

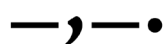
The Treatment of Farmed Fish Under EU Law

RESEARCH NOTE #7

Alice Di Concetto, Anatole Poinso, Wasseem Emam, Carlos Vera



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The European Institute
for Animal Law & Policy

ACHIEVING BETTER TREATMENT FOR ANIMALS



Ethical Seafood
Research

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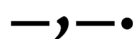
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The European Institute for Animal Law & Policy ASBL, Brussels, Belgium, 2024.



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ACHIEVING BETTER TREATMENT FOR ANIMALS



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Introduction

1

Article 4(25), Regulation 1380/2013 on the Common Fisheries Policy, 2013 OJ L 354/22-61.

2

Article 4(2)(a), Regulation 2021/2115 Establishing Rules on Support for Strategic Plans to Be Drawn Up by Member States Under the Common Agricultural Policy (CAP Strategic Plans) and Financed by the European Agricultural Guarantee Fund (EAGF) and by the European Agricultural Fund for Rural Development (EAFRD), 2021 OJ L 435/1-186.

3

Marcus Ernst Gerhard Breuer and Dana Divera Twisk, *Aquaculture Production in the European Union*, Factsheets on the European Union, European Parliament (2024).

4

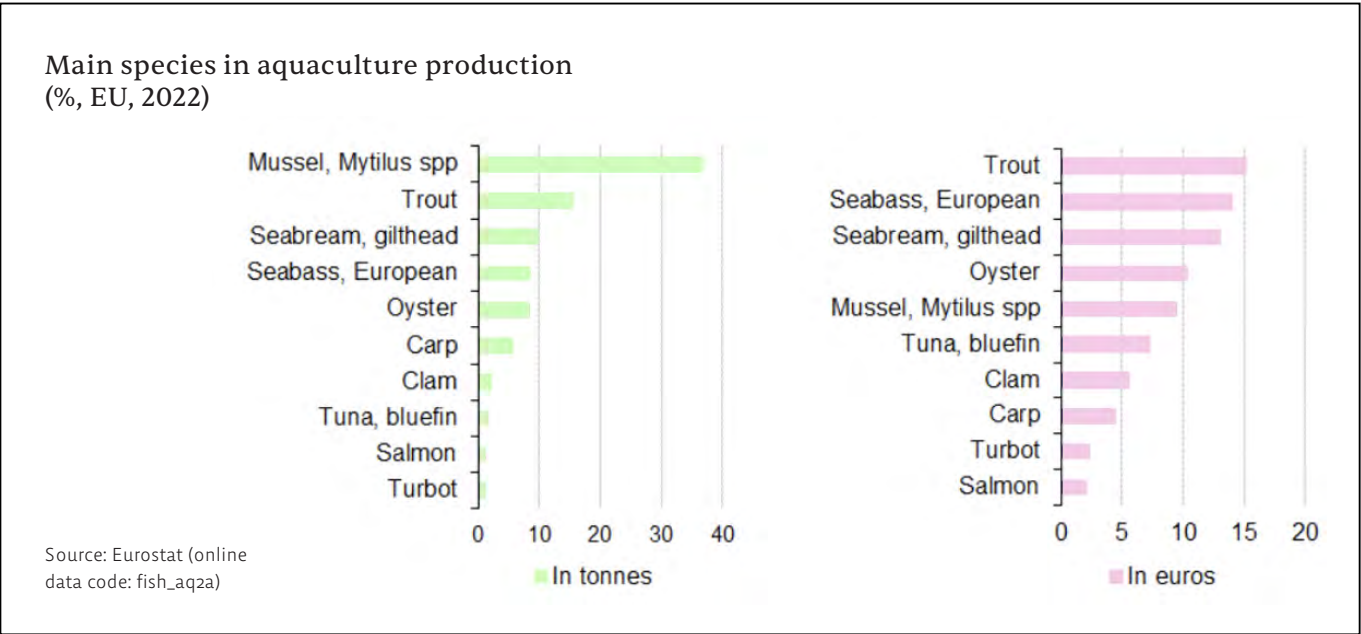
FAO, *The State of World Fisheries and Aquaculture 2022*, p.32, available online: <https://openknowledge.fao.org/bitstreams/a2090042-8cda-4f35-9881-16f6302ce757/download>

5

Ibid.

Regulation 1380/2013 on the Common Fisheries Policy defines aquaculture as the “rearing or cultivation of aquatic organisms using techniques designed to increase the production of the organisms in question beyond the natural capacity of the environment, where the organisms remain the property of a natural or legal person throughout the rearing and culture stage, up to and including harvesting.”¹ This regulatory definition underscores the decisive role of human intervention in the living conditions of animals in aquaculture, and in fish farming in particular, where the entire life cycle of the animals is controlled by humans—unlike in fisheries, where fishing operators only have a direct effect on the animals’ living conditions from the moment they are caught. In addition to providing a definition for aquaculture, the EU Legislature considers fish farming to be an agricultural activity in its own right.²

Aquaculture in general, and fish farming in particular, has become a globalized, strategic industry in the context of international environmental and food policies. Global aquaculture production volumes have quadrupled over the last 30 years,³ and global consumption of aquatic food products has risen considerably over the past two decades as a result of this heightened production output.⁴ The United Nations’ Food and Agriculture Organization (FAO) considers this



- 6 Scientific Opinion of the Panel on Animal Health and Welfare, *General Approach to Fish Welfare and to the Concept of Sentience In Fish*, EFSA Journal (2009).
- 7 Compassion in World Farming (CIWF), *Public Attitudes Towards Aquatic Animal Welfare*, p. 10, September 2024.
- 8 *Ibid.*, p.11.

development as a positive because they view aquaculture as a key way to meet the challenge of food security, while preserving fish stocks and marine ecosystems from overfishing.⁵ However, animal welfare scientists have recently established that aquatic animals are capable of negative experiences such as stress and pain,⁶ raising significant public concerns over the welfare of farmed fish. In the EU, 90% of citizens believe that fish should be better protected,⁷ and 80% of citizens support a reform that “requires the use of best practices and the latest science to meet the welfare needs of farmed aquatic animals.”⁸

The EU Aquaculture Sector: Key Numbers

In 2020, EU aquaculture production was valued at €3.9 billion. More than half of EU aquaculture production (67%) takes place in four Member States: Spain (24%), France (21%), Greece (11%), and Italy (10%).⁹ Around half of aquaculture production volumes are composed of fish products (50%), and shellfish account for 49%.¹⁰ The main species of animals farmed in the EU are: mussels (30%), trout (17%), oysters (9%) and sea bream (8%).¹¹ Rainbow trout, gilthead seabream, and European seabass are the EU's three most farmed fish species. However, the EU is not the top aquaculture producer in Europe, since Norwegian aquaculture exceeds that of the EU, reaching €10.7 billion in 2022—with salmon farming accounting for almost all of Norwegian aquaculture production.¹²

- 9 Eurostat, “Aquaculture Statistics,” https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Aquaculture_statistics#EU_Aquaculture (last visited December 4th 2024).
- 10 *Ibid.*
- 11 *Ibid.*
- 12 *Ibid.* See also “Animal Welfare in the Norwegian Fish Farming Industry: Neither Wild, Nor Domesticated Animals,” Birgitta Wahlberg et al., *Nordic Animal Law: Welfare and Rights, Ethics* Press (2024), p. 259 – 273.
- 13 Article 13, Consolidated Version of the Treaty on the Functioning of the European Union, 2012 OJ C 326/54.

