Ocean Literacy Headline Report

Northern Ireland November 2022

Sustainability *at the heart of a living, working, active landscape valued by everyone.*

Department of Agriculture, Environment and Rural Affairs
www.daera-ni.gov.uk

INVESTORS IN PEOPLE

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Executive Summary

- This headline report presents the headline findings for the Northern Ireland sample from the survey entitled: *Survey on Ocean Literacy in the UK*. DAERA commissioned this survey as part of the wider UK project - *Understanding Ocean Literacy and Ocean Climate-related Behaviour Change in the UK*.
- The primary focus of the survey is to better understand the extent and current levels of Ocean Literacy in civil audiences across England, Wales, Scotland and Northern Ireland to inform current and future policy making to achieve the UK vision of clean, safe, healthy biodiverse and productive seas.
- Across Northern Ireland, 1,081 people over the age of 16 participated in the online survey. Fieldwork was conducted between 22 September and 24 October 2022.
- The survey uses the IOC-UNESCO definition of 'Ocean Literacy' – an understanding of the ocean's influence on a person and their influence on the ocean.
- The survey explores different dimensions of 'Ocean Literacy': including information on public awareness, knowledge, attitudes, communication, activism and behaviours related to the marine environment.
- The survey also explores barriers to promoting Ocean Literacy in the population.
- This survey provides contextual information needed to understand behaviour change related to climate change and the attainment of Good Environmental Status (GES) in the UK marine environment.

Figure 1 overleaf summarises the key findings from the survey.

Figure 1: Summary of key findings (weighted %)

Awareness	41% considered their awareness of the challenges facing the global marine environment to be poor or very poor, and only 28% considered their awareness as good or very good. However, answers demonstrated awareness. Concern was the dominant emotional response to the marine environment at 45%, explained by 52% rating the health of the global marine environment as poor or very poor and 37% rating NI marine environment as poor or very poor.
Knowledge	Marine terms with highest understanding: • 90% climate change • 75% sustainable fishing • 65% biodiversity • 65% Marine Protected Areas
Attitudes	Top 3 benefits from marine environment: • 45% diverse plant and animal habitats • 31% food • 28% renewable energy Top 3 benefits of salt marshes and seagrass meadows: • Diverse habitats for wildlife (47% and 45%) • Natural forms of coastal protection (37% and 32%) • Pollution control and water purification (31% and 35%) Most important habitat for carbon capture was tropical rainforest (56%) 3 highest threats to the marine environment: • 59% marine litter and plastic pollution • 51% chemical pollution • 45% land-based pollution 82% protecting marine environment very important/ important 86% human activity contributes to climate change 91% agree climate action is urgently needed 84% supported the creation of Marine Protected Areas
Communication	Sources of knowledge about the marine environment: • 38% television/radio • 38% news • 35% social media • 33% documentaries
Behaviour	Top 3 pro-climate behaviours: • 76% recycling • 65% reduced use of single use plastic • 60% reuse plastic 81% have or plan on making lifestyle changes Reasons for change: • 58% desire to be greener • 56% concern about climate 59% believe lifestyle has impact
Activism	Top pro-marine acts: • 37% lifestyle changes • 18% petitions

Personal or emotional connection	Top emotional terms: • 45% concern • 36% awe/wonder • 34% curiosity • 30% calm/relaxed
Access, experience & proximity	3% never visited the marine environment and 5% not in the last 12 months Top activities: • 49% walking • 33% dog walking • 23% sea swimming • 22% photography Outcomes of visits: • 77% mental health • 72% physical health • 53% time with others

Introduction

The headline report

This report presents the headline findings for the Survey on Ocean Literacy in Northern Ireland. This survey was commissioned by DAERA as part of the wider UK project - *Understanding Ocean Literacy and Ocean Climate-related Behaviour Change in the UK*. Across Northern Ireland, 1,081 people over the age of 16 participated in the online survey. Fieldwork was conducted between 22 September and 24 October 2022.

Background and objectives

The term Ocean Literacy is defined as 'an understanding of the ocean's influence on a person and their influence on the ocean'. DAERA and the other UK administrations are seeking this information to inform current and future policy making to achieve the UK vision of clean, safe, healthy, biodiverse and productive seas. This incorporates the overall objective of Good Environmental Status and will assist us in the implementation of the Marine Plan for Northern Ireland.

It is critical that DAERA raises awareness on the status of the marine environment and the need to protect it through communication, outreach and engagement with the public and key stakeholders. There is also a need to raise awareness of climate change, how our seas are impacted and how our seas and intertidal areas can mitigate climate change through blue carbon habitats, which remove carbon from the earth's atmosphere. A better understanding of our society's grasp of these issues, will assist DAERA in how to communicate and affect change in better protecting our marine environment.

Methodology

The research used an online panel method. Invitations were sent to members of online panels using BMG's 'panel blend' approach which uses simultaneous survey invitations across multiple panels to spread fieldwork. Further details on this can be found in the technical report.

Data Protection

Panellist information is treated in accordance with the strict laws on data protection with surveys always carried out anonymously. BMG Research reviews all data protection and security procedures ahead of using any panel providers.

Although full postcode was collected from respondents, the survey was implicit with regards to how this would be used and this has not been passed back to DAERA. Further details on this can be found in the technical report.

A note on the data in this report

The findings in this report describe proportions of respondents from an overall weighted base. The weighted base is the adjusted sample size within each sub-group after weighting procedures have been applied to ensure the sample is nationally representative. This is applied to the overall unweighted base of 1,081 respondents, which is the total number of survey responses achieved.

The figures presented in the report have been rounded to the nearest whole percentage. In some instances, where percentages have been summed, this is done to a number of decimal places, which means that figures may appear to be ±1% up or down from the percentages when summed to zero decimal places.

Further details about the methodology used in the survey, including sample design, weighting and demographic information are outlined in the technical report.

Further publications related to this survey:

- A technical report containing details of the survey methodology
- Data tables in excel providing more detailed survey results
- Ocean Literacy in England and Wales Headline Findings Report 2021 - 15131_ME5239OceanLiteracyHeadlineReport_FINAL.pdf (oceanconservationtrust.org)
- Ocean Literacy in England, Wales and Scotland Headline Findings Reports 2022 –
    - England - Science Search (defra.gov.uk)
    - Wales - Ocean Literacy in Wales: Headline Findings Report (cyfoethnaturiol.cymru)
    - Scotland - Ocean literacy survey: headline findings - gov.scot (www.gov.scot)
- *'Understanding Ocean Literacy and ocean climate-related behaviour change in the UK – An Evidence Synthesis'*. Report produced for Ocean Conservation Trust and Defra

Dimensions of ocean literacy

Brennan et al. (2019) defined Ocean Literacy as having six dimensions: awareness, knowledge, attitudes, communication, behaviour and activism.

However, there are a number of other models and concepts relating to Ocean Literacy (e.g. marine citizenship), and, as such, the definition of Ocean Literacy continues to evolve. In addition to the six dimensions listed above, this report includes two additional dimensions: personal or emotional connection and access experience & proximity.

Further detail on these dimensions and the supporting evidence for them can be found in the 2020 report *'Understanding Ocean Literacy and ocean climate-related behaviour change in the UK – An Evidence Synthesis'*, prepared for Defra and the Ocean Conservation Trust.

The full list of Ocean Literacy dimensions included in this report are:

- Awareness
- Knowledge
- Attitudes
- Communication
- Behaviour
- Activism
- Personal or emotional connection
- Access, experience, and proximity

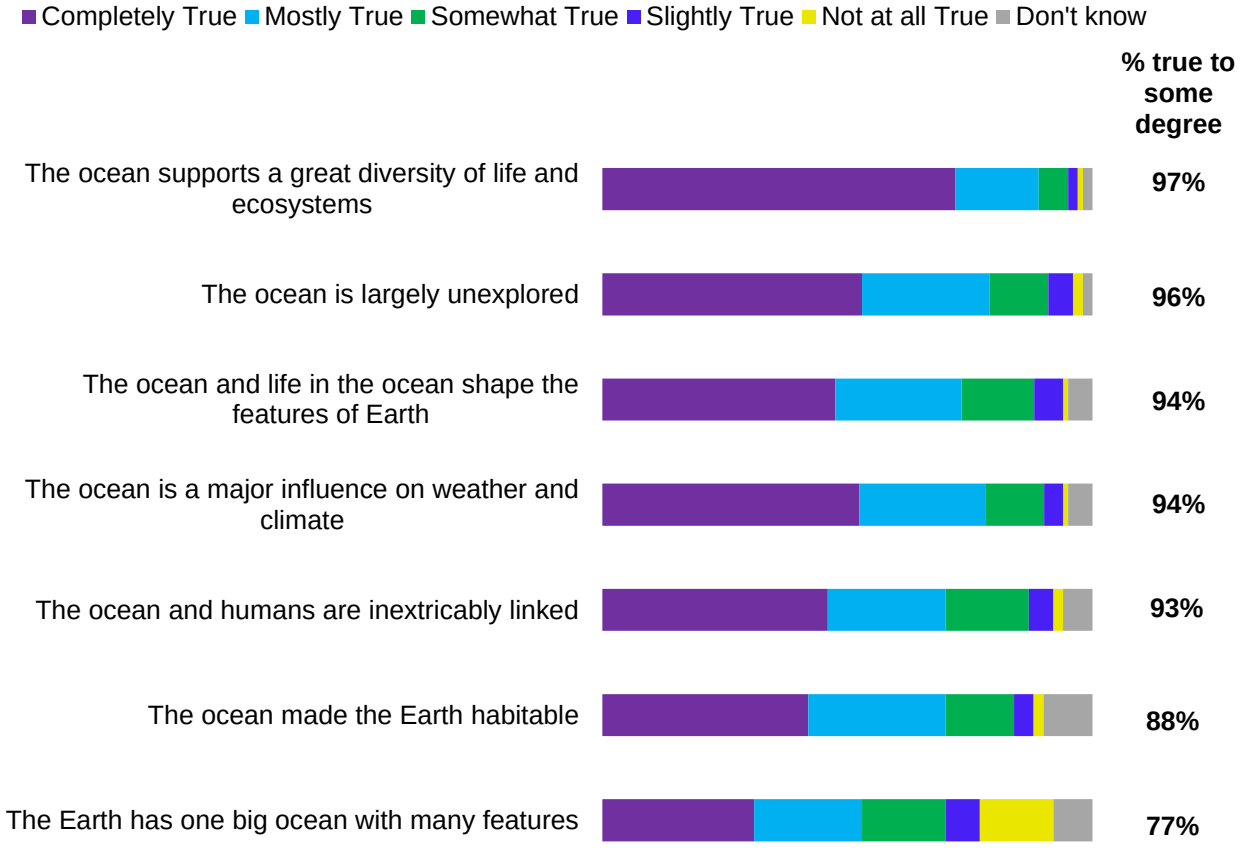
Throughout this report, bullet points at the end of each section make clear which dimension of Ocean Literacy the findings presented relate to.

Principles of Ocean Literacy

Although there are questions regarding an agreed definition of Ocean Literacy, seven principles related to people's understanding of the impact on the ocean and the ocean's impact on them have underpinned Ocean Literacy initiatives in recent years. Survey respondents were asked to indicate the extent to which they believed these principles were true (Figure 2).

The vast majority believed that most of the principles were true to some degree, ranging from 97% who said the "The ocean supports a great diversity of life and ecosystems" was true to 88% who said "The ocean made the Earth habitable". While still a majority, respondents were least likely to believe that "The Earth has one big ocean with many features" was true to some extent (77%).

Figure 2: Extent to which Ocean Literacy principles are perceived to be true (weighted %)



Q3. The following are principles about the marine environment. Please indicate how true you believe each statement to be.
Unweighted base: 1,081

Table 1: Extent to which Ocean Literacy principles are perceived to be true (weighted %)

Principle	Completely True	Mostly True	Somewhat True	Slightly True	Not at all True	Don't know	Summary: True (to some level)
The ocean supports a great diversity of life and ecosystems	72%	17%	6%	2%	1%	2%	97%
The ocean is largely unexplored	53%	26%	12%	5%	2%	2%	96%
The ocean and life in the ocean shape the features of Earth	48%	26%	15%	6%	1%	5%	94%
The ocean is a major influence on weather and climate	53%	26%	12%	4%	1%	5%	94%
The ocean and humans are inextricably linked	46%	24%	17%	5%	2%	6%	93%
The ocean made the Earth habitable	42%	28%	14%	4%	2%	10%	88%
The Earth has one big ocean with many features	31%	22%	17%	7%	15%	8%	77%

Dimensions:

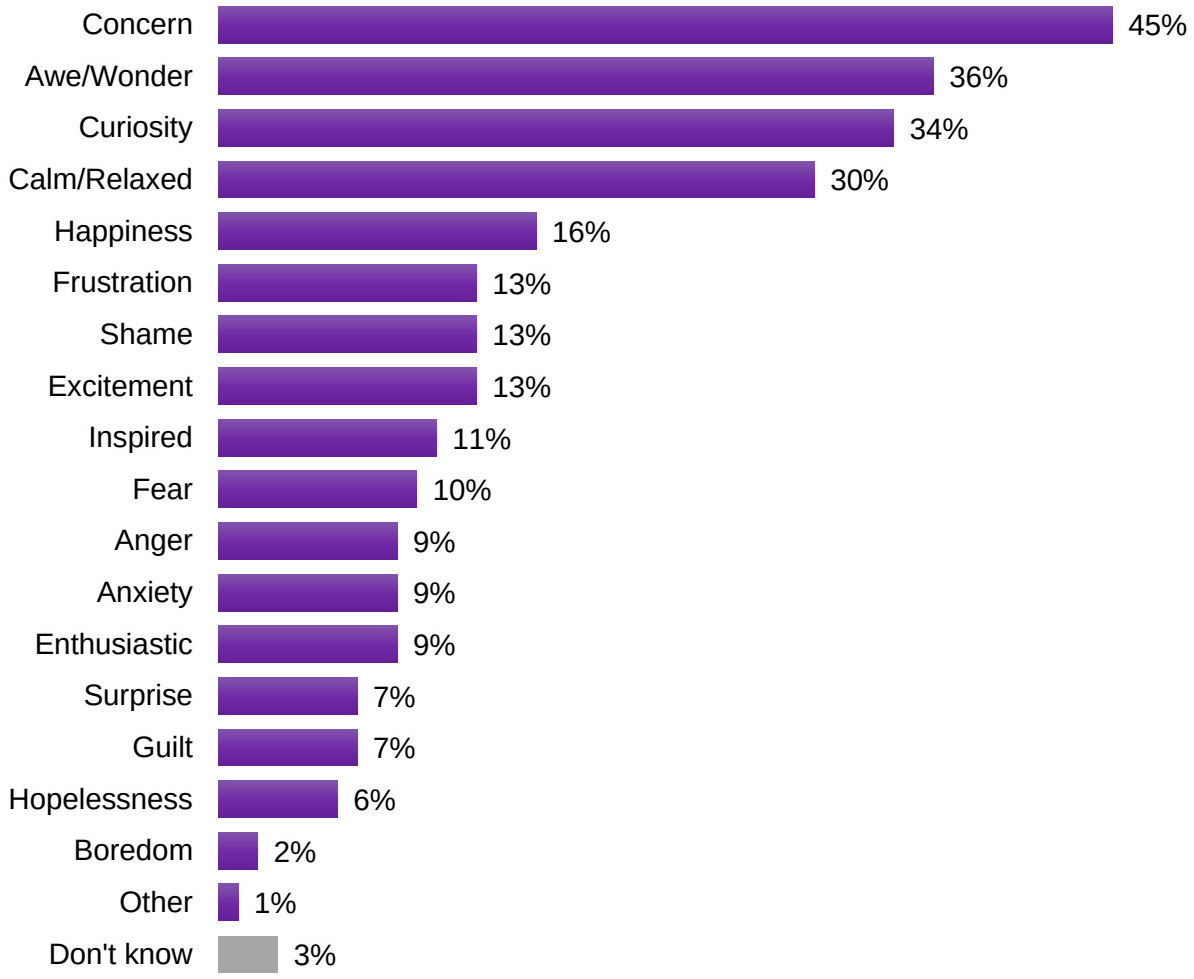
- Personal or emotional connection
- Attitudes
- Knowledge
- Awareness

Emotional responses to the marine environment

Concern (45%) was the most commonly reported feeling when asked to think about the marine environment, closely followed by awe/wonder (36%). Curiosity (34%) and calm/relaxed (30%) were also frequently reported feelings (Figure 3).

Few respondents associated marine environments with boredom (2%).

Figure 3: Emotional responses to the marine environment (weighted %)



Q2. How do you feel when you think about the marine environment? Please select the three emotions which come closest to how you feel.
Unweighted base: 1,081

Dimensions:

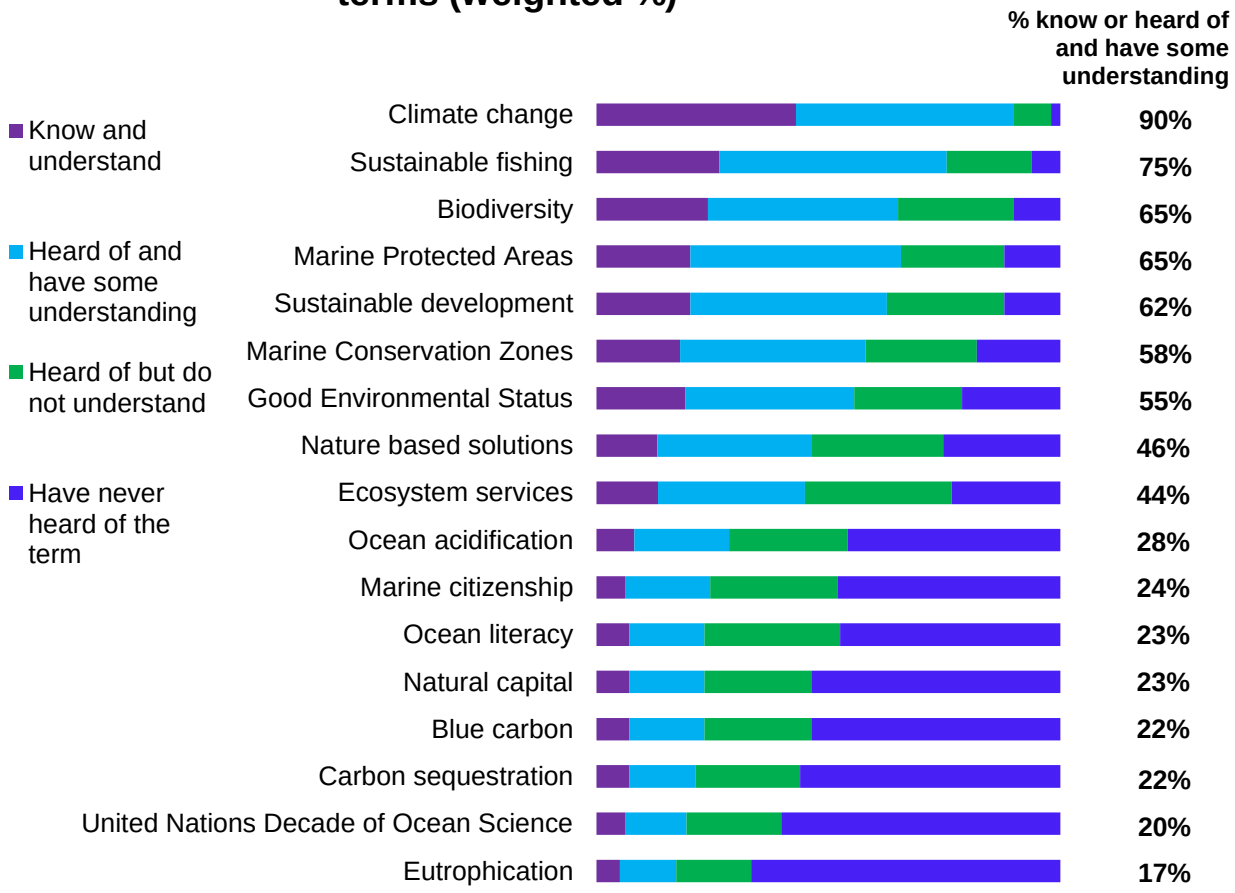
- Personal or emotional connection

Knowledge of marine terms

Climate change (90%) and sustainable fishing (75%) were the terms most commonly known and understood (to at least some degree) (Figure 4). Other familiar terms were biodiversity (65%), Marine Protected Areas (65%) and sustainable development (62%).

In contrast two thirds said they had never heard of eutrophication (66%). Other terms which the majority had never heard of were the United Nations Decade of Ocean Science (59%), carbon sequestration (55%), blue carbon (53%) and natural capital (53%).

Figure 4: Knowledge and understanding of marine terms (weighted %)



Q7. Please indicate how familiar you are with each of the following terms.
Unweighted base: 1,081

Table 2: Knowledge and understanding of marine terms (weighted %)

Marine Term	Know and under stand	Heard of and have some understanding	Heard of but do not understand	Have never heard of the term	Summary: Know or heard of and have some understanding
Climate change	43%	47%	8%	2%	90%
Sustainable fishing	26%	48%	18%	6%	75%
Biodiversity	24%	41%	25%	10%	65%
Marine Protected Areas	20%	45%	22%	12%	65%
Sustainable development	20%	42%	25%	12%	62%
Marine Conservation Zones	18%	40%	24%	18%	58%
Good Environmental Status	19%	36%	23%	21%	55%
Nature based solutions	13%	33%	28%	25%	46%
Ecosystem services	13%	31%	31%	23%	44%
Ocean acidification	8%	20%	25%	45%	28%
Marine citizenship	6%	18%	27%	47%	24%
Ocean literacy	7%	16%	29%	47%	23%
Natural capital	7%	16%	23%	53%	23%
Blue carbon	7%	16%	23%	53%	22%
Carbon sequestration	7%	14%	22%	55%	22%
United Nations Decade of Ocean Science	6%	13%	20%	59%	20%
Eutrophication	5%	12%	16%	66%	17%

Dimensions:

- Knowledge
- Awareness

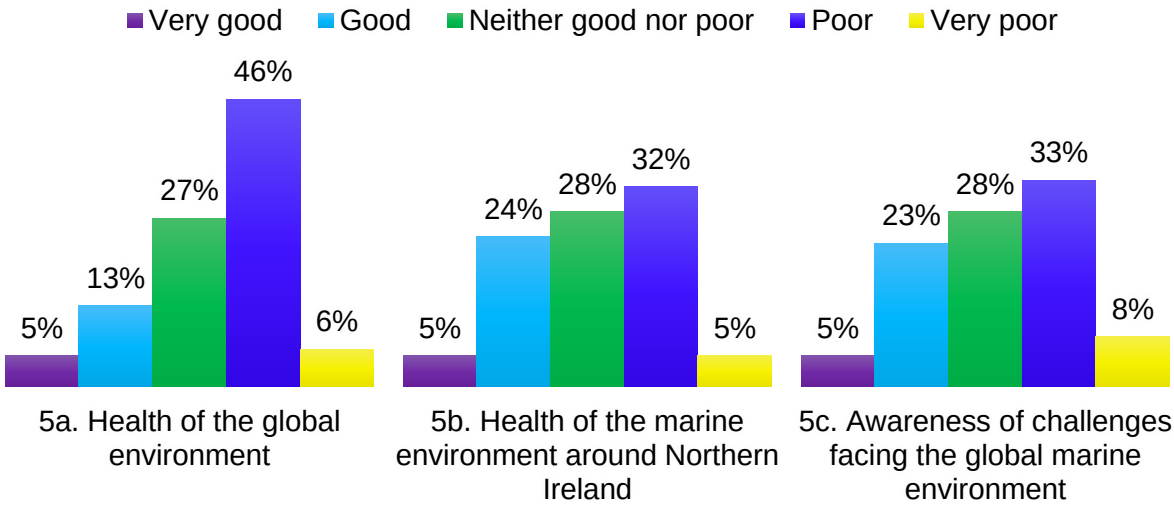
Perceptions of marine health and challenges

Fifty-two percent rated the health of the global marine environment as poor or very poor, while 17% rated it as good or very good (Figure 5a).

A somewhat lower proportion rated the health of the marine environment around Northern Ireland as poor or very poor (37%) compared to the global marine environment, and 29% rated it as good or very good (Figure 5b).

While 41% considered their awareness of the challenges facing the global marine environment to be poor or very poor, 28% rated their awareness as good or very good (Figure 5c).

Figure 5: Perceptions of the health of and awareness of challenges facing the marine environment (weighted %)



Q4. How would you rate the health of the global marine environment? Q5. How would you rate the health of the marine environment around Northern Ireland? Q6. How would you rate your awareness of challenges facing the global marine environment?
Unweighted

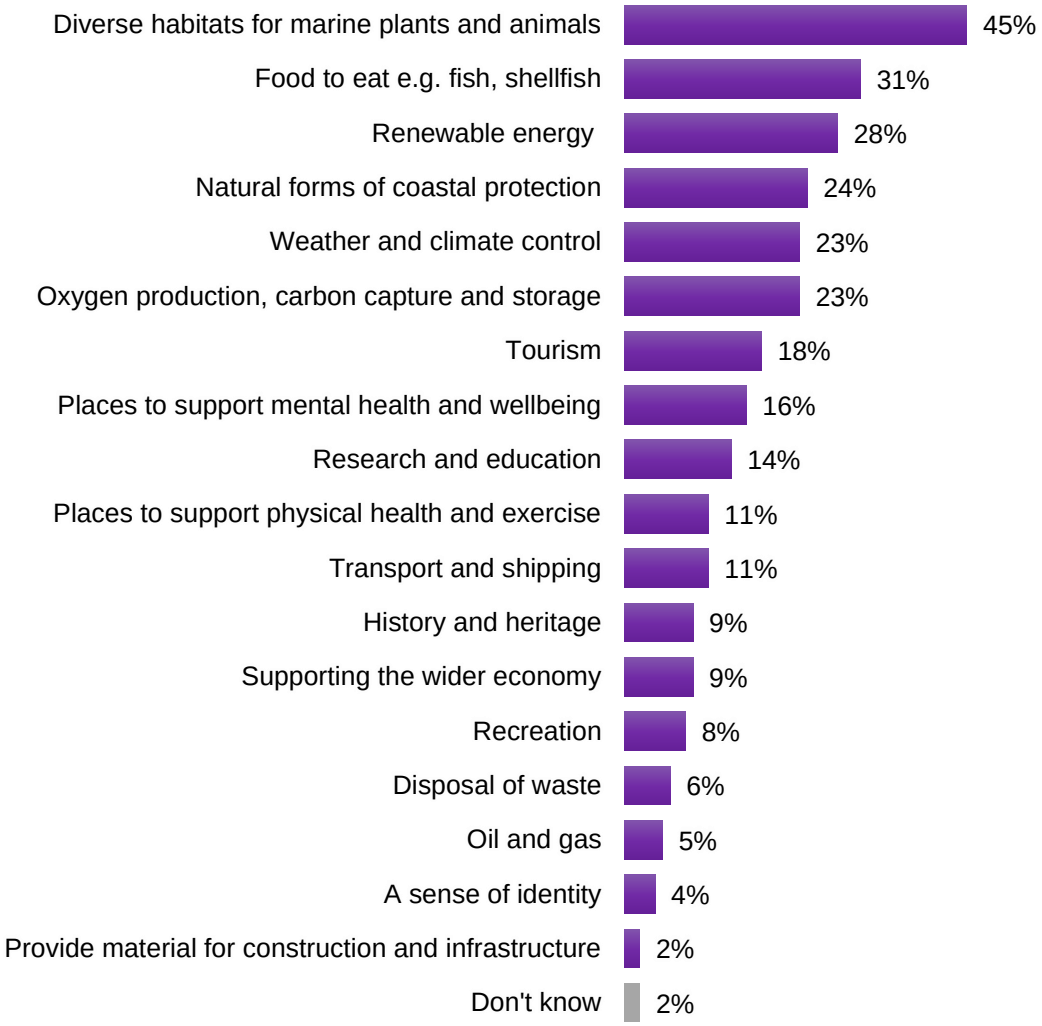
Dimensions:

- Knowledge
- Awareness

Benefits of the marine environment

When asked what they thought the three most important benefits are of the marine environment in Northern Ireland (Figure 6), the top response was diverse habitats for marine plants and animals (45%) followed by food to eat (31%) and renewable energy (28%).
In contrast, very few people felt that providing material for construction and infrastructure (2%), a sense of identity (4%), oil and gas (5%) and disposal of waste (6%) were important benefits.

Figure 6: Most important benefits of the marine environment (weighted %)



Q9. In your opinion, what are the three most important benefits that society gains from the marine environment in Northern Ireland?
Unweighted base: 1,081

Dimensions:

- Personal or emotional connection
- Attitudes
- Knowledge
- Awareness

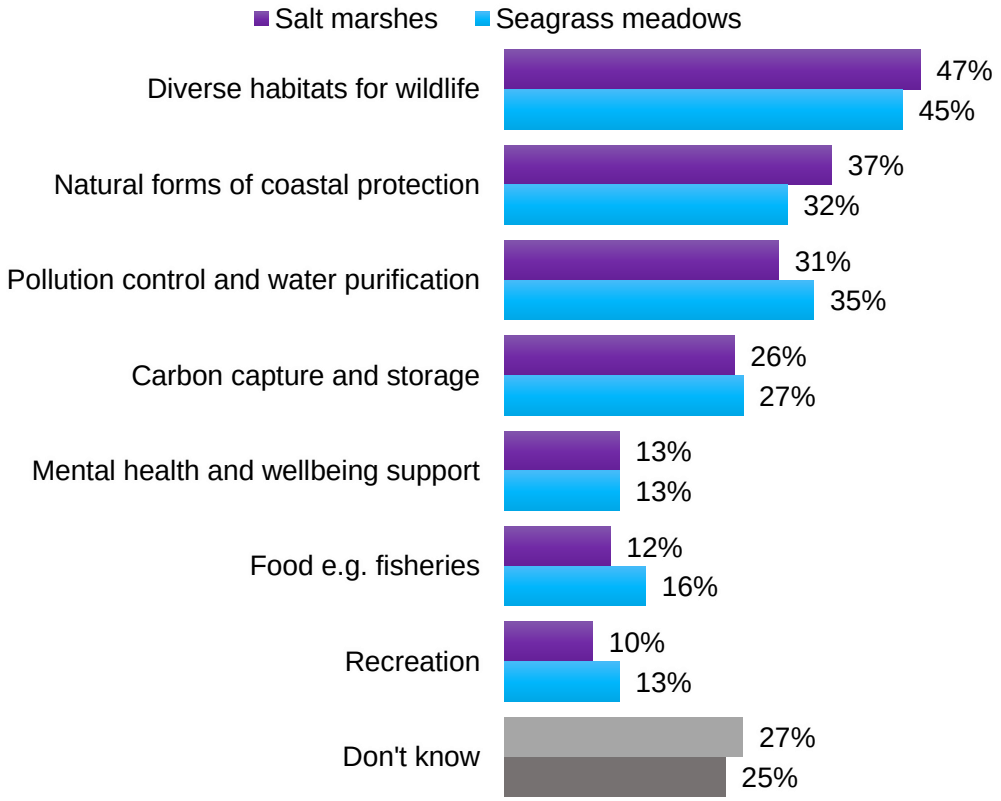
Salt marshes and seagrass meadows

Potential benefits of salt marshes and seagrass meadows

The pattern of response was very similar for both salt marshes and seagrass meadows, with close to a half (47% and 45% respectively) feeling the diversity of habitats for wildlife is the most important benefit, followed by natural forms of coastal protection (37% and 32%), pollution control and water purification (31% and 35%) and carbon capture and storage (26% and 27%).

Around a quarter (27% and 25% respectively) indicated that they did not know what the benefits from these ecosystems are (Figure 7).

Figure 7: Potential benefits of salt marshes and seagrass meadows (weighted %)



NQ5. The following are a range of POTENTIAL BENEFITS of salt marshes and seagrass meadows. In your opinion for each habitat, which three do you think are the most important?
Unweighted base: 1,081

Dimensions:

- Personal or emotional connection
- Attitudes
- Knowledge
- Awareness

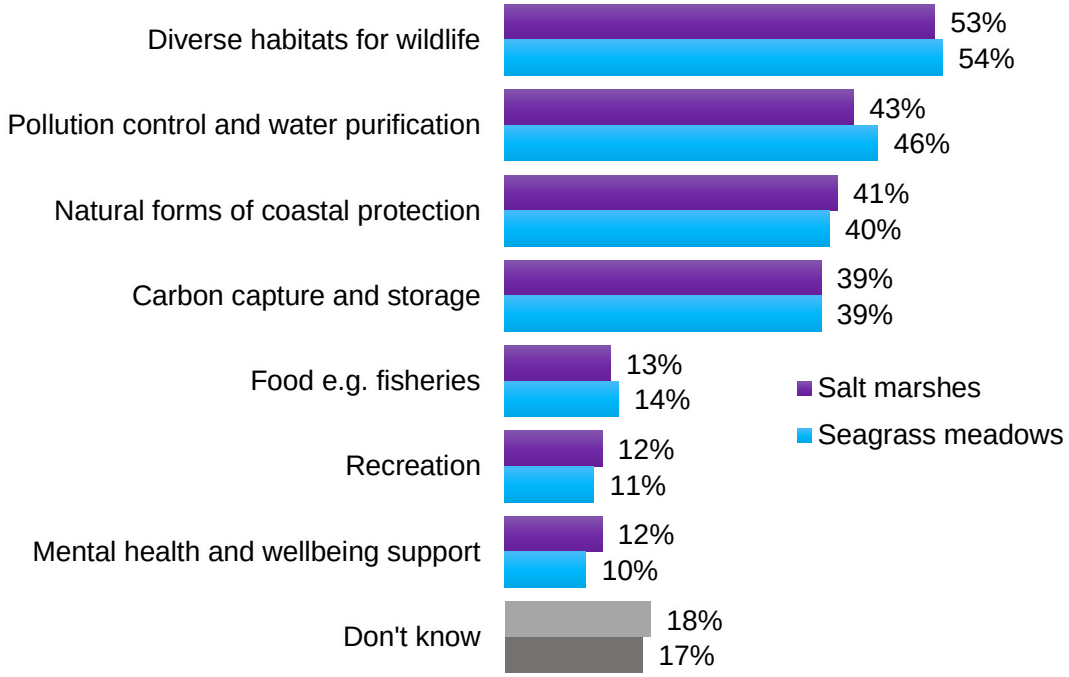
Restoring salt marshes and seagrass meadows

Eighteen percent of respondents said they were aware of efforts to restore salt marshes, and 16% said they were aware of efforts to restore seagrass meadows.

Respondents were then presented with a range of reasons for restoring salt marshes and seagrass meadows and were asked which three were most important (Figure 8).

Again, the pattern of response was very similar for both salt marshes and seagrass meadows, with diverse habitats for wildlife regarded as the most important (53% and 54% respectively), followed by pollution control and water purification (43% and 46%), natural forms of coastal protection (41% and 40%) and carbon capture and storage (both 39%).

Figure 8: Reasons for restoring salt marshes and seagrass meadows (weighted %)



NQ10. The following are a range of REASONS FOR RESTORING salt marshes and seagrass meadows. In your opinion for each habitat, which three do you think are the most important reasons to restore these habitats?
Unweighted base: 1,081

Dimensions:

- Personal or emotional connection
- Attitudes
- Knowledge
- Awareness

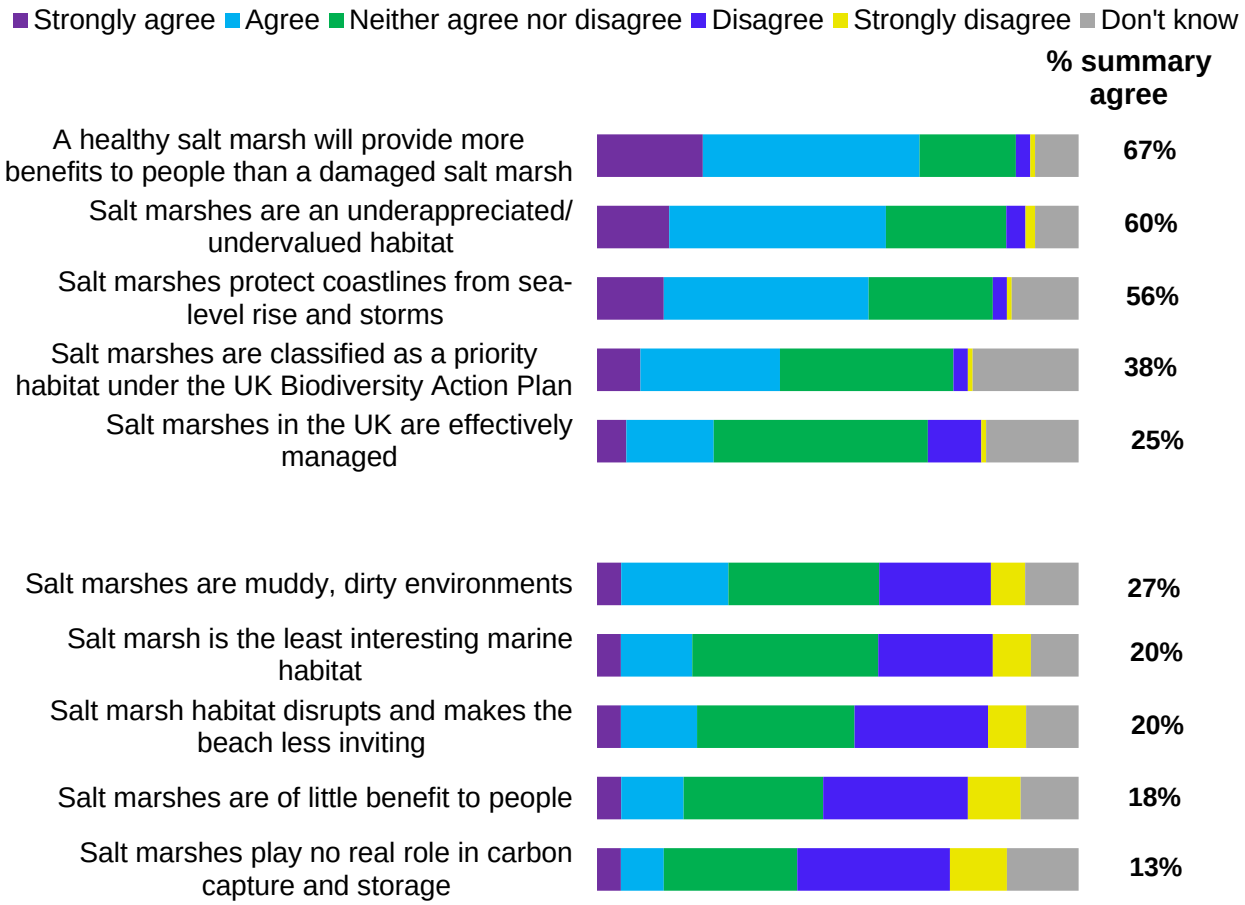
Views on salt marshes

Respondents were asked to rate their level of agreement with a range of statements relating to salt marshes (Figure 9).

Agreement was strongest that a healthy salt marsh will provide more benefits to people than a damaged salt marsh (67%), followed by agreement that salt marshes are an underappreciated habitat (60%) and that salt marshes protect coastlines from sea-level rise and storms (56%).

There were relatively high levels of 'don't know' responses across the board, but particularly in relation to salt marshes being classified as a priority habitat under the UK Biodiversity Action Plan (22%) and salt marshes in the UK being effectively managed (19%).

Figure 9: Views on salt marshes (weighted %)



NQ11. The following are statements about salt marshes. For each habitat, please indicate to what extent you agree with each statement.
Unweighted base: 1,081

Table 3: Views on salt marshes (weighted %)

Statement	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know	Summary : Agree
A healthy salt marsh will provide more benefits to people than a damaged salt marsh	22%	45%	20%	3%	1%	9%	67%
Salt marshes are an underappreciated/ undervalued habitat	15%	45%	25%	4%	2%	9%	60%
Salt marshes protect coastlines from sea-level rise and storms	14%	43%	26%	3%	1%	14%	56%
Salt marshes are classified as a priority habitat under the UK Biodiversity Action Plan	9%	29%	36%	3%	1%	22%	38%
Salt marshes in the UK are effectively managed	6%	18%	44%	11%	1%	19%	25%
Salt marshes are muddy, dirty environments	5%	22%	31%	23%	7%	11%	27%
Salt marsh is the least interesting marine habitat	5%	15%	39%	24%	8%	10%	20%
Salt marsh habitat disrupts and makes the beach less inviting	5%	16%	33%	28%	8%	11%	20%
Salt marshes are of little benefit to people	5%	13%	29%	30%	11%	12%	18%
Salt marshes play no real role in carbon capture and storage	5%	9%	28%	32%	12%	15%	13%

Dimensions:

- Attitudes
- Knowledge

Views on seagrass meadows

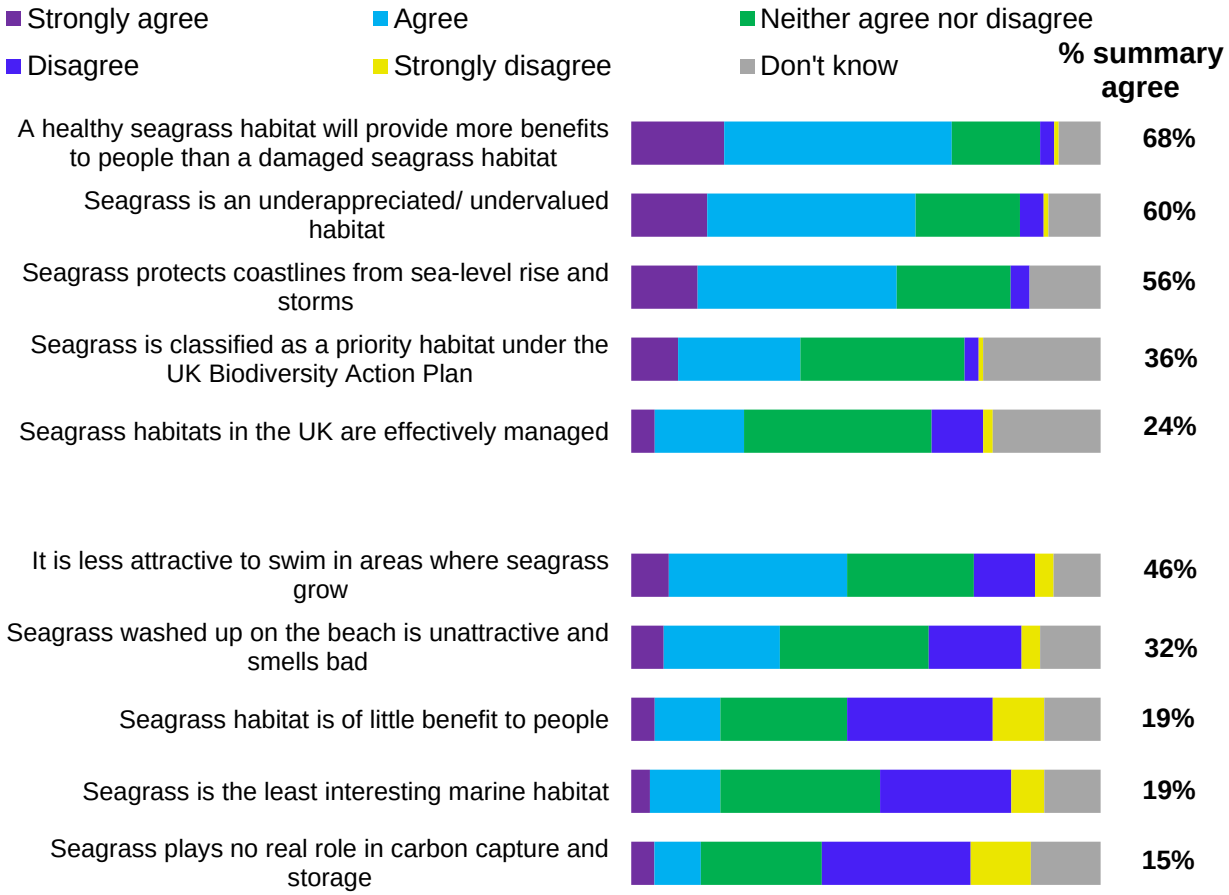
Respondents were asked to rate their level of agreement with a range of statements relating to seagrass meadows (Figure 10).

As with salt marshes, agreement was strongest that a healthy seagrass habitat will provide more benefits to people than a damaged seagrass meadow (68%), followed by agreement that seagrass is an underappreciated habitat (60%) and that seagrass meadows protect coastlines from sea-level rise and storms (56%).

Again, there were relatively high levels of 'don't know' responses across the board, but particularly in relation to seagrass meadows being classified as a priority habitat under the UK Biodiversity Action Plan (25%) and seagrass meadows in the UK being effectively managed (23%).

Forty-six percent agreed that it is less attractive to swim in seagrass habitats.

Figure 10: Views on seagrass meadows (weighted %)



NQ12. The following are statements about seagrass meadows. For each habitat, please indicate to what extent you agree with each statement.
Unweighted base: 1,081

Table 4: Views on seagrass meadows (weighted %)

Statement	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know	Summary: Agree
A healthy seagrass habitat will provide more benefits to people than a damaged seagrass habitat	20%	49%	19%	3%	1%	9%	68%
Seagrass is an underappreciated/ undervalued habitat	16%	44%	22%	5%	1%	11%	60%
Seagrass protects coastlines from sea-level rise and storms	14%	42%	24%	4%	*%	15%	56%
Seagrass is classified as a priority habitat under the UK Biodiversity Action Plan	10%	26%	35%	3%	1%	25%	36%
Seagrass habitats in the UK are effectively managed	5%	19%	40%	11%	2%	23%	24%
It is less attractive to swim in areas where seagrass grow	8%	38%	27%	13%	4%	10%	46%
Seagrass washed up on the beach is unattractive and smells bad	7%	25%	32%	20%	4%	13%	32%
Seagrass habitat is of little benefit to people	5%	14%	27%	31%	11%	12%	19%
Seagrass is the least interesting marine habitat	4%	15%	34%	28%	7%	12%	19%
Seagrass plays no real role in carbon capture and storage	5%	10%	26%	32%	13%	15%	15%

Dimensions:

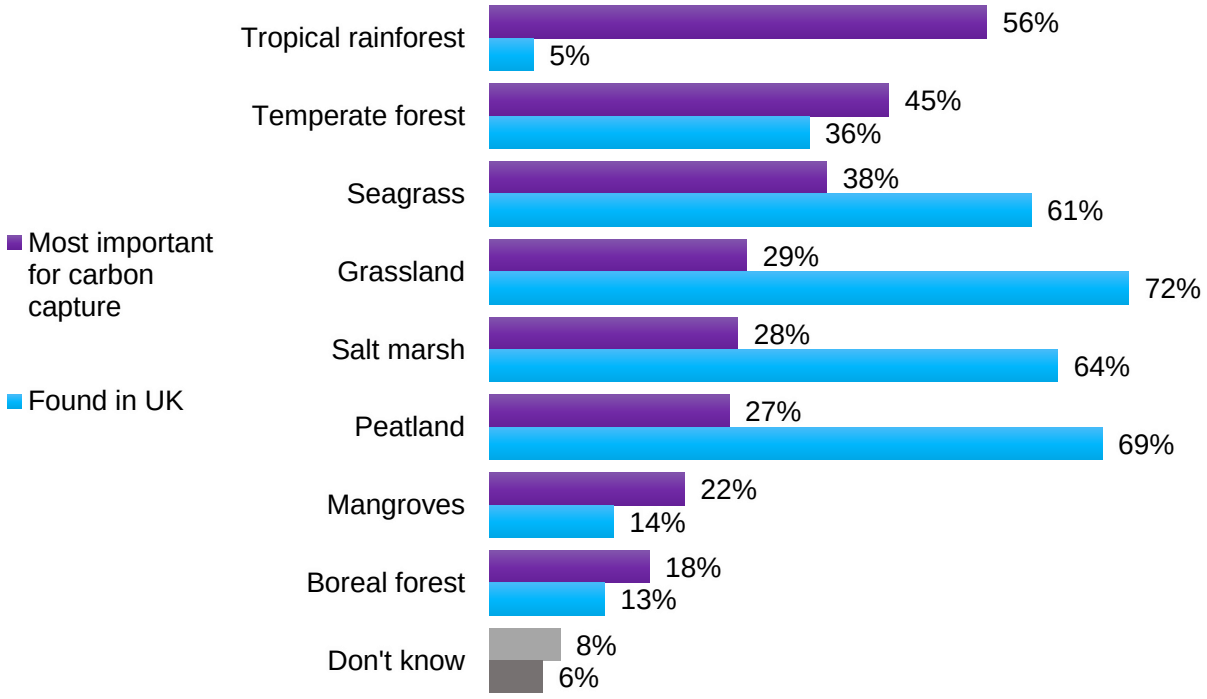
- Attitudes
- Knowledge

Carbon capture and storage

To assess the relative knowledge and importance of blue carbon habitats, respondents were presented with uncaptioned photographs of a range of natural habitats, and asked to indicate which three they thought to be the most important in relation to carbon capture (Figure 11). Tropical rainforest was regarded as the most important (56%), followed by temperate forests (45%) and seagrass (38%).

They were also asked which habitats they believe are found in the UK (Figure 11), and the most commonly mentioned were grassland (72%), peatland (69%), salt marsh (64%), and seagrass (61%).

Figure 11: Most important habitats for carbon capture/habitats found in the UK (weighted %)



NQ6. Thinking about carbon capture and storage, in your opinion which three habitats are the most important? NQ7. Which of the following habitats do you believe are found in the U.K.?
Unweighted base: 1,081

Dimensions:

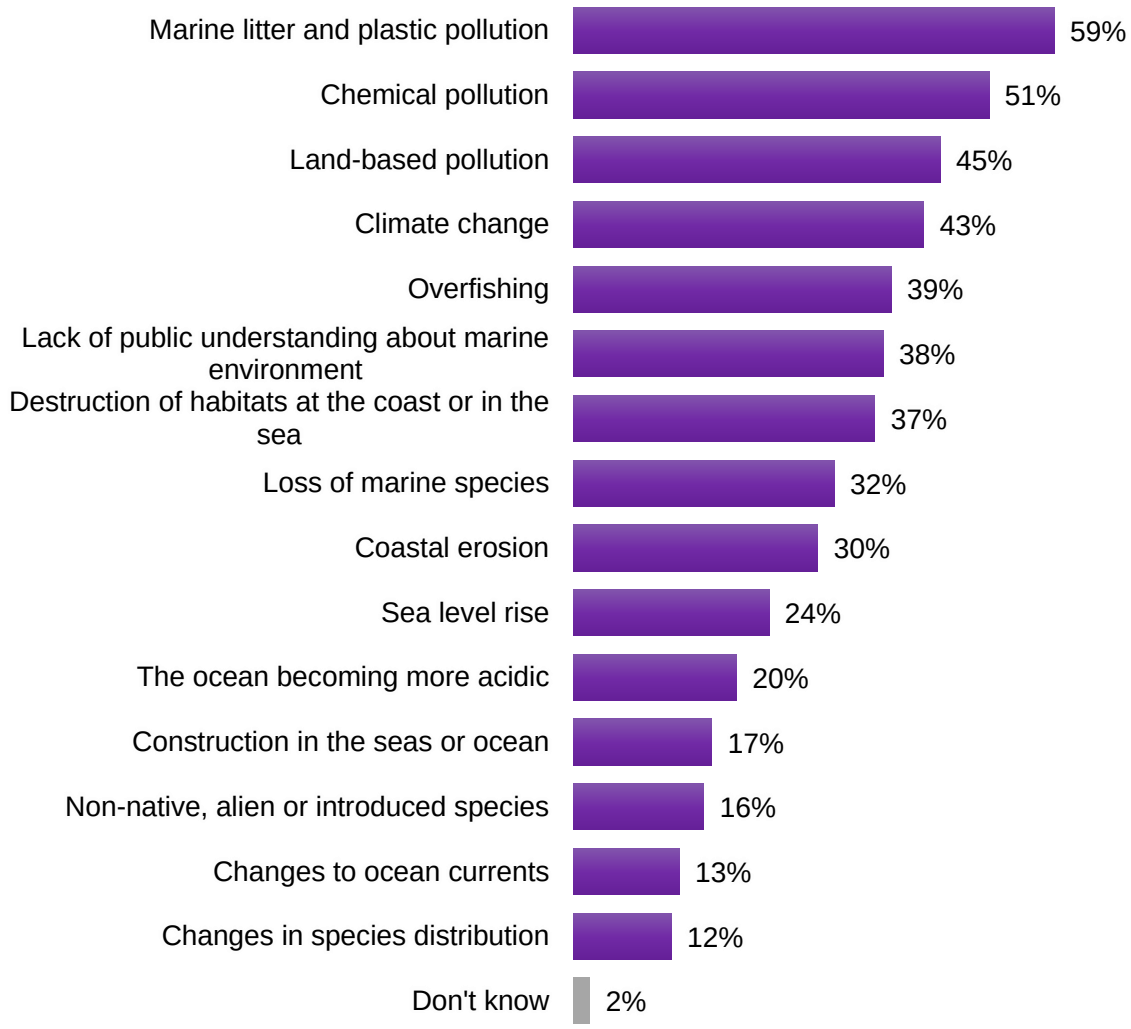
- Personal or emotional connection
- Attitudes
- Knowledge
- Awareness

Threats to the marine environment

Respondents were asked what they thought posed the most threat to the marine environment in Northern Ireland (Figure 12). Marine litter and plastic pollution was the pressure most commonly chosen (59%), whilst chemical pollution (51%) and land-based pollution (45%) also ranked highly.

Pressures which were least likely to be selected as posing a threat to the marine environment were changes in species distribution (12%), changes to ocean currents (13%) and non-native, alien or introduced species (16%).

Figure 12: Pressures posing most threat to the marine environment (weighted %)



Q10. Which of the following if any, do you think pose the most threat to the marine environment in Northern Ireland?
Unweighted base: 1,081

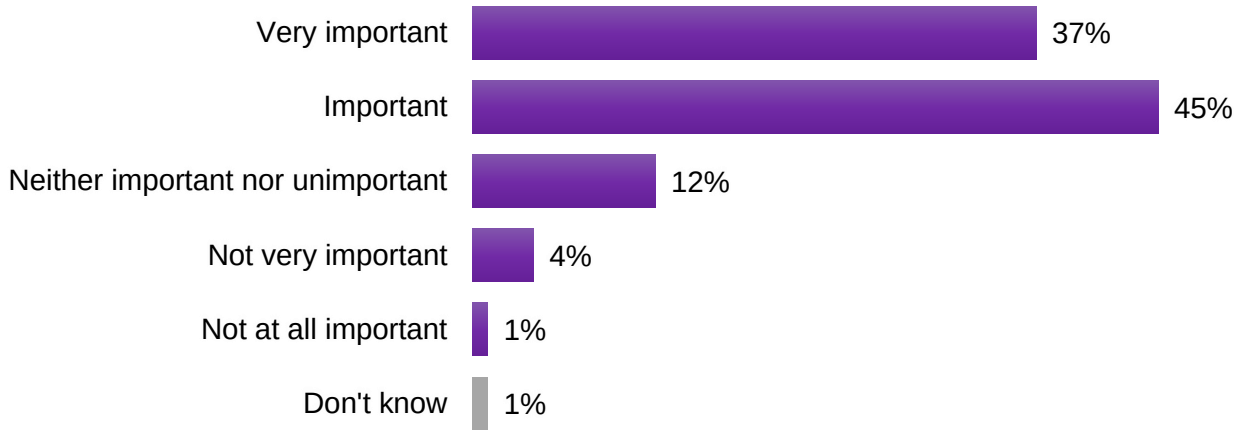
Dimensions:

- Attitudes
- Knowledge
- Awareness

Responding to threats to the marine environment

Eighty-two percent said that protecting the marine environment is very important or important to them personally. Only 5% said that is not very/at all important (Figure 13).

