

WORLD CONGRESS ON

SNAKES 2026

Snakes, Science, Species Survival & Sri Lanka

POST CONGRESS REPORT

1 2 3 4 5 OCTOBER

The Grand Kandyan Hotel
Kandy, Sri Lanka

THE EVENT





The First World Congress on Snakes (WCS 2026) convened over 400 delegates, both local and international, from 44 countries and territories at the Grand Kandyan Hotel in Kandy, Sri Lanka, from October 1 to 5, 2026. This Congress represented a significant milestone in promoting global collaboration in the fields of snake biology, conservation, and human–wildlife coexistence.



Initiated by the Amphibia and Reptile Research Organization of Sri Lanka (ARROS), and the IUCN SSC Snake Specialist Group, the Congress sought to bring together experts from various fields, including ophiologists, herpetologists, conservationists, policymakers, and public health professionals. The goal was to enhance scientific understanding, promote conservation efforts, and ensure the survival of snake species.

Kandy, recognized as a UNESCO World Heritage city, served as an ideal location for this international gathering. Among the participants, Sri Lanka had the largest representation, with 113 delegates, followed by India with 65 and the United States with 36.

WCS '26	
Delegates	400+ local and international
Countries represented	44
Duration	5 days
Plenary sessions	16
Symposiums	8
Oral presentations	216
Poster presentations	25+
Book launches	8
Post-congress field trips	2

The Congress served as a platform for the broader conservation community. Following the main programme, a Snake Red List Assessment and a Conservation Planning Workshop took place from 6 to 10 October 2026.

