

The last edition of the 2017 volume of the Brazilian Journal of Oceanography presents 14 manuscripts that came from two distinct efforts to better know the biological diversity of the Brazilian coast, including the description of main factors addressing the observed results.

Considering the first effort, the establishment of Marine Protected Areas (MPAs) is one of the main tools to protect biodiversity nowadays. In the sense, Brazil established in 2000 a national system to categorize such MPAs named “Sistema Nacional de Unidades de Conservação (SNUC)”. Beforehand in 1993, the São Paulo State governors, through the agency named “Fundação Florestal (FF)”, established a marine protected area placed at around 20 nautical miles from the shoreline named “Parque Estadual Marinho da Laje de Santos (PEMLS)”. The main aims of PEMLS are the protection of the local biological diversity within a 5 ha area, which includes heterogeneous habitats in the surrounding area of a rocky island.

Based on the relevance of the PEMLS and considering the importance of better know the local MPA to address the management plan for the next decades, a 2-year long monitoring project was established in 2012 and was named “Projeto Monitoramento Ambiental do PEMLS (MAPEMLS)”. This project needed to be conducted as a conditioning of the environmental license process issued by the Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis (IBAMA) in order to regulate the natural gas production and the outflow system from the Campo de Merluza at Santos Basin under Petrobras responsibility (Process IBAMA 02022.010930/2002-19).

The project MAPEMLS was coordinated by the “Fundação de Estudos e Pesquisas Aquáticas (FUNDESPA)” and carried out by a team of experts on biology (e.g. benthic fauna, plankton, fish, marine turtles, birds and mammals, and ecotoxicology), physics (hydrodynamics and meteorology), chemistry/contaminants (in sediment and water) and derelict fishing gear. The following institutions were involved: Instituto Oceanográfico da Universidade de São Paulo, Universidade Estadual Paulista - Campus São Vicente, Universidade Federal de São Paulo (UNIFESP) - Campus Baixada Santista, Centro de Biologia Marinha (Cebimar) - Universidade de São Paulo, and Instituto Albatroz and Instituto de Pesca de

Santos), represented by 20+ scientists with the support of technicians from FUNDESPA. Data were mainly collected between 2013 and 2015 with emphasis to address possible variations detected along time and space. After data analyses and the submission of manuscripts to be evaluated for publication, a total of nine (9) articles were approved by *ad hoc* reviewers and then edited for publication.

The presented papers dealt with the descriptions on records and the use of the local MPA by marine turtles (Luchetta and Watanabe), marine birds (Fey and co-authors), and cetaceans (Santos and co-authors), the assessment of the quality of local sediments (Abessa and co-authors), as well as their load of contaminants (Moreira and co-authors), the description of local water masses currents (Fontes and Castro Filho), the description of spatio-temporal distribution of plankton (Bueno and co-authors), and the evaluation of local nutrients (Braga and co-authors) and the seasonal variation on their composition (Braga and co-authors). These papers represent a unique effort to describe poorly known biological, physical and chemical parameters related to this marine MPA, which will certainly be important to support the elaboration of its management plan. However, efforts cannot stop here! It is deemed necessary for scientists to keep investing on a local monitoring program as this MPA is placed very close to the main port of Latin America, Port of Santos, which could influence its health along time.

The second quote effort was related to the VII International Sandy Beach Symposium (VII ISBS; <http://www.isbs2015.io.usp.br/index.php>), held from July 6th to 10th 2015 in Ilhabela, São Paulo, Brazil. Linking science and decision making for beach sustainability was elected as the symposium theme. The Symposium was organized by the Instituto Oceanográfico - Universidade de São Paulo, led by the Laboratory of Management, Ecology and Marine Conservation, the Brazilian Network for Monitoring Benthic Coastal Habitats (ReBentos), Instituto Costa Brasilis, and Federal University of the State of Rio de Janeiro, and sponsored by Bolsacreto, Plastic Socio-environmental Institute (Plastivida), Coordination for the Improvement of Higher Education Personnel (CAPES), São Paulo Research Foundation (FAPESP), and Transpetro/Brazilian Government.

The ISBS is a recurrent meeting that aims to provide a platform for scientists, coastal engineers, managers and decision-makers working on sandy beaches to share their research and experience in order to advance beach science as a discipline, and to address the challenges faced by these ecosystems. The first ISBS was held in 1983, in Port Elizabeth, South Africa. Since then, five more symposia were held in Chile (1996), Italy (2001), Spain (2006), Morocco (2009) and South Africa (2012).

Traditionally, beach ecologists have dominated ISBS, with a strong emphasis on intertidal, macrofaunal studies. Sandy beaches have been subject of decades of research, yielding significant and important insight into geo-physical and ecological processes that jointly define these systems. There has also been a growing recognition of human threats impacting beaches: this emphasis on conservation and management aspects continues unabated. In order to advance the science of sandy beaches and to ensure their effective management, it was necessary to encourage collaboration among different stakeholders. The VII ISBS therefore aimed to broaden the scope of participants, to stimulate a more inter-disciplinary discussion.

The VII ISBS had both ecology and beach management as broad overarching themes; a specific focus was on interfacing science with applied aspects in beach conservation and management. In this context the symposium intended to identify solutions to overcome current impediments that slow the translation of research into the management domain. It also intended to identify scientific knowledge gaps, chart new avenues for the discipline, discuss how resilience and sustainability apply to beaches, and scope options for global networks and actions in beach conservation and science.

The VII ISBS comprised different activities that enabled capacity building and information sharing. Eight plenary sessions were conducted to cover up-to-date topics related to beach conservation and management, which were presented by leading researchers. The results of original studies were shared in 32 oral presentations and two poster sessions, with 34 contributions in total. Two workshops were organized to discuss the information shown in the plenary, oral, and poster sessions and to guide future actions. These activities benefited from the contribution of session chairs and co-chairs, as well as of four invited rapporteurs and two workshop moderators. The VII ISBS

had 67 participants, among undergraduate and graduate students, researchers, and representatives of the private sector and NGO's, from 40 institutions and 13 countries.

As one important outcome of the VII ISBS, the Brazilian Journal of Oceanography invited participants to submit their research results. Five papers were selected covering themes from benthic ecology to surf zone processes. The study "Variation in the body growth parameters of the ghost crab *Ocypode quadrata* from morphodynamically distinct sandy beaches", authored by Pombo & Turra, showed the effect beach features on population parameters of an important beach bioindicator. Coutinho and co-authors authored the paper "Spatial and seasonal changes in benthic macrofauna from two dissipative sandy beaches in eastern Brazil", which shed light into the effects of beach characteristics and periods of the year at the macrofauna community level. Stranding of organisms in sandy beaches was described and analyzed by Rörig and co-authors in the article "Blooms of bryozoans and epibenthic diatoms in an urbanized sandy beach (Balneário Camboriú - SC - Brazil): dynamics, possible causes and biomass characterization". A detailed study on the intraspecific variation in microalgae physiology, entitled "Ecophysiological and biochemical variation of the surf zone diatom *Asterionellopsis glacialis sensu lato* from Santa Catarina, southern Brazil", was produced by Rörig and co-authors. The contributions ended with a note on the "Influence of storm surges on intertidal meiofauna of an exposed sandy beach" by Ozorio and co-authors to evaluate the responses of sandy beaches to extreme oceanographic events. These papers reveal the diversity of themes and views that were discussed in the VII ISBS, contributing to capacity building of young scientists as well as the production of relevant information to understand the structure and functioning of the sandy beach ecosystem, especially under the climate change context.

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