

XV.—LETTERS REFERRING TO EXPERIMENTS OF W. C. DANIELL,
M. D., IN INTRODUCING SHAD INTO THE ALABAMA RIVER.

DECATUR, GA., *January 9, 1860.*

DEAR SIR: Having some twelve years ago had, through the agency of my friend Major Cooper, the fecundated eggs of the white shad deposited in the Etowah River, one of the sources of the Alabama River, and that fish having been since taken in that river and in the Black Warrior for the first time, I desire to learn whether it has been through the agency of Major Cooper and myself. It seems that the white shad made its appearance one or two years after the deposit of the fecundated eggs by Major Cooper, if our memories as to dates be accurate. Please say what is the opinion of naturalists as to the time in which the fecundated egg reproduces itself. I suppose it is a difficult question. I am sure your courtesy will indulge this liberty. The solution given in Alabama to the appearance of the white shad in the Alabama, before advised of what we had attempted in Georgia for them, was that shad were taken by railroad from Savannah to Montgomery, some four hundred miles, and dressed in their hotels, whence the offal passed through gutters to the river, carrying the eggs of the fish! When it was established that the white shad had been taken in the Alabama and Black Warrior Rivers, a committee of the Agricultural Society of Alabama came to Georgia and took, in a hogshead of water, a number of the young shad and placed them in the Alabama River.

It is supposed by naturalists that the whale visits the inlets of South Carolina and Georgia annually to calve. That is my belief, based upon a number of facts which have reached me in the last thirty years.

Very respectfully and truly, your obedient servant,

W. C. DANIELL.

I inclose the letter of Maj. Mark A. Cooper, my assistant in introducing the fecundated eggs of the white shad into the Alabama River, through one of its main sources. Major Cooper corroborates the date, which is important to me, as I had in a letter to Col. Isaac Croom, Greensboro, Ala., said, on the recollection of a member of my family, that it was not later than 1850. That date has been since corrected by the recollections of Mrs. Daniell, and my youngest son, Charles, who were about at the date of my letter to Colonel Croom, and in their belief I firmly concur, from recollections recalled by them. I have corrected the error to Colonel Croom.

In the spring of 1858, after the presence of the white shad in the

waters of the Alabama, as Colonel Croom states from personal observation, at the falls of Black Warrior, near Tuscaloosa, several gentlemen went from Alabama to tide-water, in this State, and collecting a number of the fry of the white shad, transported them by railroad in a hogs-head of water, kept cool with ice, to Montgomery, and committed them to the waters of the Alabama River. This, I believe, was done because having found that the water of the Gulf was suitable, a rapid increase of that fish was expected to be made.

Very truly, yours,

W. C. DANIELL.

Professor S. F. BAIRD,
Washington, D. C.

DECATUR, GA., *January 20, 1860.*

DEAR SIR: I thank you for your prompt response to my inquiry as to the time in which the shad attains its maturity. I take pleasure in supplying you with the information which you suggest relative to the introduction of the white shad into the Alabama River.

Learuing from the fishermen frequenting the Savannah market during the season for taking shad, that there is a clear distinction between the shad of the Savannah River and those taken in the Ogeechee River, a neighboring stream, I drew the plain inference that the young fry of that fish attained their growth near the mouths of the respective rivers in which they had been spawned, and I supposed that if once placed in the Alabama waters they would thrive there as well as in the Atlantic rivers of Georgia.

In the early spring of 1848 I was with my family on my Drakies plantation, on the Georgia shore of the Savannah River, some ten miles above the city. My table was freely supplied with the white shad just taken and delivered alive at my kitchen. I had the matured eggs taken from the live parent spread on brown paper and the liquor pressed from the fresh milt of the male fish over the eggs. Thus prepared, they were dried in the shade and carefully laid aside. I sent the package to my friend Maj. Mark A. Cooper, of Etowah, Cass County, who carefully placed them in a small stream (branch) flowing into the Etowah River, as I had suggested. He paid frequent visits, and watched closely the deposit until all the eggs disappeared, which they did gradually. The Etowah River, as you know, is one of the upper sources of the Alabama River, taking its rise in Union County, and not very distant from the North Carolina line. I am dependent on the recollections of two members of my family for my date, (1848.) They have very distinct impressions, and have mentioned circumstances and little details, some of which I myself know to be true. As the winter of 1847-'48 was the last season that my family spent at Drakies, I cannot cite a more recent

date for the preparation of the shad-eggs. Possibly it may have been earlier.

The first white shad known to have been taken was in 1851 or 1852, in traps placed at the foot of the Black Warrior, near Tuscaloosa, Ala. Their value not being known, the owner of the traps threw some away and sold others for a few cents. About the same time the white shad was taken in traps at the foot of the falls of the Alabama River, near Wetumpka. In 1858 (or ten years, as I suppose, after the deposit of the eggs by Major Cooper) they were taken in abundance in the traps near Tuscaloosa.

Very truly yours,

W. C. DANIELL.

Professor S. F. BAIRD,
Washington, D. C.

ETOWAH, GA., *January 26, 1860.*

DEAR DOCTOR: I thank you for your letter of the 21st instant, received yesterday, calling to mind an incident of nearly twelve years past, which was an experiment made by me at your instance and request, with the expectation, as you advised me, of supplying the western waters emptying into the Gulf with the white shad, a fish unknown in those waters up to that date.

Mrs. Daniell, and Charlie, and you, are certainly just in their and your recollections. So is my recollection that early in the spring of 1848 I received of you by mail, directed to me at this place, a letter and a package. In your letter you stated to me a fact entirely new to me, but ascertained by naturalists, that the eggs of the white shad, taken from the fish as soon as caught, might be impregnated by a process-artificial, preserved, and sent any reasonable distance, and, being favorably deposited at a proper period of the year, would hatch. You had therefore taken the proper steps to procure the eggs of the white shad thus prepared, and forwarded them to me, living on the Etowah River, the waters of which run into the Gulf of Mexico. You requested me to select a proper location in some small stream emptying into the Etowah. Your object, as you explained, was to stock the waters emptying into the Gulf with white shad, that the people of the States watered by these rivers might be furnished with one of the best that is known. The package which accompanied this letter contained the eggs, a great number. Being excited and interested, I took special care of the eggs, and in the month of April, selected, as I was advised by you, a favorable location in a small branch or streamlet which empties into the Etowah River near my residence, between the rolling-mill and flour-mill, and there deposited the eggs, taking every precaution to screen them against intrusion. After a time they disappeared, and there my account of the eggs must end. I did not take the precaution to confine them,

fearing that it might hazard success. I did not watch them by the hour; my business forbade it.

About two years thereafter I heard for the first time that this shad was found in our waters. I do not doubt that the introduction of this fish in our western waters is properly traceable to your enterprise and provident care.

Very truly yours,

MARK A. COOPER.

Dr. WILLIAM C. DANIELL,
Wayside, Ga.