

# WOAH Collaborative Centre Reports Activities 2025

This report has been submitted: 29 janvier 2026 18:42

## CENTRE INFORMATION

<b>*Title of WOA Collaborating Centre</b>	Emerging Aquatic Animal Diseases
<b>*Address of WOA Collaborating Centre</b>	Centre for Environment, Fisheries and Aquaculture Sciences
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<b>Website:</b>	<a href="https://www.cefas.co.uk/icoe/aquatic-animal-health/designations/woah-collaborating-centre-for-emerging-aquatic-animal-disease/">https://www.cefas.co.uk/icoe/aquatic-animal-health/designations/woah-collaborating-centre-for-emerging-aquatic-animal-disease/</a>
<b>*Name Director of Institute (Responsible Official):</b>	Dr Rachel Hartnell
<b>*Name (including Title and Position) of Head of the Collaborating Centre (WOAH Contact Point):</b>	Dr Kelly Bateman and Dr Richard Paley
<b>*Name of the writer:</b>	Kelly Bateman

## TOR 1 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 WOA

Category	Title of activity	Scope
Disease control (true)	Provision of dedicated Fish Health Inspectorate (FHI) to fulfil statutory responsibilities regarding aquatic animal health.	The FHI is responsible for the delivery and enforcement of aquatic animal health legislation in England and Wales.
Epidemiology, surveillance, risk assessment, (true)	Provision of aquatic animal health epidemiological surveillance service	Provision of advice for aquatic animal health policy, risk assessment and modelling: design and assessment of surveillance plans; horizon scanning published and grey literature for emerging diseases.
Training, capacity building (true)	Provision of training in histological analysis of aquatic animal tissues	Training in analysis of aquatic animal diseases in histological sections of aquatic invertebrates.
Wildlife (true)	Monitoring of health and disease of wild fish, crustacean and bivalve molluscs	Samples of fish, crustacean and bivalve mollusc tissues were assessed for disease and samples collected for reference materials.

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Aquatic animal diseases (true)	WOAH experts available for Koi Herpesvirus (KHV) and Spring Viraemia of Carp (SVC)	Provision of expert advice on these disease conditions, their diagnostics, host range, pathogenicity and characterisation, including pathogen testing when required.
Training, capacity building (true)	Provision of training in in situ hybridisation	Training in in situ hybridisation (ISH) techniques for detecting pathogen DNA and RNA in FFPE tissue sections. The programme covered probe design, labelling, and protocol optimisation, and was attended by colleagues from the Department of Forestry, Fisheries and the Environment, and the Advanced Agriculture and Food Cluster in South Africa.
Training, capacity building (true)	Sharing of positive control reference materials	Positive control reference materials made available and can be provided upon request for some of the listed and non-listed aquatic animal diseases. CCEAAD has obtained historically and geographically important isolates of SVCV for backup and for whole genome sequence analysis.
Training, capacity building (true)	Provision of training in sampling crustacean tissues	Training in sampling of crustacean tissues for histological analysis for WOAHA listed and emerging diseases.
Training, capacity building (true)	Bioinformatics workshop on "Genomics of Fish Pathogens"	Workshop provided participants with an introduction to bioinformatics for fish pathogen genomics.
Training, capacity building (true)	Research network on emerging intracellular bacterial pathogens in bivalves	We continue to collaborate with institutes in Chile, Japan, Canada, and Scotland by sharing expertise, bacterial isolates, and guidance on intracellular bacterial infections. This year, we provided sequencing support for the characterization of unknown intracellular bacteria in South African clams and Chilean mussels. Sequencing analyses are ongoing.
Training, capacity building (true)	Provision of advice for biosecurity	Advice on biosecurity, farm management and husbandry methods provided.
Training, capacity building (true)	Provision of training on diagnosis of diseases of aquatic animals	Training was provided to fish health inspectors from Mozambique on diagnosis of diseases of aquatic animals
Training, capacity building (true)	Provision of training on diagnosis of diseases of aquatic animals	Training was provided to a diagnostician and the CVO of Belize visiting the Weymouth laboratory on diagnosis of diseases of aquatic animals
Training, capacity building (true)	Provision of training on diagnosis of diseases of aquatic animals	Training was provided in country to veterinary, field officer and laboratory staff of the Central Veterinary research Institute (CVRI), Zambia on the sampling, processing and molecular detection of fish diseases. Positive control material was also provided.

