



# World Congress of Herpetology

## Newsletter

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# Letter from the Editor

## RICHARD GRIFFITHS

As I step into the shoes of Secretary General – and by default the WCH Newsletter editorship – this is clearly the time to reflect on what may well have been the biggest herpetological event ever held: the 10th World Congress in Kuching. Before doing so, I must thank everyone involved on the ground for their herculean efforts delivering the congress. Over 1400 delegates needed registering and feeding, presentations needed judging, sessions needed chairing, student grants needed disseminating (thank you to the Carl Gans Foundation for allowing us to provide more travel grants than ever before), and it has to be admitted, a rather fluid program that changed day by day needed checking, updating and posting. The team of yellow-shirted local helpers never seemed to stop smiling. Unfortunately, I don't have the space to single out the many individuals who made it all happen, but I must thank two people in particular. Outgoing Secretary General Judit Vörös has done an amazing job that goes back longer than four years and has made my role as incoming Secretary General much easier than it might have been. Without



Judit I wouldn't be writing this as we wouldn't have a WCH Newsletter. And to Indraneil Das – who I think I referred to as the most stressed man in Kuching (possibly in the whole of Borneo) – enjoy your post-WCH 'retirement'. Your good humour and dedication kept the whole beast alive and kicking. Thank you both so much!

Inevitably then, this issue of the newsletter focuses on 10WCH, with reviews and reports, details of the student prize winners, and photos of happy herpers. With some 32 symposia and several satellite events, we don't have the space to cover everything in this issue so some will be published in the next newsletter. And of course, we have the 11th World Congress of Herpetology in Gijón, Spain to look forward to, with the Laboral Cultural Centre already booked for 4-8 September 2028.

I feel honoured and privileged to be elected Secretary General for the next four years and look forward to working with such a supportive team to move the World Congress of Herpetology into the Iberian Peninsula, and beyond! (With apologies to Buzz Lightyear for the plagiarism).

*Richard* 

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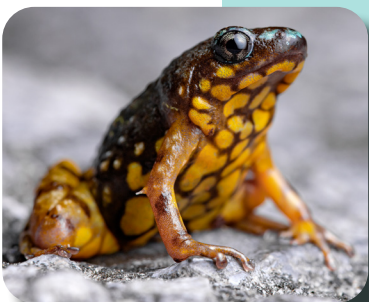
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## On the cover



The Saffron-bellied Frog (*Chaperina fusca*) is a species native to Southeast Asia. Although not frequently seen in other parts of its distribution, it is abundant in Borneo. This charismatic male was photographed calling on the road during a very rainy night in August 2024 in Gunung Mulu National Park, Sarawak. Photo: Amanda B. Quezada-Riera

# The 10th World Congress of Herpetology Upfront and From the Rear View Mirror

WCH10



Written by **Indraneil Das**  
*Director, WCH10*

*Institute of Biodiversity and Environmental Conservation  
Universiti Malaysia Sarawak, 94300 Kota Samarahan,  
Sarawak, Malaysia. E-mail: [idas@unimas.my](mailto:idas@unimas.my)*

It's now over, allowing all of us, organisers, delegates and others to rest, recover and recount.

Starting from Day 0 (4 August 2024), Kuching was busy, officially welcoming delegates who came by air or overland, occupying most of the resorts, hotels, inns, hostels, private residences and Airbnbs in town. During the day, many visited a pre-registration centre set up in three city

hotels and collected their lanyards, merchandise and other items. We were aware that some delegates had arrived a month before the Congress, while others stayed on afterwards for up to a month. Meanwhile, organisers were busy till past midnight, checking arrangements at the ven-

The WCH photo booth proved very popular, and the yellow-shirted team of student helpers were always on hand to assist delegates.

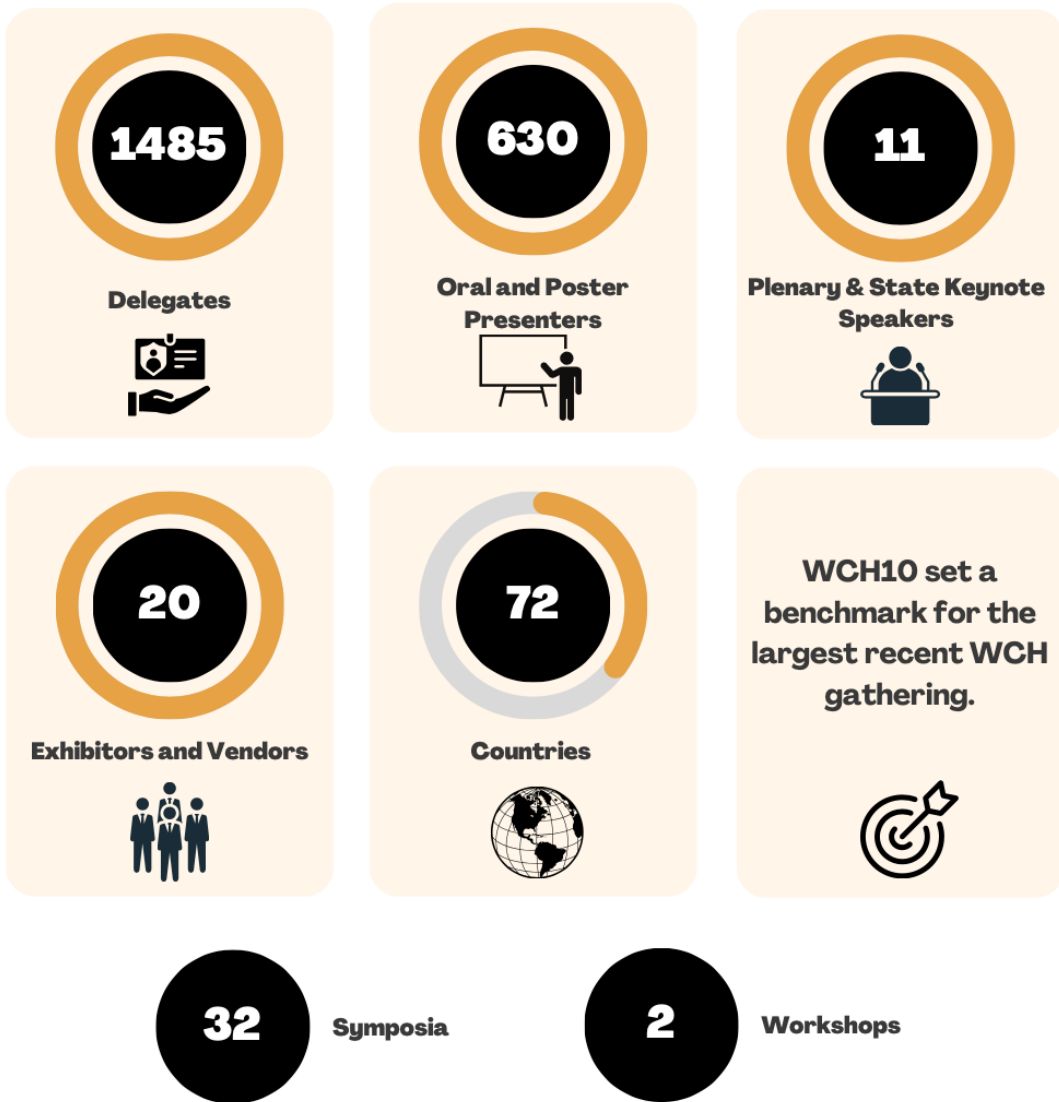




ue, particularly at the cavernous Great Hall of the Borneo Convention Centre Kuching, where the launch was to take place, and where projection systems, acoustics, carpeting, floral arrangement and much more were checked, tested and retested.

The big day was indeed a busy one, protocol and security being tight, with the arrival of the Patron of the Congress, Datuk Patinggi Tan Sri Abang Haji Abdul Rahman Zohari bin Tun Abang Haji Openg, the Premier of the State of Sarawak.

# WCH10 At a Glance



The launch kicked off with a welcome from Judit Vörös, Secretary General of the Congress, and a rather lengthy one by me, in the capacity of Congress Director (having to acknowledge all who gave their time generously over the past four years for the organisation of the event). A travelogue, 'Herpetofauna of Borneo' was next, featuring images of species and landscapes of Borneo by that photographer par-excellence, Chien C. Lee. Thereafter, the audience was treated to a historical multimedia show from the 1980s on early herpetologists and their herpetological namesakes, compiled by Kraig Adler and the Society for the Study of Amphibians and Reptiles, and presented by Aaron Bauer. The first Plenary of the Congress was by Dionysius S.K. Sharma, entitled "The Challenges and Successes in the Conservation of Coastal Nesting Turtles in Peninsular Malaysia".

The official launch took place in the presence of the Patron, and included the National and State anthems, opening dance performance, featuring several indigenous groups, and a welcoming address by the Advisor of the Local Organising Committee, Prof Dr Ahmad Hata Rasit, Vice Chancellor of Universiti Malaysia Sarawak. The Congress opening speech was by the Premier of Sarawak, which was followed by a launch gimmick (photo montage of the weird and wonderful herpetofauna of Borneo), followed by presentation of mementos, lunch and media briefing. Onstage were officials from relevant government officials (including conservation and environment) as well as Officers representing the Executive Committee members of the World Congress of Herpetology.



Multiple booths enabled rapid registration of delegates.



The enormous foyer of the conference centre provided ample space for delegates to mingle and chat during breaks.





Photographer Chien Lee provided an introduction to herpetofauna of Borneo illustrated by his stunning images.

The scientific sessions started after lunch on 5 August and ended before lunch on 9 August.

On most days, two plenaries were delivered, including “Evolvability of the Explosive Sea Snake Radiation (Emma Sherratt) and a continuation of the Sharma plenary on 6 August; “The Challenges of Conserving Reptiles and Amphibians in Madagascar” (Julie Hanta Razafimanahaka) and “Greatest Loss to North American Biodiversity is Imminent: Consequence of *Batrachochytrium salamandrivorans* Invasion” (Matthew J. Gray) on 7 August; “Desert Dynasties: Unraveling the Tales of Arabian Reptiles Through Systematics, Biogeography and Evolution” (Salvador Carranza) and “*Telmatobius* Water Frogs: An Approach to the Knowledge and Conservation of the Most Threatened Amphibians in Bolivia” (Teresa Camacho Badani) on 8 August; and “Biodiversity and Conservation of Chinese Amphibians” (Jian-Ping Jiang) and a deferred plenary, “Decoding Frog Diversification: Cues from Old-World Tree Frogs” (Madhava Meegaskumbura), due to the late arrival of the speaker, was heard on 9 August.

On all days, sessions started at 9am sharp, and ended at 6:30 pm, and included a lunch break and two breaks for coffee in the mid-morning and late afternoon, allowing networking and discussions. Over the course of the Congress, 32 symposia and two workshops (paper publishing in journals by grad students and acoustics) were organised, with a dozen or so parallel sessions run on nearly all days of the Congress, taking advantage of the ample space at the Congress venue and the dedication of the volunteers, Symposia and Workshop organisers and Session Chairs. The largest was the Second Global Amphibian and Reptile Disease Symposium (GARD), which ran for over three days, and included a series of 5 minute speed talks to accommodate an extraordinarily large number of delegates (for others, oral slots were 15 minutes). The Congress ended with a Gala Dinner held at the venue, with closing remarks by the incoming Secretary General, Richard Griffiths.

