

# GIFS

Activity 2.1 Final Report – September 2014

## Sense of Place and Cultural Values in Inshore Fishing Communities



Photo: Vince Bevan

Julie Urquhart, Tim G. Acott & Amdeep Sanghera  
Faculty of Science & Engineering, University of Greenwich

# **GIFS Activity 2.1**

## **Sense of Place and Cultural Values in Inshore Fishing Communities**

### **Final Report**

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This report is based on research undertaken as part of the Geography of Inshore Fishing and Sustainability (GIFS) project. GIFS was co-funded by the European Regional Development Fund under the INTERREG IVA 2 Seas programme. The GIFS project addressed the challenge of incorporating the socio-economic and cultural importance of inshore fisheries to coastal communities along the English Channel and Southern North Sea more explicitly into fisheries and maritime policy, coastal regeneration strategies and sustainable community development. The research on community and place identity, carried out as part of Activity 2.1, was undertaken by the University of Greenwich.

Preferred citation: Urquhart, J., Acott, T., & Sanghera, A. (2014) *Sense of Place and Cultural Values in Inshore Fishing Communities*. GIFS Activity 2.1 Final report, 135pp.

#### **Contact details:**

For more information, contact:

Tim Acott  
Faculty of Science and Engineering  
University of Greenwich  
Central Avenue  
Chatham Maritime  
Kent  
ME4 4TB

Tel: +44 (0)208 331 9800

Email: [at05@gre.ac.uk](mailto:at05@gre.ac.uk)

Project website: [www.gifsproject.eu](http://www.gifsproject.eu)

## Acknowledgements

The University of Greenwich would like to thank the following individuals for their involvement in Activity 2.1 of the GIFS project:

- David Picault for translation assistance at the Saint-Vaast-la-Hougue exhibition.
- Jack Dooms for organizing the venue for the Middelburg exhibition and for organizing, with Tiny Maenhout, the distribution of the Sensing Fishing Places survey in the Netherlands.
- Marleen Roelofs for organizing the venue for the Oostende exhibition and for mailing out the Sensing Fishing Places survey in Belgium.
- Marie Lesueur for assisting with distributing the Sensing Fishing Places survey in France.
- Yasmin Orsnby and Esther Brown for distributing the survey to fishers in Hastings.
- Jack Dooms, Marleen Roelofs and Marie Lesueur for checking the language translations of the survey and photo exhibition information panels.

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## The GIFS Project

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The Geography of Inshore Fishing and Sustainability (GIFS) project is a cross-border collaboration between six academic, research and local authority institutions across England, France, Belgium and the Netherlands. Co-funded by the European Regional Development Programme as part of the INTERREG IVA 2 Seas programme, the project aimed to capture the socio-economic and cultural importance of inshore fishing to better inform fisheries policy, coastal regeneration strategies and sustainable community development through a range of research projects, regeneration activities and case studies across the four countries.



**The 2 Seas region and location of GIFS partner institutes.**

The GIFS project consisted of three main activities and supporting research themes:

- Coastal zone governance and inshore fishing
- Fishing places and community
- Economy and regeneration in fishing communities

In each activity, GIFS partners worked with local stakeholders and communities to record the geographical diversity and similarities of fishing places and people along the English Channel and Southern North Sea. A range of innovative methods and approaches were developed for capturing the socio-economic and cultural importance of inshore fishing. These are presented in *21<sup>st</sup> Century Catch: A Toolkit*, produced as a useful guide for policy makers and community stakeholders seeking to understand the broad value of their inshore fleet and fishing community. The Toolkit is available on our website: <http://www.gifsproject.eu/en/toolkit>.

In addition, the findings of all the GIFS activities are presented on our interactive map and wiki, embedded in the Coastal and Marine Wiki. Users can explore the GIFS region and access information on economics, governance, socio-cultural values, tourism etc. for selected case studies: <http://www.gifsproject.eu/wiki/>. Final reports for all activities can also be found on the GIFS website: <http://www.gifsproject.eu/en/results/documents/Public/Reports/>.

For further information on this report and the GIFS project please visit our website: [www.gifsproject.eu](http://www.gifsproject.eu).

## Executive Summary

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The latest reform of the Common Fisheries Policy (CFP) ((EU) No 1380/2013) outlines the need for specific support for small-scale fisheries, acknowledging that it is important to take account of the particular socio-economic and cultural aspects of this sector. Increasingly there is recognition that inshore fisheries do not just provide a source of income for fishers, but they also contribute to well-being benefits such as cultural identity, recreation, quality of life, heritage and social cohesion in coastal communities.

This report presents the findings of Activity 2.1 of the GIFS project, co-funded by the INTERREG IVA 2 Seas programme. The study assessed the cultural values of inshore fishing by exploring how it contributes to and shapes sense of place in fishing towns and ports along the English Channel and Southern North Sea. A large-scale online and postal questionnaire survey targeted at residents and those involved in the fishing industry in 28 case studies across the GIFS area assessed whether involvement in the fisheries sector fosters stronger attachments to, identification with and dependence on place. Place attachment is concerned with the emotional attachments that people form with places and is often referred to as a sense of belonging or rootedness. Place identity is associated with the meanings that people attribute to places and is mediated by their experiences, memories and beliefs about a place. Place dependence relates to behaviour and is associated with how well a place is suited to the needs or activity of an individual group.

To complement this approach, a creative photography project explored the potential for using visual methods for exploring the cultural values of inshore fishing. The photography project involved a combination of researcher-taken photographs and community-elicited photography that were used to construct a travelling exhibition that visited seven locations in the GIFS study area. In addition, a professional photo journalist was commissioned to create a collection of images that depicted the diverse landscapes of fishing activity and these were shown in three final exhibitions in England, Belgium and the Netherlands in the summer of 2014.

Results from the survey suggest that fisheries activity, especially small-scale fisheries, embeds individuals and communities into a place, giving them a sense of belonging and rootedness. Inshore fishing is an important contributor to the cultural heritage and identity of coastal places, as well as being the lens through which social processes and cultural values are mediated. Individuals who are associated in some way with the fishing sector display stronger connections and attachments to place than those who are not. The strongest attachments to place were demonstrated by those directly involved in fisheries, followed by those indirectly involved and those with no involvement with fisheries displayed the lowest levels of attachment, identity and dependence.

Place identity and place dependence were the highest in England, and place attachment was highest in England and Belgium. Overall sense of place, along with a belief that fishing is an important contributor to sense of place, was lowest in the Netherlands. England had the highest perception of the importance of fishing and the role of fishing for tourism and heritage while France had the highest perception of the contribution of fishing to community life.

Place attachment, identity and dependence increase with the length of residence in coastal towns although perceptions relating to the contribution of fishing to sense of place, tourism,

heritage and community life are likely to reduce over time. For those that had always lived in the town (i.e. natives), scores for attachment and identity were equal, but for non-natives attachment was higher than identity although it did increase over time. This suggests that attachment to place is likely to form first, with identity with place forming later and increasing as more time is spent in the place. This demonstrates that a sense of belonging to a place can be considered as either 'embedded', based on genealogical or longstanding association with place, or 'elected', where claims of belonging are not associated with a longstanding association with the place but nevertheless people still feel a sense of being 'at home'.

Alongside the attachments to place, fishing is also an important contributor to the construction of identity in fishing places. For many fishers fishing is a way of life and they express deep embedded attachment to fishing and their occupational identity as fishers. Those attachments and identity to place are forged through genealogical ties and the co-location of work and home in a place. Identity as a fisher, kinship ties and a long genealogical history provides the basis for social life in fishing communities. Fishing is often at the heart of social organization and provides the setting for social interaction. Alongside the emotional attachments and meaning that people ascribe to places, fishing activity in a coastal town also creates a particular aesthetic that shapes place character. Fishing places are, therefore, sites of cultural expression through a blending of the particular coastal environment, the bringing to shore of marine organisms and the cultural and social meanings that people ascribe to that activity that are either perceptual or manifest as material culture in those places.

In many areas, small-scale fishing is often economically marginal and fishers have seen changes in their activity over recent years, mainly due to increased regulation and a change in fish stocks. This has meant having to change the gear they use and the species they target, and has resulted in harder work, less income and less time with their families. Yet many fishers still persist in fishing as, for them, fishing is a way of life, not just a means of earning a living. Fisheries dependence, therefore, is not just about livelihoods, but is also based on its social and cultural value.

By exploring sense of place in fishing communities, this report discusses how fishing is contributing a range of social and cultural benefits that can be broadly aligned with the cultural ecosystem services framework put forward in the MEA's ecosystem approach (MEA, 2005a), such as:

- *Cultural identity* – Fishing shapes the identity of those who live in coastal places and increases over time. It is both perceptual and linked to the attachments that people form with place, but is also influenced by place character in terms of the physical environment and man-made objects (e.g. buildings, fishing gear and boats, artworks, signs etc.) and the fishing activity associated with it.
- *Place character and aesthetic values* – Fishing places have a particular aesthetic that is shaped by the physical environment and landscape along with the material culture associated with fishing.
- *Individual and group attachment to place* – Fishing facilitates and strengthens attachment to place through genealogical ties, longstanding association with the place and the co-existence of a place of work and residence, along with the fishing underpinning the social fabric.
- *Place meaning* – The meanings attached to places may differ for those associated with fishing and those not, with fishers relating to the place as a working environment and, often, based on genealogical place attachment. For those not associated with

fishing those meanings may focus on the aesthetics of the place, based on both the physical landscape and a (sometimes romanticized) perception of the fishing industry.

- *Cultural heritage and memory* – As an activity that has often taken place for generations fishing is deep-rooted in many coastal towns and villages. It is represented through the built cultural heritage in the form of the remains of old buildings or equipment, some of which are reused for other purposes. Fishing heritage is also about the non-tangible memories of those who have lived there and these are passed on through oral histories, preserved traditions and representations in museums.
- *Inspiration* – The activity of fishing and the particular nature of coastal environments provides inspiration and wellbeing benefits for those living there, enhancing quality of life. This is also reflected in the work of artists who try to capture the particular quality of these environments.
- *Connection to the natural world* – For fishers this may occur through daily engagement with the marine environment, sometimes in very harsh conditions. For others, living by the coast may provide a certain perspective and sometimes religious and spiritual meanings for those communities.
- *Tourism* – The presence of fishing, or the idea of ‘fishing culture’, provides an attraction for tourism. Visitors like to watch the boats in the harbour, the fishermen unloading the daily catch and they enjoy eating locally-caught fish in a harbourside restaurant. With traditional coastal industries such as fishing and shipbuilding on the decline in many areas, tourism is becoming an increasingly important alternative economic activity.
- *Knowledge* – Fishers may have a particular knowledge about the marine environment in which they work, along with the skills and traditions associated with that activity. Educating and passing on that knowledge is an important part of maintaining cultural identity.

This report discusses how an understanding of sense of place and the attachments that people form in fishing places can help develop sustainable fisheries management policies. By drawing on lessons from the more developed agro-food sector and the rural development paradigm fisheries can be re-cast as a multifunctional activity that delivers cultural ecosystem services rather than acting as a purely provisioning function by providing food. To move towards a situation where multifunctionality can be achieved there are three key recommendations:

(1) Re-imagining what marine fishing is, seeing it as not just a provisioning activity, but as a relational network of natural, social, cultural and economic associations that intersect to form particular ‘fishscapes’. Fishscapes can be understood as co-constructed places that blend the social construction (human perceptions, meanings and values) of a fishing place with the natural and human-made spatial reality of that place. Fishscapes, therefore, become the sites where, through the activity of fishing, the cultural services that humans derive from marine ecosystems become apparent through the entanglement of the natural and human-made environment, material cultural, memory, meaning and human activity.

(2) It is imperative to develop markets that value the provenance, freshness and quality of local fish and seafood. By linking the product more explicitly with the place, through place-product branding, value can be added locally and benefits achieved for local fishers and the wider community. This would involve strengthening the links to the tourism sector in a way

that provides new economic opportunities through responsible tourism initiatives that preserve the identity of the traditional fishing industry.

(3) There needs to be a more transparent, place-based approach to the distribution and marketing of fish and seafood.

The report concludes by asserting that if there is recognition in policy making of fishing as an embedded activity within a place and valuing the wider multiple values that emerge, such an approach could offer a contribution to the development of sustainable coastal communities that celebrates the distinctiveness and cultural value of inshore fleets.

# 1. Introduction

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- 1.1 Introduction and rationale for the study
  - 1.2 Study aims
  - 1.3 Background and key literature
  - 1.4 Conclusion
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## 1.1 Introduction and rationale for the study

This report outlines the findings of a study that explored the cultural values and sense of place of inshore fishing communities through a mixed method approach involving a large-scale questionnaire survey and a creative photography project. Case studies across the GIFS (Geography of Inshore Fishing and Sustainability) study area were included in England, France, Belgium and the Netherlands<sup>1</sup>.

Much research and policy to date has focused on the biological and economic impacts of fisheries with social and cultural aspects largely overlooked (Symes and Hoefnagel, 2010, Urquhart et al., 2011, McClanahan et al., 2009, Ross, 2013). However, the latest reform of the Common Fisheries Policy (CFP) ((EU) No 1380/2013) outlines the need for specific support for small-scale fisheries, recognizing the importance of taking account of the particular socio-economic and cultural aspects of this sector. There is recognition that inshore fisheries do not just provide for our physical needs in terms of food and livelihoods for fishers, but they also contribute to well-being benefits such as cultural identity, recreation, quality of life, heritage and social cohesion (see Section 1.3.1).

Therefore, at a time when there is growing recognition within European fisheries policy of the particular characteristics of the inshore fishing sector that include their specific social and cultural value it is necessary to provide empirical evidence to support decision making and inform policy. This is imperative if social and cultural objectives are to be explicitly and appropriately implemented, taking account of and recognizing the importance of inshore fishing for livelihoods, identity and the way of life for many small-scale fishing communities.

This report firstly sets out the purpose and aim of the study, identifying why there is a need to consider the socio-cultural value of inshore fishing especially in terms of informing policy and fisheries management. It provides the theoretical framework that has informed the research design and purpose (Chapter 1) and then describes the methodological design and approach of both the questionnaire survey and photography project, detailing the case study locations and scope of the study (Chapter 2). The results of the analysis of the survey data are presented (Chapter 3) followed by a discussion of the survey findings, along with the photography project, in terms of their contribution to an understanding of the role of inshore fishing to sense of place and sets out the implications of this study for policy-making (Chapter 4). The final chapter (Chapter 5) reflects on the methodological approach and provides some conclusions to the study.

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<sup>1</sup> The work was complemented by a doctoral study investigating the inter-relationships between fishing communities, identity and tourism in six case study sites: Wells-next-the sea, Looe, Beer, Isle of Wight (England); Oostduinkerke (Belgium) and Le Guilvinec (France). The outcome of this research is not included in this report, but information can be found on the GIFS website ([www.gifsproject.eu](http://www.gifsproject.eu)).

## 1.2 Study aims

The aim of the research was to understand the cultural values of inshore fishing by exploring how this sector contributes to and shapes sense of place in fishing towns and ports along the English Channel and Southern North Sea and whether there are differences in the way that the fishing industry is perceived and valued in different countries and regions. Specific objectives were:

- To assess whether involvement in the fisheries sector fosters stronger attachments to, identification with and dependence on place.
- To compare sense of place in fishing communities in England, France, Belgium and the Netherlands.
- To develop an approach to 'measure' sense of place in fishing communities.
- To explore the potential for using visual methods for exploring the cultural values of inshore fishing.
- To create a snapshot of inshore fishing places at the beginning of the 21<sup>st</sup> century.

Previous work undertaken by the research team has developed qualitative approaches to understand the contribution of sense of place in coastal towns (Acott and Urquhart, 2012, Urquhart and Acott, 2013a, Urquhart and Acott, 2014). However, in addition to the richness of qualitative studies, policy imperatives often require quantitative or measurable evidence to inform their decision-making (Veltri et al., 2014). To address this, the research team developed an approach involving statistical analysis of questionnaire data that allowed a quantitative assessment of the role of inshore fishing to sense of place to be estimated.

Alongside this, a creative approach was adopted to assess the efficacy of using photography as both a way to communicate and raise awareness about the social and cultural values bound up with fishing, but also to reveal those values that are often intangible or unrecognised. The aim here was to engage with local communities through creative expression to explore what fishing places mean to them and to use photography as a way of visualizing socio-cultural value.

## 1.3 Background and key literature

In the context of this study, and the GIFS project in general, the first task was to define the term 'inshore fishing'. Finding a definition that is applicable in all EU (European Union) member states is difficult as the fleets are diverse and definitions vary in terms of considering vessel length or power, days at sea, gear used, distance from port travelled or target species. For instance, in England, the inshore fishing fleet refers to vessels under 10 metres in length, that generally operate in coastal waters out to 6 nautical miles where the inshore management regime applies, although they can work out to the 12 nautical mile territorial waters limit. In France, inshore fishing is categorised into *petite pêche* (time out of harbour less than 24 hours) or *pêche côtière* (time out of harbour between 24 and 96 hours) although Ifremer (French Research Institute for Exploration of the Sea) defines the fleets slightly differently, recognising the inshore fleet as vessels operating in territorial waters up to 12 nautical miles for more than 75% of the time. In Belgium, the legal definition of the inshore/coastal fleet is fishing vessels that have an engine power of 221 kW or less, a tonnage of no more than 70 GT and trips up to 48 hours. In the Netherlands, the definition of

inshore fishing is fishing within up to 12 nautical miles with vessels no longer than 24 metres and with a maximum capacity of 300 HP or 221 kW (Acott et al., 2014).

The EU adopts the term 'small-scale fisheries' as a way of distinguishing fishers working at a small-scale from the larger, more industrial operators. Small-scale fishing in the EU is defined as "vessels under 12m in length not using towed gear" (Macfadyen et al., 2011). However, some of the traditional fishing practices along the English Channel and Southern North Sea that are considered typically 'coastal' or 'inshore' (such as brown shrimp bottom trawlers and sprat or herring pelagic trawlers) actually use towed gear. This definition, therefore, proved problematic for the GIFS study area. So, for the purposes of the project, we adopted a broad definition of inshore fishing as activity carried out by vessels operating within 12 nautical miles of the coast (as well as shellfish harvesting conducted on foot and, in one case, on horseback). Thus, the focus was on the smaller scale fishing activities in coastal waters, rather than large offshore fishing operations. However, of course in some places it is difficult to disentangle the impacts of small-scale fishing activities from those of large-scale fishing as both operate from the same place (e.g. they may share a home port).

### **1.3.1 Cultural values and small-scale fisheries**

There is increasing evidence in the academic and wider literature that inshore fishing provides many important social and cultural goods, especially in remote and deprived coastal areas. For many fishing communities, fishing is not merely an economic activity but is implicitly bound up with the social and cultural organization of these communities. Social studies of fishing communities often emphasise that fishing is a way of life rather than just a means of earning a living (Brookfield et al., 2005, Jacob et al., 2001, Nuttall, 2000, van Ginkel, 2001, Urquhart and Acott, 2014). Fishing often dictates the social life, behaviour and identity of the community (Marshall and Foster, 2002), providing "the center for social interaction and the setting through which meanings are mediated" (Urquhart and Acott, 2014) (p. 13). As Brookfield et al. (2005) conclude, "fishing is the glue that holds the community together" and "the community understands and makes sense of the world from a perspective that is garnered from years of involvement with the fishing industry" (p. 56).

Yet, despite recognition of the social importance of fishing for coastal communities, there is a surprising lack of explicit social and cultural objectives in policy (Earll and Gubbay, 2006, EC, 2009, Symes and Phillipson, 2009) and relatively little is known about the social and cultural impacts of policy decisions aimed at dealing with the fisheries 'crisis' (Symes and Frangoudes, 2001, Ross, 2013). Alongside this, there is a lack of understanding of how fishers behave in response to policy measures (Hilborn, 2007, Salas and Gaertner, 2004) and despite calls in Agenda 21 (published as a result of the UN Conference on Environment and Development in 1992) to take account of the specific interests of small-scale fishing communities and recognition of the increasing competition between artisanal and large-scale fishing, there is a relative paucity of empirical work to inform decision-making and sustainable management programmes.

Notwithstanding the largely anthropological studies of small-scale fishing communities and some government-funded research such as Defra's Sustainable Access to Inshore Fisheries (SAIF 2010), European social science fisheries research and policy has often focused on economic impacts. For instance, concepts such as fisheries dependence have largely been cast in economic terms with a focus on employment and the local economy (Brookfield et al., 2005, SAC, 1999, Urquhart et al., 2011). However, this narrow definition of fisheries dependency falls short and the definition needs to be widened to include social and cultural dependency as well (Nuttall, 2000, Ross, 2013). If not taken into account, Symes and

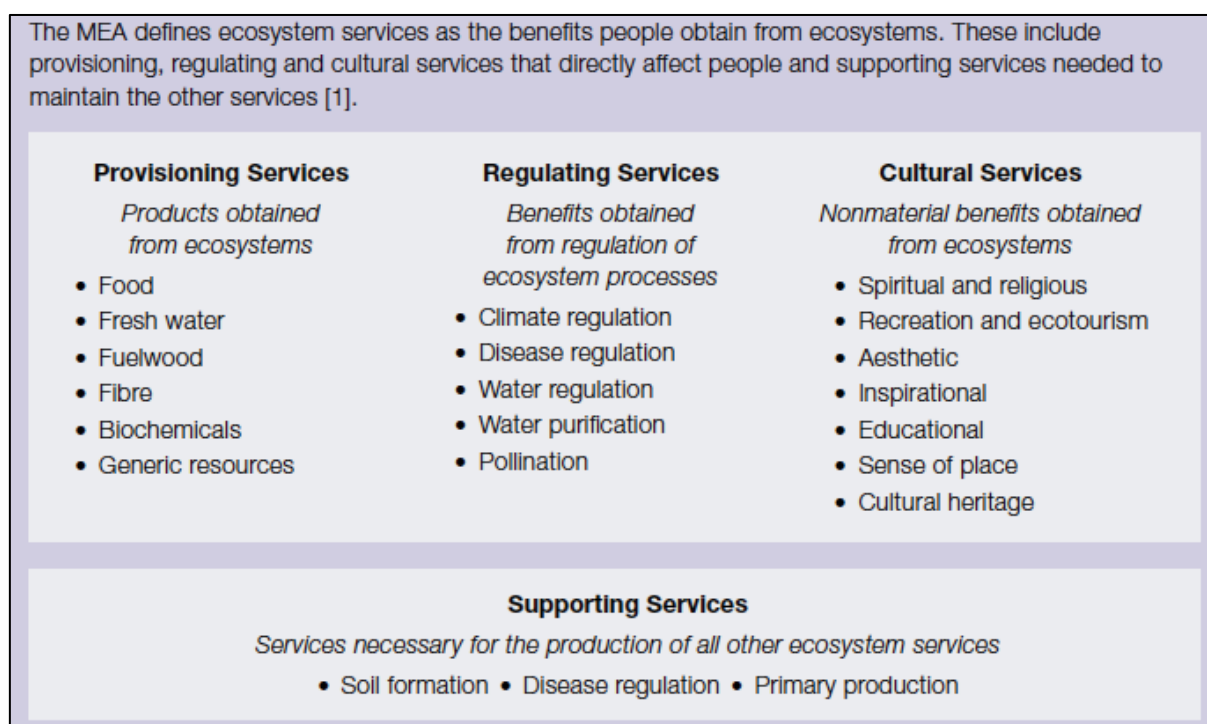
Phillipson (2009) fear that “fisheries dependent communities become vulnerable when their social cohesion is undermined and their cultural identity challenged” (p. 4). Examples of this can be seen in some of the small fishing communities of north-east Scotland (Munro, 2000, Nadel-Klein, 2000, Nadel-Klein, 2003, Williams, 2008). In her study of a Scottish coastal fishing community, Ross (2013) concludes that strong attachments to fishing as a positive identity, along with a commitment to fishing, reflect aspects of fisheries ‘dependency’ (p. 60). Jacob et al. (2001) further suggest that fisheries-dependence relates to the “character of the community . . . there is a dependence of an industry to support the sense of community and the history of that community” (17–18).

However, defining and quantifying social and cultural values is hard to achieve as they are often intangible, changing and perceptual, yet clearly they need to be incorporated into policy if we are going to achieve sustainable fishing communities for the future. An understanding of the interrelated cultural values associated with inshore fishing offers many insights into some of the key issues that beset fisheries management and would help to address the lack of social and cultural objectives in fisheries policy (Symes and Hoefnagel, 2010, Urquhart et al., 2011). A greater focus on understanding the cultural value of inshore fishing could deliver a range of benefits to coastal communities, including enhanced social welfare as the ‘value’ of fishing beyond the economic price of fish is understood (e.g. social cohesion, identity etc.) and new economic opportunities through place branding and marketing (including the development of responsible tourism based around the cultural impact of fishing). Further benefits include enhanced food security as inshore fishing is socially and culturally valued (not just economically), poverty alleviation (through secure livelihoods and new economic opportunities), equality (recognition of role of women), resilience from displacement (due to the competing demands on the coastal zone), motivation of public support for ecosystem protection and stronger recognition of the socio-cultural value of inshore fishing in fisheries policy and coastal zone management.

The following sections, therefore, set out the theoretical background to the study, outlining the ecosystem services framework in which the study is situated and drawing on the academic literature on sense of place to inform the design and focus of the study.

### **1.3.2 An ecosystems approach and cultural services**

An ecosystem-based approach to the management of natural resources, including fisheries, is becoming a key instrument for management as policy makers are faced with dealing with the impacts that humans are having on global ecosystems and ensuring the sustainability of those resources into the future. The framework, outlined in the Millennium Ecosystem Assessment (MEA) describes the benefits that humans derive from ecosystems that contribute to human well-being (MEA, 2005a). These include provisioning services, regulating services, cultural services and supporting services (Figure 1). The framework was developed as a way of capturing all the services that society receives from ecosystems and recognizing the drivers of change in those ecosystem services in order to improve the assessment of those services and inform decision-making (MEA, 2005a).



**Figure 1:** Ecosystem services as defined in the Millennium Ecosystem Assessment, 2005 (figure from GIFS Toolkit 2014).

The MEA framework attempts to capture the importance of the natural environment for society. This concept is directly relevant to the management of fisheries where the dominant way of thinking is to consider marine fishing as providing a provisioning service of food. While fundamentally this is what fishing sets out to do, the action of fishing also brings a wide range of other benefits (and sometimes dis-benefits) to coastal communities that fall under the category of 'cultural ecosystem services'. Cultural ecosystem services (CES) are currently understood as the diverse non-material benefits that people obtain from ecosystems, such as cultural diversity, spiritual and religious values, knowledge systems, educational values, inspiration, aesthetic values, social relations, identity, cultural heritage, recreation and ecotourism (MEA, 2005b). Assessing the value of these benefits in a policy-relevant framework is difficult as they often defy extant scientific and economic methods and currently there is no agreed robust framework for valuing the cultural services that people receive from ecosystems, including fisheries.

Unsurprisingly, an ecosystem approach to fisheries (EAF) (De Young et al., 2008) has been dominated by economic valuation techniques that attempt to put an economic value on the goods and services that ecosystems provide society. While this may be suitable for valuing the provisioning, supporting and regulating services, valuing the cultural services that fisheries ecosystems provide is more problematic and there is increasing recognition that many CES are often not marketable or reflected by economic indicators (Milcu et al., 2013) and that alternative methods, such as place-based approaches (Potschin and Haines-Young, 2012), are required alongside traditional economic approaches. In this regard, Chan et al. (2012) argue that "inspiration and identity benefits are commonly associated with fishing – a valued way of life and source of employment – but they are not fully reflected in monetary valuations of market goods associated with the provision of fish for harvest... valuation frameworks are impoverished if they purport to represent the value of the provision of fish for harvest without accounting for these crucial but often intangible benefits associated with the process of fishing" (p. 14). Thus, capturing these intangible benefits is important if the full

spectrum of ecosystem services for fisheries is to be integrated into management and policy decisions, even if it makes the decision-making process messier (Chan et al., 2012).

To date researchers have struggled to develop approaches that assess CES not only in terms of the services generated by ecosystems, but also the relationship between people and the environment (Hernandez-Morcillo et al., 2013). Most current assessments focus on the supply of services from ecosystems (Plieninger et al., 2013), not taking into account the situated and experiential perceptions of those recipients of CES. To overcome this we adopted a 'sense of place' perspective to explore the social and cultural dimensions of inshore fisheries, as outlined in the following section.

### **1.3.3 Sense of place**

In the Millennium Ecosystem Assessment, sense of place is identified as a discrete type of CES, however, through this work we tested its effectiveness as an underpinning concept for conceptualizing CES more broadly. We started from the premise that it is important to consider the social and cultural meanings that people (individuals, groups and society) attribute to places or environments, alongside understanding how the physical environment (and ecosystems) shapes and influences those meanings.

Sense of place is a term that is used in many different ways by different people. However, in essence it is about understanding the complex relationships that people form with the places around them. It is about how places make people feel, the meanings they associate with places and how they influence their behaviour. Sense of place is addressed by a range of academic disciplines such as humanistic geography, sociology, environmental psychology and architecture (Davenport and Anderson, 2005, Kyle and Chick, 2007) and encompasses a wide range of ideas. It is often conceptualized as involving the three concepts of place attachment, place identity and place dependence, which can be applied to individuals (e.g. personal identity) or groups (e.g. community identity) as illustrated in Figure 2. Place attachment is concerned with the emotional attachments that people form with places and is often referred to as a sense of belonging or rootedness (Hidalgo and Hernandez, 2001) or what Tuan termed 'topophilia', a love of place (Tuan, 1974). Attachments can either be individual, such as a personal feeling of belonging to a place, or collective, such as a sense of community attachment to a particular place.

Place identity is associated with the meanings that people attribute to places and is mediated by their experiences, memories and beliefs about a place. Individually it can refer to, for example, a sense of occupational identity that fishers may feel that is bound up with a particular coastal area. Collectively, community identity may be shaped by the place, along with cultural heritage and collective knowledge and skills specific to that community. It also includes place character, in other words, the distinctive characteristics that are unique to a place.

Place dependence relates to behaviour and is associated with how well a place is suited to the needs or activity of an individual group. It is often associated with recreational activities and assessed using measures such as place satisfaction. Figure 2 illustrates how individuals depend on a place because it provides for their livelihood (e.g. fishing) or a particular leisure activity that they wish to engage in. Collectively the tourism industry may trade off the characteristics of the place. In addition, community identity, as well as an outcome of the collective meanings associated with a place (see 'identity' dimension in Figure 2) may also depend on the particular characteristics of the place to shape that identity.



**Figure 2:** An overview of the dimensions of sense of place.

Methods for understanding sense of place can be divided into either mainly phenomenological (interpretivist) approaches or behavioural (positivist) approaches (Shamai and Ilatov, 2005). A phenomenological approach focuses on the everyday lived experiences of individuals (Seamon, 2000) and explores the meanings and perceptions that individuals or groups associate with a place or particular setting (Tuan, 1974). There is an extensive literature on how places are socially constructed, the role of place in identity and how people become attached to place (Altman and Low, 1992, Relph, 1976, Creswell, 2004, Tuan, 1977, Proshansky et al., 1983, Holloway and Hubbard, 2001, Massey and Jess, 1995). Clearly how people, both as individuals and as collective groups, relate to and associate with a place will differ and will be based upon memory, experiences, beliefs and perceptions associated with particular places (Manzo, 2005). Cultural and social factors may also influence how an individual feels about a place or particular activity within that place. Phenomenological studies often adopt qualitative methods to uncover the complex, entangled and perceptual elements of sense of place.

Quantitative investigations of sense of place are relatively sparse in comparison to qualitative studies (Jorgensen and Stedman, 2001, Shamai, 1991). Quantitative approaches include the

use of ranking procedures or scales of sense of place (e.g. Shamai and Kellerman, 1985). Shamai (1991) outlined seven ordinal levels on a sense of place scale: (0) not having any sense of place; (1) knowledge of being located in a place; (3) attachment to a place; (4) identifying with the goals of the place; (5) involvement in a place; and (6) sacrifice for a place. Jorgensen and Stedman (2006) propose a multidimensional concept of sense of place comprising cognitive, affective and conative dimensions to human-environment relationships. In their study of shoreline property owners in northern Wisconsin, sense of place is presented as comprising place-specific beliefs (place identity), emotions (place attachment) and behavioural commitments (place dependence) (Jorgensen and Stedman, 2001). Drawing on attitude theory they develop a sense of place scale to measure attitudes towards spatial settings that can be correlated with respondents' attitudes towards different policy options, group perceptions and characteristics of the natural environment (Jorgensen and Stedman, 2001).

By considering Jorgensen and Stedman's (2001) model places can be seen as a particular assemblage of landscapes, biota and geophysical attributes that mediate or give rise to the meanings that people associate with them. So, alongside the perceptual meanings that people associate with places, the place itself can also influence and shape those perceptions. Therefore, sense of place cannot be considered as a purely social construct, but is co-produced and as Stedman (2003) argues, "the local environment sets bounds and gives form to these constructions" (p. 671). In this study we consider how the physical presence of a fishing fleet gives rise to a place character that is influenced by fishing through the material objects associated with the activity such as boats, buildings, fishing gear, street decoration etc.

Understanding the role of fishing in shaping this identity and sense of place and the cultural services that arise as a result of fishing activity is not straightforward. Often these intangible and non-material values are understood implicitly by those living and working in fishing communities, but they are not explicitly articulated or addressed in policy and coastal management strategies. Revealing these values involves the adoption of innovative methods, bringing in creative approaches from the arts and humanities, alongside social science methods, as outlined in the following section.

#### **1.3.4 Arts-based approaches**

The UK National Ecosystem Assessment Follow-On has called for more recognition of the value of arts and humanities based approaches to understanding cultural ecosystem services (Coates et al., 2014). The authors purport that often research participants may be unaware of the existence of cultural values or find it difficult to articulate them. They suggest that an important approach for understanding CES "is for creative practitioners to produce inspiring poems, paintings, films and other artworks, based on a reflective process informed by evidence of the cultural benefits of Ecosystem Services" (Coates et al., 2014).

Creative expression can be both a way of representing nature and the environment and a way for people to engage with the natural world through those representations. In this way, art has the capacity to, in Heidegger's words, make parts of the natural world 'occurrent' by making cultural-natural worlds visible and focusing on what otherwise remains in the background (Crang, 1997). Creative media may involve paintings, sculpture, poetry, literature, music, film, drama, photography etc. One area of creative expression that has become ubiquitous in our society is photography. Many people have cameras on their mobile phones or use digital cameras, often almost on a daily basis. Moments in time are constantly

captured and communicated through social media to a potentially global audience. This section, therefore, considers photography as both an academic tool and its application as a means of communication of a message or idea.

Firstly, photography has been used in research for decades. It may be used to record information or a particular phenomenon under study. There is an assumption that a photograph records the world as it really is and presents an objective image of the subject in question. However, this fails to consider the subjective judgments made by the photographer when taking the photograph. Decisions are made on what to include in the image and what to exclude and the settings on the camera (e.g. shutter speed, aperture, filters etc.) can alter the resulting image. Sontag (1977) suggests that “although there is a sense in which the camera does indeed capture reality, not just interpret it, photographs are as much an interpretation of the world as paintings and drawings are” (p. 6-7).