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Aquatic animal diseases (true)	Research into <i>Francisella halioticida</i> infection in molluscs	Comparative molecular phylogeny of FH isolates infecting different mollusc species. The University of Tokyo, Japan, supplied FH isolates from abalone <i>Haliotis gigantea</i> and scallops <i>Mizuhopecten yessoensis</i> . We also received infected scallop isolates from Fisheries and Oceans Canada, and infected mussel samples from University College Cork in Ireland.
Aquatic animal diseases (true)	Support for reported disease outbreak investigation	Provided support to investigate possible WSSV outbreak in wild crayfish population.
Aquatic animal diseases (true)	Provision of advice	Provided advice on IHHNV infection in shrimp products.
Aquatic animal diseases (true)	Support for reported disease outbreak investigation	Provided support for reported disease outbreak investigation – suspect EUS. Shipping of primers, probes and synthetic positive control for EUS assays. Repeat confirmatory testing with sequencing offered and will be undertaken if needed.
Aquatic animal diseases (true)	Support for reported disease outbreak investigation	Supporting the Bavarian Environment Agency investigating an unknown pathogen causing death in roach, <i>Rutilus pigus</i> , with similarity to Rosette agent <i>Sphaerothecum destruens</i> .
Aquatic animal diseases (true)	Bacterial and viral culture collection	Review of data and samples within culture collection, accessions added.
Aquatic animal diseases (true)	International Database on Aquatic Animal Diseases (IDAAD)	Completed review of the disease data, accessions added and updated as required.

## TOR 3: HARMONISATION OF STANDARDS

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

Proposal title	Scope/Content	Applicable Area
Tilapia Lake Virus Chapter for WOA Diagnostic Manual	Draft chapter completed, reviewed by external expert and submitted to BSC, WOA.	Laboratory Expertise Training and Education Health Management Animal Production Wildlife Health and Biodiversity
WOAH ad hoc group on susceptibility of crustacean species to infection with WOA listed diseases	Chaired meeting and finalised report detailing evidence for susceptibility of crustacean species to Crayfish plague ( <i>Aphanomyces astaci</i> ).	Laboratory Expertise Training and Education Health Management Animal Production

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WOAH ad hoc workshop to identify highest priority research areas for finfish health	Chaired session and participation on the workshop to identify challenges in aquatic animal health	Wildlife Health and Biodiversity Laboratory Expertise Training and Education Health Management Animal Production Wildlife Health and Biodiversity
FAO Integrated Biosecurity Index Technical Consultation	Consultation to discuss the Integrated Biosecurity Index (IBI) a newly developed excel™ self-assessment and monitoring tool by the Food and Agriculture Organization (FAO) to provide a holistic, national-level evaluation of risks to food and agriculture sectors.	Wildlife Health and Biodiversity Laboratory Expertise Training and Education Health Management Animal Production Wildlife Health and Biodiversity
Development of Positive control material	Synthetic positive control plasmids designed for WSSV, TSV, YHV1, IHHNV, IMNV, DIV1, CMNV, SVCV, KHV, EUS, ISKNV and TiLV. Each encompassing several WOAHA and non-WOAHA PCR assay targets and including reporter tag regions for discrimination of lab contamination for new and developing diagnostic laboratories	Wildlife Health and Biodiversity Laboratory Expertise Training and Education Health Management Animal Production Wildlife Health and Biodiversity

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

Yes

### Research need 1

**Please type the Research need:** Creation of new Aquatic Diagnostic Manual Chapter for Tilapia Lake Virus

**Relevance for WOAHA** Disease Control, Standard Setting, Facilitation of international collaboration,

**Relevance for the Code or Manual** Manual,

**Field** Diagnostics,

**Animal Category** Aquatic,

**Disease:**

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

**Additional keywords if needed: One keyword per entry**

TiLV

**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:** Aquatic Manual Chapter \* Tilapia Lake Virus

**Notes:**

**Answer:** Working with the WOAHA Collaborating Centre for Diagnostic Test Validation Science in the Asia Pacific Region at CSIRO, Australia to complete a manuscript on the results of an international interlaboratory evaluation of diagnostic molecular methods for detection of tilapia lake virus.

