

*Community Involvement in Conservation
of Sarus Crane Breeding Habitat in
Three Districts of Semi-Arid Tract of
Rajasthan, India.*

Report

**Submitted to Rufford Small
Grants Foundation, UK**

By

Jatinder Kaur

Anil Nair



August, 2008

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of Semi-arid tract of Rajasthan, India.**

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Summary

Under the project the fieldwork was carried out to elicit people participation in the protection of Sarus crane breeding habitat in the three districts of semi arid tract of Rajasthan, India. The field work was carried out between February 2007-May 2008. The Sarus crane, a bird species characteristic of wetlands, is categorized as Vulnerable on the IUCN Red list. It occur mostly outside protected areas and much of the mortality of eggs, chicks and adult cranes are due to human related causes and conservation of the species in this region requires increasing awareness of people and their participation in the conservation of the species.

A community education and awareness campaign was carried out, using audio visual shows and presentation, in villages and schools in Kota, Bundi and Baran districts. Protection of 62 nests by volunteer Rural Village Sarus Protection Groups, formed as a result of the campaign, resulted in the successful fledging of a total 80 chicks of 2007-08 and in dry season from 14 nests, 19 successful fledglings.

During the project a total of ninety five wetlands were covered in three districts and out of this forty eight wetlands were documented for the first time and Sarus cranes are using these wetlands for roosting or breeding. Individuals who were keenly interested in saving the cranes and their habitat were identified and total of 30 Rural Village Sarus Protection Groups were formed.

This year long campaign has been successful in spreading the message for conservation of Wetlands and the Sarus Crane and their importance for us. In our efforts we were supported by some of the exceptional and enthusiastic villagers in taking the goals of this campaign forward. As a gratitude to their support and help during the campaign these grass root naturalists to bear the torch of conservation for the future in their areas.

An award programme was organized on 19th April at Press Club Kota.

Our experience with this project demonstrated that it is possible to re-establish a bond between farmers and nature, and work on community involvement for the Sarus crane should be continued.

The rural people are aware of the problems and its solution, but they need a pat on their back to assure that they are right with this gestured approach we think the goal of nature conservation can be done more efficiently and easily.

1. Introduction

The Sarus Crane has been recorded to be found all over the northern and central region of the Indian sub-continent historically, including the present day Bangladesh (Gole 1989, Archibald & Meine 1996, Birdlife International 2001). The Sarus crane, a bird species characteristic of wetlands, is categorized as Vulnerable on the IUCN Red list 2007 in India and it occurs mostly outside protected areas. They prefer open cultivation in well-watered country, marshes, jheels, lakes and large rivers. The Sarus crane is increasingly being forced into agricultural fields because of the deterioration and destruction of its natural wetland habitat (Mukherjee 1999, Sundar *et al* 2000). The Sarus cranes are consequently threatened by poaching and the destruction of their eggs and juveniles. To protect the habitat and nests a community education and awareness campaign was carried out.

According to (Adams & Hulme 2001) the community conservation is considered an important contemporary tool for nature conservation, but has mostly been implemented in and around protected areas rather than for the conservation of species occurring outside protected areas. Education is a vital part of any attempt to enforce legal protection for the Sarus crane (Davis 1998), and for the long term conservation of the species outside protected areas.

Kota district in Rajasthan has one of the largest reported breeding populations of Sarus cranes and is located on the eastern bank of Chambal River and is drained by its tributaries. The population of Sarus Crane in Kota is dependent mainly on canal systems and natural wetlands. It is situated along the bank of river Chambal and is relatively well irrigated by the canal network of Kota barrage, resulting in reedy marshes and marginal wetlands supporting a fairly good breeding population of Sarus Cranes (Vyas 1999a, 1999b, Kaur and Choudhury 2002).

