Returning to 1616
The ecological restoration of the largest island in Western Australia

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Project Overview

Objectives
1) To improve the conservation status (reduce the risk of extinction) of several species of threatened and conservation dependent fauna.

2) To reconstruct a suite of terrestrial fauna, and contribute to the ecological restoration and function of the island.

This entails:
1) Removal of sheep, goats and cats
2) Translocation of 12 species of native mammals and one bird

But…
What is our baseline?
Is it really 1616?
How do we know if and how translocations have impacted on ecosystem function?
12 mammal species and one bird nominated
8 species listed as threatened (EPBC Act 1999)
10 species known from subfossil remains
2 species known through anecdotal evidence

Shark Bay Mouse • Burrowing Bettong • Heath Mouse • Banded Hare-wallaby • Desert Mouse • Western Quoll • Western Grasswren

Brush-tailed Bettong • Greater Stick-nest Rat • Rufous Hare-wallaby • Western Barred Bandicoot

Fauna reconstruction
Nicole Gill/The Monthly

Omnivores and Carnivores

Brush-tailed Mulgara (Dasycercus blythi)

Dibbler (Parantechinus apicalis)

Western Quoll (Dasyurus geoffroii)

Western Barred Bandicoot (Perameles bougainville)
Diggers and Burrowers

- Burrowing Bettong (*Bettongia lesueur*)
- Western Barred Bandicoot (*Perameles bougainville*)
- Brush-tailed Bettong (*Bettongia pencillata*)

- six other reintroductions
- three extant native mammal species
- House Mouse (*Mus musculus*)
- Gould’s Monitor (*Varanus gouldii*)
- other burrowing reptiles

James & Eldridge, 2007; Fleming et al. 2014; Valentine et al. 2017
Grazers and Browsers


Banded Hare-wallaby (*Lagostrophus fasciatus*)

Greater Stick-nest Rat (*Leporillus conditor*)

Rufous Hare-wallaby (*Lagorchestes hirsutus*)

Burrowing Bettong (*Bettongia lesueur*)

Brush-tailed Bettong (*Bettongia pencillata*)
Granivores and Fungivores

- Desert Mouse (Pseudomys desertor)
- Heath Mouse (Pseudomys shortridgei)
- Greater Stick-nest Rat (Leporillus conditor)
- Western Grasswren (Amytornis textilis)
- Shark Bay Mouse (Pseudomys fieldi)
- Brush-tailed Bettong (Bettongia pencillata)

Whelan et al. 2008; Lohr et al. 2014; Mills et al. 2017, 2018; Dundas et al. 2018
Source: van Dongen and Huntley (DBCA 2017)
Aline Gibson Vega/DBCA

Little Long-tailed Dunnart (Sminthopsis dolichura)
Keeled Legless-lizard (Pletholax gracilis)

Ctenophorus maculatus

Ash-grey Mouse (Pseudomys albocinereus)
Sandy Inland Mouse (Pseudomys hermannsbergensis)
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