

Solomon Islands Biodiversity Data Gaps Analysis.

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This project, to locate and gazette biodiversity data that had been collected since 2010, and so assess gaps, contributed to the EREPA (Ensuring Resilient Ecosystems and Representative Protected Areas in the Solomon Islands) project.

The EREPA project considered Protected Areas within 4 provinces in Solomons – Guadalcanal, Malaita, Renbel and Temotu. This project highlights the Key Biodiversity Areas currently identified in each of these provinces (under the Critical Ecosystem Partnership Fund East Melanesian Islands Ecosystem Profile Aalbersberg et al 2012). The datasets to identify the KBAs are more than 10 years and a second component of the project was to consider whether new, updated information was available for these sites. Thirdly, an assessment of the likelihood that the KBAs both represent biodiversity rich sites and whether, within the KBAs there are particularly rich areas was also investigated.

The Key Biodiversity Areas are itemised in Annex 1. This presents a map showing the location and boundary of the KBA. These boundaries were established during workshops in the Solomon Islands, initiated through the CEPF Ecosystem Profile Assessment (Aalbersberg et al 2012). Next is a list of 'trigger species' for each of the KBAs. The trigger species have been generated by two separate processes. The first, the list of 'legacy trigger' species was identified through the CEPF Ecosystem Profile. These are reported on the World Database of Key Biodiversity Areas.

The second, the list of SAT (Site Assessment Tool) species, was generated by D. Baisero using data based on the IUCN 2020 Red List (pers comm). This assessment assessed all Actinopterygii, Amphibia, Anthozoa, Aves, Chondrichthyes, Gastropoda, Holothuroidea, Mammalia and Reptilia that are IUCN Red Listed and occur in the country. This uses the range maps on the IUCN Red List for a given species, rasterises this and assesses whether each unit is occupied by the species (based on the range map). It then considers whether the area occupied by the species within the KBA is 1% or more of the global area occupied. If so, then the species is considered to be a candidate species for the B2, Co-occurring geographically restricted species. If the species is globally threatened then the relevant criteria can be used to assess whether the species qualifies for one or more of these.

There is also a global AOH (area of occupied habitat) assessment for each species, based on the elevation limits for the species, and within suitable habitats (as identified in the IUCN red list). The elevation of each rasterised unit was derived from a Global Digital Elevation Model, while the habitats on each rasterised unit were derived from a global ESA-CCI land cover map.

The species data is split into 3 groups – those that are listed both as Legacy and as SAT species, those listed only from the SAT analysis, and those listed only from the Legacy. The SAT assessments are intended merely to bring to the attention of the reviewers potential species for inclusion in the assessment. A species that is included under both the legacy and the SAT analysis is likely to qualify as a trigger species for the site, although confirmation of continued presence and in appropriate numbers/distribution would be of benefit. A species that is included only under the SAT analysis

needs to be confirmed as being present on the KBA, and in appropriate numbers/distribution to justify the inclusion. A species that is only included as a legacy species may struggle to qualify under the 2016 KBA Standard criteria – although the population size, if known, may support its status as a trigger species for the site.

There is an attached Excel file that addresses each of the species, and reviews any/all reports of the species from each of the KBAs since 2010 (and/or the most recent record for the KBA). The reports are generated from GBIF (we used PBIF for this assessment). This combines validated information from eBird, iNaturalist and other citizen science platforms, as well as providing a location for the origin of specimens stored in museums from around the world. One outcome of this assessment was to identify individuals/researchers who have spent time within a given KBA – and maybe generated a report on their findings. This has not been followed up, to date.

We had considered using a Solomon Islands specific DEM and land cover map – to reassess the distribution of the local species. We had extracted the range maps for all globally threatened species – including a number of globally threatened plant species to increase the coverage. This assessment proved to be too challenging however. Instead, in Annex 3 we present the STAR analysis Threat Abatement maps for the 4 provinces (see Annex for details on how this is derived).

Annex 1.1

Key Biodiversity Areas in Guadalcanal.



Mount Gallego 'Trigger Species'.

Species (common name)	Scientific binomial name	Taxon group	Red List category
a) Legacy and SAT species			
	<i>Cyrtodactylus biordinis</i>	Reptilia	Least Concern (LC)
Fardoulis's Blossom Bat	<i>Melonycteris fardoulisi</i>	Mammalia	Near Threatened (NT)
Guadalcanal Monkey-faced Bat	<i>Pteralopex atrata</i>	Mammalia	Endangered (EN)
Dwarf Flying Fox	<i>Pteropus woodfordi</i>	Mammalia	Least Concern (LC)
King Rat	<i>Uromys rex</i>	Mammalia	Endangered (EN)
b) SAT species			
Ring-tailed Gecko	<i>Cyrtodactylus louisiadensis</i>	Reptilia	Least Concern (LC)

Yellow-eyed Gecko	<i>Lepidodactylus flaviocularis</i>	Reptilia	Critically Endangered (CR)
Guadalcanal Scaly-toed Gecko	<i>Lepidodactylus shebae</i>	Reptilia	Data Deficient (DD)
Arboreal Blind Snake	<i>Ramphotyphlops angusticeps</i>	Reptilia	Data Deficient (DD)
Beck's Blind Snake	<i>Ramphotyphlops becki</i>	Reptilia	Data Deficient (DD)
Schmidt's Crocodile Skink	<i>Tribolonotus schmidti</i>	Reptilia	Least Concern (LC)
	<i>Melicope solomonensis</i>	Sapindales	Near Threatened (NT)

c) Legacy only species

Solomons Bare-backed Fruit Bat	<i>Dobsonia inermis</i>	Mammalia	Least Concern (LC)
Faro Island Treefrog	<i>Litoria lutea</i>	Amphibia	Least Concern (LC)
	<i>Osmoxylon chrysanthum</i>	Apiales	Data Deficient (DD)
Admiralty Flying Fox	<i>Pteropus admiralitatum</i>	Mammalia	Least Concern (LC)

Guadalcanal Watersheds 'Trigger Species'

Species (common name)	Scientific binomial name	Taxonomic group	Red List category
a) Legacy and SAT species.			
Ring-tailed Gecko	<i>Cyrtodactylus louisiadensis</i>	Reptilia	Least Concern (LC)
Solomons Bare-backed Fruit Bat	<i>Dobsonia inermis</i>	Mammalia	Least Concern (LC)
Fardoulis's Blossom Bat	<i>Melonycteris fardoulisi</i>	Mammalia	Near Threatened (NT)
	<i>Osmoxylon corneri</i>	Apiales	Data Deficient (DD)
Angled Tiger	<i>Parantica garamantis</i>	Papilionoidea	Vulnerable (VU)
Guadalcanal Monkey-faced Bat	<i>Pteralopex atrata</i>	Mammalia	Endangered (EN)
Montane Monkey-faced Bat	<i>Pteralopex pulchra</i>	Mammalia	Critically Endangered (CR)
Admiralty Flying Fox	<i>Pteropus admiralitatum</i>	Mammalia	Least Concern (LC)
Dwarf Flying Fox	<i>Pteropus woodfordi</i>	Mammalia	Least Concern (LC)
Schneider's Surprise	<i>Tiradelphe schneideri</i>	Papilionoidea	Endangered (EN)

Emperor Rat	<i>Uromys imperator</i>	Mammalia	Critically Endangered (CR)
Guadalcanal Rat	<i>Uromys porculus</i>	Mammalia	Critically Endangered (CR)
King Rat	<i>Uromys rex</i>	Mammalia	Endangered (EN)

a) SAT species

Red Blind Snake	<i>Acutotyphlops infralabialis</i>	Reptilia	Data Deficient (DD)
Guenther's Triangle Frog	<i>Cornufer guentheri</i>	Amphibia	Least Concern (LC)
Malukuna Webbed Frog	<i>Cornufer malukuna</i>	Amphibia	Least Concern (LC)
Fauro Sticky-toed Frog	<i>Cornufer vertebralis</i>	Amphibia	Least Concern (LC)
	<i>Cyrtodactylus biordinis</i>	Reptilia	Least Concern (LC)
Solomons Blue-tailed Skink	<i>Emoia pseudocyanura</i>	Reptilia	Least Concern (LC)
Fierce Leaf-nosed Bat	<i>Hipposideros dinops</i>	Mammalia	Vulnerable (VU)
Yellow-eyed Gecko	<i>Lepidodactylus flaviocularis</i>	Reptilia	Critically Endangered (CR)
Guadalcanal Scaly-toed Gecko	<i>Lepidodactylus shebae</i>	Reptilia	Data Deficient (DD)
Faro Island Treefrog	<i>Litoria lutea</i>	Amphibia	Least Concern (LC)
Solomons Black-banded Krait	<i>Loveridgelaps elapoides</i>	Reptilia	Vulnerable (VU)
Solomon Islands Giant Treefrog	<i>Platymantis guppyi</i>	Amphibia	Least Concern (LC)
Solomons Flying Fox	<i>Pteropus rayneri</i>	Mammalia	Near Threatened (NT)
Arboreal Blind Snake	<i>Ramphotyphlops angusticep</i>	Reptilia	Data Deficient (DD)
Beck's Blind Snake	<i>Ramphotyphlops becki</i>	Reptilia	Data Deficient (DD)
Solomons Red Krait	<i>Salomonelaps par</i>	Reptilia	Least Concern (LC)
	<i>Sphenomorphus bignelli</i>	Reptilia	Least Concern (LC)
Elegant Forest Skink	<i>Sphenomorphus concinnatus</i>	Reptilia	Least Concern (LC)
Crane's Skink	<i>Sphenomorphus cranei</i>	Reptilia	Least Concern (LC)
Schmidt's Crocodile Skink	<i>Tribolonotus schmidtii</i>	Reptilia	Least Concern (LC)

b) Legacy only species.

Solomons Leaf-nosed Bat	<i>Anthops ornatus</i>	Mammalia	Vulnerable (VU)
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Appendix 1.2 Key Biodiversity Areas in Malaita.



Malaita Highlands Trigger Species

Species (common name)	Scientific binomial name	Taxonomic group	Red List category
a) Legacy and SAT species			
Duchess Lorikeet	<i>Charmosyna margarethae</i>	Aves (birds)	Near Threatened (NT)
Meek's Lorikeet	<i>Charmosyna meeki</i>	Aves (birds)	Near Threatened (NT)
Chestnut-bellied Imperial-pigeon	<i>Ducula brenchleyi</i>	Aves (birds)	Near Threatened (NT)
Pale Mountain-pigeon	<i>Gymnophaps solomonensis</i>	Aves (birds)	Least Concern (LC)
Fardoulis's Blossom Bat	<i>Melonycteris fardoulisi</i>	Mammalia	Near Threatened (NT)
Malaita Myzomela	<i>Myzomela malaitae</i>	Aves (birds)	Near Threatened (NT)

b) SAT species			
Brown-winged Starling	<i>Aplonis grandis</i>	Aves (birds)	Least Concern (LC)
Solomons Corella	<i>Cacatua ducorpsii</i>	Aves (birds)	Least Concern (LC)
Guadalcanal Dwarf-kingfisher	<i>Ceyx nigromaxilla</i>	Aves (birds)	Least Concern (LC)
Cardinal Lory	<i>Chalcopsitta cardinalis</i>	Aves (birds)	Least Concern (LC)
Midget Flowerpecker	<i>Dicaeum aeneum</i>	Aves (birds)	Least Concern (LC)
Solomon Cicadabird	<i>Edolisoma holopolium</i>	Aves (birds)	Near Threatened (NT)
Yellow-bibbed Lory	<i>Lorius chlorocercus</i>	Aves (birds)	Least Concern (LC)
Solomons Black-banded Krait	<i>Loveridgelaps elapoides</i>	Reptilia	Vulnerable (VU)
Green Pygmy-parrot	<i>Micropsitta finschii</i>	Aves (birds)	Least Concern (LC)
Chestnut-bellied Monarch	<i>Monarcha castaneiventris</i>	Aves (birds)	Least Concern (LC)
Steel-blue Flycatcher	<i>Myiagra ferrocyanea</i>	Aves (birds)	Least Concern (LC)
Malaita Tube-nosed Bat	<i>Nyctimene malaitensis</i>	Mammalia	Least Concern (LC)
	<i>Osmoxylon reburrum</i>	Apiales	Data Deficient (DD)
Oriole Whistler	<i>Edolisoma holopolium</i>	Aves (birds)	Least Concern (LC)
Dwarf Flying Fox	<i>Pteropus woodfordi</i>	Mammalia	Least Concern (LC)
Yellow-banded Frut-dove	<i>Ptilinopus solomonensis</i>	Aves (birds)	Least Concern (LC)
Crested Cuckoo-dove	<i>Reinwardtoena crassirostris</i>	Aves (birds)	Near Threatened (NT)
White-gorgeted Fantail	<i>Rhipidura coultasi</i>	Aves (birds)	Near Threatened (NT)
Malaita White-eye	<i>Zosterops stresemanni</i>	Aves (birds)	Least Concern (LC)
Brown-winged Starling	<i>Aplonis grandis</i>	Aves (birds)	Least Concern (LC)
Solomons Corella	<i>Cacatua ducorpsii</i>	Aves (birds)	Least Concern (LC)
Guadalcanal Dwarf-kingfisher	<i>Ceyx nigromaxilla</i>	Aves (birds)	Least Concern (LC)
Cardinal Lory	<i>Chalcopsitta cardinalis</i>	Aves (birds)	Least Concern (LC)
Midget Flowerpecker	<i>Dicaeum aeneum</i>	Aves (birds)	Least Concern (LC)
Solomon Cicadabird	<i>Edolisoma holopolium</i>	Aves (birds)	Near Threatened (NT)
Yellow-bibbed Lory	<i>Lorius chlorocercus</i>	Aves (birds)	Least Concern (LC)
Solomons Black-banded Krait	<i>Loveridgelaps elapoides</i>	Reptilia	Vulnerable (VU)
Green Pygmy-parrot	<i>Micropsitta finschii</i>	Aves (birds)	Least Concern (LC)
Chestnut-bellied Monarch	<i>Monarcha castaneiventris</i>	Aves (birds)	Least Concern (LC)
Steel-blue Flycatcher	<i>Myiagra ferrocyanea</i>	Aves (birds)	Least Concern (LC)
Malaita Tube-nosed Bat	<i>Nyctimene malaitensis</i>	Mammalia	Least Concern (LC)
	<i>Osmoxylon reburrum</i>	Apiales	Data Deficient (DD)
Oriole Whistler	<i>Edolisoma holopolium</i>	Aves (birds)	Least Concern (LC)
Dwarf Flying Fox	<i>Pteropus woodfordi</i>	Mammalia	Least Concern (LC)
Yellow-banded Frut-dove	<i>Ptilinopus solomonensis</i>	Aves (birds)	Least Concern (LC)
Crested Cuckoo-dove	<i>Reinwardtoena crassirostris</i>	Aves (birds)	Near Threatened (NT)
White-gorgeted Fantail	<i>Rhipidura coultasi</i>	Aves (birds)	Near Threatened (NT)
Malaita White-eye	<i>Zosterops stresemanni</i>	Aves (birds)	Least Concern (LC)

c) Legacy-only Species			
Pied Goshawk	<i>Accipiter albogularis</i>	Aves (birds)	Least Concern (LC)
Metallic Pigeon	<i>Columba vitiensis</i>	Aves (birds)	Least Concern (LC)
Solomons Bare-backed Fruit Bat	<i>Dobsonia inermis</i>	Mammalia	Least Concern (LC)
Sanford's Sea-eagle	<i>Haliaeetus sanfordi</i>	Aves (birds)	Vulnerable (VU)

Are'Are Maramasike Trigger Species

Species (common name)	Scientific binomial name	Taxonomic group	Red List category
a) Legacy and SAT species.			
Fardoulis's Blossom Bat	<i>Melonycteris fardoulisi</i>	Mammalia	Near Threatened (NT)
Malaita Tube-nosed Bat	<i>Nyctimene malaitensis</i>	Mammalia	Least Concern (LC)

b) SAT Species			
Pied Goshawk	<i>Accipiter albogularis</i>	Aves (birds)	Least Concern (LC)
Brown-winged Starling	<i>Aplonis grandis</i>	Aves (birds)	Least Concern (LC)
Solomons Corolla	<i>Cacatua ducorpsii</i>	Aves (birds)	Least Concern (LC)
Guadalcanal Dwarf-kingfisher	<i>Ceyx nigromaxilla</i>	Aves (birds)	Least Concern (LC)
Cardinal Lory	<i>Chalcopsitta cardinalis</i>	Aves (birds)	Least Concern (LC)
Duchess Lorikeet	<i>Charmosyna margarethae</i>	Aves (birds)	Near Threatened (NT)
Midget Flowerpecker	<i>Dicaeum aeneum</i>	Aves (birds)	Least Concern (LC)
Chestnut-bellied Imperial-pigeon	<i>Ducula brenchleyi</i>	Aves (birds)	Near Threatened (NT)
Solomon Cicadabird	<i>Edolisoma holopolium</i>	Aves (birds)	Near Threatened (NT)
Sanford's Sea-eagle	<i>Haliaeetus sanfordi</i>	Aves (birds)	Vulnerable (VU)
Yellow-bibbed Lory	<i>Lorius chlorocercus</i>	Aves (birds)	Least Concern (LC)
Solomons Black-banded krait	<i>Loveridgelaps elapoides</i>	Reptilia	Vulnerable (VU)
Chestnut-bellied Monarch	<i>Monarcha castaneiventris</i>	Aves (birds)	Least Concern (LC)
Steel-blue Flycatcher	<i>Myiagra ferrocyanea</i>	Aves (birds)	Least Concern (LC)
Malaita Myzomela	<i>Myzomela malaitae</i>	Aves (birds)	Near Threatened (NT)
Malaita Boobook	<i>Ninox malaitae</i>	Aves (birds)	Vulnerable (VU)
Bristle-thighed Curlew	<i>Numenius tahitiensis</i>	Aves (birds)	Near Threatened (NT)
Oriole Whistler	<i>Pachycephala orioloides</i>	Aves (birds)	Least Concern (LC)
Dwarf Flying Fox	<i>Pteropus woodfordi</i>	Mammalia	Least Concern (LC)
Arboreal Blind Snake	<i>Ramphotyphlops angusticeps</i>	Reptilia	Near Threatened (NT)
Crested Cuckoo-dove	<i>Reinwardtoena crassirostris</i>	Aves (birds)	Least Concern (LC)

White-gorgeted Fantail	<i>Rhipidura coultasi</i>	Aves (birds)	Near Threatened (NT)
Malaita Monarch	<i>Symposiachrus malaitae</i>	Aves (birds)	Near Threatened (NT)
Malaita White-eye	<i>Zosterops stresemanni</i>	Aves (birds)	Least Concern (LC)

c) Legacy-only species.			
Leatherback	<i>Dermochelys coriacea</i>	Reptilia	Vulnerable (VU)
Solomons Bare-backed Fruit Bat	<i>Dobsonia inermis</i>	Mammalia	Least Concern (LC)
Dugong	<i>Dugong dugon</i>	Mammalia	Vulnerable (VU)
Admiralty Flying Fox	<i>Pteropus admiralitatum</i>	Mammalia	Least Concern (LC)

Appendix 1.3. Key Biodiversity Areas in Renbel



Bellona Trigger Species.

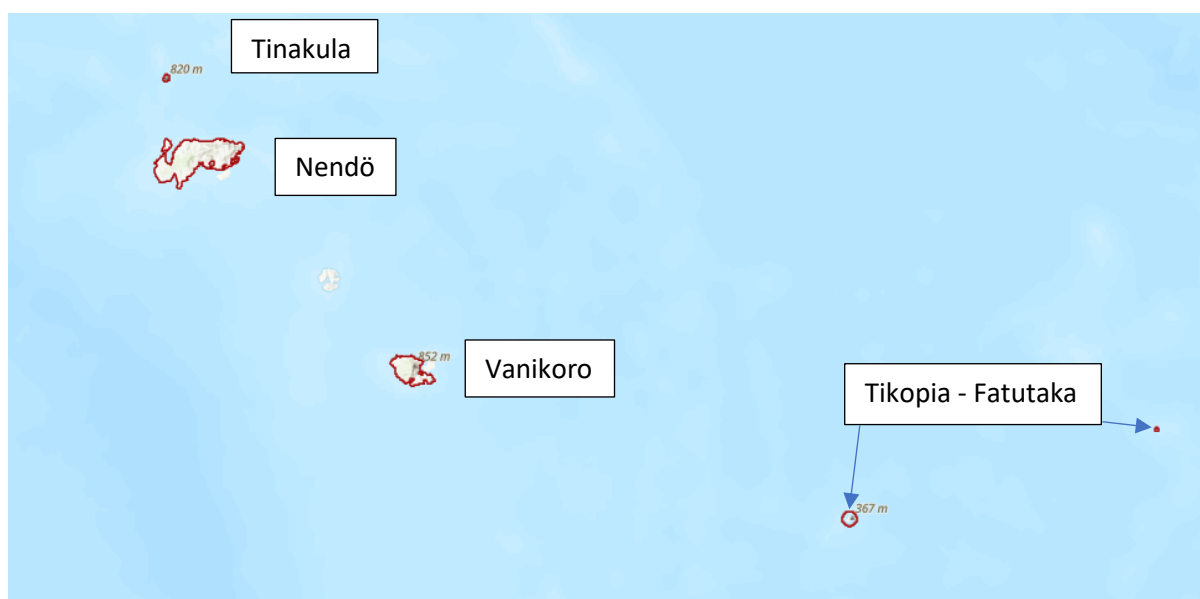
Species (common name)	Scientific binomial name	Taxonomic group	Red List category
Legacy and SAT species.			
Bellona Skink	<i>Emoia isolata</i>	Reptilia	Least Concern (LC)
Yellow-bibbed Lory	<i>Lorius chlorocercus</i>	Aves (birds)	Least Concern (LC)
Silver-capped Fruit-dove	<i>Ptilinopus richardsii</i>	Aves (birds)	Least Concern (LC)

East Rennell Trigger Species.

Species (common name)	Scientific binomial name	Taxonomic group	Red List category
a) Legacy and SAT Species.			
Rennell Starling	<i>Aplonis insularis</i>	Aves (birds)	Least Concern (LC)
Rennell Shrikebill	<i>Clytorhynchus hamlini</i>	Aves (birds)	Near Threatened (NT)
Rennell Parrot	<i>Geoffroyus hyacinthinus</i>	Aves (birds)	Least Concern (LC)
Rennell Gerygone	<i>Gerygone citrina</i>	Aves (birds)	Least Concern (LC)
Rennell Island Sea Krait	<i>Laticauda crockeri</i>	Reptilia	Vulnerable (VU)
Yellow-bibbed Lory	<i>Lorius chlorocercus</i>	Aves (birds)	Least Concern (LC)
Rennell Flying Fox	<i>Pteropus rennelli</i>	Mammalia	Endangered (EN)
Rennell Fantail	<i>Rhipidura rennelliana</i>	Aves (birds)	Least Concern (LC)
Rennell White-eye	<i>Zosterops rennellianus</i>	Aves (birds)	Least Concern (LC)
Bare-eyed White-eye	<i>Zosterops superciliosus</i>	Aves (birds)	Least Concern (LC)
Green Pygmy-parrot	<i>Micropsitta finschi</i>	Aves (birds)	Least Concern (LC)
Cardinal Myzomela	<i>Myzomela cardinalis</i>	Aves (birds)	Least Concern (LC)
Melanesian Flycatcher	<i>Myiagra caledonica</i>	Aves (birds)	Least Concern (LC)
Solomons Bare-backed Fruit Bat	<i>Dobsonia inermis</i>	Mammalia	Least Concern (LC)

b) SAT species			
Rennell Blue-tailed Skink	<i>Emoia rennellensis</i>	Reptilia	Least Concern (LC)
Bristle-thighed Curlew	<i>Numenius tahitiensis</i>	Aves (birds)	Near Threatened (NT)
Rennell Whistler	<i>Pachycephala feminina</i>	Aves (birds)	Near Threatened (NT)
Rennell Island Monitor	<i>Varanus juxtindicus</i>	Reptilia	Least Concern (LC)
c) Legacy-only species.			
Silver-capped Fruit-dove	<i>Ptilinopus richardsii</i>	Aves (birds)	Least Concern (LC)

Appendix 1.4 Key Biodiversity Areas in Temotu



Tinakula trigger species.

Species (common name)	Scientific binomial name	Taxonomic group	Red List category
Legacy-only species			
Santa Cruz Ground-dove	<i>Alopecoenas sanctaecrucis</i>	Aves (birds)	Endangered (EN)
Palm Lorikeet	<i>Chamosyna palmarum</i>	Aves (birds)	Vulnerable (VU)

Nendo trigger species.

Species (common name)	Scientific binomial name	Taxonomic group	Red List category
a) Legacy and SAT species.			
Palm Lorikeet	<i>Chamosyna palmarum</i>	Aves (birds)	Vulnerable (VU)
Nendo Shrikebill	<i>Clytorhynchus sanctaecrucis</i>	Aves (birds)	Endangered (EN)
Nendö Tube-nosed Bat	<i>Nyctimene sanctacrucis</i>	Mammalia	Data Deficient (DD)
Temotu Flying Fox	<i>Pteropus nitendiensis</i>	Mammalia	Endangered (EN)
Sanford's White-eye	<i>Zosterops lacertosus</i>	Aves (birds)	Near Threatened (NT)
Santa Cruz White-eye	<i>Zosterops sanctaecrucis</i>	Aves (birds)	Least Concern (LC)
b) SAT species.			
Polynesian Starling	<i>Aplonis tabuensis</i>	Aves (birds)	Least Concern (LC)
Rusty-winged Starling	<i>Aplonis zelandica</i>	Aves (birds)	Near Threatened (NT)

Pacific Imperial-pigeon	<i>Ducula pacifica</i>	Aves (birds)	Least Concern (LC)
Polynesian Triller	<i>Lalage maculosa</i>	Aves (birds)	Least Concern (LC)
Cardinal Myzomela	<i>Myzomela cardinalis</i>	Aves (birds)	Least Concern (LC)
Bristle-thighed Curlew	<i>Numenius tahitiensis</i>	Aves (birds)	Near Threatened (NT)
	<i>Cinnamomum novae-britanniae*</i>	Lurales	Near Threatened (NT)
	<i>Melicope solomonensis*</i>	Sapindales	Near Threatened (NT)

Vanikoro trigger species.

Species (common name)	Scientific binomial name	Taxonomic group	Red List category
a) Legacy and SAT species.			
Rusty-winged Starling	<i>Aplonis zelandica</i>	Aves (birds)	Near Threatened (NT)
Vanikoro Monarch	<i>Mayrornis schistaceus</i>	Aves (birds)	Vulnerable (VU)
Vanikoro White-eye	<i>Zosterops gibbsi</i>	Aves (birds)	Least Concern (LC)
b) SAT species.			
White-fronted Fantail	<i>Rhipidura melanolaema</i>	Aves (birds)	Least Concern (LC)
	<i>Endiandra recurve*</i>	Lurales	Data Deficient (DD)
	<i>Endiandra whitmorei*</i>	Lurales	Endangered (EN)
	<i>Melicope solomonensis*</i>	Sapindales	Near Threatened (NT)
c) Legacy-only Species.			
Dugong	<i>Dugong dugon</i>	Mammalia	Vulnerable (VU)
Vanikoro Flying Fox	<i>Pteropus tuberculatus</i>	Mammalia	Endangered (EN)
Pied Goshawk	<i>Accipiter albogularis</i>	Aves (birds)	Least Concern (LC)
Palm Lorikeet	<i>Charmosyna palmarum</i>	Aves (birds)	Vulnerable (VU)
Polynesian Triller	<i>Lalage maculosa</i>	Aves (birds)	Least Concern (LC)
Cardinal Myzomela	<i>Myzomela cardinalis</i>	Aves (birds)	Least Concern (LC)
Red-bellied Fruit-dove	<i>Ptilinopus greyi</i>	Aves (birds)	Least Concern (LC)

Tikopia-Fatutaka trigger species.

Species (common name)	Scientific binomial name	Taxonomic group	Red List category
	<i>Scutellastra tucopiana</i>	Gastropoda	Not assessed

*indicates species identified through assessment of endemic and globally-threatened plants in Solomon Islands, and not through the SAT analysis.

Annex 2.1. Notes on Guadalcanal KBA Sites

KBA Site No.	26705	45054
KBA	Guadalcanal Watersheds	Mount Gallego
PROVINCE	Guadalcanal	
Why is the site nominated as a KBA? -text that will be on fact sheets	Confirmed as an Alliance for Zero Extinction site for 4 species of mammal (2018). An additional 7 species of birds are likely to be trigger species under Restricted Range while the legacy species associated with the site includes a further 4 bird species, 2 species of butterfly, 6 more species of mammal, 2 species of plant and a reptile.	The site was identified as a KBA in the CEPF Ecosystem Profile for East Melanesian Islands (2012). 13 species of bird, 7 species of reptile, 5 species of mammal and 2 species of plant were identified as trigger species for this legacy KBA.
Site description - text will be on fact sheets	The site includes forest catchments and lowland valleys through to montane forest. Both Mount Popomanaseu and Mount Makarakomburu are included within the site - the highest mountains in the Solomon Islands.	Mount Gallego is a volcano in the Western part of Guadalcanal, which rises to an elevation of 1037m asl.
How is the site managed?	Pockets of logging activities; Tina Hydro; Target sites for GEF6 and GEF5 - no PAs established yet. turtle and CBRM, Private investments - plantations, farms supply into Honiara, Oil Palm, Gold Ridge - off spills/tailings management,	No information
Ongoing conservation Actions at site summarise survey data since 2010	Sky Islands demo site in Lauvi Lake; Marau - marine work ongoing. Surveys listed on eBird between 2012 and 2017 from 4 separate areas within the KBA located 4 of the 7 Restricted Range species, 3 of the 4 legacy species and a further 26 of 31 bird species that are potential trigger species for the KBA. None of the 4 mammal AZE species have been recorded on the site since 2010. 11 of 14 potential trigger reptile species have been recorded since 2010, as have 3 out of 8 other mammal species, 3 out	No data. Just 2 eBird locations, on perimeter of site, which recorded 1 of the 2 legacy bird species, and 5 of the 11 other species identified as potential trigger species. There are no records for any of the other taxa on the KBA

	of 5 amphibians but neither of the plants or neither of the butterflies.	
Conservation actions needed at site	The Mt. Popomanaseu region of Guadalcanal Province has been tentatively listed as a Tropical Rainforest Heritage of Solomon Islands World Heritage Site of Outstanding Universal Value. Further survey work in different parts of the KBA are required for a robust reassessment. Need to access a copy of the findings from the 2015 CEPF/USP survey.	Priority for Reassessment. Is this the sole site for <i>Osmoxylon chrysanthum</i> ?
Threats on site	Threats to KBA is Logging. Survey work in 1990 found signs of black rat, feral cat and pigs in the cloud forest above 900 m. Mineral prospecting is ongoing in the area.	Logging developments, Mamaro Developments?

Appendix 2.2. Notes on Malaita KBAs.

KBA Site No.	45048	27491
KBA	Are-Are Maramasike	Malaita Highlands
PROVINCE	Malaita	
Why is the site nominated as a KBA? -text that will be on fact sheets	This site was identified as a global KBA in the 2012 CEPF East Melanesia Ecosystem Profile. The legacy designation was based on the occurrence of 5 mammals and 3 reptiles. An additional 21 bird species, 2 reptiles and a mammal have been proposed as triggers for the site.	The site was identified as a global KBA in the 2012 CEPF Ecosystem Profile for East Melanesian Islands. The designation was based on the occurrence of 9 species of birds, 5 mammals and a plant. Subsequent assessments have proposed an additional 19 species of bird, and a reptile.
Site description - text will be on fact sheets	The Maramasike passage is a narrow passage that separates the two island of Malaita. The passage is 28 miles long. The northern mouth is several miles wide with scattered barrier islands and mangrove patches. It is much deeper, and narrower, at the southern end which is surrounded by cliffs. It supports one of the largest mangrove ecosystems in the Solomon Islands. The site stretches along the west coastline for c20 miles to	The site encompasses the highest peak of Malaita and the surrounding montane and lowland forest. There are few villages situated inside the proposed area. The boundary extends to include lowland forest adjacent to the Wairaha River, providing a complete transition from low altitude to extreme highland.

	Wairaha Bay, Hauporo in the north and rises to c700m asl.	
How is the site managed?	Local communities have invested in the Integrated Forest Management Project, a GEF-funded project implemented by FAO in Solomon Islands.	No information.
Ongoing conservation Actions at site	There is no eBird data for this site. There is data for one taxon for this site, a specimen of <i>Loveridgelaps elapoides</i> was collected in 2015. This was not a legacy species – but has been proposed as a trigger for the site.	Expedition by team from Australian museum in October 2018 (https://australian.museum/blog/amri-news/solomon-islands-ornithology/). Expedition recorded 5 out of the 9 legacy bird species for the site, as well as 11 of 16 other potential bird trigger species. There is no data on other taxa for the site.
Conservation actions needed at site	GEF5 - proposed areas; Maemasina GreenBelt. Pacific Ecosystem Based Adaptation to Climate Change (PEBACC) under SPREP_target sites; Mangrove and marine work promotion; WorldFish. Few PAs identified for submission to ECD (Tookina, Kira, Pootori, etc)	Considerable effort, particularly in the Kwaio and Kwaraae region. https://www.publish.csiro.au/pc/pc140354 , MMGB sites also, Taboos and conservation areas; https://australian.museum/blog/amri-news/-baru-conservation-alliance-kwaio-led-conservation/
Threats on site	Logging concessions; the coastlines are often used as log ponds for export, Excessive use of mangroves for firewood and timber, increased urbanisation.	logging

Appendix 2.3 Notes on Renbel KBAs.

