

## Aquatic Animal Health Standards Commission March 2008 Report

### CHAPTER 2.4.2.

#### INFECTION WITH RANAVIRUS

##### Article 2.4.2.1.

For the purposes of the *Aquatic Code*, infection with ranavirus means infection with any **members virus species** of the genus *Ranavirus* in the family Iridoviridae with the exception of epizootic haematopoietic necrosis virus and European catfish virus.

Methods for conducting surveillance and diagnosis of infection with ranavirus are provided in the *Aquatic Manual* **(under development)**.

##### Article 2.4.2.2.

#### Scope

The recommendations in this Chapter apply to: all species of Anura (frogs and toads) and Caudata (salamanders and newts). The recommendations also apply to any other *susceptible species* referred to in the *Aquatic Manual* when traded internationally.

##### Article 2.4.2.3.

#### Commodities

1. When authorising the importation or transit of the following *commodities*, the *Competent Authorities* should not require any ranavirus related conditions, regardless of the ranavirus status of the *exporting country, zone or compartment*:
  - a) For the species referred to in Article 2.4.2.2. intended for any purpose:
    - i) *commodities* treated in a manner that **inactivates kills** the *disease agent* e.g. canned products; leather made from amphibian skin;
    - ii-iii)** biological samples preserved for diagnostic applications in such a manner as to inactivate the *disease agent*.
  - b) The following *commodities* destined for human consumption from the species referred to in Article 2.4.2.2. which have been prepared and packaged for direct retail trade:
    - i) skinned frog legs;
    - ii) skinned amphibian carcasses or meat.

For the *commodities* referred to in point 1b), Members may wish to consider introducing internal measures to prevent the *commodity* being used for any purpose other than for human consumption.

2. When authorising the importation or transit of *commodities* of a species referred to in Article 2.4.2.2., other than those referred to in point 1 of Article 2.4.2.3., the *Competent Authorities* should require the conditions prescribed in Articles 2.4.2.7. to 2.4.2.12. relevant to the ranavirus status of the *exporting country, zone or compartment*.
3. When considering the importation/transit from an *exporting country, zone or compartment* not declared free of ranavirus of any live *commodity* of a species not covered in Article 2.4.2.2. but which could reasonably be expected to be a potential **mechanical vector for ranavirus vector**, the *Competent Authorities* should conduct a *risk analysis* in accordance with the recommendations in the *Aquatic Code*. The *exporting country* should be informed of the outcome of this assessment.

#### Article 2.4.2.4.

#### Ranavirus free country

A country may make a *self-declaration of freedom* from ranavirus if it meets the conditions in points 1, 2, 3 or 4 below.

If a country shares a *zone* with one or more other countries, it can only make a *self-declaration of freedom* from ranavirus if all the areas covered by the *zone* are declared ranavirus free (see Article 2.4.2.5).

1. A country where none of the *susceptible species* referred to in Article 2.4.2.2. is present may make a *self-declaration of freedom* from ranavirus when *basic biosecurity conditions* have been continuously met in the country for at least the past 2 years.

OR

2. A country where the *susceptible species* referred to in Article 2.4.2.2. are present but there has been no observed occurrence of the *disease* for at least the past **15 10** years despite conditions that are conducive to its clinical expression, as described in Chapter X.X.X. of the *Aquatic Manual* (under development), may make a *self-declaration of freedom* from ranavirus when *basic biosecurity conditions* have been continuously met in the country for at least the past 2 years.

OR

3. A country where the last observed occurrence of the *disease* was within the past **25 10** years, or where the *infection* status prior to *targeted surveillance* was unknown (e.g. because of the absence of conditions conducive to its clinical expression as described in Chapter X.X.X. of the *Aquatic Manual*, under development), may make a *self-declaration of freedom* from ranavirus when:
  - a) *basic biosecurity conditions* have been continuously met for at least the past 2 years; and
  - b) *targeted surveillance*, as described in Chapters **X.X.X of the Aquatic Code 4-4.4** and X.X.X. of the *Aquatic Manual* (under development), has been in place for at least the last 2 years without detection of ranavirus.

OR

4. A country that has previously made a *self-declaration of freedom* from ranavirus but in which the *disease* is subsequently detected may make a *self-declaration of freedom* from ranavirus again when the following conditions have been met:

- a) on detection of the *disease*, the affected area was declared an *infected zone* and a *buffer zone* was established; and
- b) infected populations have been destroyed or removed from the infected zone by means that minimise the risk of further spread of the *disease*, and the appropriate *disinfection* procedures (see *Aquatic Manual*) have been completed; and
- c) *targeted surveillance*, as described in Chapters **X.X.X of the Aquatic Code 4.1.4** and X.X.X. of the *Aquatic Manual* (under development), has been in place for at least the last 2 years without detection of ranavirus; and
- d) previously existing *basic biosecurity conditions* have been reviewed and modified as necessary and have continuously been in place for at least the past 2 years.

In the meantime, part of the non-affected area may be declared a free *zone* provided that such part meets the conditions in point 3 of Article 2.4.2.5.

