

ALMA MATER STUDIORUM  
UNIVERSITA' DI BOLOGNA

FACOLTA' DI SCIENZE MATEMATICHE FISICHE E  
NATURALI

Corso di laurea in SCIENZE AMBIENTALI

VARIABILITA' DI CAMPI FISICI  
E BIO-CHIMICI NELLA FASCIA  
COSTIERA DELL'EMILIA  
ROMAGNA  
(VOLUME II -ALLEGATI)



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# *Introduzione*

I dati visualizzati in questo volume sono stati analizzati nel capitolo 3 della tesi, mentre le procedure applicate sono inserite nel capitolo 2.

Il programma di monitoraggio Daphne è finalizzato alla caratterizzazione delle acque costiere fino ai 20 km dalla costa ed è costituito da 34 stazioni fisse, nelle quali il campionamento viene effettuato con una frequenza settimanale durante tutto l'arco dell'anno. Le stazioni si distribuiscono in maniera uniforme nel tratto di costa compreso fra Bagni di Volano e Cattolica lungo diversi transetti perpendicolari a costa (vedi figure I e II). Le stazioni sui transetti, andando verso il largo, sono situate a 0.5 km, 3 km, 6 km, 10 km, 20 km di distanza dalla linea di costa. Ciascuna stazione è individuata da un codice identificativo, il quale esprime due informazioni fondamentali:

- il transetto di appartenenza (indicata dalle ultime cifre del codice, che coincidono con il codice della stazione a 0.5 km).
- la distanza da costa (indicata dalle cifre anteposte al codice della stazione a 0.5 km).

Ad esempio, se si considera il transetto 14 antistante Cesenatico, la stazione 14 è situata a 0.5 km da costa, la stazione 314 a 3 km da costa, la 614 a 6 km, la 1014 a 10 km la 2014 a 20 km.

I dati considerati in questo studio, si estendono in un arco temporale di 7 anni, dal 1995 al 2001 compreso e si riferiscono in gran parte a campioni raccolti alla superficie ad una frequenza settimanale in 34 stazioni. I parametri complessivamente analizzati sono: pH, temperatura, salinità, ossigeno disciolto, trasparenza, clorofilla-*a*, nitrati, nitriti, azoto ammoniacale, azoto totale, ortofosfati, fosforo totale.

In questo volume sono stati selezionati i parametri più indicativi quali pH, temperatura, salinità, ossigeno disciolto, clorofilla-*a*, nitrati, ortofosfati ed i transetti 2, 4, 9, 14, 19, per un totale di 22 stazioni. Per tutte le stazioni vengono presentati i dati alla superficie (0.5m della superficie), mentre per le stazioni 304-1004-2004, 314-1014-2014, vengono considerati anche i valori sul fondo (0.5m dal fondo).

Gli elaborati sono stati suddivisi in 3 parti:

- ALLEGATO A: Climatologie;
- ALLEGATO B: Serie Temporal;

- ALLEGATO C: Anomalie e Correlazioni.

All'inizio di ciascun allegato è inserita una spiegazione sintetica dei procedimenti applicati, della disposizione degli elaborati, e del tipo di visualizzazione adottata.

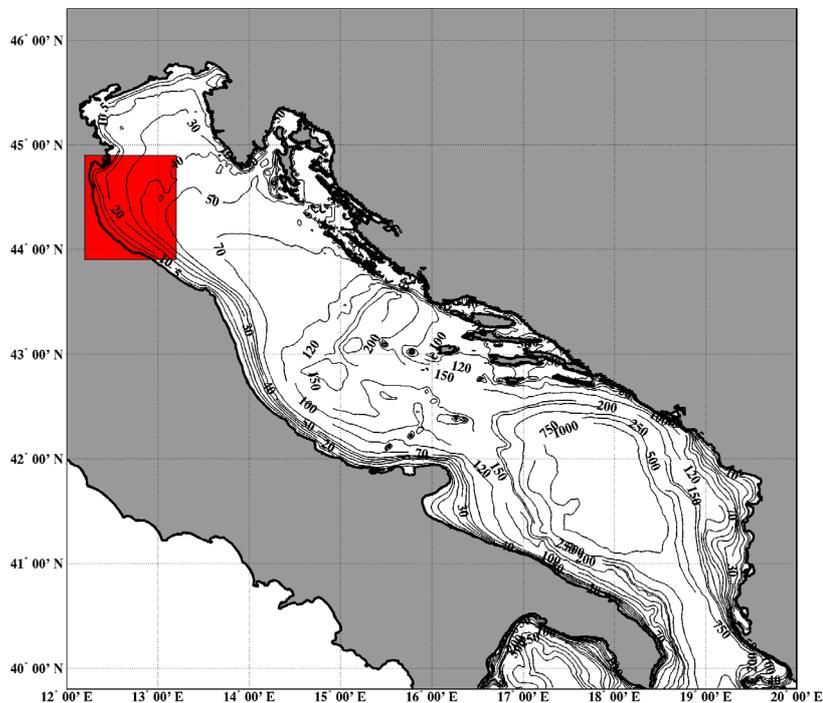


Fig.I- Batimetria dell'Adriatico e in rosso l'area del nostro studio.

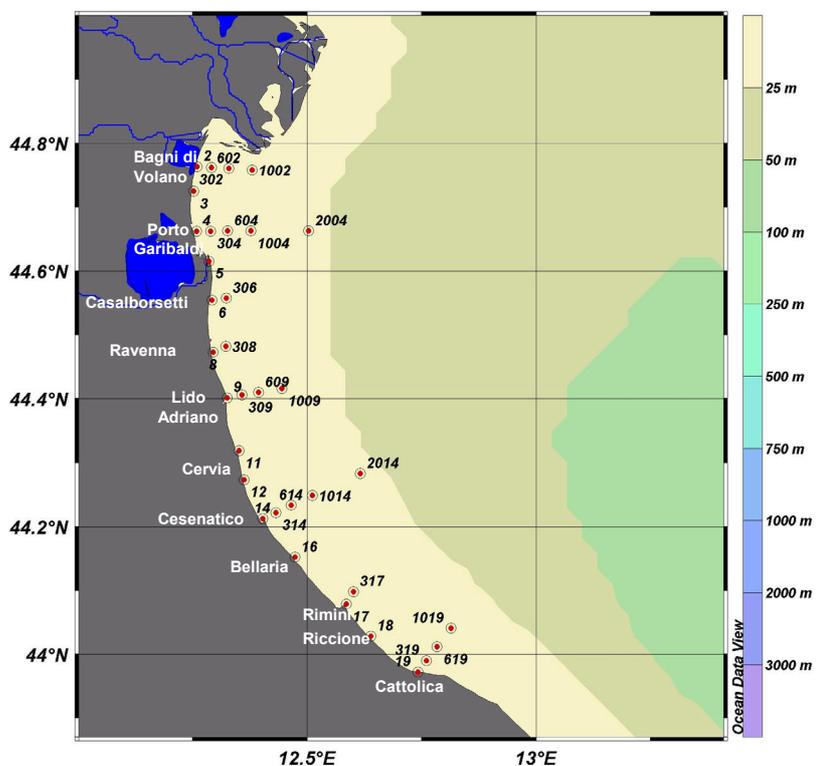


Fig.II- Fascia costiera dell'Emilia Romagna con indicate le stazioni della rete di monitoraggio Daphne e di relativi codici identificativi.

# **ALLEGATO A**

## ***Climatologie***

## *Climatologie*

Le medie climatologiche sono state calcolate per ogni parametro (pH, T, S, O<sub>2</sub>, Chl-a, NO<sub>2</sub>, PO<sub>4</sub>) per ciascuna stazione, selezionando e mediando i dati appartenenti a ogni singolo mese. Ad esempio sono stati mediati i dati appartenenti al mese di gennaio di tutti gli anni presi in esame (dal 1995 al 2001).

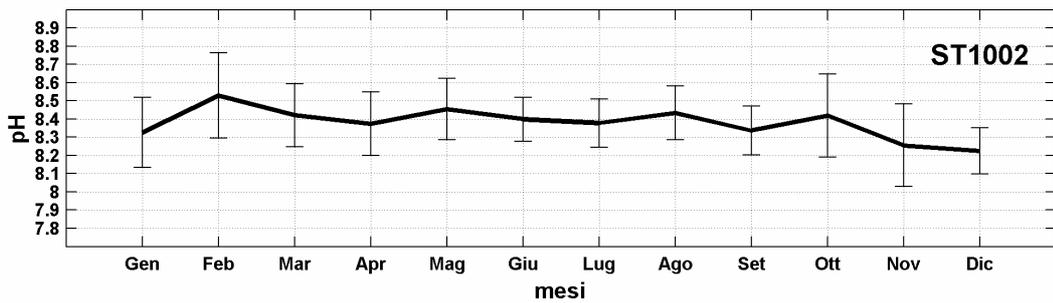
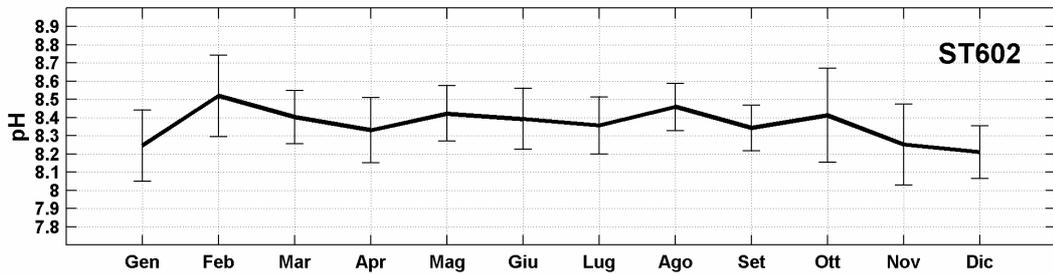
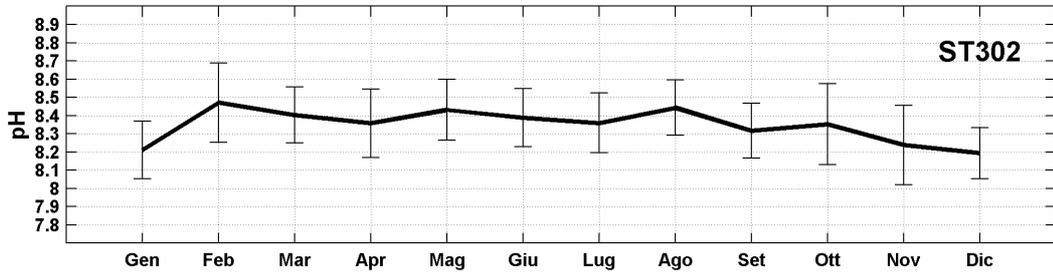
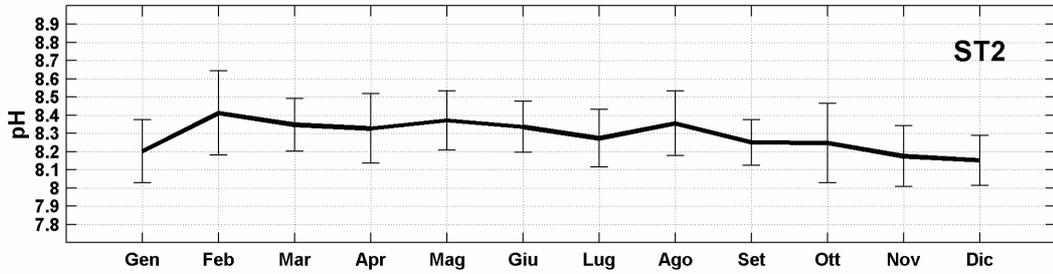
La visualizzazione delle climatologie è stata scelta a transetto in modo da evidenziare gli eventuali gradienti perpendicolari alla costa (in alto la stazione più vicino a costa). Gli elaborati si susseguono partendo dal transetto 2 più a nord (Bagni di Volano) fino al transetto 19 più a sud (Cattolica). A ciascuna climatologia mensile è associata la relativa deviazione standard, sia nel grafico che in una tabella alla fine degli elaborati di ciascun transetto.

A lato di ciascuna climatologia è stato inserito un istogramma in cui è riportato il numero di dati utilizzato per il calcolo della stessa.

Prima di passare al transetto successivo, è stata inoltre inserita una tabella con i coefficienti di correlazione calcolati tra le climatologie di ogni singola stazione tra i diversi parametri analizzati. All'interno di ciascuna tabella sono stati evidenziati i valori che corrispondono ad una correlazione significativa al 95% considerando 10 gradi di libertà e in base alla tabella 2.2.2 inserita nel capitolo 2 della tesi.

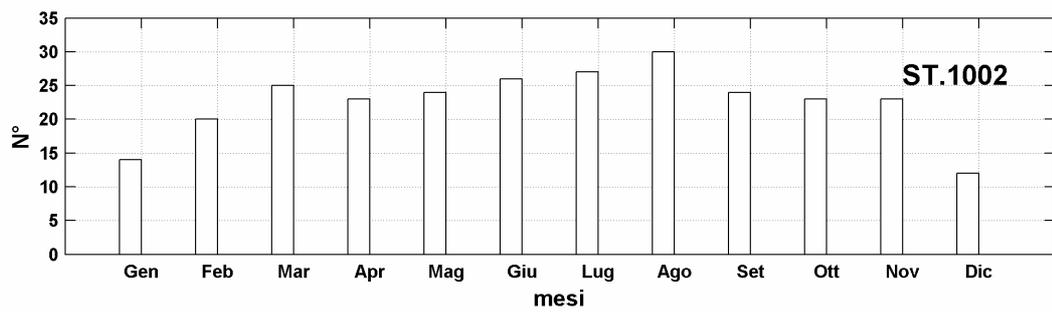
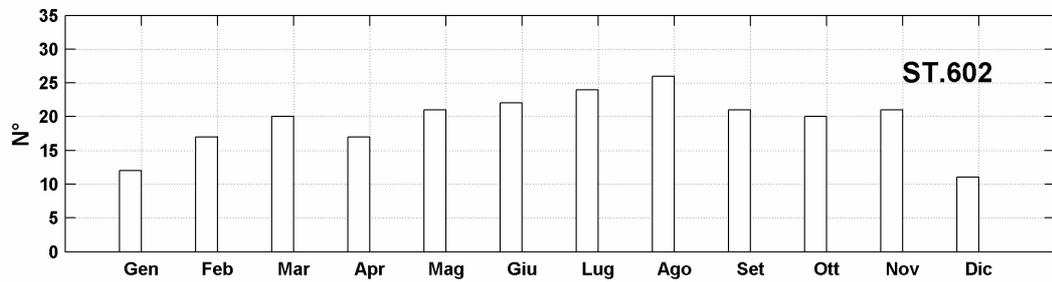
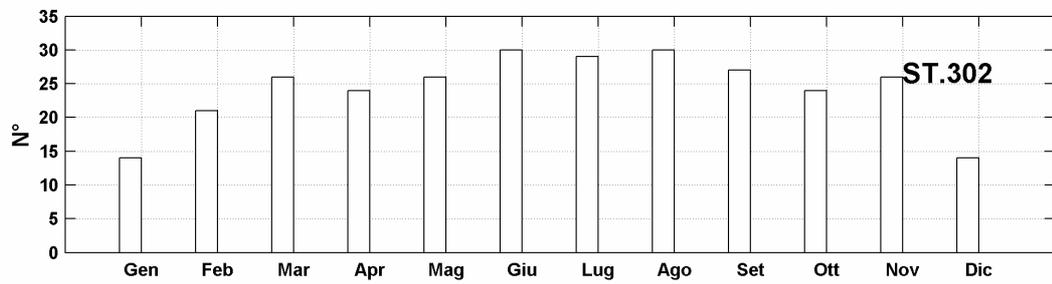
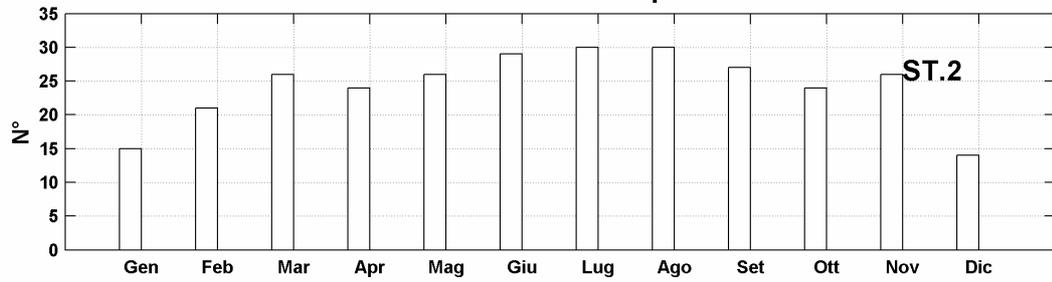
Nelle stazioni 304-1004-2004, 314-1014-2014, la linea tratteggiata rappresenta la climatologia calcolata dai dati raccolti sul fondo.

### CLIMATOLOGIE-TRANSETTO 2 - pH



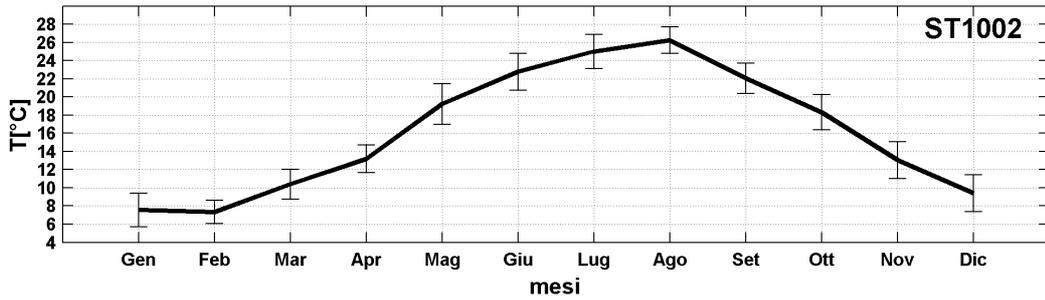
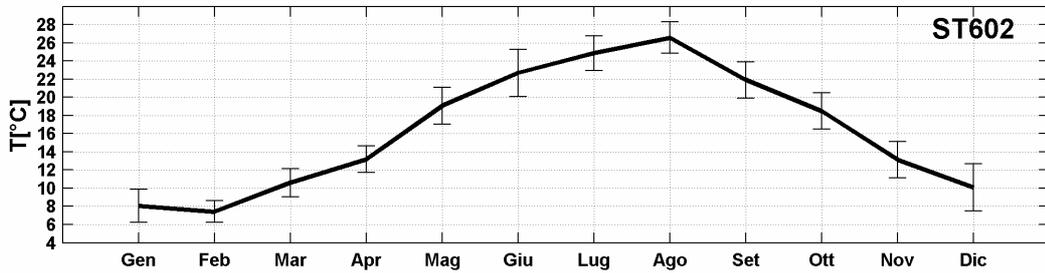
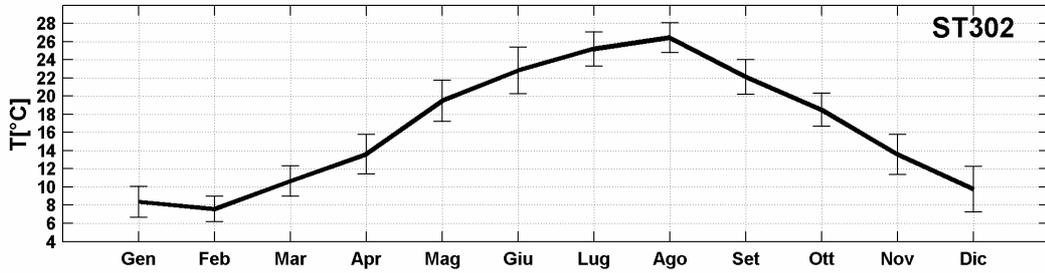
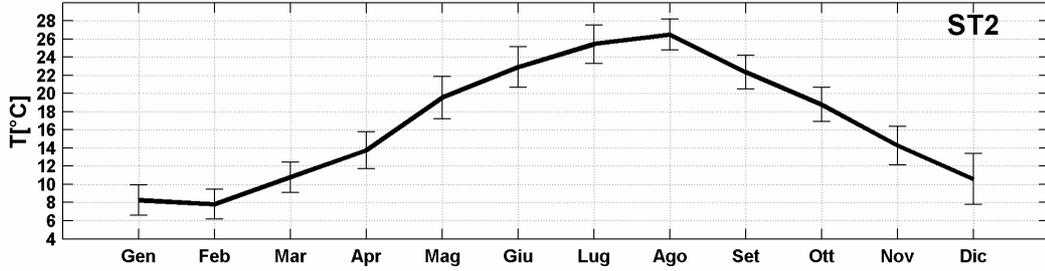
— deviazione standard  
 — climatologia 1995-2001(superficie)

### TRANSETTO 2 - pH



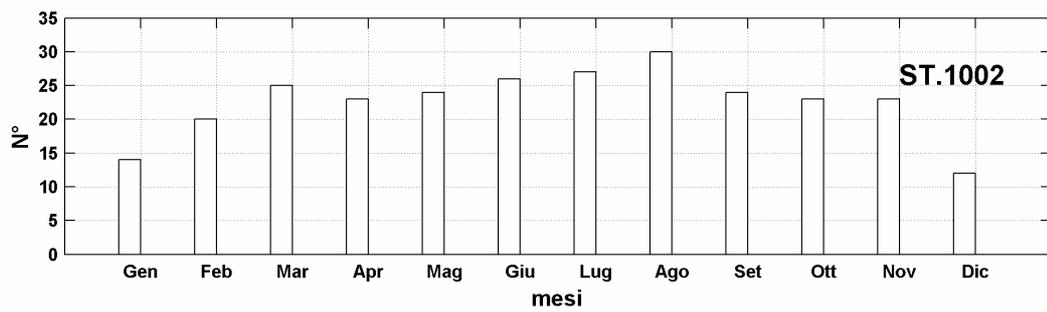
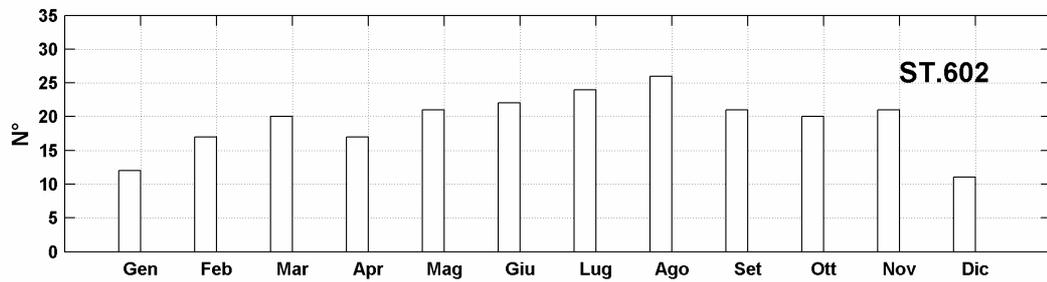
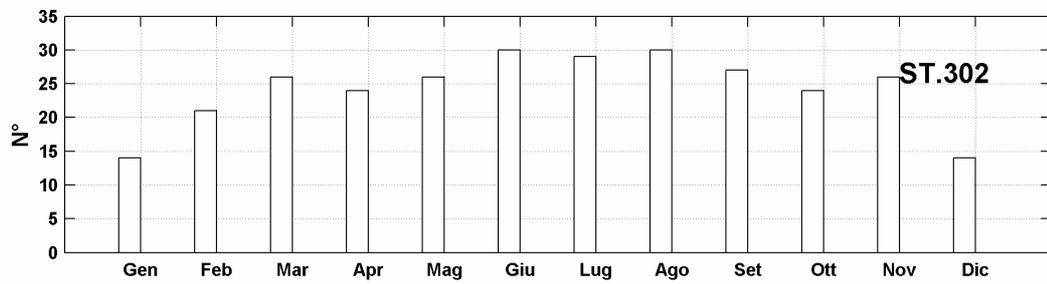
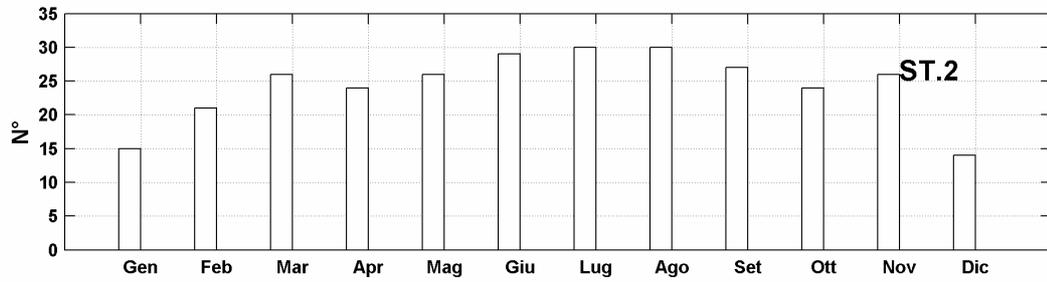
dati alla superficie  
 dati sul fondo

### CLIMATOLOGIE-TRANSETTO 2 - TEMPERATURA



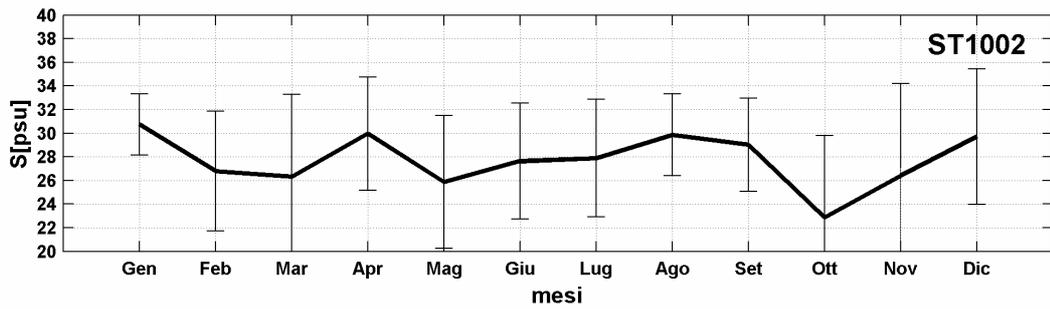
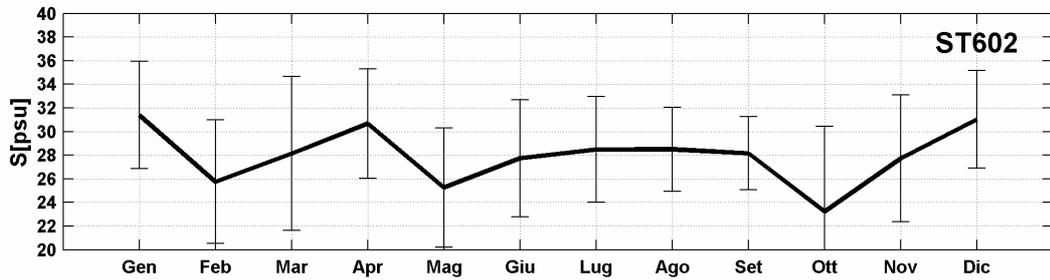
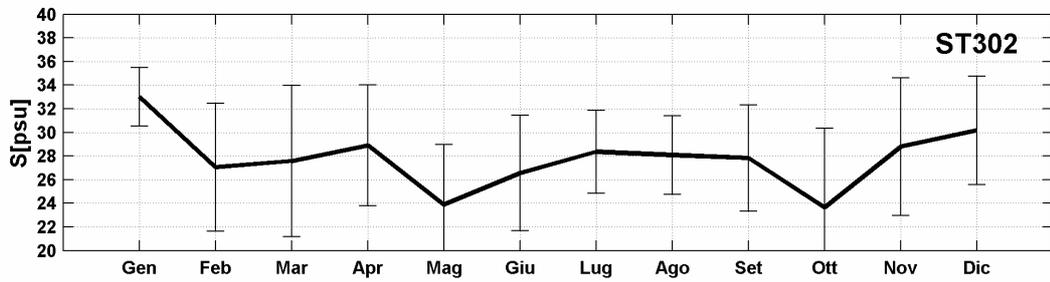
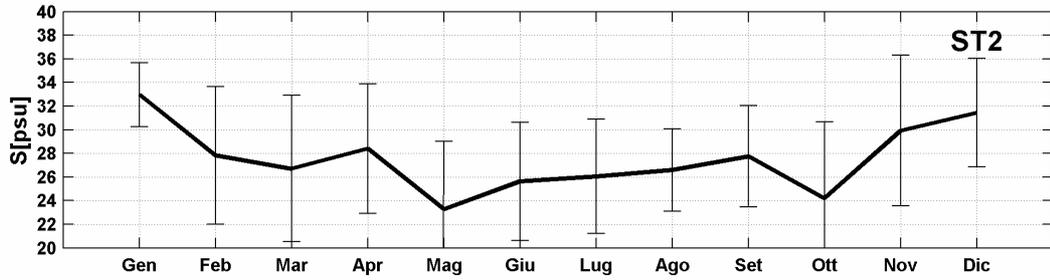
deviazione standard  
 climatologia 1995-2001(superficie)

