

SCIENTIFIC COMMITTEE ON ANTARCTIC RESEARCH (SCAR) - NATIONAL REPORTS 2006-2007

MEMBER COUNTRY : Republic of Korea

Activity	Contact Name	Address	Tele-phone	Fax	Email	Website
National SCAR Committee						
Korea National Committee on Polar Research(KONPOR)	Dr. Byong-Kwon Park	Songdo TechnoPark Get-perl Tower 19F, 7-50, Songdo-dong, Yeonsu-gu, Incheon 406-840, Korea	+82 31 400 6401	+82 31 400 5825	bkpark@kopri.re.kr	www.kopri.re.kr
SCAR Delegates						
1) Delegate KONPOR Chair	Dr. Byong-Kwon Park	Songdo TechnoPark Get-perl Tower 19F, 7-50, Songdo-dong, Yeonsu-gu, Incheon 406-840, Korea	+82 31 400 6401	+82 31 400 5825	bkpark@kopri.re.kr	www.kopri.re.kr
2) Alternate Delegate Director of KOPRI	Dr. Hong Kum Lee	Songdo TechnoPark Get-perl Tower 19F, 7-50, Songdo-dong, Yeonsu-gu, Incheon 406-840, Korea	+82 32 260 6001	+82 32 260 6039	hklee@kopri.re.kr	www.kopri.re.kr
Standing Scientific Groups						
Life Sciences	Dr. Sung Ho Kang	Songdo TechnoPark Get-perl Tower 19F, 7-50, Songdo-dong, Yeonsu-gu, Incheon 406-840, Korea	+82 32 260 6200	+82 32 260 6109	shkang@kopri.re.kr	www.kopri.re.kr
	Dr. Sang Hoon Lee	Songdo TechnoPark Get-perl Tower 19F, 7-50, Songdo-dong, Yeonsu-gu, Incheon 406-840, Korea	+82 32 260 6250	+82 32 260 6039	shlee@kopri.re.kr	www.kopri.re.kr
	Dr. Hyoung Chul Shin	Songdo TechnoPark Get-perl Tower 19F, 7-50, Songdo-dong, Yeonsu-gu, Incheon 406-840, Korea	+82 32 260 6270	+82 32 260 6039	hcshin@kopri.re.kr	www.kopri.re.kr
Geosciences	Dr. YeaDong Kim	Songdo TechnoPark Get-perl Tower 19F, 7-50, Songdo-dong, Yeonsu-gu, Incheon 406-840, Korea	+82 32 260 6210	+82 32 260 6039	ydkim@kopri.re.kr	www.kopri.re.kr
	Dr. Moon Young Choe	Songdo TechnoPark Get-perl Tower 19F, 7-50, Songdo-dong, Yeonsu-gu, Incheon 406-840, Korea	+82 32 260 6100	+82 32 260 6109	mychoe@kopri.re.kr	www.kopri.re.kr
Physical Sciences	Dr. Bang Yong Lee	Songdo TechnoPark Get-perl Tower 19F, 7-50, Songdo-dong, Yeonsu-gu, Incheon 406-840, Korea	+82 32 260 6050	+82 32 260 6039	bylee@kopri.re.kr	www.kopri.re.kr

