The treatment of trout at slaughter

The need for species-specific legislation for farmed fish at the time of killing

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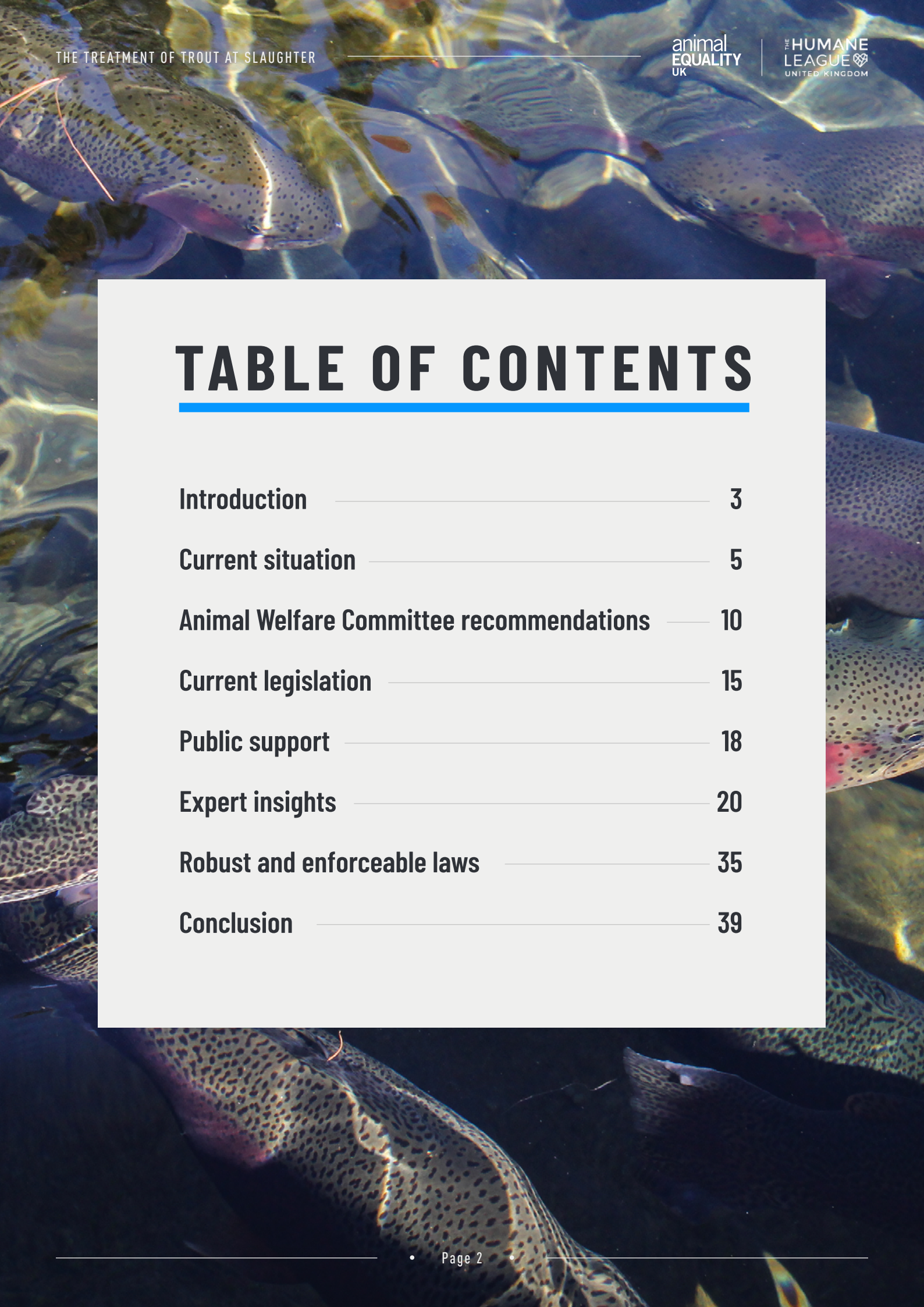

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Introduction

There is scientific consensus that fish feel pain, alongside other emotions.

As public attitude and scientific evidence evolves, legislation should be updated to reflect this.

Approximately 77 million fish are farmed and slaughtered each year in the UK, with tens of millions of these being rainbow trout.

Although farmed fish are given some basic protections under UK laws, including requiring that their needs are met and that prolonged and unnecessary pain and suffering is avoided, these laws lack detailed requirements.

While enforcement is often demonstrably problematic, farmed land animals are nevertheless at least afforded legal protections at slaughter. There is no rational reason for this legal disparity - farmed fish are sentient and deserving of the same too.

The absence of meaningful, detailed regulations risks leaving farmed fish especially vulnerable in their final moments of life and investigations have repeatedly evidenced fish welfare being severely compromised as a result.

Without this essential species-specific legislation, there is a lack of legal clarity and there will always be ambiguity in enforcing compliance in salmon abattoirs. Farmed fish deserve effective and enforceable laws.

The detailed proposals within this report follow multiple recommendations from the Government's own expert advisory body, the Animal Welfare Committee. The Animal Welfare Committee was commissioned by the UK Government to update its Opinion on the welfare of fish at the time of killing, and provided a range of sensible and reasonable recommendations, including:

- Mandatory stunning at slaughter;
- CCTV in fish abattoirs;
- Increased oversight and inspections;
- Greater transparency around on-farm mortalities;
- Penalties for legal non-compliance.

Introduction

This report has sparked discussions in English and Scottish Parliaments and received cross-sector support across industry, retail, lawyers, scientific experts and animal advocacy organisations.

It is unjust that farmed fish are not given these basic legal protections at slaughter.

For too long fish have been forgotten. Policy-makers must act on their expert advice and close this legislative gap.

1. Current situation

About trout

British farming of trout almost exclusively uses American migratory rainbow trout, rather than native brown trout.

Trout are poikilothermic, meaning their metabolic rate is affected by the water temperature, so the warmer the water, the faster the trout consume oxygen in the water, and the faster the water flow is required to be. In order to keep dissolved oxygen levels within the recommended range (8 mg/l) - crowding in the cages (referred to as 'stocking densities') are lowered to accommodate water temperature and flow-through.

The carrying capacity of river-based trout farms are determined by the rate of water replacement, and consist of a series of tanks, raceways, and ponds, which are gravity-fed. This means that trout farms are more limited than other finfish farms by biotic processes, though salmon-style farming pens are used in lochs and brackish water sites.

Trout farming: slaughter statistics

With thanks to Mark Borthwick for his support in compiling this information. Mark is an innovative aquaculture specialist and OOCDTP doctoral fellow focusing on on-farm behaviour change in salmon farming. He was formerly Head of Research at the Aquatic Life Institute, and has contributed to fish welfare legislation in a number of policy environments, including the UK All-Party Parliamentary Group for Animal Welfare, Holyrood, the Biden Administration, Global GAP, and the European Commission.

How many farms?

Trout farms tend to be located in the North of England, Southern England and Southern Scotland.

The British Trout Association (BTA) states that **the UK has 'almost 290 trout farms'**[1], a typology which contains hatcheries. A 2006 study identified 295 trout farmers to survey (North et al., 2006), while a 2015 newspaper article claims there are 350 licensed sites (Orrego, 2015).

Finding precise numbers is difficult as each nation has its own regulatory framework and reporting structures, of which Scotland's is the most rigorous. The Fish Health Inspectorate Aquadat database lists Scottish license holders, identifying 770 licenses for trout farming, of which 77 are farms or hatcheries, and the rest are licensed fisheries (FHI, 2024). 49 of these licenses are for housing adult trout (i.e. not ova or growing-on young fish), of which 30 were actively farming in 2023 (Scottish Government, 2024, p. 14).

