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THE NATTERJACK

Newsletter of the British Herpetological Society Established 1947

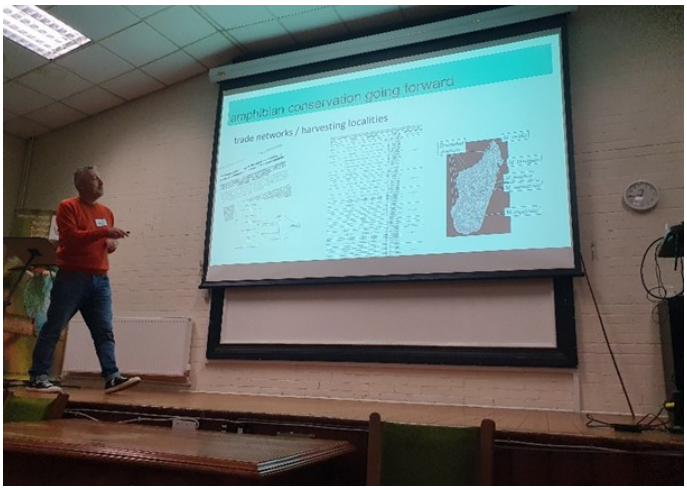
ARC/BHS Annual Joint Scientific Meeting 2023

Written by Catherine Whatley

The annual scientific meeting was held in conjunction with the Amphibian and Reptile Conservation Trust (ARC Trust) at the Natural History Society Museum in Bournemouth. This beautiful building is always the perfect location for such a lively meeting, full of interesting discussions from people from all aspects of the herp community. The conference was kicked off with the traditional dinner at the Queen Mumtaz, where good food and chats were had by all.

John Wilkinson from ARC opened the conference, and we launched straight into a fantastic talk on 'Invasion biology of the tokay gecko in southern Florida' by Tommy Fieldsend from Florida International University. This talk covered the genetic evaluation as to whether multiple distinctive forms of tokay geckos are present in Florida. Mitochondrial clade analysis suggests that there are multiple distinct species present, and discussed the ecological impacts of these introductions. We then had a superb talk from Sarah Ball from the Institute of Zoology on Alpine newts in the UK 100 years on from their first introduction. She demonstrated that genetic analysis of these species suggests a link between individuals found in the wild, and those found in captivity through the pet trade, implicating introductions or releases of pets. Further implications to native herpetofauna, such as disease risk, was also discussed.

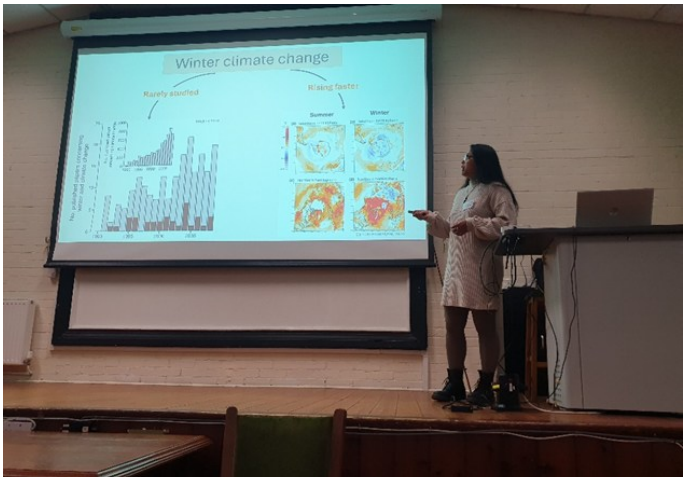
Tommy Fieldsend, Florida International University: Invasion biology of the tokay gecko in southern Florida



Angus Carpenter, University of Cumbria: The wildlife trade in Malagasy amphibians: Conservation progress or further conservation pressure?

