

WREN ROUND-UP

IMPLEMENTING THE SUCCESSFUL TRANSLOCATION OF WESTERN
GRASSWRENS (*AMYTORNIS TEXTILIS*) TO DIRK HARTOG ISLAND



KELLY RAYNER, ALINE GIBSON VEGA, SAUL COWEN,
MICHELLE HALL & ALLAN BURBIDGE

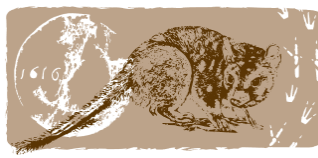
Gorgon Barrow Island
Net Conservation Benefits Fund



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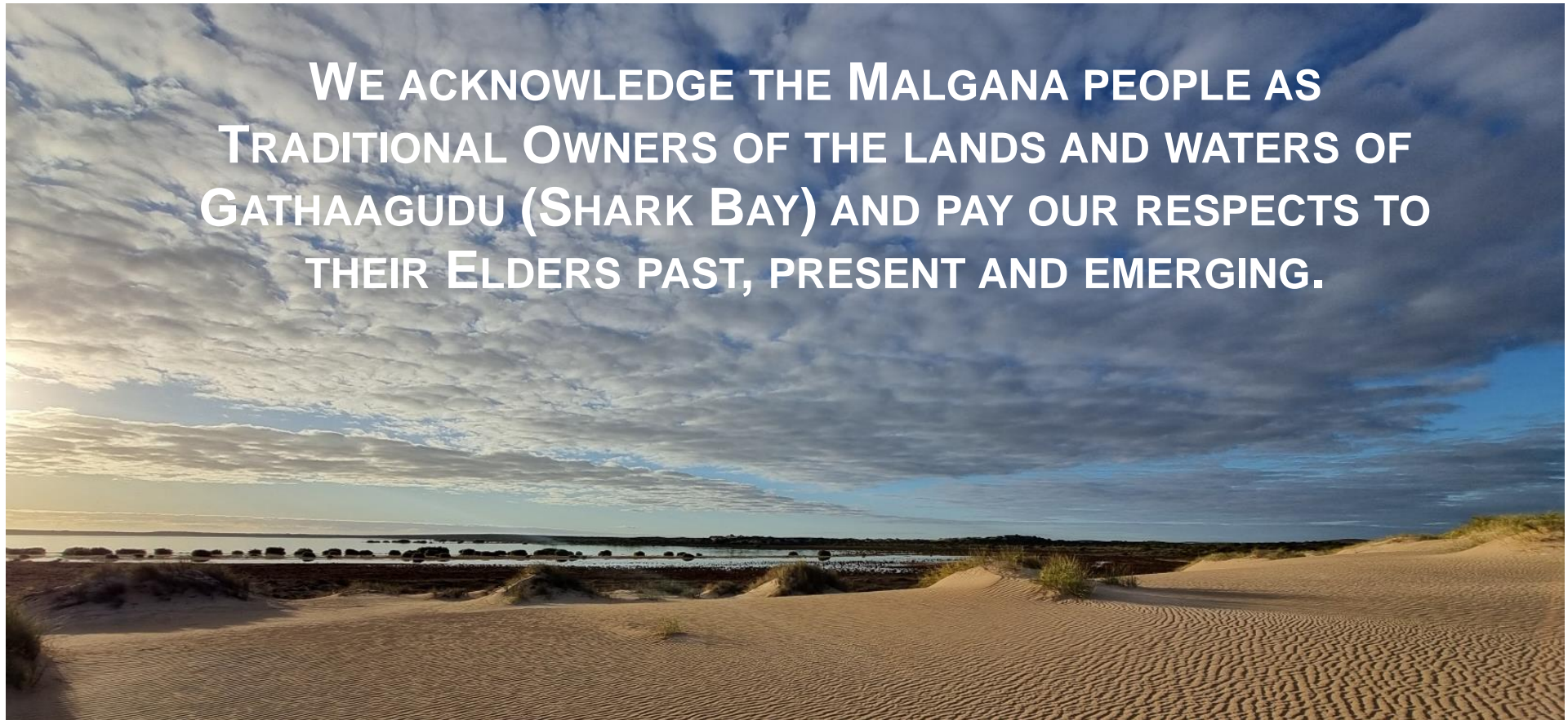


