

Fish Health Update

IFA Aquaculture Conference, 26th Sept

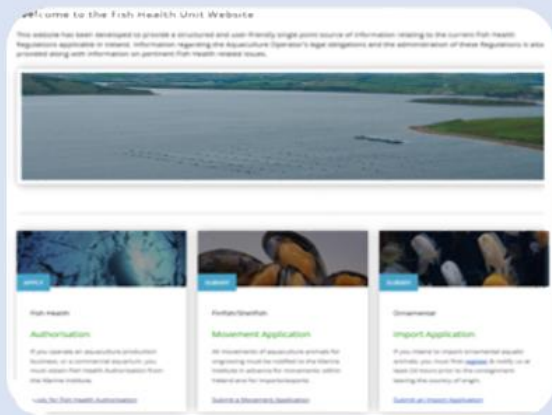
**Bill Doré, Fish health Unit,
Marine Institute**

Overview

- ▶ **Background to Fish Health Unit (FHU)**
 - ▶ Activities
- ▶ **Update on Health Status 2019**
 - ▶ Oysters and Salmon
 - ▶ Outbreak of koi herpesvirus – a notifiable disease
- ▶ **Future Challenges**
 - ▶ New Animal Health Legislation
 - ▶ Data sharing



FISH HEALTH UNIT ACTIVITIES



Competent Authority Office

- Fish health authorisations
- Aquatic animal movements
- Health surveillance programmes
- Outbreak investigations



National Reference Laboratories

- Diagnostic services
- Research
- Method development
- Industry support



DAFM Veterinary Inspection Services

- Health surveillance inspections
 - Export inspections
 - Outbreak investigations
 - enforcement
- Stakeholder engagement, communication and advice

FHU IN NUMBERS - 2018

456 Aquaculture Production Businesses (APBs) with Fish Health Authorisations

191 Health Surveillance Inspections

1,068 movements of oysters approved

one notifiable diseases detected

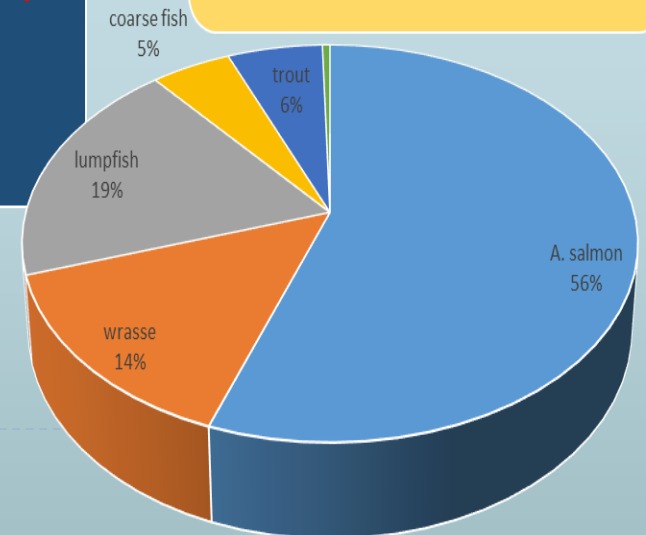
400 imports of ornamental fish approved

116 movements of salmon and ova approved

Export certification for 72 salmon & 114 oyster consignments involving 66 physical examinations

