

**FIRST SOUTH AMERICAN WORKSHOP ON MARINE BIODIVERSITY  
28-30 OCTOBER 2002**

Census of Marine Life (CoML)  
Partnership for Observation of the Global Ocean (POGO)  
Centro de Investigación Oceanográfica en el Pacífico Sur-Oriental (COPAS-UDEC)

**Introduction**

With the presence of the of the organizing committee, conformed by Shubha Sathyendranath of POGO, Ronald O'Dor of CoML, and Victor A. Gallardo, representing the Centre for Oceanographic Research in the South Eastern Pacific of the University of Concepción of the Sloan Foundation, South American scientists identified as national coordinators and other invited scientist both from within and without the region the First South American Workshop on Marine Biodiversity took place as planned at the University of Concepcion, Concepcion, Chile, on October 28-30.

**Objectives**

According with the Background Paper (Annex 1), the objectives of the workshop were:

- To develop of concepts and priorities for initial and/or new field projects in the South American Region,
- To form a South American Committee for the Census of Marine Life/POGO initiative,
- To publish the Workshop Proceedings (in the *Revista Chilena de Historia Natural*).

**Participants**

The scientists participating in this workshop were as follows:

- 1) North American and European participants

Jesse Ausubel, Sloan Foundation, New York  
Shubha Sathyendranath, Executive Director of POGO  
Ronald O'Dor, Dale Kiefer, Katrin Iken and Eva Llodra, CoML  
George Shillinger, Conservation International  
Annelies Pierrot-Bults, IABO  
Julian Gutt, Alfred Wegener Institute for Polar and Marine Research (AWI), Germany.

- 2) South American participants were

- a) Country coordinators

- **Argentina:** Vivian Lutz
- **Brasil:** Erminda da C. Guerreiro Couto

- **Colombia:** Juan Manuel Diaz
  - **Chile:** Rubén Escribano
  - **Ecuador:** Manuel Cruz
  - **French Guyana:** Felipe Artigas
  - **Perú:** Juan Tarazona
  - **Uruguay:** Danilo Calliari
  - **Venezuela:** Patricia Miloslavich
- b) Other supporting South American invitees:
- **Brasil:** Fabio Lang da Silveira
  - **Colombia:** Arturo Acero
  - **Chile:** Miriam Fernandez, Antonio Aranís, German Pequeño
  - **Argentina:** Mirtha Lewis, Pablo Penchaszadeh
  - **Ecuador:** Nikita Gaibor
  - **Perú:** Dimitri Gutiérrez
  - **Uruguay:** Omar Defeo
  - **Venezuela:** Eduardo Klein

### **Functional strategy and proceedings**

This structure of the Workshop was consistent with the envisioned functional strategy, namely:

- 1) Allow for an information-sharing phase among scientists from South America and between South American and Northern Hemisphere scientists (Presentation phase). Here presentations by scientists associated with the two main promoters and members of the Organizing Committee of the Workshop, i.e., POGO and Census of Marine Life as well as IABO were offered as well as presentations by South American scientists identified as national coordinators addressing the known, the unknown, and the unknowable (within the time frame adopted by Census, i.e., 10 years), in relation to marine biodiversity within their respective countries (see also Workshop Program in Annex 2).

This phase of the workshop was very successful in that provided written material for publication. From the turn out it is hoped that the publication of the reports submitted to the Organizing Committee will be an important contribution to the knowledge of marine biodiversity in South America. The lists of presentations or country reports is included in the Annex 2 of this report.

- 2) The identification of a few research ideas of the highest regional and/or sub-regional interest for the initial financial support of the Sloan Foundation within the scope of the Census of Marine Life international program and hopefully other funding sources both national and international (Working Group phase) (see Workshop Program in Annex 2)

## Recommendations

During the Workshop, the discussions continued through the proceedings of two working groups, namely the Data Handling (Chaired by Ruben Escribano) and the Scientific Research WG Chaired by V. A Gallardo. These WGs at the final plenary session agreed on the following principal recommendations:

i) Create:

1. A South American OBIS (SA-OBIS)

This project idea emerged from the proceedings of the Group 1 on Data Handling. The main conclusion was to initiate the creation this database arrangement into two levels: the regional and the local. At the regional level South America is divided into four Sub-regions, thus it was considered necessary to establish four data handling centers, one for each of the following:

- a) The Caribbean
- b) The Tropical Pacific
- c) Tropical Atlantic and
- d) The Southern Ocean

At the local level each country should make arrangements to contribute with its own data system. The group was concerned about the following facts: 1) At present there is enough data to start; 2) There is a real need to get organized; 3) It will be necessary to invite other people to participate; 4) A committee of 2-3 persons is needed to organize the networking; and 5) A proposal should be elaborated to make this data handling function to take place. A report of the WG is expected to be available soon.

