

## Research and Information Service Briefing Paper

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# Overview of the sea fishing sector in Northern Ireland – Spring 2013

### 1 Background

This paper provides a brief overview of the current state of the sea fishing sector within Northern Ireland under the following areas:

- The current state of fish stocks utilised;
- The size of the fishing fleet;
- The role of DARD in relation to sea fishing;
- The role of the local Fish Producer Organisations; and
- The role and level of professional skills and training within the local industry

### 2 Current state of fish stocks utilised by the local industry

The current state of fish stocks worldwide is a contentious issue. Whilst some scientific data and projections suggest that the state of many stocks is perilous, anecdotal data from fishermen can often run counter to this analysis.

This debate also rages in relation to the stocks fished by the fishing industry in Northern Ireland, but within this particular paper the focus is on the scientific data that the EU utilises in deciding the levels of fishing permitted within EU waters.

### 2.1 The Total Allowable Catch (TAC) system

Under the auspices of the Common Fisheries Policy EU member states are allocated a quota for the amount and type of fish they can catch based upon their existing fisheries. In an effort to ensure that there is no overfishing the CFP operates a mechanism to calculate the maximum amount of fish that can be removed from any fishery called the Total Allowable Catch (TAC). These TACs are traditionally agreed by EU Fisheries Ministers every December.

The actual process utilised for the determination of TACs is set out in figure 1 below.

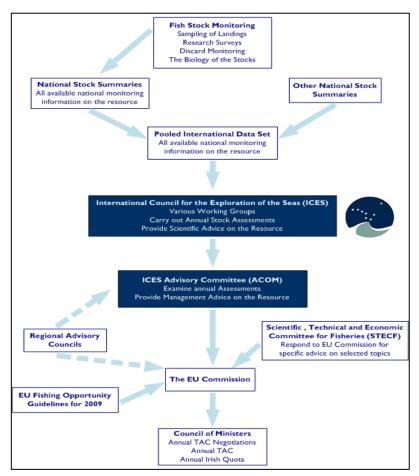


Figure 1: Key steps in the setting of TACs within the CFP<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Total Allowable Catch (TAC) overview, Irish Marine Institute website, 12th April 2013

The actual decision on national TAC allocations is ultimately the decision of EU Fisheries Ministers but the process is based upon a proposal from the Commission. This proposal is based on scientific advice from the Scientific, Technical and Economic Committee for Fisheries (STECF), a group of independent scientists established to advise the Commission on all aspects of fisheries policy. In the case of certain regions (Baltic, North Sea, North East Atlantic, ...), the Commission can and does in turn draw on the advice provided by the International Council for the Exploration of the Sea (ICES).

It should also be stated that TACs are allocated to areas as defined by ICES. Figure 2 below highlights the North East Atlantic region and the divisions within it.

Whilst boats from Northern Ireland can, and do fish throughout these areas and further afield, providing they have quota to do so, the greatest concentration of current effort is on fisheries within Area VIIa which covers the Irish Sea, with a particular focus on the catching of nephrops/prawns.

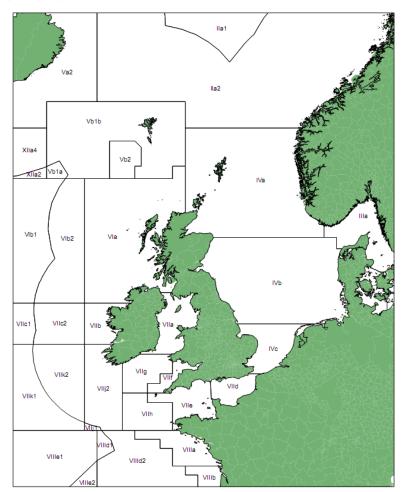


Figure 2: ICES area map North East Atlantic<sup>2</sup>

<sup>&</sup>lt;sup>2</sup> <u>UK Sea Fisheries Statistics 2011, UK Marine Management Organisation, Appendix 2</u>

| Species                    | Final TAC 2012 (tonnes) | Final TAC 2013 (tonnes) | Percentage change<br>2013/12 |
|----------------------------|-------------------------|-------------------------|------------------------------|
| Herring                    | 5,280                   | 4,993                   | -5%                          |
| Cod                        | 380                     | 285                     | -25%                         |
| Haddock                    | 1,251                   | 1,189                   | -5%                          |
| Whiting                    | 89                      | 84                      | -6%                          |
| Nephrops (all of Area VII) | 21,759                  | 23,065                  | +6%                          |
| Plaice                     | 1,627                   | 1,627                   | -                            |
| Common Sole                | 300                     | 140                     | -53%                         |
| Pollack (all of Area VII)  | 13,495                  | 13,495                  | -                            |
| Mackerel (all of Area VII) | 321,053                 | 240,792                 | -25%                         |

Within Area VIIa, the 2013 TACs agreed for key species for the Northern Ireland fleet by the Fisheries Council Ministers on the 18<sup>th</sup>-19<sup>th</sup> December 2012 are set out in table 1 below.