1 https://britishtrout.co.uk/about-trout/trout-farming/

The 2023 fish farm production survey lists Scottish trout production at 9,258,000kg - the largest number of trout slaughtered recorded in Scotland (Scottish Government, 2024). Combining this with the BTA statistics, **we estimate that these 30 farms are responsible for farming 54% of the UK's trout by mass.**

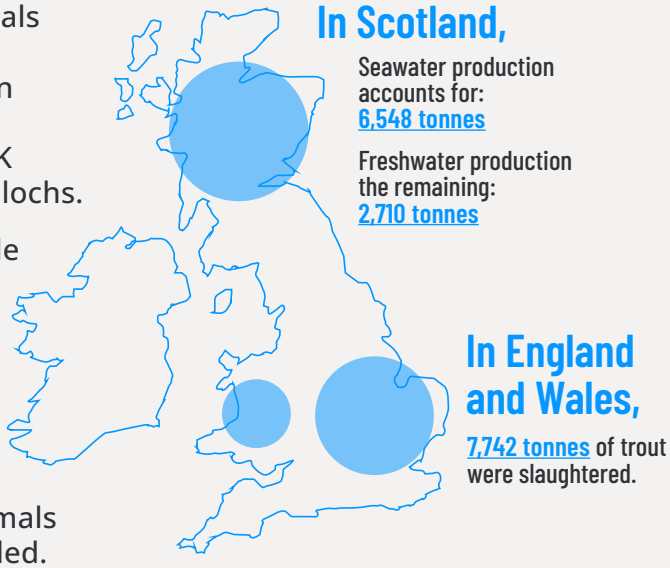
How many animals?

The British Trout Association reports a total of **17,000 tonnes[2] of farmed trout slaughtered across Britain annually.**

In Scotland, publicly reported data reveals that seawater production accounts for 6,548 tonnes and freshwater production the remaining 2,710 tonnes[3]. Nearly all of the trout flesh available for sale in UK supermarkets comes from Scottish sea lochs.

There are no up-to-date figures available for England and Wales, but based on this Scottish information available, we can make an educated guess that 7,742 tonnes of trout were slaughtered in England and Wales.

As animal advocates, we are not in the habit of discussing slaughtered animals in tonnage, but rather as individuals killed.



This is a view held by the AWC also, whose Opinion noted: *'It is recommended that bodies producing UK statistics should consider additional data collection on, or estimation of, the number of individual finfish farmed in the UK.'*

The vast increase in size across the trout life-cycle, however, means that in order to estimate the number of individuals caged and killed we have to determine how many trout are harvested at different weights. Farmed trout for human consumption are either killed at a weight of 250-500g[4], or at 3kg[5].

Historically, smaller fish were slaughtered in the UK, but over recent years the industry has shifted to slaughtering larger fish for an increased profit (Orrego, 2015)[6]. This is an approach taken by larger companies such as Dawnfresh, rather than the smaller trout farmers.

To estimate the number of trout involved assumes that 25% of the production by mass is production trout at 3kg, and 75% is at 350g. Assuming the other 45% of the British trout industry matches this demographic, **approximately 20 million trout are slaughtered for human consumption each year.**

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2 https://britishtrout.co.uk/about-trout/trout-farming/#:~:text=Around%2017%2C000%20tonnes%20of%20Rainbow,aspects%20of%20the%20life%20cycle.

3 https://www.gov.scot/publications/scottish-fish-farm-production-survey-2023/pages/3/

4 https://www.fao.org/4/i2125e/i2125e.pdf

5 https://thefishsite.com/articles/cultured-aquaculture-species-rainbow-trout

6 https://www.fishfarmingexpert.com/repositioning-british-trout-in-the-market-place/1308382

A trout of 350g would be killed when they reach circa 16 months of age (Woynarovich, Hoitsy and Moth-Poulsen, 2011, pp. 11–12)[7]. Additional fish will die on farms, but data on these deaths is limited.

Almost all of the UK trout flesh available for sale have come from farms; sales of wild-caught fish is not typically permitted, in order to protect wild stocks.

How do they die?

There is a concerning lack of information and data available on the slaughter methods imposed upon these animals.

The latest trout production survey issued by the Government agency: Centre for Environment, Fisheries and Aquaculture Science (CEFAS), is over two decades old, thus offering little insight into current slaughter and handling practices for farmed trout.

In its 2014 Opinion[8] on the welfare of farmed fish at the time of killing, The Farm Animal Welfare Committee (now known as the AWC) stated: *'Smaller trout are generally either pumped or channelled to the killing equipment on farm, though on occasion they are moved by road to off-farm killing facilities.'*[9] It is difficult to discern whether this is indeed still the case.

Extracts from various Fish Health Inspectorate inspection reports[10] occasionally mention 'harvesting', i.e. slaughter. The larger seawater farms appear to primarily be using deadhaul boats which slaughter the fish onboard. For example:

- Ardnish (seawater), 2024: 'Been using the Nova Scotia (deadhaul) boat recently but this cycle they might use the harvesting equipment on shore.'[11]
- Kames Bay West (seawater), 2024: 'Any future harvests on site will occur via a new boat (deadhaul) and landed on pier.'[12]
- Braevallich Farm (large freshwater loch), 2022: 'During harvest, harvest pens are tied to a temporary mooring, about 20-30 ft from the shore. The nets are sowed [sic] onto the handrail via a rolling knot. 40 tonnes of fish were harvested out over the last month, and two cages were emptied 2 weeks prior.[13]'
- Loch Earn (small freshwater loch), 2023: 'Harvesting - pens towed to pier and bled and stunned into harvest bins'[14] and 2020: 'Harvests; Culled percussively - SI7 stunner/ bleeder.'[15]

7 https://www.fao.org/4/ap340e/ap340e.pdf

8 https://assets.publishing.service.gov.uk/media/5a7eb32340f0b62305b829c4/Opinion_on_the_welfare_of_farmed_fish_at_the_time_of_killing.pdf

9 https://assets.publishing.service.gov.uk/media/5a7eb32340f0b62305b829c4/Opinion_on_the_welfare_of_farmed_fish_at_the_time_of_killing.pdf

10 https://www.gov.scot/collections/publication-of-fish-health-inspectorate-information/

11 https://storage.googleapis.com/inspection_case_information/2024-0100_FS0249.pdf

12 https://storage.googleapis.com/inspection_case_information/2023-0027_FS0271.pdf

13 https://storage.googleapis.com/inspection_case_information/2022-0083_FS0260.pdf

14 https://storage.googleapis.com/inspection_case_information/2023-0453_FS0180.pdf

15 https://storage.googleapis.com/inspection_case_information/2020-0005_FS0180.pdf

- Kames Bay East (seawater), 2022: 'Pens are towed from both Shuna and Kames Bay (west). Generally, the pens are towed from Kames Bay (west); pens from Shuna are usually towed depending how quickly it needs harvested [sic]. Towing usually occurs at 0.5 knots, and takes ~4 hours to reach the site. Kames Bay (east) can be seen as the harvesting station, where pens come to get harvested'.[16]
- Tervine (large freshwater loch), 2022: 'Fish are pumped onto a raft which features the stunner machinery. Fish are stunned and then collected in harvest bins. Any bloodwater is contained by a deep tray below the harvest machinery'.[17]

Change is needed

Without meaningful, prescriptive and enforceable legislation, millions of trout trapped in the system are vulnerable to extensive suffering in their final moments of life.

As public interest in the welfare of aquatic animals skyrockets, major retailers are responding and demanding more from companies within their supply chains. In February 2025, Waitrose publicly committed to introducing electrical stunning for farmed prawns[18]. It's time that the devolved UK governments recognise the need for all farmed fish to also have these protections in place and lock them firmly into law.

