	1.6%	Lithuania	0.4%	Belarus	0.1%
UK/South Africa	0.1%	Poland	0.8%	Ghana	2.9%
		Romania	3.9%		
		Spain	0.1%		
<b>Total</b>	<b>71.9%</b>		<b>8.1%</b>		<b>19.3%</b>

Figure 1 shows the distribution of crew across different sea areas by nationality. In 2015, 28% of non-EEA crews were working on vessels that fished predominantly in the North Sea, a change from 24% in the 2013 survey. The larger share of EEA crews work on vessels operating in the West of Scotland. While the proportion of sampled EEA crew working in the West of Scotland has changed from 8% in the 2013 survey to 16% in the 2015 survey, an opposite pattern is observed in the North Sea from 8% in the 2013 survey to 3% in the 2015 survey. Overall the West of Scotland appears to have seen a slight decrease in sampled British (Scottish/rUK) crews from 81% to 75%, whilst the North Sea remains stable at 68-69%. The changes highlighted should not necessarily be interpreted as trends due to sample differences between 2013 and 2015.

2 Aggregate with Scotland to give Scottish nationality  
 3 Reported as rest of UK (rUK) throughout the report

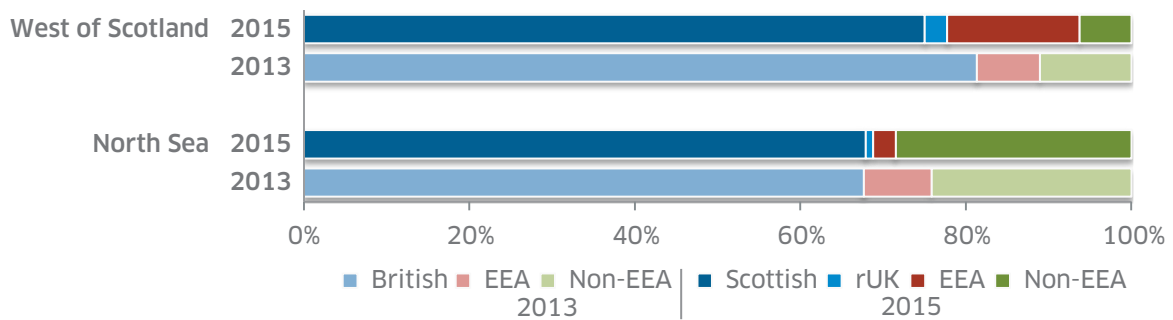


Figure 1: Proportion nationality by main sea area in 2013 (n = 802) and 2015 (n = 695)

The crews on sampled vessels were grouped by their role at the time of the survey. These are:

- **skipper or owner/skipper:** ultimately in charge of the operation of the vessel;
- **engineer:** charged with the running of the vessel and its equipment; and,
- **deckhands:** working on the deck with the fishing gear and clearing and sorting catch.

Almost all skippers and skipper/owners in the sample were Scottish or from the rUK. Only 1% of skippers and skipper/owners came from the EEA. Most of the surveyed EEA and non-EEA crews worked on Scottish vessels as engineers and deckhands. Non-EEA crews accounted for a sizeable proportion of both engineers and deckhands – 23% and 30%, respectively. EEA crews accounted for 9% and 12% of engineers and deckhands, respectively (Figure 2). There are no major differences in the distribution of crew by nationality between the 2013 and 2015 samples. The non-EEA engineers are the only exception; they represented 23% of all engineers in the 2015 sample compared to 17% in 2013 (Figure 2).

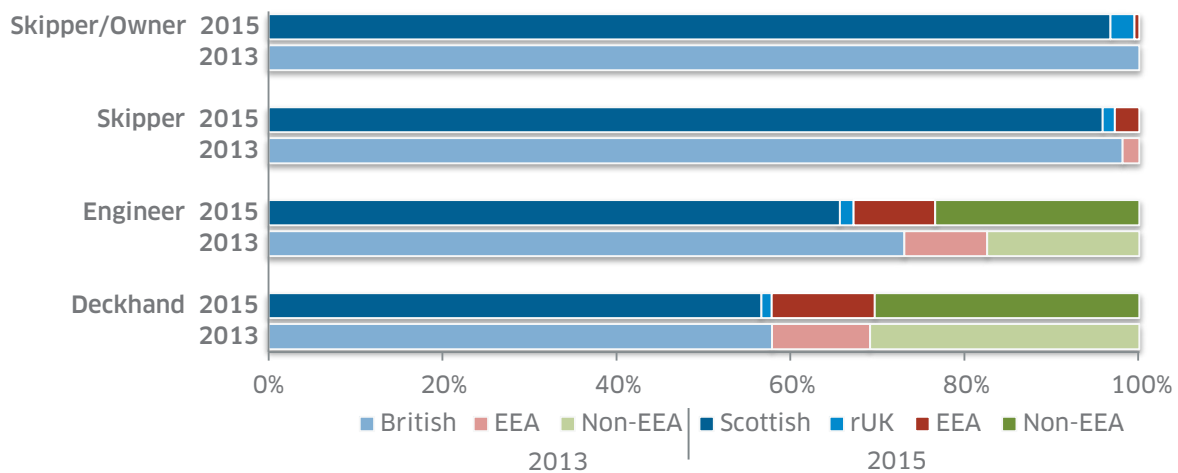


Figure 2: Proportion of crews by nationality and position on vessel in 2013 (n = 834) and 2015 (n = 748)

Table 3 presents the distribution of crew positions by nationality. Scottish crews accounted for the highest proportion of crews in all positions. This is followed by Filipinos as engineers and deckhands at 21.9% and 23.5% respectively. Latvians accounted for 6.3% of engineers and 3.7% of deckhands of crew on sampled vessels, while Romanians account for 1.6% of engineers and 6.2% of deckhands. Ghanaians were the other notable group amongst crews on the sampled vessels – 5.1% of all deckhands (Table 3).

Table 3: Percentage of nationality of crew in the Scottish fleet (n = 753)

	Skipper/Owner	Skipper	Engineer	Deckhand
Scotland	90.7%	93.2%	59.4%	55.1%
Shetland	6.0%		6.3%	0.9%
England	2.7%	1.4%	1.6%	1.2%
Ireland	0.5%			
Latvia		1.4%	6.3%	3.7%
Lithuania				0.7%
Poland			1.6%	1.2%
Romania		1.4%	1.6%	6.2%
Spain				0.2%
Philippines			21.9%	23.5%
Sri Lanka			1.6%	1.4%
Belarus				0.2%
Ghana				5.1%
UK/South Africa				0.2%

The sectors using mobile fishing gears – scallop dredge, *Nephrops* trawl, and the large and small demersal trawlers – accounted for all non-EEA crews in the sample. The demersal under 24m sector had the largest share of non-EEA crews – 38% in 2015, followed by *Nephrops* trawl and the demersal over 24m, seine and pair trawl – both at 27%. Anecdotal evidence suggests that the lower proportion of non-EEA crews on the larger demersal vessels is due to their stronger economic performance, which has enabled vessels in this sector to maintain original crews and not shift to non-EEA at the same rate as the smaller demersal and *Nephrops* vessels. The crews on pot and trap vessels in 2015 were 89% Scottish, 5% rUK and 7% from EEA countries (Figure 3).

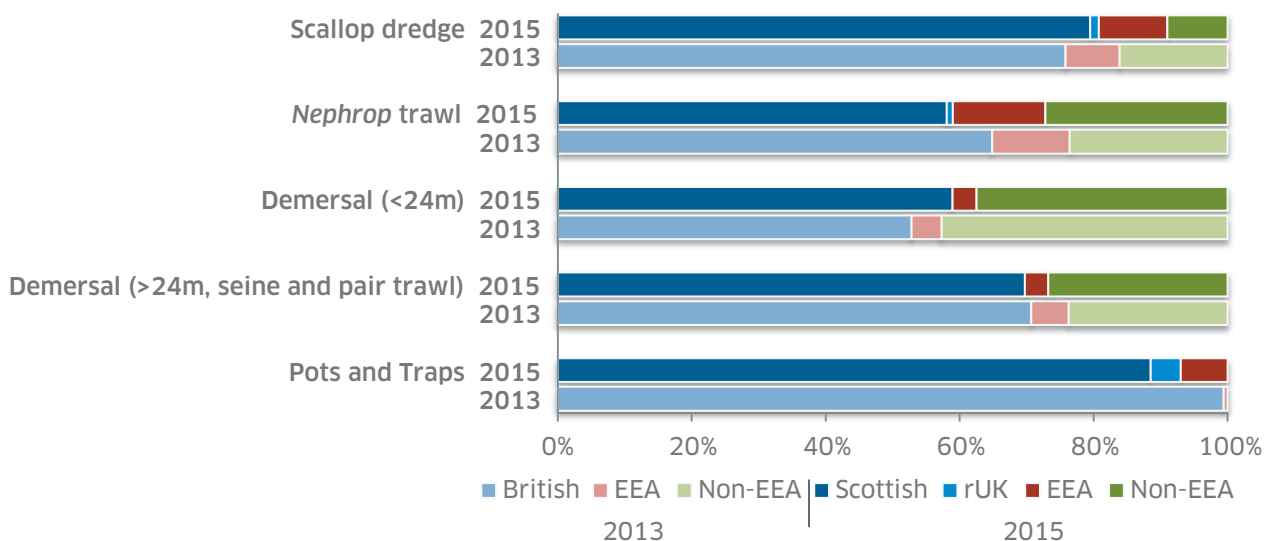


Figure 3: Proportion of crew by nationality and sector in 2013 (n = 810) and 2015 (n = 749)

# 4. AGE PROFILE OF SCOTTISH FISHING CREWS

The ages of the 753 crew on the sampled vessels ranged from 15 to 78 years, with an average age of 39.8 years. Figure 4 shows the age distribution of crews on the vessels sampled in 2013 and in 2015. Broadly, the age distribution in the 2015 survey is comparable to that of the 2013 survey when one takes into account differences in sample sizes. The only notable difference between the 2013 and 2015 data is in the 21-30 year old age group which shows a slightly lower proportion of crews in 2015 than 2013.

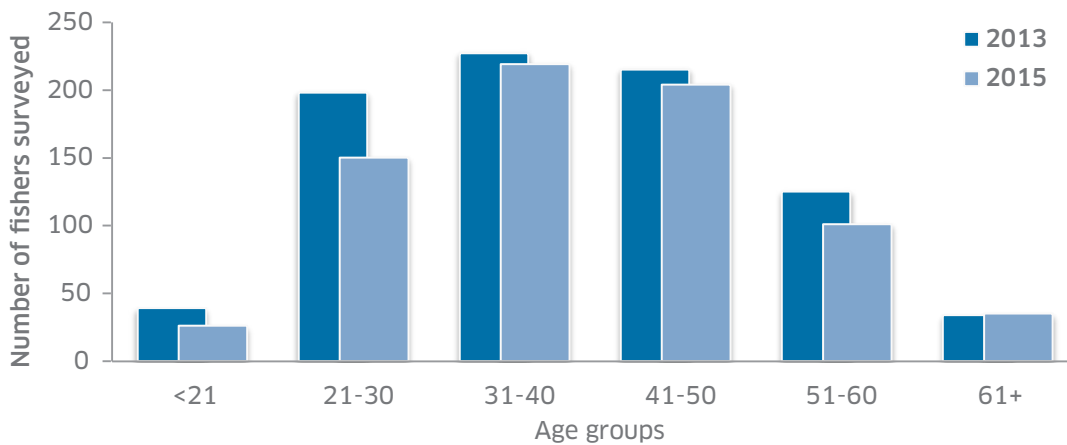


Figure 4: Age profile of Scottish fishing crew in 2013 (n = 844) and 2015 (n = 753)

The average age of crew on the sampled Scottish fleet and the total Scottish and UK labour force are comparable at around 40 years old. The age distribution of crew on the sampled Scottish vessels is also comparable to that of the UK and Scottish labour force (Figure 5). The exceptions are the 35-49 and the 50-64 age groups which are larger and smaller respectively for Scottish fishing crews.

