




European Fisheries Fund



Report on the Survey of Recreational Sea Angling in Northern Ireland

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Further information

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Summary

This survey was developed to increase the information available on sea angling in Northern Ireland. Whilst there have been previous studies, these have primarily examined the social and economic contribution of sea angling. To date there is limited information on

- Who participates in sea angling in Northern Ireland
- What areas are important to sea anglers
- What species are targeted/caught
- The habits and attitudes of sea anglers in Northern Ireland

In total there were 208 responses to the survey. Based on the number of days spent sea angling in the 12 months prior to completing this survey, there was a spread from those who fish only a few days a year to those who fish 200+ days a year.

The majority of respondents were males between the ages of 35 and 65 years. This is in-line with previous studies across the United Kingdom. 73% of respondents were not associated with a Sea Angling Club and most do not participate in competitions. As online surveys can be biased towards the more enthusiastic, this is positive for the survey as we received responses from the full range of anglers.

Whilst most respondents were from Northern Ireland, there were also responses received from England, Scotland, Wales and Ireland. However, some of these respondents had never been to Northern Ireland for sea angling, with the perceived political situation and a lack of available information on sea angling being highlighted as reasons. The majority would however like the opportunity to fish in Northern Ireland.

Whilst sea angling occurs throughout the year, activity peaks in the summer months and is more restrictive for those who carry out boat based angling. The most common type of sea angling is shore based. The number of days spent angling from the shore in the previous 12 months averaged at 32.5. For boat based angling the number of days averaged at 20.

Reasons which would lead to an increase in the time spent sea angling included if there were more fish, better weather or restrictions on commercial fishing. The most common reasons which would reduce the time spent angling were falling catch rates, irresponsible anglers, and an introduction of regulations, licences or charges.

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The most common species targeted by sea anglers were pollack and mackerel and indeed these were the species caught most frequently. In the last three months, an average of 3.5 cod were caught per respondent fishing from the shore and 0.3 cod caught from a boat. For bass, an average of 1.9 bass were caught per respondent fishing from the shore over the previous 3 months, and 0.3 for those fishing from a boat.

The majority of respondents believe that catches of their target species have got worse in the last 5-10 years, with a decrease in both the numbers and size of fish being caught. Many believe this is due to commercial pressures and the removal of juvenile animals by irresponsible anglers. 85% of respondents believe that anglers could do more to reduce the impact they have on the environment by returning undersized animals and tidying their fishing spot before they leave. 93% of respondents recognise the benefits of fish tagging and would support a Northern Ireland tagging scheme with some already participating in the Scottish and Irish programmes.

Annual expenditure on high priced items was higher for boat anglers than shore anglers, primarily due to the costs associated with the purchase and maintenance of a boat and boat storage. Similarly, expenditure per trip was higher for boat based angling due to the additional costs of launch fees and boat fuel or boat charter.

Whilst there were peaks in the areas selected for sea angling (Portrush was identified as the number one location), activity was reported around the entire coastline.

Background

Northern Ireland waters are extremely diverse, offering a wide range of fishing opportunities for recreational sea angling. Northern Ireland waters host approximately 30 species of sharks, skates and rays which are highly valued by sea anglers (AFBI, 2009). Currently the number of people in Northern Ireland who participate in sea angling is unknown as, unlike freshwater angling no permit is required and therefore there are no lists available of active sea anglers. A survey carried out in 2005 by PriceWaterHouseCoopers (PwC) (on behalf of the Department of Culture, Arts and Leisure, The Loughs Agency of the Foyle, Carlingford and Irish Lights Commission and the Northern Ireland Tourist Board) on the social and economic impacts of angling (freshwater and sea angling) in Northern Ireland estimated that there were 5,601 resident recreational sea anglers in Northern Ireland at that time. The PwC survey included document review, semi-structured interviews with key stakeholders such as the Northern Ireland Tourist Board and DCAL (Department of Culture, Arts and Leisure), structured interviews with angling clubs and a postal survey to individual anglers.

Under the EU Data Collection framework and EU Council Regulation 1224/2009 the devolved UK Governments are obligated to collect information on recreational catches and the impacts of recreational sea angling. In order to meet the requirements set out by the EU, in England the Marine Management Organisation (MMO) has set up a sea angling survey "Sea Angling 2012", based on the methods used by the Marine Recreational Information Programme in America, to increase the scientific knowledge of fish stocks and to ensure that anglers are fully represented in future decision making. Speaking about Sea Angling 2012 the UK Fisheries Minister Richard Benyon said *"I want sea angling to have a bright future, but to achieve this we must understand what sea anglers are catching, what is being returned alive, and the economic and social benefits the sport provides. This is a chance for sea anglers to make sure their interests are taken into account when policies to improve and conserve fish stocks around our coast are developed"*.

In Wales, work is being carried out to map commercial and recreational fishing intensity in the FishMap project. This work includes monitoring the location of effort of shore based sea anglers. This work also examines the benthic habitat and its sensitivity in order to improve the management and sustainability of commercial and recreational fisheries in Wales.

In Scotland, the approach being taken is to carry out surveys of charter boats to collect information on angling catches.

As part of the Northern Ireland Inshore Fisheries Strategy project, the Agri-Food and Biosciences Institute (AFBI) launched an online questionnaire to collect information on Sea

angling habits, catches, opinions etc. For comparison purposes the questions within the AFBI survey are comparable to those from the English surveys. Whilst this was an online survey, downloadable and paper copies were also made available for anyone who did not have access to the online version (no responses were received by means other than the online survey). Flyers and posters were placed in tackle shops to advertise the survey as well as a press release, information placed on departmental and sea angling websites, flyers were left in Council offices and mentions were placed on social media pages.

Key information targeted by this survey included

- Who is participating in sea angling in Northern Ireland?
- What areas are important for sea angling in Northern Ireland?
- What is the economic cost of sea angling in Northern Ireland?
- What is being targeted/caught by sea anglers in Northern Ireland?
- What are the habits and attitudes of recreational sea anglers in Northern Ireland?
- Are there potential areas of development for sea angling in Northern Ireland?

Summary of Previous Studies

A number of angling based studies have taken place across the UK, however these are primarily to estimate the economic importance of the sector and do not go into detail on the habits and attitudes of sea anglers.

In 2000 a report prepared for the National Assembly for Wales estimated that, in Wales, there were 12,000 local anglers and 28,000 visiting anglers (in this instance visitors were deemed as not necessarily people from outside of Wales, but may be people visiting the coastal area). The estimated expenditure was £28 million, £21.8 million of which came from visiting anglers.

In 2004 a report commissioned by the Department for Environment, Food and Rural Affairs (Defra) estimated total expenditure of sea anglers in England and Wales to be worth £538 million annually with angling expenditure supporting over 18,500 jobs and providing £71 million in income to suppliers (Drew Associates, 2004). It was also estimated that 1.11 million households and an estimated 1.45 million individuals participated in sea angling (including children under 12 years old).

In 2005 Simpson and Mawle assessed the levels of participation in sea angling in England and Wales and estimated that 3 million people over the age of 12 were active sea anglers.

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In Northern Ireland it was estimated that in 2005, whilst game angling was the most popular form of angling, there were over 5,000 sea anglers with 2,923 anglers fishing from the sea and 2,138 fishing from shore. It was estimated that the spending of local sea anglers on expenses such as food, boat hire, travel costs etc was £1,459 per angler per year giving an estimated gross expenditure of £7.4 million by local anglers. The report also estimated that in 2005 Northern Ireland hosted 450 visiting anglers for the sole reason of engaging in sea/shore angling (Pricewaterhousecoopers, 2007).

In 2008 a survey was carried out in Scotland to determine the economic importance of sea angling as well as its geographical distribution and key characteristics and trends. It found that the majority of sea anglers in Scotland were middle aged (35-64) males. The estimated numbers of days spent angling differed depending on the survey technique ranging from 19 (based on an omnibus survey) to 31 (based on an internet survey). It reported that angling from a boat was more popular than shore angling and attributed this to the difficulty in finding safe areas for shore angling, particularly on the West coast. The expenditure on sea angling trips was estimated at £140 million with around 3,000 jobs and £70 million of income supported by sea angling (Donnelley *et al.* 2009).

In 2009, the Watersports and Leisure Participation survey estimated that there were over 1.33 million anglers (boat and shore) in the whole of the United Kingdom with 81,000 anglers in Northern Ireland. This includes freshwater anglers (British Marine Federation *et al.* 2011).

In 2012 Defra launched Sea Angling 2012. This extensive year long survey was carried out to estimate the number of sea anglers in England, the socio-economic value of sea angling, catch statistics etc. The survey used several channels to collect information including the Office of National Statistics (ONS), online surveys, face-to-face interviews and catch diaries. In the final report published in 2013, it estimated that 2% of the English population participate in sea angling, an estimated 884,000 individuals contributing £1.23 billion to the English economy (Armstrong *et al.*, 2013).

Whilst there is a lot of variation in the figures estimated, what is clear is the significant economic contribution that sea angling makes to the UK economy and the support it provides to coastal areas and local businesses.

Participation in Recreational Sea Angling in Northern Ireland

A question was placed into the AFBI-Economics 2012 Landscape study which was carried out during May and June 2012. The Landscape survey sample was based on the Northern Ireland population aged over 18. The respondents were selected using a two stage random sample plan based on Probability Proportionate to Size (PPS). A sample of thirty-five electoral wards was drawn in the initial stage using a systematic sampling process following a random start. To ensure the selected electoral wards represented both urban and rural wards, these wards were first ordered on a rural-urban basis. Quota sampling was then undertaken within the selected wards to ensure the sample was representative at the ward level based on age, gender and socio-economic classification. It was shown that the sample reflected closely both the ward level and the Northern Ireland population in relation to gender, age and socio-economic status. Within this questionnaire, respondents were asked:

“Do you undertake any of the following activities in the countryside of Northern Ireland?”

A list of potential activities was provided. One of the potential responses was “angling.” Of the 617 respondents within this survey 56 (9%) stated that they undertook angling.

The respondents who stated that they participated in angling were asked:

Do you go fishing on the:

Sea (by boat or on the coast)

Fresh water (e.g. in-land Loughs, rivers, streams)

Both

Nine responded that they participate in sea angling, with a further 13 taking part in both sea and freshwater angling. This equates to 1.5% of the respondents who solely carry out sea angling with a further 2.1% participating in both sea and freshwater angling.

Who participates in Sea Angling within Northern Ireland

In total 208 people responded to the online sea angling survey. Of those who answered the personal questions, 98.7% were male with the remaining 1.3% being female (the gender ratio in Northern Ireland is currently 51% female and 49% male). It is acknowledged that sea angling is carried out by more males than females, with male dominance being reported in previous surveys carried out across the UK (Drew Associates, 2004 reported 97% in England and Wales; Donnelly *et al.* 2009 reported 85% in Scotland; Brown *et al.* 2013 reported 98% in England).

The modal age class of respondents was between 35 and 49 which represented 39.5% of those who completed the question (Figure 1). This was closely followed by the 50 to 65 year olds which represented 38.9% of respondents. Therefore, based on this survey, over 78% of those who participate in sea angling in Northern Ireland are between the ages of 35 and 65. Across the UK it has previously been recorded that the most active anglers are middle aged (British Marine Federation *et al.* 2011; Donnelley *et al.* 2009), with the Drew report reporting that approximately 74% of those who participate in sea angling in England and Wales were between the ages 35 and 64 (Drew Associates, 2004). Those 24 and under represented only 4.5% of respondents.

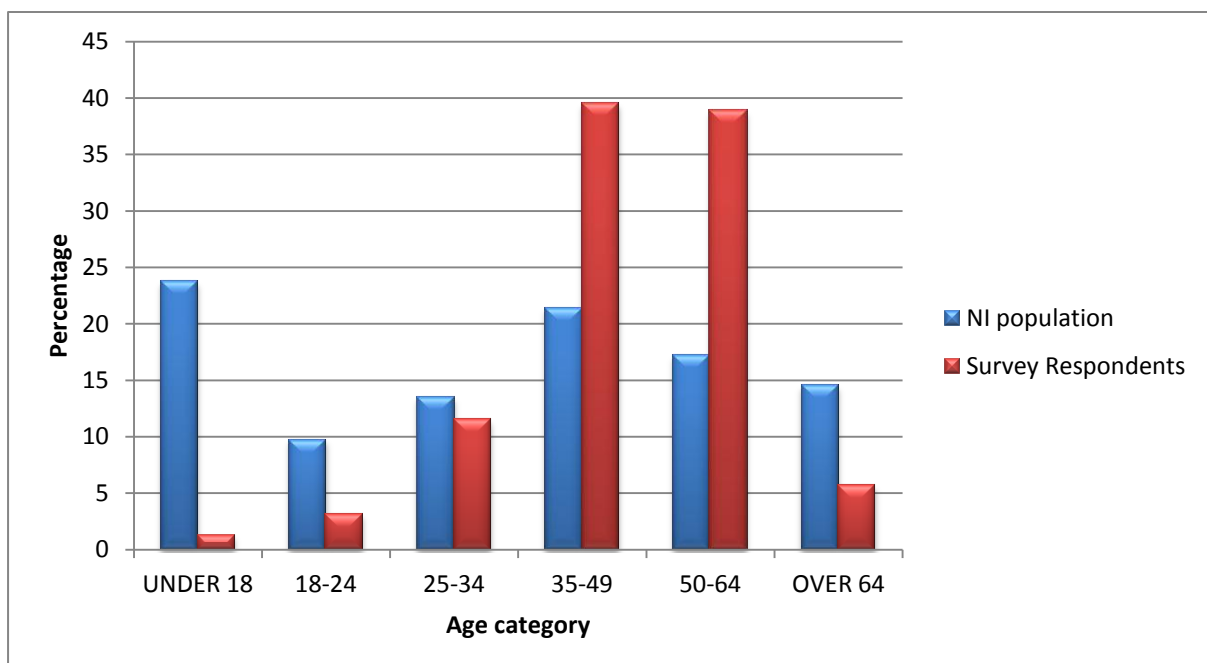


Figure 1 The age structure of respondents peaked between 35 and 66 years of age. This is shown in relation to the age structure of the Northern Ireland population in 2011 (Northern Ireland Statistics and Research Agency, 2012).

In addition to providing their own details, those responding to the survey were asked to provide the details of individuals who accompanied them on their last sea angling trip (Figure 2). Respondents gave the sex and age of a further 516 individuals who were with them on their last trip. 84% of these people were males over the age of 16. The category with the lowest response was females under 16 which only represented 4% of the overall total. Again, the dominance in males is evident from this.

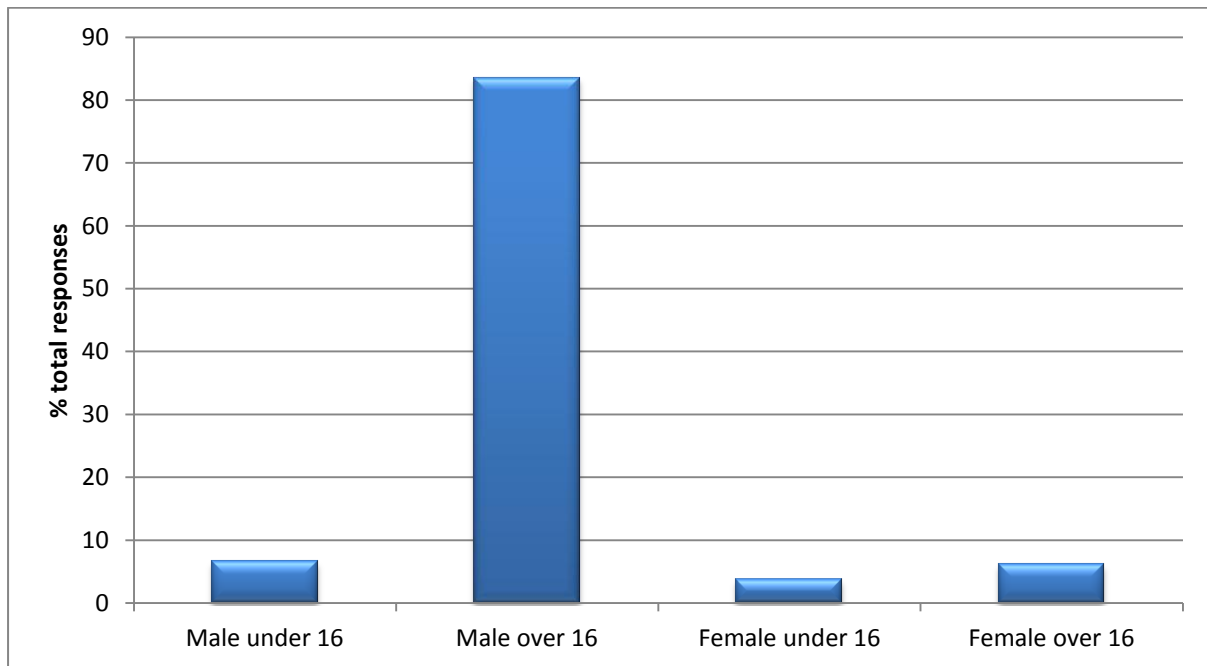


Figure 2 Number of people reported by the respondents to be with them on their last sea angling trip

Employment status of respondents

In terms of employment, 64% of respondents said they were in full time employment with a further 13% describing themselves as self employed or in part time/casual employment (Figure 3 shows the breakdown in terms of employment status of respondents). This employment figure is higher than the employment status of the general Northern Ireland population aged 16 to 74. However, this may be an artefact of those who participate in sea angling. We have shown in this report that it is 35 to 65 year old males who participate more regularly in sea angling. The employment levels in this section of the population are higher than employment levels of the general population (i.e. totals when females are included). For males aged 35-44 living in Northern Ireland, the employment level in 2010-11 peaked at

86% whilst for 45-54 year old males it is 75% (Northern Ireland Statistics and Research Agency, 2013). These findings are similar to those reported by the British Marine Federation *et al.* (2011) who found that, across the UK, 72% of boat anglers and 68% of shore anglers are in employment.

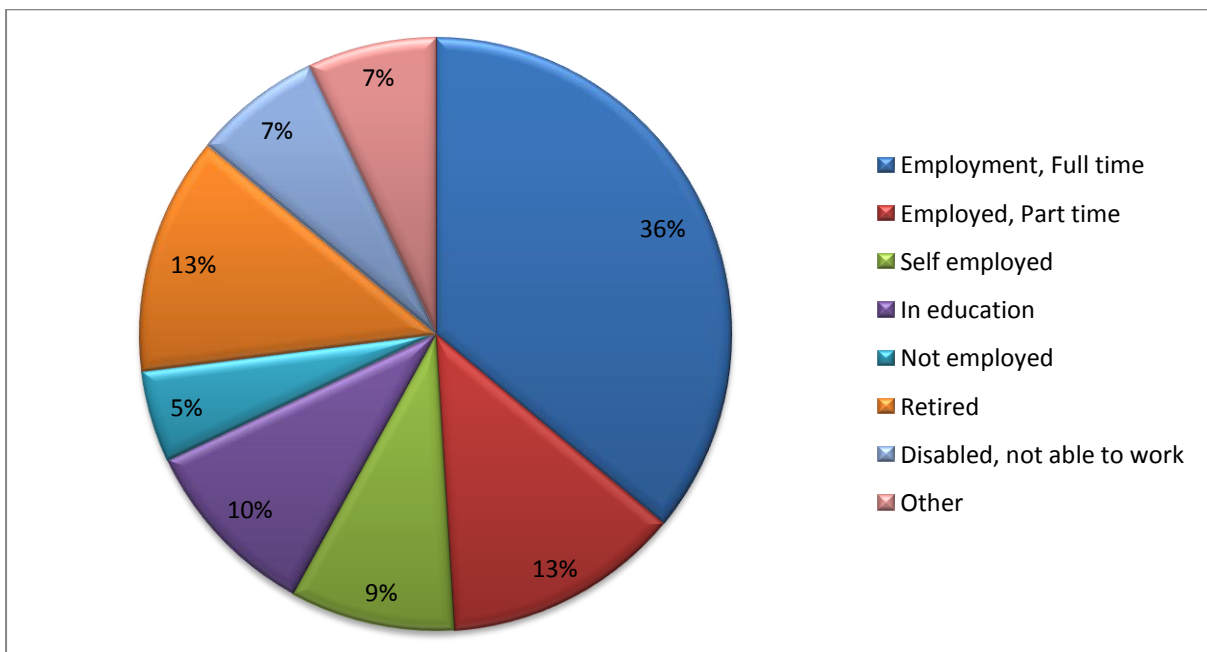
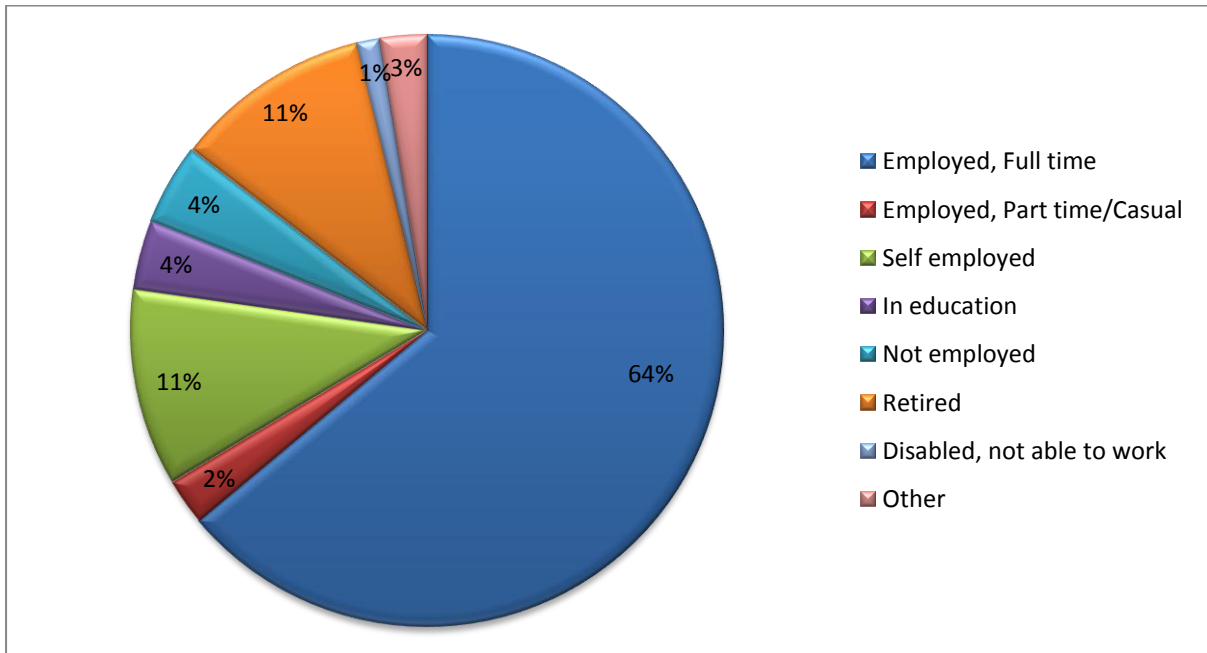


Figure 3 Employment status of respondents (top) and overall economic activity in Northern Ireland for all residents aged 16-74 (bottom). Northern Ireland population statistics taken from Northern Ireland Statistics and Research Agency, 2012.

Household income of respondents

Of those who answered the question on income 14% did not wish to disclose this information. Whilst the weekly income ranges used in this survey are slightly different to those used in the Northern Ireland Statistics and Research Agency (NISRA) surveys, the responses to this survey were rounded up to the nearest hundred for comparison purposes (Figure 4). As can be seen, whilst the household income of respondents follows that of the general population from a total income of £400 plus per week, at the lower end of the scale, the percentage of respondents earning in the lower categories is lesser in comparison to the general Northern Ireland population. In 2010-11 the UK median net household income was £419 per week (NISRA). This would indicate that the majority of respondents have a total household income similar to, or higher than, the UK average.

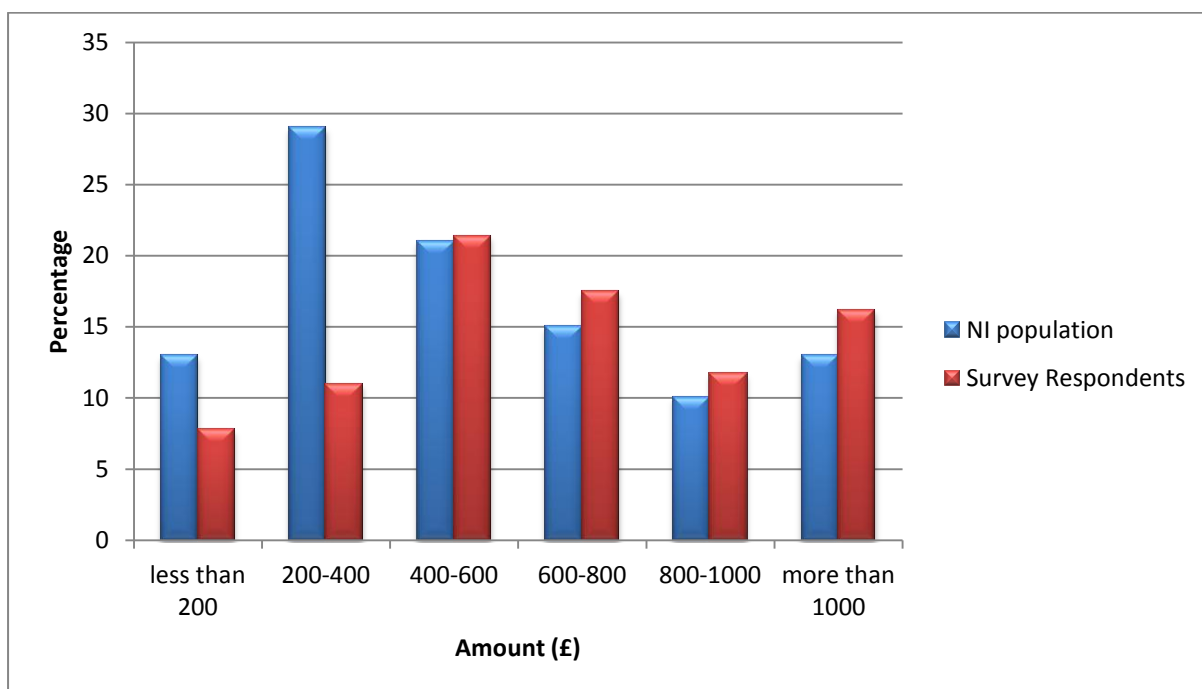


Figure 4 Total weekly household income of respondents in comparison to the weekly household income of the Northern Ireland general population (Northern Ireland Statistics and Research Agency, 2013).

Home location of respondents

The majority of responses were received from those who live within Northern Ireland (Figure 5). However there were also responses from visitors from England, Scotland, Wales and Ireland which accounted for 13% of those who answered this question. Within Northern Ireland, the majority of respondents live close to the coast. This may reflect a higher proportion of sea anglers living beside the sea. Alternatively, this may be an artefact of the publicising of the survey, for example flyers left in tackle shops, which are predominately located at the coast. However, press releases, updates on websites etc should have alleviated such sampling bias.

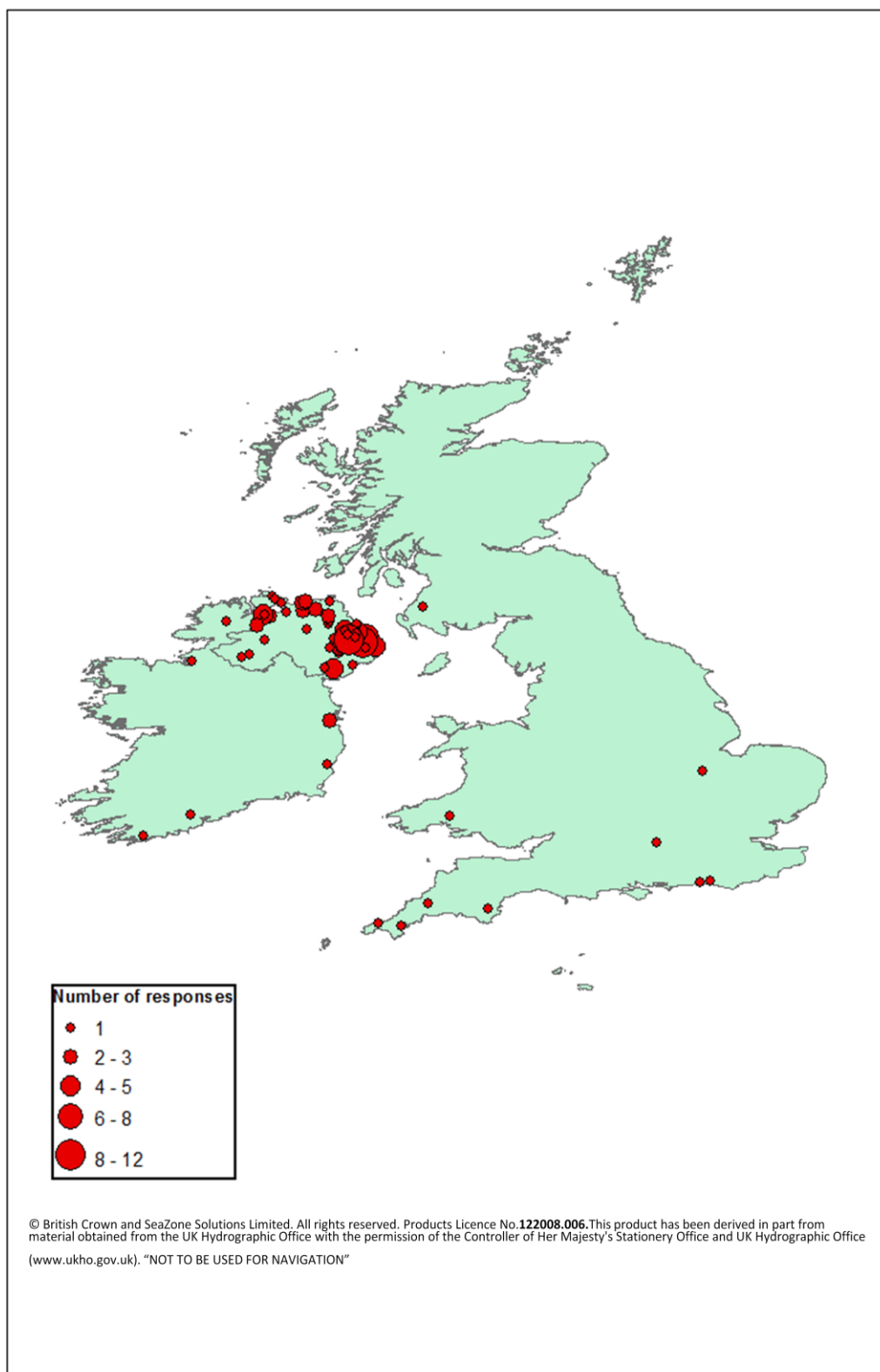


Figure 5 Home location of respondents

Where respondents have been sea angling in the 12 months prior to the survey

87% of people who completed the survey had been sea angling in Northern Ireland within the last 12 months (Figure 6). 46% of respondents had participated in sea angling in the Republic of Ireland. Between 6.3% and 8.3% recognised having fished in Mainland UK in the previous 12 months (this includes visitors to Northern Ireland from England, Wales and Scotland but is not solely accounted by them).

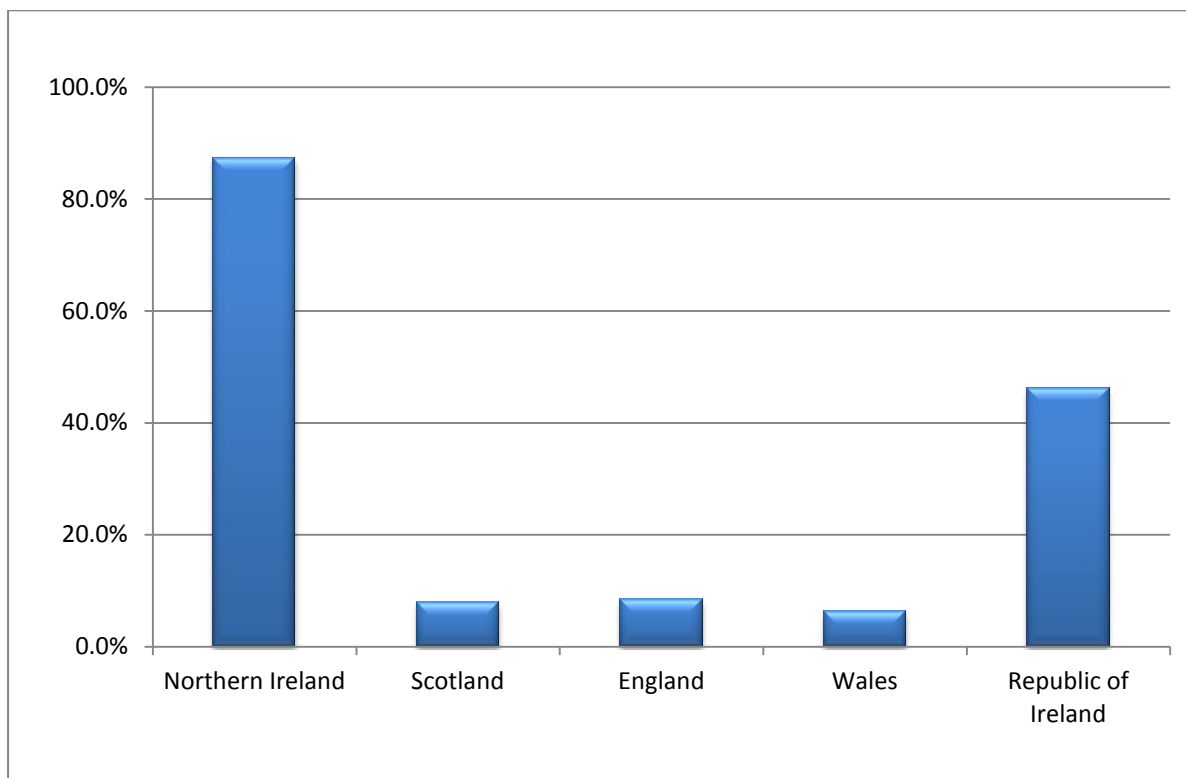


Figure 6 Indication of where respondents have been sea angling in the 12 months prior to completing this survey

Of those who had not been sea angling in Northern Ireland in the last 12 months (24 respondents), 67% had never been sea angling in Northern Ireland. When asked if they had ever considered coming to Northern Ireland to participate in sea angling, 81% of these (13 respondents) answered that they had indeed considered coming to Northern Ireland. Whilst reasons for considering fishing in Northern Ireland included the opportunity to fish sea bass and to be closer to home, the majority responded that they wanted to explore the Northern Ireland coast and scenery with the Causeway Coast being highlighted as somewhere which looked “fantastic”. However, they also had a number of concerns including the cost of

travelling, time, the perceived political situation, poor marketing and the availability of sea bass. Of those who had never considered coming to Northern Ireland, the explanations received included the perceived political situation and that they did not have sufficient information on angling in Northern Ireland.

For respondents who had previously participated in sea angling in Northern Ireland, but not in the 12 months prior to completing this survey, the length of time since last sea angling in Northern Ireland averaged at 6 years and ranged from 1 year to 20 years. All these respondents agreed that they would consider returning to Northern Ireland to participate in sea angling in the future.

Sea Angling Habits in Northern Ireland

Reasons why respondents go sea angling

In terms of what was the most important aspect of sea angling, “to relax and get away from things” was selected by most respondents (48%) as being very important closely followed by “to be outdoors and/or active” which was chosen as the most important by 46% of respondents (Figure 7). However, in terms of average overall score attributed to each reason (which ranges from one for not important to five for very important), to be outdoors and/or active received the highest average score. Interestingly, in terms of what was least important to sea anglers “to catch lots of fish” was selected the most often followed by “to catch a particular size of fish”. In terms of overall rating, these two reasons scored the lowest overall. With rates of people taking part in competitions low, and catching a certain species of fish or a particular size of fish selected with low importance, it appears that whilst there are some competition anglers, and anglers who are after a particular species or size of fish, the majority of sea angling in Northern Ireland is carried out by pleasure anglers.

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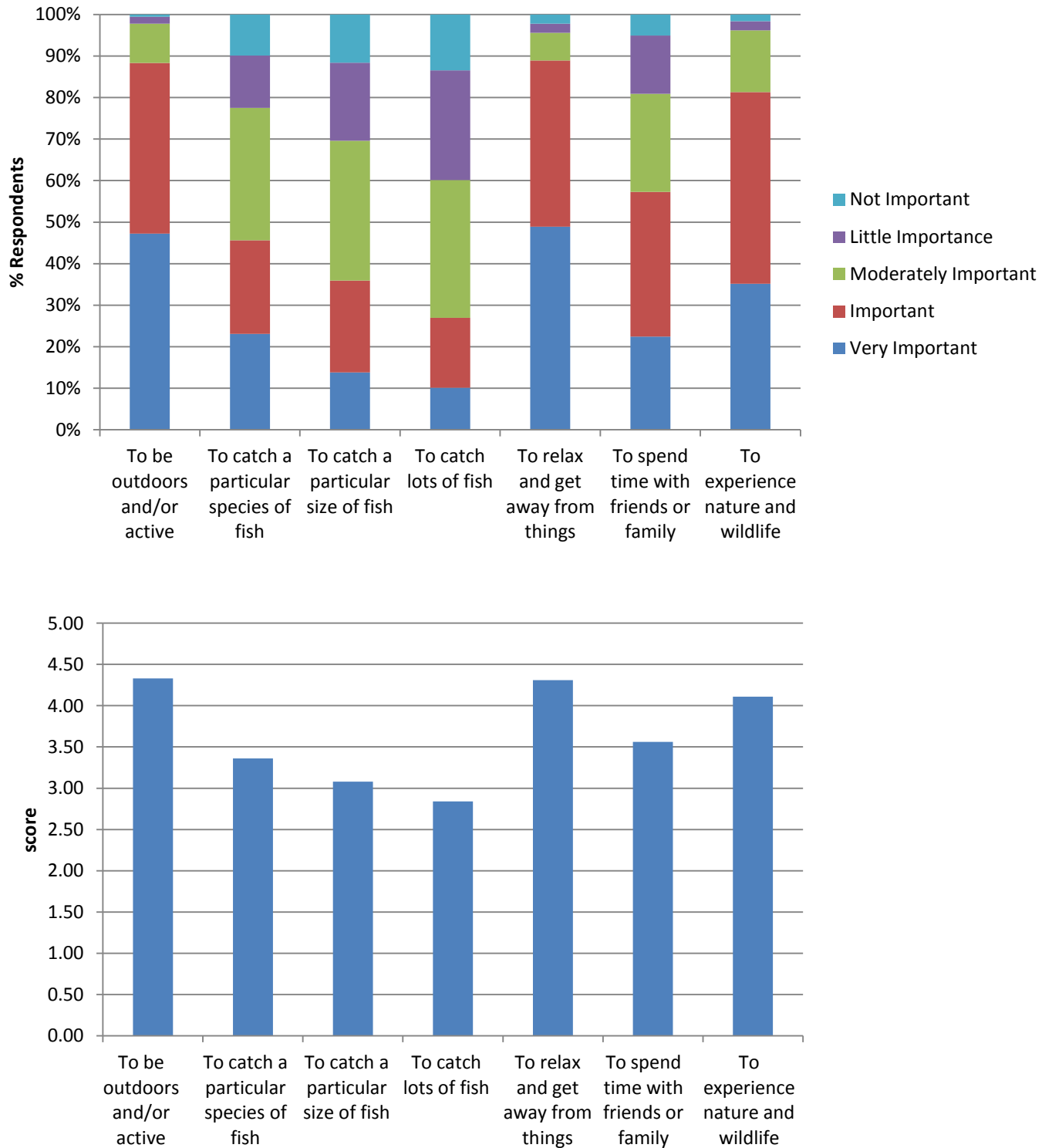


Figure 7 Reasons why respondents go sea angling. Scores were given to each response with Not Important scoring 1, Little Importance scoring 2, Moderately Important scoring 3, Important scoring 4 and Very Important scoring 5. The total score was then divided by the number of responses to that question to give an average score.

