

Animal and Plant Health Unit

Minutes of the 7th meeting of the Working Group on the Scientific Opinion on *Batrachochytrium salamandrivorans* (Bsal) (art. 29)

Held on 10 April 2018 by WEB-conference

(Agreed on 10 April 2018 at the end of the meeting)

Participants

- **Working Group Members:** Vojtech Balaz, Christian Gortázar, An Martel, Kris Murray and Hans-Hermann Thulke
- **Hearing Experts:** Not Applicable
- **European Commission:** Not Applicable
- **EFSA:** ALPHA Unit: Frank Verdonck
- **Others:** Not Applicable

1. Welcome and apologies for absence

The Chair welcomed the participants.

2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence and Scientific Decision-Making Processes¹ and the Decision of the Executive Director on Declarations of Interest², EFSA screened the Annual Declaration of Interest and the Specific Declaration of Interest filled in by the working group members invited for the present meeting. No Conflicts of Interest

¹ <http://www.efsa.europa.eu/en/keydocs/docs/independencypolicy.pdf>

² <http://www.efsa.europa.eu/en/keydocs/docs/independencerules2014.pdf>

related to the issues discussed in this meeting have been identified during the screening process or at the Oral Declaration of Interest at the beginning of this meeting.

4. Scientific topic(s) for discussion³:

The last contributions and pending questions were discussed and resolved. The draft document will be circulated to the Panel for possible adoption.

5. Next meeting

Not foreseen

³ <http://registerofquestions.efsa.europa.eu/roqFrontend/questionLoader?question=EFSA-Q-2017-00205>

Animal and Plant Health Unit

Minutes of the 6th meeting of the Working Group on the Scientific Opinion on *Batrachochytrium* *salamandrivorans* (Bsal) (art. 29)

Held on 09 March 2018 by WEB-conference

(Agreed on 14 March 2018)

Participants

- **Working Group Members:**

Vojtech Balaz

Christian Gortázar

An Martel

Kris Murray

Hans-Hermann Thulke

- **Hearing Experts:**

Not Applicable

- **European Commission:**

Not Applicable

- **EFSA:**

ALPHA Unit: Chiara Fabris

- **Others:**

Not Applicable

1. Welcome and apologies for absence

The Chair welcomed the participants.

2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence and Scientific Decision-Making Processes¹ and the Decision of the Executive Director on Declarations of Interest², EFSA screened the Annual Declaration of Interest and the Specific Declaration of Interest filled in by the working group members invited for the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process or at the Oral Declaration of Interest at the beginning of this meeting.

4. Scientific topic(s) for discussion³:

After discussion of the draft at the March Plenary meeting, the AHAW Panel identified where the text should be better clarified with inputs from the WG. During the WG meeting, the feedback from the Panel was presented, the WG experts went through the draft SO, Panel comments were discussed in details and relevant modifications to the draft agreed: e.g., the description on the niche model was better explained to ensure a basic understanding; the possibility of demonstrating absence of Bsal in a "close population" of kept salamanders was better detailed. *Ad-hoc* inputs from WG experts are still required along the text; therefore, specific tasks were assigned to each WG member and the relevant deadlines were agreed, in order to finalise a revised version of the draft opinion to be submitted for written adoption by the AHAW Panel in April.

5. Next meeting

April 10th, 2018, Web-conference – to be confirmed

¹ <http://www.efsa.europa.eu/en/keydocs/docs/independencepolicy.pdf>

² <http://www.efsa.europa.eu/en/keydocs/docs/independencerules2014.pdf>

³ <http://registerofquestions.efsa.europa.eu/roqFrontend/questionLoader?question=EFSA-Q-2017-00205>

Animal and Plant Health Unit

Minutes of the 5th meeting of the Working Group on the Scientific Opinion on *Batrachochytrium salamandrivorans* (Bsal) (art. 29)

Held on 19-20 February 2018, Parma (IT)

(Agreed on 06 March 2018)

Participants

- **Working Group Members:**

Vojtech Balaz

Christian Gortázar

An Martel

Kris Murray

Hans-Hermann Thulke

- **Hearing Experts:**

Not Applicable

- **European Commission and/or Member States representatives:**

Not Applicable

- **EFSA:**

ALPHA Unit: Chiara Fabris, Frank Verdonck

- **Others:**

Not Applicable

1. Welcome and apologies for absence

The Chair welcomed the participants.

2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence and Scientific Decision-Making Processes¹ and the Decision of the Executive Director on Declarations of Interest², EFSA screened the Annual Declaration of Interest and the Specific Declaration of Interest filled in by the working group members invited for the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process or at the Oral Declaration of Interest at the beginning of this meeting.

