



MEETING REPORT

Focus Group on a Long Term Management Plan for West of Scotland Haddock

**Marine Laboratory - Aberdeen
3rd July 2009**

**Chairman: Bertie Armstrong
Rapporteur: Tony Hawkins**

1. Background

- 1.1 The Focus Group met to consider the proposal from the European Commission and Council that a management plan be developed for haddock in Area VIa & EC waters of Vb based on the approach used successfully for the North Sea, but tailored to fit the different specific circumstances. The aim of the Focus Group was to consider the scientific and economic arguments for and against the adoption of such a plan and to recommend a position for adoption by the NWWRAC.
- 1.2 The Council and the Commission have considered that it would be appropriate to set the TAC for haddock in zone VIa and EC waters of Vb following the rules applying to haddock in the North Sea; adopting a precautionary spawning biomass and limit spawning biomass appropriate to the stock.
- 1.3 ICES has been asked to evaluate the consequences of applying the following harvest rule for the management of haddock in zones VIa and EC waters of Vb:
 - 1) For 2010 and subsequent years the TAC will be set consistent with a fishing mortality rate of no more than 0.3 for appropriate age-groups, when the SSB in the end of the year in which the TAC is applied is estimated to be above 30,000 tonnes (Bpa).
 - 2) Where the rule in paragraph 1 would lead to a TAC which deviates by more than 15 % from the TAC of the preceding year, the TAC will be set that is no more than 15 % greater or 15 % less than the TAC of the preceding year.
 - 3) Where the SSB referred to in paragraph 1 is estimated to be below Bpa but above 22,000 tonnes (Blim) the TAC shall not exceed a level which will result in a fishing mortality rate equal to $0.3 - 0.2 * (Bpa - SSB) / (Bpa - Blim)$. This consideration overrides paragraph 2.

- 4) Where the SSB referred to in paragraph 2 is estimated to be below Blim the TAC shall be set at a level corresponding to a total fishing mortality rate of no more than 0.1. This consideration overrides paragraph 2.
 - 5) In the event that STECF advises that changes are required to the precautionary reference points Bpa (30,000t) or Blim, (22,000t) paragraphs 1-4 shall be reviewed.
- 1.4 ICES has also been invited to propose alternative rules or modified rules on its own initiative or in consultation with RACs and to evaluate these. Such alternative rules should lead to either or both higher or more stable catches and lower biological risks.
 - 1.5 STECF has been requested to assess economic consequences of implementing the various options advised by ICES compared to continuing to fish under current arrangements. STECF is particularly invited to liaise with ICES on the compatibility of evaluation systems.

2. Biological assessment of area VIa haddock

- 2.1 Paul Fernandes of Marine Science Scotland described the current state of VIa haddock. Area VIa is effectively divided by the 200m depth contour, with haddock found in shelf waters to the east of this line. Assessments are carried out by an ICES Working Group (the Celtic Seas Ecoregion WG) and currently 'update assessments' are performed, following procedures adopted in previous years. Any improvements or changes in the future will be done at Benchmark Meetings.
- 2.2 The assessment for VIa haddock relies on survey data rather than commercial catches, as the latter are considered unreliable. The surveys are carried out by research vessels using a standard GOV trawl with a minimum of one haul per statistical rectangle at depths of less than 200m. The results are expressed as Catch per Unit Effort (CPUE) broken down by age, and abundance is expressed as catch at age per 30 minutes fishing. There are two surveys per year; the Q4 Scottish Ground-fish Survey (from 1996) and the Q1 Western Ground-fish Survey (from 1985). Both surveys show a rise in VIa haddock abundance after year 2000 followed by a progressive decline. Mean weight at age has declined over time (as it has for North Sea haddock).
- 2.3 Up until 1994 the reported commercial catches were believed to be accurate and they followed the survey estimates. Since then the estimated catches have been higher than the reported catches and there has been little confidence in the catch data. Commercial catch data have therefore not been used in the assessments. Although there may still be some misreporting the reported catches are thought to have improved and consideration will be given at the next Benchmark Meeting to re-introducing catch data. The surveys essentially indicate total removals, which may be influenced by changes in natural mortality. An observer programme is used to estimate discards.
- 2.4 The assessments are carried out using a model called TSA (Time Series Analysis) which estimates precision. Catch and or survey data can be omitted for any years. The model allows catchability to evolve. However, the model is complex. It is effective, but estimation takes time and may need intervention.

