霞ケ浦全域調査資料

Environmental Data for Lake Kasumigaura

平成５年度～平成７年度
1993～1995

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NATIONAL INSTITUTE FOR ENVIRONMENTAL STUDIES

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はしがき

本研究資料は，国立環境研究所の研究者で組織された霞ヶ浦全域調査研究グループによって，1976年以降より継続されている霞ヶ浦(西浦)定期調査結果をまとめたものである。本冊子では，1993年4月から1995年3月までの3年間の水質調査資料をまとめ，主な項目については経年変化を図化して示した。

本冊子掲載以前の霞ヶ浦全域調査資料は，国立公害研究所研究報告第1号(1977)，同第6号(1979)，同第22号(1981)，国立公害研究所研究資料第25号(1984)，同第33号(1988)，国立環境研究所研究資料F-25 -'90/NIES(1990)および同F-61-'94/NIES(1994)に収録されている。

霞ヶ浦は，依然として深刻な富栄養化状態が続いている。昭和59年の湖沼水質保全特別措置法に基づき指定湖沼となり，昭和61年度から平成2年度までの5年間，第1次の湖沼水質保全計画が進められた。第1次湖沼水質保全計画で定められた水質目標値の達成にはかなり無理があったため，平成3年度から平成7年度までの第2次湖沼水質保全計画で新たに暫定水質目標値が設定され，種々の富栄養化対策が実施された。しかし，この暫定水質目標値も達成することはできなかった。平成7年10月に第6回世界湖沼会議霞ヶ浦 '95が開かれ，多くの湖沼研究者が霞ヶ浦に集い湖沼環境保全について多くの討議がなされた。それらの討論を基に，平成8年に新たな第3次の湖沼水質保全計画が策定された。

一方では，霞ヶ浦から茨城県南西部に農業用水，水道用水および工業用水を供給する霞ヶ浦用水事業の基幹線水路の建設は終了し，すでに数年前から給水が始まっている。また，霞ヶ浦と，那珂川や利根川と結んで流況調整を行う霞ヶ浦導水事業も進んでいる。このように，霞ヶ浦の水資源開発事業の進展や，流域の人口増加等に伴う汚濁負荷量の増加など霞ヶ浦を取り巻く環境は日に日に変化しており，湖沼水質にも影響を及ぼしている。

1976年より継続して行われてきた国立環境研究所による霞ヶ浦の水質調査は，すでに21年目となり，長期間にわたる湖沼調査資料として，学会はじめ湖沼関係研究者の間で信頼性の高い資料と評価されている。調査を継続的に行っていくため，平成8年4月から地球環境モニタリング事業の一環でGEMS/Waterトレンドステーションとして継続することとなった。近年の霞ヶ浦は水量や水質とも大きな変化の波の中にあり，霞ヶ浦全域にわたる水質，環境変化の頻度の高い総合的な調査記録は，今後の湖沼環境保全研究にとって貴重な学術財産になるものとして確信している。

平成9年3月

国立環境研究所
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目　次

C O N T E N T S

1．霞ヶ浦全域調査データ

Limnological Data in Lake Kasumigaura

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野尻幸宏[1]・福島武彦[2,6]・松重一夫[2]・高木博夫[2]
稲葉一穂[2]・矢木修身[2]・高村典子[2]・河合崇欣[3]
相崎守弘[4,7]・海老瀬潜一[4,8]・今井章雄[4]・井上隆信[4]
岩熊敏夫[5]・花里孝幸[5,9]

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表１　調査地点の緯度，経度

Table 1 Location of sampling points

	St.1	St.2	St.3	St.4	St.6	St.7	St.8	St.9	St.11	St.12
Latitude (N)	36°08'76	36°08'07	36°07'11	36°05'16	36°04'72	36°03'71	36°02'53	36°01'95	36°00'31	35°58'40
Longitude(E)	140°19'69	140°20'62	140°22'85	140°24'09	140°13'42	140°14'19	140°18'17	140°24'42	140°26'35	140°28'53

野尻：全リン(T-P)，全溶存態リン(DTP)，オルソリン酸態リン(PO_4-P)，アンモニア態窒素(NH_4-N)，亜硝酸態窒素(NO_2-N)，硝酸態窒素(NO_3-N)，全窒素(T-N)

福島・海老瀬：全化学的酸素要求量(T-COD)，溶存態化学的酸素要求量(D-COD)，懸濁物質

福島：電気伝導度，乾燥重量(SS)

高村：１次生産，呼吸速度

相崎：クロロフィルａ(Chl-a)，懸濁態有機炭素(POC)，懸濁態有機窒素(PON)，生菌数

３．結果

1993年4月から1996年3月までの3年間に得られた調査結果を，主要な水質項目と代表的な地点について経年的な季節変化として図示し，現場での測定項目と調査結果を持ち帰った試料の分析結果の詳細を表示する。

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国立環境研究所（1994）：霞ヶ浦全域調査資料，国立環境研究所研究資料，F-61-'94/NIES，1-89.

1．はじめに

霞ヶ浦全域調査は，1976年以来，特別研究「陸水域の富栄養化に関する総合研究」，「陸水域の富栄養化防止に関する総合研究」，「自然浄化機能による水質改善に関する総合研究」及び特別経常研究「湖沼環境変化に伴う水質・生物相変動に関する研究」，「霞ヶ浦の環境変化に伴う水質・生物相変動に関する研究」の一環として，霞ヶ浦（西浦）の多くの地点で水質及び生物相の分布と変化を中心に調査を行ってきた。

1977年3月までの調査結果については国立公害研究所研究報告第1号（1977）に，1978年10月までの調査結果については同第6号（1979）に，1980年3月までの調査結果は同22号（1981）に，1983年3月までの調査結果は国立公害研究所研究資料第25号（1984）に，1987年3月までの調査結果は同第33号（1988）に，1990年3月までの調査結果は国立環境研究所資料F-25-'90/NIES（1990）に，1993年3月までの調査結果は同F-61-'94/NIES（1994）に報告している。本調査資料に収録したデータは，1993年4月から1996年3月までの調査結果の表による掲示と，調査結果の経年的な季節変化を図示したものである。

2．調査地点及び調査方法

調査は，これまでと同じ10地点で行い，その位置を図1に示し緯度，経度を表1に示した。採水方法もこれまでと同様に2mのアクリル製カラム採水器を用い，表層0mから2mまでの柱状採水を行った。現場での物理・化学的な測定方法と，氷冷等により持ち帰った試料の分析方法は，これまでと同一である。採水及び現地調査項目は，海老瀬，相崎，岩熊，河合，野尻，福島，花里，稲葉，今井，井上，松重，高木，矢木が主に担当した。採水した試料の分析は，以下のように分担して行っている。

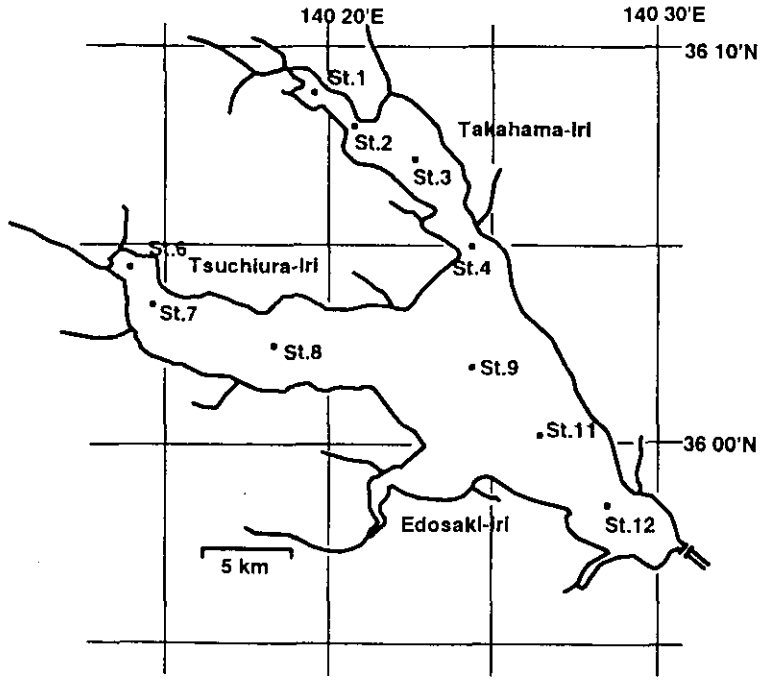

図1　調査地点

Fig.1 Sampling points in Lake Kasumigaura

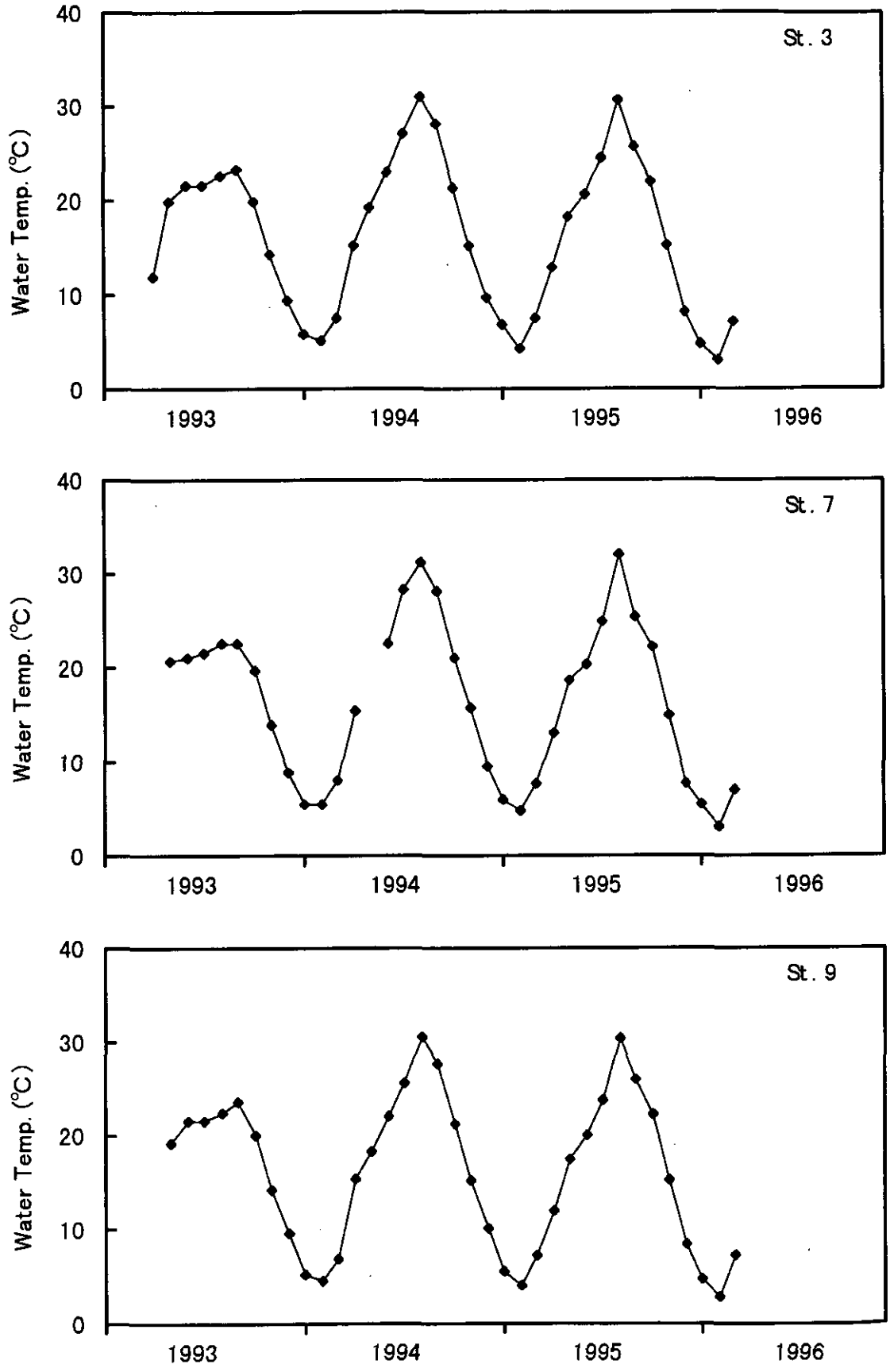

図 2　霞ヶ浦各地点における水温の経年変化(水表面)
Fig. 2　Annual changes in surface water temperature at each station of Lake Kasumigaura

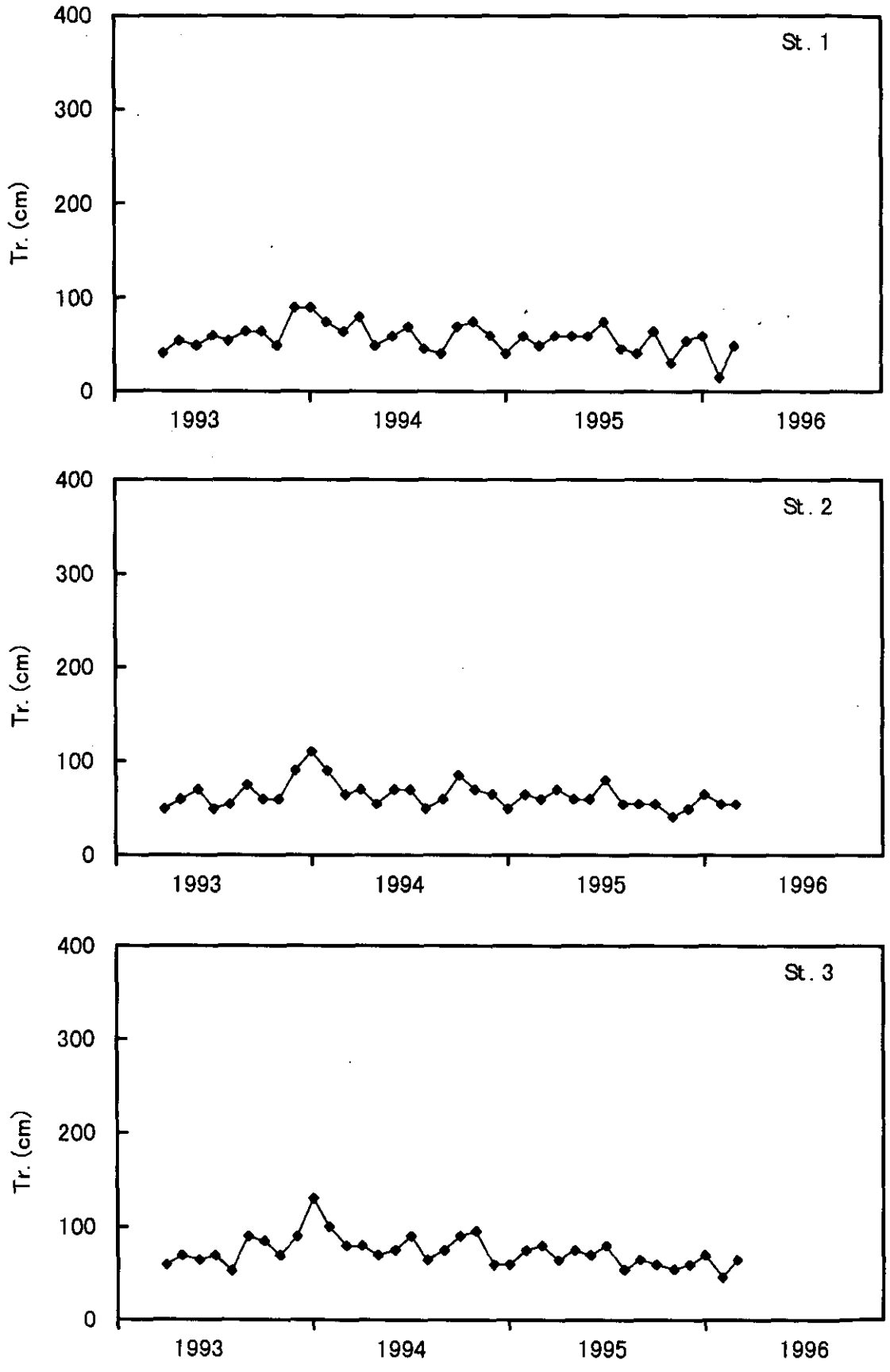

図 3(a)　霞ヶ浦各地点における透明度の経年変化
Fig. 3(a)　Annual changes in Secchi disk transparency at each station of Lake Kasumigaura

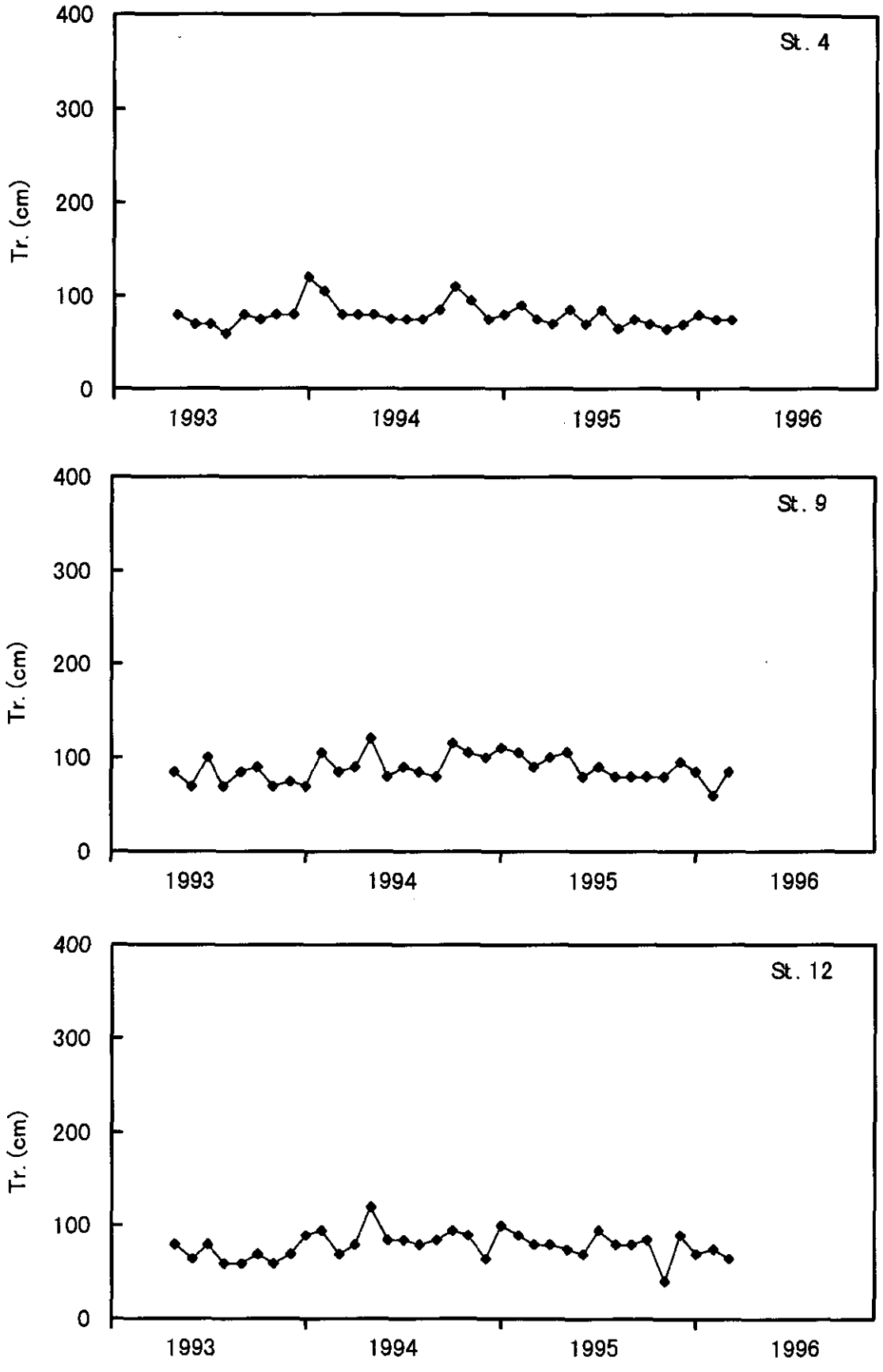

図 3(b)　霞ヶ浦各地点における透明度の経年変化

Fig. 3(b)　Annual changes in Secchi disk transparency at each station of Lake Kasumigaura

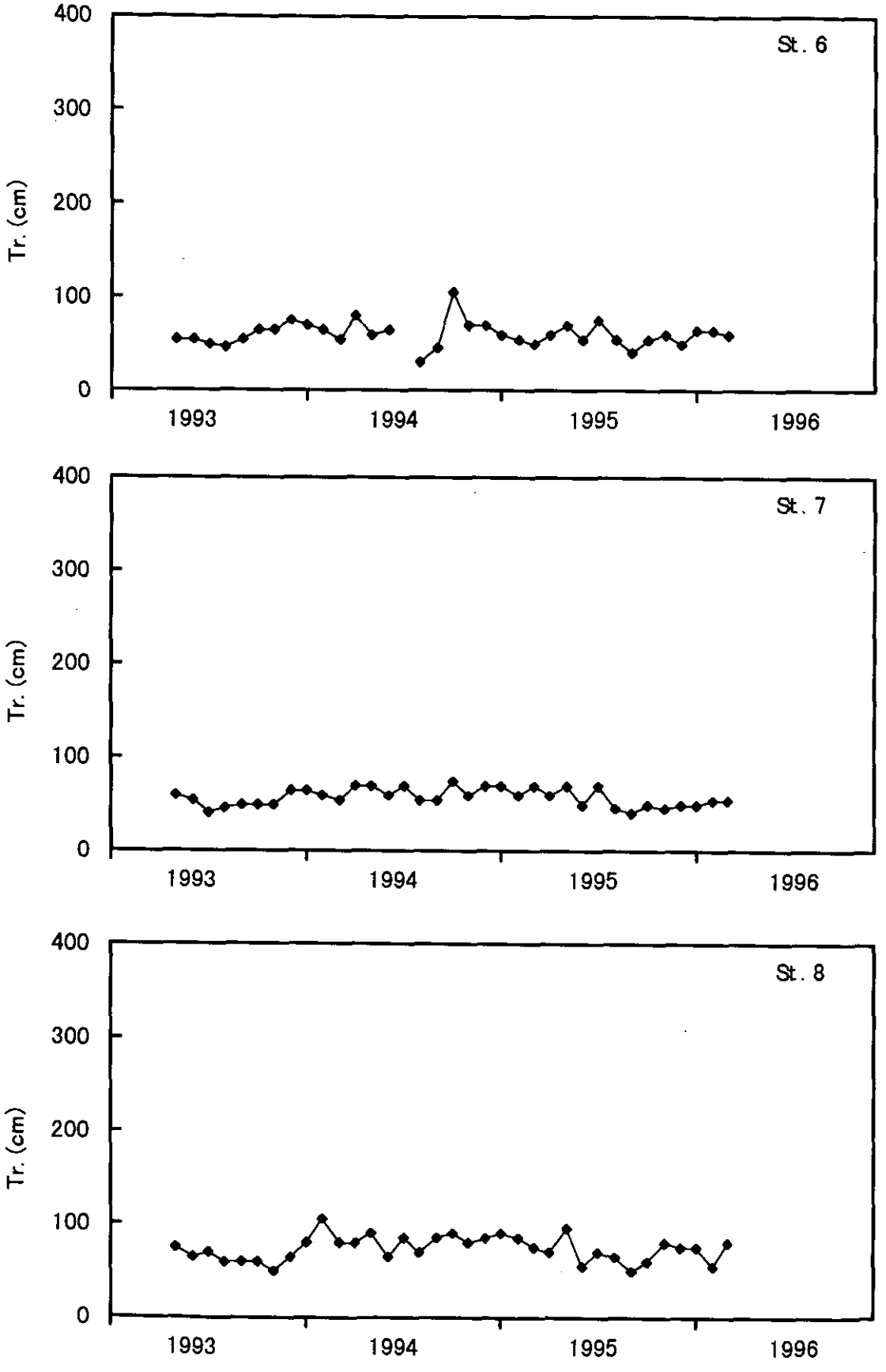

図 3(c)　霞ヶ浦各地点における透明度の経年変化
Fig. 3(c)　Annual changes in Secchi disk transparency at each station of Lake Kasumigaura

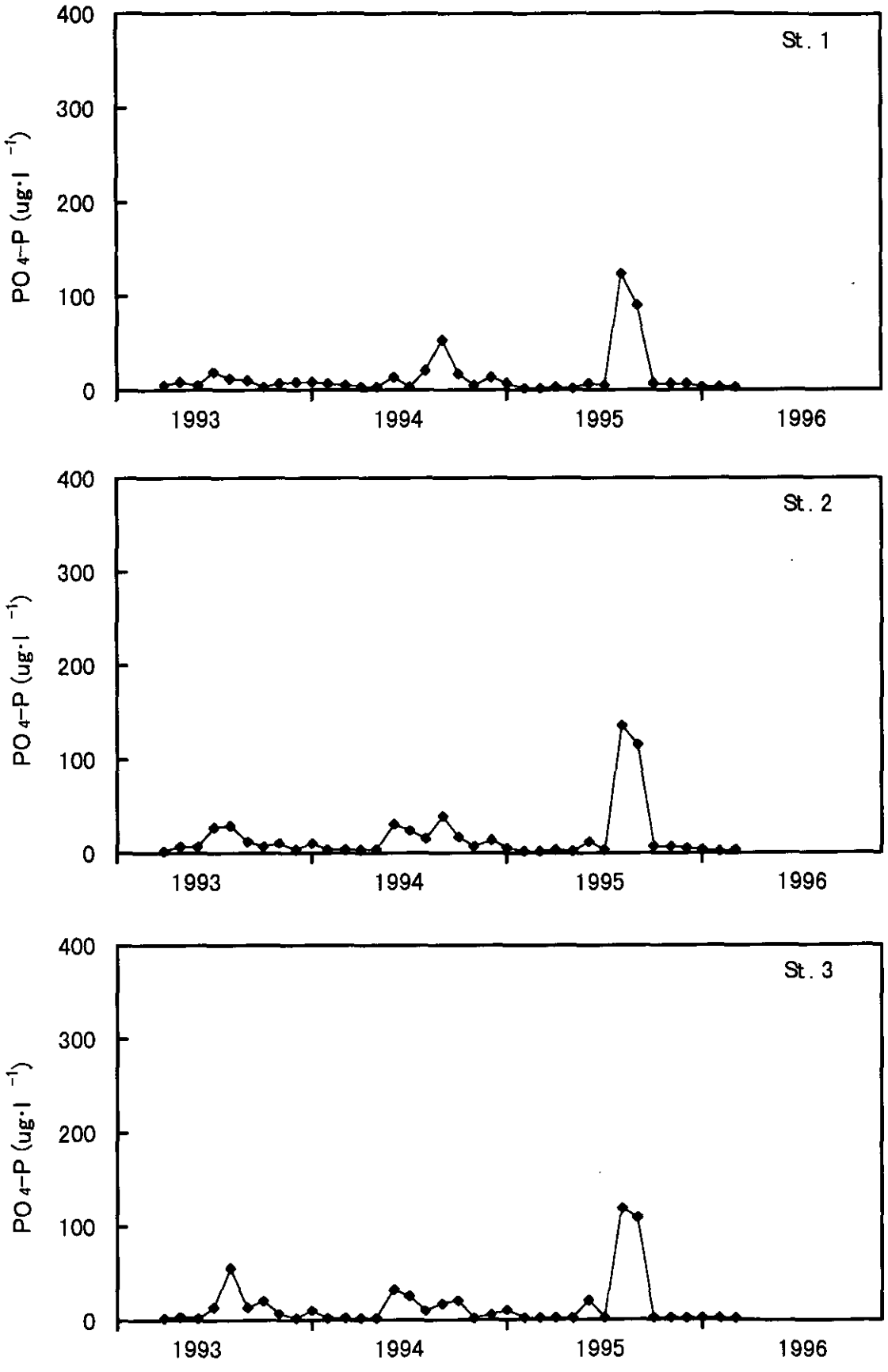

図 4(a)　霞ヶ浦各地点におけるPO_4-P濃度の経年変化

Fig. 4(a)　Annual changes in PO_4-P concentration at each station of Lake Kasumigaura

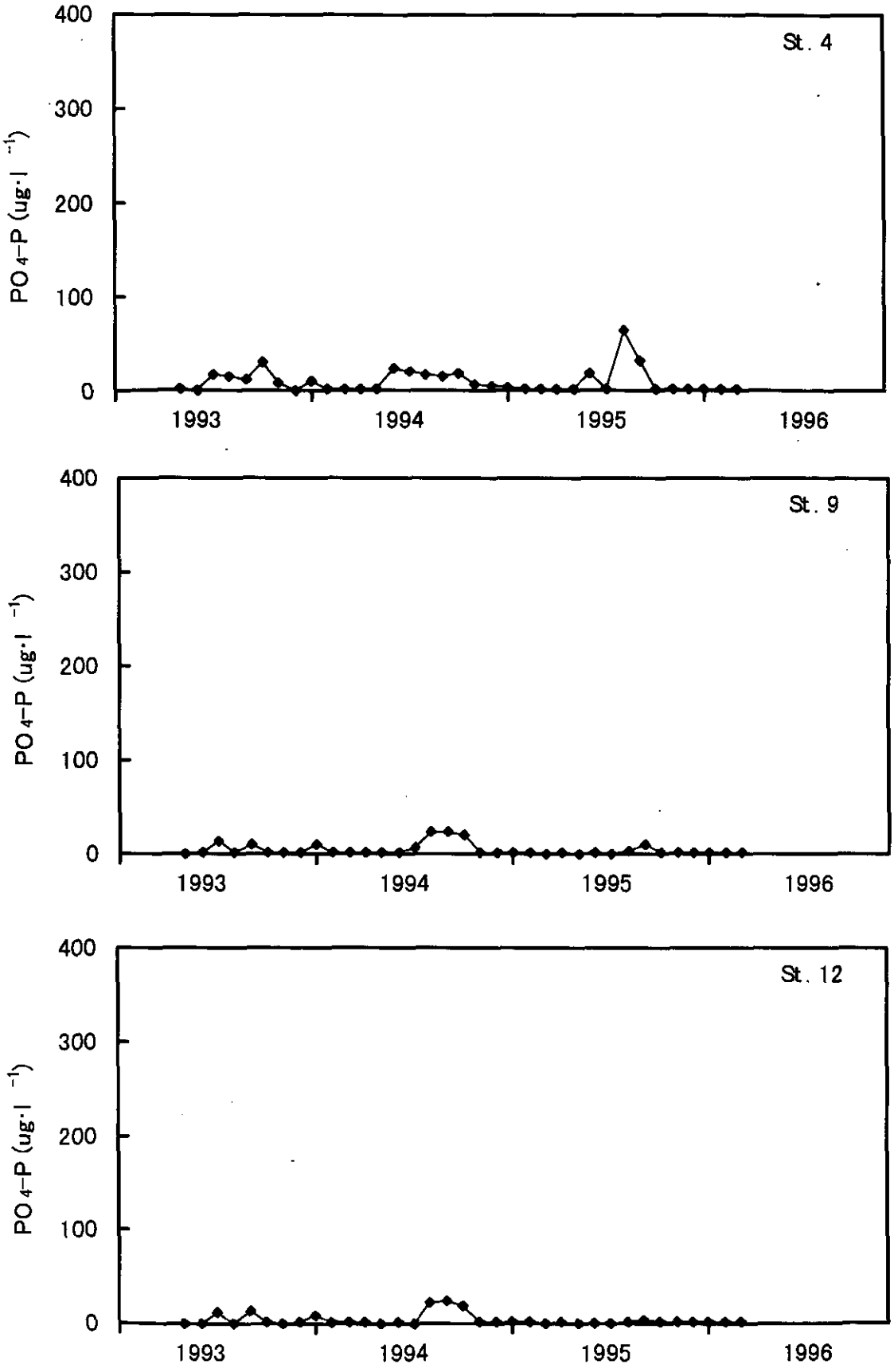

図 4(b)　霞ヶ浦各地点におけるPO_4-P濃度の経年変化

Fig. 4(b)　Annual changes in PO_4-P concentration at each station of Lake Kasumigaura

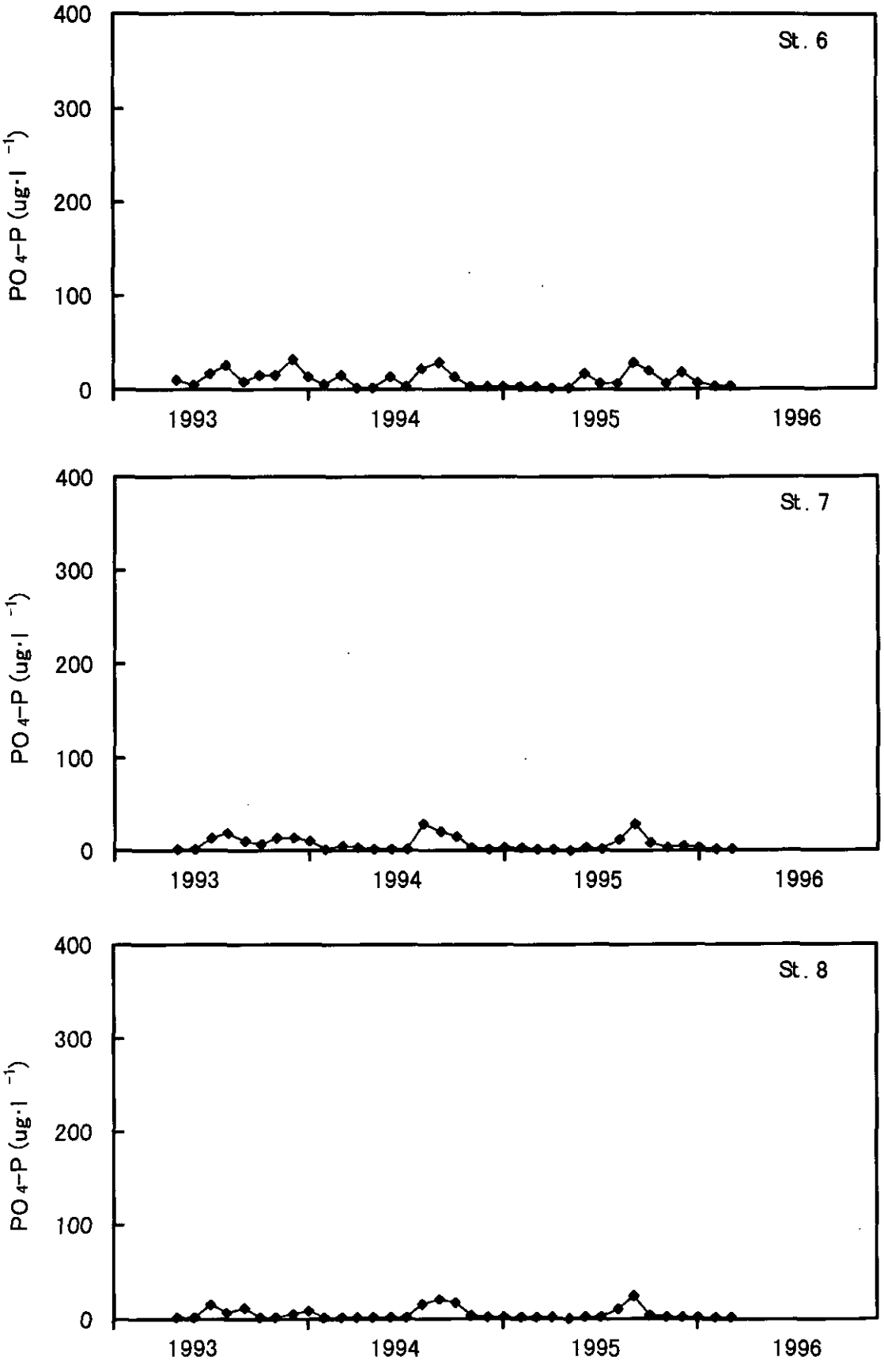

図 4(c)　霞ヶ浦各地点におけるPO_4-P濃度の経年変化

Fig. 4(c)　Annual changes in PO_4-P concentration at each station of Lake Kasumigaura