### TRANSETTO 2 - TEMPERATURA



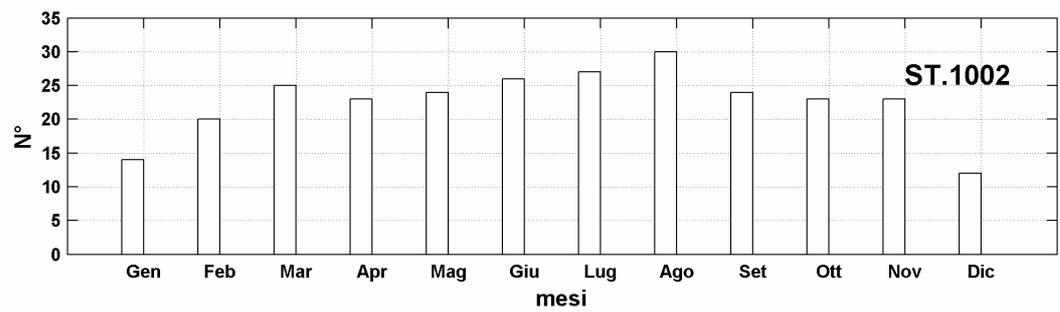
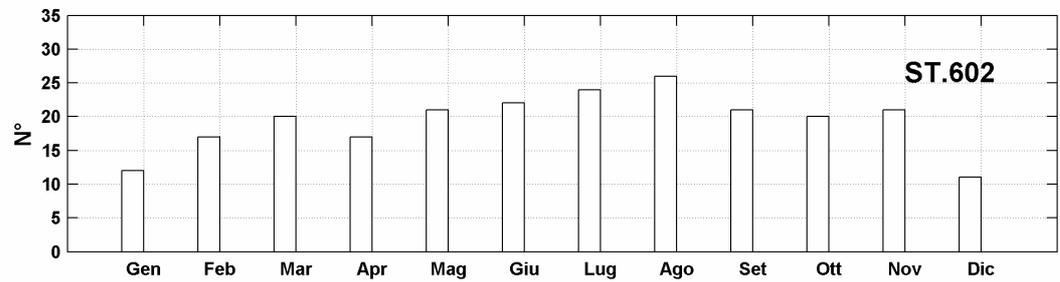
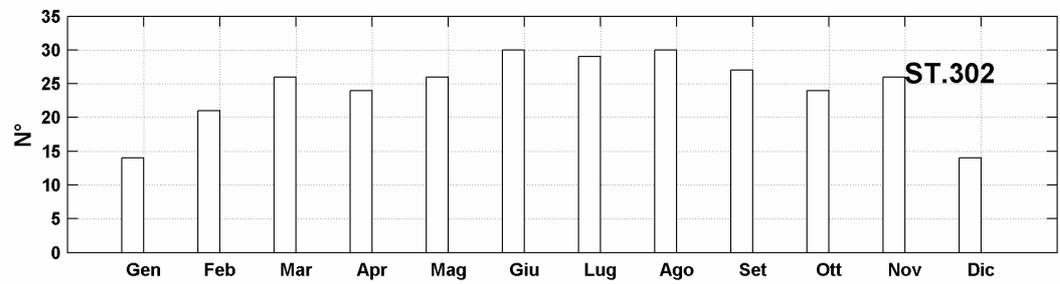
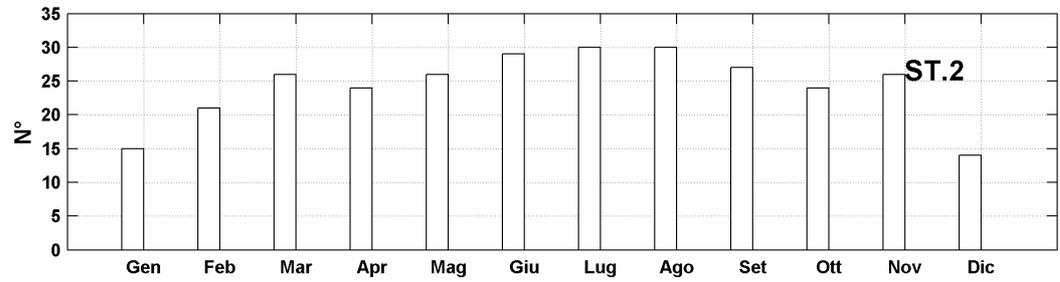
dati alla superficie  
 dati sul fondo

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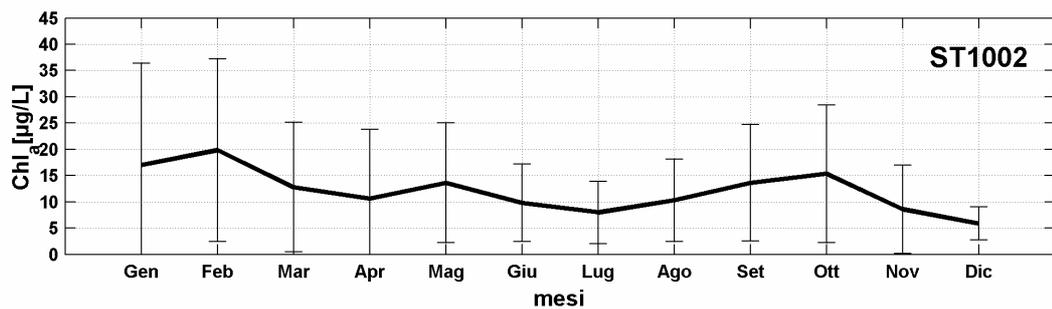
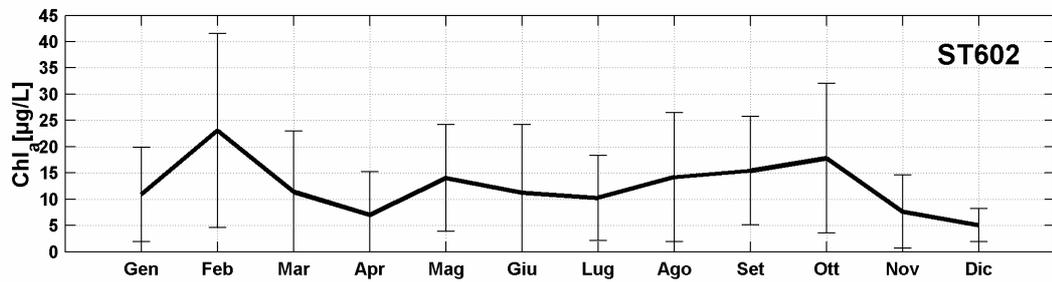
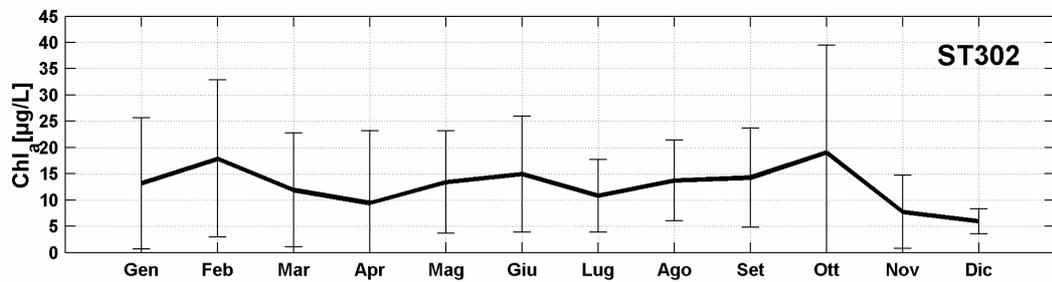
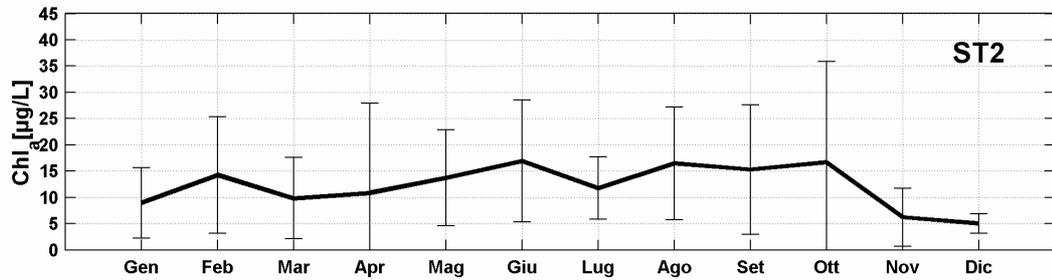
— deviazione standard  
 — climatologia 1995-2001(superficie)

### TRANSETTO 2 - SALINITA



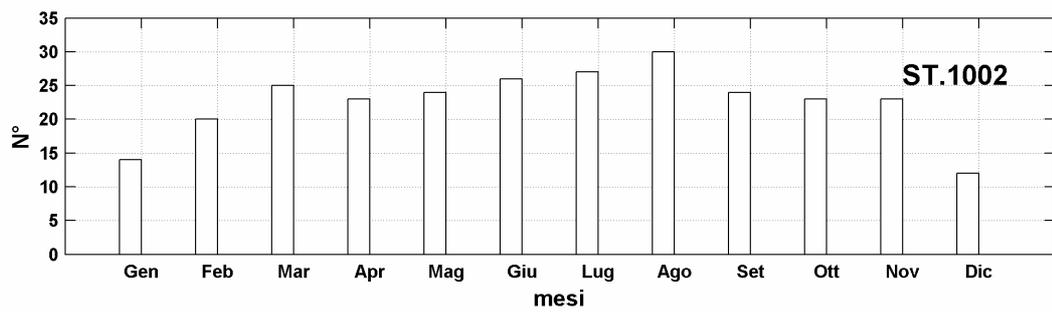
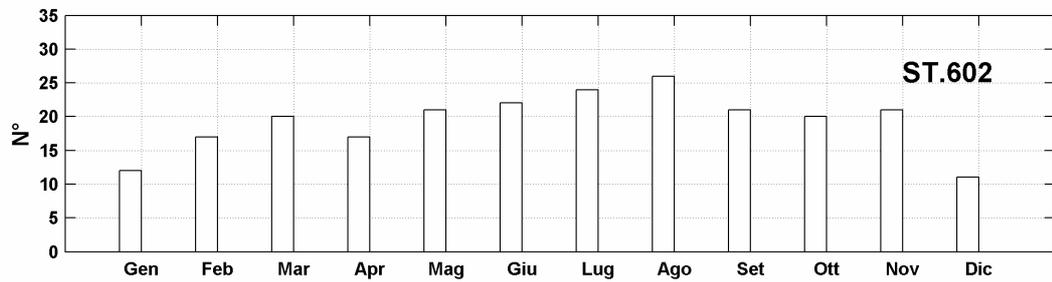
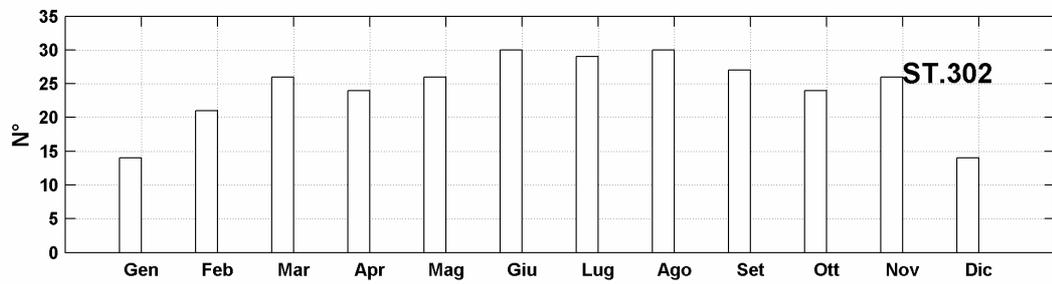
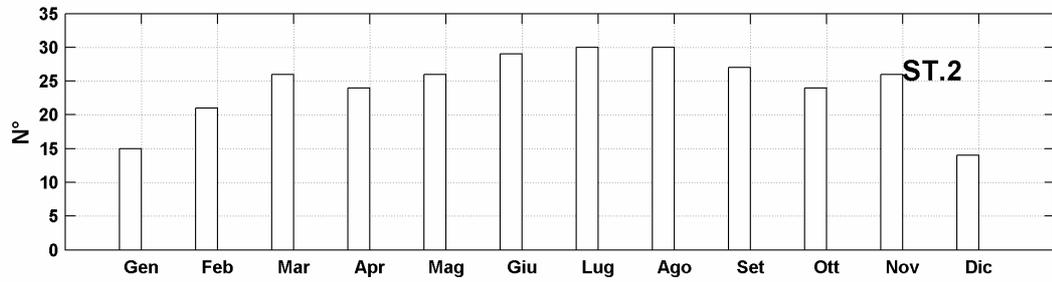
dati alla superficie  
 dati sul fondo

### CLIMATOLOGIE-TRANSETTO 2 - CLOROFILLA



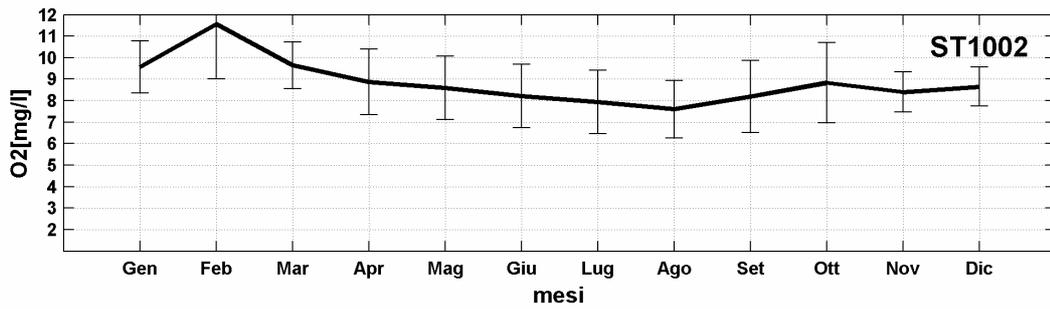
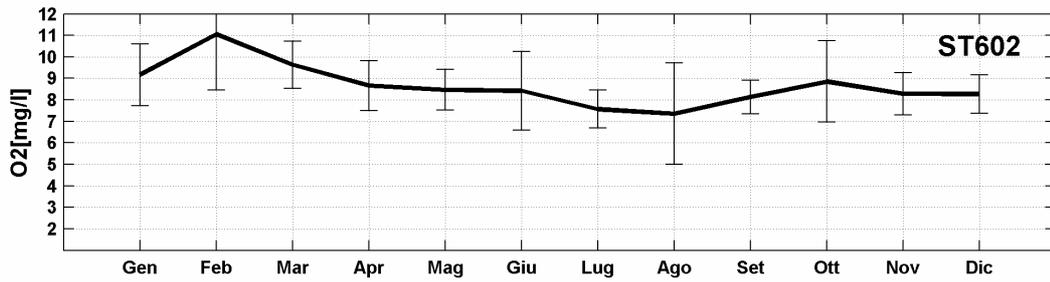
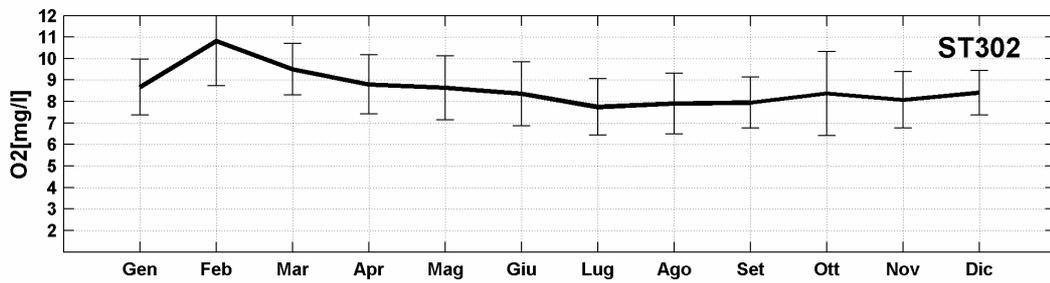
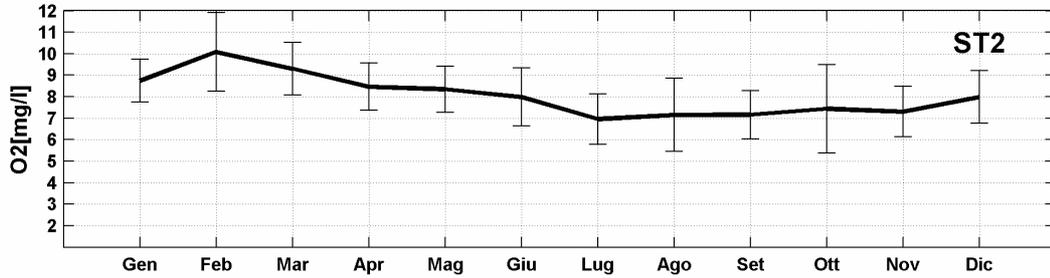
— deviazione standard  
 — climatologia 1995-2001(superficie)

### TRANSETTO 2 - CLOROFILLA



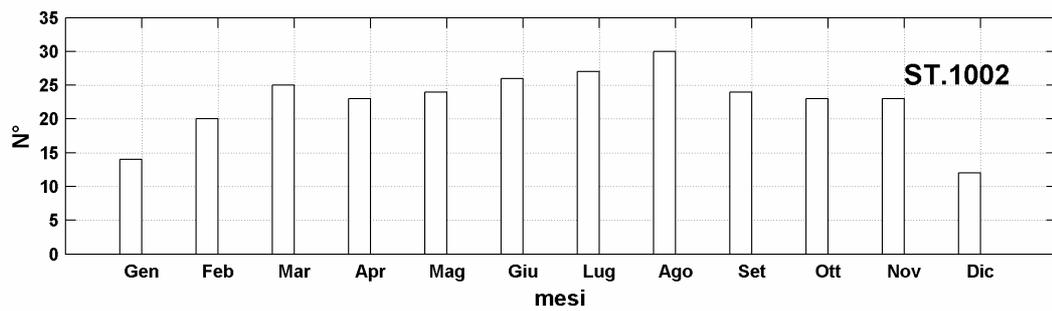
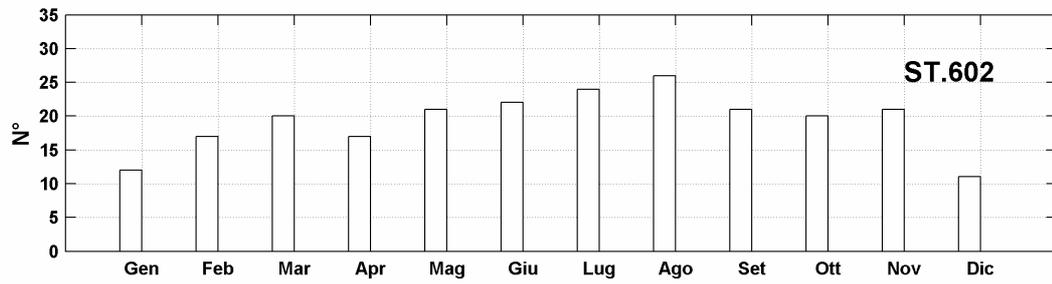
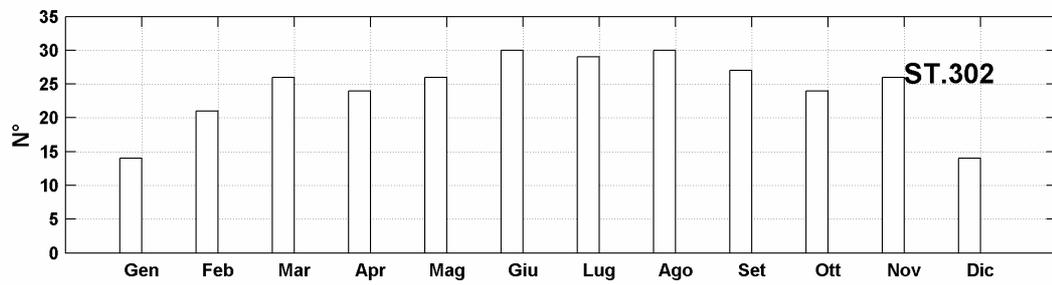
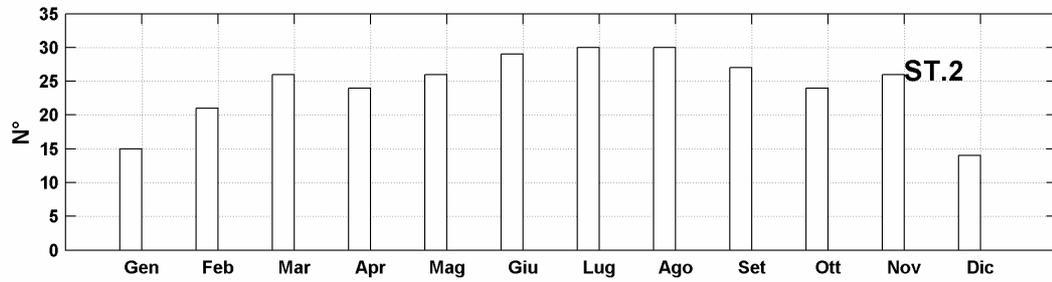
dati alla superficie  
 dati sul fondo

### CLIMATOLOGIE-TRANSETTO 2 - OSSIGENO



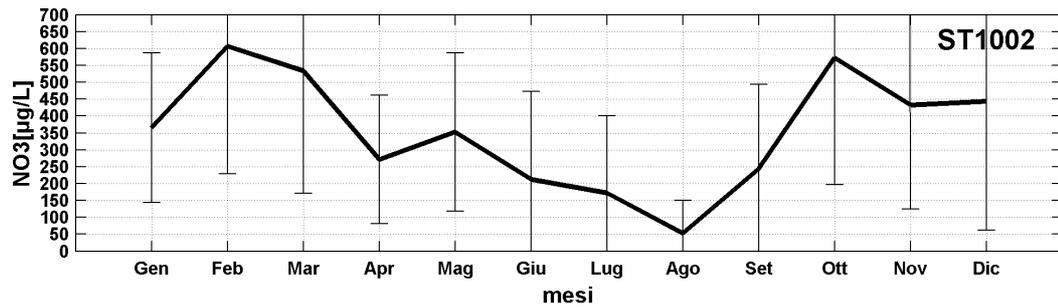
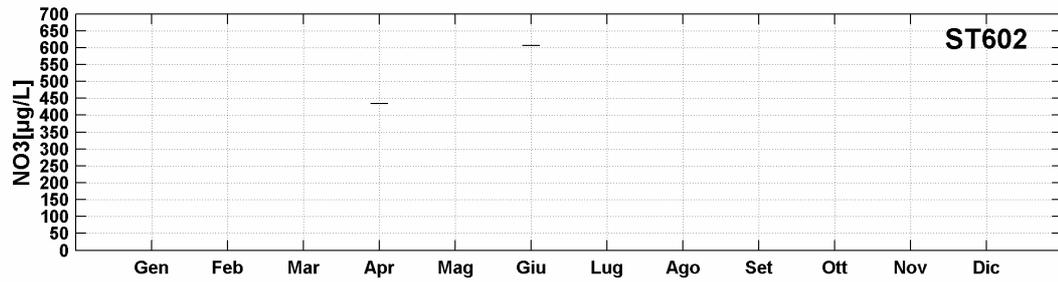
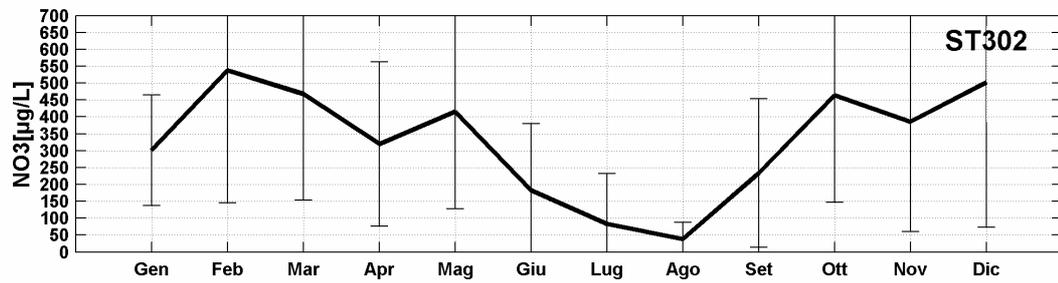
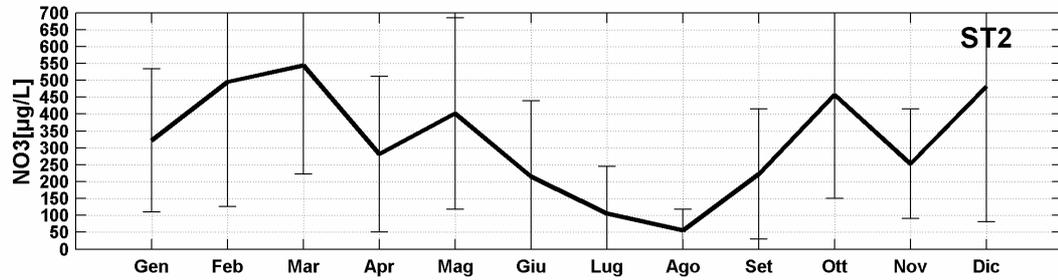
— deviazione standard  
 — climatologia 1995-2001(superficie)

### TRANSETTO 2 - OSSIGENO



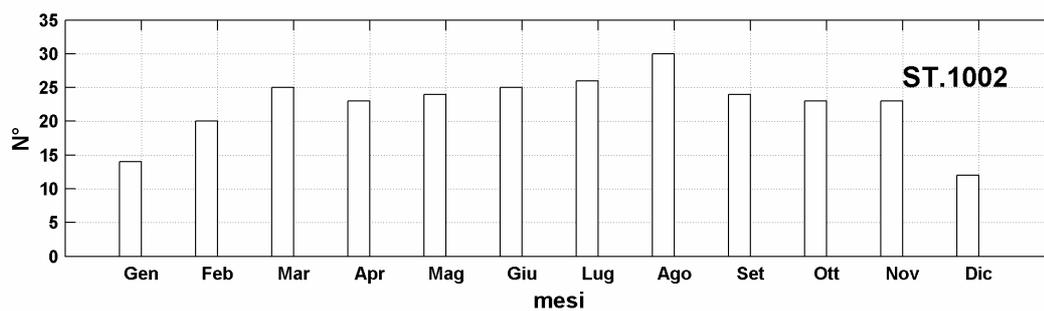
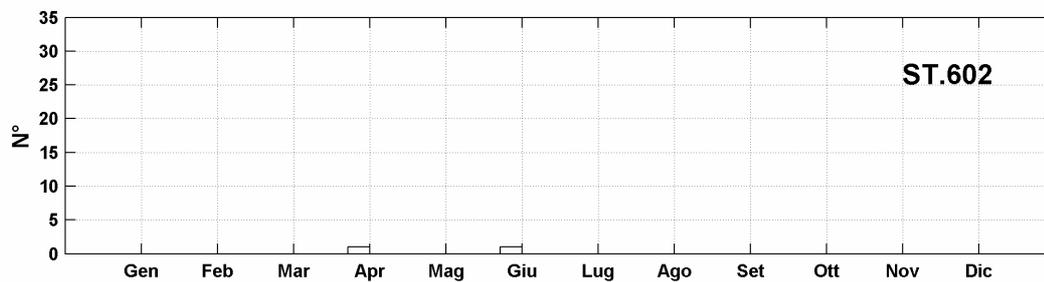
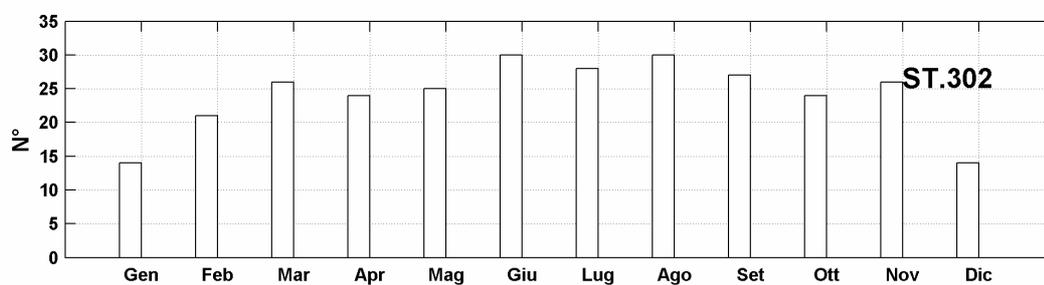
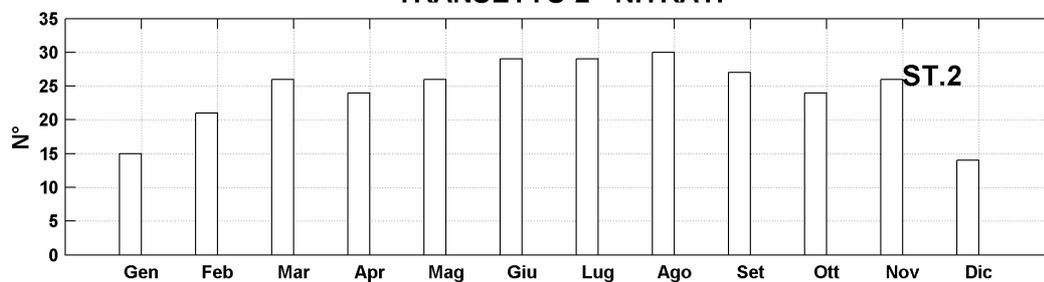
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 dati sul fondo

