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**Proceedings of the Newfoundland Regional Advisory Process for East and
Southeast Newfoundland Herring**

**Northwest Atlantic Fisheries Centre
October 16, 19, and 27, 2000**

John Wheeler, Chairperson

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St. John's, NL A1C 5X1**

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SUMMARY

A Regional Assessment Review Committee met in October, 2000 to review the status of east and southeast Newfoundland herring and to prepare a stock status report.

Prior to the meetings, an overview of all information available for the assessment was presented to the Herring Working Group of the Small Pelagics Advisory Committee. The views of the Working Group were then incorporated into the assessment. Five working papers were presented and discussed at the RAP. These formed the basis of the assessment and were subsequently incorporated in a research document (2001/018).

The stock status report was released on November 20, 2000.

SOMMAIRE

Un Comité régional d'examen des évaluations s'est réuni en octobre 2000 pour revoir l'état des stocks de hareng de l'Est et du Sud-Est de Terre-Neuve et pour préparer un Rapport sur l'état des stocks à ce sujet.

Avant les réunions, un aperçu de l'ensemble de l'information disponible pour les évaluations a été présenté au Groupe de travail sur le hareng du Comité consultatif des petits poissons pélagiques. Les points de vue du Groupe de travail ont alors été intégrés à l'évaluation. Cinq documents de travail ont été présentés et ont fait l'objet d'une discussion lors du PCR. Ils constituent le fondement des évaluations et ont par la suite été intégrés à un document de recherche (2001/018).

Le rapport sur l'état des stocks a été publié le 20 novembre 2000.

Introduction

A RAP was held in October 2000 for east and southeast Newfoundland herring. John Wheeler, the herring assessment biologist, coordinated the meetings. There was no formalized agenda; consequently, a summary of discussions of each agenda item is not available. There were also no formal recommendations generated from the RAP. The following sections describe the process that was followed to develop the 2000 stock status report for east and southeast Newfoundland herring.

Assessment Proceedings

Prior to the assessment meetings, the Herring Working Group of the Small Pelagics Advisory Committee met on October 16, 2000. An overview of all information available for the assessment was presented to the group for their review and comments. There was general agreement among members of the Working Group that the information provided reflected their views of stock status. There were several comments and questions. Fishers noted that small herring were abundant in White Bay in 1999 but disappeared in 2000. This has been the case for several years, ie. good evidence of small herring but never materializing as large herring. It was suggested both by fishers and the assessment biologist that increased predation by seals may be a factor limiting herring stock sizes along the northeast coast. With regard to the commercial gill net logbook program, it was suggested by a fisher to check on the number of fixed gear licences by bay to better understand why logbook return rates have been so low. The assessment biologist recommended to fishers to stress the importance of these logbooks to other fishers in their respective areas. Another fisher suggested that commercial gill net fishers be contacted after the fishery each year to record their views regarding abundance in a similar manner to the purse seine questionnaires. The assessment biologist indicated that this may not be possible due to limited resources within Science. There was a general comment that too many conclusions were being drawn from limited data from both the commercial gill net logbooks and from the research gill net program. A specific point was raised regarding the commercial gill net fishery in Trinity Bay. Information from the commercial gill net logbooks indicated increased catch rates in the area in 1999 and 2000. This was contrary to research gill net trends in the same area. It was suggested that prior to 1999, there was little interest in the gill net fishery in the area due to poor market conditions. However, in 1999 and 2000, markets were available and there was increased interest. Consequently, in these years, the fixed gear fishery became more mobile, with fishers moving their gear to target known concentrations of herring. The research gill net program, fixed in location, would not necessarily detect similar trends.

A Regional Assessment Review Committee met on October 16th, 19th, and 27th, 2000 to review the status of east and southeast Newfoundland herring and to prepare a Stock Status Report. The meetings were co-ordinated by the assessment biologist, John Wheeler.