THE COMMITTEE

Founding Parners



Dr. Anslem de Silva
Sri Lanka



Dr. Julie Ray
USA



Dr. Daniel Natusch
Australia

Executive Committee



Dr. Anslem de Silva
Congress Chairperson
Scientific Committee
Sri Lanka



Dr. Nimal D. Rathnayake
Secretary General
Scientific Committee
Sri Lanka



Dr. Kanishka Ukuwela
Scientific Committee
Sri Lanka



Mr. Suranjan Karunarathna
Scientific Committee
Sri Lanka



Mr. Nayana Daundasekara
Scientific Committee
Sri Lanka

THE COMMITTEE

International Scientific Committee



Prof. Aaron Bauer
USA



Prof. Rick Shine
Australia



Prof. Indraneil Das
Malaysia



Prof. Walter Erdelen
Germany



Prof. Bartosz Borczyk
Poland



Dr. Sanjay Molur
India



Dr. Pritipal Soorae
Abu Dhabi



Dr. Muhammad Rais
Pakistan



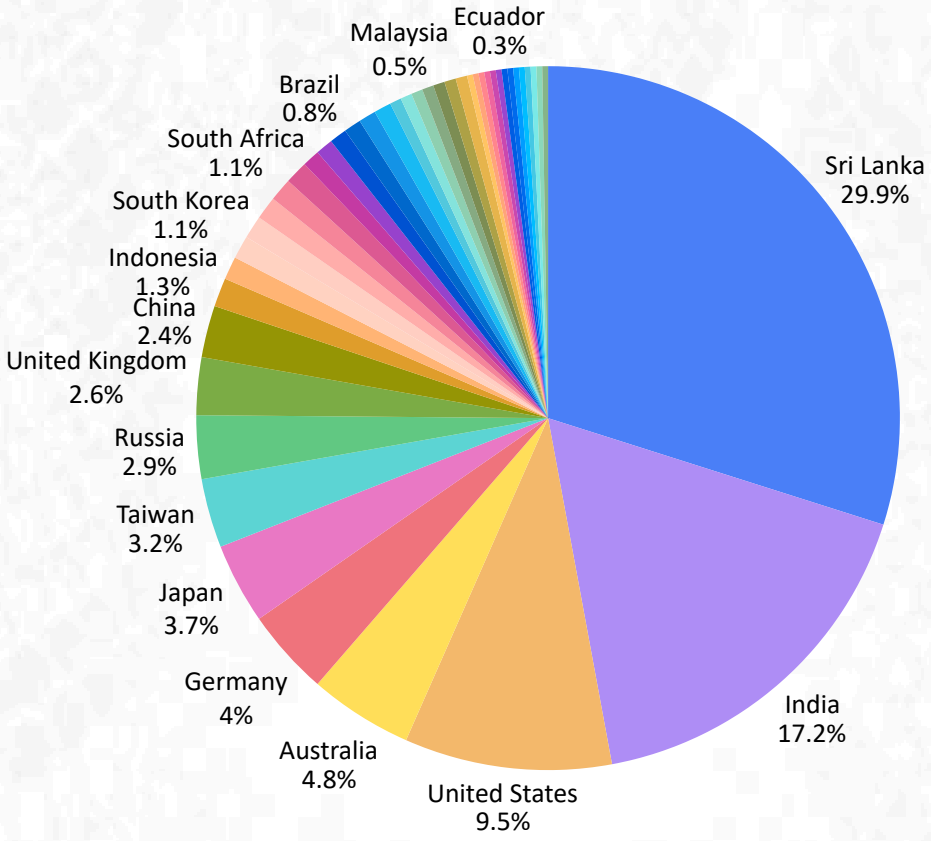
Dr. Naoual Oukkache
Morocco



Ms. María Elena Barragán-Paladines
Ecuador

PARTICIPATION

Delegates from 44 countries and territories across Asia, Europe, the Americas, Africa, and Oceania attended the event.



PROGRAMME







The five-day program featured a combination of plenary lectures, specialized symposiums, peer-reviewed oral presentations, posters, the issuance of a stamp, book launches, and social evenings. It provided delegates with opportunities to share knowledge, build networks, and plan future collaborations in the fields of snake biology, venomology, conservation policy, and snakebite mitigation.

DAY #	DATE	PROGRAMMES
Day 1	1 October 2026	Inauguration Ceremony, Book Launch, Issuance of a Commemorative Postage Stamp, and Scientific Sessions
Day 2	2 October 2026	Scientific Sessions
Day 3	3 October 2026	Scientific Sessions and Kandy Breeze
Day 4	4 October 2026	Scientific Sessions, Auction, and Gala Dinner
Day 5	5 October 2026	Post-Congress Field Trips to Knuckles Mountain Range and Dunumadalawa Forest Reserve
Day 6-10	6–10 October 2026	Red List assessment and Conservation Planning Workshop

PRESENTATION THEMES

Theme 1. Understanding snake diversity through time and lineage reconstruction

Systematics, Taxonomy, Nomenclature & Evolutionary Biology of Snakes

Systematics, taxonomy, and nomenclature of snakes, Phylogenetics and molecular evolution, Phylogeography and biogeography; Historical and contemporary patterns of diversification; Integrative taxonomy (morphology, molecules, and behaviour); Evolution of key traits (fangs, venom systems, reproductive modes, mimicry); Genomic and transcriptomic perspectives on snake evolution.

Theme 2. Field-based understanding of snake behaviour, ecology, and interactions

Natural History, Ecology & Life History Strategies of Snakes

Natural history observations and ecological diversity; Life history traits: growth, reproduction, lifespan, mortality; Habitat use, microhabitat preferences, and community ecology; Population structure, density, and dynamics; Movement ecology, spatial distribution, and home range studies; Predator-prey relationships and trophic interactions; Seasonal activity, thermoregulation, and behavioural ecology.

Theme 3. Structure and function — the mechanics that make serpents what they are

Anatomy, Physiology & Functional Morphology of Snakes

Comparative anatomy and osteology of snakes; Musculoskeletal and organ systems; Sensory and nervous systems; Respiratory, digestive, and reproductive physiology; Chemical and hormonal mechanisms of function and adaptation; Evolution and function of scales, coloration, and cryptic morphology; Functional morphology and biomechanics of locomotion and feeding.

