

Manuscript

The following manuscript describes my honours research project and has been written in the format of an article for Emu – Austral Ornithology.

The distribution of forest dwelling *Tyto* owls in south-east Queensland: environmental drivers and conservation status

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Abstract

Knowledge of the distribution and habitat requirements of nocturnal birds is crucial for the development of effective conservation strategies for these species. This study represents the first comprehensive effort to create species distribution models (SDMs) for three forest-dwelling owl species: the sooty owl (*Tyto tenebricosa tenebricosa*), the masked owl (*Tyto novaehollandiae novaehollandiae*) and the eastern barn owl (*Tyto javanica*) throughout the south-east Queensland bioregion. Occurrence records gained through call playback surveys were combined with historical occurrence records from online biodiversity atlases to build a distribution database. SDMs predicted the largest area of suitable habitat for the eastern barn owl (21,500 km²), followed by the masked owl (7,000 km²) and the sooty owl (5,300 km²).

Results showed that masked and sooty owls selected strongly for wet forest types, whereas eastern barn owls occurred mainly in non-remnant habitat. Sooty and masked owl models showed the highest proportion of overlap in predicted suitable habitat, although the masked owl recorded much fewer sightings amongst both the historic data and call playback data suggesting it has a lower abundance in SEQ than the other two species. While the current reserve system protects a considerable amount of masked and sooty owl habitat, the majority of predicted suitable habitat occurs on private land and, so, we suggest conservation efforts should be focussed there. To better understand the conservation status of forest owls, we recommend further research into the spatial distribution of owls in SEQ including the expansion of our call playback survey program to include more sites spread over the full extent of the bioregion, addition of other species of forest owl and repeated survey to track temporal trends in distribution and occupancy. In the meantime, we propose that engagement of landowners in citizen science projects to detect owls, combined with the establishment of legislative protection for nest and roost sites are the most effective methods for conserving these species.

1. Introduction

Predators occur in naturally low densities as a result of energy flow and availability through trophic levels and this density can be further reduced in disturbed landscapes due to direct persecution and changes in prey communities arising from human land-use patterns (Wang et al., 2015). This creates difficulties for conservation where it can be hard to ascertain whether a predator population is low but operating at natural levels, or low as a result of some disturbance with a high risk of decline or extinction. For cryptic predators, such as owls, obtaining accurate population metrics can be challenging due to low detection probabilities (Cooke et al., 2017, Todd et al., 2018). In such cases, presence-only datasets provide a viable and accessible alternative and are increasingly being used in conjunction with GIS analyses to describe and map habitat quality and putative distribution of these species (Carroll, 2010, Isaac et al., 2013, Bradsworth et al., 2017).

Spatial ecology and the factors affecting habitat selection have been well studied in some owl species (e.g. the spotted owl, *Strix occidentalis*) (Franklin et al., 2000, Dugger et al., 2005,

Wiens et al., 2014) but are not well known for most species. Owl habitat requirements are, in many cases, more complex than that of other taxa partly due to the separation of foraging, roosting and nesting habitat resulting in some owls regularly travelling large distances between specific habitats (Soderquist and Gibbons, 2007, Kang et al., 2013). Franklin et al. (2000) found that annual survivorship was greatest in interior mature and old-growth forest but reproductive rate was enhanced at areas offering a mosaic of older forest and more open vegetation types with convoluted edges. Thus, for northern spotted owls (*S. occidentalis caurina*), highest fitness was observed in pairs which occupied a territory encompassing both types of habitat (Franklin et al., 2000). Within Australia, broadly important habitat characteristics for forest owls have been identified to include: prey base (Kavanagh, 2002a, Bilney et al., 2006, Cooke et al., 2006), large nesting hollows (Ball et al., 1999, Koch et al., 2008, Bilney et al., 2011b), and roosting sites (Webster et al., 1999, Bilney and Bilney, 2015, L'Hotellier and Bilney, 2016). Knowledge of the factors affecting spatial distribution and habitat preferences in owls is fundamental to the development of appropriate conservation strategies.

Species Distribution Models (SDMs) have grown in popularity over the past decade (Guisan et al., 2013) and have been used for a variety of ecological purposes including translocation (Thomas, 2011), managing biological invasions (Thuiller et al., 2005), reserve selection (Kremen et al., 2008) and estimating climate change induced range shifts (Shimizu-Kimura et al., 2017). SDMs have been successfully applied to owl species overseas (Jensen et al., 2012, Girini et al., 2017) and in Australia (Isaac et al., 2013, Bradsworth et al., 2017) to explain distribution and infer ecological processes. Within Australia, studies of owl ecology have mostly focussed on populations within continuous forest, often where forestry occurs (Kavanagh and Bamkin, 1995), or urban areas (Carter et al., 2019) and at a small geographical scale. Few studies have considered owl habitat at a large scale and across the mosaic of human land uses such that is seen across the south-east Queensland (SEQ) region.

Since European colonization, SEQ has experienced significant losses of native vegetation through conversion to pasture and crops and coastal areas have undergone rapid urbanisation resulting in a mosaic of habitats across multiple spatial scales (Brown, 2001). The SEQ bioregion is Queensland's most densely populated bioregion, containing over 70% of the state's human population (Department of Environment and Heritage Protection, 2016). It also

contains a diverse combination of landforms, soils and climate resulting in a diversity of habitats and wildlife species (McFarland, 1998). This environmental diversity coupled with consistently wet and equable climate over geological times has resulted in the region being a centre for endemism and species richness for a number of vertebrate and invertebrate groups including: Euastacus crayfish (Furse et al., 2013), land snails (Healy, 2011), frogs (Glasby et al., 1993), chelid turtles (Legler and Georges, 1993), elapid snakes (Healy, 2011), scincid lizards (Cogger, 1981) birds and marsupials (Pianka and Schall, 1981).

SEQ supports seven species of owl: the powerful owl (*Ninox strenua*), the barking owl (*Ninox connivens*), the Australian boobook (*Ninox boobook*), the eastern grass owl (*Tyto longimembris*) and our three focal species, the sooty owl (*Tyto tenebricosa tenebricosa*), the masked owl (*Tyto novaehollandiae novaehollandiae*) and the eastern barn owl (*Tyto javanica*). The sooty owl is widely regarded as a dense forest specialist, inhabiting the wet forests and rainforests of Australia's east coast where it preys upon a variety of arboreal, terrestrial and scansorial small mammal species (Bilney et al., 2007). The species exhibits potentially the greatest degree of reverse sexual dimorphism of any owl species worldwide with it not being uncommon for a female to weigh twice as much as a male (Bilney et al., 2011a). The masked owl, too, inhabits dense forest (Bilney and L'Hotellier, 2013) but is also often recorded in ecotone between forest or woodland and disturbed areas or clearings including farmland (Kavanagh and Murray, 1996) where it forages primarily on small terrestrial mammals (McNabb et al., 2003). This species is rarely seen but has been recorded in all states of Australia (Higgins, 1999). The eastern barn owl (hereafter referred to as the barn owl) is widely distributed across south-east Asia, Australia and many Pacific island (Higgins, 1999). This species is known to inhabit open country, such as farmland, where it preys upon terrestrial small mammals and can be irruptive in response to superabundant prey populations (Pavey et al., 2008).

To date, there has been no comprehensive effort to collate owl occurrence records or explore distribution patterns of these species in the SEQ bioregion. The current study aims to fill this knowledge gap by compiling occurrence records from online databases with call-playback field results to create SDMs of three species of *Tyto* owl across south-east Queensland. We will also build on previous research (Loyn et al., 2001, Todd et al., 2018) to unravel the

complex interactions between environmental variables which influence species presence or absence.

2. Methods

In this study, we used historical presence records and presence records from our own field surveys to build a distribution database for three owl species, sooty owl, masked owl and barn owl. We applied Maxent software (Elith et al., 2006, Phillips et al., 2006, Phillips and Dudík, 2008), a machine learning method of species distribution modelling, to these data in order to quantify habitat suitability, to identify the environmental drivers of each species distribution and to conduct a conservation assessment of these birds.

2.1 Study area

This study was conducted at two spatial scales. We collated historical records and used these (in combination with our field survey results) to model habitat suitability across the approximately 61 000km² south-east Queensland (SEQ) bioregion (Figure 1a). We also undertook targeted owl surveys in a subset of the bioregion, covering approximately 8000 km² within the Gympie Block, Great Sandy, Sunshine Coast – Gold Coast Lowlands and Burringbar - Conondale Ranges subregions of the SEQ bioregion (Figure 1c). Our field survey area encompassed low-lying coastal areas as well as mountain range and hinterland sites up to 75km inland of the coastline. The field survey area contains significant urban areas, especially in the coastal area between Noosa Heads and Caloundra but most of the area is made up of agricultural zones (dairy farming, cattle grazing or crop growing), or are classified as parklands or environmental reserves (Department of Environment and Heritage Protection, 2016).

2.2 Call playback survey method

Call playback surveys were undertaken between May and September 2019. We established 60 survey sites (Figure 1c) balanced according to landscape type and position with the

intention of avoiding introducing bias into the records used for modelling owl distributions. Landscape types considered were remnant, agricultural and urban. Landscape position differentiated between coastal (<100m altitude) and hinterland sites (>100m altitude). Sites were initially selected using satellite imagery where open grass or crops were considered agricultural, large patches of continuous native forest were considered remnant and areas with a relatively high density of buildings, and lacking the above traits were considered urban. Across all three landscape types, each site was placed adjacent to at least a few large trees in accordance with the ecology of the forest birds being surveyed, namely their use of trees as hunting perches. All call playback surveys were undertaken from the roadside for consistency, practicality and safety purposes. No sites were located within 6 kilometres of another, in order to avoid double counting owls, in alignment with current views on the home range area of these forest owls (Loyn et al., 2001, Soderquist and Gibbons, 2007, Bilney et al., 2011b). These constraints on site selection, coupled with the scarcity of coastal remnant sites, meant that one coastal remnant site was substituted for an extra hinterland remnant site. The final site breakdown was eleven hinterland remnant, nine coastal remnant, ten hinterland agricultural, ten coastal agricultural, ten hinterland urban and ten coastal urban.

We followed the call playback survey protocols used on the same suite of species in other parts of Australia (e.g. Kavanagh et al., 1995, Loyn et al., 2001, Parker et al., 2007, Weaving et al., 2011, Todd et al., 2018). In short, our survey involved an initial 2-minute period of silent listening followed by broadcasting the territorial call of each species through a 15-Watt megaphone. Each recording was played for 2 minutes followed by a 2-minute listening period before the next species was played (Appendix 3). Masked and sooty owls had an additional 1 minute of trilling or chattering followed by an additional minute of silence as per the Victorian Department of Environment, Land, Water and Planning approved survey standards (The Department of Sustainability and Environment, 2011). At the cessation of the call playback sequence, another 2-minute listening period was observed followed by a short spotlight survey of the vicinity to identify any birds which may have flown into the area but not responded vocally. Our call playback surveys included calls of our target *Tyto* species but also included other nocturnal forest birds: the tawny frogmouth (*Podargus strigoides*), the marbled frogmouth (*Podargus ocellatus plumiferus*), the powerful owl (*N. strenua*) and

Australian boobook (*N. boobook*). Each call playback survey thus took about 40 minutes to complete at each site.

Up to seven sites were surveyed via call playback each night. Survey timing was balanced across different landscape types so as to avoid any biases in results arising from nightly weather or moon conditions. Call playback surveys were only undertaken on nights where wind speed was less than 20 km/h as per previous studies (Takats et al., 2001) and when there was no rain or only light and intermittent showers. Climatic data was sourced from the Bureau of Meteorology's data services with data being taken from the nearest weather station to each survey site. Call playback was conducted twice at each survey site over the five-month study period.

2.3 Collating species occurrence records

In addition to our survey generated presence data, we collated historical occurrence records of each of our target species from online databases including: BirdLife Australia, Atlas of Living Australia (ALA) and WildNet. These sources returned 1,328 raw occurrence records (sooty owl = 804, masked owl = 285 and barn owl = 239) for which metadata fields such as record ID, species, location, precision and date of collection were stored (Appendix 8).

Prior to modelling, records were vetted in several ways to retain only reliable and unique data for species distribution model development. Records collected prior to 2000 were excluded in order to reflect current owl habitat rather than historical owl habitat which may no longer be relevant. Records which did not include information relating to co-ordinate uncertainty were omitted as were those with an uncertainty greater than the determined species-specific threshold. This threshold was calculated as the radius of a circle encompassing an area equal to the estimated home range of that species derived from published literature (Home-range estimates (km²): barn owl = 1.26, masked owl = 1.94 and sooty owl = 2.36) (Appendix 2).

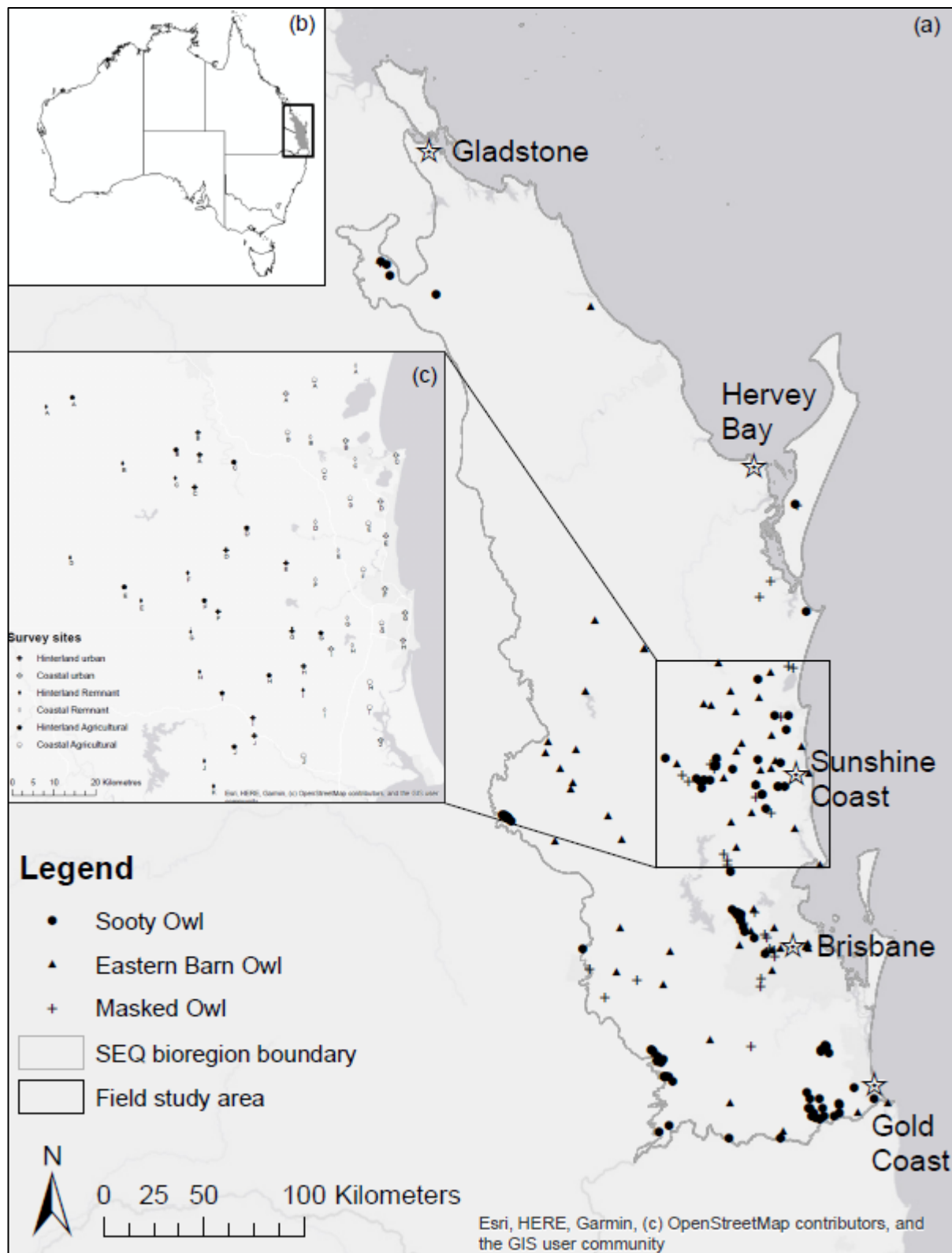


Figure 1: (a) Study area encompassing the entire South-east Queensland Bioregion. Included are the occurrence records from which our SDMs were derived. (b) Map of Australia showing relative location of south-east Queensland. (c) Field survey study area with call playback survey points marked. Letters are assigned to sites from north to south to identify specific sites. E.g. A hollow asterisk with a 'J' underneath refers to the site 'JCA' (Appendix 7).

Duplicated records were removed through the “delete identical” function in ArcMap v10.6.1 (ESRI, 2018) (hereon referred to as ArcMap) and, finally, remaining records were plotted and checked to see that the listed locality matched the co-ordinates given. As a result of this vetting process, the majority of raw occurrence records were not retained in the final data set (used for SDMs) mainly due to duplication or insufficient coordinate precision. Combined with our survey-generated records, the final dataset used in SDM development contained 97 sooty, 62 barn and 47 masked owl records for a total of 206 occurrence points.

Sample selection bias in our data set was accounted for by collecting all ALA records for nocturnal forest birds (all species within the orders Strigiformes and Caprimulgiformes) which were deemed sufficiently accurate (coordinate uncertainty included and < 1000m) across the study region. This provides an indication of sampling intensity across the landscape (Geldmann et al., 2016). Using these records, a bias layer was derived by conducting a point density analysis (Molloy et al., 2017) using ArcMap (ESRI, 2018). The resulting layer was included as a bias file in SDM development.

2.4 Measures of distribution

Using the raw occurrence records mentioned above (n = 1,328), two measures of distribution were calculated in ArcMap (ESRI, 2018) for each species. Extent of occurrence used the “minimum bounding geometry” function (geometry type: convex hull) to calculate the area of a polygon encompassing all presence points. The resulting polygon was clipped to the SEQ boundary so as to exclude areas outside the study area from calculations. Area of occupancy was determined using the “point to raster” function to place a grid representative of that species’ home range (Appendix 2) around each presence point. Presence points near each other fell within the same grid so, in each case, there were fewer grids than input occurrence records. The number of grids multiplied by the grid size (species-specific home-range estimate) gave the area of occurrence. Both of the above measures were calculated using all raw occurrence records available, and then with just the current raw occurrence records (1990-2019).

2.5 Habitat selection

For analysing associations between our target species and vegetation type, we attributed each high quality presence record to a broad vegetation group (BVG). Due to low expected values in some categories, we collapsed all records into three vegetation categories, (i) wet forests (including rainforest and wet sclerophyll forest), (ii) dry forests (eucalypt and melaleuca woodlands and open forests), and (iii) non-remnant habitat. We tested for associations between records of each species and the relative proportions of each of these broad habitat categories in the SEQ bioregion using Chi-squared Goodness of Fit tests. We used standardised residual values to identify the direction and relative strength of these associations.

2.6 Species distribution model development and evaluation

This study explored 28 environmental variables for their predictive ability in identifying suitable owl habitat based on presence records. These included nineteen bioclimatic variables (bio1-19) derived from ANUCLIM ver. 6.1 (Xu and Hutchinson, 2013), land form features, geology, vegetation community and human land-use variables. ANUCLIM uses monthly temperature and precipitation data sourced globally in order to generate biologically meaningful variables (Fick and Hijmans, 2017) surrounding annual trends (mean annual temperature, annual precipitation, etc.), seasonality (annual range in temperature and precipitation, etc.) and extreme or limiting environmental factors (max temperature of the coldest and warmest month, precipitation of the wet and dry quarters, etc.). Such climatic variables both directly (Glenn et al., 2011) and indirectly, through impacting prey base (Thiam et al., 2008), affect survivorship in owls and their inclusion in SDM development increases the utility of outputs (Carroll, 2010). Elevation, slope and aspect were derived from the GEODATA 9 second Digital Elevation Model (Hutchinson et al., 2008) in ArcMap (ESRI, 2018). Other layers produced for modelling included: detailed solid geology of Queensland dataset, Broad Vegetation Group – remnant, road density (km/km²), watercourse density (km/km²), remnant vegetation and land cover (see Appendix 1 for full list of variables and data sources). All environmental variable layers were developed and resampled to a common resolution of 250 x 250m in ArcMap (ESRI, 2018).

Species distribution model building was performed using the Maxent software package version 3.4.1 (Elith et al., 2006, Phillips et al., 2006, Phillips and Dudík, 2008). This method of machine learning correlates presence-only data to predictor variables based on the maximum entropy algorithm (Elith et al., 2011) and has been widely used for research and management purposes (Merow et al., 2013). To identify the most informative and relevant environmental predictors for each model, prior to model building, all continuous variables were tested for multicollinearity using Spearman's rank order correlation analysis using the Psych package (Revelle, 2019) in RStudio version 1.2.1335 (RStudio Team, 2018). A threshold of $R > 0.8$ was considered to indicate a significant collinearity between predictors. For variables showing significant correlation, the biological relevance of the variable and its contribution to the model based on the Maxent jack knife test results were considered and the variable judged least important omitted. After omitting highly correlated variables, each model was further refined by a process of omitting the lowest contributing variable, re-running the model and observing the effect on model performance (AUC value). All models were run with three-fold cross validation and using hinge features (Radosavljevic and Anderson, 2014). Ten thousand background points were randomly and automatically selected by the model from across the study area. Maxent was run with 500 iterations and using the logistic output format, which gives habitat suitability values between 0 and 1. Model performance was evaluated by the area under the curve (AUC) in receiver operating characteristic (ROC) analysis of the model output. An AUC score of 1.0 indicates a perfectly fitting model, with a value of < 0.5 indicative of a poorly performing model with predictive power no better than random (Phillips et al., 2006).

For each of our three owl species, distribution maps representing suitable habitat under current environmental conditions were generated. These maps were reclassified using the 10th percentile threshold to create a binary map of predicted areas of suitable and unsuitable habitat. This process calculates the mean 10th percentile training value across cross-validated models and applies it as the threshold differentiating between suitable and unsuitable habitat. Whilst the use of thresholds has its limitations (Merow et al., 2013), many real applications of SDMs require binary outputs and in these instances the 10th percentile threshold is preferred due to its conservative nature and has been widely used in SDM studies (Liu et al., 2013, Bradsworth et al., 2017, Shimizu-Kimura et al., 2017).

3. Results

3.1 Call playback surveys

One-hundred and twenty surveys were undertaken across the 60 sites (two surveys at each site) over 26 survey nights (average of 4.26 sites per night), resulting in 26 detections of our target species: 13 barn owl, 10 sooty owl and 3 masked owl (Appendix 7). 61 detections of 4 non-target nocturnal bird species (Australian boobook, *N. boobook*: n = 48, tawny frogmouth, *P. strigoides*: n = 9, marbled frogmouth, *P. ocellatus plumiferus*: n = 3, barking owl, *N. connivens*: n = 1) were also recorded but are not used in this study (Appendix 7).

Overall, masked owls were detected on 2.5% of all visits representing a naïve occupancy of 5% of survey sites. sooty owls were detected on 8.3% of surveys with a naïve site occupancy of 13.3% and barn owls were observed on 10.83% of surveys with a naïve site occupancy of 20.0%. The distribution of the three species across the three land-use types is suggestive of partitioning of the landscape between these species (Figure 2). Masked owls were only found in remnant sites, sooty owls were found across all landscapes (but we note in forest patches in all), whilst barn owls were predominantly found to occupy agricultural landscapes (83.3%) (Figure 2).

3.2 Measures of distribution

The temporal distribution of historical records spans the period 1882 to 2019, however these records are heavily skewed to the past three decades for each species (Figure 3). 74.9% of all records originate in the past 20 years, and 92.8% originate in the past 30 years.

The extent of occurrence (EOO) for the current time period is similar for each of our target species, ranging from around 52,300 km² – 56,000 km² (Table 1). These values represent only a minor departure from those same statistics generated from all records and represent a significant portion of the SEQ bioregion (total area 60,900 km²). Area of occupancy (AOO)

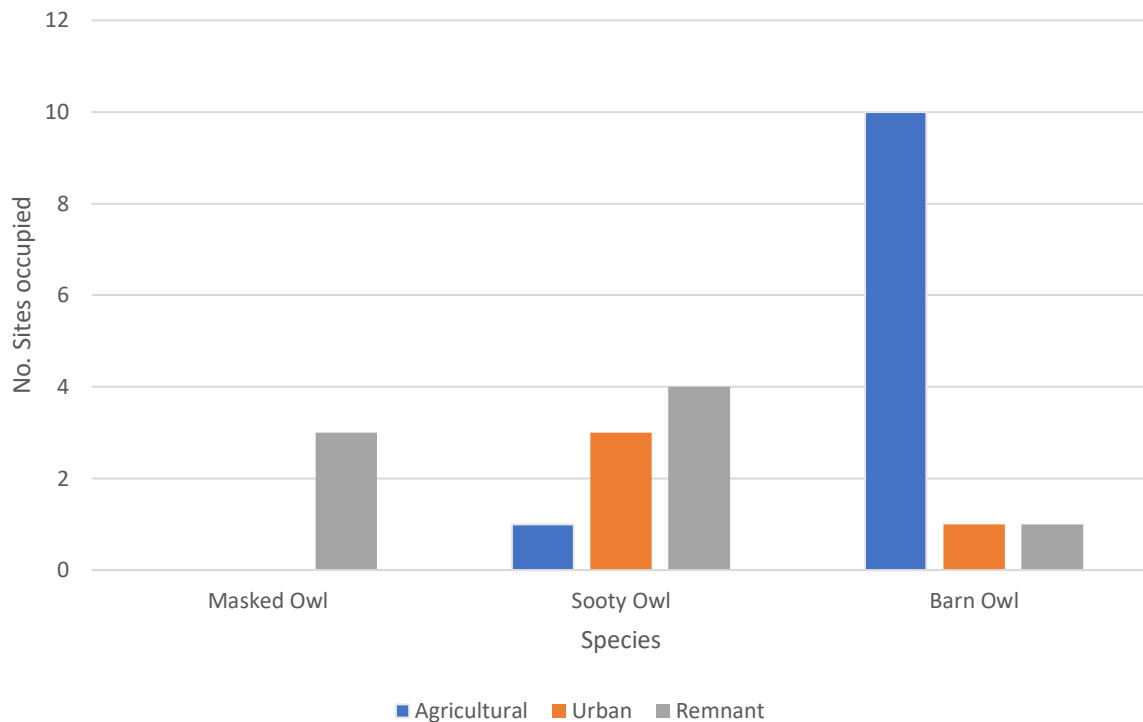


Figure 2: Call playback site occupancy results for three forest dwelling *Tyto* owl species across agricultural, urban and remnant forest landscapes in the greater Sunshine Coast area.

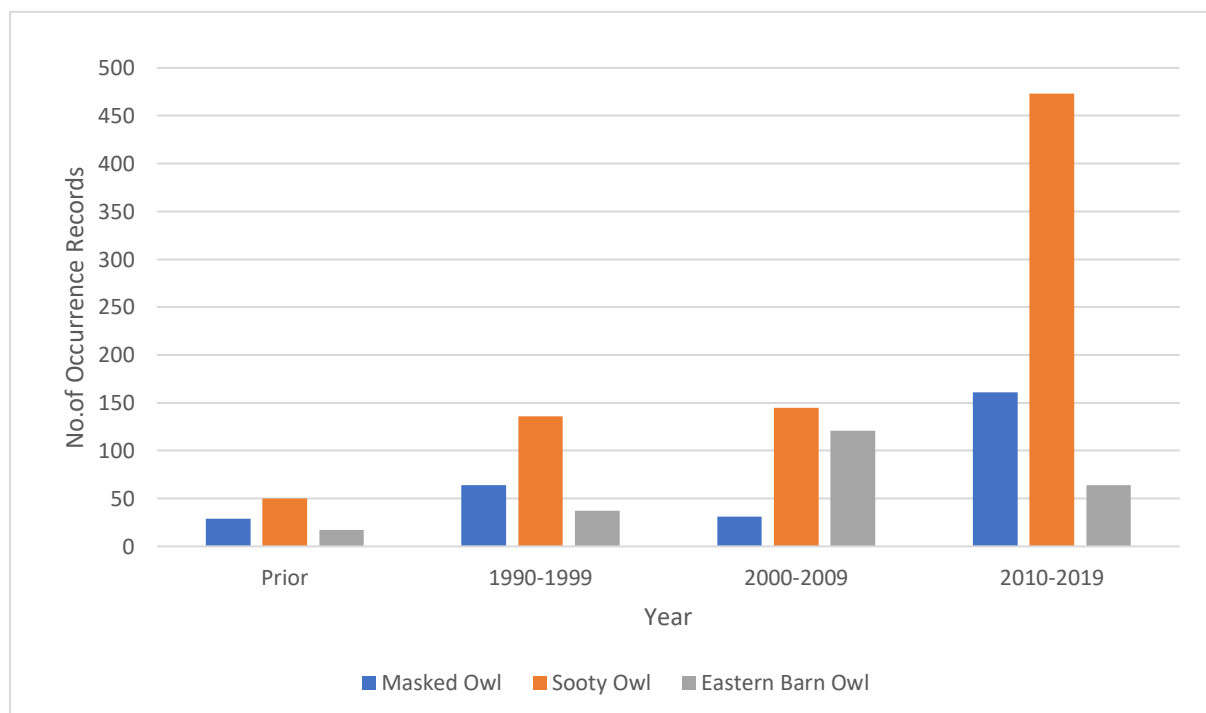


Figure 3: Raw occurrence records by decade for three forest dwelling *Tyto* owl species in the SEQ bioregion.

values show more variation between species and time periods and is reflective of the relative number of occurrence records collated for each species from which these calculations are derived (Figure 3). The sooty owl shows the highest area of occupancy followed by masked owl and then barn owl.

Current measures (1990-2019) can be compared to historical measures (all records) to give context to the current distribution of each species. AOO of masked owls shows the largest discrepancy where the area currently occupied by this species equates to only 86.9% of the total area calculated from historical data (Table 1). This is a potential indication that the distribution of this species may be receding, especially considering the strong bias of records to the current period.

	Area of Occupancy (km ²)		Extent of Occurrence (km ²)	
	1990 - 2019	All records	1990 - 2019	All records
Masked Owl	1243 (86.9%)	1430 (100%)	56,062 (96.9%)	57,836 (100%)
Sooty Owl	2018 (92.7%)	2176 (100%)	52,295 (100%)	52,295 (100%)
Barn Owl	505 (87.1%)	580 (100%)	53,037 (98.0%)	54,097 (100%)

Table 1: Area of occupancy and extent of occurrence calculated for each forest dwelling *Tyto* species over two time periods. Percentage values refer to current (1990-2019) values measured against historical (all records) values.

3.3 Habitat associations

For analysing associations between our target species and vegetation types we recorded the breakdown of BVGs that each high accuracy occurrence record occurred in (Table 2). The three target owl species show preferences for particular broad habitat categories. The distribution of masked owl records differs significantly from random (Chi-square = 83.85, d.f. = 2, $p < 0.001$). Standardised residuals reveal that this is driven by a strong bias in records towards wet forest types and away from non-remnant habitats. The distribution of sooty owls also departs significantly from random (Chi-square = 518.89, df = 2, p-value < 0.001), driven by strong selection for wet forests and a significant avoidance of dry forest and non-remnant habitats. Barn owl records are barely significantly different from that expected (Chi-square = 5.8876, d.f. = 2, $p = 0.052$). Standardised residual values indicate that significantly fewer than

expected barn owl records originate in dry and wet forest types, and more than expected originate in non-remnant habitat.

	Number of occurrence records (%)		
BVG type	Masked Owl	Sooty Owl	Barn Owl
Rainforest and scrubs (1)	6 (12.8%)	36 (37.1%)	2 (3.2%)
Wet eucalypt open forests (2)	12 (25.5%)	25 (25.8%)	2 (3.2%)
Eucalypt, melaleuca woodlands to open forests and (3,4 and 8)	17 (36.2%)	20 (20.6%)	12 (19.4%)
Non-remnant (17)	12 (25.5%)	16 (16.5%)	46 (74.2%)
Total	47 (100%)	97 (100%)	62 (100%)

Table 2: Breakdown of Broad Vegetation Groups (BVGs) in which presence records of each species originated.

3.4 Species distribution models

Model performances (defined by average AUC-values) ranged from 0.731 – 0.952. All models were run with and without a bias layer and, in each case, there were marginal differences to habitat suitability output maps with predictor variable contributions remaining almost identical. Nevertheless, final models and outputs presented here included a bias layer in model development.

3.4.1 *Sooty owl*

Most sooty owl presence records from the SEQ bioregion in the current time period (2000-2019) occur in the south-east corner of the bioregion, namely the Scenic Rim, D'Aguilar, Blackall and Conondale Ranges, with an isolated cluster of sightings at Kroombit Tops in the extreme north-west of the bioregion (Figure 4a).

The sooty owl model suggests that rainforest and wet eucalypt open forest vegetation types, low road density and higher elevation and slope provide optimal sooty owl habitat (Appendix 4). The sooty owl model performed best of the three models recording an AUC value of 0.952. The model was reached using eleven environmental variables, of which maximum temperature of warmest month (bio5) (44.6%), precipitation of driest quarter (bio17) (18.3%) and broad vegetation group - remnant (9.8%) were found to have the highest relative contribution (Table 3). Habitat suitability shows a steep decline where max temperature of warmest month surpasses 26°C and shows a positive relationship with precipitation of driest quarter.

