

Review of the Implementation Plan for the  
***K'gari wongari***  
(Fraser Island dingo)  
Conservation and Risk Management Strategy

Office of the **Queensland Chief Scientist**  
June 2020





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Cover image: Dingoes on K'gari © Queensland Government

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K'gari (Fraser Island) and the surrounding waters are the traditional land and sea country of the Butchulla People. For nearly 50,000 years, the Butchulla People have lived in harmony with this area, maintaining a balance between spiritual, social and family connections. Wongari (the wild dingoes of K'gari) are one of these important island connections for the Butchulla People.

K'gari's World Heritage listing and national park status make it a precious part of Australia's natural and cultural heritage, and is protected for all to appreciate and enjoy.



# Observations *and* *findings*

The expert panel (the Panel) established for the Review of the Implementation Plan for the ‘Fraser Island Dingo Conservation and Risk Management Strategy’ concluded that people<sup>1</sup> and wongari (dingo) management is a complex issue with no single solution for keeping both safe on K’gari (Fraser Island)<sup>2</sup>. Managing people remains the greatest challenge.

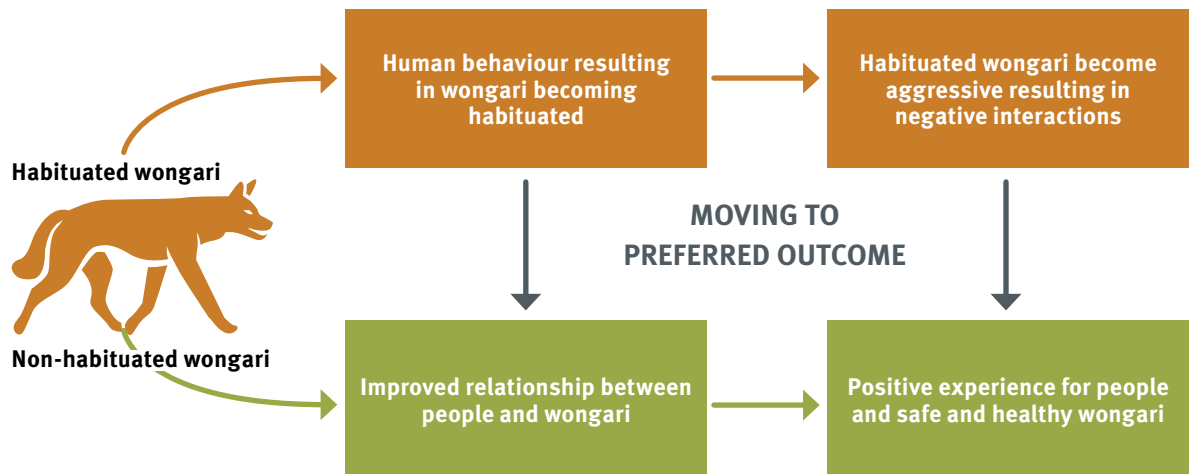
Significant time and energy have been put into reducing the risks of negative people–wongari interactions through: infrastructure installation and management; ensuring people are aware of the risks; promotion of safe behaviour; monitoring; compliance; and reviews. The Panel concluded that resources must continue to be allocated to these tasks. The major challenge is getting people to understand the issues, risks and consequences of their actions, gaining an understanding and appreciation of the cultural value of wongari and demonstrating safe behaviour. The recommendations (listed on the following pages) provide support and endorsement for many of the current management approaches in the Implementation Plan, while also identifying areas where greater focus is required, such as social science research to better understand human behaviour and motivations.

- 
1. People include visitors, tourists, commercial tourism operators, workers on the island, and residents.
  2. K’gari is the traditional name for Fraser Island by the Butchulla People (the traditional owners of K’gari) with wongari being the traditional name for wild dingoes on K’gari. These traditional names are used throughout this report.




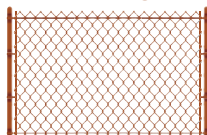


In its deliberations the Panel concluded that K’gari currently sustains a stable and healthy population of wongari. Research indicates that a range of natural food sources exist on the island helping to sustain this population. These foods include insects, birds, reptiles, rodents, swamp wallabies, bandicoots, plant material and marine strandings (fish, whales, dolphins and turtles).


The Panel heard about the challenges the Butchulla People face in managing wongari on K’gari. Historically the Butchulla People had a close relationship with wadjas (tame dingoes) and would like to maintain a strong connection to wongari (wild dingoes). This relationship will be a challenge with continued people–wongari interactions putting wongari at risk.

The Panel noted that a continued management challenge is to prevent wongari becoming habituated through repeated exposure to people. This can lead to loss of their natural fear with unpredictable consequences including aggression. The major management goal is to keep people and wongari safe resulting in an improved relationship and positive experiences.



# Recommendations

Committing to the challenge	
Approach	Recommendations
<b>Resourcing</b> 	<p>Ensure rangers are adequately resourced to deliver front-line actions such as engagement, monitoring and risk intervention</p>
	<p>Investigate and deliver actions for greater involvement of the Butchulla People in wongari management, including rangers, upskilling, and decision making</p>
<b>Focusing on resources</b> 	<p>Undertake an internal assessment of existing on-ground actions to help determine which actions require more energy and focus and which require less</p>
Risk intervention	
Approach	Recommendations
<b>Fencing</b> 	<p>Resource the investigation, construction, monitoring and maintenance of additional fenced areas in collaboration with the Butchulla People. For example fencing at Orchid Beach and campgrounds on the eastern beach as a key strategy to reducing risk</p> <p>Ensure fenced areas are appropriately designed to support the recapture of any wongari that have managed to get inside</p> <p>Establish collaborative arrangements with the Butchulla People, Fraser Coast Regional Council, local residents, tourism operators, resorts and island businesses for delivering fencing and supporting infrastructure</p>
<b>Interaction reporting</b> 	<p>Resource the use and analysis of data from people and wongari interaction reports</p> <p>Promote the importance of visitors and residents reporting wongari interactions</p> <p>Include data on people's behaviour in interaction reports to enhance understanding of interactions and help inform future management action</p> <p>Regular reporting of interaction data, including sharing information with the Butchulla People</p>
<b>Risk assessments</b> 	<p>Deliver actions in response to risk assessments such as warnings, closures, monitoring and targeted education</p>
<b>Routine closures</b>	<p>Deliver routine temporary closures of camping areas during low visitation times as part of risk reduction strategies</p>

Risk intervention cont'd	
Approach	Recommendations
<b>Ear tagging</b>	<p>Allow captured wongari less than 10kg to be ear tagged following assessment of their age, ear size and health</p> <p>Delivery of education messages and awareness on the importance and benefits of tagging for people and wongari safety</p>
<b>Geo-fencing/ aversion collars</b>	<p>Deliver an aversion collar trial (geospatial virtual fencing) as a targeted strategy for separating people and wongari</p> <p>Roll-out the use of collars to high-risk wongari subject to the outcomes of the trial and taking into account cultural, ethical and management considerations</p>
<b>Deterrents</b> 	<p>People should be strongly encouraged to carry a walking stick<sup>3</sup>, pole or something similar as a visual deterrent when walking in unfenced areas as part of risk reduction</p> <p>Implement ways where people can easily access sticks including uptake by commercial tourism operators and encouraging visitors to pack a stick<sup>3</sup> for use when out and about on K'gari</p> <p>While carrying a stick is encouraged people should be reminded that wongari should not be hurt or chased. Sticks are a deterrent only and penalties apply to any deliberate harm or harassment</p> <p>Investigate and trial other deterrents noting the importance of keeping things workable and practicable</p>
<b>Waste from bush toileting</b> 	<p>Limit bush toileting (through education or restrictions) as part of breaking the pathway to habituation and reducing the risk to people</p> <p>Greater promotion of the conservation and cultural values of wongari to K'gari as part of seeking a reduction in bush toileting and other poor behaviours</p>
<b>Expansion of areas where fish waste can't be disposed</b> 	<p>Expansion of 'no fish waste disposal' areas to help prevent wongari familiarisation with people and food sources</p> <p>Promote the risks and potential consequences of poor fish waste disposal</p>
<b>Knowing what to do with a high-risk wongari</b>	<p>Retain euthanasia as a last resort management option for a wongari showing high-risk behaviour when all non-lethal options fail</p> <p>Develop and implement a co-generation strategy with the Butchulla People to establish management actions for dealing with high-risk wongari</p> <p>The department and the Butchulla People to work together to seek support from other island interest groups to support enhanced people and wongari safety</p>

3. Examples of a 'stick' include a fallen branch that could be easily carried around the length of a walking stick, a hiking pole, long piece of plastic poly-pipe, fishing rod or large umbrella.



Communication and education	
Approach	Recommendations
<b>Education</b>	<p>Prepare and implement a collaborative communication and education strategy that identifies target groups and utilises a range of channels</p> <p>The Butchulla People to deliver communication and education on the cultural value and significance of K’gari and wongari</p> <p>Support face-to-face ranger engagement as an effective means of raising awareness and promotion of safe behaviour</p>
<b>Collaboration and co-generation</b> 	<p>Develop a strategy for collaboration—identify priority groups, their interest in collaborating and how to best engage and involve them</p> <p>The department and the Butchulla People to co-generate ideas and actions to support people and wongari safety</p> <p>The department and the Butchulla People to collaborate further and co-generate ideas and actions with other island interest groups as part of building shared responsibility and commitment for people and wongari safety</p> <p>Implement a range of collaborative actions to support people and wongari safety such as campground hosts, commercial tourism operator training and accreditation, and use of champions</p>

Research	
Approach	Recommendations
<b>Wongari population and health</b>	Deliver research on the health and wellbeing of the wongari
<b>Promotion</b>	Promotion of findings about wongari population and health
<b>Necropsy</b> 	Use necropsy as a means of providing valuable insight on the health of wongari that have died from natural or human intervention including data about their weight, diet, cause of death
<b>Social science</b>	Conduct further social science research on behaviours and motivations of people and the effectiveness of communication actions

Compliance	
<i>Approach</i>	<i>Recommendations</i>
<b>Ongoing compliance action</b>	Deliver compliance programs as an important and effective tool in supporting risk management
<b>Upskilling</b>	Deliver further training to upskill rangers and explore further opportunities for Butchulla employees
<b>Compliance team</b>	Investigate using an off-island compliance team to visit and undertake a range of enforcement actions to support education and risk intervention actions delivered by rangers on K'gari

Evaluation and review	
<i>Approach</i>	<i>Evaluation and review</i>
<b>Ongoing evaluation and review</b>	Undertake routine evaluation and review to assess the effectiveness of actions and reporting
<b>Greater transparency</b>	Deliver greater transparency on management actions and responses such as a summary or infographic on internal annual reports, to convey and celebrate the work being delivered to keep people and wongari safe

# 1.0 Purpose

This report details the findings of an independent review of the Implementation Plan for the K’gari (Fraser Island) Wongari (dingo) Conservation and Risk Management Strategy (the Strategy).

The objective of the review was to review and assess the effectiveness of current management, risk intervention, education and communication approaches and to identify opportunities to enhance current approaches.

With the overall objective of the Strategy and Implementation Plan being safety of people and a sustainable and healthy wongari population on K’gari, the review sought to ensure that suitable approaches are in place to achieve this objective.

An independent expert panel (the Panel) was established to conduct this review, which was chaired by the Queensland Chief Scientist, Professor Paul Bertsch.

