#### Non-native species in Antarctica

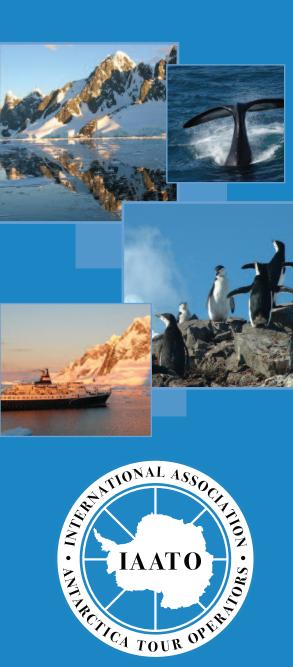
Non-native species are those species that do not naturally occur in an area and have been introduced either intentionally or unintentionally. A wide range of non-native species now occur in Antarctica and the sub-Antarctic islands. These introduced species include microbes, algae, fungi, vascular plants,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





IAATO would like to thank the United States Antarctic Program at the National Science Foundation for their assistance in creating this leaflet.

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Based on United States Antarctic Program Don't Pack a Pest Leaflet

# Non-native species in Antarctica

### 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.

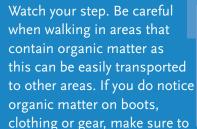
# How might non-native species hitch a ride with you?

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

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# Once you have arrived – **five steps to protecting the Antarctic**

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.



clean it off before leaving a site and use the disinfectant wash between visits.

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.

Report a pest. Tell your guides if you think you have found a non-native species.

Spread the word. Share this information with others. We all contribute to the health of the Antarctic.

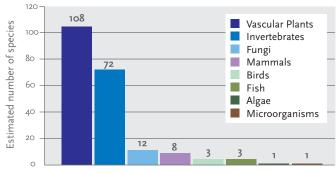
## What types of non-native species have already arrived in Antarctica?

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

### 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 table 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.

#### Non-Native Species in the Sub-Antarctic



Species Category

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

