

**GRATIFYING RESULTS OF PROPAGATING GERMAN CARP—BREAM
AND CARP IN PONDS TOGETHER—TABLE QUALITIES OF CARP.**By **H. B. DAVIS.**

[Letter to Prof. S. F. Baird.]

I constructed a small fish-pond in February, 1880. For this purpose I drained a valley below a spring of water, clear as crystal, and which flowed into a small creek. Leaving a portion of the undergrowth for shade and feeding-ground, I put into this pond thirty-two carp. A part of them were of the scale variety and some leather. Soon after, as I wrote you on a previous occasion, the dam broke and I lost all except five, four of which were scale carp. When the dam gave way in June of 1880 the five fish averaged 11 inches in length. They were about 3 inches long when received three months previously. So much for carp raised partly in northern waters (say, nine months) and partly in southern waters (say, four months). Well, on or about June 1, 1881, I examined this pond which had contained the five carp. Only four large carp were found, three scale and one leather. These measured 18 inches in length. There were several hundred young carp, all about 3 inches in length. I was delighted with this, and went to work to construct other ponds. I built two ponds on a small stream, both fed from a cold clear spring; the upper was a small deep one, and the lower pond covers a considerable space, though very shallow, not averaging more than 15 inches deep. In April or May of this year I examined these ponds (stocked with the young carp mentioned above) and discovered a great difference in the growth of the fish in the two ponds, and yet it was the same water and the same kind of bottom. The fish in the small deep pond were only 6 or 7 inches in length, while those in the pond below covering about twice the space were 12½ inches long. The bottoms of these ponds were partly sand on the edges and in the center black mud, or swamp muck, as some term it. Both ponds, as in the case of the

one to recover the whole of his trawls. The trouble is increased, too, because each one of the fishermen, on account of this mixing up of the apparatus, finds his labor—severe enough under the most favorable circumstances—much added to, and, feeling resentful and aggrieved thereby, rarely hesitates to cut any trawls that he may haul up, and which do not belong to the vessel he does. This “slaughter of gear” if once begun, goes on increasing from day to day, each one, prompted by a spirit of retaliation, soon seeking, rather than evading, the opportunity to destroy the apparatus of rival vessels. It is true that this is not always the case, but it is easy to see that with the utmost forbearance there must, under such circumstances, be a great loss of trawls, and the result is that the ground soon becomes so covered with a mass of lines and hooks that it is next to impossible to recover a trawl that has been set on it. The hooks of the trawls, drawn over the bottom by the current or the struggles of the fish, catch in the lost gear and become so entangled that it rarely happens all can be hauled back. As, however, the lines decay very rapidly on the bottom, the ground, if deserted for a few weeks, will be found “clean” again.

first, were only partly cleared of trees and bushes, so that the carp could have plenty of shade and feeding-ground.

Now comes the most interesting part of my experiments. In the latter part of February or the first of March of this present year, I constructed another pond some distance from the others, they being very near my house. It covered more space than any of the others, but was very shallow, not over 6 inches deep in the deepest part. I transferred six carp from one of the above ponds to this new pond, and in addition put in one hundred and sixty bream. At that time the carp were not over 4 inches long. To-day, after finding that the spring had failed and the pond was fast drying up, I let off the water and transferred the fish to a new pond just finished. I was surprised at the large growth of the carp as well as the slow growth of the bream. The largest of the six carp, now one year and three or four months old, measured 17 inches in length and weighed full $2\frac{1}{2}$ pounds. The bream were only a little larger than when put in. These carp in six months had grown from 4 inches in length to 17, and had not been fed once. I forgot to mention that the fish in the small deep pond had been fed while those in the pond below, where the fish grew to more than twice the size, had not been fed. In this pond that I drained to-day I find plenty of young bream, but what puzzles me is that I find any quantity of small fish about three times their size.

I would think these were young carp if it were not for the following reasons: First, the carp that would have spawned them are only a little over one year old. Second, the mouth resembles the carp in shape, but does not have the thick lips of a carp; on the contrary, the lip is very thin. I have never seen anything like them here, and it may be that they are carp. These large carp taken from this pond, as you will see from reading above, are only a fraction smaller than my carp when they spawned last year, though they were two years old. I have secured several specimens and placed them in a large basin of water to await further developments.

My conclusions briefly are as follows: First, that in southern waters it makes no difference whether the water is clear or muddy. Second, that it matters not whether the bottom is muddy or not. Third, that if they are not crowded, or, in other words, have plenty of feeding-ground, it is not necessary to feed them. Fourth, that they do not, in my judgment, "kettle" in the winter in this latitude. Fifth, that they will certainly spawn in two years if properly cared for. Sixth, that they are not full of bones, and do not taste of mud, as some would have us think, but, on the contrary, are very free from small bones, and are a most excellent table fish, to which several who have dined with me will testify.

MACON, BIBB COUNTY, GEORGIA, *August 26, 1882.*