



# Exe Estuary

## *'Love Your Local Catch'*

### Scoping Study Report

March 2017

*A report by the Devon Maritime Forum for the  
Exe Estuary Management Partnership*

This document is a work in progress

# 1. INTRODUCTION

## 1.1 Context

This short report has been commissioned by the Exe Estuary Management Partnership on behalf of the newly formed Exe Estuary Coastal Community Team (EECCT). The EECCT is one of 104 newly established teams around the English coast designed to address a range of coastal challenges, unlock economic potential, provide a catalyst for change and develop a long-term, sustainable vision for economic growth. An initial sum of up to £10,000 was given to each CCT to 'kick-start' the establishment of a team; support the development of an economic plan; and to progress initial project ideas.

The initial focus and first project of the Exe Estuary Coastal Community Team entitled '*Love Your Local Catch*', was focused on maximising the value and potential of the local commercial fisheries sector in and around the Exe Estuary. A dedicated Exe Estuary Fisheries Working Group was established and a project outlined which sought to:

'...reconnect the local community, retailers and restaurants of the Exe Estuary to the artisanal, small-scale fisherman who operate in or out of the areas local quays and beaches with a view to increasing local demand for, and facilitating the supply of, sustainable, traceable, locally harvested and landed quality seafood.'

(EECCT: Economic Plan, 2016)

While the full realisation of these plans lay outside the remit and resources of the initial 'kick-start' funds, a small amount of funding was available for an initial 'scoping study' the aims of which were:

firstly, to establish

**i.) a baseline understanding of the current scale and composition of commercial fishing in and around the Exe Estuary and adjacent coastal waters**

and, secondly, and primarily, to examine

**ii.) local seafood retailers' and restaurateurs' current practices and attitudes towards, locally sourced and/or landed seafood.**

These two pieces of work were deemed important first steps towards securing further funding for the more ambitious objectives set out in the Economic Plan.

## **1.2 This Report**

Forming part of the *Love Your Local Catch* scoping study, this report has three sections:

**Section 1** of this report focuses on establishing a baseline understanding of the local economies and geographies of commercial fishing in and around the Exe Estuary and adjacent coastal waters. In so doing it is tasked with addressing two key questions: i.) what is the scale of the Exe Estuary commercial fishery (i.e. how much is caught?); and ii.) what is the composition of the Exe Estuary commercial fishery? (i.e. what's caught?).

**Section 2** of this report focuses on examining local seafood retailers' and restaurateurs' current practices and attitudes towards, locally sourced and/or landed seafood and presents the results of the *Exe Estuary Seafood Surveys 2016*.

**Section 3** of this report reflects on the implications of the findings in Sections 1 and 2, acknowledges the limitations of the scoping study, and identifies the requirements and necessity for further work, projects and funding.

### **A Note on Methodologies**

To answer these questions a mixed-methods approach was adopted which combined desk-top analysis of key fisheries data (relevant sources included *UK Sea fisheries Annual Statistics and The State of Exe Report*), with face-to-face semi-structured interviews, telephone conversations, and e-mail exchanges with key representatives of the local commercial fishing sector. For details of the methodology used in the development and implementation of the *Exe Estuary Seafood Surveys 2016*, please see Section 2 (page x below).

## 2. Exe Estuary Fisheries

### 2.1 Exe Fisheries – Definition

For the purposes of this report and scoping study, 'Exe Estuary Fisheries' refers to any legal, commercial fishing activity undertaken within the estuary and adjacent coastal waters and any fish landed and/or recorded at Exmouth. In working with this definition of Exe Estuary commercial fisheries we recognise a number of things. Firstly, that this is a fairly broad and expansive geographical definition of what is normally understood to be the Exe Estuary. Secondly, it allows for a broad interpretation of what is meant by 'local fishery': Exe Estuary 'landed', for example, doesn't necessarily mean Exe Estuary 'caught' (even allowing for an expanded idea of the Exe Estuary). Thirdly, while the focus of this study is commercial fishing activity, we are mindful of the significant scale and 'commercial' value of recreational fishing in and around the Exe Estuary.

### 2.2 Exe Fisheries – Management

#### ***Salmon and Freshwater Fisheries***

The Secretary of State for Environment, Food and Rural Affairs is responsible for setting policy on salmon and freshwater fisheries in England. Within this policy framework, the day to day management and regulatory responsibility for salmon and freshwater fisheries rests with the Environment Agency, who have a statutory duty to maintain, improve and develop salmon, trout, freshwater and eel fisheries. The EA has various powers to protect fish stocks and reduce exploitation, for example, the Salmon and Freshwater Fisheries Act 1975 (as amended) provides the Agency with the powers to make Byelaws and restrict the number of licences issued for individual net fisheries by making of Net Limitation Orders. The Secretary of State for Environment, Food and Rural Affairs confirms Byelaws and Net Limitation Orders.

#### ***Inshore (0 to 6nm) and Estuary area***

The sea fisheries on the Exe are managed by Devon and Severn Inshore Fisheries and Conservation Authority (D&SIFCA), which is responsible for managing the stocks and following UK and EU legislation to ensure that fishing activity within the Exe Estuary Special Protection Area does not negatively impact the designated features of the site.

On the Exe, D&SIFCA Byelaws have been put in place to manage fishing activity which includes mussel harvesting, shore crab harvesting, a minimum size for winkles, dredging and netting. D&SIFCA have recently undertaken a review of all their Byelaws, which may allow for the management of fishing activities through a

permit system in the future. D&SIFCA have an enforcement role and make regular patrols and inspections of fishing vessels and equipment. They also advise fishermen and shellfish farmers on appropriate techniques. D&SIFCA Officers carry out shore visits and boat patrols of the Exe Estuary.

