

THE FRESH-WATER MEDUSAE OF BOSS LAKE, ELKHART,
INDIANA.

Abstract.

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September twenty-second, 1919, I was informed that medusae were abundant in a small artificial lake near Elkhart, Indiana. Five days later I visited the place and verified the statement. In fact they were so abundant that one could bring in a hundred with a few sweeps of the net. A second visit was made two weeks later but not a single specimen could be found. The weather had become much colder, to the point of freezing, and no doubt the change in the temperature caused their death. A few days later Mr. Boss informed me that the surface of the lake was strewn with fragments of medusae. All specimens examined were females. A few specimens were found the previous summer.

During the summer of 1920 the lake was watched carefully from June twenty-first until October second. The hydroid was found June twenty-eighth on material collected June twenty-first. These hydroids were observed to form sausage shaped buds which separated from the parent and formed new hydroids. Other buds remained attached, thus forming colonies. The largest colony found had seven hydroids. A third type of bud formed the medusa.

The first medusa in the summer of 1920 was taken July sixteenth. It was about one-half inch in diameter. The rest of the summer they were abundant, but not so numerous as they were on my first visit of the previous year. Again all the medusae were females. This, along with the fact that on previous discoveries of this medusa all the specimens were males, has puzzled me somewhat. The females became sexually mature and shed their eggs but they did not develop so far as my observations went. Plankton catches at all seasons and depths have shown no free swimming larvae. Neither has a close examination of the weeds, sticks, stones, and surfaces of boards and posts shown anything of the sort. But why is there only one sex? I do not know but the facts lead me to wonder whether the hydroids may not be male and female producing.

How the forms got into the lake is doubtful. The hydroids are very small and might occasionally become attached to fishes and thus be transferred. Neither do I see any reason why they might not be carried by wading birds.

The hydroids live over the winter in the form of contracted masses.

