

## Aquatic Animal Health Standards Commission Report

New

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## CHAPTER 2.4.1.

**INFECTION WITH  
BATRACHOCHYTRIUM DENDROBATIDIS**

## Article 2.4.1.1.

For the purposes of the *Aquatic Code*, infection with *Batrachochytrium dendrobatidis* means infection with the freshwater fungus *Batrachochytrium dendrobatidis* Fungi, Chytridiomycota, Rhizophydiales.

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

## Article 2.4.1.2.

**Scope**

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

## Article 2.4.1.3.

**Commodities**

1. When authorising the importation or transit of the following *commodities*, the *Competent Authorities* should not require any *Batrachochytrium dendrobatidis* related conditions, regardless of the *Batrachochytrium dendrobatidis* status of the *exporting country, zone or compartment*:
  - a) For the species referred to in Article 2.4.1.2. intended for any purpose:
    - i) *commodities* treated in a manner that kills the *disease agent* e.g. canned products; leather made from amphibian skin; dried amphibian products (including air dried, flame dried and sun dried);
    - ii) 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 2.4.1.2. which have been prepared and packaged for direct retail trade:
- i) skinned frog legs with feet removed;
  - ii) skinned amphibian carcasses or meat, with hands and feet removed.

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 2.4.1.2., other than those referred to in point 1 of Article 2.4.1.3., the *Competent Authorities* should require the conditions prescribed in Articles 2.4.1.7. to 2.4.1.12. relevant to the *Batrachochytrium dendrobatidis* 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 *Batrachochytrium dendrobatidis* of any live *commodity* of a species not covered in Article 2.4.1.2. but which could reasonably be expected to be a potential *Batrachochytrium dendrobatidis* 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 2.4.1.4.

#### ***Batrachochytrium dendrobatidis* free country**

A country may make a *self-declaration of freedom* from *Batrachochytrium dendrobatidis* 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 *Batrachochytrium dendrobatidis* if all the areas covered by the *zone* are declared *Batrachochytrium dendrobatidis* free (see Article 2.4.1.5.).

1. A country where none of the *susceptible species* referred to in Article 2.4.1.2. is present may make a *self-declaration of freedom* from *Batrachochytrium dendrobatidis* 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 2.4.1.2. are present but there has been no observed occurrence of the *disease* for at least the past 25 years despite conditions that are conducive to its clinical expression, as described in Chapter X.X.X. of

the *Aquatic Manual*, may make a *self-declaration of freedom* from *Batrachochytrium dendrobatidis* when *basic biosecurity conditions* have been continuously met in the country for at least the past 10 years.

OR

3. A country where the last observed occurrence of the *disease* was within the past 25 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*), may make a *self-declaration of freedom* from *Batrachochytrium dendrobatidis* when:
  - a) *basic biosecurity conditions* have been continuously met for at least the past 2 years; and
  - b) *targeted surveillance*, as described in Chapters 1.1.4. and X.X.X. of the *Aquatic Manual*, has been in place for at least the last 2 years without detection of *Batrachochytrium dendrobatidis*.

OR

4. A country that has previously made a *self-declaration of freedom* from *Batrachochytrium dendrobatidis* but in which the *disease* is subsequently detected may make a *self-declaration of freedom* from *Batrachochytrium dendrobatidis* 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 1.1.4. and X.X.X. of the *Aquatic Manual* (under development), has been in place for at least the last 2 years without detection of *Batrachochytrium dendrobatidis*; 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 2.4.1.5.

Article 2.4.1.5.

***Batrachochytrium dendrobatidis* free zone or free compartment**

A *zone* or *compartment* within the *territory* of one or more countries not declared free from *Batrachochytrium dendrobatidis* 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 *Batrachochytrium dendrobatidis* 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 2.4.1.2. is present may be declared free from *Batrachochytrium dendrobatidis* 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 2.4.1.2. are present but there has never been any observed occurrence of the *disease* for at least the past 25 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 *Batrachochytrium dendrobatidis* 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 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 *Batrachochytrium dendrobatidis* when:
  - a) *basic biosecurity conditions* have been continuously met for at least the past 2 years; and
  - b) *targeted surveillance*, as described in Chapters 1.1.4. and X.X.X. of the *Aquatic Manual* (under development), has been in place for at least the last 2 years without detection of *Batrachochytrium dendrobatidis*.

OR

4. A *zone* previously declared free from *Batrachochytrium dendrobatidis* but in which the *disease* is subsequently detected may be declared free from *Batrachochytrium dendrobatidis* 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 1.1.4. and X.X.X. of the *Aquatic Manual*, has been in place for at least the last 2 years without detection of *Batrachochytrium dendrobatidis*; 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 2.4.1.6.

