MANAGEMENT& CAPTIVE BREEDING OF LADY AMHERST'S PHEASANT (*Chrysolophus amherstiae*) AT JAWAHARLAL NEHRU BIOLOGICAL PARK

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INTRODUCTION

Pheasants are the typical representatives of terrestrial and usually non-migratory birds. Birds constitute a highly specialised group of vertebrates, which have attained the peak of evolutionary perfection and have evolved from reptiles during the Mesozoic era. Lady Amherst's pheasant is scientifically known as *Chrysolophus amherstiae* and belong to the order Galliformes.

CLASSIFICATION

Lady Amherst's pheasant is classified as under :

Phyllum	Chordata
Class	Aves
Order	Galliformes
Family	Phasianidae
Species	amherstiae

METHODOLOGY

A total of three captive Lady Amherst's pheasant (one male, two females) were observed over a two year period. During this period their features, postures, activities during the day, feeding, shedding of feathers, breeding, egg laying were observed. The study is based on observations collected during the hours 0800 to 0700 in different times of a day and in different weather.

HABIT, OBSERVATION AND DISCUSSION

The Lady Amherst's pheasant originated in Tibet, China and North Burma. These are high altitude birds but now adapted well to the plains region. They are widely kept in captivity in India. They are generally terrestrial. Flight may be swift and strong but for a short distance. According to John H. Storer, a leading worker on aero dynamics of birds, the speed of the pheasants are 0-96 km/hr or 0-60 miles/hr. It is recorded as a digger, scratching the ground with its strong bill and claws searching for food (S.D. Ripley). Sexual dimorphism is found in Lady Amherst's pheasant.

Among the other pheasants, cock Lady Amherst's pheasant is a lovely bird exhibiting all dramatic colours of nature in its magnificient plumage. The male has a collar of black and white feather which is spread fanwise on both sides. The rest of the body is coloured yellow, red and metallic green. The tail feathers are white with blue bars and orange feathers. The female is light brown with dark brown mottling. The bill is strong, curved and used for digging. The legs stout and unfeathered, armed with spurs in male, claws short and strong for scratching the ground for food. They spend most of day on the ground, scratching for food by the beak, and roost on the perches at night.

Moulting was prominently noticed in male. Moulting starts in the first week of June with the shedding of tail feather. In the 2nd and 3rd weeks neck and tail feather shed completely. First and 2nd weeks of July new neck and tail feathers starts growing. Third week of July neck and tail half covered with feather. Fourth week of July fully covered.

DIET

Diets are formulated and completely balanced. Pheasants require a higher protein level in their diet, since these birds feed extensively on insects, worms and other animal matters. The following diet are given to the birds :

Wheat	- 10 gm per bird
Poultry feed	- 20 gm per bird
Germinated mung whole	- 10 gm per bird
Pulse grain mixture	- 10 gm per bird
Dalia	- 10 gm per bird
Carrot	- 10 gm per bird
Garlic	- 10 gm per bird
Egg	- 1/4 of egg per bird

ENCLOSURE DESIGN

The Lady Amherst's Pheasants are kept in a covered enclosure of approximately 7.5 x 3 m. and 3 m. height. Three sides are covered with PVC coated chain link mesh fence. The enclosure is divided into two portions. The resting den which is RCC roofed one has concrete flooring with the provision of drinking and eating pans.

The open-air portion is covered with chain link mesh from all side and has grass and sand substrate, planted with dwarf bamboos and shrubs and provisions of twigs for perching. A safety barrier of 1'6" height is provided all around the birds enclosure.

BREEDING

Mating generally takes place during March, April every year. The male is very aggressive; usually infighting is observed between mates during breeding season. As it is polygamous, the male in nature keeps a harem of 3 to 4 females so we have provided a harem of 2 female in captive conditions.

The courtship dance which occurs in a series of steps continues up to 30 to 35 minutes before actual mating takes place. The male coordinates the movement of the female with a particular (chirping) tone. Male sways the collar of the neck, spread its tail feather in a fan-like fashion tilted towards the female. The male lures the female by displaying the beauty of its plumage and flutters its wings in the direction of the female. The female either ignores the display, (in this circumstance the male has to struggle hard), or she pecks on the ground, moving anterior to the male. It was observed that when the female avoids him for a long period, the male captures the female by holding the neck feathers by its beak,. In this process sometimes the female also gets injured. The male then mounts and mating proceeds. The whole process lasts for a few seconds.

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Towards the beginning of April, egg-laying starts which continuous throughout April. The male does not take part either in incubating, nest building and rearing of chick.

The clutch size is of 11 eggs (generally 10-12 eggs). The eggs are laid in a 2-4 days interval. Eggs contain much yolk i.e. macrolecithal, creamy white in colour. Size of eggs - 50 mm x 35 mm and the weight recorded 40 gms. The female does not start to incubate unless the clutch is completed.

INCUBATION OF EGGS: (Through Broody hen)

For incubation of eggs a broody hen was used. The broody hen was kept in a separate compartment in a tray filled with saw dust. The eggs were placed in such a fashion that the body brood area must touch each egg during incubation. The hen was covered with a cane basket. She was allowed to leave the nest once daily for feeding and defecation. It was observed that the sitting hen turns the eggs at regular interval to keep them evenly heated. The first small chick came out on exactly 23rd day, i.e. on 07.05.95 and another one on 11.05.95.

Lady Amherst's Pheasant is precocial, i.e. young are born nearly self-sufficient; they are able to feed themselves with open eyes and to move about within a few hours.

PLACING OF CHICK WITH FOSTER MOTHER

The broody hen acts as foster mother to give the required warmth by covering the young chicks under her feathers. The chick with their foster mother were placed in an especially fabricated wooden house of 2'6" height and 3'6" length covered with chicken mesh. The foster mother was left with the chicks for two months for weaning them.

FEEDING OF CHICKS

First two days only water was provided to the chicks then daliya was added to their diet. After 3 weeks chopped green leaves (saag) was added. From the 6th week termites and pulse grain mixture were supplemented in their diet fortified with vitamins.

SEXING OF CHICKS AND THEIR SEPERATION

It is very difficult to sex the chicks at birth. On close examination protrution of spurs were noticed after two months in two chicks.

After two months the chicks were separated from their foster mother and placed in a big enclosure by the side of their original parents. The chicks are now enjoying their new life and adjusted well, growing and developing fast.

CONCLUSION

While assessing the breeding and egg-laying record of the last two years, it was noticed that egg-laying was not regular at first year and egg-laying was also confined to one female only. The other one neither laid the egg on the first year nor this year, the reason may be due to inmaturity or due to severe injury on her abdominal region causing the deformity. Last year the clutch size was 9. Female even brooded the eggs but only one chick hatched out. Failure of other eggs may be due to high environmental temperature during that period, causing damage to the eggs. Keeping in view the last year's instance of ill hatching, the help of a broody hen was taken, which shows a positive result. This year egg laying was regular and at one place, i.e. on the rack where the nest was built. Out of 11 eggs only 3 chicks hatched. This low hatching may be perhaps due to high environmental temperature. The cause is to be found out.

REFERENCES

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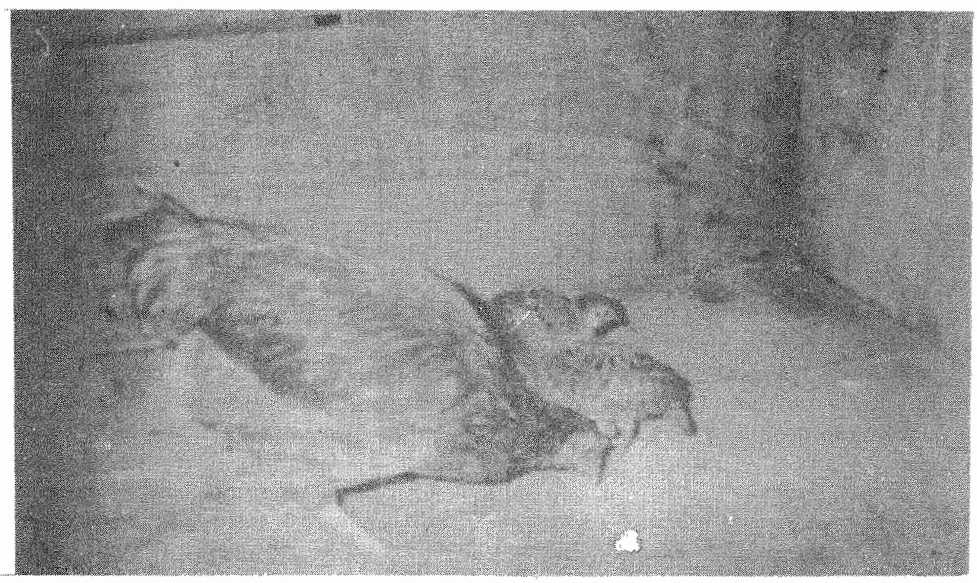

Photograph showing chicks with foster mother