



WHAT LIVES IN THE WATER?

COMMON NEWT

Latvia
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Agenskalns State gymnasium

- Agenskalns State gymnasium is one of the oldest schools in Latvia
- First school in Riga, on the left coast of Daugava
- In 1681. the town council of Riga decided to open a new school with a german language of instruction
- The principal of the school is Ināra Gaile
- The school was named Agenskalns State gymnasium on the 1st of September 1996







What is the common newt (*Triturus vulgaris*)?

Animal kingdom
(*Animalia*)

Chordate type (*Chorda*)

Amphibian class (*Amphibia*)

Tailed amphibian turn(*Caudata*)

Salamander family (*Salamandridae*)

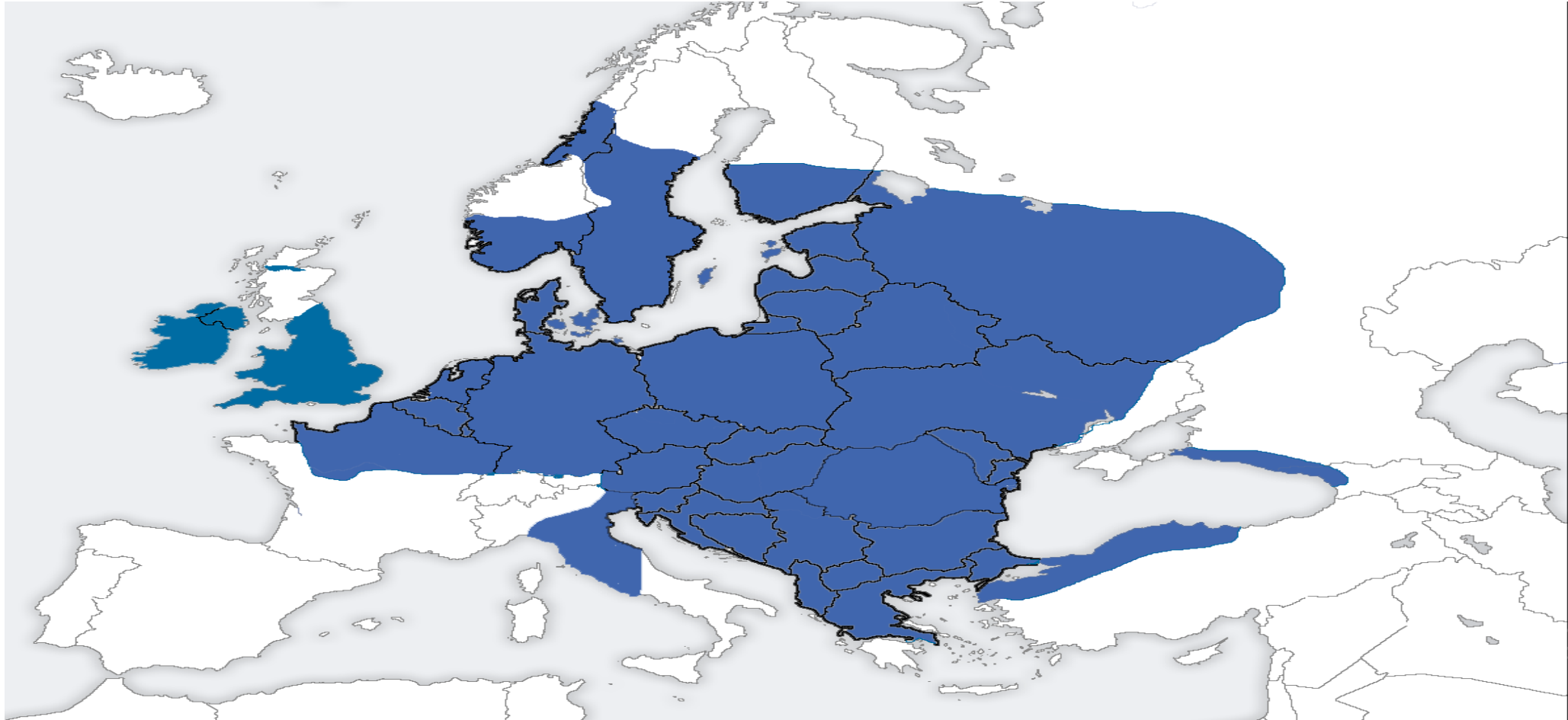
Newt genus (*Triturus*)