Table 1: ICES Area VIIa (Irish Sea) agreed TACs for selected species in 2013<sup>3</sup>

These TACs are then further allocated to the countries that fish these waters. Within the UK this allocation is made to the Fish Producers Organisations (FPOs) who's members have a record of fishing the waters and who manage the actual allocation and uptake of quota to individual vessels within their membership.

### 2.2 Current scientific data on the health of fish stocks within ICES Area VIIa

As stated previously, scientific data on the health of fish stocks is a key element in the annual or multi annual setting of TACs within the EU.

The EU has made a commitment to achieving a maximum sustainable yield (MSY) for depleted stocks by 2015 at the latest. In simple terms the MSY approach is based on a long-term strategy whereby catch rates are fixed, enabling fish stocks to reproduce so that exploitation can occur in sustainable economic, environmental and social conditions. The use of robust scientific data is central to the achievement of MSY, particularly in establishing the baseline condition of a stock.

Factors which are taken into consideration when determining the MSY of a particular stock include:

- The level of fishing mortality the proportion of a stock killed/dying as a result of fishing activity, with an assessment being made as to the FMSY, ie the fishing mortality rate that is expected to deliver MSY;
- The spawning stock biomass the total weight of fish within a stock that are able to spawn (reproduce), with an assessment being made as to the BMSY ie the spawning stock biomass that can support MSY;

<sup>&</sup>lt;sup>3</sup> Agriculture and Fisheries , Council of the European Union, press release 18th December 2012

• **The recruitment levels** – the number of young fish entering the fishery either through year groups ageing or fish migration.

It does however need to be recognised that the level of available data within the EU is mixed. The European Commission recognises this as a problem, a fact highlighted by their "Fishing opportunities for 2013" consultation document published in June 2012 which states that 65% of the stocks within European waters are not fully assessed<sup>4</sup>.

With specific regards to the Irish Sea (ICES Area VII) the following tables highlight and summarise the scientific data utilised by the EC in making its fishing opportunities proposals for the range of species found within this fishery in 2012 and 2013.

| Species                    | 2012 scientific assessment   |
|----------------------------|--|
| Herring                    | Stocks are exploited at a rate that is consistent with producing<br>the highest catch from the stock in the long term                              |
| Cod                        | The stock is outside safe biological limits while not under a long-term plan, or is subject to a scientific advice that there should be no fishing |
| Haddock                    | The state of the stock is unknown with respect to either or both safe biological limits or to producing the highest catch in the long term         |
| Whiting                    | The stock is outside safe biological limits while not under a long-term plan, or is subject to a scientific advice that there should be no fishing |
| Nephrops (all of Area VII) | The state of the stock is unknown with respect to either or both safe biological limits or to producing the highest catch in the long term         |
| Plaice                     | The state of the stock is unknown with respect to either or both safe biological limits or to producing the highest catch in the long term         |
| Common Sole                | The stock is outside safe biological limits while not under a long-term plan, or is subject to a scientific advice that there should be no fishing |
| Pollack (all of Area VII)  | The state of the stock is unknown with respect to either or both safe biological limits or to producing the highest catch in the long term         |
| Mackerel                   | The stock is outside safe biological limits while not under a long-term plan, or is subject to a scientific advice that there should be no fishing |

Table 2: ICES Area VIIa EC scientific assessment of stocks 2012<sup>5</sup>

The data for 2012 highlights the fact that of the 9 species highlighted, only one (Herring) was being fished sustainably, whilst 4 species were being exploited at an unsustainable level (Cod, Whiting, Sole, and Mackerel) and the state of four other stocks was unknown (Haddock, Nephrops, Plaice and Pollack).

