WOAH Collaborative Centre Reports Activities 2023

Activities in 2023

This report has been submitted: 12 juillet 2024 02:03

Centre Information

<table>
<thead>
<tr>
<th>Title of WOAH Collaborating Centre</th>
<th>Epidemiology &amp; Risk Assessment of Aquatic Animal Diseases (Americas)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address of WOAH Collaborating Centre</td>
<td>Dept of Health Management, Atlantic Veterinary College, University of PEI, Charlottetown, Canada</td>
</tr>
<tr>
<td>Tel:</td>
<td>+1 902 3885111</td>
</tr>
<tr>
<td>E-mail address:</td>
<td><a href="mailto:lhammell@upei.ca">lhammell@upei.ca</a></td>
</tr>
<tr>
<td>Website:</td>
<td><a href="https://cver.upei.ca/">https://cver.upei.ca/</a></td>
</tr>
<tr>
<td>Name Director of Institute (Responsible Official):</td>
<td>Larry Hammell</td>
</tr>
<tr>
<td>Name (including Title and Position) of Head of the Collaborating Centre (WOAH Contact Point):</td>
<td>Dr. Larry Hammell, Professor</td>
</tr>
<tr>
<td>Name of the writer:</td>
<td>Larry Hammell</td>
</tr>
</tbody>
</table>

TOR1 AND 2: SERVICES PROVIDED

1. Activities as a centre of research, expertise, standardisation and dissemination of techniques within the remit of the mandate given by WOAH

<table>
<thead>
<tr>
<th>Category</th>
<th>Title of activity</th>
<th>Scope</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epidemiology, surveillance, risk assessment, (true)</td>
<td>Scientific Advisor – Aquatic Animal Health Strategy</td>
<td>Scientific Advisor – Aquatic Animal Health Strategy, based in Paris, starting 10 April 2023. Primary advising on aspects of the strategy related to: Support capacity building activities for early detection and rapid response to aquatic animal disease outbreaks, in particular for the Asia-Pacific region Support the implementation of WOAH aquatic animal health standards and transparency in disease reporting Support the delivery of activities under Objective 4 (Leadership) of the AAHS Develop and deliver training to WOAH staff to increase understanding and expertise in aquaculture and aquatic animal health</td>
</tr>
<tr>
<td>Training, capacity building (true)</td>
<td>Capacity Building for WOAH Aquatic Focal Points</td>
<td>Participating in organising committees and presentations at 2 aquatic Focal Point meetings and one Regional Network, including: 1. WOAH Launch of Regional Aquatic Animal Health Laboratory Network for Africa (RAAHLN-AF), Pretoria, South Africa (Dec 2023) 2. WOAH National Focal Points (Africa) on Aquatic Animals Regional Training Seminar, Kigali, Rwanda (Oct 2023). 3. WOAH National Focal Points (Asia-Pacific) on Aquatic...</td>
</tr>
</tbody>
</table>
Regional / national activities in Canada, including: 1. Methods for the derivation of connectivity measures for the dispersal of sea lice. 2. Description of spatiotemporal patterns of infectious salmon anemia virus (ISAV) detection in marine Atlantic salmon farms in Newfoundland and Labrador. 3. Diagnosis of Renibacterium salmoninarum infection in harvested Atlantic salmon (Salmo salar L.) on the east coast of Canada: Clinical findings, sample collection methods, and laboratory diagnostic tests. 4. Bayesian analysis of diagnostic sensitivity and specificity for detecting infectious salmon anemia virus (ISAV) using IFAT and real-time RT-PCR testing from laboratories in Atlantic Canada. 5. Research and Harmonization of Aquatic Animal Health Management in Atlantic Canada: One Coast Approach to Fish Health, Assessment of gaps in Infectious salmon anemia management in Atlantic Canada. 6. Assessing the impact of freezing, thawing and storage conditions on the ability of salmon tissues to detect ISAV by PCR. 7. Understanding winter mortality patterns in Atlantic salmon: a phased approach. 8. Epidemiological investigation of emerging infectious diseases of farmed fish in Canada. 9. Long-read sequencing reveals the shell microbiome of apparently healthy American lobsters Homarus americanus from Atlantic Canada. 10. Interspecies and spatial differences in the shell microbiome of Atlantic rock crab Cancer irroratus and European green crab Carcinus maenas from Atlantic Canada. 11. Bayesian analysis of diagnostic sensitivity and specificity for detecting infectious salmon anemia virus (ISAV) using IFAT versus qRT-PCR testing from three different laboratories in Atlantic Canada. International applied epidemiology research, including: 1. Survey of farm management and biosecurity practices in shrimp farms in Java Island, Indonesia.