How respondents participate in Sea Angling

Sea anglers were asked how they carried out their sea angling. The most common response (36%) was that this was always carried out from the shore (indeed, for 75% of respondents their first experience of sea angling was shore based). 22% responded that they carry out shore and boat based angling at equal levels whilst 21% indicated that they mostly angle from the shore (Figure 8). 15% carried out sea angling always using a boat with 7% mostly angling from a boat.

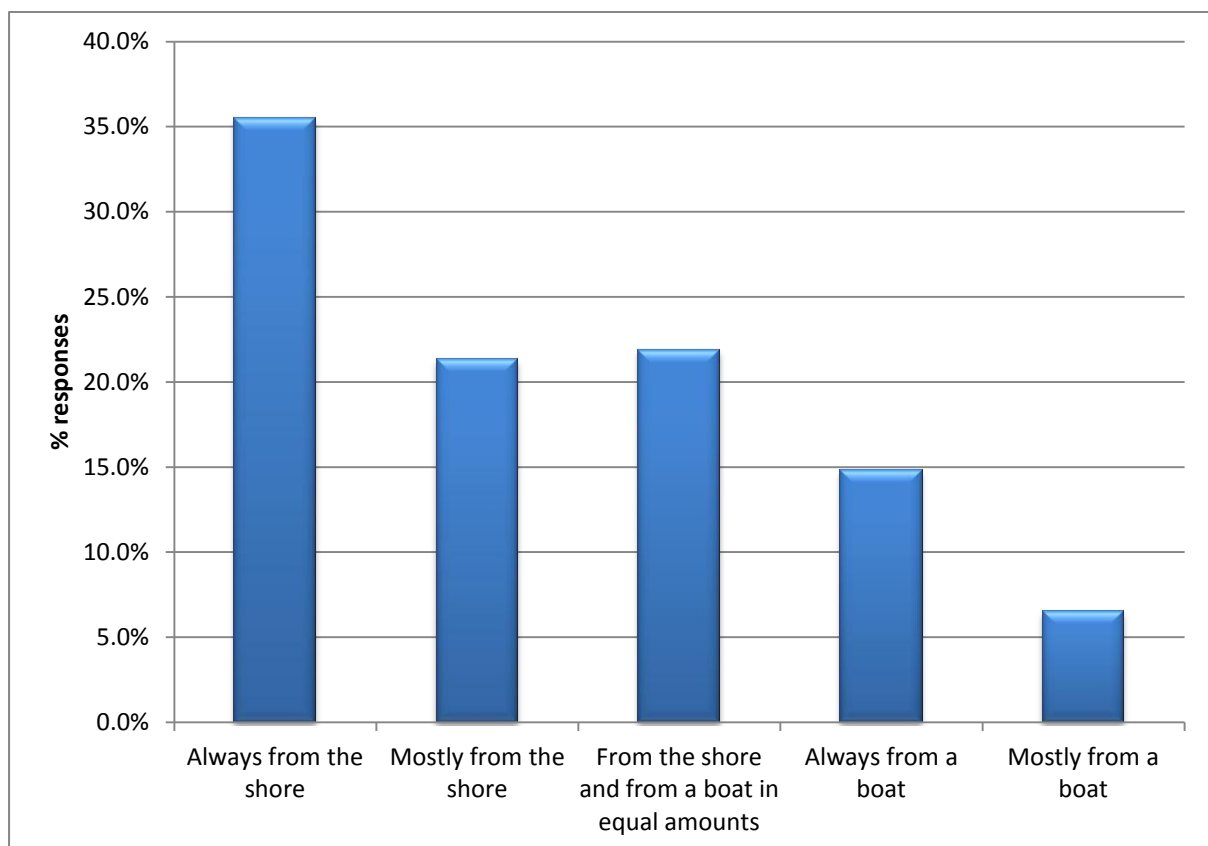


Figure 8 Breakdown of the how sea anglers participate in angling, shore or boat based

Number of days respondents have participated in sea angling in the last 12 months

Of those who have been sea angling in Northern Ireland in the 12 months prior to completing the survey, the number of days ranged from 1 to 365 (Figure 9). The average number of days spent sea angling in the last 12 months was 36.5 days, the median was 18 days and the modal range of days was between 1 and 9. The spread in responses for this question shows that we have received responses from both pleasure anglers and those who are

extremely dedicated to sea angling. These findings are higher than had been reported in the PriceWaterHouseCooper report (2005) which found that the maximum number of days reported for sea angling from the shore was 90 whilst from a boat the maximum number of days was 99.

When asked to break down the number of days spent sea angling from the shore and from a boat (Figure 10), the average number of days spent angling from the shore was 32.5 days per year (ranging from 3 days to 180 days). The number of days spent sea angling from a boat in the last 12 months averaged at 20 days (ranging from 1 to 200 days).

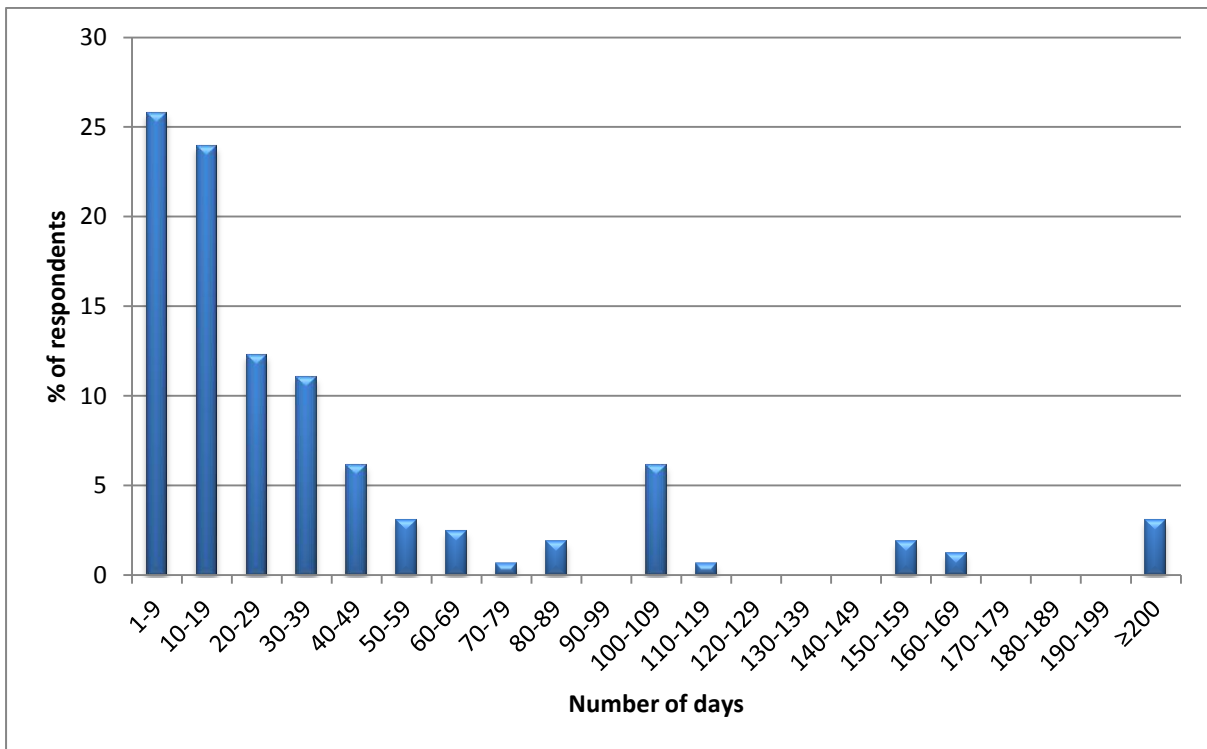


Figure 9 Number of days respondents have participated in sea angling in the last 12 months

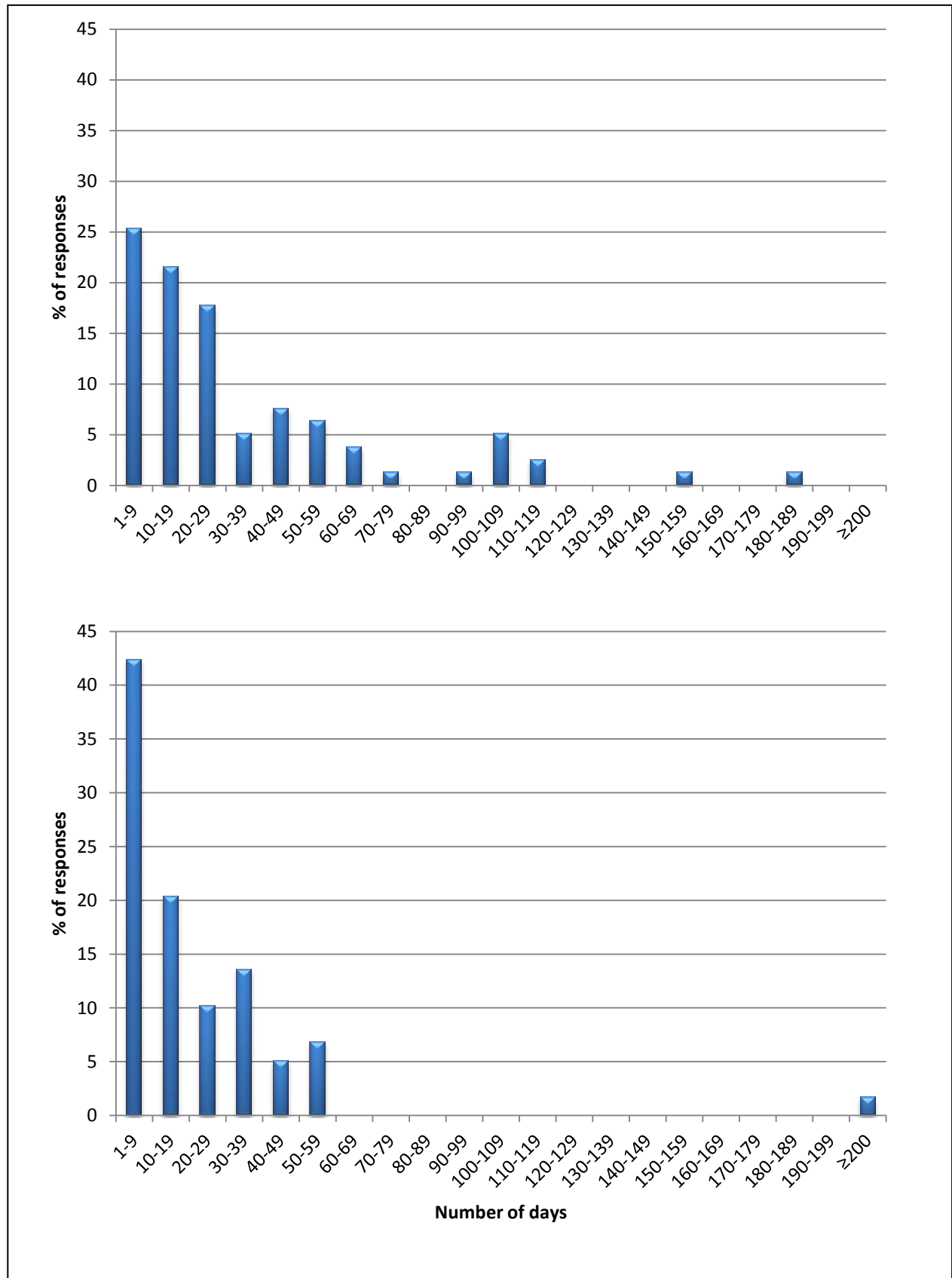


Figure 10 Number of days spent sea angling in the last 12 months from the shore (top) and boat (bottom)

Reasons given by respondents that would cause them to increase the amount of time they spend participating in sea angling

When asked if there was anything which would increase the amount of time spent sea angling, the most common answer was if there was more fish (Figure 11). The next most common answer, with 24 mentions, was an improvement in weather followed by restrictions to commercial fishing which received 17 mentions. The cost of sea angling was mentioned by 16 respondents who said they would participate in sea angling more if they had more disposable income, there were lower fuel/travelling costs or boat charter/launch fees were reduced.

Other areas which were suggested as improving sea angling included better access, better knowledge on where to fish, what fish are in which areas etc, and better facilities available such as bins and toilets. These are all issues which were again raised in the additional comments section at the end of the survey.

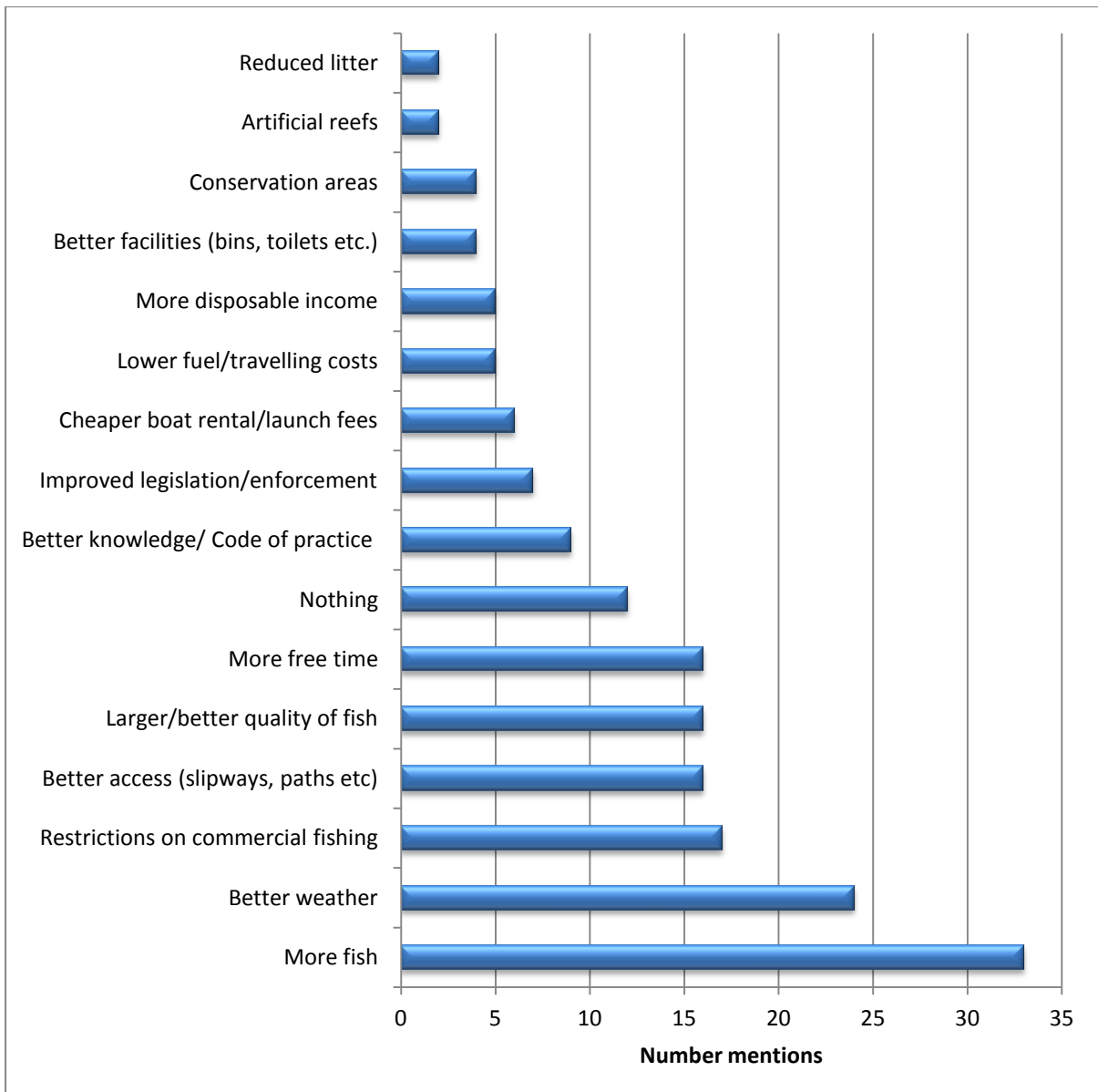


Figure 11 Reasons given by respondents that would cause them to increase the amount of time they spend participating in sea angling

Reasons given by respondents that would cause them to decrease the amount of time they spend participating in sea angling

When asked if there was anything which would decrease their time spent sea angling, the most common response was that if fish catches continue to fall (Figure 12). This was mentioned by 48 respondents. The next most frequent response was that nothing would reduce the amount of time spent sea angling. Other responses included irresponsible anglers (landing juvenile fish), an introduction of legislation or licences, reduction in the quality of the experience through reduced water quality, increased litter and worsening

weather. One respondent indicated that if their catches increased they would reduce their time spend sea angling “if I were catching more keepable fish I would likely go less as I would be more satisfied with my experience and not chasing a good catch”.

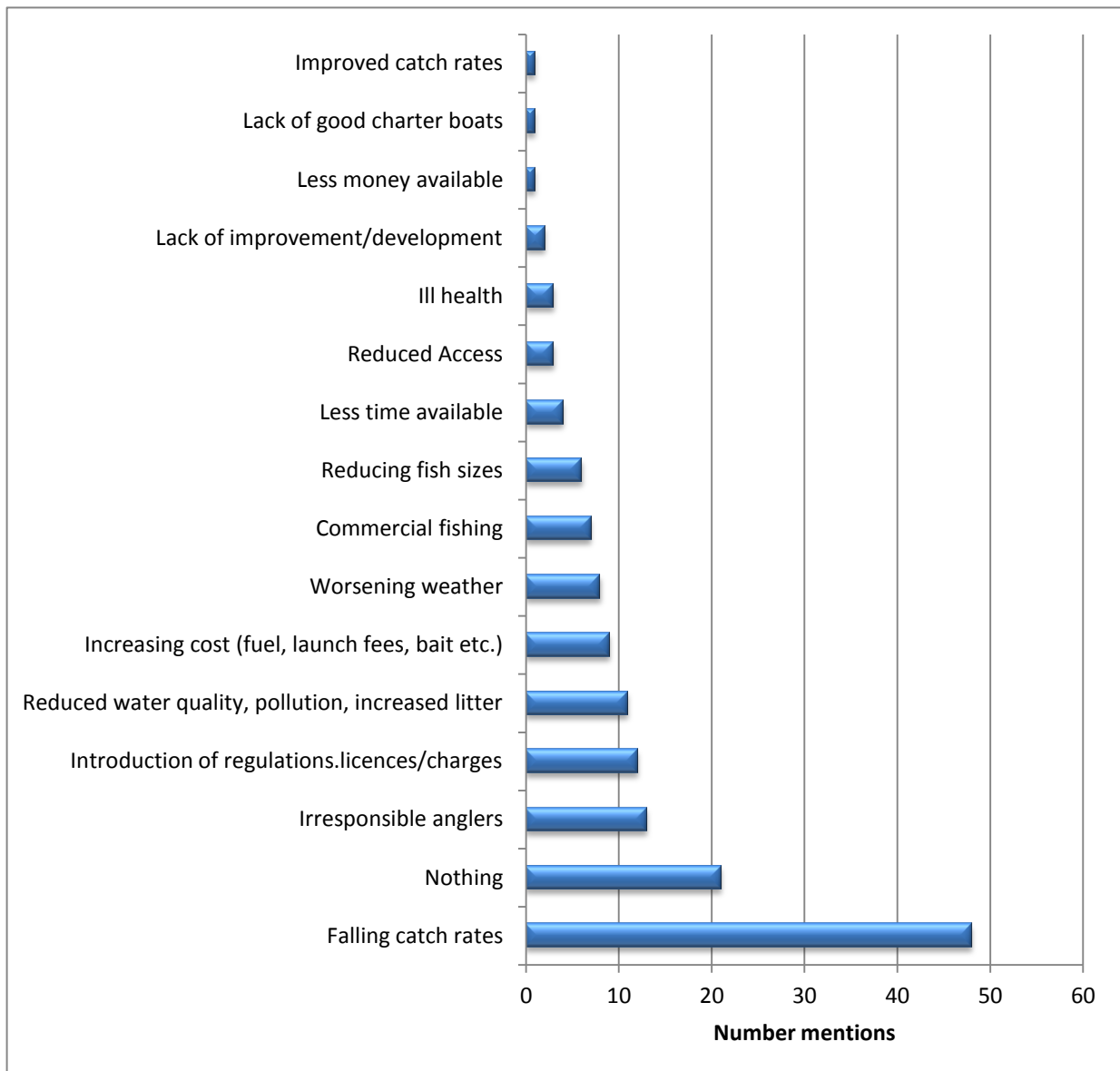


Figure 12 Reasons given by respondents that would cause them to decrease the amount of time they spend participating in sea angling

Bait used by sea anglers

When asked what bait was used when they went sea angling from the shore, the number one response for shore anglers was ragworm (Figure 13). For those who mostly fish from a boat, the main bait of choice was mackerel (Figure 13). However, a wide range of bait was used by both shore and boat anglers.

