



“Help, there are leeches in our lake!”

by Andrea LaMoreaux, Vice President, NH LAKES

“Help,” pleaded the caller, “Our lake is polluted—it is full of blood-sucking leeches!” As an aquatic biologist, this is one of the various reasons lake-goers call me during the summer, urging me to find someone or something to fix a problem that is ruining their enjoyment of one of New Hampshire’s approximately 1,000 lakes and ponds.

“Don’t worry,” I explained, “Rest assured, by no means does the presence of leeches in your lake mean that your lake is polluted.”

The caller on the other end of the phone was unconvinced, so I continued, “Leeches are natural organisms that can be found in most of New Hampshire’s lakes. While there are more than 650 species of leeches in North America, there are only a few species in New Hampshire known to take blood from a person, and that is *only* if the right opportunity arises.”

At this point, I emailed the caller some information about where leeches are found, what to do if he got bit by a leech, and how to avoid leeches altogether. I never got a return call back, so I guessed his fears were quelled.

In case you aren’t convinced that leeches aren’t a problem, or if you are just curious...

What are leeches and where are they found? Leeches are scientifically categorized as annelids (segmented worms) and they are closely related to earthworms. They appear as small, flattened worms, and can exist in any lake or pond. Like their earthworm cousins, leeches are hermaphrodites, but they reproduce sexually, meaning that after they mate, both leeches can lay eggs. They reproduce in the spring and the young leeches emerge out of their cocoons many weeks later (just in time for the summer swimming season!). Leeches prefer the shallow protected areas of lakes, hiding among plants, under rocks, sticks and logs, and attached to organic debris, particularly decaying leaves. While it is not known how long freshwater leeches live, it is likely they live for at least several years.



Leeches are most commonly found in shallow areas of lakes among plants, under rocks, sticks, logs, and attached to decaying leaves.

Are there any blood-sucking leeches in New Hampshire? Most leeches are predaceous, feeding on worms, snails, fish eggs, and aquatic insects. Some leeches are scavengers, feeding on the remains of dead animals and plants. Only a small percentage of leech populations suck blood from warm blooded animals, a group which includes people. In New Hampshire, only the Northern Bloodsucker, scientifically referred to as *Macrobdella decora*, is known to regularly take human blood. This species is a parasitic worm that grows over two inches long. It is brownish-green in color and sports black and red spots. It has a round, sucker-shaped mouth, and is reported to have five eyes!

How do leeches find their prey? While they are generally nocturnal creatures, during hot summer days, leeches are particularly attracted to water disturbances that create vibrations, such as animals swimming by or splashes created by people wading or swimming in the water. Leeches are excellent swimmers. They come out of their hiding spot and attach themselves to their host animal (which sometimes ends up being a person). They have sharp teeth which are used to cut into the skin of the host animal. They release a special enzyme which works as an anesthetic, so that the person (or other host animal) does not feel the bite. The enzyme also acts as an anti-coagulant which allows the blood to flow freely from the host to the leech. The leech will ingest almost five times its own weight in blood before it drops off and returns to a hiding place. A leech doesn't need much food—it will not feed again for several weeks, or even months!

Here's what to do if a leech attaches to you. If a leech attaches to you, it is probably because you happened to be wading or swimming in a shallow area where it was hiding. If you find a leech on your skin don't pull it off! The mouthparts of the leech could be left in your skin and could cause an infection. You might want to use an irritant, such as salt or heat (aim a hair dryer at it), to encourage the leech to voluntarily let go of you. After the leech is gone, clean, disinfect, and bandage the bite to prevent infection. If the wound doesn't heal properly, contact your doctor.



A leech attached to person's skin.

Are leeches dangerous? No, leeches are not dangerous. They do not cause serious physical harm to people as they really don't take much blood from their host, and it has been reported that they do not transmit human diseases. However, leeches can certainly inflict emotional harm on a host—I assume that most people would find a leech attachment disconcerting, to say the least! But, believe it or not, it is possible that leeches can be beneficial to humans—doctors have used (and some may still use) leeches to purposely drain blood from people to reduce swelling and heal wounds.

Can you get of leeches from the lake? Not really. There are no environmentally-safe chemical control measures that will effectively reduce leech populations while not harming fish and other aquatic animals. (And, any chemical application in a lake or pond in New Hampshire by a non-licensed applicator is illegal!) Bait trapping—using a metal coffee can with a plastic lid drilled with small holes and baited with raw meat and placed into a waterbody—may reduce leech populations. But, the easiest and safest way to reduce leech populations is to make sure you and your neighbors do not rake leaves, grass clippings, or other organic debris into the lake.

Here's how to avoid leeches. If you want to minimize the potential for a leech encounter, consider swimming in deeper waters and in areas free of plants and other organic debris. Taking these precautions will reduce the likelihood of a leech latching on to you.

Leeches are good to have in our lakes! Leeches are native residents in our lakes. They are an important part of the lake food web. Most leeches eat worms, snails, and insect larvae—relatively few actually feed on humans. Leeches, in turn, are eaten by fish, ducks and turtles. And, many anglers use leeches for bait.

NH LAKES is the only statewide, member-supported nonprofit organization working to keep New Hampshire's lakes clean and healthy, now and in the future. The organization works with partners, promotes clean water policies and responsible use, and inspires the public to care for our lakes. For information, visit www.nhlakes.org, email info@nhlakes.org, or call 603.226.0299.

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