

MEMBER COUNTRY:

Chile

National Report to SCAR for year:

2008-2009

Activity	Contact Name	Address	Telephone	Fax	Email	web site
National SCAR Committee						
SCAR Delegates						
1) Delegate	León Bravo	Departamento de Botánica, Universidad de Concepción. Casilla 160-C, Concepción, CHILE	56-41- 2204115	56-41-2246005	lebravo@udec.cl	www.natura.udec.cl
2) Alternate Delegate	José Retamales	Instituto Antártico Chileno, Plaza Muñoz Gamero 1055, Punta Arenas, CHILE	56-61-298100	56 -61-298149	jretamales@inach.cl	www.inach.cl
Standing Scientific Groups						
Life Sciences						
1)	Elie Poulin	Facultad de Ciencias Universidad de Chile Casilla 653, Santiago, CHILE	56-2-9787298	56-2-2727363	epoulin@uchile.cl	www.ieb-chile.cl, www.lem.dm.cl
2)	Carlos Moreno	Instituto de Ecología y Evolución, Universidad Austral de Chile PO Box 567, Valdivia, CHILE	56-63-221486	56-63-221344	cmoreno@uach.cl	www.ciencias.uach.cl
3)						
Geosciences						
1)	Francisco Herve	Plaza Ercilla #803 Casilla 13518 - Correo 21 Santiago, CHILE	56-2- 9784541	56-22-6963050	fherve@cec.uchile.cl	www.geologia.uchile.cl
2)	Andres Rivera	Centro de Estudios Científicos. Arturo Prat 514, Valdivia, CHILE	56-63-234531	56-63-234517	arivera@cecs.cl	www.glaciologia.cl www.cecs.cl
3)						
Physical Sciences						
1)	Alberto Foppiano	Facultad de Ciencias Físicas y Matemáticas Departamento de Geofísica Casilla: 160-C, Avda. Esteban S. Iturra S/N Campus Universitario Concepción, CHILE	56-41-2204136	56-41-2220104	foppiano@udec.cl	www.dgeo.udec.cl
2)	Jorge Carrasco	Dirección Meteorológica de Chile Av. Portales 3450, Estación Central, Santiago, CHILE	56-2-4364538	56-2-4378212	jcarrasco@meteochile. cl	www.meteochile.cl
3)						

Activity	Contact Name	Address	Telephone	Fax	Email	web site
Scientific Research Program						
ACE						
1)						
2)						
3)						
4)						
AGCS						
1)						
2)						
3)						
4)						
EBA						
1)	Elie Poulin	Facultad de Ciencias Universidad de Chile Casilla 653, Santiago, CHILE	56-2-9787298	56-2-2727363	epoulin@uchile.cl	www.ieb-chile.cl, www.lem.dm.cl
2)						
3)						
4)						
ICESTAR	Alberto Foppiano	Facultad de Ciencias Físicas y Matemáticas Departamento de Geofísica Casilla: 160-C, Avda. Esteban S. Iturra S/N Campus Universitario Concepción, CHILE	56-41-2204136	56-41-2220104	foppiano@udec.cl	www.dgeo.udec.cl
1)						
2)						
3)						
4)						
SALE						
1)						
2)						
3)						
4)						

Activity	Contact Name	Address	Telephone	Fax	Email	web site
ACTION GROUPS						
1) 2) 3) 4) insert others as needed						
EXPERT GROUPS						
1) SC-AGI 2) 3) 4) insert others as needed	Patricia Vicuña	Instituto Antártico Chileno, Ministerio de Relaciones Exteriores. Teatinos 180, piso 7, Santiago, CHILE	56-2-8274694	56-2-3801421	pvicuna@inach.cl	www.inach.gob.cl
JCADM						
1) 2)						
NATIONAL ANTARCTIC DATA CENTRE						
SCAR DATABASE						
insert name of database for which your country has responsibility						