After a coffee and biscuit break, we had a fascinating talk from Angus Carpenter from the University of Cumbria on the wildlife trade in Malagasy amphibians, and the importance of socio-economic engagement when dealing with complex conservation. Following a review of the trade in Malagasy amphibians using data from CITES, and highlighting major trends, some of the conservation actions that have impacted the trade were also discussed.

Next up was Miary Raselimanana, from Bangor University, who talked about her PhD project, with a talk entitled 'Mild winter temperatures can benefit hibernating wall lizards'. The implications of milder winter conditions on brumating herps is



Miary Raselimanana, Bangor University: The heat is on! Mild winter temperatures can benefit hibernating wall lizards

of great concern, and the research has demonstrated that common wall lizards (*Podarcis muralis*) overwintering under mild winter temperatures experience reduced body mass loss, and increased response to stimuli compared to individuals overwintering at normal winter temperatures. They also note a high movement frequency, regardless of temperature treatment. Conclusions from this research suggest that a moderate rise in overwintering temperatures could potentially be favourable for

Thom Lyons, Swansea University: The axolotl Goldilocks zone: The evolution of neoteny in Ambystoma.

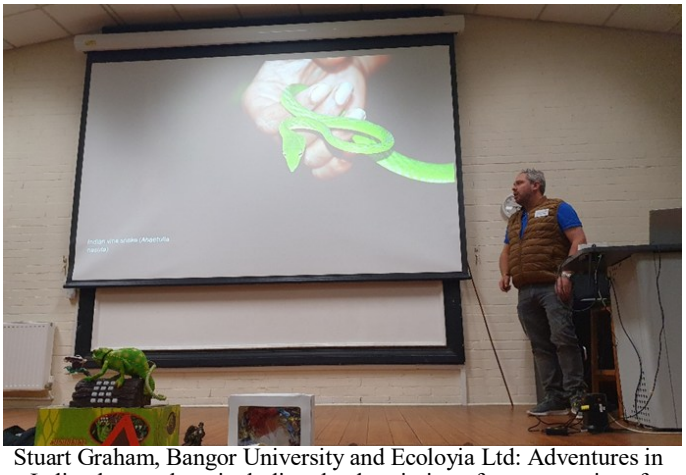
herps to be more active and readily emerge from brumation in the spring. However, this higher activity level could lead to faster energy depletion and a reduction in fitness.

Thom Lyons from Swansea University was up next to talk about the evolution of neoteny in ambystomatid salamanders. He demonstrated that neoteny tends to evolve between 20-30° North, with tighter latitudinal ranges for obligate compared to facultative neotenic species, as well as at higher elevations, and occupies fewer habitat types. In conclusion, low seasonality, habitat availability, and genetic isolation favour the evolution of neoteny, and neoteny is associated with specialisation to particular habitats rather than facilitating colonisation of other habitats.

Following lunch, we had a final round of talks. Firstly, Sara Ashpole from St Lawrence University talked about herpetofauna conservation in the South Okanagan Valley in Canada, and the difficulties of working at the interface of conservation and government. Several conservation case studies such as the removal of invasive species and the installation of wildlife fences were discussed, as well as their various successes and challenges. While some threats have been managed, there is scope for more collaborative work to be done to protect such a unique habitat.

Sara Ashpole, St. Lawrence University, New York and co-Chair, Amphibian Specialist Group Canada: A 20-year tale of herpetofaunal conservation in Canada's arid desert

Finally, Stuart Graham from Bangor University and Ecoloyia Ltd. enlightened us with plenty of beautiful photos of his herpetological adventures across India. With a focus on the treatment of snakebites through education and venom research, we embarked on a journey to different states to review the amphibian and reptile assemblage found, with a few new species



Stuart Graham, Bangor University and Ecoloyia Ltd: Adventures in Indian herpetology including the description of a new species of Gloydius

descriptions and distributions collected along the way. To end the conference, there was a raffle to win a wide variety of herpetological treasures, such as snakes and ladders board games, posters, outdoor clothing, and above all else a coveted singing chameleon phone.

A huge congratulations to all conference speakers, and thank you to all the organisers for yet another fantastic conference! See you all in Bournemouth next year! I may have asked for the chameleon phone for Christmas…

Could you help to shape the future of the British Herpetological Society?

SCAN ME

We are currently in the process of reviewing and updating the society's strategy and would really appreciate feedback from members and non-members of the BHS, to help with our long-term planning and to make it as great a Society as possible!

Please fill in our seven question survey (it only takes a couple of minutes) and share far and wide.

Here's the link to the survey: https://forms.gle/csXAeVy16ih2Sp3P8

British Herpetological Society Annual General Meeting 2024!

Venue: Amersham Community Centre

Save the date: 23rd June

A walk down snake avenue: One student's experience studying the Aesculapian snakes in North Wales

Written by Lauren Jeffrey

An adult female Aesculapian snake captured inside a compost heap from a garden in Colwyn Bay. This individual was tracked during 2022.

When walking around Colwyn Bay, North Wales during the summer months you may see something rather unexpected. It is not unusual to find a large snake crossing your path or hiding inside your compost bin or even your attic! Colwyn Bay is the introduced home of the Aesculapian snake (*Zamenis longissimus*). Native to Central and Southern Europe this large colubrid snake is an adept climber whose diet consists of mostly rodents and birds. They are non-venomous but can reach lengths of 1.6m.

There are two introduced populations in the UK, their first introduction was in Colwyn Bay around the late 1960s to 1970s, and the second around Regent's Canal, London in the 1980s. The Aesculapian snakes in North Wales are the northmost extant population originating from escaped individuals at the Welsh Mountain Zoo. It was only during the 1970s when juvenile snakes were found around the premises that there was any indication of their escape. Today Aesculapian snakes persist in Colwyn Bay but despite breeding success, their range has remained extremely localised.

Previous students from Bangor University have studied the Aesculapian snakes for many years. My involvement began back in 2018 when I started my master's degree at Bangor University. I was curious about how this non-native snake species was able to survive in a novel environment outside its native range and their potential impact on the area. My research focused on Aesculapian snake movement patterns and habitat selection in Colwyn Bay. I wanted to determine whether the distance snakes moved was influenced by environmental features for example buildings, hedgerows, and roads.

I tracked seven adult male snakes five times daily from April to August in 2022. This involves using an antenna and receiver to pick up a signal from a transmitter attached to the snake. The transmitters in this study were surgically inserted inside the body cavity of the snake under anaesthesia during a minor operation. Radiotelemetry allows us to investigate how a species naturally behaves and moves throughout its environment with minimal disruption. It can be very physically demanding; on average I was walking 350 km a month searching for the snakes.

Radio tracking snake "Arthur" who was in a patch of tall grass, the inserted picture shows how difficult it was to see the snake.

Any glimpse of a snake was a rare occurrence, only 112 visuals were recorded out of 2298 tracks in 2022. Aesculapian snakes are secretive and cryptic even when using telemetry, and it was incredibly difficult to see a snake even when you were right on top of it. Some of my highlights involved tracking a tagged snake "Dave" who led us to a female where I was able to witness courtship and breeding behaviour. Another memorable moment was observing male combat, where two males fighting for dominance. The snakes were entangled trying to pin each other down on top of a large dirt pile with logs and vegetation that had a large burrow in the middle.

Snakes moved more frequently and travelled further during their breeding season between April and mid-July. Movement

The snake nicknamed "Barry" climbing up a building wall into a drainpipe to access a building. This snake sheltered here multiple times over the study for days to a week each time.

varied between the individuals; we had one male who only moved 6 times over 31 days. Whereas another male moved 155 times in 101 days. We also recorded three individuals moving over 600 m in a single move. The snakes moved between 585-7175 m during the study.

Our main findings included the frequent use of buildings, snakes would often be tracked inside the attics of houses and outbuildings. While tracking an individual named Barry, I recorded the snake climbing several meters vertically up a building wall and into a drainpipe to access a large building. This building was often frequented by other snakes evidenced by multiple shed skins found hanging out the same drainpipe throughout the study. These shelters were often used by multiple snakes simultaneously.

Snakes also used other man-made features such as compost heaps, waste piles and even zoo exhibits. One male had an extremely small home range, existing within a small area inside the zoo. What was interesting was this snake would constantly be found inside buildings occupied by zoo animals, moving from one enclosure to another. Surprisingly, this snake managed to avoid being eaten by a wide range of animals only to be hit by a car, RIP.

Beyond the snake work, the engagement from the local community was fantastic. Most people were incredibly supportive and interested in our research. We had people making shortcuts from fields into their gardens and allowing access into attics, outbuildings, and gardens to find and track snakes. We had situations where we were given spare pillowcases for captured snakes and one lovely couple cooked a BBQ for us between tracking snakes.

I hope this article has given a brief overview of some of our research. So, what's next? We still have work to be done including going through years of mark-recapture data, to look at the growth rates and the population size. Given the non-native status of this species in the UK, we also need to continue to monitor these populations for any future changes. We hope that the information we have gathered will help improve the current management of the species and inform policy decisions.

I want to acknowledge Tom Major who I worked alongside as part of his PhD and my supervisor Wolfgang Wüster. I also want to thank our "snake team" for all their hard work and the Welsh Mountain Zoo and its staff who helped us along the way.

Searching through piles of grass, vegetation logs, and animal waste was one method we used to find snakes. This was a huge waste pile where we had previously found snakes and eggs.

A juvenile Aesculapian snake captured as part of the mark-recapture study. The colour and pattern is different from the adult snakes.

‘Here Be Dragons’ by Raymond Wergan

Book Review by Suzie Simpson

I was really pleased to receive this wonderful A4 printed book showing a large number of photos taken by Raymond over the years in his garden. He is located in South Devon near Plymouth and this book documents five Summers of observing a small population of Italian wall lizards, *Podarcis muralis* in his garden. Raymond has allowed his front garden to grow somewhat wild and feels this has encouraged their presence there. He notes that they were first seen on his potting table by his greenhouse and he decided to record data on this group over 40 days which accumulated approximately 2000 photographs showing them basking, sloughing and mating. He then identified each individual using the head markings. The initial pages show head shots of each individual with their names including Lancelot, Nineve and Pendragon to name a few. It was recommend to Raymond, by Steve Langham (Surrey Amphibians and Reptiles Group) that Raymond map out the area where they are found, of which he did. He documented them being present on around the Yealm Road for about 300 metres on steeply sloped banks by the estuary. He also searched for evidence of when they were first observed as being present in the area. By talking to various locals, he was able to find out more information on the timeline and one observation was that two hotels there had brought over large ceramic pots from France approximately 40 years prior (80’s) and the lizards started appearing following this event. Another source notes that a good friend had brought Green lizards from Italy in the 60’s and this person had also brought Natterjack toads to the same location but unfortunately, suspected the snake living in their garden may have been the reason for their disappearance. The book gives accounts of these interesting observations and he has provided in depth notes on the different markings and documented with many close up photographs of the heads, tails and skin sloughing. Including in 2019, ‘Gladys’ left a large piece of slough on the potting shed table but when Raymond went to find it, it was not there and he was told by someone that they would have eaten it for the keratin. He continued by showing photos of the nictitating membrane when the lizards were closing their eyes, visuals of the individuals size using a ruler when they were outstretched basking on patio stones. Then there is documentation of them lying on each other basking just a limb draped over an individual or full body on top of the other showing different body positions and different individuals. A few of the feeds documented included a woodlouse-eating spider, a lacewing and a violet carpenter bee. The photos certainly depict that these animals are not phased by human presence although, I am sure anyone being in their presence are calm and try to not disturb them too much. Raymond completed the book by showing tail regrowth photos and timelines for growth for different individuals of which an article was published in the Herpetological Bulletin Issue 164 in June 2023.

Overall, a wonderful book and fascinating to see the photo documentation and overview of the interactions amongst the population. Raymond clearly knows this group well and has enjoyed documenting them and the book reflects this entirely.

Please do contact the BHS editor if you would like to show interest in a copy of the book.

BHS trustee post positions still available!

We happily appointed new trustees at our AGM this year but are still looking for the following positions to be filled. We actively fund research and conservation projects along with organising multiple annual events and meetings including, the ever popular, Drayton Manor event. But – all this is achieved only through the efforts and commitment of the Trustees who sit on our Council and who are all volunteers.

The following posts are currently vacant:

⇒ **Secretary**

⇒ **Treasurer**

⇒ **Finance Officer**

If you would like to be involved in the running and direction of the Society, PLEASE do contact either Trevor Rose secretary@thebhs.org or Mark Hollowell chair@thebhs.org to arrange an informal chat about the different roles or just how you might be able to get involved. Some basic information about the different Council posts can be found in the `Our Officers' section of the website here Our Officers | British Herpetological Society (thebhs.org) but Trevor or Mark will happily talk about them in a bit more detail with you – and nothing's cast in stone as regards scope and focus of the posts.

As with any organisation, the Society is constantly evolving and developing. It would be great to hear from you!

European Turtle Alliance Conference

Saturday, 18th May 2024 from 9:30 AM
Sunday, 19th May 2024 from 1:30 PM

Writtle University College, Lordship Road, Chelmsford, England, CM1 United Kingdom.

Conference speakers so far…

- ⇒ Chris Leone, Garden State Tortoise and Hermanni Haven, USA
- ⇒ Colin Stevenson, Crocodiles of the World
- ⇒ Kimberley Carter, London Zoo
- ⇒ Pierre Moisson, Veterinary, Acupulatta, Corsica
- ⇒ Job Stumpel, Veterinary, Emmen Zoo, Netherlands
- ⇒ Shahriar Caesar Rahman, Creative Conservation Alliance, Bangladesh
- ⇒ Boris Berlijn, European Studbook Foundation, Netherlands
- ⇒ Sébastien Caron, CRCC and SOPTOM Chelonia Centres, France
- ⇒ Casey Leone, Garden State Tortoise and Hermanni Haven, USA
- ⇒ Matt Rendle, Association of Zoo and Exotic Veterinary Nurses
- ⇒ Tom Wells, European Turtle Alliance

Take part in our research on the distribution of released pet turtles in UK waterbodies. Submit your sightings of turtles to our survey and find out more on our website: www.turtletally.co.uk

