

**INFORME ANUAL AL SCAR SOBRE LAS ACTIVIDADES
CIENTÍFICAS ESPAÑOLAS EN LA ANTÁRTIDA
CAMPAÑA 2001-2002
Y
NUEVOS PROYECTOS PREVISTOS**

**ANNUAL SCAR REPORT ON SPANISH ANTARCTIC
SCIENTIFIC ACTIVITIES
2001-2002 CAMPAIGN
AND
PLANNED NEW PROGRAMMES**

**Informe nº14
al Comité Científico de Investigación en la Antártida (SCAR)**

**Report no. 14
for the Scientific Committee on Antarctic Research (SCAR)**

**JUNIO 2002
JUNE 2002**

**INTERNATIONAL COUNCIL OF SCIENTIFIC UNIONS
SCIENTIFIC COMMITTEE ON ANTARCTIC RESEARCH**

**ANNUAL SCAR REPORT ON
NATIONAL ANTARCTIC SCIENTIFIC ACTIVITIES
1 July 2001 - 30 June 2002**

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to SCAR Working Groups

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Geodesy and Geographic Information		
Geology	Dr. C. Sanz de Galdeano	(3)
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Member Country: **SPAIN**

PERMANENT STATIONS (WINTERING)

Name	Location	Coordinates
NONE		

SUMMER-ONLY BASES

Name	Location	Coordinates
Juan Carlos I (19 Nov. 2001 - 28 Feb. 2002) (http://www.mcyt.es/cpe/instalaciones.htm)	Livingston Island	62° 39' 46" S 60° 23' 20" W
Gabriel de Castilla (1 Dec. 2001 - 27 Feb. 2002) (http://www.mcyt.es/cpe/instalaciones.htm)	Deception Island	62° 58' 40" S 60° 40' 30" W

AUTOMATIC RECORDING STATIONS/OBSERVATORIES

Name/Identifier	Coordinates	Parameters Recorded
89064	62° 39' 46" S 60° 23' 20" W	Meteorology
1900-03	62° 58' 40" S 60° 40' 30" W	WOVO network (summer only)
-----	62° 39' 46" S 60° 23' 20" W	Seismology (summer only)
-----	62° 39' 46" S 60° 23' 20" W	Ozone, NO ₂ and CO ₂ (summer only)
-----	Geographics: 62° 39' 44" S 60° 23' 21" W	Magnetic elements (D, H, Z, F)
	Geomagnetic: 52° 06' 15" S 08° 12' 40" E 19.4 m a.s.l.	

Member Country: **SPAIN**

NATIONAL PROGRAMMES/PROJECTS BY WORKING GROUP

BIOLOGY

Subject	Investigation	Locality	Duration	Principal Investigator	Address
Terrestrial ecophysiology	* Lichens and mosses climatic adaptations	Livingston Island Canadian Glacier Dry Valleys	2000-2002	L.G. Sancho	(2)
Marine ecophysiology	* Physiological adaptations * Channichthyidae development	Bransfield Strait, Northern Antarctic Peninsula	2000-2002	B. Morales-Nin	(5)
Marine ecology	* Benthos communities * Succession guidelines	Caleta Johnson; Livingston I.	2001	J.M. Gili	(6)
Non marine aquatic ecosystems	* Lake ecosystems * Biodiversity * Microbiology * Response to climatic changes	Byers Peninsula, Livingston and Deception Islands	2001-2004	A. Quesada	(7)
Cnidaries Antozoos	* Cnidaries in Antarctic deep sea bed * Origin, distribution and biodiversity	Drake Passage Scotia Arc	2002	P. J. López	(8)

GEODESY AND GEOGRAPHIC INFORMATION

Subject	Investigation	Locality	Duration	Principal Investigator	Address
Geodesy	* Modelling of deformation * Geoide determination * Multidisciplinary information system	Deception Island	2001-2004	M. Berrocoso M. Astiz	(9) (10)

