

Foreword

This volume is one of the promised outcomes of the proposal sent to the A. P. Sloan Foundation to obtain funding for the First South American Workshop on Marine Biodiversity. It comes two years after the first talks on the matter under the umbrella of the Mar del Plata, Argentina, meeting: IAPSO/IABO 2001: An Ocean Odyssey. Just a few weeks before that meeting I had been approached by Dr. Shubha Sathyendranath, Executive Director of POGO (Partnership for Observation of the Global Oceans) an international network of major oceanographic institutions capable of conducting global and basin-scale investigations and measurements, to ask me whether I would accept the task of organizing a Marine Biodiversity workshop in the region.

The idea of a biodiversity meeting originated that same year during a Biology Symposium held by POGO. The goal of the meeting had been to have a small group of experts advise POGO Directors on what could be done by POGO to enhance biological observations (long-term, large-scale), ensuring that the proposed observations would benefit the goals of long-term monitoring, as well as help address the pressing scientific issues of the day. The recommendations from that meeting were presented at the general meeting, POGO-3 in November. During the last POGO-2 meeting (Brazil) it was also discussed the need to enhance oceanographic observations in the Southern Hemisphere. POGO's Executive Director indicated to me that putting these two priorities together, it made sense to hold a workshop to find out what could be done to enhance biological oceanographic observations in the Southern Hemisphere. Moreover, two of the major POGO oceanographic institutions: Scripps and Woods Hole have strong ties with Chile and in particular with the University of Concepcion where, by the way, a new, and also the first, National Center for Oceanography had just been funded by the Chilean government. This latter outcome, I should clarify, is more recent than the first contact with POGO's Executive Director.

It was further observed that POGO's above expressed goals coincided with the goals of Census of Marine Life in promoting studies of marine biodiversity in the Southern Hemisphere and that someone from the region could help prepare a proposal to apply for funds that would finance a Southern Hemisphere gathering to foster the said goals. As I understand it, there had been talks between POGO's ED and Jesse Ausubel, Program Director of the Sloan Foundation in the sense that this proposal could eventually be submitted to the Sloan Foundation for an eventual funding. Since I accepted to be involved with the idea of organizing a meeting on marine biodiversity in the region and the preparation of a proposal, I duly requested to be present at the Mar del Plata meeting where the general idea could be expressed and interest among South American scientists participating could be initially raised. In connection with all of this, I thank Dr. Ronald O' Dor for his wonderful support. In the interim I had gathered that, while most South American countries probably had initiatives in the area of marine biodiversity few had yet heard of the CoML and of its initiatives and actions related with assessing and explaining the diversity of life, its distribution and abundance in the world's oceans. Thus, one of the goals of the workshop would be to learn about CoML actions with the participation of some of the major actors, having perhaps in mind the needs of the SA region. Conversely, I suspected that among ourselves, in South America, there was also a lack of knowledge about what each country was doing on this subject. For example, in the benthic realm of Chile, there is quite a bit of research that has been carried out on the fauna and flora of the littoral zone but much less is known about the functional diversity of the sublittoral and deep ocean benthos. The latter appears to be true also for the pelagic realm in general. I would dare say that we embarked on process-oriented research without adequate progress in species-specific approaches. I unfortunately did not know whether this situation held or not for the rest of the South American countries. Thus, another goal of the workshop was to update ourselves and, at the same time, inform CoML of the regional opportunities, realized or potential, convergent with its own global objectives. Finally, since CoML's strategy to attain its main goals, is through the development of pilot projects, and so far there was only one for the whole of the Southern Hemisphere, ideas for further such pilot projects could be envisioned to arise from the workshop. I imagined then that a pilot project having the

Humboldt biome as a focus could be much in order. Another, I thought, could involve the southern cone of South America and its relations with Antarctica. Argentinian, Chilean and German efforts have been displayed in that area already and these activities are a subject of one of the papers in this volume. The evaluation of the abundance of important fish species was thought to be another approach, i. e., anchovy, sardine, and particularly jack mackerel.

In our developing countries, it is often the case that projects with a large potential for ecosystem perturbation are installed in pristine areas without ever knowing what was there in the first place. Such is the case with the potential installation of a large aluminum concern in the still pristine austral region of Chile (Puerto Chacabuco area, north of Punta Arenas). Probably many more can be mentioned in the region. A capacity for quick proactive action should perhaps be considered in order to establish the necessary reference baselines. Basically then, these were my ideas for structuring a meeting and evaluating its costs to construct the proposal that was finally presented, as suggested by POGO's ED, to the Sloan Foundation.

