

2022-23 Biosecurity Instructions

For IAATO Office Representatives, Expedition Leaders,
Field Staff, Vessel Masters, Officers and Crew

2022-23 IAATO Operational Do's and Don'ts

The document is a quick sheet of important reminders and key takeaways for the season. For more detailed information please review the 2022-23 IAATO Operational Instructions as well as other topics in the Field Operations Manual (FOM).

DO	DON'T
Do ensure you have an up to date copy of the Field Operations Manual (FOM) before your season. Either sync your copy of the FOM Sync App, or download it through the IAATO Website. Do remember to sync throughout the season	Don't forget to read the IAATO Code of Conduct (FOM Section 8)
Do make sure all activities are authorized or permitted before carrying them out	Don't forget it is your responsibility to be familiar with all permits/authorisations and operational procedures/guidelines
Do maintain a minimal safe distance from wildlife (5m/15ft)	Don't approach wildlife closer than minimal safe distances (5m/15ft)
Do follow Biosecurity protocols for people and equipment, including camping equipment (FOM Section 07 -Biosecurity)	Don't sit or lay on the ground or snow where wildlife is present
Do make every effort to keep the the minimal distances from wildlife.	Don't stay still if wildlife approaches, move away slowly if it is safe to do so
Do give wildlife the right-of-way	Don't encourage wildlife to crawl on you
Do be aware of areas where animals exit or enter water or colonies	Don't place equipment near animals
Do maintain quiet when in the presence of wildlife	Don't use selfie sticks to get closer to wildlife
Do keep camera equipment and cleaners securely packed	Don't make noises in attempt to gain wildlife attention
Do keep your camera flash off to respect wildlife	Don't leave camera materials behind
Do secure loose items to ensure they cannot blow away	Don't take food ashore unless there is an emergency food or appropriate permit/authorization is in place
Do ensure thorough biosecurity cleaning before arriving in Antarctica and between distinct regions (e.g. Falklands (Malvinas), South Georgia etc.)	Don't interact with National Antarctic Program Stations for tourism visits (as of August 27). Logistical assistance or special projects may be permitted
Do review Coastal Crevasse Awareness Recommendation (FOM Section 7 - Activities), and report any unreported crevassed areas to IAATO	Don't go into known crevassed terrain without proper assessment, equipment and an experienced guide
Do communicate to the fleet about waterway transits and weather through the Broadcast center in the Live Ship Scheduler (Live Ship Scheduler Guide found in FOM Section 8)	Don't use RPAS in coastal areas for recreational use. RPAS flights for navigational, safety or scientific purpose are allowed with a permit from a Competent Authority and agreement from the Operator
Do be alert and vigilant when operating around ice in any form. Icebergs can be unpredictable and dangerous (FOM Section 8 - IAATO Guidelines for Selected Vessels in the Vicinity of Ice)	Don't go into ice caves, under arches, or stand on bergy bits or growlers. Sea ice walks should be adequately assessed by competent guides prior to being carried out
Do stay a minimum distance of twice the height away from any iceberg	Don't enter ice pools or drive over ice foots
Do keep the appropriate distance from whales and seals (FOM Section 7 - Wildlife Guidelines)	Don't go over 10kn in Geofenced Whale areas during the specified time periods (IAATO Geofenced Whale Areas, FOM Section 08)
Do remember that communication between a larger vessel and a yacht is best achieved through a friendly dialogue between the EL/Navigator on the Bridge of the ship and the Skipper/Watchkeeper of the Yacht, beginning on Channel 16 VHF	Do not interfere with other Operators' operations
Do submit a PVR within two weeks of the voyage disembarkation date	Do not depart for your vacation without finishing your voyages PVRs

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Key IAATO Contact Information for the 2022–23 Season

IAATO Emergency Line (Monitored 24hours):	+1 401 608 2090
Incident Reporting (non-Emergency):	operations@iaato.org
Ship Scheduler Assistance:	shipscheduler@iaato.org
Online Assessment questions and feedback:	operations@iaato.org
FOM Sync App or Polar Guide App feedback:	operations@iaato.org

Overarching Biosecurity Obligations (FOM Section 7 – Biosecurity)

IAATO's robust biosecurity and wildlife watching procedures are a recognised cornerstone of our actions to promote the practice of safe, environmentally responsible travel. We remind you of the biosecurity obligations laid out in the IAATO Field Operations Manual, Section 7.

