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F A X M E S S A G E

To: Dr Ravi Sankaran Fax: 010 91 422 32273 ³⁸²³²
From: Georgina Green 7/2/3
Pages: 1 4 November 1993

Dear Dr Sankaran

Thank you very much indeed for your Lesser Florican article for World Birdwatch. It looks like just the kind of thing I was hoping for. As you said, it may be a little long; I will fax you a version with any edits I have to make for your approval.

Thank you again for writing this, and I look forward to seeing the photographs.

With best wishes.

Yours sincerely

Georgina Green
Communications Manager

- Received your second fax of 6 Nov. this morning.
I've been trying to get this fax through for several days - apologies for the lack of acknowledgement, but I have been trying!



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sent by post
~~F A X M E S S A G E~~

To: Ravi Sankaran Fax: 010 91 422 38232 or 32273
From: Georgina Green 7/2/30
Pages: 5 19 November 1993

WORLD BIRDWATCH ARTICLE

Dear Ravi

Here is an edited version of your article for *World Birdwatch*. I would be very grateful if you could take a look and let me know that you are happy, or any comments or changes, by fax as soon as possible.

The slides arrived here safely, and look good.

Thank you very much indeed for all your help and I look forward to hearing from you soon.

With best wishes

Yours sincerely

Georgina Green

Georgina Green
Communications Manager

Red Data Bird

Lesser Florican

by Ravi Sankaran

By early July the clouds of the south-west monsoon have swept over the Western Ghats and spread over peninsular, north-western and northern India, bringing greenness and water to a land that has been naked and parched through the long hot summer months. And with the onset of the monsoon, the season of the Lesser Florican begins.

The Lesser Florican is one of three bustard species resident in India. Together with the Great Indian Bustard and the Bengal Florican, they are the most threatened species within the group.

The Lesser Florican is a migratory species. Details of its distribution in the non-breeding season are lacking, but it is known to be dispersed over much of peninsular India. With the onset of the monsoon, the birds migrate into north-western India to breed, appearing in Gujarat, western Madhya Pradesh, north-western Maharashtra and south-eastern Rajasthan with the first heavy showers. They breed in grassland, requiring areas not grazed by livestock where the grass is allowed to grow tall during the monsoon season.

Males are territorial; each territory is 1-2 ha in size, and several territories are normally aggregated together into an exploded lek. In the non-breeding season, both male and female Lesser Floricans are cryptically coloured, but in the breeding season the males moult into a showy, predominantly black and white plumage.

Their display is even more spectacular: best described as a "flutter-jump", the bird typically crouches, then springs vertically upwards, and with 10 to 12 rapid wing strokes rises about a metre above the surrounding grass before descending to the ground with wings held loosely. The jump is accompanied by a curious rattling sound produced by specialized feathers on the wings. When a female enters his territory, the male approaches, neck outstretched, halting and jerking his neck back on to the mantle when he gets close to her.

Males display from the onset of the rains until the end of September, often choosing elevated ground or small ridges for their performances. At the peak of the season, they can jump over 600 times a day, favoured spots becoming trampled bare of all vegetation.

The females nest outside the male's territory in a patch of long grass. Clutch-size is usually four, but may be three to six, and the incubation period is about 21 days.

Sadly this magnificent bird is seriously declining. Numbers are known to have been decreasing for many decades, but the past ten years have been particularly catastrophic. In 1989, at the end of a five-year study on the Lesser Florican by the Bombay Natural History Society (BNHS), the species's known breeding range was surveyed. In 63 grassland areas spread across most of the range, covering a total of 332 km², 45 individuals were recorded, leading to a population estimate of 750 birds. This was a dramatic decrease from 1982, when a BirdLife-sponsored survey of parts of Saurashtra in Gujarat and a BNHS survey of parts of western Madhya Pradesh estimated a total of 4,500 birds. Clearly, the Lesser Florican was in serious trouble.

But why? A look at the biology of the species and its breeding habitat, and the ecological and political changes in north-western India may provide the answers.

The south-west monsoon is erratic in date of arrival, in areas where rain falls, in the amount of rain and in its distribution through the season. Thus the Lesser Florican is nomadic, congregating in areas where rainfall has been or will be adequate. Good rains are essential to breeding success, because without rain the grass does not grow sufficiently to provide the necessary cover for nesting.

Centuries ago, the grasslands in which the Lesser Florican breeds extended over several thousand square kilometres, covering all areas in north-west India that were not forested or mountainous. But today these grasslands, known as *bheed* or *vidi*, are minute islands in an ocean of cultivation, over-grazed land and urban areas. In fact, *bheed* is perhaps the most fragmented and patchily distributed of habitat types in India today, with patches rarely exceeding 1000 ha and more often being less than 100 ha. These small areas, mostly owned by the government or by farmers, are generally allowed to grow long during the monsoon, and then harvested for hay.

The loss of these grasslands really began at the end of the feudal era. Until that time, landowners needed large areas of *bheed* to produce sufficient hay for their cattle and horses. With the change in the land act (the Land Ceiling Act) in the early 1970s, large areas of grassland reverted to government ownership, or were divided and given to a number of small agrarians. As the need for fertile land increased to meet the demands of a growing population, these grasslands were gradually destroyed. At the same time, the livestock population in the area grew, meaning that all grassland that was not specifically protected was soon over-grazed.