### ***Marine Management Organisation***

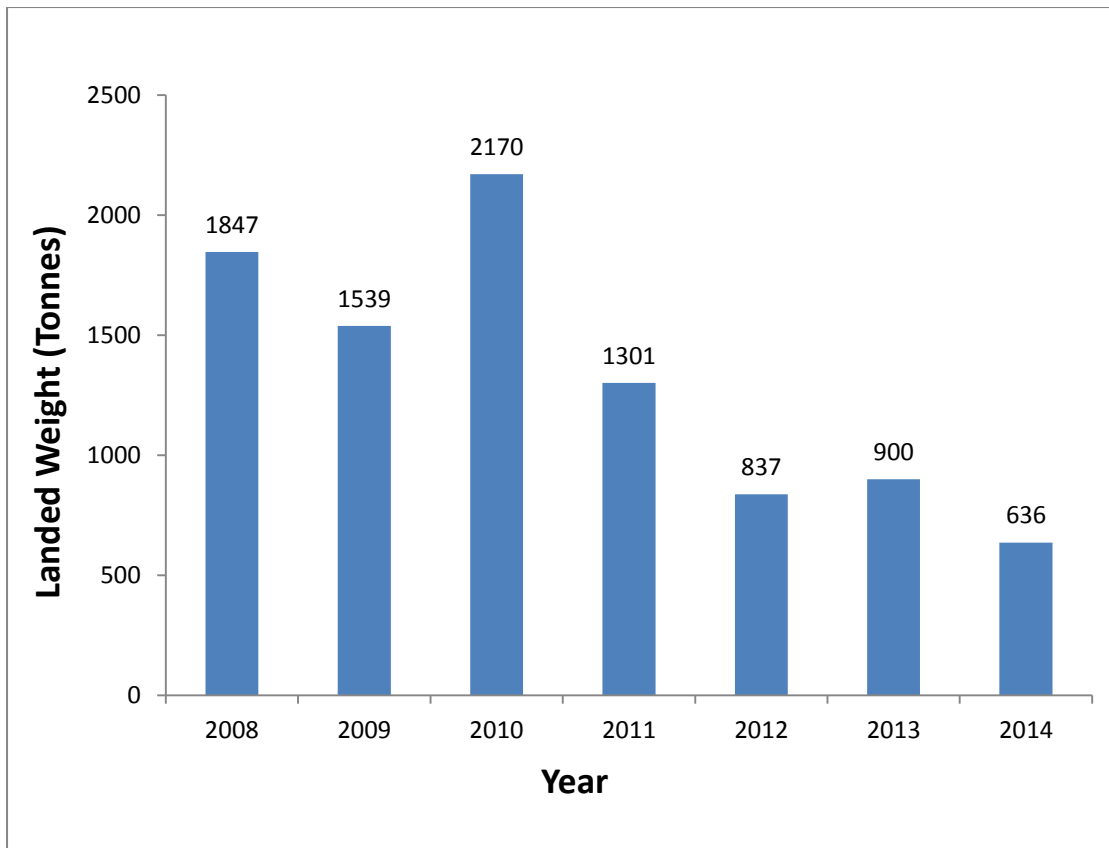
The MMO issues and administers vessel licences that all commercial UK fishing vessels are required to have. It issues licence variations to reflect changes in licence conditions, quota limits and openings and closures of sea areas. It also, currently, sets fishing quotas to help achieve the objectives of the Common Fisheries Policy for the conservation and sustainable management of fish stocks. The UK's quota is shared among 23 producer organisations (the sector), the inshore fleet (under 10 metre vessels) and vessels not in membership of a producer organisation (the non-sector). The MMO issues monthly catch limits for the under 10 metre and the non-sector and uses fishing vessel licence variations to open and close fisheries in specific sea areas.

## ***2.3 Exe Fisheries – Scale and Composition***

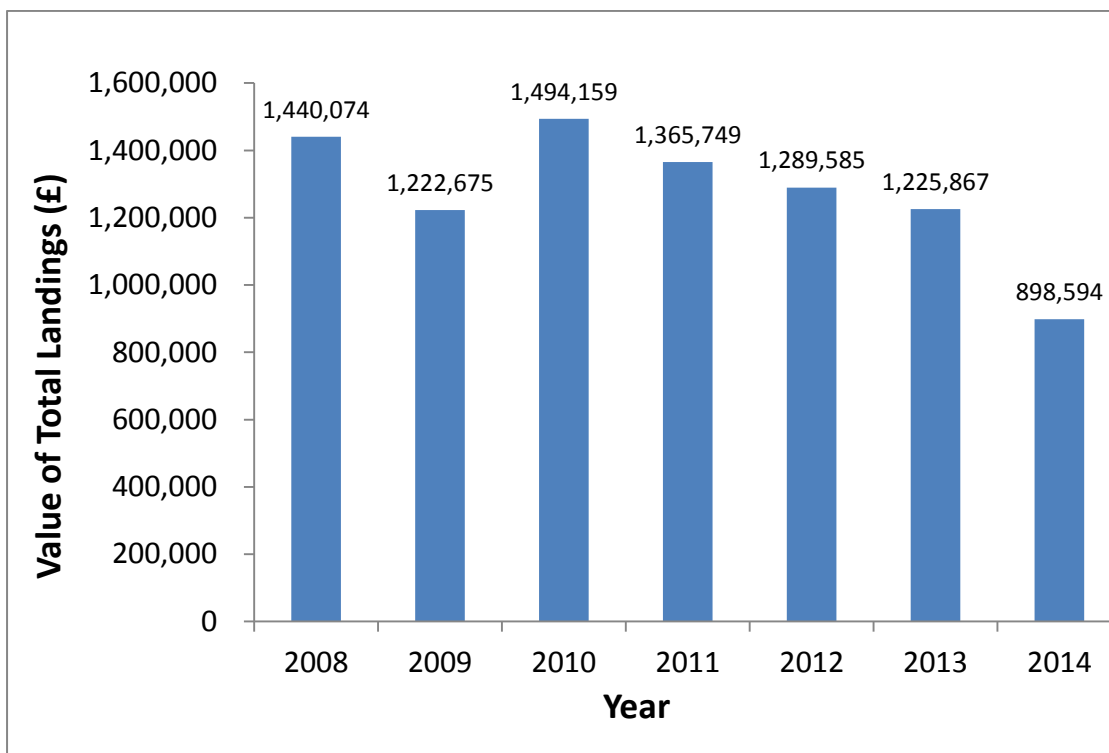
The fishing industry is a historically and culturally important aspect of the Exe Estuary. As early as the 16<sup>th</sup> century, John Leland in the Itinerary of his tour through the Devon in 1534-43 describes Exmouth thus, '*On the Est side of Exmouth Haven [is] Exmouth, a **Fisschar Tounlet**, a little withyn the Haven Mouth.*' While it is certainly true that the Exe/Exmouth commercial fishery does not operate at the same scale as it once did (even five years ago), the size and value of the current Exe/Exmouth fishery remains significant and locally important.

In 2014, for example, the most recent year for which data is currently available, 626 tonnes of fish (including shellfish but excluding mussels) was landed in Exmouth, with a total landed value of £898,594 (see Figures 1 and 2 below). Add to these figures the weight and value of the local Mussel fishery and you have an Exe Estuary fishery that approaches if not exceeds £1 million. This is noticeably less than even the most recent past – in 2010, for example, 2170 tonnes and nearly £1.5 million pounds' worth of fish were landed in Exmouth (excluding mussels) – but it remains a substantial amount.

In terms of composition (what's caught), what is immediately apparent is the sheer diversity of the Exe Estuary catch with over 40 different species of demersal fish; 3 different species of pelagic fish, and 12 different species of shellfish (excluding mussels).