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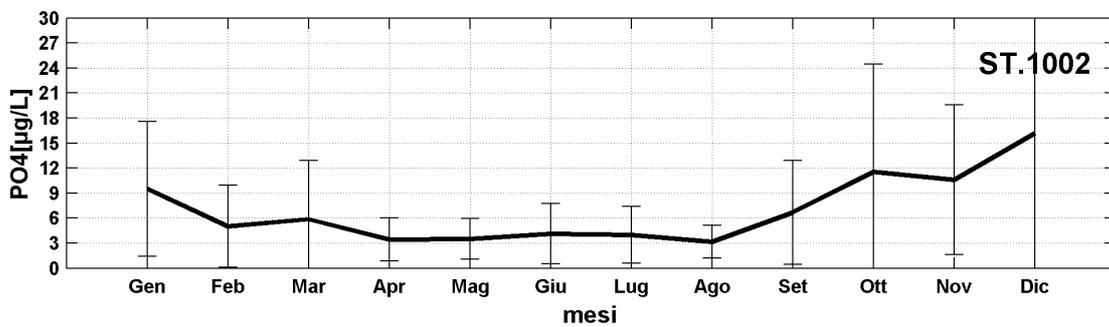
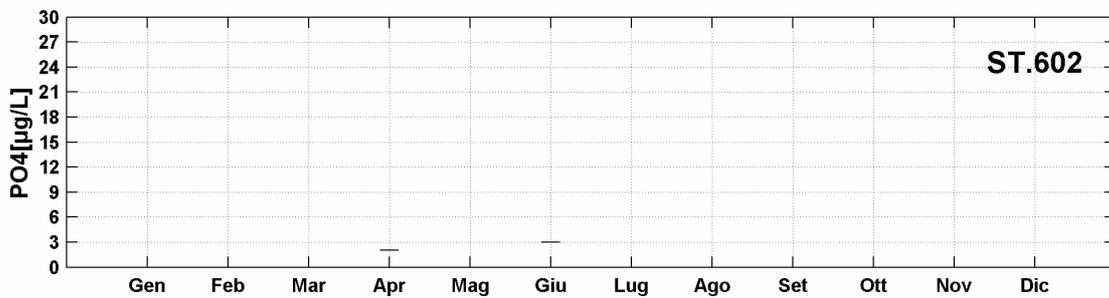
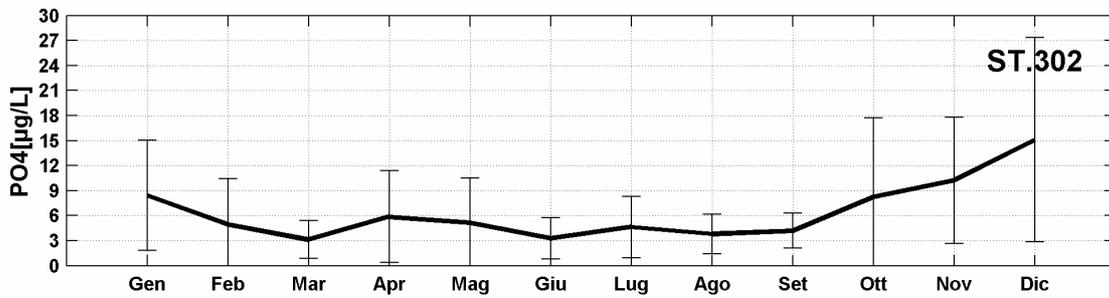
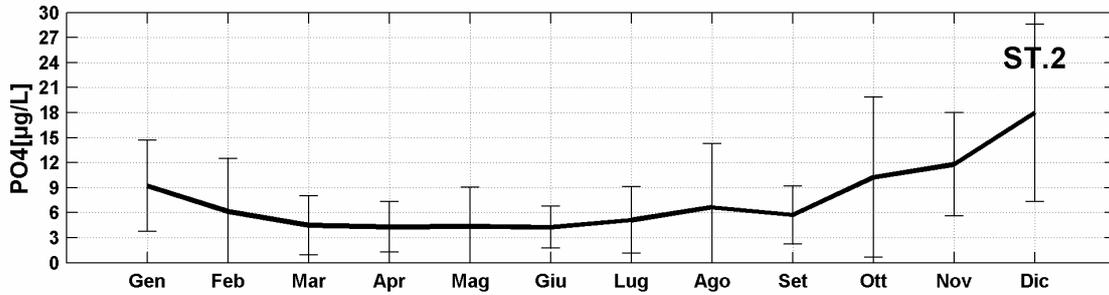
— deviazione standard  
 — climatologia 1995-2001(superficie)

### TRANSETTO 2 - NITRATI



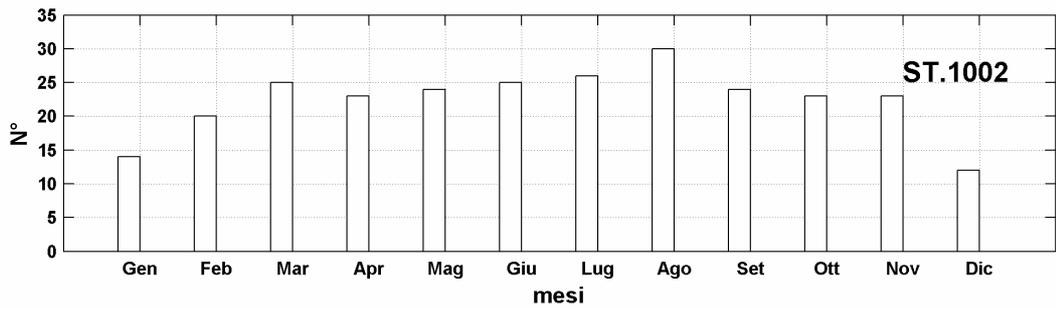
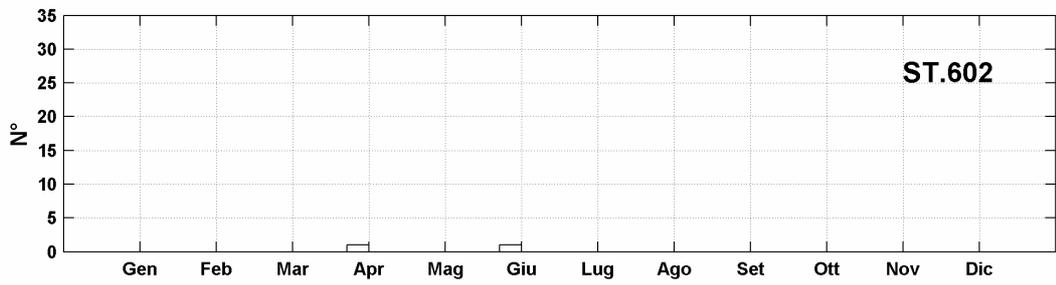
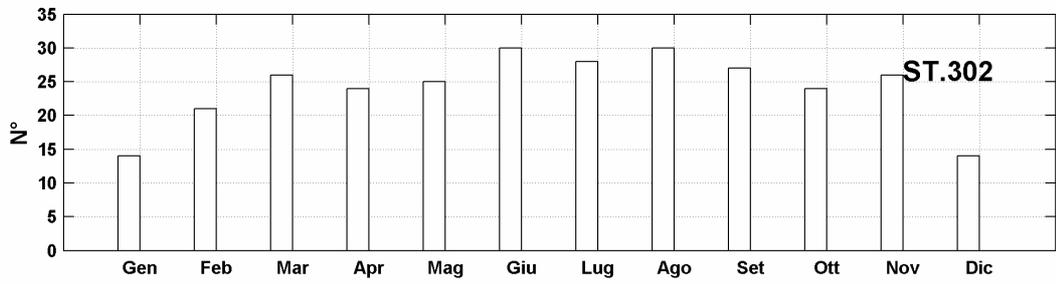
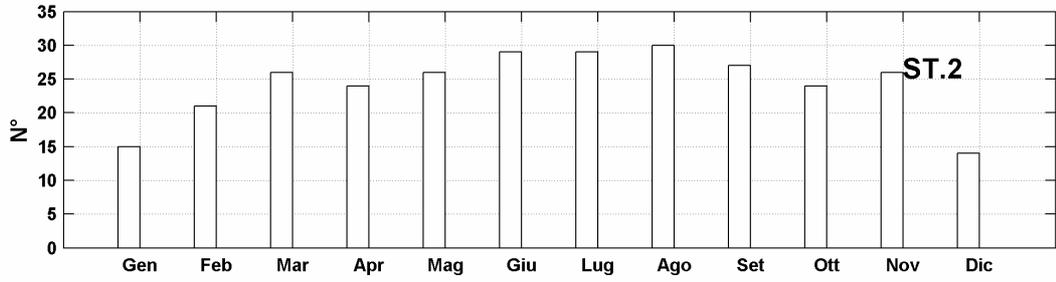
dati alla superficie  
 dati sul fondo

### CLIMATOLOGIE-TRANSETTO 2 - ORTOFOSFATI



— deviazione standard  
 — climatologia 1995-2001(superficie)

### TRANSETTO 2 - ORTOFOSFATI



dati alla superficie  
 dati sul fondo

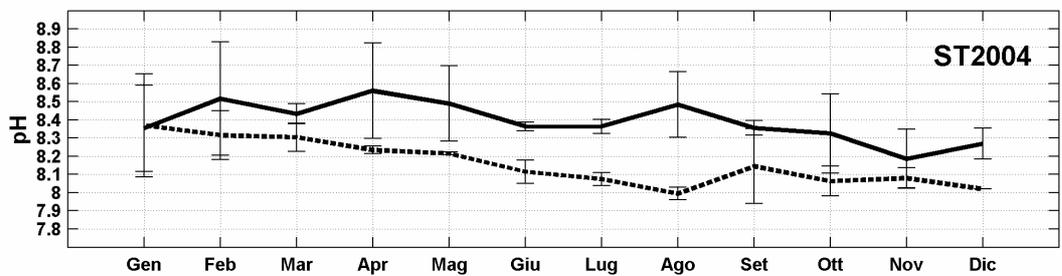
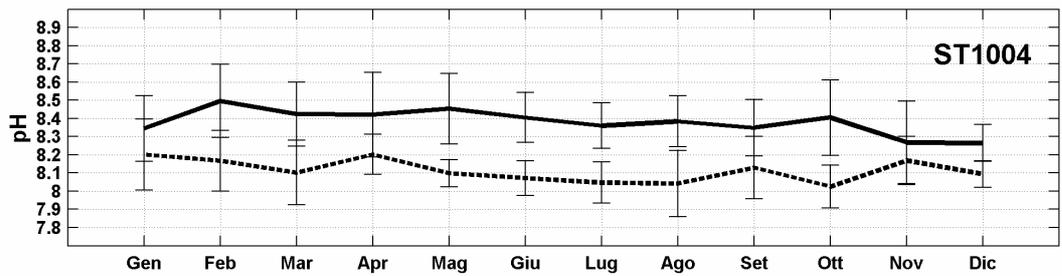
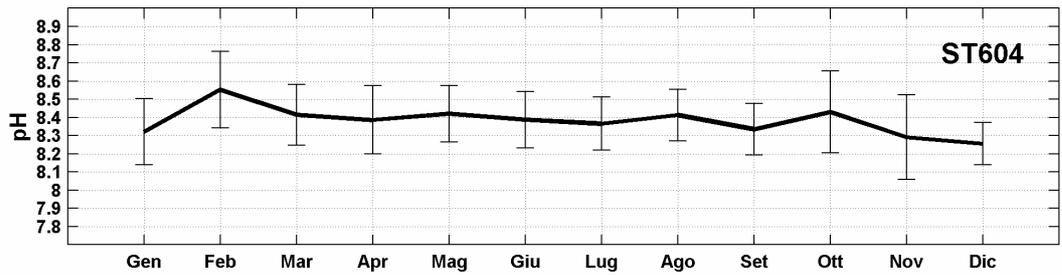
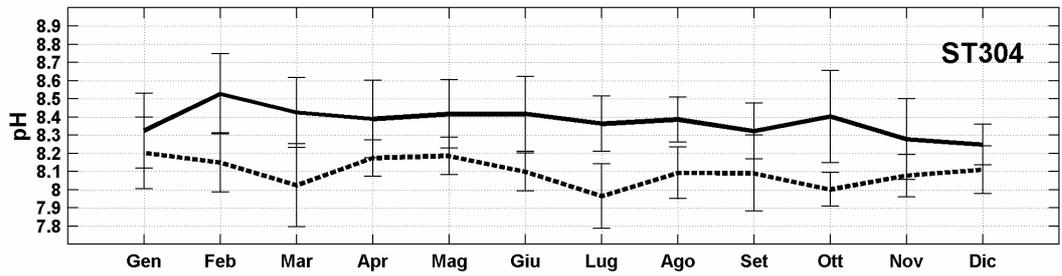
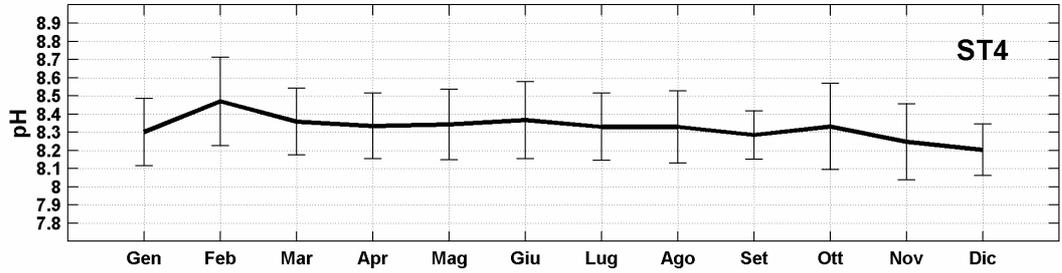
## DEVIAZIONI STANDARD

<b>st.2</b>	<b>pH</b>	<b>T[°C]</b>	<b>S[psu]</b>	<b>O2[ppm]</b>	<b>Chl_a[µg/L]</b>	<b>NO3[µg/L]</b>	<b>PO4[µg/L]</b>
gennaio	0.17	1.69	2.71	1.00	6.71	211.78	5.47
febbraio	0.23	1.62	5.81	1.82	11.09	368.72	6.32
marzo	0.14	1.67	6.19	1.23	7.74	321.54	3.55
aprile	0.19	2.01	5.48	1.10	17.02	230.67	3.04
maggio	0.16	2.30	5.75	1.07	9.13	283.12	4.66
giugno	0.14	2.21	5.00	1.36	11.62	225.07	2.52
luglio	0.16	2.11	4.83	1.17	5.92	139.27	4.00
agosto	0.18	1.69	3.48	1.70	10.74	62.10	7.67
settembre	0.13	1.84	4.28	1.12	12.38	192.93	3.46
ottobre	0.22	1.89	6.48	2.05	19.15	306.97	9.59
novembre	0.17	2.11	6.39	1.17	5.53	162.61	6.18
dicembre	0.14	2.79	4.58	1.22	1.88	400.06	10.61
<b>st.302</b>	<b>pH</b>	<b>T[°C]</b>	<b>S[psu]</b>	<b>O2[ppm]</b>	<b>Chl_a[µg/L]</b>	<b>NO3[µg/L]</b>	<b>PO4[µg/L]</b>
gennaio	0.16	1.70	2.49	1.30	12.53	163.58	6.58
febbraio	0.22	1.38	5.41	2.09	14.95	393.09	5.46
marzo	0.15	1.66	6.40	1.19	10.86	314.79	2.27
aprile	0.19	2.20	5.13	1.37	13.73	242.80	5.52
maggio	0.17	2.25	5.12	1.48	9.77	287.86	5.35
giugno	0.16	2.57	4.89	1.48	11.06	197.78	2.50
luglio	0.16	1.89	3.49	1.31	6.90	148.85	3.66
agosto	0.15	1.65	3.33	1.40	7.65	48.58	2.34
settembre	0.15	1.92	4.50	1.18	9.46	219.46	2.08
ottobre	0.22	1.82	6.69	1.96	20.44	316.92	9.49
novembre	0.22	2.22	5.84	1.31	6.94	325.28	7.57
dicembre	0.14	2.51	4.58	1.04	2.36	428.22	12.26
<b>st.602</b>	<b>pH</b>	<b>T[°C]</b>	<b>S[psu]</b>	<b>O2[ppm]</b>	<b>Chl_a[µg/L]</b>	<b>NO3[µg/L]</b>	<b>PO4[µg/L]</b>
gennaio	0.19	1.83	4.55	1.43	8.98	NaN	NaN
febbraio	0.22	1.18	5.25	2.61	18.45	NaN	NaN
marzo	0.15	1.57	6.50	1.11	11.59	NaN	NaN
aprile	0.18	1.49	4.63	1.16	8.24	0.00	0.00
maggio	0.15	2.05	5.05	0.95	10.19	NaN	NaN
giugno	0.17	2.57	4.97	1.83	12.91	0.00	0.00
luglio	0.16	1.92	4.49	0.88	8.13	NaN	NaN
agosto	0.13	1.72	3.55	2.36	12.26	NaN	NaN
settembre	0.13	2.00	3.09	0.78	10.31	NaN	NaN
ottobre	0.26	2.00	7.23	1.89	14.26	NaN	NaN
novembre	0.22	2.01	5.36	0.98	6.96	NaN	NaN
dicembre	0.15	2.57	4.12	0.90	3.13	NaN	NaN
<b>st.1002</b>	<b>pH</b>	<b>T[°C]</b>	<b>S[psu]</b>	<b>O2[ppm]</b>	<b>Chl_a[µg/L]</b>	<b>NO3[µg/L]</b>	<b>PO4[µg/L]</b>
gennaio	0.19	1.86	2.59	1.21	19.30	221.93	8.09
febbraio	0.23	1.28	5.08	2.56	17.42	378.64	4.93
marzo	0.17	1.64	6.95	1.08	12.32	362.89	6.99
aprile	0.17	1.54	4.80	1.53	13.14	190.29	2.57
maggio	0.17	2.26	5.62	1.48	11.39	234.79	2.44
giugno	0.12	2.00	4.90	1.47	7.34	261.09	3.62
luglio	0.13	1.86	4.97	1.48	5.95	228.80	3.40
agosto	0.15	1.48	3.47	1.33	7.83	97.56	1.96
settembre	0.13	1.68	3.95	1.68	11.09	249.77	6.22
ottobre	0.23	1.94	6.89	1.86	13.11	375.81	12.88
novembre	0.23	2.03	7.79	0.93	8.39	308.40	8.97
dicembre	0.13	2.02	5.72	0.90	3.14	382.11	16.57

## COEFFICIENTI DI CORRELAZIONE TRA CLIMATOLOGIE

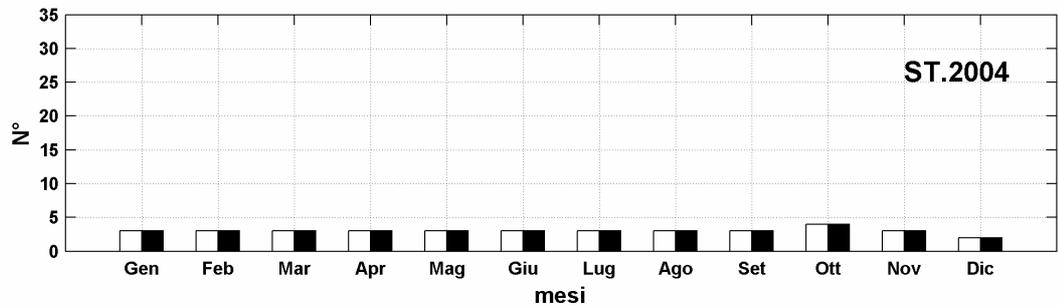
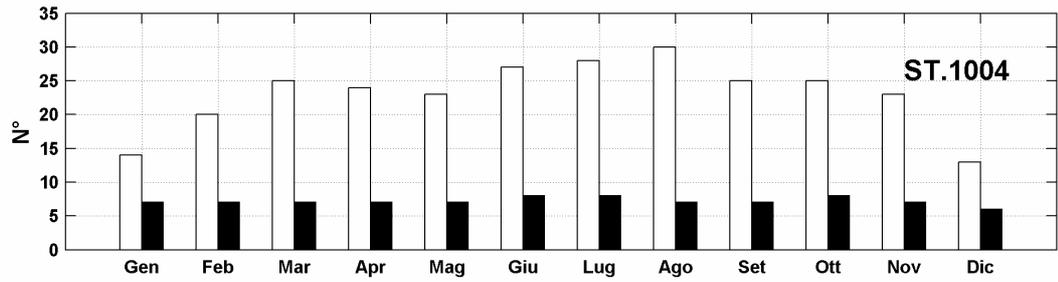
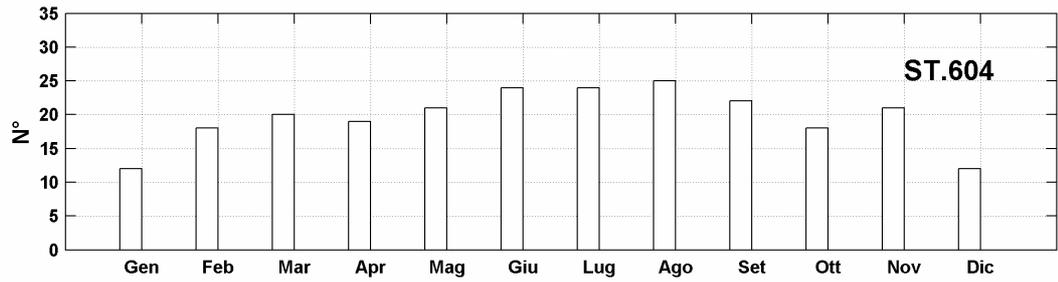
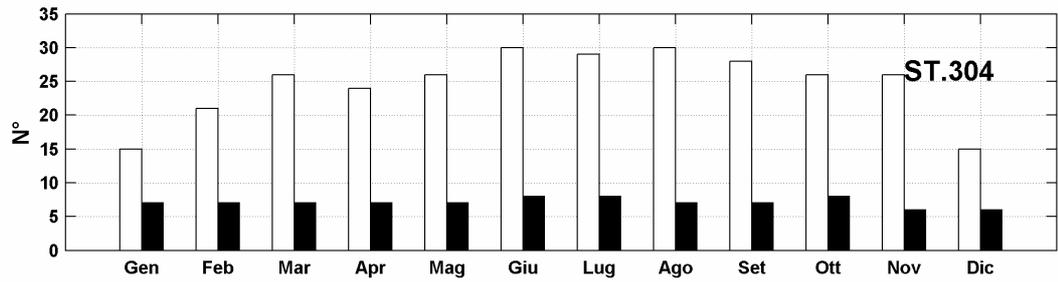
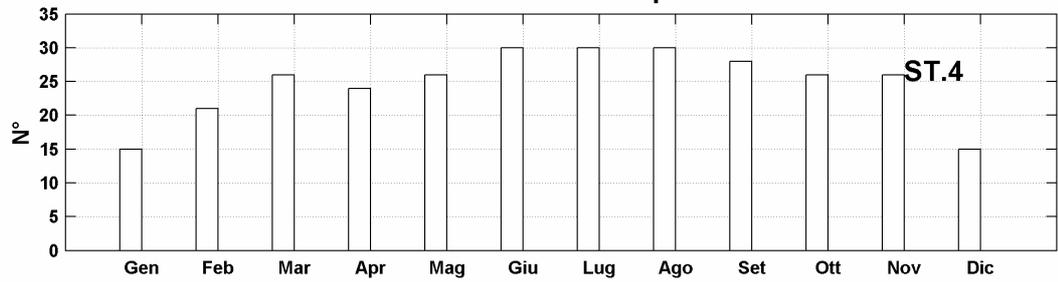
<b>st.2</b>	pH	temperatura	salinita	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	0.17	1.00					
salinita	-0.62	-0.61	1.00				
O2	0.28	-0.79	0.32	1.00			
clorofilla	0.63	0.61	-0.72	-0.40	1.00		
nitrati	0.03	-0.75	0.05	0.58	-0.28	1.00	
fosfati	-0.79	-0.37	0.57	-0.16	-0.61	0.28	1.00
<b>st.302</b>	pH	temperatura	salinita	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	0.35	1.00					
salinita	-0.65	-0.41	1.00				
O2	0.08	-0.71	0.22	1.00			
clorofilla	0.60	0.20	-0.55	-0.16	1.00		
nitrati	-0.13	-0.80	-0.18	0.50	0.02	1.00	
fosfati	-0.80	-0.48	0.36	-0.05	-0.53	0.46	1.00
<b>st.602</b>	pH	temperatura	salinita	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	0.30	1.00					
salinita	-0.67	-0.25	1.00				
O2	0.06	-0.69	0.24	1.00			
clorofilla	0.81	0.07	-0.71	-0.02	1.00		
nitrati	NaN	NaN	NaN	NaN	NaN	NaN	
fosfati	NaN	NaN	NaN	NaN	NaN	NaN	NaN
<b>st.1002</b>	pH	temperatura	salinita	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	0.17	1.00					
salinita	-0.38	-0.07	1.00				
O2	0.27	-0.67	0.18	1.00			
clorofilla	0.63	-0.35	-0.25	0.38	1.00		
nitrati	0.10	-0.75	-0.57	0.36	0.47	1.00	
fosfati	-0.69	-0.47	-0.08	-0.25	-0.18	0.50	1.00