KBA Site No.	45049	30036
KBA	Bellona	East Rennell
PROVINCE	Rennell & Bellona	
Why is the site nominated as a KBA? -text that will be on fact sheets	This site was identified as a global KBA in the 2012 CEPF East Melanesia Ecosystem Profile. The legacy designation was based on the occurrence of 1 reptile, the Bellona Skink, which is a single island endemic with 100% of its range within the KBA. 2 species of bird, Yellow-bibbed Lory and Silver-	East Rennell is a World Heritage Site. It was identified as a global KBA in the 2012 CEPF East Melanesian Island Ecosystem Profile. 12 species of bird (many endemic to the island) are listed as trigger species as well as 2 species of bat (one of which is endemic) and 1 species of sea-snake endemic to the crater lake within the site.

	capped Fruit-dove, are both also listed as trigger species for the legacy KBA.	
Site description - text will be on fact sheets	Bellona Island is a densely populated island. Its interior is lush and fertile. Its area is about 17km ² and is almost entirely surrounded by 30-70m high cliffs, consisting primarily of raised coral limestone. There are ten villages on Bellona.	The site is on the southern portion of the island of Rennell and includes a brackish lagoon enclosed within one of the largest coral atolls in the world. The site contains a number of small limestone islands. The karst terrain is mostly clad in dense forest but with productive gardens associated with the four villages within the site.
How is the site managed?	Subsistence farming.	The site is a World Heritage Site, The Lake Tegano World Heritage Site Association coordinate management activities. Activities are hampered by lack of funds, and by poor communications and transport – both within the island and between Rennell and the outside world.
Ongoing conservation Actions at site	None, that we are aware of.	World Heritage Site. Bird Survey in 2018 (BLI CEPF report) also BIORAP in same year (Lavery et al 2021).
Conservation actions needed at site	A priority for updated information on the biodiversity on this island - the Bellona Skink is a single island endemic, for instance.	Control of invasive species (black rat, tramp ants), livelihood opportunities, creating a benefit for the establishment of the site as a World Heritage site. Funding is available to help to deliver this in the short term – but there needs to be a more robust long-term solution.
Threats on site	Logging, Agricultural expansion, Introduced species, etc.	World Heritage in danger - threatened by logging, mining and also introduced rats, ants, etc. Rennell is currently experiencing major habitat destruction in parts of the island that are not under World Heritage protection, and we anticipate collateral damage will likely extend into protected areas

No information made available for the Temotu sites. Significant reviews of Temotu has been made by Pierce et al (2014, 2019) and Lavery et al (2021).

Appendix 2.4 – Notes on Temotu Sites.

KBA Site No.	45069	29786
KBA	Tinakula	Nendö
PROVINCE	Temotu	
Why is the site nominated as a KBA? -text that will be on fact sheets	This site was identified as a global KBA in the 2012 CEPF East Melanesia Ecosystem Profile. Two legacy trigger species identified for the site – Palm Lorikeet and Santa Cruz Ground-dove – have been recorded in good numbers on the site in recent years.	This site was identified as a global KBA in the 2012 CEPF East Melanesia Ecosystem Profile, and recognised as an Alliance for Zero Extinction site in 2018, due to the presence of the Temotu Flying Fox. Legacy species for the site include 4 bird species and 1 other bat.
Site description - text will be on fact sheets	Tinakula is an active stratovolcano that has remained uninhabited since erupting with lava flows and ash explosions in 1971. A more recent ash explosion occurred in October 2017. The volcano reaches a peak of 851m asl. The island, 8.3km ² by area, is covered by rainforest, except where the volcanic activities have spilled over.	Nendo geology comprises Pliocene volcanic materials of basaltic origin. There is an area of Pleistocene reef limestone in the southwest lowlands of Nendo. The highest point on the island is at 549m asl. The island land area is 544km ² of, originally, rainforest.
How is the site managed?	Community farm pigs on the island for sale in the markets at Nendo and Honiara.	Subsistence cultivation and villages are concentrated around the coastline, although commercial logging operations have converted large areas to secondary forest in various stages of succession.
Ongoing conservation Actions at site	None beyond detailed surveys of the trigger, and other interesting, species.	None, other than surveys of the bat fauna, and some records of birds across the island
Conservation actions needed at site	Strengthen biosecurity measures. Monitor impact of Little Fire Ant. Control pigs on the island. Monitor/control the spread of Mikania.	Strengthen biosecurity measures. Monitor impact of Little Fire Ant. Monitor/control introduced mammalian predators on the island. Monitor/control the spread of Mikania.
Threats on site	Little Fire Ants are common on site. Pigs, farmed on island, occur all the way through to the highest vegetated areas at c600m asl. Mikania is also common along gullies, edges of clearings and the back of ocean beaches. Capture of Ground-	Logging activities, together with mining, are impacting on large areas of the island, particularly the raised limestone reef in the southwestern part of the island. Introduced species are having an unknown impact on the island endemic fauna.

	doves for the wild bird trade represented a significant threat to the species. Continued volcanic activity makes the site precarious.	
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KBA Site No.	45068	29787
KBA	Tikopia-Fatutaka	Vanikoro
PROVINCE	Temotu	
Why is the site nominated as a KBA? -text that will be on fact sheets	This site was identified as a global KBA in the 2012 CEPF East Melanesia Ecosystem Profile. There are no trigger species associated with the site, although the mollusc <i>Scutellastra tucopiana</i> may be endemic to the group.	This site was identified as a global KBA in the 2012 CEPF East Melanesia Ecosystem Profile and recognised as an Alliance for Zero Extinction site in 2018, due to the presence of Vanikoro Flying Fox. 8 species of bird and 1 other mammal are listed as trigger species for the legacy site. This includes the island endemics Vanikoro Monarch and Vanikoro White-eye as well as the Flying Fox.
Site description - text will be on fact sheets	Tikopia and Fatutaka are among the more isolated islands of eastern Melanesia. They are small volcanic islands covering 5km ² and 18ha respectively. The highest point of Tikopia is 380m asl. There is a lake in the former crater. Fatutaka rises to 122m asl. Around 1,200 people live on the island, primarily around the coast. Fatutaka	Vanikoro is a volcanic island in the Santa Cruz archipelago of the Tomotu province. The whole island covers 190 km ² of, largely, rain forest. It rises to 923m asl. Logging, in the 1960s, removed Pacific Kauri but there has been little in recent years. Human population of c1300 individuals are based, primarily, on the coastal fringe where they practice subsistence cultivation.
How is the site managed?	An intensive system of agriculture is practiced on Tikopia, similar to forest gardening. The soil on Fatutaka is rocky and not especially fertile, although it has, in the past, been used as gardening location by the people of nearby Anuta.	Subsistence cultivation.
Ongoing conservation Actions at site	None – no information on wildlife in recent years. Fatutaka traditionally had a seabird colony that was harvested regularly by people from Anuta.	None – few surveys in recent years, although 3 of the 4 bird trigger species were listed as present at least in 2015.

Conservation actions needed at site	n/a	
Threats on site	Overpopulation, introduced species.	Logging roads present throughout the island. Introduced mammalian predators and other invasive species. Agricultural expansion.

Appendix 3.

AGENDA to meeting between SPREP, BirdLife and SINU to discuss project outcomes. November 2022.

- Introductions – SPREP and BirdLife teams
 - SPREP
 - Amanda
 - Paul
 - Kasaqa
 - BirdLife
 - Mark
 - Mavi
 - SINU
 - John Fasi

- Context within the EREPA project -brief as all were in the Inception meeting.
 - The project covers 4 regions within Solomon Islands.
 - Guadalcanal Province
 - Malaita Province
 - Renbel
 - Temotu Province
 - This meeting is an opportunity to discuss the Solomon Islands Data Gaps Analysis component including
 - the proposed approach and workplan,
 - to share data sources SPREP is aware of and
 - discuss those BirdLife already have or seek to find.

- Brief outline to Data gaps component – SPREP
 - SPREP keen to get an update on current knowledge – and identify the datasets/layers available to get a better understanding of this, going forward
 - Paul keen to add layers covering the distribution of logging licences and/or mining licences in order to avoid undue effort in areas where little chance of establishing a protected area.

- Workplan and approach – BirdLife
 - BirdLife/SINU have undertaken assessments of the current state of knowledge for each of the KBAs within the 4 regions. (see Annex 1).
 - There are 11 KBAs, 3 in Guadalcanal, 2 in Malaita, 2 in Renbel and 4 in Temotu province.
 - BirdLife approach is to identify the sites of highest importance – gazette that, and then work on how to incorporate protected areas within that.
 - The KBAs are, generally large c/w island size (they're all island in the Temotus, 80% of Guadalcanal and 30% of Malaita and Rennell.
 - The proposed protected area on Malaita falls in between the two KBAs on the island. Its unclear whether this is because the KBA boundaries, as identified by CEPF 10 years ago, are inaccurate or theres a genuine reason for the boundary location.
 - BirdLife have extracted data on the occurrence of each of 120 potential trigger species for each of the 11 KBAs in the study area (see Annex 2).
 - Data has been extracted from eBird (either directly using the newly established IBA layer within eBird), or indirectly by extracting data on the relevant trigger species for all observations within the KBA boundary.

- For non-avian taxa data has been extracted from PBIF (the Pacific subset of data on GBIF). For this, country = Solomon Islands, Year = >2010 and the trigger species of interest was input. All mappable observations of the trigger species was then compared with the known current KBA boundaries and relevant information captured. If there was no mappable data for the KBA after 2010 then any mappable record from the site was searched, with the most recent recorded in the report. If there were no mappable observations for the species, then the species text was reviewed for any indication of location of collection.
 - For both these surveys the name of the observer was recorded. Where the observer contributed multiple records we were interested to see whether the observer was likely to be part of a major expedition/study in the area – and whether there was more information in the form of a report. This is what SINU are currently working on.
- General Discussion - what sorts of data would be useful for the bigger project, what data everyone thinks is available or could be found, as well as what data does not exist and may be useful for future
 - The eBird/GBIF assessment indicated that there is a paucity of published data for much of the Solomon Islands. BirdLife propose a desk-based GIS review – where the species distribution maps, from IUCN Red List, are overlaid with a Digital Terrain model and a landuse/habitat model to predict best guess species occurrence.
 - Global versions of these layers are available – but more localised versions are likely to be more accurate, more realistic and more acceptable.
 - This will be undertaken for the c120 species that have been identified as trigger species for KBAs – either under A1, the Globally-threatened species, or B1/2 the restricted range species. A map summarising this for all 120 species may provide a justification for where best to prioritise protected area distribution – from the current biodiversity perspective.
 - A map that attempts to replicate this, the STAR analysis, can be found on the IBAT website (see Annex 3).

Appendix 4. The Threat Abatement scores for each of the four provinces in Solomon Islands.

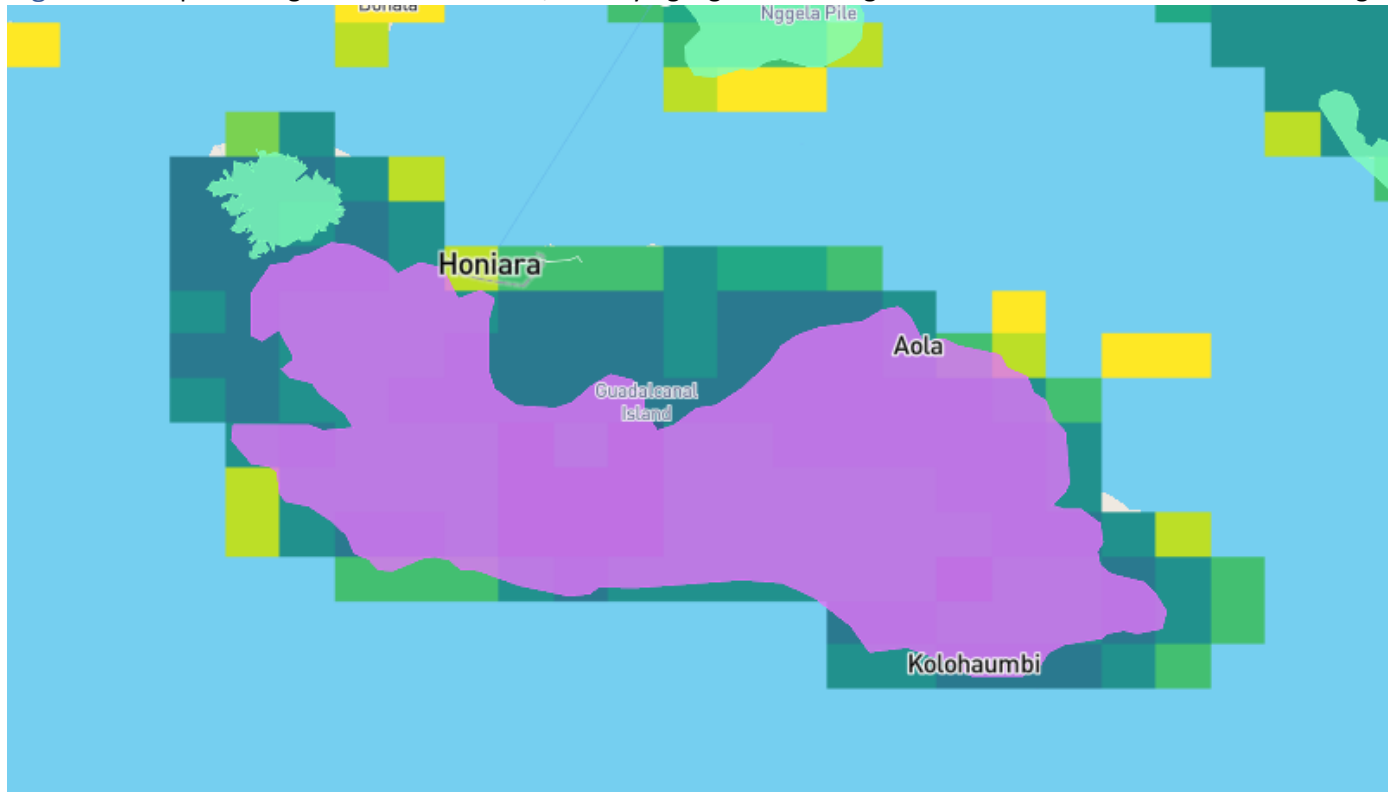
STAR analysis – a summary of the application of the method.

STAR analysis is a method developed to interpret information provided for the IUCN Red List for species. It is ‘... the “Species Threat Abatement and Restoration” (STAR) metric, which evaluates the potential benefit for threatened species of actions to reduce threats and restore habitat. Like the Red List Index^{7,8}, STAR is derived from existing data in the IUCN Red List and is intended to help address an urgent need. STAR is spatially explicit, enabling identification of specific threat abatement and habitat restoration opportunities in particular places, which if implemented, could reduce species extinction risk to levels that would exist without ongoing human impact. Abatement of threats to species encompasses reduction in threat intensity and/or action to mitigate the impacts of threats.’ (Mair et al 2020). The Integrated Biodiversity Assessment Tool (IBAT) provides a readily accessible summary of these findings – using a 5km by 5km square as the unit of measure. This analysis is currently restricted to 3 taxon, terrestrial amphibians, birds and mammals. “For each species, a global STAR threat-abatement (STAR_T) score is defined. This varies from zero for Least Concern species to 100 for Near Threatened, 200 for Vulnerable, 300 for Endangered and 400 for Critically Endangered (using established weighting ratios^{7,8}). For each species the ‘area of Habitat’ occupied within the species range is mapped, and then ‘rasterised’ (at 5km by 5km scale). The number of occupied squares is calculated and the score for each species is split between the occupied squares. For example, if a Critically Endangered species occurs in 10 squares, then its overall score is 300 – divided by 10 means that each of the occupied squares scores 30 for this species. This score can be calculated for each square and for each species. The sum of scores for each square across all species gives the Threat Abatement score for that square. High threat abatement scores indicate that the squares are occupied by more and/or high threat status species.

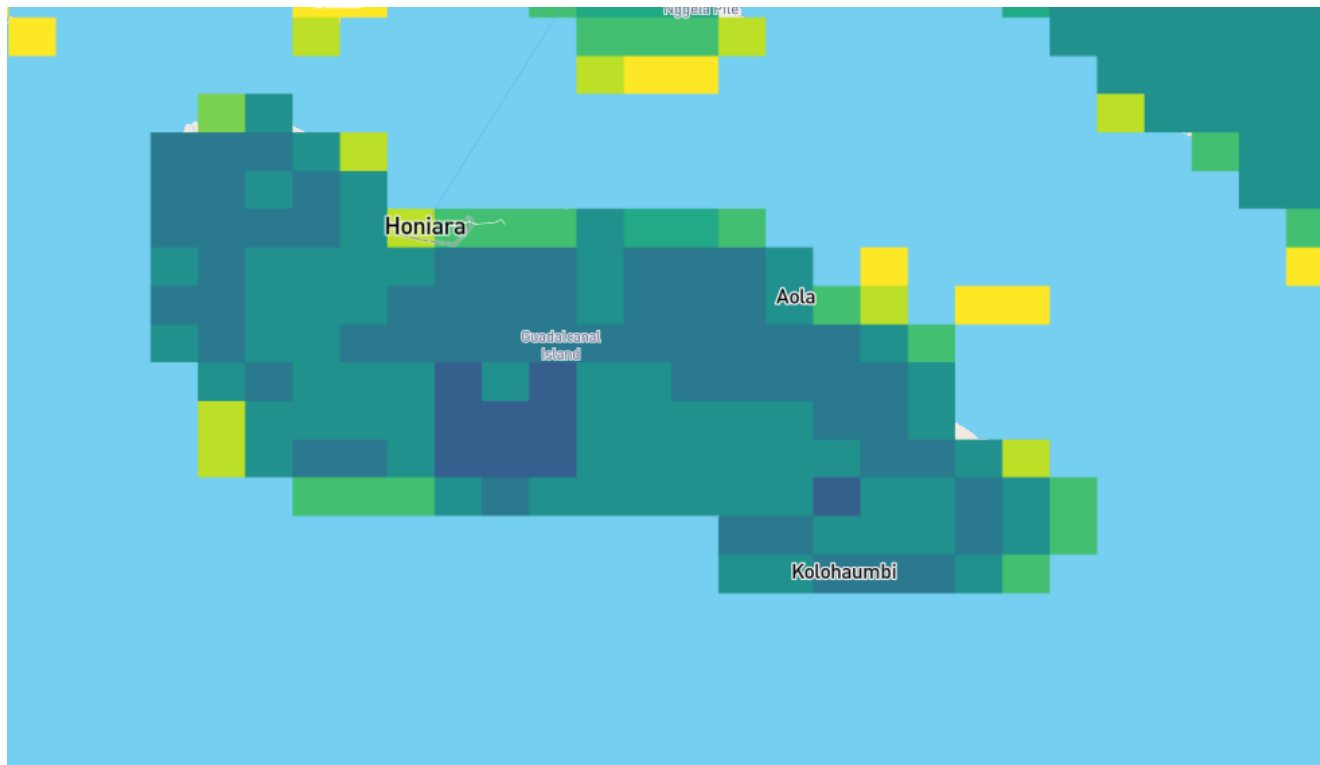
STAR analysis is currently restricted to just a few taxa, doesn’t currently include any invertebrate or plant data – and poorly represents marine taxa. “STAR alone does not identify conservation priorities, but could be harnessed alongside other data, for example on costs and benefits of conservation actions, to support conservation planning and prioritisation¹²” (Mair *et al* 2020, Moilanen, Wilson & Possingham, 2009).

The data below maps STAR – the Threat Abatement score for each of the 5km by 5km squares for each of the 4 provinces and can be used to support current conservation planning either by identifying (and so prioritising effort) sites with the greatest concentration of globally threatened and near-threatened species (eg Guadalcanal), or by indicating that proposed sites contain concentrations of globally threatened near-threatened species as currently recognised KBAs (eg Malaita). This latter situation would suggest that an additional KBA between the two sites in upper Malaita may be justified.

Figure 1. Map showing the KBA boundaries, overlaying a grid indicating the Threat Abatement scores on a 5km grid for Guadalcanal.

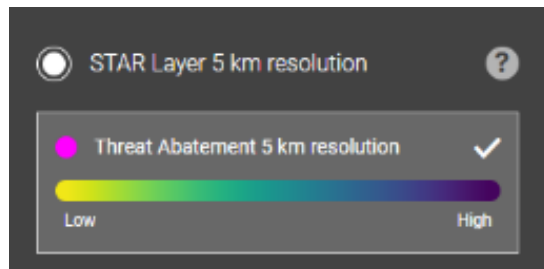
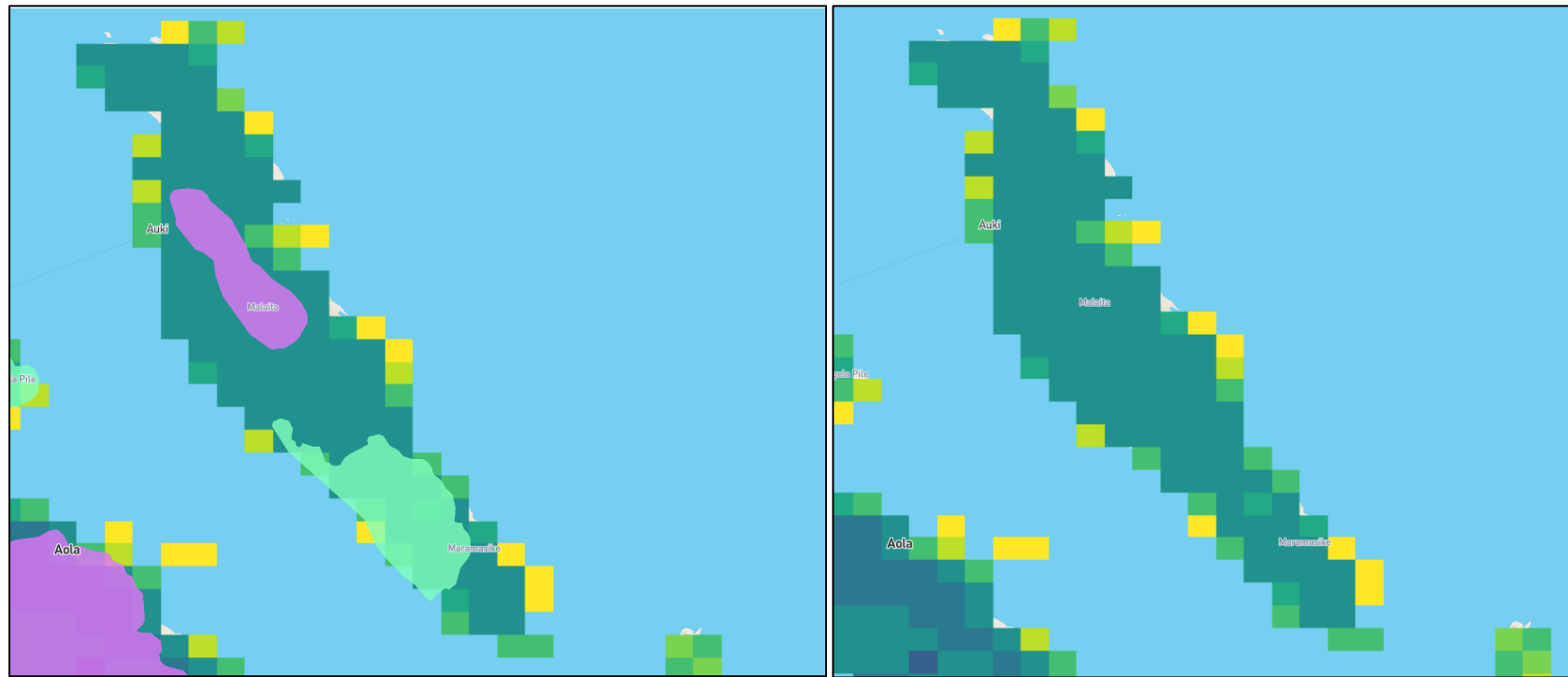


The pale green KBA is Mount Gallego, while the pink KBA is the Guadalcanal Watersheds.



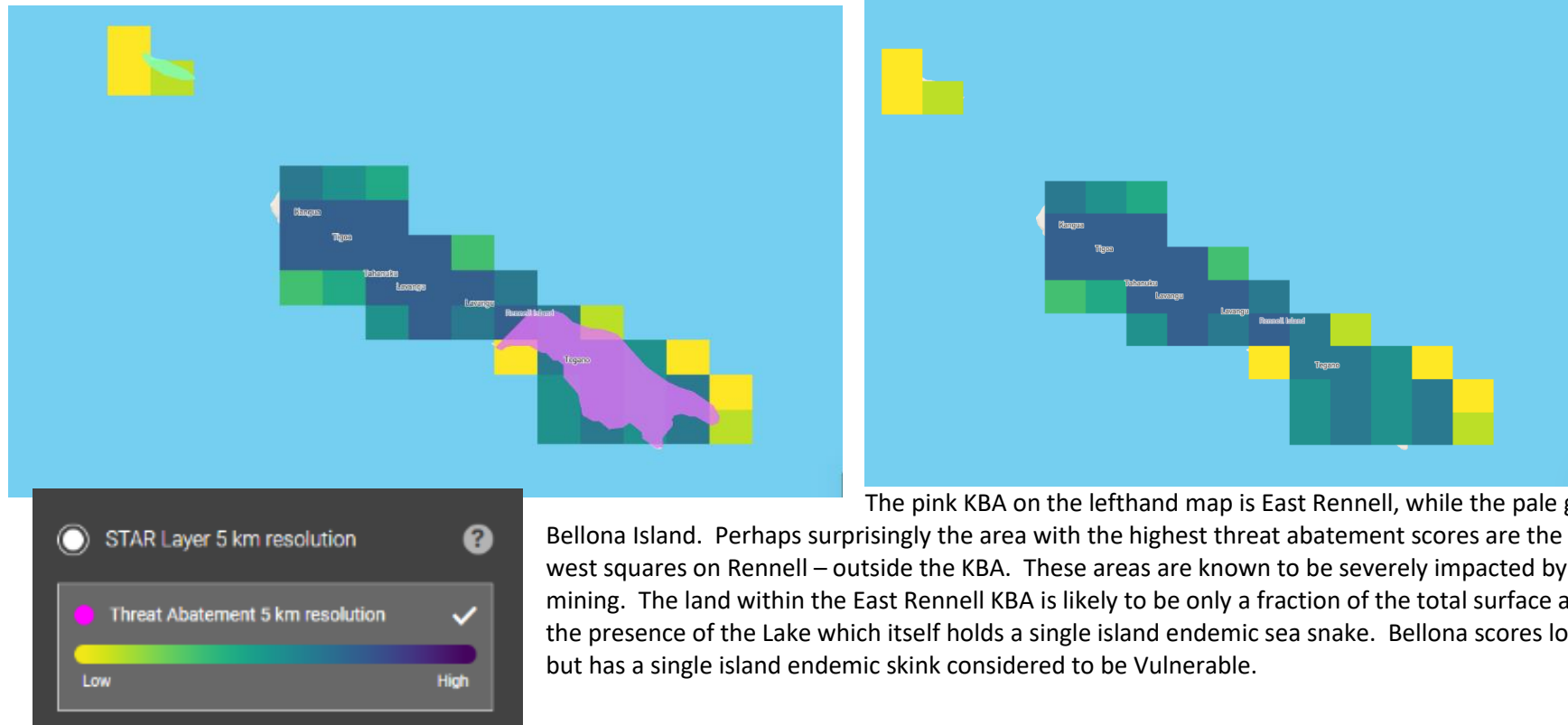
This map shows the 5km by 5km grid for the Threat Abatement scores, as presented on the Integrated Biodiversity Assessment Tool. The scale indicates that the darkest blue/green squares are those with the highest Threat Abatement scores (ie squares where the highest loss of biodiversity is likely to occur if the habitat at the site is changed). This would suggest that the Central southern part of the Guadalcanal Watersheds, together with a single square central/east might be the sites with the most interest. If the highest threat abatement scores was the sole decider on where to locate a protected area then these sites, within the KBA, would be the highest priority..

Figure 2. Map showing the KBA boundaries, overlaying a grid indicating the Threat Abatement scores on a 5km grid for Malaita.



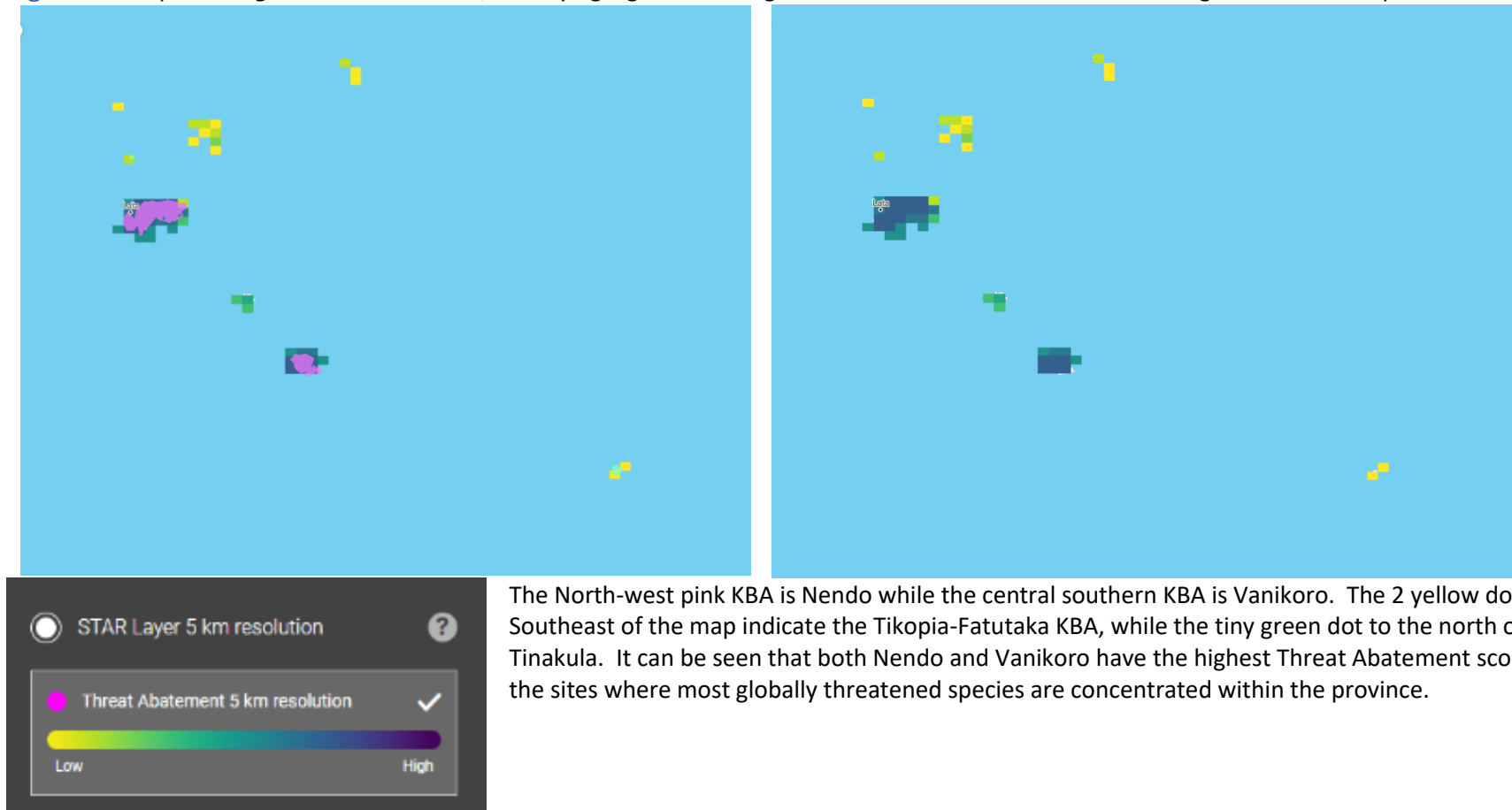
The pink KBA in the left hand map is the Malaita Highlands while the pale green KBA is Are'Are Maramasike. The key feature of the Threat Abatement grid is that there is no evidence that the gap between the two KBAs is any less important from a biodiversity perspective. It is very likely that the area would also qualify as a KBA – if information on species occurrence was captured.

Figure 3. Map showing the KBA boundaries, overlaying a grid indicating the Threat Abatement scores on a 5km grid for RENBEL province.



The pink KBA on the lefthand map is East Rennell, while the pale green KBA is Bellona Island. Perhaps surprisingly the area with the highest threat abatement scores are the north and west squares on Rennell – outside the KBA. These areas are known to be severely impacted by forestry and mining. The land within the East Rennell KBA is likely to be only a fraction of the total surface area, due to the presence of the Lake which itself holds a single island endemic sea snake. Bellona scores low overall, but has a single island endemic skink considered to be Vulnerable.

Figure 4. Map showing the KBA boundaries, overlaying a grid indicating the Threat Abatement scores on a 5km grid for TEMOTU province.



The North-west pink KBA is Nendo while the central southern KBA is Vanikoro. The 2 yellow dots in the Southeast of the map indicate the Tikopia-Fatutaka KBA, while the tiny green dot to the north of Nendo is Tinakula. It can be seen that both Nendo and Vanikoro have the highest Threat Abatement scores (ie are the sites where most globally threatened species are concentrated within the province).