

SUCCESSFUL HABITAT RESTORATION FOR THREATENED AMPHIBIANS IN ESTONIA

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A large-scale restoration of high-quality habitats is considered essential for the recovery of threatened amphibians, but only a few successful cases have been documented so far. Here I describe a landscape-scale restoration project targeted at two declining species – the crested newt (*Triturus cristatus*) and the common spadefoot toad (*Pelobates fuscus*) – in six protected areas in southern Estonia (2005-2007). In a close co-work of managers and scientists, 230 ponds were restored or created in 27 clusters to (i) increase the density and number of breeding sites; (ii) provide adjacent ponds with differing depths, hydroperiods and littoral zones; (iii) restore an array of wetlands connected to appropriate terrestrial habitat. In only three years, the number of ponds occupied by the common spadefoot toad increased 6.5 times and by the crested newt 2.3 times. By 2008, successful breeding of the crested newt was recorded in 23 of the 25 clusters designed for this species (92%), and of the common spadefoot toad in 17 of 21 clusters (81%). Hence, populations of threatened pond-breeding amphibians can rapidly recover if their habitats are restored at the landscape scale, following the scientific knowledge on their habitat requirements and population connectivity.