

WOAH Reference Laboratory Reports Activities 2023

Activities in 2023

This report has been submitted : 21 juin 2024 17:51

Laboratory Information

| | |
|--|---|
| Name of disease (or topic) for which you are a designated WOAHO Reference Laboratory: | Enteric septicaemia of catfish (Edwardsiella ictaluri) |
| Address of laboratory: | PO Box 6100 |
| Tel.: | 16623251202 |
| E-mail address: | hanson@cvm.msstate.edu |
| Website: | https://www.vetmed.msstate.edu/clinics-locations/lab-system/diagnostic-and-aquatic-labs |
| Name (including Title) of Head of Laboratory (Responsible Official): | Larry A. Hanson, PhD Professor, Director of the Fish Diagnostic Laboratory |
| Name (including Title and Position) of WOAHO Reference Expert: | Larry A. Hanson, PhD Professor, Director of the Fish Diagnostic Laboratory |
| Which of the following defines your laboratory? Check all that apply: | Academic institution |

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 WOAHO Manual (Yes/No) | Total number of test performed last year | |
|--------------------------------------|------------------------------------|--|-----------------|
| | | Nationally | Internationally |
| Indirect diagnostic tests | | Nationally | Internationally |
| Direct diagnostic tests | | Nationally | Internationally |
| Bacterial culture and Identification | | 119 | 76 |
| qPCR | | 4 | |

TOR2: REFERENCE MATERIAL

2. Did your laboratory produce or supply imported standard reference reagents officially recognised by WOAHO?

No

3. Did your laboratory supply standard reference reagents (nonWOAH-approved) and/or other diagnostic reagents to WOAHO Members?

No

4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to WOAHO 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 WOAHS 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 WOAHS Standards for the designated pathogen or disease?

No

TOR4: DIAGNOSTIC TESTING FACILITIES

10. Did your laboratory carry out diagnostic testing for other WOAHS Members?

No

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

No

TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

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

Yes

| Title of the study | Duration | PURPOSE OF THE STUDY | PARTNERS (INSTITUTIONS) | WOAHS MEMBER COUNTRIES INVOLVED OTHER THAN YOUR COUNTRY |
|--|----------|---|---|---|
| Improving Biosecurity: A Science-based Approach to Manage Fish Disease Risks and Increase the Socio-economic Contribution of the Nigerian Catfish and Tilapia Industries | 3 years | Evaluate current Aquaculture practices and improve biosecurity in Nigerian Aquaculture and evaluate the cause of disease outbreaks in African catfish | World Fish (Malaysia), University of Ibadan (Nigeria) | NIGERIA |

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

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:

As part of the research project in Nigeria, we helped teach field personnel in Nigeria about health management. They collected management and outbreak information which were be used in the suggested biosecurity plans.

15. Did your laboratory disseminate epidemiological data that had been processed and analysed?

No

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

Khor Li Imm, L., O.A. Bodunde, O.A., R. Wills, L. Hanson, O. K. Adeyemo, O. O. Aina, S. A. Alarape, J. Delamare-Deboutteville, C. V. Mohan. Understanding aquaculture biosecurity to improve catfish disease management in Ogun and Delta states, Nigeria. Aquaculture (In press- published on line 2-8-24) <https://doi.org/10.1016/j.aquaculture.2024.740664>

Kumar, Ganesh, Carole Engle, Suja Aarattuthodi, Jonathan van Senten, Shraddha Hegde, Lester Khoo, Larry Hanson, Mark Peterman, and Larry Dorman. (2024) Economic impact of Edwardsiellosis on the U.S. catfish industry. *Aquaculture Economics & Management*, 1–24. <https://doi.org/10.1080/13657305.2024.2319083>

b) International conferences:

3

Hanson, L.A. "Drivers of disease emergence in aquaculture and AMR" in "Challenges in aquatic AMR mitigation and possible solutions" FAO Rome Italy June 27, 2023.

Hanson, L.A. "Fighting AMR with research service and extension." Designation of FAO Reference Centres on Antimicrobial Resistance and Aquaculture Biosecurity. FAO Rome, Italy, June 26, 2023.

Hanson, L.A. "Surveys and sampling of the aquaculture industry in Nigeria reveal the need to enhance the safety and judicious use of antimicrobials" in FAO World Antimicrobial Resistance Awareness Week Webinar "Avoiding AMR together: Ensuring healthy and safe aquatic foods" November 27, 2023 (Over 200 attendees).

c) National conferences:

1

Hanson, Larry, Robert Wills, Olanike K. Adeyemo, Oluwasanmi O. Aina, Selim Alarape, Olusola Bodunde, Rohana Subasinghe, Jerome Delamare-Deboutteville, Laura Khor, Mohan Chadag. *Understanding aquaculture biosecurity to improve catfish disease management in Ogun and Delta states, Nigeria. Aquaculture America*, Feb 23-26, 2023. New Orleans, LA p239.

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 WOAAH 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 | PDF | QAU-F-043 - MVRDLS Letter of Quality Assurance RevFeb20.pdf |

19. Is your quality management system accredited?

Yes

| Test for which your laboratory is accredited | Accreditation body |
|--|---|
| Bacterial culture and identification | American Society of Veterinary Diagnosticians |
| Antibiotic Sensitivity Testing | American Society of Veterinary Diagnosticians |

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

Yes

TOR9: SCIENTIFIC MEETINGS

21. Did your laboratory organise scientific meetings related to the pathogen in question on behalf of WOAAH?

No

22. Did your laboratory participate in scientific meetings related to the pathogen in question on behalf of WOAAH?

No

TOR10: NETWORK WITH WOAAH REFERENCE LABORATORIES

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

Not applicable (only WOA Reference Laboratory designated for the disease)

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

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

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

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

26. Did your laboratory collaborate with other WOA Reference Laboratories for the same disease on scientific research projects for the diagnosis or control of the pathogen of interest?

Not applicable (Only WOA 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 WOA Reference Laboratories for the same pathogen?

No

TOR12: EXPERT CONSULTANTS

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

No

29. Additional comments regarding your report:

No