

ponds. Here they are fed on gruel and the refuse obtained after extracting the oil from rape-seed. As soon as the spawn are large enough to determine their species they are separated and the different varieties placed in ponds by themselves.

From these ponds they are sold to the natives, who come from distant parts of the country where there is a scarcity of fish. They carry them to their homes and place them in artificial ponds, each household having at least one, where they are fed on pigs' blood, and, as they grow large, upon worms, small frogs, &c. The carp is the most valued by the Chinese for cultivation, because it is more easily transported from place to place, and is the most profitable on account of its food properties. It is said that if properly cared for they will weigh 4 pounds the first year and attain their full growth in five years, when they will weigh from 25 to 30 pounds.

UNITED STATES CONSULATE,

Chinkiang, Kiang-Su, January 31, 1885.

65.—FISH-CULTURE IN CHINA.

By ISAAC F. SHEPHARD.

[Dispatch No. 111 to the State Department.]

In accordance with the request of Minister Young, I have investigated the subject of fish-culture in my consular district, and regret that I can obtain only very meager results. I have consulted natives and foreigners alike, and have, through an interpreter, sought for and examined books that treat of the topic. These last give no details and no statistics, only referring to the fact that fish are cultivated by artificial means, for the purpose of securing food for the populace. From the varied sources it is shown that fish-culture is extensively pursued in this region, by gathering the seed from the Yangtse River, and transferring it to the numerous inland lakes that abound. Many of these are permanent bodies of water, and many others are formed by the periodic overflow of the large river which inundates the country in all directions for many miles. These lakes are all stocked from the Yangtse, and the business of taking the seed-fish, transporting to the cultivating waters, feeding and recapturing for market or use is one of great extent, although no statistics are available by which to estimate it.

The seed taken is not the spawn of the fish, but infinitesimally small fish themselves. These are caught by sinking nets along the shores of the Yangtse, and when captured are transferred to tanks attached to fish-boats, and thence to larger receptacles, usually large water kongs. The nets used are of extreme fineness, so that scarcely perceptible fish cannot escape through the meshes. They are fed on hard boiled yolks of eggs, wheat, bran, and bean flour, and on this food they flourish and

develop rapidly. The time of taking seed is in the months of May and June, when the shores of the river for miles are besieged by fishermen. The water nearest the shores abounds in the hatching spawn, and overhanging banks, quiet nooks, and still waters seem to be favorite breeding places, where development is safe and rapid. I am not certain whether the spawn is originally deposited in these spots, or whether it is floated down from lakes having their outlet in the river. Both theories are strenuously held by the natives, and with the preponderance of opinion in favor of Toong-Ting Lake as the depository, where the fish certainly abound.

TRANSPORTING THE SEED.—The young fish once gathered in the kongs are at once for sale to the inland breeders, who buy in quantities varying according to demand. A few cash will purchase a bucket full of the scarcely perceptible finny infants, and, swung to each end of a coolie's yoke, is borne to the breeding pond in the interior. I learn of such transportation for 300 miles inland from Hankow, and as long distances north and south. The ponds in the rear of Shanghai are supplied with seed-fish from this locality. Such facts indicate the vast importance of artificial fish-culture in China, but I can learn of no statistics bearing upon the topic, nor can I compass any means of securing them.

The varieties of fish thus cultured do not seem to be a matter of moment to the natives. They do not appear to discriminate between the kinds of piscatorial denizens of the river, but literally "all is fish that comes to their nets." Nor am I certain that the carp proper is one of the breeds cultivated, as I do not know that fish, and have failed to learn from extensive inquiry of its being found here. There is a fish constantly in the market, however, which greatly resembles the descriptions of the carp, and is analogous to it, if not the true carp. It is reared in great abundance in the lakes, as before described, and extensively used; it is large enough to be taken after a period of seven months from the spawn, but grows more than double that size and weight by longer keeping. They are fed very little after once being transferred to the lake.

OTHER FISH.—Several other varieties of fish are caught at the same time and reared in the like manner. Among them are the "mandarin fish" and the "perch." The former is much more delicate as a table fish, but much smaller than the supposed carp.

It is sometimes asserted that the fish-culture is under government control and regulation, but I do not find such to be an established fact. I have inquired of fishermen, who know nothing of it; and I apprehend that the impression has grown up from the fact that fishermen have used small flags indicating their special pursuit, and these have been mistaken for government announcements.

UNITED STATES CONSULATE,

Hankow, Hoo-Pe, January 3, 1885.