#### Article 2.4.2.5.

#### **Ranavirus free zone or free compartment**

A *zone* or *compartment* within the *territory* of one or more countries not declared free from ranavirus may be declared free by the *Competent Authority(ies)* of the country(ies) concerned if the *zone* or *compartment* meets the conditions referred to in points 1, 2, 3 or 4 below.

If a *zone* or *compartment* extends over more than one country, it can only be declared a ranavirus free *zone* or *compartment* if all the *Competent Authorities* confirm that the conditions have been met.

1. A *zone* or *compartment* where none of the *susceptible species* referred to in Article 2.4.2.2. is present may be declared free from ranavirus when *basic biosecurity conditions* have been continuously met in the *zone* or *compartment* for at least the past 2 years.

OR

2. A *zone* or *compartment* where the *susceptible species* referred to in Article 2.4.2.2. are present but there has never been any observed occurrence of the *disease* for at least the past **25 10** years despite conditions that are conducive to its clinical expression, as described in Chapter X.X.X. of the *Aquatic Manual* (under development), may be declared free from ranavirus when *basic biosecurity conditions* have been continuously met in the *zone* or *compartment* for at least the past 10 years.

OR

3. A *zone* or *compartment* where the last observed occurrence of the *disease* was within the past **25 10** years, or where the *infection* status prior to *targeted surveillance* was unknown (e.g. because of the absence of conditions conducive to its clinical expression as described in Chapter X.X.X. of the *Aquatic Manual*, under development), may be declared free from ranavirus when:
  - a) *basic biosecurity conditions* have been continuously met for at least the past 2 years; and
  - b) *targeted surveillance*, as described in Chapters **X.X.X of the Aquatic Code 4.1.4** and X.X.X. of the *Aquatic Manual* (under development), has been in place for at least the last 2 years

without detection of ranavirus.

OR

4. A *zone* previously declared free from ranavirus but in which the *disease* is subsequently detected may be declared free from ranavirus again when the following conditions have been met:
  - a) on detection of the *disease*, the affected area was declared an *infected zone* and a *buffer zone* was established; and
  - b) *infected* populations have been destroyed or removed from the *infected zone* by means that minimise the risk of further spread of the *disease*, and the appropriate *disinfection* procedures (see *Aquatic Manual*) have been completed; and
  - c) *targeted surveillance*, as described in Chapters ~~X.X.X of the Aquatic Code 4.4.4~~ and X.X.X. of the *Aquatic Manual* (under development), has been in place for at least the last 2 years without detection of ranavirus; and
  - d) previously existing *basic biosecurity conditions* have been reviewed and modified as necessary and have continuously been in place for at least the past 2 years.

Article 2.4.2.6.

#### **Maintenance of free status**

A country, *zone* or *compartment* that is declared free from ranavirus following the provisions of points 1 or 2 of Articles 2.4.2.4. or 2.4.2.5. (as relevant) may maintain its status as ranavirus free provided that *basic biosecurity conditions* are continuously maintained.

A country, *zone* or *compartment* that is declared free from ranavirus following the provisions of point 3 of Articles 2.4.2.4. or 2.4.2.5. (as relevant) may discontinue *targeted surveillance* and maintain its status as ranavirus free provided that conditions that are conducive to clinical expression of ranavirus, as described in Chapter X.X.X. of the *Aquatic Manual* (under development), exist, and *basic biosecurity conditions* are continuously maintained.

However, for declared free *zones* or *compartments* in infected countries and in all cases where conditions are not conducive to clinical expression of ranavirus, *targeted surveillance* needs to be continued at a level determined by the *Competent Authority* on the basis of the likelihood of *infection*.

Article 2.4.2.7.

#### **Importation of live aquatic animals from a country, zone or compartment declared free from ranavirus**

When importing live *aquatic animals* of species referred to in Article 2.4.2.2. from a country, *zone* or *compartment* declared free from ranavirus, the *Competent Authority* of the *importing country* should require an *international aquatic animal health certificate* issued by the *Competent Authority* of the *exporting country* or a *certifying official* approved by the *importing country* attesting that, on the basis of the procedures described in Articles 2.4.2.4. or 2.4.2.5. (as applicable), the place of production of the *aquatic animal commodity* is a country, *zone* or *compartment* declared free from ranavirus.

The *certificate* should be in accordance with the Model Certificate in Appendix 4.X.X.

This Article does not apply to *commodities* referred to in point 1 of Article 2.4.2.3.

Article 2.4.2.8.

**Importation of live aquatic animals for farming from a country, zone or compartment not declared free from ranavirus**

1. When importing live *aquatic animals* of species referred to in Article 2.4.2.2. from a country, *zone* or *compartment* not declared free from ranavirus, the *Competent Authority* of the *importing country* should:

a) require an *international aquatic animal health certificate* issued by the *Competent Authority* of the *exporting country* attesting that no other live *aquatic animals* of the species referred to in Article 2.4.2.2. have been introduced during that period;

OR

- b) assess the *risk* and apply risk mitigation measures such as:
- i) the direct delivery to and lifelong holding of the consignment in biosecure facilities for continuous isolation from the local environment;
  - ii) the treatment of all effluent and waste materials in a manner that kills ranavirus.

