

# Book of abstracts

[eccb2024.eu](http://eccb2024.eu)



**“Biodiversity positive by 2030”**

**17-21 June 2024 – Bologna, Italy**



## **“Biodiversity positive by 2030”**

17-21 June 2024 – Bologna, Italy

### **Book of abstracts**

With the partnership of



Society for Conservation Biology



Society for Conservation Biology  
Italy Chapter



Society for Conservation Biology  
Europe Section

With the endorsement of



ALMA MATER STUDIORUM  
UNIVERSITÀ DI BOLOGNA

Edited by  
Symposia S.r.l. S.U.

Graphics first page: Cactus di Pelissero Esteban Lucas and Symposia S.r.l. S.U.  
Conference logo: Cactus di Pelissero Esteban Lucas

ISBN: 9788854971783

DOI: 10.6092/unibo/amsacta/7995 (link esteso:  
<https://doi.org/10.6092/unibo/amsacta/7995>)

Year of publication: 2024

© 2024 Gli Autori Quest'opera è soggetta alla licenza Creative Commons  
Attribuzione-Non Commerciale 4.0 Internazionale (CC BY-NC 4.0)  
(<https://creativecommons.org/licenses/by-nc/4.0/deed.it>)

# **Book of abstracts**

7th European Congress of Conservation Biology  
“Biodiversity positive by 2030”

Published by:

Dipartimento di Scienze Biologiche, Geologiche ed Ambientali  
Alma Mater Studiorum Università di Bologna

All rights reserved. No part of this publication may be reproduced.

The individual contributions in this publication and any liabilities arising from them remain the responsibility of the authors.

## Table of Content

Plenary Presentations .....	6
Abstracts of symposia.....	8
Abstracts of workshops.....	108
Abstracts of oral presentations .....	112
Abstracts of speed talks .....	201
Abstracts of posters .....	240
List of authors.....	302

# **Plenary Presentations**



Research, 242, p. 106045. doi:10.1016/j.fishres.2021.106045.  
4. Karnad, D. et al. (2022) To eat or not to eat: Shark and Ray meat consumption as a threat to India's elasmobranchs [Preprint]. doi:10.22541/au.166603256.66186502/v1.

**ID: 229**

### **Marsh frog invasions across Europe: multiple lineages, ecological opportunism, risk and conservation perspectives**

**Mathieu Denoël<sup>1,2</sup>, Fabien Pille<sup>1,2</sup>, Mattia Falaschi<sup>3</sup>, Francesco Ficetola<sup>3</sup>, Daniel Jablonski<sup>4</sup>, Christophe Dufresnes<sup>5,6</sup>**

<sup>1</sup>Laboratory of Ecology and Conservation of Amphibians (LECA), FOCUS, University of Liege - FNRS, Belgium; <sup>2</sup>Fonds de la Recherche Scientifique FNRS, Belgium; <sup>3</sup>Department of Environmental Science and Policy, University of Milan, Italy; <sup>4</sup>Department of Zoology, Comenius University in Bratislava, Slovakia; <sup>5</sup>Laboratory of Amphibian Systematics and Evolutionary Research, Nanjing Forestry University, People's Republic of China; <sup>6</sup>Institut de Systématique, Evolution, Biodiversité, Muséum national d'Histoire naturelle, CNRS, Sorbonne Université, EPHE, Université des Antilles, France

Whereas some biological invasions are well documented, others, more cryptic, are often underestimated despite multiple local warnings. This is the case of marsh frogs for which there is a lack of an integrative overview of its invasion patterns and risks to biodiversity. To fill this gap, we carried out an interdisciplinary study in phylogenetics, spatial and trophic ecology. We found out that introductions involved dozens of localities and many lineages, originating from three continents, fitting well with the history of importations of live frogs in Europe. They gave rise to nation-wide invasions, facilitated by the wide ecological tolerance of the invaders and resulting in large niche overlaps with native amphibians. Marsh frogs showed also a high trophic opportunism, preying on most native amphibians but also on many invertebrate taxa and threatening some emblematic species. Altogether, these results rank the marsh frogs as one of the most complex invasive amphibian species in the world. They call for the conservation of structured and vegetated ponds to buffer the impact of invaders as well as a complete commercial ban on importation of live water frogs to prevent the opening of the Pandora box which may result from new lineage combinations in invaded territories.

