OIE Reference Laboratory Reports Activities

Activities in 2017

This report has been submitted : 2017-12-13 09:52:11

Name of disease (or topic) for which you are a designated OIE Reference Laboratory:	Infection of honey bees with Paenibacillus larvae (American foulbrood)
Address of laboratory:	National Reference Laboratory for Bee Diseases Friedrich-Loeffler-Institut Federal Research Institute for Animal Health Institute of Infectology Südufer 10 17493 Greifswald – Insel Riems GERMANY
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Name (including Title) of Head of Laboratory (Responsible Official):	Dr Marc O. Schäfer
Name (including Title and Position) of OIE 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

ToR 1: To use, promote and disseminate diagnostic methods validated according to OIE Standards

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 OIE Manual (Yes/No)	Total number of test performed last year	
Indirect diagnostic tests		Nationally	Internationally
-	-	-	-
Direct diagnostic tests		Nationally	Internationally
Bacterial isolation	Yes	110	49
Conventional PCR	Yes	3	
repPCR with ERIC primers	No	104	52
Real-time PCR	No	1	1

ToR 2: To develop reference material in accordance with OIE requirements, and implement and promote the application of OIE Standards.
To store and distribute to national laboratories biological reference products and any other reagents used in the diagnosis and control of the designated pathogens or disease.

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

No

3. Did your laboratory supply standard reference reagents (non OIE-approved) and/or other diagnostic reagents to OIE Member Countries?

No

4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to OIE Member Countries?

No

ToR 3: To develop, standardise and validate, according to OIE Standards, new procedures for diagnosis and control of the designated pathogens or diseases

6. Did your laboratory develop new diagnostic methods validated according to OIE Standards for the designated pathogen or disease?

No

7. Did your laboratory develop new vaccines according to OIE Standards for the designated pathogen or disease?

No

ToR 4: To provide diagnostic testing facilities, and, where appropriate, scientific and technical advice on disease control measures to OIE Member Countries

8. Did your laboratory carry out diagnostic testing for other OIE Member Countries?

No

9. Did your laboratory provide expert advice in technical consultancies on the request of an OIE Member Country?

Yes

Name of the OIE Member Country receiving a technical consultancy	Purpose	How the advice was provided
CHILE	Training in diagnostic techniques for honeybee parasites	In loco, one week visit of our laboratory

ToR 5: To carry out and/or coordinate scientific and technical studies in collaboration with other laboratories, centres or organisations

10. Did your laboratory participate in international scientific studies in collaboration with OIE Member Countries other than the own?

Yes

Title of the study	Duration	Purpose of the study	Partners (Institutions)	OIE Member Countries involved other than your country
EuroLarva	?	Evaluate the genetic variability of different strains of P. larvae in Europe	ANSES	FRANCE

ToR 6: To collect, process, analyse, publish and disseminate epizootiological data relevant to the designated pathogens or diseases

11. Did your Laboratory collect epizootiological data relevant to international disease control?

Yes

12. Did your laboratory disseminate epizootiological data that had been processed and analysed?

Yes

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

a) Articles published in peer-reviewed journals: 3
PloS ONE, 2017: A pan-European epidemiological study reveals honey bee colony survival depends on beekeeper education and disease control; Antoine Jacques, Marion Laurent, EPILOBEE Consortium , Magali Ribière-Chabert, Mathilde Saussac, Stéphanie Bougeard, Giles E. Budge, Pascal Hendrikx, Marie-Pierre Chauzat

Journal of Virological Methods, 2017: Trueness and precision of the real-time RT-PCR method for quantifying the chronic bee paralysis virus genome in bee homogenates evaluated by a comparative inter-laboratory study; Frank Schurr, Nicolas Cougoule, Marie-Pierre Rivière, Magali Ribière-Chabert, Hamid Achour, Dán Adám, Carlos Castillo, Dirk C. de Graaf, Eva Forsgren, Anna Granato, Sirpa Heinikainen, Júlia Jurovčíková, Per Kryger, Christine Manson, Marie-Françoise Ménard, Stéphane Perennes, Marc O. Schäfer, Elena San Miguel Ibãnez, João Silva, Ivana Tlak Gajger, Victoria Tomkies, Ivan Toplak, Alain Viry, Dagmara Zdańska, Eric Dubois

PloS ONE, 2017: Using whole genome sequencing for epidemiological studies of American foulbrood in honey bees; Joakim Ågren, Marc O. Schäfer, Eva Forsgren

b) International conferences: 3
Beecome, Piacenza, Italy, 2017: Possible paths for scientific research and field tests; Marc O. Schäfer, Noa Simon-Delso