Despite public concern, EU law does not afford any tangible legal protection for animals in aquaculture. This situation is also problematic from a legal perspective, since the Treaty on the Functioning of the European Union (TFEU) mandates the EU and its Member States must “take full account of the welfare requirements of animals as sentient beings” including in the context of agriculture and fisheries policy.¹³

This Research Note provides an overview of recent commitments made by EU institutions to improve the treatment of farmed aquatic animals in the EU, with a particular focus on fish (1). These policy announcements have yet to be codified, as EU farm animal welfare laws largely fall short of ensuring minimum standards for the protection of fish (2). Besides animal welfare laws, other pieces of EU legislation offer space for aquatic animal protection standards. For instance, the EU institutions could amend the Common Fisheries Policy (3) and animal health regulations (4) to include rules that would benefit farmed fish. Lastly, voluntary standards also contribute to the protection of farmed fish, by incentivizing producers to engage in better practices that could form the basis of new legal reform for fish welfare (5).

1. Fish Sentience

- 14 For example, see EFSA Panel on Animal Health and Welfare, *General Approach to Fish Welfare and to the Concept of Sentience in Fish*, p. 954, EFSA Journal (2009); Victoria Braithwaite, *Do Fish Feel Pain?* (2003); E. Lambooi, H. Digré, S. G. M. Reimert, I. G. Aursand, L. Grimsø, J. W. Van de Vis, *Effects of On-Board Storage and Electrical Stunning of Wild Cod (*Gadus Morhua*) and Haddock (*Melanogrammus Aeglefinus*) on Brain and Heart Activity*, Fisheries Research (2012).
- 15 EFSA Panel on Animal Health and Welfare, *General Approach to Fish Welfare and to the Concept of Sentience in Fish*, p. 954, EFSA Journal (2009).
- 16 Jonathan Balcombe, *Fishes Have Feelings, Too*, The New York Times (2016).
- 17 Georgia Mason, J. Michelle Lavery, *What Is It Like to Be a Bass? Red Herrings, Fish Pain and the Study of Animal Sentience*, Frontiers in Veterinary Science, (2022).
- 18 Helen Lambert, Amelia Cornish, Angie Elwin, Neil D'Cruze, *A Kettle of Fish: A Review of the Scientific Literature for Evidence of Fish Sentience*, Animals, (2022).

1.1. Scientific Data on Fish Suffering

Despite the growing body of scientific work on fish physiology, fish welfare research remains marginal compared to research on terrestrial animals. There is, however, a scientific consensus over the fact that fish can feel pain.¹⁴ In 2009¹⁵ and 2016,¹⁶ several reviews and scientific studies, including those carried out by the European Food Safety Authority (EFSA), also demonstrated that fish are sentient beings, capable of experiencing self awareness and emotions.

The presence of pain receptors in fish suggests that they can experience pain, although there remains some debate regarding the depth of their conscious experience.¹⁷

The main factors that collectively influence fish emotional states and welfare are environmental conditions, social interactions, and pain and injury.¹⁸

Fish perceive and react to stimuli and their environment. Examples of changes in behavior and psychological responses to a negative environment, such as altered swimming behaviors, are consistent with pain perception and increased levels of stress. Such observable behaviours can be rapid swimming or rubbing against surfaces. Additionally, physical changes, such as increased heart rate, release of stress hormones, or changes in feeding behavior are often the

The key principles and criteria for pain in animals¹⁹

- 19 Adapted from Sneddon, L. U., Elwood, R. W., Adamo, S. A., and Leach, M. C., *Defining and Assessing Animal Pain*, Animal Behaviour, (2014).

CRITERIA	MAMMALS	BIRDS	REPTILES/ AMPHIBIANS	FISH	CEPHALPODS	DECAPODS	INSECTS
Nociceptors, CNS pathways, & processing	•	•	•	•	•	•	•
Analgesic receptors	•	•	•	•	•	•	
Physiological responses	•	•	•	•	•	•	
Learned avoidance	•	•	•	•	•	•	•
Change in behavior	•	•	•	•	•	•	•
Drugs reduce response	•	•	•	•	•	•	•
Self-administration of drugs	•	•		•			
Pain takes priority	•			•	•	•	
Change in behavioral preferences/choices	•	•		•	•	•	•
Pay cost to avoid pain	•	•		•		•	
Trade off pain with other requirementst	•	•		•		•	



- 20 Georgia Mason, J. Michelle Lavery, *What Is It Like to Be a Bass? Red Herrings, Fish Pain and the Study of Animal Sentience*, *Frontiers in Veterinary Science*, (2022).
- 21 Helen Lambert, Amelia Cornish, Angie Elwin, Neil D'Cruze, *A Kettle of Fish: A Review of the Scientific Literature for Evidence of Fish Sentience*. *Animals*, (2022); Georgia Mason, J. Michelle Lavery, *What Is It Like to Be a Bass? Red Herrings, Fish Pain and the Study of Animal Sentience*, *Frontiers in Veterinary Science*, (2022).
- 22 Culum Brown, Cat Dorey, *Pain and Emotion in Fishes: Fish Welfare Implications for Fisheries and Aquaculture*, *Animal Studies Journal*, (2019).
- 23 Lucia van den Boogaart, Hans Slabbekoorn, Laura Scherer, *Prioritization of Fish Welfare Issues in European Salmonid Aquaculture Using the Delphi Method*, *Aquaculture Magazine* (2023).
- 24 *Ibid.*
- 25 Culum Brown, Cat Dorey, *Pain and Emotion in Fishes: Fish Welfare Implications for Fisheries and Aquaculture*, *Animal Studies Journal*, (2019).

consequence of negative experiences. Fish have also been observed avoiding areas where they had previously experienced pain or danger, suggesting a level of cognitive processing.²⁰ Conversely, in response to a supportive environment, many aquatic species display behaviors such as engaging in playful activities, swimming in loops, interacting with objects in their environment, or showing curiosity and a desire for exploration. Social bonding is also common, as are mating displays, cooperative breeding, or cooperative hunting.²¹

1.2. Fish Welfare Science in the Context of Aquaculture

Fish welfare in the context of aquaculture encompasses several considerations such as minimizing handling and transport, gentle breeding practices in hatcheries, provisions for appropriate environmental conditions (i.e., water quality), and the use of humane slaughter techniques.²²

The existing welfare studies on aquatic animals, which have been limited in comparison to terrestrial animals, have focused on establishing indicators that can be used to assess the welfare of animals in farm conditions.²³ However, nutritional and biological requirements differ from one fish species to another, which means that welfare indicators need to be established and validated for each and every single species in captivity. Currently, there are over 400 different species of fish being cultured by humans.

Differences in factors such as habitat preferences, feeding requirements, water quality, and temperature preferences illustrate the importance of establishing species-specific welfare guidelines for every species used in aquaculture. For example, carnivorous species require a greater quantity of protein feed compared to herbivorous species. Similarly, migratory species of fish also need more space than sedentary species. Some species may experience stress in isolation, while other solitary species exhibit stress in conglomeration. Animal welfare scientists have yet to develop species-specific indicators for the vast majority of species that are currently farmed.²⁴ Furthermore, existing welfare indicators for farmed fish generally refer to fish health and often prioritize production over welfare, leading to stressful environments of overcrowding and poor enrichment.²⁵ For example, most animal health indicators do not enable producers to assess fish suffering from the various sources of stress associated with handling and killing. This unfortunately enables only limited mitigation of negative welfare states without offering a pathway towards “positive welfare.”

