

**seal shooting
cruel, unnecessary
and bad for
business**



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summary

In Scotland, seals are being shot and killed as a measure to protect salmon aquaculture and local fishing interests. As a natural predator of salmon, some seals have learnt to interfere with fishing nets and aquaculture facilities, sometimes causing significant damage. However, there is no substantial evidence to prove that shooting reduces seal interactions or that the seal shot is the one that has caused the damage. Shooting seals also raises serious welfare concerns and has a detrimental effect on the reputation of Scottish aquaculture.

Since 2011 (when seal shooting licences were first required), the number of seals shot has steadily decreased. This decline demonstrates that seal shooting has become an unnecessary and outdated practice, which could now be phased out completely.

Putting an end to seal shooting would benefit both the local seal population and the Scottish salmon farming industry, which, under new regulations, will not be able to export salmon to the US after 2022 if shooting continues.

**75%* of the
Scottish public
are not aware of
the current
policy of
shooting seals.**

*This figure is from a YouGov poll commissioned by IFAW. Total sample size was 1,024 adults. Fieldwork was undertaken between 31st May - 4th June 2019. The survey was carried out online. The figures have been weighted and are representative of all adults in Scotland (aged 18+).

welfare concerns

Shooting seals raises many serious welfare issues. From 2011 to 2018, a total of 1,788 seals (1,437 grey seals and 351 common seals) were reported shot under licence in Scotland, predominantly around netting stations and fish farms¹. Under Part 6 of the Marine (Scotland) Act 2010, which came into force on January 31 2011, it is an offence to kill or injure a seal except under licence.

Although very few carcasses are recovered, evidence gathered from necropsies of seals that were shot reveal that some seals do not die instantly, but slowly and painfully, or weren't shot using the methods recommended by the Scottish Seal Management Code of Practice². Additionally, the same evidence found that 35% of necropsied seals were pregnant grey seals, and some seals were shot during their lactation period - when pups are most dependent on their mothers.

However, it is encouraging to see that the number of seals shot each year under licence has decreased dramatically since 2011. At fish farms, the number of seals shot dropped significantly from 241 in 2011, to 80 in 2014³ and 33 (22 grey and 11 common) in 2018 (up until 01/10/2018).

According to Marine Scotland, a combination of measures contributed to this reduction, such as the employment of seal-friendly netting.

To note, the reduction of the total number of seals shot in Scotland (at fish farms, covered rivers and estate fisheries) has slowed, rising for the first time in 2018, from 73 in 2017 to 86.⁴

The dramatic decrease in the numbers of seals shot since the Act's inception demonstrates that it is feasible to stop shooting altogether. Yet we have begun to see an unnecessary increase in the number of licences to shoot seals at fish farms issued in relation to the number of seals shot year-on-year.

In 2017, Marine Scotland issued 28 seal shooting licences to fish farms for the "protection of health and welfare [of farmed fish]", and one licence for the "prevention of serious damage" to fisheries equipment. These licences were distributed across a total of 175 individual fish farms⁵.

¹ <https://www2.gov.scot/Topics/marine/Licensing/SealLicensing/appgraph>

² Nunny, L., Langford, F. and Simmonds, M.P. (2016) Does the Seal Licensing System in Scotland Have a Negative Impact on Seal Welfare? *Frontiers in Marine Science*, 3:142. ISSN 2296-7745.

³ <https://www2.gov.scot/Topics/marine/Licensing/SealLicensing/2011/2014>

⁴ <https://www2.gov.scot/Topics/marine/Licensing/SealLicensing/2011/LandR2018>

⁵ <https://www2.gov.scot/Topics/marine/Licensing/SealLicensing/2011/2017>

In 2019, Marine Scotland issued a total of 45 licences to kill 228 grey and 108 common seals; 27 of these were to shoot seals at fish farms, the other 17 licences covered rivers and estate fisheries. Licences to shoot at fish farms covered a total of 215 individual fish farms⁶.

This increase in the number of licences issued and the number of fish farms covered is concerning, and indicates that some sites could benefit from the installation of nets that provide better protection from seals.

1788

seals were reported shot under licence in Scotland between 2011 to 2018 (1,437 grey seals and 351 common seals).

35%

of necropsied seals were pregnant grey seals, and some seals were shot during their lactation period.

86

the number of seals shot in 2018, dropped significantly from 453 in 2011.



⁶ <https://www2.gov.scot/Topics/marine/Licensing/SealLicensing>

protecting fish farms from seal predation

Salmon farms can be protected from seal damage by engineering solutions.

One fish farm operator installed Seal Pro netting at 21 of its farms, with plans for a further nine farms to be equipped at the start of each new crop cycle in 2019 and 2020. At the operator's farms in Orkney, where the new protective nets were first trialled in 2016, there have been no reports of seals culled in almost three years⁷. These case studies demonstrate the feasibility for salmon farming in Scotland to successfully operate without killing seals.

Marine Scotland recommends that seals should only be shot as a last resort, and fish farm operators which have applied for a seal shooting licence can also request information about non-lethal methods of preventing seal damage⁸.

Acoustic Deterrent Devices (ADDs) are increasingly being used to try and deter seals from fish farms. However, their long-term effectiveness at deterring seal predation has not been demonstrated⁹ - however, the negative impact of ADDs on other species has been proven. Harbour

porpoise appear to be particularly vulnerable to displacement by ADDs¹⁰, which constitute a significant and increasing source of underwater noise pollution on the west coast of Scotland¹¹.

