

WOAH Reference Laboratory Reports Activities 2022

Activities in 2022

This report has been submitted : 9 mars 2023 15:02

Laboratory Information

Name of disease (or topic) for which you are a designated WOA Reference Laboratory:	Infestation of honey bees with Aethina tumida (small hive beetle)
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Name (including Title) of Head of Laboratory (Responsible Official):	Richard Thiéry (Head of the Anses Sophia Antipolis Laboratory)
Name (including Title and Position) of WOA Reference Expert:	Stéphanie Franco (Head of the National Reference Laboratory for Bee Health in France, Scientist in charge of macro and microscopic diagnostics at the Anses laboratory Anses - Sophia Antipolis)
Which of the following defines your laboratory? Check all that apply:	Governmental Research agency

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 WOA Manual (Yes/No)	Total number of test performed last year	
Indirect diagnostic tests		Nationally	Internationally
Direct diagnostic tests		Nationally	Internationally
Identification of Aethina tumida by morphological examination	YES	40	0

Identification of <i>Aethina tumida</i> by PCR	YES	8	0
Identification of <i>Aethina tumida</i> by sequencing	NO	6	0

TOR2: REFERENCE MATERIAL

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

No

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

Yes

TYPE OF REAGENT AVAILABLE	RELATED DIAGNOSTIC TEST	PRODUCED/ PROVIDE	AMOUNT SUPPLIED NATIONALLY (ML, MG)	AMOUNT SUPPLIED INTERNATIONALLY (ML, MG)	NO. OF RECIPIENT WOA?H MEMBER COUNTRIES	COUNTRY OF RECIPIENTS
Adult and larval specimens of <i>Aethina tumida</i>	Morphological identification	Provided by the FERA (UK)	0	4 specimens	1	Europe

4. Did your laboratory produce vaccines?

Not applicable

5. Did your laboratory supply vaccines to WOA?H Members?

Not applicable

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 WOA?H 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 WOA?H Standards for the designated pathogen or disease?

No

TOR4: DIAGNOSTIC TESTING FACILITIES

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

No

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

Yes

NAME OF THE WOA?H MEMBER COUNTRY RECEIVING A TECHNICAL CONSULTANCY	PURPOSE	HOW THE ADVICE WAS PROVIDED
	Scientific and technical expertise	

FRANCE

on the diagnosis, surveillance and control of the Small Hive Beetle, following its detection on the French island of La Réunion in 2022

Meetings Emails Scientific reports (3) Online training sessions (4)

TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

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

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?

Yes

IF THE ANSWER IS YES, PLEASE PROVIDE DETAILS OF THE DATA COLLECTED:

Following the detection of *A. tumida* in the French Island of La Réunion in 2022, a surveillance program was set up by the French veterinary authorities. The data on the epidemiological situation in La Réunion was analysed and disseminated through a scientific report produced by our laboratory.

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

Franco, S., N. Cougoule, A. Tison, A. Delcont, C. Gastaldi, ILC Consortium et V. Duquesne. 2022. "Reliability of Morphological and PCR Methods for the Official Diagnosis of *Aethina tumida* (Coleoptera: Nitidulidae): A European Inter-Laboratory Comparison." Ninth European Congress of Apidology (EurBee9). Belgrade, Serbia, 20-22 septembre 2022.

c) National conferences:

4

Duquesne, V. and Franco, S. Online training for field staff in charge of apiary health inspections in the French island of La Réunion. "The small hive beetle: Biology, risks of spread and establishment; Detection, sampling and analysis." (01/08/2022 ; 11/08/2022 ; 14/09/2022 ; 05/10/2022)

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

5

The laboratory publishes information on the epidemiological situation of *A. tumida* at European level:

<https://sitesv2.anses.fr/en/minisite/abeilles/liste-actualites/news>

And at national level : <https://www.plaforme-esa.fr>

The laboratory contributes to a weekly international animal health surveillance bulletin.

Web articles specifically dedicated to the situation of *A. tumida* in La Réunion were also published online on this website.

In 2022, 3 scientific and technical reports were also produced by the Anses to provide expertise to the situation in La Réunion:

<https://www.anses.fr/fr/system/files/SABA2022SA0141-2.pdf>

<https://www.anses.fr/fr/system/files/SABA2022SA0141-1.pdf>

<https://www.anses.fr/fr/system/files/LABO2022SA0141.pdf>

TOR7: SCIENTIFIC AND TECHNICAL TRAINING

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

Yes

a) Technical visit : 1

b) Seminars : 0

c) Hands-on training courses: 0

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
1	Denmark	2

TOR8: QUALITY ASSURANCE

18. Does your laboratory have a Quality Management System?

Yes

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)	
		2.Attestation 1-2249 révision 12.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
Identification of <i>Aethina tumida</i> by morphological examination	COFRAC
Identification of <i>Aethina tumida</i> by real time PCR	COFRAC

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

Yes

The biological risk is low for *Aethina tumida*, as the samples to be analysed arrive dead at the laboratory. If they arrive alive, specific procedures are implemented (opening the package in a confined environment, deep-freezing the samples to kill the specimens).

TOR9: SCIENTIFIC MEETINGS

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

No

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

No

TOR10: NETWORK WITH WOA REFERENCE LABORATORIES

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

Yes

24. Are you a member of a network of WOA Reference Laboratories designated for the same pathogen?

No

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

No

26. Did your laboratory collaborate with other WOA 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 Reference Laboratories for the same pathogen?

No

TOR12: EXPERT CONSULTANTS

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

No

29. Additional comments regarding your report:

Yes

*The Anses laboratory in Sophia Antipolis has been working for several years to develop and validate quality diagnostic methods for the detection and identification of *Aethina tumida*.*

These methods have been disseminated to WOA Member States, through the Manual of Diagnostic Tests and Vaccines, making them autonomous in their use.

The laboratory thus remains in little demand in terms of diagnosis and expertise at the international level.

More generally, the complexity of administrative procedures and the costs of sending samples internationally are often an obstacle to the implementation of reference activities.

Difficulties in sourcing samples also remain an issue for the organisation of reference activities (e.g. ILPT, dissemination of reference material).