Figure 13: Importance of protecting the marine environment (weighted %)



Q8. How important is protecting the marine environment to you personally?
Unweighted base: 1,081

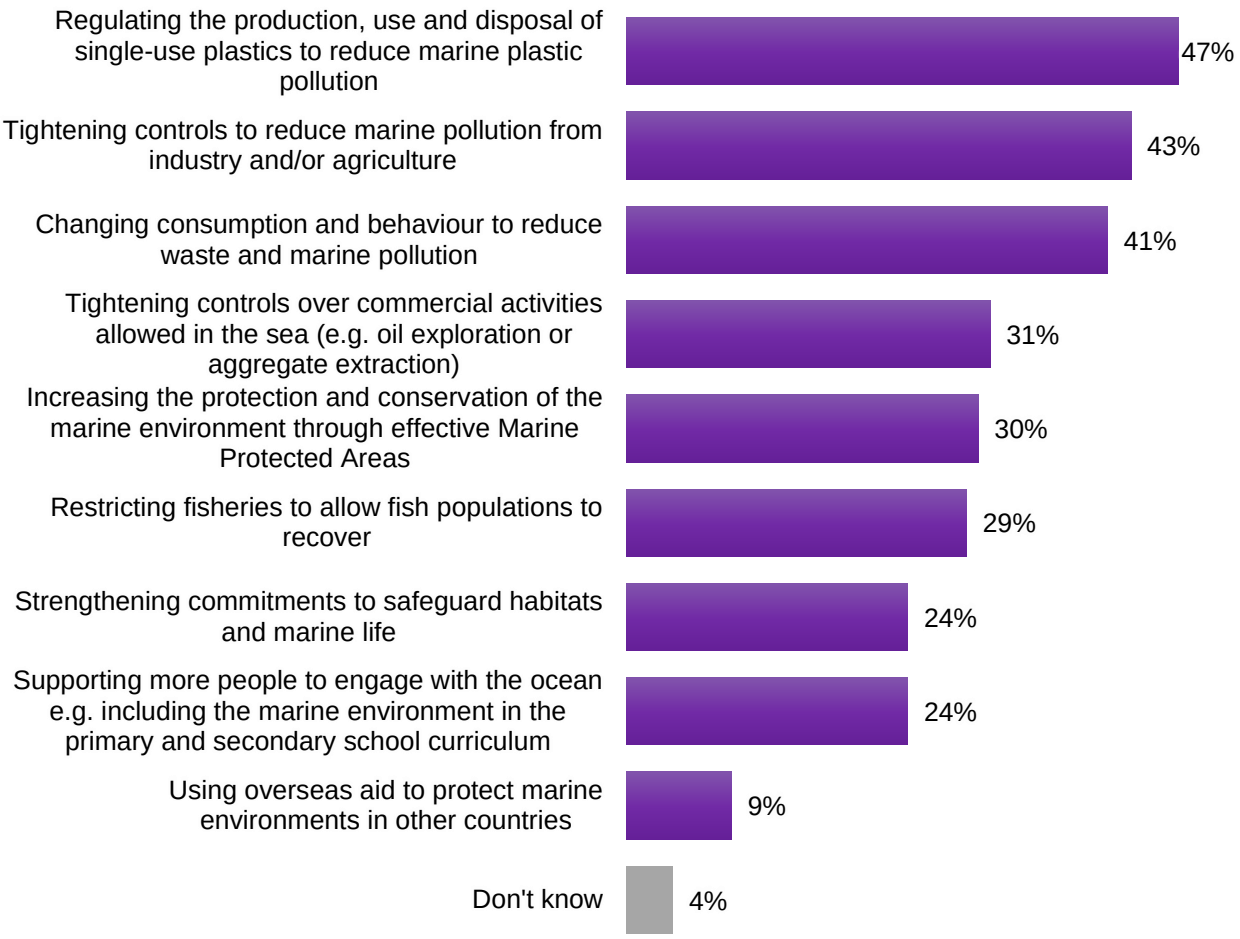
Dimensions:

- Attitudes
- Knowledge
- Awareness

A range of activities addressing other issues affecting the marine environment (i.e. non ocean climate issues) in Northern Ireland were provided to respondents who were asked to select the three most important (Figure 14).

Regulating single-use plastics (47%) was the top choice, followed by controls on pollution from industry and/or agriculture (43%) and changing consumption, behaviour to reduce waste and marine pollution (41%). The activity least likely to be selected was using overseas development aid (9%).

Figure 14: Most important activities to address marine issues (weighted %)



Q13. The following activities all address other issues affecting the marine environment in Northern Ireland. In your opinion, which three do you think are the most important?
Unweighted base: 1,081

Dimensions:

- Attitudes
- Knowledge
- Awareness

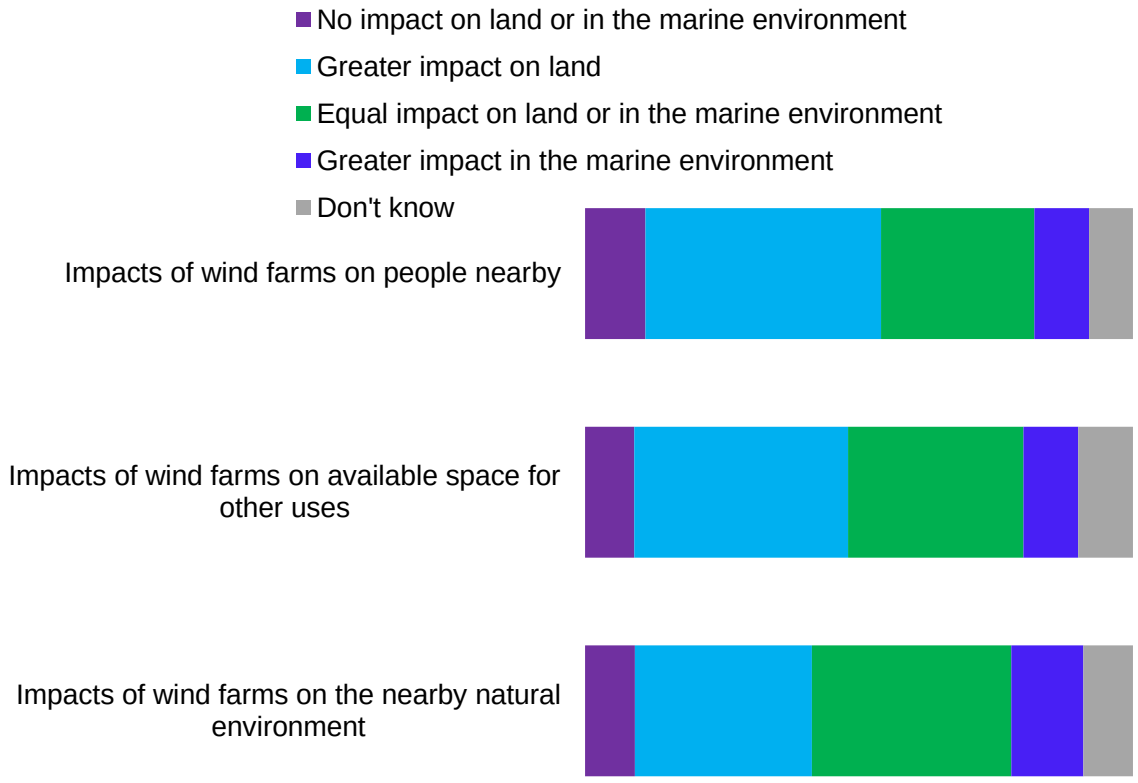
Views on wind farms

Around one in ten believed that wind farms have no impact on the land or in the marine environment in terms of people nearby (11%), the available space for other use (9%) and the nearby natural environment (9%) (Figure 15).

Forty-three percent felt there is a greater impact on land in terms of people nearby, 39% in terms of space available for other uses, and 32% in terms of the nearby natural environment.

Around one in ten felt that wind farms have a greater impact in the marine environment in terms of people nearby (10%), the space available for other uses (10%) and the nearby natural environment (13%).

Figure 15: Views on wind farms (weighted %)



NQ4. Do you think the following impacts of windfarms (including wind turbines and power transmission cables) are greater on land or in the marine environment?
Unweighted base: 1,081

Table 5: Views on wind farms (weighted %)

Statement	No impact on land or in the marine environment	Greater impact on land	Equal impact on land or in the marine environment	Greater impact in the marine environment	Don't know
Impacts of wind farms on people nearby	11%	43%	28%	10%	8%
Impacts of wind farms on available space for other uses	9%	39%	32%	10%	10%
Impacts of wind farms on the nearby natural environment	9%	32%	36%	13%	9%

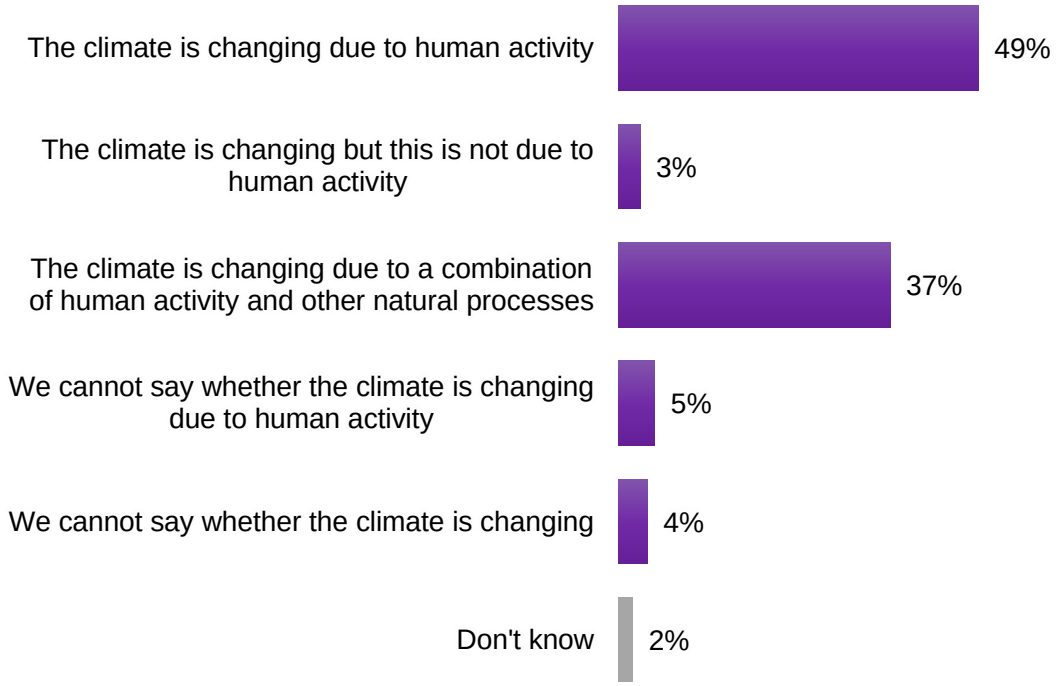
Dimensions:

- Attitudes
- Knowledge
- Awareness

Attitudes to climate change

When asked about their views on climate change, the majority said the climate is changing (90%). However, views were split on causes of climate change with 49% saying this is due to human activity, 37% it is due to both human activity and natural processes, and 5% saying we cannot say whether it is due to human activity. Only 3% said climate change was not due to human activity (Figure 16).

Figure 16: Views on climate change and role of human activity (weighted %)



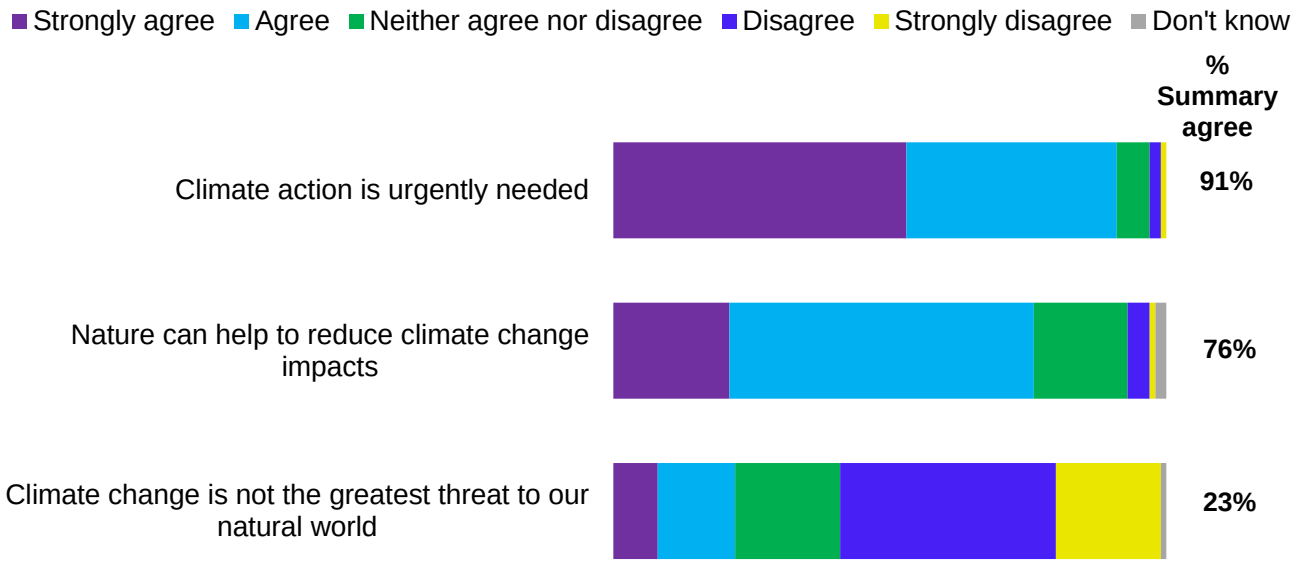
Q11. Thinking about the changing climate and human activity, which of the following statements comes closest to your view?
Unweighted base: 1,081

Dimensions:

- Attitudes
- Knowledge

The majority (91%) of those who do believe the climate is changing agreed that climate action is urgently needed, including 53% who strongly agreed. Around three quarters (76%) agreed that nature can help to reduce climate change impacts, including 21% who strongly agreed. By contrast, just 23% agreed that climate change is not the greatest threat to the natural world, while 58% disagreed that this is the case (Figure 17).

Figure 17: Level of agreement with statements regarding climate change (weighted %)



NQ2. The following are statements about climate change. Please indicate how much you agree with each statement.
Unweighted base: Where believe climate is changing: 971

Table 6: Level of agreement with statements regarding climate change (weighted %)

Action	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know	Summary: Agree
Climate action is urgently needed	53%	38%	6%	2%	1%	<0.5%	91%
Nature can help to reduce climate change impacts	21%	55%	17%	4%	1%	2%	76%
Climate change is not the greatest threat to our natural world	8%	14%	19%	39%	19%	1%	23%

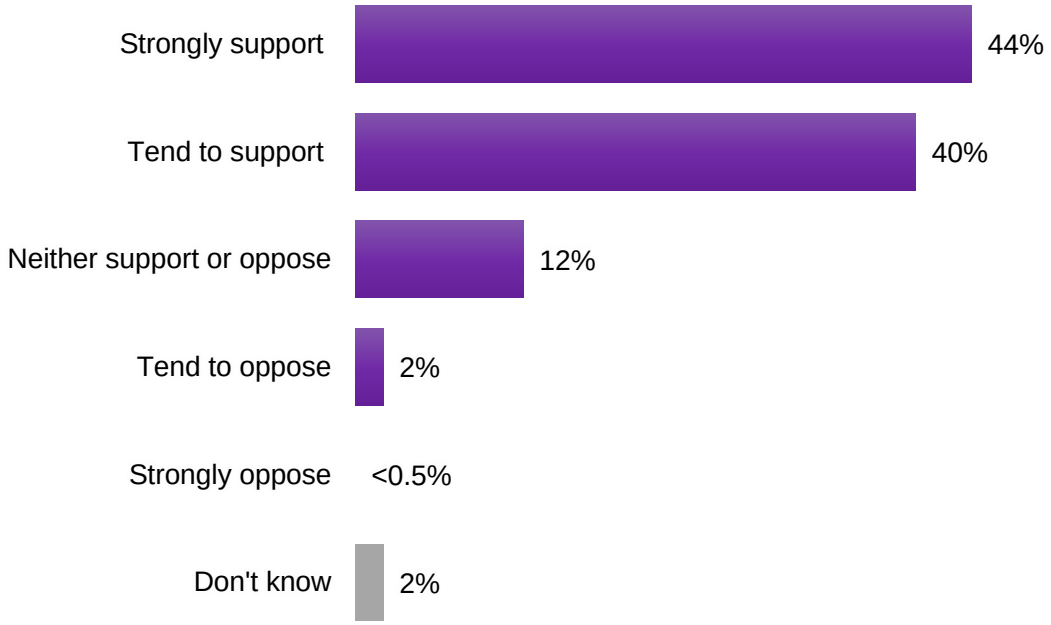
Dimensions:

- Attitude
- Knowledge

Respondents were informed that Marine Protected Areas are specific areas of the marine environment which are managed to achieve long-term nature conservation and sustainable use, and were then asked the extent to which they support or oppose the creation of Marine Protected Areas in Northern Ireland (Figure 18).

Eighty-four percent supported the creation of Marine Protected Areas in Northern Ireland, including 44% who strongly supported this, and just 2% opposed it.

