



Engaging Indigenous Knowledge – Taking a Leap into the Unexpected.

DR STUART FIELD, PRINCIPAL POLICY OFFICER
DEPARTMENT OF PARKS AND WILDLIFE, WA



Department of
Parks and Wildlife





Barrels of Enthusiasm





**HIGH EXPECTATIONS
UNREALISED**

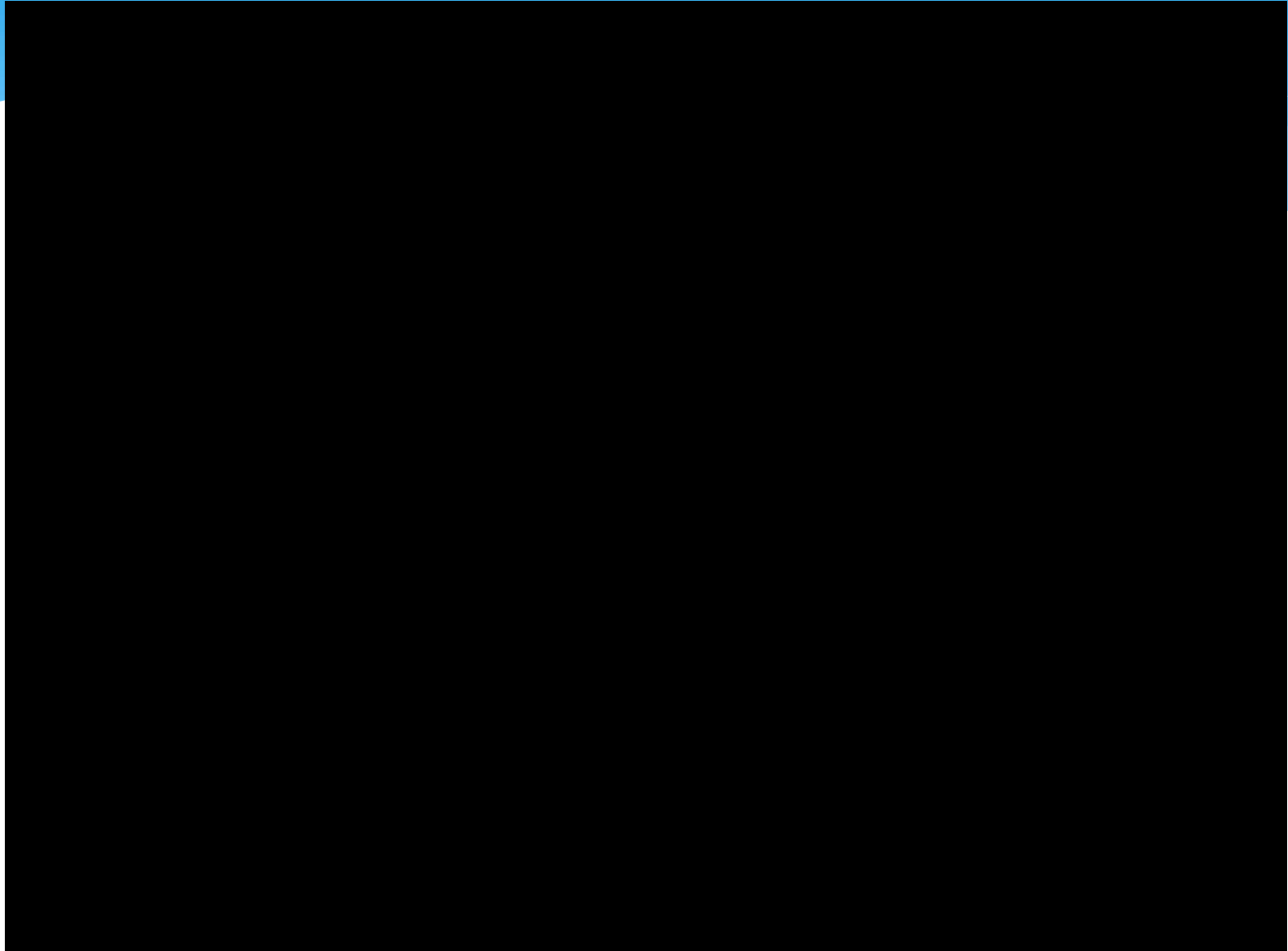




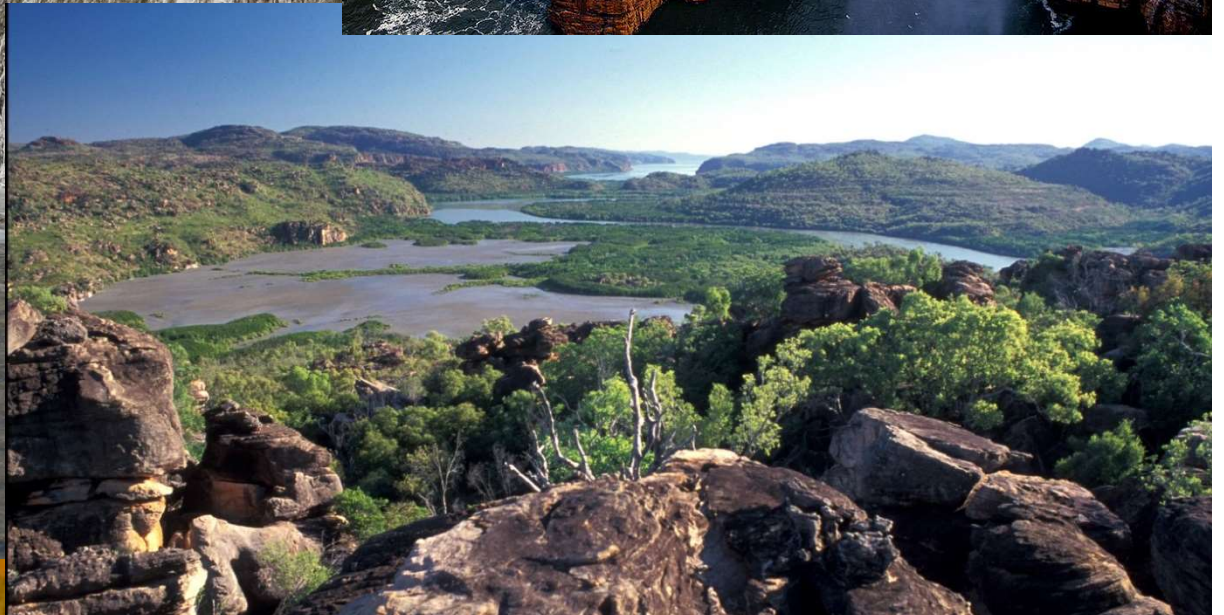
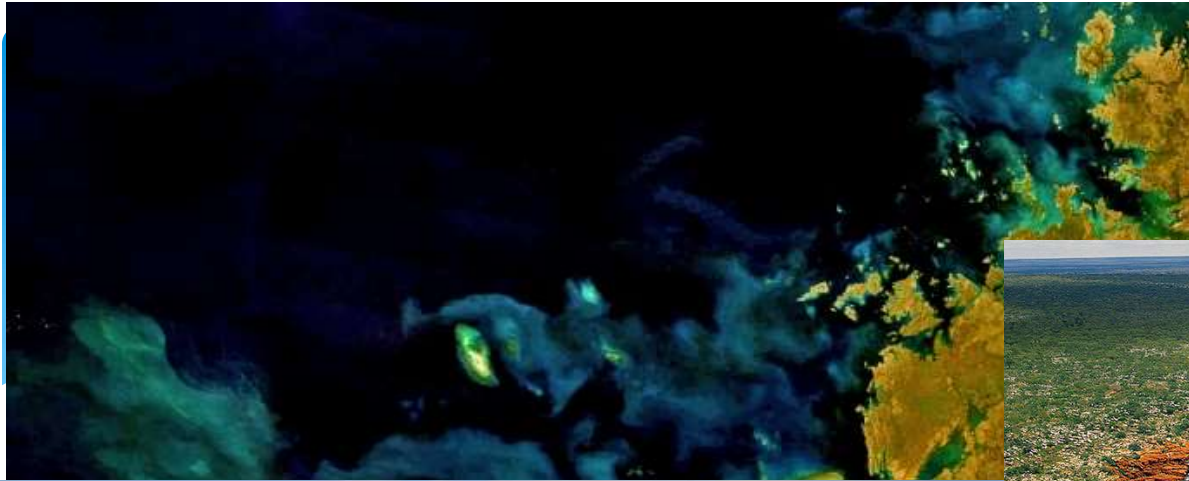
We will recognise the values that water has for Traditional Owners and Aboriginal Victorians.

The water sector will support Aboriginal participation in Victorian water planning and management