# A GIANT IBIS SURVEY IN THE SRE AMBEL VALLEY, SOUTHERN CARDAMOMS PROTECTED FOREST



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## 1. BACKGROUND

In August 2011, the NGO *Wildlife Alliance* announced a single Giant Ibis *Thaumatibis gigantea* had been captured on a camera-trap photography taken in the Southern Cardamom forest. This news came as a total surprise, as the Critically Endangered species and national iconic bird of Cambodia was considered long extinct in the southern part of the country. None of the numerous surveys conducted during the first decade of the 21th century in the Cardamom Mountains region had found the species and suitable habitat was considered too fragmented or degraded to sustain any surviving population. The vast dry deciduous forest of northern and eastern Cambodia was known to support virtually all the remaining population, estimated at 300 mature birds estimated by Birdlife International (2018).

The press communiqué further declares that "next steps are to engage in more research to determine the size of the population and whether this Giant Ibis indicates the presence of a breeding population which would bring new hope to this struggling population." (Wildlife Alliance 2011).

The fact that the species is strictly resident and territorial as well as the time of the cameratrap photo (during the species' breeding season) were two elements speaking for the actual presence of a small population rather than a lone vagrant individual or survivor. However, no further dedicated work was done to investigate this incredible discovery, until the present survey conducted in January 2018, more than six years after the bird was photographed and exactly a hundred years after the historical record of a Giant Ibis in Koh Kong province (Williamson 1921).



Bushnell

08-30-2011 13:34:4

## 2. METHODS

*Wildlife Alliance* organised the logistical arrangements and assigned two rangers from the Sre Ambel station to accompany the surveyor. A GPS and 1:50.000 topo-sheets of the target area were provided.

The survey took place from 28 to 31 January 2018. The team consisted of Phirun (MoE ranger), Chamroeun (military ranger) and Frederic Goes (ornithologist). Typically, one of the rangers would accompany the surveyor while the other remained at the camp as guard and cook.

The field work was conducted on motorbike and on foot. Given the short period and specific target, survey method was limited to opportunistic search for direct visual or vocal contact with Giant Ibis. Priority areas and sites to survey were selected using three main supports:

- the location of the 2011 camera-trap
- the topo-maps to identify areas of permanent or seasonal water holes
- discussion and informal interviews of local villagers, using Robson's field guide (2008), showing plates featuring Giant Ibis and four other key and distinctive species likely to occur (Green Peafowl, White-winged Duck, Black-necked Stork and Sarus Crane) initially without pointing to or naming those species.

#### 3. ITINERARY

### 28 January

9:30am: arrival at Sre Ambel ranger station; preparation and travel to Kamlot village by motorbike (11:00am to 4:00pm); camp installation at the village pagoda; foot survey around the village until dusk.

#### <u>29 January</u>

5:30-11:00am: motorbike and on foot to Giant Ibis cameratrap location (UTM 11.439-103.697), first driving track heading southwest of village, then returning along main track towards Sre Ambel, and



heading off on foot along disused oxcart tracks; site found, but habitat unsuitable for Giant Ibis in the dry season (no seasonal pool).

3:30-4:30pm: following information collected from an elderly villager, heading by motorbike on track towards the river east of the village, to cross ford and reach Tropeang Lopieng (UTM 11.447-103.737); several tracks leading to the riverbank were found but the crossing and opposite bank trail remain elusive, despite explanations provided by a woman met on the way.

4:30-5:30pm: on motorbike towards the east of Kamlot: encounter and interview of several group of villagers and finally turning back to paddies south of the village where a villager says the Ibis come to feed daily!