But habitat loss itself was not the primary factor in the large-scale decline of the Lesser Florican. In the past, the species was an extremely popular game bird, and entire male populations were decimated in a single morning's shoot during the breeding season. The widespread hunting prompted A.O Hume, one of the great fathers of Indian ornithology, to write in 1879 "Owing to the unsportsmanlike manner in which these beautiful birds are massacred during the breeding season, they are everywhere diminishing perceptibly in numbers and will, in another half century be, I fear, almost extinct". Fortunately the threat from hunting, though still present, is much reduced, largely because of the introduction of strict regulations.

The dramatic decline of the Lesser Florican between 1982 and 1989 cannot be explained by either of these factors, however, since much of the grassland that existed in 1982 was still present in 1989, and hunting pressure was not great. The problem was almost certainly rainfall. For three years, between 1985 and 1987, north-western India was gripped by a severe drought, and the breeding success of the Lesser Florican was extremely low in most areas. Lack of rain is a very real problem for the Lesser Florican, since north-western India experiences sub-normal rainfall or droughts at least once every four years. Since 1988, however, the rains have been good, and there are indications that the population may have recovered a little.

The unreliability of the rainfall has significant implications for the conservation of the Lesser Florican. Although western Madhya Pradesh has better habitat for the species than west Gujarat, inadequate rainfall in the former might cause the birds to migrate to the latter. Even if weather conditions were favourable in the latter, breeding success would be low because of lack of suitable grassland. Rainfall patterns are such that optimal conditions can occur in pockets as small as a few hundred square kilometres, and the chances of these conditions coinciding with adequately protected grassland are slight. It is therefore necessary to protect grasslands throughout the species' breeding range, so that wherever the birds migrate in their search for optimum rainfall, they will find adequate habitat. Given the size of the species's range (over 342,000 km²), this is a daunting task indeed.

An increase in the area of ungrazed grassland is not incompatible with the needs of the local people. Optimal Lesser Florican habitat is excellent for hay production, and hay is extremely useful cattle fodder. Growing hay to feed cattle is in fact a more efficient and sustainable way of using the land than allowing the cattle to free-graze. It does require, however, a change in the way cattle are kept, from free-grazing to stall-fed.

If funds are forthcoming, the Salim Ali Centre for Ornithology and Natural History will initiate a series of conservation measures for the species. The plan is to survey the breeding range in 1994 to re-assess the population and its trend. A workshop will then be held, involving conservationists and land-use managers, to discuss methods by which the extent of protected grasslands can be increased. As part of a much longer-term action plan, land that is currently overgrazed and unprotected will be identified, and a network of protected grasslands will be established. The goal is that in 10 years time, around a tenth of north-western India should be protected grasslands used for hay production. If this is achieved, the Lesser Florican should be able to survive into the future.

Lesser Florican *Sypheotides indica*
Bengal Florican *Houbaropsis bengalensis*
Great Indian Bustard *Ardeotis nigriceps*.

Ravi Sankaran did his doctoral dissertation on the Lesser Florican while working with the Bombay Natural History Society. He is currently working for the Salim Ali Centre for Ornithology and Natural History in the Andaman and Nicobar Islands.

1447 words



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F A X M E S S A G E

To: Dr Ravi Sankaran Fax: 010 91 422 38232
From: Georgina Green 7/2/3
Pages: 1 24 November 1993

WORLD BIRDWATCH ARTICLE

Dear Dr Sankaran

I hope by now that you have received acknowledgement of receipt of your article and slides, which I sent by Swift Air on 6 November. I received today your letter saying you had not, but I hope it is out of date now. I apologise for any delay in the acknowledgement - I have been trying to contact you by fax since 4 November but have not been able to get anything through.

On Friday I sent by Swift Air an edited version of the article for your approval. I hope that this arrives safely, and would be very grateful if you could fax me as soon as possible, so that I can go ahead with production of the magazine.

Thank you very much.

With best wishes

Yours sincerely

Georgina Green

Georgina Green
Communications Manager



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7/2/3
GG/mh

4 January 1994

WORLD BIRDWATCH

Dear Ravi

Thank you for your letter of 29 November 1993, which I received only on the 24 December. I regret to say that the magazine has already gone to press and is therefore too late to incorporate your suggested amendments. Clearly, we had some unfortunate communication problems - I tried to fax the edited version to you repeatedly over several weeks without success, and also sent you several communications by Swift Air.

I very much hope that you will be pleased with the article when it appears; I will send you several copies of the magazine. I wonder whether you would allow us to make copies of your slides to keep in our slide library. We are trying to build up this collection, for use both by the BirdLife network, and outside publishers etc. If any were used for commercial publication, we would make a charge, which we could split with you if you required (50:50 is the most usual arrangement). Obviously you would be credited whenever the pictures appeared. I would be grateful if you could let me know about this.

Thank you once again for contributing to *World Birdwatch*.

With best wishes for 1994.

Yours sincerely

A handwritten signature in black ink that reads "Georgina Green".

Georgina Green
Communications Manager