

Seeking alternative lice and AGD control: FW snorkel cages

Daniel Wright

Frode Oppedal, Tim Dempster, Lars Stien, Lena Geitung, Egil Karlsbakk

Institute of Marine Research I University of Melbourne I University of Bergen

Chemical-free lice barrier cages are here





Snorkel cage





Skirt cage

Stien et al. (2012) Aquac Eng Stien et al. (2016) Aquaculture Nilsen et al. (2016) Aquaculture Enclosed cage

But barriers may worsen AGD outbreaks





	Control	Snorkel	Control	Snorkel
AGD scores ≥ 1:	0%	100%	14%	100%

Wright (2017) Prev Vet Med

FW snorkel an option to control lice and AGD





Korsøen et al. (2012) Aquac Eng



Mitamura et al. (2017) Anim Biotelem

AGD and lice in freshwater



Commercial cages: FW snorkel testing







Wright (2017) Prev Vet Med

Research cage experiment: AGD and lice





Research cage experiment: Fish depth





Research cage experiment: Fish jumps







Conclusions and future directions

- Short, frequent FW doses are a viable alternative
- FW avoidance is a thing
- May force salmon below snorkels, increasing lice infestations
- FW snorkel effects may depend on cage scale