frameworks through consultative structures that address the rights and interests of Victoria's Traditional Owners.

Understanding Connection



The Kimberley





Kimberley Science and Conservation Strategy

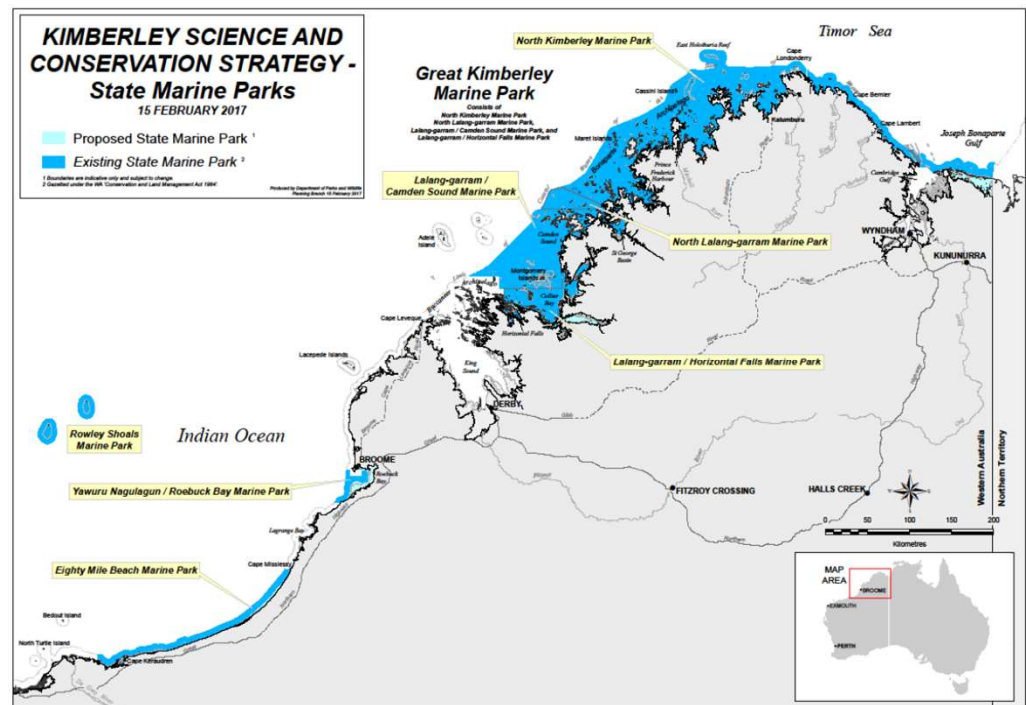
“... to recognize and conserve one of the world’s last great wilderness areas.”

\$12M State Government funding 2012-2017

Kimberley Marine Research Program

Undertake a program of marine research to support the conservation and management of the waters of the Kimberley, particularly the proposed State marine parks.

