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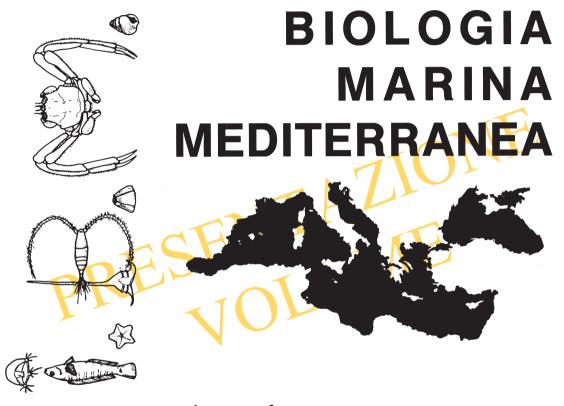


# PROCEEDINGS MSW 2006

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Società Italiana di Biologia Marina



Vol. 13 - fasc. 4 - 2006 PROCEEDINGS OF THE MEDITERRANEAN SEAGRASS WORKSHOP 2006 29 May - 4 June 2006, Marsascala, Malta



#### **FOREWORD**

The Mediterranean Seagrass Workshop 2006 was convened in response to the need to promote a periodic event that would host scientists interested in Mediterranean seagrasses, and international scientists who are involved in projects that are focused on the Mediterranean marine environment, to discuss current knowledge and present the findings of their latest research.

The concept of holding an international meeting originated during the International Seagrass Biology Workshop (ISBW6) held in 2004 in Queensland, Australia. In particular, one of the goals of ISBW6 was to identify key ecological issues and environmental trends within a number of geographical regions. This stimulated the idea of taking such topic to a higher level; the Mediterranean scale.

The Mediterranean Sea is a rare and vulnerable ecoregion, one of the planet's biodiversity hot spots, where many of the species present are endemic (around 20%). The Mediterranean Sea also has a millenarian history of human use of its coasts. However, the current exponential increase of human pressure on the coastal zone for living space, transportation, recreation and food production is expected to have dramatic long-term impacts on the Mediterranean marine environment. Being located in shallow coastal areas close to human settlement, seagrasses are bearing the brunt of disturbance from such anthropogenic activities, with the result that degradation and loss of seagrass habitats is widespread in the whole Mediterranean Sea. Thus, there is great concern that the functions which seagrasses have performed in the Mediterranean marine ecosystem will be weakened or, in some places, lost altogether.

Within the Mediterranean Sea, previous Workshops addressed aspects of the biology of *Posidonia oceanica* meadows (International Workshops on *Posidonia oceanica* beds in 1983 and 1985), as well as of world seagrasses in general (ISBW4 held in Corsica in 2000). Thus, the main goal for MSW 2006 was to focus primarily on all species present in the Mediterranean basin, but considering also those adjacent geographic areas where Mediterranean species are also present (e.g., Atlantic coast of Europe, including Canary islands).

Discussions on the scientific aspects of MSW 2006 were directed by the organizing Committee (Fig. 1) to promote closer links with seagrass biologists from North Africa and the eastern Mediterranean, given that information on seagrasses from these regions is still largely insufficient or lacking. Therefore, efforts were initiated to identify potential sponsors to help participation of scientists from these regions. Thanks to funding kindly received from the Mediterranean Action Plan (MAP) of the United Nations Environment Programme (UNEP), the Joint Research Centre (JRC) and the Institute for Environment and Sustainability (IES) of the European Commission (EC), 4 young scientists from four North African and East Mediterranean countries (Algeria, Tunisia, Egypt and Turkey) were able to attend the workshop and present papers on their work.

The organizing Committee identified three main general themes for the Workshop which allowed inclusion of the majority of aspects on seagrass research:

- Seagrass Biology and Ecology;
- Ecosystem Services of Seagrass beds;
- Monitoring, Management and Restoration of Seagrass Habitats.

In addition, these themes were integrated with specific discussion topics,

addressed through Round Table sessions held as a relevant part of the Workshop:

- Use of seagrasses as bioindicators of the ecological status of coastal waters, in relation to implementation of the Water Framework Directive (WFD);
- New methodologies of ecosystem approach to seagrasses;
- Conservation of Mediterranean aquatic vegetation.