2. A South American NAGISA (SA-NAGISA). Miriam Fernandez of Chile was named to lead this effort.
3. Encourage participation in ChESS, TOPP, HMAP and FMAP within the South American Region.

ii) Develop new South American project ideas. These should include:

4. A biodiversity project (so-called Basic) to bring forward and make available to the international community collections and data available in the region. This would include training in taxonomy within the region. (J. M. Diaz of Colombia in charge)
5. A project dealing with the Biodiversity of major river South American estuaries and river plumes. (Felipe Artigas of French Guyana in charge)
6. A project dealing with coastal upwelling ecosystems under the different oceanographic settings presented by the South American scenario. (A subject matter to be discussed by the SACoML Committee).
7. A project dealing with the major Minimum Oxygen Zone of the South Eastern Pacific. (A subject matter to be discussed by the SACoML Committee).

8. A project dealing with the biodiversity of the Southern Cone of South America. (Mirtha Lewis of Argentina was charged with leading this effort).
9. A project idea to maintain existing and possibly create new capability for time series observations through fixed stations. (Vivian Lutz or Argentina in charge).

### **Formation of the South American CoML Scientific Steering Committee**

During a final Plenary Session a SA CoML Scientific Steering Committee was formed.

Main members:

- Chile: Ruben Escribano (President)
- Colombia: Juan Manuel Diaz (Vice-President)
- Argentina: Vivian Lutz
- Brasil: Erminda da C. Guerreiro Couto
- Ecuador: Manuel Cruz
- French Guiana: Felipe Artigas
- Perú: Juan Tarazona
- Uruguay: Danilo Calliari
- Venezuela: Patricia Miloslavich

Additional Members

- Eduardo Klein (SA-Obis)
- Miriam Fernandez (SA-NAGISA)

### **Future actions**

The following future actions were identified under the Presidency of Ruben Escribano:

To January 2003

Preparation of Proposals to be presented to the CoML International Scientific Steering committee:

- To support the activities of the SA-CoML SSC for a period of about 15 months.
- To fund the launching a first phase of a SA- OBIS
- To fund the launching of a demonstrative phase of a SA- NAGISA

To June 2003 or later

Mature ideas and prepare proposals to fund new potential SA Field Project

The criteria for these new SA Projects should include the following:

- Feasibility
- Regional appeal
- Exemplary
- Replicable
- Address a major unknown
- Urgent
- With important social benefits
- Fundable
- Capable of strengthening marine capability in SA
- Opportunities for taxonomy training
- Produce data for OBIS

### **Final words**

The strong response and enthusiasm of the South American marine scientific community of every country represented in this event and the likewise enthusiastic support from the northern hemisphere scientists indicates that a new era of scientific and academic collaboration both within the South American Region and also between the northern and southern hemispheres is entered into around the theme of marine biodiversity with major benefits to the world at large.

### **Acknowledgements**

I express my deepest gratitude to all involved in this transcendent effort. I also take the opportunity to wish every success to the South American CoML Scientific Steering Committee that was born during the workshop.

Victor A. Gallardo  
Chair

Concepcion, November 27, 2002.

## ANNEX 1

**BACKGROUND DOCUMENT FOR A WORKSHOP ON**

**BIODIVERSITY IN THE OCEANS AROUND SOUTH AMERICA: THE  
KNOWN AND THE UNKNOWN**

**ORGANIZED BY**

**POGO, CoML AND COPAS (UDEEC)**

**CONCEPCION (CHILE), 28-30 OCTOBER, 2002**

**Updated version: 24.10.02**

## **INTRODUCTION**

The idea of a South American Biodiversity Meeting originated this year following a Biology Workshop held by POGO (Dartington Report). The goal of the Workshop was 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 the workshop were presented at the general meeting, POGO-3, in the end of November 2001. Further, during the previous POGO-2 meeting (Brazil) the need to enhance oceanographic observations in the Southern Hemisphere was also discussed. Putting these two priorities together, it becomes clear that it would be desirable to hold a workshop to explore what could be done to enhance biological oceanographic observations in the Southern Hemisphere. At the General meeting of POGO in November, it was recommended that this idea be carried forward.

