Leeches!

A BIG alternative to fall's small flies.

The dominant hatches of fall tend to be some of the smallest insects of the year. Micro-caddisflies, little olives, and midges all produce excellent fall hatches, but trying to follow the minute imitations of these bugs in the bright fall sun can give an angler serious eyestrain. However, all is not lost. When your eyes are weary and you've run out of 7X tippet, tie on an imitation of one of the most productive aquatic inhabitants—the leech.
You may find it surprising, but leeches are of interest to more people than just fishermen and swimmers. Since the 18th century, leeches have been a standard tool of the medical profession. More than 25 million leeches were sold in France in the mid-1800s for “leeching,” as the method was called, and the practice continues to this day as one of the best ways of dealing with certain medical problems, such as increasing blood circulation to fingers or toes after surgery. Leeches also starred in one of the most famous scenes in movie history; who can forget Humphrey Bogart covered with leeches in *The African Queen*?

**Bloodsuckers or Trout Food?**

Leeches are worms. (This is the “Entomology” column—I know—but leeches are such an important part of the trout’s aquatic habitat that I hope you’ll allow me to step outside the bug world just this once.) They belong to the *phylum* Annelida, which includes earthworms (class Oligochaeta) and marine worms (class Polychaeta). Leeches are in a class of their own, the Hirudinea. All annelids have segmented bodies, a muscular body wall, and a simple digestive tract. Leeches possess several specialized features, most notably the anterior and posterior suckers, that distinguish them from other worms. Leeches are also different in that they are flattened dorso-ventrally (top to bottom). Leeches are very common and often abundant in fresh water, with 44 species known in North America.

Leeches vary greatly in size, color, and habits. Most leeches are 1 to 3 inches long, but as a class they range from less than a half-inch to almost 18 inches long. The length of individual leeches also varies widely, because they are highly contractile; an individual only 1 inch long when contracted may reach 4 inches long when extended.

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ENTOMOLOGY

Few leeches are uniform in color. Most are mottled, spotted, or striped. The ventral (bottom) surface is almost always paler than the dorsal (top) surface, and various combinations of red, brown, black, yellow, and green are common. At least one species changes color, from black when contracted, to green when extended. Unlike many organisms, leeches do not seem to change color with their background, but they may become paler in darkness and darker in light.

The habits of leeches have been fairly well studied and described. As with many worms, they are hermaphroditic, which means each individual carries both male and female sex organs. While it is possible, individuals rarely fertilize themselves, however. Instead, a pair will mate, each receiving sperm from the other, and each developing its own eggs. Leeches typically mate in the spring and deposit eggs from May to August. Eggs are deposited in cocoons in a fashion similar to earthworms. Cocoons are formed by a structure called the claretum. During breeding season, it secretes a ringlike structure that slips off the anterior end of the body forming the cocoon in the process. As the cocoon passes over the female genital pore, a number of eggs are deposited in it. Leech cocoons are oval-shaped and from 5/16 to 1/8 inch long. Some species attach the cocoons to the substrate, while others bury them in soft mud or sand near the shores of streams or lakes. The time it takes for the eggs in the cocoon to hatch is not well-known, but the newly emerged leeches are fully independent. In general, little is known about the life span of leeches. Some species take 2 to 5 years to reach maturity and may live for 10 to 15 years.

The feeding habits of leeches are quite variable. Contrary to the image created in The African Queen, most species are not bloodsuckers. The majority of species are carnivorous, feeding on snails, insects, worms, and other small invertebrates. Many species are also scavengers that feed on dead animals, while others are parasites on frogs, turtles, and fish. Only two genera of American leeches regularly feed on human blood. Once ingested, the blood is digested very slowly, and another meal is not needed for weeks or even months. Some specimens have been kept in captivity for more than two years without feeding.

Leeches are rarely thought of as graceful. When crawling along the ground they move with an inchworm-like looping movement by alternately gripping the substrate with their oral and caudal suckers. They may change in shape significantly as they contract and extend forward. Besides crawling, many species are excellent swimmers. It is while swimming that they move with a graceful side-to-side or up-and-down waving motion. Most species are nocturnal, and the greatest feeding and swimming activity occurs at night.

