

Status of the Black-necked Stork *Ephippiorhynchus asiaticus* in the Indian subcontinent

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The Black-necked Stork *Ephippiorhynchus asiaticus* has declined steeply in the Indian subcontinent. A review of historical and recent records shows that this decline has involved a general reduction in abundance but not a major contraction of range. The species's main strongholds are now Rajasthan, Uttar Pradesh and Assam, though even in these states numbers are disturbingly low. A more intensive survey is needed throughout the region, coupled with habitat and legal protection.

The Black-necked Stork *Ephippiorhynchus asiaticus* is one of the largest storks of the world. It is found in India, Pakistan, Nepal, Bhutan, Sri Lanka, Bangladesh, Burma, Viet Nam, Thailand, Cambodia, Laos, Irian Jaya (Indonesia), Papua New Guinea and Australia (Ali and Ripley 1969, King *et al.* 1975). In all these regions it is nowhere common or secure (Luthin 1987) except in the subtropical coastal regions of northern Australia. In India, it is widespread but not abundant (Ali and Ripley 1969). In recent years, owing to destruction of wetlands and possibly trapping for zoos, it has declined in numbers and may even have reached an endangered status in the Indian subcontinent: this paper sets forth the evidence.

I present below recent sight records of the Black-necked Stork collected during the last eight years, also the captive populations in different Indian zoos, and discuss the future conservation priorities to save this magnificent species. The paper is based on records kept during the last eight years of my travels to different parts of India, information collected from naturalists and interested people and the data gathered by the Bombay Natural History Society and the International Waterfowl and Wetlands Research Bureau during the Asian Waterfowl Counts in 1987, 1988 and 1989.

DISTRIBUTION

India

In India, the Black-necked Stork is still very widely but thinly distributed, with the north and north-west regions forming its main strongholds (Figure). During the 1987 Asian Waterfowl Count, about 50 Black-necked Storks were seen (van der Ven 1987; but see Rahmani 1988 for correction of census figures), while in 1988 34 (van der Ven 1988) and in 1989 33 (Hussain 1989) were counted. Despite the fact that every year the number of wetlands surveyed increased, the number of Black-necked Storks remained more or less the same (Table 2). In the following review of the statewide distribution

of the species in India, old records where available are also included.

Jammu and Kashmir Ward (1907) mentions a specimen in the museum in Srinagar which was shot either in Jammu or Kashmir. Since then there has been no further record from this state. V. Prakash (pers. comm. 1989) did not see any stork during his surveys in April 1989 in the following wetlands: Hokersar, Hygam and Mirgund.

Himachal Pradesh I have found no record, either past or present, from this state.

Punjab and Haryana The Black-necked Stork was apparently common in Punjab (Haryana was earlier part of Punjab). Whistler (1918) saw a flock of 50–60 in November, and some were seen between Ambala and Jagadri, near Rupar and Chandigar. While there is no recent record from the present-day boundaries of Punjab, two were seen in 1986 in the Sultanpur Bird Sanctuary in Gurgaon district (S. Monga, pers. comm. 1989) and seven were

Figure. Recent sight records of Black-necked Storks in the Indian subcontinent.



counted during the 1989 Asian Waterfowl Count.

Uttar Pradesh Along with Rajasthan and Assam, Uttar Pradesh appears now to be the major stronghold of this species in India. Reid (1881) found it to be a permanent resident, but 'not often met with'. Osmaston (1913) also found it to be 'rare' but Murray (1888–1890) states 'in Central and North India it is, as in Sind, extremely common'. Reid (1881) found a nest with fledglings in Lucknow division, and Field (1922) saw a nest with two fledglings and two fresh eggs in Gonda district. Even now this stork is seen singly or in pairs in most of the major wetlands (Table 1). During the 1988 Asian Waterfowl Count, out of the 34 Black-necked Storks counted in India, 13 were seen in Uttar Pradesh. They are regularly seen in the wetlands of Dudwa National Park in Lakhimpur Kheri district. A nest from which a chick fledged in January 1989 was found in Kakraha block of Dudwa (S. P. Sinha, pers. comm. 1989). On another occasion, in January 1989, nine adults were seen in Amba taal in the same park.