The binary map (Figure 4b) contains roughly 5,300 km² of suitable habitat compared to 55,600 km² of unsuitable habitat in SEQ (at 250m grids) under current environmental conditions. Suitable habitat is largely restricted to areas of remnant and relatively unfragmented forest. About 42% of predicted suitable habitat for the sooty owl falls within protected areas with a further 7% within the boundary of mixed-use state forests.

3.4.2 *Masked owl*

Current time period masked owl records from the SEQ bioregion are concentrated in the south-east corner including the western scenic rim, D'Aguilar, Blackall and Conondale Ranges and with several sightings in the lowland areas of the Cooloola and Fraser Coast (Figure 5a). There is an apparent outlier at Kroombit Tops in the north-west of the bioregion.

The masked owl model suggests that wet eucalypt open forest and rainforest vegetation types, relatively high dry season rainfall and relatively high road density provide optimal masked owl habitat (Appendix 5). Our model for this species performed reasonably well (AUC = 0.847). Out of ten total variables, geology contributed the most (19.0%) followed by broad

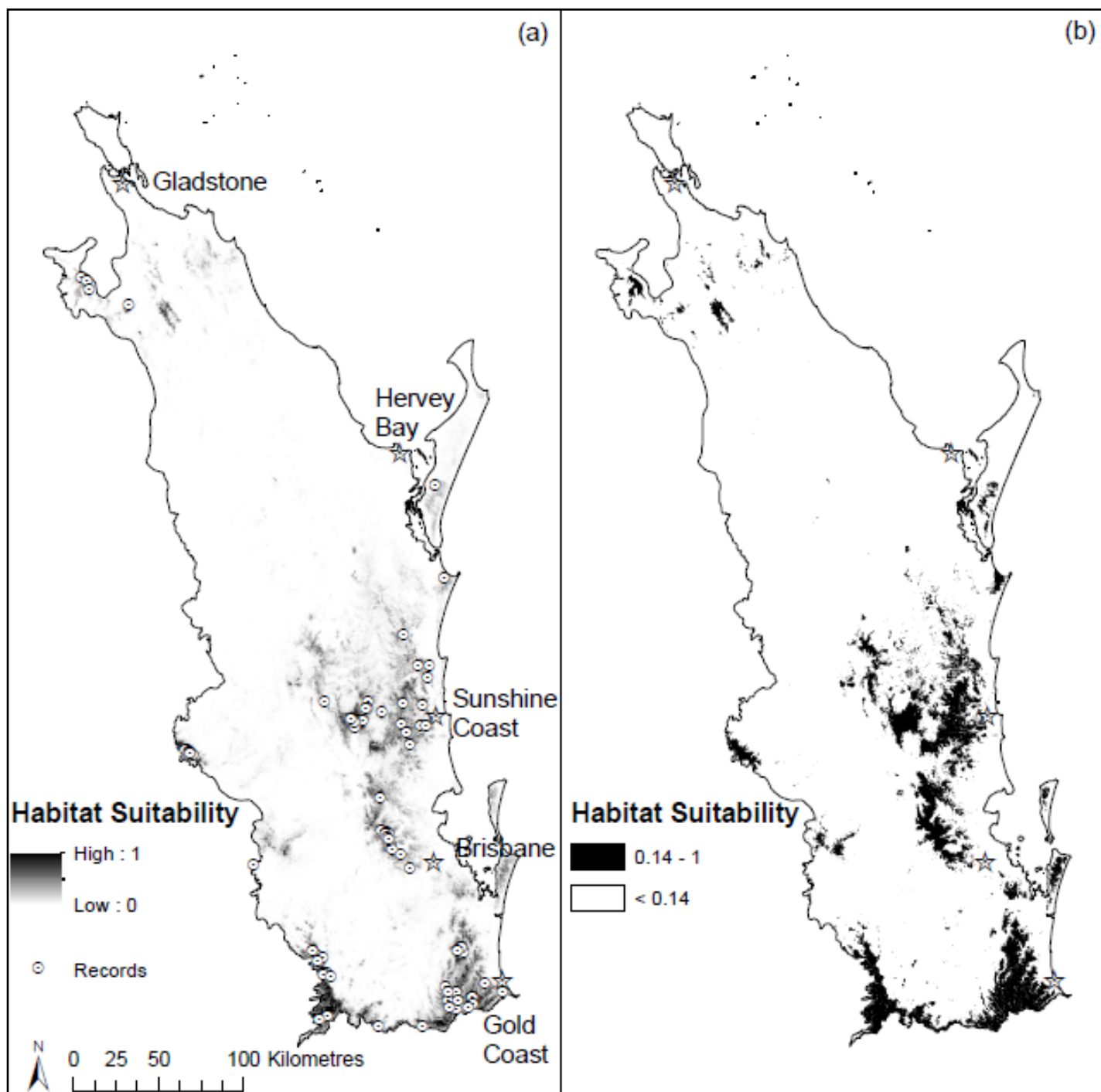


Figure 4: (a) Sooty owl habitat suitability map with occurrence records used in SDM development indicated by white circles and (b) binary map distinguishing between predicted suitable and unsuitable habitat using the 10th percentile threshold within the south-east Queensland bioregion.

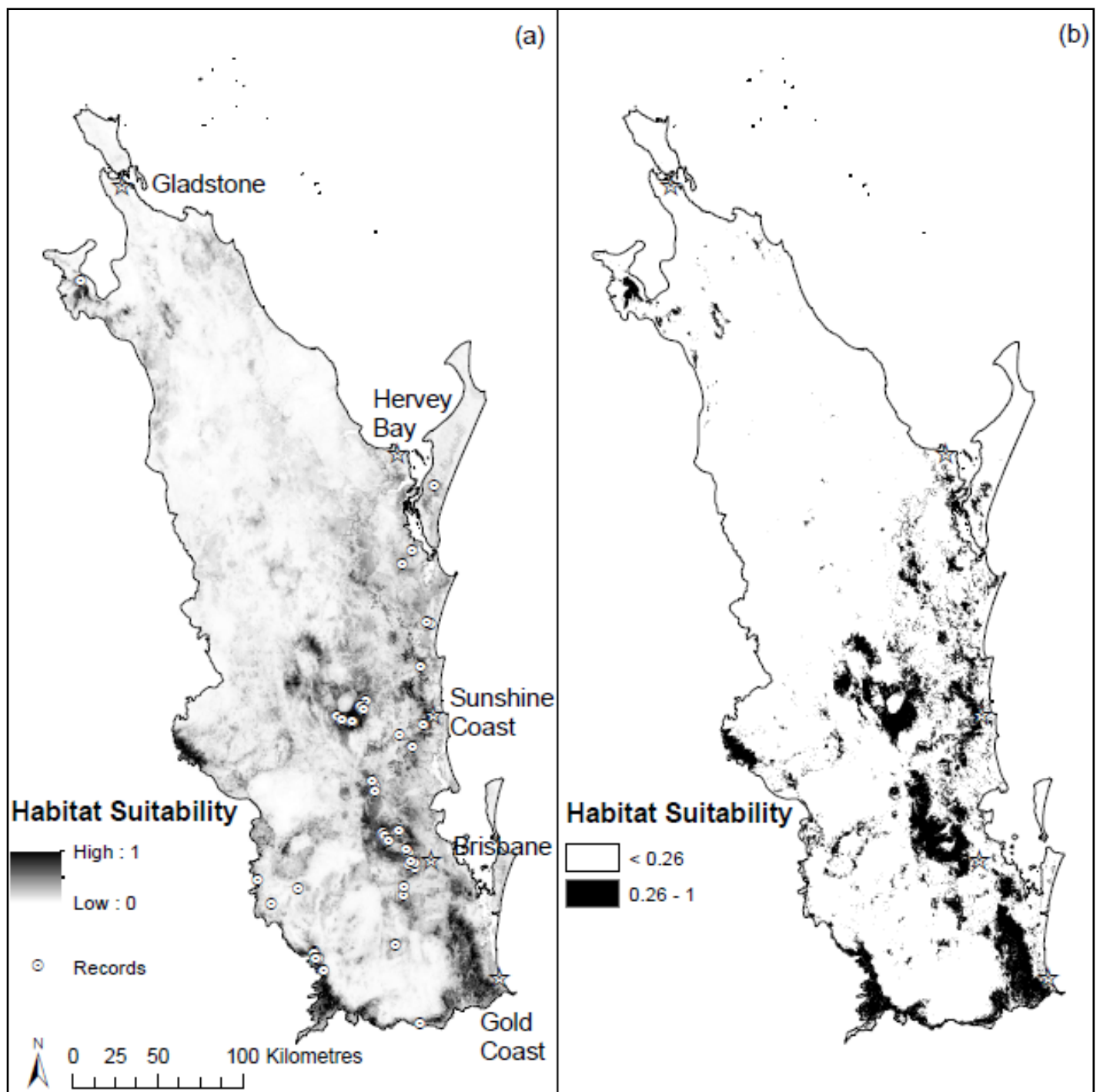


Figure 5: (a) Masked owl habitat suitability map with occurrence records used in SDM development indicated by white circles and (b) binary map distinguishing between predicted suitable and unsuitable habitat using the 10th percentile threshold within the south-east Queensland bioregion.

vegetation group - remnant (16.5%) and precipitation of driest quarter (bio17) (16.5%) (Table 3). Habitat suitability peaks where dry season rainfall is around 130mm and where geology is dominated by pelite or metamorphic rock (Appendix 5).

The binary map (Figure 5b) identifies approximately 7,000km² of predicted suitable habitat and 53,900km² of predicted unsuitable habitat under current environmental conditions over the SEQ bioregion. Around 33% of predicted suitable masked owl habitat lies within protected areas with an additional 12% of identified suitable habitat occurring in mixed-use state forests.

3.4.3 *Barn owl*

Current time period barn owl records are scattered throughout the SEQ bioregion south of about the latitude of Gympie (Figure 6a). There is only one high quality record from the past 20 years north of this line, being recorded at Winfield, north of Bundaberg.

According to this model, barn owls prefer higher road densities, cooler wet seasons (steep decline above 24°C) and flat landscapes at low altitudes (Appendix 6). This model was the lowest performing (AUC = 0.731) of our three final models. For this species, road density (44.3%), mean temperature of wettest quarter (bio8) (17.8%) and geology (15.2%) were seen to be the most important contributing factors of the eleven final variables used by the model (Table 3).

The barn owl model showed the largest area of suitable habitat with 21,500km² of predicted suitable habitat compared to 39,400 km² of predicted unsuitable habitat across the bioregion (Figure 6b). 7% of predicted suitable barn owl habitat occurs within protected areas whilst an extra 6% falls inside state forest boundaries.

3.5 *Predicted habitat overlap*

All three models predicted suitable habitat for all species to predominantly occur in the southern half of SEQ and the south-east corner in particular. The northern half was predicted to have very little suitable habitat, excluding isolated pockets, for any of the three forest

dwelling *Tyto* species. Our species distribution models predicted a significant amount of suitable habitat overlap across all three species (Table 4). The highest proportion of overlap was observed between the masked and sooty owls (69.8% overlap).

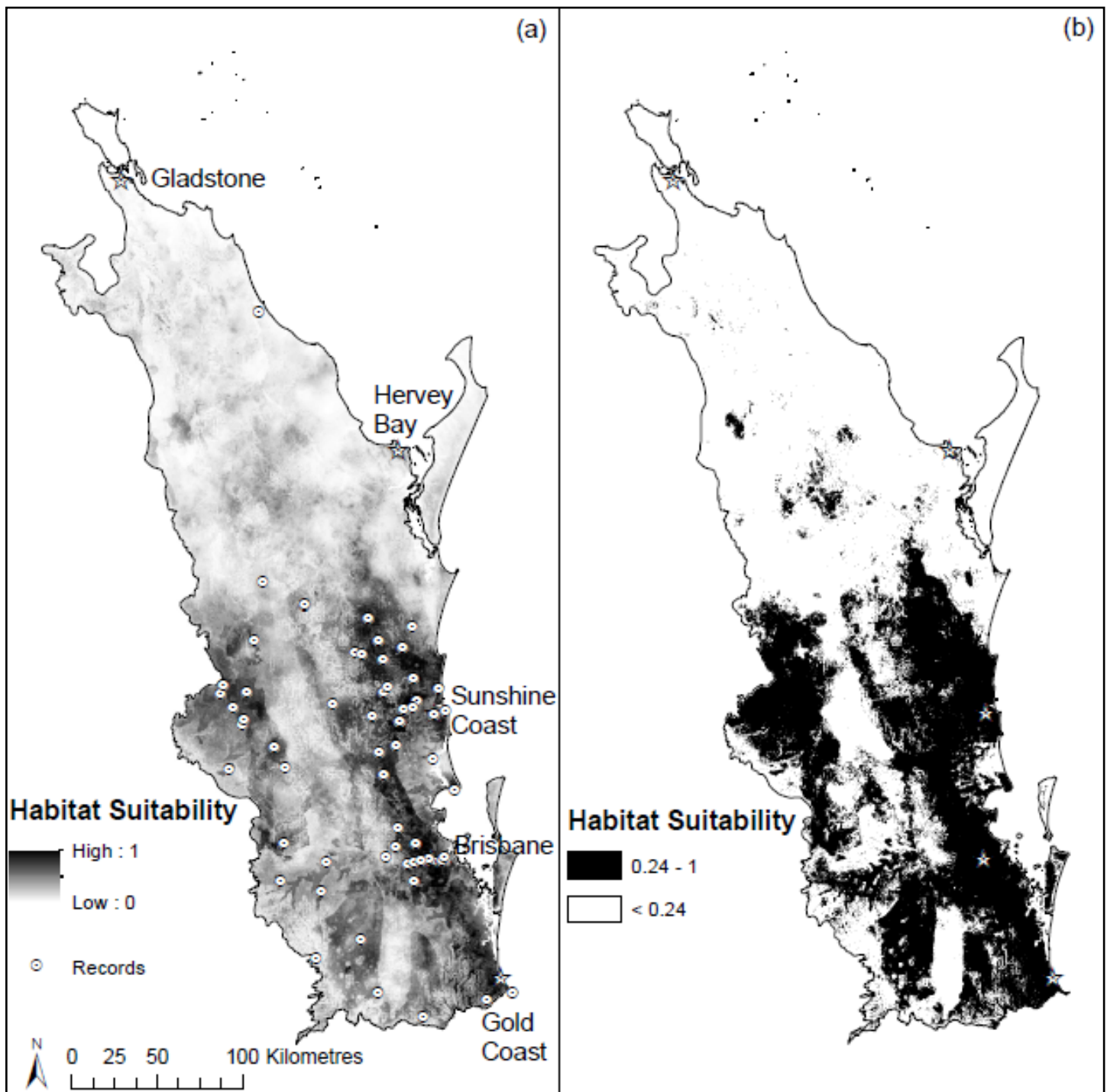


Figure 6: (a) Eastern barn owl habitat suitability map with occurrence records used in SDM development indicated by white circles and (b) binary map distinguishing between predicted suitable and unsuitable habitat using the 10th percentile threshold within the south-east Queensland region.

		% Contribution to final models		
Predictor Variable	Unit	SO	MO	EBO
Broad Vegetation Group - remnant	Class	9.8%	16.5%	3.5%
Land Cover	Class	3.1%	3.9%	1.2%
Remnant vegetation	Class	3.6%	8.8%	1.1%
Watercourse density	km/km ²	1.6%	11.2%	1.0%
Road density	km/km ²	5.0%	6.2%	44.3%
Geology	Class	3.1%	19.0%	15.2%
Elevation	m	4.2%	9.3%	3.4%
Aspect	Degree	1.2%		
Slope	Degree	5.7%	5.3%	4.9%
Max temperature of warmest month (bio5)	°C	44.6%		
Mean temperature of wettest quarter (bio8)	°C			17.8%
Mean temperature of driest quarter (bio9)	°C			1.0%
Precipitation seasonality (bio15)	CV of rainfall (mm)		3.3%	
Precipitation of driest quarter (bio17)	mm	18.3%	16.5%	6.7%

Table 3: Environmental variables used in final models and their contribution to each model. SO = sooty owl, MO = masked owl and EBO = eastern barn owl.

	Sooty owl	Masked owl	Barn owl
Sooty owl	100%	69.8%	62.9%
Masked owl		100%	57.6%
Barn Owl			100%

Table 4: Proportion of SDM-derived predicted suitable habitat overlap that occurs between three species of forest dwelling *Tyto* owls in the SEQ bioregion.

4. Discussion

In this study, we have compiled occurrence records and modelled the distribution of three forest dwelling *Tyto* owl species across SEQ. Additionally, we have identified environmental variables associated with their distribution. Although our sample size was small (field surveys) and potentially exposed to bias (historical occurrence database), our results indicate that the three species show selection for different vegetation and landscape types but show overlap in modelled habitat. Despite being listed as “least concern”, our results suggest that the masked owl occurs in low abundance in the region and its conservation status may warrant a reassessment.

4.1 *The role of environmental variables in determining species distribution*

The spatial relationship between species and environmental variables has become a central paradigm across multiple disciplines (Elith et al., 2011, Isaac et al., 2013). Interactions between species and their environment are often complex but are a crucial aspect of ecology and are necessary for conservation initiatives to be successful. Due to the complex nature and interrelatedness of the environmental variables we are considering, the exact relationship between species and variable is often unclear, nevertheless identifying broad patterns in distribution is useful.

Our sooty owl habitat model predicts that, under current environmental conditions, sooty owls are more likely to occur in relatively cool and wet climates and to inhabit remnant vegetation within rainforest and wet eucalypt forest (Appendix 4). This aligns with other research concluding sooty owls are most commonly found in wetter, more senescent forest (Higgins, 1999, Loyn et al., 2001, Bilney et al., 2011b). From the Maxent response curves, a sharp decline in occurrence can be seen for this species where the mean max temperature of the warmest month exceeds 26°C (Appendix 4). Higher dry season rainfalls and lower road densities increase the probability of suitable sooty owl habitat being present (Appendix 4). The study also found that optimal sooty owl habitat often occurred in relatively high altitude, rugged landscapes with few signs of human disturbance.

The masked owl model indicated the species was more likely to occur within wetter forest types and at higher altitudes (Appendix 5). This is in contrast with a recent study of the Tasmanian sub-species, *T. novaehollandiae castanops*, which found masked owls were significantly less likely to be found at sites above 575m altitude (Todd et al., 2018), although this could be driven by the colder climate and low availability of tree hollows in the Tasmanian highlands (Koch et al., 2008). This model shows a greater tolerance of higher road densities compared to the sooty owl resulting in a further spread of suitable habitat into suburban and agricultural areas. Previous studies suggest that ecotones, forest edges and open habitats may favour masked owls (Kavanagh and Murray, 1996, McNabb et al., 2003), however, other work contests this, finding masked owls more likely to occur within structurally dense forest than in more open or agricultural landscapes (Kavanagh and Stanton, 2002, Todd, 2012, Bilney and L'Hotellier, 2013). Our field study supported the latter suggestion as all three masked owl sightings occurred in relatively large sections of unfragmented forest.

Whilst literature regarding the barn owl in Australia is very limited, research from other continents describes the barn owl as a generalist species most commonly found in intensive agricultural landscapes and urban areas (Frey et al., 2011, Hindmarch et al., 2017). Our model predicted suitable habitat over a range of geological and broad vegetation groups (Appendix 6), although the spread of suitable habitat (Figure 6) focuses mostly on open areas such as farmland and ventures well into suburban areas. Edge habitat surrounding extensive forested areas is typically deemed suitable but the interior areas of such forest expanses unsuitable. The lower predictive performance of this model (AUC = 0.731) may be indicative of the species broad habitat requirements resulting in the largest area of predicted suitable habitat. In contrast to the other two *Tyto* species considered, barn owls showed a negative relationship with altitude and slope (Appendix 6) highlighting the niche separation of this species and reflecting their use of non-remnant habitats which are typically on flatter and low altitude areas in the SEQ bioregion. Given the preference of barn owls for anthropogenic landscapes, the heavily modified rural landscapes throughout the region, and the results of our own field surveys in the greater Sunshine Coast and hinterland, it is strange that barn owls are the least reported of the three *Tyto* species that we examined here. Interestingly, the agricultural and highly visited landscapes of the upper Logan and Brisbane River catchments which would logically seem to be good barn owl habitat, lack any records and are modelled as unsuitable

habitat. These areas are subject to intensive agriculture and urban development which may be a factor in the apparent absence of barn owls either as a result of vast expanses of treeless habitat, secondary poisoning with rodenticides used in agricultural and domestic settings, species interactions or simply a quirk of reporting of sightings. Secondary poisoning of barn owls has been shown to be particularly damaging to barn owls in agricultural areas elsewhere (Albert et al., 2010, Salim et al., 2014, Huang et al., 2016). There could also be taxonomic bias at play here, where there is a low reporting rate for barn owls as they are considered more common and widely distributed and, as a result, less noteworthy than the other *Tyto*s studied here.

4.2 Habitat overlap and interspecies interaction

Our results (both SDM and field survey) indicate that the three species of *Tyto* owl show a preference for different habitats in south-east Queensland. Our results align with the general consensus in the literature that sooty owls prefer dense forests including dense forests in rural and suburban locations (Loyn et al., 2001, Bilney et al., 2007) while masked owls inhabit forest and woodland (Kavanagh and Murray, 1996, Bilney and L'Hotellier, 2013) and barn owls occur in open woodland, grasslands and anthropogenic landscape (Higgins, 1999, Kavanagh, 2002b). Our field surveys broadly support these general trends in habitat utilization. In common with other research, we found that barn owls most often favour agricultural landscapes (83.3% of sites) but can also be found in urban and remnant vegetation types (Figure 2). Patterns in our masked owl sightings need to be considered with caution given the low number of detections. We found the masked owl to only occupy remnant forest sites in contrast with other studies which observed masked owls to occur mostly in forest edge and more open areas (Kavanagh and Murray, 1996, McNabb et al., 2003), although other work has noted this species to be more commonly associated with extensive forest (Kavanagh and Stanton, 2002, Bilney and L'Hotellier, 2013, L'Hotellier and Bilney, 2016). Sooty owls were mostly found to occupy remnant sites (62.5%) but also urban (37.5%) and agricultural sites (12.5%) (although, in each instance, sooty owls were found in forest patches in these areas).

While it seems there is some level of habitat separation between forest dwelling *Tyto* species, there is certainly some overlap especially between sooty and masked owls. Of the 5,300 km² of mapped sooty owl habitat, 3,700 km² (69.8%, Table 4) was also identified as suitable masked owl habitat. While interactions between these two species are rarely discussed in the literature (Higgins, 1999), we contend that this is more likely due to the lack of research and difficulties associated with monitoring these birds than a lack of interaction taking place. Bilney and L'Hotellier (2013) describe several instances of these species interacting resulting from call playback where masked owls (and to a lesser extent sooty owls) responded to the broadcast calls of the other species (by calling immediately and/or approaching the call broadcast point) and often before calls of their own species were broadcast. We observed this ourselves during our own call playback surveys where both species were observed at the same site (GCR) with the masked owl flying in close to the speaker and calling more aggressively during the sooty owl calls than during the calls of its own species. At the same time, a sooty owl could be heard in the distance responding vocally to only its own species playback and not approaching the broadcast point. At another survey point (CCR) a sooty owl remained silent during playback of its own species but then began extensive trilling and a head-bobbing defensive response to the recording of masked owl chattering. Further observed interactions in the literature include at least two occasions where a masked owl occupied a nest hollow previously used by a sooty owl (Hyem, 1979, Bilney and L'Hotellier, 2013).

Given that the masked and sooty owl are known to co-occur and have a high level of suitable habitat overlap within SEQ, it is interesting that sooty owls were recorded much more regularly than the masked owl in both our historical record analysis (n = 804 and 285 respectively) and field surveys (n = 10 and 3 respectively). Our results show a lower area of occupancy (AOO) in SEQ for masked owls compared to sooty owls (Table 1) although this is likely influenced by the many more sooty owl sightings from which AOO was calculated. There may be a detectability element implicit in this lower occurrence of masked owls, at least among the historical records, as the sooty owl is known for its piercing and instantly identifiable “bomb-whistle” call, whereas the masked owl screech is more generic and, to the untrained ear, sounds similar to that of the barn owl. Nevertheless, our results indicate that within SEQ sooty owls are more abundant than masked owls. Studies have identified some

overlap in the diets of sooty and masked owls where the former takes a variety of arboreal, terrestrial and scansorial small - medium mammals (Kavanagh, 2002a, Bilney et al., 2007) compared to the Masked Owl which focuses more strongly on terrestrial small mammals (Kavanagh, 2002a, McNabb et al., 2003, Bilney and Bilney, 2015). Thus, it is possible that, in dense forest habitat, the sooty owl is capable of outcompeting the masked owl where prey is scarce or mostly arboreal due to its wider range of prey. Furthermore, the masked owl is thought to inhabit edge habitats and open areas where sooty owls are usually absent but barn owls may occur. As these two species both prefer small terrestrial mammal prey, competition for food may exist (despite no current information in the literature) and is an area which warrants further research. Thus, it may be the case that the masked owl faces competition from both sooty and barn owls potentially suppressing population size resulting in its rarity in SEQ.

4.3 Forest dwelling *Tyto* owl habitat within the current reserve system

Currently, all three forest dwelling *Tyto* species have the conservation status of “least concern” at both the state (Nature Conservation Act 1992) and Federal (Environment Protection and Biodiversity Conservation Act 1999) levels (it should be noted here that the northern, *T. novaehollandiae kimberli*, and Tasmanian, *T. novaehollandiae castanops*, subspecies of masked owl are listed as Vulnerable under the EPBC Act). Under the current reserve system, a significant amount of predicted masked and sooty owl habitat within SEQ is protected (33% and 42% respectively) with only a small portion of barn owl habitat falling within protected areas (7%). This does, however, leave the majority of suitable habitat within private land or mixed-use state forest, thus exposing large amounts of important owl habitat to anthropogenic impacts. In order to protect such habitat, we recommend further work into the identification and protection of *Tyto* owl habitat. Valuable foraging area may be difficult to determine but roost and nest sites are typically obvious once they are located (identified by extensive whitewash and pellets containing prey remains), the species show high fidelity even through generations (Fleay, 1972, Morris et al., 1997) and are known to be of major importance in owl spatial ecology (McNabb et al., 2003, Bilney et al., 2011b, Isaac et al., 2014). Therefore, identifying roosting and, in particular, nesting sites presents as important targets for conservation research of these species. We suggest the establishment of protective buffer

zones around such owl sites on crown land in SEQ as has been implemented in Victorian forests (Bilney et al., 2011b) and encourage local governments to participate in community initiatives, such as the Powerful Owl Project (Bain et al., 2014), to engage and educate landowners of how they can assist in owl conservation. Furthermore, we recommend ongoing surveys into the future to monitor known populations and identify new territories. Our habitat modelling has identified the following high priority survey areas containing potential masked and sooty owl habitat with few or no recent records of occurrence: Bulburin NP and SF, Yarrol SF, Mount Bauple NP, Wrattens NP and SF, Yabba SF, Imbil SF, Gallangowan SF and Diaper SF.

4.4 Model uncertainties and data biases

In this study, SDM provided a useful tool to evaluate general trends in habitat distribution for our three study species. However, not encompassed within the final models is the uncertainty involved in model selection and variable selection. Lack of bioregion-wide environmental variable layers relevant to owl distribution such as hollow index and forest age proved to be a limitation to model development.

Our occurrence record database was composed of predominantly historical biodiversity atlas records and, thus, exposed to spatial, detectability and taxonomic reporting biases (Bonney et al., 2009, Geldmann et al., 2016). Our historical data showed a temporal bias toward recent decades with 52.6% of records coming in the last decade and 92.8% in the last 30 years, likely a result of the increased ease with which wildlife occurrence data can now be generated and reported via online databases and smart phone applications. The comparative number of records for each of our three species seemed to show a taxonomic reporting bias against the barn owl and a detectability bias towards the sooty owl. Our field survey results represent a small sample size (n=120 surveys) and, therefore, we are cautious to draw conclusions from these results alone.

4.5 Management implications

This study represents the first collation of data, calculation of distribution metrics, call playback surveys, and species distribution models for *Tyto* owls across the SEQ bioregion. As such it provides a baseline against which future research can be compared. While small-scale, site specific variables undoubtedly play a role in habitat selection, by using only landscape-level variables this study sought to develop models that can be applied to relatively large areas and which can be easily implemented by land managers. Future studies might combine field habitat variables such as number of hollow-bearing trees, floristic composition, etc. with landscape-level variables (Loyn et al., 2001) over a subset of our study area. Furthermore, we recommend combining SDMs with GPS-tracking studies (e.g. Bradsworth et al., 2017, Carter et al., 2019) for each of these species to gain fine-scale data of *Tyto* owl movements within the landscape. In addition to species specific outcomes, the SEQ landscape provides a model landscape in which to study the distribution, movements and interactions of avian predators through a mosaic of natural and anthropogenic landscapes.

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Appendices

Appendix 1: List of environmental variables used in species distribution model development.

Derived Layer	Data Type	Unit	Categories	Data Source
Lineal density of roads	Continuous	Kms per km ²	N/A	QSpatial: Baseline Roads and Tracks – Queensland http://qldspatial.information.qld.gov.au/catalogue/custom/detail.page?fid={BEF06A7B-0F0B-4DE0-B7A6-D4B4C2651993}
Lineal density of waterways	Continuous	Kms per km ²	N/A	QSpatial: Watercourse lines – North East Coast drainage division http://qldspatial.information.qld.gov.au/catalogue/custom/detail.page?fid={5C67AB3A-5FAE-4227-944A-3AB77853F01D}
Broad Vegetation Groups (BVGs) - remnant	Categorical	Class	1: Rainforests and scrubs 2: Wet eucalypt open forests 3: Eucalypt woodlands to open forests (mainly Eastern) 4: Eucalypt open forests to woodlands on floodplains 5: Eucalypt dry woodlands on inland depositional plains 6: Eucalypt low open woodlands usually with spinifex understorey 7: Callitris woodland – open forests 8: Melaleuca open woodlands 9: Acacia aneura dominated open forests, woodlands and shrublands 10: Other acacia dominated open forests, woodlands and shrublands 11: Mixed species woodlands – open woodlands, includes wooded downs 12: Other coastal communities or heaths 13: Tussock grasslands, forblands 14: Hummock grasslands 15: Wetlands (swamps and lakes) 16: Mangroves and saltmarshes 17: Non-remnant 18: Water 19: Estuary 20: Canal	QSpatial: Remnant Broad Vegetation Groups 2017 – Queensland – 1:5 million http://qldspatial.information.qld.gov.au/catalogue/custom/detail.page?fid={43A2CB31-9D83-4BB9-ACE7-05E7BD271FE3}

			21: Sand 22: Ocean	
Land cover	Categorical	Class	1: Unclassified: cloud, fire, smoke, cloud shadow, smoke shadow, hill shadow, etc. (class 1 from original layer) 2: Agricultural land (classes 2-6 from original layer) 3: Human settlements and infrastructure (classes 7-12 from original layer) 4: Water (class 13 from original layer) 5: Woody vegetation (classes 14-22 from original layer)	QSpatial: Land cover mosaic 2001 – Queensland http://qldspatial.information.qld.gov.au/catalogue/custom/detail.page?fid={6DE1355E-23EF-4504-99F0-C7EFCB2FC128}
Remnant vegetation	Categorical	Class	1: Non-remnant 2: Remnant 3: Water 4: Estuary 5: Ocean	QSpatial: Remnant vegetation cover 2017 – Queensland http://qldspatial.information.qld.gov.au/catalogue/custom/detail.page?fid={F5CF90D6-5881-4D8F-9581-D8F55D25F9CE}
Elevation	Continuous	m	N/A	QSpatial: Digital elevation model – 25 metre – south east Queensland http://qldspatial.information.qld.gov.au/catalogue/custom/detail.page?fid={337F0DF2-64CD-4E26-AD21-7C63AEC1769E}
Slope	Continuous	Degree	N/A	“ “
Aspect	Continuous	degree	N/A	“ “
Geology	Categorical	Class	1: Sedimentary rock 2: Mixed volcanic and sedimentary rocks 3: Arenite – mudrock 4: Granitoid 5: Basalt 6: Gabbroid 7: Mixed mafites and felsites (mainly volcanics) 8: Mixed sedimentary rocks and mafites 9: Mixed siliciclastic / carbonate rocks 10: Colluvium 11: Ferricrete 12: Alluvium 13: Poorly consolidated sediments 14: Mafites (lavas, clastics, high-level intrusives) 15: Pelite 16: Arenite 17: Sand 18: Water bodies	QSpatial: Detailed surface geology – Queensland http://qldspatial.information.qld.gov.au/catalogue/custom/detail.page?fid={9BA2F66C-1933-4439-B9C9-E631911ADD7E}

			19: Ultramafic rock 20: Miscellaneous unconsolidated sediments 21: Metamorphic rocks 22: Intrusive rock (unspecified) 23: Mixed sedimentary rocks and felsites 24: Arenite - rudite	
Bioclim1: Annual mean temperature	Continuous	°C x 10	N/A	ANUCLIM version 6.1 https://fennerschool.anu.edu.au/research/products/anuclim
Bioclim2: Mean diurnal range (mean of monthly (max temp – min temp))	Continuous	°C x 10	N/A	“ ”
Bioclim3: Isothermalit y (BIO2/BIO7)(*100)	Continuous	°C x 10	N/A	“ ”
Bioclim4: Temperatur e seasonality (coefficient of variation)	Continuous	°C x 10	N/A	“ ”
Bioclim5: Max temperature of warmest month	Continuous	°C x 10	N/A	“ ”
Bioclim6: Min temperature of coldest month	Continuous	°C x 10	N/A	“ ”
Bioclim7: Temperatur e annual range (BIO5- BIO6)	Continuous	°C x 10	N/A	“ ”
Bioclim8: Mean temperature of wettest quarter	Continuous	°C x 10	N/A	“ ”
Bioclim9: Mean temperature of driest quarter	Continuous	°C x 10	N/A	“ ”
Bioclim10: Mean	Continuous	°C x 10	N/A	“ ”

temperature of warmest quarter				
Bioclim11: Mean temperature of coldest quarter	Continuous	°C x 10	N/A	“ ”
Bioclim12: Annual precipitation	Continuous	mm	N/A	“ ”
Bioclim13: Precipitation of wettest month	Continuous	mm	N/A	“ ”
Bioclim14: Precipitation of driest month	Continuous	mm	N/A	“ ”
Bioclim15: Precipitation seasonality (coefficient of variation)	Continuous	mm	N/A	“ ”
Bioclim16: Precipitation of wettest quarter	Continuous	mm	N/A	“ ”
Bioclim17: Precipitation of driest quarter	Continuous	mm	N/A	“ ”
Bioclim18: Precipitation of warmest quarter	Continuous	mm	N/A	“ ”
Bioclim19: Precipitation of coldest quarter	Continuous	mm	N/A	“ ”

Appendix 2: Determination of species-specific threshold for co-ordinate uncertainty.