**TOR3: HARMONISATION OF STANDARDS**

2. Proposal or development of any procedure that will facilitate harmonisation of international regulations applicable to the main fucus area for which you were designated

<table>
<thead>
<tr>
<th>Proposal title</th>
<th>Scope/Content</th>
<th>Applicable area</th>
</tr>
</thead>
</table>

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

Yes

**Research need : 1**

Please type the Research need: Systematic Reviews to support evidence in aquatic code / manual chapters

Relevance for WOAH Disease Control, Capacity Building, Other, Standard Setting, Animal Welfare, Facilitation of international collaboration,

Relevance for the Codes or Manual Code, Manual,
### Field
Epidemiology and Surveillance, Diagnostics, Vaccines, Therapeutics,

### Animal Category
Terrestrial, Aquatic,

### Disease:
Infection with infectious salmon anaemia virus

### Kind of disease (Zoonosis, Transboundary diseases)
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:**

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4. Did your Collaborating Centre maintain a network with other WOAH Collaborating Centres (CC), Reference Laboratories (RL), or organisations designated for the same specialty, to coordinate scientific and technical studies?

**Yes**

<table>
<thead>
<tr>
<th>Name of WOAH CC/RL/other organisation(s)</th>
<th>Location</th>
<th>Region of networking Centre</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERAAAD-European (NVI), Emerging Aquatic Diseases (CEFAS), CASA (U Chile), GBADS (Liverpool)</td>
<td>virtual</td>
<td>Americas Europe</td>
<td>multiple coordination video meetings to discuss enhancing WOAH mission and Aquatic Animal Health Strategy</td>
</tr>
</tbody>
</table>

**TOR4 AND 5: NETWORKING AND COLLABORATION**

5. Did your Collaborating Centre maintain a network with other WOAH Collaborating Centres, Reference laboratories, or organisations in other disciplines, to coordinate scientific and technical studies?

**Yes**

<table>
<thead>
<tr>
<th>Name of WOAH CC/RL/other organisation(s)</th>
<th>Location</th>
<th>Region of networking Centre</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSIRO</td>
<td>Australia</td>
<td>Asia and Pasific</td>
<td>Inclusion in regular meetings to enhance WOAH mission and aquatic animal health strategy</td>
</tr>
</tbody>
</table>

**TOR6: EXPERT CONSULTANTS**

6. Did your Collaborating Centre place expert consultants at the disposal of WOAH?

**Yes**

<table>
<thead>
<tr>
<th>NAME OF EXPERT</th>
<th>KIND OF CONSULTANCY</th>
<th>SUBJECT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Larry Hammell</td>
<td>Scientific Advisor</td>
<td>WOAH (Paris) for Aquatic Animal Health Strategy</td>
</tr>
</tbody>
</table>

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<tr>
<th>NAME OF EXPERT</th>
<th>KIND OF CONSULTANCY</th>
<th>SUBJECT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Larry Hammell</td>
<td>Aquatic Focal Point Meetings in Korea (Jun 2023) and Rwanda (Oct 2023)</td>
<td>Workshop organizing committee / presenter: Global Aquatic Animal Health Strategy; National Focal Point Survey (Africa); Aquatic Disease Surveillance – Practical Considerations for Sampling and Diagnostic Testing; PVS Pathway Evaluation – Expert Experiences; Network of Aquaculture Centres; Program Review and Discussion</td>
</tr>
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<th>KIND OF CONSULTANCY</th>
<th>SUBJECT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Larry Hammell</td>
<td>Workshop organizing committee / presenter: Global Aquatic</td>
<td></td>
</tr>
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3
Larry Hammell

WOAH Launch of Regional Aquatic Animal Health Laboratory Network for Africa (RAAHLN-AF), Pretoria, South Africa (Dec 2023)
Animal Health Strategy; ERAAAD (Americas) WOAH Collaborating Centre Activities and Challenges.