Common newt (*Triturus vulgaris*)

Common newt in other languages

Language	Name
Latvian	Mazais tritons
English	Common newt (smooth newt)
German	Teichmolch, Rotbauchunke
Swedish	Mindre vattensalamander, Mindre vattenödla
Estonian	Tähnikvesilik
Lithuanian	Paprastasis tritonas
Russian	Обыкновенный тритон

Common newt's prevalence



Common newt's description

- Maximum total length 89 mm (body length 58mm)
- Skin in the water is smooth, on land – slightly rough
- Cold-blooded animal, its body temperature is determined by the ambient environment
- Eats planktonic crustaceans and other little water animals; destroys a lot of mosquito larvae

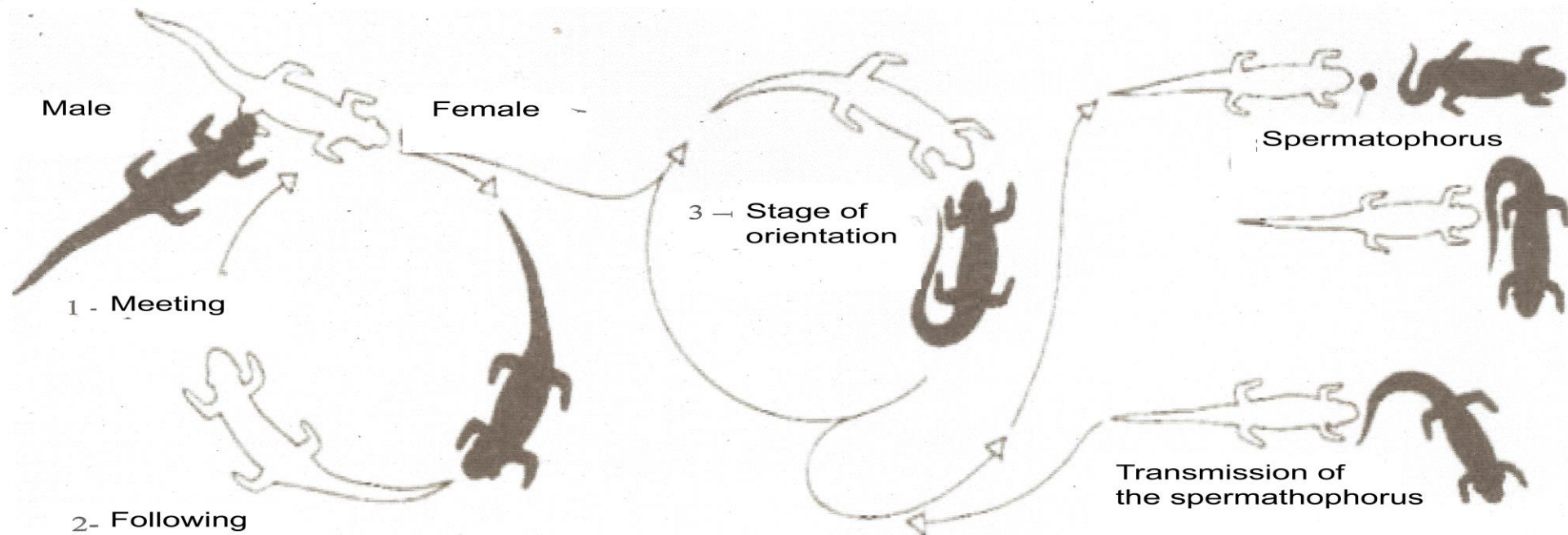


Common newt's description

- Can survive in very low oxygen levels, but only for a couple of days
- Newt's have a lot of enemies: hedgehogs, horthorn leafnose snake's, rats, birds, fishes, etc.
- They live in very dark, moist caves, they leave them only at night, when it is moist enough and lull
- Newts have lungs, which is why they have to swim up periodically and breathe atmospheric air



How do they breed?

