BIRD SURVEY AT SUNGAI DUSUN WILDLIFE RESERVE, PERAK, MALAYSIA

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ABSTRACT

A survey on birds was conducted at Sungai Dusun Wildlife Reserve on the 26th until 31th of October 2009. Ten mist nets were deployed throughout the four days sampling period. A total of 27 individuals representing 16 species from 10 families of birds were recorded. The most common species recorded is the *Arachnothera longirostra* that was represented by six individuals.

Keyword: *Arachnothera longirostra*, Biodiversity, Mist-nets, Wildlife Reserve

INTRODUCTION

The Sungai Dusun Wildlife Reserve is located about 120 km from Kuala Lumpur with latitude 3° 35' to 3° 40' north and longitude 101° 23' to 101° 27' east (Muda and Suib, 1989). The reserve is about 10,400 acre in size comprising of peat swamp and lowland dipterocarp forest (Mohamad and Romo, 2002). The reserve is drained by Sg Bernam (geographical boundry between Selangor and Perak State) in the North and Sg Tengi in the South. It is also bordered by the Felda Scheme on the northern and eastern side, and by peat swamp forest on the western and southern part.

METHODOLOGY

The birds were captured using standard mist nets set at understory level (Mc Clure, 1984). Ten mist nets were deployed along the trail at Sungai Dusun Wildlife Reserve. Mist nets were opened from 0630 until 1830 hours and were checked at every two hours interval. Any captured birds were placed into the cloth bags, and later measured using caliper and weigh using Pasola balance spring. Species identification of the birds was referred to Robson (2005).

Selected species that act as voucher specimen were preserved in ethanol. For every captured individuals, throat wash and blood sample were collected for influenza study. All tissues and voucher specimens were deposited at UNIMAS Zoological museum.

The throat wash samples were collected by pipetting about 700µl RNAse free water into the bird's throat. The washes were kept in -80°C for storage. As for blood collection, the vein in the upper wing was pricked using 1.5ml sterile syringe. The blood was then stored unbuffered to maintain the stability of the RNA. The RT-PCR will be conducted in the laboratory soon.

RESULTS AND DISCUSSION

A total of 27 individuals with 16 species from 10 families were recorded at Sungai Dusun Wildlife Reserve (Table 1). The most abundant species caught was the *Arachnothera longirostra* with six individuals. The highlighted species were the *Pitta moluccensis* and *Melanoperdix nigra,* both represented by one individual each. The *Melanoperdix nigra* is listed as vulnerable in the IUCN redlist of threatened species 2009.

Ineffective mist nets were reposition after two days sampling. In relation to this, the size of the sampling area was expanded and therefore maximized the sampling effort.

The net hours and capture rate are calculated based on the formula below:-

Net hours = Hours deployed x Number of mist-net

= 12 X 10

= 120 net hours

$$\text{Capture rate} = \frac{\text{Number of birds captured}}{\text{(No. of nets) x (No. of days) x (No. hours deployed)}}$$

=27/480

=0.06

Less number of recorded birds probably due to the bad weather, where it rains occasionally every early evening till night falls during sampling periods. The birds probably do not forage far from their shelter due to bad weather. It may also because of many orchards and oil palm plantation nearby the survey area, which may act as food supply for these birds.

Although the mist-nets were located near the river, not many birds were caught. This may be due to the types of vegetation in the reserve. Most of the birds may prefer the peat swamp forest that is richer in food and provide them shelter, and also more water sources. In addition, the part of the survey area has been cleared for the purpose of providing camping site for public awareness program. In relation to this, the birds may choose to move farther into the forest to avoid the minimal disturbances.

Table 1. List of birds recorded in Sungai Dusun Wildlife Reserve.

Family **Species**	**Individuals**	**Relative Abundance (%)**
Timaliidae		
Rhinomyias olivaceae	1	3.703703704
Malacopteran cinereum	1	3.703703704
Malacocincla malaccensis	1	3.703703704
Phasianidae		
Melanoperdix nigra	1	3.703703704

Muscicapidae		
Cyornis rubeculoides	2	7.407407407
Copsychus malabaricus	2	7.407407407
Nectariniidae		
Dicaeum trigonostigma	1	3.703703704
Arachnothera longirostra	6	22.22222222
Alcediniidae		
Ceyx erithacus	3	11.11111111
Pycnonotidae		
Tricholestes criniger	1	3.703703704
Alophoixus phaeocephalus	4	14.81481481
Strigidae		
Otus rufescens	1	3.703703704
Picidae		
Sasia abnormis	1	3.703703704
Pittidae		
Pitta moluccensis	1	3.703703704
Corvidae		
Philentoma pyrrhopterum	1	3.703703704
Total number of individuals	27	
Number of species	16	
Number of Families	10	
Relative abundance (%)		100

CONCLUSION

This survey has documented birds' species diversity and abundance in Sungai Dusun Wildlife Reserve. The survey area still support a good number of birds fauna. Vulnerable species such as the *Melanoperdix nigra* can still be observed and recorded in the area indicates that the area is maintaining its diversity well and may act as one of the conservation area for this specific species.

ACKNOWLEDGEMENT

We would like to thank Universiti Malaysia Sarawak and Faculty of Resource Science and Technology for the permission granted to join the inventory. We also would like to convey our sincere gratitude to Department of Wildlife and National Parks (DWNP) for their permission to examine and collect voucher samples as well as providing a conducive environment during this study. Furthermore, we greatly appreciate the trust and guidance provided by Prof Dr. Mohd Tajuddin Abdullah during samples

collection. Our sincere thanks also expanded to the staffs of DWNP who have been willingly lending hands during the inventory. Thank you for all your advices and guidance.

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