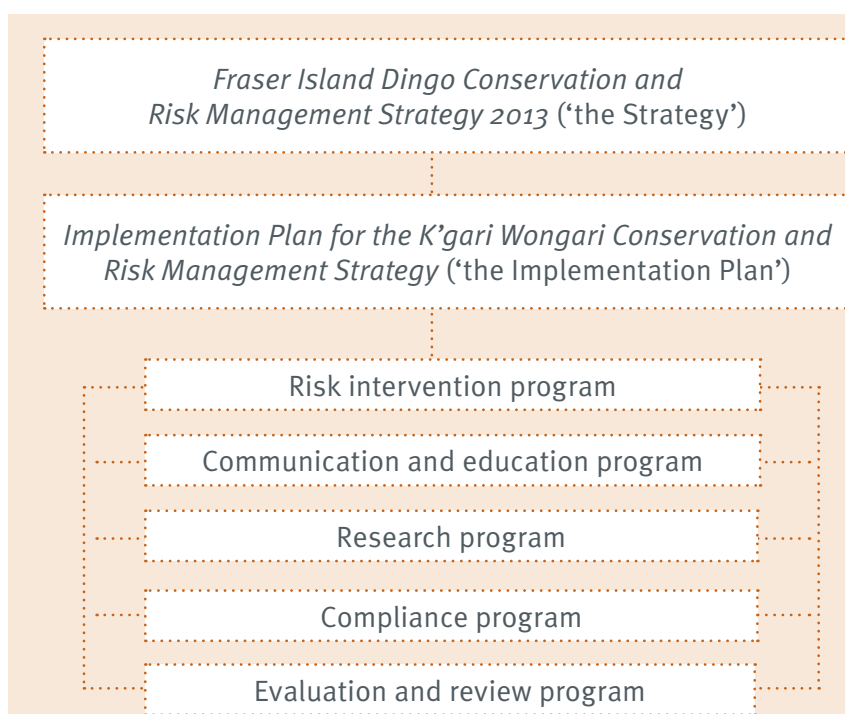


## 1.1 Wongari management

In managing the sustainability of wongari and the risk they pose to people, the Queensland Government has developed and regularly updated the Strategy. An independent review of the Strategy was last conducted in 2013 with an internal audit<sup>4</sup> completed in 2017.

The Strategy is complemented by a 2014 Implementation Plan for the K’gari Wongari Conservation and Risk Management Strategy (the Implementation Plan). The Implementation Plan identifies several approaches and supporting actions to manage the potential risk to people from wongari interactions. The five key management programs are:

- **Risk intervention:** on-ground actions to manage wongari with the goal of reducing the number of negative interactions with people
- **Communication and education:** promotion of wongari conservation and safety messages, and influencing people’s attitude and behaviour
- **Research:** to support management
- **Compliance:** to support risk intervention, communication and education, and research programs
- **Evaluation and review:** assessment and continuous improvement, auditing and review.



4. The internal audit was conducted by the then Queensland Department of Environment and Heritage Protection to assess the effectiveness of actions in the Strategy.

## 1.2 Management response

Following three aggressive interactions between wongari and people in early 2019, with the third involving a young child dragged from a campervan, the Queensland Government undertook several actions including:

- allocating \$750,000 towards the construction of additional fenced beach front camp areas
- undertaking social science research into visitor behaviour and motivations
- engaging the Butchulla Aboriginal Corporation to provide a wongari community education and communication ranger to raise awareness of wongari safety and deliver education messages
- increasing the on-the-spot fine for feeding or disturbance of wongari from \$391.65 to \$2,135
- undertaking an independent review of the Implementation Plan.

The focus of this report is the independent review of the Implementation Plan.

## 1.3 Independent expert panel

The Panel established to undertake the review of the Implementation Plan included members with expertise in human and wildlife behaviour, animal ecology, social science, Indigenous knowledge and protected area planning and management.

A key part of the review process was to ensure the inclusion of cultural knowledge and values. To support this a representative of the Butchulla Aboriginal Corporation participated on the Panel.

**Table 1: Wongari expert panel members**

Panel member	Position
Professor Paul Bertsch (Chair)	Queensland Chief Scientist
Professor Hugh Possingham	Chief Scientist, The Nature Conservancy University of Queensland
Professor Clive Phillips	Director, Centre for Animal Welfare and Ethics, School of Veterinary Science, University of Queensland
Dr Ro (Rosemary) Hill	Senior Principal Research Scientist, CSIRO Land and Water
Ms Jade Gould	Director, Butchulla Aboriginal Corporation
Dr Carly Sponarski	Assistant Professor of Human Dimensions of Wildlife and Fisheries Conservation, Department of Wildlife, Fisheries and Conservation Biology, University of Maine
Professor Darryl Jones	Deputy Director Environmental Futures Research Institute and School of Environment and Science, Griffith University

## 1.4 Independent review process

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The independent review process was led by the Queensland Chief Scientist, Professor Paul Bertsch, supported by the Office of the Queensland Chief Scientist.

Following the formation of the Panel and terms of reference, four meetings were held which supported discussions, presentations, analysis and information sharing. During the review period Professor Bertsch visited K'gari and met with the Department of Environment and Science's Queensland Parks and Wildlife Service (QPWS) rangers and saw first-hand the challenges of working with and managing people and wongari. During this visit, Professor Bertsch observed:

- a wongari loitering around the Boorangoora (Lake McKenzie) car park and fenced eating areas. This wongari showed signs of habituation with little fear of people.
- a wongari eating discarded fish frames on the eastern beach near Eurong. A family stopped their vehicle to observe this wongari. While some members were watching, an adult visitor and small children started playing around the front and back of the dunes. QPWS ranger, Dan Novak, stopped to talk to the family about the risk of young children playing around the dunes. The key message was that where there is one wongari there is likely to be more. The observed wongari was living in a pack of 12.

Professor Bertsch's experience was shared with the Panel. Separate discussions were held with rangers while on K'gari and this feedback was incorporated into the review process to help understand the challenges and opportunities of working with people and wongari.

The Panel was supported by a dedicated project manager James Murphy, who helped undertake research, prepare papers and presentation materials, engage with rangers, report writing and to act as a conduit between the department and the Office of the Queensland Chief Scientist.

The Panel acknowledged the input by K’gari rangers was incredibly valuable in understanding current actions, people and wongari behaviour and the management challenges. A special thanks to Ms Linda Behrendorff, Ranger in Charge; Mr Dan Novak, Ranger; and Ms Jenna Tapply, Ranger Community Engagement from QPWS at Eurong, for sharing their insights, knowledge and experience, through the Panel process.

The Panel further acknowledges the involvement of the Butchulla Aboriginal Corporation and input by Butchulla rangers in the review process. This was an important step in supporting greater collaboration, information sharing, and identification of shared management opportunities.

A summary of the key stages of the review is summarised in Figure 1.

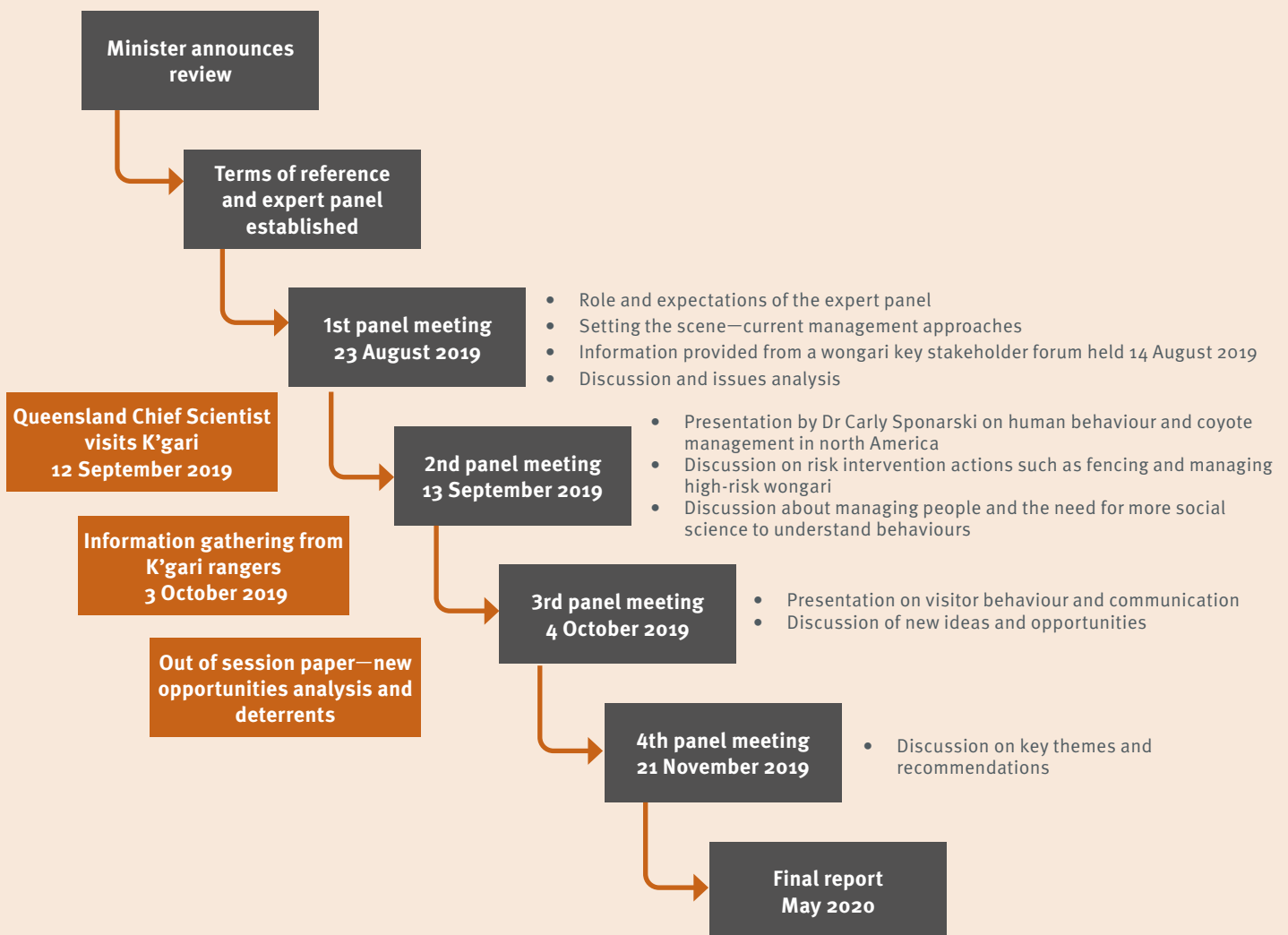


Figure 1: Summary of the stages of the Wongari Implementation Plan review



## 2.0 **Habituation** *and aggression*

### 2.1 Pathway to habituation and aggression

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The Panel unanimously agreed that managing people remains the greatest challenge. Human activity has resulted in some wongari becoming habituated. When this happens they lose their natural fear of people and can become aggressive. This pathway for wongari becoming habituated has been conceptualised by Ms Linda Behrendorff, Ranger in Charge—Eurong, QPWS (Figure 2).

While human safety is a key concern with this habituation pathway there are also welfare concerns for the wongari. The Panel noted that wongari could eat plastics or hooks, be at increased risk of being hit by a vehicle, and pups can be taught bad behaviours impacting on their health. Highly habituated pups may also become high-risk adults.

The Panel acknowledged that breaking the pathway to habituation is an ongoing and evolving challenge, yet critical to reducing the incidences of encounters involving aggression.

The Panel noted the focus of the Implementation Plan has been to break this habituation pathway through a range of risk intervention, education, compliance and research activities.

Wild →



Becoming familiar →



Habituation →



Interaction →



A wongari may start becoming familiar with being around people through loitering at sites where people are congregated, e.g. campsites, visitor sites and carparks.

Some people may encourage interactions and illegally feed the wongari, resulting in wongari becoming further habituated. Wongari start soliciting food from fishers, visitors, and vehicles.



**WITHOUT INTERVENTION HABITUATION CAN LEAD TO AGGRESSION**



Without any intervention to try and break this habituation pathway, there is an increased risk of a serious negative interaction. The consequences can be devastating to both people and wongari.

**Figure 2: Pathway to habituation and aggression**

Three different habituation behaviours: approaching people (top), investigating vehicles for food (middle), loitering and soliciting food at Hook Point barge landing (bottom).



## 2.2 People—wongari interactions

While an analysis of the interaction data suggests incidents involving wongari approaching people or showing signs of aggression occur regularly, it is important to keep perspective. The Panel noted that of the 400,000 people that visit K’gari each year only ~0.12% of these visitors experience a negative interaction. Wongari packs are widespread on the island and not all wongari are aggressive.

Risk assessments suggest only a small number of wongari show repeated interactions. These interactions occur in high visitation areas such as the eastern beach, Boorangoora (Lake McKenzie) and western visitor sites such as near the Kingfisher Resort (Figure 3).

Table 2 provides a summary of reported interactions from 4 October—8 December 2019. A common issue with these reports is that the wongari in question have become habituated to people (they have lost their natural fear and avoidance of people). These interactions identify opportunities for improved people behaviour such as keeping children close, walking in a group and the importance of deterrents such as carrying a stick.

These reports on wongari interactions are likely the consequence of previous people interacting with or feeding wongari, resulting in habituation. This results in an increased risk to vulnerable people such as children.



**Figure 3: Location of reported interactions (QPWS, 2019)**

**Table 2: Summary of people–wongari interaction reports, 4 October to 8 December 2019 (QPWS 2019)**

Two children playing at the water’s edge on eastern beach while parents sat on dune approximately 50 metres away. Two wongari were observed heading towards the children. Unaware of the wongari the children ran back to their parents and the wongari gave chase coming to within half a metre lunging and attempting to bite. The father ran down to beach with a shovel and chased the wongari away.

A mother and two children were walking along beach at high tide when a wongari ran out of the vegetation heading straight towards the eight-year-old. The wongari tried to nip at the child’s feet and the back of the legs before being shooed away. When the group turned to walk away the wongari came from behind and bit the eight-year-old on the hand. The family used a boogie board to put between themselves and the wongari and backed away to their car. The wongari continued to circle the group. The family made it back to car. The wongari loitered around while the Queensland Ambulance Service and rangers tended to the boy.

A husband and wife were approached by three wongari. The wongari displayed dominance testing and stalking behaviour. The husband made noise and chased the wongari away with a long-handled gaff.

While a man was fishing at the water’s edge a wongari approached his wife who was sitting on a bucket 15 metres away. The wongari growled and was dominance testing. The woman notified her husband and they yelled and chased it away.

A wongari approached three visitors. The wongari stretched and opened its mouth, looking aggressive and snarled. One visitor had a stick and hit the timber railing to deter it. Another visitor arrived with a stick and chased the wongari away.

A father and three children walked down to the beach towards the water. One child lagged behind around five metres. A wongari appeared and ran past the child’s mother who was sitting on the dune and headed straight towards the child.

A business operator was at his generator shed when a wongari approached within one foot, snarled, yapped, lunged and jumped around. The business operator yelled and chased it away.

A wongari was observed running towards two children swimming. The parents were alerted and chased the wongari away.

Two people were lunged at by two wongari. They waved pool noodles as a deterrent. A passer-by stopped to assist. The people yelled at the wongari and they ran off. Visitors were panicking.

A lady and two children were approached by sub-adult wongari which began dominance testing. The woman and children slowly approached the water’s edge and left in a vehicle.

A wongari approached an adult with children to within one metre. The wongari showed no interest until the child made noise.

A two-year-old was bitten on the arm while eating an apple within one metre of his camp. The father heard the child scream and walked out of the annexe and saw the wongari. The father yelled and chased it away.

Visitors were walking along beach and saw a wongari running at speed towards them, stopping within one metre. Visitors yelled at it. After a short time the visitors continued walking and the wongari wandered off.

Three wongari approached an adult male walking alone with no stick. They circled at 3–4 metres following him into the water. He slowly made his way back to camp and the wongari left.

# 3.0 Effectiveness of the Implementation Plan

The Panel concluded that the Implementation Plan was comprehensive and effective in mitigating risks, helping to keep both people and wongari safe.

The management approaches within the Implementation Plan address many facets of people and wongari management, such as risk intervention and education, and provide a mechanism for reducing the likelihood of high-risk interactions.

The Panel also concluded that the department was effectively delivering the activities and measures in the Implementation Plan. Some of the approaches delivered are summarised in Figure 4.

While the Panel considered the Implementation Plan and delivery to be effective, they agreed there is opportunities to enhance actions, collaborate with the Butchulla People and others, and that management requires strong commitment and resourcing.



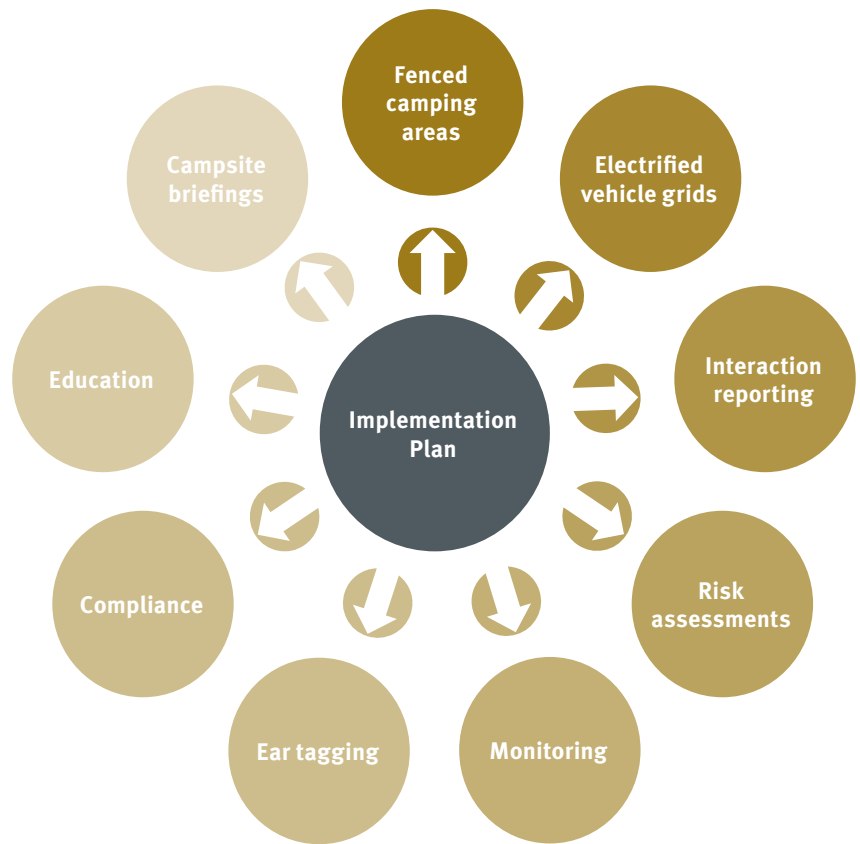
The Implementation Plan remains effective.



A range of opportunities exist to enhance the Implementation Plan.



Implementation plan requires ongoing support and effort.



**Figure 4: Summary of actions being delivered**

As part of this assessment the Panel explored in more detail many of the approaches covered within the Implementation Plan management programs.

This analysis is provided in the following sections.

The Panel considered the approaches for managing wongari and communicating to and educating visitors as articulated in the Implementation Plan and the department’s delivery of the Implementation Plan in evaluating the current effectiveness of risk mitigation. Details of the Panel’s assessment are provided in the following sections.

# 4.0 **Committing to the challenge**

The expert panel noted that the Implementation Plan could not be effectively implemented without proper resourcing.

The panel reaffirmed the critical role rangers, including Butchulla rangers, play in delivering these actions, through maintaining fences, conducting risk assessments, receiving and monitoring interaction reports, conducting monitoring programs, as well as, delivering education and engagement activities. The Panel noted the work conducted by rangers and the Butchulla Aboriginal Corporation has helped prevent potential serious incidents.



Rangers play a highly effective and essential role in delivering the Implementation Plan.



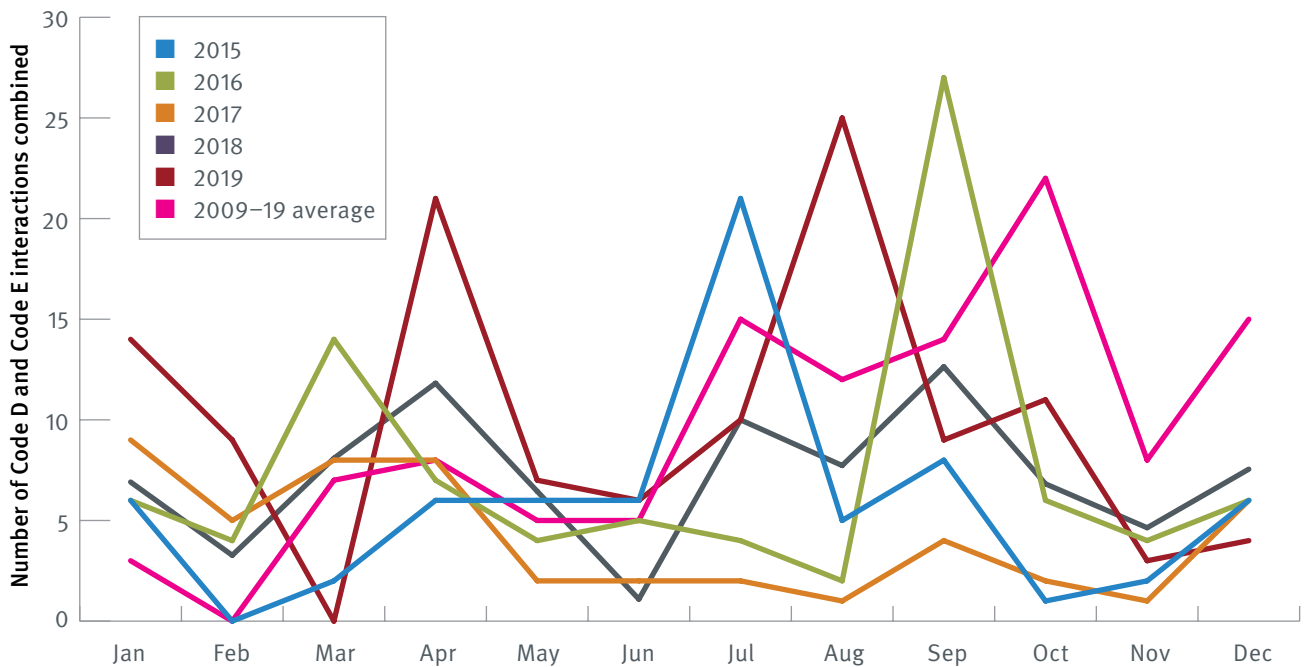
Review current management approaches to determine where resources are best allocated.



Ensure rangers are adequately resourced.  
Allocate time and resources for rangers to deliver the Implementation Plan.

In terms of data, the Panel learned the interaction reporting data reveals peak periods for people and wongari interactions. For example, as depicted in Figure 5, the peak interaction periods, not surprisingly, occur during school holidays (Easter, June–July, September and December–January), reinforcing the idea that people management needs to be increased commensurately during these periods. However, the panel also noted that this is also a period where rangers work load on other activities increases.





**Figure 5: Monthly wongari interactions 2015–2019**

The panel recommended that the department consider how dedicated resourcing for people and wongari management activities can be increased, particularly during peak visitor periods.

#### Recommendations

Ensure rangers are adequately resourced to deliver front-line actions such as engagement, monitoring and risk intervention.

Investigate and deliver actions for greater involvement of the Butchulla People in wongari management, including rangers, upskilling and decision making.

Undertake an internal assessment of existing on-ground actions to help determine which actions require more energy and focus and which require less.



# 5.0 Risk *intervention*

## 5.1 Infrastructure

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### Status

The Implementation Plan specifies that infrastructure such as fencing, electrified vehicle grids and self-closing pedestrian gates, should be used as a risk reduction tool to separate people and wongari.

As at 31 January 2020, there were 24 fenced areas across the island. These are located at Kingfisher Bay Resort, Dilli, Eurong, Happy Valley, Cathedral Beach, K'gari Cultural and Education Centre, Central Station camping area, Central Station duplex, Dundubara camping area, Lake Boomanjin camping area, Waddy Point top camping area, Cornwell's group camping area, and waster transfer stations, picnic areas and hiker camps. The largest fenced area occurs around Kingfisher Bay Resort extending five kilometres. Planning is underway to establish additional fenced areas for camping sites on the eastern beach.

### Emerging risks and challenges

There are a number of emerging risks and challenges with delivering infrastructure.

- Fencing, vehicle grids and gates are costly. It takes time and resources to plan, install, maintain and monitor this infrastructure to ensure its ongoing effectiveness.
- Large fenced areas are resource intensive to maintain and require significant resources to remove wongari that happen to breach the fencing and enter these areas.



*Pedestrian gate and electrified fencing at Kingfisher Bay Resort.*

- It can be difficult to remove wongari from a large fenced area with plenty of places to hide and space to avoid capture. Ranger observations show that the longer a wongari is within a fenced area the more likely it could be isolated from its pack structure.
- While fencing is highly effective it is not feasible to install fences at every location. Many popular visitor sites such as Eli Creek and the Maheno Wreck where interactions occur may not be conducive for fencing due to their location and terrain.
- Managing Butchulla Native Title rights and interests is a key consideration when identifying new fenced areas and associated physical works.

### Observations and findings



Fencing is highly effective in separating people and wongari.



Identify opportunities to enhance fencing program.



Requires collaboration in building community support and delivery.  
Requires resourcing.

The Panel concluded that separating people and wongari using fencing has been highly effective in keeping people and wongari safe.

Since the installation of fencing around Kingfisher Bay Resort, the risk rating dropped from high to very low. Fencing also plays a key role in breaking the pathway to habituation through prevention of wongari entering visitor areas.

With fencing proving to be an effective management approach the Panel supports ongoing delivery of the fencing program through the installation of additional fenced areas.

Any planning should be informed by risk assessments and in discussion with the Butchulla People. Based on QPWS and Butchulla ranger advice the Panel suggests priority areas could be the eastern beach and the Orchid Beach township. Fenced areas should also be designed to support the recapture of any wongari that manage to get inside.



*Fencing at Kingfisher Bay Resort .*

The department has been responsible for the installation of fenced areas including the cost to plan, install, monitor and maintain.

While this approach is effective the Panel noted the opportunity for greater collaboration with shared ownership and responsibility. This could include land owners installing and maintaining wongari-proof fencing around their properties and the Fraser Coast Regional Council installing fencing in public use areas. Opportunity may exist for other island businesses and commercial tourism operators to support fencing programs.

During peak periods visitors spill over onto the eastern beach around townships such as Eurong. This can attract wongari who loiter and may solicit food.

The Panel noted that more visitor facilities behind fenced areas would provide safe eating and children's play areas and would further assist in reducing the risk of a negative wongari interaction. These areas could be delivered by the Fraser Coast Regional Council as part of other public space programs.

### Recommendations

Resource the investigation, construction, monitoring and maintenance of additional fenced areas in collaboration with the Butchulla People. For example fencing at Orchid Beach and campgrounds on the eastern beach as a key strategy to reduce risk.

Ensure fenced areas are appropriately designed to support the recapture of any wongari that have managed to get inside.

Establish collaborative arrangements with the Butchulla People, Fraser Coast Regional Council, local residents, tourism operators, resorts and island businesses for delivering fencing and supporting infrastructure.

## 5.2 Interaction and reporting

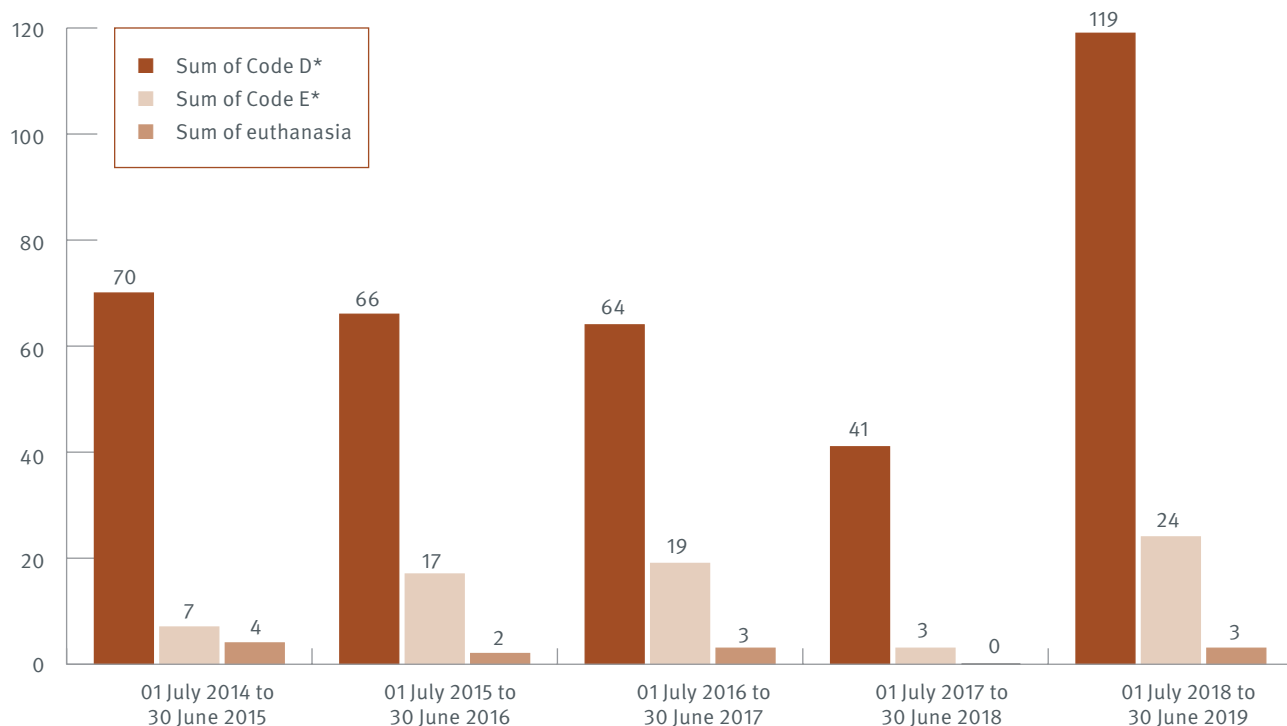
### Status

The Panel concluded that interaction reporting has been effective in providing critical information on the location and relative severity of people and wongari interactions, the identity of individual wongari involved, and the people and wongari behaviour at the time of the interaction. This information helps inform future management interventions.



**Active promotion of interaction reporting by rangers has led to a significant increase in interaction reports**

The Panel noted that the department has been actively promoting the importance and value of interaction reporting and this has resulted in a significant increase in the interactions reports during the 2018–2019 reporting period (refer Figure 6). This trend is continuing in the 2019–20 period and this increase has been achieved through active promotion of dingo-safe messages through camping and vehicle permits, online messaging, signs and brochures, face-to-face camper briefings by rangers and distribution of pens, stickers and business cards promoting the [dingo.ranger@des.qld.gov.au](mailto:dingo.ranger@des.qld.gov.au) email address for reporting interactions



**Figure 6: QPWS wongari interaction reporting data 2014–19**

\* The severity of a wongari interaction with a person is given a code (A, B, C, D, or E) in the interaction report. Wongari displaying threatening behaviour are recorded as code D. Wongari displaying high-risk behaviour are recorded as code E.

## Emerging risks and challenges

The data in Figure 6 demonstrates the benefits of increased ranger efforts and promotion of interaction reporting. Maintaining this is essential for community support and analysis of future trends. Reduced interaction reporting data can negatively impact the effectiveness of risk assessment and education.

## Observations and findings



Interaction reports remain an effective management tool.



Opportunities for interrogation of data and inclusion of people behaviour to inform management action.



Requires resourcing.

The Panel concluded that interaction reporting is an effective means of gathering data on people and wongari behaviour and should be continued.

Current efforts to promote reporting have been effective and beneficial in supporting greater intelligence gathering and informing risk intervention.

Continued reporting of interactions is essential as inclusion and analysis of people behaviour data can lead to a greater understanding and inform future management.

## Recommendations

Resource the use and analysis of data from people and wongari interaction reports.

Promote the importance of visitors and residents reporting wongari interactions.

Include people behaviour in interaction reports to enhance understanding of interactions and help inform future management.

Regular reporting of interaction data, including sharing information with the Butchulla People.





## 5.3 Risk assessments



Figure 7: Warning sign used on K'gari

### Status

The Panel learned that risk assessments are conducted at 65 sites four times a year by rangers on all QPWS day-use and camping areas, private accommodation, community and other facilities.

Where a high-risk location is identified, actions are taken to reduce risks, such as installation of warning signs (refer Figure 7), increasing ranger presence, increasing education and communications, or implementing temporary closure of campgrounds, visitor sites or walking tracks.

### Emerging risks and challenges

The main challenge with this management approach is ensuring ongoing delivery of risk assessments to support informed and effective management decisions.

### Observations and findings



Risk assessments have been effective in assessing the level of risk and informing management action.



Delivering informed management actions.



Ongoing resources.

The Panel concluded that risk assessments are an effective tool for identifying potential risks and informing risk response and should be continued.

The Panel noted that while there may be some public critique of closures these actions are essential in reducing the level of risk and must continue as an effective management action. Continued use of signage and education supports greater community understanding and transparency in decision making.

### Recommendation

Deliver actions in response to risk assessments such as warnings, closures, monitoring and targeted education.

## 5.4 Routine closures

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### Status

The Panel noted risk mitigation strategies such as closures were effective in reducing risk through the separation of people and wongari.

### Emerging risks and challenges

During off peak times campers may be spread widely within the eastern beach camping areas. This stretches ranger resources with more time spent travelling and less time focused on education and awareness, monitoring and risk intervention.

### Observations and findings



Routine closures are an effective way of separating people and wongari.



Opportunity to deliver more routine closures.

The Panel concluded that campground closures at low visitor periods could serve as a reasonable measure to reduce risks. With wongari loitering in these camping areas during peak periods, closures provide the opportunity to change the pattern of wongari visitation and familiarisation during quieter times. It also allows rangers to maximise face-to-face engagement and education efforts by having fewer areas to visit. The Panel concluded that these closures provide camping areas with a chance to recover from peak periods.

### Recommendation

Deliver routine, temporary closures of camping areas during low visitation times as part of risk reduction strategies.

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## 5.5 Ear tags



A K'gari wongari with an ear tag.

### Status

The Panel noted that ear tags are a key tool in helping rangers and the public identify individual wongari. As at December 2019 there were 32 active ear-tagged wongari. Any capture process for tagging wongari provides additional benefits such as assessing the health of the wongari and collecting material for DNA analysis. Ongoing use of ear tags will support monitoring programs and risk reporting and assessment.

### Emerging risks and challenges

The existing practice is that wongari that weigh less than 10kg should not be tagged. When these wongari are captured, they are let go without any tags. The Panel noted there was no scientific basis for this size limit and that this is a missed opportunity.

Research indicates that wongari typically reach their mean weight by 12 months of age (Figure 8). Research has also shown that by six months of age wongari typically reach their adult ear length (Figure 9). This is depicted in Figure 9 with the majority of dots (wongari studied) occurring in the six to 12-month age bracket.

The benefits of tagging needs greater communication and awareness among visitors, residents, the Butchulla People, tourism operators and island businesses to help address any uncertainty and misconceptions.

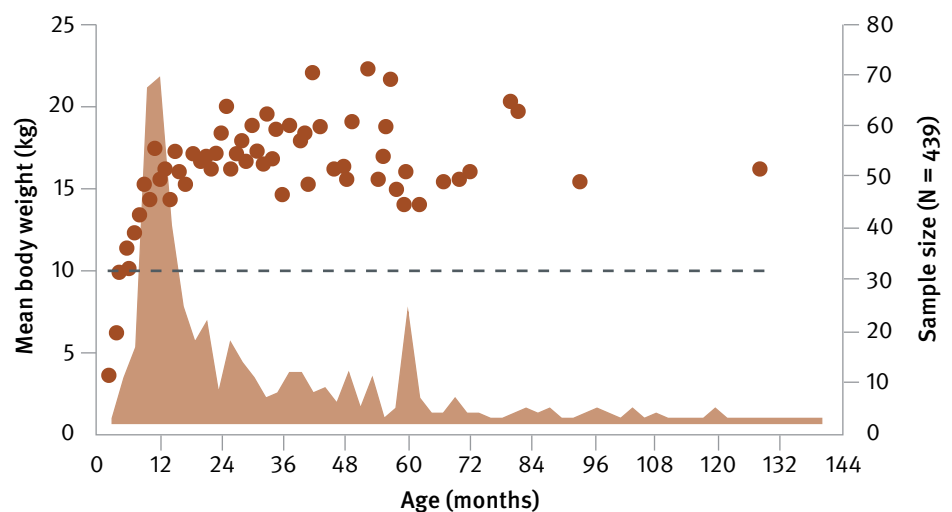


Figure 8: Comparison of wongari age and body weight (QPWS data)

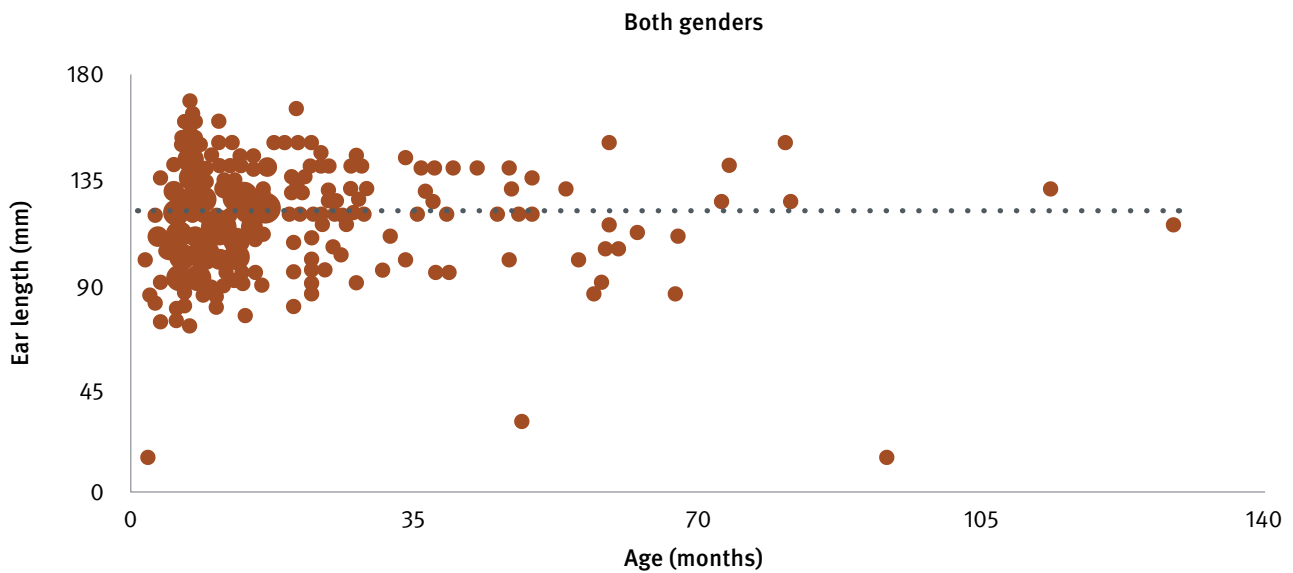


Figure 9: Comparison of wongari age and ear length (QPWS data)

### Observations and findings



Ear tagging remains an effective tool for monitoring wongari behaviour.



Opportunity for enhanced monitoring through tagging wongari weighing less than 10 kilograms.

The Panel concluded that monitoring of wongari continues to be a valuable management tool. The Panel considered that the current arbitrary requirement that wongari need to weigh more than 10 kilograms to be tagged resulted in lost opportunity to fully understand and identify problem juveniles that were not tagged due to this requirement.

The Panel concluded that based on the best available science, this arbitrary weight requirement was unsupported.

### Recommendations

Allow captured wongari weighing less than 10 kilograms to be ear tagged following assessment of their age, ear size and health.

Delivery of education messages and awareness on the importance and benefits of tagging for people and wongari safety.

## 5.6 Geo-fencing/aversion collars

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### Status

The Panel noted a project is underway to trial a non-lethal approach for separating high-risk wongari and people. This involves trialling a GPS enabled aversion collar which can be used to exclude habituated wongari from specific areas. A spatially defined exclusion area (invisible fence) can be created as part of separating a high-risk wongari and people. Any GPS collared animal approaching an exclusion area would receive an audible alert, followed by a secondary alert if the wongari continues towards the area. If the wongari continues on after these initial alerts and enters the exclusion area the collar will deliver a mild shock that is off-putting but not life threatening. This intuitive collar includes timed and remote release mechanisms supporting the welfare of the animal.

This is a collaborative project between the department, the Butchulla Aboriginal Corporation and the University of Southern Queensland (and partnering scientists).

### Emerging risks and challenges

Separating wongari showing high-risk behaviour and people remains an ongoing risk management challenge. Non-lethal options need to be identified and trialled to confirm their effectiveness. The goal is to test the effectiveness of non-lethal approaches that can target individual wongari and deliver behavioural change.

### Observations and findings



Investigation of new risk intervention tools.



Delivery of an aversion collar trial and possible roll-out of collars.

The Panel supports the aversion collar trial as an important step in testing non-lethal approaches for separating high-risk wongari and people. The Panel further supports exploration and trialling of other non-lethal technology to help reduce the risk posed by habituated wongari.

### Recommendations

Deliver an aversion collar trial (geospatial virtual fencing) as a targeted means of separating people and high-risk wongari.

Roll-out the use of collars to high-risk wongari subject to the outcomes of the trial and taking into account cultural, ethical and management considerations.

## 5.7 Deterrents

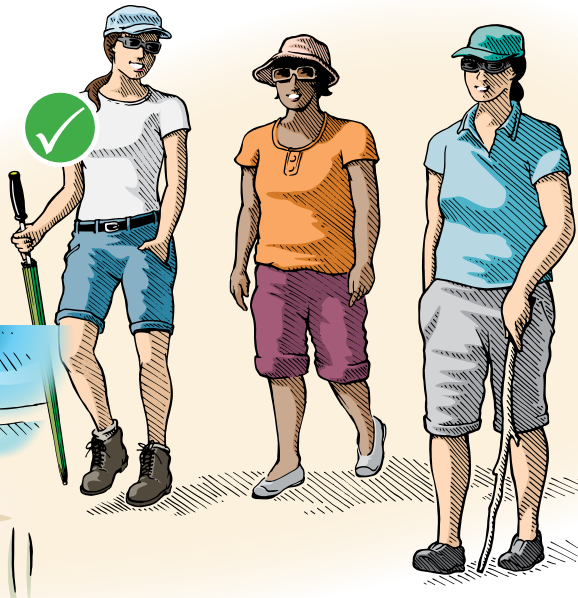


Image from *Dingoes (wongari) of K'gari* brochure encouraging people to carry a stick or umbrella for extra protection.

### Status

The department's 'Dingoes (Wongari) of K'gari' brochure encourages people to 'walk together, stay alert and carry a stick or umbrella for extra protection' as part of staying wongari safe. Rangers also encourage visitors to walk in groups, keep children close and carry a stick. Hazing, which involves the physical use of deterrents, ceased prior to 2010. The Panel concluded these efforts have not been particularly effective with many people choosing not to carry a stick and not walking in a group.

### Emerging risks and challenges

Interaction records suggest visitors are not carrying sticks when out and about on K'gari and sometimes not walking in a group. This can result in increased levels of risk. The challenge is providing people with clear messages and the tools to help deter a possible negative wongari interaction. This is where deterrents like sticks can provide a role and help influence wongari behaviour.

Research on deterrents suggests it is easier to influence change before an activity becomes a habit. This reflects the importance of breaking the pathway of wongari habituation while the wongari are young, rather than trying to correct the problem behaviour in an older animal.

### Observations and findings



Investigating deterrent measures and education programs.



Opportunity for further action to encourage visitors to carry a stick.

Opportunity for further investigation of new techniques.

The Panel noted that while research has tested a range of deterrents no single device has proven to be completely effective. Deterrents tested include ultra-sonic devices, lights, sounds, sirens, umbrellas, water pistols, kicking sand, throwing objects, repellents, taste avoidance and predator urine. Each has had mixed success and practicality.

Ranger experience indicates there has been little or no serious wongari interactions when a person has been carrying a stick. When carrying a stick the intent is to not harm the wongari. Having a stick around the length of a long walking stick helps create an illusion of greater size for the person and prevents the wongari from approaching too close and hopefully avoiding any confrontation.

A hiking pole, walking stick, long piece of plastic poly-pipe, fishing rod or large umbrella are examples of other suitably sized deterrents people could be encouraged to use when walking as a practicable means of deterring wongari and providing a form of defence. People should be reminded that wongari should not be hit or chased with penalties applying for deliberate harm or harassment of wongari.

The Great Barrier Reef Marine Park Authority has produced a flyer to help explain what a fishing ‘hook’ is. It uses images to explain that a hook can be a single hook, a double or treble hook, a lure, set of gang hooks or a bait jig. Something similar could be used to describe what constitutes a ‘stick’ to help people understand.

A mine in Western Australia encouraged their employees to carry a stick around the site to help deter dingoes following a serious interaction. Bins were provided with sticks (Figure 10, courtesy ABC News).



**Figure 10: Dingo sticks bin used at a Western Australian mine site**

On K’gari some commercial tourism operators provide sticks and encourage their clients to carry these when leaving their protected camp site.

If sticks are to be encouraged then providing people with easy access to them may be needed. This could involve providing stick collection points and encouraging sharing. Visitors to K’gari could be encouraged to bring a stick as part of their pre-trip planning.

The Panel also discussed actions used in North America to deter coyotes. The ‘BE Coyote aware’ is a sign from the University of Calgary detailing coyote safety messages and how to deter a coyote interaction (Figure 11).

Learnings from North America have the opportunity to inform of other tools and methods to keep people wongari safe, such as shaking keys, using a rattler (stones in a tin), and yelling and waving arms above head. These actions require further consideration and trialling.



Figure 11: 'BE Coyote aware' sign, University of Calgary

As part of long-term strategies ongoing research of practicable and workable deterrents is needed to provide greater confidence in management options.

## Recommendations

People should be strongly encouraged to carry a walking stick<sup>5</sup>, pole, or something similar as a visual deterrent when walking in unfenced areas to reduce risk.

Implement ways for people to easily access sticks including uptake by commercial tourism operators in collaboration with the Butchulla People and encourage people to carry a stick for use when out and about on K'gari.

While carrying a stick is encouraged people should be reminded that wongari should not be hurt or chased. Sticks are a deterrent only and penalties apply to any deliberate harm or harassment.

Investigate and trial other deterrents noting the importance of keeping things workable and practicable.

5. Examples of a 'stick' include a fallen branch that could be easily carried around the length of a walking stick, a hiking pole, long piece of plastic poly-pipe, fishing rod or large umbrella.



## 5.8 Waste from bush toileting

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### Status

Bush toileting occurs at many camp sites on K’gari. There are also a number of public toilets on the island and six Dump Ezy sites for portable toilet waste disposal. Current education material promotes the use of toilets and portable toilets, although if a person needs to go to the toilet in the bush they are encouraged never to go alone and to have a person on wongari lookout.

### Emerging risks and challenges

The Panel heard how waste from bush toileting has unfortunately created a food source for wongari further creating a pathway to habituation and aggression.

Bush toileting creates a safety risk for people who, in attempting to find a quiet solitary place, increase the risk of a wongari interaction.

In one interaction report an adult male walked up into the dunes and, while toileting, a wongari ran straight towards him. With the help of another man they chased the wongari away.

Ideally bush toileting in a World Heritage Area, national park and in Butchulla country, is limited respecting the values of the area, reducing the risk of a negative interaction and changing wongari behaviour.

### Observations and findings



Promote the use of toilets and portable toilets and the need to be wongari safe while toileting.



Opportunity to limit bush toilet waste.  
Greater promotion of cultural and conservation values.

The Panel concluded that changes to bush toileting practices could help reduce the pathway to habituation. However, the onus should not rest with the Queensland Government to provide more facilities. People should adopt practices such as the use of port-a-loos and seek out public amenities to manage their waste while also keeping themselves safe. Greater promotion about the use of port-a-loos is needed to reduce risk and encourage respect for the conservation and cultural values of the area.

### Recommendations

Limit bush toileting (through education or restrictions) as part of breaking the pathway to habituation and reducing the risk to people.

Greater promotion of the conservation and cultural values of K’gari as part of seeking a reduction in bush toileting.

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## 5.9 Expansion of areas where fish waste can't be disposed



*Wongari feeding on uncovered fish frames on eastern beach.*

### Status

Fishing is a very popular activity on K'gari resulting in the generation of fish waste such as fish frames. Education materials encourage the burial of waste at least 50cm deep to avoid easy access by wongari. Burial helps disassociate people with food and can help break the pathway to habituation. Natural scavenging by wongari may also uncover fish scraps.

Rules currently restrict the disposal of fish waste in front of some communities such as Eurong and Happy Valley to discourage wongari from loitering in these areas.

### Emerging risks and challenges

Fish waste from people can become a source of food for wongari, increasing the pathway to habituation. The Panel noted rangers shared concerns about fish waste appearing in high visitation areas near Orchid Beach and Waddy Point resulting in wongari loitering in the area and increasing the risk of negative interactions.

### Observations and findings



Use of 'no fish waste disposal area' and messaging about burying fish waste.



Opportunity for further 'no fish waste disposal areas'. Promotion of consequences of poor waste disposal.

The Panel concluded that to help reduce the risk of fish waste becoming a food source and wongari becoming habituated, 'no fish waste disposal areas' should be designated and enforced in high visitation areas. These should be accompanied by educational messages promoting the importance of managing fish waste, including the burial of fish waste to discourage wongari associating people with food.

### Recommendations

Expansion of designated 'no fish disposal areas' to help prevent wongari familiarisation with people and food sources.

Promote the risks of poor disposal of fish waste and the potential consequences such as wongari habituation.

## 5.10 Knowing what to do with a high-risk wongari

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### Status

The Panel noted that the Implementation Plan provides that after a rigorous assessment a high-risk wongari may be euthanised as part of reducing the likelihood of a serious attack.

Euthanasia of a high-risk wongari is used as a last resort. Prior to this, many risk intervention actions are deployed such as increased ranger presence, monitoring, risk assessments, temporary closures, and targeted education, as a means of raising awareness and reducing the risk.

Management action has resulted in a decline in the number of wongari euthanised over the past five years. On average 1.8 animals are euthanised each year.

### Emerging risks and challenges

The Panel noted there is some community opposition to euthanasia. This recognises the cultural significance of the wongari to the Butchulla People and the importance of wongari to various community and conservation interests. This has led to increased management uncertainty on when, or if, euthanasia should be used as a risk reduction measure. Ideally no wongari are euthanised for high-risk behaviour.

Management of high-risk wongari triggered discussion amongst the Panel about a decision trade-off—should management prioritise people over wongari safety, or vice-versa? Decisions can be made to help reduce the trade-off in an attempt to get a level of balance between people and wongari safety, however trade-off decisions can't be avoided. There will be either harm to people or harm to wongari. For example, people may still experience negative interactions and identified high-risk wongari would be euthanised to combat the risk. Determining what to trade-off results in management uncertainty and increased risks for both people and wongari. This is summarised in Figure 12.

The extreme nature of the trade-off can be alleviated through investment in management actions—rangers, risk intervention, education, monitoring, compliance, and research. This links back to the recommendations in this report and the importance of committing to the challenge (section 4).

The following diagram helps explain the dilemma facing K’gari managers.



**Figure 12: Management trade-off—the management challenge—keeping people and/or wongari safe**

### Observations and findings



Procedures and decision-making process for assessing high-risk wongari.



Need for greater certainty about how to manage high-risk wongari.  
Co-generation exercises to discuss new ideas and opportunities.



Balancing the trade-off between people safety and wongari safety.

The Panel concluded that the ongoing challenge remains what to do with high-risk wongari.

Unless the pathway of habituation changes and people change their behaviour, there will always be the chance of a serious interaction. What to do with wongari that demonstrate recurring high-risk behaviour or that have attacked a visitor remains a challenging issue. If a wongari has shown recurring threatening

behaviour then greater management certainty and collaboration is needed about how to alleviate the risk considering ethical, cultural, conservation and community expectations.

The Panel concluded that euthanasia should remain as a management option but should only be used as a last resort. Non-lethal techniques must be explored, risk assessments made and risk intervention actions taken. The Butchulla People must be engaged in any decision-making and action.

With euthanasia being a sensitive topic, the Panel concluded that an opportunity exists to undertake a co-generation exercise with the Butchulla People to discuss and explore the challenges with managing high-risk wongari. This would involve the department and the Butchulla People further working together to discuss current management actions and decision-making, sharing concerns and challenges, and identifying opportunities.

The goal is to expand current collaboration and support in order to keep both people and wongari safe.

The next step with the co-generation and collaboration exercise would involve the department and the Butchulla People collectively engaging with other island interest groups such as tourism and conservation interests, in scoping ideas and building support for managing high-risk wongari.

While the Panel discussed translocation of high-risk wongari, any decision on the feasibility of this approach was considered beyond the scope of the Panel. If translocation was to be reconsidered QPWS collaboration with appropriate experts in wildlife ecology, translocation and welfare and the Butchulla People would be required.

## Recommendations

Retain euthanasia as a last resort management option for a wongari showing high-risk behaviour when all non-lethal options fail.

Develop and implement a co-generation strategy with the Butchulla People to establish management actions for dealing with high-risk wongari.

The department and the Butchulla People to work together to seek support from other island interest groups to support enhanced people and wongari safety.

# 6.0 Communication *and education*

## 6.1 Education actions

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### Status

The Panel noted a range of education tools are currently used to raise awareness of wongari, the risks associated with people-wongari interactions, and measures people should adopt to help keep themselves safe. These include:

- signs, brochures, stickers, posters, business cards, pens (refer Figure 13 for examples)
- departmental website and social media
- rangers delivering face-to-face education to school groups, community events, families with children and beach joggers. In 2018–19, rangers delivered 15 presentations to school groups and 5408 wongari briefings to visitors, campers and tag-along-tour groups
- rangers engaging with resort operators, island businesses and residents promoting safety messages and sharing education materials
- commercial tourism operators being required to provide their clients with wongari safety briefings.



Figure 13: Current education initiatives: Business card with ‘Be dingo-safe’ messages (left), brochure (centre) and signs and posters (right)

### Department of Environment and Science Facebook post 23 September 2019



- If you’re visiting K’gari (#FraserIsland) over the #schoolholidays (or any other time of the year) it’s important to remember not to attract the attention of the wongari (#dingo) on the island by leaving food unsecured. Some animals may see it as an opportunity to establish a new territory because food resources are readily available.
- **K’gari provides plenty of food**, and living wild means the wongari population can regulate itself based on the availability of food—a principle applied to wildlife management throughout the world.
- Wongari are also a necessary component of K’gari’s natural ecosystem and feeding them interrupts this natural balance. **The island provides a varied diet**, including fish, crabs, reptiles, echidnas, bush rats, swamp wallabies and bandicoots. Wongari also eat insects and small berries, and roam along the beaches looking for marine life or the occasional dead sea bird.
- **It is illegal to feed** or offer food to wongari. Maximum fines of \$10,676 and minimum on-the-spot fines of \$2,135 are now in place for those who break the law.
- Visitor safety and animal welfare is our top priority, if you are visiting K’gari remember, don’t get caught out—**be dingo safe**.



*Wongari dispute, Maheno Wreck.*

## Emerging risks and challenges

While extensive messaging about the risks and risk reduction strategies exist the Panel noted that some people actively seek a wongari interaction, which increases the likelihood of wongari becoming habituated and leading to aggression. Rangers shared several examples:

- a visitor stating ‘they always wanted to feed a dingo’ (this person received an infringement)
- a parent asking their child to get closer to a wongari in order to get a better photo prior to the wongari lunging at the child
- a person posting a close interaction image on social media and two days later the same wongari attacked a child resulting in significant injuries
- people not watching their children, such as leaving them alone in their camp site or on the beach
- people walking alone on the beach without any form of deterrent such as a stick
- people jogging on the beach which can trigger interest and a potentially negative wongari interaction.

For some people wongari may seem not dissimilar to their domestic dog resulting in them feeling casual about their presence including interacting and feeding them. The image (top left) depicts how fierce wongari can be. A pack dispute like this can result in fatal injuries to wongari.

People who do not understand or appreciate the consequences of their actions is a significant concern. For example, a confident adult may see no problems with feeding a wongari or letting it loiter around their camp site. However this action can increase the risk of aggression to a family with young kids at the same location a few days later.

The Panel noted that social media can influence people’s behaviour and expectations. People post photos and selfies of them getting close to, or even feeding a wongari. This raises the expectations of others seeking the same experience and creating the perception that this behaviour is acceptable.

The key questions being ‘why aren’t people listening?’ and ‘why don’t people understand that their actions can have devastating consequences?’

**It is important to  
emphasise that actions  
can have consequences**



## Observations and findings



Effective education programs and actions.  
Face-to-face engagement is highly effective.



Opportunity for delivering a collaborative communication and education strategy.



Ongoing resourcing.  
Exploring and utilising a range of communication pathways.

### Education and awareness

#### (a) Face-to-face engagement

While various communication tools are used the Panel noted that face-to-face communication has proven to be the most effective mechanism for engaging with people and promoting safe behaviours. The Panel heard from rangers that there is a correlation between engagement effort and interaction reports. On this basis the Panel recommends that face-to-face engagement is supported as a key education and risk intervention tool.

#### (b) Social media

While social media is challenging, the Panel concluded that social media provides opportunities through the promotion of safe behaviour and positive messaging. This medium should be embraced to support enhanced messaging. Ranger-led videos would assist in promoting positive behaviour.

#### (c) Approach distances

While current education actions encourage people to give wongari space (refer left) the Panel recommended this is given greater emphasis. This could encourage greater safety and provide people with a more relaxed opportunity to view wongari behaviour at a safe distance. This approach distance could apply to both people and vehicles. This could also include messaging around not blocking the wongari's path or exit as part of keeping the wongari safe and reducing the risk of a vehicle strike.

The following is an example used in a Parks Canada brochure (from 2000) and there is an opportunity to promote safety distances (using bus or vehicle lengths) on K'gari.



Above: 'Give wongari space' sticker is part of a range of educational materials that rangers provide to campers and visitors.

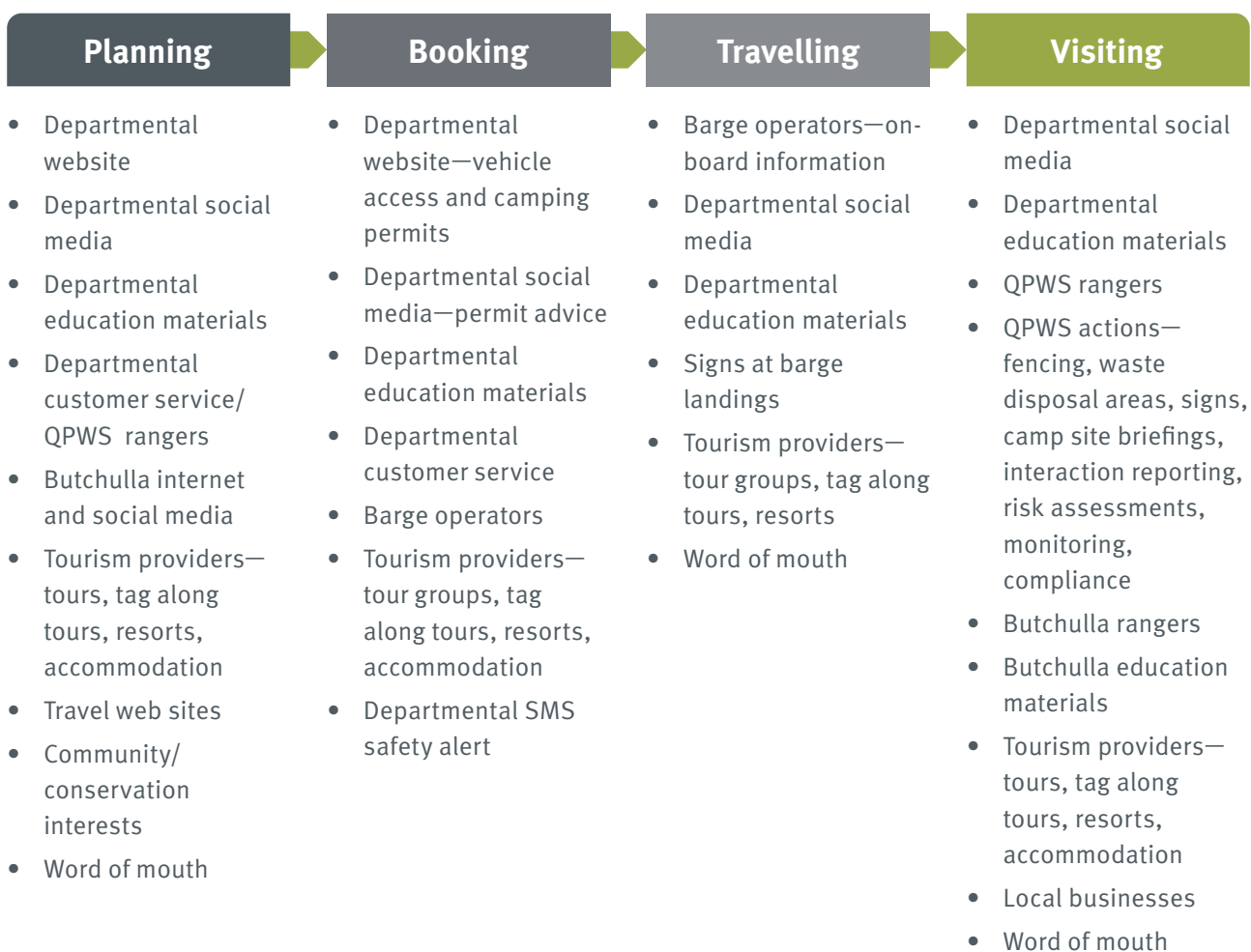
Right: Image from a Parks Canada brochure promoting safety distances.



**(d) Communication channels**

The Panel noted the different phases of people’s journey to K’gari and the opportunities this provides to inform them of the risks and safe behaviours.

Figure 14 provides examples of the different information sources people may use to gain information about K’gari. All these provide different pathways for sharing information about wongari and being safe on K’gari.

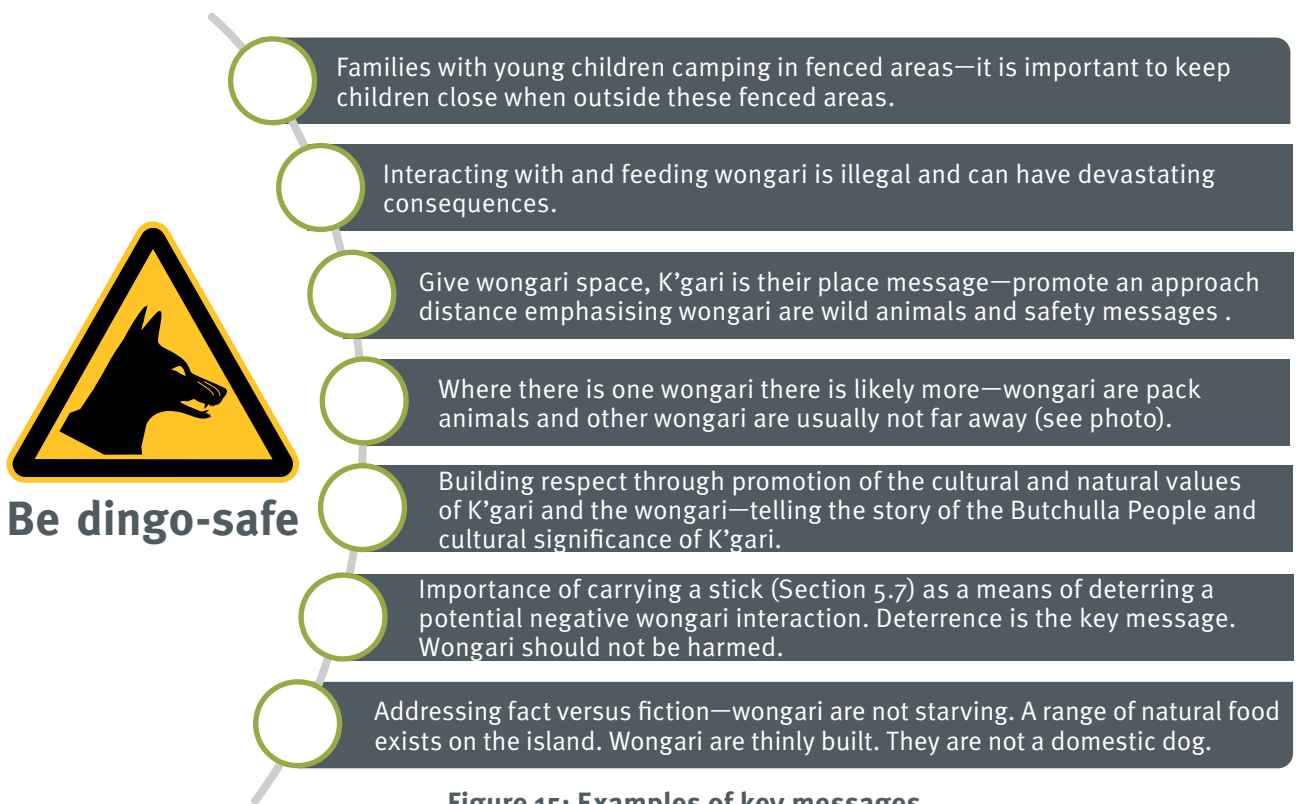


**Figure 14: Examples of different information sources people may use at different stages of their visit to K’gari**

**(e) Messaging**

The Panel recognised that education continues to play a significant role as a risk reduction tool. It is important that a coordinated education program is delivered to ensure messages are positive, consistent and focused to maximise outcomes and support behavioural change.

Some of the key messages that require continued and enhanced focus are summarised in Figure 15.



**Figure 15: Examples of key messages**



*Wongari pack at eastern beach.*

**(f) Communication and education strategy**

A collaborative communication and education strategy (CES) should be prepared and implemented to deliver a coordinated approach to the initiatives outlined above. This provides an opportunity to coordinate internal departmental and QPWS communication actions and incorporate Butchulla information and messaging. Key information on the cultural value and significance of K’gari and wongari should be led by the Butchulla People.

The CES should identify the key interest groups where collaboration opportunities exist (note collaboration is discussed more in the following section). The CES provides a platform to implement the findings from the Ipsos K’gari ‘Visitor behaviour research and communication evaluation’ study (refer to Section 7.2 for more details on this study). This includes utilising different communication channels to deliver sophisticated messaging to different audiences and continued reinforcement of key messages such as the importance of securing food to break the pathway to wongari habituation.

