

Blood Feeders ~ The Leeches

by Charles O. Masters

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Many years ago, in fact, back in the days when Ida M. Mellen's book entitled "Fishes in the Home" was about the only popular reference on the subject, the author had his first serious experience with leeches in an aquarium. During those days it seemed to be more popular to use native fishes such as sticklebacks and mudminnows along with native plants in the aquarium rather than go to a local pet shop and secure nursery-grown stock of both plants and fishes. For this reason, leeches were much more common in the tanks.

Of course, the bloodsucker which was more often seen at that time, at least by the author, was the common American medicinal leech, *Macrobdella decora*, which is dull green in color with approximately twenty deep red spots through the middle and a row of black spots near each side. It is well remembered that the under surface was a rather bright orange in color. Sometimes they would be as long as four to six inches in length and would securely attach themselves to whatever fish happened to be in the tanks.

Most of the plants used in the aquaria were of the marsh variety taken from a local swamp and consisted of such plants as the common waterweed, *Elodea*, and even some of the emergent species such as the broad-leaved arrowhead, *Sagittaria*, and cat-tail, *Typha*. The bloodsuckers would remain concealed in the clump of plants and would immediately start to swim about as soon as the tanks were set up. The torture was sustained by the observer as well as by the fish.

Today the leech situation, although still present, is somewhat diminished. Instead of causing extreme discomfort and even death to the fish it remains with us more as an inconvenience than anything else. This usually is true unless local pond plants and huge quantities of living wild fishfood are being used extensively. The worst that one usually encounters is a relatively small light-colored leech about one-half inch in length commonly introduced on aquarium plants. (EDITOR'S NOTE: We have seen them in batches of tubifex worms also.)

Occasionally it becomes necessary to remove the contents of a tank and disinfect it all thoroughly with salt. Because the leech, lodged in a gill, can cause discomfort to an adult fish or even death to a young one, it is best to use salt at the rate of four ounces to a gallon of water for complete disinfection. An infected fish should be kept in such a solution for about one-half hour. Remember too, although the salt causes the bloodsuckers to leave their points of attachment, it does not always kill them, so it becomes necessary to wash away all the loosened leeches. It is interesting to note that leeches can live in an aquarium for as long as fifteen months without any food whatsoever which possibly explains how an active one can suddenly appear from nowhere.

Out-of-doors leeches seem to prefer quiet waters, usually the region of floating leaves although certain species are found in the rapids and riffles of streams. Undersides of leaves, or boards, or flat stones are the usual resting sites, but they can sometimes be observed undulating through the water especially when it is set in motion or disturbed in other ways. They are very sensitive to changes in light, or the slightest vibration of the water, and also to extremely slight changes in the "flavor" of the water about them.

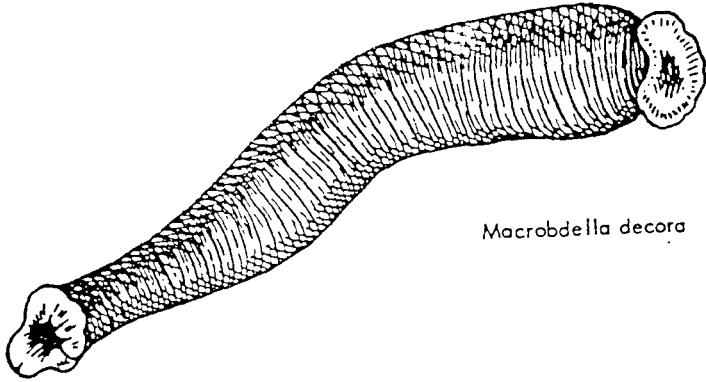
The eating habits of leeches are varied throughout a lifetime. When young, they feed mostly on worms, insect larvae and the meat of snails but as they grow older they seem to prefer the blood of turtles, frogs, fish, and even man. An anti-coagulant is forced into the wound through which the blood flows from the host to the leech in pretty much the same manner as that of the mosquito. The blood is kept thin and easily sucked-up. Very often turtles will carry as many as three or four on their undersides with little ill effect but frogs and fish are occasionally killed especially when leeches are quite numerous. The provisions for attachment and clinging sometimes cause wounds which can become badly infected resulting in death of many pond animals.