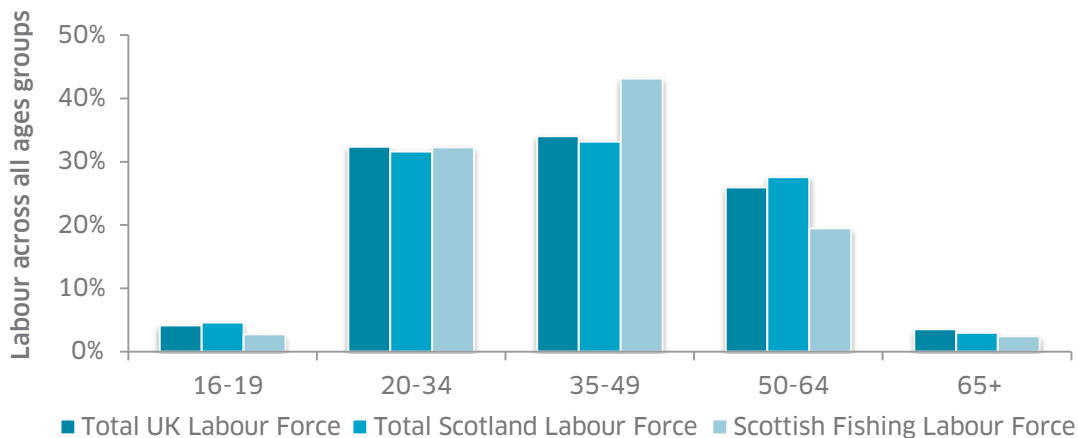


Figure 5: Age distribution of total UK and Scottish workforces with the sampled Scottish crew. Labour force data sourced from NOMIS (Office of National Statistics) 2015

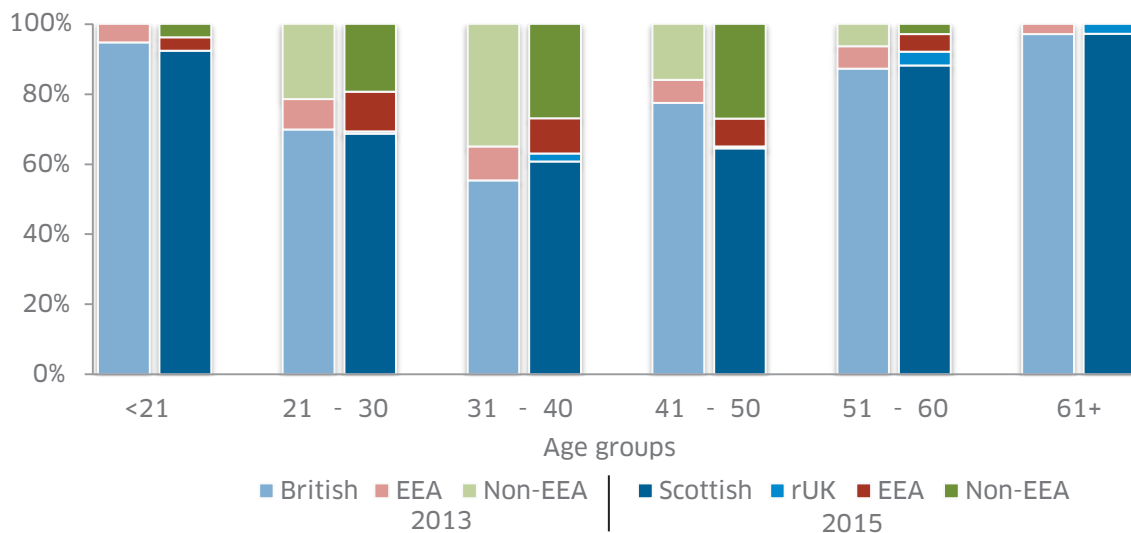


Figure 6: Proportion (%) of crews by nationality in 2013 (n = 838) and 2015 (n = 749)

The nationality of crews in the sample varies across age groups. Crew from the EEA and non-EEA account for a relatively large share in the age categories 21-30, 31-40 and 41-50, when compared to the younger (below 21) and the older (above 51) age categories (Figure 6). The age distribution of crew by nationality in 2015 is comparable to that in the 2013 survey. The only notable difference is the presence of non-EEA crew under 21 years of age and a slightly smaller share of non-EEA crew in the 51-60 age groups in 2015. It would appear that young Scottish crews are still coming into the industry as demonstrated in the <21 groups in both 2013 and 2015.

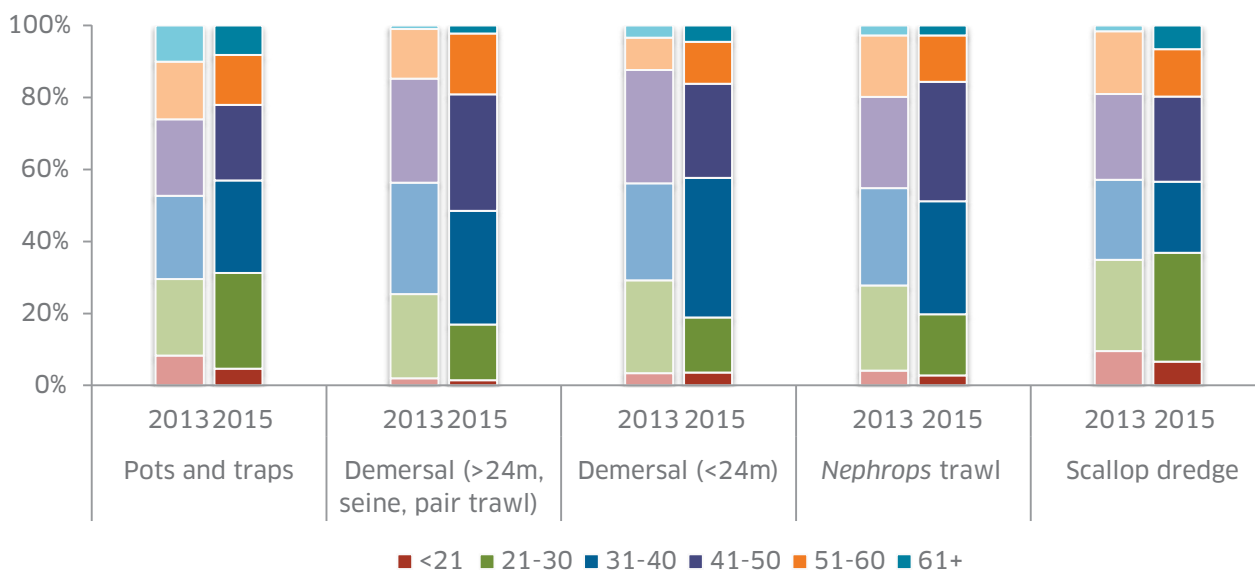


Figure 7: Age profile of crew by key sectors in 2013 (n = 810) and 2015 (n = 735)

Figure 7 shows age distribution by fishing sector in 2013 and 2015. For pot and trap vessels the 21-30 and 31-40 age groups account for a larger share of the crew in the 2015 sample when compared to 2013, while the 61+ group is relatively smaller. The 21-30 age group also accounts for a larger share of crew on scallop dredge vessels in 2015 when compared to 2013. The 31-40 year age group accounts for a larger share of crew in 2015 compared to 2013 for both demersal sectors and the *Nephrops* trawl. The 41-50 years age group also accounts for a larger share of crew on demersal under 24m and *Nephrops* trawl in 2015 compared with 2013.

**Table 4: Mean ages of crew by position and sector in 2013 (n = 838) and 2015 (n = 735)**

Position	Pots and Traps		Demersal (>24m, seine, pair trawl)		Demersal (<24m)		Nephrops trawl		Scallop dredge	
	2013	2015	2013	2015	2013	2015	2013	2015	2013	2015
Skipper/Owner	50.0	47.4	46.3	46.9	42.3	45.5	47.3	48.0	51.4	53.4
Skipper	42.6	33.2	42.6	44.8	39.3	44.0	45.7	40.0	47.0	44.4
Engineer	n/a	n/a	43.4	43.0	38.9	39.2	37.6	45.4	47.0	31.8
Deckhand	29.5	33.0	36.1	38.4	36.5	38.7	36.6	36.5	31.1	33.4
<b>Mean All Crew</b>	<b>40.1</b>	<b>39.3</b>	<b>39.2</b>	<b>41</b>	<b>38.1</b>	<b>40.3</b>	<b>39.8</b>	<b>39.8</b>	<b>37.8</b>	<b>37.8</b>

Table 4 presents the mean ages of the sampled crew for the 2013 and 2015 survey by sector and crew position. The mean ages for the two demersal sectors are higher in the 2015 sample relative to 2013. In the 2015 survey, the average age of crew on dermesal over 24m was 41 years, compared to 39.2 in 2013. The mean age of crew on the dermesal under 24m was 40.3 years in the 2015 survey compared to 38.1 years in the 2013 survey. On pot and trap vessels the mean crew age was 40.1 years in the 2015 sample, compared to 39.3 years in 2013. The mean ages for *Nephrops* trawl and scallop dredge sectors are comparable between the two samples.

Overall, the mean ages of crew on the sampled vessels increases with positions of authority, responsibility and level of skill. Across all sectors skipper/owners tended to be older, followed by skippers, whilst deckhands were the youngest overall.

# 5. LENGTH OF SERVICE

The crews length of service<sup>4</sup> on vessels they worked on at the time of the survey ranged from 1 month to 38 years, with an average of 5.6 years. The distribution of crew length of service by nationality in 2015 is comparable to that observed in the 2013 sample. In both years, Scottish crew accounted for a larger share of total crew as length of service increased (Figure 8). As in 2013, the 2015 data indicates the longest serving non-EEA crews had been working on Scottish vessels for 7 to 12 years. The rise in the share of EEA and non-EEA crew with declining length of service could suggest there are more foreign crew that have joined the Scottish fleet in recent years or the foreign crew tend to be more mobile between vessels.