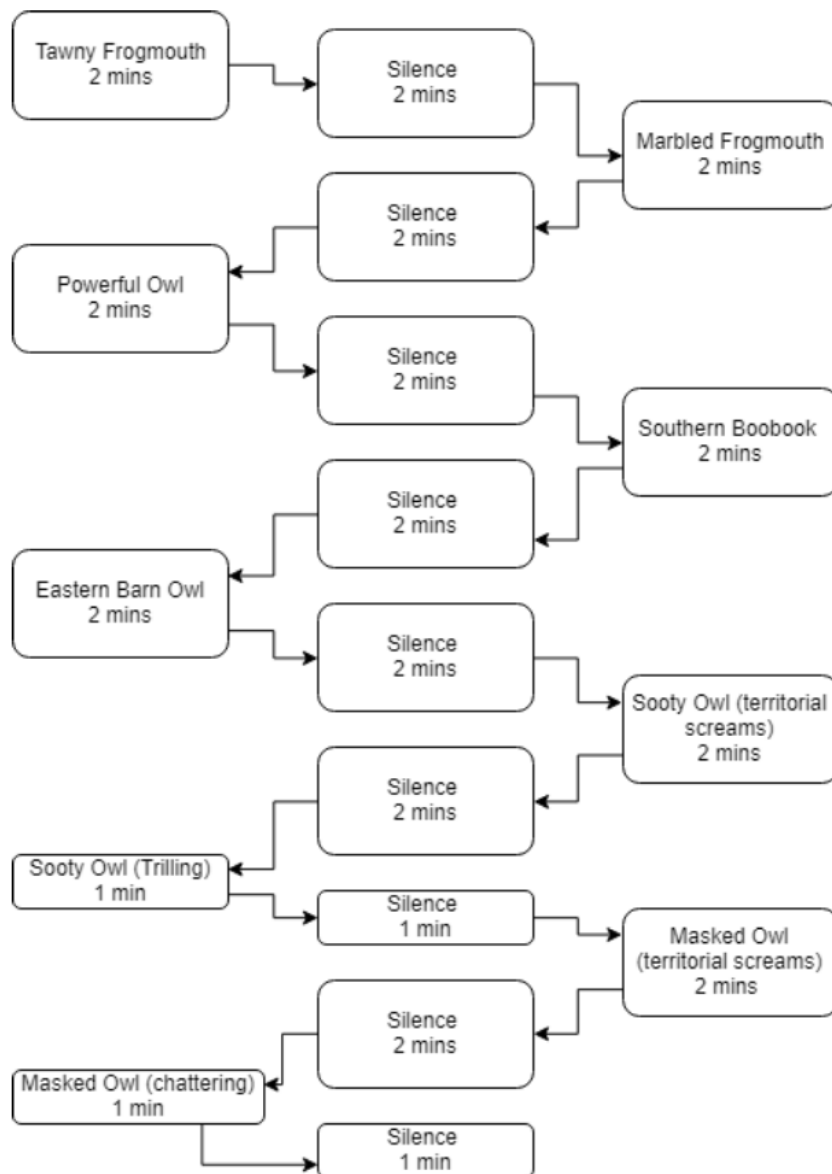
The threshold for co-ordinate uncertainty beyond which historical occurrence records were excluded from SDM development varied between species based on their recorded home ranges. Home ranges are known to show intraspecies variation due to factors such as gender, breeding status and food availability and so the following cited home ranges should not be used as a definitive measure and only as a rough guide. For our purposes, home ranges were assumed to be circular and thresholds were calculated as follows:

$$\text{Home range (km}^2\text{)} = \pi r^2$$

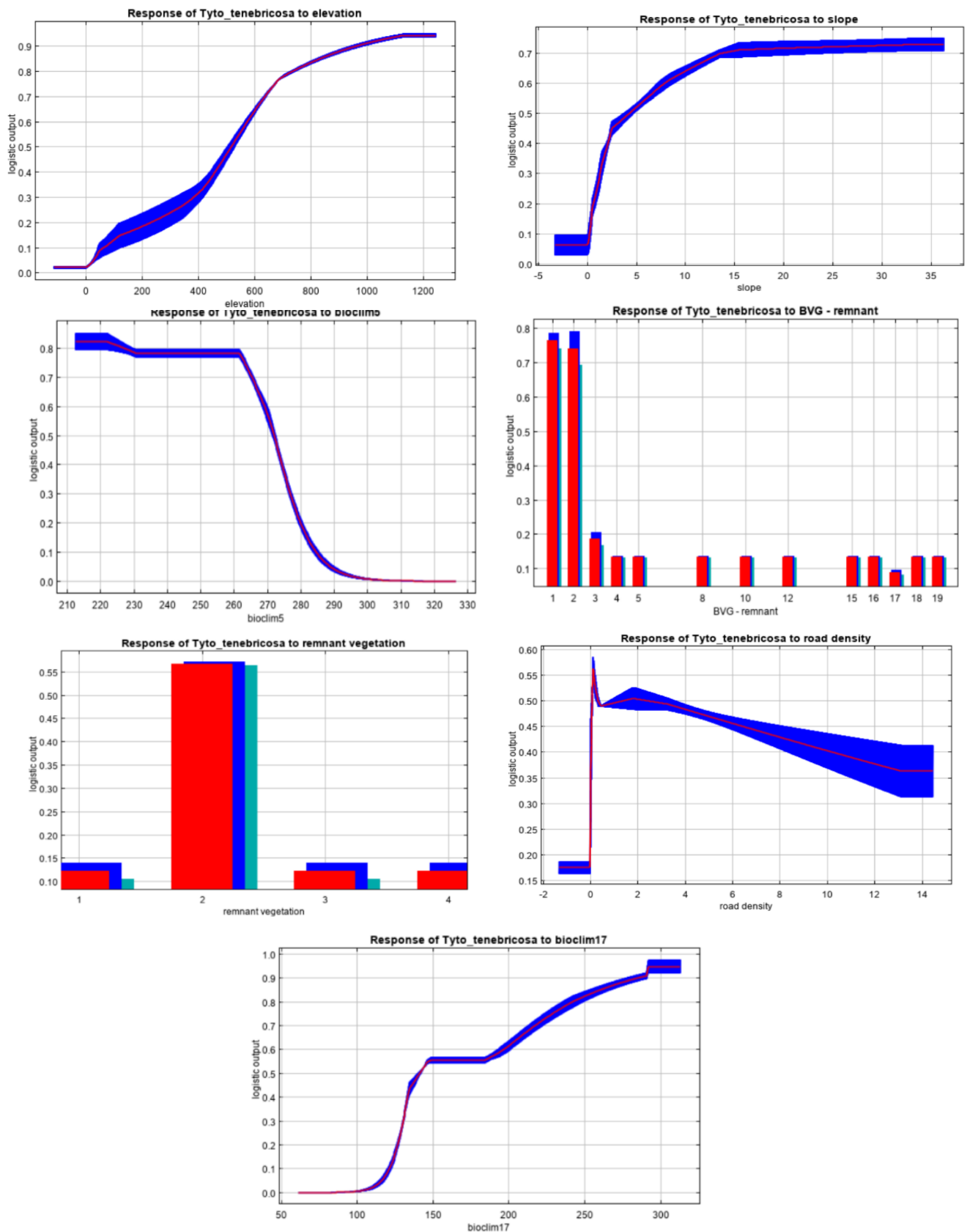
where r is equal to the co-ordinate uncertainty threshold

Species	Cited home range	Co-ordinate uncertainty threshold
<i>Tyto javanica</i>	5 km ² (McLaughlin, 1994)	1.26 km
<i>Tyto novaehollandiae</i>	11.78 km ² (Kavanagh and Murray, 1996)	1.94 km
<i>Tyto tenebricosa</i>	17.75 km ² (Bilney et al., 2011b)	2.36 km

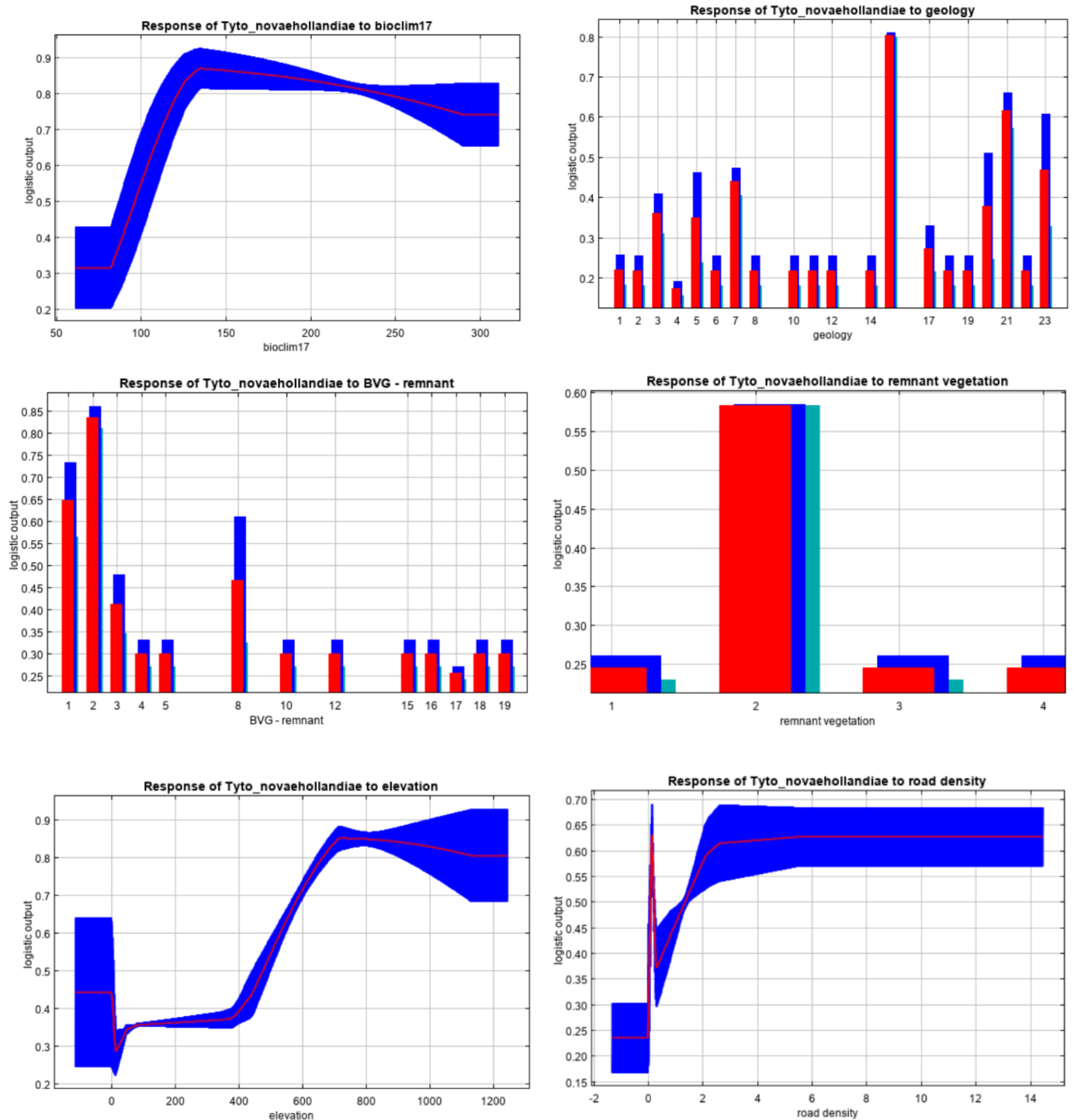
Appendix 3: Call playback schedule followed at each survey point



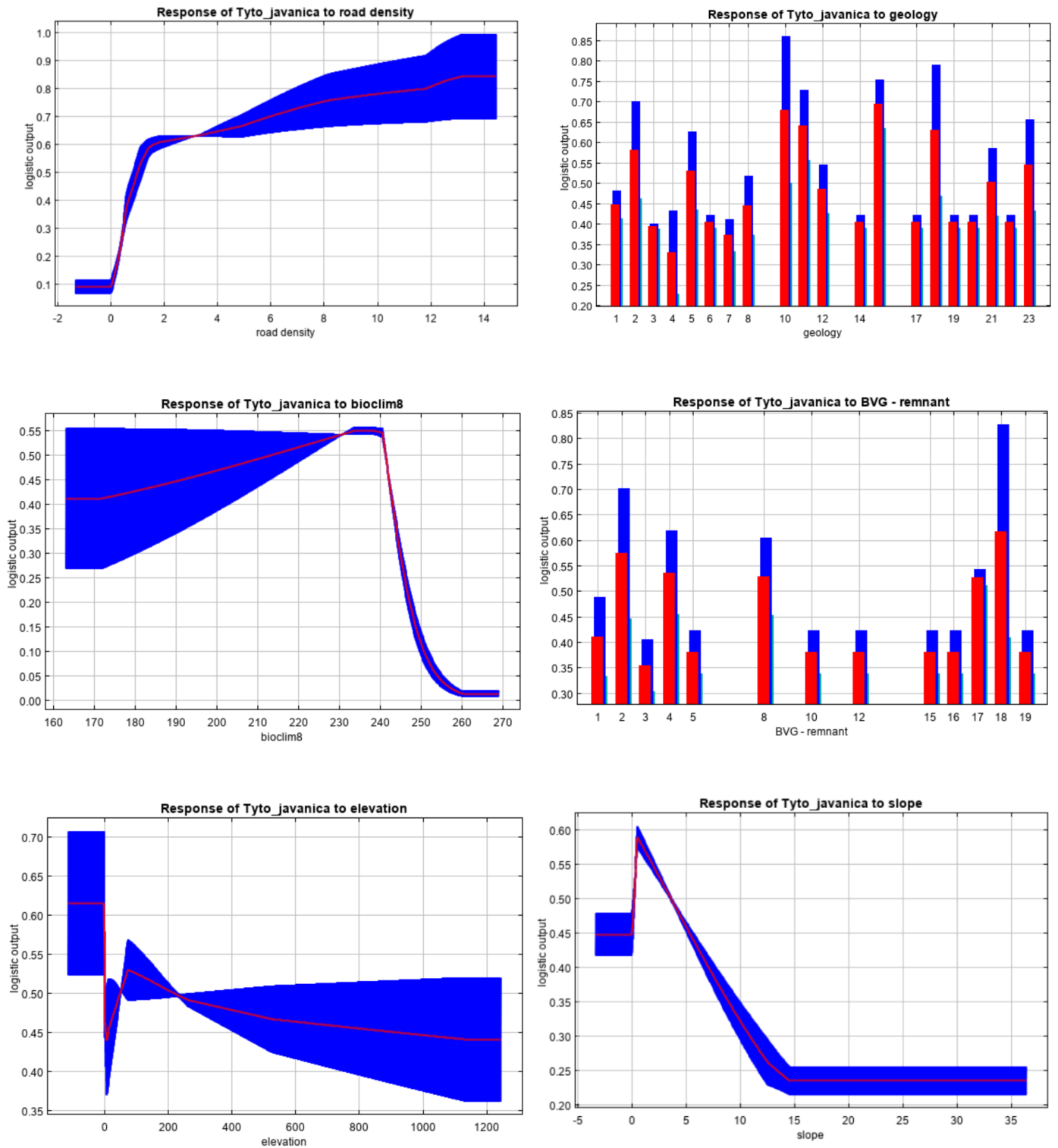
Appendix 4: Maxent response curves for *T. tenebricosa* model showing the effect of individual environmental variables on suitable habitat probability. Refer to Appendix 1 for a full list of environmental variables.



Appendix 5: Maxent response curves for *T. novaehollandiae* model showing the effect of individual environmental variables on suitable habitat probability. Refer to Appendix 1 for a full list of environmental variables.



Appendix 6: Maxent response curves for *T. javanica* model showing the effect of individual environmental variables on suitable habitat probability. Refer to Appendix 1 for a full list of environmental variables.



Appendix 7: Field Survey Results

Date Surveyed	Observer	Site	Visit	Longitude	Latitude	Altitude	Hours after sunset	Temperature	Precipitation	Wind	Moon phase	Cloud Cover	Night light	TF	MF	PO	SB	EOB	SO	MO	Total
11/05/2019	ACA	ACA	1	152.9213056	-26.2285	17	2.466666667	13.8	0	1	44%	0% M		0	0	0	0	0	0	0	0
29/07/2019	ACA	ACA	2	152.9213056	-26.2285	17		3	15.7	0	1	10%	0% L	0	0	0	1	1	0	0	2
11/05/2019	ACA	ACA	1	153.0107222	-26.19744444	19		1	14.6	0	1	10%	0% L	0	0	0	0	0	0	0	0
29/07/2019	ACR	ACR	2	153.0107222	-26.19744444	19	1.5	17.1	0	1	10%	0% L		0	0	1	0	0	1	2	
11/05/2019	ACU	1	152.8601667	-26.25936111	62	3.383333333	13.5	0	1	44%	0% M		0	0	0	1	0	1	0	2	
29/07/2019	ACU	2	152.8601667	-26.25936111	62	3.666666667	15.1	0	1	10%	0% L		0	0	1	0	0	0	0	1	
27/05/2019	AHA	1	152.3992222	-26.26627778	155	2.316666667	14.5	0	2	42%	0% L		0	0	0	0	0	0	0	0	
23/07/2019	AHA	2	152.3992222	-26.26627778	155	2.333333333	15.6	0	1	65%	0% M		1	0	0	1	0	0	0	2	
27/05/2019	AHR	1	152.3424444	-26.28625	616	1	16.4	0	3	42%	0% L		0	0	0	0	0	0	0	0	
23/07/2019	AHR	2	152.3424444	-26.28625	616	1.166666667	18.1	0	1	65%	0% L		0	0	0	1	0	0	0	1	
30/05/2019	AHU	1	152.6735833	-26.38958333	85	4.266666667	12.7	0	3	16%	0% L		0	0	0	0	0	0	0	0	
17/07/2019	AHU	2	152.6735833	-26.38958333	85	3.75	8.8	0	1	99%	0% H		0	0	0	0	0	0	0	0	
29/07/2019	BCA	2	152.8637222	-26.341	85	4.666666667	15.4	0	1	10%	0% M		0	0	0	0	0	0	0	0	
16/05/2019	BCA	1	152.8637222	-26.341	85	3.416666667	21.3	0	1	93%	30% H		0	0	0	0	1	0	0	1	
16/05/2019	BCR	1	152.9126389	-26.35141667	112	2.216666667	19.5	0	1	93%	50% H		0	0	0	0	0	0	0	0	
29/07/2019	BCR	2	152.9127222	-26.35141667	112	5.416666667	15.1	0	1	10%	0% L		0	0	0	1	0	0	0	1	
16/05/2019	BCU	1	153.9893889	-26.36036111	18	1	19.8	2	0	93%	90% M		0	0	0	0	0	0	0	0	
5/09/2019 SB	BCU	2	152.98952	-26.36085	18	1.233333333	13.5	0	0	43%	0% H		0	0	0	1	0	0	0	1	
30/05/2019	BHA	1	152.6229722	-26.3785	110	2.383333333	13.1	0	1	16%	0% L		0	0	0	0	1	0	0	1	
17/07/2019	BHA	2	152.6229722	-26.3785	110	2.95	9.5	0	1	99%	0% H		0	0	0	0	1	0	0	1	
30/05/2019	BHR	1	152.5081667	-26.40933333	246	1	13.3	0	1	16%	0% L		0	0	0	0	0	0	0	0	
17/07/2019	BHR	2	152.5081667	-26.40933333	246	1.916666667	10.2	0	1	99%	0% H		0	0	0	0	0	0	0	0	
27/05/2019	BHU	1	152.67025	-26.34247222	79	3.766666667	14.3	0	2	42%	0% L		0	0	0	0	0	0	0	0	
23/07/2019	BHU	2	152.67025	-26.34247222	79	3.816666667	12.6	0	1	65%	0% M		0	0	0	0	0	0	0	0	
12/05/2019	CCA	1	152.9434444	-26.42536111	116	3.1	19.8	1	3	50%	100% M		0	0	0	0	0	0	0	0	
5/09/2019 SB	CCA	2	152.94345	-26.42538	116	3.633333333	12.5	0	0	43%	0% H		0	0	0	1	0	1	0	2	
12/05/2019	CCR	1	153.0094444	-26.40008333	46	2.15	19.8	1	2	50%	100% L		0	0	0	1	0	0	0	1	
5/09/2019 SB	CCR	2	153.00945	-26.40008	46	2.266666667	13	0	0	43%	0% H		0	0	0	1	0	1	0	2	
12/05/2019	CCU	1	153.0975556	-26.39119444	130	1	19.6	1	4	50%	100% M		0	0	0	0	0	0	0	0	
18/09/2019	CCU	2	153.0975556	-26.39119444	130	5.6	18.3	0	2	84%	60% M		0	0	0	0	0	0	0	0	
27/05/2019	CHA	1	152.7476389	-26.40580556	104	4.766666667	12.9	0	2	42%	0% L		0	0	0	0	0	0	0	0	
23/07/2019	CHA	2	152.7476389	-26.40580556	104	4.666666667	10.9	0	1	65%	0% M		0	0	0	0	1	0	0	1	
30/05/2019	CHR	1	152.62125	-26.44066667	137	3.3	13.6	0	2	16%	0% L		0	0	0	0	0	0	0	0	
17/07/2019	CHR	2	152.62125	-26.44066667	137	4.666666667	7.3	0	1	99%	0% H		0	0	0	0	0	0	0	0	
17/07/2019	CHU	1	152.6633889	-26.45994444	100	5.916666667	5.8	0	1	99%	0% H		0	0	0	0	0	0	0	0	
23/07/2019	CHU	2	152.6633889	-26.45994444	100	5.583333333	10.3	0	1	65%	0% M		0	0	0	1	0	0	0	1	
10/06/2019	DCA	1	152.9986389	-26.48394444	50	6.933333333	14.9	0	1	50%	50% M		0	0	0	0	0	0	0	0	
5/09/2019 SB	DCA	2	152.99864	-26.48394	50	4.733333333	12	0	1	43%	0% M		0	0	0	1	0	0	0	1	
26/05/2019	DCR	1	152.9236111	-26.53538889	35	1	18.9	0	0	50%	0% M		0	0	0	0	0	0	0	0	
26/08/2019	DCR	2	152.9236111	-26.53538889	35	2.55	15.2	0	1	21%	10% M		0	0	0	1	0	0	0	1	
10/06/2019	DCU	1	153.0639722	-26.49172222	7	6.116666667	14.3	0	1	50%	40% M		0	0	0	1	0	0	0	1	
26/08/2019	DCU	2	153.0639722	-26.49172222	7	3.583333333	14.2	0	1	21%	0% M		0	0	0	1	0	0	0	1	
26/08/2019	DHA	2	152.7758611	-26.5475	104	1.333333333	16.8	0	1	21%	5% M		1	0	0	0	0	0	0	1	
26/05/2019	DHA	1	152.7758611	-26.5475	104	2.183333333	17	0	1	50%	0% M		0	0	0	1	0	0	0	1	
9/06/2019	DHR	1	152.3944444	-26.61075	576	1	16.5	0	1	42%	0% M		0	0	0	0	0	0	0	0	
17/07/2019 SB	DHR	2	152.3944444	-26.61075	576	2.433333333	12.8	0	1	99%	0% H		0	0	0	1	0	1	0	2	
26/05/2019	DHU	1	152.7313056	-26.59536111	106	3.1	16.4	0	1	50%	0% M		0	0	0	0	0	0	0	0	
16/07/2019 SB	DHU	2	152.73125	-26.5955	106	3.283333333	7.5	0	0	100%	0% H		1	0	0	1	0	0	0	2	
10/06/2019	ECA	1	153.03825	-26.53733333	13	4.15	14.4	0	1	50%	40% M		0	0	0	0	0	0	0	0	
16/07/2019	ECA	2	153.03825	-26.53733333	13	4	9.2	0	1	100%	0% H		0	0	0	1	0	0	0	1	
10/06/2019	ECR	1	152.9725278	-26.59588889	62	3.15	14.6	0	1	50%	0% M		0	0	0	0	0	0	0	0	
16/07/2019	ECR	2	152.9725278	-26.59588889	62	3.133333333	9.8	0	1	100%	0% H		0	0	0	0	0	0	0	0	
10/06/2019	ECU	1	153.0760833	-26.56463889	11	5.116666667	14.6	0	1	50%	35% M		0	0	0	1	0	0	0	1	
16/07/2019	ECU	2	153.0760833	-26.56463889	11	4.883333333	9.2	0	1	100%	0% H		0	0	0	0	1	0	0	1	
9/06/2019	EHA	1	152.5114722	-26.67458333	525	2.15	15.5	0	1	42%	0% M		0	0	0	0	0	0	0	0	
17/07/2019 SB	EHA	2	152.5114722	-26.67458333	525	3.583333333	6.7	0	0	99%	0% H		0	0	0	1	0	0	0	1	
9/06/2019	EHR	1	152.548	-26.70477778	686	3.116666667	14.3	0	1	42%	0% M		0	0	0	1	0	1	0	2	
17/07/2019 SB	EHR	2	152.548	-26.70477778	686	1.366666667	12.9	0	1	99%	0% H		0	0	0	1	0	0	0	1	
26/05/2019	EHU	1	152.8603889	-26.62313889	398	4.266666667	16.8	0	2	50%	0% M		0	0	0	0	0	0	0	0	
16/07/2019 SB	EHU	2	152.85835	-26.62462	398	2.166666667	12.5	0	2	100%	0% H		1	0	0	1	0	1	0	3	
10/06/2019	FCA	1	153.0268333	-26.63736111	18	1	18.8	0	1	50%	0% M		1	0	0	0	0	0	0	1	
16/07/2019	FCA	2	153.0268611	-26.63736111	18	2.216666667	11.3	0	1	100%	0% H		0	0	0	0	0	0	0	0	
16/07/2019	FCR	2	152.9235556	-26.65886111	123	1	17.5	0	1	100%	0% H		0	0	0	0	0	0	0	0	
10/06/2019	FCR	1	152.9235556	-26.65886111	123	2.066666667	15.7	0	1	50%	0% M		1	0	0	1	1	0	0	3	
9/07/2019	FCU	1	153.0736389	-26.67883333	121	3.016666667	15.1	0	1	50%	0% M		0	0	0	0	0	0	0	0	
26/08/2019	FCU	2	153.0736389	-26.67883333	121	4.583333333	13.3	0	1	21%	0% M		0	0	0	0	0	0	0	0	
9/06/2019	FHA	1	152.6841389	-26.70430556	132	6.116666667	13.9	0	1	42%	100% L		0	0	0	0	0	0	0	0	
16/07/2019 SB	FHA	2	152.68465	-26.70416	132	4.2	6	0	1	100%	0% H		0	0	0	0	1	0	0	1	
9/06/2019	FHR	1	152.6484722	-26.64483333	140	5.2	14.1	0	1	42%	0% L		0	0	0	0	0	0	0	0	
17/07/2019 SB	FHR	2	152.6484722	-26.64483333	140	5.083333333	9.2	0	0	99%	0% H		0	0	0	1	0	0	0	1	
9/06/2019	FHU	1	152.7134444	-26.72875	135	7.033333333	14	0	1	42%	100% L		0	0							

Appendix 8: Raw historical occurrence records database. Bold font indicates records included in SDM development.

