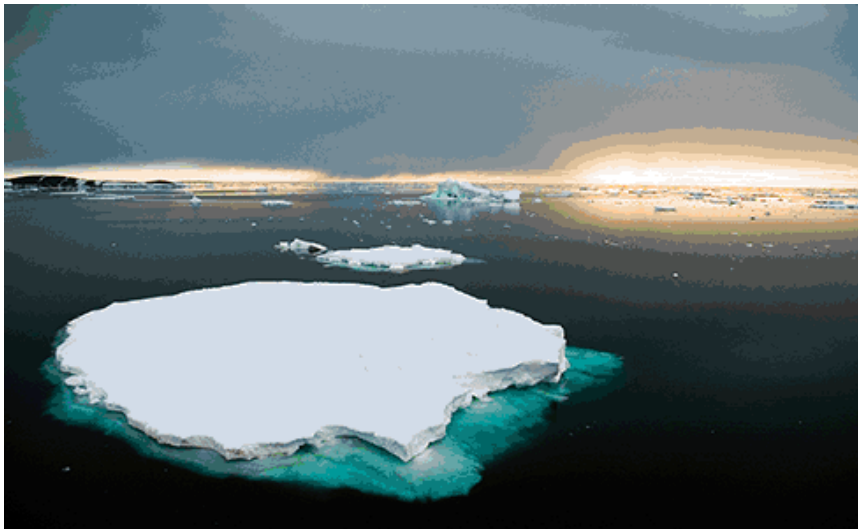


Call to better protect ‘the last wilderness on Earth’

The surge in visitors to Antarctica over recent years has prompted environmental scientists to call for better protection of Antarctica’s ice-free land from human activities.



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Antarctica has over 40,000 visitors a year, as well as an increasing number of research facilities being built in the continent’s tiny ice-free area.

This makes ‘the last wilderness on Earth’ one of the planet’s least-protected regions, say Dr Justine Shaw and Professor Hugh Possingham of the National Environmental Research Program’s (NERP) Environmental Decisions Hub.

‘Most of Antarctica is covered in ice, with less than one per cent permanently ice free,’ says Dr Shaw.

‘Only 1.5 per cent of this ice-free area belongs to Antarctic Specially Protected Areas under the Antarctic Treaty System, yet ice-free land is where the majority of biodiversity occurs.’

In a [new study](#), Dr Shaw and her colleagues found that all 55 areas designated for protection of land-based biodiversity lie close to sites of human activity. Seven of these sites are at high risk of biological invasions, and five of the distinct ice-free eco-regions have no protected areas.

Most Antarctic wildlife and plants are found in the ice-free areas, which attract the greatest number of visitors. Professor Steven Chown of Monash University says the ice-free areas contain very simple ecosystems due to Antarctica’s low species diversity. This makes the native wildlife and plants extremely vulnerable to invasion by exotic species.

‘Antarctica has been invaded by plants and animals, mostly grasses and insects, from other continents,’ says Prof. Chown.

‘The very real current and future threats from invasions are typically located close to protected areas. Such threats to protected areas from invasive species have been demonstrated elsewhere in the world, and we find that Antarctica is, unfortunately, no exception.’

Dr Shaw says the study shows that Antarctica protected areas currently fall well short of the [Aichi Biodiversity Targets](#) – an international biodiversity strategy that aims to reduce threats to biodiversity, and protect ecosystems, species and genetic diversity.

‘When we compared Antarctica’s protected area system with the protected areas of nations round the world, we found that Antarctica ranks in the lowest 25 per cent of assessed countries,’ says Dr Shaw.

‘Many people think that Antarctica is well protected from threats to its biodiversity because it’s isolated and no one lives there, however we show that there are threats to Antarctic biodiversity.

‘We need to establish protected areas that are representative of Antarctic biodiversity to protect a diverse suite of native insects, plants and seabirds, many of which occur nowhere else in the world.

‘We also need to ensure that Antarctic protected areas are not going to be impacted by increasing human activities, such as pollution, trampling or invasive species.’

Prof. Possingham points out that Antarctica is one of the last places on Earth with no cities, agriculture or mining.

‘It is unique in this respect – a true wilderness. If we don’t establish adequate and representative protected areas in Antarctica this unique and fragile ecosystem could be lost,’ he says.

‘Although we show that the risks to biodiversity from increasing human activity are high, they are even worse when considered together with climate change. This combined effect provides even more incentive for a better system of area protection in Antarctica.’

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