Delhi Union Territory Basil-Edwardes (1926) and Frome (1947) both regarded it as common in the Delhi area, and Ganguli (1975) reported seeing more than 40 birds in June and July in Najafgarh and Shamspur jheels near Delhi. Owing to urbanisation, most of the wetlands around Delhi have been drained and the remaining ones are highly disturbed. While nearly 60 years ago Basil-Edwardes (1926) found it to be common on the riverside, only two were seen in 1988 at the Okhla Barrage on Yamuna river (Table 1).

Bihar The greatest decline of the Black-necked Stork has occurred in Bihar and West Bengal, the two states which previously had prime stork habitat because of extensive river systems and sufficient rainfall (above 1,500 mm). However, uncontrolled fishing and annual drainage of marshes for cultivation have severely restricted the habitat of this stork and other waterbirds. No Black-necked Stork was seen in Bihar in 1988 during the Asian Waterfowl Count (counting was not done in 1989) but I understand a few are seen every year in a large wetland known as Kabartaal in Begusaria district, which has recently been declared a bird sanctuary.

West Bengal Inglis *et al.* (1920) found the Black-necked Stork to be common in the beds of rivers in Jalpaiguri district. I could not get any recent record of this bird from West Bengal. We did not see any in Jaldapara Wildlife Sanctuary or other areas during our extensive surveys between 1986 and 1989 in search of the Bengal Florican *Houbaropsis bengalensis*. A few might still survive in the vast mangrove swamps of the Sunderbans, where ground survey is not easy.

Rajasthan Keoladeo National Park near Bharatpur is a well-known breeding locality of the Black-necked Stork in India, with three to five pairs regularly breeding. The species is also seen in a few other areas of Rajasthan (Table 1) but nests have not been found elsewhere in the state.

Gujarat In Gujarat there appears to be a marked decline in the population.

Table 1. Sight records of the Black-necked Stork in India since 1981.

