

**SOME OBSERVATIONS FROM PT LIMBANG GANECA
FOREST CONCESSION, EAST KALIMANTAN**

by
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Summary

During July and August 1998 bird surveys were carried out in a forest concession near Belayan river at Limbang Ganeca, East Kalimantan. 166 species were found along five transects at 500 m, several logging roads and Sungai Ritan. The species list includes several threatened and rare species, such as Wallace's Hawk eagle *Spizaetus nanus*, Bornean Bristle head *Pityriasis gymnocephala*, Malaysian Honeyguide *Indicator archipelagus*, Bornean Wren babbler *Ptilocichla leucogrammica* and Grey breasted Babbler *Malacopteron albogulare*.

Introduction

The objective of my study in Limbang Ganeca was to test field methods for assessing biodiversity criteria and indicators regarding the certification process of forest concessions. Since the results concerning the certification debate are described elsewhere (Gönner 1998), I want to focus here on some bird species of regional relevance. A far from complete checklist is added in Appendix 1.

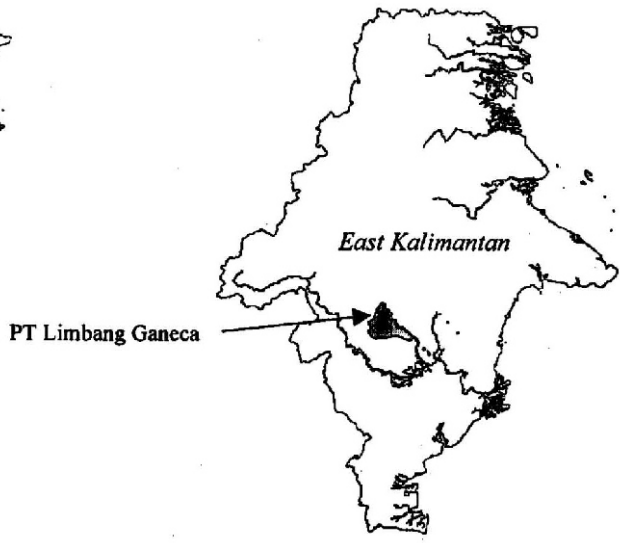
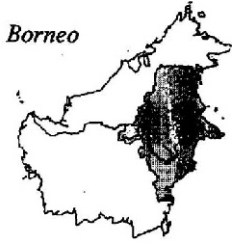
Study Area

The concession of PT Limbang Ganeca (see map) has an area of 123,200 ha. About 35,000 ha were severely damaged by the 1997/1998 fires. The production forest is managed under the Indonesian selective cutting and planting system TPTI. The cutting cycle is 35 years, the planned rotation period 70 years.

In the virgin forest about 8 to 15 logs per hectare (DBH > 50 cm) are extracted, usually causing severe damage to the remaining stock and soil, but leaving the logged over forest with a structure still rather close to a natural forest (compared with most other land-use systems such as timber estates, oil palm plantations or even, agroforests). Forest utilization commenced at PT Limbang Ganeca in 1969. The ~ virgin forest covers 17,000 ha, of which 5.0 M ha were fire affected.

Methods

Species richness was assessed along five transects at 500 m (between 0°10.719' 0°18.718' N and 135°55.012' 116°3.597' E) as a trial for testing field methods with regard to forest certification problems (for a detailed discussion see Gönner 1998). The transects were visited in a standardized way during morning and afternoon hours with 8-16 replicates each. Occasional observations from trails to and from the transects, logging roads and a visit to Sungai Ritan are also included. A total of 36 days was spent camping in five different parts of the concession.



Additional interviews about pheasants and partridges were conducted in three Dayak villages representing three different ethnic groups (Kenyan, Kayan and Tunjung or Tonyoi) around Limbang Ganeca. Species were included in the checklist if they were reported reliably from all three villages (the local hunters use all accessible areas within the concession).

The checklist in Appendix 1 lists the occurrence of 166 species for virgin and logged over forests in Limbang Ganeca.

