

Yayasan Sabah

Danced

Management of Maliau Basin Conservation Area
Sabah, Malaysia

TECHNICAL ASSISTANCE REPORT No. 7

Interim Wildlife Survey Progress Report

September 2000

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**INTERIM WILDLIFE SURVEY PROGRESS
REPORT FOR THE PROJECT MANAGEMENT
GROUP OF THE YS-DANCED
MALIAU CONSERVATION AREA PROJECT**

By

**Titol Peter Malim
Shigeki Yasuma**

25 September 2000

**Sabah Wildlife Department
Kota Kinabalu**

INTERIM WILDLIFE SURVEY PROGRESS REPORT FOR THE PROJECT MANAGEMENT GROUP OF THE YS-DANCED MALIAU CONSERVATION PROJECT

A. General Information

Survey Title: Wildlife Survey of the Maliau Basin Conservation Area
Report Prepared By: Titol Peter Malim & Dr. Yasuma Shigeki
Report Period: August - September 2000
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Project Objectives

- To collect data on the current distribution of wild mammal and birds at Maliau and, where possible, to assess their relative population density. Special emphasis is placed on those species to be most threatened by human activities.
2. Where possible, to assess the effects of habitat and human disturbance on the mammal and birds populations.
 3. To use the data to identify species of special conservation importance.
 4. To train members of the Faunal Team at Maliau in survey method and field techniques.

The generalised nature of these objectives allowed details of surveys to be planned in the light of up-to-date information and needs. The most important function of the wildlife survey is to provide an objective basis for identifying key wildlife species and priorities for future conservation programmes.

Progress

1 Survey on distribution of mammal and birds

- 1.1 Fieldwork was carried out in the MBCA between 12 - 22 August 2000. Data collection and observation was conducted by 2 teams of SWD staff and a JICA expert attached in the department.
- 1.2 Point count line transect method and capture and recapture method were employed. Two members conducted data collection following existing abandoned old logging roads and the JICA expert carried out mammals and birds using various techniques, viz. mist net, small iron trap, butterfly trap and automatic trap camera.

Data are also collected on present and absence of mammal using direct and indirect sign and vocalization.

Due to small number of survey team, data collection were carried out covering approximately 60 square kilometers, including area surrounding the Belian Camp, tributaries of Maliau and upper Kuamut rivers.

2. Assessment of habitat and human disturbance on mammal and birds population

2.1 During this first fieldwork, assessment was basically on identifying existing access into the Basin, such as abandoned old logging road, timber camp, local people frequenting the Basin, and signs of wildlife utilization.

3. Identify species of special conservation importance

3. SWD put emphasis on species that are considered rare, threatened and endangered viz. Asian elephant, sumatran rhinoceros, tembadau, clouded leopard, sun bear, proboscis monkey and orang utan.

4. On-the-job training for survey team

4.1 This is considered simple exercise for the survey team. This involved usage of data sheet, keyed in data, map reading, GPS and compass reading. Basically, these were given while conducting actual data collection in the field.

B. Output and Activity Framework

	Progress Towards Output This Report Period	How is Progress Being Measured
Output 1 Survey on distribution of mammal and birds	Data collections and observations of mammal and birds	Data over 100 days, between August 2000 to August 2001

Activities	Who	Progress This Report Period	Plans For Next Period
1.1 Intensive collection of data on present/absence of mammal and birds in various forest types	SWD MFT	<ul style="list-style-type: none"> • 2 teams of 1 JICA expert, 2 wildlife rangers and 2 Maliau Faunal Team continuously collected data for 10 days. • Checklist of mammal and birds of MBCA in the form of tables and figures as attached in this report. 	<ul style="list-style-type: none"> • Continuation of the same activities, but at different locality. • Continue to update checklist • Input data of mammal and birds into the SWD Database