Many research disciplines use photography including anthropology, environmental psychology and human geography (Markwell, 2000). For example, in visual anthropology photographic analysis and photo-documentary research can help when exploring the importance of place to people (Collier and Collier, 1986). Pink (2007) suggests that visual anthropology approaches have shifted from realist visual recording methods to approaches that embrace subjectivity, reflexivity and the idea that the visual is a critical ‘voice’ that constitutes valid knowledge. This process of change has involved an inclusion of critical perspectives, new theories on representation, collaborative ethnographic methodologies, recognition of the agency of the visual and the multiple ways that the visual can be interpreted (Pink, 2007).

Photography is further used in social science research methods, such as photo-elicitation (Harper, 2002). Here photographs can be used to elicit participants’ attitudes towards or perceptions about particular topics or visual images. Such an approach can be useful especially when researching intangible values such as the cultural services derived from ecosystems. Photographs can reveal cultural values that are difficult to articulate in words. Images not only represent a social reality, they also shape the way people think (Burri, 2012). Images are representations of the world and are often a way for cultures to understand themselves and their relationship to other cultures and the natural world (Wiley, 2007). In this sense, photography can be a powerful form of representation to make visible and communicate the often implicitly understood ideas about the cultural values that emerge as a result of fishing activity in coastal places.

## **1.4 Conclusion**

This chapter has outlined how there is increasing recognition that inshore fishing provides important social and cultural benefits to coastal communities in addition to supporting the livelihoods of fishers and those associated with the industry. However, there is little empirical evidence to inform policy decisions regarding the socio-cultural value of inshore fishing and there is no agreed framework for how to actually achieve this in practice. Indeed assessing social and cultural values can be difficult as they are often intangible, implicit and difficult to measure. Increasingly an ecosystems approach to natural resource management is being adopted in order to understand the benefits that humans receive from ecosystems (such as fisheries) that contribute to wellbeing. By attending to the concept of cultural ecosystem services, notwithstanding the difficulties in assessing cultural values, this project sought to explore what those values might be in terms of inshore fishing. As this chapter has outlined, sense of place provides a useful framework for trying to understanding the complexity of the social and cultural processes that are brought into being through the act of fishing and what benefits these provide to coastal communities.

With the UK National Ecosystem Assessment Follow-on calling for the enrolment of approaches from the arts and humanities, it is likely that innovative and creative approaches to elicit these cultural values will gain greater importance. In order to address this, this project adopted a mixed method approach in order to develop methods that would both be pragmatic in terms of their policy relevance, but also explore new ways of understanding the cultural value of the natural world through photography. In light of the literature review, this approach aimed to provide an opportunity for the sense of place of those living and working in fishing communities to be expressed and also enable a snapshot of life in inshore fishing communities in the early 21<sup>st</sup> century to be recorded. The following section outlines the methodological approach and case studies adopted in this study.

## 2. Methods

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- 2.1 Introduction
  - 2.2 Sensing Fishing Places Survey
  - 2.3 People, Place and Fish Photo Project
- 

### 2.1 Introduction

A multi-method approach was adopted in order to devise appropriate methods that would allow for both quantification of the role of fishing in creating a sense of place alongside a visual representation of the cultural value and services that arise as a result of the presence of an inshore fishing fleet in England, France, Belgium and the Netherlands. In this regard, two main approaches were developed. Firstly, a questionnaire survey, entitled 'Sensing Fishing Places' was developed to examine the role of inshore fishing in influencing how people feel about where they live, their sense of place and their community. Secondly, a photo project used a range of photographic approaches to document, reveal and understand the multiple cultural services that are created through the activity of marine fishing in coastal places. This chapter outlines the methodological approach of the two elements, beginning with the development and deployment of the 'Sensing Fishing Places' survey.

### 2.2 Sensing Fishing Places Survey

The 'Sensing Fishing Places' survey was undertaken across the GIFS area in England, France, Belgium and the Netherlands using a combination of online, face-to-face and postal techniques. This section outlines the design of the questionnaire, the sampling frame, deployment process and analytical approach.

#### 2.2.1 Design of the survey

The survey was designed to elicit participants' sense of place using primarily Likert scales. A Likert scale is a psychometric scale used to explore people's attitudes or points of view in a questionnaire survey. When respondents respond to a single Likert item (an individual statement, e.g. "I feel very strong that I belong here") they are asked to express their views on a symmetric scale (e.g. strongly agree to strongly disagree). Sets of Likert items (for instance, 5 or 6 statements) are commonly used to explore a particular idea. The responses across all the Likert items are summed to create a score for each respondent on that particular topic. This allows a sensitive approach to information gathering as complex concepts can be approached through multiple indicators improving reliability of the results, giving greater precision, avoiding oversimplification and facilitating the development of more valid measures (de Vaus, 2002).

In this study, seven scales (sets of multiple statements) (plus one additional set for fishers only) were developed on the following topics:

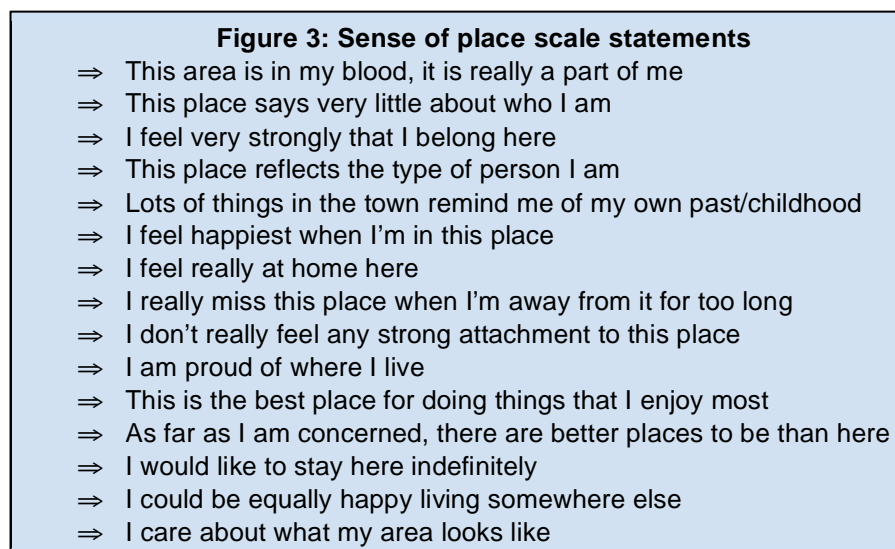
- **Sense of place** - place attachment, place identity and place dependence (15 statements)
- **Fishing** - attitudes towards the contribution of fishing to sense of place (11 statements)
- **Tourism** - the role of fishing for the tourism sector (8 statements)

- **Heritage** - the role of fishing for cultural heritage (8 statements)
- **Community** - the role of fishing for community life (6 statements)
- **Future** - perceptions regarding the future of fishing (7 statements)
- **Fish consumption** – views regarding eating fish and seafood (6 statements)
- **Fisher motivations** – motivations for being a fisher (9 statements) (fishers only)

For each Likert item respondents were asked to choose between five response options (strongly agree, agree, no opinion, disagree, strongly disagree). In addition, questions were included in order to understand the demographic characteristics of respondents and their relationship to fishing:

- Connection (or not) to fishing (e.g. direct: fisher, fish processor etc., indirect: tourism, museum etc.).
- Fish and seafood consumption habits.
- Tourist activities undertaken.
- Demographic questions such as gender, age, length of time resident, education level, employment status, occupation.
- Fishing activity, the role of family members how fishing activity has changed over time (fishers only).

The 'sense of place' scale consisted of statements intended to ascertain respondents' attachment to, dependence on and identification with the fishing place (see Figure 3 for a list of the included statements). The statements were constructed based on the model developed by Jorgensen and Stedman (2001) in which shoreline property owners were surveyed about their sense of place for their lakeshore properties. Each statement was intended to elicit the extent to which the respondent agreed or disagreed with it and the responses were summed to get an overall score for each sense of place dimension (attachment, identity and dependence).



Whereas the 'sense of place' scale ascertained people's overall sense of place, the 'fishing' scale was developed to explore the specific contribution of fishing in the construction of sense of place (Figure 4). Further scales were also included to explore respondents' perceptions of the contribution of fishing to tourism, heritage and community life, contributors to sense of place, alongside perceptions about the future of fishing, attitudes towards fish

consumption and tourism behaviours (see Chapter 3, Section 3.3.2 for a list of the statements included on these attitude scales).

**Figure 4: Fishing scale statements**

- ⇒ Having fishing here is the most important thing to me
- ⇒ This place would still mean a lot to me even if there was no fishing industry here
- ⇒ I am very proud of our local fishing industry
- ⇒ Fishing provides an important link between the land and sea
- ⇒ When I think of this place, I think of fishing
- ⇒ Fishing really shapes the physical character of the town
- ⇒ Fishing is a very important part of the local economy
- ⇒ Fishing is no longer viable financially
- ⇒ Fishermen need to diversify their activities in order to survive
- ⇒ Harbours are more attractive with fishing boats rather than yachts
- ⇒ Fishing gear, boats and other physical objects really add to the character of this place

In order to deter acquiescence bias and to keep respondents from answering carelessly, some of the statements were reversed. For example, the sense of place scale included both positive statements, e.g. “I feel very strongly that I belong here” and negative statements, e.g. “I don’t really feel any strong attachment to this place”.

Two versions of the survey were created. Firstly, a paper version for mailing and secondly, an online version designed and deployed using Bristol Online Surveys. The survey was provided in English, French and Dutch so that all respondents could answer in their own language. A copy of the questionnaire (paper version) can be found in Appendix 1 (non-fisher) and Appendix 2 (fisher).

## **2.2.2 Sampling frame and data collection**

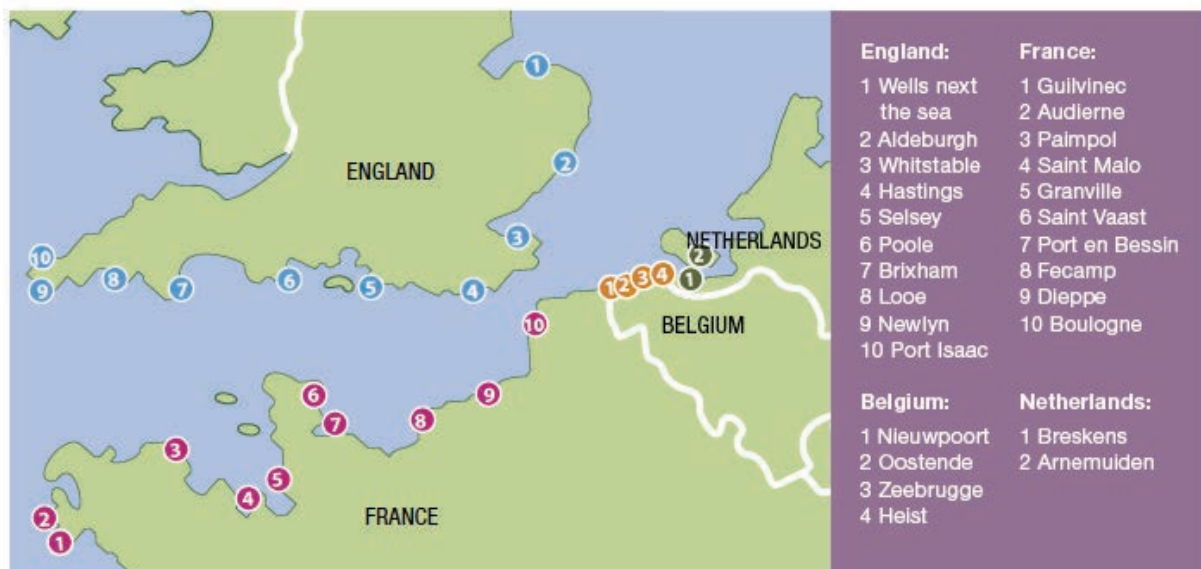
The survey was targeted at three groups of stakeholders: (i) fishing stakeholders (e.g. fishermen, fishing families, fish processors, fish mongers etc.); (ii) non-fishing stakeholders (e.g. tourism providers, heritage providers etc.) and (iii) residents in fishing towns/places.

Firstly, a list of all coastal towns and villages with registered fishing vessels was constructed using public vessel lists (MMO in England, Système d'Informations Halieutiques in France, Federal Public Service Mobility and Transport in Belgium and the Ministry of Economic Affairs, Agriculture and Innovation in the Netherlands). This resulted in a list of 114 towns or villages in England, 114 in France, 4 in Belgium and 4 in the southern Netherlands. A desk based web search was then undertaken to identify and construct a database of individuals or organisations directly or indirectly associated with fishing in the listed towns. Stakeholders identified included fisheries organisations, FLAGS, fish processors, maritime museums, local authority representatives, tourism providers (hotels and restaurants), art galleries etc. In England, 545 individuals or organisations were identified and contacted by email, inviting them to complete the online survey. GIFS project partners in France, Belgium and the Netherlands assisted in contacting potential respondents in their respective countries. In addition, press releases were sent to the local media in order to encourage other interested individuals to complete the survey and the survey was advertised via Facebook.

Secondly, to ascertain the views of residents located in fishing towns or villages, a postal survey was carried out in a selection of case study coastal towns in England, France and Belgium. As there were only 4 towns with registered fishing vessels in Belgium all were

included for the postal survey. In England and France, however, the case study sites were purposively selected to include a range of locations in terms of number of vessels, population and geographic distribution across the counties/regions. The selection criteria was based on the number of under 10 metre vessels present. A sample frame was developed that included ports with just a few vessels through to those with many vessels (over 100), ports with and without over 10 metre vessels, towns with a range of population sizes and the inclusion of at least one case study in each county (except for Hampshire as no ports matched the selection criteria) in England and region in France. The final selection of 10 towns in England, 10 in France and 4 in Belgium is shown in Figure 5.

A random sample of 200 residents was selected for each location. In England, the sample was obtained via the edited electoral register, in France it was via Pages Blanche and in Belgium it was via bpost group, the Belgian postal company. The English survey was mailed from the UK directly from the University of Greenwich. In Belgium, the survey was mailed from Oostende by GIFS partner VLIZ. Mailing of the survey to France was handled by Asendia UK (La Poste). Data collection for the survey was undertaken between March 2013 and September 2013.



**Figure 5:** Case study locations for deployment of survey to residents.

A further two towns in the Netherlands were included via a face-to-face survey (Figure 5) as it was not possible to obtain a sample of names and addresses for a postal survey. Data collection took place between August-September 2013.

The postal survey was deployed in two stages:

*Mail 1: Initial mailing of questionnaire and cover letter.* A cover letter (Appendix 3) was included with the survey outlining the reasons the survey was being conducted and the importance of the respondent's participation. Drawing on the principles from Dillman's Tailored Design Method (TDM) (Dillman, 2007) the goal of the cover letter was to clearly state what the benefits (reward) the respondent would get from participating, what it would cost them (i.e. time) and how the benefits would outweigh the costs. The letter was personally addressed in order to create a feeling of trust and postage-paid reply envelopes were enclosed to make it easier for the respondent to return the questionnaire. In addition, respondents were included in a prize draw giving them the opportunity to win £100 worth of

gift vouchers. Careful construction of the questionnaire survey and the cover letter was important in order to maximise response rates and reduce survey error.

*Mail 2: Follow-up postcard reminder.* Two weeks after the questionnaire mailing, a postcard (Appendix 4) was sent thanking respondents for their anticipated prompt return of the questionnaire and again stressing the value of their participation. The postcards were images of fisheries activities in the relevant town in order to create a sense of familiarity.

### **2.2.3 Response rates**

While the use of online surveys has many advantages, not least in terms of being cost effective and providing the ability to access geographically dispersed populations, there are a number of sampling issues that need to be considered (McLafferty, 2010). Firstly, it is not possible to know if those who respond represent the target population and it is limited to those respondents who have access to the internet. Secondly, online surveys are also less likely to achieve response rates as high as surveys administered on paper (Nulty, 2008). In England, if we only consider those who were contacted directly by email (545 cases) the response rate for the online survey was 41%. However, it is difficult to obtain an accurate response rate as it is not possible to know the exact sample size since the local press and social media were used alongside direct email targeting. Therefore, the actual response rate to the online survey is likely to be much lower.

However, it is possible to ascertain the response rate for the postal survey targeted at residents in the case study towns. The overall response rate was 28%, but this varied between the countries (see Table 1). The highest response rate was in Belgium at 45%, whereas France only achieved 17%. This is possibly due to the mailings being administered via Asendia UK rather than sent domestically as for the Belgian and English surveys (generally domestic surveys generate higher response rates than foreign surveys (Harzing, 2000)). The inclusion of a follow up reminder improved the overall response rate by 11.5%. In France, the response rate increased from 2.6% to 17%. However, as the French mailings were handled externally by Asendia UK (and forwarded in bulk) it was difficult to accurately record which mailing responses were associated with, thus it is likely that some responses from Mail 1 were recorded under Mail 2.

**Table 1:** Response rate for postal survey.

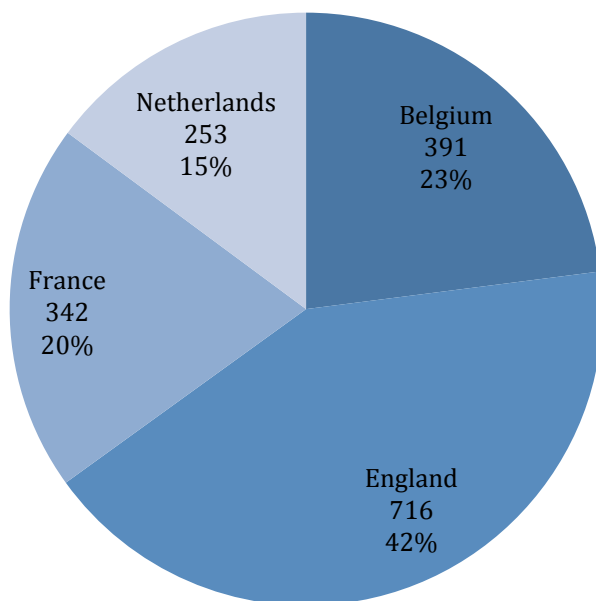
	No. after Mail 1	% after Mail 1	No. after Mail 2	% after Mail 2
<i>Aldeburgh</i>	34	17%	54	27%
<i>Brixham</i>	22	11%	33	17%
<i>Hastings</i>	20	10%	43	22%
<i>Looe</i>	46	23%	68	34%
<i>Newlyn</i>	22	11%	53	27%
<i>Poole</i>	18	9%	38	19%
<i>Port Isaac</i>	24	12%	39	20%
<i>Selsey</i>	17	9%	33	17%
<i>Wells</i>	27	14%	50	25%
<i>Whitstable</i>	23	12%	44	22%
<b>England Total</b>	<b>253</b>	<b>12.8%</b>	<b>455</b>	<b>23%</b>
<i>Heist</i>	61	31%	84	42%
<i>Nieuwpoort</i>	69	35%	83	42%
<i>Oostende</i>	84	42%	108	54%
<i>Zeebrugge</i>	61	31%	86	43%
<b>Belgium Total</b>	<b>275</b>	<b>34%</b>	<b>361</b>	<b>45%</b>
<i>Audierne</i>	12	6%	39	19.5%
<i>Boulogne-sur-mer</i>	1	0.5%	22	11%
<i>Dieppe</i>	0	0%	30	15%
<i>Fecamp</i>	8	4%	32	16%
<i>Granville</i>	12	6%	32	16%
<i>Guilvinec</i>	0	0%	49	24.5%
<i>Paimpol</i>	7	3.5%	24	12%
<i>Port en Bessin</i>	1	0.5%	37	18.5%
<i>Saint Vaast</i>	0	0%	38	19%
<i>St Malo</i>	11	5.5%	26	13%
<b>France Total</b>	<b>52</b>	<b>2.6%</b>	<b>329</b>	<b>17%</b>

Alongside the postal and online survey, a further 253 face-to-face surveys were conducted in the towns of Breskens and Arnemuiden in the Netherlands and 69 surveys were obtained via other approaches, such as word of mouth or were completed by visitors to the GIFS community photographic exhibitions. The total responses from the postal, online and face-to-face survey are given in Table 2 including the net total after the removal of incomplete surveys.

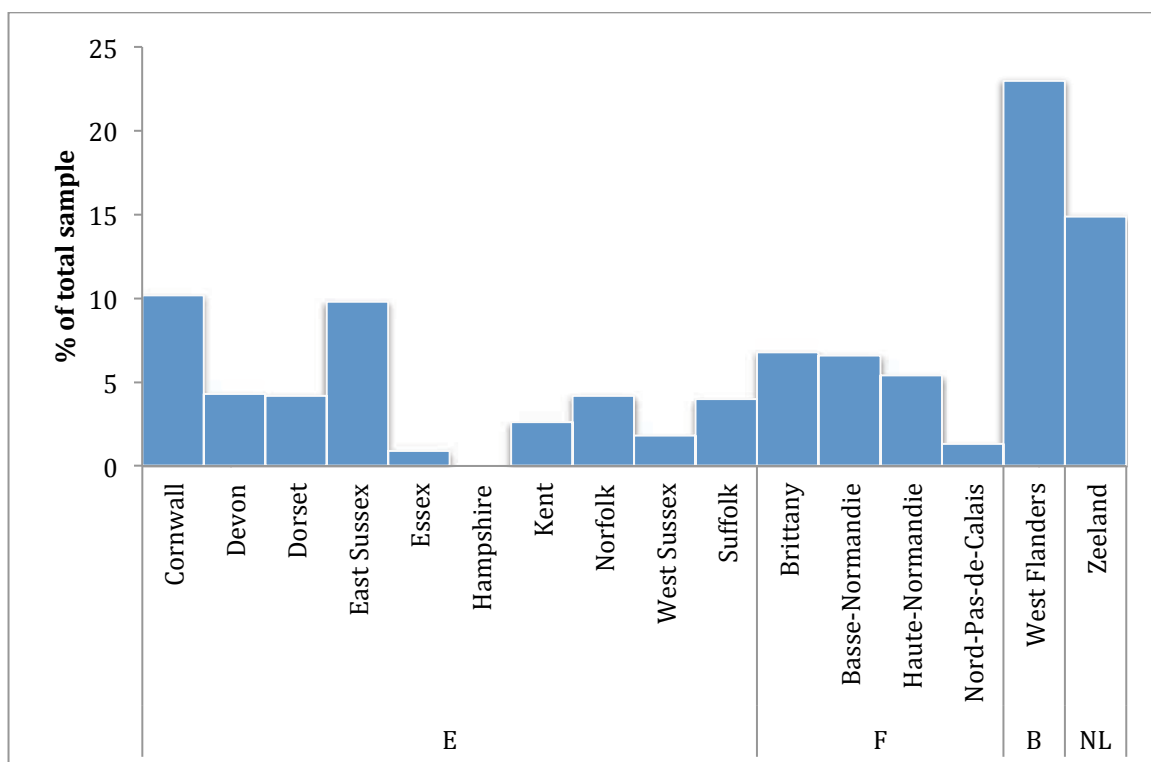
**Table 2:** Total response distribution for survey.

	England	Belgium	France	Netherlands	Total
Postal	455	361	329	0	1,145
Online	222	45	11	0	278
Face-to-Face	0	0	0	253	253
Other	63	1	5	0	69
<b>Total</b>	<b>740</b>	<b>407</b>	<b>345</b>	<b>253</b>	<b>1,745</b>
<b>Net total</b>	<b>716</b>	<b>391</b>	<b>342</b>	<b>253</b>	<b>1,702</b>

The total dataset consisted of 1,702 completed surveys, with 42% of these from England, 23% from Belgium, 20% from France and 15% from the Netherlands (Figure 6). The distribution between the regions in the four countries is shown in Figure 7.



**Figure 6:** Distribution of the sample by country.



**Figure 7:** Distribution of sample across the GIFS study area.

## 2.2.4 Analysis

Statistical analysis was undertaken using SPSS Statistics software (version 21). Initially the data was screened for missing data, outliers and multicollinearity.

Where banks of statements on place variables had partial responses, missing data was replaced with category 3 'no opinion'. This was applied to 165 cases. There were 11 cases with missing data on all place variables so these cases were removed. 115 cases had partial missing data on the attitude variables, so these were replaced with category 3. As a result of these amendments, less than 10% of cases remained with missing data. The independent variables were tested for the frequency of missing data. Those cases with missing data on more than 3 of the independent variables were removed – this applied to 12 cases. In addition, as the independent variable *Occupation* had over 10% missing data it was not used in future analysis.

The dataset was tested for multivariate outliers using the Mahalanobis  $D^2$  measure (Hair et al., 2006). As there were no probability values of  $D^2$  less than 0.001 it was concluded that no outliers were present.

The independent variables were further tested for multicollinearity using the tolerance statistic,  $1-R^2$ . Tolerances of below .20 and a variance inflation factor (VIF) greater than 5 are evidence of multicollinearity. No multicollinearity was detected.

After screening a total of 1,691 usable surveys were retained for analysis with 391 from Belgium, 716 from England, 342 from France and 253 from the Netherlands (Table 3).

**Table 3:** Number of remaining cases for analysis after screening.

	England	Belgium	France	Netherlands	Total
Initial net total	716	391	342	253	1,702
Total after screening	709	391	340	251	1,691

Analysis consisted of descriptive statistics to compare frequencies and Chi square tests of association between variables. In addition, the place and attitude scales were constructed by summing the individual Likert item scores. A factor analysis was carried out on each summed scale in order to confirm the unidimensionality of the scales. Throughout this report only statistically significant differences and associations between the sub-groups and the four countries are reported in the commentary.

### 2.2.5 Problems with data collection

Some of the contact details on the obtained name and address lists were incorrect or no longer valid (e.g. moving house, passed away). Where these surveys were returned as undeliverable further surveys were sent randomly to other individuals on the list in order to maintain a sample of 200 cases in each location.

In addition, when conducting questionnaire surveys it is possible that those who do not respond represent a particular sub-set of the population who have different characteristics to those that did respond leading to non-response bias (Montello and Sutton, 2013). In our case, those who did respond may have stronger feelings, either positive or negative, regarding the content of the survey than those who did not. Therefore, the results must be interpreted with this caveat in mind.

## 2.3 People, Place and Fish Photo Project

Alongside the 'Sensing Fishing Places' survey a creative approach was used to explore the cultural ecosystem services that arise as a result of marine fishing. Photography was used to both visualize, record and communicate the cultural value of inshore fishing, but also as a way of eliciting what fishing means to those living in fishing communities.

The 'People, Place and Fish' photo project utilised three different types of photography:

- **Researcher photography:** To visualise, explore and document the relationship between cultural ecosystem services and inshore fishing in coastal places
- **Community photography:** Those living and working in fishing communities were asked to take photos that captured what fishing means to them
- **Professional photography:** A professional photo-journalist, Vince Bevan, was commissioned to create a collection of images that captured the diverse landscapes and activities of fishing across the four countries

### 2.3.1 Researcher and community photography

One of the objectives of the researcher and community photography was to develop a method to document the cultural values arising as a result of fisheries and to communicate those ideas through the use of a travelling photographic exhibition. Visitors to the travelling exhibition were engaged through interactive elements (held in Looe, Wells-next-the-sea and Whitstable in England; and Saint-Vaast-la-Hougue and Le Guilvinec in France) in order to capture what fishing means to those living in fishing places.

There were four elements to this activity: researcher photography; design of the travelling exhibition; community photography; and facilitation of the travelling exhibition. The method evolved and was adapted throughout the project in order to develop appropriate techniques that fostered community participation.

**Researcher Photography:** The first step was to gather material to include in the travelling exhibition. Two principal researchers undertook photography in a range of fishing places in England, France, Belgium and the Netherlands. Combined with existing photographs that the researchers had taken over the previous three years (as part of the INTERREG IVA CHARM III project), a total of 75 fishing towns were included in the photographic database. The aim was to include images that depicted the cultural services that arise as a result of fisheries activity. To do this, four types of photographs were taken: images that depicted the landscape of the place (harbour, beach etc.), images that showed activity (fishers at work, tourists watching the boats come in etc.); images of material objects that contribute to the creation of a fishy sense of place (e.g. boats, buildings, street decoration etc.) and close up detail shots that captured an aesthetic element of fishing (coloured crates and fishing boats, the various textures of nets, pots and peeling paint). The photographs were then organised into themes that represent aspects of cultural ecosystem services: cultural identity, heritage value, spiritual services, inspiration, aesthetic appreciation, recreation and tourism, education and knowledge and social relations. Photography was used in an iterative process of to explore the contribution of the material environment to a fishy sense of place and classifying the images according the cultural ecosystem services categories. A selection of images were used to create a travelling exhibition (see next section).

**Exhibition Design:** The exhibition had eight themes using cultural ecosystem services as a framework for presenting the researcher photographs. The use of the framework provided a way of visualising the range of cultural values that emerge as a result of marine fishing as part of the development of a method for exploring those cultural services. As cultural ecosystem services is not a term that the general public would normally recognize, it was important to design the sections of the exhibition in a way that visitors could relate to, but while also conveying the ideas bound up within the concept of cultural ecosystem services. This was done through an introductory information panel (Figure 8) that outlined the aim of the exhibition and introduced the themes.



**Figure 8:** Introductory information panel for travelling exhibition.

Each theme in the exhibition section had an information panel to provide context and prompt visitors to consider the various social and cultural contributions that fishing can make in coastal places (Figure 9).

**Figure 9: Exhibition thematic information panels**

**Cultural identity:** Fishing places can shape and influence the cultural identity of coastal communities and those who live and work there. Fishing may be important for cultural identity both on an individual level, but also collectively as part of a community's identity. Influences in the built and physical environment also shape identity and our collection of images highlight some of these material references to fishing through landscapes, buildings, fishing gear, signs and decoration and fishing activity.

- *Landscapes* - Fishing occurs in a range of different landscape settings which contribute to the character and identity of the place. Our selection of images show fishing activity in riverine locations, such as Looe; small coves nestled amongst steep cliffs; harbours, varying from large industrial ports to small fishing harbours; shingle or sandy beaches where the boats are pulled up on the shore; and mudflats where shellfish gathering on foot often occurs.
- *Fishing activity* - The diversity of landscape settings in which fishing occurs influences the kind of fishing activity that takes place. From fishing by boat to wide open mudflats that allow shellfish gathering on foot or cultivation using tractors. In Oostduinkerke in Belgium, the shallow sandy waters mean that horseback shrimp fishing is possible, although today it is not done commercially but is part of the area's cultural heritage. Of course, activities associated with fishing are not limited to catching or gathering fish and shellfish, but include processing, selling and the maintenance of boats and gear. The activity of modern-day fishing provides an authenticity, linking contemporary activity to a rich cultural legacy rooted in fishing.

- *Buildings* - Harbour towns and fishing places consists of various buildings built to service the fishing industry over time. Historic buildings provide a sense of time-deepened connection to fishing, although their use today may be for non-fishing activities, such as cafes, museums or homes. Modern-day infrastructure to service the fishing industry also influences place character and might include modern fish auction houses, industrial processing facilities or fish-selling stalls.
- *Fishing gear* - The abundance of fishing gear, such as nets, pots, floats, storage boxes etc., in fishing places is an important influence on place character. In some places fishing gear is neatly stored in crates or racks, but in other places it is piled up on the quayside or beach. The presence of fishing gear adds to the authenticity of the place and contributes to a particular sense of place associated with fishing.
- *Signs and decoration* - Fishing is represented in the physical environment through signs and imagery. Such objects include wall tiles, decorative glazing, ornamentation, signs, information boards and public art. This material culture associated with fishing contributes to place identity and may be thought of as important markers of identity, both for the local community and as an attraction for tourism.

**2. Heritage values:** Fishing is represented through memories in the landscape, for example, the remains of old fishing equipment, old buildings being reused or abandoned, fishing as a tradition handed down through generations, monuments, activities celebrating the past, old boats etc. But heritage is also present in less tangible ways through the memories of those who have lived there, through oral history, tradition and through representations of the fishing past in museums and galleries.

**3. Spiritual and religious values:** Fishing may provide deep and intimate connections with the natural environments in which fishing activity takes place, leading to spiritual enrichment and reflection. The sea also has religious and spiritual meaning for many communities living by the coast.

**4. Inspiration:** The coast has long been a source of inspiration and a draw for artists, due to the particular light and environment. The activity of fishing, fishermen and fishing boats appear in paintings and influence other artworks and creative activity, such as photography, film, music, literature and drama.

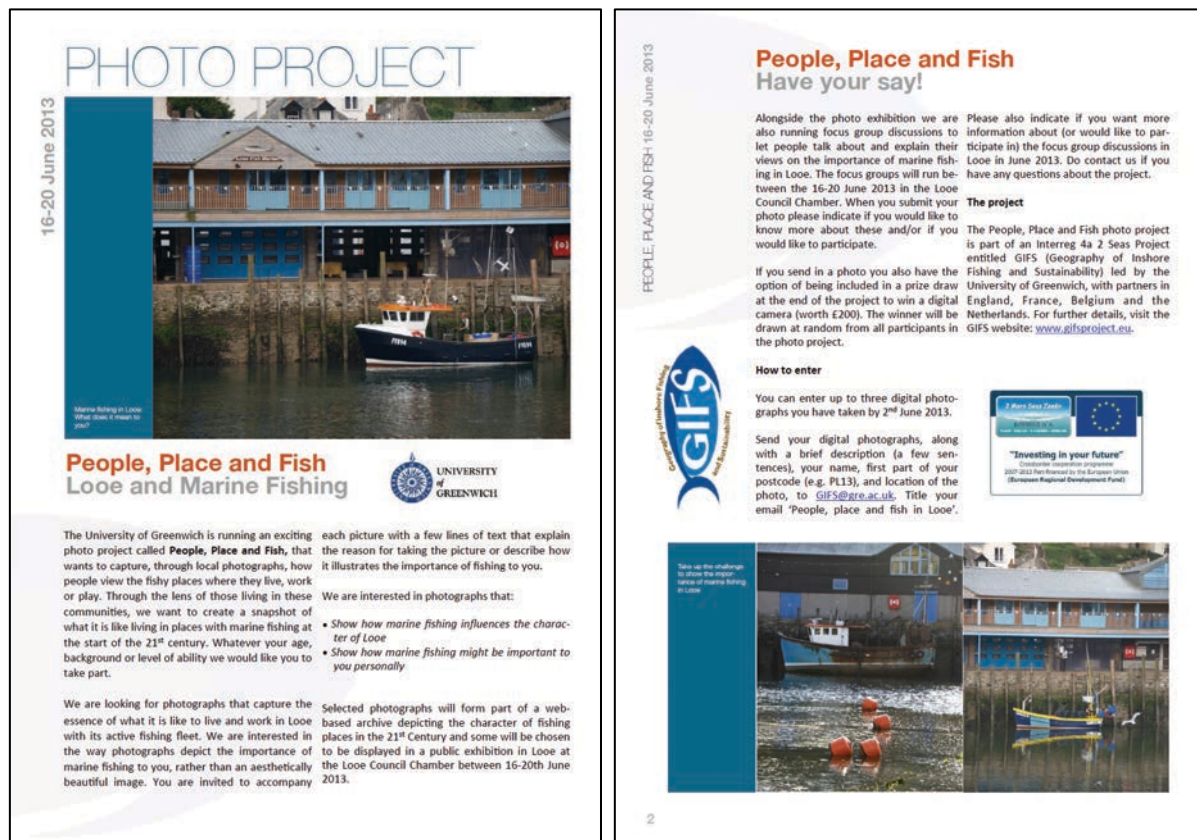
**5. Aesthetic values:** Fishing places often have an aesthetic appeal which is valued by people who live there as well as tourists. This may be a combination of the landscape values of the particular environmental setting of the coast, together with the colours, textures, reflections and patterns of the water, boats, fishing gear etc. Places with a high aesthetic value may also achieve economic benefits through increased house prices or tourism and recreation.

**6. Recreation and tourism:** 'Fishing culture' contributes to the appeal of places for tourism through the presence of fishing fleets and gear, fishing heritage and the hustle and bustle of a fishing harbour. The product of the act of fishing, fish and seafood, also has an attraction for tourism, with many visitors enjoying eating fresh, locally-caught fish and seafood in quayside restaurants.

**7. Social relations:** For fishing communities, fishing is part of a cultural process that is collectively constructed and defined. Often fishing is considered the 'glue' that binds the community together, providing a forum for values, knowledge and traditions to be established and passed on.

**8. Education and knowledge systems:** How people communicate their feelings, experiences and shared knowledge about the marine environment is important for understanding the cultural significance of those ecosystems. Fishers may have a particular ecological knowledge of marine ecosystems through their daily engagement with the sea. The way that this watery world is significant in the social practices of both fishers and non-fishers in coastal communities is important. Perhaps fishing has a role to play in education and information provision through making visible the often unseen undersea world of marine organisms and showing where our fish and seafood comes from.

**Community Photography:** Alongside the researcher photography, a section of the travelling exhibition was devoted to displaying images taken by the local community. The goal was to explore the meanings that people associate with inshore fishing, local communities and so participants were asked to contribute photographs that depicted what fishing to them together with a short accompanying text to describe the importance of the images to them. Participants were recruited via promotional flyers (Figure 10) that were distributed to key gatekeepers (e.g. FLAG representatives, the tourist office or fisheries representatives) in each town to circulate. In addition, a copy of the flyer was included with the 'Sensing Places Places' postal survey in case study towns. As an incentive to participate, contributors were entered into a prize draw for the chance to win a digital camera worth £200.



**Figure 10:** Promotional flyer for photo project in Looe, Cornwall.

In addition to images submitted from local community members, online photo repositories such as Flickr were also used to generate images for the exhibitions in Whitstable and Saint-Vaast-la-Hougue with permission from their owners.

A total of 210 photographs were submitted from community individuals in England, Belgium and France as part of the photo project (Table 4). While participants were requested to send up to three digital images, a number of them submitted in excess of this. In addition, a number of images were obtained from the website Flickr for some locations (with the permission of their owners).

**Table 4:** Submitted community photographs for photo project.

Location	No. participants	No. images submitted	No. Flickr images
<b>England</b>			
Looe	12	72	
Wells-next-the-sea	1	3	
Whitstable	19	61	1
Aldeburgh	2	3	
Fleetwood	1	1	
Hastings	1	2	
Brixham	1	3	
<b>France</b>			
Le Guilvinec	3	9	
Saint-Vaast-la-Hougue	6	13	15
Port en Bessin	1	34	
<b>Belgium</b>			
	3	9	
<b>TOTAL</b>	<b>50</b>	<b>210</b>	<b>16</b>

The photographs submitted were varied in terms of their content including images of fishing boats, seascapes, people, fishing activity, art and tourism activities (Table 5). However, almost a third were of fishing boats and almost a quarter were views of the harbour or seascapes. A further 16% were of fishers or fish processing activities. The full range of submitted images per country is shown in Table 5. Interestingly, no views of harbours or seascapes were submitted for Belgium, although this may be simply a reflection of the small number of contributions (9) received.

**Table 5:** Range of photographs submitted by subject in order of popularity.

	France		Belgium		England		TOTAL	
	No.	%	No.	%	No.	%	No.	%
Boats	26	37	1	11	44	30	71	31
Harbour/ seascape	22	31	0	0	28	19	50	22
Fishers/ processors	10	14	2	22	24	16	36	16
People on shore	0	0	1	11	10	7	11	5
Fishing	6	8	1	11	4	3	11	5
Tourism	1	1	1	11	10	7	12	5
Gear	1	1	0	0	7	5	7	3
Fish market	2	3	2	22	2	1	6	3
Seagulls	0	0	0	0	7	5	7	3
Art	1	1	1	11	3	2	5	2
Auction	2	3	0	0	0	0	2	1
Fish	0	0	0	0	3	2	3	1
Signs	0	0	0	0	1	1	1	0.4

As well as including community images in a section of the travelling exhibition, a selection is displayed on the GIFS web gallery:

<http://gallery.gifsproject.eu/en/gallery/album?album=4311>.

**Travelling Exhibition:** The exhibition visited five towns between June 2013 and August 2014:

Looe England: 16-20 June 2013

Le Guilvinec, France: 21-25 July 2013

Wells-next-the-sea, England: 19-23 August 2013

Whitstable, England: 31 July-6 August 2014

Saint Vaast la Hougue, France: 25-31 August 2014



**Figure 11:** Examples of exhibition layout at Looe, left, and Saint Vaast la Hougue, right.

Press releases were issued to the local media and flyers (Figure 12) were circulated around the towns in which the travelling exhibition was being held as well the use of social media such as Facebook.



**Figure 12:** Example of flyer used to advertise the travelling exhibition.

Throughout the course of the exhibitions various interactive elements were introduced in order to test their efficacy for promoting community participation. At the first exhibitions in Looe, Le Guilvinec and Wells-next-the-sea, five questions were included in various sections of the exhibition inviting members of the public to provide their comments and responses on post-it notes stuck onto the exhibition panels. The questions were:

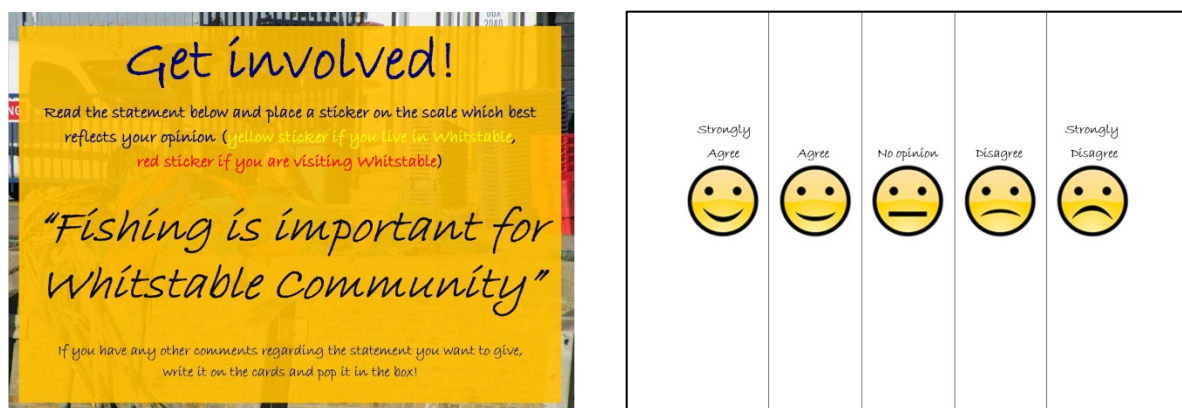
- What does fishing mean to you?
- Why should we remember the fishing past?
- What would fishing places be like without the fishing industry?
- What is the role of fishing for tourism?
- Is fishing important for local communities?

However, this approach proved difficult as a research tool to gather opinions. There was a reluctance from members of the public to write down and display their views, possibly due to the post-it notes being visible to others. Many were, however, keen to verbally discuss the content of the exhibition and the ideas being presented.

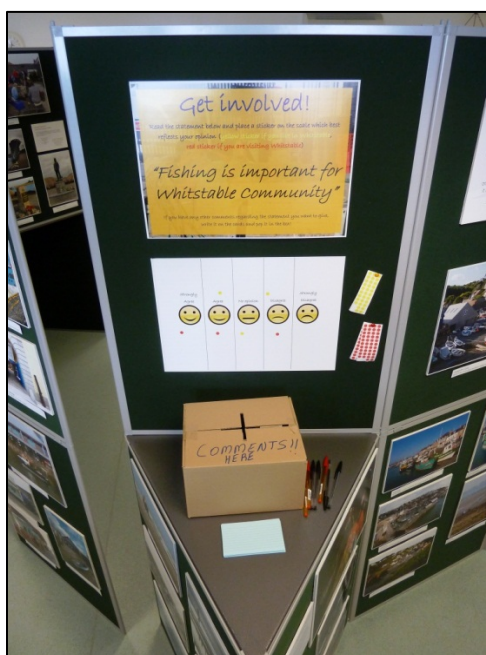
With this in mind, a goal for the remaining two exhibitions in Whitstable and Saint-Vaast-la-Hougue was to develop the interactive element of the exhibition to enable it to generate data on local perceptions towards fisheries while also engaging people in a novel way. To make it easier for visitors to participate, an approach was developed to elicit views without requiring visitors to write down comments. The questions (which had been applied in the first three exhibitions) were altered to statements with a visual five-point Likert scale where members of the public could indicate their views in relation to the statements by placing colour-coded stickers on the scale (Figure 13) (Kumar, 2003). The scale ranged from 'strongly disagree' to 'strongly agree' and each point was represented with an animated face that reflected that particular point of the scale (see Figure 13). The stickers were colour-coded in an attempt to gain demographic information, with yellow stickers representing the views of residents and red stickers representing the views of visitors. Three statements were included:

- The loss of the fishing industry here wouldn't affect Whitstable
- Fishing is important for Whitstable community
- It's important to remember the fishing history of Whitstable

The three statements and response scales were located in the photographic exhibition at appropriate stages (see Figure 14). In addition there was also a comment box placed by each statement that enabled members of the public to anonymously provide more views relating to the statement if they so wished.



**Figure 13:** An example of a statement and response scale.



**Figure 14:** Statement, Likert scale and comment box

In general, the participation with the interactive statements was good, with between 36-42% of visitors to the Whitstable exhibition taking part, and 22-25% of visitors to Saint Vaast participating (Table 6).

**Table 6:** Number of responses to interactive statements.

	Whitstable		St Vaast	
	No.	% of visitors	No.	% of visitors
Statement 1	59	42%	47	35%
Statement 2	57	40%	46	34%
Statement 3	51	36%	30	22%

In addition to the interactive element of the exhibition, researchers talked to visitors and discussed their perceptions about the fishing industry and the exhibition themes in an informal way. Using the idea of cultural ecosystem services as a guiding framework, conversations were navigated by these concepts while still allowing for open conversation. This led to three extended conversations in Whitstable with community members who had

submitted photographs as part of the photo project and included a discussion about why they had submitted particular photographs and what the images meant to them.

Over 1,000 people visited the exhibitions with an average of about 35 visitors per day. Of these, 233 visited the Looe exhibition, 141 visited Whitstable, 447 visited Le Guilvinec and 136 visited Saint-Vaast la Hougue. Unfortunately the visitor log for Wells-next-the-sea went missing, but in total there was over 200 visitors to the exhibition.

Many comments on the quality of the exhibition were provided in the visitors' book, for example:

"Well done, a great show – a way into seeing anew" – Looe

"An excellent exhibition, which captures a key element of the life of the town. Images are used to considerable effect and the range of perspectives brought to bear on Whitstable is compelling. Very interesting" – Whitstable

"Beautiful, thought provoking and important, all strength to you" – Looe

"I think the interactive aspect of this exhibition are important as participation is a growing element of art where the artist can become the facilitator, so that the public cease to feel disconnected and become more involved in the creative process thus giving it life and new ideas from the outside. The project is then holistic" – Saint Vaast

"The interactive nature of the display is fantastic and really engaging and appealing to both young and old – fantastic job!" - Whitstable

To summarise, the travelling exhibition provided both a way of communicating ideas about the cultural value of marine fisheries in a novel way that engaged the public. It also enabled an exploration of public perceptions of marine fishing and a variety of data was gathered via the interactive elements of the exhibition, conversations with visitors and the community photographs themselves. The data in terms of the community photographs and the visitor comments to the exhibition were analysed by identifying themes emerging in the data. The themes were aligned to the cultural ecosystem services criteria used in the sections of the travelling exhibition. The findings are included alongside a discussion of the survey results in Chapter 4.

### **2.3.2 Professional photography**

A professional photo-journalist, Vince Bevan, was commissioned to take photographs in nine coastal locations across the GIFS study area:

- England: Port Isaac, Poole and North Norfolk
- France: Le Guilvinec, Boulogne-sur-mer and Saint-Vaast-la-Hougue
- Belgium: Oostende and Oostduinkerke
- Netherlands: Breskens

The aim was, through the eyes of a professional photographer, to capture the diversity of landscapes and environments in which fishing activity takes place in order to raise awareness of the rich cultural value associated with fishing, and also to create a 'snapshot in

time' of fishing activity in the English Channel and Southern North Sea in the early 21st century. The intention was to create a visual archive of images that would be arresting and cause people to reflect on the issues that were being depicted. In this case photographs were not being used to categorise impacts or convey particular messages from community members, rather a creative approach was taken where the main criteria for judgment was the creation of a stunning image that would capture people's attention. In adopting this approach there was much discussion about not presenting an overly 'romantic' depiction of a dangerous and life threatening industry. The aim was to create a body of work that captured the gritty realness of life in fishing communities.

The collection of images produced captures the diversity of fishing activity across the GIFS study area and the similar challenges faced by fishers on both sides of the English Channel and Southern North Sea. This aspect of the project, in contrast to the travelling community exhibitions, was not about gathering research data or categorising images, it was a deliberately creative approach that made use of the professional photographer's skill and artistry. For example, the use of saturated colour and light to add drama (Figure 15), the use of shutter speed and aperture to create blur (Figure 16) and differential areas of focus. This element of the project was, therefore, about communicating a vision and message about the multiple values bound up in fishing activity in a visual and creative way.



**Figure 15:** Horseback shrimp fisherman in Oostduinkerke, Belgium.



**Figure 16:** Sorting the catch in Oostende fish auction, Belgium.

Final exhibitions of the collection of images were held in the following locations over the summer of 2014 (Figure 17):

- National Maritime Museum Cornwall, Falmouth, UK: 29 March-18 May 2014
- Oostende Library, Oostende, Belgium: 1 July-2 August 2014
- De Drvkkery, Middelburg, Netherlands: 3-30 August 2014



**Figure 17:** Exhibition at National Maritime Museum Cornwall, Falmouth (top left); De Drvkkery, Middelburg (top right) and the library in Oostende (bottom).

A selection of the images are available via an online web gallery at <http://gallery.gifsproject.eu/en/landscapes-fishing>.

### 2.3.3 Analysis

A thematic analysis to pull out the main emergent themes was undertaken on the data derived from the photo project including:

- Community photographs
- Community photo captions
- Visitor comments from travelling exhibition
- Extended visitor conversations from travelling exhibition
- Responses to interactive statements from travelling exhibition

The data was explored using the cultural ecosystem services framework, with the view to understanding the cultural values that arise from the act of marine fishing in coastal towns. The findings and discussion are presented under the themes from the cultural ecosystem services framework outlined in Chapter 4.

#### **2.3.4 Problems encountered**

In terms of the community photographic exhibitions, the main issue was how to get people to engage and contribute their views. While the exhibitions proved very successful communication tools with many visitors commenting that the images and information panels were very thought provoking and they had not considered fisheries in that way before, as a research tool they were more limited. However, by developing the interactive elements a more productive form of engagement was devised.

While the interactive element worked well, there were, however, some limitations. It was observed, for example, that some residents used coloured stickers that were specified for visitors. This has implications for the accurate recording of responses from visitors versus residents. In addition, with respondents able to see other participants' responses on the scale this could possibly bias their responses to the statements. Further people may not want to participate if there are signs of limited interaction (i.e. few or no stickers on scale). In an attempt to mitigate this, marked yellow and red stickers were placed randomly on the scale to give the impression of on-going participation and these were removed prior to analysis.

The main consideration with the approach developed is the time and resource implications. Undertaking the researcher photography, putting together the travelling exhibition and facilitating it in a number of case study locations carries with it a considerable time and cost commitment. Although it proved a successful way of interacting with the public especially in terms of encouraging people to think about the cultural value of marine fishing in a new way, it may be necessary to adapt the approach to enable a less resource intensive implementation.

In this section, the photo project provides a lasting legacy of the GIFS project. Through the researcher, community and professional photography a collection of images of fishing places along the English Channel and Southern North Sea has been documented. They provide a snapshot into these communities in the early 21<sup>st</sup> century at a time of change in the structure of inshore fishing.

In addition to this, the results of the questionnaire survey provide useful quantitative evidence on the cultural values of fishing by exploring sense of place in fishing communities. The findings are presented in the following chapter before a discussion of the main project outcomes are presented in Chapter 4.

## 3. Sensing Fishing Places

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- 3.1 Introduction
  - 3.2 Profile of respondents
  - 3.3 Sense of place and perceptions of the role of fishing
  - 3.4 The relationship between sense of place and involvement with fishing
  - 3.5 Demographic factors that influence differences in individuals' sense of place
  - 3.6 Fishing activity and fishers' perceptions
  - 3.7 Fish consumption behaviours
  - 3.8 Conclusion
- 

### 3.1 Introduction

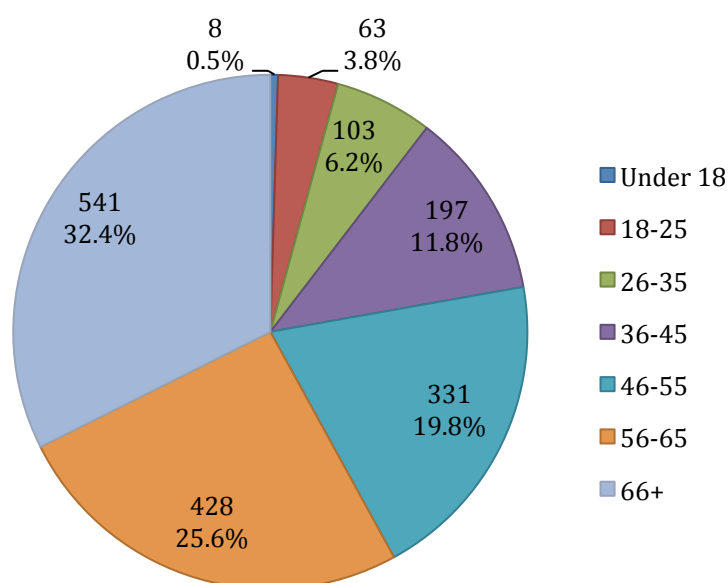
This section presents the results and discussion from the questionnaire survey. Firstly, the general descriptive characteristics of the total survey sample are presented giving a detailed of the respondents. This is followed by an analysis of the sense of place dimensions of attachment, identity and dependence ('place scales') and the role of fishing for sense of place, tourism, heritage and community life as well as perceptions about the future of fishing ('attitude scales') outlined in Section 2.2.1. The place and attitude scales are then assessed to determine whether involvement in fisheries is likely to foster a stronger sense of place or connection to place. This is followed by a consideration of the demographic factors (such as gender, age, employment status, education level, length of residence) that may influence an individual's sense of place. A sub-set of the dataset representing responses from fishers from England is then analysed, providing an insight into the characteristics of fishers, a comparison of fisher and non-fisher attachments to place, the experiences of fishers in terms of changes in the industry and their way of life over time and their motivations for being a fisher. The final section considers the fish consumption habits of those associated with fishing places, with a comparison between the four countries.

### 3.2 Profile of respondents

The results in this section present the type of respondents who participated in the survey. Differences between the four countries are highlighted.

#### 3.2.1 Gender and Age

817 respondents (48% of the sample) were men, and 854 (50.2%) were women. More women in Belgium responded (70% of Belgian respondents), whereas the figure was 47% in England, 43% in France and 43% Netherlands. The age distribution of the respondents is shown in Figure 18.



**Figure 18:** Age categories of survey respondents.

A high proportion of respondents (58%) were aged over 55 years old. There was some variation in age categories between the countries, with England and the Netherlands having a higher proportion of younger respondents aged 18-25 than the other countries (Table 7). Older respondents over 66 were more likely in France. Netherlands had more 26-45 year old respondents and Belgium more 46-65 year old respondents. To summarise, older respondents were more likely from France, followed by England and Belgium, and finally the Netherlands.

**Table 7:** Age categories of respondents by country ( $\chi^2 = 209.658^2$ ,  $df = 18$ ,  $p < 0.001$ ).

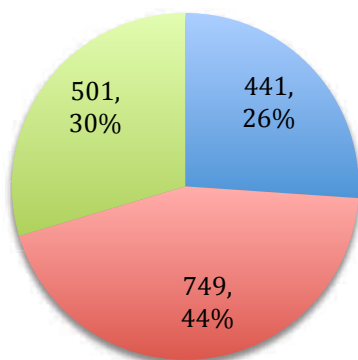
	Belgium (% within country)	England (% within country)	France (% within country)	Netherlands (% within country)
<i>Under 18</i>	0.0	0.0	0.3	2.8
<i>18-25</i>	1.0	5.5	2.4	5.2
<i>26-35</i>	6.6	6.2	3.0	9.6
<i>36-45</i>	14.1	11.5	4.2	19.2
<i>46-55</i>	24.0	21.8	11.3	19.2
<i>56-65</i>	33.2	24.1	21.7	23.2
<i>66+</i>	21.0	31.0	57.1	20.8

### 3.2.2 Connection with fishing

441 respondents (26%) stated that they are directly involved in fisheries, 749 (44%) were indirectly involved and 501 (30%) are not involved at all (Figure 19). A higher proportion of those directly involved in fisheries were from Belgium, while a higher proportion of those indirectly involved were from France and England (Table 8). Those not involved at all with fisheries were more likely to come from the Netherlands or Belgium.

<sup>2</sup> High values for the Pearson's chi-squared statistic ( $\chi^2$ ) suggest that the variation in the data is statistically significant.

■ Direct ■ Indirect ■ None



	Belgium (% within country)	England (% within country)	France (% within country)	Netherlands (% within country)
Direct	30.9	23.7	27.9	22.7
Indirect	32.7	46.7	57.6	37.5
None	36.3	29.6	14.4	39.8

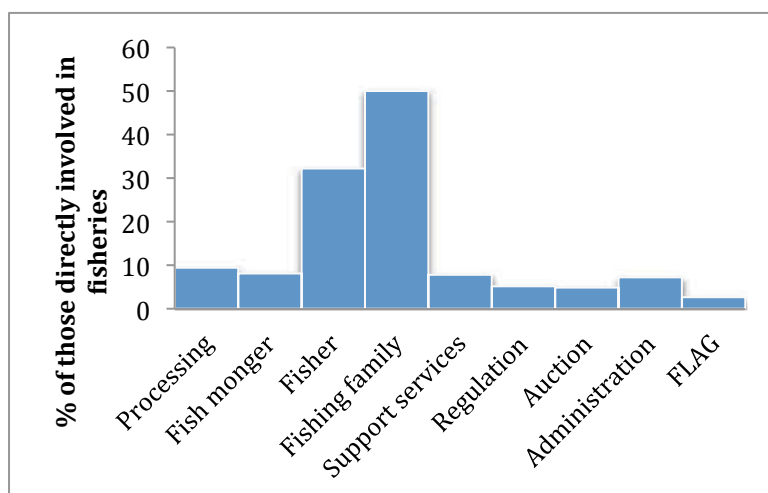
**Table 8:** Involvement in fisheries by country ( $\chi^2 = 77.001$ ,  $df = 6$ ,  $p < 0.0001$ ).

**Figure 19:** Respondents' association with fishing (Note: respondents indicating they are directly and indirectly associated with fisheries are recorded only as directly involved).

Of those directly involved with fisheries the majority were either from a fishing family (222 respondents, 50%) or were fishers themselves (143 respondents, 32%) (Figure 20). A higher proportion of participants who indicated that they are from a fishing family were from Belgium. However, a higher proportion of those involved in processing or a FLAG were from England, while those involved in support services or a fish auction were more likely from France.

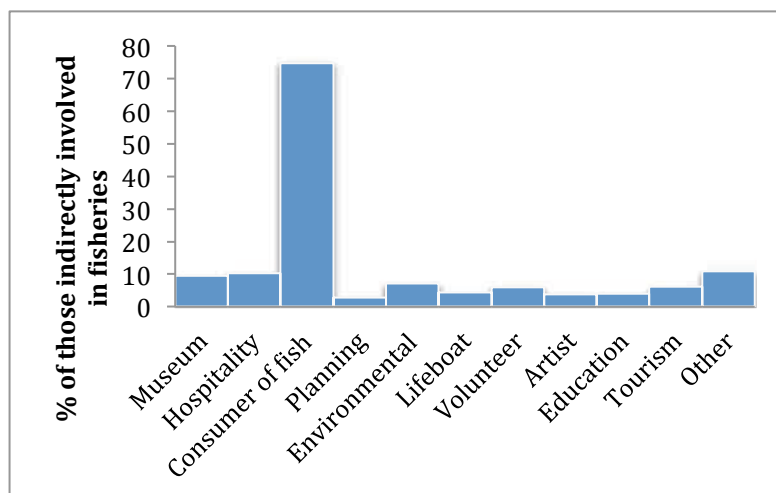
**Figure 20:** Distribution of respondents who are directly involved in fisheries.

Note: Respondents could select more than one response category to indicate the range of ways they are involved in fisheries.



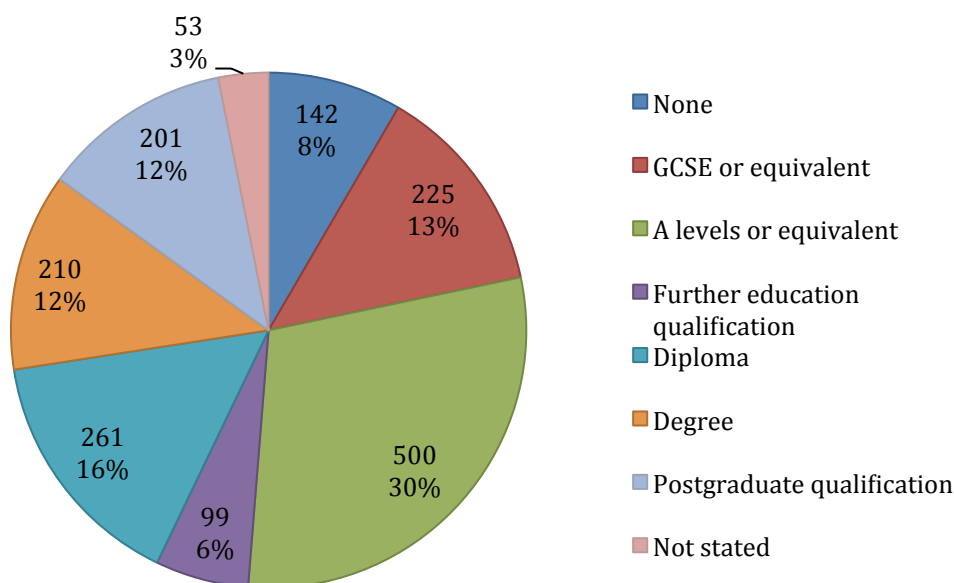
Of those indirectly associated with fisheries, the majority (75%) said that they were consumers of fish (Figure 21). Many of the responses in the "Other" category were related to leisure activities, such as visiting the harbour in their spare time, photography and recreational fishing. Those associated with a museum were more likely to be from France and the Netherlands, while a higher proportion of those involved in environmental conservation were from France. Those involved with the lifeboat, education, volunteering or were artists were more likely from England.

**Figure 21:** Distribution of respondents who are indirectly involved in fisheries.



### 3.2.3 Education

43% of all respondents were educated to secondary school level (either GCSEs or A levels, or equivalent) (Figure 22). A further 12% were educated to at least degree level and 12% had a postgraduate qualification. 22% of respondents stated that they had some form of further education qualification or diploma while 8% had no educational qualifications.



**Figure 22:** Educational level of respondents.

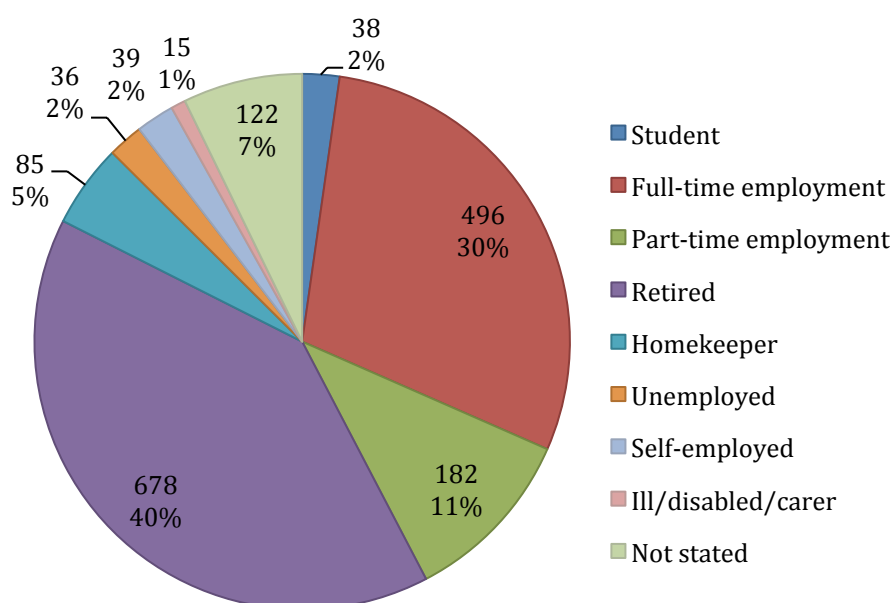
A statistically significant higher proportion of those with no qualifications came from England than the other countries (Table 9). In addition, a higher proportion of respondents with GCSEs or equivalent came from England and France, those with A levels or equivalent were more likely from Belgium and the Netherlands and those with a further education qualification or degree were more likely from England, although there was a higher proportion from France who held a postgraduate qualification. While there were differences between the countries in terms of respondents' educational background, it must be noted that educational qualifications have national categorisations that do not always fit precisely with UK categories.

**Table 9:** Educational level of respondents by country (associations between countries are significant:  $\chi^2 = 690.410$ ,  $df = 18$ ,  $p < 0.0001$ ).

	Belgium (% within country)	England (% within country)	France (% within country)	Netherlands (% within country)
<i>None</i>	5.5	11.8	10.0	3.2
<i>GCSE or equivalent</i>	0.0	19.7	28.0	0.0
<i>A levels or equivalent</i>	58.7	9.2	20.2	58.9
<i>Further education qualification</i>	0.0	14.5	0.0	0.0
<i>Diploma</i>	19.7	12.7	13.1	22.6
<i>Degree</i>	6.5	20.5	7.5	8.5
<i>Postgraduate qualification</i>	9.6	11.5	21.2	6.9

### 3.2.4 Occupation

A large proportion (40%) of survey respondents were retired, although 41% were in either full- or part-time employment (Figure 23). A higher proportion of students and those in full- or part-time employment were from the Netherlands (Table 10). A higher proportion of retired respondents were from France, while home-keepers or the unemployed were more likely from Belgium.

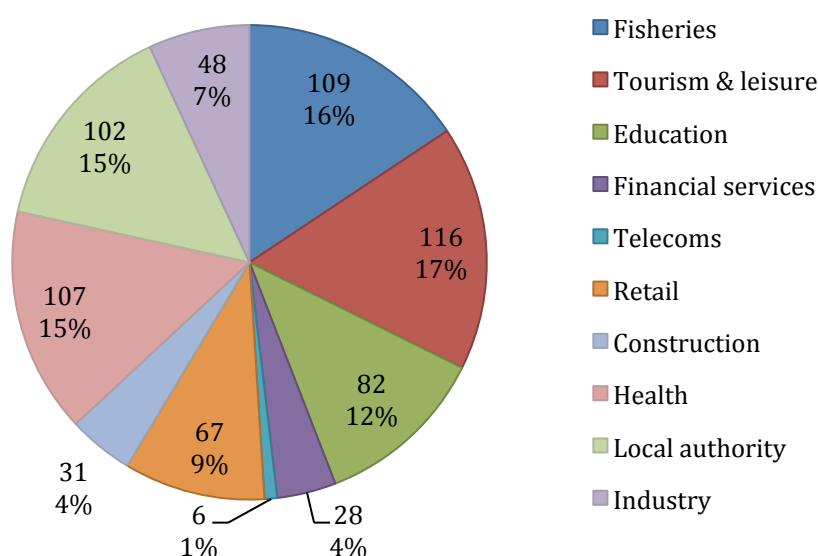


**Figure 23:** Employment status of respondents.

**Table 10:** Employment status of respondents by country (associations between countries are significant:  $\chi^2 = 257.638$ ,  $df = 21$ ,  $p < 0.0001$ ).

	Belgium (% within country)	England (% within country)	France (% within country)	Netherlands (% within country)
<i>Student</i>	0.3	2.4	1.8	6.8
<i>Full-time employment</i>	31.3	35.5	18.8	39.7
<i>Part-time employment</i>	13.2	12.4	4.8	16.5
<i>Retired</i>	36.9	38.4	71.5	26.6
<i>Home-keeper</i>	11.6	3.3	0.6	8.0
<i>Unemployed</i>	4.0	1.6	2.1	1.7
<i>Self-employed</i>	0.5	5.5	0.0	0.8
<i>Ill/disabled/carer</i>	2.2	1.0	0.3	0.0

Of the respondents who were in employment (41% of the sample), the most popular occupations were fisheries (16%), tourism and leisure (17%), health (15%) and working for a local authority (15%) (Figure 24). A higher proportion of respondents who indicated that they work in fisheries, tourism and leisure and education were from England, while those working in retail were more likely from the Netherlands or France (Table 11). A higher proportion of those working in health were from Belgium and France, while those working for a local authority or in industry were more likely from Belgium and the Netherlands.



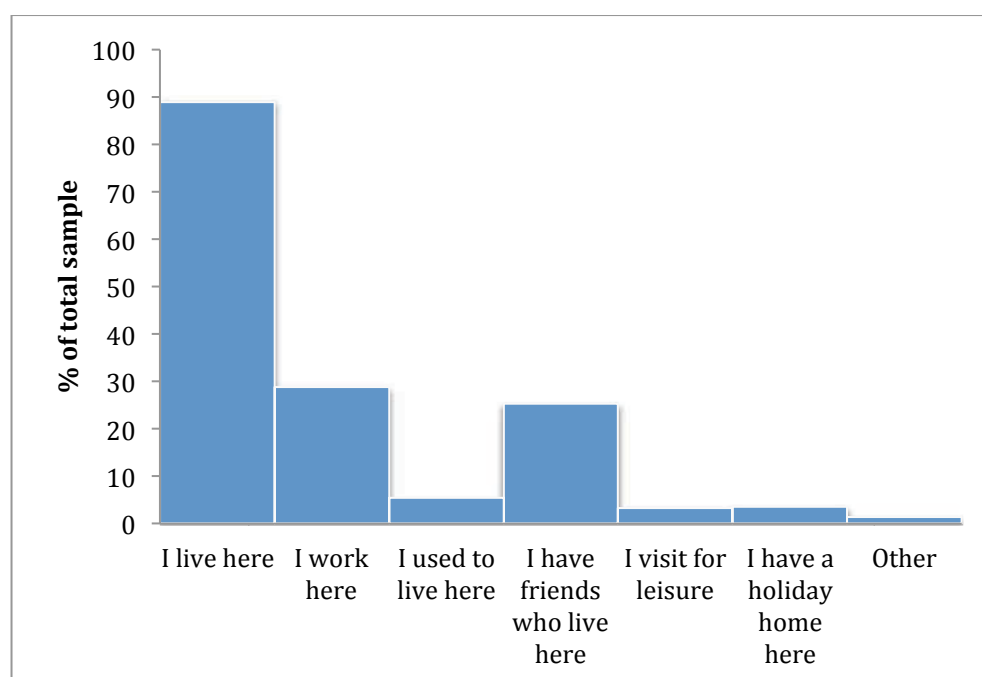
**Figure 24:** Employment sector distribution of respondents.