It was further observed that the goals of POGO expressed above coincided with the goals of Census of Marine Life (CoML) in promoting studies of marine biodiversity in the Southern Hemisphere and that it would be desirable to prepare a proposal to obtain funds to finance a South American gathering to foster the above mentioned goals. The Sloan Foundation was identified as the addressee of the proposal.

## **THE SOUTH AMERICAN CONNECTION**

Two of the POGO oceanographic institutions, SIO and WHOI, have strong ties with Chile and in particular with the University of Concepción where the Chilean Government, through the National Commission for Scientific and Technological Research, has recently funded the first National Center for Oceanography. It was thus felt that an appropriate venue for the proposed workshop was the University of Concepción, which has, furthermore, a long tradition in the area of marine biodiversity and strong ties with other universities, both national and regional.

## **RATIONALE OF THE WORKSHOP**

The applicants discussed these issues during their participation in the Biodiversity Symposium of the IAPSO/IABO 2001: **An Ocean Odyssey** (Mar del Plata, 26 October 2001). The enormous scientific and societal value of the actions already taken by CoML was noted during these discussions. It was further noted that, whereas most South American countries maintain traditional initiatives in the area of marine biodiversity, very few countries were represented in the Mar del Plata meeting to benefit from the presentations and discussions on modern techniques and approaches to the theme. It is indeed posited that most probably, few scientists in the region have yet heard of CoML, as an emerging but most emblematic modern international program on biodiversity and related oceanographic processes.

This situation makes it thus highly desirable to hold a regional workshop in order to foster the goals, initiatives, ideas, technologies of both CoML and POGO, and to explore possibilities for local and north-south cooperation in the South American region.

## **OBJECTIVES OF THE WORKSHOP**

From the point of view of interested scientists of the region, one of the main objectives of the South-American Marine Biodiversity Workshop would be to learn both about CoML and POGO, their actions, advances, application of novel techniques, and of the opportunities for international cooperation in new projects relating biodiversity and ocean observations. This will entail the participation of some of the major present actors within CoML and POGO.

Another major objective of the workshop will be to learn about the activities of South American countries on these subjects and their national priorities. To accomplish this, a suite of key South American experts will be invited to offer overview presentations. Additionally, non-South American scientists with considerable expertise and experience in the SA marine realm will be eligible for this type of presentations.

The dual strategies of the CoML to attain its goals are to develop key projects that explore unique marine habitats in particular regions and to create regional committees to support these projects and encourage CoML approaches to other habitat zones. So far, the only CoML activities in the Southern Hemisphere are in the Western Pacific. This leads us to the final objective: to identify possible new projects addressing problems of either regional (such as the Humboldt biome, and the Sub-Antarctic biome) or global (for example marine mammal migrations and South Pacific jack-mackerel migrations) relevance.

## **THE KNOWN, THE UNKNOWN AND THE UNKNOWABLE OF SOUTH AMERICAN MARINE BIODIVERSITY**

Biodiversity is defined as the collection of genomes, species, and ecosystems occurring in a geographically defined region. There is a global agreement today that the diversity of life in the ocean is being altered increasingly by human activities and that their effects are potentially irreversible. The South American region is no exception to this trend. Among others, in this geographical region, the most critical (current or potential) ways in which marine biodiversity is or may be impacted, are: extraction of life from the seas; introduction of exotic species; chemical pollution; localized eutrophication and alteration of coastal habitats; and global climate change, including increased UV radiation and potentially rising temperatures, resulting in possible changes in the secular regional ocean cycles. These stresses may be affecting or may as yet affect life in the oceans from the intertidal zone to the deep sea.

This is a very large marine region, for the most part still unexplored. Therefore, a regional biodiversity effort appears to be most timely, to: (1) gain a precise insight on what is known and what is unknown, what is at present being done, and what is the potential for further activity regionally on the subject of biodiversity; and (2) explore how the present effort could be enhanced through both regional coordination and the participation of scientists from the developed world. New approaches, have to be integrated with scientific effort and financial resources already in place.