Theme 4. The molecular machinery that shapes snake biology and adaptation

Genetics, Genomics, Cellular & Molecular Biology of Snakes

Population genetics and genetic diversity; Genomics and transcriptomics; Epigenetics, gene flow, and evolutionary development; Molecular adaptation to environment and prey specialization; Cytogenetics and chromosomal evolution; Cellular and molecular mechanisms in snake biological systems; Genetic risks in inbreeding and captive populations.

Theme 5. From molecules to medicine — the chemistry of snakes and their potential



Biochemistry, Metabolomics, Venomics & Chemical Ecology of Snakes

Snake venom composition, evolution, and function; Venomics, proteomics, and metabolomics; Snake chemical communication and pheromones; Bioprospecting and pharmaceutical applications; Clinical trials and antivenom development; Venom variability and ecological correlates; Biotechnological and therapeutic innovations from snake biochemistry.

Theme 6. Global perspectives on snakebite — from prevention to treatment



Snakebite Epidemiology, Clinical Management & Public Health

Epidemiology and global patterns of snakebite; Clinical syndromes and treatment protocols; Antivenom production, storage, and distribution logistics; Regional snakebite preparedness and hospital requirements; Risk prediction and rapid response systems; Community education and outreach programs; Integration of traditional medicine and modern clinical care.

Theme 7. Safeguarding snakes and their habitats under global pressure



Threats, Conservation, & Environmental Change on Snakes

Effects of climate and land-use change on snake populations; Habitat loss, fragmentation, and degradation; Wildlife crime, smuggling, and illegal trade; Agrochemical pollution and its physiological impacts; Conservation genetics and population viability; Ex situ and in situ breeding and reintroduction programs; Risk management and conservation prioritization; Policy frameworks, planning, and implementation for snake conservation.



Theme 8. Snakes as symbols, resources, and neighbours in human society

Socioeconomic, Cultural & Ethical Dimensions of Human–Snake Interactions

Zooarchaeology, Human–snake conflict and coexistence strategies; Cultural, religious, and mythological perceptions of snakes; History, Socioeconomic importance and ecosystem services; Public awareness, education, and media portrayal; Influence of social media and misinformation; Community-based conservation and traditional knowledge systems; Ethical issues in snake research, handling, and trade.

Theme 9. Science and management of captive snakes for research, conservation, and welfare

Snake Husbandry, Breeding, & Veterinary Science

In situ and ex situ management programs; Captive breeding, nutrition, and reproduction; Veterinary care and snake diseases; Pathogens, parasites, and emerging infections; Genetic management and inbreeding avoidance; Husbandry standards and welfare assessment; Role of zoos, rescue centers, and breeding facilities in conservation.

Theme 10. Digital tools redefining snake research and conservation

Technological Innovation & Data-Driven Approaches for Snakes

Snake identification and citizen science apps; Bioacoustic, visual, and AI-based monitoring systems; Remote sensing and GIS applications for snake distribution; Molecular databases, barcoding, and digital taxonomy; Automated habitat modeling and risk mapping; Integration of big data and machine learning in herpetology; Open science, data sharing, and collaborative global networks.

Theme 11. Bridging science, policy, and society for a sustainable coexistence

Policy, Governance & Global Collaboration for Snake Conservation

Global and regional biodiversity policies; Legislative frameworks for snake trade, welfare, and habitat protection; Implementation of conservation action plans; International collaboration and capacity building; Role of NGOs, academia, and local communities; Sustainable use and ecosystem- based management approaches; Integration of snake conservation into the UN SDGs and CBD targets.

Theme 12. Holistic, cross-disciplinary frameworks for a sustainable future

Integrated Approaches to Snake Research, Conservation & Human Wellbeing

Linking ecology, health, and social development; One Health and EcoHealth approaches involving snakes; Snakes as indicators of environmental health; Landscape-level conservation and integrated development initiatives; Cross-sector partnerships between science, policy, and local communities; Innovative models for sustainable coexistence between snakes and people.

INAUGURATION CEREMONY







The Congress was inaugurated in a ceremony attended by the Minister of Environment, Dr. Dammika Patabedi, along with the members of Parliament, IUCN officials, international policy leaders, and renowned scientific pioneers.