Results

During eight weeks of field studies 166 bird species were found along five transects (approximately 25 ha), various logging roads and Sungai Ritan (visited only one day)¹. Since the concession covers an area of more than 120,000 ha, it is most likely that almost all of East Kalimantan's 230 lowland species (MacKinnon & Phillipps 1993) occur in Limbang Ganeca. All of Kalimantan's seven lowland hombill species were found.

Some threatened or near threatened species (Collar *et al.* 1994), and rare or unusual species are discussed briefly. Nomenclature follows Andrew (1992).

Bat Hawk *Machaeramphus alcinus*. A single bird hunted bats along a logging road in the dusk (24 July). The bat hawk flew extremely fast almost in peregrine style only a few feet above the logging road, where it passed us several times only a few meters away.

[Rufous bellied Eagle *Hieraetus kienerii*. A juvenile bird of probably this species was seen several times at Sungai Sentakan: brown upperparts with bright edges of wing coverts, scaly neck, inconspicuous crest, brown face mask, white chin, throat and underparts, toes bluish grey.]

Wallace's Hawk eagle *Spizetus nanus*. Due to the difficulty of separating this threatened species from the mimicing Jerdon's Baza *Aviceda jerdoni*, which also occurs in the area, there is only one reliable record. A single bird hunted a squirrel in a remote unlogged forest on 9 July.

Bulwer's Pheasant *Lophura bulweri*. This threatened species was reported by several hunters (in all three villages) from a hilly part of Limbang Ganeca that was inaccessible during this study.

Wrinkled Hombill *Aceros corrugatus*. This threatened species is uncommon, when compared to dipterocarp forests around Lake Jempang (*cf.* dormer 2000).

Helmeted Hombill *Buceros vigil*. This near threatened species was only locally heard, in logged over forest.

Malaysian Honeyguide *Indicator archipelagicus*. (Near threatened). A bird was heard calling on several days (11 until 17 July), always in the same tree on a ridge top within remote virgin forest. The bird sat motionless about 7 m above the ground and called continuously: "meow krrrrrrr"(the second

¹ It must be remembered that it was not the objective of this study to assess all the bird species in the concession. Such a task would have required a different methodology and much more time.

syllable lasting about 2 seconds). Due to my schedule I usually passed the place between 10 and 10.30 a.m. On 11 July it was still singing at 14.45.

Grey breasted Babbler *Malacopteron albogulare*. (Near threatened). This species, which has so far not been described from East Kalimantan (MacKinnon & Phillipps 1993), was found at three different localities. Two birds were seen in a swampy part of a virgin forest (sandy soil, rather low canopies) on 15 and 16 July. A single bird was seen in a very similar habitat in an unlogged part of an otherwise logged over forest about 20 km away from the first site (26 Aug). And a third bird was observed in a dry creek (again sandy soil) adjacent to heavily degraded logged over forest (9 and 13 km away from the other two sites; 28 August).

All birds were seen at close range between the ground and 3 m above ground. The mode of movement and also the general habitat resembled more a *Stachyris* than a *Malacopteron* babbler, especially when they climbed through the vegetation. Markings: brown upperparts, buffy flanks and vent, grey breast, white throat, long white supercilium, red eyes, dark grey crown and ear coverts. Call: "trrr".

Bornean Wren babbler *Ptilocichla leucogrammica*. (Near threatened). A single Bornean Wrenbabbler was seen in the same dry creek as one of the Grey breasted Babblers. The bird searched for food on dead logs and on the ground. Markings: brown upperparts, white supercilium, dark eye line, whitish throat, dark breast and underparts with strong white streaks, legs dark grey, not pink as depicted in MacKinnon & Phillipps (1993). Call: an undiagnostic "pr, prr" (unaesthetic, as if the bird had serious digestion problems).

Rufous fronted Babbler *Stachyris ruffifrons*. A singing bird was seen twice in logged over forest (slightly damaged) on 26 Jul and 4 Aug at short range after I imitated the call. According to MacKinnon & Phillipps (1993) it is a rare but widely distributed sub montane species (cf. also Holmes & Burton 1987). Call: Similar to *S. erythroptera* but softer and more melancholy " _ _ _ _ _".

Bornean Bristlehead *Pityriasis gymnocephala*. (Near threatened). A pair was seen on 24 July in the lower canopy of a tree in logged over forest (15 years after logging). A group of 4 birds was regularly seen in trees around our forest camp and in trees along the already mentioned dry creek basin. Calls were extremely variable consisting of croaking, hooting (sometimes like a fire engine) and mynah like sounds. With the exception of the first observation, the Bristleheads were moving through the upper canopy (up to 50 m).

Sunda Blue Flycatcher *Cyornis caeruleus*. A singing bird was seen twice in a slightly damaged logged over forest (26/27 July). The upperparts were blue, without a shining forehead; the chin was faded orange as well as the vent; the breast was orange (although not very bright). Song: Typical flycatcher song with two, sometimes three strophes. The first part consists of 3-4 notes descending and one ascending, the second, shorter part is made up of three notes with the middle note higher. The song slightly resembles Grey chested Rhinomyias *Rhinomyias umbratilis*, but without the initial "ziiit".

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Appendix: Bird Species In Limbang Ganeca

This appendix lists all species recorded in the area. A tick (,) indicates species recorded on census walks. * indicates species observed on the triulsects but not during the census walks. Species without such annotation were recorded outside the trinsects.

Traverse:		T1	T2	T3	T4	T5
Jerdon's Baza	<i>Aviceda jerdoni</i>					
Bat Hawk	<i>Machaeramphus alcinus</i>					
Brahminy Kite	<i>Haliastur indus</i>					
Grey headed Fish eagle	<i>Ichthyophaga ichthyaetus</i>					
Crested Serpent eagle	<i>Spilornis cheela</i>		v		v	
Rufous bellied Eagle	<i>Hieraaetus kienerii</i>					
Changeable Hawk eagle	<i>Spizaetus cirrhatus</i>					
Wallace's Hawk eagle	<i>Spizaetus nanus</i>	v				
Black tighed Falconet	<i>Microhierax fringillarius</i>					v
Long billed Partridge	<i>Rhizothera longirostris</i>					
Blue breasted Quail	<i>Coturnix chinensis</i>					
Crested Partridge	<i>Rollolus rouloul</i>					
Great Argus	<i>Argusianus argus</i>					
Crested Fireback	<i>Lophura ignita</i>					
Bulwer's Pheasant	<i>Lophura bulweri</i>					
Common Sandpiper	<i>Actitis hypoleucos</i>					
Pink necked Green Pigeon	<i>Treron vernans</i>					
Little Green Pigeon	<i>Treron olax</i>			v		
Green Imperial Pigeon	<i>Ducula aenea</i>				v	v
Spotted Dove	<i>Streptopelia chinensis</i>					
Emerald Dove	<i>Chalcophaps indica</i>					
Long tailed Parakeet	<i>Psittacula longicauda</i>	*				*
Blue rumped Parrot	<i>Psittinus cyanurus</i>	v				
Blue crowned Hanging parrot	<i>Loriculus galgulus</i>	v	v	v	v	v
Moustached Hawk cuckoo	<i>Cuculus vagans</i>		v	v		
Indian Cuckoo	<i>Cuculus micropterus</i>	v	v	v	v	v
Banded Bay Cuckoo	<i>Cacomantis sonneratii</i>	v	v	v	v	v
Plaintive Cuckoo	<i>Cacomantis merulinus</i>		v			
Violet Cuckoo	<i>Chrysococcyx xanphorhynchus</i>	v	v	v	v	v
Drongo Cuckoo	<i>Surniculus lugubris</i>		v			
Chestnut bellied Malkoha	<i>Phaenicophaeus sumatranus</i>					v
Raffles's Malkoha	<i>Phaenicophaeus chlorophaeus</i>	v		v	v	v