From the standpoint of South American marine biodiversity, Longhurst's classification of biomes and provinces seems to be useful<sup>1</sup>. In this system the South American region encompasses large and important coastal and oceanic biomes each with one or more provinces. (1) Within the Pacific Coastal Biome the Humboldt Current Coastal Province extends along most of the west coast of South America and is in direct contact with the oceanic South Pacific Subtropical Gyre Province; (2) On the east coast of South America the Atlantic Coastal Biome consists of the (a) Guianas Coastal Province, (b) the Brazil Current Coastal Province and (c) the Malvinas Current Coastal Province. The latter are in turn in contact with the oceanic Caribbean, the South Atlantic Gyral, the South Subtropical Convergence, and the Sub-Antarctic Water Ring Provinces, respectively. This diverse ecological geography suggests a most unique opportunity for a concerted study on functional marine biodiversity under very different and contrasting biogeographical, evolutionary, and ecological settings.

At this point it is worth recalling some of the objectives of the US national research agenda on marine biodiversity<sup>2</sup> which might be applicable in the South American region:

- to understand the patterns, processes, and consequences of changing biodiversity by focusing on critical environmental issues and their threshold effects, and to address these effects at spatial scales from local to regional and at appropriate temporal scales;
- to improve linkages between marine ecological and oceanographic sciences by increasing understanding of the connectivity between local, smaller-scale biodiversity patterns and processes and regional, larger-scale oceanographic patterns and processes that may directly impact local phenomena;
- to strengthen and expand the field of marine taxonomy through training, the development of new methodologies, and enhanced information dissemination, and to raise the standard of taxonomic competence in all marine ecological research;
- to facilitate and encourage the incorporation of (1) new technological advances in sampling and sensing instrumentation, experimental techniques, and molecular genetic methods; (2) predictive models for hypothesis development, testing, and extrapolation; and (3) historical perspectives (geological, paleontological, archaeological, and historical records of early explorations) in investigations of the patterns, processes, and consequences of marine biodiversity; and
- to use the new understanding of the patterns, and consequences of marine biodiversity derived from this regional-scale research approach to improve predictions of the impacts of human activities on the marine environment.

---

<sup>1</sup> Alan Longhurst, 1998. *Ecological Geography of the Sea*. Academic Press.

<sup>2</sup> *Understanding Marine Biodiversity: A Research Agenda for the Nation*. Comm. Biol. Div. Mar. Syst., OSB, Comm. Geosci. Envir. & Res., Bd. Biol., Comm. Life Sci., Nat. Res. Council. Nat. Acad. Press, Wash., D. C., 1995.

## **WORKSHOP STRUCTURE**

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

A second element will be a section where senior/leading South American scientists will report 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 will serve the purpose of compiling and disseminating information on what is known about the region. This will also form the basis on which plans for future studies to unveil the unknown can be founded. The known, the unknown and the essentials should emerge mainly from these presentations. This element might also require inviting presentations by non-South American scientists involved in marine biodiversity research in the South American region.

The third element of the workshop will be group/collective discussions whereby one or several potential South American initial/field projects could be identified. The emergence of an organization to foster these activities is envisioned. It is also foreseen that simple linkages with the ongoing projects of CoML may be identified and established through this type of activity.

## **EXPECTED OUTPUTS**

As main expected outputs from the workshop the following can be mentioned:

- 1) The development of concepts and priorities for new initial/field projects in the South American Region,
- 2) Formation of a South American Committee for the Census of Marine Life/POGO initiative.
- 3) Publication of Workshop Proceedings (preferably both in English and Spanish) hopefully as special issue of the *Revista Chilena de Historia Natural*.

## **ORGANIZING COMMITTEE**

The initial constitution of the Organizing Committee will be as follows:

### **Chair:**

#### **Dr. Victor Ariel Gallardo**

Director, Center for Oceanographic Research in the South-Eastern Pacific (COPAS),  
Universidad de Concepción  
Casilla 160-C  
Phone/Fax: 56 41 204520  
e-mail: vagallar@udec.cl  
Concepción

Chile

**Members:**

**Dr. Ron O'Dor**

Senior Scientist, Census of Marine Life (CoML)

Phone: 1-202-332-0063 x239

Fax: 1-202-332-9751

e-mail: [rodor@coreocean.org](mailto:rodor@coreocean.org)

CORE, Suite 800,

1755 Massachusetts Ave. NW

Washington, DC 20036-2102

U.S.A.

