Habitat change in a network of ponds in an endangered newt species, *Triturus cristatus*

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The configuration of breeding patches is of primary importance for the maintenance of numerous species. The great crested newt (*Triturus cristatus*) is currently in decline in several countries, including Belgium. Previous studies analysed habitat use in relatively distant ponds and showed the importance of maintaining pond networks. More quantitative data are now needed to understand its complex population dynamics and to protect this species. Our aim was to study patterns of pond use across time during a reproductive season in a dense network of ponds within a Natura 2000 area. Our work got support from SPW, FRS-FNRS, Life Natura2Mil, la Défense, and the military authorities of Camp Albert 1er. We individually marked more than 700 adults of crested newts with PIT-tags and analysed movements among breeding patches during one season. Our results are preliminary but indicate that the studied pond configuration allowed the establishment of a huge crested newt population. It can be considered as a priority target in terms of conservation at the regional (Wallonia) and country level. Our results also evidenced a higher than previously thought rate of pond change and the significant effects of several habitat traits (e.g. water depth) on pond use and movements. A second year of study would allow to determine the distribution of the marked newts and to better quantitatively assess the determinants of pond use. At term, we aim at defining the most optimal composition and configuration of habitats to sustain large newt populations.

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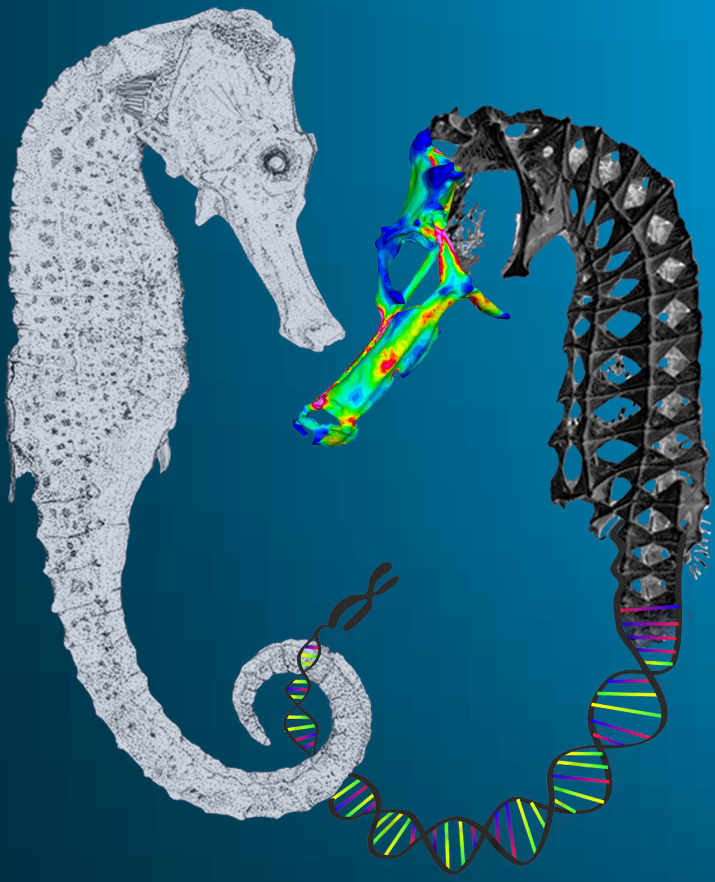

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