**Fig. 2.1: Total landed weight of fish (tonnes) Exmouth 2008-2014 (Source: MMO, 2015)**



**Fig. 2.2: Total Value of Fish Landings (£) Exmouth 2008-2014 (Source: MMO, 2015)**

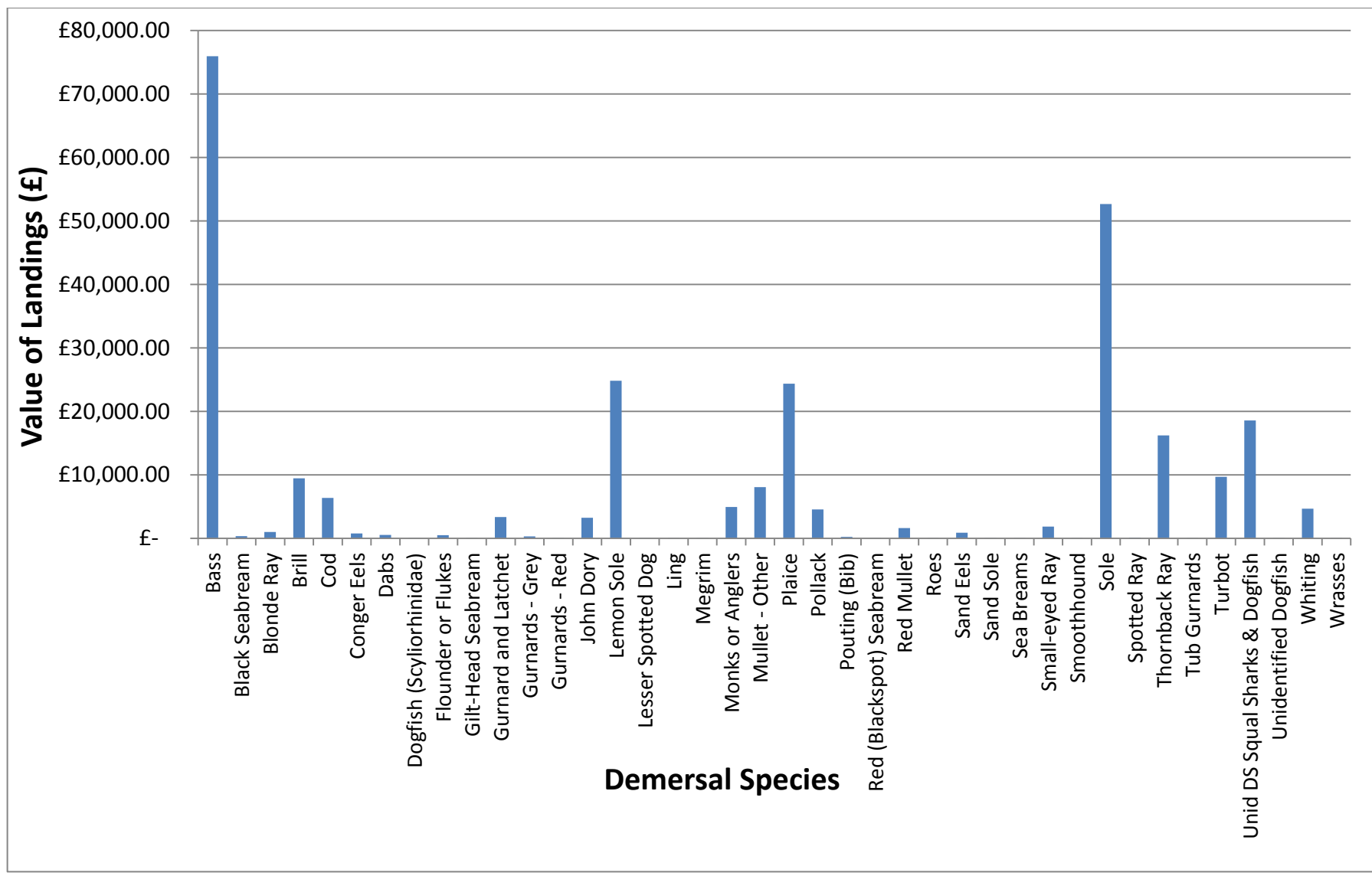
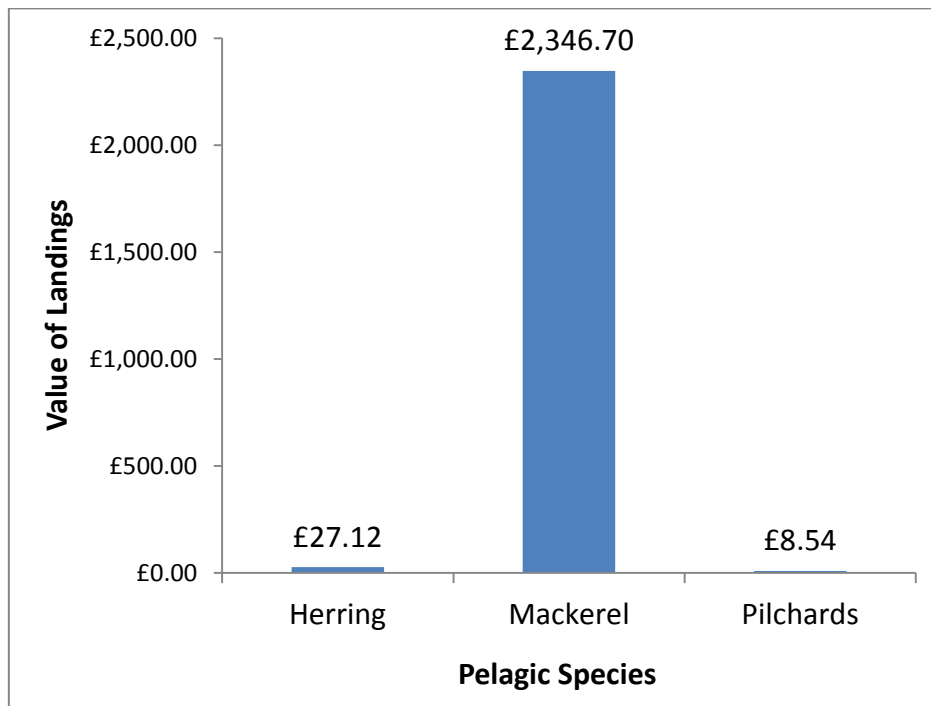


Fig. 2.3: Value of Demersal Landings Exmouth, 2014: (Source: MMO) Total Value = £ 275, 532.34 / No of different species = 40

In 2014, demersal species (Fig.3) accounted for just over 30% (landed value) of the total Exe Estuary catch. By far the most valuable of the demersal species in terms of total value landed was Bass, followed by Sole, Lemon Sole, and Plaice.<sup>1</sup> The Exe Estuary also has a very small pelagic fishery (Fig.4) but it is small (<1% landed value) and made up, almost exclusively, by Mackerel.



**Fig. 2.4: Value of Pelagic Landings Exmouth, 2014: (Source: MMO) Total Value = £2382.36**

By far, the most important fishery both by landed weight and landed value is the Exe Estuary shellfishery. With a landed value £620,697, the Exe Estuary shellfishery accounts for nearly 70% of the total landed value of recorded fish into Exmouth. By far the most important species within this fishery, again both by weight and value, are Scallops with a landed value in 2014 of £240,175, and Whelks with a landed value of £238,605. Other locally important shellfish species include the cephalopods Squid and Cuttlefish and crustaceans Crab and Lobster.

