WOAH Reference Laboratory Reports Activities 2023
Activities in 2023
This report has been submitted : 1 juillet 2024 11:03

Laboratory Information

<table>
<thead>
<tr>
<th>Name of disease (or topic) for which you are a designated WOAH Reference Laboratory:</th>
<th>Decapod Iridescent Virus 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address of laboratory:</td>
<td>376 Chung-Cheng Rd.Tansui 251, New Taipei City Taiwan, Republic of China</td>
</tr>
<tr>
<td>Tel:</td>
<td>+886226212111</td>
</tr>
<tr>
<td>E-mail address:</td>
<td><a href="mailto:ctiu@mail.nvri.gov.tw">ctiu@mail.nvri.gov.tw</a></td>
</tr>
<tr>
<td>Website:</td>
<td><a href="http://www.nvri.gov.tw">www.nvri.gov.tw</a></td>
</tr>
<tr>
<td>Name (including Title) of Head of Laboratory (Responsible Official):</td>
<td>Yu-Ju Lin, Head of DIV1 RL</td>
</tr>
<tr>
<td>Name (including Title and Position) of WOAH Reference Expert:</td>
<td>Chien Tu, Senior Consultant</td>
</tr>
<tr>
<td>Which of the following defines your laboratory? Check all that apply:</td>
<td>Governmental Research agency</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Diagnostic Test</th>
<th>Indicated in WOAH Manual (Yes/No)</th>
<th>Total number of test performed last year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indirect diagnostic tests</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct diagnostic tests</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Real-Time PCR 2. PCR + sequencing</td>
<td>Yes</td>
<td>185</td>
</tr>
</tbody>
</table>

TOR2: REFERENCE MATERIAL

2. Did your laboratory produce or supply imported standard reference reagents officially recognised by WOAH?
   - No

3. Did your laboratory supply standard reference reagents (nonWOAH-approved) and/or other diagnostic reagents to WOAH Members?
   - No

4. Did your laboratory produce vaccines?
   - No

5. Did your laboratory supply vaccines to WOAH 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 WOAH 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 WOAH Standards for the designated pathogen or disease?
No

**TOR4: DIAGNOSTIC TESTING FACILITIES**

10. Did your laboratory carry out diagnostic testing for other WOAH Members?
No

11. Did your laboratory provide expert advice in technical consultancies on the request of an WOAH Member?
No

**TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES**

12. Did your laboratory participate in international scientific studies in collaboration with WOAH Members other than the own?
No

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

Due to the stamping-out control strategy in Taiwan 2020, the farm DIV1 positive rate of the redclaw crayfish has been reduced from 36.17% in 2020 (17/47) to 13.95% (6/43) in 2021 and 0% (0/5) in 2022. During 2021-2022, one whiteleg shrimp farm and one giant freshwater prawn farm were still detected positive. We also found the presence of the DIV1 pathogen in the surrounding environmental samples from DIV1 occurrence sites 2020.

The emergence of DIV1 signals a warning to the shrimp aquaculture industry worldwide. Enhanced biosecurity in shrimp farms should be implemented to prevent the introduction, persistence, and spread of DIV1.

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
*Emergence of decapod iridescent virus 1 in cultured shrimp from Taiwan in 2020* in Veterinary Medicine and Science  [https://doi.org/10.1002/vms3.1216](https://doi.org/10.1002/vms3.1216)

b) International conferences:

1
*Diagnosis and identification of decapod iridescent virus 1 in Taiwan during 2020–2022* in World Veterinary Association Congress 2023, Taipei Taiwan

c) National conferences:

1
*Training of diagnosis and lab proficiency test on DIV1 for local Animal Disease Control Centers*

d) Other (Provide website address or link to appropriate information):
**TOR7: SCIENTIFIC AND TECHNICAL TRAINING**

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

No

**TOR8: QUALITY ASSURANCE**

18. Does your laboratory have a Quality Management System?

Yes

<table>
<thead>
<tr>
<th>Quality management system adopted</th>
<th>Certificate scan (PDF, JPG, PNG format)</th>
</tr>
</thead>
</table>

19. Is your quality management system accredited?

Yes

<table>
<thead>
<tr>
<th>Test for which your laboratory is accredited</th>
<th>Accreditation body</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification of Salmonella spp.</td>
<td>Taiwan Accreditation Foundation (TAF)</td>
</tr>
<tr>
<td>Identification of Mycobacterium spp.</td>
<td></td>
</tr>
<tr>
<td>Test of Brucellosis serum antibodies</td>
<td></td>
</tr>
<tr>
<td>Nervous Necrosis Virus Nucleic Acid Detection 5.</td>
<td></td>
</tr>
<tr>
<td>Red Sea Bream Iridoviral Disease Nucleic Acid Detection 6.</td>
<td></td>
</tr>
<tr>
<td>Koi Herpesvirus Nucleic Acid Detection 7.</td>
<td></td>
</tr>
<tr>
<td>Spring Viremia Carp Virus Nucleic Acid Detection 8.</td>
<td></td>
</tr>
<tr>
<td>White Spot Disease Nucleic Acid Detection 9.</td>
<td></td>
</tr>
<tr>
<td>Perkinsus olseni Nucleic Acid Detection 10.</td>
<td></td>
</tr>
</tbody>
</table>

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

Yes

1. Our Institute has deployed risk analysis according to the WOAH Terrestrial Animal Health Code and WOAH Aquatic Animal Health Code for many years. 2. We established a biological risk communication process, including biohazard identification, biorisk assessment, and management. Relative documents have been combined in Lab’s ISO 17025 quality management system. 3. We have set up a VRI (Veterinary research institute) Institutional Biosafety Committee (IBC) to review and permit the use of infectious biosafety materials and kept all laboratories working excellently with the risk management system.

**TOR9: SCIENTIFIC MEETINGS**

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

No

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

No

**TOR10: NETWORK WITH WOAH REFERENCE LABORATORIES**

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

Not applicable (only WOAH Reference Laboratory designated for the disease)

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

Not applicable (Only WOAH Reference Laboratory designated for the disease)

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

Not applicable (Only WOAH Reference Laboratory designated for the disease)

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

Not applicable (Only WOAH Reference Laboratory designated for the disease)

**TOR11: OTHER INTERLABORATORY PROFICIENCY TESTING**
27. Did your laboratory organise or participate in inter-laboratory proficiency tests with laboratories other than WOAH Reference Laboratories for the same pathogen? 
Yes

<table>
<thead>
<tr>
<th>Purpose for inter-laboratory test comparisons</th>
<th>Role of your reference laboratory (organizer/participant)</th>
<th>No. participating laboratories</th>
<th>Name of the Test</th>
<th>WOAH Member Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Determining a laboratory’s capability to conduct specific diagnostic tests. 2. Harmonising existing test methods. 3. Assigning values and ranges to standard materials. 4. Resolving interlaboratory differences.</td>
<td>Organizer/Participant between two ISO 17025-accredited test Lab</td>
<td>2</td>
<td>DIV1 nucleic acid test</td>
<td>CHINESE TAIPEI</td>
</tr>
</tbody>
</table>

**TOR12: EXPERT CONSULTANTS**

28. Did your laboratory place expert consultants at the disposal of WOAH? 
No

29. Additional comments regarding your report: 
No