The Bundi district is situated in the south-eastern part of Rajasthan and it is bound in the north by Tonk, in the west by Bhilwara and on the south-west by Chittorgarh districts. The river Chambal forms the southern and eastern boundaries separating the Bundi and Kota territories. Bundi is also known for its baories or step-wells. Unique to Rajasthan and Gujarat, the step-wells served as water reservoirs for the months of summer when there was a scarcity of drinking water. The district Baran is bound in the north and north-west by Kota, Jhalawar and Bundi districts and in the west by Chittaurgarh. Few places in India where the species can breed twice per year: in the wet season (July-October) and the dry season (February-May). This occurs because of the canalized system of the river Chambal.

2. Objectives

1. Survey in Kota, Bundi and Baran districts to identify areas important for breeding Sarus cranes, and areas that have potential to be restored or have new wetlands created with public support and government agencies.

2. Carry out awareness programmes and field visits in schools and villages to help identify people interested in Sarus crane conservation in all three districts.
3. Preparation of education material, lectures and movies in local language to cater to the school children, farmers and village community.
4. Create active network comprising of farmers and children to obtain information on breeding and non-breeding Sarus cranes, and to use this information to create a feeling of pride in the villagers.
5. Features in the print and television media on the project showcasing individuals who will undertake the project, as well as the most outstanding participants who will enable the success of the conservation programme.

3. Methodology

The proposed project was for a period of one year duration but the field work was carried out from February 2007 to May 2008 and our aims were to conduct an awareness programme for the Sarus crane with the involvement of local communities and Ngo's. Field visits to important Sarus crane nesting sites were made every week in all the three districts during the breeding season. The colour pamphlets, stickers and posters in local language were printed for distribution in schools, villages, Government agencies, local and national NGOs who are working for the conservation of the wildlife. The printed matter helped us to obtain more information from people about Sarus crane nesting sites and juveniles. People gave us the information by phone and personal visits.

Audiovisual shows and lectures were done to explain the breeding biology of the species. Field visits for those schools children's staying close to nearby breeding sites and shown the nest. A quiz competition was conducted after the shows, and the prizes were given to the winners. Banners and sign board was installed at different breeding sites. During the field visits and awareness programmes villagers voluntarily came forward to form a rural village Sarus protection group in three districts. A recognition award ceremony was done for the local villagers for the conservation of the species.



Sarus crane standing on the nest



School children in the field



Talk at one of the villages



Poster presentation at one of the villages



Slide show at one of the villages



Prize distribution after the quiz by principal

4 Results and Discussion

The villagers and farmers were instrumental in protecting adult Sarus crane from poaching and responsible for the successful fledging of a total 80 hatchlings from 62 nests during the wet season of 2007-08 and in dry season from 14 nests, 19 successful fledglings (Table 1).

Table 1 Nesting by Sarus crane during dry (second nesting) and wet season (first nesting) in three districts of semi arid tract of Rajasthan, India.

Nesting by Sarus Crane	2007 Dry	2007 Wet	2008 Dry	Total
Kota Study Site	10	33	3	46
Bundi	1	11	0	12
Baran	3	18	0	21
Total	14	62	3	79

During the project a total of ninety five wetlands were covered in three districts and out of this forty eight wetlands were documented for the first time and Sarus cranes are using

these wetlands for roosting or breeding (Table 2). In Kota district a total of forty two wetlands were covered and sixteen were documented for the first time. In Bundi districts 31 wetland covered 13 new wetlands and in Baran twenty two wetlands were recorded and 19 were documented for the first time for Sarus Crane nesting and roosting.