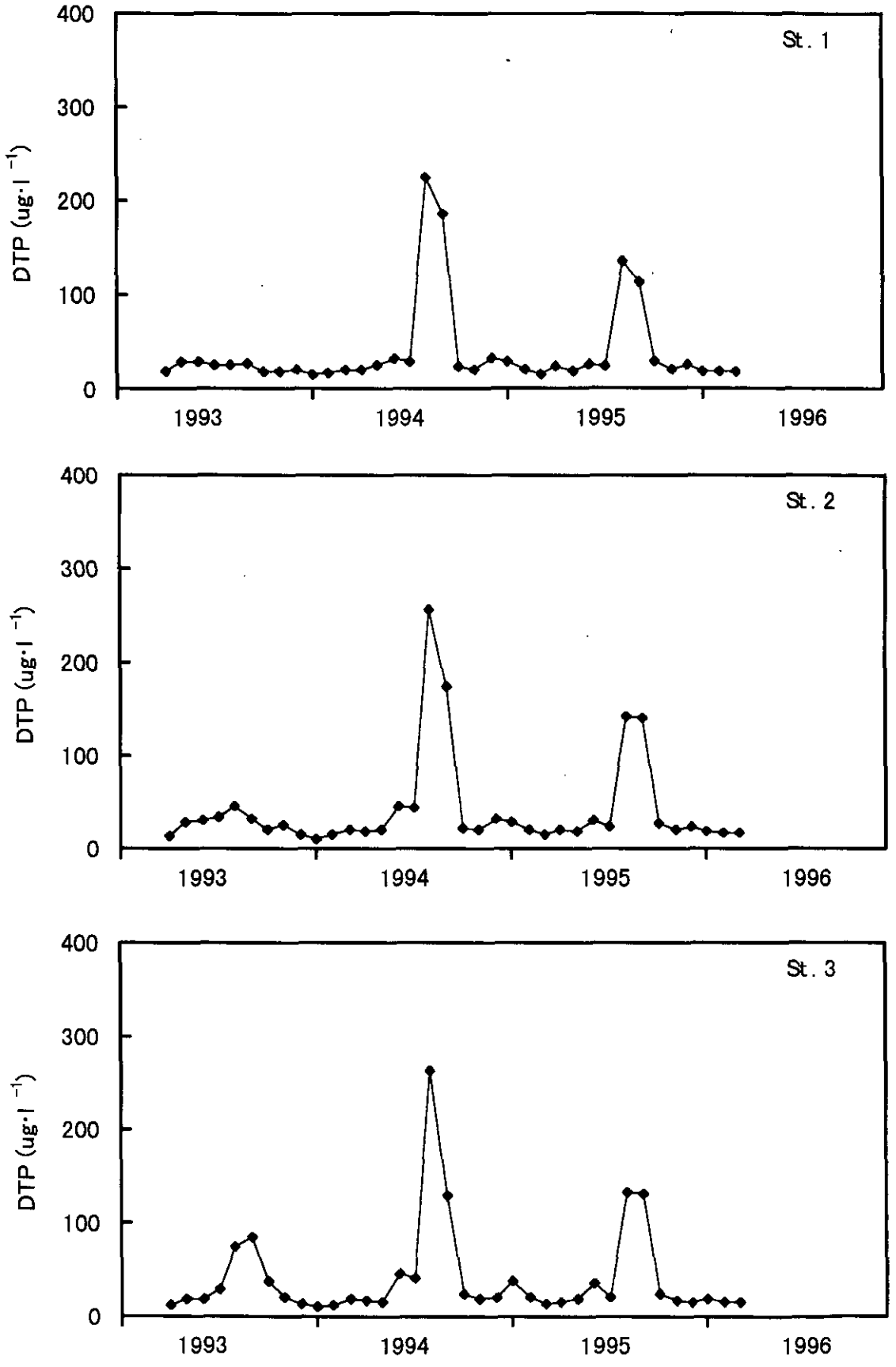

図 5(a)　霞ヶ浦各地点におけるDTP濃度の経年変化
Fig. 5(a)　Annual changes in DTP concentration at each station of Lake Kasumigaura

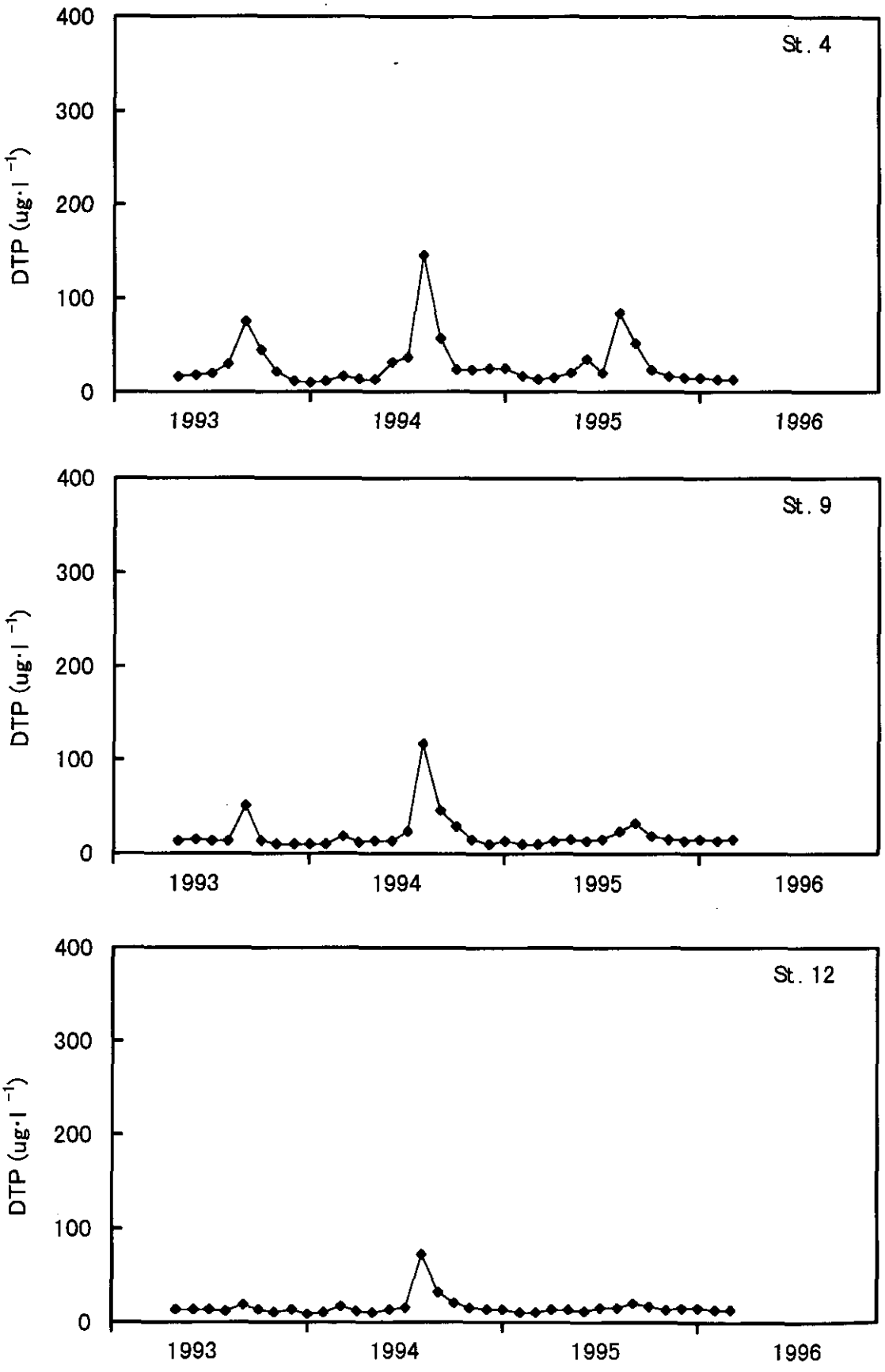

図 5(b)　霞ヶ浦各地点におけるDTP濃度の経年変化
Fig. 5(b)　Annual changes in DTP concentration at each station of Lake Kasumigaura

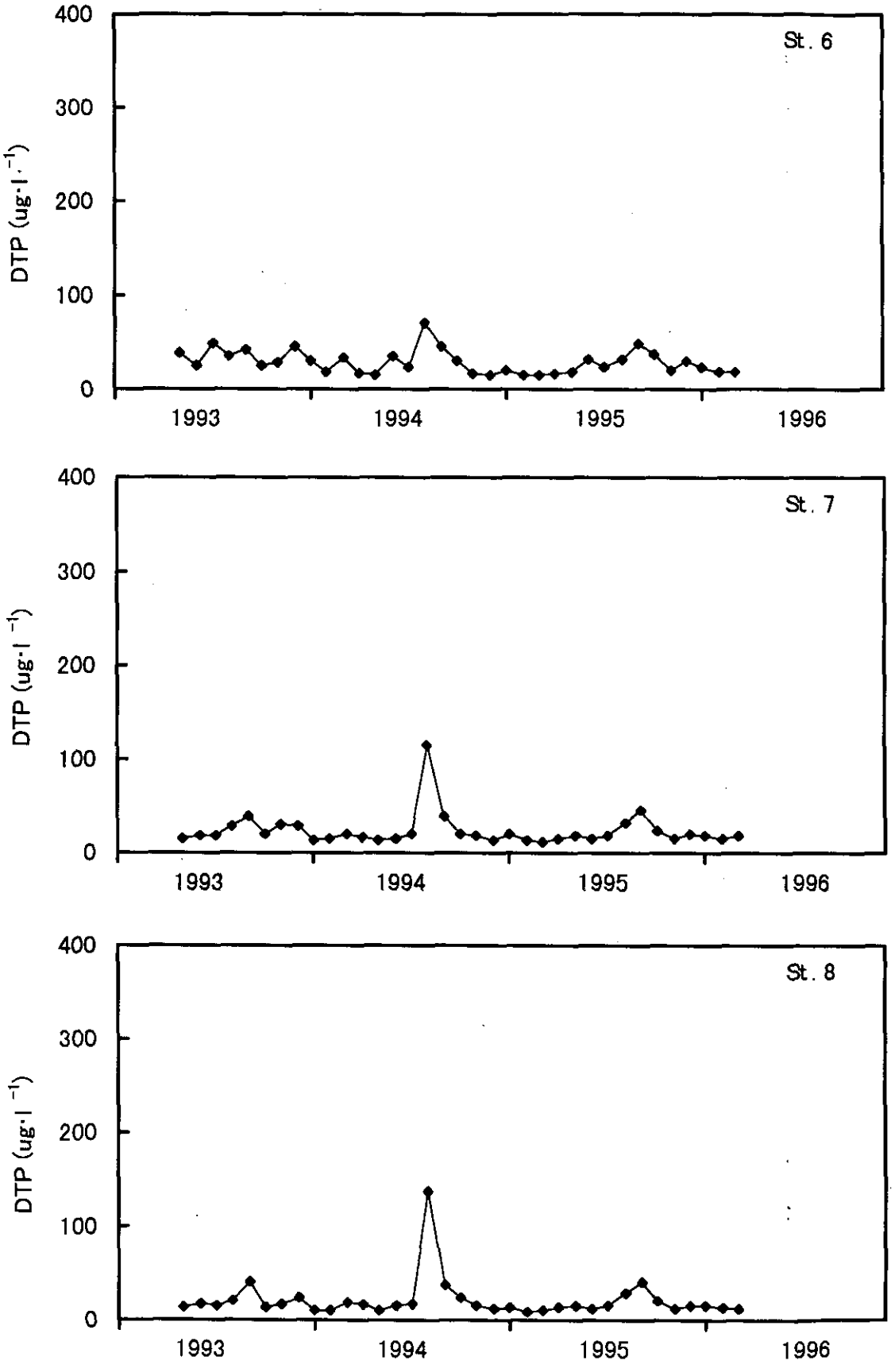

図 5(c)　霞ヶ浦各地点におけるDTP濃度の経年変化
Fig. 5(c)　Annual changes in DTP concentration at each station of Lake Kasumigaura

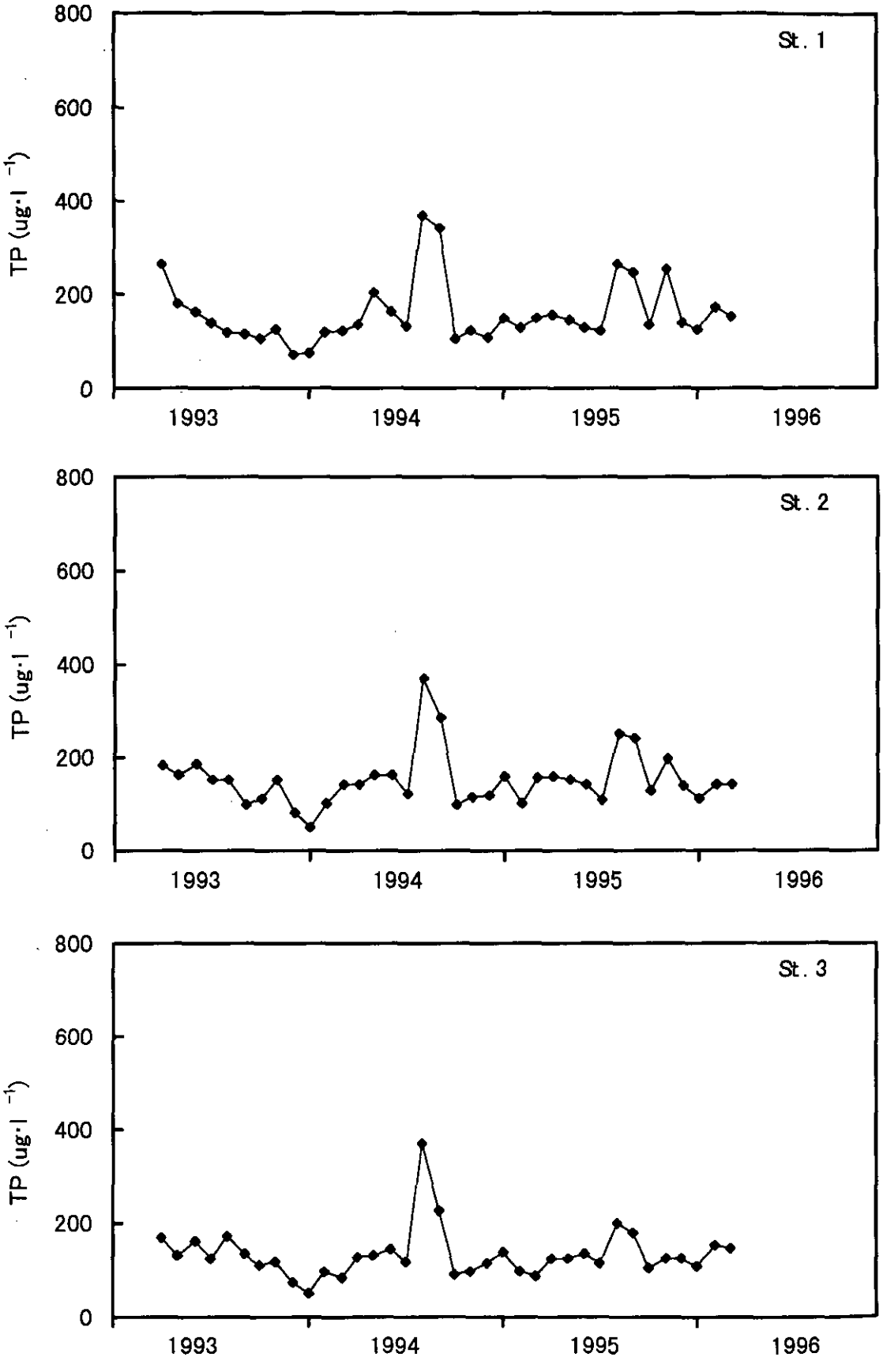

図 6(a)　霞ヶ浦各地点におけるTP濃度の経年変化
Fig. 6(a)　Annual changes in TP concentration at each station of Lake Kasumigaura

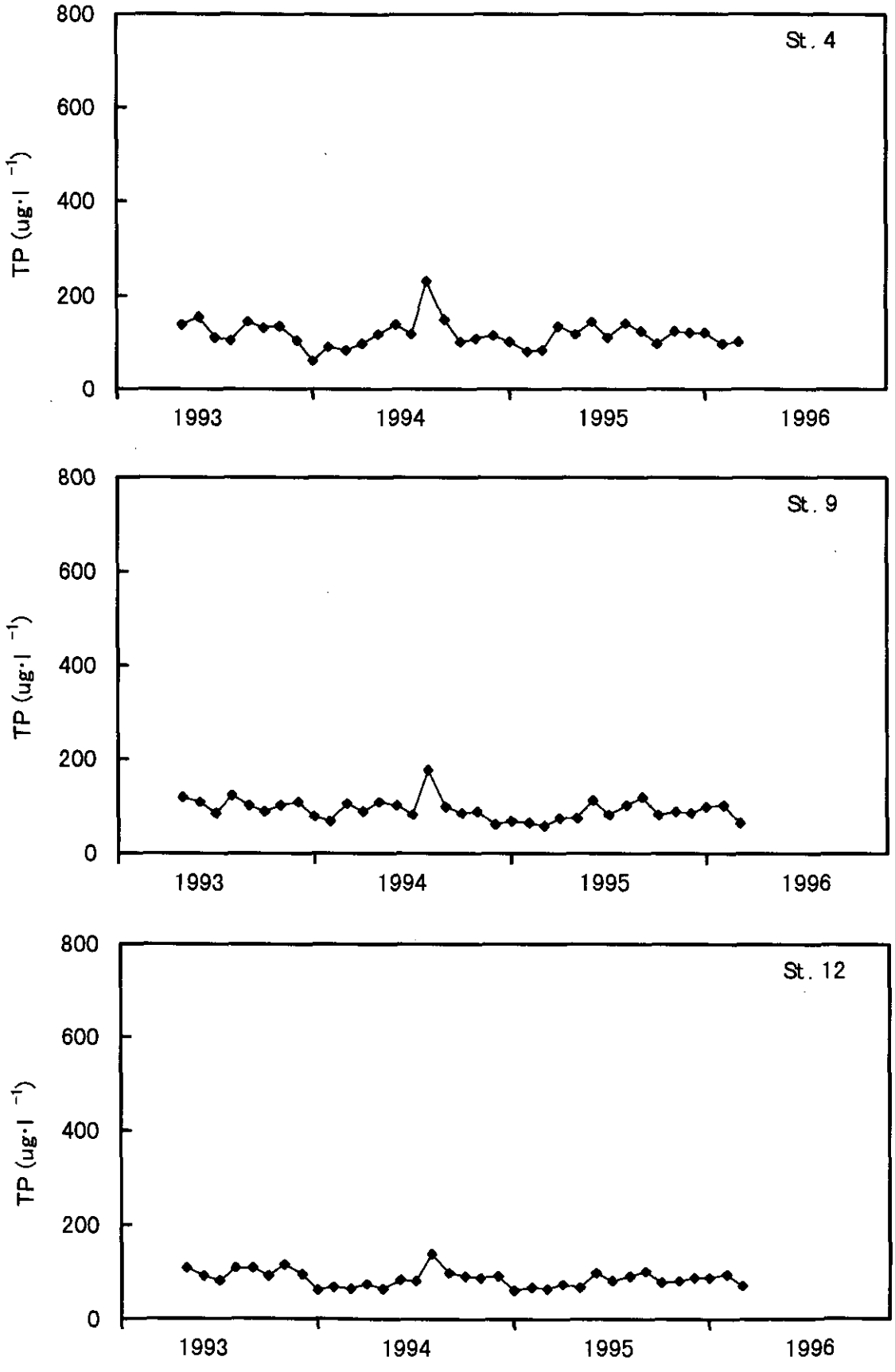

図 6(b)　霞ヶ浦各地点におけるTP濃度の経年変化
Fig. 6(b)　Annual changes in TP concentration at each station of Lake Kasumigaura

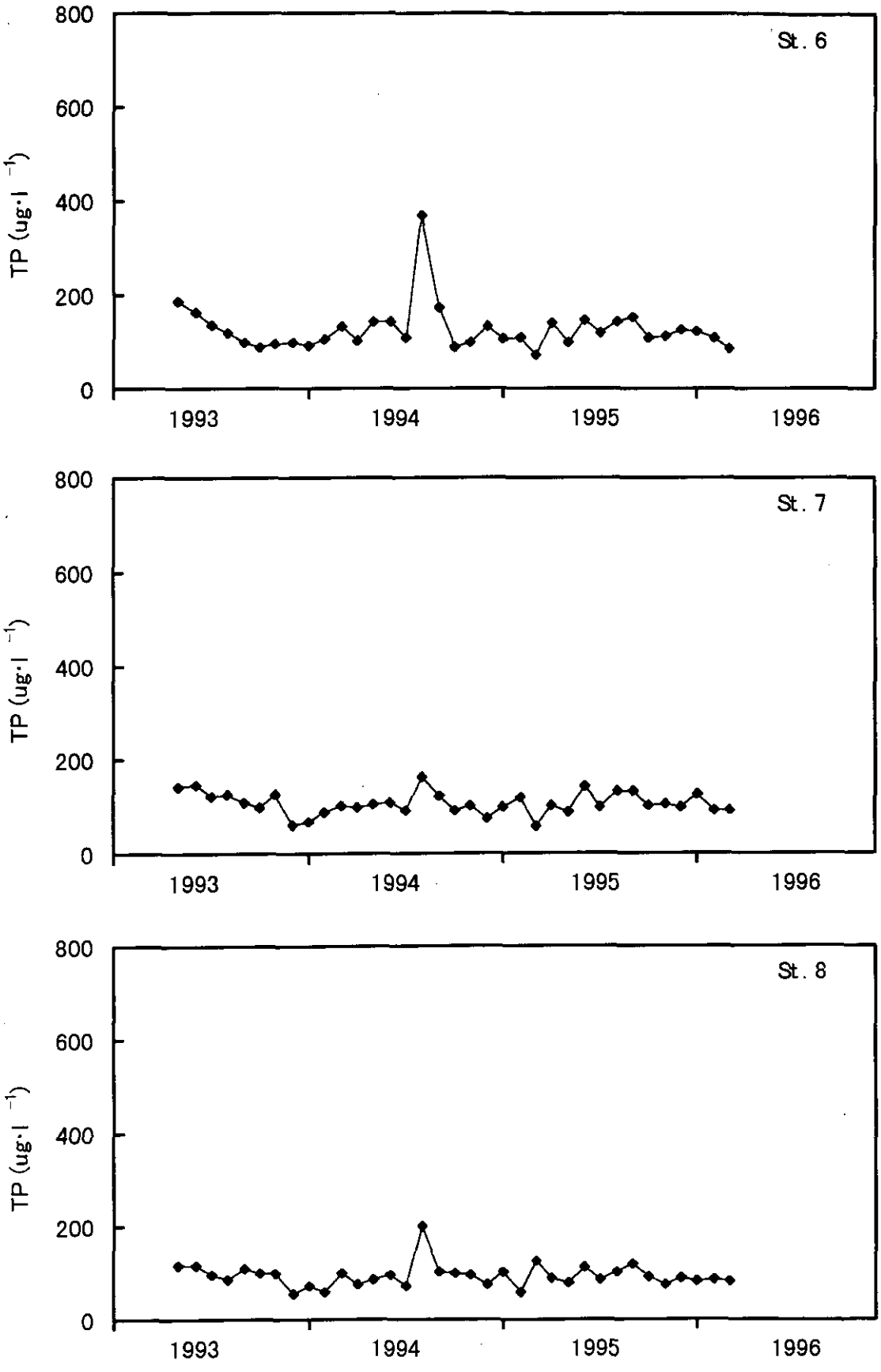

図 6(c)　霞ヶ浦各地点におけるTP濃度の経年変化

Fig. 6(c)　Annual changes in TP concentration at each station of Lake Kasumigaura

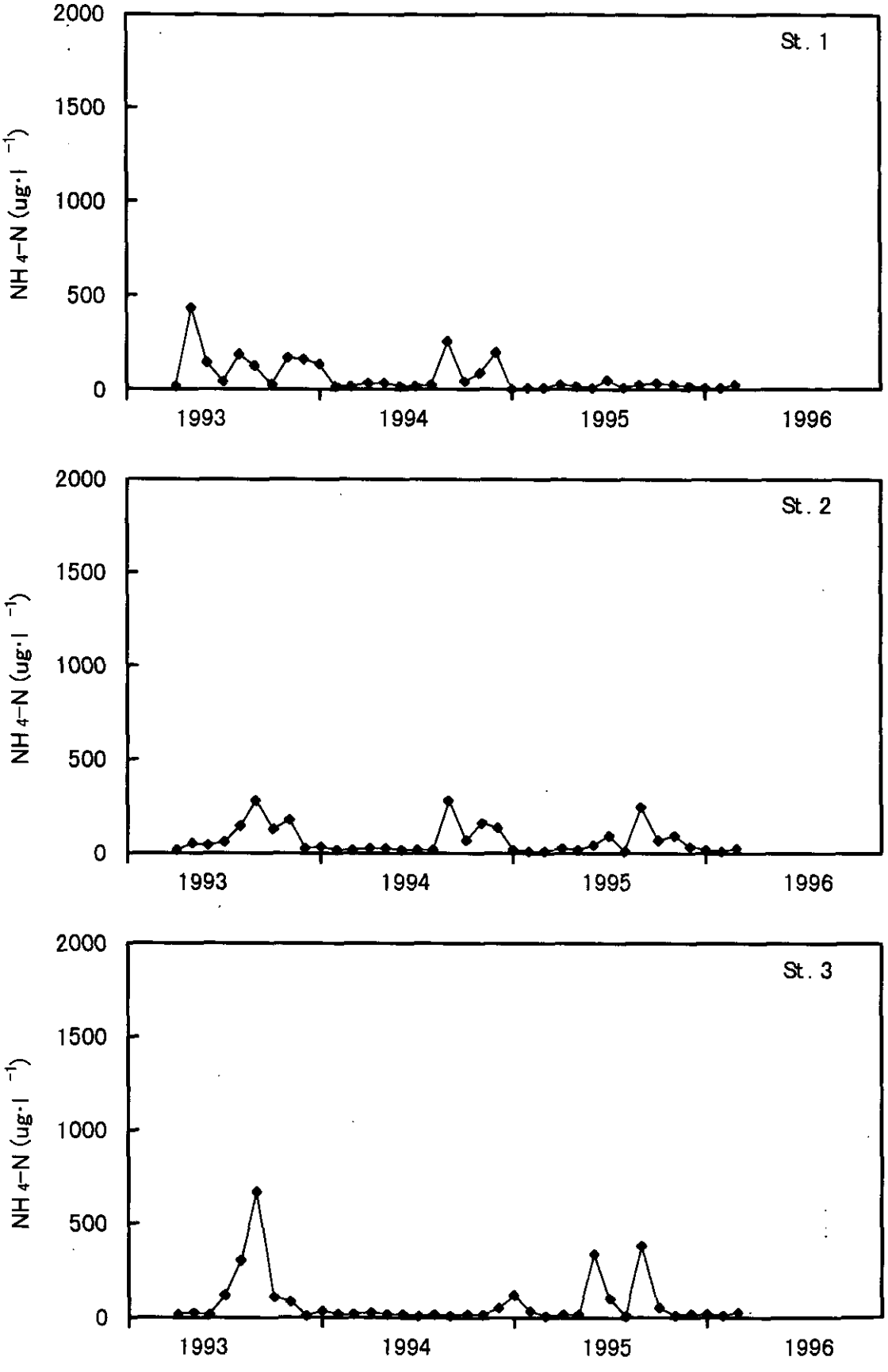

図 7(a)　霞ヶ浦各地点におけるNH_4-N濃度の経年変化
Fig. 7(a)　Annual changes in NH_4-N concentration at each station of Lake Kasumigaura

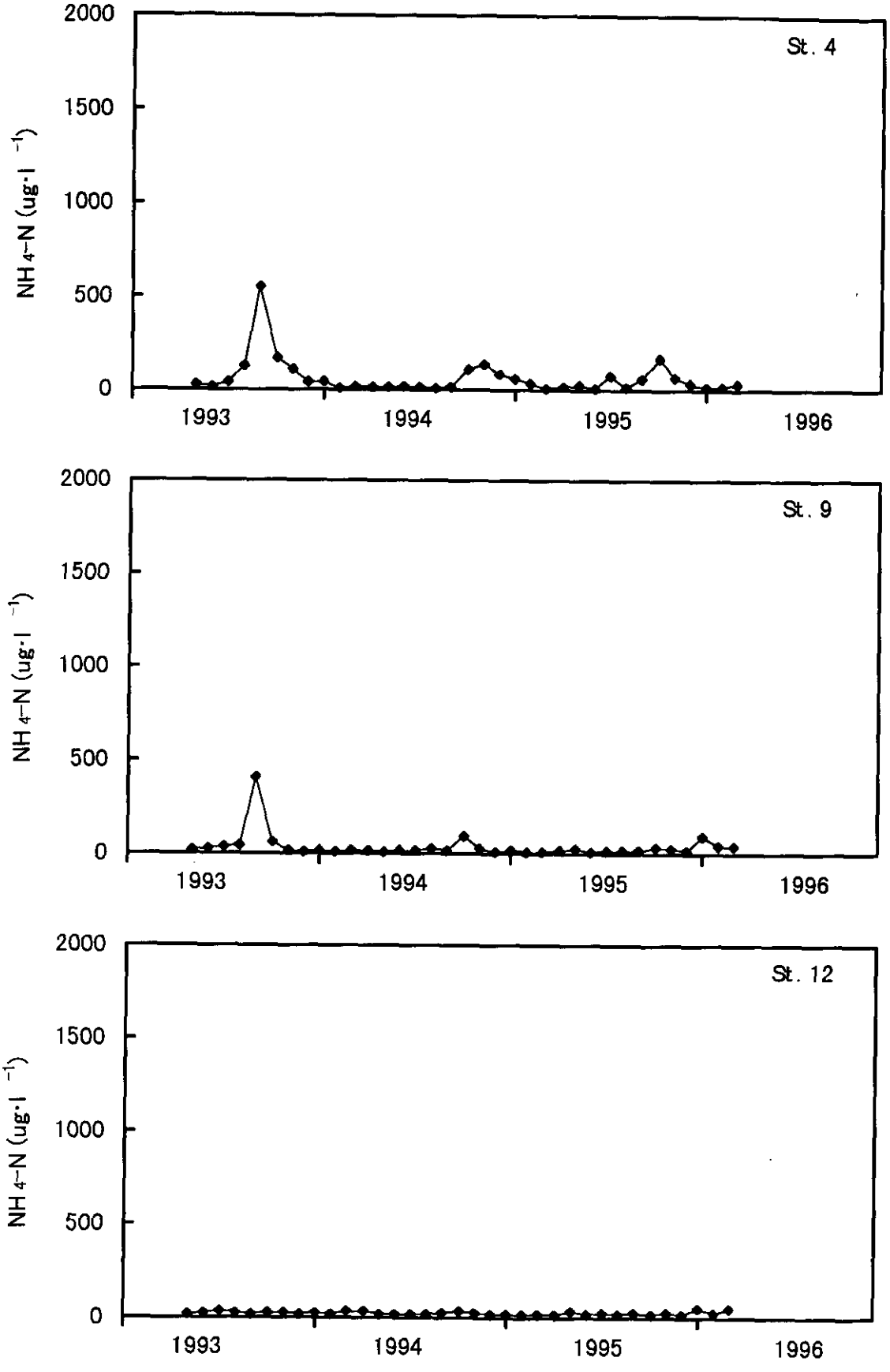

図 7(b)　霞ヶ浦各地点におけるNH_4-N濃度の経年変化

Fig. 7(b)　Annual changes in NH_4-N concentration at each station of Lake Kasumigaura

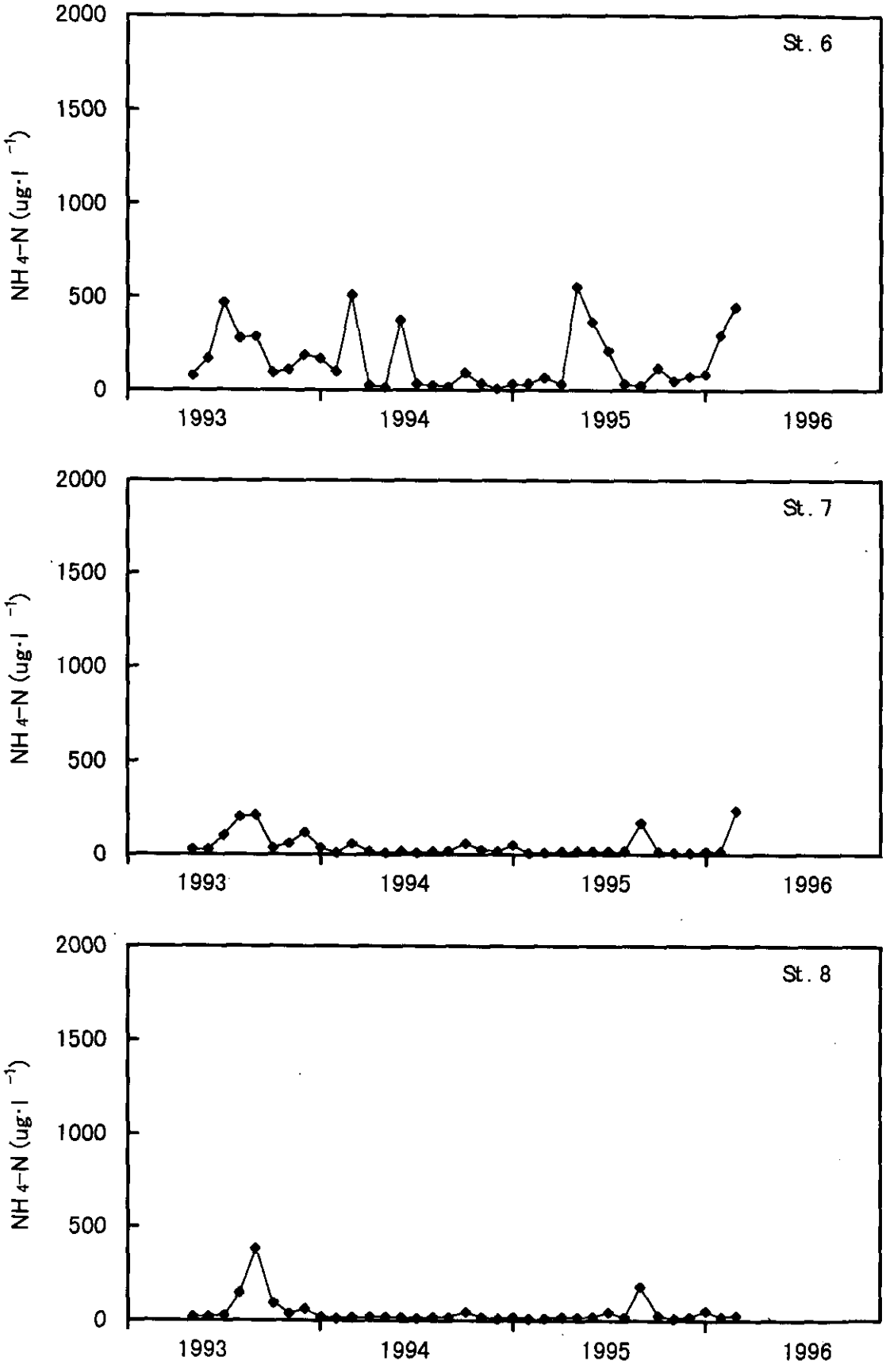

図 7(c)　霞ヶ浦各地点におけるNH_4-N濃度の経年変化

Fig. 7(c)　Annual changes in NH_4-N concentration at each station of Lake Kasumigaura