**Table 11:** Employment sector of respondents by country (associations between countries are significant:  $\chi^2 = 131.951$ ,  $df = 27$ ,  $p < 0.001$ ).

	Belgium (% within country)	England (% within country)	France (% within country)	Netherlands (% within country)
<i>Fisheries</i>	9.6	21.2	14.1	11.5
<i>Tourism &amp; leisure</i>	10.8	26.3	9.0	6.5
<i>Education</i>	9.0	15.1	10.3	8.6
<i>Financial services</i>	3.6	2.6	6.4	6.5
<i>Telecommunications</i>	0.6	0.3	2.6	1.4
<i>Retail</i>	8.4	8.0	12.8	12.9
<i>Construction</i>	1.8	5.1	6.4	5.0
<i>Health</i>	20.4	10.9	28.2	12.2
<i>Local authority</i>	24.6	7.1	7.7	23.7
<i>Industry</i>	11.4	3.5	2.6	11.5

### 3.2.5 Association with the fishing town

89% (1,504) of the respondents indicated that they live in a fishing town (Figure 25). The remaining 11% either work in a fishing town, used to live there, have friends living there or own a holiday home there. 29% (488) of respondents indicate that they work in a fishing town, with 85% of those also living in the town (Figure 25).



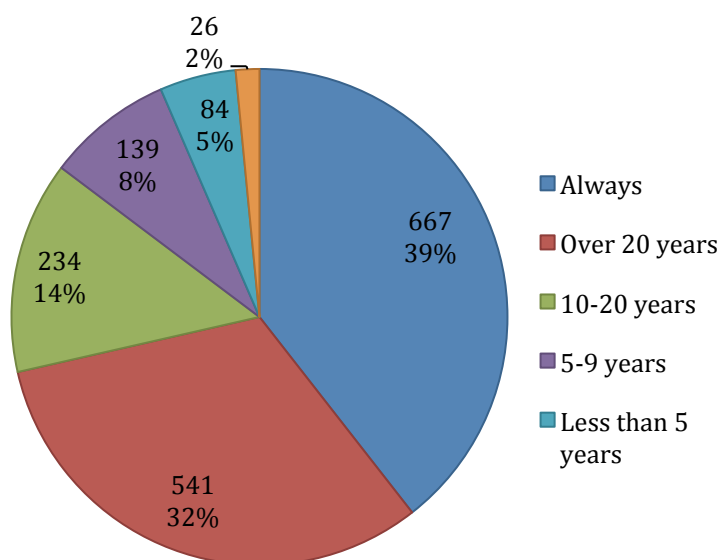
**Figure 25:** Respondents association with case study fishing towns.

A statistically significant higher proportion of respondents from Belgium and England indicated that they had been resident in the coastal town being surveyed than in France and the Netherlands (Table 12). More respondents in England worked in the town and less in France, whereas more respondents in France indicated that they used to live in the town and had friends living there than in the other countries. More in the Netherlands said they visit the town for leisure than the other countries.

**Table 12:** Respondents' association with a fishing town by country (p<0001; \*\* p<.05).

	Belgium (% within country)	England (% within country)	France (% within country)	Netherlands (% within country)	$\chi^2$
<i>I live here</i>	95.2	90.0	84.4	83.9	29.964*
<i>I work here</i>	26.4	33.9	21.2	29.4	19.526*
<i>I used to live here</i>	1.8	3.8	13.5	4.8	57.036*
<i>I have friends who live here</i>	21.3	24.5	31.8	25.8	11.047**
<i>I visit for leisure</i>	2.6	2.8	2.1	8.1	19.963*
<i>I have a holiday home here</i>	0.8	2.1	12.4	0.0	98.967*

39% (667) of the respondents indicated that they had always lived in a fishing town, with a further 32% (541) indicating they had lived there for over 20 years (Figure 26). Therefore, over 70% of respondents had a long (20 years+) association with the town. Only 5% had lived in the town for less than 5 years.



**Figure 26:** Length of time living in the fishing town.

Respondents from the Netherlands and Belgium were the most likely to have always lived in the town (Table 13). Those from England were the most likely to have lived there for less than 20 years.

**Table 13:** Length of time living in fishing town by country (associations between countries are significant:  $\chi^2 = 67.299$ ,  $df = 12$ ,  $p < 0.001$ ).

	Belgium (% within country)	England (% within country)	France (% within country)	Netherlands (% within country)
<i>Always</i>	46.6	30.3	41.2	55.9
<i>Over 20 years</i>	28.6	36.5	33.6	25.7
<i>10-20 years</i>	11.3	16.2	14.5	11.4
<i>5-9 years</i>	8.5	10.7	6.7	3.7
<i>Less than 5 years</i>	4.9	6.3	3.9	3.3

### 3.3 Sense of place and perceptions of the role of fishing

A goal of the study was to explore whether involvement with fisheries plays a role in shaping an individual's sense of place and if so, do those associated with fishing have stronger attachments to the place than those not associated. In order to assess this, the three place constructs of place attachment, place identity and place dependence (i.e. the 'place scales') were measured through the questionnaire survey with 13 self-reported items (see Table 14) based on earlier work by Jorgensen and Stedman (2001) and outlined in Chapter 2 (Methods). The items were rated on a 5-point Likert scale ranging from 'strongly agree' to 'strongly disagree'. Each statement reflected one of the three sense of place dimensions. By summing the responses on each set of statements, a mean score for place attachment, identity and dependence for each participant could be estimated.

In addition to the place scales, the survey also asked participants to respond to five further banks of statements (i.e. the 'attitude scales') (see Table 15) representing:

- **Fishing** - attitudes towards the contribution of fishing to sense of place (8 statements)
- **Tourism** - the role of fishing for the tourism sector (7 statements)
- **Heritage** - the role of fishing for heritage (8 statements)
- **Community** - the role of fishing for community life (6 statements)
- **Future** - perceptions regarding the future of fishing (6 statements)

Again, respondents were asked to indicate their agreement to the statements on a 5-point Likert scale ranging from 'strongly agree' to 'strongly disagree'.

The following sections outline the results of the place and attitude scales for the total survey dataset before presenting the findings in terms of the differences between those who are associated with fisheries and those who are not.

#### 3.3.1 Results of place scales

In order to confirm that the three sets of statements for the place constructs of place attachment, place identity and place dependence were indeed reflecting just one dimension (i.e. each set was unidimensional) they were tested by factor analysing each set of statements (scale items) using the principal axis method in SPSS. The results indicated that,

in each case, only a single factor could be extracted with explained variances of 60.4% (place attachment), 57.3% (place identity) and 71.8% (place dependence), confirming that each set of statements was a good reflection of each dimension (attachment, identity, dependence). In addition, the reliability of each set of variables to measure the same place dimension (the latent variable) was tested with the Cronbach's alpha statistic ( $\alpha$ ). Cronbach's alpha statistic measures how closely related a set of items are as a group and is measured from 0-1. Higher alpha coefficients suggest relatively high internal consistency, with values of .70 or higher considered acceptable. The Cronbach's alpha statistics of over .70 for both place attachment and place identity confirm that the statements within each of these sets are closely related. There is less confidence for the place dependence scale with a Cronbach's alpha statistic of .60, but this is likely due to this dimension only consisting of two relevant statements.

The resulting high mean scores (negative skewness) on the place scales suggest high levels of place attachment (mean=3.95), identity (mean=3.84) and dependence (mean=3.75) among the study respondents. As respondents were asked to indicate their levels of agreement on a scale of 1 (strongly disagree) to 5 (strongly agree), mean scores greater than 3.5 can be interpreted as agreement with the statement. Higher mean scores suggest higher agreement. Statements which attracted the highest level of agreement from respondents were "I feel really at home here" (4.32), "I feel very strongly that I belong here" (4.13) and "I feel happiest when I'm in this place" (4.11), reflecting a strong attachment to the place. In addition, the high mean score for the statement "This area is in my blood, it is really a part of me" (4.03) reflects a strong sense of identity with place.

**Table 14:** Scale items for the place dimensions (mean and standard deviation), n=1690.

Factor	Label	Statement*	Mean**	SD
<b>Place Attachment</b> ( $\alpha = .89$ )	ATTACH1	I feel very strongly that I belong here	4.13	0.96
	ATTACH2	I feel really at home here	4.32	0.85
	ATTACH3	I really miss this place when I'm away from it for too long	3.94	1.05
	ATTACH4	I don't really feel any strong attachment to this place (reversed)	3.89	1.05
	ATTACH5	I would like to stay here indefinitely	3.93	1.08
	ATTACH6	I feel happiest when I'm in this place	4.11	0.97
	ATTACH7	I could be equally happy living somewhere else (reversed)	3.14	1.12
	Aggregate Mean		3.95	0.86
<b>Place Identity</b> ( $\alpha = .74$ )	IDENTITY1	This area is in my blood, it is really a part of me	4.03	1.06
	IDENTITY2	This place says very little about who I am (reversed)	3.35	1.07
	IDENTITY3	This place reflects the type of person I am	3.66	1.08
	IDENTITY4	Lots of things in the town remind me of my own past/childhood	3.80	1.20
	Aggregate Mean		3.84	0.86
<b>Place Dependence</b>	DEPEND1	This is the best place for doing things that I enjoy most	3.87	1.03

( $\alpha = .60$ )				
	DEPEND2	As far as I am concerned, there are better places to be than here	3.24	1.12
	Aggregate Mean		3.75	0.94

\*Negatively worded items were inversely recoded for inclusion in the summed scales. Higher scores can be interpreted as higher levels of the construct in each case.

\*\*Mean scores range from 1-5 and reflect the summed scales of the Likert scale response categories of 1-strongly disagree, 2-disagree, 3-no opinion, 4-agree, 5-strongly agree.

These measures of place attachment, place identity and place dependence suggest that those living or working in coastal towns are likely to have a strong sense of place. They feel rooted and embedded in the place and feel a deep connection with it. However, to what extent are those attachments influenced by the presence of a fishing fleet and what is the contribution of fishing to sense of place? The following section considers the perceptions of the survey respondents in terms of their attitudes towards the contribution of fishing to sense of place and its role for tourism, heritage and community life, as well as their perceptions about the future of the industry. This goal here was to ascertain whether the presence of fishing makes a contribution to sense of place in fishing towns.

### 3.3.2 Results of attitude scales

As with the place dimensions, the unidimensionality of the attitude scales in Table 15 was tested by factor analysing each set of scale items using the principal axis method in SPSS. In each case only a single factor could be extracted with explained variances of 53.8% (contribution of fishing to sense of place), 43.2% (importance of fishing for tourism), 58.3% (importance of fishing as cultural heritage), 51.7% (importance of fishing for community) and 48.4% (future of fishing), again confirming the unidimensionality of the scale. In addition, the Cronbach's alpha statistics of over .70 for all the attitude scales confirm that the statements within each of the sets are closely related. High mean scores (negative skewness) are consistent with stronger agreement with each statement.

**Table 15:** Scale items for the attitude variables (mean and standard deviation), n=1690.

Factor	Label	Statement	Mean	SD
<b>Fishing</b> ( $\alpha = .85$ )	FISH1	Having fishing here is the most important thing to me	3.51	1.13
	FISH3	I am very proud of our local fishing industry	4.15	0.90
	FISH4	Fishing provides an important link between the land and sea	4.33	0.71
	FISH5	When I think of this place, I think of fishing	3.87	1.06
	FISH6	Fishing really shapes the physical character of the town	3.92	1.07
	FISH7	Harbours are more attractive with fishing boats rather than yachts	3.94	1.07
	FISH8	Fishing gear, boats and other physical objects really add to the character of this place	4.31	0.78
	Aggregate Mean		3.92	0.76
<b>Tourism</b> ( $\alpha = .76$ )	TOURISM1	Having fishing here is an important attraction for tourism	4.01	1.07
	TOURISM2	Fishermen benefit from the tourism industry here	3.65	1.07
	TOURISM3	There is a high demand for fresh, locally-	4.04	0.88

		caught fish		
	TOURISM4	People like to go and watch the fishermen landing the catch	4.19	0.79
	TOURISM5	Coastal restaurants should support local fishermen	4.54	0.63
	TOURISM6	The image of this as a fishing place is dependent on having an active fishing industry	4.08	0.94
	TOURISM7	If fishing were to disappear here, it would not affect the tourism industry (reversed)	3.42	1.15
	Aggregate Mean		4.00	0.69
<b>Heritage</b> ( $\alpha = .89$ )	HERITAGE1	It is important to remember the long history of fishing here	4.52	0.65
	HERITAGE2	Representations of fishing heritage must be authentic and not like a theme park	4.36	0.75
	HERITAGE3	This place is built on the fishing industry	4.10	0.97
	HERITAGE4	We need to maintain an active fishing industry as it connects us to our past	4.30	0.80
	HERITAGE5	Local children should be taught about the fishing heritage of this place	4.36	0.70
	HERITAGE6	The presence of the fishing industry today keeps it real and alive	4.14	0.89
	HERITAGE7	The buildings and infrastructure are testimony to the distinctive fishing history of the place	4.01	0.96
	HERITAGE8	Understanding the living heritage (fishing today) of fishing is important	4.30	0.72
	Aggregate Mean		4.32	0.69
<b>Community</b> ( $\alpha = .80$ )	COMMUNITY1	Fishing is at the heart of the community here	3.63	1.12
	COMMUNITY2	Fishing is really embedded into the local community	3.97	1.00
	COMMUNITY3	The whole identity of the town revolves around	3.27	1.16
	COMMUNITY4	Fishing is not important for community identity here (reversed)	3.59	1.02
	COMMUNITY5	The loss of the fishing industry would have a negative effect on the identity of this place	4.03	1.04
	COMMUNITY6	This town should not emphasise its fishing heritage as a branding strategy (reversed)	3.42	1.07
	Aggregate Mean		3.72	0.84
<b>Future</b> ( $\alpha = .77$ )	FUTURE1	It is really important to preserve the fishing industry here	4.49	0.74
	FUTURE2	It would make no difference to me if the fishing industry disappeared here (reversed)	4.10	0.94
	FUTURE3	There should be more support for small- scale fishing	4.31	0.84
	FUTURE4	More young people need to be encouraged to enter the fishing industry	4.00	0.91
	FUTURE5	There should be more opportunities to buy locally caught fish	4.12	0.92
	FUTURE6	We should not try to save the fishing industry here (reversed)	4.18	1.01
	Aggregate Mean		4.30	0.68

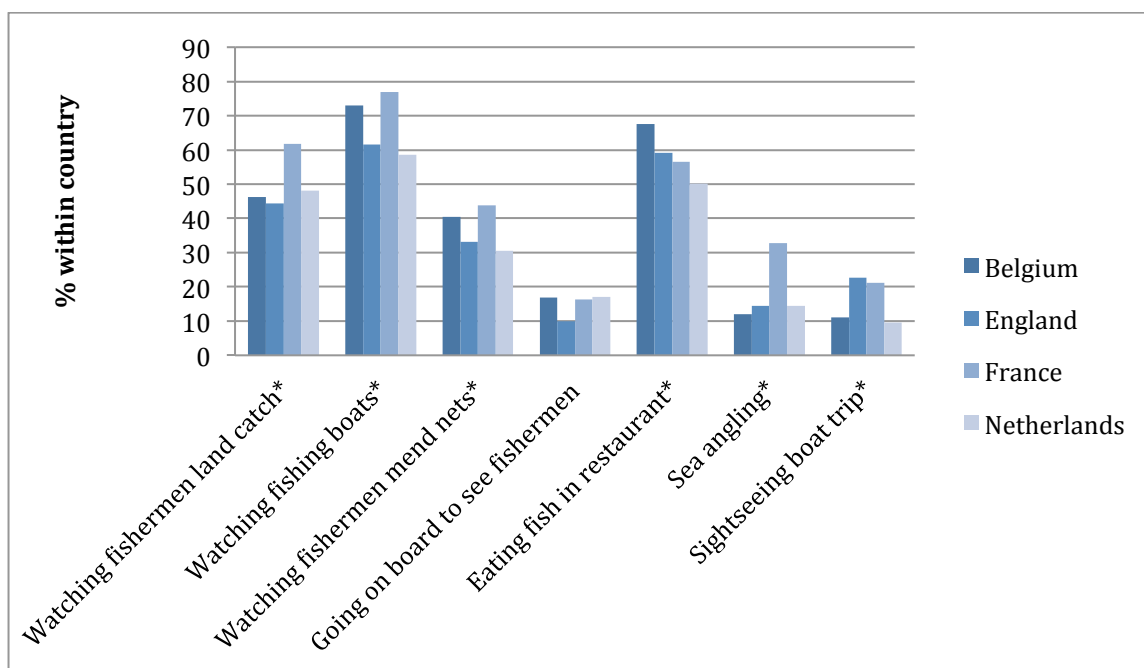
#### *Fishing – attitudes towards the contribution of fishing to sense of place*

The high mean score of 3.92 on the 'Fishing' attitude scale (Table 15) suggests that respondents both feel a close connection to fishing in the place where they live or work, and that it is an important contributor to the character of the place. The highest scoring statement in this scale was "Fishing provides an important link between the land and sea" (4.33). The high mean score (4.31) on the statement "Fishing gear, boats and other physical objects really add to the character of this place" suggests that the physical presence of material objects to support the fishing industry (e.g. buildings, boats, fishing gear etc.) are important in the creation of place character. In addition, there are cultural representations of fishing activity in both the physical environment (e.g. street decoration, information boards, signs, art etc.) and intangible manifestations (e.g. literature, music, traditions etc.). Respondents also felt that fishing was part of the identity of the town: "When I think of this place, I think of fishing" and "Fishing really shapes the physical character of the town".

#### *Tourism – the role of fishing for the tourism sector*

The highest scoring statement on the 'Tourism' attitude scale was "Coastal restaurants should support local fishermen" indicating a desire for improving the links between the local fishing industry and the tourism offer. The responses also suggest that fishing is providing an attraction for tourism with visitors enjoying watching fishermen landing their catch and that there is a demand for locally-caught fish. There was a strong feeling that if fishing were to disappear it would have a negative impact on the tourism industry as its image as a fishing place depends on having an active fishing fleet.

Further, respondents were asked to indicate which touristic activities they participate in when they visit a fishing port or harbour (Figure 27). The most popular activity was watching the fishing boats coming and going with two thirds of respondents indicating that they enjoy this. In addition, almost 60% indicated that they like to eat fish in a harbourside restaurant, especially those from Belgium. The least participated in activity was going on board boats, either to watch fishermen at work, for sea angling or for wildlife watching or sightseeing. However, in France almost a third of respondents indicated that they go sea angling, over double that of responses from the other countries. In addition, watching fishermen landing their catch was a more popular pastime in France than elsewhere.



**Figure 27:** Recreational activities participated in (\* $p < .0001$ ).

#### *Heritage – the role of fishing for heritage*

Overall there was a very strong sense that fishing is an important component of cultural heritage with  $>4$  mean scores on all the statements and the highest mean score (4.32) of all the attitude scales. Respondents indicated that it is important to remember the history of the fishing past in coastal communities, but that any representations of fishing heritage must be authentic and grounded in contemporary fishing activity.

#### *Community – the role of fishing for community life*

While respondents did feel that fishing is an important contributor to community life, the mean score of 3.72 (on the scale of 1-5) was the lowest of all the attitude scales and only one of the statements, “The loss of the fishing industry would have a negative effect on the identity of this place”, had a mean score  $>4$ . Although agreement with the statements was not as high as for tourism and heritage, respondents were indicating that fishing makes an important contribution to community life. Thus, the impact of the loss of the fishing industry would not just be reflected economically, such as in the loss of fishers’ incomes and the economic input of the industry to the local economy. It would also contribute to more fundamental social issues, such as potentially a reduction in social cohesion and a way of life that goes back generations.

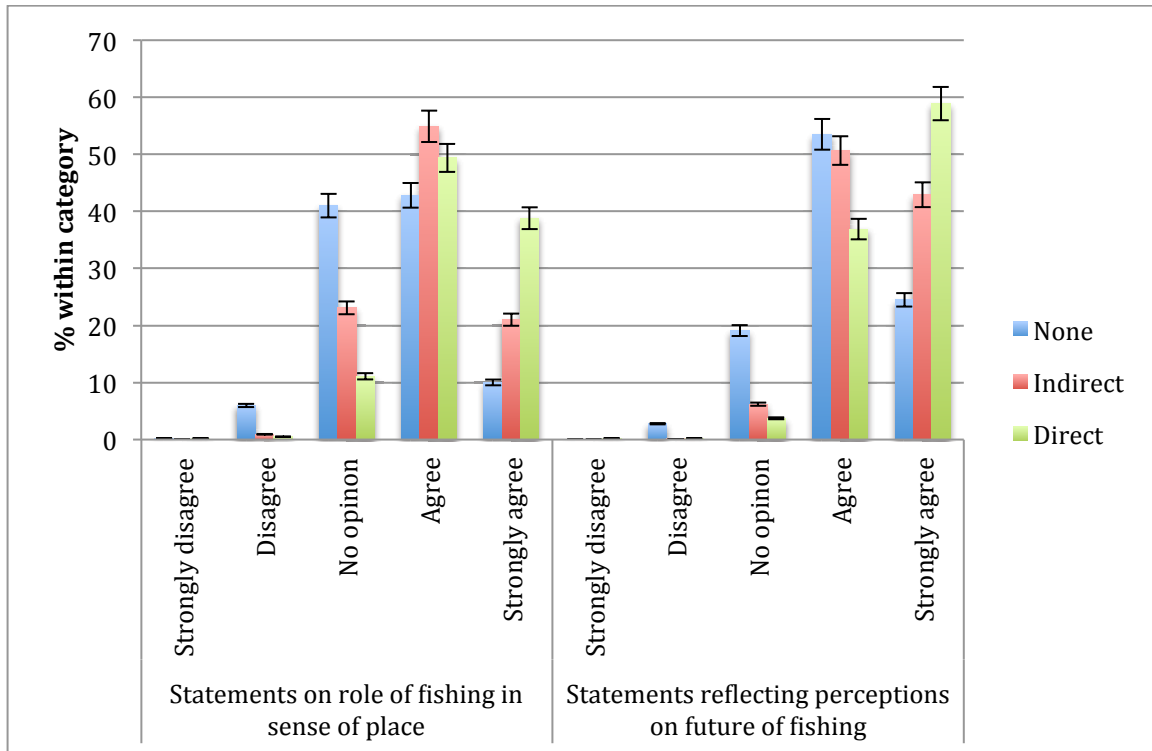
#### *Future – perceptions regarding the future of fishing*

With mean scores all  $>4$  on the ‘Future’ attitude scales respondents felt very strongly that it is important to maintain an active fishing industry in their town and many disagreed with the statement “It would make no difference to me if the fishing industry disappeared here”. There was strong agreement for increasing support for small-scale fishers, encouraging young people to enter the industry and providing more opportunities to buy locally caught fish.

### **3.4 The relationship between sense of place and involvement with fishing**

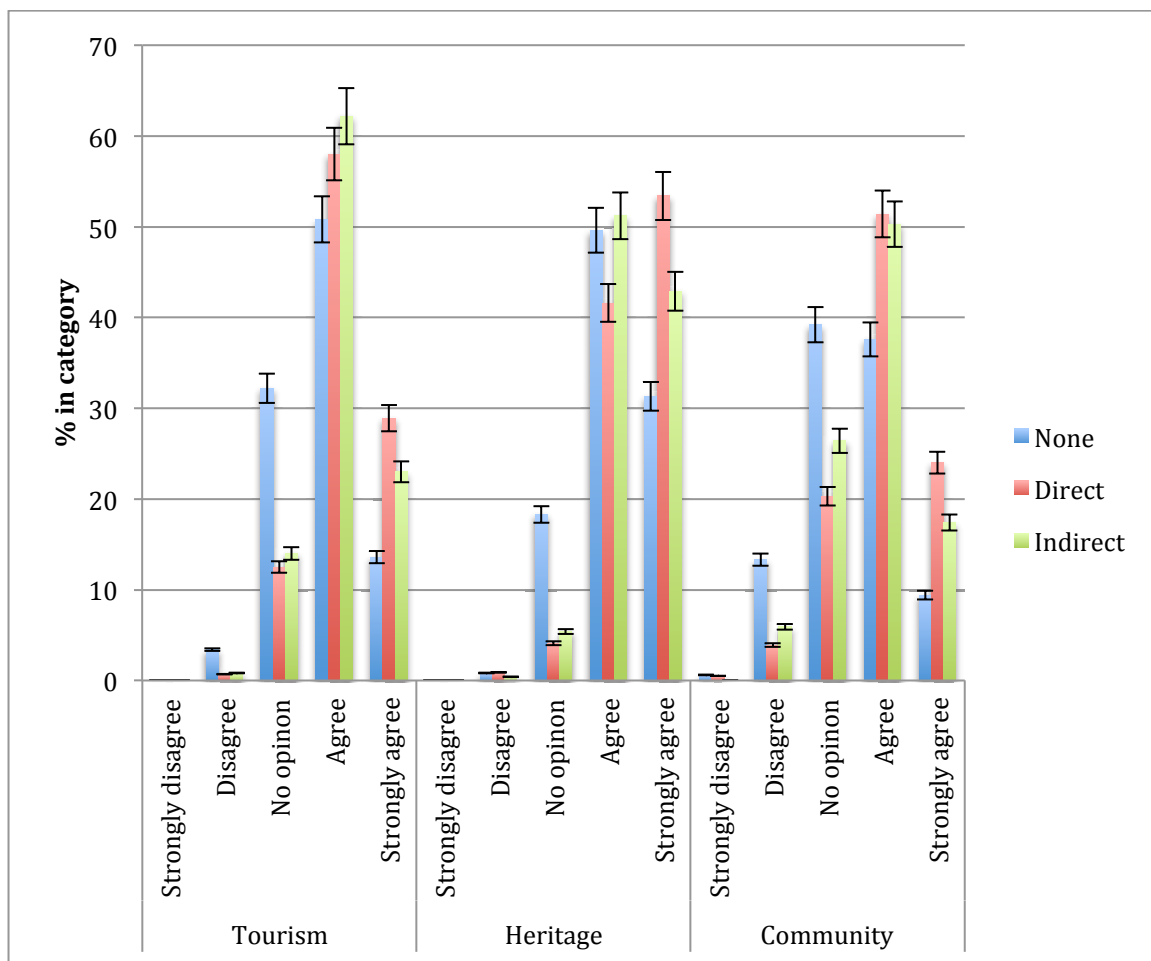
Unsurprisingly, those directly associated with fishing were almost four times as likely to strongly agree that fishing contributes to sense of place than those who have no association

with fishing and twice as likely to strongly agree as those indirectly associated with fishing (Figure 28). Similarly, those directly associated with fishing were more than twice as likely to indicate that it is important to preserve the fishing industry into the future than those not associated with fishing (Figure 28).



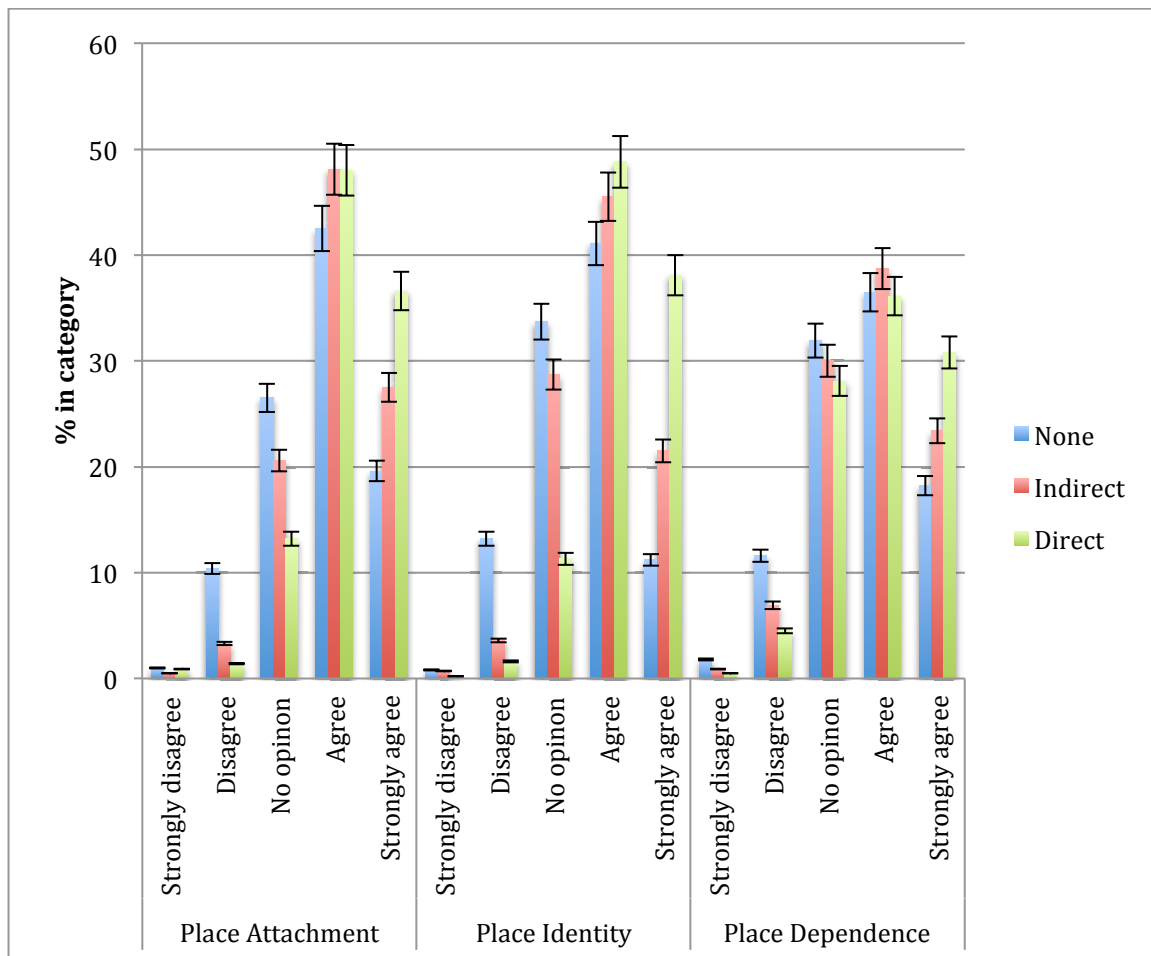
**Figure 28:** Variation in responses to contribution of fishing to sense of place and the future of fishing ( $p < 0.0001$ ).

Also, respondents who are directly involved in fisheries were more likely to strongly agree that fishing is important for tourism, heritage value and community life followed by those indirectly associated with fishing (Figure 29). While the majority of those who have no connection with fishing agreed with the statements regarding the role of the fishing for tourism, heritage and community a larger proportion disagreed or had no opinion than those who were involved.



**Figure 29:** Variation in responses to statements reflecting the role of fishing for tourism, heritage and community depending on association with fishing ( $p < 0.001$ ).

However, perhaps more surprising is the results for the relationship between those associated with fishing and the place scales, or the overall feeling of connection to the place. In this regard, those respondents directly involved in fishing were the most likely to “strongly agree” with statements relating to place attachment, place identity and place dependence, while those indirectly involved in fishing were more likely to “agree” and those with no association with fishing were more likely to disagree or have no opinion. Indeed, those directly involved in fishing are almost twice as likely to feel strongly connected to a place than those who are not involved at all. This suggests that those directly involved with the fishing industry tend to be more rooted and connected to a place than those who are not (Figure 30).



**Figure 30:** Variation in responses to place scales depending on association with fishing ( $p < 0.0001$ ).

### 3.5 Demographic factors that influence differences in individuals' sense of place

The place and attitude scales were further compared against a range of demographic variables to explore whether there were any significant differences that would influence the results. These were assessed in association with respondents' association with fishing to determine the extent of other factors on individuals' sense of place. Demographic variables included:

- Length of residence in town
- Country – England, France, Belgium and Netherlands
- Region – counties within England and regions within France
- Gender
- Age
- Educational level
- Employment status
- Occupation

A cross tabulation of the scales with the demographic variables allowed respondents to be profiled according to how likely they were to score highly on each of the scales. This allowed for a more nuanced understanding of the factors that shape sense of place and perceptions

of the importance of fishing. The demographic profiling of the place scales is presented first, followed by that of the attitudes scales.

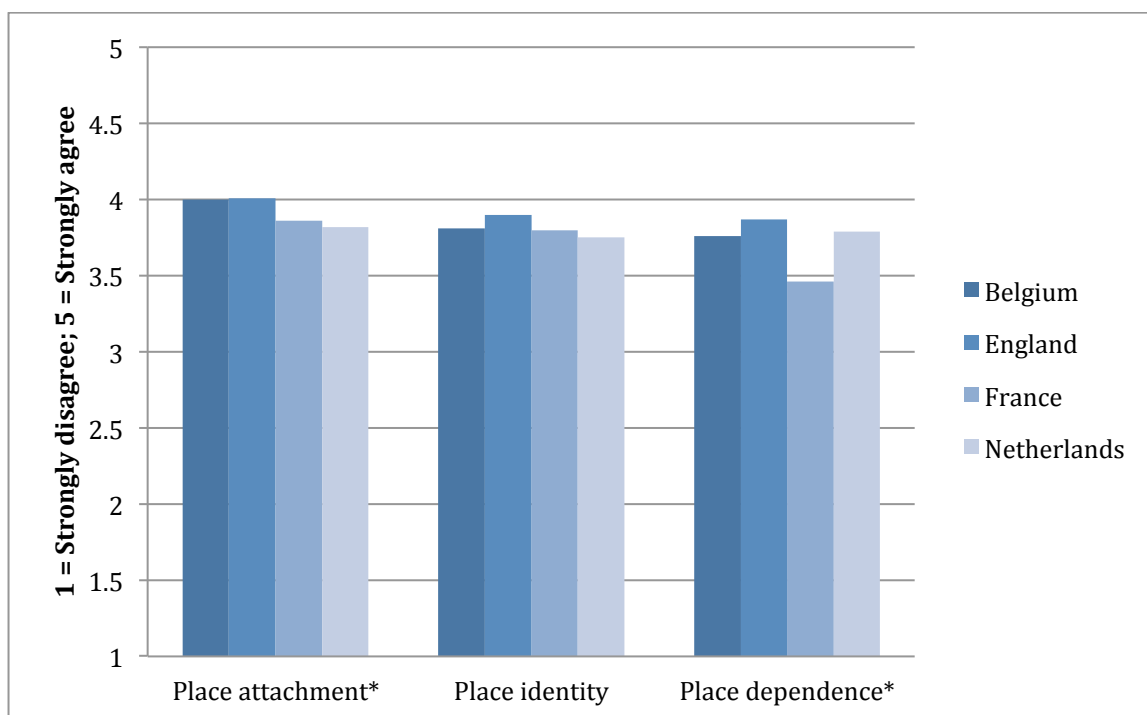
### 3.5.1 Demographic profile of the place scales

The cross tabulation of the place scales and demographic variables revealed a number of associations on all demographic variables except for gender, indicating that there is no difference between men and women with respect to their attachment to, identification with and dependence on the place (Table 16). Statistically significant associations between the variables are indicated in Table 16 and explained below.

**Table 16:** Cross tabulation of respondent characteristics and place dimensions (\* $p < .0001$ ; \*\* $p < .001$ ; \*\*\* $p < .01$ ; \*\*\*\* $p < .05$ ).

	<b>Attachment</b> $\chi^2/df$	<b>Identity</b> $\chi^2/df$	<b>Dependence</b> $\chi^2/df$
<b>Country</b>	45.877* 12	20.064 12	91.497* 12
<b>Region (within England)</b>	34.820**** 22	28.894 22	17.048 22
<b>Region (within France)</b>	16.079 9	18.790 12	30.961*** 12
<b>Gender</b>	2.497 3	9.179 4	6.225 4
<b>Age</b>	53.252* 12	32.907** 12	43.461* 12
<b>Education</b>	31.104*** 12	19.596 12	19.909 12
<b>Employment</b>	27.318**** 14	16.912 14	51.453* 14
<b>Length of residence</b>	86.663* 8	229.864* 8	29.347* 8

Respondents from all four countries expressed a strong sense of place with respect to the three constructs of place attachment, place identity and place dependence (Figure 31) with all scores (except for place dependence in France) above 3.5. However, respondents from England were the most likely to strongly agree with the statements reflecting place dependence and respondents from Belgium and England were the most likely to strongly agree with statements reflecting place attachment. While respondents from the Netherlands were the least likely to strongly agree with statements reflecting place attachment and place identity, it was respondents from France who were the least likely to strongly agree with statements reflecting place dependence.



**Figure 31:** Summed Likert scale means for place attachment, identity and dependence – aggregated variables per country (\* $p < 0.0001$ ).

In addition to the variation between the countries, there were some significant differences between regions in England and France and demographic variables (Table 16). Firstly, there was a significant difference between surveyed regions in England in terms of place attachment with higher place attachment values more likely from respondents in Cornwall, Essex, Norfolk and Suffolk. Respondents from Cornwall, Devon, East Sussex, Kent and North Devon were also likely to have more positive attitudes towards the contribution of fishing to sense of place. In France, higher place dependence values were more likely to be expressed by respondents from Brittany than other regions.

High place attachment was more likely to be expressed by those aged over 56, with no educational qualifications, GCSEs or equivalent or a further education qualification and are retired (Table 16). Low place attachment was more likely to be expressed by those aged 26-45 who are in full-time employment. High place identity was more likely to be expressed by those aged 18-25 or 46-55 while low place identity was more likely for those aged 26-35. High place dependence was more likely for those aged over 56 who are employed part-time, retired, home-keepers or self-employed. Low place dependence is more likely to be expressed by those aged 26-45 who are either students or in full-time employment.

The length of residence variable was further analysed with respect to participants' association with fishing. Table 17 suggests that place attachment and place identity, and to a lesser extent place dependence, increase over time. However, for those that have always been resident, those directly associated with fishing are around twice as likely to strongly agree with statements on the place scales as those not associated, suggesting a link between association with fishing and sense of place.

**Table 17:** Percentage of respondents strongly agreeing with statements on place scales who have been resident always or less than 5 years by association with fishing (\*p<.0001; \*\*p<.001; \*\*\*p<.05).

Association with fishing	None		Indirect		Direct		Total	
Length of residence	Always % strongly agree	<5 years % strongly agree	Always % strongly agree	<5 years % strongly agree	Always % strongly agree	<5 years % strongly agree	Always % strongly agree	<5 years % strongly agree
<i>Place dependency</i>	18.8	19.4	25.9	23.3	36.4**	20.0**	28.0**	21.4**
<i>Place attachment</i>	25.3****	16.1****	37.2*	20.9*	41.0*	20.0*	35.6*	19.0*
<i>Place identity</i>	21.8*	16.1*	37.2*	7.0*	45.2*	20.0*	36.3*	11.9*

Note: Percentages relate to percentage of respondents strongly agreeing on place scales within length of residence and association with fishing categories.

### 3.5.2 Demographic profile of the attitude scales

The cross tabulation of the attitude scales and demographic variables revealed a number of associations on all demographic variables except for gender and length of residence (Table 18). This suggests that there is no significant difference between men and women with respect to their perceptions on the importance of fishing. The length of time that an individual has resided in a place also appears to have no bearing on their attitudes towards the importance of fishing. However, there were some differences between the four countries, the regions in England and France, age of respondents, education level and employment status.

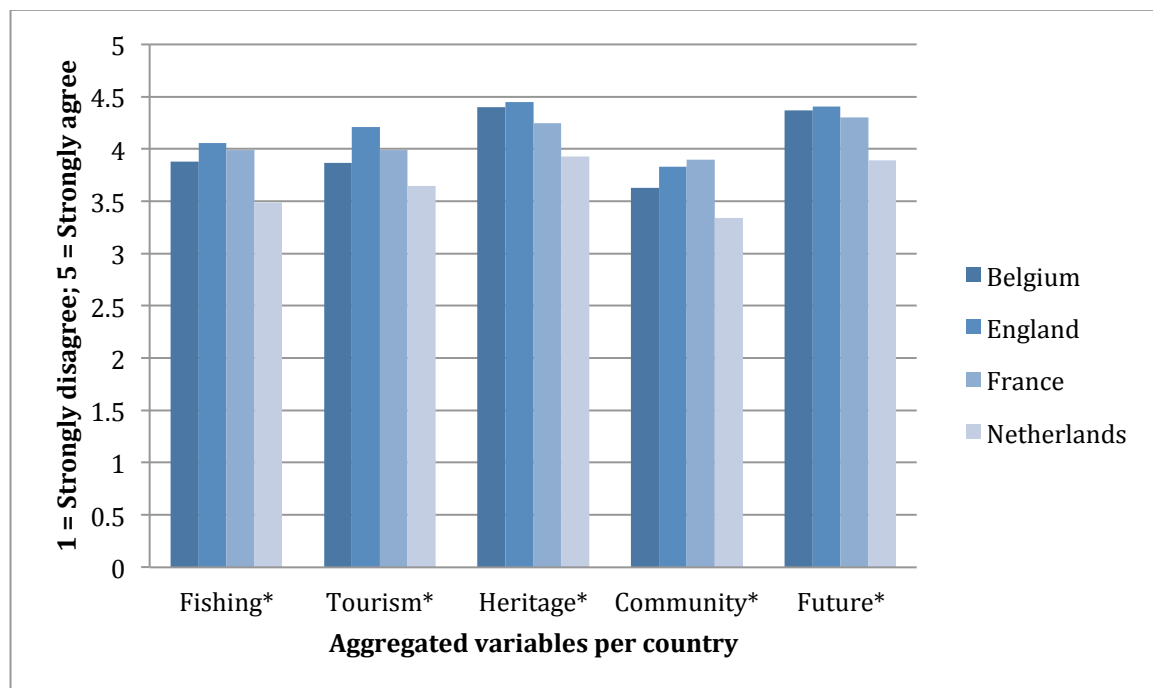
**Table 18:** Cross tabulation of respondent characteristics and attitude scales p<.0001; \*\*p<.001; \*\*\*p<.01; \*\*\*\*p<.05).

	Fishing $\chi^2/df$	Tourism $\chi^2/df$	Heritage $\chi^2/df$	Community $\chi^2/df$	Future $\chi^2/df$
<b>Country</b>	168.178* 12	200.866* 9	164.374* 9	160.941* 12	153.694* 12
<b>#Region (within England)</b>	86.536** 22	64.089* 22	142.275* 22	132.591* 22	122.060* 33
<b>#Region (within France)</b>	18.540** 6	2.893 6	8.797 6	21.325*** 6	4.138 6
<b>Gender</b>	0.839 3	2.189 2	1.422 2	2.195 2	3.945 4
<b>Age</b>	66.426* 12	126.580* 12	48.887* 12	84.502* 12	94.587* 24
<b>Education</b>	35.182* 12	30.829*** 12	28.143*** 12	33.572** 12	38.784**** 24
<b>Employment</b>	44.680* 14	41.987* 14	40.060* 14	28.233**** 14	61.467* 28
<b>Length of residence</b>	6.909 8	4.207 8	5.582 8	10.069 8	25.922 16

# Results for regions should be treated with caution due to the more than 20% of cells having expected counts of less than 5.

High mean scores were present for all the attitude scales for all four countries (Figure 32). Overall, the highest mean scores were achieved for 'Heritage' and 'Future', in line with similar findings for the dataset as a whole (Table 18), indicating strong agreement on statements that reflect the importance of fishing for cultural heritage and the importance of preserving the fishing industry into the future. Interestingly, while over 90% of respondents in Belgium (94%), England (92%) and France (94%) agreed with statements reflecting the importance of preserving the future of the fishing industry this figure was a fifth less (71%) in the Netherlands agreed and a quarter of Dutch respondents had no opinion. Similarly, over 90% of respondents in Belgium (95%), England (93%) and France (93%) agreed with statements stressing the role of fishing for cultural heritage, while only 72% of respondents agreed and a quarter again had no opinion. Indeed, the lower mean scores for the Netherlands on all the attitude scales suggests a less strong perception of the importance of fishing than in Belgium, England and France.

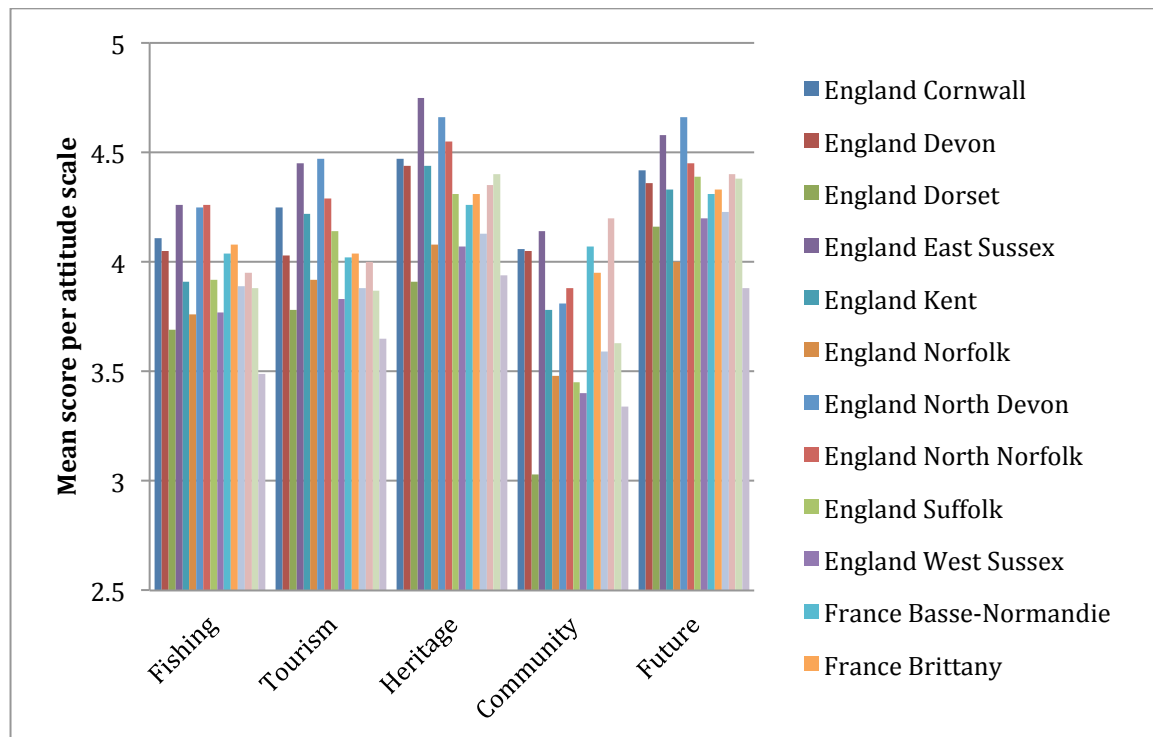
Respondents from England were the most likely to strongly agree with the statements reflecting on the attitude scales 'Fishing', 'Tourism', 'Heritage' and 'Future', whereas respondents from France were the most likely to strongly agree with statements reflecting the attitude scale 'Community' (Figure 32). As with the overall dataset the lowest mean scores were achieved for the attitude scale 'Community' reflecting perceptions about the role of fishing in community life. The Netherlands scored lowest on the 'Community' attitude scale (3.34) with over 20% of Dutch respondents disagreeing with statements reflecting the importance of fishing for community life.



**Figure 32:** Summed Likert scale means including the contribution of fishing to sense of place – aggregated variables per country (\* $p < 0.0001$ ).

As well as differences on the attitude scales between the countries, there were some differences between the regions in England and France, with the strongest differences occurring in England, however as some regions had a small number of respondents the results should be treated with caution (Figure 33). The highest mean scores for the 'Fishing' attitude scale were from respondents in East Sussex, North Norfolk and North Devon,

suggesting that respondents in these areas were the most likely to feel that fishing makes an important contribution to sense of place. These three English counties also had the highest mean scores for the attitude scales 'Tourism', 'Heritage' and 'Future', indicating their strong belief that fishing makes an important contribution to tourism and heritage and that it is important to preserve the fishing industry into the future. The highest mean scores for the attitude scale 'Community' were from respondents in Nord-pas-de-Calais and Basse-Normandie in France, along with East Sussex in England.



**Figure 33:** Regional differences on attitude scales.

In terms of the demographic variables of age, education level and employment status there were some differences on the attitudes scales (Table 18). Respondents who felt strongly that fishing makes an important contribution to sense of place were more likely to be aged over 66, either have no educational qualifications, GCSEs or equivalent or a further education qualification and be in part-time employment, self-employed or retired.

Respondents who felt strongly that fishing contributes to tourism, heritage and community life were more likely to be aged over 46, retired or self-employed with an education level of GCSEs, A levels (or equivalents) or a further education qualification (Table 18).

Respondents who felt strongly that fishing needs to be preserved into the future were more likely to be aged 46 and over, be retired and have no educational qualifications, GCSEs or equivalent or a further education qualification (Table 18).

These findings relate to the demographic profile of those involved or not with fisheries (Table 19). Thus, it is clear that those involved (either directly or indirectly) in fisheries tend to be older (46+ years) and are more likely to strongly agree with the attitude statements in support of the importance of fisheries. In addition, the employment status of those who strongly agree

with statements on the attitude scales aligns with the demographic profile of those involved (either directly or indirectly) with fisheries. However, when educational level is compared, there is alignment with those directly involved with fisheries but not, surprisingly, with those indirectly associated with fisheries.

**Table 19:** Cross tabulation of respondent characteristics and involvement with fishing indicating most likely categories ( $p < .0001$ ; \*\*  $p < .001$ ; \*\*\*  $p < .01$ ; \*\*\*\*  $p < .05$ ).

	No involvement with fisheries	Indirectly involved with fisheries	Directly involved with fisheries	$\chi^2/df$
<b>Age</b>	under 25, 36-45, 56-65	56+	46-55	27.169*** 12
<b>Education level</b>	None, A-levels	Diploma, degree, postgrad	None, GCSEs, A levels, further ed qual	108.476* 12
<b>Employment status</b>	Student, home-keeper, full-time employ, part-time employ	Retired, self-employed	Part-time employ, home keeper	26.769**** 14

However, unlike the responses on the place scales, perceptions about the contribution of fishing to sense of place do not appear to increase with length of residence; indeed, they appear to decrease slightly regardless of involvement with fishing (Table 20).

**Table 20:** Percentage of respondents strongly agreeing on attitude scales who have been resident always or less than 5 years by association with fishing (\* $p < .0001$ ; \*\* $p < .001$ ; \*\*\* $p < .05$ ).

Association with fishing	None		Indirect		Direct		Total	
	Always % strongly agree	<5 years % strongly agree	Always % strongly agree	<5 years % strongly agree	Always % strongly agree	<5 years % strongly agree	Always % strongly agree	<5 years % strongly agree
<i>Fishing for SOP</i>	8.2***	16.1***	19.7	30.2	40.0**	50.0**	24.4	27.4
<i>Fishing for tourism</i>	10.6	25.8	19.3	33.3	26.9*	70.0*	19.9	34.9
<i>Fishing for heritage</i>	28.8	38.7	44.2	53.5	55.0***	70.0***	44.3	50.0
<i>Fishing for community</i>	6.5	16.1	15.3	30.2	24.1**	44.4**	16.3	26.5
<i>Future of fishing</i>	23.1	29.0	41.3	48.8	61.0*	60.0*	44.1***	42.9***

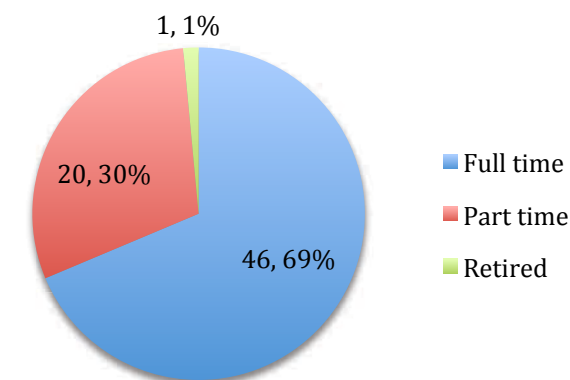
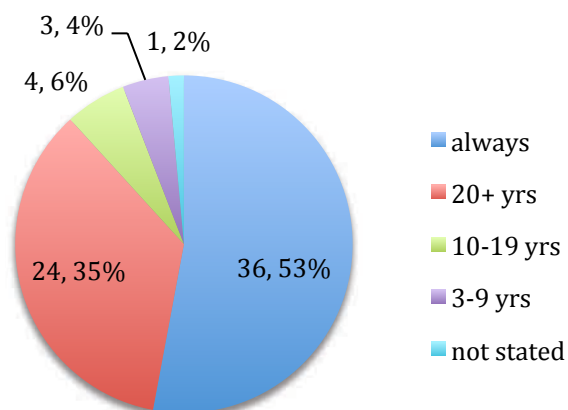
Note: Percentages relate to percentage of respondents agreeing on attitude scales within length of residence and association with fishing.

### 3.6 Fishing activity and fishers' perceptions

A total of 156 surveys were completed by fishers (19% of which were women), although over half (56%) were from fishers in England, 19% from Belgium, 15% from France and 10% from the Netherlands. Of these, 72 answered questions relating to their motivations for being a

fisher, their fishing activities and how this has changed over time, although the majority of these (n=68) were from England. The following results, therefore, reflect only the English data. Of this sub-set (n=68) one respondent was female.

Over half of the surveyed fishers stated that they had always been a fisher (53%) with a further 35% indicating that they had fished for over 20 years (Figure 34). Over two thirds (69%) were working as full-time fishers (Figure 35). Those that fished part-time were also engaged in other employment such as gardening, boat building, running a restaurant or were

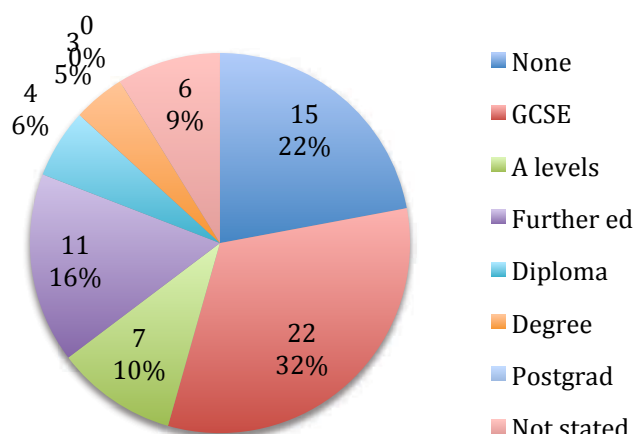
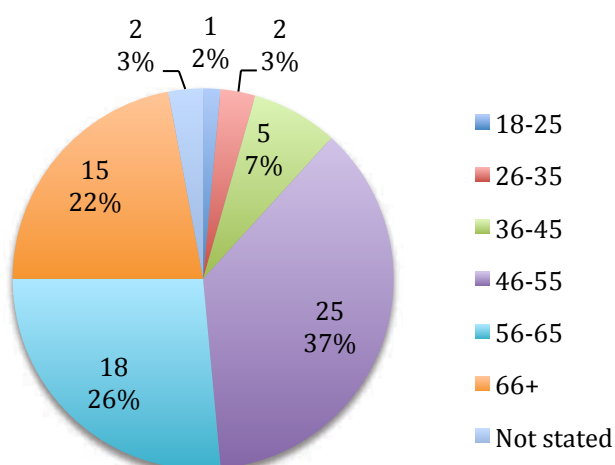


retired.

**Figure 34:** Numbers of years as a fisher. fishers.

**Figure 35:** Part- or full-time status of

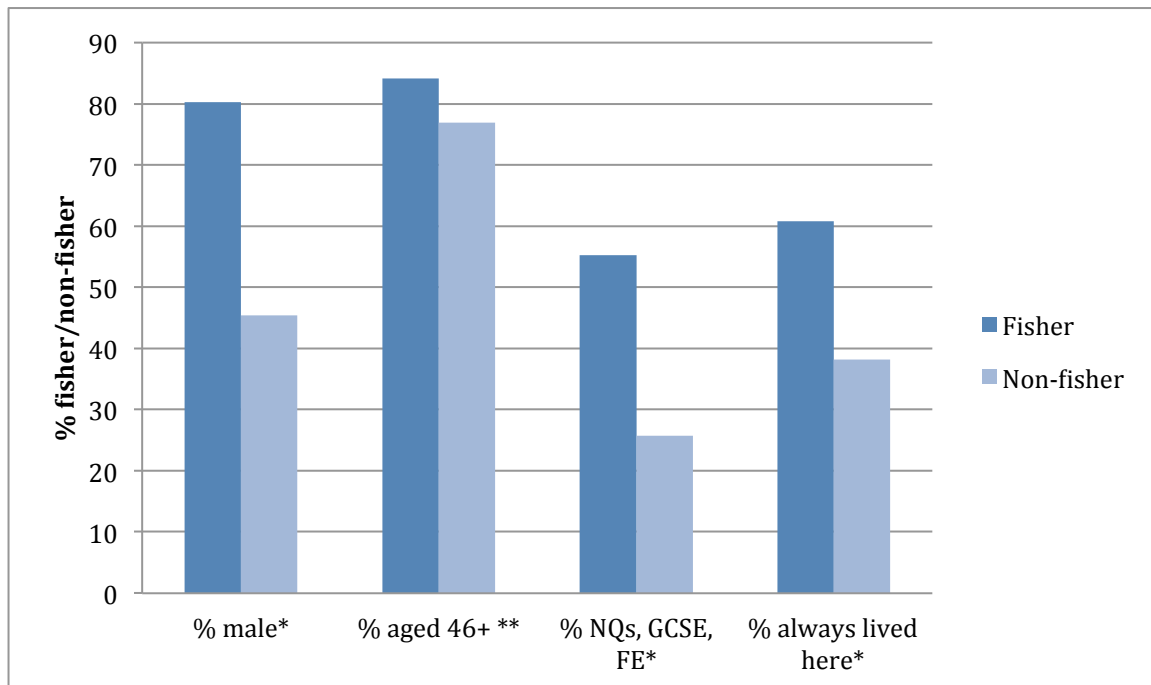
Almost half of those surveyed (48%) were over 56 years old, suggesting an ageing demographic in the fisher population (Figure 36). Just 5% of the sample were fishers below the age of 35. 22% of fishers said that they had no education qualifications, 32% had GCSEs (or equivalent) and 10% had A level (or equivalent) (Figure 37).



**Figure 36:** Age distribution of fishers.

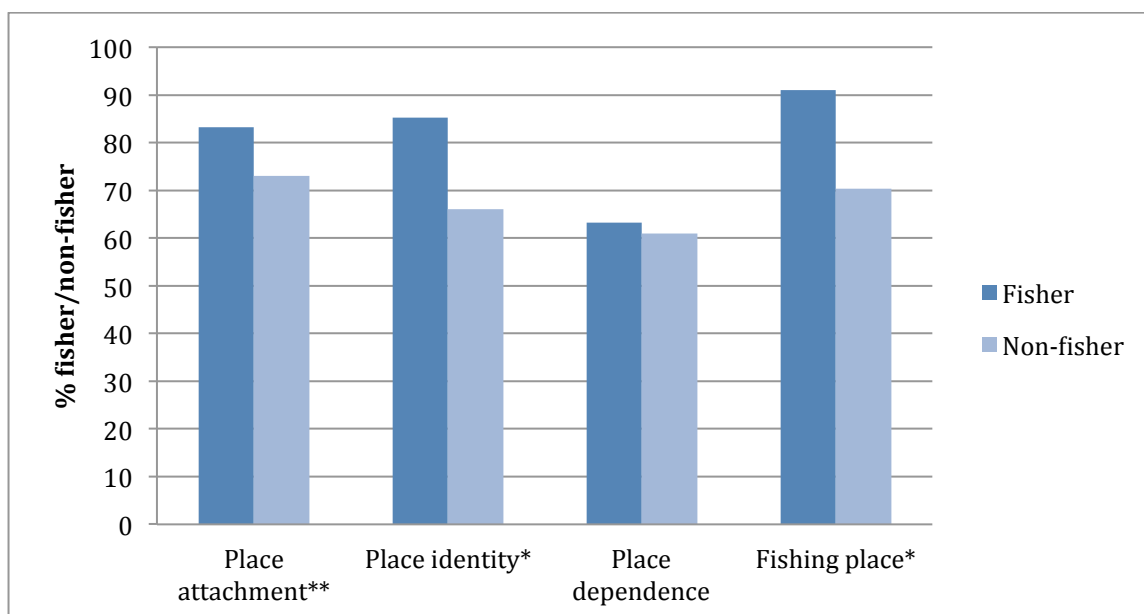
**Figure 37:** Educational level of fishers.

In comparison to the demographic profile of non-fisher respondents, the fisher respondents were more likely to be male, aged over 46, have no qualifications, GCSEs (or equivalent) or a further education qualification and to have always lived in the fishing town (Figure 38).



**Figure 38:** Comparison of demographic profile of fishers and non-fishers (\* $p < .0001$ ; \*\* $p < .01$ ).

Figure 39 highlights the associations between the place dimensions and fishers/non-fishers. Unsurprisingly fishers were more likely to express a strong positive attitude towards fishing as a contributor to sense of place. However, they also demonstrated higher attachment and identity with the town, although there was no difference between fishers and non-fishers in terms of place dependence. This supports the assertion that association with the fishing industry is likely to foster stronger attachments to place and a connection or identity rooted in the place.



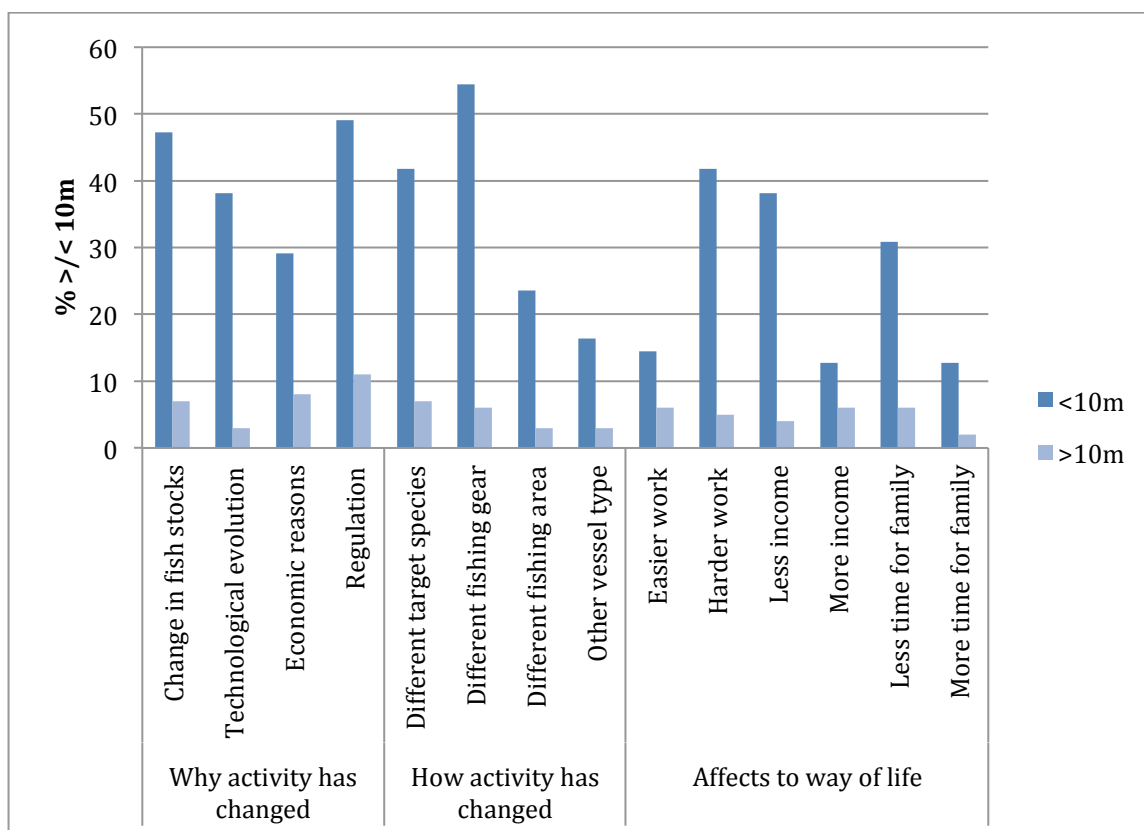
**Figure 39:** Comparison of agreement with statements on the place scales between fishers and non-fishers (\* $p < .0001$ ; \*\* $p < .05$ ).

*Family and the role of women:* Over half (53%) of fishers indicated that they come from a fishing family. 40% said that their father was also a fisherman and 36% said their grandfather had been a fisherman, suggesting that fishing is a generational activity. The extended family of brothers (18%), cousins (16%) and uncles (1%) were also involved in fishing.

Almost half of fishers' surveyed (43%) said that women were involved in the fishing business. This was most often wives (36%) but also included daughters (9%), mothers (4%), sisters (1%) and aunts (1%). Women were mostly involved in book keeping (30%) but 18% were involved in administration, 16% were involved in fish selling, 10% in fish processing and 7% crewed on fishing vessels. This suggests that women are involved in a range of fisheries activities in the fisher household.

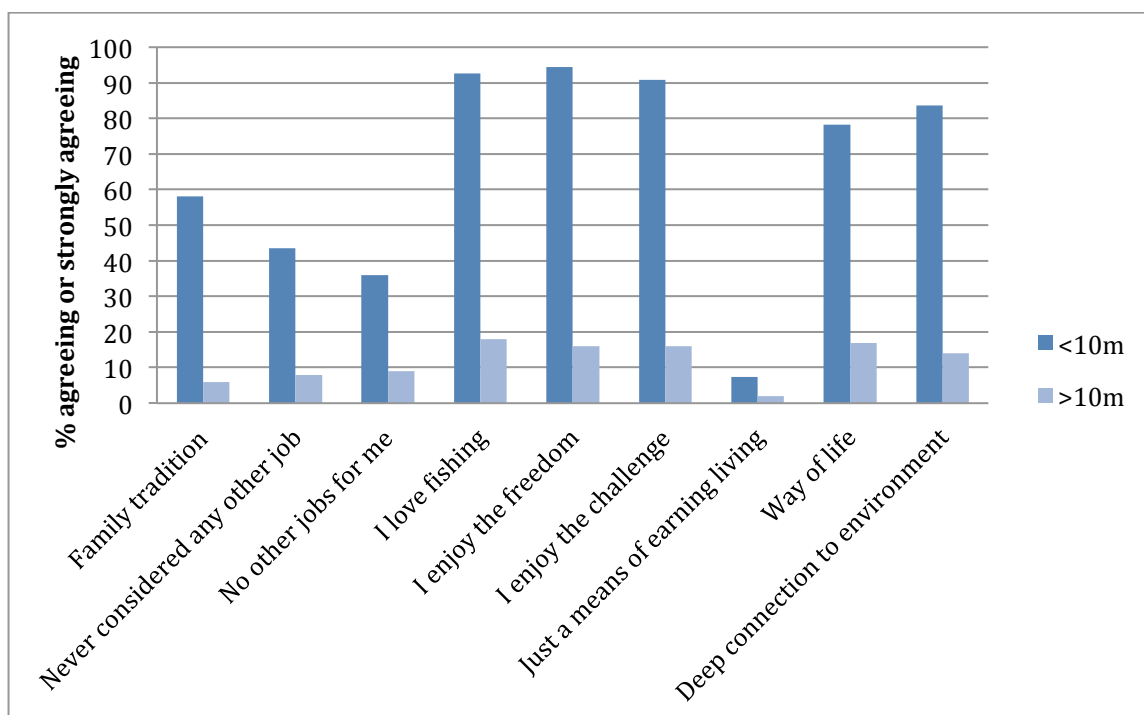
*Type of fishing activity:* 58 (85%) of fishers surveyed own their own fishing vessel. Of those, 46 (81%) indicated that they own one vessel, one fisher owned 2 vessels and 10 owned three or more vessels. 79% (53) of fishers said that they work on vessels under 10m with another 10% (7) working on 10-12m vessels and 8% (6) on 13-24m vessels. Only one fisher surveyed fished on a vessel over 25m. In line with the size of vessels used by the surveyed, the majority fished in coastal waters. Over half (55%) fish in inshore waters up to 6nm, with a further 41% fishing out to 12nm. Only 4% of the fishers indicated that they fish in offshore waters, for at least 3 days per trip. Thus, the surveyed fisher demographic represents inshore fishers.

*Changes in fishing activity:* 78% of fishers indicated that their fishing activity has changed over time, with under 10m fishers more likely to feel this ( $\chi^2=93.318$ ;  $df=2$ ;  $p < .0001$ ). Under 10m fishers are more likely to have experienced a change in their fishing activity than over 10m fishers (Figure 40). The most cited reason for the change in their activity is regulation, followed by a change in fish stocks. This has resulted in fishers changing the gear they use and also the target species. For many, these changes have led to harder work, less income and less time with their families.



**Figure 40:** Difference in perceived changes in fishing activity between <10m and >10m fishers (all associations are significant at  $p < .0001$ ). Note: It was not the intention to survey >10m fishers, so the sample for this category is small ( $n=13$ ) and the results should be interpreted with this in mind.