Table 2 List of wetlands covered in three districts of semi-arid Rajasthan

S.no	Kota District	Bundi District	Baran District
1	Rawantha	Bardha Dam	Sorson Talab
2	Damadama	Banjaro Ki Maradi	Devpura Talab*
3	Ranpur	Jhal Ki Jhopadiyan	Manpura Talab
4	Rankya khedi	Talwas	Kishanpura*
5	Zetiya	Chawani dam	Neyana
6	Kasaar*	Paibala Pura*	Mal Bambori *
7	Lakhava	Rooneja*	Mangrol *
8	Ummedganj	Dei Kheda*	Chatri Talab*
9	Simliya	Nimodha *	Ayana*
10	Kanwar Talai*	Ganesh Talab*	Jhalodha Teza ji*
11	Mordi Talai*	Ram sagar- Hindolli	Sundalak Talai*
12	Chapniya Talai*	Jakh Mund*	Palsava*
13	Ram Talai*	Gudda Dam	Kachri*
14	Dudhi Talai*	Bakeha Dam*	Kunjed*
15	Sursagar	Bardha Bavadi*	Ram Talai*
16	Raipura	Gotda Dam*	Jirodh*
17	Polai Kalan	Baldevpura Talai*	Ratavadha*
18	Alynia	Laban marshes	Leva*
19	Polai Kurdhi	Kherli*	Narsingh Pura*
20	Aanwa*	Hali heda*	Kali Talai*
21	Hingonia*	Chidhi Talai*	Molaki*
22	Laturi*	Neenwa Talab	Harsoli*
23	Moi Kalan*	Arnetha	
24	Ladko Ki Talai*	Adeela	
25	Bhoara	Hingonia	
26	Railgaon	Ghat ka Varna	
27	Soti Talai*`	Fuool Sagar	
28	Khajurna*	Uniya	
29	Basyahedi*	Keshori Patan	
30	Bulahedi*	Dei Ganga Sagar	
31	Jangalhedi*	Laserdha	
32	Godlyahedi		
33	Rajpura		
34	Bargu I		
35	Bargu II		
36	Abheda		
37	Karadiya		
38	Dharkedi Right main canal		
39	Railgaon Right main canal		
40	Janakpur Right main canal		
41	Foot ka Talab		
42	Bhandaheda		

*Wetlands documented first time, for Sarus cranes using these wetlands for roosting or breeding

4.1 Breeding Success

4.1.1 Clutch size in dry (second nesting) and wet Season (first nesting) in three districts during (2007-2008)

In dry season of 2007 (Feb-May) a total of 14 nests were observed and most of the nest had two eggs (n=11, 78.57%), while only 21.4.2% (n=3) of the nests had one egg (Table 3). **For the first three juveniles were recorded during the dry season nesting in one of the wetland.** A total of three nests were sighted during 2008 dry season. One pair re-nested after egg stealing took place.

Table 3 Breeding success of Sarus Crane in three districts during dry season 2007-2008

	Nest (n=14)	Eggs (n=25)
Hatching Success	14(100%)	25(100%)
Fledging Success	12(85%)	19(76%)

In wet season 2007, 62 nests were observed in three districts and in Kota districts, a total of 33 nests were sighted, most of the nests had two eggs (n=27, 81.81 %), and 15.15% (n=5) of the nest had one egg each. In one nest three eggs were observed, but due to flooding the nest got drowned. Four pairs of Sarus crane re-nested after nests got drowned due to flooding (Table 4).

Table 4 Breeding success of Sarus Crane in Kota district during wet season 2007-2008

	Nest (n=33)	Eggs (n=62)
Hatching Success	29(87.87%)	47(75%)
Fledging Success	25(75%)	43(69%)



Three juvenile Sarus crane during dry season nesting for the first time



Sarus crane nest at one site

A total of 11 nest of 2007 wet season were observed in Bundi districts, and most of the nest had two eggs (n=9, 81.81%) and one nests (9.0% n=1) had one egg. One pair had abandoned the nest without egg laying (Table 5).

Table 5 Breeding success of Sarus Crane in Bundi district during wet season 2007-2008

	Nest (n=11)	Eggs (n=19)
Hatching Success	8(72%)	15(78.94%)
Fledging Success	8(72%)	14(74%)

In Baran districts a total of 18 nests were sighted and most of the nests had two eggs (n=13, 72.22%) and n=5 had one egg each (n=5, 27.77%). One pair re-nested again after crow destroyed the eggs (Table 6).

Table 6 Breeding success of Sarus Crane in Baran district during wet season 2007-2008

	Nest (n=18)	Eggs (n=31)
Hatching Success	17(94.44%)	30(97%)
Fledging Success	16(88.88%)	23(74%)

4.1.2 Awareness Programmes

Building on the work carried out earlier in Kota districts in 2000-2002 and 2004-2005 to encourage the participation of local people (Kaur & Choudhury 2003) in Sarus crane conservation in Kota districts, we carried out further work by covering other two additional districts named Bundi and Baran. 5000 colour pamphlets, 3000 posters and 2000 stickers (Appendix I) were printed for the distribution and this helped us to obtain more information of the nesting sites and Sarus crane with juveniles. This Kind of educational tools was effective to gather information from a wider area and from people who cannot reach directly by any other means (Kaur *etal* 2008).



Children paying attention during talk



Talk at one school



Distribution of posters at school



Children reading pamphlet



Villagers reading pamphlet



Flex board given to one of the schools

The audiovisual shows and lectures and short documentary film on Sarus crane by explaining the nesting season, habitat, threats and development of the chicks were undertaken (Table 7). By doing this misconceptions regarding the crane's such as stealing of egg for the egg shells for the treatment of health problem and destruction of crop. These kinds of shows made villagers, school children to know the importance the wetlands, and about the species knowledge. School children residing close to the breeding sites were

taken to the field and showed the nests and explained how to protect the nests and chicks (Table 8&9).

During our slide shows people are not only aware about Sarus cranes but at one of the village, the villagers from Kherli informed us a lot of birds are lying dead in the river Kali Sindh. We visited and identified the birds as Ruddy Shelduck (*Tedorna ferruginea*). The cause of deaths reported due to be pesticide. The report was submitted to Bombay natural History Society. A family of four Sarus crane was also found dead on the way to this site and reported to be killed by pesticide. Although two of the dead birds were given to the Forest Department and the report are still to be received. Agriculture departments need to increase awareness among the farmers in using pesticide.

Three deaths of Sarus cranes were reported due to electrocution. The use of insulated cable wire should be used to reduce the mortality of large birds such as Sarus cranes.

Table 7 Number of villagers, students and teachers covered during the project in Kota district

S.no	Districts	No. of Villagers	No. of teachers and students
	Kota		
1	Ummedganj	85	220
2	Haripura	175	450
3	Aanwa	150	300
4	Basayahedi	100	75
5	Lakhava	60	45
6	Ranpur	225	200
7	Alnia	150	115
8	Rawantha	65	45
9	Kanwar talai	75	40
	Total	1085	1490



Death of Brahminy ducks



Talk with villagers and agriculture department people

Table 8 Number of villagers, students and teachers covered during the project in Bundi district

S.no	Bundi Dist.	No. of Villagers	No. of teachers and students
1	Talwas	325	250
2	Hindolli	150	250
3	Gotda	100	110
4	Pai Balapura	80	-
5	Baldevpura	85	35
6	Bardha	80	200
7	Banjara Ki Maradi	35	-
8	Maliyon Ki Maradi	25	-
9	Jhal Ki Jhopadiyan	70	30
10	Jaakmund	45	25
11	Jaitpur	35	35
12	Motipura	60	35
	Total	1090	970

Table 9 Number of villagers, students and teachers covered during the project in Baran district

S.no	Baran Dist.	No. of Villagers	No. of teachers and students
1	Amalsara	45	85
2	Neyana	55	55
3	Sorson	100	90
4	Mangrol	150	125
5	Jhalodha Tezaji	80	40

6	Vijaypur	40	-
7	Harsoli	45	-
8	Ayani	80	-
9	Aakehdi	35	25
10	Raniheda	65	32
11	Samaspur	45	2
12	Simli	65	25
13	Kachri	45	2
14	Anta	55	40
15	Sehrod	100	1
16	Jirodh	85	125
17	Bilasarara	110	110
	Total	1150	947

A total of eighteen flax boards were made and installed at various sites in three districts and this were helpful in soliciting more information from villagers. The information about Sarus crane nesting, misconception regarding the egg shell as medicine and also written how it is farmers friendly (Table 10).

