

BOOK OF ABSTRACTS
10TH WORLD CONGRESS OF HERPETOLOGY
5–9 August 2024

Compiled by
Indraneil Das



World Congress of Herpetology (WCH)



Institute of Biodiversity and Environmental Conservation
Universiti Malaysia Sarawak

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94300 Kota Samarahan
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2024

COMPILER'S NOTES

The 10th World Congress of Herpetology is being held at the Borneo Convention Centre Kuching, in the State of Sarawak, Malaysia, 5–9 August 2024. The Congress is organised by the World Congress of Herpetology (<https://www.worldcongressofherpetology.org>) and the Institute of Biodiversity and Environmental Conservation (<https://www.ibec.unimas.my>), Universiti Malaysia Sarawak. The event is supported by Business Events Sarawak, Ministry of Tourism, Creative Industry and Performing Arts Sarawak, Sarawak Forestry Corporation, Sarawak Biodiversity Centre, AGARK DGHT, the Institute of Agriculture, University of Tennessee (UT AgResearch) and the Society for the Study of Amphibians and Reptiles.

A total of 1,481 abstracts of oral and poster papers were received at the website of the Congress (<https://2024wch10.com>), through an online conference management system (KonferenceX Content Management System), or came in via email. Only those submitted by registered delegates were included in this book of abstracts. Poster presentations include the full spectrum of herpetological topics, including subject material corresponding to Symposia. Also included are abstracts of Plenary Lectures, Special Presentations and Official Side Events.

Abstracts were formatted and lightly edited for content and style but did not undergo a full peer review. Any new taxon descriptions or other nomenclatural acts contained in this book of abstracts and programme should not be considered published in the sense of Article 8 of the International Code of Zoological Nomenclature (1999).

We welcome all delegates to the beautiful city of Kuching, Sarawak and to the 10th World Congress of Herpetology.



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shortened limbs, and oviparity, likely evolved as an adaptation to more arid and hot environments. Our study identified several ablepharine species complexes in need of integrative taxonomic revisions in future studies. The Russian Science Foundation (Grant No. 22-14-00037) supported this work.

A-0824 (Oral)

Alien vs. Frog: New Data on Vietnamese Amphibians' Endoparasitic and Ectoparasitic Leeches (Amphibia: Anura)

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Leeches (Hirudinea), which are well-known as ectoparasites feeding on vertebrate blood, often choose amphibians as prey. Feeding on amphibians has been reported for the members of various families of freshwater and land leeches in South and North America, Australia, Madagascar, and East and Southeast Asia. There have also been documented cases of predatory leeches consuming eggs, tadpoles, and juvenile amphibians. However, records of endoparasitic leeches in amphibians are rare. Only two studies report on finding usually free-living ectoparasitic leeches of the families Glossiphoniidae and Haemadipsidae inside the dorsal lymph cavities of *Lithobates catesbeianus* (Ranidae) in Canada in 1949 and of *Litoria becki* (Hylidae) in Papua New Guinea in 1963, respectively. Since then, no similar observations have been made. However, 60 years later, we describe four cases of large-sized endoparasitic leeches of the family Praobdellidae on the three species of anuran amphibians from Vietnam: *Amolops daorum* and *Amolops tonkinensis* (Ranidae) and *Bufo luchunnicus* (Bufonidae). Most notably, in all four cases, the leeches were found inside the body cavity attached to the liver of a frog. Our observation represents the third documented case of facultative endoparasitism in leeches on amphibians. The taxonomic status of endoparasitic leeches, the prevalence of this phenomenon among Asian leeches, and how and when the parasitic invasion occurs remain unclear. Further studies should investigate whether the host choice is random or species-specific, how the presence of the parasite affects the hosts' reproductive success and mortality, and how the leeches adjust to the lack of sexual partners. Also, for the first time in Vietnam, we present a description of three cases of ectoparasitic leeches of the families Glossiphoniidae and Haemadipsidae on amphibians *Boulenophrys rubrimera* and *Boulenophrys palpebralespinosa* (Megophryidae), and *Kurixalus* sp. (Rhacophoridae). The Russian Science Foundation (Grant No. 22-14-00037) supported this work.

A-0825 (Poster)

Hidden on the Roof of the World: New Data on Diversity of Himalayan Ablepharine Skinks (Reptilia: Scincidae)

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Snake-eyed, or ablepharine skinks, are common residents of the highest mountain ranges on Earth, including the Himalayas, Tibet, Karakoram, Pamir, and Tian Shan, colloquially known as the Roof of the World. Previously, these skinks were assigned to the genera *Scincella*, *Ablepharus*, *Asymblepharus*, and *Himalblepharus*. Recently, a new genus, *Protoblepharus*, was established for the taxa from the Eastern Himalayas, while all the remaining snake-eyed skinks were assigned to the genus *Ablepharus*. However, the taxonomy of this group remains in a state of flux, while the recent phylogenies included very limited materials from the Himalayan region. At the same time, limited sampling, discrepancies in morphological characters examined by various authors, and a lack of information on name-bearing types, coupled with a high degree of endemism in this group, hint at serious problems in the ablepharine taxonomy. We assessed the diversity and phylogenetic relationships of the Himalayan snake-eyed skinks using 62 tissue samples from approximately 34 populations in Pakistan, India, Nepal, and China, representing nine out of ten nominal species of ablepharine skinks inhabiting the Himalayan region. We assessed the phylogenetic relationships based on a 4244-bp alignment of four mtDNA and three nuDNA genes. Our analysis revealed a remarkably high cryptic diversity within Himalayan ablepharine skinks. We identify from 14 to 16 species-level lineages within the Himalayan *Ablepharus* and four lineages within *Protoblepharus*, contrary to the previously recognized seven and three species within the respective genera in this region. This hidden diversity highlights the Himalayas as a key area, housing over half of the species-level diversity of ablepharine skinks. Our results highlight the role of the geological and climatic factors influenced by the uplift of the Himalayas, which played a crucial role in shaping the diversity of ablepharine skinks. The Russian Science Foundation (Grant No. 22-14-00037) supported this work.

A-0826 (Oral)

Imperiled Arks and Biodiversity Labs: New Discoveries of Limestone Karst-Specialized Herpetofauna in Indochina

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Karstic landscapes are widely known as both the 'imperiled arks'—refugia cradling numerous relic lineages—and the 'biodiversity labs'—platforms of speciation and generators of biodiversity in herpetofauna. In Indochina, limestone karsts cover over 12% of the total land area and are most extensive in Vietnam, Laos, and Thailand. At least 149 species of Indochinese amphibians and reptiles are specialized limestone karst endemics, including 14 species of frogs, 118 species of lizards, and 17 species of snakes; a large portion of this diversity was discovered only recently. I will review some significant new discoveries on limestone-specialized amphibians and reptiles made by our team during the last decade. In amphibians, examples include the discovery of the first troglophilous frog genus and species *Siamophryne troglodytes* (Microhylidae) from Thailand, as well as observations on other limestone-specialized frogs in the families Microhylidae, Rhacophoridae, Bufonidae, and Ranidae. In reptiles, I will review the discovery of the first karst-specialized agamid lizard, *Laodracon carsticola*, present new data on the diversity of limestone-associated pitvipers of the genera *Trimeresurus* and *Protobothrops* from Vietnam, Laos, and Thailand, and make observations