			<ul style="list-style-type: none"> and GIS • Create faunal database for Maliau
1.2 Assess relative density of mammals of concern in MBCA	SWD	<ul style="list-style-type: none"> • Pre-analysis on data of mammal using existing computer software 	<ul style="list-style-type: none"> • Production of results in the form of table and figure

	Progress Towards Output This Report Period	How is Progress Being Measured
Output 2 Assessment of habitat and human disturbance on mammal and birds population	<ul style="list-style-type: none"> • Refinement of knowledge about habitat types in Maliau • Knowledge about human activities in and outside of Maliau • Enhanced relationship between SWD and MFT 	Qualitative and quantitative analyses of data over entire MBCA from the start to end of the survey period. Final assessment by year 2001.

Activities	Who	Progress This Report Period	Plans For Next Period
2.1 Assessing current human activities in/outside around Maliau	SWD	<ul style="list-style-type: none"> • Locating and familiarization of new/old logging roads by vehicle • Verbal interviewing timber workers operating outside of Maliau • Locating by GPS areas of most active human activities 	<ul style="list-style-type: none"> • Continuation of similar activities at south, west and north of Maliau. • Produce map of human activities around Maliau

	Progress Towards Output This Report Period	How is Progress Being Measured
Output 3 Identify species of special conservation importance	Data collections and observations of mammal and birds	Data over 100 days, between August 2000 to August 2001

Activities	Who	Progress This Report Period	Plans For Next Period
3.1 Intensive collection of data on present/absence of mammal and birds	SWD MFT	<ul style="list-style-type: none"> • 2 teams of 1 JICA expert, 2 wildlife rangers and 2 Maliau Faunal Team continuously collected data for 10 days. • Checklist of mammal and birds 	<ul style="list-style-type: none"> • Continuation of the same activities, but at different locality.

		of MBCA in the form of tables and figures as attached in this report.	<ul style="list-style-type: none"> • Continue to update checklist • Input data of mammal and birds into the SWD Database and GIS • Create checklist of species of special concern for Maliau
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	Progress Towards Output This Report Period	How is Progress Being Measured
Output 4 On-the-job training for project staff	<ul style="list-style-type: none"> • Participation of SWD and MFT in field data collection • Capacity building of MFT staff (monitor wildlife populations) 	Increased project staff capabilities

Activities	Who	Progress This Report Period	Plans For Next Period
4.1 On-the-job training of SWD staff and MFT to wildlife survey and conservation techniques	SWD MFT	<ul style="list-style-type: none"> • Intensive SWD and MFT participation in wildlife survey for 10 days. 	<ul style="list-style-type: none"> • Continuation of the same activities, but at different localities.

Note: SWD=Sabah Wildlife Department; MFT=Maliau Faunal Team; JICA=Japanese International Cooperation Association

Table 1: Checklist and statistic of mammals recorded at the locality of Belian Camp in Maliau Basin Conservation Area

No Maliau Basin 1

Locality Maliau Basin, Blian Camp
 Date & term 14/August-22/August, 2000 (8 nights 9 days)
 Researcher Shigeki YASUMA, Leo, Marayu

Results	No	Scientific name	English name	Sex	Age	Number	Subtotal	Total
Capture	1	<i>Tupaia glis</i>	Common Treeshrew	♂	Adult	1		
				♀	Adult	1	2	
	2	<i>Cynopterus brachyotis</i>	Short-nosed Fruit Bat	♀	Adult	4		
				♀	Subadult	1	5	
	3	<i>Balionycteris maculata</i>	Spotted-winged Fruit Bat	♀	Adult	1	1	
	4	<i>Macroglossus minimus</i>	Long-tongued Nectar Bat	♂	Adult	1	1	
	5	<i>Kerivoula intermedia</i>	Small Woolly Bat	♀	Adult	1	1	
	6	<i>Sundasciurus lowii</i>	Low's Squirrel	♀	Adult	1	1	
	7	<i>Rattus tiomanicus</i>	Malaysian Field Rat	♀	Subadult	1	1	
	8	<i>Sundamys muelleri</i>	Muller's Rat	♀	Subadult	1	1	
9	<i>Niviventer cremoriventer</i>	Dark-tailed Tree Rat	♂	Subadult	1	1		
10	<i>Paradoxurus hermaphroditus</i>	Common Palm Civet	?	Adult	1	1	15	