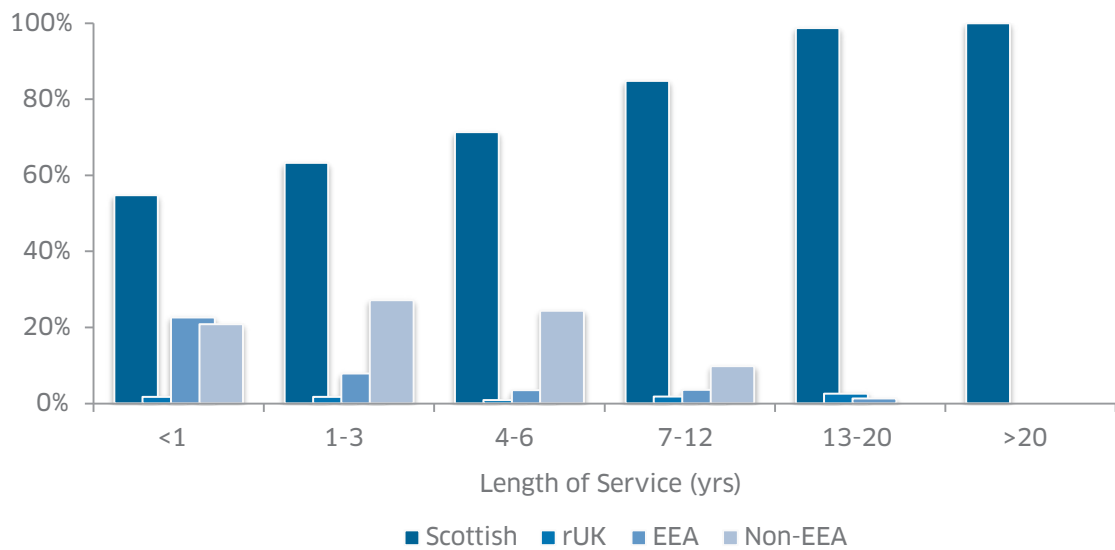


Figure 8: Length of service on current vessel by nationality in 2015 (n = 752)

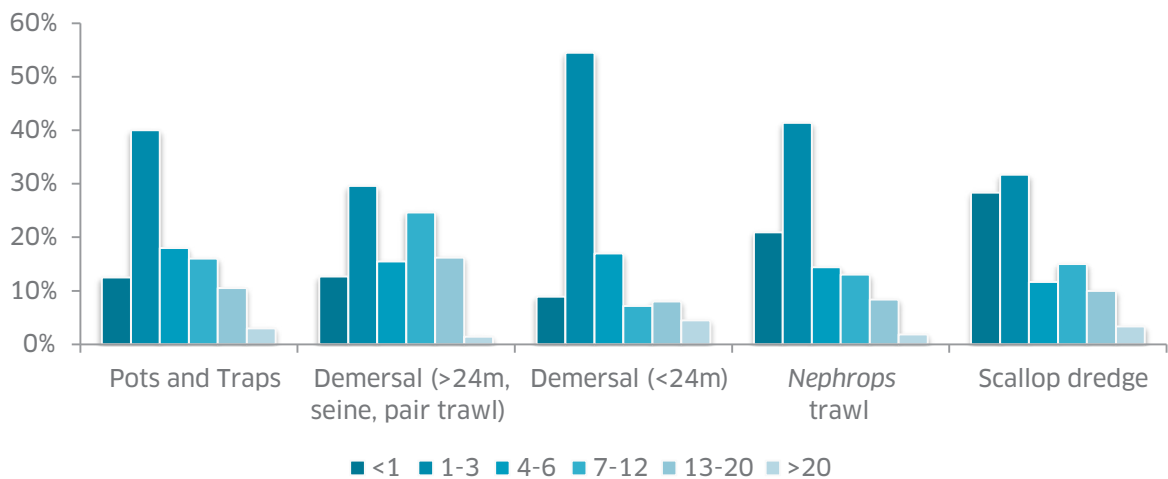
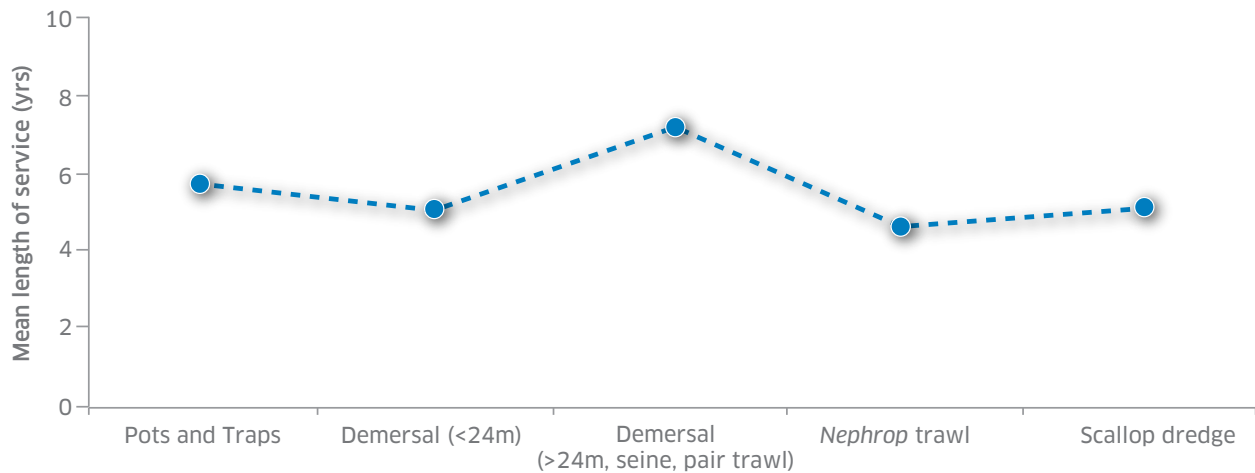


Figure 9: Percentage of crew's lengths of service (years) by sector (n = 729)

Figure 9 shows that crews that have served 1 to 3 years on current vessels accounted for the largest share of crew across all sectors. This is particularly so for demersal under 24m vessels where 54% of

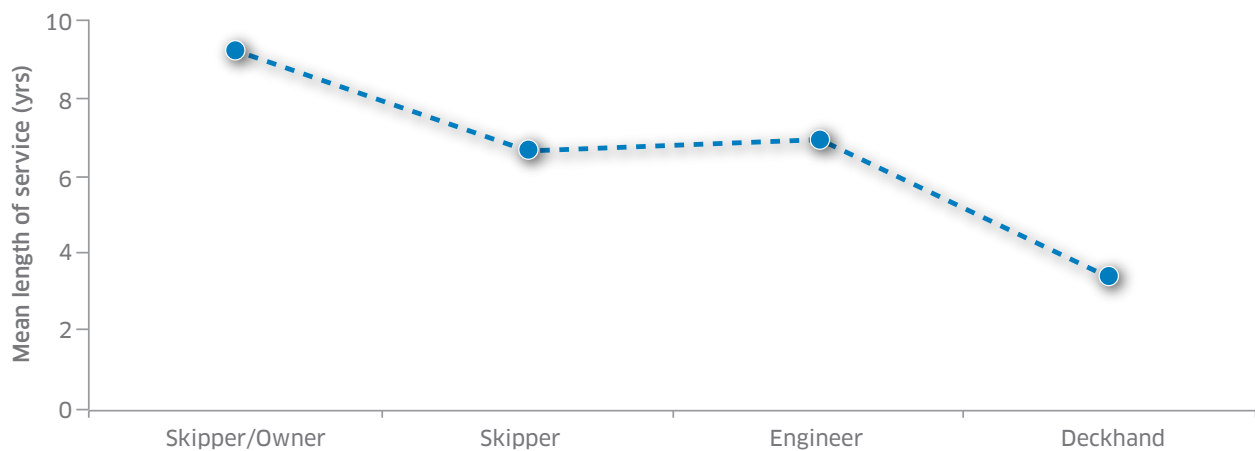
4 Number of years spent working on the same vessel

crews on sampled vessels had been working on their current vessel for 1 to 3 years. Around 40% of crews in the *Nephrops* sector had been working on current vessels for 1 to 3 years. The scallop dredge sector has the highest share of crews (28%) that had worked on current vessels for less than 1 years. The demersal over 24m, seine and pair trawls appear to have high rates of crew retention; 40% of the crew had worked on the same vessel for over 7 years.



**Figure 10: Mean length of service by sector in 2015 (n = 752)**

Figure 10 presents the mean length of service by sector in 2015. Demersal over 24m, seine and pair trawl have the highest mean at 7.2 years followed by pot and trap vessels at 5.8 years. Demersal under 24m and *Nephrops* trawl had the lowest length of service at 5.1 and 4.7 respectively.



**Figure 11: Mean length of service by position in 2015 (n = 752)**

Figure 11 presents the mean length of service by position in 2015. As with age, the mean length of service decreases by position of authority on vessels. Skipper/owners had the highest average length of service at 9.2 years, followed by skippers and engineers at 6.7 years and 7.0 years respectively. Deckhands had the lowest average length of service by position at 3.4 years on their current vessel.



Figure 12 shows how vessels recruited crews by crew nationality for the 2015 sample. Informal networks (e.g., through word of mouth, family/friend and historic relationships) are the most common method used to recruit Scottish crew. Recruitment of non-EEA crew tended to rely on agencies and a small amount on informal networks e.g. recommended by other crew member, while recruitment of EEA crews used both informal networks, agencies and job searches.

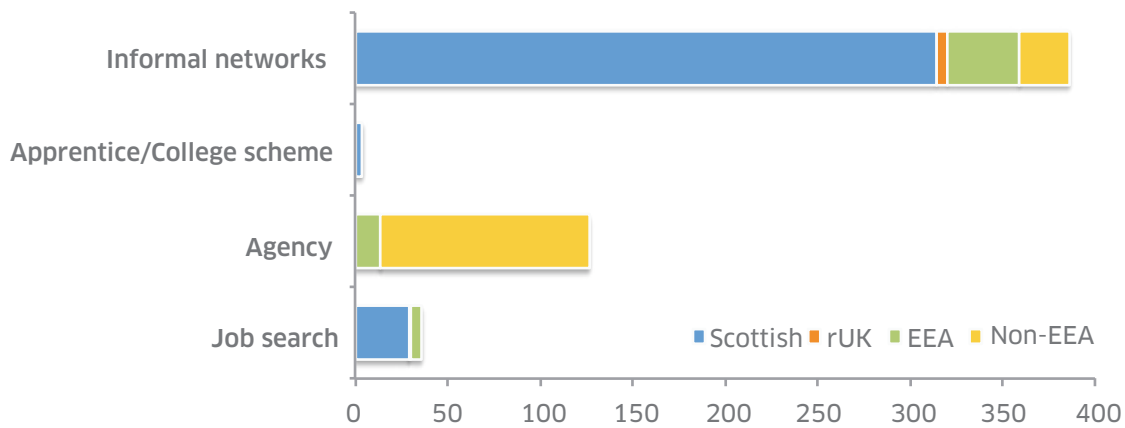


Figure 12: Methods of recruitment by nationality (n = 553)

# 6. MOBILITY ACROSS MARINE INDUSTRY

The 2015 survey asked sampled crew if they had worked in other marine industries outside of commercial sea fishing, to gauge crew mobility across marine industries. Of the crew in the sample, 25% had worked elsewhere in the marine economy.

The pot and trap sector had the highest proportion of crew (33%) that had worked in other marine industries, followed by the scallop dredge sector (26%). Between 18-21% of crews on the demersal over 24m, seine and pair trawl, demersal under 24m and *Nephrops* trawl had worked in another marine industries (Figure 13).

