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 25th March and 5th April 2006, we undertook ornithological, trapping and questionnaire surveys to establish the status and threats to Galliformes, particular the Chestnut-headed Hill-partridge, in the Thma Bang area, Koh Kong Province within the Central Cardamom Mountains, Southwest Cambodia. We established the presence of seven galliform species by the ornithological and questionnaire surveys, a direct observation and by a trapping survey. All species occurred at medium densities with Siamese Fireback, Silver Pheasant, Scaly-breasted Hill-partridge, Chestnut-headed Hill-partridge and Red Junglefowl being the most numerous.

1. Study areas

Between 26th March and 5th April 2006 the study was based around two communes and four villages within the Thma Bang area of Koh Kong province, within the Central Cardamom Mountain range in Southwest Cambodia. The topography of the area consisted of a plateau at around 350 meters asl, with the area being primarily covered by the dense and semi-dense forests. Within this study area we surveyed all galliform species, but we were primarily concerned with collecting information on Chestnut-headed Hill-partridge.

2. Methods

Three methods were used to record the presence of Galliformes, assess their numbers and establish their threats. These were ornithological and questionnaire surveys, a direct observation and a trapping survey.

2.1 Ornithological surveys

Surveys were undertaken between 26th March and 5th April 2006 using a combination of transects (to establish presence) and point-counts (to measure abundance). Each transect took about 90 minutes to walk, started at 05:30 and 16:30 and finished at 07:30 and 18:30 respectively. In addition we undertook surveys at other times as local hunters had informed us that Chestnut-headed Hill-partridge also calls before going to roost in mid-morning (09:00-10:00) and late afternoon (15:00-16:00). During the surveys, when a bird was heard calling its direction, estimated distance from the observer and it position (recorded by a Geographical Positioning System (GPS)) was recorded. During the surveys the presence of other important non-galliform bird species was also recorded.

2.2 Questionnaire survey of local people and hunters

A questionnaire survey of local communities was also undertaken to collect information on their perceived status of Galliformes, their distribution and to ascertain their threats.

The 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?
Do you prefer Green Peafowl? Why?

2.3 Direct Observation

In order to collect some direct observation information we used motorbikes to travel at slow speed along available roads. Surveys were undertaken along both sides of four roads, covering at least 10 km.

2.4 Trapping surveys

A trapping survey, using lines of leg-hold snares, was undertaken. About 50 traps were set near water and were checked regularly.

3. Results

3.1 Information on Galliformes

The results from the ornithological and questionnaire surveys and trapping survey are summarised in Table 1, 2, 3 and 4. Between 26th March and 5th April 2006, we walked fifteen transects, during which four species of Galliformes were heard calling at thirty one locations. Additionally, a Chestnut-headed Hill-partridge was caught by one of the snares, two individual Chestnut-headed Hill-partridge, one Red Junglefowl and many individual Japanese Quail were observed directly along the transects and the old roads in the study area. Information from the questionnaires revealed that Chestnut-headed Hill-partridge was thought to be only present in small numbers on the elevations higher than 400 metres asl, which was far from the villages. The species was heard calling at seven locations. Siamese Fireback was thought to be more numerous than Chestnut-headed Hill-partridge, being observed primarily on the tops of the high hills. Silver Pheasant was thought to be more numerous than Siamese Fireback, being found primarily on the hillside slopes. It was heard calling from two locations. Scaly-breasted Hill-partridge were heard calling at five locations, occurring at elevations lower than 420 metres asl. It was thought that this species was widespread and common throughout the study area. Red Junglefowl was heard calling from seventeen locations. It was thought that the species was common throughout the study area, but its population was smaller than Scaly-breasted Hill-partridge.