- 26 Article 22, Regulation 178/2002 Laying Down the General Principles and Requirements of Food Law, Establishing the European Food Safety Authority and Laying Down Procedures in Matters of Food Policy, 2002 OJ L 31/12.
- 27 As per the Treaty on the Functioning of the European Union, Annex I; and Article 2, Regulation 178/2002, 2002 OJ L 31/7.
- 28 Article 22(5)(b), Regulation 178/2002, 2002 OJ L 31/13.
- 29 Article 29, Regulation 178/2002, 2002 OJ L 31/16.
- 30 Article 28, Regulation 178/2002, 2002 OJ L 31/15.
- 31 Article 23(a), Regulation 178/2002, 2002 OJ L 31/13.
- 32 *C/9-56, Meroni & Co., Industrie Metallurgiche, SpA v High Authority of the European Coal and Steel Community*. June 13, 1958 and *C/10-56 Meroni & Co., Industrie Metallurgiche, società in accomandita semplice v High Authority of the European Coal and Steel Community*, June 13 1958 (“Meroni doctrine”).
- 33 Novel foods, such as cell-based agricultural products and insects, are subject to a market authorization procedure.
- 34 Opinion of the Scientific Panel on Animal Health and Welfare (AHAW) on a request from the Commission related to the welfare of animals during transport, EFSA Journal (2004).
- 35 Panel on Biological Hazards, *Food Safety Considerations of Animal Welfare Aspects of Husbandry Systems for Farmed Fish*, EFSA Journal (2008).
- 36 See table overleaf.

1.3. The European Food Safety Authority (EFSA)

WHAT IS EFSA?

The European Food Safety Authority (EFSA), one of 37 EU agencies, was created in 2002. Its mission is to advise the EU Legislature on matters related to feed and food safety by providing scientific expertise to contribute to a “high level of protection of human life and health.”²⁶

MANDATE ON FARMED ANIMALS

EFSA's mandate extends to farm animals insofar as farm animals are considered food products and thus can pose food safety risks.²⁷ However, EFSA's mandate also includes, as a secondary mission, “the provision of scientific opinions on other matters [than food and feed safety risks] relating to animal health and welfare [...]”²⁸

SCIENTIFIC OPINIONS ON THE WELFARE OF FARMED ANIMALS

EFSA has produced opinions at the request of the European Commission, the European Parliament, and individual Member States.²⁹ Since its creation in 2002, EFSA has published more than 50 scientific opinions on the welfare of farmed animals. Each opinion is produced by a Scientific Panel, coordinated by a Scientific Committee.³⁰ EFSA's advisory work also relies on national animal welfare reference centers. EFSA is held to a standard of the “best possible science.”³¹

LEGAL VALUE OF EFSA OPINIONS

Being an agency, EFSA's mission does not include rulemaking decisions. Instead, its role is strictly advisory.³² Even market-authorization decisions³³ remain the sole mandate of the European Commission, even if the latter almost always follows EFSA's scientific opinions. On the other hand, the European Commission has not always followed EFSA's scientific opinions when drafting standards to be included in animal welfare legislation. This stands in contrast with the weight the Legislature gives to scientific opinions from other scientific agencies, such as the European Medicines Agency. This inconsistency in the weight given by the European Commission to certain expert opinions, as opposed to others, is not clearly addressed in EU law.

The European Commission, for example, did not codify EFSA's recommendations on maintaining minimum oxygen levels during transport or preventing the exposure of fish to air during loading and unloading, both of which were published in 2024 in a scientific opinion by EFSA on farmed animals during transport.³⁴

EFSA also published eight scientific opinions in 2008 and 2009, respectively dealing with the welfare of certain fish species³⁵ and optimal slaughter methods for certain fish species.³⁶ The EU Legislature

OPINION	YEAR	SPECIES	PRODUCTION STAGE
Assessment of animal diseases caused by bacteria resistant to antimicrobials: kept fish species	2022	Fish	Not specified
Scientific Opinion on the increased mortality events in Pacific oysters, <i>Crassostrea gigas</i>	2010	Pacific Oyster	Not specified
Species-specific welfare aspects of the main systems of stunning and killing of farmed turbot	2009	Turbot	Killing
Species-specific welfare aspects of the main systems of stunning and killing of farmed tuna	2009	Farmed tuna	Killing
Species-specific welfare aspects of the main systems of stunning and killing of farmed Carp	2009	Farmed Carp	Killing
Species-specific welfare aspects of the main systems of stunning and killing of farmed fish: Rainbow Trout	2009	Rainbow Trout	Killing
Species-specific welfare aspects of the main systems of stunning and killing of farmed Eels (<i>Anguilla Anguilla</i>)	2009	Eel	Killing
Species-specific welfare aspects of the main systems of stunning and killing of farmed Seabass and Seabream	2009	Farmed Seabass and Seabream	Killing
General approach to fish welfare and to the concept of sentience in fish	2009	Fish	Not specified
Food Safety considerations of animal welfare aspects of husbandry systems for farmed fish - Scientific opinion of the Panel on Biological Hazards	2008	Fish	Not specified
Animal welfare aspects of husbandry systems for farmed common carp	2008	Farmed common carp	Not specified
Animal welfare aspects of husbandry systems for farmed European seabass and gilthead seabream - Scientific Opinion of the Panel	2008	Farmed European seabass and gilthead seabream	Not specified
Animal welfare aspects of husbandry systems for farmed trout - Scientific Opinion of the Panel on Animal Health and Welfare	2008	Farmed trout	Not specified
Animal welfare aspects of husbandry systems for farmed fish - European eel - Scientific Opinion of the Panel on Animal Health and Welfare	2008	European eel	Not specified
Animal welfare aspects of husbandry systems for farmed Atlantic salmon - Scientific Opinion of the Panel on Animal Health and Welfare	2008	Atlantic salmon	Not specified

37 Directive 98/58 Concerning the Protection of Animals Kept for Farming Purposes, 1998 OJ L 221/23-27 and Regulation 1099/2009 on the Protection of Animals at the Time of Killing, 2009 OJ L 303/1-30.

38 Annex II, Part III, Regulation 2018/848 on Organic Production and Labeling of Organic Products, 2018 OJ L 150/1-92.

39 European Commission, Roadmap of Future Mandates to EFSA in the Field of Animal Welfare (2021), available online at https://food.ec.europa.eu/system/files/2021-10/aw_eval_revision_roadmap_efsa.pdf. See also Section 1.4. below.

did not codify any of the recommendations listed in these opinions,³⁷ although some were included in the EU organic rules.³⁸ Additionally, the European Commission published a provisional timetable for EFSA to publish a series of scientific opinions on the welfare of salmon, carp, trout, European sea bass, gilthead bream, eels, tuna, and decapods, scheduled for publication between 2026 and 2030.³⁹

- 40 Communication from the Commission on the Green Deal, COM(2019) 640 final, available online: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52019DC0640>
- 41 Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, A Farm-to-Fork Strategy for a Fair, Healthy and Environmentally-Friendly Food System, COM/2020/381 final, available online at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52019DC0640>
- 42 Communication from the Commission on Strategic Guidelines for More Sustainable and Competitive Aquaculture in the European Union for the period 2021-2030, COM/2021/236 final, available here: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021DC0236>
- 43 *Ibid.*
- 44 *Ibid.*, p. 22.
- 45 *Ibid.*, p. 22.
- 46 *Ibid.*, p. 11.
- 47 European Commission, “A Farm to Fork Strategy”, p.10, Europa, May 2020, available online: <https://eur-lex.europa.eu/legal-content/EN/TXT HTML/?uri=CELEX:52020DC0381&from=EN>
- 48 European Commission, Inception Impact Assessment, July 2021, p. 6-7, available online: https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12950-Animal-welfare-revision-of-EU-legislation_en.
- 49 Commission Staff Working Document Fitness Check of the EU Animal Welfare Legislation, SWD(2022) 329 final, p. 15, available online: https://food.ec.europa.eu/document/download/b9cc1000-c978-4895-8e9b-c2e1296adbfe_en?filename=aw_eval_revision_sw_d_2022-328_en.pdf.
- 50 *Ibid.*, p. 29 – 30.
- 51 *Ibid.*, p. 58.

