The Cranes of Madhav National Park

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Introduction

India can boast of having 6 out of 15 species of crane found in the world. They are Sarus (Grus antigone), Blacknecked (G. nigricollis), Common or Eurasian (G. grus), Hooded (G. monacha), Siberian (G. leucogeranus), and Demoiselle Crane (Anthropoides virgo).

In Madhya Pradesh, the Sarus, Common & Demoiselle have been regularly reported from National Chambal Sanctuary (district Morena), Karera Bustard Sanctuary and Madhav National Park (both in district Shivpuri). The cranes have been seen in Dhar and Raipur districts also. The present status of cranes in other parts of Madhya Pradesh remains obscure.

The largest congregation of these three not-yet-endangered species of crane in Madhya Pradesh has been reported from Madhav National Park where they can be seen in large number in winter.

Madhav National Park

The Madhav National Park (25°26" N. and 77°42" E) is situated in Shivpuri district of Madhya Pradesh. The State Government declared it to be a national park from 1st January 1959. The present area of the park is 156 sq. kms. The notification for extension of the park has been issued by the State Government vide No. 14/1/28-10(2) dated 28.5.82, as a result of which the area will become 337 sq. kms. after the completion of
the process of transfer of the area (see map-1).

The two national highways No. 3 (Agra-Bombay) and No. 25 (Shivpuri-Bhoginipur) divide this park into three parts. There is also a good network of metal roads in the central zone of the park.

The entire area is covered by a series of undulating hills with intermittent valleys and two lakes. The numerous hill streams and gorges retain the water throughout the year. The altitude of the park varies from 380 metres to 480 metres above mean sea level. The maximum temperature in summer (April-June) and minimum temperature in winter (October-January) are 45° and 3°C respectively. The average rainfall (July-September) is 1010 mm per year.

The forests of the park are northern dry deciduous mixed type, and mainly consist of kardhoi (Anogeissus pendula), khair (Acacia catechu), salai (Boswellia serrata), dhaora (Anogeissus latifolia), nirguri (Vitex negundo) and siarkanta (Argemone mexicana). The jamun (Eugenia jambolana) and mahua (Madhuca indica) are found along the nallahs.

Panther, chital, nilgai, chinkara, sambar, chausinga, black buck, wild boar, wild dogs, langur etc. are the main animals of the park. Tiger has not been seen for a long time. Recently two tigers have been released in the park for the tiger safari. About 200 species of birds have been recorded, out of which 80 species can be seen in both lakes during winter when a number of migratory birds come here. Crocodiles can be seen basking in the sun near the lakes.

Lakes

Two lakes, namely, Sakhya Sagar and Madhav Lake, are situated in the south-central part of the unextended Madhav National Park, the area being 3 sq. kms and 0.49 sq. kms respectively. The water level of the lakes during rains rises by 8 feet. The one-fourth of the boundary of Sakhya Sagar is concrete wall while the rest is natural boundary with muddy, marshy area gradually sloping down to shallow and then deep water. Cranes are found in the latter area. They are also seen at Madhav Lake.

The Cranes

Demoiselle and Eurasian Cranes arrive in Madhav National Park in winter while the Sarus breeds here.

Table-1 shows the year-wise census of cranes of the park. The census has been done in winters. In case of the year when major variation was found in the number of cranes counted by different persons, the maximum number has been taken for comparison. The park authorities say that they do not have any record about their numbers.

Data for the years before 1983-84, are not available.

Sarus should also be counted during the breeding period. Their numbers shown in Table-1 have been taken from winter census only.

Table-1

<table>
<thead>
<tr>
<th>Year</th>
<th>Demoiselle</th>
<th>Eurasian</th>
<th>Sarus</th>
</tr>
</thead>
<tbody>
<tr>
<td>1983-84</td>
<td>600</td>
<td>125</td>
<td>21</td>
</tr>
<tr>
<td>1984-85</td>
<td>650</td>
<td>80</td>
<td>13</td>
</tr>
<tr>
<td>1985-86</td>
<td>400</td>
<td>50</td>
<td>17</td>
</tr>
<tr>
<td>1986-87</td>
<td>557</td>
<td>100</td>
<td>50 (?)</td>
</tr>
<tr>
<td>1987-88</td>
<td>7000</td>
<td>1000</td>
<td>50 (?)</td>
</tr>
</tbody>
</table>

Discussion

Upto the winters of 1986-87, only a few hundred Demoiselle and Eurasian Cranes arrived annually in Madhav National Park. But in the winters of 1987-88, upto 7,000 Demoiselle and 1,000 Eurasian Cranes were counted. Even if a big error margin is left, it is certain that these cranes came in far greater number than previous years.

Their sudden increase appears due to scarcity of rains in adjoining states of Gujarat and Rajasthan in 1986 and 1987, and an early drying of the lakes in the north. Severe winter in the north in 1986-87 and 1987-88 might be a second cause. The winter of 1987-88 may be called "the winter of great variation".

The Sarus breeds in Madhav National Park. Four juveniles with their parents were seen in January 1988. Here they build their nest in muddy and slightly grassy area near the shallow water of the lake. Cattle grazing is a major problem as they come to this shallow area to drink water, thus disturb the cranes and destroy their breeding ground. Further study is needed.

A large concentration of the Demoiselle Cranes was found near Kota (Rajasthan), and recently, the Sarus has also colonised here. As the straight distance between Madhav National Park and Kota is about 200 kms, there is scope to compare the number of cranes that arrive every year at both places to find out if any relationship exists between them. If it does, whether it is proportionate or inverse. This may be done with the cranes of Karera Bustard Sanctuary also.
From many places in India the cranes are reported to cause a lot of destruction to crops, and hence the farmers are annoyed. There is no such problem with the cranes of Madhav National Park because during their stay the cranes seem to remain within the park. If they cause any damage to the crops of surrounding villages, it should be negligible as no complaint has been filed so far.

It is necessary to know the present status of cranes in central and eastern Madhya Pradesh to ascertain whether all Demoiselle and Eurasian Cranes that arrive in Madhav National Park remain there or some of them further migrate towards other parts of the state.

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