A BRIEF SUMMARY OF SCIENTIFIC HIGHLIGHTS:						
Life Science	ANTARCTICA : SOURCE OF BIOLOGICAL RESOURCES FOR NATIONAL BIOTECHNOLOGY	Create a platform that facilitates the access to Antarctic resources, as microorganisms and plants, allowing a valuation, for the Chilean biotechnology as well as the scientific development.	South Shetland Island, Antarctic Peninsula	2007-2011	Jenny BLAMEY, Fundación Biociencia	jblamey@bioscience.cl
Life Science	PRODUCTION OF <i>DESCHAMPSIA ANTARCTICA</i> CELLS IN BIOREACTORS. USES FOR THE COSMETIC DERMATOLOGY INDUSTRY INCLUDING CRYOPRESERVATION AND PHOTOPROTECTIVE AGENTS	Develop a technology and methodology of cellular culture of <i>Deschampsia antarctica</i> in bio reactors in order to obtain viable photo protectors extracts from the plant.	King George Island	2007-2010	Manuel GIDEKEL, Universidad Adolfo Ibañez	manuel.gidekel@uai.cl.
Life Science	INDUCTION OF THE IMMUNE RESPONSE IN THE ANTARCTIC SEA URCHIN <i>STERECHINUS NEUMAYERI</i> BY LIPOPOLYSACCHARIDES AND HEAT STRESS	Identify, characterize and compare the expression profile of immune genes in the Antarctic equinoderm <i>S. neumayeri</i> .	King George Island	2009-2012	Marcelo GONZÁLEZ, Instituto Antártico Chileno	mgonzalez@inach.cl
Life Science	MOLECULAR DIVERGENCE AND CONNECTIVITY IN THE SOUTHERN OCEAN: A MODEL OF ANTARCTIC AND SUBANTARCTIC RINGS	Evaluate the existence of pliocenic or pleistocenic contacts between faunas, observing the molecular divergence in mitochondrials sequences of co generic benthonic invertebrates species from Antarctica and South America.	King George Island	2007-2010	Elie POULIN, Universidad de Chile	epoulin@uchile.cl

Life Science, Ecology	LOCAL PATTERNS OF SHALLOW ANTARCTIC ECHINODERMS WITH CONTRASTING DEVELOPMENTAL MODES: THE RELATIVE IMPORTANCE OF PREDATION, FOOD AVAILABILITY AND ICE-RELATED DISTURBANCES	Investigate shallow coastal equinoderms development, related to ecological success and evolution of the species, considering that the system is under the effect of an important regional climatic change.	South Shetland Island, Antarctic Peninsula	2007-2010	Álvaro PALMA, Pontificia Universidad Católica de Chile	apalma@bio.puc.cl
Life Science, Ecology	STRUCTURE OF BENTHONIC COMMUNITIES IN ANTARCTIC ROCKY REEFS: ASSOCIATIONS OF MICROHABITATS AND CENSUS OF BIODIVERSITY	This project is studying the way in which organisms are distributed on Antarctic reefs, and is a companion project for similar research undertaken in Magallanes. We are studying species diversity and composition of organisms associated with rocky reefs macroalgal communities, examined along a depth gradient. Additionally, this project will contribute to an international census of near-shore marine biodiversity (NaGISA).	King George Island	2008-201	Emma NEWCOMBE. CEQUA.	emmanewcombe@gmail.com
Life Science	ECO-PHYSIOLOGICAL OUTCOMES FOR ANTARCTIC FLORA UNDER A GLOBAL WARMING SCENARIO	Evaluate the size changes of the vascular plants population and the diversity and richness of species in the South Shetland islands and in the Antarctic Peninsula	South Shetland Islands and Antarctic Peninsula	2007-2010	María Angélica CASANOVA, Universidad de Concepción	angedcasanova@udec.cl

Life Science	GENETIC STRUCTURE AND ANCESTRAL NICHE MODELING APPROACH OF SANIONIA UNCINATA (HEDW.) LOESKE AS SUPPORT FOR STUDIES ON CONSERVATION	This projet would investigate different variables that describes dispersion and colonization of mosse species associated to environmental variables of the present and the past, supporting other areas of study, as like those oriented to evaluate the global climate change and the determination of potential future scenarios.	South Shetland Island, Antarctic Peninsula	2009-2012	Ingrid HEBEL. Universidad de Magallanes.	ingheble@hotmail.com
Life Science	EVOLUTIONARY RELATIONSHIPS AND DIVERSIFICATION PROCESSES OF THE GENUS <i>STERECHINUS</i> (ECHINODERMATA, ECHINOIDA) FROM SHALLOW AND DEEP-SEA AREAS OF THE SOUTHERN OCEAN	This research proposal focus on evaluate the evolutionary relations between the Antarctic and subantartic area, shallow and deep zones on Sterechinus genus, utilizing multiples molecular markers (nuclear and mitochondrial). Additionally, genetic structure of Antarctic and Subantarctic regions as well as their connectivity patterns will be estimated through hipervariables molecular markers.	Antarctic and Subantarctic regions	2009-2011	Angie DIAZ. Universidad de Chile	angie.ddl@gmail.com
Life Science	IDENTIFICATION OF BIO MARKERS OF THE FLUCTUATIONS OF THE ICE COVER IN THE BENTHONIC DIATOMS OF THE CHILEAN ANTARCTIC PENINSULA	The principal aim of our research is to evaluate the impact of the retrieval/ advance of the ice covertures on the photo-biological characteristics and responses of an important group of benthic diatoms of the coastal area of the Antarctic Peninsula.	South Shetland Islands and Antarctic Peninsula	2008-2011	Paulina URIBE. Fundación Ciencia para la Vida.	pau.uribe@gmail.com

Life Science	PHENOTYPIC PLASTICITY IN <i>COLOBANTHUS QUITENSIS</i> (CARYOPHYLLACEAE) BEFORE A COMPLEX SCENE OF GLOBAL CHANGE	In this project we will evaluate the phenotypic plasticity in <i>C. quitensis</i> individuals under a complex global change scenario. We will make a factorial experiment with <i>C. quitensis</i> individuals from both Antarctic Maritime and Antarctic Peninsula and genetic analysis in order to assess the responses of <i>C. quitensis</i> under future environmental scenarios.	South Shetland Islands	2008-2009	Marco MOLINA. Universidad de Concepción.	marcmoli@udec.cl
Life Science	GEO-REFERENCING, BIODIVERSITY AND GROWTH RATE IN THE SOUTHERN OCEANS	This project will assess physical factors determining biodiversity and growth rate of selected species along a broad latitudinal scale, using new developed technologies.	King George Island	2009-2012	Dirk SCHORIES. Universidad Austral de Chile	dirk.schories@gmx.de
Life Science	GENETIC DIVERSITY AND SMALL SCALE POPULATION STRUCTURE OF <i>ABATUS AGASSIZII</i> (MORTENSEN, 1910), A BROODING ANTARCTIC ECHINOID FROM BAHIA FILDES, KING GEORGES ISLAND, SOUTH SHETLAND	In this project, one sets out to accurately characterize the limits of the area that occupies the population of the brooding echinoid <i>A. agassizii</i> , in order to analyze its genetic diversity and to determine the existence of a small scale genetic structure (from meters to kilometers).	King George Island	2009-2012	Karin GERARD. Universidad de Chile	gerardkarin@yahoo.fr
Life Science	BACTERIAL BIODIVERSITY ASSOCIATED TO MACRO ALGAE FROM ANTARCTICA AND PATAGONIA AND ITS ANTIBIOTIC POTENTIAL	We will propose an exploratory study which will allow us to identify and compare the culturable bacterial diversity associated with the seaweeds <i>Adenocystis utricularis</i> and <i>Porphyra</i> sp., which are present in both areas.	King George Island	2009-2010	Javier PEREZ. Pontificia Universidad Católica de Valparaíso	javierpg1@gmail.com

Life Science	THE BIOGEOCHEMICAL IRON AND SULFUR CYCLES IN THE ANTARCTIC–FROM MICROBIAL SULFIDE OXIDATION TOWARDS SUBMARINE GROUNDWATER DISCHARGE	The project will investigate the biogeochemical processes of the liberation of iron and sulfur from its source in the Antarctic, the sulfide mineralization (mainly as As pyrite (FeS ₂), and chalcopyrite (FeCuS ₂), towards its infiltration in form of Fe ²⁺ as submarine groundwater discharge (SGD) in the ocean.	South Shetland Island, Antarctic Peninsula	2008-2011	Bernhard DOLD. Universidad de Concepción.	bdold@udec.cl
Life Science	BIODIVERSITY AND METABOLIC CAPACITIES OF THE BACTERIAL COMMUNITY IN DIFFERENT HABITAT OF FILDES PENINSULA (KING GEORGE ISLAND) AND CAPE SHIRREFF (LIVINGSTON ISLAND)	The aim of this research is to determine the influence of diverse microhabitats on the biodiversity of the bacterial communities living in Fildes Peninsula, King George Island, and Cape Shirreff, Livingston Island. The results to be obtained would contribute to a potential improvement of the human activities at productive industrial level, and also in the advances in Biomedicine.	South Shetland Island	2008-2011	Gerardo GONZALEZ. Universidad de Concepción.	ggonzalez@udec.cl
Life Science	PROTEOMICS OF THE LEA FAMILY IN VEGETATIVE TISSUES OF DESCHAMPSIA ANTARCTICA UNDER ABIOTIC STRESS	This project aims to identify and characterize the physiological responses of <i>D. antarctica</i> to water, salt and cold stress, and correlate these responses with its ability to produce and accumulate stress responsive LEA proteins in its vegetative tissues.	South Shetland Island	2008-2010	Léon BRAVO. Universidad de Concepción.	lebravo@udec.cl

