WOAH Reference Laboratory Reports Activities 2023

Activities in 2023

This report has been submitted : 12 juin 2024 13:06

Laboratory Information

Name of disease (or topic) for which you are a designated WOAH Reference Laboratory:	Spring viraemia of carp
Address of laboratory:	Cefas Weymouth Laboratory, Barack Road, The Nothe, Weymouth, Dorset, DT4 8UB
Tel.:	+44 1305 206640
E-mail address:	richard.paley@cefas.gov.uk
Website:	https://www.cefas.co.uk/icoe/aquatic-animal-health/designations/woah-reference-laboratories
Name (including Title) of Head of Laboratory (Responsible Official):	Dr Rachel Hartnell
Name (including Title and Position) of WOAH Reference Expert:	Dr Richard Paley, Senior Virologist (and previously Dr David Stone, Principal Molecular Biologist)
Which of the following defines your laboratory? Check all that apply:	Governmental

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
Ag-ELISA		0	0
Direct diagnostic tests		Nationally	Internationally
Culture (EPC cells)		135	0
Conventional PCR (RT-PCR)		0	0
IFAT		0	0

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
				500µL heat inactivated virus culture		

SVCV Positive control	Conventional and real time RT PCR	Produced and provided	0	supernatant and T7 runoff transcript RNA of partial glycoprotein gene plasmid – 1x10E6 copies	1	SRI LANKA,
SVCV Positive control	Conventional and real time RT PCR	Produced and provided	0	2x 1mL heat inactivated virus culture supernatant	1	PERU,

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?

Yes

NAME OF THE NEW TEST OR DIAGNOSTIC METHOD DEVELOPED	DESCRIPTION AND REFERENCES (PUBLICATION, WEBSITE, ETC.)
A modified pan SVCV RT-qPCR assay	Initial partial validation is described in PhD thesis: Rice, A. (2021). Investigating pathogenicity of spring viraemia of carp virus (SVCV) and the development of diagnostic tools (Order No. 29349078). Available from https://www.proquest.com/dissertations-theses/investigating-pathogenicity-spring-viraemia-carp/docview/2685080145/se-2 Full validation is ongoing with Dr Hong Liu, SVCV designated reference laboratory, P.R. China

7. Did your laboratory validate diagnostic methods according to WOAH Standards for the designated pathogen or disease?

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?

Yes

Title of the study	Duration	PURPOSE OF THE STUDY	PARTNERS (INSTITUTIONS)	WOAH MEMBER COUNTRIES INVOLVED OTHER THAN YOUR COUNTRY
Epidemiological assessment of Serbian SVCV isolates	12 months	Epidemiological analysis	Institute of Veterinary Medicine of Serbia National Institute of Aquatic Resources, Technical University of Denmark	DENMARK SERBIA
Development of improved real time PCR methods	24 months	Method development	WOAH SVC reference laboratory, State Key laboratory of aquatic animal health, Shenzhen, P.R. China	CHINA (PEOPLE'S REP. OF)
Development of global SVCV sequence database	4 years	Epidemiological analysis and analysis of virulence	>20	

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?

Yes

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

The routine national surveillance program includes testing to retain freedom in approved compartments, ad hoc testing programme of susceptible ornamental imports and course fish testing on suspicion. There were no SVCV positive identifications in 2023.
Experimental infection studies on the susceptibility of barbel, chub, orfe, rudd, and tench to SVCV were undertaken and a publication is in draft.

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:

Presentation of the findings of the experimental infection studies on the susceptibility of barbel, chub, orfe, rudd, and tench to SVC referred to above at the 21st International conference on Diseases of fish and shellfish, Aberdeen, UK.
Publication: Radosavljevic V, Cuenca A, Wood G, Glisic D, Maksimovic-Zoric J, Stone D. Phylogenetic analysis of spring viraemia of carp virus isolated in Serbia. J Fish Dis. 2023 Dec;46(12):1343-1355. doi: 10.1111/jfd.13852. Epub 2023 Aug 27. PMID: 37635442.

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
Radosavljevic V, Cuenca A, Wood G, Glisic D, Maksimovic-Zoric J, Stone D. Phylogenetic analysis of spring viraemia of carp virus isolated in Serbia. J Fish Dis. 2023 Dec;46(12):1343-1355. doi: 10.1111/jfd.13852. Epub 2023 Aug 27. PMID: 37635442.

b) International conferences:

1
Experimental Susceptibility of UK cyprinid species to spring viraemia of carp virus (SVCV) Claire L. Joiner, John Bignell, Irene C Cano, Adele Cobb, Samuel Melrose, and Richard K Paley presented at 21st International Conference on Diseases of Fish and Shellfish, Aberdeen, UK*

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

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)	
ISO 17025	ISO17025 certificate	11 102145 HSEQ CORP Quality ISO 17025 certificate, Weymouth - 2293.pdf.PDF.pdf
ISO 9001	ISO9001 certificate	11 102147 HSEQ CORP Quality ISO 9001 certificate.PDF.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
Isolation and identification of SVCV	UKAS
Detection and confirmation of SVCV by RT-PCR	UKAS

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

Yes

Organisational biorisk management system includes a range of practices and procedures to ensure biosecurity, biosafety, and biocontainment of infectious agents including security measures for laboratories, from standard operating procedures to physical measures to individual practices in the laboratory. This includes a dedicated Biosafety and Biosecurity Committee with lead and deputy officers and a internally published laboratory Biosecurity Handbook.

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?

Yes

Title of event	Date (mm/yy)	Location	Role (speaker, presenting poster, short communications)	Title of the work presented
EFSA panel on Animal Health and Welfare (AHAW)	2023-10-30	online, multiple meetings throughout the year	Invited expert	Assessment of listing and categorisation of animal diseases within the framework of the Animal Health Law (Regulation (EU) 2016/429): Spring Viraemia of Carp (SVC) https://doi.org/10.2903/j.efsa.2023.8324
WOAH Training of National Focal Points for Aquatic Animal Health (Cycle IV), invited expert, facilitator	2023-10-02	Kigali, Rwanda	Invited expert, facilitator	Reporting guidelines and tools - International regulatory information systems – UK And Cefas: Aquatic animal health work in Ghana and Zambia
WOAH Launch of the Regional Aquatic Animal Health Laboratory Network for Africa (RAAHLN-AF)	2023-12-05	Pretoria, South Africa	Invited expert, facilitator	International reference Laboratories; facilities, services and challenges encountered in assisting Members - views from Designated Expert and Contact Point

TOR10: NETWORK WITH WOAH REFERENCE LABORATORIES

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

Yes

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

Yes

NETWORK/DISEASE	ROLE OF YOUR LABORATORY (PARTICIPANT, ORGANISER, ETC)	NO. PARTICIPANTS	PARTICIPATING WOAH REF. LABS
Ad hoc direct contact	Equal participant, sharing genomic data for isolates for method development	2	Dr Hong Liu WOAH SVC reference laboratory, State Key laboratory of aquatic animal health, Shenzhen, P.R. China

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

No

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?

Yes

TITLE OF THE PROJECT OR CONTRACT	SCOPE	NAME(S) OF RELEVANT WOAH REFERENCE LABORATORIES
Evaluation of SVCV RT-qPCR assays	Towards recommendation for a pan SVCV assay suitable for surveillance – publication in prep.	Dr Hong Liu WOAH SVC reference laboratory, State Key laboratory of aquatic animal health, Shenzhen, P.R. China

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

Purpose for inter-laboratory test comparisons1	Role of your reference laboratory (organizer/participant)	No. participating laboratories	Name of the Test	WOAH Member Countries
EURL annual Comparative test of diagnostic procedures for EU listed fish diseases	Participant	43	Inter-Laboratory Proficiency Test 2023 for identification and titration of VHSV, IHNV, EHNV (fish ranaviruses), SVCV and IPNV (PT1) and identification of CyHV-3 (KHV), SAV and ISAV (PT2)	AUSTRALIA, AUSTRIA, BELGIUM, BOSNIA AND HERZEGOVINA, BULGARIA, CANADA, CHILE, CROATIA, CYPRUS, CZECH REPUBLIC, DENMARK, ESTONIA, FAROE (ISLANDS), FINLAND, FRANCE, GERMANY, GREECE, HUNGARY, ICELAND, INDIA, IRELAND, ITALY, JAPAN, KOREA (REP. OF), LATVIA, LITHUANIA, LUXEMBOURG, MALTA, NEW ZEALAND, NORTH MACEDONIA (REP. OF), NORWAY, POLAND, PORTUGAL, ROMANIA, SERBIA, SLOVAKIA, SLOVENIA, SPAIN, SWEDEN, SWITZERLAND, THE NETHERLANDS, UNITED KINGDOM, UNITED STATES OF AMERICA,

TOR12: EXPERT CONSULTANTS

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

Yes

KIND OF CONSULTANCY	Location	SUBJECT (FACULTATIVE)
Provision of advice	Online meetings	Demonstration of freedom from disease
Invited expert, facilitator	Kigali, Rwanda, Africa	WOAH Training of National Focal Points for Aquatic Animal Health (Cycle IV)
Invited expert, facilitator	Pretoria, South Africa	WOAH Launch of the Regional Aquatic Animal Health Laboratory Network for Africa (RAAHLN-AF)
Technical advice	national laboratory	Drafting new diagnostic chapter for TiLV - ongoing

29. Additional comments regarding your report:

Work is ongoing to provide a pan SVCV real time RT-PCR for surveillance purposes to support freedom from disease.