

An update from the OIE aquatic animal health standards commission


Dr Edmund Peeler



Centre for Environment
Fisheries & Aquaculture
Science


Overview

- Brief overview OIE
- Revised criteria for listing
- Revision of manual chapter sections on diagnostic tests
- Biosecurity
 - Disinfection
 - Zoning & compartments




Centre for Environment
Fisheries & Aquaculture
Science

Introduction to the OIE



Centre for Environment
Fisheries & Aquaculture
Science



World Organisation for Animal Health

- An intergovernmental veterinary organisation established in 1924 in order to promote world animal health
- Animal health standard setting body for the World Trade Organisation
- Provides uniform guidelines and standards for disease reporting and sanitary measures for international trade in live animals and their products
- 180 OIE Member Countries and Territories worldwide




Centre for Environment
Fisheries & Aquaculture
Science


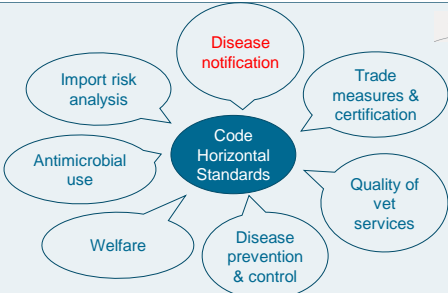

TOR: OIE National Focal Point for Aquatic Animals

1. to establish a network of aquatic animal health experts within his country or to **communicate** with the existing network;
2. to establish and maintain a **database** of experts for aquatic animal health in his country, and to facilitate cooperation and **communication** among several authorities where responsibility is shared;
3. under the authority of the OIE Delegate of his country, to support the optimal collection and submission of aquatic animal disease **information** to the OIE through WAHIS
4. to act as a contact point with the OIE Animal Health Information Department on matters related to **information** on aquatic animals including aquatic animal diseases;
5. to receive from the OIE Headquarters copies of the reports of the Aquatic Animal Health Standards Commission and other relevant reports, and conduct the **in-country consultation** process with recognised aquatic animal health experts to draft texts of standards proposed in those reports; and
6. to prepare comments for the Delegate on relevant meeting reports reflecting the scientific view and position of the individual OIE Member and/or the region, including comments on the proposals for new or revised OIE standards related to aquatic animals.

Communication
Reporting
Review



Centre for Environment
Fisheries & Aquaculture
Science

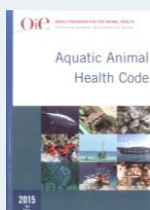
Centre for Environment
Fisheries & Aquaculture
Science

Transparency

Each country undertakes to report animal diseases (listed and emerging)

Sanitary safety

Safeguard world trade by publishing health standards for international trade in animals and animal products



Expertise



- Focal points
- Reference laboratories and experts
- Collaborating centres
 - Aquatic animal disease information – Cefas (Dr Stephen Feist)
 - Epidemiology and Risk Assessment of Aquatic Animal Diseases – NVI (Dr Edgar Brun), AVC (Dr Larry Hammell)
- Specialist commissions and working groups
 - Terrestrial: Code Commission, Scientific Commission, Biological Standards Commission
 - Aquatic Animals Commission

Specialist Commission

The role of the OIE's Specialist Commissions is to use current scientific information to study problems of epidemiology and the prevention and control of animal diseases, **to develop and revise OIE's international standards** and to address scientific and technical issues raised by Members

OIE aquatic animals commission



Ingo Ernst Ed Peeler Alicia Gallardo Joanne Constantine Maxwell Barson Mohamed Shariff

- OIE AAC

The OIE cycle



- Commission elected for 3 years.
- Meet twice a year (Sept & Feb)
- Report contains revised manual and code chapters i) for information and ii) for adoption and changes to listed diseases
- Two year cycle for adoption of new chapter – 2 rounds of review
- Changes to listed diseases, manual and code chapters voted on at the general assembly in May.