4. Scientific topic(s) for discussion³:

The WG experts went through the entire draft SO: the new contributions provided were discussed in details and relevant modifications agreed, comments received by the AHAW Panel were fully addressed, last pending tasks were assigned and consensus on the experts' assessment exercise concerning ToRs 3b, 4a and 4b was achieved.

Agreement was found on the new revision of the document; conclusions and recommendations were drafted, commented and agreed.

5. Any Other Business

Specific tasks were assigned to the WG members; relevant deadlines were agreed in order to finalise an update of the draft SO to be submitted to the AHAW Panel for deep discussion at the March AHAW Plenary meeting before written adoption in April.

¹ <http://www.efsa.europa.eu/en/keydocs/docs/independencepolicy.pdf>

² <http://www.efsa.europa.eu/en/keydocs/docs/independencerules2014.pdf>

³ <http://registerofquestions.efsa.europa.eu/roqFrontend/questionLoader?question=EFSA-Q-2017-00205>

6. Next meeting

March 9th, 2018 – Web-conference

ANIMAL AND PLANT HEALTH UNIT

Animal and Plant Health Unit

Minutes of the 4th meeting of the Working Group on the Scientific Opinion on *Batrachochytrium* *salamandrivorans* (Bsal) (art. 29)

Held on 18 January 2018 by WEB-conference

(Agreed on 16 February 2018)

Participants

- **Working Group Members:**

Vojtech Balaz

Christian Gortázar

An Martel

Kris Murray

Hans-Hermann Thulke

- **Hearing Experts intervening in their private capacity:**

Paul Bakuwel (for the discussion on how salamanders are transported in practice)

Tracey King (for the discussion on how salamanders are transported in practice)

- **European Commission:**

Not Applicable

- **EFSA:**

ALPHA Unit: Chiara Fabris

- **Others:**

Not Applicable

1. Welcome and apologies for absence

The Chair welcomed the participants.

2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence and Scientific Decision-Making Processes¹ and the Decision of the Executive Director on Declarations of Interest², EFSA screened the Annual Declaration of Interest and the Specific Declaration of Interest filled in by the working group members invited for the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process or at the Oral Declaration of Interest at the beginning of this meeting.

4. Scientific topic(s) for discussion³:

4.1. Model and surveillance approach (ToR-2a and 2b)

The draft opinion was revised on the basis of the new contributions provided by the experts.

Agreement on the revised version of Interpretation of ToR's, data&methodology and description of the salamander population distribution was achieved. It was also agreed that, if enough information is available, a map representing which is likely to be the distribution of Bsal in the future will be added. The experts discussed also the possibility to represent in a map the available information from the Bsal surveillance activities currently ongoing in some EU MSs. The description of the Bsal diagnosis protocol and the surveillance approach were discussed in details and agreed. Little information is available for defining an active surveillance strategy on Bsal as well as demonstrating the absence of disease. On the basis of the available evidence, the experts provided information on: sample definition, where/when to sample, sampling size, species to be sampled and diagnostic test to be used.

¹ <http://www.efsa.europa.eu/en/keydocs/docs/independencepolicy.pdf>

² <http://www.efsa.europa.eu/en/keydocs/docs/independencerules2014.pdf>

³ <http://registerofquestions.efsa.europa.eu/roqFrontend/questionLoader?question=EFSA-Q-2017-00205>

4.2. Assessment of the possible Bsal means of transport (ToR-3a)

Agreement on the description of the approach to qualitatively assess the role of the possible means of transport in the spread of Bsal in wild live salamanders (ToR-3a) was achieved. The descriptions of the carriers, rationales behind the scoring assessment and of the overall outcomes of the judgement were discussed and agreed.

4.3. Assessment of the risk mitigating measures for protection of kept and wild salamanders (ToRs- 4a and 4b)

Feasibility, effectiveness and related uncertainty rates of the risk mitigating factors for protecting kept salamanders and on-site protection of wild salamanders in their natural habitats were scored independently by the WG experts. The outcomes of the individual assessments were presented and discussed.