A total of 1,485 delegates attended the event, representing 72 countries. Also in attendance were 20 exhibitors and vendors, from students and small NGOs to local self-help groups and several major publishing houses. A childcare facility was set up free of charge for delegates, which allowed at least 17 parents to attend sessions with peace of mind.

Notwithstanding the busy scientific and social schedules, most delegates took the opportunity of their presence on one of the world's biodiversity hotspots to do a bit of 'herping'. Wonderful observations were made (and recorded on social media, iNaturalist and/or whispered to fellow delegates during the event). Several have already drafted natural history notes based on these observations, while many made new networks with like-minded colleagues and formulated collaborative projects.

Participants also had the chance to enjoy the local cuisine and experience the sounds and sights of Kuching before and during the Congress, and parties extended to early hours of the day, resulting in many sleepy faces during morning sessions back at the Congress venue.

From a conservation perspective, the Congress reiterated the importance of herpetofauna of Sarawak as an ecotourism draw (till now, it has been mostly the larger mammals such as the Orangutan and the Proboscis Monkey). Conservation issues were discussed and debated, and three state officials participated and gave talks on Sarawak's national parks and legal instruments.

The event attracted many students and scholars, and over 100 were supported by the generous grants awarded by the Sarawak State Government, Gans Foundation, 1StopBorneo and the World Congress of Herpetology itself.

Society and trade stands were kept busy throughout the congress, including Global Women in Herpetology.







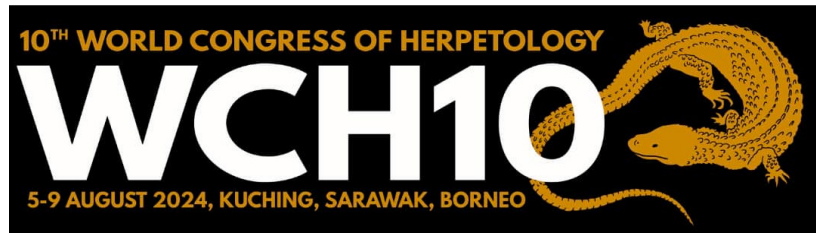
Congress Director – Indraneil Das

As anticipated, holding the Congress provided a huge boost to herpetology both locally and regionally. As a result, we foresee a major increase in science and conservation centred around amphibians and reptiles in the months and years to come, judging from the energy witnessed, communications during and post Congress and records and data eagerly shared by the delegates, privately and on social media.

Visits by delegates to parks and other areas, including demand for accommodation, food, guides, mementos and curios are assumed to have been good for the local economy and support of tourism, factors helping local governments in planning support for meetings such like these.

Here in Sarawak, we are grateful to the World Congress of Herpetology to have given the rights to Kuching to organise the 10th Congress. I am grateful to Judit Vörös, Alan Savitzki, David Bickford, Ricky Spencer and Richard Griffiths for their friendship and inputs

at the monthly, and subsequently, weekly meetings leading up to the Congress; Business Event Sarawak and the Sarawak State Government for support; the Institute of Biodiversity and Environmental Conservation, Universiti Malaysia Sarawak for helping organise the event; Place Borneo for running the show; Ramlah Zainudin and Reuben Sharma for their unwavering support; student volunteers for their hard work and the delegates for making the journey to our city.



And finally, we wish Spain and the organisers of the 11th Congress our best wishes for a successful meeting in 2028.

Onwards World Congress of Herpetology!

# Reflections from a Graduate Student Delegate of WCH10



Written by **Devin Edmonds**  
*Doctoral Candidate*

*Illinois Natural History Survey, University of Illinois at Urbana-Champaign*  
*E-mail: [dae2@illinois.edu](mailto:dae2@illinois.edu)*

During the 37 hours of travel from Chicago to Kuching for the 10th World Congress of Herpetology, it was not until the final flight from Kuala Lumpur that I realized I was surrounded by herpetologists. Field boots replaced business attire, students held poster tubes, DSLRs slung over shoulders instead of handbags. The last and only other WCH I had attended was closer to home. Back in 2012, I snuck into the 7th WCH in Vancouver, not in any official capacity as a student or researcher, but just as a young person who liked reptiles and amphibians. Friends from the zoo world had suggested I go to WCH 7, and on a whim, I bought a ticket, having never really attended an academic conference like it before. That first WCH in Vancouver was a blur of wandering into talks and hallway conversations, unplanned and spontaneous, taking it all in without a clear sense of direction or purpose.

This time, arriving in Kuching for WCH10, I came as a PhD candidate, with a talk to give about one of my favorite frogs and collaborators to catch up with. In contrast to WCH7, I had meticulously planned every detail of the trip, taking the total opposite approach of my first conference in Vancouver 12 years before. Before travelling to Kuching, I had made a carefully color-coded spreadsheet of each talk I wanted to see, which room the online program said it would be in, what time each talk was, who I should have lunch with and which day. Everything was set.

However, soon after arriving I found I had over planned. The conference program seemed to be a living document, changing by the hour, and so I found myself again stumbling into talks as I had back in Vancouver in 2012, enjoying hearing from speakers in herpetological subfields somewhat removed from my own. With over 1000 attendees and many hundreds of presentations, I ended up by chance listening to people speak about the reptile trade in Japan, Agamid diversification, fringed leaf frog behavior, and disease dynamics of boreal toad populations. Indeed, some of my favorite talks were the ones I had not planned to see.



Despite a somewhat chaotic experience, at WCH10 I still found opportunities to connect with old friends and colleagues I hadn't seen in years. My former USGS supervisor, Patrick Kleeman, gave a talk, and though we hadn't spoken in person in over a decade, those summers surveying herps in the California mountains shaped who I am today. I also enjoyed catching up with long-time friend Rainer Dolch, whom I first met in Madagascar nearly 20 years ago. My first trip to the island was on my own as a tourist, and a guide I met in a village introduced me "the biologist" in town – Rainer. We worked on projects together in Madagascar for years after that, before I went back to the U.S. for graduate school. However, since moving back to the U.S., Rainer and I had not spent much time together. WCH was the perfect place to catch up. Similarly, I also enjoyed the many conversations with plenary speaker Julie Razafimanahaka, who always reminds me of the bigger conservation picture we are all working towards. Reconnecting with Pat, Rainer, Julie, and others who have been role models for me was a real high point of the conference.

WCH also provided a rare opportunity to spend time with some of my PhD committee members in person – Angelica Crottini and Richard Griffiths. While they've guided my research over the past four years, our interactions have been largely virtual, making it all the more meaningful to connect in Borneo. The conference also gave me the chance to finally put a face to the names I had only known from papers. I attended presentations by John Measey, Bibiana Rojas, Chien Lee, Trent Garner, and many others whose work I've long admired. But WCH wasn't all business – there was also plenty of time for casual, serendipitous meetings.

I often sat with strangers during lunch, which led to some of the most interesting conversations. One day, I found myself chatting with two caecilian biologists, the next day discussing *Atelopus* harlequin toads, and another lunch sitting with people who spend their time in the field catching cobras.

Of course, no conference in Borneo would be complete without some late-night herping. In contrast to academic conferences in the U.S., where I tend to stay up late socializing at the bar or hotel, at WCH I found myself staying up late out in the forest, headlamp on, scanning for reptiles and amphibians with friends. Kubah National Park really lived up to its reputation. Only 20 minutes from the city, the first night we went to Kubah there must have been 100 torches scanning the leaf litter and every frog along the main road found. Seeing horned frogs and cat geckos in person was such a treat. The following night we went to the temple road, staying out much too late, and necessitating constant coffee throughout talks the following day. After the conference, I hiked to the top of Mount Santubong and travelled to near the Indonesian border to stay in a more rural setting – experiences I doubt I would have in my life had WCH10 not been held in such an excellent location.

I hope to be able to attend WCH11 to connect again with so many people who share my interests. This conference allowed me to connect with so many people I otherwise would never have had the opportunity to interact with. I left Kuching motivated and energized to continue my own doctoral work, and with new ideas about methodological approaches to take. As a graduate student, WCH was truly the conference highlight of my academic journey so far, and I look forward to attending others in the future.

# Improving Animal Welfare in Herpetological Research, a Symposium at the 10th World Congress of Herpetology



Written by **Eleanor Tinsley<sup>1</sup>, Dave Daversa<sup>2</sup> & Trent Garner<sup>1</sup>**

<sup>1</sup>*Institute of Zoology, Zoological Society of London, Regent's Park, London, NW1 4RY*

<sup>2</sup>*La Kretz Center for California Conservation Science, University of California, Los Angeles, CA90095, USA*

*E-mail: <sup>1</sup>Eleanor.Tinsley@ioz.ac.uk,*

*<sup>2</sup>DDaversa@gmail.com, <sup>3</sup>Trent.Garner@ioz.ac.uk*

We all have our own set of personal experiences that influence how we interact with the world around us. For those of us who have chosen Herpetology as a field of endeavour, that world is heavily populated with reptiles, amphibians and the environments they exist in. How we interact with herpetofauna is then by definition coloured by personal experience, but to what degree do the experiences of the animals themselves affect what we do? As we wrote in the proposal for the symposium, 'While the academic and conservation justification for why we work on these species is clear, our understanding of the welfare impacts of how we work with a new species is frequently uncertain.'

Alongside personal experience, welfare means different things to different groups: how animal welfare is legally overseen and managed in a zoo is different from a research facility and in turn both are different from working with animals in the wild. While it is impossible to capture all this in a single symposium, the WCH delegation includes people that represent all these groups, and therefore a unique opportunity to begin the discussion amongst these groups. We were extremely lucky to attract presenters from all these interest groups, including veterinary scientists, experimental biologists, conservationists leading re-introduction and translocation projects, managers of captive and wild populations and field ecologists. The symposium start-

ed off with Frank Pasmans and An Martel providing an extremely valuable overview of the application of the 3 Rs to research (for those unfamiliar with the principles of the 3 Rs, the NC3Rs, a UK-based scientific organisation, has this resource available online: <https://nc3rs.org.uk/3rs-public>).



**Pioneering Better Science**



This laid the groundwork for 4 presentations examining if behaviour can inform on reptile and amphibian welfare. Lola Brookes reported on welfare indicators in disease research, Eleanor Tinsley outlined how she hopes to identify behaviours in tadpoles that are responses to environmental stressors, Anna Wilkinson presented evidence that reptiles do have feelings and Jessica Turner showed how reptiles allocate their attention across stimuli. Together these talks made a strong case for how the study of reptile and amphibian behaviours provide insights into the state of individual welfare.

The next three speakers addressed the effects handling and transportation and ideas on how the welfare impacts of these might be minimized. Erin Muths showed how invasive marking techniques may not be the worst for welfare in long term amphibian population monitoring, Bálint Halpern outlined the evolution of the replacement of animal handling in the Hungarian meadow viper conservation project he manages, and Katie Bickerton shared her experiences at minimizing stress in translocated lizards.



A very full symposium.

