

Return to 1616

Reintroductions to Dirk Hartog Island



Dr Saul Cowen

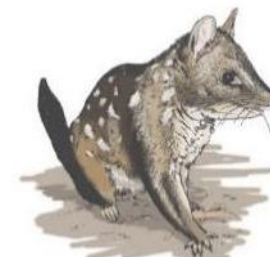
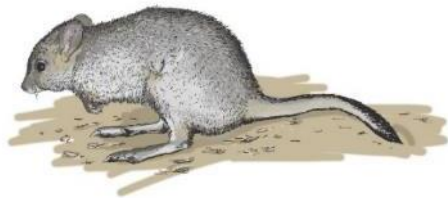
Biodiversity and Conservation Science • Animal Science Program

Department of Biodiversity, Conservation and Attractions





DIRK HARTOG ISLAND
RETURN TO 1616



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Aline Gibson Vega/DBCA







Alex George

Nicolas Marin Pedro musée d'histoire naturelle, Le Havre



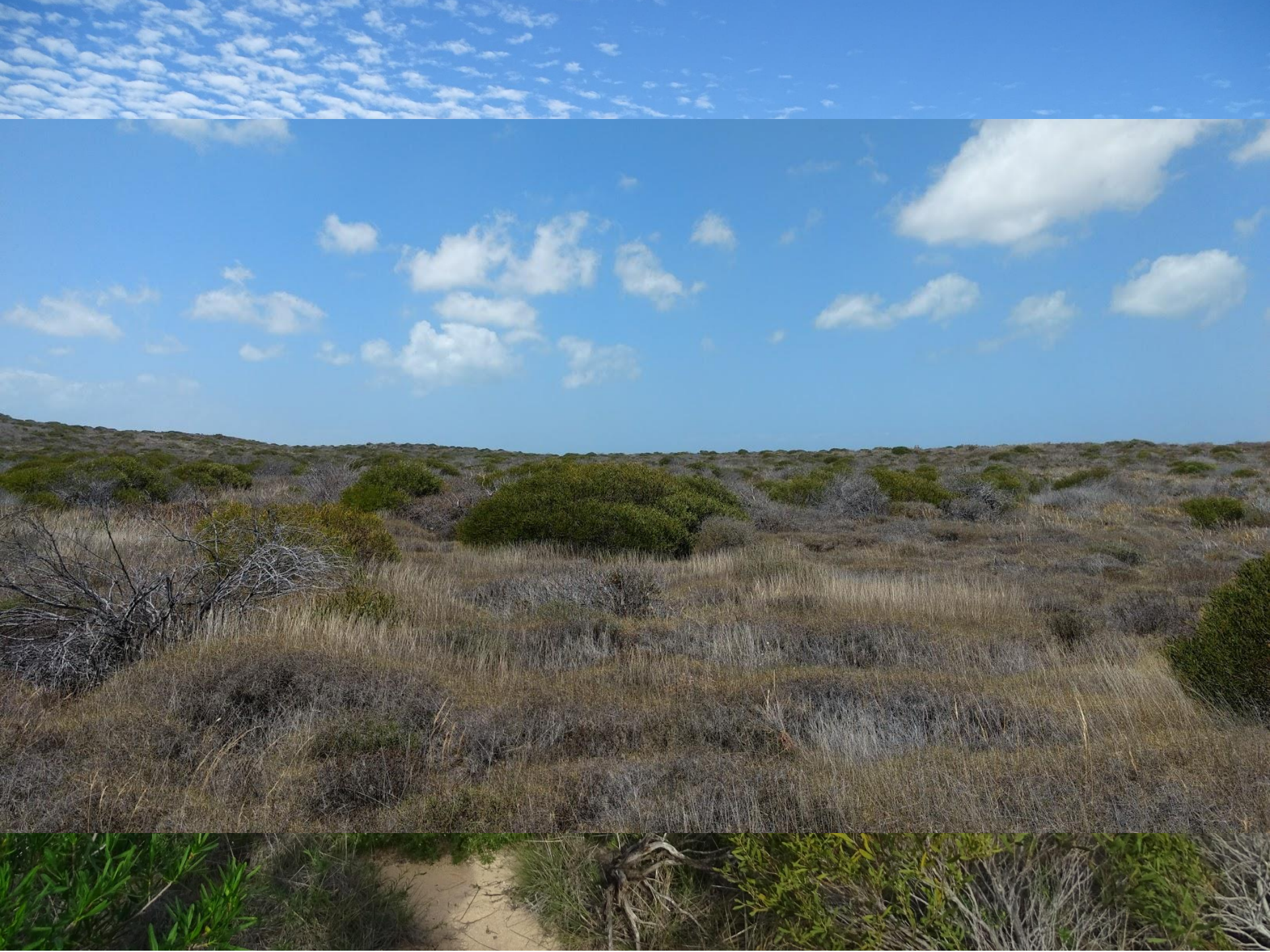
DIRK HARTOG ISLAND RETURN TO 1616







2017 ✓







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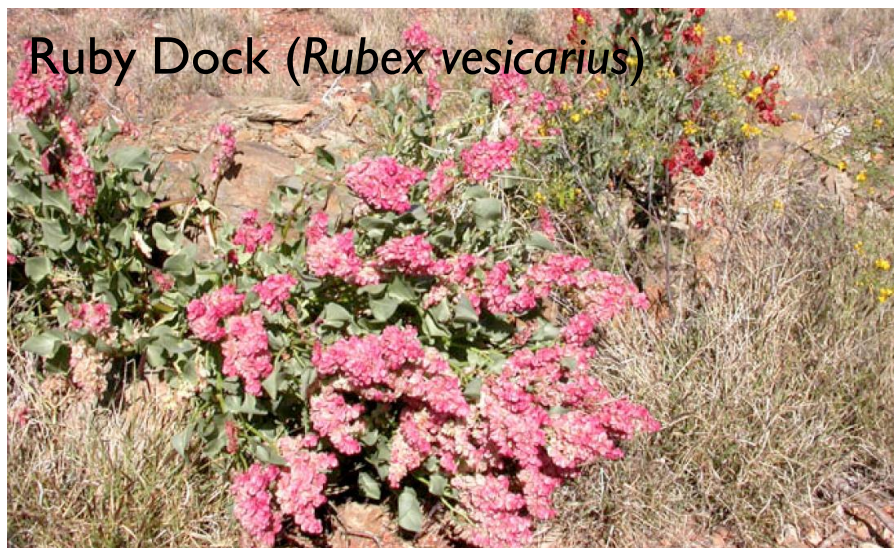


HC600 HYPER 165



2018 ✓





Ruby Dock (*Rubex vesicarius*)



Buffel Grass (*Cenchrus ciliaris*)...

...and Banded Lapwing (*Vanellus tricolor*)



Castor Oil Plant (*Ricinus communis*)



Crownbeard (*Verbesina encelioides*)



‘Dancing hares’ and ‘Turning hares’



Rufous Hare-wallaby (VU)
Lagorchestes hirsutus



Banded Hare-wallaby (VU)
Lagostrophus fasciatus



LAGOSTROPHUS FASCIATUS Pér. & Les. (Text-fig. 255.)

Confined to Dirk Hartog, Dorrée and Bernier Islands, off Sharks Bay.

It may be noted that sheep had been temporarily introduced there, while in the south of Dirk Hartog there is a large sheep station, and the wallabies are said to have entirely left that end of the island.

