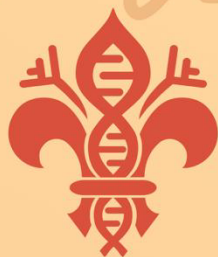




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Book of Abstracts



More than meets the eye: unraveling anthropic land use impacts on skin microbiota of an opportunistic amphibian species

Lucia ZANOVELLO¹, Matteo GIRARDI¹, Stefano CASARI¹, Irene LO PRESTI¹, Paolo PEDRINI², Giorgio BERTORELLE³, Heidi C. HAUFFE¹, Giulio GALLA^{1*}

¹ Research and Innovation Centre, Fondazione Edmund Mach, Italy

² Conservation Biology Unit, MUSE–Science Museum of Trento, Italy

³ Department of Life Sciences and Biotechnology, University of Ferrara, Italy

* Corresponding author: giulio.galla@fmach.it

As amphibians continue to register population declines worldwide due to human-driven habitat modifications and emerging diseases, their skin microbiota has attracted major interest as both a possible means of adaptation to the changing environment and a barrier against pathogens. Here we focussed on *Bombina variegata*, a small anuran colonizing both natural and artificial water bodies, to investigate differences in skin microbiota composition between individuals living in different habitats across the Province of Trento, Italy. Fourteen populations were sampled, including those of natural ponds, seasonal ponds on agricultural land, water tanks, and farm ponds. Skin and water microbiota were investigated using metataxonomy by targeting the bacterial V3-V4 16S rRNA gene and fungal ITS1 loci. Our results highlight a significant association between skin and water microbiota across all investigated habitats. Composition and diversity of skin microbiota changed between habitats, with the skin microbiota of animals collected from natural ponds being characterized by lower alpha diversity and distinct bacterial and fungal composition. Furthermore, observed variation in skin microbial diversity could be partially explained by the water parameters: pH, dissolved oxygen, and temperature. Implication of human-driven habitat modifications and water composition on *B. variegata* skin microbiota for the conservation of this species are discussed.