*Motivations for being a fisher:* Figure 41 shows the responses to statements regarding motivations for being a fisher. The main reasons cited are that fishers love to fish, and they enjoy the freedom and challenge of fishing having a deep to connection to the natural environment in which they work. For many, fishing is a way of life. Indeed, less than 10% of fishers indicated that for them fishing is just a means of earning a living. Figure 41 also shows the differences between under 10m and over 10m fishers, with under 10m fishers having stronger emotional attachments to fishing (e.g. I love fishing, I enjoy the freedom, I enjoy the challenge) than over 10m fishers.



**Figure 41:** Motivations for being a fisher (all associations are significant at  $p < .0001$ ).

### 3.7 Fish consumption behaviour

In addition to the attitudinal questions in the survey that aimed to understand the role of fishing in shaping people's attachment to places and their perceptions of the importance of fishing, the survey also included behavioural questions to allow a comparison of fish consumption habits across the four countries. Evidence suggests that consumers in England in general are less likely to include fish in their diet than their counterparts across the Channel, especially in France (EU, 2014). However, what is less clear is whether those living in English coastal towns are less likely to consume fish than those in coastal towns in Belgium, France and the Netherlands. Alongside this, with increasing concern over the sustainability of fish stocks, the survey also assessed respondents' preferences in terms of provenance and sustainability of the resource.

Perhaps unsurprising for a survey conducted in coastal towns, the vast majority of respondents (97.8%) indicated that they eat fish or seafood<sup>3</sup>. However, while over 95% of respondents in all four countries indicated that they eat fish or seafood, there were a significant difference ( $p < .01$ ) between the countries with respondents from Belgium (99.5%) or France (99.4%) more likely to eat fish than those from England (96.9%) and the Netherlands (96.8%).

In addition, the results suggest that French participants are more frequent fish or seafood consumers than those in the other three countries, with 85% of respondents eating fish or seafood at least once a week (Table 21). 74% of Belgian respondents eat fish or seafood at least once a week, with a corresponding figure of 67% for the English. The Dutch were the

<sup>3</sup> This figure is higher than that reported in Figure 22 which only records the responses of those who indicated that they are 'indirectly' associated with fishing. It is likely that some respondents who consume fish do not perceive themselves as indirectly associated with fishing and so are not recorded in the data presented in Figure 22.

least frequent consumers, with only 55% saying they eat fish or seafood at least once a week.

**Table 21:** Frequency of fish and seafood consumption ( $\chi^2 = 140.866$ ,  $df = 18$ ,  $p < 0.0001$ ).

	<b>Belgium (% within country)</b>	<b>England (% within country)</b>	<b>France (% within country)</b>	<b>Netherlands (% within country)</b>
<i>More than once a week</i>	34.8	37.3	58.5	21.3
<i>Once a week</i>	38.9	29.9	26.6	33.2
<i>1-2 times a month</i>	18.2	19.3	10.2	28.1
<i>Few times a year</i>	6.1	6.8	1.5	10.3
<i>Rarely</i>	1.5	2.8	1.2	3.6
<i>Never</i>	0.3	1.7	0.3	3.2

However, when it comes to buying locally caught catch there are further differences. While French participants are the most frequent purchasers of locally caught fish and seafood than respondents from the other countries (67%) (Table 22), the English are the least likely to buy locally caught fish at least once a week (36%). While almost a third (31%) of English weekly fish consumers do not buy locally caught fish or seafood, less than a fifth (18%) do so in the other three countries.

**Table 22:** Frequency of buying locally caught fish (associations between countries are significant:  $\chi^2 = 297.371$ ,  $df = 21$ ,  $p < 0.0001$ ).

	<b>Belgium (% within country)</b>	<b>England (% within country)</b>	<b>France (% within country)</b>	<b>Netherlands (% within country)</b>
<i>More than once a week</i>	19.7	14.4	39.5	15.0
<i>Once a week</i>	26.1	21.1	27.8	23.3
<i>1-2 times a month</i>	24.3	20.7	14.3	13.0
<i>Few times a year</i>	17.1	15.2	9.9	12.3
<i>Rarely</i>	6.9	8.0	2.9	12.3
<i>Never</i>	3.3	7.0	2.6	22.5

Just over half of the respondents that bought locally caught fish indicated that they know it is locally caught because they buy it directly from a fisherman (Table 23). This was most likely to occur in France with over two thirds indicating that they buy from a local fisherman. A further 35.4% of all participants ask the fishmonger when buying fish and the remaining 14.9% know it is locally caught because the fish has a tag attached with provenance details. Buying tagged fish was most likely in France (30.8%) and least likely in England (8.3%). Three quarters of all respondents stated that the fish they eat is from wild catch, 19.5% state they eat fish from aquaculture and 13% did not know where the fish they eat comes from. Over 92% of French participants indicate that the fish they eat is from wild catch, while only two thirds in England do so. Respondents indicating the fish they eat is from aquaculture were most likely to come from France and the Netherlands, whereas those not knowing where the fish they eat comes from were most likely to come from Belgium.

**Table 23:** Participants' perceptions on the provenance of the fish or seafood they purchase by country (\*p<0001; \*\* p<.05).

	Belgium (% within country)	England (% within country)	France (% within country)	Netherlands (% within country)	Total (all countries)	$\chi^2$
<b><i>If you buy locally caught fish or seafood, how do you know it is locally caught?</i></b>						
<i>Buy from local fisherman</i>	56.9	48.0	67.4	47.6	53.9	38.517*
<i>Ask fishmonger</i>	37.9	34.3	34.8	35.9	35.4	1.492
<i>Tag on fish</i>	16.3	8.3	30.8	9.7	14.9	95.342*
<b><i>To the best of your knowledge, what sort of fishery does your fish or seafood come from?</i></b>						
<i>Capture</i>	70.3	66.9	92.2	84.3	75.1	91.789*
<i>Aquaculture</i>	19.2	16.9	24.2	21.1	19.5	7.984**
<i>Don't know</i>	21.2	12.6	7.5	8.8	13.0	33.753*

Almost two thirds of respondents who buy fish indicate that they buy fresh whole fish, 56.4% buy fresh filleted fish, 20.2% buy frozen fish and 12.5% buy ready to eat fish (Table 24). Fresh whole fish is more likely to be purchased by respondents from France (84%) and least likely in England (43%), while fresh filleted fish is more likely to be purchased by respondents from England (61.8%) and least likely in the Netherlands (36.9%). Belgians buy more frozen fish than respondents from other countries and the English buy more ready to eat fish.

In all four countries the most likely source for purchasing fish or seafood was a fishmonger (Table 24) with over half (56.1%) of respondents in each country buying from a fishmonger. However, this was more likely to be the case in France and Belgium. The second most popular source for buying fish was directly from a fisherman (49.2%). Buying fish from a fish market was more popular in France and Belgium, while buying fish via a local box scheme was more popular in France. Buying fish from a supermarket was more popular in Belgium and England and eating fish that respondents had caught themselves was more popular in France and England.

**Table 24:** Type of fish purchased and source of purchase (\*p<0001; \*\* p<.005).

	Belgium (% within country)	England (% within country)	France (% within country)	Netherlands (% within country)	Total (all countries)	$\chi^2$
<b><i>What sort of fish do you usually buy?</i></b>						
<i>Fresh (whole)</i>	73.2	43.0	84.0	68.4	61.6	210.407*
<i>Fresh (filleted)</i>	58.9	61.8	54.3	36.9	56.4	41.847*
<i>Ready to eat (cooked)</i>	8.4	16.5	11.0	8.3	12.5	20.527*
<i>Frozen</i>	30.3	18.1	18.7	11.7	20.2	35.975*
<b><i>Where do you purchase fresh fish or seafood?</i></b>						
<i>Direct from fisherman</i>	47.5	47.0	55.5	49.8	49.2	7.171
<i>Fish monger</i>	60.4	50.2	62.8	57.6	56.1	19.363*
<i>Fish market</i>	22.4	16.1	24.5	15.6	19.2	14.805**
<i>Local box scheme</i>	0.0	0.7	5.3	0.0	1.4	48.234*
<i>Supermarket</i>	40.1	39.9	33.6	27.8	37.1	13.139**
<i>Catch fish myself</i>	7.7	16.6	20.4	8.3	14.3	33.075*

Respondents indicated that they consume a range of fish species (Table 25). The most popular species was cod, followed by sole, prawns and salmon. Cod, prawns and salmon

were more likely to be eaten in Belgium; haddock, tuna and tinned fish were more likely to be eaten in England; mackerel and crab in France, while plaice was more likely to be eaten in Belgium and the Netherlands.

**Table 25:** Fish species consumed by respondents (\*p<0001; \*\* p<.005).

	Belgium (% within country)	England (% within country)	France (% within country)	Netherlands (% within country)	Total (all countries)	χ <sup>2</sup>
<i>Cod</i>	82.4	66.3	49.6	68.8	66.9	87.049*
<i>Tuna</i>	16.7	25.7	23.3	16.1	21.9	16.596**
<i>Salmon</i>	59.9	46.4	37.9	42.4	47.3	38.124*
<i>Haddock</i>	25.0	41.1	16.4	5.4	27.8	137.614*
<i>Prawns</i>	79.5	47.4	48.1	54.6	55.9	115.043*
<i>Crab</i>	19.8	34.7	54.9	10.7	32.4	150.838*
<i>Mackerel</i>	17.5	39.7	57.3	19.0	35.6	153.046*
<i>Plaice</i>	35.5	27.6	22.4	44.9	30.5	37.837*
<i>Tinned</i>	23.1	32.9	25.1	14.2	26.7	210.985*

Almost 80% of respondents said they would be willing to try a different species of fish or seafood that they had not tried before. People from England, France and Belgium were more likely to indicate that they would be willing to try a different species than those from the Netherlands.

Table 26 illustrates respondents' preference for understanding the provenance of the fish and seafood they consume, whether when buying fish at home or eating out when on holiday. Clearly the majority of respondents recognise the health benefits of eating fish but understanding the provenance of the fish they consume is also important although there were some differences in perception between the countries. Respondents in England were the least likely to recognise the health benefits of fish as a source of protein. Those from France were the most likely to want to know how the fish they eat has been caught and where it come from, which is also reflecting in the higher proportion of French consumers buying locally caught fish (Table 22). French participants were also the most likely to enjoy eating fish when on holiday, but those from England were more concerned about where the fish they eat on holiday comes from. Dutch participants were the least likely to eat fish when on holiday. The majority of respondents disagreed with the statements "We should avoid eating fish completely because there are not enough fish in the sea", although just over 8% of respondents in Belgium and France did agree with this statement indicating a concern about the sustainability of fish stocks.

**Table 26:** Perceptions about eating fish and seafood – percentage of respondents who agree with statement by country (\*p<0001).

	Belgium (% within country)	England (% within country)	France (% within country)	Netherlands (% within country)	Total (all countries)	χ <sup>2</sup>
<i>We should eat more fish as it is an important source of protein</i>	95.7	87.5	97.4	96.6	92.6	199.418*
<i>It is important to me to know where the fish I eat comes from</i>	82.9	78.0	96.3	76.7	82.8	220.353*
<i>It is important to me to know how the fish</i>	58.9	71.0	74.7	61.0	67.6	237.965*

<i>I eat has been caught</i>						
<i>I like to eat fish when I am on holiday in a coastal location, but I don't care where it comes from</i>	31.3	11.1	20.1	25.7	19.8	204.066*
<i>I like to eat locally-caught fish when I am on holiday in a coastal location</i>	82.7	76.2	90.3	54.6	78.6	220.622*
<i>We should avoid eating fish completely because there are not enough fish in the sea</i>	8.7	4.5	8.2	1.0	5.8	145.159

### 3.8 Conclusion

The main findings of the survey suggest that involvement in fisheries leads to stronger attachments to place and a strong sense of place. In our study those directly associated with fishing demonstrated the strongest sense of place, followed by those indirectly associated. The results also suggested some differences between the countries in terms of sense of place. Place identity and place dependence were the highest in England, and place attachment was highest in England and Belgium. Sense of place was lowest in the Netherlands, as is a perception of the importance of fishing. England had the highest perception of the importance of fishing and the role of fishing for tourism and heritage while France had the highest perception of the contribution of fishing to community life.

The study further showed that fishing is an important part of the local heritage in coastal towns and respondents felt that securing a future for the fishing industry is important. The fishers' survey showed that over three quarters of fishers say their fishing activity has changed over time, mainly due to increased regulation and a change in fish stocks. This has meant having to change the gear they used and the species they target, and has resulted in harder work, less income and less time with their families. In terms of their motivations for fishing, fishers indicate that for them fishing is a way of life, not just a means of earning a living.

Finally, the results indicated that those living in France and Belgium are the most frequent consumers of fish and seafood, with consumers in France the most likely to buy locally caught fish and seafood. Consumers in England are the least likely to buy locally caught fish and seafood.

The following chapter discusses the implications of the findings in terms of their relevance for policy and securing a sustainable future for coastal fishing communities.

## 4. Understanding the cultural ecosystem services of fishing places

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- 4.1 Introduction
  - 4.2 Place attachment in fishing communities
  - 4.3 The cultural identity of fishing places
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- 

### 4.1 Introduction

The aim of this study was to explore the cultural ecosystem services of inshore fisheries by exploring how fishing contributes and shapes a sense of place. A sense of place approach was adopted as a conceptual framework for understanding how inshore fishing shapes people's perceptions and the place character of coastal towns with inshore fishing fleets. As described in Chapter 1, there is increasing recognition that fisheries activities provide important social and cultural values in fishing communities, not just economic benefits. However, incorporating those socio-cultural values into policy and management is often overlooked or omitted, not least because of a lack of empirical evidence to inform decision-making. Through an exploration of the contribution of fishing to sense of place in coastal towns, this study suggests that fisheries activity, especially small-scale fisheries, embeds individuals and communities into a place, giving them a sense of belonging and rootedness. Inshore fishing is an important contributor to the cultural heritage and identity of coastal places, as well as being the lens through which social processes and cultural values are mediated.

Following the analysis of the data collected in four European countries, England, Belgium, Netherlands and France (Chapter 3), this chapter discusses the factors that contribute to sense of place in coastal communities as an indicator of the cultural ecosystem services provided by fisheries. This is reflected through a discussion of how both individual and collective values are constructed in fishing communities through a consideration of how fishing mediates people's sense of place (i.e. their attachment to, identity with and dependence on a particular locale). By combining the quantitative results from the survey with the insights gained from the photography project, a rich understanding of the role of fishing in shaping sense of place in inshore fishing communities is developed.

The survey findings allow us to draw some conclusions regarding the construction of sense of place in coastal towns with a fishing fleet. As reported in Chapter 3, when it comes to overall attachments to, identification with and dependence on place, a high proportion of survey respondents displayed a strong sense of place, with around two thirds expressing high levels of identification with and dependence on the place (i.e. they scored 4 or 5 on the summed place scales) and three quarters expressing high levels of attachment to place (see Section 3.3.1). However, a key finding is that individuals who are associated in some way with the fishing sector display stronger connections and attachments to place than those who are not. In the survey, the strongest attachments to place were demonstrated by those directly involved in fisheries (e.g. fisher, fishing family, processor, fish monger, regulation, fish auction, administration etc.), followed by those indirectly involved (e.g. maritime museum, tourism providers, consumer, lifeboat crew, artist, education etc.) and those with no involvement with fisheries displayed the lowest levels of attachment, identity and

dependence (see Figure 30 in Section 3.4). As a sub-set of those directly involved in fisheries, fishers themselves demonstrated stronger attachments to and identification with place than non-fishers, although there was no difference in terms of their dependence on the place (see Figure 39 in Section 3.6). Besides the overall sense of place dimensions of place attachment, place identity and place dependence, almost three quarters of survey respondents indicated that fishing has a role in shaping that sense of place. Unsurprisingly, those directly associated with fishing were four times as likely to strongly agree that fishing contributes to sense of place than those with no association with fishing and twice as likely to strongly agree as those indirectly associated with fishing (see Figure 30 in Section 3.4).

Much of the research on place attachment concludes that there are correlations between the strength of attachment and the length of time people or communities are associated with the place (Hernandez et al., 2007, Hay, 1998) with length of residence being a predictor for place attachment. Indeed, in our survey we found that scores for place attachment, identity and dependence increased with the length of residence in the coastal town (see Section 3.5.1). However, conversely, scores on the attitude scales decreased with length of residence (see Table 20 in Section 3.5.2). This suggests that people's attachment to place increases the longer they are resident, but their perceptions of the contribution of fishing to sense of place, tourism, heritage and community life is likely to reduce over time. This reduction in perception of the role of fishing may be due to an individual becoming more rooted in the wider community over time or a reflection on the reduction of fisheries activity that is impacting its contribution to sense of place. Indeed, this would warrant further investigation.

Hernandez et al. (2007) further purported that attachment and identity behave differently for natives and non-natives, with high levels of attachment and identity coinciding for native residents, but resident non-natives scoring highly only on attachment. They conclude that attachments are, therefore, formed first but the deeper-rooted feeling of identifying with a place takes time to establish. Similarly, in our survey attachment and identity were equally high for natives but for non-natives attachment was higher than identity but did increase over time (see Table 17 in Section 3.5.1). In other words, belongingness to a place can be considered as either 'embedded', based on genealogical or longstanding association with place, or 'elected', where claims of belonging are not associated with a longstanding association with the place bound up with social ties but nevertheless people still feel a sense of being 'at home' (Cheshire et al., 2013, Savage et al., 2005). In fishing communities, 'embedded' attachment is manifest in those who have always been resident in the place and may have family and genealogical ties. However, while our study showed that attachment, dependence and identity increased over time, over half of respondents who had lived in the town for less than 5 years also demonstrated high dependency and attachment, and 43% demonstrated high place identity (Table 17 in Section 3.5.1), suggesting 'elected' attachment to place. Interesting though, association with fishing appears to have little impact on the level of place attachment, place identity and place dependence for new residents (less than 5 years). However, new residents who are associated with fishing are likely to have stronger feelings towards the role of fishing for sense of place, tourism, heritage, community life and the future of fishing than those who have no association with fishing (see Table 20 in Section 3.5.2). This result suggests that in coastal communities there is a high level of 'elected' attachment to fishing in coastal towns. This may be due to people moving to a place out of choice as it reflects their lifestyle and residency preferences.

Demographic characteristics such as age, education level and employment status can also influence the extent people feel fishing contributes to sense of place. Place attachment in our study increased with age, consistent with other studies (Hidalgo and Hernandez, 2001, Lewicka, 2008, Schroder, 2008) and agreement regarding the role of fishing increased with

age, lower educational levels, and those who are in part-time employment, self-employed or retired. In terms of the attitude scales regarding the contribution of fishing to tourism, heritage and community and perceptions about the future of fishing, agreement with statements on these scales increased with age of the respondent, lower educational levels and those who were retired or self-employed. These results are partly explained by the demographic profile of those involved or those not involved with fisheries. For example, the employment status of those who strongly agree with statements on the attitude scales aligns with the demographic profile of those involved (either directly or indirectly) with fisheries. These respondents tended to be older (46+ years) and were more likely than those not involved in fisheries to have GCSEs or equivalent or a further education qualification.

While there was no difference in terms of the sense of place dimensions and the perceptions of the role of fishing between men and women, the survey indicated that men are more likely to be directly involved in fisheries than women and women are more likely to be indirectly involved or have no involvement. The gendered nature of fishing is further discussed in Section 4.3.1.

It can, therefore, be posited that association with the fishing industry is likely to foster strong attachment to, dependence on and identification with place. Alongside this, the survey findings and the photo project confirm that the material culture, or the physical presence of a fishing fleet, contribute to a distinctive place character in coastal settings, enhancing the quality of life for those who live there and enriching the visitor experience for tourists.

The following sections discuss the place and attitudinal dimensions further, drawing on the findings from the Sensing Fishing Places survey and using examples from the photography project to illustrate or add depth. We go on to explore the idea of fishing places as 'fishscapes' as a term to move beyond the idea of 'landscapes' as just the visible features of an area that give it aesthetic appeal. We assert that 'fishscapes' are the sites for the physical manifestation of fisheries activity (place character) but they are also the locus for the meanings, memories and values that shape community identity.

The findings are then discussed in the context of how they can inform policy and decision-making, considering what barriers may need to be overcome to more fully incorporate the cultural ecosystem services that are derived from fisheries into management programmes and policy.

## **4.2 Place attachment in fishing communities**

The finding that those involved (primarily directly, but also indirectly) in fisheries have stronger attachments to place than those with no association with fishing suggests that fishing activity has a role to play in rooting people in place. This is evidenced by the high mean scores on statements demonstrating attachment such as "I feel really at home here" (4.32); "I feel very strongly that I belong here" (4.13) and "I feel happiest when I'm in this place" (4.11). These findings are consistent with other studies investigating place attachment in areas where human and natural systems intersect, such as farming. In these examples, place attachment is linked to genealogical ties with a place and is reinforced when a person works in the place where they live (Low, 1992, Hildenbrand and Hennon, 2005, Flemsæter, 2009) with researchers demonstrating that, for instance, farmers often have deep embedded attachments to place (Quinn and Halfacre, 2014, Hildenbrand and Hennon, 2005, Kuehne, 2013).

In their study of farmers, Cheshire et al. (2013) concluded that genealogical inheritance, kinship and a co-location of work and home, together with an intimate and embodied knowledge of the land through the repeated activity of farming tied farmers to a place. The activity of fishing is similar with fishers having genealogical ties, they work and live in a fishing port and their daily engagement with the natural world links them intimately to that marine and coastal environment. This is demonstrated by the survey responses to statements regarding the motivations for being a fisher that include simply they love to fish, they enjoy the freedom and challenge of fishing, and have a deep to connection to the natural environment in which they work rather than indicating that fishing is just a means of earning a living. Many fishers may feel a deep connection to the coastal and marine environment in which they work. In the survey 88% of fishers agreed with the statement “I feel a deep connection with the natural environment when I am at sea” (Figure 41, Section 3.6). Their daily lives are in tune with the rhythms of the sea, and they need to be acutely aware of weather and tides and use their skill and knowledge to find and catch fish. Indeed, this interaction of knowledge about the environment and the skills to navigate that environment are important aspects in the process of embedding in a place. So, while our findings concur with other studies of fishing communities (van Ginkel, 2001, Brookfield et al., 2005, Jacob et al., 2001, Urquhart and Acott, 2013a, Urquhart and Acott, 2014, Nuttall, 2000, Williams, 2008, Kelty and Kelty, 2011) that, for many fishers, fishing is a way of life, we also suggest that fishing is a process that drives particular place-based associations. Through the ongoing process of fishing and a deep embodied knowledge of the marine and coastal environment, along with the dangers working as a fisher entails, those place ties are strengthened.

#### **4.2.1 Non-fishers’ perceptions**

However, for those not involved with fishing the activities of fishing may generate multiple responses including irritation at the noise and smell associated with a working harbour. In contrast, fishing can be romanticized as was demonstrated in responses from visitors to the travelling exhibition and community members who contributed to the photo project. Fishermen are sometimes seen as the last of the hunter-gatherers, operating in that other-worldly watery environment of the ocean, and the images submitted to the photo project of the marine-scape or harbours were often picturesque and idealised. In this respect, the coast and fishing activity has long been a source of inspiration for artists. In an extended conversation with one Whitstable resident at the travelling exhibition, the participant spoke of the special and unique quality of light that Whitstable has to offer: “There’s a quality of light here, but it’s the fact that something is always going on, there’s always something to see and always another angle that you can look at something from” (Whitstable interviewee 1).

Another participant and photographer in Whitstable also spoke of the buzz and the movement of the harbour in attracting the resident artistic community: “Artists seem to love the bustle, the working environment, because it’s a very interesting thing to paint. It’s not just a bland seascape, there’s drama; depths of winter weather is bad, boats going to sea, there’s real drama about that. That draws them (artists).”

Non-fishing residents enjoy both the tranquillity and the realness of fishing harbours, as expressed by several residents and captured in Figures 42-44:

“It shows a sunset and a fishing boat at rest beside the west quay in Whitstable. It captures for me some of the best known things about the town, and conveys too the peace of Whitstable evenings” (Whitstable interviewee 2).

“There’s something more to it, I can’t express in words that is a real attachment to the place. And it wouldn’t be the same were it not for the fact that it’s a working harbour. I think it is that juxtaposition of it being a busy harbour during the day and that serenity in the evening that just touches me somehow” (Whitstable interviewee 1).



**Figure 42:** "Whitstable Harbour is still a busy working harbour and is one of my favourite places in Whitstable. There always seems to be something going on. However, as the sun sets, and the harbour workers and visitors disperse, you are left with one of the most tranquil places on the Kent coast. On a still evening, with the Sun setting over the sea, the harbour takes on an almost magical serenity. I hope my image captures some of this spirit" (Whitstable interviewee 1).



**Figure 43:** “Morning Glory, Heading into the sunrise! What better way to start the day” (Looe community photographer 1).



**Figure 44:** “This was shot early in the morning, in December, in Saint Vaast, next to the fort. The little beach there is literally covered in thousands of these shells. I love walking on these beaches alone. It always makes me feel better. It usually gets very cold and windy, and when you come back home, all your troubles have vanished” (Saint Vaast community photographer 1).

While the survey provides a broad overview of the role of fishing, the photography project enabled these issues to be explored in more depth in terms of understanding some of the nuances of the cultural values that arise as a result of fishing. These quotes and images from the photography project (Figure 42-44) illustrate how the presence of a fishing fleet and fisheries activity contributes cultural benefits (or cultural ecosystem services) in coastal places. There is recognition of the aesthetic quality of coastal environments with a harbour with a fishing fleet. Residents spoke of the quality of life benefits they get from visiting a working harbour, with some even expressing how the fishing harbour provides them with a place for reflection, and perhaps a sense of a spiritual connection to the environment around them. Others highlighted the inspiration of fishing places, especially in terms of their aesthetic appeal for artists. Photography is a useful tool for beginning a conversation about the often intangible and difficult to articulate ways in which fishing brings benefits to coastal communities (Acott and Urquhart, 2014, in press.).

### 4.3 The cultural identity of fishing places

In our survey it was found that, alongside the attachments to place, fishing was also an important contributor to the construction of identity in fishing places. Indeed, attachment to place is a process that facilitates group and personal identity (Brown and Perkins, 1992, Chawla and Hummon, 1993). In the following sections the three dimensions of place identity in fishing places are described: personal identity (such as occupational identity associated with fishing); collective identity (the cultural identity of a group or community) and place character (e.g. the identity of the place shaped through the influence of fishing activity).

#### 4.3.1 Personal identity

As outlined in the previous section for many fishers fishing is a way of life and they express deep embedded attachment to fishing and their occupational identity as fishers. Those attachments and identity to place are forged through genealogical ties (for around half of fishers in our study) and the co-location of work and home in a place, as outlined in studies of

farmers' attachments to their agricultural land (Low, 1992, Hildenbrand and Hennon, 2005, Flemsæter, 2009). Indeed, fishing is often a generational activity with strong kinship ties, with sons following their fathers and grandfathers into the industry (Urquhart et al., 2011, Williams, 2008). One of the community images submitted for the travelling exhibition was by a young fisher, an image of himself with his father in the port of Knokke-Heist, Belgium (Figure 45). For him, fishing meant a family business, an activity shared across the generations and implicitly linked to the coastal fishery off the Belgian coast. The survey supported this, with over half (53%) of fishers indicating that they come from a fishing family. 40% said that their father was also a fisherman and 36% said their grandfather had been a fisherman, with the extended family of brothers (18%), cousins (16%) and uncles (1%) also involved in the fishing activity.



**Figure 45:** Family tradition of fishers – portrait of father and son, Belgium (submitted by Jason Savels, on left).

The identity as a fisher and a long genealogical attachment based on family ties and traditions provides a rootedness in the place that is bound up with fishing, often evidenced in communities dependent on natural resources (Low, 1992, Sampson and Goodrich, 2005). Thus, identity is influenced by their daily engagement with the natural world around them as Sampson and Goodrich assert: “Identity and belonging can thus be created, constructed, shaped, and maintained through engaging in practices and behaviours that connect individuals to particular landscapes” (p. 904). As with farmers, fishers believe that ability to fish is a part of who they are in what Gray (1998) calls the ‘genetic metaphor’.

But fishing is not just about catching fish. It also consists of the onshore activities such as processing, selling and administration and these also mediate attachments and identity with place. While the catching sector is a gendered, predominantly masculine occupation (Reed et al., 2013, Hall, 2004) women have been involved in fisheries throughout history, primarily working in onshore roles such as supporting, trading, processing, shellfish harvesting and other fisheries-related activities (Zhao et al., 2013, Frangoudes, 2011). In our study, almost half of fishers’ surveyed (43%) indicated that women were involved in the fishing business.

This was most often wives (36%) but also included daughters (9%), mothers (4%), sisters (1%) and aunts (1%). Women were mostly involved in book keeping (30%) but 18% were involved in administration, 16% were involved in fish selling, 10% in fish processing and 7% crewed on fishing vessels. The female respondents to the survey demonstrated similar feelings of attachment to and identification with place to men, suggesting that both men and women in fishing communities equally feel a sense of belonging. This suggests that when assessing the role of fishing to sense of place, it is important to look at the whole community and not just fishers. Often women's role in fisheries has been invisible and their important role as workers, wives, mothers and maintaining social cohesion in the fishing community has been overlooked (Zhao et al., 2013).

For those involved, fishing therefore defines who they are as individual fishers, but also as families and communities (see also Acott and Urquhart, 2012) as outlined in the following section.

#### **4.3.2 Collective identity**

Identity as a fisher, kinship ties and a long genealogical history provides the basis for social life in fishing communities. The attachment or relationship to place may be shaped by the spiritual and religious ties that individuals and communities construct with places (Holloway and Hubbard, 2001). Indeed, in many fishing communities religious belief has historically played a very important part in community life (McGoodwin, 2001), especially as a source of comfort and support for a notoriously dangerous industry. And that collective identity is shaped through the personal and group memory (Hoskins, 2012, Jones, 2005, Moran, 2004) with place being what Harvey (1996) terms the "locus of collective memory".

Indeed, this study supports the view that fishing makes an important contribution to community life. Almost all (58 out of 59 in Whitstable and 45 out of 47 in Saint Vaast) travelling exhibition respondents agreed with the statement "Fishing is important for the community". Similarly, the highest mean score on the 'Community' attitude scale of the survey was for the statement "The loss of the fishing industry would have a negative effect on the identity of this place" (4.03). These findings support previous work that suggests that fishing cannot be considered purely in terms of its economic contribution to the economy, but that further consideration needs to be given to the social and cultural values of fishing as often fishing is at the heart of social organization and provides the setting for social interaction (Urquhart and Acott, 2014, Sampson and Goodrich, 2009, Marshall and Foster, 2002).

Many of the community images submitted for the travelling exhibition depicted community life or social relations in fishing places (Figures 46-48). These images were not focused on the economic value of fishing activity, but were highlighting the social importance of fishing through the interaction between fishers and the social life that is linked to fishing activity. In this sense, as Brookfield et al. (2005) purport, these images were depicting the fishing industry as "the forum through which community bonds, values, knowledge, language and traditions are established, confirmed and passed on" (p. 56). Urquhart and Acott (2014) concur that "For communities where fishing underpins the social fabric, the importance of fishing goes beyond its economic contribution, and valuations that reduce this to tradable goods and services are in danger of missing these important nonmaterial cultural services" (p. 11).



**Figure 46:** “A morning chat” (Looe community photographer 1).



**Figure 47:** Fishers chat with retired fisher in Looe, Cornwall (Looe community photographer 2).



**Figure 48:** “‘Fishing tales’ - I noticed the fishermen from some of the various boats that are located at Whitstable harbour having a discussion on the other quayside. I thought it was a nice moment to capture the closeness and camaraderie of the locals” (Whitstable community photographer 1).

The Sensing Fishing Places survey and visitor responses at the travelling exhibition also suggested that the cultural heritage of fishing plays an important role in defining the collective or shared identity of fishing communities. In the survey, the heritage attitude scale (which measured the role of fishing for cultural heritage) achieved the highest mean score (4.32) of all the attitude scales. This was supported by the responses to the interactive statements in the travelling exhibition with almost all respondents in Saint Vaast (45 out of 46) and Whitstable (55 out of 57) agreeing with the statement “It’s important to remember the fishing history of Whitstable”. The past can help communities to ground themselves in the locale and help make sense of and deal with present day or future challenges (Acott and Urquhart, 2012, Dalby and Mackenzie, 1997). Several comments from visitors to the travelling exhibition spoke of this role of fishing heritage in shaping the future:

“To learn more about what awaits us tomorrow, what better way to remember where you have come from” (Le Guilvinec exhibition visitor 1)

“It is important so that future generations can learn and carry on the tradition” (Saint Vaast exhibition visitor 2)

Understanding and rooting themselves in their heritage may be increasingly important for fishing communities as they face the challenge of an uncertain future.



**Figure 49:** “Keep the Harbour a working place, the fishing boats and Bretts define Whitstable, the leisure industry is a part of the 21st century but the heritage of our Harbour needs to be preserved” (Whitstable community photographer 4).

However, while respondents indicated that it is important to remember the history of the fishing past in coastal communities it was felt that representations of fishing heritage must be authentic and grounded in contemporary fishing activity, as illustrated in a community photo and caption from Whitstable (Figure 49). One resident who visited the travelling exhibition in

Whitstable stressed that: “There’s a tendency for it to become a bit Disneyfied, making it into an entertainment in some cases, which is fine up to a point. When you bring vast numbers of people in to that place, it destroys the character of it I think. I know why people want to be there cause I love it myself. When you put on entertainment which is not part of what this place is about, I’m not sure it’s adding anything than bringing people in and making more money. And I don’t think any of that money is going to the fishermen” (Whitstable interviewee 1).

Similarly, there were concerns over authenticity in Acott & Urquhart’s (2012) study in England and France where interview participants commented that fishing harbours may turn into theme parks with ex-fishermen paid to mend their nets on the harbourside wearing sou’westers and talking to tourists about the days they used to fish. This chimes with Riley & Harvey’s (2005) ‘museumification’ of rural areas when the real activity is lost but aspects of rural history and tradition are preserved in ‘heritagescapes’ (Wheeler, 2014). Of course fishing places are not static, they evolve and develop over time, with certain activities coming and going but the challenge is that any representation of heritage must be sensitive to the local community identity and memory.

Arnhemuiden in the Netherlands is an example of a former fishing village where the memory and heritage of fishing has been rekindled through a programme of street refurbishment and place-making. The challenge was how to represent the fishing past in a way that is authentic and grounded in the community. In the case of Arnhemuiden, the local authority worked closely with the local community to ensure that any regeneration activities were sensitive to the local community, involving them in the design and creation of the new image for the town and ensuring that any new income generated benefited the local community. Other examples also suggest that the recreation of place distinctiveness by focusing on what made them unique originally can lead to economic, social, environmental and cultural benefits, such as a project in Norwich which sought to exploit the key attributes of ‘place’ (Loveday, 2011). However, rebranding of a place can often result in some elements of a place’s history being omitted, distorted or sanitized for modern day consumption (Di Domenico and Di Domenico, 2007). For example, in an effort to re-brand Hull as a post-industrial city, fishing heritage was omitted as it was perceived as an industry that had been negatively marginalized and did not fit with the contemporary vision for the city’s future (Atkinson et al., 2002).