Species	Locality	Latitude	Longitude	Co-ordinate Uncertainty	Date	Data Source	Record ID
Tyto javanica		-23.91	151.25	9000	1980-12-31	First Bird Atlas	17a9b44c-9294-4e98-934a-f60667c5f4cb
Tyto javanica	Arthur Street, Boyne Island	-23.94722	151.35416	100	1999-10-10	BirdLife	899261
Tyto javanica	Arthur Street, Boyne Island	-23.94722	151.3542	100	1999-10-10	BirdLife Australia, Birdata	a6388392-93ac-48ca-8b63-c776582be372
Tyto javanica	Nyara home block	-24.5675	152.03333	100	12/04/2010	BirdLife	1195332
Tyto javanica	Redmonds Dairy	-24.58556	151.81305	100	1999-04-01	BirdLife	899369
Tyto javanica	Redmonds Dairy	-24.58556	151.81305	100	1999-06-01	BirdLife	899371
Tyto javanica	Redmonds Dairy	-24.58556	151.81305	100	1999-08-01	BirdLife	899373
Tyto javanica	Redmonds Dairy	-24.58556	151.81305	100	1999-03-01	BirdLife	899376
Tyto javanica	Wayne & Sue's	-24.76889	152.29222	100	2013-09-01	BirdLife	1480478
Tyto javanica	Gooburrum Rd	-24.81056	152.31528	100	2013-08-25	BirdLife	1480429
Tyto javanica	Gooburrum Rd	-24.81056	152.31528	100	2013-09-18	BirdLife	1480430
Tyto javanica	Rosewood place	-24.85667	152.33472	100	2011-06-12	BirdLife	1418329
Tyto javanica	Brithamba Rd Bucca	-24.85628	152.14833	100	2008-05-22	BirdLife	1070441
Tyto javanica	Mt Perry Road	-25.02833	151.73694	100	2011-07-02	BirdLife	1208927
Tyto javanica	Kirkuna, Burrum Coast NP	-25.11667	152.53333	50000	1998-07-06	BirdLife	893666
Tyto javanica	LOT 209 Wetheron Road, Bon Accord Queensland 4625, Australia	-25.60329628	151.6524353		2014-05-12	ALA species sightings and OzAtlas	4d814c8f-ce12-4cef-9e86-87126da204e
Tyto javanica	LOT 1 Burnett Highway, Gayndah Queensland 4625, Australia	-25.6234951	151.6084137		2014-05-14	ALA species sightings and OzAtlas	fffe054f-e035-497d-ab36-e9ed9b32e54e
Tyto javanica	Inskip Point Cell	-25.75	153.08333	100	2002-11-30	BirdLife	1258495
Tyto javanica	Inskip Point Cell	-25.75	153.08333	100	2003-06-13	BirdLife	1258496
Tyto javanica	Goonulm Rd, Tansey	-25.98833	152.04417	100	2009-03-01	BirdLife	1255148
Tyto javanica	Goonulm Rd, Tansey	-25.98833	152.04417	100	2011-04-01	BirdLife	1255174
Tyto javanica	Goonulm Rd, Tansey	-25.98833	152.04417	100	2012-09-01	BirdLife	1255180
Tyto javanica	Goonulm Road, Tansey	-25.98833	152.0442	5000	2012-09-01	BirdLife Australia, Birdata	bc38862-1698-4439-aa85-2e6a79b46f2a
Tyto javanica	Goonulm Road, Tansey	-25.99	152.04305	100	1/01/2008	BirdLife	899312
Tyto javanica	Goonulm Road, Tansey	-25.99556	152.04305	100	1999-09-01	BirdLife	899158
Tyto javanica	Kilkivan Bush Camp	-26.11611	152.28973	100	28/07/2016	BirdLife Australia, Birdata	0c9d21ce-0502-4bcd-981c-c5d5f0862e5
Tyto javanica	Kilkivan Bush Camp	-26.11611347	152.2897339	500	2016-07-28	BirdLife	1926609
Tyto javanica	Kilkivan Bush Camp Caravan Park	-26.11722	152.29	100	2013-08-23	BirdLife	1363998
Tyto javanica	Kilkivan Bush Camp Caravan Park	-26.11722	152.29	100	23/08/2013	BirdLife Australia, Birdata	7e0982a6-152c-46db-9df1-56a309b74b54
Tyto javanica	Gympie	-26.18389	152.66167	100	11/09/2005	BirdLife	1035829
Tyto javanica		-26.25	152.75	9000	1977-03-11	First Bird Atlas	42a6ea0-b075-409c-8762-26273f2d4ccd
Tyto javanica		-26.25	152.75	9000	1977-03-11	First Bird Atlas	b2d6c377-d6c6-4fbc-9691-506efbaa8b0b
Tyto javanica	Lake Barambah	-26.30694	151.90361	100	2000-11-20	BirdLife	886149
Tyto javanica	Lake Barambah	-26.30694	151.9936	100	20/11/2000	BirdLife Australia, Birdata	5515b459-855a-4173-ab0c-2d83d91d1bf3
Tyto javanica	Bruce Hwy at 26 18 335 152 43 16E	-26.30917	152.72111	100	22/07/2012	BirdLife	1405882
Tyto javanica	Cedar Grove, Amamoor SF	-26.36861	152.58638	100	2001-12-12	BirdLife	884917
Tyto javanica	Cedar Grove, Amamoor SF	-26.36861	152.5864	100	12/12/2001	BirdLife Australia, Birdata	0e101007-2f48-43c3-91cf-975f80ee5783
Tyto javanica	Spillers Road Farm	-26.49444	152.74444	5000	2007-01-01	BirdLife	1114750
Tyto javanica	Spillers Road Farm	-26.49444	152.74444	5000	2007-02-01	BirdLife	1114751
Tyto javanica	Spillers Rd Farm (restricted access)	-26.49472	152.72722	100	1999-01-24	BirdLife	1429545
Tyto javanica	Krome Road	-26.51027	152.02666	100	2004-12-02	BirdLife	971634
Tyto javanica	Krome Road	-26.51028	152.0267	100	30/12/2004	BirdLife Australia, Birdata	d0e9a828-4c7b-446f-90d0-46e4a0704b4f
Tyto javanica	Coolum, Ryan Rd	-26.53306	153.08833	100	2004-08-06	BirdLife	1054880
Tyto javanica	Mt Wooreolin	-26.53556	151.8067	100	1999-11-12	BirdLife Australia, Birdata	0aa82f21-12d5-48d8-add8-658dd39acd63
Tyto javanica	Mt Wooreolin	-26.53556	151.8067	100	2002-10-21	BirdLife Australia, Birdata	0f75c2b8-0cdc-40f2-b00a-b4a081a8cf8d
Tyto javanica	Mt Wooreolin	-26.53556	151.8067	100	1999-10-12	BirdLife Australia, Birdata	14b09503-3625-48ab-a4d0-70fce284f136
Tyto javanica	Mt Wooreolin	-26.53556	151.80666	100	1999-06-14	BirdLife	895099
Tyto javanica	Mt Wooreolin	-26.53556	151.80666	100	1999-07-13	BirdLife	895100
Tyto javanica	Mt Wooreolin	-26.53556	151.80666	100	1999-10-12	BirdLife	895102
Tyto javanica	Mt Wooreolin	-26.53556	151.80666	100	1999-11-12	BirdLife	895103
Tyto javanica	Mt Wooreolin	-26.53556	151.80666	100	2002-10-21	BirdLife	895139
Tyto javanica	Mt Wooreolin	-26.53556	151.80666	100	2004-04-18	BirdLife	895150
Tyto javanica	Mt Wooreolin	-26.53556	151.80666	100	2004-09-16	BirdLife	895158
Tyto javanica	Mt Wooreolin	-26.53556	151.80666	100	2005-02-16	BirdLife	895165
Tyto javanica	Mt Wooreolin	-26.53556	151.80666	100	22/02/2008	BirdLife	895180
Tyto javanica	Mt Wooreolin	-26.53556	151.80666	100	2007-09-21	BirdLife	895181
Tyto javanica	Mt Wooreolin	-26.53556	151.80666	100	2008-04-17	BirdLife	895185
Tyto javanica	Mt Wooreolin	-26.53556	151.80666	100	2008-08-19	BirdLife	895186
Tyto javanica	Horizon Dve, Estate Dis Coolum	-26.53944	153.09028	100	2004-11-18	BirdLife	1108175
Tyto javanica	Horizon Dve, Estate Dis Coolum	-26.53944	153.0903	100	2004-11-18	BirdLife Australia, Birdata	d63da03d-9e75-469e-917b-047d73a68f97
Tyto javanica	Leasks Property - Whitman Road	-26.57222	151.945	100	2010-03-30	BirdLife	1247615
Tyto javanica	Leasks Property - Whitman Road	-26.57222	151.94501	100	30/03/2010	BirdLife Australia, Birdata	8bd071ec-351d-416d-b956-041dc91bfdda
Tyto javanica	Lowe Road/ Spillers Road/Moy Pocket	-26.58333	152.75	100	2005-06-30	BirdLife	1239365
Tyto javanica	Lowe Road/ Spillers Road/Moy Pocket	-26.58333	152.75	100	2012-09-01	BirdLife	1239378
Tyto javanica	Lowe Road/ Spillers Road/Moy Pocket	-26.58333	152.75	100	2012-11-01	BirdLife	1239381
Tyto javanica	Lowe Road/ Spillers Road/Moy Pocket	-26.58333	152.75	100	11/12/2012	BirdLife	1239394
Tyto javanica	Stuart River	-26.58555	151.79194	100	25/04/2003	BirdLife	982083
Tyto javanica	Mapleton Road, Nambour	-26.62222	152.94583	100	23/03/2002	BirdLife	886997
Tyto javanica	Maroochy River Resort	-26.63333	153.05	500	1998-10-20	BirdLife	896056
Tyto javanica	Maroochy River Resort	-26.63333	153.05	500	1998-10-20	BirdLife Australia, Birdata	cd9f879e-896d-42ea-914a-a15811ad6713
Tyto javanica	Peach Trees campground, Jimna SF	-26.64	152.45138	500	8/03/2001	BirdLife	887540
Tyto javanica	Peach Trees, Jimna SF	-26.64	152.45138	500	2000-12-02	BirdLife	892266
Tyto javanica	Kunioon Church	-26.65778	151.86388	100	26/02/2000	BirdLife	894080
Tyto javanica	Akala Street, Flaxton	-26.66667	152.85555	500	1999-06-01	BirdLife	898031
Tyto javanica	Akala Street, Flaxton	-26.66722	152.87055	100	2003-06-01	BirdLife	897943
Tyto javanica	Akala Street, Flaxton	-26.66722	152.87055	100	2003-07-01	BirdLife	897944
Tyto javanica	Akala Street, Flaxton	-26.66722	152.87055	100	31/01/2008	BirdLife	897991
Tyto javanica	moooloolaba	-26.67889	153.11583	100	24/09/2009	BirdLife	1190017
Tyto javanica	Palmwoods Gdn Village	-26.68194	152.95444	100	2010-02-01	BirdLife	1037744
Tyto javanica	Palmwoods Village	-26.68222	152.85472	100	2004-02-01	BirdLife	970822
Tyto javanica	West Buderim Itonbark Rd	-26.69673149	153.0486784	5	29/05/2019	BirdLife	2932042
Tyto javanica	6km SW of Nanango	-26.71333	151.925	100	1999-09-26	BirdLife	886137
Tyto javanica	6km SW of Nanango	-26.71333	151.925	100	1999-09-26	BirdLife Australia, Birdata	9330567e-00e8-4d2c-821b-f902d8406929
Tyto javanica	Allen Road	-26.71778	151.92611	100	2010-05-11	BirdLife	1425079
Tyto javanica	Allen Road	-26.71778	151.92611	100	2012-09-16	BirdLife	1425421
Tyto javanica	Allen Road Nanango - Q. 4615	-26.71806	151.92778	100	2002-08-18	BirdLife	1042556
Tyto javanica	Allen Road Nanango - Q. 4615	-26.71806	151.92778	100	2002-09-29	BirdLife	1042574
Tyto javanica	Allen Road Nanango - Q. 4615	-26.71806	151.92778	100	2003-04-18	BirdLife	1042626
Tyto javanica	Allen Road Nanango - Q. 4615	-26.71806	151.92778	100	19/04/2003	BirdLife	1042627
Tyto javanica	'Jaya', Mclean Road, Maleny	-26.72972	152.84861	100	7/01/2001	BirdLife	886647
Tyto javanica	'Jaya', Mclean Road, Maleny	-26.7325	152.84805	100	1999-02-01	BirdLife	886640
Tyto javanica	'Jaya', Mclean Road, Maleny	-26.7325	152.84805	100	1999-03-01	BirdLife	886641
Tyto javanica	'Jaya', Mclean Road, Maleny	-26.7325	152.84805	100	1999-04-01	BirdLife	886642
Tyto javanica	'Jaya', Mclean Road, Maleny	-26.73306	152.84805	100	2000-07-01	BirdLife	886617
Tyto javanica	'Jaya', Mclean Road, Maleny	-26.73306	152.84805	100	2001-03-03	BirdLife	886618
Tyto javanica	'Jaya', Mclean Road, Maleny	-26.73306	152.84805	100	2001-04-01	BirdLife	886619
Tyto javanica	'Jaya', Mclean Road, Maleny	-26.73306	152.84805	100	2001-06-02	BirdLife	886621
Tyto javanica	'Jaya', Mclean Road, Maleny	-26.73306	152.84805	100	2001-07-01	BirdLife	886622
Tyto javanica	'Jaya', Mclean Road, Maleny	-26.73306	152.84805	100	2002-02-03	BirdLife	886627
Tyto javanica	'Jaya', Mclean Road, Maleny	-26.73306	152.84805	100	14/06/2002	BirdLife	886629
Tyto javanica	Mclean Road	-26.73306	152.8481	100	2002-02-03	BirdLife Australia, Birdata	3ff4569c-2297-485f-8907-0f61bc85cc1c
Tyto javanica	home site 01.04.01 - 30.04.01	-26.73333	152.9425	500	2001-04-01	BirdLife	588924
Tyto javanica	home site 01.10.00 - 31.10.00	-26.73333	152.84805	500	2000-08-01	BirdLife	588927
Tyto javanica	home site 01.10.00 - 31.10.00	-26.73333	152.84805	500	2000-07-01	BirdLife	588928
Tyto javanica	home site 01.10.00 - 31.10.00	-26.73333	152.84805	500	2000-06-01	BirdLife	588929
Tyto javanica	home site 01.10.00 - 31.10.00	-26.73333	152.84805	500	2000-05-01	BirdLife	588930
Tyto javanica	home site 01.10.00 - 31.10.00	-26.73333	152.84805	500	2000-04-01	BirdLife	588931
Tyto javanica	home site 01.10.00 - 31.10.00	-26.73333	152.84805	500	1999-08-01	BirdLife	588939
Tyto javanica	home site 01.10.00 - 31.10.00	-26.73333	152.84805	500	1999-06-01	BirdLife	588941
Tyto javanica	home site 01.10.00 - 31.10.00	-26.73333	152.84805	500	1999-05-01	BirdLife	588942
Tyto javanica	home site 01.10.00 - 31.10.00	-26.73333	152.84805	500	1999-04-01	BirdLife	588943
Tyto javanica	home site 01.10.00 - 31.10.00	-26.73333	152.84805	500	1999-03-01	BirdLife	588944
Tyto javanica	home site 01.10.00 - 31.10.00	-26.73333	152.84805	500	1999-02-01	BirdLife	588945
Tyto javanica	home site 01.10.00 - 31.10.00	-26.73333	152.84805	500	1998-05-01	BirdLife	588950
Tyto javanica	home site 01.10.00 - 31.10.00	-26.73333	152.84805	500	2001-03-01	BirdLife	588955
Tyto javanica	home site 01.10.00 - 31.10.00	-26.73333	15				

Tyto javanica	home site 01.10.00 - 31.10.00	-26.73333	152.84805	500	2001-12-01	BirdLife	588963		
Tyto javanica	home site 01.10.00 - 31.10.00	-26.73333	152.84805	500	2001-11-01	BirdLife	588964		
Tyto javanica	home site 01.10.00 - 31.10.00	-26.73333	152.84805	500	2001-09-01	BirdLife	588965		
Tyto javanica	McLean Road	-26.73333	152.84805	100	7/07/2002	BirdLife	968000		
Tyto javanica	Allens Road, via Nanango	-26.75	151.91666	5000	2001-01-13	BirdLife	896452		
Tyto javanica	Allens Road, via Nanango	-26.75	151.91667	500	13/01/2001	BirdLife Australia, Birdata	397666be-745f-4ec7-ba29-ce09c2b0ad16		
Tyto javanica	Bunya Mountains NP	-26.85	151.55	5000	2000-08-14	BirdLife	890849		
Tyto javanica	Bunya Mountains NP	-26.85	151.55	5000	2000-08-14	BirdLife Australia, Birdata	c3b78323-0e10-48fa-b966-3cfff53a9312		
Tyto javanica	Bunya Mountains NP	-26.86667	151.58333	5000	1999-04-23	BirdLife	894438		
Tyto javanica	Blackbutt	-26.87167	152.10444	100	2008-10-18	BirdLife	1247563		
Tyto javanica	Blackbutt	-26.87167	152.1044	100	18/10/2008	BirdLife Australia, Birdata	1a3f2c6c-955a-452f-8395-0aae74bc7a9a		
Tyto javanica	W.Stannmore House Block	-26.885	152.78917		2018-03-16	BirdLife	2025155		
Tyto javanica	W.Stannmore House Block	-26.885	152.78917		2018-03-18	BirdLife	2025156		
Tyto javanica	W.Stannmore House Block	-26.885	152.78917		2019-01-07	BirdLife	2906739		
Tyto javanica	W.Stannmore House Block	-26.885	152.78917		2018-03-18	BirdLife Australia, Birdata	b06d5037-bc4d-45f7-9697-60efca8b4791		
Tyto javanica	W.Stannmore House Block	-26.885	152.78917		2018-03-16	BirdLife Australia, Birdata	d8692273-4890-407d-b4b6-2d76d036440b		
Tyto javanica	W.Stannmore House Block	-26.885	152.78917		2019-01-07	BirdLife Australia, Birdata	de0f5980-216b-4f05-98fd-c76145b7d797		
Tyto javanica	Dandabah Centre	-26.91667	151.58333	100	2006-06-15	BirdLife	1087198		
Tyto javanica	Red Road	-26.9561858	153.0063867		2006-03-12	BirdLife	1913667		
Tyto javanica	Emu Creek camp	-26.97389	152.16972	500	12/06/2000	BirdLife	892260		
Tyto javanica	Cooyar Creek,QLD	-26.98083	151.83556		2018-05-02	BirdLife Australia, Birdata	4575424f-a460-4654-917b-0918ca58603		
Tyto javanica	Cooyar Creek,QLD	-26.98083333	151.8355556	0	3/05/2018	BirdLife	2898998		
Tyto javanica	Swinging Bridge Pk	-26.9825	151.81898		2004-03-16	BirdLife	986264		
Tyto javanica	Mt Mee SF	-27.06944	152.69389		2013-01-12	BirdLife	141586		
Tyto javanica	Camp Somerset	-27.075	152.63056		2009-04-08	BirdLife	1271724		
Tyto javanica		-27.08	152.41	9000	1979-10-17	First Bird Atlas	0b70a5e4-0b57-48f8-a421-4c77b07abe10		
Tyto javanica	D'Aguilar NP--Mt Mee section	-27.08861	152.7		2013-01-12	BirdLife	1479095		
Tyto javanica	Buckley's Hole Conservation Park, Bribie Island	-27.09694219	153.1704226	500	1/01/2011	WildNet - Queensland Wildlife Data	3ff19914-ab65-4cbd-9cdf-c266f019080		
Tyto javanica		-27.11	152.55	54000	1972-10-15	Historical Bird Atlas	50e5257c-d21e-46b2-b2fa-731817d3aa72		
Tyto javanica	Mt Pleasant dairy farm, Dayboro	-27.16667	152.8	5000	2000-01-01	BirdLife	900228		
Tyto javanica	King Scrub - Dayboro road	-27.17333	152.82556		2012-07-21	BirdLife	1478901		
Tyto javanica	1302 Lacey's Creek Rd, Lacey's Creek (restricted access)	-27.225	152.72167		2007-04-13	BirdLife	1415109		
Tyto javanica	Armstrong Creek 10' Cell	-27.24917	152.75861		2003-03-04	BirdLife	1415047		
Tyto javanica	Armstrong Creek 10' Cell	-27.24917	152.75861		2008-07-01	BirdLife	1415055		
Tyto javanica	Armstrong Creek 10' Cell	-27.24917	152.75861		2009-10-01	BirdLife	1415069		
Tyto javanica	Armstrong Creek 10' Cell	-27.24917	152.75861		2011-07-29	BirdLife	1415074		
Tyto javanica	Armstrong Creek 10' Cell	-27.24917	152.75861		2012-07-21	BirdLife	1415077		
Tyto javanica	Samsonvale cemetery and surrounds	-27.26944	152.85583		2007-07-22	BirdLife	1414793		
Tyto javanica	Kent Farm, Samsonvale	-27.29194	152.83472	100	2000-10-20	BirdLife	893977		
Tyto javanica	Kent Farm, Samsonvale	-27.29194	152.8347	100	2000-10-20	BirdLife Australia, Birdata	ac4848e3-5348-4bcd-b2bd-5346732b7bd2		
Tyto javanica	Kent Farm, Samsonvale	-27.29194	152.8347	100	20/10/2000	BirdLife Australia, Birdata	ac4848e3-5348-4bcd-b2bd-5346732b7bd2		
Tyto javanica	Eatons Hill	-27.34083	152.95278		2011-01-19	BirdLife	1427011		
Tyto javanica	Eatons Crossing Road & Sanford Road	-27.35028	152.88417		2015-07-26	BirdLife	1577019		
Tyto javanica	Ravensbourne NP	-27.3675	152.17888	100	1999-07-11	BirdLife	881762		
Tyto javanica	Ravensbourne NP	-27.3675	152.17888	100	1999-07-11	BirdLife	886795		
Tyto javanica	Retreat Court	-27.37194	152.91890		2009-11-01	BirdLife	990933		
Tyto javanica	Esk-Hampton Road at 27 22 25S 152 09 39E	-27.37361	152.16083	100	11/07/2012	BirdLife	1404406		
Tyto javanica	Esk-Hampton Rd at 27 22 25S 152 09 39E	-27.37361	152.16083		2012-07-11	BirdLife	1481388		
Tyto javanica	Bunya Road (nr Blue Hills Dr)	-27.37722	152.93889		2012-11-24	BirdLife	1274077		
Tyto javanica	Bunya Road (nr Blue Hills Dr)	-27.37722	152.9389	100	24/11/2012	BirdLife Australia, Birdata	e397bdf58-6902-4204-833e-d29862035314		
Tyto javanica	Powl	-27.39295	152.82062	100	19/07/2018	BirdLife Australia, Birdata	9622507c-f3e-4a69-8790-6b9c313369e2		
Tyto javanica	Powl	-27.3929533	152.8206167	10	2018-07-19	BirdLife	2048242		
Tyto javanica		-27.4	152.5	54000	1972-10-15	Historical Bird Atlas	fb149ba2-96aa-4d25-ac28-98odb337d2a7		
Tyto javanica		-27.41	153.08	9000	1977-01-11	First Bird Atlas	418789fe-70ea-48b1-a4fd-0c4ff05cc28d		
Tyto javanica	Lytton and south-west portion of Fisherman Island	-27.41361	153.15278		2009-03-01	BirdLife	1453076		
Tyto javanica	Brisbane Valley Highway/England Creek Road 1' cell	-27.425	152.64167		2014-02-15	BirdLife	1524682		
Tyto javanica	Atkinsons Dam (Lockyer Valley)	-27.42806	152.44778		2008-10-18	BirdLife	1414408		
Tyto javanica	Hamilton, nr brets wharf	-27.43972	153.06306		2009-08-02	BirdLife	1133716		
Tyto javanica	CitiLink Buidng 153 Campbell	-27.44528	153.02972		2009-08-29	BirdLife	1126460		
Tyto javanica	Sale Yards, Murarrie	-27.45	153.10972	500	5/09/2006	BirdLife	892789		
Tyto javanica	Lake Manchester headwaters	-27.45333	152.76388	100	23/04/2000	BirdLife	893962		
Tyto javanica	Metropolex Lake, Queensport	-27.45639	153.10194	100	23/04/2001	BirdLife	881539		
Tyto javanica	Roma Street Gardens	-27.4625	153.01861	100	9/09/2013	BirdLife	1433020		
Tyto javanica	Garrett Street, Murarrie	-27.46389	153.09861	100	8/05/2001	BirdLife	896976		
Tyto javanica	Mt Coot-tha	-27.47178341	152.9710429	100	24/02/2019	BirdLife	2510099		
Tyto javanica	Envirogard, Murarrie Road, Tingalpa	-27.47194	152.11305	500	2001-03-19	BirdLife	896976		
Tyto javanica	Envirogard, Murarrie Road, Tingalpa	-27.47194	153.11305	500	26/03/2001	BirdLife	896974		
Tyto javanica	Gap Creek Reserve, Mt Coot-Tha	-27.47833	152.92889	100	19/10/2014	BirdLife	1402449		
Tyto javanica	Mt Coot-Tha NP--Gap Creek Reserve	-27.47833	152.92889		2014-10-19	BirdLife	1513879		
Tyto javanica	Kentville	-27.48056	152.41222	100	18/09/2011	BirdLife	1236556		
Tyto javanica	East Brisbane	-27.48056	153.04583		2014-09-08	BirdLife	1537429		
Tyto javanica	River Toe	-27.48306	153.0325		2006-07-20	BirdLife	1012533		
Tyto javanica	'Tara Park', Gowie Junction	-27.49083	152.89305	100	2001-09-12	BirdLife	892361		
Tyto javanica	'Tara Park', Gowie Junction	-27.49083	152.89305	100	2001-09-30	BirdLife	892364		
Tyto javanica	'Tara Park', Gowie Junction	-27.49083	152.89305	100	2001-10-14	BirdLife	892365		
Tyto javanica	'Tara Park', Gowie Junction	-27.49083	152.89305	100	2001-11-11	BirdLife	892369		
Tyto javanica	'Tara Park', Gowie Junction	-27.49083	152.89305	100	24/11/2001	BirdLife	892370		
Tyto javanica	'Tara Park', Gowie Junction	-27.49083	152.8931	100	2001-11-19	BirdLife Australia, Birdata	375fe129-b7cf-4493-816a-bc92747b09fa		
Tyto javanica	'Tara Park', Gowie Junction	-27.49083	152.8931	100	2001-11-11	BirdLife Australia, Birdata	468aaaf4-d705-4c02-9a20-1922dc2a5dc		
Tyto javanica	'Tara Park', Gowie Junction	-27.49083	152.8931	100	2001-09-30	BirdLife Australia, Birdata	750e5516-9e68-464d-a643-c27d3e524f6		
Tyto javanica	'Tara Park', Gowie Junction	-27.49083	152.8931	100	2001-10-14	BirdLife Australia, Birdata	8d9ea533-c8cc-49bd-851a-b41d8e91dd04		
Tyto javanica	51 Ben Varden avenue	-27.4946801	152.7845001		2007-11-15	BirdLife	1917710		
Tyto javanica	Plumer Street	-27.5065515	153.2408657		2005-12-29	BirdLife	1912952		
Tyto javanica	Jindalee	-27.52861	152.94028		2013-04-27	BirdLife	1491863		
Tyto javanica	'Abberton', Lockyer Creek Road, Helidon	-27.57333	152.13888	100	1999-05-01	BirdLife	897500		
Tyto javanica	'Abberton', Lockyer Creek Road, Helidon	-27.57333	152.13888	100	1999-12-01	BirdLife	897507		
Tyto javanica	'Abberton', Lockyer Creek Road, Helidon	-27.57333	152.13888	100	2000-01-01	BirdLife	897508		
Tyto javanica	'Abberton', Lockyer Creek Road, Helidon	-27.57333	152.13888	100	2000-02-01	BirdLife	897509		
Tyto javanica	'Abberton', Lockyer Creek Road, Helidon	-27.57333	152.13888	100	2000-11-01	BirdLife	897518		
Tyto javanica	'Abberton', Lockyer Creek Road, Helidon	-27.57333	152.13888	100	31/12/2000	BirdLife	897519		
Tyto javanica	Pooh Corner Reserve, Wacol	-27.57528	152.92806	100	25/05/2013	BirdLife	1409022		
Tyto javanica		-27.58	153.25	9000	1977-04-01	First Bird Atlas	b01ca378-1034-4674-a617-4fe611c9337b		
Tyto javanica		-27.58	152.25	9000	1979-10-14	First Bird Atlas	ff7daca9-d2-471e-9be3-5489c6a784ab		
Tyto javanica	Lake Dyer	-27.635	152.37638	100	14/05/2002	BirdLife	891473		
Tyto javanica	Perrets Road, Mt Whitestone	-27.66667	152.16666	500	1999-07-03	BirdLife	900840		
Tyto javanica	Canterbury College, Waterford West (restricted access)	-27.70806	153.15083		2012-06-15	BirdLife	1499237		
Tyto javanica	229 Cedar Cr.Rd, Cedar Creek	-27.83	153.2	27000	1973-10-18	Historical Bird Atlas	ed170a23-5af4-45e0-90b8-147241864057		
Tyto javanica	Cedar Creek Rd at 27-50°56'S 153-11°45'E (restricted access)	-27.84889	153.19853		2010-07-12	BirdLife	1133751		
Tyto javanica	Cedar Creek Rd at 27-50°56'S 153-11°45'E (restricted access)	-27.84889	153.1975		2013-12-03	BirdLife	1421667		
Tyto javanica	Cedar Creek Rd at 27-50°56'S 153-11°45'E (restricted access)	-27.84889	153.1975		2013-12-07	BirdLife	1421668		
Tyto javanica	Cedar Creek Rd at 27-50°56'S 153-11°45'E (restricted access)	-27.84889	153.1975		2014-01-23	BirdLife	1421699		
Tyto javanica		-27.86	152.48	54000	1974-10-13	Historical Bird Atlas	1e24c303-152e-4021-b5ee-5deae58f2bde		
Tyto javanica	Cunningham Hwy, Silverdale	-27.88583	152.61277	100	6/07/2001	BirdLife	890964		
Tyto javanica	Southport 10' Cell	-27.91667	153.41667	100	2012-04-21	BirdLife	1402137		
Tyto javanica		-27.98	153	54000	1972-10-15	Historical Bird Atlas	6e1d6f59-5c1c-401b-af8d-ccac8589693b0		
Tyto javanica	Goomburra Forest Reserve	-27.98083	152.3475	100	9/03/2005	BirdLife	1003125		
Tyto javanica		-28.08	153.41	9000	1977-04-01	First Bird Atlas	95fd4104-2786-448f-bf3f-6711b26dc0c1		
Tyto javanica		-28.08	153.25	9000	1977				