	Dr. Sung Min Hong	Songdo TechnoPark Get-perl Tower 19F, 7-50, Songdo-dong, Yeonsu-gu, Incheon 406-840, Korea	+82 32 260 6140	+82 32 260 6039	smhong@kopri.re.kr	www.kopri.re.kr
SSG-GS						
ACE	Dr. Ho Il Yoon	Songdo TechnoPark Get-perl Tower 19F, 7-50, Songdo-dong, Yeonsu-gu, Incheon 406-840, Korea	+82 32 260 6111	+82 32 260 6039	hiyoon@kopri.re.kr	www.kopri.re.kr
GIANT	Dr. Young Keun Jin	Songdo TechnoPark Get-perl Tower 19F, 7-50, Songdo-dong, Yeonsu-gu, Incheon 406-840, Korea	+82 32 260 6212	+82 32 260 6039	ykjin@kopri.re.kr	www.kopri.re.kr
Geod db	Dr. Young Keun Jin	Songdo TechnoPark Get-perl Tower 19F, 7-50, Songdo-dong, Yeonsu-gu, Incheon 406-840, Korea	+82 32 260 6212	+82 32 260 6039	ykjin@kopri.re.kr	www.kopri.re.kr
ANTEC	Dr. Jong Ik Lee	Songdo TechnoPark Get-perl Tower 19F, 7-50, Songdo-dong, Yeonsu-gu, Incheon 406-840, Korea	+82 32 260 6241	+82 32 260 6039	jilee@kopri.re.kr	www.kopri.re.kr
ADMAP	Dr. Min Kyu Park	Songdo TechnoPark Get-perl Tower 19F, 7-50, Songdo-dong, Yeonsu-gu, Incheon 406-840, Korea	+82 32 260 6214	+82 32 260 6039	minkyu@kopri.re.kr	www.kopri.re.kr
BEDMAP db	Dr. Won Sang Lee	Songdo TechnoPark Get-perl Tower 19F, 7-50, Songdo-dong, Yeonsu-gu, Incheon 406-840, Korea	+82 32 260 6209	+82 32 260 6039	wonsang@kopri.re.kr	www.kopri.re.kr
SDLS db	Dr. Jong Kuk Hong	Songdo TechnoPark Get-perl Tower 19F, 7-50, Songdo-dong, Yeonsu-gu, Incheon 406-840, Korea	+82 32 260 6213	+82 32 260 6039	jkhong@kopri.re.kr	www.kopri.re.kr
EGAPPE	Dr. Hyoun Soo Lim	Songdo TechnoPark Get-perl Tower 19F, 7-50, Songdo-dong, Yeonsu-gu, Incheon 406-840, Korea	+82 32 260 6117	+82 32 260 6039	tracker@kopri.re.kr	www.kopri.re.kr
SSG-PS						
Acoustics	Dr. Sang Heon Nam	Songdo TechnoPark Get-perl Tower 19F, 7-50, Songdo-dong, Yeonsu-gu, Incheon 406-840, Korea	+82 32 260 6060	+82 32 260 6039	shnam@kopri.re.kr	www.kopri.re.kr
AGCS	Dr. Seong Joong Kim	Songdo TechnoPark Get-perl Tower 19F, 7-50, Songdo-dong, Yeonsu-gu, Incheon 406-840, Korea	+82 32 260 6232	+82 32 260 6039	seongjkim@kopri.re.kr	www.kopri.re.kr
ITASE	Dr. Sung Min Hong	Songdo TechnoPark Get-perl Tower 19F, 7-50, Songdo-dong, Yeonsu-gu, Incheon 406-840, Korea	+82 32 260 6140	+82 32 260 6039	smhong@kopri.re.kr	www.kopri.re.kr
Drill technol	Dr. Soon Do Hur	Songdo TechnoPark Get-perl Tower 19F, 7-50, Songdo-dong, Yeonsu-gu, Incheon 406-840, Korea	+82 32 260 6141	+82 32 260 6039	sdhur@kopri.re.kr	www.kopri.re.kr
EG-OCEAN	Dr. Hyoung Chul Shin	Songdo TechnoPark Get-perl Tower 19F, 7-50, Songdo-dong, Yeonsu-gu, Incheon 406-840, Korea	+82 32 260 6270	+82 32 260 6039	hcshin@kopri.re.kr	www.kopri.re.kr
AAA	Dr. Geon Hwa Jee	Songdo TechnoPark Get-perl Tower 19F, 7-50, Songdo-dong, Yeonsu-gu, Incheon 406-840, Korea	+82 32 260 6132	+82 32 260 6039	ghjee@kopri.re.kr	www.kopri.re.kr

