SUSCEPTIBILITY OF FISH SPECIES TO INFECTION WITH INFECTIOUS HAEMATOPOIETIC NECROSIS VIRUS (IHNV)

The following table shows the fish species assessed against the criteria for susceptibility to infection with infectious haematopoietic necrosis virus and the outcomes of the assessments. For details about the specific assessment please refer to the link included in the source column of the table.

Assessment Table Key:

- N: Natural infection
- E: Experimental (non-invasive)
- EI: Experimental invasive

- Y: Demonstrates criterion is met
- N: Criterion is not met
- I: Inconclusive

- ND: Not determined NS: Not scored
- N/A: Not applicable

| Scientific name | Common name | Stage 1: Route of transmission | Stage 2: Pathogen identification | Stage | 3: Evide | nce of in | fection | Outcome | References | Source | Year of adoption |
|--|-----------------|--------------------------------------|---|-------|----------|-----------|---------|---------|--|--|------------------|
| | | | | А | В | С | D | | | | |
| Assessed as a susceptible species and included in Article 10.6.2. of Chapter 10.6. of the Aquatic Code | | | | | | | | | | | |
| Esox lucius | pike | Ν | Culture and ELISA | ND | Y | Y | N | 1 | Reschova <i>et al</i> ., 2008; Dorson <i>et al.</i> , 1987 | Aquatic Animals Commission February 2019 Report | 2019 |
| Salmo marmoratus | marble trout | E | Culture and PCR | ND | Y | Y | Y | 1 | Pascoli <i>et al</i> ., 2015 | <u>ad hoc Group</u> report: May 2018 | 2019 |
| Salmo salar | Atlantic salmon | N and E | Culture, neutralisation and RT-PCR | ND | Y | Y | Y | 1 | Armstrong <i>et al</i> ., 1993; St-Hilaire <i>et al</i> ., 2002 | <u>ad hoc Group</u> report: May 2018 | 2019 |
| Salmo trutta | brown trout | E and N | Culture confirmed with serum neutralisation published in LaPatra <i>et al.</i> , 1990 paper | ND | Y | Y | N | 1 | LaPatra <i>et al</i> ., 1990; Rexhepi <i>et al</i> ., 2011 | <u>ad hoc Group</u> report: May 2018 | 2019 |
| Salvelinus alpinus | Arctic trout | E | Culture and ELISA | ND | Y | Y | N | 1 | McAllister <i>et al</i> ., 2000 | <u>ad hoc Group</u> <u>report: May</u> <u>2018</u> | 2019 |
| Salvelinus fontinalis | brook trout | N | Culture and RT- PCR and IFAT | Y | Y | Y | Y | 1 | Zhu <i>et al</i> ., 2013; Bootland <i>et al</i> ., 1994 | ad hoc Group report: May 2018 | 2019 |

