A Brief Report of Wetlands Survey on the Occasion of World Wetlands Day-2016

Celeberated by

DEPARTMENT OF ZOOLOGY

UNIVERSITY OF LUCKNOW

The Ramsar Convention chose *Theme: "Wetlands for our Future: Sustainable Livelihoods"* as the *World Wetlands Day theme for 2016.*

The U.P. State Biodiversity Board celebrated *World Wetland Day on 2nd February, 2016* in collaboration with Biodiversity and Wildlife Conservation Lab, Department of Zoology and University of Lucknow. The programme aimed at creating awareness for the wetland conservation among the students of schools and colleges and local people of the Uttar Pradesh.

The theme chosen for World Wetlands Day 2016 is **"Wetlands for our Future; Sustainable Livelihoods"**. There will be an emphasis on the agriculture and wetland sectors working together along with the sustainable livelihoods services provides by the wetlands.



On *2nd February 2016*, the programme started with flagging off of wetlands awareness and wetlands birds' diversity surveying cars by Prof. Amita Kanaujia, Department of Zoology, University of Lucknow from the campus of University of Lucknow and motivated the volunteers to explore the wetlands and the probable threats. Four teams with volunteers set out at 6:30 am to various places to discover the wetland's biodiversity.

The aim of the survey was to explore wetlands in some of the districts of Uttar Pradesh (Sitapur, Shahjahanpur, Etawah, Safai and Mainpuri Districts), to study the flora and fauna in the identified wetlands, to study the threats to wetlands and its biodiversity and aware local community and students about the wetlands, their threats, biodiversity and conservational requirements. Several research scholar, students and volunteers went at different sites of mentioned districts of Uttar Pradesh via awareness

cars to search, explore new wetland areas and study the wetlands biodiversity, their threats as well as to create awareness in students and local people.

During the survey, observations were made, for a full day, at 4 sites in Uttar Pradesh (Sitapur, Shahjahanpur, Etawah, Safai and Mainpuri Districts). Total 23 conserved and non conserved wetlands were explored by the 04 group of 14 people. The Survey was done at appropriate time i.e. starting at 7:00 A.M to view the morning diversity and the survey was completed at 5:30 P.M to see the diversity before dawn. The surveys were carried on foot and vehicle as feasible according to the area. Awareness for Wetland Conservation was also created through distribution of awareness materials such as flyers and pamphlets to the local people as well as students. The team leaders and members participated in field surveys are as follows:

S.NO.	SITES VISITED	TEAM LEADERS	TEAM MEMBERS
1	ETAWAH	**PROF. AMITA KANAUJIA** (Professor Department Of Zoology, University of Lucknow, Lucknow) Mobile No.	**Prof. Amita Kanaujia** Dr. Rekha Rani Dr. Ashish Kumar Miss. Ruby Yadav
2	MAINPURI	**MR. ADESH KUMAR** (Research Scholar &JRF, Department Of Zoology, University of Lucknow, Lucknow) Mobile No. 9026987174	**Mr. Adesh Kumar** Miss. Vandana Dhiman Mr. Ashish Kumar Gupta
3	SITAPUR	**MISS. SHIVANGI MISHRA** (Research Scholar &JRF, Department Of Zoology, University of Lucknow, Lucknow) Mobile No.	**Miss. Shivangi Mishra** Mr. Aman Kumar Mr. Abhishek Kumar Miss. Shubhi Srivastava
4	SHAHANJHANPUR	**MR. DAYA SHANKER SHARMA** (Research Scholar and Taxonomist, Department of Zoology, University of Lucknow, Lucknow) Mobile No. 9506437150	**Mr. Daya Shanker Sharma** Miss. Akansha Sinha Miss. Jyoti Yadav Mr. Ashwin Shukla

The awareness cars visited following areas in Uttar Pradesh and explore ***23 wetlands*** in following districts:

Etawah: 4 Wetlands

- Lohia KalaPokhar, Safai- 39 of wetlands birds species
- Sarsai Naagar, Etawah- 75 of wetlands birds species
- Baralok Taalab, Etawah- 23 of wetlands birds species
- Jaitpur Totaram **Taalab**, Etawah- 21 of wetlands birds species

Mainpuri: 2 wetlands

- Sahas Taal, Mainpuri-59 of wetlands birds species
- Bujia Taal, Mainpuri-43 of wetlands birds species

Sitapur: 14 wetlands

- Dubainiya Taal, Kursinpurwa, Sitapur- 29 of wetlands birds species
- Bada Taal and Sanaiya Taal, Mujjaffarpur, Sitapur-44 of wetlands birds species
- Bhabhni Taal, Gaudapur, Sitapur- 33 of wetlands birds species
- Jamayattpur ka Taal, Sitapur-34 of wetlands birds species
- Kakroha , Tikariya, Sitapur- 45 of wetlands birds species
- Dhibatti and Dhigwaha, Persendi Sitapur- 44 of wetlands birds species
- Badakka and Ramkundi taal, Itahari, Sitapur- 43 of wetlands birds species
- Bhella and Chamraiyya, Angresi, Sitapur-55 of wetlands birds species
- Tendua Jheel, Tendua Sitapur- 52 of wetlands birds species

Shahjahanpur: 3 wetlands

- Nagara Hazi Wetlands, Shahajhanpur- 33of wetlands birds species
- Kalana Wetlands-31of wetlands birds species
- Umarganj Wetlands, Shahjahanpur-24 of wetlands birds species

LIST OF WETLANDS VISITED DURING THE SURVEY

S.NO	SITES	NAME OF WETLANDS	G.P.S. COORDINATES	AREA	STATUS
1.	ETAWAH	A) Lohia Kala Pokhar	N-26^0 52'12.9" E-079^{0}06'51.8"	Area-1.5 hectares	Unconserved
		B) Sarasi Naagar	N-26^0 57'56.5" E-079^{0}14'40.1"	Area-96 hectares	Conserved
		C) Baralok talaab	N-26^0 55'58.4" E-079^{0}10'28.6"	Area-4 hectares	Unconserved
		D) Jaitipur Totaram talaab	N-26^0 51'06.8" E-079^{0}06'41.0"	Area-2.5 hectares	Unconserved
		E) Baidpura Taalab	N-26^0 52'17.5" E-079^{0}59'09.7"	Area-1.5 hectares	Unconserved
2.	MAINPURI	F) Sahas Taal	N-27^0 05'28.3" E-078^{0}58'44.6"	Area- 14.5 hectares	Unconserved
		G) Bujia Taal	N-27^0 04'05.9" E-078^{0}57'53.5"	Area-2.8 hectares	unconserved
3.	SITAPUR	H) Dubainiya Taal	N-27^0 24.650' E-080^{0}48.959'	Area-8 hectares	Unconserved (Under gram samaj)
		I) Bada Taal,	N-27^0 24.746' E-080^{0}48.941'	Area-11.25 hectares	Unconserved (under gram samaj)
		J) Sanaiya Taal	N-27^0 24.758' E-080^{0}49.948'	Area-2.5 hectares	Unconserved (under gram samaj)
		K) Bhabhni Taal, Gaudapur	N-27^0 24.288' E-080^{0}49.466'	Area-3.7 hectares	Unconserved (under gram samaj)
		L) Jamayattpur ka Taal	N-27^0 31.834' E-080^{0}43.515'	Area-3 hectares	Manmade pond (under gram samaj)
		M) Kakroha-Tikariya Taal	N-27^0 31.422' E-080^{0}43.465'	Area-8 hectares	Unconserved (Under gram samaj)
		N) Dhibatti Taal	N-27^0 35.416' E-080^{0}50.517'	Area-18 Hectares	Unconserved
		O) Dhigwaha Taal	N-27^0 37.983' E-080^{0}50.548'	Area-11 Hectares	Unconserved