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

Yes

Name of WOAHA CC/RL/other organisation(s)	Location	Region of networking Centre	Purpose
			Sharing of information on fish and crustacean health,

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European Union Reference Laboratory for Fish and Crustacean Diseases	DTU, Denmark	Europa	participation in interlaboratory proficiency tests. Associate Partner Laboratory.
European Union Reference Laboratory for Bivalve Mollusc Diseases	IFREMER, France	Europa	Sharing of information on fish and crustacean health, participation in interlaboratory proficiency tests. Associate Partner Laboratory.
FAO Antimicrobial Resistance (AMR) Reference Centre	Cefas, UK	Europa	Collaboration to provide services in identifying AMR risks to aquatic animals and to help develop and assess the effectiveness of alternative solutions to control disease in farmed aquatic animals (particularly finfish and shrimp).
International Council for the Exploration of the Seas (ICES). Expert working group on Pathology and diseases of marine organisms (WGPDMO)	ICES, Denmark	Europa	England and Wales representative in the WGPDMO, reporting of disease emergence and trends in marine fish and shellfish stocks (wild stocks and aquaculture).
International Council for the Exploration of the Seas (ICES). Expert working group on crab	ICES, Denmark	Europa	Reporting of disease emergence and trends in wild crustacean stocks.
European Virus Archive – Global (EvaG)	Various	Europa	International group of 47 laboratories that represent an extensive range of virological disciplines, generating and distributing diagnostic materials and protocols globally.
WOAH Reference Laboratory for AHPND, IHHNV, NHP, TSV, WSSV	University of Arizona, USA	América	Participation in histological proficiency test for crustacean diseases.
Belize Agricultural Health Authority (BAHA)	Belize	América	Supported OCPP/IAEA technical visit of Belize Agricultural Health Authority to observe, review and develop operational capabilities, infrastructure, biosecurity practices, diagnostic procedures and overall readiness to support national aquatic animal health management, 3-7 Nov

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			2025.
Department of Fisheries	Thailand	Asia y el Pacífico	Associate Partner laboratory.
The Key Laboratory of Aquatic Animal Disease	China	Asia y el Pacífico	Associate Partner laboratory.
ICAR - National Bureau of Fish Genetic Resources	India	Asia y el Pacífico	Associate Partner laboratory.
Aquaculture Innovation and Technology Development. Department of Forestry, Fisheries and the Environment	South Africa	África	Associate Partner laboratory.
Department for Animal Production and Health (DAP&H)	Kandy, Sri Lanka	Asia y el Pacífico	Collaboration on shrimp health. Provision of histopathology training.
National Aquaculture Development Authority (NAQDA)	Colombo, Sri Lanka	Asia y el Pacífico	Collaboration on shrimp health. Provision of histopathology training.
National Aquatic Resource Research and Development Agency (NARA)	Colombo, Sri Lanka		Collaboration on shrimp and mud crab health. Provision of histopathology training.
University of Peradeniya, Sri Lanka	Kandy, Sri Lanka		Collaboration on shrimp and mud crab health. Provision of histopathology training.
Ministry of Fisheries and Aquaculture Development, Fisheries Commission, Fish Health Unit	Ghana	África	Ongoing support for capability and capacity development and supervision of PhD/masters students. Support identifying first detection of EUS in Ghana, and associated notification.

## TOR 4 AND 5: NETWORKING AND COLLABORATION

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

Yes

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Name of WOAHC/RL/other organisation(s)	Location	Region of networking Centre	Purpose
WOAH Collaborating Centre Network on Wildlife Health (WOAH-WildNet)	Online	Africa Americas Asia and Pacific Europe	Network of Collaborating Centres on Wildlife Health to support the wildlife health framework towards improving wildlife health around the globe by effectively targeting the needs of its member countries.
WOAH Aquatic Collaborating Centre Network	Online	Africa Americas Asia and Pacific Europe	Network of Collaborating Centres on Aquatic Animal Health to enhance communication, identify and share opportunities for collaboration on projects (research and technology transfer) and identify and facilitate opportunities for aquatic animal health collaborative training within the WOAHC community.