<p>Life Science</p>	<p>RELATIONSHIPS BETWEEN SUCROSE ACCUMULATION AND SPS ACTIVITY INDUCED IN COLD ACCLIMATED <i>COLOBANTHUS QUITENSIS</i> WITH SUCROSE PHOSPHATE SYNTHASE (SPS) ISOFORMS EXPRESSION; DAY LONG AND LIGHT MODULATION AND NATURAL POPULATIONS DIFFERENCES</p>	<p>Understanding regulation of sugar metabolism of the Antarctic <i>C. quitensis</i> and comparing the regulation mechanisms with other ecotypes will allow us to obtain important implications of the environmental modulation of plant responses to temperature, light and photoperiods. Besides it will be important for understand whether sucrose accumulation is a general characteristic of this species or a distinctive crioprotective mechanism of low temperature living population.</p>	<p>South Shetland Island</p>	<p>2009-2012</p>	<p>Marely CUBA. Universidad de Concepción.</p>	<p>mcubaster@gmail.com</p>
<p>Life Science</p>	<p>SECONDARY METABOLITES IN MARINE ORGANISMS.</p>	<p>The purpose of this project is not the isolation and the structural characterization of the secondary metabolites per se, it will be only made if some of them present an important biological activity, including with comparative aims the culture in vitro, in order to obtain an additional mass if the situation requires it.</p>	<p>South Shetland Island</p>	<p>2009-2012</p>	<p>Aurelio SAN MARTIN. Universidad de Chile.</p>	<p>aurelio@uchile.cl</p>

Life Science	BIOACTIVE COMPOUNDS OBTAINED FROM NEW FUNGI ISOLATED FROM ANTARCTIC MARINE SPONGES	This project proposes the search of new bioactive compounds from fungi isolated from marine sponges living under the Antarctic sea. Marine Antarctic sponges are a potential source of bioactive secondary metabolites with biotechnological interest, such as antiviral, antitumoral, antimicrobial and cytotoxic compounds.	South Shetland Island	2009-2013	Inmaculada VACA. Universidad de Chile.	inmavaca@uchile.cl
Life Science	BIOGEOGRAPHY AND BIODIVERSITY OF ANTARCTIC YEASTS AND ITS BIOTECHNOLOGICAL POTENTIAL	One of the main objective of this project is to isolate and to construct a culture collection as complete as possible of yeast that colonize these territories, which could be a reference for future ecological and biotechnological researches.	South Shetland Island	2009-2012	Marcelo BAEZA. Universidad de Chile.	mbaeza@uchile.cl
Life Science	FOTOBIOLOGY AND UV STRESS TOLERANCE OF ANTARCTIC SEAWEEDS	The present proposal focuses on examining the relationship between the underwater UV climate and the expression of UV stress tolerance mechanisms in Antarctic seaweeds along a depth gradient.	South Shetland Island	2009-2011	Iván GOMEZ. Universidad Austral de Chile	igomezo@inach.cl

