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THE NATTERJACK

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An interview with Julie Hanta Razafimanahaka on Golden mantella conservation

We have been lucky enough to have an interview with Julie Hanta Razafimanahaka, who has been the Director at Madagasikara Voakajy in Madagascar since 2011. We wanted to know more about the work they do with golden mantella frogs (Mantella aurantiaca)

How did the golden mantella become a focal species in our organisation? What were the first objectives in this project?

The golden mantella was considered possibly extinct in the wild, in 2004, because of overharvesting for the in-

ternational pet trade and habitat loss. In 2005, we sent out a research team to verify this hypothesis. The team ran surveys across Moramanga district. They found two

populations: one in Ambatovy, northeast of Moramanga town and the other in Mangabe, southwest of Moramanga. When the populations were discovered, Madagascar already signed a mining contract for Ambatovy. This is why ensuring minimum impacts of mining on the Ambatovy population and protecting the Mangabe population were mandatory. This is how the golden mantella became a species to focus on at Madagasikara Voakajy.

What were the initial challenges in developing the

golden mantella conservation strategy?

When developing the golden mantella conservation strategy, we had to answer a challenging question: 'Why do we need to care about this tiny frog?'. There is no short answer that would make people say 'Ah, you're right!'. At the beginning, we needed to share more of our passion and some of the ecological roles.

Is Madagascar ready to face amphibian conservation and how? What are the key components to build a strong species conservation programme like this?

In Madagascar, amphibians cannot be conserved in isolation. We have to protect an entire ecosystem that may include many other species. The key components to build a strong species conservation programme is to have all stakeholders engaged. Success is more likely to happen when the target species or its habitat is considered important by all involved.

Developing a protected area in Mangabe: how did this idea come about and what is the vision for this ambitious project?

After the 2006 and subsequent surveys, it was clear that protecting the Mangabe population was key to saving

the golden mantella from extinction. Following the Malagasy regulations, this would happen by creating Mangabe as a protected area. This was one of the objectives agreed by all stakeholders when developing the first species conservation strategy in 2008. At the time, the Malagasy government was in the process of increasing the number and sizes of its protected areas, so the timing was right. This is how it all started.

What is the connection between protecting these frogs and the local communities of Mangabe?

People are living around the golden mantella habitats. Often people and frogs compete for habitats and as expected, frogs would always lose. However, once the habitat has been degraded, people lose more than what they lost: water, fertile soil, timber and other forest resources. This is why we want Mangabe to be a home to people and biodiversity, particularly frogs, benefiting each other.

How much has been discovered in Mangabe during

these last few years of work?

Over the last few years of work, we confirmed that Mangabe has over 230 ponds that are adequate for golden mantella breeding. Species presence has been confirmed at 60% of the ponds in 2021. We can also confirm that Mangabe is home to ten lemur species, of which two were confirmed in the past few years: *Daubentonia madagascariensis* and *Varecia variegate*.

What are the future actions to continue protecting the golden mantella and Mangabe in general?

Continued protection of the golden mantella and Mangabe in general requires full engagement and increased capacity of the local communities. Future actions need to focus on education, training, mentoring, and supporting. These actions need to be regular and long-term. To address the rapid habitat, decline over the past 20 years, direct actions are also needed to restore degraded habitats (fencing, tree planting) and prevent further losses (patrolling, law enforcement, firebreaks). At the national and international levels, regulations need to be revised and enforced to encourage sustainable harvesting of wild products and stop illegal traffics.

Lessons learnt: what would you transfer from this experience to future amphibian programmes in Madagascar.

The lessons I've learnt:

- Frogs are important and lovely, but a frog-only programme does not work in Madagascar,
- Start research with passionate and inspiring people, this will help when developing and implementing future conservations strategies,
Let the local communities be part of the programme, from design to implementation to evaluation.

Thank you to Julie for taking the time to answer our questions on this really important work and we hope it continues to be successful.