In addition, for the 2022-2023 season, you are required to follow special procedures to mitigate the introduction and spread of avian influenza and SARS-CoV-2 as follows:

1. Avian influenza

Since the beginning of 2022, the increasing intensity of highly pathogenic avian influenza (HPAI) H5N1 outbreaks has resulted in the death of hundreds of thousands of seabirds in the Northern Hemisphere, around the Atlantic and Pacific Oceans and southern Africa. HPAI has also caused elevated grey and harbor seal mortalities in the United States.

The SCAR Antarctic Wildlife Health Working Group (AWHWG) has advised that there is a high risk that HPAI will arrive in Antarctic and sub-Antarctic regions during the 2022/23 – 2024/25 austral summers. People working with or close to wildlife should assume HPAI will arrive and maintain the highest biosecurity possible.



Great Skua killed by HPAI, RSPB Scotland

The AWHWG has published *'The Risk of Avian Influenza in the Southern Ocean – A practical guide for operators interacting with wildlife'* found in FOM Section 07 -Biosecurity.

Please read this document. From it, we have highlighted the most relevant information for IAATO below which includes procedures for biosecurity, guest and staff behaviour around wildlife, and surveying landing sites prior to commencing any landing.



The procedures apply to all IAATO operators and to all areas of IAATO operations for the 2022-2023 season. They do not replace domestic governmental regulations and are subject to change pending advice from experts. They are as follows:

1.1 Avian Influenza Biosecurity Procedures

The following actions should be followed for the 2022-2023 season and are in addition to IAATO's standard biosecurity procedures:

- i. Extra caution must be taken when cleaning any clothing or equipment which has been used in other wildlife areas especially at northern hemisphere sites where avian flu has been confirmed/suspected.
- ii. All operators should allow field staff ample time to assess visitor sites for signs of HPAI in wildlife colonies (see 1.2 below) **before commencing any landing.**
 - If signs are detected, do not proceed. Follow IAATO's Procedures Upon the Discovery of a High Mortality Event (FOM Section 7 – Biosecurity).
 - Never touch animals, dead or alive unless you have a permit that specifically includes wildlife with suspected disease;
 - Some mortality is natural (especially of juveniles). You are looking for unusually high levels of mortality and birds exhibiting signs of avian influenza (see 1.2 below). Experienced staff will be good at judging what is normal mortality or behaviour for a particular species at a particular location.
- iii. **Do not sit or lie down on the ground or snow**, or leave any equipment on the ground or snow, close to animal activity or faecal matter (e.g., within 10m of nests or breeding adults, pathways, haul out sites).
 - Freshwater pools must also be avoided.
- iv. If wildlife chooses to approach people, take appropriate action to ensure the advised minimum distance of 5m is maintained where it can be safely done so. We realise how enriching and special these interactions can be, as well as challenging to manage in the field, but please do your utmost to maintain distance at this time. Note that seals have also died from the disease in the northern hemisphere;
 - Remain vigilant for signs of HPAI and be prepared to leave a site if any behavioral signs of HPAI (see below) are detected.
- v. Operators supporting researchers who are authorised or permitted to be in direct or close contact (less than 5m) with animals should ensure the researchers are aware of the latest advice for mitigating transmission of zoonotic disease including SARS-CoV-2 and avian influenza.
- vi. Staff handling seabirds found landed on ships should wear appropriate PPE including face masks and gloves. If disease is suspected, include disposable overalls/aprons and safety glasses/shield. It may not be possible to determine if a bird has signs of HPAI or not. Therefore a precautionary approach should be adopted for the 2022-2023 season:
 - Operators should ensure appropriate PPE equipment is available for staff if operating in areas where seabirds are at risk of landing on ships.
 - Birds that have struck a vessel and are diseased should not be retained unless a specific permit or authorization is held.
 - If birds are alive they should be released as soon as is practical in order to minimize time personnel are in contact/exposed.
 - Carcasses should be disposed of via incineration (where available), as biological waste, or disposed of overboard.
 - All strikes should be reported to IAATO using the bird strike report form (FOM Section 4) or, if at South Georgia and the South Sandwich Islands, the GSGSSI bird strike pro-forma (FOM Section 13).