1.4. Fish Welfare in the Revision of EU Farm Animal Welfare Legislation

THE 2020 FARM-TO-FORK STRATEGY

In December 2019, the then newly-appointed European Commission presented the “European Green Deal,”⁴⁰ a document that presented the European Commission’s work program for the following five years (until 2024). The European Green Deal sought to implement the United Nations’ Sustainable Development Goals and the 2015 Paris Agreement into EU legislation, with a key goal of the Paris Agreement being to achieve climate neutrality in Europe by 2050. The European Green Deal thus covered a large array of policy areas, including food production, which was specifically covered in a document called the “Farm-to-Fork Strategy,”⁴¹ published in 2020.

In a 2021 Communication,⁴² the European Commission further set out specific objectives for aquaculture stemming from the Farm-to-Fork Strategy. Two objectives directly concerned fish welfare: the reduction of the use of antimicrobials and the increase in the share of organic aquaculture.⁴³ In this Communication, the Commission also stressed the need to reinforce “sustainability”⁴⁴ in the aquaculture sector. Although the Commission does not define the word “sustainability,” the document implies that sustainability would contribute to improving animal health in aquaculture.⁴⁵ The Commission also highlights the need to increase the “competitive sustainability” of the aquaculture sector, referring to the competitive advantages of EU aquaculture products in terms of quality, “environmental footprint,” and “animal welfare.”⁴⁶

THE REVISION OF EU FARM ANIMAL WELFARE LEGISLATION

Among the actions listed in the Farm-to-Fork Strategy, the European Commission had committed to revising “animal welfare legislation, including on animal transport and the slaughter of animals, to align it with the latest scientific evidence, broaden its scope, make it easier to enforce and ultimately ensure a higher level of animal welfare.”⁴⁷ A document submitted for public consultation in 2021 indicated that the European Commission was considering the adoption of new animal welfare rules specifically aimed at improving the treatment of Atlantic salmon, carp, rainbow trout, European sea bass, and gilthead sea bream, at the fattening and slaughter stages.⁴⁸ Furthermore, in its assessment of animal welfare legislation, the European Commission also stated that the “[k]illing of farmed fish by taking them out of the water takes a long time before fish die and it is frightening and painful to the fish.”⁴⁹ The Commission also recognized that “Many provisions in the Farm Directive [Directive 98/58] are too generic to protect the welfare of certain animals, such as farmed fish [...] as they are not adapted to their specific needs.”⁵⁰ “Similarly, more specific requirements would be needed in order to increase the welfare of some fish species, such as the European sea bass and gilthead sea bream, at the time of killing”⁵¹

- 52 European Commission, Roadmap of Future Mandates to EFSA in the Field of Animal Welfare (2021), available online: https://food.ec.europa.eu/system/files/2021-10/aw_eval_revision_roadmap_efsa.pdf
- 53 *Ibid.*, p.3.
- 54 Proposal for a Regulation on the Protection of Animals During Transport and Related Operations, Amending Council Regulation (EC) No 1255/97 and Repealing Council Regulation (EC) No 1/2005, 2023, available online: https://food.ec.europa.eu/system/files/2023-12/aw_in-transit_reg-proposal_2023-770_0.pdf
- 55 European Commission, Proposal for a European Regulation on the Welfare of Dogs and Cats and their Traceability, n°2023/0447 December 7, 2023, available online: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2023:769:FIN>
- 56 European Commission, Strategic Dialogue on the Future of European Agriculture: A Common Perspective for Agriculture and Food in Europe, September 4, 2024, available online: https://agriculture.ec.europa.eu/document/download/171329ff-of50-4fa5-946f-aea11032172e_en?filename=strategic-dialogue-report-2024_en.pdf&prefLang=fr

Acknowledging the need to update EU law, the European Commission released a provisional timetable for EFSA to publish a series of scientific opinions on the welfare of salmon, carp, trout, European sea bass, gilthead bream, eels, tuna, and decapods, scheduled for publication between 2026 and 2030.⁵² However, the Commission seems to have fallen behind schedule, since EFSA's detailed mandate for the scientific opinion on salmon was slated for publication in June 2024.⁵³ Nevertheless, the procedure for requesting scientific opinions from EFSA, if it continues, could provide the basis for an evolution of the regulatory framework through tertiary law (in other words, through amendments to the annexes of farm animal welfare directives and regulations), avoiding the need for the Commission to undertake a legislative revision of these texts.

The amendment of the annexes now seems a more promising option compared to revising EU farm animal welfare laws, given that the revision process has stalled. In December 2023, instead of publishing the four proposals for new legislation, the Commission confirmed that they would only publish a proposal for new regulation on the welfare of animals during transport⁵⁴ and a proposal for new regulation on the welfare of cats and dogs.⁵⁵

In January 2024, the President of the European Commission, Ursula von der Leyen, announced the launch of a new policy initiative: "The Strategic Dialogue on the Future of European Agriculture." As part of this initiative, President von der Leyen created a new advisory group to develop guidelines for the future of EU agricultural and food policy. In September 2024, the Advisory Group published a report detailing its vision for the future of European agriculture,⁵⁶ in which the authors recommend that the revision of animal welfare legislation take place in 2026 at the earliest. The report does not communicate a specific timetable or scope of revision, instead highlighting the need to provide adequate transition periods.



2. The Welfare of Farmed Aquatic Animals in EU Animal Welfare Legislation

- 57 Directive 98/58 Concerning the Protection of Animals Kept for Farming Purposes, 1998 OJ L 221/23-27.
- 58 Directive 1999/74/EC Laying Down Minimum Standards for the Protection of Laying Hens, 1999 OJ L 203/53-57.
- 59 Directive 2008/119 Laying Down Minimum Standards for the Protection of Calves, 2009 OJ L 10/7-13.
- 60 Directive 2008/120 Laying Down Minimum Standards for the Protection of Pigs, 2009 OJ L 47/5-13.
- 61 Directive 2007/43 on Minimum Rules for the Protection of Chickens Kept for Meat Production, 2007 OJ L 182/17-28.
- 62 Regulation 1/2005 on the Protection of Animals During Transport, 2005 OJ L 3/1-44.
- 63 Regulation 1099/2009 on the Protection of Animals at the Time Of Killing, 2009 OJ L 303/1-30.
- 64 Article 2 (1), Directive 98/58, 1998 OJ L 221/23.
- 65 Article 1 (2), Directive 98/58, 1998 OJ L 221/23.
- 66 Annex, Directive 98/58, 1998 OJ L 221/26.
- 67 Commission Staff Working Document Fitness Check of the EU Animal Welfare Legislation, SWD(2022) 329 final, p. 62, available online at https://food.ec.europa.eu/document/download/b9cc1000-c978-4895-8e9b-c2e1296adbfe_en?filename=aw_eval_revision_sw_d_2022-328_en.pdf

EU farm animal welfare law is composed of seven pieces of legislation, including a horizontal directive regulating the treatment of all farm animals;⁵⁷ four species-specific directives respectively covering welfare standards for laying hens,⁵⁸ calves,⁵⁹ pigs,⁶⁰ and broiler chickens;⁶¹ and two regulations regulating the treatment of farm animals during transport⁶² and at their killing.⁶³ While there is no species-specific law regulating the treatment of fish, aquatic animals are covered in the scope of the Directive on the Protection of Animals Kept for Farming Purposes (2.1.), as well in the scope of the Slaughter (2.2.) and Transport Regulations (2.3.).

2.1. Directive 98/58 Concerning the Protection of Animals Kept for Farming Purposes

The scope of European Directive 98/58 on the Protection of Animals Kept for Farming Purposes⁶⁴ covers all farmed animals, with the exception of invertebrates, animals living in the wild, animals used for scientific purposes, and animals intended for use in competitions, shows, cultural, or sporting events or activities.⁶⁵ As a result, Directive 98/58 applies to fish but does not apply to invertebrate aquatic animals, such as cephalopods, crustaceans, or molluscs. In addition to a limited scope, Directive 98/58 only contains vague provisions with limited regulatory effects. For example, Directive 98/58 states that “[n]atural or artificial breeding or breeding procedures which cause or are likely to cause suffering or injury to any of the animals concerned must not be practised.” Additionally, “[t]he freedom of movement of an animal, having regard to its species and in accordance with established experience and scientific knowledge, must not be restricted in such a way as to cause it unnecessary suffering or injury.”⁶⁶ Despite these rules, the Directive fails to include regulatory definitions and quantifiable specifications. Consequently, the Directive does not guarantee that even the most basic animal welfare needs will be met. This analysis is consistent with the European Commission's conclusions in its evaluation of EU farm animal welfare legislation, published in 2022. Specifically, the Commission notes that “there is still a sub-optimal level of welfare of animals in the EU. In particular, this is the case for species for which such targeted legislation is currently lacking... [and that an] analysis of the legislation and its application shows that this is partly due to the vagueness of certain provisions.”⁶⁷

- 68 Article 1(1), Regulation 1/2005 2005 OJ L 3/4.
- 69 Article 6, Regulation 1/2005, 2005 OJ L 3/6.
- 70 Article 7, Regulation 1/2005, 2005 OJ L 3/7.
- 71 Chapter III, Regulation 1/2005, 2005 OJ L 3/8.
- 72 Chapter III, Regulation 1/2005, 2005 OJ L 3/8
- 73 European Parliament, Report on the investigation of alleged contraventions and maladministration in the application of Union law in relation to the protection of animals during transport within and outside the Union, 2021, available online: https://www.europarl.europa.eu/doceo/document/A-9-2021-0350_EN.html
- 74 Proposal for a Regulation on the Protection of Animals During Transport and Related Operations, Amending Council Regulation 1255/97 and Repealing Council Regulation 1/2005, 2023 available online: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2023%3A770%3AFIN>
- 75 Article 2, *ibid.*
- 76 Annex II, *ibid.*
- 77 Annex II, *ibid.*

2.2. Regulation 1/2005 on the Protection of Animals During Transport and Related Operations

The scope of Regulation 1/2005 on the Protection of Animals During Transport and Related Operations (Transport Regulation) extends to all live vertebrate animals⁶⁸ and therefore applies to the transport of fish. However, the Transport Regulations do not apply to invertebrate aquatic animals. As a result, fishes benefit from the protection standards relating to the training requirements for staff,⁶⁹ the approval of means of transport,⁷⁰ and the requirement to apply for authorization prior to transport.⁷¹ Transporters can obtain such an authorization with the national competent authorities if they comply with the provisions of the Transport Regulation, such as adhering to limits on journey times, keeping a valid journey log, and ensuring the suitability of equipment.⁷²

However, the Transport Regulation suffers from a number of limitations. Firstly, the Regulation contains no specific provision that would specifically apply to fishes, such as standards governing loading and unloading operations in tanks, nor does the Regulation provide maximum density levels in tanks during transport. Similarly, the Regulation does not include specifications related to water quality during transport, such as minimum and maximum salinity or oxygen levels. In a report published in 2022,⁷³ the European Parliament thus highlighted that “many of the problems in animal transport originate from unclear legislative provisions, misleading requirements and the lack of clear definitions, which leave room for interpretation; stresses that all of this is often the source of systematic violations and unharmonised and uneven application of the rules, increasing the risks for animals and for their well-being”

In light of the numerous shortcomings of the Transport Regulation, the European Commission committed to revising it, publishing a proposal for a new Transport Regulation in 2023.⁷⁴ This proposal provides a broader scope compared to the 2005 Regulation, and it covers all vertebrate and invertebrate animals.⁷⁵ The prospective new Transport Regulation might therefore provide protections for crustaceans and mollusks, in addition to fishes. The text proposed by the Commission also includes species-specific standards for the transport of aquatic animals.⁷⁶ However, the standards in the Proposal are too vague to produce regulatory effects. For example, the provisions on water quality states that “operators shall ensure water quality that is appropriate for the species being transported and method of transportation,”⁷⁷ without providing further information on what would constitute “appropriate” water quality in this case. In the absence of quantifiable species-specific standards concerning oxygen content, ammonia levels or temperature, the Proposal will not lead to adequate protection of fishes during transport. However, the drafting of the Proposal will likely evolve during the legislative process leading up to its adoption.

78 Article 1, Regulation 1099/2009, 2009 OJ L 303/7.

79 Article 1, Regulation 1099/2009, 2009 OJ L 303/7.

80 Article 3(1), Regulation 1099/2009, 2009 OJ L 303/9.

81 Article 4, Regulation 1099/2009, 2009 OJ L 303/9.

82 Article 9, Regulation 1099/2009, 2009 OJ L 303/11.

83 Recital 11, Regulation 1099/2009, 2009 OJ L 303/2.

84 EFSA, *Species-Specific Welfare Aspects Of The Main Systems Of Stunning And Killing Of Farmed Atlantic Salmon*, EFSA Journal (2009); EFSA, *Species-Specific Welfare Aspects Of The Main Systems Of Stunning And Killing Of Farmed Fish: Rainbow Trout*, EFSA Journal (2009); *Species-Specific Welfare Aspects of the Main Systems of Stunning and Killing of Farmed Carp*, EFSA Journal (2009); *Species-Specific Welfare Aspects of the Main Systems of Stunning and Killing of Farmed Seabass And Seabream*, EFSA Journal (2009); *Species-Specific Welfare Aspects of the Main Systems of Stunning and Killing of Farmed Eels*, EFSA Journal (2009); *Species-Specific Welfare Aspects of the Main Systems of Stunning and Killing of Farmed Turbot*, EFSA Journal (2009), *Species-Specific Welfare Aspects of the Main Systems of Stunning and Killing of Farmed Tuna*, EFSA Journal (2009).

85 This would involve amending the annexes to the Slaughter Regulation through tertiary law, in accordance with the procedure set in Article 25 of Regulation 1099/2009 (2009 OJ L 303/16) and Article 290 of the Treaty on the Functioning of the EU (OJ C 202, 7.6.2016, p. 172).

2.3. Regulation 1099/2009 on the Protection of Animals at the Time of Killing

Although Regulation 1099/2009 (the Slaughter Regulation) covers all “animals bred or kept for the production of food,”⁷⁸ fishes are explicitly excluded from the vast majority of the regulation’s provisions as per Article 1, which states that only Article 3(1) applies to fish,⁷⁹ and Article 3(1) only provides that “animals shall be spared any avoidable pain, distress or suffering during their killing and related operations.”⁸⁰ The Slaughter Regulation thus does not include any regulatory standard for the handling or killing of fish. As a result, fishes do not benefit from the standards applicable to farmed animals, such as mandatory stunning⁸¹ and restrictions on the use of certain killing methods.⁸² Additionally, invertebrate aquatic animals are excluded from the scope of the regulation, in the absence of any measures that specifically cover them.

The EU Legislature nevertheless acknowledges that “[s]eparate standards should be established on the protection of fish at killing,”⁸³ in the preamble of the Slaughter Regulation. The series of EFSA scientific opinions published in 2009 on fish slaughter⁸⁴ could therefore provide the basis for amendments to the annexes of the Slaughter Regulation. An amendment procedure of this kind could take place via an administrative procedure (known as “comitology”)⁸⁵ and would therefore not require the Slaughter Regulation to be revised through the ordinary legislative procedure.

