Wilderness and Aesthetic Values of Antarctica

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Abstract

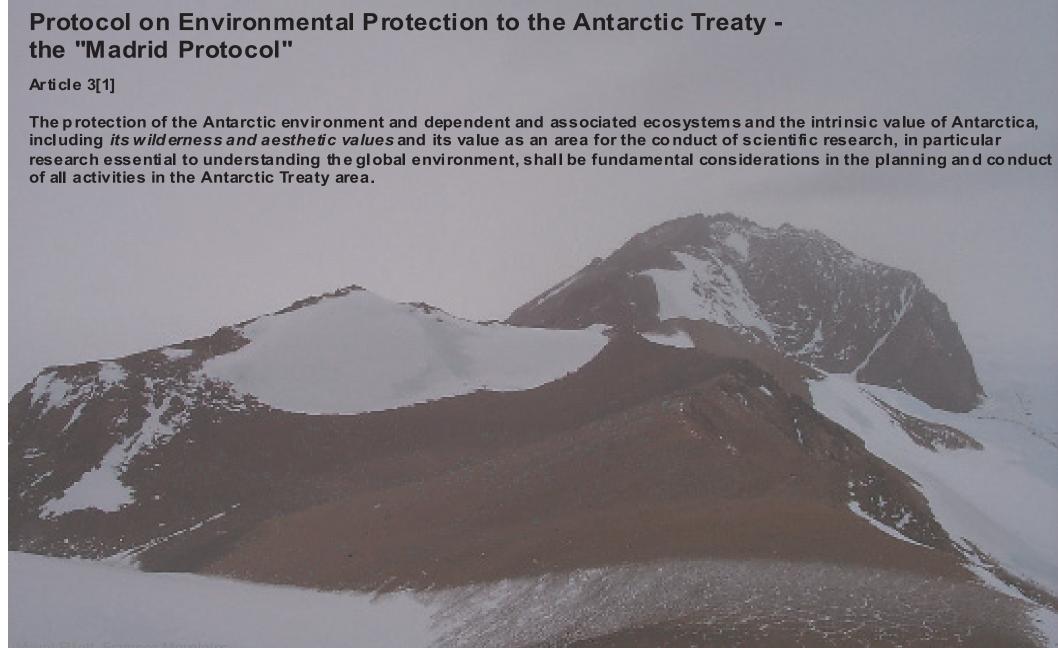
Protection of Antarctica's wilderness and aesthetic values, its value for scientific research, its environment and associated ecosystems are all fundamental to preserving the essential character of Antarctica. The Antarctic and the Southern Ocean are the least inhabited regions in the world and have had the least influence from human activities. Therefore, unlike the majority of the Earth's continents and oceans, much of Antarctica's wilderness and aesthetic values has remained intact. The protection of aesthetic values can be interpreted as protection of natural landscapes, especially those to which we respond as beautiful or awesome. Wilderness values are impacted by human activities and the severity of the impact varies according to the activities' duration, spatial extent and intensity.

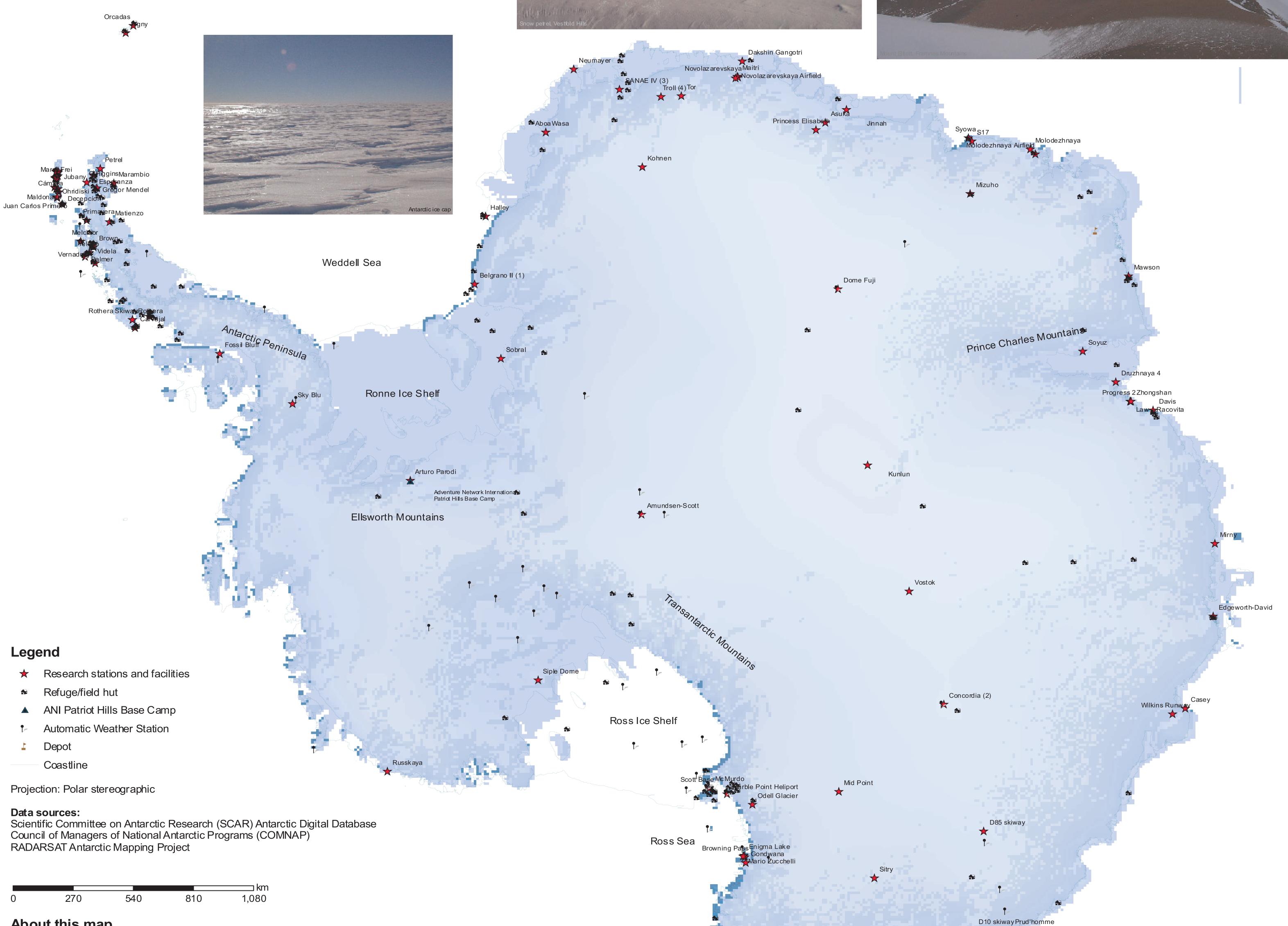
Introduction

Antarctica has an enduring fascination, both for scientists and for tourists seeking to escape for a few weeks from an increasingly crowded and polluted world. Both sets of visitors are putting pressure on this, the least crowded and polluted continent.

In 1991 the Protocol on Environmental Protection to the Antarctic Treaty, the Madrid Protocol, established protection for the wilderness and aesthetic values of Antarctica, as well as the flora and fauna. No definitions of wilderness and aesthetic values have yet been formulated, however, nor agreement on how these values should be protected. This poster describes the first steps towards developing what we hope will be internationally acceptable definitions.







About this map

This map shows the major items of infrastructure as catalogued by COMNAP, the SCAR Antarctic Digital Database and others. It does not capture the full range of infrastructure present in Antarctica such as abandoned stations, all field huts, marked routes, scientific equipment, etc. Nor does it show the area from which infrastructure is visible or audible.

Wilderness values

The Antarctic and the Southern Ocean are the least inhabited regions in the world and have had the least influence from human activities. As a result, much of their wilderness values have remained intact. Wilderness values are impacted by human activities.

The severity of the impact varies according to the activities':

- duration (how long does it occur for?) - spatial extent (how much area does it cover? how far is it visible from?)
- intensity (how much does it alter the surrounding environment, e.g. visibility, sound, gas and liquid emissions, alteration of snow / ice / soil surface, etc.)

In general, an activity that takes place over a longer period of time, is spread out over a larger area or extends across areas where there have been few human activities and alters the

surrounding environment through visibility impact, the production of noise, emissions, etc.,

will have a larger impact on the wilderness values of the area concerned. Within the suite of activities that is currently taking place in the Antarctic and Southern Ocean, infrastructure results in impacts on wilderness values of the longest duration, most sustained

This includes:

- active stations with lifetimes of decades where activities produce noise, emissions, alter snow / ice / soil surface, etc;
- abandoned structures that remain visible for decades; and
- over-snow traverse routes that extend over large tracts where there have been few human activities.

Given Antarctica's relatively recent history of occupation, one possible definition of wilderness is all those areas beyond the influence i.e. sight and sound, of current human activities, particularly those based on permanent infrastructure.

Acknowledgments:

intensity, at varying spatial scales.

Antarctic and Southern Ocean Coalition Dr Harry Keys Dr Kees Bastmeijer Dr Alan Hemmings





Aesthetic values

'There is, I feel sure, no region in the world more grand in its scenery than the Antarctic, and no place more transcendent in its beauty. It is a vast wonderland laid out on a vast scale, in which littleness has no place; but its very vastness, no less than its beauty, while it quickens the traveller's daily wonder and deepens his reverence, forces him to feel that it is a world he can never conquer, a world in which the forces of nature are too tremendous to overcome, and must resignedly be bowed before in the hope that they will suffer him to come and pass again unscathed." Rudmose Brown. 1906. The Voyage of the "Scotia".



The protection of aesthetic values of Antarctica can be interpreted as protection of natural landscapes, especially those to which we respond as beautiful or awesome.

Research in landscape aesthetics has found that humans respond more positively to certain landscapes than others: mountains, lakes and coastal scenes tend to be more highly preferred. Visual evidence of human activity, for example, buildings, roads, structures and other artefacts tends to detract from human aesthetic response to landscapes and this has been shown to be the case in Antarctica also. While it is not practicable to identify every landscape that may have aesthetic value, it is possible to identify those types of landscapes that humans prefer. For example, areas around lakes, as well as having high ecological and scientific value tend also to have high aesthetic value.

The Madrid Protocol provides for the protection of wilderness and aesthetic values both through the environmental impact process (Article 3.1 and Article 3.2.b.vi; Annex I, Article 3.2.i) and the Antarctic Specially Protected Area System (Annex V, Article 3.1 and Article 3.2.g).