1.2 Pre-landing surveillance for HPAI in bird colonies

Experienced guides, naturalists and researchers will be especially good at spotting atypical behaviour and spasms in wildlife which can be integrated into a site evaluation prior to any visit. The following are the most common behavioural signs exhibited by birds during HPAI outbreaks in the northern hemisphere:

- **Neurological issues such as loss of coordination and balance;**
- **Trembling head and body;**
- **Sudden and rapid increase in the number of birds found dead between visits;**
- **Lethargy and depression, unresponsiveness, lying down, drooping wings, dragging legs;**
- Swollen head;
- Closed and excessively watery eyes, possibly with opaque cornea or darkened iris (new symptom associated with current outbreak);
- Twisting of the head and neck;
- Haemorrhages on shanks of the legs and under the skin of the neck;
- Respiratory distress such as gaping (mouth breathing), nasal snicking (coughing sound), sneezing, gurgling or rattling;
- Discoloured or loose watery droppings, bright green in some species.

Blue bold points are practical observations that could be made via binoculars prior to landing or approaching a colony. In the event of an outbreak, it would be expected that multiple of these behavioural signs are manifested by multiple individuals.



1.3 Response to a suspected HPAI event

If an HPAI is suspected, follow **IAATO's Procedures Upon the Discovery of a High Mortality Event. (FOM Section 7 - Biosecurity)**

- Abort a visit if signs of HPAI are seen;
- Do not enter colonies with suspected HPAI;
- Do not touch dead, sick or dying wildlife;
- Potentially contaminated clothing, footwear and equipment must be disinfected as soon as possible;
- Report the suspected event immediately to the following:
 1. IAATO
 2. Vessels operating in the area;
 3. The National Competent Authority which permits/authorises the operation;

• Continued Considerations about SARS-CoV-2 (FOM Section 7 – Biosecurity)

SARS-CoV-2, the virus that causes COVID-19, remains a global concern. While the pandemic is driven by human-to-human transmission, the virus is known to infect animal species. Current knowledge indicates that wildlife does not play a significant role in the spread of SARS-CoV-2 in humans but spread in animal populations could affect the health of these populations and may facilitate the emergence of new virus variants. Little is known about free ranging wildlife transmission and this is particularly true for Antarctic wildlife where the unique climatic conditions could increase transmission risk.

In response to requests for information by the Antarctic community, the SCAR Antarctic Wildlife Health Working Group published a *Risk assessment of SARS-CoV-2 in Antarctic wildlife* in 2021 which included guidance for tour operators and National Antarctic Programmes.

2.1 SARS-CoV-2 Biosecurity Procedures for the 2022-2023 season

Follow **biosecurity procedures ii-v listed for avian influenza under section 1.1** to mitigate the transmission of SARS-CoV-2.

3. Non-native species transmission

Special note for the 2022-23 season: IAATO Vessels will not interact with occupied National Antarctic Program Stations, unless it is for authorised logistical assistance or special projects.

Introduction of non-native species is one of the highest priority concerns in Antarctica due to increased human activity coupled with a potentially more hospitable environment caused by warming, particularly in the Peninsula region.

We remind operators to follow biosecurity procedures and to include the vacuuming of clothing prior to landing in the Antarctic.

Field staff and passengers should all receive a copy of the 'IAATO Don't Pack a Pest' pdf prior to their voyage. The document is available in English, Chinese, Dutch, French, German, Japanese, Korean, Portuguese, Russian and Spanish.

Remember that in addition to the first thorough bio-security cleaning before arriving in Antarctica, comprehensive cleaning should also take place between distinct regions (e.g., between Falkland Islands (Malvinas) and South Georgia; between South Georgia and Antarctica).

The Bio-Security Declaration in the updated *IAATO Boot, Clothing and Equipment Decontamination Procedures* for Marine Operations should be completed in each region, by everyone going ashore, including all passengers, staff and crew.

