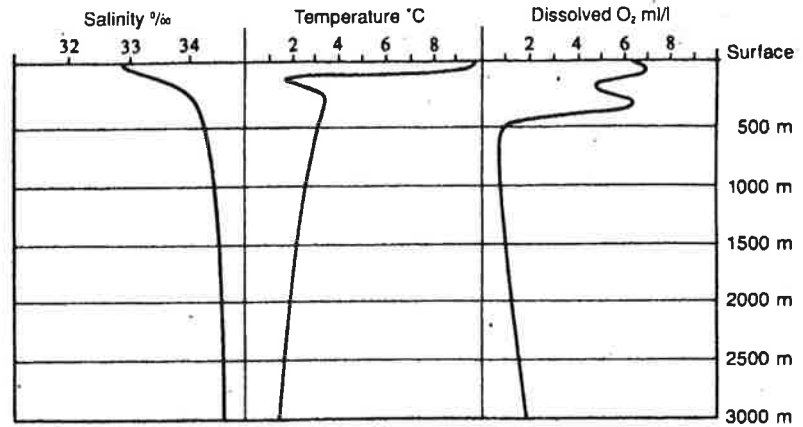


The graphs below show the variation of salt concentration (salinity), temperature, and oxygen concentration at various depths in the Bering Sea. (Note: 0/00 means parts per thousand.)



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- According to the graphs, how does salinity vary with depth?
 - Salt concentration is greatest at or near the surface.
 - Salt concentration increases uniformly with depth.
 - Salt concentration is lowest near the surface, and changes only slightly below 1000 m.
 - Salt concentration is twice as great near the bottom as at the surface.
- If a diver were rising from a depth of 3000 m, what changes would be registered for most of the trip?
 - The water would be getting warmer, saltier, and richer in oxygen.
 - The water would be getting colder, less salty, and richer in oxygen.
 - The water would be getting colder, less salty, and poorer in oxygen.
 - The water would be getting warmer, less salty, and poorer in oxygen.
- Which of the following hypotheses would account for some of the information in the graphs?
 - Oxygen enters the water through the surface from the air, but little is carried to great depths.
 - Higher temperatures allow more salt to be held in solution.
 - Direct heating of the water by the sun has very little effect on the ocean.
 - Large amounts of salt in solution prevent oxygen from dissolving.
- A certain kind of fish thrives best at a temperature of 3° C, but needs over 34.2 parts per thousand of salt in its water. According to the graphs, under what conditions would it be most likely to survive?
 - It would have to live within 100 m of the surface.
 - It would have to tolerate low oxygen concentration.
 - Its favored habitat would be below 2000 m.
 - If the oxygen concentration were high enough, it could thrive in any part of the sea.
- From these graphs, what general statement could be made about one or more variables in all parts of the ocean?
 - Salinity and oxygen concentration always increase at depths below 1000 m.
 - Temperature always drops sharply with depth for the first 100 m.
 - Salinity is always higher at lower temperatures.
 - None of these, unless more information is available.
- If 5 kilograms of sea water were taken from the surface and then allowed to evaporate, how much salt would be left?
 - 16.5 grams
 - 33 grams
 - 165 grams
 - 330 grams

TLC Stamp