When asked where they got their bait from, the most popular answer for shore and boat anglers was that it was a mixture of shop bought and self-collected bait (Figure 14). For the remaining respondents, more boat anglers stated that they usually collect their own bait whilst more shore anglers mostly bought their bait.

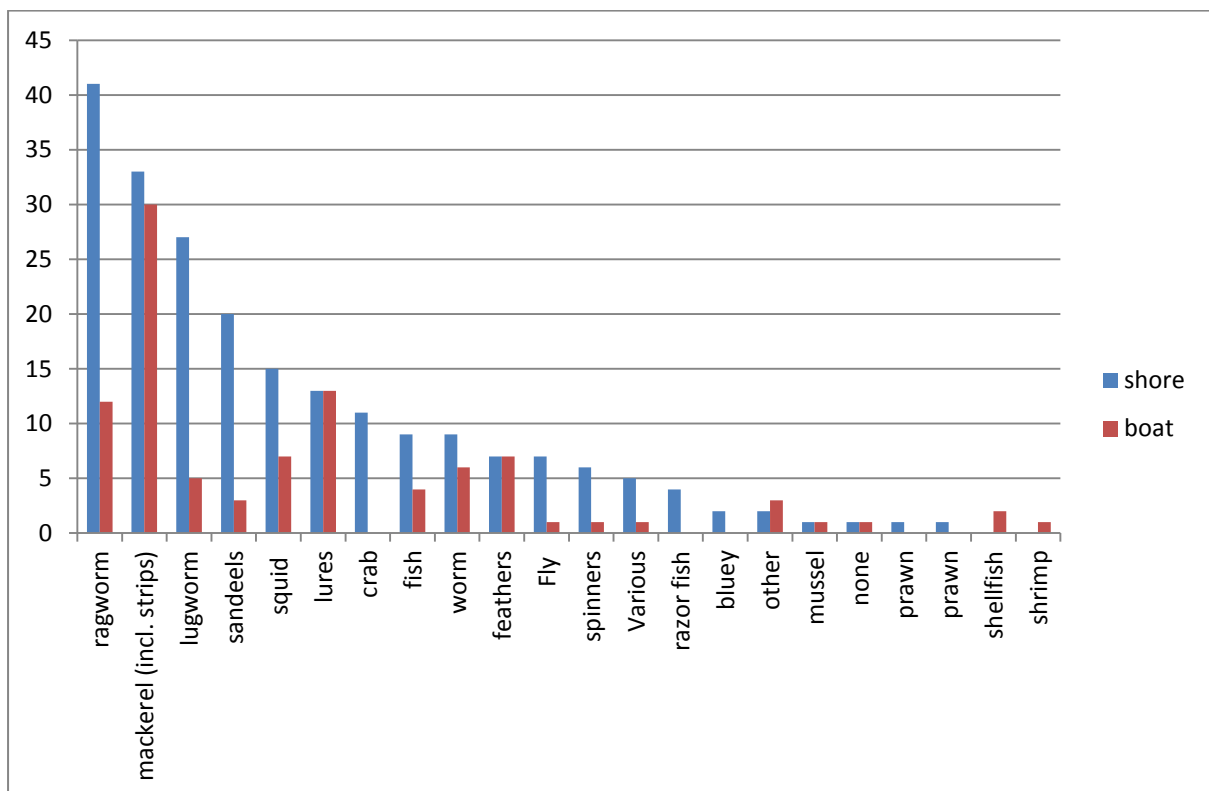


Figure 13 Bait of choice for sea anglers split in to those who primarily fish shore or boat based

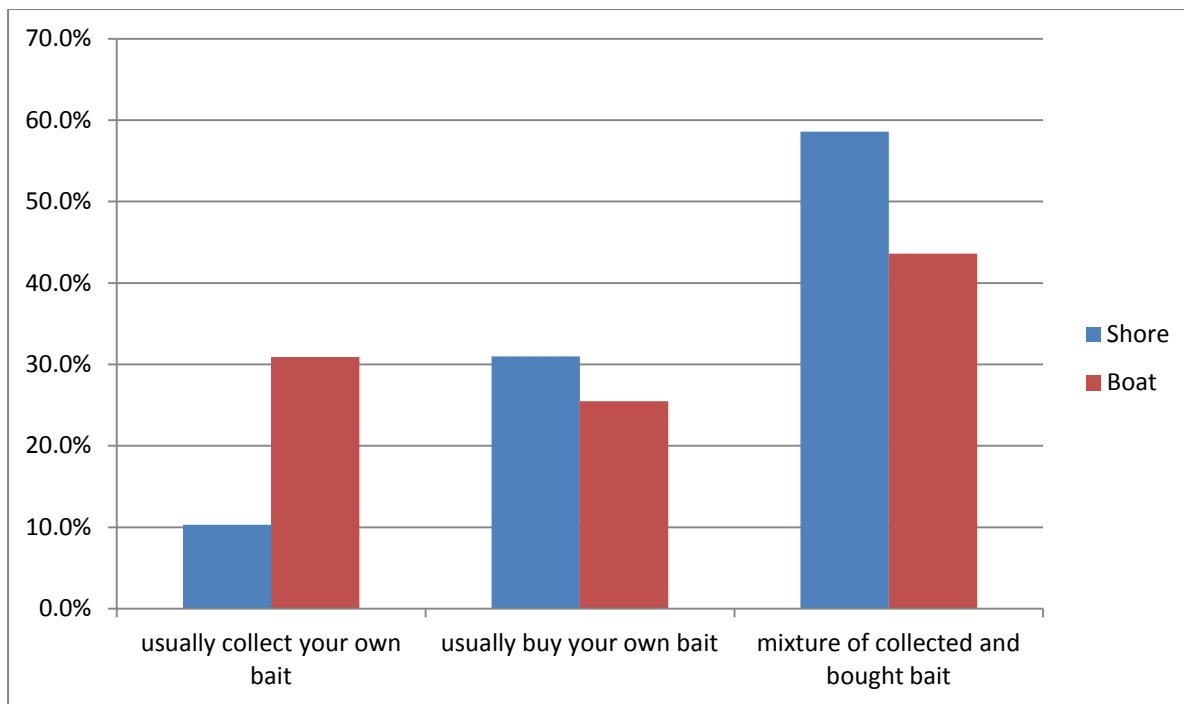


Figure 14 Anglers were asked to describe where they get their bait

When respondents go sea angling

Whilst there is sea angling from the shore all year round (angling from the shore was found to be the most year round activity during a Watersports and Leisure Participation survey across the UK in 2011 (British Marine Federation *et al.* 2011)), when asked within which month the most time was spent participating in sea angling from the shore, the summer months were most frequently chosen (Figure 15). It would be expected that there would be more angling taking place over the summer months when the weather is better and therefore people spend longer periods outdoors. In addition, the longer daylight hours during the summer provides more opportunity for those in employment who wish to participate in angling outside of work hours. Similarly, for angling from a boat, the peak in activity is during the summer months. However, whilst for both shore and boat based angling there is year-round activity, this is more limited for those who chose to go sea angling from a boat. This is likely to be due to poor weather conditions preventing people from getting out. Whilst for shore angling the percentage of respondents who participate each month never drops below 20%, for angling from a boat, the five months when the weather is most likely to be at its worst, November to March, show minimal activity, with December having the least activity when angling from a boat (Figure 15).

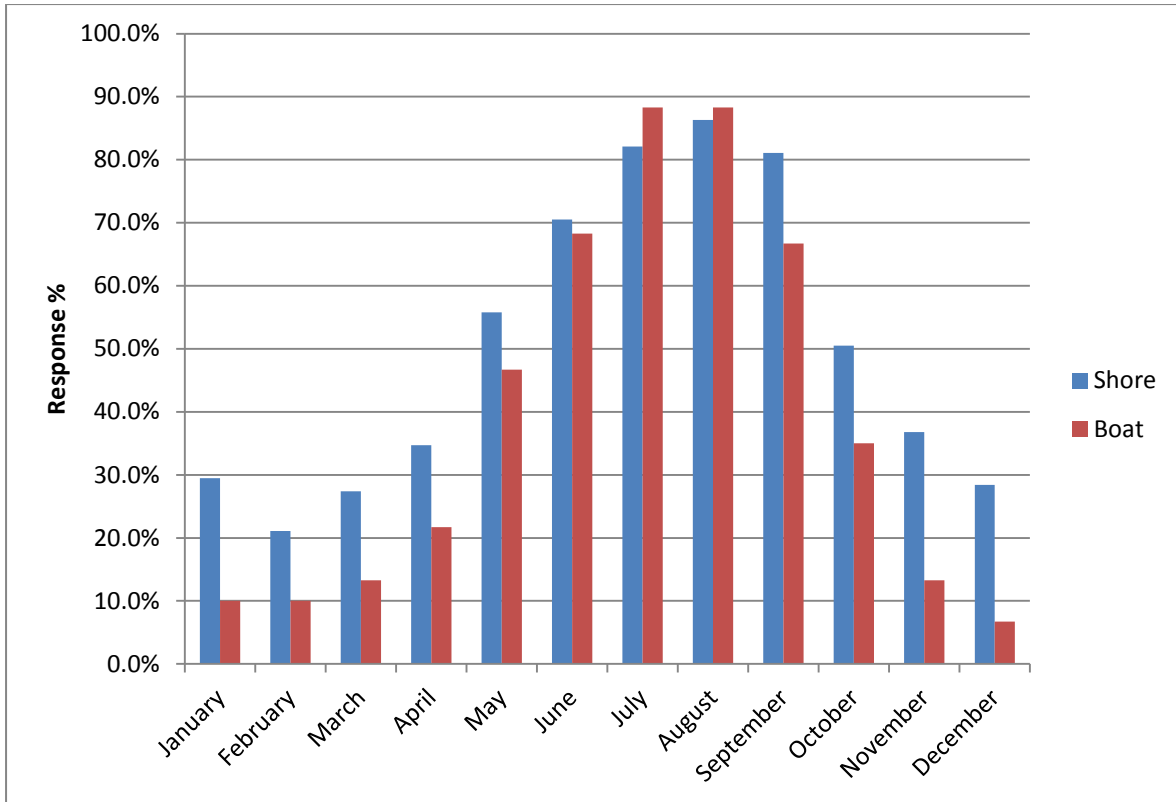


Figure 15 Month which anglers spend most time participating in sea angling from shore and boat

When asked how long was spent per day sea angling from the shore in their chosen month, 6 hours received the highest number of responses (Figure 16). No one considered that they spent less than 2 hours on a shore based sea angling trip whilst one individual stated that they would spend more than 12 hours a day on an average trip. Similarly, the majority of boat angling trips were reported to last approximately 6 hours (Figure 16). No trips lasted less than 1 hour whilst a small percentage lasted more than 12 hours.

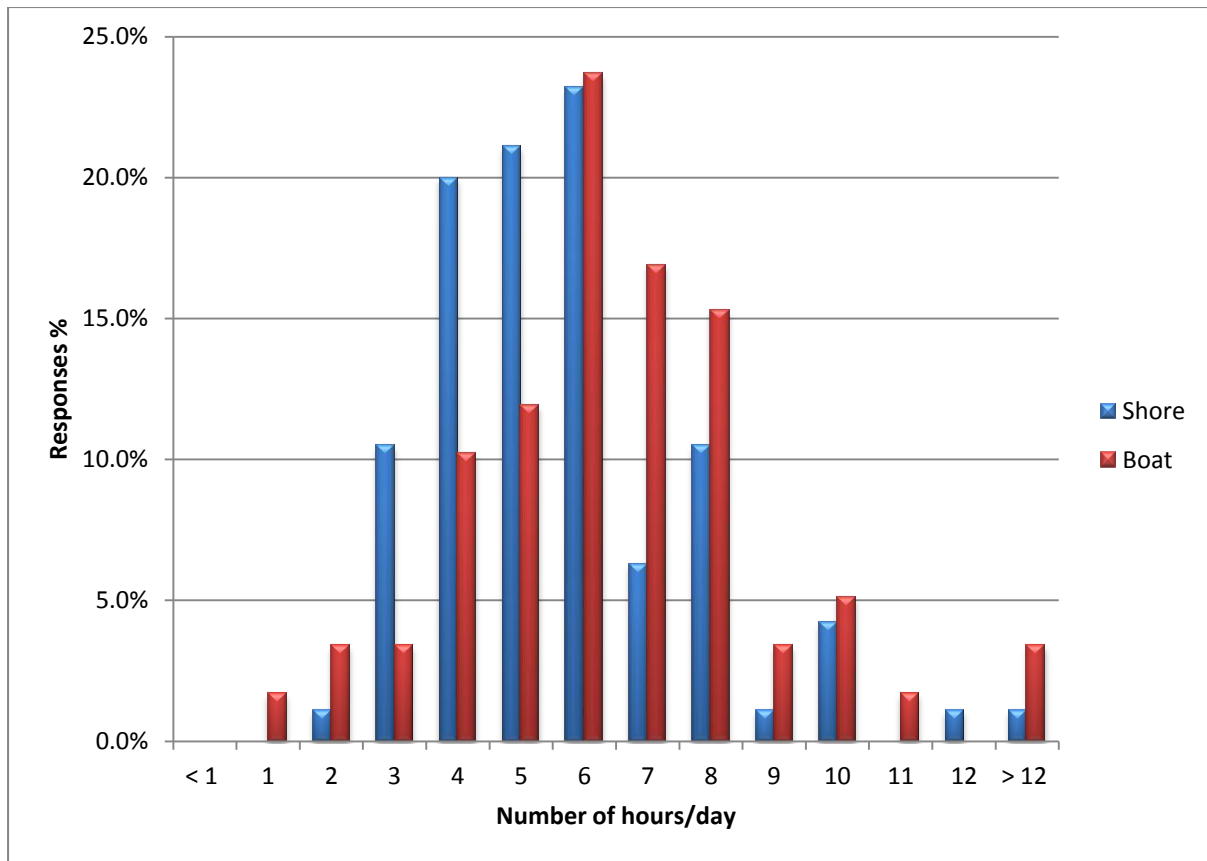


Figure 16 Estimated length of sea angling trip during the respondent’s most active month

Type of boat used

For those who stated that they participate in sea angling from a boat, 65% stated that it was a private boat owned either by themselves or belonging to a friend or family member (Figure 17). For those who use a private boat 46% stated that the boat was used for sea angling 100% of the time and overall 73% said that the boat was used more than 50% of the time for sea angling.

30% of all boat angling was undertaken using a charter boat. Of the respondents who used a charter boat the experience of the skipper in finding fish was the thing that was considered most often when selecting the charter boat. The size/capacity of the boat was not considered to be important by any of the respondents. Portrush was the most mentioned area in terms of where respondents usually hire a charter boat. Other areas included Ballycastle, Bangor, Cushendall, Kilkeel, Portaferry and Portstewart.

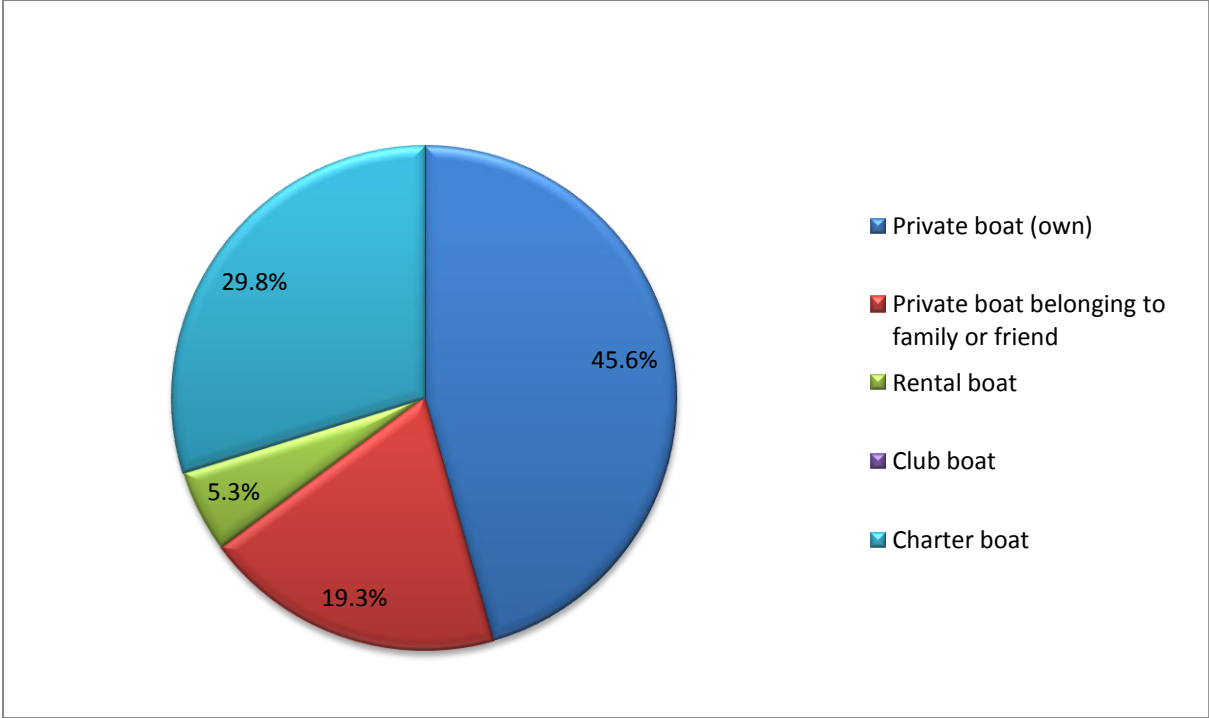


Figure 17 Type of boat used for sea angling

Locations fished and why

When asked to identify the closest town or village to where they go sea angling most often forty different locations were identified alongside general areas such as the North coast and the Antrim coast. Portrush received the most number of mentions, being recorded by 14% of those who completed this question.

When asked to explain why this area was preferred, water quality was selected the most often as being important or very important and indeed had the greatest average score (Figure 18). Following from this, access was the second most important reason for choosing a particular area to fish. The facilities available were chosen as the least important reason for selecting an area to go sea angling.