Dave Daversa then presented on how genomics and the study of epigenetically heritable patterns of DNA methylation can inform on compromised welfare that lizards experience over their lifetime. Last, Katie Howard closed out the symposium with her understanding of how anthropogenic environmental change can impact turtle populations through impacts of their welfare states.

There are several broad conclusions that can be drawn from the symposium.

*First, animal welfare is an enormously popular subject with the WCH delegation.*

Attendees filled the room, sat on the floor and spilled out into the hallway for most of the talks. It should be no surprise that a community that has devoted themselves to understanding the biology of amphibians and reptiles and put enormous personal time and effort into the conservation of these animals see the value of developing our understanding of the impacts of our works on the welfare of the animals we care so deeply about. Still, it was heartwarming to see firsthand how our community does want to learn about and invest in herpetological animal welfare.

*Second, we have a lot to learn, not least through challenging the basic methods and strategies we have for research and conservation.*

This does not make our community unique. Welfare science and best practices for wildlife are woefully inadequate, and it's easy to find experts who work with typical 'model' species like mice and zebra fish that also think they have a lot to do to improve the welfare of their study species.

*Third, what was on offer at this symposium fell far short in representing the international range of the delegation, as all our speakers came from North America, Europe and Australia.*

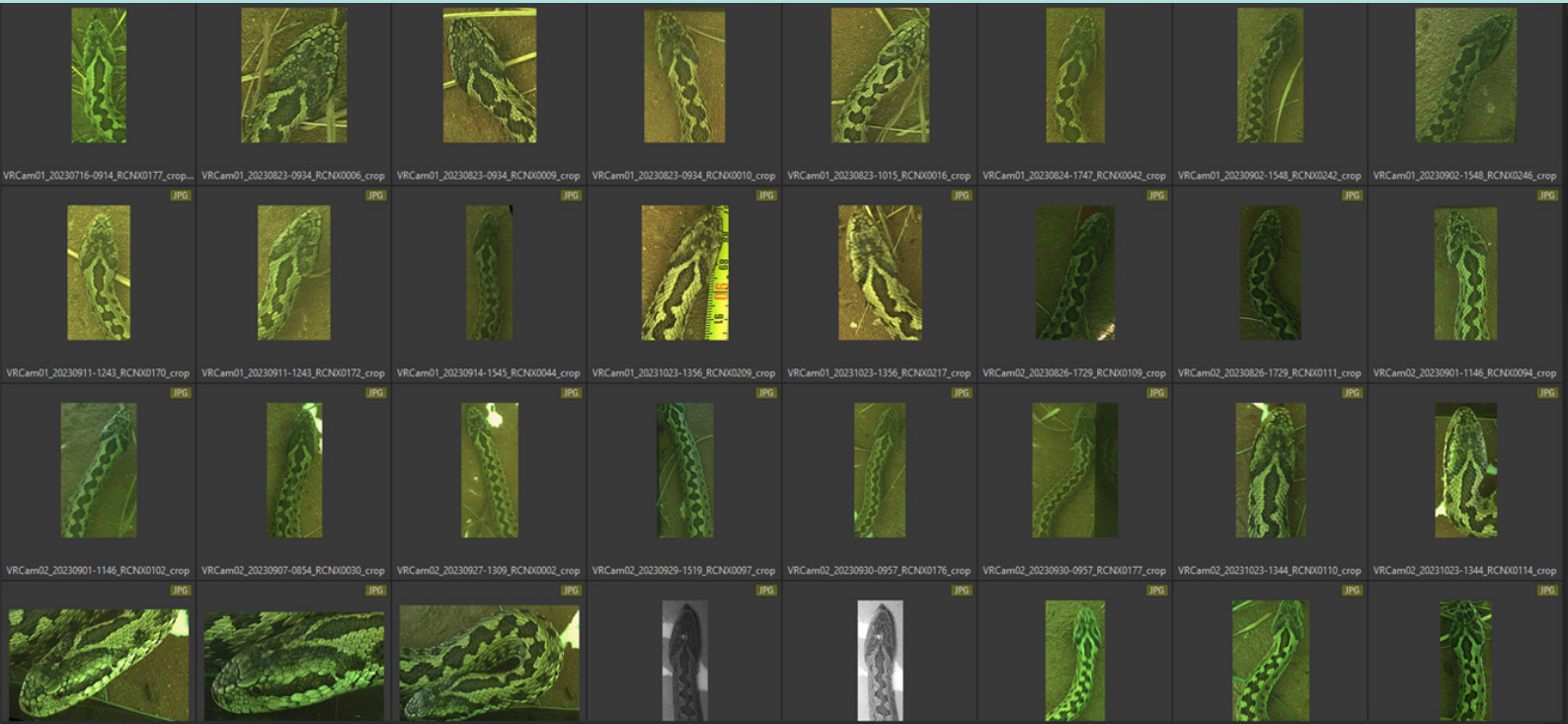
Hopefully, all three of these take homes will be addressed. Plans are afoot for forming a Welfare Working Group within the WCH. While we have no clear idea yet as to its composition, or how such a group fits into the rules and objectives of the Congress Constitution, a proposal is being developed. No doubt the structure and composition of the Working Group and its strategy and objectives, will all require consultation with the delegation. Those of you who stuffed the meeting room or have an interest in this subject, please do watch this space. And think about submitting a follow up symposium to be run in Gijón.

Finally, our heartfelt thanks to the presenters at the symposium, you all offered unique and valuable content to what we feel was a very successful symposium. Please keep up the very good work you are all doing and communicating the welfare achievements you continue to make.



To Indraneil, the organizing committee, the conference volunteers, the staff of the conference centre and the people and city of Kuching, thank you a million times for hosting a truly extraordinary WCH. The memories will last a lifetime.....and to the organizing team for the WCH 11, on behalf of the Kuching Congress, CHALLENGE OFFERED!

Meadow viper photo IDs generated without any need for animal handling. Pictures courtesy of Bálint Halpern.





# Student awards at WCH10

Student awards

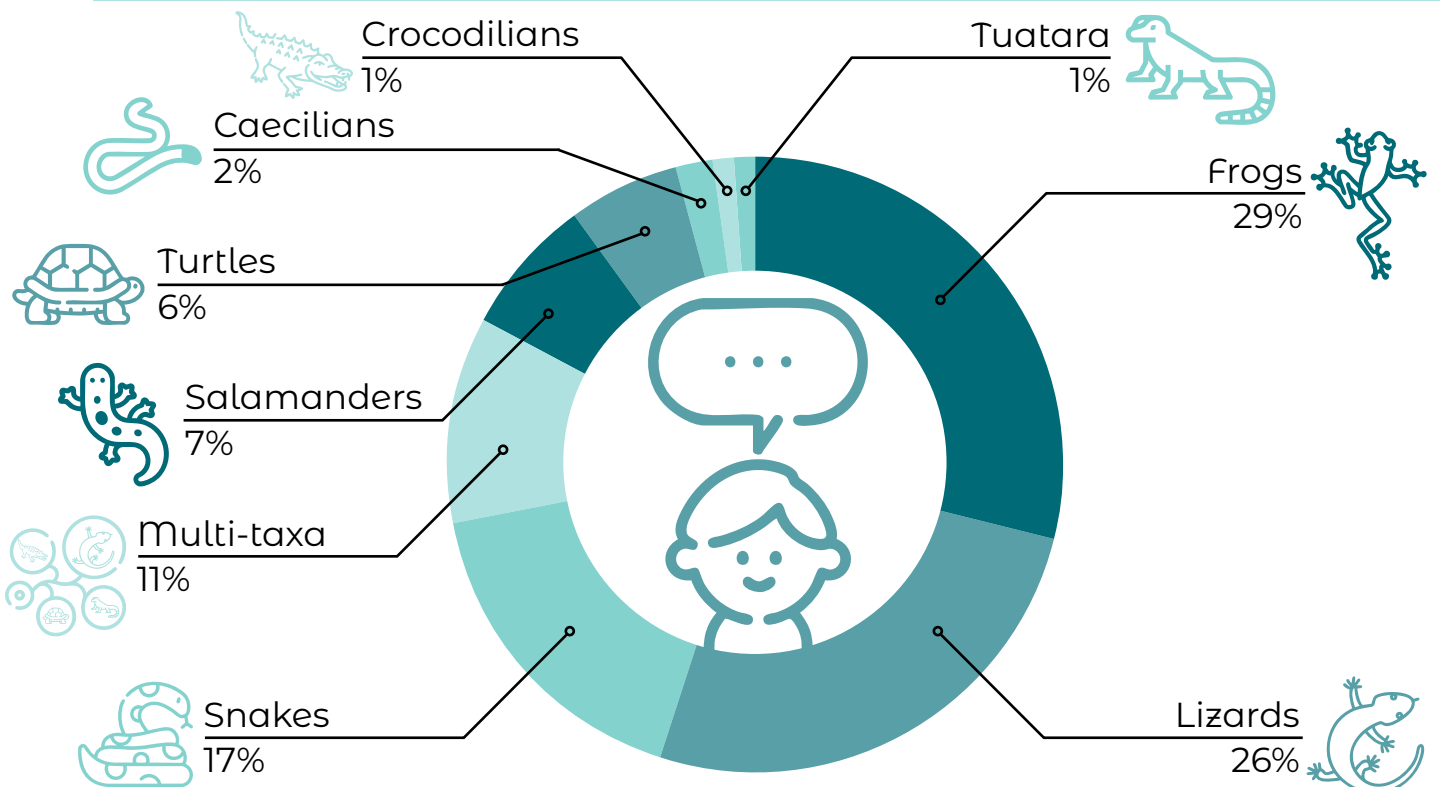
## Leading this Section: **Richard A. Griffiths**

Durrell Institute of Conservation and Ecology, University of Kent, Canterbury, CT2 7NR, UK. E-mail: R.A.Griffiths@kent.ac.uk

The congress was blessed with an absolutely fantastic set of talks and posters. This presented an exceptionally difficult set of decisions for our judges. Thanks to the Carl Gans Foundation and other external grants, WCH10 was able to support more scholarships and travel awards than ever before. Then, presentations needed to be judged! So, this was a great problem to have: so many students doing exceptional work in herpetology. And probably the loudest applause was for the youngest delegate, Avyakta, who received a special prize for the best question asked.

Many thanks to the judging panel chaired by David Bickford and Judit Vörös, whose work at the congress was truly top-notch and under pressure. Just as an example, student talks were still taking place and being judged just until one hour before the closing ceremony when the prizes were to be awarded! Many thanks also to Debbie Bishop, Brill and Pensoft for their generous sponsorship of the student awards.

### PERCENTAGES OF STUDENT PRESENTATIONS:



## POSTER AWARDS



### Lizards = Madhura Agashe

Tracing the roots of a Globetrotter: Historical Biogeography of the Cosmopolitan *Hemidactylus* genus supports an Indian Origin.

