

MAD SCIENCE



THE THREAT OF GENETICALLY MODIFIED SEAFOOD

There's no doubt that aquaculture will play a crucial role in the future of seafood, and that's why it is critical that we map out a sensible and balanced path forward in terms of how fish are farmed. Unfortunately, there is an offshoot of the aquaculture industry that chooses to approach this task in a dangerously backwards manner: rather than trying to shift our food and resource paradigm, these companies are attempting to use genetic engineering to alter nature to meet our broken systems.

The ultimate example of this kind of misguided approach is the so-called "Frankenfish"—a genetically modified (GMO) salmon created via the transgenic splicing of genes from an ocean pout (sea eel), an Atlantic salmon, and a Chinook salmon. The company behind this, Aquabounty Technologies, has been lobbying the Food & Drug Administration (FDA) to approve the sale of its pseudo-species for consumption here in the United States. This is highly problematic for numerous reasons.

THE MARINE ENVIRONMENT:

If this creature is approved by the FDA, nothing will prevent companies like Aquabounty from selling its eggs to any buyer, offshore or otherwise. These GMO salmon are not fully sterile and since offshore fish farms regularly experience escapes, the animals could potentially escape, breed, and outcompete wild salmon species. The U.S. Fish & Wildlife Service, which has expressed grave concerns over such a situation, has not been consulted by the FDA, even though that entity is required to do so under the Endangered Species Act.

FOOD SAFETY:


Unlike traditional crossbreeding practices, transgenic modification involves the use of genetic material that would never be combined through normal evolutionary processes. Splicing the genes of three different creatures can create novel problems, since genes often affect multiple characteristics and their expression can rarely be truly isolated. GMO salmon have already exhibited a high number of jaw deformities and an increased level of a potentially unsafe growth hormone. Also of concern is the possibility of allergic reactions in some consumers—a worry warranted by previously observed allergic reactions to other GMO foods (such as strawberries containing fish genes).

TRANSPARENCY AND CONSUMER PROTECTION:

Many companies specializing in transgenic engineering have actively resisted consumers' right-to-know by opposing proposals to require the labeling of GMO products. While most companies proudly stand behind their products, others in the industry would rather hide GMO salmon from prospective customers.. To top it off, a host of other GMO animals are waiting in the wings—if Aquabounty's Frankenfish is approved for sale, other transgenic engineering companies will begin filing applications for their own creations. The potential precedent is alarming.

At the end of the day, we should not be trying to change nature to meet the needs of a dangerously off-kilter food production paradigm that already relies heavily on unsustainable systems, such as tuna ranches and conventional salmon farms, to rear carnivores. Rather, we should be changing the way we think about aquaculture to meet the principles of a balanced planet—eating lower on the food chain and integrating approaches that promote biodiversity and better mimic the intrinsic checks and balances provided by a healthy and diverse ecosystem.

GREENPEACE APPLAUDS THE FOLLOWING RETAILERS FOR REFUSING TO SELL ANY GENETICALLY-MODIFIED SEAFOOD, EVEN IF IT WERE TO BECOME AVAILABLE ON THE MARKET:



FULL COMMITMENTS:

• Aldi

• H-E-B

• Meijer

• Trader Joe's

• Whole Foods

PARTIAL COMMITMENTS:

• Delhaize (only for 2013)

• Giant Eagle (only for salmon and tilapia)

• Target (only for salmon)