Figure 18: Support for Marine Protected Areas (weighted %)



NQ3. To what extent do you support or oppose the creation of Marine Protected Areas in Northern Ireland?
Unweighted base: 1,081

Dimensions:

- Attitudes
- Knowledge

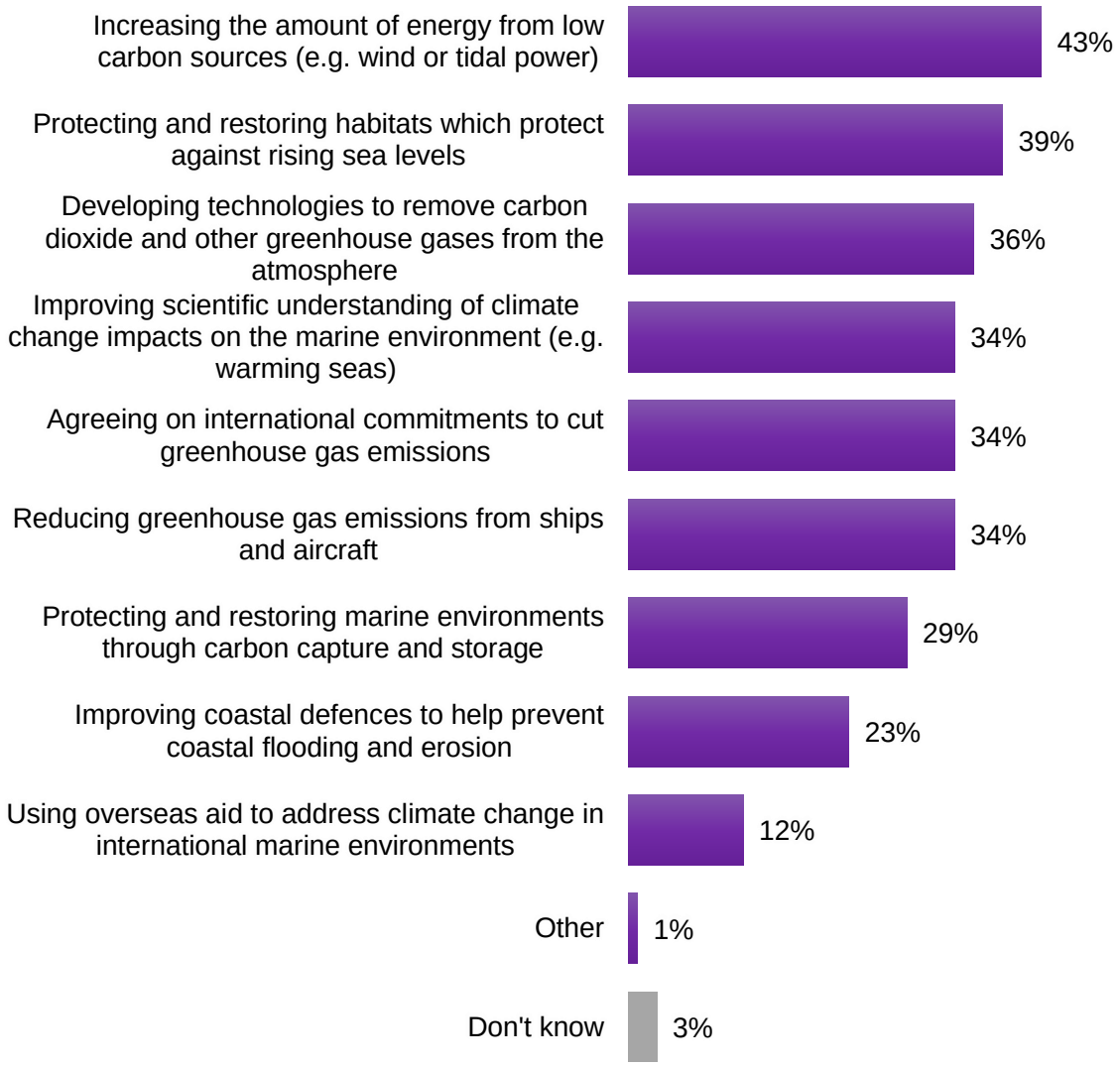
Responding to climate change

Respondents who believed the climate is changing were asked to choose the top three most important activities which could potentially address the effect of climate change on the marine environment in Northern Ireland (Figure 19).

Increasing the amount of energy from low carbon sources was the top choice (43%), followed by protecting and restoring habitats which protect against rising sea levels (39%) and developing technologies to remove CO_2 and other greenhouse gases from the atmosphere (36%).

Use of overseas development aid (12%) and improving coastal defences to help prevent coastal flooding/erosion (23%) were least likely to be considered as important.

Figure 19: Most important activities to address marine issues (weighted %)



Q12. The following activities could potentially address the effects of climate change on the marine environment in Northern Ireland. In your opinion, which three do you think are the most important?
Unweighted base: Where believe climate is changing 971

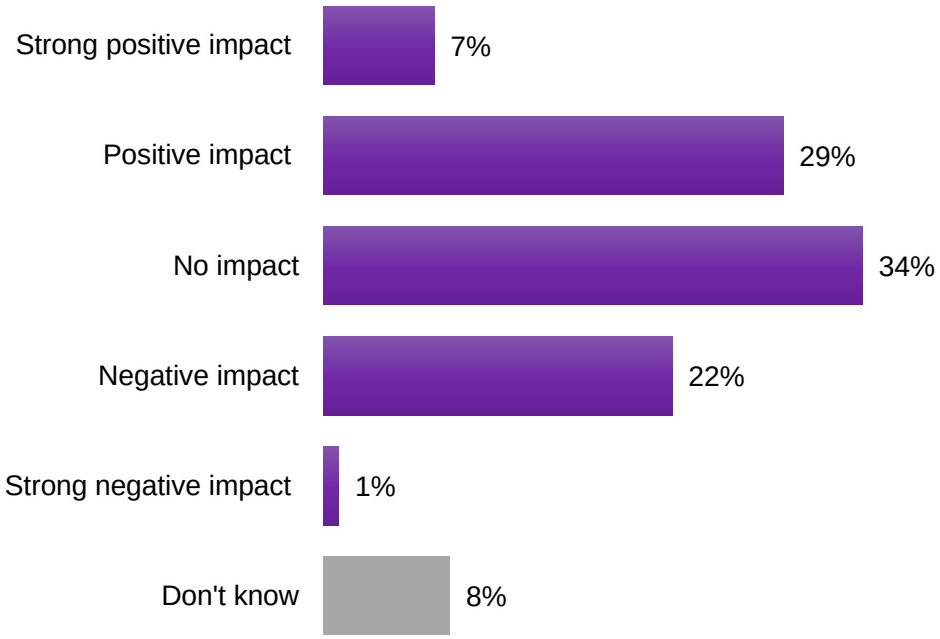
Dimensions:

- Attitudes
- Knowledge
- Awareness

Lifestyle impacts & changes

Overall, 59% thought their lifestyle has an impact on the marine environment. More thought that their lifestyle had a positive impact (36%) than that it had a negative impact (23%) (Figure 20).

Figure 20: Perceived impact of lifestyle on the marine environment (weighted %)



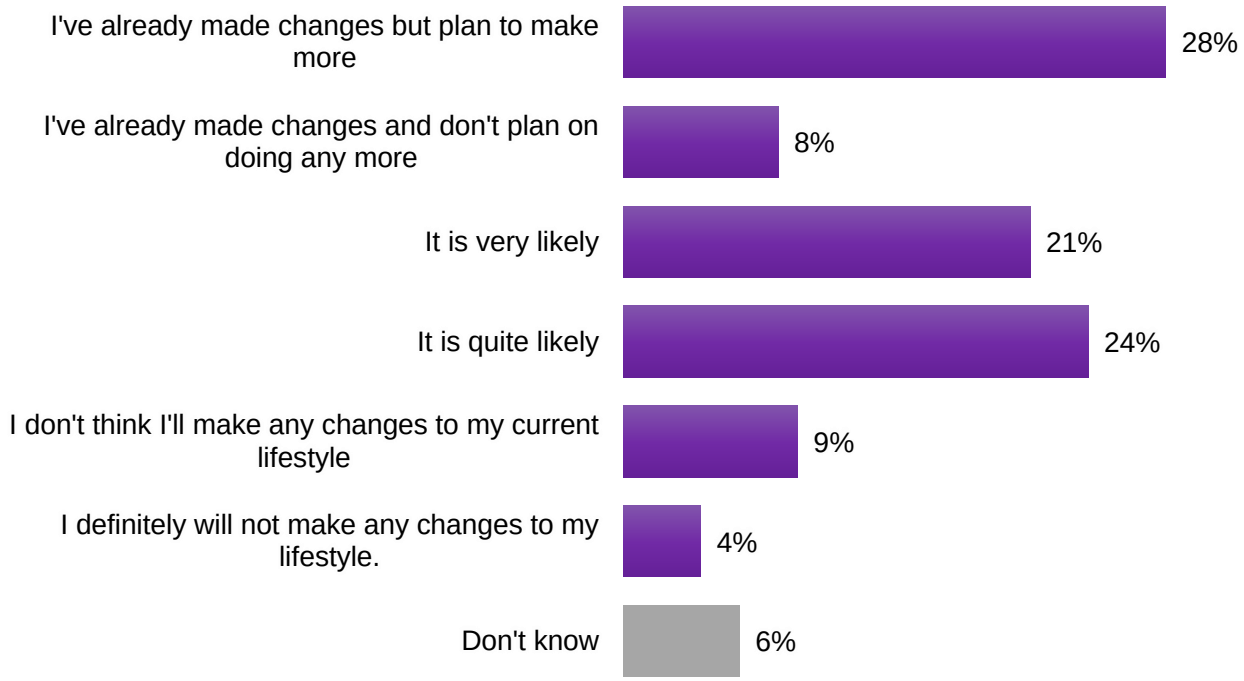
Q17. What impact do you think your lifestyle has on the marine environment of Northern Ireland?
Unweighted base: 1,081

Dimensions:

- Activism
- Behaviour
- Attitudes
- Knowledge
- Awareness

Twenty-eight percent said they've already made changes but plan on doing more, whilst 45% said it is quite or very likely they will make changes and 8% said they've already made changes but don't plan on doing any more. 13% said they will not or do not think they will make changes to their current lifestyle within the next 12 months in order to protect the marine environment in Northern Ireland (Figure 21).

Figure 21: Planned lifestyle changes to protect marine environment (weighted %)



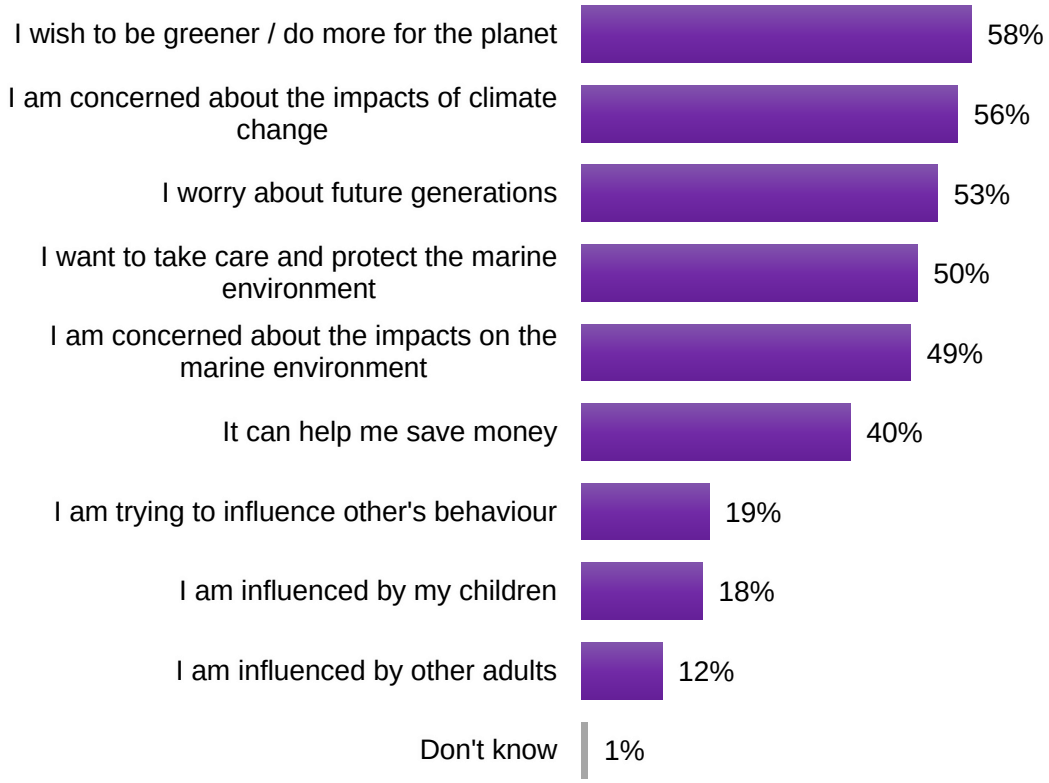
Q22. Within the next 12 months, do you plan on making changes to your lifestyle to protect the marine environment in Northern Ireland?
Unweighted base: 1,081

Dimensions:

- Activism
- Behaviour
- Attitudes
- Knowledge
- Awareness

The top reasons for making or planning lifestyle changes (Figure 22) were a desire to be greener (58%), concern over climate change (56%) and worry about future generations (53%).

Figure 22: Reasons for making or planning to make changes to lifestyle (weighted %)



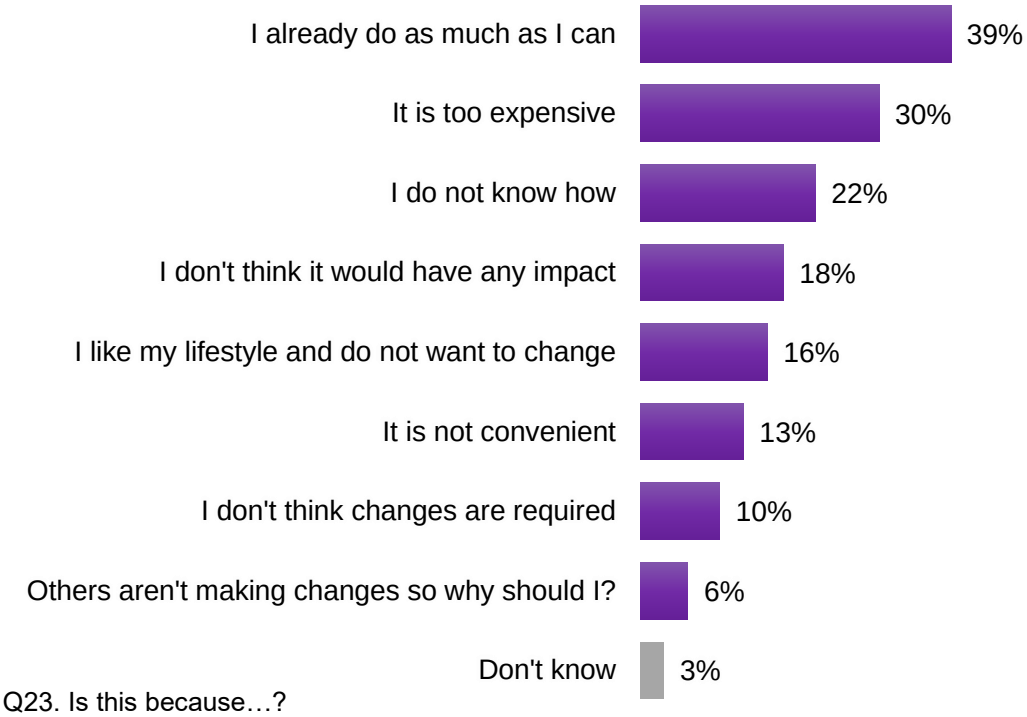
Q24. Is this because…?
Unweighted base: where have made or plan to make changes: 881

Dimensions:

- Activism
- Behaviour
- Attitudes
- Knowledge
- Awareness

In contrast, the top reason for not making lifestyle changes (Figure 23) was already doing as much as possible (39%) followed by it being too expensive (30%) and not knowing how to (22%).

Figure 23: Reasons for not making or planning to make changes to lifestyle (weighted %)



Q23. Is this because…?
Unweighted base: where do not plan to make changes: 138

Dimensions:

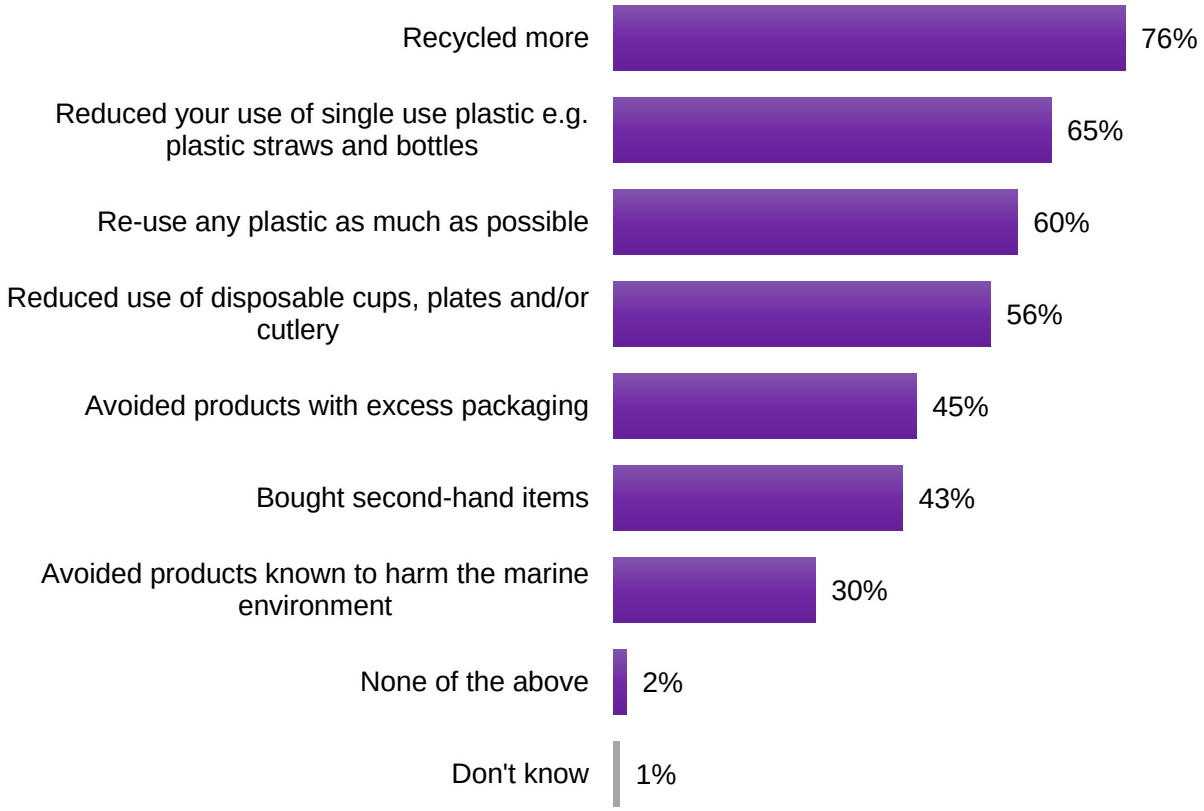
- Activism
- Behaviour
- Attitudes
- Knowledge
- Awareness

Purchasing and packaging actions

The most common activity undertaken in relation to purchases and packaging in the last 12 months was recycling more (76%) (Figure 24). A high proportion also said they had reduced single use plastics (65%) and had re-used plastic as much as possible (60%).

The least common activity was avoiding products known to harm the marine environment (30%), although this was still undertaken by close to a third of respondents.