## TOR 6: EXPERT CONSULTANTS

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

Yes

Name of expert	Kind of consultancy	Subject
Dr Kelly Bateman	Advice	Co-Head of the WOAHC Collaborating Centre for Emerging Aquatic Animal Diseases and crustacean disease sector lead. Chair of the WOAHC ad hoc group on susceptibility of crustacean species to infection with WOAHC listed diseases. Expert in crustacean diseases, histopathology and electron microscopy. Chair invited member of the International Council for the Exploration of the Seas (ICES) Working Group on Crab (WGCRA) and Working Group on Pathology and Diseases of Marine Organisms (WGPDMO).
Dr Richard Paley	Advice	Co-Head of the WOAHC Collaborating Centre for Emerging Aquatic Animal Diseases and fish disease sector lead. Head of the WOAHC Reference Centre for Spring Viraemia of Carp Virus (SVCV) from April 2024. Principal virologist. Member of the International Council for the Exploration of the Seas (ICES) Working Group on Pathology and Diseases of Marine Organisms (WGPDMO).
Dr Frederico Batista	Advice	Mollusc disease sector lead and Molecular diagnostics lead from April 2024. Expert in bivalve mollusc diseases and emerging molecular diagnostic tools.
Dr Edmund Peeler	Advice	Recipient of the WOAHC Meritorious Award for his leadership and involvement in shaping aquatic animal health standards globally in 2024. Expert in Epidemiology and Risk. Consultant to WOAHC's Aquatic Animal Commission.

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Dr Jessica Witt	Advice	WOAH Focal point for Aquatic Animal Health for the UK, expert in epidemiology and risk.
Dr Mickael Teixeira Alves	Advice	Principal risk modeller, expert in epidemiology, risk modelling and statistics.
Prof David Bass	Advice	Animal and Human Health Theme Lead at Cefas. Molecular biologist, microbiologist, and molecular parasitologist with expertise in multi-disciplinary approaches to investigating aquatic animal health & disease, and pathogen characterisation, including application of high-throughput sequencing, 'omics, and bioinformatic techniques.
Dr Craig Baker-Austin	Advice	Director of FAO AMR Reference Centre, expert aquatic animal bacteriologist.
Dr Athina Papadopoulou	Advice	Deputy Director of the FAO antimicrobial resistance (AMR) Reference Centre, expert bacteriologist with specialist expertise in AMR.
Dr Irene Cano Cejas	Advice	Head of the WOAH Reference Centre for Koi Herpes Virus (KHV) from April 2024 and Principal virologist, expert in immunology.
Dr Ronny van Aerle	Advice	Principal bioinformatician, expert in genomics and bioinformatics, focussing on Aquatic Animal Health. Co-Director of the Centre for Sustainable Aquaculture Futures (SAF), a joint initiative between Cefas and the University of Exeter.
Dr Nicola Coyle	Advice	Bioinformatician, provides support for genomic data analysis, focusing on bacterial pathogens, antimicrobial resistance and developing new methodologies for pathogen and antimicrobial resistance surveillance.
Mr Christopher Evans	Advice	Head of the Fish Health Inspectorate from April 2023 - responsible for the regulatory functions for the national control of aquatic animal diseases in England and Wales.
Mr John Bignell	Advice	Principal pathologist with specialist expertise in fish and molluscan diseases.
Dr Georgia Ward	Advice	Aquatic Animal Health Specialist with expertise in the use of molecular biology, molecular ecology, and holistic approaches to explore aquatic animal and environmental health.
Ms Chantelle Hooper	Advice	Aquatic Animal Health Specialist specialising in researching host and pathogen genomics in emerging diseases of aquatic invertebrates.
Ms Rose Kerr	Advice	Molecular biologist, investigating aquatic animal diseases and developing sequencing methodologies.

## TOR 7: SCIENTIFIC AND TECHNICAL TRAINING

7. Did your Collaborating Centre provide advice/services to requests from Members in your main focus area?

Yes

*Assistance provided to European country investigating a potential White Spot Syndrome (WSSV outbreak in crayfish. Samples submitted to CCEAAD for assistance with metagenomic analysis.*

*Assistance provided to European country investigating unusual intracellular bacterial infection of bivalve molluscs.*

*Support investigating small scale sardine mortality event in Europe (UK).*

8. Did your Collaborating Centre provide scientific and technical training, within the remit of the mandate given by WOA, to personnel from WOA Members?

