

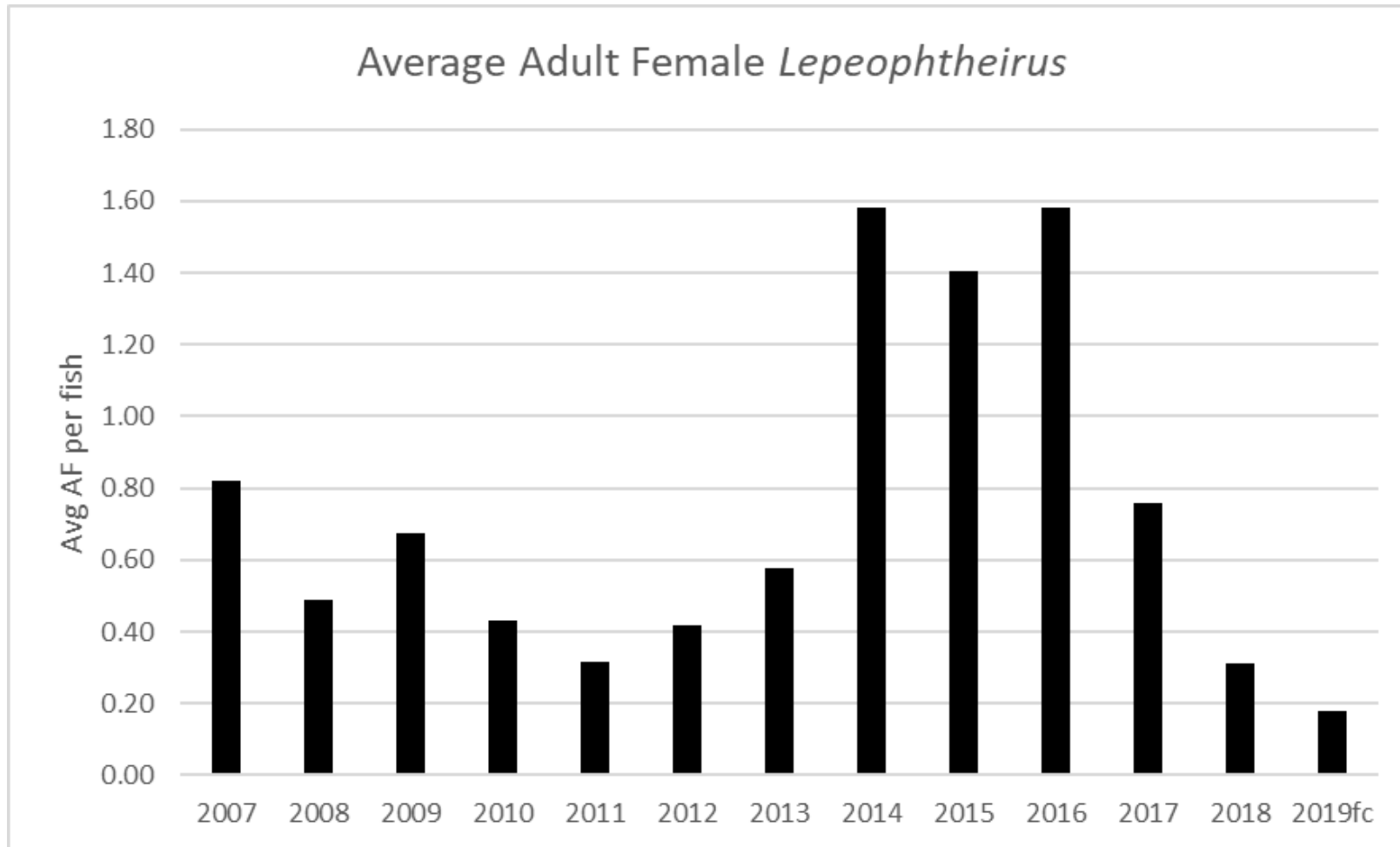
MOWI[®]