State Place (district in brackets)	Number seen	Date	Source	State Place (district in brackets)	Number seen	Date	Source
Uttar Pradesh							
1. Nawabganj Bird Sanctuary (Unao)	2	1986	pers. obs.	Golapur	1	May-June 1988	T. Alaudkhar (verbally 1988)
2. Shekha Jheel (Aligarh)	2-3	Dec 1981	pers. obs.	2. Modhuzandi, Gir (Junagadh)	3	1988	T. Mandkhar (verbally 1988)
3. Samsara Jheel (Rai Bareilly)	2	Nov 1987	pers. obs.	3. Lakha (Kutch)	1	-	T. Haudkhar (verbally 1988)
4. Sindhwar (Bathinda)	1	Dec 1986	pers. obs.	4. Rudramata Dam (Kutch)	2	16 Dec 1987	Himmatsinhji (in lit. 1989)
5. Lakh Bahaji (Paukkhabad)	2	Jan 1988	pers. obs.	5. Lacia Creek (Kutch)	1	14 Jan 1988	Himmatsinhji (in lit. 1989)
6. Singarata Tall (Gorakhpur)	4	May 1988	pers. obs.	6. Ganesa Creek (Kutch)	1	14 Jan 1988	Himmatsinhji (in lit. 1989)
7. Dudwa N.P. (Luckhimpur Kheri)	5-6	1987-1988	pers. obs.	Madhya Pradesh			
8. Hastnagar (Morena)	+	-	V. M. Rai (verbally 1988)	1. Madhav N.P. (Shivpuri)	2	1986-1987	pers. obs.
9. Bhandauli (Etawah)	8	7 Jan 1983	V. Prakash (verbally 1987)	2. Dhaula Jheel (Shivpuri)	4	March 1986	pers. obs.
10. Nagla Tali (Etawah)	+	7 Jan 1983	V. Prakash (verbally 1987)	3. Tawa Dam (Hoshangabad)	2	Sept 1988	-
11. Rohar Jheel (Etawah)	+	7 Jan 1983	V. Prakash (verbally 1987)	Maharashtra			
12. Sarwal Nizam (Etawah)	2	7 Jan 1983	V. Prakash (verbally 1987)	1. Madhemeshwar (Nasik)	1	-	Al. Harilal (verbally 1989)
13. Samna Jheel (Alwar)	4	10 Jan 1983	V. Prakash (verbally 1987)	2. Mayani (Sangli)	5	31 Jan 1988	S. A. Galikwad (verbally 1989)
14. Sarhijheel (Etawah)	2	10 Jan 1983	V. Prakash (verbally 1987)	3. Khambgaon (Pune)	1	24 Jan 1988	S. N. Naik (verbally 1989)
15. Todanpur (Etawah)	3	10 Jan 1983	V. Prakash (verbally 1987)	Karnataka			
16. Bidher Ganges, 20km upstream of Kanpur (Kanpur)	1	Feb 1988	D. Mohan and S. Sondhi (in lit. 1988)	1. Krishna river (Raichur)	4	Jan 1989	S. Ramakrishna (verbally 1989)
17. Ramganga Barrage, Corbet N.P. (Nainital)	1	March 1988	D. Mohan and S. Sondhi (in lit. 1988)	Tamil Nadu			
Delhi							
1. Okhla Barrage on Yamuna river (Delhi)	2	April 1988	D. Mohan and S. Sondhi (in lit. 1988)	1. Point Calimere (Thanjavur)	+	-	Sugathan (1982)
Haryana							
1. Sulrasputri Jheel (Sirsa)	2	Nov 1986	S. Munga (verbally 1989)	Andhra Pradesh			
Bihar							
1. Kabar Tal (Raguarai)	+	-	pers. obs.	1. Near Amanur (Mehboobnagar)	3	1988	J. Mohan-Rao (verbally 1988)
Rajasthan							
1. Sariska (Alwar)	2	Nov 1987	G. Narayan and L. Roslind (verbally 1987)	2. Dandi river and reservoir (Nalgonda)	7	1988	J. Mohan-Rao (verbally 1988)
2. Keoladeo (Bharatpur)	10-12	1986-1987	V. Prakash (verbally 1988)	3. Patancheru (Medak)	3	8 Jan 1989	S. Vaher (in lit. 1989)
3. Kaladevi Jheel near Bayana (Bharatpur)	2	1988	M. N. Haque (verbally 1988)	Orissa			
4. Ramsagar lake (Dholpur)	5-6	-	R. L. Meena (verbally 1988)	1. Bhitarkanika (Cuttack and Balaasur)	+	1985-1986	Dev (1985-1986)
5. Jawai lake (Pali)	2	10 March 1988	B. T. Chowdhury (verbally 1988)	2. Mahan in Chilka (Ganjam)	+	-	Hussain et al. (1984)
6. National Chambal Sanctuary (Kota, Morena Dholpur)	10	22 Jan-15 Feb 1988	S. A. Hussain Jr., P. K. Sharma and R. J. Rao (verbally 1988)	Assam			
7. Ranthambore (Sawai Madhopur)	5	Feb 1987	-	1. Orang sanctuary (Darrang and Smitpur)	4	21 April 1988	pers. obs.
8. Around Jodhpur (Jodhpur)	+	-	Agaramoorthy and Mahant (1988)	2. Kaziranga (Nagaon and Golaghat)	5	27 April 1988	pers. obs.
				3. Manas (Barpeta and Nalbari)	1	Feb 1988	G. Narayan (verbally 1988)

Only six were counted in 1988 during the Asian Waterfowl Count. Nearly forty years ago, Dharmakumarsinhji (1954) found it to be 'not uncommon' in the Saurashtra region, with 'every large lake, river and stream having a pair or two of these storks in the area'. Occasional birds are still seen in the creeks and mangroves of Kutch (see Table 1) where in 1943 Ali (1954) found a nest. However, according to Himmatsinhji (pers. comm. 1989) 'nesting sites have disappeared in recent years owing to the wanton destruction of large trees and decimation of mangrove in the coastal areas'.

Madhya Pradesh The species was formerly recorded from many localities such as Sarguja and Raipur (Ball 1878), Balaghat (D'Abreu 1912) and Mhow (Briggs 1931). Hewetson (1956), writing about 40 years of his experience as a forester in Central India (the present-day boundaries of Madhya Pradesh formed a major part of the old region known as Central India), found 'occasional individuals, not common or widespread'. In recent years it has been seen only in three areas (Table 1). During the Asian Waterfowl Count in 1987, 21 were reported from two localities. This number, however, appears to be exaggerated because 20 were counted in Madhav National Park in Shivpuri district where I have never seen more than a pair and the habitat is not suitable for more than 2-3 individuals. In 1989 none was seen in Madhav National Park and in the whole state only three were counted (Table 2), which again indicates that the counting in 1987 was erroneous.

