

ZSL SCIENCE AND CONSERVATION EVENT

**Bridging the gap: 25 years of capacity building for
wildlife health professionals**

Tuesday 10 May 2022

6:00pm – 7:30pm UK Time (BST)

Online event livestreamed to zsl.org/IOZYouTube[Direct link: <https://youtu.be/Q4BlkPe8MTw>]

There is no charge for this event, and no need to register in advance

AGENDA

Dr Tony Sainsbury, Senior Lecturer, Institute of Zoology, Zoological Society of London
The Wildlife Health Bridge and the training of wildlife health professionals

Ashleigh Lutz-Nelson, Incoming Executive Director, Snow Leopard Conservancy
Using a collaborative One Health Approach to improve the health, conservation and wellbeing of wild cats

Dr Aditi Sharma, Deputy Chief Veterinary Officer, Government of Uttarakhand, India
Role of veterinarians in wildlife management

**Dr Arun Zachariah, Chief Forest Veterinary Officer in the Department of Forests and Wildlife,
Government of Kerala, India**
Disease Ecology of Free Ranging Wildlife and Emerging Diseases-case studies from India

Dr Carlos Valderrama-Vasquez, Director, WebConserva
Challenges for wildlife conservation in Colombia

Dr Alejandra Montalba, Director of National Zoo, Chile
Conservation Efforts in a Latin American Zoo: Partnerships and Community Engagement

ABSTRACTS

The Wildlife Health Bridge and the training of wildlife health professionals

Dr Tony Sainsbury, Senior Lecturer, Institute of Zoology, Zoological Society of London

The Wildlife Health Bridge (WHB) is an initiative to improve the education of wildlife health professionals, particularly those from low income, biodiverse countries where this expertise is in short supply. The WHB is a collaborative partnership between the Zoological Society of London, The Wildlife Institute of India, The University of Edinburgh, The Royal Veterinary College and The University of Melbourne, and between these five institutions, four Masters' level courses in wild animal health are running to meet the objectives. One of the courses includes a field module run in Sariska National Park, India, since 2016, in an endeavour to improve the training of wildlife veterinarians in South Asia. Over 700 wildlife health professionals, from 68 countries, have graduated from WHB courses and they are encouraged to join our global graduate network, Wild Animal Alumni (WAA) for knowledge exchange.

Dr Tony Sainsbury is a Senior Lecturer in Wild Animal Health at the Institute of Zoology, Zoological Society of London and leads the Wildlife Health Bridge initiative to improve the education of wildlife health professionals. Tony has researched diseases of free-living wild animals for over 30 years, carried out doctoral research in squirrelpox viruses in squirrels and leads the Disease Risk Analysis and Health Surveillance project which studies health and disease in relation to conservation translocations.

Using a collaborative One Health Approach to improve the health, conservation and wellbeing of wild cats

Ashleigh Lutz-Nelson, Incoming Executive Director, Snow Leopard Conservancy

Globally, nearly all species of wild felids (cats) are listed by the International Union for Conservation of Nature (IUCN) Red List for Threatened Species with multiple threats to their existence, including habitat loss and degradation, reduced prey base, and increasing conflict with humans over domestic livestock sharing vital resources for survival. Conservation must be solution and action-oriented at all levels to build positive and compassionate human-wildlife coexistence. This is best achieved through prevention and mitigation techniques, such as livestock safe enclosures and compensation relief schemes, education opportunities, and development of alternative sustainable livelihoods that link to biodiversity preservation. Using a One Health approach to reduce conflict and improve human, animal and environmental health can be a holistic solution to the increasing challenges in wildlife conservation. Improving the health and welfare of domestic animals through increased protection and improved health could positively contribute to the conservation of threatened and endangered felids by reducing human-wildlife conflict and zoonotic disease transmission between domestic animals, wildlife and people. In addition, reviving Indigenous Traditional Ecological Knowledge can restore keystone and totem species, such as Snow Leopards, leveraging culture and spirituality in conservation and restoring the growing emerging threat of loss of hope and inspiration. Lastly, building collaboration between ex situ, in situ, governmental and nongovernmental conservation stakeholders

could increase the efficacy and scale of these efforts and maximize our collective impact in achieving global conservation goals related to felid conservation.

Ashleigh Lutz-Nelson's educational background is in animal health, welfare, behaviour and conservation with degrees in BSc Zoology & Pre-Veterinary from the University of Florida and MSc Wild Animal Biology from the Royal Veterinary College & Zoological Society of London (2010). Working as an Animal Care Specialist and Curator in the zoological field in AZA-accredited Zoos for 20 years, Ashleigh worked with a variety of taxa and specialised with the Felid Taxon Advisory Group which included helping lead national efforts to improve Felid health, management, conservation, and research in zoos, and bridging ex situ and in situ conservation efforts for Tigers, Pallas's cats and Cheetahs. She is currently the Incoming Executive Director of the Snow Leopard Conservancy (SLC), U.S. based wildlife conservation non-profit organisation, with the mission of Ensuring Snow Leopard survival and conserving mountain landscapes by expanding environmental awareness and sharing innovative practices through community stewardship and partnerships. SLC currently has community-based programs in 8 snow leopard range countries. Ashleigh lives in the San Francisco Bay Area, California, USA with her husband and their two kitties.