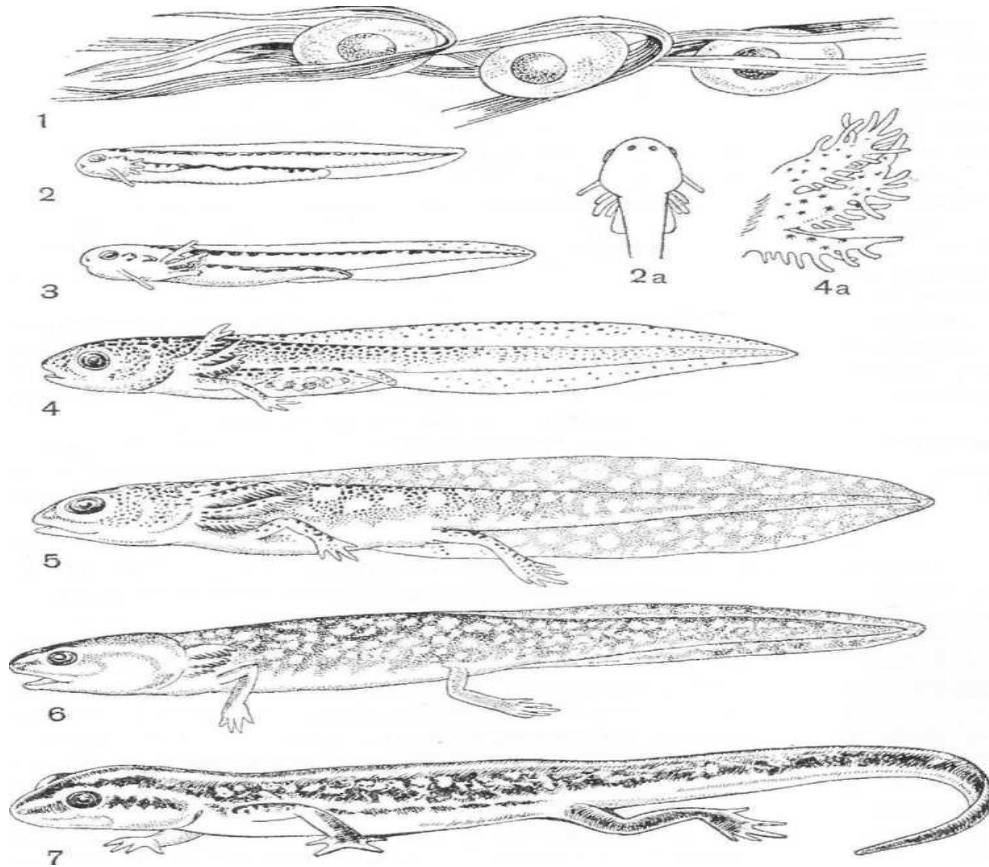


Mating ritual from the male's initiative:
Female lures the male with her colouring and the releasing of her secretus. (1 and 2)
After the orientation stage (3) the male leaves, at a distance, at which he releases spermatophore and in that way guarantees conception.

How do they breed?



A newt's development



Common newt's development:

1 — egg:

2 — larvae upon hatching;

2a — the same larvae's front part from the bottom;

3 — the creation of the mouth and the outer gill split stage;

4 — full outer gill and front extremity split stage;

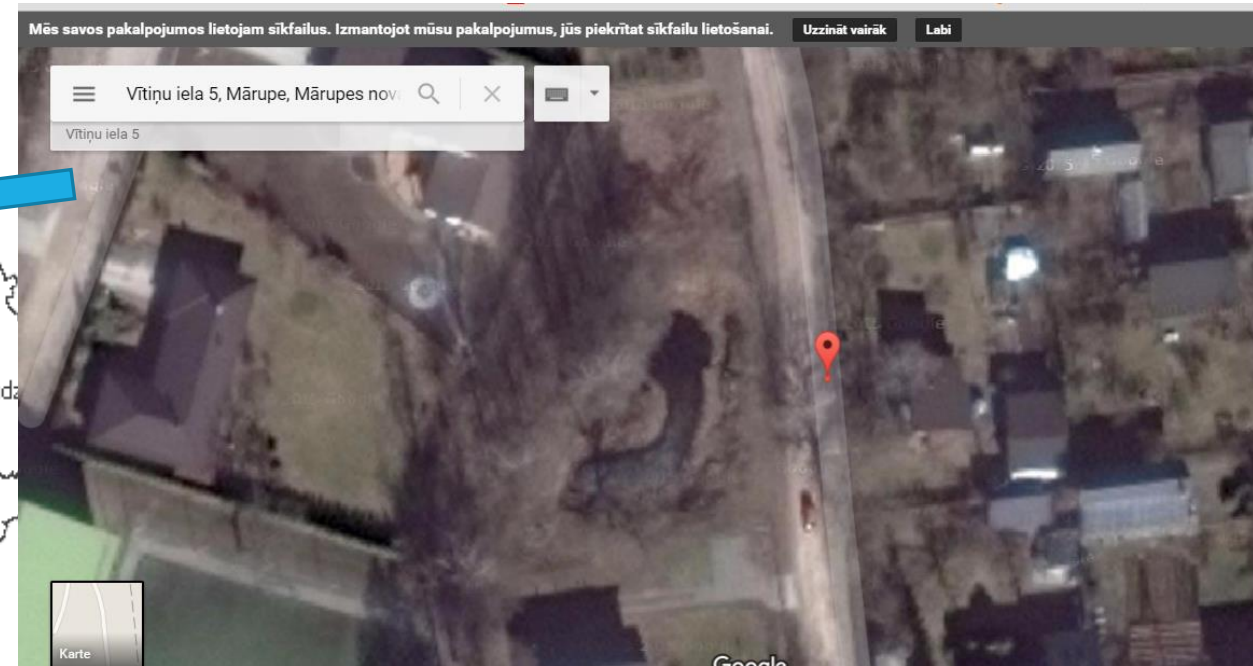
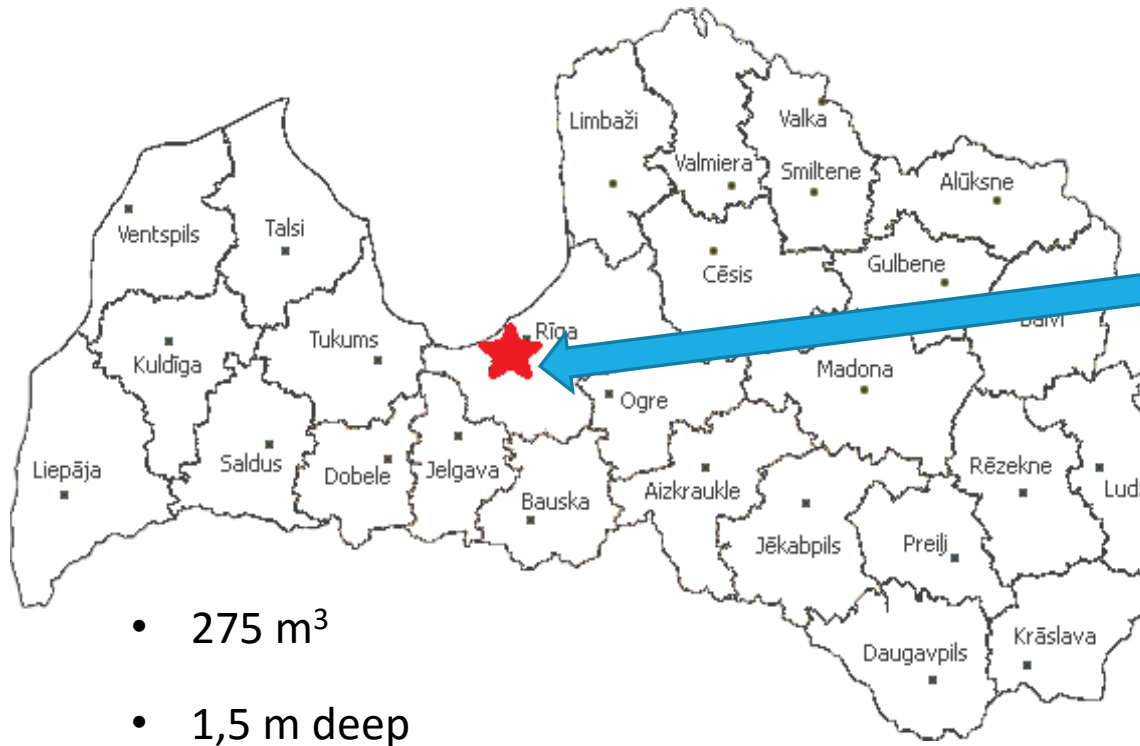
4a — outer gill construction details;

5 — front and back extremity division stage;

6 — gill and fin fold reduction stage;

7 — embarking on land stage.