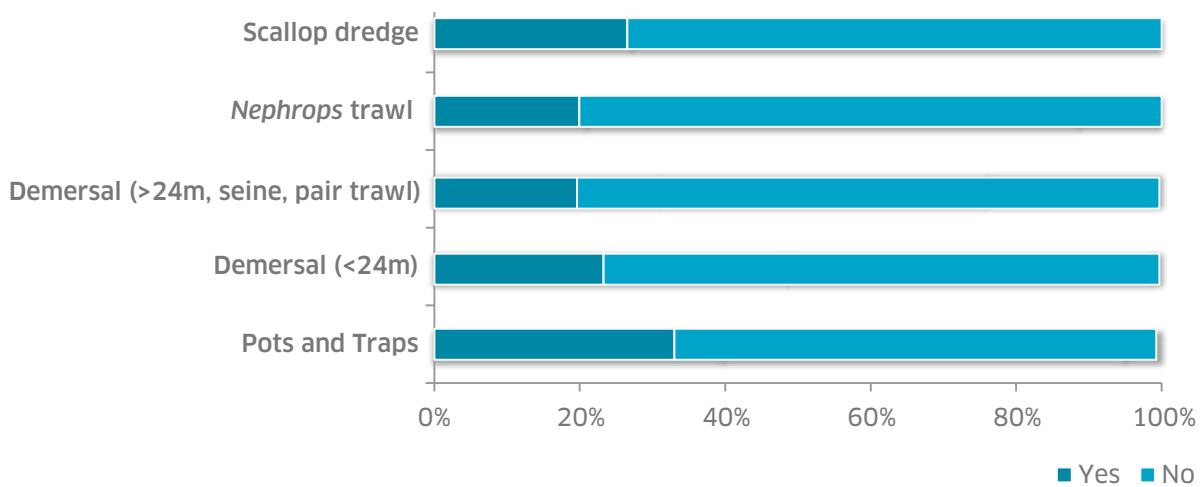


Figure 13: Response from crew to “have you ever worked in another marine industry?” by sectors (n =711)

Of the 25% who had worked in another marine industry, 31% gave further information on the industries they had worked in. 50% had worked in the merchant navy, 32% in aquaculture, 5% in oil & gas, 5% in commercial diving and 4% on factory ships (Figure 14). 7% had worked in ‘Other’ industries which included ports and harbours, boat building and marine construction.

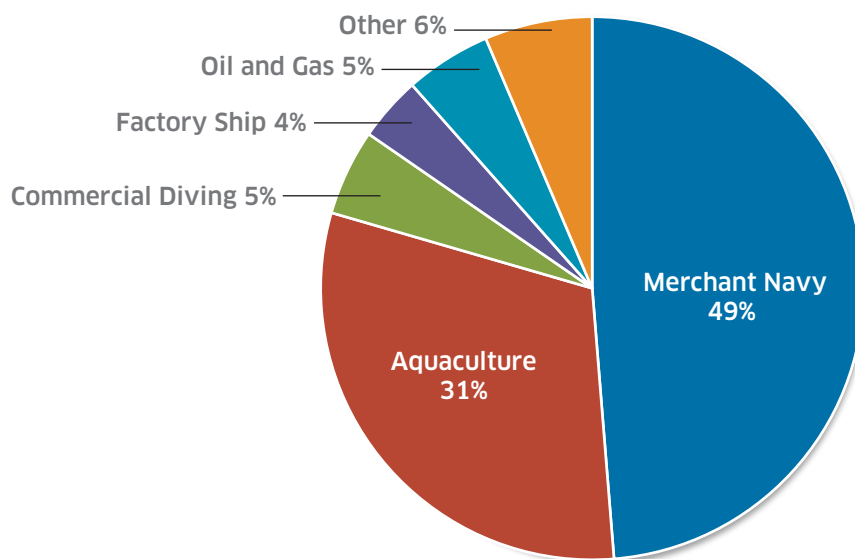


Figure 14: Breakdown of other marine industries worked in by sampled crews (n = 78)

The survey sought to gauge crews' willingness to work in other marine industries in the future. Of those who responded, 37% of crew said they would be willing to work in another marine industry. This compared to 63% in the 2013 survey. By sector, pot and trap and demersal over 24m, seine and pair trawl sectors had comparable proportions of crew willing to work in another marine sector in the 2013 and 2015 surveys (Figure 15). The other three sectors were considerably lower in the 2015 survey compared to 2013. Only 25% of the crew on sampled *Nephrops* trawl vessels were willing to work in other marine sectors in 2015, compared to 72% in 2013. Only 41% of crews on sampled demersal under 24m vessels were willing to work in other marine sectors in 2015, compared to 71% in 2013 and for scallop dredge only 27% of crews in 2015 compared to 61% in 2013.

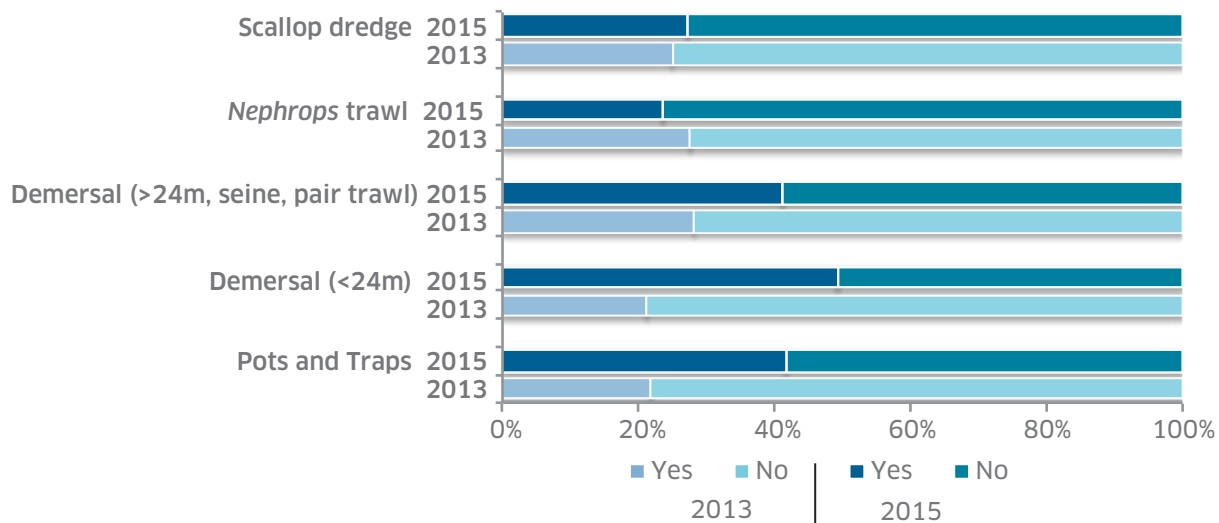


Figure 15: Crew willingness to work in other marine industries (n = 721) and 2015 (n = 689)

The majority of crews surveyed (90%) expected to 'still be crewing in 12 months' time'. The demersal over 24m, seine and pair trawl fleet had the highest proportion (99%) of crews that expected to be crewing in 12 months' time. The *Nephrops* trawl sector had the lowest proportion, although still high, at 84% (Figure 16). Some of the crews on sampled vessels were uncertain about the future - responding 'maybe' and 'hope so'. The *Nephrops* trawl and demersal under 24m vessels had the largest proportion of crews expressing such uncertainty - 12% and 10% respectively. This uncertainty was lowest at 4% on pot and trap vessels and was mainly linked to upcoming retirement.

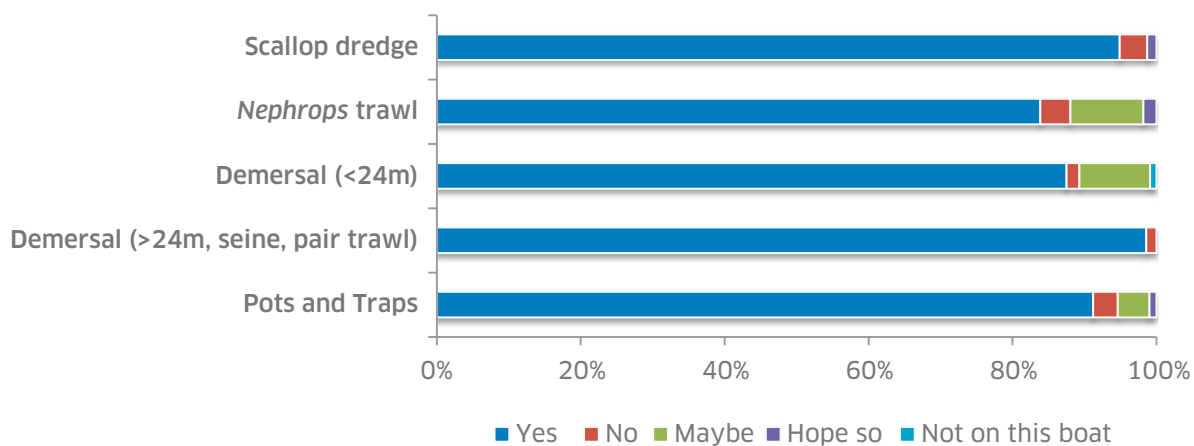


Figure 16: Response to "do you expect to be crewing in 12 months' time" by sectors (n = 753)

The 2015 survey asked crew if they would be willing to relocate to work from another port or location. Of the crew that responded (94%), 66% indicated that they would be willing to relocate. The sectors

using mobile gears (scallop dredge, *Nephrops* trawl and the large and small demersal vessels) had the highest shares of crew willing to relocate. This is consistent with the highly nomadic nature of the vessels who work mobile gears. The demersal over 24m, seine and pair trawl fleet and scallop dredge sectors had the highest proportion of crews willing to be geographically mobile at 82% and 81% respectively. 77% of the *Nephrops* trawl and 72% of the demersal under 24m were also willing to relocate to another port or locations (Figure 17). Just under half of the pot and trap vessels (49%) were willing to work in another locations or ports.

