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Conference Abstract

Designing critical pond infrastructure for conservation of wetland fishes in the Czech Republic

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Abstract

River regulations and ill-considered steps in fisheries and aquaculture management have led to substantial changes in the original Czech ichthyofauna. These changes are particularly noticeable in species that are not economically important such as crucian carp (*Carassius carassius*), sunbleak (*Leucaspius delineatus*), or weatherfish (*Misgurnus fossilis*). Compared to original fish species with economic importance, there is no organized support for the repatriation of these small fish species. Thus, the goal of this large-scale project is to secure the remaining populations of these species, with crucian carp serving as a flagship species. The citizen science approach was used to identify remaining populations of crucian carp and their populations were subjected to genetic testing. A collaboration between authors and Forests of the Czech Republic was set to secure 30 pool-like ponds spanning across Czech Republic covering each region, aiming to cover potential differences in genetic variability among remaining populations. This approach provides critical infrastructure without presence of invasive fish species, thus enabling native wetland fish repatriation and natural reproduction. These ponds will serve as centres for the reintroduction of these fish species regionally, thus minimizing risk of loosing important genetic diversity during repopulation measures for these invasive species. Our goal is to obtain a permanent source of genetically verified fish, and the surplus of their populations will be locally spread in cooperation with fishermen

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and citizen scientists within individual regions. This contribution demonstrates how citizens can be embedded in effective conservation of small fish species with no economic importance.

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Conflicts of interest

The authors have declared that no competing interests exist.