**Annex 17. Item 6.8. – Draft new Chapter 10.X. ‘Infection with *Megalocytivirus pagrus 1*’**

CHAPTER 10.X.

## INFECTION WITH MEGALOCYTIVIRUS PAGRUS 1

**Article 10.X.1.**

For the purposes of the *Aquatic Code*, infection with *Megalocytivirus pagrus 1* means *infection* with the *pathogenic agent* *Megalocytivirus pagrus 1* (including the genogroups infectious spleen and kidney necrosis virus, red sea bream iridovirus and turbot reddish body iridovirus) of the Genus *Megalocytivirus* and Family Iridoviridae.

All three genogroups should be notified in accordance with Chapter 1.1.

Information on methods for *diagnosis* is provided in the *Aquatic Manual*.

**Article 10.X.2.**

**Scope**

The recommendations in this chapter apply to the following species that meet the criteria for listing as susceptible in accordance with Chapter 1.5.:

|  |  |  |
| --- | --- | --- |
| **Family** | **Species** | **Common name** |
| Apogonidae | *Pterapogon kauderni* | Banggai cardinalfish |
| Butidae | *Oxyeleotris marmorata* | marble goby |
| Carangidae | *Pseudocaranx dentex* | white trevally |
| *Seriola spp.* (all species) | N/A |
| *Trachinotus spp.* (all species) | N/A |
| *Trachurus japonicus* | Japanese jack mackerel |
| Centrarchidae | *Lepomis macrochirus* | bluegill |
| Cichlidae | *Astronotus ocellatus* | Oscar |
| *Etroplus suratensis* | pearlspot |
| *Oreochromis niloticus* | Nile tilapia |
| *Pterophyllum spp.* (all species) | N/A |
| Cyprinidae | *Epalzeorhynchos frenatum* | rainbow sharkminnow |
| Danionidae | *Danio rerio* | zebrafish |
| Ephippidae | *Platax orbicularis* | orbiculate batfish |
| Girellidae | *Girella punctata* | largescale blackfish |
| Haemulidae | *Parapristipoma trilineatum* | chicken grunt |
| *Plectorhinchus cinctus* | crescent sweetlips |
| Latidae | *Lates calcarifer* | barramundi |
| Lethrinidae | *Lethrinus spp.* (all species) | N/A |
| Mugilidae | *Mugil cephalus* | flathead grey mullet |
| Nothobranchiidae | *Aphyosemion gardneri* | steel blue killifish |
| Oplegnathidae | *Oplegnathus spp.* (all species) | N/A |
| Osphronemidae | *Macropodus opercularis* | paradise fish |
| *Osphronemus goramy* | giant gourami |
| *Trichogaster lalius* | dwarf gourami |
| *Trichopodus spp.* (all species) | N/A |
| Paralichthyidae | *Paralichthys olivaceus* | bastard halibut |
| Percichthyidae | *Maccullochella peelii* | Murray cod |
| Pleuronectidae | *Verasper variegatus* | spotted halibut |
| Poeciliidae | *Poecilia spp.* (all species) | N/A |
| *Xiphophorus spp.* (all species) | N/A |
| Procatopodidae | *Poropanchax normani* | Norman's lampeye |
| Rachycentridae | *Rachycentron canadum* | Cobia |
| Sciaenidae | *Larimichthys crocea* | large yellow croaker |
| *Sciaenops ocellatus* | red drum |
| Scombridae | *Scomber japonicus* | chub mackerel |
| *Scomberomorus niphonius* | Japanese Spanish mackerel |
| *Thunnus orientalis* | Pacific bluefin tuna |
| Scophthalmidae | *Scophthalmus maximus* | turbot |
| Serranidae | *Epinephelus spp.* (all species) | N/A |
| Sinipercidae | *Siniperca chuatsi* | Mandarin fish |
| Sparidae | *Acanthopagrus schlegelii* | blackhead seabream |
| *Dentex tumifrons* | yellowback seabream |
| *Pagrus major* | red sea bream |
| Stromateidae | *Pampus argenteus* | silver pomfret |
| Synanceiidae | *Inimicus japonicus* | no common name |
| Tetraodontidae | *Takifugu rubripes* | tiger pufferfish |

