

## **International Collaborations on Science and related activities in the Antarctic by Republic of Korea (Agenda item #8, ATCM XXIII)**

Within the spirit of the Antarctic Treaty for promoting and assuring cooperation among Parties in the Antarctic which is set out under the Article 6 of the Protocol, Korea has endeavored to promote collaboration with other Parties since we became a Consultative Party in 1989. Some collaborative works during the 1998/99 are summarized as follows.

### **A. A Field Survey Monitoring Ice-cliff l-etrement in Marian Cove by Korea and Uruguay**

During the 1998/99 season, Korea (Polar Research Center, KORDI) and Uruguay (Uruguayan Antarctic Institute) conducted a field survey to monitor ice-cliff retreat in Marian Cove where the Korean station, *King Sejong is* located. A pronounced ice-cliff retreat, possibly consequent to recent global warming, was recently reported by Korean scientists (Park et al., 1998<sup>1</sup>). Uruguay provided a helicopter for taking aerial photographs on the ice cliff. A long-term monitoring on the ice-cliff retreat will be conducted jointly by two countries.

<sup>1</sup> Park, B.-K., Chang, S.-K., Yoon, H.I. and Chung, H. 1998. Recent retreat of ice cliffs, King George Island, South Shetland Islands. *Annals of Glaciology* 27, pp. 633-635

### **B. A Joint Geological Expedition by Korea and Bulgaria**

During 6th to 27th Dec. 1998, a joint geological field survey was conducted by Korean (Polar Research Center, KORDI) and Bulgarian (Sofia University) scientists to investigate sedimentological and lithostratigraphic features of the Miers Bluff Formation near the Bulgarian Base in Hurd Peninsula, Livingston Island, South Shetland Islands. Sedimentary and igneous rocks were mapped and sampled for petrographical and geochemical analysis. Bulgaria provided accommodation for Korean scientists, and Korea provided two snowmobiles for field trips. Collected samples are being analyzed at both countries and the analyzed data are being exchanged. This joint field survey started in the 1997/98 season will continue for the next several seasons.

During the same period Bulgaria also kindly provided accommodation and logistic support to a Korean glaciologist who collected snow samples in a snow pit, 5 km from the coast of the Livingston Island.

### C. A Joint Geological Survey by Korea and China

Korean (Polar Research Center, KORDI) and Chinese (Institute of Geology, Chinese Academy of Sciences) geologists have been conducting a joint research on volcanic activities in the South Shetland Islands for elucidating the geological evolution and tectonic processes in this region. During the 1998/99 season, volcanic rocks which were sampled during the 1995/96 season from the Byers Peninsula of the Livingston Island and the Barton Peninsula of the King George Island have been analyzed at both countries, and some results have been published together'. 3.

Xiangshen Zheng, Haiqing Sang, Ji Qiu, Jiaqi Liu, Lee Jong Ik; and Hwang Jeong, 1998. 3, Isotopic age of the volcanic rock in Byers Peninsula, Livingston Island, West Antarctica. *Chinese Journal of Polar Research*, vol. 10 no. 1, 1-10.

Xiangshen Zheng, Jiaqi Liu, Lee Jong Ik and Hwang Jeong, 1999. 11, Geochemical characteristics of the Mesozoic volcanic rocks from the Byers Peninsula of Livingston Island, West Antarctica. *Acta Petrologica Sinica*, vol. 14 no. 4, 503-519.

### D. The 6th International Symposium on Antarctic Science

The Polar Research Center of KORDI hosted the sixth International Symposium on Antarctic Science (*Special Topic: Recent Progresses in Antarctic Geosciences*) on 18-19 May, 1999 in the KORDI located in Ansan, Korea. Thirty-six speakers including 11 from Japan, China, UK, Australia and France participated in the symposium and presented papers on Tectonics, Geochemistry, Paleoclimate and Paleo-oceanography, Glaciomarine sedimentation, Meteorology. The symposium has been held every two years in Korea since 1988 for the purpose of fostering international cooperation and exchange of scientific information in the Antarctic.

