

The Barren Isles archipelago

Establishing the Indian Ocean's largest locally managed marine protected area



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The Barren Isles archipelago is one of the few remaining strongholds of thriving marine biodiversity in the western Indian Ocean. Lying off the west coast of Madagascar and home to some of the region's healthiest coral reefs, this diverse ecosystem supports the livelihoods of more than 4,000 traditional fishers.

Many of these fishers migrate to the Barren Isles seasonally, covering up to 1,000 km in outrigger pirogues, in response to declining fisheries.

Pressures on the archipelago have proliferated in recent years, and today the Barren Isles face grave threats now familiar to much of the Indian Ocean: unsustainable and destructive fishing, conflict between small-scale and industrial fishers, and mineral resource exploration.

Responding to these challenges, Blue Ventures and Madagascar's Ministry of Environment and Ministry of Fisheries and Marine Resources are working together to help local coastal communities create a Locally Managed Marine Area (LMMA) around the Barren Isles. In 2014, the Government of Madagascar granted a two-year preliminary protected status, making the Barren Isles the country's largest protected area.



The case for conservation

9 islands located in the Mozambique Channel off Madagascar's west coast

33 families of fish, with the highest documented biomass in Madagascar, averaging

2,648 kg/hectare and up to **6,800 kg/hectare**

37 coral genera

with an average hard coral cover of **36%**



of the world's seven sea turtle species; *Loggerhead* (endangered), *Hawksbill* (critically endangered), *Green* (endangered), *Leatherback* and *Olive Ridley* (vulnerable)

51 IUCN Red List species identified to date

Home to the *Madagascar Heron* (endangered), and *Madagascar Fish Eagle* (critically endangered), as well as breeding *Roseate Terns*, *Noddies* and *Frigate birds*

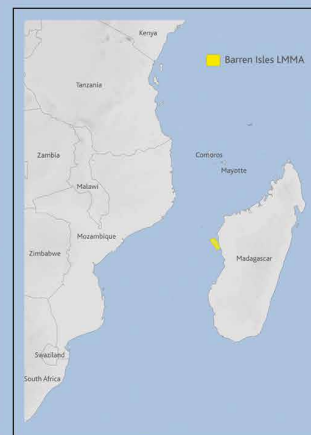


Highest observation rates for marine mammals in the region
(Van Canneyt et al, 2010)

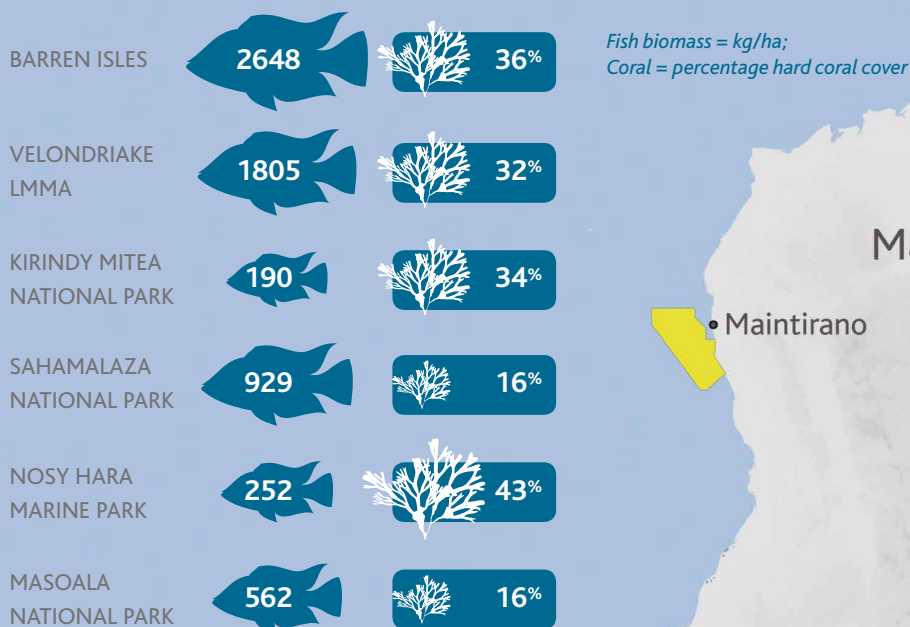
A jewel in the sapphire sea

The Barren Isles ecosystem is extraordinarily diverse, comprising vast coral reefs, offshore islands, seamounts, extensive mangrove forests, estuarine marshes, and coastal dunes backed by dense semi-humid forest.

