



## **Habitat Fragmentation and its Lasting Impact on Biodiversity of Indian Subcontinent**

*Dear Madam/Sir,*

*We request the honour of your presence at the Inaugural Session of the International e-Symposium on Biodiversity (IeSB-2020-SSC) to be held on theme "Habitat fragmentation and its lasting impact on biodiversity of Indian subcontinent" on virtual platform at 10:00AM on February 3, 2021 (link will be shared in due course). Prof. V. N. Singh, Pro-Vice Chancellor, Magadh University, Bodh Gaya and Prof. Rajendra Prasad, Hon'ble Vice Chancellor, Magadh University, Bodhgaya will inaugurate the e-Symposium. Mr. Satya Pal Singh, Ex-Minister of State, Government of India will be the Chief Guest and Professor Devi Prasad Tewari, Hon'ble Vice Chancellor, Veer Kunwar Singh University, Arrah will be the Guest of Honour.*

*Praveen De1epak  
Organizing Secretary  
IeSB-2020-SSC*

### Inaugural Session

10:00 AM	<i>Virtual lighting of lamp</i> By the Guests & Principal
10:05 AM	<i>Kul-Geet of the College</i> College students
10:10 AM	<i>Welcome Address</i> Dr. Sudhir K. Mishra, Principal, Swami Sahjanand College, Jehanabad, India
10:20 AM	<i>Inaugural Address</i> Prof. V. N. Singh, Pro-Vice Chancellor, Magadh University, Bodhgaya, India
10:30 AM	<i>Inaugural Address</i> Prof. Rajendra Prasad, Vice Chancellor, Magadh University, Bodhgaya, India
10:40 AM	<i>Address by the Chief Guest</i> Sr. Satya Pal Singh, Ex-Minister of State, Government of India
10:50 AM	<i>Address by the Guest of Honour</i> Prof. Devi Prasad Tewari, Vice Chancellor, Veer Kunwar Singh University, Arrah, India
11:00 AM	<i>Vote of Thanks</i> Dr. Siyasharan Sharma, Swami Sahjanand College, Jehanabad, India

*The programme will be presided over by Praveen Deepak, Assistant Professor of Zoology, Swami Sahjanand College, Jehanabad.*

## Foreword

On behalf of the organizing committee, let me welcome you to the International e-Symposium on Biodiversity (IeSB – 2020 – SSC). Symposium is being organized by Swami Sahjanand College, Jehanabad (A model college & constituent unit of Magadh University, Bodhgaya, India) on the theme “Habitat fragmentation and its lasting impact on biodiversity of Indian subcontinent” in collaboration with Science for Society, Bihar and Mandar Nature Club, Bhagalpur. As we must aware that biodiversity plays an indispensable role in the human lives; it not only has a role in human survival but, also to their daily lives. However, it has not been always appreciated. Today, it is facing a lot of threats and challenges. To cope up with the compelling demand of ever bursting human population, urbanization, industrialization and an urge of development put us on the stage where we feel a necessity to think about. Today, biodiversity experiences major challenges from degradation/fragmentation/spoilage of wild habitats that warrants urgent need for its conservation. Although, India has rich tradition of conserving our habitat and biodiversity, India too stands up among other nations in recent times.

Understanding the value of biodiversity conservation, Prime Minister of India Sri Narendra Modi declared the theme of environment day, 2020 as biodiversity to call upon the need of biodiversity conservation as an immediate issue. All these issue compel us to organize deliberation as an effort to make interest in this field among the youngsters in Universities and Colleges.

Organizing such a deliberation requires contribution from all quarters. This symposium, too, enjoys the support from the Ministry of Environment, Forest and Climate Change, Government of India which it might not have been possible to organize in such a large spectrum. We are indebted to the Principal, Swami Sahjanand College, Dr. Sudhir K. Mishra for his acceptance and immediate nod for going ahead. We are equally indebted to Prof. (Retd.) Dr. Arun Kumar, President, Science of Society, Bihar and Sri Arvind Mishra, Founder and Member of Executive Council, Mandar Nature Club, Bhagalpur for bringing all organization under one umbrella for the purpose. The publications chair added prestige to the symposium by inviting Chairman, Journal of Wildlife and Biodiversity, Dr. Morteza Naderi for publication of the proceedings of the Symposium. I am fortunate to have a dedicated organizing committee who were always there to ensure smooth and quality execution of the symposium.

Thank you for your interest in IeSB – 2020 – SSC.