4.4. Discussion on how salamanders are transported in practice

Information on how salamanders are practically transported (in international and intra-EU movements) was provided. It was specified that, for international import to the EU, the transport normally takes place by air and it should follow the standards set by the IATA Live Animal Regulations (LAR); for intra-EU movements the transport may occur on road-vehicles under conditions that may vary according to several factors, e.g., distances, species, amount of animals, etc. Salamanders are included, individually or in small groups of the same species, in primary containers, which are different in the case of aquatic or terrestrial species (small perforated plastic boxes filled with wet substrate in the case of terrestrial species, and a double plastic bag filled with water and a mixture of oxygen and air, in the case of aquatic species). Primary containers are placed in a secondary container, which is normally a polystyrene box that can be re-used after cleaning and disinfection. The number of animals transported for each shipment may vary depending on the species that are transported. The majority of traded salamanders is shipped as adults or metamorphosed juveniles. Information was provided also on how the salamanders are kept in captivity: depending on the species, the husbandry approaches may vary greatly. In general terms, the aquatic species are kept in aquariums, whereas terrestrial species are normally kept in closed systems.

5. Any Other Business

5.1. Project management

An update of the draft scientific opinion will be discussed at the January AHAW Plenary meeting with specific attention to: Interpretation of ToR's,

data&methodology, the description of the niche model, the salamander population distribution and of the surveillance approach to address ToR-2. The approaches to qualitatively assess ToRs-3a, 3b, 4a and 4b will be also presented, together with the visual description of the results of the experts' judgement exercise. The aim of the discussion during the AHAW Plenary meeting will be to get an overall feedback from the AHAW Panel on the draft SO and on the approaches that have been used.

5.2. Tasks and assignments

Specific tasks were assigned to the WG members; relevant deadlines were agreed.

6. Next meeting

19-20 February 2018 – physical meeting.

Animal and Plant Health Unit

Minutes of the 3rd meeting of the Working Group on the Scientific Opinion on *Batrachochytrium* *salamandrivorans* (Bsal) (art. 29)

Held on 30 November – 01 December 2017 in Parma (IT)

(Agreed on 12 December 2017)

Participants

- **Working Group Members:**

Vojtech Balaz

Christian Gortázar

An Martel

Kris Murray

Hans-Hermann Thulke

- **Hearing Experts:**

Not Applicable

- **European Commission-DG SANTE:**

Not Applicable

- **EFSA:**

ALPHA Unit: Chiara Fabris

- **Others:**

Not Applicable

1. Welcome and apologies for absence

The Chair welcomed the participants.

2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence and Scientific Decision-Making Processes¹ and the Decision of the Executive Director on Declarations of Interest², EFSA screened the Annual Declaration of Interest and the Specific Declaration of Interest filled in by the working group members invited for the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process or at the Oral Declaration of Interest at the beginning of this meeting.

4. Scientific topic(s) for discussion³:

4.1. Discussion on the literature search

The results of the current extensive literature search (ELS), updating the 2016 ELS for the EFSA Scientific Report on Bsal, were presented. Full-texts of the selected papers were made available for all WG members.

4.2. Assessment of the possible Bsal spread pathways (ToR-3a)

The list of possible Bsal means of transport for survival, spread and establishment of Bsal in the salamanders' natural habitats was agreed together with the explanations and relevant references. The Bsal means of transport were then scored by the experts against the likelihood to happen and the probability to have a role in the Bsal spread in wild live salamanders: i) within a subpopulation, ii) from an infected area to an uninfected area between sub-populations of the same meta-population, and iii) from an infected area to an uninfected area across geography barriers (between meta-populations). Geographical, hydrographical and meteorological considerations and rationales behind the assessment values were also provided for some of the results.

¹ <http://www.efsa.europa.eu/en/keydocs/docs/independencepolicy.pdf>

² <http://www.efsa.europa.eu/en/keydocs/docs/independencerules2014.pdf>

³ <http://registerofquestions.efsa.europa.eu/roqFrontend/questionLoader?question=EFSA-Q-2017-00205>

4.3. Assessment of the risk mitigating factors for ensuring safe international and intra-EU trade (ToR-3b)

The outcomes of the assessment of the risk mitigating factors for ensuring safe international and intra-EU trade that were scored independently by the WG experts were discussed. Different points of view were explained and overall consensus was reached.

Considerations on the salamanders' products and by-products as regards the transmission of Bsal were also provided.

4.4. Assessment of the risk mitigation factors for salamanders' protection "in situ" for kept salamanders and on-site for wild salamanders in their natural habitat (ToR-4a and b)

The lists of the risk mitigation factors for the protection of captive salamanders in the places they are kept ("in-situ") and for the on-site protection of wild salamanders in their natural habitats were revised and finalised taken into account also the more recent publications. Definitions of "feasibility" and "effectiveness" of the factors were agreed together with the values for WG experts' scoring assessment of these two parameters.

5. Any Other Business

5.1. Project management

Timelines and deadlines of the project were discussed. An update of the draft scientific opinion will be presented at the January AHAW Plenary meeting and the WG agreed in including the description of the model and of the surveillance approach that will be used to address ToR-2 on Bsal presence, absence, surveillance and eradication. The dates of the next WG meetings were agreed.

5.2. Tasks and assignments

Specific tasks were assigned to the WG members; relevant deadlines were agreed.

6. Next meeting

18 January 2018 – Web-conference.

Animal and Plant Health Unit

Minutes of the 2nd meeting of the Working Group on the Scientific Opinion on *Batrachochytrium salamandrivorans* (Bsal) (art. 29)

Held on 13-14 November 2017 by WEB -conference

(Agreed on 29 November 2017)

Participants

- **Working Group Members:**

Vojtech Balaz (on the 13th)

Christian Gortázar

An Martel (on the 13th)

Kris Murray (on the 13th)

Hans-Hermann Thulke (on the 13th)

- **Hearing Experts:**

Not Applicable

- **European Commission-DG SANTE:**

Pierangelo Bernorio (for the mandate general discussion on the 13th)

Laszlo Kuster (for the mandate general discussion on the 13th)

- **EFSA:**

ALPHA Unit: Chiara Fabris

- **Others:**

Not Applicable

1. Welcome and apologies for absence

The Chair welcomed the participants.

2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence and Scientific Decision-Making Processes¹ and the Decision of the Executive Director on Declarations of Interest², EFSA screened the Annual Declaration of Interest and the Specific Declaration of Interest filled in by the working group members invited for the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process or at the Oral Declaration of Interest at the beginning of this meeting.

4. Scientific topic(s) for discussion³:

4.1. Discussion on the literature search

The results of the current extensive literature search (ELS), updating the 2016 ELS for the EFSA Scientific Report on Bsal, were presented and discussed. Screening inclusion/exclusion criteria were defined; the screening of the records is being carried out in parallel by two reviewers. Full-texts of the selected papers will be made available for all WG members.

4.2. General discussion on the mandate

The general aim of the mandate was clarified; the WG explained the possibility of demonstrating presence of Bsal both in kept and in wild salamanders, whereas the confirmation of Bsal absence is a more difficult assessment, mainly in the wild populations.

Among the possible risk mitigating factors, it was emphasised the importance of identifying the ones that can be feasibly implemented from a practical point of view (also in terms of resources).

¹ <http://www.efsa.europa.eu/en/keydocs/docs/independencepolicy.pdf>

² <http://www.efsa.europa.eu/en/keydocs/docs/independencerules2014.pdf>

³ <http://registerofquestions.efsa.europa.eu/roqFrontend/questionLoader?question=EFSA-Q-2017-00205>

Clarifications on salamanders' and other amphibians' (possible Bsal carriers) products and by-products were also provided.

4.3. Risk mitigating factors for ensuring safe international and intra-EU trade (ToR-3b)

The list of the risk mitigation factors that could potentially be effective in ensuring safe international or intra-EU trade of live salamanders (and their products and by-products) as regards the transmission of Bsal was revised and finalised taken into account also the more recent publications. Definitions of "feasibility" and "effectiveness" of the factors were agreed together with the values for WG experts' scoring assessment of these two parameters.

It was agreed that the same approach will be followed for finalising the lists of the possible Bsal spread pathways (ToR-3a) and of the risk mitigating factors for salamanders' (wild and kept) protection from Bsal (ToR-4a and b).

5. Any Other Business

5.1. Project management

Timelines and deadlines of the project were discussed; the dates of the next two WG meetings were agreed.

5.2. Tasks and assignments

Specific tasks were assigned to the WG members; relevant deadlines were agreed.

6. Next meeting

30 November–01 December, physical meeting.

Animal and Plant Health Unit

Minutes of the 1st meeting of the Working Group on the Scientific Opinion on *Batrachochytrium salamandrivorans* (Bsal) (art. 29)

Held on 05-06 October 2017, Parma (IT)

(Agreed on 26 October 2017)

Participants

- **Working Group Members:**

Vojtech Balaz

Christian Gortázar Schmidt

An Martel

Kris Murray

Hans-Hermann Thulke

- **Hearing Experts:**

Not Applicable

- **European Commission and/or Member States representatives:**

Not Applicable

- **EFSA:**

ALPHA Unit: Chiara Fabris, Frank Verdonck, Rhea Creve

- **Others:**

Not Applicable

1. Welcome and apologies for absence

The Chair welcomed the participants.

2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence and Scientific Decision-Making Processes¹ and the Decision of the Executive Director on Declarations of Interest², EFSA screened the Annual Declaration of Interest and the Specific Declaration of Interest filled in by the working group members invited for the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process or at the Oral Declaration of Interest at the beginning of this meeting.