Photo credits: Dr Gerardo Garcia

Welcome to our new Scientific Editor for The Herpetological Journal

Marcio Pie is a Senior Lecturer in Ecology at Edge Hill University. He received a B.Sc. in Biological Sciences from the Universidade Federal do Paraná (Brazil), a M.Sc. in Ecology from the Universidade Estadual de Campinas (Brazil), and a Ph.D. in Ecology, Behaviour and Evolution from Boston University (USA). Marcio was an Associate Professor in Zoology at the Universidade Federal do Paraná (Brazil) before joining the Department of Biology at Edge Hill University in 2022.

Much of his recent research has focused on the high elevation habitats of the Brazilian Atlantic Forest, particularly regarding the evolution of miniaturized frogs of the genus *Brachycephalus* (Brachycephalidae), including the discovery of 12 new species. Marcio's work has also explored other areas within herpetology, such as phylogenomics, species delimitation, biogeography, and climatic niche evolution of several anuran and squamate groups.

Marcio served as associate editor of several journals, including PLoS ONE and PeerJ, and joined the Herpetological Journal as the Scientific Editor in 2022. Continuing the outstanding work by previous editors, Marcio's goal is to support excellent herpetological research, while making Herpetological Journal increasingly inclusive, diverse, and supportive of our herpetological community worldwide.

We very much look forward to working with Marcio!

The Secret Lives of Toads in Trees

froglife
leaping forward for reptiles & amphibians

- Transforming Landscapes
- Transforming Lives
- Transforming Research

people's trust for endangered species

Photo credit: Matt Bramwich PTES

Photo credit: Froglife

New research published on the 6th July 2022, in PLOS ONE has discovered the extent to which common toads live in trees. It is the first time that the tree climbing potential of amphibians has been investigated at a national scale.

Researchers from the University of Cambridge and Froglife, supported by wildlife charity People's Trust for Endangered Species (PTES), made the surprising discovery when common toads were found in nest boxes and tree cavities by volunteers who were looking for hazel dormice and bats as part of the National Dormouse Monitoring Programme (NDMP) and the Bat Tree Habitat Key project (BTHK).

Common toads are regarded as typical terrestrial amphibians and as such are known to spend their time both on land and in water during breeding. To date there have only been a handful of documented sightings of common toads in trees.

Consequently, common toads and in general UK amphibians have never been surveyed for in trees, unlike bat and dormouse surveys which specifically target such habitat. This study highlights the importance of sharing data between conservation organisations representing different species, and shows that there's a lot to learn about wildlife in the UK – even those we think of as

well-known.

Nida Al-Fulaij, Conservation Research Manager at PTES said: "We couldn't believe what we found. We're used to discovering woodland birds and other small mammals in nest boxes but we hadn't considered finding amphibians in them."

Over 50 records of common toads were found in surveys of hazel dormice nest boxes (located 1.5m above ground) and tree cavities usually used by bats. The highest record of a toad was found 3m up a tree. The surveys do not regularly involve looking in tree hollows much higher but there's a chance that toads might be venturing even further up. Many of the cavities were small or not visible from the ground, so it is unclear how toads are finding them and how difficult it is for them to climb particular trees.

Photo credit: Henry Andrews

Toads were not found in boxes or tree holes with other species, however they were found using old nests made by dormice and even birds. Whilst 50 records isn't a huge number, it was comparable to records of other animals we know use trees regularly such as blue tits, suggesting that perhaps toads are much more arboreal than we previously thought. If this is true, it means that common toads could be found in up to 1 in every 100 or so trees in the UK in particularly favourable areas, such as near large ponds or lakes.

The exciting discovery of arboreal behaviour in common toads means that tree cavities might represent an even more important ecological feature than conservationists thought. It highlights the importance of protecting our remaining natural woodland habitats, especially ancient trees with veteran features (such as hollows, cracks and other natural cavities) for all wildlife. Froglife research in 2016 showed that common toads have declined by 68% on average over the last 30 years across the UK.

It isn't currently known why toads are climbing trees and using nest boxes. Factors could include searching for food, avoiding predators or evading parasites (such as toad fly).

First author Dr Silviu Petrovan, Trustee at Froglife and Senior Researcher at the University of Cambridge says: "These findings are significant and very exciting for our understanding of the ecology and conservation of common toads, one of the most widespread and abundant European amphibians. We know common toads favour woodlands as foraging and wintering habitat, but it appears their association with trees is much more complex that we thought."

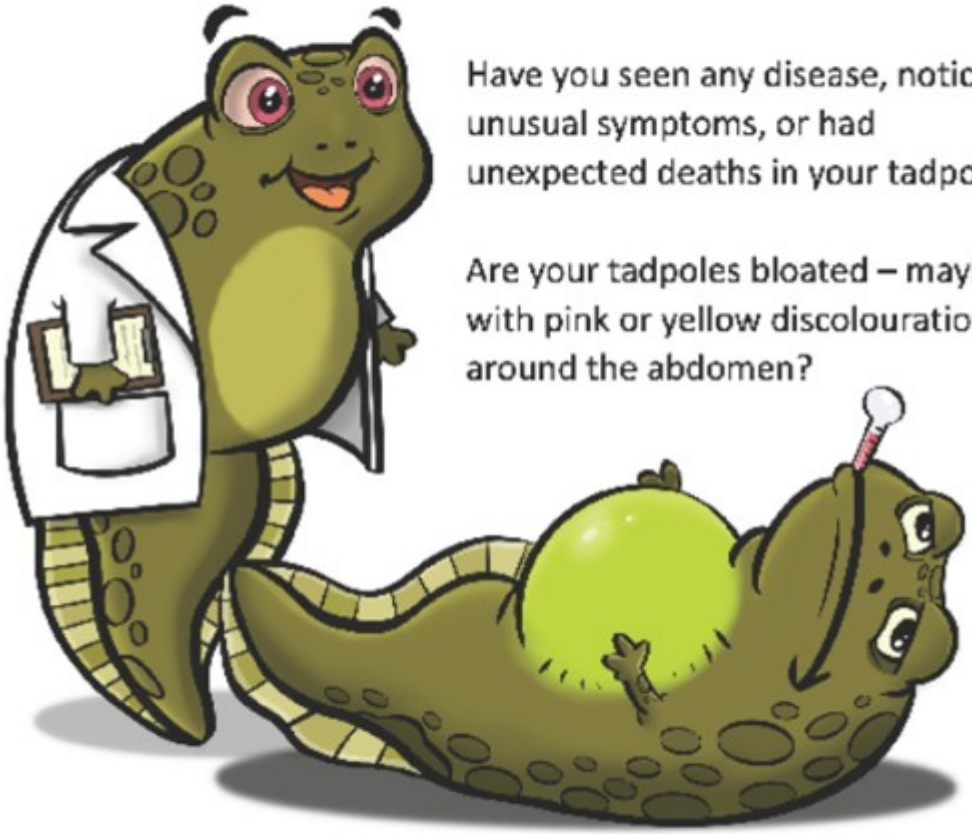
"It also highlights the importance of collaborations and sharing data between conservation groups. Further, targeted research will enable scientists to better understand the reasons for this behaviour and the impact on woodland management for common toads and other amphibians."

Froglife are calling on members of the public to record any sightings they have of amphibians in trees on their Dragon Finder App (including the details in the comments section of the report) or to contact them directly.

Photo credit: Henry Andrews

Photo credit: PTES

Disease in your frogs or tadpoles?



Have you seen any disease, noticed unusual symptoms, or had unexpected deaths in your tadpoles?

Are your tadpoles bloated – maybe with pink or yellow discolouration around the abdomen?

Have you observed any change in their behaviour, such as: sudden and erratic movements, swimming in circles, loss of equilibrium, sluggishness, floating at the surface or death?

Scientists at the University of Oxford need your help. They are trying to track the spread of a newly identified disease of tadpoles. If you suspect that your tadpoles are showing signs of the disease symptoms mentioned above, please make contact at http://tadpole-doctor.co.uk.

http://tadpole-doctor.co.uk

The Royal Society and the University of Oxford bear no responsibility for this project.