| Scientific name | Common name | Stage 1: Route of transmission | Stage 2: Pathogen identification | Stage 3: Evidence of infection | | | | Outcome | References | Source | Year of |
|--|-----------------|--------------------------------------|--|--------------------------------|---|---|---|---------|---|---|----------|
| | | | | А | В | С | D | Outcome | References | Source | adoption |
| Salvelinus namaycush | lake trout | E | Culture and DNA probe | Y | Y | Y | N | 1 | Follett <i>et al</i> ., 1997 | <u>ad hoc Group</u> report: May 2018 | 2019 |
| Oncorhynchus clarkii | cutthroat trout | E | Culture of known isolate 220-90 | ND | Y | Y | N | 1 | LaPatra <i>et al</i> ., 1994 | <u>ad hoc Group</u> report: May 2018 | 2019 |
| Oncorhynchus keta | chum salmon | N | Culture and serum neutralisation | ND | Y | Y | N | 1 | Follett <i>et al</i> ., 1987; Yoshimizu <i>et al</i> ., 1993 | <u>ad hoc Group</u> report: May 2018 | 2019 |
| Oncorhynchus kisutch | coho salmon | Ν | Culture and serum neutralisation | Y | Y | N | Y | 1 | Eaton <i>et al.</i> , 1991; LaPatra <i>et al.</i> , 1989; Helmick <i>et al.</i> , 1995; Hedrick <i>et al.</i> , 1995 | <u>ad hoc Group</u> report: May 2018 | 2019 |
| Oncorhynchus masou | masu salmon | N | Culture and immunossay | ND | Y | N | Y | 1 | Yoshimizu <i>et al</i> ., 1993 | <u>ad hoc Group</u> report: May 2018 | 2019 |
| Oncorhynchus mykiss | rainbow trout | E and N | Culture and RT- PCR | ND | Y | Y | Y | 1 | Pascoli <i>et al</i> ., 2015; LaPatra <i>et al</i> ., 1993; Haenen <i>et al</i> ., 2016 | <u>ad hoc Group</u> report: May 2018 | 2019 |
| Oncorhynchus nerka | sockeye salmon | E | Culture and DNA probe | Y | Y | Y | N | 1 | Follett <i>et al</i> ., 1997; Yoshimizu <i>et al</i> ., 1993 | <u>ad hoc Group</u> report: May 2018 | 2019 |
| Oncorhynchus tshawytscha | chinook salmon | N | Culture and serum neutralisation | Y | Y | Y | N | 1 | Follett <i>et al.</i> , 1987; Arkush <i>et al.</i> , 2004; St- Hilaire <i>et al</i> ., 2001 | <u>ad hoc Group</u> report: May 2018 | 2019 |
| Assessed as incomplete evidence and listed in Section 2.2.2. of Chapter 2.3.5. in the Aquatic Manual | | | | | | | | | | | |
| Acipenser transmontanus | white surgeon | E/EI | Cell culture but no confirmation | Y | Y | N | N | 2 | LaPatra <i>et al</i> ., 1995 | <u>ad hoc Group</u> <u>report: May</u> <u>2018</u> | 2019 |
| Anguilla anguilla | European eel | N | Culture but not confirmed | ND | N | N | N | 2 | Bergmann <i>et al</i> ., 2003; Jorgensen <i>et al</i> ., 1994 | Aquatic Animals Commission September 2019 Report | 2021 |

| Scientific name | Common name | Stage 1: Route of transmission | Stage 2: Pathogen identification | Stage | 3: Evide | nce of in | fection | Outcome | References | Source | Year of adoption |
|---|--|--------------------------------------|---|-------|----------|-----------|---------|---------|---|--|------------------|
| | | | | А | В | С | D | | | | |
| Aulorhynchus flavidus | tube-snout | Ν | Virus culture and DNA probe or neutralization test | ND | Y | N | N | 2 | Kent <i>et al</i> ., 1998 | <u>ad hoc Group</u> report: May 2018 | 2019 |
| Clupea pallasii | Pacific herring | Ν | Virus culture and DNA probe or neutralization test | ND | Y | N | N | 2 | Kent <i>et al.</i> , 1998; Hart <i>et al.</i> , 2011 | <u>ad hoc Group</u> report: May 2018 | 2019 |
| Cymatogaster aggregate | shiner perch | Ν | Virus culture and DNA probe or neutralization test | ND | Y | N | N | 2 | Kent <i>et al</i> ., 1998 | <u>ad hoc Group</u> report: May 2018 | 2019 |
| Scophthalmus maximus | turbot | E | Culture and PCR | ND | Y | N | N | 2 | Polinski <i>et al.</i> , 2010 | <u>ad hoc Group</u> report: May 2018 | 2019 |
| Assessed | Assessed as having PCR positive results but no active infection and listed in the second paragraph of Section 2.2.2. of Chapter 2.3.5. in the Aquatic Manual | | | | | | | | | | |
| Cyprinus carpio | common carp | E | Culture and qRT-PCR | ND | N | N | N | 3 | Palmer <i>et al</i> ., 2014 | <u>ad hoc Group</u> report: May 2018 | 2019 |
| Perca flavescens | American yellow perch | E | Culture and qRT-PCR | ND | N | N | N | 3 | Palmer <i>et al</i> ., 2014 | <u>ad hoc Group</u> report: May 2018 | 2019 |
| Assessed as evidence of non-susceptibility (e.g. experimental invasive studies with no evidence of infection) | | | | | | | | | | | |
| none known | | | | | | | | | | | |