

XXII.—REPORT ON THE PROPAGATION AND GROWTH OF CARP.

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As experiments continued for several years have fully proved that it is possible to ship embryonized carp-eggs and young carp a long distance, I must draw attention to the transportation of carp-eggs and of carp 7 to 14 days old.

There is not another pond-fish which can utilize the food contained in the water to so high a degree as the carp.

Unfortunately, it has hitherto been impossible to raise the carp industry to the place which properly belongs to it in our system of economy, chiefly because it was not possible to obtain the necessary supply of carp-eggs and young carp, which were in great demand, and therefore fetched a high price. This evil may be remedied by the most recent investigations of our pisciculturists, which have fully established the possibility and practicability of successfully shipping carp-eggs and young carp. By their nature the carp-eggs are not at all suited for transportation. Their shell is very tender and easily broken, and, moreover, these eggs are hatched five to ten days after impregnation if the temperature is + 20° to 15° Réaumur, and the sun shines brightly. A special method must therefore be employed. Although this method is undoubtedly open to many improvements, I have felt encouraged to send embryonized carp-eggs to America, and hope that most of them will arrive in a healthy condition.

I am prepared to gather the naturally impregnated carp-eggs clinging to plants or pieces of wood, to estimate their number, and to send them away in specially-prepared boxes.

As the embryo of the carp and the young fish itself develop with remarkable rapidity, it will be necessary, immediately after their arrival at the place of destination, to take out the inner box, and, without opening it, to place it in the water in which the young fish shall be hatched, and then to open the box after it has been in the water for at least an hour. The contents of the box should then be emptied at once into a flat box measuring about 1 to 2 cubic meters, having two openings covered with wire-gauze, and placed in the same pond. Here the eggs should remain until the young fish slip out. The grates should be of iron wire,

* HERR RITTERGUTSBESITZER ECKARDT-LÜBBINCHEN: "*Bericht über Karpfenvermehrung.*"—[Translated by HERMAN JACOBSON.]

six vacant spaces or holes to an inch, so as to prevent injurious aquatic insects from entering. A grate of this kind will allow the young carp to swim through freely; and this is really an essential condition of their well-being, as immediately on being hatched they seek the open water and spread over the whole pond.

After a stay of four weeks, the young carp can be transplanted, but it is not absolutely necessary to do this before autumn or the following spring.

If lakes and rivers are to be directly stocked with young carp, select a quiet shore, with plenty of floating grass and other aquatic plants, if possible on the north side, so it gets the full benefit of the noonday sun. The young fish will then, soon after having been placed in the water, scatter all over the pond, and soon make themselves acquainted with its natural conditions and with the enemies contained in it.

There is no doubt that it will be of great advantage to permanently stock our lakes and rivers with young carp, especially as carp raised in lakes and rivers have a much finer flavor than pond carp, and as this seems to be the only way to raise those large and beautiful carp, weighing 20 to 50 pounds, which are the *beau ideal* of a carp.

Proprietors of lakes, and even those who have rented lakes, should stock their waters with large masses of young carp; and with regard to public waters the same should be done by associations.

Embryonized carp-eggs can be bought here at 2 mark = 57.6 cents per 1,000, and in quantities exceeding 5,000, at 23.8 cents per 1,000.

Young carp (7 to 14 days old) are sold at 10 mark = \$2.38 per 1,000, in quantities exceeding 10,000 at \$1.19 per 1,000 exclusive of packing and freight to the railroad, which, however, is no very great expense. Boxes, vessels, &c., should be immediately returned at the expense of the sender. Orders are taken till May 1, 1880.

As regards the size which carp should reach in lakes, I take the liberty of giving a correct copy of the following letter received by me some years ago:

SABROD, September 6, 1877.

Mr. R. ECKARDT-LÜBBINCHEN:

DEAR SIR: In answer to your favor of the 29th August, asking for information concerning large carp, I send you all the information I possess.

My father had, from 1830 to 1840, rented the Swan Lake, and although the rent was not very high, the fisheries in this lake did not pay very well, because its bottom is too uneven, and because it contains some very deep places where fishing apparatus cannot reach. At that time, and perhaps even now, the lake contained magnificent carp, bleie or bream (*Abramis brama*) weighing 16 to 22 pounds, and perch weighing $\frac{1}{2}$ pound. During the common fishing season no carp at all were caught, but only during the spawning period. In warm, sultry weather the carp came up to the surface and could be caught with great caution.

Thus our old fisherman, Lucas, who is still living, in one year only caught two carp, the larger of the two weighing 75 pounds. In the following year I visited the lake, and, as far as I remember, caught about 40 carp, several of which weighed 40 to 50 pounds.

The grandfather of the present Count von der Schulenburg, who was then living at Lieberose, told my father that in a conversation with the Duke of Dessau the duke had praised his large sturgeons and my father his large carp. My father thereupon presented the count with a large carp, which was placed in a lake near Iamlitz, where it remained till autumn. Meanwhile the count had had a little wagon made containing a receptacle suited to the size of the carp, and Mr. Brunsch, locksmith, and Mr. Brann, shoemaker, both citizens of Lieberose, were detailed to transport the carp to Dessau. Both these good people were anxious to earn a little extra money, and during their journey exhibited the carp for money in several towns. This of course caused a delay, and when the carp reached Dessau it was dead, but still fresh enough to be cooked and placed on the ducal table. Its bones were so large that the guests took them home as curiosities.

I do not remember how long the journey lasted, nor in what year it occurred, but it must have been about the middle of the third decade of the present century, for from 1830 to 1833 I attended the college at Guben, was in the same class with your brother Oswald, and afterwards staid with my father till the end of September, 1833. A few years later I visited the Swan Lake and caught the above-mentioned carp. A year previous the extraordinarily large carp had been caught.

I was glad to see that you take an interest in these matters, and have therefore cheerfully furnished the desired information.

I have also a number of years ago read an old chronicle giving a description of the origin of the Schwielsch Lake, and of its former location. Let me know whether this would interest you.

Respectfully, yours,

W. REIGLITZ.

The Swan Lake, located in the county of Lübben, district of Frankfurt-on-the-Oder, measures about 150 hectares. Towards the end of winter it receives a great deal of excellent fish-food in the thaw and rain-water coming from large meadows. The fish found in this lake consequently grow very rapidly, and have a most delicious flavor.

In 1865 I have, during the ice-fisheries in this lake, seen 18 carp weighing from 25 to 40 pounds each, and bleie or bream weighing upwards of 20 pounds. All these large fish had a particularly beautiful shape.

In my own and rented lakes I myself have caught carp weighing from 25 to 27 pounds, which, judging from their scales, must have been about thirty years old.

Carp-culture needs no better recommendation.