Despite the Legislature’s intent to cover fish in animal welfare legislation, EU farm animal welfare statutes do not contain standards that ensure adequate levels of protection for animals used in aquaculture. However, standards in the Common Fisheries Policy regulations partly remedy these shortcomings.



3. Animal Welfare in the Common Fisheries Policy

- 86 Regulation 1380/2013 on the Common Fisheries Policy, 2013 OJ L 354/22-61.
- 87 Regulation 2021/1139 establishing the European Maritime, Fisheries and Aquaculture Fund, 2021 OJ L 247/1 - 49.
- 88 Regulation 1379/2013 on the Common Organization of the Markets in Fishery and Aquaculture Products, 2013 OJ L 354/1-21.
- 89 Article 4(2)(d), Treaty on the Functioning of the European Union, 2012 OJ C 326/51.
- 90 Article 3 1.d), Treaty on the Functioning of the European Union, 2012 OJ C 326/50. See Alice Di Concetto and Pauline Koczorowski, *The Treatment of Wild-Caught Fish Under EU Law*, *The European Institute for Animal Law & Policy* (2024), available online: https://animalaweuropa.org/wp-content/uploads/EIALP_Le-bien-etre-des-poissons-en-droit-de-la-peche-2024.pdf
- 91 Regulation 170/83 Establishing a Community System for the Conservation and Management of Fishery Resources, 1983 OJ L 24/1-13.
- 92 Regulation 3760/92 Establishing a Community System for Fisheries and Aquaculture, 1992 OJ L 389/1-14.
- 93 Regulation 2371/2002 On the Conservation and Sustainable Exploitation of Fisheries Resources Under the Common Fisheries Policy, 2002 OJ L 358/59-80.
- 94 Article 1(b), Regulation 1380/2013 on the Common Fisheries Policy, 2013 OJ L 354/28.
- 95 Article 2(a), Regulation 1380/2013, 2013 OJ L 354/29.
- 96 Recital 16, Regulation 1380/2013, 2013 OJ L 354/23.
- 97 Point 56, Council Conclusions on the Fisheries Policy Package – for a Sustainable, Resilient and Competitive Fisheries and aquaculture sector, 10505/23, 16 June 2023, available online: <https://data.consilium.europa.eu/doc/document/ST-10505-2023-INIT/en/pdf>

Aquaculture and fishing activities are regulated under the Common Fisheries Policy (CFP), by way of three regulations: Regulation 1380/2013 on the Common Fisheries Policy (CFP Regulation),⁸⁶ Regulation 2021/1139 establishing the European Maritime, Fisheries and Aquaculture Fund (EMFAF Regulation),⁸⁷ and Regulation 1379/2013 on the Common Organization of the Markets in Fishery and Aquaculture Products.⁸⁸

The regulation of aquaculture activities is a shared competence of the EU,⁸⁹ like agricultural activities, but unlike the management of living marine resources, which is an exclusive EU competence.⁹⁰ The CFP was introduced in 1983⁹¹ and has been reformed three times, in 1992,⁹² 2002,⁹³ and 2013. It is expected to undergo further reform in the next few years.

The scope of the CFP Regulation covers “fresh water biological resources, aquaculture, and [aquaculture products]”⁹⁴ on “the territory of the Member States.”⁹⁵

3.1. Regulation 1380/2013 on the Common Fisheries Policy

The CFP Regulation was last revised in 2013. This revision brought significant changes to the Regulation, including the mention that the CFP shall take “full account, where appropriate, of animal health and welfare.”⁹⁶ However, none of the provisions of the Regulation reflect such a commitment, though the next revision of the CFP has the potential to improve fish welfare standards. The conclusions on the implementation of the CFP adopted by the Council of EU on June 16, 2023 is a positive step in that direction. In its conclusions, the Council of the EU noted “that animal welfare improvements are necessary to strengthen the sustainability of the fisheries and aquaculture sectors,” further encouraging “the Commission to provide guidance on improving aquatic animal welfare, taking into account the practical feasibility in the fisheries and aquaculture management.”⁹⁷

3.2. Regulation 2021/1139 Establishing the European Maritime, Fisheries and Aquaculture Fund (EMFAF Regulation)

The EMFAF Regulation serves to implement the CFP by setting rules for the distribution of those fisheries subsidies allotted under the CFP. The EMFAF Regulation furthermore determines the objectives of the

- 98 Articles 1 and 3, Regulation 2021/1139 Establishing the European Maritime, Fisheries and Aquaculture Fund, 2021 OJ L 247/2.
- 99 Article (3)(2), Regulation 2021/1139, 2021 OJ L 247/2.
- 100 Article 1 (2)(a), Council Regulation 2080/93 Laying Down Provisions for Implementing Regulation 2052/88 as regards the Financial Instrument for Fisheries Guidance, 1993 OJ L 19/2.
- 101 In 1993, this fund was called the “Financial Instrument for Fisheries Guidance,” in 2006 the “European Fisheries Fund,” in 2014 the “European Maritime and Fisheries Fund,” and since 2021 the “European Maritime, Fisheries and Aquaculture Fund.”
- 102 EUR 6 108 000 000 in current prices. Article 4, Regulation 2021/1139 Establishing the European Fund for Maritime Affairs, Fisheries and Aquaculture, 2021 OJ L 247/15.
- 103 Article 7, Regulation 2021/1139, 2021 OJ L 247/16.
- 104 Articles 4 and 5, Regulation 2021/1139, 2021 OJ L 247/15.
- 105 Article 3, Regulation 2021/1139, 2021 OJ L 247/15.
- 106 Intervention Type 9, Appendix IV, Regulation 2021/1139, 2021 OJ L 247/47
- 107 Indicators C106 and CR10, Appendix I, Regulation 2021/1139, 2021 OJ L 247/42.
- 108 Article 26 (3), Regulation 2021/1139, 2021 OJ L 247/27.
- 109 Recital 23 and Annex III, Regulation 2021/1139, 2021 OJ L 247/1-49.
- 110 Article 1(2), Regulation 1379/2013 on the Common Organization of the Markets in Fishery and Aquaculture Products, 2013 OJ L 354/3.
- 111 Article 2 and Annex I, Regulation 1379/2013 2013 OJ L 354/1-49.
- 112 Articles 2 and 35, Regulation 1379/2013 2013 OJ L 354/1-49.
- 113 Article 8(3)(a), Regulation 1379/2013 2013 OJ L 354/5.

fisheries subsidy policy,⁹⁸ including “fostering sustainable aquaculture activities, and processing and marketing of fishery and aquaculture products, thus contributing to food security in the Union.”⁹⁹ Before 1993, the measures established by the EMFAF were funded by the EU’s general budget. Since 1993, the EMFAF Regulation has benefited from its own fund,¹⁰⁰ the name of which has changed with each revision of the EMFAF Regulation.¹⁰¹

The EMFAF Regulation provides a budget of €6 billion for the period ranging from 2021 to 2027.¹⁰² This fund is managed as follows: one portion is directly managed by the European Commission (€797 million),¹⁰³ while the bulk of the funding is managed by both the European Commission and the Member States (€5.3 billion).¹⁰⁴ As a general rule, EMFAF funds are only disbursed to operators for measures that contribute to “the achievement of the Union’s environmental objectives and climate change mitigation and adaptation.”¹⁰⁵ Among these measures are animal welfare measures, which are categorized as environmental and animal health protection actions.¹⁰⁶ The EMFAF Regulation further provides performance indicators to evaluate the effectiveness of animal welfare measures.¹⁰⁷

The EMFAF Regulation provides that only aquaculture activities are eligible for fish welfare subsidies.¹⁰⁸ However, Member States can only grant limited subsidies for fish welfare measures because the EMFAF Regulation does not allow Member States to derogate from limitations on state aid rules for fish welfare reasons, whereas Member States can derogate from such rules for measures concerning health, safety, and working conditions on board fishing vessels.¹⁰⁹ There is, therefore, inconsistency between the stated objective of promoting animal welfare in the Farm-to-Fork Strategy and the implementation of animal welfare measures in the EMFAF Regulation.