<u>30 January</u>

- 5:30-7:30 am: silent posting near the ricefield wetlands 'Boeng Veal Srae' (UTM 11.458-103.720) to listen to Giant Ibis pre-dawn calls and morning arrival to feed (according to villager's report)
- 7:30-11:00 am: motorbike to riverbank, crossing ford with village guide and on foot in semi-evergreen forest to reach Tropeang Lopieng (8:30), inspect edge of lake and continue towards another pool in forest (Tropeang Srae Mean Cham UTM 11.441- 103.734)



Phirun and a villager interviewed near Kamlot pagoda

3:00-5:00pm: on motorbike for 10km+ on main track heading northeast of Kamlot, to Chaeng Saèk and Chay Reap villages, through good dry forest with patches of semievergreen forests. During 16:00-17:00, the ranger who stayed at the village went to check Boeng Veal Srae.

<u>31 January</u>

5:30-10:00am: revisit Tropeang Lopieng (surveyor alone) at dawn, silent posting/hide, and then travel back to Sre Ambel; arrival at *Wildlife Alliance* station around 2:00pm.

## 4. CONSTRAINTS

The survey team encountered several constraints, which all affected the survey effectiveness to some degree.

Technical issues prevented to have sound recordings and the equipment enabling to play the calls of Giant Ibis in the field, despite last minute efforts to use the rangers' smart phones for this purpose. This would have been a very useful tool to further assess villagers' knowledge of the species as well as to quickly ascertain species presence/absence through playback of calls at adequate time of the day.

Rains exceptionally continuing late into the dry season, with daily downpours in the region, resulted in wet-season road conditions, i.e. longer and perilous travel to the target site. Swollen rivers made a main ford almost impassable and nearly led to survey abandonment. This factor also lowered odds to find the Giant Ibis, as wet soil conditions makes the species less likely to feed in permanent (dry season) pools. Fortunately, only one light rain occurred during the survey, providing progressively more favourable survey conditions.



The river swollen by recent unseasonal rains made the ford a perilous passage for traveler and goods along the Kamlot – Sre Ambel 'road'

Last but not least, the defiant attitude of villagers towards Wildlife Alliance staff was an unexpected and personally unexperienced constraint. On the suggestion of leaving our motorbike at the ford to continue on foot, the rangers simply answered: "protitchoun so-op Wild Aid", which gave а rather frightening idea of the unfriendly relationship between the local communities and our team. In Kamlot, obtaining key information and finding a villager to guide us through some foot trails across the river took a full day, which

was practically lost for the proper field survey. The local guide that we finally found did not want in any way to be seen with us in the village.

## 5. **RESULTS**

#### 5.1. Main survey findings and observations

The survey confirmed the continued presence of a small and self-sustaining population of Giant Ibis in the vicinity of Kamlot village. This was obtained through consistent villager's knowledge of the species as well as by hearing its call and direct sightings on two consecutive days.

<u>On 29 January</u>, no Giant Ibis, neither calls nor signs were detected. The camera-trap site (visited in the morning) was located at the edge of a patch of semi-evergreen forest with dry deciduous forest, but no permanent or seasonal pool was visible in the vicinity. The site is therefore unlikely to be used by the species at this time of the year, although one may argue that given the extended wet weather this year, the environmental conditions might be quite similar to those in August, when the photograph was taken. Nevertheless, nearly all persons met and questioned later in the day along tracks around the village recognized Giant Ibis on the field guide's plate and named it "Ko-lôk", with reference to its call.

Mrs Chem Sopha (57) said she uses to see two birds in *Boeng Veal Srae* after the harvest, each year. Mr Ohm Lem (60) independently reported similarly, and added he had seen a pair of White-winged Ducks at *Tropeang Lopieng*. He remembers seeing the latter species nesting in a tree hole some 15 years ago. Mr May Miék (62) also declares seeing Giant Ibis in pairs at the same place. Mr Kan Chan (38), an orphan from Kamlot's *Phum Thmey* village, met in the late afternoon, was quite talkative and assertive about Giant Ibis visiting *Boeng Veal Srae* every day. He sees up to six birds there, sometimes together with (Lesser) Adjutants and rarely Black-necked Stork. He detailed that the birds were calling at 4:00am, then come to feed at



Mr Kan Chan agreed to be our knowledgeable Giant Ibis guide, amidst general villager defiance

7:00am until noon, and return again around 4:00 until 5:00pm. He then brought us to the site, a flooded area in the middle of ricefields just south of the village and with a few thatched huts in the vicinity. No large waterbirds were present. He agreed to guide us the next morning across the river to *Tropeang Lopieng*.

