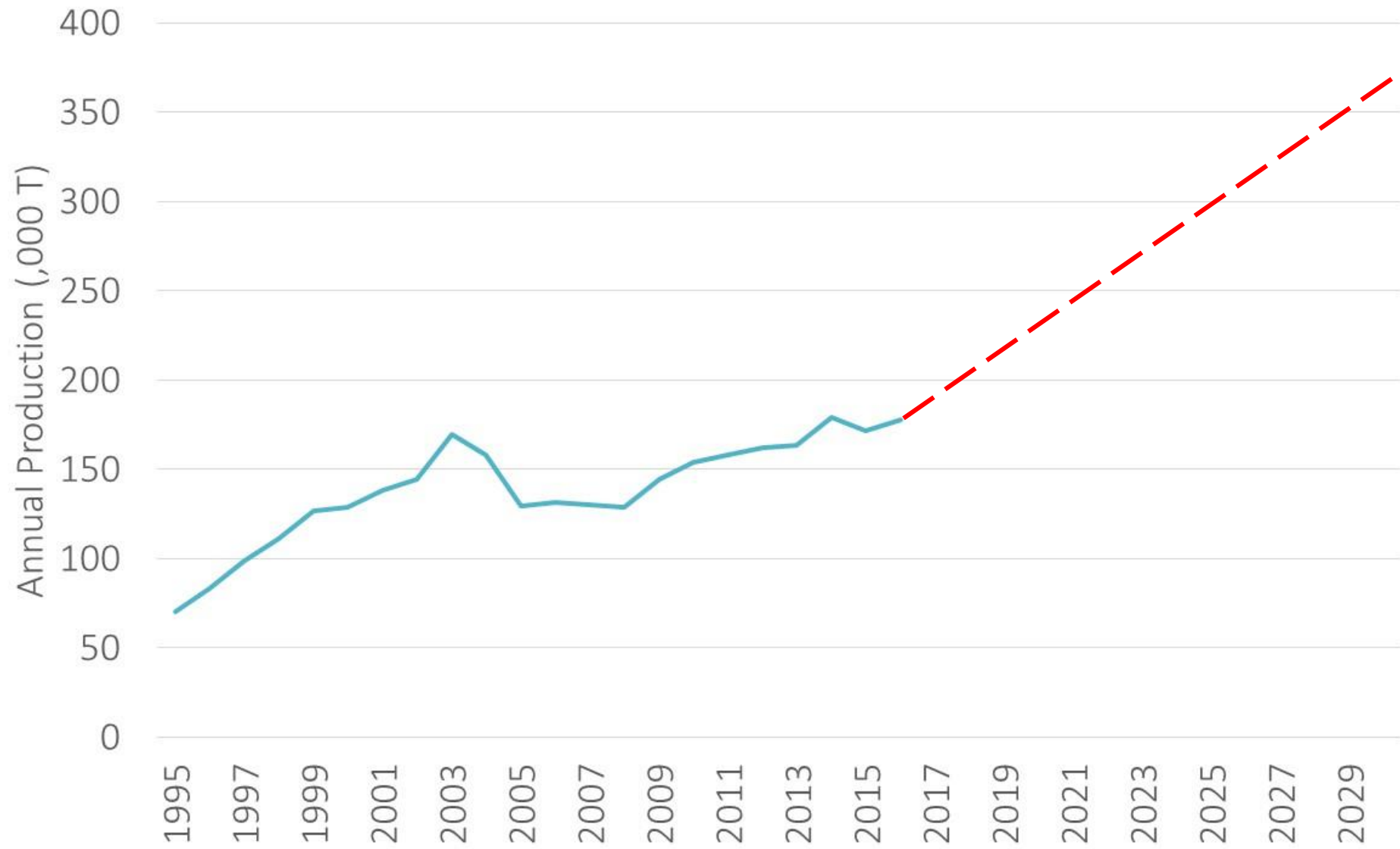


An aerial photograph of a salmon aquaculture farm. In the foreground, several circular pens are visible in the blue water. A small boat is positioned near one of the pens. The background features a large, rugged mountain range with patches of snow under a clear blue sky with a few clouds.

RECENT DEVELOPMENTS WITH AQUACULTURE

80,000,000

Scotland's Salmon Aquaculture Production



Crackdown after Sunda

Outrage at plans to scrap limits on number of fish that can be kept in farm cages

The Scottish Environment Protection Agency is cracking down on toxic pollution from fish farms blamed for wiping out wildlife across widespread areas of the seabed.



A poodle cannot be a watchdog

SINCE 2017 dawned the Scottish Environment Protection Agency (Sepa) has not exactly covered itself in glory. It has proposed scrapping limits on salmon farmed in cages around the coast. It has admitted asking industrial polluters to help hire senior pollution regulators and top government officials to help choose senior Sepa managers. And as we report today, it has been caught secretly considering plans for the world's biggest salmon farm, which would create more sewage waste than Glasgow. Sepa, let us not forget, is meant to protect us from pollution. But it almost seems more concerned to

grease the wheels of industry. This is disturbing. As one former Sepa official told us, there's a tricky balance between being close enough to industry to understand it, and getting too close. Sepa is in the midst of a major overhaul of its regulatory arrangements, and it is under budgetary pressure. Its managers need to ensure that it effectively monitors and reports pollution, and forcefully reprimands offenders. It must be a lively and sharp-toothed watchdog, not a sleepy and soft-hearted poodle. Scottish ministers, too, should ensure that their regulatory agency doesn't grow flabby and weak.

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Imminent action on £300m sea lice problem



Imminent action on £300m sea lice problem

Campaigners: Scottish salmon farming 'fighting a losing battle' against sea lice

Official figures show use of chemicals to fight sea lice in Scotland has jumped nearly 1000 percent in the past 10 years.

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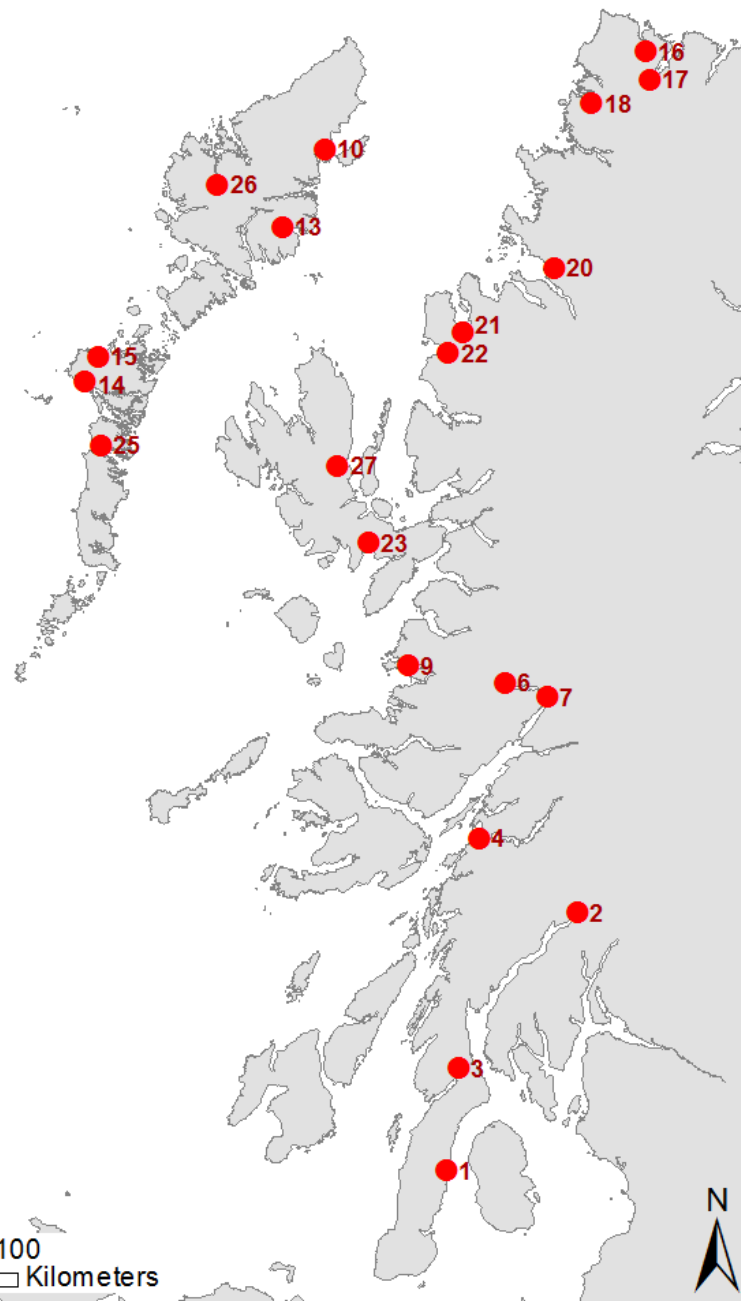
Campaigners are warning that Scottish salmon farming is "fighting a losing battle" against chemically resistant sea lice, reports *The Press and Journal*. It follows the revelation that the use of chemicals to fight sea lice on salmon farms has soared by almost 1,000 percent in the past decade. According to official data, between 2006-16, farmed salmon production increased by 35 percent while the use of chemicals to control lice rose 932 percent. Critics of salmon farming said that the growing use of chemicals to fight sea lice, raises serious questions about the industry's environmental impact.