16 https://storage.googleapis.com/inspection_case_information/2022-0347_FS0462.pdf

17 https://storage.googleapis.com/inspection_case_information/2022-0065_FS0268.pdf

18 https://www.theguardian.com/world/2025/feb/15/prawn-farming-cruelty-electrical-stunning-waitrose

2.

Animal Welfare Committee recommendations

Government Advisory Body Recommendations

Animal Welfare Committee calls for action

In February 2023 the Animal Welfare Committee (AWC) – an independent and impartial advisory body to the UK, Scottish and Welsh governments, comprising a number of the UK's leading academics – shared detailed recommendations for farmed fish legislation at the time of killing. This report was actively commissioned by the UK Government and built on similar opinions released in 1996 and 2014.

For nearly three decades farmed fish have been waiting for this expert advice to be acted upon.

Animal Equality UK, The Humane League UK and 13 other stakeholders took part in shaping the latest AWC recommendations, which consists of over 100 proposals for policy-makers.

The AWC proposes a number of specific recommendations, relevant to farmed trout and other fish, that policy-makers must take heed of. Such recommendations include:

Stunning at slaughter

- All farmed fish must be stunned before killing, whether or not death accompanies the stun (as in stun/kill methods) or follows a short time after the stun but before the fish has the time to regain consciousness. Government should legislate to ensure that stunning of farmed fish takes place in water or immediately after removal from water. A back-up stunning process must be available.
- Emergency killing, including where automated stunning or other methods fail, should not be by methods considered inhumane at other times. A backup method of manual stunning, such as a priest, must be available in the killing facility.
- Pharmaceutical methods of killing should take account of dosage, exposure time, size and weight of fish, water temperature and other relevant factors to ensure a rapid and effective kill.
- For killing procedures that require it, the time from removal of the fish from water to unconsciousness and killing should be kept to a minimum.
- Water quality should be monitored regularly and recorded and should be maintained at acceptable levels during the transport of fish.
- Transfer to the killing facility should be by a method and at an appropriate rate to avoid stress and injury but also to prevent delay prior to killing, especially if fish

are (partially) out of water.

- Operators should ensure that transfer of farmed fish to the slaughter facility should be in water and that the water quality and oxygen concentration should be monitored and maintained at sufficient levels to prevent stress.
- Operators should ensure that, where farmed fish are pumped to slaughter facilities, pumping pressure and flow rates are constantly monitored, with communications maintained between those controlling the pumping operation and the slaughter point.
- AWC recommends that consideration should be given to stipulating a maximum number of crowding occasions for each group of farmed fish.

The AWC explicitly condemns fast and slow chilling in iced water, asphyxiation, CO_2 saturated water and cutting of gills in conscious fish, considering them inhumane. It recommends that these practices are made illegal.

Training

- All personnel involved with slaughter or killing must be trained, competent and aware of their duty of care.
  - Industry should ensure that those involved in the gathering, handling, slaughter and killing of farmed fish are suitably trained to perform their duties competently and with care in accordance with the regulations. Those responsible for slaughter and killing should be able to recognise the signs of ineffective electrical or percussive stunning.
  - Operators killing fish should be able to demonstrate that the key parameters identified in the AWC Opinion (including tables 1-6 - see AWC Opinion) are properly considered and applied.
- Operators should be trained to recognise the signs of ineffective percussive or electrical stunning.
- Fish farms and other sites killing fish should appoint a suitable person to be responsible for animal welfare.
- Operators should ensure that oxygen levels are monitored during crowding and supplemental oxygen delivered if necessary. Operators should be trained to recognise farmed fish density and stress responses, so that this can be balanced with efficiency of fish capture/ treatment and duration of crowding.

The AWC also pays close attention to the enforcement of such measures, namely through increased oversight and industry scrutiny. Such suggestions include:

Inspections

- When legislation is made defining the standards required during the gathering, handling, slaughter or killing of farmed finfish, it will be necessary to have inspection systems in place that can identify non-compliance with those regulatory standards.
- Auditing for compliance with voluntary codes and assurance standards should be carried out by suitably trained personnel.

Mandatory CCTV

- Data from internal professional audits could be shared to reduce the burden of additional inspections. Inspections by the competent authorities should be carried out by trained personnel and should, where possible, use technology such as CCTV monitoring.
- Government should require CCTV to be used at farmed fish slaughter sites, with recordings kept for 90 days and available to inspectors.

Transparency

- Bodies producing UK statistics should consider additional data collection on, or estimation of, the number of individual finfish farmed in the UK. This could include the number of fish that reach slaughter weight and the number of fish that die or are culled.

Accountability

- Fish farms should have a contingency plan in place which has been tested and must include provisions for the loss or malfunction of equipment, disease outbreak or invasion by predators.

The AWC also puts forward the idea that increased research is required, stating:

- Research effort should be applied to: identifying feed withdrawal limits that balance the welfare impacts of hunger/habituation to feeding and reduction in metabolism; and detecting, retrieving and killing sick and moribund fish. a. Feed withdrawal should be calculated by industry in degree days to take account of the temperature-dependent metabolism of farmed fish as cold blooded animals.
- Further research, supported by government and industry, is required to establish the potential for recovery after electrical stunning that fails to induce cardiac arrest and whether a defined maximum stun to bleeding interval is required.

- Industry and standards providers should ensure that voluntary codes of practice and assurance standards are reviewed regularly and updated as the knowledge of fish welfare develops through scientific research.

For the full Opinion, please visit: https://assets.publishing.service.gov.uk/media/65ea176c5b652445f6f21a73/Update_to_2014_FAWC_Opinion_on_the_welfare_of_farmed_fish_at_the_time_of_killing.pdf

Make the legislation count for animals

Animal Equality UK, The Humane League UK, and dozens of fellow NGOs and animal advocacy organisations support the AWC's proposals and encourage policy-makers across the devolved nations to enact prescriptive legislation with detailed parameters.

Legislation must act as a go-to guide for those on the ground or on water, to truly comprehend what is expected of them when handling or slaughtering animals in their final moments of life. For example, we expect to see an outline of the exact voltages permitted when workers are employing electrical stunning equipment and other such specifications in law, so there can be no misinterpretation. An animal's real-life experience rests on the clarity of such details.

Introducing a Code of Good Practice or Official Guidance is a good step in the right direction, but formal legislation is an absolute necessity if producers are to be properly held accountable and non-compliances are to be detected and deterred.

3.

Current legislation

The laws are lacking

Since fish are not included in the definition of 'animal' for the purpose of more detailed legal provisions in the UK, there are no species-specific requirements provided in law.

As a result, no detailed, nor prescriptive, parameters are provided on how they should be delivered, handled, stunned, or slaughtered. They have general protection under 'Welfare at the Time of Killing' regulations, as well as the Animal Welfare Act and the Animal Health and Welfare (Scotland) Act, but **without detailed provisions the current law is at real risk of misinterpretation.**

The UK regulatory standards are severely lacking and increasingly falling behind those internationally. Countries requiring effective stunning at slaughter include Norway, the Netherlands, Germany, and New Zealand, among others.

Growing interest in fish welfare

More and more influential individuals, politicians, and ministers are turning their attention to farmed fish welfare, recognising that they have an opportunity to leave a lasting legacy and better protect millions of animals annually in law.

In 2022, fish welfare was debated in the UK Parliament for the first time ever. The event was chaired by working peer Lord Trees, former President of the Royal College of Veterinary Surgeons, and speakers included industry figures, veterinarians and animal advocates.[1]

1 https://www.thegrocer.co.uk/news/fish-welfare-debated-by-uk-parliament-for-first-time/669594.article

and animal advocates united in Parliament[2] to discuss the need for the UK Governments to enact species-specific legislation for farmed fish at the time of slaughter, following the Animal Welfare Committee's published recommendations. The event brought together figures from Waitrose, the British Trout Association, the RSPCA, Foods Connected and more, and was attended by cross-party Members of Parliament.

In 2025, a Scottish Parliamentary reception put fish welfare on the agenda[3]. Hosted by Christine Grahame MSP, the event addressed the need for farmed fish to be afforded increased legislation at slaughter and sparked a lengthy discussion among MSPs, industry, lawyers, and animal advocates.

Attitudes towards farmed fish are changing, inside and outside of Parliament. Now it's time for the laws to change too.

2 https://www.thegrocer.co.uk/news/campaigners-and-sector-agree-on-need-for-tighter-farmed-fish-slaughter-laws/687484.article

3 https://www.foodmanufacture.co.uk/Article/2025/01/23/farmed-fish-welfare-put-on-the-agenda-in-scotland/

4.

Public support

Strength of feeling

It is evident that species-specific legislation for fish is a popular policy amongst the British public, and this strength of feeling is only getting stronger.

In 2021, The Humane League UK commissioned a YouGov poll to understand what the public thinks about fishes' ability to feel pain, their welfare, and their current level of legal protection.

Over 2,000 British adults were surveyed and the results found that:

71%

agreed that farmed fish should have the same legal protection at slaughter as pigs, chickens and cows

59%

of people who buy fish flesh products agreed that fish welfare was important to them

28%

of people agreed that the fish farming industry could be trusted to regulate itself without legislation

More recently, in Autumn 2024, animal protection organisations Compassion in World Farming and Eurogroup for Animals commissioned public opinion polling of over 1,000 people in the UK which highlighted the strength of support amongst UK citizens for farmed fish.

85%

of the people polled believe that fish welfare should be protected to the same or greater extent as other farmed animals

84%

of UK people polled were supportive of legislation that promotes best practices and the latest science to meet the welfare needs of farmed aquatic animals

On slaughter specifically, the poll found that:

70%

of people believe legislation should require farmers to stun aquatic animals before slaughter

In addition to the recent opinion polling, at the time of publishing this report, The Humane League UK and Animal Equality UK have garnered over 37,000 signatures on their online petitions calling on the UK Government to enact species-specific legislation for farmed fish at the time of killing.

As a nation of animal lovers we expect our laws to provide a robust and enforceable framework to better protect farmed animals.

Recent polling in 2024 suggests that our love for aquatic animals is only getting stronger, so it is in the UK Government's interest to make species-specific legislation for farmed fish a high priority.

5.

Expert insights

'Problem': Key welfare issues

Trout Slaughter in the UK

The process of slaughter represents a critical welfare concern, often involving one of the most acute pain, fear, stress and distress farmed rainbow trout experiences throughout their lives. **Different welfare issues can arise throughout the stages of slaughter, and outcomes may vary substantially across farms, especially in the UK, where facilities are generally in smallholder farms with widely variable protocols**. From initial fasting through crowding, transfer, and transport, to the final stunning and killing procedure, each stage presents distinct welfare challenges, which often have spillover effects to later stages of slaughter. Pre-slaughter procedures alone can significantly affect welfare, making a comprehensive assessment of the entire slaughter process crucial for implementing effective improvements.

While most research on fish welfare at this stage focuses on the Atlantic salmon rather than rainbow trout specifically, given the lack of publicly available information for rainbow trout, we assume that physiological impacts from pre-slaughter and slaughter processes are approximately similar across these closely related species.

Fasting

Fasting or feed withdrawal is performed prior to slaughter with the goal of lowering metabolic rate and emptying the gut of waste material. This practice reduces oxygen demand and waste production, both of which would otherwise degrade water quality and compromise welfare in later stages[1]. While wild rainbow trout are accustomed to periods of fasting as adults, farmed trout are fed at regular intervals, and therefore will experience hunger and discomfort from fasting[2]. As the most basic cornerstone of good welfare, hunger in itself should be minimised prior to slaughter[3].

The physiological impact of fasting in farmed trout is well documented[4-5]. However, the effects of this on trout welfare and their subjective state is less understood. Appetite regulation in fishes involves complex gut-brain signaling pathways, and research shows that feed restriction specifically in farmed fishes can trigger hunger and stress responses.

Two key problems from fasting have been identified: First, it destabilises social dynamics, leading to aggressive behaviour between individuals that

1 Ashley, Paul J. "Fish welfare: current issues in aquaculture." Applied Animal Behaviour Science 104, no. 3-4 (2007): 199-235.

2 Johnsson, Jörgen I., Elisabeth Jönsson, and Björn Th Björnsson. "Dominance, nutritional state, and growth hormone levels in rainbow trout (Oncorhynchus mykiss)." Hormones and Behavior 30, no. 1 (1996): 13-21.

3 Webster, John. "A cool eye towards Eden." Animal Welfare. Oxford, UK: Blackwell Science, UK (1994).

4 López-Luna, Javier, Ruben Bermejo-Poza, Fernando Torrent Bravo, and Morris Villarroel. "Effect of degree-days of fasting stress on rainbow trout, Oncorhynchus mykiss." Aquaculture 462 (2016): 109-114.

5 Bermejo-Poza, Rubén, Jesús De la Fuente, Concepción Pérez, Elisabet González de Chavarri, María Teresa Diaz, Fernando Torrent, and Morris Villarroel. "Determination of optimal degree days of fasting before slaughter in rainbow trout (Oncorhynchus mykiss)." Aquaculture 473 (2017): 272-277.

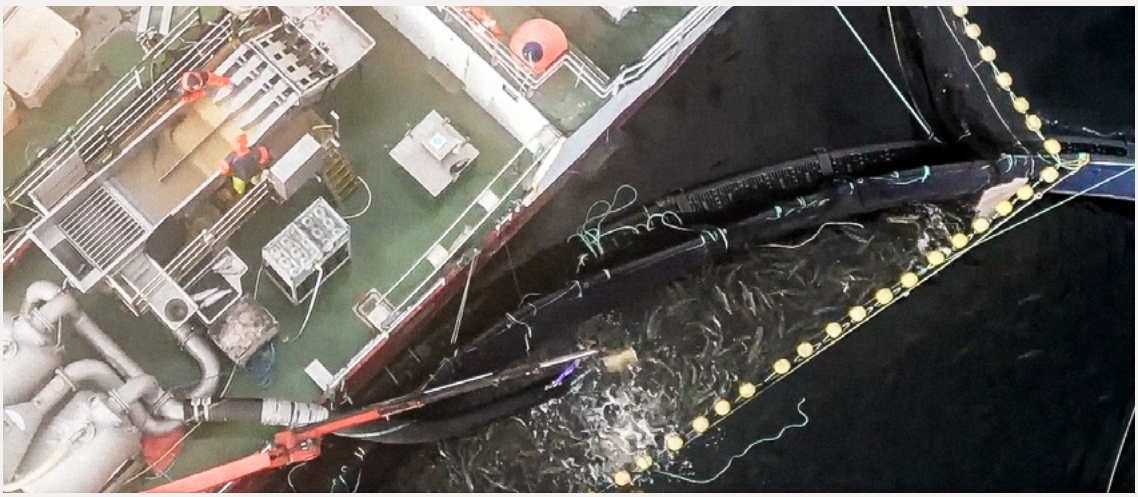
causes injuries such as fin damage[6]. Second, it may compound the stress of subsequent procedures like crowding and pumping which creates additional difficulties during stunning.

Key issues:

Balancing improved water quality at subsequent stages of slaughter with negative consequences, including hunger and aggression.

