

Podarcis muralis in Vojvodina, Serbia, the spatial niche of an “urban citizen” in a highly anthropogenically modified region



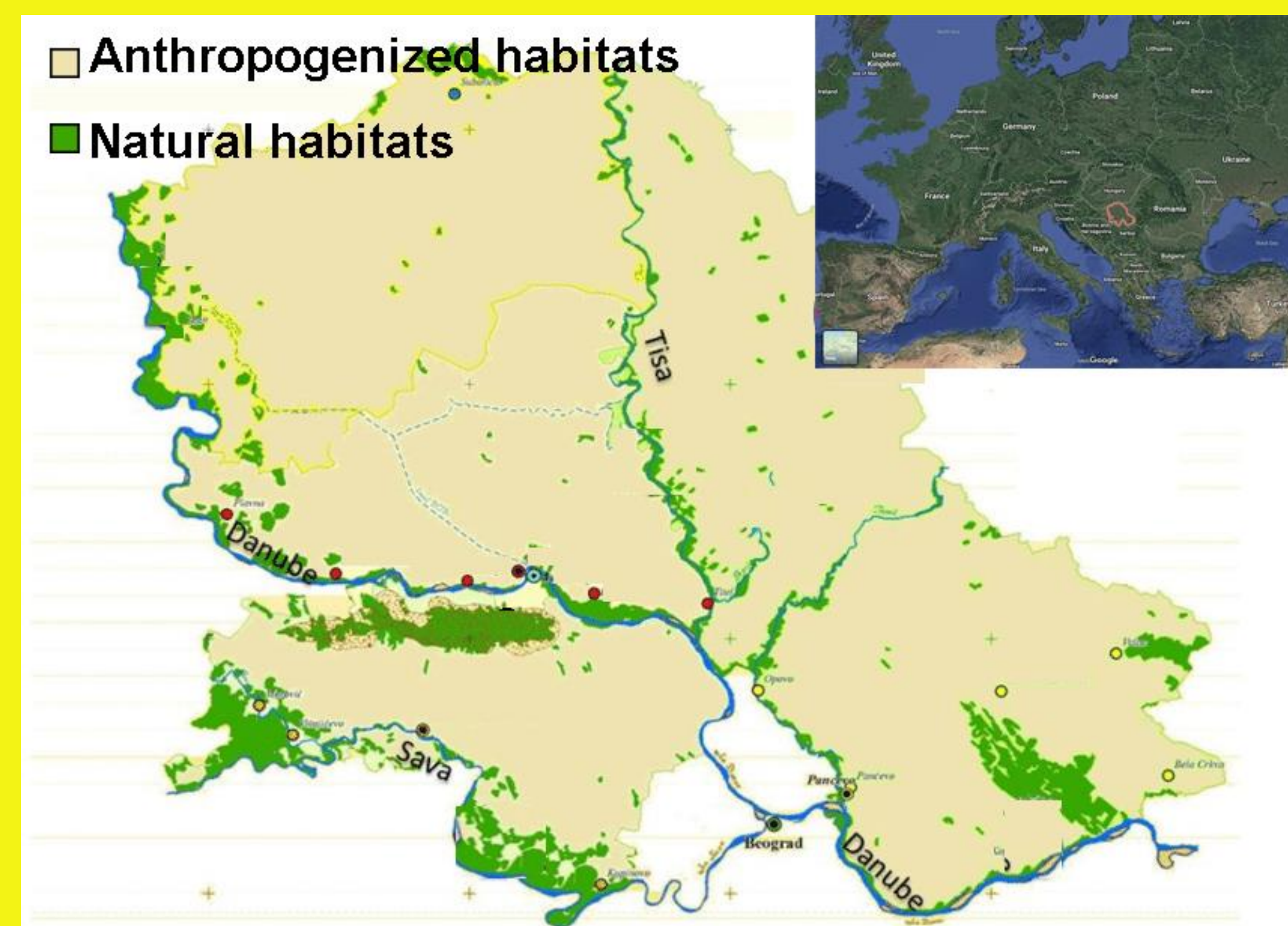
