



Forestry Administration



World Pheasant Association

Cambodian Galliformes Conservation Programme

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Monthly Report

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Summary

Cambodia is home to 14 species of Galliformes of which four are considered to be globally threatened. The most important areas for Galliformes within Cambodia are the Eastern Plains, Northern Plains and Southwest Cambodia. Between 10th and 19th December 2005, we undertook ornithological and questionnaire surveys to establish the status and threats to Galliformes, particular the Chestnut-headed Hill-partridge, in Kamlot area within Dong Peng commune, Sre Ambel district, Koh Kong Province, South Cardamom Mountains, Southwest Cambodia. We established the presence of seven galliform species by the ornithological and questionnaire surveys.

1. Study area

Kamlot area is located in Kamlot and Traeng Saek villages, Dong Peng commune, Sre Ambel district, Koh Kong province within the South Cardamom Mountains in Southwest Cambodia. The area consists of paddy fields and open deciduous forest, surrounded by mountains chain and dense forest. Around 900 people live in the area, being dependant mainly on rice production and the collection of non-wood products from the surrounding forests.

2. Methods

Two methods were used to record the presence of Galliformes, assess their numbers and establish their threats. These were ornithological and questionnaire surveys.

2.1 Ornithological surveys

Surveys were undertaken between 12th and 18th December 2005 using a combination of transect surveys (to establish presence) and point-count surveys (to measure abundance). Each transect survey took about 2 hours to walk, principally along forest tracks. For the point counts a survey point was selected at random and was surveyed for two hours. Both transect and point-count surveys started at 05:30 and 16:30 and finished at 07:30 and 18:30, respectively. When a bird was heard calling its direction and estimated distance from the observer was recorded. The location of record was recorded by a Geographical Positioning System (GPS). During the surveys, the presences of other important non-galliform bird species were also recorded.

2.2 Questionnaire survey of local people and hunters

In addition to undertaking the ornithological surveys, a questionnaire survey of local communities has also been undertaken to collect information on their perceived status of Galliformes, their distribution and to ascertain their threats.

The commune leaders, village elders and senior hunters specifically and more generally other village people and hunters were shown pictures of Galliformes in the Guide to Birds of Southeast Asia, and the Guide to Birds of Cambodia and asked the following questions:

- How many species of Galliformes are there in the area?
- How many individuals of each species are there in the area?
- How many individuals of each species are hunted in the area?
- How many hunters are there in the area?
- How many hunters come from outside area?

What hunting methods do they use?
How many traps are set in the area?
How many traps did each hunter set in the area?
Where did they sell hunted birds?
When did hunters always hunt green peafowl and collect its chicks?
How many days are traps set in the area?
Would they hunt if alternative food were provided?
What alternative food would they like?
Do you think it is important to protect the wildlife around their village?
Have you preferred Green Peafowl and Chestnut-headed Hill-partridge? Why?

3. Results

3.1 Galliformes

The results from the ornithological and questionnaire surveys are summarised in Tables 1 & 2. We walked 13 transects, during which six species of Galliformes were heard calling at 10 locations and four individuals of four species were observed directly at four points along the transects. Amongst these, a single **Green Peafowl** was seen in a grass field. In addition the species was heard calling 11 times from ten different points along the transects and its footprint were observed at three further three points. **Chestnut-headed Partridge** was heard calling at three locations on two of the transects. A single **Silver Pheasant** was seen on one of the transects. **Scaly-breasted Partridge** was heard calling at two locations along two of the transects. **Red Junglefowl** was heard calling at twenty-seven points along six transects and an individual was seen along one of the transects. **Chinese Francolin** was heard callings at fifty-nine points along seven transects.

Information from the questionnaires revealed that **Green Peafowl** were present in the foothills of the mountains near the rice fields. The species lives in many groups of four or six individuals. The species was seen within rice paddies during the harvesting season (December to February) and along the river during raining season (July to September). **Chestnut-headed Hill-partridge** is present in the mid to high elevations of the mountains surrounding the village. Its population is thought to number around five hundred individuals which live in flocks of between 30 and 50 individuals. The species is sometimes seen by local people when they entered the forest on the mountains surrounding the village, but usually in small numbers. The species is very easy to catch by trapping, sometimes being attracted by imitation calls. **Siamese Fireback** was presents in the mountains and was thought not to occur in flocks. **Siamese Fireback** was thought to be lesser numerous than **Chestnut-headed Partridge** and is very difficult to catch. **Silver Pheasant** is presents at the mid elevations and is difficult to catch. **Scaly-breasted Hill-partridge** is presents in the foot hills up to mid elevations and it was thought that this species was widespread and common. The species lives in flocks of four or five individuals and is very easy to catch by trapping, which is occasional undertaken by imitating calls. **Red Junglefowl** was presents in lowland forests, foothill of the mountains and highland bamboo forests. The species is common throughout the area and is very easy to catch by trapping. **Chinese Francolin** presents in lowland deciduous forests near the village and is not very easy to catch. **Rain Quail** presents in the lowland grass fields within the area and is never hunted.

