

# Flying fox status, island size and logging in the Solomon Islands

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**25 species of flying foxes**

10 Least Concern

2 Data Deficient

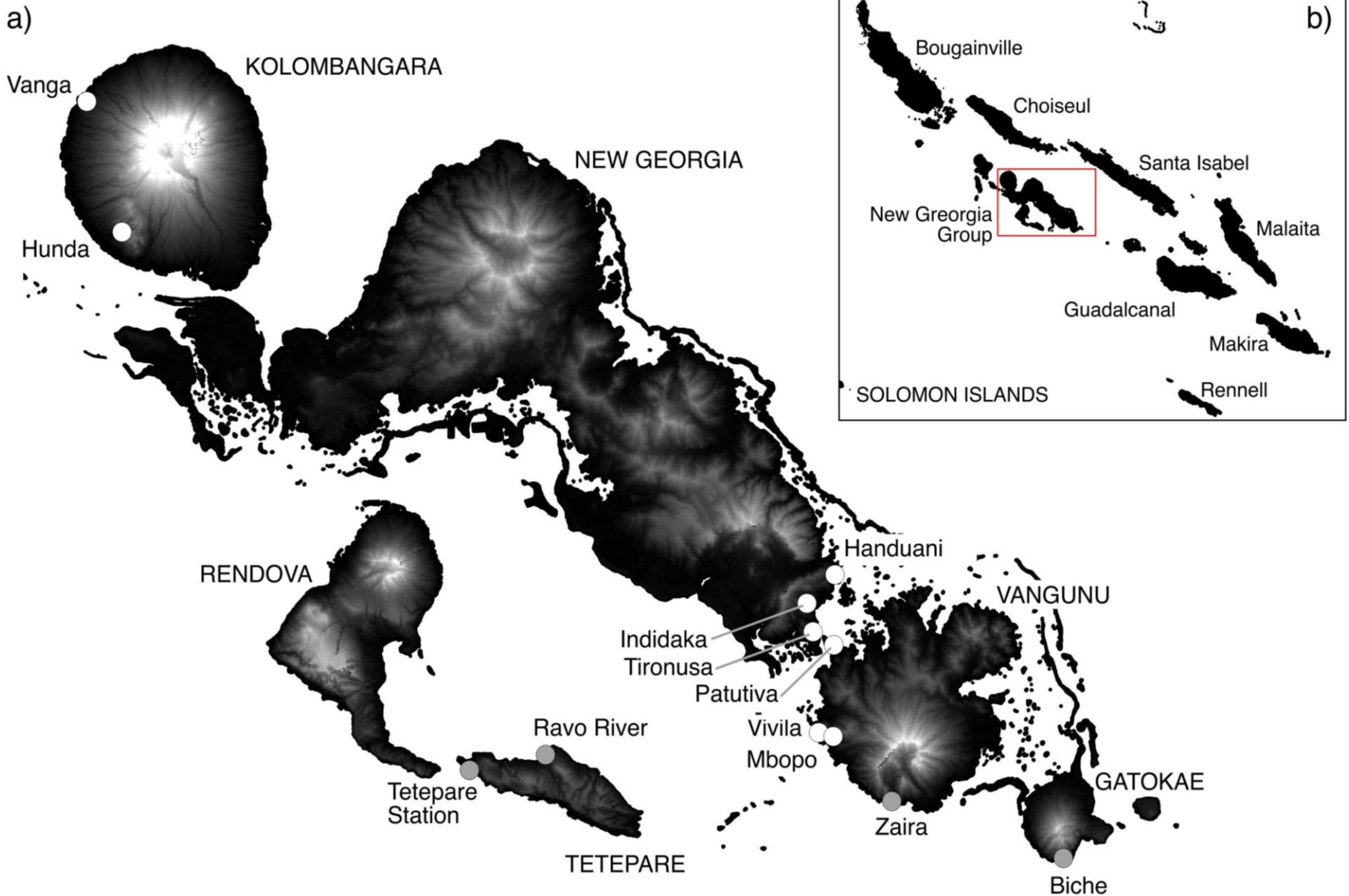
- 5 threatened spp are *Pteralopex*



- Many studies show that small mammals & bats tolerate selective logging
- Island endemics with small ranges are vulnerable to habitat loss & hunting, especially ecologically specialised, sedentary species



# 25 year test of island size and logging effect on flying fox captures in Western Province











Indidaka

3 ha

300 ha

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Image © 2015 CNES / Astrium

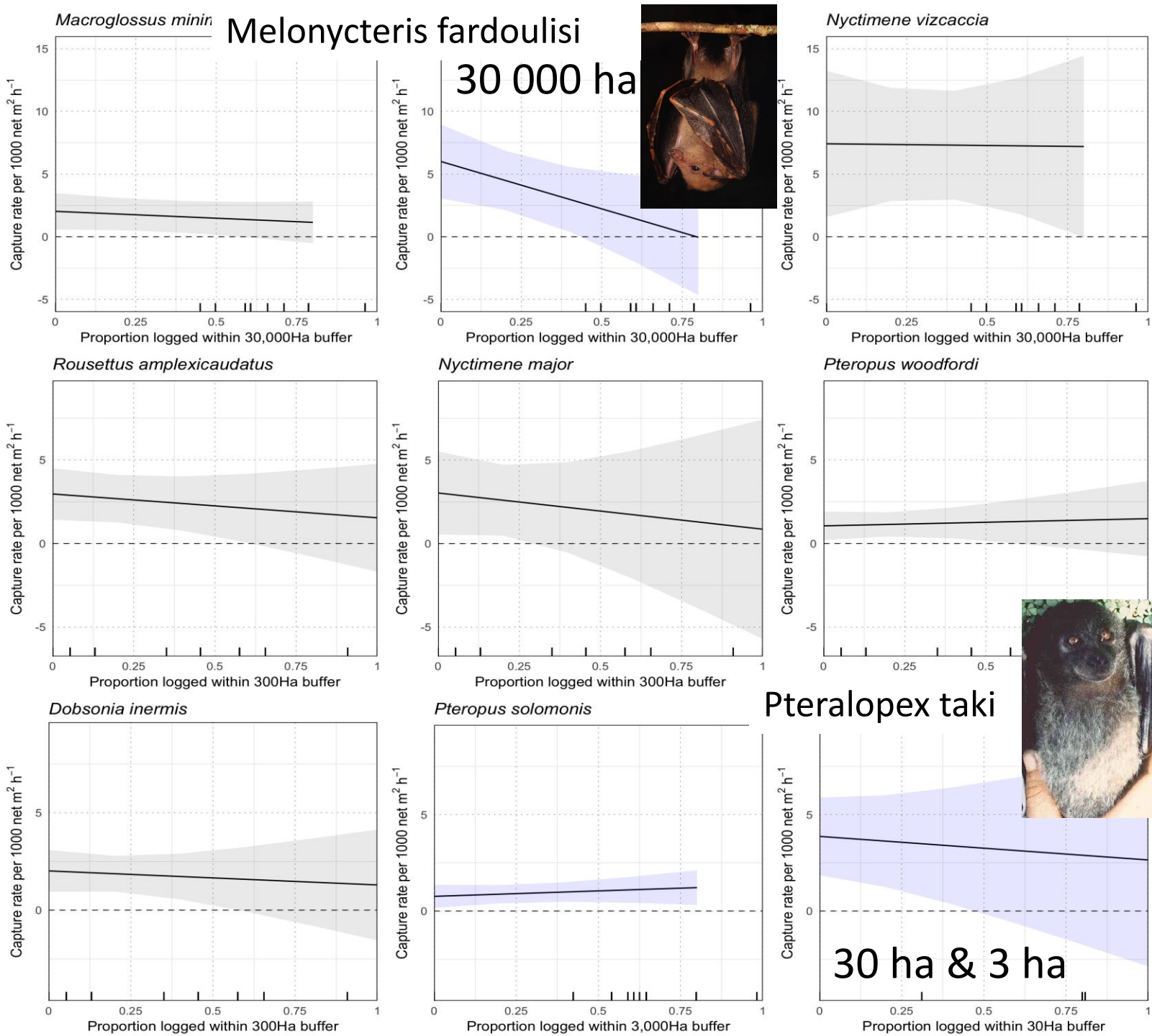
Google earth

2007

Imagery Date: 11/5/2014 lat -8.519364° lon 157.863625° elev 72 m eye alt 2.57 km

Logging was associated with decline only in the two restricted range endemics

-no effect of island size





## Taxonomy [top]

<b>Kingdom</b>	<b>Phylum</b>	<b>Class</b>
Animalia	Chordata	Mammalia

<b>Scientific Name:</b>	<i>Melonycteris fardoulisi</i> Flanagan
<b>Common Name(s):</b>	English – Fardoulis's Blossom Bat



## Assessment Information [top]

<b>Red List Category &amp; Criteria:</b>	Least Concern <u>ver 3.1</u>
<b>Year Published:</b>	2008
<b>Date Assessed:</b>	2008-06-30
<b>Assessor(s):</b>	Bonaccorso, F., Helgen, K. & Hamilton, S.
<b>Reviewer(s):</b>	Lamoreux, J. (Global Mammal Assessment Team), Racey, P.A., Medellín, R. & Hutson, A.M. (Chiroptera Red List Authority)

**Justification:**  
Listed as Least Concern because, although its extent of occurrence is probably less than 20,000 km<sup>2</sup>, its population numbers are thought to be large, it is tolerant of a broad range of habitats, and it is unlikely to be declining at nearly the rate required to qualify for listing in a threatened category.

<b>Previously published Red List assessments:</b>	1996 – Vulnerable (VU) <b>75% decline in 25 years, no update from LC yet (could be upgraded)</b>
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## Taxonomy [top]

<b>Kingdom</b>	<b>Phylum</b>	<b>Class</b>
Animalia	Chordata	Mammalia

**Scientific Name:** *Pteralopex taki* Parnaby, 2008

**Common Name(s):**  
English – New Georgia Monkey-faced Bat, New



## Assessment Information [top]

**Red List Category & Criteria:** Vulnerable B1ab(ii,iii,v), D1

**Year Published:** 2017

**Date Assessed:** 2016-06-13

**Assessor(s):** Lavery, T.H.

**Reviewer(s):** Mildenstein, T.

**Contributor(s):** Hamilton, S., Helgen, K., James, R., Fisher, D. & Parnaby, H.

### Justification:

This bat is listed as Vulnerable, because its extent of occurrence (EOO) is 5,906 km<sup>2</sup>, its distribution is severely fragmented, and there is a continuing decline in population size the area of occupancy (AOO) and rapid decline in the extent and quality of its forest habitat. The population size is now estimated to possibly be ~400.

**Previously published Red List assessments:** 2008 – Endangered (EN)

Downgraded EN to VU: rediscovered on  
Kolombangara by Tyrone Lavery 2015



*Pteropus woodfordi*

Downgraded from VU to LC: no decline in Western Province,  
relatively resilient to logging and locally abundant

# Status of other threatened bats based on recent evidence (most from CEPF projects)



*Pteralopex atrata*

Still EN: recorded on Guadalcanal 2015 by Tyrone Lavery  
Not found on New Georgia



T.F. FLANNERY



*Pteropus tuberculatus*

CR: rediscovered on Temotu 2015 by Oceanswatch team

No downgrade yet from 'CR (possibly extinct)'

*Pteralopex pulchra* montane Guadalcanal still CR and possibly extinct- no sign of it

**Scientific Name:** *Pteropus rennelli* Troughton, 1929

**Common Name(s):**  
English – Rennell Flying Fox

**Taxonomic Notes:** The taxonomy of *Pteropus rennelli* in relation to *P.* review.  
  
*Pteropus rennelli* occurs 180 km from the nearest with either *P. rayneri* or *P. cognatus* it forms a disc have any current level of genetic connectivity with comm).

**Taxonomy [top]**

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Mammalia	Chiroptera	Pteropodidae

**Scientific Name:** *Pteropus cognatus* Andersen, 1908

**Common Name(s):**  
English – Makira Flying Fox

**Taxonomic Notes:** The taxonomy of *Pteropus cognatus* in relation to *P. rayneri* and *P. rennelli* is in need of review.