Given leeches’ variable size, color, and habits, it’s not surprising to find
out that they live in a wide range of habitats. They are equally at home in lakes or streams. In lakes they are particularly fond of shallows where there is little wave action. Plants, stones, and other bottom debris offer food and shelter. In streams, leeches can be collected in most habitats from riffles to pools. The greatest numbers, however, seem to be in areas with moderate to slow currents and a mixed bottom of stones and plant debris. Under ideal conditions, more than 700 leeches per square meter have been collected.

 Though they seem hard to kill, leeches are sensitive to certain types of water pollution. Few leeches are found in water contaminated with heavy metals or in acidic water. Some research also suggests that low calcium content in water may be a limiting factor in leech distribution.

A Boon to Anglers
If you are new to fly fishing, you may not have gotten around to fishing leech imitations yet. But if you have been at the sport for a few years, you probably have some big fish stories to tell. It is my guess that at least some of these big fish stories involve leech patterns. For me, several large trout with leech patterns in their mouths come to mind. There was the Kamloops rainbow in British Columbia taken at night with a rabbit-hair leech. And the brown trout caught on the Big Hole with a rabbit-fur-strip leech. And the Lahontan cutthroat taken from a desert lake on a Woolly Bugger. These fish were not only notable for their size, but for the way I remember their strikes. In each case, the fish hit with a recklessness and aggressiveness that sent a shot of adrenaline right to my heart. There’s no doubt in my mind that trout like leeches.

If fish love leeches, then when, how, and where should their imitations be fished? To answer these questions, let’s consider some of the important aspects of leech behavior.
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ENTOMOLOGY

- Leeches vary widely in size and color.
- Leeches swim with up-and-down or side-to-side undulations.
- Leeches are nocturnal.
- Leeches mate in the spring and early summer.
- Leeches are found in a wide range of habitats.

With these points in mind, we can begin to see some characteristics that will help us select and fish leech imitations. Because leeches live in a wide variety of habitats in both streams and lakes, their patterns can be fished in most waters where fish are found. Keep in mind, however, that leeches are not as abundant in areas with sand or mud bottoms, and shallow areas (1 to 6 feet deep) will usually contain more leeches than deeper water. Also, in rivers leeches will be more numerous in moderate to slow current areas than in fast riffle areas.

Leeches are primarily nocturnal, so the best time to fish leech patterns will be during low-light conditions, such as on heavy overcast days, early morning, late evening, and during the night. It's amazing how well fish can locate fly patterns fished at night. I have also used leech patterns on sunny days and caught fish with them. I suspect that fish find leeches enticing enough to take at most times, even when the naturals would normally be inactive.

Leech patterns are effective any time of the year. In the spring, when leeches are mating, fish see a lot of leeches and readily take them. In the fall and winter months, leeches provide a big juicy meal when there is little else big and juicy around to eat. A leech pattern can be just the thing to fool a finicky trout.

Leeches are good swimmers, which tells you a lot about how to fish their patterns. A standard method in lakes is to cast into or along the shoreline, especially where there is a shelf breaking into deeper water or where
weedbeds offer trout some cover. Trout will move into much shallower water in the evening and at night than during the day, which is another reason to fish leeches at those times. You may use a floating line, sinking-tip, or full-sinking line depending on the depth of the water. The important thing is to get your fly close to the bottom. I use a short strip retrieve (2 to 4 inches) with a pause between each strip. If you don’t find any takers, vary the speed and length of the strip. In streams, I fish leech patterns much like most other streamers. If you’re in a boat, cast into pockets or slots and twitch the fly across and downstream. From shore, fish leech patterns through pools and runs. One of my favorite spots is in deep water below a riffle. Some large fish prefer these areas, and a large buggy leech pattern will often get them to strike.

Finally, leeches vary widely in size and color, so the pattern you use does not have to be a very exact imitation. I think that the action of the fly is the most important aspect, so use patterns that have plenty of soft fibers that wave easily in the water. Marabou and long rabbit-body hair are two of the most common materials used for leech patterns. For color, most leech patterns are tied in dark colors; black, dark olive, and reddish brown are my favorites.

If you haven’t tried leech patterns or have fished them sparingly, I suggest you give them a serious try. Leeches are a fascinating and common inhabitant of fresh waters around the country. They are eaten by all species of fish, and are easily imitated by the angler. When that hard jolt of a heavy fish reaches your hand, you’ll have no doubt that a leech can be an angler’s best friend.

When he’s not out using fake worms to fool big trout, Rick Hofeld studies insects and water quality as an entomologist for the state of Oregon.