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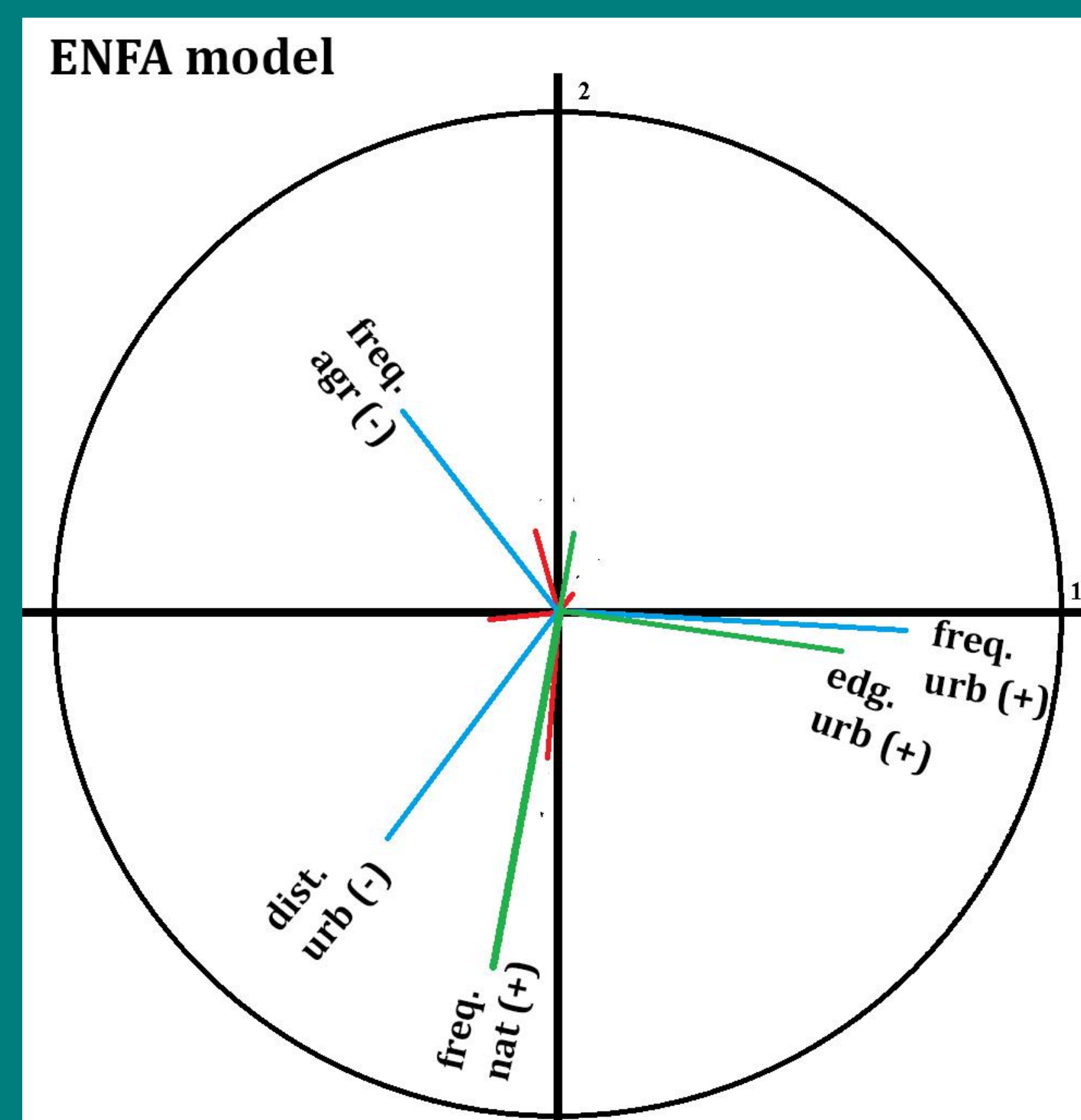
Why Vojvodina and why *Podarcis muralis*?

