

**BARDI JAWI
INDIGENOUS
PROTECTED AREA
MANAGEMENT PLAN
2013 - 2023**



DEDICATION TO ELDERS

We would like to pay tribute to past generations of Bardi Jawi elders. Their knowledge of language, law and culture has been handed down to the elders of today, who are trying to pass on that knowledge to younger generations. This plan recognises that Bardi Jawi have ownership of their land and islands because of the old people who fought for recognition of country and their people. The knowledge they passed on is essential to the way elders want their country to be seen and they want their cultural practices retained now and forever. This plan recognises cultural knowledge and aims to maintain it through looking after law and country. By looking after country the right way, we will look after Bardi Jawi Law, Language and Culture.

ACKNOWLEDGEMENTS

The following people and organizations have contributed to the production of this plan:
 The Bardi Jawi Niimidiman Aboriginal Corporation Registered Native Title Body [RNTBC], the Bardi Jawi IPA Steering committee, Department of Sustainability, Environment, Water, Population and Communities, PEW Charitable Trust, Kimberley Land Council, PAKAM Broome, the Communities of Ardyaloon, Djarindjin and Lombadina, and the Bardi Jawi Rangers including Kevin George, Philip McCarthy, Mark Shadforth and Nathan and Chris Sampi.

Artworks appearing throughout this plan were painted by the following artists in 2011:
 Wilma Cox, Ashley Hunter, Michelle Cox, Laurel Angus, Edward James, Cecilia Tigan, Jodie Wiggan, Bernadette Angus and Gemma Chaquebor.

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The Paintings within this document reflect what Bardi Jawi People want to protect and actively manage.

KLC Land and Sea Management staff Daniel Oades and Richard Meister prepared this plan and Jane Lodge assisted with graphic design.

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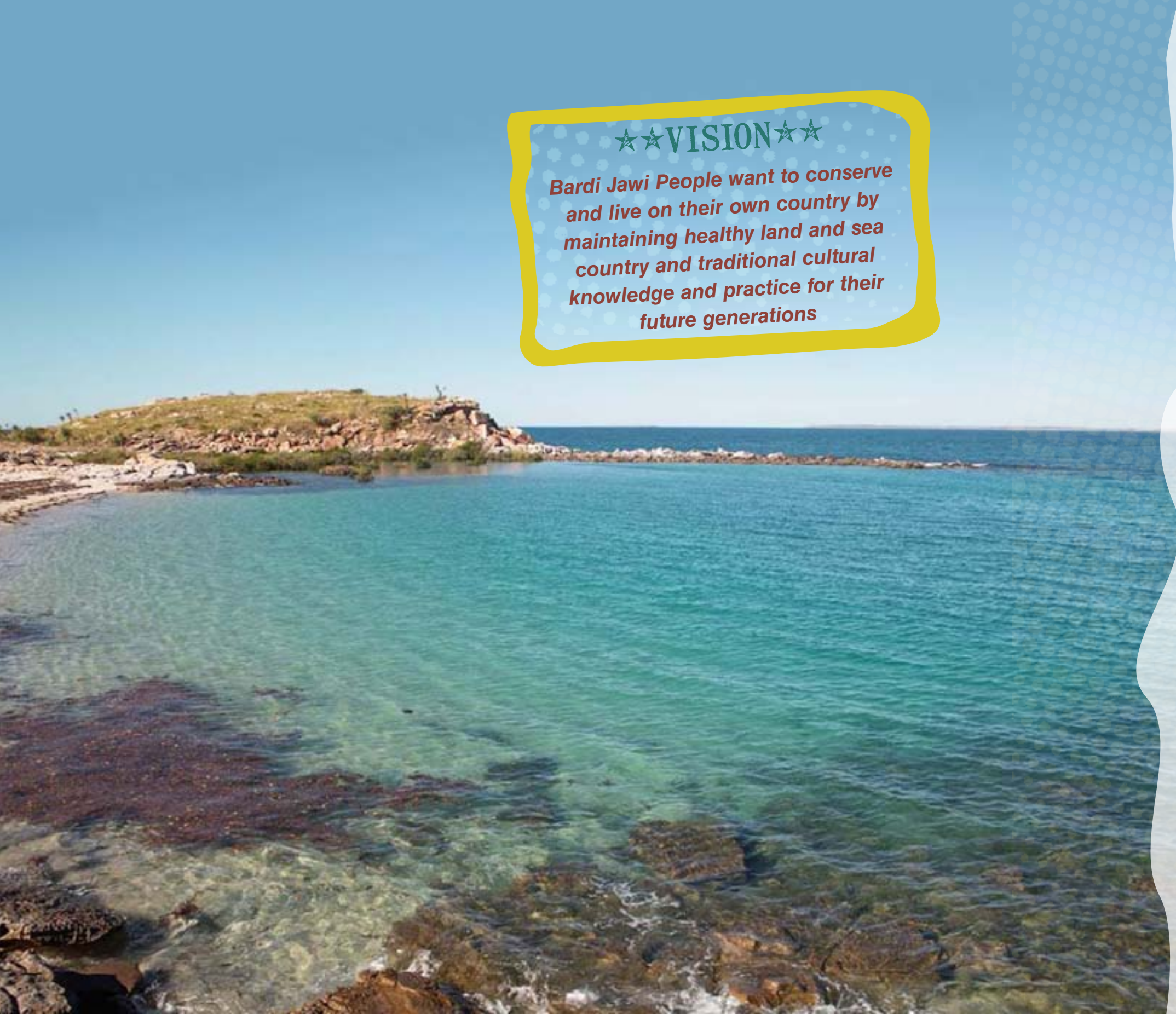
Readers are warned that this plan may show photographs of people who have passed away. All care has been taken to truly represent the views and desires of Bardi Jawi people throughout this plan.

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☆☆VISION☆☆

Bardi Jawi People want to conserve and live on their own country by maintaining healthy land and sea country and traditional cultural knowledge and practice for their future generations

OVERVIEW OF BARDI JAWI LAND & SEA COUNTRY

Bardi Jawi country is bounded by sea on the eastern, northern and western sides of the Dampier Peninsula, with the southern boundary about 160kms north from Broome, a town famous for its pearling and multicultural history. Bardi Jawi people consider their country to include part of the sea, on which they depend. The main communities on Bardi country are Djarindjin, Lombadina and Ardyaloon (One Arm Point), and people live in outstations spread along the Peninsula coastline.

Bardi and Jawi are two distinct groups of people. Bardi people live on the mainland of the Dampier Peninsula and islands immediately offshore from Ardyaloon. Jawi people call the islands further east, including Iwany (Sunday Island), their traditional country. Iwany was formerly a Mission where many Bardi and Jawi people lived until it was closed in the 1960's, then people moved either to the mainland or to Derby. In the 1970's a strong effort was made by the people to establish the community of One Arm Point (Ardyaloon) and move from Derby back to country.

Today, both groups live on the mainland peninsula, where the larger communities and outstations are situated, with services provided to the local people. Bardi and Jawi people share and practise the same law.

The Nyul Nyul people, who have lodged their own Native Title claim, have their homelands around the Beagle Bay area to the south of Bardi country.

Most of the southern part of the Dampier Peninsula is Crown land held by the Aboriginal Lands Trust (ALT).

Some of the land is Crown leasehold, and some freehold, which on Bardi and Jawi country includes parts of the Cygnet Bay pearling operation. The original native title determination in 2005 was followed by an appeal, won in 2010, which saw an increase in land and intertidal areas held by Bardi Jawi people, from approximately 1037 to 3047 km², including Sunday and some adjacent islands. The latter decision also grants native title rights to 2m below the mean low water mark.

In 2011 much of the west Kimberley was placed on the National Heritage list, including part of Bardi Jawi country, because of the history of the Gaalwa (double log raft), the

use of Goowarn (pearl shell) for ceremonial purposes and trading far afield, and the beauty of the area to visitors.

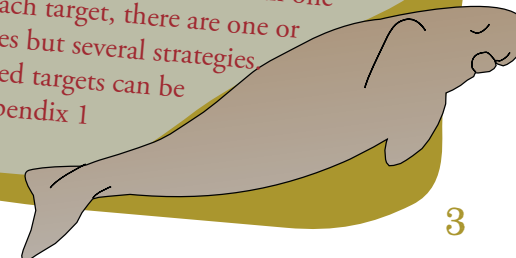
The tidal movements on Bardi Jawi sea country are some of the largest in the world. There are four tides a day, two high and two low tides, with a range of close to 11 metres. The wide intertidal areas, exposed at low tide, are home to vast numbers of plants and animals, all finely adapted to the coastal environment of the Kimberley.

In 2006 The Bardi Jawi Rangers, established with the support of the Kimberley Land Council and the North Australian Indigenous Land and Sea Management Alliance, focused on Dugong and Marine Turtle management, and later shared the prestigious Banksia Environmental Award in 2008. Since then, land and sea management activities by the Rangers have increased greatly, always with the approval of Traditional Owners.

Bardi Jawi people share in making decisions about looking after their own country, bringing traditional cultural knowledge to western science. One purpose of this management plan is to communicate an understanding of those things Bardi Jawi people are keen to protect for future generations.

How to use this plan

This plan has many sections showing the things that Bardi Jawi people are concerned about. The *targets* are the broad aspects of Bardi Jawi life that people want protected. The *objectives* describe what we want to achieve, and the *strategies* tell how we plan to achieve them. Each target discussed in the text is followed by the objective(s) and the strategies. Some objectives are the same for more than one target. For each target, there are one or two objectives but several strategies. A list of nested targets can be found in Appendix 1





© Painting by Wilma Cox 2011 'Dugong'

IPA CONSULTATION PROCESS AND PLANNING

This plan is the result of over three years of consultation with Bardi Jawi people. In the first stage, people thought about what an Indigenous Protected Area is in Australia, and whether Traditional Owners would like to set one up.