Yes

a) Technical visit : 0

b) Seminars : 1

c) Hands-on training courses: 5

d) Internships (>1 month) : 12

Type of technical training provided (a, b, c or d)	Content	Country of origin of the expert(s) provided with training	No. participants from the corresponding country
B	Associate Partner Laboratory network meeting	Various	15
C	Hands on training in crustacean dissections	UK	20
C	ISH Training	South Africa	4
C	Histopathology training	Sri Lanka and Belize	7
C	Bioinformatics workshop on "Genomics of Fish Pathogens"	Various	23
C	Hands on training for bacterial and molecular diagnostics	Zambia	30
D	PhD and MPhil and 12 month placement students, various subjects in the field of aquatic animal disease	Various	12

## TOR 8: 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 WOA?H

Yes

National/International	Title of event	Co-organiser	Date	Location	No. Participants
Internationally	WOAH Collaborating Centre Network for Wildlife Health (WOAH WILD-Net) Meeting	Meeting organised by WOA?H Secretariat	2025-06-25	Hybrid meeting, Online and Gran Canaria	25
Internationally	AQMENET strategy meeting and capacity building workshop. National Aquatic Focal Point Training	WOAH sub-regional office	2025-10-26	Saudi Arabia	30

## TOR 9: DATA AND INFORMATION DISSEMINATION

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

a) Articles published in peer-reviewed journals:

19

Agila-Toral, A.C., Libunao, G.X., Logronio, D.J., Bateman, K.S., Stentiford, G.D., Amar, E.C., Ravago-Gotanco, R. (2025) Viral load differences associated with infection outcomes and resistance to white spot syndrome virus (WSSV) infection in mud crab, *Scylla serrata*. *Journal of Invertebrate Pathology*, 214, 108450, <https://doi.org/10.1016/j.jip.2025.108450>

Axén, C, Bao, M, Bignell, J, Carnegie, R, Cheslett, D, Ciprian, P, Declercq, A, Eriksson-Kallio, AM, Gagné, N, Garseth, Å-H, Giulietti, L, Grade, A, Haenen, O, Kristmundsson, A, Levsen, A, Madsen, L, Mortensen, S, Paley, R, Podolska, M, Ramos, P, Ruane, NM, Sandlund, N, Scharsack, J, Soares, S, Storesund, JE & Whaley, J 2025, Working Group on Pathology and Diseases of Marine Organisms (WGPDMO; outputs from 2024 meeting). *ICES Scientific Report*, no. 17, vol. 7, International Council for the Exploration of the Sea (ICES), Copenhagen, Denmark. <https://doi.org/10.17895/ices.pub.28343924>.

Ayiku, A.N.A., Owusu, I.A., Verner-Jeffreys, D., Paley, R., Quashie, P.K. and Duodu, S., (2025). Investigating the mechanism of heat-shock protection in ISKNV-infected tilapia brain cell line. *Microbiology Spectrum*, 13(9), pp.e02510-24.

Cano, I., Harvey, C., Paley, R., Hill, R., Buckley, M., Cobb, A., van Aerle, R., Soares, S. and Williams C. (2025) Transcriptomic profiling of wild Atlantic salmon affected with red skin disease (RSD). *Fish & Shellfish Immunology*: 110880. <https://doi.org/10.1016/j.fsi.2025.110880>

Cook, L.S.J, Briscoe, A.G., Fonseca, V.G., Boenigk, J, Woodward, G., Bass, D. (2025) Microbial, holobiont, and Tree of Life eDNA/eRNA for enhanced ecological assessment. *Trends Microbiol.* 2025 Jan;33(1):48-65. doi: 10.1016/j.tim.2024.07.003. Epub 2024 Aug 19. PMID: 39164135.

Debnath, P.P., Chokmangmeepisarn, P., Papadopoulou, A., Coyle, N., Baker-Austin, C., van Aerle, R., Bass, D., Tyler, C.R., Rodkhum, C. (2025) Diversity and antimicrobial resistance among bacterial isolates from finfish aquaculture in Thailand. *BMC Veterinary Research*, 21, 1, 50771, <https://doi.org/10.1186/s12917-025-04942-2>

Foster, R., Hunt, J.E., Bateman, K.S., Green, M.J., Ball, W., Longshaw, M., Heath, L., Stebbing, P., Ward, G.M. (2025) Re-examination of archived materials reveals infection of zebra mussels *Dreissena polymorpha* in UK water with the parasite *Haplosporidium raabei*. *Biological Invasions*, 27, 83, <https://doi.org/10.1007/s10530-025-03545-0>