One visitor to the Whitstable travelling exhibition stated that: “It’s a very strong community; people look out for each other here.” This sentiment was echoed during informal discussions with Whitstable fishermen, who talked about solidarity within their specific community. Discussions with two residents during the exhibition revealed a more fractious side to the general community: “It’s Londoners who come here and want to be entertained. It’s gentrification and it’s destroying the community.” The residents clarified that recent migration of people from London to the Whitstable coast has driven up house rents and prices, meaning those who have lived in the town for years have had to relocate to more affordable areas. “I think there’s distrust from people who come from outside which is natural,” said one exhibition visitor, “house prices have shot up as people come from London and have settled here. They bought holiday properties. So there’s a bit of resentment there too.” There are parallels here to the gentrification of the countryside as urban dwellers relocate in search of a rural idyll (Phillips, 2002) where, instead of barns and agricultural buildings being converted into dwellings or holiday homes, we see former fishing net lofts or fishermen’s cottages transformed into desirable and expensive homes or holiday lets. Acott and Urquhart’s (2012) study of fishing communities in England and France supports this and the authors suggest potential conflict occurring between incomers and locals with each forming different attachments to the place. Incomers may value the quiet, romantic, picturesque notion of a

fishing harbour whereas for fishers it is a working environment.

#### **4.3.3 Place character**

As well as being an important contributor to individual and community identity, survey respondents also felt that fishing contributes to the physical character of the town and saw fishing as a link between the land and sea (see Table 15 in Section 3.3.2). Alongside the natural environment (e.g. landscape and natural features) the physical objects associated with fishing also influence that character. Through the act of fishing, the marine environment is brought into terrestrial environments as marine organisms (fish or seafood) are brought to shore. This activity sets in place a series of associations that result in the creation of many different types of material objects that either support the fishing industry (e.g. buildings, boats, fishing gear etc.) or culturally reproduce it (e.g. information boards, artworks, street decoration etc.). Respondents to the survey agreed that the material objects associated with fishing, such as fishing gear, boats and buildings, contribute to the creation of place character that is defined by its identity as a fishing place (see Table 15 in section 3.3.2).

The researcher photography in this study aimed to capture how the presence of fishing activity translates the cultural ecosystem services of the marine environment. The images represented a researcher-view of how fishing shapes place character and how cultural ecosystem services are manifest in the physical environment of a fishing town. Through the travelling exhibition these images were used to explore communities' perceptions of the role of fishing in shaping the cultural life of fishing communities. Figure 50 illustrates some of the images used as part of the thematic exploration how the activity of fishing gives rise to a range of cultural benefits in fishing places.

**Figure 50:** Researcher photography to depict the cultural ecosystem services of fisheries.



The ebb and flow of the river dominate the rhythms of the fleet in Looe.



The oyster beds are tended at low tide in Saint-Vaast-la-Hougue, France.



Fishing gear in the industrial port of Le Havre.



Bright coloured details on modern fishing nets.



The remains of the old capstan wheel are preserved at Penberth.



Fishing boats on St Ives beach make popular holiday photographs.

Alongside this, images submitted to the photo project often depicted fishing boats and activities associated with fishing which all create a particular character and identity bound up with fishing (Figure 51-53).



**Figure 51:** Landing bass in Brixham (Brixham community photographer 1)



**Figure 52:** “This picture was taken during this years snowy weather. I just think it goes to show that apart from all the other difficulties in the fishing industry at the moment, the romantic notion that fishing is usually done in fine sunny weather, with calm seas, this is not the case. Sometimes it is a long hard slog in freezing conditions just to bring home the catch, which these days is not always there to be caught.” (Aldeburgh community photographer 1).



**Figure 53:** Fishing boats in Looe harbour (Looe community photographer 2).

Some images illustrated the how the physical environment and landscape can shape activity and meanings associated with places. Figure 54 depicts how life in the fishing community of Looe, Cornwall is linked to the ebb and flow of the tide. As a tidal river the boats can only enter and leave the harbour at high tide. In this way, the physical environment, as outlined by Stedman (2003) sets bounds and shapes how relationships to the environment are constructed.



**Figure 54:** “Looe is a drying harbour, this means entry and departure by sea is limited to just a few hours a day be it light or dark. I have tried to capture that time spent waiting for the tide” (Looe community photographer 3).

This is also illustrated through the researcher photography that captured the different types of coastal environments in which fishing takes place. Across the GIFS study area fishing occurs in a range of coastal-scapes whether it is riverine locations, such as Looe; small coves nestled amongst steep cliffs (Figure 55); shingle or sandy beaches where the boats are pulled up on the shore; harbours, varying from large industrial ports (Figure 56) to small fishing harbours; and mudflats where shellfish gathering on foot often occurs (Figure 57). Here, the particularities of the physical environment shape the way that people relate to the natural world and the activities that are possible.



**Figure 55:** Fishing boats in Cadgwith launch from the beach, nestled between steep-sided cliffs.



**Figure 56:** Fishing boats working out of the large industrial port of Le Havre, Haute-Normandie.



**Figure 57:** At low tide shellfish can be gathered at Seasalter.

By considering the materiality of places and the way that both natural and human-made elements contribute to place character, it is clear that, alongside the emotional attachments and meaning that people ascribe to places, the place itself mediates how those attachments are formed (Stedman, 2003). As Sampson and Goodrich (2009) argue communities are bound to particular places through the particularities of the landscape and its attributes. The human-environment relationship is, therefore, reciprocal in what (Crist, 2004) calls a “cultivation of receptivity” in which humans can receive meaning from the world through “opening oneself, listening, watching, being within, letting be, or merging into” (p. 12). Fishing places are, therefore, sites of cultural expression through a blending of the particular coastal environment, the bringing to shore of marine organisms and the cultural and social meanings that people ascribe to that activity that are either perceptual or manifest as material culture in those places.

So fishing activity in a coastal town creates a particular aesthetic whether it is via a harbour full of coloured fishing vessels, with fishing gear such as pots, nets and trawls, stored along the quayside, or on a close up scale through the textures, patterns and colours of the boats, fishing gear and fish themselves. A number of images submitted by community members alluded to this aesthetic appeal in fishing harbours. For instance, the caption alongside Figure 58 focuses on the pattern of empty shells, discarded after processing. The participant also spoke about the smell of the shells and how this reminds her of her own fishing ancestry from Mevagissey.



**Figure 58:** “The image evokes the smell of the empty shells and I like the beauty of the patterns the shells form. I like especially their muted colours. The image of the shells also reminds me of the peace and creativity living on the coast has brought to me” (Whitstable interviewee 2).

Others focused on the aesthetic appeal of the fishing gear and boats, such as this respondent from Whitstable: “Colours (of nets) are lovely. It something that strikes you every time you go into the harbour, these incredibly bright colours, the boats are all painted bright reds and bright blues, and you get these wonderfully aluminous coloured nets they use these days, and the buckets, the buoys are always orange, it’s this fantasia of colour you always get in the harbour.....It’s lovely to see these bright colours all over the harbour, its drawing your eye all the time.” The resident who submitted the photograph in Figure 59 talked about the colour in the harbour. Another spoke of a “fantasia of colour” that he always saw when entering the harbour.



**Figure 59:** “Where else can you live which has so much colour? I take my camera with me everywhere, as I am an artist, but I don’t have to go far to photograph a beautiful image. Every day the Harbour looks different to the day before, but every day I am blown away by the colour” (Whitstable community photographer 3).

Through the photography project we can see a reference to both the physical and man-made environment in shaping meaning and sense of place. Participants mention the particular light, the landscape, natural processes (e.g. tides) and the marine organisms associated with that place. But they also talk about the man-made objects that are further contributing to that place character, such as the fishing boats, gear and the colour of a fishing harbour.

#### **4.4 Place dependence and fisheries dependency**

This raises a number of questions around the impacts of the decline of the fishing industry on fisheries-dependent communities. In many areas, small-scale fishing is often economically marginal (Reed et al., 2013) and fishers have seen changes in their activity over recent years. The findings from our survey support this, with over three quarters of fishers surveyed in England reporting that their fishing activity has changed over time. Increased regulation (such as licence restrictions, reduced quota for some commercial species, gear regulations and closed areas) and reductions in commercial fish stocks have resulted in fishers having to adapt by targeting different fish species (which often requires investment in different types of fishing gear). Despite a reduction in income and an increase in work effort many fishers still persist in the industry, supporting the findings in this and earlier work that fishing is more than just a job, but is a way of life that defines a fishers' identity and place within the community (van Ginkel, 2001).

The findings from the Sensing Fishing Places offer some further insights to suggest that inshore fishing provides important social and cultural benefits in coastal communities. The comparison of the place scales between the four countries suggested that the presence of a small-scale inshore fishing fleet may facilitate stronger place connections than the large-scale sector. This is evidenced by a lower perception of the importance of fishing for tourism, heritage and community life in the Netherlands (which does not have a significant small-scale fleet) than in the other three countries. Given the small sample size of fishers in this study it was not possible to determine if there are statistical differences in terms of attachments to place between under and over 10m fishers. However, while attachment to place for under and over 10m fishers was equal, under 10m fishers were nearly twice as likely to score highly on the place identity scale and almost three times as likely to score highly on the place dependence scale. This suggests that the presence of a small-scale fleet may provide important social benefits such as community identity, social cohesion, belongingness as well as being an attraction for tourism in a way that is less apparent in places with a predominantly large-scale fleet. Small-scale fishers generally operate close to their home port, return each day, often employ family or friends as crew and rely on the support of each other especially in times of crisis (e.g. when in trouble at sea). Whereas large-scale fleets may be at sea for days or even weeks at a time, frequently employ non-local crews (e.g. Eastern Europeans) and the vessels may be owned and operated as a large profit-making business rather than as an individual vessel owner making his own living.

Dutch residents who were not associated with fishing also did not feel as strongly as those in the other countries that it is important to preserve the fishing industry with only 3% strongly agreeing on the future of fishing attitude scale, compared to 26% in Belgium, 36% in England and 16% in France ( $p < .0001$ ). This is further reflected in the responses to the statement "There should be more support for small-scale fishing" with only 10% of Dutch residents who were not associated with fishing strongly agreeing with this statement, compared to 41% of Belgians, 53% of English and 22% of French. This suggests that the social and cultural benefits of fishing are less valued in regions where there is not a strong small-scale fishing sector. Interestingly, the GIFS regeneration project in Arnemuiden, the Netherlands is perhaps evidence of what can happen in a community that loses its links to its traditional

fishing activity. In Arnemuiden there is no fishing activity today (as the village is no longer located on the coast) and it has experienced economic decline. Through a process of street refurbishment and regeneration activities based on Arnemuiden's fishing heritage, the village is trying to re-brand itself in an effort to attract more tourists and boost its local economy. Fishing-inspired imagery and sculpture have been installed, along with information boards and street photographs about Arnemuiden's fishing past. In this case, Arnemuiden is using its fishing heritage as an 'idea' or 'image' to brand and market itself to the outside world. Thus, while there is recognition of the cultural value of fishing and an effort to re-imagine and re-create this in an area where it is no longer a contemporary activity, it is dependent on through funding from the local authority.

Indeed, respondents to the survey and visitors to the travelling exhibition indicated that fishing is an important part of the identity of coastal towns. For example, visitors to the Whitstable exhibition talked about fishing as the "essence of the town":

"Whitstable is known for its boats and fishy smell! It would definitely affect Whitstable if the fishing industry was lost!" (Whitstable exhibition visitor 1).

"If they (fishers) hadn't built a fishing industry, there would be no Whitstable. This town wouldn't exist" (Whitstable interviewee 1).

"I don't want to lose the character of this place, and for it to become another retail hub" (Whitstable exhibition visitor 2).

It was the presence of fishing as a real, contemporary activity that was important in shaping that identity: "I like to see people working, earning money out of the sea. Real places, real people" (Whitstable interviewee 1). Similarly, in France, a visitor to the Saint Vaast exhibition specified the importance of the inshore sector in this identity creation: "If inshore fishing disappears, it would be the death of the city. Industrial fishing is the danger!" (Saint Vaast exhibition visitor 1). Responses to the interactive statements in both Whitstable and Saint Vaast further support this, with all respondents (51) in Whitstable and 70% (21) in Saint Vaast disagreeing with the statement "The loss of the fishing industry here wouldn't affect Whitstable/Saint Vaast".

The example from Arnemuiden resonates with Brookfield et al.'s (2005) assertion that even when there is little fisheries activity a community may still depend on fishing, but rather as a cultural icon or a 'virtual' fishing industry. So the usual definition of 'fisheries-dependency' as a measure of employment in the fisheries sector and contribution to the local economy is perhaps limited. Fisheries dependence, therefore, is also based on its social and cultural value (Nuttall, 2000) and, as Brookfield et al. (2005) assert "the community understands and makes sense of the world from a perspective that is garnered from years of involvement with the fishing industry. For fisheries-dependent communities, fishing is the glue that holds the community together" (p. 56). However, in order to have some relevance for policy making it is important to understand what this 'glue' might be. In our study we have started to unpack this by exploring that 'glue' through the sense of place dimensions of attachment, identity and dependence. The finding that those associated with fishing have stronger attachments to and identification with a place provides important evidence for policy makers and confirms that, for those involved, dependency on fishing is not just about an economic livelihood. By understanding how people form bonds with places it can inform decisions about the future of the industry or, if it continues to decline, how to support and negotiate that change in order to mitigate any negative socio-cultural impacts.

#### 4.4.1 Recreation and tourism

With traditional coastal industries such as fishing and shipbuilding on the decline in many areas (EH, 2007), tourism is becoming an increasingly important alternative economic activity. However, in many coastal places with a fishing fleet, fishing contributes to the attraction for tourism and is often used as a way of marketing a coastal resort. Thus, the sense of place created by fishing is traded upon through seaside tourism (Reed et al., 2013) with fishers often getting little back (Urquhart and Acott, 2013a). Typically tourism trades on the presence of inshore fishing rather than the sale of the local catch (Reed et al., 2011) and even then the majority of the catch is exported and subject to the vagaries of distant markets.

Tourism websites and brochures for coastal destinations often contain images of picturesque fishing harbours and coloured fishing boats with the promise of enjoying fresh, locally caught seafood in quayside restaurants. Indeed, our survey confirmed the important contribution that fishing makes to tourism with two thirds of respondents indicating that they enjoy watching the fishing boats coming and going and 60% enjoy eating local fish in a harbourside restaurant (see Figure 27 in Section 3.3.2). One visitor to the Whitstable travelling exhibition alluded to fishing as a performance: “People love to see the fishing boats and people working on the boats, they love to see that. Its theatre, absolute theatre” (Whitstable interviewee 1). However, he went on to draw attention to the negative impacts of tourism on a fishing community: “When you bring vast numbers of people in to that place (harbour), it destroys the character of it I think. When you put on entertainment which is not part of what this place is about, I’m not sure it’s adding anything other than bringing people in and making more money. And I don’t think any of that money is going to the fishermen, I think it’s going elsewhere.”

In response to this, respondents also felt that there should be more opportunities for local fishermen to sell their catch locally to local restaurants in order to improve the links between the fishing and tourism sectors. Having local fish and seafood products on the menu can provide a more local and embedded tourism experience for visitors, as well as supporting fishers’ livelihoods and reducing food miles (through the reduction of the need to transport the catch to distant markets and processors). This further contributes to keeping the profits from fishing activity within the local economy rather than leaking out to out of town (or out of country) processors, distributors and retailers.

However, despite the potential opportunities of enhancing the links between fisheries and tourism (notwithstanding the challenges of actually achieving this) there can be conflicts between tourism and commercial fishing. This occurs especially in areas where there is extensive recreational fishing alongside commercial fishing. In our survey, a third of respondents from France indicated that they go sea angling, over double that of responses from the other countries. The conflict between recreational and commercial fishers was expressed by one visitor to the Saint Vaast travelling exhibition: “In Port en Bessin we have a problem with fishing boats, there is no place for pleasure boats and they pollute [fishing boats] the area: fairing and cleaning the boat hull in the basin and silt up the harbour, so they refuse amateur sailor. The question there is: How to reconcile pleasure boats and fishing boats?”

The survey suggested that the loss of fishing would have a negative impact on seaside tourism as the image as a fishing place depends on having an active fishing fleet. However, the challenge of integrating small-scale fishing into the visitor economy is not insignificant.

## 4.5 'Fishscapes'

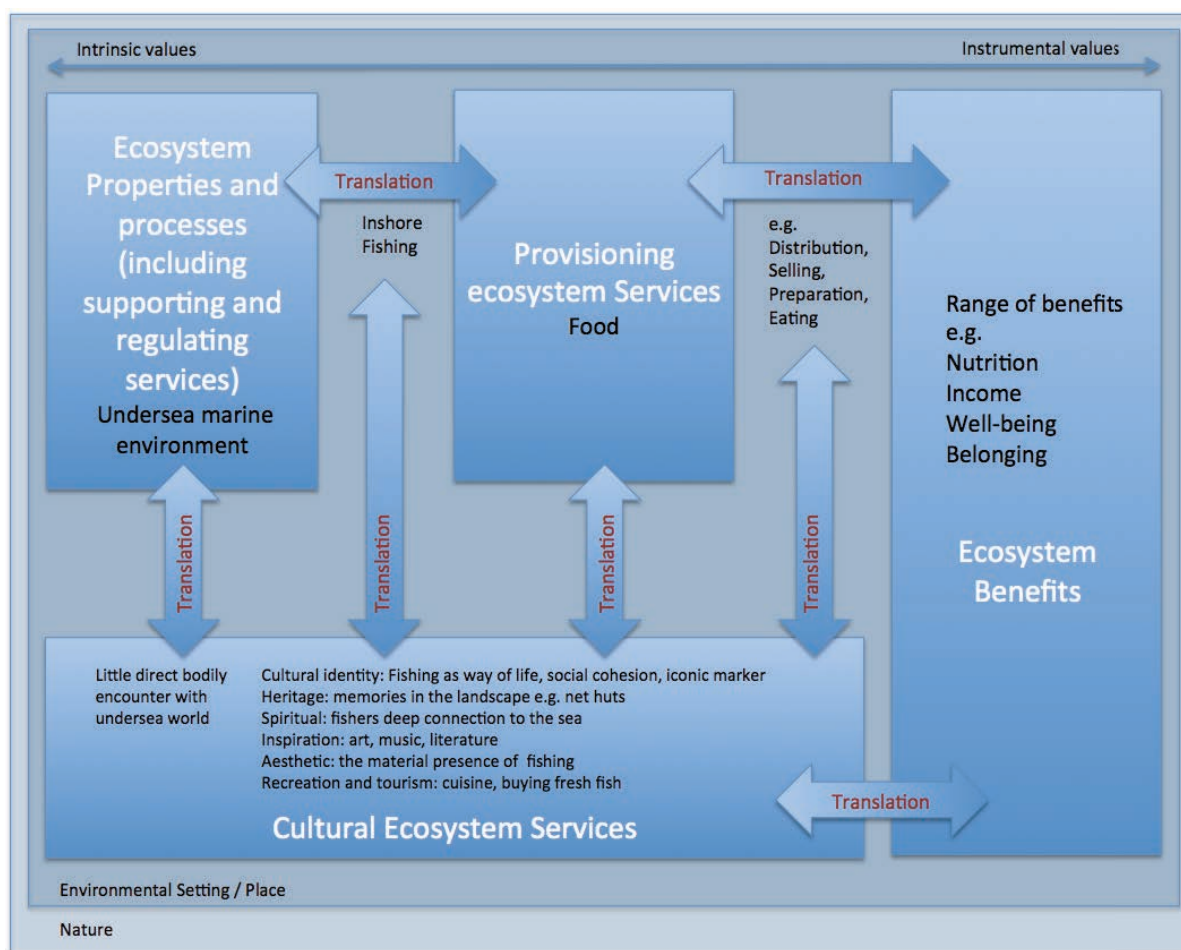
By exploring sense of place in fishing communities, this chapter has discussed how fishing is contributing a range of social and cultural benefits that can be broadly aligned with the cultural ecosystem services framework put forward in the MEA's ecosystem approach (MEA, 2005a). Typically the ecosystem approach has adopted methods largely from economics and ecology to understand the benefits that humans receive from ecosystems. However, there is increasing recognition that the multiplicity of benefits from ecosystems includes a range of cultural, social, spiritual and ethical values that require new interdisciplinary perspectives that may involve sociology, human geography, environmental philosophy, psychology and the arts (Acott and Urquhart, 2014, Milcu et al., 2013, Chan et al., 2012). In our study, we developed a sense of place approach to bring to light these often invisible or unrecognized cultural values as a way of integrating people more explicitly into ecosystem management. Marine fishing is, therefore, not just an economic activity but it can be understood as a process that drives the translation of the services derived from fisheries ecosystems into wellbeing benefits, such as:

- *Cultural identity* – Fishing shapes the identity of those who live in coastal places and increases over time. It is both perceptual and linked to the attachments that people form with place, but is also influenced by place character in terms of the physical environment and man-made objects (e.g. buildings, fishing gear and boats, artworks, signs etc.) and the fishing activity associated with it.
- *Place character and aesthetic values* – Fishing places have a particular aesthetic that is shaped by the physical environment and landscape along the material culture associated with fishing.
- *Individual and group attachment to place* – Fishing facilitates and strengthens attachment to place through genealogical ties, longstanding association with the place and the co-existence of a place of work and residence, along with the fishing underpinning the social fabric.
- *Place meaning* – The meanings attached to places may differ for those associated with fishing and those not, with fishers relating to the place as a working environment and, often, based on genealogical place attachment. For those not associated with fishing those meanings may focus on the aesthetics of the place, based on both the physical landscape and a (sometimes romanticized) perception of the fishing industry.
- *Cultural heritage and memory* – As an activity that has often taken place for generations fishing is deep-rooted in many coastal towns and villages. It is represented through the built cultural heritage in the form of the remains of old buildings or equipment, some of which are reused for other purposes. Fishing heritage is also about the non-tangible memories of those who have lived there and these are passed on through oral histories, preserved traditions and representations in museums.
- *Inspiration* – The activity of fishing and the particular nature of coastal environments provides inspiration and wellbeing benefits for those living there, enhancing quality of life. This is also reflected in the work of artists who try to capture the particular quality of these environments.
- *Connection to the natural world* – For fishers this may occur through daily engagement with the marine environment, sometimes in very harsh conditions. For others, living by the coast may provide a certain perspective and sometimes religious and spiritual meanings for those communities.

- *Tourism* – The presence of fishing, or the idea of ‘fishing culture’, provides an attraction for tourism. Visitors like to watch the boats in the harbour, the fishermen unloading the daily catch and they enjoy eating locally-caught fish in a harbourside restaurant.
- *Knowledge* – Fishers may have a particular knowledge about the marine environment in which they work, along with the skills and traditions associated with that activity. Educating and passing on that knowledge is an important part of maintaining cultural identity.

Coastal towns or places with an inshore fishing fleet are what we call ‘fishscapes’. We define a ‘fishscape’ as a co-constructed place that blends the social construction (human perceptions, meanings and values) of a fishing place with the natural and human-made spatial reality of that place. In other words, coastal places are where natural and human processes intersect through the physical manifestations of fishing and the cultural meanings, practices and emotions linked to marine environments. In this way, these fishscapes become the sites where, through the activity of fishing, the cultural services that humans derive from marine ecosystems become apparent through the entanglement of the natural and human-made environment, material cultural, memory, meaning and human activity.

So, in this sense, we can think of marine organisms and coastal communities as being bound up in a network of natural and cultural interrelationships. Fishing is, therefore, a translational activity that causes a whole range of networks, relationships and interactions to come into being, providing cultural services and benefits to those who live and work in coastal communities (Figure 60). In Figure 60 we have adapted the MEA ecosystem services framework to consider the idea of translation as a process that occurs as marine ecosystems are used or perceived by people through the activity of fishing. We suggest that many marine ecosystem benefits are derived as a result of that cultural translation facilitated through fishing rather than directly from the ecosystem itself.



**Figure 60:** Fishing activity and the translation of cultural services (Acott & Urquhart, in prep).

The challenge is how to incorporate recognition of the cultural ecosystem services and benefits translated through the process marine fishing into policy making. We assert that by recognizing marine fishing as an integral socio-economic and cultural component in the creation and maintenance of fishscapes the broader cultural value of fishing can be incorporated more explicitly in decision-making. The following section considers the implications of this study by reflecting on the policy challenges for the future.

#### 4.6 Implications of the research and policy recommendations

Through this study we have shown that marine fishing provides important cultural benefits for coastal communities. It creates a strong sense of place through the facilitation of deep embedded and elected attachments to place, with fishing being important for personal, community and place identity. However, with fishing in decline in many areas across the four countries involved in this study, what are the potential implications for these coastal communities?

There is much evidence to suggest that a loss of fishing in coastal communities can lead to economic and social problems such as increased unemployment (Urquhart et al., 2014b, ScottishGovernment, 2009) changes in social structure due to the out-migration of young people (Symes, 2005) and the loss of traditional skills and knowledge. The findings from our study suggest that an understanding of place and people's relationship with place is

important for navigating the challenges of securing a sustainable future for our inshore fleets. In an increasingly globalized society, when places are becoming homogenized and lacking in a distinctiveness and unique character (Giddens, 1991) consideration of place is increasingly important not less.

Understanding the relationships that people form with places can have implications for natural resource management, local planning and decision-making. In their study of farmers' place attachment in South Carolina, Quinn & Halfacre (Quinn and Halfacre, 2014) conclude that place attachment could be "key in affecting how sustainably all farmers manage their land. Place attachment provides a sense of connectivity and security for farmers. This connectivity to place can encourage a sense of community, individual well-being, and preservation of cultural heritage. A better understanding of how farmers develop place attachment can provide important insights about how place bonds are formed and how a robust and sustainable local food community is built." There are many studies that demonstrate a positive correlation between place attachment and pro-environmental behaviour (Gosling and Williams, 2010, Vaske and Kobrin, 2001, Stedman, 2002, Halpenny, 2010) in a range of contexts.

We, therefore, purport that an understanding of sense of place and the attachments that people form in fishing places can help develop more sustainable fisheries management policies. But achieving this in practice is not easy or straightforward. Through the idea of fishscapes, we propose that in order to ensure social, economic and environmental sustainability of our inshore fleets into the future, fisheries need to be embedded explicitly into local economies in order to add value to products locally and ensure that economic profitability stays local. By drawing on lessons from the more developed agro-food sector and the rural development paradigm fisheries can be re-cast as a multifunctional activity that delivers social and cultural benefits (or cultural ecosystem services) rather acting as a purely provisioning function by providing food (Urquhart and Acott, 2013b). For instance, it is now recognized that farms are not just sites of food production but also provide a range of other environmental and socio-cultural benefits such as biodiversity conservation, recreation, health benefits, aesthetic value through landscapes and cultural meaning. The multiple values of fishing places, or fishscapes, also needs to be recognized, including how fishing contributes to a sense of place, if sustainability within the sector is to be achieved.

In Urquhart and Acott (2013b) we set out the parameters for thinking about multifunctionality as a rural development tool in the context of inshore fishing. This notion of fisheries as a multifunctional service is rarely seen in policy and yet it potentially offers a way of practical way forward. Marsden and Sonnino (2008) suggest that a rural development paradigm combines agriculture (or, in our case, fisheries) with the socio-economic health of rural areas and provides a tool to sustain rural economies and culture (Urquhart and Acott, 2013b). In this regard, food production is re-connected to place through the development of, for example, small-scale supply chains (Renting et al., 2003) and the branding of place-based foods. By considering the three conditions outlined by Marsden and Sonnino (2008) that must be met for multifunctional rural development we illustrate the potential for fisheries to be re-imagined and embedded in rural development along these lines.

Firstly, it is necessary that any activity must add income and employment opportunities to the fisheries sector. Here is the imperative for developing markets that value the provenance, freshness and quality of local fish and seafood. By linking the product more explicitly with the place, through place-product branding, value can be added locally and benefits achieved for local fishers and the wider community. Our study highlighted a potential demand for the availability of more locally caught fish and seafood products, and improving the links between

fishers and the local hospitality sector. This would involve strengthening the links to the tourism sector in a way that provided new economic opportunities that preserved the identity of the traditional fishing industry. By adopting the principles of responsible tourism (Urquhart et al., 2014a) the alignment of fisheries with tourism could provide opportunities for making coastal places better places for people to live in, work and visit through generating economic benefits for local people and enhancing the well-being of local communities while also providing an enhanced visitor experience.

It is here, perhaps, that an understanding of the complexities of place attachment in fishing communities can help to inform the process. Despite the extensive benefits of fostering sense of place, strong embedded attachment (such as attributed to farmers and demonstrated by those associated with fishing in our study) which is inherited and rooted in an economic dependence on place can result in the adoption of an uncompromising business-as-usual approach and a reluctance to adapt to changing circumstances (Cheshire et al., 2013, Hildenbrand and Hennon, 2005, Gosling and Williams, 2010). For instance, for many fishers there is a reluctance to diversify their activities, perhaps due to a sense of pride in their identity as a fisher with the perception that somehow they will be seen as a failure or not a 'proper' fisher if they diversify (Urquhart and Acott, 2014). Alongside this, because of their deep attachments to fishing fishers often do not operate according to economic rationale. Fishers often persist in fishing even when it is at an economic loss (van Ginkel, 2001, Pollnac and Poggie, 2006). Perhaps by understanding embedded attachments a more sensitive way forward can be found that celebrates rather than negates the construction of a fishing sense of place.

Secondly, any developments within the sector must correspond to societal expectations. Thus, with an increased social interest in the traceability and provenance of fish and seafood products (in light of the highly publicized concerns over the sustainability of commercial fish stocks) there is a demand for a more transparent, place-based approach to the distribution and marketing of fish and seafood.

The third criteria is perhaps the most problematic to overcome. It demands a radical redefinition and reconfiguration of rural resources in and beyond the fisheries enterprise. Here we assert that this means a re-imagining of what marine fishing is, seeing it as not just a provisioning activity, but as a relational network of natural, social, cultural and economic associations that intersect to form particular fishscapes. If there is recognition in policy making of fishing as an embedded activity within a place and valuing the wider multiple values that emerge, such an approach could offer a contribution to the development of sustainable coastal communities that celebrate the distinctiveness and cultural value of their inshore fleets.

Perhaps one of the problems with promoting inshore fishing is that the way in which markets are supposed to operate, the forms of governance that are often deployed to regulate fishing activity and the social misunderstanding of fishers makes this difficult to achieve in practice (Reed et al., 2013). A challenge seems to be creating more local markets for fish and seafood caught by small-scale fishers. Our survey showed that there is a willingness amongst consumers to try new species of fish. In England, where there is limited demand for domestic fish species (Reed et al., 2013), there appears to be a willingness to try different, local fish species, perhaps suggesting demand for development of a more local market for small-scale fishers. There is room for improvement here, while although demand seems to be there, in our survey English consumers were the least likely to buy locally caught fish on a regular basis. This may be because much of domestic fish is exported (up to 80% along the south coast of England) to continental Europe. In addition, the majority of sales tend to be

through multiple retailers who adopt certification schemes that often preclude enrolment by inshore fishers (Reed et al., 2011). Further investigation into why this might be the case is needed, along with comparing to the situation in France where consumers are more likely to buy local fish or seafood on a regular basis. Indeed, in France, fishers are permitted to sell directly to the public (two thirds of participants in our survey bought directly from a fisherman) whereas in England this is limited by the Registered Buyers and Sellers Scheme (2005), which imposes some restrictions on direct selling. The situation is perhaps of even greater concern in the Netherlands, with the Dutch participants in our study the least likely to regularly eat fish or seafood and when they do this is often farmed fish rather than wild catch. Dutch respondents were also the least likely to indicate that they would be willing to try a different species of fish.

Fishing communities are faced with the challenges of how to deal with an increasingly globalized world. It is important that they maintain their distinctive identity, rooted in place and a long tradition of fishing, but they must not be afraid to connect to the wider world and seek out opportunities to ensure an economically viable future that also reaffirms their identity as a fishing place. Sense of place is not static, it is fluid and dynamic and evolves over time. Fishing communities need to embrace this and proactively shape and form the future they want, rather than reactively holding onto notions of an idealized past (Massey, 1994). For policy makers, a better understanding of how fishing contributes to sense of place and how fishing communities develop place attachment can provide useful insights about how people form bonds with places and how this contributes (or hinders) the development of resilient, stable and sustainable coastal communities.

The following chapter summarises the findings of this study and reflects upon the development of the methodological approach adopted in study and suggests how it may be adapted for future work as a practical way of understanding and gathering evidence on the important cultural values associated with inshore fishing. Finally, we outline some areas for future work.

## 5. Conclusions

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5.1 Reflections on the methodology and suggestions for future work

5.2 Concluding remarks

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The aim of this study was to explore the cultural values of inshore fishing by examining and comparing how inshore fishing contributes to and shapes sense of place in fishing towns and ports along the English Channel and Southern North Sea. In order to achieve this, a questionnaire survey was deployed in order to 'measure' sense of place in fishing communities. Its goal was to assess whether involvement in the fisheries sector fosters stronger attachments to, identification with and dependence on place. Alongside this, the study explored the potential for using visual methods for exploring the cultural values of inshore fishing. Chapters 3 and 4 set out the findings and implications of this study. Here we reflect on the saliency of the methodological approach and provide some concluding remarks.

### 5.1 Reflections on the methodology and suggestions for future work

As outlined in the introduction one of the goals of this study was to develop an approach for understanding the cultural values of inshore fishing in coastal communities. This entailed exploring the use of both quantitative (questionnaire survey) methods alongside qualitative methods that drew on creativity and arts-based approaches to understand and visualise the multiple cultural benefits that arise from fishing.

In this study, the questionnaire survey allowed for a quantitative 'measure' of sense of place to be achieved. It allowed statistically significant differences in the data to be established and a quantifiable assessment of the contribution of fishing to sense of place to be established. However, the qualitative element of the study, through the photography project, allowed for a more nuanced and visual understanding of the complexities of the cultural value of fishing places to be elucidated. Inevitably when developing a new approach there is a period of reflection on the efficacy of the method adopted, re-assessing, re-designing and evaluating the potential for its future use.

As stated in Chapter 2 (Methods) a goal of the photo project was to develop a participatory methodology involving the exhibitions as a way of engaging the general public and eliciting their perceptions and attitudes towards the fishing industry. This involved adapting the way that responses were elicited from visitors in order to improve the participatory element of the exhibition. Inclusion of statements, rather than questions, and a Likert-style response scale for visitors to respond to anonymously using stickers worked well and allowed visitors of all ages to participate (Figure 61).



**Figure 61:** Participatory exercise in Whitstable (left) and Saint Vaast (right).

However, developing and putting together a travelling exhibition is very resource intensive in both time and cost. Despite this, the visual nature of an exhibition that illustrated the various dimensions of the cultural values associated with fishing proved a successful way of engaging with people. Many had not thought about fisheries in this way before and the imagery enabled them to reflect on their own perceptions, meanings and attachments to the fishing place.

There is future work to be done on developing the approach so that it is more practical to implement. This may involve a smaller set of images that are used as stimuli for focus group discussions or individual photo elicitation interviews rather than presented in an exhibition. Whereas the exhibition was open to the public and anyone was free to contribute, a focus group or interviews would allow a more systematic way of gathering data and ensuring a representative sample of participants (which may or may not be a desirable outcome).