Life Science	PREDATION IMPACT AND ROLE IN THE VERTICAL CARBON FLUX OF CHAETOGNATHS AND AMPHIPODS IN THE SOUTHERN OCEAN	This study aims to evaluate the role of the major zooplankton predators (chaetognaths and amphipods) in the SO as consumers of the copepod standing stock and secondary production, and their role in the vertical carbon flux.	Southern Ocean	2009-2011	Humberto GONZALEZ. Universidad Austral de Chile	hgonzalez@uach.cl
Life Science	EFFECTS OF CLIMATE CHANGE IN THE DIETARY HABITS OF SEABIRD POPULATIONS ON ARDLEY ISLAND, USING STABLE ISOTOPE OF CARBON AND NITROGEN	In this project we rely on the apparent reduction of Antarctic Krill's population (<i>Euphasia superba</i>), as a particular example of global warming effects on the Antarctic ecosystem, to determinate the possible shifts on seabird's diet, using stable isotopes. For this, we propose a study based in 5 species of seabirds that inhabit Ardley Island and have a strong dependence on <i>E. superba</i> , to which we make an historical comparison of marine foods (diet).	Ardley Island	2009-2010	Pablo NEGRETE and Franco PERONA. Universidad de Chile	negretepablo@gmail.com/fperona@gmail.com
Geoscience	STABILITY AND RECENT BEHAVIOUR OF GLACIERS IN THE ANTARCTIC PENINSULA – THE INTERACTIONS WITH ICE SHELVES	Study the stability and recent behavior of glaciers in the Antarctic Peninsula and the interactions with ice shelves.	Antarctic Peninsula	2007-2010	Anja WENDT, Centro de Estudios Científicos	awendt@cecs.cl

Geoscience	ANTARCTIC AND SOUTH AMERICAN CLIMATE: JOINT EXTRACT OF BRAZILIAN-CHILE-USA ICE CORE SAMPLING IN THE DETROIT PLATEAU OF THE ANTARCTIC PENINSULA	Recover paleoclimatic information using ice core sampling , undertaking a joint study of the glacial systems and their answers to the environmental changes in a regional scale.	Antarctic Peninsula	2007-2010	Ricardo JAÑA, Instituto Antártico Chileno	rjana@inach.cl
Geoscience	GEOLOGICAL CONNECTION BETWEEN WEST ANTARCTICA AND PATAGONIA SINCE THE LATE PALEOZOIC: TECTONISM, PALEOGEOGRAPHY, BIOGEOGRAPHY AND PALEOCLIMATE	Investigate the paleogeographical, paleoclimatic and tectonic relations between the Antarctic Peninsula and the southern Patagonia, from late Paleozoic to recent Paleozoic.	Chilean Patagonia, Antarctic Peninsula, South Shetland Island	2006-2010	Teresa TORRES, Universidad de Chile	ttorres@uchile.cl
Geoscience	CHEMICAL FINGERPRINT OF TEPHRA FROM HOLOCENE/QUATERNARY VOLCANOES AROUND THE NORTHERN ANTARCTIC PENINSULA: A KEY TO REGIONAL VOLCANIC HISTORY AND CLIMATE RECONSTRUCTION	Reconstruct the regional volcanic history and climate evolution of the northern Antarctic Peninsula area, studying chemical fingerprint of tephra from holocene/quaternary volcanoes	Antarctic Peninsula	2007-2010	Stefan KRAUS, Instituto Antártico Chileno	skraus@inach.cl

Geoscience	METASEDIMENTARY COMPLEXES PROVENANCE FROM NORTHERN ANTARCTIC PENINSULA AND PATAGONIA: TECTONIC IMPLICATIONS	The aim of this study is to investigate the terrestrial clastic rocks of the Trinity Peninsula Group, placed on Antarctic Peninsula, and the Duque de York Complex, at the occidental margin of the southern part of South America (Patagonia), in order to identify the characteristics of their source and the tectonic regime of the depositional basin, and, if possible, correlate both units.	Antarctic Peninsula	2008-2010	Paula CASTILLO. Universidad de Chile.	paucasti@ing.uchile.cl
Geoscience	ICHTHYOSAURS OF THE LATE JURASSIC AND EARLY CRETACEOUS IN THE TORRES DEL PAINE NATIONAL PARK IN SOUTHERN CHILE	Study ichthyosaurs and the environment in which they lived, in the present area of the Glacier Tyndall (Torres del Paine), to understand how the climatic changes of the past, the massive extinction and the separation of South America and Antarctica, conditioned the existence of life.	Antarctic Peninsula, Chilean Patagonia	2008-2011	Wolfgang STINNESBECK, Marcelo LEPPE. Universität Heidelberg and INACH	stinnesbeck@uni-heidelberg.de mleppe@inach.cl

