

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
Sarawak, Malaysia

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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the selective pressure acting on the trait. Eco-evo-devo research often combines genomic analyses with experimental work to explore the dual role of the environment as both a selective sieve and a phenotypic inducer. It considers the possibility that environmentally-induced changes in the genomic regulation of traits during development may later evolve under selection into accommodated differences among taxa. These approaches may help us bridge the apparent gap between micro-and macro-evolutionary processes in amphibians.

A-1475 (Oral)

Amphibians of Afghanistan: Research and Conservation

Daniel Jablonski

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Afghanistan is one of the least explored countries in terms of herpetology. Despite world museum collections in Europe and the US containing many specimens, comprehensive exploration of the country is lacking. Scientific research has mostly been limited to parts of Afghanistan accessible to scientists during the thirty years of the second half 20th century. Although the amphibian fauna of Afghanistan is not rich, it is crucial for understanding the biogeography and evolution of Asian herpetofauna. Currently, Afghanistan's amphibian fauna consists of four families: Bufonidae, Dicroglossidae, Ranidae, and Hynobiidae, which include both Palearctic and Oriental members. Overall, there are ten species of amphibians (although the genus *Bufo* requires further genetic investigation) across seven genera. Two Palearctic genera (*Bufo* and *Pelophylax*) are distributed throughout Afghanistan, while Oriental members (*Euphlyctis* and *Hoplobatrachus*) are confined to the southern provinces where a subtropical climate prevails. Two (sub)endemic genera, *Chrysopaa* and *Paradactylodon*, are found in the Hindu Kush area and represent ancient divergences that evolved in these mountains. While the genus *Chrysopaa* is also known from Balochistan in Pakistan, the genus *Paradactylodon* is currently known only from several central Afghan provinces. Recent genetic research efforts in Afghanistan (and Pakistan) have investigated several populations of local amphibians (*Bufo*, *Chrysopaa*), enhancing our understanding of amphibian evolution between major zoogeographical realms and between Central and South Asia. However, other species and their populations remain unexplored and should be investigated through direct fieldwork or museogenomics. From a conservation perspective, special attention should be given to the endemic species *Paradactylodon mustersi*, whose current species and conservation status is largely unevaluated. Current data suggest that its distribution could be larger than previously expected, necessitating the application of conservation genetics to accurately assess its threats. Given the improved security situation in Afghanistan compared to the past twenty years, direct field research, though still challenging, may now be possible.

A-1476 (Oral)

Energy-related secondary salinization of wetlands: Coordinated experiments and field surveys to identify mechanistic links with amphibian abundance

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