- 7 chapters adopted (one new chapter on disinfection)
- 19 chapters out for comment
- Two technical items
 - Animal health economics
 - Anti-microbial resistance
- Request from a number of member countries for more resources for OIE to work on aquatic animal health

Criteria for disease listing

Proposed new criteria for disease listing

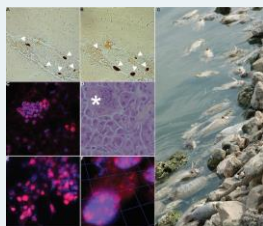
- 1) **International spread** of the pathogenic agent (via aquatic animals, aquatic animal products, vectors or fomites) is likely &
- 2) At least one country may demonstrate **country or zone freedom** from the disease &
- 3) A precise **case definition** is available and a reliable means of detection and diagnosis exists &
- 4) The disease has been shown to affect the health of a) cultured aquatic animals at the level of a country or a zone resulting in significant **consequences** e.g. production losses, morbidity and or mortality at a zone or country level **OR** b) wild aquatic animals resulting in significant **consequences** e.g. morbidity and or mortality at a population level, reduced productivity and or ecological impacts.

A candidate for listing?

Tilapia lake virus (TiLV)

A novel orthomyxo-like virus

<http://mbio.asm.org/content/7/2/e00431-16>



Diagnostic testing

Ad hoc group on case definition, test validation, and use

The group will review the structure of articles

4. Diagnostic methods
5. Rating of tests against purpose of use
6. Tests recommended for targeted surveillance to declare freedom from infection
7. Corroborative diagnostic criteria
 - definition of a suspect case
 - definition of a confirmed case

& provide guidance on validation and assessment of tests and development of case definitions

Test validation

- Provide technical guidance consistent with Chapter 1.1.2. *Principle and methods of validation of diagnostic assays for infectious diseases.*



Rating of tests against purpose

- a = the method is the recommended method for reasons of availability, utility, and diagnostic specificity and sensitivity;
 b = the method is a standard method with good diagnostic sensitivity and specificity;
 c = the method has application in some situations, but cost, accuracy, or other factors severely limits its application;
 d = the method is presently not recommended for this purpose

Table 5.1. Methods for targeted surveillance and diagnosis of KHV

Method	Targeted surveillance				Presumptive diagnosis	Confirmatory diagnosis
	Larvae	PLs	Juveniles	Adults		
Gross signs	d	d	c	c	b	d
Direct LM	d	d	c	c	b	d
Histopathology	d	c	c	c	b	c
Isolation in cell culture	d	d	d	d	b	d
Transmission EM	d	d	d	d	b	c
Antibody-based virus detection assays	d	d	C	c	b	b
in situ DNA probes	d	d	C	c	b	b
PCR	d	b	B	b	a	a
Sequence	NA	NA	NA	NA	NA	a
Antibody detection assays (serology)	d	d	c	b	b	d
Bioassay	NA	NA	NA	NA	NA	NA

Ad hoc group on susceptibility of finfish diseases to infection with OIE listed diseases

- Develop a list of susceptible species for inclusion in the relevant articles of disease-specific chapters in the *Aquatic Code and Manual*
- Criteria for susceptibility:
 - Replication
 - Viability / Infectivity
 - Pathology / Clinical signs
 - Location
- Susceptible if they fulfilled either criterion A, or at least two of criteria B, C and D

Application of criteria for listing a species as susceptible

- Outcome
 - Known susceptible (listed in Code and Manual chapter)
 - Incomplete evidence for susceptibility (listed in Manual chapter)



susceptible

non-susceptible

Disinfection of aquaculture establishments and equipment

- New code chapter
- Drafted by an ad hoc group
- Adopted in May
- Comments still welcome



Further work

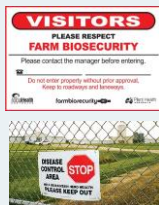
- recommendation of the global conference

- Revise and develop OIE standards for aquatic animal health, notably standards on
 - surveillance
 - zoning and
 - compartmentalisation

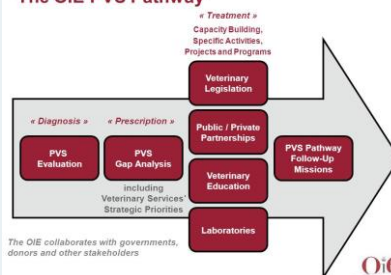


Workplan – a focus on biosecurity

- New code chapter on biosecurity
- Revision of chapter on compartmentalisation
- New chapter on emergency preparedness
- Surveillance: Review of period needed to claim / reclaim freedom (development of principles) – working group to be formed
- Revised list of susceptible species



The OIE PVS Pathway



Contact

ed.peeler@cefas.co.uk

<http://www.cefas.co.uk>

@CefasGovUK

www.linkedin.com/company/cefas