Fallstudie zum Umgang mit einer FFH-Art: Wie Kammmolche im FFH-Gebiet Latumer Bruch in Krefeld (NRW) von einer der individuenstärksten Populationen an den Rand des Aussterbens gebracht worden sind

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How do we deal with species of the Habitats Directive – The crash of one of the largest great crested newt populations (*Triturus cristatus*) on record to the edge of extinction

Among European amphibians, the great crested newt (Triturus cristatus) is an endangered species and listed in the Habitats Directive of the European Union on appendix II and IV. Irrespective of its high protection status, a population of crested newts in the Greiffenhorstpark in Krefeld (Germany) representing one of the species' so far largest single subpopulation with an estimated census size of 8,000 newts, has been heavily disturbed by human-induced reconstruction measures. In order to reestablish the historical character of the Greiffenhorstpark betonit-layers were inserted on the ground of the main water body so that a year-round permanent water level without desiccation could be achieved. In the course of these reconstruction measures 4,390 crested newts were trapped with an amphibian drift fence and relocated into a smaller man-made pond inside a golf course nearby. By applying an individual based capture-mark-recapture approach we estimated sizes of 27 sites of crested newts in the Greiffenhorstpark and the area of the Latumer Bruch over a period of 7 years (2004-2011) and determined for each monitored water body also the habitatsuitability for crested newts. Altogether, 5,424 crested newts could be trapped and individually recognised using the program Amphident. Additionally, we analysed the genetic population structure of crested newts for 17 polymorphic microsatellite loci on the basis of 2,500 individuals. Our monitoring demonstrated the devastating effects of the construction measures on the crested newt population. The population of the main water body in the Greiffenhorstpark crashed from initially 8,000 individuals before the construction measures to less than 10 individuals in 2011. The main reason for this die off is the establishment of stable fish populations due to the lack of periodicity with desiccation events of the water body. With few exceptions, almost all 26 monitored sites showed strong declines in estimated population size. Though stable - with estimated population sizes between 200-300 individuals - the water body on the golf course only houses a small subset of the individuals that were translocated from the main water body. As a result, the translocation of thousands of crested newts obviously failed. Our data are alarming and indicate that almost all measures undertaken to stabilise the population of the crested newt in the Latumer Bruch has so far failed. In order to prevent a complete die off of the whole population of crested newts in the near future in this area, we strongly suggest to undertake meas-

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