

SHaRED Submission Summary

07 March 2022

Overview	
SHaRED Submission Description	
Submission Name	CINP Christmas Island Flying-fox Monitoring
Dataset Citation Name	Christmas Island National Park, Christmas Island Flying-fox (<i>Pteropus melanotis natalis</i>) Monitoring
Dataset Summary	Data is provided from three survey types: nocturnal drive-by monitoring; ground counts; and exit counts. The nocturnal drive-by monitoring dataset provides information on species presence/absence at 124 sites across Christmas Island. The ground count dataset provides information on numbers of bats observed roosting in trees at known camp sites; while the exit count dataset records counts of bats exiting from the respective camp sites.
Dataset Version	1.0
Submitting Username	CINP
SHaRED Submission ID	164248
Submission Publication Date	2014-09-22 01:45:51.064
Submission DOI	http://doi.org/10.4227/05/541F7F51AB964
Number of Study Locations	124
Repeat Visits	Y
Dataset Author	
Author Given Name(s)	
Author Surname or Organisation	Director of National Parks (Parks Australia)
Affiliation	
Project Metadata	
Project Name	Christmas Island National Park, Christmas Island Flying-fox (<i>Pteropus melanotis natalis</i>) Monitoring
Project Abstract	The Australian territory of Christmas Island lies in the Indian Ocean, 2,600 km northwest of Perth and 500 km south of the Indonesian capital, Jakarta. Christmas Island National Park is 85 km ² in size and makes up almost two thirds of Christmas Island. The Christmas Island Flying-fox (<i>Pteropus melanotis natalis</i>) is the only known endemic mammal species on the Island and is listed as Critically Endangered under the EPBC Act. Flying-foxes are likely to be important pollinators of Christmas Island flora and play a key role in the functioning of the forest ecosystem. A monitoring program has been running since 2004 to observe population trends and to assess: spatial variation across the island; temporal variation at roost sites; and the relative abundance of the population over time.
Scope	
Dataset Temporal Metadata	
First Visit Date	02/11/2004
Last Visit Date	15/07/2014

Dataset Spatial / Location Metadata	
Spatial Scale	Local
Study Area Description	Nocturnal drive-by monitoring occurs across the extent of Christmas Island, typically along roads and tracks. Ground and exit monitoring occurs at known roost sites, including Hosnies Spring, McMicken Point, Ethel Beach and the Golf Course.
Study Area Geometry	{ "questionId" : "5.3.1", "srs":"EPSG:4283", "features" : [{"id":"PLY_1","geometry":"POLYGON((105.7264404 - 10.5735518,105.7264404 -10.4094865,105.5286865 - 10.4094865,105.5286865 -10.5735518,105.7264404 - 10.5735518))","description":"Christmas Island National Park"}] }
iso19139 DCMI Box	northlimit=-10.40949; southlimit=-10.57355; eastlimit=105.72644; westlimit=105.52869; projection=GDA94
IBRA Region	Indian Tropical Islands
Subject Metadata	
ANZSRC FOR Codes	602
ANZSRC SEO Codes	Flora, Fauna And Biodiversity (9608)
Ecological Theme	Long-Term Species Monitoring
	Population Dynamics
	Species Decline
Threats and Pressures	None
Conservation Management Themes	National Reserve System
	Threatened Species
Environmental Features	Climate
	Rainfall
	Landscape Type
	Islands
Species Metadata	
Fauna Species Taxon Name	Pteropus melanotus natalis
Fauna Species Common Name	Christmas Island Flying Fox
Fauna Group	Mammals
	Placentals
	Native Bats
Curation Status	
Curation Activities	Data Validation
Latest Update	31/07/2014
Project Status	
Project Status	Active
Methods	

Sampling and Methods	
Sampling Design	Repeated Measures
	Systematic Sampling
Fauna Sampling Technique	Distance Sampling
	Visual Surveys
	Aural Surveys
Measurements	Raw Observations
	Raw Observations - Count Data
Measured Attributes	Population Size
	Presence/Absence
	Incidence
Method Name	Nocturnal drive-by monitoring survey design
Method Abstract	A large set (124) of sites are spaced evenly across the entire extent of Christmas Island, mostly located alongside roads or tracks. Sites are generally spaced between 0.5 and 1km apart with their overall distribution being reasonably representative of the environmental variation across the Island. All sites are sampled at night on four separate occasions over a short sampling period (the mid-dry season of June-July). At each site an observer records whether bats were present or absent (either seen or heard) and the sampling provides an incidence index varying from 0 to 4 (i.e. recorded on each of the four visits) for each site. Nocturnal drive-by surveys were first conducted in 2006, and from 2012 onwards have been conducted once a year.
Method Drift Description	
Method Name	Nocturnal drive-by monitoring
Method Abstract	Sites, mostly located alongside roads or tracks, are visited and observations are made from near the parked vehicle. Survey observations are 10 minutes in duration with the start time of each survey being noted. If a flying-fox is seen or heard, the time from the start of the survey is recorded along with the distance from the observer and the number of flying-foxes present in a group. Any subsequent flying-fox activity within the 10 minute period is recorded in the same way. Additional information regarding the presence and abundance of other species of interest <i>Ninox natalis</i> (Christmas Island Hawk Owl), <i>Cryptodactylus sadleiri</i> (giant gecko), <i>Scolopendra morsitans</i> (giant centipede), <i>Lycodon aulicus capucinus</i> (wolf snake), and <i>Hemidactylus frenatus</i> (barking gecko) is also recorded for other studies/monitoring programs.
Method Drift Description	
Method Name	Ground & Exit monitoring survey design
Method Abstract	An existing set of known roost sites are visited to conduct visual ground counts of individual bats in trees during the day, after which locations above these sites are visited to count bats exiting from the respective roost sites. These counts are unlikely to provide robust overall population estimates but serve to provide minimum population measures. Although total abundance cannot be extrapolated from these counts, patterns in the data can suggest population trends. Ground and exit monitoring was first conducted in 2004, and surveys are undertaken quarterly.
Method Drift Description	The number of sites has varied over the years as some camps are no longer used. Currently there are four active camps: Hosnies Spring, McMicken Point, Ethel Beach and the Golf Course.
Method Name	Ground and exit monitoring

Method Abstract	At the known roost sites, 24 observers undertake ground counts. Using a GPS and map all known (and numbered) roost trees are located, and the number of individual flying foxes in each tree are recorded. If flying foxes are found roosting in new trees, these trees are physically marked using a numbered cattle tag and flagging tape and the coordinates of the location are recorded. For exit monitoring, at least 2 observers visit existing vantage/viewpoints overlooking the ground count roost sites and count individual flying foxes as they leave the roost. Observers alternate every 15 minutes to count, from 3:00pm to 6:15pm, recording an overall exit total. General weather data is also recorded.
Method Drift Description	
Associated Materials	
Associated Material Description	J. C. Z. Woinarski, S. Flakus, D. J. James, B. Tiernan, G. J. Dale, and T. Detto (2014). An Island-Wide Monitoring Program Demonstrates Decline in Reporting Rate for the Christmas Island Flying-Fox <i>Pteropus melanotus natalis</i> . <i>Acta Chiropterologica</i> , 16 (1), 117-127.
Associated Material Type	Published Paper
Suggested Associated Material Type	
Associated Material Identifier	http://dx.doi.org/10.3161/150811014X683336
Associated Material Identifier Type	DOI
Other Related Artefacts	
Other Artefacts	Image
	Still
Conditions Of Use	
Licensing and Acknowledgement	
License Type	CC-BY 3.0 Australia
Citation	Director of National Parks (Parks Australia) (2014). Christmas Island National Park, Christmas Island Flying-fox (<i>Pteropus melanotis natalis</i>) Monitoring, Version 1.0. http://doi.org/10.4227/05/541F7F51AB964 . ÆKOS Data Portal, rights owned by Director of National Parks (Parks Australia). Accessed 07 Mar 2022.
Rights Statement	(C)2014 Director of National Parks (Parks Australia). Rights owned by Director of National Parks (Parks Australia). Rights licensed subject to CC-BY 3.0 Australia.
Access Statement	These data can be freely downloaded via the Advanced Ecological Knowledge and Observation System (ÆKOS) Data Portal and used subject to the CC-BY 3.0 Australia. Attribution and citation is required as described under License and Citation. We ask you to send citations of publications arising from work that use these data to TERN Eco-informatics at data cited@ae kos.org.au and citation and copies of publications to samantha.flakus@environment.gov.au
Custodian Organisation	
Legal Dataset Custodian Organisation	Director of National Parks (Parks Australia)
Legal Dataset Custodian Organisation Type	Federal Agency
Dataset Contact	
Dataset Contact Role	NRM Manager
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Dataset Contact Organisation	Director of National Parks (Parks Australia)
Submission Files	
Submission Files	
File Name	CINP_FFox_Drive_Survey_Database_2006-2014.xlsx
File Size	482.0 kB
File Description	The dataset contains information on species presence/absence at 124 sites across Christmas Island. A "read me" tab is included in the spreadsheet providing definitions of the variables measured.
SHaRED File Type	DATA
File Format	excel
File Format Version	
SHaRED File ID	164361
File Name	CINP_FFox_Exit_Count_Database_2005-2014.xls
File Size	122.9 kB
File Description	The dataset records counts of bats exiting from known camp sites. A "read me" tab is included in the spreadsheet providing definitions of the variables measured.
SHaRED File Type	DATA
File Format	excel
File Format Version	
SHaRED File ID	164362
File Name	CINP_FFox_Ground_Count_Database_2004-2014.xlsx
File Size	5.4 MB
File Description	The dataset contains information on numbers of bats observed roosting in trees at known camp sites. A "read me" tab is included in the spreadsheet providing definitions of the variables measured.
SHaRED File Type	DATA
File Format	excel
File Format Version	
SHaRED File ID	164363

SHaRED (Submission Harmonisation and Retrieval of Ecological Data) is an online data submission service for ecologists to upload their research datasets and enable them to be published via ÆKOS data portal. ÆKOS is an online ecological data service providing free and open access to rich, ecological data collected using plot-based research methods.



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