

BAC K'gari Environmental Biosecurity Threat Plan

By Matilda Davis, Biosecurity Officer, Butchulla Aboriginal Corporation's Land and Sea Program 2021



Above: Butchulla Rangers cleaning their boots before exiting a site where we suspect the soil-borne pathogen, non-native *Phytophthora*, is present. Photo by Dr. Geoff Pegg, DAF.

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2 Objective

This plan outlines sites of significance and strategies to reduce the risk of introducing and dispersing weeds, pests, and pathogens on K'gari. The objective of this plan is to outline environmental biosecurity threats and management strategies to be implemented in the Butchulla Aboriginal Corporation's Forest Health Surveillance surveys. This plan along with the *BAC K'gari Environmental Biosecurity Threat Map* should also be integrated in the activities conducted by the Butchulla Aboriginal Corporation's cultural guides, cultural advisers, cultural monitors, and community rangers. If cultural guides, cultural advisers, cultural monitors, and community rangers identify weeds, pests, and pathogens during their activities on K'gari, they can refer to this plan to reduce the risk of spreading the identified environmental biosecurity threats and add their detections to the map. A printed copy of this plan, the *BAC Environmental Biosecurity Threat Map*, and the *BAC Environmental Biosecurity Surveillance & Reporting Plan* is included in every BAC Environmental Biosecurity Kit and BAC Work Brief. Every report made should be added to the *BAC K'gari Environmental Biosecurity Threat Map* and *BAC Environmental Biosecurity Surveillance & Reporting Plan* and this plan should be updated as necessary. **Printed copies included in the BAC Environmental Biosecurity Kits and BAC Work Briefs should be replaced & staff notified with every update made.**

Note: The *BAC K'gari Environmental Biosecurity Threat Map* is not yet complete as Dr. Geoff Pegg, Dr. Louise Shuey and Janet McDonald from DAF are still developing it.

3 Environmental Biosecurity Threats

3.1 Weeds

Come Clean, Go Clean:

- Look out for weeds (refer to *BAC Present Weeds on K'gari*) and avoid them where possible to reduce the risk of carrying weed seed on vehicles, clothing, boots, and equipment
- Use the Environmental Biosecurity Kits in BAC vehicles to remove of weed seed from vehicles, clothing, boots, and equipment and contain weed seed (refer to *Guide to Environmental Biosecurity Kits for BAC Vehicles*)

Recognise and Report:

- Photograph weed
- Record on GPS and document location and date discovered
- Report weed detections and add them to the *BAC K'gari Environmental Biosecurity Threat Map* (refer to *BAC Environmental Biosecurity Surveillance & Reporting Plan*)

Management:

- Refer to *BAC Cultural Fire Management & Invasive Weeds*

- Distribute *BAC General Environmental Biosecurity Pamphlets* to barge operation services at River Heads and Rainbow Beach, and visitors when having conversations about environmental biosecurity, particularly, Universities and Great Walkers

Increase the Butchulla Aboriginal Corporation's Land & Sea Rangers capacity to monitor vehicles at River Heads & Inskip Point barges

- BAC rangers to inspect vehicles & car wash receipts (to confirm date of wash from Hervey Bay or Rainbow Beach car wash services) with authority to refuse entry until wash is completed or if vehicle is carrying soil, plant material and plants (refer to *BAC K'gari Vehicle Surveillance and Washdowns*)

3.2 Pests

Jamella australiae (Jamella leafhopper)

Recognise and Report:

- Photograph symptoms and sign (insect)
- Record on GPS and document location and date discovered
- Report detections and add them to the *BAC K'gari Environmental Biosecurity Threat Map* and collect insects in vials (refer to *BAC Environmental Biosecurity Surveillance Equipment*) for research where necessary (refer to *BAC Environmental Biosecurity Surveillance & Reporting Plan*)

Management:

