

KARP Geo-Marine Studies: Past, Present and Future

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Since 1989, the KARP has carried out every year geological surveys on waters around the South Shetland Islands, especially King George Island. The objectives of the activities are as follows:

- 1) to map the bottom sediment distribution and to analyse the sediments,
- 2) to reveal glacial-marine depositional system and related glacial/interglacial processes in the Bransfield Strait and adjacent fjords,
- 3) to document and evaluate geological records reflecting environmental changes such as sea-level and climatic fluctuations,
- 4) to estimate controls on both the sediment budget and the sediment dispersal pattern on the local/regional scale in the Bransfield Strait,
- 5) to construct a sequence stratigraphic model in the glacier-influenced continental shelf and to compare it with the existing sequence stratigraphic models.

In order to achieve these goals the KARP has accumulated many cores (gravity, piston), seismic profiles (3.5 kHz, multi-channel), dredged samples, data on suspended matter and bathymetric data (seabeam, sonar) from the Bransfield Strait. It plans to extend the target area into the South Shetland Trench slope and continental shelves near the Antarctic Peninsula. These efforts provided and will provide many valuable opportunities to study on the Antarctica with the Korean researchers including sedimentologists, micropaleontologists and geochemists.