Table 10 Nesting Sites where flex boards were installed

S.no	Nesting Sites	No. of flex board
1	Alynia	1
2	Bardha	1
3	Hindoli	1
4	Gotda	1
5	Paibala Pura	1
6	Talwas	1
7	Sahrodh	1
8	Basyahedi	1
9	Amalsara	1
10	Nayana	1
11	Sorson	1
12	Sorson	1
13	Haripura	1
14	Janakpur	1
15	Jirodh	1
16	Ummedganj	3



Flex board installed at one of the villages



Flex board at Umedgani village along the Chambal canal



Talk at one of the villages

4.1.3 Recognition Award to Villagers

During the field visits and awareness programme local community came forward to form a Rural Village Sarus Protection Groups. They ensured not to disturb the ponds, wetlands used by Sarus crane for nesting. The individuals also gave us the information of sighting of the banded cranes which was banded in year 2000-2002. A total of 17 from Kota, 3 from Baran and 10 from Baran districts groups were made and they were protecting the eggs and juveniles from poaching and predation (Table 11). These grass-root enthusiasts were honoured with certificate and, T-Shirt and two individuals were recognized by giving them binocular. The recognition award ceremony was success due to the active participation of Shri B.C. Choudhry from Wildlife Institute of India, Dehradun, Shri Bharat Singh, President Hadothi Naturalist Society, Kota, and Shri Hada from the irrigation department; they gave away the recognition awards to all the individuals from the three districts on 19th April 2008. The event and the project were given coverage by the electronic and print media (Appendix II).

The more protection groups and education and awareness programmes will be required in other breeding areas. This active network of community will facilitate improved conservation of the species, to re-establish a bond between farmers and nature (Kaur *etal* 2008).

Table 11 List of the recipients who got the Recognition Award for Sarus Crane Conservation in three districts Rajasthan

No.	Dist. and Village name	Name of the recipient
	Kota Dist.	
1.	Dorli	Giriraj Meena
2.	Haripura	Brijmohan Malav
3.	Alynia	Ramlal
4.	Polai Kurdhi	Mahender Meena
5.	Lakhava	Jagroop Gujjar
6.	Aanwa	Puranmal Suman
7.	Pisaheda	Anil Malav
8.	Sadhedi	Amarlal
9.	Ummedganj	Lattur Lal
10.	Ummedganj	Surender
11.	Kota	Abdul Hanif Zaidi
12.	Kota	Shakir Ali
13.	Kota	Hariraj Singh
14.	Janakpur	Sitaram Gujjar
15.	Khedali	Jagdish Meghwal
16.	Khedali	Bheru Lal Meena
17.	Rawantha	Mangilal
	Baran Dist.	

18.	Antha	Raghunadan Malav
19.	Sorson	Trilok Kewat
20.	Sorson	Jugraj Mehta
	Bundi Dist.	
21.	Jhalodha Tezaji	Suresh Yogi
22.	Hindolli	Shivdas Gujjar
23.	Gotda	Nathu Khan
24.	Banjara Ki Maradi	Sahdrev
25.	Jhal Ki Jhopadiyan	Jugraj Gujjar
26.	Baldevpura	Kalaulal
27.	Leserdha	Surjamal
28.	Dei	Papu Lal Meena
29.	Pai Balapura	Bhimraj Beerwa
30.	Nimodha	Banwari



Certificate given to individuals



School children got the recognition award for protecting the nest

5. Conclusion

Sarus crane is now threatened due to post-independence rise of human population and associated developmental activities that served to spell doom for the Sarus cranes and several other birds species associated with Indian wetlands.