**Dr. Shubha Sathyendranath**

Executive Director, POGO

Bedford Institute of Oceanography

1 Challenger Drive

Phone: 1 902-426-8044

Fax: 1 902-426-9388

e-mail: [shubha@is.dal.ca](mailto:shubha@is.dal.ca)

web: [www.oceanpartners.org](http://www.oceanpartners.org)

Dartmouth

Nova Scotia B2Y 4A2

CANADA

The organizing committee will work together with the country coordinators to decide on the invited attendees at the meeting, to plan the agenda, and to assign speaking and writing tasks to the participants. The Chair of the Organizing Committee will also be the Chair of the proposed Biodiversity Meeting.

**CENSUS OF MARINE LIFE PARTICIPANTS**

**Jesse Ausubel**

Program Director

A. P. Sloan Foundation

New York, U.S.A.

**Dr. Kathrin Iken**

Staff Scientist

Global Undersea Research Unit

West Coast & Polar Regions

School of Fisheries and Ocean Sciences Undersea Research Center

University of Alaska Fairbanks

PO Box 757220

e-mail: [iken@ims.uaf.edu](mailto:iken@ims.uaf.edu)

Fairbanks

Alaska 99775-7220

**George Shillinger**

**Dale Kiefer**

**Eva Llodrá**

ChEss - Census of Marine Life  
Southampton Oceanography Centre  
European Way  
SO14 3ZH Southampton, UK  
Tel. +44 2380 596446  
Fax. +44 2380 593642  
[ezr@soc.soton.ac.uk](mailto:ezr@soc.soton.ac.uk)

## **SOUTH AMERICAN COUNTRY COORDINATORS**

### **ARGENTINA:**

**Dr. Vivian Lutz**

INIDEP (Instituto Nacional de Investigacion y Desarrollo Pesquero)  
Investigadora Adjunta CONICET  
Phone: +54 (223) 4862586  
Fax: +54 (223) 4861830  
e-mail: [vlutz@inidep.edu.ar](mailto:vlutz@inidep.edu.ar)  
Paseo Victoria Ocampo 1  
7600 Mar del Plata

### **BRASIL:**

**Dr. Erminda da C. Guerreiro Couto**

Departamento de Ciências Biológicas  
Núcleo de Estudos Oceanográficos  
Phones: 73 680-5270 / 680 – 5268  
e-mail: [minda@uol.com.br](mailto:minda@uol.com.br)  
Rodovia Ilhéus – Itabuna km 16,  
45650-000, Ilhéus

### **COLOMBIA:**

**Dr. Juan Manuel Díaz**, Dr.rer.nat.

Head of the Marine Biodiversity and Ecosystems Program

Instituto de Investigaciones Marinas y Costeras, INVEMAR.  
Guest Professor of the Universidad Nacional de Colombia  
Postgraduate Program in Marine Biology  
Phone: 57-5-4214413, FAX 57-5-4211377  
e-mail: [jmdiaz@invemar.org.co](mailto:jmdiaz@invemar.org.co)  
Cerro Punta de Betín, Apartado 1016  
Santa Marta

**CHILE:**

**Dr. Rubén Escribano**

Associate Researcher, Center for Oceanographic Research in the South-Eastern Pacific  
Estación de Biología Marina de Dichato  
Universidad de Concepción  
Casilla 160-C  
Phone: 56 41 683033  
FAX: 56 41 683902  
e-mail: [rescriban@uantof.cl](mailto:rescriban@uantof.cl)  
Concepción

**ECUADOR:**

**Dr. Manuel Cruz**

Instituto Oceanográfico  
Phones: 59 34 481300, FAX: 59 34 485166  
e-mail: [manuelcruzp47@hotmail.com](mailto:manuelcruzp47@hotmail.com)  
Guayaquil

**FRENCH GUYANA:**

**Dr. Felipe Artigas**

LABEL - UMR 8013 ELICO  
Université du Littoral Côte d'Opale  
MREN - 32, av. Foch  
F- 62 930 Wimereux  
FRANCE  
tel: 33 (0)3 21 99 64 07  
fax: 33 (0)3 21 99 64 01  
e-mail: [artigas@mren2.univ-littoral.fr](mailto:artigas@mren2.univ-littoral.fr)

and

UR R053 ELISA  
IRD - Centre de Cayenne  
Route de Montabo - BP 165

97 323 Cayenne Cedex  
GUYANE FRANCAISE  
tel : 594 (0)594 29 92 63  
fax : 594 (0)594 31 98 55

