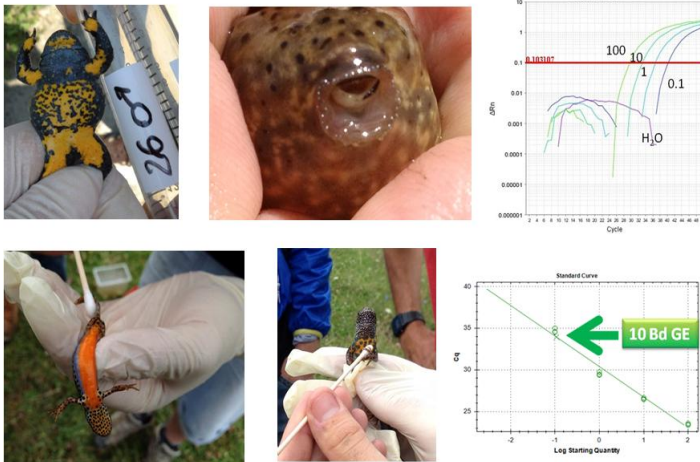
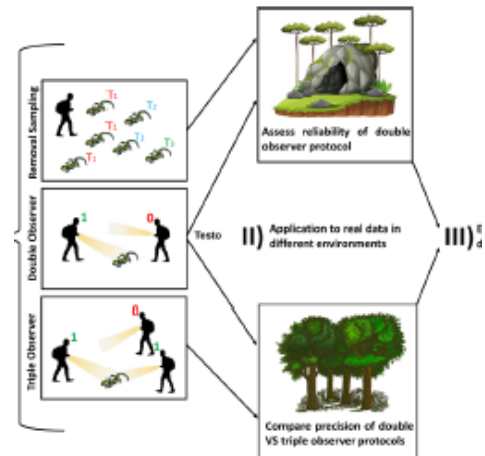


CONSERVATION OF ITALIAN AMPHIBIANS

Population dynamics, emerging diseases and conservation



Sampling and fungal DNA quantification by Real-Time PCR



Estimation of population size of amphibians in different habitats by hierarchical modelling

Amphibians are the most threatened vertebrate group. Habitat modifications, invasive alien species and emerging diseases are among the main drivers of these population declines. Therefore, we are investigating amphibian abundance by hierarchical modelling and their health status by RT-PCR in several Italian protected areas. Concerning the chytrid fungus *Batrachochytrium salamandrivorans*, our researches are the first ones in Italy. Concerning amphibian population abundance estimation, we are testing new time and resource-effective models, such as double observer and multinomial hierarchical modelling sampling procedures.

Keywords: population dynamics, *Batrachochytrium dendrobatidis*, *Batrachochytrium salamandrivorans*, hierarchical modelling, population size estimates

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