Parveen Deepak  
Organizing Secretary  
IeSB – 2020 – SSC

## Organizing Committee

<b>Chief Patron</b>	Prof. Rajendra Prasad, Honourable Vice Chancellor, Magadh University, Bodhgaya, India
<b>Patron</b>	Prof. Vibhuti N. Singh, Honourable Pro-Vice Chancellor, Magadh University, Bodhgaya, India Prof. (Rtd.) Arun Kumar, President, Science for Society, Bihar, India Sri Arvind Mishra, Founder & Member of Executive Committee, Mandar Nature Club, Bhagalpur, India
<b>President:</b>	Prof. Sudhir K. Mishra, Principal, Swami Sahjanand College, Jehanabad, India
<b>Org. Secretary</b>	Praveen Deepak, Assistant Professor, Department of Zoology, Swami Sahjanand College, Jehanabad, India
<b>Convener</b>	Dr. Sneha Swarup, Assistant Professor, Department of Geography, Swami Sahjanand College, Jehanabad, India Madhav K. Singh, Assistant Professor, Department of Physics, Swami Sahjanand College, Jehanabad, India Dr. Vinod K. Roy, Assistant Professor, Department of Sanskrit, Swami Sahjanand College, Jehanabad, India
<b>Joint Org. Secr.</b>	Dr. Md. Imran, Department of Urdu, Swami Sahjanand College, Jehanabad, India Dr. Amar Kishore, Assistant Professor, Department of Mathematics, S. N. Sinha College, Jehanabad, India Mukesh Kumar Jha, Assistant Professor, Department of Political Science, S. M. D. College, Patna, India

## Advisory Committee

Prof. S. N. P. Yadav ‘Deen’, Department of Zoology, Magadh University, Bodhgaya, India
Prof. (Rtd.) Tapan K Ghosh, University Department of Zoology, Tilka Manjhi Bhagalpur University, Bhagalpur, India

Prof. (Rtd.) Amita Moitra, University Department of Zoology, Tilka Manjhi Bhagalpur University, Bhagalpur, India

Prof. C. N. R. Yadav, Institute of Agricultural and Animal Sciences, Tribhuvan University, Kathmandu, Nepal

Prof. Bharat Raj Subba, Department of Zoology, Tribhuvan University, Biratnagar, Nepal

Dr. Dilip K. Paul, Department of Zoology, Patna University, Patna, India

Prof. Surender Kumar, Department of Economics, Swami Sahjanand College, Jehanabad, India

Prof. Krishnanand, Department of Psychology, Swami Sahjanand College, Jehanabad, India

Dr. Siyasharan Sharma, Department of Botany, Swami Sahjanand College, Jehanabad, India

Dr. Sharmishtha Mukhopadhyay, Department of Chemistry, Swami Sahjanand College, Jehanabad, India

Dr. Srinath Sharma, Department of Mathematics, Swami Sahjanand College, Jehanabad, India

### **Organizing Committee Members**

Dr. Vivekanand, Department of Psychology, Swami Sahjanand College, Jehanabad, India

Dr. Sachidanand Sinha, Department of Economics, Swami Sahjanand College, Jehanabad, India

Dr. Balbhagwan Sharma, Department of English, Swami Sahjanand College, Jehanabad, India

Dr. Upender Kumar, Department of Philosophy, Swami Sahjanand College, Jehanabad, India

Dr. Shyamkant Sharma, Department of Philosophy, Swami Sahjanand College, Jehanabad, India

Dr. Ramesh Sharma, Department of Hindi, Swami Sahjanand College, Jehanabad, India

Dr. Arun Kumar, Department of Hindi, Swami Sahjanand College, Jehanabad, India

Dr. Kumari Nisha Rani, Department of Geography, S. S. College, Jehanabad, India

Sri Sunil Kumar, Department of Zoology, Swami Sahjanand College, Jehanabad, India

Sri Sunil Singh, Department of Botany, Swami Sahjanand College, Jehanabad, India

Sri Moti Lal, Department of Chemistry, Swami Sahjanand College, Jehanabad, India

### **Scientific committee**

Dr. Dev N. Choudhary, Associate Professor, University Department of Zoology, Tilka Manjhi Bhagalpur University, Bhagalpur, India

Dr. Dilip K. Paul, Associate Professor, Department of Zoology, Patna University, Patna, India

Dr. (Rtd) Shiyasharan Sharma, Department of Botany, Swami Sahjanand College, Jehanabad, India

Praveen Deepak, Assistant Professor, Department of Zoology, Swami Sahjanand College, Jehanabad, India

Dr. Sneha Swarup, Assistant Professor, Department of Geography, Swami Sahjanand College, Jehanabad, India

Dr. Madhav K. Singh, Assistant Professor, Department of Physics, Swami Sahjanand College, Jehanabad, India

Ranjit Singh, Department of Botany, Kashi Naresh Government P. G. College, Bhadohi, India

Prakash Chandra Gupta, Department of Zoology, Kashi Naresh Government P. G. College, Bhadohi, India

Ashutosh Dwivedi, Assistant Professor, Department of Zoology, K. B. P. G. College, Mirzapur, India

*Dear Madam/Sir,*

*We request the honour of your presence at the Valedictory Session of the International e-Symposium on Biodiversity (IeSB-2020-SSC) to be held on theme "Habitat fragmentation and its lasting impact on biodiversity of Indian subcontinent" on virtual platform at 05:00 PM on February 04, 2021 (link will be shared in due course). Prof. Vibhuti Narayan Singh, Hon'ble Pro-Vice Chancellor, Magadh University, Bodhgaya will inaugurate the Valedictory Session. Prof. Dr. Arun Kumar, President, Science for Society, Bihar, and Sri Arbind Mishra, Founder & Member of Executive committee, Mandar Nature Club, Bhagalpur will be the Guest of Honour.*

*Praveen Deepak  
Organizing Secretary  
IeSB-2020-SSC*

#### Valedictory Session

05:00 PM	<i>Saraswati Vandana</i> College students
05:05 PM	<i>Valedictory speech</i> Professor V. N. Singh, Pro-Vice Chancellor, Magadh University, Bodhgaya, India
05:20 PM	<i>Conference remarks</i> Dr. Sudhir K. Mishra, Principal, Swami Sahjanand College, Jehanabad, India
05:30 PM	<i>Conference remarks</i> Prof. (Rtd) Dr. Arun Kumar, President, Science for Society, Bihar, India
05:40 PM	<i>Conference remarks</i> Sri Arvind Mishra, Secretary & Founder, Mandar Nature Club, Bhagalpur, India
05:50 PM	<i>Concluding remarks</i> Dr. Vinod K. Roy
06:00 PM	<i>Concluding remarks &amp; Vote of Thanks</i> Dr. Siyasharan Sharma
06:10 PM	<i>National anthem</i>

*The programme will be presided over by Dr. Vinod K. Roay, Assistant Professor of Sanskrit, S. S. College, Jehanabad.*

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## INTERNATIONAL E-SYMPOSIUM ON BIODIVERSITY - 2020

### “Habitat Fragmentation and Its Lasting Impact on Biodiversity of Indian Subcontinent”

<i><u>Symposium Session</u></i>		
<i><u>Day 1</u></i>		<i>03.02.2021</i>
<i><b><u>Session – I</u></b></i>		
<b>Session Chair</b>		<b>Dr. Dilip K. Paul</b> – Department of Zoology, Patna University, Patna, INDIA
<b>11:00 AM</b>	<b>Speaker</b>	<b>Dr. Govindhaswamy Umapathy</b> – LaCONES, CCMB, Hyderabad, INDIA
	<b>Title</b>	<b>Understanding biodiversity loss in human – dominated landscape in the Western Ghats – lion tailed as a model species</b>
<i><b>Break; 10 min</b></i>		
<b>12:00 PM</b>	<b>Speaker</b>	<b>Dr. Harini Nagendra</b> – Prof. of Sustainability, Ajim Premji University, Bangalore, INDIA
	<b>Title</b>	<b>Urbanization: A new frontier for conservation</b>
<i><b>Break; 10 min</b></i>		
<b>01:00 PM</b>	<b>Speaker</b>	<b>Dr. Sudipta Chatterjee</b> – Department of Natural Resources, TERI School of Advance Studies, New Delhi, INDIA
	<b>Title</b>	<b>Biodiversity conservation in face of global changes</b>
<i><b>Lunch Break; 30 min</b></i>		

