



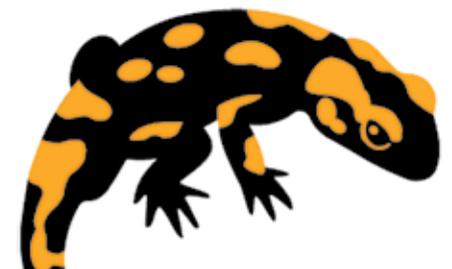
TANKS

FOR TEMPORARY
AMPHIBIAN KEEPING

® NATURA
SERVIS s.r.o.



Habitat degradation is one of the main problems in contemporary nature conservation. Even sites inhabited by endangered species get deteriorated or completely destroyed by human activities (large construction works, mining, water-body reconstructions), by invasion of alien species (mink, stone moroko) or by outbreaks of diseases (chytridiomycosis, crayfish plague). In such cases, collection of the animals and their temporary keeping in captivity provides time until the habitat is restored, or a proper alternative is found. NaturaServis Ltd. has designed and tested „tanks“ for temporal keeping of wild reptiles, amphibians and other organisms (aquatic plants, freshwater mussels, crayfish etc.).



Development of tanks
for temporary amphibian
keeping was funded by Alfa
Programme, Technology
Agency of the Czech Republic

use of the tanks



When a site is in danger of imminent destruction or a population experiences disease outbreak, the present animals can be collected and accommodated in the tanks for temporary amphibian keeping mimicking the original habitat. The animals can be kept in the tanks for variously long periods of time, even several seasons. Feeding and maintenance of tanks is done on regular basis according to the needs of present species. Proper husbandry often results in reproduction of the kept animals.

While the collected animals are in captivity, we attempt to remove the negative factors and restore the affected site to original state. If the habitat was completely destroyed (e.g. highway construction) we keep the animals until a solution is found in collaboration

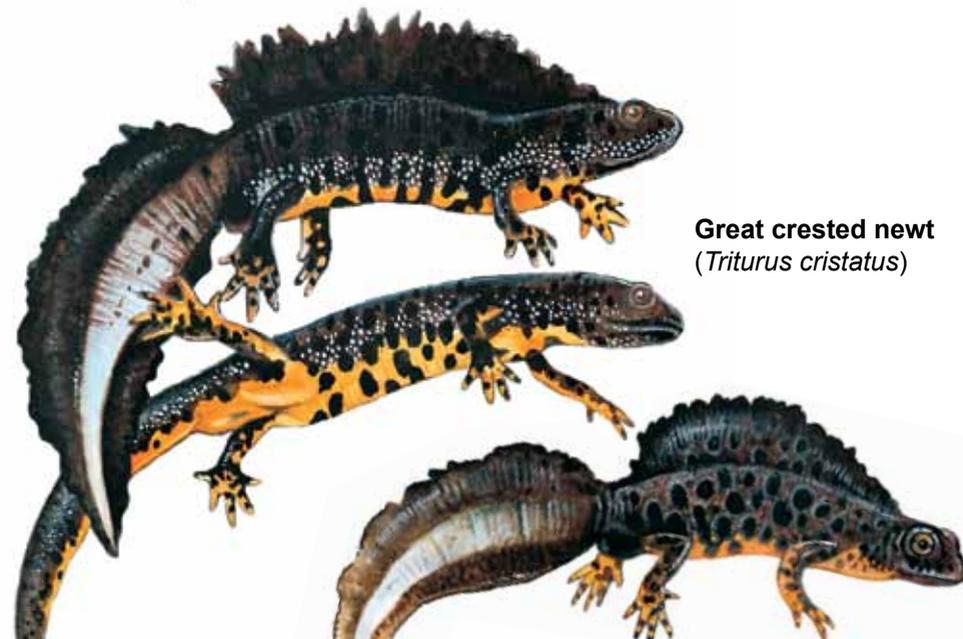
*Tanks in Herpetological station
NaturaServis in Hradec Králové*



European green toad
(*Bufo viridis*)

with local nature conservation authority. Such measure can involve re-stocking of already present unaffected site, but we prefer construction of new alternative sites nearby the original site. The animals remain in tanks for temporary amphibian keeping until the problem is solved or the newly constructed site is fit for release.

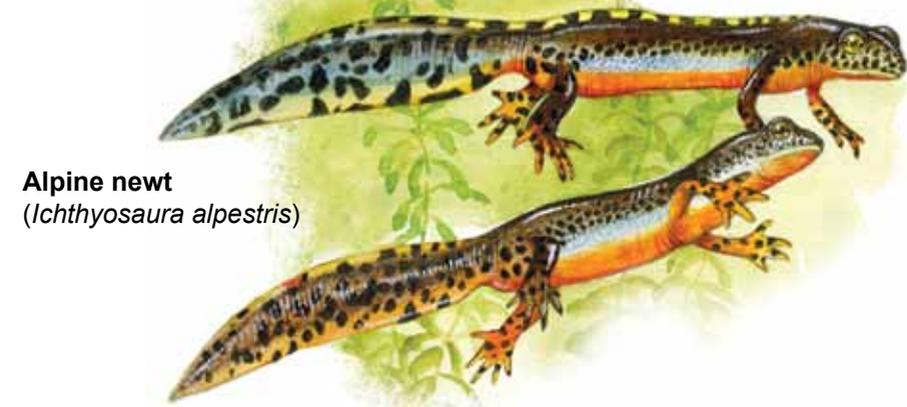
The tanks can be used for permanent husbandry of animals. The Herpetological station of NaturaServis Ltd. keeps a complete collection of amphibians and reptiles from the Czech Republic for educational purposes.



