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A general summary of the Scallop Workshop held in Baltimore,
Ireland, 11-16 May 1976.

presented

by

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1. INTRODUCTION

A Scallop Workshop was held in Baltimore, Ireland from 11th-16th May 1976, organised by the Fisheries Division of the Irish Department of Agriculture and Fisheries. Biologists from a number of different countries attended to read papers and to discuss certain topics. The titles of the papers and discussion topics, together with a list of participants, are given in sections 3-5. Scallop shells brought by the participants were aged, and distribution maps of scallops and scallop fisheries were made. A field trip was made to nearby Lough Hyne(Ine), where research into the cultivation of escallops is being conducted by the Fisheries Division.

2. GENERAL CONCLUSIONS OF THE WORKSHOP

2.1. Commercial fishery management

In Europe generally, there is a serious lack of reliable data on scallop stock population dynamics. The main reason for this was felt to be the high cost of effective sampling techniques, resulting in scallop research being accorded a relatively low priority in many national programmes. Many fisheries, however, are of considerable economic and social importance, and scientifically-based management could do much to stabilise or increase production and employment. The Workshop recommended that ICES be asked to strongly encourage member Governments to collect adequate landing statistics and to increase their research efforts on these fisheries.

2.2. Scallop cultivation

The cultivation of scallops, both in hatcheries and in the sea, provided the main theme for the workshop. Considerable progress has been made in many areas, and the biological feasibility of cultivating some European species of pectinid has been demonstrated. It was generally considered that there was good cause for optimism that some methods of scallop farming in Europe could eventually become commercially viable.

2.2.1 Hatchery-produced spat - While the production of scallop spat in hatcheries will continue to have an important research function, it was thought unlikely, using present techniques, that it would form the basis for commercial scallop cultivation programmes.

- 2.2.2 Collection of naturally-produced spat - It is in this area that most research has been concentrated. It was noted that many research projects in France, England, Scotland, Ireland and the Isle of Man had, more or less independently, adopted techniques similar to those developed by the Japanese for Patinopecten vessoensis. Large settlements of Chlamys opercularis and good settlements of Pecten maximus have been obtained in several locations, and it was considered that the future development of commercial scallop cultivation was likely to be based on naturally-produced spat than on hatchery-produced spat.

The design and method of use of spat collectors was discussed and it was concluded that a cover of fine mesh netting (1-2 mm) was advisable to reduce the loss of small spat, but that local conditions of fouling etc. should be taken into account. It is important that the collectors are placed in the sea at the time that the larvae are ready to settle, and this can best be determined by plankton studies on pumped water samples. Local variations in the duration and intensity of settlement, and in the depth at which settlement occurs, indicates that a considerable amount of further research into the factors controlling settlement is required. Further work on larval and post-larval behaviour is also needed in order to establish a consistent and reliable technique for spat collection.

- 2.2.3 Intermediate culture - The on-growing of pectinid spat in nurseries or in the sea appears to have encountered certain difficulties when compared to some other bivalves, but few studies have been carried out. The cultured algal foods and handling techniques developed for oyster culture could be suitable for pectinids, and further research is urgently required.

- 2.2.4 Adult Culture - Although some Pecten are grown to marketable size in hanging culture under rather special conditions in Spain, there is very little information available on growth rates of European pectinids under culture conditions. It was agreed that this area also required further research.

- 2.3 Standardisation of morphometric measurements

In order to allow comparisons between scallop stocks it is recommended that, whatever morphometric shell measurements are used in any study, the relationship to the shell height of the left (upper) valve should always be given.

2.4.

Practical work

Over two hundred shells of Pecten maximus were available for ageing, taken from different locations ranging from Spain to Scotland. There was great variation in the estimated age of some scallops. The first annual ring is often inconspicuous, which consequently gives rise to misinterpretations. It was generally concluded that considerable experience of the population in any given area is required before reliable age determinations can be made.

Participants had been asked to bring information concerning the distribution of known scallop resources in their area (both exploited and unexploited), and to compile these data on a map during the course of the Workshop. Unfortunately, this part of the programme was not fully completed, but it will be followed up by the organisers during the autumn of 1976.

2.5.

Co-operative Research

The Workshop provided an excellent opportunity for scientists working on scallops to meet and exchange information and ideas, and to develop co-operative research programmes. The Irish Department of Agriculture and Fisheries were congratulated on sponsoring and organising such a valuable forum, which, it was agreed, had done much to stimulate the progress of research into the cultivation and fishery management of scallops.

3. THEMES OF SPECIAL DISCUSSION SESSIONS

'What is the best tagging method'?

'Is there a commercial future for hatchery raised pectinids'?

'Collector design, which one, where and how to use it'?

'How can we standardise -

- morphometric measurements?

- ageing?

'How can we co-operate in -

- collectors and design?

- factors determining settlement?

- intermediate culture?

- adult culture?

4. TITLES OF CONTRIBUTIONS

- M. Duff - 'Scallop fisheries of Ireland'.
D. Latrouite and - 'Scallop fisheries of France'.
H. Dupouy
G. Pickett - 'Scallop fisheries of England and Wales'.
A. Brand - 'Scallop fisheries of Isle of Man'.
M. Torre - 'Scallop fisheries of Spain'.
E. Moynihan - 'Aspects of hatchery culture of Pecten maximus'.
D. Minchin - 'Culture of escallops in Lough Hyne'.
Y. Koike - 'Scallop culture in Japan'.
R. Ventilla - 'Natural scallop settlement in Scotland'.
G. McKay - 'Larval settlement of Pecten maximus and Chlamys opercularis in sea loughs around the Isle of Mull, Scotland'.
J.C. Dao, D. Buestel and A. Laurec - 'Resultats des essais de naissain de coquille Saint-Jaques (Pecten maximus) et Petoncle (Chlamys opercularis) en Rade de Brest et Baie de Saint Brieuc'.
D. Latrouite and Joel Lorec - 'Resultats des experiences de captage de pectinides en Bretagne-Sud'.
A. Brand - 'Pectinid spat settlement on artificial collectors. Initial results of the Wolfsson Foundation Scallop Cultivation Project at Port Erin, Isle of Man'.
D. Minchin - 'Pectinid settlement'.
G. Pickett - 'Growth studies of pectinids in S.W. England'.
R. Ventilla - 'Food preference in Pecten maximus'.
N. Mathers - 'Feeding and digestive patterns in Pecten maximus'.
M. Torre - 'Hanging culture in Spain'.
A. Lucas - 'Post-larval growth of Chlamys opercularis in a nursery'.
J. Caddy - 'Some problems and approaches in scallop conservation and management'.
J.C. Dao - 'Management and dynamics of a escallop population in the Baie de St. Brieuc - a model'.
M. Le Pennec - 'The larval hinge of some marine bivalves'.
D. Buestel - 'Echelle de maturite pour les gonades de coquille Saint-Jaques'.
D. Buestel - 'Technique employée pour effectious un rapport gonado-somatique sur la coquille Saint-Jaques Pecten maximus (L.)

D. Buestel - 'A method of determination of settlement of Pectinid spat.
Results from the Baie de St. Brieuc 1975.

M. Torne,

G. Roman - 'Scallop larval rearing in the laboratory'.

5. PARTICIPANTS

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