		P) Badakka Taal	N-27^0 34.113' E-080^{0}52.587'	Area-72 Hectares	Unconserved
		Q) Ramkundi Taal	N-27^0 34.011' E-080^{0}52.907'	Area-18 Hectares	Unconserved
		R) Bhella Taal	N-27^0 34.698' E-080^{0}54.322'	Area-16.5 Hectares	Unconserved
		S) Chamraiyya Taal	N-27^0 34.820' E-080^{0}54.397'	Area-1.5 Hectares	Unconserved
		T) Tendua Jheel	N-27^0 32.589' E-080^{0}53.490'	Area-123 hectares	Unconserved
4.	**SHAHAJHANPUR**	U) Nagara Hazi Wetland	N-27^0 53.012' E-079^{0}50.880'	Area-79.3 Hectare	Unconserved
		V) Kalana Wetland	N-27^0 54. 449' E-079^{0}49.485'	Area-22 hectares	Unconserved
		W) Umarganj Wetland	N-27^0 51.865' E-079^{0}52.869'	Area-900 hectares	Unconserved

During the survey, some common birds, pisces, amphibians, reptiles, and common wetlands flora were spotted. Some major threats observed during the visit are: excessive fish cultivation, soil-digging, farmers draining and converting it to agricultural land, use of wetland water for irrigation purpose, excessive cultivation of water chestnut, overgrazing near wetland area, excessive use of pesticides and insecticide, dumping of garbage, development activities, poaching of water birds, conflicts between fauna such as *Sarus cranes* and man, wetlands are highly polluted, garbage is dumped by the nearby shopkeepers as well as local people and cultivation along the marginal areas of wetland cause encroachment and reduction in water spread.

Recommendations from survey:

1) Prevention of high level of pesticides and fertilizers in fields that are along the wetlands.
2) To prevent the over exploitation and sustainable use of wetlands for fish and water chestnut cultivation, irrigation purpose.
3) To prevent soil digging from wetlands.
4) There are many dead Pisces, birds and reptiles found in wetlands so it should be necessary to test water quality of all wetlands.
5) Do not used wetlands as a dustbin for dumping of polluted water of city.

6) To check soil erosion or filling of wetlands.
7) Fish seeds should be applied in the wetlands with prior consult of Fisheries Department.
8) Sustainable use of water for irrigation.
9) Preventing the drainage for agriculture and construction work
10) Prevention of soil erosion and siltation.
11) Proper co-ordination should be between Forest Department, Fisheries Department and Construction agencies. Lack of co-ordination and complicity and contradictory objectives of policies have led to unwise, unsustainable and destructive exploitation of wetlands.
12) There should be management inputs.
13) Wetlands should be restored and recreated.
14) In most wetland reserves, vegetation (e.g. *Paspalum distichum, Vetiveria zizanoides,* etc.) needs to be cleared periodically and moderate grazing encouraged. Some wetlands require digging or dredging in the dry season, and encroaching *Prosopis juliflora* annually removed.
15) Efforts are needed to control hunting, including by patrolling wetland protected areas and intercepting illegal hunters, and by monitoring and controlling the sale of water birds.
16) Measures are required to minimize conflicts between Sarus Cranes and local people, including setting aside small areas of uncultivated wetland and grassland for nesting (see above), and education programmes stressing the threatened status of this species and the traditional relationship between cranes and man.
17) Surveys are required to identify key feeding and roosting areas for residential and migratory birds.
18) Promoting the cultivation of water spinach, *Jussiacea, cyperus* and other similar weeds on which water birds feed.

Schools and Colleges were Aware on the World Wetlands Day

2 February 2016

1. MSG Academy , Raipura, Basrehar, Etawah
2. Primary School, Tudha, Etawah
3. D Sent Public School, Bahadurpur

4. Swami Vivekanand Academy, Etawah
5. Kanya Junior Highscool, Basserhar, Etawah
6. Primary School, Kunjpur, Eatawah
7. Purva-Madhyamic Vidyalaya, Kailokhar, Jaswantnagar
8. Purva - Madhyamic Vidyalaya, Daudpur,Kasmanda , Sitapur
9. Purva - Madhyamic Vidyalaya, Dharenchha, Kharainda , Sitapur
10. Uchch Prathamic Vidyalaya, Jamaiyatpur, Khairabad, Sitapur
11. Primary School, Tikariya, Khairabaad, Sitapur
12. Primary School, Saraiyya, Maluhi, Sitapur
13. Shree Krishna Education Institute Ahmadnagar, Sitapur
14. Purva - Madhyamic Vidyalaya, Muhuddinpur, persendi , Sitapur
15. Purva - Madhyamic Vidyalaya, Aangraasi , persendi , Sitapur
16. Primary School, Angrasi Sitapur
17. Sanjay Kumar Saraswati Vidya Mandir Inter College, Shahjhanpur
18. Prathamic Vidyalaya, Naglaa Haazi, Dudrail, Shajhanpur
19. Prathamic Vidyalaya, Siroman Nagar, Dudrail, Shajhanpur
20. Prathamic Vidyalaya, Ajijganj, Dudrail, Shajhanpur