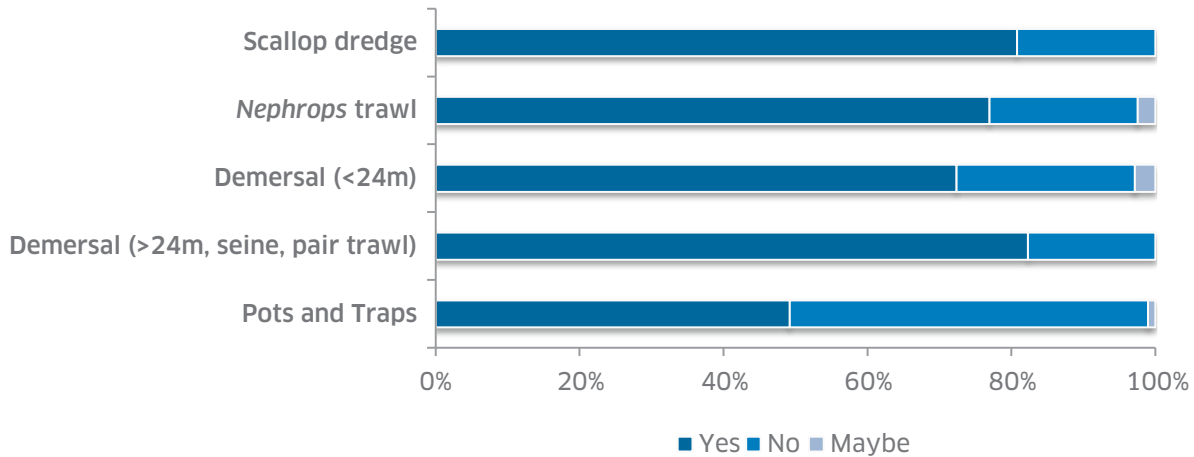


Figure 17: Crew willingness to work in other locations/ports by sector (n = 709)

# 7. QUALIFICATIONS

The survey sought to gauge the level of qualifications of crew working in the Scottish fleet. It identified six groups of qualifications, which are:

- **Basic safety training (BST):** also known as the certificate of competence which consists of four courses: 1) Sea Survival; 2) Fire Fighting and Prevention; 3) First Aid, and; 4) Health and Safety. BST is a minimum requirement for all crew working on a UK fishing vessel.
- **Skipper certificates:** qualifications required to skipper small commercial fishing vessels in inshore waters, which are: 1) Skippers <16.5m vessel up to 20nm, and; 2) Skipper <16.5m vessel up to 200nm. Qualifications to skipper large commercial fishing vessels are: 3) Skipper Class 2 - >16.5m vessels up to 150nm and; 4) Skipper Class 1 or full ticket - >16.5m unlimited.
- **Engineer certificates:** engineers have two grades - Class 1 and Class 2. Class 1 are chief engineers and required on vessels >30m in length and/or with engine power >750kw. Class 2 engineers are required on vessels >16.5m in length and as a second engineers on all vessels with engine power >750kw. An engineer is required on vessels >16.5m in length and a minimum of two engineers are required on vessels >30m.
- **Mates certificates:** two qualifications for seafarers in the Merchant Navy known as Mate Class 1 (master) and Mate Class 2 (chief). Transferable qualifications between merchant and fishing vessels.
- **Other fishing certificates:** certifications such as bridge watchkeeping, engineer room watchkeeping and radio operators certificates.
- **Other marine sector qualifications:** such as commercial diving, yacht masters and other offshore and merchant navy certificates not included elsewhere.

Almost all of the crew in the 2015 survey (99.6%) gave information about their qualifications that are relevant for work in the fishing industry. This is compared to only 50% in the 2013 survey. In 2015, 32% of crews sampled had at least one certification higher than the mandatory Basic Safety Training (BST) (Figure 18). The main certifications above BST are skipper (23%), engineer (6%) and mate qualifications (2%). The remaining 1% is 'other fishing' and 'other' qualifications.

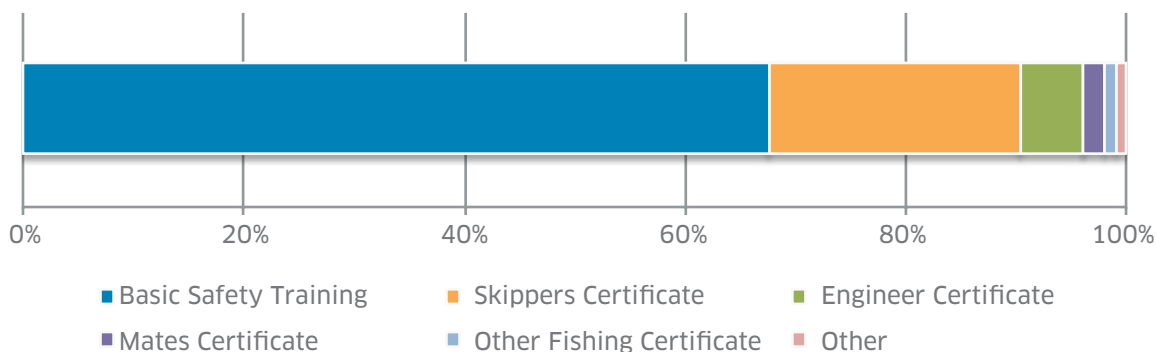
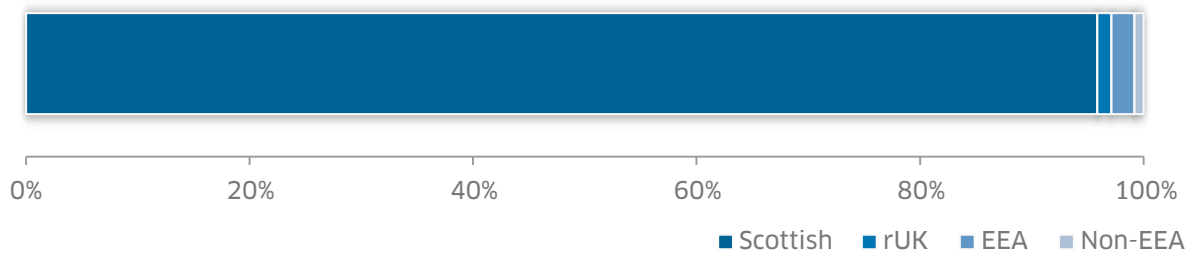
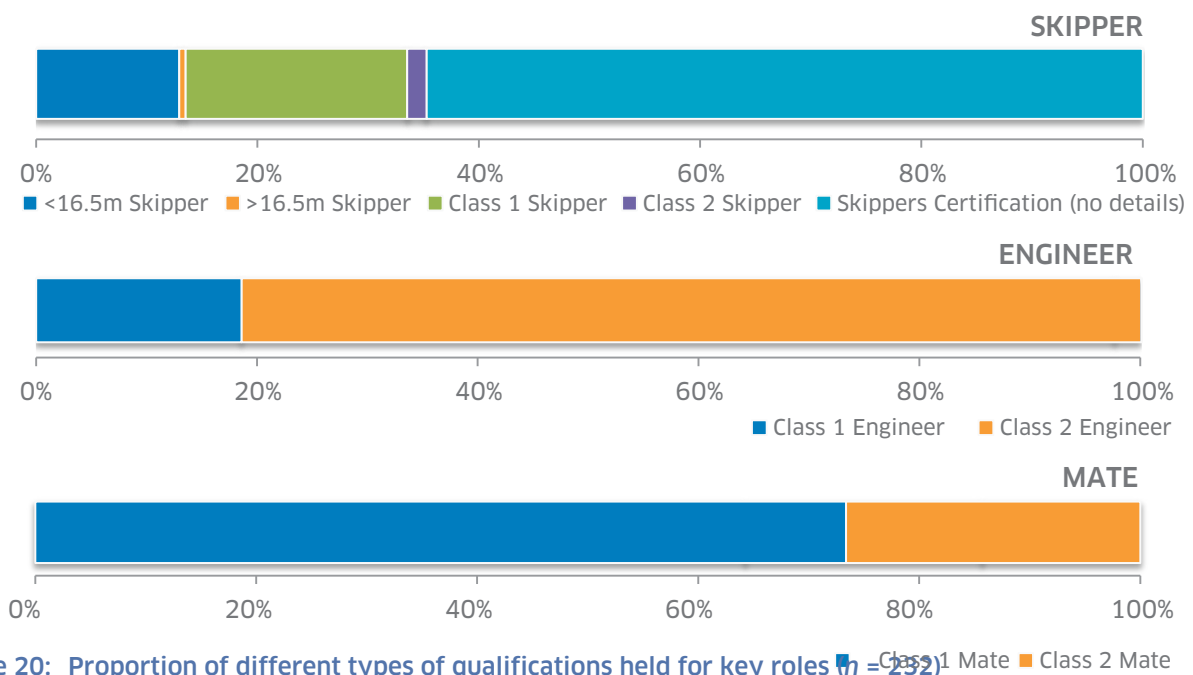


Figure 18: Proportion of qualifications/certifications by type in the Scottish fishing industry among crew from sampled vessels (n = 750)



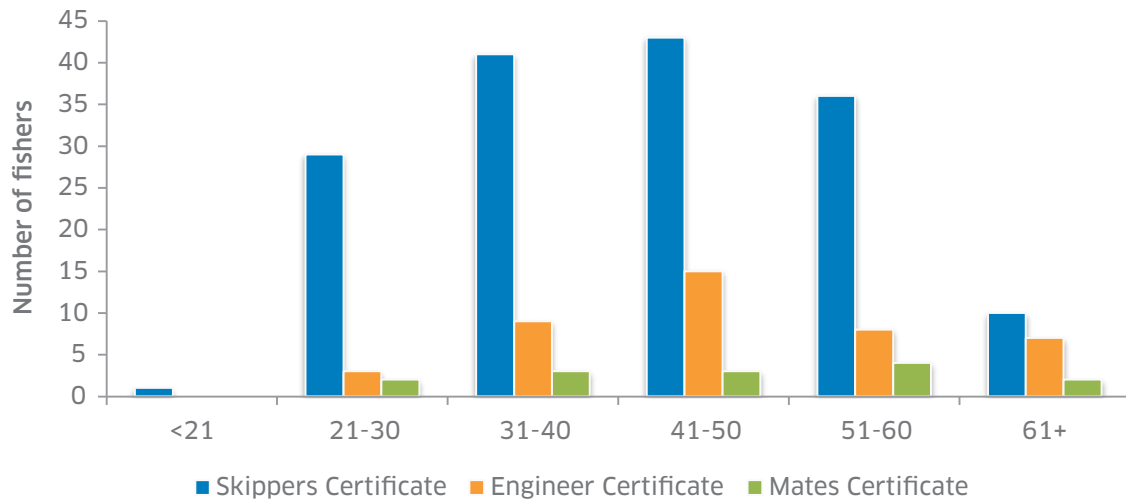
**Figure 19: Proportion of qualifications above BST by nationality (n = 241)**

Broken down by Scottish, rUK, EEA and non-EEA crews, over 96% of the qualifications discussed belonged to UK fishers (Figure 19), due to the proportion of skippers certifications and skipper positions being held by Scottish/rUK fishers. A high proportion (99%) of those who do not hold qualifications above the minimum BST are non-EEA nationals and at a slightly lower percentage (92%) for crew from the EEA. All EEA and non-EEA crews are required to take UK based training to work on a UK registered vessel and therefore may not have reported on other qualifications recognised overseas.



**Figure 20: Proportion of different types of qualifications held for key roles (n = 232)**

There are four different skippers qualifications and one group who did not specify their certificates. This latter group made up the highest proportion, followed by skippers holding Class 1 and <16.5m qualifications (Figure 20). Of the two engineering qualifications, 81% held a Class 2 certificate and the remaining 19% held a Class 1. For mate qualifications, 75% of crews held a Class 1 certificate and the remaining 25% held a Class 2 certificate (Figure 20).



**Figure 21: Age profile of crew holding Skipper, Engineer and Mate/deckhand certifications ( $n = 216$ )**

Skippers qualifications are present in all age groups, whilst engineering and mates certificates were absent from the <21 age group. A normal distribution for both skipper and engineer is illustrated in Figure 21.

# 8. WORK PATTERNS

Sampled crew had various working patterns. The majority (95%) worked all year round with the remaining working seasonally (5%). The majority of crews surveyed in 2015 (92%) worked full time hours<sup>5</sup> when they were active in the fishing industry with the remaining 8% working part-time hours<sup>6</sup>. Pot and trap vessels had the highest proportion of crew (22%) that worked part-time. However, part-time crews were also notable on demersal under 24m vessels (9%) and demersal over 24m, seine and pair trawl (3%) (Figure 22).