Crowding

Crowding artificially increases the density of individuals in a confined area to facilitate transfer for slaughter. **These highly dense conditions are unnatural and substantially compromise the animals' behavioural control, creating welfare risks not encountered in their normal environment.**



During crowding, fish experience both immediate and lasting harm. Psychological impacts include acute stress and fear, while physical injuries range from net abrasion, scale loss, fin damage, eye trauma and body wounds. In severe cases, crowding can lead to mortality[7]. The extent of harm depends on multiple controllable factors: confinement duration and density[8], environmental parameters (temperature, oxygen, ammonia levels)[9], and the materials and structure of the confinement space. Poor net design, including the use of abrasive materials and inappropriate shape, can increase the risk of individuals becoming trapped. A shallow rather than deep confinement space can increase the risk of air and light exposure.

6 Cañon Jones, Hernán Alberto, Chris Noble, Børge Damsgård, and Gareth P. Pearce. "Evaluating the effects of a short term feed restriction period on the behavior and welfare of Atlantic salmon, Salmo salar, parr using social network analysis and fin damage." Journal of the World Aquaculture Society 48, no. 1 (2017): 35-45.

7 Merkin, Grigory V., Bjorn Roth, Camilla Gjerstad, Erik Dahl-Paulsen, and Ragnar Nortvedt. "Effect of pre-slaughter procedures on stress responses and some quality parameters in sea-farmed rainbow trout (Oncorhynchus mykiss)." Aquaculture 309, no. 1-4 (2010): 231-235.

8 Merkin et al, "Effect of pre-slaughter procedures on stress responses and some quality parameters in sea-farmed rainbow trout (Oncorhynchus mykiss)."

9 Ashley, "Fish welfare: current issues in aquaculture."

While the RSPCA suggests crowding should be limited to a maximum of two hours before slaughter, these other factors also play a critical role and should be considered[10].

How crowding is managed directly affects stress levels in subsequent slaughter stages. Crowding procedures that result in erratic swimming behaviour, fish lethargy and exhaustion, violent water splashing, surface water 'boiling' with fish activity, water discolouration from blood, or visible scale loss in the water are unacceptable. **Crowding is considered as one of the highest sources of welfare risk to fishes throughout the process of slaughter[11].**

Key issues:

Lack of diligent operational welfare indicators (OWIs) to monitor the crowding procedure and duration

Poor water quality, especially oxygen and temperature

Exposure to highly adverse conditions, including high stocking densities and associated challenges

Transfer (Vacuum pumping, Netting)

Moving fishes from rearing facilities to the point of slaughter varies widely by the type of system used[12]. In the UK, trout are typically pumped or netted from the farm either directly to slaughter on-site, which is preferable for welfare, or to a holding facility where they are transported to the slaughter site. The method used to transfer fishes is associated with varying degrees of welfare impact.

Primary sources of poor welfare from vacuum pumping systems typically result from improper set-up or poor implementation. Pipe set-up can have a major effect on welfare - the height of the pump, abrupt bends, and discrepancy in pipe dimensions relative to fish body sizes has been shown to cause exhaustion, injury, and psychological stress[13]. During use, pumping systems result in physical injury if protocols are not calibrated or performed correctly, including pump speed and vacuum pressure. While netting allows for more fine control, there is also more room for human error and operator fatigue as a source of poor welfare, including crushing, abrasion, collision and suffocation.

Importantly, injuries, exhaustion, and other welfare effects may reduce welfare and result in worse outcomes in later stages. **Moving fish is a major source of welfare risk throughout the process, and because it has cascading effects, properly executing transfers can impact the ease or degree of suffering experienced in later stages.**

10 https://science.rspca.org.uk/documents/d/science/salmon-standards-justification-2024

11 European Food Safety Authority (EFSA). "Species specific welfare aspects of the main systems of stunning and killing of farmed fish: Rainbow Trout." EFSA Journal 7, no. 4 (2009): 1012.

12 Julissa Rojas-Sandoval, "Oncorhynchus mykiss (rainbow trout)," CABI Compendium (January 2022), https://doi.org/10.1079/cabicompendium.71813

13 Espmark, Åsa Maria Olofsdotter, Kjell Øyvind Midling, Jonatan Nilsson, and Odd Børre Humborstad. "Effects of pumping height and repeated pumping in atlantic salmon Salmo salar." (2016).

Key issues:

Poor equipment setup

Lack of personnel with adequate training

Worker fatigue:

Due to the volume of fishes that may need to be transferred, worker fatigue can result in poor oversight and care for the wellbeing of fishes at this stage, which may exacerbate other issues.

Rough handling and emersion (exposure to air leading to suffocation). The European Food Safety Authority (EFSA) recommends that rainbow trout should not be exposed to air for more than 10 seconds[14].

Transport

The duration and method of transport vary substantially based on location and facility setup. On-site slaughter facilities eliminate the need for transport entirely, while off-site facilities require transporting live fish, which can take anywhere from 30 minutes to several hours. Transportation methods include wellboats (vessels with built-in water circulation systems), specialised trucks with oxygenated tanks, or in some cases, towing the entire cage with live fish to the slaughter site.

While modern transport facilities are typically designed to maintain optimal water quality—preventing oxygen depletion, CO_2 accumulation, and ammonia accumulation—failures during transit can lead to severe welfare consequences. Furthermore, minimising water turbulence during transport is also a critical welfare concern. Fish possess a highly sensitive lateral line system that makes them particularly susceptible to stress from turbulent conditions[15]. These can arise from erratic driving, rough weather at sea, or excessive speed, all of which disturb water flow within the transport vessel as fish attempt to maintain their position[16]. Upon arrival, trout may be pumped directly into the slaughter system or transferred to holding facilities, where they can be kept without food for 1–6 days before slaughter, leading to hunger, aggression, and other welfare concerns[17].

The cumulative nature of stress during the slaughter process means that fishes already stressed from crowding and transfer will experience greater

14 Scientific Opinion of the Panel on Animal Health and Welfare on a request from the European Commission on Species-specific welfare aspects of the main systems of stunning and killing of farmed rainbow trout. The EFSA Journal (2009) 1013, 1-55

15 Hilbig, R., R. H. Anken, A. Bauerle, and H. Rahmann. "Susceptibility to motion sickness in fish: a parabolic aircraft flight study." Journal of gravitational physiology: a journal of the International Society for Gravitational Physiology 9, no. 1 (2002): P29-30.

16 Barton, B. A., and R. E. Peter. "Plasma cortisol stress response in fingerling rainbow trout, Salmo gairdneri Richardson, to various transport conditions, anaesthesia, and cold shock." Journal of Fish Biology 20, no. 1 (1982): 39-51.

17 Erikson, Ulf, Lars Gansel, Kevin Frank, Eirik Svendsen, and Hanne Digre. "Crowding of Atlantic salmon in net-pen before slaughter." Aquaculture 465 (2016): 395-400.

welfare challenges during transport. This highlights the importance of careful stress management at each step in the process, as early welfare compromises can cascade into more severe issues in subsequent stages.

Key issues:

Rough transport conditions including choppy weather or excessive speed

High water temperatures and poor water quality, including oxygen levels below a minimum of 80% saturation, exacerbated by stress from previous stages

Fasting at processing plant

Exposure to highly adverse conditions, including high stocking densities and associated challenges

Stunning and Slaughter

Stunning of trout prior to a killing method is employed where the animal is stunned using percussive or electrical methods. The stun is followed by the killing method of either evisceration, or exsanguination (blood loss) followed by evisceration.

Percussive stunners	Electric stunners
Percussive stunners apply a sharp blow to the head of the trout above the brain causing insensibility whereas electric stunning applies an electric shock that stuns the animal.	Electric stunners can be dry or semi-dry where the trout are held in air and as such experience asphyxiation or the stun can be applied in water so the fish remains immersed.