Typo novaseelandiae	bemboka d	-23.8963228	151.268726				BirdLife		1907548
Typo novaseelandiae	Palmly Forest Reserve 2 (formerly Timber Reserve 99), south-east Queensland	-24.35106313	151.4050321	250	1998-11-29	WildNet - Queensland Wildlife Data	b3f36e12-e12d-4def-b4cf-15024746339c		
Typo novaseelandiae	Head of north branch of Krombit Creek, Krombit Tops National Park, CAMP SITE, MANY PEAKS	-24.36418849	151.2906384	500	11/02/2002	WildNet - Queensland Wildlife Data	07d7d331-e08a-e477-84dc-b3729274468f		
Typo novaseelandiae	Kalpowar State Forest	-24.54578078	151.3648224		1997-07-07	WildNet - Queensland Wildlife Data	6a829cc0-633a-4604-89cb-a7753a49a5f6		
Typo novaseelandiae	Kalpowar State Forest	-24.54739686	151.3648224		2017-05-07	eBird Australia	86c5204a-80d4-410a-b866-30909d9f108		
Typo novaseelandiae	Kalpowar State Forest	-24.54739686	151.3648224		2017-05-07	eBird Australia	aaaf4ae7-cb3e-401d-ba76-6503e005920d		
Typo novaseelandiae	TALL OPEN FOREST CLOSE TO SITE GR31	-24.94454513	151.5300185	500	1997-07-01	WildNet - Queensland Wildlife Data	4988b8f4-b29e-4723-a705-f4d55a61917a		
Typo novaseelandiae	27 KM NORTH WEST OF MT PERRY TOWN EAST OF MOUNTAIN CRE	-24.94057955	151.5301904	500	1997-06-30	WildNet - Queensland Wildlife Data	b33c524a-5eb1-4536-e207-fb045f77775e		
Typo novaseelandiae	1.8m N Coombro Lake, Fraser Is	-25.21507466	152.153544	450	1972-12-23	WildNet - Queensland Wildlife Data	61c034ba-6c0c-481d-84c1-6a115e15e100		
Typo novaseelandiae	Fraser Island	-25.2603458	153.1531906		1991-08-15	eBird Australia	79d637d7-21d7-493f-b6c4-352d6c57c7b		
Typo novaseelandiae	Forest Strn, Fraser Is	-25.466667	153.066667		1962-06-06	Queensland Museum provider for OZCAM	b6d28a89-b8fe-40a7-8a57-9686e052e88		
Typo novaseelandiae	Central Station, Fraser Island, Great Sandy National Park, SEQ.	-25.47289071	153.054707	100	14/05/2003	WildNet - Queensland Wildlife Data	cb53fca4-7a3d-46f1-b4ef-e8be647108630		
Typo novaseelandiae	Forest Station, Fraser Island	-25.47639	153.04972	500	1998-04-27	BirdLife	883623		
Typo novaseelandiae	Dem, St Marys SF	-25.63895236	152.4074301	50	1999-12-02	WildNet - Queensland Wildlife Data	c5651608-0001-4752-b756-6b4729d3dc2		
Typo novaseelandiae	St Marys SF	-25.64304732	152.422044	999	1999-12-02	WildNet - Queensland Wildlife Data	ed82cc0d-1cad-4698-ad6b-30f15e10bdc		
Typo novaseelandiae	St Mary SF	-25.69083	152.46972	100	1999-08-14	BirdLife	887575		
Typo novaseelandiae	St Mary SF	-25.69083	152.46972	100	1999-08-14	BirdLife	887576		
Typo novaseelandiae	Kauri Creek camp	-25.8125	152.92305	100	13/12/2001	BirdLife	886667		
Typo novaseelandiae	Wide Bay Training Area	-25.86694	152.86638		28/04/2000	BirdLife	901537		
Typo novaseelandiae	Burnett Cose Area	-25.969571	152.685443		2012-05-23	eBird Australia	0755a2e2-b2de-4740-927e-4085e025234e		
Typo novaseelandiae	YBG Transect, 3.2 km Rainbow Beach Rd, Cooloola Way	-26.03197463	153.0231482	999	1993-08-03	WildNet - Queensland Wildlife Data	88775ee1-87c7-435e-bdd4-fc3b7674c0b6		
Typo novaseelandiae	locally withheld	-26.18	152.83	100	1994-08-12	OEH Atlas of NSW Wildlife	0b76846-840a-4221-971c-3e8887f5d3ab		
Typo novaseelandiae	Great Sandy National Park-Harrys Hut	-26.20719	153.03268		2013-09-05	eBird Australia	e4b2a933-08ba-41fe-98fb-8c12b7855703		
Typo novaseelandiae	Harrys Hut, Cooloola National Park	-26.20722	153.03278	100	5/09/2013	BirdLife	1433081		
Typo novaseelandiae	Hls Rd, Mount Mounan State Forest	-26.25119776	152.8221697	100	1997-06-25	WildNet - Queensland Wildlife Data	8a787a36-b15f-4642-816a-59879c2d533a		
Typo novaseelandiae	Gully south of logging track, north of Kandanga Rd, Kandanga State Fores	-26.40481003	152.4267194	100	1997-08-25	WildNet - Queensland Wildlife Data	931d1016-752c-4b0a-ac70-4d0c5e58b0d6		
Typo novaseelandiae	Bella Creek 10' Cell	-26.41666	152.58333		2013-05-06	eBird Australia	a193b736-1529-4992-842b-05b00c7d23a4		
Typo novaseelandiae	133 Tunba Ct, Cooroy Mountain SEQ	-26.42854278	152.9737538	100	2016-10-11	WildNet - Queensland Wildlife Data	edab6559-3552-42eb-9511-50ca0808e11		
Typo novaseelandiae	133 Tunba Ct, Cooroy Mountain QLD 4563, Australia	-26.4285668	152.9737419	100	11/10/2016	ALA species sightings and OzAtlas	802a682d-bab6-42c8-993f-545e01804162		
Typo novaseelandiae	Kandanga Creek, Hart LA, Kandanga State Forest	-26.43028103	152.6161058	500	1997-06-25	WildNet - Queensland Wildlife Data	7f8b01b7-d821-4aba-9696-f07c1ea15a54		
Typo novaseelandiae	Yandira Rd, Cookm	-26.5116667	153.082333	1000	1998-02-20	Queensland Museum provider for OZCAM	edc4989c3e-7710-478c-803e-405d522113d3		
Typo novaseelandiae	Alfa Vale, 16km N of Nanango	-26.54841314	152.0427404	1000	1988-12-27	WildNet - Queensland Wildlife Data	1e4579d3-3a27-47aa-a3db-af0c1e207d72		
Typo novaseelandiae	Kenilworth State Forest	-26.5833	152.7	5000	1982-11-17	Australian National Wildlife Collection pro	7ee3613-8dc0-48d1-9deb-77652d8a040		
Typo novaseelandiae	Gheerulla Falls Track	-26.6062175	152.816906		2015-05-25	eBird Australia	c41c39a6-baf7-486e-b090-cd68104a02c		
Typo novaseelandiae	Conondale National Park--Charlie Moreland Park	-26.6150235	152.6507163		2018-05-05	eBird Australia	90246740-d0ea-46d0-9256-5039d383098		
Typo novaseelandiae	Charlie Morland Forest Park, Cambrono	-26.61778	152.64944	100	24/06/2000	BirdLife	885110		
Typo novaseelandiae		-26.62255667	152.6248833		2019-05-06	Naturalist	17165444-0045-4a48-83a2-8bc0c21d48a4		
Typo novaseelandiae	Peach Trees Camping Area	-26.6374375	152.448923		2016-09-29	eBird Australia	374c188b-b09e-4541-8949-b517bb16352b		
Typo novaseelandiae	Jimna State Forest--Peach Trees Campsite	-26.63825	152.4498		2016-05-16	eBird Australia	422c3517-e860-4a1e-aad7-54d886a10cd7		
Typo novaseelandiae	Jimna State Forest--Peach Trees Campsite	-26.63825	152.4498		2016-05-17	eBird Australia	c495c3d3-b34d-4074-b715-97bdc0ffcdad		
Typo novaseelandiae	Sunday Creek Road	-26.6425	152.62111		30/09/2001	BirdLife	887806		
Typo novaseelandiae	Lobster Ck, Conondale Ranges	-26.64531137	152.6403528	999	1993-10-18	WildNet - Queensland Wildlife Data	6271107a-732c-4875-915e-ba6c16c3233		
Typo novaseelandiae	Lobster Ck, Conondale Ranges	-26.64531137	152.6403528	999	1993-08-24	WildNet - Queensland Wildlife Data	d2978877-6944-48ff-901c-23685200d6d		
Typo novaseelandiae	Lobster Ck, Conondale Ranges	-26.64531137	152.6403528	999	1994-04-21	WildNet - Queensland Wildlife Data	fee60810-ea2f-4ed4-81e4-3f6e9693658e		
Typo novaseelandiae	Bolumba Creek, camping area	-26.64722	152.64499		2019-01-28	eBird Australia	2748a42e-b15e-2c8f-aefc-ae1c1a2212d02		
Typo novaseelandiae	Jimna State Forest	-26.65114	152.43542		2010-04-12	eBird Australia	14609a5e-e9fe-4696-971e-1b7780000ba		
Typo novaseelandiae	Forest Drive, Conondale National Park, west of Conondale, SEQ.	-26.65881892	152.6384307	100	5/02/2012	WildNet - Queensland Wildlife Data	cd790322-ec6d-474b-b03e-7d466a7e7a5d		
Typo novaseelandiae	South Summer LA, bat study site in area logged 30 years previously	-26.66689643	152.5980774	150	1997-04-06	WildNet - Queensland Wildlife Data	c338f103-0a9e-461c-97f1-c3e5d53eab44		
Typo novaseelandiae	Conondale NP	-26.6689366	152.5928879		1983-04-16	eBird Australia	32688e87-0e1e-49b7-af1a-57f5de183dd5		
Typo novaseelandiae	Conondale NP	-26.6689366	152.5928879		1982-11-03	eBird Australia	8b85524d-d218-4d2e-846b-42e2a190f26		
Typo novaseelandiae	Buderim	-26.683333	153.05	1000	1994-11-01	Queensland Museum provider for OZCAM	43d62320-16a8-475f-8a5f-b5a87713114e		
Typo novaseelandiae	Conondales, camp area	-26.68497699	152.601058	50	1994-07-21	WildNet - Queensland Wildlife Data	1f10d3dc-775d-426c-9696-a992f319701a		
Typo novaseelandiae	Conondales, camp area	-26.68497699	152.601058	500	1993-11-14	eBird Australia	6a80c0b8-b8e4-4d4d-b15f-25c5205a4f4b		
Typo novaseelandiae	Squirrel Creek State Forest	-26.68677022	152.3409878	500	1997-09-29	WildNet - Queensland Wildlife Data	454d0aaf-c72d-4017-9d03-4ab7b0cfa5d7		
Typo novaseelandiae	Conondale NP	-26.6911677	152.6347733		2014-08-25	eBird Australia	5860205f-1d55-42fa-b30e-2429c6ad28c5		
Typo novaseelandiae	Third tributary Bolumba Ck, Conondales	-26.69131062	152.6211104	999	1995-01-01	WildNet - Queensland Wildlife Data	8b71f0a0-89cc-4020-9767-1728b3c4a98c		
Typo novaseelandiae	Conondale National Park North 1' Cell	-26.69166	152.64166		2011-08-16	eBird Australia	8aaec4ff-831a-4490-8024-947ae4a5c3c7		
Typo novaseelandiae	Six Mile Creek at Yields Road (Sunday Creek Road) bridge, Jimna State Fo	-26.69312105	152.4076402	250	11/02/2002	WildNet - Queensland Wildlife Data	24a2cde2-b8e4-4030-910e-4a8b7aa7090a		
Typo novaseelandiae	Six Mile Creek at Yields Road (Sunday Creek Road) bridge, Jimna State Fo	-26.69521825	152.4765402	250	2000-11-07	WildNet - Queensland Wildlife Data	7921d0a5-e45c-4a17-b309-1c4532764534		
Typo novaseelandiae	Conondale National Park at -26.69500, 152.61361	-26.695	152.61361		2016-08-18	eBird Australia	a06502d3-963a-4d89-9306-23a04ad4b6d		
Typo novaseelandiae	Middle Idlimma State Forest	-26.71806	152.50889	100	11/10/2006	BirdLife	1083584		
Typo novaseelandiae	Conondale National Park	-26.71889	152.56861	100	10/05/2014	BirdLife	1537587		
Typo novaseelandiae	Conondale National Park	-26.71892	152.5685		2015-04-09	eBird Australia	66e462e6-e557-47aa-ac30-839d2e4533a1		
Typo novaseelandiae	Conondale National Park	-26.71892	152.5685		2014-05-10	eBird Australia	9a43c2ab-0707-46f4-8108-77b0a25522a7		
Typo novaseelandiae	Conondale National Park	-26.71892	152.5685		2013-07-07	eBird Australia	e9d4c7a8-8d0c-428f-b5c6-dab3b5a424a4		
Typo novaseelandiae	Conondale National Park	-26.71892	152.5685		2018-12-02	eBird Australia	eff950e6-75ee-429a-b2c5-31410088a059		
Typo novaseelandiae	Conondale	-26.72757443	152.7177315	1800	1986-03-29	WildNet - Queensland Wildlife Data	19f869b9-96cc-4e43-b4e1-4aaee33d7c6a		
Typo novaseelandiae	McLenn Rd Maleny	-26.73278	152.84806		2007-06-29	BirdLife	1043436		
Typo novaseelandiae	Maleny 10' Cell	-26.75	152.91667		2008-10-26	BirdLife	1451700		
Typo novaseelandiae	Maleny 10' Cell	-26.75	152.91667		2008-05-22	eBird Australia	05614e4d-487e-483a-835a-9436f75d4d3		
Typo novaseelandiae	Maleny 10' Cell	-26.75	152.91667		2008-10-26	eBird Australia	3454707b-778a-41fe-9a5f-5a0e15a0c66		
Typo novaseelandiae	Harp trap site and camp on J Traverse, ridge line bordering Hungab/Ferry	-26.75506591	152.5326026	100	1998-02-13	WildNet - Queensland Wildlife Data	3454707b-778a-41fe-9a5f-5a0e15a0c66		
Typo novaseelandiae	Maleny	-26.75909	152.85278		1998-11-07	eBird Australia	032942b6-611c-4f52-9b0c-4b0718546940		
Typo novaseelandiae	Yarraman State Forest 289	-26.76618134	151.5372744	300	1997-09-29	eBird Australia	07f66a08-076e-4a5f-b45e-9a4d9e969637		
Typo novaseelandiae	Yarraman State Forest, Dean LA - unnamed creek on north edge of forest	-26.76626886	151.5332959	500	1997-11-11	WildNet - Queensland Wildlife Data	c4e79295-2476-4811-b147-707c81bea977		
Typo novaseelandiae	Conondale National Park (south end)	-26.7671081	152.569731		2019-01-18	eBird Australia	756d44cb-03ae-4d97-909e-a8a7f7c0547b		
Typo novaseelandiae	Maleny	-26.769958	152.854858		2018-11-03	eBird Australia	b25c4261-92c0-4079-8811-9ac4b640d93		
Typo novaseelandiae	BARANKIN STATE FOREST - RICKY'S HUT ROAD	-26.77816725	152.1772154	500	1997-08-11	WildNet - Queensland Wildlife Data	cd33178a-68a2-4b62-bdb3-289555032227		
Typo novaseelandiae	BARANKIN STATE FOREST - TALL OPEN FOREST IN BIDWILLII LOGG	-26.78073008	152.1540211	500	1997-08-11	WildNet - Queensland Wildlife Data	e063323e-806c-430d-b853-8f3945d056ee		
Typo novaseelandiae	Kovakis Rd, P. Pollock	-26.78307	152.971899		2008-08-19	eBird Australia	2161893		
Typo novaseelandiae	North Branch of Ewen Creek, Maleny Forest Reserve, south-east Queen	-26.79386524	152.8914335	500	14/11/2002	WildNet - Queensland Wildlife Data	d6c074b8-0061-490a-8127-68ea13804948		
Typo novaseelandiae	West Barker Compartment. Adjacent to the stream flowing out of the plant	-26.82481465	151.597318	500	1998-04-27	WildNet - Queensland Wildlife Data	dce284d5-790b-4004-8546-4f70d4b5936		
Typo novaseelandiae	3km S of Caloundra turnoff on Bruce Hwy	-26.84007238	152.9593540	900	1983-08-23	WildNet - Queensland Wildlife Data	d256dc5c-8ea1-4116-b1a6-b317c43015d1		
Typo novaseelandiae	BEACON RD AND BRANDON RD JUNCTION AREA ON BRANDON RD	-26.84430979	152.6708019	500	1997-05-06	WildNet - Queensland Wildlife Data	d80a0a45-c42e-421c-a158-91f0486a1041		
Typo novaseelandiae	Bellthorpe National Park	-26.8491343	152.6746664		2019-03-26	eBird Australia	2a81a74a-b46d-4028-810a-222d2779aee3		
Typo novaseelandiae	Bellthorpe National Park	-26.8491343	152.6746664		2019-04-14	eBird Australia	699a9c7b-4d6e-4004-810d-05ee7989993		
Typo novaseelandiae	Bellthorpe National Park	-26.8491343	152.6746664		2019-04-14	eBird Australia	730d5f50-96aa-4ae4-901f-c399849f7c2a		
Typo novaseelandiae	Beerwah	-26.85	152.95		1979-07-27	Queensland Museum provider for OZCAM	847ab344-1969-47fc-bc29-80001a2e2aa4		
Typo novaseelandiae	Beerwah	-26.85	152.95		1979-07-27	Queensland Museum provider for OZCAM	aef741e1-5f7d-46bd-a9e3-69c9abbb0c99		
Typo novaseelandiae	Beerwah	-26.85673901	152.9593596	1800	1985-10-19	WildNet - Queensland Wildlife Data	d265d4d2-dc42-40d5-8a81-a0db01e2d0d6		
Typo novaseelandiae	Beerwah 1' Cell	-26.85853	152.951833		1995-10-19	eBird Australia	e130206a-9ee4-434d-a29f-d8a6a84a00b9		
Typo novaseelandiae	home site november 2001	-26.86111	152.925	500	30/11/2001	BirdLife	585853		
Typo novaseelandiae		-26.87265988	152.7323198		2018-02-16	ALA species sightings and OzAtlas	6228aba1-1fbd-4957-be65-47249a5a5dd9		
Typo novaseelandiae	Edge of hoop pine plantation, south end of Cherry LA, Benarkin SF	-26.92887378	152.1398781	50	1998-05-13	WildNet - Queensland Wildlife Data	29c6a856-78d3-430d-9525-9f70bc33327b		

Typo nosaealandiae	Mt Glorious	-27.35426	152.77008 100	25/03/2011	WildNet - Queensland Wildlife Data	e186bd7f-55e1-428d-a34a-94b8c5a797f1
Typo nosaealandiae	PEI Rd	-27.3600635	152.7868894	2017-07-29	eBird Australia	ae0c2b5c5-123a-4710-bd19-20e0c021ac36
Typo nosaealandiae	PEI Rd	-27.3600635	152.7868894	2017-07-29	eBird Australia	ae11637a-8fcd-4b49-a1ef-19683a31722
Typo nosaealandiae	Mt Glorious	-27.36035639	152.7831745 500	22/07/2017	BirdLife	1525786
Typo nosaealandiae	(-27.3617,152.7615)	-27.361748	152.761481	2018-06-24	eBird Australia	fb6c709-517a-4553-9402-2bf1786743c
Typo nosaealandiae	Mount Glorious Rd at -27.366, 152.796	-27.3647699	152.7965697	2017-01-28	eBird Australia	4e288f9b-bdff-467a-b6a1-513a5c7b3d9
Typo nosaealandiae	Nudge, Brisbane	-27.366667	153.083333	3/12/1897	Queensland Museum provider for OZCAM	3937c0a5a-b815-a4a3-97c1-be1ed075010
Typo nosaealandiae	Nudge, Brisbane	-27.366667	153.083333	5/8/1898	Queensland Museum provider for OZCAM	a231329e-c91f-46b9-b23c-a7b77c3086e
Typo nosaealandiae	Sanford	-27.366667	152.853333	1964-01-23	Queensland Museum provider for OZCAM	6b0dc070-8b6c-4f6e-a343-e083a12d006
Typo nosaealandiae	Hampton 5' cell (27520 152E00)	-27.375	152.04166	2019-04-14	eBird Australia	3b0c2d2-0033-4715-aes1-e5910b6ad08
Typo nosaealandiae	Hampton 5' cell (27520 152E00)	-27.375	152.04166	2019-04-14	eBird Australia	6a94f9ed-afdc-4b45-9f2f-cd0ae4db9955
Typo nosaealandiae	Mount Nebo Rd x Goat Track, Mount Nebo, D'Agular Range SEQ	-27.3866683	152.785364	2017-04-29	eBird Australia	ae270d0b-4a85-4277-81ae-3abaa9dec29
Typo nosaealandiae		-27.3868	152.7853	2017-04-28	ALA species sightings and OzAtlas	08aba50d-c089-4ac0-9461-8a124af9252
Typo nosaealandiae	Mt Nebo	-27.3940456	152.7840209 900	2013-07-07	WildNet - Queensland Wildlife Data	644b4b8a-e91a-4b3b-910b-6787810c5d9
Typo nosaealandiae		-27.4	152.9 10100	1/05/2018	BirdLife Australia, Birdata	7a69295f-1e3b-4f78-acea-12711812562d
Typo nosaealandiae		-27.4	152.8 10100	1/07/2017	BirdLife Australia, Birdata	fbcb5336-3b67-49d0-939f-d016e9b3e4e4
Typo nosaealandiae		-27.40414235	152.9787146 29727	2018-12-04	Naturalist	9bdf3e5d-4202-473e-9e76-91e169f103c3
Typo nosaealandiae	D'Agular National Park Lightline Rd	-27.4066816	152.7793121	2017-05-06	eBird Australia	3634beaa-b6e5-4807-894f-9e6b4b19553f
Typo nosaealandiae	Powell run	-27.4106628	152.8907747 100	12/05/2018	BirdLife	20332448
Typo nosaealandiae	Erogersa 10' Cell	-27.41657	152.92076	2013-06-24	eBird Australia	07511658-aff1-4a42-b489-4c5e51bdf7b9
Typo nosaealandiae	Erogersa	-27.42333333	152.9844444 1800	1905-01-01	WildNet - Queensland Wildlife Data	e409110-bc1f-41e8-ac2a-906ae4b648f1
Typo nosaealandiae	BFP - Carpark at end of road	-27.42388367	152.9018624 500	27/11/2003	WildNet - Queensland Wildlife Data	305a514a-4d49-43e8-84a5-88669d1f5fb
Typo nosaealandiae	Paradise Creek - Heldon Hills	-27.44389	152.12722 100	1998-10-21	BirdLife	893353
Typo nosaealandiae	Erogersa Watenworks Reserve	-27.44423793	152.926901 450	2018-10-05	WildNet - Queensland Wildlife Data	cdad5ee-104f-4514-8524-74dc58f3e5d4
Typo nosaealandiae	Brookfield-Gold Creek Rd	-27.44841	152.88941	2013-06-24	BirdLife	1448018
Typo nosaealandiae	Brookfield-Gold Creek Rd	-27.464226	152.889411	2013-06-24	eBird Australia	79d71ecc-49d0-4b0d-8878-5e9db8d2e92c
Typo nosaealandiae	Brookfield-Gold Creek Rd	-27.464226	152.889411	2017-01-01	eBird Australia	f68d0db0-228d-45b0-9de4-a873bc3882d
Typo nosaealandiae	Brisbane	-27.46667	153.016667	1907-02-28	Queensland Museum provider for OZCAM	3d9a59f5-4198-4579-acdb-4b5dc295b1f
Typo nosaealandiae	Normanby Fireways, Brisbane	-27.46667	153.01667	1973-01-28	Queensland Museum provider for OZCAM	56a3d042-7474-4de6-a748-8a8544e2378d
Typo nosaealandiae	Powell	-27.4709491	152.915454 100	6/08/2018	BirdLife	2032441
Typo nosaealandiae		-27.47307131	152.8796791	2014-09-08	ALA species sightings and OzAtlas	c46a08a1-e91d-4349-b345-3ac246b3240f
Typo nosaealandiae	J.C. Slaughter Falls area, BFP	-27.47340422	152.967734 900	1989-01-01	WildNet - Queensland Wildlife Data	d78801c-bba7-472b-b633-3c5fb762b3a
Typo nosaealandiae	Brisbane-City Botanic Gardens	-27.47583	153.02972	2001-10-23	BirdLife	1434916
Typo nosaealandiae	City Botanic Gardens (Brisbane)	-27.4758365	153.0299444	2001-10-23	eBird Australia	fc7f64ae-9061-4800-836e-084b0bc3b59e
Typo nosaealandiae	Mt Cope the Reserve-JC Slaughter Falls	-27.4762368	152.9637747 100	2015-08-01	eBird Australia	ae0b4c45-27af-4c7e-8a4f-1a135c68a4e6
Typo nosaealandiae	Lockyer SF (east)	-27.4797802	152.92910 1400	1994-05-01	WildNet - Queensland Wildlife Data	8c02ba08-d8b2-4e2a-840b-c241a4e5c57a
Typo nosaealandiae	Powell	-27.4798642	152.9384802 100	5/08/2018	BirdLife	2052123
Typo nosaealandiae	621 EASTERN LOCKYER SF REDBANK CREEK NEAR SPRINGDALE HE	-27.48172444	152.2844122 900	1995-09-01	WildNet - Queensland Wildlife Data	4ceb4771-37ab-4b0a-8503-01911fb7049
Typo nosaealandiae	Moggill Creek Catchment	-27.48417	152.90278 100	6/08/2014	BirdLife	1402425
Typo nosaealandiae	Moggill Creek Catchment	-27.48417	152.90278	2013-08-06	eBird Australia	1449636
Typo nosaealandiae	Moggill Creek Catchment	-27.48417	152.90278	2013-08-06	eBird Australia	622b0937-9829-4e2a-908e-86e2a400786
Typo nosaealandiae	Moggill Creek Catchment	-27.48417	152.90278	2012-09-16	eBird Australia	9af58258-41fc-4d5c-91bb-74d1ad0c4f5
Typo nosaealandiae	Moggill Creek Catchment	-27.48417	152.90278	2014-08-06	eBird Australia	f9eadf5f-7ae7-4f12-96ef-39a71c8f792e
Typo nosaealandiae	Dutton Park	-27.49423707	153.0219 1800	1993-08-22	WildNet - Queensland Wildlife Data	3b79ecb3-0d99-41bd-b730-86956089a4b
Typo nosaealandiae	Brookfield, Brisbane	-27.49423793	152.9135684 1800	1980-01-01	WildNet - Queensland Wildlife Data	13a964e6-468a-41e-9c10-7ca129e6d14f
Typo nosaealandiae	Lockyer Hills (SF16)	-27.49849032	152.209064 900	1995-11-01	WildNet - Queensland Wildlife Data	973205f6-12af-4633-970d-8e2b2763b1f6
Typo nosaealandiae	Brisbane general	-27.506861	152.948051	2018-12-04	eBird Australia	d6dc11e5-1878-46d9-80dc-7b6c7b5e0ada
Typo nosaealandiae	Kenmore	-27.50765	152.94117	2014-03-18	eBird Australia	e7f394c7-707f-427f-a42e-765be20ec081
Typo nosaealandiae	Kenmore	-27.50778	152.94111 100	18/03/2014	BirdLife	1402393
Typo nosaealandiae	Olivia Place, Pulvenale	-27.5215316	152.8924531	2019-01-06	eBird Australia	7863714e-e4b3-4ab7-e456-7bf5fe7ba9ce
Typo nosaealandiae	Pulvenale	-27.5215316	152.8924531	2019-01-06	eBird Australia	c5a2d5af-b43d-41ab-e978-2978a58330a1
Typo nosaealandiae	Olivia Place, Pulvenale	-27.5215316	152.8924531	2019-01-06	eBird Australia	c4d6a3e6-530c-4123-87f5-662308f11b31
Typo nosaealandiae	Pulvenale Road	-27.5218973	152.8886819	2017-07-23	eBird Australia	07f18ee-8327-4dcb-85eb-92c78c595213
Typo nosaealandiae	Pulvenale Road	-27.5218973	152.8886819	2017-07-23	eBird Australia	5aa38457-b0c0-4b92-9fba-721391921031a1
Typo nosaealandiae	Pulvenale Road	-27.5218973	152.8886819	2017-07-23	eBird Australia	888444c4-196d-4217-b37f-cbaab0282841
Typo nosaealandiae	Pulvenale Road	-27.5218973	152.8886819	2017-07-23	eBird Australia	ae0a105-ae0f-4499-85e1-4e68f18e9dc
Typo nosaealandiae	Pulvenale Road	-27.5218973	152.8886819	2017-07-23	eBird Australia	ae9a9c0d-46c9-4a56-8272-09b9c3d0110f
Typo nosaealandiae	Pulvenale Road	-27.5218973	152.8886819	2017-07-23	eBird Australia	a2f26574-e235-4d31-a318-1761ff07a392
Typo nosaealandiae		-27.52216372	152.8593493	2017-10-24	ALA species sightings and OzAtlas	38bcb5b9-257b-4978-ab9f-67adb56506e9
Typo nosaealandiae	Pulvenale	-27.5235032	152.8866722	2018-07-22	eBird Australia	03ac0f15-b30a-43a9-8b6c-048235d98213
Typo nosaealandiae	Pulvenale	-27.5235032	152.8866722	2017-09-15	eBird Australia	00a1e1e-50ee-44b-41a-85c2-02bdc0f7277
Typo nosaealandiae	Pulvenale	-27.5235032	152.8866722	2018-12-30	eBird Australia	14ae708b-2ba0-450d-8029-82c0262a1f4a
Typo nosaealandiae	Pulvenale	-27.5235032	152.8866722	2018-07-06	eBird Australia	3ac03356-7640-49f7-b89f-a0d2686d6c3
Typo nosaealandiae	Pulvenale	-27.5235032	152.8866722	2018-12-30	eBird Australia	40ceaa4b-ecac-4982-b710-7e3d0e0e39fc
Typo nosaealandiae	Pulvenale	-27.5235032	152.8866722	2018-07-22	eBird Australia	4820afbe-ddee-4821-ac90-08ab5d0ea980
Typo nosaealandiae	Pulvenale	-27.5235032	152.8866722	2018-08-15	eBird Australia	483db780-87f6-4c72-aa4c-336606a421a0
Typo nosaealandiae	Pulvenale	-27.5235032	152.8866722	2018-08-08	eBird Australia	7398a9be-55c2-4ab0-908c-70aa7149c29a
Typo nosaealandiae	Pulvenale	-27.5235032	152.8866722	2018-07-22	eBird Australia	a1a261b4-1896-4ad8-42ae-cbd0a081d3f6
Typo nosaealandiae	Pulvenale	-27.5235032	152.8866722	2018-08-20	eBird Australia	b4460f21-066c-47ec-acaf-47578acab25
Typo nosaealandiae	Pulvenale	-27.5235032	152.8866722	2018-08-15	eBird Australia	c1078128-6738-42a9-98d9-03d80f3e1b6
Typo nosaealandiae	Pulvenale	-27.5235032	152.8866722	2017-09-01	eBird Australia	cd0930ce-a36e-4070-896f-481152bc7688
Typo nosaealandiae	Pulvenale	-27.5235032	152.8866722	2018-07-23	eBird Australia	01a1eb2d-0125-460e-1f48-11c5e518e9d5
Typo nosaealandiae	Pulvenale	-27.5235032	152.8866722	2017-08-01	eBird Australia	ae933c7f-1544-46a9-062b-fbdc5f69e44a
Typo nosaealandiae	Pulvenale	-27.5235032	152.8866722	2017-10-26	eBird Australia	eb040d2c-a044-a483-ab46-85d52ef4d4c
Typo nosaealandiae	Pulvenale	-27.5235032	152.8866722	2018-07-23	eBird Australia	ef18f3c-49e4-4148-92f0-c0d3015e3756
Typo nosaealandiae	Pulvenale	-27.5235032	152.8866722	2017-09-15	eBird Australia	17fae6528-d0b1-41af-8888-e097f6529138
Typo nosaealandiae	Pulvenale	-27.5235196	152.8866675	2016-08-14	eBird Australia	653c2ab7-07fa-4251-9121-a708b56281fa
Typo nosaealandiae	Pulvenale	-27.5235196	152.8866675	2017-06-20	eBird Australia	19012651-86c4-4f12-8b68-1005d2870464
Typo nosaealandiae	Pulvenale	-27.5235196	152.8866675	2016-08-01	eBird Australia	11fda49b-12c7-4e4c-bd0c-47f8667171af
Typo nosaealandiae	Pulvenale	-27.5235196	152.8866675	2016-08-28	eBird Australia	2920c1af-5549-475e-b01c-c268ec0f4055
Typo nosaealandiae	Pulvenale	-27.5235196	152.8866675	2016-08-28	eBird Australia	216e0f50-2835-4e7a-a9a3-312892666d5a
Typo nosaealandiae	Pulvenale	-27.5235196	152.8866675	2016-09-03	eBird Australia	3000e19e-402b-43d1-b0e9-2aa1173b9eae4
Typo nosaealandiae	Pulvenale	-27.5235196	152.8866675	2016-09-03	eBird Australia	39a1c8b7-229b-48ad-bd8e-a5f16e677f35
Typo nosaealandiae	Pulvenale	-27.5235196	152.8866675	2016-07-22	eBird Australia	31c50d5a-3444-450c-a345-2a5e4d027060
Typo nosaealandiae	Pulvenale	-27.5235196	152.8866675	2016-07-12	eBird Australia	36e88517-8209-4433-828f-93594be5845
Typo nosaealandiae	Pulvenale	-27.5235196	152.8866675	2016-09-05	eBird Australia	387ecdfc-2a25-4fee-85eb-6c5f81c4584
Typo nosaealandiae	Pulvenale	-27.5235196	152.8866675			

Tyto tenebrosus	Head of Dignum Creek, Krombitt National Park, south-west of Gladst	-24.35446728	151.012766250	29/11/1999	WildNet - Queensland Wildlife Data	8b6e1f79-d647-4dad-8a01-e306417382db
Tyto tenebrosus	Head of Krombitt Creek in Scientific Area 48, Krombitt Tops National P	-24.35971442	150.999872 250	18/02/2004	WildNet - Queensland Wildlife Data	b7f6d1ec-d28c-4b65-9448-3e3a2f38a64b
Tyto tenebrosus	Head of north branch of Krombitt Creek, Krombitt Tops National Park, so	-24.36181843	150.9968449 500	28/11/1999	WildNet - Queensland Wildlife Data	03a69129-a01e-4c37f-b9d4-e1b814f4a837
Tyto tenebrosus	Head of north branch of Krombitt Creek, Krombitt Tops National Park, so	-24.36418843	150.9968449 500	18/02/2003	WildNet - Queensland Wildlife Data	2a275879-89f5-4a01-aabf-44e00c007c5c
Tyto tenebrosus	Head of north branch of Krombitt Creek, Krombitt Tops National Park, so	-24.36418843	150.9968449 500	18/02/2004	WildNet - Queensland Wildlife Data	7a820057-d01c-40cb-95c0-5880293f1f8c
Tyto tenebrosus	Krombitt Tops NP - Blackbutt Trail TO	-24.371699	150.985456	14/12/2015	eBird Australia	f0f3c38f-d64b-4307-abc7-99d26316e08c
Tyto tenebrosus	Head of north branch of Degalgil Creek, Krombitt Tops National Park, s	-24.37367989	151.032178 900	29/01/2008	WildNet - Queensland Wildlife Data	a9b9a136-0693-42da-a261-fca316a5045d
Tyto tenebrosus	Krombitt Cl. headwaters, Krombitt Tops SF	-24.37758813	151.000448 900	4/12/1993	WildNet - Queensland Wildlife Data	91d013a-56c2-4c5c-07b3-0703ca9d1616
Tyto tenebrosus	Head of Madsen Creek, northern most gully, Krombitt Tops National Park	-24.40550416	151.0523891 500	27/11/1999	WildNet - Queensland Wildlife Data	ed07f71a-9654-49a3-a04c-763007995d2e
Tyto tenebrosus	Head of Madsen Creek, second tributary south of the Madsen/Degalgil wat	-24.40640468	151.0494811 500	21/21/1998	WildNet - Queensland Wildlife Data	bd1750cb-af38-4897-a155-bc3f3835b687
Tyto tenebrosus	Head of Murlholme Creek in Beech Scientific Area, Krombitt Tops National	-24.415234	151.038621	21/21/1998	WildNet - Queensland Wildlife Data	c038a9b3-c3c2-4a6e-abc7-e504da769385
Tyto tenebrosus	Head of Murlholme Creek in Beech Scientific Area, Krombitt Tops Natio	-24.42032142	151.045756 250	1/02/2008	WildNet - Queensland Wildlife Data	5c4f949e-737f-4002-9312-355a8910d465
Tyto tenebrosus	Head of PlumTree Creek, in Lot 3 on Plan CTN416, that rises due north o	-24.5077398	151.270861 500	14/02/2004	WildNet - Queensland Wildlife Data	d7f05489-bffa-47ba-b975-e74095192a4d
Tyto tenebrosus	Butburin SF391, Boyne LA	-24.5220312	151.4843899 450	1/01/1992	WildNet - Queensland Wildlife Data	16428b1d-9b12-42df-9771-59f6e5a2e2603
Tyto tenebrosus	Butburin State Forest	-24.56777849	151.5302793 500	13/07/1997	WildNet - Queensland Wildlife Data	b0368414-4d26-4104-b47d-70a2a3ca0270
Tyto tenebrosus	Head of Cedar Creek, Buburin Forest Reserve, east of Bullyan, south-east	-24.57603492	151.5005412 250	29/11/1998	WildNet - Queensland Wildlife Data	47b0254b-5584-a4e5-ba47-04d6b550b1d5
Tyto tenebrosus	Cedar Creek, Buburin SF	-24.5775	151.49944 100	29/11/1998	BirdLife	90079
Tyto tenebrosus	Cedar Creek, Buburin SF	-24.5775	151.4995 100	29/11/1998	BirdLife Australia, Birdata	7b85abbe-8b1e-4681-a7ae-70c0cd84e3d1
Tyto tenebrosus	Butburin SF391, Dawes LA	-24.58175357	151.5093897 450	13/01/1997	WildNet - Queensland Wildlife Data	c07a5edc-5027-4f5c-827e-0686da5a5744
Tyto tenebrosus	Butburin State Forest, Dawes Range Rd west of Granite Creek	-24.62255782	151.5551239 500	1/07/1997	WildNet - Queensland Wildlife Data	d0eb0300-424f-444d-436d-b6944949b70b4
Tyto tenebrosus	Butburin State Forest	-24.62709149	151.565303 500	13/07/1997	WildNet - Queensland Wildlife Data	4e0a5ec1-d067-4106-b3c1-121a9baf6f69
Tyto tenebrosus	Bymien Picnic Area	-25.45389	153.10444	12/04/2008	BirdLife	1130251
Tyto tenebrosus	Basin lake, Fraser Island	-25.46829751	153.042945 200	22/02/2003	WildNet - Queensland Wildlife Data	5fffa3ec-473e-47ac-b2ac-00c04928082
Tyto tenebrosus	Great Sandy National Park--Bymien Picnic Area	-25.5451577	153.1044817	29/11/2014	eBird Australia	28b6a4c2-4e2c-4a62-9a7e-350a6bae4a49
Tyto tenebrosus	Great Sandy National Park--Bymien Picnic Area	-25.5641577	153.1044817	12/04/2008	BirdLife	596c24a-e9ff-4317-97b3-4873a021b60729
Tyto tenebrosus	Great Sandy National Park--Bymien Picnic Area	-25.5641577	153.1044817	12/04/2008	BirdLife	6c0532a-5983-427e-4797-003b8a4c2109
Tyto tenebrosus	Great Sandy National Park--Bymien Picnic Area	-25.56417	153.10444	29/11/2014	BirdLife	1552747
Tyto tenebrosus	Cooloola NP, Bymin-Lake Poona Track	-25.95583	153.09972 100	14/06/2003	BirdLife	1258490
Tyto tenebrosus	Cooloola NP, Bymin-Lake Poona Track	-25.95583	153.09972 100	15/05/2010	BirdLife	1258490
Tyto tenebrosus	Great Sandy National Park--Bymin-Lake Poona Track	-25.95588	153.09963	15/09/2010	eBird Australia	9d5355a6-5202-45c2-4b3d-291a2c0ab03b
Tyto tenebrosus	Great Sandy National Park--Bymin-Lake Poona Track	-25.95588	153.09963	14/06/2003	eBird Australia	69846ab3-b182-4939-aedc-9c2a6e9e9af6
Tyto tenebrosus	Mother Mountain State Forest, boundary of compartments 1 and 2, Moha	-26.24184244	152.7977881 500	2/06/1997	WildNet - Queensland Wildlife Data	412b230b-ca85-46db-bb47-bb92b5b5e60
Tyto tenebrosus	Cooharaba Restricted Access	-26.26111	152.96778	26/01/2015	BirdLife	1560667
Tyto tenebrosus	Cooharaba Restricted Access	-26.26111	152.96778	31/01/2015	BirdLife	1560669
Tyto tenebrosus	Cooharaba Restricted Access	-26.26111	152.96778	12/02/2015	BirdLife	1560671
Tyto tenebrosus	Cooharaba Restricted Access	-26.26111	152.96778	4/03/2015	BirdLife	1560674
Tyto tenebrosus	Cooharaba Restricted Access	-26.26111	152.96778	29/03/2015	BirdLife	1560675
Tyto tenebrosus	Cooharaba Restricted Access	-26.26111	152.96778	7/04/2015	BirdLife	1560678
Tyto tenebrosus	Cooharaba Restricted Access	-26.26111	152.96778	19/04/2015	BirdLife	1560680
Tyto tenebrosus	Cooharaba Restricted Access	-26.26111	152.96778	22/04/2015	BirdLife	1560684
Tyto tenebrosus	Cooharaba Restricted Access	-26.26111	152.96778	27/04/2015	BirdLife	1560685
Tyto tenebrosus	Cooharaba Restricted Access	-26.26111	152.96778	4/05/2015	BirdLife	1560686
Tyto tenebrosus	Cooharaba Restricted Access	-26.26111	152.96778	7/05/2015	BirdLife	1560687
Tyto tenebrosus	Cooharaba Restricted Access	-26.26111	152.96778	7/07/2015	BirdLife	1560691
Tyto tenebrosus	Cooharaba Restricted Access	-26.26111	152.96778	9/08/2015	BirdLife	1560693
Tyto tenebrosus	Cooharaba Restricted Access	-26.26111	152.96767	7/05/2015	eBird Australia	00d81494-0a35-4164-a9f1-03fe4a012ca
Tyto tenebrosus	Cooharaba Restricted Access	-26.26116	152.96767	26/01/2015	eBird Australia	06c35615-4af8-4f6a-863a-03892d33da65
Tyto tenebrosus	Cooharaba Restricted Access	-26.26116	152.96767	31/01/2015	eBird Australia	18914555-1a60-4310-b2ba-4c2198807f7e
Tyto tenebrosus	Cooharaba Restricted Access	-26.26116	152.96767	9/09/2015	eBird Australia	418f6a2e-9eac-4f0c-8ce7-12f12666773
Tyto tenebrosus	Cooharaba Restricted Access	-26.26116	152.96767	7/04/2015	eBird Australia	50746558-a939-4eb4-761d-0a207b4a51a1
Tyto tenebrosus	Cooharaba Restricted Access	-26.26116	152.96767	22/04/2015	eBird Australia	5ca34a67-435e-4f0a-b09a-1a0040412686
Tyto tenebrosus	Cooharaba Restricted Access	-26.26116	152.96767	6/7/2015	eBird Australia	6793a011-7982-4d59-9161-0d38196b1bd
Tyto tenebrosus	Cooharaba Restricted Access	-26.26116	152.96767	7/07/2015	eBird Australia	72f6f6f9-b0b1-4d22-abc0-b9c223a83347
Tyto tenebrosus	Cooharaba Restricted Access	-26.26116	152.96767	4/05/2015	eBird Australia	74147026-d07b-4e92-9b93-9eadaebcc04a7
Tyto tenebrosus	Cooharaba Restricted Access	-26.26116	152.96767	10/01/2017	eBird Australia	7623e829-656e-48a1-b027-9f77b42eaa86
Tyto tenebrosus	Cooharaba Restricted Access	-26.26116	152.96767	12/02/2015	eBird Australia	8a632c3b-4d11-4c64-b2a8-55882e29a470
Tyto tenebrosus	Cooharaba Restricted Access	-26.26116	152.96767	27/04/2015	eBird Australia	aeec77b5-1278-43a0-3250-5ab3285a5605
Tyto tenebrosus	Cooharaba Restricted Access	-26.26116	152.96767	4/03/2015	eBird Australia	b33cf1c2-456e-42c6-4a0f-b0caea11b4d5f
Tyto tenebrosus	Cooharaba Restricted Access	-26.26116	152.96767	8/01/2017	eBird Australia	bd9f50fe-1365-4703-bfd1-e450ca586540
Tyto tenebrosus	Cooharaba Restricted Access	-26.26116	152.96767	9/01/2017	eBird Australia	c36ae61d-099e-43ac-a040-64c0a4a9e889
Tyto tenebrosus	Cooharaba Restricted Access	-26.26116	152.96767	29/03/2015	eBird Australia	cc711110-2105-4498-86a-8c302a38519
Tyto tenebrosus	Hills Rd, Mother Mountain State Forest	-26.26219776	152.8221897 500	2/06/1997	WildNet - Queensland Wildlife Data	9c261313-ec2f-4016-b115-02ab4926a31
Tyto tenebrosus	Mother Mountain State Forest 393, Ridge between west boundary of State	-26.26391283	152.7930075 500	2/06/1997	WildNet - Queensland Wildlife Data	14f1fba2-4344-b0a7-9fab-5561-c5c18115
Tyto tenebrosus	Woodman National Park	-26.28702	152.80834	9/03/2019	eBird Australia	c1954a0f-1621-4b16-b688-2e052963a77
Tyto tenebrosus	Walters State Forest	-26.38646834	150.415473 500	25/08/1997	WildNet - Queensland Wildlife Data	5cd0c96e-755d-4957-837a-928b696770ef
Tyto tenebrosus	Gully south of logging track, north of Kandanga Rd, Kandanga State Fores	-26.42491003	150.428179 500	25/08/1997	WildNet - Queensland Wildlife Data	a89107b1-3a01-4164-a993-c033f79a9e65
Tyto tenebrosus	Kilgus Dr, Eumundi	-26.4584395	150.963955	2/05/2019	eBird Australia	1a6d4235-b622-41b6-853c-1da19ca15e81b
Tyto tenebrosus	West Cooroy State Forest	-26.4658067	152.8303507	22/03/2019	eBird Australia	617eebf1-ed22-40c8-950f-ed0470a6ff
Tyto tenebrosus	Verrierdale, at end of Pryor Rd via Eumundi	-26.483333	153 1000	27/06/2003	Queensland Museum provider for OZCA	33362164-b6f1-4f48-9429-87e04069294b
Tyto tenebrosus		-26.5	152.5 54000	26/12/1976	Historical Bird Atlas	27a712a-b770-4013-9e21-e8b6530a1a78
Tyto tenebrosus	Kenilworth 10' Coll	-26.58333	152.7	22/09/1995	WildNet - Queensland Wildlife Data	222f403f-5c40-4d32-9d8a-c0e74b174e1b
Tyto tenebrosus	Kenilworth State Forest	-26.58415	152.81227	23/04/2011	BirdLife	7a63968a-374c-450b-825e-5edf8910a67f
Tyto tenebrosus	Mapleton National Park	-26.59278	152.85667	9/11/2014	BirdLife	1565196
Tyto tenebrosus	Mapleton National Park	-26.59278	152.85667	4/01/2015	BirdLife	1565197
Tyto tenebrosus	Mapleton National Park	-26.5928253	152.8565598	9/11/2014	eBird Australia	785a2a4f-6c0b-43ab-b51e-e4a830229568
Tyto tenebrosus	Mapleton National Park	-26.5928253	152.8565598	22/02/2016	eBird Australia	9e01159e-6b0f-4e77-91ef-2a67a528894
Tyto tenebrosus	Mapleton National Park	-26.5928253	152.8565598	4/01/2015	eBird Australia	dbd5831e-93c2-4b00-a90c-a0d2a0e5d5ae
Tyto tenebrosus	Charlie Moreland Camping Area	-26.613342	152.619553	16/07/2018	eBird Australia	c73cc01f-b0f1-48b2-b287-5db1c9ba9999
Tyto tenebrosus	Conondale National Park--Charlie Moreland Park	-26.6150235	152.6507163	17/02/2017	eBird Australia	00b6173f-044e-400d-5234-9a7d0c0b501a
Tyto tenebrosus	Conondale National Park--Charlie Moreland Park	-26.6150235	152.6507163	10/05/2019	eBird Australia	5c0b849f-ad41-4113-b138-66a87b1a0f5a
Tyto tenebrosus	Conondale National Park--Charlie Moreland Park	-26.6150235	152.6507163	20/02/2017	eBird Australia	8c979121-b3d2-4696-984a-09fa1dcaab1b
Tyto tenebrosus	Conondale National Park--Charlie Moreland Park	-26.6150235	152.6507163	28/06/2017	eBird Australia	bac33211-6117-4932-a83d-9f13583c5269
Tyto tenebrosus	Charlie Moreland Forest Park, Cambronn	-26.61778	152.64944 100	24/06/2000	BirdLife	885110
Tyto tenebrosus	Panorama Drive (west)	-26.6354629	152.971139 500	3/10/2018	BirdLife	257758
Tyto tenebrosus	Jimna - Tabla Rd dam	-26.640773	152.471886	8/10/2018	eBird Australia	27b6ba16-00a6-404a-a885-2aa191215259
Tyto tenebrosus	Cartwright property, Wall Mt Rd, Kenilworth	-26.6444444	152.738333 1800	22/09/1995	WildNet - Queensland Wildlife Data	a9161919-146b-4239-99e6-80b2758a0c2
Tyto tenebrosus	Lobster Ck, Conondale Ranges	-26.64531337	152.6403258 999	21/04/1994	WildNet - Queensland Wildlife Data	41851378-9292-487c-d952-46bedf65a6f
Tyto tenebrosus	Booloomba Creek Reserve	-26.6458	152.64819	19/07/1998	eBird Australia	ae026242-5200-4822-ba4a-899003a04a0e
Tyto tenebrosus	Booloomba Creek Reserve	-26.6458	152.64819	28/10/1976	eBird Australia	e0b0e18c-4016-4b28-8a21-e65c28a3c3a2
Tyto tenebrosus	Conondale NP - Booloomba Creek Camping area 4	-26.64617261	152.6480103 300	30/07/2006	WildNet - Queensland Wildlife Data	f422b33a-324d-4641-479a-a9056e8a0d65
Tyto tenebrosus	Booloomba Creek, camping area	-26.64722	152.64499	10/07/2017	eBird Australia	2f81bcd7-09a9-45e8-8ab3-ad5c02b7d46b
Tyto tenebrosus	Booloomba Creek, camping area	-26.64722	152.64499	28/01/2019	eBird Australia	ac3a0a55-4c29-4252-abc5-7a6b73a6e595
Tyto tenebrosus	Conondale NP - Booloomba Creek camping area 4	-26.64777778	152.6480103 300	13/09/2003	WildNet - Queensland Wildlife Data	726a6c32-34d0-4625-b06a-8c86914a0893
Tyto tenebrosus	Lower section of Booloomba Ck, 1.2km southwest of Booloomba 4 cam	-26.65020416	153.6385074 100	17/06/2008	WildNet - Queensland Wildlife Data	b83815b2-470c-4719-b28f-11d25e970233
Tyto tenebrosus	YBG Transect: 25, Conondales	-26.6506868	152.5786512 999	1/02/1993	WildNet - Queensland Wildlife Data	d0ee8a83-aa0c-417b-9ccc-52ba755272b2
Tyto tenebrosus	South Summer LA, logged last in 1961 - spur 320deg from Sunday Creek I	-26.6641551	152.5980771 150	16/10/1996	WildNet - Queensland Wildlife Data	373c6546-aa3f-4313-b081-722f6913c5c
Tyto tenebrosus	Walli Forest Reserve - 0.5 km north of intersection of Banyo Rd and Fall	-26.66432154	152.7302738 200	9/31/2005	WildNet - Queensland Wildlife Data	22606745-4466-483d-8a48-c40b6c2e0a72
Tyto tenebrosus	South Summer LA, Conondales	-26.6649169	152.5980771 150	8/01/1997	WildNet - Queensland Wildlife Data	153057a6-1365-4a4b-94c5-0a89417a4c7
Tyto tenebrosus	South Summer LA, Conondales	-26.6668643	152.5980774 150	8/01/1997	WildNet - Queensland Wildlife Data	40b9e070-219e-476e-8ac9-0781cbe3a82
Tyto tenebrosus	South Summer LA, bat study site in area logged 30 years previously	-26.6668643	152.5980774 150	8/01/1997	WildNet - Queensland Wildlife Data	bd355c03-dcf1-4826-8a2e-902a7e6a9651
Tyto tenebrosus	Conondale NP	-26.6669366	152.5928879	16/04/1983	eBird Australia	e7a57a1d-8603-4084-8a5c-89938fa2a87
Tyto tenebrosus	Pitsa Forest Park, Anning Road, Forest Glen	-26.67044	153.01416 100	31/01/1999	BirdLife	65677
Tyto tenebrosus	Pitsa Forest Park, Anning Road, Forest Glen	-26.67944	153.01416 100	29/02/1999	BirdLife	656772
Tyto tenebrosus	Conondale Range National Park--Peters Creek	-26.67944	152.605	15/05/2016	eBird Australia	0a0d4713-e6cc-4253-98ae-acbaa89db88e
Tyto tenebrosus	Scrubby Creek/Tingedy Creek	-26.68147123	152.6201211 500	24/05/1996	WildNet - Queensland Wildlife Data	931b28b0-d3ac-4131-b70e-a57be37b5c5a
Tyto tenebrosus	Conondales, camp area	-26.6849				

Yto tenebrisca	East Kilroy Creek above the Jimna-Bellthorpe Road, Conondale National Park	-26.7487261	152.5736491	250	20/11/2007	WildNet - Queensland Wildlife Data	9174c15-7ab2-428a-953d-26a84be8b94
Yto tenebrisca	Maleny 10 Cell	-26.75	152.58	21667	29/03/2010	eBird Australia	3a886e3-4e02-4a07-b809-041c7d146bb
Yto tenebrisca	Maleny	-26.75674013	152.8468965	1800	16/01/1976	Historical Bird Atlas	65d8182a-129f-4c2b-82b1-25632a4904
Yto tenebrisca	Maleny	-26.75668632	152.5331191	260	22/01/1979	WildNet - Queensland Wildlife Data	f6513996-7c76-4609-8627-567a06a42e3
Yto tenebrisca	Along creek (200m transect) from site 43 to site 50, Humbung LA, Paired C	-26.75668632	152.5331191	260	26/01/1979	WildNet - Queensland Wildlife Data	5ee571b-8b65-4e06-93a2-13c15a46da91
Yto tenebrisca	Mary Cairncross Scenic Reserve	-26.77464	152.47927	10	5/06/2019	Scott Burnett	N/A
Yto tenebrisca	Mary Cairncross Scenic Reserve	-26.77464	152.47928	10	5/06/2019	Scott Burnett	N/A
Yto tenebrisca	Mary Cairncross Reserve	-26.780689	152.8806111	2901	29/01/2017	eBird Australia	618aa244-117-4c8f-8a76-1e9d5e2bf55
Yto tenebrisca	Headwaters of Ewen Creek, stream adjacent to McCarthy's Shute Road, N	-26.79024717	152.8431121	250	16/12/1997	WildNet - Queensland Wildlife Data	7e0c3985-28b9-4a53-81d7-59c7dc3e252
Yto tenebrisca	North Branch of Ewen Creek, Maleny Forest Reserve, south-east Queensl	-26.79368524	152.8491435	500	18/01/1998	WildNet - Queensland Wildlife Data	61786c35-407f-4696-8586-8a86c9421d5b
Yto tenebrisca	Euren Creek, Nth Main Branch	-26.79596433	152.8501455	500	18/06/1997	WildNet - Queensland Wildlife Data	a0326c1-e9f6-4dc8-87a731-843d986f5a3
Yto tenebrisca	Euren Creek, Nth Main Branch	-26.79596433	152.8501455	500	18/01/1997	WildNet - Queensland Wildlife Data	d9e7559c-1a3b-4325-8454-f66d12a119f
Yto tenebrisca	At the end of a fire trail marked on the forestry map, adjacent to a southern	-26.8071454	151.5834112	500	27/04/1998	WildNet - Queensland Wildlife Data	8aa3c13a-84a0-4536-ab3a-a68bbdc0c35
Yto tenebrisca	Bunya Ml NP (unexact)	-26.8305046	151.5512466	11	11/12/2007	eBird Australia	fb6fe459-434d-43ae-8f6-149d709c94ee
Yto tenebrisca	Tim Shea Falls, Bunya Mountains NP	-26.833333	151.633333	1	1/08/1986	Queensland Museum provider for OZCAM	002ce26b-b445-4266-abd4-7f40807ff17e
Yto tenebrisca	Koorowala (Burtons Well), Camping and Picnic area, Bunya Mountains R	-26.83430203	151.5523819	500	27/04/1998	WildNet - Queensland Wildlife Data	a5c4a6b-903b-4544-4591-052b133e2016
Yto tenebrisca	BELLTHORPE STATE FOREST	-26.84908814	152.6738699	500	8/05/1997	WildNet - Queensland Wildlife Data	1c3622aa-d60c-436c-9f78-67ce42e6240
Yto tenebrisca	Bellthorpe National Park	-26.8491343	152.6748664	1	14/04/2019	eBird Australia	5f73a593-1414-4258-8150-7a7f22ac3aac
Yto tenebrisca	Bellthorpe National Park	-26.8491343	152.6748664	1	14/04/2019	eBird Australia	969989d9-0840-4e0c-ab67-ee1858d92d1
Yto tenebrisca	Rosky Creek SF (Yarraman)	-26.85689894	151.9007439	999	28/11/1996	WildNet - Queensland Wildlife Data	d2b42d26-1f56-4316-8864-d2b73439c015
Yto tenebrisca	Branch Creek Rd at (26.863, 152.891)	-26.8627225	152.8985755	1	18/09/2017	eBird Australia	c51d05c5-4d05-46ee-b4dc-e17a7bc79e16
Yto tenebrisca	Mary Smokes LA	-26.8629881	152.6789841	150	5/09/1994	WildNet - Queensland Wildlife Data	26689808-932d-4521-87d5-7e978f316209
Yto tenebrisca	Westcott Picnic Grounds, Bunya Mountains National Park, SEQ.	-26.86396341	151.5707973	100	8/04/2003	WildNet - Queensland Wildlife Data	3098d18b-b201-4476-bc2a-8f75c31007f6
Yto tenebrisca	Bunya Mountains National Park--Westcott Campsite	-26.86412	151.571118	1	26/07/2006	eBird Australia	cab97711-2248-4176-8a06-81205454641f
Yto tenebrisca	Bunya Mountains National Park--Big Falls Track at -26.86556, 151.59167	-26.86556	151.59167	1	31/08/2018	eBird Australia	39-8039a4-e62b-40b5-83ca-f0c37a5b7d4
Yto tenebrisca	Bunya Mountains NP	-26.86667	151.58333	5000	8/01/1998	BirdLife	887449
Yto tenebrisca	Barker Creek, above Little Falls, Bunya Mountains National Park, south-east	-26.86718446	151.5816662	250	15/11/1996	WildNet - Queensland Wildlife Data	b6876272-b6b1-4472-a695-4dc09d698804
Yto tenebrisca	Barker Creek, above Little Falls, Bunya Mountains National Park, south-east	-26.86718446	151.5816662	250	23/12/1996	WildNet - Queensland Wildlife Data	cb3c0f75-1814-4a65-9ea8-b769b565d6af
Yto tenebrisca	Barker Creek, above Little Falls, Bunya Mountains National Park, south-east	-26.86718446	151.5816662	250	16/10/2012	WildNet - Queensland Wildlife Data	4f0ba2ba-2998-4d21-4b67-03a925029a6
Yto tenebrisca	Barker Creek, above Little Falls, Bunya Mountains National Park, south-east	-26.86718446	151.5816662	250	14/02/2002	WildNet - Queensland Wildlife Data	eec100d-e695-4c99-9e2d-53f62a0c5b5f
Yto tenebrisca	Paradise Falls	-26.86781609	151.5818833	150	7/11/1994	WildNet - Queensland Wildlife Data	9dc1285c-3a4f-44a2-8b46-bb3a30a2e0b
Yto tenebrisca	Paradise Walking Track, Bunya Mountains National Park, SEQ.	-26.87285222	151.5799639	10	8/04/2003	WildNet - Queensland Wildlife Data	c2e89ca-b0a7-4e40-936f-53f62a0c5b5f
Yto tenebrisca	Bunya Mountains NP, scenic track	-26.87341599	151.6052502	450	3/11/1991	WildNet - Queensland Wildlife Data	b6f11a8-0636-4500-8525-55a349a2c0cf
Yto tenebrisca	Tim Shea Falls Track, Bunya Mountains NP	-26.87341621	151.5891400	450	18/01/1989	WildNet - Queensland Wildlife Data	a3e4f712-c62b-4087-459f-875432a0c3c6
Yto tenebrisca	Tim Shea Creek, upstream from Tim Shea Falls, Bunya Mountains National	-26.87361337	151.5925858	250	12/01/2004	WildNet - Queensland Wildlife Data	77f0d32b-230f-4c58-84b0-1c1176ae45f7
Yto tenebrisca	Tim Shea Creek, upstream from Tim Shea Falls, Bunya Mountains National	-26.87361337	151.5925858	250	12/01/2004	WildNet - Queensland Wildlife Data	a1e45808-5cfe-4d41-a295-25364f16ea6
Yto tenebrisca	Tim Shea Creek, upstream from Tim Shea Falls, Bunya Mountains National	-26.87361337	151.5925858	250	16/10/2000	WildNet - Queensland Wildlife Data	ba0e186-8694-4009-87b8-ccf0a4e3903e
Yto tenebrisca	Dandabah Camp Ground	-26.8750556	151.59875	100	6/02/2006	BirdLife	1007225
Yto tenebrisca	Dandabah - Bunya Mountains NP	-26.8750556	151.59875	100	27/01/2006	WildNet - Queensland Wildlife Data	e07324eb-1530-40d2-a665-2983693b5a5c
Yto tenebrisca	Bunya-Dandabah-picnic area	-26.87806	151.59833	1	4/01/2015	BirdLife	1320966
Yto tenebrisca	Bunya-Dandabah-picnic area	-26.87806	151.5983	1	4/01/2015	BirdLife Australia, Birdata	b62c71b-ba4d-40a6-9682-52f529cc2b3
Yto tenebrisca	Bunya Mountains Rd, Bunya Mountains National Park	-26.878457	151.587391	1	25/03/2018	eBird Australia	13a-c2c3-8ecb-4633-87f3-001703227f0
Yto tenebrisca	Bunya Mountains Rd, Bunya Mountains National Park	-26.878457	151.587391	1	25/03/2018	eBird Australia	c0b58d04-6818-4958-99f7-8765c42a-c2d1
Yto tenebrisca	Bunya-Dandabah-Pitta Place	-26.87917	151.60444	1	4/01/2015	BirdLife	1320965
Yto tenebrisca	Bunya-Dandabah-Pitta Place	-26.87917	151.6044	1	30/1/2015	BirdLife Australia, Birdata	608b2e3a-2eb0-4607-4902-05c3a48334f
Yto tenebrisca	1 Bunya Ave, Bunya Mountains QLD 4405, Australia	-26.87920575	151.597985	50	19/11/2016	ALA species sightings and OaAtlas	80bdc431-4e39-4672-8399-2a7d49452768
Yto tenebrisca	Dandabah Campground, Bunya Mountains National Park, SEQ.	-26.8793226	151.598104	50	14/03/2007	WildNet - Queensland Wildlife Data	8828a33b-8b75-421e-8b0b-5ab29a48306b
Yto tenebrisca	Bunya Mountains NP	-26.87944	151.5975	1	8/04/2006	BirdLife	1420469
Yto tenebrisca	Bunya Mountains NP	-26.87944	151.5975	1	25/04/2006	BirdLife	1420470
Yto tenebrisca	Bunya Mountains NP	-26.87944	151.5975	1	5/01/2008	BirdLife	1451699
Yto tenebrisca	Bunya Mountains NP	-26.87944	151.5975	1	15/03/2008	BirdLife	1451701
Yto tenebrisca	Bunya Mountains NP	-26.87944	151.5975	1	13/09/2014	BirdLife	1463341
Yto tenebrisca	Bunya Mountains NP	-26.87944	151.5975	1	1/01/2014	BirdLife	1491298
Yto tenebrisca	Bunya Mountains National Park	-26.87944	151.5975	1	3/04/2015	BirdLife	1583800
Yto tenebrisca	Bunya Mountains National Park	-26.87947	151.5976	1	6/05/2017	eBird Australia	0107d40-5335-4948-8f5d-e1f066a3934
Yto tenebrisca	Bunya Mountains National Park	-26.87947	151.5976	1	03/04/2015	eBird Australia	04d6d40-752d-42a6-8b82-7045f0708e14
Yto tenebrisca	Bunya Mountains National Park	-26.87947	151.5976	1	15/03/2008	eBird Australia	074157be-30f1-46de-9c36-2a69f1c0e87
Yto tenebrisca	Bunya Mountains National Park	-26.87947	151.5976	1	19/01/2017	eBird Australia	367959f-e60f-4a4e-9a9f-97a6b6564267
Yto tenebrisca	Bunya Mountains National Park	-26.87947	151.5976	1	9/01/2017	eBird Australia	47a709b3-9f69-4db1-b0cd-b9c8d475a9a
Yto tenebrisca	Bunya Mountains National Park	-26.87947	151.5976	1	4/03/2016	eBird Australia	4e409d5-5e64-4f6a-b0f6-b26b0708e14e
Yto tenebrisca	Bunya Mountains National Park	-26.87947	151.5976	1	5/01/2008	eBird Australia	58b8c362-ba3c-4a6f-baac-3c306a87f0c3
Yto tenebrisca	Bunya Mountains National Park	-26.87947	151.5976	1	30/12/2017	eBird Australia	68254d6c-8f0e-4d22-af2c-11c716377a78
Yto tenebrisca	Bunya Mountains National Park	-26.87947	151.5976	1	16/01/2019	eBird Australia	743d7f63-0e4d-4e33-8351-d417d04e8bdf
Yto tenebrisca	Bunya Mountains National Park	-26.87947	151.5976	1	19/03/2016	eBird Australia	7b1f9a53-7f9b-40ac-8ec3-a5f1a8ba61b
Yto tenebrisca	Bunya Mountains National Park	-26.87947	151.5976	1	22/02/1988	eBird Australia	8e232d94-d714-40f1-807c-3a223f3a3d3
Yto tenebrisca	Bunya Mountains National Park	-26.87947	151.5976	1	8/04/2006	eBird Australia	9c0a8c9f-433a-4073-9c21-33aef12f20d2
Yto tenebrisca	Bunya Mountains National Park	-26.87947	151.5976	1	6/06/2017	eBird Australia	97372bbe-9a8f-45e0-b350-213862ab4e97
Yto tenebrisca	Bunya Mountains National Park	-26.87947	151.5976	1	25/04/2006	eBird Australia	98b3209-1488-40a6-8a82-786a9ee48820
Yto tenebrisca	Bunya Mountains National Park	-26.87947	151.5976	1	10/01/1995	eBird Australia	ab-4a6806-320c-4c54-8a5d-9a4e022b7e18
Yto tenebrisca	Bunya Mountains National Park	-26.87947	151.5976	1	22/10/2014	eBird Australia	b5a1db60-80d4-4009-96c1-9a50152411d6
Yto tenebrisca	Bunya Mountains National Park	-26.87947	151.5976	1	2/01/2016	eBird Australia	d21c071c-38e0-4138-ba75-c51056b17e9a
Yto tenebrisca	Bunya Mountains National Park	-26.87947	151.5976	1	12/01/2017	eBird Australia	d9f70500-8b60-4f35-9c4d-1e42e4aa8c8f
Yto tenebrisca	Bunya Mountains National Park	-26.87947	151.5976	1	2/01/2015	eBird Australia	e68060e-b6d7-4d0c-bc1f-b6d2049a3c29
Yto tenebrisca	Bunya Mountains National Park	-26.87947	151.5976	1	13/09/2014	eBird Australia	e638615-133c-4632-8a68-2eac4a9301d3
Yto tenebrisca	Bunya Mountains National Park	-26.87947	151.5976	1	1/07/2014	eBird Australia	e686a606-921f-4fcd-af79-fcd995f918bb
Yto tenebrisca	Bunya Mountains National Park	-26.87947	151.5976	1	12/01/2019	eBird Australia	e6f53429-ea40-45cc-b244-f720826eb318
Yto tenebrisca	Bunya Mountains National Park	-26.87947	151.5976	1	28/12/2015	eBird Australia	f2a4e402-3737-42a6-8b33-7d0aee4ad17
Yto tenebrisca	Bunya Mountains National Park	-26.87947	151.5976	1	5/01/2018	eBird Australia	f9a037f7-25c9-4c17-afcd-8575d5a3903
Yto tenebrisca	Bunya Mountains National Park	-26.87947	151.5976	1	30/03/2019	eBird Australia	f0d93759-705e-4907-95ac-ad5a1381f65d2
Yto tenebrisca	Bunya Mountains	-26.879474	151.6043195	1	22/02/2019	BirdLife	2917046
Yto tenebrisca	Bunya Mountains National Park	-26.8796364	151.5976703	1	14/12/2018	eBird Australia	c243300b-8c28-44fa-91f3-165c0a870242
Yto tenebrisca	Bunya Mountains National Park	-26.8796364	151.5976703	1	15/12/2016	eBird Australia	c0c8b72c-c089-4a68-a073-5587033a691e
Yto tenebrisca	Bunya Mountains National Park	-26.88	151.61	900	17/11/1973	Historical Bird Atlas	6f7c356d-3785-4660-807a-cd265e2b0002
Yto tenebrisca	bunya mountain national park	-26.88056	151.59964	100	26/10/2007	BirdLife	1187522
Yto tenebrisca	Dandabah Bunya Mts NP	-26.88083	151.60306	1	30/12/2006	BirdLife	1018839
Yto tenebrisca	Bunya Mountains NP	-26.88083	151.59964	100	18/04/2014	BirdLife	1360005
Yto tenebrisca	Bunya Mountains NP	-26.88083	151.5996	100	14/04/2014	BirdLife Australia, Birdata	8d6f6c5-45ea-4046-8b41-9999f5a8c119
Yto tenebrisca	Dandabah Bunya Mts NP	-26.88083	151.6031	1	12/01/2006	BirdLife Australia, Birdata	d5e2039c-1085-472f-8703-825a0c344d1
Yto tenebrisca	Bunya Mountains (Mowbullan to Kiangarow)	-26.8810289	151.5988994	0	5/01/2019	BirdLife	2899100
Yto tenebrisca	Bunya Mountains (Mowbullan to Kiangarow)	-26.88103	151.5989	1	30/1/2019	BirdLife Australia, Birdata	e1d1133c-6dc7-4804-2b11-33610964f79
Yto tenebrisca	Dandabah - Bunya Mts	-26.88111	151.59515	1	21/12/2014	BirdLife	1555173
Yto tenebrisca	Dandabah - Bunya Mts	-26.88122	151.59513	1	29/08/2017	eBird Australia	703c3a7-2004-4a8b-bf69-94320727cb62
Yto tenebrisca	Dandabah - Bunya Mts	-26.88122	151.59513	1	21/12/2014	eBird Australia	d0b2649-fb0a-4d3c-95f0-4555cc8f83c
Yto tenebrisca	Dandabah	-26.88278	151.59944	1	18/03/2008	BirdLife	1113448
Yto tenebrisca	Firefly Drive -26.8828-151.5999	-26.882825	151.599888	1	26/03/2018	eBird Australia	00f78689-83c1-4f18-82c3-11502425a49b
Yto tenebrisca	Firefly Drive -26.8828-151.5999	-26.882825	151.599888	1	26/03/2018	eBird Australia	b9d63a3c-084f-4a4d-b0c4-0c1096495d1
Yto tenebrisca	Junction of Nanango, Dalby and Kiangary Roads, Bunya Mountains, SEC	-26.89353192	151.61579	50	28/10/2004	WildNet - Queensland Wildlife Data	21b8771e-ced0-448e-99e5-51f4bda8a0c0
Yto tenebrisca	Peacheater Rd, Glasshouse Mtns	-26.9	152.95	1	11/08/1984	Queensland Museum provider for OZCAM	8f9e606d-4e02-444d-b11b-2280446b10e9
Yto tenebrisca	Bunya Mountains NP	-26.90083	151.6275	1	27/09/2014	BirdLife	1317177
Yto tenebrisca	Bunya Mountains NP	-26.90083	151.6275	1	27/09/2014	BirdLife Australia, Birdata	a7c3a3bc-77ad-465c-b22a-c3d047b1765
Yto tenebrisca	Edge of hoop pine plantation, south end of Cherry LA, Benarkin SF	-26.92887378	152.1398781	500	13/05/1998	WildNet - Queensland Wildlife Data	4dcd40c-110c-43e2-8c3a-5d4793360e91
Yto tenebrisca	Ashby LA, Googa SF	-26.95023851	152.0188286	150	14/04/1997	WildNet - Queensland Wildlife Data	1e6b43dc-e69c-4912-b1ef-98841f55b70
Yto tenebrisca	D'Agular National Park--Neurum Campsite	-2					

