



LIFE Project Number
LIFE15 NAT/DE/000743

Progress Report
Covering the project activities from 01/01/2017 to 30/11/2019

Reporting Date
10/12/2019

LIFE+ PROJECT NAME or Acronym
LIFE-Amphibienverbund

Data Project

Project location	CityRegion Aachen
Project start date:	01/01/2017
Project end date:	31/12/2025 Extension date: n.a.
Total budget	€ 4,220,892
EU contribution:	€ 2,532,535
(%) of eligible costs	60 %

Data Beneficiary

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Project Website	www.life-amphibienverbund.de

LIST OF KEY-WORDS

DGHT	Deutsche Gesellschaft für Herpetologie und Terrarienkunde/ German Society of Herpetology and Herpetoculture
MULNV	Ministerium für Umwelt, Landwirtschaft, Natur- und Verbraucherschutz des Landes NRW / Ministry for Environment, Agriculture, ..Conservation and Consumer Protection of the State of North Rhine-Westphalia
NABU	Naturschutzbund Deutschland/ Nature Conservation Society of Germany
LANUV	Landesamt für Natur, Umwelt und Verbraucherschutz/ Ministry for Environment, Agriculture, Conservation and Consumer Protection
NRW	North Rhine-Westphalia
NSG	Naturschutzgebiet/nature conservation area
uNB	untere Naturschutzbehörde/ local nature conservation authority

1. Overall assessment of the achievements

The goal of the project „LIFE-Amphibienverbund“ is to improve the conservation status of some amphibian species such as the yellow-bellied toad (*Bombina variegata*, Annex II and IV), the midwife toad (*Alytes obstetricans*, Annex IV) and the natterjack toad (*Epidalea calamita*, Annex IV) in the city region of Aachen. This report provides an overview of the thus far implemented measures which are stipulated in the grant agreement.

A. Preparatory Actions

The regional action plans for each target species are in preparation (A1.1). Currently, 13 local action plans (A1.2) are ready while four more are in preparation. Where necessary, the plans already include detailed planning instructions (A2.1). The plans were discussed with land owners and corresponding contracts negotiated (A2.2). To date, nine contracts have been signed and one more has been submitted for signature. Two further contracts are in preparation.

Both mandatory permits (A2.3) one for the removal and reintroduction of the yellow-bellied toad and one for skin sampling of midwife toad tadpoles have been granted by the uNB.

The results of the genetic assessment of 53 samples of five populations of yellow-bellied toad from Stolberg and one Dutch breeding group as well as the recommendation for the reintroduction have been summarized in a report (A3). → With support of a project employee, a publication on this topic is in preparation (E4.2). → The genetic assessment of the midwife toad will be done by the Project LIFE BOVAR LIFE16 NAT/DE/000660 (see E2.3).

B. Purchase/lease of land and/or compensation payments for use rights

One owner received compensation (B1) twice for agreeing to the implementation of actions for the yellow-bellied toad and the midwife toad in two different parts in the Natura 2000 site Bernhardshammer-Binsfeldhammer (FFH-4). With support of project employees, the nature

conservation association “Arbeitskreis Naturschutz” bought 8,5 ha of the backfilled quarry “Vygen alt” in TB-3 (B2). Practical conservation measures like C4 will follow. The uNB plans to buy the former quarry “Atzenach” in the TB-2, which contains a population of the midwife toad. Negotiations are currently underway.

C. Concrete conservation actions

Construction and restoration of amphibian ponds (C1): So far, 241 ponds have been newly constructed or were reconditioned (35 %). The new ponds were mostly made of concrete. In the spring and summer 2019, we had some difficulty maintaining the required water height in some of the concrete ponds (see chapter 2). However, the target species used successfully the new ponds for reproduction in several sites. Furthermore, the construction of about 80 additional ponds in spring 2020 was commissioned for three other sites. In the framework of communication with stakeholders (E2), we encouraged others like municipalities and the uNB to create amphibian ponds on their own initiative.

Improvement of terrestrial habitats and construction of essential habitat elements (C2):

In order to provide shelter and places to hibernate, we create two sandpiles (C2.1a, 17 %). The uNB financed the placement of one stone packing (C2.1bc). Additionally, at four sites, material from former coal mining and also limestone was excavated while digging ponds. This material was used to make several piles which provide loose material next to the ponds where the target species can also hide and/or hibernate. In the sites NSG Noppenberg (NSG-11a), NSG Carl-Alexander (NSG 12) and the former quarry Vygen in TB-3, 0,8 ha (C2.1d; 55 %), vegetation and topsoil was stripped off between and around the newly created ponds. So far, 2,6 ha (C2.2, 25 %) of woods in five projects sites has been cleared. Two of these measures were paid by others (uNB; Hit-Stiftung). In winter 2019/2020, 1,7 ha more wood will be cleared in three sites (already commissioned). In the Werther-Heide (next to FFH-5) a 50 m long fence (C2.5 25 %) was erected around a group of new pools (C1).

Measures for Neophyte clearance (C2.3) and implementation of management for uncultivated land (C2.4.) have not been realised so far.

Overall nearly 20 % of the terrestrial habitats have already been improved (milestone for December 2019).

Introduction of an extensive field and grassland utilization for the preservation of field depressions and land habitats (C3): 4,7535 ha field (198 %) are used without fertiliser and herbicide in an extensive way (C3.2). Corresponding contracts to ensure agro-environmental-payments for three farmers have already been signed.

Breeding and reintroduction of the yellow-bellied toad in Natura 2000-sites in accordance with the IUCN criteria (C4): For the reintroduction of the yellow-bellied toad, two breeding groups were established: one by the project partner MULNV in the “Artenschutzzentrum Metelen” and one by a private breeder. 669 tadpoles and 577 juveniles were reintroduced next to the

Natura 2000 site Werther Heide (FFH-5) in summer 2019. Around 300 more juvenile *Bombina variegata* are going to hibernate in the Artenschutzzentrum in Metelen. These animals will be released in spring 2020.

D. Monitoring of the impact of the project actions

Faunistic monitoring of the target species (D1): The baseline capture-recapture-survey of *Bombina variegata* (D1.1) was done at four sites in summer 2017. The results are summarized in a report. For the site Binsfeldhammer (FFH-4), a publication about the results is in preparation (E4.2). The first repetition of monitoring is planned for summer 2021. → modification: see chapter 2

In 2017 to 2019, qualitative data on the natterjack and midwife toad (D1.2) were collected by visiting 20 sites (sight/calls). So far, E-DNA analysis and listening boxes were not necessary.

A more detailed baseline, semi-quantitative survey of the natterjack toad was done between 2017 and 2019 at four sites and of the midwife toad at five sites (D1.3).

All collected data were entered in a dedicated project database. A detailed report is in preparation.

Assessment of the socioeconomic effects of the project (D2): To measure the socioeconomic effects of the project (D2), the baseline at the beginning of the project was assessed using questionnaires that were given to stakeholders and the general public. The results are available in a report.

Assessment of the effects of the project on ecosystem functions (D3): A meeting with Prof. Dr. Riedl (University of Applied Sciences, Höxter) was held to discuss the assessment of the effects of the project on ecosystem functions (D3). It was determined that appropriate indicators for this kind of species conservation project are very difficult to determine. Nevertheless, we would like to have a student research appropriate indicator.

E. Public awareness and dissemination of results

General Public awareness (E1): In the beginning, the corporate design and project logo was developed. 90 percent of the first section of the general leaflet (3.000 of 15.000 pieces, E1.2) was distributed to municipalities and other institutions. The project's internet homepage www.LIFE-ampibienverbund.de (E1.4) has been online since August 2018. Regularly, new articles about ongoing tasks are published. In addition, stakeholders received three additional internet-newsletters to keep them informed. The translation into three other languages is planned for 2020. Eight temporary informational panels (E1.5, 40 %) and six excursions and informative meetings (E1.7, 42 %) took place. The first poster of the exhibition (E1.8) was presented at eight events. Nine press releases were prepared (E1.9) and at least 17 press articles, one radio broadcast and two TV broadcasts (20 of 45 articles/broadcasts, 40 %) appeared subsequently. We also used other media to inform about the project like the event agenda of

the BS AC. Buttons were created and produced by the project team as giveaway. A permanent panel (E1.6) at the museum area of the “Energeticon” informs about the natterjack toad habitat that has been created at that site. Additionally, the Bundeswehr (German Federal Armed Forces) erected several information panels about the Natura 2000 sites and the code of behaviour at the military training ground “Münsterbusch-Brander Wald” (FFH-6 and 7).