\$30M strategic research program



KMRP Science Plan

Building a regional picture of the Kimberley:

- Biological, physical and social characterization
e.g. marine fauna, oceanography, traditional knowledge
- Ecosystem processes and human impacts
e.g. geomorphology and tourism

26 Projects ... 130 scientists ... 10 Partner organisations



Cultural, Human Values & Uses

Social Cultural Values

Social values

Human use

Indigenous knowledge

MSE Modeling

Ecological Values, Habitats

Plants & Animals

Benthic biodiversity

Dolphins

Dugongs

Sea turtles

Crocodiles

Whales

Shorebirds

Environment & Habitats

Mapping productivity

Seagrass

Benthic productivity

Recruitment and herbivory

Connectivity

Climate change

Geology & Geomorphology

Physical Background

Oceanographic dynamics

Geomorphology

Sediments

Physical Processes

Land – Ocean links

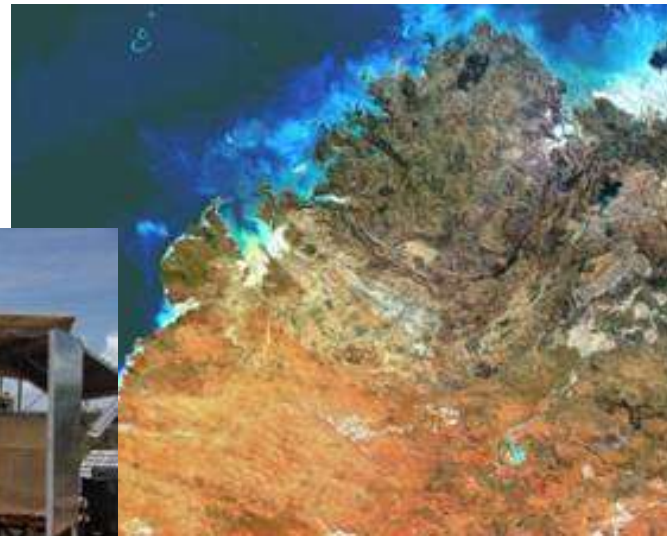
Biogeochemistry

Calcification

Remote Sensing

Main KMRP Outcomes

- Information base to manage the Kimberley Marine Parks
- Include Indigenous knowledge and management
- Identify and understand human use for sustainability (tourism, recreation and commercial activities and industry)
- Better understand climate change



Program Stages

Research Planning

Research Delivery

Knowledge Uptake

Ongoing Research

2012

2017

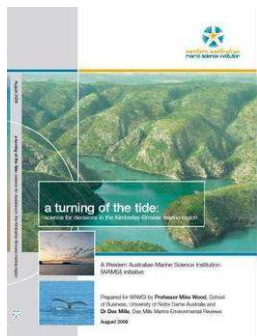
2018+

Key Elements

- Indigenous engagement and participation
- Knowledge exchange
- Research and program synthesis

Bridging the Gap

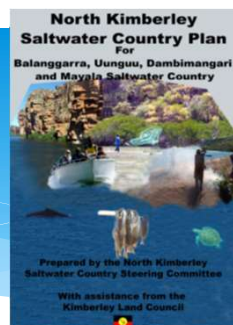




A turning of the tide: science for decisions in the Kimberley-Browse marine region 2008

2008

North Kimberley Saltwater Country Plan for Balanggarra, Unguu, Dambimangari and Mayala Saltwater Country 2010



2010

State Government Strategic Marine Research Priorities in Relation to Kimberley Science and Conservation Strategy and WAMS2_2 2010

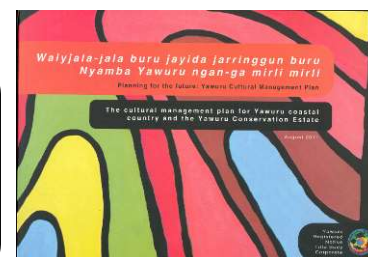
Wunambal Gaambera Healthy Country Plan-A plan for looking after Wunambal Gaambera Country 2010-2020



2011

Kimberley Science and Conservation Strategy May 2011

Yawuru Cultural Management Plan : the cultural management plan for Yawuru coastal country and the Yawuru Conservation Estate 2011



WAMS2 Kimberley Marine Research Program Strategy July 2011

2012

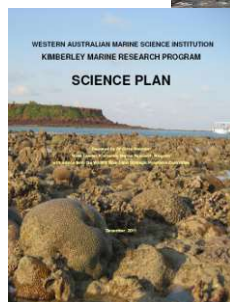
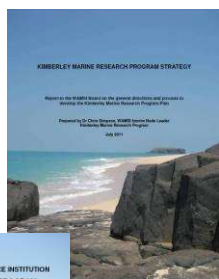
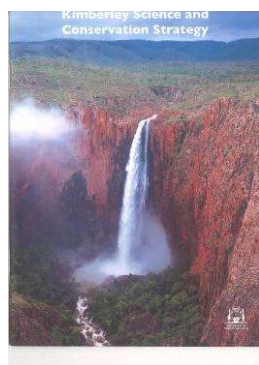
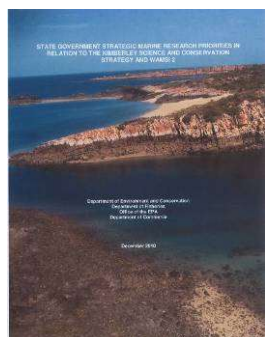
Dambimangari Healthy Country Plan 2012-2022



WAMS2 Kimberley Marine Research Program Science Plan December 2011

Bardi Jawi Indigenous Protected Area Management Plan 2013-2023 and coming Salt Water Country Plan

2013





WAMSI Principles

- * Respect for culture, values, practices and Indigenous knowledge
- * Shared Benefits through partnerships
- * Shared information
- * Respect for ownership of local knowledge

Status of saltwater crocodiles in the Kimberley.