### Snakes = Gergő Rák

The Microhabitat Choice of the Hungarian Meadow Viper (*Vipera ursinii rakosiensis*) in Kiskunság: A Preference Towards Microhabitat Transitions

### Frogs = Yashwant Singh Panwar

Dead frogs can tell tales: One Hundred Years of Infection of *Batrachochytrium dendrobatidis* (Bd) in the Amphibian Population of India

### Multi-Taxa = Sankar Ananthanarayanan

Tracking Squamate Extirpations and Recoveries in Singapore

### Turtles = Peter Christopher

Conserving *Nilssonia leithii*: Assessment of the Critically Endangered Leith's Softshell Turtle Population along the Kaveri River, Melagiri, Tamil Nadu

### Brill Book Award = Neil Jun S. Lobite

Ecological Niche Modelling and Spatial Distribution of the Pitvipers in Mindanao, Philippines

## ORAL TALKS

### Frogs = Daniela Pareja Mejia

Deciphering the behavior and personality of the fringed leaf frog, *Cruziohyla crapedopus*

### Lizards = Dalton Leibold

Trade-Offs in Juvenile Skinks; Developmental Programming and the Mechanisms of Life-History

### Snakes = Marlan Magdelaga

A Sea Snake in a Freshwater Lake: Proteomics, Toxicity, and Venom-Prey Relationship of the Lake Taal Sea Snake (*Hydrophis semperi* Garman 1881)

### Multi-taxa = Bella Gonzales

Welcome to Miami: Reproductive traits and pathogen potential of introduced caecilians (*Typhlonectes natans*) in Florida

### Salamanders = Rachel Hester

Unravelling the invasion history of the non-native alpine newt *Ichthyosaura alpestris* in the UK

### Amphibian Conservation = Bishop prize = Logan Billet

Insights from a multi-year survey of Ranavirus epidemics across an amphibian meta-population





Reptile Conservation = Pensoft Prize = Deanne Trewartha

Heat water and reptiles - do the hydro-thermal properties of animals at the source location persist at the translocation site?

Brill Book Award for natural history = Veronica Leah

Observations on the Free Ranging Bornean Earless Lizard, *Lanthanotus borneensis*

## SPECIAL AWARD FOR THE WCH10



Best question during an oral presentation = Avyakta



Logan Billet receives the Amphibian Conservation prize in memory of Phil Bishop.



Debbie Bishop receives a memento for sponsoring the Phil Bishop Prize.



Rachel Hester receiving the prize for best salamander talk.





Avyakta receives a special prize for the best question.



The student poster and oral presentation prize winners.

## Student Travel Grants to attend WCH10

Leading this Section: **Judit Vörös<sup>1</sup>, David Bickford<sup>2</sup> & Richard A. Griffiths<sup>3</sup>**

*E-mail: <sup>1</sup>judit.voros.herp@gmail.com, <sup>2</sup>rokrokbickford@gmail.com, <sup>3</sup>R.A.Griffiths@kent.ac.uk*

Student grants

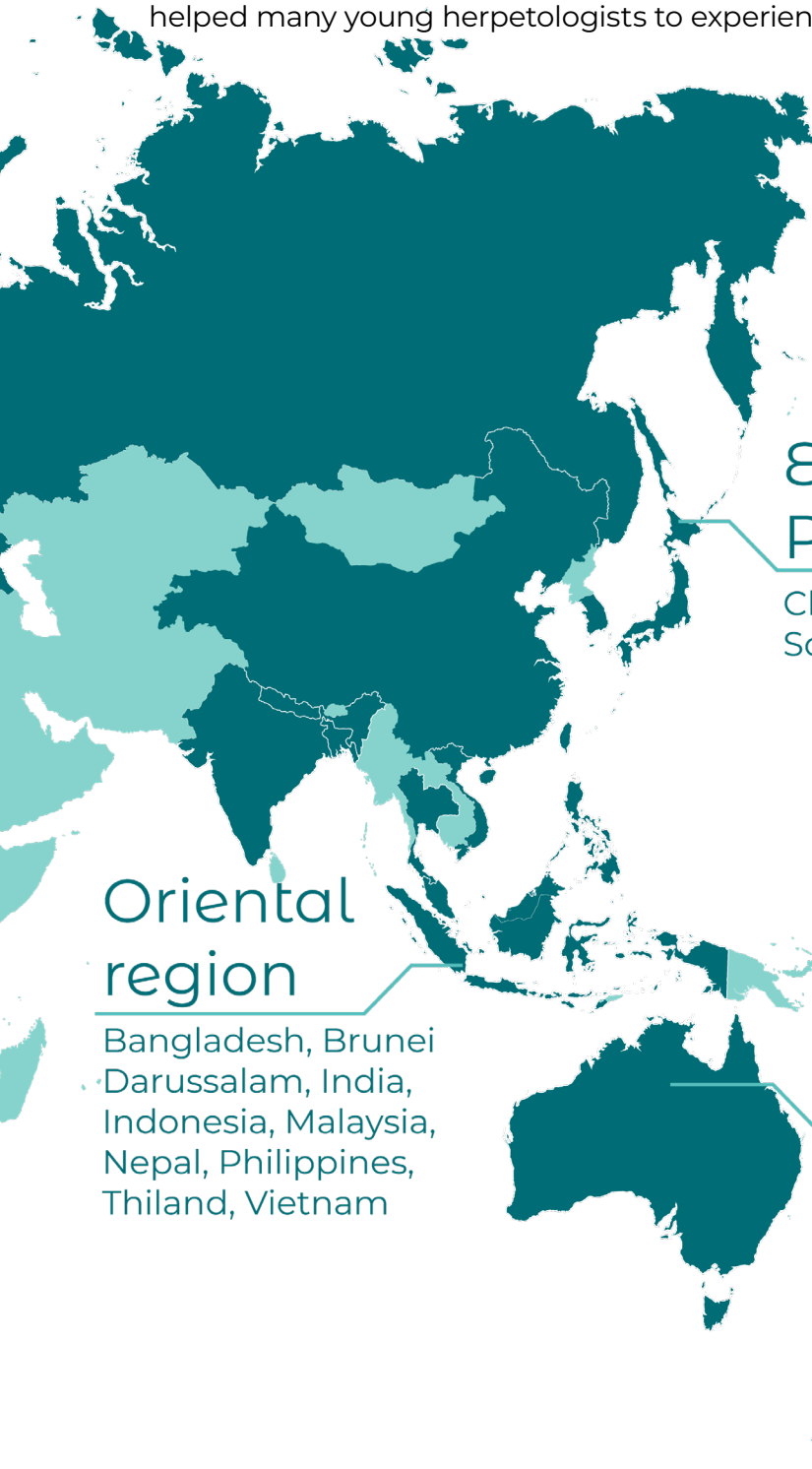




The 10th World Congress of Herpetology was special in many ways, but it was an exceptional one in terms of the high number of students and early career researchers we supported to attend the Congress from seven different funding sources. The Carl Gans Collections and Charitable Fund, the World Congress of Herpetology, the Global Women in Herpetology, the Global Amphibian and Reptile Diseases Conference, the Global Ranavirus Consortium, the 1StopBorneo Wildlife, and Sarawak State Government offered 113 partial or full support to attend the Congress in Kuching. Applications were oversubscribed threefold, so we are grateful to Aaron Bauer who organised much of the evaluation process involving specialists in each area. The map below shows the countries of origin of all awardees. We thank all the contributing partners and organizations for their generous support that helped many young herpetologists to experience an unforgettable congress.

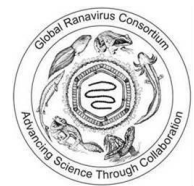
Student grants

See list of awardees [HERE](#)



## Eastern Palearctic

China, Japan, South Korea, Taiwan



## Oriental region

Bangladesh, Brunei Darussalam, India, Indonesia, Malaysia, Nepal, Philippines, Thailand, Vietnam

## Australasia & Oceania

Australia, New Zealand



# Reports on Workshops, Satellite Meetings and Symposia at WCH10: Part 1

Leading this Section: **Richard A. Griffiths**

*Durrell Institute of Conservation and Ecology, University of Kent, Canterbury, CT2 7NR, UK. E-mail: R.A.Griffiths@kent.ac.uk*

## GLOBAL AMPHIBIAN AND REPTILE DISEASE (GARD) CONFERENCE 2024

Organisers: Matthew J. Gray (Mgray11@utk.edu), An Martel (An.Martel@UGent.be) & Frank Pasmans (Frank.Pasmans@UGent.be)  
Report: Deanna H. Olsen (Deanna.Olson@usda.gov)

The convergence of the 2024 Global Amphibian and Reptile Disease Conference (GARD24) and the World Congress of Herpetology (WCH10) in Kuching, Malaysia provided an opportunity to expand the scope of herpetological pathogen and parasite health presentations across taxa and geographies. In all, 133 disease abstracts were submitted to the joint meetings from work in 34 nations, comprising ~9% of all presentations at the joint sessions. GARD24 travel grants helped to fund 25 students and early-career professionals from 21 countries, whose work was showcased in the three days of GARD24 sessions (recordings available online: <https://www.healthyamphibiantrade.org/gard24>). Posters in the hallways of the Borneo Convention Center and additional talks in WCH10 session rooms spread the opportunity to learn of new disease discoveries throughout the week. Fifteen categories of disease agents were included in presentations: Acanthocephala; Bacterium; *Batrachochytrium dendrobatidis* (*Bd*); *B. salamandrivorans* (*Bsal*); *Cryptosporidium*; Ectoparasites; Fusarium; Haemoparasites; Helminths; Pentastomes; Perkinsea; *Ophidiomyces ophidiicola*; *Ranavirus*; *Trypanosoma*; and other Viruses. Amphibian disease presentations predominated (78% of disease abstracts), with the amphibian chytrid fungi *Bd* and *Bsal* being the focus of 59% of disease presentations, addressing

a wide array of topics including occurrences, genetic variants, effects of infection, and conservation mitigations.



Session Chairs and speakers gather at the end of GARD 2024.

## WHAT EDITOR'S WANT: A GUIDE THROUGH THE PUBLICATION PROCESS FOR GRADUATE STUDENTS

Organisers: Erin Muths ([muthse@usgs.gov](mailto:muthse@usgs.gov)) and Brian Halstead ([bhalstead@usgs.gov](mailto:bhalstead@usgs.gov))

This workshop sought to provide graduate students and early career scientists with advice and encouragement on the publication process. A highlight of the workshop was the focus on the challenges of publishing scientific papers when English is not your first language and of navigating the publication process when you are a member of a historically marginalized community in our profession. Similar workshops in the future would benefit from: (1) Scheduling the workshop at a time when there are no concurrent sessions. A dedicated time, perhaps over an extended lunch in a dedicated room, would encourage participation in the full workshop and increase the utility of the workshop for students. (2) A format that reduces the length of talks and has time for a more structured panel discussion at the end would likely improve engagement and address the most pressing needs students face. (3) Engaging a graduate student to organize the next workshop would provide a more relevant perspective with the focus determined by the needs of students. A joint organizing team that includes both students and experienced editors might be especially effective.

## IUCN SSC AMPHIBIAN SPECIALIST GROUP: UPDATES AND FUTURE STEPS

Organiser: Amaël Borzée ([amaelborzee@gmail.com](mailto:amaelborzee@gmail.com))

The IUCN SSC Amphibian Specialist Group (ASG) is a global volunteer network of dedicated experts donating time and expertise to create a science-based community focused on amphibian conservation. The ASG currently consists of 300+ members in 40+ regions.