Table 1 Summary information from the ornithological surveys undertaken in the Thma Bang area within the Central Cardamom Mountains during 26th March to 2nd April 2006

Species	Number of Transect	Number of birds heard	Number of birds seen
Chinese Francolin *Francolinus pintadeanus*	15	0	0
Orange-necked Hill-partridge *Arborophila davidi*	15	0	0
Chestnut-headed Hill-partridge *Arborophila cambodiana*	15	7	0
Scaly-breasted Hill-partridge *Arborophila chloropus*	15	5	0
Red Junglefowl *Gallus gallus*	15	17	1
Silver Pheasant *Lophura nycthemera*	15	2	0
Siamese Fireback *Lophura diardi*	15	0	0
Germain's Peacock Pheasant *Polyplectron germaini*	15	0	0
Grey Peacock Pheasant *Polyplectron bicalcaratum*	15	0	0
Green Peafowl *Pavo muticus*	15	0	0
Bar-backed Partridge *Arborophila brunneopectus*	15	0	0
Rain Quail *Coturnix coromandelica*	15	0	0
Japanese Quail *Coturnix japonica*	15	0	0
Blue-breasted Quail *Coturnix chinensis*	15	0	0

Numerous signs of scratching of Chestnut-headed Hill-Partridge were observed in the Thma Bang area, Koh Kong province within the Central Cardamom Mountains, Southwest Cambodia

Table 2 Summary information from the questionnaire surveys undertaken in the Thma Bang area within the Central Cardamom Mountains during 26th March to 5th April 2006

Species	Numbers thought to occur	Numbers hunted
Chinese Francolin *Francolinus pintadeanus*	0	0
Chestnut-headed Hill-Partridge *Arborophila cambodiana*	10000+	4000
Orange-necked Hill-partridge *Arborophila davidi*	0	0
Scaly-breasted Hill-partridge Arborophila chloropus	10000++	2000
Red Junglefowl *Gallus gallus*	10000	1000
Silver Pheasant *Lophura nycthemera*	10000+	500
Siamese Fireback *Lophura diardi*	7000	100
Germain's Peacock Pheasant *Polyplectron germaini*	0	0
Grey Peacock Pheasant *Polyplectron bicalcaratum*	0	0
Green Peafowl *Pavo muticus*	0	0
Bar-backed Partridge *Arborophila brunneopectus*	0	0
Rain Quail *Coturnix coromandelica*	0	0
Japanese Quail *Coturnix japonica*	10000++	0
Blue-breasted Quail *Coturnix chinensis*	0	0

Table 3 Summary information from the direct observation undertaken in the Thma Bang area within the Central Cardamom Mountains during 26th March to 5th April 2006

Species	Numbers of roads	Numbers of birds observed
Chinese Francolin *Francolinus pintadeanus*	4	0
Orange-necked Hill-partridge *Arborophila davidi*	4	0
Chestnut-headed Hill-partridge *Arborophila cambodiana*	4	3
Scaly-breasted Hill-partridge Arborophila chloropus	4	5
Red Junglefowl *Gallus gallus*	4	2
Silver Pheasant *Lophura nycthemera*	4	0
Siamese Fireback *Lophura diardi*	4	0
Germain's Peacock Pheasant *Polyplectron germaini*	4	0
Grey Peacock Pheasant *Polyplectron bicalcaratum*	4	0
Green Peafowl *Pavo muticus*	4	0
Bar-backed Partridge *Arborophila brunneopectus*	4	0
Rain Quail *Coturnix coromandelica*	4	0
Japanese Quail *Coturnix japonica*	4	8
Blue-breasted Quail *Coturnix chinensis*	4	0

Table 4 Summary information from the trapping survey undertaken in the Thma Bang area within the Central Cardamom Mountains during 26th March to 5th April 2006

Species	Numbers of traps	Numbers of birds trapped
Chinese Francolin *Francolinus pintadeanus*	50	0
Orange-necked Hill-partridge *Arborophila davidi*	50	0
Chestnut-headed Hill-partridge *Arborophila cambodiana*	50	1
Scaly-breasted Hill-partridge Arborophila chloropus	50	0
Red Junglefowl *Gallus gallus*	50	0
Silver Pheasant *Lophura nycthemera*	50	0
Siamese Fireback *Lophura diardi*	50	0
Germain's Peacock Pheasant *Polyplectron germaini*	50	0
Grey Peacock Pheasant *Polyplectron bicalcaratum*	50	0
Green Peafowl *Pavo muticus*	50	0
Bar-backed Partridge *Arborophila brunneopectus*	50	0
Rain Quail *Coturnix coromandelica*	50	0
Japanese Quail *Coturnix japonica*	50	0
Blue-breasted Quail *Coturnix chinensis*	50	0

Chestnut-headed Hill-Partridge caught by the leg-hold traps set by our team in the Thma Bang area, Koh Kong province within the Central Cardamom Mountains, Southwest Cambodia

3.2. Threats to Galliformes

The information we collected on the numbers of Galliformes hunted in the study areas clearly show that illegal trapping is a major threat to the status and conservation of many species. Trapping is undertaken by some non-wood collectors from within and outside the local community to provide supplementary food during they stay within the forest. This usually involved setting between 500 to 1500 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 and are desirable for meat (Chestnut-headed Hill-partridge, Scaly-breasted Hill-partridge, Silver Pheasant and Red Junglefowl) being especially targeted by hunters. The main purpose of this trapping is to provide food for the hunter, and their families and villagers.

Another threat to Galliformes in the area we surveyed is habitat degradation by forest clearance to provide area for cultivation. Possibly of more concern is that not only does clearing destroy habitats, but it also opens up access to the forest, causes disturbance and cultivators also hunt Galliformes for food and start cooking fires and burn the death trees, which may spread and cause further forest damage. The collection of non-timber products (bamboos, resins, fruits) and food (plants, 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. They sometime carried domestic chicken with them into the forest. This is able to may spread the avian influenza to the wild birds.

Large neck-hold (left) and leg-hold traps set by hunters in the Thma Bang area, Koh Kong province within the Central Cardamom Mountains, Southwest Cambodia

Chestnut-headed Hill-Partridge killed by local people using leg-hold traps in the Thma Bang area, Koh Kong province within the Central Cardamom Mountains, Southwest Cambodia

The feathers of Silver Pheasant observed whilst doing surveys in the Thma Bang area, Koh Kong province within the Central Cardamom Mountains, Southwest Cambodia

3.3. Other Bird Species

In addition to recording galliform species, other important non-galliform bird species were also recorded and are summarised in Tables 5.

Table 5 Summary information of important general species observed within the Thma Bang area in the Central Cardamom Mountains, Southwest Cambodia, during 26th March to 5th April 2006

Species	Scientific Names	Status
Wreath Hornbill	*Aceros undulatus*	Very Common
Hill Myna	*Gracula religiosa*	Rare
Oriental Pied Hornbill	*Anthracoceros albirostris*	Very Common
Black-headed Bulbul	*Pycnonotus atriceps*	Common
Black Drongo	*Dicrurus macrocercus*	Common
White-crested Laughingthrush	*Garrulax leucolophus*	Very Common
Greater Racket-tailed Drongo	*Dicrurus paradiseus*	Common
Asian Palm Swift	*Cypsiurus balasiensis*	Common
Coppersmite Barbet	*Megalaima haemacephala*	Very Common
Chestnut-bellied Rock Thrush	*Monticola gularis*	Rare
Greater Coucal	*Centropus sinensis*	Common
Spotted Dove	*Streptopelia chinensis*	Common
Mountain Imperial Pigeon	*Ducula badia*	Very Common
Blue-tailed Bee-eater	*Merops philippinus*	Rare
Dollarbird	*Eurystomus orientalis*	Common
Edible-nest Swiftlet	*Collacalia fuciphaga*	Very Rare
Germain's Swiftlet	*Collacalia germaini*	Common
Little Egret	*Egritta garzetta*	Rare
Whiskered Treeswift	*Hemiprocne comata*	Very Common
Thick-billed Green Pigeon	*Treron curvirostra*	Common
Changeable Hawk Eagle	*Spzaetus cirrhatus*	Very Rare
Silver-rumed Needletail	*Rhaphidura leucopygialis*	Rare

Changeable Hawk Eagle
Spzaetus cirrhatus

Hill Myna
Gracula religiosa

Mountain Imperial Pigeon
Ducula badia

Whiskered Treeswift
Hemiprocne comata