**Assessment Information [top]**

**Red List Category & Criteria:** Endangered B1ab(ii,iii) [ver 3.1](#)

**Year Published:** 2017

**Date Assessed:** 2016-06-13

**Assessor(s):** Lavery, T.H.

**Reviewer(s):** Mildenstein, T.

**Contributor(s):** Hamilton, S., Helgen, K. & Pilgrim, J.

**Justification:**  
Listed as Endangered as it is known from a single location (Rennell Island) approximately 984 km<sup>2</sup> and could be subject to a single catastrophic event continuing decline as commercial logging and mining are disturbing large converting them to unsuitable habitat and reducing this species' area of occupancy.

**Previously published Red List assessments:** 2008 – Vulnerable (VU)

**Assessment Information [top]**

**Red List Category & Criteria:** Vulnerable B1ab(iii,v) [ver 3.1](#)

**Year Published:** 2017

**Date Assessed:** 2016-06-13

**Assessor(s):** Lavery, T.H.

**Reviewer(s):** Mildenstein, T.

**Contributor(s):** James, R., Hamilton, S. & Helgen, K.

**Justification:**  
Makira Flying Fox is listed as Vulnerable because the population is severely fragmented, its extent of occurrence (EOO) is approximately 6,000 km<sup>2</sup>, and there is continuing decline in its EOO, the quality of its habitat, and number of mature individuals, due to logging and land conversion for agriculture. *Pteropus cognatus* is hunted and recent questionnaire surveys of Makira residents (2016) have indicated the majority of people believe the species is in decline.

**Previously published Red List assessments:** 2008 – Endangered (EN)

*Pteropus rennelli* Rennell  
Upgraded to EN from VU

*Pteropus cognatus* Makira  
Downgraded to VU from EN  
- John Fasi found most  
people perceive a decline.  
Hunted too

**Downgrade  
(doing better)**

**Upgrade  
(doing worse- due to logging)**

Four species

Two species (Fardouli's blossom  
bat & Rennell flying fox)



# DD species

## Assessment Information [\[top\]](#)

<b>Red List Category &amp; Criteria:</b>	Data Deficient <a href="#">ver 3</a>
<b>Year Published:</b>	2008
<b>Date Assessed:</b>	2008-06-30
<b>Assessor(s):</b>	Leary, T., Hamilton, S. & Helgen, K.
<b>Reviewer(s):</b>	Lamoreux, J. (Global Mammal Assessment Team), Racey, P.A., Medellín, R. & Hutson, A.M. (Chiroptera Red List Authority)
<b>Justification:</b>	Listed as Data Deficient in view of continuing doubts as to its taxonomic validity. There is also an absence of recent information on its extent of occurrence, status, and ecological requirements (though the species would be almost certainly qualify as threatened if the taxonomic questions were settled). Research is needed to resolve the taxonomic uncertainty and to confirm, if possible, the existence of the species.
<b>Previously published Red List assessments:</b>	1996 – Extinct (EX) 1994 – Extinct (Ex)

According to Nancy Irwin's recent PhD work *N santacrucis* is not a species

Ontong Java flying fox *P. howensis* - who knows?

## Geographic Range [\[top\]](#)

<b>Range Description:</b>	This species is known only from a single female specimen probably collected in the late 19 <sup>th</sup> century on Santa Cruz (Nendö) Island in the Solomon Islands, or certainly from within the Santa Cruz Island Group. It was apparently last seen on Nendö in 1907 (Mickleburgh <i>et al.</i> 1992). Several subsequent biological expeditions to the region have not recorded this species (Flannery 1995).
<b>Countries occurrence:</b>	<b>Native:</b> Solomon Islands





## New projects:

SINU research and capacity building (CEPF)

John Fasi,  
Patrick Pikacha

Bats and viruses versus island size, forest loss in Melanesia



Junior Novera: Bougainville mammals including EN *Pteralopex anceps*

Thanks very much to:

Solomon Islands Community Conservation Partnership, Michael Pennay, Liz Tasker, Simon Blomberg, Tim Flannery, Tish Ennis, Harry Parnaby, Chris Filardi, Gilianne Brodie, John Fasi, Zaira & Morovo communities & guides, landowners, helpers 1992 & 2012-2016

Critical Ecosystem Partnership Fund, Australia Pacific Science Foundation, Lube Bat Conservancy, WV Scott Foundation, The Australian Museum

