

**MINISTRY OF FORESTRY  
FOREST DEPARTMENT  
Taninthayi Nature Reserve Project**

**A REPORT ON BIRDS SURVEYED  
IN  
TANINTHAYI NATURE RESERVE**



Silver breasted Broadbill ( ♀ ) @ Taninthayi Nature Reserve

**Nay Myo Shwe, San San Nwe & Lay Lay Khaing  
(National Consultants)  
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# **Reports on Birds surveyed in Taninthayi Nature Reserve**

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# Report on Birds Surveyed in Taninthayi Nature Reserve

## Executive Summary

We conducted bird surveys from 1<sup>st</sup> January 2008 to 1<sup>st</sup> May 2008 in Taninthayi Nature Reserve (TNR) southern part of Myanmar. Audio-visual observations, mist netting and play-back techniques were used. In total we recorded 244 species (50 families) of birds, representing roughly 23% of the entire country's bird species. Among these were three species classified as "vulnerable" and 10 as "near threatened" species according to the Birdlife International Red Data Book (2001). Out of the 244 recorded species 54% were insectivorous and 40% feed on insects, fruits or grains. The numbers indicate that birds in TNR are playing a major role in the primary links in the food web and insect control to prevent the damage of evergreen forests and farms. Bird species relative abundance is higher in Bamboo/Deciduous forest and Evergreen forest compared to all other habitats in TNR. Unfortunately, Gurney's Pitta (*Pitta gurneyi*) was not found during our surveys. To achieve the goal of TNR and to work towards publishing the handbook of the "Birds of Taninthayi Nature Reserve" we recommend: 1) To continue to survey the avifauna, particularly in areas or seasons where this survey did not cover. 2) To assess the absence of Gurney's Pitta in TNR more detailed investigation is necessary in potential areas like the southern parts of the Reserve. 3) To establish a systematic mist-netting and banding program throughout the year inside TNR. 4) To learn about species richness, ecological association of birds and others animals, establish a 2 km length permanent transect near H6, KhoTa Ma, 1500 and 25 miles camps. 5) To determine bird species composition and richness of flock and keystone species of TNR, the transect should be set 10 points in 100 meter intervals in different habitats. 6) To study the ecology of Hornbills, to determine species richness and their potential threats. 7) To apply scientific information in protected area management, Master and PhD research program inside TNR from Dawai University should be integrated. 8) Further surveys, especially in the poorly known interior montane tracts, are needed to assist the identification of birds and conservation priorities in the region. 9) Establish a mobile education program and permanent education center in TNR to increase understanding of biodiversity. 10) Along the MS road and surrounding areas are richer in biodiversity than other regions and more fragile. Consequently, environmental impact assessment should be deeply considered before any development in those areas. 11) Trans-boundary conservation with the western forest complex (Thailand) and TNR would be a good approach to biodiversity conservation and Protected Areas management. 12) To formulation of Taninthayi Nature Reserve Management Plan is essential for proper management.

**Key words:** Taninthayi Nature Reserve, bird, insectivorous, Gurney's Pitta, reserve management

# **1. Introduction**

In both natural and man-made communities, birds are important consumers and predators, dispersal agents of both plants and animals, and pollinators. In many ecosystems birds serve as the primary mobile links between separate food webs and as keystone species in determining community structure and function. And bird watching is also one of the increasingly popular activities in ecotourism development mechanism. Habitat loss and destruction is the major causes of Asia birds population declines. (Threatened Birds of Asia Birdlife International Red Data Book). In Southeast Asia a total of about 1,270 birds species and in Myanmar about 1,062 species are recorded. Hence Myanmar is very diverse with birds in Southeast Asia. However, avifaunal surveys in Myanmar, especially in Taninthayi, have not been done much.

Taninthayi Nature Reserve Project was started in 2005 to conserve biodiversity of TNR and its ecosystem at the International level. Bird surveys were started in TNR from January 2008 to end of May 2008(5 months duration). Surveys were done by Avifaunal National Consultants in Taninthayi Nature Reserve Project, Daw San San Nwe and Daw Lay Lay Khaing (from 1<sup>st</sup> January to 31<sup>st</sup> March 2008) and U Nay Myo Shwe (from 1<sup>st</sup> April to 31<sup>st</sup> May 2008) from Nature and Wildlife Conservation Division (NWCD), Forest Department. The first three months of our survey period was restricted to bird watching and the last two months focused on mist netting, and Gurney's Pitta call play back.

This survey was carried out with the following objectives:

- 1) To determine the species diversity of birds in and around Taninthayi Nature Reserve (TNR);
- 2) To classify the species criteria based on the IUCN Red List;
- 3) To support the avifauna diversity information for the TNR management plan.



## **2. Ecological description of the study site**

### **2.1 Location**

TNR is located between Ye – Dewai (Tavoy) motor road in the west along with the Andaman Sea and Myanmar - Thailand international border line in the east and is located administratively in Yebyu and Dewai townships of Dewai district in the northern part of Taninthayi Division in the south of Myanmar. TNRP area (Figure 1) is geographically situated between the latitudinal range of N 14°20'50" to 14°57'55" and the longitudinal range of E 98° 5'10" to 98° 31'32" (Anon, RS & GIS, FD, 2007). TNR was notified as a Nature Reserve under PAS in 2005 with a total area of 1,700 square kilometers (about 169,998.7 ha). It consists of three forest reserves, viz., the eastern parts of Kaleinaung Reserve and Heinze Reserve (about 85,764 ha), and Luwaing Reserve (about 84,307 ha). These reserves were classified as Reserve Forests in 1885, 1902 and 1932 respectively, being some of the very oldest preserved tropical rain forests in Myanmar.

### **2.2 Climate**

The climate in the study area is seasonal influenced by tropical monsoon, usually with high rainfall. Annual rainfall is 5,000 mm with 145 rainy days from May to October. Average temperature range is 25-28 °C with the hottest in March and the coldest in January (Meteorological Department of Dewai District).

### **2.3 Type of vegetation**

The predominant vegetation is tropical rain forest growing in high elevation of mountains, but associated with the deciduous hardwood and bamboo forest in the lowlands. The flora in the study site is briefly described as “The canopy layer is occupied by evergreen tree species with the height ranging from 40-60 m. Some evergreen canopy species include *Dipterocarpus costatus*, *Dipterocarpus turbinatus*, *Dipterocarpus kerri*, *Hopea odorata*, *Anisoptera costata*, *Anisoptera curtisii*, *Dysoxylum excelsum*, *Sweintonia schwenkii*, *Cinnamomum pachyphyllum*, in association with deciduous species, are *Parkia sumatrana* and *Tetrameles nudiflora*

in the study area. Understory species are mostly evergreen in which the common understory species are *Polyalthia simiarum*, *Shima wallichii*, *Diospyros brandisiana* and *Cinnamomum iners* while some of shrub and tree let species includes *Microtropis bivalves*, *M. discolor*, *Leea indica*, *L. xora* and *L. diversifolia*. Some species of evergreen woody climbers are *Ancistrocladus tectorious*, *Sphenodesme involucrate* and *Premna latifolia*, and some ground herbs are *Aglaonema simplex*, *Hypolytrum nemorum* and the ferns *Asplenium apogamus*. Several rattan species of the genus *Calamus*, and some bamboo species such as *Dentrocalamus longispathus* and *Gigantochloa apus* of bamboo species were found in the study area”.