Traverse:		T1	T2	T3	T4	T5
Red billed Malkoha	<i>Phaenicophaeus javanicus</i>					v
Chestnut breasted Malkoha	<i>Phaenicophaeus curvirostris</i>	*	v	v	v	v
Greater Coucal	<i>Centropus sinensis</i>				v	
Lesser Coucal	<i>Centropus bengalensis</i>					
Reddish Scops owl	<i>Otus rufescens</i>				*	
Buffy Fish Owl	<i>Ketupa ketupu</i>				*	
Brown Hawk owl	<i>Ninox scutulata</i>					
Brown Wood owl	<i>Strix leptogrammica</i>				*	
Gould's Frogmouth	<i>Batrachostomus sfellatus</i>				*	
Javan Frogmouth	<i>Batrachostomus javensis</i>				*	
Malaysian Eared Nightjar	<i>Eurostopodus temniickii</i>				*	
Black nest/Edible nest Swiftlet	<i>Collocalia maxima/fuciphaga</i>					
Glossy swiftlet	<i>Collocalia esculenta</i>					
Silver rumped Swift	<i>Rhaphidura leucopygialis</i>					
Whiskered Treeswift	<i>Hemiprocne comata</i>					
Grey rumped Treeswift	<i>Hemiprocne longipennis</i>					
Diard's Trogon	<i>Harpactes diardii</i>	*	v		v	v
Red naped Trogon	<i>Harpactes kasumba</i>	v	v	v	v	
Scarlet rumped Trogon	<i>Harpactes duvaucelii</i>	v	v	v	v	v
Stork billed Kingfisher	<i>Pelargopsis capensis</i>					
Banded Kingfisher	<i>Lacedo pulchella</i>	v		v	v	v
Blue eared Kingfisher	<i>Alcedo meninting</i>					
Pigmy Kingfisher	<i>Ceyx spec.</i>	v	v	v		
Blue throated Bee eater	<i>Merops viridis</i>					v
Bushy crested Hornbill	<i>Anorrhinus galeritus</i>			*	*	
Wrinkled Hornbill	<i>Aceros corrugatus</i>					
Oriental Pied Hornbill	<i>Anthracoceros albirostris</i>					
Asian Black Hornbill	<i>Anthracoceros malayanus</i>	v	*			v
Rhinoceros Hornbill	<i>Buceros rhinoceros</i>		*			
Helmeted Hornbill	<i>Buceros vigil</i>					
Brown Barbet	<i>Calorhamphus fuliginosus</i>	v	v	v	v	v
Gold whiskered Barbet	<i>Megalaima chrysopogon</i>					
Blue eared Barbet	<i>Megalaima ausfralis</i>	*	v			
Malaysian Honeyguide	<i>Indicator archipelagicus</i>					
Rufous Pickulet	<i>Sasia abnormis</i>	v	v	v		
Crimson winged Woodpecker	<i>Picus puniceus</i>	v		v	v	v
Checker throated Woodpecker	<i>Picus miniaceus</i>		v	v	v	
Banded Woodpecker	<i>Picus mentalis</i>					