The meeting took place exactly a year from that lunch meeting in Mar del Plata. The model followed to get to that point was first to approach leading scientists in the subject and ask for their support in coordinating efforts within their respective countries. In this way a South American coordinating committee was formed with the following colleagues: Vivian Lutz, INIDEP (Instituto Nacional de Investigación y Desarrollo Pesquero), Investigadora Adjunta CONICET, Mar del Plata, Argentina; Erminda da C. Guerreiro Couto, Departamento de Ciencias Biológicas, Núcleo de Estudos Oceanográficos, Ilhéus, Brasil; Juan Manuel Díaz, Head of the Marine Biodiversity and Ecosystems Program, Instituto de Investigaciones Marinas y Costeras, INVEMAR, Guest Professor of the Universidad Nacional de Colombia, Program in Marine Biology, Cerro Punta de Betín, Santa Marta, Colombia; Rubén Escribano, Associate Researcher, Center for Oceanographic Research in the Eastern South Pacific, Estación de Biología Marina de Dichato, Universidad de Concepción, Concepción, Chile; Manuel Cruz, Instituto Oceanográfico de la Armada del Ecuador, Guayaquil, Ecuador; Felipe Artigas, LABEL – UMR, Université du Littoral Côte d'Opale-MREN, Wimereux, France, and IRD - Centre de Cayenne, Cayenne Cede, Guyane Française; Juan Tarazona B., Director, Dirección General de Programas, Consejo Nacional de Ciencia y Tecnología (CONCYTEC), San Borja, Lima, Perú; Danilo Calliari, Sección Oceanología, Departamento de Ecología, Facultad de Ciencias, Universidad de la República, Montevideo, Uruguay; and Patricia Miloslavich, Laboratorio de Biología Marina, Departamento de Estudios Ambientales, Universidad Simón Bolívar, Caracas, Venezuela. In two marathonic tours I visited each one of them and met with their colleagues with the aim to give a person-to-person information on CoML, POGO, and promote the idea and participation in the workshop. The structure and aim of the workshop were clearly passed on to the audiences. During these two separate trips 150 scientists from 22 institutions were addressed.

It was next decided that two to three local scientists would be invited to participate in the workshop, together with about five scientists associated with CoML and POGO. They, besides being a much needed asset during the workshop, are also the main co-authors of the contributions in this volume. During the trips by the editor, great enthusiasm was noted among South American scientist which had much to contribute to the goals of both CoML and POGO through information that they already have and new actions that might benefit from the new effort that was being promoted.

The workshop structure was consistent with the above outlined major objectives. Thus, a first element was a section where POGO - and CoML - associated scientists presented the status of their respective programs. Given the theme of the workshop, the progress, achievements and ideals of CoML were emphasized. This element required inviting presentations by leading scientists in charge of major present CoML pilot projects and at least one representative from POGO.

A second element was a section where senior/leading South American scientists reported on the activities of their countries in the area of marine biodiversity. Traditionally, studies of biodiversity have been one of the strengths of the South American scientific community. However, many of these studies tend to be carried out in relative isolation, and it is at present very difficult to collect information on what is already known about the marine diversity of the region. The planned national and regional presentations were to serve the purpose of compiling and disseminating information on what is known about the region. This was also to form the basis on which plans for future studies to unveil the unknown can be founded. The known, the

unknown and the essentials were to emerge mainly from these presentations. This element required inviting presentations by non-South American scientists involved in marine biodiversity research in the South American region.

The third element of the workshop was the group/collective discussions whereby one or several potential South American initial/field projects were identified. The emergence of an organization to foster these activities, i. e., a South American Scientific Steering Committee was an important goal originally envisioned in the planning and actually obtained during the workshop. It was also foreseen that simple linkages with the ongoing projects of CoML were going to be identified and established through this type of activity and this too was true and is being further developed as of now.

Finally, I would like to express my gratitude to all those colleagues both from within and without the region that together made the workshop and this volume possible. It is expected that this work will be an important world reference to the marine biodiversity of a most interesting region in the world and the way we obtained this result, a model to others venturing in the same field in other parts of the planet.

In closing, I take great pleasure in expressing my heartfelt gratitude towards Shubha Sathyendranath, Ron O'Dor, and, in particular to Jesse Ausubel for their continuing trust and support throughout the process since the first exploratory letters. As Jesse foresaw it in his opening remarks, we are already spiritually much richer than when we started and there is more to come.

Víctor Ariel Gallardo

Editor-Guest

Concepción (Chile), September 9th, 2003.