**Article 10.X.3.**

**Measures for the importation or transit of aquatic animal products for any purpose regardless of the infection with *M. pagrus 1* status of the exporting country, zone or compartment**

The *aquatic animal products* listed below have been assessed as meeting the criteria for safety of *aquatic animal products* in accordance with Article 5.4.1. When authorising the importation or transit of these *aquatic animal products*, *Competent Authorities* should not require any *sanitary measures* related to *M. pagrus 1*, regardless of the infection with *M. pagrus 1* status of the *exporting country*, *zone* or *compartment*:

1) *aquatic animal products* that have been subjected to a heat treatment sufficient to attain a core temperature of at least 56°C for at least 30 minutes, or a time/temperature equivalent that inactivates *M. pagrus 1*;

2) fish *meal* that has been subjected to a heat treatment sufficient to attain a core temperature of at least 56°C for at least 30 minutes, or a time/temperature equivalent that inactivates *M. pagrus 1*;

3) fish oil;

4) fish skin leather.

**Article 10.X.4.**

**Requirements for self-declaration of freedom from infection with *M. pagrus 1***

A Member Country may make a self-declaration of freedom from infection with *M. pagrus 1* for the entire country, a *zone* or a *compartment* in accordance with the provisions of Articles 10.X.5. to 10.X.8., as relevant. The self-declaration of freedom must be made in accordance with other relevant requirements of the *Aquatic Code* including that the Member Country meet the following conditions:

1) complies with the provisions of Chapter 3.1.; and

2) uses appropriate methods of *diagnosis*, as recommended in the *Aquatic Manual*; and

3) meets all requirements of Chapter 1.4. that are relevant to the self-declaration of freedom.

**Article 10.X.5.**

**Country free from infection with *M. pagrus 1***

If a country shares water bodies with other countries, it can only make a self-declaration of freedom from infection with *M. pagrus 1* if all shared water bodies are within countries or *zones* declared free from infection with *M. pagrus 1* (see Article 10.X.6.).

As described in Article 1.4.4., a Member Country may make a self-declaration of freedom from infection with *M. pagrus 1* for its entire *territory* if it can demonstrate that:

1) pathway 1 (absence of susceptible species) not suitable for infection with *M. pagrus 1*;

OR

2) there has been no occurrence of infection with *M. pagrus 1* for at least the last ten years, and:

a) the Member Country can demonstrate that conditions are conducive to the clinical expression of infection with *M. pagrus 1*, as described in in Article 1.4.8. of Chapter 1.4.; and

b) *basic biosecurity conditions* as described in Chapter 1.4. have been continuously met for at least the last ten years;

OR

3) *targeted surveillance*, as described in Chapter 1.4., has been in place for at least the last two years without detection of *M. pagrus 1*, and *basic biosecurity conditions* have been continuously met and have been in place for at least one year prior to commencement of *targeted surveillance*;

OR

4) it previously made a self-declaration of freedom from infection with *M. pagrus 1* and subsequently lost its free status due to the detection of *M. pagrus 1* but the following conditions have been met:

a) on detection of *M. pagrus 1*, the affected area was declared an *infected zone* and a *protection zone* was established; and

b) infected populations within the *infected zone* have been killed and disposed of by means that minimise the likelihood of further transmission of *M. pagrus 1*, and the appropriate *disinfection* procedures (as described in Chapter 4.4.) have been completed followed by *fallowing* as described in Chapter 4.7.; and

c) previously existing *basic biosecurity conditions* have been reviewed and modified as necessary and have continuously been in place since eradication of infection with *M. pagrus 1*; and

d) *targeted surveillance*, as described in Chapter 1.4., has been in place for:

i) at least the last two years in wild and farmed *susceptible species* without detection of *M. pagrus 1*; or

ii) at least the last one year without detection of *M. pagrus 1* if affected *aquaculture establishments* were not epidemiologically connected to wild populations of *susceptible species*.