LAGORCHESTES HIRSUTUS DORRÆ Thos. (Text-fig. 256.)

Dorée Island. As the red Kangaroo Hares on Bernier and Dorée Islands differ subspecifically, it would be interesting to compare specimens from Dirk Hartog Island.

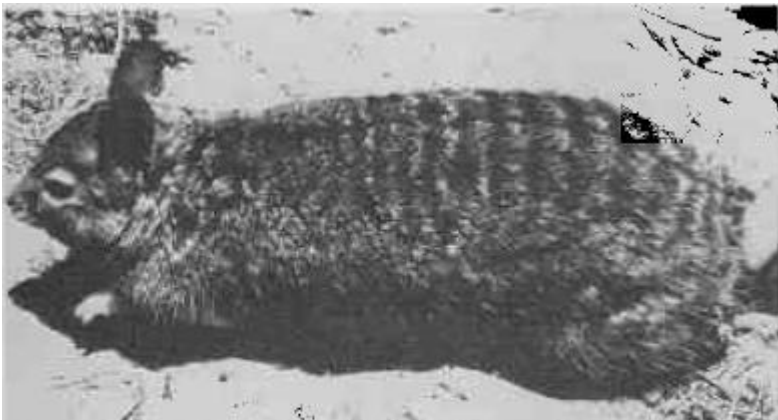
Shortridge 1909

Lagorchestes hirsutus (Gould). Western Hare-wallaby.—This wallaby occurs on Bernier and Dorre Islands but is very rare on the mainland. While some authors have noted that it occurred or probably occurred on Dirk Hartog (e.g. Shortridge 1909; Glauert 1933; Main 1961; Main and Yadav 1971) it appears that no specimen has been collected and some doubt must remain that it ever existed there.

Burbidge & George 1978



Banded Hare Wallaby Reintroduction Programme – Dirk Hartog Island



At the end of the second post-fire trip to Dorre Island in June 1974, 11 Banded Hare Wallabies (four males, seven females) were captured from around the southernmost end of the burnt area in the vicinity of White Beach. These wallabies were subsequently transferred to enclosures on Dirk Hartog Island as the first stage of the attempted re-establishment programme. Six of the females had joeys in the pouch.