- Distribute *BAC General Environmental Biosecurity Pamphlets* to barge operation services at River Heads and Rainbow Beach, and visitors when having conversations about environmental biosecurity, particularly, Universities and Great Walkers

Increase the Butchulla Aboriginal Corporation's Land & Sea Rangers capacity to monitor vehicles at River Heads & Inskip Point barges

- BAC rangers to inspect vehicles & car wash receipts (to confirm date of wash from Hervey Bay or Rainbow Beach car wash services) with authority to refuse entry until wash is completed or if vehicle is carrying soil, plant material and plants (refer to *BAC K'gari Vehicle Surveillance and Washdowns*)

[Tiny Wasp Released to Save Fraser Island's Pandanus « FINIA](#)

[Pandanus Leaf Stripping – a Caring for Country Project « FINIA](#)

[Protecting and Restoring K'gari's Pandanus « FINIA](#)

[Fraser Island Pandanus Rescue « FINIA](#)

More information:

[A Little More about Pandanus Dieback « FINIA](#)

Leaf Hopper Factsheet – Northern Tree Care



Above: Mature Jamella leafhopper on winnam on K'gari. Photo by Matilda Davis, BAC.

Gambusia or Mosquito fish

Recognise and Report:

- Photograph pest
- Record on GPS and document location and date discovered
- Report detections and add them to the *BAC K'gari Environmental Biosecurity Threat Map* (refer to *BAC Environmental Biosecurity Surveillance & Reporting Plan* and *Griffith University Fish Studies and Surveys on K'gari*)

More information:

[Gambusia or mosquitofish | Business Queensland](#)

Xiphophorus maculatus (Platy fish)

Recognise and Report:

- Photograph pest
- Record on GPS and document location and date discovered
- Report detections and add them to the *BAC K'gari Environmental Biosecurity Threat Map* (refer to *BAC Environmental Biosecurity Surveillance & Reporting Plan* and *Griffith University Fish Studies and Surveys on K'gari*)

Management:

More information:

[Platy | Business Queensland](#)

Rhinella marina (Cane Toad)

Recognise and Report:

- Photograph pest, tadpoles, and eggs
- Record on GPS and document location and date discovered
- Report detections and add them to the *BAC K'gari Environmental Biosecurity Threat Map* (refer to *BAC Environmental Biosecurity Surveillance & Reporting Plan*)

Management:

- Use BAC toad tadpole traps and bufo tabs (refer to *Pesky Pests – Cane Toads and Toad Trapping* presentation)
- Distribute *BAC General Environmental Biosecurity Pamphlets* to barge operation services at River Heads and Rainbow Beach, and visitors when having conversations about environmental biosecurity, particularly, Universities and Great Walkers

Increase the Butchulla Aboriginal Corporation's Land & Sea Rangers capacity to monitor vehicles at River Heads & Inskip Point barges

- BAC rangers to inspect vehicles & car wash receipts (to confirm date of wash from Hervey Bay or Rainbow Beach car wash services) with authority to refuse entry until wash is completed or if vehicle is carrying soil, plant material and plants (refer to *BAC K'gari Vehicle Surveillance and Washdowns*)

[FINIA is all about Helping Hands « FINIA](#)

[Using Bufo Toxin to Control Cane Toads « FINIA](#)

More information:

[Cane toad | Business Queensland](#)

Felis catus (Feral Cat)

Recognise and Report:

- Photograph pest
- Record on GPS and document location and date discovered
- Report detections and add them to the *BAC K'gari Environmental Biosecurity Threat Map* (refer to *BAC Environmental Biosecurity Surveillance & Reporting Plan*)

Management:

- Establish feral cat surveillance and trapping program on K’gari
- Distribute *BAC General Environmental Biosecurity Pamphlets* to barge operation services at River Heads and Rainbow Beach, and visitors when having conversations about environmental biosecurity, particularly, Universities and Great Walkers

[FINIA is all about Helping Hands « FINIA](#)

[Using Bufo Toxin to Control Cane Toads « FINIA](#)