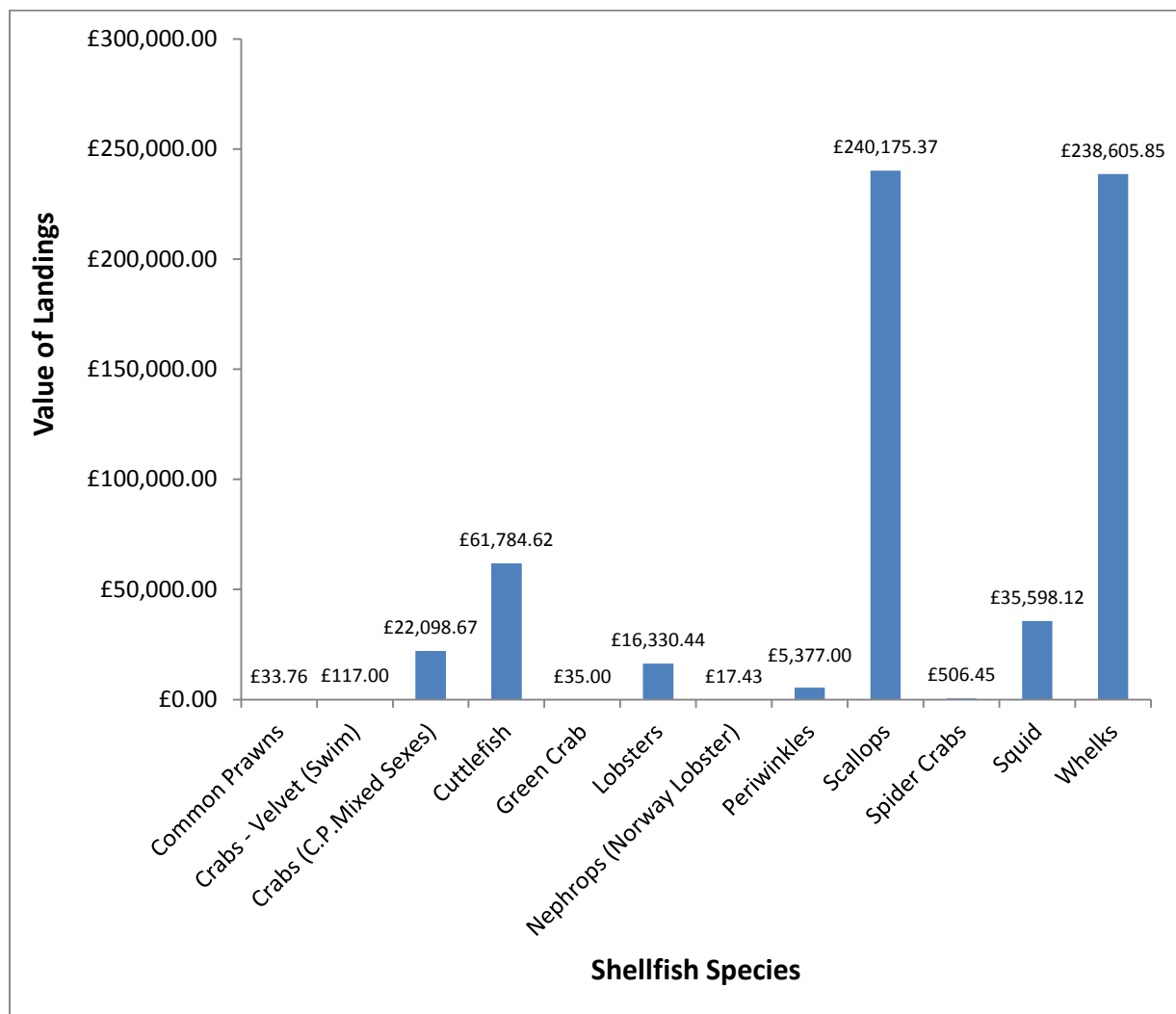
#### *Exe Estuary Mussels*

Although they are not recorded as landed at Exmouth in the official MMO Annual Fisheries Statistics, Mussels are highly likely to be the Exe Estuary's most important species both by weight and value. Mussels are harvested by *The Exmouth Mussel Company*, based at Exmouth Dock, using an elevator harvester, which hovers over the seabed, lifting the Mussels with water jets and leaves the base layers untouched.

<sup>1</sup> Significantly, the Exe Estuary is a designated Bass nursery area and many of its mudflats and sandflats also act as nursery areas for flatfish



The company gathers seed Mussels from the sand banks within and outside the Exe Estuary and moves them to more sheltered areas within the Estuary (including a private area of foreshore and fundus owned by the Earl of Devon), where they are left to grow to market size before harvesting. From 2009 to 2013 an average of 150 tonnes of Mussels were harvested annually, with an exceptional harvest of 626 tonnes in 2012, thanks to previous years' relaying of seed Mussels in the Estuary.



**Fig. 2.5: Value of Shellfish Landings Exmouth, 2014: (Source: MMO) Total Value = £620,679.71**

While certainly a diverse fishery in terms of the number of different species caught and landed, the Exe Estuary fishery is one that is dominated by three key shellfish species: Mussels, Scallops and Whelks. Other species like Bass, Cuttlefish, Sole, Squid and Plaice, make an important contribution to the fishery and may make a relatively greater contribution at specific times of year but these three species are, commercially, by far the most important part of the Exe Estuary fishery.

Rank	Species	Value (£)
1	Mussels	?
2	Scallop	240,175.37
3	Whelk	238,605.85
4	Bass	75,955.76
5	Cuttlefish	61,784.62
6	Sole	52,667.71
7	Squid	35,598.12
8	Lemon Sole	24,834.09
9	Plaice	24,364.52
10	Crabs	22,098.67
11	Unid DS Sharks & Dogfish	18,592.45
12	Lobsters	16,330.44

Fig. 2.6: Key Exe Fishery Commercial Species

While all landed at Exmouth and comparable in terms of total value, these three species have very different geographies in terms of where they are harvested and where they go after they leave the dock at Exmouth. While Mussels are harvested exclusively within the Exe Estuary with a significant proportional also being consumed locally, Scallops, by contrast are harvested from as far away as the Irish Sea, and when landed are likely to be exported to Europe (France and Spain), while Whelks may be harvested more locally but are exported significantly further with the vast majority going as far as the Far East. [Verify]

The Exe Estuary fishery, as with many others, has faced significant challenges over recent years. The number of boats fishing out of the Exe Estuary and adjacent coastal waters has been decreasing and the value of landings has significantly dropped. Nevertheless, even at historically low levels it remains a viable, sustainable, and culturally important, if somewhat underappreciated and undervalued, fishery. It should be championed and helped to thrive.

## 3. Exe Estuary Seafood Surveys

### 3.1 Surveys Overview

The basic aim of the Exe Estuary Seafood Surveys was to address the second of the scoping studies two principle objectives: that is, to determine local seafood retailers' and restaurateurs' understanding of, attitudes towards, and willingness to sell, locally sourced and/or landed seafood. The short survey was designed to take no more than a few minutes to complete and asked a few simple questions about what seafood restaurateurs and retailers currently had on their menus or on their counters and where they sourced their seafood from.

It was recognised that in order to keep the survey fairly short and thus increase the number of likely responses, the number and complexity of questions asked needed to be restricted. It was also recognised that restaurateurs and retailers/wholesalers required different surveys. Two slightly modified, sector-specific surveys were thus sent out to restaurateurs and retailer/wholesalers respectively.

Potential respondents were identified using a Devon County Council database of registered 'food' businesses in the County (including Exeter). A geographical area was loosely defined, corresponding to a 'Greater Exe Estuary' area, which extended westwards in to Teignbridge towards the Haldon Hills and Dawlish, eastwards in to East Devon towards Woodbury Common and Sidmouth, and northward to include Exeter and its immediate hinterland. After a number of businesses were filtered out because they were deemed unlikely to stock/sell significant amounts of seafood e.g. Bakeries, there remained **544 restaurants/takeaways** and **84 food retailers** of which **18** were specifically fishmongers or seafood wholesalers

In order to maximise our number of responses, surveys (and accompanying letters) were sent out to all 544 restaurants/takeaways and 84 retailers. In response, we received back **34** completed 'Restaurant' surveys and **6** 'Retail' surveys, equating to response rates of 6% and 7% respectively. While these response numbers and rates were relatively modest, and limited any subsequent claims to great statistical significance to our analysis, they were sufficient to give us snapshot or flavour of prevailing attitudes and practices to local seafood among local restaurateurs and retailers

## 3.2 'Restaurant' Survey Results

### 3.2.1 Types of Business

This first section of the survey asked for some basic information about the respondents' business.