Figure 24: Activities done in the last 12 months in relation to purchases and use of packaging (weighted %)



Q18. Thinking about the purchases you have made and your use of packaging, which of the following activities have you done in the last 12 months where possible?
Unweighted base: 1,081

Dimensions:

- Behaviour

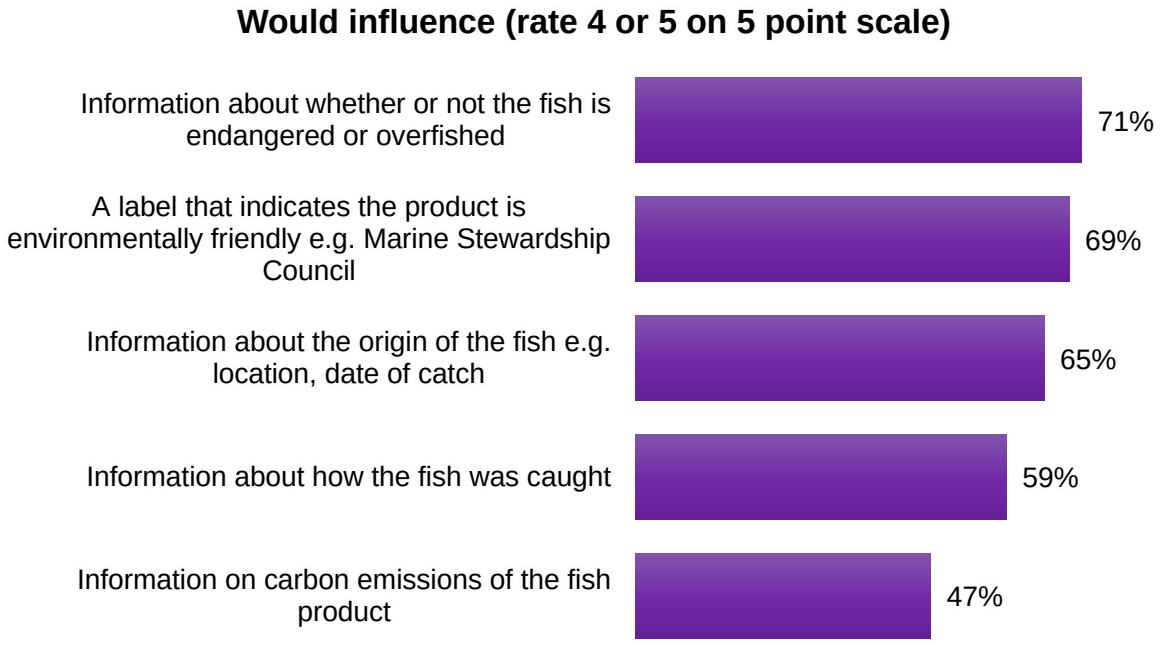
Seafood purchasing actions

Sixty-five percent said that they purchase seafood (fish or shellfish).

Of these, 71% said that information about whether or not the fish is endangered or overfished would influence their purchase (Figure 25). Labels indicating the product was environmentally friendly would influence 69% of people who bought seafood. Less significant, but still influencing the majority of people was information about how the fish was caught (65%) and the origin of the fish (59%).

Less than a half (47%) said that information on carbon emissions would influence their purchase.

Figure 25: Information influencing seafood purchase (weighted %)



Q20. When buying seafood (fish or shellfish), to what extent, would each of the following influence your purchase?
Unweighted base: Where purchase seafood: 691

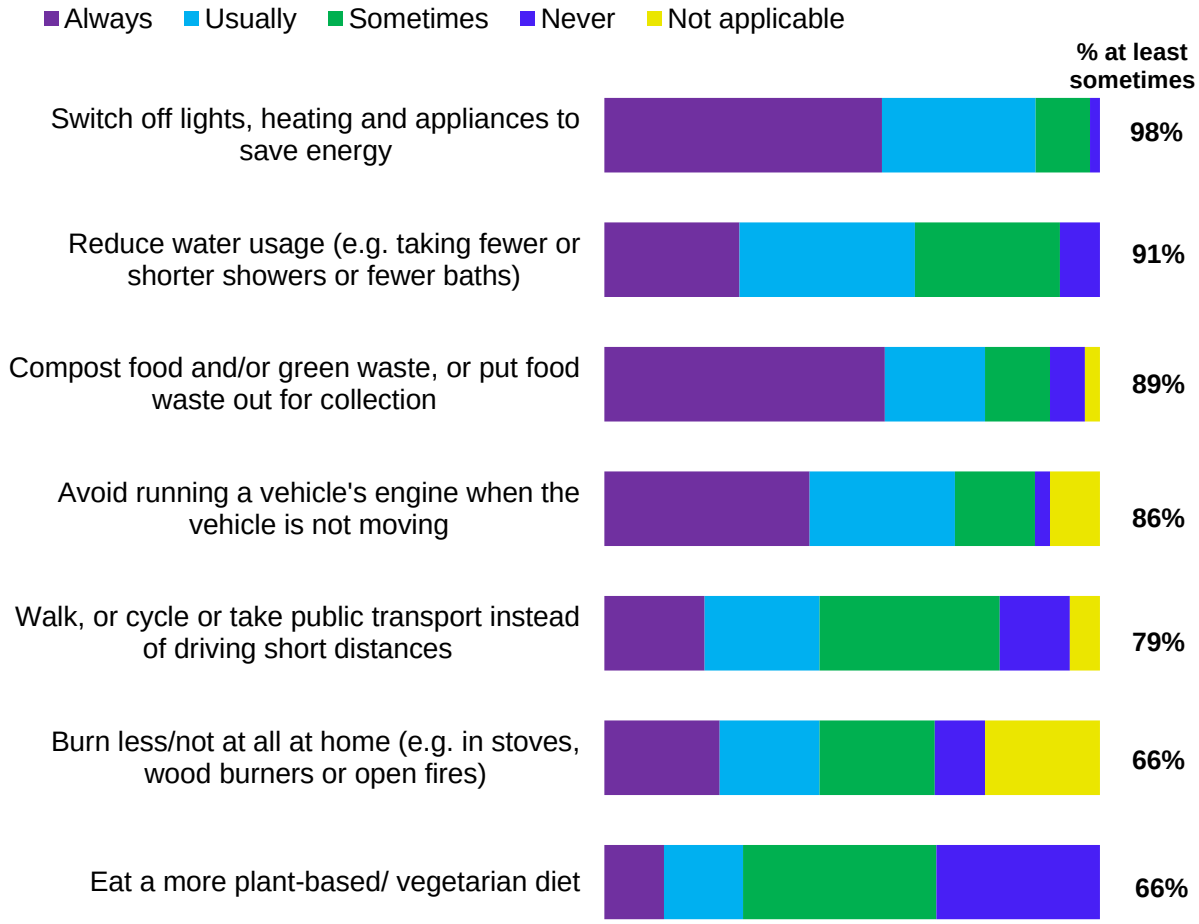
Dimensions:

- Behaviour
- Communication
- Knowledge
- Awareness

Food, energy and transport actions

Ninety-eight percent switch off lights, heating and appliances to save energy, 91% reduce water usage and 89% compost food/green waste or put this out for collection (Figure 26).

Figure 26: Frequency of food, energy and transport actions (weighted %)



Q21. Thinking about your food, energy and transport use, which of the following do you currently do?
Unweighted base: 1,081

Table 7: Frequency of food, energy and transport actions (weighted %)

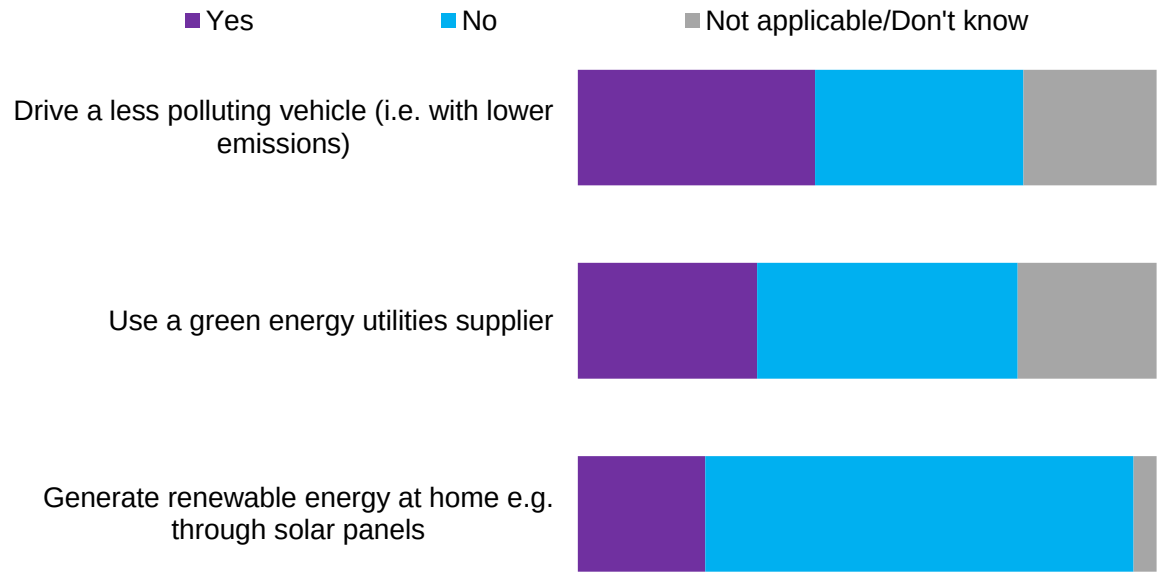
Action	Always	Usually	Sometimes	Never	Not applicable	Summary: At least sometimes
Switch off lights, heating and appliances to save energy	56%	31%	11%	2%	0%	98%
Reduce water usage (e.g. taking fewer or shorter showers or fewer baths)	27%	35%	29%	8%	0%	91%
Compost food and/or green waste, or put food waste out for collection	56%	20%	13%	7%	3%	89%
Avoid running a vehicle's engine when the vehicle is not moving	41%	29%	16%	3%	10%	86%
Walk, or cycle or take public transport instead of driving short distances	20%	23%	36%	14%	6%	79%
Burn less/not at all at home (e.g. in stoves, wood burners or open fires)	23%	20%	23%	10%	23%	66%
Eat a more plant-based/ vegetarian diet	12%	16%	39%	33%	0%	66%

Dimensions:

- Behaviour
- Communication
- Knowledge
- Awareness

Forty-one percent of people drive less polluting vehicles and 31% use green energy utility suppliers. Only 22% generate renewable energy at home (Figure 27).

Figure 27: Utilities, vehicles and renewable energy (weighted %)



Q21. Thinking about your food, energy and transport use, which of the following do you currently do?
Unweighted base: 1,081

Table 8: Utilities, vehicles and renewable energy (weighted %)

Action	Yes	No	Not applicable/ Don't know
Drive a less polluting vehicle (i.e. with lower emissions)	41%	36%	23%
Use a green energy utilities supplier	31%	45%	24%
Generate renewable energy at home e.g. through solar panels	22%	74%	4%

Dimensions:

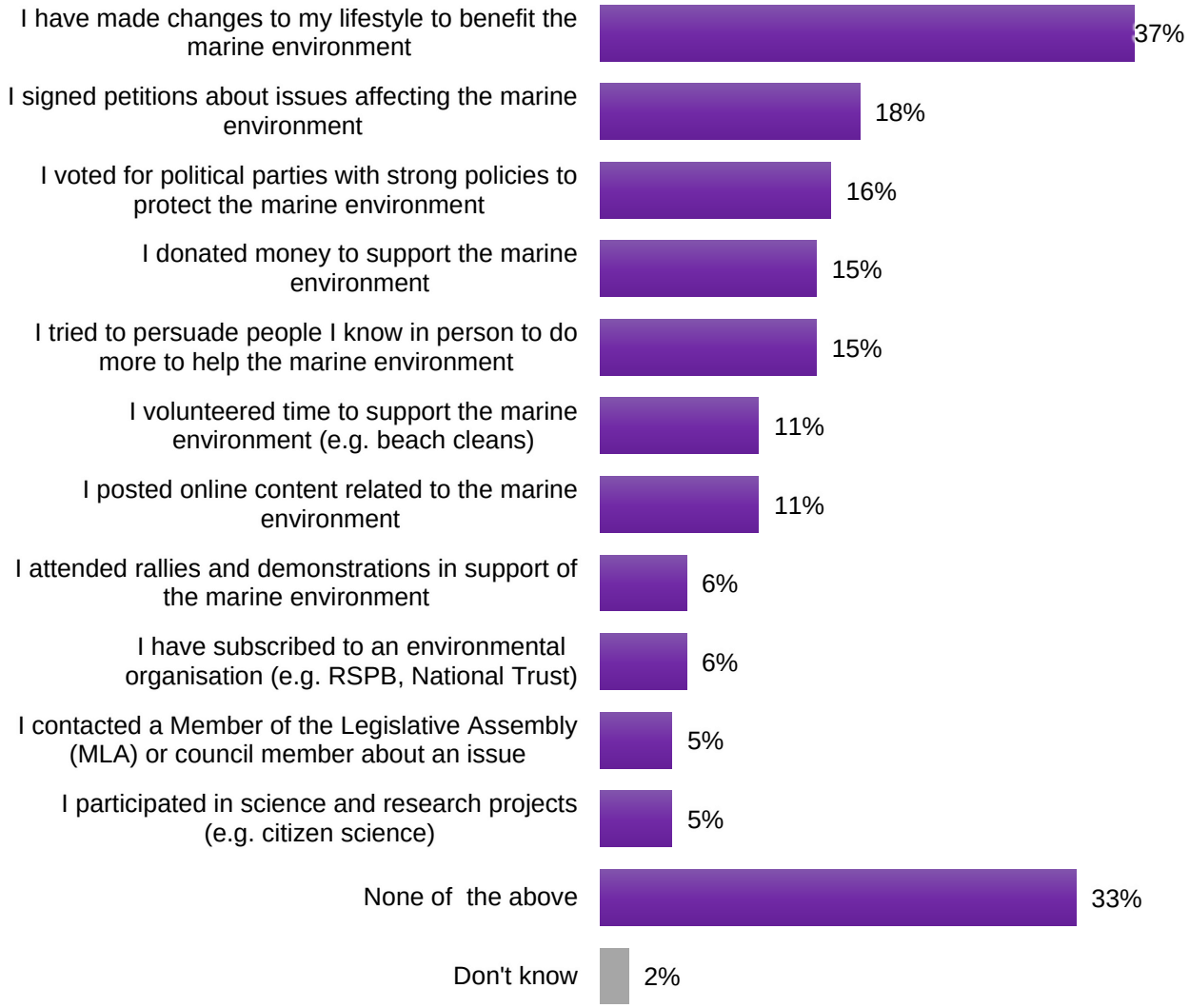
- Behaviour
- Communication
- Knowledge
- Awareness

Marine activism

Sixty-five percent had taken at least one of the listed actions to protect the marine environment (Figure 28). The most common action people had undertaken was making lifestyle changes (37%) followed by signing petitions (18%).

Involvement in citizen science (5%), contacting elected representatives (5%), subscribing to an environmental organisation (6%) and direct action in rallies or demonstrations (6%) were the least undertaken actions.

Figure 28: Activities undertaken to protect the marine environment (weighted %)



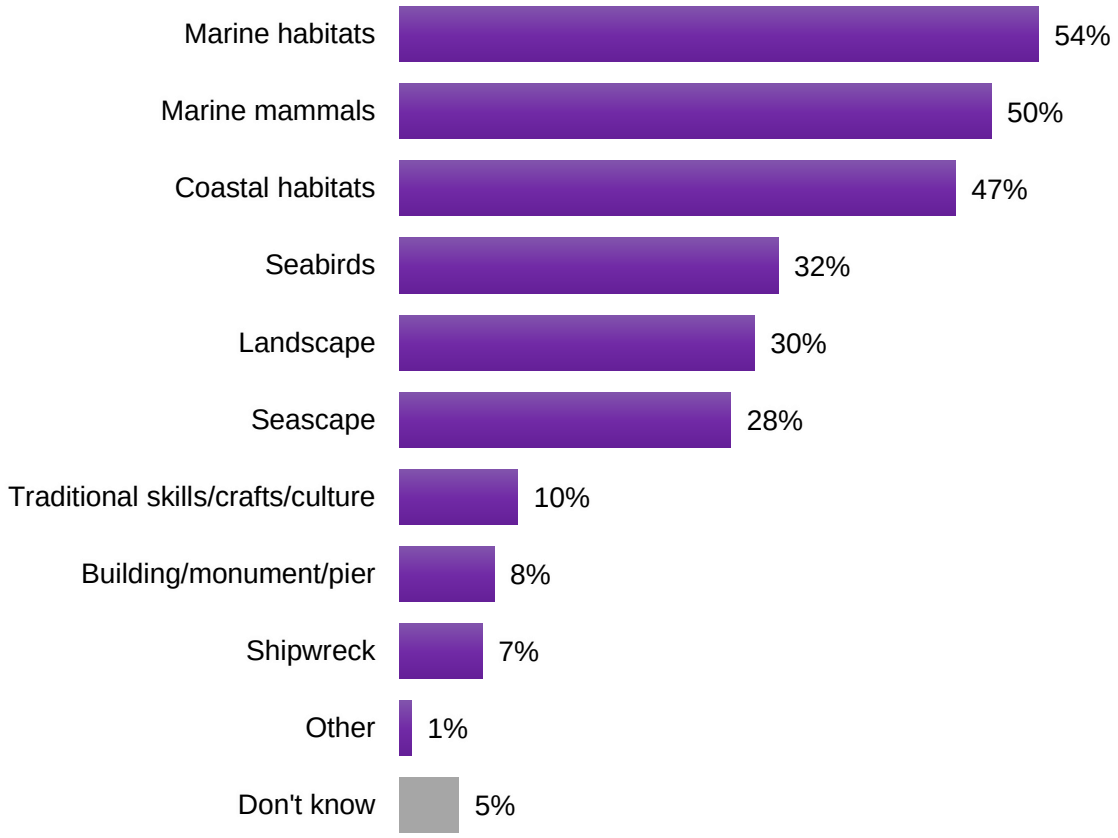
Q15. Which of the following activities, if any, have you done to protect the marine environment in Northern Ireland?
Unweighted base: 1,081

Dimensions:

- Activism
- Behaviour
- Attitudes

Where they had taken action to protect the marine environment, this was most commonly in relation to marine habitats (54%), followed by marine mammals (50%) and coastal habitats (47%) (Figure 28).

