WOAH Reference Laboratory Reports Activities 2022

Activities in 2022

This report has been submitted : 17 février 2023 08:38

Laboratory Information

Name of disease (or topic) for which you are a designated WOAH Reference Laboratory:	Infection with red sea bream iridovirus
Address of laboratory:	422-1 Nakatsuhamaura Minami-ise, Mie 516-0193 JAPAN
Tel.:	+81599661830
E-mail address:	kawato_yasuhiko86@fra.go.jp
Website:	http://nria.fra.affrc.go.jp/e/DTC.html
Name (including Title) of Head of Laboratory (Responsible Official):	Takashi Kamaishi (PhD), Director of Pathology division
Name (including Title and Position) of WOAH Reference Expert:	Yasuhiko Kawato (PhD), senior researcher
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 WOAH Manual (Yes/No)	Total number of test	performed last year
Indirect diagnostic tests		Nationally	Internationally
Direct diagnostic tests		Nationally	Internationally
Cell Culture	Yes	5	8
PCR	Yes	35	8

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Sequence	Yes	35	0
real-time PCR	Yes	1200	8

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?

Yes

TYPE OF REAGENT AVAILABLE	RELATED DIAGNOSTIC TEST	PRODUCED/ PROVIDE	AMOUNT SUPPLIED NATIONALLY (ML, MG)	AMOUNT SUPPLIED INTERNATIONALLY (ML, MG)	NO. OF RECIPIENT WOAH MEMBER COUNTRIES	COUNTRY OF RECIPIENTS
Positive control DNA for PCR	PCR	Produced	0.1ML	0	0	
Monoclonal antibody (M10)	IFAT	Produced	5ML	20ML	1	Asia and Pacific
SKF-9 cell line	virus isolation	Produced	1	1	1	America

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?

Yes

NAME OF WOAH 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
ISRAEL	2022-07-20	PCR	8	8

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

Yes		
NAME OF THE WOAH MEMBER COUNTRY RECEIVING A TECHNICAL CONSULTANCY	PURPOSE	HOW THE ADVICE WAS PROVIDED
Korea (Rep. of)	IFAT using monoclonal antibody	remote (telephone)
HONG KONG	positive control for PCR	remote (e-mail)
AUSTRALIA	virus isolation	remote (e-mail)

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

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. Application of environmental DNA (eDNA) for monitoring RSIV	
	3. Distribution 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:

Seawater does not have a big threat for transmitting 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:

2

Kawato et al. (2022) Asymptomatically infected broodstock are a potential infection source for aquareovirus outbreaks in hatchery-reared Japanese Flounder Paralichthys olivaceus, Fish Pathology, 57, 11-19.

Taengphu S, Kayansamruaj P, Kawato Y, Delamare-Deboutteville J, Mohan CV, Dong HT, Senapin S. (2022) Concentration and quantification of Tilapia tilapinevirus from water using a simple iron flocculation coupled with probe-based RT-qPCR. PeerJ, 10:e13157.

b) International conferences:

1

Kawato et al. "Monitoring red sea bream iridovirus in aquaculture environment using environmental DNA to understand disease outbreaks." 50th Scientific Symposium of the UNR Aquaculture Panel. 14-16 Nov 2022 (Online Meeting)

c) National conferences:

1

Kawato et al. "Transmission risk of RSIV via seawater could be limited between net-pens" Annual meeting of the Japanese Society for Fish Pathology, 4 Sep 2022 Miyazaki.

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

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)	
ISO17025	Certificate of ISO17025.pdf	Certificate of ISO17025.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
PCR inspection procedure	Perry Johnson Laboratory Accreditation, Inc.

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?

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. Are you a member of a network of 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?

Purpose for inter-laboratory test comparisons1	Role of your reference laboratory (organizer/participant)	No. participating laboratories	Region(s) of participating WOAH Member Countries
Determining a laboratory's capability to conduct specific diagnostic tests	PARTICIPANT	45	America Asia and Pacific Europe

TOR12: EXPERT CONSULTANTS

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

Yes

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KIND OF CONSULTANCY	Location	SUBJECT (FACULTATIVE)
ad hoc Group meetings	online meeting	Susceptibility of fish species to infection
	online meeting	with OIE listed diseases (Infection with RSIV)

29. Additional comments regarding your report:

No