Maharashtra Owing to paucity of literature, it is difficult to compare the past and present status of the Black-necked Stork in Maharashtra. Recent development of large dams and reservoirs such as Ujani in Pune district, Hipparga in Solapur district and construction of numerous percolation tanks in the drier parts of the state (which formed a part of the old region known as Deccan) have increased potential stork habitat. In 1988 only seven were counted in 28 wetlands and in 1989, despite the fact that more wetlands were covered, only five were seen (Table 2). Additionally, one was seen in Madhemeshwar Waterfowl Sanctuary near Nasik and another in Pune district (Table 1).

Andhra Pradesh It is only in this, among the southern states of India, that a few Black-necked Storks are still seen (Table 1). Except for Ali (1934) there is little literature to compare the present with the former status of this species. Interestingly, most of the recent sightings (Table 1) were in the backwaters of large man-made reservoirs.

Karnataka Butler (1881) saw some near Hubli and reported the species to be rare in the area. Despite the development of some large waterbodies such as Tungabhadra dam and numerous percolation tanks, the status of the Black-necked Stork has perhaps deteriorated. None was seen during the

Table 2. Sightings of Black-necked Stork during the Asian Waterfowl Counts in 1987, 1988 and 1989.

State	Number of wetlands surveyed			Number of storks seen		
	1987	1988	1989	1987	1988	1989
1. Jammu and Kashmir	1	1	2	0	0	0
2. Himachal Pradesh	-	-	2	-	-	0
3. Punjab	-	4	3	0	0	0
4. Delhi	1	2	5	1	0	0
5. Haryana	1	-	3	0	0	7
6. Uttar Pradesh	17	23	9	6+	13	0
7. Bihar	-	1	0	-	0	0
8. Rajasthan	6	11	16	7	7	12
9. Gujarat	29	113	176	15	6	2
10. Madhya Pradesh	6	6	4	21(?)	0	3
11. Maharashtra	17	28	57	0	7	5
12. Andhra Pradesh	12	25	121	1	1	0
13. Karnataka	9	62	61	0	0	4
14. Tamil Nadu	59	29	63	0	0	0
15. Pondicherry	1	3	3	0	0	0
16. Kerala	6	10	24	0	0	0
17. Orissa	1	-	1	0	-	0
18. West Bengal	-	-	4	-	-	0
19. Sikkim	-	-	1	-	-	0
20. Assam	1	1	11	0	0	0
21. Meghalaya	2	-	0	0	-	0
22. Tripura	-	-	9	-	-	0
Total	169	319	575	51*	34	33

*After correction, figure comes to 33

Asian Waterfowl Counts of 1987 and 1988. However, in 1989 four were seen near Gangipalli village on the banks of Krishna river in Raichur district. On another occasion seven were seen in the same area (S. Ramakrishna, pers. comm. 1989).

Tamil Nadu Compared to north and central India, the species was always uncommon in the south (Jerdon 1864, Ali and Ripley 1969). Dewar (1905) included it in the list of birds found around Madras, but in recent years there has been only one record from the whole state. Sugathan (1982) reported it from Point Calimere Wildlife Sanctuary in Thanjavur district but he gave no dates or the number. M. Krishnan (*in litt.* 1989) has never seen this species anywhere in the south during almost 40 years of field work. None was seen during the Asian Waterfowl Counts (Table 2). Perennou (1987) saw none in Kaliveli (c. 70 km²), Ousteri (8 km²), or in any of the nearly 60 wetlands which he visited during 1987 and 1988 in Pondicherry, Tamil Nadu and Andhra Pradesh.

Orissa In spite of the presence of a large belt of mangrove and the largest brackish water lake in India (Chilka), there are only two recent records from Orissa (Table 1). None was seen during the Asian Waterfowl Counts between 1987 and 1989 (Table 2).

Kerala Ali (1969) did not include this species in the checklist of birds of Kerala, and presumably this species was never found there. Neelakantan (*in litt.* 1989) has also never seen it.

Assam In north-east India, the floodplains of the Brahmaputra river form excellent habitat for the Black-necked Stork, but owing to overfishing and general human disturbance the wetlands, this species is now rarely seen outside protected areas. Only Kaziranga, Pobitora, Orang and Manas wildlife sanctuaries have stable populations. Outside these it has become uncommon and we did not see it anywhere in the whole state during our surveys for the Bengal Florican. Earlier it was often seen in the Darrang district (Godwin-Austen 1874), Bisnath plains (Godwin-Austen 1876) and all the suitable localities in Cachar (Baker 1899).