#### *Bibliography*

Pille F., Pinto L. & Denoël M. (2023). Functional and temporal facets of predation by marsh frogs across the aquatic-terrestrial ecotone of ponds and implications in the context of biological invasions. *Freshwater Biology*, 68, 2184-2196.  
Padilla P., Herrel A. & Denoël M. (2023). May future climate change promote the invasion of the marsh frog? An integrative thermo-physiological study. *Oecologia*, 202, 227-238.  
Denoël M., Duret C., Lorrain-Soligon L., Padilla P., Pavis J., Pille F., Tendron P., Ficetola G.F. & Falaschi M. (2022). High habitat invasibility unveils the invasiveness potential of water frogs. *Biological Invasions*, 24, 3447-3459.  
Pille F., Pinto L. & Denoël M. (2021). Predation pressure of invasive marsh frogs: a threat to native amphibians? *Diversity*, 13, 595.  
Dufresnes C., Denoël M., di Santo L. & Dubey S. (2017). Multiple uprising invasions of *Pelophylax* water frogs, potentially inducing a new hybridogenetic complex. *Scientific Reports*, 7, 6506.

**ID: 242**

### **Desert tourism pressure on wildlife around natural water sources**

**Einat Zahabian, David Saltz, Oded Berger-Tal**  
Ben-Gurion University, Israel

Water scarcity in deserts is a common cause of human-wildlife conflicts. We studied the impacts of desert tourism on the behavior of wildlife around desert oases.

We placed camera traps during the spring and summer of 2021 at ten oases with high or low desert tourism levels. We found that human disturbance reduced activity and increased nocturnality in local species. Behavioral analyses unveiled heightened vigilance, reduced drinking, and reduced intra-species interactions in the high-tourism sites, even among nocturnal mammals.

In a follow-up experiment, in the summer of 2022, we placed camera traps at six low-disturbance oases and subjected these sites to increased human disturbance in the form of a one-day field party (presence of people with a loudspeaker for 8 hours) and studied the behavior of wildlife around the water sources for three days before, during, and for three days after the manipulation. While all species avoided the water sites during the disturbance, we found species-specific differences in the time it took individuals to revisit the site and return to pre-disturbance vigilance and other behaviors.

**ID: 245**

### **Data integration improves monitoring efficiency for threatened tropical mammals**

**Ardiantiono<sup>-1</sup>, Nicolas J. Deere<sup>1</sup>, David J.I. Seaman<sup>1</sup>, U. Mamat Rahmat<sup>2</sup>, Eka Ramadiyanta<sup>3</sup>, Muhammad I. Lubis<sup>3</sup>, Ahtu Trihangga<sup>4</sup>, Ahmad Yasin<sup>2</sup>, Gunawan Alza<sup>5</sup>, Dessy P. Sari<sup>5</sup>, M. Daud<sup>6</sup>, Ridha Abdullah<sup>7</sup>, Rina Mutia<sup>7</sup>, Dewi Melvern<sup>3</sup>, Tarmizi<sup>-3</sup>, Jatna Supriatna<sup>8</sup>, Matthew J. Struebig<sup>1</sup>**

<sup>1</sup>Durrell Institute of Conservation and Ecology, University of Kent, United Kingdom; <sup>2</sup>Gunung Leuser National Park., Indonesia; <sup>3</sup>Wildlife Conservation Society – Indonesia Program, Indonesia; <sup>4</sup>Way Kambas National Park, Indonesia; <sup>5</sup>Aceh Natural Resource Conservation Agencies, Indonesia; <sup>6</sup>Aceh Environment and Forestry Service, Indonesia; <sup>7</sup>Leuser Conservation Forum, Indonesia; <sup>8</sup>Department of Biology, University of Indonesia, Indonesia

Conservation initiatives strive for reliable and cost-effective species monitoring. However, resource constraints mean management decisions are often based on data derived from single methodologies, bringing inherent taxonomic or geographic biases. We introduce a data integration framework to identify the most cost-effective approach to monitor threatened mammals, focusing on tigers and principal prey (sambar deer and wild pigs) in Sumatra's largest remaining tropical forest. We applied integrated community occupancy models to combine biodiversity data obtained from unstructured ranger patrols, systematic sign transects and camera trap surveys. Integration of multiple datasets improved the precision of species occupancy estimates, reducing uncertainty by up to 42%, while expanding spatial scope of inference to landscape-scales where interventions are typically staged. Moreover, utilizing multiple survey techniques reduced overall monitoring costs, demonstrating that a modest US\$10,000 budget can achieve occupancy estimates of tigers and prey within acceptable levels of statistical precision. Our framework offers a practical solution to overcome resource constraints in species monitoring and address common biases occurring when survey methods are implemented in isolation. This is particularly relevant in the tropics, characterized by a greater number of threatened species and limited monitoring capacity, where timely biodiversity assessments are critical and budgets must be minimized.

#### *Bibliography*

Doser JW, Leuenberger W, Sillett TS, et al. 2022. Integrated community occupancy models: A framework to assess occurrence and biodiversity dynamics using multiple data sources. *Methods Ecol Evol* 13: 919–32.  
Wibisono HT, Linkie M, Guillera-Arroita G, et al. 2011. Population status of a cryptic top predator: An island-wide assessment of tigers in sumatran rainforests. *PLoS One* 6.