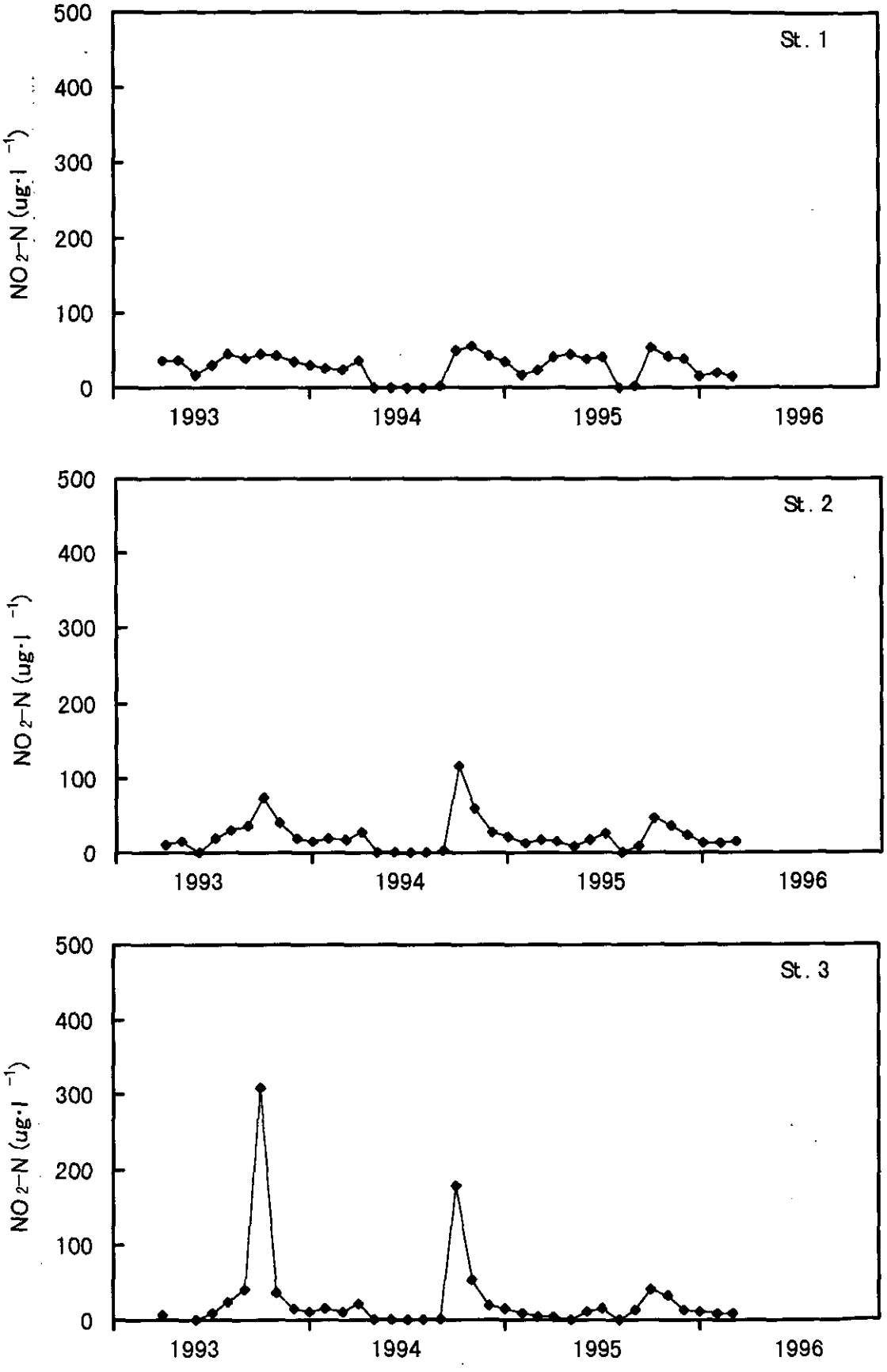

図 8(a)　霞ヶ浦各地点におけるNO_2-N濃度の経年変化
Fig. 8(a)　Annual changes in NO_2-N concentration at each station of Lake Kasumigaura

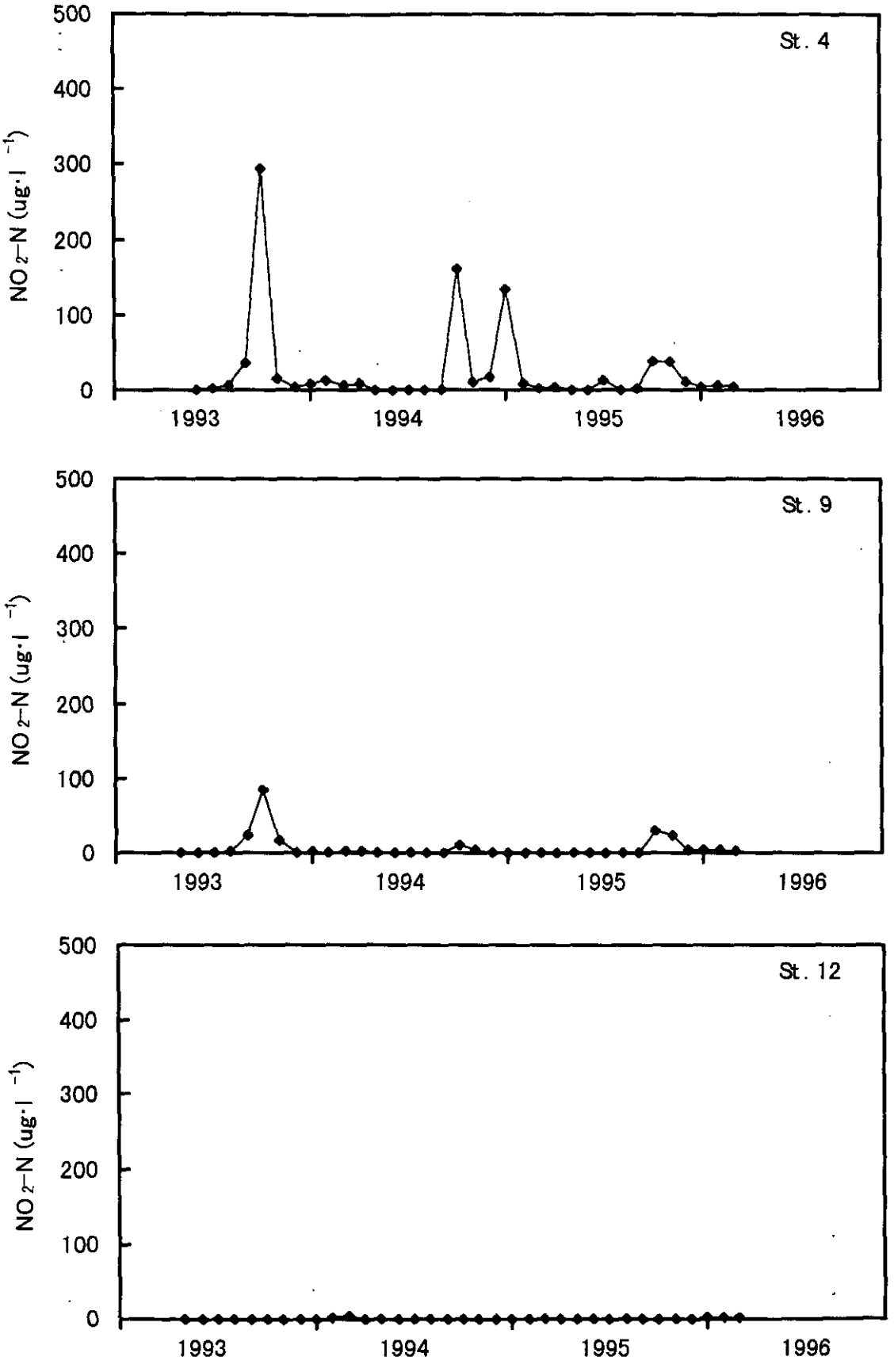

図 8(b)　霞ヶ浦各地点におけるNO_2-N濃度の経年変化
Fig. 8(b)　Annual changes in NO_2-N concentration at each station of Lake Kasumigaura

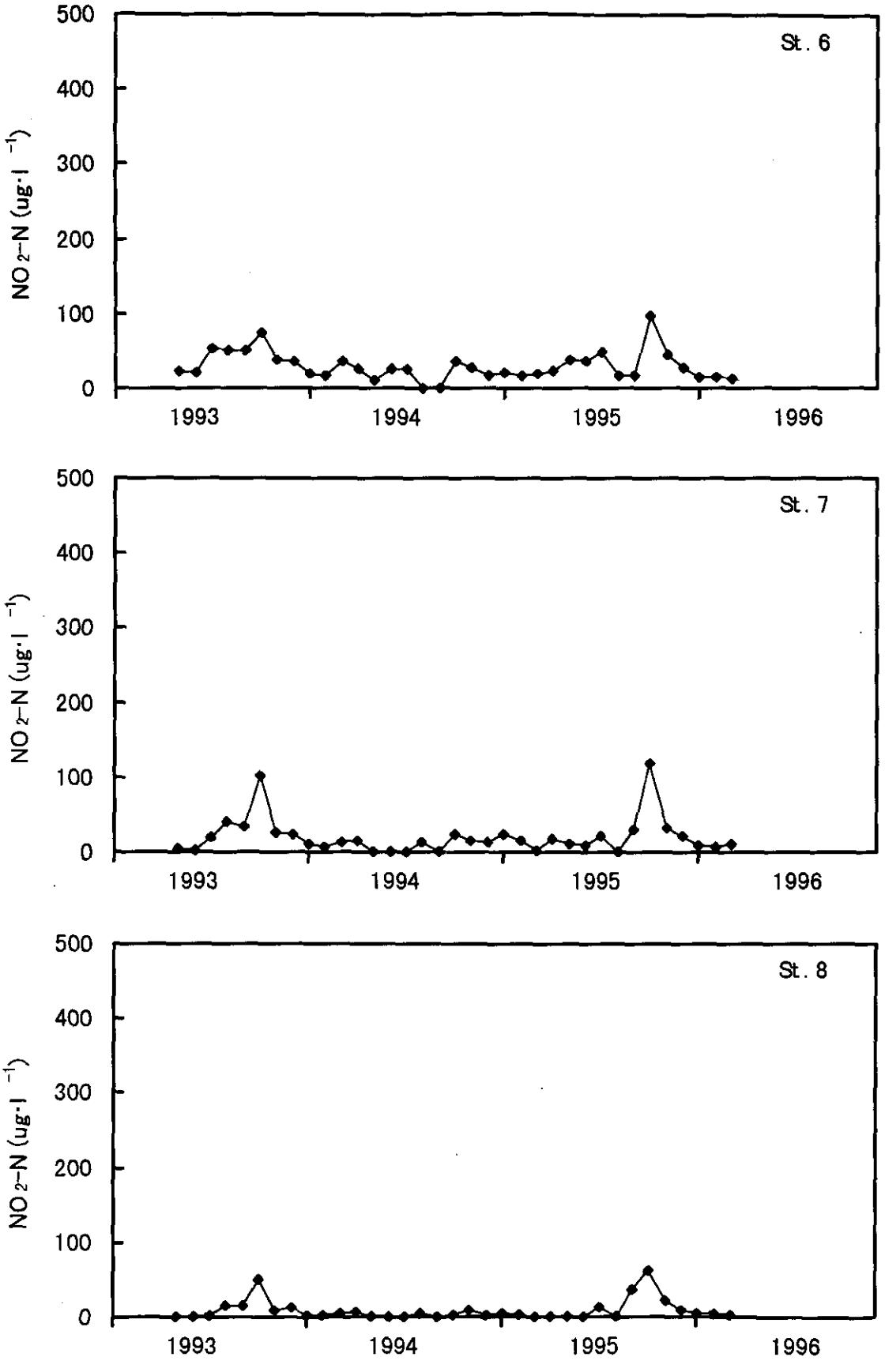

図 8(c)　霞ヶ浦各地点におけるNO_2-N濃度の経年変化

Fig. 8(c)　Annual changes in NO_2-N concentration at each station of Lake Kasumigaura

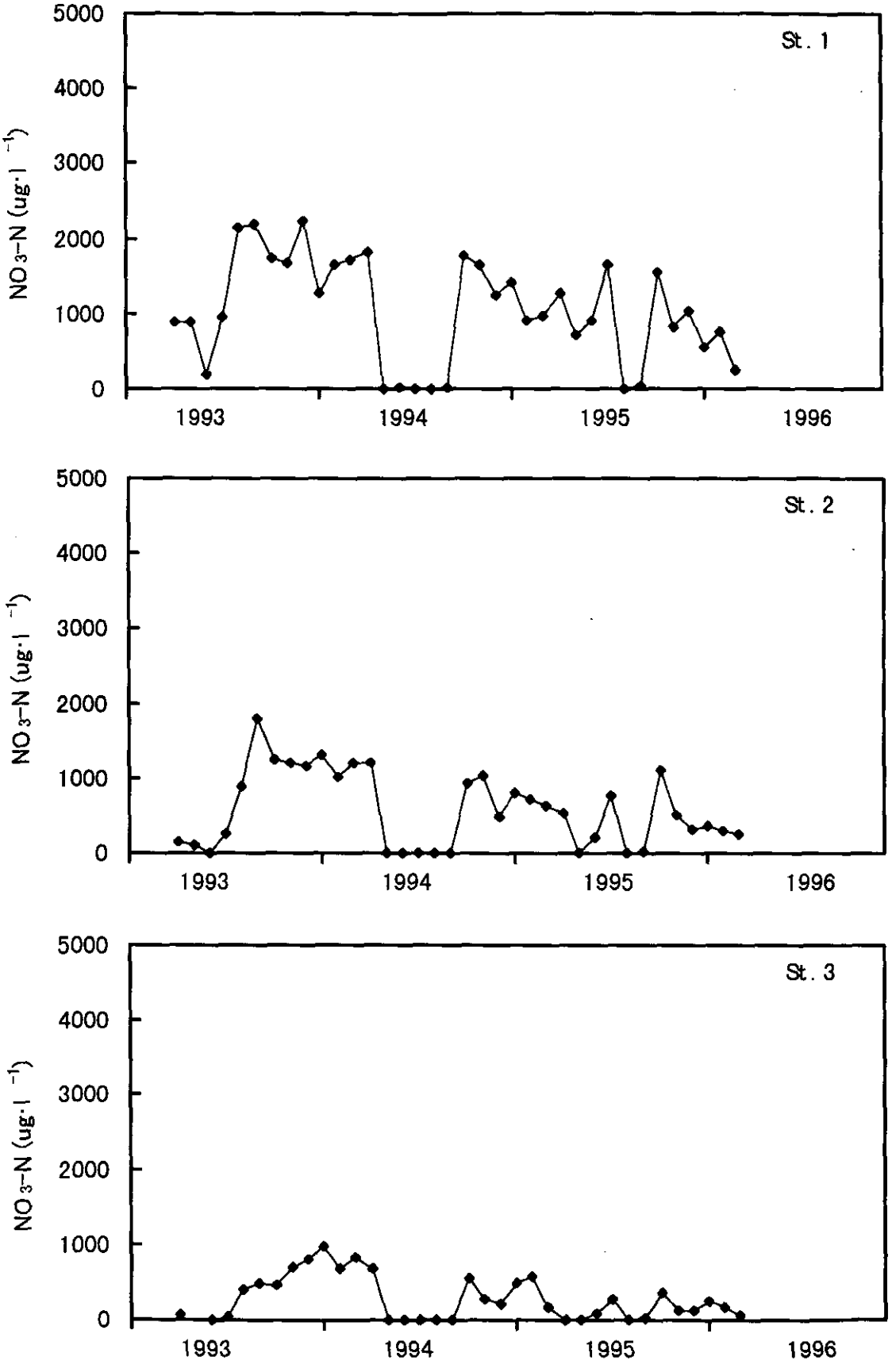

図 9(a)　霞ヶ浦各地点におけるNO_3-N濃度の経年変化

Fig. 9(a)　Annual changes in NO_3-N concentration at each station of Lake Kasumigaura

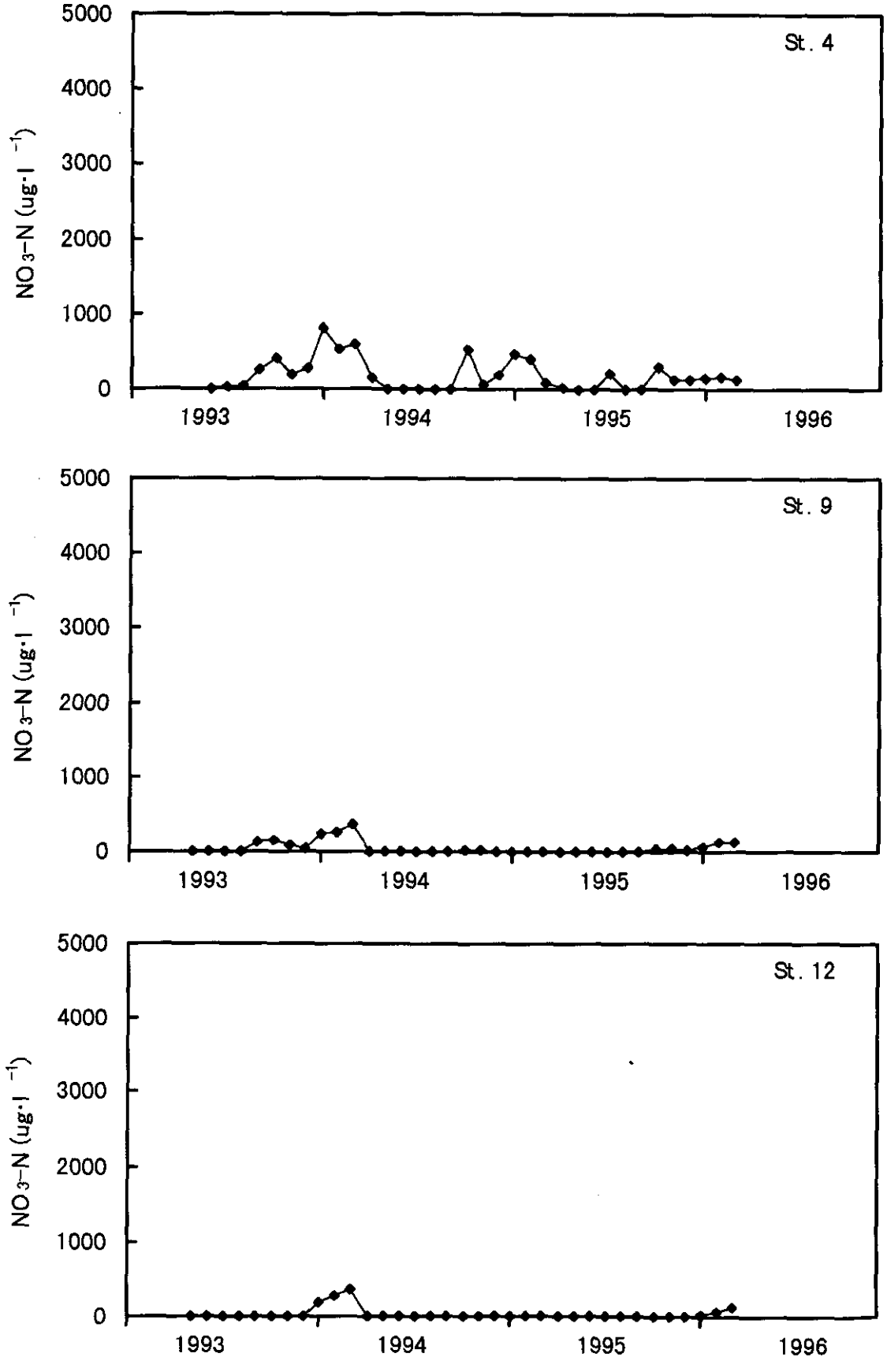

図 9(b)　霞ヶ浦各地点におけるNO_3-N濃度の経年変化

Fig. 9(b)　Annual changes in NO_3-N concentration at each station of Lake Kasumigaura

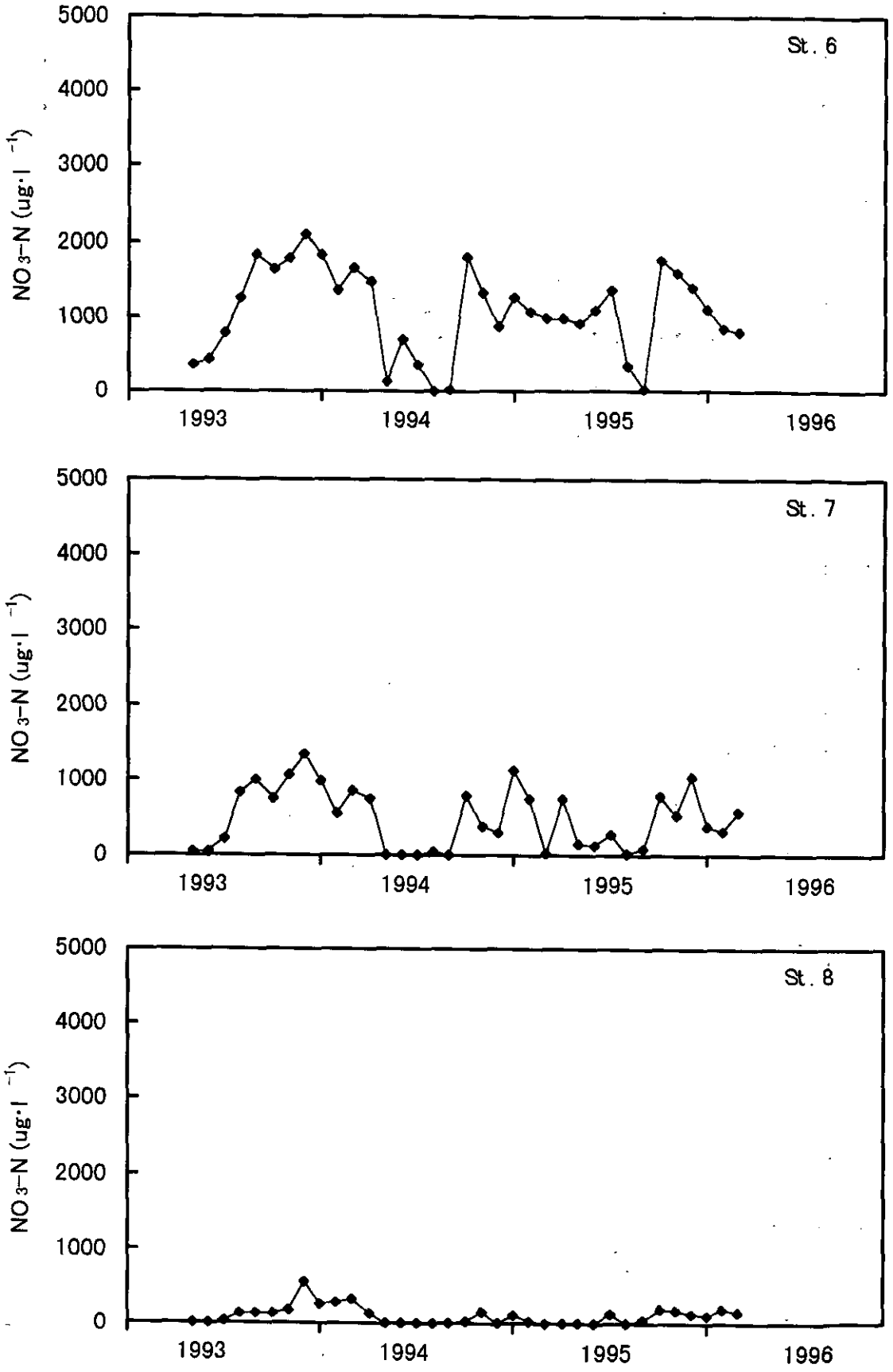

図 9(c)　霞ヶ浦各地点におけるNO_3-N濃度の経年変化

Fig. 9(c)　Annual changes in NO_3-N concentration at each station of Lake Kasumigaura

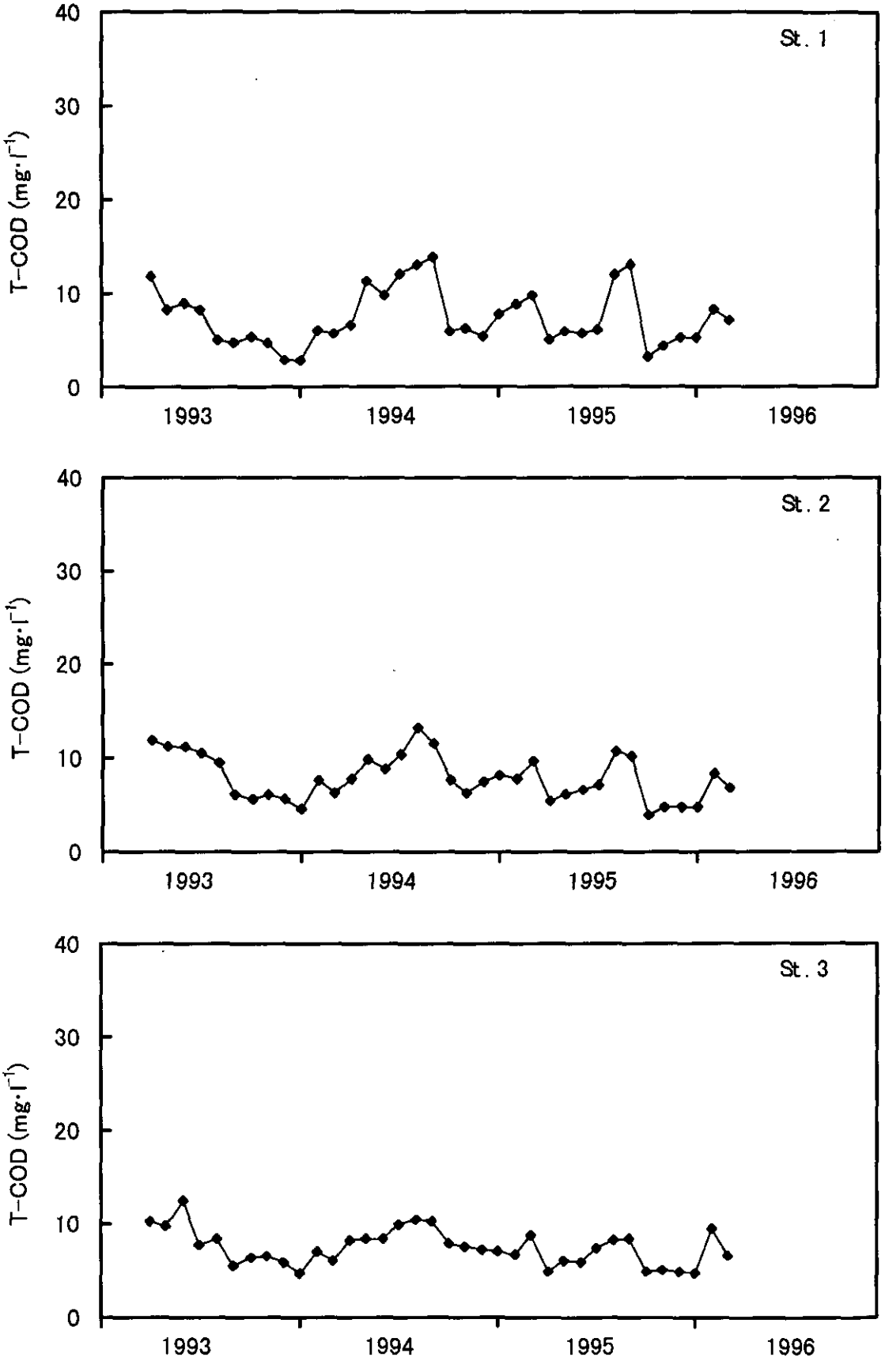

図 10(a)　霞ヶ浦各地点におけるT-COD濃度の経年変化
Fig. 10(a)　Annual changes in T-COD concentration at each station of Lake Kasumigaura

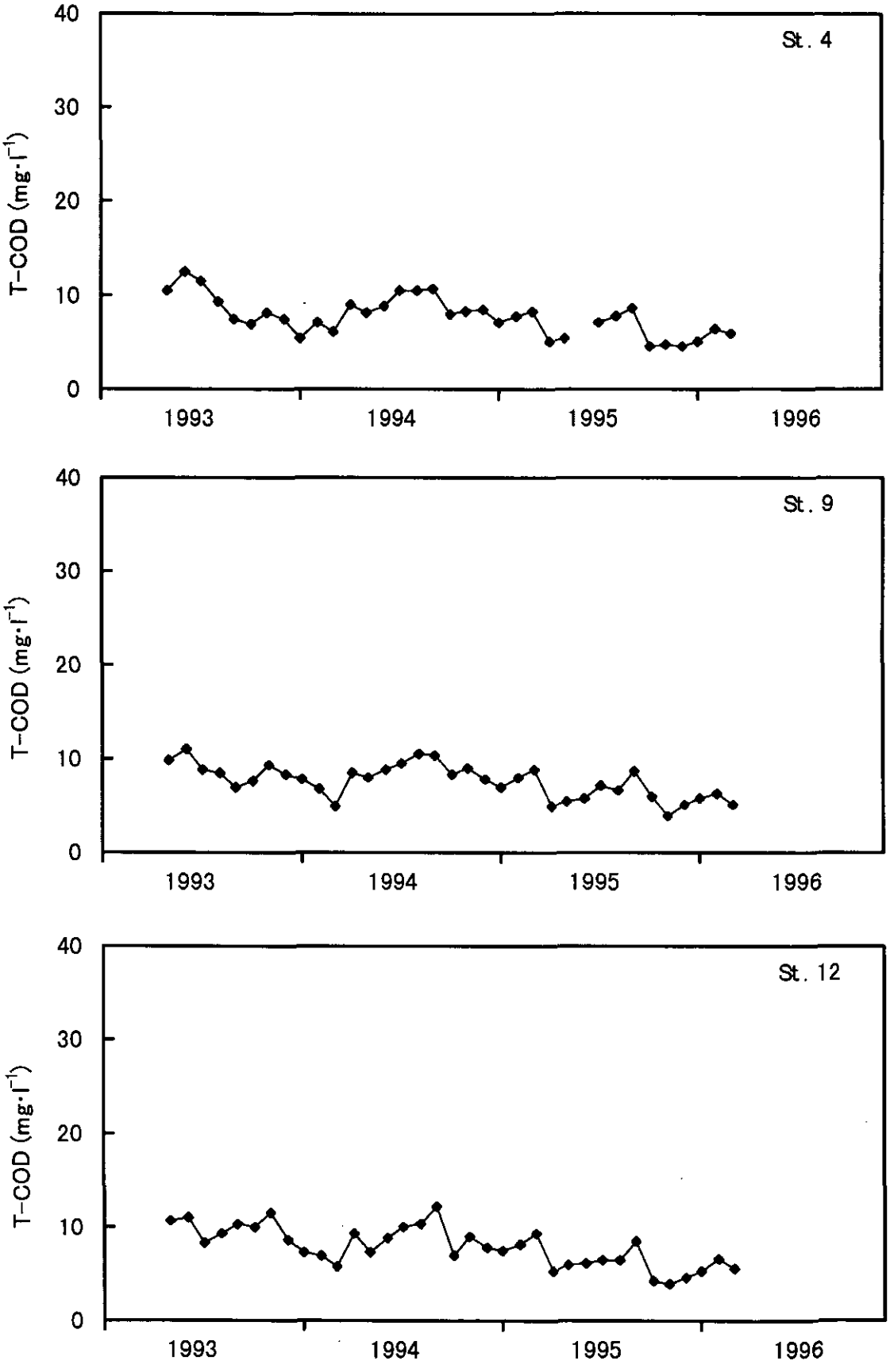

図 10(b)　霞ヶ浦各地点におけるT-COD濃度の経年変化
Fig. 10(b)　Annual changes in T-COD concentration at each station of Lake Kasumigaura

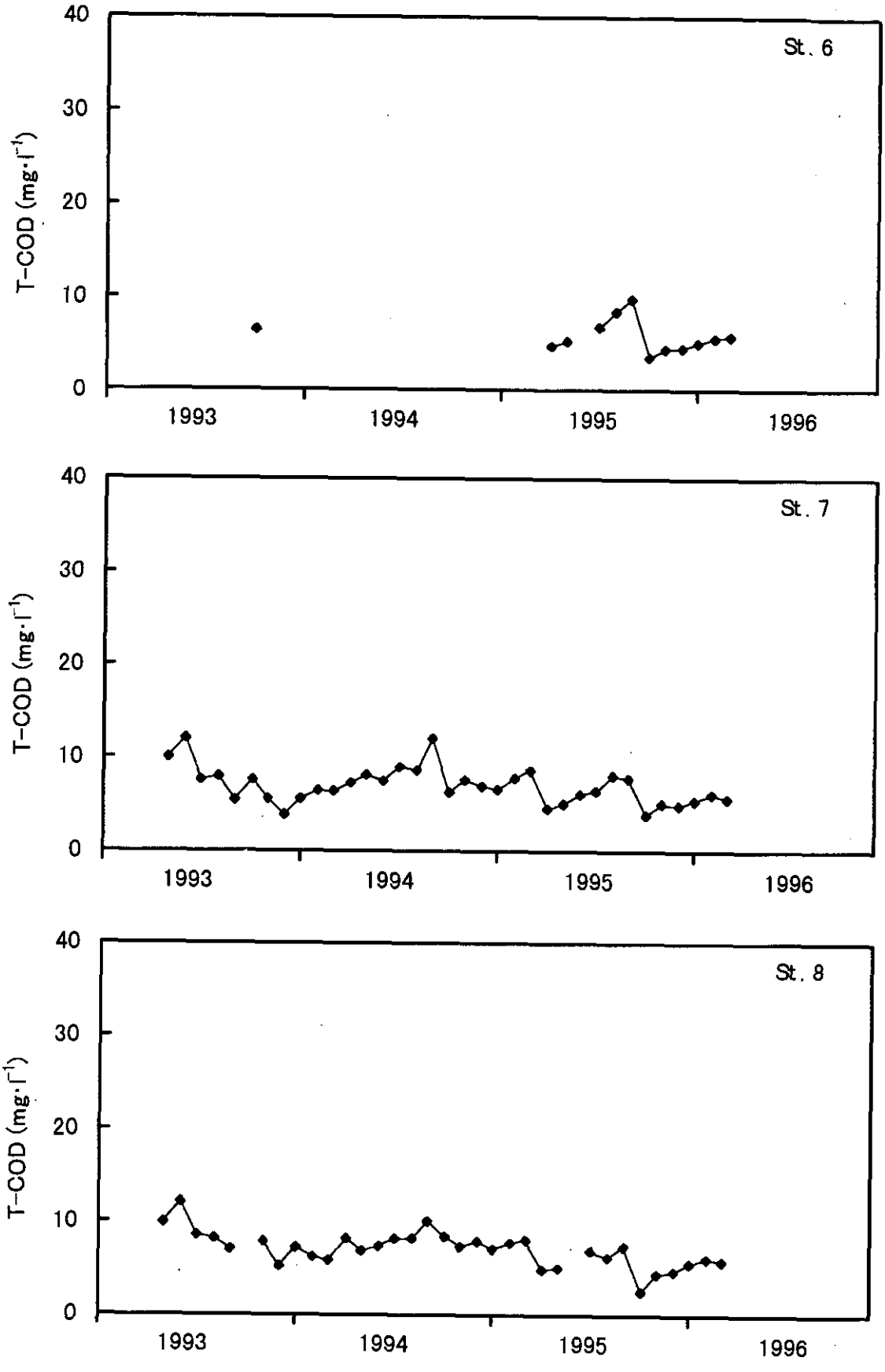

図 10(c)　霞ヶ浦各地点におけるT-COD濃度の経年変化
Fig. 10(c)　Annual changes in T-COD concentration at each station of Lake Kasumigaura

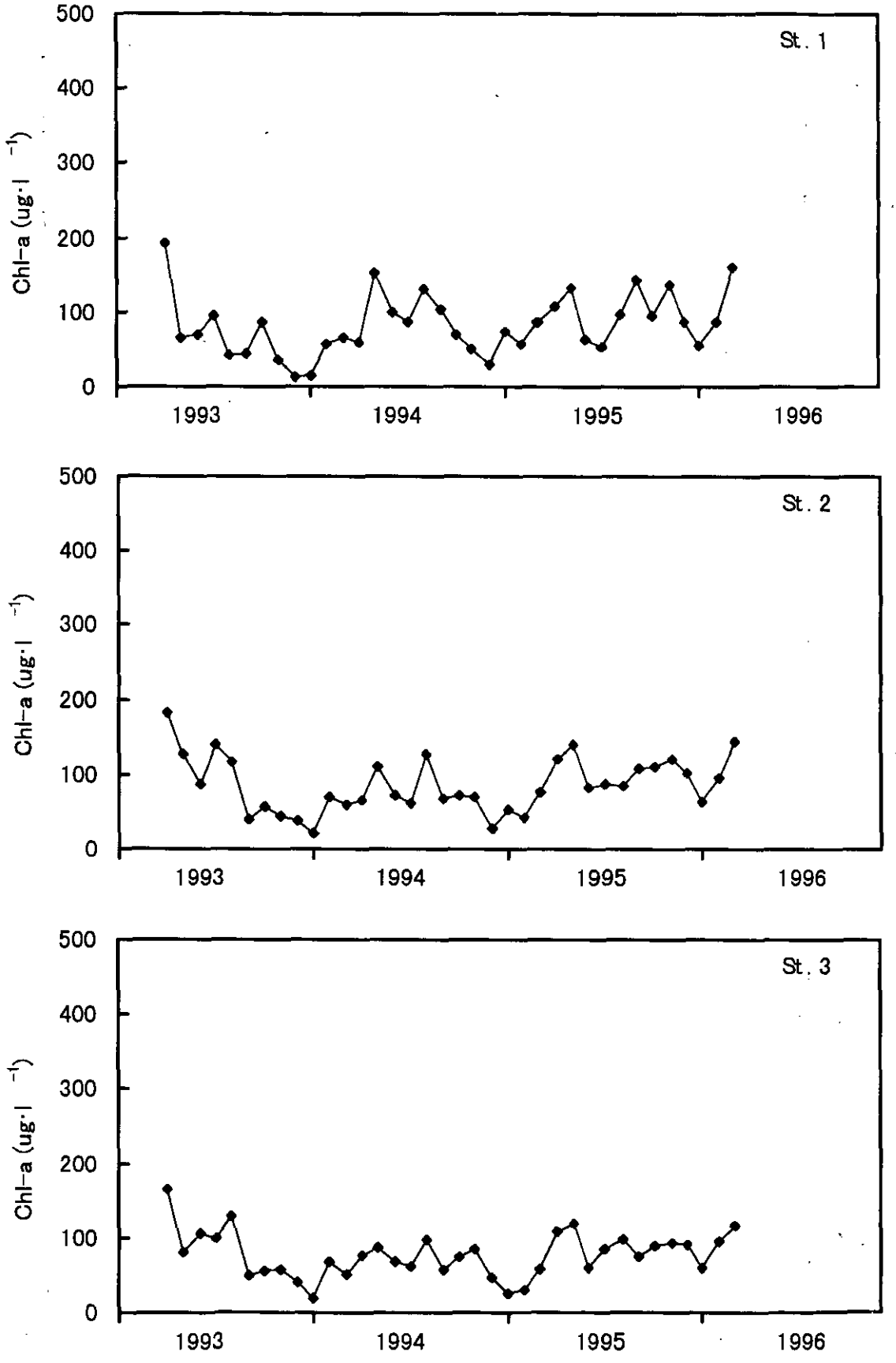

図 11(a)　霞ヶ浦各地点におけるクロロフィルa濃度の経年変化
Fig. 11(a)　Annual changes in Chl-a concentration at each station of Lake Kasumigaura