Manipur Hume (1888) saw several pairs at the Logtak lake and found the species to be very scarce in other parts of Manipur. Later, Higgins (1934) noted that it was rarely seen in the state. During the last fifty years its status has further deteriorated and there is no recent record.

Arunachal Pradesh, Meghalaya, Mizoram, etc. I could find no information about the status of the Black-necked Stork in Sikkim, Arunachal Pradesh, Mizoram, Tripura or Nagaland. Most of these states are hilly and thickly forested, and hence may not be suitable for the species. None was seen during the Asian Waterfowl Counts in Sikkim and Meghalaya (counts were not done in other states).

Sri Lanka

In Sri Lanka, a relict population of six or seven pairs persists in the Yala National Park complex on the south-east coast (T. W. Hoffmann *in litt.* 1988). The population seems to be static and stable, and produces offspring every year but 'their numbers do not appear to increase and the nests have never been found' (T. W. Hoffmann *in litt.* 1989). In the past, the bird was also reported in remote parts of the east coast but there has been no record for the last 20 years. It is now considered one of the most threatened birds in Sri Lanka (Kotagama 1989).

The mid-winter waterfowl count was started in Sri Lanka in 1983 (Hoffmann 1985). For the first two years, only ducks were counted so we have no data on the storks, but in 1986 storks were also included along with other waterbirds. Three Black-necked Storks were seen in 1986, none in 1987, and two in 1988 (van der Ven 1987, 1988).

Pakistan

According to T. J. Roberts (*in litt.* 1989) the Black-necked Stork is no longer a resident species in Pakistan. In the 1960s, two or three pairs bred in the mangroves of the Indus Delta but now seem to have disappeared. Stray birds still visit the border regions; two were seen in 1988 during the Asian Waterfowl Count.

Nepal

'The Black-necked Stork is a scarce resident and passage migrant in Nepal. It is probably resident with additional birds occurring on passage on the Kosi marshes (Kosi Barrage and Kosi Tappu Wildlife Reserve). It breeds at Kosi Tappu. There may be only 1-2 pairs, but further observations would be useful to confirm the numbers of breeding birds. Although described as a winter visitor to Chitwan by Gurung (1983) in his Chitwan checklist, observations in May or June and August (Underwood 1978) suggest it may well be resident there. Chitwan is under-recorded in the months of May to September. It is possible that the species may also regularly occur at the Royal Sukla Phanta Wildlife Reserve and Royal Bardia National Park, but there are very few records from these areas and from the rest of the lowlands in western Nepal. The 1988 Asian Waterfowl Census lists two sites from Nepal which must be from a site other than Chitwan or Kosi and is presumably from one of the wetlands in western Nepal' (C. Inskipp and T. P. Inskipp *in litt.* 1989).

Bhutan

In this tiny mountain country there are very few areas suitable for the Black-necked Stork. However, P. Gole (in Scott 1989) claims that it is resident in the Manas Wildlife Sanctuary and the alluvial fan of the Sankosh river. This stork is occasionally seen on the Indian side of Manas so its

presence on the Bhutan side is not unexpected. However, owing to the limited habitat, the population may not be significant.

Bangladesh

According to Khan (1984), in Bangladesh the species is possibly extinct as a breeding species. He states 'it used to occur on the coastal islands, in the Sunderbans, and it is believed that it wandered over the country during the winter'. Mountfort and Poore (1968) saw four different birds in the Sunderbans in November 1967. Earlier, Simmons (1948) had seen two large flocks travelling north, flying high on 18 May and 1 June 1945 – an indication of some migration within the subcontinent.

During the Asian Waterfowl Count, four sites were surveyed in 1987 and 12 in 1988 but this species was not seen. None was seen by W. G. Harvey (*in litt.* 1989) during his two active birdwatching years in Bangladesh.

