

## Bird Species Composition in Ayer Hitam Forest, Puchong, Selangor

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### ABSTRAK

Kajian ini tertumpu pada komposisi spesies burung di Hutan Ayer Hitam, Puchong, Selangor. Hutan ini ialah hutan sekunder tanah pamah yang terasing dan telah dibalok antara tahun 1936 hingga 1954. Dua kaedah telah digunakan untuk menyiasat komposisi burung di kawasan ini iaitu Penjaringan Kabut dan Pensampelan Jarak Jauh-Pengiraan Titik. Keputusan menunjukkan bahawa sejumlah 38 famili yang merangkumi 160 spesies burung telah direkodkan. Tiga famili yang paling besar yang mewakili 23.5 peratus daripada keseluruhan spesies ialah Timaliidae, Cuculidae dan Pycnonotidae. Bilangan individu yang paling kerap direkodkan tergolong dalam famili Pycnonotidae. Hutan ini dikuasai oleh kumpulan insektivor/frugivor di mana kebanyakannya diwakili oleh spesies sekunder jajah. Sesetengah spesies enggang (contoh *Buceros rhinoceros*) dan burung rimba (contoh *Pomatorhinus montanus*) yang kebiasaannya dijumpai di hutan primer tidak hadir. Keputusan ini juga mencadangkan bahawa komposisi famili dan struktur trophik burung di Hutan Ayer Hitam adalah sebanding dengan mereka yang berada di kawasan hutan simpan yang lain. Walau bagaimanapun, ketidakhadiran banyak spesies hutan primer mencadangkan bahawa hutan ini masih di dalam proses pemulihan. Adalah direkomenkan supaya sebahagian besar hutan ini dibiarkan tanpa sebarang gangguan untuk menghalang habitat hidupan liar yang semakin sedikit ini daripada terus dimusnahkan dan untuk membenarkan komposisi spesies hidupan liar kembali kepada keadaan asal.

### ABSTRACT

This study focused on the avian species composition in Ayer Hitam Forest, Puchong, Selangor. The forest is an isolated secondary lowland forest and was logged between 1936 to 1954. Two methods were used to examine the composition of birds in the area namely by Mist-netting and Distance Sampling-Point Count. Results indicated that a total of 38 families which comprised of 160 species of birds have been recorded. The three biggest families that represent about 23.5 percent of the total species are Timaliidae, Cuculidae and Pycnonotidae. The most common individuals recorded belong to the family Pycnonotidae. The forest is dominated by insectivore/frugivore group which is represented by mainly colonising secondary species. Certain species of hornbills (e.g. *Buceros rhinoceros*) and babblers (e.g. *Pomatorhinus montanus*) that are normally found in primary forest are absent. These results suggested that the composition of families and trophic structures of birds in Ayer Hitam Forest Reserve are comparable with those at other forest reserve areas. However, the absence of many primary forest species suggested that the forest is still under recovering process. It is recommended that the major part of the forest is left undisturbed to prevent the few remaining wildlife habitats from further destruction and to allow the wildlife species composition to return to the original condition.

### INTRODUCTION

Most wildlife in the tropic depends on the forest for their existence. In Malaysia, almost 90 percent of the birds inhabit tropical forest (Wells 1988). The tropical forest is the most diverse ecosystem

and it provides the basic necessities such as cover, refugia, feeding and breeding habitats for the birds to survive and reproduce.

Unfortunately, the size of undisturbed primary tropical rain forest is shrinking at a

rapid rate. A large proportion of the forested areas remaining are either logged-over or degraded forests (secondary forests). As a consequence, the size of the secondary forests is expanding. Furthermore, previous studies have shown that most species particularly birds are adversely affected in disturbed habitats (Johns 1986, 1987, 1988, 1989; Zakaria and Nordin 1998, Zakaria and Francis, in press). It is therefore crucial for us to examine not only the effects of habitat disturbance on the population of wildlife but also to understand their recovery processes.

Many questions related to changes in wildlife species in secondary forest need to be answered. Does the diversity of wildlife in secondary forest remain the same as that in primary forest? If not, what are the changes occurring to the species composition? Does the abundance of each species in secondary forest remain the same as that in primary forest? If not, which species increase or decrease in secondary forest? Which species are the most adversely affected and can be used as indicator species? How long does it take for them to recover? These are a few questions that need to be answered in order to understand the dynamic of wildlife population in tropical forest.

Before answers of the above questions are found, much preliminary works need to be done. In this study, the composition of bird species in the isolated secondary forest of Ayer Hitam Forest Reserve is examined. The study is an on going long-term study and the results presented here are preliminary. The ultimate aim is to assess whether the forest-dependent bird species particularly those that are adversely affected can recover or survive in secondary forest. The information obtained is useful in understanding and protecting wildlife species in the forest.

#### STUDY AREA AND METHODOLOGY

The study was conducted in the 1248ha of Ayer Hitam Forest, Puchong, Selangor. The area is located at about 3°00.00'N to 3°02.20'N and 101°37.90'E to 101°40.00'E, approximately 20 kilometers southwest of Kuala Lumpur. This is an isolated lowland dipterocarp forest and was selectively logged. The forest is divided into six compartments (Compartments 1, 2, 12, 13, 14 and 15), and each compartment was logged in different years. The earliest logging history was in 1936 and the latest was in 1954. The effects of logging are most severe in Compartment 15.

The forest in Compartments 1, 13 and 14 are only slightly damaged and many big timber species are still present.

The results presented here were based on a study conducted in all the compartments within the forest reserve. At this stage, only the composition of species was presented and discussed. No attempts were made to obtain the density of species since the number of observations recorded was still very small.

Two survey methods were implemented in this study. To assess mainly the canopy species, the Distance Sampling-Point Count method was used (Buckland *et al.* 1993). For this method, ten transect lines, each of at least 500 meters in length has been built at random. Each line was walked at least 3 times. The transects were built in such a way to represent the whole area of the forest. All species seen and heard were recorded.

To assess the understorey species, mist-netting method was used. The mist-nets used were of size 14m in length and 3m in width with the mesh size of 1cm. Since the main objective is to record all species present in the area, the nets were placed in as many habitats (lowland, ridge, riverine areas, hill top and swampy areas) as possible. They were placed at random in each of the habitat and were checked every three hours. The netting activities were started early in the morning (between 6:00 -7:00am) and ended late in the evening (6:30 - 7:00pm). A total of 11,000 net-hours have been conducted during the study period between January to July 1998. All birds caught were identified, tagged and released at the place where they were caught.

#### RESULTS

The results show that a total of 160 species of birds have been recorded which represented 38 families (see Appendix). The three largest families were Timaliidae (13 Babbler species), Cuculidae (12 Cuckoo species) and Pycnonotidae (12 Bulbul species) (Table 1). The smallest families that were represented by only one species included Raillidae, Podargidae and Coraciidae.

To examine the different assemblages of birds present in the area, the species recorded was categorised into trophic levels (Karr 1980, Nordin and Zakaria 1997, Wong 1986; Table 2). Results clearly indicated that insect-eating birds (insectivores) representing the highest number of species (73 species), followed by birds that eat insects and fruits (insectivores/frugivores; 40

TABLE 1

Number of bird species recorded for each family

No.	Family	Species
1	Ardeidae	2
2	Accipitridae	5
3	Phasianidae	3
4	Raillidae	1
5	Columbidae	5
6	Psittacidae	2
7	Cuculidae	12
8	Strigidae	4
9	Podargidae	1
10	Caprimulgidae	2
11	Apodidae	3
12	Hemiprocnidae	2
13	Trogonidae	2
14	Alcedinidae	7
15	Meropidae	3
16	Coraciidae	1
17	Bucerotidae	2
18	Capitonidae	5
19	Picidae	9
20	Eurylaimidae	4
21	Hirundinidae	1
22	Camphephagidae	5
23	Chloropseidae	5
24	Pycnonotidae	12
25	Dicruridae	4
26	Oriolidae	2
27	Corvidae	3
28	Sittidae	1
29	Timaliidae	13
30	Turdidae	5
31	Sylviidae	4
32	Muscicapidae	7
33	Motacillidae	1
34	Laniidae	2
35	Sturnidae	4
36	Nectariniidae	7
37	Dicaeidae	4
38	Plocidae	5

species) and birds that eat small vertebrates (carnivores; 19 species). The insectivores were mainly flycatcher and babbler species. The smallest trophic group was insectivore/carnivore/frugivore and was represented by mainly hornbills.