Great crested newt
(*Triturus cristatus*)

Danube crested newt
(*Triturus dobrogicus*)

Smooth newt
(*Lissotriton vulgaris*)



Alpine newt
(*Ichthyosaura alpestris*)

location of the tanks

The Herpetological station of NaturaServis Ltd. near Hradec Králové, the Czech Republic, has constructed over 80 tanks for temporary amphibian keeping on its premises and can potentially keep hundreds to thousands of animals. Various types and sizes of tanks are used to mimic the natural habitats of kept species and provide welfare of the animals.

71 tanks for temporary amphibian keeping are used for amphibian ecology experiments at University of Life Sciences in Prague. Two tanks were delivered for Zoo Szeged, Hungary, for reptiles (*Vipera ursinii*).

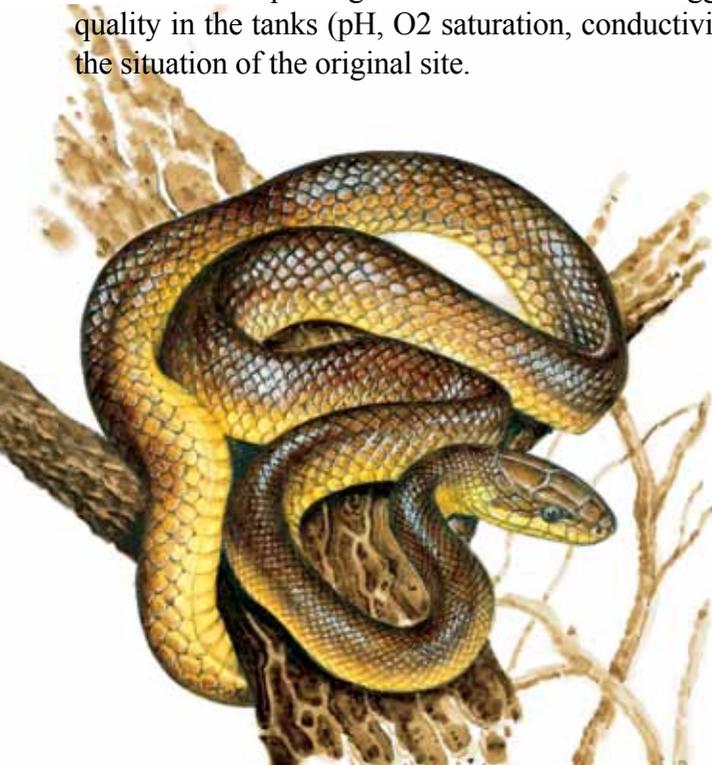
*Herpetological station
NaturaServis in Hradec Králové*



technical features of the tanks

The tanks for temporary amphibian keeping are constructed in exterior, this provides natural changes of microclimatic conditions and normal photoperiod. Each tank is covered by a net protecting the inhabitants from outside predators and limiting the risk of escape. The edges of tank walls contain downward oriented lamellae that prevent the captives from escaping and the wild animals from invading the tank. This way the captive population doesn't get intermixed with local individuals of the same species and keeps the original genetic integrity.

The bottom of the tanks is made of very durable plastic foil that prevents escapes through the ground. The bottom of the tanks containing terrestrial habitats is on the lowest point equipped with wire net allowing rainwater to seep in. Plants in the tanks are usually kept in individual containers, or simply float in the water. Before tank cleaning and maintenance the vegetation can be removed and animals captured easily. The aquatic tanks can be equipped with water filtering system or any additional accessories. In the tanks at the Herpetological station we use data-loggers to control the water quality in the tanks (pH, O₂ saturation, conductivity) to be able duplicate the situation of the original site.



Opposite: Tanks interior

Aesculapian snake
(*Zamenis longissimus*)



gallery





references

Doc. RNDr. **Ladislav Miko**, Ph.D.,
European Commission,
Brussels, Belgium;
RNDr. **František Pelc**,
director of the Nature Conservation
Agency of the Czech Republic;
RNDr. **Alena Vopálková**,
Ministry of the Environment of the Czech
Republic, director of the
Department of the Special Territorial
Nature and Landscape Protection;
RNDr. **Ivan Reháč**, CSc.,
Charles' University, Prague;
RNDr. **Jiří Moravec**, CSc.,
National Museum, Prague;
Ing. **Marie Nádvořníková**,
Road and Motorway Directorate

Local clients:

**Ministry of the Environment of the
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Dr. Mag. **Robert Hofrichter**,
Institut für Zoologie Universität
Salzburg, Österreich;
Prof. Dr. Mag. **Walter Hödl**,
Institut für Zoologie Universität, Wien,
Österreich;
Dr. **Michael Gruschwitz**,
Sächsisches Staatsministerium für Umwelt
und Landwirtschaft, Deutschland;
Dr. **Heinz Berger**,
Naturschutzbund Deutschland
Landesverband Sachsen e.V., Deutschland;
Mag. **Martin Kyek**,
Institut für Ökologie, Salzburg, Österreich;

National Park Krkonoše;
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Edible frog
(*Pelophylax esculentus*)



Lipenská 681, 149 00 Praha 4–Šeberov
Phone / Fax: +420 244 913 253
Mobile: +420 602 658 067
E-mail: jiri.francek@naturaservis.net

Říčařova 66, 503 01 Hradec Králové
Phone / Fax: +420 495 266 649
Mobile: +420 724 227 157
E-mail: roman.rozinek@naturaservis.net
www.naturaservis.net

Company Identification Number (CIN): 26006626,
Company Tax Identification Number (CTIN): CZ26006626

Bank account: Československá obchodní banka, a.s.
IBAN: CZ790300000000189211425
SWIFT: CEKOCZPP



European fire salamander
(*Salamandra atra*)

Larva

Cloaca

Head with
parotids



Technologická agentura
České republiky



Alfa

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