The ASG Lunch Meeting gathered about 50 amphibian conservation-minded people. Firstly, co-chair Amaël Borzée introduced the ASG global goals, the Task Forces and the recent Amphibian Conservation Action Plan. Next, Red List Authority Global coordinator Janice Chanson shared the results of the second Global Amphibian Assessment and the State of the World's Amphibians. Then, Jeanne Tarrant, regional chair for Southern Africa, presented results from their regional network in advancing amphibian conservation. Next, Luis Fernando Marin da Fonte, Atelopus Survival Initiative coordinator, shared the progress of the Atelopus Task Force and the need to implement coordinated actions. Finally, Bela Barata explained her role as ASG Network Officer in facilitating collaborations and encouraging engagement in the Americas.

We closed the day at a Malaysian restaurant, attended by 17 amphibian enthusiasts, sharing about their work and providing discussions and new ideas for the next steps of the ASG. This informal setting enabled conversation between the Secretariat and ASG members, and people with different experiences.





Delegates attending the IUCN SSC ASG lunchtime meeting

## SYMPOSIUM REPORTS

### SI: THE AMPHIBIAN BIOLOGY SERIES: HISTORY, NEW PERSPECTIVES AND FUTURE OUTLOOK

Organisers: Harold Heatwole ([harold\\_heatwole @ ncsu.edu](mailto:harold_heatwole@ncsu.edu)) and Indraneil Das ([idas@unimas.my](mailto:idas@unimas.my))

The aim of this symposium was to provide a history of the *Amphibian Biology* series, its current status and future prospects. The series began in 1995; There are now 11 volumes devoted to various topical themes: The Integument; Social Behaviour; Sensory Perception; Palaeontology; Osteology; Endocrinology; Systematics; Diseases, Parasites, Maladies and Pollution; Ecological Aspects, Effects of Humans, and Management; Reproductive Technologies and Biobanking. There are also two “volumes” *Eastern Hemisphere* and *Western Hemisphere*, of 7 and 8 “Parts” (actually volumes) respectively, dealing with the status of conservation and decline of amphibians on a county-by-country basis. These will be followed by a capstone volume based on papers presented at the symposium, containing (1) all the countries of the world not previously covered (2) updates of the status of countries covered earlier, and (3) an update on Amphibian Diseases. Suggested subjects for future topical volumes were Development and Neurobiology. Anyone wishing to suggest additional themes and/or to volunteer to contribute either to the capstone volume, volumes on new themes, or to serve as co-editor of a volume on a new topic, please contact the organisers.

## S2: HYDROREGULATION: ADAPTATIONS, MECHANISMS, AND CLIMATE RISKS

Organisers: Nicholas C. Wu ([nicholas.wu.nz@gmail.com](mailto:nicholas.wu.nz@gmail.com)) and Rafael P. Bovo ([rpbovo@gmail.com](mailto:rpbovo@gmail.com))

Hydroregulation is a critical attribute for life on land. This symposium aimed to highlight the diversity of herpetological research involving water conservation strategies, from mechanisms of regulation, adaptations to hydric stress such as morphological, behavioural, and physiological specialization, and the role of water balance in influencing the resilience of organisms to climate change. Our speakers came from diverse backgrounds (Brazil, Taiwan, France, USA, Australia) including talented early-career researchers. The broad topics brought up during the symposium showed there was a consensus that accelerated growth and accessibility of technologies and computational tools have allowed researchers to quantify animal hydroregulation and environmental water stressors in greater spatial and temporal detail. However, it was also clear that all this knowledge is scattered across the literature and disciplines. Due to this gap identified during the symposium, we (symposium participants) are currently writing a synthesis paper that integrates the state-of-art in reptile and amphibian hydroregulation to emphasize knowledge deficits and open venues for new research directions.

Presenters in the symposium 'Hydroregulation: adaptations, mechanisms, and climate risks'. From top left to right: Georgia Kosmala, Shannon Buttimer, Emily Taylor, Jennifer Sheridan, Mathias Dezetter, Kênia Cardoso Bicego, Carlos Navas, Rafael Bovo, Yeong-choy Kam. From bottom left to right: José Eduardo de Carvalho, Savannah Weaver, Nicholas Wu, Rodolfo O. Anderson, Denis Otávio Vieira de Andrade.



## S3: BIOGEOGRAPHY AND SYSTEMATICS OF THE INDIAN OCEAN HERPETOFAUNA

Organisers: Jason R. Ali ([jasonali62@gmail.com](mailto:jasonali62@gmail.com)) and Uwe Fritz ([uwe.fritz@senckenberg.de](mailto:uwe.fritz@senckenberg.de))

The symposium comprised 12 presentations with the geographical sub-areas spanning the SW Indian Ocean, the Indian subcontinent, and the Andaman and Nicobar archipelagos, the studies focusing on a variety of reptile and amphibian taxa. The session included a talk on the various geological and geophysical processes that have shaped the various 'bio-theatres'. Each of the talks were given to 'full houses', with the attendees and participants expressing many positive comments. It is anticipated that the symposium will

spawn new research programmes plus in the shorter time various manuscript submissions. For the future, we plan to develop a related symposium for WCH-11. It might have a similar remit, and we would encourage researchers working on Socotra, Sumatra forearc islands and Christmas Island to join us. Alternatively, we might loosen the geographic remit and focus instead on exemplary island systems from around the globe. Hopefully we can build to a full half-day symposium or even longer. Having flagged our plans well in advance, we very much hope that the WCH-11 organizers can support us in our endeavours.

## S4: HERPETOLOGY OF BORNEO: CURRENT RESEARCH

Organisers: Ramlah Zainudin ([zramlah@unimas.my](mailto:zramlah@unimas.my)) and Indraneil Das ([idas@unimas.my](mailto:idas@unimas.my))

This one-and-half day long symposium comprised 22 papers, covering studies conducted in Sarawak, Sabah (both in Malaysia), Brunei Darussalam and Kalimantan (Indonesia). Each day, the Symposia had a Keynote, on Day 1, it was 'Nature's remedy: The wound healing wonders of frog skin' by Prof Dr Ahmad Hata Rasit (the Vice Chancellor of the host organisation, Universiti Malaysia Sarawak), and on Day 2, 'Sarawak's Totally Protected Areas and amphibian conservation' by Taha bin Wahab (representing the Sarawak Forestry Corporation). Classified by taxonomic groups, amphibians (12 papers) dominated, followed by lizards (five), turtles (three) and snakes (two). Thematically, papers covered ecology and conservation biology (20), taxonomy and systematics (one) and anatomy (one). This geographically focused symposium brought to the fore the importance of herpetological research to the government, particularly its conservation agencies, and of herpetofaunal lineages as key components of regional biodiversity. Finally, we attempted, through the organisation of the Bornean herpetofauna symposium, networking of researchers on this exciting fauna and promotion of research, particularly by young scholars, from here and from further afield.

## S5: FORAGING BEHAVIOUR AND DIET IN SALAMANDERS

Organisers: Raoul Manenti ([raoul.manenti@unimi.it](mailto:raoul.manenti@unimi.it)) and Enrico Lunghi ([enrico.lunghi@univaq.it](mailto:enrico.lunghi@univaq.it))

This symposium brought together experts to explore and discuss the diverse foraging strategies employed by salamanders, the evolutionary processes determining both divergences and similarities between different groups, and their implications for ecosystem functionality. A broad symposium involving the world community of urodele specialists is a key step to establish new collaborations and develop comparable methodologies to better comprehend the evolution of foraging strategies in salamanders. The overarching goal of this symposium was to create the environment for an in-depth discussion between participants and delineate future directions. The key themes embraced foraging strategies, sensory systems, prey preferences, foraging efficiency and energetics and environmental influences.



## **S6: BRIDGING ECOLOGICAL AND PHYSIOLOGICAL FRONTIERS IN ECOPHYSIOLOGY: GLOBAL IMPLICATIONS UNVEILED**

Organisers: Luisa Maria Diele-Viegas ([luisaviegas@ufba.br](mailto:luisaviegas@ufba.br)), Helena Araujo ([helena.araujo@uesb.edu.br](mailto:helena.araujo@uesb.edu.br)), Kênia Bicego ([k.bicego@unesp.br](mailto:k.bicego@unesp.br))

In an unprecedented global environmental change era, understanding the intricate interplay between ecological and physiological dimensions has never been more crucial. The symposium aimed to unite experts and researchers from diverse backgrounds to explore the intersection of ecology and physiology. The symposium delved into the practical applications of ecophysiological research, providing delegates with actionable insights to address current and future global environmental issues. Promoting interdisciplinary collaboration among ecologists, physiologists, and related fields encourages exchanging ideas and methodologies. With global environmental change being a shared concern, this symposium emphasized the universal relevance of ecophysiology, making it crucial for a global audience seeking solutions to pressing ecological and physiological issues. The symposium navigated the intricate web of ecophysiology through a modern, integrative, and innovative approach, gaining insights into how organisms respond and adapt to global environmental changes and exploring avenues for global cooperation in addressing these challenges.

## **S7: IMPROVING CONSERVATION AND MITIGATION OUTCOMES OF SNAKE TRANSLOCATIONS – GLOBAL LESSONS**

Organiser: Jonathan D. Choquette ([jchoquette@wildlifepreservation.ca](mailto:jchoquette@wildlifepreservation.ca))

The aim of the symposium was to gather leading snake translocation researchers from around the world in the spirit of sharing knowledge and advancing the science of snake reintroduction biology. Seven speakers presented, representing five countries: Australia, Canada, UK, Hungary, and the USA. Three presenters summarized characteristics of snake translocations at the global or national scale, while the remainder focused on the results of species-specific studies. Snake species highlighted included vipers, colubrids and pythons. In addition, there were two other talks during the conference on snake translocations, both in the Australian context, and focusing on elapids and pythons. Major themes identified across presentations included: translocations of wild-caught snakes, translocations of adult snakes, conducting “hard” releases, translocating snakes for mitigation purposes, and the use of radiotelemetry to monitor snakes post-release.

## **S8: ECOLOGY, EVOLUTION AND BEHAVIOR OF PHYTOTELMA BREEDING FROGS**

Organisers: Rick Lehtinen (rlehtinen@wooster.edu) and Yeong-Choy Kam (biyckam@gmail.com)

Phytotelma-breeding frogs are frogs whose life cycle are tied to plants that hold water. These specialized species offer superb opportunities to study many exciting topics in ecology, evolution and behavior including bizarre morphological adaptations, extensive parental care behavior, repeated convergent evolution, kin recognition, plant-animal interactions, chemical communication and the phylogenetic implications of evolutionary specializations (among many others). In 2004, a global review of these specialized frogs reported that 102 species (in 44 genera in 9 families) were known to exist at that time. Today, that number is now 333 species (in 87 genera in 18 families). Clearly, the amount of information on these specialized frogs has exploded in the last few decades. While unusual, they are not as rare as we once thought, and it is now important to review what we know about them and plan future research. An international symposium on this topic is especially appropriate to occur in Borneo, as this tropical island is a global hot spot for phytotelma-breeding frogs.