During the first meeting on October 16, 2000, John Wheeler presented five working papers: 1) Description of the east and southeast Newfoundland 1998 and 1999 commercial herring fisheries and commercial catch at age, 2) Results from east and southeast Newfoundland herring commercial fixed gear logbooks for 1998 - 2000, 3) Results of east and southeast Newfoundland herring purse seine questionnaires for 1998 to 2000, 4) Results of the east and southeast Newfoundland herring research gill net program for 1998 - 2000, and 5) Distribution and abundance of Atlantic herring from acoustic surveys of: White Bay - Notre Dame Bay in November - December 1998, Fortune Bay in March 1999, Bonavista Bay - Trinity Bay in November - December 1999, northeast Newfoundland coast in January 2000, and St. Mary's Bay - Placentia Bay in March - April 2000. These papers formed the basis of the assessment and have been incorporated in Research Document 2001/018. John Wheeler also presented ecological information from Hammill and Stenson (2000) on the increased consumption of herring in Atlantic Canada from 1990 to 1996.

There was a general discussion of the five working papers during the first meeting. It was noted that landings for bait purposes are not included with commercial catch statistics. It was questioned (but not resolved) whether the percentage of bait landings had increased in recent years due to the increased requirements for bait in the crab fishery. With regard to the commercial gill net log books, it was suggested that average soak time would be a better indicator of effort than nights fished. There were also questions regarding how many logs were from fishers who fished commercially rather than for bait only and if differences existed in the catch rates between the two. It was concluded that it would be difficult to use commercial gill net catch rates in a quantitative analysis due to the limited sample sizes. There were suggestions on how to increase the sample size of commercial gill net logbooks, including a directed phone survey or contacting selected fishers each month to remind them. With regard to the research gill net program, it was suggested that fishers be asked for perceptions of abundance in a similar manner to commercial gill net log books. A general discussion ensued regarding how stock sizes should be estimated. It was suggested that a more general approach could be taken and use the various abundance indices as indicators of stock status. It was concluded that, if possible, stock specific mature biomass estimates should be derived in a similar manner to the 1998 assessment of these stocks.

At the second meeting on October 19, 2000, a working paper was presented on the estimation of stock sizes of east and southeast Newfoundland herring to 2000. It was noted that changes had to be made to the input parameters of the integrated catch at age analysis for White Bay - Notre Dame Bay from the 1998 assessment for the model to run. Similarly, for St. Mary's Bay - Placentia Bay, the integrated catch at age analysis was possible to 1999 but not to 2000. There was a discussion of the impacts of these changes; however, the expertise was not available fully assess these changes. It was suggested that changes should be contemplated for future assessments of these stocks as the current model is marginalized and constricted by the available catch and effort data. There was a discussion regarding the increased consumption of herring by seals and the effect of this on mortality estimates in the

integrated catch at age model. It was not possible to quantify these changes so mortality estimates were unchanged in the model. It was decided to include a section on the consumption estimates for seals in the stock status report. It was concluded to use the integrated catch at age analysis to estimate stock sizes for White Bay - Notre Dame Bay, Bonavista Bay - Trinity Bay, and St. Mary's Bay - Placentia Bay, and to use a catchability coefficient analysis to estimate Fortune Bay stock size. This follows the methods used in 1998.

A draft stock status report was circulated to assessment committee members on October 24, 2000 for their comments and review. At the third meeting on October 27, 2000, a final stock status report was drafted. The stock status report was released on November 20, 2000.

Management Deliberations

The Herring Working Group of the Small Pelagics Advisory Committee met on October 16th to review the draft stock status report. The working group expressed some concern regarding the implications of quota reductions in White Bay - Notre Dame Bay and in Fortune Bay. The group concluded its meeting with a series of stock specific recommended catch levels, consistent with the stock status classification system.

The Small Pelagics Advisory Committee met in Gander on December 11, 2000 to provide recommendations for the 2001 - 2002 Integrated Herring Management Plan. John Wheeler provided an overview of the stock assessment process. The recommendations of the Herring Working Group were then presented for review.

A draft 2001 - 2002 Integrated Herring Management Plan was formulated based upon the recommendations of the Herring Working Group and the Small Pelagics Advisory Committee.

List of RAP Participants

Participants at the meetings included representatives from Science, Oceans and Environment Branch (John Wheeler, Jim Carscadden, Brian Nakashima, Fran Mowbray, Brad Squires, Paul Williams, and Dale Parmiter) and from Fisheries Management Branch (Bruce Mayne).