Took photographs	1	<i>Hystrix brachyura</i>	Common Porcupine
	2	<i>Viverra zangalunga</i>	Malay Civet
	3	<i>Paradoxurus hermaphroditus</i>	Common Palm Civet
	4	<i>Prionailurus planiceps</i>	Flat-headed Cat
	5	<i>Prionailurus bengalensis</i>	Leopard Cat
	6	<i>Tragulus napu</i>	Greater Mouse-deer
	7	<i>Cervus unicolor</i>	Sambar Deer
	8	<i>Bos javanicus</i>	Tembadau

Encounter	1	<i>Presbytis hosei</i>	Hose's Langur
	2	<i>Macaca nemestrina</i>	Pig-tailed Macaque
	3	<i>Hylobates muelleri</i>	Bornean Gibbon
	4	<i>Callosciurus prevostii</i>	Prevost's Squirrel
	5	<i>Hystrix brachyura</i>	Common Porcupine

6	<i>Viverra zangalunga</i>	Malay Civet
7	<i>Paradoxurus hermaphroditus</i>	Common Palm Civet
8	<i>Prionailurus bengalensis</i>	Leopard Cat
9	<i>Sus barbatus</i>	Bearded Pig
10	<i>Tragulus javanicus</i>	Lesser Mouse-deer
11	<i>Muntiacus muntjak</i>	Red Muntjac
12	<i>Cervus unicolor</i>	Sambar Deer

Other signs

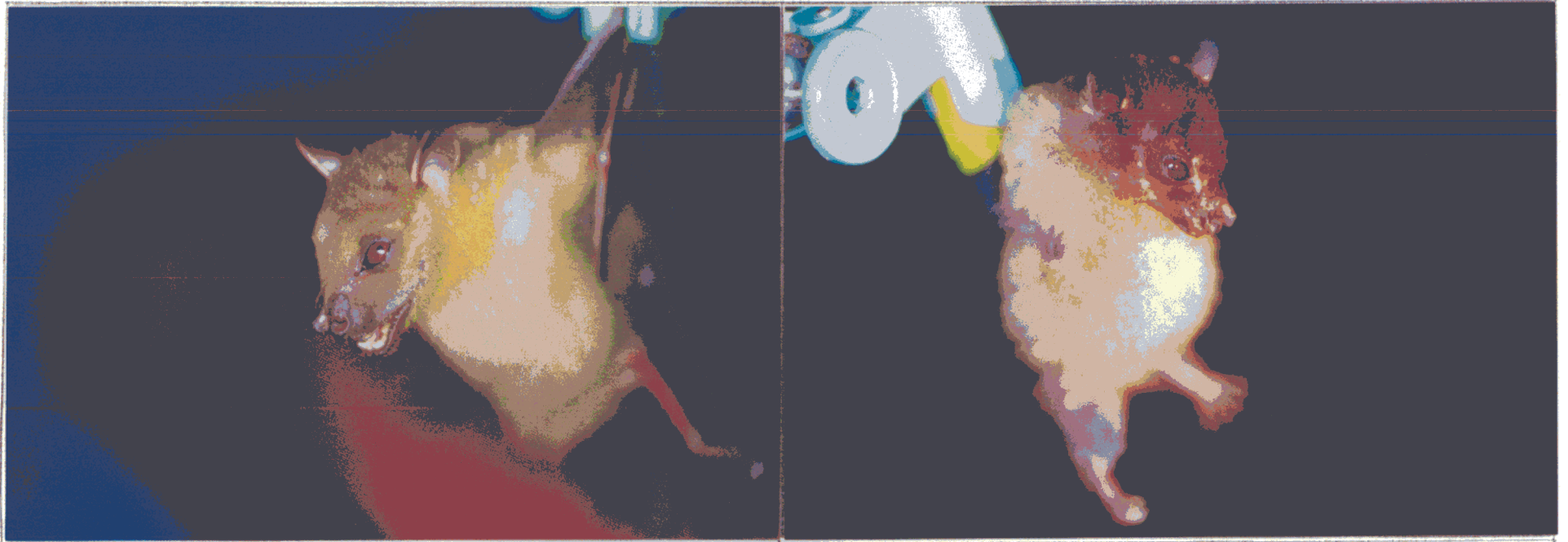
Footprints

1	<i>Sus barbatus</i>	Bearded Pig
2	<i>Tragulus sp.</i>	Mouse-deer
3	<i>Muntiacus sp.</i>	Muntjac
4	<i>Cervus unicolor</i>	Sambar Deer
5	<i>Bos javanicus</i>	Tembadau

Dropping

1	<i>Elephas maximus</i>	Asian Elephant
2	<i>Sus barbatus</i>	Bearded Pig
3	<i>Cervus unicolor</i>	Sambar Deer
4	<i>Bos javanicus</i>	Tembadau

Date	Locality	Scientific name	Sex	Age	HB(mm)	FA(mm)	T(mm)	T/HB (%)	HF(mm)	E(mm)	Tra(mm)	W(g)	Note
00-08-17	Maliau Basin (Blian camp)	<i>Tupaia glis</i>	♂	Adult	211.0		180.0	85.3%	47.0	15.0			182.0 Release(Ear-R0793)
00-08-20	Maliau Basin (Blian camp)	<i>Tupaia glis</i>	♀	Adult	206.0		192.0	93.2%	46.0	15.0			197.0 Release(Ear-L0799)
00-08-15	Maliau Basin (Blian camp)	<i>Cynopterus brachyotis</i>	♀	Adult		56.8	11.3		11.1	15.0			25.5 Release, + Embryo
00-08-20	Maliau Basin (Blian camp)	<i>Cynopterus brachyotis</i>	♀	Subadult		61.0	10.3		10.5	14.4			20.5 Release
00-08-22	Maliau Basin (Blian camp)	<i>Cynopterus brachyotis</i>	♀	Adult									Release
00-08-22	Maliau Basin (Blian camp)	<i>Cynopterus brachyotis</i>	♀	Adult									Release
00-08-22	Maliau Basin (Blian camp)	<i>Cynopterus brachyotis</i>	♀	Adult									Release
00-08-19	Maliau Basin (Blian camp)	<i>Balionycteris maculata</i>	♀	Adult		42.9	0.0		6.6	10.7			16.5 Release
00-08-21	Maliau Basin (Blian camp)	<i>Macroglossus minimus</i>	♂	Adult		40.0	0.0		8.5	12.9			14.5 Release
00-08-15	Maliau Basin (Blian camp)	<i>Kerivoula intermedia</i>	♀	Adult		30.5	42.0		5.8	11.0	9.6		2.8 Specimen 01
00-08-19	Maliau Basin (Blian camp)	<i>Sundasciurus lowii</i>	♀	Adult	140.0		55.0	39.3%	32.0	13.0			96.0 Release, L0800
00-08-19	Maliau Basin (Blian camp)	<i>Rattus tiomanicus</i>	♀	Subadult	166.0		215.0	129.5%	36.0	19.0			121.0 Release(Ear-L0794)
00-08-19	Maliau Basin (Blian camp)	<i>Sundamys muelleri</i>	♀	Subadult	192.0		240.0	125.0%	38.0	21.0			189.0 Release, L0795, M 240.2-R
00-08-19	Maliau Basin (Blian camp)	<i>Niviventer cremoriventer</i>		Subadult	154.0		178.0	115.6%	24.0	18.0			87.0 Release
00-08-21	Maliau Basin (Blian camp)	<i>Paradoxurus hermaphroditus</i>	?	Adult				0.0%					Release



Order CHIROPTERA
Family PTEROPODIDAE

Short-nosed Fruit Bat
Cynopterus brachyotis
M 04010301-

Order CHIROPTERA
Family PTEROPODIDAE

Spotted-winged Fruit Bat
Balionycteris maculata
M 04010801-

Plate 1 - 26: Mammals and birds of Maliau



Order CHIROPTERA
Family PTEROPODIDAE

Long-tongued Nectar Bat
Macroglossus minimus
M 04011101-



Order CHIROPTERA
Family VESPERTILIONIDAE

Small Woolly Bat
Kerivoula intermedia
M 04071004-



Order SCANDENTIA
Family TUPAIIDAE

Common Treeshrew
Tupaia glis
M 02010201-



Order RODENTIA
Family SCIURIDAE

Low's Squirrel
Sundasciurus lowii
M 07010302-



Order RODENTIA
Family MURIDAE

Malaysian Field Rat
Rattus tiomanicus
M 07020102-



Order RODENTIA
Family MURIDAE

Muller's Rat
Sundamys muelleri
M 07020201-



Order RODENTIA
Family MURIDAE

Dark-tailed Tree Rat
Niviventer cremoriventer
M 07020301-



Order RODENTIA
Family HYSTRICIDAE

Common Porcupine
Hystrix brachyura
M 07030201-



Order CARNIVORA
Family VIVERRIDAE

Malay Civet or Tangalung
Viverra zibellina
M 08040101-



Order CARNIVORA
Family VIVERRIDAE

Common Palm Civet
Paradoxurus hermaphroditus
M 08040301-



Order CARNIVORA
Family FELIDAE

Flat-headed Cat
Prionailurus planiceps
M 08050401-



Order CARNIVORA
Family FELIDAE

Leopard Cat
Prionailiris bengalensis
M 08050402-



Order ARTIODACTYLA
Family TRAGULIDAE

Greater Mouse-deer
Tragulus napu
M 11020102-



Order ARTIODACTYLA
Family CERVIDAE

Sambar Deer, Rusa or Payau
Cervus unicolor
M 11030201-



Order ARTIODACTYLA
Family CERVIDAE

Sambar Deer, Rusa or Payau
Cervus unicolor
M 11030201-



Order ARTIODACTYLA
Family BOVIDAE

Tembadau or Banteng
Bos javanicus
M 11040101-



Crimson-brested Flowerpecker
Prionochilus percussus



Hairy-backed Bulbul
Tricholester criniger



White-browed Shama
Copsychus stricklandi



Rufous-crowned Babbler
Malacopteron magnum



Crested Serpent Eagle
Spilornis cheela 5 ✓



Oriental Darter
Anhinga melanogaster



Crested Fireback
Lophura ignita



Black-backed Kingfisher
Ceyx erithacus

Table 2: Checklist, statistic and status of birds recorded in Maliau Basin Conservation Area

Maliau Basin 1
 Locality Maliau Basin
 Date & term 16 - 19 August, 2000 (8 nights 9 days)
 Researcher Marayu PALANUS, Philipvon, Leo SIAWA, Daimil PADIKO
 Coordinates N 4° 44' 43" E 116° 58' 52"
 N 4° 44' 43" E 116° 58' 32"
 N 4° 43' 35" E 116° 58' 55"

