



FISH HEALTH UNIT ACTIVITIES UNDERTAKEN IN 2022 (SUMMARY REPORT)

Introduction

The Fish Health Unit annual report describes the activities undertaken in 2022 to deliver on responsibilities in the area of aquatic animal health under Regulation (EU) 2016/429.

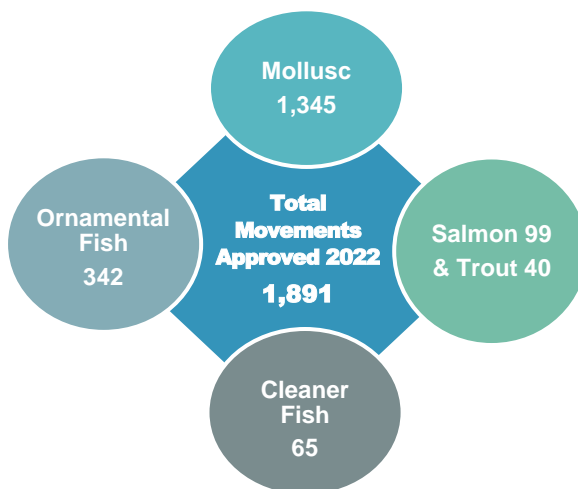
The full report, highlighting the main activities achieved by both Competent Authority and the National Reference Laboratory is available at:

<https://oar.marine.ie/handle/10793/1859>



The Marine Institute continued to review and approve movements of Aquaculture Animals in 2022.

Movement approvals include national, Intra-EU and third Country Import & Exports.



Targeted Fish Health Surveillance in 2022

In 2022, Ireland continued to implement a targeted surveillance programme to demonstrate disease freedom for a number of pathogens potentially affecting salmon.



21 samples (630 Atlantic Salmon) were tested in 2022



No evidence to detect the presence of EU listed diseases or diseases controlled under national measures in salmon



Testing also confirmed that Tralee Bay remains free from *B. ostrea* in 2022

389 FHAs retained in 2022

- 180 Pacific Oyster
- 90 Mussel Farms
- 45 Multispecies (shellfish)
- 57 Salmon Farms
- 8 Trout Farms
- 1 Perch Farm
- 5 Dispatch & Purification Centres
- 2 Treatment Vessels



182 Surveillance Inspections Completed

- 125 Shellfish
- 57 Finfish

27 Minor & 1 Medium non-Compliances

Non-compliances raised were associated with shellfish site inspections and primarily related to failure to keep certain records.



Aquatic Animal Exports

To facilitate export movements, health certification was provided for 85 mollusc consignments and 39 salmon movements.



ORNAMENTAL AQUATIC ANIMALS

During 2022, 279 Intra-EU inward movements and 63 third country imports of ornamental aquatic animal consignments were approved by the CA office. A significant number of these consignments originated from GB and contained multiple species of ornamental animals destined for several locations in Ireland. This included private suppliers, as well as wholesale and retail establishments.

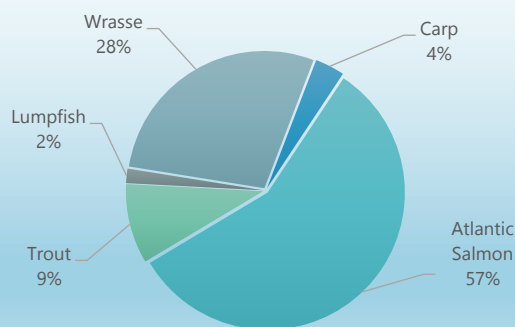
FINFISH NRL

In total, the National Reference Lab analysed 1,799 fish from 65 samples for a variety of purposes in 2022. Analysis consisted of histopathological, virological, bacteriological and molecular examinations undertaken as required by the relevant work programme.

No pathogens responsible for diseases listed as notifiable in Commission Regulation (EU) 2016/429 were detected during testing conducted by the NRL in 2022.



Percentage of Finfish Samples Tested 2022



DISEASE NOTIFICATION & MORTALITY REPORTING

In 2022, reports of increased mortalities associated with Pacific oysters were reported from 18 Aquaculture Establishments operating in 11 different Bays. *Vibrio aestuarianus* was detected in all mortality cases investigated by the NRL indicating that this pathogen continued to be the predominant cause of mortality in Pacific oysters in 2022.

There were no reports of notifiable diseases listed in Regulation (EU) 2016/429 from Irish salmon farms.

*There was one report of infection with *Koi herpesvirus* which was reported in October in a private ornamental pond.*



Percentage of 1,799 samples tested in the finfish NRL by species in 2022.

87% of samples analysed in the NRL was associated with salmon aquaculture (Atlantic salmon 57% and cleaner fish 30%).

Mollusc NRL

Molluscan shellfish samples tested by the NRL in 2022

Programme	Species	No. of Samples	No. of Animals
National Surveillance ¹	Native Oysters	1	150
Mortality investigations & pre-movement checks	Pacific Oysters	18	600
	Blue Mussels	1	40
Research	Native Oysters	1	30
Total		21	820

Vibrio aestuarianus continues to be the most significant pathogen for Pacific oyster production in Ireland. Bacteria belonging to the clade were also detected in combination with *V. aestuarianus* in 7 of the 18 samples associated mortality events. The significance of the detection of *Vibrio splendidus* in these samples remains unclear.

¹ For diseases listed as notifiable in EU 2016/429 and under national measures (namely *Bonaxmia ostreae*, oyster herpesvirus-1 uVar & emerging diseases).

Projects and Additional Activities Undertaken by the FHU in 2022

Cullen Fellowship

The NRL is working closely with Atlantic Technical University, Galway to support delivery of a Cullen Fellowship grant to investigate the presence and prevalence of micro parasites in velvet crabs in Galway Bay.

Horizon 2020 funded project (CIRCLES)

CIRCLES aims to explore food system-specific microbiomes from farm to fork, and the potential exploitation of these systems to enhance food production and overall sustainability.

Work undertaken by the Marine Institute pertains to targeted sampling at specific production and life stages of both farmed and wild Atlantic salmon to assess the interactions, in terms of microbiome exchanges, between fish production and microbiomes in natural environment.

National Monitoring Programme Crayfish Plague

Results further demonstrate a clear and continued spread of crayfish plague both within and between the river catchments of Ireland.

In July a new 4-year MOU was signed with NPWS to further investigate the impact of crayfish plague in Ireland.