Traverse:		T1	T2	T3	T4	T5
Rufous Woodpecker	<i>Celeus brachyurus</i>				*	
Grey capped Woodpecker	<i>Dendrocopus canicapillus</i>	*		v	v	v
Buff rumped Woodpecker	<i>Meiglyptes tristis</i>					
Buff necked Woodpecker	<i>Meiglyptes tukki</i>	v				
Grey and buff Woodpecker	<i>Hemicircus concretus</i>					v
White bellied Woodpecker	<i>Dryocopus javanensis</i>	v		v	v	v
Great Slaty Woodpecker	<i>Mulleripicus pulverulentus</i>	v			*	v
Maroon Woodpecker	<i>Blythipicus rubiginosus</i>		*	*		
Orange backed Woodpecker	<i>Reinwardtipicus validus</i>	v			*	v
Green Broadbill	<i>Calyptomena viridis</i>			v	v	v
Black and red Broadbill	<i>Cymbirhynchus macrorhynchus</i>					
Black and yellow Broadbill	<i>Eurylaimus ochromalus</i>	v	v	v	v	v
Banded Broadbill	<i>Eurylaimus javanicus</i>		v	v	v	v
Dusky Broadbill	<i>Corydon sumatranus</i>	v	v			
Garnet Pitta	<i>Pitta granatina</i>			v	v	
Pacific Swallow	<i>Hirundo tahitica</i>					
Barn Swallow	<i>Hirundo rustica</i>					
Black winged Flycatcher shrike	<i>Hemipus hirundinaceus</i>	v	v	v		v
Lesser Cuckoo shrike	<i>Coracina fimbriata</i>				v	v
Bar bellied Cuckoo shrike	<i>Coracina striata</i>					
Scarlet Minivet	<i>Pericrocotus flammeus</i>	v	v	v		v
Green lora	<i>Aegithina viridissima</i>	v	v	v	v	
Lesser Green Leafbird	<i>Chloropsis cyanopogon</i>	v				
Greater Green Leafbird	<i>Chloropsis sonnerati</i>		v	v	v	v
Blue winged Leafbird	<i>Chloropsis cochinchinensis</i>				v	v
Asian Fairy Bluebird	<i>Irena puella</i>	v	v	v	v	v
Black headed Bulbul	<i>Pycnonotus atriceps</i>	v				
Grey bellied Bulbul	<i>Pycnonotus cyaniventris</i>		*		*	
Yellow vented Bulbul	<i>Pycnonotus goiavier</i>					
Olive winged Bulbul	<i>Pycnonotus plumosus</i>		v	v	v	v
Cream vented Bulbul	<i>Pycnonotus simplex</i>	*	v	v	v	v
Puff backed Bulbul	<i>Pycnonotus eutilotus</i>	*				
Red eyed Bulbul	<i>Pycnonotus brunneus</i>	v	v	v	v	v
Finsch's Bulbul	<i>Criniger finschii</i>		v	v		
Grey cheeked Bulbul	<i>Crinige bres</i>			v		
Yellow bellied Bulbul	<i>Criniger phaeocephalus</i>	v			*	
Streaked Bulbul	<i>Criniger malaccensis</i>				v	v
Hairy backed Bulbul	<i>Hypsipetes Criniger</i>	*	*		v	v