1377 oysters tested

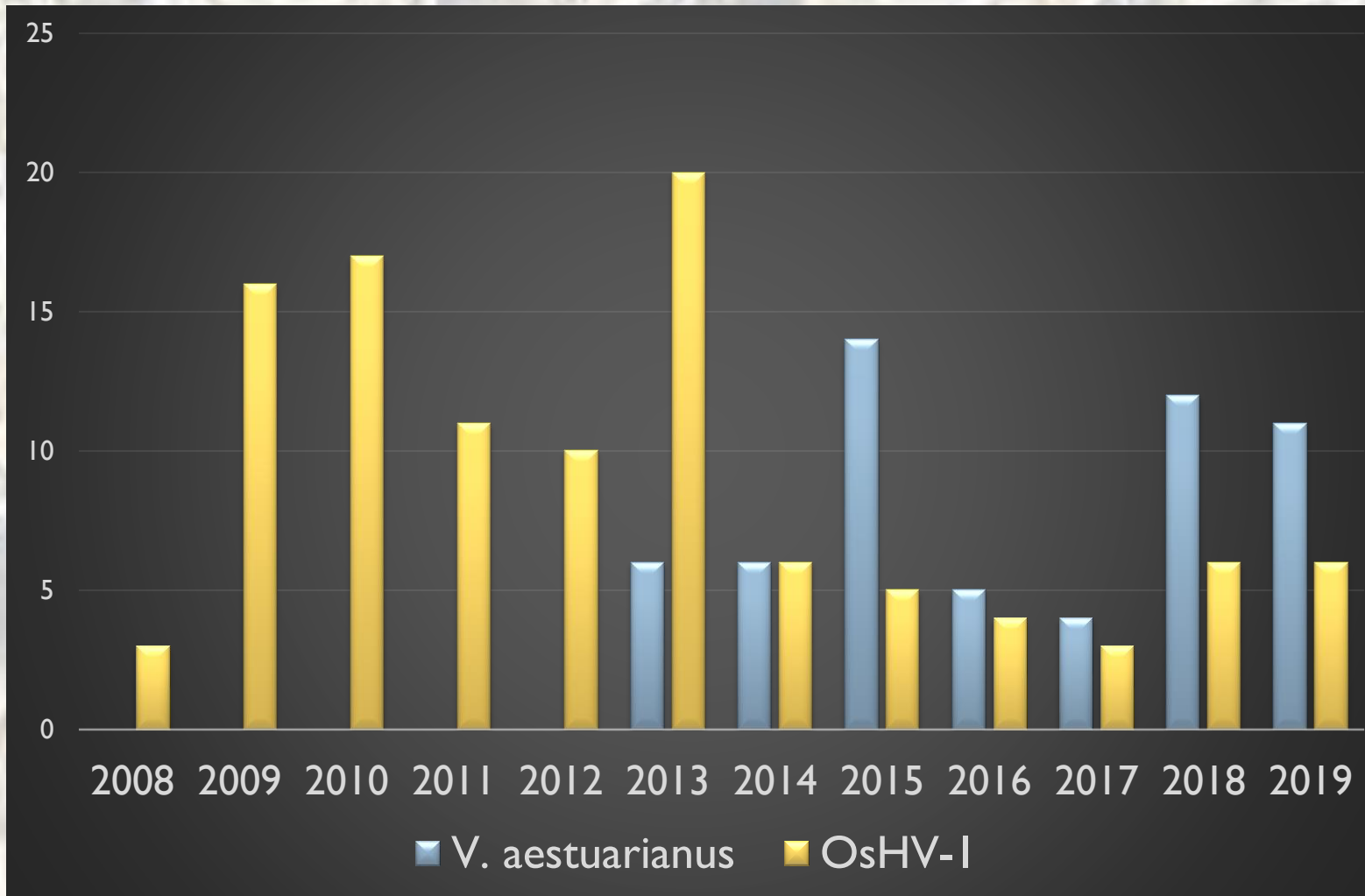
3037 fish tested



Oyster Health 2008-19

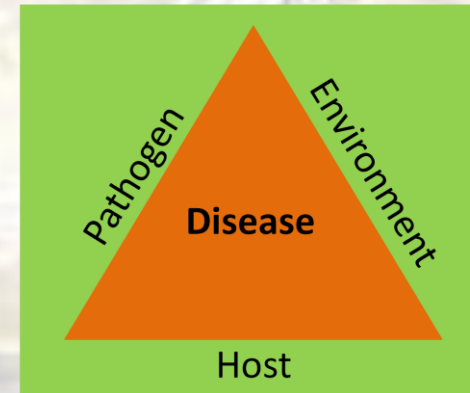
- ▶ **Oyster herpesvirus I (OsHVI)**
 - ▶ mainly affects oyster seed
 - ▶ mortality rates in 60-100%
 - ▶ first seen in 2008 made notifiable in 2010
 - ▶ four active bays remain free from OsHVI
- ▶ ***Vibrio aesturianus***
 - ▶ mainly affects half grown–adult oysters
 - ▶ mortality rates up to 90%
 - ▶ first seen in Ireland in 2013
- ▶ ***V. aesturianus* now more significant pathogen than OsHVI**
 - ▶ number of events and mortality impact

Mortality events in oysters (bays) 2008-19



Oyster Health – 2019 mortalities?

- ▶ **Very high mortality** rates associated with several vibrio events
- ▶ **New Observations?**
 - ▶ Atypical seed mortalities (absence/low level of OsHVI)
 - ▶ Possible role of *V. crassostreae* (tentative ID)
 - ▶ Possible role of *V. splendidus*
 - ▶ Possible role of *arcobacter sp.*
- ▶ **Environmental impacts? (climate change?)**
 - ▶ Very high mortality in one bay exacerbated by **karenia bloom** in late June
 - ▶ **High August rainfall** probably have exacerbated *V. aesturianus* mortality in a number of bays
 - ▶ Possible Impact of **karenia bloom** in NW at the end of August



Salmon Health 2019 - mortality events

Site	Week	Reported Causes	Percentage Mortality
1	1-3	PD	2.82 – 4.54
1	19	PD, phytoplankton,	1.27
2	16	Failed smolts, PD, treatments	6.37
3	27-31	Failed smolts, AGD, treatments	4.5 – 10.03
4	33	Phytoplankton	3.14
5	33	AGD / phytoplankton	2.2
6	27-31	Jellyfish, AGD, furunculosis	1.56-4.03
6	35-37	AGD phytoplankton	3.28 – 3.75
7	33-34	CMS, phytoplankton, Gill disorders	1.70-2.45
8	33	AGD / phyto	2.45

