

MEMBER COUNTRY:

PERU

National Report to SCAR for year:

2009

Activity	Contact Name	Address	Telephone	Fax	Email	web site
<b>National SCAR Committee</b>						
<b>SCAR Delegates</b>						
1) Delegate	Prof. Johan Veerman	Miroquesada 191 5A - Lima 1 - Perú	51-1-7171741		<a href="mailto:jveerman@rree.gob.pe">jveerman@rree.gob.pe</a>	
2) Alternate Delegate	Prof. Rogelio Villanueva	Miroquesada 191 5A - Lima 1 - Perú	51-1-7171738		<a href="mailto:rvillanuevaf@rree.gob.pe">rvillanuevaf@rree.gob.pe</a>	
<b>Standing Scientific Groups</b>						
1) Life Sciences	Prof. Rogelio Villanueva	Miroquesada 191 5A - Lima 1 - Perú	51-1-7171738		<a href="mailto:rvillanuevaf@rree.gob.pe">rvillanuevaf@rree.gob.pe</a>	
1) Geosciences	Eng. Patricia Gagliuffi	Miroquesada 191 5A - Lima 1 - Perú	51-1-7171740		<a href="mailto:pgagliuffi@rree.gob.pe">pgagliuffi@rree.gob.pe</a>	
1) Physical Sciences	Prof. Johan Veerman	Miroquesada 191 5A - Lima 1 - Perú	51-1-7171741		<a href="mailto:jveerman@rree.gob.pe">jveerman@rree.gob.pe</a>	
Activity	Contact Name	Address	Telephone	Fax	Email	web site
<b>Scientific Research Program</b>						
1) ACE	Not assigned					
1) AGCS	Not assigned					
1) EBA	Not assigned					
1) ICESTAR	Not assigned					
1) SALE	Not assigned					
Activity	Contact Name	Address	Telephone	Fax	Email	web site
<b>ACTION GROUPS</b>						
No activity						
<b>EXPERT GROUPS</b>						
No activity						
<b>JCADM</b>						
No activity						
<b>NATIONAL ANTARCTIC DATA CENTRE</b>						

To be assigned

**SCAR DATABASE**

None

**A BRIEF SUMMARY OF SCIENTIFIC HIGHLIGHTS:**

**Ongoing Scientific Projects**

**Predation, weather, microclimate and choice of nesting site of the colony of Antarctic tern *Sterna vittata* Gemlin 1789 in Crepin Point, King George Island**

This project has been running since the ANTAR XVI Expedition (2005-2006). This time the project is focused on evaluating some biological and physical factors on the reproduction of Antarctic tern during the placing of eggs and incubation. Some reproductive characteristics of the colony of *Sterna vittata*, such as size and current state of the colony, density of nests, hatching success, duration of parental care in the nest, were considered. These are associated with factors such as predation by skuas, weather during the day and micro-meteorology of the nesting area. Another activity planned was the registration for subsequent analysis of the possible differences between the microclimate of nesting areas and areas without bird reproduction. Field work in Antarctica will be complemented by similar studies in Peru in order to compare the differences in reproductive events under extreme microclimatic cold conditions (Antarctica) and temperate conditions (Peru).

**Spectral measurements of solar radiation to quantify the ozone layer, UV index and aerosol optical thickness in the Antarctic atmosphere and its relationship with measurements in Peru**

The project aims at improving the understanding of the land-air irradiative balance (process that quantifies the availability of energy in the earth's surface), the influence of aerosols (particulate matter that promotes the formation of areas where there is massive destruction of the ozone layer during the spring), its effects on the climate of the Antarctic atmosphere and its relationship with the measurements in Peru (Huancayo). In addition, the identification of the different types of aerosols, the elements that conform them and their possible sources of emission are sought. In order to accomplish this, global and net spectral measurements of solar radiation were made (simultaneous determination of the UV index, aerosol optical thickness (ODA) and the irradiative balance sheet). All of the above will be integrated under a standardized methodology with other measurements at various locations in Antarctica, in order to assess the effects on the polar irradiative balance (especially ODA project POL). For this matter, the spatial variability will be analyzed and supplemented with trajectories of air masses, and the seasonal variability with periodic measurements from the ground and/or satellites. For its scientific quality and appropriate location, this Peruvian proposal was accepted as part of the international cooperative program "Polar ODA". It is also part of the scientific activities promoted by the Scientific Committee on Antarctic Research (SCAR), through its action group in Aerosols in the Antarctic Troposphere and its Role in Climate (ATAC).

**Macro benthos marine biodiversity in MacKellar Sound and Admiralty Bay, King George Island - Antarctica**

The project was carried out in MacKellar Sound. The work emphasizes the characterization of biological diversity of marine plankton and benthos in MacKellar Sound, Admiralty Bay. The focus was directed mainly to the inventory of molluscs, crustaceans and polychaetes, echinoderms and macroalgae, parallel to the analysis of the spatial distribution of key plankton and benthic communities. Moreover, it will establish patterns of inter-annual variability in the Antarctic ecosystem and its linkages with the cycle of El Niño Southern Oscillation (ENSO) and global climate variability. It will also determine the species structure of the benthos and plankton communities in MacKellar Sound and deep parts of Admiralty Bay and its relationship with nature and the physical chemical characteristics of funds and environmental conditions prevailing.