

Besides, filtration extends in a lateral direction far beyond the bed of the river. The shore, which appears dry to us, imbibes water as far up as to the level of the surface of the river. We saw water gush out at the distance of fifty toises from the shore, every time that the Indians struck their oars into the ground. Now these sands, wet below, but dry above, and exposed to the solar rays, act like sponges, and lose the infiltrated water every instant by evaporation. The vapour that is emitted, traverses the upper stratum of sand strongly heated, and becomes sensible to the eye when the air cools towards evening. As the beach dries, it draws from the river new portions of water; and it may be easily conceived that this continual alternation of vaporization and lateral absorption must cause an immense loss, difficult to submit to exact calculation. The increase of these losses would be in proportion to the length of the course of the rivers, if from their source to their mouth they were equally surrounded by a flat shore; but these shores being formed by deposits from the water, and the water having less velocity in proportion as it is more remote from its source, throwing down more sediment in the lower than in the upper part of its course, many rivers in hot climates undergo a diminution in the quantity of their water, as they approach their outlets. Mr. Barrow observed these curious effects of sands in the southern part of Africa, on the banks of the Orange River. They have also become the subject of a very important discussion, in the various hypotheses that have been formed respecting the course of the Niger.*

Near the Vuelta de Basilio, where we landed to collect plants, we saw on the top of a tree two beautiful little monkeys, black as jet, of the size of the *sai*, with prehensile tails. Their physiognomy and their movements sufficiently showed that they were neither the *quato* (*Simia beelzebub*)

* Geographers supposed, for a long period, that the Niger was entirely absorbed by the sands, and evaporated by the heat of the tropical sun, as no embouchure could be found on the western coast of Africa to meet the requirements of so enormous a river. It was discovered, however, by the Landers, in 1830, that it does really flow into the Atlantic; yet the cause mentioned above is so powerful, that of all the numerous branches into which it separates at its mouth, only one (the Nun River) is navigable even for light ships, and for half the year even those are unable to enter.