CONSERVATION

Black-necked Storks in Indian zones, and their legal status in India

Owing to its large size, majestic build and longevity, the Black-necked Stork is a popular exhibit in Indian zoos. Moreover, the bird has no special dietary requirements, so it is easy to keep in captivity. Most Indian zoos exhibit this stork, sometimes in unnecessarily large numbers. For example, there are 13 in Lucknow Zoo and six each in Bombay, New Delhi and Trivandrum Zoos (Table 3). Trapping for zoos must be one of the reasons for scarcity of this slow-breeding species. There is no definite record of successful breeding of the Black-necked Stork in Indian zoos, so most of their birds will have been taken from the wild. Similarly, trapping for export must have taken a toll, given the following incomplete records of numbers imported from India in the 1970s: U.K. in 1972 received 6, in 1973 2, 1976 8, 1977 4, 1978 3; U.S.A. 1970 6, 1971 4, 1972 6; Belgium 1973 2; Italy 1974 8; Netherlands 1975 3, 1976 16.

Table 3. Number of Black-necked Storks in some Indian zoos.

Name of zoo	Number of storks
1. Prince of Wales Zoological Park, Lucknow	13
2. Jijamata Udhan, Bombay	6
3. Nehru Zoological Park, Hyderabad	3
4. Mysore Zoo, Mysore	2
5. National Zoo, Delhi	6
6. Kamala Nehru Zoological Garden, Ahmedabad	2
7. Trivandrum Zoo, Trivandrum	6
8. Jaipur Zoo, Jaipur	2
9. Kanpur Zoological Park, Kanpur	2

Until recently, the Black-necked Stork was under Schedule IV of the Indian Wildlife (Protection) Act 1972, so that its trapping was largely uncontrolled. On the recommendations of the Bombay Natural History Society, the government of India has agreed to upgrade it to Schedule I to give total protection to the species (M. K. Ranjitsinh *in litt.* 1988).

Conservation priorities

On the global scale, the Black-necked Stork is not a threatened species because healthy populations are present in Australia and Irian Jaya (Luthin 1987), but in the Indian subcontinent it may have reached critical population levels (see also Hancock 1989). Though the bird is widely distributed, it is normally present in such low numbers that it may have disappeared from many areas without causing any concern to conservationists. Only recently has the plight of the species been highlighted (Rahmani 1987, 1988).

Except for some comparative account of the breeding behaviour (see Kahl 1970, 1973), there has been no study of the ecology, behaviour and movements of the Black-necked Stork in the Indian subcontinent, so we do not know whether the same individuals are seen in different places or if they are different birds. In Keoladeo National Park, every year 3–4 pairs are able to breed and raise chicks, but the population remains the same, i.e. 10–12 birds, including a few immatures. As noted above, a similar situation prevails in the Yala National Park in Sri Lanka. Where do the immature birds go? In March 1986, in Dihaila jheel in Shivpuri district of Madhya Pradesh, a pair with two immature birds was seen for a few weeks (Rahmani *in press*). Keoladeo is the nearest known breeding place, being around 250 km north-west of Dihaila. Did the birds come from there? As the Black-necked Stork is highly territorial it appears that Keoladeo (and Yala) cannot sustain more individuals, so there is an urgent need to search for more wetlands which may be important for these storks.

Among the countries of the Indian subcontinent, the largest populations of Black-necked Storks are found in India and Sri Lanka. Therefore these two countries have to play a major role in the conservation of the species. As our knowledge of its ecology and distribution is meagre, the first priority should be to make a proper survey of this stork and the wetlands which are critical to its survival. In general, the priorities are six in number.

(1) Survey. A detailed survey to identify the important wetlands and the breeding sites should be attempted in all the countries of the Indian subcontinent. (2) Habitat protection. Once the important wetlands and nesting sites have been located, they should be strictly protected. Special attention should be given to the protection of the wetlands where the nests are located. (3) Legal protection. Maximum legal protection should be provided to the Black-necked Stork in all the countries where at present it is inadequately protected. As recommended by Luthin (1987) it should be listed in CITES Appendix I. (4) Research. A detailed project to study the ecology of the species with special emphasis on habitat requirement, food,

nest-site preferences and movements should be started in India and Sri Lanka. This can later be extended to other countries of the subcontinent. (5) Captive breeding. The existing stock in different Indian zoos should be used for captive breeding and records should be maintained in every zoo. Perhaps artificial insemination techniques will have to be tried to induce successful breeding as has been done with cranes in captivity. (6) Publicity. An intensive publicity campaign to highlight the plight of the Black-necked Stork and its wetland habitats should be started in all the states of India where the stork still occurs, as well as in adjacent countries of the subcontinent. Indeed, the Black-necked Stork should be selected as a symbol of the health of a wetland.

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