<u>On 30 January</u>, at 5:45am, distant Giant Ibis calls were heard at *Boeng Veal Sraé*, but only once, probably involving two birds, coming from the southeast of the ricefields. Stayed posted there until 7:30 am, very misty, no large waterbirds came to feed. Then on

motorbike to the riverbank with Chan and Chamroeun, crossed ford and followed trail through semi-evergreen forest for about 30 minutes before reaching a large permanent wetland called *Tropeang Lopieng*. Careful approach, no large waterbirds flushed or seen, then walked along the edge southwards, and one Giant Ibis took off from the very corner; then perched, uttering raucous protest calls for a while, before taking off further into the forest. Edge of wetlands were investigated for footprints and probe signs. No large waterbirds seen at nearby *Tropeang Srae Mean Cham*.

In Kamlot's *Phum Tchas* village, Mr Tchey, the motorbike mechanics declared that he often hears several pairs of Giant Ibis, totalling up to 10 birds! He also operates the boat travelling down to Sre Ambel during the wet season, and he has seen a pair of White-winged Ducks in a river pool called *Anlong Youn*, near *Peam Treng* village, about 5km downstream from the road ford. Green Peafowl is common along the river, he added.

During the afternoon, no sign of key species or sizeable pool during exploratory travel northeast of Kamlot village. However, one villager reported the presence of Giant Ibis, Sarus Crane (rare) and Green peafowl (seen) in the area. At *Boeng Veal Srae* during 4:00-5:00pm, Phirun saw only Woolly-necked Storks.

<u>On 31 January</u>, arrival at dawn at *Tropeang Lopieng*, where two Woolly-necked Storks and a single Black-necked Stork were already feeding; at 7:00am, two Giant Ibis landed on the far shore and slowly moved towards the south; a couple of times, a third bird was heard calling distantly, without triggering response from the two feeding birds; the pond was enveloped in thick fog until after 8:30am, when the Ibis had reached the southern corner of the lake.

## **5.2.Key species accounts**

The survey recorded 110 bird species, which are listed in the Appendix.

Below are summary accounts of for key species of birds or mammals recorded or reliably reported during the survey.

- Green Peafowl Pavo muticus (Globally Threatened Endangered): territorial call of males was heard twice, along the Stung Kompong Saom. Probably distributed fairly regularly along the river, upstream of the main track ford.
- White-winged Duck Cairina scutulata (Globally Threatened Endangered): not recorded, but one informant confidently reported seeing a pair at *Tropeang Lepieng*, as well as a nest 15 years ago at an unnamed site. The species is definitely very rare in the area, but deserves further work as any small population is of conservation significance.
- Black-necked Stork Ephippiorhynchus asiaticus (Globally Near-Threatened): one female feeding at Tropeang Lopieng on 31 January. The species is very rare in Cambodia, its presence adding to the conservation value of the site.



A rather confiding Black-necked Stork, feeding at *Tropeang Lopieng* wetland on 31 January

Lesser Adjutant Leptoptilus javanicus (Globally Threatened – Vulnerable): one flushed from a small water hole in the dry deciduous forest, on early morning of 29 January, south of Kamlot village. Surprisingly, this was the only observation.

Sarus Crane Grus antigone (Globally <u>Threatened – Vulnerable)</u>: not recorded, but species recognized and mentioned as present by a few people; the species is probably only visiting the area in very small number, and possibly only during the breeding season.

