

SCIENTIFIC COMMITTEE ON ANTARCTIC RESEARCH (SCAR): NATIONAL REPORTS FOR 2009-2010

MEMBER COUNTRY: BELGIUM

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National SCAR Committee						
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SCAR Delegates						
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2) Alternate Delegate	Dr. Claude De Broyer	IRScNB Rue Vautier, 29 B-1000 Brussels	+32 2 627.41.27	+32 2 627.42.77	claudio.debroyer@naturalsciences.be	www.naturalsciences.be /amphi/
Standing Scientific Groups						
Life Sciences						
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2)	Prof. Ann Vanreusel	Universiteit Gent Department of Biology Marine Biology Section Krijgslaan 281, S8 B-9000 Gent	+32 92 64.52.15	+32 92 64.53.44	ann.vanreusel@ugent.be	
3)	Dr. Annick Wilmotte	University of Liège Center for Protein Engineering (CIP) Institute of Chemistry, B6 Sart Tilman B-4000 Liège	+32 4 366.38.56 or +32 4 366.33.87	+32 4 366.33.64	awilmotte@ulg.ac.be	
Geosciences						
1)	Prof. Frank Pattyn	Université Libre de Bruxelles Département des Sciences de la Terre et de l'Environnement Avenue Roosevelt 50 - CP 160/03 B-1050 Brussels	+32 2 650.28.46	+32 2 650.22.26	fpattyn@ulb.ac.be	

Activity	Contact Name	Address	Telephone	Fax	Email	web site
Geosciences (cont/d) 2)	Prof. Philippe Huybrechts	Vrije Universiteit Brussel Earth System Sciences & Departement Geografie Pleinlaan, 2 B-1050 Brussels	+32 2 629 35 93 or 33 82	+32 2 629 33 78	phuybrec@vub.ac.be	
Physical Sciences 1)	Prof. Hugues Goosse	Université Catholique de Louvain Institut d'Astronomie et de Géophysique G. Lemaître Chemin du Cyclotron, 2 B-1348 Louvain-La- Neuve	+32 10 47.32.98	+32 10 47.47.22	hugues.goosse@uclouvain.be	
2)	Prof. Jean-Louis Tison	Université Libre de Bruxelles Département des Sciences de la Terre et de l'Environnement Avenue Roosevelt 50 CP 160/03 B-1050 Brussels	+32 2 650.22.16	+32 2 650.22.26	jtison@ulb.ac.be	
Antarctic Geographic Information 1)	Dr. Jean-Yves Pirlot	Institut Géographique National Abbaye de la Cambre, 13 B-1050 Brussels	+32 2 629.82.20	+32 2 629.82.67	jyp@ngi.be	www.ign.be
Scientific Research Program						
ACE						
AGCS						
CIIC	Prof. Thierry Fichet	Université Catholique de Louvain Institut d'Astronomie et de Géophysique G. Lemaître Chemin du Cylotron, 2 B-1348 Louvain-la-neuve	+32 10 47.32.95	+32 10 47.47.22	thierry.fichet@uclouvain.be	clic.npolar.no

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2)	Dr. Annick Wilmotte	University of Liège Center for Protein Engineering (CIP) Institute of Chemistry, B6 Sart Tilman B-4000 Liège	+32 4 366.38.56 or +32 4 366.33.87	+32 4 366.33.64	awilmotte@ulg.ac.be	
ICESTAR						
SALE						
1)	Prof. Frank Pattyn	Université Libre de Bruxelles Département des Sciences de la Terre et de l'Environnement Avenue Roosevelt 50 - CP 160/03 B-1050 Brussels	+32 2 650.28.46	+32 2 650.22.26	fpattyn@ulb.ac.be	
Action Groups						
CAML						
1) Steering Committee	Dr Claude De Broyer	IRScNB Rue Vautier, 29 B-1000 Brussels	+32 2 627.41.27	+32 2 627.42.77	claudе.debroyer@naturalsciences.be	www.naturalsciences.be /amphi/
2)Expert	Dr Bruno Danis	IRScNB Rue Vautier, 29 B-1000 Brussels	+32 2 627 41 39	+32 2 627.42.77	bruno.danis@scarmarbin.be	www.scarmarbin.be www.biodiversity.aq
SCAR-MarBIN						
1) Steering Committee	Dr Claude De Broyer	IRScNB Rue Vautier, 29 B-1000 Brussels	+32 2 627.41.27	+32 2 627.42.77	claudе.debroyer@naturalsciences.be	www.scarmarbin.be
2) Steering Committee	Dr Bruno Danis	IRScNB Rue Vautier, 29 B-1000 Brussels	+32 2 627 41 39	+32 2 627.42.77	bruno.danis@scarmarbin.be	www.scarmarbin.be

Activity	Contact Name	Address	Telephone	Fax	Email	web site
Expert Groups						
Geosciences						
Life Sciences						
Physical Sciences						
1) Antarctic Sea-Ice and Climate (AsPect)	Prof. Jean-Louis Tison	Université Libre de Bruxelles Département des Sciences de la Terre et de l'Environnement Glaciologie Avenue Roosevelt 50 - CP 160/03 B-1050 Brussels	+32 2 650.22.16	+32 2 650.22.26	jtison@ulb.ac.be	
JCADM						
1)	Maaïke Van Cauwenberghe	Belgian Federal SPP Science Policy Rue de la Science 8 B-1000 Brussels	+32 2 238.35.42	+32 2 230.59.12	vcou@belspo.be	http://www.belspo.be/antar/
2)	Dr Bruno Danis	IRScNB Rue Vautier, 29 B-1000 Brussels	+32 2 627 41 39	+32 2 627.42.77	bruno.danis@scarmarbin.be	www.scarmarbin.be www.biodiversity.aq
National Antarctic Data Centre						
1)	Maaïke Van Cauwenberghe	Belgian Federal SPP Science Policy Rue de la Science 8 B-1000 Brussels	+32 2 238.35.42	+32 2 230.59.12	vcou@belspo.be	http://www.belspo.be/antar/
SCAR Database						
Antarctic Marine Biodiversity Information Network (SCAR-MarBIN)						
1)	Dr Claude De Broyer	IRScNB Rue Vautier, 29 B-1000 Brussels	+32 2 627.41.27	+32 2 627.42.77	claudio.debroyer@naturalsciences.be	www.scarmarbin.be
2)	Dr Bruno Danis	IRScNB Rue Vautier, 29 B-1000 Brussels	+32 2 627 41 39	+32 2 627.42.77	bruno.danis@scarmarbin.be	www.scarmarbin.be www.biodiversity.aq

A BRIEF SUMMARY OF SCIENTIFIC HIGHLIGHTS:**Current Research Projects**

Subjects	Investigations	Locality	Duration	Principal investigators	E-mail address	Website
Geosciences						
HOLANT Holocene climate variability and ecosystem change in coastal East and Maritime Antarctic	Reconstruction of changes in temperature and moisture balance of lakes in Antarctic coastal areas during the past 10000 years; Reconstruction of changes in the relative sea level of the regions	Antarctic continent	2005 – 2009	W. Vijverman A. Wilmotte M. De Batist D. Hodgson	wim.vyverman@ugent.be awilmotte@ulg.ac.be marc.debatist@ugent.be daho@bas.ac.uk	www.belspo.be/belspo/BePoles/science/today/act/phase6/holant_en.stm
ASPI Antarctic Subglacial Processes and Interactions	Modelling studies and Ice composition Studies applied to grounding zones, basal processes and subglacial lakes		2006 - 2010	F. Pattyn J.-L. Tison Ph. Huybrechts	fpattyn@ulb.ac.be jtison@ulb.ac.be phuybrec@vub.ac.be	www.belspo.be/belspo/BePoles/science/today/act/phase6/aspi_en.stm
BELISSIMA Belgian Ice Sheet – Shelf Ice Measurements in Antarctica	Ice core drilling in ice shelf and rift, radio-echo-sounding across grounding line; ice sheet modelling	Dronning Maud Land	2008-2011	F. Pattyn J.L. Tison	fpattyn@ulb.ac.be jtison@ulb.ac.be	
Life Sciences						
BELCANTO III Integrated Study of Southern Ocean Biogeochemistry and Climate Interactions in the Anthropocene	Climate change; Southern Ocean; ice-ocean biogeochemical model; Air-sea CO2 fluxes; C, N, Si, Fe cycles; Export and mesopelagic remineralisation.	Southern Ocean	2006-2010	F. Dehairs C. Lancelot L. André H. Goosse A. Borges	fdehairs@vub.ac.be lancelot@ulb.ac.be landre@vub.ac.be goosse@astr.ucl.ac.be Alberto.Borges@ulg.ac.be	www.belspo.be/belspo/BePoles/science/today/act/phase6/belcanto3_en.stm
BIANZO II Biodiversity of three representative groups of the Antarctic zoobenthos: Coping with change	Biodiversity patterns and processes. Experimental trophodynamics related to temperature changes. Modeling studies of community structure changes.	Weddell Sea Scotia Sea Scotia Arc	2007 - 2010	A. Vanreusel C. De Broyer P. Martin C. De Ridder P. Dauby B. David	ann.vanreusel@ugent.be claudedeBroyer@naturalsciences.be patrick.martin@naturalsciences.be cridder@ulb.ac.be pdauby@ulg.ac.be bruno.david@u-bourgogne.fr	www.belspo.be/belspo/BePoles/science/today/act/phase6/bianzo2_en.stm

