

Warning: Dog-killing "liver fluke" parasite discovered in US for the first time



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For the first time, scientists have confirmed the presence of a potentially fatal dog parasite, liver fluke, in a section of the [Colorado River](#) that traverses California. This revelation from scientists at [UC Riverside](#) has prompted urgent calls for public awareness due to the serious health risk it poses to pets.

Heterobilharzia americana, a flatworm commonly known as liver fluke, has made a surprising journey from its known habitat in Texas and other Gulf Coast states to the west. This marks the first instance of the [parasite](#) being identified so far from its original reported locations.

The liver fluke is the cause of canine schistosomiasis, a disease affecting dogs' livers and intestines, which, if left untreated, can lead to death.

"[Dogs](#) can die from this infection, so we are hoping to raise public awareness that it's there," said UCR nematology professor Adler Dillman. "If you're swimming in the Colorado River with them, your pets are in peril."

The discovery followed reports of local dogs showing signs of infection after swimming in the river near Blythe, a border town east of [Joshua Tree National Park](#). In response, Professor Dillman and his team conducted extensive fieldwork, collecting over 2,000 snails from the riverbanks.

Tracing the parasite's journey to U.S. rivers

Their findings, published in the journal *Pathogens*, detailed the presence of two specific snail species that act as hosts for the liver fluke, facilitating its transmission.

“We actually found two species of snails that can support *H. americana* in the river in Blythe, and we found both snails actively shedding this worm,” Dillman revealed. “Not only was it a surprise to find *H. americana*, but we also did not know that the snails were present here.”

The lifecycle of *H. americana* is complex, with the worm requiring a snail host before it can infect a mammal. After transforming within the snail, it seeks a new host, such as a dog or a raccoon, to infect.

The parasite’s journey doesn’t end with infection. It continues to develop within the host, leading to severe organ damage due to the immune system’s response.

Symptoms, diagnosis, and treatment of liver fluke infection

Since 2019, eleven dogs across three California counties have been diagnosed with the disease, resulting in one fatality.

“Symptoms start gradually with a loss of appetite, and eventually include vomiting, diarrhea, profound weight loss, and signs of liver disease. If your dog has these symptoms after swimming in the [Colorado River](#), it’s a good precaution to ask your veterinarian for a simple fecal test,” advised Emily Beeler, a veterinarian with the Los Angeles County Department of Public Health.

“It gets into the veins of the intestinal lining, and that’s where it develops into an adult and mates. The presence of the adults in the veins isn’t the problem,” Dillman said.

“It’s the eggs that get into the lungs, spleen, liver, and heart. The immune system tries to deal with it, and hard clusters of immune cells called granulomas form. Eventually the organ tissues stop functioning,” he concluded.

Human safety and water quality

While *H. americana* poses a significant threat to [dogs](#), it is not capable of causing disease in humans, though it may cause swimmer’s itch — a red rash resulting from skin penetration.

Professor Dillman also sought to reassure the public regarding the safety of urban drinking water, noting the parasite’s size makes it easily filterable by standard purification methods. However, he cautioned against consuming untreated river water due to the presence of other pathogens.

Vigilance and awareness are key with liver fluke

In summary, the discovery of the *Heterobilharzia americana* parasite in the Colorado River serves as a stark reminder of the interconnectedness of ecosystems and the unexpected ways in which diseases can spread.

By raising awareness, conducting diligent research, and implementing preventive measures, we can protect our beloved pets from this hidden danger.

It underscores the importance of vigilance in monitoring our natural waterways, not only for the health of our [canine companions](#) but also for the broader implications on public health and environmental safety.

Through community education and scientific investigation, we can combat the spread of this parasite, ensuring the safety and well-being of all who rely on these vital water resources.

More about the liver fluke *Heterobilharzia americana*

As discussed above, *Heterobilharzia americana*, a parasite that remained largely unnoticed outside of specific regions, has recently garnered attention due to its unexpected spread to new territories.

This flatworm, also known as the liver fluke, poses a significant threat to canine health and highlights the complexity of parasitic life cycles and their impact on ecosystems and animal welfare.

Lifecycle of *Heterobilharzia americana* liver fluke

Heterobilharzia americana begins its lifecycle in freshwater snails, the unsuspecting hosts that play a crucial role in the parasite's development.

After maturing within the snail, the parasite is released into the water, where it seeks out its next host — typically a mammal such as a dog.

Once inside its mammalian host, the parasite makes its way to the liver and intestines, where it completes its lifecycle, causing significant health issues and, in severe cases, death.

Liver fluke's deadly threat to dogs

Dogs infected with *Heterobilharzia americana* can suffer from canine schistosomiasis, a disease characterized by liver and intestinal damage.

Symptoms may include loss of appetite, vomiting, diarrhea, weight loss, and signs of liver disease. The disease is particularly insidious because it can take months for the most severe symptoms to appear, making early detection and treatment challenging.

Detection and prevention of *Heterobilharzia americana*

Awareness and early detection are critical in managing the spread of *Heterobilharzia americana*. Pet owners should be vigilant for symptoms, especially if their dogs have been exposed to potentially contaminated water sources.

A simple fecal test can confirm the presence of the parasite, allowing for timely treatment and preventing further spread. Preventive measures also include avoiding contact with known infected water bodies and promoting research on snail control and parasite eradication strategies.

Implications and future liver fluke study

While *Heterobilharzia americana* does not pose a direct threat to humans, its spread is a concerning indicator of environmental change and the potential for other parasitic diseases to expand beyond their traditional boundaries. It underscores the importance of monitoring wildlife and domestic animal health as sentinels for emerging infectious diseases that could impact human health and biodiversity.

The emergence of *Heterobilharzia americana* in new regions is a call to action for researchers, veterinarians, and pet owners alike. By understanding its lifecycle, recognizing the symptoms in infected animals, and taking preventive measures, we can mitigate the impact of this parasite. Continued research and public awareness are key to controlling its spread and safeguarding the health of our pets and ecosystems.