The explosion of population and the pressure created by it along with the modern open world policies have broken own old beliefs of nature conservation through limiting our needs and sharing the resources with other inheritants of nature. But time has proven again that our old beliefs were more scientific and focused on the long term survival of not only nature but also the human beings.

The project has proven that revoking those old beliefs and sentiments together with modern techniques and information will help in reaching milestone for conservation of nature. The results of this project should not be replicated in its whole manner instead it should be altered to the old local beliefs and customs woven with modern day technology and information's. The rural people are aware of the problems and its solution, but they need a pat on their back to assure that they are right with this gestured approach we think the goal of nature conservation can be done more efficiently and easily.

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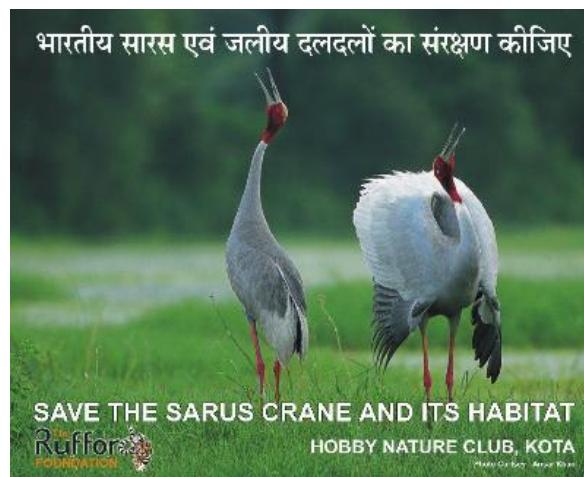
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- इनकी आँखें लाल रंग की होती हैं।
- इनके आँके एवं आँखों के चारों ओर के भागों के आगे टांगों पर चमकीले लाल रंग के होते हैं।
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कृषि विभाग, लखनऊ
जिला, लखनऊ, मालवा
मालवा, लखनऊ, मालवा
मालवा, लखनऊ, मालवा
मालवा, लखनऊ, मालवा

माल और मालवा की संरक्षण की रणनीति एक कृषि और मालवा क्षेत्र के लिए महत्वपूर्ण है।



- माल और मालवा (मालवा) की संरक्षण की रणनीति महत्वपूर्ण है।
- इनकी आँखें लाल रंग की होती हैं।
- इनके आँके एवं आँखों के चारों ओर के भागों के आगे टांगों पर चमकीले लाल रंग के होते हैं।
- बड़े आकार की चोंचों में लाल रंग के होते हैं।
- भारतीय चोंचों में लाल रंग के होते हैं।



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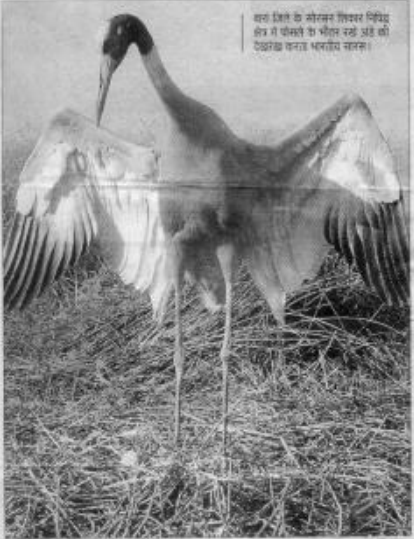


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बारु जिले के सोरसन गिरदार निर्माद डोर में घोंसले से भीतर रहे अंडे की देखभाल करता फरबरी से सारस।

गर्मियों में सारस का 'मधुमास'

कोटा संभाग समूचे देश में एकमात्र स्थान है जहाँ भारतीय सारस साल में दो बार प्रजनन करने देखे जा सकते हैं। इस खुशखबर परितः के संभाग में अभी तक 20 घोंसले पाए गए हैं।