Typo tenebricoso	Dagilar National Park--Tennison Woods	-27.30047	152.75283	22/07/2016	eBird Australia	11cd0f0d-5e4e-468a-878d-85ae8df779da
Typo tenebricoso	2 KMS ALONG BRENNER ROAD NORTH OF HIGHWAY	-27.30257608	152.238327 500	2/06/1997	WildNet - Queensland Wildlife Data	faa8018f-07f4-45c9-8628-d953d775ca20
Typo tenebricoso	AU-GLD-Mount Glorious-Mount Glorious Road - 27.3057152.7567	-27.305705	152.756703	14/01/2016	eBird Australia	3ae19f0e-29d3-40c2-46f6-4cbb859d078a
Typo tenebricoso	Mount Glorius Rd 27 18 152 45 1 cell	-27.3083333	152.7583333	23/12/2017	eBird Australia	b6c316aa-fb6e-4067-8bdc-01b6e659c407
Typo tenebricoso	north of Mt Glorious	-27.3084826	152.7554600 500	13/05/1997	WildNet - Queensland Wildlife Data	c77faad3-1b71-4412-2-9e9e-aacdb31366cd
Typo tenebricoso	Brisbane Forest Park	-27.31	152.7552778 100	25/10/2003	WildNet - Queensland Wildlife Data	e5165796-4947-4e86-b8f1-a4a28f6516c0
Typo tenebricoso	Dagilar Range NP Mt Mount Glorious	-27.31611	152.74917 100	6/09/2013	BirdLife	140220
Typo tenebricoso	Dagilar National Park--Mt Glorious	-27.31611	152.74917	10/04/2015	BirdLife	1578181
Typo tenebricoso	Dagilar National Park--Mt Glorious	-27.3162	152.74909	11/04/2017	eBird Australia	20ffadfa-233b-4271-b076-63b05b8fcdcc
Typo tenebricoso	Dagilar National Park--Mt Glorious	-27.3162	152.74909	25/06/2016	eBird Australia	293207d8-0267-470a-980e-7a7c571b13c1
Typo tenebricoso	Dagilar National Park--Mt Glorious	-27.3162	152.74909	10/04/2015	eBird Australia	29460900-c317-48b3-8a7a-87a4e2717be
Typo tenebricoso	Dagilar National Park--Mt Glorious	-27.3162	152.74909	25/06/2016	eBird Australia	2991280e-120c-459f-8c5b-cdb0111fa6c2
Typo tenebricoso	Dagilar National Park--Mt Glorious	-27.3162	152.74909	3/05/2019	eBird Australia	29c5a8c5-4b3f-4b60-a272-0e70a1efec62
Typo tenebricoso	Dagilar National Park--Mt Glorious	-27.3162	152.74909	10/04/2015	eBird Australia	35189864-732a-40ce-85fa-accd23fca488
Typo tenebricoso	Dagilar National Park--Mt Glorious	-27.3162	152.74909	22/08/2018	eBird Australia	39f2c746-46c0-4eb3-e113-c295e801897
Typo tenebricoso	Dagilar National Park--Mt Glorious	-27.3162	152.74909	6/09/2013	eBird Australia	4b3c5dc5-470c-445a-8b0c-3b6993c8995c
Typo tenebricoso	Dagilar National Park--Mt Glorious	-27.3162	152.74909	22/07/2017	eBird Australia	66f4e01a-870c-4bc3-ad12-85398f7306f
Typo tenebricoso	Dagilar National Park--Mt Glorious	-27.3162	152.74909	25/06/2016	eBird Australia	841c13e3-1989-42b3-90c8-273d526b4304
Typo tenebricoso	Dagilar National Park--Mt Glorious	-27.3162	152.74909	22/06/2018	eBird Australia	b1d0017f-6497-481c-892d-b10c4b85e6c7
Typo tenebricoso	Dagilar National Park--Mt Glorious	-27.3162	152.74909	26/08/2016	eBird Australia	c28a110e-0732-4715-8323-3ac21a6d8f5d
Typo tenebricoso	Dagilar National Park--Mt Glorious	-27.3162	152.74909	25/06/2016	eBird Australia	d9d14d04-24b2-40df-8b53-6524c29b4cdf
Typo tenebricoso	Dagilar National Park--Mt Glorious	-27.3162	152.74909	8/02/2019	eBird Australia	e8037fce-de11-4f19-9187-65b59d832881
Typo tenebricoso	Manorina National Park	-27.31633	152.77083 100	1/09/2011	BirdLife	1380483
Typo tenebricoso	Manorina National Park	-27.31833	152.77083 100	21/09/2011	BirdLife	
Typo tenebricoso	Lawton Road - Rainforest Section	-27.3202432	152.7501682	31/10/2018	eBird Australia	1380484
Typo tenebricoso	Dagilar National Park--Lawton Rd	-27.3205413	152.7500103	11/01/2018	eBird Australia	14c39434-1c67-4062-84e6-792285bdc86
Typo tenebricoso	Dagilar National Park--Lawton Rd	-27.3205413	152.7500103	4/08/2018	eBird Australia	4bda70da-18c9-441c-832a-268dfaf154b5
Typo tenebricoso	Dagilar National Park--Lawton Rd	-27.3205413	152.7500103	19/12/2018	eBird Australia	59a51178-491a-4a28-ba71-00ae8a17145d
Typo tenebricoso	Dagilar National Park--Lawton Rd	-27.3205413	152.7500103	4/08/2018	eBird Australia	78a89574-72cf-445f-b70d-70d3a67f40d
Typo tenebricoso	Dagilar National Park--Lawton Rd	-27.3205413	152.7500103	14/02/2018	eBird Australia	e3799ed8-77fd-415b-9f4e-11890c6bedf
Typo tenebricoso	Headwaters of Ennis Creek (Left Branch), about 200m south along W near the summit, Mt Glorious	-27.3209444	152.7508055 50	13/10/2014	WildNet - Queensland Wildlife Data	e3ae1289-83ce-4a15-bda8-6b289f38c293
Typo tenebricoso	near the summit, Mt Glorious	-27.3209628	152.7508311 500	5/02/1995	WildNet - Queensland Wildlife Data	20938aa3-963c-4834-a994-79c0a890c1c9
Typo tenebricoso	Maiala National Park, near Mount Glorious, W. of Brisbane	-27.321	152.75125	1/04/1991	BirdLife	201833ba-c73f-4dbb-b143-c46c85c7579
Typo tenebricoso	Dagilar NP--Lawton Rd	-27.32139	152.75111	25/09/2015	BirdLife	1579754
Typo tenebricoso	Dagilar NP--Lawton Rd	-27.3213926	152.7510524	25/09/2015	eBird Australia	0c66648d-9612-400e-ad34-3cd72aa42ebe
Typo tenebricoso	Dagilar NP--Lawton Rd	-27.3213926	152.7510524	25/09/2015	eBird Australia	0e602fad-4b4e-4172-8b17-e7466b72096
Typo tenebricoso	Dagilar NP--Lawton Rd	-27.3213926	152.7510524	25/09/2015	eBird Australia	af12a3b7-5c0b-4e3b-8a65-5202b3e9eb9
Typo tenebricoso	Dagilar NP--Lawton Rd	-27.3213926	152.7510524	25/09/2015	eBird Australia	ae0019ee-fd3a-458b-817e-a4d59244468c
Typo tenebricoso	Dagilar National Park--Greenes Falls	-27.3221075	152.7625805	15/02/2018	eBird Australia	070ecdbf-0f32-4ab3-b517-86c5283c8c2c
Typo tenebricoso	Dagilar National Park--Greenes Falls	-27.3221075	152.7625805	10/01/2017	eBird Australia	0b7efad01-4701-4069-be33-0aed5909072f
Typo tenebricoso	Dagilar National Park--Greenes Falls	-27.3221075	152.7625805	26/04/2019	eBird Australia	10a251b8-911f-4209-8a6b-b0b4300539f8
Typo tenebricoso	Dagilar National Park--Greenes Falls	-27.3221075	152.7625805	24/05/2019	eBird Australia	2224a6f1-2087-4b05-b124-32aefaf5eacd
Typo tenebricoso	Dagilar National Park--Greenes Falls	-27.3221075	152.7625805	26/04/2019	eBird Australia	37a26894-43ca-410b-832a-c33856ecf68
Typo tenebricoso	Dagilar National Park--Greenes Falls	-27.3221075	152.7625805	20/02/2019	eBird Australia	7a617709-7842-4faa-9750-8d31c0a4527
Typo tenebricoso	Dagilar National Park--Greenes Falls	-27.3221075	152.7625805	24/04/2019	eBird Australia	87807f11-958b-408b-b896-429e5b8a520a
Typo tenebricoso	Dagilar National Park--Greenes Falls	-27.3221075	152.7625805	26/04/2019	eBird Australia	88a534c5-e9b5-4184-d011-6083ba80e02b
Typo tenebricoso	Dagilar National Park--Greenes Falls	-27.3221075	152.7625805	24/05/2019	eBird Australia	8b75b6d1-b01f-4791-8e4c-30c0eb0bc0af
Typo tenebricoso	Dagilar National Park--Greenes Falls	-27.3221075	152.7625805	4/06/2017	eBird Australia	8c120483-533d-4d9a-bb2c-94b49d96044
Typo tenebricoso	Dagilar National Park--Greenes Falls	-27.3221075	152.7625805	26/04/2019	eBird Australia	c6fa19ac-036c-4a99-b9ae-8f55d73a116
Typo tenebricoso	Dagilar National Park--Greenes Falls	-27.3221075	152.7625805	15/02/2018	eBird Australia	d49e020c-d98f-4f51-aad8-5989b8a4e5c
Typo tenebricoso	Dagilar National Park--Greenes Falls	-27.3221075	152.7625805	4/06/2017	eBird Australia	e4a4993b-b00c-4eeb-8a5c-2a672f668050
Typo tenebricoso	Dagilar National Park--Greenes Falls	-27.3221075	152.7625805	24/05/2019	eBird Australia	efaa84c8-3717-4e1a-8181-0134c3c3206a
Typo tenebricoso	Dagilar National Park--Greenes Falls	-27.3221075	152.7625805	4/06/2017	eBird Australia	f43c0b69-3c9f-44f7-b40c-35cc7095c460
Typo tenebricoso	Upper Cedar Creek Valley	-27.32437	152.73495	11/09/2018	eBird Australia	21aafaae-8112-4505-805f-b07016e2c322
Typo tenebricoso	Upper Cedar Creek Valley	-27.32437	152.73495	11/09/2018	eBird Australia	d988136d-0009-494e-bc52-9d470a563372
Typo tenebricoso	Maiala, Browns Rd	-27.32722	152.76306	7/04/2008	BirdLife	1067495
Typo tenebricoso	Dagilar National Park, Cypress Grove Track	-27.3273152	152.7631652	1/02/2015	eBird Australia	1874237-5067-4d00-8efa-0193ad3cd349
Typo tenebricoso	Where Greens Falls Track crosses Browns Rd, Mt Glorious	-27.32822118	152.7624899 500	5/07/1996	WildNet - Queensland Wildlife Data	9a9ab9e6-493b-4027-912a-028424011c78
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.3284779	152.7606969	19/10/2018	eBird Australia	0a51310e-e9b0-4349-8967-22c70a872a72
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.3284779	152.7606969	15/01/2019	eBird Australia	142d4f9a-138f-4046-83db-4e1000c11baf
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.3284779	152.7606969	6/01/2018	eBird Australia	20adcc8e-9652-43ee-8734-6e02360dad0f
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.3284779	152.7606969	5/05/2018	eBird Australia	2c34dbd4-9c89-4f5f-8d1f-63a8d0a0ca03
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.3284779	152.7606969	31/10/2018	eBird Australia	2a67f028-1aaz-4582-0319-9a915559c3b8
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.3284779	152.7606969	10/09/2017	eBird Australia	3384e6a9-c935-44a0-890c-ebf93773a4
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.3284779	152.7606969	5/05/2018	eBird Australia	3e1a0d46-c215-490e-b069-c8f9779622e
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.3284779	152.7606969	5/05/2018	eBird Australia	3fc4966f-85cb-40eb-8e76-572ade8b21c6
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.3284779	152.7606969	5/05/2018	eBird Australia	43a89f4a-2a02-42a8-8211-27a282116c19
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.3284779	152.7606969	10/01/2018	eBird Australia	5188480a-4384-4029-8a6b-0c7133a0482b
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.3284779	152.7606969	20/11/2018	eBird Australia	56851d2c-567f-407f-bad1-ebe30ca141c5b
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.3284779	152.7606969	8/09/2017	eBird Australia	6d145884-3584-430a-b3ac-8677ade9af50
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.3284779	152.7606969	6/01/2018	eBird Australia	70410f14-5cfa-4e1a-85e6-b16a231b1a99
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.3284779	152.7606969	8/12/2018	eBird Australia	7f7d531f-87d5-464e-936a-453792a60c09
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.3284779	152.7606969	23/09/2018	eBird Australia	a0c9e71-68a8-4179-90b3-143586b1c0b
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.3284779	152.7606969	4/11/2018	eBird Australia	a4f6c162-8111-49c1-a368-830cc3133c15
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.3284779	152.7606969	8/12/2018	eBird Australia	ad8ce0ee-a6f6-4723-baf3-4a6a8376dcfa
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.3284779	152.7606969	7/02/2019	eBird Australia	b152a90f-4339-490b-8b96-bc7187f9e4de
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.3284779	152.7606969	3/05/2019	eBird Australia	b3c49e45-4392-485f-ae1c-3a52a0c0e02b
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.3284779	152.7606969	4/12/2018	eBird Australia	b2c26dc3-cf95-462a-8f5f-ae2c092873a3
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.3284779	152.7606969	8/09/2017	eBird Australia	bc21179d-2242-47cc-9d52-29d2b6ae87758
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.3284779	152.7606969	15/01/2019	eBird Australia	b4e108f-954e-448d-ae0c-fd4ba3a76936
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.3284779	152.7606969	26/11/2018	eBird Australia	bdf89275-3e6b-4686-b8d7-d9b844a17ea
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.3284779	152.7606969	19/10/2018	eBird Australia	b3424aa8-637d-4a3a-bd21-8725015e050c
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.3284779	152.7606969	21/08/2017	eBird Australia	c0f1c684-af41-4156-b2be-4aa89ef73a9f
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.3284779	152.7606969	4/05/2019	eBird Australia	cd75bab1-d3d3-49d3-b034-215a4ef499f
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.3284779	152.7606969	10/09/2017	eBird Australia	cd796537-fb2c-4004-4aef-a6c21ed0c0ce
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.3284779	152.7606969	19/11/2018	eBird Australia	d224495e-ec2b-477c-860c-13a53a9888d
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.3284779	152.7606969	8/05/2019	eBird Australia	d783298a-e419-470e-a180-90d51b0a0e12
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.3284779	152.7606969	30/06/2019	eBird Australia	dcd30027-ecb9-490f-bd4f-63d75afafca80
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.3284779	152.7606969	15/04/2019	eBird Australia	ee2c211f-a24b-407f-b4d7-e4989725670a
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.3284779	152.7606969	7/02/2018	eBird Australia	e5a51eae-2e5f-4705-af01-43a027c3308f
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.3284779	152.7606969	30/05/2019	eBird Australia	ef4c338a-699d-47b3-9be9-9e5f556d022
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.3284779	152.7606969	4/05/2019	eBird Australia	f7715f31-02c7-4d60-b323-b40e3ee21d1
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.32859	152.76081	4/09/2016	eBird Australia	f0275a0b-ae7fa-47f1-919e-87395b6d363d
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.32859	152.76081	18/06/2017	eBird Australia	f0e55a67-9e9f-4e3c-b03e-dba0707f81a6
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.32859	152.76081	23/02/2017	eBird Australia	f11b268f-884e-437b-a9-12-126f732721
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.32859	152.76081	7/01/2017	eBird Australia	f193a7d3-2738-40f0-8da-09342d2a028b
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.32859	152.76081	11/12/2015	eBird Australia	f1c344d1-b29c-444c-885b-c6930ac9c78
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.32859	152.76081	15/01/2015	eBird Australia	24a8a476-248e-4ead-934c-033a201112c2
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.32859	152.76081	19/01/2017	eBird Australia	27f6a53c-377a-417a-b191-11ca123d7062
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.32859	152.76081	24/12/2014	eBird Australia	320935c5-0034-42ec-ba3c-767797ad88fa
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.32859	152.76081	4/09/2016	eBird Australia	34b531b5-0784-4ea9-877e-ae0215af4088a
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.32859	152.76081	22/07/2017	eBird Australia	49afaf2e-1b50-4700-b036-faf399951045
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.32859	152.76081	7/07/2017	eBird Australia	5080b68f-19e3-48d3-8009-0a47a1c252c2
Typo tenebricoso	Dagilar National Park--Browns Rd	-27.32859	152.76081	18/01/2007	eBird Australia	

Typo tenebricosa	D'Aguilar National Park-Maiala Loop Walk	-27.3315152	152.7618885	11/08/2006	eBird Australia	945a629f-4f53-4b11-b5d9-7c548674656a
Typo tenebricosa	D'Aguilar National Park-Maiala Loop Walk	-27.3315152	152.7618885	30/12/2006	eBird Australia	9172f2-4a4c-4a43-b676-0da6d313277a
Typo tenebricosa	D'Aguilar National Park-Maiala Loop Walk	-27.3315152	152.7618885	21/02/2017	eBird Australia	9aef1577-aeaf-1495-9206-af2148d879
Typo tenebricosa	D'Aguilar National Park-Maiala Loop Walk	-27.3315152	152.7618885	19/03/2016	eBird Australia	af0cbac27-6168-40d3-8701-0c10c493ab9
Typo tenebricosa	D'Aguilar National Park-Maiala Loop Walk	-27.3315152	152.7618885	26/07/2008	eBird Australia	ac32e10b-148d-4f95-bd40-d53906468ab4
Typo tenebricosa	D'Aguilar National Park-Maiala Loop Walk	-27.3315152	152.7618885	8/08/2015	eBird Australia	b14d89e-9c5e-495b-9376-ef15b63845d1
Typo tenebricosa	D'Aguilar National Park-Maiala Loop Walk	-27.3315152	152.7618885	6/03/2016	eBird Australia	63a910b5-971d-4322-ba22-48d0807524b
Typo tenebricosa	D'Aguilar National Park-Maiala Loop Walk	-27.3315152	152.7618885	4/10/2004	eBird Australia	b44d86be-5636-4b16-adba-d3c70c7252b1
Typo tenebricosa	D'Aguilar National Park-Maiala Loop Walk	-27.3315152	152.7618885	21/02/2016	eBird Australia	c477d3d2-14a9-416a-b6f0-705908be3c52
Typo tenebricosa	D'Aguilar National Park-Maiala Loop Walk	-27.3315152	152.7618885	6/03/2016	eBird Australia	c05a9e9a-92d8-4969-bbf6-20b9232cubab1
Typo tenebricosa	D'Aguilar National Park-Maiala Loop Walk	-27.3315152	152.7618885	6/11/2010	eBird Australia	d2b62950-9e3d-4b0c-92a6-52a7559a6f5a
Typo tenebricosa	D'Aguilar National Park-Maiala Loop Walk	-27.3315152	152.7618885	28/11/2014	eBird Australia	d32a4479-decd-43d4-96f9-5f14227c6a2c
Typo tenebricosa	D'Aguilar National Park-Maiala Loop Walk	-27.3315152	152.7618885	25/02/2017	eBird Australia	d42c1c73-4655-41dc-ba6f-56165376c31
Typo tenebricosa	D'Aguilar National Park-Maiala Loop Walk	-27.3315152	152.7618885	17/01/2010	eBird Australia	d9db01c4-9647-4b47-adf9-aad5f3ae75e4
Typo tenebricosa	D'Aguilar National Park-Maiala Loop Walk	-27.3315152	152.7618885	25/02/2017	eBird Australia	e2036cda-706f-4a4a-b2b8-b27013013031
Typo tenebricosa	D'Aguilar National Park-Maiala Loop Walk	-27.3315152	152.7618885	7/04/2008	eBird Australia	f033b2c2-c2d9-402b-98f9-04633a5a85
Typo tenebricosa	D'Aguilar National Park-Maiala Loop Walk	-27.3315152	152.7618885	14/03/1998	eBird Australia	f070bd44-5755-4579-9ea0-c9a536a044c7
Typo tenebricosa	Mt. Glorious-Maiala picnic ground	-27.33361	152.76333	29/05/2009	BirdLife	1441759
Typo tenebricosa	Mt. Glorious-Maiala picnic ground	-27.33361	152.76333	31/05/2009	BirdLife	1441760
Typo tenebricosa	D'Aguilar National Park-Maiala picnic ground	-27.3336242	152.7632209	10/10/2017	eBird Australia	252a423a-2869-4f4f-a273-9d2dca343482
Typo tenebricosa	D'Aguilar National Park-Maiala picnic ground	-27.3336355	152.7632165	27/06/2015	eBird Australia	2925a493-7ed4-4d55-978c-9af1c7b4218c
Typo tenebricosa	D'Aguilar National Park-Maiala picnic ground	-27.3336355	152.7632165	31/05/2009	eBird Australia	5e4d34e2-3a52-4ebf-8d0f-e042c28a2b55
Typo tenebricosa	D'Aguilar National Park-Maiala picnic ground	-27.3336355	152.7632165	22/07/2017	eBird Australia	f505a443-023f-48c1-ac02-f0f1376682c2
Typo tenebricosa	D'Aguilar National Park-Maiala picnic ground	-27.3336355	152.7632165	29/05/2009	eBird Australia	f5c09b0a-5958-478f-0baa-ae5a5a30105
Typo tenebricosa	Maiala Car Park	-27.33373	152.76345	22/07/2017	BirdLife Australia, Birdata	f6a3c2a1-0286-4f4f-ba39-725433b25858
Typo tenebricosa	Maiala Car Park	-27.3337388	152.7632038	29/06/2018	eBird Australia	b20edaa1-5a26-400d-9a1d-bed5c7774a29
Typo tenebricosa	Maiala	-27.3339	152.76336	5/08/2016	eBird Australia	af6e67d0d-1c15-4b11-af6b-a4b3904ce411
Typo tenebricosa	Mt. Glorious	-27.334269	152.767703	15/01/1998	eBird Australia	630e479-3602-47c0-b46a-d99306904b16
Typo tenebricosa	Mount Gloria	-27.3352132	152.7633047	20/04/2007	eBird Australia	b6f17738-804f-4473-94af-001646c959ca
Typo tenebricosa	Mt. Glorious	-27.33590619	152.7677361 900	20/06/1989	WildNet - Queensland Wildlife Data	2f8f6051-cd05-4562-9ef5-11c468070222
Typo tenebricosa	Mt. Glorious	-27.33590619	152.7677361 900	20/06/1989	WildNet - Queensland Wildlife Data	346262ae-1348-4ef3-979c-4f73e0b63632
Typo tenebricosa	Mt. Glorious, SEQ	-27.33590619	152.7677361 900	28/12/1990	WildNet - Queensland Wildlife Data	a3a7c12f-c071-48a2-471f-836a0a6b6eab
Typo tenebricosa	Mt. Glorious	-27.33590619	152.7677361 900	1/10/1993	WildNet - Queensland Wildlife Data	a5d14455-69d4-1181-a875-97338a3b0d0e
Typo tenebricosa	D'Aguilar National Park-Joyneys Ridge Road	-27.3363759	152.7655363	30/08/1982	eBird Australia	11ba0081-5e7f-4a36-9451-8a4952c5c34
Typo tenebricosa	Mt. Glorious	-27.3370511	152.7690718	6/07/2018	BirdLife	2904790
Typo tenebricosa	Mt. Glorious	-27.33707	152.76907	6/07/2018	BirdLife Australia, Birdata	76aa003b-7e67-4704-4a62-6e4b17a7bb67
Typo tenebricosa	Joelle Ln	-27.3397654	152.7693231 1249	13/03/2018	Naturalist	53193322-ec96b-4f09-bc18-1776076b0ba
Typo tenebricosa	Joelle Ln	-27.345739	152.7821559	21/12/2009	BirdLife	1905516
Typo tenebricosa	D'Aguilar National Park	-27.34664	152.75958	15/07/2017	eBird Australia	3c3266bd-d834-4dc6-9ebc-251a225a3bd
Typo tenebricosa	D'Aguilar National Park	-27.34664	152.75958	15/07/2017	eBird Australia	6cad2360-691b-490f-a076-62a76a9e181a
Typo tenebricosa	D'Aguilar National Park	-27.34664	152.75958	15/07/2017	eBird Australia	6f6c5a5e-3133-49f5-95a6-cd2b6a070117
Typo tenebricosa	D'Aguilar National Park	-27.34664	152.75958	15/07/2017	eBird Australia	94b2e1ae-bae7-4e14-999a-9a48f0441af5
Typo tenebricosa	D'Aguilar National Park	-27.34664	152.75958	5/03/2019	eBird Australia	a581e534-b84a-1154-a2d7-250e6f702577
Typo tenebricosa	D'Aguilar National Park	-27.34664	152.75958	28/11/2014	eBird Australia	ba8711d7-e1e9-4f0c-8f55-92d0d9fa7a2a7
Typo tenebricosa	D'Aguilar National Park	-27.34664	152.75958	15/07/2017	eBird Australia	c1d39902-c02d-1730-aac1-c1d36220e050
Typo tenebricosa	D'Aguilar National Park	-27.34664	152.75958	15/07/2017	eBird Australia	e4b51a50-723a-4245-85a6-30a4761f4e51
Typo tenebricosa	D'Aguilar National Park	-27.34664	152.75958	15/07/2017	eBird Australia	eb0a4173-0a2d-4a99-4312-13b5d96f81ad
Typo tenebricosa	D'Aguilar National Park	-27.34664	152.75958	15/07/2017	eBird Australia	ed1c040f-e0d8-4137-b601-2e1714e45fe7
Typo tenebricosa	D'Aguilar National Park	-27.34664	152.75958	15/07/2017	eBird Australia	f591013-340c-4e68-ba0f-ef592923a3b3
Typo tenebricosa	D'Aguilar National Park	-27.34667	152.75958	28/11/2014	BirdLife	1537495
Typo tenebricosa	bin Mts Glorious & Nebo	-249.0480936	152.771551 500	05/05/1995	WildNet - Queensland Wildlife Data	68917422-895d-432f-911b-ae5a494b1d06
Typo tenebricosa	Cedar Creek	-27.351109	152.768833 16	29/09/2011	Encyclopedia of Life Images - Flickr Group	62303554-761f-40d5-9b62-92df1d9f180d
Typo tenebricosa	(-27.3537, 152.7646)	-27.3534647	152.764509	24/06/2018	eBird Australia	06412857-9788-4834-a0a7-claa4c350487
Typo tenebricosa	bin Mts Nebo& Glorious	-27.35349813	152.7644611 900	26/04/1995	WildNet - Queensland Wildlife Data	601a303c-0530-473a-a270-c9eb58e5b93e
Typo tenebricosa	Mt. Glorious Road-Northern Harpin	-27.359682	152.7767148 900	13/02/2018	eBird Australia	29296295-3089-424e-b0c0-30a718e07871
Typo tenebricosa	Mt. Glorious Road-Northern Harpin	-27.3596862	152.7767148 900	13/02/2018	eBird Australia	bc235340-b278-4d48-bb0c-4b40a50cc0c2
Typo tenebricosa	Ravenesbourne NP	-27.36070891	152.1885795 1000	5/08/1984	WildNet - Queensland Wildlife Data	6b7858fa-1dc1-47a8-992d-656985979245
Typo tenebricosa	Ravenesbourne NP	-27.36070891	152.1885795 1000	5/08/1984	WildNet - Queensland Wildlife Data	8a50ccaf-4a0b-4411-8416-1d4ff1aa1c072
Typo tenebricosa	Ravenesbourne NP	-27.36070891	152.1885795 1000	19/01/1974	WildNet - Queensland Wildlife Data	1110640c-6078-457a-97d2-1beed6911f68
Typo tenebricosa	Ravenesbourne NP	-27.36070891	152.1885795 1000	1/03/1974	WildNet - Queensland Wildlife Data	1a27f08b-73e3-4a2d-87d7-9a45db4cb05b
Typo tenebricosa	D'Aguilar National Park-Manorina	-27.3714624	152.764163	17/09/2011	eBird Australia	01b17b12-8f4c-4505-818b-af1590e20913
Typo tenebricosa	D'Aguilar National Park-Manorina	-27.3714624	152.764163	8/10/2011	eBird Australia	49f15552-6db1-4d13-ae60-0e4e89863174
Typo tenebricosa	D'Aguilar National Park-Manorina	-27.3714624	152.764163	8/10/2011	eBird Australia	a8a47f42-5ee4-f45f-650a-9793a3cbe6a8
Typo tenebricosa	D'Aguilar National Park-Manorina	-27.3714624	152.764163	7/08/2011	eBird Australia	01b17b12-8f4c-4505-818b-af1590e20913
Typo tenebricosa	CN-ES List	-27.372222	152.177778	1/01/1900	eBird Australia	c9b9c615-adaf-4664-bbaa-5c0db0245233
Typo tenebricosa	Brisbane Forest Park, Mount Nebo	-27.37528	152.789055 100	25/08/2000	BirdLife	885931
Typo tenebricosa	Mt. Nebo, D'Aguilar National Park	-27.37757253	152.7885693 1800	10/11/1971	WildNet - Queensland Wildlife Data	1379a295-d767-4343-9a31-8979990d1944
Typo tenebricosa	Mt. Manorina	-27.37757253	152.7885693 1800	10/11/1971	WildNet - Queensland Wildlife Data	1379a295-d767-4343-9a31-8979990d1944
Typo tenebricosa	Mt. Manorina	-27.37757253	152.7885693 1800	10/08/1983	WildNet - Queensland Wildlife Data	5cb1e1d9-84a5-456e-88c1-09f9001a1054
Typo tenebricosa	(-27.3788, 152.7725)	-27.3786684	152.7724484	24/06/2018	eBird Australia	fef25600-5335-4e73-9630-78b5d006c0e5
Typo tenebricosa	D'Aguilar National Park-Manorina	-27.3796246	152.6701657 29751	31/12/2018	Naturalist	4b7cfbdc-ded4-459c-862b-11bc320301ba
Typo tenebricosa	D'Aguilar National Park-Manorina	-27.37992	152.776281	1/09/2011	eBird Australia	205c529f-8656-4d6a-470a-e73c6d77fed
Typo tenebricosa	Manorina NP, Mt. Nebo	-27.38167	152.78336	1/08/2011	BirdLife	1468044
Typo tenebricosa	Manorina National Park-Mt. Nebo	-27.38173	152.78332	1/09/2011	eBird Australia	129fde8e-3a38-4309-92d1-89153bb5aa9d
Typo tenebricosa	Manorina National Park-Mt. Nebo	-27.38173	152.78332	4/07/1987	eBird Australia	1546989b-15a3-427f-b0c6-6a0949ae33d
Typo tenebricosa	Manorina National Park-Mt. Nebo	-27.38173	152.78332	1/09/2011	eBird Australia	248e7b73-4005-471a-b74a-15d39731167
Typo tenebricosa	Manorina National Park-Mt. Nebo	-27.38173	152.78332	1/09/2011	eBird Australia	7a036a26-c6a6-4f9c-43f3-1eeeff0c0846
Typo tenebricosa	Manorina National Park-Mt. Nebo	-27.38173	152.78332	25/09/2011	eBird Australia	7c0ddcf9-ea1b-48b1-b07b-d836a7850e85
Typo tenebricosa	Manorina NP, Mt. Glorious	-27.38173919	152.7871805 900	4/07/1997	WildNet - Queensland Wildlife Data	37f139a-b2a6-4274-f55b-83a1c0819184d
Typo tenebricosa	D'Aguilar National Park-Goat Track	-27.3833142	152.7979159 900	24/06/2017	eBird Australia	00f9700c-1496-4a3c-b56c-6a0949ae33d
Typo tenebricosa	D'Aguilar National Park-Goat Track	-27.3833142	152.7979159 900	24/06/2017	eBird Australia	c0c44d8c-4d54-43d1-33d8-3a0d159a10e
Typo tenebricosa	D'Aguilar National Park-Goat Track	-27.3833142	152.7979159 900	24/06/2017	eBird Australia	eeef190a-5148-4173-9e67-5db332ed38b
Typo tenebricosa	Mt. Nebo Rd at -27.385, 152.778	-27.384514	152.778347	10/07/2018	eBird Australia	7445d11f-6346-4c29-9836-d1fba3233b1a
Typo tenebricosa	Mt. Nebo Rd at -27.385, 152.778	-27.384514	152.778347	10/07/2018	eBird Australia	9376c69f-3314-40a6-811f-7026c2a62a5e
Typo tenebricosa	Mt. Nebo Rd at -27.385, 152.778	-27.384514	152.778347	10/07/2018	eBird Australia	9e6f19c0-5015-4ac8-b5bc-1022aee0f659
Typo tenebricosa	Darcy Kelly Rd Mt. Nebo	-27.3859798	152.7784612 500	24/04/1995	WildNet - Queensland Wildlife Data	40416cc3-23a2-417d-a689-0e6677f1ea
Typo tenebricosa	Mount Nebo Rd x Goat Track, Mount Nebo, D'Aguilar Range SEQ	-27.3866833	152.785349	29/04/2017	eBird Australia	9559a474-1736-4737-ad2e-fd6344393f50
Typo tenebricosa	Mt. Nebo	-27.3868408	152.7844029 900	24/04/1974	WildNet - Queensland Wildlife Data	6606c328-4a68-4f8a-868a-ec59a8a8e68
Typo tenebricosa	Mt. Nebo	-27.3869268	152.7844029 900	29/04/1983	WildNet - Queensland Wildlife Data	62b27b7c-c946-4f09-9a6b-65c0b29c029
Typo tenebricosa	Joely's Lds, Mt. Nebo Rd	-27.3869776	152.8047009 900	21/04/1995	WildNet - Queensland Wildlife Data	7422228-35c0-430c-949c-1c3f1d97d1
Typo tenebricosa	The Nursery Land, 1871 Mount Nebo Road, Mount Nebo, SEQ.	-27.40138889	152.7883333 250	16/09/2006	WildNet - Queensland Wildlife Data	178747e9-b160-4080-ae69-c63b4bf8b6dc
Typo tenebricosa	Brisbane Forest Park	-27.40222	152.793005 100	25/09/1988	BirdLife	885920
Typo tenebricosa	Boombana NP	-27.40257235	152.7696927 900	28/03/1989	WildNet - Queensland Wildlife Data	af61603b-0751-4a0c-9e9f-a100a226c207
Typo tenebricosa	Boombana NP, Mt. Nebo Rd	-27.40257235	152.7696927 900	26/12/1983	WildNet - Queensland Wildlife Data	f0f65371-1dce-4a7f-b61e-ac034914104d
Typo tenebricosa	Boombana NP, Mt. Nebo Rd	-27.40257235	152.7696927 900	20/11/1984	WildNet - Queensland Wildlife Data	c9a6229c-1243-4a2b-a0d3-b1e403195048
Typo tenebricosa	Boombana NP, Mt. Nebo Rd	-27.40257235	152.7696927 900	20/11/1984	WildNet - Queensland Wildlife Data	de1633c0-29c4-4374-aaf6-7ebba08e8866
Typo tenebricosa	Mt. Nebo Rd	-27.41	152.91 9000	10/11/1977	First Bird Atlas	d622587f-b0a3-4606-96c6-ae41c0d1971
Typo tenebricosa	Enoggera	-27.42333333	152.984444 1800	19/04/1985	WildNet - Queensland Wildlife Data	65a43dc3-30a4-45f6-b6e0-251493d3c65e
Typo tenebricosa	Brisbane Forest Park-Bellbird Grove	-27.4241532	152.9027767	12/02/2001	eBird Australia	810c1db1-cd1b-43b2-bb84-38ef6f735cf8
Typo tenebricosa	Enoggera Creek, at Scrub Road crossing, Enoggera Forest Reserve, south	-27.42764737	152.8401966 250	18/12/2000	WildNet - Queensland Wildlife Data	8c5841b8-4e26-47b6-b252-3622725b838
Typo tenebricosa	Brisbane Water Works, Algrovce, Brisbane	-27.42	152.963333	1982-11-09	Queensland Museum prower for OZCAM	1c1d2627-670a-ae47-b67f-1401a458e1e1e
Typo tenebricosa	Murphys Creek at -27.47292, 151.96927	-27.47292	151.96927	4/05/2019	eBird Australia	38f73a3c-d2d4-407d-82b1-9a0b1b6f1e7a
Typo tenebricosa	Murphys Creek at -27					