Table 1 Summary information from the ornithological surveys undertaken in the Kamlot area, South Cardamom Mountains, Southwest Cambodia, during 12th to 18th December 2005

Transect	UTM at start	UTM at finish	Species	Types of Observed	UTM observed	Distance (m)	Bearing
1	0361572 1267988	0363039 1267903	RJF	call	0362370 1268001	50	60
-	-	-	-	-	-	50	170
-	-	-	-	-	0362508 1267911	30	20
-	-	-	-	-	0362884 1267896	30	300
-	-	-	-	-	-	20	100
2	0359751 1260281	0360474 1258827	GPF	seen	0359959 1259629	50	160
-	-	-	-	wail	-	500	60
-	-	-	RJF	call	0360299 1259180	30	240
-	-	-	-	-	-	30	300
-	-	-	GPF	wail	0360477 1258828	300	300
-	-	-	-	-	-	600	300
3	0359394 1261586	0360105 1264178	RJF	call	0359520 1262285	250	320
-	-	-	-	-	-	300	20
-	-	-	-	-	-	300	60
-	-	-	-	-	-	450	60
-	-	-	GPF	wail	0359573 1262668	650	45
-	-	-	RJF	call	0360060 1263484	200	200
-	-	-	-	-	-	300	220
-	-	-	-	-	0360145 1263605	100	240
-	-	-	-	-	-	150	260
-	-	-	-	seen	0360146 1263872	2	260
4	0360300 1271551	0360878 1269387	GPF	wail	0360907 1270670	500	240
-	-	-	-	footprint	0360862 1270492		
-	-	-	SBP	call	-	300	300
-	-	-	CF	call	-	600	60
-	-	-	-	-	0360702 1269901	100	160
-	-	-	-	-	-	500	200
-	-	-	-	-	-	600	160
-	-	-	-	-	-	700	220
-	-	-	-	-	-	650	100
-	-	-	-	-	-	750	170
-	-	-	-	-	-	600	300
-	-	-	GPF	wail	0360878 1269387	300	90
5	0360673 1272413	0361670 1273613	CF	call	0360673 1272413	300	350
-	-	-	-	-	-	450	40

-	-	-	-	-	-	350	60
-	-	-	-	-	-	150	200
-	-	-	-	-	-	200	240
-	-	-	-	-	0360765 1272597	200	80
-	-	-	-	-	-	700	70
-	-	-	-	-	-	150	50
-	-	-	-	-	-	650	40
-	-	-	-	-	-	300	70
-	-	-	-	-	0360756 1273141	600	60
-	-	-	-	-	-	450	350
-	-	-	-	-	-	350	20
-	-	-	-	-	-	500	330
-	-	-	-	-	0360889 1273334	450	300
-	-	-	-	-	-	300	320
-	-	-	-	-	-	200	350
6	0360164 1271849	0359511 1273245	No sign	No sign	No sign	No sign	No sign
7	0359860 1269538	0358567 1271139	CHP	call	0359879 1270058	300	240
-	-	-	CF	-	0358714 1270946	100	40
-	-	-	-	-	-	250	100
-	-	-	-	-	-	350	32
-	-	-	-	-	-	700	260
-	-	-	-	-	-	600	240
-	-	-	-	-	-	650	260
8	0361056 1267382	0361007 1265253	GPF	wail	0361234 1267171	550	40
-	-	-	-	-	0361954 1266279	450	340
-	-	-	RJF	call	-	200	260
-	-	-	-	-	-	350	200
-	-	-	-	-	-	500	350
-	-	-	-	-	-	250	20
-	-	-	-	-	-	350	40
-	-	-	-	-	-	200	60
-	-	-	-	-	-	450	140
-	-	-	GPF	wail	0361582 1266465	350	200
-	-	-	SBP	call	0361017 1265834	400	60
-	-	-	GPF	footprint	0361022 1265361		
9	0359559 1268412	0357157 1269908	RJF	call	0359458 1268502	650	20
-	-	-	CF	-	0358267 1269363	400	40
-	-	-	-	-	-	500	20
-	-	-	-	-	-	650	60
-	-	-	-	-	-	300	60
-	-	-	-	-	-	750	30
-	-	-	-	-	-	300	220
-	-	-	-	-	-	250	240