In the early stages of the planning process, individual family groups were asked what they thought was important for them to look after. All information was recorded and the Bardi Jawi Rangers guided these family meetings with the aid of a linguist. Later on, an Indigenous Protected Area steering committee was formed, whose members were approved by the Bardi Jawi Niimidiman Aboriginal Corporation RNTBC. The Bardi Jawi IPA steering committee members contributed the cultural knowledge components of this plan, provided guidance to the Kimberley Land Council Land and Sea Management Unit staff throughout the process and, despite the many other demands on them, took part at every stage. Over a number of workshop meetings held on country it became clearer how Bardi Jawi people like to see their Land and Sea country managed, and what they believe needs protecting.

The Nature Conservancy, a not-for-profit organization, assisted the IPA project team with training in Conservation Action Planning (CAP), and invited project team members to take part in workshops with other Aboriginal groups from across northern Australia, to share information and develop plans. Bringing Conservation Action Planning into the plan of management was a challenge for all.

As the project team became more familiar with the CAP process, things started progressing. The steering committee learned how aspects of planning worked and how the CAP tool can be used to measure the health of country and help prioritize work on country. During the CAP consultation the Bardi Jawi Niimidiman Aboriginal Corporation (RNTBC) and community councils were kept informed.



During workshops with the IPA steering committee, the important things to be looked after on country (targets) were mapped. The mapping process led to the targets, objectives and strategies. The seven identified targets are:

- Marnany (Fringing Reefs)
- Aarli (Fish)
- Odorr (Dugong) and Goorlil (Turtle)
- Significant Sites
- Language, Law and Culture
- Traditional Oola (Water) Places
- Indigenous Plant Resources

Within each of these broad targets are several 'nested' targets — 27 in total. All nested targets are listed in Appendix 1 of this plan.



© Painting by Ashley Hunter 2011 'Ilma'

TRADITIONAL OWNER ENGAGEMENT AND PROTOCOLS

Agencies often have difficulty in engaging and consulting effectively with Traditional Owners. Time constraints and not knowing who to speak to often result in poor outcomes for everyone.

An outside agency or individual may be welcomed to a community and believe that the matter they are there to discuss has been well received. They may believe that permission has been obtained for the proposed work to go ahead. In many cases work may be stalled later over heritage, legislative or intellectual property concerns. Under native title, a council oversees crucial decision-making processes. The Bardi Jawi Niimidiman Prescribed Body Corporate (RNTBC) is the peak council and must be formally approached about any matter that may affect Bardi Jawi land and sea country.

Any proposal concerning research, joint management or development to do with cultural heritage, use or

documentation of traditional knowledge, or on-ground works, must be referred to the RNTBC for consideration. Failure to refer a project may lead to legal action.

As the governing body, the Bardi Jawi Niimidiman RNTBC or PBC helps manage access to outstation communities and supports sustainable tourism and business ventures on Bardi Jawi country. Future PBC governance structures will establish protocols to help communities, family outstations and Aboriginal corporations realise their wishes and carry out their responsibilities, with a view to becoming self-managing.

Today, the Bardi Jawi PBC is supported by the Kimberley Land Council and recognised for its representative capacity. The PBC will work collaboratively to provide good governance on Bardi Jawi lands, where native title has been determined.





MANAGEMENT HISTORY OF BARDI JAWI COUNTRY

Since the late 1970's, Bardi Jawi people have taken part in managing their natural assets and resources. In 1976 the Swan Island (Gardiny) Nature Reserve was gazetted, as a nesting place for the lesser frigate bird.

The West Australian Marine Turtle Project (WAMTP) concentrated on collecting information and tagging nesting turtles from key rookery sites within the state. Robert Prince led the efforts of the WAMTP and worked closely with Bardi Jawi people for over a decade, from the late 1980's to the late 1990's, taking interested community members for weeks at a time to the Lacepede Islands and other known turtle nesting rookeries in the Kimberley.

During this time a Bardi ranger team was established, through funds from the Department of Conservation and Land Management (CALM). However, in the early 1990's funding for the work was discontinued and the team ceased to operate. In 1994 the Wilson Report recommended to the Department that a Marine Park covering the Buccaneer Archipelago and Cape Borda-Pender Bay be established.

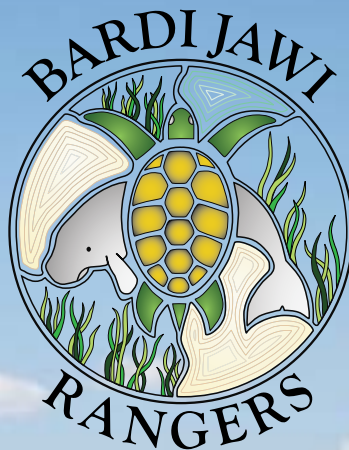
The WA State Government, with the advice of CALM,

was also keen to declare terrestrial nature reserves at Cape Borda, Cygnet Bay and Leveque, all on Bardi Jawi country. None of these has yet been declared. In 2004, incursions by Indonesian fishermen to the Kimberley led to a response by the state and federal governments because of quarantine and poaching fears. A collaborative surveillance team was set up with Ardyaloon (One Arm Point) community members and the Department of Fisheries and Customs: the Bardi Patrol.

A greater border protection effort by the Commonwealth across much of northern Australia reduced the need for local patrolling, and the joint Bardi Patrol ceased to exist.

This management plan takes into account the recommendations of the Dampier Peninsula Access Management Plan (DPAMP) of 2005, where the ranger program is considered to be a key initiative. However, the idea of an Indigenous Protected Area is not explored in the DPAMP. Many recommendations of that Plan are being discussed within the Dampier Peninsula Planning Strategy, and some could be realised through the running of an effective IPA.





ESTABLISHMENT OF THE BARDI JAWI RANGERS

The Bardi Jawi Rangers were established in 2006 and based at the community of Ardyaloon, to work with and represent the entire Bardi Jawi community. Initially the Rangers were funded through the Northern Australian Indigenous Land and Sea Management Alliance (NAILSMA) Dugong and Marine Turtle Project, of which the Kimberley Land Council's Land and Sea Management Unit is a partner. Through the Kimberley Regional Activity Plan this project sought to provide training and begin community-based monitoring of Turtles and Dugong, both culturally significant species.

The Rangers, like many other ranger groups in northern Australia, had humble beginnings and wages came from the Community Development and Employment Program (CDEP). As further grant monies became available and the support from Bardi Jawi communities grew, more projects could be undertaken. Challenges such as obtaining an office and vehicles, and places for storing equipment, were all part of the initial work. In late 2007, the group received Commonwealth funding for the 'Working on Country' Program. This was a big step forward. The Rangers had to make the transition to full-time work, which brought about new challenges, both personally and professionally.

Today, there are eight full-time Bardi Jawi Rangers, including an Operational Head Ranger and a Senior Cultural Ranger, and a coordinator. The Rangers report frequently to Bardi Jawi Prescribed Body Corporate, which endorses their annual work plan.

Rangers' work covers cultural and natural resource management, including weed control, education and biodiversity monitoring, vine thicket protection, conducting wildlife surveys, seagrass monitoring and fire management.

Formal arrangements for new fire and emergency infrastructure have been endorsed and Rangers are being

trained so that fire fighting on Bardi Jawi country will be better coordinated.

Other activities include satellite tracking of turtles and dugong, visitor management, cultural awareness and community education in schools.

The Rangers also conduct Quarantine surveys and have taken part in consultations for the Indigenous Protected Area project. In 2013, with the delivery of a new seagoing vessel, the Bardi Jawi Rangers will set up Australia's first voluntary Indigenous marine rescue service, and will take part in marine research and play an active role in sea country management. Construction is underway for several nurseries in the larger communities to propagate indigenous plants, especially endangered species, for community planting and rehabilitation projects. This incentive will contribute to 'looking after country' goals.





BARDI JAWI INDIGENOUS PROTECTED AREA

CLIMATE AND ECOLOGY

Climatically, the Peninsula is a dry tropical region. It has an average annual rainfall of 600–750 mm. Most rain falls during the short wet season, flooding low-lying areas.

Along the coastal fringes, Monsoonal Vine Thickets occur. These rainforest remnants occur in narrow bands. Vine thickets are an important ecological community. They form a low, dense canopy dominated by one or more evergreen tree species and tall, semi-deciduous shrubs hung with native vines, but have little understorey. They provide an essential habitat for a number of species.

A STAGED IPA APPROACH

The Bardi Jawi know that not all their country can be included in an IPA. They have chosen to declare certain areas first and negotiate for others in the future. There is no legal framework for the Commonwealth or State to recognize any form of tenure over sea country or for Traditional Owners to declare sea country IPAs.

The Bardi Jawi are supportive of the development of a framework recognising and promoting Traditional Owners' management rights over sea country.

The Bardi Jawi recognise nature reserves proposed by the Department of Environment and Conservation (DEC) and wish to become the sole managers of these areas under the IPA. However, if the proposed reserves become a reality, Traditional Owners will become co-managers with DEC.

The Swan Island Nature Reserve RES 34257, gazetted in 1976, is under the management of DEC and is not part of the IPA. Swan Island may be the first opportunity for the negotiation of a co-management arrangement included in the next stage of the IPA. Alternatively, ownership of the island could be transferred to the Bardi Jawi Niimidiman Prescribed Body Corporate (RNTBC).

Within Bardi Jawi Sea country there are reefs and islets (sandbars exposed at low tides) that hold cultural significance. The Bardi Jawi have a right under native title

to protect these places. An IPA declaration over sea country would ensure these areas come under the proposed sea country management framework. Numerous pearling leases exist on the east side of the Dampier Peninsula within the native title claim boundary. These pearling leases have land-based infrastructure with freehold and leasehold tenure. The IPA will facilitate access by Traditional Owners.

During the IPA consultations, the Dampier Peninsula Planning (DPP) process dealt with land tenure reform and land use planning. Many discussions between Traditional Owners and government agencies were around the vesting of lands in Aboriginal PBCs to protect areas of high conservation value and expanded joint management arrangements through DEC. The DPP process will make a range of recommendations, starting with a long-awaited return of land to Traditional Owners. The Dampier Peninsula Planning Strategy takes the Bardi Jawi Plan of Management's plans and aspirations into account.

