



## Review on professorship thesis by Doc. Marcel Uhrín

If I remember correctly, it has been a whopping 26 years since I met Marcel. Around the turn of the century, I took part in three expeditions to Syria, Libya and Iran (now it would be impossible in at least two of these countries), where Marcel was part of a gang consisting of Petr Benda, Antonín Reiter and Michal Andreas, who were tirelessly collecting data and material on bats. Their enthusiasm and diligence were incredible. At that time, Marcel was working in the state administration/nature conservation and I lost sight of him for a little while then. It was only 14 years ago that he embarked on a full academic career, and we occasionally met at conferences, but I knew the results of his work all the time. It is hard to evaluate them here because - which is absolutely right for a professorship candidate and it is as it should be – Marcel's research activities are very extensive. Marcel has completely capitalized on his previous deep knowledge of animals, their needs and their environments, and the result of his work, that of his collaborators and students (of which he has educated an army) is a huge body of work detailing various aspects of vertebrate ecology.

In doing so, they used an incredible number of methods, I cannot mention them all, I would like to highlight morphometry, molecular methods, radio tracking, isotope analysis, food analysis, immunological methods or bioacoustics. Incredible. Everything is properly and carefully statistically analysed and well described, the papers read very well. What I particularly appreciate about them is the very honest approach, with the authors considering alternative explanations, acknowledging what needs to be further investigated and what needs to be better focused on, where and why the gaps in the data are etc. The papers are stuck to the facts supported by typically enormous amount of data, yet the results are often non-trivial and many papers deal creatively with overlooked aspects and are exploratory in the best sense of the word, examples include results showing phenotypic plasticity of immune response, winter foraging or the amazing range of foraging activity in various bats. Of course, the discovery of a new species is worth mentioning as well. The



team's contribution to understanding the urban ecology of the green toad is impressive too. Since I have been working on finger ratios for some time and we have shown that the often used 2nd to 4th finger ratio is an artefact of finger length allometry and does not reflect prenatal androgen levels well on its own, I was pleased to see that Marcel's team came to the same conclusion in fire salamanders. I would be interested what is his perspective on the use of ratios in statistics, the sometimes-ill-advised use of which I try to criticize in my work (e.g., Kratochvíl and Flegr: Differences in the 2nd to 4th digit length ratio in humans reflect shifts along the common allometric line. *Biol Lett.* 2009; Lolli et al.: A comprehensive allometric analysis of 2nd digit length to 4th digit length in humans. *Proc Biol Sci.* 2017; Kratochvíl and Havlíček. The fallacy of global comparisons based on per capita measures. *R Soc Open Sci.* 2024).

Thanks to Marcel's work, we have learned a lot about the ecological requirements of European and Middle East bats, amphibians (fire salamanders, toads) and reptiles (European pond turtle), most of which are directly applicable in conservation practice. In conclusion, I can summarize that Marcel is a mature, prolific author of internationally well accepted scientific papers, who founded his own school, contributed substantially to the knowledge of many vertebrates and I fully recommend him for the title of professor at UPJK.

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