Member Country: **SPAIN**

NATIONAL PROGRAMMES/PROJECTS BY WORKING GROUP

GEOLOGY

Subject	Investigation	Locality	Duration	Principal Investigator	Address
Marine geology	* Plate boundary geodynamics * Oceanic basins development	Northern Weddell Sea, Southern Scotia Sea	2000-2002	A. Maldonado	(11)
Glacio-marine sedimentary system	* Marine sedimentology * Ice fluctuations	Pacific margin of Antarctic Peninsula	2001-2003	A. Calafat	(12)

GLACIOLOGY

Subject	Investigation	Locality	Duration	Principal Investigator	Address
Ice dynamics	* Radio-echo sounding * Glacier thermal regime * Glaciers response to climatic changes * Numerical modelling	Livingston Island	2000-2002	F. Navarro	(13)

HUMAN BIOLOGY AND MEDICINE

Subject	Investigation	Locality	Duration	Principal Investigator	Address
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NONE

Member Country: **SPAIN**

NATIONAL PROGRAMMES/PROJECTS BY WORKING GROUP

PHYSICS AND CHEMISTRY OF THE ATMOSPHERE

Subject	Investigation	Locality	Duration	Principal Investigator	Address
Ozone layer	* UV radiation	Marambio and Belgrano stations	2001-2004	M. Yela E. Cuevas	(14)
	* O ₃ , NO ₂ , OCIO distribution				(15)
	* Polar vortex dynamics				
Meteorology	* Operation of the meteorological observatory	Juan Carlos I station	2001-2002	A. Castejón	(16)

SOLID-EARTH GEOPHYSICS

Subject	Investigation	Locality	Duration	Principal Investigator	Address
Seismic	* Seismic, magnetic and CO ₂ flux studies	Deception Island	2001-2002	J.M. Ibañez	(17)
Marine geophysics	* Geomagnetism	Deception Island	2001-2004	M. Catalán	(18)
	* Gravimetry				
	* Seismic research				
Geomagnetism and Ionosphere	* Geomagnetic monitoring	Livingston Island	2001-2004	M. Torta	(19)
	* Regional geomagnetic field modelling				
	* Ionosphere activity				

SOLAR-TERRESTRIAL AND ASTROPHYSICAL RESEARCH

Subject	Investigation	Locality	Duration	Principal Investigator	Address
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NONE

Member Country: **SPAIN**

NATIONAL PROGRAMMES/PROJECTS BY WORKING GROUP

PHYSICAL AND CHEMICAL OCEANOGRAPHY

Subject	Investigation	Locality	Duration	Principal Investigator	Address
NONE					

OTHER PROJECTS

Subject	Investigation	Locality	Duration	Principal Investigator	Address
NONE					

Member Country: **SPAIN**

PLANNED NEW PROGRAMMES/PROJECTS BY WORKING GROUP

BIOLOGY

Subject	Investigation	Locality	Duration	Principal Investigator	Address
Planktonic Communities	* Temperature, salinity and oxygen profiles * Structure of zooplankton communities	Gerlache Strait	2002-2003	D. Vaqué	(20)
Marine Biology	* Physic-biological identification	Bransfield Strait	2002-2003	P. Sangrà	(21)
Zoology Global change	* Physiological and genetic penguins variability * Geographic gradient	South Shetland Islands	2002-2003	A. Barbosa	(22)
Benthos suspensivores	* Biology through biogeographic gradients	Scotia Arc	2002-2003	J.M. Gili	(6)
Microbial Ecology and Exobiology	* Geomicrobiology * Ross desert samples	Laboratory	2002-2003	J. Wierchos	(23)
Benthos biodiversity	* Biological sampling	Bellinghausen Sea and Antarctic Peninsula	2002-2004	A. Ramos	(24)
Penguin breeding	* Breeding and antipredatory strategies * Biological diversity gradients	Deception Island	2002-2005	M. Soler	(25)
Marine seaweeds	* Singular metabolites * Chemistry and geometry determinations	Fildes Bay, King George I.	2003	J. Darias	(26)

Member Country: **SPAIN**

PLANNED NEW PROGRAMMES/PROJECTS BY WORKING GROUP

BIOLOGY (CONT.)