NEIGHBOURING LANDS

For the Bardi Jawi IPA to be successful, support from neighbours is required. Many communities on Bardi Jawi country have taken part in the consultation process. Support for the IPA by the people of Lombadina, Djarindjin and Ardyaloon, and their participation in IPA programs, will be critical to its success. Communities and outstations were engaged through meetings and educational materials. These created high awareness of the IPA project and of land management in general. Outstation communities will also contribute to the success of management of Bardi Jawi country. Their support for burning activities, biodiversity monitoring and visitor management, particularly where they engage in tourism activities, will be important.

Kooljaman is a Bardi Jawi tourist resort, providing a great educational opportunity to promote on-country management. There are significant cultural, environmental and infrastructure assets within the resort boundaries. The rangers provide visitors with cultural awareness training and carry out conservation work.



IUCN CATEGORIES FOR BARDI JAWI COUNTRY

OVERVIEW

Bardi Jawi people consider that their Jardagarr (coastal country) and Niimidiman (inland country) have particular management needs. For conservation and management purposes, the two areas can be classed under the International Union for Conservation of Nature (IUCN) as Category 4 (Jardagarr) and Category 6 (Niimidiman).

JARDAGARR (COASTAL) CATEGORY 4—HABITAT/SPECIES MANAGEMENT AREA

Many species of native Garrabal (birds), including Gouldian Finches, Eastern Curlews, Fork-tailed Swifts, Yellow Wagtails, Oriental Cuckoos, Chestnut-backed Button Quails, Peregrine Falcons, Bush Turkeys/Australian Bustards and Bush Stone Curlews, are common to Jardagarr areas. They are listed with the Department of Environment and Conservation (DEC) for priority conservation because they are rare and likely to become extinct if measures are not taken to protect them.

The IUCN category 4 requires actions to:

- protect critically endangered populations of species that need particular management interventions to ensure their continued survival;
- protect rare or threatened habitats including fragments of habitats;
- secure stepping-stones (places for migratory species to feed and rest) or breeding sites;
- provide flexible management strategies and options in buffer zones around, or connectivity conservation corridors between, more strictly protected areas that are more acceptable to local communities and other stakeholders;
- maintain species that have become dependent on cultural landscapes where their original habitats have disappeared or been altered.

Jardagarr areas are of high conservation value because of their biodiversity and high cultural values. Category 4 provides a management approach used in areas that

have already undergone substantial change requiring the remaining habitat fragments to be protected.

NIIMIDIMAN (INLAND AND ISLAND AREAS) CATEGORY 6—PROTECTED AREA WITH SUSTAINABLE USE OF NATURAL RESOURCES

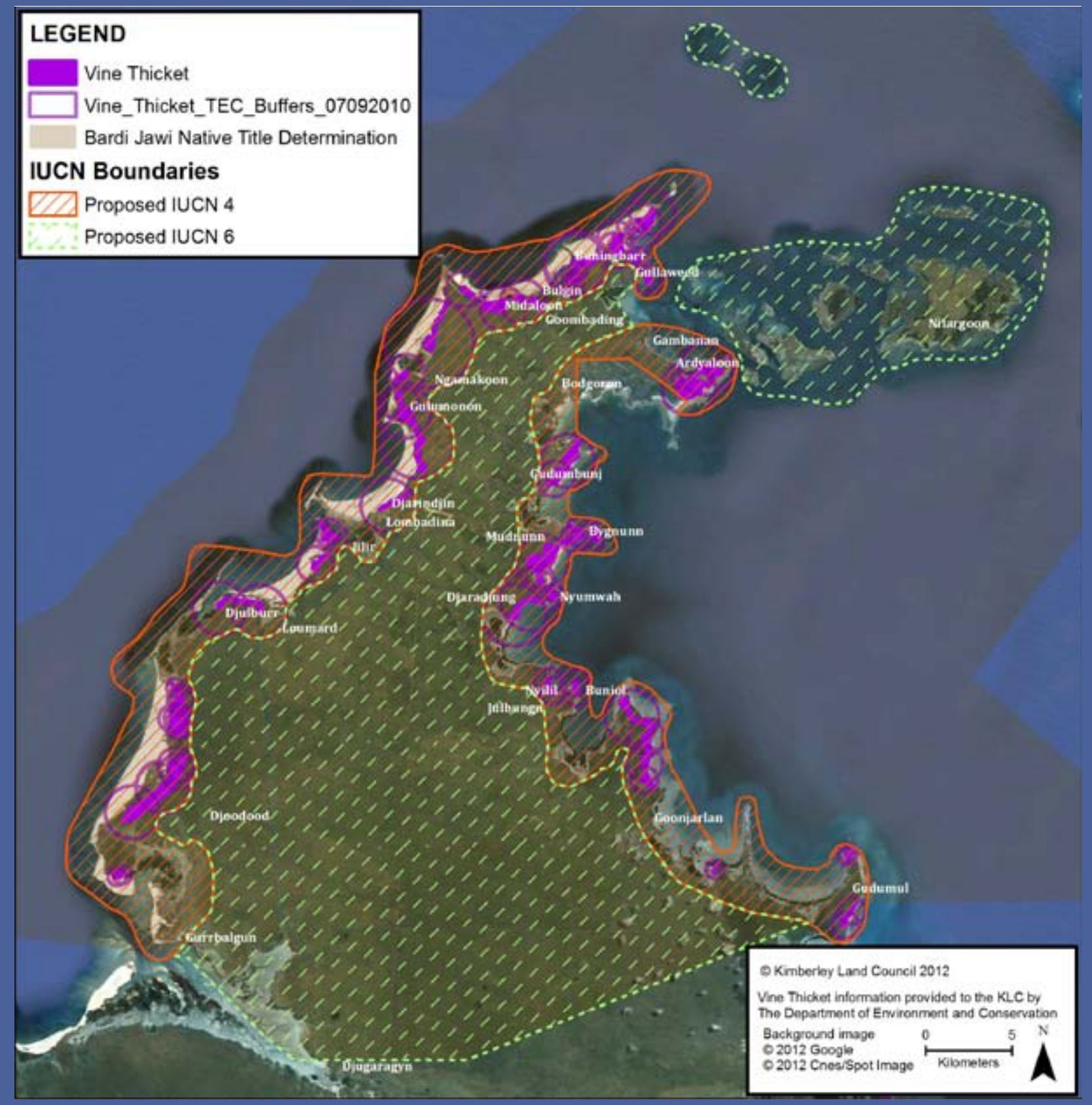
Situated close to Jardagarr is Niimidiman, which also harbours many plant and animal species of high cultural value. For example, Irrgil trees are used for making boomerangs and Marrga, Joolgirr and Bilimangard trees are used for making shields. Some Niimidiman areas feature traditional Oola (water) places and stories attached to these places are culturally important. Banyjoord and Ilingam also grow in the Niimidiman areas. Bardi Jawi people want to protect their natural ecosystems and use the resources contained within them sustainably, so that conservation and sustainable use co-exist. The purpose of IUCN category 6 is to:

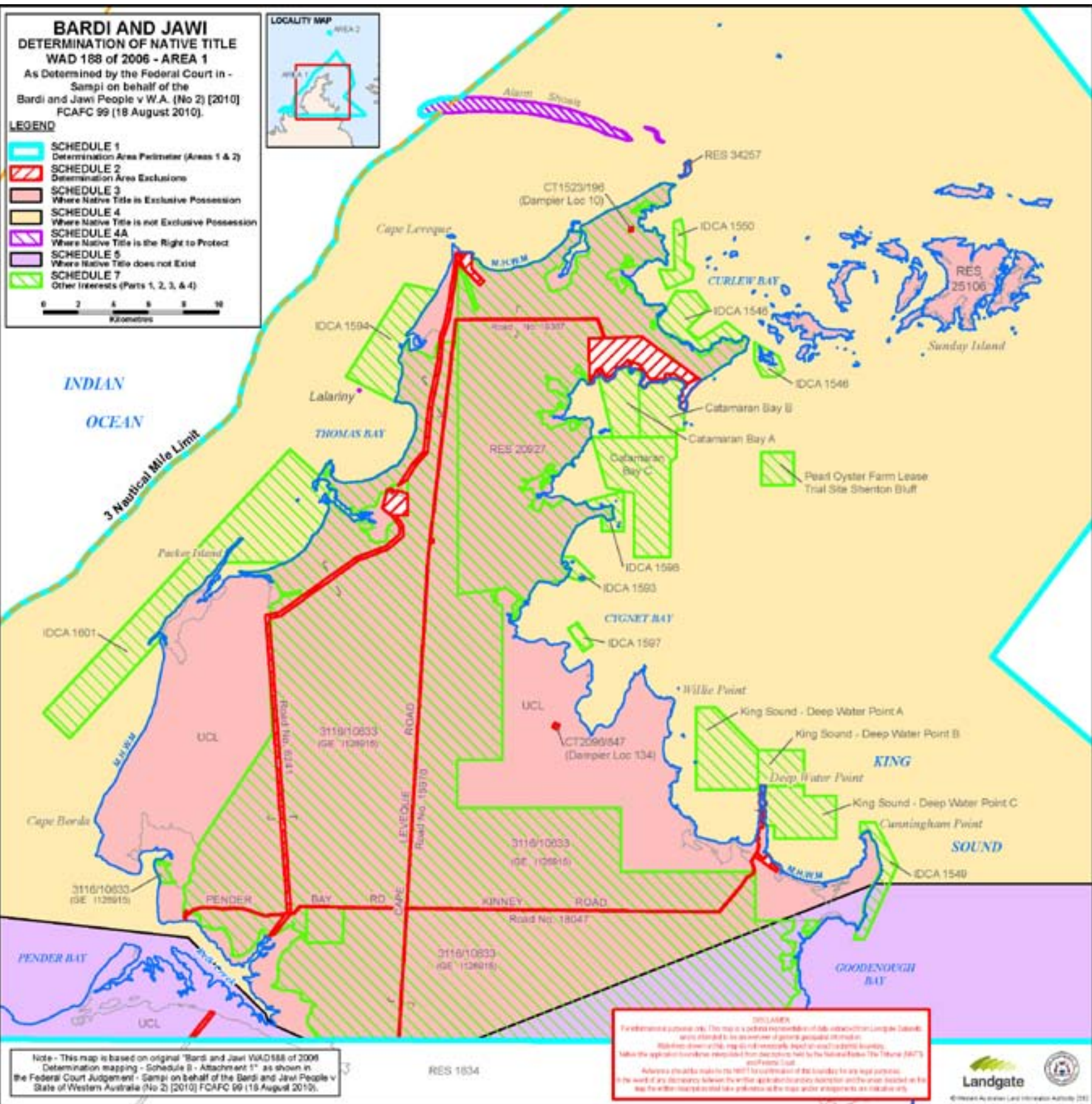
- promote sustainable use of natural resources, considering ecological, economic and social dimensions;
- promote social and economic benefits to local communities where relevant;
- facilitate inter-generational security for local communities' livelihoods ensuring sustainability;
- integrate cultural approaches, belief systems and world-views within a range of social and economic approaches to nature conservation;
- contribute to developing and maintaining a balanced relationship between humans and the rest of nature.

