World Organisation for Animal Health

Yasuhiko Kawato - - JAPAN

WOAH Reference Laboratory Reports Activities 2024

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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
***Tel:**	+81-599 66.18.30
***E-mail address:**	kawato_yasuhiko86@fra.go.jp
Website:	https://nria.fra.affrc.go.jp/e/DTC.html
***Name (including Title) of Head of Laboratory (Responsible Official):**	Takafumi Ito (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
PCR and sequencing	Yes	9	0

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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
Virus isolate	Virus isolation, IFAT	Produced	0	1ML	1	KOREA (REP. OF),
SKF-9 cell line	Virus isolation	Produced	1	0	1	JAPAN,
Positive control DNA for PCR	PCR	Produced	0.2ML	0	1	JAPAN,
Monoclonal antibody	IFAT	Produced	11ML	0	1	JAPAN,

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?

Yes

Name of the WOAH Member Country receiving a technical consultancy	Purpose	How the advice was provided
AUSTRALIA	PCR validation	remote (e-mail and web meeting)

KOREA (REP. OF)	Virus isolation and IFAT	remote (telephone)
UNITED STATES OF AMERICA	Virus isolation and PCR	remote (e-mail and web meeting)

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?

Yes

Research need : 1

Please type the Research need: Determining disinfection condition for RSIV

Relevance for WOAH Disease Control,

Relevance for the Code or Manual Manual,

Field Biosecurity management in fish farm,

Animal Category Aquatic,

Disease:

Infection with red sea bream iridovirus

Kind of disease (Zoonosis, Transboundary diseases) 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 and fomite transmission 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:

Wild fish populations near aquaculture installations may not be a significant risk factor for RSIV outbreaks in cultured fish.

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. (2024) Risk assessment of wild fish as environmental sources of red sea bream iridovirus (RSIV) outbreaks in aquaculture

b) International conferences:

2
Kawato Y, Takada Y, Matsuyama T, Kurobe T, Honryo T, Shirakashi S, Masuma S. Hygiene management is important to prevent red sea bream iridovirus transmission between net pens: Insights from a case study that assessed cross-contamination. 52nd Scientific Symposium of the US-Japan Natural Resources Aquaculture Panel, November 2024.

Maeda T, Kawato Y, Shimizu D, Nishioka T. Disease control measures in hirame juvenile hatchery: the case of hirame aquareovirus. 52nd Scientific Symposium of the US-Japan Natural Resources Aquaculture Panel, November 2024, Ise.

c) National conferences:

2
Kawato et al. "Wild fish populations near aquaculture installations may not be a significant risk factor for RSIV outbreaks in cultured fish" meeting of the Japanese Society for Fish Pathology, March 2024, Tokyo.

Kawato et al. "Highly virus-contaminated equipment could be a potential transmission route of red sea bream iridovirus: insights from a case study for assessing cross-contamination" meeting of the Japanese Society for Fish Pathology, March 2024, Tokyo.

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	ISO certificate of accreditation.pdf	ISO certificate of accreditation.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
PCR test 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?

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 during the past 2 years?

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

Not applicable

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 during the past 2 years?

Yes

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Purpose for inter-laboratory test comparisons1	Role of your reference laboratory (organizer/participant)	No. participating laboratories	Name of the test	WOAH Member Countries
Determining a laboratory's capability to conduct specific diagnostic tests	PARTICIPANT	40	Inter-Laboratory Proficiency Test 2024 for identification and titration of VHSV, IHNV, EHNV (fish ranaviruses), SVCV and IPNV (PT1) and identification of CyHV-3 (KHV), SAV and ISAV (PT2)	

TOR12: EXPERT CONSULTANTS

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

Yes

Kind of consultancy	Location	Subject (facultative)
ad hoc Group meetings online	online meeting	Susceptibility of fish species to infection with OIE listed diseases (Infection with Infection with Aphanomyces invadans (epizootic ulcerative syndrome)
ad hoc Group meetings online	online meeting	WOAH Electronic ad hoc Group on Megalocytivirus pagrus 1

29. Additional comments regarding your report:

No