Research indicates that tourist support staff, along with scientists and science support personnel, are more likely to transport non-native species than tourists. It is believed that this is due to field staff and scientists using the same clothing and gear in other areas of the world. Please make sure you CLEAN YOUR OWN GEAR and try to have Antarctic-specific gear so you do not have to clean after each non-Antarctic landing or port call. The study found that camera bags and backpacks were the primary source of transmittal. **Remember: Take it new or take it clean.**

All field staff and crew should be familiar with the decontamination procedures. Care should be taken to decontaminate equipment including boots, clothing, hiking poles, tripods, bags, and camping equipment etc., before and after each landing to mitigate any potential introduction of non-native species or cross contamination. Boot-washing stations should be located at the head of the gangway or close to where passengers embark and disembark the vessel.

Where aircraft are used, similar procedures should be in place.

A specific biodegradable broad-spectrum disinfectant is recommended such as Virkon® S. It must be allowed to dry on equipment between landings.

A poster outlining the IAATO Don't Pack a Pest is available for download, (FOM Section 19) and it is mandatory to display these guidelines to clients near boot-washing stations.

The Committee for Environmental Protection (CEP) has updated the manual for prevention of the introduction for non-native species. The manual includes references to the various protocols that are in place across the Antarctic community, including IAATO's.

COMNAP has developed a useful checklist for providers to help ensure activities are 'bug-free'. COMNAP have also prepared a training module on non-native species. Alongside the checklist these are particularly useful for air/land operators. There are also additional guidelines for the cleaning of vehicles. This is intended for any operators taking ATVs, skidoos, etc., into the field.

Deep field and air operators will be trialing new IAATO biosecurity procedures in 2022-2023.

3.1. Special Note about South Georgia Biosecurity Inspections (FOM Section 13)

All visitors should note the following when planning a shore excursion:

- Boot washing is obligatory for all persons **prior to going ashore and again when returning to the ship**. Boots must be cleaned to remove dirt and seeds and then dipped in an approved biocide (e.g. Virkon S).
- Clothing inspections and boot washing must be overseen by a competent member of the expedition team. For visits, this must be either a member of the expedition staff or an appropriate crew member. The Visit Permit holder is responsible for ensuring that this inspection is carried out. All external surfaces of footwear, which will be worn ashore, must be washed.

Depending on the South Georgia COVID-19 protocols, Government Officers may inspect boot washing facilities and procedures on visiting vessels (including yachts) and will inspect visitors, including staff and crew, before they disembark the vessel to ensure biosecurity protocols have been undertaken properly.

The Biosecurity Audit is a check undertaken by Government Officers, on vessels in respect of their compliance with biosecurity procedures, or more specifically the effectiveness of the procedures in place to reduce biosecurity risk.

Government Officers may also conduct a standardized inspection of clothing, footwear and bags to check for biosecurity risks.

The audit is scored as a percentage pass rate based on a statistically significant sample size.

Vessels with a pass rate of less than 85% are classed as unacceptable, and GSGSSI will require improvements to be made prior to the vessel's next landing. Such low scoring vessels will also be required to make first landing at Grytviken for future visits, until they have shown an improved result.

Vessels with a pass rate between 85-94% are classed as acceptable, but advice will be given to make further improvements where appropriate.

Vessels scoring pass rates of 95% or above are classed as good, and we hope that all vessels will strive to sit within this category.

Cleaning Tips from the Field:

- To get complete buy in from the guests, start biosecurity briefings and checks early, especially if you are going to different regions, as multiple biosecurity checks and cleaning will have to take place.
- Assign a crew/staff member to be present at the gangway/side-gate to check guests as they depart and return to the ship.
- Especially on South Georgia beaches, have scrub brushes available before guests embark the small boats back to the ship. This will help with the initial cleaning.
- Have the appropriate tools to assist – large paper clips and hand scrubbing brushes are a must. Pay particular attention to Velcro.



Pass Rate Risk Thresholds	
100	Good
95	
94	Acceptable - Improvement Required
93	
92	
91	
90	
89	
88	
87	
86	Unacceptable - Urgent Action Required
85	
84	
65	
0	

Pass Rate Risk Thresholds