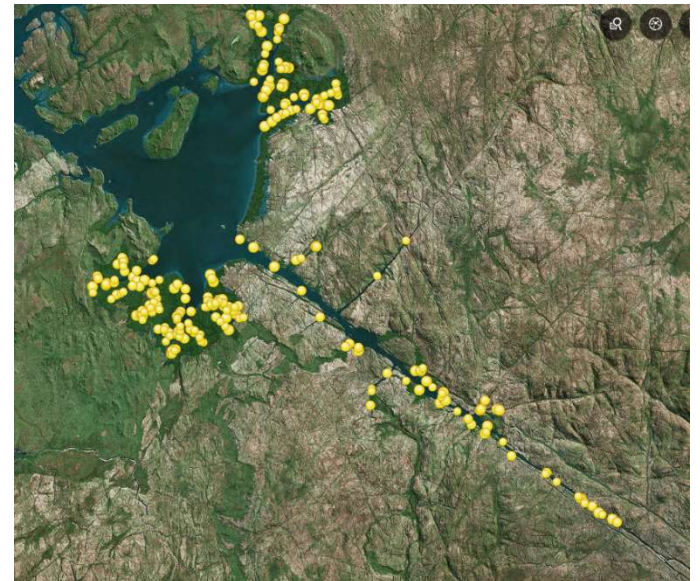
West Kimberley Survey Locations



Spotlighting



Biopsy sampling



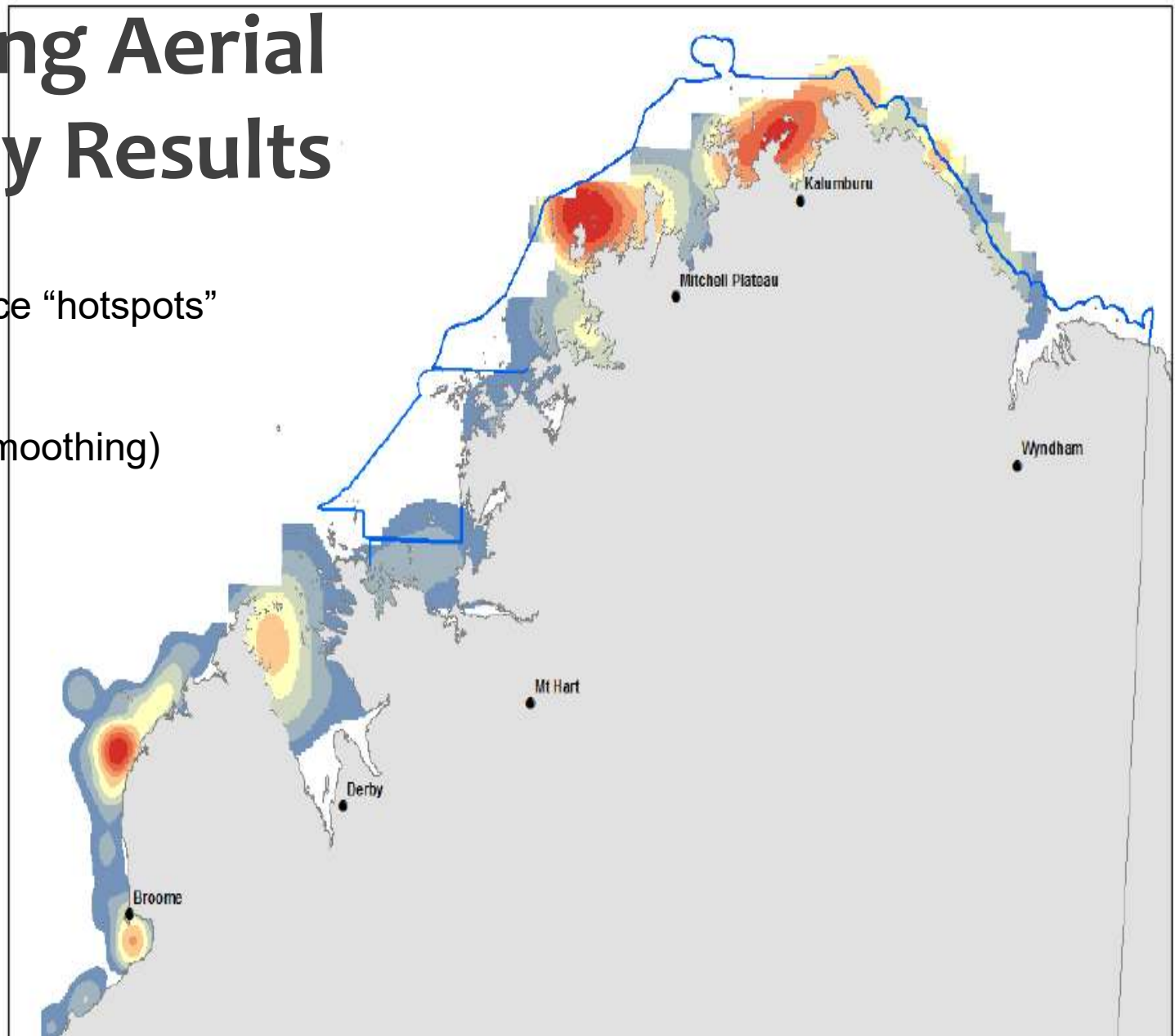
Seagrasses of the Kimberley

- *traditional ecological knowledge*
- Assist with fieldwork
- Provision of temporal samples
- Sustains traditional owners' livelihoods and *connection to land*



Dugong Aerial Survey Results

Dugong Abundance “hotspots”
Woodside 2009
WAMSI 2015
(high resolution smoothing)



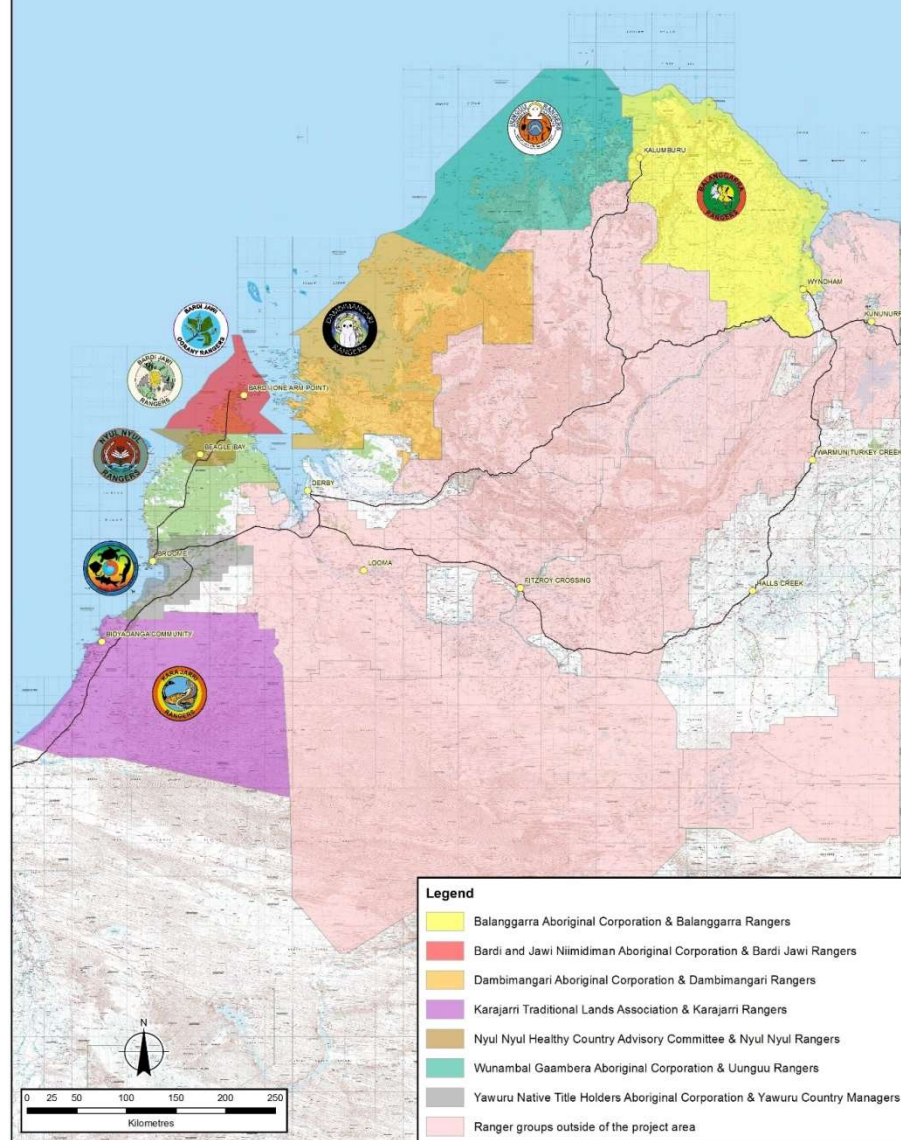
Kimberley Indigenous Saltwater Science Project (KISSP).

AIM

Bringing Indigenous knowledge and western science together into a dual knowledge system for marine conservation and management



Aboriginal Corporations and associated ranger groups contributing to KISSP



Map copyright of the Kimberley Land Council, 2016

Working Group with 7 saltwater
country groups

Shared understanding of
indigenous science and the
relationship with western
science

Consistent approach to
engaging with researchers

Creating a regional picture of
the Kimberley assets.

Connecting indigenous groups
toward a common conservation
objective.

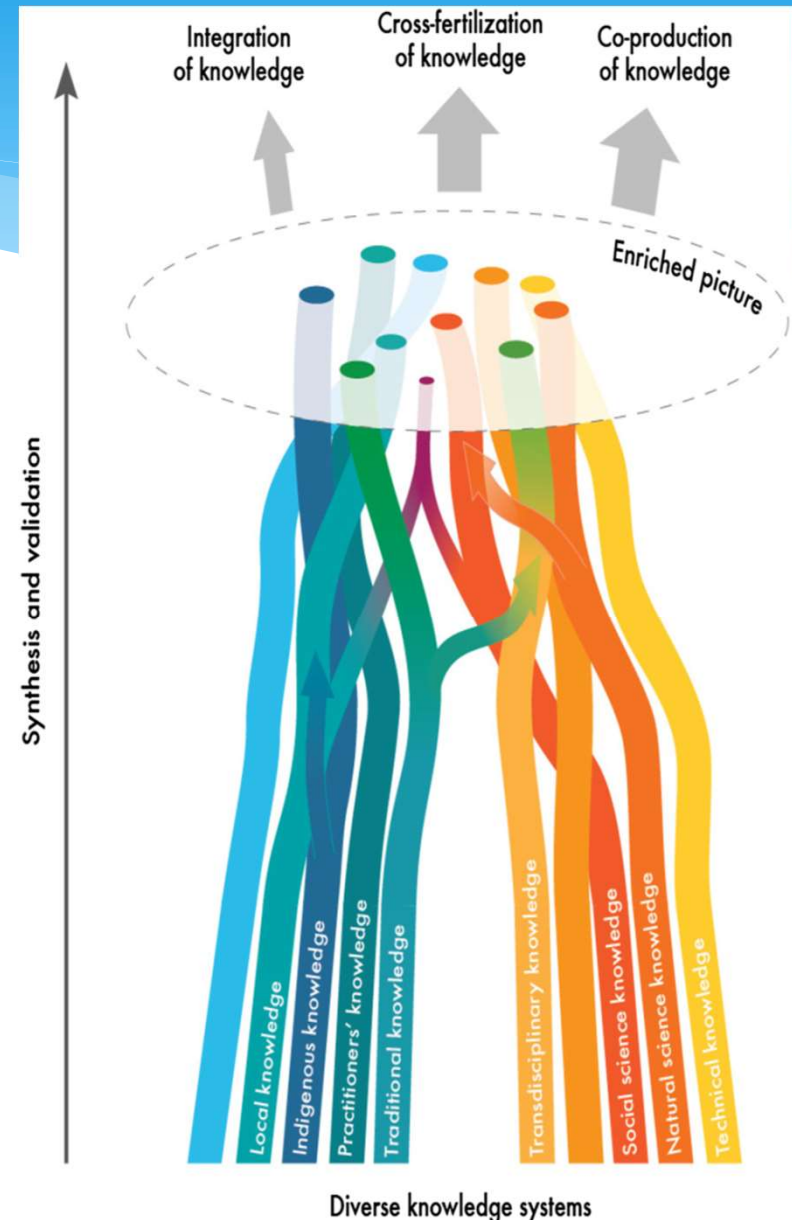
Creating a consistent approach
to monitoring on country.

Building knowledge together

What we've been learning about in this project is how knowledge is both integrated and co-produced during collaborative research projects

This approach allows two quite different knowledge and belief systems to sit next to each other towards a common output, with a range of benefits not commonly associated with scientific research projects

It provides strength to a research project because it gives your research a multiple evidence base



In the Kimberley, Indigenous land & sea managers have come to value the contribution that western science makes to management of their saltwater Country in contemporary Australia.

"All the rangers are working with science and it is a good thing."

