

Salmon-Killing Virus Seen for First Time in the Wild on the Pacific Coast

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A lethal and highly contagious marine virus has been detected for the first time in wild salmon in the Pacific Northwest, researchers in British Columbia said on Monday, stirring concern that it could spread there, as it has in Chile, Scotland and elsewhere.

Farms hit by the virus, infectious salmon anemia, have lost 70 percent or more of their fish in recent decades. But until now, the virus, which does not affect humans, had never been confirmed on the West Coast of North America.

The researchers, from Simon Fraser University and elsewhere, said at a news conference in Vancouver that the virus had been found in 2 of 48 juvenile fish collected as part of a study of sockeye salmon in Rivers Inlet, on the central coast of British Columbia. The study was undertaken after scientists observed a decline in the number of young sockeye.

Richard Routledge, an environmental scientist at the university who leads the sockeye study, suggested that the virus had spread from the province's aquaculture industry, which has imported millions of Atlantic salmon eggs over the last 25 years, primarily from Iceland and Scandinavia. He acknowledged that no direct evidence of that link existed, but noted that the two fish had tested positive for the European strain of infectious salmon anemia.

The virus could have "a devastating impact" not just on the region's farmed and wild salmon but on the many species that depend on them in the food web, like grizzly bears, killer whales and wolves, Dr. Routledge said. "No country has ever gotten rid of it once it arrives," he said in a statement.

The only barrier between the salmon farms and wild fish is a net, he noted at the news conference, opening the way for "pathogens sweeping in and out." No treatment exists for infectious salmon anemia.

Gary Marty, the fish pathologist for the province's Ministry of Agriculture, said the Canadian Food Inspection Agency would seek fish samples from the researchers and run its own tests.

The British Columbia Salmon Farmers Association, an industry group, said fish health departments had regularly tested for the virus on the farms "and have never found a positive case." Dr. Marty confirmed that no cases had been found in that testing.

Still, "if these results are valid, this could be a threat to our business and the communities that rely on our productive industry," said Stewart Hawthorn, the managing director for Grieg Seafood, an association member.

At the news conference, the Simon Fraser researchers said Fred Kibenge, a researcher at Atlantic Veterinary College at the University of Prince Edward Island, the global center for tests detecting the virus, had confirmed its presence in the two fish. They called for widespread testing to determine where the virus exists in the region and in what fish.

Alexandra Morton, a researcher and activist who collected the sockeye samples and is an outspoken critic of salmon farming practices in British Columbia, called the virus “a cataclysmic threat” to both salmon and herring, which can also contract it.

“If we test five million fish and found two sick, O.K.,” she said. “But 48 in the middle of nowhere?” The inlet where the samples were taken is 60 miles from the nearest salmon farm, the researchers said.

Fishery experts with no connection to the study agreed that the threat was serious. James Winton, who leads the fish health research group at the Western Fisheries Research Center in Seattle, an arm of the United States Geological Survey, called it a “disease emergency” and urged that research begin at once to determine on how far the virus had spread.

According to the federal Centers for Disease Control and Prevention, infectious salmon anemia virus morphed from a benign form in nature into a “novel virulent strain” when salmon stocks entered Norway’s densely packed salmon farms. Rather than getting picked off by a predator, a sick fish would undergo a slow death in a crowded pen, shedding virus particles.

Offshore saltwater pens supply most of the Atlantic salmon sold in the United States.

This article has been revised to reflect the following correction:

Correction: October 21, 2011

An article on Tuesday about the discovery of a virulent virus in two wild Pacific salmon in British Columbia referred incorrectly to the remedies that are available to try to protect fish from the virus. Several vaccines have been developed to inoculate Atlantic salmon from the virus, infectious salmon anemia, although researchers say they are not fully effective and are impractical to administer; it is not the case that such vaccines are nonexistent.