

## 1. Content of the 'Topic Description' document

### 1.1. Topic area

Pest/Vector biology, epidemiology, taxonomy

### 1.2. Links to the Euphresco Strategic Research Agenda

The topic addresses the following objective(s) of the 2017-2022 Euphresco Strategic Research Agenda:

- Objective 2017-R-1.1: to improve knowledge on the biology, epidemiology and ecology of priority invasive and (re)emerging pests
- Objective 2017-R-2.1: to improve knowledge on emerging pathways of entry and means of spread for pests

### 1.3. Topic title

*Corythucha arcuata* (Heteroptera, Tingidae): Evaluation of the pest status in Central Europe and development of strategies to slow the spread

### 1.4. Description of the problem the research should solve

Since the first detection of the oak lace bug, *Corythucha arcuata* in Italy in 2000, this invasive Hemipteran insect has now spread to nearly a dozen other European countries. Within a few years since the first record in Croatia and Hungary in 2013, *C. arcuata* has reached significant pest status in both of these countries. A recent pest risk assessment done in Croatia concludes that the infestation will reduce vigour of oaks and make them more prone to other pests and diseases so major economic damage is possible. To reduce the spread of the pest, Croatia restricted the movement of wood with bark for a two year period, which started during the winter 2017/18. Further research is needed on the effects of the pest on infested stands, the risks for oak forests in Europe where the species is not present yet, and the mechanisms of active and passive dispersal of *C. arcuata*. Identifying these mechanisms will allow development of strategies to prevent or slow the spread of this pest. The topic should also consider treatment options for oak wood in order to avoid transportation of hibernating *C. arcuata*, and what control options are currently available for dealing with this invasive insect pest in forest and urban settings.

### 1.5. Description of the expected results

The project aims to develop a better understanding of the impacts of *C. arcuata* in forest and urban settings. This will include identifying the pathways for spread of the pest and an assessment of how well adults overwinter under bark. Do the infested trees suffer from tree mortality, reduced growth and/or reduced acorn production/germination? Are the effects more of an aesthetic issue with trees turning brown earlier than usual with relatively little impact on tree growth, or are impacts only detectable over longer periods of time? Is there any evidence that oak trees or stands of oak trees infested with *C. arcuata* are more susceptible to other pests and pathogens? Once there is a better understanding of the impacts it will be possible to develop options for slowing/stopping the spread of the pest.

### 1.6. Beneficiaries of this research product

National Plant Protection Services, forest managers, parks and gardens managers, wood and timber industry and trade, as well as the general public.

### 1.7. Research funders and research contribution/ distribution

Funding organisation	Research activity and researchers involved
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1. Department for Environment Food and Rural Affairs, Great Britain  Laura Pinney <a href="mailto:Laura.Pinney@defra.gsi.gov.uk">Laura.Pinney@defra.gsi.gov.uk</a>	- Project coordination  Contact person: David Williams e.mail: <a href="mailto:david.t.williams@forestry.gov.uk">david.t.williams@forestry.gov.uk</a>
2. Federal Ministry for Sustainability Tourism, Austria  Sylvia Bluemel <a href="mailto:sbluemel@ages.at">sbluemel@ages.at</a>	- Contribution to be detailed  Contact person: Gernot Hoch e.mail: <a href="mailto:gernot.hoch@bfw.gv.at">gernot.hoch@bfw.gv.at</a>
3. University of Zagreb, Croatia  Boris Hrasovec <a href="mailto:bhrasovec@sumfak.hr">bhrasovec@sumfak.hr</a>	- Contribution to be detailed  Contact person: Boris Hrasovec e.mail: <a href="mailto:bhrasovec@sumfak.hr">bhrasovec@sumfak.hr</a>
4. Central Institute for Supervising and Testing of Agriculture, The Czech Republic  Michal Hnizdil <a href="mailto:Michal.Hnizdil@ukzuz.cz">Michal.Hnizdil@ukzuz.cz</a>	- Contribution to be detailed  Contact person: Vaclav Cermak e.mail: <a href="mailto:v.cermak@ukzuz.cz">v.cermak@ukzuz.cz</a>
5. Ministry of Agriculture, Hungary  Mr George Melika <a href="mailto:MelikaG@nebih.gov.hu">MelikaG@nebih.gov.hu</a>	- Contribution to be detailed  Contact person: Csóka György e.mail: <a href="mailto:csokagy@erti.hu">csokagy@erti.hu</a>
6. Research and Development Institute for Plant Protection, Romania  Constantina Chireceanu <a href="mailto:cchireceanu@yahoo.com">cchireceanu@yahoo.com</a>	- Contribution to be detailed  Contact person: Constantina Chireceanu e.mail: <a href="mailto:cchireceanu@yahoo.com">cchireceanu@yahoo.com</a>

### 1.8. Research project partnership outside Euphresco

Euphresco funding ensures a certain level of transnational collaboration among Euphresco member countries. It is possible, if the funding consortium is interested, to contact funding organisations or research groups outside the geographical area covered by Euphresco members. The Euphresco coordinator could advertise the research topic in order to have an enlarged collaboration. If funders are interested in this possibility, please check the case below:

The funding consortium of the topic mentioned in section 1.2 requires that the topic is advertised outside the Euphresco network

Information to define the profile of sought partners could be useful (but not mandatory): country/region (if there are preferences), skills/expertise required, etc.

### 1.9. Any other relevant information on content

None.

## 2. Euphresco management aspects of the project

### 2.1. Indication of the topic budget

Funding organisation <sup>a</sup>	Mechanism <sup>b</sup>	Total Budget <sup>c</sup>
1. Defra (GB)	NC	€ 50 000
2. BMNT (AT)	NC	€ 35 000
3. SUMFAK (HR)	NC	€ 10 000
4. UKZUZ (CZ)	NC	€ 1 000
5. NEBIH (HU)	NC	€ 1 000
6. ICDPP (RO)	NC	€ 3 000
total		€ 100 000

### 2.2. Expected duration of the project (only for non-competitive topics)

24 months

### 2.3. Identification of project coordinator

Has the research project coordinator been identified?

- Yes  
 No

### 2.4. Any other relevant information on topic organisation and management

None.

<sup>a</sup> First member is project coordinator. A minimum of two partners are necessary for each proposal. Add lines as needed.

<sup>b</sup> Please indicate the preferred mechanism (e.g. real pot RP; virtual pot VP; non-competitive NC), or several mechanisms if there is flexibility.

<sup>c</sup> Optional, as this amount can still change in the next phase. In-kind contribution should also be indicated in this column.