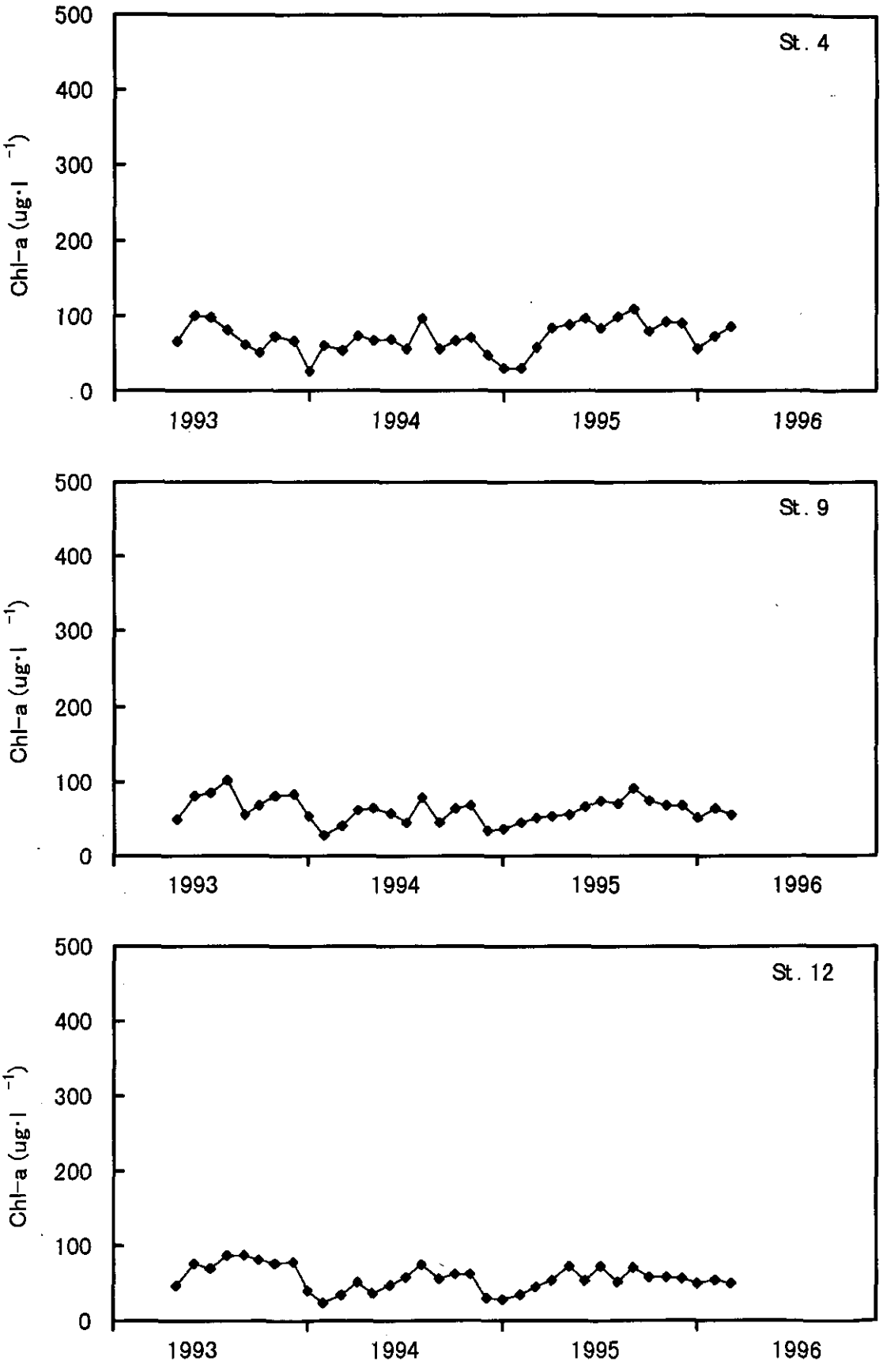

図 11(b)　霞ヶ浦各地点におけるクロロフィルa濃度の経年変化
Fig. 11(b)　Annual changes in Chl-a concentration at each station of Lake Kasumigaura

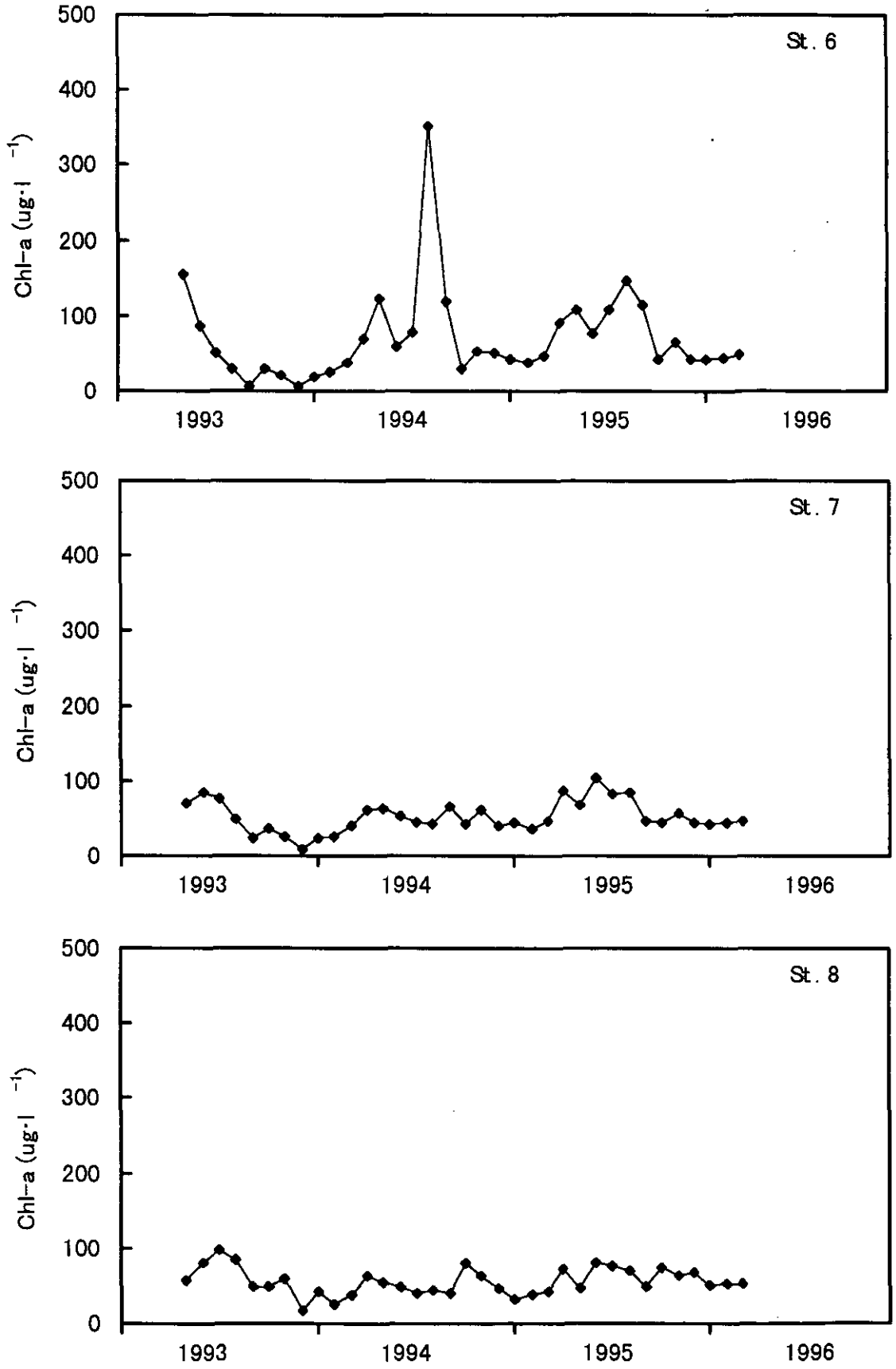

図 11(c)　霞ヶ浦各地点におけるクロロフィルa濃度の経年変化
Fig. 11(c)　Annual changes in Chl-a concentration at each station of Lake Kasumigaura

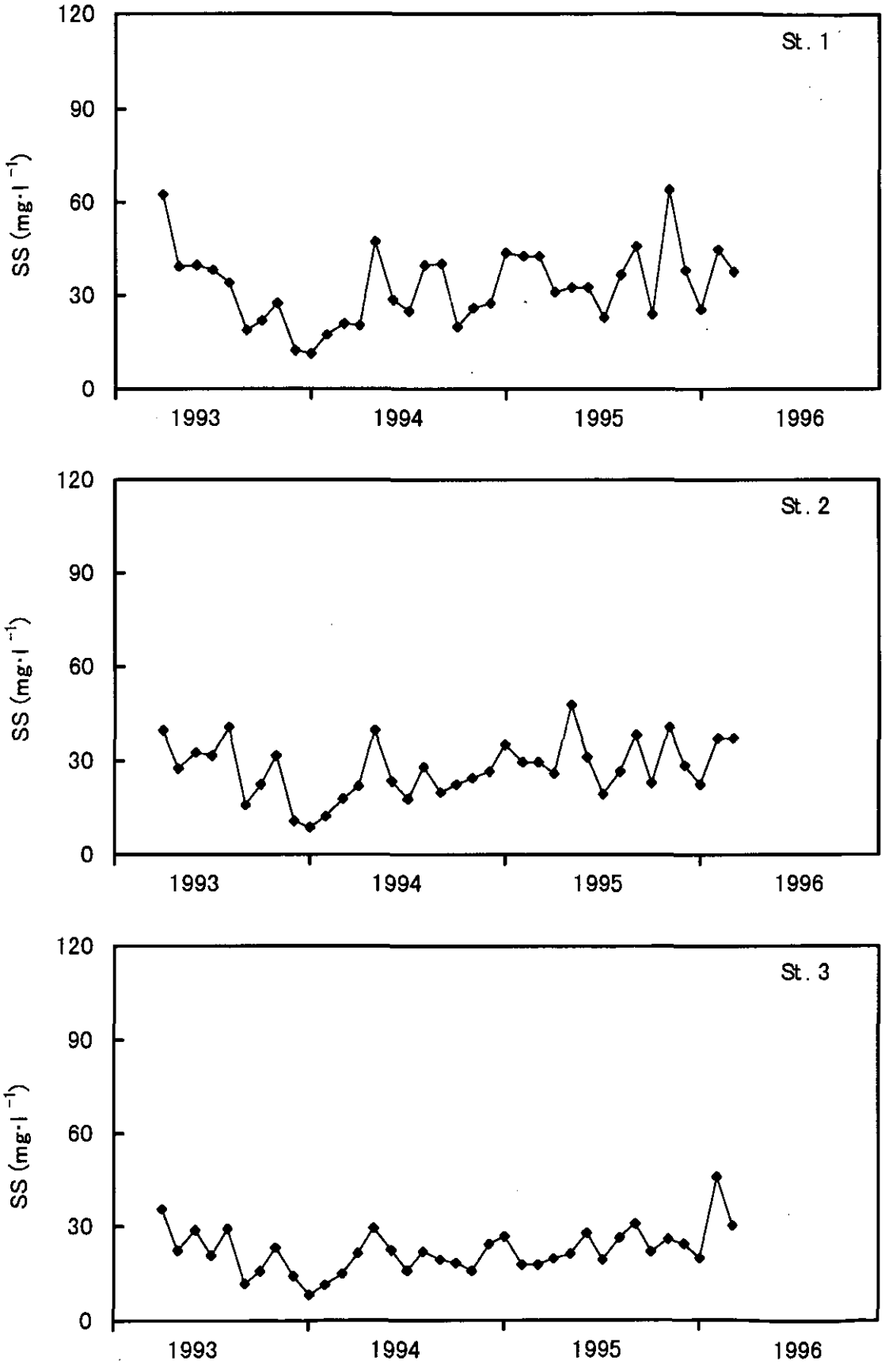

図 12(a)　霞ヶ浦各地点におけるSS濃度の経年変化
Fig. 12(a)　Annual changes in SS concentration at each station of Lake Kasumigaura

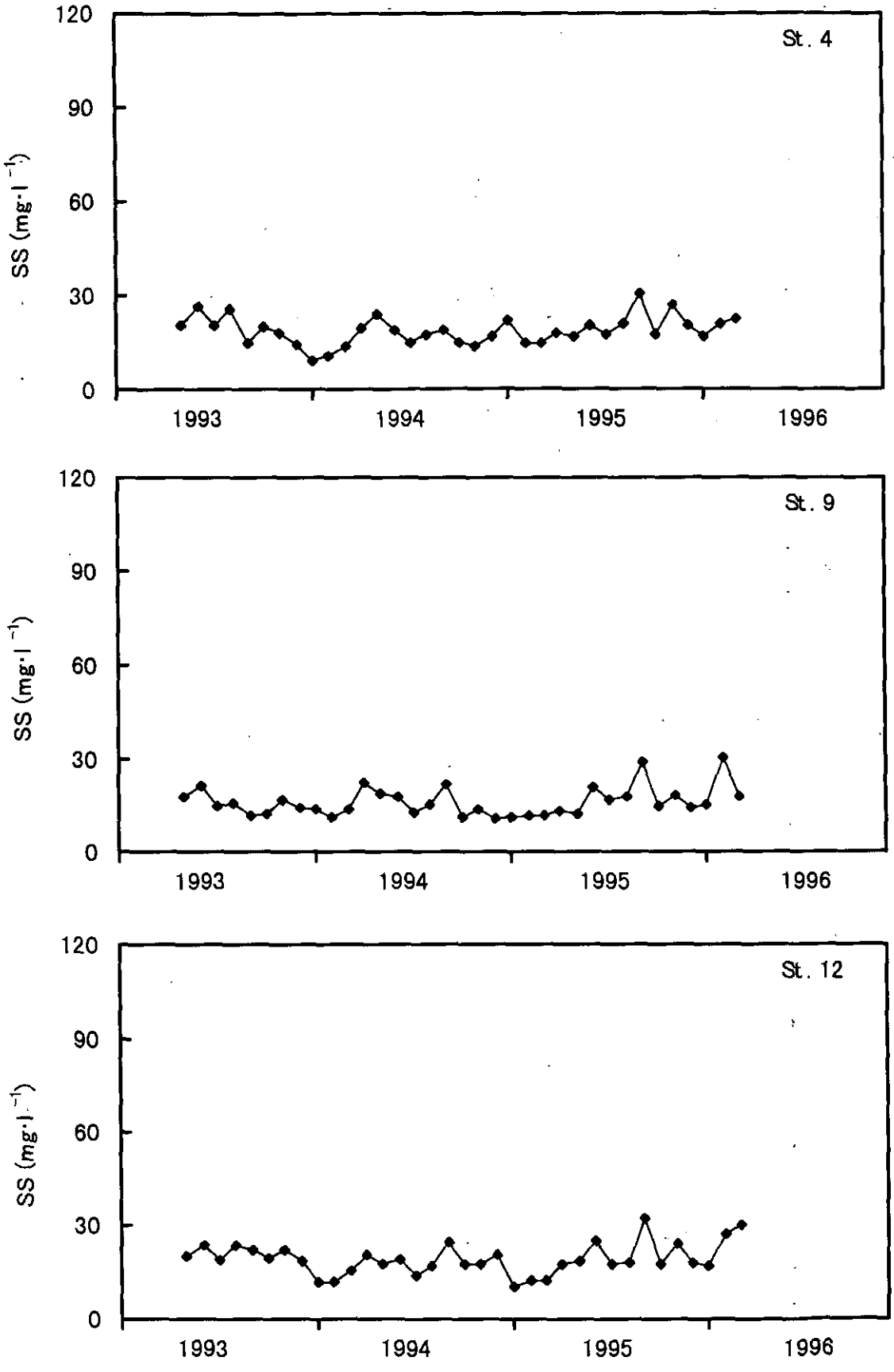

図 12(b)　霞ヶ浦各地点におけるSS濃度の経年変化
Fig. 12(b)　Annual changes in SS concentration at each station of Lake Kasumigaura

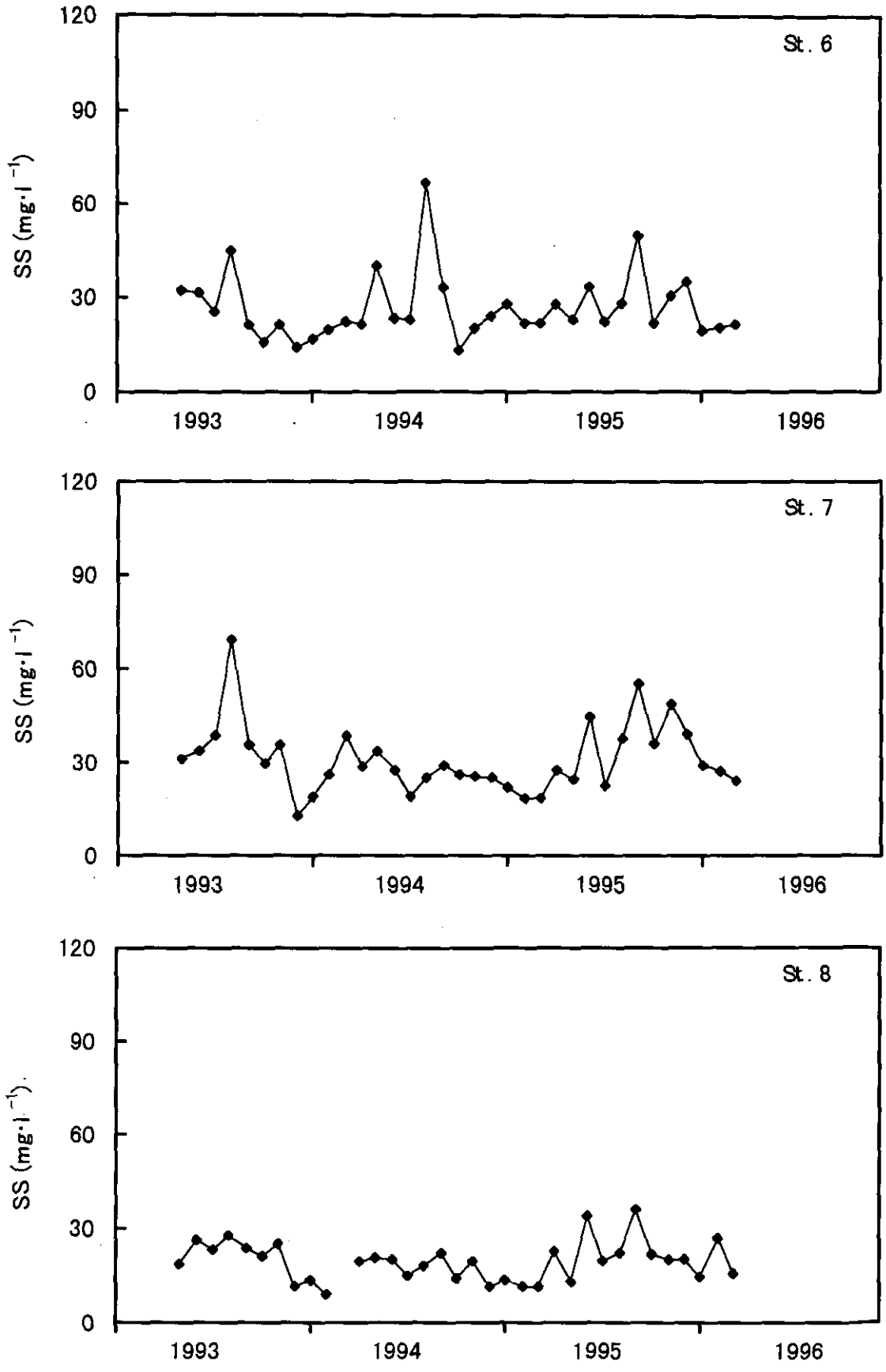

図　12(c)　霞ヶ浦各地点におけるSS濃度の経年変化
Fig. 12(c)　Annual changes in SS concentration at each station of Lake Kasumigaura

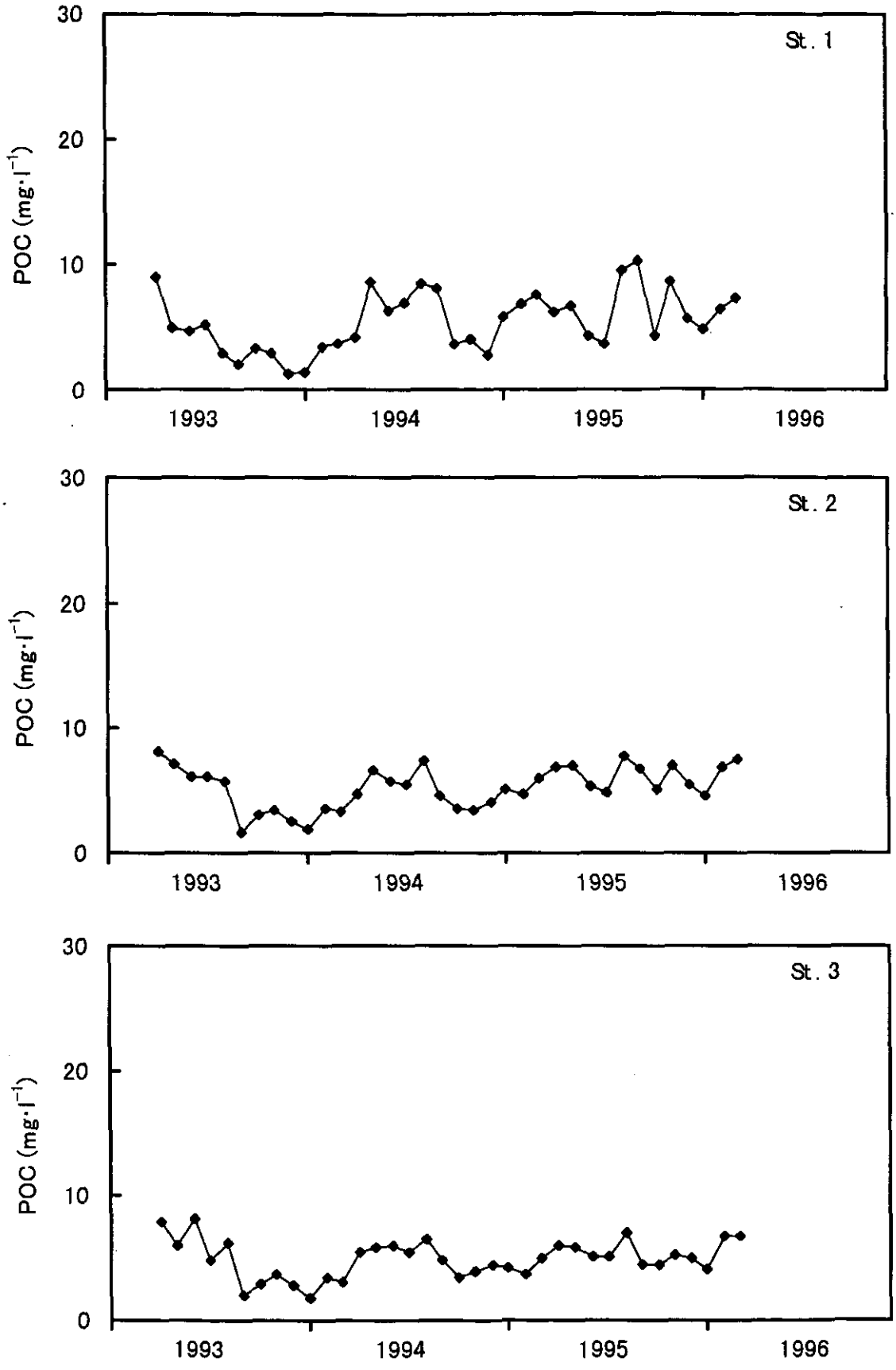

図 13(a)　霞ヶ浦各地点におけるPOC濃度の経年変化
Fig. 13(a)　Annual changes in POC concentration at each station of Lake Kasumigaura

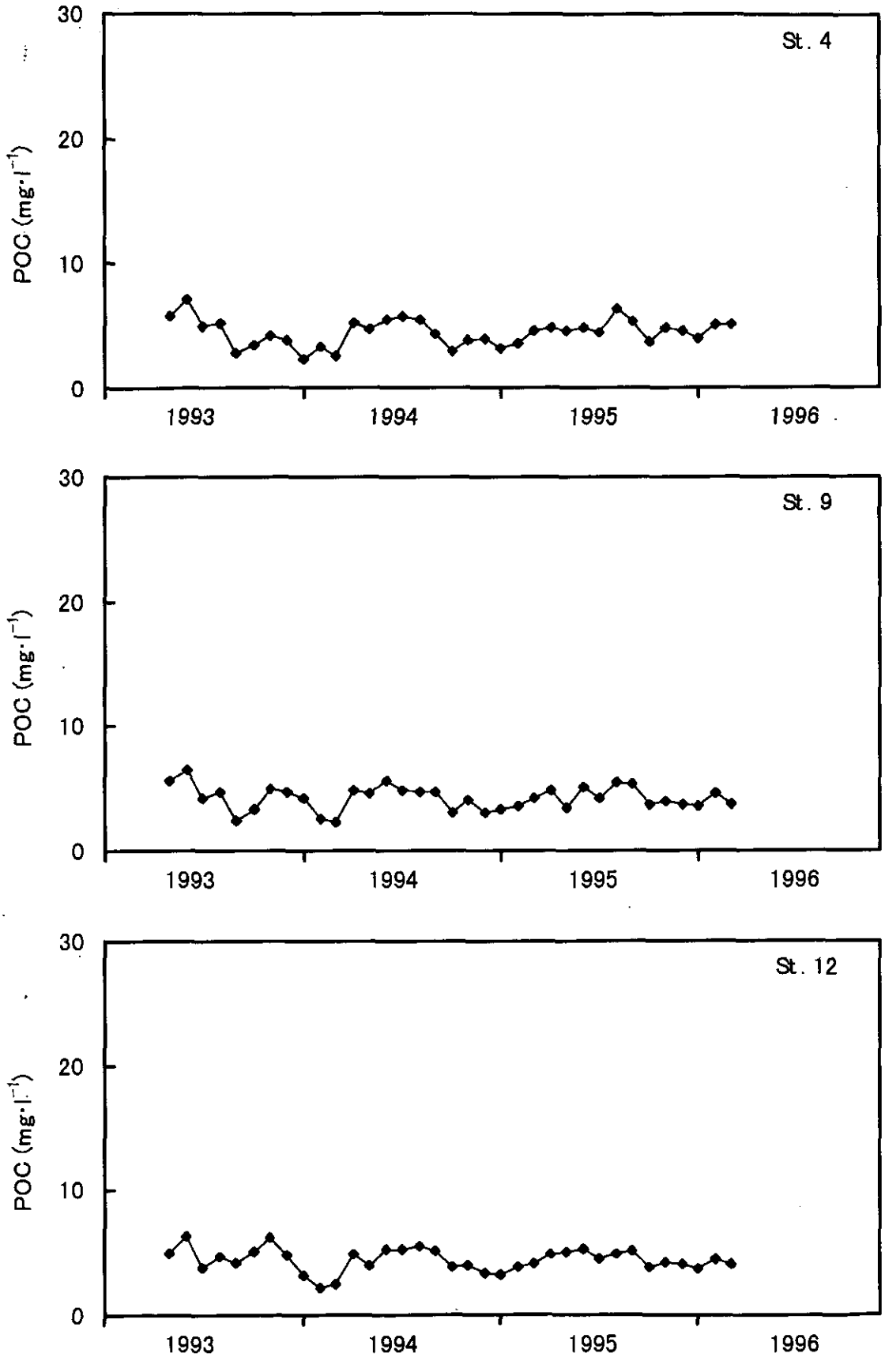

図 13(b)　霞ヶ浦各地点におけるPOC濃度の経年変化
Fig. 13(b)　Annual changes in POC concentration at each station of Lake Kasumigaura

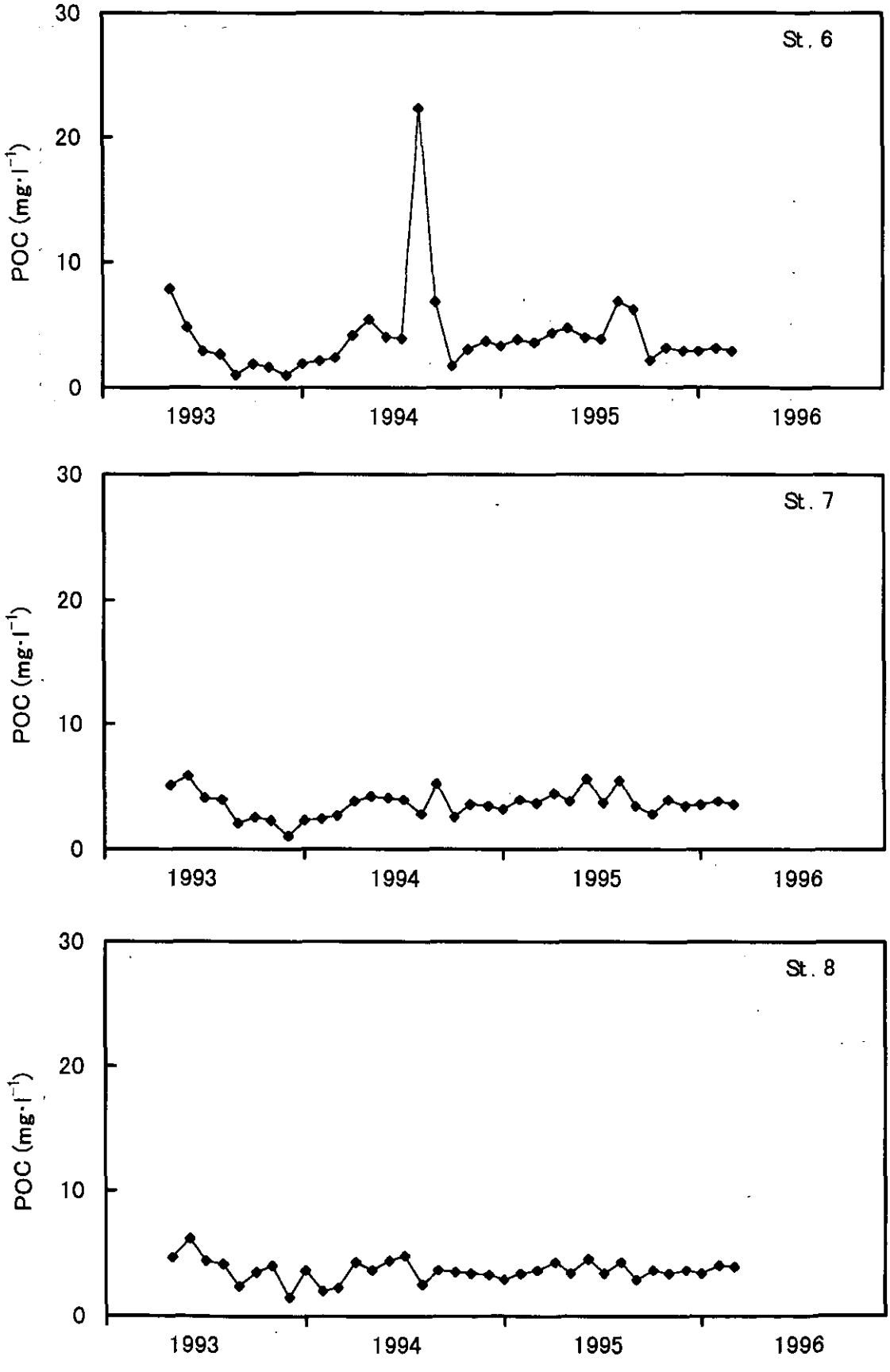

図 13(c)　霞ヶ浦各地点におけるPOC濃度の経年変化
Fig. 13(c)　Annual changes in POC concentration at each station of Lake Kasumigaura

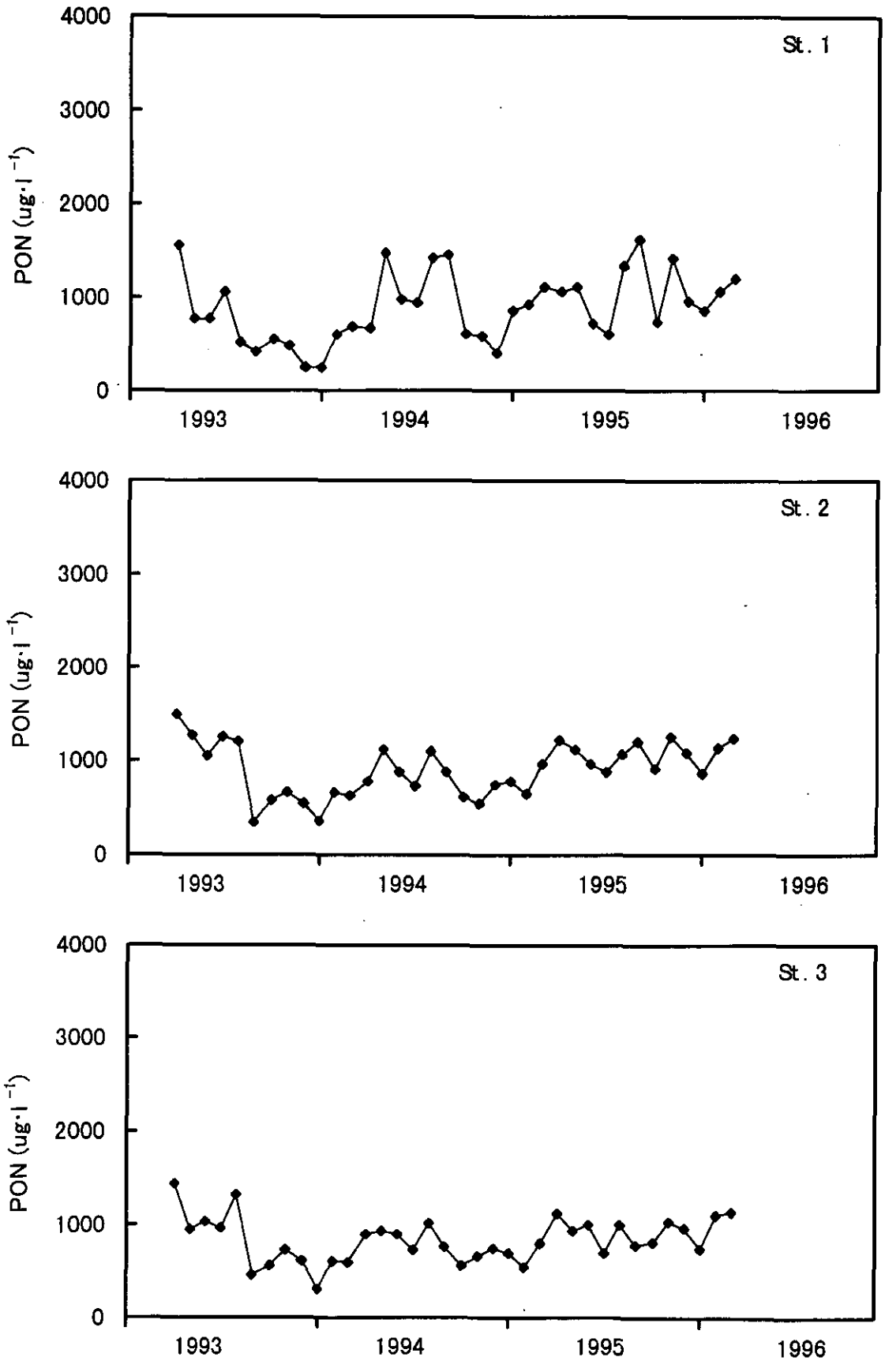

図 14(a)　霞ヶ浦各地点におけるPON濃度の経年変化
Fig. 14(a)　Annual changes in PON concentration at each station of Lake Kasumigaura