### CLIMATOLOGIE-TRANSETTO 4 - pH



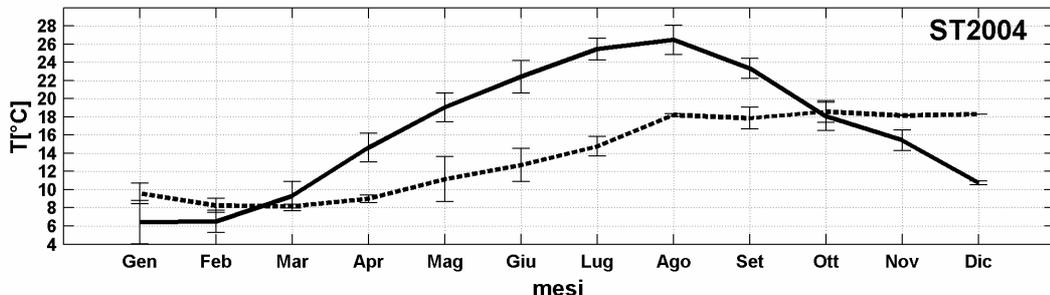
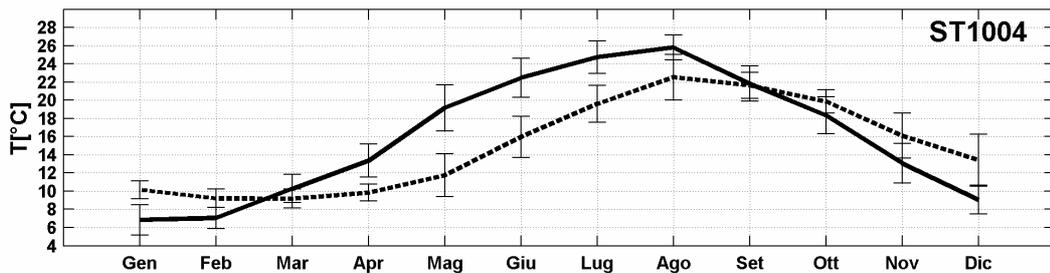
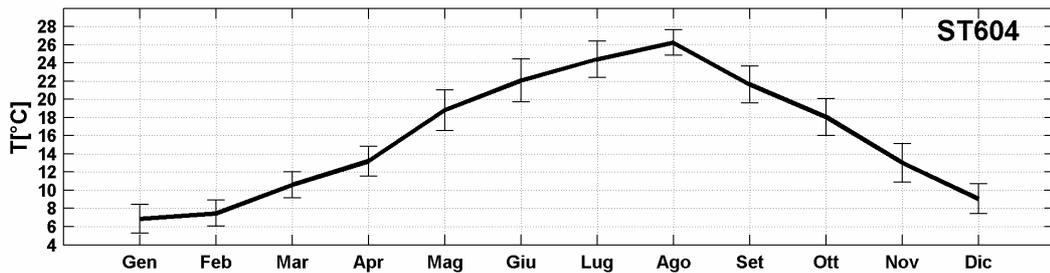
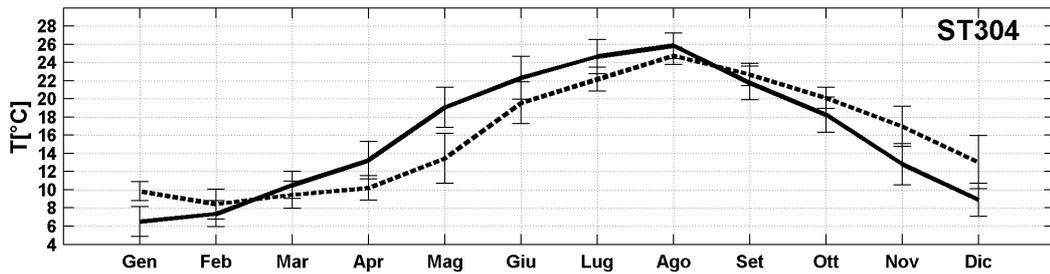
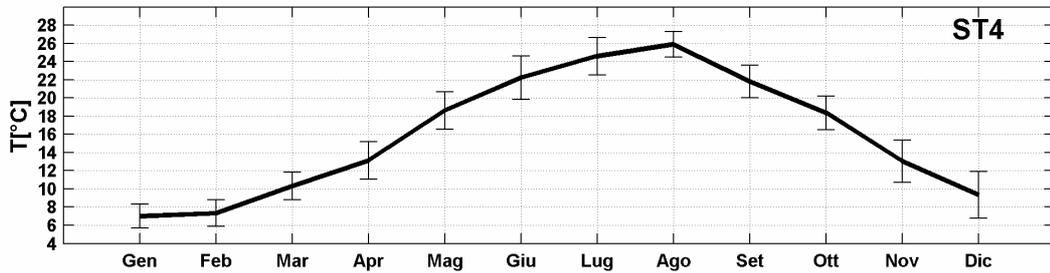
— deviazione standard  
 — climatologia 1995-2001(superficie)  
 - - - climatologia 1995-2001(fondo)

### TRANSETTO 4 - pH



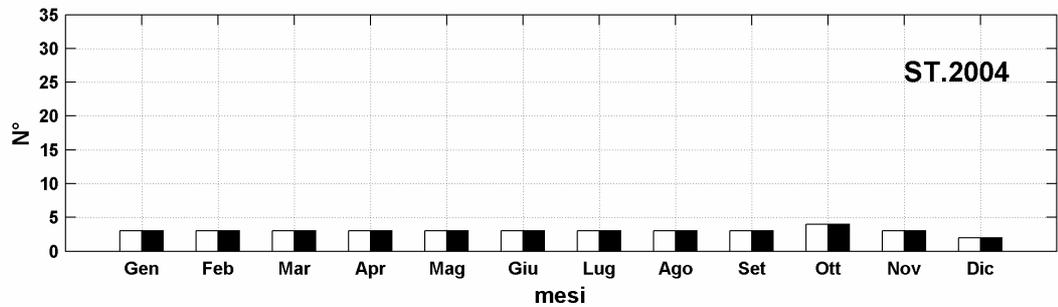
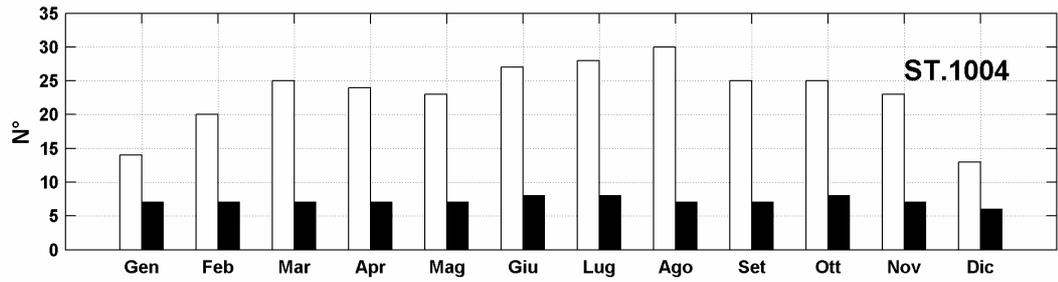
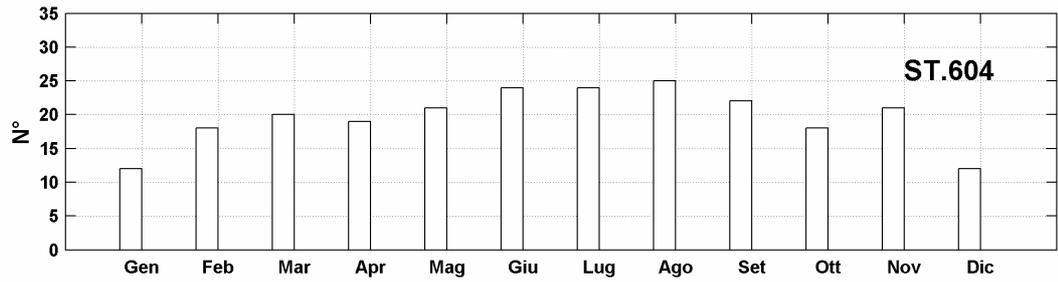
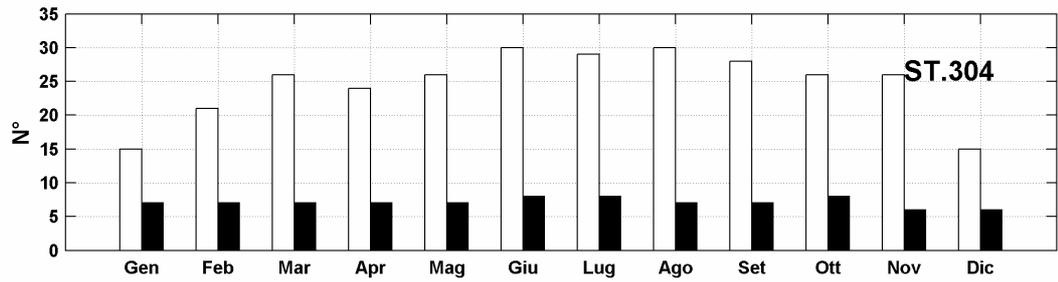
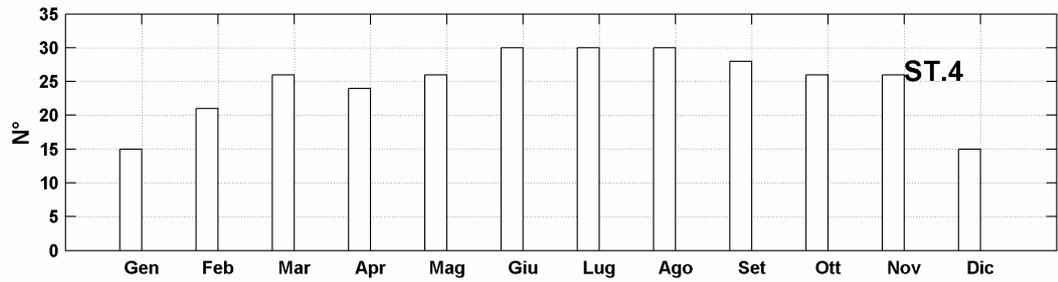
dati alla superficie  
 dati sul fondo

### CLIMATOLOGIE-TRANSETTO 4 - TEMPERATURA



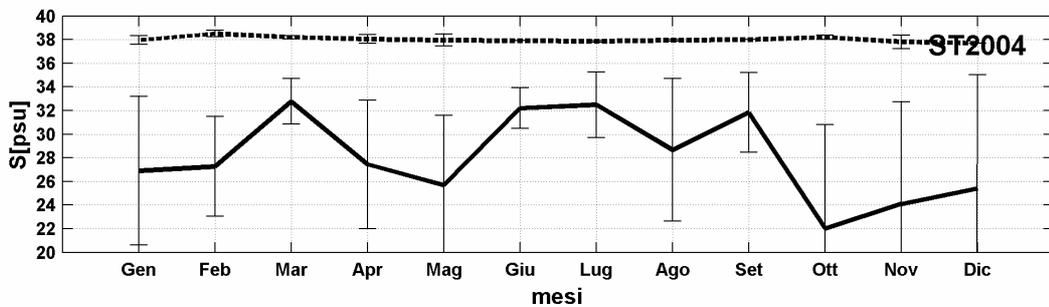
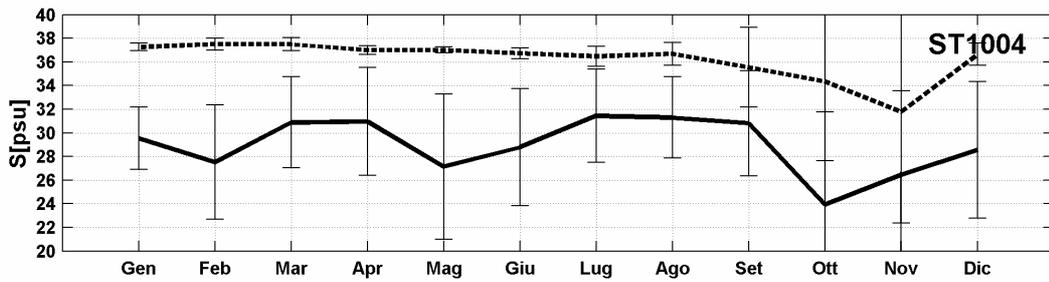
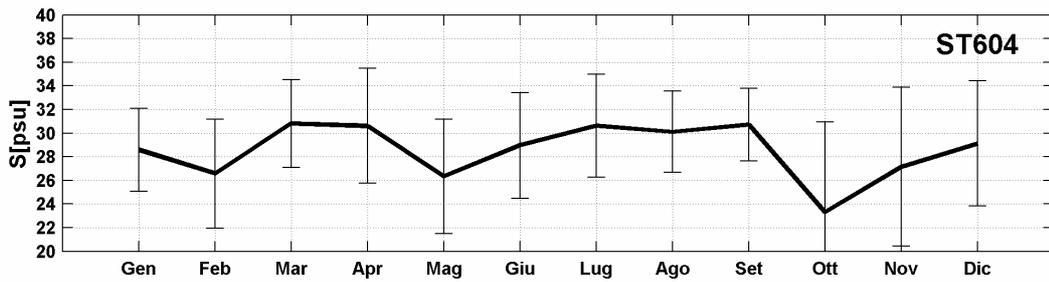
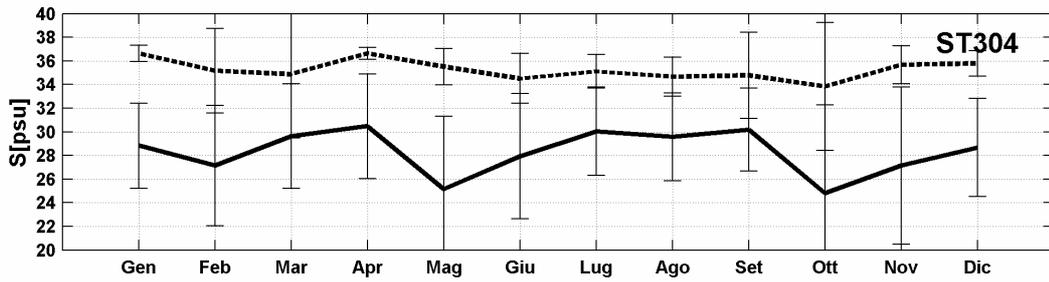
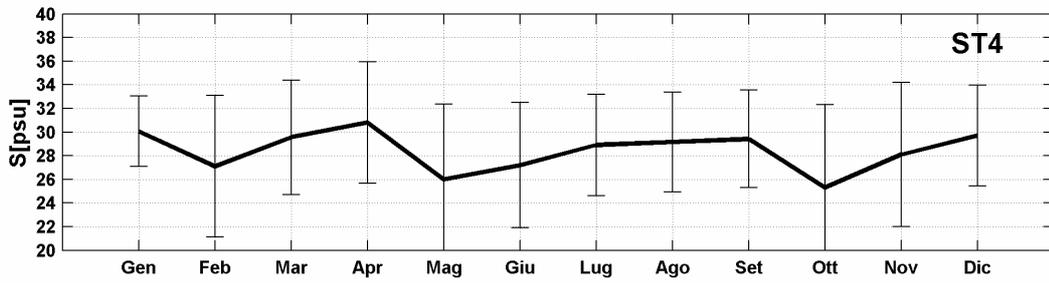
— deviazione standard  
 — climatologia 1995-2001(superficie)  
 - - - climatologia 1995-2001(fondo)

### TRANSETTO 4 - TEMPERATURA



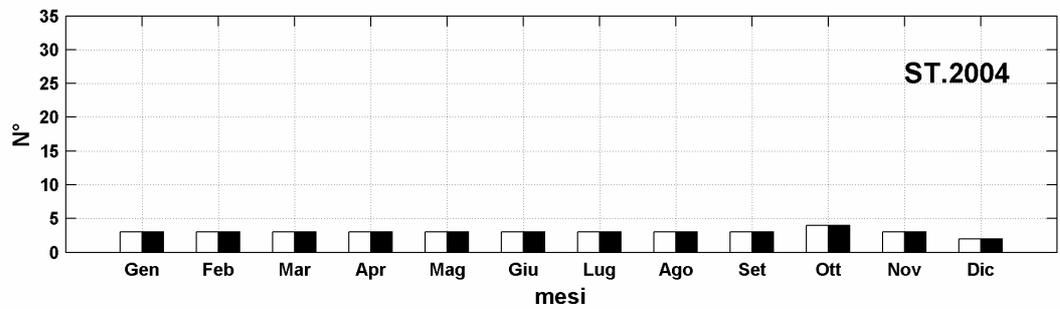
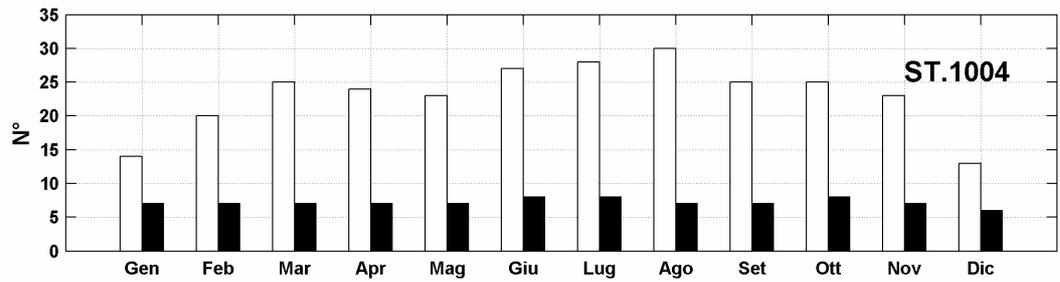
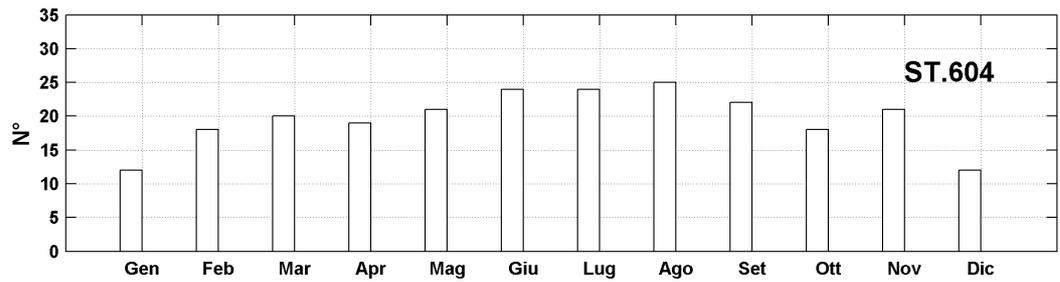
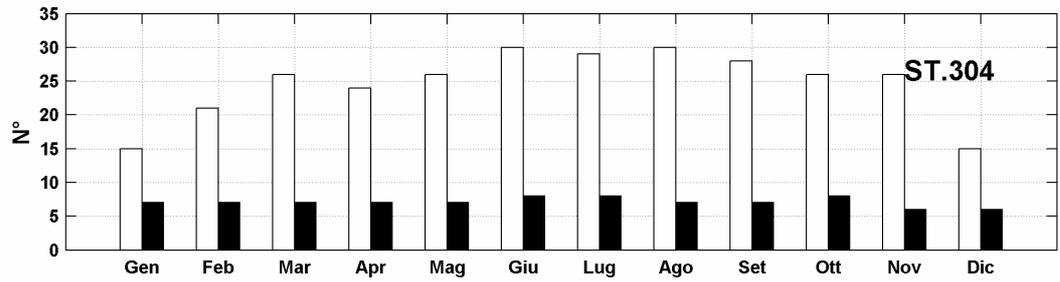
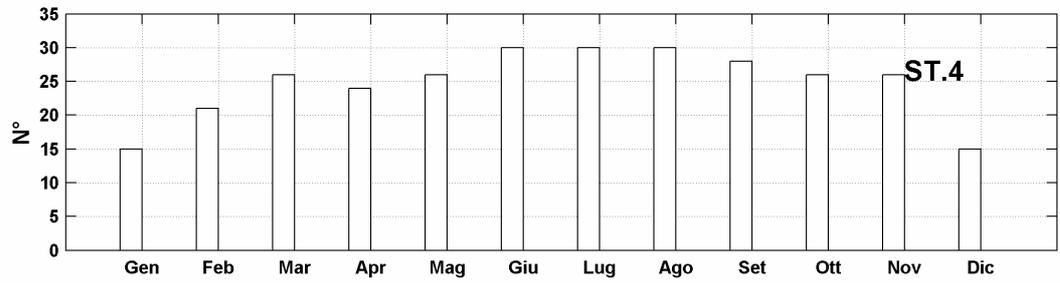
dati alla superficie  
 dati sul fondo

### CLIMATOLOGIE-TRANSETTO 4 - SALINITA



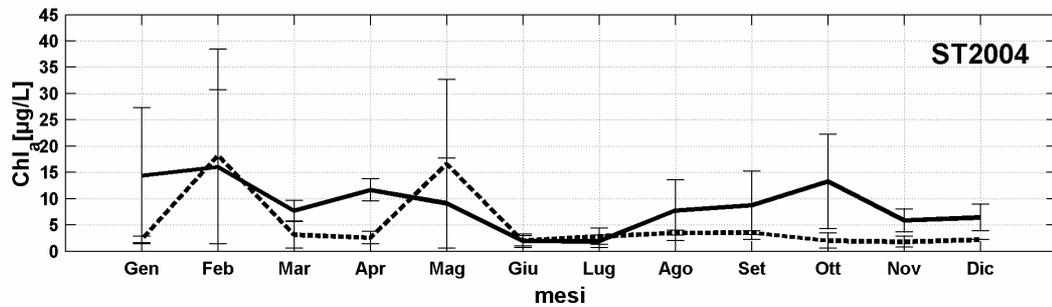
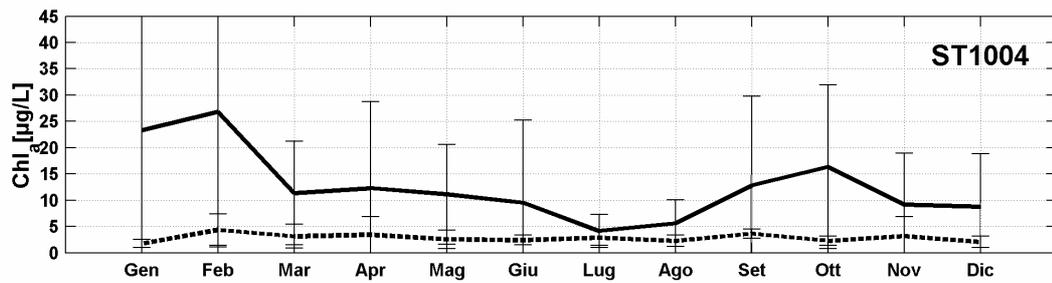
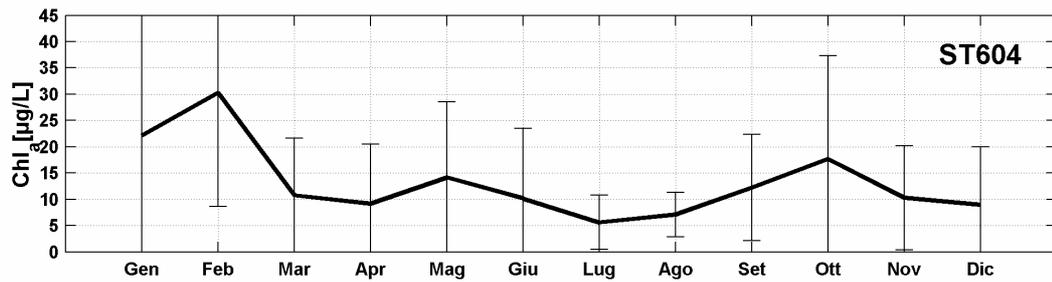
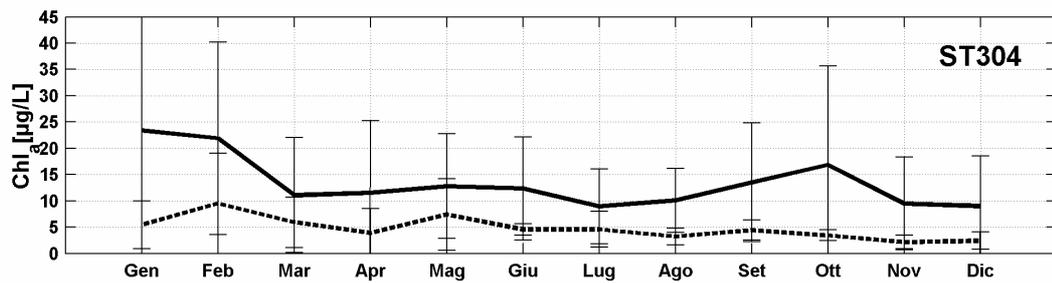
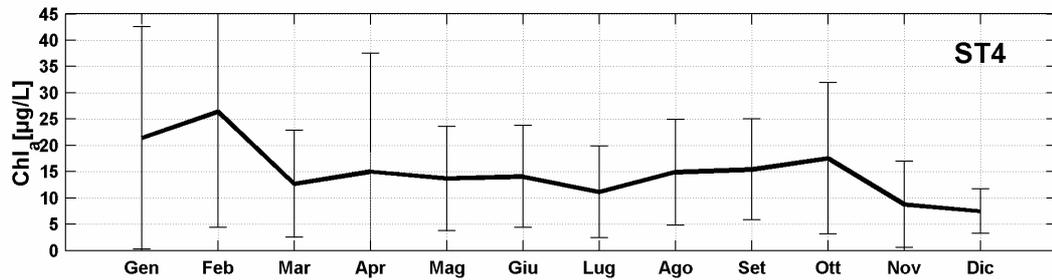
- deviazione standard
- climatologia 1995-2001(superficie)
- - - climatologia 1995-2001(fondo)

### TRANSETTO 4 - SALINITA



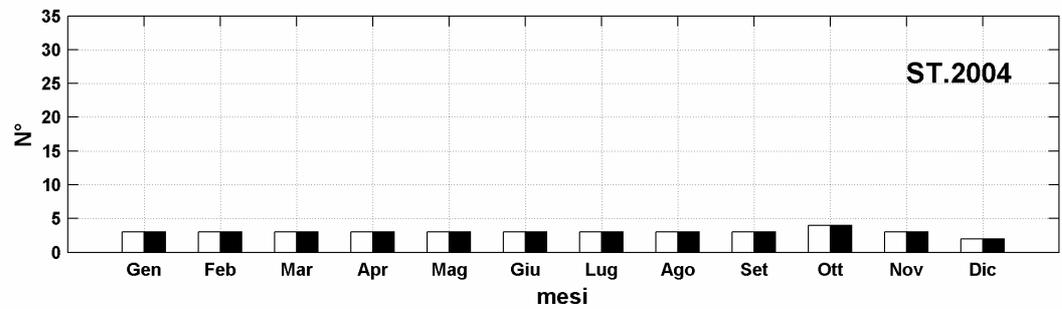
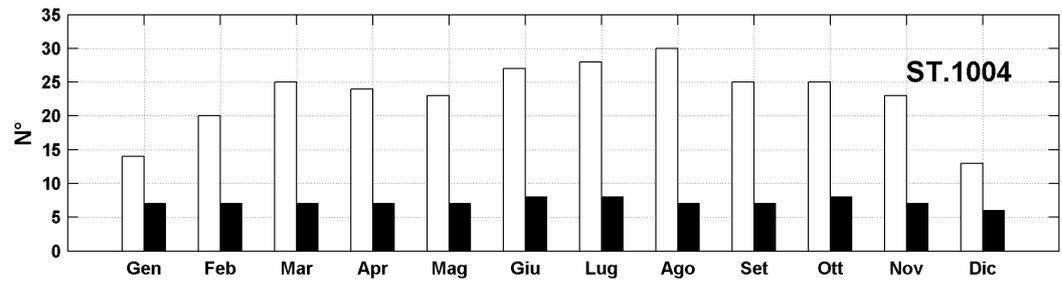
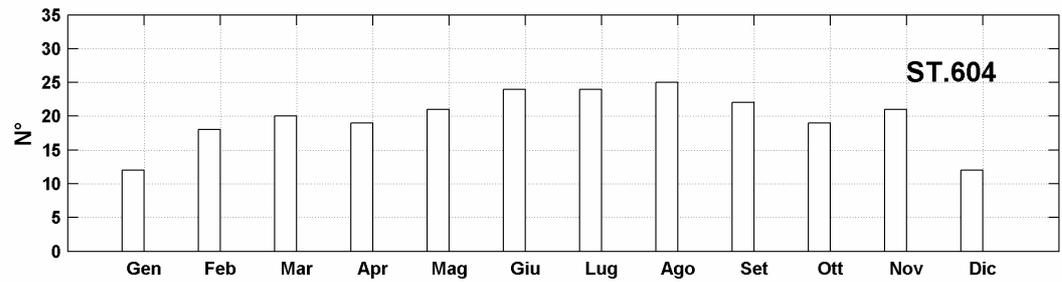
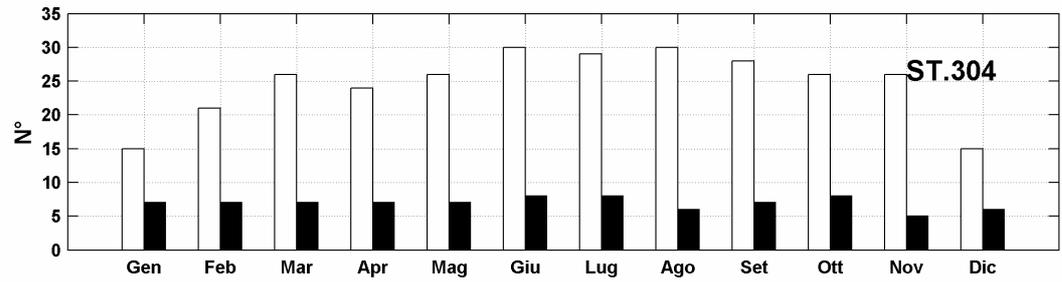
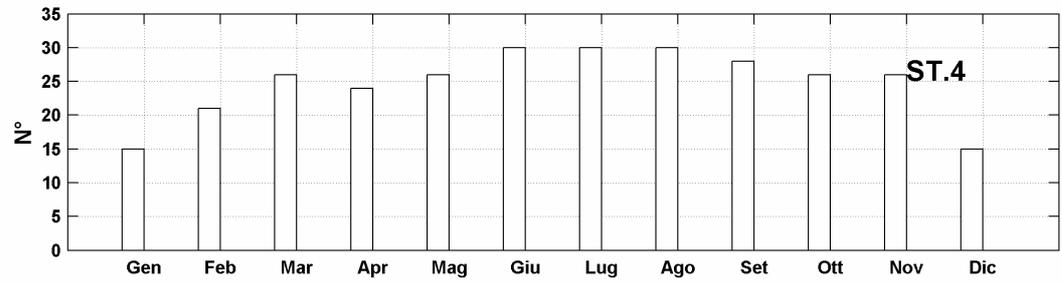
dati alla superficie  
 dati sul fondo