However, in addition to its role as a research tool, the travelling exhibition was a means of communicating ideas about inshore fishing to a more general audience. As a way of raising awareness about the cultural values of fishing and the GIFS project in general, it was an important element of the project.

## 5.2 Concluding remarks

Through a multi-method approach utilising a questionnaire survey alongside the use of photography as a means of both eliciting public perceptions and visualising concepts, we explored how inshore fishing contributes to sense of place in coastal communities. These findings were used to frame the cultural ecosystem services that arise as a result of fishing activity and to suggest that a deeper understanding of the multiple ways in which inshore fishing is valued will be important for informing policy and management decisions.

Through understanding inshore fishing through a sense of place framework we have shown that fishing, especially small-scale fishing, is a process that drives particular place-based associations and representations. These 'fishscapes' can be understood as co-produced places that blend the social construction of a fishing place with the spatial reality of the

natural and human-made physical environment. So, firstly, fishing embeds individuals and communities into a place and is important for the construction of cultural identity, providing the lens through which social processes and cultural values are interpreted. Secondly, it shapes the physical character of coastal towns through its influence on material culture and the built environment. Our study showed that while attachments to place are high in fishing towns, those attachments increase with involvement with the fisheries sector, suggesting that there is a positive correlation between fishing and sense of place.

This understanding of the role of fishing in defining sense of place has important implications for policy. Just as farms are not only sites of food production, neither are fishing places just sites for catching and landing fish as an economic activity. Fishing, therefore, needs to be explicitly (rather than implicitly) recognised as having multifunctional benefits such as providing a draw for tourism, forming the locus for social cohesion and cultural identity as well as contributing to local economies. Policies and management approaches will be poorer if they fail to embed inshore fishing into this broader socio-cultural-economic context.

Clearly understanding these multiple values or cultural ecosystem services that fisheries provides is not easy. Here we have put forward a framework for starting to build a comprehensive theory that reveals and documents the cultural ecosystem services that arise as a result of fishing activity. We suggest that photography, and by extension other forms of creative engagement, offer a way of making visible often invisible values. These approaches need refinement, scrutiny and development through future empirical studies. However, the results of our study provide an important step in developing a methodological framework for blending social science approaches (involving both quantitative questionnaire survey methods and qualitative in-depth interview methods) with more creative visual methodologies.

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## Appendix 1 – Sensing Fishing Places Survey

# Sensing Fishing Places Survey



Why should I take part in this survey?

Living on the edge, that space between the land and sea, can shape the way we view ourselves, our community and the world around us. The influence of the sea and a seafaring way of life creates a particular sense of place in coastal towns and villages, both in the natural and built environment, but also in the character and identity of the people who live there.

For many coastal places, there is a long history of fishing including the physical remnants of past activity and documented or remembered social histories of a bygone way of life. But the influence of fishing is not just from the past - many of these places have commercial fishing fleets, large or small, and their presence and activity can also shape a coastal sense of place today.

The Sensing Fishing Places survey will look at how fishing contributes to a sense of place in fishing communities. We want to find out to what extent fishing influences the way people feel about where they live or work. The results will help to better inform fisheries policy and local decision-making - they will be made publicly available to local communities and decision makers. Your views are needed in order to understand the importance of marine fishing in the place where you live or work.

Thank you very much for taking part, your contribution is much appreciated. All responses will be treated anonymously.

1. How did you hear about this survey?

☐ I received a letter from GIFS

☐ Local press

☐ Email from GIFS

☐ Word of mouth (e.g. email from local contact)

☐ Social media (e.g. Facebook, Twitter)

☐ Other, please specify .....

2. What coastal town/village are you completing this survey about?

Please complete this survey if you live or work in a coastal town.

**3. In what context are you familiar with this town? (select all that apply)**

- |  |  |
|--|--|
| <input type="checkbox"/> I live here                         | <input type="checkbox"/> I visit here in my leisure time |
| <input type="checkbox"/> I work here                         | <input type="checkbox"/> I have a holiday home here      |
| <input type="checkbox"/> I used to live here                 | <input type="checkbox"/> Other, please specify .....     |
| <input type="checkbox"/> I have friends/family who live here |  |

**PART 1: YOUR CONNECTION WITH FISHING****4. Would you say you are *directly* involved with the fishing industry in your town/village?**

☐ Yes      ☐ No

If YES, please indicate how. (TICK the box that applies).

- |   |  |
|---|--|
| <input type="checkbox"/> Fish processing and wholesale                        | <input type="checkbox"/> Regulation or monitoring of fisheries activities                      |
| <input type="checkbox"/> Fish monger or other sales                           | <input type="checkbox"/> Fish auction  |
| <input type="checkbox"/> Fisher   | <input type="checkbox"/> Administration (e.g. fishermen's organisation, producer organisation) |
| <input type="checkbox"/> I am from a fishing family                           | <input type="checkbox"/> FLAG member   |
| <input type="checkbox"/> Support services (e.g. boat repairs, chandlery etc.) | <input type="checkbox"/> Other, please specify .....   |

**5. Would you say you are *indirectly* involved with the fishing industry in your town/village?**

☐ Yes      ☐ No

If YES, please indicate how. (TICK the box that applies).

- |   |  |
|---|--|
| <input type="checkbox"/> Museum   | <input type="checkbox"/> Lifeboat crew               |
| <input type="checkbox"/> Hospitality sector buying locally caught fish or seafood | <input type="checkbox"/> Volunteer/campaigning       |
| <input type="checkbox"/> Consumer buying locally caught fish or seafood           | <input type="checkbox"/> Artist/gallery              |
| <input type="checkbox"/> Planning or local authority                              | <input type="checkbox"/> Education                   |
| <input type="checkbox"/> Environmental conservation                               | <input type="checkbox"/> Tourist provider            |
|   | <input type="checkbox"/> Other, please specify ..... |

## PART 2: FISH AND SEAFOOD CONSUMPTION

### 6. How often do you eat fresh fish or seafood?

- ☐ more than once a week
- ☐ once a week
- ☐ 1-2 times per month
- ☐ a few times a year
- ☐ rarely
- ☐ never

### 7. How often do you *deliberately* buy locally\* caught fish or seafood?

- ☐ more than once a week
- ☐ once a week
- ☐ 1-2 times per month
- ☐ a few times a year
- ☐ rarely
- ☐ never (GO TO Q16)

### 8. If you buy locally\* caught fish or seafood, how do you know it is locally caught? *Select all that apply.*

- ☐ Because I buy it from a local fisherman
- ☐ I ask the fish monger
- ☐ It has a tag telling me where it was caught
- ☐ Other, *please specify*.....

### 9. If you buy fish or seafood, what sort do you usually buy? *Select all that apply.*

- ☐ Fresh (whole)
- ☐ Fresh (filleted)
- ☐ Ready to eat (cooked)
- ☐ Frozen
- ☐ Other, *please specify*.....

### 10. If you buy fish or seafood, indicate to the best of your knowledge, what sort of fishery that fish or seafood comes from. *Select all that apply.*

- ☐ Capture fishery (i.e. wild fish caught by nets, trawls, pots etc.)
- ☐ Aquaculture (i.e. farmed fish/seafood)
- ☐ Don't know
- ☐ Other, *please specify*.....

### 11. Where do you purchase fresh fish or seafood? *Select all that apply.*

- ☐ direct from fisherman
- ☐ fish monger
- ☐ fish market
- ☐ local box scheme
- ☐ supermarket
- ☐ internet
- ☐ don't buy fish or seafood
- ☐ I catch fish myself
- ☐ Other, *please specify*.....

\* For the purposes of this study, "locally caught" refers to fish landed in the town or county where you live/work.

**12. What types of fish do you eat regularly (at least once a month)?** *Select all that apply.*

- |                                  |   |
|----------------------------------|---|
| <input type="checkbox"/> cod     | <input type="checkbox"/> crab                       |
| <input type="checkbox"/> tuna    | <input type="checkbox"/> mackerel                   |
| <input type="checkbox"/> salmon  | <input type="checkbox"/> plaice                     |
| <input type="checkbox"/> haddock | <input type="checkbox"/> tinned fish                |
| <input type="checkbox"/> prawns  | <input type="checkbox"/> Other, please specify..... |
|                                  | <input type="checkbox"/> none                       |

**13. Please indicate how strongly you agree or disagree with the following statements regarding your views about eating fish and seafood.** *Please select one option per statement*

	Strongly agree	Agree	No opinion	Disagree	Strongly disagree
We should eat more fish as it is an important source of protein	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is important to me to know where the fish I eat comes from	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is important to me to know how the fish I eat has been caught	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like to eat fish when I am on holiday in a coastal location, but I don't care where it comes from	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like to eat locally-caught fish when I am on holiday in a coastal location	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We should avoid eating fish completely because there are not enough fish in the sea	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**14. Would you be willing to try a different species of fish or seafood that you have not tried before?**

☐ Yes ☐ No

If NO, why not? *(select all that apply)*

- ☐ I would not know how to prepare it
- ☐ I would not know how to cook it
- ☐ I am unwilling to try something different
- ☐ Other, please specify.....

**15. If you do not eat fish or seafood, please indicate why not?** *Select all that apply.*

- ☐ It is too expensive
- ☐ I am a vegetarian
- ☐ I don't like the taste
- ☐ I am worried about the sustainability of fishing
- ☐ Other, please specify.....

### PART 3: HOW DO YOU FEEL ABOUT WHERE YOU LIVE?

**16. Please indicate how strongly you agree or disagree with the following statements about where you live.** Please select one option per statement. If you DO NOT live in a coastal town or village, please select "no opinion" for those statements that do not apply.

	Strongly agree	Agree	No opinion	Disagree	Strongly disagree
This area is in my blood, it is really a part of me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This place says very little about who I am	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel very strongly that I belong here	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This place reflects the type of person I am	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lots of things in the town remind me of my own past/childhood	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel happiest when I'm in this place	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel really at home here	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I really miss this place when I'm away from it for too long	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I don't really feel any strong attachment to this place	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am proud of where I live	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This is the best place for doing things that I enjoy most	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
As far as I am concerned, there are better places to be than here	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would like to stay here indefinitely	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I could be equally happy living somewhere else	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I care about what my area looks like	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## PART 4: PERCEPTIONS OF FISHING

**17. Please indicate how strongly you agree or disagree with the following statements relating to how you feel about the fishing industry in the town where you live or work. Please select one option per statement.**

	Strongly agree	Agree	No opinion	Disagree	Strongly disagree
Having fishing here is the most important thing to me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This place would still mean a lot to me even if there was no fishing industry here	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am very proud of our local fishing industry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fishing provides an important link between the land and sea	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I think of this place, I think of fishing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fishing really shapes the physical character of the town	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fishing is a very important part of the local economy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fishing is no longer viable financially	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fishermen need to diversify their activities in order to survive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Harbours are more attractive with fishing boats rather than yachts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fishing gear, boats and other physical objects really add to the character of this place	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## PART 5: FISHING AND LEISURE

**18. Please indicate how strongly you agree or disagree with the following statements relating to the relationship between fishing and tourism.** *Please select one option per statement.*

	Strongly agree	Agree	No opinion	Disagree	Strongly disagree
Having fishing here is an important attraction for tourism	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fishing is more important as a tourist attraction than as a viable economic activity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fishermen benefit from the tourism industry here	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is a high demand for fresh, locally-caught fish	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People like to go and watch the fishermen landing the catch	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Coastal restaurants should support local fishermen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If fishing were to disappear here, it would not affect the tourism industry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The image of this as a fishing place is dependent on having an active fishing industry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**19. Please indicate which, if any, of the following activities you participate in.** *Select all that apply.*

<input type="checkbox"/> Watching fishermen landing their catch	<input type="checkbox"/> Eating fish in a harbourside restaurant
<input type="checkbox"/> Watching fishing boats coming and going in the harbour	<input type="checkbox"/> Sea angling
<input type="checkbox"/> Watching fishermen mending their nets or gear on the quayside	<input type="checkbox"/> Boat trip to watch wildlife/sightseeing
<input type="checkbox"/> Going on board a fishing boat to see how fishermen work	<input type="checkbox"/> Other, please specify.....

## PART 6: THE CULTURAL HERITAGE OF FISHING

**20. Please indicate how strongly you agree or disagree with the following statements regarding the cultural heritage of fishing.** *Please select one option per statement.*

	Strongly agree	Agree	No opinion	Disagree	Strongly disagree
It is important to remember the long history of fishing here	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Representations of fishing heritage must be authentic and not like a theme park	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This place is built on the fishing industry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We need to maintain an active fishing industry as it connects us to our past	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Local children should be taught about the fishing heritage of this place	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The presence of the fishing industry today keeps it real and alive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The buildings and infrastructure are testimony to the distinctive fishing history of the place	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Understanding the living heritage (fishing today) of fishing is important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## PART 7: FISHING AND COMMUNITY

**21. Please indicate how strongly you agree or disagree with the following statements regarding the contribution that fishing makes to community and social life.** *Please select one option per statement.*

	Strongly agree	Agree	No opinion	Disagree	Strongly disagree
Fishing is at the heart of the community here	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fishing is really embedded into the local community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The whole identity of the town revolves around fishing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fishing is not important for community identity here	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The loss of the fishing industry would have a negative effect on the identity of this place	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This town should not emphasise its fishing heritage as a branding strategy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## PART 8: THE FUTURE OF FISHING

**22. Please indicate how strongly you agree or disagree with the following statements regarding the future of fishing.** *Please select one option per statement.*

	Strongly agree	Agree	No opinion	Disagree	Strongly disagree
It is really important to preserve the fishing industry here	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It would make no difference to me if the fishing industry disappeared here	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There should be more support for small-scale fishing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
More young people need to be encouraged to enter the fishing industry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If we lost the fishing industry, it would be very difficult to get it back	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There should be more opportunities to buy locally caught fish	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We should not try to save the fishing industry here	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## PART 9: A LITTLE BIT MORE INFORMATION ABOUT YOU

**23. Are you:**

☐

Male

☐

Female

**24. What age group are you?**

- ☐ under 18
- ☐ 18-25
- ☐ 26-35
- ☐ 36-45
- ☐ 46-55
- ☐ 56-65
- ☐ 66+

**25. What is the highest level of education that you have obtained?**

- ☐ none
- ☐ GCSE or equivalent
- ☐ A levels or equivalent
- ☐ Further education qualification
- ☐ Diploma
- ☐ Degree
- ☐ Postgraduate qualification

**26. What is your occupational status?**

- ☐ Student
- ☐ Full-time employment
- ☐ Part-time employment
- ☐ Retired
- ☐ Homekeeper
- ☐ Unemployed
- ☐ Other, please specify.....

**27. If you are employed, what best describes the type of work that you do?**

- ☐ Fisheries (e.g. fishing, processing, selling)
- ☐ Tourism & Leisure
- ☐ Education
- ☐ Financial Services
- ☐ Telecommunications
- ☐ Retail
- ☐ Construction
- ☐ Health
- ☐ Local Authority
- ☐ Industry
- ☐ Other, please specify.....

**28. How long have you been associated with this town?**

- ☐ Always
- ☐ Over 20 years
- ☐ 10-20 years
- ☐ 5-9 years
- ☐ Less than 5 years

**29. Please give the first part of your postcode (e.g. TN6)**

*Note: By providing your postcode we will not be able to identify you or your address. However, it will enable us to statistically compare the data collected in this survey across geographical areas.*

.....



Later in 2013 we will be launching an exciting community photographic project, which will give people living and working in fishing communities the opportunity to contribute. We are inviting people to take photographs of fishing places that illustrate why those places are important to them. It might be a particular spot on the beach, or a fishing boat, a headland or a view out to sea - whatever is important to each individual. If you would be interested in finding out more about this exciting project, please supply your email address and we will send you more details when the project is launched. A selected number of photographs will be chosen to be displayed at local exhibitions in Looe, Whitstable, Poole and North Norfolk in the summer of 2013 and a regional exhibition in 2014.

**Please supply your email address if you would like to be involved in the photography project.**

.....

If you would like to be kept up to date about the GIFS project and find out what is happening in other fishing communities along the English Channel and southern North Sea, please visit our website:

**<http://www.gifsproject.eu/en/>**

**Thank you for participating in this survey!**

Please return this survey to: Dr Julie Urquhart, School of Science, University of Greenwich at Medway, Central Avenue, Chatham Maritime, Kent ME4 4TB

The study is part of an INTERREG 4a European Regional Development Fund co-financed project entitled The Geography of Inshore Fishing and Sustainability (GIFS), led by the University of Greenwich, with project partners in France, Belgium and the Netherlands. GIFS aims to explore the socio-cultural and economic importance of inshore fishing for coastal communities in the study area.

## Appendix 2 – Sensing Fishing Places Survey: Fisher version

# Sensing Fishing Places Survey



### Why should I take part in this survey?

Living on the edge, that space between the land and sea, can shape the way we view ourselves, our community and the world around us. The influence of the sea and a seafaring way of life creates a particular sense of place in coastal towns and villages, both in the natural and built environment, but also in the character and identity of the people who live there.

For many coastal places, there is a long history of fishing including the physical remnants of past activity and documented or remembered social histories of a bygone way of life. But the influence of fishing is not just from the past - many of these places have commercial fishing fleets, large or small, and their presence and activity can also shape a coastal sense of place today.

The Sensing Fishing Places survey will look at how fishing contributes to a sense of place in fishing communities. We want to find out to what extent fishing influences the way people feel about where they live or work. The results will help to better inform fisheries policy and local decision-making - they will be made publicly available to local communities and decision makers. Your views are needed in order to understand the importance of marine fishing in the place where you live or work.

Thank you very much for taking part, your contribution is much appreciated. All responses will be treated anonymously.

### 1. How did you hear about this survey?

☐ I received a letter from GIFS

☐ Local press

☐ Email from GIFS

☐ Word of mouth (e.g. email from local contact)

☐ Social media (e.g. Facebook, Twitter)

☐ Other, please specify .....

### 2. What coastal town/village are you completing this survey about?

Please complete this survey if you live or work in a coastal town.

**3. In what context are you familiar with this town? (select all that apply)**

- |  |  |
|--|--|
| <input type="checkbox"/> I live here                         | <input type="checkbox"/> I visit here in my leisure time |
| <input type="checkbox"/> I work here                         | <input type="checkbox"/> I have a holiday home here      |
| <input type="checkbox"/> I used to live here                 | <input type="checkbox"/> Other, please specify .....     |
| <input type="checkbox"/> I have friends/family who live here |  |

**PART 1: YOUR CONNECTION WITH FISHING****4. Would you say you are *directly* involved with the fishing industry in your town/village?**

- ☐ Yes      ☐ No

If YES, please indicate how. (TICK the box that applies).

- |   |  |
|---|--|
| <input type="checkbox"/> Fish processing and wholesale                        | <input type="checkbox"/> Regulation or monitoring of fisheries activities                      |
| <input type="checkbox"/> Fish monger or other sales                           | <input type="checkbox"/> Fish auction  |
| <input type="checkbox"/> Fisher   | <input type="checkbox"/> Administration (e.g. fishermen's organisation, producer organisation) |
| <input type="checkbox"/> I am from a fishing family                           | <input type="checkbox"/> FLAG member   |
| <input type="checkbox"/> Support services (e.g. boat repairs, chandlery etc.) | <input type="checkbox"/> Other, please specify .....   |

**5. Would you say you are *indirectly* involved with the fishing industry in your area?**

- ☐ Yes      ☐ No

If YES, please indicate how. (TICK the box that applies).

- |   |  |
|---|--|
| <input type="checkbox"/> Museum   | <input type="checkbox"/> Lifeboat crew               |
| <input type="checkbox"/> Hospitality sector buying locally caught fish or seafood | <input type="checkbox"/> Volunteer/campaigning       |
| <input type="checkbox"/> Consumer buying locally caught fish or seafood           | <input type="checkbox"/> Artist/gallery              |
| <input type="checkbox"/> Planning or local authority                              | <input type="checkbox"/> Education                   |
| <input type="checkbox"/> Environmental conservation                               | <input type="checkbox"/> Tourist provider            |
|   | <input type="checkbox"/> Other, please specify ..... |

**PART 2: FISHING ACTIVITY (to be completed by fishers only)****6. How long have you been a fisherman?**

- ☐ always
- ☐ 20+ years
- ☐ 10-19 years
- ☐ 3-9 years
- ☐ less than 3 years

**7. Are you a full-time or part-time fisherman?**

- ☐ Full-time ☐ Part-time

If you are a part-time fisherman, what other employment do you have?

.....

**8. Do you come from a fishing family? (select all that apply)**

- ☐ No
- ☐ Yes-brothers
- ☐ Yes-cousins
- ☐ Yes-father
- ☐ Yes-uncle
- ☐ Yes-grandfather
- ☐ Other, please specify .....

**9. Are women in your family involved in fishing related activities? (select all that apply)**

- ☐ Yes ☐ No

**Q9 cont.** If YES, what activities are women involved in? (select all that apply).

- ☐ on-vessel fishing
- ☐ fish processing
- ☐ administration related to vessel (e.g. licensing, provisioning etc.)
- ☐ book keeping
- ☐ fish selling
- ☐ Other, please specify .....

What relationship to you are the women involved in fishing? (select all that apply).

- ☐ Wife
- ☐ Mother
- ☐ Sister
- ☐ Daughter
- ☐ Aunt
- ☐ Other, please specify .....

**10. Do you own your own fishing vessel?**

- ☐ Yes ☐ No

If YES, how many vessels do you own?

.....

If NO, which of the following describes your activities?

- ☐ I am skipper on a vessel that I lease
- ☐ I am skipper on a vessel that is owned by someone else
- ☐ I crew on a vessel
- ☐ Other, please specify .....

**11. What size vessel do you work on?**

- ☐ under 10m
- ☐ 10-12m
- ☐ 13-24m
- ☐ 25-34m
- ☐ over 35m

**12. Which of the following best describes the type of fishing activity that you are involved in? (select all that apply).**

- ☐ Inshore fishing within 6nm of coast
- ☐ Inshore fishing within 12nm of coast
- ☐ Offshore fishing up to 3-5 days at sea
- ☐ Offshore fishing up to 10-14 days at sea
- ☐ Offshore fishing more than 14 days at sea
- ☐ Other, please specify .....

**13. Has your fishing activity changed over time?**

- ☐ Yes ☐ No

**Q13 cont.** If YES, please specify why. (select all that apply).

- ☐ change in fish stocks
- ☐ technological evolution
- ☐ economic reasons
- ☐ regulation
- ☐ Other, please specify .....

If YES, please specify how. (select all that apply).

- ☐ different target species
- ☐ different fishing gear
- ☐ different fishing area
- ☐ other vessel type
- ☐ Other, please specify .....

If YES, how did this affect your way of life? (select all that apply).

- ☐ Easier work
- ☐ Harder work
- ☐ Less income
- ☐ More income
- ☐ Less time for me and my family
- ☐ More time for me and my family

**14. Please indicate how strongly you agree or disagree with the following statements regarding your reasons for being a fisherman. (select one option per statement)**

	Strongly agree	Agree	No opinion	Disagree	Strongly disagree
Fishing is a family tradition	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have never considered doing any other job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There are not many alternative employment opportunities for me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I love fishing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I enjoy the freedom that fishing offers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I enjoy the challenge of being a fisherman	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fishing is just a means of earning a living	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
For me, fishing is a way of life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel a deep connection with the natural environment when I am at sea	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### PART 3: FISH AND SEAFOOD CONSUMPTION

**15. How often do you eat fresh fish or seafood?**

- ☐ more than once a week
- ☐ once a week
- ☐ 1-2 times per month
- ☐ a few times a year
- ☐ rarely
- ☐ never (GO TO Q 19)

**16. Where do you obtain the fresh fish or seafood that you eat yourself? Select all that apply.**

- ☐ my own catch
- ☐ other fisherman
- ☐ fish monger
- ☐ fish market
- ☐ local box scheme
- ☐ supermarket
- ☐ internet
- ☐ Other, please specify.....

**17. What types of fish do you eat regularly (at least once a month)?** *Select all that apply.*

- |                                  |   |
|----------------------------------|---|
| <input type="checkbox"/> cod     | <input type="checkbox"/> crab                       |
| <input type="checkbox"/> tuna    | <input type="checkbox"/> mackerel                   |
| <input type="checkbox"/> salmon  | <input type="checkbox"/> plaice                     |
| <input type="checkbox"/> haddock | <input type="checkbox"/> tinned fish                |
| <input type="checkbox"/> prawns  | <input type="checkbox"/> Other, please specify..... |
|                                  | <input type="checkbox"/> none                       |

**18. Would you be willing to try a different species of fish or seafood that you have not tried before?**

☐ Yes ☐ No

If NO, why not? *(select all that apply)*

- ☐ I would not know how to prepare it
- ☐ I would not know how to cook it
- ☐ I am unwilling to try something different
- ☐ Other, please specify.....

**19. If you do not eat fish or seafood, please indicate why not?** *Select all that apply.*

- ☐ It is too expensive
- ☐ I am a vegetarian
- ☐ I don't like the taste
- ☐ I am worried about the sustainability of fishing
- ☐ Other, please specify.....

## PART 4: HOW DO YOU FEEL ABOUT WHERE YOU LIVE?

**20. Please indicate how strongly you agree or disagree with the following statements about where you live. Please select one option per statement. If you DO NOT live in a coastal town or village, please select "no opinion" for those statements that do not apply.**

	Strongly agree	Agree	No opinion	Disagree	Strongly disagree
This area is in my blood, it is really a part of me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This place says very little about who I am	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel very strongly that I belong here	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This place reflects the type of person I am	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lots of things in the town remind me of my own past/childhood	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel happiest when I'm in this place	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel really at home here	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I really miss this place when I'm away from it for too long	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I don't really feel any strong attachment to this place	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am proud of where I live	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This is the best place for doing things that I enjoy most	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
As far as I am concerned, there are better places to be than here	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would like to stay here indefinitely	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I could be equally happy living somewhere else	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I care about what my area looks like	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## PART 5: PERCEPTIONS OF FISHING

**21. Please indicate how strongly you agree or disagree with the following statements relating to how you feel about the fishing industry in your town. Please select one option per statement.**

	Strongly agree	Agree	No opinion	Disagree	Strongly disagree
Having fishing here is the most important thing to me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This place would still mean a lot to me even if there was no fishing industry here	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am very proud of our local fishing industry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fishing provides an important link between the land and sea	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I think of this place, I think of fishing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fishing really shapes the physical character of the town	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fishing is a very important part of the local economy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fishing is no longer viable financially	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fishermen need to diversify their activities in order to survive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Harbours are more attractive with fishing boats rather than yachts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fishing gear, boats and other physical objects really add to the character of this place	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## PART 6: FISHING AND LEISURE

**22. Please indicate how strongly you agree or disagree with the following statements relating to the relationship between fishing and tourism.**

	Strongly agree	Agree	No opinion	Disagree	Strongly disagree
Having fishing here is an important attraction for tourism	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fishing is more important as a tourist attraction than as a viable economic activity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fishermen benefit from the tourism industry here	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is a high demand for fresh, locally-caught fish	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People like to go and watch the fishermen landing the catch	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Coastal restaurants should support local fishermen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If fishing were to disappear here, it would not affect the tourism industry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The image of this as a fishing place is dependent on having an active fishing industry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## PART 7: THE CULTURAL HERITAGE OF FISHING

**23. Please indicate how strongly you agree or disagree with the following statements regarding the cultural heritage of fishing.**

	Strongly agree	Agree	No opinion	Disagree	Strongly disagree
It is important to remember the long history of fishing here	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Representations of fishing heritage must be authentic and not like a theme park	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This place is built on the fishing industry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We need to maintain an active fishing industry as it connects us to our past	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Local children should be taught about the fishing heritage of this place	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The presence of the fishing industry today keeps it real and alive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The buildings & infrastructure are testimony to the distinctive fishing history of the place	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Understanding the living heritage (fishing today) of fishing is important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## PART 8: FISHING AND COMMUNITY

**24. Please indicate how strongly you agree or disagree with the following statements regarding the contribution that fishing makes to community and social life. Please select one option per statement.**

	Strongly agree	Agree	No opinion	Disagree	Strongly disagree
Fishing is at the heart of the community here	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fishing is really embedded into the local community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The whole identity of the town revolves around fishing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fishing is not important for community identity here	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The loss of the fishing industry would have a negative effect on the identity of this place	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This town should not emphasise its fishing heritage as a branding strategy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## PART 9: THE FUTURE OF FISHING

**25. Please indicate how strongly you agree or disagree with the following statements regarding the future of fishing. Please select one option per statement.**

	Strongly agree	Agree	No opinion	Disagree	Strongly disagree
It is really important to preserve the fishing industry here	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It would make no difference to me if the fishing industry disappeared here	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There should be more support for small-scale fishing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
More young people need to be encouraged to enter the fishing industry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If we lost the fishing industry, it would be very difficult to get it back	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There should be more opportunities to buy locally caught fish	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We should not try to save the fishing industry here	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## PART 10: A LITTLE BIT MORE INFORMATION ABOUT YOU

**26. Are you:**

☐

Male

☐

Female

**27. What age group are you?**

☐

under 18

☐

18-25

☐

26-35

☐

36-45

☐

46-55

☐

56-65

☐

66+

**28. What is the highest level of education that you have obtained?**

☐

none

☐

GCSE or equivalent

☐

A levels or equivalent

☐

Further education qualification

☐

Diploma

☐

Degree

☐

Postgraduate qualification

**29. How long have you been associated with this town?**

☐

Always

☐

Over 20 years

☐

10-20 years

☐

5-9 years

☐

Less than 5 years

**30. Please give the first part of your postcode (e.g. TN6)**

*Note: By providing your postcode we will not be able to identify you or your address. However, it will enable us to statistically compare the data collected in this survey across geographical areas.*

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Later in 2013 we will be launching an exciting community photographic project, which will give people living and working in fishing communities the opportunity to contribute. We are inviting people to take photographs of fishing places that illustrate why those places are important to them. It might be a particular spot on the beach, or a fishing boat, a headland or a view out to sea - whatever is important to each individual. If you would be interested in finding out more about this exciting project, please supply your email address and we will send you more details when the project is launched. A selected number of photographs will be chosen to be displayed at local exhibitions in Looe, Whitstable, Poole and North Norfolk in the summer of 2013 and a regional exhibition in 2014.

**Please supply your email address if you would like to be involved in the photography project.**

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If you would like to be kept up to date about the GIFS project and find out what is happening in other fishing communities along the English Channel and southern North Sea, please visit our website:

**<http://www.gifsproject.eu/en/>**

**Thank you for participating in this survey!**

Please return this survey to: Dr Julie Urquhart, School of Science, University of Greenwich at Medway, Central Avenue, Chatham Maritime, Kent ME4 4TB

The study is part of an INTERREG 4a European Regional Development Fund co-financed project entitled The Geography of Inshore Fishing and Sustainability (GIFS), led by the University of Greenwich, with project partners in France, Belgium and the Netherlands. GIFS aims to explore the socio-cultural and economic importance of inshore fishing for coastal communities in the study area.

## Appendix 3 – Survey cover letter

«Title» «FirstName» «LastName»

«Address1»

«Address2»

«Address3»

«Address4»

«Address5»

2<sup>nd</sup>

May 2013

Dear «Title» «LastName»,

We are writing to invite you to participate in a major new survey that is being conducted by the University of Greenwich. The survey, called **Sensing Fishing Places**, aims to find out how marine fishing shapes the way that people feel about where they live. Although fishing has declined in many places, fishermen still make their living from the sea and freshly caught fish and seafood is on the menu of many pubs and restaurants in coastal towns. But what does fishing mean to people who live in fishing places?

In order to answer this question, we are contacting a random sample of residents in coastal towns to ask what they feel about the fishing industry in their town – what it means to them, whether they buy locally caught fish and seafood, how fishing may contribute to community life and tourism and what are their perceptions of the future of fishing in their town.

The survey is part of an Interreg 4a 2 Seas Project entitled GIFS (Geography of Inshore Fishing and Sustainability) led by the University of Greenwich, with partners in England, France, Belgium and the Netherlands. The survey is being conducted in fishing communities on both sides of the English Channel and the southern North Sea to create a snapshot of fishing places at the start of the 21st century. With inshore fishing in decline in many areas, it is important to understand the social and cultural value of fishing for coastal communities. The results of this survey are intended to better inform fisheries policy and management and will be made publicly available to local communities and decision makers.

Your answers are **completely anonymous** and will be released only as summaries in which no individual's answer can be identified. When you return your completed questionnaire your name will be deleted from the mailing list and never connected to your answer in any way. Although the survey is voluntary, you will help us very much by taking a few minutes to complete the questionnaire and sharing your views about the fishing industry in your area.

As a way of saying thank you for your time, you have the option of being entered into a prize draw. The winner will receive Marks and Spencer vouchers worth £100. The draw will take place when the survey closes and the winner will be notified by post by the end of October 2013. If, for whatever reason, you would prefer not to be in the prize draw please make a note of this when you return your survey.

If you have any questions or comments about this study, please feel free to contact us on 0208 331 8227 or 0208 331 9751; email: GIFS@gre.ac.uk, or you can write to us at the address below.




Thank you very much for helping with this important study.

Yours sincerely,

Dr Julie Urquhart  
Senior Research Fellow

*P.S. Alternatively, complete the survey online at: <http://www.survey.bris.ac.uk/greenwich/sensingfishing>. Please provide your unique survey code (found on the back of the paper survey enclosed with this letter) in the section of the online survey "How did you hear about this survey?" so that we can enter you in the prize draw.*

## Appendix 4 – Postcard follow up mailing (example from Brixham)

<p>Dear «Title» «LastName»,</p> <p>We wrote to you recently inviting you to take part in the survey Sensing Fishing Places which seeks to find out how marine fishing influences the way that people feel about where they live. Your name was drawn randomly from a list of residents in Port Isaac.</p> <p>If you have already completed and returned the questionnaire to us, please accept our sincere thanks. If not, we would greatly appreciate it if you could do so soon. We are especially grateful for your help because it is only by asking people like you to share your experiences that we can understand how marine fishing contributes to the life of coastal towns.</p> <p>If you did not receive a questionnaire, or if it was misplaced, please call us on 0208 331 8227 or email <a href="mailto:GIFS@gre.ac.uk">GIFS@gre.ac.uk</a> and we will get another one in the post to you today.</p> <p>With thanks,</p> <p><i>Julie Urquhart</i></p> <p>Julie Urquhart GIFS Project, University of Greenwich</p> 	<p>Whitstable oysters. Photo by Julie Urquhart, University of Greenwich 2010</p> <p>«Title» «FirstName» «LastName» «Address1» «Address2» «Address3» «Address4» «Address5»</p>  
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## Appendix 5

Percentage of respondents directly involved in fisheries by country

	Belgium (% within country)	England (% within country)	France (% within country)	Netherlands (% within country)	$\chi^2$
<i>Processing</i>	1.3	3.8	1.8	1.6	8.739**
<i>Fish monger</i>	1.0		2.4	5.2	
26-35	6.6	6.2	3.0	9.6	
36-45	14.1	11.5	4.2	19.2	
46-55	24.0	21.8	11.3	19.2	
56-65	33.2	24.1	21.7	23.2	
66+	21.0	31.0	57.1	20.8	

\*  $p < .0001$ ; \*\*  $p < 0.05$