3.3. Regulation 1379/2013 on the Common Organization of the Markets in Fishery and Aquaculture Products

Regulation 1379/2013 lists “standards relating to professional organisations, marketing standards, consumer information competition rules and market intelligence.”¹¹⁰ As such, the scope of this regulation covers all fishery and aquaculture products,¹¹¹ including live fish. One of the objectives of this regulation is to ensure that “aquaculture activities are environmentally sustainable in the long-term.”¹¹² Although none of the three CFP regulations provides a definition of what constitutes a sustainable activity, Regulation 1379/2013 encourages producers to “promot[e] sustainable aquaculture activities, notably in terms of environmental protection, animal health and animal welfare”¹¹³ However, this regulation does not contain any specific provision requiring operators to uphold standards that improve the treatment of farmed fish.



4. Fish Welfare in EU Animal Health Law

- 114 Article 1, Regulation 2016/429 on Transmissible Animal Diseases and Repealing Certain Acts in the Field of Animal Health ("Animal Health Law"), 2016 OJ 84/24.
- 115 Article 172, Regulation 2016/429, 2016 OJ 84/116.
- 116 Regulation 2020/691 Supplementing Regulation 2016/429, 2020, OJ L 174/345-378.
- 117 Article 181, Regulation 2016/429, 2016 OJ L 84/121.
- 118 European Commission, A European One Health Action Plan Against Antimicrobial Resistance (AMR) (2017) available online: https://health.ec.europa.eu/system/files/2020-01/amr_2017_action-plan_o.pdf
- 119 Regulation 2019/4 on the Manufacture, Placing on the Market and Use Of Medicated Feed, 2019 OJ L 4/1-23.
- 120 Regulation 2019/6 on Veterinary Medicinal Products, 2019 OJ L 4/43-167.
- 121 Alice Di Concetto and Grace Martin, *Resisting Antimicrobial Resistance: Regulating the Use of Antibiotics in EU Animal Agriculture*, The European Institute for Animal Law & Policy and Jeremy Collier Foundation (2022).
- 122 Article 107, Regulation 2019/6 on Veterinary Medicinal Products, 2019 OJ L 4/43-167.
- 123 Alice Di Concetto and Grace Martin, *Regulating the Use of Antibiotics in EU Animal Agriculture*, The European Institute for Animal Law & Policy and Jeremy Collier Foundation (2022).
- 124 *Ibid.*
- 125 *Ibid.*

To the extent that animal health is one of the components of animal welfare, health regulations can provide standards beneficial to fish welfare. Regulation 2016/429 (Animal Health Law), which applies to all vertebrate and invertebrate animals,¹¹⁴ requires all aquaculture establishments and transporters of aquatic animals to be registered.¹¹⁵ The rules that producers and transporters must comply with before they can register are further listed in Delegated Regulation 2020/691.¹¹⁶ Among their obligations, aquaculture operators must demonstrate that they implement disease surveillance, prevention, and control measures on their farms. Similarly, the competent authorities may only grant approval to operators who have adequate infrastructure to maintain a low health risk, taking into account the species and number of animals kept.¹¹⁷ Even though these rules do not directly aim to protect animals on aqua farms, they may benefit these animals insofar as the rules limit practices that put the health of such animals at risk.

The EU has adopted additional rules limiting the use of antibiotics, including in aquaculture, as part of the EU's commitment to fight antimicrobial resistance.¹¹⁸ Two regulations govern the use of antibiotics in aquaculture: Regulation 2019/4¹¹⁹ on the manufacture, placing on the market, and use of medicated feed, and Regulation 2019/6¹²⁰ on veterinary medicinal products. Both regulations aim to restrict the use of antibiotics to cases where they are strictly necessary. However, the effects of these rules have been limited.¹²¹ A first limitation is that these rules simply caution that the systematic use of antimicrobials must be avoided¹²² but without specifying quantifiable limits on the use of antimicrobials.¹²³ For this reason, and because the development of disease is commonplace on aquafarms, producers can easily justify the use of antimicrobials.¹²⁴ Furthermore, the distinction between preventive use and use to promote animal growth is not always well defined in these regulations.¹²⁵



5. Fish Welfare Standards in Regulation 2018/848 on Organic Production

¹²⁶ Article 4 (e), Regulation 2018/848 on Organic Production and Labelling of Organic Products, 2018 OJ L 150/22. See also: Alice Di Concetto, Eugénie Duval, Benjamin Lecorps, *Animal Welfare Standards in the EU Organic Certification*, The European Institute for Animal Law & Policy (2022); Alice Di Concetto, *Farm Animal Welfare and Food Information for EU Consumers: Harmonizing the Regulatory Framework for More Policy Coherence*, European Journal of Risk Regulation (2023).

¹²⁷ Article 2(1), Regulation 2018/848, 2018 OJ L 150/17.

¹²⁸ Annex II, Commission Implementing Regulation (EU) 2020/464 of 26 March 2020 Laying Down Certain Detailed Rules for the Implementation of Regulation (EU) 2018/848 as regards the documents necessary for the retroactive recognition of conversion periods, the production of organic products and the information communicated by the Member States, OJ L 98/21 – 22.

¹²⁹ Annex II, Part 3, Point 3.1.2.1(a) and (b), Regulation 2018/848, 2018 OJ L 150/74.

¹³⁰ Annex II, Part 3, Point 3.1.2.2., Regulation 2018/848, 2018 OJ L 150/74-75.

¹³¹ Annex II, Part 3, Point 3.1.3, Regulation 2018/848, 2018 OJ L 150/75.

¹³² Part II, Annex II, Commission Implementing Regulation 2020/464, OJ L 98/21.

¹³³ Annex II, Part III, Point 3.1.6.9, Regulation 2018/848, 2018 OJ L 150/79.

¹³⁴ Annex II, Part III, Point 3.1.6.8., Regulation 2018/848, 2018 OJ L 150/79.

¹³⁵ Annex II, Part II, Commission Implementing Regulation 2020/464, OJ L 98/21.

¹³⁶ Annex II, Part II, Commission Implementing Regulation 2020/464, OJ L 98/21.

Since the 2007 revision of organic rules, “contributing to high animal welfare standards and, in particular, to meeting the species-specific behavioural needs of animals” has become a general objective of the EU organic label.¹²⁶ The 2007 revision of organic rules also extended the scope of the organic label to encompass all “products originating from agriculture, including aquaculture [...]”,¹²⁷ even though the 2007 Organic Regulation did not provide any specific production standards for aquaculture products.