"Science data is important to enable people to make decision for themselves for their own country"

"Some of the monitoring we can use Traditional Knowledge, but we can also use science to back us up"

"Science can fill gaps we don't know about, Bardi Jawi fill gaps in science too"

"We are monitoring to enhance ability to look after country"



[V17.02]

Collaborative Science on Kimberley Saltwater Country - A Guide for Researchers



"People who have
Knowledge are s
themselves
(Kimberley Traditional O

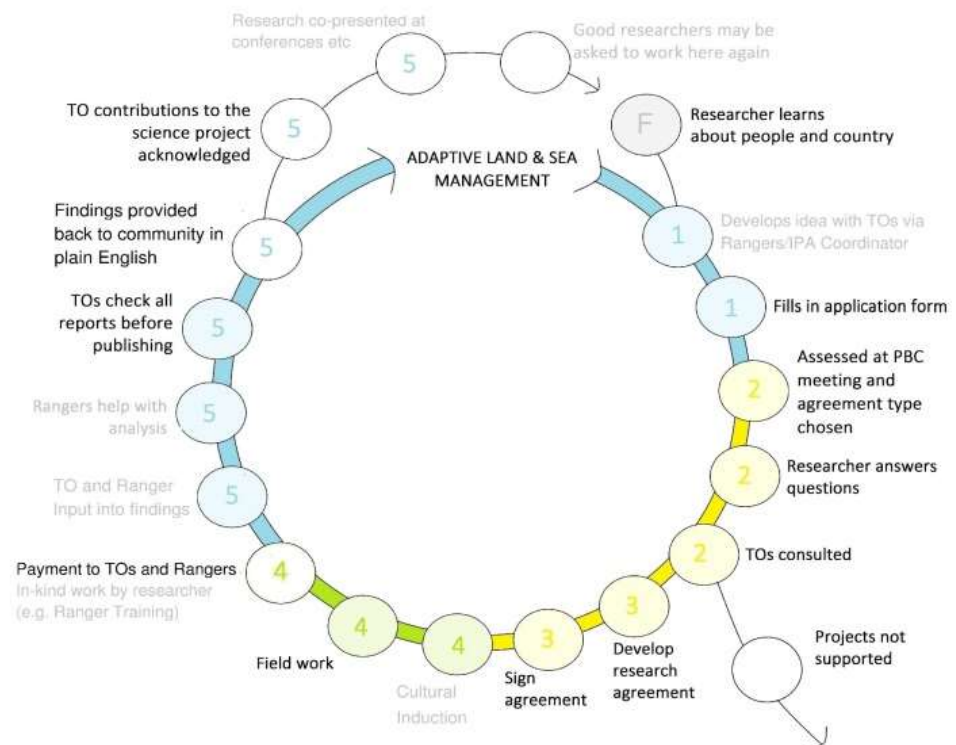
(Kimberley Traditional O

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Prepared by Mosaic E

Two Way/Right Way Research

TRIAL LAND & SEA RESEARCH PROCESS (2017) FOR KIMBERLEY SALTWATER GROUPS V04



- KEY
- Work by community/usually done for free
 - Work involving community that is usually done for free but may be partly reimbursed for big projects
 - Work by community usually paid for by researcher
 - Work done by researcher
 - Step in process - with the stage number from the Guide for Researchers

Steps in black are essential for all research projects

Steps in grey are best practice and may be negotiable for some projects

Regional Approach to Monitoring

METHOD

AIM

BACKGROUND

LINKS TO OTHER

MONITORING

METHODOLOGIES

METHODS THAT CAN BE

USED

RELEVANCE TO

MANAGEMENT

Research and Monitoring	Metrics									
	1	2	3	4	5	6	7	8	9	10
Research Project	X	X	X	X	X	X	X	X		
Parks and Wildlife monitoring	X			X						
Environs Kimberley (seagrass watch)	X					X				
Uunguu	X								X	
Dambimangari	X									X
Bardi Jawi	X		X					X		

The Journal of Experimental Biology 213, 894-900
© 2010. Published by The Company of Biologists Ltd
doi:10.1242/jeb.037895

Crucial knowledge gaps in current understanding of climate change impacts on coral reef fishes

S. K. Wilson^{1,*}, M. Adjeroud², D. R. Bellwood^{3,4}, M. I. Berumen^{4,5,6}, D. Booth⁷, V. Marie Røzer⁸, P. Chabanet⁹,
A. Cheal¹⁰, J. Cinner⁴, M. C.
B. S. Halpern¹⁵, A. R. Harbo
T. L. De Loma¹⁹, T. McClanahan²¹,
M. C. Öhman²¹,

Journal of Environmental Management 114 (2013) 84–91

Contents lists available at SciVerse ScienceDirect

Journal of Environmental Management

journal homepage: www.elsevier.com/locate/jenvman



Critical research needs for managing coral reef marine protected areas:
Perspectives of academics and managers

C. Cvitanovic^{a,*}, S.K. Wilson^{b,c}, C.J. Fulton^d, G.R. Almany^{a,e}, P. Anderson^f, R.C. Babcock^g, N.C. Ban^a,
I^b, K. Gale^f,
N. Johnstone^h,
S^f,
J. Wilson^q,

Methods in Ecology and Evolution



Methods in Ecology and Evolution 2011, 2, 238–247

doi: 10.1111/j.2041-210X.2010.00083.x

REVIEW

Methods for collaboratively identifying research priorities and emerging issues in science and policy

William J. Sutherland^{1*}, Erica Fleishman², Michael B. Mascia³, Jules Pretty⁴
and Murray A. Rudd⁵

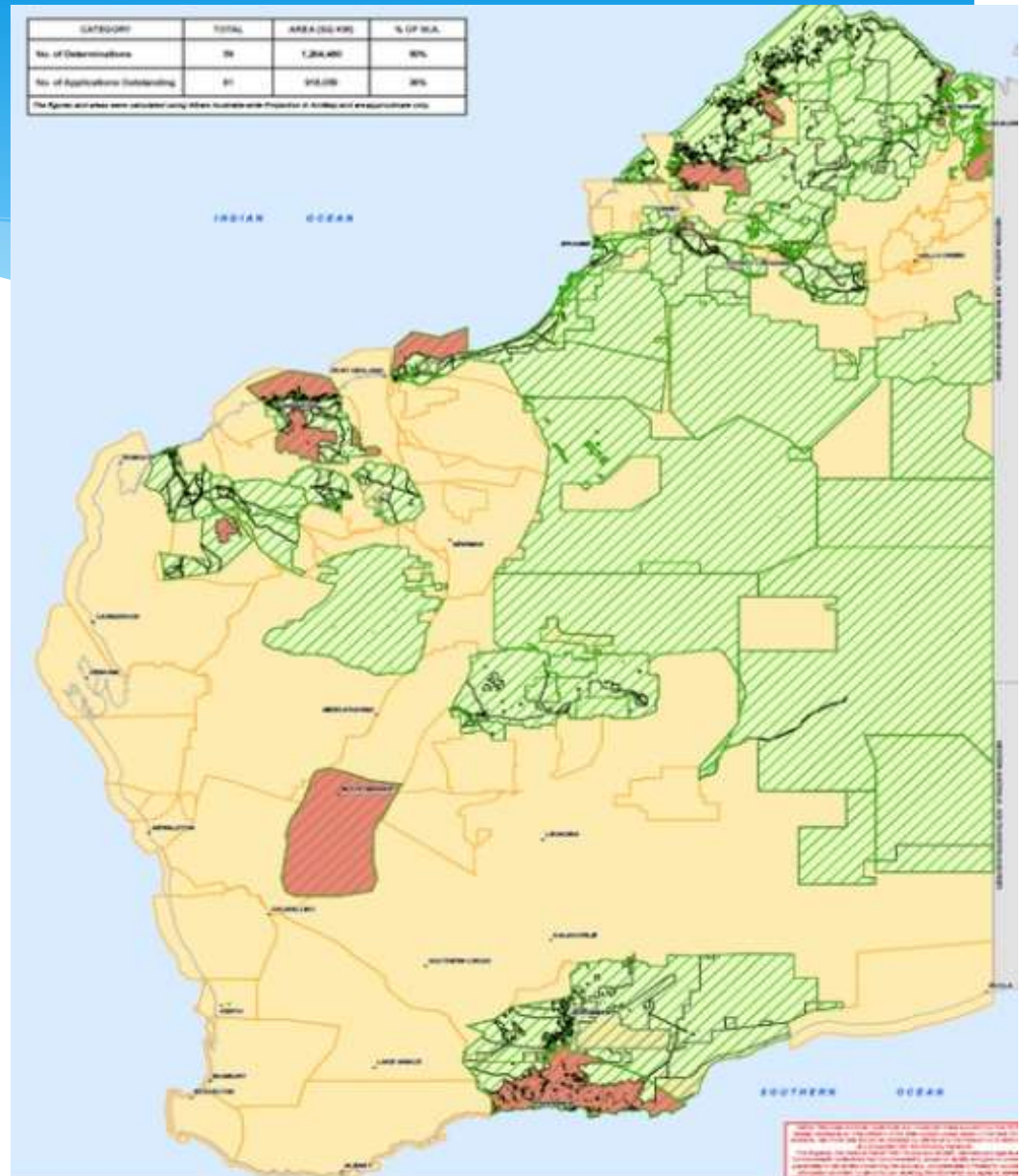
Future Research Prioritisation

Summarise questions remaining to be asked and rating importance

- Managers and planners
- Indigenous groups
- Researchers

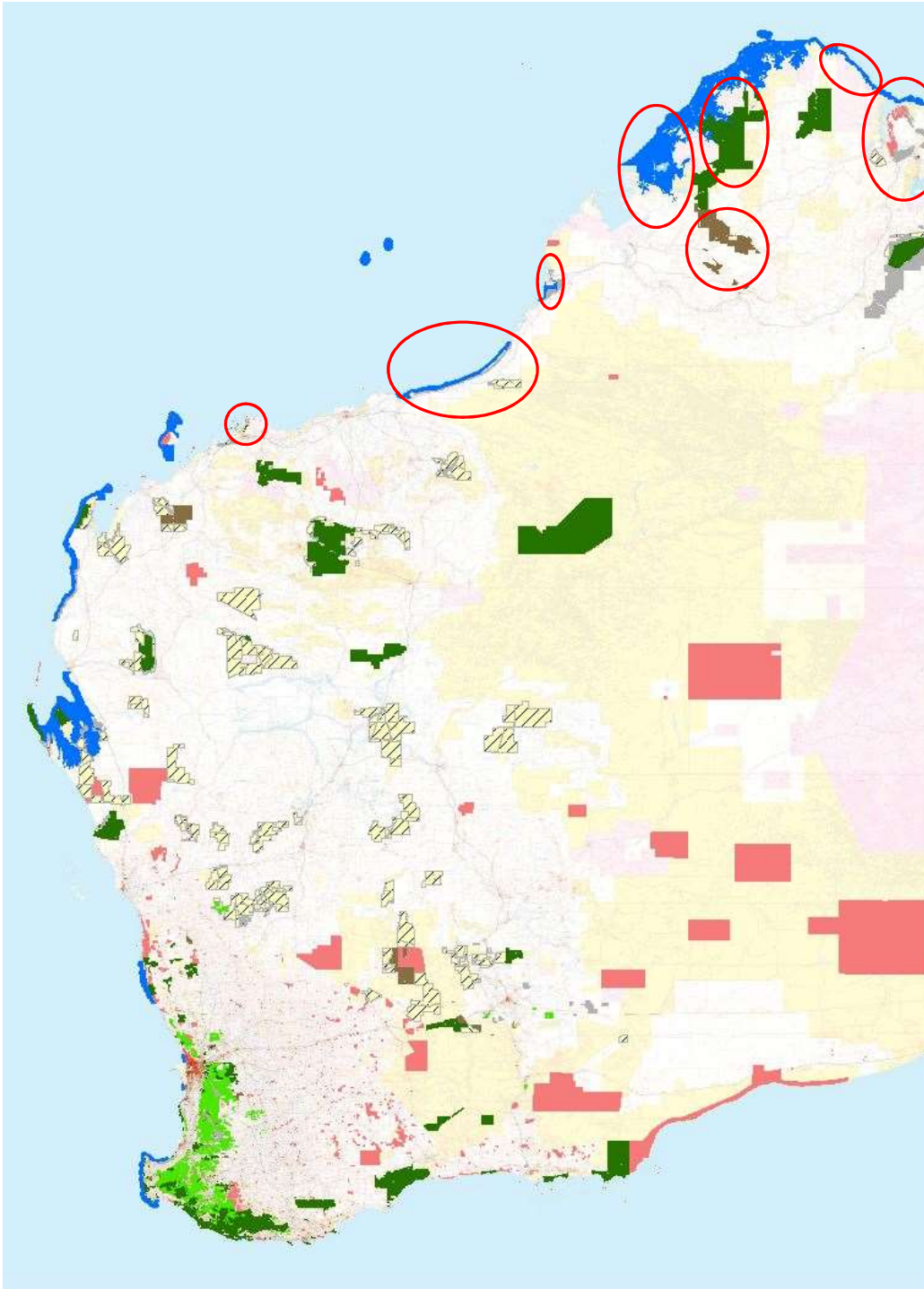
The Native Title Landscape in WA

- Native title over 50% of WA
- Legal recognition of Aboriginal customary law
- Partners not stakeholders