BRITISH HERPETOLOGICAL SOCIETY AND THAMES & CHILTERN HERPETOLOGICAL GROUP

Joint meeting Sunday 2nd October 2022, 2.30 – 6.30 pm at the Meeting Hall, Amersham Leisure Centre, Chiltern Ave, Amersham, Bucks, HP6 5AH. Amersham is easy to get to via J18 of the M25 or by tube/rail to Amersham station. Parking and refreshments are free.
There will be a small charge of £5 cash on the door.

2.30 – 3.00 Arrival and coffee/refreshments

Chairman: Simon Townson

3.00 – 3.30. **Rachel Gardner** (Marwell Wildlife Conservation Associate, Marwell Wildlife, Hampshire). 'Sand Lizard *Lacerta agilis* Captive Breeding and Reintroduction; Optimisation of Protocols'

3.30 – 4.00. **Thomas S. Fry** (Durrell Institute for Conservation and Ecology, University of Kent). 'Long-Term Population Ecology of Great Crested Newts (*Triturus cristatus*) on the University of Kent Campus'

*Short break and refreshments/informal session (see below)

Chairman: Colin Melsom

4.30 – 5.00. **Thomas Major** (University of Bangor). 'Secretive Settlers; Behaviour and Genetics of the Introduced Aesculapian Snake in North Wales'

5.00 – 5.30. **Ellie Dobbs** (Durrell Institute for Conservation and Ecology, University of Kent). 'An Analysis of the Distribution of the Native and Non-Native Snake Species on the Maltese Islands '

***Exhibition** of posters and items of herpetological interest. There will be limited space for up to 15 exhibits. Members who would like space should contact Simon Townson (07707751900 or s.townson@imperial.ac.uk), or Colin Melsom (07852 949405 or colinmelsom@sky.com)

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

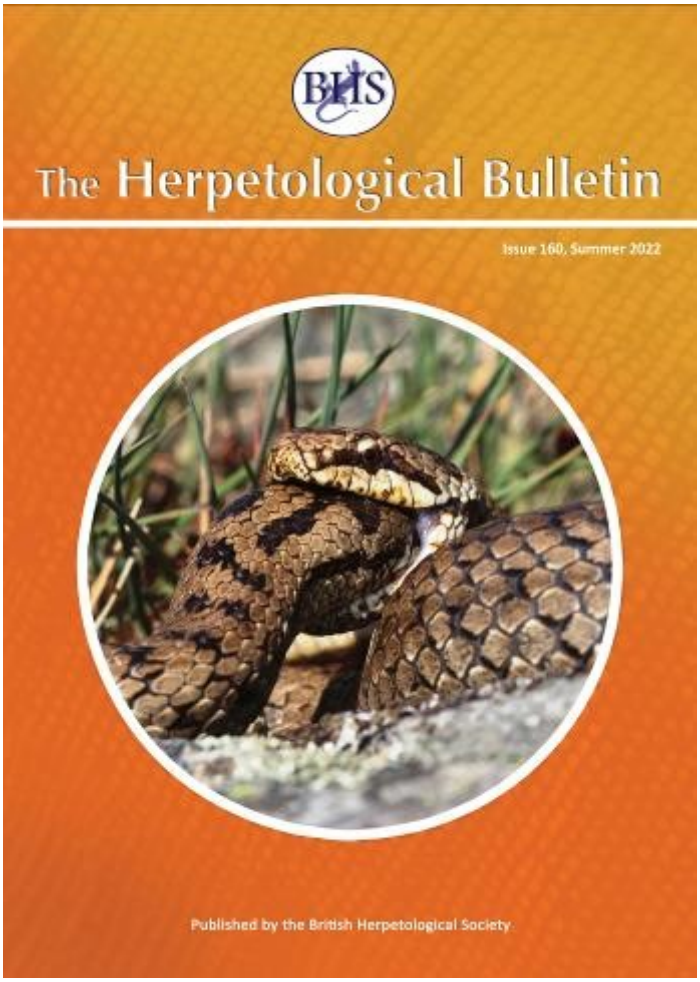
University of Kent

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:

https://www.facebook.com/The-British-Herpetological-Society-BHS-295241210567422/

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