**PERU:**

**Dr. Juan Tarazona B.**

Director  
Dirección General de Programas  
Consejo Nacional de Ciencia y Tecnología (CONCYTEC)  
e-mail: [jtarazona@concytec.gob.pe](mailto:jtarazona@concytec.gob.pe)  
Calle El Comercio 197, San Borja  
Lima

**URUGUAY:**

**Dr. Danilo Calliari**

Sección Oceanología  
Departamento de Ecología  
Facultad de Ciencias  
Universidad de la República  
e-mail: [dcalliar@fcien.edu.uy](mailto:dcalliar@fcien.edu.uy)  
Iguá 4225, CP 11400  
Casilla Postal 11400  
Teléfono +598 2 5258618 (anexo 150)  
FAX: +598 2 5258632  
Montevideo

**VENEZUELA:**

**Dr. Patricia Miloslavich**

Laboratorio de Biología Marina  
Departamento de Estudios Ambientales  
Universidad Simón Bolívar  
e-mail: [pmilos@usb.ve](mailto:pmilos@usb.ve)  
Caracas

**SOUTH AMERICAN INVITEES**

The invited participants will be selected primarily from South American countries. Those with broad perspectives of relevant national activities and priorities will be identified and given preference. Some bright and upcoming scientists will also be selected to complement the more senior and experienced scientists in the field. A few participants from other regions may also be invited, to complement the regional representation, and to provide cross-fertilization with activities elsewhere. A preliminary list has been prepared (see below). This list will be enhanced based on

discussions with scientists in S. America. The final list of invitees will be prepared from the list below which is being proposed by the Country Coordinators.

### **ARGENTINA:**

#### **Dr. Mirtha Lewis**

Investigadora Adjunta  
Consejo Nacional de Investigaciones Científicas y Tecnológicas (CONICET)  
Centro Nacional Patagónico (CENPAT)  
e-mail: lewis@cenpat.edu.ar  
Puerto Madryn

#### **Dr. PABLO PENCHASZADEH**

Investigador Principal  
Consejo Nacional de Investigaciones Científicas y Tecnológicas (CONICET)  
Universidad de Buenos Aires (UBA)  
e-mail: pablop@mail.retina.ar  
Buenos Aires

### **BRASIL**

#### **Dr. Fábio Lang da Silveira**

Taxonomia de Cnidaria / Hydrozoa  
Instituto de Biociências  
Departamento de Zoologia  
Rua do Matão, Travessa 14, nº 101 - CP 11461  
Cidade Universitária, 05422-970  
Universidade de São Paulo  
Phone: 0xx11 3091-7619/ 3091-7575  
Fax: 0xx11 3091-7802/ 3091-7513/ 3091-7416  
e-mail: fildsilve@usp.br  
São Paulo

### **COLOMBIA:**

#### **Arturo Acero, M. Sc.**

Universidad Nacional de Colombia  
Faculty of Sciences, INVEMAR  
e-mail: aacero@invemar.org.co  
Phone/FAX: 57-5-4312977  
Cerro Punta de Betín  
Apartado 1016  
Santa Marta

## **CHILE:**

### **Dr. Miriam Fernández**

Center for Advanced Studies in Ecology & Biodiversity  
Catholic University of Chile  
P. O. Box 114-D  
Phone: 56-2-686-2641, Fax 562-686-2615  
<http://www.bio.puc.cl/caseb/>  
e-mail: [mfernand@genes.bios.puc.cl](mailto:mfernand@genes.bios.puc.cl)  
Santiago CP 6513677

### **Antonio Aranís**

Associate Researcher  
Instituto de Fomento Pesquero  
Huito 374  
Phone: 56 32 212630  
FAX: 56 32 213178  
e-mail: [aaaranis@ifop.cl](mailto:aaaranis@ifop.cl)  
<http://www.ifop.cl>  
Valparaíso

### **Germán Pequeño Reyes**

Director Instituto de Zoología  
Universidad Austral de Chile  
Fono-Fax: 63 – 221315  
[gpequeno@uach.cl](mailto:gpequeno@uach.cl)  
Casilla 567  
Valdivia