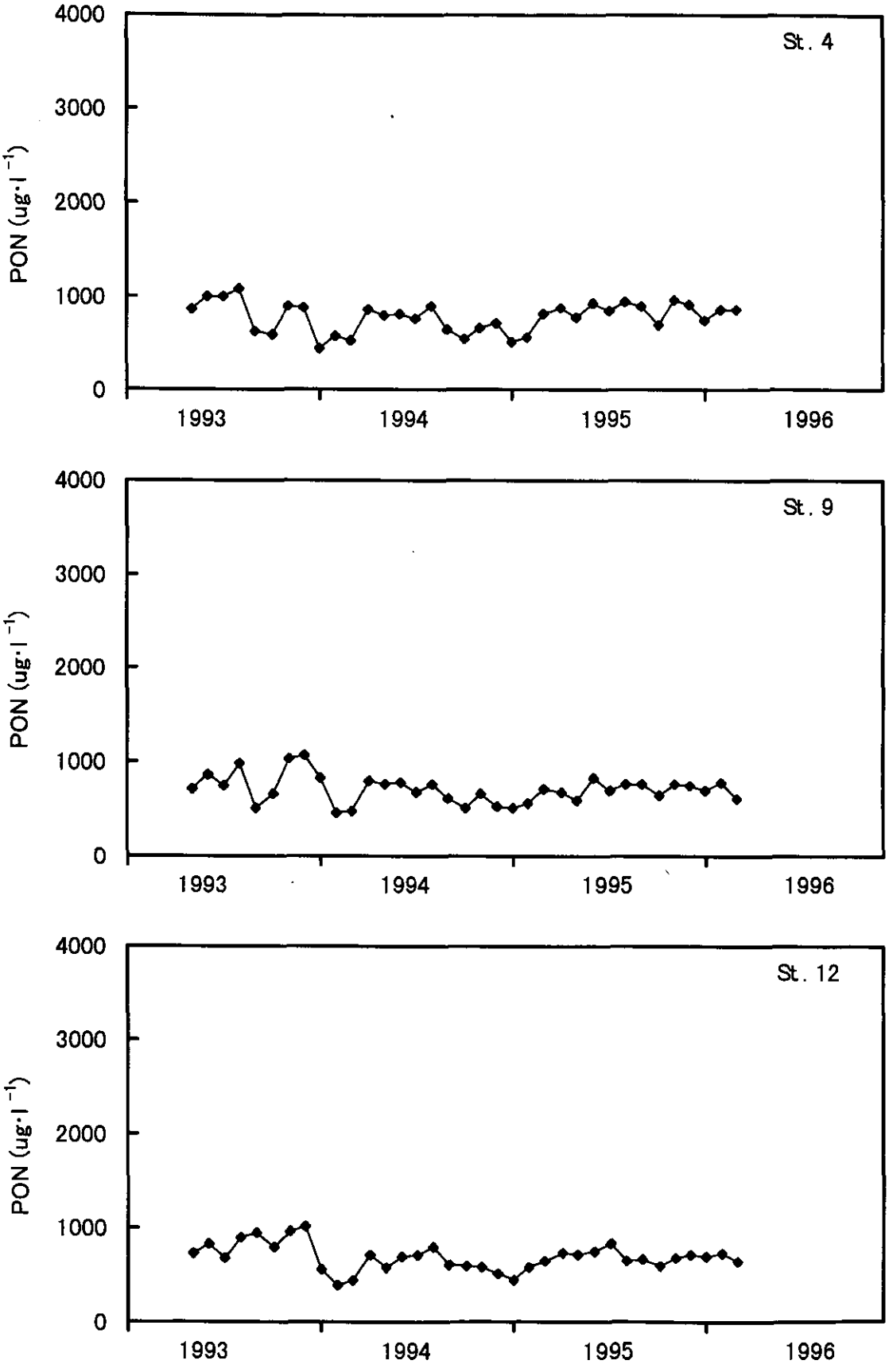

図 14(b)　霞ヶ浦各地点におけるPON濃度の経年変化
Fig. 14(b)　Annual changes in PON concentration at each station of Lake Kasumigaura

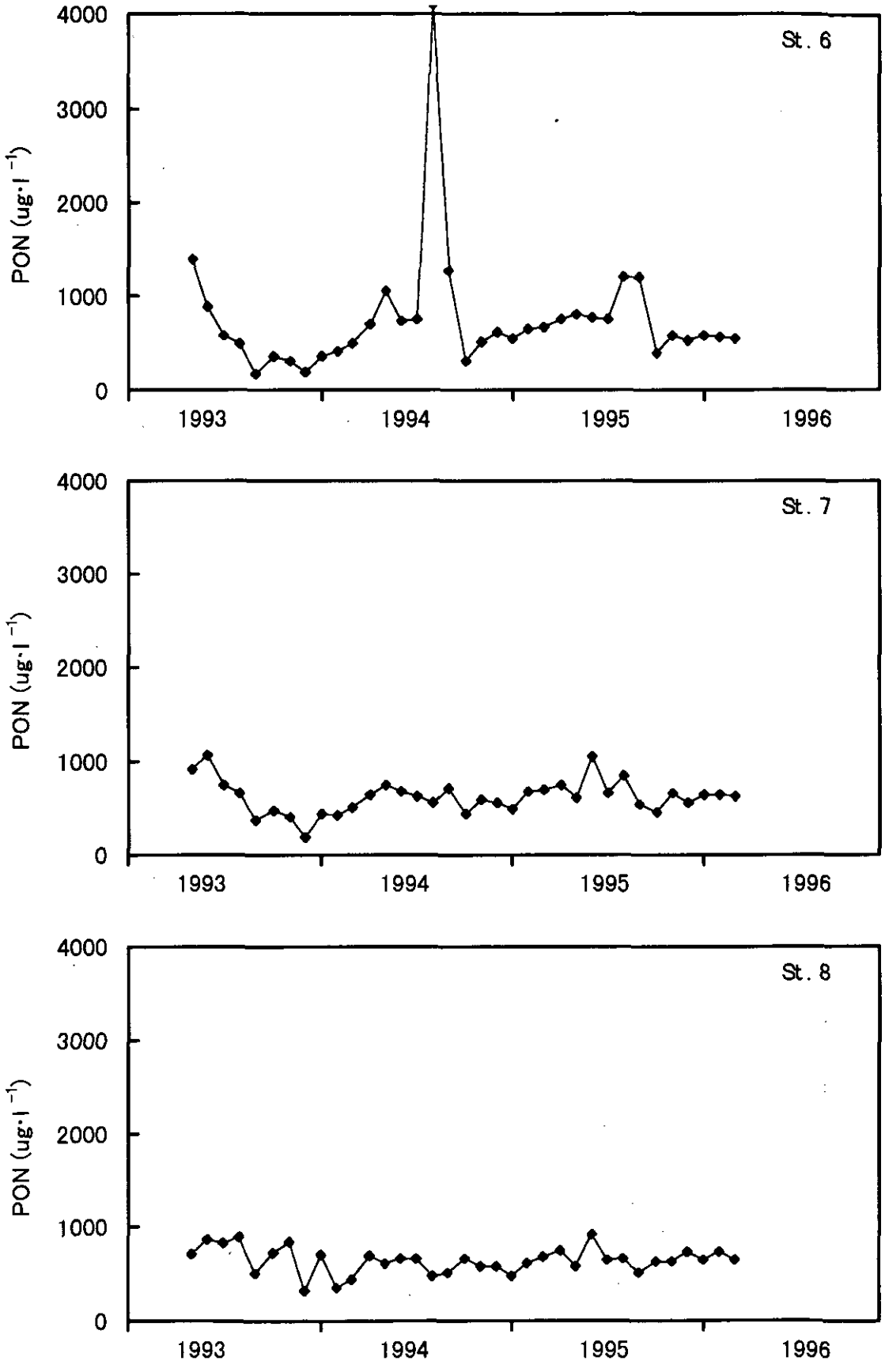

図 14(c)　霞ヶ浦各地点におけるPON濃度の経年変化
Fig. 14(c)　Annual changes in PON concentration at each station of Lake Kasumigaura

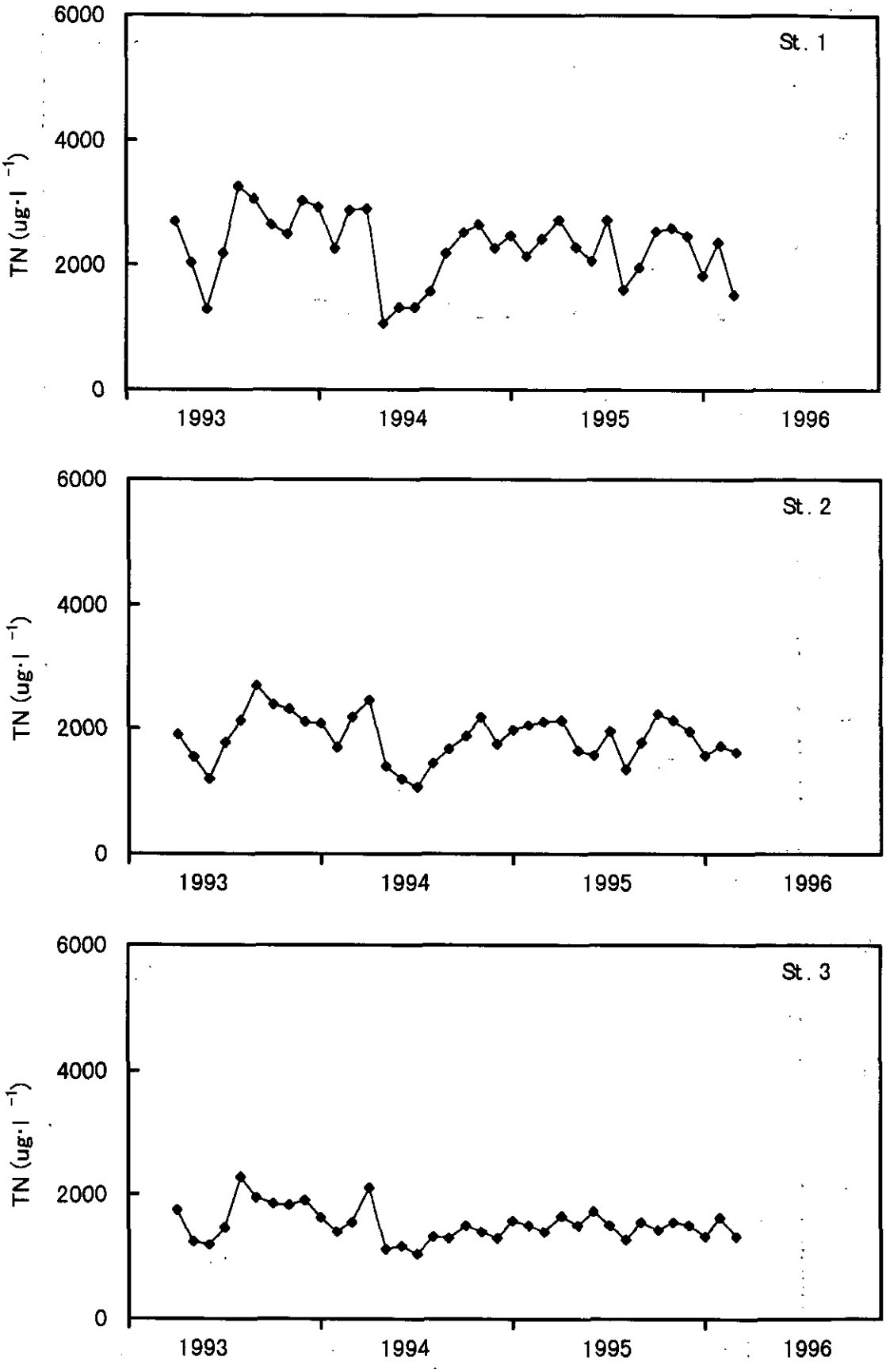

図 15(a)　霞ヶ浦各地点におけるTN濃度の経年変化
Fig. 15(a)　Annual changes in TN concentration at each station of Lake Kasumigaura

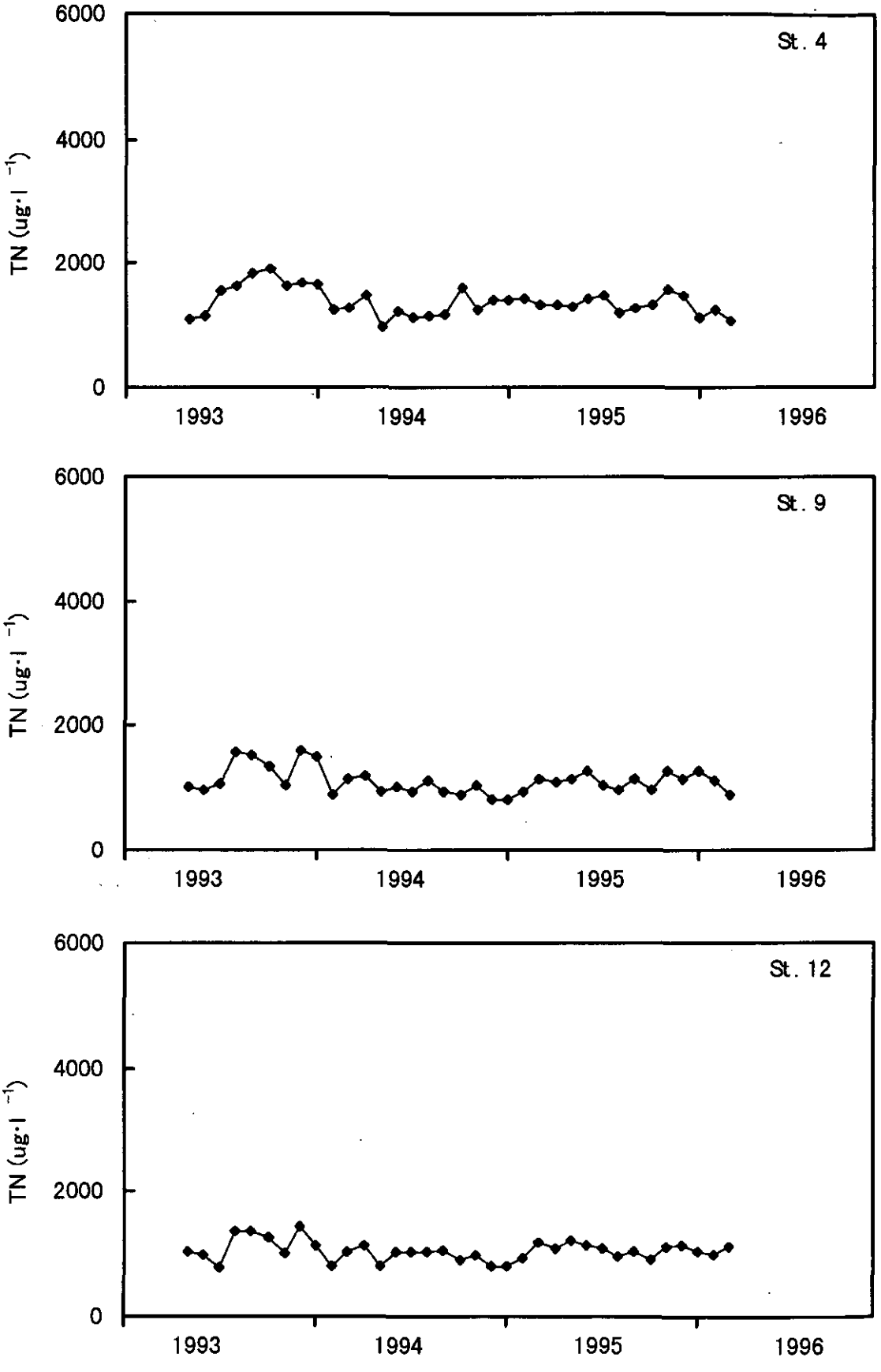

図 15(b)　霞ヶ浦各地点におけるTN濃度の経年変化
Fig. 15(b)　Annual changes in TN concentration at each station of Lake Kasumigaura

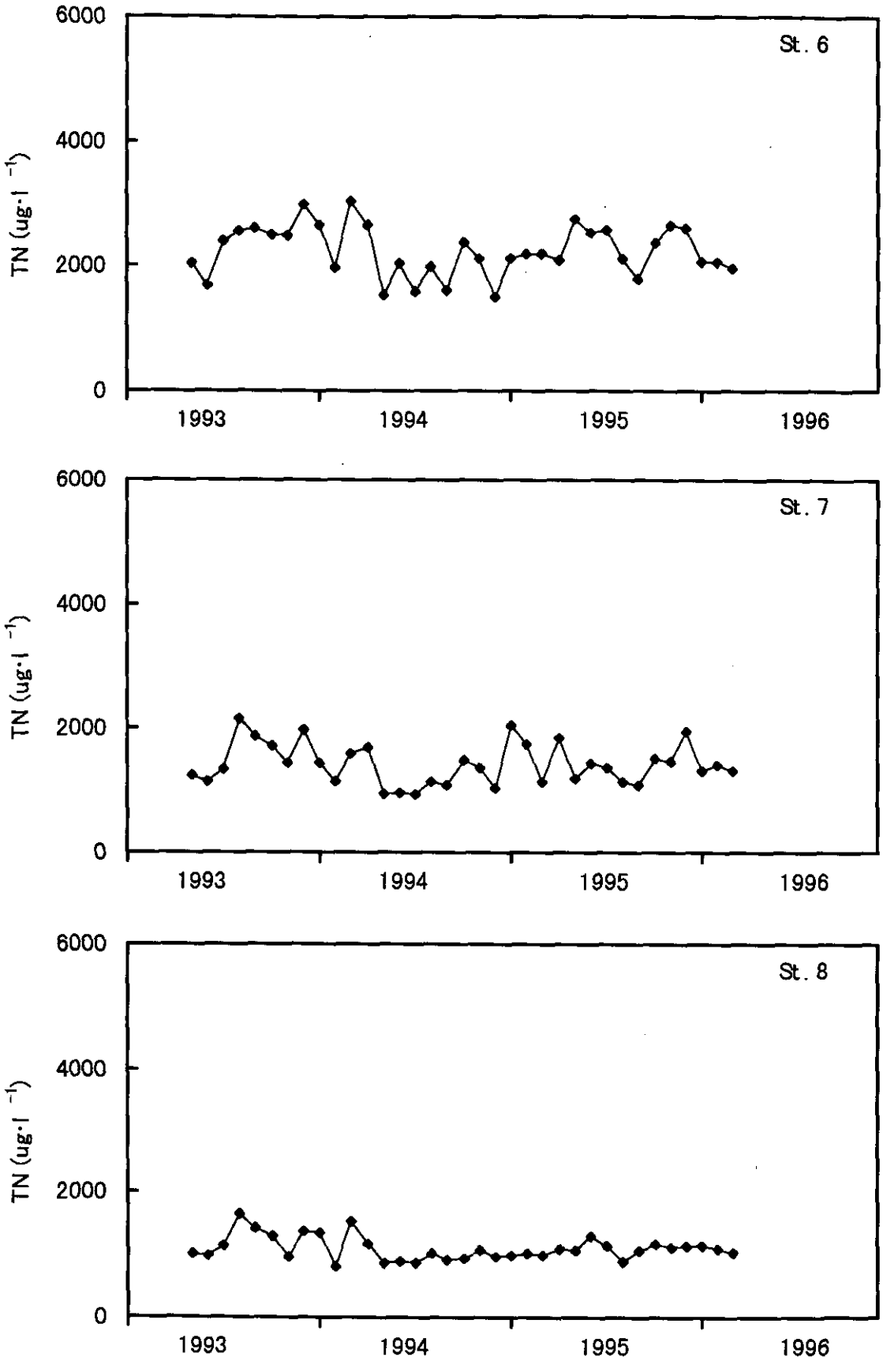

図 15(c)　霞ヶ浦各地点におけるTN濃度の経年変化
Fig. 15(c)　Annual changes in TN concentration at each station of Lake Kasumigaura

1993/04/07

	St.1	St.2	St.3	St.4	St.6	St.7	St.8	St.9	St.11	St.12
Time	11:43	12:22	12:31	13:09	14:17	13:52	13:38	10:47	10:38	11:20
Depth (m)	2.5		4.1			3.0		5.9		4.1
Transp(cm)	40	50	60	60	75	65	65	95	85	75
E.C(us/cm)	207	240	244	278	290	287	290	295	297	350
W.Temp. 0m	12.4		11.9			12.1		11.3		11.5
0.5m	12.4		11.9			12.1		11.2		11.5
1m	12.4		11.9			12.1		11.2		11.2
2m	12.3		11.9			12.0		11.1		10.7
3m			11.8			12.0		11.0		10.7
4m			11.7					10.7		10.7
5m								10.6		
6m										
bot.	12.3							10.6		
DO(mg/l)0m	13.4		12.3			12.3		12.5		12.1
0.5m	13.1		12.1			12.2		12.3		11.8
1m	13.1		12.0			12.1		12.1		11.6
2m	13.0		11.7			12.1		12.0		11.5
3m			11.5			11.8		11.7		11.3
4m			11.1					11.5		11.0
5m								11.5		
6m										
bot.	12.8							11.0		
L.I. air			2,372.0			1,914.0		2,266.0		2,100.0
(uE/m²/s) 0m			1,405.0			1,771.0		1,697.0		1,580.0
0.25m			334.0			633.0		766.0		550.0
0.5m			124.0			178.0		394.0		310.0
0.75m			41.9			60.4		207.0		142.0
1m			12.8			16.8		87.0		72.0
1.5m			1.0			1.8		19.8		16.1
2m						0.8		4.2		3.9
3m								0.5		0.4
4m										
5m										
pH 0m	9.10		9.32			8.95		9.25		9.30
0.5m	9.12		9.34			8.94		9.28		9.31
1m	9.10		9.33			8.93		9.26		9.30
2m	9.12		9.32			8.90		9.24		9.25
3m			9.31			8.77		9.17		9.18
4m			9.06					9.16		9.11
5m								9.14		
6m										
bot.								9.07		
PO_4-P ug/l	5	2	1	1	4	3	1	1	1	1
DTP ug/l	18	13	12	11	18	15	11	10	9	11
T.P. ug/l	264	184	169	125	135	136	111	96	92	111
NH_4-N ug/l	16	14	13	10	17	15	9	8	11	18
NO_2-N ug/l	36	11	6		26	9	1	0	0	0
NO_3-N ug/l	880	138	53	2	1,179	280	1	1	2	2
TN ug/l	2,697	1,902	1,750	1,460	2,470	1,646	1,246	1,265	1,189	1,278
D-COD mg/l	3.3	3.8	3.8	4.4				4.3		
T-COD mg/l	11.9	11.9	10.3	10.4		9.8	10.2	10.5	10.1	10.9
Chl-a ug/l	192	183	166	130	103	122	94	97	92	85
Phyco.ug/l	68	198	220	181	75	120	107	141	115	112
SSdw mg/l	62.4	39.8	35.5	26.2	23.6	60.7	26.7	22.4	21.0	24.2
DOC mg/l	2.8	2.7	2.6			3.0		3.1		3.4
POC mg/l	9.06	8.16	7.88	6.65	4.68	5.85	6.00	6.45	6.06	5.87
PON ug/l	1,566	1,491	1,446	1,111	851	1,085	901	1,283	1,230	830
C/N	5.78	5.47	5.45	5.99	5.50	5.39	6.66	5.02	4.92	7.07
Het.B /ml	33,000		4,900			17,000		3,300		
GP(gC/m²/d)			2.08			1.43		1.79		0.87

1993/05/12

	St.1	St.2	St.3	St.4	St.6	St.7	St.8	St.9	St.11	St.12
Time	11:40	12:15	12:25	13:00	13:55	13:30	13:20	10:35	10:25	10:00
Depth (m)	2.6		3.9			3.0		6.0		4.3
Transp(cm)	55	60	70	80	55	60	75	85	95	80
E.C(us/cm)	185	238	257	298	292	293	303	293	314	365
W.Temp. 0m	19.8		19.8			20.7		19.2		18.0
0.5m	19.4		19.5			20.3		17.1		17.5
1m	18.2		18.5			18.1		16.8		17.1
2m	16.2		17.4			17.2		16.4		16.4
3m	16.0		16.9			17.0		16.1		16.2
4m			16.2					16.0		16.0
5m								15.8		
6m								15.5		
bot.										
DO(mg/l)0m	12.2		13.7			12.8		11.2		11.9
0.5m	12.3		14.0			12.7		11.7		11.8
1m	10.1		14.1			11.7		11.7		11.6
2m	5.3		10.8			9.5		11.4		10.0
3m	4.5		7.7			8.4		10.4		9.7
4m			5.0					10.2		8.3
5m								9.8		
6m								8.0		
bot.										
L.I. air			2,520.0			1,860.0		2,220.0		2,180.0
($\mu E/m^2/s$) 0m			1,640.0			1,350.0		1,650.0		1,490.0
0.25m			890.0			560.0		980.0		870.0
0.5m			450.0			180.0		630.0		430.0
0.75m			215.0			62.0		360.0		250.0
1m			103.0			20.0		210.0		135.0
1.5m			26.0			2.5		68.0		40.0
2m			6.5			0.3		27.0		10.6
3m			0.4					3.9		0.7
4m										
5m										
pH 0m	9.02		9.45			9.24		8.80		8.96
0.5m	9.00		9.47			9.20		9.04		8.98
1m	8.02		9.41			8.98		9.03		9.03
2m	6.93		8.95			8.40		8.95		8.57
3m	6.73		8.00			8.00		8.65		8.46
4m			7.38					8.60		7.87
5m								8.49		
6m										
bot.								7.83		
PO_4-P ug/l	9	7	3	2	11	1	1	0	0	0
DTP ug/l	29	29	19	17	39	16	13	13	12	14
T.P. ug/l	178	163	132	139	186	142	115	118	98	110
NH_4-N ug/l	432	48	25	25	74	22	15	19	21	21
NO_2-N ug/l	37	15			23	4	0	0	0	0
NO_3-N ug/l	890	106			363	39	0	0	0	0
TN ug/l	2,022	1,546	1,256	1,101	2,032	1,246	1,029	1,008	956	1,049
D-COD mg/l	4.4	4.8	4.4	5.4				4.9		
T-COD mg/l	8.3	11.3	9.9	10.4		10.1	10.0	9.8	9.4	10.7
Chl-a ug/l	65	127	80	66	154	69	58	49	51	47
Phyco.ug/l	42	126	97	70	74	70	53	70	51	52
SSdw mg/l	39.4	27.3	22.5	20.6	32.3	31.1	19.0	17.7	15.6	19.9
DOC mg/l	3.0	3.4	3.5			3.5		3.5		3.6
POC mg/l	4.90	7.12	6.03	5.80	7.84	5.10	4.76	5.61	4.64	4.92
PON ug/l	782	1,265	948	865	1396	909	708	720	652	734
C/N	6.27	5.63	6.37	6.71	5.62	5.61	6.72	7.80	7.12	6.70
Het.B /ml										
GP($gC/m^2/d$)			2.05			2.30		1.92		1.34

1993/06/08

	St.1	St.2	St.3	St.4	St.6	St.7	St.8	St.9	St.11	St.12
Time	12:05	12:40	12:55	13:25	14:20	14:00	13:50	10:55	10:40	10:20
Depth (m)	2.5		3.7			3.0		5.6		3.8
Transp(cm)	50	70	65	70	55	55	65	70	70	65
E.C(us/cm)	225	262	278	318	302	310	314	325	333	355
W.Temp. 0m	20.4		21.6			21.0		21.5		20.2
0.5m	20.2		21.5			20.9		21.2		20.2
1m	20.2		21.2			20.8		20.4		19.9
2m	19.8		20.6			20.3		20.0		19.8
3m			20.1			20.0		19.9		19.6
4m			20.1					19.9		19.6
5m								19.9		
6m								19.8		
bot.										
DO(mg/l)0m	9.3		13.5			11.6		12.2		10.8
0.5m	8.4		13.7			11.5		12.3		10.8
1m	8.1		13.6			10.8		12.0		10.4
2m	6.5		12.1			8.3		10.2		9.9
3m			9.7			7.3		9.5		9.0
4m			8.7					9.1		8.4
5m								9.0		
6m								8.5		
bot.										
L.I. air			1,500.0			990.0		1,430.0		1,275.0
(uE/m²/s) 0m			850.0			650.0		850.0		750.0
0.25m			320.0			140.0		360.0		260.0
0.5m			140.0			48.0		210.0		130.0
0.75m			60.0			12.0		100.0		58.0
1m			34.0			6.5		48.0		32.0
1.5m			6.5			0.7		12.0		6.9
2m			1.6					3.0		1.9
3m										
4m										
5m										
pH 0m	7.90		9.46			9.00		9.27		9.23
0.5m	7.57		9.39			8.93		9.26		9.21
1m	7.40		9.29			8.80		9.16		9.05
2m	6.96		9.07			8.03		8.83		9.03
3m			8.78			7.56		8.70		8.60
4m			8.62					8.60		8.45
5m								8.57		
6m										
bot.								8.38		
PO_4-P ug/l	5	6	1	0	5	1	1	1	1	0
DTP ug/l	29	30	19	18	26	19	17	15	15	13
T.P. ug/l	163	186	163	155	163	147	116	108	93	93
NH_4-N ug/l	141	42	15	20	171	29	16	24	26	24
NO_2-N ug/l	18	1	0	0	21	2	0	0	0	0
NO_3-N ug/l	192	1	1	0	421	43	2	3	2	1
TN ug/l	1,300	1,204	1,204	1,149	1,684	1,149	999	971	930	999
D-COD mg/l	5.2	5.3	4.2	4.8				5.0		
T-COD mg/l	9.1	11.1	12.5	12.6		12.0	12.3	11.0	10.6	11.1
Chl-a ug/l	70	87	105	100	87	86	81	81	74	77
Phyco. ug/l	18	43	29	36	55	140	25	18	25	11
SSdw mg/l	39.8	32.7	28.9	26.3	31.4	33.5	26.7	21.6	20.6	23.2
DOC mg/l	3.2	3.5	3.2			3.2		3.1		3.1
POC mg/l	4.68	6.07	8.14	7.17	4.88	5.84	6.25	6.52	6.36	6.32
PON ug/l	784	1,056	1,036	993	873	1,070	870	867	798	839
C/N	5.98	5.75	7.86	7.22	5.59	5.46	7.18	7.52	7.96	7.53
Het.B /ml										
GP(gC/m²/d)			1.90			1.58		1.28		1.36

1993/07/07

	St.1	St.2	St.3	St.4	St.6	St.7	St.8	St.9	St.11	St.12
Time	12:06	12:42	12:52	13:18	14:12	13:53	13:38	11:00	10:52	10:25
Depth (m)	2.6		4.0			3.4		5.8		4.1
Transp(cm)	60	50	70	70	50	40	70	100	100	80
E.C(us/cm)	160	227	274	308	250	285	315	342	370	355
W.Temp. 0m	21.8		21.5			21.5		21.5		20.9
0.5m	21.6		21.5			21.5		21.6		20.9
1m	21.7		21.5			21.5		21.6		20.9
2m	21.0		21.3			21.5		21.5		20.9
3m			21.1			20.8		21.4		20.9
4m			21.1					21.4		20.8
5m								21.4		
6m										
bot.	19.9					20.8		21.4		20.8
DO(mg/l)0m	11.3		10.2			8.8		9.4		8.3
0.5m	11.5		10.2			8.8		9.7		8.2
1m	11.5		9.9			8.7		9.6		8.1
2m	8.9		8.4			8.5		9.4		8.1
3m			7.2			6.9		8.7		8.0
4m			6.7					8.4		7.5
5m								8.3		
6m										
bot.	5.4					6.5		8.0		7.2
L.I. air			300.0			718.0		1,031.0		476.0
($\mu E/m^2/s$) 0m			159.0			577.0		591.0		368.0
0.25m			72.0			100.0		299.0		138.0
0.5m			33.2			34.7		139.0		64.5
0.75m			12.5			9.8		77.0		30.7
1m			7.3			2.6		45.0		16.3
1.5m			1.8			0.3		14.0		4.2
2m			0.4					4.4		0.4
3m								0.7		
4m										
5m										
pH 0m	8.82		8.69			8.27		8.73		8.04
0.5m	8.87		8.70			8.22		8.77		8.04
1m	8.85		8.60			8.21		8.75		8.09
2m	7.55		8.28			8.13		8.65		8.02
3m			7.72			7.41		8.45		8.01
4m			7.63					8.39		7.73
5m								8.37		
6m										
bot.	6.85					7.25		8.27		7.7
PO_4-P ug/l	19	27	13	17	17	14	15	13	13	12
DTP ug/l	25	34	28	20	50	18	16	14	14	13
T.P. ug/l	138	151	126	113	136	121	95	86	68	81
NH_4-N ug/l	45	56	118	41	470	105	27	32	33	32
NO_2-N ug/l	30	19	9	2	54	20	3	1	0	0
NO_3-N ug/l	949	245	43	15	789	221	15	0	2	3
TN ug/l	2,174	1,769	1,469	1,544	2,384	1,339	1,139	1,062	923	800
D-COD mg/l	3.7	4.6	3.0	4.4				4.5		
T-COD mg/l	8.4	10.6	7.9	11.5		7.6	8.6	8.8	8.1	8.2
Chl-a ug/l	96	140	99	97	50	76	97	85	66	69
Phyco. ug/l	94	205	138	133	38	55	69	61	43	38
SSdw mg/l	38.3	31.4	20.9	20.2	25.3	38.8	23.4	14.8	13.0	18.7
DOC mg/l	3.2	3.7	3.8			3.2		3.7		3.4
POC mg/l	5.26	6.10	4.80	4.97	2.89	4.03	4.39	4.21	3.74	3.85
PON ug/l	1,066	1,250	968	998	571	745	822	747	594	671
C/N	4.94	4.88	4.96	4.98	5.06	5.40	5.34	5.63	6.30	5.74
Het.B /ml										
GP($gC/m^2/d$)			1.59			0.54		1.92		0.94

