

afterwards insulated by breaches of the stream. Others, formed in the main channel, are caused by some obstruction at the bottom. A large tree, or a sunken boat, is sometimes sufficient to check the current, and cause a deposit of sand, which accumulates till it usurps a considerable portion of the channel. The river then undermines its banks on each side, to supply the deficiency in its bed, and the island is afterwards raised by fresh deposits during every flood. In the great gulf below Luckipour, formed by the united waters of the Ganges and Megna, some of the islands, says Rennell, rival in size and fertility the Isle of Wight. While the river is forming new islands in one part, it is sweeping away old ones in others. Those newly formed are soon overrun with reeds, long grass, the *Tamarix Indica*, and other shrubs, forming impenetrable thickets, where the tiger, the rhinoceros, the buffalo, deer, and other wild animals, take shelter. It is easy, therefore, to perceive, that both animal and vegetable remains must continually be precipitated into the flood, and sometimes become imbedded in the sediment which subsides in the delta.

Three or four species of crocodile, of two distinct sub-genera, abound in the Ganges, and its tributary and contiguous waters; and Mr. H. T. Colebrooke, informed me, that he had seen both forms in places far inland, many hundred miles from the sea. The Gangetic crocodile, or Gavial, (in correct orthography, Garial,) is confined to the fresh water, living exclusively on fish, but the commoner kinds called Koomiah and Muggar frequent both fresh and salt; being much larger and fiercer in salt and brackish water.\* These animals swarm in the brackish water along the line of sand-banks where the advance of the delta is most rapid. Hundreds of them are seen together in the creeks of the delta, or basking in the sun on the shoals without. They will attack men and cattle, destroying the natives when bathing, and tame and wild animals which come to drink. "I have not unfrequently," says Mr. Colebrooke, "been witness to the horrid spectacle of a floating corpse seized by a crocodile with such avidity, that he half emerged above the water with his prey in his mouth." The geologist will not fail to observe how peculiarly the habits and distribution of these saurians expose them to become imbedded in the horizontal strata of fine mud, which are annually deposited over many hundred square miles in the Bay of Bengal. The inhabitants of the land, which happen to be drowned or thrown into the water, are usually devoured by these voracious reptiles; but we may suppose the remains of the saurians themselves to be continually entombed in the new formations. The number, also,

\* Cuvier referred the true crocodiles of the Ganges to a single species, *C. biporcatus*. But I learn from Dr. Falconer that there are three well-marked species, *C. biporcatus*, *C. palustris*, and *C. bombifrons*. *C. bombifrons* occurs in the northern branches of the Ganges, 1000

miles from Calcutta; *C. biporcatus* appears to be confined to the estuary; and *C. palustris*, to range from the estuary to the central parts of Bengal. The Garial is found along with *C. bombifrons* in the north, and descends to the region of *C. biporcatus* in the estuary.