The Niimidiman protected areas will conserve ecosystems, habitats and cultural values. These areas require visitor management as well as the prevention of wild fires. While Niimidiman areas are larger than Jardagarr, and are mostly in a natural condition, IUCN category 6 states that low-level, non-industrial use of natural resources is compatible with nature conservation and traditional natural resource management systems.



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NATIVE TITLE, LAND TENURE DESCRIPTION

The Bardi Jawi want all of their country to be included in an Indigenous Protected Area. The large percentage of Aboriginal-owned land means that most of the determined native title area on land will be included in the IPA.

A number of different land tenures exist within the claim area, including freehold, special purpose lease, reserves, leasehold land, Aboriginal Land Trust Land, unallocated crown land and community-owned land. All types of land tenure are subject to both the State and Commonwealth Aboriginal Heritage Protection Acts, and all, except for the freehold land areas, are subject to exclusive possession native title interests by the Bardi Jawi people.

Where there is leasehold or Aboriginal Land Trust reserve land within the determined native title area, this lease sits over the top of native title but does not extinguish it.

The Bardi Jawi have rights to access and enjoy the intertidal areas, including islands, reefs and islets exposed at low tides, to 2m below the mean low water mark, as determined in the successful 2010 Native Title Judgment WAD 188 of 2006. The Bardi Jawi therefore want to declare an Indigenous Protected Area over the following areas, shown in the map on the opposite page, over which they have exclusive possession native title:

- Unallocated Crown Land (UCL), which exists on the numerous islands offshore, north and east from Ardyaloon in the King Sound, as described in the determination WAD 188 of 2006; UCL existing along the north Pender Bay area adjacent to Cape Borda and Packer Island, the lower part of the Bardi Jawi claim land adjacent to Cygnet Bay and towards Cunningham Point, and the area south-west of Cape Leveque. There are numerous UCL areas where tidal creeks and beaches contain sites not included as leasehold.
- Aboriginal Land Trust Reserves RES 20927 and RES 25106 (Sunday Island).

- The Djarindjin Aboriginal Corporation Special Purpose Lease 3116/10633 (GE I126915), which covers a large part of the central area of the Bardi Jawi Claim.
- Pender Aboriginal Pastoral Community Aboriginal Corporation (PAPCAC) Lease 3116/10656 (GE I150569)

Areas NOT included in the IPA are:

- those freehold parcels of land which belong to private corporations or individuals
- road, nature or water reserves not under native title but lying within the claim area
- sea country areas where there is not exclusive-possession native title, including pearling leases and Interdepartmental Committee Aquaculture Leases (IDCA's).





TARGET: MARNANY (FRINGING REEFS)

OBJECTIVE

By 2013 Bardi Jawi people will have access to the most current western and traditional knowledge to help them manage saltwater resources and habitats

STRATEGIES

- By 2015 Bardi Jawi will have established baseline data through research partnerships monitoring the health of reefs
- By 2014, introduce programs to monitor the health of fringing reefs through research partnerships.

Offshore, Bardi Jawi country includes reefs, important food-gathering places for Bardi Jawi people and visitors. Not only do these reefs provide sustenance, they are also culturally significant. For example Jalarn, a fringing inshore reef, is relatively easy to reach, just off the coast from Ardyaloon (One Arm Point). It consists of terraced layers of limestone, home to many Aarli (fish) species, abalone, Banyjarr (clam shell), Alngir (trochus), Goowarn (pearl shell) and others. All these species are important foods and economic and cultural resources for Bardi Jawi people.

Bardi Jawi people continue to use the resources of the reefs by walking out on the low tide, collecting seafood and gaining access to rock pools with trapped fish, and to the reef edges.

Coral reefs are living structures with a framework formed from the calcium skeletons of dead corals. Reefs grow upwards and sometimes reach the surface of the sea. The hard and soft corals grow mainly around the edges of reefs, and lagoons may form in the middle. Reefs can help protect shores from tidal surges during storms and cyclones.

Algae and seaweeds thrive on the reefs, providing habitat for important marine animals, often at vulnerable stages of their life cycle. Many types of fish and other marine species use reefs to hide from sharks and other predators.

Fringing reefs are those attached to the mainland or to islands, in shallow coastal waters, and are exposed when the tide is low. The many pools and channels on reefs such as Jalarn contain fish, oysters and other shellfish, harvested by Bardi Jawi people. Water temperature around these reefs ranges from an average 22 degrees C in the dry season to an average 26 degrees C in the wet, and corals are sensitive to fluctuations in temperature. Together the corals, algae and single-celled animals called zooxanthellae keep this fragile ecosystem stable. Noomool or seagrass meadows, a fertile ecosystem where turtles and dugong feed, are often present on the more sheltered sandy flats, before these give way to beaches or mangroves.

Mangroves provide a buffer zone to the mainland, with their own ecology. They are key to keeping the intertidal plant and animal habitat healthy.





TARGET: AARLI (FISH)

OBJECTIVE

By 2015 Bardi Jawi people will have established baseline data on fish stocks through research partnerships and monitoring programs

STRATEGIES

- By June 2013 Bardi Jawi will have established research partnership protocols for institutions to undertake research on Bardi Jawi country, with clearly defined outcomes for Bardi Jawi people
- Rangers will be managing country with guidance of PBC and elders within two years of declaration of the IPA
- By 2015, produce recordings and other audiovisual materials about Bardi Jawi traditional fishing practices
- Construct database of these materials

Aarli is the most important food for the Bardi Jawi people, for its nutritional value and because it is the most available food on country. Fishing is a major feature of Bardi Jawi lifestyle, undertaken by young and old.

The beaches, bays, reefs, mangrove creeks and islands all provide rich habitats for fish. Aarli is caught by Bardi and Jawi people from the shore and from boats. People fish with

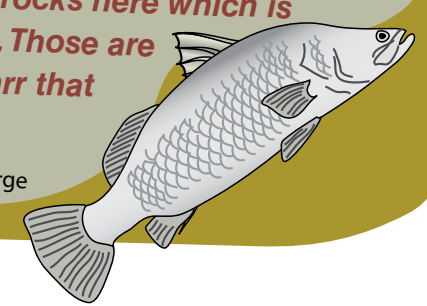
handlines, spears, dragnets and modern spear guns. Rods for trolling and bottom fishing are becoming more popular.

Fish are sought when at their fattest, with the highest nutritional value. The most sought-after species of Aarli are the Goolan (small bluebone), Barrambarr (large bluebone), Jirral and Yawilil (trevally, numerous species), Joordoo (mullet) Joorloo (spanish flag), Barrbal (yellow-lined spinefoot), Maarrarn (mangrove jack), Biindarral (coral trout), Biidib (rock cod), Birrinyan (queenfish), Gambarl (surgeon fish), Gooloorrganjoon (mackerel), Barnamb (stingray) and Ngarrangg (mud crab).

Bardi Jawi people are concerned that Aarli are threatened by increased recreational fishing in their country. More visitors are expected to travel to Bardi Jawi country along with developments on the Dampier Peninsula and Broome. Bardi Jawi people would like to have more control over their fish stocks and make sure their young people continue to learn the cultural aspects of fishing.

“Bluebone (Goorlan) is fat in Lalin, the hot part of season. If you catch it in cool part of the dry season then they are dry, not juicy when you cook it.”
 Jessie Sampi

“Two of them Barrambarr (Bluebone) had a fight there. One came from Beagle Bay area and he come in the wrong territory around here and the head Barrambarr from here, from Pender Bay, from Gurrbalgun, they had a fight between both of them. Before that fight, every Barrambarr had all their teeth, but today you will see after they’ve had that fight, they’ve lost their teeth. But we got rocks here which is Barrambarr today. Those are the two Barrambarr that fought.”
 Kevin George





TARGET: GOORLIL (TURTLE) & ODORR (DUGONG)

OBJECTIVE

By 2015 Bardi Jawi are using turtle and dugong sustainably according to traditional protocols and western knowledge

STRATEGIES

- By 2013 Bardi Jawi people will have endorsed a code of conduct for hunting dugong and turtle, detailing accepted methods and protocols
- By 2013 Bardi Jawi will have established research partnership protocols for institutions to undertake research on Bardi Jawi country, with clearly defined outcomes for Bardi Jawi people
- By 2014 Bardi Jawi will have developed a strategic plan of management to ensure the sustainable harvest of turtle and dugong
- Rangers will be managing country with guidance of PBC and elders within two years of declaration of the IPA
- By 2015, produce recordings and other audiovisual materials about Bardi Jawi traditional turtle and dugong hunting practices
- Construct database of these materials

Goorlil (turtle) is, second only to Aarli, the most important form of protein for the Bardi Jawi people. Because Goorlil is much more numerous and available than Odorr, it can be exploited all year round. The green turtle is almost the only species taken, for its high quality as a food. There is a negligible take of other turtle species.

One of the benefits of hunting for Goorlil is that turtles provide a large amount of fresh meat at low cost, compared to the equivalent amount of meat bought from community stores. Hunting for Goorlil is very much a part of Bardi Jawi life, especially amongst younger Bardi Jawi men. Experienced hunters know how to select a good turtle to hunt from the shape, colour and pattern on its shell, the way it swims and the noise it makes when breathing. A good turtle is also rich with fat.