सारस वन्य जीव है। इस वन्य जीव को संरक्षण देने के लिए भारत सरकार ने इसे संरक्षित प्रजाति का दर्जा दे दिया है। सारस को संरक्षण देने के लिए भारत सरकार ने इसे संरक्षित प्रजाति का दर्जा दे दिया है। सारस को संरक्षण देने के लिए भारत सरकार ने इसे संरक्षित प्रजाति का दर्जा दे दिया है।

सारसों के घर किलकारी

प्रजनन काल पूरे देश से अलग
कार्यालय संवाददाता

कोटा, 16 अप्रैल
जलीय पक्षियों के मामले में हाड़ोती में कई विविधताएं देखने को मिलती हैं। इसी की एक कड़ी है सारस का मधुमास। पूरे देश में सारस का प्रजनन काल जुलाई से अक्टूबर तक का है, जबकि हाड़ोती में सारस का दूसरी बार फरबरी से अप्रैल में प्रजनन होता है।

समय चुनने का कारण यहां फरबरी से अप्रैल के मध्य पानी की उपलब्धता का होना है।
जिसकी वजह से सारस के प्रजनन के लिए आवश्यक जलीय दलदल बने रहते हैं। ग्रामीणों की धार्मिक भावना भी

इससे जुड़ी है। हाड़ोती नेचर क्लब के सचिव अनिल नायर व निष्पक्ष निर्भीक ने बताया कि गर्मियों में प्रजनन के दौरान सारस के बच्चों को विशेष सुरक्षा व संरक्षण की दृष्टिकोण से

इस कार्य में ग्रामीणों का सहयोग लेने के लिए हांवी नेचर क्लब ने रूफर्ड फाउन्डेशन की मदद से जन चेतना अभियान शुरु किया है। इसके तहत दोनों संस्थाओं के प्रतिनिधि ग्रामीण क्षेत्रों का दौरा कर सारसों के प्रजनन के बारे में जानकारी एकत्र कर रहे हैं।



सुरक्षा की चिंता... इन दिनों सारसों का प्रजनन काल है। तालाब के किनारे घोंसले में रखे अण्डे की रखवाली करता सारस।

इन दिनों हाड़ोती के कोटा, बुंदी, बारु व झालावाड़ में सारसों ने करीब 20 घोंसले बनाए हैं। इनमें अधिकतर में नन्हें बच्चों की किलकारी भी सुनाई पड़ रही है। बारु के सोरसन संरक्षित क्षेत्र में इस वर्ष सारस के 4 घोंसले बने हैं। हाड़ोती में सारस का प्रजनन काल के लिए दूसरा

कोटा संभाग देश में एकमात्र स्थान है जहाँ भारतीय सारस साल में दो बार प्रजनन करते हैं

गर्मियों में सारस का 'मधुमास'

संभाग में भारतीय सारस के अभी तक 20 घोंसले पाए गए हैं।

सारस वन्य जीव है। इस वन्य जीव को संरक्षण देने के लिए भारत सरकार ने इसे संरक्षित प्रजाति का दर्जा दे दिया है। सारस को संरक्षण देने के लिए भारत सरकार ने इसे संरक्षित प्रजाति का दर्जा दे दिया है। सारस को संरक्षण देने के लिए भारत सरकार ने इसे संरक्षित प्रजाति का दर्जा दे दिया है।



बारु जिले के सोरसन गिरदार निर्माद डोर में घोंसले से भीतर रहे अंडे की देखभाल करता भारतीय सारस।

पांच प्रजाति हैं सारस की

सारस (जेन) की पांच प्रजाति होती है। इनमें से चार भारतीय सारस, कृत्वा (डेमिग्रेसल जेन), कर्मिन जेन तथा क्लेनिक जेन सारस में दिखाई देते हैं। भारत में प्रसिद्ध परिवर्तितों के कारण मधुमास जेन कृत्वा मसली में दिखाई नहीं दे रहा। जेन को चार प्रजाति जो गुजरात में दिखाई देती है, उसमें से भारतीय सारस को छोड़कर सभी जा चुके हैं। कर्मिन जेन व डेमिग्रेसल जेन, मराठिया में भारत आते हैं।