➤ <u>Giant Ibis Thaumatibis gigantea (Globally</u> <u>Threatened - Critical</u>): on 30 January, distant call heard before dawn, from *Boeng Veal Srae*; later same morning, one bird flushed from the southeast corner of *Tropeang Lopieng*; on 31 January, two birds landing to feed at the same site around 7:00am and observed until 8:30am;

a third bird distantly calling. From these sightings plus the familiarity of most interviewed villagers with the species, the area definitely supports a population of 10 birds or more. Further work should be conducted later in the dry season when birds will concentrate to remaining wetlands (*Tropeang Lopieng* becoming perhaps the main if not the only feeding site), as well as during the breeding season to locate nesting sites.

Indochinese Silvered Langur Trachypithecus germaini (Globally Threatened – Endangered): parents with one young seen in semi-evergreen forest near the Kompong Saom riverbank, along the trail leading to *Tropeang Lopieng*, on 31 January.

#### 6. DISCUSSION

It is remarkable that, despite fairly serious constraints, the survey positively confirmed the presence of Giant Ibis and obtained sightings on consecutive days. This and the widespread knowledge of the species amongst the local communities clearly indicate the area shelters a well-established and year-round population of Cambodia's national bird.

Furthermore, consistent reports of the species feeding in close vicinity of the village is atypical, as the Giant Ibis population of northern Cambodia does not usually approach closer than 3-4 km from villages (Keo 2008). Actually, the ibis species expected to feed in such ricefield pond close to a village is White-shouldered Ibis *Pseudibis davisoni* but interestingly, none of the villagers mentioned another black ibis or pointed to that species in the plates, suggesting that this other Critically Endangered ibis is genuinely absent.

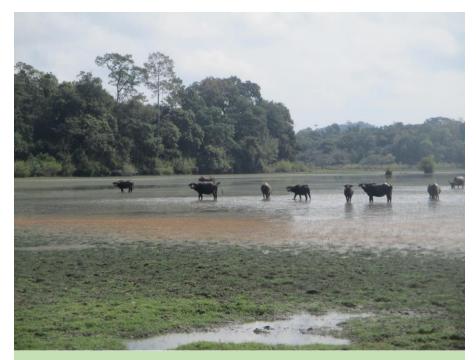
Equally remarkably, the short survey recorded three of the five focus species (Green Peafowl, Black-necked Stork and Giant Ibis). The two other focus species (White-winged Duck and Sarus Crane) were reliably reported, and are probably still present in the area although occasional and/or very rare.

It should also be noted that three species of high conservation value were not recorded or reported during the survey: White-shouldered Ibis, Greater Adjutant and Masked Finfoot. The two former are most probably absent or extirpated from the area, while the poorly known Masked Finfoot would require dedicate riverine surveys and interviews.

From a broader ornithological point of view, a striking feature was the largely impoverished bird community. Many species associated with the dry deciduous forest, and often common or abundant in similar landscape of the northern part of the country were totally absent. Most notably amongst the series of lacking species are White-rumped Pygmy Falcon and the Woodpeckers (only six species recorded, against 12 expected in such habitat). Other ubiquitous dry deciduous forest dwellers such as Indian Cuckoo, Rufous-winged Buzzard, Blossom-Headed Parakeet, White-browed Fantail, Velvet-fronted Nuthatch, Rufous Treepie,

Burmese Shrike and Brown Prinia were not found.

It appears thus that the Kamlot dry deciduous forest supports а significantly depauperate avifauna. This low diversity is reflected in the survey birdlist, where nearly half of the forest species recorded are essentially found in semi-evergreen forest (cf. Appendix). It is therefore the more puzzling that this area has retained some of its most significant component in terms of conservation.



A herd of water buffalos shares the *Tropeang Lopeang* wetland with Siamese Crocodiles, Giant Ibis and other large waterbirds

## 7. RECOMMENDATIONS

This rapid survey has documented the continued presence of a small resident population of the Critically Endangered Giant Ibis, Cambodia's emblematic bird, along with a few other species of high international and/or national conservation significance.

These remarkable findings given the constraints and very short field time, testify of the permanent presence of Giant Ibis in the area and the familiarity of the local villagers with the species.