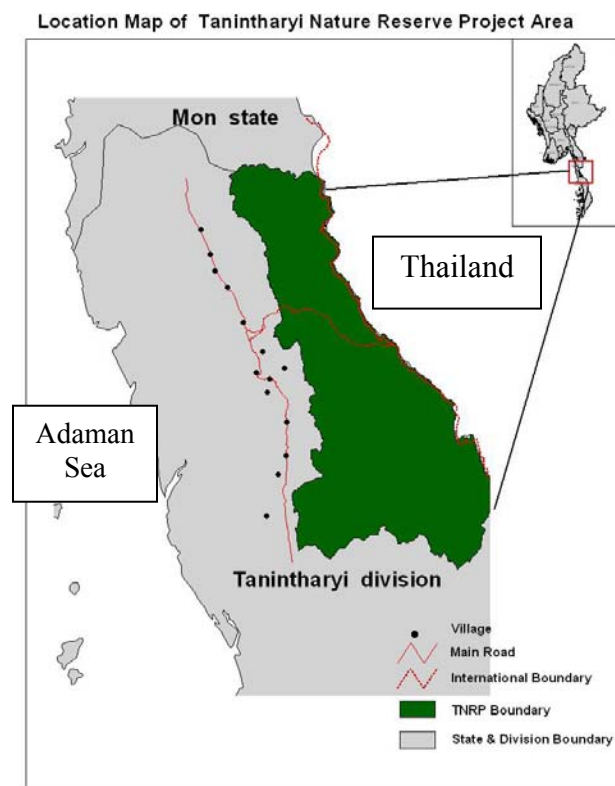


Figure. 1. Location of Taninthayi Nature Reserve Project Area.

## 2.4 Topography and types of soil

Most area in TNR is undulating and higher elevation of terrain in the range from 15 m in low land to 1,400 m above sea level, at the ridge of Thai border with more than 37% slope in most parts of the area (Anon, RS & GIS, FD, 2007). The mountain range is running from north to south while the slope rises almost west to east climbing to the ridge top and is oriented to the western aspect. Geological formation in the Kleinaung and Heinze reserves consists mostly of granite intrusion, and

weathering of granite gives rise to gravelly soil on which giant evergreen forest is found (Smith, 1926). The region of gentle slopes of low hills and foot hills at the elevation of 100 m to 500 m above sea level are covered by the yellow brown forest soils.

### **3. Methodology**

#### **3.1 Bird watching**

Audio-visual observations were conducted in and around TNR from 1<sup>st</sup> January to 31<sup>st</sup> March 2008. Birds of Southeast Asia (2005), A Field Guide to the Birds of Thailand (2002) by Craig Robson and 8 x 42 Binoculars were used in bird species identification. Nocturnal work was minimal due to security and hazardous conditions of the forest trails at night. Detailed survey areas are mentioned on map. (See appendix 2).

#### **3.2 Mist netting**

Mist nets setting sites were considered on species abundance and accessibility inside TNR. All total 10, 11m x 2.5 m wide mist nets were used in the survey. Middle and understory of Broadleaved Evergreen Forest species were covered by mist nets. Nets were opened early morning to just before dark and placed two days at each site. Mist nets were checked every hour to prevent accidental deaths. Captured birds were identified to species and photos taken in hand before released in their natural habitat. Survey by mist nets were conducted in April and May 2008.

#### **3.3 Tape playback**

Tape Playback techniques were used in investigation of Critically Endangered species Gurney's Pitta *Pitta gurneyi* to identify areas of presence in and around TNR. As Gurney's Pitta is the only bird species endemic to Peninsula Thailand and the Tanintharyi Range. Survey was done to determine the northern limit of Gurney's

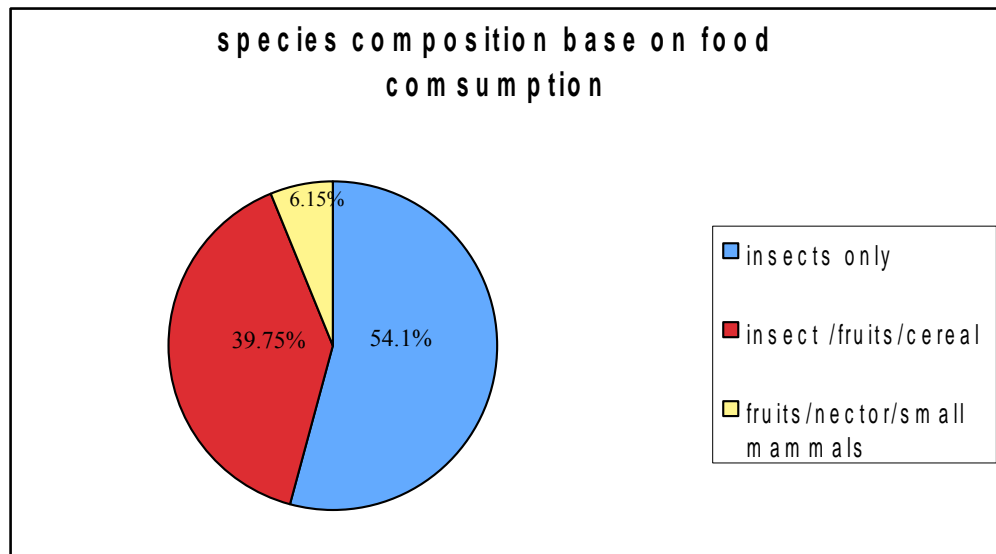
Pitta in Taninthayi Division especially TNR and surrounding areas. Although geographical range has been record as 7°25'N to 11°50'N (Lambert and Woodcock 1996) and 7°N to 12°N (BirdLife International 2001). Prerecorded “lilip” and “skew” calls were broadcast regularly at stations, spaced at approximately 100 m intervals along the survey route. The number of times any call was played at one station, and the length of time spent awaiting a response at any given station, varied from 5 to 30 min. The type and number of calls were noted.

## **4. Results**

The results of this survey explain only the species diversity and some information about habitats used in TNR and surrounding areas. Quantification of species populations by transects or point counts were not attempted due to the short period of the survey. A total of 244 species (50 families) of birds, 22.98% of all bird species found in Myanmar were identified throughout the survey. Among those, 3 were classified as “vulnerable” and 10 as “near threatened” species according to the Birdlife International Red Data Book (2001). We captured 175 individuals of 36 species by mist nets during our survey (see appendix .1).

### **4.1 Birds species composition base on food consumptions in TNR**

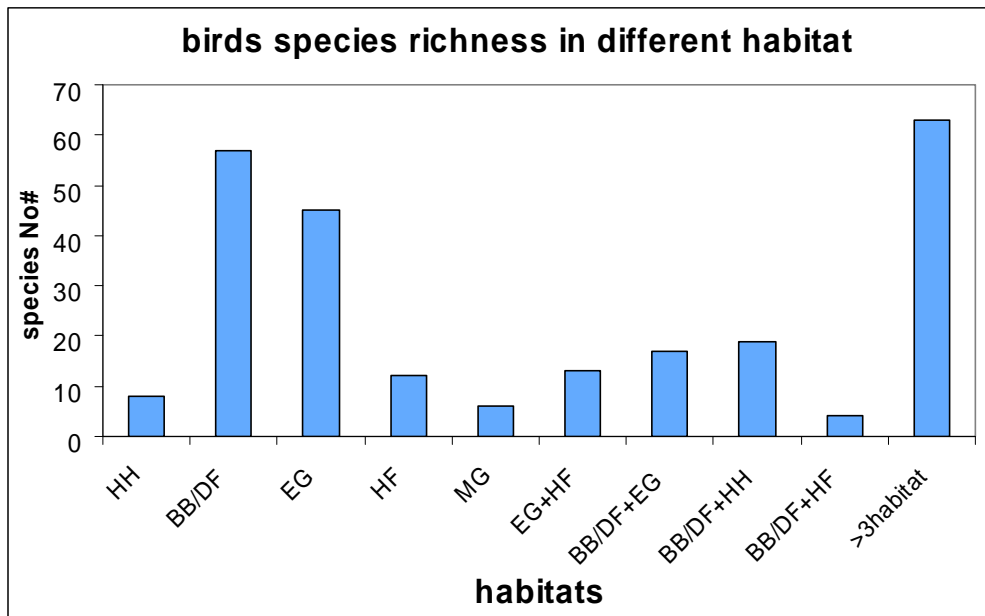
In total, out of the 244 species recorded, 54.1% are insectivorous, 39.75 % feeding on insects, fruits and grains; all others (6.15%) are feeding on others (Figure. 2) Many insectivorous birds associated in mixed species flocks or *bird waves* such as Greater Racket - tailed Drongo *Dicrurus paradiseus* , White - crested Laughingthrush *Garrulax leucolophus* , Greater - necklaced Laughinthrush *Garrulax pectoralis* Lesser - necklaced Laughingthrush *Garrulax monileger*, Green Magpie *Cissa chinensis* , Flycatcher spp; and Piculets and Woodpecker species.



**Figure 2. Bird species composition based on food consumption.**

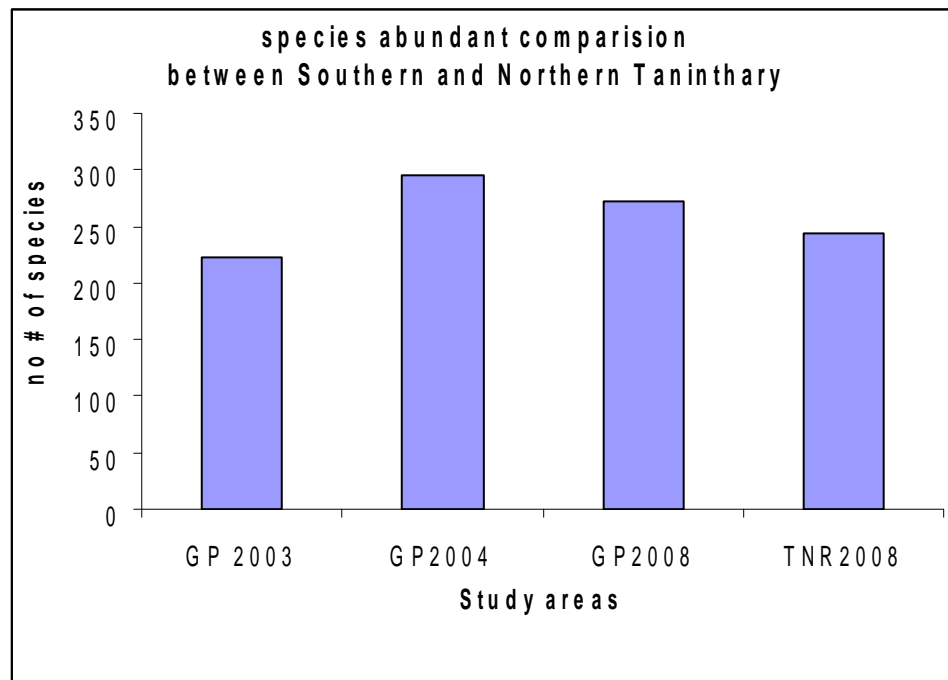
#### **4.2 Birds species richness by habitats in TNR**

We generally noted five micro habitats in our survey. (1) Human made Habitat (HH) particularly near villages, farm land and orchards along the Ye Dewai main road outside of TNR. The major species local communities planted in their orchards were cashew nut, betel nut and rubber (2) Bamboo and Deciduous Forest (BB/ DF) occurs where the original forest has been destroyed or disturbed leaving mostly bamboo. And deciduous forests in most of the lowlands and lower hill slope around TNR. (3) Broadleaved Evergreen Forest (EG) is dominant habitat in TNR, common tree species are mentioned in type of vegetation. (4) Hill Forest (HF) is dominated by the tree family Dipterocarpaceae, at higher elevations. A very important habitat for Pheasants, Partridges and Thrushes. Mangrove Forest (MG) is situated in the western part outside of TNR and only to know the species richness around TNR. According to the survey area, species are more rich in bamboo/ deciduous forest and evergreen forest than in other habitats. (See Figure 3)



**Figure 3. Bird species richness in different habitats at TNR.**

Key; HH= Human habitation, BB/DF= Bamboo and Deciduous Forest, EG= Broadleaved Evergreen forest, HF= Hill Forest, MG= Mangrove forest, >3 habitats = species found more than in 3 habitats



**Figure 4. General comparison of species richness in Gurney's Pitta surveys and TNR.**

Species abundance in different areas does not differ significantly in comparison with Gurney's Pitta surveys in the Southern part of Taninthayi and TNR in the Northern part of Taninthayi. (Figure. 4) However, survey period, specialist members and survey methods are slightly different. During this survey not all areas were covered.

We expect more than 300 species can be found in and around TNR after a detailed survey.

#### **4.3 Significant Records**

Brief notes are provided below of globally threatened species and other unique species in TNR.

##### **Ferruginous Partridge *Caloperdix oculea* (Near Threatened)**

This species was heard calling near H3 camp on 14 March 2008. Also heard in KhoTa Ma up stream and on the ridge near 25 miles camp.

##### **Green Peafowl *Pavo muticus* (Vulnerable)**

Generally rare in TNR, occasionally found only in less impacted areas along the stream reported by local villagers. Found feathers in Zinba village.

##### **Red Throated Barbet *Megalaima mystacophanos* (Near Threatened)**

This species was common in the forested areas, although calls were often heard but the species was not seen easily owing to its location high in the canopy. Habitually call heard from big trees along the MS road in dry season although not calling in May. Found along MS road inside TNR and Nwe Laing Mountain near Kyaut Shut village on 14 February 2008.

##### **Great Hornbill *Buceros bicornis* (Near Threatened)**

This species was seen flying over Mayang Chaung village, along MS road and Nwe Laing Mountain east of Kyaut Shut village.

##### **Plain Pouched Hornbill *Aceros subruficollis* (Vulnerable)**

This species was seen frequently along MS road especially near KhoTa Ma, H6 and 1500 camp. Two individuals of these species were seen in flight flying from west to east above H6 camp on 10 April 2008.

##### **Brown Hornbill *Anorrhinus tickelli* (Near Threatened)**

Uncommon to locally common in west Thailand and Tenasserim in Myanmar (Birdlife International). This species was recorded twice in our survey. The first



record was seven individuals seen on the Dipterocarpus trees east of H6 camp on 12 April 2008 and about six individuals were seen in Main Ma Pan Stream, east of Zinba village on 8 May 2008.

**Blue Banded Kingfisher *Alcedo euryzona* (Vulnerable)**

This species was seen solitary along the Mayan and Zinba streams.

**Blue rumped Parrot *Psittinus cyanurus* (Near Threatened)**

Two individual were found in Ye Pone Stream near Ye Pone village on 7 March 2008 and another two individuals were seen along the gas pipe line between access 21 and 22 east of Khotama camp on 15/16 May 2008.

**White Rumped Falcon *Polihierax insignis* (Near Threatened)**

Habitually found solitary perched on prominent branch near Ye Phone stream on 23 February 2008. This species was far from its normal range in the dry zone and should be considered hypothetical until more records are made.

**Lagger Falcon *Falco jugger* (Near Threatened)**

Lagger Falcon was found only one time near Sat Tone mountain near Ye phone village. Species found only one time throughout the trip and need to be confirm.

**Green Broadbill *Calyptomena viridis* (Near Threatened)**

This species was captured in mist nets near H6 and Sinswe Chaung. One was captured with a small snail inside its throat. Only female were captured in mist nets.

**Black Magpie *Platysmurus leucopterus* (Near Threatened)**

Six individuals were seen near H6 camp on 16 February 2008, while calling two individuals were seen near Kho Ta Ma camp on 14 May 2008 and about five individuals were seen near Sin Swe stream. Their sound is very loud, discordant and metallic.

**Buff vented Bulbul *Iole olivacea* (Near Threatened)**

This species was found on the ridge behind 1500 camp on 18 March 2008.

### **Streaked Bulbul *Ixos malaccensis* (Near Threatened)**

This species was found only one time in TNR and needs to be confirmed. Currently treated as hypothetical.

### **White browed Piculet *Sasia ochracea hasbroucki***

This unique sub species with blackish eyering can be found in Taninthayi (Tenasserim) and Southern Thailand. (Robson .C.2005). Found in Mayan Stream by mist nets and near H6 camp.

## **4.4 Pittas species in TNR**

During the surveys, we did not observe any Gurney's Pitta in the study area. Several important questions regarding the ecology and distribution of Gurney's Pitta remain unanswered including what defines the northern and southern extent of its range (Eames *et al.* (2005). Therefore Gurney's Pitta investigation in TNR is still required, but our intensive surveying indicates, that the species is not abundant and perhaps not present in TNR. Throughout our surveys, one Blue Pitta *Pitta cyanea* and six Hooded Pitta *Pitta sordida* were captured. The Hooded Pitta's call was heard only in May (raining season). This species is a breeding visitor in southern Myanmar and western Thailand and only resident in extreme southern Thailand and northern Pen Malaysia. (Robson. C. 2005).

## **4.5 Common species in TNR**

The following species are commonly found in TNR and surrounding areas.

- Greater raked - tailed Drongo *Dicrurus paradiseus*
- Greater Coucal *Centropus sinensis*
- White - rumped Shama *Copsychus malabaricus*
- Hill Myna *Gracula religiosa*
- Indian Roller *Coracias benghalensis*
- Abbott's Babbler *Malacocincla abbotti*

- Red Junglefowl *Gallus gallus*
- White - crested Laughingthrush *Garrulax leucolophus*

For detailed species list see appendix (3). Nomenclature and common names are derived from Robson, C. . 2005.

## 5. Discussion

The results of the survey have reinforced the view that the TNR is of international importance for conservation, hosting at least 13 IUCN red list bird species and various globally threatened mammal species. However, further detailed surveys are needed in the southern, southeast, eastern areas along the Thailand border and north east area of TNR. The result indicate that birds in TNR play a major role in the food web and insect control to prevent the damage of evergreen forest and farms.

- Land converted from natural forest to orchards is common in Ye Dewai road and is less inside TNR.
- Hunting is a major threat to birds and wildlife for human subsistence. Hunters and villagers routinely shoot such large and prominent birds as hornbill, junglefowl and ground living birds.
- Illegal wildlife trade like Red - whiskered Bulbul for live export to Thailand was very common last year. Local people used nets to catch birds at roosting time but this has been reduced at the present due to the TNRP activities.
- Illegal logging in northern parts of the reserve seriously threatens the TNR. Bamboo extraction around Main Ma Pan stream, Ye Phone stream and Heinze stream is also regular in the raining season .

Hence the TNR surveys made a significant contribution in recording the diversity of bird species in Taninthayi region of Myanmar.

## 6. Recommendations

The following ornithological priorities and management strategies are recommended to achieve the goal of TNR and towards publishing a handbook of the “Birds of Taninthayi Nature Reserve”:

- To continue to survey the avifauna, particularly in areas or seasons this survey did not cover.
- To assess the absence of Gurney’s Pitta in TNR more detailed investigation is necessary in potential areas like the southern parts of the Reserve.
- To establish a systematic mist-netting and banding program throughout the year inside TNR.
- To learn about species richness, ecological association of birds and others animals, establish a 2 km length permanent transect near H6, KhoTa Ma , 1500 and 25 miles camps.
- To determine bird species composition and richness of flock and keystone species of TNR the transect should be set 10 points in 100 meter interval in different habitats.
- To study the ecology of Hornbills, to determine species richness and their potential threats.
- To apply scientific information in protected area management, Master and PhD research program inside TNR from Dawai University should be integrated.
- Further surveys, especially in the poorly known interior montane tracts, are needed to assist the identification of birds and conservation priorities in the region.
- For local communities, pipelines security force and gas pipeline staff education and awareness programs are required. The creation of a permanent education center in Mi Kyaung Hlaung nursery camp is on appropriate place in TNR.
- Along the MS road and its vicinity is richer in biodiversity than other regions and more fragile. Consequently, environmental impact assessment should be deeply considered before any development at those areas.

- Trans-boundary conservation with the western forest complex (Thailand) and TNR would be a good approach to biodiversity conservation and Protected Area management.
- The formulation of Taninthayi Nature Reserve Management Plan is essential for proper management.

## **7. Acknowledgements**

We would like to express our sincere gratitude to the officials from the Ministry of Forestry (MOF), Forest Department (FD) and Nature and Wildlife Conservation Division (NWCD) for giving this opportunity to work in the TNRP as a National Consultant.

Our deeply grateful to U Thiri Tin, Project Director, U Than Naing, Deputy Project Director for their kind support and encouragement throughout the study period.

We are especially thankful to Dr. Min Thant Zin (Assistant Director, University of Forestry), U Ye Htut (Warden, Alaungdaw Kathapa National Park) and U Myint Aung (Conservation International) for their valuable advice and comments in report preparation.

We would like to thank Myanmar Gurney's Pitta Project Team (BANCA) for their providing Gurney's Pitta calls tape sets for our survey.

Thanks are also due to TNR project staff U Myo Min Latt (Range Officer), U Zaw Myo Thet (Forester), and all staff members of Kanbauk Office, villagers and Battalion No, 282 Infantry security personnel of the project area for their cooperation in the fieldwork.

My special thanks to U Tun Myint Oo (Forester, TNRP) for his concentration and well arrangement throughout the survey.