Typo tenebricola	Shady Creek (Left branch) campsite, Main Range National Park, access	-27.9299201	152.3170278	100	10/10/2000	WildNet - Queensland Wildlife Data	5f373c15-a228-4b0a-9f1f-8104e4ade99
Typo tenebricola	Palm Grove	-27.93208	153.21	100	12/12/2007	BirdLife	1061200
Typo tenebricola	Palm Grove	-27.93208	153.21	100	23/02/2007	BirdLife	1061202
Typo tenebricola	Point Pure, Mount Mistake NP	-27.93333	152.31444	100	13/10/2000	BirdLife	765150
Typo tenebricola	Witches Falls Section Tamborine NP	-27.93333	153.17706	0	22/07/2018	BirdLife	2046637
Typo tenebricola	Witches Falls National Park	-27.93359	153.17808	100	11/06/2013	BirdLife	1256272
Typo tenebricola	Witches Falls National Park	-27.93639	153.17806	100	6/11/2013	BirdLife	1256273
Typo tenebricola	Right Branch Shady Creek, above falls, Main Range National Park (form	-27.93704782	152.3246222	250	27/09/2000	WildNet - Queensland Wildlife Data	9846c0a7-e2b4-433a-83a3-57b31d9e26cb
Typo tenebricola	Tamborine National Park-Witches Falls trail	-27.9370484	153.1797298	100	6/11/2013	eBird Australia	b3910a02-79ab-4913-8325-31a8d286b32
Typo tenebricola	Shady Creek, Mount Mistake NP	-27.93681	153.17808	100	27/09/2000	BirdLife	768052
Typo tenebricola	Guamala Creek Road, Guanaba, SEQ.	-27.94266171	153.2179241	100	4/08/2002	WildNet - Queensland Wildlife Data	4d867c13-49fa-442e-8082-06fc55829399
Typo tenebricola	Eaine St. Mt Tamborine	-27.9484015	153.196901	450	1/01/1982	WildNet - Queensland Wildlife Data	66a85530-1247-4336-96e0-d7a0a3c9c80
Typo tenebricola	Blackfalloes Creek, east of junction with tributary running in from Blac	-27.9522091	152.3468742	500	9/10/2000	WildNet - Queensland Wildlife Data	c4b411fe-2b02-467d-b879-3b042e2d82e0
Typo tenebricola	Walk to Sylvesters Lookout, Goomburra Section, Main Range National P	-27.96950269	152.3752727	50	22/09/2015	WildNet - Queensland Wildlife Data	c9845d92-2b7f-4057-996a-c0ad068331f
Typo tenebricola	Headwaters of creek upstream from picnic lookout road crossing, Goombu	-29.070074	152.382222	500	27/10/1997	WildNet - Queensland Wildlife Data	e58e8149-4205-4a25-a047-11412723b069
Typo tenebricola	Goomburra	-27.9780041	152.374694	500	21/06/1996	WildNet - Queensland Wildlife Data	94ef1d62-b115-478b-ba31-1a8f005a426a
Typo tenebricola	Tributary of the north branch of Dallymple Creek, at Ascusaria Falls car pa	-27.9790348	152.3754951	500	1/10/1996	WildNet - Queensland Wildlife Data	c470b995-c02e-4666-8a64-e4c3b05b562a
Typo tenebricola	KBA-Scenic Rim-500mRadius-41	-27.98055556	152.3648899	0	19/11/2017	BirdLife	2897914
Typo tenebricola	KBA-Scenic Rim-500mRadius-41	-27.98056	152.36489	0	17/11/2017	BirdLife Australia, Birds	c578043b-1069-44fe-8a90-237803768889
Typo tenebricola	Marra Gum Campground and surrounds, Goomburra State Forest, SEQ.	-27.98137182	152.3472291	500	9/04/1997	WildNet - Queensland Wildlife Data	0b2c284-596a-43a3-911e-18f16529e4a8
Typo tenebricola	Marra Gum Camping Area and adjacent forest	-27.98138162	152.3472198	500	18/06/1997	WildNet - Queensland Wildlife Data	147f8e48-b6fe-4d7f-af7b-0161b38b651a
Typo tenebricola	Main Camping area and adjacent forest	-27.98138162	152.3472198	500	18/06/1997	WildNet - Queensland Wildlife Data	180f2488-2450-462b-af8f-902771312629
Typo tenebricola	Marra Gum camp ground, Main Range National Park (formerly Goombur	-27.98138897	152.3472249	500	3/02/1997	WildNet - Queensland Wildlife Data	450-42b0-4291-4256-983b-7101691964
Typo tenebricola	Goomburra SFP, SFP75	-27.98174205	152.3489154	900	9/06/1994	WildNet - Queensland Wildlife Data	5a4586d2-200a-420a-c1d8-33aa5520c3ba
Typo tenebricola	Goomburra SFP	-27.98174095	152.3489154	900	9/06/1994	WildNet - Queensland Wildlife Data	bc1243b-8780-49c6-9f00-442af6c184
Typo tenebricola	Goomburra	-27.98220058	152.3549837	500	2/11/1993	WildNet - Queensland Wildlife Data	3b6c56b0-9864-4f4f-9672-7e370be714ca
Typo tenebricola	Dallymple Creek, upstream from Marra Gum campground to first major ju	-27.98414918	152.3589054	1000	3/02/1997	WildNet - Queensland Wildlife Data	10a63809-962a-49eb-85d4-2674d6317888
Typo tenebricola	Dallymple Creek, upstream from Marra Gum campground to first major ju	-27.98414918	152.3589054	1000	2/11/1997	WildNet - Queensland Wildlife Data	72b2382b-3297-4245-a754-48eb78199449
Typo tenebricola	Dallymple Creek, upstream from Marra Gum campground to first major ju	-27.98414918	152.3589054	1000	2/11/1996	WildNet - Queensland Wildlife Data	80ef45ae-a02b-4449-90af-d215eb3359
Typo tenebricola	Dallymple Creek, upstream from Marra Gum campground to first major ju	-27.98414918	152.3589054	1000	10/02/1997	WildNet - Queensland Wildlife Data	5b902f-c5-b470-4a00-981c-0c637ef2a17
Typo tenebricola	Dallymple Creek, upstream from Marra Gum campground to first major ju	-27.98414918	152.3589054	1000	9/04/1997	WildNet - Queensland Wildlife Data	bbafee23-c7e1-43cc-aa65-bea8ab8e822a
Typo tenebricola	1.5 km on ridge trail from Marra Gum camping area, Goomburra State Fo	-27.98414918	152.3589054	1000	27/10/1997	WildNet - Queensland Wildlife Data	0b4c629a-4696-4c0c-8488-a4a51a2e6ef7
Typo tenebricola	the M. Mt. Mistake	-27.98174205	152.3489154	900	28/11/1997	WildNet - Queensland Wildlife Data	abc355c5-455c-48b1-50b0-b84c0a1561
Typo tenebricola	Main Range National Park-Goomburra Section	-27.98794	152.36335	100	24/11/2014	eBird Australia	36c0f9c8-8553-44d0-8824-48b0b008587
Typo tenebricola	Main Range National Park-Goomburra Section	-27.98794	152.36335	100	11/06/1984	eBird Australia	531247-b8-04d7-4e60-9a00-1418b330010
Typo tenebricola	Main Range National Park-Goomburra Section	-27.98794	152.36335	100	24/08/2012	eBird Australia	0b5ca577-5908-41b0-8808-eb6ab6add18c
Typo tenebricola	Main Range National Park-Goomburra Section	-27.98794	152.36335	100	11/01/2014	BirdLife	af90671c-1442-407f-b07b-bb3bca24245e
Typo tenebricola	Main Range National Park-Goomburra Section	-27.98806	152.36333	100	11/01/2014	BirdLife	1402109
Typo tenebricola	Goomburra Section, Main Range National Park	-27.98806	152.36333	100	24/11/2014	BirdLife	1402110
Typo tenebricola	Goomburra SF, near intersection of Ridge and Cascade tracks	-27.99015678	152.36343	999	2/06/1998	WildNet - Queensland Wildlife Data	69b58ba8-b8e0-4144-97c4-af071af6c58d
Typo tenebricola	Gap Creek, west transect	-28.04894268	152.3830779	500	16/12/1997	WildNet - Queensland Wildlife Data	6ba4a3b7-ea9d-4332-b0c3-3b11a22a263a
Typo tenebricola	Gap Creek West, approximately 1km west of Cunningham's Gap, Main Ran	-28.04824686	152.3834635	100	16/09/1998	WildNet - Queensland Wildlife Data	11a777a0-c8d7-4b50-b0d4-c063752ca2a6
Typo tenebricola	Gap Creek West, about 1km west of Cunningham's Gap, Main Range Nat	-28.0492581	152.3834449	500	18/11/1996	WildNet - Queensland Wildlife Data	01c08131-1190-43b4-b736-6e7238a3ba9a5
Typo tenebricola	Gap Creek West, about 1km west of Cunningham's Gap, Main Range Nat	-28.0492581	152.3834449	500	27/06/2001	WildNet - Queensland Wildlife Data	1314a67f6-11b5-44c5-a241-ba99907b2ab3
Typo tenebricola	Gap Creek West, about 1km west of Cunningham's Gap, Main Range Nat	-28.0492581	152.3834449	500	20/01/2004	WildNet - Queensland Wildlife Data	259a9ba6-9999-4f4b-8a81-714ad73ba12d7
Typo tenebricola	Gap Creek West, about 1km west of Cunningham's Gap, Main Range Nat	-28.0492581	152.3834449	500	30/09/2005	WildNet - Queensland Wildlife Data	32be1c25-03f0-44a0-ae5d-58a3d561513
Typo tenebricola	Gap Creek West, about 1km west of Cunningham's Gap, Main Range Nat	-28.0492581	152.3834449	500	6/05/2003	WildNet - Queensland Wildlife Data	41c26a57-859c-439f-820d-8011d59ecce
Typo tenebricola	Gap Creek West, about 1km west of Cunningham's Gap, Main Range Nat	-28.0492581	152.3834449	500	23/10/2003	WildNet - Queensland Wildlife Data	5a54e3ab-c70c-436f-8303-efee42d0a912
Typo tenebricola	Gap Creek West, about 1km west of Cunningham's Gap, Main Range Nat	-28.0492581	152.3834449	500	19/01/1996	WildNet - Queensland Wildlife Data	6444f598-1190-4261-9966-827733133a3
Typo tenebricola	Gap Creek West, about 1km west of Cunningham's Gap, Main Range Nat	-28.0492581	152.3834449	500	16/01/1998	WildNet - Queensland Wildlife Data	67b2a01b-4595-4457-8a01-9741e278787
Typo tenebricola	Gap Creek West, about 1km west of Cunningham's Gap, Main Range Nat	-28.0492581	152.3834449	500	10/04/1998	WildNet - Queensland Wildlife Data	67f0903b-21e1-43a4-ba35-3d354114a623
Typo tenebricola	Gap Creek West, about 1km west of Cunningham's Gap, Main Range Nat	-28.0492581	152.3834449	500	24/05/2002	WildNet - Queensland Wildlife Data	70208958-0558-4162-af77-1a0b6826c71
Typo tenebricola	Gap Creek West, about 1km west of Cunningham's Gap, Main Range Nat	-28.0492581	152.3834449	500	27/12/1996	WildNet - Queensland Wildlife Data	76249725-7088-444f-8630-30a1be7e9c8
Typo tenebricola	Gap Creek West, about 1km west of Cunningham's Gap, Main Range Nat	-28.0492581	152.3834449	500	1/08/2001	WildNet - Queensland Wildlife Data	78b3c310-a690-4a86-8a3b-54d3869a0b18
Typo tenebricola	Gap Creek West, about 1km west of Cunningham's Gap, Main Range Nat	-28.0492581	152.3834449	500	16/12/1998	WildNet - Queensland Wildlife Data	74e6d45c-469d-4941-8a31-742d39a7478
Typo tenebricola	Gap Creek West, about 1km west of Cunningham's Gap, Main Range Nat	-28.0492581	152.3834449	500	13/02/1997	WildNet - Queensland Wildlife Data	a467823a-909b-4f88-3a6b-3821922b4a43
Typo tenebricola	Gap Creek West, about 1km west of Cunningham's Gap, Main Range Na	-28.0492581	152.3834449	500	20/09/2006	WildNet - Queensland Wildlife Data	a73e56b9-186c-4951-ab0e-951e81d1af3cc
Typo tenebricola	Gap Creek West, about 1km west of Cunningham's Gap, Main Range Nat	-28.0492581	152.3834449	500	20/11/2003	WildNet - Queensland Wildlife Data	ae3ca33a-1242-423a-9a3b-54d3869a0b8f
Typo tenebricola	Gap Creek West, about 1km west of Cunningham's Gap, Main Range Nat	-28.0492581	152.3834449	500	1/11/1998	WildNet - Queensland Wildlife Data	bc7f89805-321e-46a2-ae61-80a730947478
Typo tenebricola	Gap Creek West, about 1km west of Cunningham's Gap, Main Range Nat	-28.0492581	152.3834449	500	18/12/2002	WildNet - Queensland Wildlife Data	09a4c272-9546-4646-807d-14a6c05a05a
Typo tenebricola	Gap Creek West, about 1km west of Cunningham's Gap, Main Range Nat	-28.0492581	152.3834449	500	2/03/2004	WildNet - Queensland Wildlife Data	d271284a-4930-49a8-858d-2f0138fca659
Typo tenebricola	Gap Creek West, about 1km west of Cunningham's Gap, Main Range Nat	-28.0492581	152.3834449	500	9/11/2005	WildNet - Queensland Wildlife Data	da10a02d-b511-412b-85c3-c510fad74ac
Typo tenebricola	Gap Creek West, about 1km west of Cunningham's Gap, Main Range Nat	-28.0492581	152.3834449	500	16/02/2005	WildNet - Queensland Wildlife Data	4b1a9c30-5080-4a68-b737-223505f91970
Typo tenebricola	Gap Creek West, about 1km west of Cunningham's Gap, Main Range Nat	-28.0492581	152.3834449	500	22/10/1998	WildNet - Queensland Wildlife Data	11969000-c201-422f-8f13-33a6c2de1a7e
Typo tenebricola	Main Range National Park-Cunningham's Gap	-28.0494364	152.3934469	100	10/03/2019	eBird Australia	638666b8-502d-4136-882b-c10f28da25e3
Typo tenebricola	Cunninghams Gap	-28.05	152.4	1000	3/03/2005	Queensland Museum provider for OZCA/0008f6f-4252-4812-8a0b-d63da3dc77bc	
Typo tenebricola	Main Range National Park at -28.05137, 152.38208	-28.05137	152.38208	0	6/07/1992	WildNet - Queensland Wildlife Data	52b9a87b-0783-470e-8a21-31375876690
Typo tenebricola	Gap Creek, west transect	-28.052838	152.3700291	500	16/10/1998	WildNet - Queensland Wildlife Data	91d3a01c-409b-420e-8702-330c291a5b31
Typo tenebricola	Cunningham Highway, opposite the Picnic Ground, west of Cunningham	-28.05339506	152.3805281	50	24/06/2003	WildNet - Queensland Wildlife Data	31022e30-3420-48bd-badd-99f06f68e8228
Typo tenebricola	Gap Creek West, at the picnic ground, Cunningham's Gap, Main Range Na	-28.05376227	152.3813841	250	23/11/1999	WildNet - Queensland Wildlife Data	04f1cda7-41d3-4633-abfa-877a8b31388
Typo tenebricola	Gap Creek West, at the picnic ground, Cunningham's Gap, Main Range N	-28.05376227	152.3813841	250	28/05/2008	WildNet - Queensland Wildlife Data	2f1f1529-6586-44b0-8c04-1504-1570d618
Typo tenebricola	Gap Creek West, at the picnic ground, Cunningham's Gap, Main Range N	-28.05376227	152.3813841	250	4/11/1999	WildNet - Queensland Wildlife Data	4017a854-4e22-4a6b-9734-0977674c299
Typo tenebricola	Main Range National Park Picnic Area	-28.05376227	152.3813841	250	23/02/2019	BirdLife	6a5417f8-526a-43ba-8a62-7401359170
Typo tenebricola	Oreilly's Lamington National Park	-28.071674	153.1125927	100	9/02/2013	eBird Australia	5c37466a-4455-4a45-8a01-4340c7b0d9d
Typo tenebricola	Along Spicers Gap Rd, 300m up the road from Spicers Gap campground,	-28.0718691	152.4231318	50	23/01/2010	WildNet - Queensland Wildlife Data	cd7e4655-c6f0-4e24-adf2-5e7234d004d0
Typo tenebricola	Near camp site, Spicers Gap	-28.07340679	152.4302482	450	1/07/1992	WildNet - Queensland Wildlife Data	ae1782c7-0111-43d8-ba19-938403dcdf1c
Typo tenebricola	Main Range National Park-Spicers Gap	-28.07358	152.4241125	100	23/02/1997	eBird Australia	b1c0c09-090a-470a-370dca3daad1c
Typo tenebricola	Mudgeeraba CA- Site 1 Blackbutt	-28.10566747	153.3449918	100	1/11/2001	BirdLife	2894567
Typo tenebricola	Mudgeeraba CA	-28.10603088	153.3450132	100	1/11/2001	BirdLife	2894561
Typo tenebricola	Main Range National Park Road, on Sarabah Range, below Mount Cairns	-28.12466707	153.1054984	50	10/11/2004	WildNet - Queensland Wildlife Data	881040e4-0902-4160-4a4d-0e8bb886d4d1
Typo tenebricola	141 Simpsons Rd, Eboran QLD 4221, Australia	-28.14850182	152.4540467	700	28/09/2016	ALA species sightings and OZifas	c96115b-1291-4a6b-9a3d-3b3019000000
Typo tenebricola	Coomeera River, from the lower crossing of the Illinbah Walking Track to	-28.15451191	153.1706549	500	24/10/2007	WildNet - Queensland Wildlife Data	525a078b-446f-4c0b-b31d-453b6233a0b0
Typo tenebricola	Lamington National Park-Kamarun Lookout	-28.155815	153.1233187	100	12/06/2013	eBird Australia	2256b380-1b0c-401e-81e2-b0c18265401
Typo tenebricola	Lamington National Park-Kamarun Lookout	-28.155815	153.1233187	100	12/01/2016	eBird Australia	30c03121-1e0f-4c49-9663-7b54284be01
Typo tenebricola	Lamington National Park-Kamarun Lookout	-28.155815	153.1233187	100	4/01/2016	eBird Australia	b73c0e06-4044-477a-920b-c70ba11c7746
Typo tenebricola	Lamington National Park-Kamarun Lookout	-28.155815	153.1233187	100	4/01/2016	eBird Australia	46c05c62-870a-4740-b1-686728133339
Typo tenebricola	Kamarun Lookout	-28.15583	153.12333	100	12/06/2013	BirdLife	1402071
Typo tenebricola	Lamington National Park-Elebens Falls	-28.172728	153.116791	100	7/11/2018	eBird Australia	9882a209-630c-4030-a7a3-a82732f81b1f
Typo tenebricola	Lamington National Park-Elebens Falls	-28.172728	153.116791	100	7/11/2018	eBird Australia	a587a045-770c-4a5a-ba31-39a869b2a0b3
Typo tenebricola	Lamington National Park-Elebens Falls	-28.172728	153.116791	100	7/11/2018	eBird Australia	a525959c-160c-4a40-ba30-9a9c9b0303e
Typo tenebricola	Lamington National Park-Elebens Falls	-28.172728	153.116791	100	7/11/2018	eBird Australia	c701a110-124c-459b-b0d6-15f2c0f1ec0a
Typo tenebricola	AU-QLD-Lamington National Park -28.1732x153.1166 - Mar 9, 2016, 11:	-28.173247	153.116625	100	11/03/2016	eBird Australia	b1bba37f-8446-4876-ac64-40a6e09909b
Typo tenebricola	REEDY CK VALLEY 2 KMS SOUTH WEST OF PANORAMA POINT NORT	-28.17581157	152.4259953	500	18/08/1997	WildNet - Queensland Wildlife Data	c409d406-9504-433b-ba45-76b2c2d7711
Typo tenebricola	Little Nerang Creek West Branch, between the two easterly flowing riv	-28.17607485	153.2689929	200	27/10/2005	WildNet - Queensland Wildlife Data	157

Tyto tenebrosica	O'Reilly's Rainforest Retreat	-28.2307071	153.1359648	11/03/2019	eBird Australia	d713797b-b68d-45d1-9beb-0ba722fa031
Tyto tenebrosica	O'Reilly's Rainforest Retreat	-28.2307071	153.1359648	7/10/2017	eBird Australia	ddff65c8b-d451-4160-82df-a0a264b41681
Tyto tenebrosica	O'Reilly's Rainforest Retreat	-28.2307071	153.1359648	20/04/2019	eBird Australia	fab6699c-c2aa-4d64-a487-cb15fcd0fcb
Tyto tenebrosica	O'Reilly's Rainforest Retreat	-28.2307071	153.1359648	6/10/2017	eBird Australia	b5d5ba4-2ba3-48b3-8a4c-0813c29083b6
Tyto tenebrosica	O'Reilly's Rainforest Retreat	-28.2307071	153.1359648	8/10/2017	eBird Australia	1d89b585-c7a5-4aea-8ecb-078304a290b1
Tyto tenebrosica	Lamington NP--O'Reilly's	-28.23111	153.13583	12/08/2010	BirdLife	f444714
Tyto tenebrosica	O'Reilly's Rainforest Retreat	-28.231186	153.1358528	12/08/2010	eBird Australia	00efc81d-645b-418f-8db5-d081d57bc098
Tyto tenebrosica	O'Reilly's Rainforest Retreat	-28.231186	153.1358528	4/03/2015	eBird Australia	0ce9eb5a-fc94-446b-88e4-5cd5a169a8c1
Tyto tenebrosica	O'Reilly's Rainforest Retreat	-28.231186	153.1358528	12/08/2010	eBird Australia	2f016885-4086-436d-b4f5-3e4fcdcb4149
Tyto tenebrosica	O'Reilly's Rainforest Retreat	-28.231186	153.1358528	3/03/2015	eBird Australia	2f4e6a0c-0976-46a8-82cb-58f3963523af
Tyto tenebrosica	O'Reilly's Rainforest Retreat	-28.231186	153.1358528	3/01/2014	eBird Australia	3f32b1ad-3cfd-4e87-ab35-3ab0c9e07887
Tyto tenebrosica	O'Reilly's Rainforest Retreat	-28.231186	153.1358528	1/08/2012	eBird Australia	40f4395f-e9e7-45f3-ab09-3949a69b0a92
Tyto tenebrosica	O'Reilly's Rainforest Retreat	-28.231186	153.1358528	27/07/2014	eBird Australia	6d874155-843d-4ced-9afd-c56ff2edfde29
Tyto tenebrosica	O'Reilly's Rainforest Retreat	-28.231186	153.1358528	4/03/2015	eBird Australia	72b28650-d861-4496-99c4-358082d4e398
Tyto tenebrosica	O'Reilly's Rainforest Retreat	-28.231186	153.1358528	2/11/2015	eBird Australia	9bb2a578-8e76-444b-ac14-2a2dc049abc0
Tyto tenebrosica	O'Reilly's Rainforest Retreat	-28.231186	153.1358528	1/11/2015	eBird Australia	bcfa3cb0-ce1a-4db6-b713-745ea8c2f0f8
Tyto tenebrosica	O'Reilly's Rainforest Retreat	-28.231186	153.1358528	17/03/2015	eBird Australia	bda098fa-882b-4cd5-b69e-74783d3718cd
Tyto tenebrosica	O'Reilly's Rainforest Retreat	-28.231186	153.1358528	26/05/2014	eBird Australia	c39b3c02-e637-4d4f-83ae-18904c4656d6
Tyto tenebrosica	O'Reilly's Rainforest Retreat	-28.231186	153.1358528	16/04/2016	eBird Australia	c451ea7e-fc59-485b-8410-b45c899efc3c
Tyto tenebrosica	O'Reilly's Rainforest Retreat	-28.231186	153.1358528	31/07/2016	eBird Australia	ca5d388b-7a73-460e-9715-d070163da68f
Tyto tenebrosica	O'Reilly's Rainforest Retreat	-28.231186	153.1358528	3/03/2015	eBird Australia	cef1002f-6e2b-4918-bbe8-4601194a0c9e
Tyto tenebrosica	O'Reilly's Rainforest Retreat	-28.231186	153.1358528	18/01/2017	eBird Australia	dc410851-f006-416a-b7de-e8bfbccc36a1
Tyto tenebrosica	O'Reilly's Rainforest Retreat	-28.231186	153.1358528	19/11/2002	eBird Australia	dd497000-d2a1-4664-a1f4-af59e0c69006
Tyto tenebrosica	O'Reilly's Rainforest Retreat	-28.231186	153.1358528	2/11/2015	eBird Australia	de0425cb-3119-4ad4-89cd-16670ec461d5
Tyto tenebrosica	O'Reilly's Rainforest Retreat	-28.231186	153.1358528	2/11/2015	eBird Australia	e19d1391-14e8-4c3e-ac11-462a76a87434
Tyto tenebrosica	O'Reilly's Rainforest Retreat	-28.231186	153.1358528	11/03/2000	eBird Australia	f8affab6-e8b5-404c-b40c-66a234d61190
Tyto tenebrosica	O'Reilly's, Lamington NP	-28.23173487	153.1344046 1800	15/09/1984	WildNet - Queensland Wildlife Data	2241a960-714c-4f8f-930f-dbc853241ad0
Tyto tenebrosica	O'Reilly's, Lamington NP	-28.23173487	153.1344046 1800	8/12/1973	WildNet - Queensland Wildlife Data	3e012993-d980-4d73-bb51-3bdc9289c661
Tyto tenebrosica	O'Reilly's, Lamington NP	-28.23173487	153.1344046 1800	24/11/1984	WildNet - Queensland Wildlife Data	bcea6d47-e844-4a33-af1f-89783db09227
Tyto tenebrosica	O'Reilly's, Lamington NP	-28.23173487	153.1344046 1800	20/10/1984	WildNet - Queensland Wildlife Data	d041a1c6-2d94-4b14-b9f5-d16811ad3973
Tyto tenebrosica	Green Mountain	-28.23306	153.14306	7/09/2008	BirdLife	f1131830
Tyto tenebrosica	O'Reilly's	-28.23333	153.13333	29/10/2009	BirdLife	f103029
Tyto tenebrosica	O'Reilly's	-28.23333	153.1333	23/10/2009	BirdLife Australia, Birdata	14932c9e-687b-4aec-ac53-95a499b77b1
Tyto tenebrosica	O'Reilly's Rainforest Retreat--Rainforest Circuit Track	-28.2336743	153.1386017	27/05/2017	eBird Australia	06e692ba-f111-4ced-9f09-cda83b1758d8
Tyto tenebrosica	O'Reilly's Rainforest Retreat--Rainforest Circuit Track	-28.2336743	153.1386017	27/05/2017	eBird Australia	5e6fbcfe-2426-49c7-b310-0db5f11708cf
Tyto tenebrosica	O'Reilly's Rainforest Retreat--Rainforest Circuit Track	-28.2336743	153.1386017	27/05/2017	eBird Australia	810763dd-65ed-4f7d-bec0-312e86c31ca9
Tyto tenebrosica	O'Reilly's Rainforest Retreat--Wishing Tree Track	-28.233965	153.1357187	14/11/2016	eBird Australia	24dd465a-9ecc-4f7d-bec0-312e86c31ca9
Tyto tenebrosica	O'Reilly's Rainforest Retreat--Wishing Tree Track	-28.233965	153.1357187	11/03/2019	eBird Australia	4f81b5a8-a582-4639-82a7-37bb45ea1584
Tyto tenebrosica	O'Reilly's Rainforest Retreat--Wishing Tree Track	-28.233965	153.1357187	19/02/2017	eBird Australia	57ac3e1-4658-4ad2-b800-23c36444065e
Tyto tenebrosica	O'Reilly's Rainforest Retreat--Wishing Tree Track	-28.233965	153.1357187	19/02/2017	eBird Australia	6eb2b1b3-7411-443f-9208-871d416397f7
Tyto tenebrosica	O'Reilly's Rainforest Retreat--Wishing Tree Track	-28.233965	153.1357187	19/02/2017	eBird Australia	dc5308a9-999f-42a8-8a8b-956a7711d1df
Tyto tenebrosica	O'Reilly's Rainforest Retreat--Wishing Tree Track	-28.233965	153.1357187	15/08/2018	eBird Australia	e79ea177-0d4b-46ea-964c-18bb928abcf0
Tyto tenebrosica	Coomera River Circuit, third crossing of Coomera River above Coomera	-28.23587469	153.1932876 100	24/02/2007	WildNet - Queensland Wildlife Data	10a6105f-1988-4261-93b6-6d42b17a3c88
Tyto tenebrosica	Elabana Falls/Picnic Rock Track, about 150m below branch point of Box	-28.24205547	153.1522676 50	9/11/2004	WildNet - Queensland Wildlife Data	435c3750-f5ad-434c-9aae-bcb7095e7bc9
Tyto tenebrosica	Elabana Falls Track, 80m below first switchback after leaving Main Bord	-28.24274991	153.1517399 100	7/11/2003	WildNet - Queensland Wildlife Data	72f35503-03e9-4989-8487-ec5e28b6adfc
Tyto tenebrosica	Lamington National Park	-28.24389	153.17278 100	11/05/2012	BirdLife	f402022
Tyto tenebrosica	Lamington National Park	-28.24389	153.17278 100	29/08/2013	BirdLife	1454397
Tyto tenebrosica	Lamington NP	-28.24389	153.17278	27/07/2012	BirdLife	f480000
Tyto tenebrosica	Central Track, Killarney Section of Main Range National Park, SEQ.	-28.27422803	152.4016411 50	17/02/2003	WildNet - Queensland Wildlife Data	761ad6cb-d6ca-4867-9a39-96721e7e7471
Tyto tenebrosica	Reise's crossing, Condamine River Rd SEQ	-28.2986	152.35201 100	22/06/2017	WildNet - Queensland Wildlife Data	812d41f1-b2c3-46a2-8bab-21dd78f5578a
Tyto tenebrosica	locality withheld	-28.31	152.41 100	25/11/1992	OEI Atlas of NSW Wildlife	2bec9d95-d6e5-4f0c-94d3-97b10d0848a1
Tyto tenebrosica	Running Creek area, nr Richmond Gap tunnel	-28.32340277	152.9719083 900	1/04/1941	WildNet - Queensland Wildlife Data	6dbce4a3-a19d-4de2-820a-5e6d2e7314c8
Tyto tenebrosica	locality withheld	-28.33	152.82 100	3/09/1982	OEI Atlas of NSW Wildlife	1e4d2bae-264a-4ac1-aeef-094349e96311
Tyto tenebrosica	locality withheld	-28.33	152.97 50	25/08/2005	OEI Atlas of NSW Wildlife	cf518ba-969c-436d-9494-2bc98464299e
Tyto tenebrosica	Mt Lindesay Highway, Burnett Creek, Mt Lindesay	-28.3337	152.7067 500	1/01/2005	WildNet - Queensland Wildlife Data	826ef714-5c0e-460e-b27e-ab7e22f46c65