

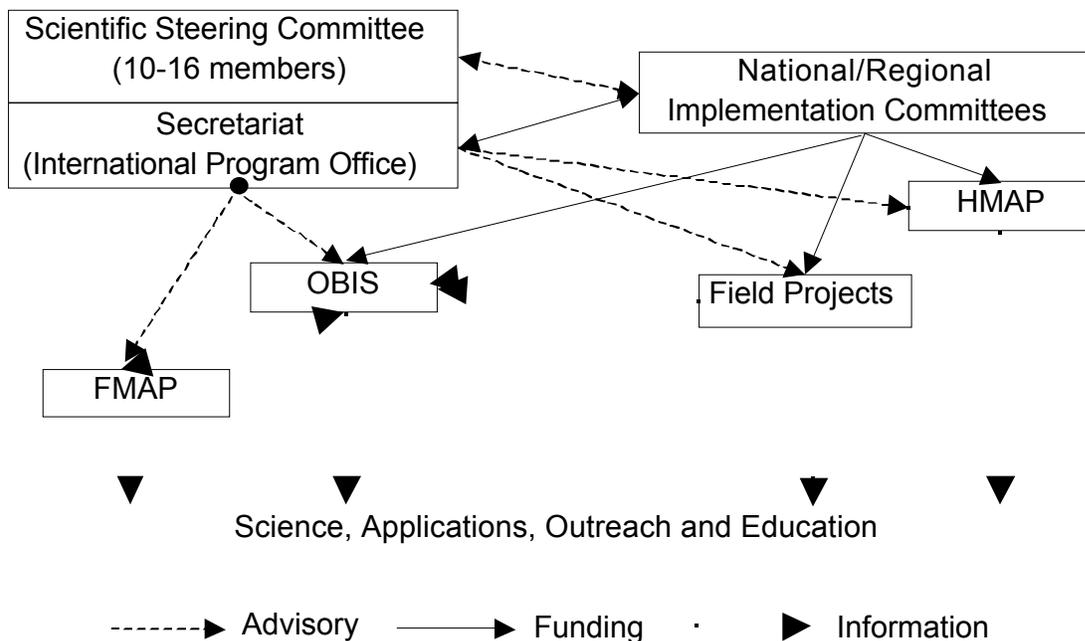
Application for SCOR Affiliation

The Census of Marine Life (CoML) is a major international program focused on global-scale marine biodiversity. Its objectives, scope, organization, and current activities are described in the attached documents. CoML hereby applies for affiliation with SCOR.

CoML clearly complements existing SCOR programs, and the association would be mutually beneficial. No current SCOR programs provide a broad spectrum of quantitative, species-level information on diversity in most marine habitats on a global scale. CoML seeks to fill this gap by developing collaborative activities among taxonomists, information technologists, historians, field biologists and modelers to make this kind of information available to the marine community. The program will seek to increase the detail of population distributions, extend the time series, and expand the range of organisms for which quantitative data are available. This type of information will contribute to a deeper understanding of marine ecology and evolution, and will contribute to the solution of a number of societal concerns including climate change, sustainable fisheries and waste management. A summary is attached and a detailed program description available.

The following information relates to the specific requirements outlined for affiliation.

1. The eleven-member Scientific Steering Committee includes scientists from Australia, Canada, Denmark, France/Chile, Japan, Netherlands, Norway and the USA (See brochure for details.). Each member serves a term of three to six years, thus providing for regular rotation of membership. This year, meetings are being planned in South America, China, Africa and Russia to expand scientific community participation in the program, and to assist in broadening the membership of the SSC. The overall organization of the CoML is indicated in the figure below.



2. The CoML currently has commitments for over \$30 million in funding from government agencies in nine countries and from five private foundations. The value of collaborations with agencies and industry is hard to estimate, but potentially amounts to double this sum. The level of interest and commitment continues to increase rapidly, and seven national or regional implementation committees are forming to facilitate conversion of interest into support.
3. The CoML has already taken advantage of SCOR expertise through the activities of Working Group 118, which provides advice on the most appropriate new technologies to quantitatively sample life in a range of habitats. The Census could further benefit from SCOR expertise in a wide variety of marine areas.
4. The ultimate goal of the CoML is to build an Ocean Biogeographic Information System (OBIS) that will within a decade provide quantitative information on marine species distribution through time comparable to that currently available on land. This body of data will not merely be of descriptive value; it is critical to the continued advance of ocean science and will serve as a biological component of ocean observation systems.
5. Many of SCOR's existing programs would be strengthened and expanded by closer coordination with and access to OBIS, and CoML is working in many areas to cooperate and develop collaborations with SCOR programs. For example, CoML's activities could be a particularly important asset to SCOR's new program in Ocean Biogeochemistry and Ecosystems. Several members of the Transition Team are also active in CoML.
6. The data assembly and data mining activities of OBIS and HMAP are clearly global in character. Current individual CoML field projects are generally focused on particular habitats and are thus of limited immediate scope. However, these initial pilot projects are intended to serve as models that can be replicated in other areas ultimately to provide global coverage.
7. CoML has no membership dues, and many of the program's activities encourage universal participation. The best examples are the capacity-building aspects of the NaGISA project and the partnership with POGO to build South American marine biodiversity research.
8. CoML agrees to the SCOR Publication Policy. CoML's recent publications and reports include *The Exploited Sea: New Directions for Marine Environmental History* (ISBN 0-9730073-1-1, with the International Maritime Economic History Assn.), *Impact of Climate Variability on Observation and Prediction of Ecosystem and Biodiversity Changes in the North Pacific* (ISBN 0-9685100-8-6, with PICES) and *Biological Observations of the Global Ocean: Requirements and How to Meet Them* (with POGO). A special issue of *Oceanologica Acta* is in press, based on the CoML-supported symposium at last year's IABO/IAPSO meeting in Mar del Plata, Argentina. Most CoML publications are available on its website at www.coml.org.