A large wetland called *Tropeang Lopieng* and located just 2 km east of the village pagoda, on the east riverbank of the Stung Kompong Saom, is the key feeding site for Giant Ibis and several other highly threatened species. This wetland also holds a resettled population of the Critically Endangered Siamese Crocodile *Crocodylus siamensis*. Given its highest importance for species conservation, it should be declared a wildlife refuge by commune authorities and resources should be made available to ensure its full protection from hunting, poaching and disturbance.

The results of this short survey call for a number of follow-up actions in the short to mediumterm future, to further document the Giant Ibis status and ensure its conservation.

### Short term

- To conduct a follow-up survey in the end of the dry season aiming at assessing Giant Ibis population size and distribution
- > To conduct a subsequent wet season survey to locate nesting sites
- To build trustful and positive relationship between *Wildlife Alliance* and villagers, through establishing livelihood support schemes, including eventual nest protection payments
- To make contact with Ibis Rice program and initiate steps to implement it in Kamlot area.

## Medium term

- To facilitate a local participative process to designate *Tropeang Lopieng* wetland as a Community Wildlife Refuge
- To link socio-economic support (livelihood, Ibis Rice) with village agreement on wildlife and habitat conservation
- To set up a local conservation team in charge of patrolling, wildlife surveying and monitoring

#### Longer term

To seize opportunities and consider testing a wildlife viewing circuit in the southern Cardamoms, especially if White-winged Duck and/or Masked Finfoot are later found in fairly accessible sites.

#### 8. **REFERENCES**

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The survey team on its way back to town, where vast cashew plantations now replace centuries-old forests.

## APPENDIX -- LIST OF BIRDS RECORDED DURING THE SURVEY

	ENGLISH NAME	LATIN NAME	Status	Habitat	Notes
F	ancolins, Partridges & Pheasants (				
1	Chinese Francolin	Francolinus pintadeanus	R	DDF	
2	Red Junglefowl	Gallus gallus	R	SEF	
3	Green Peafowl (GT-En)	Pavo muticus	r	Riv	See report
	torks (Ciconiidae) & Ibises (Threskio	-	Tu (	bee report	
4	Woolly-necked Stork (GNT)	Ciconia episcopus	R	W	
5	Black-necked Stork (GNT)	Ephippiorhynchus asiaticus	r	W	See report
6	Lesser Adjutant (GT-Vu)	Leptoptilus javanicus	R	W	See report
7	Giant Ibis (GT-Cr)	Thaumatibis gigantea	r	W	See report
	erons & Egrets (Ardeidae)	2	-		bee report
8	Little Egret	Egretta garzetta	R, w	W	
9	Chinese/Javan Pond Heron	Ardeola bacchus/speciosa	W,r	W	
	awks (Accipitridae) & Falcons (Falco	·			
10	Oriental Honey Buzzard	Pernis ptilorhynchus	W,r,pm	DDF	
11	Crested Serpent Eagle	Spilornis cheela	R	DDF	
12	Shikra	Accipiter badius	R	DDF	
13	Besra	Accipiter virgatus	r	SEF	
14	Grey-faced Buzzard	Butastus indicus	w,p	DDF	
	apwings & Plovers ( <i>Charadriidae</i> )		· · · · <b>I</b>		
15	Red-wattled Lapwing	Vanellus indicus	R	W	
	oves & Pigeons (Columbidae)				
16	Red Collared Dove	Streptopelia tranquebarica	R	DDF	
17	Spotted Dove	Streptopelia chinensis	R	DDF	
18	Zebra Dove	Geopelia striata	R	DDF	
19	Emerald Dove	Chalcophaps indica	R	SEF	
20	Thick-billed Green Pigeon	Treron curvirostra	R	SEF	
21	Green Imperial Pigeon	Ducula aenea	R	SEF	
	arrots & Parakeets ( <i>Psittacidae</i> )				
22	Vernal Hanging Parrot	Lorniculus vernalis	R	SEF	
23	Red-breasted Parakeet (GNT)	Psittacula alexandri	R	DDF	
C	oucals, Malkohas & Cuckoos ( <i>Cuci</i>	ılidae)			
24	Greater Coucal	Centropus sinensis	R	SEF	
25	Green-billed Malkoha	Rhopodytes tristis	R	SEF	
26	Chestnut-winged Cuckoo	Clamator coromandus	pm, bv?	SEF	
27	Asian Koel	Eudynamys scolopaceus	R	DDF	
28	Banded Bay Cuckoo	Cacomantis sonneratii	R	DDF	
0	wls (Tytonidae & Strigidae) & Nightj	ars (Caprimulgidae)			
29	Oriental Scops Owl	Otus sunia	w,r	DDF	
30	Collared Owlet	Glaucidium brodiei	R	SEF	
31	Brown Boobook	Ninox scutulata	R	DDF	
32	Fish Owl sp	Ketupa sp	r	River	
33	Great-eared Nightjar	Eurostopodus macrotis	R	DDF	
34	Large-tailed Nightjar	Caprimulgus macrutus	R	DDF	
	J J ,				

