



AVIAN INFLUENZA IN 2021:

What we know and what needs to be done

Friday, 12th February 2021
17:00 - 18:30 hrs (IST)

While the world is still reeling under the impacts of COVID-19, many states in India are now also reporting large-scale outbreaks of the highly pathogenic Avian Influenza (H5N1). Although cases have been reported every year since 2006, when H5N1 was first detected in India, this year has already set records for the number of cases discovered and the geographic spread. From Himachal Pradesh in the North to Central and Southern India, mortality in several species of birds is being reported. Due to these outbreaks, large-scale culling of poultry has been initiated to control the spread of this disease as per the new guidelines issued by the Government of India, resulting in massive economic losses.

However, given that there have been no reported cases of H5N1 in humans in India, is this response proportionate to the threat? What can India do to better prepare for this annual occurrence? What role can ecologists, conservationists and citizens play in increasing our understanding of this disease? How can we better integrate One Health principles in the surveillance and control of this disease?

These questions and many more, will be discussed by our group of eminent panellists. They will also discuss the broader questions of the risk of emerging zoonoses in India, and what needs to be done to increase our preparedness, especially in the context of the biodiversity and climate crises that the world is facing.

The Ministry of Environment, Forest and Climate Change, Government of India, is planning to launch a unique and ambitious National Mission on Biodiversity and Human Well-Being. This Mission is one of nine national missions approved by the Prime Minister's Science, Technology and Innovation Advisory Council in 2019. The Mission will strengthen the science of restoring and conserving India's natural heritage; embed biodiversity as a key consideration in all developmental programmes, particularly in agriculture, ecosystem services, health, bio-economy, and climate change mitigation; establish a citizen and policy oriented biodiversity information system; and enhance capacity across all sectors for realisation of United Nations Sustainable Development Goals. One Health and Zoonoses is a sub-programme of the Biodiversity and Health programme of this National Mission. This webinar is organised by the Biodiversity Collaborative in collaboration with the National Biodiversity Authority, Office of the Principal Scientific Adviser and Bird Count India.

We invite you to attend the webinar using this registration link: https://us02web.zoom.us/webinar/register/WN_VTHSmo-dSNqLHCMCJiPlsg

The webinar will also be live-cast via [Facebook Live](#).

SPEAKERS

Dr. Farah Ishtiaq

Senior Scientist, Tata Institute for Genetics and Society (TIGS), inStem New Building, NCBS-TIFR, Bengaluru

She is an evolutionary ecologist working on emerging vector-borne diseases for the past 17 years. She has worked on critically endangered and threatened birds and coordinated the Important Bird Areas Programme with Bombay Natural History Society. She has studied the ecology of Avian Influenza in Mongolia and avian malaria and its vectors at remote pacific islands such as Hawaii, New Caledonia, Vanuatu, and India. At TIGS, she has been working on the epidemiology of Avian Malaria and understanding the spread of the disease in high-altitude malaria-free zones with genetic markers. Her expertise in Ornithology, Population genetics of vector species, Host-parasite interactions and Evolutionary biology has helped better understanding of host-parasite interactions. Currently, at the Disease Ecology & Conservation Biology Lab at TIGS she is leading the field ecology and population genomics of key mosquito species involved in Malaria and Dengue transmission in India.

Dr. Taej Mundkur

International Waterbird Census Coordinator & Senior Technical Officer, Wetlands International, The Netherlands He is the coordinator of the citizen science programme, the annual International Waterbird Census which is operational in over 140 countries to collect information on the numbers of waterbirds at wetland sites. He also Chairs the Flyways Working Group of the Convention on Migratory Species (CMS) and the Asia-Pacific Working Group on Migratory Waterbirds and Avian Influenza. He has been involved with strengthening international cooperation, research, monitoring and capacity building for waterbird and wetland conservation through flyway programmes in Asia-Pacific, Americas, and Africa-Eurasia through agreements and partnerships with governments, NGOs, experts, corporates, and others.

Dr. S. Nagarajan

Principal Scientist, Norman Borlaug Fellow, National Institute of High Security Animal Diseases, Indian Council of Agricultural Research, Bhopal

He has played a substantial role in establishing diagnostic methodologies for Avian Influenza virus (AIV) in India and is currently involved in surveillance, molecular epidemiology, and pathogenic characterization of AIVs. He has developed a NP gene-based reverse transcription PCR and AGID diagnostic reagents that reduced the dependence on imported antigens and antisera for serological surveillance of AIV. His lab is a recognised Reference Laboratory for Avian Influenza by the World Organization for Animal Health (OIE) and National Referral Facility for Avian Influenza by DAHD, MoFAHD, GoI.

Dr. Uma Ramakrishnan

Senior Fellow, DBT/Wellcome Trust India Alliance Program & Professor, NCBS-TIFR, Bengaluru; Biodiversity Collaborative

She is a molecular ecologist and Professor at National Centre for Biological Sciences-TIFR, Bengaluru. Her research investigates conservation genetics, population genetics and the evolutionary history of mammals in the Indian subcontinent. She has pioneered genetic methods using non-invasive samples for several endangered species, with a specific focus on tigers. These investigations have helped identify isolated and connected populations of endangered tigers. Other work has focused on understanding drivers of diversification in montane bird communities in the Western Ghats. Her recent work has included investigation of zoonoses in bats in North Eastern India and rodents in the Western Ghats.

Dr. Ravi Chellam

CEO, Metastring Foundation; Biodiversity Collaborative

He is a wildlife biologist and conservation scientist with special interest in the Asiatic lions. He is currently the Director of the Mission Secretariat of the preparatory phase project of the National Mission on Biodiversity and Human Well-Being.

MODERATOR

Dr. Abi T. Vanak

Fellow, DBT/Wellcome Trust India Alliance Program (Intermediate Clinical and Public Health Fellowship) & Senior Fellow (Associate Professor) and Convenor, Centre for Biodiversity and Conservation, ATREE, Bengaluru; Biodiversity Collaborative

An ecologist by training, Dr. Vanak combines his interests across the fields of animal movement ecology, disease ecology, and human-wildlife interactions to better understand the dynamics of emerging infectious diseases in rapidly changing landscapes. His current work uses the One Health framework to examine the dynamics of rabies in multi-host systems, and the factors contributing to the risk of vector-borne diseases in socio-ecological systems in India. He is the lead author of the One Health and Zoonoses sub-programme of the National Mission.