



Australian Government  

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Great Barrier Reef  
Marine Park Authority

Christine McDonald  
Committee Secretary  
Senate Standing Committees on Environment  
& Communications  
PO Box 6100  
Parliament House  
CANBERRA ACT 2600

Tel: (02) 6277 3526  
Fax: (02) 6277 5818

Submission Online link: <https://senate.apf.gov.au/submissions/pages/logon.aspx>  
Email: [ec.sen@aph.gov.au](mailto:ec.sen@aph.gov.au)

Dear Committee Secretary

**Submission - Senate Inquiry into environmental biosecurity**

Thank you for your letter dated 15 July 2014 inviting written submissions to the Environment and Communications References Committee on the adequacy of arrangements to prevent the entry and establishment of invasive species likely to harm Australia's natural environment.

The Great Barrier Reef Marine Park Authority has a vested interest in protecting the marine environment. Please consider points raised in our submission at Attachment A.

Yours sincerely

Bruce Elliot  
Acting Chairman

11-08-14

## Attachment A

### **Biosecurity of the Great Barrier Reef Region**

Invasive species are non-native plants or animals that have arrived in an environment outside their normal distribution. They can have severe negative consequences for local native species and habitats. It is vitally important to the protection and conservation of biodiversity and ecosystem health, economic viability and aesthetics of the Great Barrier Reef Region for there to be rigorous arrangements in place to prevent entry and establishment of invasive species.

### **Invasive marine species – Great Barrier Reef Region**

An issue of concern for the marine biodiversity of the Great Barrier Reef Region includes invasive marine species such as the Asian green mussel (*Perna viridis*). Environment impacts of Asian green mussel include declines in species richness and abundance of native species and in some cases total exclusion of species and economic impacts resulting from fouling of vessels and coastal infrastructure. The CSIRO has named Asian green mussel the highest risk marine Pest for Australia and there have been four (4) Asian green mussel detections in the waters of the Great Barrier Reef Region: Cairns 2002; Cairns 2007/8; Gladstone 2009 and Hay Point 2013. Responses to the Asian green mussel detection in Cairns included setting up a quarantine area within Trinity Inlet and curtailing boat movements in and out of the infected part of the Port.

### **Invasive terrestrial species – Islands of the Great Barrier Reef Region**

Introduced species such as rats and dogs affect seabird and turtle nesting on islands and along the mainland coast and insect invasions have caused serious declines in native tree species on islands, which are major nesting sites for several seabird species. The maintenance of island biodiversity and ecosystem health of the Great Barrier Reef Region relies on arrangements to prevent entry and establishment of invasive species. Where invasive species have become established, field management resources have been and are currently deployed to maximise ecosystem resilience to climate change and other stressors by enhancing natural vegetation communities, minimising introduced flora and fauna, and maximising breeding opportunities for important coastal birds, marine turtle nesting and other species.

Recent examples of invasive species detected on Great Barrier Reef Islands that have required a response by the Field Management program to minimise environmental harm include:

- African Big Head Ant – Tryon Island
- Black rat – Boydong Island
- Fire Ants – Curtis Island
- Ants – Low Isles
- Goats/deer – High Peak Island
- Goats/lantana – St Bees Island
- Rubber vine – Magnetic and Gloucester Islands
- Guinea grass – Lizard Island
- Introduced flora and fauna – Lady Elliot Island

### **The adequacy of arrangements within the Great Barrier Reef World Heritage Area to prevent the entry and establishment of invasive species likely to harm Australia's natural environment and our state of preparedness to respond to new environmental incursions.**

A recent independent assessment of management effectiveness for the Great Barrier Reef Region indicated that plans and procedures to minimise the risk of introduction, and the timely detection of and response to invasive marine pests are generally deficient. There is a Response Plan for Introduced Pests, but not for surveillance, management and prevention. This is considered to be a significant deficiency, as the focus should be upon minimising risk of introduction in the first instance and early detection of incursion in the second instance. Both of these elements are

essentially lacking in the context of Great Barrier Reef Region ports. If a response is initiated once an invasive species is discovered, then often times there is no effective means of eradicating or containing the introduced species.

However, in September 2013 an Island Biosecurity Communications Strategy was completed by Marine Parks staff within the jointly-funded Field Management Program. Analysis and review of the whole World Heritage Area biosecurity issue was undertaken during June 2014, with communication needs being integrated into more holistic island management strategies. Work is progressing on developing an overarching World Heritage Area Island Biosecurity Strategy, with individual Biosecurity Management Plans being integrated within the strategy for high conservation value island groups.

### **Recommendations**

- Better clarification of the lead agency and the integration of a multi-agency response following the detection of an invasive species in the Great Barrier Reef Region
- Stronger coordination of environmental monitoring, reporting, and research and evaluation within and between ports would improve understanding of their combined effects and influences on the Region's ecosystem and its heritage values
- Establishing and/or enhancing existing monitoring programs to enable early detection of invasive marine and terrestrial species