With regards to the last sea angling trip, 41 locations were highlighted by respondents (Figure 19). Portrush was the most popular area with 16% of respondents having spent their last fishing trip here. Ballycastle was the next most popular with 7% of trips being to this area. However, sea angling is spread around the entire Northern Ireland coast and is therefore important to many coastal communities.

94% of respondents travelled to their chosen location by car or van, with the majority of respondents (63.7%) travelling more than 20 miles to reach their angling spot. The average distance travelled was 35.6 miles for all respondents. For those from Northern Ireland (excluding those who have travelled from the Republic of Ireland), the average distance travelled was 32.8 miles.

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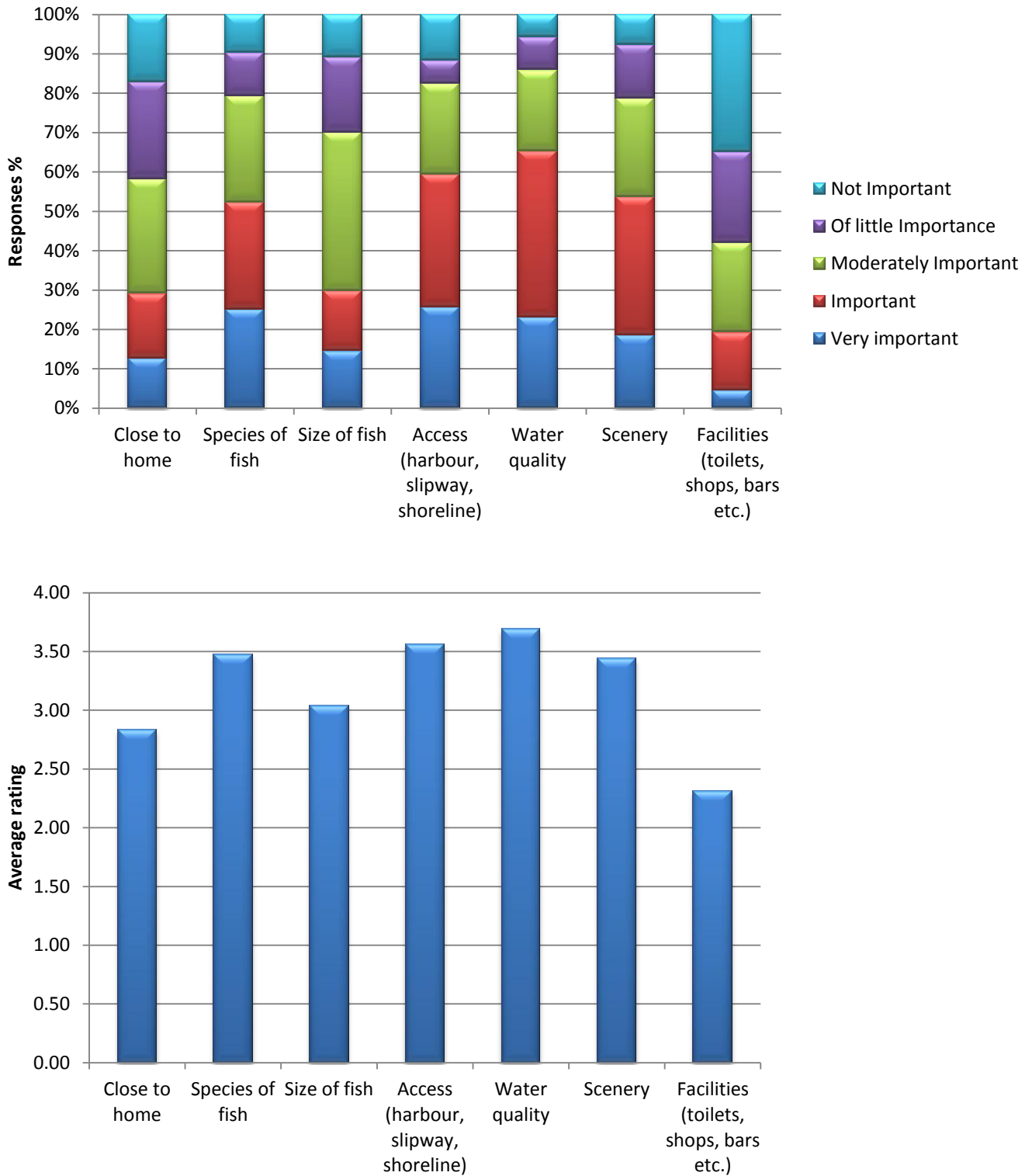


Figure 18 Reasons why respondents choose to go to a particular sea angling area. Scores were given to each response with Not Important scoring 1, Of Little Importance scoring 2, Moderately Important scoring 3, Important scoring 4 and Very Important scoring 5. The total score was then divided by the number of responses to that question to give an average score.

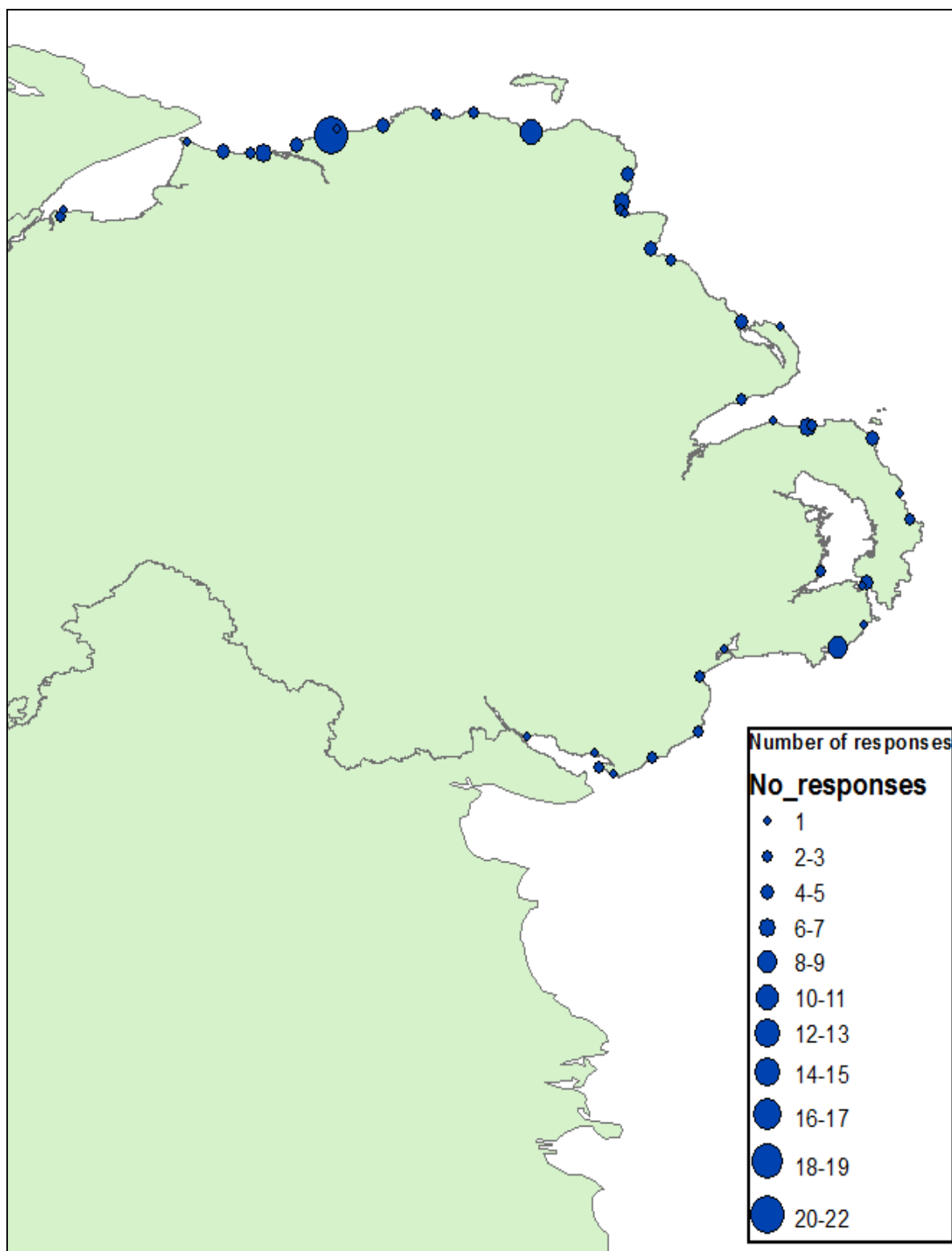


Figure 19 Locations of respondent's last sea angling trip

For 75% of respondents their last sea angling trip was solely for the purposes of angling. 25% responded that they participated in other activities during the trip which included outdoor activities such as walking, hiking, shooting etc. Wildlife activities such as whale and dolphin spotting were mentioned as was photography, visiting tourist attractions and holidaying/weekend break. Eating out, going to the pub and general socialising were also mentioned as activities carried out alongside sea angling. For those who participated in other activities, 71% stated that sea angling was the main reason for the trip.

For 87% of respondents their last sea angling trip was a day trip. For 15 respondents their last trip included an overnight stay. For these respondents, the average stay away from home was 5 days ranging from 1 to 24. The type of accommodation which was selected the most was staying with family or friends. The average cost per night, based on all forms of accommodation used, was £40 ranging from £0 to more than £150 (catered accommodation with breakfast and dinner).

Participation in clubs and competitions

Of those who completed the survey, the majority (73%) were not a member of a sea angling Club. Those who were members of a club represented 30 different organisations including regional, national and International organisations. Club membership across the UK has previously been reported at 15.3% for boat anglers and 26.3% for shore anglers (British Marine Federation *et al.* 2011). In 2012 as part of the English Sea Angling 2012 survey, Brown *et al.* reported that 20.7% of responding sea anglers are members of a club.

One hundred and sixty nine people answered the question on competitions. Of these, 70% do not participate in sea angling competitions. 14% have participated in shore based competitions only and 10% in boat based competitions only. 6% of respondents have competed in both shore and boat based competitions. Forty four respondents registered having competed in competitions in the last twelve months. 36% of these had competed in 11+ competitions in the previous 12 months to completing the survey. Shore based competitions were the most popular with more than twice the number of days being spent participating in shore based competitions (112 days as opposed to 50 days for boat based competitions).

Catches in Northern Ireland

Species targeted by sea anglers in Northern Ireland

When asked to indicate their main target species when sea angling in Northern Ireland 17 respondents said that they did not have a target species but would catch anything whilst many other respondents had more than one target species. The most common fish targeted was pollack which received 43 mentions (Figure 20). Common throughout the UK and Ireland, pollack is one of the most regarded sports fish due to the number of techniques which can be used to fish for them and the fight they put up when hooked (britishseafishing.co.uk). Pollack are found in coastal waters close to rocks and wrecks but move to deeper waters during the winter to spawn. Therefore catches from the shore are highest during the summer.

Mackerel was highlighted by 39 respondents as the second most targeted species. Mackerel is considered to be one the easiest fish to catch due to its availability in large shoals around the UK in summer months which means large numbers can be caught. For many, mackerel fishing will be their first experience of sea angling. Anglers also target mackerel for use as bait for other species.

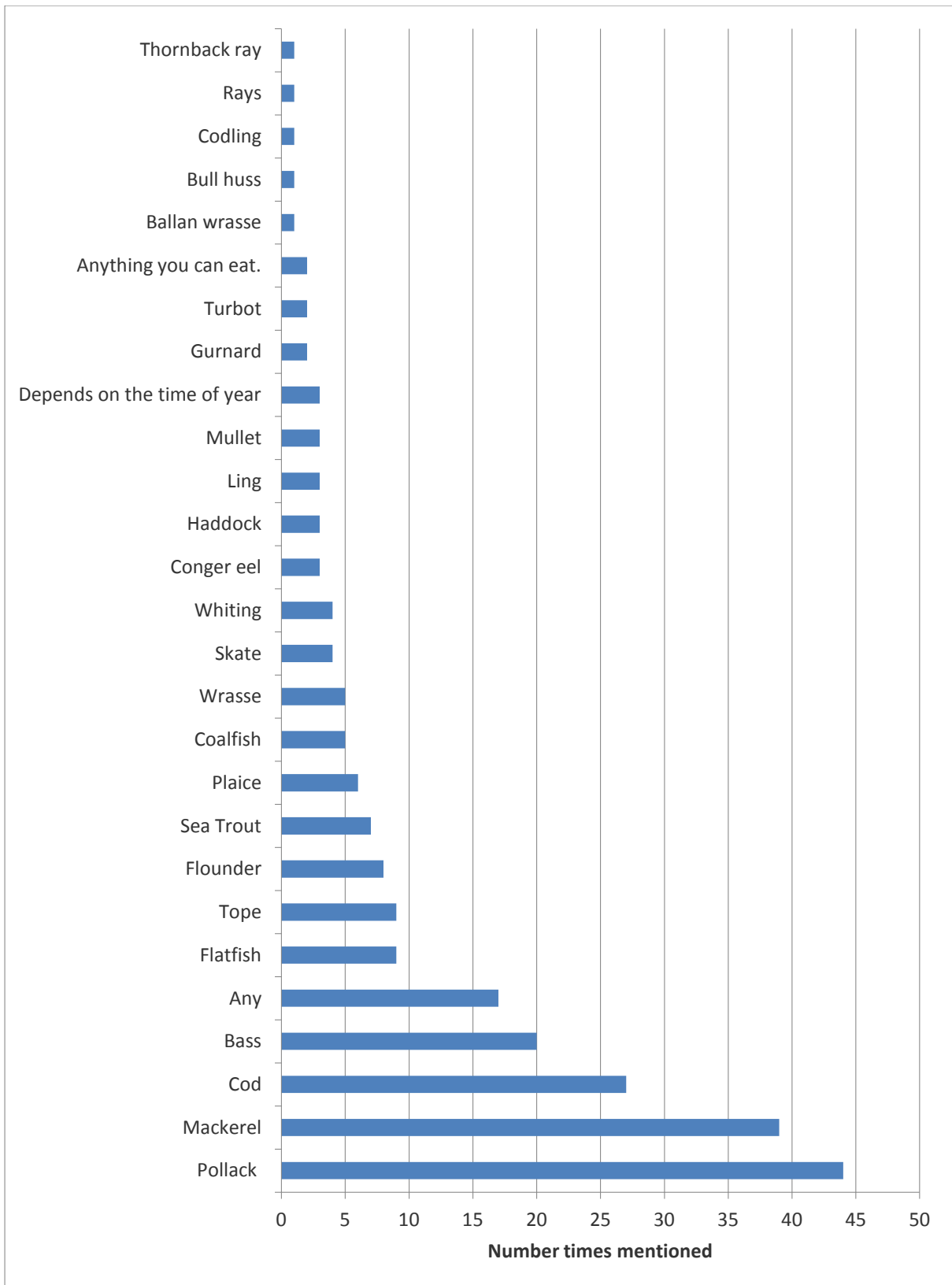


Figure 20 Species targeted by sea anglers in Northern Ireland

Perceptions of change to fish stocks and target species

When asked how catches of their target species compared to those 5-10 years ago, whilst 17% said that they had not been fishing long enough to know, the majority of respondents, 66%, believed that catches have got worse. When asked to explain why they felt catches had got worse, the most common reason was that numbers and size of fish have decreased. In the general comments at the end of the survey, a decrease in numbers of fish was also the most common point raised by respondents. One respondent wrote “I have tried several times to introduce my kids and their friends to shore fishing, but catches are so poor that they just lose interest and would rather stay at home”.

Several respondents indicated that they felt this decrease in catch was due to commercial pressures “catches have always been poor due to over exploitation by commercial fishing” or landing of undersized fish “Catch and release, especially of juvenile fish, is not being practised enough”.

Alternatively, several people suggested catches have improved with one response indicating there has been “slight improvement in bass and sea trout numbers”, with another stating that “more bass are turning up around our coast”. However, one respondent suggested catches were improving due to “increasing knowledge of fishing techniques and locations”.

What they would do if they were unable to fish for their target species in their usual location

When asked what they would do if they were unable to fish for their target species in their usual location, 35% stated that they would stay within their chosen area but target alternative species of fish (Figure 21). A further 35% stated that they would keep targeting their chosen species but move area. 4% stated that this would cause them to stop sea angling. Therefore, the location is the most important factor to some, whilst for an equal number of respondents, the species of fish caught is the deciding factor on where to fish.

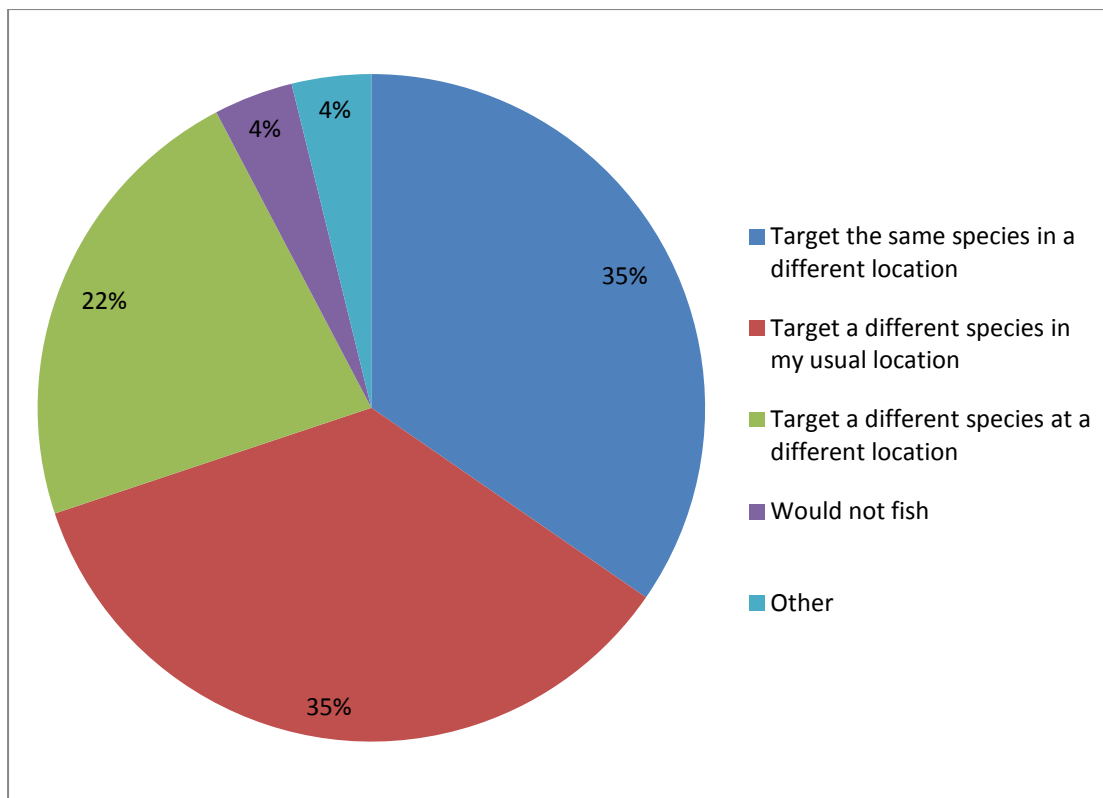


Figure 21 How respondents would change their fishing if they could no longer fish for their target species in their usual fishing spot.

Retain or release

Those participating in the survey were asked to select the most appropriate answer for what they do with the fish. The majority, 54% stated that they release MOST of the fish which they catch (Figure 22). Additional comments suggested that only edible fish which are of a good size, or fish such as mackerel, which can be used for bait are retained in low numbers. The smallest number of respondents, 2%, stated that they keep all their catches.