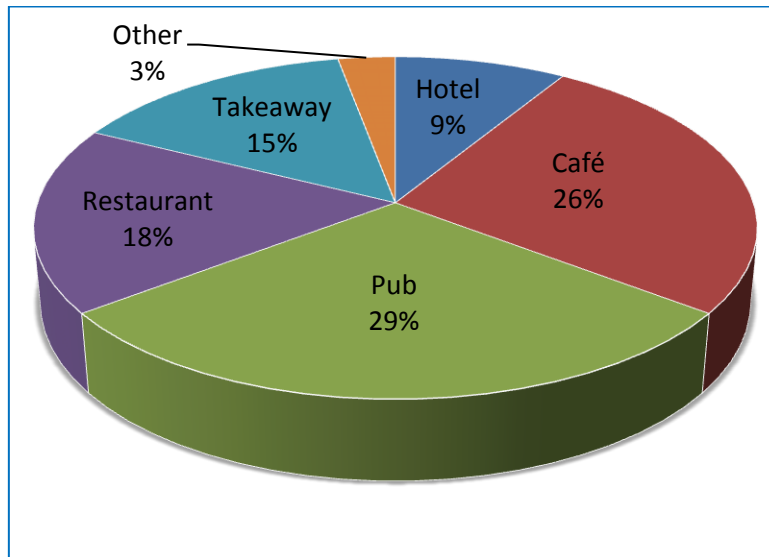


Fig. 3.1: Restaurant Survey Respondents by Business Type

Although 'restaurant' was used as a catchall term for various types of eating establishment only 6 of the 34 respondents were true restaurants. Public Houses and Cafés made up over half of 'restaurant' respondents. Of the 34 respondents, 26 open all year round and 8 open seasonally.

### 3.2.2 Seafood Menus

This section of the survey was concerned with finding out what seafood, if any, restaurants had on their menus.

*Q. What seafood do you currently have on your menu?*

Of the 34 respondents, 2 had no seafood on their menus at all; 11 had 1-2 items; 16 3-5, and 5 classed themselves as specifically seafood restaurants.

What is immediately apparent from these results (Fig. 3.2) is the large variety of seafood items available in local restaurants and food outlets, with the number of different species available on local menus comparable to the number of different species locally caught/landed: ~ 40 (though the list of locally landed species does not map directly onto the list of locally eaten species – see below). This suggests that Exe estuary consumers have a fairly broad palette when it comes to seafood. The appearance too of 'unusual' seafood items such as Sea Urchin, Razor Clam, Ling

and Gurnard also challenges the common perception of British consumers having fairly narrow tastes when it comes to seafood.

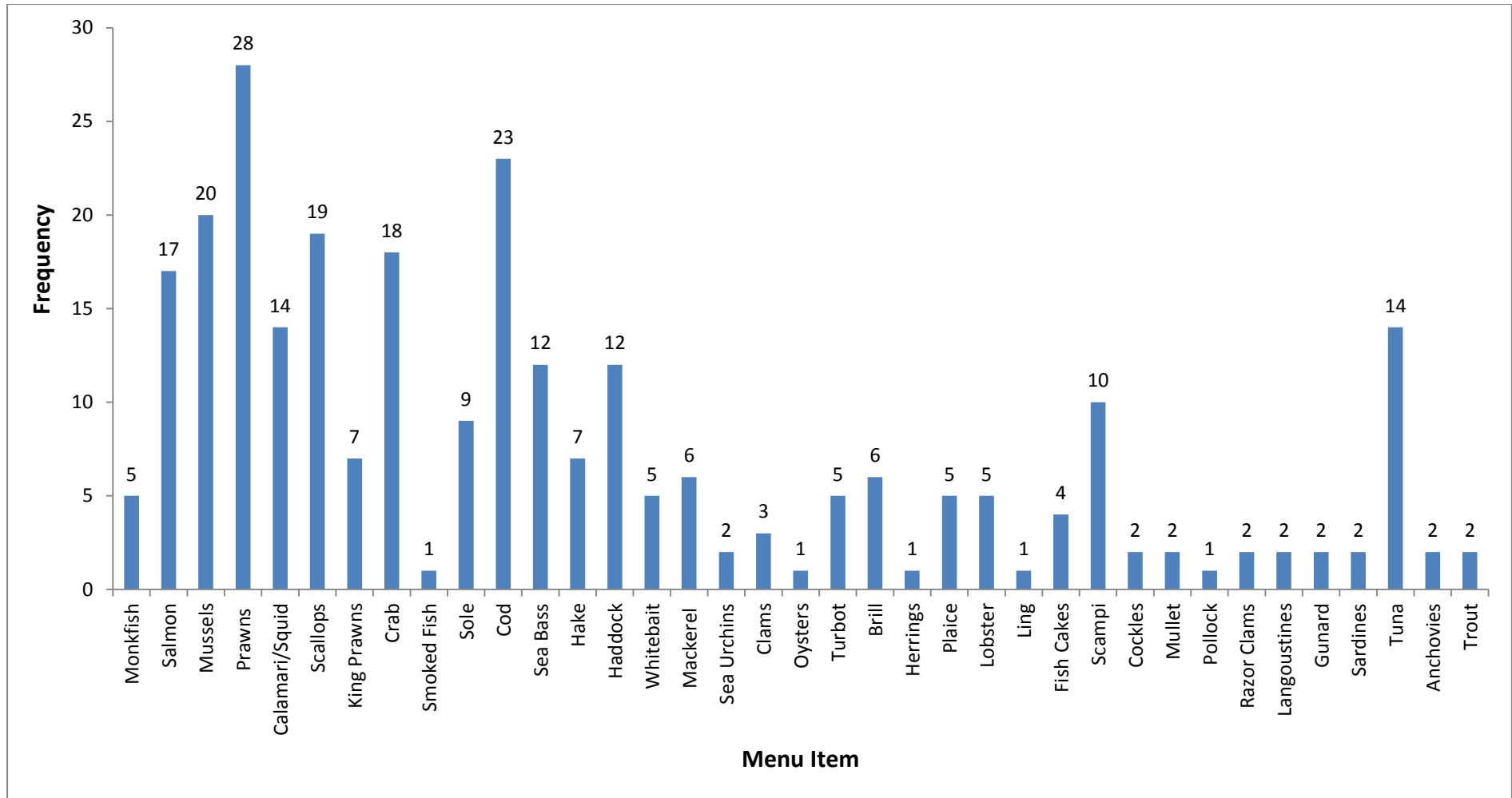
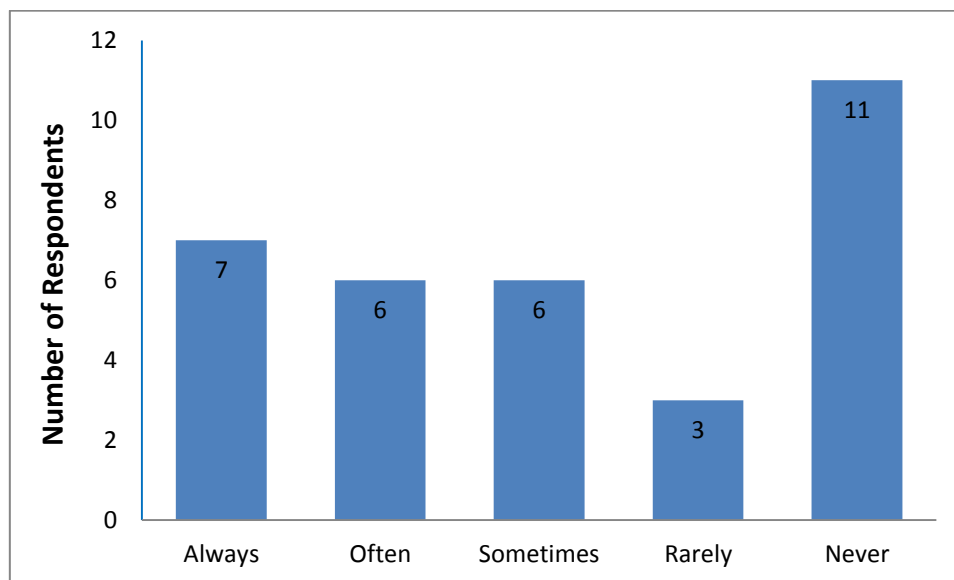


Fig. 3.2: Frequency of seafood menu items

Having said this, the most common seafood item appearing on 28 of the 34 menus was Prawns, closely followed by Cod which appeared on 23 of 34 menus (Cod was also cited most often as respondents' most popular dish). Other perennial favourites too, like salmon, tuna, and haddock, also featured strongly on local seafood menus. Somewhat surprisingly three shellfish species – scallops, crab and mussels – also featured prominently. This in part may reflect a general growing appetite for shellfish along with the quality, availability and reputation of locally caught/landed examples of these species, particularly the mussels. Perhaps most surprising was the relative popularity of squid on local menus. While this was often in the form of calamari – a dish that has become familiar to many British consumers/tourists – it does, nevertheless, point to a growing acceptance and willingness to consume 'non-traditional' species and points to the potential of another locally caught/landed cephalopod: cuttlefish.

*Q. Does the seafood you offer vary according to season?*



**Fig. 3.3: Menu Seasonality**

Encouragingly, the majority of restaurateurs who responded to the survey took some account of local seasonal availability when putting their menus together, with 7 of 33 respondents 'always' doing so. However, significant number (11 of 33) took no account whatsoever.<sup>2</sup>

<sup>2</sup> Seasonality less relevant if you are just selling tuna sandwiches

Q. Do you ever have any of the following seafood items on your menu?

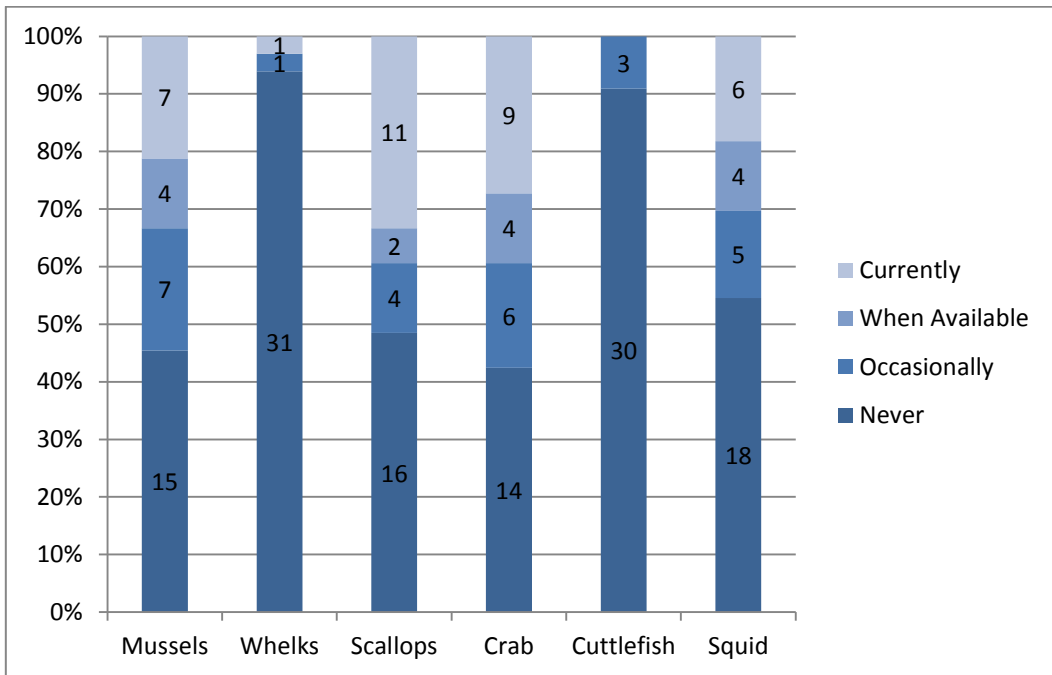


Fig. 3.4: Number of key local species on local menus

Of the six key local species identified in Section 2 of this report, scallops, crab, mussels and squid all appear fairly regularly on a good proportion of respondents' menus. Mussels, crab and scallops, for example, appear at some point over a season on over 50% of menus. By contrast over 90% of menus never feature whelks and cuttlefish. **By far the most commonly given reason for not putting these six key local species on menus was 'no customer appetite' for them.**

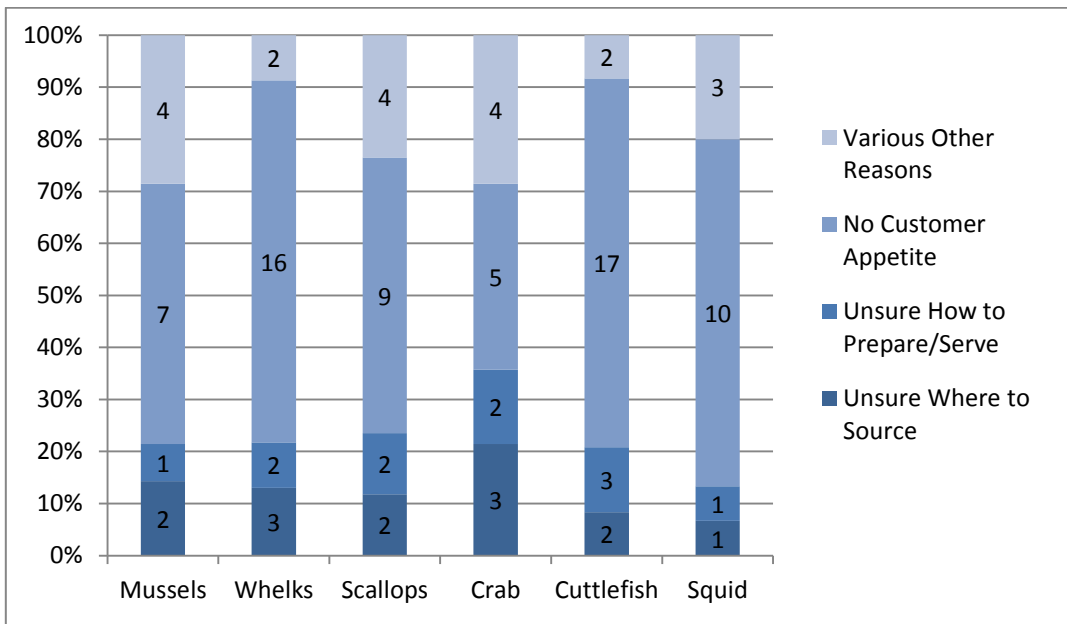


Fig. 3.5: Reasons for not putting key local species on menus



### 3.2.3 Sourcing Seafood

This section of the survey was concerned with finding out where local restaurants sourced their seafood from.