### DISCUSSION

The Ayer Hitam Forest (AHFR) has been logged several times and the logging activities were terminated in the 70's. Although this is a secondary forest, it is still very rich of bird species. Even many other large primary forests contain only slightly higher number of species

TABLE 2

Classification of birds in Ayer Hitam Forest Reserve according to trophic structures

No.	Trophic Structure	No. of Species
1.	Carnivore	19
2.	Carnivore/Insectivore	6
3.	Insectivore	73
4.	Insectivore/Frugivore	40
5.	Frugivore	12
6.	Nectarivore/Insectivore/Frugivore	7
7.	Insectivore/Carnivore/Frugivore	3
Total 7 trophic levels		160

The classification of birds was partly extracted from Karr (1980) and Wong (1986) and reevaluated according to personal observations (Zakaria 1994).

than in the secondary forest of AHFR. For example in the primary forest of Sungai Tekam Forest Reserve, Pahang, the number of species recorded was 225 species while in the logged forest was 181 species (Johns 1989). Moreover, in the primary and logged forests of Ulu Segama Forest Reserve, Sabah, the number of species obtained was 222 and 188 species, respectively (Nordin and Zakaria 1997). However, we should keep in mind that the species number might be the same but the species composition in logged and unlogged forests might be different (Zakaria and Francis, in press).

In this study the number of species recorded was 160. Many of the species recorded are normally found in not only primary but also secondary forests. In fact, many of them are considered common species and can be found elsewhere. The forest has not been thoroughly surveyed particularly in the north part. It is expected that at least another 20 species to be recorded. Many of the species that were not recorded are the primary forest species. This was reflected by the absence of many primary forest species such as Rhinoceros Hornbills (*Buceros rhinoceros*) and a few species of babblers (e.g. *Pomatorhinus montanus*, *Stachyris poliocephala* and *Stachyris leucotis*). This suggested that the forest is still in the process of recovery. Twenty years after logging may not be sufficient for the forest to return to the original condition (Wong 1985). Although there are primary forest species in the forest, their numbers are lesser than those normally present in primary forest.

The diversity of families recorded is also comparable to other primary forest areas. Almost all of the families recorded in other primary forest areas are also found here. Bird assemblages according to the trophic structures also suggested that most of the compositions of the trophic groups are similar to other primary forest reserves. The only major difference is for the trophic insectivore/frugivore. In most primary forests, the insectivore/frugivore group is normally represented by fewer species and is replaced by the insectivore group (Zakaria and Nordin 1998). The higher number of insectivore/frugivore species is mainly contributed by the bulbul species. They are known as colonising secondary species and prefer to inhabit logged forest.

Other than bulbul species, groups of sunbirds and spiderhunters are also abundant in the forest. These species are especially abundant at the southern region of the forest. The damage to this region seems to be quite extensive. The area is dominated with secondary plant species such as *Macaranga*. There are very few primary tree species remained and most of them are still small. This could be the reason why there are abundant of bulbuls, sunbirds and spiderhunters which prefer the easily available small fruits and flower nectars of secondary plants (Zakaria and Nordin 1998).

At present, the total size of the forest (including the surrounding areas) is still large but it is shrinking at a very rapid rate and eventually only the 1248ha of AHFR will be left due to development of the surrounding areas. Thus, all of the birds from the affected areas will have to move into the permanent forest reserve. It is not known whether the remaining small forest reserve will be able to maintain the increasing number of birds. However, it is expected that the limited food and cover resources will affect the birds negatively (Zakaria and Nordin 1998). Thus, it is highly recommended that the forest reserve be protected from further disturbance. By doing this it is hoped that the forest and the birds can recover faster to their original state and prevent further species disappearance from occurring (Chapman and Chapman 1995, 1996).

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## APPENDIX

## LIST OF BIRD SPECIES IN AYER HITAM FOREST RESERVE

No.	English Name	Scientific Name	Malay Name
<b>ARDEIDAE</b>			
1	Little Heron	<i>Butorides striatus</i>	Pucong Keladi
2	Cinnamon Bittern	<i>Ixobrychus cinnamomeus</i>	Pucong Bendang
<b>ACCIPITRIDAE</b>			
3	Black-shouldered Kite	<i>Elanus caeruleus</i>	Lang Bahu Hitam
4	Crested Serpent-Eagle	<i>Spilornis cheela</i>	Lang Berjambul
5	Japanese Sparrowhawk	<i>Accipiter gularis</i>	Lang Sewah
6	Crested Honey-Buzzard	<i>Pernis ptilorhynchus</i>	Lang Lebah
7	White-bellied Fish-eagle	<i>Haliaeetus leucogaster</i>	Lang Siput
<b>PHASIANIDAE</b>			
8	Crested Fireback	<i>Lophura ignita</i>	Ayam Pegar
9	Great Argus	<i>Argusianus argus</i>	Kuang Raya
10	Crested Wood Partridge	<i>Rollulus rouloul</i>	Burung Siul
<b>RAILLIDAE</b>			
11	White-breasted Waterhen	<i>Amiornis phoenicurus</i>	Ruak-ruak
<b>COLUMBIDAE</b>			
12	Little Green Pigeon	<i>Treron olax</i>	Punai Daun
13	Pink-necked Pigeon	<i>Treron vernans</i>	Punai Gading
14	Spotted Dove	<i>Streptopelia chinensis</i>	Merbok Balam
15	Peaceful Dove	<i>Geopelia striata</i>	Merbok Aman
16	Green-winged Pigeon	<i>Chalcophaps indica</i>	Punai Tanah
<b>PSITTACIDAE</b>			
17	Long-tailed Parakeet	<i>Psittacula longicauda</i>	Bayan Nuri
18	Blue-crowned Hanging Parrot	<i>Loriculus galgulus</i>	Bayan Kecil
<b>CUCULIDAE</b>			
19	Moustached Hawk-Cuckoo	<i>Cuculus vagans</i>	Sewah Tekukur Kecil
20	Hodgson's Hawk-Cuckoo	<i>Cuculus fugax</i>	Sewah Hantu
21	Indian Cuckoo	<i>Cuculus micropterus</i>	Sewah India
22	Plaintive Cuckoo	<i>Cacomantis merulinus</i>	Sewah Mati Anak
23	Drongo Cuckoo	<i>Surniculus lugubris</i>	Sewah Sawai
24	Common Koel	<i>Eudynamis scolopacea</i>	Sewah Tahu
25	Black-bellied Malkoha	<i>Phaenicophaeus diardii</i>	Senok Perut Hitam
26	Raffles' Malkoha	<i>Phaenicophaeus chlorophaeus</i>	Senok Kerak
27	Red-billed Malkoha	<i>Phaenicophaeus javanicus</i>	Senok Api
28	Chestnut-breasted Malkoha	<i>Phaenicophaeus curvirostris</i>	Senok Birah
29	Greater Coucal	<i>Centropus sinensis</i>	But-but Carik Anak
30	Lesser Coucal	<i>Centropus bengalensis</i>	But-but Kecil
<b>STRIGIDAE</b>			
31	Collared Scops-Owl	<i>Otus bakkamonea</i>	Hantu Reban
32	Reddish Scops-Owl	<i>Otus rufescens</i>	Hantu Merah
33	Common Scops-Owl	<i>Otus scops</i>	Hantu Kuang Kuik
34	Brown Wood-Owl	<i>Strix leptogrammica</i>	Hantu Punggor
<b>PODARGIDAE</b>			
35	Large Frogmouth	<i>Batrachostomus auritus</i>	Segan Besar

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<b>CAPRIMULGIDAE</b>			
36	Malaysia Eared Nightjar	<i>Eurostopodus temminckii</i>	Tukang Malaysia
37	Large-tailed Nightjar	<i>Caprimulgus macrurus</i>	Tukang Kubur
<b>APOPIDAE</b>			
38	Silver-rumped Swift	<i>Rhaphidura leucopygialis</i>	Layang-layang Kecil
39	Fork-tailed Swift	<i>Apus pacifus</i>	Layang-layang Ekor Cabang
40	Brown Needletail	<i>Hirundapus gigantea</i>	Layang-layang Besar
<b>HEMIPROCNIDAE</b>			
41	Whiskered Treeswift	<i>Hemiprocne comata</i>	Layang-layang Jambu Kecil
42	Grey-rumped Treeswift	<i>Hemiprocne longipennis</i>	Layang-layang Jambu Kelabu
<b>TROGONIDAE</b>			
43	Scarlet-rumped Trogon	<i>Harpactes duvaucelii</i>	Kesumba Puteri
44	Red-naped Trogon	<i>Harpactes kasumba</i>	Kesumba
<b>ALCEDINIDAE</b>			
45	Common Kingfisher	<i>Alcedo atthis</i>	Pekaka Cit-cit Kecil
46	Blue-eared Kingfisher	<i>Alcedo meninting</i>	Pekaka Bintik-bintik
47	Black-backed Kingfisher	<i>Ceyx erithacus</i>	Pekaka Rimba
48	Rufous-backed Kingfisher	<i>Ceyx rufidorsus</i>	Pekaka Api
49	Stock-billed Kingfisher	<i>Pelargopsis capensis</i>	Pekaka Paroh Pendek
50	Black-capped Kingfisher	<i>Halcyon pileata</i>	Pekaka Kopiah Hitam
51	White-throated Kingfisher	<i>Halcyon smyrnensis</i>	Pekaka Belukar
<b>MEROPIDAE</b>			
52	Blue-tailed Bee-Eater	<i>Merops philippinus</i>	Berek-berek Carik Dada
53	Blue-throated Bee-Eater	<i>Merops viridis</i>	Berek-berek Tadah Hujan
54	Red-bearded Bee-Eater	<i>Nyctornis amictus</i>	Berek-berek Janggut Merah
<b>CORACIIDAE</b>			
55	Dollarbird	<i>Eurystomus orientalis</i>	Tiong Batu
<b>BUCEROTIDAE</b>			
56	White-crowned Hornbill	<i>Berenicornis comatus</i>	Enggang Jambul Putih
57	Black Hornbill	<i>Anthracoceros malayanus</i>	Enggang Gatal Birah
<b>CAPITONIDAE</b>			
58	Gold-whiskered Barbet	<i>Megalaima chrysopogon</i>	Takor Jambang Emas
59	Yellow-crowned Barbet	<i>Megalaima henrici</i>	Takor Mahkota Kuning
60	Red-throated Barbet	<i>Megalaima mystacophanos</i>	Takor Raya
61	Blue-eared Barbet	<i>Megalaima australis</i>	Takor Akar
62	Brown Barbet	<i>Calorhamphus fuliginosus</i>	Takor Dahan
<b>PICIDAE</b>			
63	Rufous Piculet	<i>Sasia abnormis</i>	Belatok Kecil
64	Rufous Woodpecker	<i>Micropternus brachyurus</i>	Belatok Biji Nangka
65	Checker-throated Woodpecker	<i>Picus mentalis</i>	Belatok Ranting
66	Banded Woodpecker	<i>Picus miniaceus</i>	Belatok Merah
67	Common Goldenback	<i>Dinopium javanense</i>	Belatok Pinang Muda
68	Buff-rumped Woodpecker	<i>Meiglyptes tristis</i>	Belatok Awan
69	Buff-necked Woodpecker	<i>Meiglyptes tukki</i>	Belatok Tuki-tuki
70	Grey-and-Buff Woodpecker	<i>Hemicircus concretus</i>	Belatok Punggoh
71	Maroon Woodpecker	<i>Blythipicus rubiginosus</i>	Belatok Punggor
<b>EURYLAIMIDAE</b>			
72	Banded Broadbill	<i>Eurylaimus javanicus</i>	Takau Rimba
73	Black-and-Yellow Broadbill	<i>Eurylaimus ochromalus</i>	Takau Hitam Kuning