### CLIMATOLOGIE-TRANSETTO 4 - CLOROFILLA



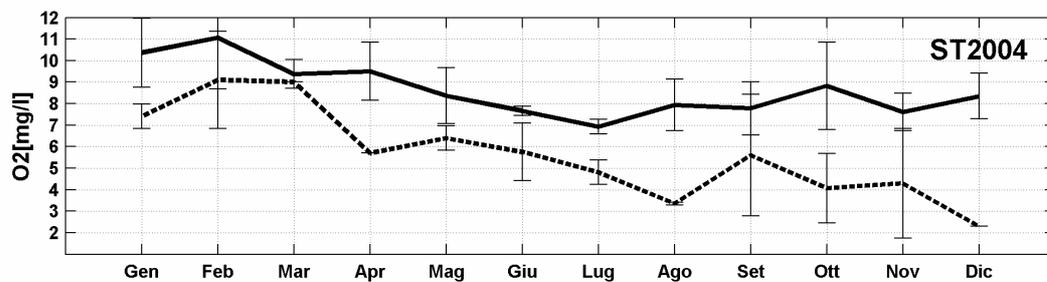
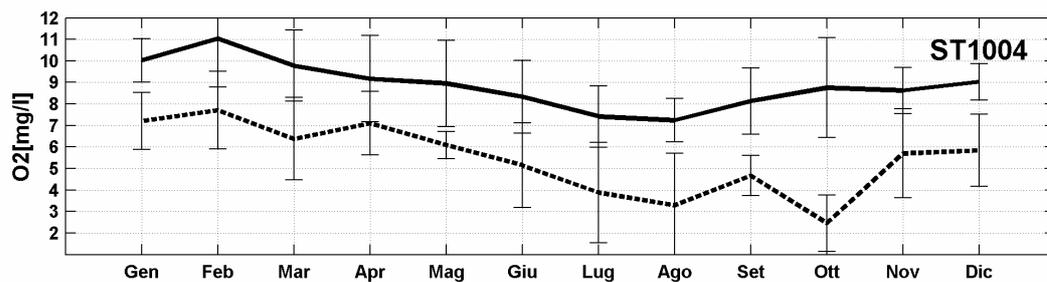
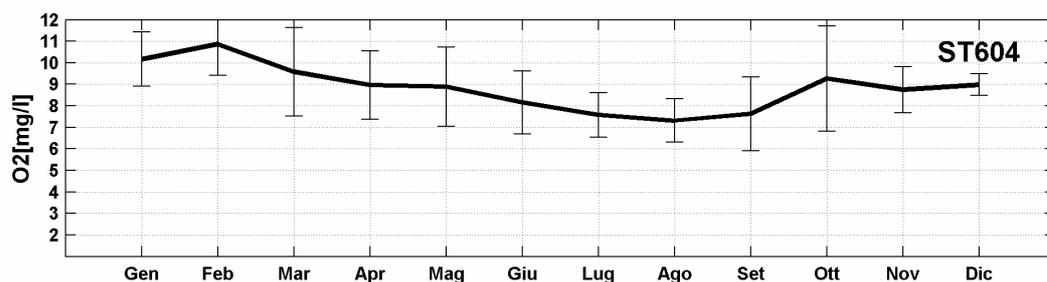
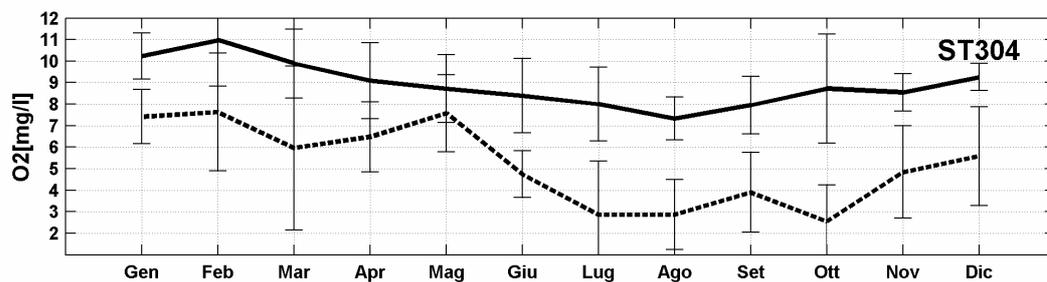
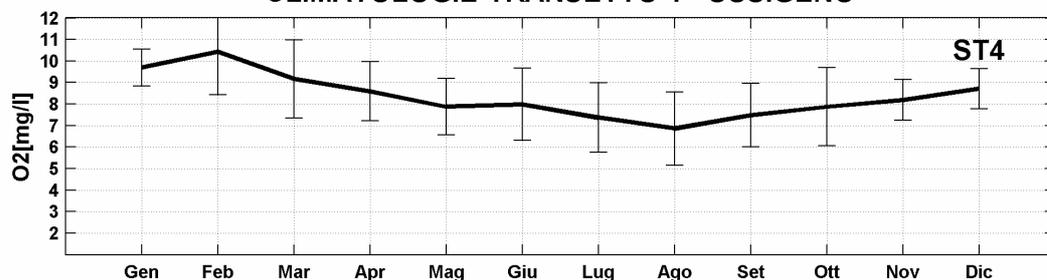
— deviazione standard  
 — climatologia 1995-2001(superficie)  
 - - - climatologia 1995-2001(fondo)

### TRANSETTO 4 - CLOROFILLA



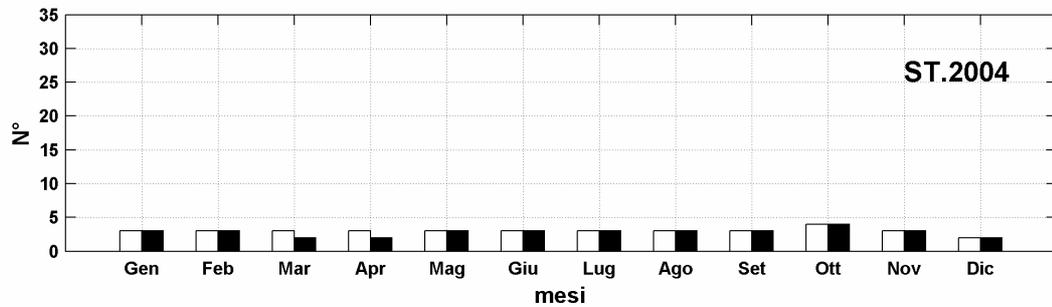
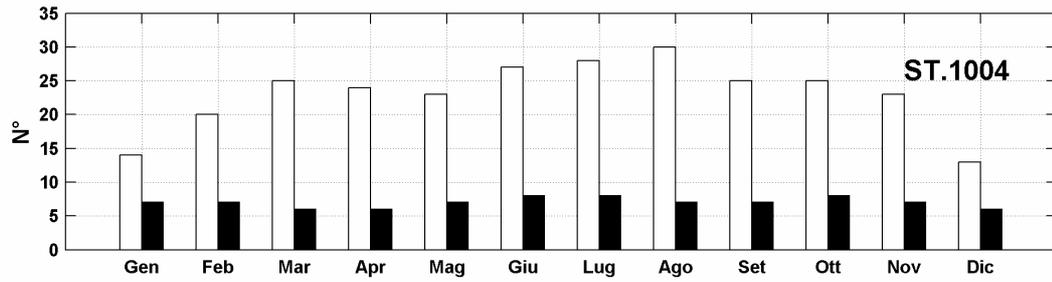
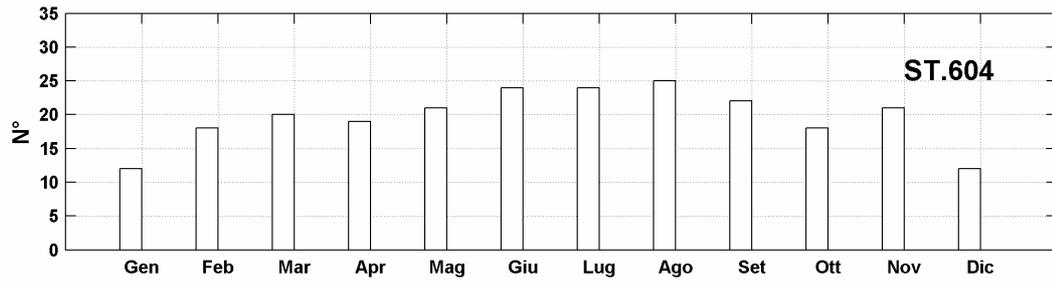
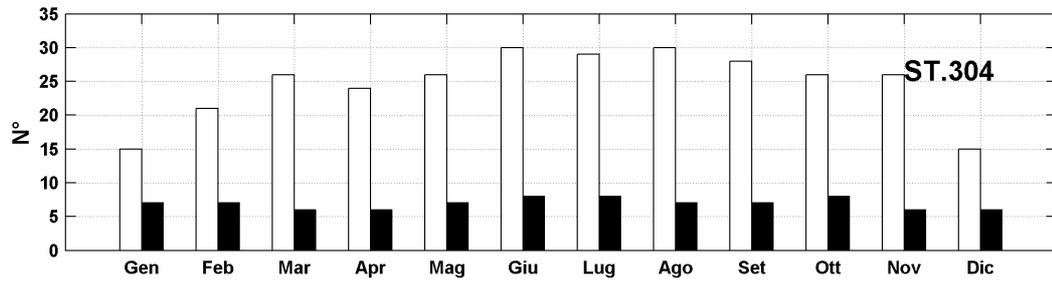
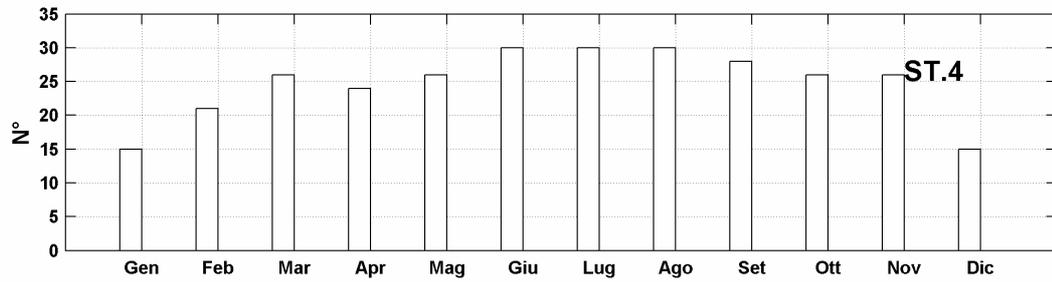
dati alla superficie  
 dati sul fondo

### CLIMATOLOGIE-TRANSETTO 4 - OSSIGENO



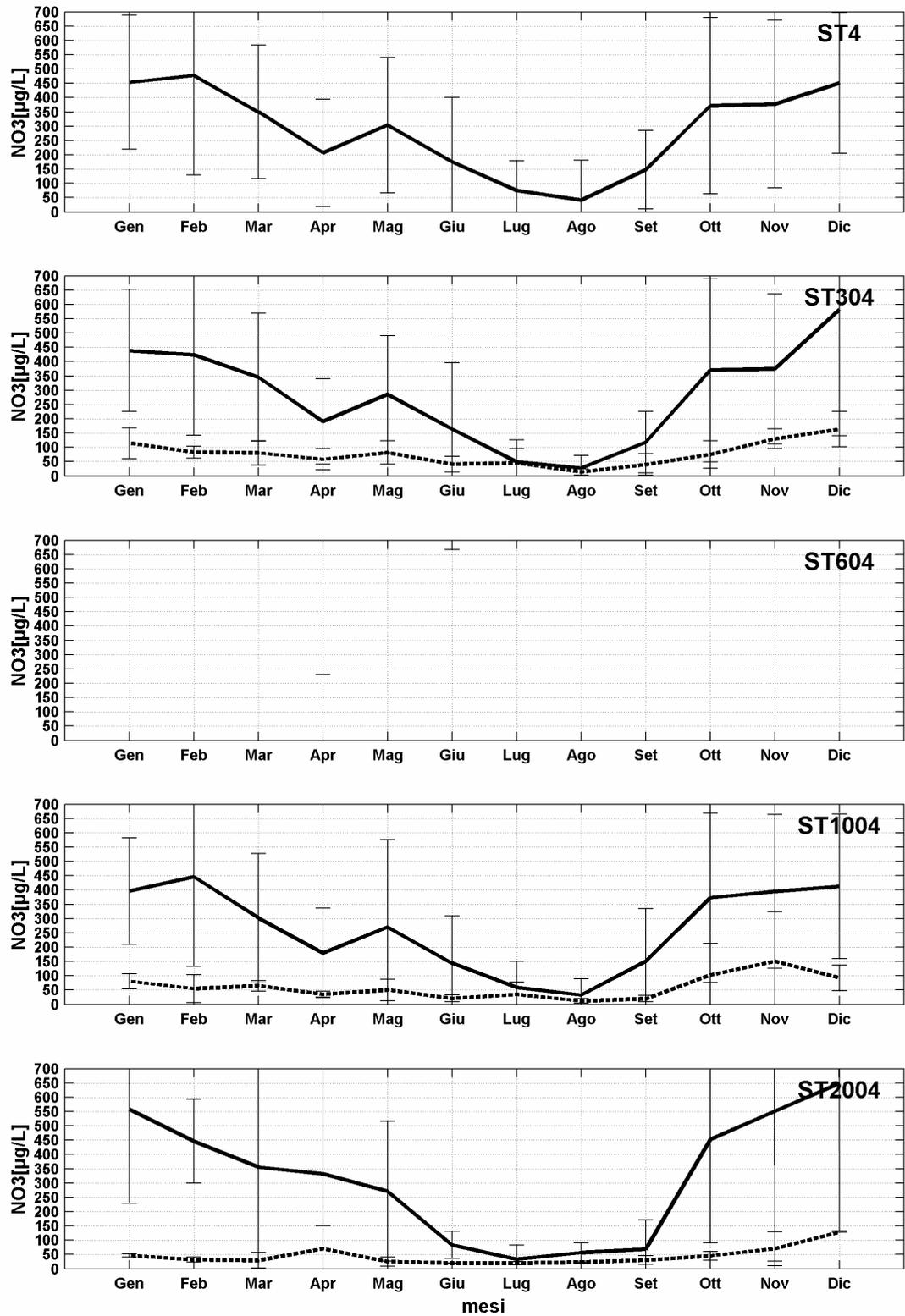
— deviazione standard  
 — climatologia 1995-2001(superficie)  
 - - - climatologia 1995-2001(fondo)

### TRANSETTO 4 - OSSIGENO



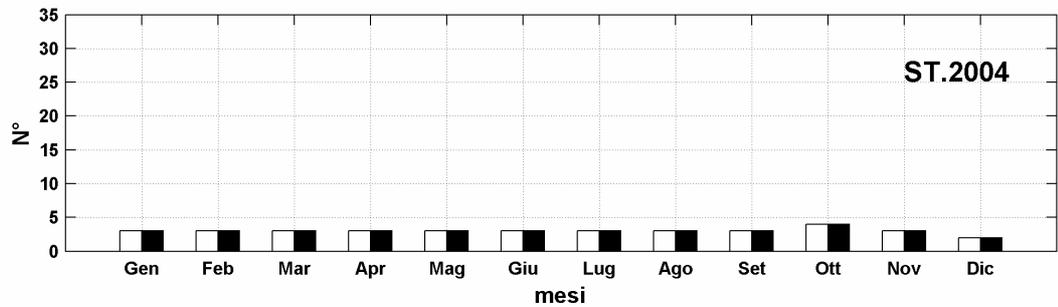
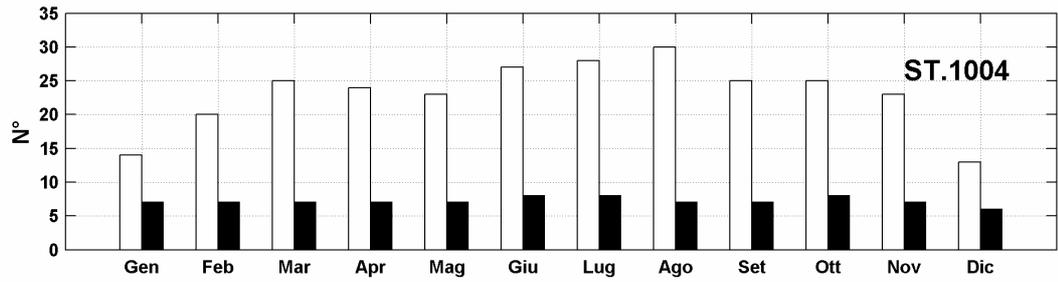
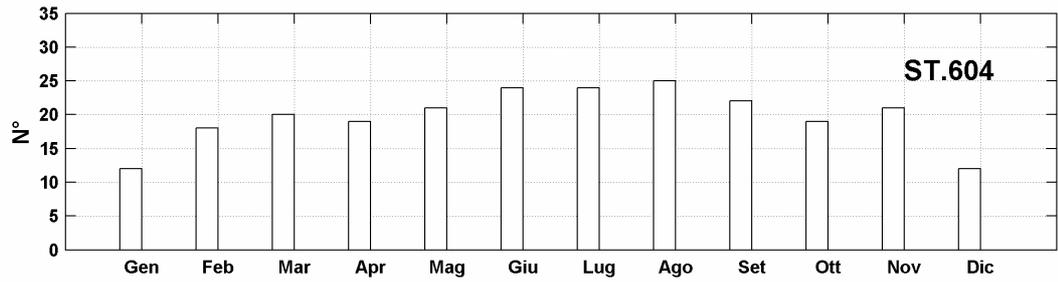
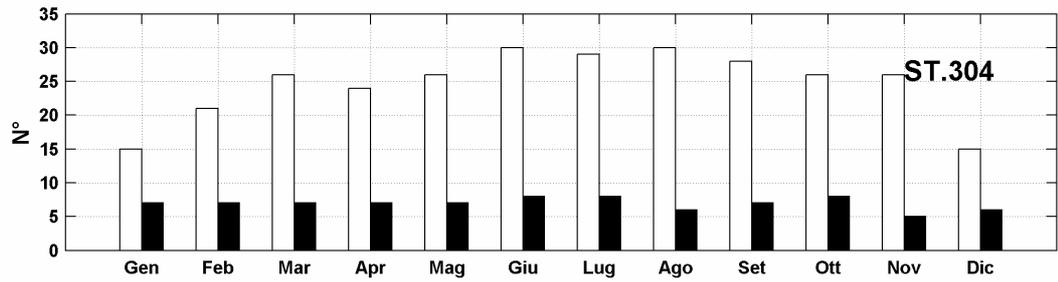
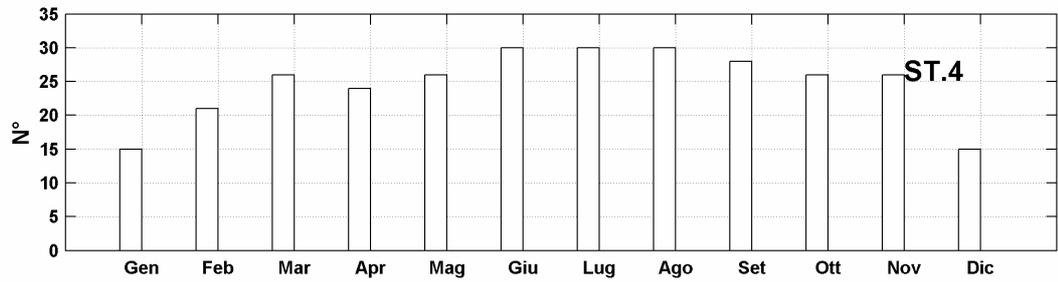
dati alla superficie  
 dati sul fondo

### CLIMATOLOGIE-TRANSETTO 4 - NITRATI



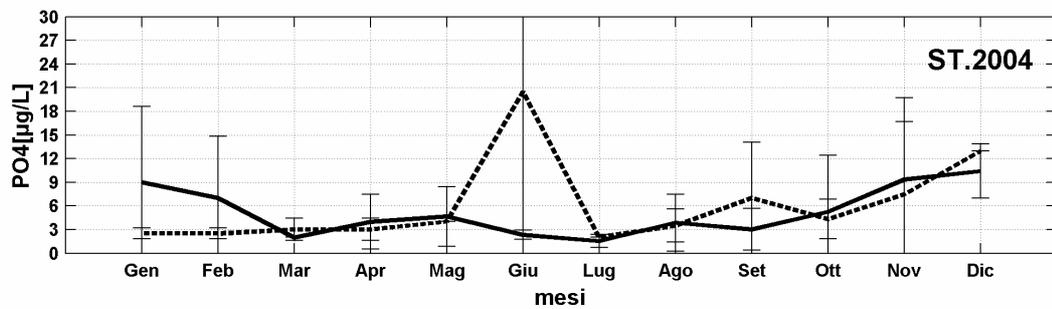
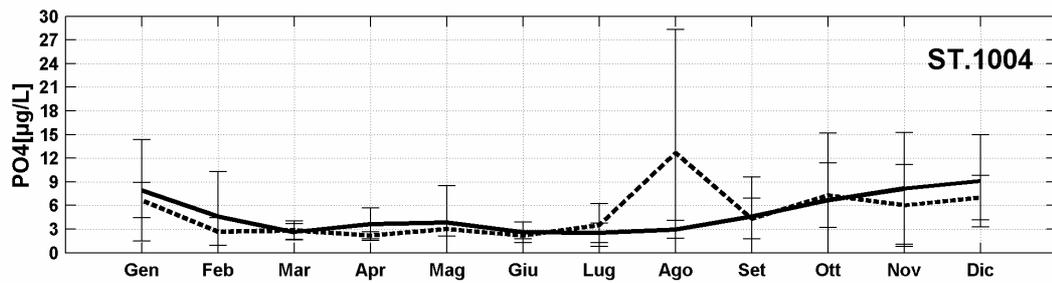
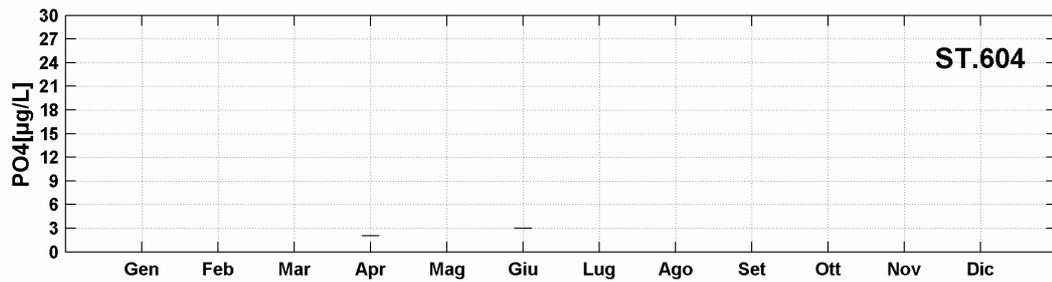
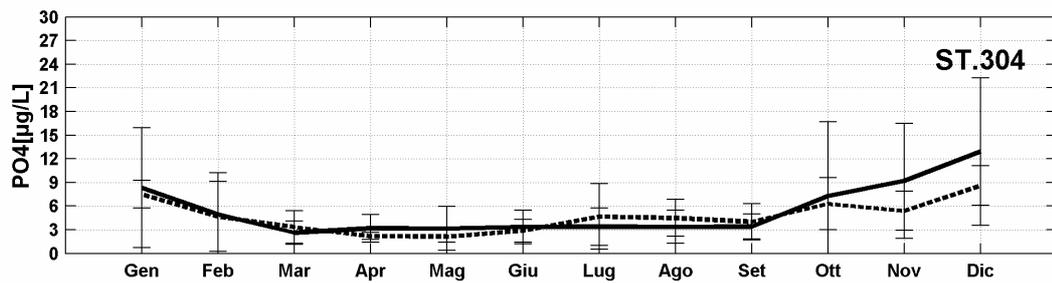
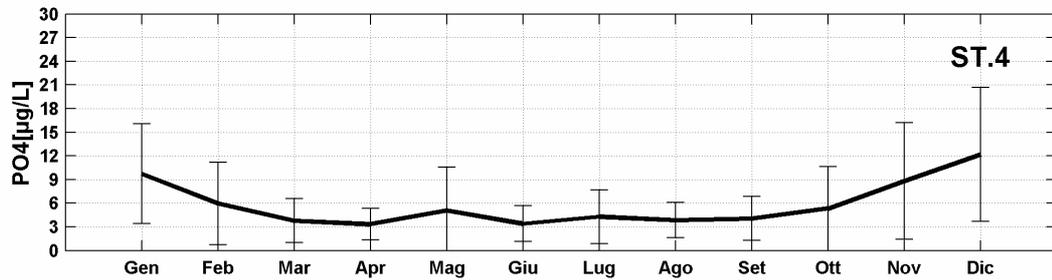
— deviazione standard  
 — climatologia 1995-2001(superficie)  
 - - - climatologia 1995-2001(fondo)

### TRANSETTO 4 - CLOROFILLA



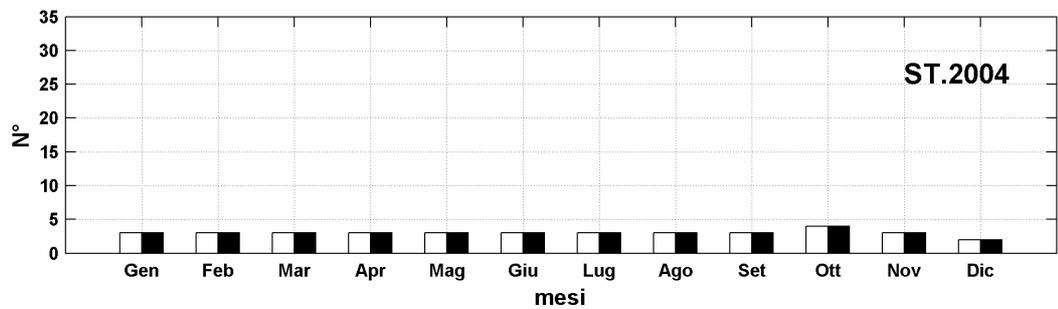
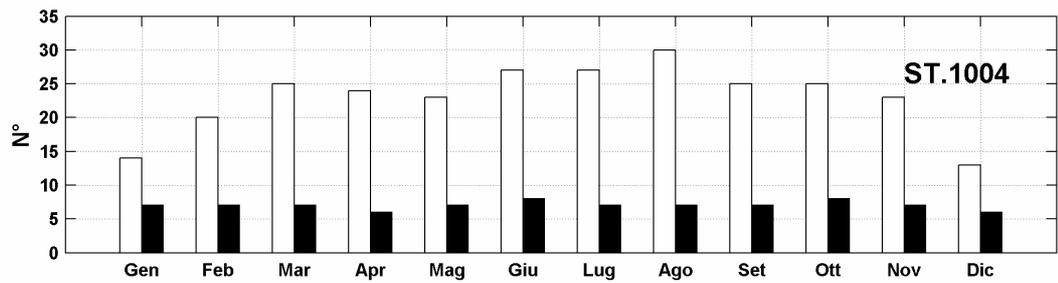
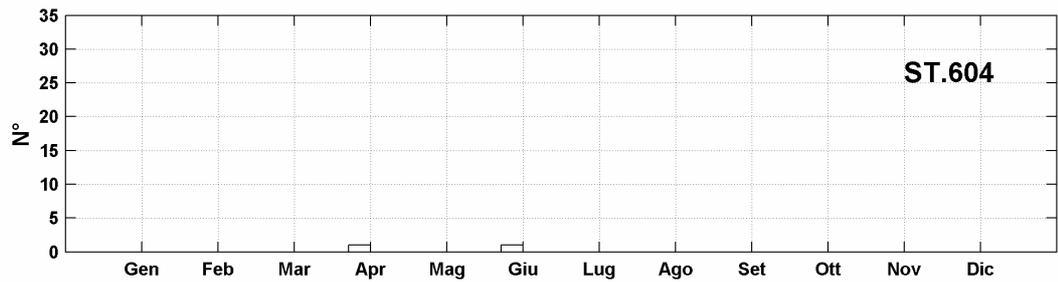
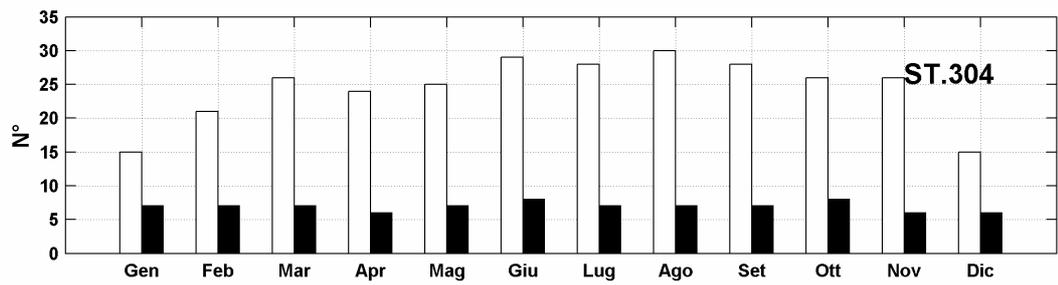
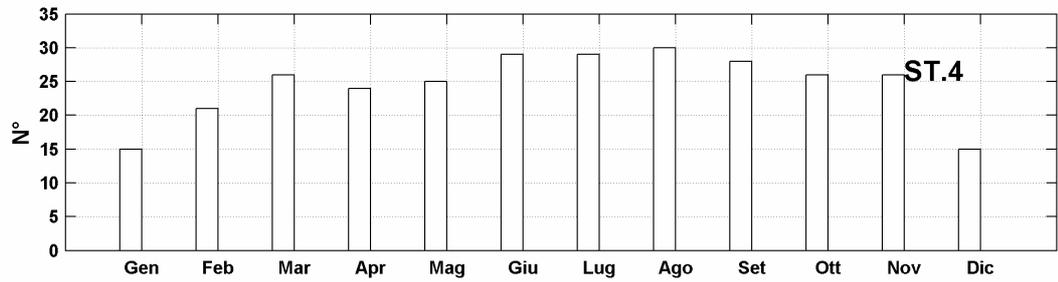
dati alla superficie  
 dati sul fondo

