World Organisation for Animal Health

Larry A. Hanson - - UNITED_STATES_OF_AMERICA

WOAH Reference Laboratory Reports Activities 2024

This report has been submitted: 31 janvier 2025 22:44

LABORATORY INFORMATION

***Name of disease (or topic) for which you are a designated WOAH Reference Laboratory:**	Enteric septicaemia of catfish
***Address of laboratory:**	PO Box 6100, 240 Wise center Drive, Mississippi State, Mississippi, USA
***Tel:**	6623251202
***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 WOAH 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 WOAH Manual (Yes/No)	Total number of test performed last year	
Indirect diagnostic tests		Nationally	Internationally
	No		
Direct diagnostic tests		Nationally	Internationally
Bacterial culture and			

Identification	Yes	102	0
qPCR	No	7	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?

No

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?

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?

No

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?

No

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:

3

Thompson, C., W. W. Jr, C. Lourenço-Marques, F. Soares, P. Pousão-Ferreira, L. Hanson, X.-H. Zhang, B. Gomez-Gil, T. Varaste, M. Lima, T. Araujo, W. d. Souza and F. Thompson (2024). Understanding the role of microbes in reared aquatic organism health and disease. Marine Life Science & Technology. 6: 579–609. https://doi.org/10.1007/s42995-024-00248-8

Khor Li Imm, L., O.A. Bodunde, O.A., R. Wills, L. Hanson, O. K. Adeyemo, O. O. Aina, S. A. Alarape, J. Delamare-Debouteville, C. V. Mohan. (2024) Understanding aquaculture biosecurity to improve catfish disease management in Ogun and Delta states, Nigeria. Aquaculture 584: 740664. 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:

0

c) National conferences:

7

Divya Rose, Caitlin E. Older, Abby Hawkins, Sujita Balami, Noor-ul-Huda, Cyndi Ware, Todd Byars, Fernando Yamamoto, Lester H. Khoo1, Geoffrey C. Waldbieser, Hasan Tekedar, Andy Perkins, Larry A. Hanson, T. Graham Rosser, David J. Wise, and Matt J. Griffin. Searching For the Environmental Reservoirs of Antibiotic Resistance in Commercial Catfish Ponds in The Mississippi Delta. American Society for Microbiology South Central Branch Meeting– Annual Meeting, November 7-9, 2024, Memphis, Tennessee.

Anna Collinsgru, Stephen Reichley, Matt Griffin, Natalie Stilwell, Lorelei Ford, Larry Hanson. Integration of a four-plex hydrolysis probe based real-time PCR to differentiate fish Edwardsiella isolates in a veterinary diagnostic setting. American Society for Microbiology South Central Branch Meeting– Annual Meeting, November 7-9, 2024, Memphis, Tennessee.

Rideeta Islam Aishy, Fenny Patel, Stephen R. Reichley, Mark L. Lawrence, Larry A. Hanson, and Hasan C. Tekedar. Exploring Molecular Determinants of Antimicrobial Resistance of Edwardsiella ictaluri to Colistin through Adaptive Laboratory Evolution. American Society for Microbiology South Central Branch Meeting– Annual Meeting, November 7-9, 2024, Memphis, Tennessee.

Rose, D., C. E. Older, B. M. Richardson, C. Ware, M. Lewis, S. Balami, C. Slifka, G. C. Waldbieser, L. Khoo, H. Tekedar, A. Perkins, L. Hanson, T. G. Rosser, D. J. Wise and M. J. Griffin (2024). Analysis of Catfish Pond Water Microbiome: A Comprehensive Study from the Mississippi Delta. The 2024 American Fisheries Society, Fish Health Section meeting and 63rd Western Fish Disease Workshop. Boise Idaho. July 30-Aug 1.

Rose, D., C. E. Older, A. Hawkins, S. Balami, Noor-ul-Huda, C. Ware, T. Byars, F. Yamamoto, L. Khoo, G. C. Waldbieser, H. Tekedar, A. Perkins, L. A. Hanson, T. G. Rosser, D. J. Wise and M. J. Griffin (2024). Searching For the Environmental Reservoirs Of Antibiotic Resistance In Commercial Catfish Ponds In The Mississippi Delta. The 2024 American Fisheries Society, Fish Health Section meeting and 63rd Western Fish Disease Workshop. Boise Idaho. July 30-Aug 1.

Hasan C. Tekedar, Fenny Patel, Salih Kumru, Stephen R. Reichley, Geoffrey C. Waldbieser, Mark L. Lawrence, Jochen Blom, Larry A. Hanson, Divya Rose, Matt. J. Griffin. A Comparative Genomics Approach to Evaluate Species Variation in the Edwardsiella Genus. ASM Microbe 2024, Atlanta, Georgia. June 13-17, 2024.

Balami, S., C. Ware, D. Wise, Noor-Ul-Huda, F. Yamamoto, L. Hanson and M. Griffin. In search of a polyvalent, orally delivered Edwardsiella vaccine in hybrid catfish (blue catfish ♂× channel catfish ♀). 47th Annual Eastern Fish Health Workshop. Gulfport, MS. Mar. 4-8, 2024.

d) Other (Provide website address or link to appropriate information):

0

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	PDF	QAU-F-043 - MVRDLS Letter of Quality Assurance RevJan25.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

All labs in the system are AAVLD accredited and have approved biorisk management protocols and internal auditing.

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)

N/A

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?

No

N/A

TOR12: EXPERT CONSULTANTS

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

No

29. Additional comments regarding your report:

No