-	-	-	-	-	0357756 1269531	200	20
-	-	-	-	-	-	250	330
-	-	-	-	-	-	500	330
-	-	-	-	-	-	700	20
-	-	-	-	-	-	450	320
-	-	-	-	-	-	350	200
-	-	-	-	-	-	400	340
-	-	-	-	-	-	250	300
-	-	-	-	-	-	300	350
-	-	-	RJF	-	0357584 1269612	450	35
10	0354579 1269339	0356694 1269788	CHP	call	0356258 1269893	250	140
-	-	-	SP	seen	0356517 1269827	5	150
-	-	-	CF	call	0356694 1269788	100	60
-	-	-	CHP	-	-	300	350
11	0360564 1267095	0356801 1266887	CF	call	0363373 1279411	800	14
-	-	-	-	-	-	550	80
12	0362478 1267919	0364698 1269201	RJF	call	0363990 1268471	150	340
-	-	-	-	-	-	300	20
-	-	-	CF	-	0364311 1268621	250	50
-	-	-	-	-	-	350	80
-	-	-	-	-	0364443 1268792	650	60
-	-	-	RJF	-	-	750	20
-	-	-	CF	-	-	300	20
-	-	-	-	-	-	500	30
-	-	-	GPF	wail	0364626 1269169	300	30
-	-	-	CF	call	-	450	70
Total (heard)	GPF = 11	CHP = 03	SF = 00	SP = 00	SBP = 02	RJF = 27	CF = 56
Total (seen)	GPF = 01	CHP = 00	SF = 00	SP = 01	SBP = 00	RJF = 01	CF = 00
Total (footprint)	GPF = 02	CHP = 00	SF = 00	SP = 00	SBP = 00	RJF = 00	CF = 00

Table 2 Summary information from the questionnaire surveys undertaken in the Kamlot area, South Cardamom Mountains, Southwest Cambodia, during 12th to 18th October 2005

Species	Numbers thought to occur	Numbers hunted
Chinese Francolin (CF) <i>Francolinus pintadeanus</i>	1000+	50
Chestnut-headed Partridge (CHP) <i>Arborophila cambodiana</i>	500	100
Scaly-breasted Partridge (SBP) <i>Arborophila chloropus</i>	1000++	100
Red Junglefowl (RJF) <i>Gallus gallus</i>	1000	200
Silver Pheasant (SP) <i>Lophura nycthemera</i>	400	20

Siamese Fireback (SF) <i>Lophura diardi</i>	200	0
Germain's Peacock Pheasant (GPP) <i>Polyplectron germaini</i>	0	0
Green Peafowl (GPF) <i>Pavo muticus</i>	100	5
Bar-backed Partridge (BBP) <i>Arborophila brunneopectus</i>	0	0
Rain Quail (RQ) <i>Coturnix coromandelica</i>	1000+++	0
Japanese Quail (JQ) <i>Coturnix japonica</i>	0	0
Blue-breasted Quail (BBQ) <i>Coturnix chinensis</i>	0	0
Grey Peacock Pheasant (GrPP) <i>Polyplectron bicalcaratum</i>	0	0
Orange-necked Hill-partridge (ONP) <i>Arborophila davidi</i>	0	0



Photo 1: Camping in the forest during surveys in the Kamlot area, South Cardamom Mountains, Southwest Cambodia.



Photo 2: Mr Chhum Samnang, Mr Out Sary and guide are surveying Galliformes along tracks in the Kamlot area, South Cardamom Mountains, Southwest Cambodia.

The information we collected on the numbers of Galliformes hunted in the Kamlot area clearly shows that illegal trapping is a major threat to the status and conservation of many species. Trapping is undertaken by some villagers living in and around the area in order to provide supplementary food whilst they living in the forest. This usually involves setting up to 20 traps per hunter along old trails and near water to opportunistically trap any ground dwelling animals or birds. Not all species are equally affected by hunting, with those that are easy to catch (**Chestnut-headed Hill-partridge** and **Red Junglefowl**), or are desirable for meat, eggs and feathers (**Green Peafowl**) being especially targeted by hunters. Hunters in the village always use trappings to catch the birds, but most of hunters from neighbouring village usually use rifle for shooting the birds particularly green peafowl. The main purpose of this hunting is to provide food for the hunter and his family, the village and occasionally (especially in the case of **Green Peafowl**) for the pet trade.

Another threat to Galliformes in the area we surveyed arises from collectors of non-timber products (bamboos, resins, fruits) and food (plants, leaves, fish, etc) which principally causes disturbance, but in addition these foraging parties hunt Galliformes for food whilst in the forest and start cooking fires. They are usually accompanied by dogs and chickens (taken in as food), which adds to the disturbance problems, may spread disease to wildlife or cause genetic contamination of **Red Junglefowl**. Additionally, the hunters sometimes use poisons in water bodies to catch fish, which may also poison Galliformes and other wildlife.



Photo 3: Footprint of green peafowl was observed in the Kamlot area within South Cardamom Mountains, Southwest Cambodia.

3.2 Other Species

In addition to recording galliform species, other important non-galliform bird species were also recorded and are summarised in Table 3.

Table 3 Summary information of important non-galliform species observed within the Kamlot area in South Cardamom Mountains, Southwest Cambodia, during 12th to 18th December 2005

Species	Scientific Names	Habitat	Status
Ashy Minivet	<i>Pericrocotus divaricatus</i>	Deciduous Forest	rare
Blue-winged Leafbird	<i>Chloropsis cochinchinensis</i>	Deciduous Forest	common
Chestnut-headed Bee-eater	<i>Merops leschenaultia</i>	Deciduous Forest	common
Red-breasted Parakeet	<i>Psittacula alexandri</i>	Deciduous Forest	common
Hill Myna	<i>Gracula religiosa</i>	Deciduous Forest	rare
Oriental Pied Hornbill	<i>Anthracoceros albirostris</i>	Deciduous Forest	common
Bronzed Drongo	<i>Dicrurus aeneus</i>	Deciduous Forest	common
Purple Sunbird	<i>Nectarinia asiatica</i>	Deciduous Forest	common
Indochinese Bushlark	<i>Mirafra marionae</i>	Deciduous Forest	rare
Asian Koel	<i>Eudynamys scolopacea</i>	Deciduous Forest	rare
Greater Racket-tailed Drongo	<i>Dicrurus paradiseus</i>	Deciduous Forest	common
Blue-eared Kingfisher	<i>Alcedo meninting</i>	Deciduous Forest	rare
Jungle Myna	<i>Acridotheres fuscus</i>	Deciduous Forest	common
Black-winged Cuckooshrike	<i>Hemipus birundinaceus</i>	Deciduous Forest	rare
Greater Slaty Woodpecker	<i>Mulleripicus pulverulentus</i>	Deciduous Forest	common
Common kingfisher	<i>Alcedo atthis</i>	Deciduous Forest	rare
Blue-throated Bee-eater	<i>Merops viridis</i>	Deciduous Forest	common
Black-hooded Oriole	<i>Oriolus xanthornus</i>	Deciduous Forest	common
Rufous-breasted Accentor	<i>Prunella strophitata</i>	Deciduous Forest	common
Bar-winged Flycatcher Shrike	<i>Hemipus picatus</i>	Deciduous Forest	common



Photo 4: Red-breasted Parakeet was observed in the Kamlot area within South Cardamom Mountains, Southwest Cambodia.

4. Budget

Monthly expenditure for December 2005

Items	Number of personnel	Quantity	Unit	Total (US\$)
Travel				
Motorbike rental	2	10 days	5	100.00
Petrol		10 days		53.25
Motorbike repairing	2			11.40
Subtotal				164.65
Subsistence				
Accommodation	2	2	10	40.00
Food & water	3	10 days		114.00
Subtotal				154.00
Equipment				
Memory card for Camera		1	53	53
Map plastic		1	3	3.00
Small Batteries		5 pieces	1.80	9.00
Very Small Batteries		6 pieces	1.80	10.80
Subtotal				75.80
Staff costs				
Programme Leader	1	1 month	435	435.00
Programme Assistant	1	1 month	250	250.00
Local Guide	1	07 days	5	35.00
Subtotal				720.00
Communications				
Internet		1 month	5	5.00
Phone Card		1 month	10	10.00
Subtotal				15.00
Medicines				
				8.30
Miscellaneous				
Administration				5.00
Subtotal				5.00
TOTAL				US\$ 1142.75

NB: At the start of this survey the project account contained **\$1083.37**. During this survey period \$1142.75 was spent surveying the Kamlot area. Therefore, the balance in the project account is - \$59.38.