

First meeting of the International Planning Group for the establishment of a  
**World Association of Marine Stations (WAMS)**

13-14 April 2010

IOC-UNESCO HQ, Paris, France

Participants

Luis Valdes (chair; UNESCO-IOC), Luciano Fonseca (IOC), Maude Borie (UNESCO-MAB), Salvatore Arico (UNESCO-MAB), Mike Thorndyke (chair; MARS), Herman Hummel (minutes; MARS), Pierre Lasserre (MARS), Ken Sebens (NAML), Carlo Heip (GEOBON), Bernard Kloareg (MARS; ), Kazuo Inaba (Japan), Dave Harris (Australia), Dave Paterson (IABO), Justin Ahanhanzo (for African Ocean Partnership), Shubha Sathyendranath (POGO)

Welcome, Introduction and Objective of the meeting

Luis Valdes welcomes the participants, and explained the role of the Oceans Section in IOC.

The creation of WAMS is part of the work plan of IOC for the next two years. The IOC is enthusiastic about the idea. Luis stresses that capacity building will be a main objective of the association, and in particular the involvement of developing nations, noting that Africa is a priority for UNESCO. The outcome of the meeting should be a roadmap for WAMS over the next three years.

Mike Thorndyke thanked Luis for his hospitality.

Tour de Table

The participants present themselves

Overview and current state of affairs, and presentations by representatives

Mike Thorndyke gave an overview on the developments of marine stations over the last decades in Europe, stressing especially the long tradition of the marine stations and the long-term time series they assembled over the last hundred years and the importance of the EU projects and networks of excellence (MarBEF, Marine Genomics Europe and EurOceans), followed by the large ESFRI projects (EMSO, ICOS, Euro-Argo, LifeWatch, EMBRC) over the last decade. Also the role of marine stations in marine education and capacity building has been outstanding.

Kazuo Inaba presented JAMBIO (Japanese Association of Marine Biology). Several types of marine station exist. Nineteen stations were founded as an educational centre for marine biology and belong to universities, but they are visited by researchers as well. They cover the whole of Japan. Besides there are 25 fisheries stations of the national university of Japan. Then there are 10 stations belonging to the prefecture or private universities and JAMSTEC (Japan Agency for Marine, Earth Science and Technology).

Marine stations typically have small staff numbers (1-3) and there is a new initiative to network them (JAMBIO, starting with two institutes) that has been admitted as a Joint Usage/Research Centre from the Japanese government. The Japanese network will have good contacts with China, Korea as well as SE Asia.

Dave Harris, introduced Australian stations (most linked to universities along the Great Barrier Reef), the Oceanographic Observation System (most operated by CSIRO) and Sensor Networks (mainly operated by TMN stations) along the Australian coast. The Moreton Bay Research Station of the University of Queensland is the only subtropical one. David also agreed to make contact and links with New Zealand and some Pacific marine labs with regard to WAMS.

Ken Sebens presented on behalf of NAML the (about 120) marine laboratories in USA that are members of NAML. He emphasized that they are excellent places for education, learning, research and are especially good for interdisciplinary research, ...), They have links with the Organization of Biological Field Stations, the LTER (Long Term Ecological Research) and NEON system (National Ecological Observatory Network) of which in all only three (the smaller part) is marine., Ken Sebens also explained the Ocean Observing Systems (IOOS), and the funding system for NAML members (mainly NSF grants of 50 to 300 k\$. The best funded is the Ocean Instrumentation programme whereas marine stations are poorly funded). A link with Canadian stations is being explored at this moment.

The Marine and Coastal Biosphere Reserves (within the MAB programme), was outlined by Maude Borie and Salvatore Arico. This comprises 551 sites, mainly established before 2000 (from the seventies), of which 30 % (about 140) have a marine or coastal component. It covers a range of habitats and ecosystems all over the world, with some of them developing research programmes

The International Association for Biological Oceanography, represented by Dave Paterson, brings together 80 associations. Its main role is to organize meetings and promote biological oceanography and is currently working to modernize the organization. In Scotland a group of marine laboratories have come together as The Marine Alliance for Science and Technology (MASTS), including 700 researchers, with 80 M£ p.a. (firstly for 7 years) and will provide a Scottish focus for marine science.