## **ECUADOR:**

### **Nick Gabor, M. Sc.**

Sub-Director  
Instituto Nacional de Pesca (INP)  
Letamendi 102 y La Ría  
P.O. Box 09-04-15131  
Phones: (593-4) 2401773  
Fax: (593-4) 2402304  
e-mail: [nickgc\\_2000@yahoo.com](mailto:nickgc_2000@yahoo.com)  
Guayaquil

## **PERU**

### **Dr. Dimitri Gutiérrez**

Instituto del Mar del Perú (IMARPE)

Dirección de Oceanografía  
Esquina de Gamarra y General Valle S/N  
Chucuito  
Apartado postal 22  
Phone: 51-4-202000  
e-mail: dgutierrez@imarpe.gob.pe  
Callao

**URUGUAY:**

**Dr. Omar Defeo**

Unidad en Desarrollo de Ciencias del Mar (UNDECIMAR)  
Facultad de Ciencias  
Universidad de la República  
e-mail: odefeo@dinara.gub.uy  
Iguá 4225, CP 11400  
Montevideo

**VENEZUELA:**

**Eduardo Klein, M. Sc.**

Director  
Instituto de Tecnología y Ciencias Marinas (INTECMAR)  
Departamento de Estudios Ambientales  
Universidad Simón Bolívar  
e-mail: eklein@usb.ve  
Caracas 1062

**GERMANY:**

**Dr. Julian Gutt**

Foundation Alfred Wegener Institute for Polar and Marine Research  
Columbusstrasse  
D - 27568 Bremerhaven  
Germany  
Phone: +49 (0)471 4831 1333  
Fax: +49 (0)471 4831 1149  
e-mail: jgutt@awi-bremerhaven.de

**THE NETHERLANDS:**

**Dr. Annelies C. Pierrot-Bults**

Institute for Biodiversity and Ecosystem Dynamics  
Zoological Museum  
University of Amsterdam

P.O. Box 94766  
Phone: +31.20.525 7194  
Fax: +31.20.525 5402  
e-mail: [pierrot@science.uva.nl](mailto:pierrot@science.uva.nl)  
1090 GT Amsterdam

## **THE WORKSHOP REPORT**

It is planned to publish the proceedings of the workshop as a special issue of a Chilean Journal devoted to natural marine sciences. The contents will include the background paper as the editorial, the invited presentations that outline what is known about marine biodiversity in S. American waters, what is important to know, and what the national priorities are in this area. It will also include recommendations that emerge from the workshop. The chapters will be in either English or Spanish. The report will therefore target the wider scientific community of S. America interested in marine biodiversity and biological oceanography. The Chair of the organizing committee (Victor A. Gallardo) will act as the Chief Editor for the Proceedings. He will be assisted in his task by a sub-editor, who will be hired for a period of six months (two months leading up to the meeting, and four afterwards).

## **TIME LINE**

### **March– April 2002**

1. Dr. Gallardo visits other S. American countries. One visit to N. America is also envisaged
2. The Organizing Committee Prepares the Background Paper
3. Formal invitations are sent to the invited participants, along with the background paper

### **May– June 2002**

4. Invited participants collect information for their papers
5. The organizing committee works on details of local organization

### **July – August 2002**

6. Participants prepare their written contributions and submit the first draft to the Chair of the Organizing Committee

### **September -October 2002**

7. The submitted contributions are reviewed by the Editor and sub-editor
8. The organizing committee finalizes the Agenda for the meeting
9. Copies of handouts to participants are prepared
10. Meeting is held end of October

**November 2002 – January 2003**

11. The articles in the workshop report are revised by the authors, based on feedback from the Editor, and from the meeting
12. Final versions of the articles are submitted to the Editorial Office