Subjects	Investigations	Locality	Duration	Principal investigators	E-mail address	Website
Life Sciences (cont/d)						
AMBIO Antarctic Microbial Biodiversity: The importance of geographical and ecological factors	Collections and analysis of the diversity of Antarctic freshwater bacteria, cyanobacteria, green algae and diatoms. Community turnover along ecological and geographical gradients. Analysis of distribution patterns. Identification of regions of unique microbial diversity for ASPA designation.	Antarctic continent	2006-2011	A. Wilmotte W. Vyverman E. Verleyen A. Willems	awilmotte@ulg.ac.be wim.vyverman@ugent.be elie.verleyen@ugent.be anne.willems@ugent.be	www.belspo.be/belspo/BePoles/science/today/act/phase6/ambio_en.stm www.ambio.ulg.ac.be
ANTAR-IMPACT Inventory and study of the environmental impact of the Belgian station 'Princess Elisabeth'	Baseline data on the biodiversity (lichens, mosses, birds, microorganisms, invertebrates) before the construction.	Dronning Maud Land, Utsteinen nunatak and ridge	2008-2010	A. Wilmotte A. Willems W. Vyverman E. Verleyen D. Ertz B. Van De Vijver	awilmotte@ulg.ac.be anne.willems@ugent.be wim.vyverman@ugent.be elie.verleyen@ugent.be damien@br.fgov.be bart.vandevijver@br.fgov.be	www.antar-impact.ulg.ac.be
BELDIVA Exploration of the microbial diversity around the Belgian station	Database of diversity (lichens, mosses, bacteria, cyanobacteria, algae, micro-arthropods) in the region and support for management plans.	Dronning Maud Land, Sør Rondane Mountains	2009-2013	W. Vyverman E. Verleyen A. Willems A. Wilmotte D. Ertz B. Van De Vijver	wim.vyverman@ugent.be elie.verleyen@ugent.be anne.willems@ugent.be awilmotte@ugent.be Damien@br.fgov.be Bart.vandevijver@br.fgov.be	Blog: www.antarcticbelgium.blogspot.com
BIPOLES	Bipolar study of cyanobacterial diversity	Antarctic continent	2008-2011	Z.Namsaraev A. Wilmotte	Zorigto@gmail.com awilmotte@ulg.ac.be	www.bipoles.ulg.ac.be
COLD LIFE Cold adaptations in Antarctic microorganisms	Proteomic studies of Antarctic microorganisms. Biophysical studies of the activity, stability and conformation of enzymes from psychrophilic microorganisms	Terre Adélie Antarctic continent	unlimited	G. Feller	gfeller@ulg.ac.be	http://www2.ulg.ac.be/bi ochlab/