Gupta, Y.K., Adams, I., van Aerle, R., Avant, J., Bass, D., Batista, F.M., Benucci, M., Briggs, T., Cano, I., Choudhury, B., Crampton, B., Ellis, R.J., Freimanis, G., Haynes, E., Hill, S.C., Jones, E., Laurenson, L., Maclaren, A., Maskell, D., Olivieri, L., Paley, R., Pybus, O.G., Raghwanji, J., Roberts, H., Ruba, T., Samal, P., Schilling, M., Subramaniam, S., Taylor, N., Ward, G.M., and Ward, L. (2025) An integrated One Health initiative for pathogen genomic surveillance in the UK. *Microbial Genomics* 11, 11, 001539, <https://doi.org/10.1099/mgen.0.001539>

Hayman, D.T.S., Unwin, S., Bateman, K.S., Casey Barton Behravesh, C., Berg, L., Bergfeld, J, Casalone, C., Davis, E., Ekesi, S., Johan Esterhuizen, J, Federica, G., Hamilton, K., Joly, D., Kühn, C., Manuguerra, J-C., Masig, D., Merid, G., Michel, A., Mulatti, P, Mulumba, M., Njui, A., Paley, R., Rodriguez, A.J.F., Knauß, S., Tchouassi, D.P., Wang, Y., Vachieri, N., Villinger, J., White, C.L., Wong, F., Zhong, G., Shetty, D. (2025) The WOA?H Global Wildlife Health Collaborating Centre Network (WOAH-WILDNet): A Coordinated and Transformative Approach to Global Wildlife Health Challenges. Submitted to *PLOS Sustainability and Transformation*

Hooper, C., Tidy, A., Jessop, R., Bateman, K.S., Green, M.J., Ross, S.H., Ward, G.M., Hazelgrove, R., Hunt, J.E., Parker, M., Bass, D. (2025) Genomic and morphological characterisation of a novel iridovirus, Bivalve iridovirus 1 (BIV1), co-infecting the common cockle, *Keratoderma edule*, with *Marteilia cocosarum*. *Microbial Genomics*, 11 (9), <https://doi.org/10.1099/mgen.0.001494>

Hooper, C., van Aerle, R., Ryder, D., Coyle, N.M. (2025) Detection of *Macrobrachium rosenbergii golda* virus (MrGV) in giant river prawn larvae across Asia through NCBI sequence read archive (SRA) data mining. *Microbiology Spectrum* (Accepted, in press)

ICES. 2025. Working Group on Pathology and Diseases of Marine Organisms (WGPDMO). *ICES Scientific Reports*. 07:78. 39 pp. (Eds Charlotte Axén, Deborah Cheslett, Lone

Madsen, Richard Paley) <https://doi.org/10.17895/ices.pub.29413142>

Kerr, R., Small, H., Bass, D., Al Arimi, W., Ross, S., Pevsner, R., van Aerle, R., Stentiford, G.D., Bateman, K.S. (2025) A new host for *Hematodinium perezii* genotype I isolated from Chinese mitten crab (*Eriocheir sinensis*) in River Thames, UK. *Journal of Invertebrate Pathology*, 213, 108427, <https://doi.org/10.1016/j.jip.2025.108427>

Khalifa, R., Bean, T., Albatash, D., van Aerle, R., Kahtir, Z., Hizam, Z., Gut, M., Câmara, F., Cruz, F., Gómez-Garrido, J., Alioto, T., Santos, E.M., Leitão, A., and Minardi, D. (2025) Chromosome-level genome assembly of the hamour (orange-spotted grouper), *Epinephelus coioides*. *F1000Research* 14, 1180, <https://doi.org/10.12688/f1000research.153918.1>

Molto, I., Elsheshtawy, A., Gregory, B., Clokie, J., MacKenzie, S., Bateman, K.S., Bass, D., Stentiford, G.D., Albalat, A. (2025) Microbiome dynamics associated with *Hematodinium* sp. Infection in Norway lobster (*Nephrops norvegicus*). *Animal Microbiome*, 7 (1), 62, <https://doi.org/10.1186/s42523-025-00416-w>

Paris, J.R., Jenkins, T.L., Ferrer Obiol, J., Gundappa, M.K., Regan, T., Campbell, L., Maslen, G.L., Alvarez-Jarreta, J., Dyer, S., Jeffries, A.R. Murray, G., Farbos, A., Bickley, L.K., Verbruggen, B., Bateman, K.S., Daniels, C.L., Ellis, C.D., Ashton, T.J., Tyler, C.R., Stentiford, G.D., Houston, R., Bean, T.P., van Aerle, R., Macqueen, D.J., Stevens, J.R., and Santos, E.M. (2025) A high-quality reference genome and tissue expression atlas for the European lobster (*Homarus gammarus*). *bioRxiv* 2025.09.29.677193, <https://doi.org/10.1101/2025.09.29.677193>

