



Restoring the integrated native terrestrial habitat and seabird community of Ile aux Aigrettes, Mauritius.



By Dr. Vikash Tatayah, Conservation Director

(i) Project implementing institution and its mandate

Our Mission

- ***To save threatened Mauritian species through the restoration of entire ecosystems.***
- To seek new information through field research, data management, captive and scientific studies.
- Collaboration for direct application to restoration methods and management.
- ***To share knowledge gained through restoration programmes with fellow Mauritian and international conservationists.***
- ***To share the joys and benefits of native wilderness and wildlife with the Mauritian people.***
- To secure the future of Mauritian species through income generation and sound management of human, fiscal and capital resources

www.mauritian-wildlife.org



(ii) background and justification of the proposed project

- The most threatened group of birds – rapid declines
- Long lived, low reproductively, sensitive to small increases in mortality
- Several causes of decline
- Invasive Alien Species – 75%



Worrying declines for world's seabirds

Fri, 09 Mar 2012

The status of the world's seabirds has deteriorated rapidly over recent decades and several species and populations are now perilously close to extinction, according to a new review by BirdLife International, a partner of the IUCN Red List of Threatened Species™. Across the globe, commercial fisheries pose the most serious threat to seabirds.



Birdwatch News Archive

Sharp decline in world's seabirds

Posted on: 09 Mar 2012

Seabirds are now the most threatened group of birds in the world, BirdLife research has revealed.

The status of the world's seabirds has deteriorated rapidly over recent decades and several species and many populations are now perilously close to extinction. These are the findings of a major new review published this week in the scientific journal *Bird Conservation International*.



Amsterdam Albatross, which only breeds on Amsterdam Island in the southern Indian Ocean, is just one of the world's many critically endangered seabirds. Photo by Vincent Legendre (commons.wikimedia.org).



- Seabirds drive ecological processes in island ecosystems
- Import marine nutrients (droppings, food, eggs, feathers, dead)
- > soil fertility > invertebrate abundance and community composition, indirectly > endemic birds and reptiles

Graham et al. (2018) Seabirds enhance coral reef productivity and functioning in the absence of invasive rats. Nature 559.

Savage, C. (2019) Seabird nutrients are assimilated by corals and enhance coral growth rates. Scientific Reports 9.

Seabird Communities





Breeding seabirds:

Round Island

Red-tailed Tropicbird
White-tailed Tropicbird
Wedge-tailed Shearwater
Round Island Petrel (3 species hybrid)
Bulwer's Petrel



Serpent Island

Common Noddy
Lesser Noddy
Sooty Tern
Masked Booby

- Historically found elsewhere, such as Ile aux Aigrettes

- Historical accounts and bone deposits

Cave

- Causes of seabird loss (rats, cats, poaching) removed
- Natural recolonization unlikely
- Philopatric nature, low density of two seabird spp in the South
- Translocation needed to bring seabirds back

Ile aux Aigrettes



Seabird attraction

Landbirds and reptiles reintroduced

Analogues tortoise reintroduced

Habitat restoration

Secure rare endemic plants

Education and ecotourism.



Freshly weeded area



Restored forest



- 2009 - trial translocations, Round Island to Ile aux Aigrettes
- Nestling Red-tailed Tropicbirds, White-tailed Tropicbirds and Wedge-tailed Shearwaters





- Birds fed fresh fish, octopus, squid and vitamins
- Nest boxes
- Successful fledging 2 to 4 weeks



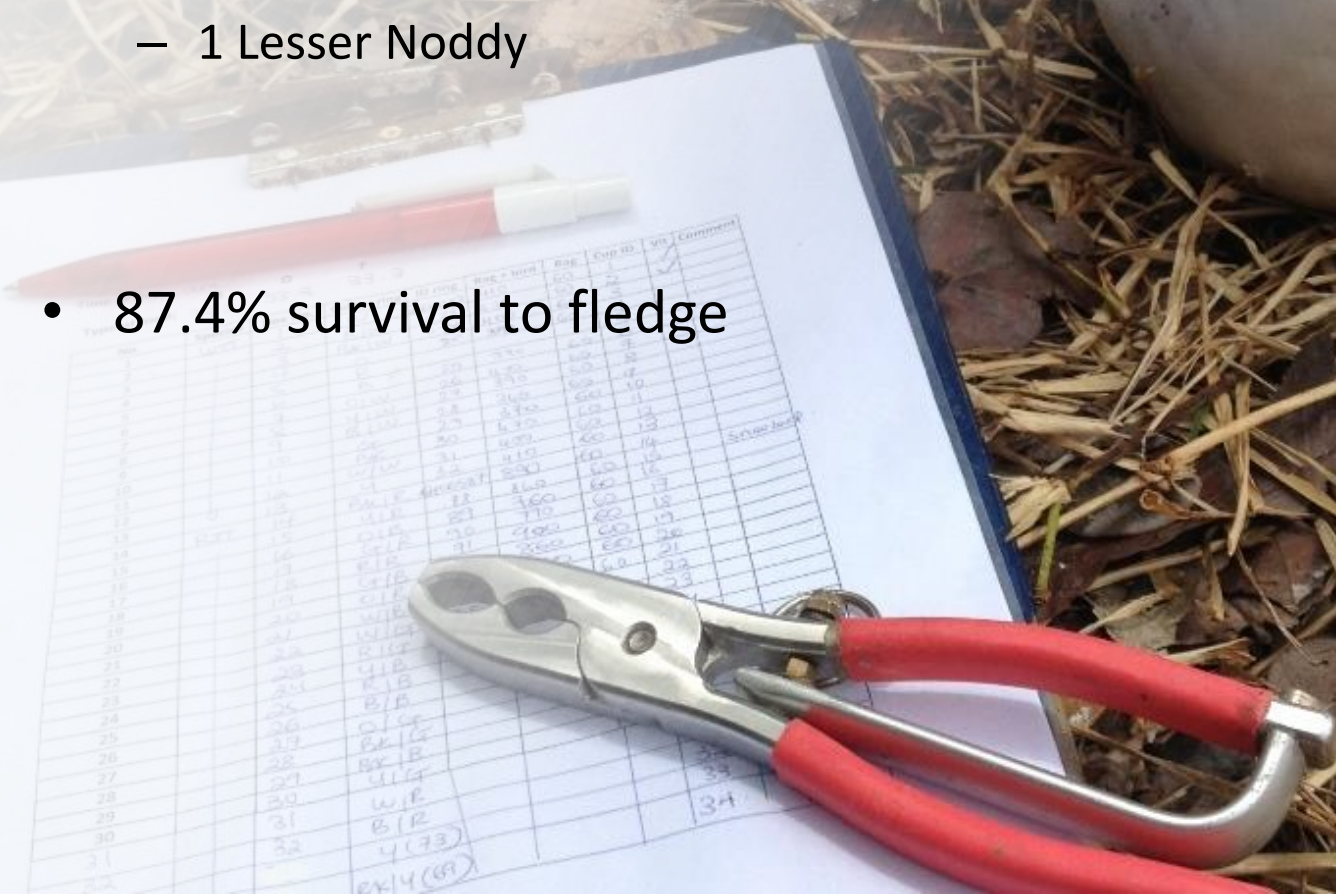
- 2013 –translocated Common Noddy and Sooty Terns from Serpent Island
- Tern and Noddy species had never been translocated before



