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**SUPPORT FOR ICES INTERNATIONAL SYMPOSIUM:
RECRUITMENT DYNAMICS OF EXPLOITED MARINE POPULATIONS:
PHYSICAL-BIOLOGICAL INTERACTIONS**

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LONG TERM GOALS

The long term goal of this project is to advance understanding of the coupling between physical and biological processes in the recruitment dynamics of marine populations by sponsoring an international symposium devoted to this issue.

OBJECTIVES

The specific objectives of the project are: (1) to organize and convene an international symposium devoted to the topic of physical-biological linkages in recruitment processes and (2) prepare a special issue of the ICES Journal of Marine Science based on contributions to the symposium.

APPROACH

The symposium was organized and publicized under the aegis of the International Council for the Exploration of the Sea (ICES) as principal sponsor of the meeting. Papers and poster contributions were solicited and reviewed by an international steering committee. A total of 104 papers was selected for oral presentation and 42 poster contributions were accepted for display by the steering committee. The meeting featured an opening session comprising invited papers on the first day followed by two days of contributed papers in concurrent sessions.

WORK COMPLETED

The symposium was held during September 22-24 on the campus of the Johns Hopkins University. Over 230 participants from over 20 countries attended the symposium. The opening lecture was given by Dr. David H. Cushing followed by 10 invited papers illustrating principal themes to be explored in the remainder of the symposium. The following two days of the symposium were devoted to sessions on trophodynamics, population regulation and environmental forcing, life history strategies in variable environments, physical transport

processes, reproductive biology, spatial dynamics, predator-prey relationships, and large scale processes.

Papers based on many of the contributions have been received and are in the editorial review process.

RESULTS

The symposium afforded a unique opportunity to assess the state of the art in understanding the determinants of recruitment variability in marine populations. Important advances in the development of coupled physical-biological models were described. These developments have been possible through advances in computational power and technological breakthroughs in our ability to measure physical and biological variables. The symposium also highlighted different approaches to understanding recruitment processes in a complementary way. These approaches included the use of laboratory and mesocosm experiments, development of mechanistic models at a broad spectrum of spatial and temporal scales, exploration of empirical relationships between the environment and recruitment time series, and detailed field studies with closely coordinated physical and biological measurements. The symposium also highlighted the importance of comparative analyses across taxonomic groups and physical systems as a strategy for understanding factors affecting recruitment of marine populations.

IMPACT

The symposium provided a forum for exchange of new ideas for researchers investigating recruitment processes in systems as diverse as polar seas and the tropics. It is our hope that the resulting cross-fertilization will stimulate new approaches with important implications for understanding factors affecting temporal and spatial fluctuations in marine organisms. These issues are directly related to important economic concerns such as the development of sustainable harvesting strategies for marine populations.

TRANSITIONS

N/A

RELATED PROJECTS

N/A

REFERENCES

For a list of oral papers presented see: http://www.ices.dk/symposia/rp_sym.htm