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**WE ACKNOWLEDGE THE MALGANA PEOPLE AS
TRADITIONAL OWNERS OF THE LANDS AND WATERS OF
GATHAAGUDU (SHARK BAY) AND PAY OUR RESPECTS TO
THEIR ELDERS PAST, PRESENT AND EMERGING.**

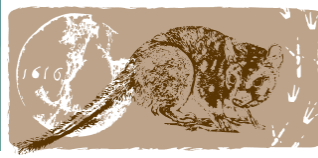




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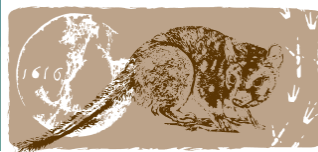
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STAGE I

2005 - 2018


ERADICATION



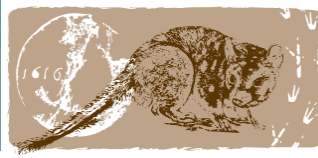
~11000 GOATS
REMOVED



> 5000 SHEEP
REMOVED



~440 FERAL
CATS REMOVED



STAGE II
2017 – PRESENT
FAUNA TRANSLOCATION
PROGRAM

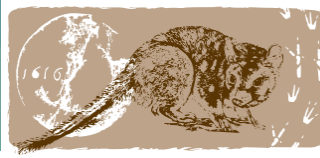




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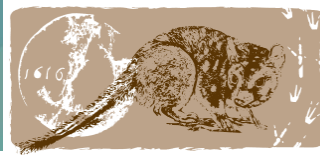


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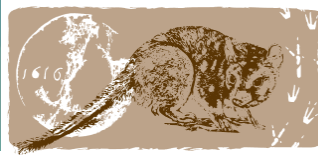
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OUR GOAL

To contribute to the restoration of natural ecosystem function on Dirk Hartog Island (DHI) in the Shark Bay World Heritage Area, by establishing a new, viable & genetically representative population of the Shark Bay western grasswren (*Amytornis textilis textilis*)

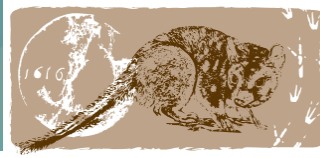


TRANSLOCATION PLANNING

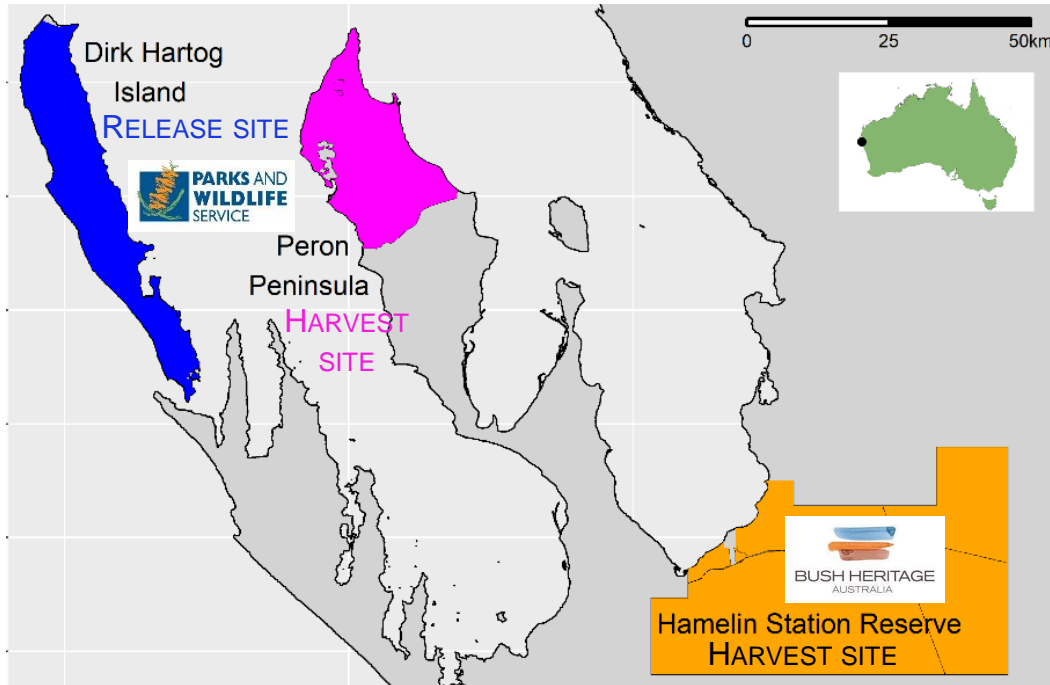
PhD study to inform the
translocation

- Population viability analysis
 - Risk Analysis
 - Selection key
- Refinement of techniques





TRANSLOCATION GOALS



Minimum 60 individuals
(preferably > 80)

Maximum of 100 adult birds

1:1 sex ratio

1:1 ratio from harvest sites

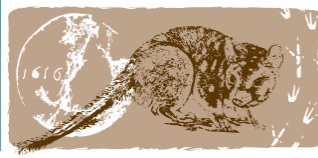
Preference for family groups



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TRANSLOCATION





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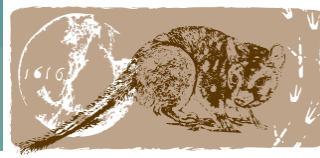
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85 BIRDS RELEASED ON DHI



RE-INTRODUCTION GOALS

Short-term (< 8 months post release)

Survivorship

Release site fidelity

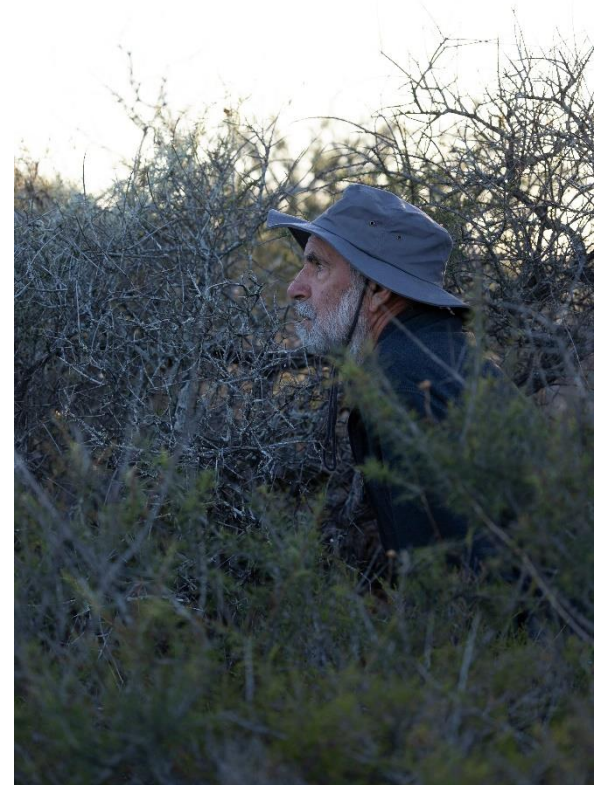
Social interaction

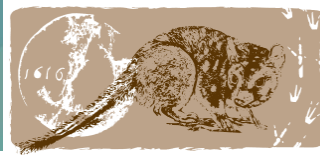
Medium-term (< 24 months post release)