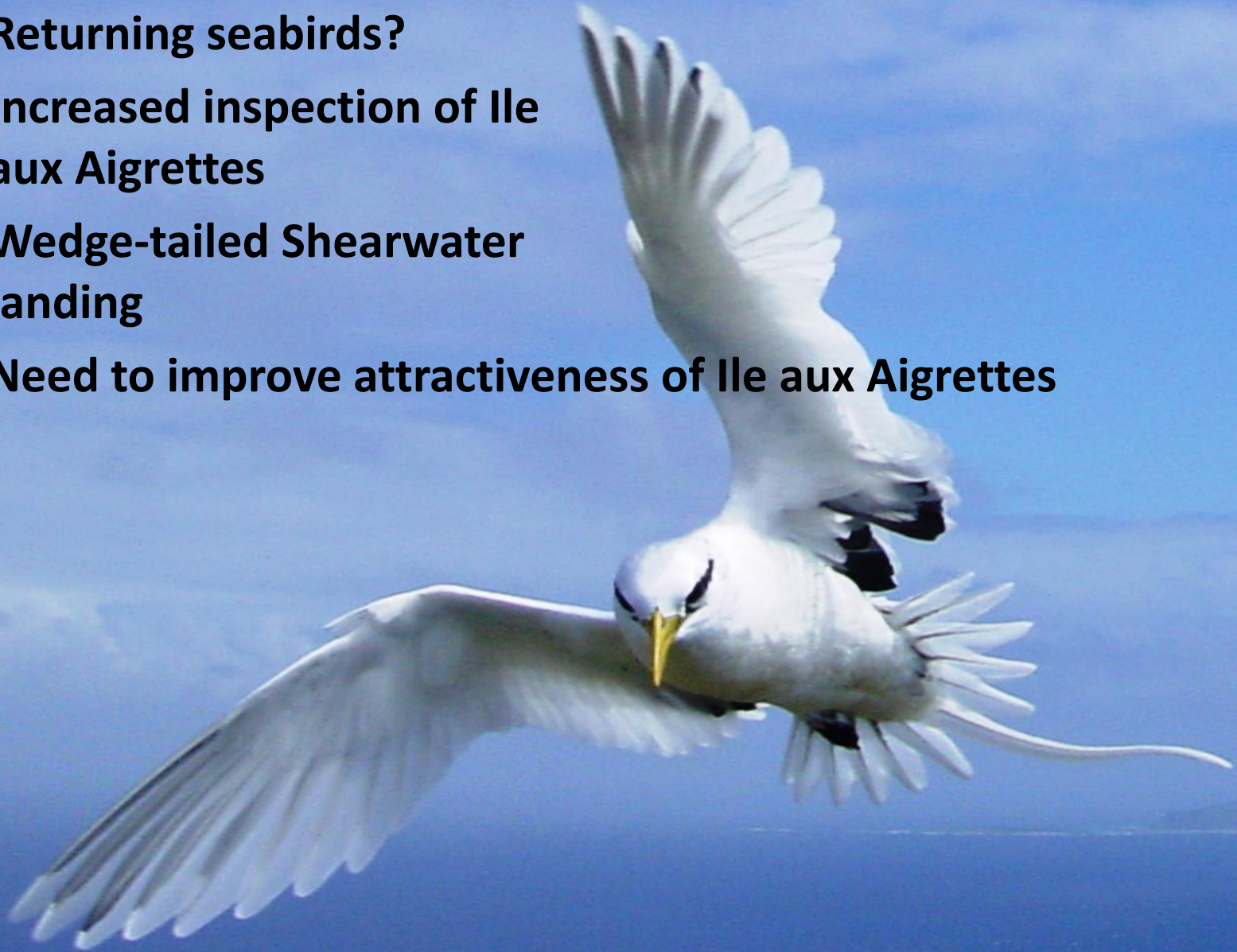
Terns and Noddies require post fledging care

- To date we have fledged:
 - 236 Red-tailed Tropicbirds
 - 127 White-tailed Tropicbirds
 - 183 Wedge-tailed Shearwater
 - 55 Sooty Terns
 - 18 Common Noddy
 - 1 Lesser Noddy

- 87.4% survival to fledge



- **Returning seabirds?**
- **Increased inspection of Ile aux Aigrettes**
- **Wedge-tailed Shearwater landing**
- **Need to improve attractiveness of Ile aux Aigrettes**

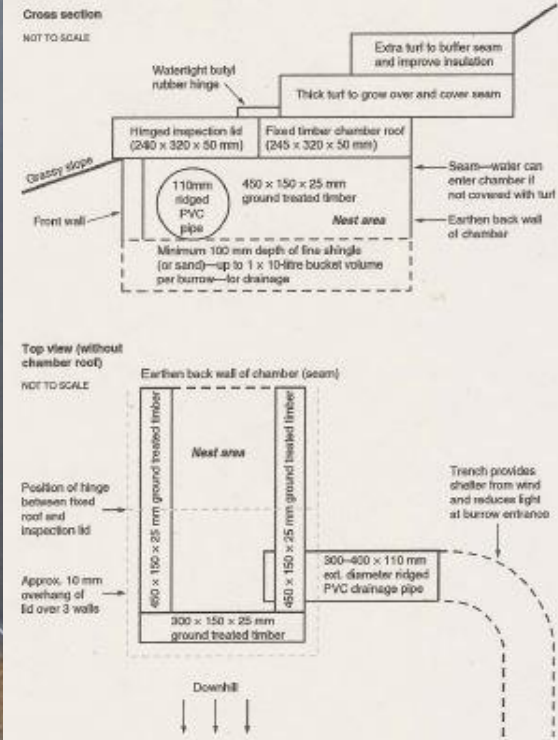


- 2017 installing:
Seabird call playback
Decoys
Habitat management
Artificial burrows



