Mercury poisoning from illegal mining in the Brazilian Amazon means that many species of fish that people depend on for food in far-away areas of Brazil are not safe to eat.

The team sent scientists to test local fish for mercury and found 97 per cent of them were tainted.

Evidence that the fish is unsafe to eat is adding to concerns that illegal mining in the Yanomami reserve is causing a public health crisis, says Campos.

Mercury pollution from illegal mining in the Amazon is causing a public health crisis, says Campos.

Thereafter, the researchers tested fish samples at four locations on the Branco river.

The researchers were surprised to find that the pollution is reaching areas far away from gold mining. In the lower basin of the Branco, which is more than 200 kilometres south-west of the Yanomami reserve's illegal mining hotspot, 45 per cent of all fish tested had unsafe mercury levels.

In a previous paper published last year in the journal Environmental Research, Campos and her colleagues measured mercury levels in 75 fish caught at four locations on the Branco river.

The researchers measured mercury since illegal mining in the area became a public health crisis in 2018. They had chosen the Branco as it passes up the food chain.

Two of the four fish species studied had mercury levels three times higher than safe limits recommended by the World Health Organisation for people aged under 15 years, which Campos says is particularly dangerous for children because of its impacts on the brain. Even low levels of mercury exposure during pregnancy can cause miscarriage and developmental issues.

Mercury poisoning is particularly dangerous in pregnancy, as it is associated with a higher risk of spontaneous abortion and developmental issues. It has previously been considered a public health hazard in the Amazon, where many communities depend on fish.

Until now, the harmful effects of mercury poisoning in the Amazon have been limited to people living near illegal miners, but researchers are increasingly discovering that fish catches are contaminated far away from the mining areas.

Pulsar Imagens/Alamy

Fish is a major part of the diet for Yanomami people. In 2021, the Yanomami population of 30,000 was estimated to eat 4.5 kilograms of fish per day, but this varies widely across the territory. The Yanomami people also consume a range of other foods, including fruit, vegetables, nuts and rice.

The Yanomami are the indigenous people of Brazil's Amazon rainforest, particularly the world's largest relatively isolated Indigenous group. They are known for their unique culture and language, and have been fighting for their rights and land since the 1970s.

At four locations close to the Yanomami Indigenous reserve in Brazil, many species of fish were found to have mercury levels considered unsafe for consumption.