

6.—RAPID GROWTH OF CARP DUE TO ABUNDANCE OF FOOD.**By JOHN H. BRAKELEY.**

The European carp in becoming naturalized in this country has changed its habits in several important particulars. Instead of hibernating for several months with its nose in the mud, as in Europe, here it does this for a very short time, if at all, even as far north as the Middle States. The eggs hatch here in from four to seven days, according to the temperature of the atmosphere, while in Europe it requires from twelve to twenty. Here it readily takes the bait when skillfully presented, while it is said not to bite at the hook in its native land. So, in becoming Americanized, it has become quite a different fish in habit, if not in form.

The rapidity of growth, too, which characterized many of those distributed by the U. S. Fish Commission during the first four or five years seemed to foreshadow another important change of habit. It was supposed that the waters of this country were more favorable for its development than those of its native land. But in this, I fear, we are doomed to disappointment. Further experience has shown that this remarkable growth of which we hear so much, and of which there are many examples on record, was due to the abundance of food with which the carp were supplied, rather than to other causes. The small number furnished by the Government to each applicant—usually not over twenty—were frequently placed in large ponds, and often at the close of the first summer the fish had reached a weight of from 1 to 2 pounds apiece, and by the end of the second summer from 4 to 5 pounds, and in some instances their growth far exceeded this. But now, since they have multiplied so that we can fully stock our ponds, their growth is much less rapid. In the autumn of 1884 the writer placed a little over 2,500 carp, then one summer old and much larger than their parents when received from the Fish Commission, in a 5-acre pond. In the following autumn they were found to average about 11 ounces each; and last autumn, being the close of their third summer, they fell a little short of a pound apiece, and this, too, with the number in the pond reduced about one-fourth. In another pond of about half the size the growth was no more rapid.

The rapidity, however, with which they grow when supplied with an abundance of food is truly wonderful. I know of no animal—beast, bird, or fish—that will make as large and rapid growth on the same amount of food as the carp, especially in its first and second year. This would seem to indicate that artificial feeding is the natural remedy for slow growth. The few experiments I have made in this direction have yielded very satisfactory results, and I propose feeding on a much larger scale during the coming season than heretofore.

BORDENTOWN, N. J., *February 15, 1887.*