1993/08/11

	St.1	St.2	St.3	St.4	St.6	St.7	St.8	St.9	St.11	St.12
Time	12:05	12:40	12:50	13:15	14:25	14:00	13:40	11:00	10:45	10:40
Depth (m)	2.0		3.9			3.3		6.0		4.1
Transp(cm)	55	55	53	60	45	45	60	70	70	60
E.C(us/cm)	172	188	207	290	240	232	282	290	350	340
W.Temp. 0m	21.7		22.5			22.5		22.3		22.3
0.5m	21.7		22.5			22.5		22.3		22.3
1m	21.6		22.5			22.4		22.3		22.2
2m	21.6		22.4			22.4		22.3		22.2
3m			22.4			22.4		22.2		22.2
4m			22.4					22.2		
5m								22.2		
6m								22.1		
bot.						22.4				22.2
DO(mg/l)0m	8.4		8.7			8.2		9.0		8.6
0.5m	8.3		8.7			8.1		8.7		8.5
1m	8.3		8.6			8.1		8.6		8.5
2m	8.3		8.5			8.0		8.5		8.4
3m			8.5			8.0		8.4		8.2
4m			8.4					8.2		8.1
5m								8.2		
6m								7.8		
bot.						6.7				7.9
L.I. air										
(uE/m²/s) 0m			717.0			2,349.0		2,531.0		916.0
0.25m			135.0			254.0		861.0		250.0
0.5m			21.5			36.1		386.0		115.0
0.75m			10.1			5.4		212.0		64.0
1m			2.3			1.1		58.0		19.0
1.5m			0.2			0.1		25.4		4.0
2m								1.6		0.6
3m								0.3		
4m										
5m										
pH 0m	7.20		8.01			7.49		8.64		8.65
0.5m	7.22		7.94			7.50		8.65		8.64
1m	7.22		7.69			7.50		8.64		8.63
2m	7.21		7.62			7.52		8.64		8.60
3m			7.63			6.88		8.62		8.54
4m			7.31			7.09		8.58		8.47
5m								8.53		
6m										
bot.								8.4		
PO_4-P ug/l	12	29	56	16	25	19	7	1	1	0
DTP ug/l	26	45	74	31	36	29	21	13	11	12
T.P. ug/l	120	152	173	106	120	127	86	123	100	107
NH_4-N ug/l	184	142	302	129	276	201	147	46	25	23
NO_2-N ug/l	44	29	24	6	50	40	15	2	1	0
NO_3-N ug/l	2147	887	394	51	1,255	836	133	10	0	2
TN ug/l	3,259	2,123	2,300	1,636	2,539	2,158	1,657	1,566	1,340	1,368
D-COD mg/l	2.4	3.7	3.5	4.6				4.0		
T-COD mg/l	5.0	9.5	8.5	9.3		8.1	8.4	8.4	8.6	9.4
Chl-a ug/l	42	116	129	82	29	48	84	102	87	87
Phyco.ug/l	37	398	458	221	17	25	91	163	78	71
SSdw mg/l	34.1	40.5	29.6	25.5	44.8	69.0	27.9	15.9	18.0	23.2
DOC mg/l	2.2	2.9	3.1			2.8		3.7		3.5
POC mg/l	2.92	5.68	6.19	5.24	2.72	3.98	4.25	4.72	5.19	4.76
PON ug/l	518	1,205	1,314	1,079	494	668	906	989	932	896
C/N	5.64	4.71	4.71	4.86	5.49	5.96	4.69	4.78	5.56	5.32
Het.B /ml										
GP(gC/m²/d)			1.98			0.50		2.38		1.62

1993/09/08

	St.1	St.2	St.3	St.4	St.6	St.7	St.8	St.9	St.11	St.12
Time	11:50	12:25	12:35	13:00	13:55	13:30	13:20	10:40	10:30	10:05
Depth (m)	2.0		3.8			3.1		5.8		4.1
Transp(cm)	65	75	90	80	55	50	60	85	65	60
E.C(us/cm)	152	150	200	240	225	222	258	260	293	312
W.Temp. 0m	21.6		23.2			22.6		23.6		23.1
0.5m	21.6		23.2			22.7		23.6		23.1
1m	21.5		23.2			22.6		23.6		23.1
2m	20.9		23.2			22.6		23.6		23.1
3m			23.2			22.3		23.6		23.1
4m								23.6		23.1
5m								23.6		
6m								23.6		
bot.								23.6		
DO(mg/l)0m	7.4		7.4			7.1		6.9		8.2
0.5m	7.4		7.4			7.1		6.8		8.2
1m	7.2		7.4			7.1		6.7		8.2
2m	6.9		7.4			7.1		6.5		8.2
3m			7.4			6.9		6.3		8.2
4m								6.2		8.2
5m								6.0		
6m								5.9		
bot.										
L.I. air			332.0			182.0		273.0		565.0
($uE/m^2/s$) 0m			317.0			119.0		225.0		462.0
0.25m			117.0			26.0		90.0		126.0
0.5m			59.0			5.0		41.0		44.0
0.75m			34.0			2.4		28.0		16.0
1m			18.0			0.4		16.0		6.1
1.5m			6.5			0.1		6.9		1.4
2m			2.7					1.6		0.3
3m										
4m										
5m										
pH 0m	8.73		7.40			6.76		7.50		7.39
0.5m	8.80		7.08			6.28		7.50		7.32
1m	8.37		7.14			6.30		7.50		7.07
2m	7.58		7.05			6.31		7.52		6.90
3m			7.05			6.10		7.53		6.78
4m								7.62		6.56
5m								7.91		
6m										
bot.			7					7.89		
PO_4-P ug/l	11	12	13	12	9	10	12	10	12	13
DTP ug/l	27	33	84	77	43	39	40	51	32	18
T.P. ug/l	116	98	135	146	98	110	107	103	106	107
NH_4-N ug/l	129	280	667	553	288	209	380	409	158	19
NO_2-N ug/l	39	37	40	35	50	33	15	24	4	1
NO_3-N ug/l	2172	1795	490	253	1,829	990	125	134	26	4
TN ug/l	3,046	2,689	1,952	1,841	2,600	1,885	1,416	1,528	1,366	1,382
D-COD mg/l	2.4	2.5	3.8	4.2				4.1		
T-COD mg/l	4.8	6.2	5.7	7.4		5.5	7.1	7.0	8.7	10.3
Chl-a ug/l	44	39	49	60	7	23	49	54	84	86
Phyco.ug/l	17	19	54	75	1	14	38	57	249	115
SSdw mg/l	18.7	16.0	11.7	14.6	21.3	35.7	24.1	11.8	14.0	21.7
DOC mg/l	2.1	2.4	3.1			2.4		3.7		3.9
POC mg/l	2.07	1.68	2.04	2.74	1.04	2.00	2.46	2.36	3.57	4.23
PON ug/l	419	333	449	620	169	369	512	506	823	946
C/N	4.95	5.03	4.53	4.42	6.13	5.44	4.79	4.67	4.34	4.47
Het.B /ml										
GP($gC/m^2/d$)			0.23			0.07		0.35		0.34

1993/10/06

	St.1	St.2	St.3	St.4	St.6	St.7	St.8	St.9	St.11	St.12
Time	11:55	12:25	12:35	13:05	13:55	13:35	13:20	10:50	10:35	10:05
Depth (m)	2.6		3.8			3.0		5.8		3.7
Transp(cm)	65	60	85	75	65	50	60	90	80	70
E.C(us/cm)	165	176	200	220	242	245	272	270	272	302
W.Temp. 0m	19.3		19.8			19.6		20.0		19.8
0.5m	19.2		19.9			19.6		20.0		19.8
1m	19.1		19.9			19.6		20.0		19.8
2m	18.7		19.9			19.6		19.9		19.5
3m	18.5		19.8			19.1		19.8		19.4
4m			19.7					19.8		19.4
5m								19.8		
6m								19.8		
bot.										
DO(mg/l)0m	9.5		8.7			8.4		9.4		10.0
0.5m	9.7		8.5			8.0		8.4		9.2
1m	9.8		8.3			7.6		8.2		8.9
2m	9.4		8.3			7.4		8.2		8.5
3m	9.2		8.1			7.2		7.7		8.5
4m			7.6					7.7		8.5
5m								7.6		
6m								7.5		
bot.										
L.I. air			887.0			605.0		1,630.0		1,550.0
(uE/m²/s) 0m			450.0			276.0		860.0		1,030.0
0.25m			260.0			82.0		620.0		350.0
0.5m			132.0			15.0		310.0		140.0
0.75m			74.0			11.0		175.0		68.0
1m			29.0			3.7		110.0		42.0
1.5m			10.3			0.7		39.0		10.5
2m			3.0					18.0		1.7
3m								3.5		
4m										
5m										
pH 0m	8.65		7.92			7.89		8.72		9.10
0.5m	8.67		7.92			7.87		8.70		9.10
1m	8.60		7.91			7.88		8.70		9.11
2m	8.43		7.89			7.88		8.64		9.00
3m	8.09		7.80			7.60		8.52		8.91
4m			7.74					8.36		8.88
5m								8.31		
6m										
bot.								8.26		
PO_4-P ug/l	4	7	21	31	16	7	2	1	3	1
DTP ug/l	18	21	37	46	26	20	14	13	18	13
T.P. ug/l	105	113	112	133	89	100	99	87	99	90
NH_4-N ug/l	28	128	106	169	91	37	89	56	140	23
NO_2-N ug/l	44	74	310	295	74	101	50	85	87	1
NO_3-N ug/l	1746	1259	475	395	1,640	737	117	140	119	1
TN ug/l	2,641	2,385	1,849	1,896	2,501	1,731	1,309	1,355	1,472	1,262
D-COD mg/l	2.4	2.9	3.9	4.2				4.6		
T-COD mg/l	5.4	5.5	6.4	6.9	6.4	7.6		7.6	7.6	10.0
Chl-a ug/l	87	58	55	52	29	37	49	67	71	81
Phyco.ug/l	17	33	30	24	2	10	55	73	71	100
SSdw mg/l	21.9	22.6	15.9	20.0	16.0	29.2	21.4	12.2	14.5	19.4
DOC mg/l	1.8	2.0	2.7			2.4		3.3		3.5
POC mg/l	3.26	3.05	2.88	3.43	1.86	2.52	3.52	3.36	3.76	5.08
PON ug/l	563	575	555	598	348	467	733	664	748	789
C/N	5.79	5.30	5.20	5.73	5.34	5.39	4.80	5.06	5.02	6.44
Het.B /ml										
GP(gC/m²/d)			0.96			0.47		1.54		1.16

1993/11/10

	St.1	St.2	St.3	St.4	St.6	St.7	St.8	St.9	St.11	St.12
Time	12:02	12:35	12:46	13:15	14:07	13:45	13:30	11:05	10:58	10:30
Depth (m)	2.6	4.2	4.0			3.0		5.8		3.8
Transp(cm)	50	60	70	80	65	50	50	70	90	60
E.C(us/cm)	190	198	212	265	267	257	258	290	288	322
W.Temp. 0m	13.7		14.2			13.9		14.3		13.9
0.5m	13.5		14.3			13.9		14.3		13.9
1m	13.3		14.2			13.9		14.3		13.9
2m	13.3		14.0			13.9		14.1		13.8
3m			13.9					14.1		13.8
4m			13.7					14.0		
5m								13.9		
6m										
bot.										
DO(mg/l)0m	10.1		9.5			9.6		11.7		11.1
0.5m	9.8		9.0			7.6		11.5		10.3
1m	9.5		8.4			6.9		11.3		10.0
2m	9.3		7.4			6.6		8.2		10.0
3m			7.5					7.3		9.9
4m			7.1					7.0		
5m										
6m										
bot.										
L.I. air			1,738.0			681.2		2,393.0		1,867.0
($\mu E/m^2/s$) 0m			1,292.0			515.8		1,727.0		1,309.0
0.25m			454.0			140.0		980.0		727.0
0.5m			215.0			51.3		307.0		298.0
0.75m			89.7			10.2		128.4		122.3
1m			32.1			1.3		74.0		55.2
1.5m			7.2			0.2		16.3		12.8
2m								6.3		2.7
3m								0.4		0.2
4m										
5m										
pH 0m	7.61		8.35			7.78		8.75		9.13
0.5m	7.58		8.38			7.75		8.74		9.22
1m	7.56		8.35			7.74		8.72		9.21
2m	7.52		8.22			7.73		8.69		9.19
3m			8.09					8.65		9.26
4m			7.81					8.48		
5m								8.37		
6m										
bot.										
PO_4-P ug/l	7	11	7	8	15	14	2	1	1	0
DTP ug/l	19	26	20	22	29	30	17	11	13	11
T.P. ug/l	126	153	119	136	94	127	100	101	99	116
NH_4-N ug/l	172	178	83	114	107	62	31	17	199	24
NO_2-N ug/l	42	40	35	14	39	26	9	18	15	0
NO_3-N ug/l	1666	1208	707	200	1,771	1055	171	80	83	2
TN ug/l	2,494	2,306	1,823	1,622	2,467	1,460	955	1,053	1,165	1,011
D-COD mg/l	2.4	2.9	3.5	4.4				4.4		
T-COD mg/l	4.7	6.1	6.7	8.1		5.6	8.0	9.4	8.0	11.5
Chl-a ug/l	35	45	56	73	21	25	59	81	67	77
Phyco.ug/l	1	99	90	52	1	22	109	58	44	34
SSdw mg/l	27.5	31.6	23.6	17.7	21.6	35.8	25.4	17.0	15.0	22.0
DOC mg/l	1.9	2.2	2.6			2.5		3.5		3.5
POC mg/l	2.87	3.40	3.66	4.16	1.70	2.26	4.07	5.01	4.34	6.25
PON ug/l	488	655	725	895	306	415	847	1,036	833	961
C/N	5.88	5.20	5.05	4.65	5.56	5.45	4.80	4.83	5.20	6.50
Het.B /ml										
GP($gC/m^2/d$)			1.11			0.25		1.56		1.39

1993/12/08

	St.1	St.2	St.3	St.4	St.6	St.7	St.8	St.9	St.11	St.12
Time	11:54	12:38	12:47	13:17	13:38	13:52	14:12	10:57	10:46	10:16
Depth (m)			4.0			3.1				
Transp(cm)	90	90	90	80	75	65	65	75	80	70
E.C(us/cm)	190	210	208	250	262	232	240	270	266	300
W.Temp. 0m	8.6		9.3			8.8		9.7		9.3
0.5m	8.6		9.3			8.8		9.7		9.3
1m	8.6		9.3			8.8		9.8		9.3
2m	8.6		9.3			8.8		9.7		9.3
3m			9.3			8.8		9.7		9.3
4m								9.7		9.3
5m								9.7		
6m								9.7		
bot.	8.6		9.3			8.8		9.8		9.3
DO(mg/l)0m	8.2		8.8			9.4		8.6		10.9
0.5m	9.3		9.8			8.6		8.6		10.5
1m	9.6		10.2			8.8		8.4		10.3
2m	9.5		10.1			10.0		8.1		9.4
3m			10.0			9.6		8.2		9.0
4m								8.6		9.2
5m								8.7		
6m								8.7		
bot.	9.3		9.8			9.4				9.6
L.I. air			107.7			60.1		129.3		85.5
(uE/m²/s) 0m			107.8			75.1		119.2		75.4
0.25m			52.1			24.2		38.1		8.2
0.5m			29.9			13.5		13.2		3.5
0.75m			18.9			6.2		5.0		1.7
1m			11.7			3.6		3.4		0.5
1.5m			4.3			1.0		1.1		
2m			1.7			0.3		0.1		
3m			0.2							
4m										
5m										
pH 0m	7.70		8.40			7.90		8.80		8.70
0.5m	7.70		8.60			7.90		8.80		8.80
1m	7.70		8.60			7.90		8.80		8.80
2m	7.60		8.70			7.90		8.80		8.90
3m			8.70			7.90		8.80		8.90
4m						7.90		8.80		8.90
5m								8.80		8.80
6m										
bot.	7.6		8.7			7.8		7.7		
PO_4-P ug/l	9	4	1	0	33	13	5	1	1	1
DTP ug/l	20	16	13	12	45	29	23	11	12	13
T.P. ug/l	72	81	75	104	97	60	55	110	88	94
NH_4-N ug/l	158	25	12	39	188	117	59	11	95	16
NO_2-N ug/l	34	19	15	5	35	23	12	1	5	1
NO_3-N ug/l	2216	1157	807	269	2,089	1336	559	42	114	2
TN ug/l	3,026	2,104	1,904	1,673	2,972	1,971	1,361	1,605	1,578	1,442
D-COD mg/l	2.1	3.0	3.2	3.9				4.5		
T-COD mg/l	3.0	5.5	6.0	7.5		3.8	5.3	8.3	7.6	8.7
Chl-a ug/l	14	38	40	66	7	8	18	83	78	78
Phyco. ug/l	1	6	10	31	1	1	3	45	33	27
SSdw mg/l	12.2	10.9	14.1	14.4	14.4	12.5	11.6	14.2	13.8	18.5
DOC mg/l	1.6	2.5	2.7			2.3		3.5		3.3
POC mg/l	1.31	2.53	2.83	3.87	1.02	0.97	1.55	4.65	4.15	4.77
PON ug/l	246	550	602	876	183	189	329	1,064	957	1011
C/N	5.31	4.60	4.71	4.42	5.57	5.12	4.70	4.37	4.33	4.72
Het.B /ml										
GP(gC/m²/d)			0.12			0.01		0.11		0.06

1994/01/12

	St.1	St.2	St.3	St.4	St.6	St.7	St.8	St.9	St.11	St.12
Time	11:36	12:14	12:20	12:50	13:42	13:21	13:11	10:47	10:37	10:11
Depth (m)	2.6		3.9			3.1		6.0		3.9
Transp(cm)	90	110	130	120	70	65	80	70	80	90
E.C(us/cm)	190	212	230	236	290	266	262	272	282	340
W.Temp. 0m	5.7		5.7			5.4		5.3		5.3
0.5m	5.6		5.6			5.4		5.3		5.3
1m	5.3		5.5			5.3		5.3		5.3
2m	5.2		5.1			5.3		5.2		5.3
3m			5.0			5.2		5.3		5.3
4m								5.2		
5m								5.2		
6m										
bot.	5.1		5.0			5.2		5.2		5.3
DO(mg/l)0m	6.8		7.1			6.0		9.5		8.5
0.5m	6.2		6.5			5.6		9.2		9.3
1m	6.0		6.4			5.7		9.0		9.6
2m	5.9		6.5			5.6		10.0		7.8
3m			6.6			5.7		10.5		8.2
4m								9.9		
5m								9.1		
6m										
bot.	6.1		6.7			5.9		9.4		9.4
L.I. air			1,601.0			1,662.0		1,683.0		1,308.0
($\mu E/m^2/s$) 0m			1,222.0			1,290.0		1,459.0		1,112.0
0.25m			625.0			475.0		687.0		991.0
0.5m			463.0			259.0		320.0		333.0
0.75m			326.0			113.0		163.0		201.0
1m			228.0			60.3		87.6		111.0
1.5m			119.0			17.2		26.3		37.3
2m			62.4			4.8		9.6		14.9
3m			17.7					1.7		3.8
4m										
5m										
pH 0m	7.63		8.42			8.18		8.12		8.13
0.5m	7.94		8.67			8.43		8.12		8.16
1m	7.96		8.69			8.45		8.13		8.14
2m	7.96		8.70			8.45		8.28		8.16
3m			8.65			8.40		8.37		8.16
4m								8.36		
5m								8.35		
6m										
bot.	7.95		8.56			8.23	7.86		8.12	
PO_4-P ug/l	9	10	10	10	13	11	9	10	9	9
DTP ug/l	15	11	10	10	31	13	10	10	9	9
T.P. ug/l	73	50	51	62	91	69	71	77	85	61
NH_4-N ug/l	139	34	37	46	172	30	17	18	69	23
NO_2-N ug/l	29	15	10	8	19	10	3	2	2	1
NO_3-N ug/l	1271	1321	964	800	1,815	979	258	227	186	197
TN ug/l	2,928	2,080	1,638	1,657	2,654	1,459	1,343	1,493	1,543	1,156
D-COD mg/l	2.1	2.8	2.9	3.4				3.7		
T-COD mg/l	2.9	4.6	4.8	5.5		5.6	7.4	7.8	8.0	7.3
Chl-a ug/l	15	20	20	25	19	23	43	53	60	40
Phyco.ug/l	1	1	1	2	2	1	6	6	7	4
SSdw mg/l	11.1	8.8	8.0	9.4	16.6	18.8	13.5	13.5	14.1	11.7
DOC mg/l	2.0	2.4	2.4			2.8		3.2		3.2
POC mg/l	1.43	1.94	1.72	2.30	1.91	2.27	3.71	4.22	4.56	3.19
PON ug/l	254	364	306	438	353	433	708	836	913	560
C/N	5.60	5.32	5.61	5.25	5.42	5.25	5.23	5.05	5.00	5.69
Het.B /ml										
GP($gC/m^2/d$)			0.44			0.26		0.73		0.04

1994/02/09

	St.1	St.2	St.3	St.4	St.6	St.7	St.8	St.9	St.11	St.12
Time	11:55	12:25	12:35	13:00	13:55	13:40	13:30	11:00	10:50	10:15
Depth (m)			4.0			3.0		5.8		3.9
Transp(cm)	75	90	100	105	65	60	105	105	115	95
E.C(us/cm)	210	232	237	248	280	265	260	290	272	332
W.Temp. 0m	6.1		5.1			5.4		4.6		4.9
0.5m	6.1		5.0			5.4		4.5		4.9
1m	6.0		5.0			5.4		4.5		4.8
2m	5.0		4.8			5.3		4.4		4.8
3m	5.0		4.7			5.1		4.3		4.8
4m			4.6					4.3		4.8
5m								4.3		
6m								4.3		
bot.										
DO(mg/l)0m	15.4		15.0			13.2		13.4		12.4
0.5m	16.0		16.1			14.0		13.2		12.4
1m	12.7		17.0			14.5		13.2		12.6
2m	12.4		15.0			12.5		12.6		13.0
3m			13.5					12.2		13.2
4m								12.1		12.8
5m								11.9		
6m								11.9		
bot.										
L.I. air			1,740.0			1,150.0		1,480.0		628.0
(uE/m²/s) 0m			1,060.0			630.0		980.0		380.0
0.25m			580.0			160.0		640.0		220.0
0.5m			320.0			70.0		360.0		136.0
0.75m			180.0			27.0		210.0		83.0
1m			110.0			13.0		130.0		53.0
1.5m			45.0			2.1		51.0		22.0
2m			19.0					22.0		10.0
3m			3.6					4.1		2.4
4m										
5m										
pH 0m	9.63		10.05			8.97		8.60		8.41
0.5m	10.06		10.30			9.18		8.93		8.46
1m	10.08		10.32			9.18		8.94		8.51
2m	10.08		10.32			9.17		8.93		8.52
3m	10.10		10.28			9.22		8.90		8.53
4m			10.25					8.84		8.51
5m								8.81		
6m										
bot.								8.8		
PO4-P ug/l	7	4	2	2	5	2	1	1	1	1
DTP ug/l	17	15	12	12	19	15	11	11	10	11
T.P. ug/l	118	101	100	93	104	88	59	67	69	68
NH4-N ug/l	17	13	14	11	103	9	9	10	35	19
NO2-N ug/l	25	20	14	12	18	7	3	1	2	2
NO3-N ug/l	1651	1015	671	520	1,362	555	283	260	284	279
TN ug/l	2,253	1,709	1,388	1,252	1,956	1,156	807	893	893	807
D-COD mg/l	3.1	4.0	3.7	4.4				3.8		
T-COD mg/l	6.1	7.6	7.1	7.1		6.4	6.3	6.8	6.3	6.9
Chl-a ug/l	57	69	67	59	25	25	26	28	27	23
Phyco.ug/l	1	1	1	1	1	1	1	1	1	1
SSdw mg/l	17.2	12.3	11.3	10.5	20.0	26.1	9.0	11.3	9.2	11.6
DOC mg/l	2.1	2.6	2.9			2.7		3.0		3.1
POC mg/l	3.48	3.57	3.48	3.27	2.22	2.46	2.06	2.55	2.51	2.15
PON ug/l	614	654	606	581	407	420	357	456	423	384
C/N	5.66	5.46	5.74	5.62	5.45	5.85	5.76	5.59	5.93	5.60
Het.B /ml										
GP(gC/m²/d)			1.00			0.33		0.50		0.40

1994/03/09

	St.1	St.2	St.3	St.4	St.6	St.7	St.8	St.9	St.11	St.12
Time	12:00	12:53	13:05	13:30	14:22	14:01	13:52	11:10	10:58	10:23
Depth (m)	2.3		4.1			2.9		5.7	5.5	4.1
Transp(cm)	65	65	80	80	55	55	80	85	80	70
E.C(us/cm)	205	220	232	248	283	262	262	273	282	303
W.Temp. 0m	8.7		7.5			7.9		6.9		7.6
0.5m	8.7		7.6			7.8		6.9		7.3
1m	8.6		7.5			7.6		6.8		7.1
2m	8.3		7.3			7.5		6.6		6.9
3m			6.8					6.3		6.8
4m			6.8					6.1		6.8
5m								6.1		
6m								6.1		
bot.	8.0					7.4				
DO(mg/l)0m	13.8		13.7			12.8		14.7		12.7
0.5m	14.5		13.9			12.6		14.6		12.2
1m	14.3		13.9			12.4		14.5		12.0
2m	14.2		13.5			12.3		14.6		12.1
3m			13.3					14.7		11.8
4m			10.6					14.5		11.4
5m								14.1		
6m								13.5		
bot.	13.9					12.1				
L.I. air			154.4			272.1		319.2		484.9
($\mu E/m^2/s$) 0m			144.4			313.2		357.8		459.5
0.25m			62.6			85.5		188.9		235.8
0.5m			29.4			22.2		110.9		122.2
0.75m			14.5			7.5		55.9		60.2
1m			7.9			2.8		27.6		34.9
1.5m						0.4		10.8		11.1
2m			1.3					4.1		5.4
3m			0.2					0.7		0.9
4m										
5m										
pH 0m	9.15		9.25			8.56		8.62		8.14
0.5m	9.29		9.46			8.67		8.62		8.10
1m	9.31		9.46			8.58		8.65		8.11
2m	8.94		9.31			8.47		8.59		8.10
3m			8.81					8.49		8.15
4m			8.48					8.39		8.10
5m								8.30		
6m										
bot.	8.79					8.4		8.2		
PO_4-P ug/l	5	3	1	1	15	5	2	2	2	1
DTP ug/l	21	21	19	17	34	21	18	18	17	17
T.P. ug/l	121	144	86	85	131	102	97	105	68	66
NH_4-N ug/l	17	19	17	16	512	62	18	21	47	32
NO_2-N ug/l	24	16	10	7	35	12	4	3	4	4
NO_3-N ug/l	1712	1204	827	597	1,663	842	321	354	372	359
TN ug/l	2,878	2,192	1,544	1,277	3,030	1,601	1,525	1,144	1,353	1,048
D-COD mg/l	2.8	3.0	3.2	4.5				3.5		
T-COD mg/l	5.7	6.3	6.2	6.1		6.4	6.0	4.9	5.6	5.8
Chl-a ug/l	66	59	51	54	38	40	39	41	37	34
Phyco.ug/l	1	1	1	1	1	1	1	1	1	1
SSdw mg/l	21.0	18.0	14.8	13.5	22.6	38.6		13.5	12.1	15.3
DOC mg/l	2.3	2.6	2.7			2.6		2.9		2.9
POC mg/l	3.66	3.25	3.09	2.59	2.40	2.65	2.26	2.33	2.37	2.40
PON ug/l	694	623	593	522	492	501	447	482	461	437
C/N	5.28	5.22	5.21	4.96	4.89	5.28	5.06	4.83	5.15	5.49
Het.B /ml										
GP($gC/m^2/d$)			0.70			0.19		0.19		0.17

1994/04/06

	St.1	St.2	St.3	St.4	St.6	St.7	St.8	St.9	St.11	St.12
Time	11:49	12:20	12:29	12:55	13:50	13:28	13:15	10:39	10:28	10:02
Depth (m)	2.5	3.8	3.9	5.7	5.0	3.1	5.1	5.7	5.3	3.8
Transp(cm)	80	70	80	80	80	70	80	90	100	80
E.C(us/cm)	185	200	220	260	258	253	262	273	280	312
W.Temp. 0m	16.0		15.3			15.5		15.5		14.5
0.5m	15.9		14.9			15.4		13.2		14.5
1m	15.8		14.3			15.4		12.6		14.1
2m	14.7		13.5			15.4		12.2		13.3
3m			12.5			13.3		12.1		11.6
4m								11.2		
5m								11.1		
6m										
bot.	14.4		12.1			13.3		11.0		11.5
DO(mg/l)0m										
0.5m										
1m										
2m										
3m										
4m										
5m										
6m										
bot.										
L.I. air			1,424.0			1,324.0		1,500.0		1,340.0
(uE/m²/s) 0m			1,678.0			1,418.0		1,676.0		1,713.0
0.25m			708.0			380.0		788.0		711.0
0.5m			350.0			125.0		383.0		319.0
0.75m			186.0			61.0		192.0		162.0
1m			94.7			23.3		83.5		81.2
1.5m			27.6			3.7		23.0		22.2
2m			8.1			0.8		6.7		6.5
3m			0.7					0.7		0.5
4m										
5m										
pH 0m	9.88		10.24			9.37		9.50		9.56
0.5m	9.88		10.36			9.56		9.84		9.62
1m	9.89		10.39			9.59		9.85		9.55
2m	9.54		10.20			9.60		9.68		9.30
3m			9.77			8.39		9.60		8.41
4m								9.01		
5m								8.93		
6m										
bot.	9.33		9.54			8.24		8.61		8.06
PO_4-P ug/l	4	3	2	2	2	3	1	1	1	1
DTP ug/l	20	18	17	13	17	17	17	12	12	12
T.P. ug/l	136	143	128	98	102	97	76	87	63	75
NH_4-N ug/l	34	26	28	14	25	18	16	21	24	30
NO_2-N ug/l	36	27	22	9	26	15	6	3	5	1
NO_3-N ug/l	1824	1199	679	155	1,457	750	131	10	53	3
TN ug/l	2,911	2,465	2,102	1,465	2,632	1,695	1,165	1,193	1,137	1,137
D-COD mg/l	3.2	3.4	3.4	3.9				3.7		
T-COD mg/l	6.7	7.8	8.2	9.0		7.4	8.3	8.5	8.3	9.3
Chl-a ug/l	60	66	77	71	69	61	63	61	48	51
Phyco.ug/l										
SSdw mg/l	20.5	21.7	21.5	19.5	21.4	28.6	19.7	22.3	14.9	20.5
DOC mg/l	2.3	2.7	2.6			2.5		3.0		3.2
POC mg/l	4.19	4.68	5.47	5.24	4.18	3.79	4.28	4.86	4.26	4.84
PON ug/l	672	781	893	861	689	640	701	794	663	714
C/N	6.22	5.99	6.12	6.09	6.06	5.93	6.10	6.13	6.43	6.78
Het.B /ml										
GP(gC/m²/d)			2.25			1.08		1.38		1.21

1994/05/11

	St.1	St.2	St.3	St.4	St.6	St.7	St.8	St.9	St.11	St.12
Time	12:15	12:45	13:00	13:30	14:55	14:45	14:25	10:55	10:40	10:05
Depth (m)	2.4		3.7					5.5		3.9
Transp(cm)	50	55	70	80	60	70	90	120	110	120
E.C(us/cm)	227	232	242	283	298	283	278	283	290	344
W.Temp. 0m	20.5		19.3					18.3		18.5
0.5m	20.5		19.3					18.3		18.5
1m	20.5		19.3					18.3		18.5
2m	20.5		19.3					18.3		18.5
3m			19.3					18.3		18.5
4m			19.2					18.3		18.5
5m								18.3		
6m								18.2		
bot.										
DO(mg/l)0m	11.2		10.3					9.4		9.4
0.5m	11.0		10.6					9.1		9.4
1m	10.2		10.5					8.7		9.5
2m	8.6		10.3					8.1		9.8
3m			9.5					7.9		9.8
4m			9.4					7.8		10.0
5m								7.6		
6m								7.6		
bot.										
L.I. air	720.0		740.0					1,270.0		1,800.0
(uE/m²/s) 0m	540.0		450.0					810.0		1,150.0
0.25m	100.0		180.0					370.0		660.0
0.5m	25.0		75.0					180.0		360.0
0.75m	7.0		35.0					120.0		240.0
1m	1.7		17.0					58.0		140.0
1.5m	0.1		2.9					23.0		53.0
2m			0.6					9.2		21.0
3m								1.3		3.6
4m										
5m										
pH 0m	10.18		10.00					9.59		9.30
0.5m	10.17		10.00					9.59		9.31
1m	10.18		10.00					9.59		9.30
2m	10.18		10.01					9.60		9.27
3m			9.99					9.51		9.26
4m			9.98					9.51		9.26
5m								9.47		
6m										
bot.								9.43		
PO_4-P ug/l	4	3	1	1	2	1	1	1	1	0
DTP ug/l	25	20	16	14	16	13	11	13	11	10
T.P. ug/l	203	164	133	119	144	105	84	108	70	65
NH_4-N ug/l	37	22	14	15	20	12	13	12	21	21
NO_2-N ug/l	0	0	0	0	11	0	0	0	0	0
NO_3-N ug/l	3	3	3	1	120	0	0	0	2	3
TN ug/l	1,069	1,395	1,117	978	1,521	953	877	928	852	802
D-COD mg/l	3.6	3.4	3.0	3.3				3.2		
T-COD mg/l	11.4	9.8	8.4	8.1		8.1	7.0	7.9	6.7	7.4
Chl-a ug/l	153	110	87	65	124	64	54	63	48	35
Phyco. ug/l	64	54	44	30	89	33	27	40	23	14
SSdw mg/l	47.0	39.6	29.4	23.8	40.0	33.5	20.6	18.8	17.9	17.5
DOC mg/l	3.2	3.1	3.0			3.2		3.0		3.0
POC mg/l	8.62	6.59	5.85	4.72	5.49	4.19	3.75	4.56	3.84	3.96
PON ug/l	1,471	1,114	930	802	1050	738	618	763	625	571
C/N	5.86	5.91	6.29	5.88	5.22	5.68	6.06	5.98	6.15	6.95
Het.B /ml										
GP(gC/m²/d)			5.64			0.32		0.34		0.51

1994/06/08

	St.1	St.2	St.3	St.4	St.6	St.7	St.8	St.9	St.11	St.12
Time	14:20	12:45	13:00	13:25	14:20	14:00	13:45	11:00	10:46	10:05
Depth (m)										
Transp(cm)	60	70	75	75	65	60	65	80	70	85
E.C(us/cm)	230	268	277	322	326	298	300	320	323	360
W.Temp. 0m	23.0		23.0			22.6		22.0		21.6
0.5m	22.9		22.7			22.6		21.8		21.4
1m	23.0		22.7			22.6		21.7		21.1
2m	21.9		22.5			22.6		21.0		20.9
3m			21.4					20.9		20.7
4m			21.3					20.9		
5m								20.9		
6m										
bot.	21.6					22.5		20.9		20.7
DO(mg/l)0m	11.4		11.5			8.3		10.2		9.4
0.5m	12.0		11.3			8.4		11.0		9.7
1m	13.4		11.4			8.3		11.7		9.7
2m	9.0		8.9			8.2		9.3		8.8
3m			8.1					9.1		8.6
4m			8.0					8.9		
5m								8.5		
6m										
bot.	8.3					7.6		7.5		7.4
L.I. air			2,191.0			1,577.0		2,534.0		2,200.0
(uE/m²/s) 0m			1,598.0			1,181.0		1,940.0		1,692.0
0.25m			715.0			283.0		900.0		950.0
0.5m			305.0			140.0		530.0		420.0
0.75m			133.0			67.0		300.0		270.0
1m			68.0			23.0		160.0		140.0
1.5m			18.0			4.5		51.0		49.0
2m			4.2			0.8		20.0		17.0
3m								2.4		2.2
4m										
5m										
pH 0m								7.75		8.93
0.5m								7.87		8.97
1m								7.95		8.99
2m								7.63		8.72
3m								7.50		8.73
4m								7.45		
5m								7.41		
6m										
bot.								7.41		8.67
PO4-P ug/l	14	30	33	23	14	2	2	1	3	1
DTP ug/l	32	46	46	33	36	16	15	13	15	13
T.P. ug/l	162	162	147	138	144	107	96	101	103	85
NH4-N ug/l	19	18	20	16	377	14	20	13	24	19
NO2-N ug/l	1	1	0	0	25	0	0	0	0	0
NO3-N ug/l	14	0	1	0	704	0	5	1	3	2
TN ug/l	1,319	1,183	1,159	1,208	2,036	964	894	1,008	958	1,046
D-COD mg/l	5.0	4.2	3.7	3.9				3.5		
T-COD mg/l	9.8	8.8	8.5	8.8		7.5	7.5	8.9	9.1	8.8
Chl-a ug/l	100	73	68	68	59	53	50	58	52	47
Phyco.ug/l	81	68	69	63	33	59	40	37	56	39
SSdw mg/l	28.6	23.2	22.6	18.6	23.2	27.7	20.3	17.7	17.4	18.7
DOC mg/l	4.1	3.6	3.4			3.4		3.1		3.2
POC mg/l	6.33	5.71	6.02	5.50	4.01	4.07	4.43	5.61	5.25	5.26
PON ug/l	986	889	901	810	734	682	665	781	671	692
C/N	6.42	6.42	6.67	6.79	5.47	5.98	6.66	7.19	7.82	7.60
Het.B /ml										
GP(gC/m²/d)			1.55			1.22		1.56		1.44

1994/07/06

	St.1	St.2	St.3	St.4	St.6	St.7	St.8	St.9	St.11	St.12
Time	12:00	12:30	12:40	13:10	15:50	15:50	12:25	10:45	10:33	10:10
Depth (m)										
Transp(cm)	70	70	90	75		70	85	90	85	85
E.C(us/cm)	235	264	290	325	318	312	315	345	394	392
W.Temp. 0m	29.0		27.2			28.3		25.6		25.0
0.5m	29.1		27.2					25.5		24.5
1m	28.9		27.0					25.5		24.8
2m	28.6		26.8					25.2		24.1
3m	28.2		26.1					24.9		22.2
4m			24.4					23.8		21.9
5m								22.6		
6m								22.1		
bot.										
DO(mg/l)0m	13.1		12.6			10.1		12.0		10.3
0.5m	12.5		12.6					12.4		9.8
1m	12.8		12.8					12.4		9.9
2m	12.3		12.5					12.1		9.2
3m	10.4		10.3					11.4		5.3
4m			3.1					8.1		3.7
5m								1.9		
6m								1.3		
bot.										
L.I. air	2,641.0		2,766.0					2,800.0		1,909.0
($uE/m^2/s$) 0m	2,000.0		2,422.0			430.0		2,000.0		1,890.0
0.25m	1,040.0		1,070.0					1,200.0		1,005.0
0.5m	380.0		635.0			62.0		580.0		604.0
0.75m	189.0		390.0					443.0		351.0
1m	98.0		245.0			28.0		303.0		198.0
1.5m	22.7		89.0					147.0		86.0
2m			26.0					68.0		26.8
3m								17.4		
4m										
5m										
pH 0m	9.39		9.30			9.18		9.11		8.84
0.5m	9.40		9.32					9.11		8.83
1m	9.39		9.32					9.10		8.81
2m	9.30		9.29					9.02		8.55
3m	9.10		8.89					8.88		7.33
4m			7.54					8.01		7.20
5m								7.12		
6m										
bot.								7.05		
PO_4-P ug/l	3	24	25	21	3	2	1	6	1	0
DTP ug/l	29	44	41	37	24	21	17	24	17	15
T.P. ug/l	133	123	117	119	108	90	72	82	82	81
NH_4-N ug/l	13	16	11	13	31	10	10	13	26	16
NO_2-N ug/l	0	0	0	0	25	0	0	0	0	0
NO_3-N ug/l	1	0	0	0	350	4	1	1	1	1
TN ug/l	1,328	1,056	1,030	1,121	1,575	945	861	952	1,030	1,030
D-COD mg/l	5.0	4.9	4.6	4.6				4.0		
T-COD mg/l	12.0	10.4	10.0	10.5		9.0	8.3	9.5	13.1	10.0
Chl-a ug/l	87	62	61	55	79	44	40	44	51	57
Phyco.ug/l	91	42	26	23	53	35	28	18	15	26
SSdw mg/l	25.1	17.8	15.8	14.6	22.6	18.7	15.4	12.7	13.1	13.7
DOC mg/l	3.9	3.7	3.5			3.4		3.3		3.3
POC mg/l	7.05	5.44	5.51	5.68	3.91	3.90	4.79	4.85	5.20	5.21
PON ug/l	942	723	727	765	746	633	657	671	692	716
C/N	7.49	7.53	7.57	7.43	5.25	6.16	7.29	7.23	7.51	7.28
Het.B /ml										
GP($gC/m^2/d$)			1.16			1.08		2.49		2.46

1994/08/10

	St.1	St.2	St.3	St.4	St.6	St.7	St.8	St.9	St.11	St.12
Time	12:00	12:30	12:40	13:10	14:00	13:40	13:30	10:40	10:30	10:05
Depth (m)										
Transp(cm)	45	50	65	75	30	55	70	85	90	80
E.C(us/cm)	286	302	323	348	335	334	337	362	362	414
W.Temp. 0m	31.6		31.1			31.2		30.5		29.7
0.5m	31.6		31.1			31.2		30.5		29.7
1m	31.4		31.0			31.2		30.5		29.6
2m	30.9		31.0			31.2		30.2		29.4
3m			30.2			30.9		29.9		29.2
4m			30.1					29.8		29.1
5m								29.8		
6m								29.8		
bot.										
DO(mg/l)0m	8.4		9.1			6.1		8.8		9.4
0.5m	8.4		9.1			6.0		8.9		9.5
1m	7.8		9.0			6.0		8.8		9.3
2m	4.5		8.8			5.9		7.7		7.9
3m			5.6			5.3		6.3		6.3
4m			5.1					5.8		5.5
5m								5.5		
6m								5.2		
bot.										
L.I. air			2,750.0			670.0		2,700.0		2,150.0
(uE/m²/s) 0m			1,760.0			360.0		1,700.0		1,650.0
0.25m			770.0			290.0		900.0		920.0
0.5m			380.0			21.0		480.0		460.0
0.75m			140.0			7.0		270.0		260.0
1m			75.0			6.7		150.0		160.0
1.5m			15.3			0.9		32.0		47.0
2m			3.3					10.8		13.5
3m			0.2					1.7		1.8
4m										
5m										
pH 0m	8.71		8.86			8.06		8.78		8.64
0.5m	8.68		8.85			8.05		8.79		8.76
1m	8.62		8.83			8.05		8.78		8.76
2m	8.03		8.84			8.03		8.63		8.52
3m			8.50			7.85		8.41		8.03
4m			8.09					8.32		7.84
5m								8.25		
6m										
bot.								8.17		
PO_4-P ug/l	20	16	10	17	22	28	15	24	18	22
DTP ug/l	225	256	262	146	71	116	138	117	102	73
T.P. ug/l	370	370	370	229	370	164	199	176	170	138
NH_4-N ug/l	29	14	14	11	23	20	15	25	41	20
NO_2-N ug/l	0	0	0	0	0	12	5	0	0	0
NO_3-N ug/l	2	0	0	0	3	40	8	0	2	4
TN ug/l	1,580	1,444	1,332	1,145	1,972	1,153	1,013	1,115	1,166	1,051
D-COD mg/l	5.8	5.3	5.1	5.3				4.8		
T-COD mg/l	13.1	13.2	10.6	10.5		8.6	8.3	10.4	9.9	10.4
Chl-a ug/l	131	128	99	95	352	43	45	78	73	75
Phyco.ug/l	301	195	312	101	1286	75	42	32	72	44
SSdw mg/l	39.8	28.1	21.9	17.2	66.6	24.8	18.4	15.2	16.7	17.0
DOC mg/l	5.2	5.2	4.9			4.2		4.0		4.2
POC mg/l	8.54	7.35	6.47	5.49	22.35	2.80	2.49	4.76	5.64	5.45
PON ug/l	1,428	1,102	1,024	898	4096	552	480	768	860	796
C/N	5.98	6.67	6.32	6.12	5.50	5.06	5.18	6.20	6.56	6.85
Het.B /ml										
GP(gC/m²/d)			3.12			0.61		1.70		2.07

1994/09/07

	St.1	St.2	St.3	St.4	St.6	St.7	St.8	St.9	St.11	St.12
Time	12:00	12:35	12:45	13:10	14:00	13:40	13:30	10:50	10:40	10:10
Depth (m)										
Transp(cm)	40	60	75	85	45	55	85	80	80	85
E.C(us/cm)	273	304	346	367	340	337	348	370	387	433
W.Temp. 0m	28.5		28.1			28.1		27.7		26.9
0.5m	28.4		28.1			28.6		27.7		27.0
1m	28.3		28.0			28.3		27.6		27.0
2m	28.1		27.6			27.8		27.4		26.9
3m			27.5					27.4		26.9
4m								27.4		
5m								27.4		
6m										
bot.	28.0		27.5			27.6		27.3		26.9
DO(mg/l)0m	5.6		7.7			8.4		7.9		7.6
0.5m	5.3		7.7			9.5		7.9		7.6
1m	4.9		7.7			9.7		7.5		7.6
2m	5.2		5.9			6.7		7.1		7.3
3m			5.3					6.9		7.2
4m								6.8		
5m								6.7		
6m										
bot.	4.8		5.0			6.5		5.9		7.0
L.I. air			1,648.0			1,889.0		2,278.0		1,828.0
(uE/m²/s) 0m			1,234.0			1,310.0		1,674.0		1,372.0
0.25m			606.0			425.8		858.0		550.0
0.5m			314.0			209.1		489.0		330.0
0.75m			181.0			82.4		249.0		155.0
1m			91.7			33.1		128.0		90.8
1.5m			22.4			5.7		50.3		29.2
2m			6.9			1.2		18.4		8.2
3m								2.0		0.8
4m										
5m										
pH 0m	8.65		8.84			9.09		8.79		8.83
0.5m	8.57		8.84			9.24		8.76		8.80
1m	8.49		8.83			9.26		8.67		8.80
2m	8.61		8.47			8.71		8.56		8.78
3m			8.26					8.51		8.75
4m								8.50		
5m								8.47		
6m										
bot.	8.56		8.22			8.74		8.33		8.69
PO_4-P ug/l	52	39	17	15	28	20	21	23	22	24
DTP ug/l	187	174	129	58	46	39	37	45	45	32
T.P. ug/l	342	284	226	148	174	123	103	97	103	97
NH_4-N ug/l	257	277	12	16	19	15	15	19	21	24
NO_2-N ug/l	3	2	0	0	1	0	0	0	0	0
NO_3-N ug/l	13	7	0	0	22	0	0	0	3	1
TN ug/l	2,194	1,683	1,297	1,159	1,614	1,090	924	952	1,021	1,062
D-COD mg/l	7.8	7.0	6.2	6.2				6.0		
T-COD mg/l	13.8	11.6	10.4	10.7		12.0	10.1	10.4	10.7	12.2
Chl-a ug/l	103	68	58	55	120	65	39	45	71	54
Phyco.ug/l	143	86	53	21	78	9	1	13	19	1
SSdw mg/l	40.0	19.7	19.2	19.0	32.8	29.2	22.2	21.9	22.1	24.6
DOC mg/l	5.4	5.1	5.1			4.5		4.5		4.6
POC mg/l	8.14	4.63	4.86	4.30	6.85	5.25	3.71	4.73	5.06	5.09
PON ug/l	1,451	877	770	643	1278	704	512	605	631	616
C/N	5.61	5.29	6.32	6.68	5.36	7.46	7.25	7.82	8.01	8.26
Het.B /ml										
GP(gC/m²/d)			1.54			1.72		2.41		1.71

1994/10/12

	St.1	St.2	St.3	St.4	St.6	St.7	St.8	St.9	St.11	St.12
Time	12:10	15:50	13:00	13:20	14:15	13:55	13:40	:00	11:00	10:25
Depth (m)	2.6		3.9			3.0		5.9		4.0
Transp(cm)	70	85	90	110	105	75	90	115	110	95
E.C(us/cm)	188	247	282	293	288	253	327	360	345	362
W.Temp. 0m	20.9		21.3			21.0		21.2		21.0
0.5m	20.8		21.2			21.0		21.2		21.0
1m	20.8		21.2			21.0		21.1		21.0
2m	20.7		21.1			20.9		21.1		21.0
3m			21.0					21.1		20.9
4m								21.1		
5m								21.1		
6m										
bot.	20.4		21.0			20.8		21.1		20.9
DO(mg/l)0m	10.2		10.2			8.6		8.4		8.9
0.5m	9.9		10.1			9.1		8.3		8.8
1m	9.9		10.0			9.0		8.3		9.0
2m	9.2		9.7			8.4		8.2		8.9
3m			8.5			8.3		8.1		8.9
4m								8.0		
5m								7.9		
6m										
bot.	8.6		8.4					7.7		8.6
L.l. air			449.0			321.3		456.0		
(uE/m²/s) 0m			301.7			205.5		286.6		448.2
0.25m			154.8			91.9		164.5		232.8
0.5m			80.2			32.1		98.9		122.5
0.75m			45.2			14.7		61.0		61.6
1m			26.6			5.5		39.2		33.9
1.5m			9.1			1.3		15.4		12.8
2m			3.3			0.3		7.4		4.3
3m			0.4					1.5		0.6
4m								0.4		
5m										
pH 0m	8.76		9.20			8.16		8.36		8.93
0.5m	8.68		9.14			8.63		8.39		8.98
1m	8.65		9.15			8.53		8.39		8.92
2m	8.13		9.03			8.22		8.41		8.91
3m			8.62			8.11		8.35		8.88
4m								8.25		
5m								8.19		
6m										
bot.	7.78		8.48					8.12		8.8
PO_4-P ug/l	17	17	20	19	13	15	17	20	15	18
DTP ug/l	23	22	23	23	31	20	23	28	21	20
T.P. ug/l	105	100	91	103	88	90	100	85	91	92
NH_4-N ug/l	39	71	21	107	96	58	44	95	109	31
NO_2-N ug/l	48	117	178	161	37	23	3	11	1	1
NO_3-N ug/l	1775	936	553	523	1,809	790	27	16	8	1
TN ug/l	2,506	1,880	1,502	1,589	2,360	1,500	938	893	923	923
D-COD mg/l	3.1	4.5	6.7	5.3				5.1		
T-COD mg/l	5.9	7.6	8.0	8.0		6.3	8.5	8.3	7.8	6.9
Chl-a ug/l	71	72	74	65	30	43	81	63	60	61
Phyco.ug/l	1	1	1	1	1	1	9	1	1	1
SSdw mg/l	19.6	22.1	18.4	14.8	13.3	26.0	14.1	11.4	13.7	17.4
DOC mg/l	1.8	3.0	3.6			2.7		4.0		3.9
POC mg/l	3.74	3.54	3.43	2.98	1.79	2.52	3.61	3.03	3.17	3.77
PON ug/l	613	608	564	541	310	448	664	512	547	589
C/N	6.10	5.83	6.08	5.50	5.78	5.63	5.44	5.91	5.79	6.40
Het.B /ml										
GP(gC/m²/d)			0.80			0.48		0.76		0.32

1994/11/09

	St.1	St.2	St.3	St.4	St.6	St.7	St.8	St.9	St.11	St.12
Time	12:00	12:30	12:40	13:05	14:00	13:40	13:25	10:55	10:40	10:15
Depth (m)	2.4		3.7			2.7		5.6		3.6
Transp(cm)	75	70	95	95	70	60	80	105	105	90
E.C(us/cm)	242	210	290	343	295	290	295	346	359	393
W.Temp. 0m	15.9		15.3			15.7		15.3		13.7
0.5m	15.8		15.2			14.5		15.0		13.7
1m	14.2		14.1			14.0		14.4		13.7
2m	12.1		13.8			13.7		14.2		13.7
3m			13.7			13.6		14.1		13.5
4m			13.7					14.1		13.4
5m								14.1		
6m								14.1		
bot.										
DO(mg/l)0m	10.6		12.2			12.3		10.3		10.0
0.5m	10.6		12.1			12.7		10.1		10.0
1m	11.2		12.2			11.8		10.3		10.1
2m	10.0		11.0			11.2		10.0		10.2
3m			10.6			10.6		9.2		10.8
4m			10.4			9.2		9.4		9.6
5m								8.9		
6m										
bot.										
L.I. air			1,990.0			1,600.0		1,840.0		1,860.0
(uE/m²/s) 0m			1,170.0			820.0		1,220.0		1,030.0
0.25m			610.0			300.0		850.0		580.0
0.5m			270.0			93.0		440.0		330.0
0.75m			125.0			39.0		240.0		180.0
1m			58.0			171.0		140.0		89.0
1.5m			18.0			3.5		48.0		32.0
2m			6.8					17.5		11.0
3m								6.8		
4m										
5m										
pH 0m	8.57		9.38			9.40		8.74		8.80
0.5m	8.60		9.46			9.39		8.76		8.81
1m	8.77		9.39			9.23		8.80		8.81
2m	7.80		9.11			9.00		8.59		8.80
3m			9.02			8.89		8.40		8.70
4m			8.97					8.32		8.58
5m								8.27		
6m										
bot.								8.24		
PO_4-P ug/l	5	6	2	6	4	3	3	1	1	1
DTP ug/l	21	21	19	23	17	18	15	15	17	15
T.P. ug/l	122	114	100	110	99	103	95	88	81	88
NH_4-N ug/l	87	160	20	134	36	24	17	28	113	23
NO_2-N ug/l	56	59	54	11	27	15	8	5	2	1
NO_3-N ug/l	1659	1039	279	55	1,306	385	158	12	3	3
TN ug/l	2,640	2,198	1,401	1,257	2,115	1,367	1,076	1,048	1,062	993
D-COD mg/l	3.5	2.8	4.3	4.9				4.8		
T-COD mg/l	6.2	6.4	7.7	8.3		7.6	7.5	8.9	8.0	9.0
Chl-a ug/l	51	70	84	69	53	62	63	68	63	61
Phyco.ug/l	1	1	30	20	1	1	1	45	1	1
SSdw mg/l	25.7	24.2	15.7	13.8	20.3	25.3	19.7	13.6	12.2	17.1
DOC mg/l	2.3	2.9	3.8			3.2		4.3		4.3
POC mg/l	4.04	3.38	3.96	3.82	3.10	3.54	3.38	4.10	3.56	3.95
PON ug/l	587	547	660	669	516	592	573	653	576	569
C/N	6.88	6.19	6.00	5.71	6.01	5.98	5.90	6.27	6.18	6.95
Het.B /ml										
GP(gC/m²/d)			0.89			1.05		1.22		0.54

1994/12/07

	St.1	St.2	St.3	St.4	St.6	St.7	St.8	St.9	St.11	St.12
Time	12:00	12:30	12:40	13:10	14:00	13:40	13:30	11:00	10:50	10:20
Depth (m)	2.5		3.9			3.1		6.4		4.2
Transp(cm)	60	65	60	75	70	70	85	100	80	65
E.C(us/cm)	243	290	312	322	326	312	332	368	355	412
W.Temp. 0m	8.9		9.7			9.5		10.1		9.7
0.5m	8.8		9.7			9.5		10.1		9.7
1m	8.8		9.7			9.5		10.1		9.7
2m	8.7		9.7			9.5		10.0		9.5
3m			9.7			9.5		10.0		9.5
4m			9.7					10.0		9.5
5m								10.0		
6m								9.9		
bot.										
DO(mg/l)0m	10.8		10.4			10.9		10.4		10.2
0.5m	9.7		10.4			11.0		10.3		10.3
1m	9.7		10.2			11.0		10.3		10.2
2m	9.6		10.2			11.0		10.2		10.2
3m			10.2			11.0		10.2		10.1
4m			10.1					10.1		10.1
5m								10.0		
6m								10.0		
bot.										
L.I. air			1,468.0			1,197.0		1,628.0		1,103.0
(uE/m^2/s) 0m			1,033.0			800.0		1,096.0		840.0
0.25m			308.0			130.0		738.0		371.0
0.5m			101.0			63.0		300.0		170.0
0.75m			60.0			25.0		187.0		100.0
1m			27.0			12.0		122.0		60.0
1.5m			5.0			4.5		50.0		18.0
2m						0.6		25.0		6.1
3m								4.8		
4m										
5m										
pH 0m	7.69		8.27			8.90		8.33		8.38
0.5m	7.68		8.28			8.88		8.35		8.36
1m	7.58		8.32			8.89		8.32		8.38
2m	7.57		8.33			8.88		8.32		8.31
3m			8.33			8.88		8.31		8.34
4m			8.33					8.32		8.34
5m								8.32		
6m										
bot.								8.32		
PO_4-P ug/l	13	13	5	5	3	2	1	1	1	1
DTP ug/l	33	33	21	25	16	14	12	11	11	13
T.P. ug/l	108	119	114	116	132	76	74	60	68	90
NH_4-N ug/l	195	133	54	83	10	16	12	9	24	21
NO_2-N ug/l	43	28	20	17	18	13	3	0	0	0
NO_3-N ug/l	1243	477	221	201	866	293	5	3	5	4
TN ug/l	2,261	1,754	1,288	1,411	1,493	1,055	959	822	849	822
D-COD mg/l	3.0	4.5	4.3	4.8				4.6		
T-COD mg/l	5.4	7.4	7.3	8.5		7.0	8.0	7.7	7.6	7.7
Chl-a ug/l	29	28	47	47	51	39	47	35	32	29
Phyco.ug/l	1	1	14	15	7	9	31	18	19	13
SSdw mg/l	27.6	26.5	24.4	16.9	23.7	24.9	11.9	10.8	13.1	20.1
DOC mg/l	2.3	3.5	3.7			3.3		3.9		3.8
POC mg/l	2.75	4.09	4.39	3.96	3.72	3.46	3.30	3.09	3.25	3.33
PON ug/l	406	752	754	720	612	559	572	527	500	516
C/N	6.79	5.45	5.83	5.51	6.08	6.20	5.76	5.86	6.50	6.45
Het.B /ml										
GP(gC/m^2/d)			0.54			0.47		0.80		0.41

1995/01/11

	St.1	St.2	St.3	St.4	St.6	St.7	St.8	St.9	St.11	St.12
Time	12:25	13:00	13:10	13:40	14:30	14:10	14:00	11:10	11:00	10:35
Depth (m)										
Transp(cm)	40	50	60	80	60	70	90	110	110	100
E.C(us/cm)	237	285	316	322	342	320	333	365	362	385
W.Temp. 0m	6.1		6.7			5.9		5.6		5.6
0.5m	5.8		6.3			5.9		5.4		5.6
1m	5.8		6.4			5.9		5.4		5.6
2m	5.5		5.6			5.8		5.4		5.6
3m			5.4			5.6		5.4		5.6
4m								5.3		
5m										
6m										
bot.	5.4		5.4					5.3		5.6
DO(mg/l)0m	15.1		12.1			13.6		12.6		12.4
0.5m	15.6		12.3			13.7		12.6		12.5
1m	15.7		12.3			13.7		12.7		12.5
2m	14.9		12.0			13.7		12.7		12.6
3m			11.9			13.1		12.7		12.6
4m								12.7		
5m								12.6		
6m										
bot.	14.6		11:8					12.4		12.5
L.I. air			638.0			643.0		1,164.0		1,056.0
(uE/m²/s) 0m			936.0			705.0		981.0		965.0
0.25m			319.0			243.0		475.0		533.0
0.5m			128.0			102.0		347.0		324.0
0.75m			54.0			46.0		250.0		221.0
1m			23.4			24.0		152.0		138.0
1.5m			5.0			6.3		54.0		66.0
2m			1.1			1.8		28.1		33.0
3m								5.8		7.9
4m										
5m										
pH 0m	9.15		8.38			8.71		8.66		8.80
0.5m	9.44		8.54			8.84		8.81		8.92
1m	9.44		8.54			8.84		8.79		8.92
2m	9.36		8.43			8.82		8.82		8.87
3m	9.28		8.34			8.62		8.81		8.90
4m								8.81		
5m								8.78		
6m										
bot.			8.29					8.63		8.92
PO_4-P ug/l	7	5	11	3	4	4	2	2	1	1
DTP ug/l	29	29	37	26	21	20	14	14	14	13
T.P. ug/l	150	158	139	103	106	97	101	69	59	60
NH_4-N ug/l	4	20	122	63	35	49	18	13	18	16
NO_2-N ug/l	34	21	14	133	22	24	5	1	1	0
NO_3-N ug/l	1413	813	483	471	1,241	1121	107	1	3	4
TN ug/l	2,456	1,995	1,576	1,386	2,103	2,051	979	817	803	803
D-COD mg/l	3.1	3.8	4.2	4.3				4.4		
T-COD mg/l	7.8	8.2	7.2	7.2		6.7	7.1	6.9	6.8	7.5
Chl-a ug/l	73	54	25	30	42	45	31	36	33	27
Phyco.ug/l	1	1	1	1	3	2	14	25	22	20
SSdw mg/l	43.7	35.0	26.8	22.0	27.9	21.9	13.8	11.2	9.9	10.2
DOC mg/l	2.4	3.1	3.3			3.0		3.8		3.7
POC mg/l	5.91	5.08	4.15	3.21	3.30	3.16	2.97	3.31	3.16	3.17
PON ug/l	863	778	693	509	539	490	473	504	504	448
C/N	6.84	6.53	5.99	6.32	6.13	6.45	6.28	6.57	6.28	7.07
Het.B /ml										
GP(gC/m²/d)			0.21			0.69		0.32		0.39

1995/02/08

	St.1	St.2	St.3	St.4	St.6	St.7	St.8	St.9	St.11	St.12
Time	12:00	12:30	12:40	13:05	14:00	13:40	13:25	10:50	10:40	10:15
Depth (m)										
Transp(cm)	60	65	75	90	55	60	85	105	95	90
E.C(us/cm)	285	304	323	340	365	350	353	378	373	432
W.Temp. 0m	4.3		4.3			4.8		4.1		4.4
0.5m	4.3		4.3			4.8		4.1		4.3
1m	4.3		4.2			4.8		4.1		4.3
2m	4.3		4.2			4.8		4.1		4.3
3m			4.1			4.7		4.1		4.3
4m			4.1					4.0		4.3
5m								4.0		
6m								4.0		
bot.										
DO(mg/l)0m	17.2		14.1			14.8		14.2		13.4
0.5m	17.2		14.1			14.7		14.0		13.6
1m	17.2		14.1			14.7		14.0		13.7
2m	17.2		14.1			14.6		14.0		13.7
3m			14.1			14.6		13.9		13.7
4m			14.0					13.9		13.7
5m								13.9		
6m								13.8		
bot.										
L.I. air			1,800.0			1,350.0		1,950.0		1,520.0
($uE/m^2/s$) 0m			900.0			740.0		1,250.0		1,130.0
0.25m			350.0			250.0		870.0		580.0
0.5m			210.0			115.0		500.0		285.0
0.75m			140.0			61.0		315.0		182.0
1m			76.0			23.0		195.0		108.0
1.5m			22.5			6.7		83.0		42.0
2m			7.4					33.0		16.5
3m								7.7		
4m										
5m										
pH 0m	9.82		8.94			8.95		8.82		8.75
0.5m	9.84		8.95			8.96		8.83		8.76
1m	9.85		8.97			8.95		8.83		8.77
2m	9.85		8.97			8.95		8.84		8.76
3m			8.95			8.94		8.84		8.76
4m			8.95					8.84		8.73
5m								8.83		
6m										
bot.								8.72		
PO_4-P ug/l	2	2	2	2	3	3	1	1	1	1
DTP ug/l	20	20	20	17	15	13	9	10	10	11
T.P. ug/l	129	103	99	83	107	119	56	63	64	67
NH_4-N ug/l	5	12	31	33	32	8	10	11	14	15
NO_2-N ug/l	18	13	9	8	18	15	3	0	0	0
NO_3-N ug/l	909	710	565	404	1,052	748	11	6	14	6
TN ug/l	2,125	2,068	1,510	1,419	2,198	1,754	1,020	953	993	953
D-COD mg/l	4.0	4.1	4.2	4.6				4.8		
T-COD mg/l	8.9	7.8	6.7	7.9		7.8	7.8	8.0	7.8	8.2
Chl-a ug/l	58	42	31	31	38	37	39	44	43	35
Phyco.ug/l	1	1	1	12	20	25	65	70	85	46
SSdw mg/l	42.9	29.6	17.8	14.8	21.6	18.1	11.9	11.8	11.8	12.4
DOC mg/l	3.2	3.5	3.6			3.5		4.0		4.2
POC mg/l	6.85	4.73	3.71	3.56	3.80	3.98	3.49	3.57	3.74	3.80
PON ug/l	930	651	545	555	639	680	610	558	602	579
C/N	7.37	7.27	6.82	6.42	5.95	5.86	5.73	6.39	6.21	6.56
Het.B /ml										
GP($gC/m^2/d$)			0.57			0.64		0.67		0.48

1995/03/08

	St.1	St.2	St.3	St.4	St.6	St.7	St.8	St.9	St.11	St.12
Time	12:00	12:40	12:45	13:10	14:00	13:45	13:30	10:50	10:45	10:20
Depth (m)										
Transp(cm)	50	60	80	75	50	70	75	90	85	80
E.C(us/cm)	257	298	327	345	338	353	353	372	372	398
W.Temp. 0m	7.9		7.4			7.7		7.3		7.1
0.5m	7.9		7.4			7.7		7.4		7.1
1m	7.9		7.4			7.7		6.9		7.1
2m	7.9		7.4			7.7		6.6		7.0
3m			7.4			7.6		6.6		6.8
4m			7.3					6.5		6.7
5m								6.4		
6m								6.4		
bot.										
DO(mg/l) 0m	16.3		15.1			13.9		14.1		13.3
0.5m	16.2		14.9			13.6		13.8		13.4
1m	16.2		14.6			13.3		13.8		13.3
2m	16.1		14.5			13.2		13.7		13.3
3m			14.5			13.2		13.5		13.1
4m			14.5					13.5		12.9
5m								13.2		
6m								13.1		
bot.										
L.I. air			2,339.0			2,040.0		1,246.0		1,880.0
($uE/m^2/s$) 0m			1,991.0			1,800.0		510.0		1,400.0
0.25m			678.0			624.0		375.0		647.0
0.5m			356.0			257.0		223.0		300.0
0.75m			187.0			134.0		110.0		220.0
1m			105.0			63.0		40.0		140.0
1.5m			38.0			14.3		19.0		62.0
2m			8.6			4.0		11.0		23.0
3m								2.0		4.0
4m										
5m										
pH 0m	9.81		9.41			8.88		8.76		8.72
0.5m	9.81		9.41			8.88		8.79		8.83
1m	9.81		9.43			8.87		8.80		8.84
2m	9.81		9.43			8.87		8.84		8.81
3m			9.43			8.86		8.85		8.76
4m			9.35					8.79		8.69
5m								8.76		
6m										
bot.								8.74		
PO_4-P ug/l	2	2	1	1	4	1	1	0	0	0
DTP ug/l	15	16	14	13	16	12	10	10	10	10
T.P. ug/l	148	157	88	86	71	59	124	57	65	63
NH_4-N ug/l	5	12	10	10	66	11	10	8	19	15
NO_2-N ug/l	24	16	5	3	19	2	0	0	0	0
NO_3-N ug/l	979	642	179	89	981	23	2	0	6	3
TN ug/l	2,413	2,114	1,397	1,310	2,193	1,137	979	1,153	1,058	1,200
D-COD mg/l	3.6	4.3	4.4	4.5				4.7		
T-COD mg/l	9.8	9.6	8.8	8.3		8.7	8.2	8.9	8.8	9.3
Chl-a ug/l	88	77	57	57	46	47	43	50	50	45
Phyco. ug/l	1	16	80	91	50	89	79	146	140	128
SSdw mg/l	42.9	29.6	17.8	14.8	21.6	18.1	11.9	11.8	11.8	12.4
DOC mg/l	3.0	3.4	3.8			3.8		3.9		3.8
POC mg/l	7.67	5.93	5.00	4.56	3.59	3.67	3.71	4.22	4.20	4.09
PON ug/l	1,121	970	796	818	660	700	673	705	656	651
C/N	6.84	6.11	6.28	5.57	5.43	5.24	5.52	5.98	6.41	6.29
Het.B /ml										
GP($gC/m^2/d$)			1.33			0.72		0.97		0.66

1995/04/12

	St.1	St.2	St.3	St.4	St.6	St.7	St.8	St.9	St.11	St.12
Time	11:25	11:55	12:05	12:25	13:20	13:00	12:50	10:45	10:35	10:10
Depth (m)	2.5		4.0			3.1		5.8		4.1
Transp(cm)	60	70	65	70	60	60	70	100	90	80
E.C(us/cm)	236	290	323	353	317	318	357	375	373	408
W.Temp. 0m	13.3		12.8			13.0		12.1		12.5
0.5m	13.4		12.9			13.1		12.0		12.5
1m	13.4		12.9			13.0		12.0		12.4
2m	13.4		12.9			13.0		12.0		12.5
3m			12.9			13.0		12.0		12.4
4m								12.0		12.4
5m								11.9		
6m										
bot.	13.4		12.9			13.0		11.8		12.3
DO(mg/l)0m	11.5		11.9			11.4		11.3		11.4
0.5m	11.8		11.9			11.5		11.4		11.3
1m	11.9		12.0			11.5		11.3		11.2
2m	11.9		12.0			11.5		11.3		11.2
3m			12.0			11.5		11.2		11.0
4m								11.2		10.8
5m								10.7		
6m										
bot.	11.9		12.0			11.2		10.2		10.7
L.I. air			224.6			556.8		351.8		362.8
(uE/m²/s) 0m			244.2			439.2		382.5		351.3
0.25m			84.4			137.4		138.3		118.0
0.5m			22.4			35.5		86.8		60.3
0.75m			7.0			20.3		43.7		24.8
1m			2.3			8.1		25.1		12.8
1.5m			0.6			1.2		9.9		4.8
2m						0.2		3.7		2.6
3m								0.7		0.3
4m										
5m										
pH 0m	9.13		9.18			8.72		8.47		8.60
0.5m	9.13		9.20			8.88		8.66		8.84
1m	9.12		9.19			8.88		8.64		8.84
2m	9.12		9.20			8.87		8.64		8.85
3m			9.20			8.87		8.59		8.81
4m								8.61		8.78
5m								8.44		
6m										
bot.	9.04		9.14			7.71		7.51		8.21
PO_4-P ug/l	4	4	2	2	2	1	1	1	1	1
DTP ug/l	23	20	16	16	17	16	13	14	14	13
T.P. ug/l	155	161	126	136	138	102	87	75	73	74
NH_4-N ug/l	22	24	21	19	35	18	17	17	25	15
NO_2-N ug/l	41	15	5	4	23	17	1	0	0	0
NO_3-N ug/l	1262	529	7	19	971	746	6	1	5	4
TN ug/l	2,711	2,143	1,645	1,319	2,085	1,858	1,091	1,105	1,049	1,091
D-COD mg/l	3.0	3.5	3.4			3.3		3.5		4.2
T-COD mg/l	5.1	5.4	5.0	5.1	4.7	4.5	4.9	4.9	4.9	5.2
Chl-a ug/l	108	121	108	83	90	87	71	54	50	53
Phyco. ug/l	123	191	181	78	10	10	21	45	45	29
SSdw mg/l	31.1	25.9	20.0	17.6	27.9	27.5	23.0	13.1	12.3	17.3
DOC mg/l	3.1	3.8	4.1			3.6		4.4		4.6
POC mg/l	6.21	6.82	5.97	4.80	4.29	4.48	4.29	4.77	4.11	4.81
PON ug/l	1,064	1,221	1,118	888	752	753	743	685	660	731
C/N	5.84	5.58	5.34	5.41	5.71	5.95	5.77	6.96	6.22	6.58
Het.B /ml										
GP(gC/m²/d)			1.18			1.03		1.20		1.01

1995/05/10

	St.1	St.2	St.3	St.4	St.6	St.7	St.8	St.9	St.11	St.12
Time	11:40	12:10	12:25	12:50	13:50	13:25	13:10	10:55	10:45	10:20
Depth (m)	2.5		4.0			2.9		5.8		3.7
Transp(cm)	60	60	75	85	70	70	95	105	85	75
E.C(us/cm)	218	285	308	346	315	332	355	362	392	422
W.Temp. 0m	18.6		18.3			18.7		17.5		17.6
0.5m	18.6		18.4			18.6		17.5		17.6
1m	18.6		18.5			18.6		17.5		17.6
2m	18.4		18.2			18.6		17.5		17.4
3m			17.9			18.5		17.4		16.9
4m			17.8					17.4		16.8
5m								17.4		
6m								16.9		
bot.										20.0
DO(mg/l) 0m	14.2		13.2			11.4		10.0		12.2
0.5m	14.1		13.0			11.4		9.9		12.2
1m	14.2		13.1			11.3		9.8		12.2
2m	13.3		12.7			11.3		9.8		11.7
3m			11.6			10.9		9.7		8.4
4m			10.6					9.4		7.2
5m								9.0		
6m								6.1		
bot.										
L.I. air	1,850.0		2,560.0			2,160.0		1,030.0		861.0
($uE/m^2/s$) 0m	1,080.0		1,520.0			1,100.0		705.0		520.0
0.25m	290.0		730.0			590.0		320.0		258.0
0.5m	110.0		430.0			320.0		182.0		127.0
0.75m	41.0		190.0			160.0		110.0		66.0
1m	18.5		105.0			74.0		64.0		35.0
1.5m	3.5		25.0			19.0		25.0		11.2
2m	0.4		6.7			5.7		9.8		3.6
3m								2.1		
4m										
5m										
pH 0m	9.26		9.26			8.89		8.51		8.97
0.5m	9.26		9.25			8.89		8.52		8.97
1m	9.27		9.26			8.88		8.51		8.98
2m	9.14		9.25			8.88		8.50		8.92
3m			9.13			8.82		8.52		8.39
4m								8.45		8.02
5m								8.37		
6m								7.62		
bot.										
PO_4-P ug/l	2	1	2	1	2	0	0	0	0	0
DTP ug/l	18	18	18	21	19	19	15	16	15	14
T.P. ug/l	145	153	125	120	100	88	77	73	75	67
NH_4-N ug/l	18	18	17	22	552	16	21	25	19	32
NO_2-N ug/l	44	8	0	0	39	11	0	0	0	0
NO_3-N ug/l	728	8	3	3	917	139	2	2	3	3
TN ug/l	2,291	1,664	1,506	1,305	2,742	1,204	1,075	1,132	1,276	1,233
D-COD mg/l	3.5	3.9	3.9			3.5		3.9		4.3
T-COD mg/l	5.9	6.1	6.1	5.4	5.2	5.1	5.2	5.4	5.5	5.9
Chl-a ug/l	134	139	118	86	107	69	46	56	66	71
Phyco. ug/l	24	55	109	127	40	32	65	81	113	87
SSdw mg/l	32.4	47.6	21.4	16.9	22.7	24.4	13.0	12.4	14.4	18.3
DOC mg/l	3.7	4.4	4.6			4.5		4.8		4.7
POC mg/l	6.80	6.95	5.89	4.58	4.72	3.84	3.45	3.43	4.28	4.92
PON ug/l	1,117	1,122	941	773	800	611	583	595	681	710
C/N	6.09	6.19	6.26	5.93	5.91	6.27	5.91	5.77	6.29	6.93
Het.B /ml										
GP($gC/m^2/d$)			1.79			1.60		0.93		0.96

