

230 BULLETIN OF THE UNITED STATES FISH COMMISSION.

TABLE II.—Temperatures of air and water at Weldon, N. C., on Roanoke River, 1884, *during the propagation of striped bass.

[Under the direction of S. G. Worth, superintendent; C. M. McDowell, captain of force.]

Date.	Temperature of—					
	Air.	Surface water.	Air.	Surface water.	Air.	Surface water.
	7 a. m.	7 a. m.	12 m.	12 m.	7 p. m.	7 p. m.
April 20.....	59	60	58	60	54	58
21.....	56	62	54	58	52	56
22.....	49	54	48	54	48	52
23.....	48	52	48	52	48	52
24.....	50	52	48	52	50	54
25.....	49	52	54	56	56	58
26.....	50	52	62	63	59	62
27.....	55	57	.....	.....	.....	.....
28.....	58	60	70	66	68	70
29.....	68	64	74	70	70	74
30.....	62	62	70	66	72	74
May 1.....	62	65	78	66	76	68
2.....	70	68	86	70	78	71
3.....	68	68	78	70	71	70
4.....	72	74	76	72	78	74
5.....	72	70	80	72	78	73
6.....	71	72	74	78	77	73
7.....	68	72	84	76	74	70
8.....	69	73	66	72	76	70
9.....	62	71	64	72	62	70
10.....	60	68	75	73	70	72
11.....	64	70	78	73	70	72
12.....	58	69	68	70	64	70
13.....	60	68	72	68	70	71
14.....	71	69	74	70	76	71
15.....	66	68	73	69	67	70
16.....	64	68	78	72	67	70
17.....	58	68	70	69	72	72
18.....	60	68	75	71	.....	.....
19.....	62	68	81	82	78	84
20.....	72	72	78	74	76	71
21.....	.....	.....	78	78	84	74
22.....	.....	.....	80	74	84	74
23.....	73	74	90	78	90	78
24.....	75	76	82	78	84	78
25.....	76	78	82	80	86	82
26.....	71	76	70	76	78	76
27.....	66	74	70	74	71	73
28.....	66	68	73	76	70	73
29.....	52	63	64	78	64	70
30.....	52	62	60	68	68	72
31.....	54	62	65	70	75	72
June 1.....	58	60	68	68	65	71
2.....	54	62	63	67	75	71
3.....	58	62	73	73	80	73
4.....	64	66	74	75	85	78
5.....	68	68	77	75	84	76
6.....	70	70	80	72	84	75
7.....	70	68	84	73	80	75

* The water temperatures were taken in the canal, and not in the river proper.

123.—THE CARP PONDS BELONGING TO THE STATE OF TEXAS.

[From the Texas Farm and Ranch.]

The State fish-ponds at Austin, Tex., are now in a most flourishing condition, and the taste displayed in decorating the walks with flowers and shrubs, and other attractive improvements, reflects great credit upon the commissioner. The ponds are situated close to Barton's Creek (about two miles from Austin), from which they are supplied with cold spring water. There are four of these ponds, three of which are fully

stocked with carp of different ages. They are connected with sluices by which they can be dried, and fish may be easily taken or transferred, as required. *At the tap of the bell, the jinny boarders dart forward to the refectory with a sound like a distant waterfall, and a ripple on the surface of the water like that produced by a heavy driving rain.* Scraps of bread and vegetables are then devoured, while the water is flecked with gold and silver from the sides and bellies of the feeding fish. "Do the young fish in the adjoining pond also answer to the bell?" we asked of the caretaker. "Oh, no," he replied, "It takes about six months' training to educate them up to that point; but when they have learned the lesson they never refuse to put in an appearance at meal-time." Of all sizes there are at present about half a million carp, with facilities for increasing the number, as the demand for stocking rivers and private ponds increases. Of all fish, it is the best adapted to our climate, both for successful culture and large profit. Its growth is rapid, the fish reaching about 20 pounds in two years; its fecundity is prodigious, more than 700,000 eggs having been found in a breeding fish of moderate size. It does best in still water, is sun-proof, subject to no diseases, and can be fattened like a pig on the refuse of the vegetable garden, for which its teeth are adapted, being large, flat, and situated on the pharynx very far back in the mouth. The quality of its flesh depends upon the character of its food. Carp in running streams or in ponds where limited to mud or rank weeds for subsistence, are no better than the salt-water mullet; but it has been demonstrated by pisciculturists that *when properly fed they are little if any inferior to salmon.*

Of the importance of this fish as a factor in the future food supply of Texas, too much cannot be said; and yet it would seem sufficient merely to state that in a pond only a few square rods in area the farmer can raise, without expense, more than sufficient carp to supply his family the year round. Indeed, we trust the day is not far off when the carp pond, shaded with big trees and willows, and decorated with rose-bushes and flowers, will be the possession of every farmer who aspires to thrift, taste, and good living.

Pisciculture is nothing new." The art of breeding and fattening fish was known to the ancient Romans, and Latin authors tell us all about the fanciful flavors imparted to fishes especially fed for the tables of the wealthy. The Romans borrowed the art from the Chinese, who packed the fish ova in eggs and had them hatched by hens.

Commercial fish-culture is at present largely carried on by the French, where the market is largely supplied from private ponds, and is an important—generally the most important—source of profit to the owners.

AUSTIN, TEX., May 1, 1884.