During Lalin, the hot build-up time, Oondood (married/mating) Goorlil is hunted, and the female Goorlil is especially prized for her undeveloped eggs and the rich flavour of the meat. Goorlil (and Odorr) meat is distributed according to the hunters' relationships.

Bardi Jawi people want to maintain this deep knowledge and continue their traditional practices.



**“Chasing a dugong with a
outboard motor makes the
meat taste burnt, no good.”**
Roy Wiggan

TARGET: GOORLIL (TURTLE) & ODORR (DUGONG) CONT...

Odorr (dugong) has always played a major role in Bardi Jawi culture, and its use has been well documented. Odorr hunting takes place in the cooler months, typically May to July, when dugongs appear in Bardi Jawi country. The annual harvest of Odorr can fluctuate widely, probably depending on the availability of seagrass up and down the Kimberley coastline.

Experienced hunters avoid hunting pregnant Odorr or mothers with young calves. Most Bardi Jawi people believe that the introduction of the outboard motor has made Odorr increasingly wary of boats. Chasing an Odorr during a hunt is not favoured by older hunters, who say it reduces the quality of the meat. Not surprisingly, many older men advocate for a return to Galaway (sculling), and want to see younger hunters learn and use this technique.

In the days before dinghies and outboard motors, Bardi men were adept at hunting Odorr and Goorlil from their Gaalwa or Biyalbiyal (mangrove wood rafts) with Jadarr (wooden spears). Galaway, the sculling technique, tends to be favoured by older men; it requires much more skill, the hunter using only a paddle and his judgement of the tide and current to locate himself close enough to an animal to

be able to take a shot. This style of hunting is much closer to the traditional.

Another change has been the introduction of fridges and freezers, allowing the meat to be kept fresh for longer. Consequently, hunters are often approached by relatives in Broome and further afield for a share of meat from country for their families. This has widened the distribution circle and put more pressure on skilful hunters (and the species).

Since 2007 the Bardi Jawi rangers have participated in satellite tracking of Goorlil and Odorr, to improve the recording of local migration patterns, educate the community and gain more support for species conservation. The data gathered have increased people's understanding of these animals in the Kimberley and highlighted the need for coordination at a regional level by Traditional Owners and agencies. Bardi Jawi would welcome continued programs to help them better understand patterns of Goorlil and Odorr migration through Bardi Jawi sea country and beyond. They would like to develop culturally appropriate management models and principles to ensure that both species are harvested sustainably.





© Painting by Wilma Cox 2011 'Turtle'

"Two sharks shared everything they got between each other, and one day Mardgaliny got greedy and never gave Loolool any fat turtle meat. So Loolool got angry and they had a fight, and Loolool got a shield and hit Mardgaliny over the head, and it got stuck. That is why we have the hammerhead shark today, and call Mardgaliny after the shield, Mardga."
(as told by Edward James)



© Painting by Edward James 2011 'Mardgaliny and Loolool'



TARGET: SIGNIFICANT SITES

© Painting by Cecilia Tigan 2011 'Fish trap'

OBJECTIVE

Protect and maintain significant sites so that Traditional Owners can use and enjoy them without significant damage or disturbance.

STRATEGIES

- Rangers will be managing country with the guidance of PBC and elders within two years of declaration of the IPA
- Document law grounds and other significant sites on the mainland and islands, and devise ways to protect them, e.g. through monitoring and interpretive signage
- Control access to law grounds during ceremonies
- Monitor and control access to significant sites

Significant Bardi Jawi sites need protecting to uphold their cultural integrity. Many significant sites associated with law are interconnected through songlines and stories that refer to mythological beings and places far afield.

Bardi Jawi people want to make sure that these sites are not violated by visitors and that all Bardi Jawi people have knowledge about important places. Some sites are only for men while others belong to women who, traditionally, would meet to pass on knowledge and gather food. Management measures would ensure that no one visits a significant site without the consent of the elders, lest they get hurt or fall sick.

It is important for Bardi and Jawi people that elders who have passed away are not disturbed and their resting places are respected. Some 'open' sites are important for fishing and camping, or Lalin places (where people go hunting for married turtles).





TARGET: LAW, LANGUAGE & CULTURE

OBJECTIVE

By 2020, the majority of young people living on country are fluent in and regularly speak their language and attend cultural ceremonies

STRATEGIES

- Build upon cultural activities already taking place and devise ways to strengthen the practice of law and culture through discussions with older Bardi Jawi people
- Facilitate the transmission of language through existing language programs and communications media
- Control access to law grounds during ceremonies
- Rangers will be managing country with guidance of PBC and elders within two years of declaration of the IPA

Bardi and Jawi people have always shared their cultural lives and continue to practise their culture. Law ceremonies are held and run by the Majamajin (law bosses) and supported by the rest of the community, to keep the law strong and allow boys their path to adulthood. Ceremonies take place in some significant sites, respected by Bardi Jawi people for that purpose. Bardi Jawi want to support and sustain these practices. The law grounds are looked after by the Majamajin and are found throughout Bardi Jawi country, on different family Booroo or home places.

Today, most of the law grounds are close to major communities and strict no-access protocols apply except for people taking part in ceremonies.

In Bardi Jawi law, Balil (young boys) are initiated according to the ceremony Arnkooy, and stay in the Irrganj (law) camp until the welcoming out ceremony of Ngooril. When the young boys exit the Irrganj camp they are given a set of Irrgil and Mardga, and their return is celebrated in the community. Following Arnkooy, the young men, now Oombool, have to participate in Oolooloong (winter law) and progress through the next stages of law until they are culturally endorsed as men, 'getting red paint' in the Ngooril ceremony. The men are presented with a carved Goowarn (pearl shell) indicating their clan group, which is tied to their waist with a hair belt.

Some parts of Bardi Jawi Law are kept secret but others are public ceremonies, in which women and families play a major part.

Bardi and Jawi language reflects a deep understanding of the land and sea, the plants and animals. Booroo and significant sites have Bardi Jawi names, and the language is often better suited than English to describing features of country. Bardi Jawi elders are concerned that their language is rarely spoken at home any more.

Many rules and practices govern everyday life and death in Bardi Jawi culture. Elders want to see these practices continue, but maintaining them becomes more difficult as time passes.

Bardi Jawi people have an obligation to respect Jawal (law teacher) and Alood (in-law) relationships, and other customs that are still largely followed. Bardi Jawi people try to maintain traditional practices, but with so much overcrowding, people in an Alood relationship may have to live together or travel in the same vehicle. Alood people often have to attend the same meetings, and this is inappropriate unless meetings and meeting places can accommodate customary law.

Old people are much respected and many Traditional Owners try to make sure their old people receive fish, turtle, dugong or other favourite foods from country when they have been caught or collected. Elders hold a wealth of traditional knowledge and when younger Bardi Jawi people speak for country they only do so with the authority of the elders.



TARGET: INDIGENOUS PLANT RESOURCES

OBJECTIVE

By 2015, the area of monsoon vine thickets will be increasing By 2021, the area of Bardi Jawi country affected by late dry season bushfires will have been reduced by 50%

STRATEGIES

- By March 2013, Rangers and members of the community will be working on the reintroduction of indigenous plants into Niimidiman and monsoonal vine thicket areas
- By 2013, establish indigenous plant nurseries at Ardyaloon school, Ranger Headquarters and Djarindjin Community
- Continue to coordinate fire management activities on country
- Seek funding annually to provide fire management teams with infrastructure, vehicles and equipment
- Within a year of the IPA declaration, develop and implement an operational fire plan, to be reviewed annually
- Rangers will be managing country with the guidance of PBC and elders within two years of declaration of the IPA

Bardi Jawi people use many plant resources for cultural and everyday purposes. Banyjoord and IIngam are the two fish poisons available in Bardi Jawi country, and are used to teach children and visitors the old ways of fishing. Both types of poison are from tubers which can be dug up when the above-ground plant is present. The tuber is crushed, mixed with wet sand and placed in rock pools, where fish can easily be speared once the poison starts to affect them.

A number of trees are used for making Irrgil (boomerangs). Bardi Jawi people use Irrgil for ceremony and song, for fishing and fighting. The Irrgil can be sourced from mangrove and mainland trees. The Marrga (shield) can also be made from a number of different tree species. Such trees are of special importance at law time when young men are presented with Irrgil and Marrga.

Using and making spears is a feature of saltwater people's lifestyle and choosing the right spear to cut from a standing Wanggay (pindan wattle tree) to make a Goolajarrg (small fishing spear) or using the Manawan tree to make a Jarrar (turtle and dugong spear), is an important cultural skill. Today these spears are modified with wire and fishing line wrapped around sharpened steel points, but the skill in

choosing the tree, straightening the shaft and accurately spearing targets, continues to be essential to a saltwater person.

Important plants grow everywhere on Bardi Jawi country, and especially in the Monsoonal Vine Thickets, which are rich with bush fruits and medicinal plants for treating ailments or sores. The vine thickets are important areas for camping and ceremony and provide refuges for endangered birdlife.

The Mardood (Gubinge) is a popular tree for its fleshy fruit, which is collected for commercial purposes on the Dampier Peninsula and elsewhere. Some plants, such as the Loonyjoomard (paperbark), provide the rich treat, Moonga (bush honey), while others, such as the Pandanus Palm nuts, can be used for decorative beads.

All these plants contribute to the health of Bardi Jawi country and culture. It is important that all these plant resources continue to be used and protected to ensure that knowledge is passed to the younger generation. Unsustainable practices, the impacts of wildfire on country, and overharvesting, pose a threat to these important plant resources.