In the meantime, the part of the country outside the *infected zone* and *protection zone* may be declared a *free zone* as described in Article 1.4.4.

**Article 10.X.6.**

**Zone free from infection with *M. pagrus 1***

If a *zone* extends over the *territory* of more than one country, it can only be declared a *zone* free from infection with *M. pagrus 1* if all of the relevant *Competent Authorities* confirm that all relevant conditions have been met.

As described in Article 1.4.4., a Member Country may make a self-declaration of freedom from infection with *M. pagrus 1* for a *zone* within its *territory* if it can demonstrate that:

1) pathway 1 (absence of susceptible species) not suitable for this disease;

OR

2) there has been no occurrence of infection with *M. pagrus 1* for at least the last ten years, and:

a) the Member Country can demonstrate that conditions are conducive to the clinical expression of infection with *M. pagrus 1*, as described in Article 1.4.8. of Chapter 1.4.; and

b) *basic biosecurity conditions* as described in Chapter 1.4. have been continuously met for the *zone* for at least the last ten years;

OR

3) *targeted surveillance*, as described in Chapter 1.4., has been in place in the *zone* for at least the last two years without detection of *M. pagrus 1*, and *basic biosecurity conditions* have been continuously met and have been in place for at least one year prior to commencement of *targeted surveillance*;

OR

4) it previously made a self-declaration of freedom for a *zone* from infection with *M. pagrus 1* and subsequently lost its free status due to the detection of *M. pagrus 1* in the *zone* but the following conditions have been met:

a) on detection of *M. pagrus 1*, the affected area was declared an *infected zone* and a *protection zone* was established; and

b) infected populations within the *infected zone* have been killed and disposed of by means that minimise the likelihood of further transmission of *M. pagrus 1*, and the appropriate *disinfection* procedures (as described in Chapter 4.4.) have been completed followed by *fallowing* as described in Chapter 4.7.; and

c) previously existing *basic biosecurity conditions* have been reviewed and modified as necessary and have continuously been in place since eradication of infection with *M. pagrus 1*; and

d) *targeted surveillance*, as described in Chapter 1.4., has been in place for:

i) at least the last two years in wild and farmed *susceptible species* without detection of *M. pagrus 1*; or

ii) at least the last one year without detection of *M. pagrus 1* if affected *aquaculture establishments* were not epidemiologically connected to wild populations of *susceptible species*.

In the meantime, a part of the *zone* outside the *infected zone* and *protection zone* may be declared a new *free zone* as described in Article 1.4.4.

**Article 10.X.7.**

**Compartment free from infection with *M. pagrus 1***

As described in Article 1.4.4., a Member Country may make a self-declaration of freedom from infection with *M. pagrus 1* for a *compartment* within its *territory* if it can demonstrate that:

1) *targeted surveillance*, as described in Chapter 1.4., has been in place in the *compartment* for at least the last one year without detection of *M. pagrus 1*, and *basic biosecurity conditions* have been continuously met and have been in place for at least one year prior to commencement of *targeted surveillance*;

OR

2) it previously made a self-declaration of freedom for a *compartment* from infection with *M. pagrus 1* and subsequently lost its free status due to the detection of *M. pagrus 1* in the *compartment* but the *following* conditions have been met:

a) all *aquatic animals* within the *compartment* have been killed and disposed of by means that minimise the likelihood of further transmission of *M. pagrus 1*, the appropriate *disinfection* procedures (as described in Chapter 4.4.) have been completed, and the *compartment* has been fallowed as described in Chapter 4.7.; and

b) previously existing *basic biosecurity conditions*, including the *compartment* *biosecurity plan*, have been reviewed and modified as necessary and have continuously been in place from the time of restocking with *aquatic animals* from an approved pathogen free source in accordance with the requirements of Articles 10.X.9. and 10.X.10. as appropriate; and

c) one survey for infection with *M. pagrus 1* has been completed at least six months after restocking (as described in Article 1.4.14.) without detection of the pathogen.

**Article 10.X.8.**

**Maintenance of free status**

A country, *zone* or *compartment* that is declared free from infection with *M. pagrus 1* following the provisions of Articles 10.X.4. to 10.X.7. (as relevant) may maintain its status as free from infection with *M. pagrus 1* provided that the requirements described in Article 1.4.15. are continuously maintained.

