

BOOT, CLOTHING AND EQUIPMENT DECONTAMINATION GUIDELINES FOR SMALL BOAT OPERATIONS

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While there is presently no conclusive evidence that tourists have introduced or transmitted diseases or any alien material in Antarctica, there is indirect and circumstantial evidence that raises concern. Furthermore, there is an acknowledged potential for visitors to be vectors of disease, both into and within the Antarctic ecosystem.

The Antarctic tourism industry, on its own initiative, recognized these concerns nearly a decade ago and began implementing procedures to address the possible introduction of alien organisms into Antarctica. In addition, IAATO commissioned a study designed to identify effective mitigation measures. As a result of these initiatives the following guidelines have been developed.

The guidelines are similar to the decontamination practices of those countries which protect themselves against the introduction of external diseases or alien organisms, and have been mandatory on all IAATO member vessels since 2001. The guidelines are regularly reviewed and updated as new information becomes available.

Please note: the term 'visitors' refers to all ship's crew, boat drivers, staff, guides and lecturers as well as to passengers.

BOOT, CLOTHING AND EQUIPMENT DECONTAMINATION GUIDELINES

1. Pre-Voyage Information

- Visitors are to be advised that Antarctica is an isolated continent and believed to be largely free of introduced diseases and non-native species. We must ensure that it remains so.
- Visitors are to be advised that all boots and clothing must be clean before joining the ship. Those who go trekking, tramping, backpacking, or farm visiting prior to the voyage must clean their boots, clothing and equipment thoroughly to remove all foreign material. Tripod feet and backpacks can also collect mud and seeds and should be checked regularly. Velcro attachments attract seeds and must be thoroughly checked and cleaned before departure to Antarctica.



2. Pre-Landing Briefing

- Visitors need to be reminded that they must have clean boots, clothing and equipment before proceeding ashore. Facilities, known as the boot-washing station, will be available on deck for them to clean their equipment and their clothing and equipment will be checked thoroughly, preferably by a member of the ship's staff or crew, prior to their first landing.



3. Boot-Washing Station

- This is a facility on the deck, at the head of the gangway, or close to where passengers board the ship. It requires:
 - running water and a hose – preferably high pressure to ensure complete removal of debris;
 - drainage of water off the ship;
 - scrubbing brush and/or coarse mat and shallow tray in which all debris can be scrubbed from boots and clothing;
 - a second tray of water with disinfectant such as Virkon S¹;
 - a member of staff or crew to assist visitors to inspect their boots and clothing for complete decontamination.
- Before and after each landing all visitors going ashore must walk through the boot-washing station and ensure that boots are free of debris and disinfected.
- Boat crews may board via a different route to their passengers and should ensure they also complete the decontamination process.



For the purposes of this information small boat is defined as a Zodiac, RIB, Naiad, Avon, Polarcirkle or similar small landing craft.

4. Landings

- Where possible, avoid walking in concentrations of organic material such as guano, seal placenta, or seal faeces, in order to avoid moving this material around the landing site.
- Before boarding the small boat to return to the ship, debris – especially organic matter such as guano – should be washed off boots and clothing as much as is possible. A simple brush scrubber at the landing site should be used to clean boots before entering the Zodiac (or other small boat landing craft) at the end of the landing period. Do not forget to clean the debris off the brushes before returning to the ship. Ensure that whatever touched the ground (backpacks in particular), boot cuffs, or exposed velcro are inspected, and cleaned before leaving the landing site. Seeds and other vegetation in the Sub-Antarctic islands can easily be transported if all visitors are not vigilant.
- Where appropriate, clothing pockets can be turned out for vacuuming by staff on the ship as a precaution against transport of seeds.
- On returning to the ship, boots, clothing and equipment must be cleaned thoroughly and disinfected at the boot-washing station. The disinfectant should not be rinsed off, but allowed to dry thoroughly between landings.
- At the end of each landing, small boats should be inspected, and when necessary cleaned, to ensure that no foreign material is transported between sites.



5. Between Landings

- Every effort must be made to ensure that boots and clothing dry out completely between landings. (Desiccation is an important mode of controlling some micro-organisms.) Visitors should be reminded in subsequent pre-landing briefings to inspect their boots and clothing to ensure that they are clean and no foreign material is present.

¹ As detailed in the IAATO *Introduction and Detection of Diseases in Antarctic Wildlife and the paper Identification of an Agent Suitable for Disinfecting Boots of Visitors*, it is recommended that a disinfectant be used at the boot washing station. To date, the disinfectant **Virkon S** is perceived as being the most effective. Be aware that careful handling of Virkon S is essential and instructions for use should be adhered to.

Photographs donated by John Chardine, Kim Crosbie, Sarah McLea, Adam Rheborg & Tim Soper.