PAntOS	Dr. Kyung Ho Chung	Songdo TechnoPark Get-perl Tower 19F, 7-50, Songdo-dong, Yeonsu-gu, Incheon 406-840, Korea	+82 32 260 6220	+82 32 260 6039	khchung@kopri.re.kr	www.kopri.re.kr
KGIS	Dr. Young Keun Jin	Songdo TechnoPark Get-perl Tower 19F, 7-50, Songdo-dong, Yeonsu-gu, Incheon 406-840, Korea	+82 32 260 6212	+82 32 260 6039	ykjin@kopri.re.kr	www.kopri.re.kr
SSG-LS						
EBA	Dr. Sang Hoon Lee	Songdo TechnoPark Get-perl Tower 19F, 7-50, Songdo-dong, Yeonsu-gu, Incheon 406-840, Korea	+82 32 260 6250	+82 32 260 6039	shlee@kopri.re.kr	www.kopri.re.kr
	Dr. Yoo Kyung Lee	Songdo TechnoPark Get-perl Tower 19F, 7-50, Songdo-dong, Yeonsu-gu, Incheon 406-840, Korea	+82 32 260 6330	+82 32 260 6301	yklee@kopri.re.kr	www.kopri.re.kr
CAML	Dr. Hyoung Chul Shin	Songdo TechnoPark Get-perl Tower 19F, 7-50, Songdo-dong, Yeonsu-gu, Incheon 406-840, Korea	+82 32 260 6270	+82 32 260 6039	hcshin@kopri.re.kr	www.kopri.re.kr
CPR-AG	Dr. Sang Heon Lee	Songdo TechnoPark Get-perl Tower 19F, 7-50, Songdo-dong, Yeonsu-gu, Incheon 406-840, Korea	+82 32 260 6181	+82 32 260 6039	sanglee@kopri.re.kr	www.kopri.re.kr
MarBin	Dr. Hak Jun Kim	Songdo TechnoPark Get-perl Tower 19F, 7-50, Songdo-dong, Yeonsu-gu, Incheon 406-840, Korea	+82 32 260 6252	+82 32 260 6039	hjkim@kopri.re.kr	www.kopri.re.kr
	Dr. Joung Han Yim	Songdo TechnoPark Get-perl Tower 19F, 7-50, Songdo-dong, Yeonsu-gu, Incheon 406-840, Korea	+82 32 260 6300	+82 32 260 6301	jhyim@kopri.re.kr	www.kopri.re.kr
	Dr. Soon Gyu Hong	Songdo TechnoPark Get-perl Tower 19F, 7-50, Songdo-dong, Yeonsu-gu, Incheon 406-840, Korea	+82 32 260 6310	+82 32 260 6039	polypore@kopri.re.kr	www.kopri.re.kr
Biodiv db	Dr. Ji Hee Kim	Songdo TechnoPark Get-perl Tower 19F, 7-50, Songdo-dong, Yeonsu-gu, Incheon 406-840, Korea	+82 32 260 6161	+82 32 260 6039	jhalgae@kopri.re.kr	www.kopri.re.kr
Conservation	Dr. Kyung Il Park	Songdo TechnoPark Get-perl Tower 19F, 7-50, Songdo-dong, Yeonsu-gu, Incheon 406-840, Korea	+82 32 260 6152	+82 32 260 6039	kipark@kopri.re.kr	www.kopri.re.kr
SC-ATS	Dr. Ryang Kang	Songdo TechnoPark Get-perl Tower 19F, 7-50, Songdo-dong, Yeonsu-gu, Incheon 406-840, Korea	+82 32 260 6041	+82 32 260 6049	rkang@kopri.re.kr	www.kopri.re.kr
SC-AGI	Dr. Young Keun Jin	Songdo TechnoPark Get-perl Tower 19F, 7-50, Songdo-dong, Yeonsu-gu, Incheon 406-840, Korea	+82 32 260 6212	+82 32 260 6039	ykjin@kopri.re.kr	www.kopri.re.kr
History	Dr. Soon Keun Chang	Songdo TechnoPark Get-perl Tower 19F, 7-50, Songdo-dong, Yeonsu-gu, Incheon 406-840, Korea	+82 32 260 6131	+82 32 260 6039	skchang@kopri.re.kr	www.kopri.re.kr
CBET	Mr. DongMin Jin	Songdo TechnoPark Get-perl Tower 19F, 7-50, Songdo-dong, Yeonsu-gu, Incheon 406-840, Korea	+82 32 260 6040	+82 32 260 6049	dmjin@kopri.re.kr	www.kopri.re.kr