TARGET: TRADITIONAL OOLA (WATER) PLACES

OBJECTIVE

By 2013 the condition of traditional Oola (water) places will be good and monitoring work will continue

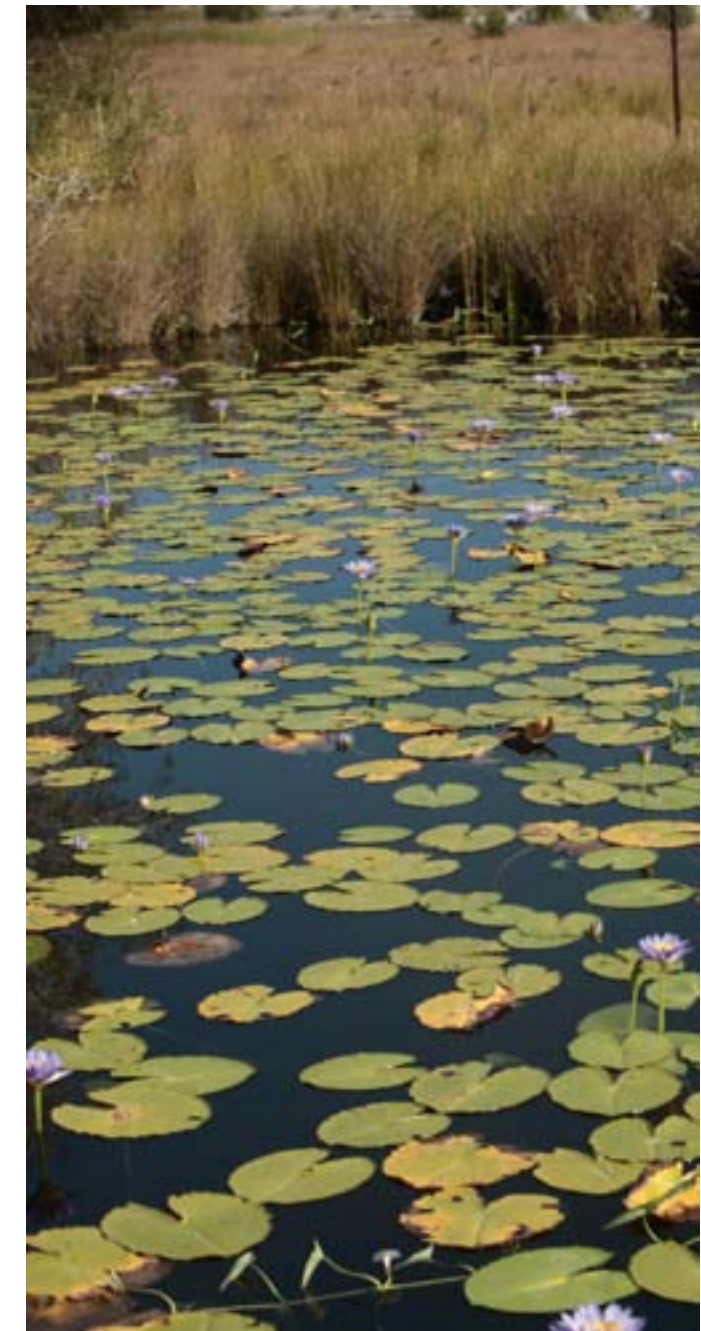
STRATEGIES

- By 2013, establish a monitoring program on the quality of traditional water places
- Continue the recording, documentation and storage of traditional knowledge
- Engage key stakeholders to protect these sites through regular monitoring and signage
- Undertake collaborative studies into groundwater flows
- Develop programs with Bardi Jawi communities to reduce use and especially wastage of water, to protect nearby traditional water places

Oola, or freshwater places on Bardi and Jawi country, need careful management. Very little is known about how much water is in the ground and what use of water is sustainable. Traditional water places are dotted around the coastline, with few occurring inland. Oombarn, freshwater soaks, appear below the high water mark on beaches and salt creeks.

Close to Oombarn, often situated behind dunes, are Oola places called Biidin, a more reliable resource, being above the saltwater incursion. Running-water places, such as Goornganggoon, are found mainly on Sunday and adjacent islands. The water, usually seeping from rocks, is valuable for people visiting these areas.

The need for more research into groundwater flows, not only on Bardi Jawi country but over the whole of the Peninsula, is becoming increasingly apparent. The Dampier Peninsula communities and outstations use relatively small quantities of fresh water, yet from time to time it is contaminated by salt and bacteria. Bardi Jawi people are concerned that the extensive use of Oola in the development planned for James Price Point, on the southern half of the Peninsula, may affect water in their communities and their traditional water sources. Stories are attached to these Oola places, and if they dry up not only the water but the stories will be lost.





© Painting by Bernadette Angus 2011 'Oombarn freshwater soak'



© Painting by Gemma Chaquebor 2011 'Trochus'



THREATS

THREAT: CLIMATE CHANGE

Bardi Jawi people have always observed the seasonal indicators to tell them what is happening in the natural environment. This understanding of change reflects their deep ecological knowledge. It also tells Bardi Jawi people when to hunt and for what species. To take one example: a wattle tree flowering alerts them that the Barnamb (stingray) will now be fat. Climate change may affect everything. For example, when Goorlil, the gender of whose hatchlings is determined in part by the temperature of their nests, lay their eggs into sand that is too hot, there may be fewer male turtle hatchlings entering the sea. A rise in sea level and an increase in temperature can affect the health and distribution of coral reefs and fish populations, and reduce the abundance of seagrass meadows, the basis of the offshore food web.



THREAT: BUSHFIRE

Fire regimes have changed from the traditional practice, where mild, patchy, small-scale fires were lit at the start of the dry season for hunting, regenerating plants or cleaning up country, to one where intense, widespread, uncontrolled fires in the late dry season are now commonplace. Coordinated burn-offs are one of the most important management tools for maintaining healthy country.

When fires are not controlled and too frequent we can see changes in the country and the biodiversity is threatened. In Bardi Jawi country Monsoonal Vine Thickets become smaller and patchier, and as a result more fire-resistant tree species regenerate faster than species found in undisturbed areas, and become more dominant. Careful management will ensure that cooler, early dry-season burn-offs reduce fuel and that fewer hot, late-season fires occur.

Community members need to learn more about the damage fires cause to country and the danger they pose to outstations and communities. Through community education and better resourced and coordinated fire management, damaging practices can be prevented.



THREAT: MINING

There are as yet no oil and gas industries close to the Bardi Jawi coastline. However, a proposal to extract gas from the Browse Basin and to establish a gas processing plant south of Bardi Jawi country is close to being granted approval. Bardi Jawi people are worried that if this development goes ahead it will threaten their unique coastline and diminish food resources. In 2009 an accident occurred on an oil exploration rig in the Timor Sea, when thousands of barrels of light crude oil and condensate hydrocarbons entered a pristine marine environment, causing widespread damage. The spill could not be contained for months. A gas hub located only about 100 kilometres from Bardi country could alter the environment irreversibly.

Some of the things that could happen:

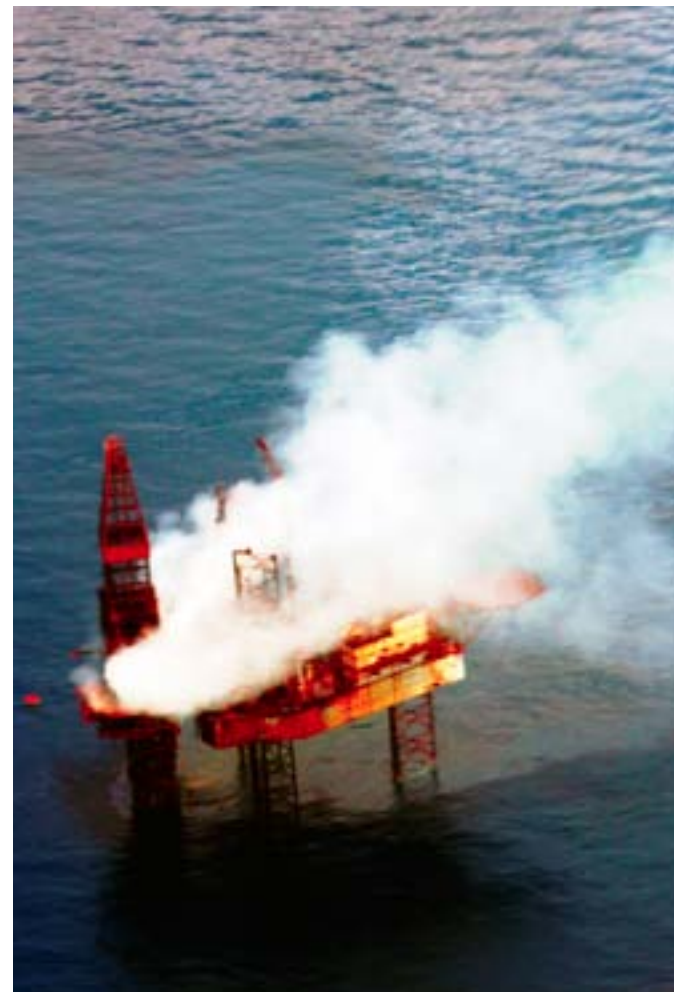
- Shipping accident
- Oil spill
- Loss of seagrass under plumes of sediment
- Introduction of marine pests
- Damage to reefs
- Air and light pollution
- Sudden big increase in visitor numbers
- Boat strike to turtles, dugong and whales

Resource companies are interested in extracting minerals such as bauxite, coal and other commodities throughout the Kimberley region. Adjacent to Bardi Jawi country are two operating mining tenements, one at Koolan Island and the other on Cockatoo Island. An exploration lease has been granted for Irvine Island, with production expected to commence in 2013-14.

THREAT: MARINE PESTS

Bardi Jawi people rely on their marine resources. Alngir (trochus) shell is harvested annually for commercial gain and provides an income for those working in this industry. A quota system has been developed to sustain this valuable resource. The hatchery at Ardyaloon was originally established to sustain Alngir in the face of threats such as illegal collecting by Indonesian fishermen, marine pests and natural disasters that could damage reefs.

Marine pests pose a risk to all forms of marine life. Discharge of ballast water containing unwanted exotic marine species by ships at sea or berthing at ports can have devastating consequences on marine resources, such as those Bardi Jawi people rely on.