Traditional Sri Lankan cultural performances showcased the country's indigenous heritage.

The ceremony also featured the official issuance of a commemorative postage stamp and the launch of eight books.

PLENARY SESSIONS







Vivek Menon



" SSC and how the snakes fit in to the overall thrust area "

Vivek Menon is an Indian wildlife conservationist, environmental commentator, author, and photographer with a passion for elephants and birds. He is the Founder and Executive Director of the Wildlife Trust of India. Menon is the author or editor of ten wildlife books including the bestselling Indian Mammals- A Field Guide, scores of technical reports and more than 250 articles in various scientific and popular publications.

In India, he plays a role in advising the government on natural heritage conservation as a part of several national committees as well as having been part of the Indian delegations to CITES, UNESCO and CMS. Internationally, Menon is the current Chair of the IUCN Species Survival Commission and Councilor of the IUCN (International Union for Conservation Nature). He is also the Chairperson of the Amphibian Survival Alliance Global.

Nikhil Whitaker



"Guardians on the ground: integrating community, conservation and snake bite mitigation"

Whitaker will describe how partnering with indigenous communities and developing venom harvesting programmes both conserves snakes and reduces human snake conflict. This talk would frame snakebite prevention as an indicator of social and environmental health and emphasise the importance of local guardianship.

Julie Ray



"Hinged on Local Understanding and Acceptance: Snake Conservation Throughout the New World"

Julie Ray, Ph.D., has studied herpetology, focusing on snakes, throughout the New World for over three decades. She has worked extensively with local people at each location to educate and promote conservation of species often feared and loathed.

Julie's research aided in the delisting of the Lake Erie Watersnake and her documentation of the collapse of the snake community linked to the loss of amphibians to Chytridiomycosis has served as a model in understanding upper tropic level effects in the Neotropics. She has done all of this while being legally blind/visually impaired, further emphasizing her dedication to conservation through adversity.

Taksa Vasaruchapong



" House of the Serpent: Century of Snake Husbandry and the Sustainability of Venom Production"

Taksa Vasaruchapong is a veterinarian and head of Snake Farm, Queen Saovabha Memorial Institute (QSMI), the Thai Red Cross Society. He has started his career since graduated Doctor of Veterinary Medicine with honors in 2005 and Ph.D. in Animal Physiology in 2025.

He decided to work with snakes, considering that they are among the most pitiful and misunderstood animals. Snakes deserve the same care and respect as any other living creature, yet they are often judged and killed simply for being born snakes, based on the belief that they are dangerous. His tasks involve snake diseases and management programs to ensure the snakes receive proper care in captivity. He has conducted research involving snake biology, physiology, medicine, and snake venom. Currently, he is working on the sustainability and quality of snake venom production in QSMI and also plays a part in education programs on snake identification, safe handling and snakebite first aid for the public. Beyond his role at QSMI, Taksa serves in various capacities across multiple institutions. He is a reference person for snake identification at the Ramathibodi Poison Center, a reptile veterinarian at both government and private hospitals, a consultant for snake husbandry and veterinary care at the Siam Serpentarium, and a guest lecturer at several leading medical and veterinary schools in Thailand.

Aaron Bauer



" Mapping hidden diversity: taxonomy as a tool for monitoring ecosystem change"

Aaron Bauer, professor at Villanova University, is an internationally renowned herpetologist. Bauer will explain how documenting and describing snake diversity creates the baseline needed to detect population declines, range shifts and emerging threats. By illustrating examples from his taxonomic work, he can show how new species discoveries and distributional data serve as early warnings of environmental change.

Bartosz Borczyk



"Allometric patterns and sexual dimorphism in snake skulls"

Bartosz Borczyk is an assistant professor at the University of Wroclaw. His research is focused on allometry and sexual dimorphism in snakes and evolutionary morphology of reptiles and other vertebrates. He combines developmental, anatomical, and ecological approaches to understand how form evolves in response to functional and evolutionary pressures. Most of his research is collection- based but occasionally he is also involved in field studies. Bartosz will give a talk on the allometric patterns and sexual dimorphism in snake skulls.

Anjana Silva



"Human-snake conflict: Reducing burden through understanding the local dynamics"

Anjana Silva is a toxinologist. He is the chair professor of parasitology at Rajarata University of Sri Lanka and an adjunct senior research fellow at Monash University. By combining clinical and epidemiological data from rural Sri Lanka, Prof. Silva will discuss how local clinical and epidemiological dynamics of snakebite determine its socioeconomic burden.

He will also discuss how understanding such dynamics will help mitigate the human-snake conflict through community empowerment to prevent snakebite, improved access to healthcare, and healthcare tailored to community needs, ultimately saving humans and snakes.

Jia Tang Li



"Genomic sentinels: what snake genomes reveal about evolution and environmental change"
Jia Tang Li is a herpetologist at the Chengdu Institute of Biology (Chinese Academy of Sciences). Li will explore how comparative genomics uncovers the genetic mechanisms that allowed snakes to adapt to past environmental shifts and how genome sequences can be used to predict future responses to climate change.

He can explain the implications of limb loss genes and sensory adaptations for understanding snakes as both guardians of ancient ecosystems and indicators of ongoing change.

Geoff Isbister



"Snakebite: venomics, public health and treatment controversies "
Snakebite is a major health issue in tropical and resource poor nations. Much has changed in the last 50 years, with proteomics, improved taxonomy and novel treatment approaches. However, much is still the same with continued faith in antivenom, rather than good science, clinical evidence and improved approaches to antivenom use.

We can only improve outcomes in snakebite patients by understanding the pathophysiology of snake envenoming, the biology of venomous snakes and venom pharmacology, to allow us to apply evidence-based approaches to treatment and improve prevention with public health interventions.

Akira Mori



" Nuchal glands : Enigmatic defensive system evolved in Asian snakes"

Nuchal glands are unique defensive organs known in only about 20 species of Asian natricine snakes. These snakes sequester toxins from prey such as toads and fireflies and deploy them in the glands. I will overview the evolution and diversity of the nuchal gland system and provide future perspectives to understand these enigmatic organs.

Daniel Natusch



" Snakes in Trade: Science, Sustainability, and Opportunities for Research"

Snakes are among the most heavily traded reptiles in the world, bred or harvested for their skins, meat, venom, and as live animals for the pet trade. Yet the science underpinning assessments of trade sustainability remains patchy and inconsistent across regions, taxa, and trade systems.

This talk reviews the foundations of snake trade research — from field-based population assessments and harvest monitoring to supply chain traceability — and examines the persistent challenges of ensuring that exploitation remains within sustainable limits, drawing on case examples from pythons, water snakes, and other commercially significant groups. It concludes by highlighting the substantial and largely untapped opportunities that trade systems offer researchers: as windows into population dynamics, geographic distributions, and species diversity that would be difficult or impossible to access through conventional fieldwork alone.

Gerry Martin



" Inside their skin- An empathetic approach to working with snakes"

Snakes have begun to play a major role in various media from blue chip documentaries to Tik Tok reels. They are both depicted in as well as physically treated with as wide a range of approaches, perspectives, and practices. Unfortunately, many of these current practices or both dangerous, damaging to the snake, and do not help in the larger public's appreciation of these animals.

This session proposes a more empathetic approach to working with snakes and demonstrates its value in safely and effectively handling and keeping snakes. It will be a combination of video presentation and discussion.

Rick Shine



" Back to the future: new ways of learning about the ecology of snakes"

Rick Shine is a professor at Macquarie University in Sydney, Australia, with a lifelong interest in the ecology, evolution and conservation of snakes. Shine will discuss changing patterns in the ways in which people have learned about snake ecology, beginning with the gradual accumulation of small snippets of information by non-scientists (often, soldiers and missionaries in tropical countries) through to the emergence of fulltime professional researchers dedicated to snake biology ("The Age of Fitch") – and then, in more recent times, the meteoric rise in information provided by an unpaid army of citizen scientists through websites such as iNaturalist. In a sense, snake ecology research has come full-circle, with the role of professionals now merging into a wider constellation of people with an interest in nature conservation.

