

Disturbance to Wildlife

Noise, pollution, human presence and habitat destruction can all disturb wildlife.

Heart rates of birds have been measured to increase by 20-100% as they are approached by humans. Human presence and aircraft noise could cause adult birds to abandon their nests, giving predators the chance to attack their young.

Land transportation, boat landings and frequent trampling of ice-free areas can crush and uproot mosses and lichens and can also cause localized erosion at landing sites.

Tourists traveling with commercial tour operators form the vast majority of the people that go to Antarctica every year.

In the 2007/08 season, tourism brought 74,000¹ people to the region - a four-fold increase over the past decade.

Fragmentation of the World's Last Great Wilderness

Antarctica is the largest contiguous piece of wilderness on earth. Part of its uniqueness lies in its immensity, integrity and abundance.

Although large, the Antarctic wilderness can slowly be chiseled away and fragmented by the expansion of "must see" tourism destinations, stations, field camps and transportation networks into previously undeveloped areas.

WHAT CAN YOU DO?

Before you go

- Weigh the value of your visit against its environmental and other impacts.
- Be active; inform yourself about Antarctic tourism and environmental protection.
- If you decide to go, talk to tour operators; choose a reputable one; request to see the environmental impact assessment of your expedition.

While you are in Antarctica

- Be aware of the environmental impacts of your activities; be proactive in minimizing your own impacts.
- Follow existing guidelines; improve on them if they can be improved.
- Be the eyes and ears of the global community: support good practices; do not condone poor ones.

After you return

- Spread the word: increase the environmental awareness of people who are thinking of visiting.
- Inform competent authorities if you have comments or complaints.
- Advocate for the effective regulation of Antarctic tourism.

For more information, visit www.asoc.org

This information has been produced for tourists traveling to Antarctica as part of the ASOC IPY-endorsed project "Enhancing the environmental legacy of the International Polar Year 2007-2008".

The Antarctic Southern Ocean Coalition (ASOC) is a global coalition of environmental Non-Governmental Organizations working for the protection of the Antarctic environment. ASOC is currently running campaigns for the full and effective implementation of the Antarctic Environmental Protocol, the regulation of Antarctic commercial tourism, and the ecologically sustainable management of Southern Ocean fisheries.

The International Polar Year 2007-2008 is a major international science initiative that aims to advance our knowledge of the polar regions and their global interactions, and to engage the interest of the public in the purpose of polar research. www.ipy.org.



Text credits: Tina Tin, Ricardo Roura, Alan Hemmings, Jim Barnes
Data sources: R. Bargagli (2005); J.D. Hansom and J.E. Gordon (1998); Draft CEE Neumayer station rebuild (2004); Final CEE Project Ice-Cube (2004); Final CEE Concordia project (1994); Alaska Cruise Ship Initiative Final Report (2000); de Villiers et al. (2006); Holmes et al. (2006).
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KNOW BEFORE YOU GO

Impacts of Human Activities on the Antarctic Environment

¹ paying customers and crew included (IAATO, 2008)

All human activity in Antarctica leads to environmental pollution and impacts.

Regardless of why you are planning to go to Antarctica, its extraordinary environment probably plays an important role.

Over the years, national Antarctic programs, commercial tour operators and other non-governmental entities have made efforts to reduce the environmental impacts of their activities.

However, it remains that all human activity in Antarctica leads to environmental pollution and impacts.

Therefore, it is important that all individuals going to Antarctica should:

- be aware of their potential environmental impacts;
- weigh the value of their activities against their environmental impacts;
- be proactive in minimizing their impacts on the Antarctic environment; and
- ensure that the environmental impact assessment of their expedition, as required by the Environmental Protocol of the Antarctic Treaty, has been completed.

Under the Antarctic Treaty and its Environmental Protocol, Antarctica is protected as a natural reserve devoted to peace and science, where its environment, its ecosystems, its wilderness and aesthetic values and values for scientific research are given comprehensive protection.

Introducing Non-Native species

All people and equipment can carry on them microorganisms, plants and other species that are not native to Antarctica.

Once introduced, non-native species could establish themselves and damage the unique ecosystems of the region.

Waste Generation

Waste and sewage are generated at all research stations, field camps and ships.

Each person typically generates 20 litres (5 gallons) of sewage a day on board a cruise ship.

Depending on the size and activities of a research station, 40 to 400 tonnes or more of waste are shipped back each year.

Sewage treatment and waste disposal require the use of fuel, which itself, is an expensive commodity to bring to Antarctica.

Less than 0.5% of Antarctica is ice-free. This is where many birds and plants breed and live.

This is also where most scientific and tourism activities take place, therefore, where many environmental impacts of human activity are concentrated.

Fuel Like Gold

The day-to-day functioning and survival in Antarctica, as well as getting to and from the region all require fuel.

All of this fuel had to be transported across thousands of kilometers. For each tonne of fuel that is burned in Antarctica, another tonne or more has been burned to bring it here.

Air Pollution: From Far to Close

Burning fossil fuels releases sulphur dioxide, nitrogen oxides, particulate matter and other air pollutants into the atmosphere.

It also releases carbon dioxide - a greenhouse gas - which contributes to global climate change, also known as global warming.

Climate change accelerates glacier retreat, destabilizes ice shelves, and facilitates the establishment of non-native species in Antarctica.