Results

Group	No	Scientific Name	English Name	Number Recorded	WCE 1997	IUCN
Hawks & Eagles	1	<i>Accipiter trivirgatus</i>	Crested Goshawk	1	x	
	2	<i>Ictinaetus malayensis</i>	Black Eagle	2	x	
	3	<i>Spilornis cheela</i>	Crested Serpent Eagle	4	x	
Pheasant	4	<i>Argusianus argus</i>	Great Argus	6	x	
	5	<i>Lophura ignita</i>	Crested Fireback	1	x	NT
Pigeon & Dove	6	<i>Treron capellei</i>	Large Green Pigeon	2	x	NT
	7	<i>Chalcophaps indica</i>	Emerald Dove	1	x	
Parrot	8	<i>Loriculus galgulus</i>	Blue-crowned Hanging Parrot	1	x	
Coucals & Malkohas	9	<i>Surniculus lugubris</i>	Drongo Cuckoo	1		
	10	<i>Phaenicophaeus sumatranus</i>	Chestnut-bellied Malkoha	3		
	11	<i>Phaenicophaeus chlorophaea</i>	Reflles Malkoha	15		
Swift & Treeswifts	12	<i>Centropus sinensis</i>	Greater Coucal	1		
	13	<i>Collocalia esculenta</i>	Glossy Swiftlet	1		
	14	<i>Hemiprocne comata</i>	Whiskered Treeswift	8		
Kingfisher	15	<i>Rhaphidura leucopygialis</i>	Silver-rumped Swift	50		
	16	<i>Hirundapus giganteus</i>	Brown-backed Needletail	8		
	17	<i>Alcedo meninting</i>	Blue-eared Kingfisher	1		
Bee-Eater	18	<i>Ceyx erithacus</i>	Black-backed Kingfisher	1		
Hornbills	19	<i>Eurystomus orientalis</i>	Dollarbird	1		
	20	<i>Anorrhinus galeritus</i>	Bushy-crested Hornbill	15	x	
	21	<i>Rhyticeros undulatus</i>	Wreathed Hornbill	5	x	
	22	<i>Anthracoceros malayanus</i>	Black Hornbill	1	x	
	23	<i>Anthracoceros coronatus</i>	Pied Hornbill	10	x	
	24	<i>Buceros rhinoceros</i>	Rhinoceros Hornbill	10	x	
	25	<i>Rhinoplax vigil</i>	Helmeted Hornbill	34	x	NT
Barbets	26	<i>Aceros corrugatus</i>	Wrinkled Hornbill	2	x	
	27	<i>Megalaima pulcherrima</i>	Golden-naped Barbet	17		
	28	<i>Calorhamphus fuliginosus</i>	Brown Barbet	1		
	29	<i>Megalaima chrysopogon</i>	Gold-whiskered Barbet	4		
	30	<i>Megalaima rafflesii</i>	Red-crowned Barbet	2		
	31	<i>Megalaima mystacophanos</i>	Red-throated Barbet	1		
	32	<i>Megalaima henricii</i>	Yellow-crowned Barbet	5		
	33	<i>Megalaima australis</i>	Blue-eared Barbet	44		
Woodpecker	34	<i>Mulleripicus pulverulentus</i>	Great Slaty Woodpecker	6		
Broadbills	35	<i>Calyptomena viridis</i>	Green Broadbill	1		
	36	<i>Eurylaimus ochromalus</i>	Black-and-Yellow Broadbill	9		
	37	<i>Eurylaimus javanicus</i>	Banded Broadbill	2		
Shrike	38	<i>Hemipus picatus</i>	Bar-winged Flycatcher-Shrike	2		
Leafbirds	39	<i>Chloropsis cyanopogon</i>	Lesser Green Leafbird	5		
	40	<i>Chloropsis somnerati</i>	Greater Green Leafbird	3		
Orioles & Bluebird	41	<i>Irena puella</i>	Asian Fairy Bluebird	3		
	42	<i>Oriolus xanthonotus</i>	Dark-throated Oriole	1		
	43	<i>Oriolus xanthonotus</i>	Dark-throated Oriole	1		
Bulbuls	44	<i>Pycnonotus eutilotus</i>	Puff-backed Bulbul	1		
	45	<i>Pycnonotus atriceps</i>	Black-headed Bulbul	13		
	46	<i>Pycnonotus squamatus</i>	Scaly-breasted Bulbul	1		
	47	<i>Pycnonotus goiavier</i>	Yellow-vented Bulbul	5		
	48	<i>Pycnonotus brunneus</i>	Red-eyed Bulbul	25		
	49	<i>Pycnonotus simplex</i>	Cream-vented Bulbul	1		
	50	<i>Pycnonotus erythroptalmos</i>	Spectacled Bulbul	1		
	51	<i>Criniger bres</i>	Grey-checked Bulbul	1		
	52	<i>Criniger phaeocephalus</i>	Yellow-bellied Bulbul	1		
	53	<i>Hypsipetes criniger</i>	Hairy-backed Bulbul	2		
Drongo	54	<i>Pycnonotus melanicterus</i>	Black-crested Bulbul	4		
	55	<i>Pycnonotus melanoleucos</i>	Black-and-White Bulbul	1		
	56	<i>Dicrurus annectans</i>	Crow-billed Drongo	2		
Shamas	57	<i>Platysmurus leucopterus</i>	Black Magpie	1	x	NT