### CLIMATOLOGIE-TRANSETTO 4 - ORTOFOSFATI



- deviazione standard
- climatologia 1995-2001(superficie)
- - - climatologia 1995-2001(fondo)

### TRANSETTO 4 - ORTOFOSFATI



dati alla superficie  
 dati sul fondo

## DEVIAZIONI STANDARD

<b>st.4</b>	<b>pH</b>	<b>T[°C]</b>	<b>S[psu]</b>	<b>O2[ppm]</b>	<b>Chl_a[µg/L]</b>	<b>NO3[µg/L]</b>	<b>PO4[µg/L]</b>
gennaio	0.19	1.31	2.98	0.85	21.13	234.40	6.32
febbraio	0.24	1.45	6.00	2.02	22.07	348.32	5.22
marzo	0.18	1.51	4.84	1.82	10.13	233.41	2.79
aprile	0.18	2.04	5.15	1.38	22.46	187.95	2.01
maggio	0.19	2.06	6.35	1.31	9.90	237.00	5.51
giugno	0.21	2.39	5.29	1.68	9.68	225.04	2.28
luglio	0.19	2.07	4.29	1.61	8.73	104.03	3.38
agosto	0.20	1.39	4.21	1.71	10.06	139.11	2.24
settembre	0.13	1.80	4.14	1.47	9.61	136.94	2.79
ottobre	0.24	1.84	7.01	1.82	14.38	308.38	5.33
novembre	0.21	2.32	6.09	0.95	8.21	292.92	7.41
dicembre	0.14	2.59	4.27	0.94	4.25	246.65	8.52
<b>st.304</b>	<b>pH</b>	<b>T[°C]</b>	<b>S[psu]</b>	<b>O2[ppm]</b>	<b>Chl_a[µg/L]</b>	<b>NO3[µg/L]</b>	<b>PO4[µg/L]</b>
gennaio	0.21	1.66	3.59	1.07	23.65	212.87	7.62
febbraio	0.22	1.43	5.09	2.14	18.35	280.35	5.28
marzo	0.19	1.48	4.44	1.60	10.96	224.53	1.47
aprile	0.21	2.07	4.43	1.78	13.74	149.39	1.79
maggio	0.19	2.21	6.16	1.57	9.99	205.10	2.78
giugno	0.21	2.37	5.30	1.73	9.81	231.09	2.13
luglio	0.15	1.90	3.72	1.72	7.10	75.95	2.39
agosto	0.12	1.40	3.72	0.99	6.10	43.64	2.09
settembre	0.15	1.84	3.52	1.33	11.29	107.67	1.58
ottobre	0.25	1.94	7.47	2.54	18.82	321.32	9.40
novembre	0.22	2.24	6.66	0.86	8.82	262.03	7.31
dicembre	0.11	1.82	4.14	0.63	9.50	440.64	9.38
<b>st.604</b>	<b>pH</b>	<b>T[°C]</b>	<b>S[psu]</b>	<b>O2[ppm]</b>	<b>Chl_a[µg/L]</b>	<b>NO3[µg/L]</b>	<b>PO4[µg/L]</b>
gennaio	0.18	1.59	3.50	1.27	32.13	NaN	NaN
febbraio	0.21	1.43	4.61	1.45	21.67	NaN	NaN
marzo	0.17	1.44	3.72	2.05	10.83	NaN	NaN
aprile	0.19	1.64	4.86	1.59	11.34	0.00	0.00
maggio	0.16	2.25	4.84	1.84	14.34	NaN	NaN
giugno	0.15	2.36	4.47	1.46	13.37	0.00	0.00
luglio	0.15	1.99	4.37	1.04	5.16	NaN	NaN
agosto	0.14	1.38	3.43	1.01	4.20	NaN	NaN
settembre	0.14	2.01	3.08	1.71	10.09	NaN	NaN
ottobre	0.22	2.02	7.62	2.44	19.58	NaN	NaN
novembre	0.23	2.11	6.73	1.07	9.90	NaN	NaN
dicembre	0.12	1.64	5.29	0.50	10.99	NaN	NaN
<b>st.1004</b>	<b>pH</b>	<b>T[°C]</b>	<b>S[psu]</b>	<b>O2[ppm]</b>	<b>Chl_a[µg/L]</b>	<b>NO3[µg/L]</b>	<b>PO4[µg/L]</b>
gennaio	0.18	1.67	2.63	1.02	27.11	186.22	6.44
febbraio	0.20	1.17	4.83	2.25	25.68	313.86	5.67
marzo	0.18	1.56	3.85	1.66	9.84	226.77	1.04
aprile	0.23	1.82	4.56	2.01	16.45	156.09	2.08
maggio	0.19	2.53	6.15	2.00	9.48	306.49	4.65
giugno	0.14	2.14	4.95	1.69	15.72	164.81	1.31
luglio	0.13	1.79	3.94	1.43	3.12	90.53	1.22
agosto	0.14	1.38	3.44	1.01	4.44	57.04	1.14
settembre	0.16	1.93	4.46	1.54	17.03	184.89	4.95
ottobre	0.21	2.02	7.84	2.32	15.60	296.13	8.48
novembre	0.23	2.16	7.08	1.07	9.72	268.87	7.10
dicembre	0.10	1.59	5.78	0.84	10.14	252.33	5.84

## DEVIAZIONI STANDARD

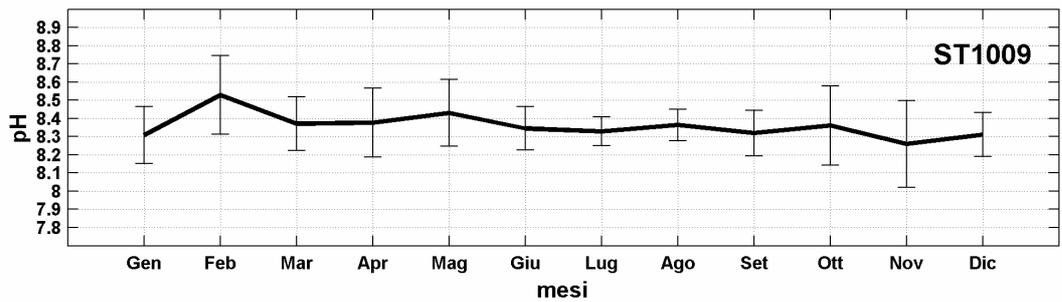
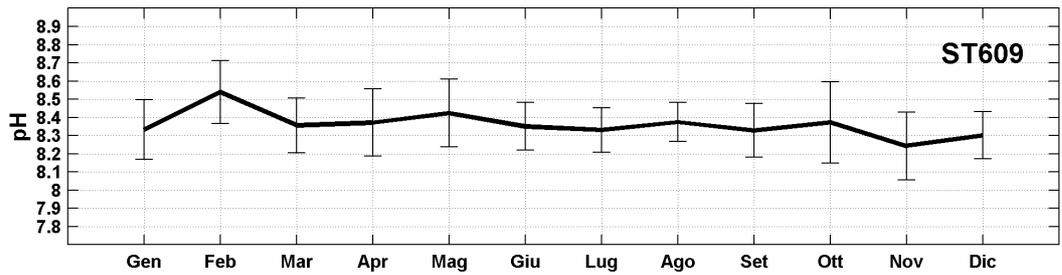
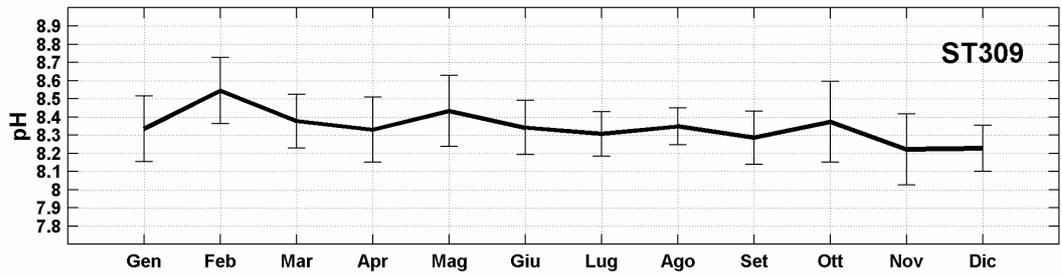
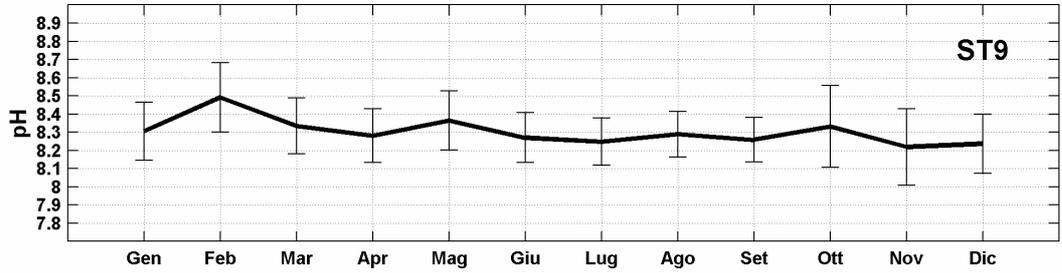
<b>st.2004</b>	<b>pH</b>	<b>T[°C]</b>	<b>S[psu]</b>	<b>O2[ppm]</b>	<b>Chl_a[µg/L]</b>	<b>NO3[µg/L]</b>	<b>PO4[µg/L]</b>
gennaio	0.24	2.39	6.30	1.60	12.93	330.11	9.64
febbraio	0.31	1.22	4.21	2.39	14.65	146.48	7.81
marzo	0.06	1.61	1.92	0.67	1.97	354.26	0.00
aprile	0.26	1.59	5.42	1.35	2.12	496.36	3.46
maggio	0.21	1.58	5.89	1.31	8.58	244.92	3.79
giugno	0.03	1.80	1.71	0.21	1.27	46.88	0.58
luglio	0.04	1.19	2.76	0.34	1.18	48.44	0.83
agosto	0.18	1.62	6.05	1.19	5.76	34.29	3.59
settembre	0.04	1.08	3.36	1.24	6.53	101.77	2.65
ottobre	0.22	1.53	8.76	2.03	9.02	361.89	7.18
novembre	0.16	1.12	8.65	0.87	2.16	524.24	10.41
dicembre	0.09	0.21	9.62	1.06	2.55	515.16	3.42
<b>st.304</b>	<b>pH</b>	<b>T[°C]</b>	<b>S[psu]</b>	<b>O2[ppm]</b>	<b>Chl_a[µg/L]</b>	<b>NO3[µg/L]</b>	<b>PO4[µg/L]</b>
gennaio	0.20	1.05	0.67	1.26	4.52	53.56	1.76
febbraio	0.16	1.63	3.59	2.74	9.53	21.15	4.46
marzo	0.23	1.48	5.39	3.80	4.79	42.43	2.07
aprile	0.10	1.36	0.50	1.62	4.55	36.53	0.45
maggio	0.10	2.73	1.53	1.79	6.77	41.17	0.75
giugno	0.10	2.30	2.10	1.08	1.10	27.76	1.46
luglio	0.18	1.31	1.41	2.50	3.40	49.40	4.18
agosto	0.14	0.96	1.64	1.62	1.61	11.33	2.35
settembre	0.21	1.24	3.64	1.86	1.90	37.52	2.28
ottobre	0.09	1.16	5.41	1.70	1.02	47.74	3.30
novembre	0.12	2.21	1.61	2.14	1.28	35.19	2.51
dicembre	0.13	2.92	1.08	2.29	1.68	61.81	2.51
<b>st.1004</b>	<b>pH</b>	<b>T[°C]</b>	<b>S[psu]</b>	<b>O2[ppm]</b>	<b>Chl_a[µg/L]</b>	<b>NO3[µg/L]</b>	<b>PO4[µg/L]</b>
gennaio	0.20	0.97	0.31	1.33	0.80	26.85	2.25
febbraio	0.17	1.03	0.50	1.80	3.01	48.96	1.75
marzo	0.18	1.05	0.54	1.92	2.28	18.12	1.17
aprile	0.11	0.92	0.39	1.48	3.45	10.33	0.45
maggio	0.08	2.37	0.23	0.63	1.78	37.72	0.89
giugno	0.10	2.27	0.46	1.97	0.96	11.96	0.38
luglio	0.11	2.03	0.85	2.33	1.44	42.55	2.74
agosto	0.18	2.50	0.96	2.41	1.08	7.55	15.67
settembre	0.17	1.42	3.36	0.94	0.83	11.13	2.58
ottobre	0.12	1.28	6.73	1.32	0.85	111.46	4.11
novembre	0.13	2.50	9.44	2.06	3.67	172.95	5.18
dicembre	0.07	2.86	0.94	1.67	1.13	44.55	2.83
<b>st.2004</b>	<b>pH</b>	<b>T[°C]</b>	<b>S[psu]</b>	<b>O2[ppm]</b>	<b>Chl_a[µg/L]</b>	<b>NO3[µg/L]</b>	<b>PO4[µg/L]</b>
gennaio	0.28	1.13	0.35	0.57	0.64	5.66	0.71
febbraio	0.13	0.78	0.28	2.26	20.15	8.49	0.71
marzo	0.08	0.21	0.14	0.00	2.55	27.58	1.41
aprile	0.02	0.42	0.35	0.00	1.20	79.90	1.41
maggio	0.01	2.48	0.50	0.57	16.05	15.56	0.00
giugno	0.06	1.84	0.00	1.34	0.99	0.71	24.75
luglio	0.04	1.06	0.07	0.57	1.56	5.66	0.00
agosto	0.04	0.14	0.07	0.07	0.42	4.24	2.12
settembre	0.21	1.20	0.00	2.83	0.35	14.85	7.07
ottobre	0.08	1.19	0.18	1.63	1.42	15.00	2.52
novembre	0.06	0.07	0.57	2.55	0.99	59.40	9.19
dicembre	0.00	0.00	0.00	0.00	0.00	0.00	0.00

## COEFFICIENTI DI CORRELAZIONE TRA CLIMATOLOGIE

<b>st.4</b>	pH	temperatura	salinita	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	-0.01	1.00					
salinita	-0.36	-0.22	1.00				
O2	0.52	-0.68	0.12	1.00			
clorofilla	0.73	-0.28	-0.21	0.41	1.00		
nitrati	-0.02	-0.89	-0.18	0.47	0.27	1.00	
fosfati	-0.59	-0.61	0.14	-0.05	-0.17	0.69	1.00
<b>st.304</b>	pH	temperatura	salinita	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	0.04	1.00					
salinita	-0.25	0.08	1.00				
O2	0.22	-0.71	0.08	1.00			
clorofilla	0.41	-0.48	-0.30	0.31	1.00		
nitrati	-0.18	-0.86	-0.42	0.46	0.37	1.00	
fosfati	-0.64	-0.54	-0.24	-0.02	0.08	0.77	1.00
<b>st.604</b>	pH	temperatura	salinita	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	0.04	1.00					
salinita	-0.32	0.17	1.00				
O2	0.04	-0.63	0.21	1.00			
clorofilla	0.55	-0.58	-0.55	0.30	1.00		
nitrati	NaN	NaN	NaN	NaN	NaN	NaN	
fosfati	NaN	NaN	NaN	NaN	NaN	NaN	NaN
<b>st.1004</b>	pH	temperatura	salinita	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	0.03	1.00					
salinita	-0.03	0.21	1.00				
O2	0.36	-0.71	0.16	1.00			
clorofilla	0.41	-0.67	-0.35	0.49	1.00		
nitrati	-0.09	-0.86	-0.66	0.40	0.66	1.00	
fosfati	-0.65	-0.57	-0.52	-0.03	0.30	0.74	1.00
<b>st.2004</b>	pH	temperatura	salinita	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	-0.02	1.00					
salinita	0.24	0.31	1.00				
O2	0.52	-0.73	0.10	1.00			
clorofilla	0.38	-0.61	-0.50	0.45	1.00		
nitrati	-0.35	-0.83	-0.70	0.31	0.48	1.00	
fosfati	-0.45	-0.60	-0.72	0.04	0.37	0.86	1.00

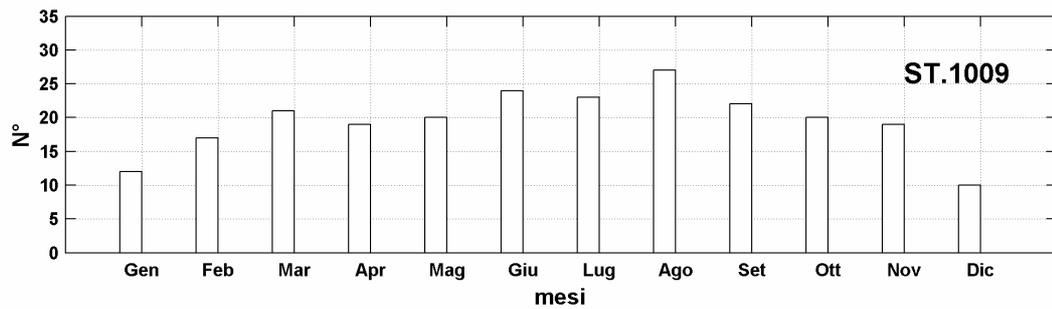
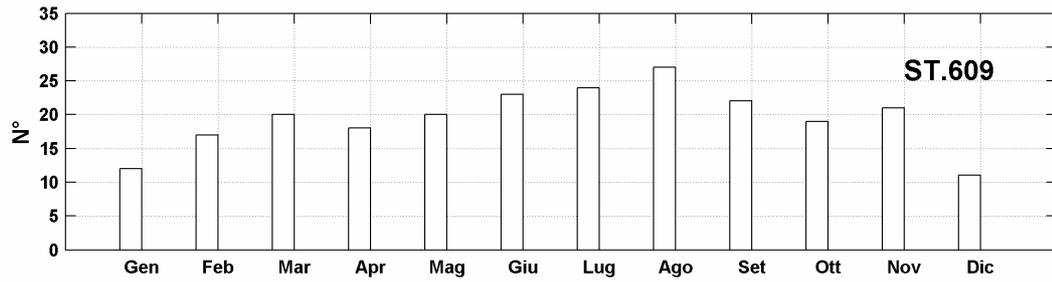
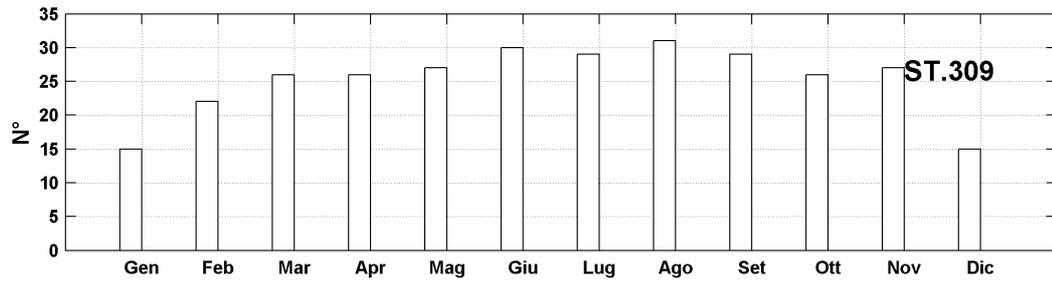
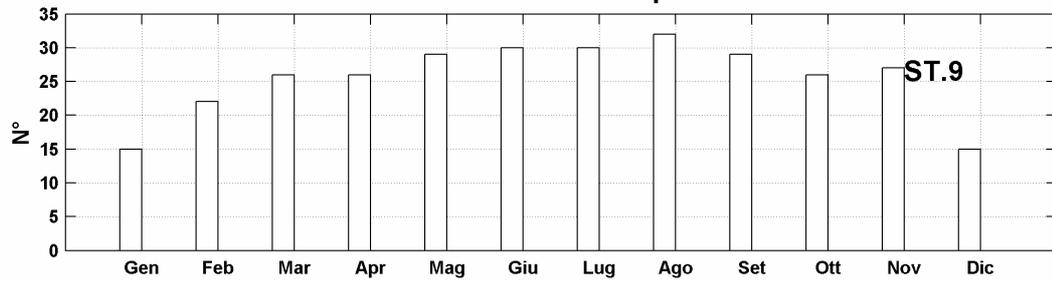


### CLIMATOLOGIE-TRANSETTO 9 - pH



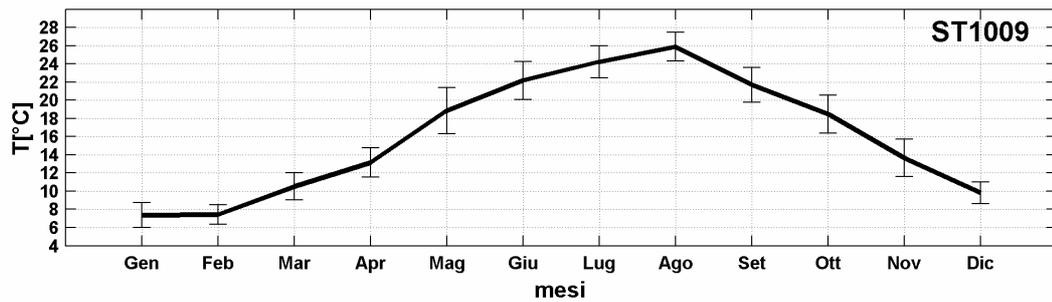
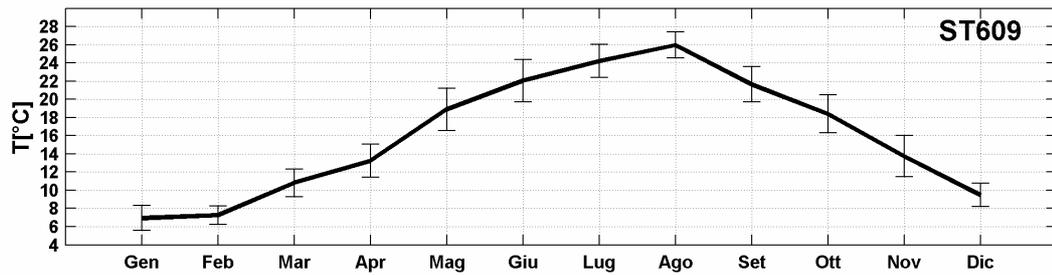
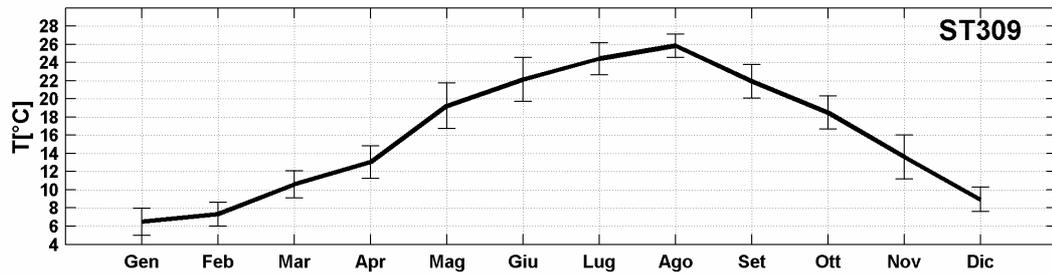
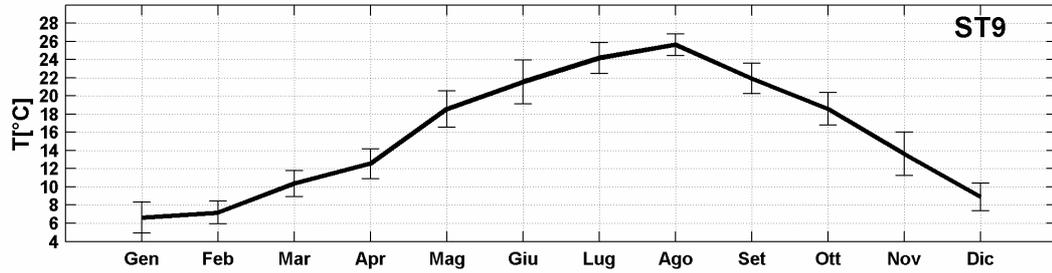
— deviazione standard  
— climatologia 1995-2001(superficie)

### TRANSETTO 9 - pH



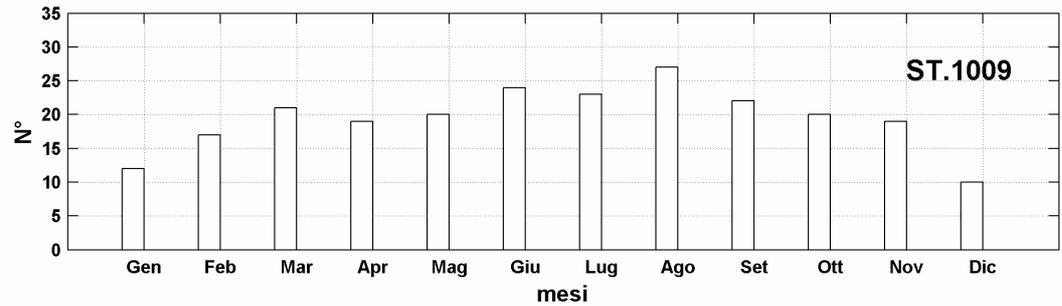
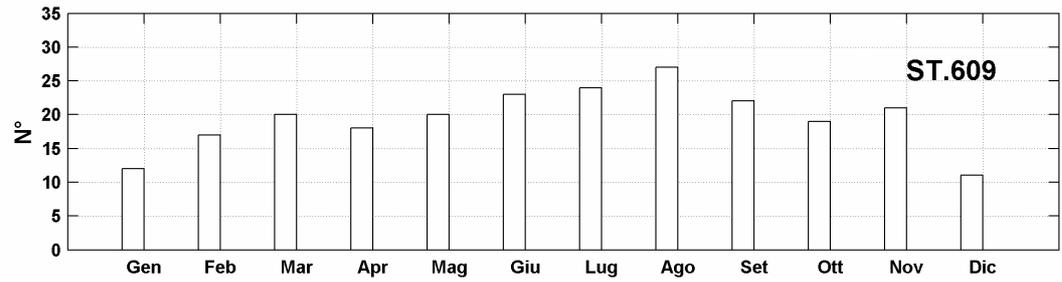
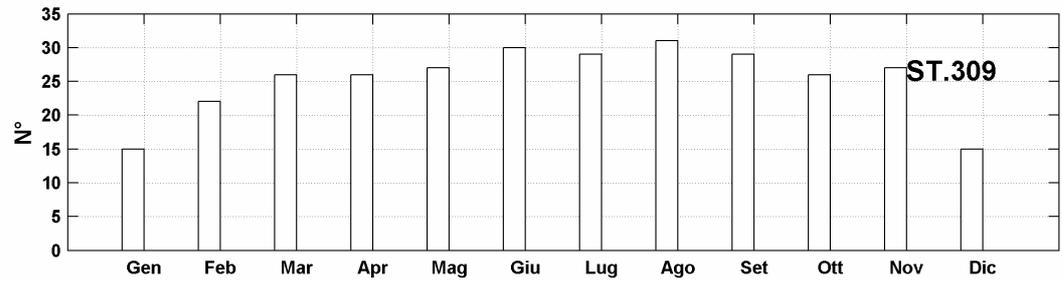
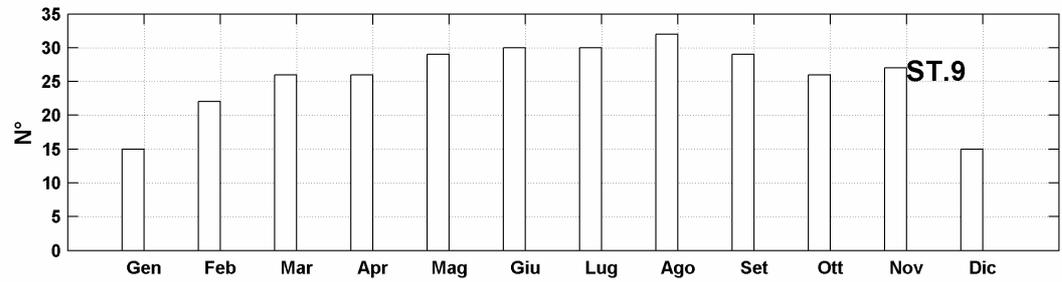
dati alla superficie  
 dati sul fondo