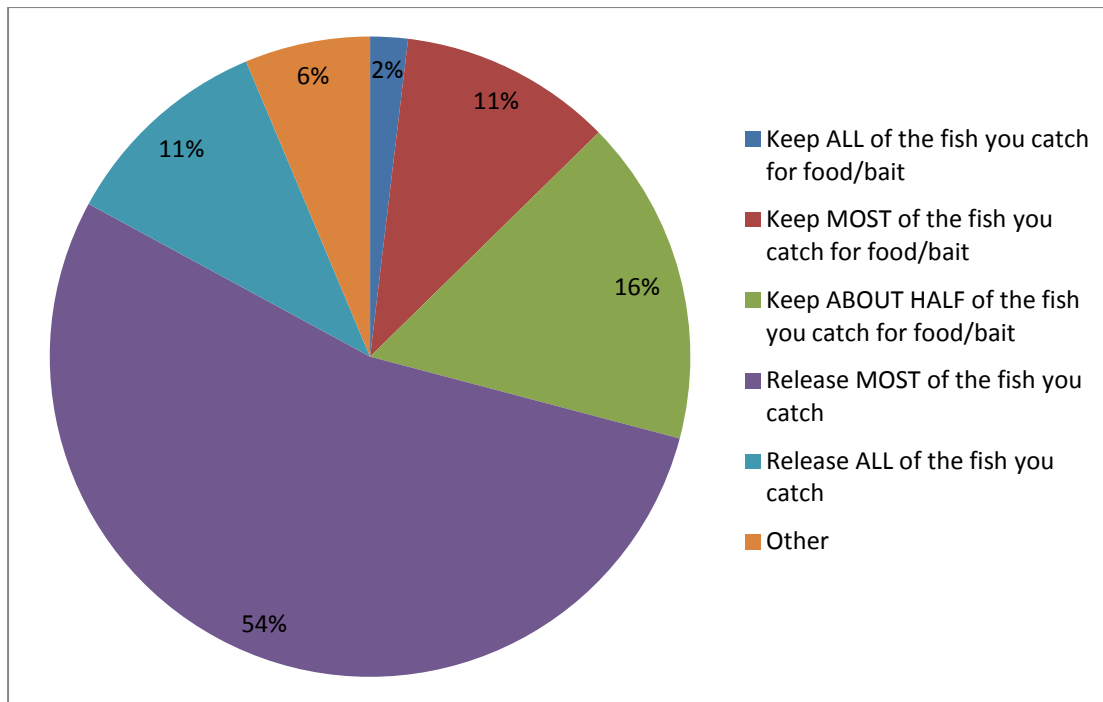


Figure 22 Responses to what is done with fish which is caught

Species targeted and caught in the last 12 months from the shore

When sea angling from the shore, the species targeted most often is pollack followed by mackerel (Figure 23). Other species which are targeted which were not listed in the survey include mullet, bull huss, tope, skates and rays, pouting, poor cod, spurdog, scorpion fish, gobies and rockling. Haddock received the highest responses for never being targeted from the shore which is not surprising as haddock tends to stay in deeper waters and therefore a catch from the shore is rare (haddock are currently classified as vulnerable in the International Union for the Conservation of Nature (IUCN) Redlist). Haddock are therefore targeted more by boat anglers.

With regards what has actually been caught from the shore in the last 12 months, the two species targeted the most often by shore anglers, pollack and mackerel, were selected as being caught the most often (Figure 23). Haddock was caught the least. Other species which have been caught in the last 12 months by shore anglers include mullet, rockling, ling, various skates and rays, gurnard, poor cod, pouting, tope and bull huss.

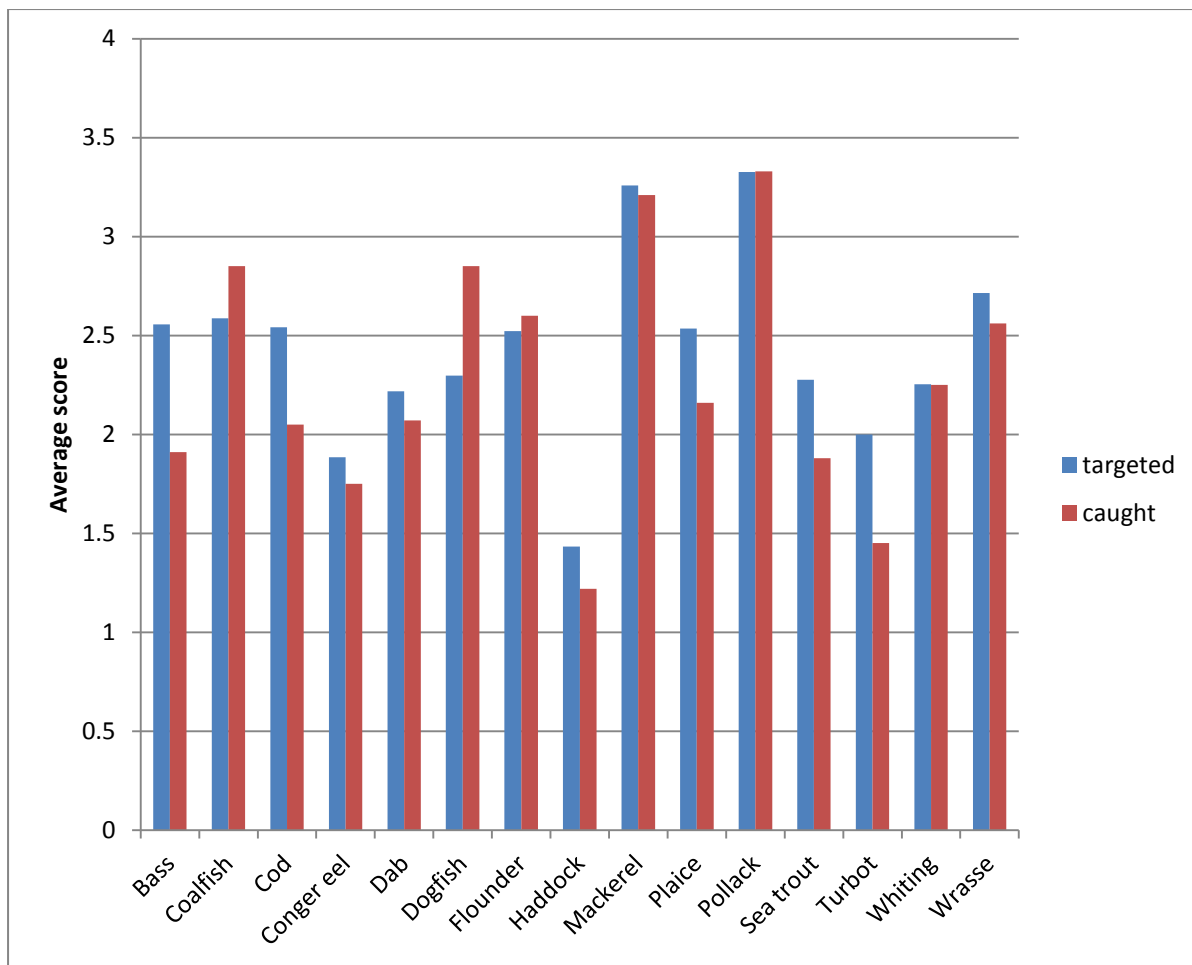


Figure 23 Species targeted and caught in the last 12 months from the shore. Scores were given to each response with Never scoring 1, Rarely scoring 2, Sometimes scoring 3 and Most Often scoring 4. The total score was then divided by the number of responses to that question to give an average score.

Species targeted and caught in the last 12 months from a boat.

Figure 24 shows the main species targeted when angling from a boat, with mackerel and pollack being the most targeted species. These species were also the species which were caught the most in the last 12 months when angling from a boat. As well as those species listed in the survey, species targeted by boat anglers include blue shark, spurdog, ling, porbeagle shark, skates and rays, bull huss, black mouthed dogfish, gurnard and tope. The following species were caught from a boat in the last 12 months in addition to those listed in the survey question: blue shark, John Dory, smoothhound, spurdog, ling, pouting, scorpion fish, skate, blackmouthed dogfish, bull huss, gurnard, launce, and herring.

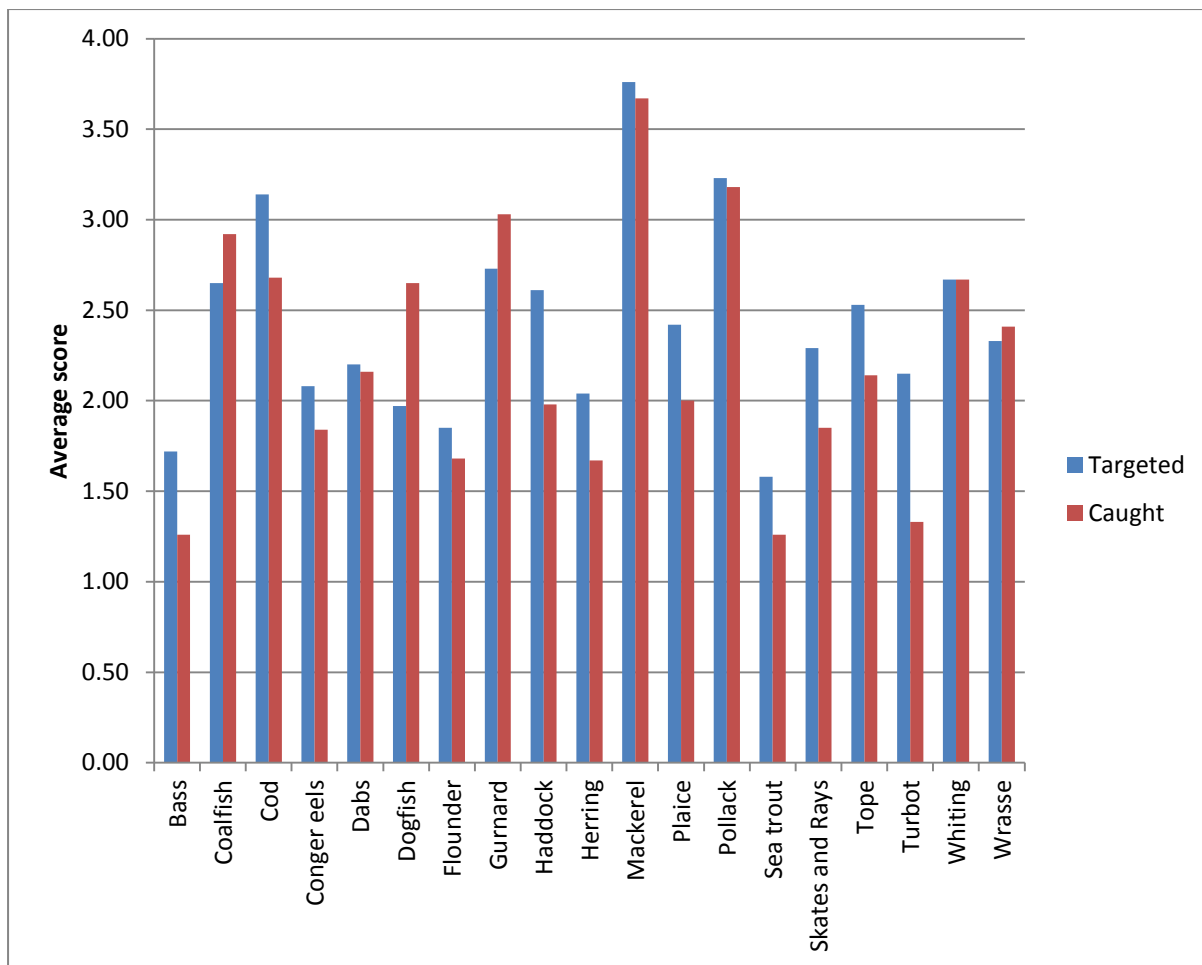


Figure 24 Species targeted and caught in the last 12 months from a boat. Scores were given to each responses with Never scoring 1, Rarely scoring 2, Sometimes scoring 3 and Most Often scoring 4. The total score was then divided by the number of responses to that question.

Catches of cod and bass

The EU Data Collection Framework and the EU Control Regulations (No. 1224/2009) set out regulations to collect catch data on certain species by recreational anglers. Council regulation (EC) 1224/2009 states that “for stocks under a recovery plan Member States should collect catch data of recreational fisheries”. As fisheries managers DARD are obligated to look at the impact of recreational fishing on cod and bass. This section of the questionnaire was used to collect information on catches of cod and bass by sea anglers both from a boat and from the shore.

86 people answered the question about cod caught from the shore. In total 301 cod had been caught by these respondents in the three months previous to completing this survey (this covers the months July 2012 to February 2013). This averages at 3.5 cod per respondent in the last three months and ranged from catching zero cod (55 of the respondents) to catching 50. Of these cod 90% were returned to the sea, 9% were kept for food and the remaining 1% was unaccounted for (Figure 25).

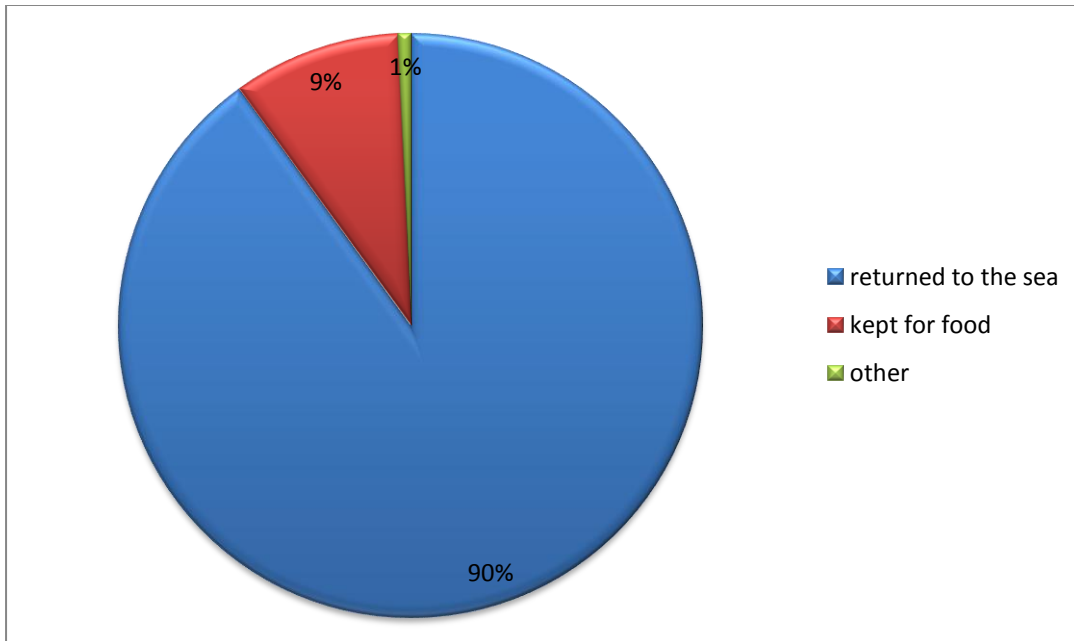


Figure 25 What respondents did with the cod caught from the shore

With regards cod caught when sea angling from a boat, in total 793 had been caught by the 53 people who answered this question in the three months prior to completing this survey. This averaged at 15 cod per person in the last three months, but ranged from 0 (the modal value) to 200. Of the cod that was caught from a boat, 89% were returned to the sea with the remaining 11% being kept for food (figure 26).

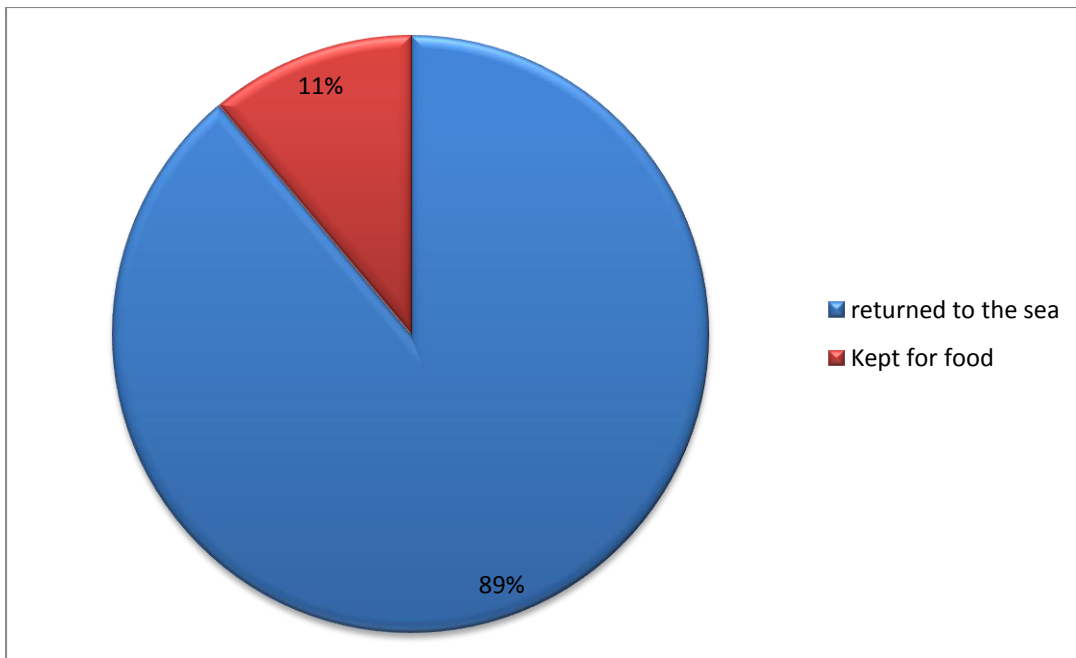


Figure 26 What respondents did with the cod caught from a boat

86 people answered the question relating to catches of bass from the shore in the previous three months. Whilst highly sought after by anglers bass catches by anglers still tend to be low. In total 165 sea bass have been caught by the respondents in the last three months. Averaging at 1.9 bass per respondent, this ranged from zero caught (74%) to 50 caught. 91.5% of sea bass caught were returned to the sea with 7.9% being kept for food. The remaining 0.6% were unaccounted for (Figure 27). Bass catches are higher from the shore, particularly in the summer months when they move in close to the shore.

When angling from a boat, only 17 bass had been caught by the 51 respondents who answered this question averaging at 0.3 bass per respondent caught in the previous three months (ranging from zero to 11 caught). Of these 76% were returned back to the sea (Figure 28).

