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Solicited Comments on Proposal for Second Ageing
Workshop on Shrimp

by

NAFO Secretariat

1. Possible Need for Future Workshop on Ageing Shrimp

The initial workshop was held in May and November 1981, and one of the conclusions was that another workshop should be held in 2-3 years to review progress. In early 1984, comments were solicited from the original participants to see if there had been sufficient progress to warrant another session. Consideration of these comments at the September 1984 Meeting of the Scientific Council indicated that another shrimp ageing workshop within a year was premature and that the participants in the 1981 Workshop be contacted in approximately two years (1986) to see if there has been sufficient progress to warrant another workshop in the near future (NAFO Sci. Coun. Rep. 1984, pages 84 and 95). In early April 1986, a letter containing the proposal (Appendix 1) was sent to the participants in the 1981 Shrimp Ageing Workshop and to others as information became available on their interest in ageing shrimp:

Canada (R. J. Cormier, J. Frechette, D. G. Parsons)
Denmark (D. M. Carlsson, K. Lehmann)
France (J. P. Minet, J. Poulard)
Iceland (I. Hallgrímsson, U. Skuladottir)
Norway (T. Jacobson, Ø. Ulltang)
USA (S. H. Clark, A. Jearld, D. Sampson, P. Jackson, L. J. Watson)

2. Relevant Extracts of Responses

a) Canada (D. G. Parsons, St. John's, Nfld.)

Since the first shrimp ageing workshop, we have conducted studies on larval growth and arrived at some conclusions on the size of the 0 age group. Also, Dan Carlsson, Jacques Frechette and I have agreed to collectively look at the sampling data from West Greenland in an attempt to separate the catch data by age class, which will hopefully lead to bigger and better things. However, we have not been able to find a convenient time to meet, as all three of us are heavily involved in other activities.

At this time, I think it would be a little premature to organize a workshop for 1986 or 1987. Personally, because of commitments to CAFSAC for the next two years (Chairman of I&MP Subcommittee), I will not be available to participate until 1988. We should also wait until we have had the opportunity to look at the West Greenland data.

b) Canada (R. Cormier, Moncton, N.B.)

I think it is a good idea to get another Ageing Workshop on Shrimp if new data is available. Personally, I have not worked on shrimp for quite some time and would not have anything to add in regards to new information on the biology of that species.

It might be a good idea to contact Louise Savard shrimp biologist for DFO's Quebec Region. She has been working on shrimp for the past 3 to 4 years and may have some data to present. She can be contacted at: Fisheries and Oceans, Fisheries Research Branch, P. O. Box 15500, 901 Cap Diamant, Gare Maritime Champlain, Quebec, P.Q. G1K 7Y7.

c) Iceland (U. Skúladóttir)

Thank you for your letter of April the 10th. From our point of view nothing much has changed since 1981 as regards the ageing methods. At the moment we are using the MacDonal and Pitcher method for getting proportions by sex categories. The number of age-groups is guessed from the results of the "deviation" method and also the initial mean lengths at age in the older age-groups.

We have something on a change of growth rate which is both old and new stuff. That includes the change in proportion of mature females by age and length.

We have nothing on larval growth and very little on the size of 0-group i.e. the year-class strength.

d) USA (S. H. Clark, Woods Hole, Mass.)

Thank you for your letter of 10 April in which you solicited input relative to the need for another workshop on ageing shrimp. I would personally favor such a workshop within 6 months to a year; I believe that within that time I could have some meaningful contributions that would be of interest to this group. Possible topics based on our activities at Woods Hole could include use of new approaches for length-based growth modeling; density-dependent growth; transition, maturation and spawning in relation to environmental factors and relative impacts of temperature and exploitation on trends in abundance. In any case I think that enough has been going on since the 1981 meeting to justify convening the experts for further review and discussion.

I would be willing to assist with organizing such a Workshop or with other tasks although I'm not sure about a location (B.I.O. might be the most convenient?). As for participants I would suggest inviting Dr. Sandra Shumway of the Maine Department of Marine Resources (same address as Dave Sampson). She is currently engaged in research on northern shrimp physiology and recently co-authored an extensive FAO synopsis on the biology of this species. Gerard Conan should also be invited; I think he could contribute a great deal due to his extensive experience in crustacean modeling.

e) France (J. P. Minet, J. C. Poulard)

No investigations have been carried out at our Institute since 1981 on the problems of age and growth of shrimp. Only commercial samples of shrimp have been collected at sea, providing little information on the period of maturation and spawning for the Denmark Strait stock.

f) USA (D. B. Sampson, Boothbay Harbor, Maine)

Thank you for your letter of 10 April 1986, reference SC-86/024 in which you requested information concerning progress in the development of techniques for ageing shrimp. I am currently on a leave of absence from the Maine Department of Marine Resources (DMR) and am no longer actively involved in shrimp research. Nevertheless, I am reasonably familiar with Maine DMR shrimp research activities and believe that the Department has not conducted any research in the last few years that would warrant presentation at another shrimp ageing workshop.

DMR shrimp research activities have been limited to the monitoring of commercial catches and participation in research cruises sponsored by the Northern Shrimp Scientific Technical Committee of the Atlantic States Marine Fisheries Commission. The committee chairman, Mr. Paul Diodati of the Massachusetts Marine Fisheries Division, Cat Cove Marine Laboratory, Salem, MA 01970, or the National Marine Fisheries Service representative to the committee, Dr. Stephen Clark, Northeast Fisheries Center, Woods Hole, MA should be able to provide you with details of the committee's activities.

When you last circulated a workshop proposal, I stated that the Maine DRM would possibly be conducting research on northern shrimp physiology and metabolic rates. Such research might have provided clues about growth rates of northern shrimp. However, this research has not been completed. Dr. Sandra Shumway of DMR might be able to provide you with more information concerning this matter.

Lastly, a colleague of mine here in London, Dr. Andrew Rosenberg, attended a workshop in Sicily last year at which length-based stock assessment methods were examined. The proceedings of this meeting might have material relevant to shrimp ageing. It is to be published this year and is entitled "Theory and Application of Length-Based Methods of Stock Assessment", Daniel Pauly (ed). Dr. Pauly's address is ICLARM, 3rd Floor, Bloomingdale Building, Salcedo Street, Legaspi Village, Makati, Metro Manila, The Philippines.

Proposal for Second Shrimp Ageing Workshop

1. At its meeting in June 1985, the Scientific Council of NAFO endorsed the proposal of the Standing Committee on Fishery Science "that participants of the 1981 Shrimp Ageing Workshop be contacted in early 1986 to see if there has been sufficient progress to warrant another workshop". At the first workshop in 1981, the participants suggested that another workshop be held in 2-3 years to review progress, but circulation of a proposal in early 1984 indicated that there had not been sufficient progress.

2. Basically, we wish to know what kinds of investigations have been carried out since 1981 dealing with problems of age and growth in shrimp, in response to the recommendations of the first workshop (see *NAFO Sci. Coun. Studies*, No. 6, pages 79-100). These would include studies on molting frequency, larval growth, size of 0-group, delayed maturation/spawning, etc., and to obtain opinions on whether these investigations have progressed far enough for presentation at a second NAFO Workshop on Ageing Shrimp in late 1986 or 1987.

3. Although the final decision on when and where to hold the Workshop will be made by the Scientific Council, any ideas on these matters, including volunteers for organization and names of potential participants outside the present group, would be welcomed. The results of the survey will be considered by the Scientific Council at its meeting during 4-19 June 1986.