Prince 1979

In June 1979, 13 (eight females, five males) of the 21 were trapped. Five of the females had either pouch-young or evidence of lactation. Animals appeared to be using an area of c. 23 ha of tall, dense *Acacia ligulata*. Further trapping in September 1980 suggested that only 10 animals remained. This decline was associated with a drought over the summer of 1979–80, which apparently resulted in the loss of perhaps 30–40% of the *Acacia* shrub cover. This loss was exacerbated by intensive browsing by both goats and sheep. Goats browsed by climbing into the shrubs, often breaking branches.

At this point the project was abandoned due to lack of resources and increasing logistic difficulties of getting to the island. The fate of the remaining released animals and animals from the captive colony is unknown. No wallabies have been sighted since that period (T. Wardle, pers. comm.).

Short et al. 1992





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18°C



HC600 HYPERFIRE

RECONYX

Dibbler (
Parantech



Bettongs



Boodie or Burrowing Bettong
Bettongia lesueur



Woylie or Brush-tailed Bettong (CR)
Bettongia penicillata

Greater Stick-nest Rat

Leporillus conditor



Brush-tailed Mulgara

Dasycercus blythi



‘False mice’ – Genus *Pseudomys*



Shark Bay Mouse (VU)
Pseudomys fieldi



Desert Mouse
Pseudomys desertor



Heath Mouse (VU)
Pseudomys shortridgei



Shark Bay Mouse (*Pseudomys fieldi*)

- Extirpated on mainland in 20th Century
- Last natural population on Bernier Island (Shark Bay)
- Translocated to six locations in Western Australia
 - Wild-to-wild - all failed
 - Faure and North West Islands founded from captive bred stock from Perth Zoo
- Small numbers of captive colony founders
 - 6 in 1996 (3M: 3F)
 - 17 (10M:7F) between 1999 and 2002
 - Likely actual founder numbers much lower



Little Long-tailed Dunnart
Sminthopsis dolichura



Aline Gibson Vega/DBCA



Sandy Inland Mouse
Pseudomys hermannsburgensis

Ash-grey Mouse
Pseudomys albocinereus

Western Grasswren

Amytornis textilis



Western Grasswren

- Genetics?
- Sociality?
- Monitoring?
- **Why did they disappear?**



Aline Gibson Vega/DBCA

Rock Parrot

Neophema petrophila



Little Long-tailed Dunnart (*Sminthopsis dolichura*)



Aline Gibson Vega/DBCA

Ash-grey Mouse (*Pseudomys albocinereus*)

Sandy Inland Mouse (*Pseudomys hermannsbergensis*)