	58 <i>Copsychus pyrrropygus</i>	Rufous-tailed Shama	11		
	59 <i>Copsychus malabaricus</i>	White-rumped Shama	1		
	60 <i>Copsychus stricklandi</i>	White-browed Shama	2		
Babblers	61 <i>Trichastoma rostratum</i>	White-chested Babbler	2	x	NT
	62 <i>Malacopteron affine</i>	Sooty-capped Babbler	2		
	63 <i>M. magnum</i>	Rufous-crowned Babbler	1		
	64 <i>Napothera atrigularis</i>	Black-throated Wren-Babbler	4		
	65 <i>Macronous gularis</i>	Striped Tit-Babbler	2		
	66 <i>Macronous ptilosus</i>	Fluffy-backed Tit-Babbler	21		
	67 <i>Yuhina everetti</i>	Chestnut-crested Yuhina	50		End.
Prinia & Tailorbirds	68 <i>Prinia</i> sp.	Yellow-bellied Prinia	6		
	69 <i>Orthotomus sericeus</i>	Rufous-tailed Tailorbird	5		
	70 <i>Orthotomus ruficeps</i>	Ashy Tailorbird	27		
Faintails, Flycatcher & Monarch	71 <i>Rhipidura javanica</i>	Pied Fantail	4		
	72 <i>R. perlata</i>	Spotted Fantail	2		
	73 <i>Terpsiphone paradisi</i>	Asian Paradise-Flycatcher	2	x	
	74 <i>Hypothymis azurea</i>	Black-naped Monarch	2		
Flowerpecker	75 <i>Prionochilus xanthopygius</i>	Yellow-rumped Flowerpecker	2		End.
	76 <i>P. percussus</i>	Crimson-brested Flowerpecker	1		
Sunbirds	77 <i>Anthreptes simplex</i>	Plain Sunbird	2		
	78 <i>Anthreptes rhodolaema</i>	Red-throated Sunbird	1		
	79 <i>Hypogramma hypogrammicum</i>	Purple-naped Sunbird	1		
Spiderhunter	80 <i>Arachnothera longirostra</i>	Little Spiderhunter	4		
Munias	81 <i>Lonchura malacca</i>	Black-headed Munia	5		
	82 <i>L. fuscans</i>	Dusky Munia	14		
	83 <i>Lonchura leucogastra</i>	White-bellied Munia	1		
Pitta	84 <i>Pitta</i> sp.	Pitta	2	x	
Myna	85 <i>Gracula religiosa</i>	Hill Myna	3	x	
Darter	86 <i>Anhinga melanogaster</i>	Oriental Darter	1	x	NT

WCE1997=Wildlife Conservation Enactment 1997

IUCN=International Union for Conservation of Nature; NT=Near Threatened, End.=Endemic to Borneo

