

# Reported Versus Reality:

A POCKET GUIDE TO  
SCOTTISH SALMON FARMING

Much has been said about Scottish salmon farming in recent months; much of it misleading or inaccurate, particularly with regards to fish welfare and the impact of our farming activity on the environment.

These inaccuracies, if left uncorrected, have the potential to do untold damage to the reputation of Scottish farmed salmon. They also have the potential to jeopardise much-needed jobs, reduce business for local suppliers, and diminish the sector's significant contribution to the economy in terms of salaries, tax and export value.

So on behalf of our people, our partners and our communities, this pocket guide aims to set the record straight and enable a fairer, more balanced dialogue about the future of this key sector for Scotland.

## Reported:

25% of all  
farmed salmon  
are dying.

1. Scottish Salmon Producers' Organisation
2. Petersen, P., Penman, D., Dahle, G., Patursson, Ø., Taggart, J., 2016. Survival among Batches of Atlantic Cod (*Gadus morhua* L.) from Fertilisation through to Post-Metamorphosis
3. Chaput, G., 2012. Overview of the status of Atlantic salmon (*Salmo salar*) in the North Atlantic and trends in marine mortality
4. [dairy.ahdb.org.uk/](http://dairy.ahdb.org.uk/); GB Cattle Health and Welfare Group Annual Report 2016; Sheep Health and Welfare Report for Great Britain 2016/17; AHDB Pork Yearbook 2015-2016

## Reality:

In the last five years, the percentage of farmed Scottish salmon that died, rather than were harvested for market, was 17%<sup>1</sup>; a figure that is considerably lower than for other farmed species such as seabass (60-80%) and cod (up to 90%)<sup>2</sup>, or for wild salmon – as many as 95% of which die at sea.<sup>3</sup>

It's also a figure that is on a par with, and in several cases lower than, dairy, beef, sheep and pig farming.<sup>4</sup>

That said, no farmer wants to lose any of their stock, which is why we continue to refine our practices and technologies to improve survival rates further.

### AN EXCEPTIONAL YEAR:

Greater than average losses were experienced at some farms in 2017 when exceptionally high sea temperatures resulted in gill health challenges.

## Reported:

Sea lice are out of control.

### SUSTAINABLE SOLUTIONS:

On some farms, over 70% of cleaner fish are now hatchery-reared, rather than wild caught, and we're working towards 100%.<sup>6</sup>

## Reality:

Sea lice are parasites that occur naturally in the marine environment (including locations where there are no fish farms, such as Scotland's east coast) and are attracted to both wild and farmed salmon.

Recent years have seen Scotland's salmon farmers invest on a multi-million pound scale in new controls such as 'cleaner fish' – so called because when put in alongside salmon, they nibble off any sea lice without causing harm to the fish.

As with anything new, there is much to learn. However thanks to this and other innovations, as salmon harvests have gradually increased, sea lice levels have remained relatively static over the last seven years, decreasing slightly from 2015 to 2017.<sup>5</sup>

5. Hall, L. and Murray A., (2018). Describing temporal change in adult female *Lepeophtheirus salmonis* abundance on Scottish farmed Atlantic salmon at the national and regional levels

6. Scottish Sea Farms

## Reported:

Salmon pens are so tightly packed that it's akin to battery farming.

7. [friendofthesea.org](http://friendofthesea.org)

8. [rspcaassured.org.uk](http://rspcaassured.org.uk)

9. [thecodeofgoodpractice.co.uk](http://thecodeofgoodpractice.co.uk)

## Reality:

In Scotland, our pens are stocked with just 1.5%-1.75% salmon to 98.25%-98.5% water, which equates to no more than 15kg-17.5kg of fish per cubic metre.

These are amongst the lowest stocking densities of all salmon farming countries and ensure that our fish have plenty of room to shoal in clean, oxygen-rich water.

Between us, we also have Friend of the Sea<sup>7</sup> and RSPCA Assured (previously Freedom Food) certification. In fact, 69% of all Scottish salmon is now farmed to RSPCA welfare standards – a higher percentage than for any other farming sector.<sup>8</sup>

### LEADING THE WAY:

Scotland's salmon farmers adhere to a voluntary Code of Good Practice, prompting other salmon farming countries to consider similar guidelines.<sup>9</sup>

## Reported:

Salmon farming pollutes Scottish waters with chemicals.

10. RUMA Targets Task Force Report 2017

11. Scottish Sea Farms

12. <https://www.sepa.org.uk/regulations/water/aquaculture/fish-farm-manual/>

## Reality:

The development of new vaccines, combined with ever-better husbandry practices, means that the use of veterinary medicines is lower than ever before. So much so, we have the lowest usage amongst all the protein-producing sectors.<sup>10</sup>

Meanwhile, alternative approaches such as cleaner fish or Thermolicer technology which dislodges and catches sea lice has seen some farms reduce medicinal use by almost 25% in 2017 alone.<sup>11</sup>

Any medicines we do use are licensed and administered in line with SEPA's Environmental Quality Standards<sup>12</sup>, at quantities tailored to individual farms to protect the local area and its marine life.

### REDUCING MEDICINES:

**Non-medicinal approaches now account for over 70% of the investment being made annually in sea lice prevention and control.**

## Reported:

Salmon pens dump harmful waste into the environment.

## Reality:

Any waste – be it uneaten feed, fish faeces or medicines – is closely monitored by SEPA to ensure it stays within sustainable limits; limits that are informed by EU legislation<sup>13</sup> and are decided on a farm-by-farm basis, based on what the local current, ecology and seabed-dwelling creatures can disperse naturally.