4. Scientific topic(s) for discussion³:

interpretation of ToRs, approach to the mandate and structure of the Scientific opinion

The WG members were informed that at the 104th Plenary meeting of the AHAW Panel the ToRs have been presented by DG SANTE, and the Panel had proposed some suggestions on how to approach the mandate.

On the basis of these suggestions, it was agreed that:

- a) ToRs -1 and -5 and some aspects of ToRs -2 and -3 have been already addressed by other EFSA scientific outputs;
- b) for ToR-2 on presence, surveillance and eradication of Bsal: the WG will focus on the presence of Bsal. It was proposed and agreed to display, in maps and/or in tabular format, the salamander species distribution in EU, the areas in EU where the presence of Bsal has been investigated and where Bsal has been/not been identified.

It was proposed to investigate the possibility of using a manuscript modelling Bsal distribution that An Martel (WG member) and her

¹ <http://www.efsa.europa.eu/en/keydocs/docs/independencepolicy.pdf>

² <http://www.efsa.europa.eu/en/keydocs/docs/independencerules2014.pdf>

³ <http://registerofquestions.efsa.europa.eu/roqFrontend/questionLoader?question=EFSA-Q-2017-00205>

team have submitted for publication. This model and the derived insights would be fit for addressing ToR-2.

It was highlighted that there is poor knowledge on the population size and Bsal background prevalence and only few data are available on the relevant geographical unit; in addition, other means, else than natural movements of salamanders (e.g carriers), might have a role in spreading Bsal. It was agreed that the technical uncertainties regarding host population distribution, niche use of the pathogen and non-systematic pathogen surveys need to be always be explicitly attached to the model or other way of geographical representation.

c) for ToR-3 on spread of Bsal in and from infected areas or via infected animals or fomites:

1) to assess the risk of survival, spread and establishment of Bsal within already infected areas and spread from infected areas into other parts of the EU by natural movements of live salamanders taking into account especially relevant geographical, hydrographical and meteorological conditions (ToR-3, a, i):

it was proposed to list and describe, on the basis of the available scientific evidence, the possible Bsal means of transport/routes of spread and to outline parameters influencing the risk of spread; WG experts should order the probability of each pathway to have a role in the Bsal entry either by distance jump (mechanical?) or host-to-host spread (transmission?);

2) to assess the risk mitigating factors that could potentially be effective in ensuring safe international or intra-EU trade of live salamanders (both captured in the wild and bred) and their products and by-products as regards the transmission or Bsal (ToR-3, b):

it was proposed to take into account the list of risk mitigation measures reported in the EFSA's Bsal scientific report⁴ and add others that might be relevant (e.g. for kept salamanders, products and/or by-products); the measures should be then selected for relevance and ordered by the WG for feasibility (including considerations also in the consequences) and effectiveness;

3) to assess the role of live, silent carriers of Bsal in spreading it as vectors and those of fomites (e.g. waste water, animal by-

⁴ EFSA (European Food Safety Authority), Balaz V, Gortazar Schmidt C, Murray K, Carnesecchi E, Garcia A, Gervelmeyer A, Martino L, Munoz Guajardo I, Verdonck F, Zancanaro G and Fabris C, 2017. Scientific report: scientific and technical assistance concerning the survival, establishment and spread of *Batrachochytrium salamandrivorans* (Bsal) in the EU. EFSA Journal 2017;15(2):4739, 73 pp. doi:10.2903/j.efsa.2017.4739

products, feed etc.) and risk mitigating measures concerning those (ToR-3, c):

the WG agreed that few information is available on this issue; it was proposed to have a description of the possible carriers, how they (and their products/by-products) are transported as well as the related potential fomites; a description of mitigations measures suitable for the respective modes of transport might be also provided;

d) for ToR-4 on spread of Bsal in and from infected areas or via infected animals or fomites:

it was proposed to describe how salamanders are kept in captivity and the biosecurity measures that are applicable to protect from Bsal the salamanders kept in captivity and the ones to protect salamanders in their natural habitat; WG experts should assess these measures for feasibility and effectiveness; a description of potential treatment of infected kept salamanders populations and of infected salamanders populations in their natural habitats might be also included.

5. Any Other Business

5.1. Project management

Timelines and deadlines of the project were discussed; a draft planning of the next WG meetings will be proposed for final agreement.

5.2. Tasks and assignments

Specific tasks were assigned to the WG members. The WG agreed that somebody with practical experience on the field of amphibians import should be also involved to better explain the process to the WG members.

6. Next meeting

Mid November 2017 (date to be confirmed) – Web-conference