- Vojvodina is a very anthropogenically modified region, where wild species must adapt to very specific abiotic and biotic factors.
- *Podarcis muralis* is a constant faunistical element in the region but with very low proportion of natural habitat.
- We investigated the mechanism of survival of the species in such an anthropogenized environment and how closely is distribution of lizards in Vojvodina related to this anthropogenically modified habitats.

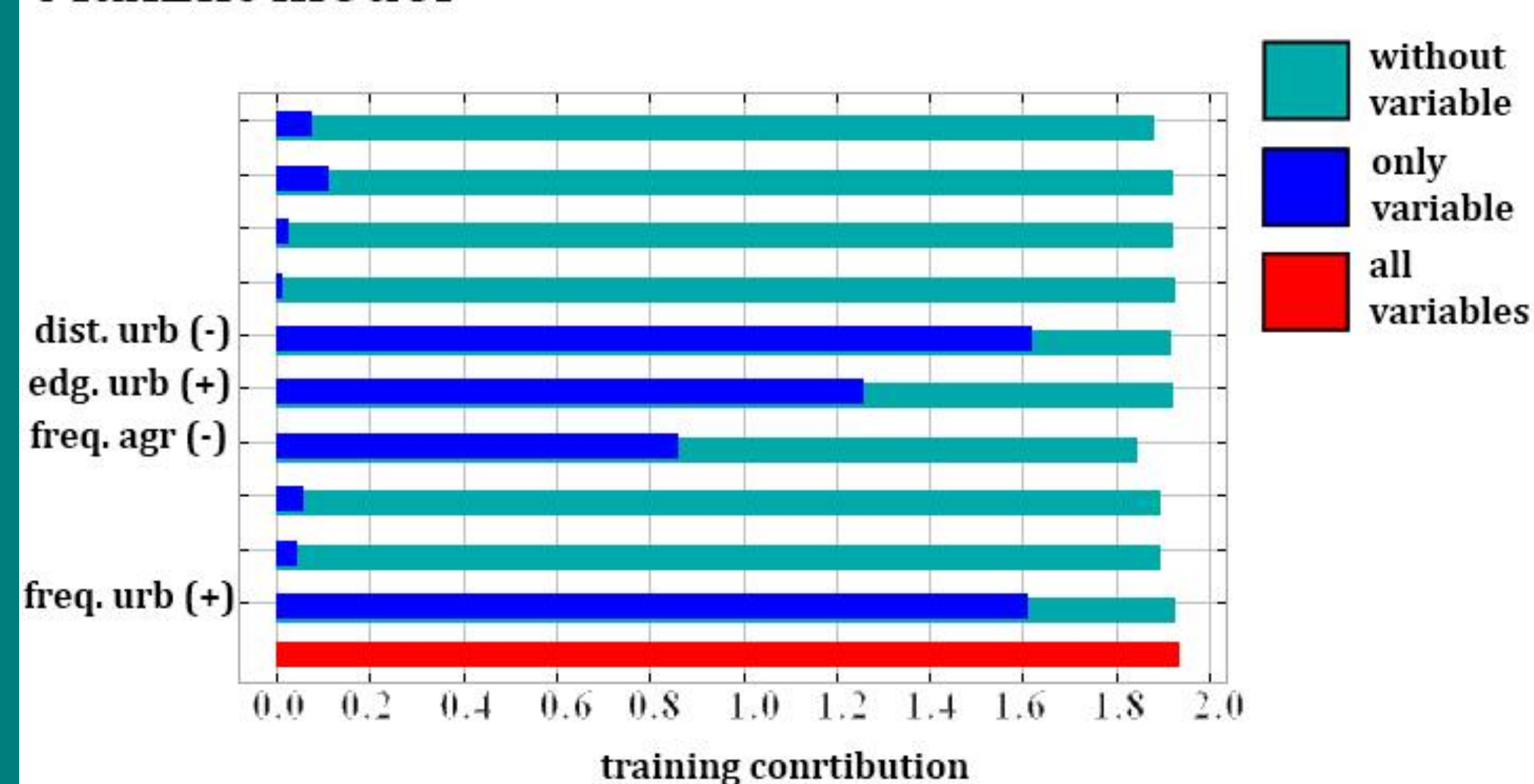


Ecological Niche Models

- Based on more than 300 species occurrence findings and 41 orographic, climate, water-regime, and land - cover ecogeographic variables and using ENFA and MaxEnt approaches ecological niche models were created for the *Podarcis muralis* in Vojvodina region
- Both approaches revealed that species' spatial niche in the region is defined exclusively by land-cover variables describing urbanized habitats.
- *Podarcis muralis* lizards prefer high frequency, close proximity, and long edged of discontinuous urbanized areas, while avoids monotonous agricultural fields and continuous urbanized areas which can be described as biological sterile zones.
- Urbanized areas can be considered a perfect surrogate habitats for *Podarcis muralis*.



MaxEnt model



What is next?

- Engage scientific community to further investigate species' mechanisms of survival in urbanized area in and beyond Vojvodina region.
- Engage local community to reevaluate common agricultural and urban development practices to facilitate survival of wild species in urbanized and other anthropogenically modified habitats.