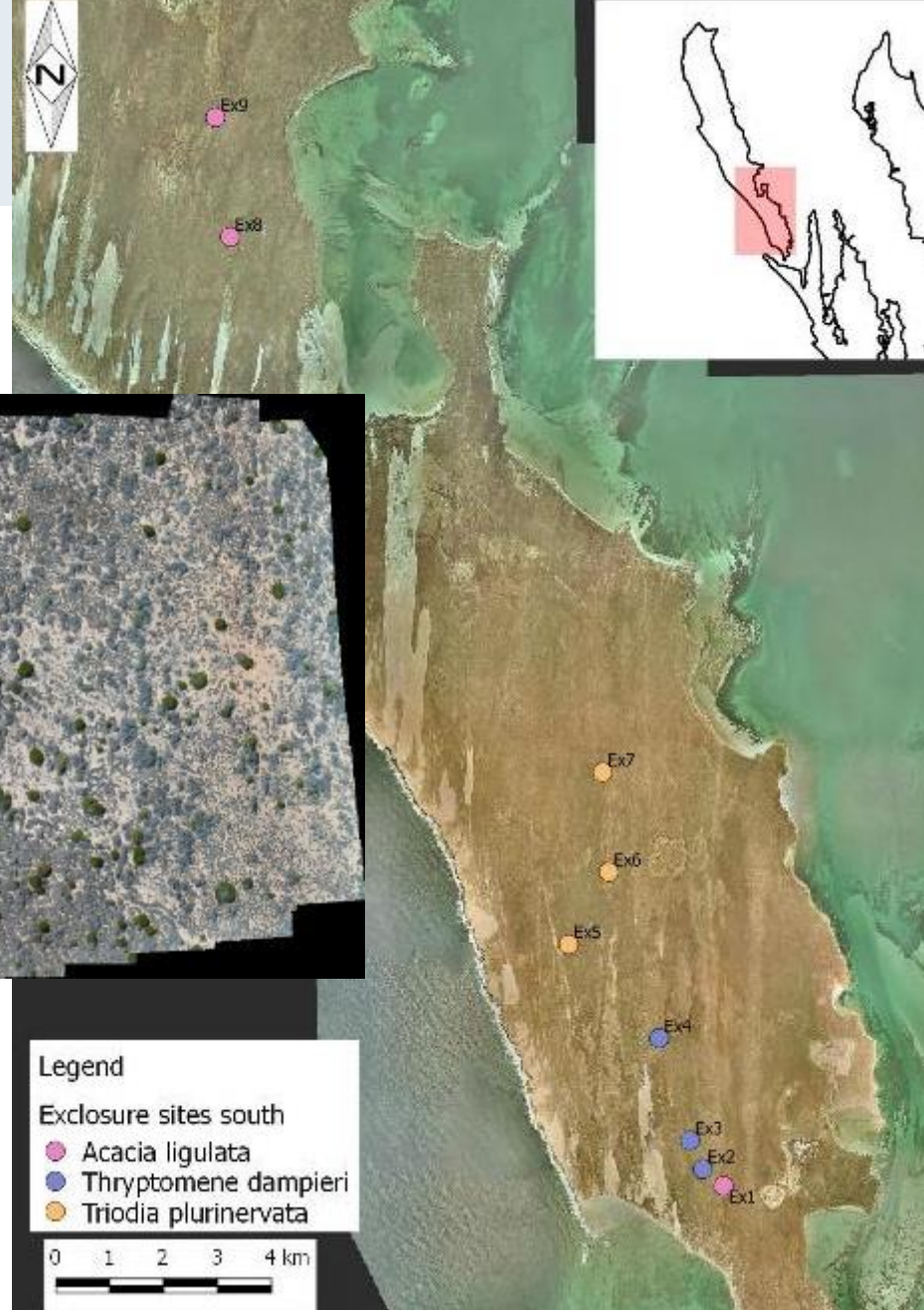


Ctenophorus maculatus



Keeled Legless-lizard (*Pletholax gracilis*)





WIRRUWANA NEWS

UPDATES FROM DIRK HARTOG ISLAND

SUMMER 2018

Welcome to the first edition of Wirruwana News. Wirruwana is the Maingana Aboriginal name for Dirk Hartog Island, a place that is once again becoming home to a suite of native animals through the *Return to 1616* project.

Although this newsletter sharing what's happening on Dirk Hartog Island is under the *Return to 1616* project, it also looks at other activities on the island and contributions to this biannual newsletter outside the project are both welcome and appreciated.

Making history

A small group of hushed onlookers witnessed an historic event on Dirk Hartog Island on 29 August 2017 - the first release of native animals onto the island under the *Return to 1616* project.



Twenty-four hare-wallabies were translocated from Bernier and Dorre Islands Nature Reserve to Dirk Hartog Island National Park. After taking a moment to get their bearings, the wallabies slowly ventured into their new surroundings, some snacking on the now lush vegetation along the way.



DBCA officers Kelly Rayner and Keith Morris release the first banded hare-wallabies (*Lagostrophus fasciatus*) onto Dirk Hartog Island.

Contributors: DBCA officers Dr Saul Cowen, Research Scientist; Kelly Rayner, Technical Officer; Khayla Wordsworth, Reserves Officer, and volunteers Claudia Buters and Andreas Stricker. Photos: Keith Morris, Saul Cowen, Claudia Buters, Richard Manning, Sharon Drabsch. Editor: Susan Pedersen.

The *Return to 1616* project is funded by the Gorgon Barrow Island Net Conservation Benefits Fund.

The acacia and spinifex sandplains on Dirk Hartog Island are now lush with vegetation because there are no longer sheep and goats on the island. Nearly all of the sheep were removed in the lead up to the island becoming a national park in 2009. The remaining sheep were removed along with goats and cats during the first stage of the *Return to 1616* project.



DIRK HARTOG ISLAND RETURN TO 1616

The Dirk Hartog Island National Park Ecological Restoration Project, *Return to 1616*, aims to restore the island's ecology to how Dirk Hartog would have seen it in 1616.

Dirk Hartog was the first European to land on Australian soil and leave evidence of doing so. On 25 October 1616 he left a pewter plate with details of his journey to Indonesia. Since his visit, the island has seen a succession of seafarers and enterprises, including the devastating occupation of thousands of sheep and goats.

Feral cats were also introduced and between the loss of habitat and onslaught of new predators, at least 10 native species on the island became extinct.

The *Return to 1616* project has removed goats and last of the sheep and believes there are no cats left on Dirk Hartog Island. This has allowed a small translocation trial in August 2017 to refine the transport, release and monitoring protocols for future, large-scale translocations.



DIRK HARTOG ISLAND RETURN TO 1616



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