- 2.5 The 2009 assessment looks at trends in stock abundance; landings; discards; recruitment; fishing mortality (F); and spawning stock biomass (SSB). The last big year class to recruit was in 1999, followed by a more moderate year class in 2005. An initial growth in SSB has reversed and is now declining. The SSB for 2009 is only 20,271 tonnes, which is less than Blim. The observed CPUE and the actual unadulterated CPUE follow the same downward trend. F was quite high but has now come down ($F_{2008} = 0.46$) and is below F_{pa} .

Although haddock are being harvested sustainably, the lack of recruitment in recent years has resulted in reduced reproductive capacity. There is no management option which would allow SSB to recover. The ICES advice is therefore for no fishing to take place in 2010.

- 2.6 The reduced reproductive capacity of VIa haddock, despite the stock being harvested sustainably, reflects the sporadic recruitment pattern which is characteristic of haddock. Fishers report a spatial trend in abundance with catch rates now higher in the north of the area. Although similar trends have been observed in the surveys there is insufficient data year on year to enable these trends to be analysed. The 1999 year class seems to have shown arrested growth, which may be linked with the availability of food. Similar observations on growth rate have been made by fishers for both west of Scotland and the North Sea. It is possible that west coast haddock and North Sea haddock are part of the same stock; there is certainly an exchange of eggs and larvae between the two areas.

3. The Commission's request to ICES/STECF on a Long Term Management Plan for VIa haddock

- 3.1 Kenneth Patterson reported that the background to the request to ICES and STECF was the over-fishing of VIa haddock. Haddock were characterized by strong year classes but when these had appeared they had been exploited more harshly than was necessary. There had also been a problem with many young fish being discarded.
- 3.2 Last year Council had decided that a Long Term Management Plan (LTMP) was needed. Such a plan would implement a lower F, allowing fish to grow for longer and to survive for a longer period of time. In the North Sea, haddock have lasted for longer because of the low F ($F < 1$).
- 3.3 The Council and Commission want ICES to consider the North Sea example and to investigate what would happen on the west coast if a similar LTMP was adopted. Would this approach yield more sustainable fisheries, and would it deliver management in conformity with the precautionary approach? ICES has also been asked to look at other rules which might achieve a more stable catch with lower biological risks
- 3.4 STECF has been requested to assess the economic consequences of implementing the various options advised by ICES compared with continuing to fish under current arrangements. The request to STECF seeks information on future catches; the value of those catches; the fishing effort, in terms of vessel numbers, activity and kWh deployed, and the costs of deploying such effort; the employment associated with fishing activity; the net revenue from the resource; and, if possible, additional incidental impacts on populations of other marine organisms. The outcome of the proposed actions would be contrasted with the baseline scenario of doing nothing.

- 3.5 The present position was that ICES had been asked to set a timetable for evaluating the requests and to indicate the costs.
- 3.6 Fishers asked whether these proposals would look again at the catch composition rules which had been imposed by Council last December. These rules had caused immense difficulties for the fleets and were unworkable. Kenneth Patterson replied that the catch composition rules had been intended to restrict the capture of haddock and other species.

They were an attempt to reach a compromise with the ICES advice. If a LTMP had been in place earlier, that would not have been the position. Technical measures would not normally be specified within a LTMP, which aimed to set long-term rules for getting the stock into shape.