Leeches abound in ponds all over the United States, especially in those of the northern states, laying eggs within protective cocoons throughout the spring and summer. These shells, containing one or more eggs, are plastered to stones, plants or other submerged objects, and are sometimes buried in damp earth close to the shoreline. Leeches are hermaphroditic as are the common earthworms, each having both male and female sex organs, but require another leech for fertilization.

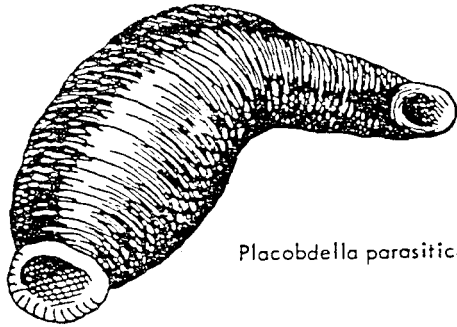
VENTRAL VIEWS



Placobdella parasitica

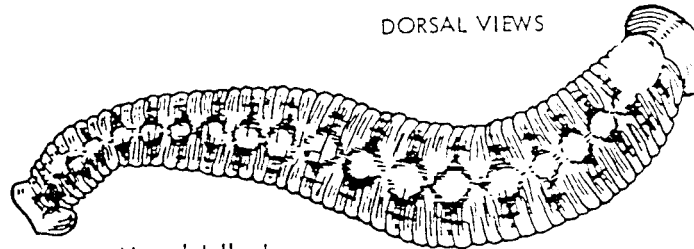


Macrobdella decora

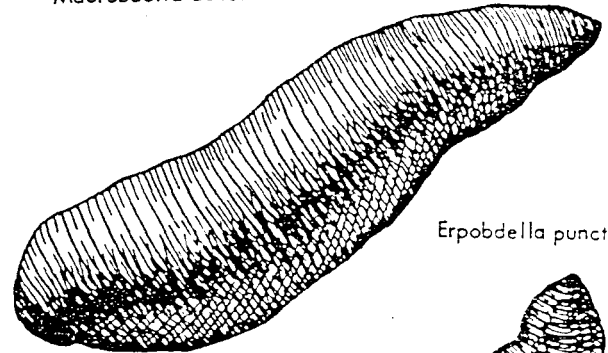


Placobdella parasitica

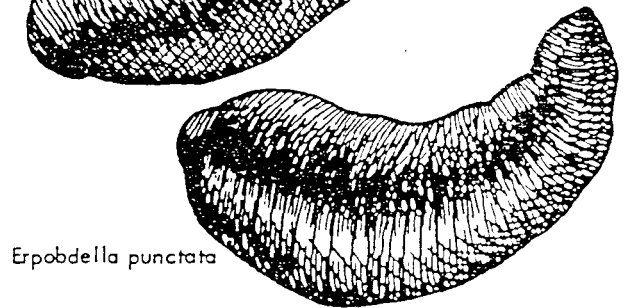
DORSAL VIEWS



Macrobdella decora



Erpobdella punctata



Erpobdella punctata

BLOOD FEEDERS--THE LEECHES

Turtle leeches, or ribbon leeches, *Placobdella parasitica* are striped and blotched with yellow whereas the horse leech, *Haemopsis* and *Erpobdella*, seem to vary considerably in color. Light grays, chocolate browns, and cool blacks are used to conceal the leech from its natural enemies, the carnivorous fish such as trout, sunfish, yellow perch, and black bass. The many wading birds too are important consumers of leeches.

All in all, bloodsuckers don't cause the general trouble among aquarists today as they did in the past but, because of their loathesome habits, they don't make the best of pets or even friendly neighbors. When present, they are to say the least, unwanted stowaways.

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