

	Ratio of Discharge to Rainfall
Ohio River.....	0·24
Missouri River.....	0·15
Upper Mississippi River.....	0·24
Small Tributaries.....	0·90
Arkansas and White River.....	0·15
Red River.....	0·20
Yazoo River.....	0·90
St. Francis River.....	0·90
Entire Mississippi, exclusive of Red River.....	0·25

In the Mississippi basin, one-fourth of the rainfall is thus discharged into the sea. The Elbe, from the beginning of July, 1871, to the end of June, 1872, was estimated to carry off at most a quarter of the rainfall from Bohemia.¹¹³ The Seine at Paris appears to carry off about a third of the rainfall. In Great Britain from a fourth to a third part of the rainfall is perhaps carried out to sea by streams.¹¹⁴

In comparing also the discharges of different rivers, regard should be paid to the influence of geological structure, and particularly of the permeability or impermeability of the rocks, as regulating the supply of water to rivers. Thus the Thames, from a catchment basin of 3670 square miles and with a rainfall of 27 inches, has a mean annual discharge at Kingston of 1250 millions of gallons a day, and rather more than 688 millions of gallons in summer. The Severn, on the other hand, which gathers its supplies mainly from the hard, impervious slate hills of Wales, has a drainage area above Gloucester of 3890 square miles, with an average rainfall of probably not less than 40 inches. Yet

¹¹³ Verhandl. Geol. Reichsanstalt, Vienna, 1876, p. 173.

¹¹⁴ In mountainous tracts having a large rainfall and a short descent to the sea, the proportion of water returned to the sea must be very much greater than this. Mr. Bateman's observations for seven years in the Loch Katrine district gave a mean annual rainfall of 87½ inches at the head of the lake, with an outflow equivalent to a depth of 81·70 inches of rain removed from the drainage basin of 71½ square miles. See a paper by Graeve on the quantity of water in German rivers, and on the relation between rainfall and discharge, *Der Civil-Ingenieur*, 1879, p. 591; *Nature*, xxiii. p. 94. J. Murray, *Scott. Geog. Mag.* 1887.