Larry Hammell

AQMENET Technical Committee member
Expert advice for aquaculture network in Middle East

Larry Hammell

WOAH AMR Network committee member
regular meetings of experts (virtual)

Larry Hammell

Ad hoc group member
Wildlife Health Information System - participant in virtual calls and Paris meeting (Dec 2023).

Larry Hammell

Webinars for WOAH staff
multiple webinars provided to general WOAH staff on the role of aquaculture in global food security, and interactions / seminars to individual WOAH departments to enhance uptake of aquatic health into core activities

Larry Hammell

WOAH representative on organizing committee for FAO/WOAH Fish Vet Dialogue meeting
Fish Vet Dialogue meeting to be held in June 2024.

**TOR7: SCIENTIFIC AND TECHNICAL TRAINING**

7. Did your Collaborating Centre provide advice/services to requests from Members in your main focus area?
No

8. Did your Collaborating Centre provide scientific and technical training, within the remit of the mandate given by WOAH, to personnel from WOAH Members?
Yes
   a) Technical visit : 0
   b) Seminars : 200
   c) Hands-on training courses: 65
   d) Internships (>1 month) : 0

<table>
<thead>
<tr>
<th>TYPE OF TECHNICAL TRAINING PROVIDED (A, B, C OR D)</th>
<th>CONTENT</th>
<th>COUNTRY OF ORIGIN OF THE EXPERT(S) PROVIDED WITH TRAINING</th>
<th>NO. PARTICIPANTS FROM THE CORRESPONDING COUNTRY</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>aquatic health seminars to WOAH staff; aquatic focal point meetings</td>
<td>global, Africa, Asia Pacific</td>
<td>200</td>
</tr>
<tr>
<td>C</td>
<td>Farmer training on parasite identification</td>
<td>Canada</td>
<td>65</td>
</tr>
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</table>

**TOR8: SCIENTIFIC MEETINGS**

9. Did your Collaborating Centre organise or participate in the organisation of scientific meetings related to your main focus area on behalf of WOAH?
Yes

<table>
<thead>
<tr>
<th>NATIONAL/INTERNATIONAL</th>
<th>TITLE OF EVENT</th>
<th>CO-ORGANISER</th>
<th>DATE (MM/YY)</th>
<th>LOCATION</th>
<th>NO. PARTICIPANTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>International</td>
<td>Aquatic Focal Points for Africa (English)</td>
<td>WOAH Regional Office (Nairobi)</td>
<td>2023-10-02</td>
<td>Rwanda</td>
<td>45</td>
</tr>
</tbody>
</table>

WOAH Collaborative Centre Reports Activities 2023
TOR9: DATA AND INFORMATION DISSEMINATION

10. Publication and dissemination of any information within the remit of the mandate given by WOAH that may be useful to Members of WOAH

a) Articles published in peer-reviewed journals:


b) International conferences:

5. Thakur K. Importance of diagnostic testing in aquatic food animal epidemiology: An example for site level detection of infectious salmon anemia virus in farmed Atlantic salmon. 3rd International Aquatic Epidemiology Conference, Lucknow, India, November 2023

Raquib A*, Hammell L, Thakur K. Detection of bacterial diseases before transfer of fish from Atlantic salmon hatcheries in British Columbia, Canada. Poster presented at 3rd International Aquatic Epidemiology Conference, Lucknow, India, November 2023


c) National conferences:


d) Other (Provide website address or link to appropriate information):
11. What have you done in the past year to advance your area of focus, e.g. updated technology?

12. Additional comments regarding your report: