

Island Rescue

A plan for the Conservation and Sustainable Use of Australia's Islands



Prepared by the Island Rescue Alliance

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“Islands define Australia, its biodiversity and culture. We are an island people; we live in an island environment. Islands have special values to biodiversity, through extraordinary levels of endemism and conservation value. Islands are the engine room of evolution, and enhance our understandings of the workings of nature. Islands are also some of the key areas where Aboriginal and Torres Strait Islander connection to country, customs and thus culture, not only persist but flourish. Island based industries, most notably nature-based tourism, injects billions of dollars into the national economy each year.

But island life is particularly vulnerable, and these values may slip through our fingers with remarkable rapidity. Island Rescue’s mission is to protect island values.”

Background

Island Rescue is an initiative that emerged from the Island Arks Symposium – a national conference and workshop held in December 2009. Speakers from all over Australia shared their expertise on island issues including indigenous cultural values and partnerships, visitor management, management of invasive species, endangered species recovery, and conservation planning. The conference heard repeatedly about islands as **National Icons**, and as a special case deserving of greater focus and investment. A national summit meeting held after the Symposium resulted in formation of an alliance of people from across Australia who are working to secure island values through development of a detailed package of management frameworks and activities.

Of the 8,300 islands within Australia it is likely that the vast majority are directly relevant to one or more Matters of National Environmental Significance. Indeed, islands are critical habitat for 31% of Australia's critically endangered and endangered fauna, and for 37% of the vulnerable fauna, including many endemics. Overall, 111 threatened fauna species occur on Australia's islands, out of a national total of 325 (35%). Apart from these outstanding conservation values, **Island Communities** and their adjacent mainland regions rely heavily on income from tourism. Yet unfortunately, there is strong evidence that the natural capital that supports these regional economies is rapidly declining. This is of enormous concern because Australia's islands contribute billions of dollars to the national economy. However, in some areas, there are innovative, novel, profitable, nature-based tourism programs that are positively contributing to the sustainability of islands.



Consultation continues across Australia, and has included investigating options from international arenas in order to design a framework for a nationally cohesive island management strategy that would see island values conserved but also, in many cases, available for sustainable use to support



economic prosperity. Such consultation is critical because the overarching aim of Island Rescue is to implement high-level strategies to improve environmental, social and economic sustainability of Australia's islands, with a strong focus on the recognition and protection of the rights and opportunities of Traditional Owners. As such, development of cross-sector and cross-cultural partnerships, and co-investment arrangements are critical.

What is most urgent?

A National Island Biosecurity Initiative

What is the problem?

- Island ecosystems are inherently vulnerable and island species are particularly prone to extinction.
- The most serious threats to native biodiversity on islands come from invasive species, which also negatively affect livelihoods, tourism and culture.
- Other management issues such as altered fire regimes can exacerbate the affect of invasive species.
- The lack of a comprehensive national island conservation strategy means there is no framework for strategic allocation of scarce conservation resources.

What are the solutions?

A National Island Biosecurity Initiative would provide a framework and guide funding for the development of a consistent national approach and standards for island biosecurity. It should encompass the following components:

- Quarantine: Preventing invasions by potentially harmful organisms is the most cost-effective approach to protecting island biotas.
- Early Detection and Rapid Response: Detecting and dealing with invasive species before they become well established limits the damage to biodiversity and the ongoing cost of invasive species control.
- Eradication: Successful eradication of invasive species on islands has been proven and is increasingly being practiced around the world. Methods are improving and costs are likely to decrease with experience.
- Vigilance: Once eradication has occurred, islands can remain invasive-free at relatively low cost through effective quarantine measures including early detection and rapid response approaches.

Island Rescue Action

Island Rescue members in consultation with Birds Australia, the Invasive Species Council, and WWF Australia have developed a framework for a National Island Biosecurity Initiative. This concept has been published in the scientific literature¹ and is available in more detail² at www.islandarks.com.au. This framework has been widely discussed with experts in managing invasive species during the 2010 Island Invasives - Eradication and Management Conference and the 2011 15th Australasian Vertebrate Pest Conference.

¹ Nias, R.C., Burbidge, A.A., Ball, D. and Pressey, R.L. 2010. Island arks: the need for an Australian national island biosecurity initiative. Guest Editorial. *Journal of Ecological Management and Restoration* 11(3): 166-67.

² www.islandarks.com.au/islandarks/Symposium_1_files/Island%20Rescue%20Action%20Plan_Biosecurity-1.pdf

What tools do we need?

A National Island Database

What is the problem?

There is no comprehensive island database developed and maintained at national level.

- There is no readily available national-scale guide to the science and knowledge needed for island conservation activities. If this was available, robust, transparent and explicit conservation planning could occur at national scale. This is needed to ensure the best return on investment of scarce conservation management resources.
- There is no mechanism to inform jurisdictions about national island values and priorities when they are reviewing legislation, policies and programs in order to maximise alignment with Australia's Biodiversity Conservation Strategy.
- There is no established baseline of island condition that would support a national, long-term system for monitoring and reporting on the condition of island biodiversity.

What are the solutions?

Development of a national island database could be a resource owned, managed and used by the Australian, State and Territory Governments, academic institutions, private conservation reserve managers, industry and private enterprise to guide island management interventions into the future. The critical benefits of this database would be:

- Knowledge to support robust, transparent and explicit conservation planning to ensure best return on future conservation management interventions at a national scale.
- Provision of clear and defensible priorities for protection of island values against inappropriate developments and high impact tourism.
- Clear and quantifiable reporting on the results of conservation management interventions and development of a long-term report card monitoring system for the nations islands.

Island Rescue Action

Island Rescue members have commenced working with Governments and academic institutions to devise the best ways in which to aggregate existing regional and thematic datasets into a holistic national resource. In coming months, Island Rescue will have detailed discussions with State and Territory biodiversity and land management agencies to prepare the database architecture in detail and devise ways in which it can be made readily available and be effectively maintained.

Building Partnerships

Island Arks Symposium II

What is the problem?

Australia has custodianship of one of the most diverse array of island ecosystems of any country in the world. Australia's islands are distributed from the tropical Indian and Pacific Oceans to sub-antarctic parts of the Southern Ocean. These islands are managed by the Australian, State and Territory Governments, Traditional Owners, Industry and private landholders assisted by conservation planners, researchers and other specialists. Many management issues facing islands are similar, and thus there is great benefit in managers being able to share ideas and experiences and seek out new and innovative ways of meeting management challenges. Whilst there are many networks developed amongst island managers, maintaining communications across such a diverse assemblage of islands, involving a plethora of issues, and at such a large geographical scale, is difficult and time consuming.

What are the solutions?

The first Island Arks Symposium was held in the Whitsunday Islands late in 2009. One of the most encouraging outcomes of the symposium was the level of interaction amongst delegates and the partnerships thus developed. These included new collaborative arrangements between specialist researchers and Traditional Owners of Indigenous Protected Areas, research organizations, State management agencies, and private enterprise. The Island Rescue initiative was itself conceived and instigated by participants in a National Summit Meeting held directly after the Symposium. This initiative has since continued to grow.

Island Rescue Action

The Island Arks Symposium II will be held in February 2012 with the principal goal of again linking available expertise and resources to management issues across Australia, thus building an enhanced capacity to meet the future challenges of island management. The Island Rescue is hosting this second symposium and it will again culminate in a high-level National Summit meeting with the intent of furthering and formalising the Island Rescue initiative.



Management Priorities

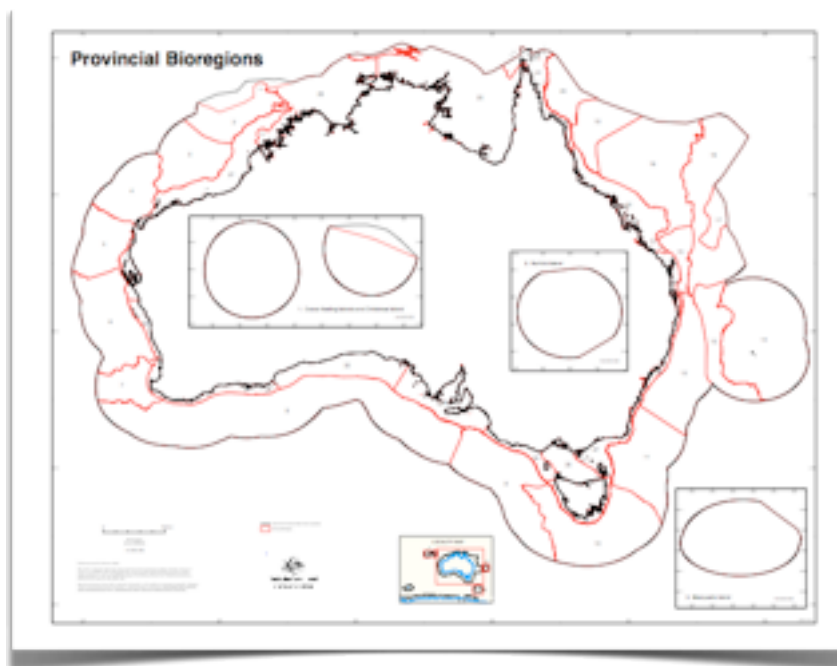
What is the problem?

Island Rescue is a national level initiative that seeks very substantial investment. However, even with this investment, it will be essential to ensure that Island Rescue is highly cost-effective and sustainable. Government and community aspirations for nature conservation vary. Some sectors advocate focus on conserving iconic landscapes, others on more site-specific programs to recover threatened ecological communities or species. These differing aspirations need to be blended to ensure that at the very least, a representative sample of island biodiversity is conserved in the long term.

What are the solutions?

Australia's islands differ strongly in physical and biological characteristics, and support conservation values that are often restricted to one or a few islands or different island groups. Thus it is important to identify the key groups of islands across Australia that support the values we seek to protect. This could be done by adopting the CAR principles:

1. **Comprehensive:** the inclusion in the National Reserve System of examples of regional-scale ecosystems in each bioregion³
2. **Adequate:** the inclusion of sufficient levels of each ecosystem within the protected area network to provide ecological viability and to maintain the integrity of populations, species and communities
3. **Representative:** the inclusion of areas at a finer scale, to encompass the variability of habitat within ecosystems.



³ Figure from www.environment.gov.au/coasts/mbp/publications/general/pubs/aspd-bio-3.pdf

Although more often used in designing protected areas, the CAR principles can also be useful in guiding prioritisation of conservation management actions. Ultimately however, the CAR principles will only define at a broad spatial scale, the key 'Island Hubs' targeted for management interventions. Within these hubs there are likely to be some management interventions that are immediately identified as priorities for a variety of reasons, (such as imminent loss of endemic values). Nonetheless, the best return on investment in the medium and long terms will only be achieved through systematic conservation planning.

"The effectiveness of conservation action is always limited by the available financial resources. Also, conservation action often constrains human uses of natural resources. The real-world challenges faced include estimating the costs of effective conservation action that achieves explicit objectives, minimizing the impacts of effective conservation on human uses of natural resources, guiding the allocation of different conservation actions that vary both in their costs and effectiveness for achieving conservation objectives, and devising financial incentives for conservation" (Pressey, 2011 ⁴).

Island Rescue Action

Defining Key Island Hubs: Consultation with island ecologists across Australia is well underway in order to identify and spatially define the key island hubs that are most important for conserving island values. The Island Arks Symposium II will include an extensive session in which authoritative 'State of the Islands' reports will be presented for each State and Territory. These presentations will include an analysis of the current and desired reservation status of islands, current and potential challenges for sustainable use, synopses of values and management interventions required to sustain these, pest incursions and management programs in place and biosecurity arrangements. At the subsequent National Island Summit Meeting, there will be opportunity to collate, refine and develop a listing of Australia's key Island Hubs, and define the most sensible and useful conservation interventions required in each.

Systematic Conservation Planning: Island Rescue is working with island managers in several parts of Australia to develop projects on systematic conservation planning. The broad aim of these projects is to develop practical decision support tools, informed and applied by managers, to prioritize investments of limited resources in diverse management actions within and between Island Hubs. These planning projects will enhance both the cost-effectiveness and accountability of management. The three projects underway, with more planned, are: 1. Working with Indigenous owners in Torres Strait to identify terrestrial and marine conservation areas; 2. Prioritizing management actions on islands for turtles and dugong in the northern Great Barrier Reef and Torres Strait; and 3. Collaborating with managers from Queensland Parks and Wildlife to prioritize island management actions in the Capricorn Bunker section of the Great Barrier Reef Marine Park.

⁴ see Bibliography at www.coralcoe.org.au/research/bobpressey.html

Indigenous Australians

“Indigenous Australians have managed their country for tens of thousands of years. An Indigenous Protected Area is an area of Indigenous-owned land or sea where traditional owners have entered into an agreement with the Australian Government to promote biodiversity and cultural resource conservation. Indigenous Protected Areas make a significant contribution to Australian biodiversity conservation - making over 23 per cent of Australia's National Reserve System. Indigenous Protected Areas deliver more than environmental benefits. Managing Indigenous Protected Areas helps Indigenous communities to protect their significant cultural values for future generations and receive spin-off health, education, economic and social benefits”⁵.

This is an outstanding contribution to conservation of biodiversity within a framework that provides significant cultural and social benefits and one that could be fostered further on islands. Importantly, the occupancy of Traditional Owners on their land, and their knowledge of country means that there are significant opportunities to achieve objectives such as appropriate biosecurity (see below)⁶ whilst at the same time strengthening important economic and cultural ties.



⁵ Source: www.environment.gov.au/indigenous/ipa/index.html

⁶ Image source: The **Anindilyakwa Land Council**
www.anindilyakwa.com.au/publications/ALC_CaneToad_Awareness.pdf

How much and who pays?

What is the problem?

A major benefit in investing in islands rather than other areas is that achievements are more sustainable, reducing the level of ongoing resourcing required. Nevertheless, there will be need for a very significant investment if island values currently under significant threat are to be recovered, and for a representative sample of island values to be sustained into the future.

What are the solutions?

Implementation of Island Rescue is strongly focused on cross-sector and cross-cultural partnerships and co-investment, and should involve Traditional Owners, non-Government conservation groups, the tourism industry, natural resource management groups, universities, Governments and other island managers. The final Island Rescue package will be designed to complement existing plans, strategies and on-ground actions whilst ensuring a cohesive and integrated approach. Implementation of Island Rescue would significantly contribute to all priorities currently required by the Australian Government's Caring for our Country program. Review of this program is underway and discussions are underway with the Australian Government Land & Coasts team about the potential for islands to be a future investment focus. Of critical importance, and relevance, is that island biodiversity forms the foundation capital upon which a very significant part of Australia's tourism industry is based. This contrasts to a more common situation where conservation of biodiversity is seen by landholders as yet another onus on their business operations. Thus conservation of island values makes good business sense for the tourism industry and strategies could be put in place for the industry to take additional ownership (and provide investment) through partnership arrangements.

Whilst key actions such as improved biosecurity result in significant overall cost savings, there are many areas where invasive species and other impacts are already established, cannot be feasibly eradicated and thus require ongoing management to minimize their impacts. In addition, there will be a need for ongoing surveillance against new incursions. Once major management interventions are complete, other resourcing models must have been developed and be operational. Such ongoing management is a prime example of work well suited to *Conservation Entrepreneurship*: Economically sustainable enterprises that are explicitly designed to have a net positive effect on *Natural Capital*. Many good examples of models that are already working are readily available such as 'Wildmob'⁷ and the Tasmania Coast Conservation Fund⁸. If seeded appropriately by relatively modest investment, additional similar operations can greatly reduce ongoing costs to Governments.

Conclusion

The Island Rescue initiative will, if implemented, lead to better management, conservation and use of Australia's island heritage. It will in time, lead to reduced costs to management agencies and enhanced economic opportunities for Traditional Owners and the ecotourism industry.

⁷ www.wildmob.org/projects/brampton-island-conservation-project

⁸ www.brunycruises.com.au/aboutus/conservation.aspx