More information:

[Feral cat | Business Queensland](#)

Vulpes vulpes (Fox)

Recognise and Report:

- Photograph pest
- Record on GPS and document location and date discovered
- Report detections and add them to the *BAC K’gari Environmental Biosecurity Threat Map* (refer to *BAC Environmental Biosecurity Surveillance & Reporting Plan*)

Management:

- Establish fox surveillance and trapping program on K’gari
- Distribute *BAC General Environmental Biosecurity Pamphlets* to barge operation services at River Heads and Rainbow Beach, and visitors when having conversations about environmental biosecurity, particularly, Universities and Great Walkers

[FINIA is all about Helping Hands « FINIA](#)

[Using Bufo Toxin to Control Cane Toads « FINIA](#)

More information:

[Fox | Business Queensland](#)

Sus scrofa (Feral Pig)

Recognise and Report:

- Photograph pest or evidence of pest’s presence
- Record on GPS and document location and date discovered
- Report detections and add them to the *BAC K’gari Environmental Biosecurity Threat Map* (refer to *BAC Environmental Biosecurity Surveillance & Reporting Plan*)

Management:

- Establish feral pig surveillance and trapping program on K’gari

- Distribute *BAC General Environmental Biosecurity Pamphlets* to barge operation services at River Heads and Rainbow Beach, and visitors when having conversations about environmental biosecurity, particularly, Universities and Great Walkers

More information:

[Feral pig | Business Queensland](#)

Domestic dogs

Recognise and Report:

- Photograph visitors bringing domestic dogs to K'gari
- Record on GPS and document location and date discovered
- Report incidents to QPWS and NRM and add them to the *BAC K'gari Environmental Biosecurity Threat Map* (refer to *BAC Environmental Biosecurity Surveillance & Reporting Plan*)

Management:

- Distribute *BAC General Environmental Biosecurity Pamphlets* to barge operation services at River Heads and Rainbow Beach and visitors when having conversations about environmental biosecurity

Increase the Butchulla Aboriginal Corporation's Land & Sea Rangers capacity to monitor vehicles at River Heads & Inskip Point barges

- BAC to collaborate with Butchulla Native Title Corporation, Queensland Parks & Wildlife Service & Gympie Regional Council to establish restrictions for dogs at Inskip Point (no dogs allowed on Inskip point), refer to *BAC K'gari Vehicle Surveillance and Washdowns*

More information:

Refer to *BAC General Environmental Biosecurity Pamphlets*

[Irresponsible Pet Owners Impact K'gari Wildlife « FINIA](#)

[Before you visit | Parks and forests | Department of Environment and Science, Queensland \(des.qld.gov.au\)](#)

3.3 Pathogens

Myrtle Rust

Unfortunately, myrtle rust spores are dispersed by the wind so efforts to prevent anthropogenic spread (spread by human activity) are generally not effective for managing

the spread of myrtle rust. However, the 'Come Clean, Go Clean – Stop the Spread' strategy should be implemented in all activities.

Recognise and Report:

- Photograph symptoms and sign (rust spores)
- Record on GPS and document location and date discovered
- Report detections and add them to the *BAC K'gari Environmental Biosecurity Threat Map* (refer to *BAC Environmental Biosecurity Surveillance & Reporting Plan*)

Management:

- Refer to *BAC Cultural Fire Management & Myrtle Rust*
- Distribute *BAC Myrtle Rust Pamphlets* at barge operation services to River Heads and Rainbow Beach and visitors when having conversations about environmental biosecurity, particularly, Universities and Great Walkers

Increase the Butchulla Aboriginal Corporation's Land & Sea Rangers capacity to monitor vehicles at River Heads & Inskip Point barges

- BAC rangers to inspect vehicles & car wash receipts (to confirm date of wash from Hervey Bay or Rainbow Beach car wash services) with authority to refuse entry until wash is completed or if vehicle is carrying soil, plant material and plants (refer to *BAC K'gari Vehicle Surveillance and Washdowns*)

