

ANTARCTICA ECOLOGICAL ENVIRONMENTAL CLASSIFICATION AND ITS VULNERABLE CHARACTER BASED ON GIS AND RS

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So far, it has no statements of the ecological environmental classification on Antarctic continental environment yet. This paper discusses on structure characteristic of different sorts of Antarctic ecological environments, including land ice-cap, ice shelf, sea, lake, sea coast and continent. Subsequently, some analysis about their vulnerable factors will be given, which is based on RS and GIS, and pertinent suggestions about environment conservation will be proposed based on it, which can be able to benefits the management of ecological environment around Antarctic Station and globale change study.

This project applies the ecological transects to study the Antarctic eco-environment classification and assessment. Based on the remonte sensing images and data measured outdoors,using spatial analysis and spatial visualization , this paper analyzes the topological relationship between Antarctic eco-environment types and the distribution of elements .based on the spatial interpolate operation and assembly analysis of GIS, expounds the spatial structure and spatiotemporal regulation of Antarctic ecological baseline of PEP transacts and its Vulnerable Character. It also establishes the human activity-climate-animal and plant relationship modal of PEP transact in Antarctic and finally integrates the ecological distribution graph of Antarctic transact.