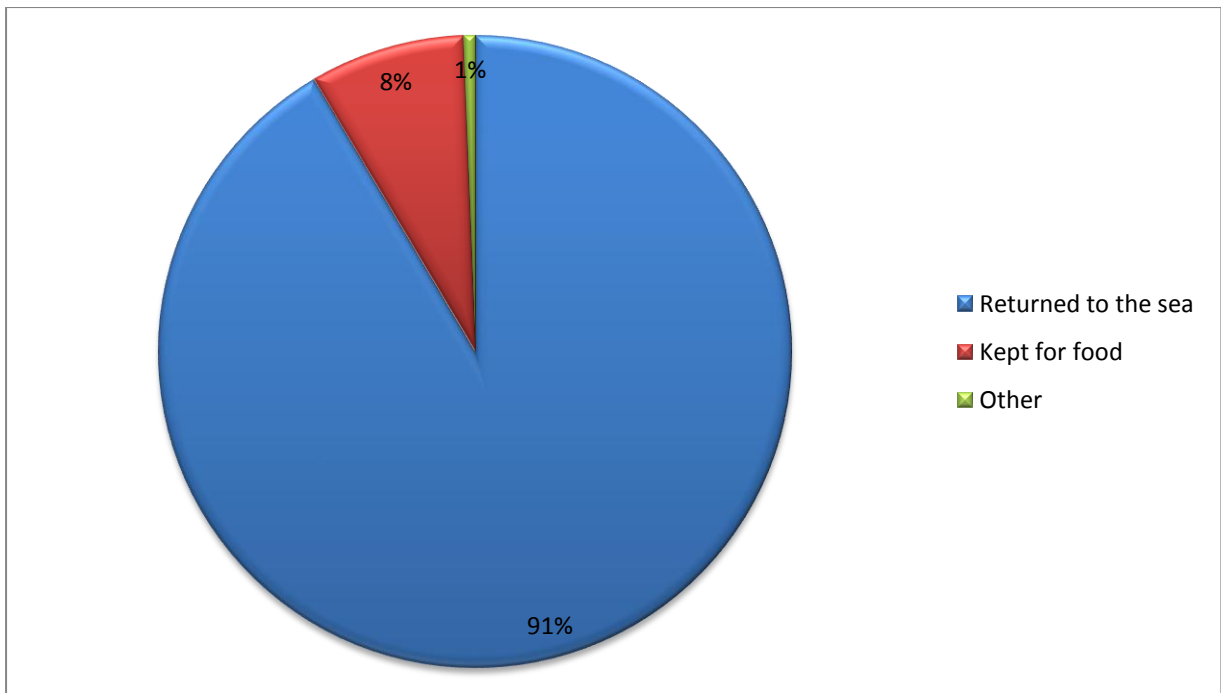


Figure 27 What respondents did with the vass caught from the shore

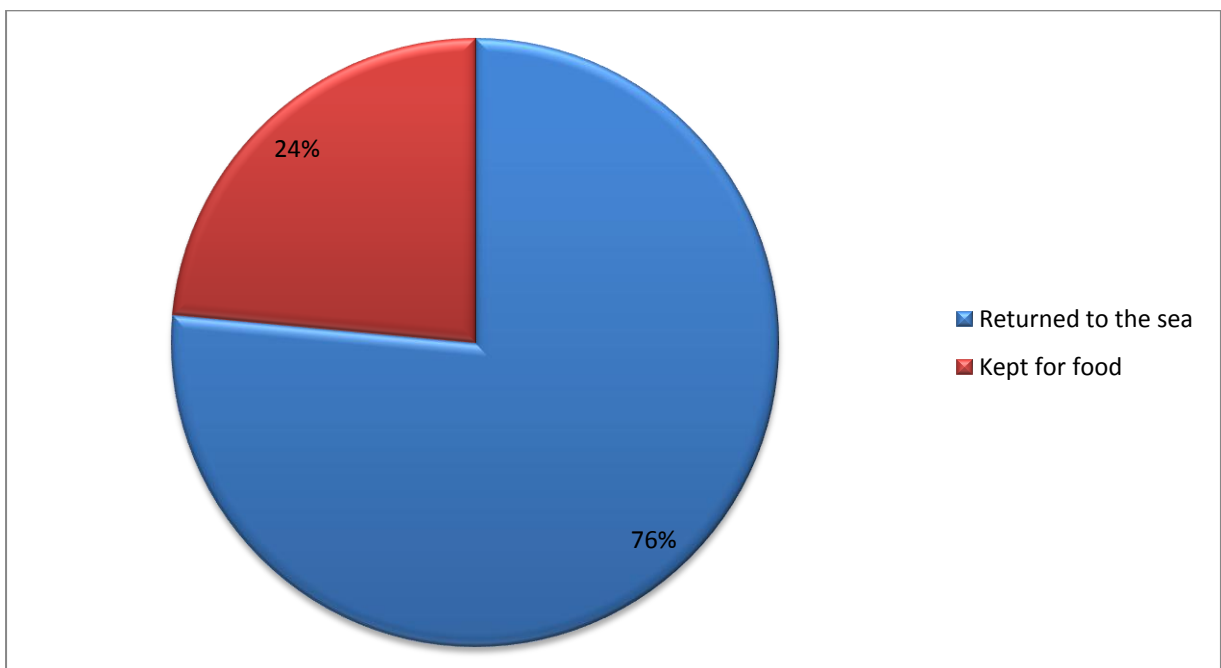


Figure 28 What respondents did with the bass caught from a boat

Catches on the last Sea Angling trip

The majority of last trips had occurred quite recent to completing the survey, with most respondent's last trip having been between August 2012 and November 2012. This is positive for the survey as it means that responses to the answers in this section should be fresh in the anglers mind and therefore more accurate.

Last sea angling trip was from a boat

For those whose last sea angling trip was from a boat, there were 49 responses on catch from those whose last trip was a day trip and three responses from respondents whose last trip was longer than a day. Of the total respondents, six were taking part in a competition. The catches of those whose last trip was longer than a day have been adjusted to give a daily catch rate of each species. The average length of trip was 6.2 hours.

The average catch per hour is shown in Figure 29. As can be seen the 95% confidence limits are quite large. The nature of sea angling means that there will be a large variation in numbers caught i.e. targeting different species, using different bait/angling method, fishing experience, fishing in a different area where certain species are more/less abundant will increase variation in catches.

Mackerel was caught in the largest numbers with 44 of the respondents catching this species and with 29 of these respondents catching abundances of 11+ on their last trip. 11+ animals per day were also caught of the following species; coalfish (seven respondents), cod (four respondents), dab (two respondents), dogfish (four respondents), pollack (seven respondents), whiting (six respondents), wrasse (two respondents). In total 123 cod were caught. There were no catches reported for bass or turbot. In addition to the list in the survey, respondents also caught tope, gurnard, skate, weaver fish and spurdog.

When the hourly catches for those who were in a competition are compared with those who were not competing, the catches for the majority of the species are, as would be expected, highest for the competitors (Figure 30)

Catches of species from the last trip are comparable with responses taken from catches over the last 12 months, with the top seven species being the same in both instances (Table 1).

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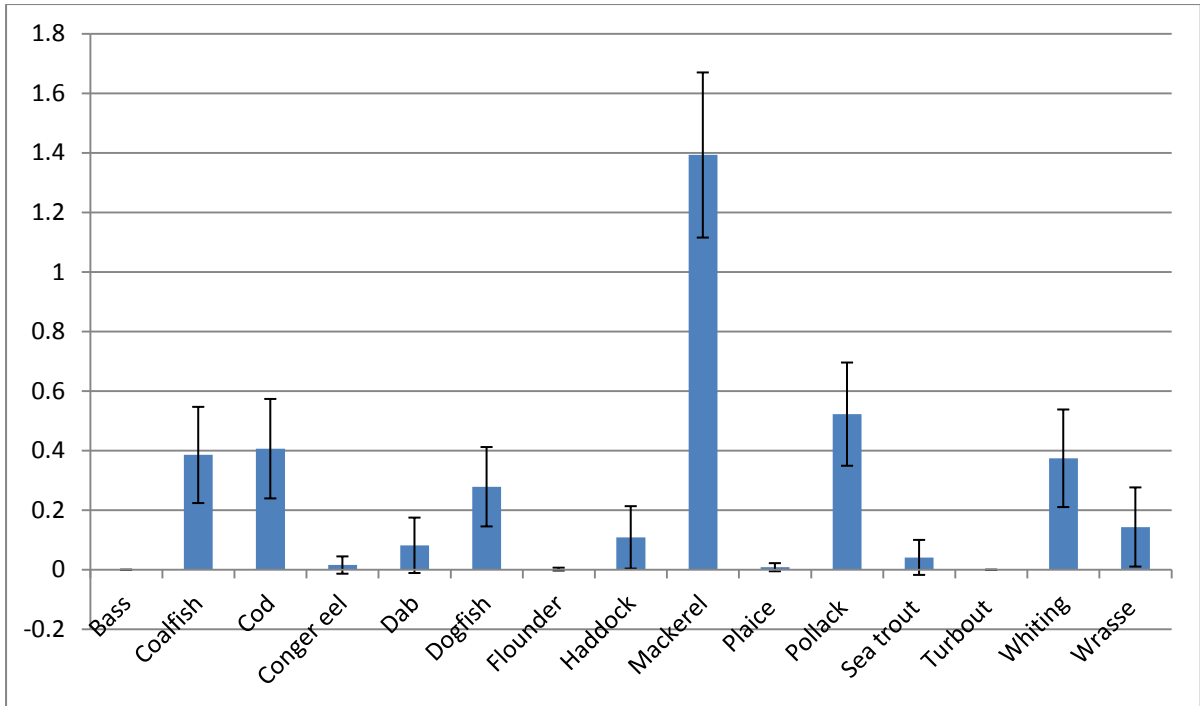


Figure 29 Average catch per hour by sea anglers whose last trip was boat based (showing 95% confidence limits). Includes both those competing in a competition and those not competing.

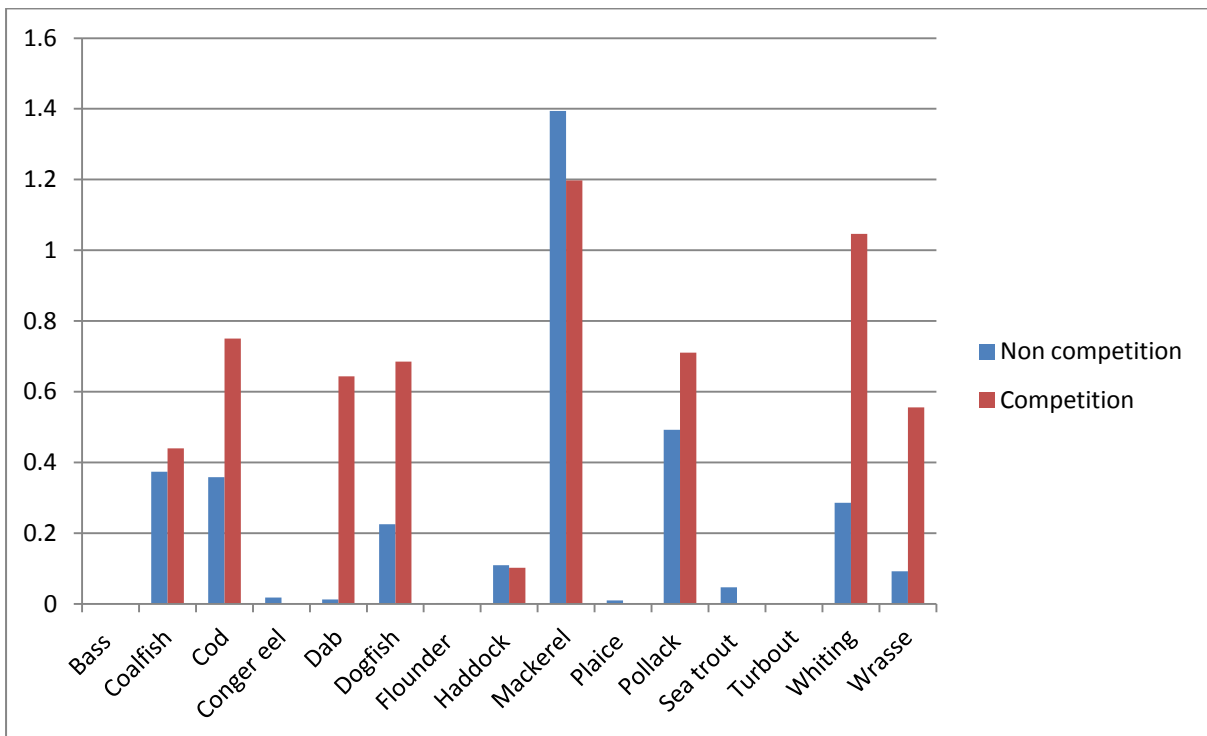


Figure 30 Hourly catches from a boat for anglers taking part in a competition compared to those non-competing anglers

Table 1 Order of most caught species by respondents in previous 12 months and on last trip when sea angling from a boat, ranked from most to least abundant.

Species	Catches in previous 12 months	Catches on last trip
Mackerel	1	1
Pollack	2	2
Coalfish	3	4
Cod	4	3
Whiting	5	5
Dogfish	6	6
Wrasse	7	7
Dab	8	9
Plaice	9	12
Haddock	10	8
Conger eel	11	11
Flounder	12	13
Turbot	13	14=
Bass	14	14=
Trout	15	10

Last sea angling trip was from the shore

For those whose last sea angling trip was from the shore, there were 67 responses on catch from those whose last trip was a single day trip and nine responses from those whose last trip was longer than a day. The catches of respondents whose last trip was longer than a day have been adjusted to give a daily catch rate of each species. Average catch per hour is shown in Figure 31.

In total, seven of these respondents were taking part in a sea angling competition (not the same competition). The average length of trip was 5.6 hours. Two of the respondents caught nothing on their last trip.

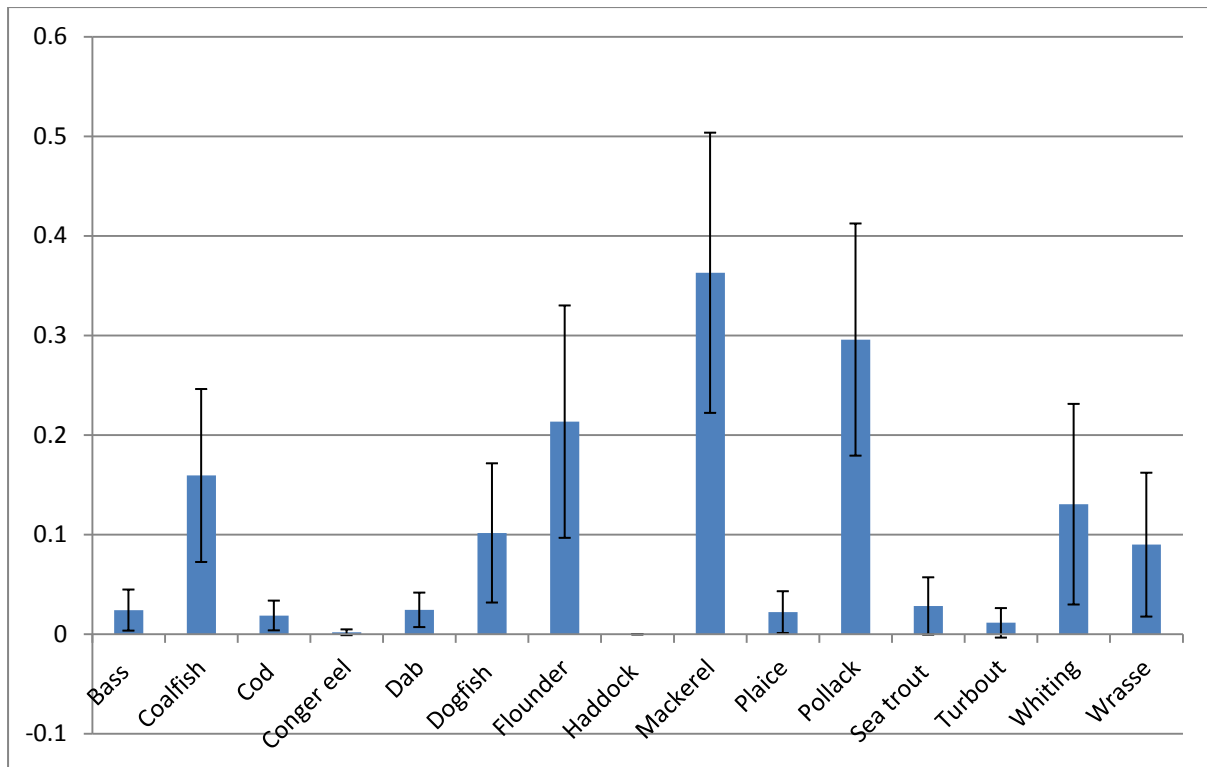


Figure 31 Average catch per hour by sea anglers whose last trip was shore based (showing 95% confidence limits). Includes both those competing in a competition and those not competing.

As with angling from a boat, mackerel was caught in the largest numbers with 33 of the respondents catching this species. However, it was not as widely caught, with only two people catching 11+ (as opposed to the 29 respondents who caught 11+ mackerel when angling from a boat). 11+ animals were also caught of the following species; coalfish (one respondent), dogfish (two respondents), flounder (two respondents), pollack (two respondents), whiting (three respondents), wrasse (one respondent). In total nine bass and ten cod were caught. There was no reported catches of haddock. In addition to the list in the survey, respondents also caught greater sand eel, mullet, rockling and sea scorpion.

When the hourly catches for those who were in a competition are compared with those who were not competing, the catches of seven off the species are higher for the competitors (Figure 32). The hourly catch of flounder is much greater for those who were part in a competition.

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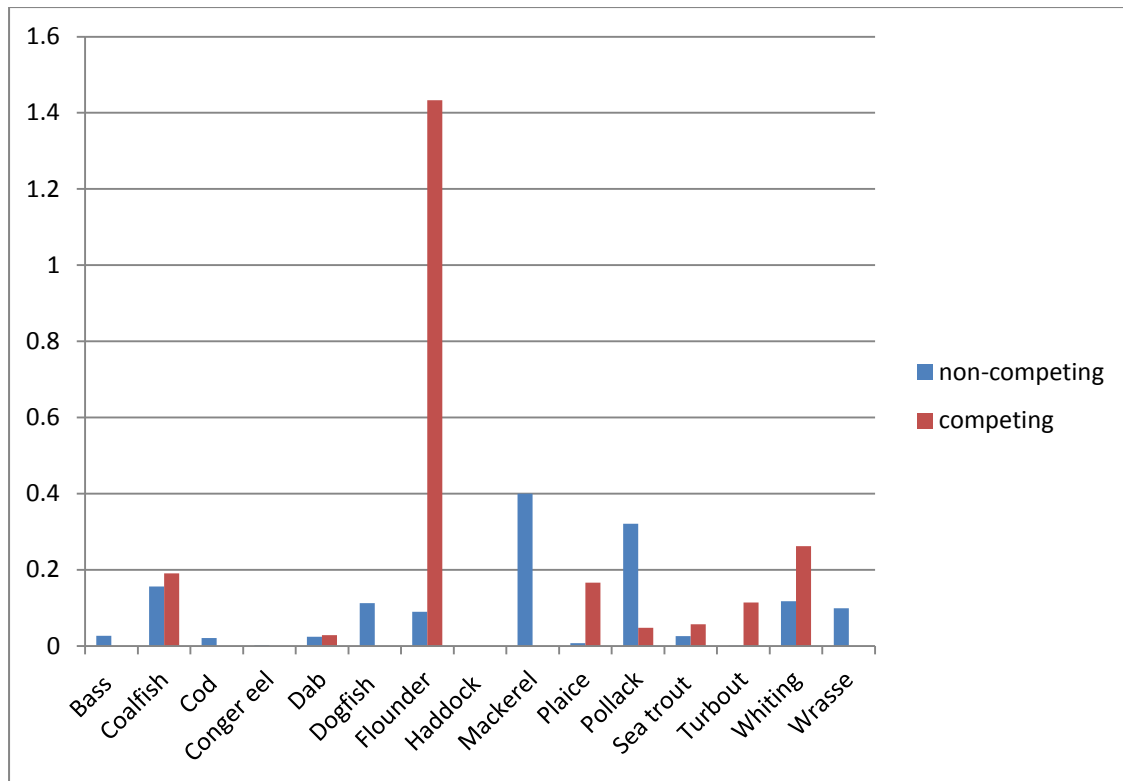


Figure 32 Hourly catches from the shore for anglers taking part in a competition compared to those non-competing anglers

Sea Anglers and the Environment

Sea anglers attitudes to the environment

When asked to agree or disagree with statements about the environment, 93% of respondents disagreed or strongly disagreed with the statement “*I have little interest in the environment*” (figure 33). 89% agreed that through sea angling they have learnt more about the environment and the same percentage agreed that they make the effort to practice environmentally sustainable angling techniques.