Joint Committee on Antarctic Data Management

JCADM	Dr. HoSung Chung	Songdo TechnoPark Get-perl Tower 19F, 7-50, Songdo-dong, Yeonsu-gu, Incheon 406-840, Korea	+82 32 260 6160	+82 32 260 6039	hchung@kopri.re.kr	www.kopri.re.kr
--------------	------------------	--	--------------------	--------------------	--------------------	-----------------

A BRIEF SUMMARY OF SCIENTIFIC HIGHLIGHTS

1. Current Scientific International Collaboration

As this year's IPY is the first IPY event in Korean history of polar research since Korea began polar research in 1987, KOPRI (Korea Polar Research Institute) is participating in a series of IPY projects in various fields such as paleoclimate, oceanography, atmosphere and glaciology. Realizing the importance of international cooperations the below mentioned international collaborations in science is the highlights of KOPRI's activities during the period between 2006 and 2007.

– Trace metal analysis in the snow pits in cooperation with China

As a cooperative work between Korea and China, two snow pit samples were collected in the Lambert Glacier basin, East Antarctica. Trace metals, water soluble ions and Pb isotopes in the snow samples were analyzed to investigate inter- and intra-annual changes in their concentrations. In addition, successive snow samples from a pit at the Dome A were collected during the Chinese expedition to Dome A in 2004/2005 and they are to be analyzed for various elements. (Contact point: Dr. Sungmin Hong, smhong@kopri.re.kr)

– A joint pale-oceanographic study between Korea and Israel

KOPRI and the Department of Environmental Sciences and Energy Research, Weizmann Institute of Science in Israel have been working together to reconstruct paleoenvironment recorded in sediment cores retrieved from Bransfield Strait, South Orkney Plateau and Drake Passage. Sedimentological, geochemical & pale-ontological analysis are being performed at KOPRI and carbon, nitrogen, and oxygen isotope analyses on diatom at Weizmann's isotope laboratory. Two Korean scientists have stayed in Israel to learn the procedure of cleaning and pre-treatment of diatom and analyze the stable isotope compositions of diatom in a sediment core from South Orkney Plateau and Drake Passage. (Contact point: Dr. Ho Il Yoon, hiyoon@kopri.re.kr)

– A hydro-acoustic monitoring in the Bransfield Strait

In anticipation of the up-coming 2007-2008 International Polar Year, the Korea Oceanographic and Polar Research Institute (KOPRI) and the NOAA Ocean Exploration Program deployed seven acoustic hydrophone moorings (complete with current meter) in the Bransfield Strait and Drake passage from the R/V Yuzhmorgeologiya in December 2005. They recovered those seven hydrophones and redeployed five hydrophones in the Bransfield Strait in December 2006. These hydrophones record underwater sounds originated from earthquakes, icebergs and marine mammals. We expect to understand tectonic events, volcanic activities, and ice breakup in the region from those records. (Contact point: Dr. Minkyu Park, minkyu@kopri.re.kr)

– Fire and Ice : Exploring Submarine Hydrothermal Activity at Deception Island, Bransfield Strait, Antarctica