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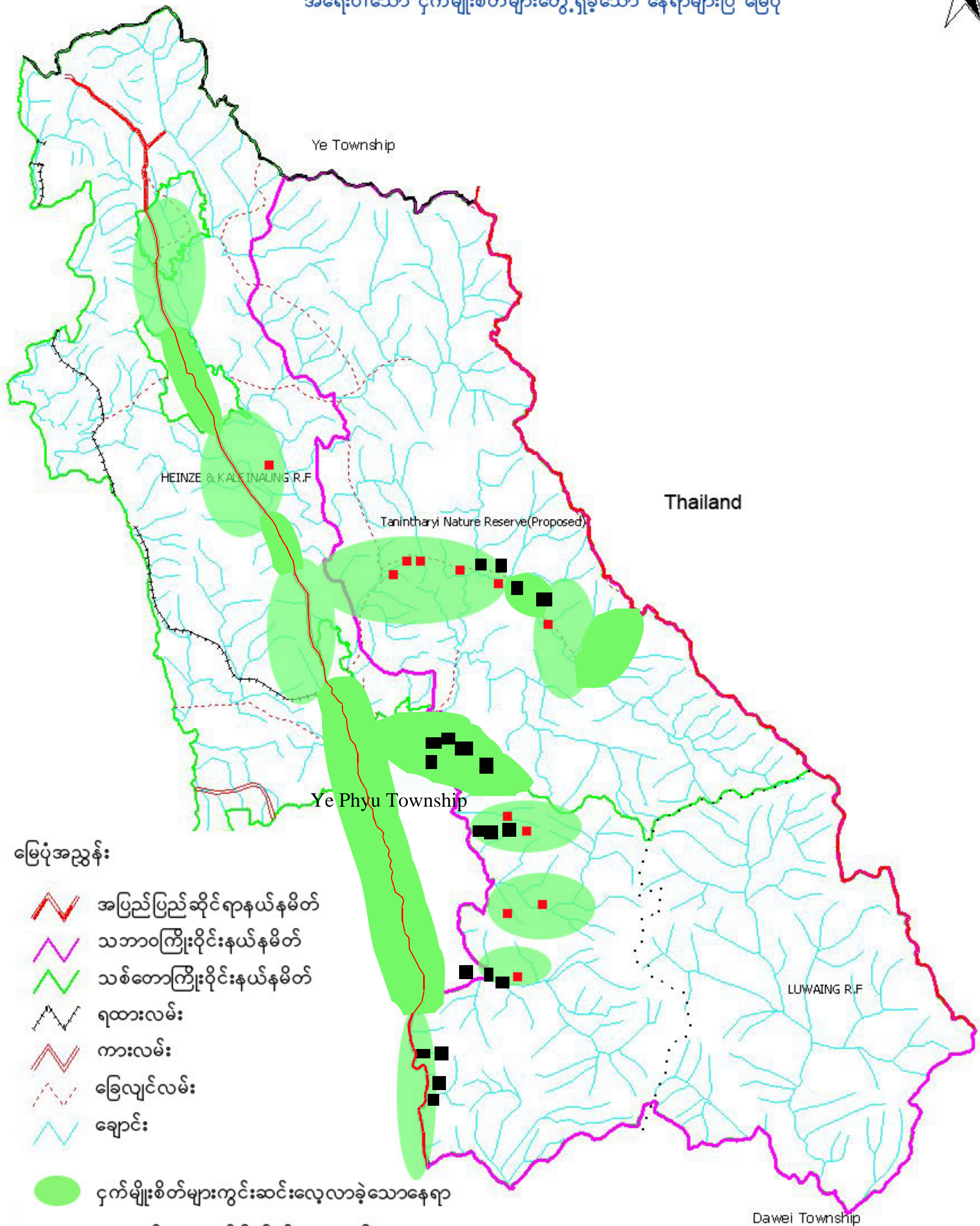
### Species captured by mist nets

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MC1= Mayanchaung Stream;	N 14° 44.940, E 98° 13.145', Alt=68m (7.4.2008 to 8.4.2008)
MC2= Near Mayanchaung Camp;	N 14° 44.183, E 98° 13.579', (9.4.2008 to 10.4.2008)
H-6 = H-6 Military Camp;	N 14° 44.300, E 98° 11.643', (11.4.2008 to 12.4.2008)
YNO= East of YaungneOo coconut oil farm;	N 14° 30.213', E 98° 11.698', (19.4.2008 to 20.4.2008)
ALT= Alel Taung ,Kyauk shaut;	N 14° 35.574', E 98° 12.878', (22.4.2008 to 24.4.2008)
25M= 25-Mile hut;	N 14° 22.629', E 98° 11.597', Alt=489m (5.5.2008 to 6.5.2008)
MMC= Mein -Ma-Pan-Chaung; Zimba	N 14° 38.146', E 98° 12.463', (7.5.2008 to 9.5.2008)
KTM= KhoTa Ma Camp;	N 14° 43.370', E 98° 15.648', Alt= 292m (14.5.2008 to 15.5.2008)
SSC= SinsweChaung;	N 14° 42.327', E 98° 16.193', (16.5.2008 to 18.5.2008)



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မြေပုံအညွှန်း

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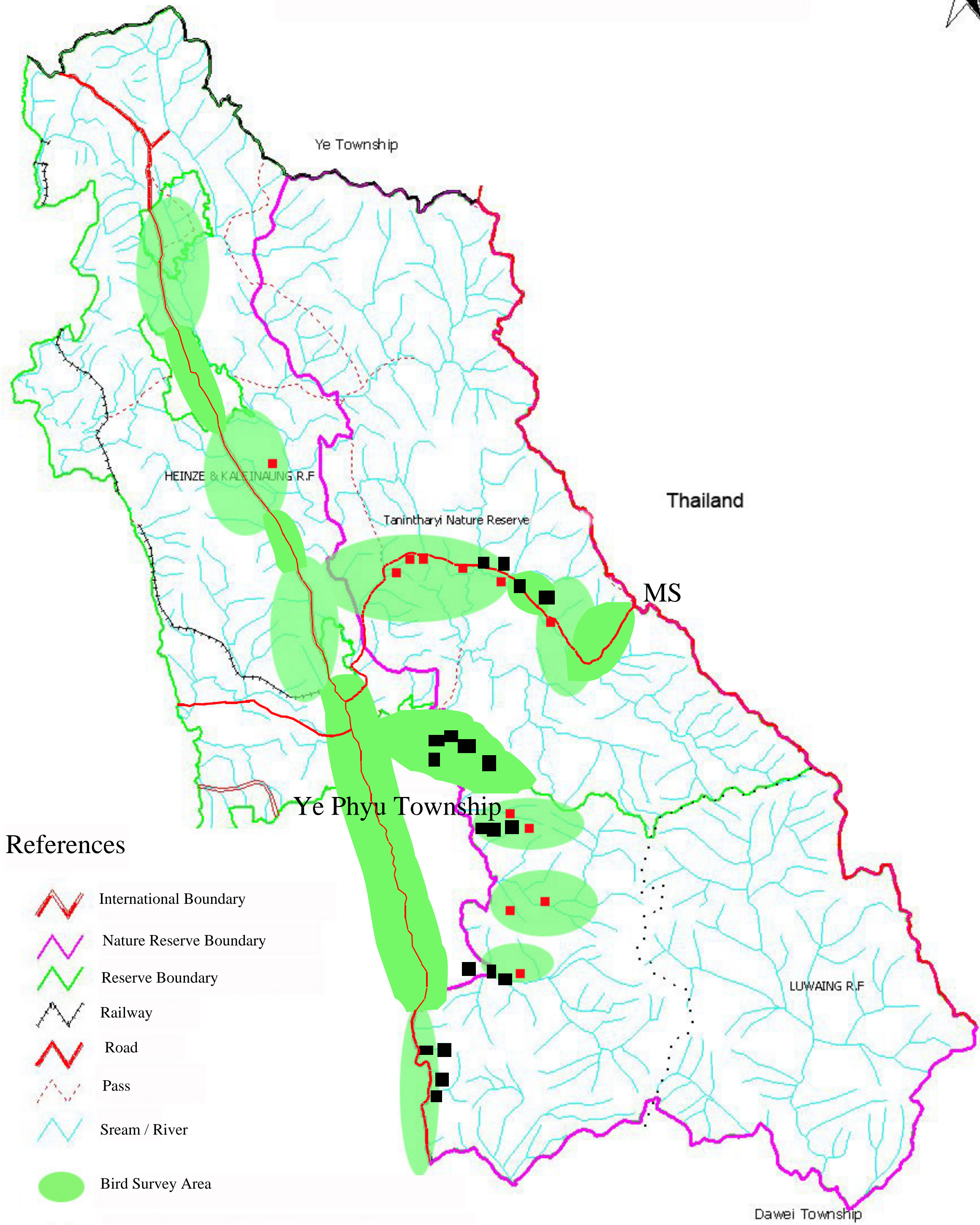
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- avian influenza found

0 5 10 15 20 Kilometers



# Taninthayi Nature Reserve

## Bird Survey And Key Species Record Area Map



### References

-  International Boundary
-  Nature Reserve Boundary
-  Reserve Boundary
-  Railway
-  Road
-  Pass
-  Stream / River
-  Bird Survey Area
-  key species recorded sites
-  Gurney's Pitta study sites
- MS** Gas Metering Station

0 5 10 15 20 Kilometers

**Birds Recorded in Thaninthayi Nature Reserve and surroundings .( from 1.1.2008 to 31.5.2008)**

No.#	Common Name	Scientific Name	Habitat				
			HH	BB/ DF	EG	HF	MG
1	Chinese Francolin	<i>Francolinus pintadeanus</i>		R			
2	Yellow - legged Buttonquail	<i>Turnix tanki</i>		P			
3	Barred Buttonquail	<i>Turnix suscitator</i>		P			
4	Ferruginous Partridge	<i>Caloperdix ocella</i>			H		
5	Red Junglefowl	<i>Gallus gallus</i>		P	P	H	
6	Silver Pheasant	<i>Lophura nycthemera</i>					R
7	Grey Peacock Pheasant	<i>Polyplectron bicalcaratum</i>				H	
8	Green Peafowl	<i>Pavo muticus</i>		R			
9	Lesser Whistling-Duck	<i>Dendrocygna javanica</i>					P
10	Speckled Piculet	<i>Picumnus innominatus</i>			P	P	
11	White browed Piculet	<i>Sasia ochracea hasbroucki</i>			P		
12	Rufous Piculet	<i>Sasia abnormis</i>		P	P		
13	Bamboo Woodpecker	<i>Gecinulus viridis</i>		P	P		
14	Black-and-Buff Woodpecker	<i>Meiglyptes jugularis</i>		P	P		
15	Heart-spotted Woodpecker	<i>Hemicircus canente</i>			P		
16	Grey-capped Pygmy Woodpecker	<i>Dendrocopos canicapillus</i>		P			
17	Streak breasted Woodpecker	<i>Picus viridanus</i>			P		
18	Laced Woodpecker	<i>Picus vittatus</i>			P		
19	Streak-throated Woodpecker	<i>Picus xanthopygaeus</i>			P		
20	Rufous Woodpecker	<i>Celeus brachyurus</i>			P		
21	Common/Greater Flameback	<i>Dinopium/Chrysocolaptes sp.</i>		P	P	P	
22	Maroon Woodpecker	<i>Blythipicus rubiginosus</i>			P		
23	White -bellied Woodpecker	<i>Dryocopus javensis</i>		P			
24	Great Slaty Woodpecker	<i>Mulleripicus pulverulentus</i>		P	P		
25	Lineated Barbet	<i>Megalaima lineata</i>		P			H
26	Red-throated Barbet	<i>Megalaima mystacophanos</i>			P		
27	Moustached Barbet	<i>Megalaima incognita</i>			H	H	
28	Blue-eared Barbet	<i>Megalaima australis</i>			H		
29	Coppersmith Barbet	<i>Megalaima haemacephala</i>	P	P			
30	Great Hornbill	<i>Buceros bicornis</i>			P	P	
31	Wreathed Hornbill	<i>Aceros undulatus</i>			P		
32	Plain-pouched Hornbill	<i>Aceros subruficollis</i>			P		
33	Oriental Pied Hornbill	<i>Anthracoceros albirostris</i>		P			
34	Brown Hornbill	<i>Anorrhinus tickelli</i>			P	P	
35	Indian Roller	<i>Coracias benghalensis</i>	P	P			
36	Dollarbird	<i>Eurystomus orientalis</i>		P		P	
37	Orange-breasted Trogon	<i>Harpactes oreskios</i>			P		
38	Red - headed Trogon	<i>Harpactes erythrocephalus</i>			P		
39	Common Kingfisher	<i>Alcedo attbis</i>	P	P			
40	Blue-banded Kingfisher	<i>Alcedo euryzona</i>			P		
41	Black Backed Kingfisher	<i>Ceyx erithacus</i>			P		
42	Stork-billed Kingfisher	<i>Halcyon capensis</i>		P			
43	Ruddy Kingfisher	<i>Halcyon coromanda</i>					P
44	White-throated Kingfisher	<i>Halcyon smyrnensis</i>	P	P	P		
45	Black-capped kingfisher	<i>Halcyon pileata</i>					P

No.#	Common Name	Scientific Name	Habitat				
			HH	BB/ DF	EG	HF	MG
46	Indian Cuckoo	<i>Cuculus micropterus</i>		P	P		
47	Asian Koel	<i>Eudynamys scolopacea</i>	P	P			H
48	Violet Cuckoo	<i>Chrysococcyx xanthorhynchus</i>		P			
49	Green-billed Malkoha	<i>Phaenicophaeus tristis</i>		P			
50	Chestnut-breasted Malkoha	<i>Phaenicophaeus curvirostris</i>			P		
51	Greater Coucal	<i>Centropus sinensis</i>	P	P	P	P	H
52	Lesser Coucal	<i>Centropus bengalensis</i>		P			
53	Red-bearded Bee-eater	<i>Nyctornis amictus</i>			P		
54	Blue-bearded Bee-eater	<i>Nyctornis athertoni</i>		P	P		
55	Green Bee-eater	<i>Merops orientalis</i>		P			
56	Blue-tailed Bee-eater	<i>Merops philippinus</i>		P			
57	Chestnut-headed Bee-eater	<i>Merops leschenaulti</i>		P		P	
58	Blue-rumped Parrot	<i>Psittinus cyanurus</i>			P	P	
59	Vernal Hanging Parrot	<i>Loriculus vernalis</i>			P	P	H
60	Grey-headed Parakeet	<i>Psittacula finschi</i>		P			
61	Blossom - headed Parakeet	<i>Psittacula roseata</i>		P			
62	Red-breasted Parakeet	<i>Psittacula alexandri</i>		P			P
63	Swiftlet sp.	<i>Collocalia sp.</i>	P	P			
64	Grey-rumped Treeswift	<i>Hemiprocne longipennis</i>			P	P	
65	Brown-backed Needletail	<i>Hirundapus giganteus</i>		P	P	P	
66	Asian Palm Swift	<i>Cypsiurus balasiensis</i>	P				
67	Fork-tailed Swift	<i>Apus pacificus</i>		P			
68	Oriental Scops Owl	<i>Otus sunia</i>	H	H			
69	Collared Scops Owl	<i>Ottus bakkamoena</i>	H	H		H	
70	Collared Owlet	<i>Glaucidium brodiei</i>	H	H		H	
71	Asian Barred Owlet	<i>Glaucidium cuculoides</i>	H	H	H		
72	Spotted Owlet	<i>Athene brama</i>		P			
73	Brown Hawk Owl	<i>Ninox scutulata</i>	H	H			
74	Spot-bellied Eagle Owl	<i>Bubo nipalensis</i>			H		
75	Great Eared Nightjar	<i>Eurostopodus macrotis</i>		H			
76	Large-tailed Nightjar	<i>Caprimulgus macrurus</i>	H	H			
77	Indian Nightjar	<i>Caprimulgus asiaticus</i>		H			
78	Rock Pigeon	<i>Columba livia</i>	P				
79	Green Imperial Pigeon	<i>Ducula aenea</i>		P			
80	Mountain Imperial Pigeon	<i>Ducula badia</i>			P	H	
81	Oriental Turtle Dove	<i>Streptopelia orientalis</i>	P				
82	Spotted Dove	<i>Streptopelia chinensis</i>	P	P			
83	Red-collared Dove	<i>Streptopelia tranquebarica</i>		P			P
84	Orange-breasted Green Pigeon	<i>Treron bicincta</i>		P			
85	Pompadour Green Pigeon	<i>Treron pompadora</i>		P	P		
86	Thick-billed Green Pigeon	<i>Treron curvirostra</i>		P		P	P
87	Emerald Dove	<i>Chalcophaps indica</i>		P	P	P	
88	White-breasted Waterhen	<i>Amauornis phoenicurus</i>	P	H			
89	Common Sandpiper	<i>Actitis hypoleucos</i>					P
90	River Lapwing	<i>Vanellus duvaucelii</i>		P			
91	Red-wattled Lapwing	<i>Vanellus indicus</i>	P	P			
92	Black Baza	<i>Aviceda leuphotes</i>		P			



No.#	Common Name	Scientific Name	Habitat				
			HH	BB/ DF	EG	HF	MG
93	Oriental Honey-Buzzard	<i>Pernis ptilorhynchus</i>	P	P		P	
94	Black Kite	<i>Milvus migrans</i>		P			
95	Crested Serpent Eagle	<i>Spilornis cheela</i>	P	P	P	P	
96	Crested Goshawk	<i>Accipiter trivigatus</i>			P		
97	Shikra	<i>Accipiter badius</i>		P			P
98	Japanese Sparrowhawk	<i>Accipiter gularis</i>		P			
99	Besra	<i>Accipiter virgatus</i>		P	P		
100	Rufous-winged Buzzard	<i>Butastur liventer</i>		P			
101	Grey-faced Buzzard	<i>Butastur indicus</i>			P		
102	Changeable Hawk Eagle	<i>Spizaetus cirrhatus</i>			P		
103	White - rumped Falcon	<i>Polihierax insignis</i>		P			
104	Oriental Hobby	<i>Falco severus</i>		P			
105	Little Cormorant	<i>Phalacrocorax niger</i>		P			P
106	Little Egret	<i>Egretta garzetta</i>	P	P	P		
107	Cattle Egret	<i>Bubulcus ibis</i>	P	P	P		
108	Chinese Pond Heron	<i>Aedeola bacchus</i>	P				
109	Pond Heron sp.	<i>Ardeola sp.</i>	P				
110	Little Heron	<i>Butorides striatus</i>		P	P		P
111	Blue Pitta	<i>Pitta cyanea</i>			P	P	
112	Hooded Pitta	<i>Pitta sordida</i>		P	P	P	
113	Green Broadbill	<i>Calyptomena viridis</i>			P		
114	Long-tailed broadbill	<i>Psarisomus dalbousiae</i>			P		
115	Silver breasted Broadbill	<i>Serilophus lunatus</i>		P	P		
116	Greater Green leafbird	<i>Chloropsis sonnerati</i>			P		
117	Blue-winged Leafbird	<i>Chloropsis cochinchinensis</i>		P		P	
118	Common Iora	<i>Aegithina tiphia</i>	P				P
119	Great Iora	<i>Aegithina lafresnayei</i>			P		
120	Asian Fairy Bluebird	<i>Irena puella</i>		P	P	P	
121	Brown Shrike	<i>Lanius cristatus</i>		P		P	P
122	Black Magpie	<i>Platysmurus leucopterus</i>		P	P		
123	Red-billed Blue Magpie	<i>Urocissa erythrorhyncha</i>	P	P			
124	Common Green Magpie	<i>Cissa chinensis</i>		P			
125	Rufous Treepie	<i>Dendrocitta vagabunda</i>	P	P			
126	Grey Treepie	<i>Dendrocitta formosae</i>		P			
127	Racket-tailed Treepie	<i>Crypsirina temia</i>	P	P			P
128	House Crow	<i>Corvus splendens</i>	P				
129	Large-billed Crow	<i>Corvus macrorhynchos</i>	P	P			P
130	Black-naped Oriole	<i>Oriolus chinensis</i>	P	P		P	P
131	Black-hooded Oriole	<i>Oriolus xanthornus</i>		P			
132	Large Cuckooshrike	<i>Coracina macei</i>		P			
133	Black-winged Cuckooshrike	<i>Coracina melaschistos</i>		P	P	P	
134	Scarlet Minivet	<i>Pericrocotus flammeus</i>				P	
135	Swinhoe's Minivet	<i>Pericrocotus cantonensis</i>			P		
136	Ashy Minivet	<i>Pericrocotus divaricatus</i>		P			
137	Black Drongo	<i>Dicrurus macrocercus</i>	P	N			P
138	Ashy Drongo	<i>Dicrurus leucophaeus</i>		P	P		
139	Crow-billed Drongo	<i>Dicrurus annectans</i>		P	P		



No.#	Common Name	Scientific Name	Habitat				
			HH	BB/ DF	EG	HF	MG
140	Bronzed Drongo	<i>Dicrurus aeneus</i>			P	P	
141	Lesser Racked-tailed Drongo	<i>Dicrurus remifer</i>			P		
142	Spangled Drongo	<i>Dicrurus hottentottus</i>		P	P		
143	Greater Racket-tailed Dongo	<i>Dicrurus paradiseus</i>	P	P	P	P	P
144	Ashy woodswallow	<i>Artamus fuscus</i>		P			
145	Bar-winged Flycatcher-Shrike	<i>Hemipus picatus</i>			P	P	
146	Grey - headed canary Flycatcher	<i>Culicicapa ceylonensis</i>			P		
147	Black-naped Monarch	<i>Hyphymis azurea</i>			P		
148	Asian paradise Flycatcher	<i>Terpsiphone paradisi</i>			P		
149	Blue Rock Thrush	<i>Monticola solitarius</i>	P				
150	Blue Whistling Thrush	<i>Myophonus caeruleus</i>		P			
151	Orange-headed Thrush	<i>Zoothera citrina</i>				P	
152	Siberian Thrush	<i>Zoothera sibirica</i>				P	
153	Dark-sided Flycatcher	<i>Muscicapa sibirica</i>		P	P	P	
154	Asian Brown Flycatcher	<i>Muscicapa dauurica</i>		P			
155	Red-throated Flycatcher	<i>Ficedula parva</i>	P	P	P	P	
156	Verditer Flycatcher	<i>Eumyias thalassina</i>		P			
157	White - tailed Flycatcher	<i>Cyornis concretus</i>				P	
158	Blue-throated Flycatcher	<i>Cyornis rubeculoides</i>		P			
159	Siberian Blue Robin	<i>Luscinia cyane</i>			P		
160	Oriental Magpie Robin	<i>Copsychus saularis</i>					
161	White-rumped Shama	<i>Copsychus malabaricus</i>	P	P	P		
162	Common Stonechat	<i>Saxicola torquata</i>	P				
163	Pied Bushchat	<i>Saxicola caprata</i>				P	
164	Slaty-backed Forktail	<i>Enicurus schistaceus</i>			P		
165	Chestnut-tailed Starling	<i>Sturnus malabaricus</i>		P			
166	Common Myna	<i>Acridotheres tristis</i>	P	P			P
167	Jungle Myna	<i>Acridotheres fuscus</i>	P				
168	Golden-crested Myna	<i>Ampeliceps coronatus</i>		P			
169	Hill Myna	<i>Gracula religiosa</i>	P	P	P	P	
170	Barn Swallow	<i>Hirundo rustica</i>	P	P			
171	Red-rumped Swallow	<i>Hirundo daurica</i>	P	P			P
172	Black-headed Bulbul	<i>Pycnonotus atriceps</i>			P	P	
173	Black-crested Bulbul	<i>Pycnonotus melanicterus</i>	P	P	P	P	P
174	"Davison's" Bulbul	<i>Pycnonotus finlaysoni davisoni</i>					P
175	Stripe-throated Bulbul	<i>Pycnonotus finlaysoni</i>		P			P
176	Red - whiskered Bulbul	<i>Pycnonotus jocosus</i>	P	P			
177	Sooty-headed Bulbul	<i>Pycnonotus aurigaster</i>	P	P		P	
178	White -Throated Bulbul	<i>Alophoixus flaveolus</i>			P		
179	Puff -Throated Bulbul	<i>Alophoixus pallidus</i>			P		
180	Flavescent Bulbul	<i>Pycnonotus flavescens</i>				P	
181	Ochraceous Bulbul	<i>Alophoixus ochraceus</i>			P	P	
182	Olive Bulbul	<i>Iole virescens</i>			P	P	
183	Grey-eyed Bulbul	<i>Iole propinqua</i>			P	P	
184	Buff-vented Bulbul	<i>Iole olivacea</i>				P	
185	Rufescent Prinia	<i>Prinia rufescens</i>		P			
186	Rusty-rumped Warbler	<i>Locustella certhiola</i>		P			

No.#	Common Name	Scientific Name	Habitat				
			HH	BB/ DF	EG	HF	MG
187	Thick-billed Warbler	<i>Acrocephalus aedon</i>	P				
188	Common Tailorbird	<i>Orthotomus sutorius</i>	P	N	N		
189	Dark-necked Tailorbird	<i>Orthotomus atrogularis</i>		P	P	P	P
190	Dusky Warbler	<i>Phylloscopus fuscatus</i>	P	P	P		
191	Radde's Warbler	<i>Phylloscopus schwarzi</i>	P		P		
192	Yellow browed warbler	<i>Phylloscopus inornatus</i>			P		
193	Greenish Warbler	<i>Phylloscopus trochiloides</i>		P	P	P	
194	White-crested Laughingthrush	<i>Garrulax leucolophus</i>	P	P			
195	Lesser Necklaced Laughingthrush	<i>Garrulax monileger</i>		P			
196	Greater Necklaced Laughingthrush	<i>Garrulax pectoralis</i>		P			
197	Abbott's Babbler	<i>Malacocincla abbotti</i>		P	P	P	
198	Buff-breasted Babbler	<i>Pellorneum tickelli</i>		P			
199	Puff-throated Babbler	<i>Pellorneum ruficeps</i>			P		
200	Large Scimitar Babbler	<i>Pomatorhinus hypoleucos</i>		P			
201	White-browed Scimitar Babbler	<i>Pomatorhinus schisticeps</i>		P	P		
202	Rufous-fronted Babbler	<i>Stachyris rufifrons</i>		P			
203	Grey - throated Babbler	<i>Stachyris nigriceps</i>		P	P		
204	Striped Tit Babbler	<i>Macronous gularis</i>		P	P	P	
205	Chestnut-capped Babbler	<i>Timalia pileata</i>		P			
206	Brown-cheeked Fulvetta	<i>Alcippe poiocephala</i>				P	
207	Thick-billed Flowerpecker	<i>Dicaeum agile</i>	P	N			
208	Orange-bellied Flowerpecker	<i>Dicaeum trigonostigam</i>			P		
209	Scarlet-backed Flowerpecker	<i>Dicaeum cruentatum</i>		P			P
210	Purple Sunbird	<i>Nectarinia asiatica</i>		P			
211	Crimson Sunbird	<i>Aethopyga siparaja</i>			P		
212	Ruby - cheeked Sunbird	<i>Antheptes singalensis</i>			P		
213	Purple naped Sunbird	<i>Hypogramma hypogrammicum</i>			P		
214	Olive-backed Sunbird	<i>Nectarinia jugularis</i>	P	P			
215	Little Spiderhunter	<i>Arachnothera longirostra</i>			P		
216	Spiderhunter sp.	<i>Arachnothera sp.</i>		P	P		
217	Streaked Spiderhunter	<i>Arachnothera magna</i>				P	
218	White Wagtail	<i>Motacilla alba</i>	P	P			
219	Grey Wagtail	<i>Motacilla cinerea</i>			P		
220	Forest Wagtail	<i>Dendronanthus indicus</i>		P			
221	Paddyfield Pipit	<i>Anthus rufulus</i>	P				
222	Olive-backed Pipit	<i>Anthus hodgsoni</i>				P	
223	House Sparrow	<i>Passer domesticus</i>	P				
224	Eurasian Tree Sparrow	<i>Passer montanus</i>	P				
225	White-rumped Munia	<i>Lonchura striata</i>		P		P	
226	Scaly breasted Munia	<i>Lonchura punctulata</i>		P			
227	White-bellied Munia	<i>Lonchura leucogastra</i>		P			
<b>Hypothetical species</b>							
228	Whiskered Treeswift	<i>Hemiprocne comata</i>		P			
229	Eurasian Collared Dove	<i>Streptopelia decaocto</i>		P			
230	Peaceful Dove	<i>Geopelia striata</i>		P			
231	Brahminy Kite	<i>Haliastur indus</i>	P				
232	Steppe Eagle	<i>Aquila nipalensis</i>			P		

No.#	Common Name	Scientific Name	Habitat				
			HH	BB/ DF	EG	HF	MG
233	Black Eagle	<i>Ictinaetus malayensis</i>			P		
234	Laggar Falcon	<i>Falco Jugger</i>			P		
235	Slender-billed Oriole	<i>Oriolus tenuirostris</i>		P			
236	Lesser Cuckooshrike	<i>Coracina fimbriata</i>		P			
237	White-throated Fantail	<i>Rhipidura albicollis</i>		P			
238	White-browed Fantail	<i>Rhipidura aureola</i>		P			
239	Pale blue Flycatcher	<i>Cyornis unicolor</i>			P		
240	Streaked Bulbul	<i>Ixos malaccensis</i>		P			
241	Rufous tailed Tailorbird	<i>Orthotomus sericeus</i>		P			
242	Two-barred Warbler	<i>Phylloscopus plumbeitarsus</i>		P			
243	Plain Sunbird	<i>Anthreptes simplex</i>		P			
244	Yellow-eared Spiderhunter	<i>Arachnothera chrysogenys</i>			P		

#### Key

Habitat: **HH**=Human Habitation; **BB/DF**=Bamboo/ Deciduous Forest;

**EG**= Broadleaved Evergreen Forest, **HF**= Hill Forest

**MG**= Mangrove Forest

P=PRESENT

N=NESTING

H=HEARD ONLY

R=VILLAGE REPORT