2. If the intention of the introduction is the establishment of a new stock, the Code of Practice on the Introductions and Transfers of Marine Organisms of the International Council for the Exploration of the Seas (ICES) should be followed.

32. For the purposes of the *Aquatic Code*, the ICES Code (full version see: <http://www.ices.dk/indexfla.asp>) may be summarised to the following main points:

2- For the purposes of the *Aquatic Code* the following steps should be taken if the importation is for the establishment of a new stock:

- a) identify stock of interest (cultured or wild) in its current location;
- b) evaluate stock's health/disease history;
- c) take and test samples for ranavirus, pests and general health/disease status;
- d) import and quarantine in a secure facility a founder (F-0) population;
- e) produce F-1 generation from the F-0 stock in *quarantine*;
- f) culture F-1 stock and at critical times in its development (life cycle) sample and test for ranavirus and perform general examinations for pests and general health/disease status;
- g) if ranavirus is not detected, pests are not present, and the general health/disease status of the stock is considered to meet the *basic biosecurity conditions* of the *importing country*, *zone* or *compartment*, the F-1 stock may be defined as ranavirus free or specific pathogen free (SPF) for ranavirus;
- h) release SPF F-1 stock from *quarantine* for *aquaculture* or stocking purposes in the country, *zone* or *compartment*.

This Article does not apply to *commodities* referred to in point 1 of Article 2.4.2.3.

## Article 2.4.2.9.

**Importation of live aquatic animals for processing for human consumption from a country, zone or compartment not declared free from ranavirus**

When importing, for processing for human consumption, live *aquatic animals* of species referred to in Article 2.4.2.2. from a country, *zone* or *compartment* not declared free from ranavirus, the *Competent Authority* of the *importing country* should require that the consignment be delivered directly to and held in *quarantine* facilities for slaughter and processing to one of the products referred to in point 1 of Article 2.4.2.3. or other products authorised by the *Competent Authority*, and all effluent and waste materials be treated in a manner that **ensures inactivation of kills** ranavirus.

This Article does not apply to *commodities* referred to in point 1 of Article 2.4.2.3.

## Article 2.4.2.10.

**Importation of live aquatic animals intended for use in animal feed, or for agricultural, laboratory, zoo, pet trade, industrial or pharmaceutical use, from a country, zone or compartment not declared free from ranavirus**

**1** When importing live *aquatic animals* of species referred to in Article 2.4.2.2. from a country, *zone* or *compartment* not declared free from ranavirus, the *Competent Authority* of the *importing country* should:

~~**1** require an *international aquatic animal health certificate* issued by the *Competent Authority* of the *exporting country* attesting that no other live *aquatic animals* of the species referred to in Article 2.4.2.2. have been introduced during that period;~~

**OR**

**b**) assess the *risk* and apply risk mitigation measures such as:

~~**i1** the direct delivery to and lifelong holding of the consignment in biosecure facilities for continuous isolation from the local environment;~~

~~**i2** the treatment of all effluent and waste materials in a manner that kills ranavirus.~~

This Article does not apply to *commodities* referred to in point 1 of Article 2.4.2.3.

## Article 2.4.2.11.

**Importation of aquatic animal products from a country, zone or compartment declared free from ranavirus**

When importing *aquatic animal products* of species referred to in Article 2.4.2.2. from a country, *zone* or *compartment* declared free from ranavirus, the *Competent Authority* of the *importing country* should require an *international aquatic animal health certificate* issued by the *Competent Authority* of the *exporting country* or a *certifying official* approved by the *importing country* attesting that, on the basis of the procedures described in Articles 2.4.2.4. or 2.4.2.5. (as applicable), the place of production of the consignment is a country, *zone* or *compartment* declared free from ranavirus.

The *certificate* should be in accordance with the Model Certificate in Appendix 4.X.X.

This Article does not apply to *commodities* referred to in point 1 of Article 2.4.2.3.

Article 2.4.2.12.

**Importation of aquatic animal products from a country, zone or compartment not declared free from ranavirus**

1. When importing *aquatic animal* products of species referred to in Article 2.4.2.2. from a country, *zone* or *compartment* not declared free from ranavirus, the *Competent Authority* of the *importing country* should assess the *risk* and apply appropriate risk mitigation measures.
2. In the case of dead *aquatic animals*, whether *eviscerated* or uneviscerated, such risk mitigation measures may include:
  - a) the direct delivery into and holding of the consignment in biosecure facilities for processing to one of the products referred to in point 1 of Article 2.4.2.3. or other products authorised by the *Competent Authority*;
  - b) the treatment of all effluent and waste materials in a manner that kills ranavirus.
3. This Article does not apply to *commodities* referred to in point 1 of Article 2.4.2.3.

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