

How genetically-engineered salmon could help preserve wild populations — if it isn't blocked by anti-GMO activist groups

Salmon are iconic keystone species across the northern Pacific and Atlantic basins. Salmon is also a prized human delicacy.

Wild salmon populations have been decimated by a combination of overharvesting, dams, and water diversions. Efforts to increase salmon abundance through fish farming and hatcheries have failed to stem the decline, instead exposing wild populations to diseases, pests, and the debilitating genetic effects of interbreeding with partially domesticated farm escapees and hatchery releases [\(1\)](#).

The plight of salmon is not unique. Preserving the genetic heritage of the many aquatic species now entering the food supply through aquaculture is a growing challenge. Breeding programs enhance commercially valuable traits but reduce genetic diversity.

Yet the reservoirs of genetic diversity in wild aquatic populations become increasingly critical to their survival and adaptation as the warming climate alters oceans and resculpts rivers and coastal regions.

We argue here that using gene editing to create genetic barriers between farmed and wild aquatic animals is emerging as the most effective approach to preserving aquatic genetic diversity. As such, it merits the strong support of the conservation community.

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To date, AquAdvantage salmon is one of only three GM animals approved for human consumption by the FDA ([29](#), [30](#)). The results of recent surveys indicate that both US and Norwegian consumers recognize the importance of using biotechnology to improve farmed plants and animals and evince willingness to buy GM salmon ([31](#)). While anti-GMO special interest groups continue to pressure retailers to boycott it, grocers are likely to bend to consumer demand if AquAdvantage salmon proves popular.

[This is an excerpt. Read the original post here](#)