

Short Notes on the Vertebrate Fauna of Ayer Hitam Forest Reserve, Puchong, Selangor

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Keywords: Vertebrates, Ayer Hitam Forest Reserve.

ABSTRAK

Rekod dari Muzium Zoologi, Jabatan Biologi, Universiti Putra Malaysia mengandungi senarai vertebrata dari kawasan Hutan Simpan Ayer Hitam yang dikutip dari 1975 hingga 1985. Koleksi dalam muzium ini terdiri dari 14 burung, 10 anura, 5 lacertalia, 3 ophidia dan 8 mamalia. Kutipan lapangan baru-baru ini yang dilakukan oleh pelajar-pelajar biologi, sebagai sebahagian tugas kursus kepelbagaian vertebrata mendapati 3 spesies kelawar, 2 reptilia, 13 anura dan 10 ikan. Ikan merupakan tambahan kepada senarai vertebrata yang belum pernah dilakukan sebelum ini. Senarai vertebrata dalam laporan ini bukanlah yang lengkap. Beberapa koleksi perlu dilakukan untuk inventori vertebrata di Hutan Simpan Ayer Hitam.

ABSTRACT

Record from the Museum of Zoology, Department of Biology, Universiti Putra Malaysia contains list of vertebrates of Ayer Hitam Forest Reserve area collected from 1975 until 1985. The collection in the museum consists of 14 birds, 10 anurans, 5 lacertilians, 3 ophidians and 8 mammals. Recent field collections by students of biology, as part of their assignment of vertebrates diversity revealed 3 species of bats, 2 reptiles, 13 anurans and 10 fishes. Fish is the new addition of the vertebrate lists that was not collected before. The list of vertebrate in this report is by no means exhaustive. More collections are needed to inventorise the vertebrates of Ayer Hitam Forest Reserve.

INTRODUCTION

Ayer Hitam Forest Reserve is a lowland dipterocarp forest situated in the middle of a rapidly developing area, about 20 km south of Kuala Lumpur. Covering an area of about 1248 ha the forest is bordered in the north by Bukit Jalil sport complex and to its south by new Putra Jaya administrative township. The eastern part of the forest is bordered by the proposed new satellite town of Lestari Perdana and to the west by the massive housing and business centres of Puchong. A small stream of about 2.5 km with many tributaries cut across the length of the forest. The stream becomes the riverhead of the Rasau River. Most of the tributaries dried up during drought season.

The forest was formally under the management of the Selangor State Forest Department and was leased to Universiti Putra Malaysia in

1996 for 80 years for the purpose of teaching and research. Prior to its lease to Universiti Putra Malaysia, the forest was already became part of the field training site for students from the Faculty of Forestry and students from the Department of Biology, Faculty of Science and Environmental Science.

During the early years of UPM, several animal collection trips to the forest were conducted to provide materials for classes. The specimens collected were recorded and deposited at the Museum of Zoology, Department of Biology. There was a gap in field activities by the Department of Biology between 1985 and 1998 and only in April 1998 until January 1999 there was a study on the anurans along the Rasau River conducted as part of the students' final year project. At about the same time several field trips were conducted to study the vertebrate diversity of the forest.

This communication reports some of the vertebrates recorded in the museum of the Department of Biology from the collection in the earlier periods of UPM and those collected during the recent field studies by the students.

MATERIALS AND METHODS

The information on the existence of the vertebrates was obtained from a search of the record of the Museum of Zoology, Universiti Putra Malaysia. The record on the vertebrate collection from the forest dated back since 1975. In addition, the current list also contained species collected during the three brief field studies in Ayer Hitam Forest Reserve recently carried out by the biology students as part of their assignments in the Vertebrate Biodiversity course.

Mist nets were mounted about 2 meters above the ground under the forest canopy to trap birds and bats. Rat-traps were set on the ground, using banana as baits to collect small ground mammals. The sites of collection covered only to the eastern part of the forest, along the old logging track that run almost parallel to the river as shown in Fig. 1.

