

WP3

Validation of harmonized
methods on selected wildlife
host-pathogen pairs



- » **Main objective:** To generate information on the practical feasibility and added value of the harmonized methods developed in WP1 and 2 by field-validating them on selected wildlife host-pathogen pairs in Europe. Therefore, we test the harmonized methods for estimating species abundance and for diagnosing pathogens.

WP3 – Objectives





» **Three models for method validation selected:**

1. Wild boar & Aujeszky's disease virus
2. Red fox & *Echinococcus multilocularis*
3. Rodents & *Francisella tularensis*

WP3 – Models





- » **Field data generated during the project**
 - > Data generated using the proposed harmonized methods of WP 1 and 2
 - > Statistical evaluation of the methods by comparison with former data in the same area or data generated in similar areas using “gold standards” and/or current methodology
 - > Highlighting the practical implications of the proposed methodology
- » **Field data already acquired by other projects and research**
 - > Simulation of the proposed methods of WP 1 and WP2
 - > Evaluation of the proposed harmonized methods taken the basic data as “gold standard”
 - > Additional data and methods generated by APHAEA are integrated and the added value assessed

WP3 – Workflow





» **Wild boar & Aujeszky's disease virus**

- > Standardized method WP1: hunting statistics, provide metadata for statistics from the Partner's countries
- > Standardized method WP2: PCR and Serology (sera and tissue samples from the same area as hunting statistics)

» **Red fox & *Echinococcus multilocularis***

- > Standardized method WP1: if available spotlight counts, hunting statistics (problem: not available in e.g. in Italy and Spain); also metadata very important
- > Standardized method WP2: collect intestine and find laboratories to test the samples with OIE counting method and PCR

WP3 – Berlin Meeting (1/2) >



» Rodents & *Francisella tularensis*

- > Standardized method WP1: Snap trapping of *Microtus arvalis* and related rodents
- > Standardized method WP2: collect spleen; methods for tularemia diagnostics not finally agreed

WP3 – Berlin Meeting (2/2) >



» Questionnaire to all partners

- > Which host and pathogen combination is chosen by the partner?
- > Which geographical area within the country and time period has been chosen?
- > Which current population data and samples including diagnostic tests could be provided?
- > Which historical data could be provided?
- > Questions and details regarding data and sample collection will be phrased depending on the host/pathogen selection

Proposal to implement WP3 (1/3) >



» **Collection of population data and samples**

- > FLI will provide a database structure for population data and sample results in MS EXCEL and/or MS Access
- > If necessary FLI will support partners transferring the local data in the proposed structure and will provide data from the EURL CSF database regarding hunting statistics in selected countries
- > Database tables will be uploaded to the internal section of the APHAEA website

Proposal to implement WP3 (2/3) >



- » **Statistical evaluation of the data and simulation of surveillance schemes**
 - > Simulation of the proposed methods of WP1 and WP2
 - > Evaluation of the proposed harmonized methods taken the provided data into account (provision of historical data in advance would be appreciated)
 - > Harmonization and standardization potential as well as added value assessed

Proposal to implement WP3 (3/3) >