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International Council for the
Exploration of the Sea

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Fisheries Improvement Committee

PROPOSAL FOR SYMPOSIUM ON HYDROCARBONS IN THE MARINE ENVIRONMENT

by

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With the developing exploitation of oil in the North Sea and other continental shelf areas of western Europe, there has been a recent substantial increase in research on hydrocarbons in the sea, with reference to their distribution in the abiotic and biotic components of the environment, their transfer from one compartment to another, and their effects on the ecosystem.

These studies have inevitably highlighted a variety of problems and difficulties. Not least of these are: (i) Methodology - sampling extraction and analytical techniques on both "in depth" and proximate analyses, intra- and inter-calibration, (ii) the choice of samples and their relevance as indicators of petroleum pollution, (iii) the meaning of results in terms of an assessment of the problems and (iv) the need to discuss on going research programmes so as to optimise the use of available resources. In view of the data already accumulated at a number of research establishments, we feel it is desirable to arrange discussions of these problems as soon as possible between scientists active in this field. Preliminary approaches which we have made to a number of these scientists indicate that there is widespread interest in a symposium at which the methods and results of current research could be presented and discussed as a basis for future programmes.

The framework envisaged is roughly as follows:

1. Methods
 - 1.1 Collection, storage and treatment of samples.
 - 1.2 Analytical techniques.
2. Occurrence of hydrocarbons and crude oil components in the marine ecosystem.
 - 2.1 Seas and sediments.
 - 2.2 Biomass.
3. Fate of hydrocarbons and crude oil components in the environment.
 - 3.1 Uptake and transfer and metabolism in the food chain.
 - 3.2 Physical and chemical degradation.
4. Effects on marine life and man.

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The suggested procedure would be for invited speakers to deliver short presentations and the major part of the time would be devoted to discussion in which the participants who would be scientists working in the various parts of the field, would be expected to take an active part. The discussion and possibly the papers would be later put together in some suitable format for circulation or publication.

A symposium on these lines could last for three days. It would attract participants from most European countries and input from Canada and USA could be invited. We would suggest that Aberdeen would be a suitable venue because it is a centre for a substantial section of the North Sea oil industry, it houses a number of appropriate research institutes and it can provide good facilities for such a meeting. We would also suggest in view of the relevance of this topic to ICES interests and activities in marine pollution research that the symposium would be very appropriately arranged under the auspices of ICES.

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