**Recommendations**

Prepare and implement a collaborative communication and education strategy that identifies target groups and utilises a range of channels.

The Butchulla People to deliver communication and education on the cultural value and significance of K’gari and wongari.

Support face-to-face ranger engagement as an effective means of raising awareness and promotion of safe behaviour.



## 6.2 Collaboration and co-generation



QPWS and Butchulla Aboriginal Corporation collaboration.



Opportunity to co-generate ideas and actions.



Deliver range of actions such as campground hosts and training programs.

While face-to-face engagement is highly effective, the Panel noted that QPWS and Butchulla rangers can't be everywhere. This is where collaboration and co-generation is critical in gaining support and ownership of messages and actions.

The Panel recommends that QPWS (including QPWS Butchulla rangers) and the Butchulla People continue to work together to generate ideas and actions to support people and wongari safety. This could cover all facets of risk intervention, education, research, compliance and review.

While the partnership between QPWS and the Butchulla People is important, the Panel recommends that collaboration and co-generation extend to other island interest groups.

These groups include commercial tourism operators, resorts, accommodation providers, island businesses, barge operators, community, and conservation interest groups. Involvement of these groups in sharing their experiences and insights will aid in developing practical management actions and key messages.

The most critical outcome is for these interest groups to have shared ownership in management and messaging providing more pathways for promoting safe behaviour.

To support greater collaboration the Panel discussed a range of other actions. These should be explored as part of enhanced messaging and support. These include:

- Campground hosts—utilise volunteers or the Butchulla People to assist with engaging visitors and promotion of key messages.
- Junior ranger programs—target young visitors to help promote safety messages.
- Island businesses—allow some island business to issue camping, vehicle access permits and promote education messages.

- Champions—use champions to help promote the importance of safety and positive behaviours.
- Merchandising—utilise merchandise, such as bags and coffee cups, to help promote safety.
- Tourism operators—identify ways that commercial tourism operators could play a greater role in promoting safety messages. Tour guides could undertake training and operators could be required to achieve a level of wongari safe accreditation. This could address aspects of visitor behaviour, safety, and island and cultural values.
- Transparency—communicate management actions and the outcomes of risk intervention, education, compliance and monitoring programs.

### Recommendations

Develop a strategy for collaboration identifying priority groups, their interest in collaborating and how to best engage and involve them.

The department and the Butchulla People to co-generate ideas and actions to support people and wongari safety.

The department and the Butchulla People to collaborate further and co-generate ideas and actions with other island interest groups as part of building shared responsibility and commitment for people and wongari safety.

Implement a range of collaborative actions to support people and wongari safety such as campground hosts, commercial tourism operator training and accreditation and the use of champions.

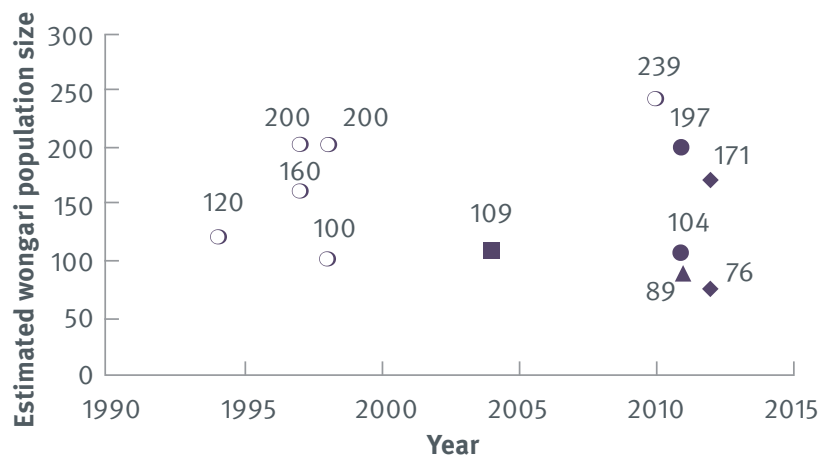
# 7.0 Research

## 7.1 Wongari population and health

### Status

#### Population

The Panel concluded that the wongari population of between 100 to 200 individuals with a life expectancy of up to 13 years appears stable, indicative of a healthy population. The estimated population varies depending on the breeding cycle and seasonal conditions (Figure 16).



Hollow marks:

○ = reasoned guesses or opinion (for sources, see Allen, Boswell & Higginbottom 2012)

Solid marks denote results from empirical studies:

■ = minimum-known-to-be-alive from DNA study (Baker 2004)

● = upper and lower range from capture-mark-recapture study (Appleby & Jones 2011)

▲ = minimum-known-to-be-alive from capture-mark-recapture study (Appleby & Jones 2011)

◆ = upper and lower range from Allen et al. 2015, adult dingoes only, or 162-257 including pups

Figure 16: Population abundance estimates of wongari since 1992



A variety of natural food sources exist on the island for the wongari

## Health

The Panel learned that published research has clearly demonstrated that a range of natural food sources for wongari exist on the island including insects, fish, birds, reptiles, rodents, swamp wallabies and bandicoots. Other food sources also wash up on the island's beaches, including whales, dolphins and turtles. Wongari are adaptive and also eat plant material.

## Necropsy

The Panel noted wongari may die through natural causes such as intraspecific fighting within or between packs, or human intervention such as being accidentally hit by a vehicle. Necropsy of these deceased animals provides important information on the health of wongari, cause of death and diet.

## Emerging risks and challenges

The Panel advised the main wongari welfare concern is the ongoing inappropriate feeding by people and improper storage of food or waste, which can be detrimental to wongari health. The photos (below) show how adaptable wongari can be in seeking out unsecured food sources.

While research suggests there is no dietary concerns, public perceptions remain that wongari are thin and possibly starving. This can result in negative criticism and the risk of some people illegally feeding a wongari, triggering the pathway to habituation and aggression.



Wongari seeking out unsecured food sources.



## Observations and findings



A stable and healthy population of wongari live on K'gari.



Opportunity exists to undertake further research. Promotion of research findings.



Resourcing further research.

The Panel supported ongoing research on the welfare and population of the wongari. Having an understanding of the population, pack dynamics, location, diet, food status and DNA, helps inform the long-term health and stability of the wongari population. The Panel also supported the use of necropsy as an important research tool. This information can inform whether any management intervention is required. Obtaining and sharing recommendations also assists in addressing any community concerns about the health and wellbeing of the wongari.

## Recommendations

Deliver research on the population and health of the wongari.

Promotion of findings about wongari population and health.

Use necropsy as a means of providing valuable insight on the health of wongari that have died from natural or human intervention including data about their weight, diet, cause of death.

## 7.2 Understanding visitor behaviour—social science

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### **Status**

Information about the behaviour of people, particularly visitors, is gathered in a variety of ways including through ranger engagement and observations, education programs and people-wongari interaction reports. A research study was recently conducted by Ipsos for the department. The preliminary findings of the K’gari visitor behaviour research and communication evaluation were shared with the Panel.

- There is an opportunity and public interest for including more Butchulla and cultural information as part of wongari communication.
- The importance of providing the right information at the right time such as targeting visitors before they arrive on the island and before they slip into a holiday mindset.
- Targeting particular messaging to different channels at different times e.g. utilising varying communication pathways depending on whether people were off-the-island versus on-the-island.
- Opportunity to reframe the wongari image to better promote wongari as a non-habituated animal and the importance of safety. This seeks to address complacency or perceptions of the wongari as tame or similar to a domesticated dog.
- Opportunity to use emotional connection to encourage people to care more for wongari such the health impacts of feeding, and the risk of unsecured food and rubbish.

### **Emerging risk and challenges**

The Ipsos findings are consistent with the risks and challenges discussed by the Panel including the importance of incorporating cultural information, timing of information, utilising different communication pathways and building greater respect and value for wongari safety. The challenge lies in delivering the Ipsos and Panel findings while establishing processes for ongoing research and response to visitor behaviours.

## Observations and findings



Initial Ipsos study on visitor behaviour.



Opportunity exists to undertake further social science research to better understand visitor behaviour and motivations.



Resourcing further social science research.  
Committing to research findings.

The Panel concluded that while education and engagement initiatives have been effective (as mentioned in Section 6.0) more needs to be done. Some people are not seeing information, not appreciating the seriousness of the issue, or understanding the potential consequence of their action on others, particularly children. On this basis, the Panel indicated a need for greater understanding of the motivation of people practicing risky behaviour.

Further social science research on the types and demographics of visitors coming to the island, what communication pathways work best for these specific visitor demographics and on attitudes, motivations and expectations across demographic groups would help inform management actions. This includes greater analysis of people–wongari interaction reports to further understand motivations and behaviours.

The Panel reiterated the importance of understanding and defining the problem in order to fix it.

## Recommendations

Conduct further social science research on behaviours and motivations of people and the effectiveness of communication actions.

# 8.0 Compliance

## Status

The Panel noted compliance is an important tool underpinning the Implementation Plan. Compliance enables insights about people's uptake and understanding of the rules, the suitability of current management measures, and defining the compliance focus.

Penalties for feeding or disturbance of wongari were increased in 2019 from \$391.65 to \$2,135 helping to reinforce the importance of not feeding wongari. Penalties also exist for not securing food as a means of deterring wongari and breaking the pathway to habituation.

## Emerging risks and challenges

A key part of the role of island rangers is building a rapport with commercial tourism operators, barge operators, island businesses, resorts and residents. This relationship can become challenged if rangers have to undertake compliance action against certain groups.

## Observations and findings



Compliance action.  
Increased penalties.



Opportunity for enhanced compliance actions such as the use of an off-island compliance team.

The Panel concluded that ongoing resourcing and support for compliance is essential including undertaking compliance risk assessments, training, investigation and action.

Island rangers should continue to undertake compliance activities during peak periods and an off-island compliance team could assist in delivering specific compliance campaigns.

## Recommendations

Deliver compliance programs as an important and effective tool in supporting risk management.

Deliver further training to upskill rangers and explore opportunities for Butchulla employees.

Investigate using an off-island compliance team to visit and undertake a range of enforcement actions to support education and risk intervention actions delivered by rangers on K'gari.

*Wongari digging for food scraps.*

# 9.0 Evaluation *and* *review*

## Status

The Panel noted annual reports are prepared for internal reporting detailing actions undertaken to deliver the Implementation Plan. Periodic reviews have also been undertaken on the Strategy and Implementation Plan and the Panel agreed these provide an opportunity to assess the effectiveness of existing actions, identify emerging challenges and risks and identify new and enhanced management opportunities.

## Emerging risks and challenges

At times there is public criticism over management actions and concerns about the health of wongari on the island. This may stem from perceptions, word of mouth or limited departmental information to help combat misconceptions.

## Observations and findings



Routine evaluation and review.



Opportunity for greater transparency and sharing of management actions.

The Panel supported periodic reviews as an essential management tool. It is important that the Butchulla People are involved in any reviews to support greater collaboration and co-generation of ideas and opportunities.

Coupled with this is the need for greater transparency on management actions. Opportunity exists to provide a concise public version or infographic of the annual reports to help convey and celebrate the work delivered. Greater transparency can also assist in addressing any public concerns or misconceptions.



## Recommendations

Undertake routine evaluation and review to assess the effectiveness of actions and reporting.

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Deliver greater transparency on management actions and responses such as a summary or infographic on internal annual reports, to convey and celebrate the work being delivered to keep people and wongari safe.

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*Wongari with an ear tag in its left ear.*



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