Glimpses of field visits/surveys organised on 2nd February 2016 on the occasion of World Wetland Day -2016



Lohia Kala Pokh, Etawah



A View of Baralok talaab, Baralok, Etawah



A view of Sarsai Naawar Lake, Etawah



A view of Jaitipur Totaram talaa, Etawah



A view of Baidpura Taalab, Etawah



Sahas Taal, Sahas Village, Mainpuri



A view of Bujhia Taalab, Bujhia Village,



Dubainiya Taal, Kursinpurwa, Sitapur

Mainpuri	
	
Bada Taal, Mujjaffarpur, Sitapur	**Sanaiya Taal, Mujjaffarpur, Sitapur**
	
A view of Bhabhni Taal, Gaudapur, Sitapur	**Jamayattpur ka Taal, Sitapur**



A view of Kakroha Taal , Tikariya, Sitapur



A view of Dhigwaha Taalab, Persendi Sitapur



Dhibatti Taalab, Persendi Sitapur



Badakka Taal, Itahari, Sitapur



Ramkundi taal, Itahari, Sitapur



Bhella Taal, Angrasi, Sitapur



Chamraiyya Taal, Angrasi, Sitapur



A View of Tendua Jheel, Tendua Sitapur



Nagara Hazi Wetlands, Shahajhanpur



Kalana Wetlands, Shahjahanpur



Umarganj Wetlands, Shahjahanpur

CREATING AWARENESS AMONGST SCHOOLS, STUDENTS, CHILDREN AND LOCAL PEOPLE









Awareness material distribution amongst school student in Etawah and Mainpuri









Awareness material distribution amongst school student in Sitapur





Awareness material distribution amongst school student in Shajhanpur









Awareness material distribution among local people in Etawah and Mainpuri





Awareness amongst local people in Sitapur





Awareness amongst local people in Shajhanpur

Awareness Material distributed



Pocket Calendar



A Poster on Sarus Conservation

सारस: आर्द्रभूमि के प्रतीक



प्रस्तावना :–

- भारतीय सारस क्रेन विश्व के सबसे लम्बे, उड़ने वाले पक्षियों में एक है। आई0 यू0 सी0 एन0 की गणना के अनुसार भारतीय सारस क्रेन एक दुर्लभ श्रेणी का पक्षी है, जिसकी (ग्रस एन्टिगान) यह प्रवासी प्रजाति सिर्फ भारत में प्रजनन करती है। सारस शब्द संस्कृत के 'सरासा' वर्णमाला से लिया गया है जिसका अर्थ है ''झीलों का पक्षी''। सारसा, प्राचीन ऑस्ट्रोएशियाटिक भाषा से लिया गया है, जो सबसे पहले भारतीय उपमहाद्वीपीय क्षेत्रों में आकर बसे थे।
- भारत में सारस मुख्य रूप से उत्तर प्रदेश, राजस्थान, गुजरात, मध्यप्रदेश में पाया जाता है। उत्तर प्रदेश के मैनपुरी व इटावा जिलों में सारस की अधिक संख्या होने के कारण इनको ''सारस की राजधानी'' कहा जाता है। सारस उत्तर प्रदेश का राज्य पक्षी है।
- सारस की ऊँचाई लगभग 2 मीटर (मुख्यतः 6 फिट) के साथ पंखों का फैलाव 2.5 मीटर चौड़ा (8 फिट) होता है। वजन 7 से 10 किलोग्राम (15–22 lbs) होता है।