To ensure easy access to participants from Mediterranean countries and neighboring regions, it was decided to hold the MSW 2006 in Malta, located at the centre of the Mediterranean basin. Having joined the European Union in 2004, Malta is now the southernmost EU member state and is considered by many as a stepping stone between Europe and North Africa. Marine research has always been a priority for the Maltese scientific community, but there has been considerable interest in seagrass biology over the past 15 years. The Department of Biology at the University of Malta, kindly accepted to host the meeting, and the necessary organization procedures were activated, including the setting up of a web site (http://events.um.edu.mt/msw2006/). The Corinthia Jerma Palace Hotel, located in Marsascala, on the southeastern coast of mainland Malta, was chosen as the Workshop venue.

A total of 105 scientists comprising 47 students (from graduate to PhD level) and 58 non-student participants from 17 countries (see table of participants below) attended the Workshop.

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Table 1. Number of MSW attendants according to country

Country	Number of Participants
Alger <mark>ia</mark>	1
Belgium	3
Croatia	2
Egypt	2
France	9
Greece	1
Israel	1
Italy	45
Malta	8
The Netherlands	2
Portugal	4
Slovenia	1
Spain	15
Tunisia	4
Turkey	1
United Kingdom	4
United States of America	2

Overall, about 100 contributions (oral communications and posters) were presented, 60 of which are included in these Proceedings, including the outcome of two of the three Round Table Sessions.

The Workshop attendance was very heterogeneous, in terms of topics presented, age classes and countries represented. This, as well as the high number

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of students, made the Workshop particularly successful, with strong integration among people and across participating countries.

The meeting proceeded smoothly and attendance during all sessions (including the Round Table sessions) was very good. The weather was pleasant throughout the workshop, but because of strong Mistral winds, the planned boat trip and dives in the Malta-Comino Channel and Cirkewa to visit deep-water seagrass beds, were cancelled. Marsascala, the small seaside resort where the hotel that served as venue for MSW 2006 was located, provided an ideal setting with its pretty seaside promenade, good restaurants and other essential commodities.



Fig. 1 - Members of the organizing Committee of the Mediterranean Seagrass Workshop 2006 at the closing ceremony in Malta. From left to right: Maria Cristina Gambi, Gabriele Procaccini, Maria Cristina Buia, Christine Pergent-Martini, Gerard Pergent, Giuseppe Di Carlo, Joseph A. Borg (the local conveyner).

### **Mediterranean Seagrass Association**

The MSW 2006 provided the platform for launching the Mediterranean Seagrass Association. This will be achieved by modification of the existing Association "Seagrass 2000", which was set up for the organization of ISBW4, held in Corsica in 2000. The idea of promoting the Association was raised during the

MSW 2006 and it was proposed to the audience and acclaimed. The Association will be in place by the first quarter of 2007. The Association has set a series of priority activities: increase awareness of seagrass issues by promoting and activating a number of initiatives, provide support for the organization of future MSW and local meetings, produce and maintain a web page for literature, facilitate exchange of data and information, and render support for conservation, monitoring, and educational issues linked to Mediterranean seagrass ecosystems.

The Association will liaise with the WSA (World Seagrass Association, www. worldseagrass.org), acting as an independent regional Association. The liaison with the WSA will result in joint newsletters and web site, containing data and literature for exchange among the scientific community. Moreover, the WSA and the MSA will strive to organize joint meetings (ISBW and MSW) to reach a larger audience inside and outside the seagrass research field.

Finally, we would like to thanks all MSW participants, as well all Authors of the papers included in these Proceedings. A special thank is due to all members of the Scientific Committee who gave their precious help in revising the papers, and to Prof. Giulio Relini (Genoa, Italy), Director of "Biologia Marina Mediterranea" and the President and the Directive of the Italian Society of Marine Biology (SIBM), who allowed to use the official Journal of the Society to host the Proceedings. Last but not least, we wish to thank the President of the Stazione Zoologica "A. Dohrn" of Naples, Prof. Giorgio Bernardi, for financial support in publishing the present volume, in the frame of the long tradition and history of the publications of the Institute.

Maria Cristina Gambi Joseph A. Borg Maria Cristina Buia Giuseppe Di Carlo Christine Pergent-Martini Gerard Pergent Gabriele Procaccini (Editors)

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