

I made excursions in various directions with my friend Mr. Gifford, to examine the coal mines north and south of Blackheath, near Richmond, and have already given the results of our observations in the first volume.* I afterward made an expedition with Dr. Wyman, now Professor of Comparative Anatomy at Cambridge, Massachusetts, to examine the geology of the tertiary strata round Richmond, and those (of the Eocene period) displayed in the cliffs bordering the Potomac River, near Acquia Creek. In one of our walks we saw some dogs feeding on part of the carcass of a horse, and a group of turkey-buzzards eagerly looking on close at hand, but not daring to share in the repast. Near the same spot were the skulls of two dogs lying bleached in the sun, and in the hollow of each we found the nest of a large species of wasp, somewhat resembling our hornet, containing a good store of honey. On the surface of some pools of water I saw floating the singular seed-vessel of the nuphar, or yellow pond lily (*Nelumbium*). These seeds have been known to vegetate after they have been kept for a hundred years.

In passing through a wood near Acquia Creek, on a hot day, we came upon a large snake, about four feet long, resembling that called the mocassin, which lifted itself up, folding its body into several graceful coils, and then darted its head and neck forward at a dog which had followed us from the inn. The dog dexterously retreated as often as a blow was aimed at him, barking loudly, and enjoying the mock fight. The extremity of the snake's tail, although not armed with a rattle, was in a state of constant vibration.

On a soft sandy road we saw a great many of the ball-rolling beetles (*Ateuchus volvens*), which resemble in form the *Scarabæus sacer* of Egypt. They were all busily engaged in pushing along round balls of dung, in the center of some of which we found an egg, and in others a maggot. A pair of beetles was occupied with each globular mass, which considerably exceeded themselves in size. One of them went before, and usually climbed up the side of the ball till the weight of its body made the mass fall over, the other pushing behind, so as to urge it forward, or at

* Vol. i. p. 211.