



Polar Sea-Ice Research Project



by

The General Secretary

1. The Council has received from the National Research Council of Iceland the Annexed Resolution, adopted at the International Sea-Ice Conference in Reykjavik, 10 - 13 May 1971.

In its operational sub-paragraph (iii) the resolution refers, i.a. to ICES as one of the Organisations which may be interested in participating in a coordinated project as outlined in sub-paragraph (iv) of the resolution.

2. The following paragraph 34 of the Report of the First Session of the Group on Long-Term Scientific Policy and Planning (GELTSPAP) may be relevant :

"34. Bioscience Exercise 2.8 - Ice research in relation to Polar Oceanography

Having been informed of the interest indicated by various nations in a study of ice in the polar seas, particularly in the Arctic and its relation to oceanography and meteorology, we considered the possible biological aspects of such studies. Perhaps more than in any other region, environmental conditions at high latitudes influence the biological processes where conditions are often marginal for living resources. Examples of important biological problems demanding study are (i) variations in productivity of adjacent arctic and sub-arctic seas following fluctuations of the fronts; (ii) the mechanisms inherent in determining stock size fluctuations in these seas; and (iii) major biological processes in polar seas, and (iv) special biological studies of interest to pollution research in these seas. We propose that a Polar Ice Research Project should be developed in the Expanded Programme. In view of the importance of including research on living resources in such a programme, the Commission should request ICES and ICNAF to assist."

3. It is understood that at its last meeting ICNAF agreed to support Bioscience Exercise 2.8 in principle and asked its Executive Secretary to study it further with ICES and IOC,

RESOLUTION ADOPTED AT THE INTERNATIONAL SEA
ICE CONFERENCE, REYKJAVIK, ICELAND, 10 - 13 MAY 1971

Scientists from Canada, Denmark, Finland, Federal Republic of Germany, Iceland, Japan, Norway, Sweden, the United Kingdom, the United States and the Soviet Union attending the International Sea Ice Conference at Reykjavik, Iceland on 10 - 13 May 1971,

Noting that the variability of sea ice in both polar regions is a major factor affecting world and hemispheric patterns of weather and climate;

Recognising that knowledge of large scale sea ice distribution systems in both space and time is essential for the interpretation of studies in any smaller region and that, therefore, the free exchange of sea ice data is vital to the advance of scientific knowledge in this field;

Noting the recent development of mathematical models of air-ice-sea interaction which require to be tested against observed phenomena;

Noting that the proper observation of sea ice phenomena requires standardised techniques of observing, recording and reporting and that the vast areas to be observed make the task beyond the capabilities of any one nation;

Noting that knowledge of the distribution of sea ice phenomena in both space and time is vital to shipping and to the proper development of natural resources in polar regions;

Noting that close relationships exist between the distribution of sea ice in the North Atlantic and Arctic Oceans and the living resources of those seas which are of particular consequence to nations with fisheries interests in those waters;

Noting the critical importance to meteorological and oceanographic studies of energy and water mass transport processes through the seas peripheral to the Arctic Ocean in relation to the ice cover of the northern hemisphere;

Noting that the highly variable belt of sea ice surrounding the Antarctic continent greatly influences the climate of the southern hemisphere, and noting further that the climatically important connexion between the sea ice distribution of the northern and southern hemispheres is little understood because of the lack of data and research;

Request the National Research Council of Iceland, through diplomatic and other appropriate channels, to bring to the attention of States interested in the Arctic* and States signatory to the Antarctic Treaty** the need for:

- (i) the standardization of techniques of observing, reporting and recording sea ice phenomena;
- (ii) the free international exchange of raw and processed sea ice data and for its storage in world data centres;
- (iii) increased integration and co-ordination of research into sea ice problems along lines at present being planned or carried out by governments or under the auspices of the World Meteorological Organization, the Intergovernmental Oceanographic Commission, International Council for the Exploration of the Seas, the Scientific Committee on Antarctic Research and the Scientific Committee on Oceanic Research;

* Canada, Denmark, Finland, France, Germany, Iceland, Japan, Norway, Sweden, United Kingdom, U S.A. and U.S.S.R.

** Argentina, Australia, Belgium, Chile, France, Japan, New Zealand, Norway, South Africa, United Kingdom, U.S.A. and U.S.S.R.

- (iv) an integrated programme of oceanographic and meteorological observations and research into the energy and water mass exchange processes through the seas peripheral to the Arctic Ocean, and, in particular, the Norwegian, Greenland, Iceland and Irminger Seas in relation to the sea ice cover of the Arctic Ocean and the East Greenland Current;
- (v) a co-ordinated sea ice observational and research programme in the Antarctic,

in the hope that, where appropriate and feasible, they will support programmes, within the existing international scientific framework, having these or similar ends in view.