## **S9: HAUNTING THE SEASIDE: INTEGRATIVE BIOLOGY OF SALT TOLERANCE IN AMPHIBIANS**

Organisers: Molly Albecker (maalbecker@uh.edu), Erica Crespi (erica.crespi@wsu.edu) and Jessica Hua (jhua23@wisc.edu)

Anthropogenic salinization of freshwater systems via saltwater encroachment, road de-icing salt run-off, drought, and surface mining are affecting amphibian populations across the globe. These emerging threats have prioritized the need to advance knowledge of the integrative biology of salt tolerance in amphibians, which involves neuro-endocrine and cellular osmoregulation, developmental and physiological trade-offs, ecological interactions, and evolutionary adaptation. This symposium brought together researchers from across the globe who share a common interest in understanding, predicting, and mitigating the impact of saltwater on amphibians, as well as those invested in understanding amphibian responses to a changing world. The overarching goals were to share exciting findings, resources, and methodologies in salt tolerance research and to plan critical interdisciplinary collaborations to accelerate our understanding of how salinization affects amphibian biodiversity. We compiled an international panel of experts who showcased distinct research expertise across the topic.

## **S10: AN INTEGRATIVE APPROACH TO STUDYING THE EVOLUTION OF VISUAL COMMUNICATION**

Organisers: Doris Preininger ([d.preininger@zoovienna.at](mailto:d.preininger@zoovienna.at)) and Matthew Fuxjager ([matthew\\_fuxjager@brown.edu](mailto:matthew_fuxjager@brown.edu))

Visual communication in reptiles and amphibians is nothing less than spectacular, with diverse species using an incredible range of elaborate colors and extraordinary body movements to court mates, compete with rivals, and evade predators. Yet, our understanding of how visual communication systems evolve in these species remains unclear, particularly if we consider this topic through a mechanistic lens. To fill this gap, biologists have begun leveraging a host of new technical and computational approaches. Studies have therefore begun to uncover core principles that guide how physiological systems influence the way visual communication strategies and behavior adaptively evolve and diversify across taxa.

The goal of our symposium was to bring together a diverse group of herpetologists who are doing cutting-edge integrative work that explores intersections between physiology and visual communication biology in reptiles and amphibians. This topic has recently picked up incredible steam, with many recognizing the utmost importance of visual signals to these animals' survival and reproduction. As such, our symposium showcased the important ways that modern approaches in molecular genetics, neurobiology, endocrinology, etc. can be used to study visual signals in different reptile and amphibian species, as well as the evolution of these fascinating communication systems.

## **S11: PROGRESS IN SCIENTIFIC KNOWLEDGE OF SOUTH AND SOUTHEAST ASIAN AND AUSTRALASIAN SNAKES**

Organisers: Deepak Veerappan ([veerappandeepak@gmail.com](mailto:veerappandeepak@gmail.com)) and David Gower ([d.gower@nhm.ac.uk](mailto:d.gower@nhm.ac.uk))

The aims were to (1) bring together a diverse group of experts on various topics on Asian and Australasian snakes; (2) present research on new discoveries, reviews and future directions; and (3) identify and bridge knowledge gaps. Nineteen speakers based in eight different countries (India, USA, Pakistan, Japan, Philippines, USA, China and UK) presented their research covering biochemistry, ecology, evolution, and systematics. Highlights included new data on chemical defence and nuchal-gland diversity and evolution in natricine snakes, and phylogenetic and biogeographic studies with impressively extensive sampling. Some studies highlighted the lack of sampling in certain regions in Asia which they hope to do in the near future and fill these gaps. Overall, it was an interactive and enjoyable symposium. There are no set plans for future actions, but the speakers and audience were enthusiastic about their research and appreciated our effort to bring them together. Several delegates remarked on how good it was to have a symposium on Asian snakes, in Asia, and with many Asian speakers. One of the speakers and other experts were unable to attend this time so we hope to conduct similar symposia in the near future given the clear interest at the congress in snakes from Asia and Australasia.



## **S12: DEVELOPING GLOBAL COLLABORATIONS FOR AMPHIBIAN BIOBANKING AND GENETIC RESOURCE MANAGEMENT INITIATIVES**

Organisers: Natalie Calatayud ([ncalatayudcrump@sdzwa.org](mailto:ncalatayudcrump@sdzwa.org)) and Gina Della Togna ([gdellatogna@amphibians.org](mailto:gdellatogna@amphibians.org))

This symposium highlighted the pivotal role of biobanking and genetic resource management in the conservation of amphibian species. Biobanking and genetic management are vital components of the Amphibian Conservation Action Plan (ACAP), and this symposium served as the first step for ACAP implementation on these specific matters. Experts from around the world gathered to discuss the urgent need for collaborative efforts to safeguard the genetic diversity of amphibians. The symposium aimed to create a platform for international collaboration, sharing initiatives, and strategies for integrating genetic management and biobanking into conservation programs. Key outcomes included identifying solutions for efficient integration, proposing a roadmap for an international biobanking network, and envisioning a future where threatened amphibians are genetically managed within a global network by 2050. The first part of the event featured ten speakers from leading organizations, while the workshop engaged 20 specialists to address obstacles, advantages, and impacts of implementing biobanking in amphibian conservation. A white paper summarizing key findings and recommendations will be published following the symposium. Overall, the symposium served as a crucial catalyst for fostering international collaboration and mobilizing resources to advance amphibian conservation efforts worldwide.

## **S13: KARST AND CAVE-ADAPTED HERPETOFAUNA OF ASIA**

Organisers: L. Lee Grismer ([lgrismer@lasierra.edu](mailto:lgrismer@lasierra.edu)) and Evan S.H. Quah ([evanquah@ums.edu.my](mailto:evanquah@ums.edu.my))

This symposium aimed to bring together herpetologists from around the world that work extensively in the karstic regions of Asia, and featured nine presenters from various countries which included Vietnam, Australia, Thailand, Russia, UK, Philippines, Indonesia and the USA. Speakers presented their research which ranged from general herpetological surveys in karst regions to taxonomic reassessments of karst-specialised taxa, and conservation. The main take away message from the symposium is that karstic regions around Asia harbour a wealth of cryptic herpetological diversity that is still in need of much research. The challenges of living in karst caves and on karst towers and hillsides have driven the evolution of many unique species of frogs, snakes, and especially geckos of the genus *Cyrtodactylus*, the most speciose and ecologically diverse gecko genus. Annually, many new species of *Cyrtodactylus* are described from throughout their range, many of which are karst-dwelling species. Despite karst ecosystems being so biodiverse, they are amongst the least protected habitats in the world with quarrying activities continuing to place pressure and threaten the numerous specialised and site-endemic species. More concerted efforts are needed to continue exploring karst regions so that their species can be properly identified, inventoried, and effectively protected.

## S14: EVOLUTION AND DIVERSIFICATION OF THE NEOTROPICAL HERPETOFAUNA

Organisers: Jessica Fenker (jfenker@museum.vic.gov.au) and Damien Esquerré (desquerre@uow.edu.au)

The Neotropical region stands as a global treasure trove of biodiversity, boasting an astonishing array of species. It is home to six out of the 25 recognized global biodiversity hotspots and harbours 70% of the world's total biodiversity. Among its remarkable inhabitants, the Neotropics proudly showcase one of the most diverse herpetofauna communities on our planet. Every passing year reveals new species, underscoring the ongoing underestimation of the true extent of species richness in this region. This wealth of diversity owes its existence to a complex interplay of biogeographic and evolutionary forces, which intricately shape the distribution patterns of species. In this symposium, we shared the outcomes of recent research endeavours. These studies have delved into biogeographic patterns that contribute to the genetic diversity of Neotropical herpetofauna. Our discussions encompassed the evolution and testing of hypotheses that have withstood the test of time, the current paradigms that illuminate diversity patterns, and insights into the future, particularly concerning the impending challenges posed by climate change.

## GLOBAL WOMEN IN HERPETOLOGY AT WCH10

Organisers: Umilaela Arifin, Itzue Caviedes Solis, Sinlan Poo (womeninherpetology@gmail.com)

The Global Women in Herpetology (GWH) Project was thrilled to host a Women in Herpetology Luncheon opened to all conference attendees and to provide scholarships for seven students from five Asian countries to attend the WCH10 in Kuching. The Luncheon aimed to facilitate networking among women, especially those early in their career. With ~200 attendees, the Luncheon was one of the most well-attended events other than the plenary talks. The main highlight was discussions on how our professional field can move forward when it comes to representation and space for everyone and changes we hope to see in the next WCH. The GWH scholarship, funded by sales from the collaborative efforts of the Women in Herpetology book, supported students from the region, many of whom presented their research to an international audience for the first time. Students also received career advice and guidance from GWH mentors. Additionally, GWH sponsored a herping trip to Kubah National Park to facilitate further connection among the students and provide them with a unique experience of herping in a Bornean rainforest. As this was the first large-scale gathering since the GWH book was published, GWH organised the first in-person gathering for GWH book authors and students, with hopes of facilitating collaborations and projects in the future. To further spread the news about the project, Dr Itzue Caviedes Solis gave a presentation on “The Global Women in Herpetology Project: putting a spotlight on the diversity of women working with amphibians and reptiles”. Throughout the meeting, GWH also maintained a booth sponsored by



# 11th World Congress of Herpetology

Gijón, Spain 2028

Located in the enchanting Spanish province of Asturias, Gijón is a city that beautifully balances history, biodiversity, and warm hospitality. The Iberian Peninsula, which includes Spain and Portugal, stands out as one of Europe's most biodiverse regions, recognized as one of the world's 25 biodiversity hotspots. This rich environment encompasses the Balearic Islands and the Macaronesia archipelago, boasting nearly 100 species of reptiles and amphibians. Moreover, the Iberian Peninsula serves as a crossroads of civilizations. It is not only the birthplace of the Iberian Lynx but also a true paradise for birdwatching enthusiasts.

Asturias' legacy as a "Natural Paradise" shines through its breathtaking landscapes and culinary treasures, making it an ideal destination for combining meaningful scientific exchange with genuine local experiences. Gijón is designed on a human scale offering a unique balance of traditional charm and urban vibrancy, where attendees can connect over regional specialties like fabada (bean stew) paired with the Asturias' famous cider. Networking takes on a lively, authentic tone at an "espicha" cider-pouring contest, a centuries-old tradition that fosters both festivity and community.



Adding further depth to the congress, the region is also home to UNESCO World Heritage sites, including the prehistoric Altamira caves with their ancient rock paintings.

Gijón's location and ease of access make it an ideal destination for congress attendees from near and far. The Asturias airport, just a short 30-minute drive away, connects the city to over 200 destinations, with direct flights to major European cities, including Paris, London, Frankfurt or Rome. Whether arriving by taxi, bus, or car, visitors will find themselves within easy reach of the city's center, its beautiful coastline, and its famed four urban beaches. Accommodation is plentiful, with 48 hotels ranging from seaside retreats along the Bay of Biscay to centrally located options just steps from Gijón's main attractions.



The Congress will be held at La Laboral, the city's cultural heartbeat, known for its impressive architecture blending an industrial design with vibrant and dynamic spaces. Originally built as an arts school, La Laboral now stands as a cultural and innovation centre. Just 3 km from the heart of Gijón, this stunning complex is ideal for events, featuring sophisticated design with a commitment to sustainable tourism. With certification as a Biosphere World Urban Destination, Gijón prioritizes environmental stewardship, and La Laboral continues this legacy by adapting its spaces for safe and responsible gatherings.