Both stunning methods can effectively render trout unconscious; however, this depends upon the correct positioning of the fish in the electrical stun equipment as well as the use of optimal stunning parameters (e.g. voltage or stun duration)[18] or the correct position of the percussive bolt to the head of the fish. Incorrect use of these methods would result in fish exposed to painful stimuli in terms of electric shock and mechanical injury thus increasing the potential suffering during the stunning procedure. A recent study comparing asphyxia and rapid chilling resulted in poorer outcomes for rainbow trout compared with electric stunning thus asphyxia should be avoided[19].

The welfare risks during stunning and slaughter can stem from three sources: the condition of the fishes themselves, failure of stunning equipment, and human operators overseeing the process. **These risks apply generally across operations, regardless of the specific machinery, equipment, or protocols in use.**

Fishes arriving at slaughter in a compromised state - exhausted, injured, or psychologically stressed - pose significant welfare risks. These may exacerbate conditions leading to failed stunning attempts, escape from containment systems, and heightened agitation among other fishes in holding tanks. Failed stunning attempts means that immediate or rapid (less than 1 second) unconsciousness is not achieved, or that fishes do not remain stunned until the method of killing is applied[20]. Size variation among individuals entering systems also undermine the effectiveness of stunning machinery, creating a need for operators to adjust equipment and ultimately prolonging suffering for other fishes in the process.

Welfare depends heavily on operators' attention to proper equipment adjustment, maintenance, and monitoring of fish entry into stunning chambers. Operator fatigue can also be a source of welfare risk in both automated and manual systems, as critical procedures such as monitoring equipment, implementing emergency procedures, and maintaining stunning effectiveness deteriorates - potentially prolonging animal suffering.

Key issues:

Poor equipment setup and use or lack of personnel with adequate training

Rough handling

18 P. Hjelmstedt, E. Sundell, J. Brijs, C. Berg, E. Sandblom, J. Lines, M. Axelsson, A. Gräns, Assessing the effectiveness of percussive and electrical stunning in rainbow trout: Does an epileptic-like seizure imply brain failure?, Aquaculture, Volume 552, 2022, 738012.

19 Saraiva J.L., Faccenda F., Cabrera-Álvarez M.J., Povinelli, Peter C. Hubbard, Marco Cerqueira, Ana Paula Farinha, Giulia Secci, Maria Vittoria Tignani, Lina F. Pulido Rodriguez M., Parisi G. Welfare of rainbow trout at slaughter: Integrating behavioural, physiological, proteomic and quality indicators and testing a novel fast-chill stunning method, Aquaculture, Volume 581, 2024, 740443

20 Scientific Opinion of the Panel on Animal Health and Welfare on a request from the European Commission on Species-specific welfare aspects of the main systems of stunning and killing of farmed rainbow trout. The EFSA Journal (2009) 1013, 1-55

Asphyxiation of fishes and air emersion[21]

Lack of oversight protocols ensuring proper equipment configuration and timely repairs

Poor detection of non-stunned fishes, and fishes being subjected to live killing

Lack of procedures for backup stunning

Systemic Issues

- All steps throughout the process of slaughter, including the pre-slaughter stages, compromises the welfare of trout at the time of killing. As such, improving their welfare involves minimising the duration of each and every pre-slaughter phase, as well as stress, pain, and distress as early as the fasting stage, through to crowding, pumping or netting, and transport.
- Operator diligence and consistent monitoring are critical factors in ensuring welfare at the time of killing. Given that key stages throughout the slaughter process require active operator oversight and adjustment, comprehensive training in welfare monitoring and management may help in this regard.
- Working with live animals means situations can rapidly deviate from planned protocols. While emergency procedures are essential, the dynamic nature of animal behavior makes it challenging to anticipate all potential scenarios.
- It is vital to eliminate prolonged and unnecessary suffering at the time of killing, for welfare purposes, and the use of pre-slaughter stunning should be promoted.
- Assessing consciousness in fishes is complex and may include false positives and false negatives. This makes it difficult to definitively determine the point at which consciousness is lost during stunning. Therefore, minimising situations that increase chances of ineffective stunning may be the most strategic way to minimise suffering from ineffective stunning.
- Exposure to air (emersion) causes rapid physiological stress in rainbow trout. Even brief handling periods out of water can impact welfare, making rapid transfer between water environments crucial. Emersion in some farming procedures may be inevitable, but limiting their emersion in duration and frequency remains a top priority.

21 Saraiva J.L., Faccenda F., Cabrera-Álvarez M.J., Povinelli, Peter C. Hubbard, Marco Cerqueira, Ana Paula Farinha, Giulia Secci, Maria Vittoria Tignani, Lina F. Pulido Rodriguez M., Parisi G. Welfare of rainbow trout at slaughter: Integrating behavioural, physiological, proteomic and quality indicators and testing a novel fast-chill stunning method, Aquaculture, Volume 581, 2024, 740443

'Solution': How those key concerns could be 'resolved' or mitigated and suffering lessened

At all stages of the pre-slaughter and slaughter process rainbow trout welfare may be compromised. Recommendations should, therefore, aim to avoid or minimise any potential pain, stress, fear or distress for the animals. **The cumulative effects of several stressors may result in a more severe experience for the individual trout.** More research is required on the behavioural responses to the pre-slaughter and slaughter processes to identify ways in which trout welfare can be improved. Many published studies investigate stress physiology and muscle or flesh quality during these events but it should be noted that the timing of sampling can influence results. For example, the stress hormone cortisol typically peaks in the blood approximately 1 hour after the stressor[22] so sampling prior to this time may result in a lower value of cortisol suggesting low or no stress. The following solutions are proposed to fill the gaps in our knowledge on the impacts of pre-slaughter and slaughter events and where information is available recommendations are made:

- Due to the lack of clarity regarding the pre-slaughter process, **greater transparency** is required and full reporting of the treatment of rainbow trout throughout the pre-slaughter and slaughter process is needed. Details regarding fasting, crowding, pumping, transport, pre-slaughter holding and use of stunning equipment as well as slaughter method should be provided for each slaughter event.

- Each step of the pre-slaughter event should be kept to a **minimum in terms of duration but also the least invasive or least damaging methods** should be employed to ensure welfare is monitored and safeguarded at each step.

- Where the maximum duration of each pre-slaughter or slaughter process is unknown **further research** should be undertaken to identify optimal length of time that maintains good welfare.

- **Death by asphyxiation is unacceptable** and is not considered 'humane'.

- Stunning methods such as electrical or percussive stun should be employed to ensure the trout are rendered unconscious before a killing method such as exsanguination (blood loss) or brain destruction is applied. **It is critical that the animal is not conscious during slaughter.**

- Staff should be fully trained and deemed competent in all processes from fasting through to the actual slaughter. **Trained operatives** should ensure that any electrical or percussive stunning equipment works effectively, and fish are insensible/stunned prior to the application of a killing method.

22 L.S Weil, T.P Barry, J.A Malison, Fast growth in rainbow trout is correlated with a rapid decrease in post-stress cortisol concentrations, Aquaculture, Volume 193, Issues 3–4, 2001, Pages 373-380

- **Regular and independent announced and unannounced inspections of fish slaughter processes should be adopted as well as the implementation of CCTV monitoring.** The Government must not rely on certification bodies to conduct these checks.
- **Clear legislation** should set out how to safeguard rainbow trout welfare during pre-slaughter and slaughter processes.