*PD-pancreas disease, CMS-cardiomyopathy syndrome, AGD-amoebic gill disease .
Details from voluntary reporting system*

▶ *Trigger values 1% in fish >750g 1.5% in fish <750g*

Salmon Mortalities -2019

- ▶ **Multifactorial causes**
 - ▶ Gill disorders particularly AGD (7 events)
 - ▶ Pancreas Disease (4 events)
 - ▶ CMS (1 event)
 - ▶ Furunculosis (1 event)
- ▶ **Phytoplankton & Jellyfish (contributing 5 events)**
 - ▶ Climate change?
- ▶ **Failed smolts**
 - ▶ 2 events - high mortality rates



Koi herpesvirus outbreak 2018

- ▶ KHV is an EU listed disease (Ireland has disease free status)
- ▶ CA informed of carp mortalities in a garden pond
 - ▶ 17 of 35 fish dead
- ▶ 31st May. Prelim. positive results same day as sampling (suspicion)
- ▶ Sequencing confirmed results on 7th June (confirmation)
- ▶ Remaining fish culled and pond disinfected 15th June
- ▶ Ireland maintained KHV disease free status

- New Animal Health Regulation
- Information Sharing



Animal Health Regulations 2016/429

▶ Consolidates existing terrestrial and aquatic animal health rules into one regulation

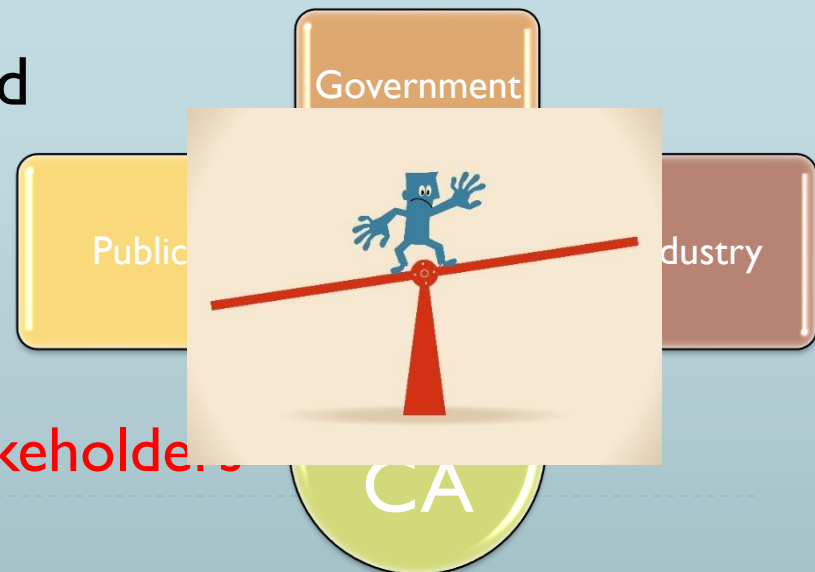
- ▶ “Simplification?”
- ▶ Repeals 35 EU acts, directives & regulations
- ▶ 235 pages, VIII parts, V annexes plus secondary legislation
- ▶ Comes into force on 21st April 2021





Information Sharing

- ▶ Six requests for information under Access to Information on the Environment requests to date in 2019
 - ▶ Salmon movements (inc. cleaner fish) & mortality reports
- ▶ Balancing act between stakeholders
 - ▶ legal requirements of AIE regulation and commercial sensitivity issues & personal data
- ▶ Engage on possible ways forward
 - ▶ Legal interpretation?
 - ▶ More transparency?
 - ▶ Data handling?



Fish Health 2019 - Summary

- ▶ **FHU activities**
 - ▶ CA, NRLs DAFM VIs
 - ▶ Movements, Inspections, export certification, research, diagnostic testing, disease and outbreak control
- ▶ **Disease Status 2019**
 - ▶ No notifiable disease outbreaks (aquaculture setting)
 - ▶ Ongoing challenges around oyster and salmon mortalities
- ▶ **Challenges**
 - ▶ New Animal Health Regulation implementation in Ireland
 - ▶ Stakeholder engagement on information sharing and transparency

Fish Health Team

▶ CA Office

- ▶ Ayesha Power
- ▶ Eoghan Kenny
- ▶ Finola Bradley

▶ VIs

- ▶ Tony Devlin
- ▶ Gaetano D'urso
- ▶ Brian Gormly
- ▶ Michael Haugh
- ▶ Aoife Mulhern
- ▶ Maria Wall
- ▶ Denis Hennigan
- ▶ Bernadette Ryle

▶ NRLs

- ▶ Deborah Cheslett
- ▶ Samantha White
- ▶ Una McCarthy
- ▶ David Swords
- ▶ Michelle Geary
- ▶ Cathy Hickey
- ▶ Evelyn Collins
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- ▶ Fiona Swords
- ▶ Ciar O'Toole