Appendix 2

ARTIFICIAL BURROW DESIGN FOR FLUTTERING SHEARWATER, USED AT THE SOUTH POINT COLONY SITE, MANA ISLAND





iii) Project Objectives

- Restore coastal forest habitat on Ile aux Aigrettes, specifically ‘seabird habitat’**
- Restore terrestrial and near-island marine ecosystem functioning through the attraction of seabirds**
- Enable Mauritians to learn about their natural heritage and the importance of biodiversity conservation**
- Remain a global leading example of island conservation and restoration.**



(iv) Partnerships

- *Mauritian Wildlife Foundation (MWF)* – Project Lead
- *The Government of Mauritius* - endorsement of the conservation work
- *BirdLife International* – Technical assistance, and facilitate knowledge exchange and learning in the region
- *North of England Zoological Society* - Learning with Nature on Ile aux Aigrettes
- *Durrell Wildlife Conservation Trust* - supervision of seabird decoys, playback and monitoring of returning seabirds.
- *Conservatoire Botanique National de Brest (France)* – plant and habitat restoration
- *Mauritian companies* – fund habitat restoration.

(v) linkages to ongoing initiatives



***Habitat
restoration***

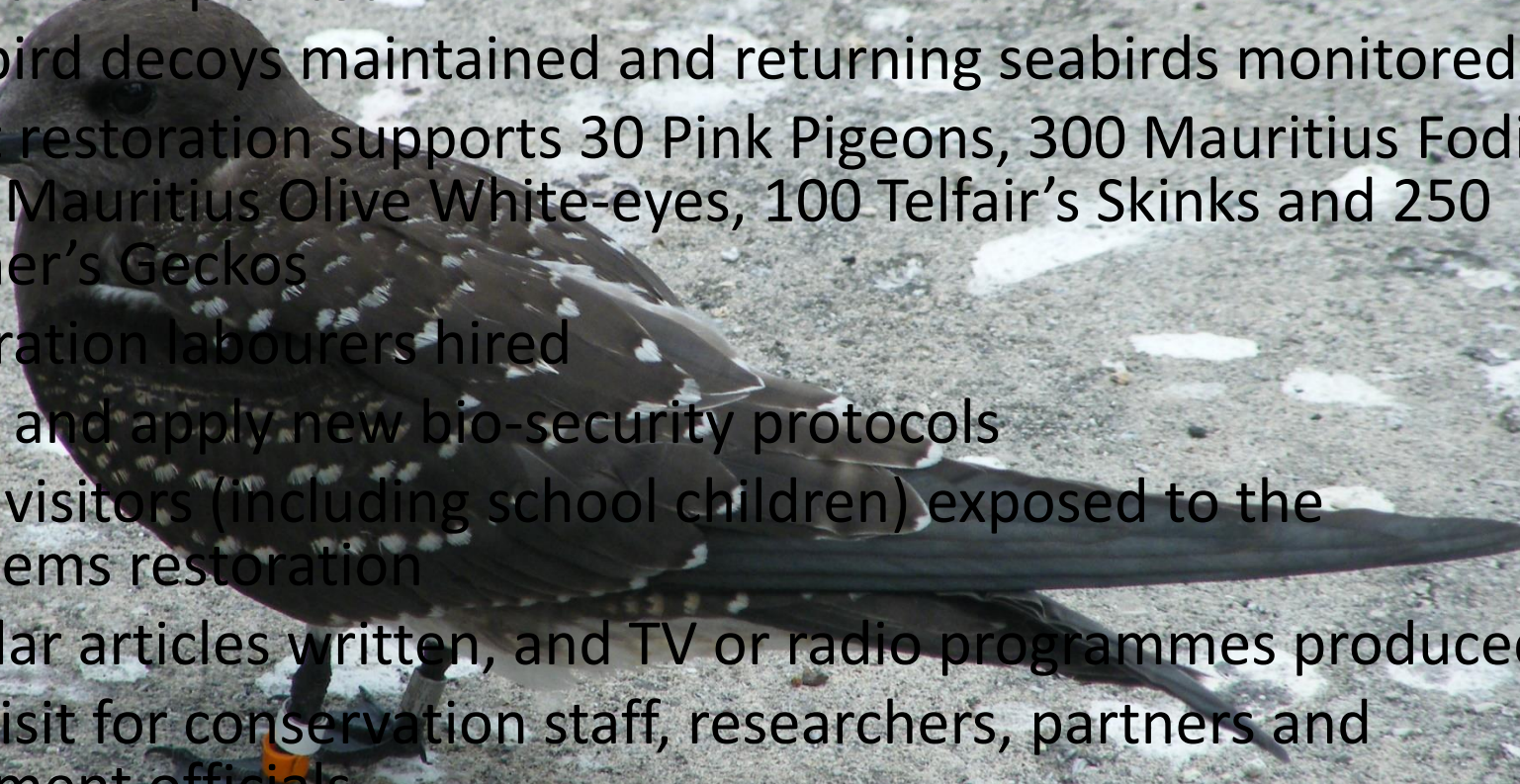


***Open
Seabird
Habitat***



***Seabird
Attraction***

(vi) Expected Results

- 14 ha of the island weeded of invasive alien plants
 - 1 ha of habitat suitable for returning seabirds created
 - 4000 plants replanted
 - 90 seabird decoys maintained and returning seabirds monitored
 - Habitat restoration supports 30 Pink Pigeons, 300 Mauritius Fodies and 60 Mauritius Olive White-eyes, 100 Telfair's Skinks and 250 Guenther's Geckos
 - 6 restoration labourers hired
 - Review and apply new bio-security protocols
 - 30,000 visitors (including school children) exposed to the ecosystems restoration
 - 6 popular articles written, and TV or radio programmes produced
 - 3 Site visit for conservation staff, researchers, partners and government officials
 - 1 knowledge exchange and understanding of conservation issues at regional and national level for practitioners
 - Support to national and international conventions or targets.
