

sists of brown and bluish-grey clay, with occasional bands of calcareous concretions (septaria). In the London basin it varies in thickness from 50 feet in the extreme west, at Newbury, to 480 feet in Essex. In the Isle of Wight, at Alum Bay, it is only 200 feet thick (fig. 47); in Whitecliff Bay, 295 feet; and at the west extremity of that basin, in Dorsetshire, it dwindles away, being barely distinguishable except to well-accustomed eyes. The chief fossiliferous locality in the Hampshire basin is at Bognor in Sussex. In the Isle of Wight fossils are scarce in this formation. Round London they occur at Highgate, and in other places far to the west. The Isle of Sheppey has long been famous for its fossils, being found there chiefly because of the frequent landslips from the cliffy slopes that overlook the estuary of the Thames. The plants have long been celebrated, consisting of various Palm-nuts, *Nipadites ellipticus*, and *N. umbonatus*, and other fruits; Coniferæ, many leguminous plants, *laurels*, *figs*, *junipers*, and plants of the *citron* tribe, are also common, all of extinct species.

Remains occur of birds allied to the vulture (*Lithornis vulturinus*) and king-fisher (*Halcyornis toliapicus*), and a small swimming-bird, described by Owen, with tooth-like serratures on the bill; turtles and river tortoises are numerous of the genera *Chelone* (*breviceps*, &c.), *Emys* (*Conybeari*, &c.), *Platemys*, and *Trionyx*; also a crocodile (*Crocodylus champsoides*) and snakes (*Palæophis toliapicus* and *P. longus*). Terrestrial mammals also occur—a Marsupial (*Didelphis Colchesteri*), a Bat, and *Hyracotherium cuniculus*; also *Miolophus planiceps*, *Pliolophus vulpiceps*, and *Coryphodon eocænus*, which are tapir-like animals, in a distant way allied to the tapirs now found on the banks of South American rivers.