More information:

Refer to *BAC Myrtle Rust Pamphlet*

[Myrtle Rust Update « FINIA](#)

[Myrtle Rust « FINIA](#)

[Myrtle rust | Business Queensland](#)

Non-native Phytophthora

Come Clean, Go Clean – Stop the Spread:

- Wear disposable gloves and store used gloves in plastic bag when working in the suspect site (refer to *Guide to Environmental Biosecurity Kits for BAC Vehicles*)
- While working in the suspect site avoid sitting or placing equipment on the ground to minimise transfer of contaminated soil – backpacks are useful in these sites
- Before exiting the site establish a 'contaminated zone' and a 'clean zone', this can be done by placing a strip of marking ribbon – label the ribbon with permanent marker
- Thoroughly clean equipment with diluted Phytoclean from the Environmental Biosecurity Kits in BAC vehicles before exiting the site (refer to *Guide to Environmental Biosecurity Kits for BAC Vehicles*)

- Thoroughly clean boots with a scrubbing brush and diluted Phytoclean from the Environmental Biosecurity Kits in BAC vehicles before exiting the site (refer to *Guide to Environmental Biosecurity Kits for BAC Vehicles*)
- DO NOT RE-ENTER THE 'CONTAMINATED ZONE' AFTER CLEANING BOOTS
- Consult with QPWS to minimise use of machinery and restrict vehicle and visitor access in contaminated sites, particularly after rain



Above: Dr. Louise Shuey cleaning tools with Phytoclean after collecting roots and rhizosphere in suspect site (Central Station). Photo by Matilda Davis, BAC.

Recognise and Report:

- Photograph symptoms and suspect sites
- Record on GPS and document location and date discovered
- Report detections and add them to the *BAC K'gari Environmental Biosecurity Threat Map* (refer to *BAC Environmental Biosecurity Surveillance & Reporting Plan*)
- Refer to *BAC Environmental Biosecurity Surveillance & Reporting Plan* for sampling guide

Management:

- Distribute *BAC Non-native Phytophthora Pamphlets* to barge operation services at River Heads and Rainbow Beach and visitors when having conversations about environmental biosecurity, particularly, Universities and Great Walkers

Increase the Butchulla Aboriginal Corporation's Land & Sea Rangers capacity to monitor vehicles at River Heads & Inskip Point barges

- BAC rangers to inspect vehicles & car wash receipts (to confirm date of wash from Hervey Bay or Rainbow Beach car wash services) with authority to refuse entry until wash is completed or if vehicle is carrying soil, plant material and plants (refer to *BAC K'gari Vehicle Surveillance and Washdowns*)

Aspirations for the future

Perhaps, like the efforts in the Bunya Mountains we too could establish boot-washing stations on K'gari, particularly, along the Great Walk

More information:

Refer to *BAC Non-native Phytophthora Pamphlet*

[Phytophthora dieback - DAWE](#)

[Araucaria dieback- a threat to native and plantation forests - DAF eResearch Archive \(eRABBB\)](#)

[Boot-washing stations installed to protect ancient bunya pines | Department of Environment and Science, Queensland \(des.qld.gov.au\)](#)

Chytridiomycosis

Come Clean, Go Clean – Stop the Spread:

- Thoroughly clean boots with a scrubbing brush and diluted Phytoclean from the Environmental Biosecurity Kits in BAC vehicles before entering amphibian habitats and before exiting the site (refer to *Guide to Environmental Biosecurity Kits for BAC Vehicles*)

Recognise and Report:

- Photograph
- Record on GPS and document location and date discovered
- Report detections and add them to the *BAC K'gari Environmental Biosecurity Threat Map* (refer to *BAC Environmental Biosecurity Surveillance & Reporting Plan*)

More information:

[Chytridiomycosis \(amphibian chytrid fungus disease\) \(awe.gov.au\)](#)

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