The role of Baixo Vouga Lagunar salt marshes on carbon storage as an ecosystem service: Effects of sea level rise (MARSH-C-LEVEL)

Leader
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Session
2015

OHM(s) involved

OHM Estarreja

Keywords
Baixo Vouga Lagunar
Salt marsh plants
Carbon storage
Sea level rise
Ecosystem services

The role of Baixo Vouga Lagunar salt marshes on carbon storage as an ecosystem service: Effects of sea level rise (MARSH-C-LEVEL)

Salt marshes are amongst the most productive ecosystems in the world and provide important ecosystem services, namely regulation and maintenance of coastal areas. Acting as coastal filters, salt marshes also have important roles in carbon (C) storage, thus contributing to climate regulation at local and global levels.

Nevertheless, these habitats have been converted or degraded due to many drivers and pressures, and its sustainability and C storage capacity might be threatened by climate change effects. As a result of global climate change and sea level rise, Baixo Vouga Lagunar salt marshes, included in Ria de Aveiro (Portugal), are likely to be affected and, consequently, the services they provide, namely C storage.

The main goals in this project are to analyse the BVL salt marshes phytosociological trend and to assess their C storage capacity, as an ecosystem service.
Leader

Ana Sousa

Ana Sousa

Ana I. Sousa is a post-doctoral researcher at Biology Department and CESAM, University of Aveiro. She holds a PhD in Biology (University of Lisbon, 2010) and has authored/co-authored 12 ISI-indexed papers, 5 book-chapters and 30 communications. A.I. Sousa has a research background in estuarine ecology and ecosystems functioning and dynamics. Her main research area/interests include ecosystem services provided by wetlands; blue carbon and nutrient dynamics in seagrass meadows and salt marshes; climate change impacts on coastal wetlands and its resilience to climate and other human-induced changes. A.I.Sousa coordinated the project MARSH-C-LEVEL(CNRS/OHMI-2015), focused on the role of Baixo-Vouga-Lagunar saltmarshes on carbon storage and assessment of sea-level-rise effects on their carbon storage capacity. She has been working on the Ria de Aveiro seagrass meadows mapping and vulnerability assessment. A.I.Sousa is involved in Ria Aveiro participation in LTER-Europe Marine-and-Transitional-Waters Task Force, whose main goal is to foster interactions among the LTER-Europe Marine-and-Transitional-Waters sites.

Participants

Ana Sousa

Ana Sousa is a post-doctoral researcher at Department of Biology and CESAM, University of Aveiro. She has a research background in estuarine ecology and estuarine ecosystem functioning and dynamics. During her PhD in Biology (University of Lisbon; 2010), she focused on the multiple stressors affecting the auto-remediation capacity of salt marshes, namely nitrogen enrichment and metals contamination. Her area of expertise and current main research interests are: estuarine and marine ecology; ecosystem services and Human Benefits provided by wetlands (salt marshes and seagrass meadows); anthropogenic impacts on wetlands and its ecosystem services. Nutrient dynamics in estuaries, seagrass meadows and salt marshes.

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Education

2010 - PhD in Biology (Ecology). University of Lisbon, Portugal.
2005 - MSc in Ecology. FCT, University of Coimbra, Portugal.

2003 - First degree/BSc in Biology. FCT, University of Coimbra, Portugal.

Publications:

Ana

Lillebø

Ana Isabel Lillebø is an Assistant Researcher at the Department of Biology and CESAM, University of Aveiro and PI of CESAM's Environmental Biology and Health Research Line. She holds a PhD in Biology (2001), University of Coimbra (Portugal). She is a well-established researcher in Coastal Ecosystems with special emphasis on: Environmental status and Management; Environmental Chemistry and Anthropogenic impacts; EU Policies and Ecosystem Services; with contributions to more than 100 communications, 14 book chapters and 64 ISI-indexed papers (h-index=20; w-index=6). She has been invited to participate in the activities of Water Framework Directive Common Implementation Strategy – Science Policy Interface (CIS SPI activities) - EU DG Research & Innovation; she collaborates with Mediterranean Natural Water Retention Measures network (NWRM Med network) funded by EU/DG Environment; within the Common Implementation Framework of the EU Biodiversity Strategy for 2020, she participates to...

Rosa

Pinho

Rosa Maria Ferreira Pinho was born in São Paulo, Brazil. She graduated in Biology in 1988 at the University of Aveiro, where she developed her scientific internship in Vascular Plant Taxonomy. From 1988 to 1990, she developed the Study of the Vegetation of the Baixo Vouga Lagunar fields, in a partnership of Portucel (paper mill) and the Department of Biology of the University of Aveiro as a postgraduate student. She is a Master in Coastal Zone Sciences, University of Aveiro, with the thesis Monitoring Flora and Vegetation of the wetland system of the Baixo Vouga Lagunar.

Her work area has been the Vascular Plant Taxonomy, Plant Ecology and the Education and Environmental Awareness, and she is the curator of the Herbarium of the University of Aveiro since 1993. She has developed several activities in the Environmental Education, evolving schools and the general public. She is the author of several books, chapters, scientific papers, technical papers, scientific-pedagogical papers...

Olga
OMCC Ameixa graduated in Agronomic Engineering at University of Algarve, Portugal in 2003, in the same institution she completed an MSc in Sustainable Agriculture in 2007. During her MSc she worked simultaneously as a fellow researcher.

In 2007, she was granted with a short-term visit grant from the European Science Foundation in frame of the Program BEPAR, to go to the University of South Bohemia, Czech Republic. In the same year, she obtained a PhD Czech national grant at the University of South Bohemia. She concluded her PhD in Ecosystem Biology in 2011. During this period she worked simultaneously in the Department of Biology of the University of South Bohemia and in the Global Change Research Center, Czech Academy of Sciences. Over this period she worked in two European Science Foundation international projects and several national projects. During her PhD studies she made an internship in the Evolution and Biological Diversity laboratory (ENFA) in Toulouse, France and she...

Fernando Leão has a concluded his degree in Biology from the University of Aveiro in 1997 and a major in Biological resources management from the University of Évora in 2000. He began his professional career in 1998 as an independent environmental consultant in the area of environmental impact assessment and biological monitoring, with special emphasis to ornithology, area in which he specialized in.

Since 2002, he is a member of the team of the Institute for Environment and Development, where he works on consultancy in Environmental Impact Assessment, Strategic Environmental Assessment, Environmental Responsibility, Biodiversity and planning / public policy. With an 15 years experience as an environmental consultant he has had throughout the years an active involvement in nongovernmental environmental organizations and professional nature that give him a broad work experience and interactions with several public and private entities, spanning a significant range of issues...