Legislative Change in 2012

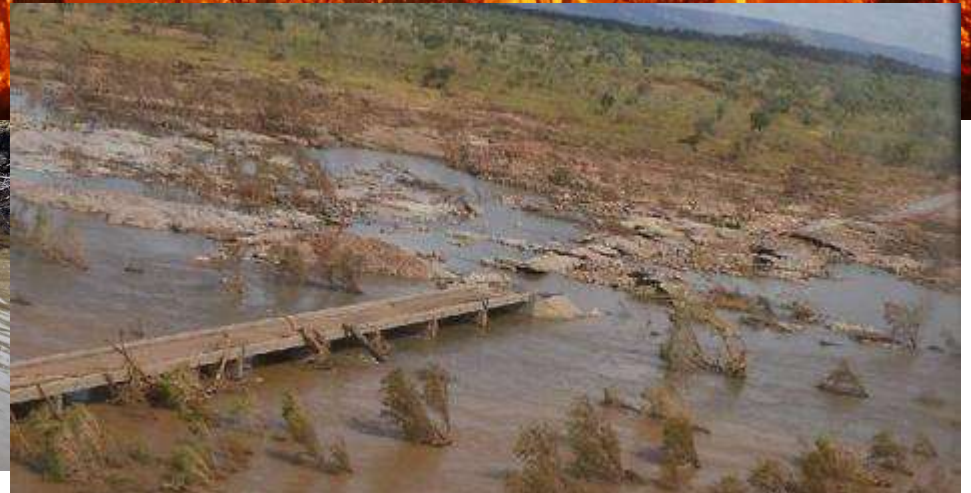
Joint management of
lands and waters
between the Department
of Parks and Wildlife and
other landowners, or
those with a vested or
other interest in the
land, including
Aboriginal people.



Emergency Response Support

- * **Culturally sensitive**

- * access to country.
- * Protection of cultural assets.
- * Response support.



Indigenous Ranger Programs

A story of success

Aboriginal ranger boost under WA Labor

Tom Zaunmayr

🕒 Tuesday, 10 January 2017 3:42PM



Kingsley Woodley is part of the highly successful Ngurrawaana Ranger program which operates in Millstream-Chichester National Park. Picture: Tom Zaunmayr

Indigenous rangers receive commonwealth funding commitment to 2020

Indigenous affairs minister Nigel Scullion says after 2020 'we will work out how much more money they need'

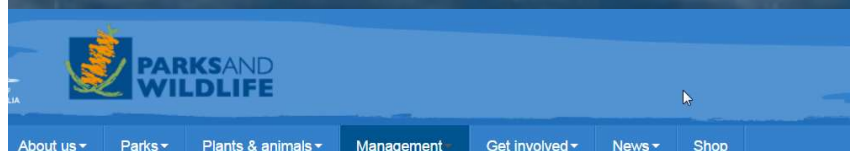


Western Australian Indigenous ranger program proposed for 5m hectares

Consortium of groups propose new swath of national parks be designated and put into the care of native title holders

en. The program now has federal funding until

A Gathering Storm of Support



ABOUT RESEARCH DATA M

About / Corporate Profile / Indigenous engagement strategy /

About

CORPORATE PROFILE

NZMSS-AMSA 2016 Conference

INDIGENOUS ENGAGEMENT PANEL DISCUSSION

4th July 2016

1 Ngā kaikōrero (Panellists)

AUSTRALIAN PANELLISTS



Melissa George: Chief Executive Officer, North Australian Indigenous Land and Sea Management Alliance (NAILSMA)



Duane Fraser: Community Engagement and Indigenous Project Specialist

AOTEAROA PANELLISTS



Sarah-Jane Tiakiwai: Waikato, Te Rarawa, Academic Director at Waikato-Tainui College for Research and Development



Caine Taiapa: Ngāti Ranginui, Ngai Te Rangī, Te Rarawa, Ngāti Pikiao, General Manager, Manaaki Te Awanui Charitable Trust, c.taiapa@manaakiteawanui.co.nz



Anaru Luke: Ngāti Rārua, Deputy Chair of Te Rūnanga O Ngāti Rārua, Kaihautu - Te Tohu Huarahi (Director, Strategic Positioning/Future Directions), Department of Conservation, New Zealand, anaru.luke@gmail.com

Aboriginal and Torres Strait Island Engagement Strategy



We believe that Aboriginal and Torres Strait Islander knowledge is the future in marine science.



National Environmental Science Programme

Indigenous Engagement and Participation Strategy Guidelines



Aboriginal involvement

The Kimberley Science and Conservation Strategy aims to employ and involve local Aboriginal people.

Indigenous people have inhabited the Kimberley region for at least 50,000 years and for up to 65,000 years have the oldest continuing cultures in human history. The region has a rich diverse heritage including 22 Aboriginal language groups.

Local owners maintain a relationship to land in accordance with traditional laws and customs. This knowledge has been handed down from generation to generation and this can be used in conjunction with modern management practices and decisions.

Joint management

A joint management plan for a marine park created under the State Government's Kimberley Marine Parks Act 1994, signed on 7 November 2013, with the Department of Parks and Wildlife and the Dambimurri Local Aboriginal Community to manage the park.



Our research ▾

Indigenous Engagement Strategy

Home / Indigenous engagement

Be Brave

Embracing traditional knowledge can lead to the redirection and refinement of our research, monitoring and management of natural resources.

Take the leap into the unexpected!