Specific recommendations:

- Asphyxia to be phased out as an inhumane method of killing.
- Use of percussive or electrical stunning equipment should be adopted to ensure fish are unconscious during the killing method.
- Fasting must be limited to 3 days and preferably less.
- Crowding duration must be kept to a minimum.
- During crowding, oxygen must be monitored and kept above 65%. Use of deep narrow nets should be encouraged to ensure adequate oxygenation and allow fish to stay in cooler deeper areas away from warmer surface temperatures in summer.
- Stocking density during crowding, holding and transport must be kept to the minimum necessary to complete these procedures safely, as higher densities increase stress and risk of injuries.
- Handling and transport either via nets or pump equipment must be kept to a minimum. Equipment should be designed to avoid injuries to the fish e.g. knotless nets. Air emersion must be avoided and air exposure must be less than 10 seconds.
- During transport water quality parameters must be monitored and factors such as temperature and oxygenation maintained above 80% normal oxygen saturation. Transport durations must be minimised and slaughter should take place on-farm if practically possible to completely avoid transport. Air emersion should be avoided or minimised during transport (less than 10 seconds).
- Training is essential and should be mandatory for staff involved in pre-slaughter and slaughter processes.
- Reporting of pre-slaughter and slaughter steps for each event should be formally reported.
- Independent and unannounced inspection of rainbow trout slaughter should be conducted by regulatory bodies.
- CCTV monitoring of operations should be mandatory.

The Importance of Information

As this report evidences throughout, the welfare of farmed fish during slaughter transcends the singular act of stunning, requiring a comprehensive assessment of its welfare impacts across the entire process. This includes peri-slaughter operations - such as fasting, crowding, transfer (e.g. pumping, netting, and other forms of handling), and transport - which collectively impose substantial welfare burdens, likely greatly surpassing the impact of the stunning phase itself.

Pre-slaughter practices can subject fish to prolonged stress, physical injury, mortality and several adverse environmental conditions. For example, starvation may induce hunger and aggression, while crowding can result in several forms of physical trauma. Furthermore, the welfare implications of these operations can be intricately linked to the stunning method employed. Electrical stunning, requiring a continuous flow of fish, may intensify crowding, whereas percussive stunning, often involving extended holding periods for individual processing, introduces distinct challenges. These differences highlight the need for a detailed understanding of how pre-slaughter conditions interplay with stunning techniques to shape overall welfare outcomes.

Despite the critical role of pre-slaughter operations in determining fish welfare, significant deficiencies in data availability persist, preventing effective policy responses. Essential information - such as the duration of pre-slaughter procedures,stocking densities, and specifics of the conditions to which fish are exposed and their specific welfare consequences - remains scarce or entirely absent. This opacity obstructs the formulation of targeted interventions and conceals the full scope of welfare challenges within the aquaculture sector. Compounding this issue, the relationship between pre-slaughter stressors and the efficacy of stunning methods is inadequately researched.

Enhanced transparency and systematic data collection are imperative. Introducing mandatory reporting requirements for peri-slaughter practices, encompassing procedure durations, handling techniques, and adverse incidents, would establish an empirical basis for welfare improvements. Additionally, the implementation of standardised monitoring protocols and audit mechanisms, including unannounced inspections, could ensure accountability. To bolster our understanding of these unique animals, and improve recommendations that can be made in future, we strongly urge the devolved Governments to request that industry records and publishes the following information, in addition to that outlined in the table below:

- Duration of these stages (fasting, crowding, waiting from crowding, what is the length of time in transport)
- Density of crowding
- Equipment used
- Number of individuals impacted at each stage

The table below shows the potential welfare impacts in peri-slaughter and slaughter operations in worst-case scenarios. We identify where information is missing and provide recommendations for increased data and transparency, to increase public knowledge, ultimately to allow for better understanding of rainbow trout welfare.

Event	Welfare Consequences	Missing Information	Recommendations
Fasting	Hunger Stress Fear from aggressive conspecifics Fin or other damage from aggression	Studies are required to understand the welfare impacts of fasting A few studies suggest a restrictive feeding schedule prior to fasting may reduce stress but no behavioural data available	Fasting limited to 3 days at 17 degrees C Investment in research to fully understand welfare consequences
Crowding	Crowding stress and fear Fin damage Body wounds Eye trauma Entrapment injuries Physical exhaustion Low O_2 High CO_2 Exposure to increase surface temperature and light	Full range of welfare impacts of crowding not well understood Stocking density and crowding duration not reported	Use of deep and narrow nets rather than shallow and wide nets to allow better maintenance of temperature and oxygenation Additional oxygenation via compressor equipment and shaded areas to reduce light and temperature Equipment should minimise injuries (e.g. non-abrasive materials, does not trap individuals) Crowding kept to a minimum and no longer than 2 hours Investment in research to fully understand welfare consequences Independent inspection of the peri-slaughter process should be implemented
Transfer – Pumping or Netting	Stress and fear Emersion Physical exhaustion Body wounds Crushing	Little known about the adverse welfare consequences of this procedure (e.g., physical trauma) Data on duration, flow velocity and density of fish pumped scarce, may vary from seconds to minutes	Use of equipment that avoids injury Exposure to air less than 10 seconds Reduce number of trout in net to decrease chances of crushing Minimise transfer time to reduce stress Information on duration and mode of transfer, and equipment should be reported

Event	Welfare Consequences	Missing Information	Recommendations
Transport	Physical exhaustion Low O_2 High CO_2 Emersion Temperature fluctuation Stress and fear during transport	Duration of transport by boat or land not systematically reported Transport conditions (e.g., stocking density, temperature, dissolved oxygen (DO) and other water quality parameters) not reported Impact on fish welfare during transport relatively understudied	Transport conditions must allow maintenance of optimal environmental parameters such as oxygen and temperature Transport duration should be kept to a minimum Air exposure must be less than 10 seconds On farm slaughter preferable to avoid transport Investment in research to fully understand welfare consequences Independent inspection of the transport process should be implemented
Holding in Net Pens at Slaughter Facility	Hunger Stress and fear from aggression and novel environment Fin and other damage from aggression	Little information on how long trout are held at slaughter facilities No data on duration of maintenance of fish in net pens, stocking density and water quality parameters Welfare impact not fully understood	Duration of holding should be minimised although some studies have suggested that holding fish after a stressful event can allow fish to recover. This phenomenon should be fully investigated Feed restriction should be a maximum of 3 days at 17 degrees C (or less if temperatures are warmer)
Slaughter	Asphyxia and air exposure Damage during handling Pain from inappropriate stunning methods and from killing method if stun incorrectly applied	The killing methods of individual farms should be reported	Asphyxia should not be used Careful handling should be adopted Air exposure should be less than 10 seconds Stunning should be applied to ensure trout are unconscious prior to killing Trained operatives are necessary for correct identification of stun efficiency and equipment operation Protocols should be in place if trout are not effectively stunned Government incentives or investment should enable farmers to purchase stunning equipment and backup Independent inspection of the slaughter process and CCTV monitoring should be implemented

Expert Authors

With thanks to the following experts for their support in compiling these detailed recommendations:

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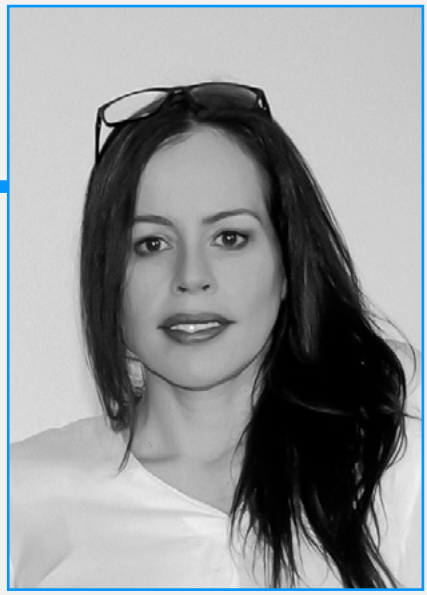
Dr. Cynthia Schuck-Paim



has a Ph.D. and post-doctoral degree in zoology from Oxford University, and extensive experience in data analysis and research in the areas of metrics and the effectiveness of interventions. She has authored nearly 100 academic publications and is the Scientific Director of the Welfare Footprint Project (Center for Welfare Metrics)

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Professor Lynne U. Sneddon

has worked for over two decades on topics that have advanced fish health and welfare and used her research to drive the agenda for the improved welfare of fishes. Sneddon identified nociceptors on the head and face of rainbow trout for the first time published in 2002. This novel discovery that fish experience pain has since fueled Sneddon's research, and she has dedicated her career to informing the way in which fishes are treated in the laboratory and in other contexts such as aquaculture and fisheries. Sneddon has become the recognized world expert on fish welfare and developed training resources, participated in workshops, and delivered educational events and talks to veterinarians as well as technical care staff and academics. She is also regularly invited to give talks at academic conferences, laboratory animal meetings, animal law conferences, public events and to industry and other stakeholders. In 2023, Sneddon was awarded the Johns Hopkins CAAT and Charles River Excellence in Refinement Award. Sneddon currently leads her team at the University of Gothenburg in Sweden investigating how to improve the way we treat fishes, decapod crustaceans and cuttlefish.