Turtle Tally UK Citizen Science Project

Website: www.turtletally.co.uk

Contact us: turtletallyuk@gmail.com

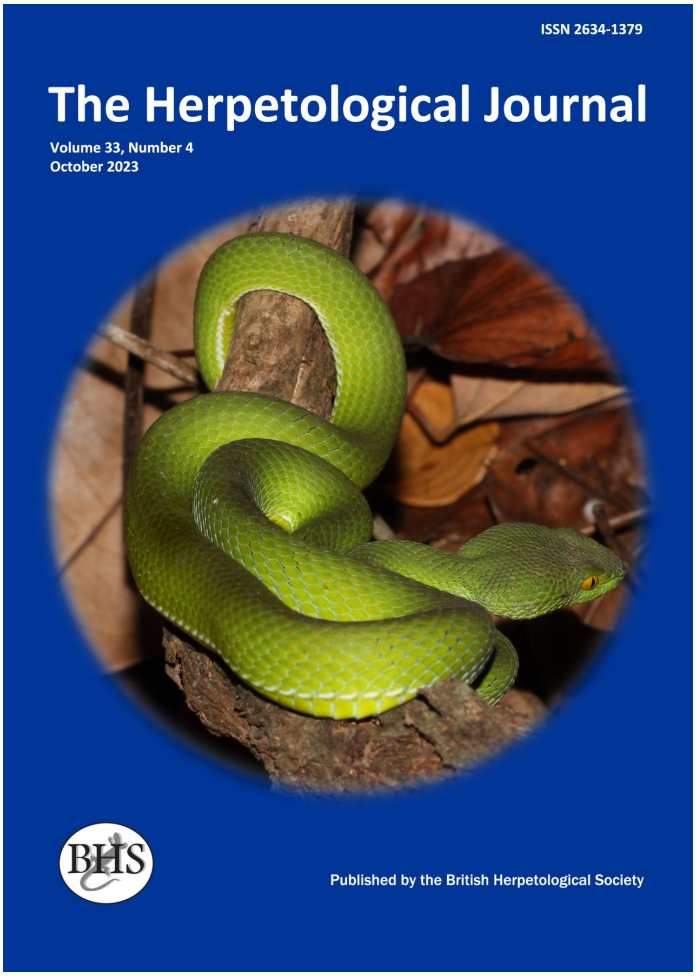
University of Kent

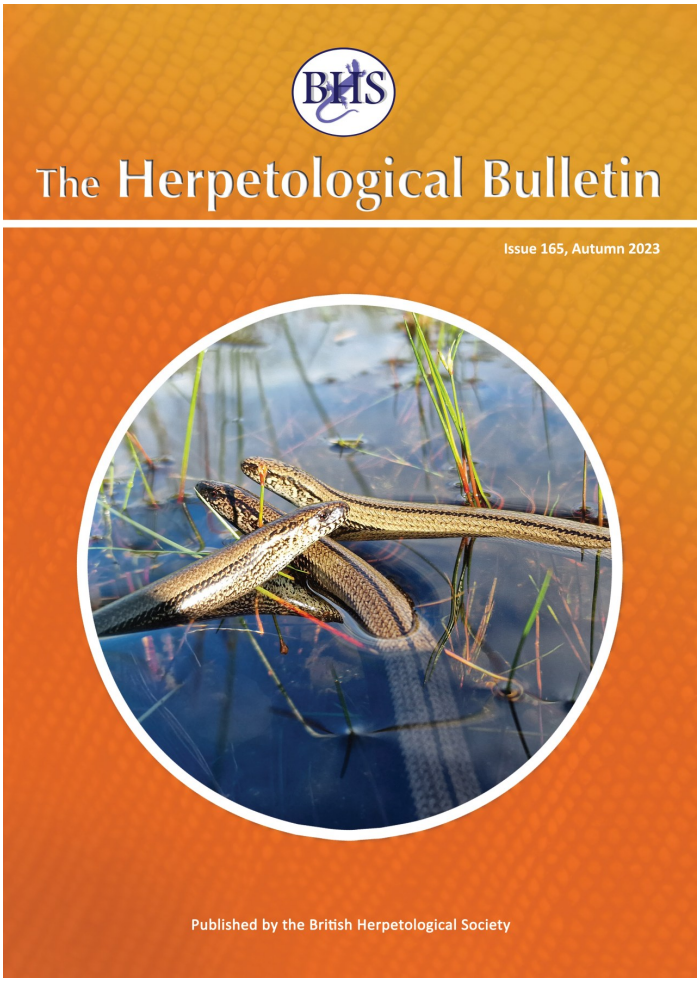
BHS

National Centre for Reptile Welfare

University Centre Hadlow

Why not take a look at our other publications?





Membership with the British Herpetological Society gives access to all three publications for just **£25 a year** (student members, £18).

To our BHS members,

We are always interested in hearing from you. Please feel free to contact me if you would like to share anything regarding herps. We would love to hear about your animals, your experiences, their care and husbandry, ideas, training, research and more.

It is important to us that you have that opportunity to share with the wider community, as we all benefit from sharing knowledge and experience.

Kind regards,

Suzie Simpson

Email: natterjack@thebhs.org

Find out more about The British Herpetological Society on our website at:

https://thebhs.org/

Check out our social media pages too:

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