In 2018, a Scottish Parliament review of the environmental effects of salmon farming identified techniques that could be actively promoted to further reduce, and eventually phase out, the practice of shooting seals as a mitigation tool in Scottish aquaculture. These included locating fish farms away from seal haul-out sites, properly weighted and tensioned nets and more advanced netting materials. The same report also highlighted the lack of evidence of effectiveness of ADDs and concerns about their widespread use¹².

There is a growing consensus that neither shooting seals nor ADDs have a future role in protecting fish farms from predator damage, and that the solution lies with improved netting.

⁷ <https://www.scottishseafarms.com/news/2019/february/protective-netting-reducing-last-resort-seal-culls/>

⁸ SCOTTISH SEAL MANAGEMENT CODE OF PRACTICE, September 2018.

⁹ Quick, N.J., Middlemas, S.J., Armstrong, J.D., 2004. A survey of antipredator controls at marine salmon farms in Scotland. *Aquaculture* 230, 169–180. [https://doi.org/10.1016/S0044-8486\(03\)00428-9](https://doi.org/10.1016/S0044-8486(03)00428-9).

¹⁰ Mikkelsen, L., Hermannsen, L., Beedholm, K., Madsen, P.T.T., Tougaard, J., 2017. Simulated seal scarer sounds scare porpoises, but not seals: species-specific responses to 12 kHz deterrence sounds. *R. Soc. Open Sci.* 4, 170286. <https://doi.org/10.1098/rsos.170286>.

¹¹ Findlay, C. et al. 2018. Mapping widespread and increasing underwater noise pollution from acoustic deterrent devices. *Marine Pollution Bulletin* 135: 1042–1050.

¹² REVIEW OF THE ENVIRONMENTAL IMPACTS OF SALMON FARMING IN SCOTLAND. Executive Summary and Main Report.

export concerns

On January 1 2017, the United States introduced regulations that required reliable information demonstrating that “exports of fish and fish products to the United States are not the product of an intentional killing or serious injury of a marine mammal”. This means that if a seal has been shot at a fish farm (during the period fish are being reared) then the fish cannot be exported to the US. These regulations, which come in to force on January 1 2022 following a five year exemption period, present an additional economic case to stop all seal shooting associated with salmon fisheries and aquaculture.

Marine Scotland list the numbers of seals shot under licence by location and the company to which the licence is issued¹³. This list shows that in 2018 licences were issued to the majority (8 out of 12) of salmon aquaculture companies, farming across 221 active sites¹⁴. Together, these companies provide a very high proportion of the total salmon produced for US export. Additionally, the sites at which these licences were issued cover a wide geographical area. Based on these locations, and the locations of the salmon processing facilities, it is highly unlikely that any major processing facility

will be able to demonstrate that they are not handling fish that has come from farms where seals have been shot.

Additionally, Atlantic salmon are usually held in marine facilities for between 14 and 24 months, from smolt to adult phase. Therefore data on seal shooting from more than one year prior to harvest will also need to be taken into account when exporting to the US.

In recent years, the US has been one of the top export markets for Scottish salmon, with reported exports worth £193m to the US in 2017¹⁵. This key market will be lost unless clear action is taken by the Scottish Government.

Given these complexities, and the lack of demonstrated benefits of shooting seals in comparison to non-lethal methods of protecting salmon, the simplest way to protect seals and the interests of the Scottish salmon industry is for the Scottish Government to make clear that seal shooting is not acceptable and that no licences will be issued from 2022 onwards.

¹³ <https://www2.gov.scot/Topics/marine/Licensing/SealLicensing/2011/LandR2018>

¹⁴ <https://www.gov.scot/publications/scottish-fish-farm-production-survey-2018/pages/5/>

¹⁵ <https://www.gov.scot/publications/identifying-options-developing-transport-infrastructure-food-drink-supply-chain-strengthen-resilience/pages/3/>



key information

- ▶ The shooting of seals is inhumane and ineffective
- ▶ Improved weighted and tensioned nets are the best method for protecting fish from predators
- ▶ The US Marine Mammal Protection Act (MMPA) prohibits the import of fish products which have resulted from the intentional killing or serious injury of a marine mammal
- ▶ 55%* of Scottish public think wildlife is very important to the Scottish tourism industry
- ▶ 35% of necropsied seals were pregnant grey seals
- ▶ 75%* of the Scottish public are not aware of the current policy of shooting seals
- ▶ Acoustic Deterrent Devices (ADDs) have not been demonstrated to be effective at deterring seal predation and may cause harm to marine mammals.

*This figure is from a YouGov poll commissioned by IFAW. Total sample size was 1,024 adults. Fieldwork was undertaken between 31st May - 4th June 2019. The survey was carried out online. The figures have been weighted and are representative of all adults in Scotland (aged 18+).

about ifaw

The International Fund for Animal Welfare (IFAW) is a global non-profit helping animals and people thrive together. We are experts and everyday people, working across seas, oceans, and in more than 40 countries around the world. We rescue, rehabilitate, and release animals, and we restore and protect their natural habitats. The problems we're up against are urgent and complicated. To solve them, we match fresh thinking with bold action. We partner with local communities, governments, non-governmental organisations, and businesses. Together, we pioneer new and innovative ways to help all species flourish.

further information

Arthur Thomas,
Campaigns Manager, IFAW UK

Tel: +44 (0)20 7587 6712,
mob: +44 (0) 7801 613 521,
email: athomas@ifaw.org

Website: www.ifaw.org/uk
Twitter: [@IFAWWestminster](https://twitter.com/IFAWWestminster)

