

# Energetic efficiency of metamorphosis in *Rana temporaria*

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## Objectives

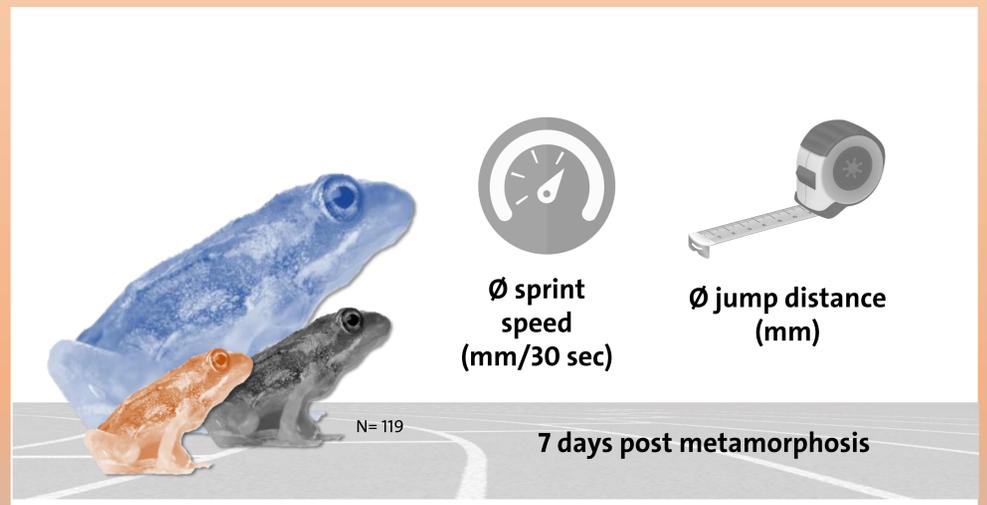
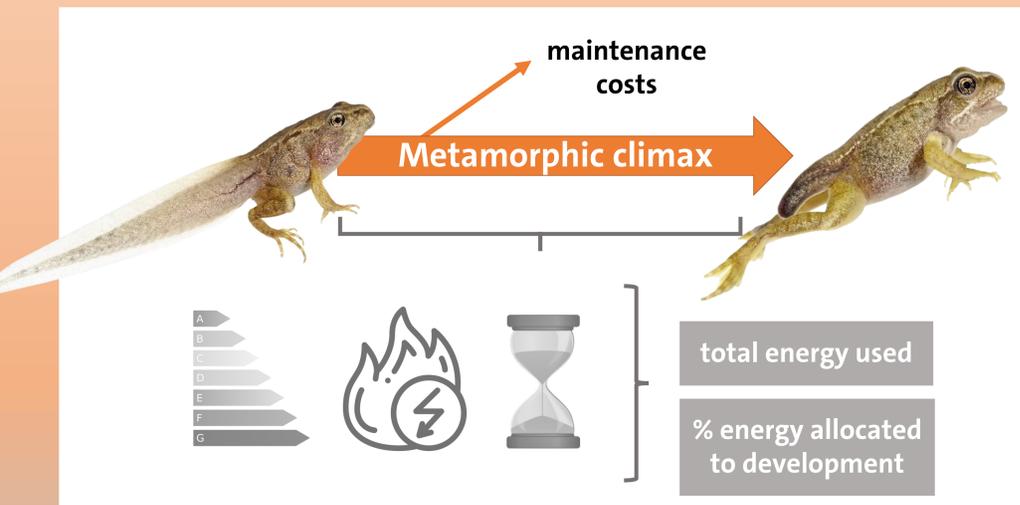
1. Does endocrine disruption during larval stage affect energetic efficiency of metamorphosis?
2. Does endocrine disruption during metamorphosis affect juvenile performance?
3. What kind of carry-over effects can we expect from endocrine disruption during larval stage?

## Conclusions

1. Endocrine disruption affects the energetic efficiency of amphibian metamorphosis.
2. Endocrine disruption leads to carry-over effects on juvenile performance due to a strong size effect.
3. The size effect on juvenile performance is a direct carry-over effect of endocrine disruption during larval stage.

Energetic efficiency of metamorphic climax is high when a relatively large amount of the total energy used can be allocated to developmental processes.

Sprint speed and jumping availability are important performance traits as they guarantee successful foraging and dispersal after metamorphosis.



Pharmaceuticals

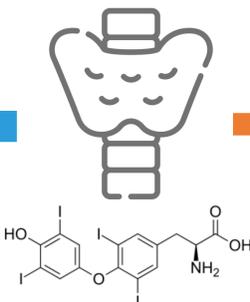
Sun screen

Heavy metals

Fertilizers

Pesticides

pollution



environmental stress

Temperature variation

Desiccation risk

Predator presence

Crowding

Habitat fragmentation

