

OBSERVATIONS OF SARUS CRANES (*Grus antigone*) NEAR LUMBINI,
RUPANDEHI DISTRICT, SOUTH-WESTERN NEPAL

By R. Crawford Prentice and Mahendra K. Shrestha

(1989)

INTRODUCTION

The Rupandehi District of south-western Nepal (see Figure 1) was visited on 21-22 August 1989 in order to assess the status of Sarus Cranes (*Grus antigone*).

Inskipp & Inskipp (1985) describe the Sarus Crane as resident in the terai, occasionally noted from Kapilvastu District westwards. They are known to occur between Bhairahawa town and Lumbini village 21 km to the west, close to the Indian border and some 130 km WSW of Kathmandu. The topography is flat to gently undulating and is dissected by numerous rivers, the area being prone to seasonal flooding. The region is heavily populated and the local economy is rural, with cattle-grazing and rice cultivation predominating. Lumbini village is known internationally as the recognized birthplace of Gautama Buddha and the sacred site is being developed according to a master plan established by the Lumbini Development Trust. As such it is a major destination for foreign pilgrims, chiefly from East Asia. This site, together with the natural swamps fed by the Telar, Ghoraha and Harhawa Rivers and surrounding ricefields constitute the foraging and breeding areas of the cranes. Figure 1 shows the location of the area surveyed.

OBSERVATIONS

An attempt was made to census all the cranes in the vicinity of Lumbini village. Cranes were observed in fields near the road from Bhairahawa to Lumbini (from the local bus) and in fields on all sides of Lumbini which were checked on foot. The approximate distribution of cranes recorded during the survey is shown in Figure 2.

A total of two pairs of cranes were seen between Bhairahawa and Lumbini on 21 August. Five pairs and a single bird were seen on the return journey on 22 August.

The survey on foot around Lumbini village revealed two pairs to the west/north-west of the village, one bird to the north, one bird c.6 km to the west of Lumbini, and two pairs plus an individual to the south/south-east.

The combined sightings indicate the presence of at least ten pairs and four individual Sarus Cranes. A list of other species recorded is given in the Appendix.

DISCUSSION

It would appear that the cranes had not yet taken up their breeding sites at the time of the survey, as all birds were seen standing or actively foraging in ricefields, and no nests were located. Surveys around the sparsely wooded grass-swamps at Lumbini village failed to locate any cranes. Neither were the cranes seen to commute from these habitats to or from the ricefields. MKS found two occupied nests each containing two eggs during a survey of the same area on 20 September 1988.

The total number of birds recorded is almost certainly an underestimate of the local population, in view of the extent of apparently suitable habitat and the limited area that could be covered without the assistance of a vehicle.

In June 1988, Sarus Cranes were found at 13 out of 31 sites surveyed. Fourteen individuals were observed in the outskirts of Lumbini Development Project in

Rupandehi District, 9 in Banke, 5 in Kapilvastu and one each in Bardia and Kailai Districts. Local people confirmed the presence of cranes in Nawalparasi, Dang and Kanchanpur Districts although no birds were seen during the survey (Shrestha and Suwal, 1988).

The cranes were remarkably unafraid of people, allowing local people at work in the fields to approach to within 20 metres of them. It therefore seems unlikely that local people pose a threat to the cranes at Lumbini through hunting or persecution, although Shrestha & Suwal (1988) received reports of hunting in certain other areas (eg, Kapilvastu), and some trapping and egg-collecting. Notably, they found that the majority of rural inhabitants have some respect for the cranes, which figure in local superstitious beliefs.

The planned developments at Lumbini village include extensive tree-planting which may affect the suitability of the areas concerned as breeding sites for the cranes. However, more information on the present breeding sites is required in order to assess this.

The drainage and conversion of wetlands for agriculture is thought to be the main reason for the Sarus Crane's decline in south-western Nepal, although the apparent adaptability of the birds, such as building their nests on the bunds around the edges of ricefields, offers scope for some optimism. The use of agro-chemicals such as pesticides is a possible threat, although as yet unquantified.

Future studies could assess whether habitat destruction, hunting and egg-collection continue to provide cause for concern, while monitoring numbers, breeding success and habitat preferences would be a step towards the conservation management of this Sarus Crane population. A campaign to develop awareness of the vulnerability of the cranes among inhabitants of the Lumbini area and to engender further respect for the birds and their habitats would also assist in their conservation.

REFERENCES

Inskipp, C. & Inskipp, T.P. (1985). *A Guide to the Birds of Nepal*. Croom Helm.

Shrestha, M.K. & Suwal, R.N. (1988). *Sarus Crane Survey Project Nepal 1988*. King Mahendra Trust for Nature Conservation, Nepal.

Crawford Prentice, Brockholes, Duns, Berwickshire, Scotland TD11 3RL

Mahendra K. Shrestha, Department of National Parks and Wildlife Conservation, P.O.Box 860, Babar Mahal, Kathmandu, Nepal.

Appendix

Annotated checklist of birds recorded in the Lumbini area on 21-22/8/89.

Little Egret *Egretta garzetta* - three on 22nd.

Great Egret *E.alba* - one on 21st.

Cattle Egret *Bubulcus ibis* - common in ricefields.

Indian Pond-heron *Ardeola grayii* - several in ricefields.

Asian Openbill *Anastomus oscitans* - five on 21st, six in different locations on 22nd.

Woolly-necked Stork *Ciconia episcopus* - 18 in ricefields on 21st.

Stork sp. - 14 sitting in a distant tree on 22nd.

Lesser Treeduck *Dendrocygna javanica* - two pairs on 22nd.

White-backed Vulture *Gyps bengalensis* - two adults and four immatures on 22nd.

Black-winged Kite *Elanus caeruleus* - one on 21st and one on 22nd.

Black Kite *Milvus migrans* - three on 21st, c.6 on 22nd.

White-eyed Buzzard *Buastur teesa* - one on 21st, 2 on 22nd.

Red-wattled Lapwing *Vanellus indicus* - common in ricefields.

Common Sandpiper *Actitis hypoleucos* - one on 22nd.

Collared Dove *Streptopelia decaocto* - common.

Rose-ringed Parakeet *Psittacula krameri* - roost of 1500+ in trees at Lumbini.

Koel *Eudynamys scolopacea* - heard on 22nd.

Brown Hawk-owl *Strix leptogrammica* - one in the Sacred Garden on 22nd.

House Swift *Apus affinis* - several on 22nd.

White-throated Kingfisher *Halcyon smyrnensis* - one on 21st.

Blue-tailed bee-eater *Merops philippinus* - one on 22nd.

Little Green Bee-eater *M. orientalis* - one on 21st.

Indian Grey Hornbill *Tockus birostris* - one in swampy woodland at Lumbini on 21st.

Hoopoe *Upupa epops* - two on 21st.

Rufous-winged Bushlark *Mirafra erythroptera* - one on 22nd.

Barn Swallow *Hirundo rustica* - several seen.

Richard's Pipit *Anthus novaeseelandiae* - several seen.

Pied Bushchat *Saxicola caprata* - two pairs on 21st.

Zitting Cisticola *Cisticola juncidis* - common in ricefields.

Large Grey Babbler *Turdoides malcolmi* - fairly common.

Purple Sunbird *Nectarinia asiatica* - several in Sacred Garden on 22nd.

Pied Starling *Sturnus contra* - common, roost of hundreds in trees at Lumbini.

House Crow *Corvus splendens* - roost of hundreds in trees at Lumbini.

Black Drongo *Dicrurus adsimilis* - common.