

MEMBER COUNTRY:

National Report to SCAR for year:

2013-14

Activity	Contact Name	Address	Telephone	Fax	Email	web site
National SCAR Committee						
SCAR Delegates						
1) Delegate 2) Alternate Delegate	Adelino V M Canario	Centre of Marine Sciences, University of Algarve, Gambelas, 8005-13	+ 351 28980057	+ 351 28979971	acanario@ualg.pt	
Standing Scientific Groups						
Life Sciences						
1) 2) 3) 4)	José Xavier	Institute of Marine Research, Depart. Life Sciences, Univ. Coimbra, Portugal	+ 351 936728419		JCCX@cantab.net	
Geosciences						
1) 2) 3) 4)						
Physical Sciences						
1) 2) 3) 4)						

Activity	Contact Name	Address	Telephone	Fax	Email	web site
Scientific Research Program						
AAA 1) 2) 3) 4)						
AntEco 1) 2) 3) 4)						
AnT-ERA 1) 2) 3) 4)	José Xavier	Institute of Marine Research, Depart. Life Sciences, Univ. Coimbra, Portugal	+ 351 936728419		JCCX@cantab.net	
AntClim21 1) 2) 3) 4)						
PAIS 1) 2) 3) 4)						
SERCE 1) 2) 3) 4)						

Activity	Contact Name	Address	Telephone	Fax	Email	web site
ACTION GROUPS						
1) SCAR CBET	José Xavier	Institute of Marine Research, Depart. Life Sciences, Univ. Coimbra, Portugal	+ 351 936728419		JCCX@cantab.net	
2) Development Council	José Xavier	Institute of Marine Research, Depart. Life Sciences, Univ. Coimbra, Portugal	+ 351 936728419		JCCX@cantab.net	
3)						
4)						
insert others as needed						
EXPERT GROUPS						
1) EGBAMM	José Xavier	Institute of Marine Research, Depart. Life Sciences, Univ. Coimbra, Portugal	+ 351 936728419		JCCX@cantab.net	
2) ICED	José Xavier	Institute of Marine Research, Depart. Life Sciences, Univ. Coimbra, Portugal	+ 351 936728419		JCCX@cantab.net	
3) ANTPAS	Gonçalo Vieira	Centro de Estudos Geográficos / IGOT - Universidade de Lisboa	+ 351 217940218	+ 351 217938690	vieira@campus.ul.pt	
4)						
insert others as needed						
SCADM						
1)						
2)						
SCAGI						
1)						
2)						
NATIONAL ANTARCTIC DATA CENTRE						
SCAR DATABASE						
insert name of database for which your country has responsibility						

A BRIEF SUMMARY OF SCIENTIFIC HIGHLIGHTS*:

Activities of IMAR- UC from January until December 2013 consisted of:

Collection of samples in the Antarctic (and adjacent waters) by colleagues scientists from the United Kingdom (South Georgia and South Orkneys) and New Zealand (Antipodes and Adams) on albatrosses and penguins. Laboratory work related to Antarctic research was carried out in UK, New Zealand and Portugal.

(1) SCIENCE. Scientifically, three major results were published: Study 1: Review of the marine polar research by Portugal and Spain, bringing around 50 polar scientists from these two countries together (Xavier et al. 2013, Journal of Sea Research), Study 2: A study of grey-headed albatrosses showed that these top-predators were not able to find sufficient alternative prey in the event of climate-induced food shortage (Xavier et al. 2013, Marine Biology), Study 3: Wandering albatrosses contain the highest levels of mercury than any other vertebrate, including colse related specie, with the higher level of mercury concentrations of young pre-breeders compared with older birds suggest an increase in moult frequency as birds approach maturity (Tavares et al. 2013 Environmental Pollution),

José was elected a member of the SCAR Horizon Scan and of the International Scientific Organizing Committee for the SCAR Open Science Conference Auckland 2014. José participated of the ICED workshop (Cambridge, 2013).

