WOAH Reference Laboratory Reports Activities 2023
Activities in 2023
This report has been submitted : 5 juin 2024 01:38

Laboratory Information

<table>
<thead>
<tr>
<th>Name of disease (or topic) for which you are a designated WOAH Reference Laboratory:</th>
<th>Infection with red sea bream iridovirus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address of laboratory:</td>
<td>422-1 Nakatsuhamura Minami-ise, Mie 516-0193</td>
</tr>
<tr>
<td>Tel:</td>
<td>+81-599 66.18.30</td>
</tr>
<tr>
<td>E-mail address:</td>
<td><a href="mailto:kawato_yasuhiko86@fra.go.jp">kawato_yasuhiko86@fra.go.jp</a></td>
</tr>
<tr>
<td>Website:</td>
<td><a href="https://nria.fra.affrc.go.jp/e/DTC.html">https://nria.fra.affrc.go.jp/e/DTC.html</a></td>
</tr>
<tr>
<td>Name (including Title) of Head of Laboratory (Responsible Official):</td>
<td>Takashi Kamaishi (PhD), Director of Pathology division</td>
</tr>
<tr>
<td>Name (including Title and Position) of WOAH Reference Expert:</td>
<td>Yasuhiko Kawato (PhD), senior researcher</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>real-time PCR</td>
<td></td>
<td>710</td>
</tr>
<tr>
<td>Sequencing</td>
<td></td>
<td>14</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?
Yes

<table>
<thead>
<tr>
<th>NAME OF THE NEW TEST OR DIAGNOSTIC METHOD DEVELOPED</th>
<th>DESCRIPTION AND REFERENCES (PUBLICATION, WEBSITE, ETC.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>real-time PCR (Kawato et al. 2021)</td>
<td>Validation of reproducibility and robustness of the assay by a proficiency test</td>
</tr>
</tbody>
</table>

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?
Yes

<table>
<thead>
<tr>
<th>NAME OF THE WOAH MEMBER COUNTRY RECEIVING A TECHNICAL CONSULTANCY</th>
<th>PURPOSE</th>
<th>HOW THE ADVICE WAS PROVIDED</th>
</tr>
</thead>
<tbody>
<tr>
<td>CANADA</td>
<td>disinfection of RSIV</td>
<td>remote (e-mail)</td>
</tr>
<tr>
<td>CANADA</td>
<td>PCR for TRBIV</td>
<td>remote (e-mail)</td>
</tr>
<tr>
<td>KOREA (DEM. PEOPLE’S. REP. OF)</td>
<td>monoclonal antibody</td>
<td>remote (telephone)</td>
</tr>
</tbody>
</table>

**TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES**

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

<table>
<thead>
<tr>
<th>Title of the study</th>
<th>Duration</th>
<th>PURPOSE OF THE STUDY</th>
<th>PARTNERS (INSTITUTIONS)</th>
<th>WOAH MEMBER COUNTRIES INVOLVED OTHER THAN YOUR COUNTRY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proficiency Test for RSIV real-time PCR</td>
<td>March 2023 through December 2023</td>
<td>To validate reproducibility and robustness of the real-time PCR assay for RSIV</td>
<td>Nick Moody (CSIRO)</td>
<td>AUSTRALIA KOREA (REP. OF)</td>
</tr>
</tbody>
</table>

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

**Research need : 1**

- **Please type the Research need:** Determining disinfection condition for RSIV
- **Relevance for WOAH** Disease Control,
- **Relevance for the Codes or Manual** Manual,
- **Field** Hygiene management in fish farm ,
- **Animal Category** Aquatic,
- **Disease:** Infection with red sea bream iridovirus
- **Kind of disease** (Zoonosis, Transboundary diseases)
- If any, please specify relevance for Codes or Manual, chapter and title
  (e.g. Terrestrial Manual Chapter 2.3.5 - Minimum requirements for aseptic production in vaccine manufacture)
  **Answer:**
  **Notes:**
  **Answer:**
**TOR6: EPIZOOLOGICAL DATA**

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

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

1. Surveillance of wild fish
2. Assessing the transmission risk of red sea bream iridovirus (RSIV) in environmental water
3. Cross-contamination of RSIV in fish farm

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:**

Transmission of RSIV among fish farms via seawater is highly associated with the distance between the net pens, and the environmental water is not always an infection source for the transmission of RSIV between fish farms.

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 Kawato et al. (2023) Assessing the transmission risk of red sea bream iridovirus (RSIV) in environmental water: insights from fish farms and experimental settings. Microbiol. Spectr. 11, e0156723.

b) International conferences:


c) National conferences:

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>

WOAH Reference Laboratory Reports Activities 2023
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>PCR test procedure</td>
<td>Perry Johnson Laboratory Accreditation, Inc.</td>
</tr>
</tbody>
</table>

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

Yes

Access to the laboratory is restricted. Personnel uses PPEs and follows basic laboratory procedures to avoid accidental exposure to the pathogen. All contaminated lab supplies (e.g., dissecting tools) are autoclaved to prevent the pathogen from releasing into the environment.

**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>PT for validating reproducibility and robustness of real-time PCR assays for RSIV</td>
<td>ORGANIZER</td>
<td>3</td>
<td>Proficiency test of real-time PCR assay for detection of red sea bream iridovirus</td>
<td>AUSTRALIA, KOREA (REP. OF),</td>
</tr>
<tr>
<td>Determining a laboratory’s capability to conduct specific diagnostic tests</td>
<td>PARTICIPANT</td>
<td>43</td>
<td>Inter-Laboratory Proficiency Test 2023 for identification and titration of VHSV, IHN, EHNV (fish ranaviruses), SVCV and IPNV (PT1) and identification of CyHV-3 (KHV), SAV and iSAV (PT2)</td>
<td></td>
</tr>
</tbody>
</table>

**TOR12: EXPERT CONSULTANTS**

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

Yes
<table>
<thead>
<tr>
<th>Event Description</th>
<th>Location</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>ad hoc Group meetings online</td>
<td>online meeting</td>
<td>Susceptibility of fish species to infection with OIE listed diseases (Infection with TiLV)</td>
</tr>
<tr>
<td>The 4th meeting of ad hoc Steering Committee on Regional Collaboration Framework on Aquatic Animals Health in Asia and the Pacific</td>
<td>Busan, Republic of Korea</td>
<td>- To review the implementation of the projects and flagship activities under the framework - To share challenges and gaps amongst WOAH-designated experts and members on aquatic animal health management - To identify the potential activities in 2023 onwards</td>
</tr>
</tbody>
</table>

29. Additional comments regarding your report:
No