As above

Evidence of reproduction

Increased area of occupancy

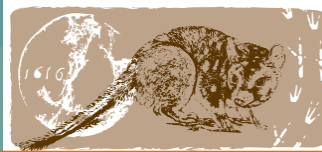


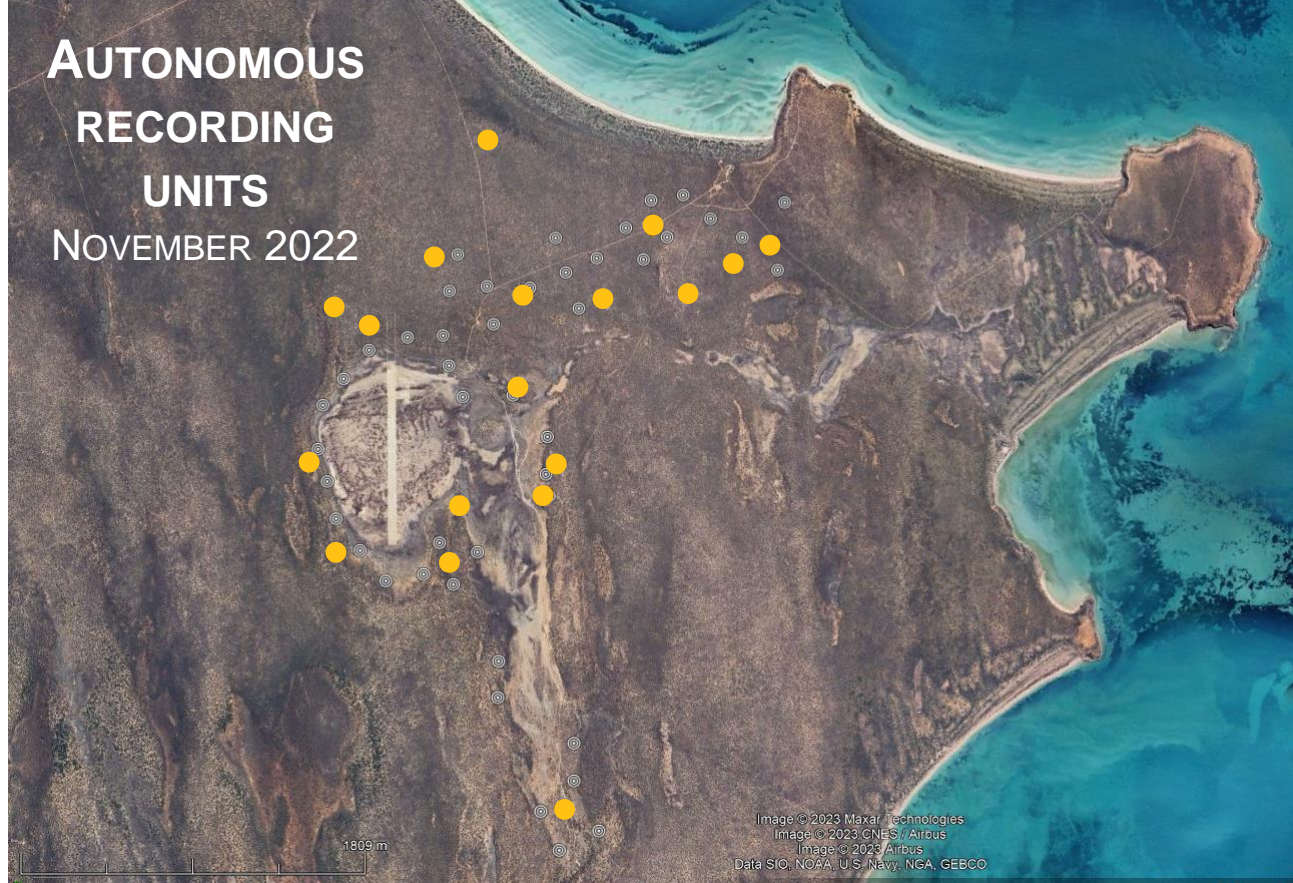


SHORT-TERM MONITORING

Radio-tracking: transmitters (0.45g) fitted
to 29 birds (<27 days)





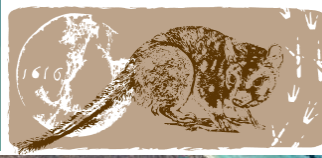




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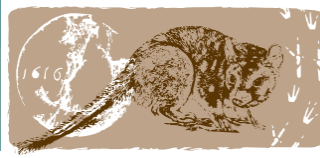


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HAMELIN MALE BMOR
13/6/23 – 15/9/23



