

JONES LAKE STATE PARK

A home by the lake



Contributed p

Jones Lake State Park, which opened in 1939, was the state's first park designated for blacks in the days of segregation. It has been a popular place for family gatherings, such as this one in an undated photo.

Tranquil refuge during segregation holds fond memories

'Carolina Bays' Fascinate Experts

By WINK LOCKLAIR.

Every summer thousands of vacationing North Carolinians drive to White Lake, Jones Lake, Singletary Lake or Lake Waccamaw for fishing, swimming and outdoor recreation. White perch, black crappie, bluegills and largemouth bass are plentiful at Waccamaw, and White Lake has a large area of shallow water with a coarse sand bottom which is very desirable for swimming. Sometimes, on moonlight nights in July and August, you can have surprisingly good luck fishing there.

These lakes and several near them in Bladen and Columbus counties, however, hold far greater significance than the casual three- or four-day visitor realizes. Singletary Lake, for example, is now considered the oldest lake in North America on the basis of detailed examination of its sediments and organic matter. The entire group of lakes in that area has been under observation by the North Carolina Wildlife Resources Commission since 1947.

One of the chief participants in this research project is Dr. David G. Frey, who since 1946 has been associate professor of zoology in the University of North Carolina. He visits the lakes every summer and from time to time publishes illustrated articles about the work which is being carried on by those interested in marine zoology and the morphometry of lakes.

Others who have been closely associated with him are Edward E. Hueske of the U. S. Fisheries and Wildlife Service; T. Stuart Critcher of the North Carolina Wildlife Resources Commission; A. Carter Board, Fisheries Research Institute at Morehead City; Howard T. Odum, who will instruct in zoology in the University of Florida this fall; and Richard W. Borden, a student in the University School of Medicine.

Lake Dated to Ice Age.

"Singletary Lake can definitely be traced back to the Ice Age," Dr. Frey said. "Spruce pollen can be found all the way down to the bottom sediments, and other remains found in this lake indicate that it is thousands of years old. Singletary also boasts a greater length of natural sand beach than any other five or so lakes in Bladen County, and with the exception of Waccamaw in Columbus County, it has the deepest water."

Story of Origin.

Most of North Carolina is geologically old and consequently has few natural lakes in its well-drained surface, Frey points out. Only the coastal plain, which is the most recently formed part of the State, has natural lakes in any numbers, and here there are thousands of oval depressions all lined up in a general northwest-southeast direction. They are not confined to North Carolina but extend all the way from northern Virginia to southern Georgia. "Because of the kinds of trees occurring in them these basins are called 'Bays', and because they

were first studied near Darlington, S. C. they are now known as 'Carolina Bays', regardless of their location," Dr. Frey said.

In the entire Coastal Plain of the Carolinas, Bladen County is the region most richly supplied with bay lakes. There are at least nine in this county, three being used extensively for recreational purposes," he continued.

In order to learn about the lakes as a guide towards better use of them for recreational purposes, the North Carolina Wildlife Resources Commission set up a team to study the lakes during the summer of 1957. From headquarters established at White Lake, the lakes are investigated one at a time, with from two to three weeks spent on each. The work included sounding the lakes thoroughly for the preparation of hydrographic charts, plotting the distribution of the types of bottom, making chemical analyses of substances dissolved in the water, determining the quantities of small animals living suspended in the water, investigating the kinds and abundance of aquatic plants, and finally determining the kinds of fish present and their relative abundance.

Lakes Studied.

"One of the most interesting things about these lakes and their basins is that the geologists can't seem to agree about their origin," Dr. Frey said. "There have been all kinds of theories. Some say they were dug out by a meteorite shower striking the earth from a northwest direction. Others believe that the basins were first excavated by water from artesian springs, and then enlarged by subsequent wind and wave action. No other part of the world has basins similar to these."

The five lakes studied in Bladen County were Jones, Salters, Singletary, White and Black, plus Lake Waccamaw in Columbus County. As a consequence of their common origin the lakes are all quite similar in characteristics. Each is located in an oval basin of regular outline, except in the case of Black Lake where in some sections there is considerable irregularity in the margin. None of the lakes except Black Lake has any water flowing in at the surface.