Scoop nets were used to collect fishes and tadpoles in the Rasau River. Adult frogs and toads were caught by hand and mostly carried out at night. Some reptiles such as skinks and agamids were observed directly. Identification of the collected vertebrates were based on the references available and also by comparing the specimens with those deposited at the Museum of Zoology, UPM. For conservation purposes, trapped animals, except for taxidermy exercises, were released back to its original collection sites.

RESULTS AND DISCUSSION

Some of the information on the site of collection in the early years of UPM stated only Puchong that included at that time the present UPM Puchong farm and that of proposed Lestari Perdana townships area. Nevertheless the collection are included in the present list.

The vertebrates collected and recorded in the Museum of Zoology between 1975 until 1985 are listed in Table 1.

The three brief field collections by students revealed some of the species collected in the previous collections. Vertebrates collected from these exercises are listed in Table 2.

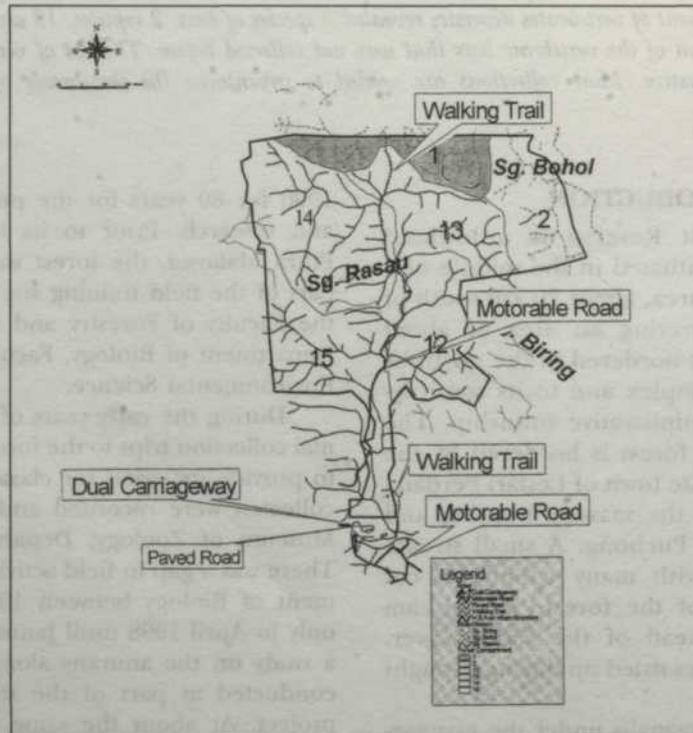


Fig. 1. Map of Natural and Physical Resource in Ayer Hitam Forest Reserve, Puchong

SHORT NOTES ON THE VERTEBRATE FAUNA OF AYER HITAM FOREST

TABLE 1

List of vertebrates collected during the early years of Universiti Putra Malaysia

