

# ASC Position Paper

## regarding the development of new Fish Health and Welfare indicators

### Introduction

Within the current ASC species-specific standards, fish welfare is only very partially addressed. As a result, ASC has had to outline a position regarding fish welfare in order to best inform and steer the development of relevant Criteria/Indicators.

The section below presents ASC's initial position regarding Fish Welfare. This document is publicly available on the ASC website. Comments are welcome and appreciated. The form for submitting comments during the public consultation period(s) can be found on the ASC website / [Fish Welfare \(Project\) webpage](#) and/or by clicking [Here](#).

### Document history

Version	Effective date	Description of amendment	Affected section/page
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### ASC Position paper

For any production system to be sustainable, and therefore acceptable, every contributing factor of sustainability has to be taken into account and weighed to provide a balanced evaluation<sup>1</sup>. Although animal welfare is extensively addressed as a sustainability factor when it comes to livestock farming, similar issues in fish farming practices remain underexposed. Nevertheless, the amount of available research on fish welfare has expanded rapidly over the last years. Fish have been proven to experience pain<sup>2</sup> and to have cognitive abilities<sup>3</sup>. These findings have consequences for how individual fish perceive farming practices and conditions, and their welfare could potentially be impaired during these practices. Examples of aspects of aquaculture that could impact on welfare include transportation, handling, confinement, inappropriate densities, water quality deterioration, slaughtering methods amongst others<sup>4</sup>.

Some sentient properties of fish are still a topic of debate between scientists. For example, the capability of pain perception has been challenged, as fish lack some of the neurological structures that allow pain experience in mammals<sup>5</sup>. The discussion on what level fish do experience pain is mainly of importance on a scientific level, as pain perception is only one of the many aspects that should be considered when optimising welfare status of farmed individuals.

To identify and prioritise best practices related to health and welfare in aquaculture, it is important to carry out a risk assessment on the impact of common fish farming practices.

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<sup>1</sup> Broom, 2019

<sup>2</sup> Sneddon, 2015

<sup>3</sup> Brown *et al.* 2011

<sup>4</sup> Huntingford *et al.*, 2006

<sup>5</sup> Rose *et al.*, 2014

The European Food Safety Authority (EFSA) provides risk assessments for a number of species in aquaculture, considers the number of animals involved, the frequency and duration of the practices and the severity of the impact(s). These studies can serve as an important guideline when addressing fish welfare factors within the ASC certification scheme.

To assess or even optimise welfare it is important to set a definition of the concept. There is however no universal definition of 'animal welfare' so any chosen working definition will potentially determine and/or partially restrict the boundaries of what is being considered. Well-known are the feeling-based, function-based and nature-based definitions of animal welfare<sup>6</sup>, and the Five Freedoms<sup>7</sup> concept are also often used to explain what entails welfare. The World Organisation for Animal Health (OIE) defines animal welfare as: "*the physical and mental state of an animal in relation to the conditions in which it lives and dies*".

These are all factors to be considered when looking at implementing more comprehensive indicators on health and welfare for fish within the ASC certification programme; and these are equally crucial for successful implementation.

In conclusion, the following factors are key to ASC's position on fish welfare and therefore form the base of its assessment and implementation framework for considering and developing new indicators on this topic within the various ASC standards:

- Fish welfare is a key factor of sustainable and responsible production;
- Fish are sentient beings and current aquaculture practices may impair welfare needs and thus need to be addressed;
- There is sufficient applicable scientific research available on fish welfare for ASC to support expanding its current health and welfare-related indicators for different species;
- A farm-based risk assessment approach to identify farm-unique elements of fish welfare that need attention will be considered as a starting position for the development of actual indicators;
- The working definition of animal welfare used by ASC will be determined at the start of the technical working group (TWG) discussions and will include all crucial elements of welfare.

## References

- 1) Broom, D.M. 2019. Animal welfare complementing or conflicting with other sustainability issues. *Applied Animal Behaviour Science* 219.
- 2) Sneddon, L.U. 2015. Pain in aquatic animals. *The Journal of Experimental Biology* 218: 967-976.
- 3) Brown, C. *et al.* 2011. Fish cognition and behaviour. Wiley-Blackwell.
- 4) Huntingford, F.A., Adams, C., Braithwaite, V.A., Kadri, S., Pottinger, T.G., Sandøe, P., Turnbull, J.F. 2006. Current issues in fish welfare. *Journal of Fish Biology* 68: 332-372.
- 5) Rose, J.D., Arlinghaus, R., Cooke, S.J., Diggles, B.K., Sawynok, W., Stevens, E.D., Lynne, C.D.L. 2012. Can fish really feel pain? *Fish and Fisheries* 15 (1).
- 6) Bergqvist, J., Gunnarsson, S. 2011. Finfish aquaculture: Animal welfare, the environment, and ethical implications. *Journal of Agriculture and Environmental Ethics* 26: 75-99.
- 7) Farm Animal Welfare Council:  
<https://webarchive.nationalarchives.gov.uk/20121010012427/http://www.fawc.org.uk/freedoms.htm>

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<sup>6</sup> Bergqvist & Gunnarsson, 2011

<sup>7</sup> Farm Animal Welfare Council