

disturbed by storms. But this is not so. I do not know of another such uncertain sheet of water. The wind seems to eddy in the open space of the lake, and this, together with the fact that there is a line of thickly set, submerged cypress knees and stumps extending from the shore about one hundred feet around the entire circumference, makes Lake Drummond a most treacherous sheet of water. Any boat driven to the shore in stormy weather is certain to be lifted up and dashed to pieces upon these stumps, and once thrown from his boat one would fare badly enough. On reaching the shore it would be necessary to work through a mass of brambles and thickets well-nigh impassable.

The significance of these submerged stumps has not, so far as I can say, been discussed. There certainly must have been trees where they now are a hundred or more years ago. It has been stated by Shaler, who does not seem to have been aware of the existence of the submerged shore, although correctly concluding that the area as a whole was subsiding, that the digging of canals and the throwing up of banks penned in the waters to the west. That this change affected the level of the lake sufficiently to destroy, around its entire circumference, a broad band of vegetation flourishing in the moistest of conditions, I question, especially as there is a very strong current in a canal leading out from the lake into the main canal. The conclusion that the shore line of the lake is still being encroached upon by vegetation, as it has undoubtedly been in the past, I saw no evidences of. In any case we have here a fine example of the rapid changes in vegetation caused by only slight changes in water level—a change fully paralleled from the zoological side by the change from brack water to fresh in the Curribuck Sound to the west of the swamp, caused by the closing up of the old Curribuck inlet in the early part of the century by beach drift. At the time this took place there was an immediate destruction of fully one hundred square miles of oyster beds, and a change from salt water to fresh water fishes, as well as such changes in plant life as brought countless thousands of red-heads and canvas ducks where they had been infrequent before.

With respect to the origin of Lake Drummond an excavation just completed one-half mile east of the lake gives open testimony to its being a "peat enclosed lake." For the first eight to ten feet there is some peat with large roots and tree trunks, which is followed by a stratum of clean peat, ending in quicksands con-