

Don't Pack a Pest!

Non-native species in Antarctica

Non-native species are those species that do not naturally occur in an area and have been introduced either intentionally or unintentionally. A wide range of non-native species now occur in Antarctica and the sub-Antarctic islands. These introduced species include microbes, algae, fungi, vascular plants, invertebrates, fish, birds and mammals.

Be a Responsible Visitor

Despite known introductions of non-native species, Antarctica remains a relatively pristine environment. Human activity has the potential to act as a vector for non-native species. Across the continent, science programs and tour operators are working to minimize the risk of humans being a vector for transporting non-native species into and within the Antarctic.



Still at home?

How to help before you head south

Clean and examine clothes thoroughly: Examine all clothing, including pockets, seams, Velcro® fasteners, and boot soles for dirt and organic material. A thorough cleaning is recommended.

Pack clean gear: Make sure your gear and outdoor equipment are freshly cleaned and free of dirt and organic material. Even if your gear is still dirty from a previous trip to the Antarctic, you could be transporting a non-native species.

How might non-native species hitch a ride with you?

- Boots and shoes
- Trouser hems and turn-ups
- Pockets
- Velcro® and fleece
- Backpacks
- Outdoor equipment, camera bags
- Walking sticks, tripods

Once you have arrived

Five steps to protecting the Antarctic

- 1 Follow the boot and clothing decontamination procedures** on your expedition. This is especially important if you are moving between distinct geographic regions (e.g. between a sub-Antarctic Island and the Antarctic) but also if moving between distinct landing or field sites.
- 2 Watch your step.** Be careful when walking in areas that contain organic matter as this can be easily transported to other areas. If you do notice organic matter on boots, clothing or gear, make sure to clean it off before leaving a site and use the disinfectant wash between visits.
- 3 Clean your gear regularly.** This includes boots, equipment, day packs and camera bags, trouser hems and turn-ups, fleece clothing Velcro® fasteners for outer clothing, etc.

- 4 Report a pest.** Tell your guides if you think you have found a non-native species.
- 5 Spread the word.** Share this information with others.
We all contribute to the health of the Antarctic.



Lessons learned for Antarctica from the sub-Antarctic



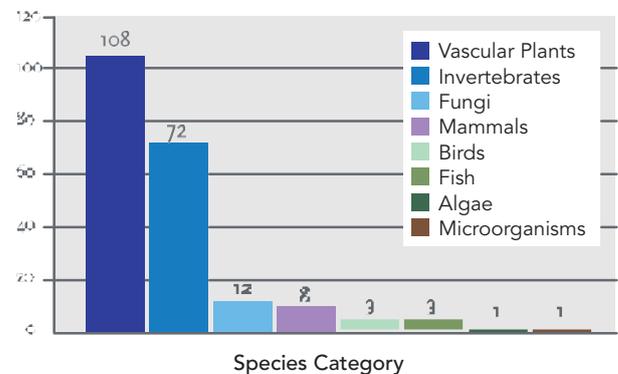
Human activities in the sub-Antarctic islands have contributed to a large number of introductions of non-native species both intentional (rabbits and reindeer for food) and unintentional (mice, rats, worms and grasses). Approximately 200 non-native species exist on the islands (see Figure 1).

These species have come to survive in – and in some cases dominate – terrestrial, freshwater and marine habitats, often causing alterations to the ecosystems through extinction or decreased abundance of native species.

What types of non-native species have already arrived in Antarctica?

- seeds
- grasses
- algae
- fruit flies
- worms
- spiders
- midges
- micro-organisms

Figure 1: Non-Native Species in the Sub-Antarctic



Source: Frenot, Y et al. Biological invasions in the Antarctic: extent, impacts and implications. *Biol. Rev.* (2005), **80**, pp. 45-72.