Traverse:		T1	T2	T3	T4	T5
Greater Racket tailed Drongo	<i>Dicrurus paradiseus</i>		v	v	v	v
Dark throated Oriole	<i>Oriolus xanthonotus</i>		v	v	v	
Black Magpie	<i>Platysmurus leucopterus</i>	v	v	v		v
Slender billed Crow	<i>Conus enca</i>	v	v			v
Velvet fronted Nuthatch	<i>Sitta frontalis</i>	v		v	v	
Black capped Babbler	<i>Pellorneum capistratum</i>	*	*			
White chested Babbler	<i>Trichastoma rostratum</i>			v	v	v
Ferruginous Babbler	<i>Trichastoma bicolor</i>	v	v			
Short tailed Babbler	<i>Trichastoma malaccense</i>	v		v	v	v
Grey breasted Babbler	<i>Malacopteron albogulare</i>			v		v
Rufous crowned Babbler	<i>Malacopteron magnum</i>	v	v	v	v	v
Scaly crowned Babbler	<i>Malacopteron cinereum</i>	v		v	v	
Moustached Babbler	<i>Malacopteron magnirostre</i>	v		v	v	v
Sooty capped Babbler	<i>Malacopteron affine</i>			v	v	v
Chestnut backed Scimitar babbler	<i>Pomatorhinus montanus</i>	v				
Bornean Wren babbler	<i>Ptilocichia leucogrammica</i>					v
Striped Wren babbler	<i>Kenopia striata</i>	v			*	
Fluffy backed Tit babbler	<i>Macronous ptilosus</i>		v			v
Striped Tit babbler	<i>Macronous gularis</i>					v
Rufous fronted Babbler	<i>Stachyris rufifrons</i>		v			
Black throated Babbler	<i>Stachyris nigricollis</i>		v	v		
Chestnut rumped Babbler	<i>Stachyris maculata</i>	*	v	v	v	v
Chestnut winged Babbler	<i>Stachyris erythroptera</i>	v	v	v		v
Brown Fulvetta	<i>Alcippe brunneicauda</i>	v	v	v	v	v
Magpie Robin	<i>Copsychus saularis</i>					
White rumped Shama	<i>Copsychus malabaricus</i>	v	v		v	
Rufous tailed Shama	<i>Trichixos pyrrhopygus</i>	*	v	v	v	v
White crowned Forktail	<i>Enicurus leschenaulti</i>	v				
Chestnut naped Forktail	<i>Enicurus rulicapillus</i>		v			
Golden bellied Gerygone	<i>Gerygone sulphurea</i>		v			
Rufous tailed Tailorbird	<i>Orthotomus sericeus</i>				*	
Ashy Tailorbird	<i>Orthotomus ruficeps</i>					v
Dark necked Tailorbird	<i>Orthotomus atrogularis</i>	v	v	v	v	v
Spotted Fantail	<i>Rhipidura perlata</i>	v	v	v	v	v
Pied Fantail	<i>Rhipidura javanica</i>					
Sunda Blue Flycatcher	<i>Cyornis caerulatus</i>		v		v	
Malaysian Blue Flycatcher	<i>Cyornis turcosus</i>					
Grey headed Flycatcher	<i>Culicicapa ceylonensis</i>					
Grey chested Rhinomyias	<i>Rhinomyias umbratilis</i>	v	v	v	v	v

Traverse:		T1	T2	T3	T4	T5
Maroon breasted Philentoma	<i>Philentoma refarum</i>				✓	
Rufous winged Philentoma	<i>Philentoma pyrhopterum</i>	✓		✓	✓	
Black naped Monarch	<i>Hypothymis azurea</i>	✓	✓	✓	✓	✓
Asian Paradise flycatcher	<i>Terpsiphone paradisi</i>	✓	✓	✓	✓	
Bornean Bristlehead	<i>Pityriasis gymnocephala</i>		✓		✓	✓
Hill Myna	<i>Gracula religiosa</i>					
Plain Sunbird	<i>Anthreptes simplex</i>	*			✓	
Ruby cheeked Sunbird	<i>Anthreptes singalensis</i>	✓	✓	✓	✓	
Plain throated Sunbird	<i>Anthreptes malacensis</i>		✓	✓		
Purple naped Sunbird	<i>Hypogramma hypogrammicum</i>	✓	✓	✓	✓	
Olive backed Sunbird	<i>Nectarinia jugularis</i>					
Little Spiderhunter	<i>Arachnothera longirostra</i>	✓	✓	✓	✓	✓
Long billed Spiderhunter	<i>Arachnothera robusta</i>	*	✓	✓	✓	✓
Grey breasted Spiderhunter	<i>Arachnothera affinis</i>	✓		✓		
Yellow breasted Flowerpecker	<i>Prionochilus maculatus</i>				*	
Yellow rumped Flowerpecker	<i>Prionochilus xanthopygius</i>	*				✓
Orange bellied Flowerpecker	<i>Dicaeum trigonostigma</i>	✓		✓	✓	✓
Yellow vented Flowerpecker	<i>Dicaeum chrysorrheum</i>				*	
Eurasian Tree Sparrow	<i>Passer montanus</i>					
Dusky Munia	<i>Lonchura fuscans</i>					
Black headed Munia	<i>Lonchura malacca</i>					