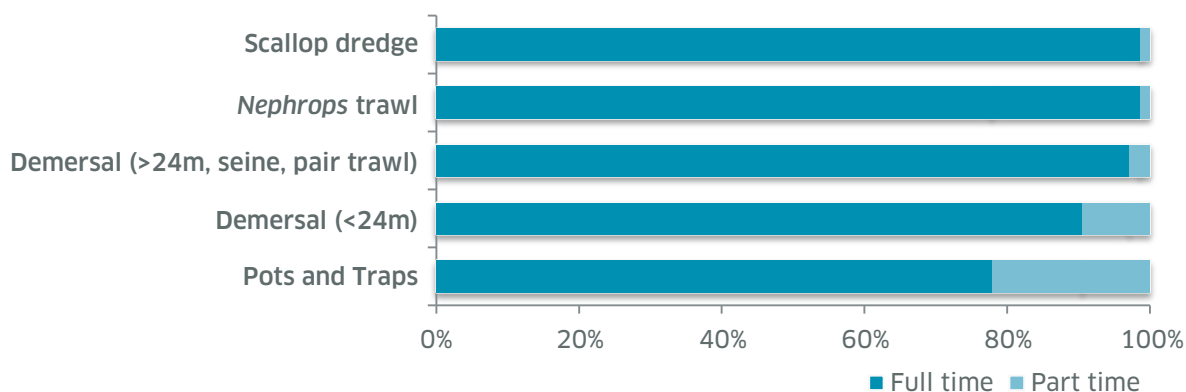


Figure 22: Proportion of crew working full time (FT) and part time (PT) by sector (n = 725)

Figure 23 shows a breakdown of seasonal work by sector and whether this was full or part-time employment. ‘Seasonal’ was described as between 6 to 9 months per year or as summer months only. Both the pot and trap and *Nephrops* sector had seasonal crew, while the demersal vessels or scallop dredge had none. Pot and trap vessels had the highest proportion of seasonal workers (90%) working part-time. *Nephrops* vessels also have seasonal workers, although all of them worked full time when employed.

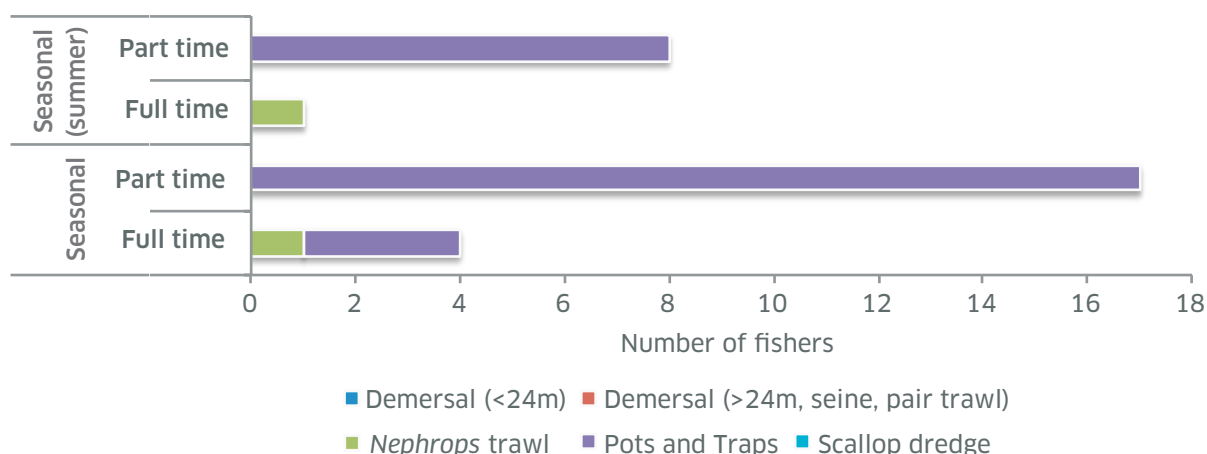


Figure 23: Crew working seasonally and whether they worked full or part-time (n = 41)

5 Full time would equate to working a 40 or more hour week, 20 days a month.

6 Part time would equate to working less than 40 hours a week (once totalled for the month) and/or working short days on a regular basis.



Table 5 presents an estimate of working hours by sector if days at sea were spread throughout the year and compared to the national average of 40 hours per week<sup>7</sup>. This is calculated from the descriptive data given on work patterns and therefore is **only illustrative of working patterns for crew on commercial fishing vessels**. The average (median) working hours per week was over 40 hours for the two demersal sectors, scallop dredge and *Nephrops* trawls. Crew working on vessels in the two demersal sectors on average worked 4.3 to 7.8 hours over the standard 40 hour week. Crew working on scallop dredge vessels worked 1.3 hours above the 40 hour week, and crew on *Nephrops* trawls over 0.6 hours per week. The hours worked per week by pot and trap vessels varied considerably (from 4 to 16 hour days) given the variations of working patterns in the sector. The equivalent average (median) hours equated to 19.8 per week. This is most likely due to low activity vessels and seasonal fishing patterns in this sector which have lowered the average working hours per week for a full time pot and trap vessel.

**Table 5: Working day/week per sector from reported min and max hours, for comparison to an average 40 hour week (plus 20 days holiday and 10 days bank holiday). Figures estimated from qualitative data and are therefore a guide only.**

	Reported working hrs per day			Fishing days per year (2015) <sup>*</sup>	Equivalent hours per day			Equivalent hours per week		
	Min	Max	Average		Min	Max	Average	Min	Max	Average
Pots and Traps	4	16	8	119	2.0	7.9	4.0	9.9	39.7	19.8
Demersal (<24m)	9	16	12	177	6.6	11.8	8.9	33.2	59.0	44.3
Demersal (>24m, seine, pair trawl)	10	18	12	191	8.0	14.3	9.6	39.8	71.6	47.8
<i>Nephrops</i> trawl	8	20	13	150	5.0	12.5	8.1	25.0	62.5	40.6
Scallop dredge	8	20	12	165	5.5	13.8	8.3	27.5	68.8	41.3

\*obtained from Seafish's annual fleet survey 2015.

Crew were asked if their vessel had undertaken any work outside fishing in 2015. All sectors had vessels that had worked outside of fishing with the exception of scallop dredge. In the case of the demersal over 24m, seine and pair trawl sector, 95% of vessels had undertaken work outside fishing, compared to 45% in the 2013 sample. There was also differences in work outside of fishing between the 2013 and 2015 samples for demersal under 24m vessels – 69% in 2015 compared to 53% in 2013, and for *Nephrops* trawl – 26% in 2015 compared to 17% in 2013 (Figure 24). All of these vessels were undertaking guarding duties for the oil and gas industry. Two pot and trap vessels had worked outside of fishing in marine tourism.

7 Source: ONS: Annual survey of hours and earning 2012

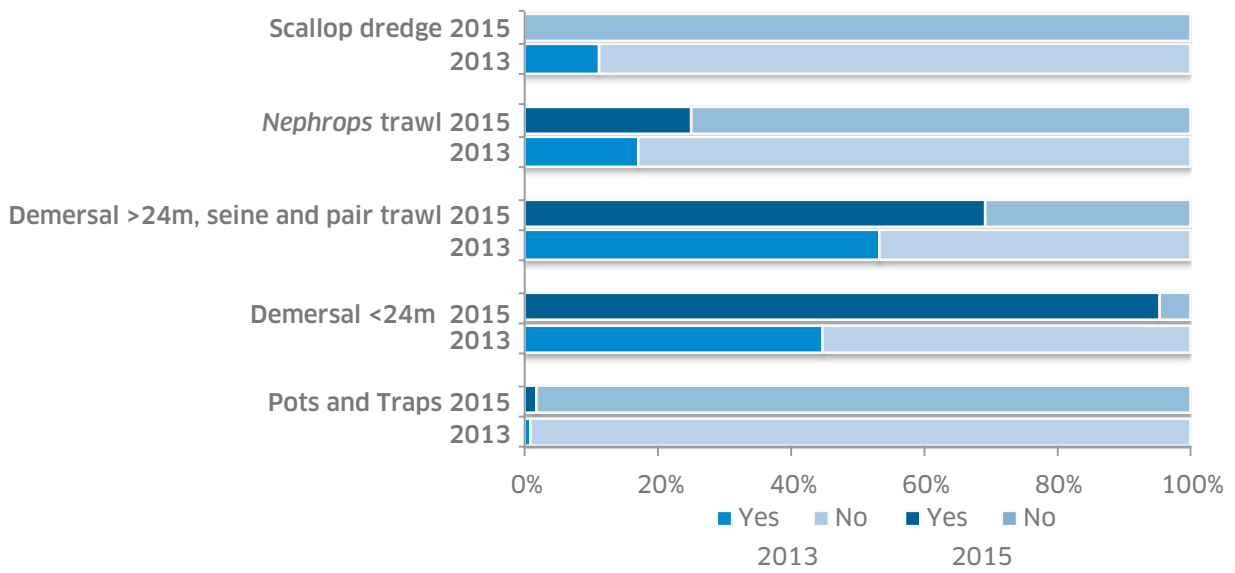


Figure 24: Proportion of vessels involved in work outside of fishing in 2013 (n =243) and 2015 (n = 222)

# 9. REMUNERATION COSTS

This section presents results from analysis of data on crew remuneration costs from the vessels sampled in 2015. In the survey, the cost of crew remuneration includes all payments to individual crew for the services they provide to the vessel. This includes bonuses (if stated) and expenses (e.g. flights for repatriation of foreign crews) **before subtracting** taxes and other charges (e.g. agency fees). Commercial marine fisheries have three main types of remuneration arrangements:

- **Crew Share:** crews are paid a percentage of the value of fish landed by a vessel after deducting operating costs (e.g. fuel, quota leasing, boxes, and ice). Crews under this arrangement are considered self-employed;
- **Vessel Contract:** crews are paid a fixed monthly salary by the vessel operator, which is independent of the value of landings;
- **Agency Contract:** crews receive a salary from an employment agent who is contracted to supply the vessel with crew. Crews under this arrangement are not employed by the vessel operator but by the agency.

The majority of sampled crew (74.6%) were remunerated through a crew share arrangement. The remainder were remunerated through vessel contracts (8.6%), agency contracts (16.4%) and a combination of crew share and vessel contracts (0.4%). The majority of Scottish and rUK crews (95%) received their pay through crew share arrangements, and the remaining 5% through vessel contracts (Figure 25). 63% of EEA crew were paid by crew share arrangements, 22% by vessel contracts, and 7% each by agency contract and mixed crew share/contract arrangements. The majority of non-EEA crews (82%) receive their pay from agents who have supplied them to work on Scottish vessels. The remaining 15% of non-EEA crews were paid via vessel contracts and 3% through crew share arrangements.