प्रजजन :–

सारस में प्रजनन क्रिया की शुरूआत नृत्य जैसे क्रियाकलापों से होती है, उसके बाद मिलन के लिए एक के बाद एक करके नर व मादा मिलन गीत गाकर एक–दूसरे को बुलाते हैं। नर व मादा दोनों घोंसला बनाने की प्रक्रिया में सम्मिलित होते हैं। घोंसला बनाने में सारस मुख्य सामग्री (ओराईजा सेटाईवा, आईपोमिया, आईकॉर्निनिया, साइनोडॉन) का उपयोग करता है। घोंसला का औसत व्यास 150–5 इंच और औसत गइराई 1.5–2.5 इंच होता है। मादा वर्ष भर में 1–2 अण्डे देती है। अण्डे अण्डाकार होता है जिसकी अक्षांशीय लम्बाई 4.5–0.5 इंच और व्यास 8–0.5 इंच होता है तथा औसतन भार 250–50 ग्राम होता है। अण्डा सफेद रंग का तथा सेलेटी रंग की धारियाँ पायी जाती हैं।

- अण्डे की ऊष्मायन अवधि 30–35 दिन की होती है, जबकि मादा अण्डे को सेती है तब नर चारों ओर घूम–घूमकर (वृत्ताकार) देखभाल करते हैं।

चूजे :–

- एक महीने की ऊष्मायन की अवधि के बाद चूजे अण्डे से बाहर आ जाते हैं। चूजे पूरी तरह से खाने–पीने के लिए अपने माता–पिता पर आश्रित रहते हैं। एक सप्ताह के उपरान्त चूजे स्वंय के द्वारा भोजन खोजने व ग्रहण करने के काबिल हो जाते हैं। एक ही सप्ताह में ये इतने विकसित हो जाते है कि माता–पिता के साथ खाने की तलाश में बाहर जाते हैं।

जनसंख्या कम होने के अनुमानित कारण :–

- **आवास का हनन** : हजारों पोखरों, तालाबों व झील का हास व क्षरण से इनके रहने तथा प्रजनन का खतरा हो गया है।
- **भोजन की कमी** : बदलती कृषि के तरीको के कारण सारस के प्राकृतिक भोजन के स्त्रोत समाप्त हो रहे हैं।
- कीटनाशकों का प्रयोग, शिकार व अण्डो की तस्करी भी इनकी जनसंख्या कम होने का मुख्य कारण है।
- उच्च पावर–लाइन का प्रभाव भी इनकी जनसंख्या पर पड़ रहा है।
- आर्द्र–स्थानों का अत्याधिक दोहन इनकी प्रजनन स्थानों को कम कर रहा है जिससे इनकी प्रजनन सीमित हो गई है।
- कुत्तों द्वारा इनके अण्डों का शिकार।
- मनुष्य–सारस प्रतिद्वन्दता।

संरक्षण :–

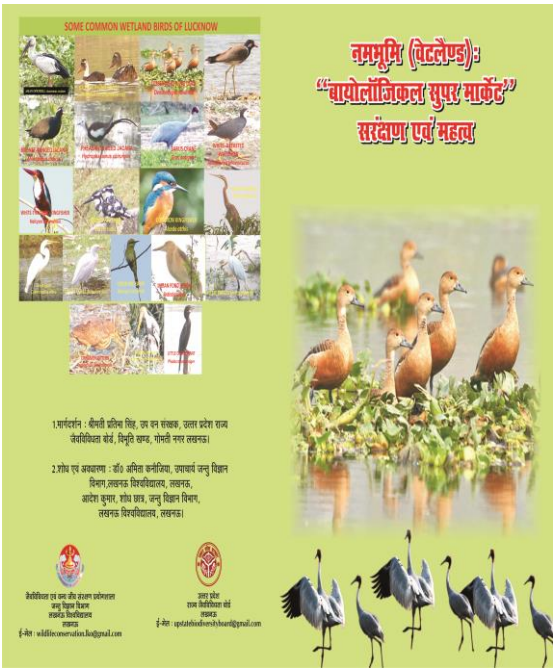
- सारस संरक्षण के लिए छात्रों, किसानों तथा जन–जन में जागरूकता लाने के लिए जागरूकता कार्यक्रम चलाये।
- आर्द्रभूमियों का उचित प्रबन्धन तथा उद्धार जिससे कि सारस को आवास मिल सके।
- सारस सुरक्षित क्षेत्र बनाने चाहिए।
- कीटनाशकों के प्रयोग पर प्रतिबन्ध लगाये।
- प्रजनन के समय अण्डों बच्चों व घोंसलों की सुरक्षा की उचित व्यवस्था।
- सरकार द्वारा शिकार व अण्डों के चुराने के सम्बन्ध में प्रभावी कानून व कार्यवाही की जाये।
- सारस की उचित संख्या के लिए समय–समय पर सारस गणना कराई जानी चाहिए।