6.

Robust and enforceable laws

A crackdown on non-compliance

Government inspections

Animal welfare laws must be robust and enforceable, and must be the case for any updates to legislation to include species-specific laws for farmed fish.

Where laws are provided, non-compliance too often goes undetected and unpunished. This is not merely a claim made by animal advocates, but is evidenced by data and even the Government's own Animal Sentience Committee (ASC). Policy-makers must consider this systemic problem when introducing new legislation for farmed trout, salmon, cleaner-fish and other aquatic animals, so as to avoid similar challenges when implementing new laws for farmed fish. We must learn from, and build on, these important findings.

The ASC was formed following the introduction of the Animal Welfare (Sentience) Act, recognising the welfare of sentient animals in Ministerial decisions. The Committee focuses on policy development and implementation, publishing reports for Ministers to take into account any negative impact that a proposed policy or legislation might have on the welfare of 'sentient' animals - those deemed in law as thinking, feeling beings - including chickens, farmed fish, cows, pigs, and other farmed animals.

In February 2025, the Committee released a damning report[1] expressing concern that animal protection laws are not being adequately enforced. The report states that a *'structured, fair and integrated system of animal welfare surveillance and enforcement is lacking'*, leading to *'unnecessary suffering'* that might occur due to *'ignorance, desperation or loss of control'*. It goes on, however, to state that more systematic non-compliance may come from more deliberate or sinister motivations, such as *'financial gain or social status'* or those who *'disagree with the underlying premise or rationale of certain legislation, particularly when they judge the risks of detection to be low'*.

Specifically with regard to farmed fish, the report outlines: '*Farms considered low risk based on these [aforementioned in the report] criteria have a low probability of receiving inspections, although the extent of non-compliance on these farms may still be relatively common. Some sectors such as farmed fish and game birds are not included in risk-based models at all. Farmed fish and gamebirds (prior to release) may be inspected in response to complaints'*.

This is unfortunately of little surprise to animal activists and reflects past findings from Animal Equality and The Humane League UK. Following an investigation revealing farmed salmon being painfully cut while conscious, exiting stun-kill machinery showing signs of consciousness, and being thrown to the ground, Freedom of Information requests proved that no welfare-oriented inspections were taking place in farmed fish abattoirs[2].

1 https://www.gov.uk/government/publications/animal-sentience-committee-report-on-the-due-regard-to-animal-welfare-legislative-compliance-and-enforcement/animal-sentience-committee-report-on-the-due-regard-to-animal-welfare-legislative-compliance-and-enforcement

2 https://www.theguardian.com/environment/2021/nov/23/no-routine-checkups-on-welfare-of-fish-at-slaughter-officials-admit

Given the scale of animals slaughtered, this lack of scrutiny cannot continue.

Years on, this concern remains as real as it was back in 2021.

Freedom of Information (FOI) requests launched on 4th October 2024 by The Humane League UK found that no animal welfare checks are being conducted for trout at slaughter in England, Wales and Northern Ireland.

In response to The Humane League UK's FOI, the Food Standards Agency - the body usually responsible for enforcement at slaughterhouses in England and Wales - stated that "the FSA does not regulate fish farms" , with the Animal and Plant Health Agency stating that it "does not have a planned regulatory welfare inspection program for farmed fish at the time of slaughter in England and Wales", nor is the agency required to do so unless a welfare breach is reported.

Scarce oversight of farmed fish welfare at slaughter, combined with no species-specific legal regulations providing detailed requirements on how to avoid prolonged or unnecessary pain and suffering, is leaving tens of millions of sentient animals severely inadequately protected.

Any instances of animal abuse on trout farms is at risk of going entirely undetected and unpunished without proper inspections, leaving the welfare of trout to be regulated by the fish farming industry or unofficial non-Government regulators.

Alongside species-specific legislation for farmed fish, Government agencies must be given clear and transparent responsibilities for inspecting fish farms, including at fish slaughterhouses, to ensure that legislation is being followed.

Animal NGO inspections

Where official regulatory checks have been lacking, charities like Animal Equality UK have stepped in to discover the reality of what is taking place in fish farms and abattoirs.

In 2023, Animal Equality recorded trout slaughter taking place on boats operated by Dawnfresh Farming off the coast of Scotland[3]. At the time of filming, the boat fell under the 'R R Spink & Sons' brand. With its royal seal of approval, R R Spink & Sons has supplied major UK supermarkets like Tesco, Sainsbury's, and Marks & Spencer.

The video footage showed schooling of fish near the surface of the water, as well as extreme and visible crowding in pens. Smaller or juvenile fish were left to asphyxiate in an empty bucket, whereby a slatted section of the intake feeds into the slaughter chute emptied into a hopper beside the compressor; those fish too small to be slaughtered fell through the slats and into an empty bucket to slowly suffocate. In addition, no adjustment took place on the slaughter machinery, despite fish entering of different sizes; this would likely produce a mis-stun. In instances of clear failure to stun, workers struggled to hold fish in

3 https://animalequality.org.uk/news/investigation-fish-being-thrown-left-to-suffocate-or-killed-while-conscious-on-scottish-slaughter-boats/

place and club them; on some occasions they held fish under ice and tore the animal's gills with their fingers.

Two years prior, NGO Viva! released footage from a trout farm supplying Ritz and Harrods, which was endorsed by chef Jamie Oliver. Workers were filmed throwing and kicking fish to death, hitting fish on the ground, beating them with a broom handle, and leaving fish to asphyxiate.

In 2021, following an Animal Equality exposé into a farmed fish abattoir showing extensive animal suffering, 70 world-leading experts were so concerned that they signed an open letter to the UK Governments, calling for species-specific legislation to be enacted.

What are you waiting for?

This report makes the case for species-specific legislation for farmed trout and other farmed fish at the time of killing. By sharing real-life scenarios of poor welfare at slaughter and evidence-based expert recommendations, we propose the swift implementation of precise and laser-focused laws.

For nearly three decades, Government advisory bodies have recommended species-specific legal protections for farmed fish.

Inaction on this issue has left billions of farmed fish vulnerable, denied even the most basic safeguards in place in their final moments.

The time to act is now.

Animal advocates are presenting compelling evidence for reform. Legal experts are pushing for enforceable, prescriptive laws. Leading academics are calling for change. And industry representatives are showing willingness to engage.

These new laws must be clear, detailed and practical - providing a definitive guide for workers and regulators alike. They must be actionable. They must be meaningful. And, most importantly, they must protect the animals.

CONTACT INFO

We are willing and glad to provide consultancy throughout the legislative process, and have a number of world-renowned experts on-hand to support too. Please reach out for further information via:

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