Figure 29: Aspects of marine environment intended to protect (weighted %)



Q16. What aspects of the marine environment was your activity intended to protect?
Unweighted base: Where tried to protect the marine environment: 725

Dimensions:

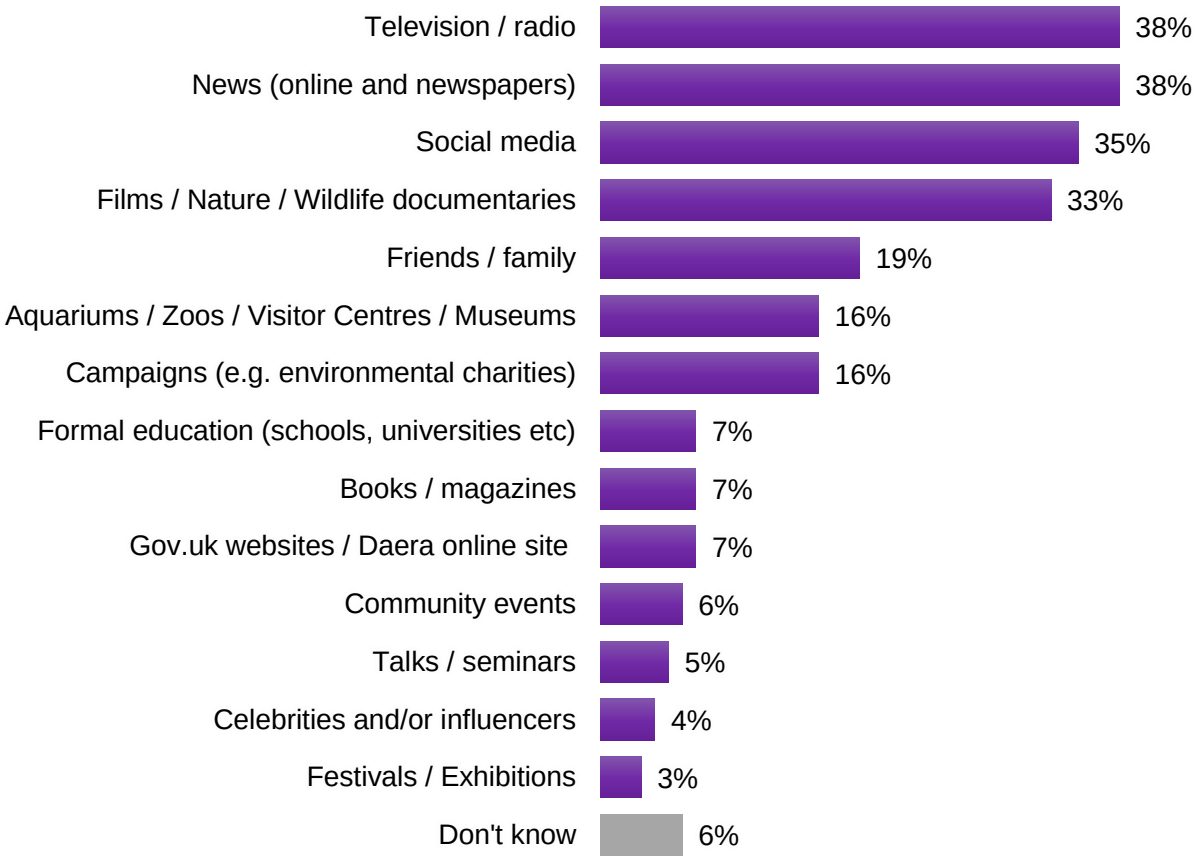
- Activism
- Behaviour
- Attitudes

Communicating about the marine environment

The most common sources of knowledge/information about the marine environment in the last 12 months were TV/radio and news (both 38%), social media (35%) and films, nature and wildlife documentaries (33%) (Figure 30).

The least common sources were festivals/exhibitions (3%), celebrities and/or influencers (4%), talks/seminars (5%) and community events (6%).

Figure 30: Sources of knowledge about the marine environment (weighted %)



Q14. Thinking about the last 12 months, where has your knowledge/information about the marine environment in Northern Ireland mostly come from?
Unweighted base: 1,081

Dimensions:

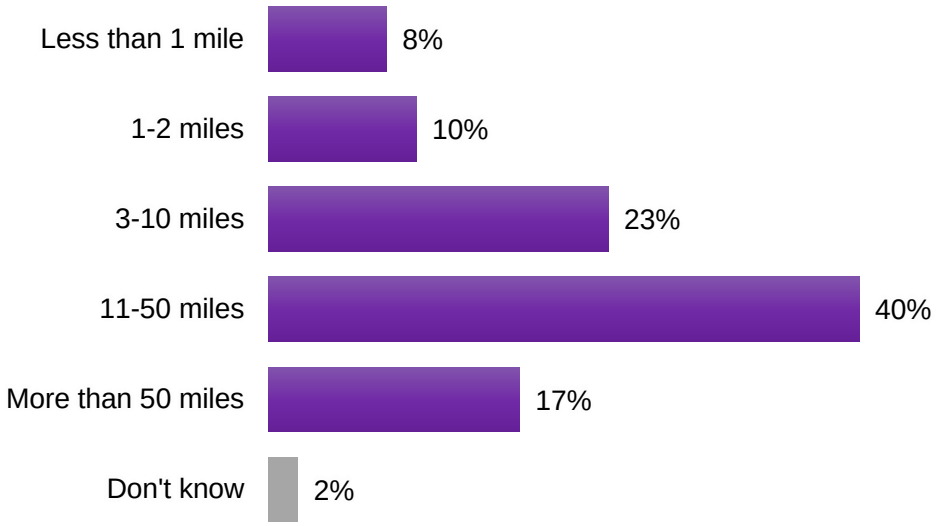
- Communication
- Knowledge
- Awareness

Visiting the marine environment

Overall, in the last 12 months, 92% had visited the marine environment, 5 had not visited in the last 12 months and 3% had never visited.

Seventeen percent of these travelled over 50 miles, 40% travelled under 10 miles, and 40% travelled between 11 and 50 miles (Figure 31).

Figure 31: Distance travelled for visit (weighted %)



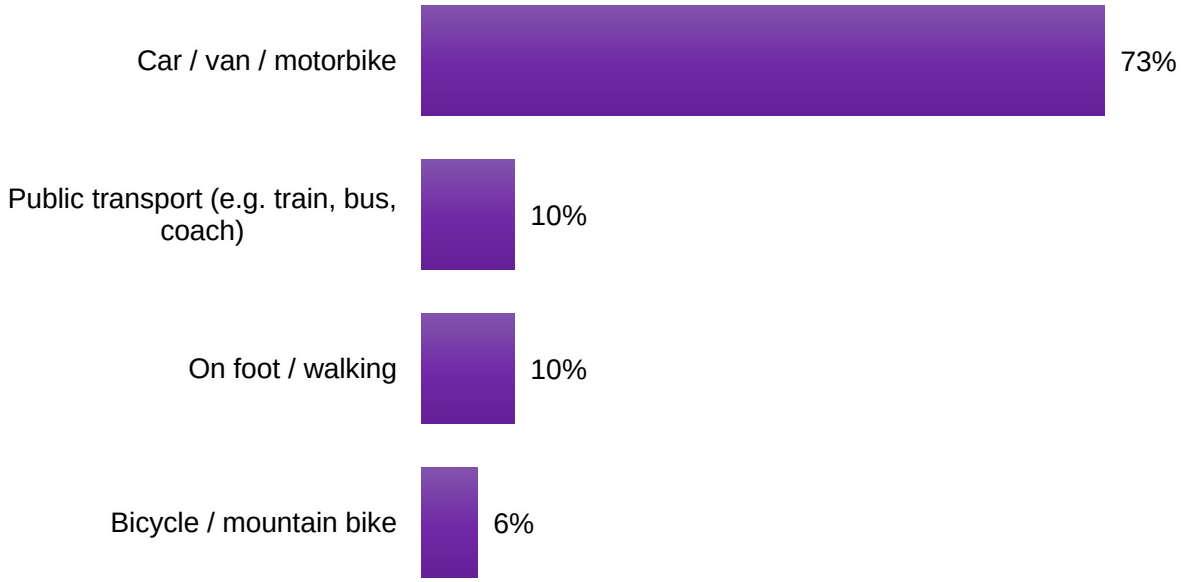
Q31. Approximately how far in miles did you travel to get there?
Unweighted base: where visited in last 12 months: 1006

Dimensions:

- Access, experience, and proximity
- Behaviour

By far the most common form of transport used to travel to marine environments was car / van or motorbike (73%) (Figure 32).

Figure 32: Main mode of transport used for visit (weighted %)



Q32. What was the main form of transport you used to get there?
Unweighted base: where visited in last 12 months: 1,006

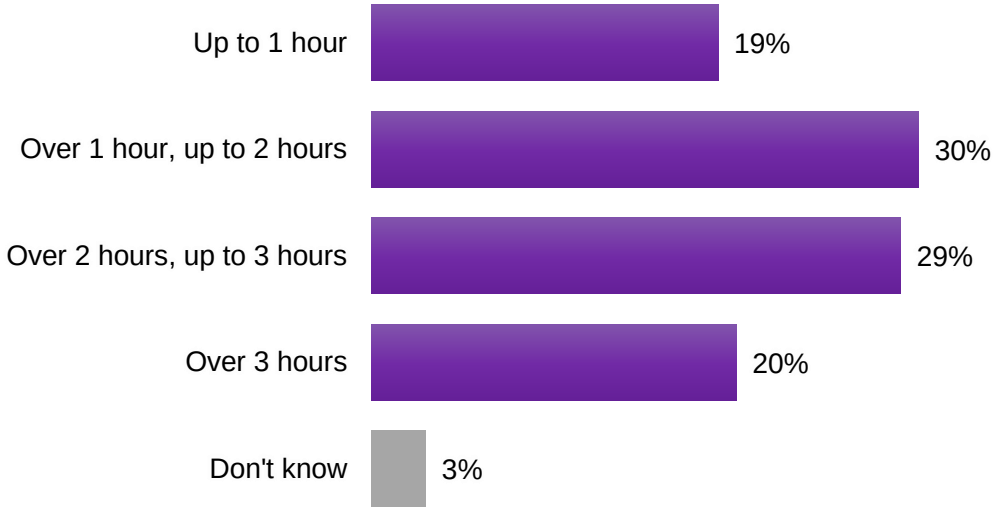
Dimensions:

- Access, experience, and proximity
- Behaviour

Length of visits

Of those who had visited the marine environment in the last 12 months, the most common length of time spent there at their last visit was over one hour, up to 2 hours (30%) followed by over 2 hours, up to 3 hours (29%). A fifth (20%) had spent over 3 hours at their last visit (Figure 33).

Figure 33: Length of visit (weighted %)



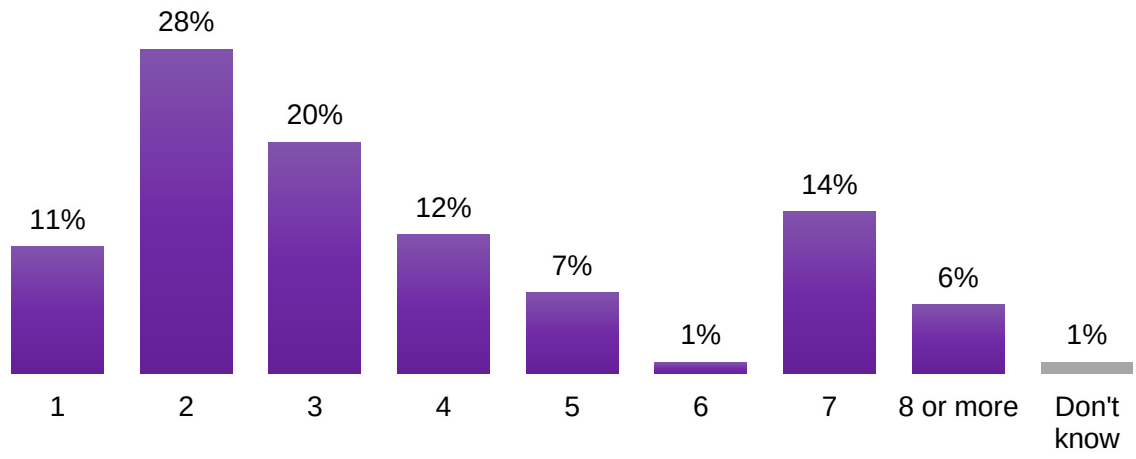
Q28. Thinking about your most recent visit to the marine environment over the last 12 months, how long did you spend there?
Unweighted base: where visited in last 12 months: 1,006

Dimensions:

- Access, experience, and proximity
- Behaviour

Forty-seven percent of respondents who stayed over three hours stayed away from home overnight, and among this group the most popular length for an overnight stay was two nights (28%) or three nights (20%) (Figure 34).

Figure 34: Number of nights stayed (weighted %)



Q30. How many nights did you stay away from your home during this trip?
Unweighted base: where stayed overnight: 94

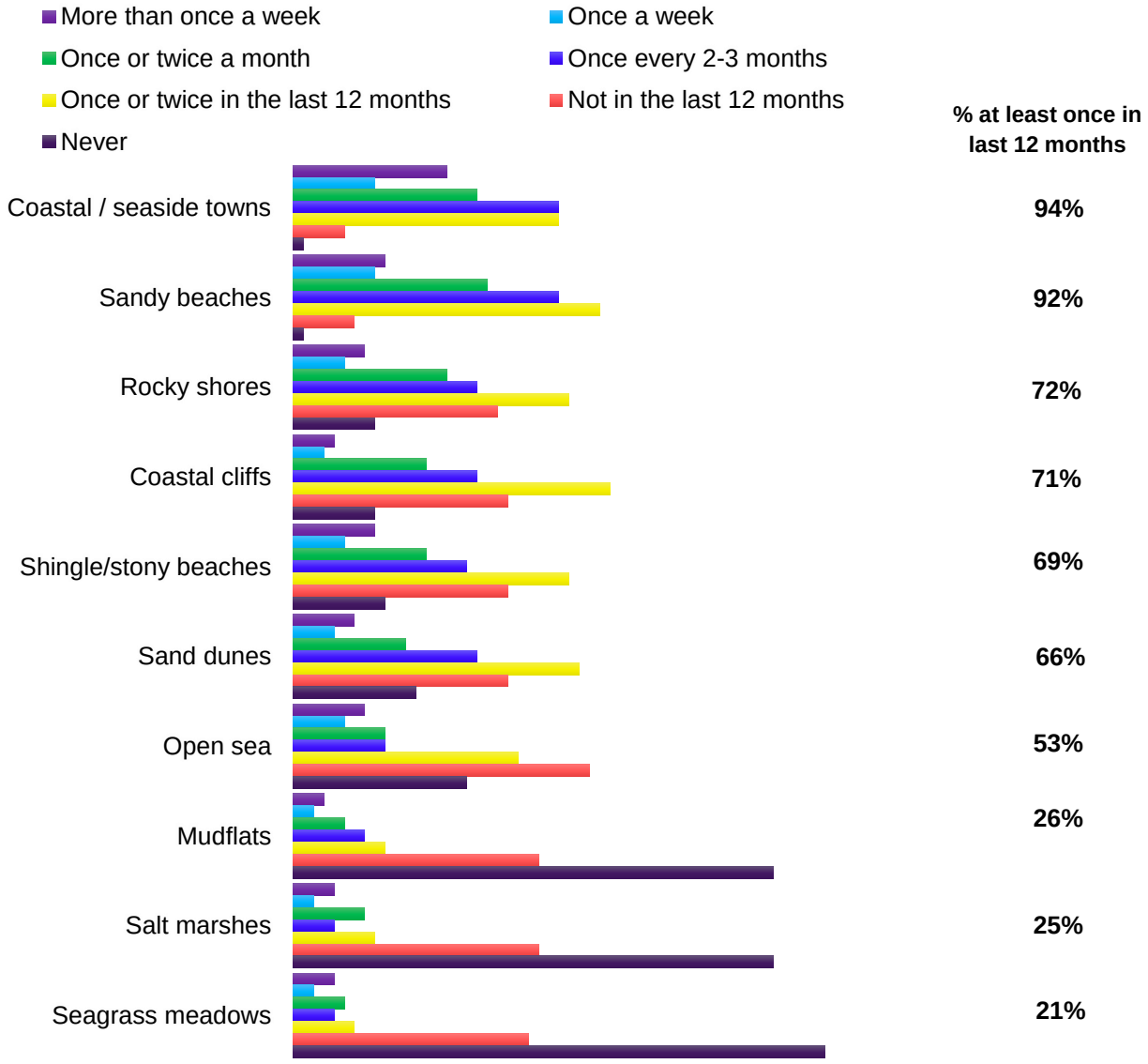
Dimensions:

- Access, experience, and proximity
- Behaviour

Marine destinations

Of those respondents who had visited the marine environment in the past 12 months, the places most visited for leisure were coastal/seaside towns (94%), sandy beaches (92%), rocky shores (72%), coastal cliffs (71%) and shingle/stony beaches (69%). Seagrass meadows (21%), salt marshes (25%) and mudflats (26%) were the least visited (Figure 35).

Figure 35: Frequency of visits by marine environment type (weighted %)



Q26. Thinking about the last 12 months, how often on average, if at all, have you spent your leisure time in the following marine environments?
Unweighted base: where visited in last 12 months: 1,006

Table 9: Frequency of visits by marine environment type (weighted %)

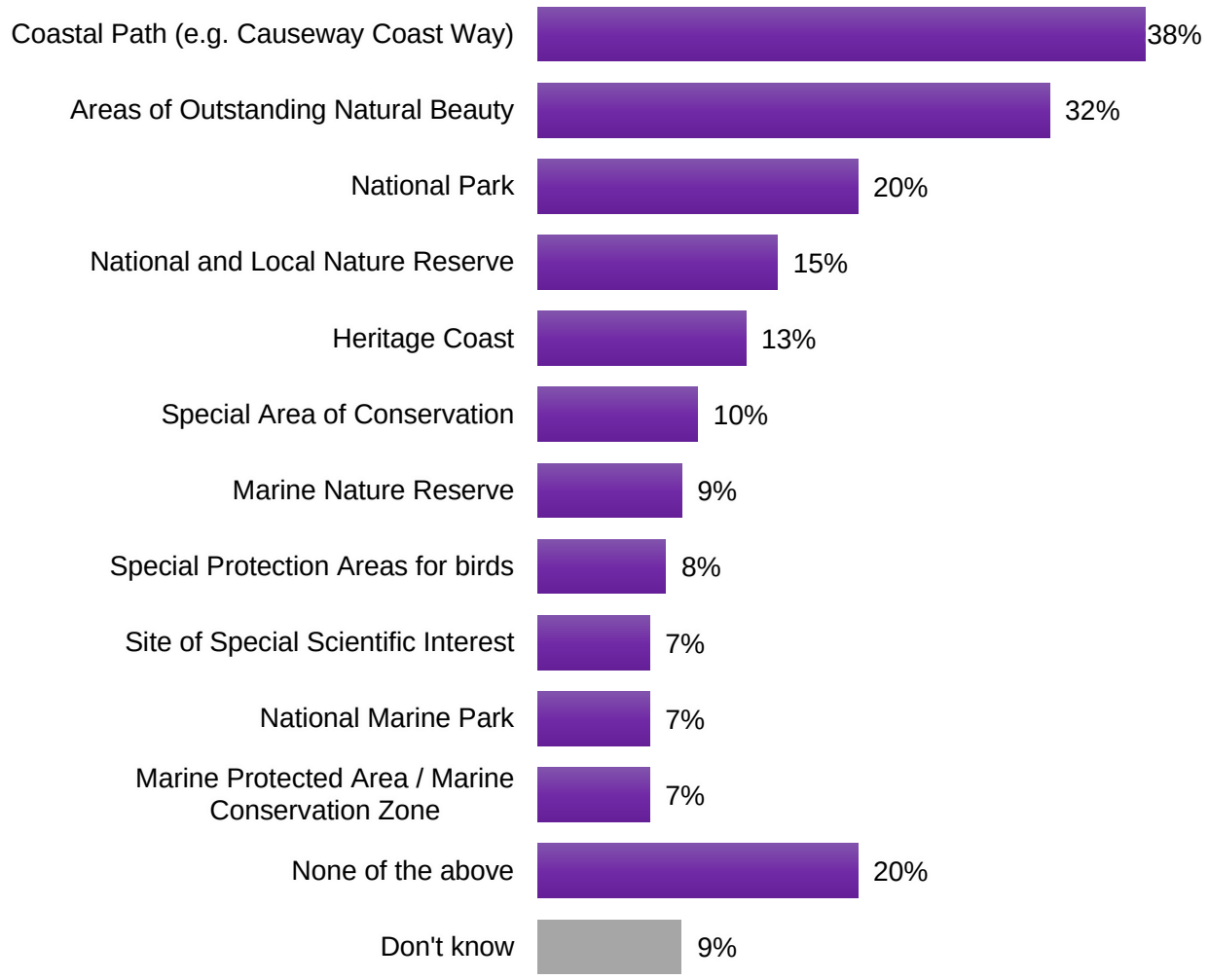
Type	More than once a week	Once a week	Once or twice a month	Once every 2-3 months	Once or twice in the last 12 months	Not in the last 12 months	Never	% at least once in last 12 months
Coastal / seaside towns	15%	8%	18%	26%	26%	5%	1%	94%
Sandy beaches	9%	8%	19%	26%	30%	6%	1%	92%
Rocky shores	7%	5%	15%	18%	27%	20%	8%	72%
Coastal cliffs	4%	3%	13%	18%	31%	21%	8%	71%
Shingle/stony beaches	8%	5%	13%	17%	27%	21%	9%	69%
Sand dunes	6%	4%	11%	18%	28%	21%	12%	66%
Open sea	7%	5%	9%	9%	22%	29%	17%	53%
Mudflats	3%	2%	5%	7%	9%	24%	47%	26%
Salt marshes	4%	2%	7%	4%	8%	24%	47%	25%
Seagrass meadows	4%	2%	5%	4%	6%	23%	52%	21%

Dimensions:

- Access, experience, and proximity
- Behaviour

Whilst 20% said they had not visited any designated or specific types of sites in the last 12 months, 38% said they had visited a Coastal Path, 32% said they had visited an AONB, 20% a National Park, 15% a National and Local Nature Reserve and 13% Heritage Coast (Figure 36).