Farm Sea-lice

FMS Conference
Edinburgh, 29th March 2019

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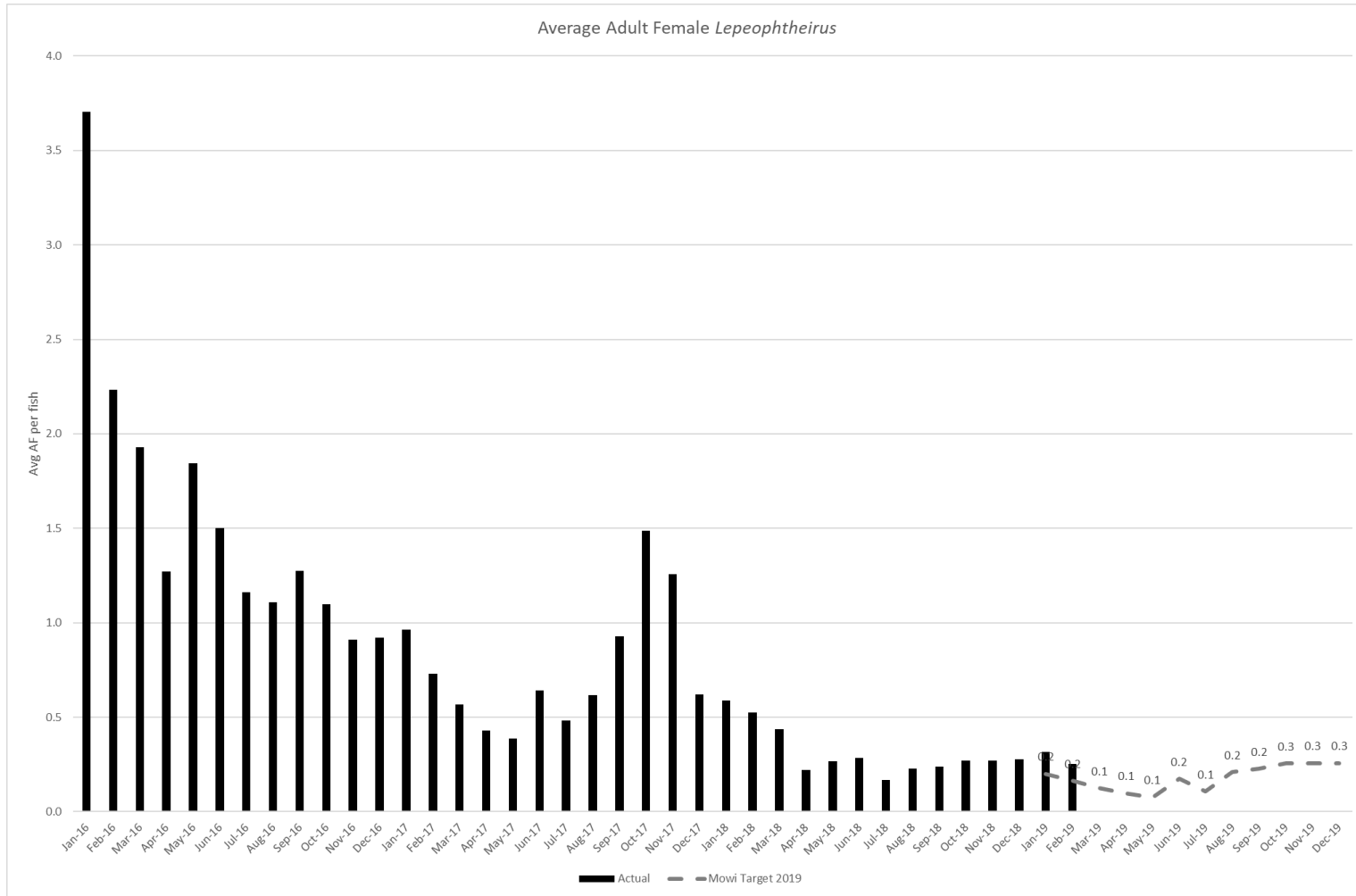
History of Sea-lice levels (Mowi Scotland)



Our ability to control lice declined 2012-16

- Increased infection pressure?
- Decline in medicine efficacy
- Management

Sea-lice level reduction (Mowi Scotland)



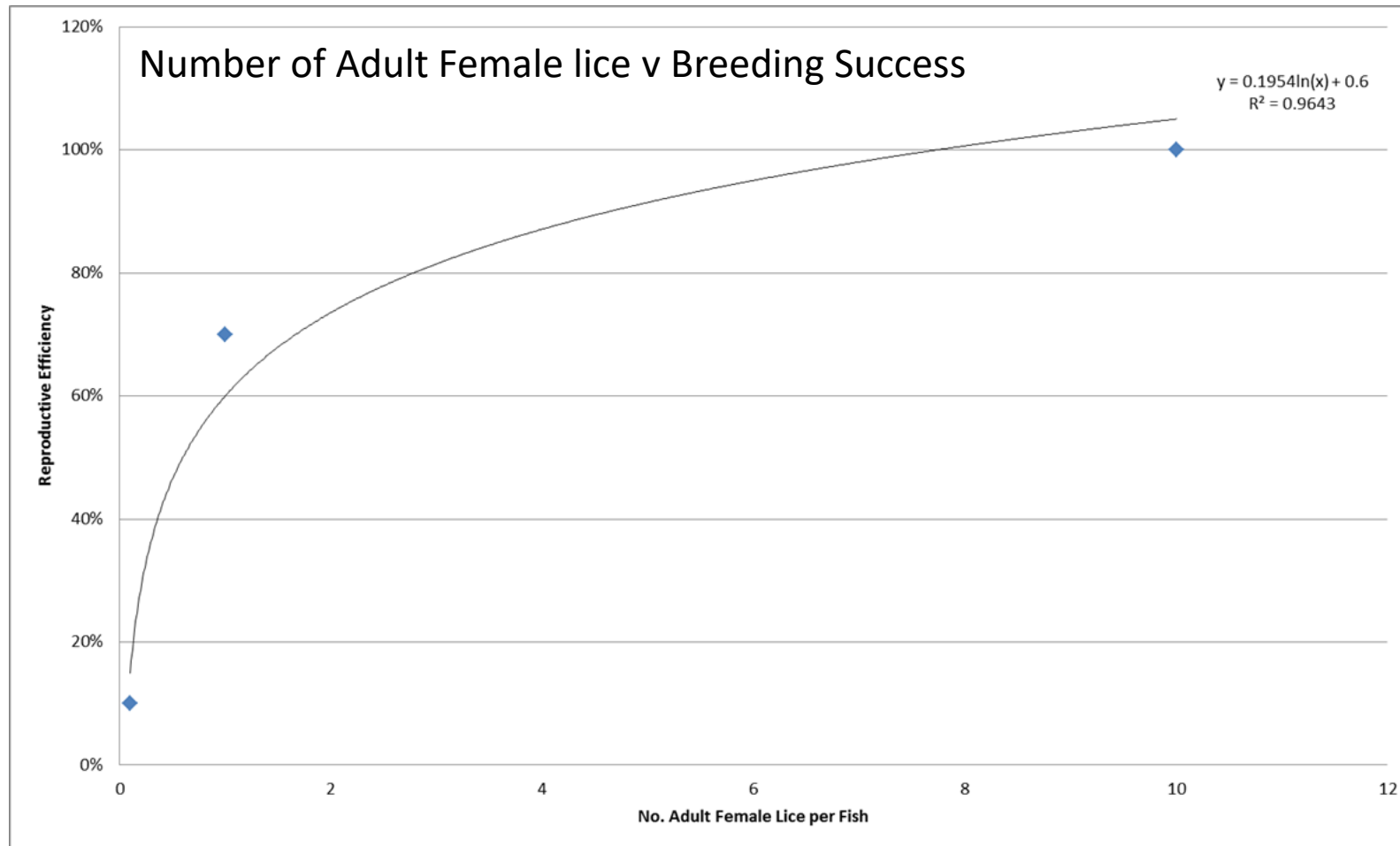
Since spring 2016 we have regained full control of sea-lice

- New management
- New methods
- New resources

By August last year (2018) Mowi Scotland reached and has subsequently maintained reaching, a new all-time low, for the recorded average level of sea-lice on our farms.

Our target is to continue this throughout 2019.

How have we done it?



Our strategy is based on keeping the number of adult female lice below 0.2/fish.

Below 0.2 the reproductive efficiency and thus, the population viability of sea-lice, is very low.

New methods

The emergence of new methodologies for the control of farmed sea-lice

	<u>Pre 2016</u>	<u>Post 2016</u>
Cleanerfish	Few	Plenty
Freshwater	Not avail	New methodology, high efficacy
Hydrolicer	Not avail	New methodology, high efficacy
Thermolicer	Not avail	New methodology, high efficacy
Skamic	Not avail	New methodology, high efficacy
Salmosan	High resistance, low efficacy	New methodology, high efficacy
AMX	Very high resistance, low efficacy	Very high resistance, low efficacy
Peroxide	High resistance, low efficacy	High resistance, low efficacy
Slice	Very high resistance, low efficacy	Very high resistance, low efficacy

Never in its history has the Scottish Salmon industry had access to so many different and very effective methodologies to control farm sea-lice.

But the key is to keep lice numbers, on farmed fish, below where their breeding viability becomes exponential.

These new methodologies must be rotated to prevent the rapid re-emergence of genetic resistance.

Mowi Scotland

We offer full transparency and justification of our actions and farming methods.

We accept there is an unquantified hazard to wild fish, particularly in poorly flushed sea lochs, when levels of farm derived lice are not well managed.

We promote the need for cooperation and meaningful projects to enhance wild fish returns and quantify numbers.

We strongly support the enhanced monitoring of farm lice, wild salmonid migration routes and genetic introgression.

We have observed the chronic low investment in West Coast Rivers. We want to play a part in rectifying this, but we also expect all stakeholders to play their equal part in this shared obligation.

Thank you