Species	Common name	Family	Date of collection
Birds:			
<i>Criniger phaeocephalus</i>	White throated bulbul	Pycnonotidae	10 Apr. 1981
<i>Arachnothera longirostris</i>	Little spider hunter	Nectariniidae	10 & 15 Apr. 1981 Kelicap jantung
<i>Orthotomus sutorius</i>	Long-tailed tailor bird Laki padi	Sylviidae	15 Apr. 1981
<i>Hypogramma hypogrammicum</i>	Purple naped sunbird	Nectarinidae	14 Apr. 1981
<i>Trichostomma rostratum</i>		Timallidae	9 Apr. 1981
<i>T. malaccanes</i>			8 Apr. 1981
<i>Copsychus malabaricus</i>	White rumped shama Murai batu	Turdidae	14 Apr. 1981
<i>Trichastoma malabaricus</i>		Timallidae	14 Apr. 1981
<i>T. saularius</i>		..	16 Apr. 1981
<i>Pycnonotus simplex</i>	Cream vented bulbul Murai rimba	Pycnonotidae	14 Apr. 1981
<i>Chalcophaps indica</i>	Emerald dove	Columbidae	16 Apr. 1981
<i>Pycnonotus goiavier</i>	Yellow-vented bulbul	Pycnonotidae	15 Apr. 1981
<i>Merbah kapur</i>			
<i>Stachyris erythroptera</i>	Red-winged tree babbler Merbah sampah	Timaliidae	10 Apr. 1981
<i>Macronus ptilosus</i>	Fluffy-backed babbler	Timaliidae	15 April 1981
Anuran:			
<i>Rana limnocharis</i>	Padifield frog	Ranidae	12 Nov. 1975
<i>Polypedates leucomystax</i>	Malayan house frog	Rhacophoridae	21 Nov. 1975
<i>Bufo quadriporcatus</i>	Four-ringed toad	Bufoidea	27 Nov. 1979
<i>Leptobranchium hasseltii</i>	Ground toad	Pelobatidae	26 Feb. 1981
<i>Rana chalconota</i>	Copper cheek frog	Ranidae	13 Aug. 1981
<i>Rana blythi</i>	Malaysian giant frog	Ranidae	13 Aug. 1981
<i>Rana signata</i>	Yellow spotted frog	Ranidae	13 Aug. 1981
<i>Rana malesiana</i>	Malaysian frog	Ranidae	13 Aug. 1984
<i>Rana erythraea</i>	Malayan pond frog	Ranidae	22 Feb. 1984
<i>Ociziozyga laevis</i>	Paddyfield puddle frog	Ranidae	22 Feb. 1984
Reptiles:			
Lacertilia:			
<i>Draco volans</i>	Sumpah-sumpah	Agamidae	14 April 1981
<i>Draco quinquefasciatus</i>		..	8 April 1981
<i>Draco fimbriatus</i>		..	10 April 1981
<i>Draco melanopogon</i>		..	10 Apr. 1981
<i>Aphanotis fuscus</i>			27 Nov. 1979
Ophidia			
<i>Liopeltis baliodeirus</i>		Colubridae	13 Jan. 1975
<i>Achaetulla striata</i>		..	16 Mar. 1975
<i>Sibynophis melanocephalus</i>		..	15 Oct. 1979
Mammals:			
Ground squirrels:			
<i>Rhinosciurus laticaudatus</i>	Schrew faced ground squirell	Sciuridae	27 Jul. 1978

<i>Callosciurus nigrovittatus</i>	Black banded squirrel	Sciuridae	28 Jul.1978
<i>Callosciurus notatus</i>	Plantain squirrel	Sciuridae	Aug. 1985
Rats:			
<i>Rattus muelleri</i>	Muller's rat	Muridae	4 Jul. 1978
<i>Rattus sabanus</i>	Long tailed giant rat	..	4 Jul.1978
<i>Rattus surifer</i>	Red spiny rat	..	4 Jul.1978
<i>Rattus tiomanicus</i>	Wood rat	..	18 Aug. 1985
<i>Rattus rajah</i>	Brown spiny rat	..	14 Jul.1978

TABLE 2
Vertebrates collected by students during their field trips

Species	Common name	Date of collection	
Mammals:			
Bats			
<i>Rhinolopus trifoliatus</i>	Treefoil horse shoe bat	Pteropodidae	8 Sept. 1997
<i>Cynopterus brachyotis</i>	Malaysian fruit bat	..	8 Sept. 1997
<i>Penthetor lucasii</i>	dusky fruit bat	..	8 Sept. 1997
Reptiles:			
<i>Calotes versicolor</i>	Sumpah sumpah	Agamidae	8 Sept. 1997
<i>Geomyda spinosa</i>	Spiny tortoise	Testudinidae	9 Sept. 1997
Amphibia:			
<i>Rana doriae</i>	Siamese frog	Ranidae	8 Sept. 1997
<i>Polypedates leucomystax</i>	Malayan house frog	Rhacophoridae	8 Sept. 1997
<i>Rana chalconota</i>	Copper cheek frog	Ranidae	8 Sept. 1997
Fishes:			
<i>Channa striatus</i>	Snake head	Ophiocephalidae	8 Sept. 1997
<i>Hemirhampon pogoognathus</i>	Jolong, Sember	Hemirhampidae	8 Sept. 1997
<i>Rasbora einthoveni</i>	Seluang/susur batang	Cyprinidae	8 Sept. 1997
<i>Puntius binotatus</i>		..	8 Sept. 1997
Anuran:			
<i>Rana doriae</i>	Siamese frog	Ranidae	6 Feb. 1999
<i>Bufo melanostitus</i>	Common toad	Bufoinidae	6 Feb. 1999
<i>Bufo asper</i>	Malayan giant toad	..	6 Feb. 1999
<i>Rana malesiana</i>	Malaysian frog	Ranidae.	6 Feb. 1999
<i>Kalophrynus palmatissimus</i>	Rain skicky toad	Microhylidae	6 Feb. 1999
Fish:			
<i>Rasbora heteromorpha</i>	Bada seluang	Cyprinidae	6 Feb. 1999
<i>Rasbora sumatrana</i>	Ikan seluang	..	6 Feb. 1999
<i>Betta pugnax</i>	Belaga, Sepilai	Anabantidae	6 Feb. 1999
<i>Hemirhampon pogoognathus</i>	Julung-julung	Hemirhampidae	6 Feb. 1999
<i>Channa striatus</i>	Haruan	Ophiocephalidae	6 Feb. 1999
<i>Clarias sp.</i>	Keli	Clariidae	6 Feb. 1999
<i>Channa lucius</i>	Bujuk, Ubi	Ophiocephalidae	13 Mar. 1999

Anuran

<i>Rana blythi</i>	Malayan giant frog	Ranidae	April 1998 till Feb. 1999
<i>Rana chalconota</i>	Copper cheek frog	..	..
<i>Rana doirae</i>	Siamese frog	..	..
<i>Rana hosei</i>	Green tree frog	..	..
<i>Rana paramacrodon</i>	Coarse frog	..	..
<i>Rana plicatella</i>	Rhinoceros frog	..	..
<i>Rana signata</i>	Yellow spotted frog	..	..

The list of vertebrates in this report may not be exhaustive especially the avian fauna which has been studied more thoroughly by other workers recently. Among the vertebrates, fishes gave a more complete list. Some fishes that are quite rare such as 'bujuk' that prefer to live in streams, lakes and pond is also found in the Rasau River. Among the fishes, *Hamirhampodon pogonognathus* is available in large number and normally remain near the surface. *Rasbora* are small fishes that are also commonly found in the river. They are small fish and the largest caught in Rasau River was about 8.5 cm in length. Even though *Rasbora* form the food for predatory fish, their existence in large number is because there are very few predator fishes found in Rasau River. Some *Rasbora* such as *R. einthoveni* prefers slightly acidic water in swamp. Some how the fish is also found in Sg. Rasau that was not acidic. From a total of 8 species of *Rasbora* recorded in Malaysia, 4 are found in Rasau River.

More collections are needed to inventorize the vertebrates of Ayer Hitam Forest Reserve especially in the interior part of the forest.

ACKNOWLEDGEMENTS

The author is grateful to the Officer in charge of Hutan Simpan Ayer Hitam, Puchong for allowing the field collections. Thanks are due to the lecturer in charge of the Museum of Zoology, Department of Biology for the assistance rendered. This paper is dedicated to the laboratory technicians, especially to the late Mr. Rajoo who had spent time and effort in establishing the Museum of Zoology during the early years of the University.

REFERENCES

BERRY, P.Y. 1975. *The Amphibian Fauna of Peninsular Malaysia*. Kuala Lumpur: Tropical Press. 129p.
 GLENISTER, A. G. 1974. The birds of the Malaysian Peninsula, Singapore and Penang. London, Melbourne: Oxford University Press. 291 p.
 INGER, R.F. 1966. The systematic and zoogeography of the Amphibia of Borneo. Field Museum of Natural History. 402 p.
 MEDWAY, L. 1977. *Mammals of Borneo*. Malaysian Branch of the Royal Asiatic Society. 172p.

INTRODUCTION

The Bangi Forest Reserve (10° 15' N and 101° 45' E) in the district of Langkat, Selangor District, about 50 km north of Kuala Lumpur. This forest reserve is bordered by the Klang River to the North and Kuala Selangor-Seremban road to the South. Topographically the area is mostly

low with several small streams and patches of swamps at elevations of 40 to 110 m above sea level. It is covered by forest as a forest reserve since 1st December 1976 and was placed under strict administration of the Selangor Forestry Department. No commercial or unauthorized exploitation during the post World War II period and it was largely well logged during the