Identifying salmon lice transmission characteristics between Faroese salmon farms - DTU Orbit (25/12/2018)

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Sea lice infestations are an increasing challenge in the ever-growing salmon aquaculture sector and cause large economic losses. The high salmon production in a small area creates a perfect habitat for parasites. Knowledge of how salmon lice planktonic larvae disperse and spread the infection between farms is of vital importance in developing treatment management plans to combat salmon lice infestations. Using a particle tracking model forced by tidal currents, we show that Faroese aquaculture farms form a complex network. In some cases as high as 10% of infectious salmon lice released at one farm site enter a neighboring fjord containing another farm site. Farms were characterized as emitters, receivers or isolated, and we could identify two clusters of farms that were largely isolated from each other. The farm characteristics are a valuable input for the development of management plans for the entire Faroese salmon industry.

General information
State: Published
Organisations: National Institute of Aquatic Resources, Centre for Ocean Life, Section for Oceans and Arctic, Aquaculture Research Station of the Faroes
Contributors: Kragesteen, T. J., Simonsen, K., Visser, A., Andersen, K. H.
Pages: 49-60
Publication date: 2018
Peer-reviewed: Yes

Publication information
Journal: Aquaculture Environment Interactions
Volume: 10
ISSN (Print): 1869-215X
Ratings:
BFI (2018): BFI-level 1
Web of Science (2018): Indexed yes
BFI (2017): BFI-level 1
Scopus rating (2017): CiteScore 2.69 SJR 1.034 SNIP 1.331
Web of Science (2017): Impact factor 2.105
Web of Science (2017): Indexed yes
BFI (2016): BFI-level 1
Scopus rating (2016): CiteScore 2.19 SJR 1.051 SNIP 1.109
Web of Science (2016): Impact factor 2.905
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 1
Scopus rating (2015): CiteScore 2.25 SJR 0.936 SNIP 0.942
Web of Science (2015): Impact factor 1.985
Web of Science (2015): Indexed yes
BFI (2014): BFI-level 1
Scopus rating (2014): CiteScore 2.25 SJR 0.854 SNIP 1.04
Web of Science (2014): Impact factor 1.964
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 1
Scopus rating (2013): CiteScore 2.45 SJR 1.24 SNIP 1.475
Web of Science (2013): Impact factor 2.371
ISI indexed (2013): ISI indexed yes
BFI (2012): BFI-level 1
Scopus rating (2012): CiteScore 1.19 SJR 0.743 SNIP 1.094
Web of Science (2012): Impact factor 2.219
ISI indexed (2012): ISI indexed no
Web of Science (2012): Indexed yes
Scopus rating (2011): SJR 1.143 SNIP 1.185
Web of Science (2011): Impact factor 2.188
Web of Science (2011): Indexed yes
Original language: English
Electronic versions: