

June 16th. A perch moribund in eight minutes in a fourth solution from the same sawdust.

June 16th. A perch moribund in ten minutes in a fifth solution formed by soaking this same sawdust in fresh water for seven hours.

June 17th. A perch moribund in ten minutes in a sixth solution. With air bubbling through more of this solution, another perch moribund in twenty-one minutes.

June 18th. A perch moribund in twelve minutes in a seventh solution. The water was poured off twice to-day, making an eighth solution,

June 19th. A perch moribund in eight minutes in a ninth solution. At 11 a.m. a pond leech was placed in this solution. It had eighteen young ones, five large and thirteen small, attached to its back. Three of these young at once detached themselves from the mother's back. The adult showed every symptom of discomfort by swimming rapidly round the vessel, then pausing and rolling itself up into a wheel as if to escape the effects of the water. It tried to leave the vessel, but was put back again. Gradually the smaller young detached themselves from the mother until only two or three of the smallest (about  $\frac{1}{4}$  inch in length) remained on her back. The larger young ones were about an inch long, but when extended they were an inch and a half. Finally the smallest dropped off and wriggled about with the others on the bottom. The mother came to rest in about three-quarters of an hour. The young were all dead at 4.30 p.m.; the mother was moribund at 6 p.m., and died during the evening.

Two pond snails lived just twenty-four hours in this solution. The larva of an aquatic insect lived five and a half hours in it.

At 11.30 a.m. three bunches of vorticellæ were placed in the solution. Their cilia at once stopped moving in all the individuals, and they assumed the spherical form. By 5 p.m. most of these animals had dropped from their stalks and lay quite motionless at the bottom of the glass. Apparently they were dead. Returned them to fresh water, but found them all apparently dead next morning.

A bunch of embryos of the pond snail placed in this extract at 5.30 p.m. to-day were all found dead the next morning.

June 20th. Placed a perch weighing seventy grams in 600 c.c. cedar