Stakeholder communication (E2): So far, we have initialized or attended 43 (39 %) meetings at the regional level (E2.1). In 2018 and 2019, emphasis was placed on communication with quarry and gravel pit owners. As a result of this, we were able to start the resettlement of midwife toads from a quarry which will be filled up in the future. On the national and international level (E2.2), we have attended 14 meetings (155%) and have presented a talk at three of them. In the frame of LIFE-Networking (E2.3) we presented the project at two LIFE NRW meetings and hosted the meeting in 2019. We also presented the project with a talk at a LIFE informative meeting in Bavaria. Furthermore, we maintain contact with LIFE-Projects that have similar aims. To this end we participate in a network meeting with excursion in Stadthagen with the project “LIFE-Bovar” and maintain similar contact three other projects. We also contribute samples for the genetic analyses of the midwife toad in Germany to the NABU chapter in Lower Saxony (LIFE BOVAR).

New methods of communication (E3): After an announcement with posters and press articles, 80 people expressed interest in taking part in the Amphibian-Ranger training. In 2019, 23 Amphibian rangers (E3.1) were trained and 19 earned a certificate— with their training, they are already actively supporting the project. In 2020 the courses will be repeated with around 25 new participants. In the school project (E3.2) we have initialized cooperation with three schools. So far, in the frame of this project, 14 events have taken place. The training for teachers and nursery school teachers has been postponed and will be carried out in 2020 (see chapter 2). Three models of each of the target species were bought (E3.5). They are part of three “amphibians rucksack” (instead of trunks, see chapter 2). The start of the of the art project (E3.3) is planned for summer 2021. The implementation of a board or card game (E3.4) has been postponed to the year 2021 (see chapter 2).

Specialised publications and conference (E4): Two performance reports about the project were published in the annual report of the BS AC (E4.3). The project is also presented in the conference transcript of the DGHT-conference 2018 in Magdeburg. Two professional articles are in preparation, as well as one article for a newsletter of a Dutch nature conservation organisation.

F. Project management

Project staff was complete in April 2017 and the equipment that was necessary thus far has been supplied (F1). A partnership agreement was concluded with the MULNV. Annual meetings between the project partners are taking place. The project staff took part in five seminars for further education (F2).

2. Identified deviations, problems and corrective actions

A1.2: local action plans are planned in the proposal only till the end of 2020. By the current state of knowledge this action is necessary till the year 2024, because we prepare the local plans when they are needed and step by step.

C1 construction of ponds: some ponds that were built in 2018 lost too much water in summer 2019 and the reason is not entirely clear. We think the most likely cause is that the concrete hardened too fast. For this reason, in 2019 special protective measures have been administered during pond construction to enable the concrete to harden properly. In order to make the 2018 ponds watertight, we plan to apply an extra coat in 2020. Furthermore, we observed dead juveniles, which stuck to the concrete. It is not clear if they dried out or if maybe the fresh hardened concrete is too alkaline for them. We keep an eye on this problematic.

D 1.1: as reported during the project visit, on the one hand we will do yearly counts of *Bombina variegata* at each site (so far five sites, in 2020 six sites). On the other hand, we will conduct the time-consuming capture-recapture survey one less time. With this adjustment, we will be able to obtain an annual overview of the populations in adequate quality, as well as population estimations at the beginning, middle and end of the project.

The final report of D1 is delayed. So far, all data are registered in the project data base and individual reports are available. We plan to finish the final report of the preliminary assessment in spring 2020.

E3.2 The training for teachers and nursery school teachers will be caught up in 2020. The benefit is, we can introduce the amphibian rucksack and more teachers/schools can attend the training. We will promote the amphibian rucksack and the possibility to lend them for schools i.a. in the agenda 2020 of the Biologische Station StädteRegion Aachen.

E3.5 Amphibian rucksack (former trunk): currently, only three back-backs have been prepared - one for each type of school. If there is a greater demand in the future, more will be prepared.

E3.4 board/card game: no money for the implementation of the parlour game was calculated in the proposal. More work time must be dedicated for the realisation of the game. The measure will be implemented in the second half of the project.

In conclusion, the project is progressing well on the relevant issues. So far there have been no setbacks which have endangered the success of the project.