Helping ensure we stay within these limits, we have invested in camera-monitored feeding systems which ensure virtually no feed is wasted; adopted an integrated approach to fish health; and coordinated best practice between companies with neighbouring farms.

### HEALTHY HABITATS:

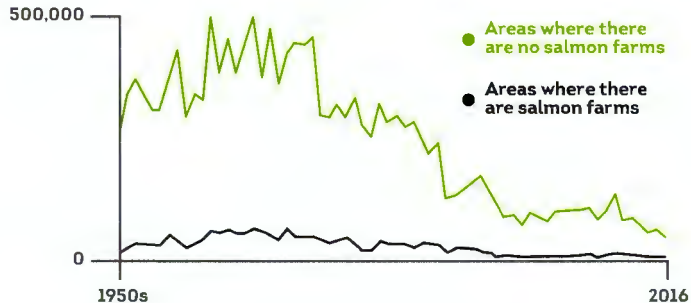
The welfare of our salmon is our number one priority and that includes protecting their environment. The two go hand-in-hand.

13. [http://www.legislation.gov.uk/ssi/2011/209/pdfs/ssi\\_20110209\\_en.pdf](http://www.legislation.gov.uk/ssi/2011/209/pdfs/ssi_20110209_en.pdf)

## Reported:

Wild fish are declining because of salmon farming.

Wild salmon and grilse catches  
(all methods)



Source: Freshwater Laboratory, Marine Scotland

## Reality:

Marine Scotland data highlights that wild fish stocks have declined much more significantly on Scotland's east coast where there are no salmon farms.<sup>14</sup>

Fisheries Management Scotland, which represents fishery boards and rivers and fisheries trusts, acknowledge that the reasons for declining stocks are complex, also citing predators, hydro-energy, forestry and agriculture as possible contributory factors.<sup>15</sup>

To help get to the root of the problem, Scotland's salmon farmers are involved in several research projects aimed at restoring wild stocks including those on the River Carron, Lochy and Upper Garry.<sup>16</sup>

14. <https://data.marine.gov.scot/dataset/salmon-and-sea-trout-fishery-statistics-2017-season-reported-catch-and-effort-method>

15. <http://fms.scot/salmon-and-sea-trout-fishery-statistics-2017-season/>

16. [inverness.uhi.ac.uk](http://inverness.uhi.ac.uk); [riverlochy.com](http://riverlochy.com); [nessandbeauloy.org.uk](http://nessandbeauloy.org.uk)



## Reported:

Salmon farmers needlessly kill seals.

17. Marine Scotland

18. Sea Mammal Research Unit 2015 at the University of St Andrews

## Reality:

As farmers, the last thing we want is to harm marine mammals. Equally, we have a responsibility to keep our salmon free from stress and harm, including attacks from predators such as seals.

Often, the two co-exist with little problem; a situation helped by multi-million investment in new rigid netting systems and acoustic deterrents. These have seen the number of seals killed reduce six-fold between 2011 and 2017<sup>17</sup> – and we're committed to reducing it to zero.

Only as a last resort, should a seal persist beyond all preventative measures, would it be killed and only then in accordance with Marine Scotland regulations.

### **BUOYANT SEAL POPULATION:**

In some parts of the west coast, seal numbers have risen by 60% or more in six years.<sup>18</sup>

## Reported:

Salmon farming regulation is not fit for purpose.

### HIGHLY REGULATED:

Scotland's salmon farmers are amongst the most highly regulated in the world.

## Reality:

Helping ensure that we continue to meet growing demand in the most responsible, sustainable way, Scotland's salmon farmers are regulated by several different bodies, including but not limited to:

- Animal and Plant Health Agency
- Crown Estate Scotland
- Health and Safety Executive
- Local planning authorities
- SEPA
- Marine Scotland
  - Fish Health Inspectorate
  - Licensing Operations Team
  - Seal Licensing Team
- Maritime Coastguard Agency

## Reported:

Land-based, container-grown salmon is a more responsible option.

## Reality:

We believe that raising salmon in sea pens is the most responsible approach. One, it more closely replicates their own natural habitat. Two, moving salmon farming ashore and indoors would involve significantly more land and energy, and have a much greater environmental footprint.

Yes, farming outdoors continues to present new challenges, just as dairy, beef, sheep and pig farmers face their challenges, therefore we're constantly reviewing and adapting our practices. However for us, farming out in the elements is what makes Scottish farmed salmon 'Scottish'.

### CLIMATE-FRIENDLY:

Farming salmon in sea pens has a lower carbon footprint than any other farming sector.<sup>19</sup>

## Reported:

Salmon farming should not be allowed in protected areas.

## Reality:

Salmon farming was underway in Scotland long before the introduction of marine protected areas; almost all of which were given designated status to protect important habitats and species in areas where they were considered to be in a favourable condition, *despite* the presence of salmon farms.

The new Harbour Porpoise Special Area of Conservation is the perfect example, with Scottish National Heritage identifying the largest number of porpoises in an area rich in fish farms.<sup>20</sup>

20. SNH (2016) SAC Selection Assessment Document: Inner Hebrides and the Minches, Version 12

The map below shows the scale of the west coast that would be unavailable to salmon farming if activity was restricted in these areas.

- Marine Protected Areas
- Proposed Special Protected Areas



This map whilst reproduced as accurately as possible should be used as a guide only

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