

WOAH Reference Laboratory Reports Activities 2023

Activities in 2023

This report has been submitted : 8 mai 2024 10:03

Laboratory Information

Name of disease (or topic) for which you are a designated WOAHO Reference Laboratory:	American foulbrood
Address of laboratory:	Südufer 10
Tel.:	+49-38351 7 1246
E-mail address:	marc.schaefer@fli.de
Website:	https://www.fli.de/en/institutes/institute-of-infectology-imed/reference-laboratories/oie-andnrls-for-bee-diseases/
Name (including Title) of Head of Laboratory (Responsible Official):	Dr. phil. nat. Marc O. Schäfer, head of the NRL for bee diseases
Name (including Title and Position) of WOAHO Reference Expert:	Dr. phil. nat. Marc O. Schäfer, head of the NRL for bee diseases
Which of the following defines your laboratory? Check all that apply:	Governmental

TOR1: DIAGNOSTIC METHODS

1. Did your laboratory perform diagnostic tests for the specified disease/topic for purposes such as disease diagnosis, screening of animals for export, surveillance, etc.? (Not for quality control, proficiency testing or staff training)

Yes

Diagnostic Test	Indicated in WOAHO Manual (Yes/No)	Total number of test performed last year	
		Nationally	Internationally
Indirect diagnostic tests		Nationally	Internationally
Direct diagnostic tests		Nationally	Internationally
bacterial isolation		9	58
conventional PCR		102	60
repPCR with ERIC primers		100	60
MLVA		100	60

TOR2: REFERENCE MATERIAL

2. Did your laboratory produce or supply imported standard reference reagents officially recognised by WOAHO?

No

3. Did your laboratory supply standard reference reagents (nonWOAH-approved) and/or other diagnostic reagents to WOAHO Members?

Yes

TYPE OF REAGENT AVAILABLE	RELATED DIAGNOSTIC TEST	PRODUCED/ PROVIDE	AMOUNT SUPPLIED NATIONALLY (ML, MG)	AMOUNT SUPPLIED INTERNATIONALLY (ML, MG)	NO. OF RECIPIENT WOAHO MEMBER COUNTRIES	COUNTRY OF RECIPIENTS
Different german field	Bacterial isolation,					

strains of P. larvae	conventional PCR	SWABS with P. larvae	10	0	1	GERMANY,
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4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to WOAHA Members?

No

TOR3: NEW PROCEDURES

6. Did your laboratory develop new diagnostic methods for the designated pathogen or disease?

No

7. Did your laboratory validate diagnostic methods according to WOAHA Standards for the designated pathogen or disease?

No

8. Did your laboratory develop new vaccines for the designated pathogen or disease?

No

9. Did your laboratory validate vaccines according to WOAHA Standards for the designated pathogen or disease?

No

TOR4: DIAGNOSTIC TESTING FACILITIES

10. Did your laboratory carry out diagnostic testing for other WOAHA Members?

Yes

NAME OF WOAHA MEMBER COUNTRY SEEKING ASSISTANCE	DATE	WHICH DIAGNOSTIC TEST USED	NO. SAMPLES RECEIVED FOR PROVISION OF DIAGNOSTIC SUPPORT	NO. SAMPLES RECEIVED FOR PROVISION OF CONFIRMATORY DIAGNOSES
DENMARK	2023-07-05	Bacterial isolation, conventional PCR, repPCR, MLVA	7	0

11. Did your laboratory provide expert advice in technical consultancies on the request of an WOAHA Member?

No

TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

12. Did your laboratory participate in international scientific studies in collaboration with WOAHA Members other than the own?

Yes

Title of the study	Duration	PURPOSE OF THE STUDY	PARTNERS (INSTITUTIONS)	WOAHA MEMBER COUNTRIES INVOLVED OTHER THAN YOUR COUNTRY
B-GOOD - Giving beekeeping guidance by computational-assisted decision making	June 2019 - November 2023	B-GOOD has the overall goal to provide guidance to beekeepers and help them make better and more informed decisions	Universiteit Gent, Stichting Wageningen Research, BeeSources di Raffaele Dall'Olio, Pensoft Publishers, Institut National de la Recherche Agronomique, Martin- Luther-Universität Halle- Wittenberg, Universitatea de Stiinte Agricole si Medicina Veterinara Cluj Napoca, Aarhus Universitet, Universidade de Coimbra, The Nottingham Trent University, Universität Bern, Stichting BEEP, Suomen Mehiläishoitajain liitto SML ry, Uniwersytet Jagiellonski, Sciensano, SCIPROM Sari	BELGIUM BULGARIA FINLAND FRANCE ITALY POLAND PORTUGAL ROMANIA SWITZERLAND THE NETHERLANDS UNITED KINGDOM

13. In exercising your activities, have you identified any regulatory research needs* relevant for WOAHA?

No

TOR6: EPIZOOLOGICAL DATA

14. Did your Laboratory collect epidemiological data relevant to international disease control?

No

15. Did your laboratory disseminate epidemiological data that had been processed and analysed?

No

16. What method of dissemination of information is most often used by your laboratory? (Indicate in the appropriate box the number by category and list the details in the box)

a) Articles published in peer-reviewed journals:

1

Insects, 2023: Bridging the gap between field experiments and machine learning: The EC H2020 B-GOOD project as a case study to 3 wards automated predictive health monitoring of honey bee 4 colonies; Coby van Dooremalen, ..., Marc O. Schäfer, ... et al.

b) International conferences:

3

*Apimondia, Santiago de Chile, 2023: Potential risk factors for honey bee health in Europe; Marc O. Schäfer, Severine Matthijs
International Congress on Sustainable Honeybee Keeping, Dresden, Germany, 2023: Bee diseases overview & German bee monitoring (DeBiMo); Marc O. Schäfer
Central European Section of the IUSSI, Cluj-Napoca, Romania, 2023: The diseased honey bee colony-Distribution of a brood pathogen; Sandra Ehrenberg, Lukas Rüttinger,
Marc O. Schäfer, Robert Kammerer*

c) National conferences:

3

*Mülheimer Bienentage, Mülheim, Germany, 2023: 1. Virenanalysen von Honigbienenvölkern aus Deutschland und Europa; Marc O. Schäfer
Mülheimer Bienentage, Mülheim, Germany, 2023: 2. Der Kleine Beutenkäfer – Aktuelle Situation und Forschung; Marc O. Schäfer
AG Tagung, Potsdam, 2023: Validation of a lateral flow device for American foulbrood detection and genotype differentiation of ERIC I & ERIC II; Sandra Ehrenberg, Lukas Rüttinger, Friedrich Scholz, Marc O. Schäfer, Robert Kammerer*

d) Other (Provide website address or link to appropriate information):

1

*Member of the Advisory Board of the project "Best Practices and Innovations for A Sustainable Beekeeping- B-Thenet" funded by the Horizon Europe Program of the European Commission: HORIZON-CL6-2021-GOVERNANCE-01-28- Grant Agreement number: 101059812 for its duration (from 01/09/2022 to 31/08/2026);
<https://www.bthenet.eu/>*

TOR7: SCIENTIFIC AND TECHNICAL TRAINING

17. Did your laboratory provide scientific and technical training to laboratory personnel from other WOAHA Members?

No

TOR8: QUALITY ASSURANCE

18. Does your laboratory have a Quality Management System?

Yes

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)	
DIN EN ISO/IEC 17025:2018	Akkreditierungsurkunde_2022.pdf	Akkreditierungsurkunde_2022.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
Identification of P. larvae in honey, bee and debris samples	Deutsche Akkreditierungsstelle GmbH

Identification of P. larvae by PCR

Deutsche Akkreditierungsstelle GmbH

20. Does your laboratory maintain a "biorisk management system" for the pathogen and the disease concerned?

Yes

TOR9: SCIENTIFIC MEETINGS

21. Did your laboratory organise scientific meetings related to the pathogen in question on behalf of WOA?H?

No

22. Did your laboratory participate in scientific meetings related to the pathogen in question on behalf of WOA?H?

Yes

Title of event	Date (mm/yy)	Location	Role (speaker, presenting poster, short communications)	Title of the work presented
Meeting with Dalan Animal Health - Bee Vaccine for AFB	2023-12-08	online-Zoom	Expert	oral description of my opinion on the Vaccine for AFB

TOR10: NETWORK WITH WOA?H REFERENCE LABORATORIES

23. Did your laboratory exchange information with other WOA?H Reference Laboratories designated for the same pathogen or disease?

Yes

24. Do you network (collaborate or share information) with other WOA?H Reference Laboratories designated for the same pathogen?

Yes

NETWORK/DISEASE	ROLE OF YOUR LABORATORY (PARTICIPANT, ORGANISER, ETC)	NO. PARTICIPANTS	PARTICIPATING WOA?H REF. LABS
WOA?H Reference Laboratories designated for AFB	Participant	5	FLI (Germany), ANSES (France) and MPI (New Zealand)

25. Did you organise or participate in inter-laboratory proficiency tests with WOA?H Reference Laboratories designated for the same pathogen?

Yes

PURPOSE OF THE PROFICIENCY TESTS: 1	ROLE OF YOUR REFERENCE LABORATORY (ORGANISER/ PARTICIPANT)	NO. PARTICIPANTS	PARTICIPATING WOA?H REF. LABS/ ORGANISING WOA?H REF. LAB.
Detection of Paenibacillus larvae / Melissococcus plutonius	Participant	Network of the european NRLs for bee health	FLI/ANSES

26. Did your laboratory collaborate with other WOA?H Reference Laboratories for the same disease on scientific research projects for the diagnosis or control of the pathogen of interest?

No

TOR11: OTHER INTERLABORATORY PROFICIENCY TESTING

27. Did your laboratory organise or participate in inter-laboratory proficiency tests with laboratories other than WOA?H Reference Laboratories for the same pathogen?

No

TOR12: EXPERT CONSULTANTS

28. Did your laboratory place expert consultants at the disposal of WOA?H?

No

29. Additional comments regarding your report:

No