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Outcome 3.0	Planting of native species and reconstitution of the pristine environment suitable for native fauna reintroduction.																											
Output 3.1	Planting 4000 native plants on Ile aux Aigrettes in newly weeded areas and vegetation gaps, and seabird friendly area																											
Activity 3.1	Collect seeds and seedlings for sowing or potting in the Ile aux Aigrettes nursery				X	X	X	X	X	X	X	X	X	X	X	X												
Activity 3.2	Plant nursery grown plants in weeded areas and designated seabird-friendly areas											X	X	X	X										X	X	X	X
Outcome 4.0	Seabird decoys as seabird attractants deployed and monitored																											
Output 4.1	Seabird decoys deployed to attract seabirds onto Ile aux Aigrettes																											
Activity 4.1.2	90 seabird decoys deployed in seabird friendly areas	X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Output 5.1	More than 30,000 visitors – including Mauritian adults and children and tourists visit the island and learn about the ecosystems restoration efforts																											
Outcome 6.0	Exposure for external and internal staff, students, researchers, partners and government officials																											
Output 6.1	Exposure to external project partners																											
Activity 6.1.1	Workshop and site visit with government officials and project partners (e.g. private sector, visiting foreign supporters)																											
Activity 6.2.1	Site visit and or exchanges with conservation staff, students and researchers	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Outcome 7.0	Regional coordination (Responsible: BirdLife Africa)																											
Activity 7.1.1	Skype or written report between BirdLife Africa Secretariat and MWF to update on project progress				X			X			X			X			X			X				X				X

(vii) summary of the project budget

	Category	Total Cost (US\$)	WIOSAP Support
1.	Personnel	141,710	58567
2.	Equipment	14214	2996
3.	Operating costs	38700	3771
4.	Contract Services	0	0
5.	Travel	29542	4457

Total Cost (US\$) 224,166 WIOSAP Support 69,791



Thank you!