(2) EDUCATION & OUTREACH: While coordinating two new educational projects (Profession : polar scientistand Education PROPOLAR), IMAR-UC organized numerous science communication, education and outreach activities includingan international workshop (Walton et al. 2013), POLAR WEEKS (bringing together scientists and educators from Europe, Americas, Africa, Oceania, and the Antarctic), with the association of APECS and PEI, and gave more than 20 oral presentations and skype calls to schools around the world, including during SCAR conferences and Antarctic Treaty Conslutaitve Meeting in Brussels. Coordinated the newsletter to the SCAR EBA project.

José co-coordinated the APECS workshop at SCAR Biology Conference Barcelona 2014.

Activities of the CEG/IGOT (University of Lisbon) focused on:

- Project HOLOANTAR - Late Holocene Evolution of the South Shetlands Permafrost Environment (PI M. Oliva) took place in Byers Peninsula and Elephant Point with geomorphological mapping and active layer monitoring
- Project PERMANTAR-3 – Permafrost and Climate Change in the Antarctic Peninsula (PI: G. Vieira) took place in Livingston and Deception islands, with the continuation of permafrost, active layer and snow monitoring activities, terrain deformation surveying and snow cover research.
- Project 3DANTARTIDA - Monitoring of Antarctic Permafrost Environments (PI: G. Vieira) was funded via crowdfunding and constitutes the national record of funding using this source. Activities consisted on high resolution mapping (geomorphology and vegetation) and generation of digital elevation models of Barton Peninsula, King George Island. The objective is to contribute to permafrost temperature modelling and to identify vegetation communities which may be used as bioindicators of snow cover.

Activities of ISPA – Instituto Universitário: Long-term studies on the demography and ecology of black-browed albatrosses on the Falkland Islands

In 2013-14 the long-term study on the demography and ecology of black-browed albatrosses on the Falkland Islands, coordinated by ISPA – Instituto Universitário, continued for its 11th year of existence. A total of 3 researchers and field assistants worked on the islands of New Island (Falkland Islands). Work started in November 2013 and continued uninterrupted until February 2014. The main aims for the past season were to characterize the spatial and isotopic niche of immature birds and assess the ontogenetic evolution of foraging behaviour in this species, with relevance for marine spatial planning and conservation. We also carried on with our study of personality and individual specialization of albatrosses. Regular tasks related to the demographic study (ringing, visual recapture of study birds for survival monitoring, monitoring of the nesting success, etc) were also carried out. This long-term study has received regular support from the Falkland Islands Government and from the Portuguese Foundation for Science and Technology.

Activities of CQE/IST-ULisboa, in Lisbon, consisted of:

CONTANTARC-3 project (Trace Element (Bio)Availability in Soils and Sediments of Fildes Bay (King George Island, Antarctica), PI João Canário. This project aims to study the chemical and biological availability of key contaminants (e.g. As, Cu, Cd, Hg, Pb, POPs) in soils collected at Fildes Bay in King George Island. The fieldwork involved the collection of soil samples along 81 sites in the Bay and three more soils at Collins Bay that worked as a reference site. Several bio(availability) test was performed at the Escudo Antarctic Stations and also toxicity test were perform at the laboratory of CQE. Fieldwork took place in February 2014. Funded by PROPOLAR/FCT and CQE.

Activities of CERENA/IST-ULisboa

Project HISURF2 (PI: Pedro Pina) is developed in the frame of PROPOLAR in collaborations with KOPRI (South Korea) and PROANTAR (Brazil) and has as main objective the mapping with unprecedented detail of ice-free areas in Maritime Antarctica using very high resolution remotely sensed images, to better evaluate the evolution of the landscape in one of the regions of the Earth where the climate changes are evolving faster. The acquisition of remotely sensed images of very high spatial and spectral resolutions (from 3 mm to 4 cm) is being performed with Unmanned Aerial Vehicles (UAV) in the peninsula of Barton (King George Island) together with extensive ground-truthings datasets for obtaining high quality products (orthorectified image mosaics and digital elevation models) and references on the surface classes to the supervised classifications.

* Please include any scientific activities you believe might be considered bioprospecting (<http://www.scar.org/treaty/atcmxxxiii/> see WP2)