- 3.7 There was general agreement that no one wanted quick, short-term fixes which would displace fishing effort and do nothing for fish stocks. A long-term plan was needed which would help the fishing fleets and the fish stocks.
- 3.8 Coby Needle of Marine Science Scotland pointed out that a particular problem with haddock was the development of a plan which could cope with the dependence of haddock upon the sporadic and unpredictable recruitment of large year classes – for reasons which were not really understood. In those circumstances there may be problems in devising management rules which would meet long-term conservation objectives but were capable of reacting to infrequent outbursts. The aim was essentially to retain these year classes for as long as possible. Fishing had to be limited to maximise opportunities from these large year classes. In the North Sea that had been achieved by reducing F to 0.3. That had worked well and the 1999 and 2005 year classes had lasted for longer. The additional rule that a TAC would be set that was no more than 15 % greater or 15 % less than the TAC of the preceding year had benefitted fishers by preventing large changes in the quotas. However, when the stock is first increasing the 15% limit may not be sufficient to prevent discarding. Asymmetrical limits might be needed.
- 3.9 Fishers agreed that LTMPs should focus on the objective of establishing long-term rules for the setting of TACs but wondered whether adaptive measures – like technical measures - might also form part of the plan. Kenneth Patterson agreed that there was a place for technical measures in a more developed LTMP, where the exploitation of different species was being considered. However, currently we did not have the science to enable us to adopt a multi-species approach in this fishery; such an approach could only be a long-term ambition.
- 3.10 There was concern that insufficient attention would be paid to economic objectives; with previous LTMPs these had been neglected. Kenneth Patterson said that economic advice was being sought from STECF. However, there was concern that there might not be sufficient data to answer even the simple questions which had been posed.
- 3.11 On the issue of the catch composition rules which had been introduced at the December Council, there was concern that this approach had jeopardised relationships between fishers and scientists. Sensible technical measures had been adopted in the North Sea. These measures were not part of the LTMP for haddock but had emerged from joint activities between scientists and fishers to promote cod recovery. They had served well, especially for cod, and were to be preferred to instructions suddenly emerging from Brussels.

Disproportionate or skewed central measures frustrated local efforts to avoid discarding and displacement of effort.

- 3.12 Kenneth Patterson said that the catch composition rules had been imposed with the support of the fisheries ministers. They had not been imposed against resistance from the member states. The Commission and Council were aiming for better yields and improved sustainability and they were now looking to the RAC for long-term proposals which will achieve these aims. The Commission is not too interested in technical issues and more detailed measures.
- 3.13 In terms of timing, the Commission was now awaiting a response from ICES. The request had been submitted in March. As comments from the NWWRAC would influence the ICES process it was appropriate for this Focus Group to meet now to prepare a response. The evaluation from ICES would not take long but impact assessment would delay submission of a plan. It would be almost impossible to prepare and agree a full LTMP for the Council this year. If ICES advice goes to the Commission in the autumn there could be a Commission proposal by the spring of next year. If it had to go to co-decision as a result of implementation of the Lisbon treaty then a further two years might elapse.
- 3.14 Kenneth Patterson was thanked by Bertie Armstrong for giving up his time to explain the position.

4. Characteristics of the fleet catching haddock in area VIa

- 4.1 Sébastien Metz (Seafish) presented an analysis of UK vessels catching West of Scotland haddock. He began by pointing out that current procedures evaluated each fish stock separately, one by one. However, each stock was exploited by a number of fleets, and those fleets also exploited other stocks. A full evaluation should take into account other fishing opportunities, although this would be more complicated.
- 4.2 In considering the importance of VIa haddock for UK vessels it was evident that many vessels caught some haddock from this area but relatively few caught large quantities. In 2008, 197 UK vessels reported landings of VIa Haddock. Less than 20% of these vessels had VIa haddock as a significant component of their landings. VIa Haddock represented less than 1.5% of the volume landed for more than half of this fleet. The haddock were being caught in mixed fisheries for both whitefish and *Nephrops* and it was a by-catch for most vessels. Some 20 boats were landing 80% of the value recorded for this fishery in UK. However, a LTMP would affect everyone to some extent, as a large number of vessels caught some haddock.
- 4.3 In terms of the profitability of those vessels, demersal trawlers showed quite low net profits for more than 200 days at sea. Operating profits were rather higher (net profit is calculated after all bills have been paid including capital costs). However, the ratio of profit to total earnings was not good. Seine net vessels spent less time at sea. Their earnings were less but net profit was a higher proportion of the earnings. The profit levels of these segment might be lower in 2008 due to a higher fuel price (in UK fuel price was on average 30 pence per litre excluding duty in 2007 and 45 pence per litre excluding duty in 2008)