Tı	Treeswifts (Hemiprocnidae) & Swifts (Apodidae)					
35	Crested Treeswift	Hemiprocne coronata	R	DDF		
36	Swiftlet sp	Aerodramus sp	R	DDF		
	cogons (Trogonidae) & Rollers (Coracia	,	R	DDI		
			D	CEE		
37	Orange-breasted Trogon	Harpactes oreskios	R	SEF		
38 20	Indian Roller Dollarbird	Coracias benghalensis	R	DDF		
39		Eurystomus orientalis	R/r	DDF		
	ingfishers (Alcedinidae) & Bee-eaters (		<b></b>			
40	Stork-billed Kingfisher	Pelargopsis capensis	R/r	W		
41	Little Green Bee-eater	Merops orientalis	R	DDF		
42	Chestnut-headed Bee-eater	Merops leschenaulti	R	DDF		
	oopoes (Upupidae) & Hornbills (Bucerd	otidae)				
43	Common Hoopoe	Upupa epops	R,W?	DDF		
44	Oriental Pied Hornbill	Anthracoceros albirostris	R	SEF		
45	Great Hornbill (GNT)	Buceros bicornis	R/r	SEF	1, Trop	
			,		Lopieng, 31/1	
	arbets (Megalaimidae)					
46	Lineated Barbet	Megalaima lineata	R	DDF		
47	Blue-eared Barbet	Megalaima australis	R	SEF		
48	Coppersmith Barbet	Megalaima haemacephala	R	DDF		
W	oodpeckers (Picidae)					
49	Heart-spotted Woodpecker	Hemicircus canente	R/r	SEF		
50	Grey-capped Pygmy Woodpecker	Dendrocopos canicapillus	R	DDF	One sighting	
51	White-bellied Woodpecker	Dryocopus javensis	r	DDF	One sighting	
52	Common Flameback	Dinopium javanense	R	DDF		
53	Black-and-buff Woodpecker	Meiglyptes jugularis	r	SEF		
54	Great Slaty Woodpecker (GT-Vu)	Mulleripicus pulverulentus	R/r	DDF	Heard, e.r.	
Bı	roadbills (Eurylaimidae)					
55	Black-and-Red Broadbill	Cymbirhynchus macrorhynchos	R/r	SEF		
56	Banded Broadbill	Eurylaimus javanicus	R	SEF		
W	oodshrikes (Tephrodornithidae) & Io	ras (Aegithinidae)				
57	Lange/Common Weedshriles	Tephrodornis	р	DDE		
57	Large/Common Woodshrike	gularis/pondicerianus	R	DDF		
58	Common Iora	Aegithina typhia	R	DDF		
59	Great Iora	Aegithina lafresnayei	R	SEF		
Cuckooshrikes & Minivets (Campephagidae)						
60	Large Cuckooshrike	Coracina macei	R	DDF		
61	Indochinese Cuckooshrike	Coracina polioptera	R	DDF		
62	Black-winged Cuckooshrike	Coracina melaschistos	R/r	SEF		
63	Ashy Minivet	Pericrocotus divaricatus	W,P	SEF		
64	Small Minivet	Pericrocotus cinnamomeus	R	DDF	One record, e.r.	
65	Scarlet Minivet	Pericrocotus speciosus	R	SEF		
Shrikes (Laniidae)						
66	Brown Shrike	Lanius cristatus	W,pm	DDF		
Orioles (Oriolidae)						
67	Black-naped Oriole	Oriolus chinensis	W,pm	DDF		
68	Black-hooded Oriole	Oriolus xanthornus	R	DDF		
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Drongos (Dicruridae)						
