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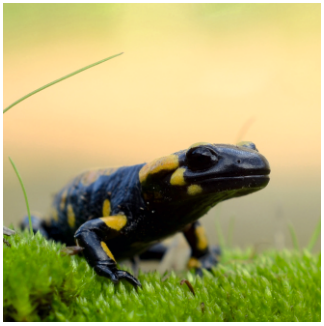
PROGRAMME AND ABSTRACTS





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Newts skip aquatic life and forego reproduction in response to alien fish introduction

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Many amphibians require both aquatic and terrestrial habitats during their life cycle. Among amphibians, newts are particularly aquatic as they usually court and lay eggs in water during several months. This makes them particularly vulnerable to fish introductions but mechanisms behind the exclusion patterns observed in the field are still not much known. Predation is one of the main reasons proposed to explain the absence or rarity of newts cohabiting with fish, but whether newts opt to skip breeding and leave water for land in fish environments has not been investigated yet. To test this hypothesis, we studied daily aquatic and terrestrial habitat use during the entire breeding season in a laboratory replicated design involving the palmate newt (*Lissotriton helveticus*) and the goldfish (*Carassius auratus*). In addition, we assessed sexual activity and reproductive success. There was a strong avoidance of the aquatic environment in the presence of fish, particularly when no aquatic shelter was available. Such an escape from the aquatic environment had a high negative impact on reproduction: in the presence of fish, newts displayed less courtship and laid very few eggs. The availability of aquatic shelters favoured coexistence between newt and fish but this did not prevent a large part of the newts to leave water and to skip reproduction. This experimental study shows how the presence of fish can cause newts to forego an essential part of their life – aquatic reproduction – and thus helps at the understanding of the exclusion patterns between fish and amphibians in the wild. More broadly, these data contribute to explaining aquatic versus terrestrial life in newts from fish and fishless environments.

Key words: amphibian decline, behavioural ecology, complex life cycles, conservation, fish introduction, habitat selection

	Netherlands	divergence and ecological diversification processes for endemic reptiles in Socotra
14.50-15.10	Denoël M., Winandy L.: Consequences of fish introduction and extirpation on populations of metamorphic and paedomorphic newts	Escoriza D., Ben Hassine J.: Niche partitioning at local and regional scale in the North African Salamandridae
15.10-15.30	Winandy L., Darnet E., Denoël M.: Newts skip aquatic life and forego reproduction in response to alien fish introduction	Ficetola G.F., Lunghi E., Canedoli C., Padoa-Schioppa E., Pennati R., Manenti R.: Niche evolution in European *Hydromantes*: mismatches between macroecological and fine-scale analyses
15.30-15.50	Spikmans F., Ouborg J.: Genetics of Dutch Wall Lizards (*Podarcis muralis*); on the vitality of the only native population and the threat of origin of introduced populations	Žagar A., Vrezec A., Carretero M.A.: Do they compete or not? Using a combination of approaches to understand the competition between two similar lizard species
15.50-16.20	**Coffee break**	
16.20-17.40	**Diseases and threats**	**Climate**
16.20-16.40	Spitzen A., Bogaerts S., Woeltjes T., Pasmans F., Martel A.: Is the amphibian pet trade a vector for *Batrachochytrium salamandrivorans* in the Netherlands?	Veith M., Kieren S., Göçmen B., Sotiropoulos K., Lötters S.: How to survive past climate changes – lessons from *Lyciasalamandra*
16.40-17.00	Spitzen-van der Sluijs A., Bosman W., Spikmans F., Pasmans F., Martel A.: The uncertain future of the Dutch fire salamander population infected with *Batrachochytrium salamandrivorans*	Salvidio S., Oneto F., Ottonello D., Pastorino M.V.: Influence of North Atlantic Oscillation (NAO) climatic pattern on *Speleomantes strinatii* population dynamics
17.00-17.20	Mingo V., Lötters S., Wagner N.: Assessing the risk of pesticide exposure for reptile species occurring within the European Union	Sinsch U.: Winter survival of juvenile toads (*Epidalea calamita, Bufotes viridis*) is the principal driver of population dynamics