Subjects	Investigations	Locality	Duration	Principal investigators	E-mail address	Website
Life Sciences (cont/d)						
BONUS GoodHope Physical and biogeochemical dynamics along the Greenwich Meridian (Cape Basin to 57.5 S)	Biogeochemistry: Carbon export and mesopelagic remineralization; bioSi, silicic acid, biomarkers and carbon isotopic composition	STZ, SAZ, PFZ, northern Weddell Gyre (57.5 S) along Greenwich Meridian	2008	F. Dehairs D. Cardinal B. Delille A.-J. Cavagna F. Fripiat	fdehairs@vub.ac.be damien.cardinal@locean-ipsl.upmc.fr Bruno.Delille@ulg.ac.be acavagna@vub.ac.be ffripiat@ulb.ac.be	
SCAR-MarBIN Antarctic Marine Biodiversity Information Network	Development of an integrated network of interoperable marine biodiversity databases. Elaboration of a Register of Antarctic Marine Species		2006 – 2010	C. De Broyer B. Danis	claudedebroyer@naturalsciences.be bruno.danis@scarmarbin.be	
BA²SICS Biogeochemistry of Antarctic (and Arctic) Sea Ice and the Climate System	Biogeochemistry of sea ice, exchange of climatically significant gases with the atmosphere and the ocean, role of iron	Southern Ocean	2002-2014	J.-L. Tison B. Delille C. Lancelot L.Chou T. Fichet	jtison@ulb.ac.be Bruno.Delille@ulg.ac.be lancelot@ulb.ac.be Lei.Chou@ulb.ac.be thierry.fichet@uclouvain.ac.be	
Physical Sciences						
ice2sea	3-D ice-dynamic modeling to improve the contribution of the Antarctic ice sheet to future sea-level change	Whole Antarctic ice sheet	2009-2013	P. Huybrechts	phuybrec@vub.ac.be	http://www.ice2sea.eu/
ice2sea	Key glacial processes: improving grounding line migration in Antarctic ice sheet models	Global	2009-2013	F. Pattyn	fpattyn@ulb.ac.be	http://www.ice2sea.eu/
ASTER Assessment of modelling uncertainties in long-term climate and sea level change projections	Production of a range of possible long-term scenarios of climate and sea level changes. Assessment of the possibility of abrupt or irreversible climate changes involving the North Atlantic thermohaline circulation, the Greenland and/or Antarctic ice sheets, and the carbon cycle.	Global	2006-2010	T. Fichet P. Huybrechts A. Mouchet	thierry.fichet@uclouvain.be phuybrec@vub.ac.be a.mouchet@ulg.ac.be	www.astr.ucl.ac.be/ASTER/

Subjects	Investigations	Locality	Duration	Principal investigators	E-mail address	Website
Physical Sciences (cont/d)						
AMANDA / IceCube Neutrino Astrophysics	Galactic and extra-galactic neutrino detection using a ice-Cherenkov telescope	Amundsen-Scott Base	1997 - 2015	D. Bertrand P. Herquet C. De Clercq	bertrand@hep.iihe.ac.be Philippe.Herquet@umh.ac.be declercq@hep.iihe.ac.be	
IceCube-Dyn	Understanding local ice dynamics in the vicinity of the IceCube detector	Amundsen-Scott Base	2008-2012	F. Pattyn JL. Tison D. Bertand	fpattyn@ulb.ac.be jtison@ulb.ac.be Bertrand@hep.iihe.ac.be	
Climatology Climate evolution of the Southern Ocean during the Holocene	Modelling with a coupled atmosphere-ocean-sea-ice model	The whole Southern Ocean	2002 - 2015	H. Goosse	hugues.goose@uclouvain.be	
Climatology / Physical oceanography Modelling the evolution of the Southern Ocean and of its ice cover during the last 50 years	Modelling using a coupled ocean-sea-ice model driven by atmospheric reanalysis	The whole Southern Ocean	2002 – 2015	T. Fichefet H. Goosse	thierry.fichefet@uclouvain.be hugues.goose@uclouvain.be	
Climatology Understanding and predicting Antarctic sea ice variability at the decadal timescale	Analyse of observations, simulations with different types of models and predictions	The whole Southern Ocean	2011-2015	H. Goosse A. Barth S. Vannitsem	hugues.goose@uclouvain.be	
BELATMOS Monitoring of ozone and related trace gases, UV radiation and aerosol particles in support of atmospheric chemistry and climate research	Long-term monitoring of the chemical and particle composition of the Antarctic atmosphere and quantification of the UV radiation reaching the surface, using a suite of complementary ground-based instruments	Princess Elisabeth station, East Antarctica, Dronning Maud Land, Sor Rondane Mountains	2008-2013 ff	H. De Backer A. Mangold M. Van Roozendaal C. Hermans W. Maenhaut	alexander.mangold@meteo.be hugo.debacker@meteo.be christian.hermans@aeronomie.be	http://ozone.meteo.be/meteo/view/en/1550481-ANTARCTIC.html
HYDRANT Climatology / meteorology	Long-term monitoring of cloud propoerties in Antarctica with the purpose of in-depth evaluation of climate models	Princess Elisabeth station, East Antarctica, Dronning Maud Land, Sor Rondane Mountains	2008-2013	N.P.M. van Lipzig, M.R. van den Broeke, H. DeBacker, S. Crewell, I. Gorodetskaya, S. Kneifel	Irina.gorodetskaya@ees.kuleuven.be Nicole.vanlipzig@ees.kuleuven.be	http://ees.kuleuven.be/hydrant/

SPECIAL SCIENTIFIC HIGHLIGHTS:

On 26th May 2010, the "International Polar Year Symposium" was organized by the Belgian National Committee on Antarctic Research, under the auspices of the Royal Academies for Science and the Arts of Belgium