

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.

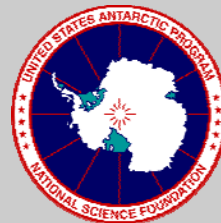
Antarctica at risk

As human activity in Antarctica increases, so does the risks associated with such activity. Individuals are terrific vectors for non-native species. Transport of non-native species to Antarctica as well as transport of non-native species to different sites within the continent is a significant risk.



Traveling within Antarctica can introduce non-native species to other sites.

For more information:
Contact the Environmental
staff of the United States
Antarctic Program



Don't Pack a Pest!

Help protect Antarctica's
pristine environment from
non-native species



United States
Antarctic Program



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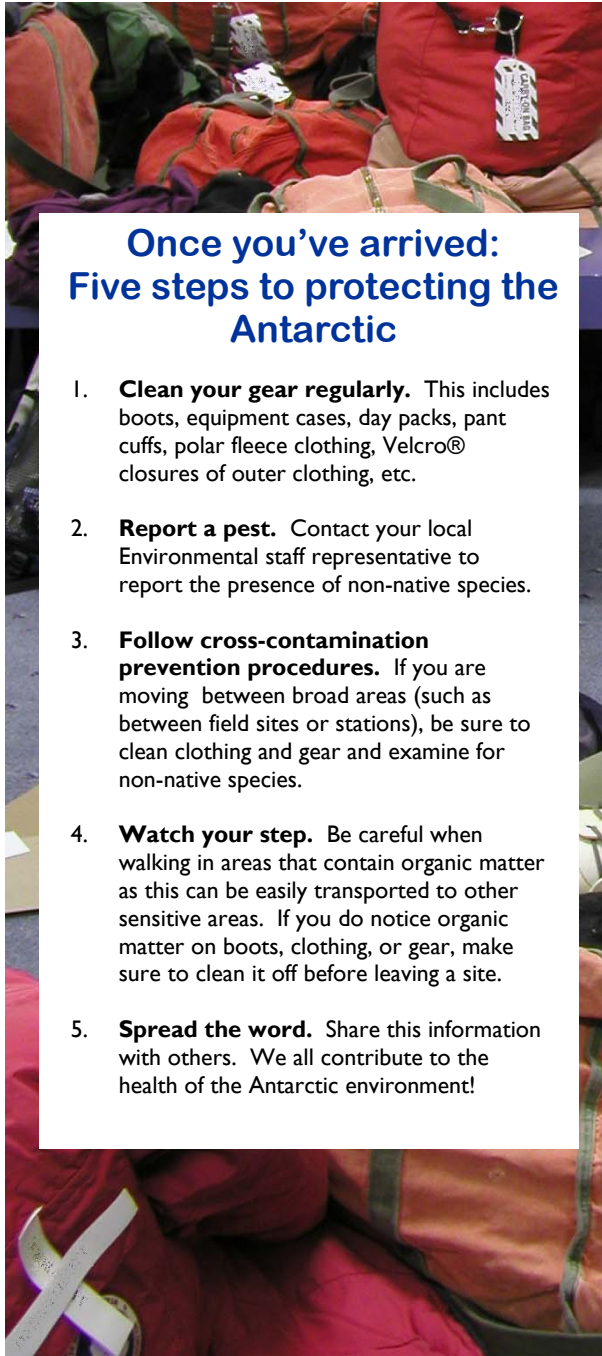
How might non-native species hitch a ride with you?

- Boots and shoes
- Pants cuffs
- Pockets
- Velcro® and polar fleece
- Backpacks
- Outdoor equipment
- Walking sticks, tripods



Still at home? How to help before you hit the Ice

1. **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.
2. **Pack clean gear.** Make sure your gear and outdoor equipment is freshly cleaned and free of dirt and organic material. Even if your gear is still dirty from your last trip to the Ice, you could be transporting non-native species!



Once you've arrived: Five steps to protecting the Antarctic

1. **Clean your gear regularly.** This includes boots, equipment cases, day packs, pant cuffs, polar fleece clothing, Velcro® closures of outer clothing, etc.
2. **Report a pest.** Contact your local Environmental staff representative to report the presence of non-native species.
3. **Follow cross-contamination prevention procedures.** If you are moving between broad areas (such as between field sites or stations), be sure to clean clothing and gear and examine for non-native species.
4. **Watch your step.** Be careful when walking in areas that contain organic matter as this can be easily transported to other sensitive areas. If you do notice organic matter on boots, clothing, or gear, make sure to clean it off before leaving a site.
5. **Spread the word.** Share this information with others. We all contribute to the health of the Antarctic environment!

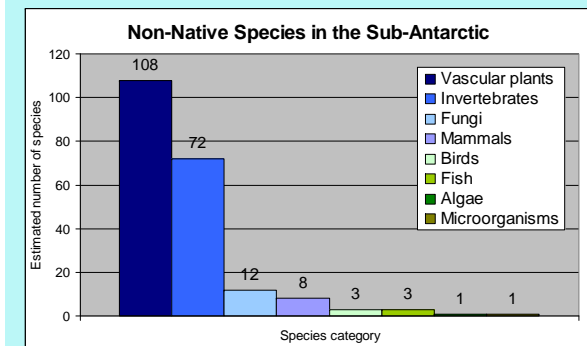
What types of non-native species have already arrived in Antarctica?



- seeds
- grasses
- algae
- fruit flies
- worms
- spiders
- midges
- microorganisms

Lessons for the Antarctic from the sub-Antarctic

Human activities on the sub-Antarctic islands have contributed to a large number of introductions of non-native species, both intentional (e.g. reindeer at South Georgia) and unintentional (e.g. cats, mice, worms, grasses). Approximately 200 non-native species exist on the islands (see table). These species have come to survive in – and in some cases dominate – terrestrial, freshwater, and marine habitats, often causing alterations to ecosystems through local extinction of other species and decreased native species.



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