

situated in a depression of the ground not continuous with the ocean. The term is sometimes applied to widened parts of a river, and sometimes to bodies of fresh or brackish water which lie along sea-coasts at sea-level, and may even be in direct communication with the sea. In English, the terms *pond*, *tarn*, *loch*, *mere*, and *salt-pan* are applied to smaller bodies of water according to their size and position on the land-surfaces. The science dealing with the study and description of lakes is called Limnology¹ and Limnography.

Lakes are nearly universally distributed. They are sometimes so large that an observer cannot see objects situated on the opposite shore, owing to the surface of the lake assuming the general curvature of the earth's surface; but the vast majority are of relatively small size. They occur at all altitudes; some large lakes in Tibet are 15,000 feet above the level of the sea, while the Dead Sea is 1268 feet below sea-level. They also vary greatly in depth and volume of water.

In describing the Scottish fresh-water lochs they have been arranged according to the river basins in which they are situated, for it has been found that lakes are in a very special manner associated with the drainage areas and river systems of the globe. The primary source of lake-water is atmospheric precipitation, which may reach the lakes through rain, springs, rivers, melting ice and snow, and the immediate run-off from the land-surfaces. This water contains substances both in suspension and solution. The suspended matter is deposited for the most part on the bed of the lake, and the matter in solution is borne to the ocean, or accumulates in the lakes situated in the lowest reaches of inland drainage areas.

In catchment basins where precipitation exceeds evaporation the lakes have an outlet, and the outflowing rivers pour their waters ultimately into the ocean. The water in the lakes of these catchment basins is continually being renewed, consequently the salts in solution do not accumulate; the water is drinkable, and the lakes are called fresh-water lakes.

In catchment basins where evaporation exceeds precipitation—which is the case in all inland drainage areas—the running water of the system does not reach the ocean. In consequence, while the lakes in the higher reaches of an inland drainage area have outlet rivers, and their waters are fresh and drinkable, the salts in solution in the lakes towards the lower portions of these catchment basins accumulate and render the water undrinkable; hence we find in these situations what are called salt lakes.²

¹ λίμνη, a lake; λόγος, a discourse. The word "limnography" is used sometimes in discussions of the variations in the level of lakes as shown by the limnograph.

² It is to be understood that here and in the sequel the word "salt" connotes not merely common salt, viz. sodium chloride, but any compound of an inorganic