**February 2003**

13. The Report goes to the printers.

.....  
VAG241002

## ANNEX 2

<b>LIST OF PARTICIPANTS IN THE FIRST MARINE BIODIVERSITY WORKSHOP</b>			
<b>OCTOBER 28-30, 2002</b>			
<b>CONCEPCION - CHILE</b>			
<b>Nº</b>	<b>NAME</b>	<b>COUNTRY</b>	<b>E-MAIL</b>
<b>ORGANIZING COMMITTEE</b>			
1	Victor Ariel Gallardo (COPAS)	Chile	<a href="mailto:vagallar@udec.cl">vagallar@udec.cl</a>
2	Ronald O'Dor (CoML)	Canadá	<a href="mailto:rodor@coreocean.org">rodor@coreocean.org</a>
3	Shubha Sathyendranath (POGO)	Canadá	<a href="mailto:shubha@dal.ca">shubha@dal.ca</a>
<b>SPECIAL INVITEE</b>			
4	Jesse Ausubel	USA	<a href="mailto:ausubel@rockefeller.edu">ausubel@rockefeller.edu</a>
<b>CoML INVITEES</b>			
5	Katrin Iken	USA	<a href="mailto:iken@ims.uaf.edu">iken@ims.uaf.edu</a>
6	Dale Kiefer	USA	<a href="mailto:kiefer@usc.edu">kiefer@usc.edu</a>
7	Eva Ramírez LI	UK	<a href="mailto:eza@soc.soton.ac.uk">eza@soc.soton.ac.uk</a>
8	George Shillinger	USA	<a href="mailto:g.shillinger@conservation.org">g.shillinger@conservation.org</a>
<b>COUNTRY COORDINATORS</b>			
9	Vivian Lutz	Argentina	<a href="mailto:vlutz@inidep.edu.ar">vlutz@inidep.edu.ar</a>
10	Erminda da C. Guerreiro Couto	Brasil	<a href="mailto:minda@uol.com.br">minda@uol.com.br</a>
11	Juan Manuel Díaz	Colombia	<a href="mailto:jmdiaz@invemar.org.co">jmdiaz@invemar.org.co</a>
12	Rubén Escribano V.	Chile	<a href="mailto:rescribano@udec.cl">rescribano@udec.cl</a>
13	Manuel Cruz	Ecuador	<a href="mailto:manuelcruzp47@hotmail.com">manuelcruzp47@hotmail.com</a>
14	Luis Felipe Artigas	French Guyana	<a href="mailto:artigas@mren2.univ-littoral.fr">artigas@mren2.univ-littoral.fr</a>
15	Juan Tarazona B.	Perú	<a href="mailto:jtazona@concytec.gob.pe">jtazona@concytec.gob.pe</a>
16	Danilo Calliari	Uruguay	<a href="mailto:dcalliar@fcienc.edu.uy">dcalliar@fcienc.edu.uy</a>
17	Patricia Miloslavich	Venezuela	<a href="mailto:pmilos@usb.ve">pmilos@usb.ve</a>
<b>ADITIONAL SOUTH AMERICAN INVITEES</b>			
18	Mirtha Lewis	Argentina	<a href="mailto:lewis@cenpat.edu.ar">lewis@cenpat.edu.ar</a>
19	Pablo Penchaszadeh	Argentina	<a href="mailto:pablop@mail.retina.ar">pablop@mail.retina.ar</a>
20	Fábio Lang da Silveira	Brasil	<a href="mailto:fldsilve@usp.br">fldsilve@usp.br</a>
21	Arturo Acero	Colombia	<a href="mailto:aacero@invemar.org.co">aacero@invemar.org.co</a>
22	Antonio Aranís	Chile	<a href="mailto:aaaranis@ifop.cl">aaaranis@ifop.cl</a>
23	Miriam Fernández	Chile	<a href="mailto:mfernand@genes.bio.puc.cl">mfernand@genes.bio.puc.cl</a>
24	Nick Gabor	Ecuador	<a href="mailto:nickgc_2000@yahoo.com">nickgc_2000@yahoo.com</a>
25	Dimitri Gutierrez	Perú	<a href="mailto:dgutierrez@imarpe.gob.pe">dgutierrez@imarpe.gob.pe</a>
26	Omar Defeo	Uruguay	<a href="mailto:odefeo@dinara.gub.uy">odefeo@dinara.gub.uy</a>

<b>27</b>	Eduardo Klein	Venezuela	<a href="mailto:eklein@usb.ve">eklein@usb.ve</a>
<b>ADDITIONAL NON-SOUTH-AMERICAN</b>			
<b>28</b>	Julian Gutt	Alemania	<a href="mailto:jgutt@awi-bremerhaven.de">jgutt@awi-bremerhaven.de</a>
<b>29</b>	Annelies C.Pierrot-Bults	The Netherlands	<a href="mailto:pierrot@science.uva.nl">pierrot@science.uva.nl</a>
<b>OBSERVER</b>			
<b>30</b>	Germán Pequeño	Chile	<a href="mailto:gpequeno@uach.cl">gpequeno@uach.cl</a>