**Maintenance of free status**

A country, *zone* or *compartment* that is declared free from *Batrachochytrium dendrobatidis* following the provisions of points 1 or 2 of Articles 2.4.1.4. or 2.4.1.5. (as relevant) may maintain its status as *Batrachochytrium dendrobatidis* free provided that *basic biosecurity conditions* are continuously maintained.

A country, *zone* or *compartment* that is declared free from *Batrachochytrium dendrobatidis* following the provisions of point 3 of Articles 2.4.1.4. or 2.4.1.5. (as relevant) may discontinue *targeted surveillance* and maintain its status as *Batrachochytrium dendrobatidis* free provided that conditions that are conducive to clinical expression of *Batrachochytrium dendrobatidis*, as described in Chapter X.X.X. of the *Aquatic Manual*, 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 *Batrachochytrium dendrobatidis*, *targeted surveillance* needs to be continued at a level determined by the *Competent Authority* on the basis of the likelihood of *infection*.

Article 2.4.1.7.

**Importation of live aquatic animals from a country, zone or compartment declared free from *Batrachochytrium dendrobatidis***

When importing live *aquatic animals* of species referred to in Article 2.4.1.2. from a country, *zone* or *compartment* declared free from *Batrachochytrium dendrobatidis*, 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 2.4.1.4. or 2.4.1.5. (as applicable), the place of production of the *commodity* is a country, *zone* or *compartment* declared free from *Batrachochytrium dendrobatidis*.

The *certificate* should be in accordance with the Model Certificate (under study) in Annex 4.X.1.

This Article does not apply to *commodities* referred to in point 1 of Article 2.4.1.3.

## Article 2.4.1.8.

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

1. When importing live *aquatic animals* of species referred to in Article 2.4.1.2. from a country, *zone* or *compartment* not declared free from *Batrachochytrium dendrobatidis*, 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:
      - i) the *aquatic animals* have been appropriately treated to eradicate infection and have been subsequently tested to confirm absence of the disease according to specifications provided in the relevant chapter in the *Aquatic Manual* (under development); and
      - ii) no other live *aquatic animals* of the species referred to in Article 2.4.1.2. have been introduced during that period;

OR

    - iii) in the case of eggs, the eggs have been disinfected;

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 *Batrachochytrium dendrobatidis*.
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 *Batrachochytrium dendrobatidis*, 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 *Batrachochytrium dendrobatidis* and perform general examinations for pests and general health/disease status;
- g) if *Batrachochytrium dendrobatidis* 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 *Batrachochytrium dendrobatidis* free or specific pathogen free (SPF) for *Batrachochytrium dendrobatidis*;
- 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 2.4.1.3.

Article 2.4.1.9.

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

When importing, for processing for human consumption, live *aquatic animals* of species referred to in Article 2.4.1.2. from a *country, zone or compartment* not declared free from *Batrachochytrium dendrobatidis*, 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 2.4.1.3. or other products authorised by the *Competent Authority*, and all effluent and waste materials be treated in a manner that kills *Batrachochytrium dendrobatidis*.

This Article does not apply to *commodities* referred to in point 1 of Article 2.4.1.3.

Article 2.4.1.10.

**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 *Batrachochytrium dendrobatidis***

When importing live *aquatic animals* of species referred to in Article 2.4.1.2. from a *country, zone or compartment* not declared free from *Batrachochytrium dendrobatidis*, 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:

- a) the *aquatic animals* have been appropriately treated to eradicate infection and have been subsequently tested to confirm absence of the diseases according to specifications provided in the relevant chapter in the *Aquatic Manual*; and
- b) no other live *aquatic animals* of the species referred to in Article 2.4.1.2. have been introduced during that period;

OR

- c) in the case of eggs, the eggs have been disinfected;

OR

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

This Article does not apply to *commodities* referred to in point 1 of Article 2.4.1.3.

Article 2.4.1.11.

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

When importing *aquatic animal products* of species referred to in Article 2.4.1.2. from a country, *zone* or *compartment* declared free from *Batrachochytrium dendrobatidis*, 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 2.4.1.4. or 2.4.1.5. (as applicable), the place of production of the consignment is a country, *zone* or *compartment* declared free from *Batrachochytrium dendrobatidis*.

The *certificate* should be in accordance with the Model Certificate (under study) in Annex 4.X.X.

This Article does not apply to *commodities* referred to in point 1 of Article 2.4.1.3.

Article 2.4.1.12.

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

1. When importing *aquatic animal* products of species referred to in Article 2.4.1.2. from a country, *zone* or *compartment* not declared free from *Batrachochytrium dendrobatidis*, 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 2.4.1.3. or other products authorised by the *Competent Authority*;
  - b) the treatment of all effluent and waste materials in a manner that kills *Batrachochytrium dendrobatidis*.

This Article does not apply to *commodities* referred to in point 1 of Article 2.4.1.3.