

(2004/4/13 2003/9/20)

	(pH)		(T)		
(Mg)	(Ca)	(TH)	(DO)		(EC)
(NO ₃ ⁻¹)	(PO ₄ ⁻³)	(HCO ₃ ⁻¹)	(K)		(Na)
			(SO ₄ ⁻²)		(Cl ⁻¹)
			(PO ₄ ⁻³)	(HCO ₃ ⁻¹)	(DO) (pH)
		(DO)		(autumn turnover)	

Variation of Characteristic Quality with Depth of Water of Mosul Dam Lake

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ABSTRACT

The variation of quality characteristic of Mosul lake, was studied by monitoring the changes in the physical and chemical characteristics of water through two periods. The two periods have been chosen during July and November respectively. The changes of several samples, taken at different depths, were monitored. The changes included, temperature (T), pH, electrical conductivity (EC), dissolved oxygen (DO), total hardness (TH), calcium (Ca), magnesium (Mg), sodium (Na), potassium (K), bicarbonate (HCO_3^-), phosphate (PO_4^{3-}), nitrate (NO_3^-), chloride (Cl) and sulphate (SO_4^{2-}), Cross-sections that represent the changes in the characteristics were shown graphically.

The results have shown that for the July period the changes in temperature has greater effects on some of the specific characteristics such as pH, DO, (HCO_3^-), and PO_4^{3-} than the others. The effects have produced three strata-zones of different specific characteristics that synchronize with three strata-zones of different temperatures.

For the November periods the study has shown that the lake is at the beginning of autumn turnover state. Besides, the study has shown that concentration of (DO) does not show the overturning process clearly. Also the decrease in the amount of oxygen in the lake, which in turn, lead to the formation for a reducing environment that increases the biological pollution inside the lake. In addition, the concentration of dissolved ions will increase as result of the absence of the self-treatment inside the lake.

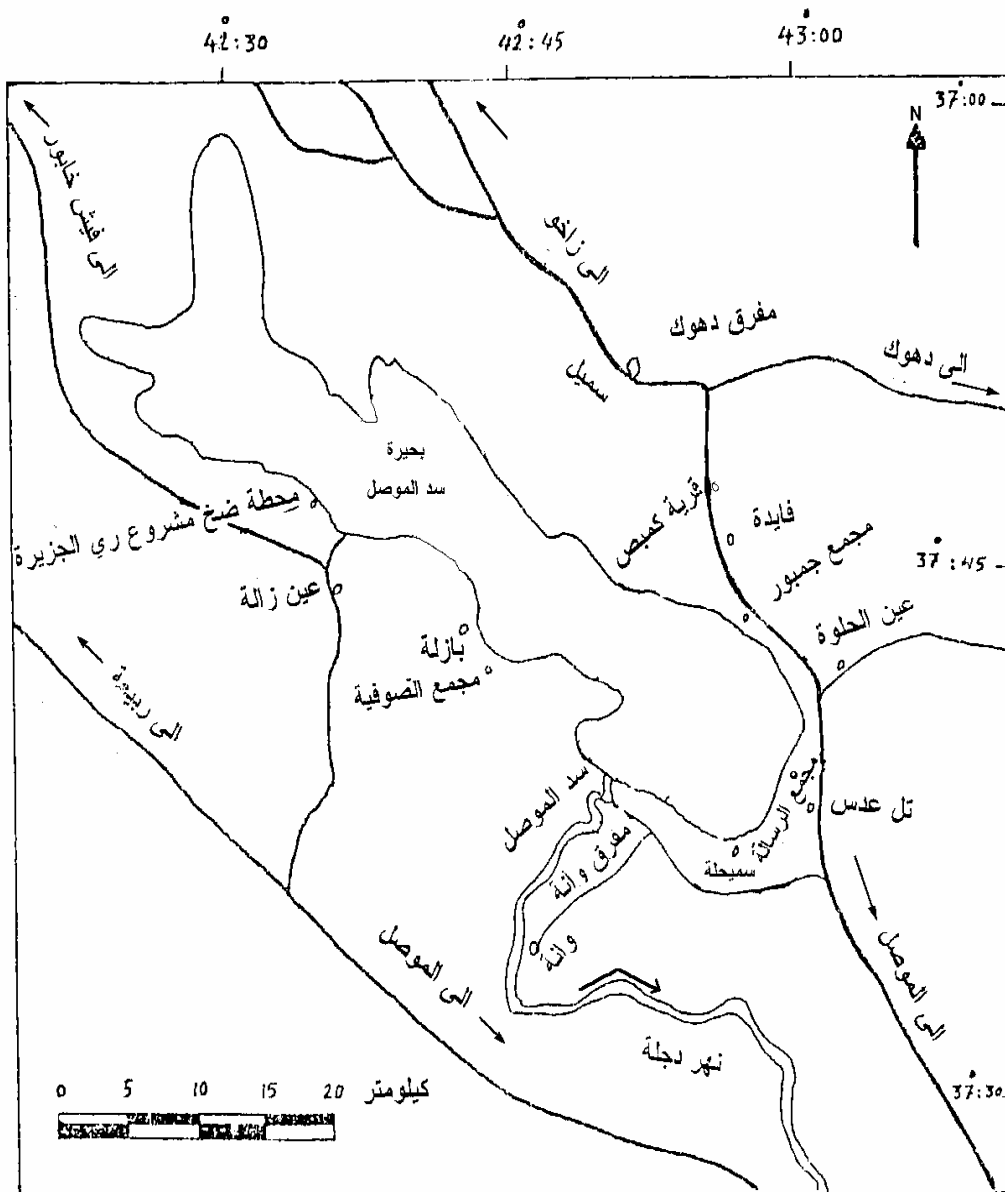
(1)

(40)

Aljubouri and)

.(Khatab, 1997

(Davis and Cornwell, 1991)



(1990).

:1

(DO)

(DO)

.(autumn turnover)

.(Grasby and Lepitzki, 2002)

1990

30/ 20/ 10/ 1

(Kammerer sampler)

.(1990)

(C 4)

(pH-meter)

(pH)

(C)

(YSI, model 57 , oxygen meter)

(DO)

(TOA-Cm -20S)

(EC)

(Jenkis et al., 1980) EDTA

(TH)

(K)

(Na)

(Mg)

(Ca)

. (Vogel, 1961) (Flame photometer)

.....

(Spectrophotometer)

(NO₃⁻¹)

(HCO₃⁻¹)

(PO₄⁻³)

(Marczenko, 1976)

(SO₄⁻²)

(1990

) (Sn₂Cl

(Cl⁻¹)

(Nephelometric)

(2)

HCO₃⁻¹)

(DO)

(pH)

(20 15)

(PO₄⁻³)

(¹

(PO₄⁻³)

(HCO₃⁻¹)

(pH)

(DO)

(10)

(10)

(20)

(20)

(1996)

(EC)

(SO₄⁻²)

(Mg)

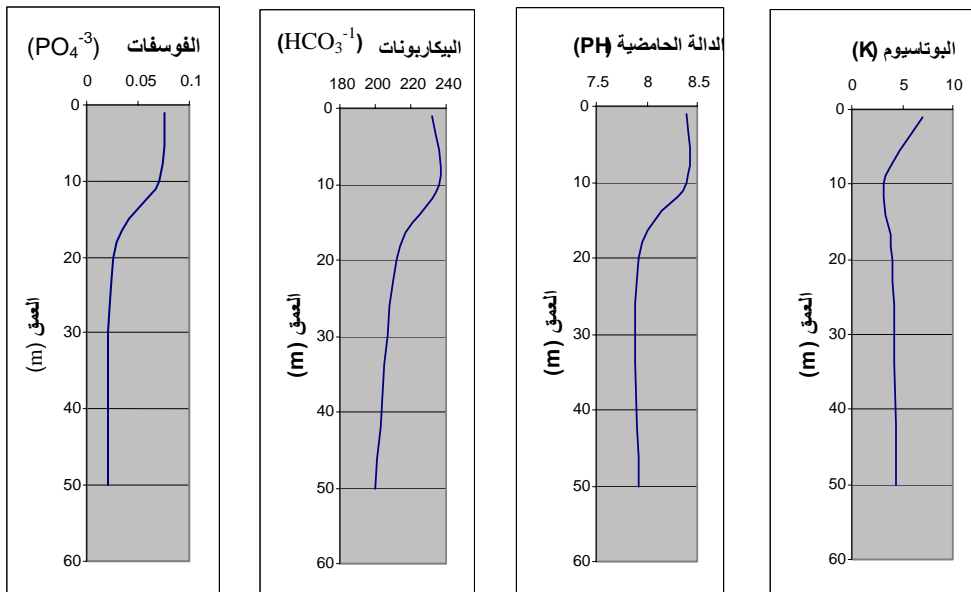
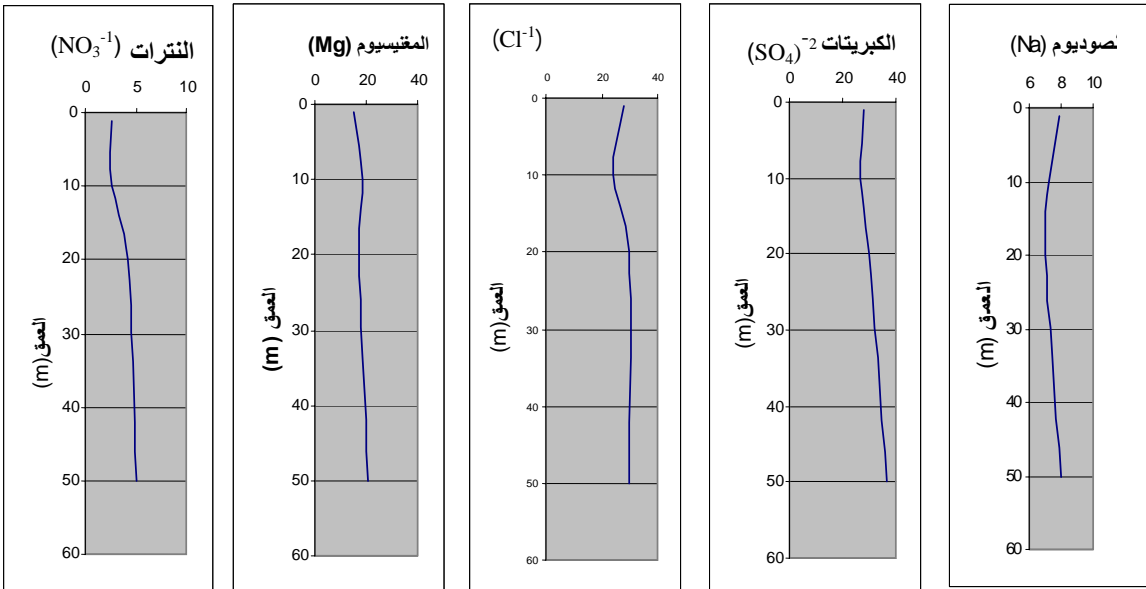
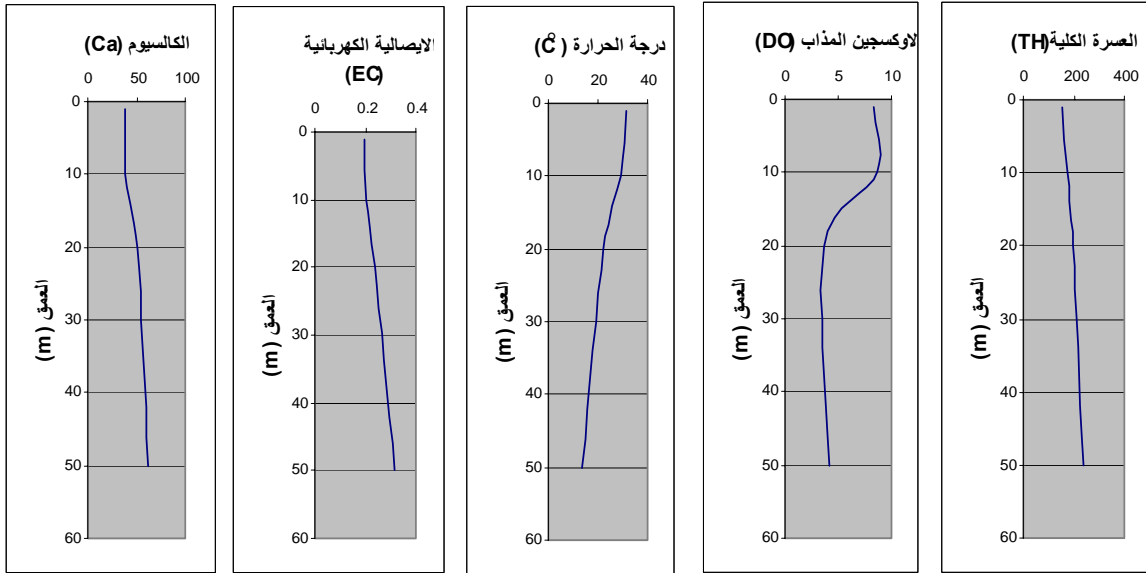
(Ca)

(TH)

(Eriksson, 1981)

(Awwa, 1971)

(DO)



.....

food)

() (enrichment

(Na)

(20)

.(Al-Layla et al., 1977)

(10)

.(Cl⁻¹)

(NO₃⁻¹)

(10)

(20)

(20 10)

(Mosello et al., 2002)

.(Kiely 1997)

(3)

(pH)

(10)

(pH)

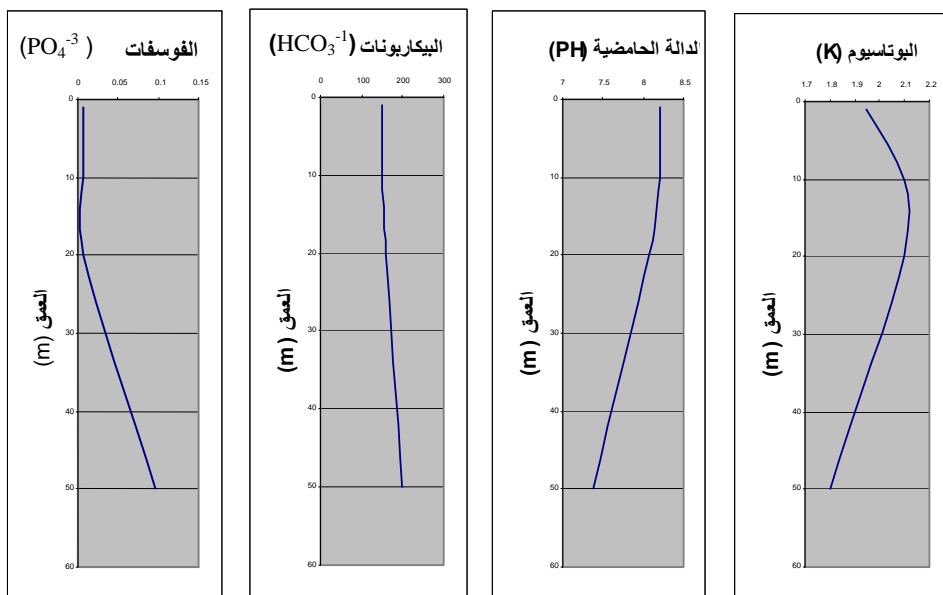
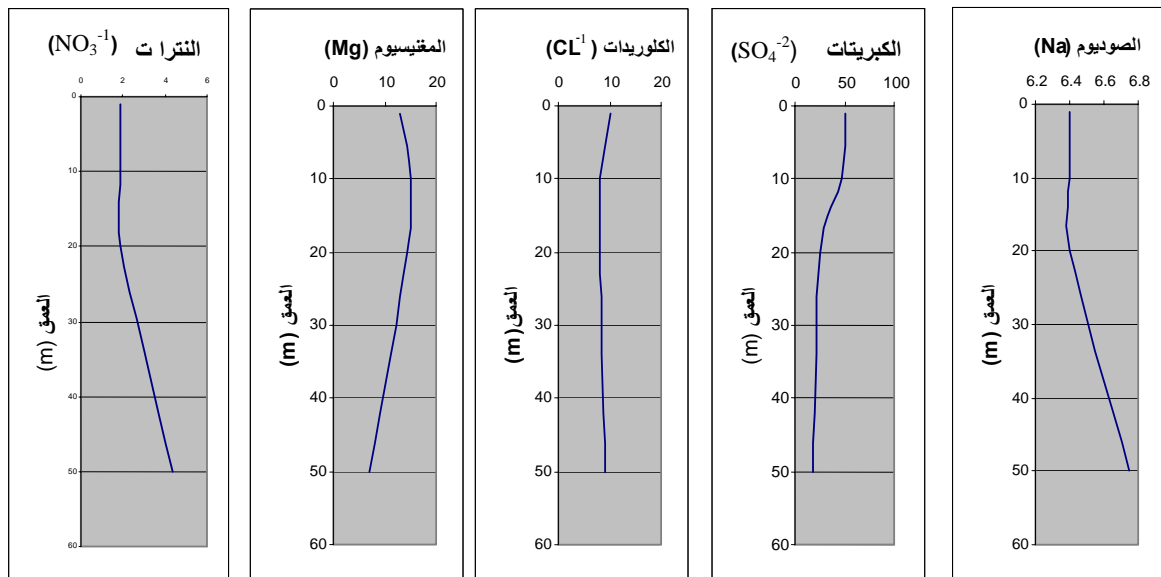
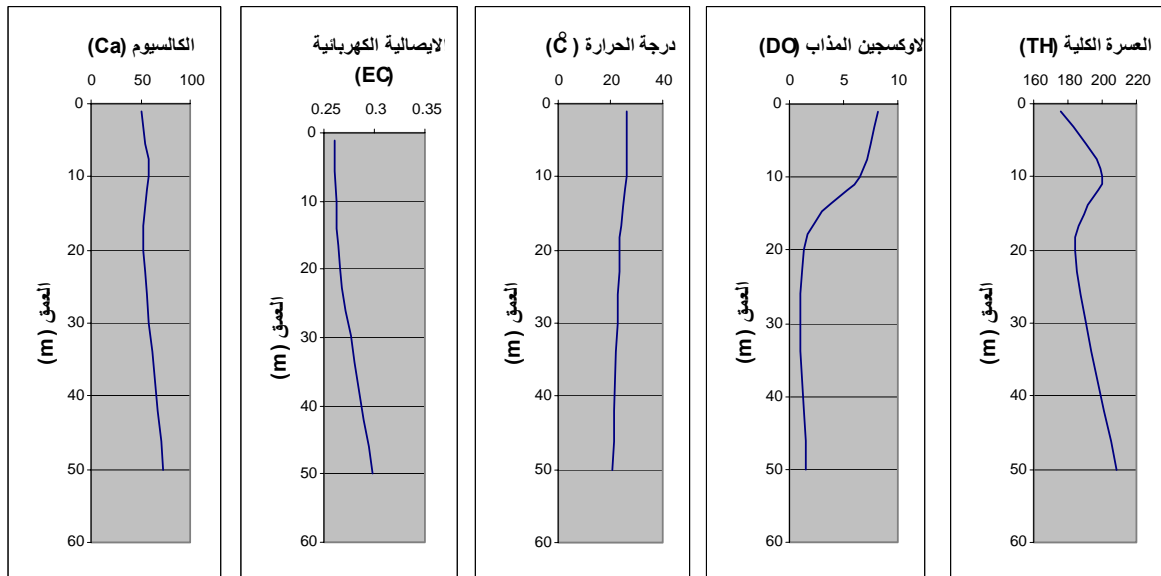
(10)

(1988,)

(autumn turnover)

(DO)

(DO)



.....

(20)

(10)

(10)

(20)

(DO)

(HCO₃⁻¹)

(PO₄⁻³)

(20)

(SO₄⁻²)

(pH)

(Mg)

(Ca)

(TH)

(20 10)

.(Al-Layla et al., 1977)

(SO₄⁻²)

(EC)

(NO₃⁻¹)

(K)

(Na)

(Na)

(K)

.(Gashaw, 1999)

:

-2

pH PO₄⁻³, HCO₃⁻¹, DO -3

/ (3) -4

(pH) (HCO₃⁻¹) -5

.1988

.1996

155

.1990

25-18

.221-207

.1990

296

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