74	Black-and-Red Broadbill	<i>Cymbirhynchus macrorhynchus</i>	Takau Rakit
75	Green Broadbill	<i>Calyptomena viridis</i>	Takau Selawit
<b>HIRUNDINIDAE</b>			
76	Pacific Swallow	<i>Hirundo tahitica</i>	Sualo Batu
<b>CAMPHEPAGIDAE</b>			
77	Black-winged Flycatcher-Shrike	<i>Hemipus hirundinaceus</i>	Rembah Batu
78	Lesser Cuckoo-Shrike	<i>Coracina fimbriata</i>	Sewah Kecil
79	Pied Triller	<i>Lalage nigra</i>	Sewah Kapas
80	Fiery Minivet	<i>Pericrocotus igneus</i>	Mas Tulin
81	Scarlet Minivet	<i>Pericrocotus flammeus</i>	Mas Belukar
<b>CHLOROPSEIDAE</b>			
82	Green Iora	<i>Aegithina viridissima</i>	Kunyit Bakau
83	Common Iora	<i>Aegithina tiphia</i>	Kunyit Kacat
84	Lesser Green Leafbird	<i>Chloropsis cyanopogon</i>	Daun Kecil
85	Greater Green Leafbird	<i>Chloropsis sonnerati</i>	Daun Besar
86	Blue-winged Leafbird	<i>Chloropsis cochinchinensis</i>	Daun Kepak Biru
<b>PYCNONOTIDAE</b>			
87	Black-headed Bulbul	<i>Pycnonotus atriceps</i>	Merbah Siam
88	Puff-backed Bulbul	<i>Pycnonotus eutilotus</i>	Merbah Coklat Berjambul
89	Yellow-vented Bulbul	<i>Pycnonotus goaivier</i>	Merbah Kapor
90	Olive-winged Bulbul	<i>Pycnonotus plumosus</i>	Merbah Belukar
91	Cream-vented Bulbul	<i>Pycnonotus simplex</i>	Merbah Mata Putih
92	Red-eyed Bulbul	<i>Pycnonotus brunneus</i>	Merbah Mata Merah
93	Spectacled Bulbul	<i>Pycnonotus erythrophthalmos</i>	Merbah Kecil
94	Black-and-White Bulbul	<i>Pycnonotus melanoleucus</i>	Merbah Tanduk
95	Yellow-bellied Bulbul	<i>Criniger phaeocephalus</i>	Merbah Perut Kuning
96	Finches Bulbul	<i>Criniger finschii</i>	Merbah Rempah
97	Buff-vented Bulbul	<i>Hypsipetes charlottae</i>	Merbah Riang
98	Hairy-backed Bulbul	<i>Hypsipetes criniger</i>	Merbah Bulu Panjang Tengkok
<b>DICRURIDAE</b>			
99	Bronzed Drongo	<i>Dicrurus aeneus</i>	Cecawi Keladi
100	Crow-billed Drongo	<i>Dicrurus annectans</i>	Cecawi Sawai
101	Lesser Racket-tailed Drongo	<i>Dicrurus remifer</i>	Cecawi Hamba Kera
102	Greater Racket-tailed Drongo	<i>Dicrurus paradiseus</i>	Cecawi Anting-anting
<b>ORIOIIDAE</b>			
103	Black-hooded Oriole	<i>Oriolus xanthornus</i>	Dendang Belukar
104	Asian Fairy Bluebird	<i>Irena puella</i>	Dendang Gajah
<b>CORVIDAE</b>			
105	Crested Jay	<i>Platylophus galericulatus</i>	Gagak Jerit
106	Black Magpie	<i>Platysmurus leucopterus</i>	Gagak Kambing
107	Large-billed Crow	<i>Corvus macrorhynchus</i>	Gagak Paroh Besar
<b>SITTIDAE</b>			
108	Velvet-fronted Nuthatch	<i>Sitta frontalis</i>	Patok Baldu
<b>TIMALIIDAE</b>			
109	Short-tailed Babbler	<i>Trichastoma malaccense</i>	Rimba Ekor Pendek
110	Ferruginous Babbler	<i>Trichastoma bicolor</i>	Rimba Sampah
111	Abbot's Babbler	<i>Trichastoma abbotti</i>	Rimba Riang
112	Sooty-capped Babbler	<i>Malacopteron affine</i>	Rimba Tinjau Belukar
113	Scaly-crowned Babbler	<i>Malacopteron cinereum</i>	Rimba Tua Kecil
114	Rufous-crowned Babbler	<i>Malacopteron magnum</i>	Rimba Tua Besar
115	Chestnut-rumped Babbler	<i>Stachyris maculata</i>	Rimba Rembah Besar