International Bee Conference, Berlin, Germany, 2017: Aethina tumida on the rise in Europe; Marc O. Schäfer

OIE Symposium on Emerging Infectious Agents in Honey Bees & OIE-Listed diseases, Istanbul, Turkey, 2017: Viral drivers of honey bee losses – the DWV-clade and the AKI-complex; Marc O. Schäfer

c) National conferences: 2
Epi Days, Greifswald, Germany, 2017: A contingency plan for the small hive beetle Aethina tumida; Marc O. Schäfer

Riemser Diagnostiktage, Greifswald, Germany, 2017: Bienenkrankheiten – Was muss der Diagnostiker wissen?; Marc O. Schäfer

d) Other:
(Provide website address or link to appropriate information) 1
Author of the concept: “Konzept zur Ausrottung bzw. Bekämpfung des Kleinen Beutenkäfers Aethina tumida in Deutschland“, published by the Friedrich-Loeffler-Institut (2017)

ToR 7: To provide scientific and technical training for personnel from OIE Member Countries
To recommend the prescribed and alternative tests or vaccines as OIE Standards

14. Did your laboratory provide scientific and technical training to laboratory personnel from other OIE Member Countries?

Yes

a) Technical visits: 0
b) Seminars: 0
c) Hands-on training courses: 1
d) Internships (>1 month): 0

Type of technical training provided (a, b, c or d)	Country of origin of the expert(s) provided with training	No. participants from the corresponding country
c	Chile	1

ToR 8: To maintain a system of quality assurance, biosafety and biosecurity relevant for the pathogen and the disease concerned

15. Does your laboratory have a Quality Management System certified according to an International Standard?

Yes

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)
DIN EN ISO/IEC 17025:2005	Akkreditierungsurkunde_FLI_Riems-Jena-2016.pdf

16. Is your laboratory accredited by an international accreditation body?

Yes

Test for which your laboratory is accredited	Accreditation body
Identification of P. larvae in honey and bees	Deutsche Akkreditierungsstelle GmbH (DAkkS)
Identification of P. larvae by PCR	Deutsche Akkreditierungsstelle GmbH (DAkkS)

17. Does your laboratory maintain a “biorisk management system” for the pathogen and the disease concerned?

Yes

(See Manual of Diagnostic Tests and Vaccines for Terrestrial Animals, Chapter 1.1.4)

ToR 9: To organise and participate in scientific meetings on behalf of the OIE

18. Did your laboratory organise scientific meetings on behalf of the OIE?

No

19. Did your laboratory participate in scientific meetings on behalf of the OIE?

Yes

Title of event	Date (mm/yy)	Location	Role (speaker, presenting poster, short communications)	Title of the work presented
OIE Symposium on Emerging Infectious Agents in Honey Bees & OIE-Listed diseases	10/17	Istanbul	speaker	Viral drivers of honey bee losses – the DWV-clade and the AKI-complex

ToR 10: To establish and maintain a network with other OIE Reference Laboratories designated for the same pathogen or disease and organise regular inter-laboratory proficiency testing to ensure comparability of results

20. Did your laboratory exchange information with other OIE Reference Laboratories designated for the same pathogen or disease?

Yes

21. Was your laboratory involved in maintaining a network with OIE Reference Laboratories designated for the same pathogen or disease by organising or participating in proficiency tests?

No

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

Yes

Title of the project or contract	Scope	Name(s) of relevant OIE Reference Laboratories
EuroLarva	ERIC-genotyping of European strains	ANSES, France

ToR 11: To organise inter-laboratory proficiency testing with laboratories other than OIE Reference Laboratories for the same pathogens and diseases to ensure equivalence of results

23. Did your laboratory organise or participate in inter-laboratory proficiency tests with laboratories other than OIE Reference Laboratories for the same disease?

Yes

Note: See Interlaboratory test comparisons in: Laboratory Proficiency Testing at: http://www.oie.int/en/our-scientific-expertise/reference-laboratories/proficiency-testing see point 1.3

Purpose for inter-laboratory test comparisons[1]	No. participating laboratories	Region(s) of participating OIE Member Countries
Diagnosis of P. larvae in honey	3	☐Africa ☐Americas ☐Asia and Pacific ☒Europe ☐Middle East

ToR 12: To place expert consultants at the disposal of the OIE

24. Did your laboratory place expert consultants at the disposal of the OIE?

No

25. Additional comments regarding your report: