

sands and clays, in most places a gravel band containing erratic boulders of quartz or crystalline rock being present at the base, the materials representing a continuation downstream of the terrace materials exposed at and above Fayetteville.

Between mileposts 100 and 101 beds of the Black Creek ("Bladen") formation begin to appear in the bluffs, occupying shallow basins in the eroded surface of the Patuxent beds and covered over by horizontal Pleistocene deposits. The relations of the different materials are roughly shown in Fig. 1.

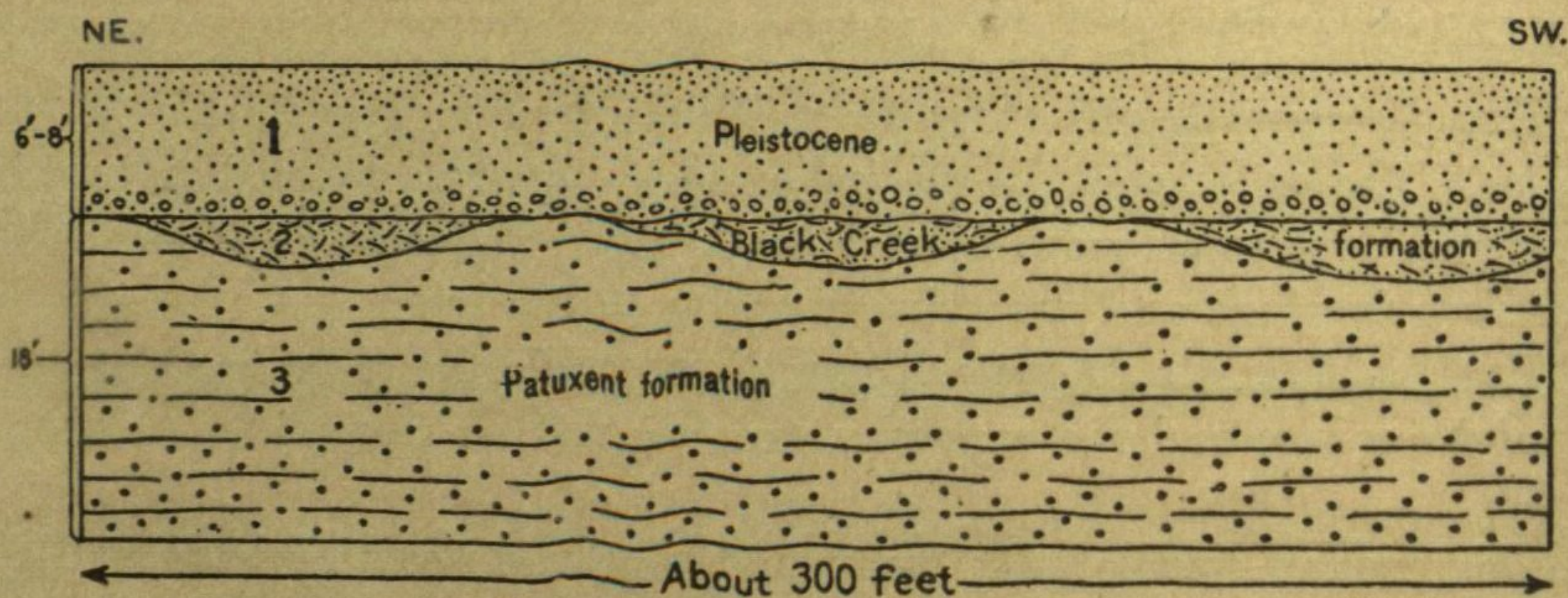


FIG. 1.—Sketch showing the relations of the Patuxent and Black Creek formations to each other and to overlying Pleistocene deposits; Cape Fear River, between mileposts 100 and 101.

The Patuxent materials represented in the section are of the usual character. In striking contrast to them are the materials occupying the basins, which consist of dark laminated sands and clays, in places containing considerable lignite, whose general aspect is the same as that of the materials of similar character which make up the bluffs farther down the river. They constitute the feather edge of the Black Creek ("Bladen") formation which overlies unconformably the Patuxent formation. This interpretation is confirmed by an observation made near Church Landing, right bank, about milepost 100. See Fig. 2.

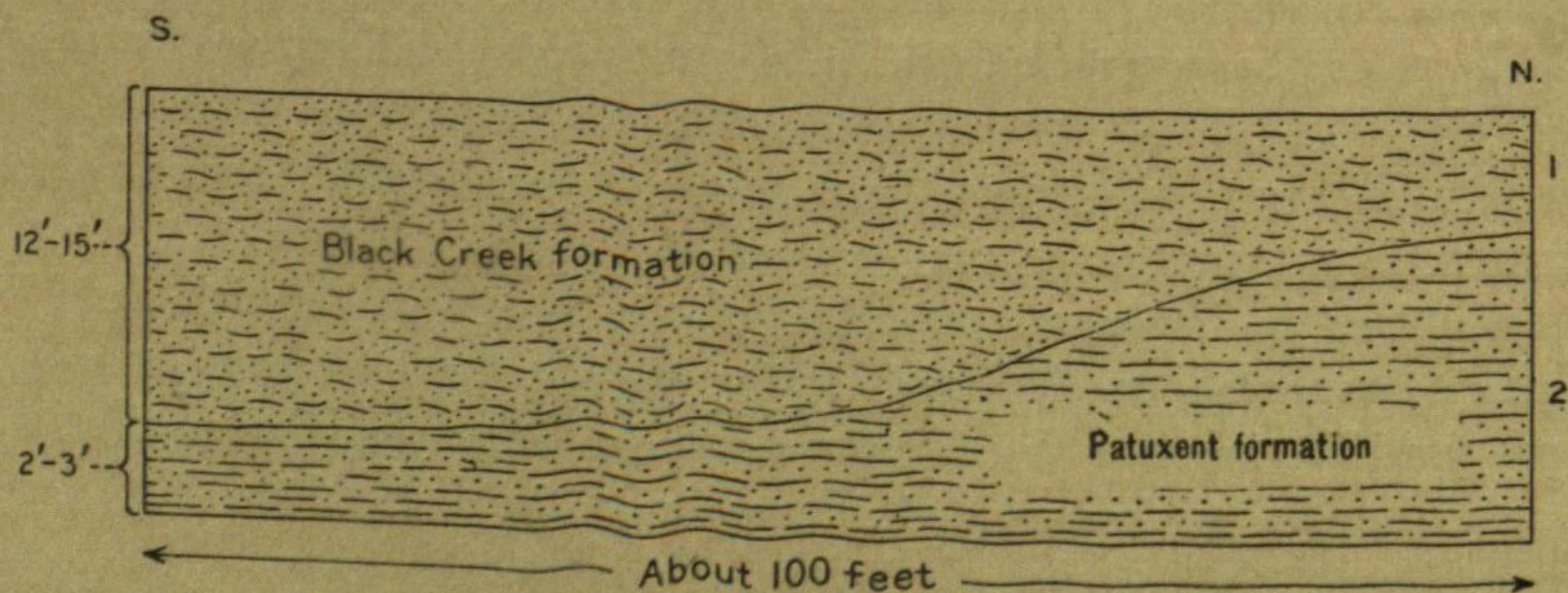


FIG. 2.—Sketch showing the relation of the Patuxent formation to the Black Creek formation near Church Landing, Cape Fear River.