जन्तु विज्ञान विभाग, लखनऊ विश्वविधालय, लखनऊ

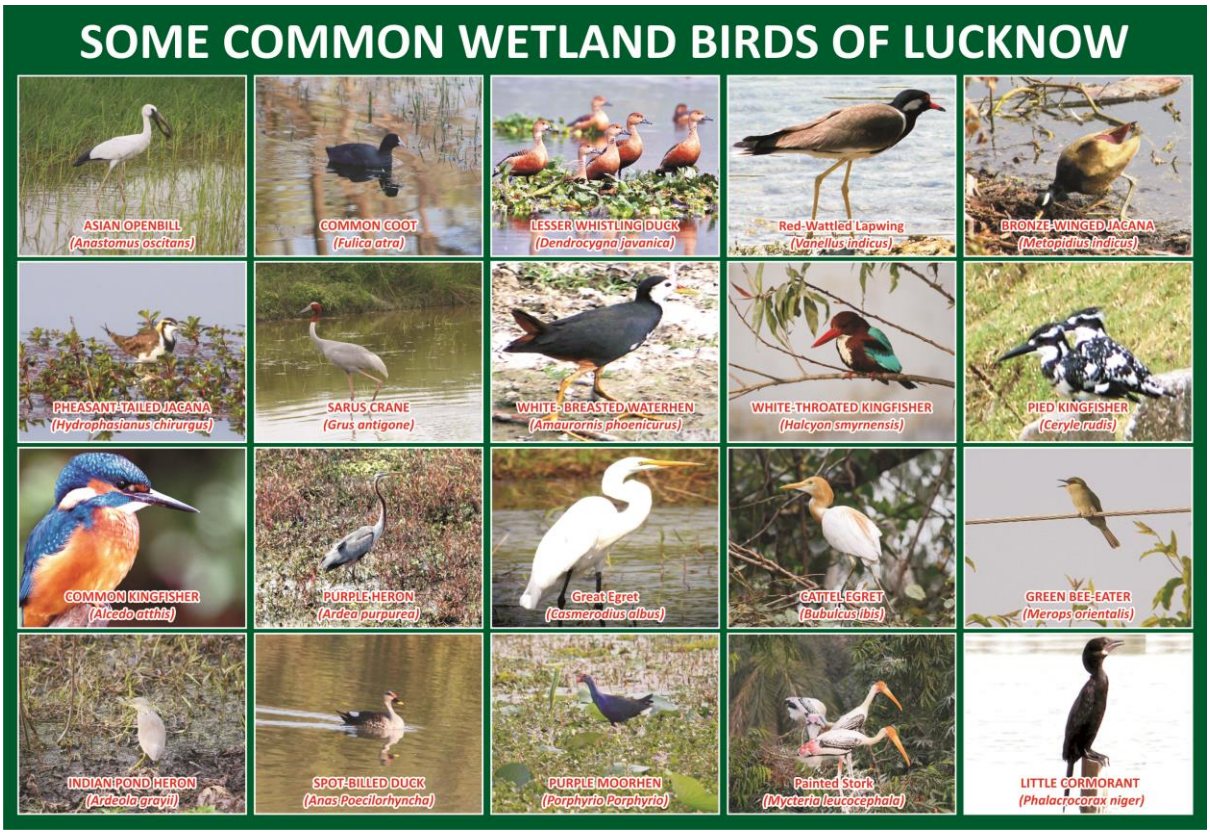
उ.प्र. राज्य जैवविविधता बोर्ड, लखनऊ



Flyers



Pamphlet



Awareness through Poster of waterbirds