THREAT: VISITORS TO COUNTRY

Bardi Jawi people welcome visitors to their country; however, there is concern about how to manage the growing influx of visitors. Vehicles travelling to Bardi Jawi country are expected to increase significantly over the next ten years. Outstation roads, mostly dirt tracks, have seen a steady increase in traffic over time; this needs managing.

Visitors to Bardi Jawi country are people who want to have an experience away from the mainstream. They seek adventure, pristine environments and cultural experience. They need careful management so as not to destroy the very things they come to appreciate. Access to Bardi Jawi country is managed to some extent through community guidelines. Most outstation roads have “No access” signs. However, some signage guides tourists to places where cultural tourism and camping are allowed.

Community offices are the first places visitors should go to, to gain clear information on where they can go and what they can do. The signs have been put up by the community council or Traditional Owners, and their instructions should be respected. For visits other than for tourism, research or other services, the Bardi Jawi Prescribed Body Corporate should be consulted.

Visits to islands and bays by boat are becoming a greater problem, as many culturally significant places are found on islands and sea country. Visitors must seek permission before going to such places, and follow the rules.

During IPA workshops and discussions held before the formal IPA consultations, community people voiced their concern about the impact increased visitor numbers on the Dampier Peninsula have on outstations and major communities. It is anticipated that the sealing of the road from Broome to Beagle Bay will soon be completed, so good visitor management is becoming urgent. Several options are being discussed as part of the Dampier Peninsula Planning Process, which include issuing regional visitor entry passes to the travelling public on the Dampier Peninsula.

The indirect threat occurring from increased visitor numbers includes the spread of weeds by vehicles in fragile areas, damage to dune systems and vegetation, and unauthorised access and damage to heritage sites and culturally sensitive areas. Access to Bardi Jawi country from boats has increased in recent years, mainly by recreational fishers staying at the local tourism spots, and by contract staff. Some visitors come into King Sound via Derby and on charter boats. As most outstations are near the coast, unauthorised access poses a threat to the enjoyment of Traditional Owners of their outstation settlements and lifestyle.

The Bardi Jawi Prescribed Body Corporate has voiced its concern about official visits by employees of the many outside agencies who do not follow rules and guidelines.

The Bardi Jawi Rangers are trying to educate visitors at tourism centres such as the Kooljaman resort. Their cultural awareness program is intended to keep visitors and local service providers safe when they are on country, and encourage them to be respectful of traditional landowners.



THREAT: WEEDS

Weeds are a growing threat to Bardi Jawi country through increasing visitors, who unknowingly spread exotic seed into undisturbed areas. A number of islands within Bardi Jawi country are in danger of weeds taking hold and changing the ecology of the landscape. Once established, weeds such as Calatropis and buffel grass are hard to eradicate, and skillful planning is required to undertake what can be long-term work programs.

Weeds in Monsoonal Vine Thickets are becoming a problem, competing with native plants and causing greater risk of fire. Feral cattle using the vine thickets as resting places trample the plants and spread weeds. Traditional water places are also at risk from weeds infesting the sites and drawing on the water, making the sources less viable and less accessible for Traditional Owners.

THREAT: LACK OF CONTROL OVER MARINE RESOURCES

Bardi Jawi people feel that their traditional resources belong to them by right under native title. They are particularly concerned about outsiders depleting their resources and about the activities of neighbours affecting them in other ways. They want to be in control of how their own people use their local resources.



THREAT: PEOPLE NOT LIVING ON COUNTRY

To look after country, Traditional Owners need to be there, actively managing it. The Dampier Peninsula, and especially Bardi Jawi country, is well populated with outstations and families living on them. Without Traditional Owners on country, the everyday management of their own Booroo (clan estates) cannot take place. Traditional Owners need to look after their country and manage the threats, such as fire, and see that cultural resources and sites are maintained in a healthy landscape.

THREAT: LACK OF TRANSMISSION OF KNOWLEDGE

Bardi Jawi people are concerned that some practices that took place traditionally are not being passed on. Some aspects of traditional knowledge are becoming harder to maintain along with the demands of the modern world. Young people may be employed, and community people face frequent demands to attend meetings. These changes leave less time for activities that used to be part of everyday life, such as teaching young people on country or taking part in law and cultural activities.

While many Bardi Jawi people teach culture in their homes on communities or outstations, there is an increasing need to facilitate such transmission through school culture days, camps and the recording of elders' stories. These types of activity have strong support from community and should continue long into the future.

The traditional ecological knowledge held by Traditional Owners should form the basis of land and sea management on Bardi Jawi country.

THREAT: PEOPLE NOT LOOKING AFTER COUNTRY

The traditional ecological knowledge required to manage country is significant and nowadays, with so many outstations spread over the landscape, land management has to be integrated through partnerships, communications, training, equipment, resources and planning. The traditional management of Booroo should be encouraged and the families of local Booroo should know what to look after in their own area. Managing one's own Booroo should be done without damaging other people's land, particularly by the use of fire.

The greater frequency of fires lit at the wrong time of year, causing too many hot burns on the Dampier Peninsula, is a key example of people not looking after country properly. These hot burns are not usually authorized by bosses of country, and put other communities at risk.

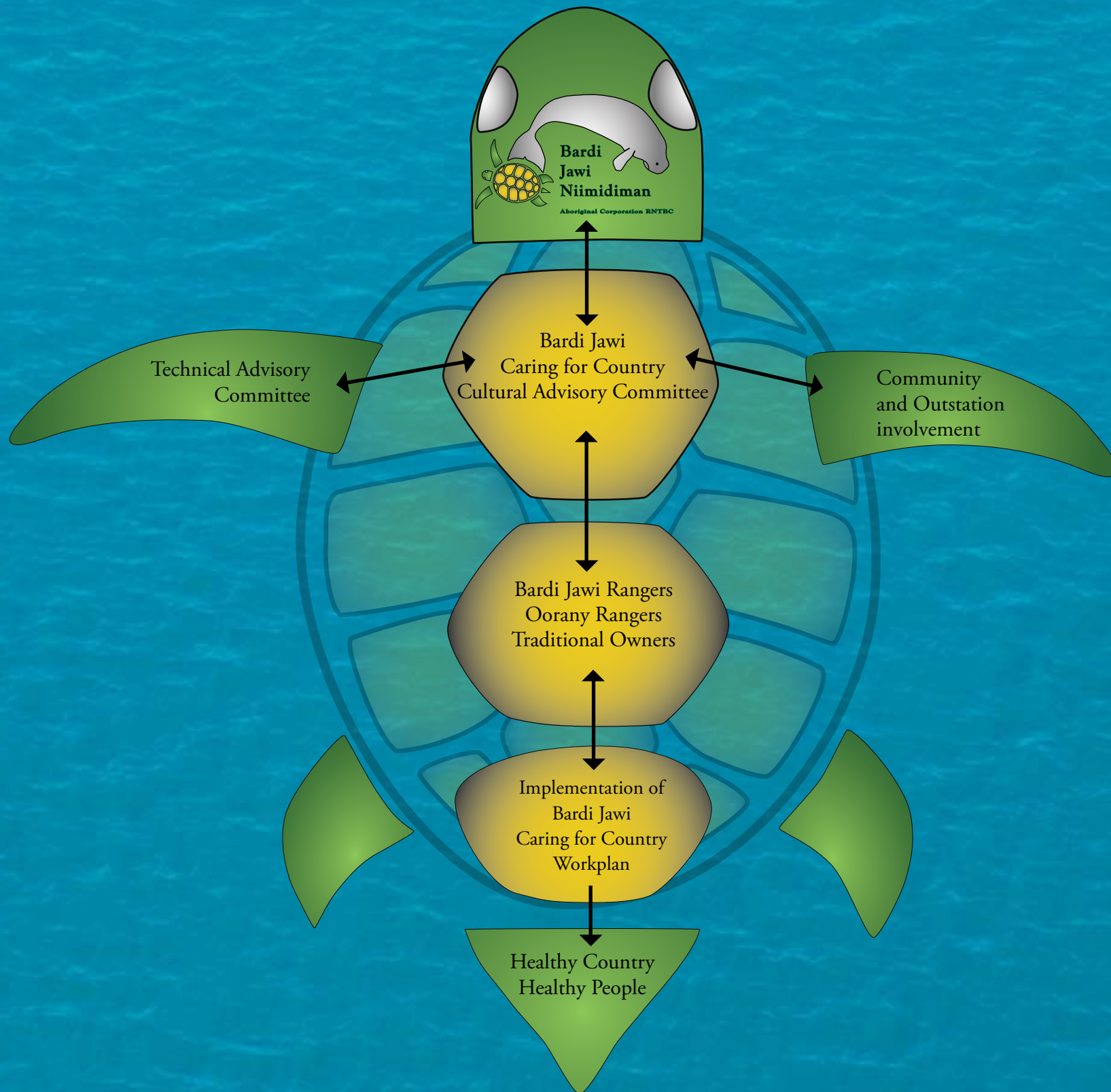


THREAT: PEARLING LEASES AND LAND-BASED INFRASTRUCTURE

The problem of access across pearling leases has been raised by Traditional Owners throughout community consultations. The on-water infrastructure, such as floats and lines, does not appear intrusive in the seascape, but the pearling areas are largely avoided by Traditional Owners. People avoid these areas when hunting, especially at night, because of the danger of animals and boat propellers becoming entangled. The land-based infrastructure also impedes Traditional Owners from using the areas for their own customary purposes. Fences and signage preventing people from entering leasehold or private land to reach resources on country are discouraging for Traditional Owners, and people often lose their attachment to such areas, which they see as belonging to someone else.



PROPOSED BARDI JAWI IPA GOVERNANCE STRUCTURE



MONITORING AND EVALUATION

The Bardi Jawi Indigenous Protected Area will monitor and evaluate its progress through the Conservation Action Planning (CAP) methods and tools. The CAP was developed for the Bardi Jawi IPA as discussed in the 'IPA consultation process and planning' section of this plan. The CAP method not only identifies the important things on country that Traditional Owners want to look after, but it documents the objectives, strategies and threats.

The CAP, assisted by a computer-based tool, allows managers to choose strategies according to their impact, the budget, and timelines for improvement in the different targets. The effectiveness of works undertaken will be measured by suitable indicators.