Stanislav N. Gorb



" How snakes move: the physics of snake locomotion on various surfaces"

Stanislav N. Gorb is a Director at the Zoological Institute, Kiel University, Germany, with a career dedicated to understanding the biomechanics of animal adhesion and locomotion. His research investigates the extraordinary attachment capabilities of snakes, exploring how they move across diverse surfaces—from glass to rough bark—using principles of hierarchical microstructures and adhesion. Dr. Gorb's work bridges physics and biology, revealing the physical mechanisms that allow snakes to exploit various substrates and showcasing nature's innovative solutions for locomotion. His insights are crucial for advancing biomimicry in robotics and materials science.

SYMPOSIA







1. **Promoting Responsible Translocations of Displaced Reptiles and Amphibians**

   Chairs : Pritpal Soorae & Axel Moehrenschlager

2. **Current Issues and Case Studies in Viper Conservation**

   Chairs **:** Kevin Messenger & Curt Barnes

3. Nuchal Gland System and Other Defensive Mechanisms in Snakes

Chairs : Akira Mori & Teppei Jono

4. Biology and Conservation of Sea Snakes

Chairs : Johannes Els & Kanishka Ukuwela

5. Ecology, Evolution and Conservation of Island Snakes

Chairs **:** Timothy J. Colston & Basundara Chettri

6. Elapid Snakes of Tropical Asia

Chairs : Rogier van Rossem and Ganesh S R

7. People and Snakes: Conflict, Culture, and Conservation

Chairs **:** Gnaneswar Ch, Maria Elena Barragån-paladines, Melissa Bruton & Daniel Natusch

8. Strengthening National and Regional Enforcement Responses to Reptile Trafficking

Chair : Manori Gunawardane

ORAL AND POSTER PRESENTATIONS

The scientific programme featured 216 peer-reviewed oral presentations, providing an extensive platform for researchers to share their findings and exchange scientific knowledge. It also enabled discussions on the most recent advancements in snake biology, ecology, taxonomy, evolution, and conservation. The main exhibition hall showcased over 25 scientific posters, providing delegates with opportunities to engage directly with the authors, explore emerging research, and cultivate professional connections and potential collaborations. Collectively, these sessions fostered a vibrant scientific atmosphere that promoted knowledge sharing and enhanced international cooperation in the fields of snake research and conservation.

RED LIST ASSESSMENT AND CONSERVATION PLANNING WORKSHOP

Immediately after the main Congress, a workshop focused on red list assessment and conservation planning took place from October 6 to 10, 2026.

- From October 6 to 9, a team of 14 experts evaluated the current risk of 260 snake species found in mainland Southeast Asia, Singapore, Brunei, and East Malaysia. This assessment encompassed all previously recognized threatened and data-deficient species. Most species were reassessed for the first time since 2011.

- On October 10, identified key conservation actions and stakeholders to lead efforts for every threatened and data-deficient species during the conservation planning workshop.

BOOK LAUNCHES

Eight books were launched during the Congress, including two publications in Sinhala. This reflects the Congress's dedication to advancing scientific knowledge, promoting research, and making valuable information about snakes and their conservation accessible to a broader audience.







No.	Title of the Book	Author(s)
1	*Sri Lankawe Visa Sahitha Sarppayin* (Text in Sinhala)	Vidath M. Daundasekara
2	Herpetofauna of Sri Lanka	Udaya Chanaka & Thomas Marriott
3	Snakes of South Asia	Indranil Das, Anslem de Silva, Kanishka D. B. Ukuwela, Nimal D. Rathnayake & Suranjan Karunarathna
4	The Asian Pitvipers of the *Trimeresurus Complex*	Gernot Vogel & Patric David
5	Snakes of Sri Lanka	Nayana P. Daundasekara & Kapila Dissanayake
6	Serpents of the Archipelago	Nathan Rusli
7	COBRA: The Hooded Icon of Sri Lanka	Nimal D. Rathnayake
8	*Sri Lankawe Sarppayin* (Text in Sinhala)	Ruchira Somaweera, Sanoj Weerasekara & Sanjaya Bandara