Subject	Investigation	Locality	Duration	Principal Investigator	Address
Marine biodiversity	* Antarctic and sub-antarctic communities	Arenas Point, Livingston and Deception Islands	2003-2004	J. Mora	(27)
Benthos biodiversity	*Integrated study of infauna, epibenthos and suprapenthos	Bellinghausen Sea and Antarctic Peninsula	2004	I. Olaso	(28)
Marine ecosystems	* Zooplankton * Mass balance	Bransfield Strait Bellinghausen, Sea and Gerlache Strait	2003-2005	C. Duarte	(29)
Vegetal ecology	* Biodiversity * Lichens and mosses ecology	Jaylor Valley, Dry Valleys and Transantarctic mountains	2002-2003	L.G. Sancho	(2)

GEODESY AND GEOGRAPHIC INFORMATION

Subject	Investigation	Locality	Duration	Principal Investigator	Address
NONE					

GEOLOGY

Subject	Investigation	Locality	Duration	Principal Investigator	Address
Petrology	* Igneous samples from South Shetland Islands	Laboratory	2002-2003	D. Gimeno	(30)
Marine geology	* Recent geology * Sismo-stratigraphic and morpho-sedimentary studies	South Bay, Livingston I.	2002-2003	G. Ercilla	(31)

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PLANNED NEW PROGRAMMES/PROJECTS BY WORKING GROUP

GEOLOGY (CONT.)

Subject	Investigation	Locality	Duration	Principal Investigator	Address
Geology and geomorphology	* Geological, morphostructural and active processes analysis	Elephant Island, Hurd and Byers peninsulas, Livingston I. and Deception I.	2002-2005	J. Lopez-Martinez	(1)
Marine geology	* Formation of oceanic basins * Continental fragmentation	Scotia and Weddell Seas	2003-2005	A. Maldonado	(11)

GLACIOLOGY

Subject	Investigation	Locality	Duration	Principal Investigator	Address
Active superficial processes	* Active layer * Permafrost	Livingston Island	2002-2003	M. Ramos	(32)
Glacier displacement	* Summer component estimation	Johnson and Hurd Glaciers, Livingston Island	2002-2003	F. Navarro	(13)
Glacier thermo-mechanical processes	* Velocity rates * Ice stratigraphy and structure	Johnson and Hurd Glaciers, Livingston Island	2003-2005	F. Navarro	(13)

HUMAN BIOLOGY AND MEDICINE

Subject	Investigation	Locality	Duration	Principal Investigator	Address
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NONE

Member Country: **SPAIN**

PLANNED NEW PROGRAMMES/PROJECTS BY WORKING GROUP

SOLAR-TERRESTRIAL AND ASTROPHYSICAL RESEARCH

Subject	Investigation	Locality	Duration	Principal Investigator	Address
NONE					

PHYSICS AND CHEMISTRY OF THE ATMOSPHERE

Subject	Investigation	Locality	Duration	Principal Investigator	Address
Meteorology	* Operation of the meteorological observatory	Juan Carlos I station	2002-2003	A. Labajo	(33)

SOLID-EARTH GEOPHYSICS

Subject	Investigation	Locality	Duration	Principal Investigator	Address
Geophysics, tectonics, modelling and risk	* Tridimensional distribution * Sismovolcanic activity	Deception Island	2003-2005	C. Paredes	(34)

PHYSICAL AND CHEMICAL OCEANOGRAPHY

Subject	Investigation	Locality	Duration	Principal Investigator	Address
NONE					

OTHER PLANNED NEW PROJETS

Subject	Investigation	Locality	Duration	Principal Investigator	Address
NONE					

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