Object of the study: artificial pond



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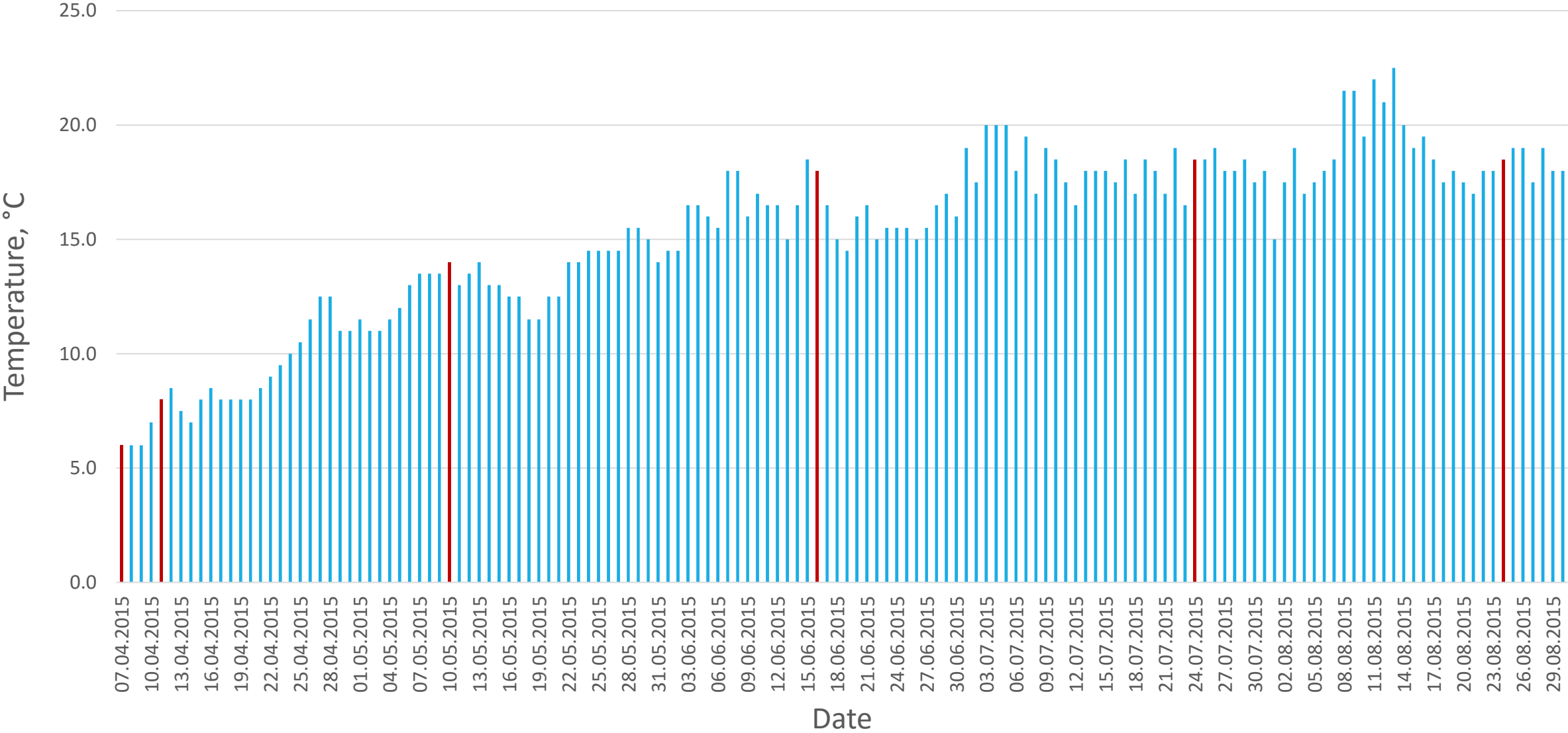
The methodology



The methodology

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Water temperature in the pond at ~16:30



Observations

- 07.04.2015 - First newt male appears
- 12.04.2015 - First newt female appears
- 10.05.2015 - Newts begin the mating dance
- 16.06.2015 - The first new newts appear in the pond
- 23.07.2015 - The young newt's eyes, gills, front extremities have developed
- 25.08.2015 - The young newt is fully grown and leaves the pond

Conclusions

- The common newt is an amphibian and it lives in water and on land
- The active also known as water period lasted from 07.04. 2015 – 30.08.2015
- The common newt is a natural indicatororganism
- The ritual of mating they began on 10.05.2015, when the water temperature was the highest
- The common newt is a widespread species, but humans don't know about them, are not informed about them

Thank you for your attention!