<b><u>Session – II</u></b>		
<b>Session Chair</b>		<b>Dr. Dev N. Choudhary</b> – University Department of Zoology, Tilka Manjhi Bhagalpur University, Bhagalpur, INDIA
<b>02:20 PM</b>	<b>Speaker</b>	<b>Dr. Vinita Gowda</b> – School of Biological Sciences, Indian Institute of Science Education and Research, Bhopal, INDIA
	<b>Title</b>	---
<b><i>Break: 10 min</i></b>		
<b>03:20 PM</b>	<b>Speaker</b>	<b>Dr. Tapan K. Dey</b> – Deputy Chief Conservator (Rtd.), Department of Forest, Ministry of Forest and Environment, Government of Bangladesh, Dhaka, BANGLADESH
	<b>Title</b>	---
<b><i>Break: 10 min</i></b>		
<b>04:20 PM</b>	<b>Speaker</b>	<b>Dr. Narayan Sharma</b> – Department of Environment Biology and Wildlife Sciences, Cotton University, Guwahati, INDIA
	<b>Title</b>	<b>Impact of habitat loss and fragmentation on the primate assemblage of upper Brahmaputra valley, Northeastern India</b>
<b><i>Break: 10 min</i></b>		
<b>05:20 PM</b>	<b>Speaker</b>	<b>Dr. Kamrul Hassan</b> – Department of Zoology, Jehangirnagar University, Dhaka, BANGLADESH
	<b>Title</b>	---

<b><u>Day 2</u></b>		<b>04.02.2021</b>
<b><u>Session – I</u></b>		
<b>Session Chair</b>		<b>Dr. Rajiv P. Singh</b> – Institute of Environment and Sustainable Development, Banaras Hindu University, Varanasi, INDIA
	<b>Speaker</b>	<b>Mr. Dambar Bista</b> – School of Agriculture and Food Sciences, University of Queensland, Brisbane, AUSTRALIA

<b>10:30 AM</b>	<b>Title</b>	---
<b><i>Break; 10 min</i></b>		
<b>11:30 AM</b>	<b>Speaker</b>	<b>Dr. Hema Somanathan</b> – School of Biology, Indian Institute of Science Education and Research, Thiruvananthpuram, Kerala, INDIA
	<b>Title</b>	<b>Foraging behavior and pollination services provided by Indian bees</b>
<b><i>Break; 10 min</i></b>		
<b>12:30 PM</b>	<b>Speaker</b>	<b>Dr. Sandun J. Perera</b> – Department of Natural Resources, Sabagamuwa University, Belihuloya, SRI LANKA
	<b>Title</b>	<b>From Wallace's Ceylonese sub region to the Western Ghats and Sri Lanka Biodiversity Hotspot: A biogeographic tale</b>
<b><i>Lunch Break; 30 min</i></b>		
<b><u>Session – II</u></b>		
<b>Session Chair</b>		<b>Dr. Sneha Swarup</b> – Department of Geography, S. S. College, Jehanabad, INDIA
<b>01:50 PM</b>	<b>Speaker</b>	<b>Dr. Indra Prasad Acharja</b> - Chief, Species and Habitat Conservation Division (SHCD), Royal Society for Protection of Nature (RSPN), Thimphu, BHUTAN
	<b>Title</b>	<b>White-bellied Heron <i>Ardea insignis</i>, the indicator of health of Himalayan fresh water river system</b>
<b><i>Break; 10 min</i></b>		
<b>02:50 PM</b>	<b>Speaker</b>	<b>Dr. Monimul I. Nahid</b> – Department of Biology, Norwegian University of Sciences & Technology (NTNU), Trondheim Area, NORWAY
	<b>Title</b>	<b>How human disturbance can affect the brood parasitism and nest predation of the hosts inhabiting in a highly fragmented habitat</b>
<b><i>Break; 10 min</i></b>		

<b>03:50 PM</b>	<b>Speaker</b>	<b>Ms. Kalpana Ghimire</b> – Central Department of Environmental Science, Tribhuvan University, Kirtipur, Kathmandu, NEPAL
	<b>Title</b>	<b>Diurnal activity pattern of of Assamese Macaque (<i>Macaca assamensis</i> McClelland, 1840) in Nagarjun Forest, Shivapuri Nagarjun National Park, Nepal</b>
<b>04:20 PM</b>	<b>Speaker</b>	<b>Dr. Vinutha R. Bhatta</b> – Department of Zoology & Genetics, Jyoti Nivas College (Autonomous), Koramangala, Bangalore, Karnatak, INDIA
	<b>Title</b>	<b>Distribution of and abundance of native bee species in an Urban Green Space in Bengaluru – An approach for sustainable urban development and diversity conservation</b>
<b>05:00 PM</b>	<b><i>Valedictory Session</i></b>	

*# Participants may also present their work during the symposium.*