Ryder, D., Adaway, M., Batista, F.M., Wagley, S., Powell, A. (2025). The complete genome of *Vibrio diabolicus* isolated from coastal waters and Pacific oysters in England. *Microbiol Resour Announc* 14:e01318-24. <https://doi.org/10.1128/mra.01318-24>

Tidy, A., Jessop, R., Ward, G.M., Green, M.J., Bateman, K.S., Bass, D., Hunt, J.E., Ross, S.H., Hooper, C. (2025) Characterisation of *Marteilia coccosarum* in the Wash Estuary, UK, linked to mass mortalities of cockles (*Cerastoderma edule*), and its relationship to closely related species. *Diseases of Aquatic Organisms*, 164, 13 - 30, <https://doi.org/10.3354/dao03871>

Varsani, A., Abd-Alla, A.M.M., Amberg, N., Bateman, K.S., Benkő, M., Bézier, A., Biagini, P., Bojko, J., Butkovic, A., Canuti, M., Celer, V., Drezen, J.-M., Egyed, L., Fischer, M.G., François, S., Guinet, B., Harrach, B., Harrison, R.L., Herniou, E.A., Hess, M., Hu, J., Jehle, J.A., Kaján, G.L., Kajon, A., Koonin, E.V., Kraberger, S., Krell, P.J., Krupovic, M., Kuhn, J.H., Lei, C.-F., Leibold, M., Maggi, F., Mittal, S.K., Okamoto, H., Opriessnig, T., Peng, X.-W., Péntzes, J., Podgorski, I.I., Postler, T.S., Ribeiro, B.M., San Martín, C., Söderlund-Venermo, M., Sun, X.L., Surján, A., Tarján, Z.L., Varaldi, J., Vidovszky, M.Z., Wadell, G., Watanabe, H., Yutin, N., van Oers, M.M. (2025) Summary of taxonomy changes ratified by the International Committee on Taxonomy of Viruses (ICTV) from the Animal DNA Viruses and Retroviruses Subcommittee, 2024. *Journal of General Virology*, 106 (6), <https://doi.org/10.1099/jgv.0.002113>

b) International conferences:

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Jessica Witt attended the WOAHA General Assembly in May 2025 in her role as UK Aquatic Animal Focal Point.

Richard Paley attended the ICES Working Group for Pathogens and Diseases of Marine Organisms (WGPDMO) held in 1st -4th April. Kelly Bateman attended the event remotely.

Irene Cano Cejas was an invited speaker presenting "Intracellular pathogens in bivalves", Kelly Bateman chaired the student awards contest and presented "Investigation into declines of cockle populations (*Cerastoderma edule*) in the Wash estuary, UK" and Chantelle Hooper was awarded the highest student travel award and won best student presentation for her work "Genomic and morphological characterisation of a novel iridovirus associated with cockle mortalities" at the 57th Annual meeting of the Society for Invertebrate Pathology, held in Puerto Varas, Chile 3rd – 7th August 2025.

Richard Paley, Chantelle Hooper, Georgia Ward, Nicola Coyle, George Scott, Ronny van Aerle, Anna Tidy, Charlie Jones, Fred Batista, John Bignell, and Claire Morgan attended the 22nd European Association of Fish Pathologists Conference, 1-4 Sept in Heraklion, Crete.

Ed Peeler was an invited speaker and presented "Improving early detection of aquatic animal disease: More sophistication or back to basics?" at the Diseases of Asian Aquaculture 12 (DAA12) held in Chennai, India 23rd – 27th September 2025. Kelly Bateman chaired a session and the CCEAAD hosted a stand at the event to promote the work of the CC in region.

Kelly Bateman attended the ICES Working Group for Crab annual workshop online, 4th – 7th November 2025.

c) National conferences:

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Future Ocean 25 hosted by Cefas to bring together more than 200 marine experts (from government, academia, NGOs and industry) to develop shared scientific responses to the complex challenge of supporting sustainable growth and accelerate the transformation of science into actionable policy.

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?

*CCEAAD has launched an online platform for sharing of information and collaboration. Th Emerging Aquatic Animal Disease Forum (Emerging Aquatic Animal Disease Forum) was launched in February 2025.*

12. Additional comments regarding your report: