CONSERVATION BREEDING CENTER, KHADIYUN-CHAIL (HP)

INTRODUCTION

Himachal Pradesh has a great role to play in the field of pheasant conservation. The state alone represents seven species of pheasants out of total seventeen species found in India and fifty one species found in the whole of the world. Out of seven, two species namely Western Tragopan and Cheer Pheasants have been declared 'vulnerable' and are listed in IUCN Red Data Book. The presence or absence of pheasants indicates the ecological health of the area/ forest. The areas with optimum population of the pheasants are considered as ecologically balanced areas.

Cheer Pheasant (Catreus wallichii), *Catraeus* (GK)- a peacock like bird; *wallichi*- named after Dr.N. Wallich, botanist and superintendent of East India Company's Garden at Calcutta (Pheasants of India and their aviculture P-21) formerly ranged from Pakistan to the west

central Nepal in Western Himalayas (Ali & Ripley 1980, Delacour 1977). Population, since the earliest records available, the species has been considered scarce and local (Hume and Marshall, 1879). Given its patchy distribution and specialised habitat requirements, it is thought to number less than 10 individuals (mcgowan and Garson 1995) and the total could conceivably be for lower. Gaston (1980) suspected that there might be less than 5000 birds in the wild. Many populations are now thought to number less than 10 individuals (Kalsi 1998) in isolated pockets of suitable habitat (McGowan and Garson, 95) a circumstance with alarming implications for conservation of this species. In April, 1979 there were approximately **40 pairs of Cheer pheasants** in Chail Wild Life Sanctuary at an average density of **6 pairs / Km^2** (Gaston and Singh 1980). This population apparently declined by around 50% between 1979 and 1983 (Garson 1983) although the disparity in calling birds might be partly explained by seasonal effects (the 1983 surveys were conducted around six weeks after those in 1979).

The population decline of this pheasant species is a cause of serious concern. The Himachal Pradesh state has initiated an intensive in-situ conservation programme to save the valuable bio-diversity and presently about **15.01%** of the total geographical area **i.e. 8391.42 sq.km** is under Protected Area Network in the state, after rationalization of sanctuaries, which is quite high as compared to the national average. But still there are pressures on the habitat of this species and its survival depends on the control of these pressures as well as effective support by a conservation breeding projects to build up viable wild populations. IUCN states that, "**If the decision to bring a taxon under *ex-situ* management is left until extinction is imminent, it is frequently too late to effectively implement, thus risking permanent loss of the taxon**. Moreover, ex-situ conservation should be considered as a tool to ensure the survival of the wild population."

Breeding Strategy

There are three methods of captive breeding of pheasants i.e. incubation by natural mother, incubation by broody hens and artificial incubation in incubators. All these three methods of incubation have their advantages and limitations depending upon the objectives of the programme. The incubator method of hatching eggs might be very good to build populations for conservation of the gene pool of a particular species in captivity, but the

efficacy of this method in developing populations for release/re-introduction in the wild is yet to be tested. Similarly, the method of incubation by broody hens, though pretty successful, is fraught with the problem of finding/ preparing broody hen at the most appropriate time. Alternate technique of keeping a stock of broody hens for the purpose is expensive, besides eating into the infrastructural resources of the centre.

Conservation Breeding

The best way to multiply populations of pheasant species to fulfill all stated objectives therefore, seems to be incubation by the natural mother, which also imparts early lesson to the chicks in defending themselves from natural dangers and finding right type of food. Conservation breeding is quite different from captive breeding. In a conservation breeding programme the birds learn the survival skills from the parents. A successful conservation breeding project will provide the opportunity to re-introduce the pheasants to the wild. Conservation breeding-requires aviaries of sufficient size for a whole family of pheasants to be parent reared and be raised whilst not destroying the foliage therein.

Appreciation of the major differences between 'captive breeding' and ‘conservation breeding’ is very crucial to the success of this programme aimed at ex-situ conservation of red data listed cheer pheasants and their eventual re-introduction in the wild. The WPA experience shows that confident, secure birds breed best. Therefore, there needs to be a 'good keeper regime' to help settle birds and to provide conditions that will encourage them to raise their own young. Birds that are not concerned by cleaning regimes and other visits into their aviary have proved to be the best at providing the sort of parenting to equip their young with many survival skills. Similarly, re-introduction experience gained by WPA definitely proves that only parent-reared birds stand any chance of survival on release in the wild. There is not even a single instance which gives a complete model of successful re-introduction of Cheer pheasants in the wild. Greater success can be ensured if large enough enclosures for living together of whole family are provided before taking up their release in the wild. It is, therefore, necessary that the pheasantry should be managed for the conservation breeding and not merely for their captive breeding.

Some interesting and intuitive field research has been done at **Blossom pheasantry** in Chail, findings of which can very well be applied to this conservation breeding programme. Cheer pheasants enjoy grass and also digging for roots and tubers, as well as insects in the

soil. The trays of grass are used well by the birds. Providing of more grasses and provision of regular re-seeding area would encourage and permit more natural behaviour.

Chail wildlife sanctuary, mainly Blossom and Khariun area constitutes the World's most important refuge for IUCN red data listed 'vulnerable' Cheer pheasants (Gaston & Singh, 1980, Garson 1983-87). The natural population of Cheer pheasants showed apparent decline in the surveys conducted in 1979, 1983. There exist two pheasantries viz. at Blossom and Khariun. Earlier, Blossom pheasantry exclusively contained Cheer pheasants and Khariun pheasantry had Red jungle fowl and Kaleej pheasants in addition to Cheer. But now, both have exclusively Cheer Pheasants. These Pheasantries were established long back in 1987-88. No action plan was made earlier. The size of the aviaries was very small and overall infrastructure was inadequate. Further, more important is the fact that according to IUCN guidelines, it is considered undesirable for a captive breeding project to be undertaken within a location where wild populations already exists. An accidental escape could result in disease, infection or inbred stock, polluting the wild birds. So, a release programme is being developed keeping in view all these factors.

Location and Status of the Site

The site is located very near to the existing Khariun protect with in a distance of nearly 7 Km. from Range Office HQ at Chail. The site falls in reserve forest D-51 Jhajha and is surrounded by mixed forest. The aspect is mainly south-eastern and receives maximum sun during the winters which is good for the cheer pheasants. The open hilly moderate slope is mainly covered with grass and occasional scrubs like *Berberis aristata, Principia* and few seedlings of pole stage deodar which can be retained as such inside the enclosures to provide natural hideouts to the birds.

Conservation Breeding Project

The conservation breeding project has already been approved by the Central Zoo Authority, Govt. of India. 7 Nos of breeding enclosures have already been constructed. Area around old peasantry as well as proposed Cheer Conservation Breeding Project at Khariun has been fenced with angle iron interlink chain fencing and anti snake border fencing. The approved project document (management plan) would be a guiding document in implementing this conservation breeding programme. During the last five years about

rupees 170 lac have been spent to develop the pheasantries at Blossom and Khariun. **At present there are 58 adults and 5 chicks in Khariun pheasantry**.

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Chicks of Cheer pheasant (Catreus wallichii)

Enclosures outside view

Inside the enclosure view

Inside the enclosure

Arial view of the Pheasantry

Enclosure as seen from outside

Pheasantry with watch tower in the back drop

(Photos & compilation by A R M Reddy IFS, Text by: Satish Gupta HPFS)

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