

Va., 35 miles long; the *Pittsylvania area*, farther west in Virginia, 100 miles long, and 40 of the 100 in North Carolina, where it is called the *Dan River area*; the *Deep River*, in North Carolina, east of the Dan River, 145 miles long, the last 30 of them separated by five or six miles from the rest, and distinguished as the *Wadesboro area*.

Leaving out of consideration the Nova Scotia belt, the areas may be viewed as lying in two ranges, an eastern and a western, — the *Eastern* including the Connecticut valley, Richmond, and Deep River areas; the *Western*, the Palisade, and the Pittsylvania (and Dan River) areas, with the small intervening Buckingham area.

The following is a list of the areas : —

(1) The *Acadian area*, along the west margin of Nova Scotia (or the northeast border of the Bay of Fundy), having a course nearly northeast to the south, but with much easting to the north; and bending to east and west along the Minas Basin (its north side).

(2) The *Connecticut valley belt*, from northern Massachusetts to New Haven Bay, this bay being the southern termination of the valley.

(3) The *Southbury belt*, 15 miles west of the Connecticut valley in Connecticut, only 8 miles long and 2½ wide.

(4) The *Palisade area*, commencing near Haverstraw on the Hudson, 30 miles wide in New Jersey, 12 on the Susquehanna, and 6 to 8 on the Potomac; and including a small area in Orange, Va., which was probably separated by erosion.

(5) The *Buckingham area*, farther south, on James River, 18 miles long and 2 wide.

(6) The *Richmond area*.

(7) A small *Hanover area*, a few miles north of the Richmond, but probably a former part of the Richmond.

(8) The *Cumberland area*, 30 miles west of the Richmond and mainly in Cumberland County, 22 miles long.

(9) The *Pittsylvania area*, including the Dan River of North Carolina.

(10) The *Deep River area* of North Carolina, commencing at Oxford in Granville County, passing west of Raleigh, and having a width of 18 miles.

A Triassic area has been supposed to exist on Prince Edward Island, in the Bay of St. Lawrence, and is so described by Dawson in his *Acadian Geology*. According to R. W. Ells, the beds are part of the Permian of the island, with which they are conformable (1883-84). Bain has since claimed as Triassic the upper 50 feet, horizontal in position, occurring on the north shores of the island, near New London (1885); and Dawson states in an appendix to his work (dated 1891), that the strongest evidence of Triassic age for this part of the sandstone is the presence in it of *Bathynathus borealis* of Leidy. Marsh, in a private note to the author, confirms this view of Dawson, stating that *Bathynathus*, a carnivorous Dinosaur, is very much like the Triassic forms of England, Germany, Asia, and Africa.

3. *Rocks*. — The rocks are mostly: granitic sandstones (a much better name for them than the meaningless term *arkose*); conglomerates, varying from fine pebble beds to those consisting chiefly of cobble stones and larger rounded masses; sandy shales; less commonly fine black carbonaceous shales; occasionally thin beds of impure limestone; and, in some localities, bituminous coal in thick beds along with carbonaceous shales.

In general, the formation is well stratified; but the strata, when followed laterally, vary much in thickness and coarseness. In some places borings