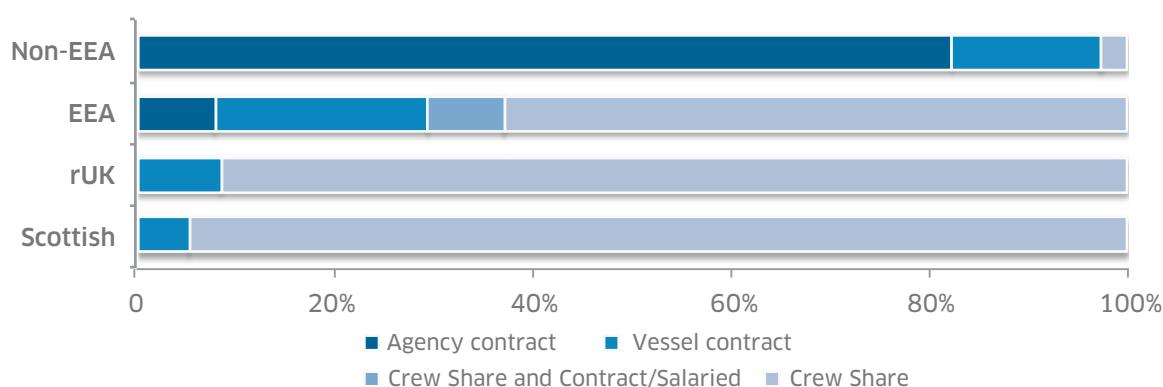
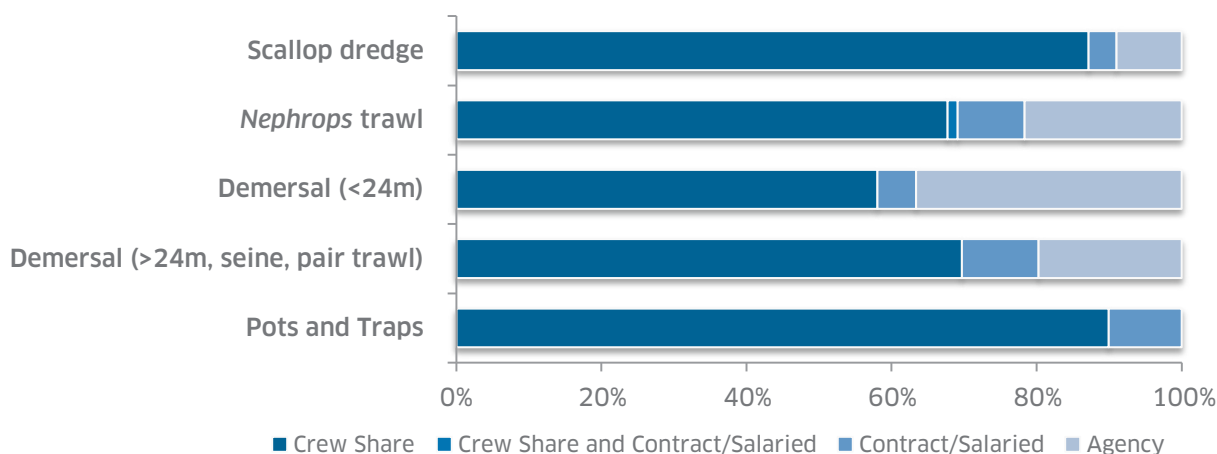


Figure 25: Types of remuneration agreements on vessels by nationality (n = 748)

The majority (90%) of crew employed on pot and trap vessels were paid via crew share arrangements, whilst the demersal under 24m vessels had the largest proportion (42%) of crews on agency and vessel contracts. *Nephrops* trawl and demersal over 24m, seine and pair trawl vessels had around 30% of their crew on agency and vessel contracts, while the scallop dredge sector had the lowest proportion of crew (13%) on agency and vessel contracts (Figure 26).



**Figure 26: Remuneration arrangements by sector (n = 748)**

Table 6 presents financial and remuneration structures of all key sectors from 80% (n = 595) of the vessels sampled in 2015. The *Nephrops* trawl and pot and trap sectors, have each been disaggregated into two classes based on vessel length to account for variation in earning capacity within these sectors. Table 6 presents the mean vessels' monthly gross earnings by sector and how they are distributed (% and £) across (a) fishing variable costs (fuel, quota leasing, boxes and ice, food, harbour dues, bait etc.); (b) boat share (fixed vessel costs such as insurance, administration fees, vessel loans etc.) and; (c) crew remuneration. Figures presented are mean (averages) costs for a typical vessel in each sector. Annex 1 presents a diagrammatic illustration of how gross earnings are typically distributed on vessels.

The mean monthly gross earnings across all sampled vessels was £31,231 (Table 6). Mean monthly gross earnings by sector ranged from £5,746 for an under 10m pot and trap vessel to £116,526 for a large demersal over 24m, seine and pair trawl vessel. On average, 32% (£9,994) of gross earnings for all sampled vessels was taken up by fishing variable costs. Mean fishing variable costs by sector ranged from 21% (£4,305) of monthly gross earning for an over 10m pot and trap vessel, to 44% (£21,266 and £51,271) of monthly gross earnings for a *Nephrops* over 18m and a demersal over 24m, seine and pair trawl vessel respectively.

Boat share accounts for 35% (£10,931) of monthly gross earnings across all sampled vessels. Mean boat share ranges from 28% (£13,533) of monthly gross earnings for a *Nephrops* over 18m vessel to 43% (£8,732) for an over 10m pot and trap vessel. Crew on all sampled vessels receive, on average, 33% (£10,306) of gross monthly earnings in remunerations. Mean crew remuneration allocations varied from 25% (£29,132) of gross monthly earnings for a demersal over 24m, seine and pair trawl to 38% (£2,160) for an under 10m pot and trap vessel.

The crew remuneration share of vessel's gross earnings goes to paying vessel contract and agency contract crew, and what is left is shared amongst the self-employed crew based on agreed crew share arrangements (Table 6). On average, sampled vessels allocate 88% of monthly crew remuneration to fishers on crew share arrangements and 12% to crew on vessel and agency contract arrangements. This equates to a mean of £3,002 per month per crew share fisher and a mean of £1,308 per month per contract fisher (Table 6).

Crew share pay accounts for the larger proportion of crew remuneration - on average 92% which equated to £1,359 per crew per month for an under 10m pot and trap vessel and £2,360 per month per crew for an under 18m *Nephrops* vessel. A *Nephrops* over 18m vessel had the smallest crew share allocation (67%) which equated to £4,410 per crew per month. The variations in the share of remuneration going to fishers on crew share is largely due to staff numbers, but also, on average, because of the lower pay allocated to crew on vessel and agency contracts.

Pot and trap vessels had the smallest difference in mean pay between those on crew share and those on vessel and agency contracts. On average, individuals paid via crew share on a under 10m pot and trap vessel received £1,359 per month, compared to £1,122 for those in that sector on contracts (Table 6). The demersal under 24 metre sector had the largest difference in mean pay between individuals on crew share (£7,535) compared to those on contracts (£1,171).

**Table 6: Mean percentage allocated per variable and estimate (Est.) value (£) based on mean monthly gross earnings of vessels in each sector. Distribution of gross earnings (n=177), distribution of crew remuneration (n = 595).**

Variable	All vessels	Pots and Traps <10m	Pots and Traps >10m	Demersal <24m	Demersal >24m, seine and pair trawl	Nephrops trawl <18m	Nephrops trawl >18m	Scallop dredge
<b>Mean Gross Earning</b>	<b>£31,231</b>	<b>£5,746</b>	<b>£20,213</b>	<b>£93,556</b>	<b>£116,526</b>	<b>£22,338</b>	<b>£48,331</b>	<b>£19,407</b>
<b>Distribution of Gross Earnings (%)</b>								
Fishing variable costs	32%	24%	21%	40%	44%	34%	44%	31%
Boat share	35%	38%	43%	31%	30%	34%	28%	38%
Crew remuneration	33%	38%	36%	29%	25%	33%	28%	32%
<b>Distribution (est.) of Gross Earnings (£)</b>								
Fishing variable costs	£9,994	£1,379	£4,305	£36,955	£51,271	£7,595	£21,266	£6,016
Boat share	£10,931	£2,206	£8,732	£29,283	£34,958	£7,595	£13,533	£7,375
Crew remuneration	£10,306	£2,160	£7,176	£27,318	£29,132	£7,372	£13,533	£6,210
<b>Distribution of crew remuneration (%)</b>								
Crew share	88%	92%	87%	85%	91%	92%	67%	90%
Contract	12%	8%	13%	15%	9%	8%	33%	10%
<b>Distribution (est.) of crew remuneration (£)</b>								
Crew share	£3,002	£1,359	£2,300	£7,535	£5,676	£2,360	£4,410	£2,684
Contract	£1,308	£1,122	£1,865	£1,171	£1,350	£1,308	£1,434	£1,156
<b>Mean # crew per vessel</b>								
Crew share	2.4	1.5	2.7	3.1	4.7	2.8	2.1	2.1
Contract	0.9	0.2	0.5	3.5	1.9	0.4	3.1	0.5

Table 7 presents the distribution of crew remuneration by sector and position. On average, skippers accounted for 56% of vessels total spend on remuneration, engineers 30% and deckhands 35%. As anticipated skippers are rewarded the highest share, then followed by deckhands and then engineers<sup>8</sup>. However in terms of pay per crew engineers earn more than deckhands. (see Table 7).

<sup>8</sup> Engineers overall crew share is lower when calculated across all vessels because they are only employed on the larger vessels often for a smaller crew-share (large crews to divide crew-share between). When translated into monthly wage however, engineers take a higher wage than deckhands as demonstrated in Table 7. This is also the case for skippers, as the smaller (single handed) vessels influence the mean monthly earnings of skippers when calculated by all vessels. Sector calculations are a more accurate reflection for all positions.

Table 7 shows that crew earnings are highly variable across; (a) sectors; (b) position of crew on the vessel and; (c) remuneration arrangements. The demersal over 24m, seine and pair trawl vessels pay on average the highest for skippers and engineers on crew share at an estimated £7,667 per month, whilst an under 10m pot and trap vessel pays the least for skippers at £1,447 per month. Both the large and small demersal sectors pay, on average, the highest for deckhands on crew share at around £5,300 per month, while the under 10m pot and trap vessels pay the least (£887 per month). Across all sectors with contract crew, deckhands are on average paid the least at around £1,200 per month, with relatively small variations (between £1,100 to £1,475) in average pay across sectors. In the case of crew share, this is payment for labour before tax, social security payments and other deductibles. In the case of contracts, what is reported is the total cost to the vessels for acquiring the services of crews. In the majority of cases this includes other contract expenses (e.g. reparation costs and costs to the vessel for food and accommodation) as well as payment that crews may have to pay (e.g. agency contract fees).

**Table 7: Monthly crew share, estimated (Est.) crew share costs and contract salary by position. Median values are presented (n = 595). Estimates are calculated using the mean gross earning for an average vessel in each sector whilst the max/min value in the range can be found in Annex 1B.**

Variables	All vessels	Pots and Traps <10m	Pots and Traps >10m	Demersal <24m	Demersal >24m, seine and pair trawl	Nephrops trawl <18m	Nephrops trawl >18m	Scallop dredge
<b>Mean Gross Earning</b>	<b>£31,231</b>	<b>£5,746</b>	<b>£20,213</b>	<b>£93,556</b>	<b>£116,526</b>	<b>£22,338</b>	<b>£48,331</b>	<b>£19,407</b>
<b>Allocation by position of crew share (%)</b>								
Skipper - Crew share	56%	73%	49%	33%	20%	33%	50%	61%
Engineer - Crew share	30%	0%	0%	33%	17%	25%	20%	46%
Engineer - Contract	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Deckhand - Crew share	35%	44%	39%	23%	20%	32%	24%	37%
Deckhand - Contract	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>Distribution (est.) by position of crew (£)</b>								
Skipper - Crew share	£3,381	£1,447	£3,071	£7,667	£5,318	£2,207	£4,548	£3,369
Engineer - Crew share	£4,701	£0	£0	£7,667	£4,500	£1,672	£1,819	£2,542
Engineer - Contract	£1,574	£0	£0	£1,733	£1,477	£0	£1,591	£0
Deckhand - Crew share	£2,787	£887	£2,437	£5,344	£5,318	£2,140	£2,183	£2,072
Deckhand - Contract	£1,291	£0	£1,475	£1,182	£1,341	£1,272	£1,394	£1,100

# ANNEX 1: DATA COLLECTION

**Survey Design:** Data for the 2015 survey was collected using a face-to-face interviews with skippers and fishers on the quayside in all major ports and the majority of small harbours throughout Scotland (see Section 2 for the geographic distribution of surveyed vessels at the time of interviews). Marine Scotland developed the question used to collect data for the survey with input from Seafish. The questionnaire was tested in Peterhead and Fraserburgh at the start of September 2015. The survey used a revised final questionnaire to collect data throughout September and October of 2015.