Justin Ahanhanzo illustrated the African perspective under the umbrella of Roofs-Africa. Around Africa 4 current systems are recognized for which an observatory system is under development. For developing marine observation the problem is the lack of education dedicated to oceanography and marine relevant topics at universities, resulting in a lack of human resources. Capacity building is thus a key issue, as organizing (in cooperation with IOC and GOOS) training courses in the frame of the African Ocean Partnership. The current status quo of marine/oceanographic sciences and stations in Africa should be now inventoried. Both of these latter activities could represent a key role for WAMS

The GEOBON initiative is the biodiversity arm of GEOSS, as explained by Carlo Heip. In GEOBON marine biodiversity is represented in working group 5. The first meeting on how to implement the network was held in Asilomar US in February 2010. At this meeting an implementation plan was drafted that covers a ten year period. . Among a range of challenges to be tackled the first activities will focus on defining e.g. the marine realms and ecosystems, monitoring and observations. It will build on the existing networks including MARS, NAML, POGO, and IOC.

Shubha Sathyendranath explained that the Partnership for Observation of the Global Oceans (POGO) was aimed at bringing together the oceanographic institutions engaged in large-scale oceanographic observations carried out mainly in the open ocean (OceanSITES). POGO promoted international initiatives for sustained ocean observations at the global scale, such as Argo, OceanSITES and ChloroGIN. The POGO members were the larger oceanographic institutes, mostly from developed countries, but POGO also had some members from developing countries. It is possible to form a consortium of institutes to become a POGO member. Furthermore, POGO had many capacity building activities aimed at developing nations, such as visiting fellowships, visiting professorships and fellowships for on-board training during cruises. Regarding the activities and aims, the participants felt that POGO and WAMS would be clearly complementary, and there may be useful links and synergy in using similar resources and facilities.

Luis Valdes will announce the creation and role of WAMS at the next IOC General Assembly in June 2010. The outcome of the present meeting should be the immediate establishment of WAMS so that an outline for the coming 2.5 years could be prepared. In this period we have to catalyze the foundation of the WAMS system.

Bernard Kloareg would like to see a focus for the aims and activities of WAMS: will it focus on coastal marine stations or also include e.g. “blue ocean” oceanography. If the aims are too wide it may lose impact, due to too much competition between e.g. marine stations and oceanographic vessels. Mike Thorndyke, Ken Sebens, Dave Harris and Carlo Heip suggested that WAMS should not focus on only e.g. marine biology, and that we should allow for multidisciplinary since this is a unique strength of marine research stations, where chemists, physicists, biomedical scientists and ecologists can all work together. This can be summarized as the “Gene to Ecosystem” approach. However we should also stress more the coastal station aspect of the WAMS role than the oceanographic aspects. In other words “Seaside Laboratories”

Depending on the specific situation (political, military, or science policy) of the region or country there may be caveats for including some disciplines in a marine stations network (that are most often focusing on marine biology).

#### Added value of WAMS

Exchange programmes, training, capacity building are important aspects for bringing a diversity of marine stations together. Other mechanisms are sharing data, shared access to facilities, joint development and harmonization of techniques and methods, or integrated (joint) research strategies. A good example is the Assemble project. A bonus to WAMS

might be inclusion in a Global ERASMUS programme, where the students (with EC funding) are exchanged between institutes. To bring this up to global level might be another role for WAMS, at least on a small scale to begin with taking special care about the existing interconnections between continental groups and particularly for dissemination to developing countries. A first initiative may be to install two or three WAMS fellowships, which could be supported by a WAMS trust fund in cooperation with the IOC. Another way to help initiate such activities could be, for example, an “in kind” system whereby host stations could waive fees and visiting labs fund travel.

### Roadmap and principles for a strategic plan, membership, funding and governance

There is strong (unanimous) support for the installation of WAMS by the representatives of MARS, NAML, Japan, IABO, Australia, and the idea is adopted by IOC. For Africa some research still has to be carried out by Justin. Thus the concept of WAMS was agreed unanimously and the meeting was now considered to be the first WAMS meeting

Mike Thorndyke and Luis Valdes propose a core group for the first membership of WAMS, comprising the major marine station groups globally (European MARS, American NAML, Japan JAMBIO and Australia). During the coming months the gaps can be filled in to increase the representativeness.

In the initial phase, a WAMS steering committee will be established with 2 representatives of MARS, NAML, Australia, Africa, South America, Japan and one each from POGO, Canada and the Caribbean, thereby taking care of proper geographic representation. However, this will be flexible and we are aware, for example, that we still need to seek links with South America and Luis Valdes has agreed to explore this. We also acknowledged the clear need for good African representation. The steering committee should be especially representative of the marine stations and their networks.

The Chair of the steering committee will rotate every 2 years. The past chair will remain during one additional period as a member of the steering committee. MARS offered to be the Chair of the WAMS Steering committee and take responsibility for organization matters in this first period of WAMS. Thereafter it would pass another network, for example NAML.

The funds for the installation of a secretariat, with a more geographic/institutional fixed location, cannot be raised by EC or UN-IOC, but should be supplied by the individual stations or countries that support the association.

Thus, the main driver for WAMS will have to be the private stations “under the umbrella” of IOC-UNESCO (“stamp” of UNESCO presents a policy enabling environment).

The logo of IOC and MAB can be used for the website of WAMS.

The stations being connected to the official registered networks, such as MARS, NAML and POGO can become automatically a member of WAMS, once agreed by the Boards of those organisations.

Organisations dealing with Ocean Sites can only become member on the basis of a “real” (physical presence) at a marine station. Moreover, in order to keep the focus on marine stations also e.g. the World Association of Aquaria will be contacted only at a later stage.

The representatives of the member stations in the WAMS General Assembly can be constituted by the science directors of the stations (not by the “patrons” of the governing organizations). This is to ensure that science and science education and training remain the focus for WAMS

WAMS will operate firstly as a network of networks, not as NGO.

A first WAMS document should be prepared now to use the momentum, and can be presented to the General Assembly of IOC in 2011. The final roadmap with a statutory programme can be submitted to the Executive Council by 2012. Subsequently, it may be submitted to the IOC General Assembly for final approval and adoption. For the composition of the draft papers, i.e. for the first phase, as noted above MARS can lead the initiative with IOC.

The IOC will announce the WAMS initiative at several forthcoming meetings in Europe. To present WAMS also at other meetings a PowerPoint presentation of WAMS will be made.

The WAMS steering committee will focus firstly on the following tasks (names of those to lead in brackets):

- Draft for the strategic plan (phase 1 and 2), including the scope and mission (Mike Thorndyke, Luis Valdes)
- establish a website (with mission statement) (Herman Hummel to ask VLIZ)
- List of services and products (Ken Sebens, Herman Hummel)
- overview of the stations and facilities (incl. ships) (Salvatore Arico, Mike Thorndyke (MARS plus input from all others, e.g. NAML, JAMBIO, Australia/New Zealand , Africa etc..To ensure broad coverage
- assembling statutes from the founding networks MARS and NAML (Ken Sebens, Herman Hummel)
- Check-list of potential donors (for meetings and actions) (Luis Valdes, and all...)

Coming meetings of the steering committee will be organized around October/November 2010 and April 2011. The possibility to hold the October /November meeting in Africa will be explored by Luis and Justin. This could be important to signal the engagement of WAMS with Africa.

#### Products, services

The scope of the research within the WAMS stations will follow the theme “From genes to ecosystems”.

Beside the functions of marine stations mentioned within NAML and MARS statutes, an important function of marine stations is that they are a kind of “communication center” between research and education, creating a large capacity.

Particularly important activities for WAMS in its initial phase should be:

- Inventory of the marine sites (being members of WAMS)
- Portal site for each marine station

A more extensive list on the services and products to be available through WAMS will be composed by Ken Sebens and Herman Hummel on basis of the available information from NAML and MARS and links to those and other networks.

#### Any other business

A press release for the scientific community will be prepared by the participants of the planning meeting

#### Closure

Luis Valdes thanks all participants for their attendance and contributions.

Participants of the planning meeting on the foundation of WAMS at IOC-UNESCO HQ, Paris, France. 13-14 April 2010