BIRD SPECIES COMPOSITION IN AYER HITAM FOREST, PUCHONG, SELANGOR

116	Chestnut-winged Babbler	<i>Stachyris erythroptera</i>	Rimba Merbah Sampah
117	Rufous-fronted Babbler	<i>Stachyris rufifrons</i>	Rimba Api
118	Striped-tit Babbler	<i>Macronus gularis</i>	Rimba Berjalor
119	Fluffy-backed Tit-Babbler	<i>Macronus ptilosus</i>	Rimba Pong-pong
120	Brown Fulvetta	<i>Alcippe brunneicauda</i>	Rimba Murai Coklat
121	White-bellied Yuhina	<i>Yuhina zantholeuca</i>	Yuhina Perut Putih
<b>TURDIDAE</b>			
122	Siberian Blue Robin	<i>Erithacus cyane</i>	Murai Siberia
123	Magpie Robin	<i>Copsychus saularis</i>	Murai Kampong
124	White-rumped Shama	<i>Copsychus malabaricus</i>	Murai Rimba
125	Chestnut-naped Forktail	<i>Enicurus ruficapilus</i>	Murai Cegar
126	White-crowned Forktail	<i>Enicurus leschenaulti</i>	Murai Cegar Belukar
<b>SYLVIIDAE</b>			
127	Yellow-bellied Warbler	<i>Abroscopus superciliaris</i>	Cekup Paroh Kuning
128	Arctic Warbler	<i>Phylloscopus borealis</i>	Cekup Artik
129	Common Tailorbird	<i>Orthotomus sutorius</i>	Perenjak Pisang
130	Dark-necked Tailorbird	<i>Orthotomus artogulais</i>	Perenjak Belukar
<b>MUSCICAPIDAE</b>			
131	Grey-chested Flycatcher	<i>Rhinomyias umbratilis</i>	Sambar Batu
132	Asian Brown Flycatcher	<i>Muscicapa latirostris</i>	Sambar Asia
133	Tickell's Blue Flycatcher	<i>Cyornis tickelliae</i>	Sambar Kelicap Ranting
134	Pied Fantail	<i>Rhipidura javanica</i>	Sambar Murai Gila
135	Black-naped Monarch	<i>Hypothymis azurea</i>	Sambar Uban Hitam
136	Maroon-breasted Flycatcher	<i>Philentoma velatum</i>	Sambar Ungu
137	Asian Paradise Flycatcher	<i>Terpsiphone paradisi</i>	Sambar Ekor Panjang
<b>MOTACILLIDAE</b>			
138	Richard's Pipit	<i>Anthus novaeseelandiae</i>	Pipit Tanah
<b>LANIIDAE</b>			
139	Brown Shrike	<i>Lanius cristatus</i>	Tirjup Tanah
140	Tiger Shrike	<i>Lanius tigrinus</i>	Tirjup Rimau
<b>STURNIDAE</b>			
141	Philippine Glossy Starling	<i>Aplonis panayensis</i>	Perling Mata Merah
142	Common Myna	<i>Acridotheres tristis</i>	Tiong Gembala Kerbau
143	Jungle Myna	<i>Acridotheres fuscus</i>	Tiong Hutan
144	Hill Myna	<i>Gracula religiosa</i>	Tiong Mas
<b>NECTARINIIDAE</b>			
145	Plain Sunbird	<i>Anthreptes simplex</i>	Kelicap Kelabu
146	Purple-naped Sunbird	<i>Hypogramma hypogrammicum</i>	Kelicap Rimba
147	Little Spiderhunter	<i>Arachnothera longirostra</i>	Kelicap Jantong
148	Long-billed Spiderhunter	<i>Arachnothera robusta</i>	Kelicap Jantong Paroh Panjang
149	Yellow-eared Spiderhunter	<i>Arachnothera chrysogenys</i>	Kelicap Jantong Telinga Kuning
150	Spectacled Spiderhunter	<i>Arachnothera flavigaster</i>	Kelicap Jantong Besar
151	Grey-breasted Spiderhunter	<i>Arachnothera affinis</i>	Kelicap Jantong Bukit

**DICAEDAE**

152	Yellow-breasted Flowerpecker	<i>Prionochilus maculatus</i>	Sepah Puteri Raja
153	Crimson-breasted Flowerpecker	<i>Prionochilus percussus</i>	Sepah Puteri Pelangi
154	Orange-bellied Flowerpecker	<i>Dicaeum trigonostigma</i>	Sepah Puteri Bukit
155	Plain Flowerpecker	<i>Dicaeum concolor</i>	Sepah Puteri Bongsu

**PLOCEIDAE**

156	Eurasian Tree-Sparrow	<i>Passer montanus</i>	Ciak Urasia
157	Baya Weaver	<i>Ploceus philippinus</i>	Ciak Tempua
158	White-bellied Munia	<i>Lonchura leucogastra</i>	Pipit Padi
159	Chestnut Munia	<i>Lonchura malacca</i>	Pipit Rawa
160	White-headed Munia	<i>Lonchura maja</i>	Pipit Uban