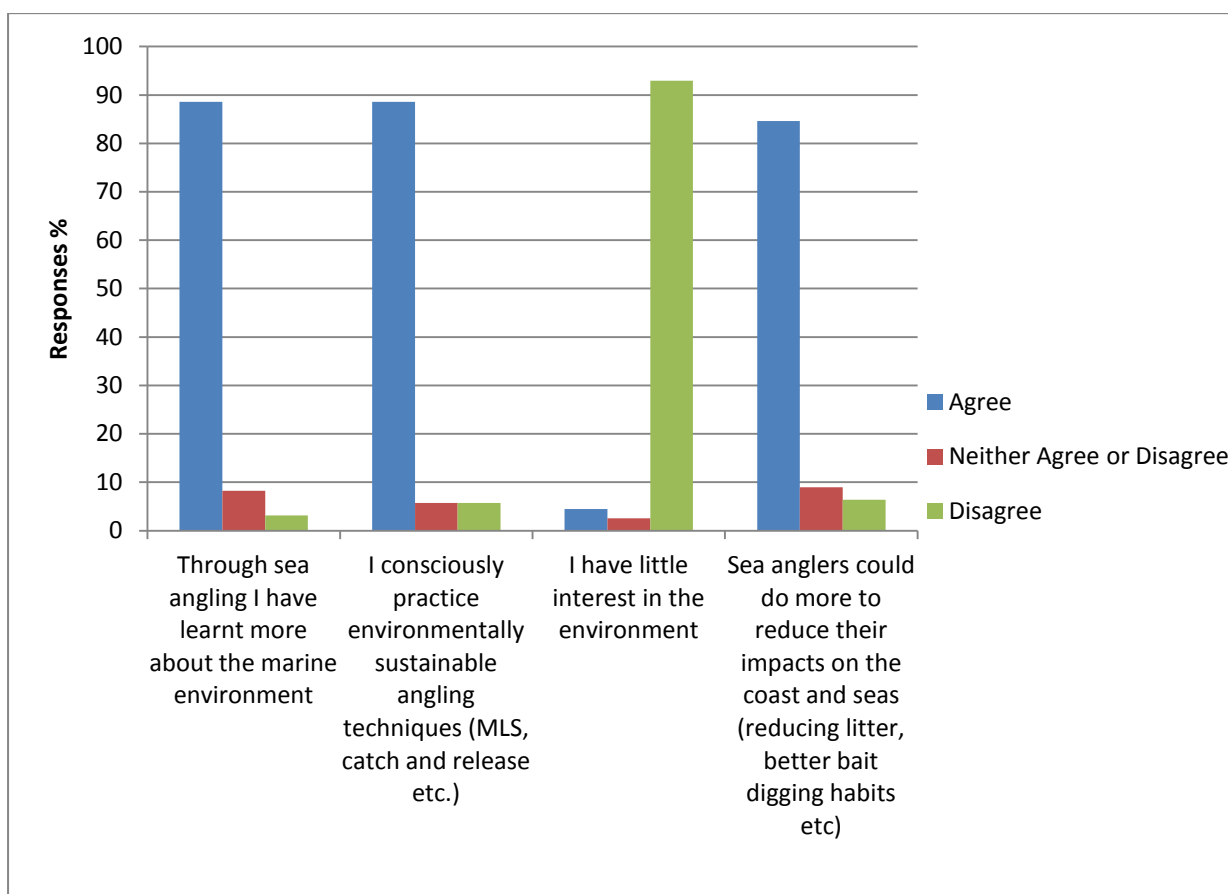


Figure 33 Sea anglers attitudes to the environment

85% of respondents believe that anglers could do more to reduce the impact they have on the coastal environment. When given the opportunity to have their say, a number of respondents indicated that some anglers do not tidy up after themselves, leaving the area covered in litter. Whilst some believed that this was due to a lack of litter bins available at angling sites, others believe it is due to poor education and that better enforcement is needed for those who do leave litter. Another issue which was raised time and again during the additional comments was the taking of juvenile fish by some anglers. One respondent

wrote “I would like to see more proactive measures taken to inform people about how we impact the marine environment, regarding how we catch and return fish, size limits of mature fish and the impact of leaving litter behind, especially discarded (*sic*) fishing tackle”. Again, as for litter, some believe this is due to poor education on the matter and a number of respondents have indicated the need for multilingual signs around fishing spots which should promote the use of catch and return, and other environmental practices such as how to dispose of fishing line etc. Some believe that it should be taken further with more enforcement and greater fines for those who disregard these.

Of the 173 who answered the question, 43% stated that they had personally been involved in an activity which aimed to improve the marine environment with the majority having participated in both organised and unorganised beach clean-ups. Other activities which respondents had taken part in included species monitoring both for fish, whales/dolphins and birds, catch recording and species

24% of respondents stated that they are members of an organisation which works to improve the marine environment. The organisation mentioned most often was the Angling Trust followed by the Irish Federation of Sea Anglers. Other organisations included Marine Conservation Northern Ireland, UK Bass Anglers Sport Fishing Society, Marine Conservation Society, National Trust, Ulster Wildlife Trust, Irish BASS, UK BASS, Sea Anglers Conservation Network, Sea Fishing NI, RSPB, WWF, Friends of the Earth and local angling clubs.

When specifically asked about fish tagging 64% (of 169 respondents) were aware of it and of these 34% had been involved with tagging. When all respondents were asked if they would support a Northern Ireland tagging scheme 93% said that yes they would.

In 1970, the Inland Fisheries Trust launched a marine sport fish tagging programme in Ireland. This was in response to a decline in a number of important elasmobranch species and it was believed that such a programme would put an end to the killing of fish by anglers and would instead encourage the practice of catch and release. Inshore Fisheries Ireland (previously The Central Fisheries Board) now runs the programme which is the second largest in the world (second to the USA). In Scotland the Scottish Sea angling Conservation Network (SSACN) run a similar Shark Tagging Programme which in 2011 tagged almost 2,500 fish with almost 80% of this number being made up of tope, common skate and spurdog.

The respondents have tagged animals as part of the Inland Fisheries Ireland tagging programme and the Scottish Shark Tagging programme. 2 respondents said they used to

participate in tagging schemes but no longer do and further respondents indicated their want for a tagging scheme in Northern Ireland. Species which respondents have tagged include porbeagle sharks, blue sharks, skate, tope, bass (as part of a project run by the now defunct Ministry for Agriculture, Fisheries and Food), sea trout and salmon (in rivers).

Sea Angling Expenditure in Northern Ireland

Sea anglers were asked to detail their expenditure on sea angling over the 3 years prior to completing the survey. Twenty five respondents were not asked this question as they had not been sea angling in Northern Ireland in the previous 12 months. A further six of the respondents were visitors to Northern Ireland and have been removed in order to calculate expenditure by local anglers. From the possible 177 eligible people who were asked the question, 131 responses were provided giving a response rate of 74%. One of the 131 respondents to this question had zero spend on large items in the previous three years. Based on responses received, the annual expenditure by an angler is estimated at £838. However, in the survey it was asked if a boat was privately owned, what percentage of its use was for sea angling. Responses varied from 100% to 0-10%. This needs to be taken into account as the total expenditure given will not be solely for sea angling (with regards expenditure on purchase and maintenance of boats, boat equipment, boat storage, Marina/harbour fees). Based on this, the actual expenditure per sea angler is estimated at £708 per year on high cost items with those who participate in angling from a boat spending considerably more money than those sea anglers who mostly or only fish from the shore ¹.

For those who mainly fish from a boat, the largest annual expenditure is on the purchase and maintenance of the boat (Table 2). The average annual spend by someone who always or mostly carries out boat based sea angling is £944 (for those who had left an expenditure blank it is assumed that they had zero spend on that item). For shore anglers, the annual expenditure is much lower at £393, with largest expenditure being on fishing rods and reels (Table 2).

This estimated annual expenditure does not include low cost items such as food, drink and snacks, bait, car parking, charter boat hire etc. Respondents were asked to provide a breakdown of their expenditure on their last sea angling trip. As with the question for annual expenditure on high cost items, 31 people were exempt from this question. There were 130 responses from local anglers giving a response rate of 73%. Three of these respondents had zero expenditure from their last trip. One respondent had included more than £500 for Pier/Harbour fees. As this would have been included under the high cost item expenditure in last three years this was removed. The average spend by respondents was £64.

¹ When calculating annual expenditure on high cost items, an assumption was made that the 26% who did not respond to the question had the same expenditure as those who did respond. To provide a lower pound estimate, an assumption can be made that the 26% who did not respond had zero expenditure, providing a conservative estimate of £538. However, whilst this provides a lower bound value of expenditure, an upper bound value cannot be provided as, whilst we have assumed when calculating the average expenditure that those who did not respond had the same expenditure as those who did respond, it is also possible that they may have had a higher expenditure, thus an upper limit cannot be calculated.

Table 2 Average annual expenditure (£) for sea anglers based on the main type of angling they participate in (*3 respondents had spent more than £10,000 in the last three years on the purchase/maintenance of a boat. However they had not disclosed how much time the boat was used for recreational sea angling. These respondents were removed from this question).

Item	Boat/Mostly from Boat	Shore/Mostly from Shore	Equal from Boat and Shore
Fishing Rods and Reels	102	160	127
Clothing bought specifically for fishing	32	48	47
Other equipment (rests, boxes, lighting etc)	24	32	27
Terminal tackle (weights, hooks, line, lures etc)	54	67	32
Purchase and Maintenance of boat	417	72	462
Boat equipment (engines, electronic equipment, safety equipment etc.)	223	14	146
Boat storage/Marina/Harbour fees	92	0.11	21
Total expenditure per year	944	393	862*

However, for ten of the respondents, their last trip was longer than one day and therefore expenditure would be expected to be higher on items such as food and drink, bait and charter hire. As we are interested in the daily expenditure, the costs of these respondents was divided by the number of days spent sea angling on the trip to give a daily cost. This reduces the average daily expenditure to £47.78².

To calculate the daily spend by the type of angling, respondents who had not stated if their last trip was shore or boat based, were omitted. In addition, those whose last trip was longer than a day and who had participated in both shore and boat based angling on the trip were removed as the spend on shore and boat based days could not be calculated accurately. There were several anomalies where the respondent had stated their last trip was shore based but the expenditure included boat charter, boat fuel etc. These were also removed. For those where the last sea angling trip was shore based, the average total expenditure on this last trip was £16.42. For a boat angling day trip the average expenditure was £83.77 with the biggest expenditure being for charter boat hire (Table 3). Brown *et al.* 2013 reported an average daily spend by sea anglers in England of £45.93.

In addition, with the majority of respondents driving to their chosen spot, travel costs will primarily be expenditure on fuel. The average journey is estimated at 32.6 miles (one way). Based on a return trip of 65 miles and with an average fuel cost of 15.5p per mile (taken from the AA website figures for 2012 with average diesel car consuming 14p per mile of fuel and petrol car consuming 17p per mile), the average cost of fuel per trip is £10

² When calculating last trip expenditure, an assumption was made that the 27% who did not respond to the question had the same expenditure as those who did respond. To provide a lower pound estimate, an assumption can be made that the 27% who did not respond had zero expenditure, providing a conservative estimate of £36. However, whilst this provides a lower bound value of expenditure, an upper bound value cannot be provided as, whilst we have assumed when calculating the average expenditure that those who did not respond had the same expenditure as those who did respond, it is also possible that they may have had a higher expenditure, thus an upper limit cannot be calculated.

Table 3 Daily expenditure (£) by recreational sea anglers in Northern Ireland based on last trip spend

Item	Boat based trip expenditure	Shore based trip expenditure
Food, drinks, snacks	13.62	8.55
Bait	4.81	7.41
Car parking	0.44	0.46
Pier/harbour/ launching fees	2.42	0
Charter boat hire	46.48	0
Boat fuel	16.00	0
Total	83.77	16.42

The average number of days spent sea angling by shore anglers in the last 12 months was 32.5 and for boat anglers was 20 days per year. However, a small number of respondents indicated that they participated in sea angling 200 plus days a year which increased the average. Therefore, in order to obtain a conservative estimate on expenditure, the modal number of days per year will be used. For sea angling from the shore a modal number of 20 days are spent participating each year. Therefore the average spend, per year, by shore anglers, including expenditure on high cost items, low cost items and transport costs (fuel) is estimated at £921 (Table 4). For boat anglers the average annual cost, based on a modal value of 15 days per year, is £2,351 (Table 4).

Table 4 Estimated annual expenditure (£) for sea anglers in Northern Ireland

	Boat Based	Shore Based
High value items	944	393
Low value items (based on average number of trips)	1,257	328
Fuel costs (based on average number of trips)	150	200
Total annual spend based on average number trips	2,351	921

Discussion Points

Throughout the survey during open-ended question, and at the end of the survey in a section that was left for other relevant comments, a number of themes were highlighted by respondents. These are discussed below.

Communication

This survey found that the majority of sea anglers in Northern Ireland are not affiliated with any club or association. As no permits or licenses are required for sea angling, there are no lists of sea anglers in Northern Ireland. This can lead to problems, not only for collecting data on sea angling, but in communication with anglers about matters that may affect them. for the purposes of development, decision making and consultation. It would be beneficial to have a list of contact details held by a central body for instances such as consultation, when it is important to get the opinion of all stakeholders including the large proportion of individuals who are not affiliated to an organisation and may have differing views.

Promotion

Both local and visiting anglers have commented throughout the survey that they do not think there is enough information available on sea angling in Northern Ireland and that more people would become involved in sea angling if there was more promotion. Some of respondents left comments that they do not believe that enough emphasis is placed on tourism for the purposes of sea angling.

Protected Areas

Commercial fishing is viewed by sea anglers as a major concern to the viability of fish stocks and the development of recreational angling. Respondents feel that there should be protected areas nearshore where commercial fishing is prohibited, or indeed that there is a complete ban on mobile gear within a certain distance of the shore, with suggestions ranging from 1 mile to 10 miles (during this survey 71% of boat anglers stated that they fish within 6 miles of the shore). Some suggest this should be a permanent closure whilst others believe it only necessary for a fixed period to allow stocks to recover.

Currently there are restrictions to commercial fishing at

- Rathlin Island Special Area of Conservation (SAC)
- Strangford Lough SAC
- Murlough SAC
- Red Bay SAC

In addition, commercial fishing restrictions may also be introduced to

- The Maidens SAC
- The Skerries and Causeway SAC

The boundaries of these areas are shown in Figure 34. Typically restrictions prohibit the use of fishing methods which are likely to impact adversely on the designated features of the SAC.

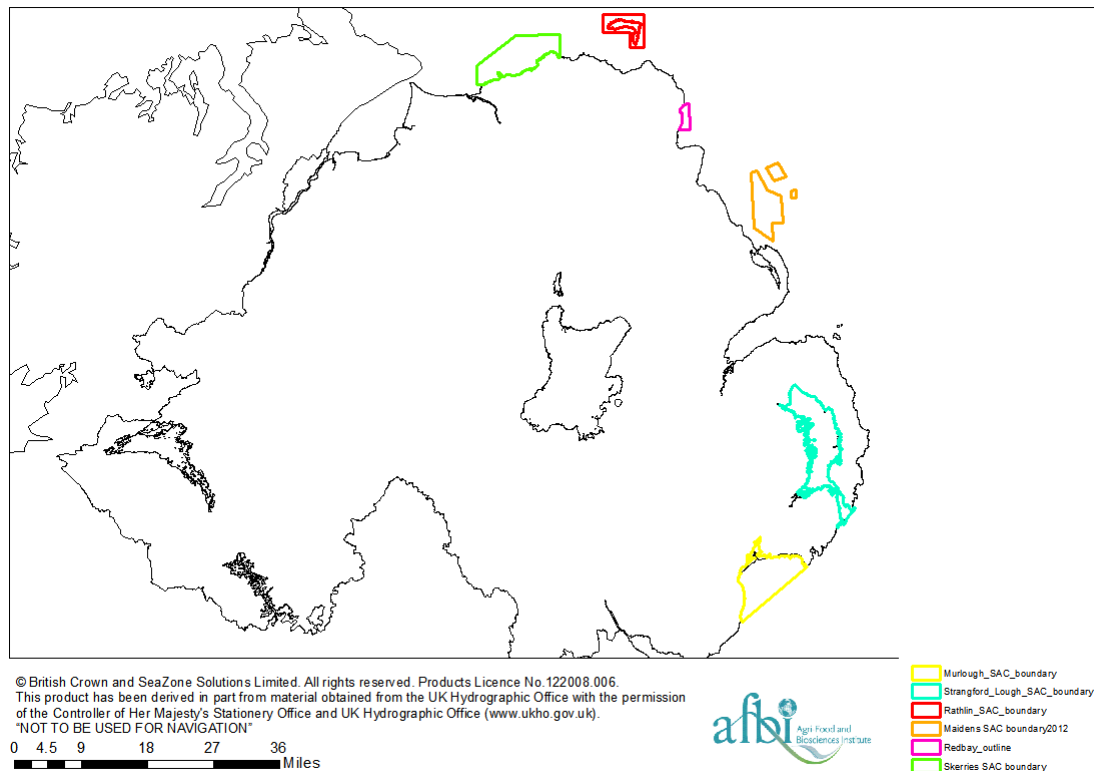


Figure 34 Special Areas of Conservation around the coast of Northern Ireland

Respondents believe that an alternative way of protecting an area from commercial fishing is through the introduction of artificial reefs which may also act as a platform for recreational anglers. Artificial reefs have the potential to improve stocks of fish in the area by providing protection from the environment, predators and commercial activity.

Access

Several respondents believe that access points, including slipways are not well maintained. One respondent stated “The slipways in this area are poor and not well maintained, usually covered in weed in the summer time. The slipways at Ballywalter and Millisle launch strait (sic) into rocks. You can walk of the side into deep water on some slipways. A small sidewall would be a great help. The angling in the south is superb with great slipways etc”.

With access one of the most important reasons why a particular location is chosen for sea angling, if these are not well maintained anglers may be discouraged and not visit these areas, losing the economic benefits which angling brings with it. Ensuring that access points are fit for use will not only benefit sea anglers, but other marine users in the area.

Size of Fish

Many respondents indicated that it is not only the numbers of fish that is dropping, but that the size of fish being caught is also decreasing. The reduction in the size of some species is to some extent corroborated by the Irish Specimen Fish Committee which has reduced their specimen weight between 1980 and 2012 for 19 of the 53 species which appear on both lists (during this time the specimen weight has increased for 2 species and 3 species have been suspended from the list).

Whilst many anglers are aware of the benefits of catch and release “given the poor status of many stocks catch and release is now standard practice”, many respondents to the survey do not believe enough people carry it out and that more education is needed on its benefits. “There needs to be more education to some anglers that think taking ALL fish they catch no matter the size is a good thing, educating these anglers that releasing under size fish to allow them to return bigger will encourage more people to see Northern Ireland to be a world famous place for this valuable resource”. Some suggested that there should be a legislative requirement to return undersized fish. Under the EU Council Regulation 850/98 minimum landing sizes (MLS) are set out for some fish species (Table 6). The presence of a MLS aids the population by returning all undersized animals, allowing them to reproduce at least before being of a landable size. Whilst this does apply to both commercial and recreational fisheries, there is some confusion on the matter with some believing that the regulations only apply to commercial fisheries. An answer to this may be to place signs at fishing marks to educate anglers on the regulations. Alternatively, a code of conduct which includes the MLS of fish could be prepared and publicly made available. The code could also be developed to include other environmental, safety, and sustainability measures such as bait collection, sustainable angling techniques, disposal of litter and the location of any protected sites or closed areas.

Table 6 MLS under EU Council Regulation 850/98

Species	EU Minimum Landing Size
Bass (<i>Dicentrarchus labrax</i>)	36cm
Coalfish (<i>Pollachius virens</i>)	35cm
Cod (<i>Gadus morhua</i>)	35cm
Haddock (<i>Melanogrammus aeglefinus</i>)	30cm
Herring (<i>Clupea harengus</i>)	20cm
Horse mackerel (<i>Trachurus trachurus</i>)	15cm
Ling (<i>Molva molva</i>)	63cm
Mackerel (<i>Scomber scombrus</i>)	20cm (30cm North sea)
Megrim (<i>Lepidorhombus whiffiagonis</i>)	20cm
Plaice (<i>Pleuronectes platessa</i>)	27cm
Pollack (<i>Pollachius pollachius</i>)	30cm
Sole (<i>Solea</i> spp)	24cm
Whiting (<i>Merlangius merlangus</i>)	27cm

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