### CLIMATOLOGIE-TRANSETTO 9 - TEMPERATURA



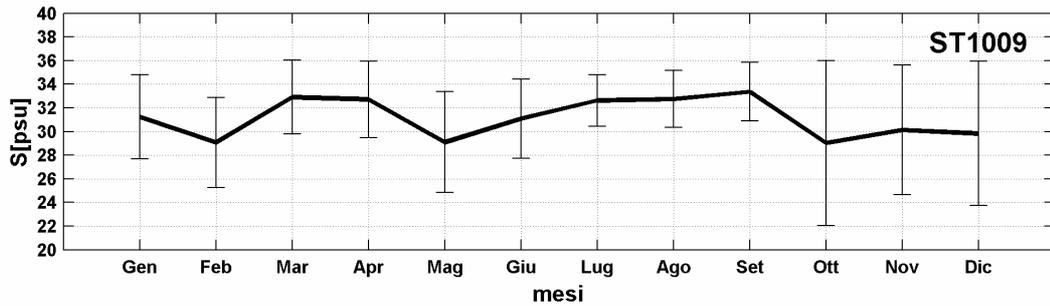
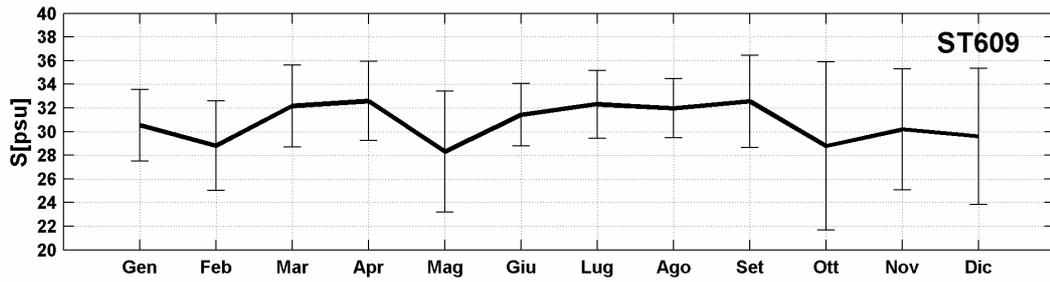
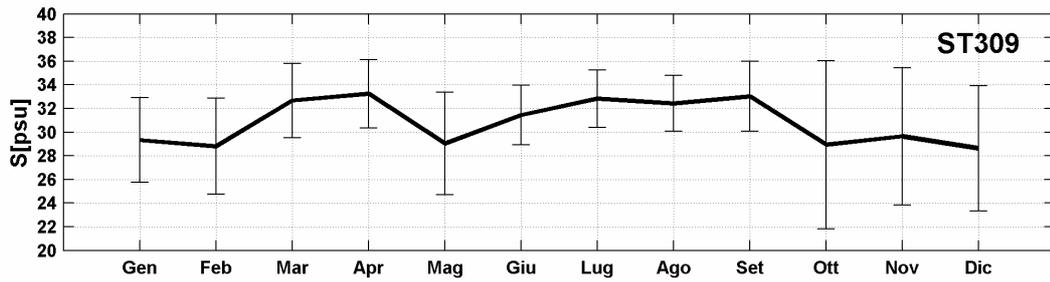
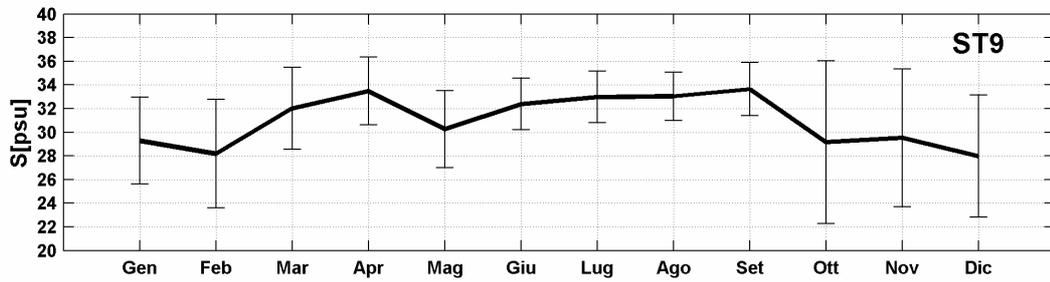
— deviazione standard  
 — climatologia 1995-2001(superficie)

### TRANSETTO 9 - TEMPERATURA



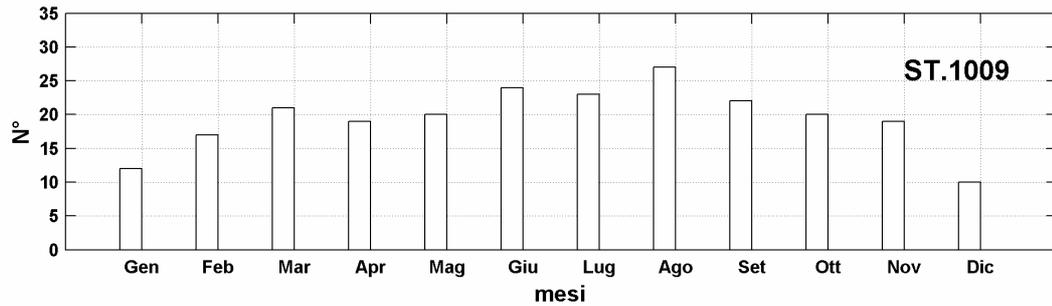
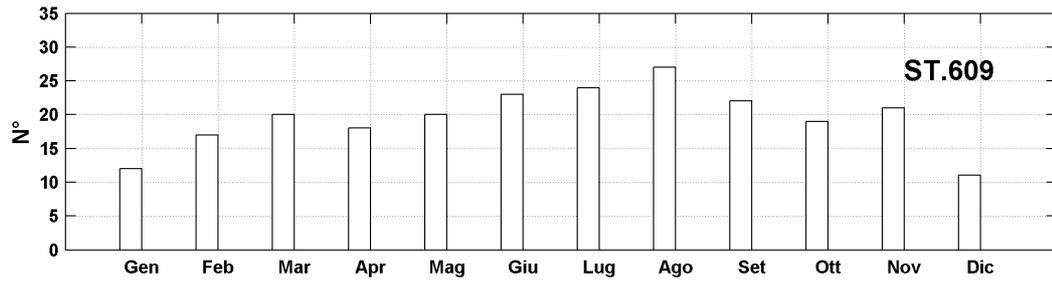
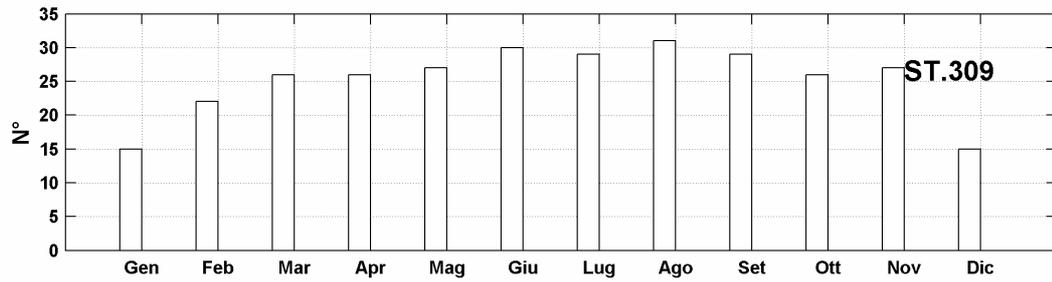
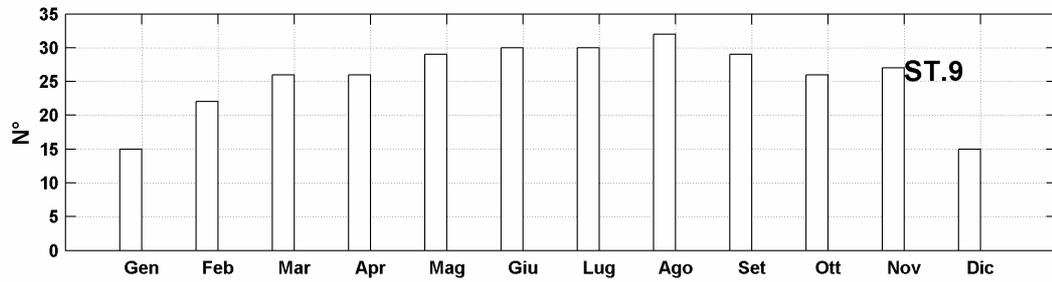
dati alla superficie  
 dati sul fondo

### CLIMATOLOGIE-TRANSETTO 9 - SALINITA



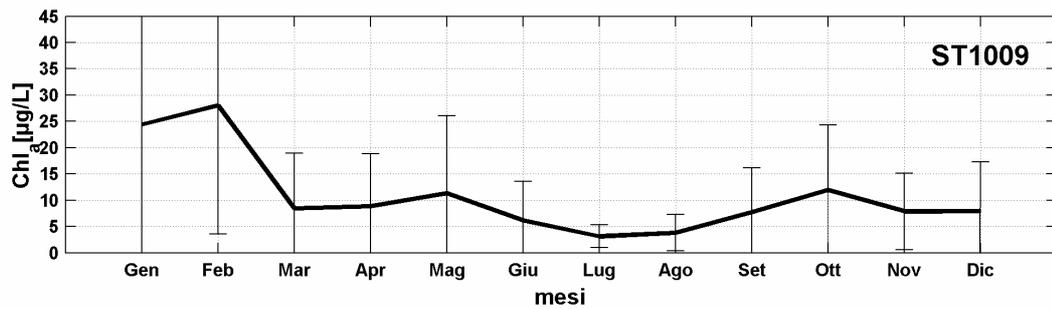
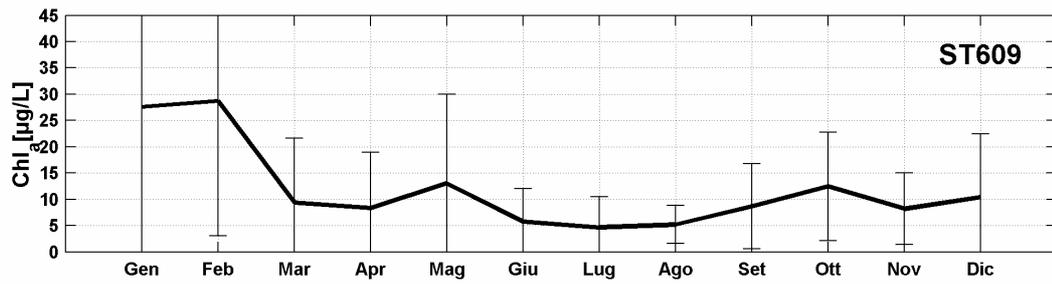
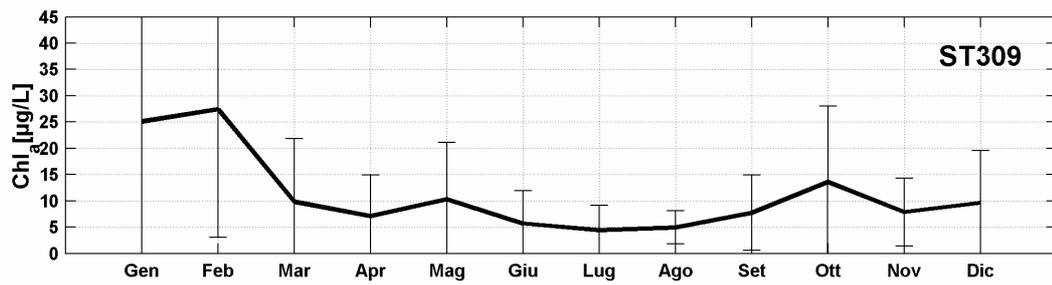
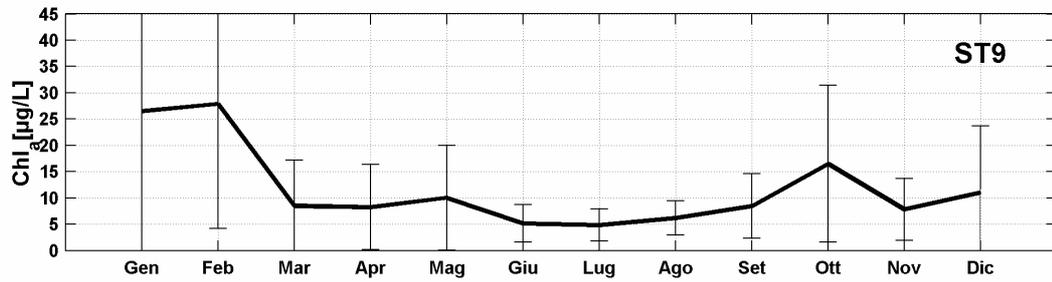
— deviazione standard  
 — climatologia 1995-2001(superficie)

### TRANSETTO 9 - SALINITA



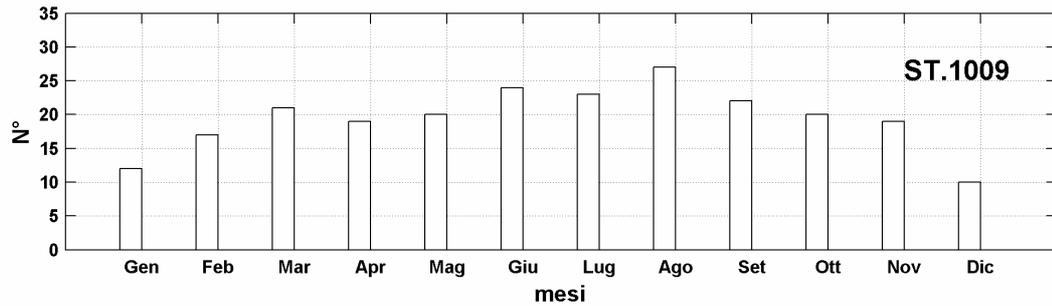
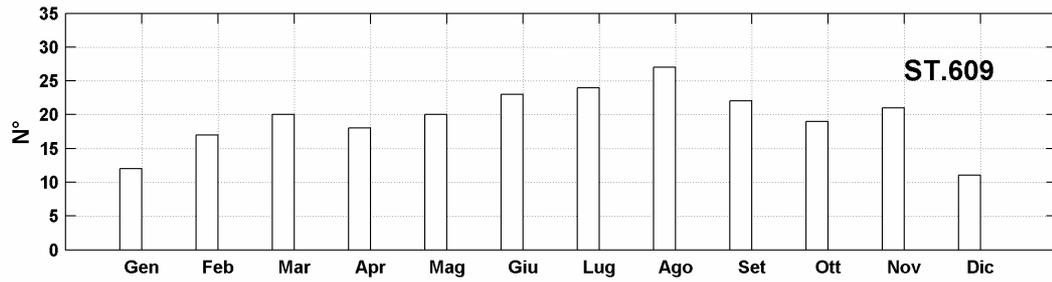
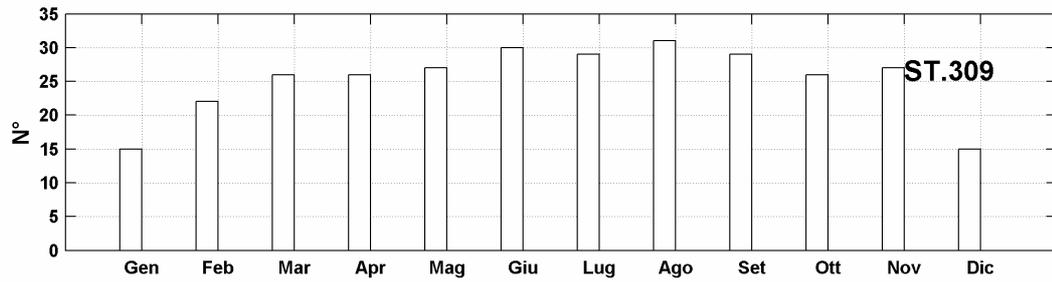
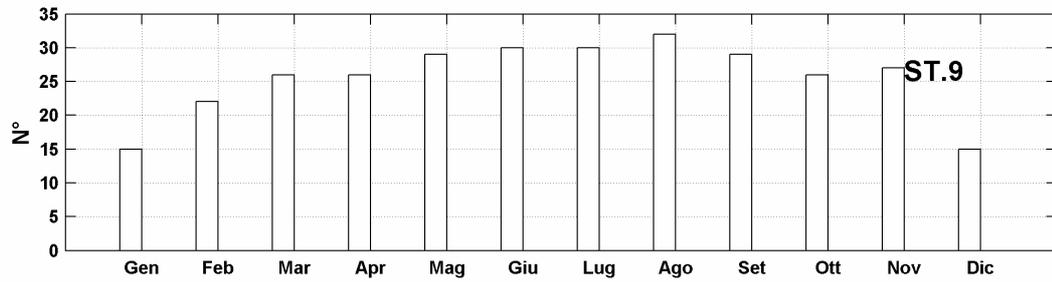
dati alla superficie  
 dati sul fondo

### CLIMATOLOGIE-TRANSETTO 9 - CLOROFILLA



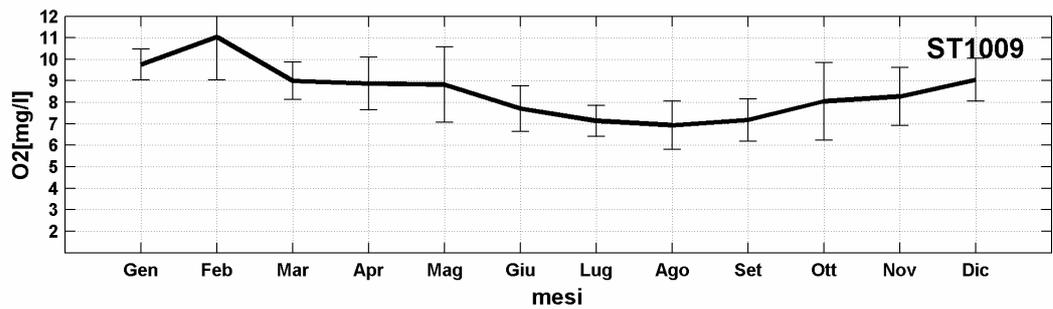
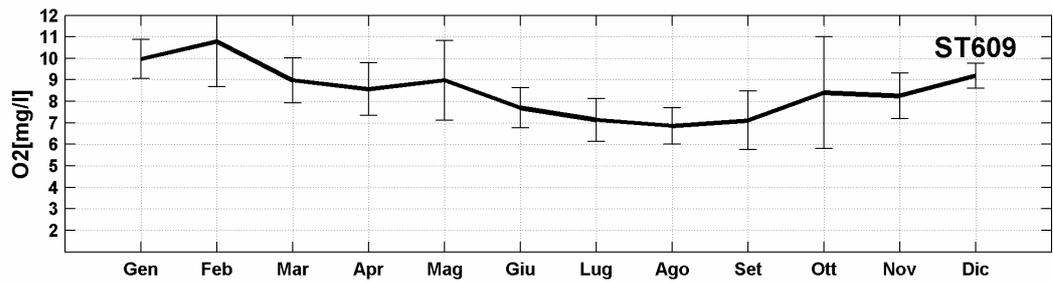
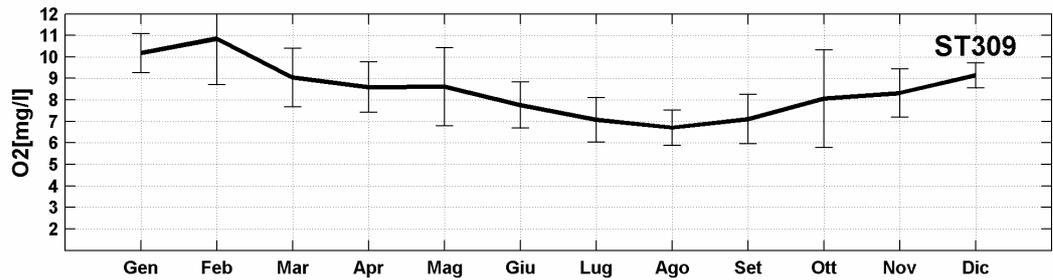
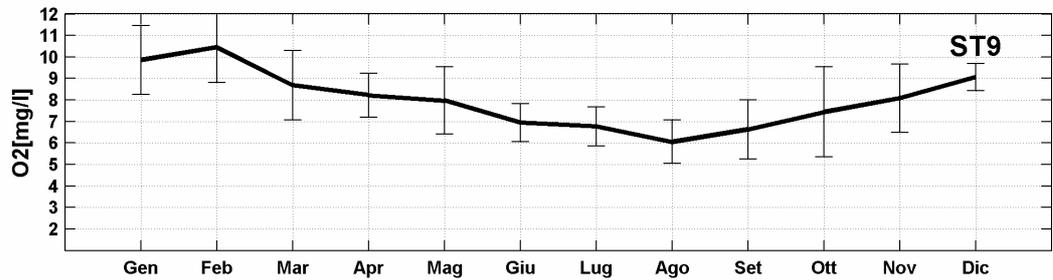
— deviazione standard  
 — climatologia 1995-2001(superficie)

### TRANSETTO 9 - CLOROFILLA



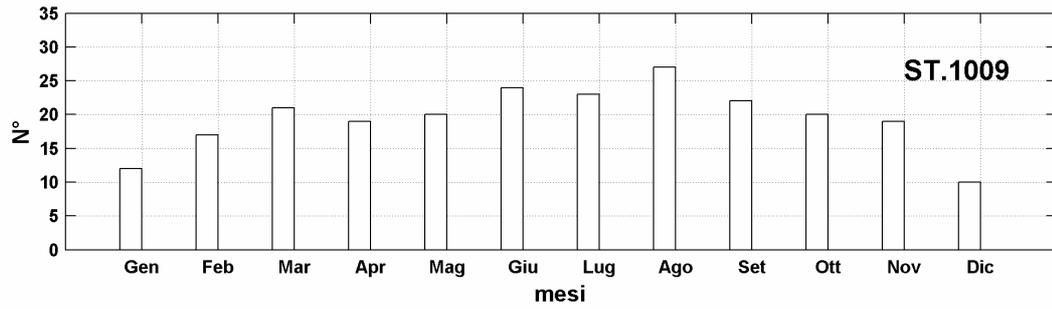
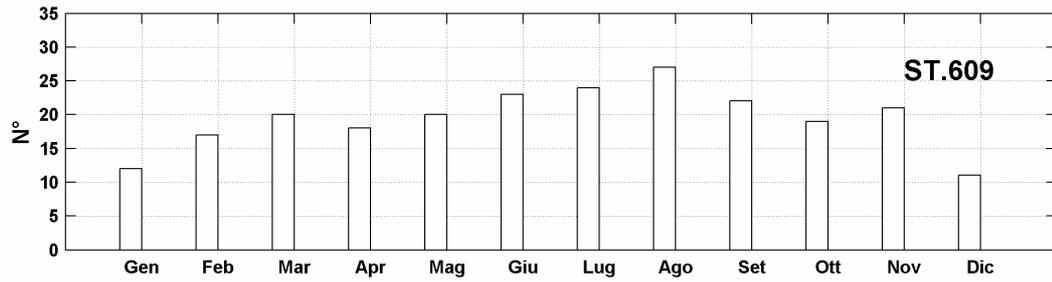
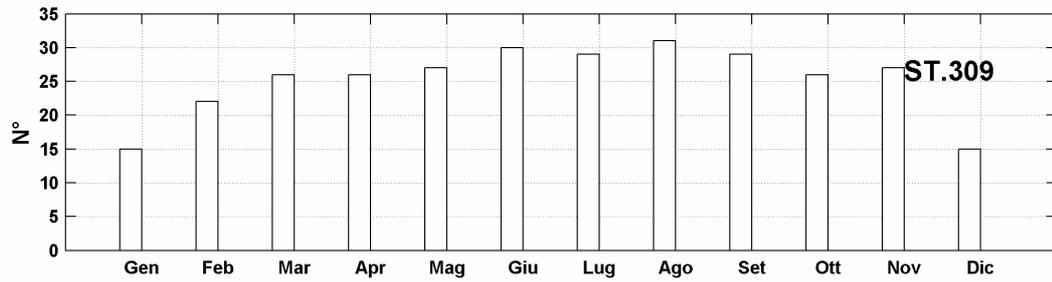
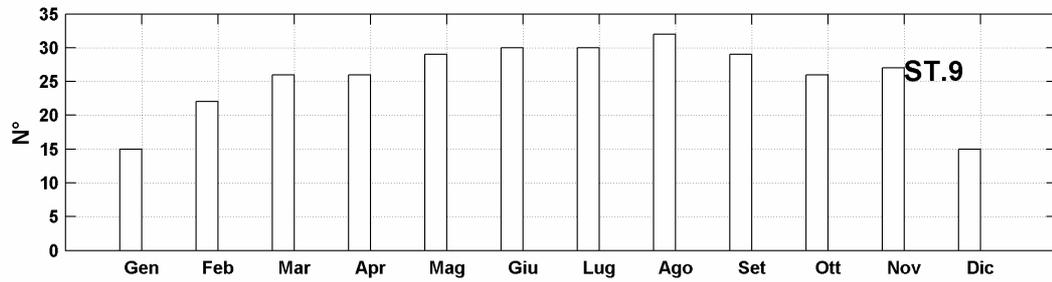
dati alla superficie  
 dati sul fondo

### CLIMATOLOGIE-TRANSETTO 9 - OSSIGENO



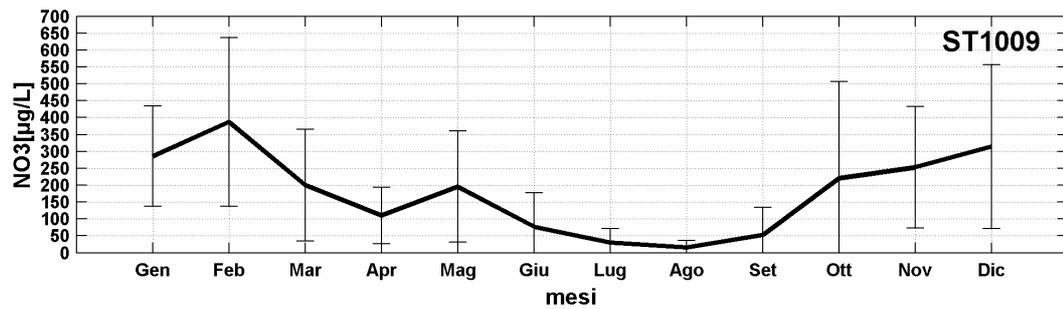
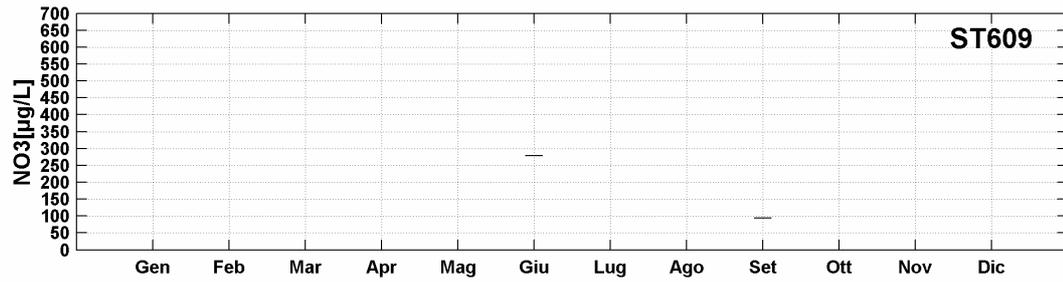
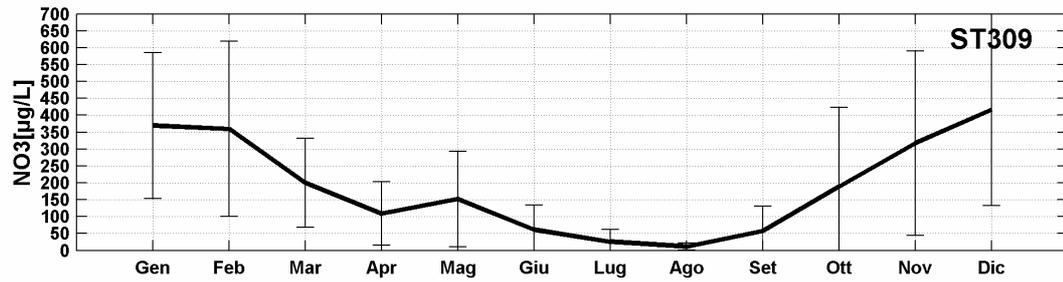
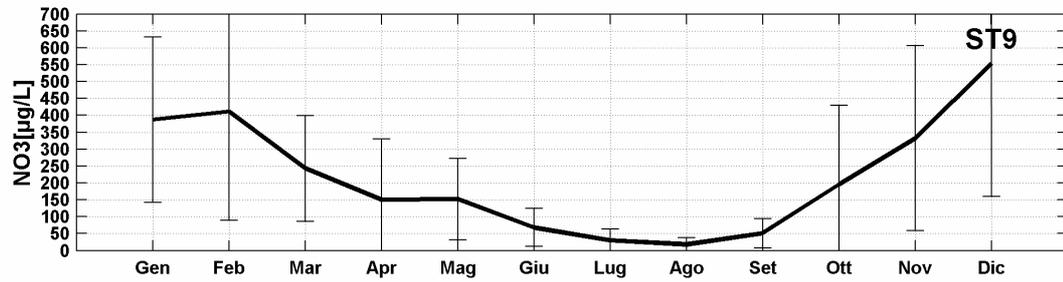
deviazione standard  
 climatologia 1995-2001(superficie)

