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
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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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different from other skinks including adpressed forelimb and hindlimb do not meet, lateral occipital scales are small and blackish scales under the chin. This study shed light on hidden diversity of reptile in montane areas of Thailand and further Taxonomic study of this species is required.

A-1381 (Oral)
Effects of Malarial Infection on Body Condition and Locomotory Performance in Lizards

Hall Terry and Johannes Foufopoulos
School for Environment and Sustainability, University of Michigan, Ann Arbor, MI, USA

Presence and impacts of pathogen infections in wildlife are known to be determined by a hierarchical set of factors including host, habitat, and general environment characteristics. While an increased number of studies have been documenting host-parasite interactions in natural systems, little is known about these impacts in island populations. To elucidate the impacts of infection, we investigated the effects of *Hepatazoon* (an apicomplexan hemoparasite) Wall lizard (*Podarcis erhardii*) populations from 17 Cycladic islands (Aegean Sea, Greece). Specifically, we evaluated the effects of infection on multiple aspects of lizard life history from lizards from these islands. We found significant declines of condition in infected populations, though stronger in male lizards, suggesting a sex-specific response to infection. These results indicate variability in the impacts of malarial infection across populations of *P. erhardii*.

A-1382 (Oral)
Evolutionary History and Diversity of the Colubrid Genus *Platyceps*

Doubravka Velenská[1], Daniel Jablonski[2], Salvador Carranza[3], Veerappan Deepak[4,5], Jean-François Trape[6], Tomáš Mazuch[7], Ishan Agarwal[8], Mohammed Shobrak[9], Salem Busais[10], Karin Tamar[11] and Jiří Šmíd[1,12]
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The colubrid racers of the genus *Platyceps* are slender, medium-length snakes inhabiting a vast area that spans from southern Europe, northern Africa, Arabia, western and central Asia to India. The genus´s phylogeny has not been satisfactorily resolved yet. Even though it has been part of many phylogenetic studies, they usually contained only a fraction of species, leading to misinterpretation of the relationships within the genus. In our study, we sequenced two

mitochondrial and four nuclear markers for 136 specimens from 19 of the 30 currently recognized species, some sequenced for the first time. The results divide the genus in four main clades. One contains two Indian species (*P. plinii* and *P. josephi*) and stands as a sister clade to the rest of the species. The second clade, which also occurs in India and surrounding countries, contains five species - *P. ventromaculatus, P. bholanathi, P. gracilis, P. ladacensis* and an undescribed species from Central Asia. This group is sister to the remaining species, which form two sister clades - *karelini* and *florulentus* clades. The *karelini* clade contains four species (*P. karelini, P. saharicus, P. rogersi* and *P. rhodorachis*) that occur from Central Asia through the Arabian Peninsula to North Africa. The last clade includes Arabian species (*P. variabilis, P. sinai, P. manseri, P. elegantissimus*), two strictly African species (P. florulentus and *P. taylori*), and two West Asian and European species (*P. najadum* and *P. collaris*). The crown diversification of the genus took place most likely in southern Asia approximately 19 Mya. The genus dispersed to the west in two independent colonization events. The first wave resulted in the colonization of Arabia, eastern Africa, and southern Europe. The second wave followed a similar route and resulted in the colonization of northern Arabia, Mesopotamia, and northeastern Africa by species of the *karelini* clade.

A-1383 (Oral)
Spa toads: Asynchronous Winter Toad Breeding Activity at Liard Hot Springs, Canada

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The Western Toad (*Anaxyrus boreas*) ranges from Baja, California to Alaska and lives in a wide range of habitats in British Columbia, Canada. It has one of the most northly distributions of anurans in western North America. In northern British Columbia, this species normally breeds in late May. Here we provide natural history notes on a Western Toad population that breeds starting in early March in the geothermally heated waterways within Liard River Hot Springs Provincial Park. In April 2021, we observed toads in all stages of their life cycle (amplexus, egg strings, variously sized tadpoles, metamorphs, and juveniles) within the thermal waterways of the Park. The water temperature in the streams and pools varies from 15-38°C, depending on proximity to the source and distance from the edge of the pools, side channels and streams. Snow still covered most of the surrounding landscape. Observation in June 2023 indicated that by June all the toads had metamorphosed and left the hot spring. Winter breeding has also been observed at warm springs near Atlin, B.C., and in Utah. The observation of hot spring breeding toads raises many questions such as: What triggers breeding in the hot springs? Do toads arrive in the fall and remain active in the hot springs habitat until breeding time or are they hibernating under tufa? And most importantly, is the winter breeding in thermally heated water a plastic behavioral trait or is there genetic divergence between winter and spring breeding toads as the breeding activity between the two populations is temporally segregated.

A-1385 (Oral)
Conserving a Little-Known Threatened Amphibian Through a Crowdfunded Art Exhibition

Anthony Lau[1], Hon Shing Fung[2], Nicole Tk Kit[3], Matthew Kwan[4], James Kwok[2], Dennis Yip[2], Gena Yip[1], Daphne Wong[2] and Kimberly Wong[2]