In addition to the congress, attendees can explore a variety of guided excursions that showcase the Iberian Peninsula's remarkable natural heritage. From the coastal wonders of the Dinosaur Coast and Colunga Beach to the dramatic landscapes of Covadonga Lakes in Picos de Europa, these outings highlight the area's unique ecosystems. Optional tours will also venture beyond Spain, offering herping tours to Peneda-Gerês National Park (Portugal) and even Morocco.

In Gijón, there's always time to enjoy the city's vibrant culture, scenic coastline, and lush green parks. Whether connecting with colleagues over regional cuisine or unwinding in the city's botanical garden, attendees will find a welcoming environment that seamlessly combines scholarly exchange with authentic local experiences. Join us in this captivating city, and discover the broader wonders of the Iberian Peninsula, where each moment offers opportunities for learning and connection.



Gijón's picturesque coastline and lively urban center make it a perfect blend of natural beauty and cultural heritage.



A glimpse of La Laboral's striking courtyard and circular church, embodying the venue's artistic and modern spirit.



Raise a glass to Asturias vibrant identity, where cider tasting is more than a drink: connect, celebrate, and embrace the shared cultural experience.



# Herp news around the world

## Leading this Section: **JULIA RILEY**

This section features news, announcements, and initiatives from herpetological societies around the world. The news is ordered based on the [global regions](#) as defined by the WCH Executive Committee. Each news snippet is a short summary and highlights of what each society is getting up to, so please check out their own websites, social media sites, and newsletters for more information! If you have news you want to be featured in this section in future WCH newsletters, please contact Julia Riley ([jriley@mta.ca](mailto:jriley@mta.ca)).

### Nearctic

#### Save The Snakes



ANNOUNCEMENT: Seven years ago, Save The Snakes was founded with a snake conservation vision. We believed that if Save The Snakes could support wildlife conservationists to mitigate human-snake conflict in their own communities, then they could lay the groundwork to protect threatened snake populations in their part of the world. To do this, we implemented the [Save The Snakes Grants Program](#). Since 2018, Save The Snakes has received 175 grant proposals from dedicated individuals working on snake conservation or snakebite mitigation projects in 34 countries. Of these important projects, we have been able to financially support 25 projects in Argentina, Bolivia, Brazil, Cameroon, Colombia, Costa Rica, Ecuador, Guatemala, Indonesia, Kenya, Malaysia, Mexico, Sri Lanka, Tanzania, Thailand and Zambia.

The purpose of a Save The Snakes Grant is to empower passionate, committed people with a snake conservation vision. We fund individuals, small organizations and community groups that focus on community-based conservation strategies to protect threatened snake populations and mitigate human-snake conflict.

In 2024, we are proud to award grants to four incredible snake conservationists.

1. Agustina Anahí Barrutieta – [“Mitigating Human-Snake Conflict in the Argentinean Pampas”](#)
2. David Vera – [“Spatial Ecology of the Urutu \(\*Bothrops alternatus\*\): Towards a Strategy to Mitigate Human Conflict in the Tandilia Mountains”](#)
3. Worawitoo Meesook – [“Training Workshop for Trainers: Enhancing Snake Knowledge and Handling Skills”](#)
4. Heri Tarmizi – [“Urban Serpent Rescue Initiative”](#)

We wish these recipients success in their projects and support their efforts for snake conservation and education.

UPDATE: Our Africa Program Manager, [Hiral Naik](#), and our partners at the [Hoedspruit Reptile Centre](#) have been making great progress on their [Snake Education and Community Awareness Program \(SECAP\)](#) initiative in South Africa. They recently trained local community members to rescue and relocate snakes with funding provided by the Royal Society of Tropical Medicine and Hygiene. These members will be further trained to be able to educate local communities about snakes and snakebite. We are excited to see SECAP growing to increase knowledge about snakes and promote human-snake co-existence.

We are always appreciative of the support we receive from our community and we look forward to providing more updates in the new year. There are many ways that you can support our work so check out our [website](#) and stay up to date with our work through our social media channels and our [YouTube channel](#)! Let's work together to Save Snakes!

## Turtle Survival Alliance



- In July 2024, our collaborative work toward the designation of the first Key Biodiversity Area (KBA) based on distinct genetic diversity came to fruition in Colombia:

Research on the critically endangered Dahl's Toad-headed Turtle (*Mesoclemmys dahlia*) by Turtle Survival Alliance and Wildlife Conservation Society revealed four genetically distinct subpopulations with limited gene flow, leading to high levels of inbreeding. The newly designated KBA, La Carranchina Natural Reserve, in Sucre, Colombia, protects 30% of the Dahl's Toad-headed Turtle's unique genetic diversity, crucial for this species' survival. This landmark underscores the importance of conserving genetic variation within species, setting a global precedent in biodiversity conservation efforts. This designation was made possible by the Wildlife Conservation Society, Turtle Survival Alliance, Rainforest Trust, and the Instituto de Investigación de Recursos Biológicos Alexander von Humboldt, and with the guidance of the KBA Regional Focal Point for Latin America.

- The 100th Indochinese Box Turtle (*Cuora galbinifrons*) hatched at the Turtle Survival Center in August 2024:

We first started producing hatchlings of this critically endangered species in 2016. Building a genetically diverse assurance colony of this species helps preserve its existence and serves as a foundation for potential future rewilding efforts. This species, and many others at the TSC, have had their populations decimated by food, pet, and medicinal trades. The 100th turtle of this species marks an unprecedented milestone for producing this species in captivity and provides a ray of hope for their survival.

- In July 2024, the Wildlife Conservation Society and the Fisheries Administration (FIA) in July marked another significant achievement in their efforts to restore the Cambodian population of Southern River Terrapins (colloquially known as Royal Turtles) with the inaugural opening of newly constructed rearing and breeding ponds at the Koh Kong Reptile Conservation Center (KKRCC):

To further mark the opening of these facilities, our partners in Cambodia released another group of 20 subadult Southern River Terrapins, which were raised at the KKRCC, into the Sre Ambel River. The KKRCC has successfully produced 185 hatchling terrapins since 2021. This release marks the tenth for the species, totalling 206 returned to the wild, with 39 of those being released in 2024. The collaborative efforts of WCS, FIA, and partners, including Turtle Survival Alliance, have been instrumental in protecting the Southern River Terrapin, once believed extinct in Cambodia.

- This year, the Turtle Survival Alliance-supported Students Conserving Nature ramped up their community outreach and engagement and conservation actions for the Vallarta Mud Turtle (*Kinosternon vogti*) in Puerto Vallarta, Mexico:

The Vallarta Mud Turtle, first described in 2018, holds the distinction of being the world's smallest turtle and is considered the most endangered turtle in the Western Hemisphere. This species is endemic to the Ameca River delta in Mexico's Pacific coastal plain, where it is currently known to inhabit just five small wetlands within the Puerto Vallarta metropolitan area. In 2024, conservation efforts to prevent its extinction include habitat cleanups and enhancements, educational events with local communities and schools, engagement with landowners, radio-telemetry studies, capture-recapture surveys, and the translocation of turtles from threatened habitats to a newly established assurance colony at the Guadalajara Zoo.

- On August 8, 2024, Turtle Survival Alliance hosted the a symposium at the World Congress of Herpetology in Kuching, Sarawak, Malaysia, dedicated solely to conservation actions for tortoises and freshwater turtles, with a focus on Asia and Australasia:

Entitled "Conservation of Asian and Australasian Tortoises and Freshwater Turtles", this session brought together 13 invited presenters representing Australia, Bangladesh, Cambodia, China (Hong Kong SAR), Indonesia, Malaysia, Myanmar, Papua New Guinea, Philippines, and Vietnam. Turtle Survival Alliance Director of Field Conservation, Andrew Walde, opened the session by presenting the "Status, Trends, and Implementing Conservation Initiatives for Asian and Australasian Tortoises".

- This year, Turtle Survival Alliance and Belize Foundation for Research & Environmental Education (BFREE) released 429 headstarted Central American River Turtles (*Dermatemys mawii*) into rivers and freshwater lagoons in Belize:

Since 2015, the Turtle Survival Alliance and BFREE have successfully produced captive-bred Central American River Turtles at the Hicatee Conservation and Research Center, located on BFREE's private reserve in southern Belize. 2024 marked the fifth year releasing captive-bred, headstarted hatchling and juvenile Central American River Turtles into the wild and marked the most turtles released into the wild in a single year. In the last five years, we have released nearly 1,000 Central American River Turtles.

- This spring, Turtle Survival Alliance and Myanmar Biodiversity Fund released 50 headstarted Burmese Roofed Turtles (*Batagur trivittata*) into the upper Chindwin River in northwestern Myanmar:

The Burmese Roofed Turtle is regarded as one of the most endangered turtles in the world. Once abundant in Myanmar's Ayeyarwady-Chindwin River system, the species was thought to be extinct for over 50 years until its rediscovery in 2002. Today, fewer than five naturally-occurring adult females are known to remain in the wild. Starting with only a small number of founder individuals, our intensive captive-rearing and breeding efforts have expanded assurance colonies in Myanmar to include more than 2,000 turtles. To date, 197 have been successfully released back into the wild.

- In 2024, our collaborative project along the Sinú River in Colombia produced a project-record 2,948 hatchling Magdalena River Turtles (*Podocnemis lewyana*):

In collaboration with our conservation partners Tortugas del Sinú and WCS Colombia, we have incubated, hatched, and released over 16,000 Magdalena River Turtles (*Podocnemis lewyana*) in Colombia, averaging more than 1,000 turtles released into the wild each year. This initiative has significantly mitigated the impact of nesting beach flooding caused by a hydroelectric dam on the Sinú River.

- Join us for the 3rd annual [Chelonian Biology, Conservation, and Management Course](#), September 21-27, 2025, hosted at the Turtle Survival Center and sponsored by the Association of Zoos & Aquariums Chelonian Advisory Group in conjunction with Turtle Survival Alliance.





