



Birds Tasmania
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30 July 2006

RPDC
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Inquiry into the establishment of marine protected areas within the Bruny bioregion

Dear Sir/Madam,

Birds Tasmania offers the following comments regarding the Background Report to the Inquiry into the establishment of marine protected areas within the Bruny bioregion.

1. Section 3.2 Criteria for identifying and selecting marine protected areas

We note the criteria for identifying marine protected areas (MPAs) include criteria relating to 'Ecological Importance', 'International or National Significance', 'Uniqueness', 'Vulnerability Assessment' and 'Biogeographic Importance'. At least eight of these listed criteria are of direct relevance to birds in the Bruny bioregion. Here we present relevant information and/or comments against each of the criteria we propose are relevant in the consideration of identifying candidate MPAs in the Bruny bioregion.

Ecological Importance

- *Contributes to maintenance of essential ecological processes or life-support systems.*
- *Contains habitat for rare or endangered species.*
- *Contains areas on which other species or other systems are dependent, eg. contain nursery or juvenile areas or feeding, breeding or rest areas for migratory species.*
- *Contains one or more areas which are a biologically functional, self-sustaining ecological unit.*

Many coastal wetlands and inter-tidal areas in the Bruny bioregion are important feeding, roosting and breeding areas for resident and migratory shorebirds and seabirds. While the focus of national and international legislations is on migratory species, resident species make use of the same habitats and face the same threats. Greater emphasis should be given to resident species, as these species are year-round residents and typically have poorer conservation assessments than do the migratory species. As year-round residents, these species do not have the option of leaving their coastal habitats upon which they depend, and with a greater spectrum of threats, face ever-increasing difficulties in maintaining their populations. These critical intertidal feeding and roosting areas should be considered as candidate MPAs. Conservation of coastal wetlands and inter-tidal mudflats will ensure greater protection to the bird that are fundamental components of all wetlands and intertidal ecosystems, and ensure continuity of ecological processes for the bird community that depends on these habitats.

Many coastal wetlands and inter-tidal areas in the Bruny bioregion are important to rare and endangered species of birds. Species such as eastern curlew, fairy and little terns feed in inter-tidal and marine areas within the Bruny bioregion. Known breeding sites of migratory species such as fairy and little terns at Long Spit (Marion Bay) and associated near-shore feeding

areas should be considered as candidate MPAs. Protection of roosting sites for migratory species of birds are critical to ensure their continued return to Tasmania's coastal areas, including those within the Bruny bioregion. Protection of feeding, roosting and breeding habitats for rare and endangered species will address the goals of MPAs in the Bruny bioregion.

It is critical and essential to consider all coastal wetlands and associated inter-tidal areas as components of a unified system or network of sites that the birds can use, depending on weather, tide, disturbance, time of year etc. It is entirely inappropriate to consider each site in isolation or as a discrete site – nothing could be further from the truth. Incorrect management will result from such an approach. The birds move through an area, utilising resources and space in species-specific ways. Appropriate management and protection will emerge from treating the shorebird and seabird sites as a network or system that must be protected in its entirety, else the fragmentation and loss of habitat will result in a lower species diversity, lower abundances and potentially the loss of species from the Bruny bioregion. Thus for example, the shorebird sites shown in Figure 13 on the South Arm peninsula (Ralph's bay-Lauderdale, Pipe Clay Lagoon and South Arm Neck) are correctly identified as linked with the PittWater-Orielton Ramsar area 10km to the northeast.

International or National Significance

- *Is listed, or has the potential to be listed, on the World or National Heritage List or declared as Biosphere Reserve or subject to an international or national conservation agreement.*

Based on recent survey data (January 2004 to present) several sites in the Bruny bioregion meet thresholds for nationally important sites for migratory shorebirds (no such similar assessment has been conducted for resident species). South Arm, Pipe Clay Lagoon, Lauderdale, Barilla Bay, Orielton Lagoon, Sorell and Marion Bay all host migratory shorebirds in numbers that exceed 0.1% species-specific thresholds for national estimates (Woehler & Park 2006). Protecting these sites will contribute to international and national conservation efforts.

Uniqueness

- *Contains unique species, populations, communities or ecosystems.*

There are no endemic species in the Bruny bioregion that are confined to the region. However, there are large breeding and non-breeding populations of oystercatchers in the Bruny bioregion, with at least 7% of the Australian estimated population (10,000 birds) present in the South Arm/Pipe Clay Lagoon/Mortimer Bay/Lauderdale area. The shorebird community in the Bruny bioregion is an excellent example of the diverse mix of resident and migratory shorebirds and seabirds that visit Tasmania annually. Southeast Tasmania is at the end of the migratory route for many species of migratory shorebirds, and their wintering areas, used to feed and restore body condition, are critical to their survival. Protecting this coastal bird community and the habitats they depend upon will contribute in a significant manner to their conservation at national and international scales.

Vulnerability Assessment

- *Contains ecosystems and/or communities vulnerable to natural processes.*

All coastal and marine ecosystems and communities are vulnerable to natural processes, but the threat to these ecosystems and communities comes from anthropogenic factors such as habitat loss, disturbance and introduced predators such as cats, dogs and foxes. Protecting critical habitat reduces the impact of anthropogenic factors and mitigates adverse impacts from natural processes.

Naturalness

- *Extent to which the area has been protected from, or not been subject to, human-induced change.*

Much of southeast Tasmania is facing unprecedented pressures from an ever-increasing spectrum of destructive human activities that are centred on coastal areas. All of these activities occur within the Bruny bioregion. Examples include recreational gill netting, habitat

loss, drainage of wetlands, disturbance and predation by introduced species. Some coastal areas in the Bruny bioregion have been less adversely affected than many other areas in Tasmania, and thus are in better condition and less modified than other areas of the state. High-value coastal areas include important feeding habitats for birds. The presence of hundreds or even thousands of migrants clearly demonstrates the currency of these areas as critical habitat warranting protection. South Arm, Pipe Clay Lagoon, Lauderdale, Barilla Bay, Orielson Lagoon, Sorell and Marion Bay are currently such critical habitat worthy of enhanced protection and conservation.

In addition, we note the criteria for selecting marine protected areas include criteria relating to 'Economic Interests', 'Social Interests', 'Scientific Interests', 'Practicality/Feasibility', 'Vulnerability Assessment' and 'Replication'. At least seven of the listed criteria are of direct relevance to the birds in the Bruny bioregion. We note with considerable concern that economic and social interests apparently pre-empt scientific interests. We believe that scientific interests should be **paramount** in both the identification and selection of MPAs in the Bruny bioregion. Here we present relevant information and/or comments against each of the criteria we propose are relevant in the consideration of identifying candidate MPAs in the Bruny bioregion.

Economic Interests

- *Existing or potential contribution to economic value by virtue of its protection, eg for recreation or tourism, or as a refuge or nursery area, or source of supply for economically important species.*

A largely ignored and unrealised contribution to the Tasmanian economy comes from bird watching. Visitors from mainland Australia and overseas come to Tasmania to see our remarkable and endemic species of birds, most (if not all) of which can be found in the Bruny bioregion. While some effort is made to track the eco-tourist dollar, the contribution to the Tasmanian economy from birdwatchers is presently undocumented, but based on the experiences of managers elsewhere in the world, the potential is very large and cannot (and should not) be under-estimated. Tasmania's remarkable wildlife is a major drawcard for our visitors, and several areas in the Bruny bioregion offer intimate and unparalleled viewing opportunities. The major coastal wetlands and inter-tidal areas that hold high numbers of migratory and resident species already attract visitors from around the world. Protection of these areas and associated feeding sites will ensure greater contributions to the Tasmanian economy into the future.

Social Interests

- *Existing or potential value to the local, national or international communities because of its heritage, cultural, traditional, aesthetic, educational, recreational, or economic values.*

A small but growing eco-tourism industry exists within the Bruny bioregion. Without the conservation of critical habitat into the future, many of the key aspects of the environment upon which the industry is based will decrease or disappear from the bioregion, and with them, the concomitant loss of the eco-tourism industry. Protection of the natural environment to the highest degree possible will ensure both the continuity of the ecosystems and associated species, natural processes, and commercial activities such as eco-tourism. Poor management or the lack of conservation measures will see the values within the Bruny bioregion erode and eventually diminish to the point where they may be beyond recovery. Tasmania and the Bruny bioregion in particular, is fortunate in still having many values in good condition, as argued throughout this submission, that managers have the ability to conserve these values for future generations. Other areas within Tasmania are not so fortunate. This Inquiry represents an excellent opportunity to seize the potential for conservation for future generations.

Scientific Interests

- *Existing or potential value for research and monitoring.*

Some of the longest time series data for migratory and resident shorebirds in Australia have been, and still are, collected within the Bruny bioregion. Following pioneering efforts by David Thomas in the 1960s, members of the Bird Observers' Association of Tasmania (BOAT), now

Birds Tasmania, have collected seasonal, annual and in some instances more frequent data on breeding and migratory populations of shorebirds and seabirds from key sites in the Bruny bioregion. Data sets spanning more than 40 years exist for Lauderdale, Barilla Bay and South Arm, and other coastal areas in the Bruny bioregion. A wide network of sites in the region have been monitored for more than 20 years, including many offshore islands. Virtually all of these data are published annually in the Tasmanian Bird Report, making these data available to the Tasmanian community. The value of these long term data sets increases with each year that passes, as they provide valuable long term data on trends and patterns. These trends and patterns are signals from the coastal and marine environments that scientists use to track changes in the environment. Such long term data sets play an important role in state of the environment reporting, threatened species assessments and considerations in management and planning processes. It is of the highest importance that these long term monitoring sites are officially recognised, their value to the Tasmanian community recognised, and the sites themselves protected to ensure continuity in long term data sets for future assessments. South Arm, Pipe Clay Lagoon, Lauderdale, Barilla Bay, Orielson Lagoon, Sorell and Marion Bay are these key monitoring sites within the Bruny bioregion warranting recognition and protection.

Practicality/Feasibility

- *Social and political acceptability, and a degree of community support.*
- *Access for recreation, tourism, and education.*

There is a growing acceptance of the need to protect sensitive, high-value coastal areas throughout Tasmania. An increasing number of inappropriate developments threaten the current status of Tasmania's undisturbed and minimally-impacted coastal regions. With the increasing acceptance comes the recognition of the role birds play as indicators of the state of health of coastal and marine ecosystems. The value of penguins and other birds as drawcards to eco-tourism efforts can not be denied, yet protecting these species is apparently not in the Government's interests. While members of the community are keen to develop long-term business interests centred on eco-tourism, other members of the community are allowed to use gill nets adjacent to colonies, drowning penguins. It is possible to accommodate recreational fishing and other non-destructive uses of our coastal regions without diminishing the very values that are bringing tourists to Tasmania. Bird watching is recreational and educational. Migratory species provide a mechanism for linking human communities across the globe. Shorebirds in southeast Tasmania originate in China, Siberia and Alaska; some migrate here from New Zealand. Short-tailed shearwaters migrate to the Bering Sea each year. The birds are the connectors to other parts of the world, and with growing awareness and recognition, the conservation of critical habitat for these species will enhance the community's interest and support for these measures.

Vulnerability Assessment

- *Extent to which the site is vulnerable and susceptible to human induced changes and threatening processes.*

A number of coastal area within the Bruny bioregion have been identified as susceptible to sea level rise, primarily Lauderdale and Kingston. Over the last 20 years, there has been a rapid deterioration in the quality and quantity of coastal habitats throughout Tasmania, including the Bruny bioregion. While large areas remain intact, the severity and scale of these threatening processes are increasing, and pro-active conservation measures are urgently required. The inappropriate proposed development at Lauderdale of a canal estate is lunacy in the light of predicted sea level rise and the site's high sensitivity to extreme events such as high tides in conjunction with low pressure events. The double-strike of sea level rise with habitat fragmentation and loss reinforces the urgency of protecting existing high-value coastal areas throughout the Bruny bioregion as a high priority.

Replication

- *Provides a replication of ecosystems within a Marine Protected Area within the bioregion.*

By protecting a network of sites, nominated throughout this submission, the MPA strategy will maximise the conservation efforts by providing a series of protected sites within the bioregion. There is no value in protecting a single habitat – unless it is unique – rather, conservation

efforts are strengthened by an approach that conserves a series or network of ecosystems and their habitats throughout a region. The Bruny bioregion offers numerous opportunities for such an approach and this Inquiry is contemporaneous with the recognised increased severity and extent of threats to the Bruny bioregion.

2. Section 4.2.9 Seabirds

We note with some concern that (a) considerable data gaps exist in this section and (b) the data used are in some cases quite dated, in some cases incorrect, or more recent data exists but has not been used for the text and associated map (Figure 13).

(a) Data Gaps.

We find it remarkable that there is no use of the extensive census data published and widely available in Brothers et al. (2001) *Tasmania's offshore Islands: seabirds and other natural features*. This volume reports thousands of census data for islands around Tasmania, including all the islands within the Bruny bioregion. It is remarkable indeed that these data were not used in the reporting of seabird values in the Bruny bioregion.

In addition, considerable effort was put into the formulation of the *Small South-East Islands Management Plan*. Values and threats to all aspects of these islands were documented, but again this important document has not been cited or used. Why not?

There is a substantial database on coastal birds and other values compiled for the Oil Spill Response Atlas (OSRA). Again, these data have not been used, and again, why not?

The conspicuous absence of such readily available and well known data raises doubts as to whether the full spectrum of values in the bioregion have been incorporated in this Background Report that will be used for any future decision-making process. What other data are not recognised in this Background Report? What else has been excluded? Unless and until ALL values in the Bruny bioregion are assessed, any decision-making process will be flawed.

(b) Currency of data.

Similarly, we are concerned that more recent data on birds in the Bruny bioregion have not been used. Extensive survey and census data are published annually in the Tasmanian Bird Report, copies of which are held in the DPIW Library. Again, a major source of contemporary information has been overlooked or excluded (as with Brothers' data and the SE islands MP) to the detriment of a complete assessment of the values and threats to the birds in the Bruny Bioregion.

3. Section 4.3.4.4 Scalefish

Birds Tasmania has made several previous submissions to various Ministers and their Departments, most recently during the *Scalefish Fishery Review* in 2004, regarding the inappropriate use of gill nets in coastal waters. An unknown but not insignificant number of little penguins and short-tailed shearwaters are drowned annually through the setting of gill nets close to known colonies. In some cases, 10s or even 100s of birds are drowned in a single net in a single episode, yet Tasmania continues to allow this destructive practice outlawed elsewhere in Australia. We have long recommended that either gill nets are banned completely from Tasmanian coastal waters, or their use is prohibited in proximity to known penguin and shearwater colonies. We have proposed exclusion zones of 1km from large and/or high conservation value colonies in the past to deaf ears. It seems that recreational gill netting is more important than the conservation of iconic species such as little penguins in Tasmania. Gill nets are an acknowledged penguin killer, and their role in observed decreases in breeding populations of little penguins in southeast Tasmania are discussed in Stevenson & Woehler (ms submitted to Marine Ornithology).

We are happy to discuss further any and all issues and concerns raised in this submission. We

believe that there is great urgency in identifying, selecting and most importantly, declaring Marine Protected Areas within the Bruny bioregion. The region offers remarkable opportunities for such pro-active efforts and every effort should be made to maximise the potential benefits of declaring MPAs in the Bruny bioregion.

Yours faithfully,

A handwritten signature in black ink, appearing to read 'E J Woehler', followed by a long horizontal flourish.

Dr E J Woehler
Chair