OFFICIAL GROUP PHOTOGRAPH



COMMERATIVE POSTAGE STAMP

The species featured on the stamp is the Sri Lanka green pit viper *(Craspedocephalus trigonocephalus)*. The first-day cover showcases several species, including the Green Vine Snake *(Ahaetulla nasuta)*, Sinharaja Bronzeback Tree Snake *(Dendrelaphis effrenis),* Chithrasekara's Wolf Snake *(Dryocalamus chithrasekarai),* Blosum Keelback Snake *(Rhabdophis ceylonensis)*, and Sri Lanka Pipe Snake *(Cylindrophis maculatus).*





The stamp was designed by Sasitha Weerasinghe, while the first-day cover was created by Shantha Jayaweera.

SOCIAL PROGRAMMES, HOSPITALITY AND FIELD TRIPS

















Social Evenings

- **Kandy Breeze (Day 3):** An immersive evening featuring local culture, live acoustic music, and relaxed cross-border networking among researchers. Sales stalls of Sri Lankan traditional goods and street food were available.

- **Auction and Gala Dinner (Day 4):** A formal banquet that included cultural dining, traditional dancing, partner recognitions, and celebratory closing remarks. The funds raised from the auction will be allocated to two chosen research proposals submitted by young participants.

Catering and Hospitality

Daily buffet lunches featured a variety of authentic Sri Lankan specialties alongside global cuisine. Throughout the mornings and evenings, tea, coffee, and gourmet snacks were provided to support ongoing academic discussions.

Post-congress Field Trips

Two field trips gave participants firsthand exposure to Sri Lanka's rich endemic reptile fauna.

- **Field Trip 1:** Knuckles Mountain Range






- **Field Trip 2:** Dunumadalawa Forest Reserve






WHAT COMES NEXT

- F**uture Research:** The funds raised from the auction will be allocated to two chosen research proposals submitted by young participants. Proposals are now invited.
- **1st World Congress on Amphibians, 2027:** See page 19.
- **2nd World Congress on Snakes, 2030:** The shortlisted host countries under evaluation are Mexico, Indonesia, Nepal, Thailand, China, Costa Rica, India, Kenya, and Denmark. Proposals are now invited.

ORGANISERS

The First World Congress on Snakes was initiated by the Amphibian and Reptile Research Organization of Sri Lanka (ARROS) and the IUCN SSC Snake Specialist Group. The CDC Events & Travels (Pvt.) Ltd. was responsible for organizing the event.

FIRST ANNOUNCEMENT

1ST WORLD CONGRESS ON AMPHIBIANS

2027

WCA

One World | One Voice | One Mission | Amphibian Conservation

Main Callout

ATTENTION ALL **BATRACHOLOGISTS!**

Mark your **Calendars!**

04 05 06 07
DECEMBER 2027

THE GRAND KANDYAN HOTEL
KANDY, SRI LANKA

The first World Congress on Amphibians is set to welcome delegates to Kandy World Heritage City. The conference will feature plenaries, symposiums and presentations on all topics of amphibians (including, but not limited to: ecology, phylogeny, conservation, behavior, chytrid fungus, habitat restoration), workshops, field trips, and cultural experiences.



For more Information

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ORGANISED BY

ASG

PROFESSIONAL CONGRESS ORGANIZER

CDC EVENTS



WCS 2026 SRI LANKA

The First World Congress on Snakes (WCS 2026), held from 1–4 October 2026 in Kandy, Sri Lanka, brought together over 380 delegates from 44 countries and territories. Initiated by the Amphibian and Reptile Research Organization of Sri Lanka (ARROS), the Congress provided an international platform for scientists, conservationists, wildlife managers, and public health professionals to share knowledge, present research, and strengthen global collaboration in snake biology, conservation, and human–snake coexistence. The Congress marked a significant milestone in advancing scientific understanding and promoting the conservation of snakes worldwide.