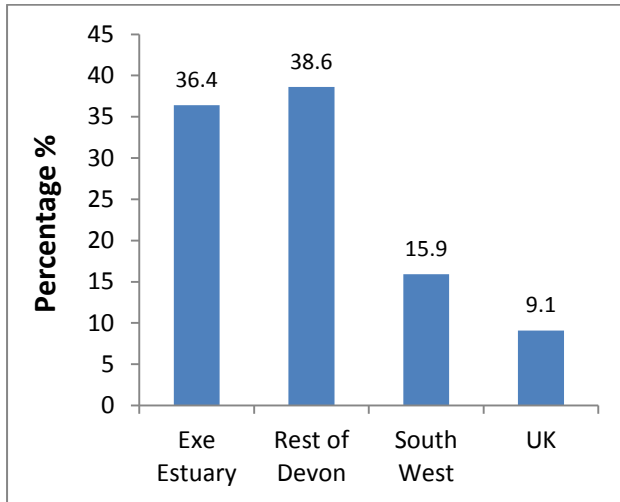


Fig. 3.6: Where local restaurants buy their seafood

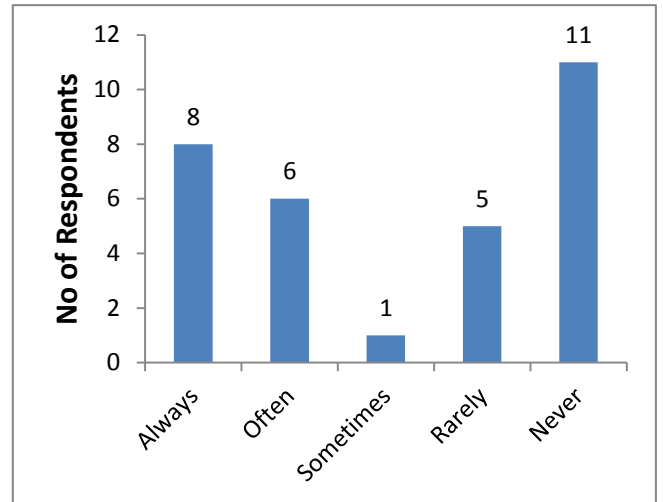


Fig. 3.7: How often respondents intentionally buy 'local' seafood

*Q. Where and from whom do you buy your seafood?*

The survey revealed that restaurants bought their seafood from a total 27 different sources. A significant majority of these (20) were specialist seafood wholesalers (as opposed to general food wholesalers), but the most frequently cited source was Exeter Macro (an international 'cash and carry' style wholesaler). Figure 3.6 shows the relative percentages of different degrees of 'localness' with respect to local restaurants sourcing of seafood. Over a third of respondents' primary source of seafood was from a 'local' Exe Estuary source, while a similar proportion of respondents got their seafood from 'other' Devon sources. Taken together, three quarters of responding local restaurants stated that their primary source of seafood was a Devon based source.

On the face of it this is encouraging, but this relatively simply graph hides a more complex seafood supply chain geography. The scale and drawing power of large south Devon ports and associated fish markets like Plymouth and Brixham, has a significant impact on other nearby local seafood supply chains. **In the context of the Exe Estuary, for example, it is not uncommon for fish landed at Exmouth to be transported to, and sold in, Brixham, before returning back to Exmouth to appear on local menus.**

Bought locally doesn't necessarily mean caught locally or even landed

Q. How often do you intentionally source 'locally' caught or landed seafood

Figure 3.7 also quotes of why?

Q. When sourcing your seafood, what do you consider to be the most important factors?

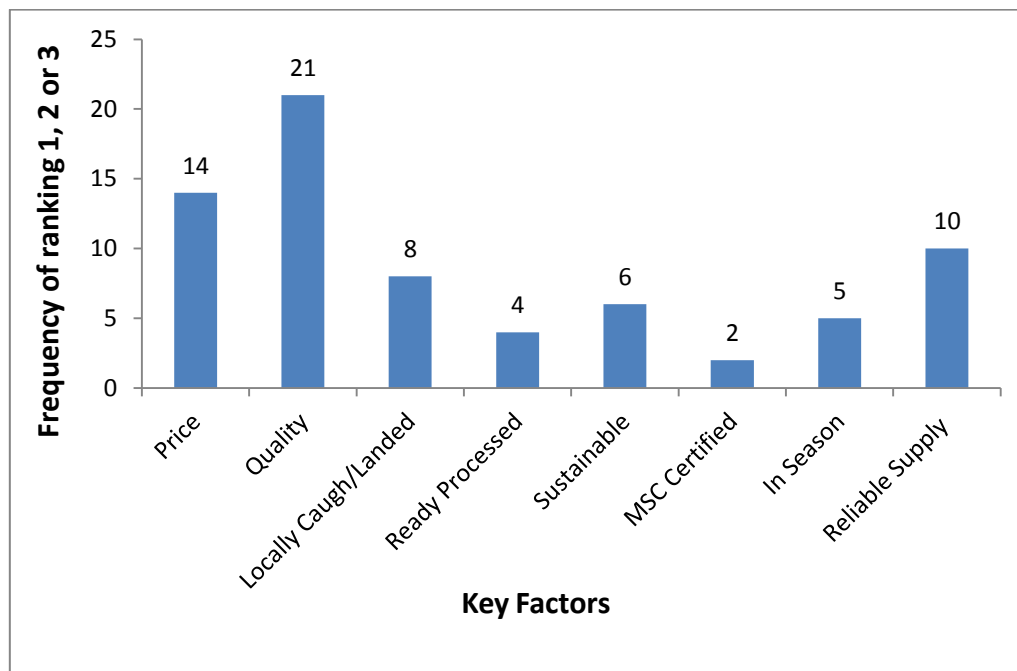


Fig. 3.8: Factors when sourcing seafood

Quality was ranked most often in the top three most important factors when sourcing seafood, followed by price. MSC certified was least often ranked in the top three most important factors. That is, quality and price are important factors, seasonality and certification are significantly less so.

### 3.2.2 The Exe Estuary Fishery: Local Knowledge and Attitudes

This section of the survey was concerned with finding out how much respondents knew about the Exe Estuary Fishery and their attitudes to local seafood.

Q. How much do you feel you know about the Exe Estuary Commercial Fishery?

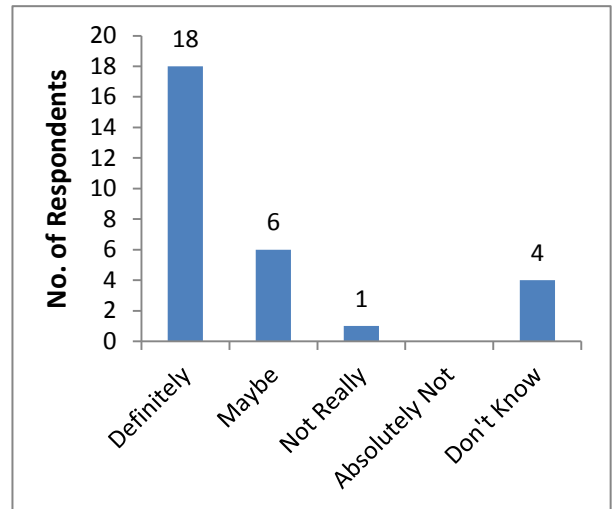
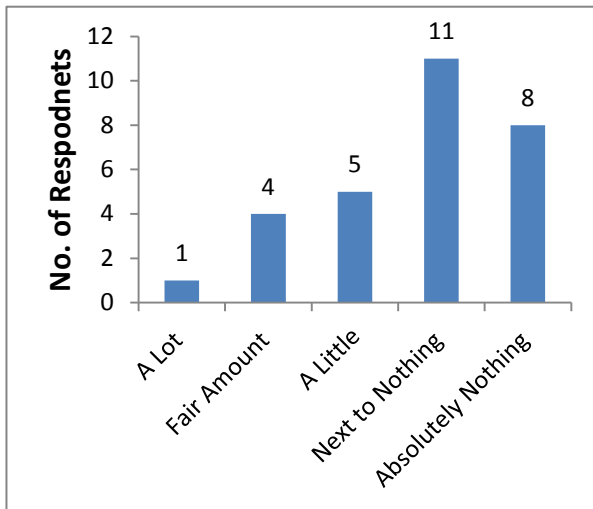


