Amphibienmonitoring im Kanton Schaffhausen: Ein Vergleich zwischen 1993 und 2018/19

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The last amphibian inventory of the Canton of Schaffhausen was elaborated in 1993. In the years 2018 and 2019, a well-founded amphibian monitoring using nationally standardised methods was carried out in 58 amphibian spawning areas of national and cantonal importance, as well as in mining sites and other sites where the Canton of Schaffhausen has carried out measures to improve amphibian habitat quality in recent decades. The sites were visited three times each in spring / summer 2018 or 2019 to record the amphibian populations. The results of the amphibian monitoring 2018/19 show a positive development in the distribution and abundance of amphibian populations compared to the amphibian inventory of 1993. Compared to the amphibian inventory 1993, the average number of species per site increased by one species from 4.1 species per site to 5.1 species per site. This shows that the sites studied have been systematically managed and restored over the past 25 years, so that they now offer better habitats suitable for a wider spectrum of amphibian species. Compared to the amphibian inventory of 1993, all species have been able to spread to further sites or to maintain or even increase their abundance within their known range. The development of the tree frog (*Hyla arborea*, Red List Switzerland: critically endangered) is particularly encouraging. The species was able to spread to nine additional sites within the 51 sites surveyed in the 2018/19 amphibian monitoring and in the 1993 amphibian inventory. The species was also confirmed in five areas, which were surveyed for the first time in 2018/19. In addition, a clear shift from small to large populations was observed. Similarly, positive developments were observed for populations of the yellow-bellied toad (*Bombina variegata*, highly endangered), the agile frog (*Rana dalmatina*, highly endangered) and the alpine newt (*Ichthyosaura alpestris*, not endangered). A clearly positive trend is also observed for the common frog (*Rana temporaria*, not endangered), the common toad (*Bufo bufo*, vulnerable) and the smooth newt (*Lissotriton vulgaris*, vulnerable). A further positive result is the first detection of the palmate newt (*Lissotriton helveticus*, vulnerable) in the canton of Schaffhausen in two objects west of Hallau. However, the three highly endangered species natterjack toad (*Epidalea calamita*), midwife toad (*Alytes obstetricans*), and northern crested newt (*Triturus cristatus*) continue to be at risk. Although a shift towards larger populations was observed for all three species, the number of areas with records stagnated or even slightly declined. The mostly isolated populations of these species must therefore specifically managed and, if possible, reconnected with each other.

Key words: Amphibian monitoring, Canton of Schaffhausen, Switzerland, comparison 1993 and 2018/19.