1. A comprehensive programme for monitoring sea lice burdens on wild Atlantic salmon and sea trout

MIAP 2015

2016 Sweep netting locations

- 1, Carradale
- 2, Loch Fyne
- 3, Loch Riddon
- 4, Dunstaffnage
- 6, Kinlocheil
- 7, Camas na Gaul
- 9, Borrodale
- 10, Tong
- 13, Eisgein
- 14, Kyles
- 15, Malacleit
- 16, Kyles of Durness
- 17, Polla
- 18, Laxford
- 20, Kannaird
- 21, Boor Bay
- 22, Flowerdale
- 23, Slapin
- 25, South Ford
- 26, Morsgail
- 27, Varagill



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1. A comprehensive programme for monitoring sea lice burdens on wild Atlantic salmon and sea trout

2. Effective regulation

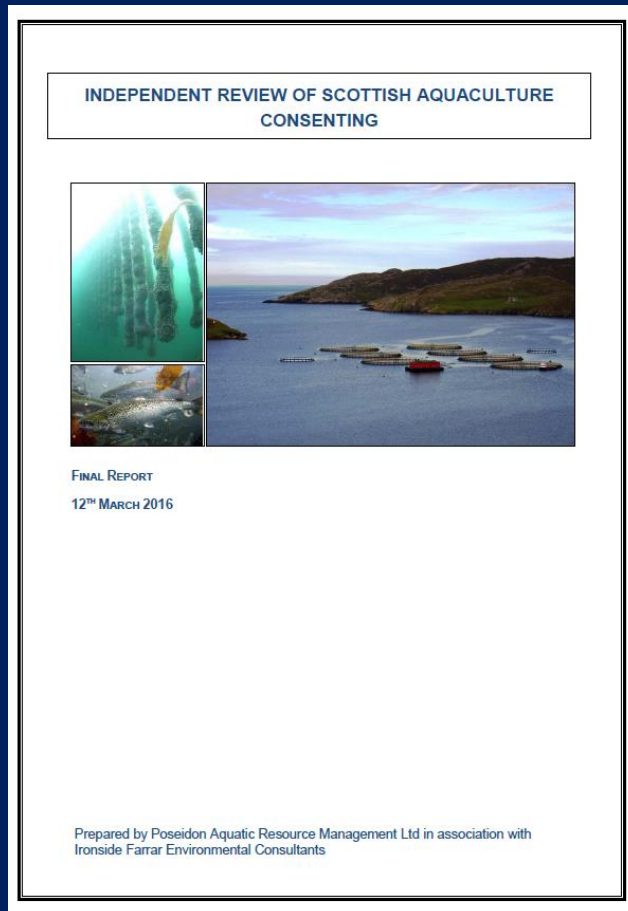
European sea lice regulation

	Annual farmed salmon production	Sea lice per farm chemical treatment trigger levels (adult female lice per fish)		Chemical treatment – mandatory or advisory	Sanctions available when treatments fail	Incidence of sanctions being applied	Independent or self-monitoring of farm sea lice numbers
		Spring	Ex spring				
Norway	1,300,000 tonnes	0.2*	0.5	Mandatory	Forced harvesting	10 sites in 2015	Self-monitoring
Scotland	180,000 tonnes	3.0	3.0	Advisory***	Exceeding 8 lice “will result in enforcement action...” ****	None	Self-monitoring
Faroes	66,000 tonnes	2.0**	2.0**	Mandatory	Forced slaughter	5 cases in 2015	Independent
Ireland	13,000 tonnes	0.3-0.5	2.0	Spring mandatory. Ex spring ambiguous *****	Early harvesting	Once (2010) in last 30 years	Independent

- 1. A comprehensive programme for monitoring sea lice burdens on wild Atlantic salmon and sea trout**
- 2. Effective regulation**
- 3. Farm sea lice counts to be published on a farm by farm basis**

	Transparency of publication of farm sea lice numbers
Norway	By farm (x 14 per annum)
Scotland	Aggregated by region, monthly (quarterly in arrears)
Faroes	By farm – (x 16 per annum)
Ireland	By farm (x 14 per annum)

Independent Aquaculture Consenting Review 2016



- Wild salmonid interactions number 1 issue
- Local authorities frustrated with MS guidance on wild salmonids
- Highlights failings of current licensing system
- Suggests 5 options for change

Aquaculture Stewardship Council Accreditation

Pros

- Linking area based management to wild salmonids
- Commitment to monitor sea lice on wild salmonids
- Publication of farm sea lice data
- Lower lice levels than industry standard during sensitive periods for wild salmonids (0.1 lice/fish)

Cons

- No sea lice standards outside of wild salmonid 'sensitive periods'
- No enforced management actions if lice levels not met
- 'Allowance' for escapes high
- Voluntary scheme, so regulation still required