- 4.4 The haddock were landed and consumed mainly in the UK. Applying input-output multipliers, £1M of additional whitefish landings would generate 82 Full Time Equivalent jobs and contributed £2.3m in GDP. Removing the current fishery would then cause the loss of 160 FTEs and £4.6m in GDP. A strong reduction to the haddock TAC in area VIa would therefore have some economic consequences in the short term. On FTEs, there would be some downsizing of crews, but relatively few vessels would be involved. Only 4 vessels gained more than 10% of their income from West Coast of Scotland haddock.
- 4.5 It emerged in discussion that the Irish fleet exploiting VIa haddock is not currently large, as there has been displacement of effort out of this area because of effort restrictions there. The mixed haddock/megrim fishery is now displaced into the Celtic Sea and area VIb. The Irish fleet is insignificant in comparison with the UK fleet. Catch composition restrictions introduced at the last December Council had also resulted in a number of UK boats now fishing at Rockall and avoiding the West Coast of Scotland and North Sea.

5. The Management Plan for North Sea haddock

- 5.1 Coby Needle presented the Management Plan for North Sea haddock. The plan had emerged during negotiations between the EU and Norway. The plan had first been agreed in 1999 and had then come into force in 2005. In 2006 it had been reviewed and revised, with the new plan implemented in 2007. Banking and borrowing arrangements had been considered in 2008 and had been implemented for 2009. The next review would be in 2010.
- 5.2 The plan involves a Target F of 0.3, but there is provision for reducing this on a sliding scale if the spawning stock biomass is especially low. There is a constraint ($\pm 15\%$) on inter-annual quota variation if the biomass is greater than Bpa. Banking and borrowing provisions have been put in place to allow haddock to be 'saved' (by reducing the TAC), or 'drawn upon' (by increasing the TAC). Banking and borrowing of $\pm 10\%$ maximum is allowed but the stock must be predicted to remain above Bpa. Quota banked for next year, or borrowed from next year, is not available for subsequent banking or borrowing. The plan does not refer to any technical measures although technical measures are in place in the North Sea under the cod recovery plan. Although the long term plan is quite simple, it is complicated to evaluate, with three evaluation phases covering the original plan, the revised plan and the banking and borrowing arrangements. The plan also requires much analysis, involving around 20 meetings.
- 5.3 The North Sea plan for haddock ensures that there is a low risk of biomass being below the limit reference point, and it also provides stability in quotas that benefits the fishing industry and related economies. It is considered very unlikely that any permitted sequence of banking-and-borrowing would have any deleterious effect on the future sustainability of the North Sea haddock stock.
- 5.4 The plan is considered a success as over the period since it had been implemented the actual fishing mortality has come down from about 1 to a value lying between 0.2 and 0.4. Its implementation had, however, coincided with the introduction of the cod recovery plan, with its attendant effort limitations, with the introduction of a range of technical measures, and with good recruitment in 2005. North Sea haddock is subject to the same sporadic recruitment pattern as west coast haddock and apart from an above average year class in 2005 recruitment is currently poor.

5.5 Application of a similar plan to VIa haddock would not be entirely straightforward, as the assessments are done differently there (depending mainly on survey data), and because there has been less modelling of discarding.

6. What should be included in any Long Term Management Plan for VIa haddock?

6.1 In an open discussion on how to take matters forward some concern was expressed by fishers about the lack of consideration of technical measures within the proposed LTMP. A response was required from the Commission which would address both future long-term arrangements and also deal with the current imposition of unrealistic catch composition rules. It was not sensible to ignore the latter near-term problems. The intended objective for both near-term and long-term arrangements was moderation of F on area VIa haddock. Was there scope for using real-time closures and other technical measures to meet both objectives?

6.2 Scientists emphasised that, as in the North Sea, the real purpose of a LTMP was to impose a set of harvest control rules for setting TACs. More involved measures might make a contribution but that would be difficult to evaluate. To ensure recovery it would be necessary to reduce F, and that would inevitably cause economic difficulties. It would be difficult to estimate any reduction in F which might be achieved through non-quota measures. Increases in mesh size might bring about improvements if there was new recruitment but in the absence of recruitment it would achieve little.

6.3 Fishers were concerned that the target F being considered would effectively close the fishery. ICES had been asked to look at an F of between 0.3 and 0.1. That might be appropriate for a LTMP but taken with the catch composition rules it would prevent any fishing. Would it be possible to adopt measures to reduce F but also take away the short term catch composition measures which had been imposed?