<sup>&</sup>lt;sup>4</sup> <u>Communication from the Commission to the Council concerning a consultation on Fishing Opportunities for 2013, 7th June</u> 2012

<sup>&</sup>lt;sup>5</sup> <u>Fishing TACS and Quotas 2012, European Commission factsheet, EC website 11th April 2013</u>

The STECF 2013 assessment of the stocks within ICES Area VIIa is provided in detail in appendix 1 and also includes management advice for stocks. Interestingly, this was the first year in which ICES provided quantitative advice for data limited stocks. Whilst the EC has yet to consolidate this data into a simplified format similar to table 2 above, the data can be summarised as set out in table 3

| <ul> <li>Nephrops within Functional Unit 15<br/>(West Irish Sea)</li> <li>Cod (+declining mortality, but -spawning<br/>biometry and requirement down)</li> </ul>   |
|--|
|  |
| <ul> <li>biomass and -recruitment down),</li> <li>Common Sole( +declining mortality, but – spawning biomass has continuously declined since 2001 and recruitment is lower)</li> </ul>  |
| <ul> <li>Mackerel(+SSB has increased<br/>considerably since 2002 and remains high,<br/>but -mortality above the figure required for<br/>MSY)</li> </ul>  |
| <ul> <li>Haddock (+ spawning biomass has<br/>increased significantly from early 1990s,<br/>but - assessment is indicative of trends<br/>only)</li> <li>Herring (+spawning biomass has been<br/>above MSY Btrigger since 2006, fishing<br/>mortality decreased since 2003)</li> <li>Plaice (+declining mortality, but –varying<br/>recruitment data which shows no trend),</li> <li>Whiting (+Spawning-stock biomass has<br/>increased slightly, fishing mortality has<br/>declined continuously, but – spawning<br/>biomass remains very low and recruitment<br/>is estimated to have been very low over the<br/>last decade)</li> <li>Nephrops within Functional Unit 14<br/>(East Irish Sea)</li> <li>Pollack</li> </ul> |
|  |

Table 3: ICES Area VIIa EC scientific assessment of stocks 2013<sup>6</sup>

The 2013 assessment data highlights the fact that within ICES Area VIIa there remain issues with the data availability/reliability for 6 stocks (Haddock, Herring, Plaice, Whiting, Pollack and Nephrops within Functional Unit 14). Of these 6 stocks, 4 (Haddock, Whiting, Plaice and Nephrops in Functional Unit 14), are defined as being in the same state as 2011, meaning that the stock condition has neither improved nor declined. The situation in relation to Herring showed an improvement from 2011 whilst there was insufficient data to make any such assessment of the Pollack stock.

<sup>&</sup>lt;sup>6</sup> Seafish Summary of ICES assessed stocks - June and October 2012, November 2012

With regards to **Mackerel within Area VIIa, the stock is deemed to be at risk of being outside safe biological limits**, but significantly the stock situation has improved since 2011.

**Cod and Common Sole stocks remain outside safe biologic limits and since 2011** the condition of the Cod stock has shown no sign of improvement whilst for Common Sole the situation has actually got worse

The **only stock deemed to be within safe biologic limits is Nephrops** within Funtional Unit 15, which covers the Western Irish Sea.

Despite ongoing concerns around the availability of data, the European Commission appears to be cautiously optimistic in relation to the status of many stocks within the North East Atlantic and nearby seas, with the number of overfished stocks falling from 32 out of 34 stocks in 2005 to 18 out of 38 stocks in 2012<sup>7</sup>. The Commission does however acknowledge that there is still significant work to be done in this area and has made the creation of healthy stocks across the EU a key priority for the ongoing CFP reform process.

### 3 Key features of the fishing industry within Northern Ireland

Using data held by the Maritime Management Organisation the following tables highlight some of the key features of the fishing industry within Northern Ireland.

| Year | Number of<br>regular<br>fishermen | % of total<br>number | Number of part<br>time fishermen | % of total<br>number | Total Number of fishermen |
|------|-----------------------------------|----------------------|----------------------------------|----------------------|---------------------------|
| 1938 | 342                               | 38                   | 556                              | 62                   | 898                       |
| 1948 | 800                               | 73                   | 300                              | 27                   | 1,100                     |
| 1960 | 500                               | 77                   | 150                              | 23                   | 650                       |
| 1975 | 538                               | 65                   | 285                              | 35                   | 823                       |
| 1985 | 808                               | 73                   | 294                              | 27                   | 1,102                     |
| 1991 | 1,081                             | 79                   | 288                              | 21                   | 1,369                     |
| 1995 | 933                               | 80                   | 226                              | 20                   | 1,159                     |
| 2005 | 514                               | 90                   | 55                               | 10                   | 569                       |
| 2006 | 547                               | 89                   | 66                               | 11                   | 613                       |
| 2007 | 557                               | 85                   | 101                              | 15                   | 658                       |
| 2008 | 532                               | 85                   | 93                               | 15                   | 625                       |
| 2009 | 541                               | 83                   | 113                              | 17                   | 654                       |
| 2010 | 535                               | 83                   | 113                              | 17                   | 648                       |
| 2011 | 578                               | 84                   | 110                              | 16                   | 688                       |

### 3.1 Number of fishermen

<sup>&</sup>lt;sup>7</sup> Fishing opportunities for 2013: improvements for some fish stocks, European Commission press release, 8th June 2012

Table 4:Number of fishermen within Northern Ireland – selected data 1938-2011<sup>8</sup>

It is clear from the data in table 4 that the numbers of fishermen within Northern Ireland has fluctuated significantly since 1938, but that in general terms the number of fishermen is now lower than it once was. There are signs that the figures have stabilised from 2007 onwards.

Northern Ireland saw its biggest number of recorded fishermen in 1991 when there were a total of 1,369 fishermen employed in total.

The other noticeable trend within the data is the proportion of part time fishermen has contracted significantly since 1975 and whilst recovering since 2007 currently accounts for only 16% of the total number of fishermen.

#### Overall Length of vessel (m) Number of vessels Percentage breakdown 8m and under 134 35% 8.01-10m 97 26% 10.01-15m 39 10% 15.01-18m 34 9% 18.01-24m 57 15% Over 24m 18 5% Total 379

### 3.2 Number and size of vessels (length) administered in Northern Ireland

Table 5: Number and size of vessels registered in Northern Ireland<sup>9</sup>

A total of 379 vessels are administered in Northern Ireland.

The greatest number of vessels administered within Northern Ireland were sized 8 metres and under. There were only 18 vessels administered from Northern Ireland which were bigger than 24 metres.

### 3.3 Age of vessels administered in Northern Ireland

| Year of Construction | Number of boats (NI) | Percentage of total (NI) |
|----------------------|----------------------|--------------------------|
| Unknown              | 27                   | 7%                       |
| 1960 or earlier      | 9                    | 2%                       |
| 1961-70              | 44                   | 12%                      |
| 1971-80              | 95                   | 25%                      |
| 1981-1990            | 102                  | 27%                      |
| 1991-2000            | 60                   | 16%                      |
| 2001-2010            | 42                   | 11%                      |
| 2011                 | 0                    | 0%                       |

Table 6: Age of vessels registered in Northern Ireland<sup>10</sup>

<sup>&</sup>lt;sup>8</sup> UK Sea Fisheries Statistics 2011, Marine Management Organisation, table 6, page 16

<sup>&</sup>lt;sup>9</sup> UK Sea Fisheries Statistics 2011, Marine Management Organisation, table 2.3, page 15

The greatest number of vessels active within Northern Ireland were constructed between 1981 and 1990 (27%).

In general terms our local fleet could be defined as ageing.

Combining the construction periods of 1971-1980 and 1981-1990 accounts for 52% of the local fleet, meaning that the majority of our local fleet is aged somewhere between 23 and 32 years.

There are older vessels within the fleet, with 9(2%) being constructed in 1960 or earlier, making them at least 53 years old, and there are also 27(7%) vessels for which no construction date is known.

### 3.4 Catch landed in NI ports

In terms of ports, the boats which constitute the sea fishing industry in Northern Ireland are mainly located in the 3 Co Down fishing villages of Portavogie, Kilkeel and Ardglass. Based on 2011 figures Ardglass and Kilkeel are within the UK's top 20 ports in terms of the tonnage of fish landed by UK vessels. Table 3 below highlights the catch landed in each port in 2008 as well as the approximate value of these catches in millions of pounds.

|            | 2009<br>Quantity<br>(tonnes) | Value (£<br>millions) | 2010<br>Quantity<br>(tonnes) | Value (£<br>millions) | 2011<br>Quantity<br>(tonnes) | Value (£<br>millions) |
|------------|------------------------------|-----------------------|------------------------------|-----------------------|------------------------------|-----------------------|
| Ardglass   | 8,500                        | 5.6                   | 10,200                       | 6.9                   | 9,977                        | 9.8                   |
| Kilkeel    | 4,100                        | 5.4                   | 5,700                        | 7.0                   | 6,071                        | 8.9                   |
| Portavogie | 3,000                        | 4.7                   | 2.,800                       | 4.7                   | 2,630                        | 5.5                   |
| Total      | 15,600                       | 15.7                  | 18,700                       | 18.6                  | 18,678                       | 24.2                  |

Table 7: Total quantity and value of landings in Northern Ireland's 3 major fishing ports 2009-11<sup>11</sup>

In terms of the actual types of fish that make up these landings in Northern Irish ports table 8 below provides a breakdown for the 2011 data.

|            | Demersal<br>tonnes | Demersal £ | Pelagic<br>tonnes | Pelagic £ | Shellfish<br>tonnes | Shellfish £ |
|------------|--------------------|------------|-------------------|-----------|---------------------|-------------|
| Ardglass   | 130                | 189,000    | 7,288             | 4,554,000 | 2,559               | 5,086,000   |
| Kilkeel    | 698                | 1,001,000  | 35                | 10,000    | 5,338               | 7,981,000   |
| Portavogie | 274                | 534,000    | -                 | -         | 2,356               | 4,983,000   |
| Total      | 1,102              | 1,190,000  | 7,323             | 4,564,000 | 10,253              | 18,050,000  |

Table 8: Breakdown and value of fish landings in Northern Ireland's 3 major fishing ports in 2011<sup>12</sup>

The total value of fish landed in Northern Ireland's 3 primary fishing ports in 2011 amounted to £24.2 million.

<sup>&</sup>lt;sup>10</sup> UK Sea Fisheries Statistics 2011, Marine Management Organisation, table 4, page 12

<sup>&</sup>lt;sup>11</sup> UK Sea Fisheries Statistics 2011, UK Marine Management Organisation

<sup>&</sup>lt;sup>12</sup> UK Sea Fisheries Statistics 2011, UK Marine Management Organisation, table 1.1 page 6

It is clear from the figures presented in tables 7 and 8 that shellfish make up the most significant part of the overall catch landed at Northern Ireland's three ports (average price of £1,760 per tonne). Pelagic fish (which incorporate species such as mackerel and herring) (average price of £623 per tonne) make up the next largest tonnage landed at Northern Ireland ports followed by the lower tonnage but more expensive Demersal fish (which incorporate species including cod and plaice) (average price of £1,079 per tonne).

### 4 The role of DARD and AFBI in relation to sea fishing

### 4.1 DARD Fisheries Division

DARD has direct responsibility for sea fisheries, aquaculture and fish health policy and acts as the licensing authority for both aquaculture and fishing vessels

DARD Fisheries Division is headquartered in Dundonald House, but there are also Fisheries Offices in the three main fishing ports of Ardglass, Kilkeel and Portavogie.

The Department also has responsibility for the enforcement of UK and EU fisheries legislation, and operates a Fisheries Inspectorate which monitors quota adherence, days at sea and technical issues such as net mesh size within the local fishing fleet. In fulfilling this role DARD also deploys the Fisheries Protection Vessel (FPV) Banrion Uladh (Queen of Ulster) which undertakes at sea inspections as well as providing a platform for the conducting of at sea science and data collection.

The administration of the European Fisheries Fund is managed by the Department, with the current 2007-2013 programme having a total budget of €36 million in Northern Ireland.

### 4.2 Agri-Food Bioscience Institute (AFBI)

AFBI is a DARD Non-Departmental Public Body (NDPB), and through its Fisheries and Aquatic Ecosystems Branch (FAEB) provides a range of supports to DARD. Key activities here include carrying out R&D, monitoring and technology transfer, supporting the sustainable management of fisheries and aquatic resources in Northern Ireland.

The work of the FAEB is undertaken under the following four themes:

- marine fish stock assessment;
- ecosystem health;
- coastal zone science; and
- freshwater fisheries management

In relation to the area of marine fish stock assessment as well as collecting data from moored instruments, AFBI deploys the Research Vessel (RV) Corystes which is

equipped with state of the art technology, including multibeam sonar for seabed mapping, together with a range of specialised fish survey equipment.

As an example of the work undertaken by the RV Corystes, since 2003 and working in partnership with the Republic of Ireland, the vessel has jointly carried out an annual underwater television survey of the main Nephrops ground in the western Irish Sea. According to AFBI's annual report this work, which demonstrated the healthy state of our Nephrops (Dublin Bay prawn) stocks '…was deployed by the DARD Minister to successfully oppose large cuts in total allowable catches (TACs) being proposed for 2012 by the European Commission.'<sup>13</sup>

### 5 The role of Fish Producers Organisations within Northern Ireland

Fish Producer organisations (FPOs) are designed to enable producers (whether they catch and/or farm fish) to cooperate to manage their resources in a way that makes economic, as well as ecological, sense. They do this by drawing up an annual operational programme, binding on all their members.

The programme sets out how catches/production will be spread over the fishing season so as to avoid gluts and scarcity, and includes a marketing strategy. FPOs are expected to anticipate difficulties, not just react to them, and have the power to impose penalties on members who do not respect their production plan. Only producers who belong to a FPO have access to the EU's price support scheme.

More recently some POs have taken greater responsibility for fisheries management, for instance by managing the quota uptake of their members to ensure that it is within the total quota available to them<sup>14</sup>.

Northern Ireland currently has 2 fish producing organisations as follows:

- Anglo North Irish Fish Producers' Organisation (ANIFPO) founded in 1984 and based in Kilkeel;
- Northern Ireland Fish Producers' Organisation (NIFPO), founded in 1977 and based in Portavogie.

According to data held by the UK Maritime Management Organisation, on the 1<sup>st</sup> January 2011 the membership of the 2 local FPOs was as follows;

- ANIFPO 42 vessels in membership;
- NIFPO 112 vessels in membership.

It should be remembered that fishing vessels are not required to be a member of an FPO, as illustrated by the fact that on the 31st December 2011, 35% of all UK fishing

<sup>&</sup>lt;sup>13</sup> 2011-12 Annual Report and Statement of Accounts, Agri Food Bioscience Institute, page 42

<sup>&</sup>lt;sup>14</sup> Producer organisations webpage, European Commission Fisheries website, 10th April 2013

vessels over 10 metres in length were not members of a Fish Producer Organisation (FPO).<sup>15</sup>

In relation to the actual types of activity that FPOs engage in, ANIFPO highlight the following<sup>16</sup>:

- Management of member vessel quota;
- Representation of issues important to members ANIFPO is a constituent organisation within the UK's National Federation of Fishermen's Organisations (NFFO) and holds two seats on the NFFO's Executive Committee;
- Fish sales established in 2007 and open to members and non-members;
- Involved in the recruitment of crew for member vessels since 2007;
- Encouraging members to participate in and avail of training; and
- Providing funding and grant information.
- 6 The role and level of professional skills and training within the local industry

As a condition of going to sea, fishermen are required to undertake mandatory training which focusses on maintaining their safety at sea and has the following key elements:

- sea survival;
- fire fighting;
- first aid and; and
- health & safety.

Sea survival training must be completed before going to sea for the first time, and the other three courses must be completed within two months. Costs for these courses can be up £150.

Fishermen can also avail of voluntary training courses to build their skills or expertise in areas including;

- radio operation;
- radar;
- watch keeping;
- damage control;
- care of the catch;
- food safety; and
- net mending.

<sup>&</sup>lt;sup>15</sup> UK Sea Fisheries Statistics 2011, Marine Management Organisation, table 2.5, page 21

<sup>&</sup>lt;sup>16</sup> Anglo North Irish Fish Producers Organisation website, 11th April 2013

The Sea Fish Industry Training Association (SFITA) is the Seafish Approved Trainer within Northern Ireland, and as such organises and provides both the mandatory and a range of voluntary training courses.

SFITA also delivers a New Entrants Training Course with the aim of encouraging more people to work in the fishing industry. The inaugural 3 week course within Northern Ireland, which was jointly funded by Seafish and the European Fisheries Fund, ran in August 2012 and with a total of 10 participants<sup>17</sup> and in 2013 a further course with a total of 10 fishermen finished on the 8<sup>th</sup> March.

Skippers, mates and engineers working on fishing vessels of 16.5m in length and above, or on vessels with propulsive powers of 750kW and above, are also required to hold Marine and Coastguard Agency (MCA) Deck and Engineer Officer Certificates of Competency. Fishermen only get a certificate of competence after assessment and examination, which consists of practical, written and oral components.

<sup>&</sup>lt;sup>17</sup> <u>'New fishermen on course for career at sea', Belfast Telegraph, 7th August 2012</u>

| Species                       | 2013 scientific assessment   | Management advice  |
|-------------------------------|--|--|
| Herring – Division VIIa North | The spawning stock biomass has<br>been above MSY Btrigger since<br>2006. Fishing mortality has<br>decreased since 2003 to the lowest in<br>the time series and is now around<br>FMSY. Recruitment is increasing and<br>estimated to be above the average of<br>the time series since 2006 (2004 year<br>class  | ICES advises on the basis of MSY<br>approach that landings in 2013 should be<br>no more than 5100 t.<br>ICES advises that activities that impact on<br>the seabed should not take place in<br>spawning grounds unless they can be<br>shown not to have a negative impact on<br>spawning, larval production or stock<br>dynamics.<br>ICES advice endorsed by the Scientific,<br>Technical and Economic Committee<br>(STECF) |
| Herring – Division VIIa South | The current assessment shows SSB<br>at the highest level since the 1960s. F<br>is well below FMSY but has<br>increased<br>slightly in 2011. There are three<br>recent strong year classes (2003/4,<br>2005/6, and 2007/8) in the fishery.<br>The 2008–2009 year classes also<br>look above average.  | ICES advises on the basis of the MSY<br>approach that landings in 2013 should be<br>no more than 19,000 tonnes<br>ICES advises that activities that impact on<br>the seabed should not take place in<br>spawning grounds unless they can be<br>shown not to have a negative impact on<br>spawning, larval production or stock<br>dynamics<br>ICES advice endorsed by the Scientific,<br>Technical and Economic Committee   |
| Cod                           | The fishing mortality in recent years is<br>declining and uncertain, but total<br>mortality remains high. The spawning<br>stock biomass has declined tenfold<br>since the late 1980's and has had<br>reduced reproductive capacity since<br>the mid1990s. The spawning stock<br>biomass increased since 2010 but<br>remains well below Blim. Recruitment<br>has been low for the last 10 years                     | (STECF)<br>ICES advises on the basis of the MSY<br>approach that there should be no directed<br>fisheries, and bycatch and discards should<br>be minimized in 2013 and 2014.<br>ICES advice endorsed by the Scientific,<br>Technical and Economic Committee<br>(STECF)   |
| Haddock                       | The assessment is indicative of<br>trends only. Trends in SSB from the<br>assessment indicate that the average<br>of the<br>biomass indicator in the last two<br>years (2011–2012) is 18% lower than<br>the average of the three previous<br>years<br>(2008–2010). SSB trends are<br>fluctuating due to the dependence of<br>incoming year classes. The strength<br>of the<br>2011 year class is uncertain and the | Based on the ICES approach for data-<br>limited stocks, ICES advises that catches<br>should be no more than 710 tonnes and<br>further technical measures should be<br>introduced to reduce discards.<br>STECF agrees with the ICES assessment<br>of the state of the stock and the advice for<br>2013 interpreting the advice as a call for<br>further uptake of technical measures.                                       |

APPENDIX 1 – 2013 Scientific fish stock assessment and associated management advice<sup>18</sup>

<sup>&</sup>lt;sup>18</sup> <u>Review of Scientific Advice for 2013, Scientific, Technical and Economic Committee for Fisheries (STECF)</u>

|  | response in SSB is unknown.   |   |
|--|---|---|
| Whiting  | The state of the stock is uncertain.<br>Long-term information on the<br>historical yield and catch composition<br>indicate<br>that the present stock size is<br>extremely low and likely to be well<br>below Blim. Landings have been<br>declining<br>since the early 1980s, reaching<br>lowest levels in the 2000s. The<br>survey results indicate a decline in<br>relative SSB.<br>Total mortality has been variable over<br>the time series. Current fishing<br>mortality is likely to be above possible<br>MSY targets. | ICES advises on the basis of<br>precautionary considerations that catches<br>should be reduced to the lowest possible<br>levels and that effective technical<br>measures should be implemented to<br>reduce discards.<br>STECF agrees with the ICES assessment<br>of the state of the stock and the advice for<br>2013.   |
| Nephrops – Functional Unit 14,<br>East Irish Sea | There is not a long enough time<br>series to determine a candidate for<br>MSY Btrigger. Current harvest rate is<br>below the FMSY proxy.  | ICES advises on the basis of the MSY<br>approach that landings in 2013 should be<br>no more than 880tonnes.<br>To protect the stock in this functional unit,<br>management should be implemented at<br>the functional unit level.<br>ICES advice endorsed by the Scientific,<br>Technical and Economic Committee<br>(STECF)   |
| Nephrops – Functional Unit 15,<br>West Irish Sea | Stock abundance is stable and above<br>the Maximum Sustainable Yield<br>Btrigger. Recent harvest rates have<br>fluctuated around FMSY. This stock<br>has sustained landings at around<br>9000 tonnes for many years.  | ICES advises on the basis of the MSY<br>approach that landings in 2013 should be<br>no more than 9300 tonnes.<br>To protect the stock in this functional unit,<br>management should be implemented at<br>the functional unit level.<br>ICES advice endorsed by the Scientific,<br>Technical and Economic Committee<br>(STECF)   |
| Plaice   | The surveys and SSB trends show an increase in stock size since the mid-<br>1990s to a stable level. Fishery independent estimates of plaice SSB from the annual egg production method (AEPM) surveys increased from 9000 tonnes in 1995 to 14000–15000 tonnes since 2006. The recent fishing mortality is likely to be very low as the estimates of total catch (landings and discards) since 2006 are only around 15% of the AEPM estimates of SSB over this period, and the catches also include immature plaice.        | Based on the ICES approach for data<br>limited stocks, ICES advises that landings<br>should be no more than 490 tonnes.<br>This is the first year that ICES is providing<br>quantitative advice for data limited stocks.<br>STECF agrees with the ICES assessment<br>of the state of the stock and the advice for<br>2013. The value of 490 tonnes advised by<br>ICES represents an increase of 2% on the<br>average reported landings over the period<br>2009-2011 |

|                           | shows a declining trend since the  |  |
|---------------------------|--|--|
|                           | early 1990s to a stable level. The recruitment as assessed by the beam trawl survey has been varying without trends in recent years.   |  |
| Common Sole               | SSB has continuously declined since<br>2001 and is below Blim since 2006. In<br>2012 SSB reached the lowest level.<br>The fishing mortality shows a<br>declining trend since the mid 1980s to<br>a stable level in recent years, well<br>above FMSY.<br>Recent recruitment levels have been<br>lower than earlier in the time-series,<br>with the 2011 recruitment being the<br>lowest in the time series.   | ICES advises on the basis of the MSY<br>approach that there should be no directed<br>fisheries and that bycatch and discards<br>should be minimised.<br>STECF agrees with the ICES assessment<br>of the state of the stock and the advice<br>that there should be no directed fisheries<br>and that bycatch and discards should be<br>minimized in 2013 and 2014.<br>STECF advises that this advice should be<br>interpreted to mean that in 2013 and 2014,<br>catches of sole from Division VIIa should<br>be reduced to the lowest possible level. |
| Pollack (all of Area VII) | Available information is insufficient to<br>evaluate the exploitation and trends<br>of Pollack in the Celtic Sea eco<br>region   | Based on the ICES approach for data<br>limited stocks, ICES advises that catches<br>should be no more than 4,200 tonnes.<br>This is the first year that ICES is providing<br>quantitative advice for data limited stocks.<br>ICES advice endorsed by the Scientific,<br>Technical and Economic Committee<br>(STECF)  |
| Mackerel                  | Fishing mortality in 2011 is estimated<br>to be 0.31, above FMSY and Fpa.<br>Fishing mortality was above Flim<br>during the early 2000s. SSB has<br>increased considerably since 2002<br>and remains high, above Bpa and<br>MSY Btrigger, but is currently<br>declining. The 2005 and 2006 year<br>classes are the strongest year<br>classes in the time-series. There is<br>insufficient information to reliably<br>estimate the size of the 2009–2011<br>year classes. | ICES advises on the basis of the Norway,<br>Faroe Islands, and EU management plan<br>that catches in 2013 should be between<br>497 000 tonnes and 542 000 tonnes.<br>ICES advise that the existing measures to<br>protect the North Sea spawning<br>component should remain in place.<br>STECF agrees with the ICES assessment<br>of the state of the stock and that on the<br>basis of the Norway, Faroe Islands and<br>EU management plan that catches in 2012<br>should be 497,000 tonnes and 542,000<br>tonnes.                                  |