- **SAVE THE DATE:** The Joint Meeting of Ichthyologists and Herpetologists (JMIH) will be held from July 9–13, 2025 in St. Paul, Minnesota, USA
- **ACCEPTING APPLICATIONS FOR THE DEAN METTER AWARD AND ROGER CONANT GRANTS IN HERPETOLOGY:** The SSAR is accepting applications for the Dean Metter Award and the Roger Conant Grants in Herpetology Program (due December 15, 2024). These awards provide grants to applicants in several categories, mostly geared towards students performing research in herpetology. Students can apply for both awards but will only be selected for one. If you miss this year's deadline, you can still keep these grants on your radar for next year! For more information, check out our website: <https://ssarherps.org/ssar-awards/grants-in-herpetology/> <https://ssarherps.org/ssar-awards/dean-metter-memorial-award/>
- **REQUEST FOR NOMINATIONS FOR THE MERITORIOUS TEACHING AWARD IN HERPETOLOGY:** SSAR, ASIH, and HL are currently accepting nominations for the Meritorious Teaching Award in Herpetology! Please help us in recognizing members who serve as highly effective teachers and mentors. Nominations are due March 31, 2024, but nomination packets require several documents, including letters from 3-5 people, so please begin coordinating your nomination early. For more information, please see our website: <https://ssarherps.org/ssar-awards/meritorious-teaching-award/>
- **INFORMATION ON THE 2025 PRE-COLLEGE SCHOLARS PROGRAM:** SSAR is pleased to announce that it will continue its expanded and more accessible Pre-College Scholars Program (applications due December 15, 2024). The 2025 program will run from January through May with monthly virtual meetings with peers and professional herpetologists from around the world. The program will culminate with the opportunity for selected participants to be Founders' Fellows who receive partial scholarships to attend the 2025 Joint Meeting of Ichthyologists and Herpetologists in St. Paul, MN. For more information, please see this year's [flyer](#).
- **RESOURCES FOR NAVIGATING GRADUATE SCHOOL APPLICATIONS:** The SSAR DEI Committee has held several info sessions on applying to graduate school. For those who couldn't attend, we made some resources available, including 1) a video recording of the event, with optional captions 2) PowerPoint slides for a presentation on preparing application statements; 3) PowerPoint slides for a presentation on CVs, letters of recommendation, and standardized tests; and 4) a handout of advice for crafting a strong CV. Those resources can be found on the same SSAR webpage that has the info for our "herp lab recruiting" spreadsheet: <https://ssarherps.org/herp-lab-recruiting/>

Prospective applicant?

[Check out this spreadsheet of herp-focused labs that are currently recruiting grad students and/or postdocs.](#)

PIs who are recruiting can use [this form](#) any time to add their information.



## Western Palearctic Region

### Societas Europaea Herpetologica



#### MEETING INVITATION:

The SEH-European Congress of Herpetology usually takes place every two years, in odd-numbered years, and offers scientists, conservationists and policy makers from Europe and abroad the opportunity to meet and discuss current findings and trends in the field of herpetology.

As part of the Local Organizing Committee, it is our pleasure to warmly invite you to attend the SEH 23rd European Congress of Herpetology and Ordinary General Meeting in Bonn, Germany.

The congress is being hosted by the Herpetology Department of the Leibniz Institute for the Analysis of Biodiversity Change (LIB), Museum Koenig and supported by the German Society for Herpetology and Herpetoculture (DGHT).

The original idea of holding the SEH meeting together with the annual DGHT meeting in the Museum Koenig and the adjacent Hotel Kanzler had to be abandoned, as the Hotel Kanzler converted its lecture halls into guest rooms during the Covid-19 pandemic and no other (affordable) venues with sufficient space for both meetings could be found in Bonn.

Thus, the DGHT congress will take place from 4th to 7th of September at the Museum Koenig and the SEH congress will be held directly afterwards between **8th and 11th of September 2025 at the main building of the University of Bonn, Germany**. This will provide the opportunity to attend both meetings through a seamless transition.

Alongside engaging lectures and discussions, you will have the opportunity to explore the region's tourist highlights.

Bonn offers a rich cultural experience with attractions such as the Beethoven House, where you can delve into the world of the renowned composer Ludwig van Beethoven. The city's Museum Mile features five exceptional museums with exhibitions on art, science, and history. For nature lovers, the Rheinaue park provides a green oasis with scenic walking paths and leisure activities. Just a short trip away, the Drachenfels in Königswinter offers breathtaking views of the Rhine Valley.

Additionally, nearby Cologne is home to the magnificent Cologne Cathedral, a UNESCO World Heritage Site that is not to be missed.

Bonn is well-connected with excellent transport links. The international Cologne/Bonn Airport (<https://www.cologne-bonn-airport.com/en>) is just about 30 minutes away by car or via the Airport Express Bus SB60 from Bonn Central Station. The airport also connects directly to the ICE network, ensuring convenient travel from across Europe.

The congress generally will include plenary lectures, sessions on specific fields of herpetology, special sessions, workshops, the SEH Ordinary General Meeting and excursions, as well as a rich social programme.



You are welcome to send proposals or expressions of interest for special sessions and workshops by email to [c.koch@leibniz-lib.de](mailto:c.koch@leibniz-lib.de) or [andreas.maletzky@plus.ac.at](mailto:andreas.maletzky@plus.ac.at).

News and updates on the SEH congress will be found at our [website](#) and our [facebook page](#). Information on the DGHT congress will be provided soon on the [DGHT home-page](#).

We look forward to your participation and wish you an inspiring stay in Bonn in September 2025!

\*

Grant call - see on the next page!



University of Bonn main building where the SEH congress will take place. Photo: Volker Lannert.

**GRANT CALL:**

The “SEH Grant in Herpetology” will be made available again in 2024 to support projects orientated to the conservation of the amphibians and reptiles of Europe and the Mediterranean basin, focused on either a species or habitat, with two grants of up to EUR 5 000 each. Eligibility information and instructions can be found at this link: <https://www.seh-herpetology.org/seh-grants>.

The deadline for applications is 31st December 2023 and the decision on the applications will be announced on 31st January 2024.



## Request for advice



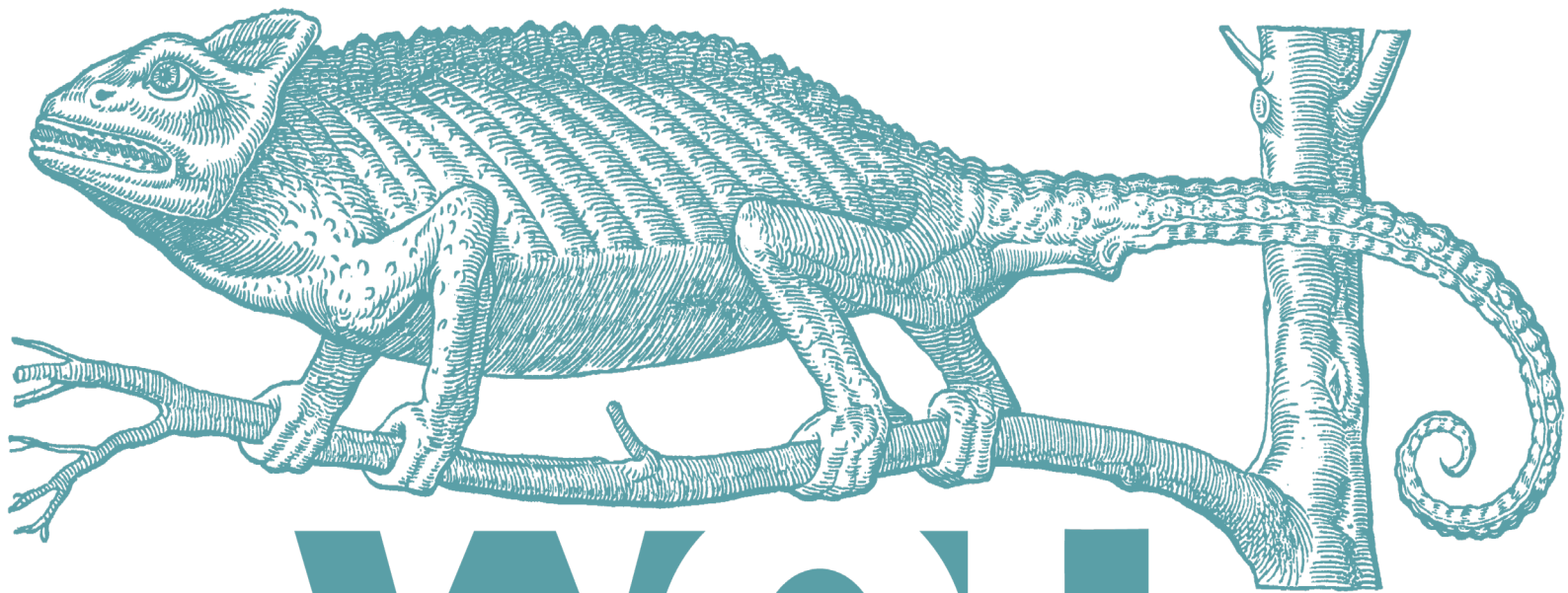
The first versions of the WCH Newsletter ([no. 1–5. published by Kraig Adler between 1983-1986](#)), focused mainly on the organization of the first WCH congress in Canterbury. A section within these newsletters was called ‘Request for Advice’, and in this section Kraig Adler solicited advice from the global herpetological community on how to structure the congress. Specifically he said, “Since we are not bound by tradition we should try new approaches wherever they seem worth attempting.” There were some ‘radical’ decisions made for the first congress as an outcome of this – for example, no oral contributed papers, instead attendees presented their contributed research in a series of poster sessions!

In general, WCH has a [unique format](#). All attendees of a congress are considered members of the society, and vote at each congress to advise on the location of the next congress and members of the International Herpetological Committee (IHC) and Executive Committee (EC). Both the IHC and EC are the advisory board to guide the WCH congresses, but the organization of each congress is carried out by a local organising committee. The IHC and EC relies on feedback and expertise from the global herpetological community to guide and prioritise the actions and initiatives carried out at WCH congresses.

**In the renewal of the WCH newsletter, it is important to us to continue to ask for your advice.** In the future we may ask for your advice on specific topics (e.g., call for symposia, plenary speakers, or nominations for IHC and EC members). At the moment, if you have any suggestions or comments about the format and content of WCH congresses, WCH initiatives, or an idea of content you would like to see in future newsletters, we would be delighted to receive it.

You may have also seen that we are asking for submissions of news from herpetological societies and organizations (the *Herp News around the World* section). We are really looking forward to receiving these insights from the global herpetological community.

To submit advice, please e-mail it to [worldcongressofherpetology@gmail.com](mailto:worldcongressofherpetology@gmail.com) with “Advice for WCH” in the subject line. Any comments will be kept confidential, and will not be identified to source, they should adhere to the [WCH Code of Conduct](#), and they will be compiled and submitted to the EC twice a year. The IHC and EC has long relied on ingenious ideas from the herpetological community to move WCH congresses forward in new, exciting, and inclusive ways. We look forward to hearing from you!



# WCH

## World Congress of Herpetology

The World Congress of Herpetology (WCH) is an International Scientific Nonprofit Organization that is also a Scientific Member of the International Union of Biological Sciences (IUBS). The mission of the World Congress of Herpetology is to promote herpetological research, education, and conservation, by facilitating communication between individuals, societies, and other organisations engaged in the study of amphibians and reptiles.

The aim of the WCH newsletter is to provide a means of communication during the period between WCH congresses that are typically held every three to five years. We want it to be a means of communication between the WCH Executive Committee (EC), the International Herpetological Committee (IHC), and the global herpetological community, and a place to feature ongoing actions being taken to study amphibians and reptiles by individuals and herpetological societies globally. It will be published bi-annually in June and December.

### Editorial board for newsletter 2024 5(2)

Editor in chief:

RICHARD GRIFFITHS, Secretary General

Assistant Editors:

JULIA RILEY, Chair of the IHC

RICKY SPENCER, Webmaster

JUDIT VÖRÖS, IHC Member

Design, illustration and layout:

VIKTÓRIA SZÓKE, Budapest, Hungary

✉ [worldcongressofherpetology@gmail.com](mailto:worldcongressofherpetology@gmail.com)

🏠 [worldcongressofherpetology.org](http://worldcongressofherpetology.org)

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