1995/06/07

	St.1	St.2	St.3	St.4	St.6	St.7	St.8	St.9	St.11	St.12
Time	11:10	11:50	12:00	12:25	13:15	13:00	12:45	10:40	10:30	10:00
Depth (m)										
Transp(cm)	60	60	70	70	55	50	55	80	80	70
E.C(us/cm)	192	245	263	322	283	288	298	338	345	382
W.Temp. 0m	20.0		20.6			20.3		20.0		19.8
0.5m	20.0		20.6			20.3		20.0		19.8
1m	20.0		20.6			20.3		20.0		19.8
2m	20.0		20.6			20.3		20.0		19.8
3m			20.6			20.3		20.0		19.8
4m								20.0		
5m								20.0		
6m										
bot.			20.6			20.3		20.0		19.8
DO(mg/l) 0m	8.9		7.5			10.1		8.5		8.8
0.5m	8.8		7.5			9.6		8.4		8.7
1m	8.8		7.5			9.5		8.4		8.7
2m	8.7		7.5			9.5		8.3		8.6
3m			7.4			9.2		8.2		8.5
4m								8.1		
5m								8.1		
6m										
bot.	8.5		7.2			8.7		7.6		8.4
L.I. air			3,223.0			717.0		609.0		400.0
(uE/m²/s) 0m			2,940.0			593.0		565.0		400.0
0.25m			857.0			70.0		180.0		200.0
0.5m			225.0			30.0		70.0		71.0
0.75m			105.0			10.0		40.0		36.0
1m			29.0			1.0		25.0		20.0
1.5m			4.5			0.2		7.0		4.1
2m			0.8			0.0		2.4		1.2
3m			0.1					0.4		0.4
4m										
5m										
pH 0m	8.75		9.32			9.60		9.50		9.23
0.5m	8.76		9.28			9.59		9.47		9.23
1m	8.76		9.29			9.59		9.49		9.25
2m	8.75		9.25			9.58		9.49		9.25
3m			9.23			9.49		9.48		9.25
4m								9.48		
5m								9.49		
6m										
bot.	7.46		7.52			7.81		7.56		8.06
PO4-P ug/l	7	12	21	19	17	3	1	1	0	0
DTP ug/l	25	31	36	36	33	16	12	13	13	12
T.P. ug/l	130	142	136	146	146	143	111	113	101	100
NH4-N ug/l	7	43	342	10	367	16	13	11	12	15
NO2-N ug/l	39	18	11	1	37	9	1 ND		0	0
NO3-N ug/l	921	205	88	2	1,072	133	2	1	1	3
TN ug/l	2,057	1,573	1,729	1,430	2,524	1,445	1,288	1,260	1,232	1,146
D-COD mg/l	4.0	4.1	4.0			3.1		3.7		3.7
T-COD mg/l	5.7	6.7	5.9			6.1		5.8		6.0
Chl-a ug/l	63	82	58	95	77	105	80	65	57	52
Phyco. ug/l	112	465	502	434	199	277	315	162	127	84
SSdw mg/l	32.5	31.3	27.8	20.1	33.8	45.0	34.0	20.6	21.7	25.1
DOC mg/l	4.1	4.6	4.9			3.8		4.2		4.5
POC mg/l	4.36	5.33	5.04	4.84	3.95	5.54	4.57	5.11	4.63	5.18
PON ug/l	734	975	992	936	763	1,056	907	832	799	738
C/N	5.94	5.46	5.09	5.17	5.18	5.24	5.04	6.15	5.79	7.01
Het.B /ml										
GP(gC/m²/d)			0.15			0.08		0.30		0.14

1995/07/12

	St.1	St.2	St.3	St.4	St.6	St.7	St.8	St.9	St.11	St.12
Time	11:40	12:10	12:20	12:40	13:00	13:15	13:30	11:00	10:50	10:25
Depth (m)	2.5		3.9			3.1		6.0		4.0
Transp(cm)	75	80	80	85	75	70	70	90	90	95
E.C(us/cm)	180	202	238	261	251	267	287	328	332	343
W.Temp. 0m	25.1		24.6			25.0		23.8		23.9
0.5m	25.2		24.6			25.0		23.6		23.8
1m	25.2		24.6			25.0		23.6		23.8
2m	25.2		24.4			25.0		23.6		23.8
3m			23.8			23.4		23.5		23.6
4m								23.4		
5m								22.7		
6m										
bot.	25.2		22.8			23.3		22.5		22.0
DO(mg/l)0m	9.9		9.9			10.6		8.8		10.3
0.5m	10.0		10.0			10.7		8.9		10.4
1m	10.0		10.0			10.6		8.9		10.3
2m	9.7		9.3			10.4		8.7		9.7
3m			7.6			3.2		8.1		8.6
4m								7.5		
5m								4.1		
6m										
bot.	9.6		1.9			3.0		3.2		3.3
L.I. air			744.5			507.6		333.3		189.2
($\mu E/m^2/s$) 0m			769.5			567.5		243.0		180.1
0.25m			243.5			177.1		92.2		78.3
0.5m			116.8			78.5		52.9		49.2
0.75m			57.9			34.9		28.9		29.6
1m			29.5			14.5		16.8		19.6
1.5m			6.8			4.5		6.1		6.1
2m			2.0			1.0		2.9		2.3
3m			0.3			0.0		0.4		0.4
4m										
5m										
pH 0m	10.12		10.33			10.09		9.83		10.36
0.5m	10.09		10.34			10.47		9.87		10.34
1m	10.08		10.35			10.45		9.87		10.30
2m	10.01		10.23			10.42		9.79		10.27
3m			9.64			8.54		9.66		10.03
4m								9.39		
5m								8.56		
6m										
bot.	9.95		8.1			8.29		8.11		8.05
PO_4-P ug/l	5	3	2	2	7	2	1	0	1	0
DTP ug/l	24	24	21	21	24	18	16	15	16	15
T.P. ug/l	121	110	114	113	120	99	84	80	76	80
NH_4-N ug/l	54	91	103	79	216	19	43	21	25	28
NO_2-N ug/l	41	26	15	12	48	21	13	1	6	1
NO_3-N ug/l	1663	764	286	217	1,349	285	134	2	8	1
TN ug/l	2,732	1,964	1,490	1,466	2,567	1,381	1,148	1,052	1,066	1,083
D-COD mg/l	3.0	3.5	3.7			3.6		3.7		3.9
T-COD mg/l	6.1	7.2	7.5	7.2	6.8	6.5	7.0	7.1	6.4	6.4
Chl-a ug/l	53	87	84	84	108	83	76	74	75	72
Phyco.ug/l	95	169	221	231	59	114	146	139	115	87
SSdw mg/l	22.9	19.6	19.3	17.1	22.4	22.2	19.9	16.7	14.8	17.1
DOC mg/l	3.1	3.8	3.9			3.7		4.1		4.1
POC mg/l	3.70	4.82	5.05	4.46	3.86	3.70	3.47	4.17	4.32	4.42
PON ug/l	609	877	702	849	738	659	638	698	698	833
C/N	6.08	5.49	7.20	5.25	5.23	5.61	5.44	5.98	6.19	5.31
Het.B /ml										
GP($gC/m^2/d$)			0.63			0.32		0.71		0.69

1995/08/09

	St.1	St.2	St.3	St.4	St.6	St.7	St.8	St.9	St.11	St.12
Time	11:30	12:00	12:10	12:30	13:30	13:05	12:50	10:40	10:30	10:05
Depth (m)	2.4		3.6			2.7		5.5		3.4
Transp(cm)	45	55	55	65	55	45	65	80	75	80
E.C(us/cm)	230	250	262	286	303	290	292	308	327	406
W.Temp. 0m	30.9		30.6			32.1		30.3		29.9
0.5m	30.9		30.5			31.7		30.0		29.9
1m	30.7		29.7			31.4		29.5		29.4
2m	29.8		29.5			30.6		29.1		28.6
3m			29.1			30.2		28.9		28.4
4m			28.9					28.8		
5m								28.8		
6m								28.7		
bot.	2.4		3.6			2.7		5.5		3.4
DO(mg/l)0m	10.4		12.5			12.8		10.8		10.7
0.5m	10.5		12.3			12.4		10.4		10.9
1m	9.7		10.0			10.9		9.8		11.0
2m	7.2		7.2			8.4		6.4		8.8
3m			4.6			6.4		5.6		7.6
4m			2.4					5.1		
5m								4.4		
6m								4.0		
bot.										
L.I. air			1,750.0			2,140.0		2,270.0		1,960.0
(uE/m²/s) 0m			1,290.0			1,185.0		1,550.0		1,320.0
0.25m			630.0			460.0		810.0		750.0
0.5m			240.0			150.0		395.0		420.0
0.75m			95.0			57.0		225.0		230.0
1m			38.0			19.0		130.0		120.0
1.5m			7.5			2.2		42.0		36.0
2m								15.0		9.5
3m										
4m										
5m										
pH 0m	9.36		9.37			9.27		9.17		8.71
0.5m	9.35		9.35			9.25		9.09		9.02
1m	9.36		9.24			9.19		8.99		9.00
2m	9.04		8.90			8.92		8.51		8.68
3m			8.45			8.53		8.27		8.48
4m			8.16					8.11		
5m								7.93		
6m								7.68		
bot.										
PO_4-P ug/l	124	135	118	65	6	12	10	4	2	2
DTP ug/l	135	142	133	85	33	33	28	23	21	15
T.P. ug/l	265	252	200	142	142	132	103	101	97	92
NH_4-N ug/l	12	10	12	13	38	14	16	14	14	19
NO_2-N ug/l	0	0	0	0	17	1	0	0	0	0
NO_3-N ug/l	3	2	3	1	341	16	7	1	2	3
TN ug/l	1,590	1,347	1,271	1,194	2,109	1,140	888	977	1,002	964
D-COD mg/l	5.2	4.9	4.3			4.1		3.9		4.5
T-COD mg/l	12.0	10.8	8.4	7.8	8.4	8.2	6.2	6.6	6.6	6.4
Chl-a ug/l	98	84	97	97	146	86	70	70	58	51
Phyco.ug/l	141	121	129	154	250	137	123	93	116	97
SSdw mg/l	36.6	26.7	26.6	20.7	27.9	37.5	22.4	17.7	15.5	17.9
DOC mg/l	5.2	5.0	4.4			4.3		4.3		4.6
POC mg/l	9.51	7.72	6.96	6.38	6.83	5.50	4.36	5.50	4.65	4.81
PON ug/l	1,336	1,070	1,006	950	1196	844	655	758	671	644
C/N	7.12	7.22	6.92	6.72	5.71	6.52	6.65	7.26	6.92	7.47
Het.B /ml										
GP(gC/m²/d)			1.80			1.13		1.62		0.82

1995/09/06

	St.1	St.2	St.3	St.4	St.6	St.7	St.8	St.9	St.11	St.12
Time	11:26		11:54	12:45	13:39	13:17	13:05	10:40		10:03
Depth (m)										
Transp(cm)	40	55	65	75	40	40	50	80	70	80
E.C(us/cm)	245	273	292	322	308	308	308	327	346	383
W.Temp. 0m	25.7		25.8			25.5		26.0		25.7
0.5m	25.7		26.1			25.5		26.0		25.7
1m	25.7		26.1			25.5		26.0		25.7
2m	25.4		26.1			25.5		26.0		25.7
3m			26.1					26.0		25.6
4m								26.0		25.4
5m								26.0		
6m										
bot.	25.4		26.0			25.4		25.9		25.4
DO(mg/l)0m	10.6		7.0			6.9		8.4		8.8
0.5m	10.5		6.7			6.8		8.4		8.7
1m	10.3		6.7			6.8		8.5		8.7
2m	9.7		6.6			6.8		8.5		8.5
3m			6.5					8.4		8.4
4m								8.3		7.6
5m								7.9		
6m										
bot.	0.2		0.2			0.4		0.2		6.6
L.I. air			2,387.0			1,627.0		885.2		810.3
(uE/m²/s) 0m			1,998.0			1,407.0		718.7		573.2
0.25m			705.2			244.0		189.2		150.2
0.5m			290.7			37.0		86.3		83.8
0.75m			127.5			12.5		67.5		35.1
1m			49.5			3.3		23.6		17.9
1.5m			7.9			0.2		6.2		6.2
2m			1.6					2.1		1.2
3m										
4m										
5m										
pH 0m	8.80		7.90			7.90		8.53		8.64
0.5m	8.89		8.04			7.87		8.54		8.65
1m	8.88		8.01			7.86		8.56		8.64
2m	8.75		7.98			7.87		8.55		8.64
3m			7.94					8.51		8.70
4m								8.52		8.68
5m								8.37		
6m										
bot.	7.28		7.07			7.08		7.08		7.72
PO4-P ug/l	90	116	109	32	28	29	24	11	4	3
DTP ug/l	114	140	131	53	50	45	41	33	23	21
T.P. ug/l	247	240	180	127	153	132	119	119	120	103
NH4-N ug/l	28	247	382	59	23	171	182	17	29	22
NO2-N ug/l	2	8	13	2	17	29	37	1	0	0
NO3-N ug/l	33	31	24	9	18	84	39	1	3	1
TN ug/l	1,965	1,773	1,554	1,272	1,773	1,105	1,066	1,150	1,285	1,054
D-COD mg/l	5.9	5.8	5.6			4.7		4.6		5.1
T-COD mg/l	13.0	10.2	8.5	8.6	9.8	7.9	7.5	8.6	9.3	8.4
Chl-a ug/l	144	109	73	109	114	47	49	92	101	71
Phyco.ug/l	286	220	157	208	187	31	54	168	178	91
SSdw mg/l	45.7	38.0	30.9	30.3	50.1	55.5	35.9	29.1	31.8	31.9
DOC mg/l	5.5	5.4	5.2			4.1		4.7		4.7
POC mg/l	10.30	6.76	4.50	5.30	6.28	3.44	2.99	5.38	5.74	5.04
PON ug/l	1,629	1,196	775	902	1200	540	512	755	822	667
C/N	6.32	5.65	5.81	5.88	5.24	6.37	5.84	7.12	6.99	7.56
Het.B /ml										
GP(gC/m²/d)			0.98			0.41		1.65		0.89

1995/10/04

Time	St.1 11:25	St.2 11:50	St.3 12:00	St.4 12:25	St.6 13:15	St.7 13:00	St.8 12:45	St.9 10:40	St.11 10:30	St.12 10:05
Depth (m)										
Transp(cm)	65	55	60	70	55	50	60	80	90	85
E.C(us/cm)	190	213	262	282	272	268	293	317	325	334
W.Temp. 0m	22.5		22.0			22.2		22.2		22.0
0.5m	22.3		21.9			22.2		22.0		21.9
1m	22.0		21.9			22.0		21.8		22.0
2m	21.7		21.7			21.6		21.6		21.6
3m			21.6			21.5		21.5		21.5
4m								21.5		
5m								21.5		
6m										
bot.	21.6		21.6					21.5		21.5
DO(mg/l)0m	12.1		10.5			9.4		10.6		10.3
0.5m	10.8		10.1			9.5		10.9		10.3
1m	10.5		9.7			8.8		10.4		10.1
2m	9.0		8.2			7.4		8.8		9.4
3m			7.6			6.8		8.2		8.4
4m								7.9		
5m								7.8		
6m										
bot.	8.8		6.6					7.7		8.1
L.I. air	350.2		471.3					770.5		416.0
($\mu E/m^2/s$) 0m	260.7		364.5					557.8		319.0
0.25m	77.5		112.9					299.3		191.0
0.5m	28.0		47.1					172.2		103.6
0.75m	12.8		24.4					76.6		54.3
1m	6.0		13.5					46.1		29.2
1.5m	1.3		3.9					20.4		8.7
2m	0.3		1.1					6.7		3.1
3m			0.7					1.3		0.4
4m										
5m										
pH 0m	8.50		8.39			8.23		8.48		8.62
0.5m	8.50		8.62			8.31		8.85		8.79
1m	8.39		8.59			8.07		8.73		8.77
2m	7.97		8.18			7.53		8.41		8.72
3m			8.02			7.42		8.23		8.37
4m								8.14		
5m								8.08		
6m										
bot.	7.72		7.7					8.04		8.24
PO_4-P ug/l	6	7	2	2	21	8	4	2	2	1
DTP ug/l	28	27	23	23	37	23	20	18	18	17
T.P. ug/l	134	129	104	99	110	102	90	82	75	79
NH_4-N ug/l	36	69	53	166	122	19	22	30	22	21
NO_2-N ug/l	53	47	41	39	98	118	61	29	20	0
NO_3-N ug/l	1553	1109	352	300	1,752	782	189	44	34	9
TN ug/l	2,546	2,230	1,413	1,326	2,373	1,513	1,168	967	1,024	909
D-COD mg/l	3.1	3.6	4.7			3.9		4.8		4.8
T-COD mg/l	3.2	3.9	4.9	4.6	3.5	3.9	2.5	5.9	4.1	4.3
Chl-a ug/l	95	111	89	79	43	45	75	74	72	57
Phyco.ug/l	63	154	141	133	6	14	63	132	109	103
SSdw mg/l	23.9	23.0	22.0	17.1	22.1	35.9	22.1	14.7	13.4	17.1
DOC mg/l	2.8	3.6	4.4			3.2		4.3		4.3
POC mg/l	4.37	5.06	4.43	3.65	2.20	2.76	3.68	3.69	3.87	3.80
PON ug/l	751	922	807	697	385	459	626	648	663	585
C/N	5.82	5.49	5.49	5.23	5.72	6.02	5.88	5.70	5.84	6.49
Het.B /ml										
GP($gC/m^2/d$)			0.93			0.22		0.82		0.73

1995/11/08

	St.1	St.2	St.3	St.4	St.6	St.7	St.8	St.9	St.11	St.12
Time	11:40	12:05	12:15	12:45	13:40	13:20	13:05	10:45	10:35	10:05
Depth (m)	2.5		3.9			3.0		5.9		4.1
Transp(cm)	30	40	55	65	60	45	80	80	85	40
E.C(us/cm)	216	233	272	307	325	302	302	345	343	380
W.Temp. 0m	14.6		15.2			14.9		15.2		15.2
0.5m	14.6		15.2			14.9		15.2		15.2
1m	14.6		15.2			14.9		15.2		15.2
2m	14.6		15.2			14.9		15.2		15.2
3m			15.2			14.9		15.2		14.8
4m			15.2					15.2		14.8
5m								15.2		
6m								15.2		
bot.										
DO(mg/l)0m	11.9		11.3			10.7		10.0		10.9
0.5m	11.9		11.3			10.7		10.0		10.8
1m	11.9		11.3			10.7		9.9		10.8
2m	11.8		11.2			10.7		9.9		10.7
3m			11.2			10.6		9.9		9.9
4m			11.2					9.9		9.9
5m								9.9		
6m								9.9		
bot.										
L.I. air			2,100.0			540.0		2,000.0		1,600.0
(uE/m²/s) 0m			920.0			240.0		400.0		300.0
0.25m			320.0			58.0		70.0		270.0
0.5m			120.0			17.0		27.0		80.0
0.75m			50.0			4.8		10.0		27.0
1m			19.0			1.2		4.4		22.0
1.5m			4.5			0.1		2.5		6.0
2m			0.8					0.4		0.9
3m										
4m										
5m										
pH 0m	9.02		9.05			8.46		8.25		8.73
0.5m	9.03		9.06			8.47		8.26		8.75
1m	9.02		9.07			8.48		8.27		8.71
2m	9.04		9.07			8.49		8.26		8.70
3m			9.08			8.49		8.26		8.52
4m			9.07					8.26		8.47
5m								8.26		
6m								8.26		
bot.										
PO_4-P ug/l	7	6	2	2	7	4	1	1	1	2
DTP ug/l	21	20	17	17	20	16	12	15	15	14
T.P. ug/l	255	196	125	127	111	104	76	88	76	83
NH_4-N ug/l	24	97	10	66	55	5	10	28	144	24
NO_2-N ug/l	41	35	31	38	44	31	21	24	49	1
NO_3-N ug/l	836	501	122	135	1,598	521	160	42	42	7
TN ug/l	2,599	2,125	1,548	1,587	2,652	1,479	1,127	1,270	1,231	1,127
D-COD mg/l	3.3	3.7	3.9			3.9		4.1		4.3
T-COD mg/l	4.4	4.7	5.1	4.8	4.5	5.1	4.5	3.9	3.9	3.9
Chl-a ug/l	139	121	93	90	67	57	64	68	57	57
Phyco.ug/l	89	177	245	222	35	63	124	139	123	119
SSdw mg/l	64.2	40.7	25.7	26.9	30.7	48.7	20.5	18.3	16.4	23.7
DOC mg/l	2.9	3.3	3.9			3.3		4.1		4.2
POC mg/l	8.70	7.04	5.22	4.85	3.23	3.96	3.42	3.92	3.26	4.17
PON ug/l	1,430	1,257	1,039	958	577	653	621	760	604	682
C/N	6.08	5.60	5.02	5.06	5.59	6.07	5.51	5.16	5.40	6.11
Het.B /ml										
GP(gC/m²/d)			1.06			0.43		0.39		0.23

1995/12/06

	St.1	St.2	St.3	St.4	St.6	St.7	St.8	St.9	St.11	St.12
Time	11:40	12:10	12:30	13:20	14:30	13:55	13:40	10:50	10:40	10:10
Depth (m)										
Transp(cm)	55	50	60	70	50	50	75	95	90	90
E.C(us/cm)	228	258	290	316	333	316	316	334	332	398
W.Temp. 0m	6.9		8.2			7.7		8.4		7.9
0.5m	6.9		8.1			7.7		8.3		7.9
1m	6.9		8.1			7.7		8.3		7.9
2m	6.9		8.1			7.7		8.3		7.9
3m			8.1			7.7		8.3		7.9
4m								8.3		
5m								8.3		
6m										
bot.	6.9		8.1			7.7		8.4		7.9
DO(mg/l)0m	14.2		12.3			12.1		11.9		11.6
0.5m	14.2		12.5			12.1		12.0		11.6
1m	14.2		12.5			12.1		12.0		11.6
2m	14.2		12.5			12.1		12.0		11.7
3m			12.5			12.1		12.0		11.7
4m								12.0		
5m								12.0		
6m										
bot.	14.2		12.4			3.2		10.0		11.7
L.I. air			1,440.0			934.0		1,516.0		1,294.0
(uE/m²/s) 0m			1,200.0			649.0		1,068.0		870.0
0.25m			652.0			427.0		78.0		100.0
0.5m			170.0			77.0		29.0		32.0
0.75m			80.0			18.0		10.0		23.0
1m			40.0			4.7		5.0		13.0
1.5m			4.3			0.5		1.8		3.5
2m			1.8					0.8		1.2
3m										
4m										
5m										
pH 0m	9.24		9.01			8.28		8.58		8.51
0.5m	9.22		9.12			8.26		8.61		8.52
1m	9.22		9.12			8.26		8.64		8.52
2m	9.22		9.12			8.25		8.63		8.53
3m			9.12			8.24		8.63		8.55
4m								8.64		
5m								8.64		
6m										
bot.	8.22		7.45			7.2		7.08		7.34
PO_4-P ug/l	7	5	1	1	18	5	1	1	1	2
DTP ug/l	26	24	16	16	31	20	15	14	15	15
T.P. ug/l	139	139	127	121	125	100	87	85	75	87
NH_4-N ug/l	19	37	19	34	78	7	15	15	27	18
NO_2-N ug/l	39	23	13	11	27	21	9	5	9	1
NO_3-N ug/l	1042	328	125	127	1,399	1037	126	12	34	3
TN ug/l	2,460	1,949	1,508	1,466	2,602	1,964	1,140	1,152	1,183	1,140
D-COD mg/l	3.1	4.1	3.6			4.4		3.6		3.9
T-COD mg/l	5.2	4.8	4.9	4.5	4.5	4.9	4.7	5.1	3.8	4.5
Chl-a ug/l	86	101	92	88	42	44	68	68	66	55
Phyco.ug/l	45	94	129	100	30	28	116	84	102	61
SSdw mg/l	38.2	28.7	24.4	20.2	35.1	39.1	20.3	14.1	14.5	17.9
DOC mg/l	2.8	3.6	4.0			3.4		4.2		4.2
POC mg/l	5.78	5.49	4.93	4.58	2.98	3.37	3.67	3.69	3.67	4.04
PON ug/l	968	1,087	968	915	524	554	728	746	715	704
C/N	5.97	5.05	5.09	5.01	5.68	6.09	5.04	4.94	5.13	5.73
Het.B /ml										
GP(gC/m²/d)			0.48			0.58		0.26		0.28

1996/01/16

	St.1	St.2	St.3	St.4	St.6	St.7	St.8	St.9	St.11	St.12
Time	11:30	11:55	12:05	12:30	13:20	13:00	12:50	10:45	10:40	10:25
Depth (m)	2.6		3.9			2.9		5.9		3.8
Transp(cm)	60	65	70	80	65	50	75	85	75	70
E.C(us/cm)	282	295	302	343	356	344	348	363	350	382
W.Temp. 0m	5.3		4.8			5.4		4.8		5.6
0.5m	5.2		4.6			5.4		4.6		5.6
1m	5.2		4.6			5.4		4.6		5.5
2m	5.1		4.6			5.4		4.6		5.5
3m			4.4					4.6		5.5
4m								4.6		
5m								4.6		
6m										
bot.	5.1		4.3			5.4		4.5		5.5
DO(mg/l)0m	15.9		14.5			13.2		12.6		12.6
0.5m	16.5		14.8			13.4		12.9		12.8
1m	16.6		15.0			13.5		13.1		12.9
2m	16.5		15.0			13.5		13.2		13.0
3m			14.9					13.1		13.0
4m								12.8		
5m								12.8		
6m										
bot.	16.5		14.5			13.5		12.8		13.3
L.I. air			744.0			326.0		773.0		750.0
(uE/m²/s) 0m			1,330.0			346.0		1,170.0		1,510.0
0.25m			537.0			113.0		590.0		428.0
0.5m			247.0			37.4		208.0		261.0
0.75m			139.0			14.4		75.7		146.0
1m			69.2			7.2		33.4		85.1
1.5m			18.6			1.2		12.1		28.2
2m			6.9			0.3		13.6		6.2
3m			0.9					1.9		1.2
4m								0.3		
5m										
pH 0m	9.09		8.79			8.20		7.78		8.16
0.5m	9.38		9.08			8.33		7.98		8.33
1m	9.42		9.08			8.31		8.06		8.33
2m	9.41		9.07			8.30		8.04		8.33
3m			9.04					8.04		8.32
4m								8.02		
5m								8.01		
6m										
bot.	9.39		8.94			8.28		7.88		8.3
PO_4-P ug/l	3	3	2	1	6	4	2	1	2	2
DTP ug/l	19	19	18	16	23	19	16	16	16	16
T.P. ug/l	124	111	108	122	122	127	80	99	93	87
NH_4-N ug/l	12	16	17	21	81	20	49	97	72	49
NO_2-N ug/l	15	12	10	5	14	8	5	4	4	2
NO_3-N ug/l	556	361	251	139	1,095	381	99	68	55	31
TN ug/l	1,832	1,583	1,313	1,108	2,068	1,311	1,145	1,261	1,158	1,042
D-COD mg/l		4.1	4.0			3.7		4.0		3.9
T-COD mg/l	5.3	4.7	4.7	5.1	5.1	5.4	5.6	5.7	6.0	5.2
Chl-a ug/l	56	63	60	56	43	42	51	50	54	49
Phyco.ug/l	17	24	20	30	14	17	29	27	30	22
SSdw mg/l	25.3	22.2	19.9	16.8	19.5	29.0	14.9	15.1	19.1	16.9
DOC mg/l	4.0	4.2	4.3			4.1		4.2		4.3
POC mg/l	4.86	4.60	4.11	3.99	2.96	3.52	3.43	3.54	4.02	3.66
PON ug/l	871	858	752	743	572	649	649	692	760	688
C/N	5.58	5.37	5.46	5.37	5.17	5.43	5.29	5.12	5.30	5.32
Het.B /ml										
GP(gC/m²/d)			0.43			0.50		0.82		0.18

1996/02/07

	St.1	St.2	St.3	St.4	St.6	St.7	St.8	St.9	St.11	St.12
Time	11:35	12:00	12:10	12:40	13:30	13:15	13:00	10:45	10:40	10:20
Depth (m)	2.5		3.9			2.9		5.9		3.9
Transp(cm)	15	55	45	75	65	55	55	60	50	75
E.C(us/cm)	283	303	312	335	365	350	350	363	370	406
W.Temp. 0m	2.7		3.0			3.0		2.8		2.3
0.5m	2.7		3.0			2.9		2.8		2.3
1m	2.7		2.9			2.8		2.8		2.3
2m	2.7		2.9			2.8		2.7		2.3
3m			2.9			2.8		2.7		2.3
4m			2.9					2.7		2.3
5m								2.7		
6m								2.7		
bot.										
DO(mg/l)0m	13.8		13.7			13.4		13.6		13.8
0.5m	13.7		13.5			13.2		13.4		13.6
1m	13.6		13.4			13.1		13.2		13.5
2m	13.5		13.3			13.0		13.2		13.4
3m			13.2			12.9		13.1		13.3
4m			13.1					13.0		13.3
5m								12.9		
6m								12.9		
bot.										
L.I. air			1,990.0			1,840.0		1,890.0		1,100.0
(uE/m²/s) 0m			1,100.0			1,060.0		1,200.0		780.0
0.25m			280.0			450.0		440.0		380.0
0.5m			95.0			190.0		170.0		170.0
0.75m			31.0			85.0		80.0		92.0
1m			8.5			36.0		35.0		40.0
1.5m			1.0			8.2		7.5		12.0
2m						2.0		1.6		3.3
3m										
4m										
5m										
pH 0m	9.06		8.89			8.24		8.04		8.15
0.5m	9.06		8.89			8.24		8.03		8.15
1m	9.06		8.91			8.21		8.03		8.15
2m	9.06		8.91			8.20		8.03		8.15
3m			8.90			8.16		8.03		8.16
4m			8.90					8.02		8.16
5m								8.02		
6m								8.00		
bot.										
PO_4-P ug/l	4	2	2	1	4	2	2	1	3	1
DTP ug/l	18	17	16	14	19	16	14	14	16	14
T.P. ug/l	173	144	153	99	108	91	85	103	116	94
NH_4-N ug/l	5	12	9	13	294	14	16	40	31	23
NO_2-N ug/l	19	12	9	7	14	7	4	4	2	3
NO_3-N ug/l	766	301	177	166	845	314	187	123	107	70
TN ug/l	2,368	1,732	1,617	1,256	2,071	1,426	1,086	1,129	1,256	1,001
D-COD mg/l	3.6	3.5	3.8			3.4		3.6		4.1
T-COD mg/l	8.3	8.2	9.5	6.4	5.7	6.2	6.2	6.3	7.5	6.7
Chl-a ug/l	86	95	96	72	44	45	53	65	71	53
Phyco.ug/l	28	44	47	40	9	17	23	22	26	15
SSdw mg/l	44.6	36.9	46.4	20.7	20.3	27.0	26.8	30.7	42.9	27.2
DOC mg/l	3.7	4.3	4.4			4.3		4.5		4.2
POC mg/l	6.54	6.81	6.77	5.04	3.16	3.77	4.06	4.63	5.42	4.48
PON ug/l	1,070	1,139	1,102	857	551	639	729	785	870	735
C/N	6.11	5.98	6.14	5.87	5.74	5.89	5.57	5.89	6.23	6.10
Het.B /ml										
GP(gC/m²/d)			0.58			0.55		0.56		0.27

1996/03/06

	St.1	St.2	St.3	St.4	St.6	St.7	St.8	St.9	St.11	St.12
Time	12:45	13:15	13:25	13:55	14:40	14:30	14:15	12:00	11:35	11:10
Depth (m)	2.6		4.0			3.1		5.9		3.5
Transp(cm)	50	55	65	75	60	55	80	85	70	65
E.C(us/cm)	295	297	316	343	364	356	352	377	365	450
W.Temp. 0m	7.7		7.1			7.0		7.3		7.5
0.5m	7.8		7.3			7.1		7.1		7.1
1m	7.1		6.8			7.0		6.0		7.2
2m	6.4		5.8			6.8		5.5		6.0
3m			5.7			6.1		5.3		5.9
4m			5.8					5.2		
5m								5.2		
6m										
bot.	6.1					6.0		5.3		5.8
DO(mg/l)0m	14.4		13.4			12.4		12.1		11.9
0.5m	14.5		13.6			12.5		12.4		11.9
1m	14.0		13.6			12.6		12.8		12.0
2m	13.6		12.9			12.4		12.8		11.9
3m			12.8			11.4		12.2		11.6
4m			11.8					11.9		
5m								11.6		
6m										
bot.	12.7					7.7		11.4		11.4
L.I. air			1,962.0			1,279.0		2,133.0		2,221.0
(uE/m²/s) 0m			1,462.0			959.4		1,743.0		1,729.0
0.25m			732.4			331.5		847.8		543.8
0.5m			162.5			168.9		487.2		283.5
0.75m			65.3			73.6		290.4		128.9
1m			28.2			32.2		167.8		62.4
1.5m			5.6			7.1		61.2		13.4
2m			1.3			2.3		21.8		2.9
3m			0.1			0.2		3.1		0.2
4m								0.5		
5m										
pH 0m	9.22		9.17			8.13		8.01		7.97
0.5m	9.34		9.20			8.19		8.07		8.02
1m	9.33		9.22			8.19		8.19		8.05
2m	9.26		9.11			8.13		8.14		8.06
3m			9.13			7.90		8.03		7.98
4m			8.94					7.94		
5m								7.88		
6m										
bot.	8.4					7.19		7.61		7.92
PO_4-P ug/l	3	3	1	1	3	2	1	1	1	1
DTP ug/l	18	17	16	14	18	18	12	15	14	14
T.P. ug/l	153	144	145	101	86	90	81	65	57	72
NH_4-N ug/l	28	29	22	35	449	237	27	44	76	52
NO_2-N ug/l	15	14	8	5	13	10	3	2	2	3
NO_3-N ug/l	253	254	55	123	812	580	152	125	156	134
TN ug/l	1,517	1,621	1,325	1,073	1,951	1,331	1,037	889	831	1,110
D-COD mg/l	5.1	5.0	4.5	4.5	4.4	4.3	4.4	4.3	4.1	4.3
T-COD mg/l	7.2	6.7	6.6	6.0	5.7	5.6	5.7	5.1	5.1	5.6
Chl-a ug/l	161	144	116	84	50	48	52	56	45	48
Phyco.ug/l	47	49	31	22	6	6	17	11	9	9
SSdw mg/l	37.8	37.4	30.7	22.3	21.5	23.7	15.6	17.7	15.6	30.1
DOC mg/l	3.8	3.7	4.0			3.9		3.9		3.9
POC mg/l	7.31	7.52	6.78	5.11	2.98	3.61	3.92	3.69	3.28	4.06
PON ug/l	1,199	1,238	1,135	860	534	630	647	602	531	652
C/N	6.10	6.07	5.97	5.94	5.59	5.72	6.06	6.12	6.18	6.23
Het.B /ml										
GP(gC/m²/d)			1.84			0.52		0.70		0.37