



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 15th and 25th October 2005, we undertook ornithological and questionnaire surveys to establish the status and threats to Galliformes, in particular Green Peafowl, in Eastern Snuol, Kratie and Monduliri provinces, in the Eastern Plains of Cambodia. We established the presence of five Galliform species by the ornithological, direct observation and questionnaire surveys. All species occurred at low densities, with Chinese Francolin and Red Junglefowl being the most numerous.

1. Survey area

The study was undertaken in Eastern Snuol, which is located in the Khsim Commune of Kratie Province and Rohout Commune of Monduliri Province, in the Eastern Plains of Cambodia. Most of the area is covered by deciduous forest and grasslands. The study area was situated near an area visited during previous surveys in January and February 2005. Information provided by local people indicated that Green Peafowl start calling from early October, allowing us to undertake the surveys earlier this year than previously.. Surveys were undertaken in two different areas, at O Theang along the Theang Creek and at ricefields near the villages of Khsim commune. This allowed us to collect information from a range of different habitats.

2. Methods

Three methods were used to record the presence of Galliformes, assess their numbers and establish their threats. These were ornithological surveys, direct observation and questionnaire surveys of local people and hunters. These surveys were undertaken from 15th to 25th October 2005 in Eastern Snuol, Kratie and Monduliri Provinces.

2.1 Ornithological surveys

Point-count methodology was used to record the wailing call of male Green Peafowl. Green Peafowl calls can be heard for up to 1km so point-count locations were situated at least 2 km apart along jungle trails. The location of each point count location was recorded by a Geographical Positioning System (GPS). Each survey point was selected at random. The counting period lasted for two hours and was undertaken immediately after sunrise (05:30 to 07:30) and before sunset (16:30 to 18:30). When each call was heard, its direction and estimated distance from the observer was recorded. At each point-count location, a number of habitat variables were measured. These methods were developed by Nick Brickle and were successfully used to survey the species in Vietnam. During the point-count surveys, the presences of other galliform and important general bird species were recorded.

2.2 Direct observations

In addition to ornithological surveys, direct observation of the species (footprints and visual records) were also recorded. These surveys were conducted during the periods between the point-count surveys. For these surveys, we undertook searches along the trails and across fields. Care was taken to ensure that the footprints of Green Peafowl were not confused with those of large waterbirds, and they were usually separated by their location. Large waterbirds prefer to frequent and forage near ponds or waterway.

2.3 Questionnaire survey of local people and hunters

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 were 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? Why?

3. Results

3.1 Galliform surveys

The results from the ornithological, direct observation and questionnaire surveys are summarised in Tables 1, 2 and 3. There were 15 surveyed points with a total of 14 Green Peafowl being heard calling and seven locations where footprints of the species were recorded.

The information we provide on the numbers of Galliformes hunted in the Eastern Snuol area clearly show that illegal hunting and trapping is a major threat to the status and conservation of many species. Hunting is undertaken by few hunters during periods when food is short, to provide a source of protein for the village and an income. Trapping is undertaken by some villagers to provide supplementary food and entertainment. This usually involves setting up to 40 traps around the rice fields to opportunistically trap any ground dwelling animals or birds. Not all species are equally affected by hunting, with those that are easy to catch (Red Junglefowl), or are desirable for meat, eggs and feathers (Green Peafowl) being especially targeted by the hunters. The main purpose of this trapping is to provide food for the hunter and his family, the village and occasionally to sell at local markets as meat or occasionally (especially in the case of Green Peafowl) for the pet trade.

Another threat to Galliformes in the area we surveyed is habitat degradation by illegal logging to provide wood for house construction by local people or to generate income, and forest clearance to provide area for cultivation. Possibly of more concern is that not only does logging destroy habitats, but it also opens up access to the forest, causes disturbance and loggers also hunt Galliformes for food and start cooking fires, which may spread and cause further forest damage. The collection of non-timber products (bamboos, resins) and food (plants, leaves, fish, etc) 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 into the forest. This adds to the disturbance problems, may spread disease to wildlife.

Table 1 Summary information from the ornithological (point count) surveys undertaken within the Eastern Snuol area, Kratie and Mondulkiri provinces, Eastern Plains of Cambodia during 15th to 25th October 2005

Species	Number of Survey Points	Number of birds heard	Number of birds seen
Chinese Francolin <i>Francolinus pintadeanus</i>	15 locations	71	2
Chestnut-headed Partridge <i>Arborophila cambodiana</i>	15 locations	0	0
Scaly-breasted Partridge <i>Arborophila chloropus</i>	15 locations	0	0
Red Junglefowl <i>Gallus gallus</i>	15 locations	26	3
Silver Pheasant <i>Lophura nycthemera</i>	15 locations	0	0
Siamese Fireback <i>Lophura diardi</i>	15 locations	0	0
Germain's Peacock Pheasant <i>Polyplectron germaini</i>	15 locations	0	0
Green Peafowl <i>Pavo muticus</i>	15 locations	14	0
Bar-backed Partridge <i>Arborophila brunneopectus</i>	15 locations	0	0
Rain Quail <i>Coturnix coromandelica</i>	15 locations	0	3
Japanese Quail <i>Coturnix japonica</i>	15 locations	0	0
Blue-breasted Quail <i>Coturnix chinensis</i>	15 locations	0	0
Grey Peacock Pheasant <i>Polyplectron bicalcaratum</i>	15 locations	0	0
Orange-necked Hill-partridge <i>Arborophila davidi</i>	15 locations	0	0



Photo 1 Food for Green Peafowl that is similar to rice.

Table 2 Summary information from direct observation surveys undertaken within the Eastern Snuol area, Kratie and Mondulkiri provinces, Eastern Plains of Cambodia during 15rd to 25th October 2005

Species	Number of locations observed	Indications of birds presence	Number of birds seen
Chinese Francolin <i>Francolinus pintadeanus</i>	9	running & flying	11
Chestnut-headed Partridge <i>Arborophila cambodiana</i>	0	0	0
Scaly-breasted Partridge <i>Arborophila chloropus</i>	0	0	0
Red Junglefowl <i>Gallus gallus</i>	5	scratches	5
Silver Pheasant <i>Lophura nycthemera</i>	0	0	0
Siamese Fireback <i>Lophura diardi</i>	0	0	0
Germain's Peacock Pheasant <i>Polyplectron germaini</i>	0	0	0
Green Peafowl <i>Pavo muticus</i>	8	footprint	13
Bar-backed Partridge <i>Arborophila brunneopectus</i>	0	0	0
Rain Quail <i>Coturnix coromandelica</i>	3	running	3
Japanese Quail <i>Coturnix japonica</i>	0	0	0
Blue-breasted Quail <i>Coturnix chinensis</i>	0	0	0
Grey Peacock Pheasant <i>Polyplectron bicalcaratum</i>	0	0	0
Orange-necked Hill-partridge <i>Arborophila davidi</i>	0	0	0



Photo 2 Footprint of Green Peafowl

Table 3 Summary information from the questionnaire survey undertaken within the Eastern Snoul area, Kratie and Monduliri provinces, Eastern Plains of Cambodia during 15th to 25th October 2005

Species	Numbers thought to occur	Numbers hunted
Chinese Francolin <i>Francolinus pintadeanus</i>	900	83 / year
Chestnut-headed Partridge <i>Arborophila cambodiana</i>	0	0
Scaly-breasted Partridge <i>Arborophila chloropus</i>	0	0
Red Junglefowl <i>Gallus gallus</i>	490	95 / year
Silver Pheasant <i>Lophura nycthemera</i>	0	0
Siamese Fireback <i>Lophura diardi</i>	280	0
Germain's Peacock Pheasant <i>Polyplectron germaini</i>	0	0
Green Peafowl <i>Pavo muticus</i>	126	1
Bar-backed Partridge <i>Arborophila brunneopectus</i>	0	0
Rain Quail <i>Coturnix coromandelica</i>	400	0
Japanese Quail <i>Coturnix japonica</i>	0	0
Blue-breasted Quail <i>Coturnix chinensis</i>	0	0
Grey Peacock Pheasant <i>Polyplectron bicalcaratum</i>	0	0
Orange-necked Hill-partridge <i>Arborophila davidi</i>	0	0



Photo 3 & 4 Travelling to the study sites and camping in the forest.

3.2 Other species

In addition to recording galliform species, other important bird species were also recorded and are summarised in Table 4.

Table 4 Summary information of important non-galliform bird species observed within the Eastern Snuol area, Kratie and Mondulhiri provinces, Eastern Plains of Cambodia during 15rd to 25th October 2005

Species	Number of locations observed	Symbols of birds observed	Number of birds observed
Asian Palm swift <i>Cypsiurus balasiensis</i>	1 location	flying	40
Purple Heron <i>Ardea purpurea</i>	2 locations	flying	12
Lesser Adjutant <i>Leptoptilos javanicus</i>	3 locations	flying	6
Milky Stork <i>Mycteria cinerea</i>	1 location	flying	4
Ashy Drongo <i>Dicrurus leucophaeus</i>	5 locations	on the trees and flying	8
Laced Woodpecker <i>Picus vittatus</i>	3 locations	on the trees and flying	3
Crested Treeswift <i>Hemiprocne coronata</i>	5 locations	flying	thousands
Burmese Shrike <i>Lanius collurio</i>	2 locations	on the trees and flying	2
Eurasian Oystercatcher <i>Haematopus ostralegus</i>	1 location	on the tree and flying	1
Long-billed Shrike <i>Lanius schach</i>	1 location	on the tree and flying	1
Common Flameback <i>Dinopium javanense</i>	1 location	on the tree and flying	1

4. Budget

Monthly expenditure for October 2005

Item	Quantity	Unit	Total (US\$)
Travel			
Phnom Penh to Kratie	2 persons	5	10.00
Ox-cart in the field (1)	10 days	9	90.00
Motobikes in the field (2)	1day	5	10.00
Kratie to Phnom Penh	2 persons	5	10.00
Subtotal			120.00
Subsistence			
Food & water (3 persons)	11 days	3.50	115.50
Cooking equipment	4 kinds		11.20
Subtotal			126.70
Equipment			
Backpack	1	15	15.00
Small Batteries	4 pieces	1.80	7.20
Very Small Batteries	4 pieces	1.80	7.20
Raincoat	1	8	8.00
Plastic sheets	3	0.20	0.60
Plastic map	3 metres	1	3.00
Subtotal			41.00
Staff costs			
Programme Leader	1 month	435	435.00
Programme Assistant	1 month	250	250.00
Local Guide (1)	11 days	5	55.00
Subtotal			740.00
Communications			
Internet	1 month		5.00
Phone Card	1 month	10	10.00
Subtotal			15.00
Medicins			
			5.00
Miscellaneous			
Administration			5.00
Subtotal			5.00
TOTAL			1052.70

NB: This survey was funded by \$776.50 leftover from Green Peafowl surveys undertaken initially during January to April 2005, and funded by The Pheasant Specialist Group through the World Pheasant Association. The remaining expenditure was provided by a grant given to the WPA.