

into Halifax and Northampton counties. It likewise covers considerable areas in Hertford, Chowan, and Gates counties, both to the east and west of the Chowan River valley. Along the eastern margin of the Wicomico terrace, from which it is often separated by a pronounced escarpment, it has an elevation of from 40 to 50 feet which up the reëntrant valleys often rises to 60 feet or more in elevation. It gradually declines eastward to about 30 feet near its seaward face. It has a width of 20 to 25 miles, somewhat more in the south than in the north, where it is also much more dissected than the Pamlico terrace. The larger areas in the southern counties are also on the whole less fully drained than in the north. In Columbus and Brunswick counties extensive swamps are found, including Green Swamp, a large undrained area containing Waccamaw Lake.

*The Pamlico Terrace.*—The Pamlico terrace covers a large area to the east of the Chowan in the northern coastal counties to the north of Cape Lookout, while to the south of this point it is continued only in a narrow belt along the coast. In the valley of the Neuse and farther northward, especially in the Pamlico, Roanoke, and Chowan valleys, it extends as deep reëntrants up the channels of the several streams. It covers the entire area of Hyde, Dare, Tyrrell, Currituck, Camden, and Pasquotank, together with much of Perquimans, Chowan, Washington, Beaufort, Pamlico, Craven, and Carteret counties. Its elevation along the base of the Chowan escarpment is about 20 feet, from which point it slopes eastward to almost tide-level, and in the outer tier of counties in places seems to merge into the Recent deposits. The surface of the Pamlico terrace is covered over wide areas with swamps and marshes and embraces many estuaries, sounds, and bays. Many of the swamps along the rivers are on the Pamlico surface, as are also the Great Dismal Swamp of southern Virginia and northern North Carolina and the remarkable Mattamuskeet Lake of Hyde County, which is 16 miles long by 5 miles broad and has a depth of only 4 feet. The lower elevations of the Pamlico are also extensively covered with peaty bogs which may well prove of economic significance. The width of the Pamlico terrace exceeds 50 miles between Pamlico and Albemarle sounds. In the southern part of the State, in New Hanover and Brunswick counties, on the other hand, it is a very narrow strip and is confined to the lower courses of the Cape Fear and Northeast Cape Fear rivers.

#### THE BEACHES, REEFS, SPITS, AND SAND DUNES.

The coastal border contains beaches, reefs, spits, and sand dunes. The inner beaches are narrow and sandy and frequently along the sounds are simply swampy lands that extend gradually below water level. They have been everywhere protected from the action of the