

B.A. Part. 01 (Hons).

Paper. 01. Physical Geography.

Unit. 05. Salinity of Ocean Water. Part. 02

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Horizontal distribution of salinity

The salinity for normal open ocean, ranges between $33^{\circ}/_{\infty}$ and $37^{\circ}/_{\infty}$. In the Red Sea, it is as high as $41^{\circ}/_{\infty}$ while in the estuaries and the Arctic, the salinity fluctuates from $0 - 35^{\circ}/_{\infty}$. Seasonally, in hot and dry regions, where evaporation is high, the salinity sometimes reaches to $70^{\circ}/_{\infty}$.

The salinity variation in the Pacific Ocean is mainly due to its shape and large area extent. Salinity decreases from $35^{\circ}/_{\infty}$ to $31^{\circ}/_{\infty}$ on the Western parts of the northern hemisphere because of the influence of melted water from the Arctic region. In the same way, after $15^{\circ} - 20^{\circ}$ South it decreases to $33^{\circ}/_{\infty}$.

The Average salinity of the Atlantic Ocean is around $36^{\circ}/_{\infty}$. The highest salinity is recorded between

15° and 20° latitudes. maximum salinity 37‰ is observed between 20°E and 30°E and 20°W - 60°W. It gradually decreases towards the north. The North Sea, in spite of its location in higher latitudes records higher salinity due to warm saline water brought by the North Atlantic drift. Baltic Sea records low salinity due to influx of river water in large quantity. The Mediterranean Sea records high salinity due to high evaporation.

Salinity is however very low in Black Sea due to enormous influx of fresh water by rivers.

The average salinity of Indian Ocean is 35‰. The low salinity trend is observed in the Bay of Bengal due to influx of river water. On the contrary, the Arabian Sea shows higher salinity due to high evaporation and low influx of fresh water.

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