PERON FEMALE YMGR
26/8/23





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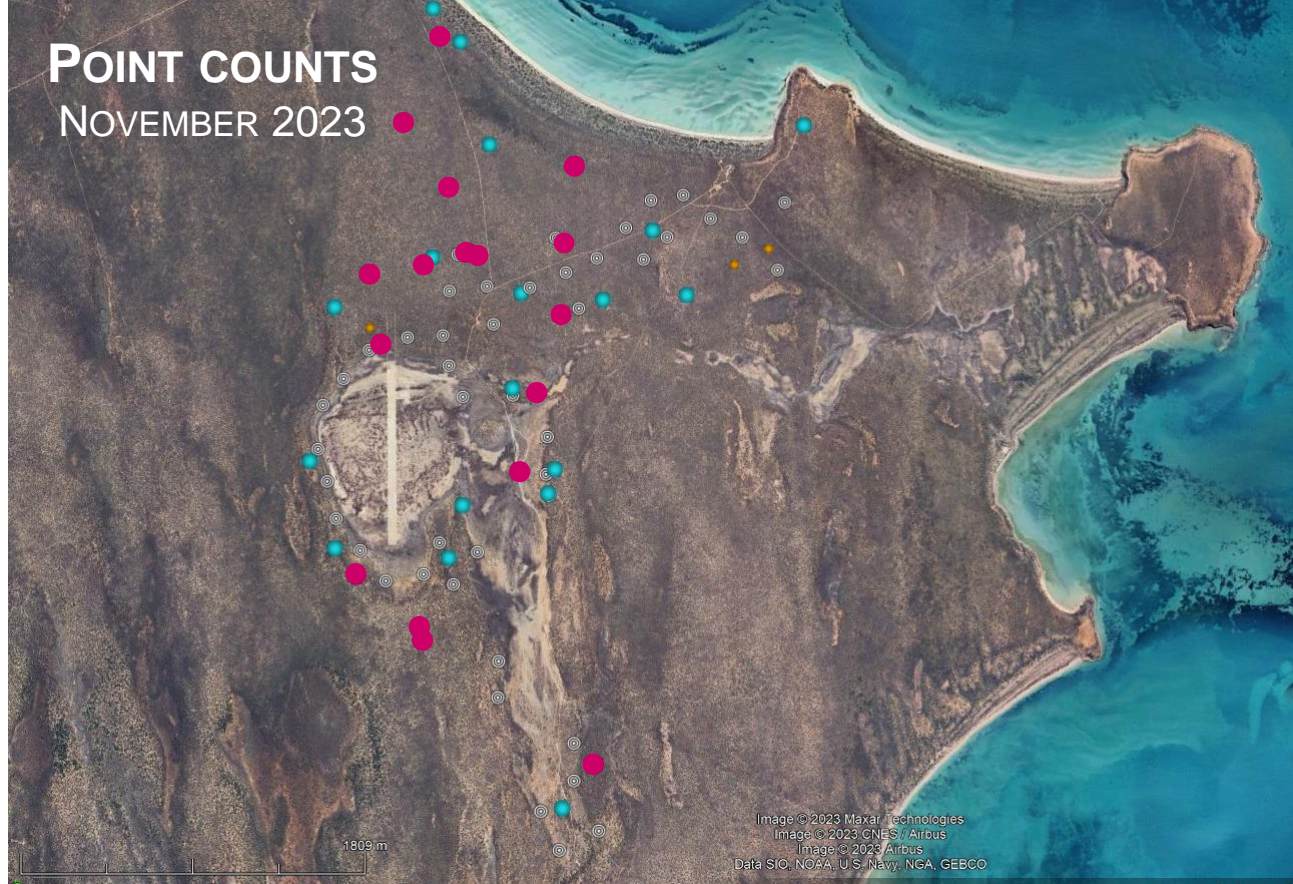
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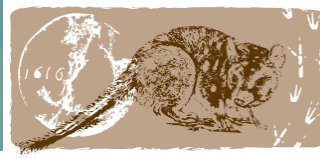
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POINT COUNTS NOVEMBER 2023





TRANSLOCATION GOALS

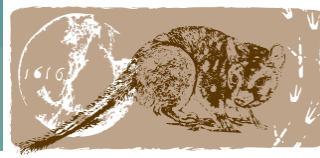
HARVEST SITES

Pre-harvest thresholds

75% known territories occupied

Post-harvest

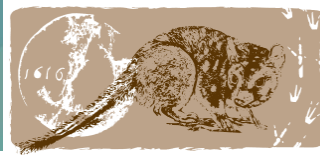
No difference in inter-annual occupancy of
harvested and control territories



HARVEST SITE OUTCOMES.....