During November 2006 the Korea Oceanographic and Polar Research Institute (KOPRI) and the NOAA Ocean Exploration Program recovered the hydrophones and preparing them for another year deployment in the Bransfield Strait off the west coast of the Antarctic Peninsula. During this cruise, we took the research vessel into the submerged caldera of Deception Island, a recently active volcano located in the Bransfield Strait. In support of logistic operation from the Spanish Antarctic Base, Gabriel de Castilla, KOPRI and NOAA scientists performed detailed studies, using a small ROV and hydrophone, of the extensive submarine hydrothermal vent systems and fumaroles within the bay of Deception Island. This research was conducted in cooperation with the Spanish Polar Committee. (Contact point: Dr. Minkyu Park, minkyu@kopri.re.kr)

– International collaboration on the study of Antarctic oscillations and their impact on mid-latitude climate

It is important to understand what caused the Antarctic Oscillation (AAO) variability, particularly the low frequency variability. This heavily depends on the availability of the AAO index reconstruction. To improve the quality of low-frequency changes in the reconstruction, we need to take the advantage of multi-proxy data, including tree-ring and ice-core data sets. The usage of ice-core and coral data would greatly improve the low-frequency climate signals and hopefully result in a much better AAO index for the past several centuries. That is essential to answer whether recent trend in AAO is caused by ozone as suggested by recent simulations. In order to investigate pole to the AAO variability and its connection to mid-latitudes, KOPRI and Beijing Normal University of China are currently collaborating. The purpose of this study is to find tele-connections between Antarctica and East Asia by analyzing coral records in the northern mid-latitudes and modern meteorological data. (Contact point: Dr. Seong-Joong Kim, KOPRI, seongjkim@kopri.re.kr)

– Seoul International Symposium on Polar Sciences

International Symposium on Polar Sciences has been held in KOPRI, Incheon, South Korea in May 15-17, 2007. The symposium is the 14th of its kind, and it has been held in Korea every one or two years since 1988 (every year since 2000). With the theme, 'Polar Regions in Global Change', there have been more than 45 presentations, spanning from pale-oceanography and paleo-climatology, glaciology, atmospheric sciences, geophysics, geology, and gas hydrates. Seventeen foreign scientists from eight countries have participated in the symposium and provided each one of them with a smashing presentations.

(Contact point: Dr. Jae Il Lee, leeji@kopri.re.kr Dr. Hyoun Soo Lim, tracker@kopri.re.kr)

– The 15th International Symposium on Polar Sciences

International Symposium on Polar Sciences is scheduled to be held in KOPRI, Incheon, South Korea during the period between 13 and 15 May, 2008. This symposium is also the 15th of its kind. The main theme of the symposium will be 'Marine Biology and Oceanography'. There have been currently expected to have more than 50 presentations and to have foreign participators from no less than 10 countries all over the world.

2. Major Research Activities, Based upon 5 years Research Plan

As KOPRI's major basic research projects, which have been started since 2006 at the King Sejong Station in the Antarctica, the below mentioned scientific researches, participating 110 persons from 26 organizations will be mainly highlighted in 5 years' research term.

– Paleoclimate and pale-oceanography of polar regions to understand the response of global warming

– Formation, evolution and neo-tectonic of Antarctica

– Integrated research on the composition of polar atmosphere and climate change

– Monitoring on environmental changes at the Korea arctic and antarctic stations

– IPY International Trans-Antarctic Scientific Expedition and Glaciological Fundamental Development

– Constructing polar monitoring-network system : studies on characteristics of submarine active tectonic processes and marine environmental changes

– Research of biodiversity and polar organism

3. The Endorsement of the National Science & Technology Council on Antarctic Scientific Research

As the 5 year basic plan of the improvement of research on Antarctica (2007-2011), co-issued between Ministry of Science and Technology and Ministry of Marine Affairs and Fisheries, has been endorsed by the National Science & Technology Council in 2006, some basic scientific researches on Antarctica and some researches on Antarctic marine geological survey will be financially supported by the Korean governmental budget. Particularly, in this posture of governmental support schemes, the construction of Korean Ice Breaker has been included as well.