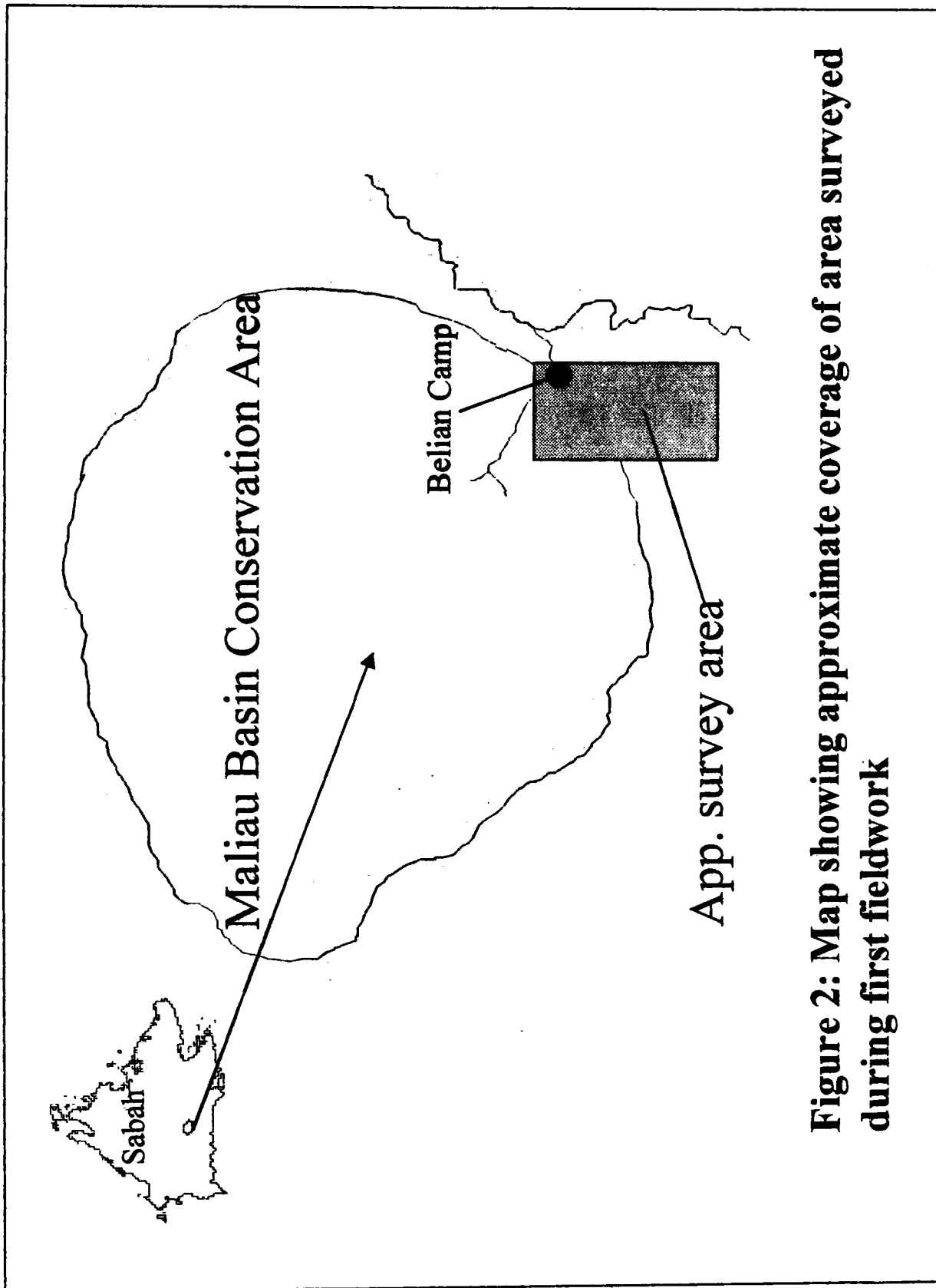


Figure 2: Map showing approximate coverage of area surveyed during first fieldwork



Figure 1: Map showing the MBCA