6.4 Coby Needle repeated Kenneth Patterson's remark that if a LTMP had been in place those short term measures might not have been necessary. If the NWWRAC agreed to a Long Term Management Plan then the Commission and Council would direct their attention away from short term measures – although that would not necessarily mean they would remove the existing measures!

6.5 Sébastien Metz pointed out that the LTMP proposed for haddock would not address the problem that there were three fish species exploited by the fishery (the others being cod and whiting) and it was the capture of these species which had dictated the catch composition rules.

6.6 One suggestion which might result in simplification of the technical measures was to propose an interim buffer on the TAC of more than the suggested 15%. The fishing industry might be prepared to accept a reduction of 20-25% in the TAC. The ICES evaluation could look at the implications of different margins (20%, 25%, 30%). However, ICES had not been asked to comment on the current measures. That was a separate issue.

6.7 The sudden, large influx of juvenile haddock which might accompany a good year class would need to be anticipated within the LTMP. A large increase in the abundance of haddock would be difficult to deal with.

Initially, the fish would tend to be discarded unless specific technical measures were introduced. Increasing the TAC would not necessarily be an appropriate solution as the processing industry would need to gear up for this eventuality. Moreover, it would be sensible to bank the fish for the future. These considerations implied that a sensible LTMP for haddock would need to anticipate the heavy recruitment scenario.

6.8 There was some concern that impact assessment of the LTMP might take some time to complete, and with a paucity of data it might take some time to come up with proper evaluations.

6.9 There was also concern that development of the LTMP would overlap with reforms to the CFP. Moreover, the prospect of co-decision taking under Lisbon requiring two years to evaluate proposals was of considerable concern. The Parliament would surely have to develop mechanisms for arriving at decisions more quickly? There was general agreement that it was better to develop the best LTMP we could now, without reference to the changing political background.

If the NWWRAC agrees now to a series of harvest control measures for determining TACs in the longer term then there is effectively an agreed virtual management plan and there could then be further discussion of short term measures.

6.10 There was a consensus that the proposals contained in the request to ICES from the Commission did meet the requirements for a LTMP for VIa haddock. It was agreed by the Focus Group that the NWWRAC should declare its intention of supporting the principle of a Long Term Management Plan for VIa haddock, but one which took account of the sporadic nature of recruitment for haddock, and included proposals for dealing with a sudden large influx of fish and for ameliorating the consequent pressure to discard. The NWWRAC also wished to move away from short term catch composition measures which contributed little towards reducing F, but made it difficult for fleets to operate efficiently. The RAC would be prepared to consider an increase in the 15% TAC reduction figure if this would bring additional benefits and wished the different options to be evaluated by ICES. The Commission should proceed immediately with considering the social and economic impact of adopting the LTMP, as 20 vessels would be severely affected and another 200 affected to some degree. It would be important to take into account the resultant displacement of fishing effort; as such displacement would certainly take place – whether driven by the LTMP or reductions in effort.

6.11 This proposal would be taken to NWWRAC WG1 in the next week, and would then go to the ExCom meeting in Madrid. In the meantime, Coby Needle would report back to ICES on the progress made.

6.12 Bertie Armstrong thanked all the participants for taking part in the meeting.

7. Participants

Bertie Armstrong (Chair)	Scottish Fishermen's Federation
Tony Hawkins (Rapporteur)	Loughine Ltd
Alexandre Rodríguez (Secretary)	NWWRAC Secretariat
Coby Needle	Marine Science Scotland
Paul Fernandes	Marine Science Scotland
Sébastien Metz	Seafish
Louize Hill	Worldwide Fund for Nature
Jane Sandell	Scottish Fishermen's Federation
Ian Gatt	Scottish Fishermen's Federation
Kevin McDonnell	West of Scotland Producer's Organisation
Tam Harcus	Orkney Fishermen's Association
Alan A. Coghill	Orkney Fishermen's Association
Ted Breslin	Killibegs Fishermen's Association
Lorcan O'Cinnéide	Irish Fish Producer's Organisation
Louise Cunningham	Marine Scotland – Scottish Executive
Kenneth Patterson	European Commission (by videoconference)