**Article 10.X.9.**

**Importation of aquatic animals or aquatic animal products from a country, zone or compartment declared free from infection with *M. pagrus 1***

When importing *aquatic animals* of a species referred to in Article 10.X.2., or *aquatic animal products* derived thereof, from a country, *zone* or *compartment* declared free from infection with *M. pagrus 1*, the *Competent Authority* of the *importing country* should require that the consignment be accompanied by an *international aquatic animal health certificate* issued by the *Competent Authority* of the *exporting country*. The *international aquatic animal health certificate* should state that, on the basis of the procedures described in Articles 10.X.5., 10.X.6. or 10.X.7. (as applicable) and 10.X.8., the place of production of the *aquatic animals* or *aquatic animal products* is a country, *zone* or *compartment* declared free from infection with *M. pagrus 1*.

The *international aquatic animal health certificate* should be in accordance with the Model Certificate in Chapter 5.11.

This article does not apply to *aquatic animal products* listed in Article 10.X.3.

**Article 10.X.10.**

**Importation of aquatic animals for aquaculture from a country, zone or compartment not declared free from infection with *M. pagrus 1***

When importing, for *aquaculture*, *aquatic animals* of a species referred to in Article 10.X.2. from a country, *zone* or *compartment* not declared free from infection with *M. pagrus 1*, the *Competent Authority* of the *importing country* should assess the *risk* in accordance with Chapter 2.1. and consider the *risk* mitigation measures in points 1 and 2 below.

1) If the intention is to grow out and harvest the imported *aquatic animals*, consider applying the following:

a) the direct delivery to and lifelong holding of the imported *aquatic animals* in a *quarantine* facility; and

b) before leaving *quarantine* (either in the original facility or following biosecure transport to another *quarantine* facility) the *aquatic animals* are killed and processed into one or more of the *aquatic animal products* referred to in Article 10.X.3. or other products authorised by the *Competent Authority*; and

c) the treatment of all transport water, equipment, effluent and waste materials to inactivate *M. pagrus 1* in accordance with Chapters 4.4., 4.8. and 5.5.

OR

2) If the intention is to establish a new stock for *aquaculture*, consider applying the following:

a) In the *exporting country*:

i) identify potential source populations and evaluate their *aquatic animal* health records;

ii) test source populations in accordance with Chapter 1.4. and select a founder population (F-0) of *aquatic animals* with a high health status for infection with *M. pagrus 1* .

b) In the *importing country*:

i) import the F-0 population into a *quarantine* facility;

ii) test the F-0 population for *M. pagrus 1* in accordance with Chapter 1.4. to determine their suitability as broodstock;

iii) produce a first generation (F-1) population in *quarantine*;

iv) culture the F-1 population in *quarantine* for a duration sufficient for, and under conditions that are conducive to, the clinical expression of infection with *M. pagrus 1*, and sample and test for *M. pagrus 1* in accordance with Chapter 1.4. of the *Aquatic Code* and Chapter 2.3.8. of the *Aquatic Manual*;

v) if *M. pagrus 1* is not detected in the F-1 population, it may be defined as free from infection with *M. pagrus 1* and may be released from *quarantine*;

vi) if *M. pagrus 1* is detected in the F-1 population, those animals should not be released from *quarantine* and should be killed and disposed of in a biosecure manner in accordance with Chapter 4.8.

**Article 10.X.11.**

**Importation of aquatic animals or aquatic animal products for processing for human consumption from a country, zone or compartment not declared free from infection with *M. pagrus 1***

When importing, for processing for human consumption, *aquatic animals* of a species referred to in Article 10.X.2., or *aquatic animal products* derived thereof, from a country, *zone* or *compartment* not declared free from infection with *M. pagrus 1*, the *Competent Authority* of the *importing country* should assess the *risk* and, if justified, require that:

1) the consignment is delivered directly to, and held in, *quarantine* or containment facilities until processing into one of the products referred to in Article 10.X.3. or in point 1 of Article 10.X.14., or other products authorised by the *Competent Authority*; and

2) all water (including ice), equipment, *containers* and packaging material used in transport are treated to ensure inactivation of *M. pagrus 1* or disposed of in a biosecure manner in accordance with Chapters 4.4., 4.8. and 5.5.; and

3) all effluent and waste materials are treated to ensure inactivation of *M. pagrus 1* or disposed of in a biosecure manner in accordance with Chapters 4.4.and 4.8.

