A Science Service Feature

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? WHY THE WEATHER ?

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SALINITY VS EQUABILITY

According to folk-lore, a ship captain once asked his magic mill to grind salt and being unable to stop the salt production was forced to throw the mill overboard, where it still grinds salt at the bottom of the sea. Be that as it may, we know that the oceans are steadily becoming more salty, though the rate of increase is very small.

The rivers are constantly carrying salts derived from ground water into the seas. But when evaporation occurs at the surface of the sea, the salt is left behind, and the rain which is returned to the land is always fresh although the sea may have been the source of the vapor.

Austin H. Clark, of the U.S. Natural Museum, points out that as a result of this increase in saltiness, evaporation from the surface of the oceans tends to diminish, and consequently a larger proportion of the earth's water remains locked in the ocean basins. If our present oceans were of fresh water, he believes that their surface would be far below the present level, lakes and swamps would be much more extensive and the earth would be heavily blanketed with clouds. Such conditions would result in more numerous land connections and in a much more equable distribution of the sun's heat between the equator and poles. Atmospheric circulation and ocean currents would be reduced to a minimum, there would be almost no storms and no high waves. The fossil animals of the oldest rocks are of a type well adapted to living in a world of this character.

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