

## **BACHELOR THESIS/MASTER THESIS**

### **Determination of VOC-emission of Pelobates fuscus (Knoblauchkröte)**

#### ***Kurzbeschreibung***

Pelobates fuscus (Knoblauchkröte) is an endangered, specially protected species (FFH Directive Annex IV). As consequence the protection is not limited to a defined habitat. The toad has a very clandestine, mostly terrestrial life style and is therefore difficult to find when monitored in preparation of larger infrastructure projects. One method that might help are wild life detection dogs. However, providing samples for odour and search training remains a serious challenge.

Aim of this work is to identify volatile organic compounds (VOC) emitted from the toad which might later be used in artificial pelobates fuscus odour training aids. Additionally, storable "odour copies" shall be developed and tested.

For this work the headspace above the toads have to be sampled. Some of these samples have to be analyzed via GC-MS. The measured VOCs have to be compared with the background odours. Other samples will have to be stored and their suitability as training aid for detection dogs after storage evaluated.

#### ***Zuordnung zu laufenden Projekten***

Institut für Sicherheitsforschung

#### ***Ansprechpartner***

Prof. Dr. Peter Kaul

#### ***Voraussetzungen / Anforderungen an Interessent:innen***

- Interest in instrumental analytical methods, namely Headspace GC-MS
- ability to precise lab work
- study in natural science