Fig. 3.9: Respondents knowledge of the Exe Estuary commercial fishery

Fig. 3.10: Respondents attitudes to a local labelling scheme for the Exe Estuary commercial fishery

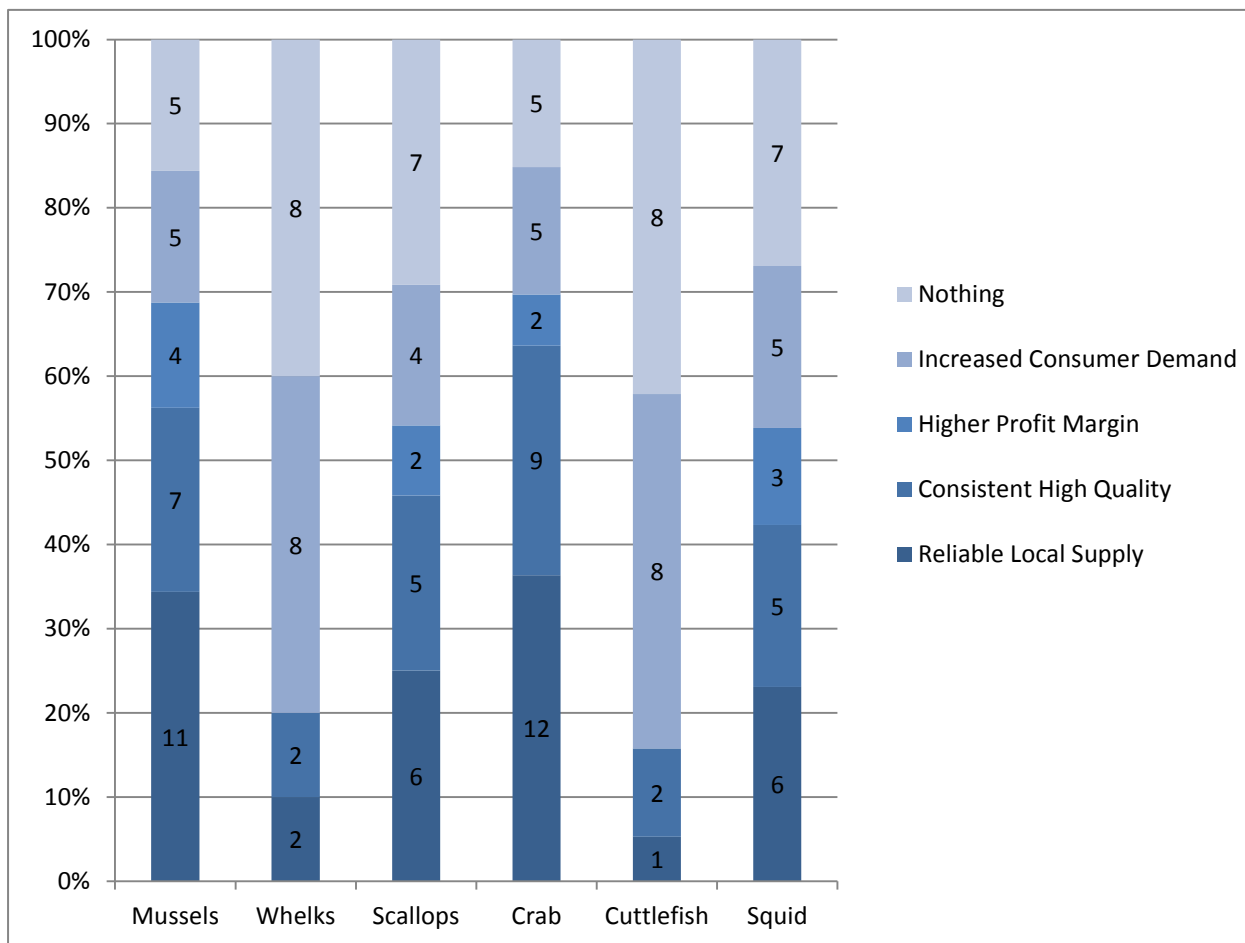
Q. Is a local labelling scheme something that you'd like to see for the Exe Estuary Fishery?

Seems be considerable support among respondents for a local labelling scheme.

Q. Do you think schemes that try to encourage retailers, restaurateurs and consumers to 'Love Their Local Catch' are a good idea?

28 (82%) said *Definitely*, 5 said *Maybe* just 1 said *'Don't Know'*

Q. If you don't usually have locally sourced examples of the seafood listed below on your menu, what factors might encourage you to do so?



**Fig. 3.11: Factors that might encourage respondents to have locally sourced examples of key local species on their menus**

For mussels it is a reliable, consistently high quality supply

For whelks it is increased consumer demand on nothing

Scallops nothing]

For crab it is a reliable, consistently high quality supply

For cuttlefish like whelks it is increased consumer demand on nothing

For squid range of issues

### Analysis

<i>Species Locally Caught/Landed</i>	<i>Species Available on Local Menus</i>
Sharks & Dogfish	
Thornback Ray	
Small-eyed Ray	
Blonde Ray	
Spotted Ray	
Whiting	
Dabs	
Spider Crabs	
Pouting (Bib)	
Crabs - Velvet (Swim)	

Sea Breams	
Green Crab	
John Dory	
Wrasses	
Megrim	
Roes	
Sand Eels	
Conger Eels	
Periwinkles	
Flounder or Flukes	
Cuttlefish	
Whelks	
Scallops	Scallops
Bass	Bass
Soles	Sole
Squid	Squid
Plaice	Plaice
Crabs (C.P.Mixed Sexes)	Crab
Lobsters	Lobsters
Turbot	Turbot
Brill	Brill
Mullet	Mullet
Mussels	Mussels
Cod	Cod
Monks or Anglers	Monkfish
Pollack	Pollack
Mackerel	Mackerel
Gurnards	Gunard
Ling	Ling
Common Prawns	Prawns
Herring	Herring
Nephrops (Norway Lobster)	Scampi/Langoustines
Pilchards	Pilchards/Sardines
	Fish Cakes
	Cockles
	Razor Clams
	King Prawns
	Hake
	Haddock/Smoked Fish
	Whitebait
	Sea Urchins
	Clams
	Oysters
	Salmon
	Tuna
	Anchovies
	Sea-Trout

Table 3.1

The number of different species available on local menus is comparable to the number of different species locally caught landed although there is only a partial overlap in terms of