**Survey Methods and Approach:** Seafish managed all the survey fieldwork and data entry. Four researchers were recruited and trained by Seafish on general survey skills and by Marine Scotland on use of the questionnaire. Seafish provided each researcher with a contact list for target vessels that used the ports and harbours they were assigned to interview from, and logistical support for the survey.

Participants were selected using a stratified purposive sampling approach by fleet segment. A random element was introduced at the port or harbour to select vessels that were present at the time of the interviews, although participation in the survey was purely voluntary. The survey targeted vessel skippers for information about the vessel and crew. Where skippers were not available, owners were interviewed.

The researchers carrying out the interviews shared with all survey participants the objectives of the data collection exercise, and assured them that all data collected would be anonymised before being delivered to Marine Scotland for analysis. Researcher only proceeded with the survey after respondents had given informed consent. Participants for the survey were mobilised using the Seafish Twitter feed and through a range of fishing industry contacts.

**Areas visited included the following;**

- Shetland and Orkney
- North and South Hebrides
- Ullapool, Kinlochbervie and Scrabster
- Wick and North East coast
- Skye and Kyle of Lochalsh
- Mallaig and Oban
- Tarbert, Campbeltown and Port Ellen
- Troon, Ayr, Ballantrae.
- Dumfries & Galloway
- East Lothian and Fife
- Arbroath to Aberdeen:
- Peterhead to Inverness

## Final sample size by fishing segment, gear type, main fishing area and length class.

### Annex 1A: Tables on sample breakdown.

Fishing segments	Population	Sample size	% of population
Demersal over 24m	30	10	33%
Demersal under 24m	37	13	35%
NS <i>Nephrops</i>	98	22	20%
Pair Trawl and seine	29	11	34%
Scallopers	98	23	22%
Under 10m demersal trawl/seine	60	15	20%
WOS <i>Nephrops</i>	123	34	26%
Total NS Pots and Traps	578	58	10%
Total WOS Pots and Traps	463	51	10%
<b>Grand Total</b>	<b>1,516</b>	<b>237</b>	<b>15%</b>

Gear type	Sample size	Length Class	Achieved Sample Size
Mobile	129	VL0010	113
Static	108	VL1012	17
Grand Total	237	VL1218	50
		VL1824	38
		VL2440	18
		VL40XX	1
		<b>Grand Total</b>	<b>237</b>

Main Fishing Area	Achieved Sample Size
NS	125
VIIA	11
WOS	100
Unknown*	1
<b>Grand Total</b>	<b>237</b>

**Fleet Classifications:** Vessels were clustered into high-level gear groups to ensure the sample for the survey was representative of: (a) vessels targeting different species and; (b) vessels of different length classes. This provided five fishing sectors for the survey:

1. pot and trap known as creel fishing;
2. demersal vessels under 24 metre;
3. demersal vessels over (>) 24 metre, seine and pair trawl;
4. *Nephrops* trawl and;
5. scallop dredger.

Vessels outside of these sectors (e.g. pelagic, gillnets etc.) were not included in the survey.



The analysis of remuneration costs in Section 9 disaggregated two of the sectors, *Nephrops* and pot and trap, each into two length classes to account of variations in earning potential between vessels in these sectors.

**Data Entry:** Researchers returned all completed questionnaires to the Seafish Office at the end of each week for data to be electronically captured. Seafish made extensive efforts to ensure data was of the highest possible quality. This included applying various data validation checks. Entries in the final dataset were anonymised by Seafish prior handing data over to Marine Scotland for analysis.

**Data Cleaning:** Overall, the quality of data delivered to Marine Scotland was high, which minimised effort expended on data cleaning. Data cleaning by Marine Scotland focused mainly on the remuneration cost data to:

1. ensure that vessel fishing variable costs (fuel, quota leasing, boxes, food, etc.), boat share (to vessel owner for, e.g. – legal fees, repairs, insurance, gear, etc.) crew share and payments to contract crew summed up to vessel gross earnings. Note this assumes none of the sampled vessels borrowed to fund fishing operations.
2. include all reported bonus payments in total crew remuneration costs. For contract crew, all expenses related to crew recruitment (e.g., payment for flights, agency fees, etc.) were included as crew remuneration costs.
3. to close gaps due to missing information. In a few cases where information on boat costs was missing, the analysis estimated the missing information using simple models based on data from vessels in the same segment. In the pot and trap sector a number of skippers reported that their crew remuneration came from vessel operating profits. Given the survey did not collect data on operating profit, the analysis modeled operating profit estimates for relevant vessels from Seafish Economic Fleet survey data.

**Annex 1B:** Crew share, estimated (Est.) salary and contract salary by position. Median and max/min (italics) values in the range are presented. Estimates are calculated using the mean gross earning for an average vessel in each sector.

Variable	Pots and Traps <10m	Pots and Traps >10m	Demersal <24m	Demersal >24m, seine and pair trawl
<b>Mean Gross Earning</b>	<b>£5,746</b>	<b>£20,213</b>	<b>£93,556</b>	<b>£116,526</b>
<b>Allocation by position of crew share (%)</b>				
Skipper - Crew share	73% (33-100%)	49% (30-100%)	33% (20-52%)	20% (15-50%)
Engineer - Crew share	0%	0%	33% (20-50%)	17% (14-25%)
Engineer - Contract	n/a	n/a	n/a	n/a
Deckhand - Crew share	44% (22-76%)	39% (18-50%)	23% (22-48%)	20% (14-50%)
Deckhand - Contract	n/a	n/a	n/a	n/a
<b>Distribution (Est.) by position of crew (£)</b>				
Skipper - Crew share	£1,447 (£655-1,986)	£3,071 (£1,873-6,242)	£7,667 (£4,647-12,081)	£5,318 (£3,855-13,294)
Engineer - Crew share	£0	£0	£7,667 (£4,647-11,616)	£4,500 (£3,802-6,647)
Engineer - Contract	£0	£0	£1,733 (£900-2,500)	£1,477 (£1,250-2,000)
Deckhand - Crew share	£887 (£437-1,330)	£2,437 (£1,124-3,121)	£5,344 (£5,111-11,152)	£5,318 (£3,616-13,294)
Deckhand - Contract	£0	£1,475 (£1,200-2,000)	£1,182 (£900-1,400)	£1,341 (£1,000-1,667)

**Annex 1B: Continued...**

	Nephrop <18m	Nephrops >18m	Scallop dredge
<b>Mean Gross Earning</b>	<b>£22,338</b>	<b>£48,331</b>	<b>£19,407</b>
<b>Allocation by position of crew share (%)</b>			
Skipper - Crew share	33% (25-100%)	50% (20-100%)	61% (33-100%)
Engineer - Crew share	25% (23-50%)	20% (20-25%)	46% (33-50%)
Engineer - Contract	n/a	n/a	n/a
Deckhand - Crew share	32% (22-50%)	24% (20-50%)	37% (20-50%)
Deckhand - Contract	n/a	n/a	n/a
<b>Distribution (Est.) by position of crew (£)</b>			
Skipper - Crew share	£2,207 (£1,672-6,688)	£4,548 (£1,819-9,096)	£3,369 (£1,831-5,547)
Engineer - Crew share	£1,672 (£1,538-3,344)	£1,819 (£1,819-2,274)	£2,542 (£1,831-2,774)
Engineer - Contract	£0	£1,591 (£1,000-3,000)	£0
Deckhand - Crew share	£2,140 (£1,471-3,344)	£2,183 (£1,819-4,548)	£2,072 (£1,109-2,744)
Deckhand - Contract	£1,272 (£900-2,000)	£1,394 (£980 - 2,700)	£1,100 (£950-1,200)

## How do you pay your crew? (example)

PLN: BXXX

Vessel gross earnings (revenues) per month  
 £ 30,000

**How do you divide the crew share?**  
**What do you pay your contract crew?**  
 e.g. equal share each; half a share for a deck hand; Bonus?

Skip. # 1 CS 40% &/or £ \_\_\_\_\_  
 Eng. # \_\_\_\_\_ CS \_\_\_\_\_% &/or £ \_\_\_\_\_  
 Eng. # \_\_\_\_\_ CS \_\_\_\_\_% &/or £ \_\_\_\_\_  
 DecH. # 2 CS 30% &/or £ \_\_\_\_\_  
 DecH. # 2 CS \_\_\_\_\_% &/or £ 1100  
 DecH. # \_\_\_\_\_ CS \_\_\_\_\_% &/or £ \_\_\_\_\_

How many trips per month? 5  
 Length of trip 4

£ 21,000 left after variable costs

**Contract crew**  
 fixed contract/agency crew  
 £ 2,200

50% to crew  
 £ 10,500

**Fishing (Variable) costs:**  
 fuel, quota leasing, boxes, ice, food, crew travel, harbour dues, shore labour, bait, etc. £ 9,000

**Crew share**  
 £ 8,300 shared out between staff on crew share

50% to boat  
 £ 10,500

**Boat share** £ 10,000  
 Vessel owner costs: Legal fees, hire & maintenance, repairs, gear, insurance £ 7,500  
 => **Operating profit:** £ 2,500

# ANNEX 2: SEAFISH SEGMENTS AND REPORTED CLUSTERS

High-level Groupings	Mid-level Groupings	SeaFish Segments
Pots and traps	Pots and traps NS Pots and traps WOS Pots and traps <10m Pots and traps >10m	Low activity over 10m  Low activity under 10m Pots and traps 10-12m Pots and traps over 12m Under 10m demersal trawl/seine Under 10m pots and traps
Demersal all other	Demersal all other	Miscellaneous NSWOS demersal over 24m NSWOS demersal pair trawl seine NSWOS demersal seine NSWOS demersal under 24m over 300kW
Demersal under 24m	Demersal under 24m	NSWOS demersal under 24m under 300kW
<i>Nephrops</i>	<i>Nephrops</i> NS <i>Nephrops</i> WOS <i>Nephrops</i> <18m <i>Nephrops</i> >18m	Low activity over 10m Low activity under 10m Miscellaneous North Sea <i>Nephrops</i> over 300kW North Sea <i>Nephrops</i> under 300kW Under 10m demersal trawl/seine Area VIIA <i>Nephrops</i> over 250kW Area VIIBCDEFGHK trawlers 10-24m WOS <i>Nephrops</i> over 250kW WOS <i>Nephrops</i> under 250kW
Scallop Dredge	Scallop Dredge	UK scallop dredge over 15m UK scallop dredge under 15m





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