Figure 36: Designated/specific types of sites visited on most recent visit (weighted %)



Q35. Thinking about the last 12 months, do you recall any visits to marine environments being to the following?
Unweighted base: where visited in last 12 months: 1,006

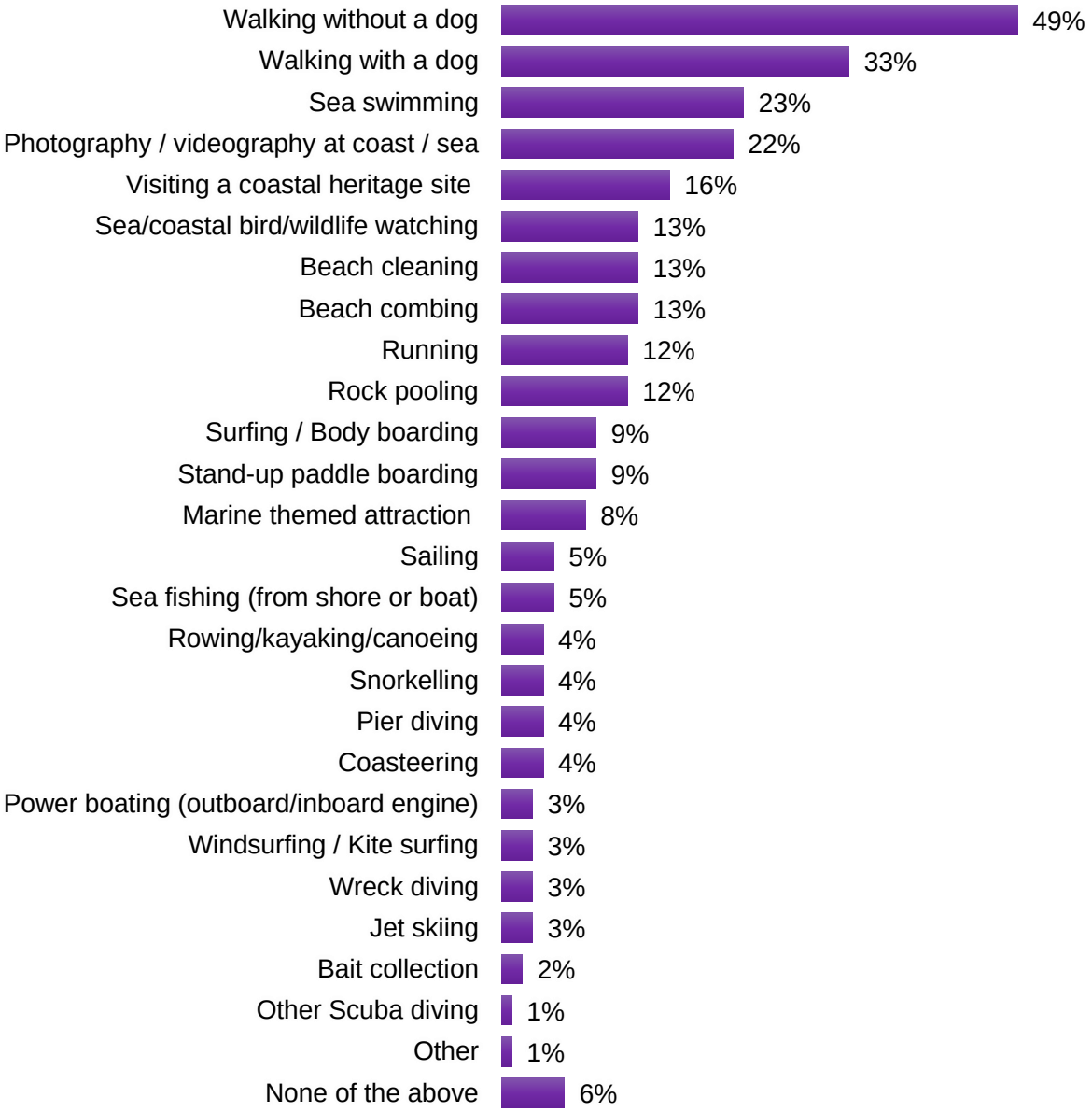
Dimensions:

- Access, experience, and proximity
- Behaviour
- Knowledge
- Awareness

Recreational activities

Walking, both without (49%) and with a dog (33%) were popular activities undertaken during visits to the marine environment in the last 12 months. Sea swimming (23%) and photography and videography (22%) were also commonly undertaken activities (Figure 37).

Figure 37: Activities undertaken during visit(s) to the marine environment in last 12 months (weighted %)



Q34. What recreational activities did you undertake during your visit(s) to the marine environment in the last 12 months?
Unweighted base: where visited in last 12 months: 1,006

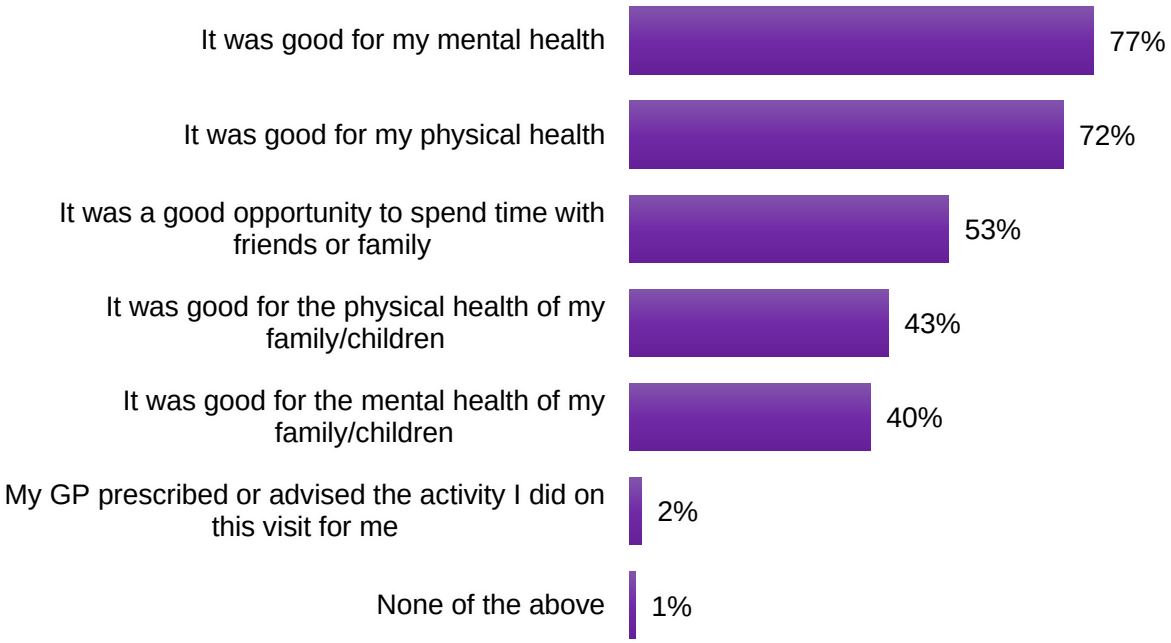
Dimensions:

- Access, experience, and proximity
- Activism
- Behaviour

Outcomes and motivations of visits

Good mental health (77%) and physical health (72%) were the most frequently reported outcomes from spending time in a marine environment. Only 2% were prescribed or advised by their GP to undertake their activity (Figure 38).

Figure 38: Outcomes associated with most recent visit to marine environment (weighted %)



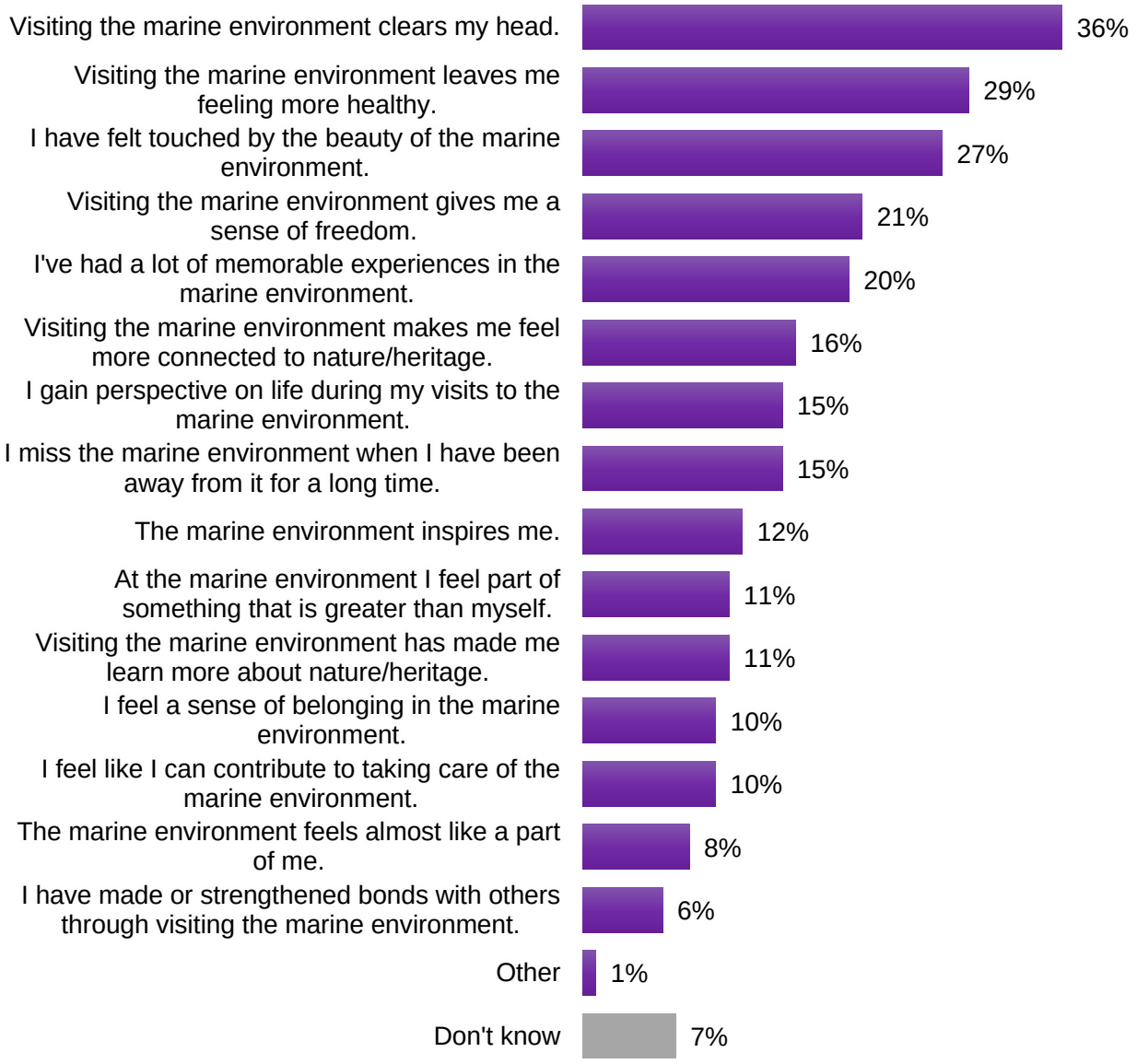
Q33. Which of the following statements about this time spent at a marine environment are true?
Unweighted base: where visited in last 12 months: 1,006

Dimensions:

- Access, experience, and proximity
- Personal or emotional connection
- Activism
- Behaviour
- Communication
- Attitudes
- Knowledge
- Awareness

Asked about general motivations for visiting marine environments, the most commonly reported reasons were clearing one's head (36%) and feeling healthier (29%) (Figure 39).

Figure 39: General motivations for visiting the marine environment (weighted %)



Q36. Thinking more generally about the marine environment, which three statements best describe your motivation to visit?
Unweighted base: where visited in last 12 months: 1,006

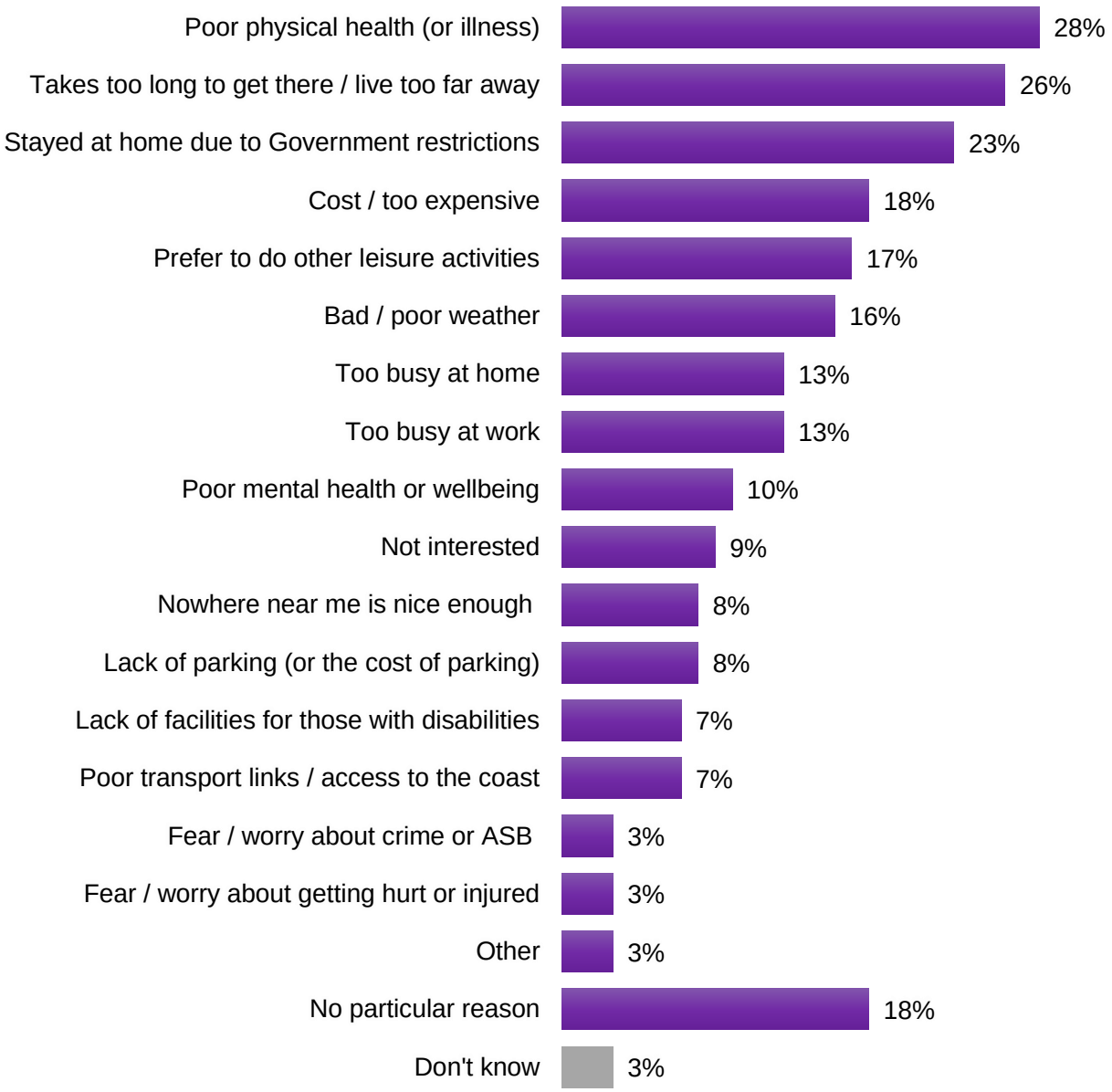
Dimensions:

- Access, experience, and proximity
- Personal or emotional connection
- Activism
- Behaviour
- Communication
- Attitudes
- Knowledge
- Awareness

Barriers to visits

The main reason for not visiting a marine environment in the last 12 months was poor health (28%). Distance/time taken to get to a marine environment (26%) and staying home due to COVID-19 (23%) were the next most common barriers (Figure 40).

Figure 40: Reasons for not visiting the marine environment in the last 12 months (weighted %)



Q27. What was the main reason/s for not visiting a marine environment in the last 12 months?
Unweighted base: where not visited in last 12 months: 75

Dimensions:

- Access, experience, and proximity
- Personal or emotional connection
- Behaviour
- Attitudes

For further information:

DAERA Environment Marine and Fisheries Group
Klondyke Building
Gasworks Business Park
Lower Ormeau Road
BT7 2JA

Email: marinestrategy@daera-ni.gov.uk
www.daera-ni.gov.uk

Department of
Agriculture, Environment and Rural Affairs
www.daera-ni.gov.uk

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