Water level is dependent upon rain in the immediate bay in which the lake is located plus ground water. The latter may be a substantial amount, because in all the lakes small springs could be readily detected in shallow water along the south and southeast shores.

"Reduction in area and volume of the lakes from their former maximum size has occurred primarily through the gradual encroachment of vegetation along the shores," Dr. Frey points out. "The vanguard of this filling in is the cypress trees. In periods of extremely low water level, new cypress trees can become established at the new shoreline. When the water level returns to normal the trees are able to maintain themselves even though completely surrounded by water. So in all the

lakes, cypress trees were found thriving in water up to four feet deep while in Jones and Singletary, especially, rows of cypress trees paralleling the present shores indicate old shore lines at times of low water levels," he commented.

Some Special Features.

The five Bladen County lakes are all very similar in their physical characteristics, as might be expected from their similarity of origin. Each is a single depression basin, approximately oval in shape, with a fairly regular shoreline. The lakes vary in size from 224 acres in Jones, to 1,418 acres in Black, to 8,000 plus in Waccamaw, in Columbus County. Yet, in spite of their relatively large size, the lakes are shallow, with the deepest place found anywhere being 11.8 feet in Singletary. Black Lake is the shallowest, being just over 7 feet deep in one small area.

The lakes are roughly saucer-shaped, with the bottom dropping off, sometimes sharply, at varying distances from shore to a large area in the center which is almost flat. Natural sand beaches, if they occur at all, are confined chiefly to the southeast side of the lake. Black and Salters Lakes have virtually no exposed beaches. In these lakes the dense bay vegetation almost everywhere comes to the edge of the water, overhanging it for distances up to 10 feet.

Production of Fish.

One of the major functions of lakes in a recreational or land use program is to produce fish which can be caught for sport and food. "A total of 19 species of fish were collected in the five lakes of which number, 17 occurred in White Lake, 12 each in Jones, Salters and Singletary, and only 8 in Black Lake," Dr. Frey recalled. "In terms of numbers of fish present, the lakes can be arranged in a series which roughly parallels the quantities of bottom organisms in the several lakes."

As the name suggests, White Lake is almost colorless and consequently, those who enjoy boating and swimming find it very attractive. However this aquatic activity, especially on weekends, was found to have had an undesirable effect on spawning of fish—in at least one instance. During July last year, approximately 200 reds (nest for spawning) were made in the shallow water on the northeast side of the lake. The majority of these reds were constructed by redbreast sunfish and all reds except four were located at the end of small piers or boathouses, indicating something of a preference for cover in that particular situation. Within a few days the reds were destroyed by swimmers or boaters.

Frey Leaving UNC.

Although Dr. Frey will be leaving Chapel Hill in a few weeks to become associate professor of zoology at the University of Indiana in Bloomington, and director of the Indiana Lakes and Streams Investigation, he will continue his work on the Carolina Bays during the summers and in any spare moment he may be able to find. He says he has enough material in his laboratory to work on for two years.

His previous positions in universities, with the Fish and Wildlife Service and in the U. S. Navy were excellent preparation for the job he has been doing with the Lakes. After he was awarded his Ph.D. degree from the University of Wisconsin, he worked for five years with the Fish and Wildlife Service in Seattle, Washington, where his primary interest was in salmon, and on Chesapeake Bay where he worked with oysters. Dr. Frey became Ensign Frey during the war and spent several years with a Navy medical research unit in Guam and on other Pacific islands.

Pool Haul

Louisville, Ky.—(UP)—A pool player at a recreation hall here tried for a corner pocket bank shot.

He missed and the ball jumped the rail, bounced through the front door and banked off a moving automobile.

The impact from the car coupled with the ball's "english," shot the ball through the plate glass window of an appliance store 200 feet across the street.

The confused owner of the appliance store picked up the object gingerly and called police, who soon solved the mystery.



Samples of fish life in White Lake are taken by Edward T. Hueske of the U. S. Fisheries and Wildlife Commission (right) and T. Stuart Critcher of the N. C. Wildlife Resources Commission. The two toured five of the "Carolina Bays" on a recent survey.

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