	<u>PRE-HARVEST</u>	<u>POST-HARVEST</u>
HAMELIN	77 % (n = 54)	
PERON	76 % (n = 63)	

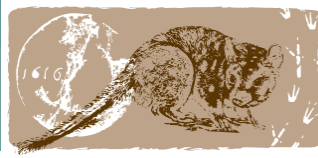




HARVEST SITE OUTCOMES.....

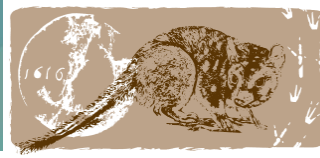
	<u>PRE-HARVEST</u>	<u>POST-HARVEST</u>	
		HARVESTED SITES	CONTROL SITES
HAMELIN	77 % (n = 54)	72 % (n = 18)	77 % (n = 80)
PERON	76 % (n = 63)	80 % (n = 26)	79 % (n = 122)





KEYS TO OUR SUCCESS...





PLANNING

LEARNING FROM OTHERS & FROM OUR PAST EXPERIENCES

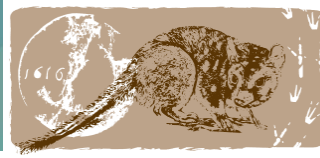




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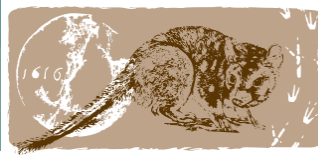


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IN PRACTICE



IN PRACTICE

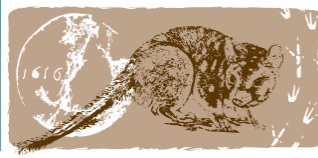
Roles &
responsibilities



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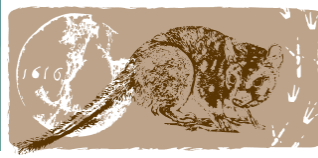
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IN PRACTICE

Roles &
responsibilities

Lines of
communication



IN PRACTICE

Roles &
responsibilities

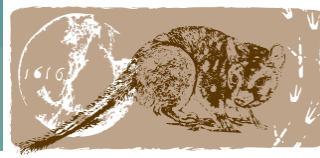
Lines of
communication

“WREN ROUND-UP!”

Transparent

Collaborative

Feedback loop



ACKNOWLEDGEMENTS

The wren wranglers

Gorgon Barrow Island Net Conservation Benefits Fund

Shark Bay World Heritage Committee

Biodiversity & Conservation Science staff (DBCA)

Gascoyne District & Midwest Region staff (DBCA)

Bush Heritage Australia

Malgana Traditional Owners

The Wardle family and Island life adventures

Shark Bay Aviation

Coral coast helicopters

Bugs n things

Westcare incorporated

Geomedia

All of our amazing students, volunteers & collaborators!

IMAGE CREDITS

Aline Gibson Vega (UWA/DBCA)

Michael Johnston (DBCA)

Michelle Hall (BHA)

Tom Rasmussen (Biologic environmental)

Brooke Richards (DBCA)

Fiona Knox (MU/DBCA)

Rebecca Quah (UWA/ECU)

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Alan Danks (DBCA)

Mark Blythman (DBCA)

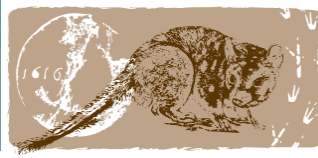
Annette Ruzicka

Sarah Comer (DBCA)

Farrell, J., J. Hardy, R. Jacobs, R. Jacobs, G. Kyi, D. McKay and S. J. Muns (2018).

"Radio-tracking Grey Grasswrens *Amytornis barbatus barbatus* in north-western New South

Wales: a pilot study." *Corella* 42: 72-79



THANK YOU!

WANT MORE?

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<https://www.sharkbay.org/restoration/dirk-hartog-island-return-1616/>