The 2018 revision of organic rules remedied this shortcoming, and the 2018 Organic Regulation (Regulation 2018/848) now includes fish welfare standards for certain species, including salmonids, cod, sea bass, eels, sturgeon, and carp.¹²⁸ These standards apply to the entire life cycle of the animals, from breed origin to slaughter. Regarding the origin of animals, Regulation 2018/848 lays down a general principle of using “locally-grown” and “robust” species so as to guarantee “good animal health and welfare.”¹²⁹ The Regulation also requires producers to use natural reproduction methods, and prohibits the use of hormonal treatments.¹³⁰ Similarly, animal feed must be adapted to their physiological needs, and the use of synthetic growth promoters and synthetic proteins is prohibited.¹³¹ Species-specific standards further limit stocking densities on organic aquafarms. For example, the maximum stocking density is set at 10 kilograms per cubic metre for sea-water salmon.¹³² Lastly, “slaughter techniques shall render fish immediately unconscious and insensible to pain.”¹³³

Regulation 2018/848 further contains species-specific standards for crustaceans and molluscs, such as prohibiting eyestalk ablation,¹³⁴ setting stocking density limits for penaeid shrimp,¹³⁵ and requiring enrichment for adult crayfish, providing them with hiding spots.¹³⁶ While these standards are welcome additions compared to the 2007 Organic Regulation, species-specific standards for crustaceans and molluscs are not exhaustive and so are inadequate to limit animal welfare risks.

In fact, the vast majority of organic aquaculture standards for aquatic animals lack specificity, relying heavily on vague and generic terms. For example, the regulation requires the use of feed “that meets the animals’

- 137 Annex II, Part III, Point 3.1.3.1. (a), Commission Implementing Regulation 2020/464, OJ L 150/75.
- 138 Annex II, Part III, Point 3.1.5.3. (c), Commission Implementing Regulation 2020/464, OJ L 150/78.
- 139 Annex II, Part III, Point 3.1.6.6., Regulation 2018/848, 2018 OJ L 150/79.
- 140 Annex II, Part III, Point 3.1.6.9., Regulation 2018/848, 2018 OJ L 150/79.
- 141 ASC Freshwater Trout Standard, version 1.2, July 2019, available online: https://www.asc-aqua.org/wp-content/uploads/2019/09/ASC-Freshwater-Trout-Standard_v1.2_Final.pdf
- 142 Pillar 4 Animal Health and Welfare, "Best Aquaculture Practices Certification Standards, Implementation Guidelines," p.54, available online: <https://french.bapcertification.org/Downloadables/pdf/BAP%20-%20BAP%20Farm%20Standard%20-%20Issue%203.1%20-%2007-February-2023.pdf>
- 143 *Ibid.* p. 157.
- 144 3-Infrastructures, friend of the sea specifications, available online: https://friendofthesea.org/wp-content/uploads/FOS_Aquaculture_Marine_rev2_03112014_en.pdf
- 145 6-GMOs and growth hormones, *ibid.*
- 146 8-Management of waters and wastewaters, *ibid.*

nutritional requirements at the various stages of its development,¹³⁷ but provides no specification as to the composition of feed according to the species and age. Similarly, with regard to the husbandry environment, the regulation requires that animals must be "kept in temperature and light conditions in accordance with the requirements of the species and having regard to the geographic location"¹³⁸ but contains no specifications regarding water temperature or luminosity in the tanks. This lack of precision in the standards of the Organic Regulation is problematic both from an animal welfare and a competitive point of view, since such vagueness in the text leaves it open to differing interpretations by operators and Member States, thereby resulting in a lack of effectiveness and harmonization.

Another limitation of the Organic Regulation is that it does not cover all production phases in its scope. There are no specific standards for transport operations, such as limits on journey times, stocking density during transport, handling rules during loading and unloading operations, or requirements relating to animal fitness for transport. Instead, the Regulation merely provides that "[a]ppropriate measures shall be taken to keep the duration of the transport of aquaculture animals to a minimum."¹³⁹ Lastly, despite the general obligation to stun animals, slaughter standards are unspecified.¹⁴⁰

There exist other voluntary standards than the EU organic label, including those contained in private certifications. Aquaculture Stewardship Council (ASC), Global Aquaculture Alliance (GAA) and Friend of the Sea labels are the most common on the EU market, and all three promote sustainable and environmentally-friendly aquaculture. Although animal protection is not the main objective of these labels, some of their specifications include animal welfare standards, or standards that benefit animals indirectly. For instance, the ASC label requires producers to comply with limits on the use of wild fishmeal, requirements for pond water treatment, implementation of biosecurity measures on farms to prevent the contamination of wildlife, all of which are standards that also benefit the welfare of farmed fishes. Other ASC standards benefit animal welfare more directly, such as standards on water quality parameters for freshwater trout, including maximum and minimum levels for phosphorus, nitrogen, and oxygen.¹⁴¹ Similarly, the GAA label has a good practice guide, which includes specific animal welfare measures on water quality, slaughter methods, and lower-stress handling methods.¹⁴² The guide also requires producers to undergo audits assessing fish welfare indicators, such as feeding behavior and swimming behavior, and evaluating handling operations.¹⁴³ Lastly, the Friend of the Sea label, which does not include specific animal welfare standards, includes specifications relating to the treatment of animals. For example, certified marine aquafarms must have a mortality rate of less than 0.5%,¹⁴⁴ are prohibited from using growth hormones,¹⁴⁵ and must comply with strict water quality standards.¹⁴⁶

The effectiveness of food labels in improving the treatment of aquatic animals, and animals in general, has yet to be demonstrated. The main limitations with food labels are due to enforcement gaps in ensuring that such labels, particularly private food labels, provide accurate and

147 European Court of Auditors, Special Report 23/2024: Food Labelling in the EU Consumers Get Lost in the Maze of Labels, p.42 (2024).

148 On this topic, see Alice Di Concetto, *Food Labeling and Animal Welfare*, The European Institute for Animal Law & Policy (2021), Alice Di Concetto and Aude-Solveig Epstein, *EU Consumer Information as a Tool to Regulate the Treatment of Farm Animals: Potential and Limits*, European Journal of Consumer Law (2023), Alice Di Concetto, *Farm Animal Welfare and Food Information for EU Consumers: Harmonizing the Regulatory Framework for More Policy Coherence*, European Journal of Risk Regulation (1/2023).

149 *Ibid.*

transparent information to consumers. In a report published in 2024, the European Court of Auditors underscored that “the reliability of voluntary labels is not satisfactorily monitored” by Member States,¹⁴⁷ thus presenting risks of misleading consumers into thinking that a product is more sustainable than it actually is.¹⁴⁸ The proliferation of labels and ethically appealing claims have also led to significant risks in confusing consumers.¹⁴⁹ Lastly, there has been no evidence that transparency in consumer information influences consumer habits, which appear to be driven mainly by price considerations. However, voluntary standards are effective in disseminating good practices among producers in a way that often forms the basis for future legislation.



We Animals / Andrew Skowron. Poland, 2018.

Conclusion

150 Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on a new approach for a sustainable blue economy in the European Union, "Transforming The EU Blue Economy For A Sustainable Future", COM/2021/240 final.

EU legislation takes insufficient account of farmed fish welfare. EU legislation on the welfare of farmed animals only partially includes fish in its scope, and it makes no provision for special standards to ensure their protection. Although the regulations making up the Common Fisheries Policy provide for a form of subsidy to encourage Member States and operators to adopt measures beneficial to fish, this subsidy suffers from significant limitations and is therefore insufficiently implemented. The forthcoming publication of EFSA's scientific opinions, and the adoption of precise voluntary standards by the organic fish farming sector, should lead to an update of the EU's legislative and regulatory framework for fish farm welfare.

In addition, failing the implementation of the Farm-to-Fork Strategy – which the European Commission appears to have abandoned – it is essential that the European Commission's ambitions for the development of a sustainable maritime economy¹⁵⁰ encourage a reduction in production volumes of animal products, while promoting the development of plant-based food. From this point of view, cultivating seaweed for human consumption presents a potential source of nutrient-rich food.

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This document also includes contributions from Pauline Koczorowski and Gabriela Kubíková.



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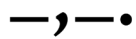
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