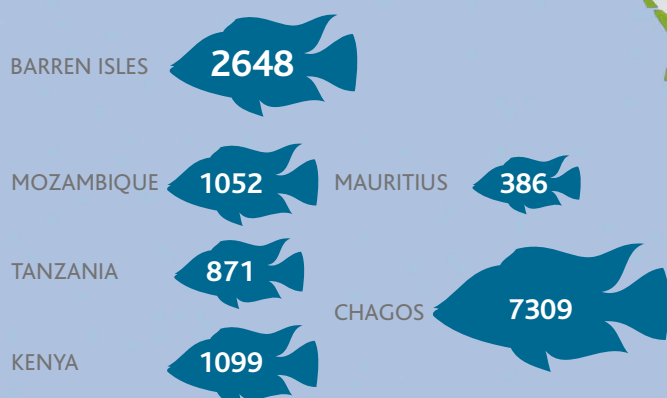
These habitats are home to globally important biodiversity, including five species of marine turtle, eight species of shark listed on the IUCN Red List, numerous cetaceans including a large migratory population of humpback whales and at least 13 species of dolphin. They also support abundant endangered seabirds, including the critically endangered Madagascar fish eagle (*Haliaeetus vociferoides*).



Comparison to other MPAs in Madagascar¹



How do the Barren Isles compare with other countries* in the western Indian Ocean?²



¹ Obura, D.O. (2009) Coral Reef Resilience Assessment of the Nosy Hara Marine Protected Area, Northwest Madagascar. Gland, Switzerland: IUCN. 35pp.
Harding, S. and Randriamanantsoa, B., (2008) Coral Reef Monitoring in Marine Reserves of Northern Madagascar. CORDIO Status Report.

² Graham, N.A.J., and McClanahan, T.R. (2013) The last call for marine wilderness? BioScience 63 (5), pp 397-402.

Graham, N.A.J., Pratchett, M.S., McClanahan, T.R., and Wilson, S.K. (2013) The status of coral reef assemblages in the Chagos Archipelago, with implications for protected area management and climate change. In: Sheppard, C.R.C., (ed.) Coral Reefs of the United Kingdom Overseas Territories. Coral Reefs of the World, 4. Springer, Dordrecht, Germany, pp. 253-270.

*Total fish biomass taken from unfished sites, country average

The challenge

Overfishing related to lucrative markets for shark fins and sea cucumbers, rapid population growth and increasing migration to the region.

With the population doubling less than every twenty years in western Madagascar, and migrant fishers attracted by the Barren Isles' abundant marine resources, overexploitation threatens the resilience of marine ecosystems underpinning local fisheries.

Destructive fishing

Itinerant fishers in the area use destructive gears, such as beach seine and small mesh nets, poison, and "barrage" shark nets.

Illegal, unreported, and unregulated (IUU) fishing

The illegal use of SCUBA gear to harvest sea cucumbers is widespread in the Barren Isles. Local fishers also report industrial long-line vessels targeting shark populations around the archipelago.

Commercial mining and petroleum exploration

The extraction of guano threatens to disturb these fragile low-lying island ecosystems, home to nesting marine turtle and ground-nesting seabird populations, and also risks causing sedimentation and eutrophication, damaging surrounding shallow-water coral reefs.

Exploration for oil and gas is ongoing, and seismic surveys and future extraction could cause irreversible damage to this globally important ecosystem.

65 LMMAs in Madagascar;
the majority focused on the vast coral reef and
mangrove ecosystems of the country's west coast

LMMAs cover

>11,000km²

11% of Madagascar's
continental shelf





By communities, for communities

This ambitious conservation initiative aims to safeguard the marine biodiversity underpinning the archipelago's traditional fisheries by ending overfishing, mitigating conflicts between resource users, and promoting responsible marine ecotourism.

Through the protected area these communities will gain the means to address the primary threat to their livelihoods – industrial and illegal overexploitation of fisheries – and ensure the long-term viability of their fisheries.

This pioneering model for local empowerment has enormous potential for replication throughout Madagascar's coastal fisheries. Its broader adoption would allow for sustainable management of the marine resources that underpin the livelihoods of hundreds of thousands of coastal people, while addressing underlying drivers of poverty.

“ By establishing a functioning, legally-recognised model for rights-based fisheries management, the Barren Isles LMMA is setting a critical precedent for fishing communities throughout Madagascar, giving traditional fishers the formal right to manage their seas.”



MIALY ANDRIAMAHEFAZAFY
BV ENVIRONMENTAL POLICY OFFICER

4,000
traditional fishers



4,300km²
(equivalent to
602
football pitches) of
coast and ocean





We rebuild tropical fisheries with coastal communities

Blue Ventures works with coastal communities to develop transformative approaches for catalysing and sustaining locally led marine conservation.

We work in places where the ocean is vital to local cultures and economies, and are committed to protecting marine biodiversity in ways that benefit coastal people. Our conservation models are designed to demonstrate that effective management improves food security and makes economic sense.

Over the past decade, our innovations have guided national fisheries policy and been replicated by communities, NGOs, businesses, donors and government agencies along thousands of kilometres of coastline. So far our work has impacted the lives of more than 150,000 coastal people.

Working holistically

Blue Ventures recognises that improving fisheries management alone is not enough to overcome the numerous and interrelated drivers of marine environmental degradation.

Our programmes in Madagascar encompass locally led marine conservation, sustainable fisheries management, community-based aquaculture and ecotourism businesses, educational scholarships and reproductive health services.

This integrated approach addresses the interconnected challenges of poor health, unmet family planning needs, environmental degradation and food insecurity in a holistic way. It enables communities to manage their resources sustainably, both now and for the future.



Communities first

Above all, we listen to community needs, responding in a sensitive and pragmatic way for lasting benefits.



Passion & belief

Our mission is urgent and critical, we believe that our models work, and we are determined to get the job done.



Valued people & effective teams

We work in diverse and inclusive teams where all members have a voice and influence. We are effective because our work is integrated across teams and projects.



Innovation & courage

We are resourceful and creative. We are prepared to take risks and challenge broken paradigms.



Openness & humility

We are an open source social enterprise. We work in a transparent and collaborative way to pass on what we learn to others who share our vision and passion.



Grounded in evidence

We have high standards and are not afraid to be self-critical. If we see that something doesn't work, we change tack until we're on the right course.

blue ventures

beyond conservation

IN PARTNERSHIP WITH



MacArthur
Foundation

British Embassy
Antananarivo



MINISTÈRE DE LA PÊCHE ET
DES RESSOURCES HALIÉUTIQUES

For further information or to discuss
partnership opportunities please contact:



Frances Humber
Conservation Programmes Manager
fran@blueventures.org
Web: www.blueventures.org
Tel: +44 (0)207 697 8598



THE ST ANDREWS PRIZE
FOR THE
ENVIRONMENT



IN PARTNERSHIP WITH
Investec
Asset Management



THE
BUCKMINSTER
FULLER
CHALLENGE

Winner, Buckminster
Fuller Challenge, 2011
For work to protect
marine resources and
improve the livelihoods of
poor coastal communities
in Madagascar.



Observer Ethical Awards,
runner-up 2010.
Blue Ventures was commended
for creating the Indian Ocean's
first replicable blueprint for
community-centred marine and
coastal conservation planning.



Condé Nast Traveler
Environmental Award, 2009
For two decades, Condé
Nast Traveler has been
honouring environmental
visionaries around the
world who have found
innovative solutions to
seemingly intractable
problems.



Responsible Tourism
Awards 2004: highly
commended for
"Best in a Marine
Environment"



Responsible Tourism
Awards 2006: highly
commended for
"Best Volunteering
Organisation"



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Responsible
Tourism Awards
2010: Winner
for "Best
volunteering
organisation"



Ashoka &
National
Geographic
Geotourism
Challenge 2008:
finalist



Changemakers
& National
Geographic
Geotourism
Challenge 2010:
finalist



United Nations
SEED Award
2005: winner,
"Madagascar's
first experimental
community-run
MPA"



Enterprise
Young Brits
Awards 2006:
highly
commended,
"Social and
Environment"



United Nations
Development
Programme Equator
Prize 2006: the Village
of Andavadoaka,
winner (in partnership)



Skal Ecotourism
Awards 2006:
Winner, "General
Countryside"