

EAZA Treasure Island Update

Progression of the Treasure Island Ranger Programme Bird Focused Monitoring Transects

19/10/2020

1. Bird Monitoring Methodology Development and Implementation

1.1. Methodology Development

Over the last three months, EcosystemImpact has been working with members of EAZA Silent Forest Campaign, International Union for the Conservation of Nature (IUCN) Species Survival Commission (SSC) Asian Songbird Trade Specialist Group (ASTSG) and University of Singapore Avian Evolution Lab to the development and implementation of the Treasure Island bird monitoring, anti-poaching and transect methodology. Playing a particularly important role in the development of this methodology have been EAZA's Simon Bruslund and Tomas Ouhel; David Jeggo and Jessica Lee (also a member of Wildlife Reserves Singapore) from ASTSG; and members of Avian Evolution Lab, especially Frank Erwin Rheindt.





Each name mentioned above is a regionally influential and internationally recognised bird conservationist. Tomas Ouhel, Jessica Lee and Frank Erwin Rheindt have contributed to multiple scientific journal articles on Asian bird species and the Asian Songbird Crisis, some of which are referenced below. EcosystemImpact feels privileged to sit within this network of conservationists, and to have had their assistance in the development of the Treasure Island Ranger Programme.

The methodology has been developed with a focus on birds, primarily Nias hill myna (*Gracula robusta*), silvery pigeon (*Columba argentina*), along with ASTSG Tier 1 (highest priority) species, white-rumped (Barusan) shama (*Copsychus [malabaricus] melanurus*) and a number of other ASTSG and IUCN target species (see Table 1. below for a list of all programme target species). These species have been chosen as the programmes focus species by the people listed in the paragraph above, as they are species considered locally, regionally and internationally important and under threat. Data on each of these species is collected each patrol / transect. It is not yet known if a number of the below species are found on Treasure Island, such as long-tailed parakeet, greater green leafbird and straw-headed bulbul; but given their conservation status, they have been included.

Table 1. Treasure Island Ranger Programmes Target Bird Species

No.	Jenis (Nama Internasional)	Gambar	Jenis (Nama Lokal)	Singkatan
1	Nias hill myna		Beo Nias / Magiao	NHM
2	Silver pigeon		Merpati Hutan Perak / Buru'u Gatua	SP
3	Barusan shama		Murai / Tetehua	BS
4	Oriental magpie robin		Kucica Kampung	OMR

5	Black-naed oriel		Kepodang kuduk-hitam	BNO
6	Nicobar Pigeon		Junai Emas	NP
7	Asian Fairy-bluebird		Kecembang Gadung	AFB
8	Red-breastedParakeet		Betet Biasa / Keke	RBP
9	Beach Thick-knee		Wili-wili Besar	BTK
10	Sooty-capped Babbler-SCB		Asi Topi- jelaga	SCB

11	Long-tailed parakeet		Betet Ekor-panjang	LTP
12	Black-naped Monarch		Kehicap Ranting	BNM
13	Greater Green Leafbird		Cica-daun Besar	GGL
15	Straw-headed Bulbul		Casak Rawa	SHB

1.1. Patrol and Transect Implementation

The ongoing success of the project is largely due to the ranger's continued presence on Treasure Island and their ability to patrol twice daily. The Rangers have been undertaking patrols which encompass both forest and beach since the Programmes beginning in 1997 under the management of Yayasan Pulau Banyak (YPB). With the development of the Programmes bird focus, with the backing of EAZA Silent Forest and ASTSG, EcosystemImpact felt the need to initiate longer forest transects specifically focused on monitoring and collecting data on the focus endangered bird species. These transect routes were chosen as they penetrate deep into the forest and encompass locations known to be rich in bird diversity and previous poaching / entry locations.

Table 2. Ranger Patrol and Monitoring Schedule

Day	Daily Transect (with turtle patrol)	Mountain Transect Team A	Asin Bay Transect Team B
1	✓		
2	✓		
3	✓		
4	✓		
5	✓		
6	✓		
7	✓		
8	✓		
9	✓		
10	✓		
11	✓		
12	✓		
13	✓		
14	✓		
15*	✓		
1	✓		
2	✓		
3	✓		
4	✓		
5	✓		
6	✓		
7	✓		
8	✓		
9	✓		
10	✓		
11	✓		
12	✓		
13	✓		
14	✓		
15	✓		

*Ranger shift changeover day. Within the 15-day shift, each team will carry out one longer forest transect, either mountain or Asin Bay.

Table 1. shows the twice daily ranger patrols in the left-hand column. These patrols are a distance of 4.2km; 1.8km of which is through forest and bird focused, and 2.4km along Treasure Island's turtle nesting beach. The middle and right-hand column showing red and

yellow represent the two longer forest bird monitoring transects. One of these transects must be carried out within each 15-day ranger shift. Due to changeable and occasionally dangerous weather, there is no set day on which these transects must be carried out.

Data collected on each patrol / transect is recorded with a GPS and entered into the Buku Patroli / Patrol Monitoring Booklet. Treasure Island is a remote location with no phone reception or internet. Khairul, Treasure Island Programme Manager, travels between Treasure Island, mainland Sumatra and Simeulue (EcosystemImpact office location). During visits to Treasure Island he collects all recorded data from the rangers. Khairul then visits Simeulue once monthly reporting on all developments and data collected.

The data collected for each patrol / transect is detected either visually or through sound. Information collected is on each bird individual or flock encountered and number of individuals, along with illegal activity and predation. For each input, photographic evidence is collected. On some occasions, for example when birds are identified through sound only, it is not possible to get photographic evidence. No poaching or hunting activity is yet to be encountered.



Figure 1. The Treasure Island Rangers on bird forest Transect (photo from ranger patrols and bird monitoring, September 2020).

2. Recent Sightings and Data Significance

The patrols / monitoring transects are already proving hugely valuable, with a number of important photos being captured of rare birds. The dominant focus species of the Treasure Island Ranger Programme is the Nias hill myna. Common hill myna (*Gracula religiosa*) is one of the most widely traded Asian songbirds, with Nias hill myna being one of the most sought-after taxa within the hill myna complex (Ng et al., 2020). Nias hill myna are viably considered a separate species (Ng et al., 2020). During a survey of Nias Island, Dymond (1994) declared Nias hill myna extinct in the wild. Nias hill myna are still considered extinct on Nias, but small populations have since been discovered on three/possibly four small islands (Švejcárová, 2017; Ng et al., 2020).

At the first Asian Songbird Trade Crisis Summit in 2015, ASTSG identified *Gracula religiosa* as a 'species of high conservation priority' and listed the species in Tier 1: the '12 taxa identified as of highest priority and in need of immediate action' (Lee et al., 2016:6). Lee et al. (2016) state that five subspecies of *Gracula religiosa* – including *robusta* – are now 'seriously threatened' (p.13). The ASTSG Action Plan, which is laid out in Lee et al. (2016), states 'hotspots of bird capture will be identified for better law enforcement and anti-poaching actions' (p. 9).



Figure 2. A Nias hill myna photographed by the Treasure Island Rangers September 2020.

The results of Švejcarová (2017) and Ng et al. (2020) research, show that Treasure Island is the last surviving viable – that is large enough to be healthy and genetically diverse – population of the Nias hill myna. Treasure Island is therefore hugely important and the location to protect for the survival of the species.



Figure 3. Showing five Nias hill myna. With an estimated 50-249 wild individuals in 2018 (IUCN, 2018), this photo alone represents 2-10% of the population (photo from ranger patrols and bird monitoring, September 2020).

4. References

Dymond, N. 1994. A survey of the birds of Nias Island, Sumatra. *Kukila* 7:10–27.

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