The first major part of work to be undertaken in the IPA will be to create a monitoring and evaluation plan, allowing time and a budget each year as the IPA progresses.

GOVERNANCE AND IMPLEMENTATION

For the Bardi Jawi IPA to be managed successfully, guidance from Traditional Owners and external experts will be critical. Decisions by the Bardi Jawi Traditional Owners will be incorporated at every level as the plan of management is put into practice.

Conservation, SEWPaC, and individual scientists and experts, to help ensure healthy country and healthy people.

The governance and implementation model is shown opposite.

The IPA will work with the Bardi Jawi Rangers and tailor their work plans to the targets of the IPA. The directors of the Bardi Jawi PBC will delegate the management of Rangers and the IPA to two committees:

- The Cultural Advisory Committee advises the Bardi Jawi Rangers in their everyday work plan, and its members sit on the technical advisory committee to the IPA.
- The Technical Advisory Committee for the IPA directs the work of the IPA to achieve its objectives for country, with external expert assistance and in a culturally appropriate way.

The Kimberley Land Council has a role in the Technical Advisory Committee of the IPA, but also administers the IPA and Ranger Program, and provides support to the PBC.

The Technical Advisory Committee also calls on knowledge and skills from the Department of Environment and



CAPACITY IN LAND AND SEA MANAGEMENT

The resourcing of rangers for land and sea management has increased significantly over the last few years, with programs such as Working on Country and through opportunities for Traditional Owner ranger groups to provide environmental services for a fee.

Training is critical to ensure that rangers are competent to carry out the range of tasks demanded of them. It is envisaged that a core of experienced rangers will be highly trained and develop careers in the field of Land and Sea Management.

The infrastructure, vehicles, vessels and other equipment required to manage Bardi Jawi country effectively has been built over time through the efforts of communities, funding through grants and the work of the rangers themselves.

Better facilities are still needed, such as a larger ranger base with staff housing, perhaps at Djarindjin, and a

purpose-built shed to house the ranger patrol vessel in Ardyaloon. A purpose-built ranger vessel, soon to be delivered, will open up better opportunities for rangers to manage sea country, assist in research and respond to emergencies at sea.

Securing adequate long-term housing for land and sea management staff working for Bardi Jawi will help to attract and retain qualified staff to lead the work set out by Traditional Owners.

Significant funds are required to manage fire on country with capital equipment and to eliminate risk associated with fire management. Cool dry season burning will reduce or mitigate the hot, late dry season burns, but an ability to respond to wildfire is still necessary. Negotiations with the Fire and Emergency Services Association are taking place to build a fire response facility near the Djarindjin multipurpose complex.



APPENDIX 1 LIST OF NESTED TARGETS

MARNANY (FRINGING REEFS) NESTED TARGETS

- Reefs around Jayirri, Goowarn (pearl shell) and other shells, reef shellfish, Banyjarr, (clam and abalone), Noomool (seagrass)

AARLI (FISH) NESTED TARGETS

- Joord (mullet), Barnamb (stingray), Ngarrangg (mud crab), Mangroves, Dreamtime story about Barrambarr, Noomool (seagrass meadows)

GOORLIL (TURTLE) AND ODORR (DUGONG)

- Oondoord (married turtle places), Noomool (seagrass meadows)

SIGNIFICANT SITES NESTED TARGETS

- Songlines and important mythological places, Dreamtime story sites in and off country, language, burial sites on Iwany (Sunday Island), birth places on Iwany, Jetty on Iwany

INDIGENOUS PLANT RESOURCES NESTED TARGETS

- Banggaljoon bardag agal may (bush orchids), Bardag may (fruit trees), e.g. Madoorr (gubinge), Goolay, Birimbiri, Goorralgar, Joongoon, Goolnji (wild cherry), Marool, Gariliny, Mangarr, Gorrgorr, Gamooloon. Barnman bardag (medicine trees), Biindan, Boordan booroo (Monsoonal Vine Thickets)
- Manawan tree used to make Irrol (spear), Goolajarrg (pronged fishing spear), Jarrar (large spear for turtle and dugong) and Ooloor (salt-marsh spear) made from mangrove tree for hunting Barnamb (stingray)
- Ilingam and Banyjoord (fish poison)
- Moonga (bush honey from trees), Loonyjoomard (paperbark), Marroolal (ghost gum), Joongoon (orange-spiked berry tree), Jigal, Goonggar, Joomay
- Mardga (Shield), Oordool, Joolgirr, Bilanggamarr

TRADITIONAL OOLA (WATER) SOURCES NESTED TARGET

- Weedong Lakes, Community water bores

APPENDIX 2

EXAMPLES OF BARDI JAWI WORDS AND SPELLING

BARDI

Bardi is the language spoken by people of the following clans: *Ardiyol*, *Baniol*, *Goolarrgoon* and *Olonggon* on the mainland and *Iinalabooloo* on the offshore islands close to Ardyaloon. Many people who lived on Iwany at the Sunday Island mission were speakers of Bardi, but came from the mainland.

JAWI

Jawi was the original language of Iwany (Bower 2008). While the Bardi and Jawi languages are similar enough for people to understand one another, some words are different (see table below). Jawi is more conservative than Bardi, not having undergone certain sound changes.

COMPARISON OF SOME BARDI AND JAWI WORDS

BARDI	JAWI	ENGLISH
<i>gaardga</i>	<i>ngalngoorr</i>	Long-fruited Bloodwood Tree
<i>ganggarla</i>	<i>mijinana</i>	Green Clam
<i>gaalwa</i>	<i>biyalbiyal'</i>	raft, catamaran
<i>gorna</i>	<i>garoon</i>	good
<i>odorr</i>	<i>urdorr</i>	dugong
<i>jingin, wiraj</i>	<i>goolgoroolgoo</i>	owl (generic)
<i>morr</i>	<i>mayirri</i>	road
<i>biilingan</i>	<i>biilan</i>	for fighting
	<i>ngalili</i>	kind of creeper
<i>oola</i>	<i>goorrnga</i>	water
<i>madoorr</i>	<i>arrangoor</i>	gubinge

BARDI SPELLING AND PRONUNCIATION GUIDE

This guide has been adapted from the Bardi Spelling Guide in *Ardyooloon Bardi Ngaanka* One Arm Point Bardi Dictionary, compiled by Gedda Aklif, 1999. The Bardi writing system was developed by Bardi speakers of One Arm Point and Lombadina/Djarindjin in 1990, with linguists Joyce Hudson and Gedda Aklif.

CONSONANTS

Bardi has 17 consonants, represented by the following letters: *b*, *d*, *g* (which varies with *k*), *j*, *l*, *ly*, *m*, *n*, *ng*, *ny*, *r*, *rr*, *rd*, *rl*, *rn*, *w* and *y*. Note that sometimes two letters are used in Bardi to represent a single sound that doesn't occur in English.

Bardi consonants are similar to the following sounds in English:

- | | | | |
|-----------|---|------------|--|
| b | like <i>b</i> in 'baby' except at the end of words, when <i>b</i> sounds more like <i>p</i> ; for example <i>yardab</i> ('crawl') sounds almost like 'yardap' | nk | makes two sounds, like <i>ng</i> in 'vanguard' or 'engage' |
| d | like <i>d</i> in 'dear' | ny | like <i>ny</i> in 'canyon' |
| g | like <i>g</i> in 'good', except at the end of words, when <i>g</i> sounds like <i>k</i> ; for example, <i>bardag</i> ('tree') sounds almost like 'bardak' | rr | like the trilled Scottish <i>r</i> |
| l | like <i>l</i> in 'land' | rd | like <i>rd</i> in Irish or American pronunciation of 'harder' — the 'r' is sounded |
| ly | like <i>lli</i> in 'stallion' | rl | like <i>rl</i> in American pronunciation of 'Harlem' — the <i>r</i> is sounded |
| m | like <i>m</i> in 'master' | rn | like <i>rn</i> in American pronunciation of 'harness' — the <i>r</i> is sounded |
| n | like <i>n</i> in 'nut' | rng | is pronounced <i>r+ng</i> |
| ng | like <i>ng</i> in 'singing' | rnk | is pronounced <i>rn+g</i> , like <i>rng</i> in 'barngate' |
| | | w | like <i>w</i> in 'win' |
| | | y | like <i>y</i> in 'yam' |

VOWELS

Bardi has seven vowels, represented by letters *a*, *aa*, *i*, *ii*, *o*, and *oo* (which has two pronunciations).

- | | | | |
|-----------|---------------------------|-----------|---|
| a | like <i>u</i> in 'but' | i | like <i>i</i> in 'bit' |
| aa | like <i>a</i> in 'father' | ii | like <i>ee</i> in 'feet' |
| | | o | like <i>o</i> in 'hot' |
| | | oo | like <i>oo</i> in 'wool' or <i>oo</i> in 'pool' |

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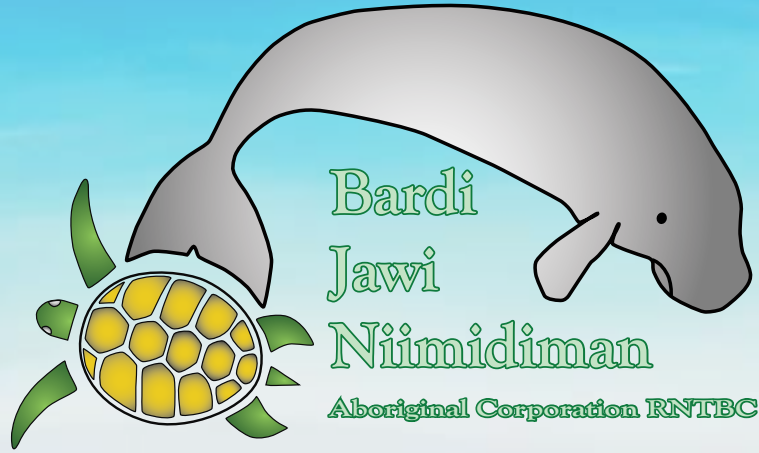
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