

Introduced and invasive species

Oral presentation

Predation patterns of invasive water frogs (*Pelophylax ridibundus*) in pond environments

Pille F.^{1,*}, Laura P.¹, Denoël M.¹

¹Laboratory of Ecology and Conservation of Amphibians (LECA), Freshwater and Oceanic science Unit of reSearch (FOCUS), University of Liège, Liège, Belgium

*Corresponding author (e-mail): Fabien Pille (fabien-pille@hotmail.fr)

Invasive anurans are introduced worldwide, colonized large geographic areas and caused detrimental impacts to native ecosystems. The success of these alien predators as invaders is partly explained by their opportunistic generalist feeding behaviours that involve wide adaptative trophic niche and strong diet plasticity. From the point of view of native communities, this implies that a large diversity of native organisms may be impacted by predation in freshwater habitats. During the last decades, invasive water frogs (*Pelophylax ridibundus*) have been widely introduced in Western Europe but little is known about their potential impact on native communities through predation. In this context, we determined their diet in 21 ponds once a month over four months. Invasive water frogs exhibited generalist and opportunistic feeding strategies and fed on most of macro-invertebrate and amphibian pond communities. Most of the preyed organisms were terrestrial invertebrates but most of aquatic functional feeding groups were affected by predation, especially swimming predators. Despite not being the main prey of water frogs, some native amphibians suffered from high predation pressure during mating period by invasive water frogs given their high densities. Our results thus highlight one of the factors by which invasive water frogs may affect native pond communities and can pose a threat to native amphibian populations.



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