Role of veterinarians in wildlife management

Dr Aditi Sharma, Deputy Chief Veterinary Officer, Government of Uttarakhand, India

Veterinarians are one of the important wildlife health professionals who play a very crucial role in wildlife management. Wildlife management is a very broad term which includes management of health, breeding, feeding, habitat, behaviour, capture, rehabilitation, monitoring, population estimation and many more aspects related to the wild animals. All these areas of wildlife management require a highly skilled, trained, technically and scientifically sound wildlife health professionals. Veterinarians play a diverse role in wildlife management as they are trained to implement the wildlife health, prophylaxis and diseases surveillance programs. They play a crucial role in capture, human-wildlife conflict mitigation, rescue, rehabilitation and rewilding of wildlife and are also trained for management of free-ranging, semi free-ranging and captive wild animals. They play an important role in species recovery programs as well as the surplus wildlife population management programs. By contributing towards One Health, veterinarians are playing a crucial role in management of pandemics like COVID-19 and are also helping in achievement of SDGs (Sustainable Development Goals) of United Nations. With such a diverse role to play, there is a need for more and more expert and trained wildlife veterinarians to tackle them.

Dr Aditi Sharma is the Deputy Chief Veterinary Officer in the Government of Uttarakhand, India, where she has been the Senior Veterinary Officer and then Veterinary Officer since 2003. She is an extremely motivated and enthusiastic veterinarian with first-hand experience in delivering high-quality services within her department. She has expertise in wildlife management, is a natural team player who loves challenges, and is constantly looking for new areas to learn about. Her technical skills include wildlife health management, wildlife capture and rescue, human-wildlife conflict mitigation, veterinary surgery & radiology, disease surveillance, livestock health management, animal inclusive disaster risk,

reduction, one health, and veterinary leadership. She completed the Field Course on Interventions in Wild Animal Health (IWAH) in 2016, alongside many other wildlife health and management courses.

Disease Ecology of Free Ranging Wildlife and Emerging Diseases-case studies from India

Dr Arun Zachariah, Chief Forest Veterinary Officer in the Department of Forests and Wildlife, Government of Kerala, India

Emerging diseases are considered as one of the major threats to the conservation of endangered wildlife species. Here we discuss emergence of diseases in a free ranging wildlife in an Indian scenario. Historical evidences of emergence of diseases in free ranging wildlife are lacking. By conducting routine post-mortems in the study area for the past two decades, we have identified both macro parasitic and micro parasitic pathogen emergence in this population. *Mycobacterium tuberculosis* was reported for the first time in free ranging elephant population. Highly fatal, Endotheliotropic Elephant Herpes Virus was also documented for the first time in free ranging elephants. Emergence of macro parasite pathogens is also reported. The causes of emergence of infectious diseases of wildlife are multi-factorial: ecosystem alterations of anthropogenic or natural origin, movement of pathogens or vectors via humans or natural agencies, and change in microbes or in the ability to recognise emerging pathogens due to advances in techniques of epidemiology. The possible impacts of the emergence of infectious diseases in this important habitat will also be discussed.

Dr Arun Zachariah is the Chief Forest Veterinary Officer in the Department of Forests and Wildlife, Government of Kerala, India. He completed the MSc in Wild Animal Health (WAH) at the Royal Veterinary College in 2006. Arun has gained extensive experience working in various Veterinary Officer roles in the Government of Kerala since 1998, as well as a role as Assistant Professor in the Kerala Veterinary and Animal Sciences University. His current research interests include mortality in free ranging Indian tigers; Tuberculosis in free ranging Asian elephants; epidemiology of Endotheliotropic Elephant Herpes Virus infection in captive and free ranging Asian elephants, and genetic variation in highly fatal Kyasanur Forest disease viruses.

Challenges for wildlife conservation in Colombia

Dr Carlos Valderrama-Vasquez, Director, WebConserva

Colombia is the second most biodiverse country in the world with distinctive ecosystems posing significant challenges to their conservation. These challenges demand qualified wildlife professionals from different disciplines, and to build capacity locally amongst communities. The focus of our conservation work is to lead interdisciplinary studies to find an equilibrium between agricultural production and the conservation of the ecosystems. For that matter, our work in Colombia has been mainly with pumas (*Puma concolor*), jaguars (*Panthera onca*) and Andean bears (*Tremarctos ornatus*) - key stone species that are important for the control of prey species. These large carnivores are also umbrella species that allow us to design broad conservation strategies due to their ecological needs of large areas, well conserved habitats and abundance of prey species. However, carnivores worldwide are threatened by shrinking geographic ranges and populations are in decline, mainly due to the

progressive destruction of their habitat. Additionally, the dependence of carnivores on other prey species often brings them into conflict with humans, because they hunt on the domestic animals, especially in areas where native wildlife has been reduced and replaced by livestock, motivating retaliatory killing to eradicate the carnivores. For that reason, our work has been oriented to develop novel strategies to improve the production techniques to mitigate the pressure generated by the lack of habitats, and reduce the human-carnivore conflict due to inadequate production techniques. Those strategies also aim to improve the livelihood of people in the regions and to bring additional benefits to producers that are supporting the conservation efforts in order to secure a long-term sustainability.