CoML would be pleased to accept the responsibilities and opportunities of SCOR affiliation.

Ron O'Dor, Senior Scientist, for the Scientific Steering Committee

CoML Summary

The Census of Marine Life (CoML) is a search for life on a new planet - right here. Earth's oceans occupy 70% its surface and 90% of its biosphere - they are largely unexplored and the life in them largely undescribed. The CoML is a research program that seeks to assess the diversity, distribution and abundance of ocean life and to explain how it changes over time. Its Ocean Biogeographic Information System (OBIS) is a working, internet accessible, repository for new information and analysis. Initial field projects are demonstrating new technologies to sample in a wide range of ocean habitats, while a global alliance is developing to increase the geographic coverage. The History of Marine Animal Populations project (HMAP) assembles comparative historical views of ocean life, providing time-series for projections from a current global census to the Future of Marine Animal Populations (FMAP). The FMAP project integrates new biological knowledge with rapidly improving knowledge of continuous ocean movements. In addition to surprising us with new life, the CoML will help us to better imagine how climate and human activity will change the living ocean and our lives.

This document outlines the relationships among five elements of the Census of Marine Life that create new knowledge:

- 1) OBIS, marine component of the Global Biodiversity Information Facility, links marine databases around the world to provide an Internet accessible, dynamic interface for comparing species level, geo-referenced biodiversity data in relation to ocean habitats. All CoML field project data will be managed in and accessible through OBIS.
- 2) HMAP is a unique new synthesis of historical and biological research that will document marine biodiversity, globally, up to 500 years ago, before significant human impact, and store it in formats compatible with modern data in OBIS.
- 3) SCOR Working Group 118 monitors and recommends advanced marine technologies, ready to be routinely used in CoML field projects.
- 4) CoML Initial Field Projects develop and calibrate these technologies in selected regions to facilitate and accelerate global biodiversity research. As calibrated technologies and protocols are adopted in many regions, qualitative and quantitative biodiversity discoveries will accumulate in OBIS to provide a census of current marine life.
- 5) FMAP will insure that the data in OBIS is suitable for modeling and predicting changes in global biodiversity in response to fishing, pollution and climate change challenges. It will make datasets available for hindcasting and forecasting analyses linked to physical ocean observations and assist in documenting the impacts of conservation efforts on sustainability.

SCOR-Affiliated Programs

From time to time, SCOR Working Groups propose activities that will extend beyond the normal life of the group and for which continuing SCOR sponsorship or oversight is appropriate. Unlike existing large-scale programs of SCOR, such as JGOFS and GLOBEC, funding for these programs is in place and the type of relationship proposed would not involve SCOR, or its Secretariat, in heavy commitments of funds or staff support. In 1995, SCOR developed the option of formal affiliation of relevant programs with SCOR.

SCOR's role in relation to Affiliated Programs is one of advice and occasional review. SCOR expects to be involved in membership decisions, ensuring that the steering committees include appropriate international and disciplinary balance. SCOR's national contacts could be used to find new members in regions where there is a need, or to entrain new countries into projects.

SCOR can also provide an independent mechanism for the review of planning documents such as science or implementation plans.

Application for SCOR Affiliation

Application to SCOR for program affiliation should be initiated with a proposal of 2 to 5 pages, sent to SCOR at least three months before an annual SCOR meeting. The proposal should include an outline of the program's science plan, the terms of reference, and current membership of the steering committee. The proposal for SCOR affiliation should also address the following criteria, accepted at the 1995 SCOR Executive Committee meeting (see *1995 SCOR Proceedings*). The Executive Committee agreed that in order to become a SCOR-affiliated Program, an activity must:

- be truly international, with a membership that rotates periodically;
- show evidence of existing financial and/or organizational support;
- demonstrate a need for SCOR affiliation;
- have a scientifically well-integrated theme;
- show that it is in SCOR's interests to establish this affiliation;
- be of broad scale and global importance;
- show, as appropriate, that any scheme of membership dues includes some nominal level so as to encourage the widest possible international participation by all countries; and
- be willing to adhere to the SCOR Publication Policy.

Once a program is affiliated with SCOR, annual reports are required. At each biennial SCOR General Meeting, these reports should be somewhat more substantial (and scientific lectures may be requested) as a basis for the decision on continuing the relationship between SCOR and each program. The Chair of each Affiliated Program serves as an ex-officio member of SCOR as a Scientific Rapporteur (see SCOR Constitution, paragraph 4). SCOR will not usually sponsor an Affiliated Program for more than ten years.