

Transgenic salmon hybridize with trout, produce sterile offspring

Researchers in Canada [recently confirmed](#) that [AquaBounty's genetically modified Atlantic salmon](#) is able to cross-breed with unmodified brown trout populations, producing viable offspring that grow at an accelerated rate like their transgenic parents. What some of the coverage forgot to note was that the offspring of brown trout and Atlantic salmon (which hybridize naturally) are sterile. Yes, these transgenic salmon could create hybrid offspring with wild fish, but these hybrids would be unable to reproduce.

Furthermore, the specific salmon used were fertile, for research purposes, whereas the fish AquaBounty intends to market [would all be sterile females with a third set of chromosomes to effectively eliminate the prospect of them breeding in the wild](#). And they would be stored under lock-and-key far away from oceans or brown trout populations.

The most frightening ecological bugbear plaguing the development and [agonizingly slow approval process](#) of AquaBounty's fast-growing, genetically modified AquAdvantage salmon is the "What if it goes out?" scenario. It's a scenario that should be evaluated with every transgenic animal. However, the only thing this study proved is that if you try, under laboratory conditions, to breed AquAdvantage salmon with brown trout, you can. This was intentionally a "worst-case scenario" experiment.

The fearful response to this study—[Frankensalmon could breed with trout, produce frankentROUT," says Grist](#)—ignores a mass of important context and assumes that all of AquaBounty and the FDA's fail-safes and safety measures are worth nothing. [Traditional fish-farming runs the ecological risk of farmed species getting into local bodies of water and wreaking havoc](#), but it is not under the same scrutiny (and apparent suspicion) of efforts to farm GM salmon.

If we're going to have an intelligent conversation about the risks posed (and not posed) by the AquAdvantage salmon, we must take into account the safety measures that will be employed by the company producing the salmon—all of which were intentionally bypassed in this study to test the hypothetical scenario of fertile AquAdvantage salmon breeding with brown trout.

Selected Sources:

- ["GM salmon can breed with wild fish and pass on genes,"](#) BBC News
- ["Hybridization between genetically modified Atlantic salmon and wild brown trout reveals novel ecological interactions,"](#) *Proceedings of the Royal Society B: Biological Sciences*
- [AquaBounty Response to New Research by Memorial University](#)
- ["AquaBounty Backgrounder,"](#) Genetic Literacy Project