



Ask an expert

Case study: Friends of Lillico Penguins (FoLP)

The Friends of Lillico Penguins group were given the opportunity to ask the Peri-urban Environmental Biosecurity Network experts any questions about exotic pests and diseases in their area. Here are the questions and responses from the experts.

Q1. Marine exotic pests:

I am particularly concerned about the possibility of **marine exotic pests** bringing disease to the penguin colony. The Lillico Conservation Area is situated on the north-west coast of Tasmania between two busy shipping ports, Burnie and Devonport. Both Australian and international vessels access these ports all year round. I have been a member of FoLP for eight years and have regularly noticed container vessels or tankers sitting several kilometres offshore overnight (and sometimes for several days) directly in front of the penguin colony. I made enquiries several years ago with port authorities about the legality of this and found that vessels are permitted to anchor in the vicinity of the coast while waiting to access Burnie port. ***As some of the vessels are from overseas, I'd like to know whether the hulls and rigging, or perhaps waste that the vessels might expel into Bass Strait may have organisms which could impact on the health of the in-shore fisheries and/or the Little Penguins. Secondly, if there is a significant exotic marine pest to look out for, how would we recognise its existence or impacts?***

Expert response:

Yes, international shipping is a concern in relation to marine pests and diseases though I am unsure in regards to any potential impact regarding diseases that could be transferred to penguins.

Ocean going vessels are a known vector for marine pests which are either transported in the vessel's ballast water and/or in marine growth on the vessel's hull ('biofouling'). The Federal Government is responsible for the management and monitoring of ballast water exchange at the international border – more information on ballast water requirements and biosecurity can be found on the DAWE website: <https://www.agriculture.gov.au/biosecurity/avm/vessels/marine-pest-biosecurity/ballast>

In regards to what to be looking out for, I would suggest contacting the Tasmanian DPIPWE Biosecurity for specific advice for north west Tasmania. Their department has some information up at <https://dpiipwe.tas.gov.au/biosecurity-tasmania/aquatic-pests-and-diseases> and can be contacted at Biosecurity.Tasmania@dpiipwe.tas.gov.au or Phone: 03 6165 3777.

The Australian Government also has a Marine Pests website that lists pests of national concern. It has some great photos and descriptions, and a map that outlines the known pests and what people should watch out for - <https://www.marinepests.gov.au/pests>. For Tasmania (well Hobart) they list:

Known pests

- [European shore crab](#)
- [Japanese kelp](#)
- [New Zealand screw shell](#)
- [Northern Pacific seastar](#)

Keep watch for

- [Asian green mussel](#)
- [American slipper limpet](#)
- [Asian basket clam](#)
- [Black striped false mussel](#)
- [Chinese mitten crab](#)
- [Rapa or veined whelk](#)
- [Soft shell or long-necked clam](#)

Response provided by:

Aquatic Biosecurity Policy & Projects Officer

NSW Department of Primary Industries | Biosecurity & Food Safety | Aquatic Biosecurity Risk Management Program

Q2. Invasive weed species and/or diseases:

I am also wondering if you could suggest **appropriate biosecurity practices** which may help to limit the spread of weeds and possibly diseases in the Lillico Conservation Area. For the seven months of the breeding season when the penguins are present, access to the habitat is prohibited, unless absolutely necessary, such as to remove a dead penguin for possible examination or autopsy by Parks. However, during working bees on site in the off-season, FoLP guides participate in weeding, planting, collecting rubbish, maintenance and relocation of artificial burrows within the penguin habitat. It is possible that on these occasions we may carry weeds on our shoes or clothing from our own gardens (plus any rural landscapes or even parks, reserves and recreations areas where we may have recently been) and be unaware that we are transporting these seeds, or perhaps even plant or animal diseases into the penguin habitat. ***What practices would you suggest may be useful before entering the penguin habitat for our working bees?***

Expert response:

Site biosecurity can involve a number of considerations.

1. **Weeds** – as identified there are a number of vectors for weed passage into new areas. Hygiene practices should be developed based on the risk of new incursions (does the site have vehicle access, boats etc). A good overview of natural area protection is available by viewing <https://www.youtube.com/watch?v=dtVRwoupna0>. Perhaps they could integrate this into their induction procedure.
2. **Pathogens** – Protecting the area from Phytophthora, myrtle rust etc may be an issue – it and other threats are well addressed in the Australian government document “[Arrive clean – leave clean](#)”. They may need to consider installing a boot and gear washing station.
3. **Animal interactions** – if they are handling animals the use of gloves is recommended (eg to stop the potential spread of Chytrid fungus).

As Lillo Conservation Area is in Tasmania, I suggest you contact Parks Tasmania and work with them to develop a Biosecurity plan for your site – they have plenty of information and experience in this area. <https://parks.tas.gov.au/explore-our-parks/know-before-you-go/biosecurity>

Response provided by:

Invasive Species Officer | Weeds Training Officer

NSW Department of Primary Industries | Biosecurity & Food Safety | Invasive Species Biosecurity Unit