For these *aquatic animals* or *aquatic animal products* Member Countries may wish to consider introducing internal measures to address the *risks* associated with the *aquatic animal* or *aquatic animal product* being used for any purpose other than for human consumption.

**Article 10.X.12.**

**Importation of aquatic animals or aquatic animal products intended for uses other than human consumption, including animal feed and agricultural, industrial, research or pharmaceutical use, from a country, zone or compartment not declared free from infection with *M. pagrus 1***

When importing *aquatic animals* of a species referred to in Article 10.X.2., or *aquatic animal products* derived thereof, intended for uses other than human consumption, including animal *feed* and agricultural, industrial, research or pharmaceutical use, from a country, *zone* or *compartment* not declared free from infection with *M. pagrus 1*, the *Competent Authority* of the *importing country* should require that:

1) the consignment is delivered directly to, and held in, *quarantine* or containment facilities until processed into one of the products referred to in Article 10.X.3. or other products authorised by the *Competent Authority*; and

2) all water (including ice), equipment, *containers* and packaging material used in transport are treated to ensure inactivation of *M. pagrus 1* or disposed of in a biosecure manner in accordance with Chapters 4.4., 4.8. and 5.5.; and

3) all effluent and waste materials are treated to ensure inactivation of *M. pagrus 1* or disposed of in a biosecure manner in accordance with Chapters 4.4. and 4.8.

**Article 10.X.13.**

**Importation of aquatic animals intended for use in laboratories or zoos from a country, zone or compartment not declared free from infection with *M. pagrus 1***

When importing, for use in laboratories or zoos, *aquatic animals* of a species referred to in Article 10.X.2. from a country, *zone* or *compartment* not declared free from infection with *M. pagrus 1*, the *Competent Authority* of the *importing country* should ensure:

1) the consignment is delivered directly to, and held in, *quarantine* facilities authorised by the *Competent Authority*; and

2) all water (including ice), equipment, *containers* and packaging material used in transport are treated to ensure inactivation of *M. pagrus 1* or disposed of in a biosecure manner in accordance with Chapters 4.4., 4.8. and 5.5.; and

3) all effluent and waste materials from the *quarantine* facilities in the laboratories or zoos are treated to ensure inactivation of *M. pagrus 1* or disposed of in a biosecure manner in accordance with Chapters 4.4. and 4.8.; and

4) the carcasses are disposed of in accordance with Chapter 4.8.

**Article 10.X.14.**

**Importation or transit of aquatic animal products for retail trade for human consumption regardless of the infection with *M. pagrus 1*****status of the exporting country, zone or compartment**

1) *Competent Authorities* should not require any conditions related to *M. pagrus 1* regardless of the infection with *M. pagrus 1* status of the *exporting country*, *zone* or *compartment*, when authorising the importation or transit of the following *aquatic animal products* that have been prepared and packaged for retail trade and comply with Article 5.4.2.:

a) fish fillets or steaks (chilled).

Certain assumptions have been made in assessing the safety of the *aquatic animal products* mentioned above. Member Countries should refer to these assumptions at Article 5.4.2. and consider whether the assumptions apply to their conditions.

For these *aquatic animal products* Member Countries may wish to consider introducing internal measures to address the *risks* associated with the *aquatic animal product* being used for any purpose other than for human consumption.

2) When importing *aquatic animal products*, other than those referred to in point 1 above, derived from a species referred to in Article 10.X.2. from a country, *zone* or *compartment* not declared free from infection with *M. pagrus 1*, the *Competent Authority* of the *importing country* should assess the *risk* and apply appropriate *risk* mitigation measures.

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