घार की निशानी

मियां-बीबी बराजुते हैं तो गांव में बूझा उठे सारस को देखने को सफल रहे हैं। प्रभाव डीजल में नर व मादा सारस द्वारा एक-दूसरे को रिपाने की क्रिया अंजुमान होती है। सारस के सभ्य धार्मिक भावना भी जुड़ी है। इन परितः को अक्सर रिपाने सारस माता का रूप भी पाया जाता है।

वंश वृद्धि में जुटे 'सारस'

कार्यालय संवाददाता
कोटा, 16 अप्रैल। भारत में पाए जाने वाले सारस का पूरे देश में प्रजनन काल जुलाई-अक्टूबर है। परन्तु कोटा संभाग समूचे देश में एक मात्र स्थान है जहाँ सारस दूसरी बार फरबरी-अप्रैल में भी प्रजनन करती है। हांवी नेचर क्लब के सचिव अनिल नायर ने बताया कि इस वर्ष अभी तक पूरे संभाग में लगभग 20 घोंसले बने हैं जिनमें से अधिकतर में अभी बच्चे निकल चुके हैं।
कोटा में 8 झालावाड़ में 2, बारु में 4 तथा बुंदी में 2 घोंसले अब तक बन चुके हैं। जलोचर के बारु एवं झालावाड़ क्षेत्र के संयोग कृष्णमोहन तालाब में बताया कि बारु के सोरसन संरक्षित क्षेत्र में इस वर्ष 4 घोंसले देखे गए हैं जिनमें से तीन में बच्चे निकल चुके हैं। हाड़ोती नेचुरलिस्ट सोसायटी के सचिव निखिल निर्भीक ने बताया कि गर्मियों में प्रजनन के कारण सारस

के बच्चों को विशेष सुरक्षा एवं संरक्षण की आवश्यकता होती है इस कार्य के लिए ग्रामीणों का सहयोग लेने के लिए हांवी नेचर क्लब ने रूफर्ड फाउन्डेशन की मदद से जन चेतना का अभियान शुरु किया है।
जिसके अन्तर्गत दोनों संस्थाओं के सदस्य संयुक्त रूप से ग्रामीण क्षेत्रों का दौरा कर सारस के प्रजनन आदि की जानकारी एकत्रित कर उनके संरक्षण के उपाय कर रहे हैं। क्लब की अध्यक्ष श्रीमती जतिहर कौर ने बताया कि कोटा संभाग में सारस का प्रजनन के लिए दूसरा समय चुनने का कारण पहात फरबरी-अप्रैल के मध्य पानी की उपलब्धता है। जिसकी वजह से सारस के प्रजनन के लिए आवश्यक जलीय दलदल बने रहते हैं।

दैनिक नवज्योति

कोटा, मंगलवार, 12 अप्रैल, 2008

काली सिंध नदी ने दी 'बर्ड फ्लू' की दस्तक?

राी से अधिक सुरक्षाओं की अपराधिक गंत, चिकित्सकों ने एकत्र किए सेम्पल भ्रोपाल भेजे

कोटा, 12 अप्रैल। कोटा में काली सिंध नदी के किनारे स्थित एक गांव में बर्ड फ्लू के संकेतों का उभरना देखा गया है। चिकित्सकों ने एकत्र किए गए सेम्पल भ्रोपाल भेजे हैं।

कोटा में काली सिंध नदी के किनारे स्थित एक गांव में बर्ड फ्लू के संकेतों का उभरना देखा गया है। चिकित्सकों ने एकत्र किए गए सेम्पल भ्रोपाल भेजे हैं।

काली सिंध नदी ने...
कोटा में काली सिंध नदी के किनारे स्थित एक गांव में बर्ड फ्लू के संकेतों का उभरना देखा गया है। चिकित्सकों ने एकत्र किए गए सेम्पल भ्रोपाल भेजे हैं।

