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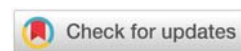
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Short Communication

The optimum range of ocean and freshwater quality parameters

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Introduction

The optimum range of water is very important to determine the quality of water found in ocean and river. Standard is range is very crucial for researchers to know the absolute status of the ocean and river water quality [1-3]. Ocean and river are being polluted day by day. Industrialization, urbanization, oil

dumping, and other development activities are responsible for this water quality deterioration. As a result the total ecosystem of the ocean and river is damaged. Consequently, all living organisms are being declined from the water environment. Various pollutants are responsible for this declination. For this, humans also being affected since they consume fish, seaweed,

Table 1: Optimum range for ocean and river water quality parameters.

Physico-chemical parameters	Ocean water	Freshwater/River water
pH	6.5- 8.5 (US EPA)	7.0 to 8.50 (WHO)
EC	51,500µS/cm	0-800µS/cm
Temperature	-2 to 30 °C (Average about 17 °C)	5-25°C
Total Dissolved Solid (TDS)	35,000 mg/l	100 – 1,000mg/L (river)/ 500mg/l (drinking water)
Dissolved oxygen (DO)	90–110%	6.5-8mg/l/ 7-8mg/l
Biochemical Oxygen Demand (BOD)	below 1-2mg/l	below 1mg/l
Chemical Oxygen Demand (COD)	10mg/l (drinking water)	10mg/l (drinking water)
Hardness	1000mg/l	80 to 100mg/l (drinking water)
Alkalinity	> 20mg/l	20-200mg/l
Chloride	about 19,400 mg/L (a salinity of 35.0 ppt)	45-155mg/l
Salinity	32-37ppt	0.5ppt or less
Conductivity	5 S/m	5–50mS/m (drinking water)
Phosphate-phosphorus (PO ₄ -P)	-	0.05mg/L
Nitrate-nitrogen (NO ₃ -N)	-	1-10mg/L
Nitrite-nitrogen (NO ₂ -N)	-	1mg/L
Ammonia (NH ₃)	Less than 1mg/L	less than 1mg/L (US EPA)



mussel, oyster and other food items derived from ocean and river. The risks that are related to the drinking water must be evaluated [4-8]. In many countries of the world ocean and river water is being used for human consumption. Water is treated with three objectives: 1. pure water for people's drinking, 2. to increase appeal to the customer, and 3. increasing water treatment facilities that will be feasible and cost effective to operate [9,10]. Optimum range is usually given two (2) values, a recommended value and a maximum permissible limit Table 1.

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