Geoscience	VERY LOW GRADE METAMORPHISM IN THE VOLCANIC SUCCESSIONS OF THE SOUTH SHETLAND ISLANDS	The aim of this project is to determine the characteristics of the very low grade (low grade) metamorphism of the volcanic successions in west Antarctica, by studying the rock collections available at the Departamento de Geología, which cover large areas of the above mentioned units. The acquired knowledge will lead to the understanding of the petrological evolution of these rocks, the main events that they have undergone after their deposition. This will allow comparisons to be made with the better known successions in the Andes, and thus to compare their tectonic setting and evolution.	West Antarctica	2009-2011	Francisco HERVÉ. Universidad de Chile	fherve@cec.uchile.cl
-------------------	---	--	-----------------	-----------	--	--

Geoscience	THERMOCHRONOLOGICAL STUDY OF NORTHERN ANTARCTIC PENINSULA: IMPLICATIONS FOR THEIR MESO-CENOZOIC AND CLIMATIC EVOLUTION	The project aims to evaluate whether or not the consecutive subduction of ridge segments exerted some control in the unroofing of the western segments of the Antarctic Peninsula block. To elucidate this and test other possible scenarios, zircon and apatite fission track thermochronological data and thermobarometric information will be generated in AP rocks with well known crystallization and/or depositional ages. Complementary thermochronological information will be also obtained from rocks of the Patagonian and Fuegian Andes.	Antarctic Peninsula	2009-2011	Mauricio CALDERON. Universidad de Chile.	mcalderon@gmail.com
Geoscience	PALAEOPHYTOGEOGRAPHICAL AND EVOLUTIONARY RELATIONSHIPS BETWEEN SOUTHERN PATAGONIA AND ANTARCTIC PENINSULA FLORAS DURING THE CRETACEOUS	The aim of this project is to contribute to the understanding of the complex geological and paleontological history of the Cretaceous sedimentary units of the Antarctic Peninsula and South Patagonia.	Antarctic Peninsula, Chilean Patagonia	2008-2011	Marcelo LEPPE. Instituto Antartico Chileno	mleppe@inach.cl

Physical Science	CHARACTERIZATION OF FINE ANTARCTIC TROPOSPHERIC AEROSOLS OF THE NORTH END OF THE ANTARCTIC PENINSULA AND LINKAGE WITH THEIR SOURCES	Analyze the impact of human influence on the environmental chemical system and quantify the elementary chemical composition of six components of the Antarctic environmental system, with a certain degree of human intervention.	King George Island and Antarctic Peninsula	2007-2010	Margarita PRÉNDEZ. Universidad de Chile	mprendez@ciq.uchile.cl
Physical Science	NEUTRON MONITOR MN-64 FOR THE CHILEAN ANTARCTIC TERRITORY	Contribute to the study of the Sun-Earth relationships, especially on the effects induced by the Sun in the Antarctic continent.	King George Island	1982-2010	Enrique CORDARO. Universidad de Chile	ecordaro@dfi.uchile.cl
Physical Science	CONJUGATED STUDIES OF THE INTERNAL DYNAMIC OF THE MAGNETOSPHERE DURING MAGNETIC STORMS USING DATA FROM THEMIS AND SAMBA	This project will be focused on the study of the inner magnetosphere dynamics during geomagnetic storms using data from the SAMBA and MEASURE ground magnetometer chains in conjunction with observations from the THEMIS satellite mission, which includes five probes.	King George Island	2009-2010	Victor PINTO. Universidad de Chile	victor.pinto@gmail.com
	EVALUATION OF THE POLLUTING EFFECTS RELATED TO ANTHROPOGENIC ACTIVITIES IN CHILEAN ANTARCTIC BASES	The main objective of this project is therefore, identify pollutants in different matrixes obtained in the proximity of Chilean Antarctic Stations and correlate statistically the measures to identify key parameters to be used as indicators of pollution, to determine the extension and the speed of environmental deterioration.	South Shetland Island, Antarctic Peninsula	2008-2011	María Soledad ASTORGA. Universidad de Magallanes	msoledad.astorga@umag.cl
Technology	UV RADIATION IN ANTARCTIC CHILEAN STATIONS	Characterize the total RUV-B variations and spectral values, during the year, inter-annual cycles, with special emphasis in the period of the Antarctic Ozone hole.	King George Island and Antarctic Peninsula	2005-2010	Claudio CASICCIA, Universidad de Magallanes	claudio.casiccia@umag.cl