69	Black Drongo	Dicrurus macrocercus	W,pm	DDF		
70	Ashy Drongo	Dicrurus leucophaeus	W,pm,R	DDF		
71	Bronzed Drongo	Dicrurus aeneus	R	SEF		
72	Hair-crested Drongo	Dicrurus hottentottus	R	DDF		
73	Greater Racket-tailed Drongo	Dicrutus paradiseus	R	SEF		
Fa	Fantails ( <i>Rhipiduridae</i> ) & Monarchs (Monarchidae)					
74	Black-naped Monarch	Hypothymis azurea	W,R	SEF	_	
75	Asian Paradise-flycatcher	Terpsiphone paradisi	W,R,pm	SEF	♀, rufous morph	
Μ	agpies, Treepies & Crows				morph	
	vidae)					
76	Red-billed Blue Magpie	Urocissa erythrorhyncha	R	DDF		
77	Racket-tailed Treepie	Crypsirina temia	R	DDF		
	rks (Alaudidae)					
78	Indochinese Bushlark	Mirafra erythrocephala	R	DDF	One record, e.r.	
	ılbuls (Pycnonotidae)					
79	Black-crested Bulbul	Pycnonotus flaviventris	R	SEF		
80	Sooty-headed Bulbul	Pycnonotus aurigaster	R	DDF		
81	Stripe-throated Bulbul	Pycnonotus finlaysoni	R	SEF		
82	Yellow-vented Bulbul	Pycnonotus goiavier	R	DDF		
83	Streak-eared Bulbul	Pycnonotus blanfordi	R	DDF		
84	Ochraceus Bulbul	Alophoixus ochraceus	R	SEF		
85	Black Bulbul	Hypsipetes leucocephalus	r	DDF	One flock	
	vallows (Hirundinidae)					
86	Barn Swallow	Hirundo rustica	W,pm	W		
87	Red-rumped Swallow	Cecropis daurica	W	W		
	eaf Warblers & Seicercus Warblers (	• •				
88	Arctic Warbler	Phylloscopus borealis	W,pm	DDF		
89	Two-barred Warbler	Phylloscopus plumbeitarsus	W,pm	DDF		
	inias & Tailorbirds ( <i>Cisticolidae</i> )					
90	Grey-breasted Prinia	Prinia hodgsonii	R	DDF		
91	Dark-necked Tailorbird	Orthotomus atrogularis	R	SEF		
	abblers & allies ( <i>Timaliidae, Pellori</i>	0 0				
92	White-browed Scimitar Babbler	Pomatorhinus schisticeps	R	SEF		
02						
93	Pin-striped Tit Babbler	Macronus gularis	R	SEF		
94	Puff-throated Babbler	Pellorneum ruficeps	R R	SEF		
94 95	Puff-throated Babbler White-crested Laughingthrush	-	R			
94 95 M	Puff-throated Babbler White-crested Laughingthrush ynas & Starlings ( <i>Sturnidae</i> )	Pellorneum ruficeps Garrulax leucolophus	R R R	SEF DDF		
94 95 <b>M</b> 96	Puff-throated Babbler White-crested Laughingthrush ynas & Starlings ( <i>Sturnidae</i> ) Common Hill Myna	Pellorneum ruficeps Garrulax leucolophus Gracula religiosa	R R R R	SEF DDF SEF		
94 95 <b>M</b> 96 97	Puff-throated Babbler White-crested Laughingthrush ynas & Starlings ( <i>Sturnidae</i> ) Common Hill Myna Common Myna	Pellorneum ruficeps Garrulax leucolophus Gracula religiosa Acridotheres tristis	R R R R R	SEF DDF SEF DDF		
94 95 96 97 98	Puff-throated Babbler White-crested Laughingthrush ynas & Starlings ( <i>Sturnidae</i> ) Common Hill Myna Common Myna Vinous-breasted Myna	Pellorneum ruficeps Garrulax leucolophus Gracula religiosa Acridotheres tristis Acridotheres burmannicus	R R R R R R	SEF DDF SEF DDF DDF		
94 95 <b>M</b> 96 97 98 99	Puff-throated Babbler White-crested Laughingthrush ynas & Starlings ( <i>Sturnidae</i> ) Common Hill Myna Common Myna Vinous-breasted Myna Black-collared Starling	Pellorneum ruficeps Garrulax leucolophus Gracula religiosa Acridotheres tristis	R R R R R	SEF DDF SEF DDF		
94 95 <b>M</b> 96 97 98 99 <b>R</b>	Puff-throated Babbler White-crested Laughingthrush ynas & Starlings ( <i>Sturnidae</i> ) Common Hill Myna Common Myna Vinous-breasted Myna Black-collared Starling bbins & Chats ( <i>Muscicapidae</i> )	Pellorneum ruficeps Garrulax leucolophus Gracula religiosa Acridotheres tristis Acridotheres burmannicus Gracupica nigricollis	R R R R R R R	SEF DDF SEF DDF DDF DDF		
94 95 96 97 98 99 <b>R</b> 100	Puff-throated Babbler White-crested Laughingthrush ynas & Starlings (Sturnidae) Common Hill Myna Common Myna Vinous-breasted Myna Black-collared Starling bins & Chats (Muscicapidae) Oriental Magpie Robin	Pellorneum ruficeps Garrulax leucolophus Gracula religiosa Acridotheres tristis Acridotheres burmannicus Gracupica nigricollis Copsychus saularis	R R R R R R R R R	SEF DDF DDF DDF DDF DDF		
94 95 96 97 98 99 <b>R</b>	Puff-throated Babbler White-crested Laughingthrush ynas & Starlings ( <i>Sturnidae</i> ) Common Hill Myna Common Myna Vinous-breasted Myna Black-collared Starling bbins & Chats ( <i>Muscicapidae</i> )	Pellorneum ruficeps Garrulax leucolophus Gracula religiosa Acridotheres tristis Acridotheres burmannicus Gracupica nigricollis	R R R R R R R	SEF DDF SEF DDF DDF DDF		

Fl	Flycatchers & allies ( <i>Muscicapidae</i> )					
103	Asian Brown Flycatcher	Muscicapa dauurica	W,pm	SEF		
104	Taiga Flycatcher	Ficedula albicilla	W	DDF		
105	Blue Flycatcher sp	Cyornis sp	-	SEF		
Flowerpeckers (Dicaeidae) & Sunbirds (Nectariniidae)						
106	Scarlet-backed Flowerpecker	Dicaeum cruentatum	R	DDF		
107	Ruby-cheeked Sunbird	Chalcoparia singalensis	r	SEF		
108	Purple Sunbird	Cinnyris asiaticus	R	DDF	One record, e.r.	
109	Olive-backed Sunbird	Cinnyris jugularis	R	DDF		
Wagtails & Pipits ( <i>Motacillidae</i> )						
110	Paddyfield Pipit	Anthus rufulus	R	DDF		



One Common Hill Myna kept as 'talking' pet by villagers of Phum Chas