Dr Carlos Valderrama-Vasquez is a Veterinarian from the Universidad Nacional de Colombia (UNal) with a Master of Science in Wild Animal Health from the Royal Veterinary College of London at the University of London. He has experience in human-animal conflict resolution, wildlife capture and transport and animal trafficking control. Carlos' main focus is to lead interdisciplinary studies, working with carnivores as focal species, to find an equilibrium between agricultural production and the conservation of ecosystems. His work in Colombia has been mainly with felids, but also with Andean bears. He is a member of UNal Bioethics Committee, IUCN/SSC Cat Specialist Group and Wildlife Health Specialist Group.

Conservation Efforts in a Latin American Zoo: Partnerships and Community Engagement

Dr Alejandra Montalba, Director of National Zoo, Chile

The National Zoo of Chile, member of the World Association of Zoos and Aquariums (WAZA), the Latin American Association of Zoos and Aquariums (ALPZA), the International Association of Zoo Educators (IZE) and Species 360, achieves its conservation goals not only by educating its 1 million visitors per year but also working in *ex-situ* and *in-situ* conservation projects with native fauna. These projects are only possible by collaborating with different partners, including government agencies and NGOs such as the Association of Zoos and Aquaria (AZA) with its Saving Animals for Extinction (SAFE) programmes, the Ministry of Environment, the Meri Foundation, Amphibian Ark, Zoo Conservation Outreach Group (ZCOG), Re: Wilding and The Japan International Cooperation Agency (JICA), among others. The projects range from mammals such as short-tailed chinchillas, amphibians such as the Loa Water Frog, and birds like Humboldt penguins, Andean Highland flamingos and Andean Condor. All the conservation projects have an important local community engagement in order to empower and educate local people in protecting its wildlife. The conservation project the Zoo needed to communicate the most in order to have an impact in the whole country was the Loa Water Frog (14 last individuals in the planet kept at the National Zoo of Chile due to habitat loss) and it was achieved in collaboration with international partners by reaching Leonardo Dicaprio's social media.

Dr Alejandra Montalba is a veterinarian from Chile. She got her MSc in Wild Animal Health during 2009-2010. Since 2013 she is the Director of the National Zoo of Chile, being the first woman to hold that position since the zoo opened in 1925. Currently Dr Montalba is also the President of the Association of Wildlife Veterinarians of Chile and Professor at Universidad Mayor, also in her country.

Format of Live Events

- This interactive online event will be livestreamed to our YouTube channel here: zsl.org/IOZYouTube. A direct link to the livestream will also be shared on the event web page before the event.
- Before attending this event, please read our Code of Conduct found [here](#).
- This event will run from 6:00pm – 7:40pm, and will be available to watch afterwards on our YouTube channel.
- Each event will comprise of short presentations from experts in the topic, followed by interactive Q&A and panel sessions. Viewers will be encouraged to join the event live and ask questions using an online platform.
- If you wish to submit a question to a speaker prior to the event, please send it to scientific.events@zsl.org. Please be aware we may not be able to answer all questions.
- There is no charge for this event, and no need to register in advance.

ZSL Wild Science Podcast

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Thank you for joining our online 2021 – 2022 events!

We hope you have enjoyed another successful year of our online Science and Conservation Events. We've now accumulated over 2,440 subscribers to our [YouTube channel](#), and our events have been viewed more than 28,200 times both live and on demand, in 44 countries worldwide! Online events provide a unique opportunity to collaborate with speakers and connect with global audiences – thank you so much for watching, taking part and supporting ZSL's science and conservation work. We will announce the content and format of the next programme of events on our What's On page – so keep an eye out in the Autumn, and **let us know what you want to see in our final feedback form**: <https://www.surveymonkey.co.uk/r/ZSLEvent17>.

Further Information

- Please contact the Science Communications and Events Manager, Eleanor Darbey (eleanor.darbey@zsl.org), if you have any queries about our Science events or podcasts.
- For press enquiries, please contact the ZSL Press Office: press.office@zsl.org.
- For more information about how to join as a ZSL Fellow from only £48 and enjoy a year of wonderful wildlife, live from our Zoos, field programmes and scientists – bringing you closer to our global conservation and world leading science – please visit: www.zsl.org/membership/zsl-fellowship.
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