### TRANSETTO 9 - OSSIGENO



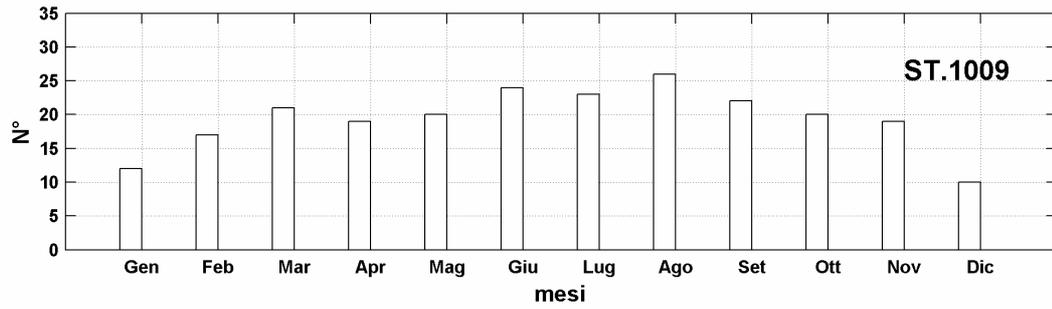
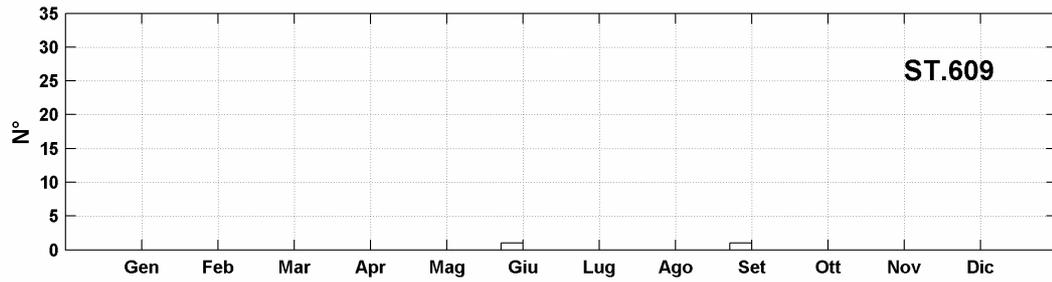
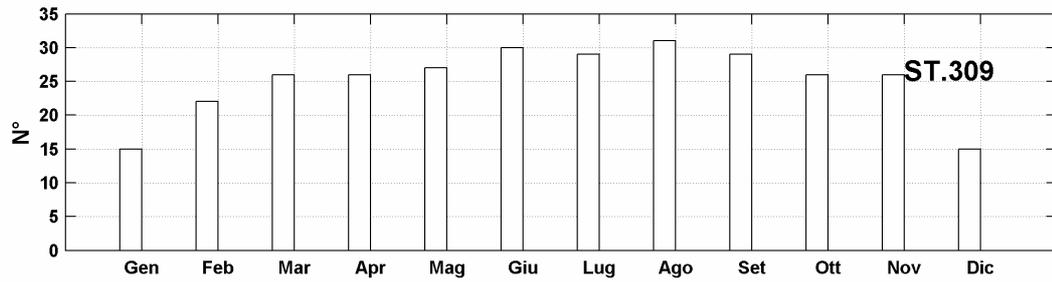
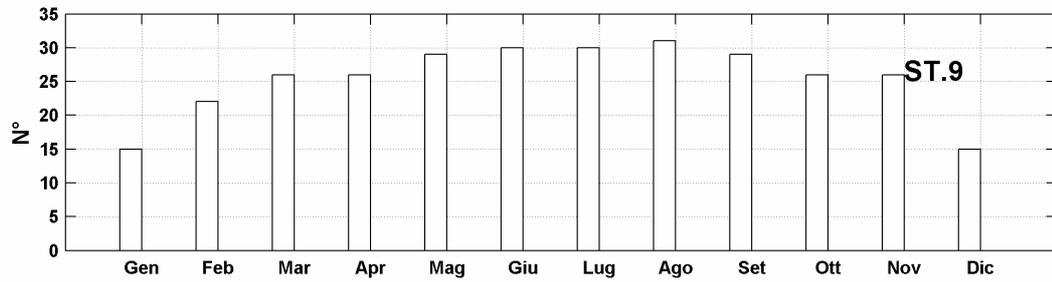
dati alla superficie  
 dati sul fondo

### CLIMATOLOGIE-TRANSETTO 9 - NITRATI



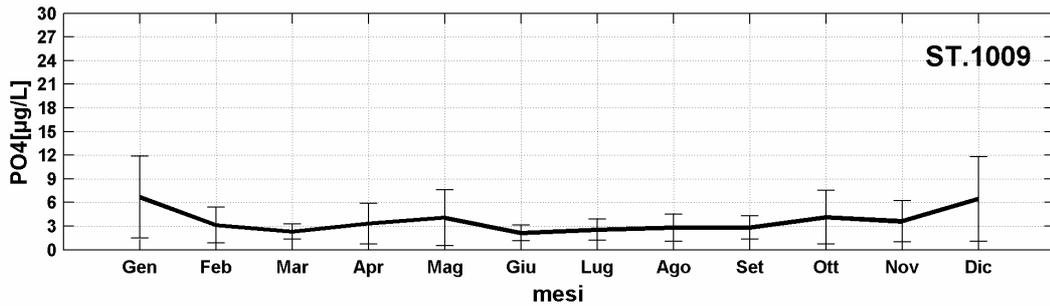
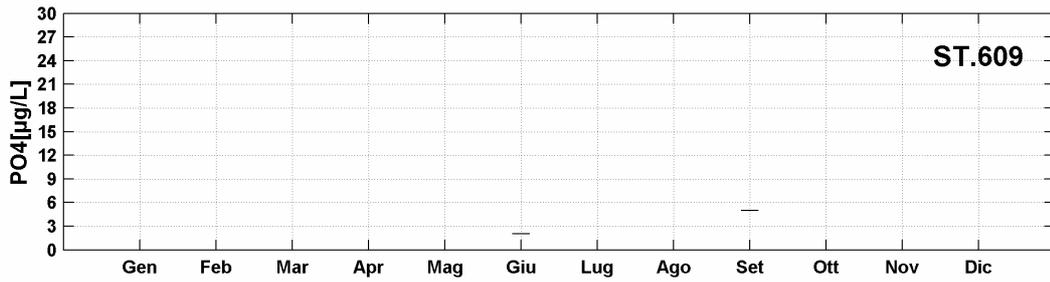
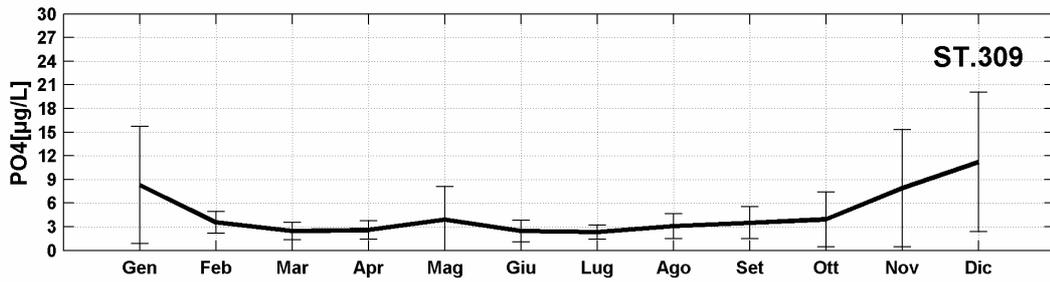
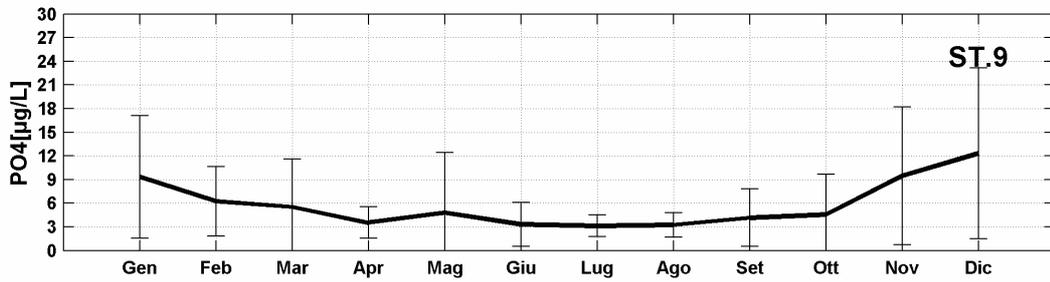
— deviazione standard  
 — climatologia 1995-2001(superficie)

### TRANSETTO 9 - NITRATI



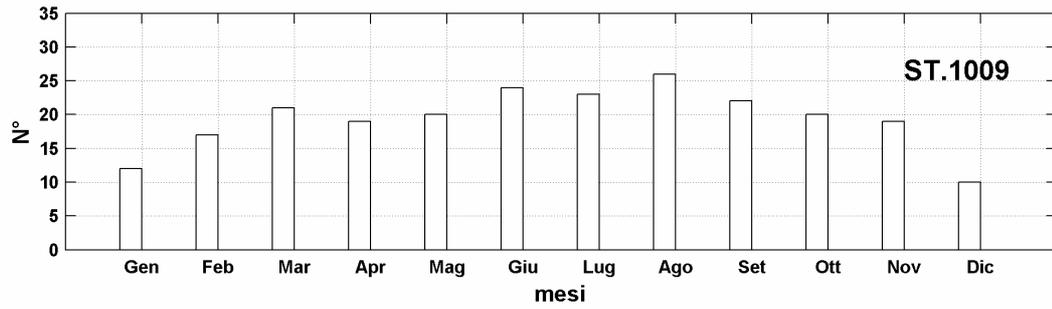
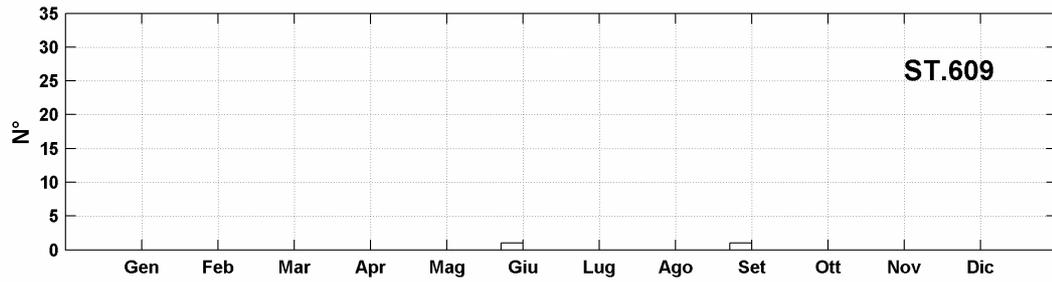
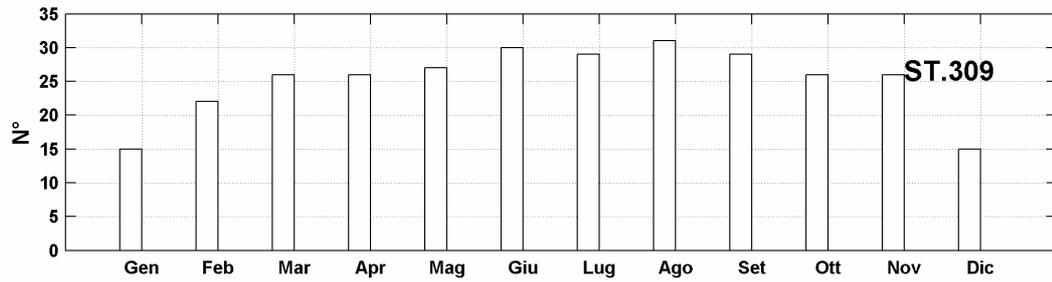
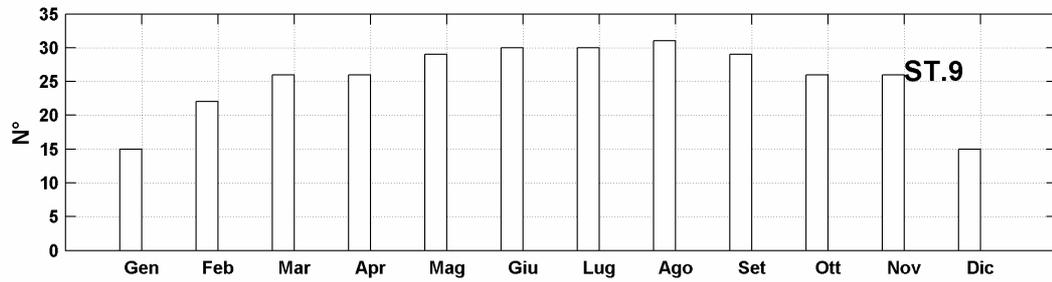
dati alla superficie  
 dati sul fondo

### CLIMATOLOGIE-TRANSETTO 9 - ORTOFOSFATI



— deviazione standard  
 — climatologia 1995-2001(superficie)

### TRANSETTO 9 - ORTOFOSFATI



dati alla superficie  
 dati sul fondo

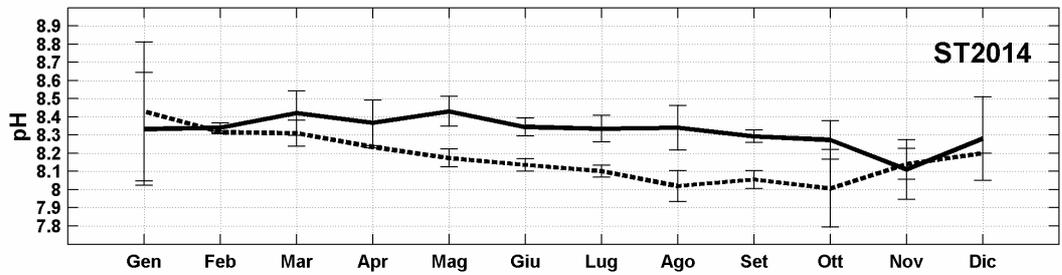
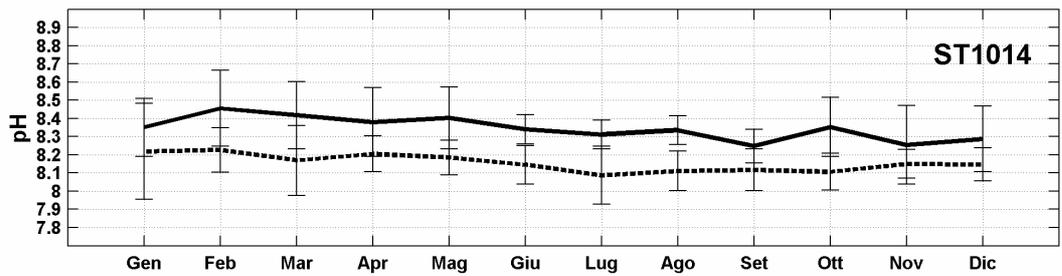
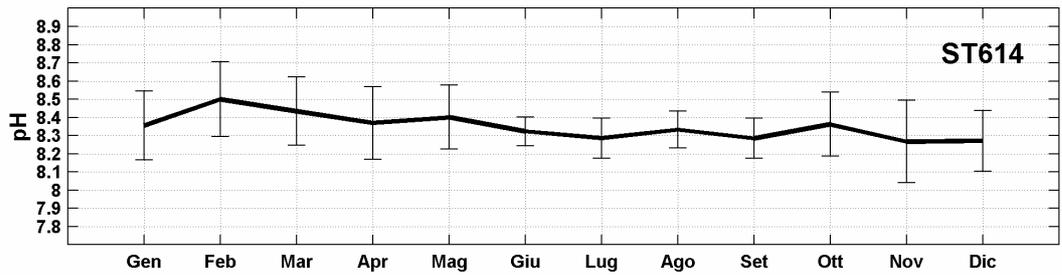
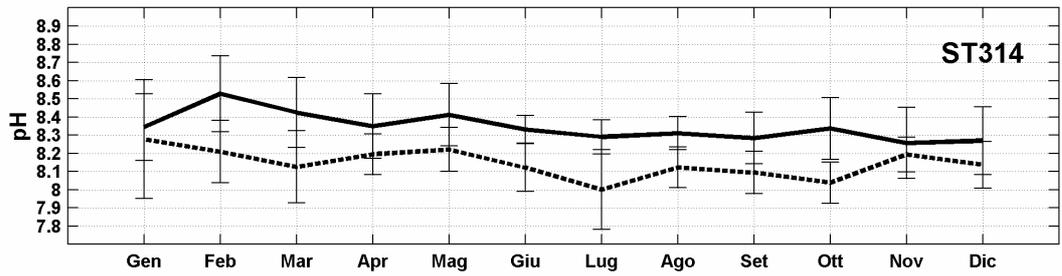
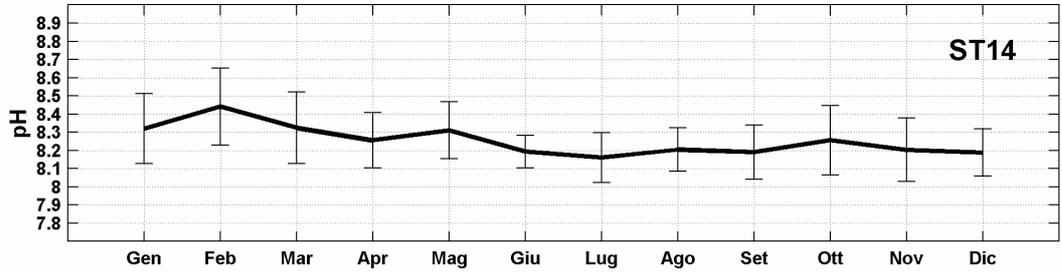
## DEVIAZIONI STANDARD

<b>st.9</b>	<b>pH</b>		<b>S[psu]</b>	<b>O2[ppm]</b>	<b>Chl_a[µg/L]</b>	<b>NO3[µg/L]</b>	<b>PO4[µg/L]</b>
gennaio	0.16	1.70	3.66	1.60	30.00	244.44	7.76
febbraio	0.19	1.25	4.59	1.65	23.66	322.44	4.39
marzo	0.15	1.43	3.46	1.62	8.70	156.35	6.02
aprile	0.15	1.65	2.87	1.01	8.11	178.99	2.01
maggio	0.16	1.98	3.26	1.56	10.00	120.59	7.63
giugno	0.14	2.43	2.19	0.88	3.53	55.85	2.79
luglio	0.13	1.70	2.19	0.91	3.07	32.91	1.39
agosto	0.13	1.19	2.04	1.02	3.29	19.72	1.56
settembre	0.12	1.67	2.24	1.38	6.13	43.01	3.65
ottobre	0.23	1.79	6.89	2.09	14.95	234.75	5.12
novembre	0.21	2.38	5.82	1.60	5.86	273.86	8.72
dicembre	0.16	1.53	5.17	0.64	12.65	394.37	10.84
<b>st.309</b>	<b>pH</b>	<b>T[°C]</b>		<b>O2[ppm]</b>	<b>Chl_a[µg/L]</b>	<b>NO3[µg/L]</b>	<b>PO4[µg/L]</b>
gennaio	0.18	1.50	3.59	0.91	35.11	215.81	7.43
febbraio	0.18	1.33	4.06	2.13	24.40	258.70	1.41
marzo	0.15	1.51	3.14	1.37	11.95	131.44	1.10
aprile	0.18	1.80	2.90	1.17	7.86	93.92	1.17
maggio	0.20	2.50	4.35	1.82	10.86	140.71	4.19
giugno	0.15	2.39	2.52	1.06	6.26	73.48	1.39
luglio	0.12	1.74	2.42	1.03	4.70	35.37	0.88
agosto	0.10	1.28	2.35	0.82	3.13	10.16	1.58
settembre	0.15	1.87	2.95	1.16	7.20	73.67	2.04
ottobre	0.22	1.83	7.10	2.28	14.49	233.76	3.47
novembre	0.20	2.41	5.79	1.12	6.46	273.25	7.44
dicembre	0.13	1.34	5.29	0.59	9.87	282.80	8.81
<b>st.609</b>	<b>pH</b>	<b>T[°C]</b>		<b>O2[ppm]</b>	<b>Chl_a[µg/L]</b>	<b>NO3[µg/L]</b>	<b>PO4[µg/L]</b>
gennaio	0.17	1.39	3.03	0.90	39.59	NaN	NaN
febbraio	0.17	1.03	3.78	2.09	25.63	NaN	NaN
marzo	0.15	1.53	3.47	1.06	12.21	NaN	NaN
aprile	0.18	1.80	3.35	1.22	10.57	NaN	NaN
maggio	0.19	2.34	5.11	1.86	16.91	NaN	NaN
giugno	0.13	2.33	2.65	0.94	6.24	NaN	NaN
luglio	0.12	1.82	2.88	0.99	5.85	NaN	NaN
agosto	0.11	1.44	2.52	0.85	3.60	NaN	NaN
settembre	0.15	1.93	3.91	1.36	8.13	NaN	NaN
ottobre	0.22	2.08	7.12	2.60	10.30	NaN	NaN
novembre	0.19	2.26	5.12	1.07	6.82	NaN	NaN
dicembre	0.13	1.29	5.75	0.58	12.02	NaN	NaN
<b>st.1009</b>	<b>pH</b>	<b>T[°C]</b>	<b>S[psu]</b>	<b>O2[ppm]</b>	<b>Chl_a[µg/L]</b>	<b>NO3[µg/L]</b>	<b>PO4[µg/L]</b>
gennaio	0.16	1.35	3.55	0.71	32.13	148.20	5.19
febbraio	0.22	1.07	3.80	2.00	24.47	249.23	2.29
marzo	0.15	1.49	3.13	0.88	10.46	165.17	0.96
aprile	0.19	1.62	3.25	1.22	9.98	83.68	2.58
maggio	0.18	2.55	4.27	1.76	14.75	164.19	3.55
giugno	0.12	2.09	3.36	1.06	7.32	100.04	0.98
luglio	0.08	1.76	2.18	0.73	2.13	41.52	1.35
agosto	0.09	1.58	2.40	1.12	3.47	21.30	1.74
settembre	0.13	1.91	2.48	0.99	8.42	81.48	1.47
ottobre	0.22	2.08	6.96	1.81	12.40	285.63	3.41
novembre	0.24	2.07	5.48	1.34	7.26	179.24	2.61
dicembre	0.12	1.17	6.10	1.00	9.36	242.23	5.38

## COEFFICIENTI DI CORRELAZIONE TRA CLIMATOLOGIE

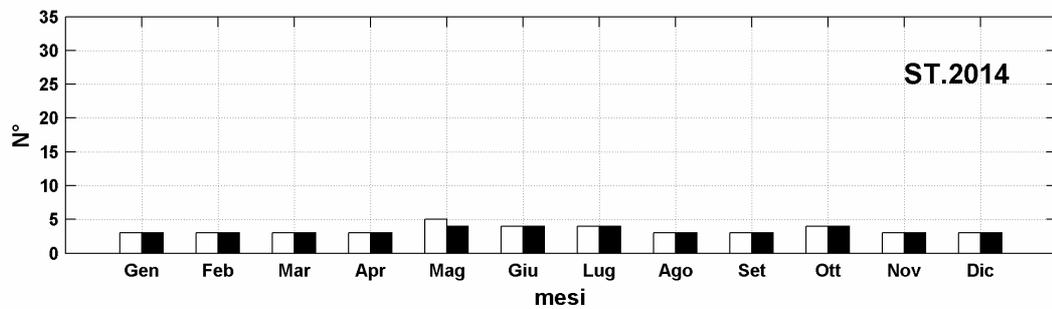
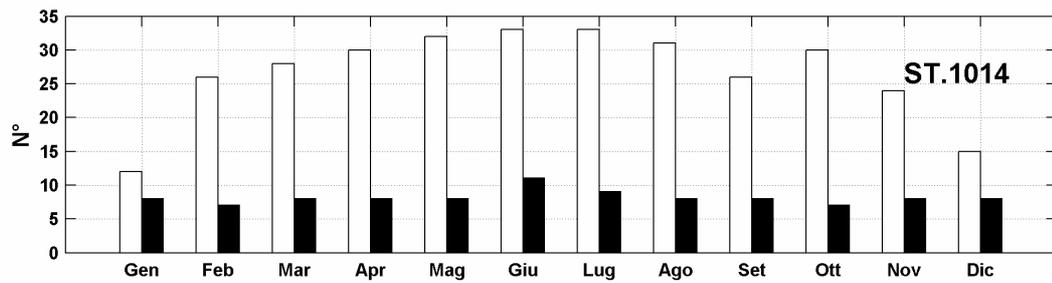
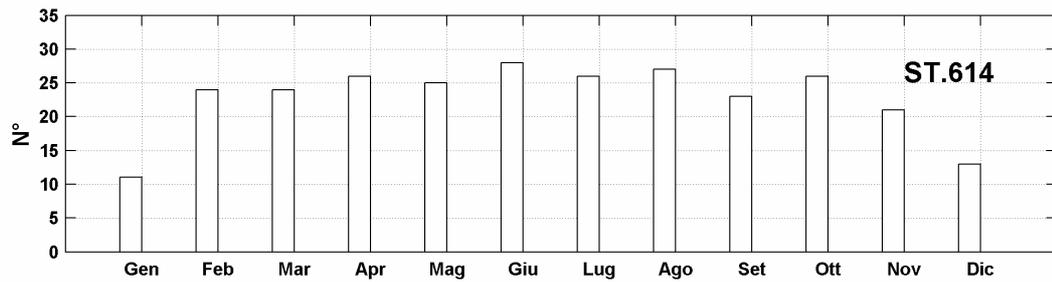
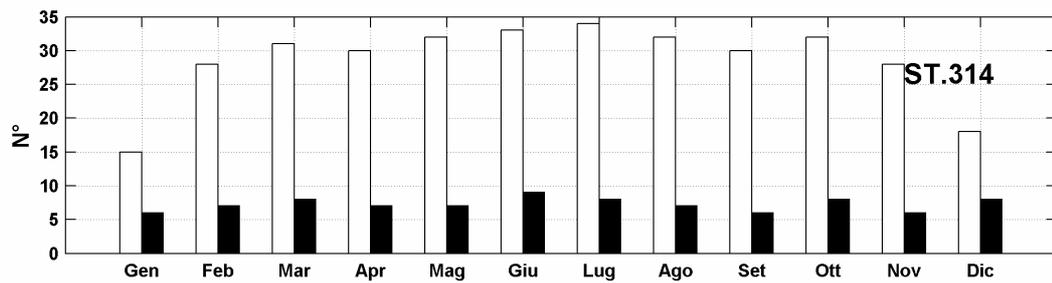
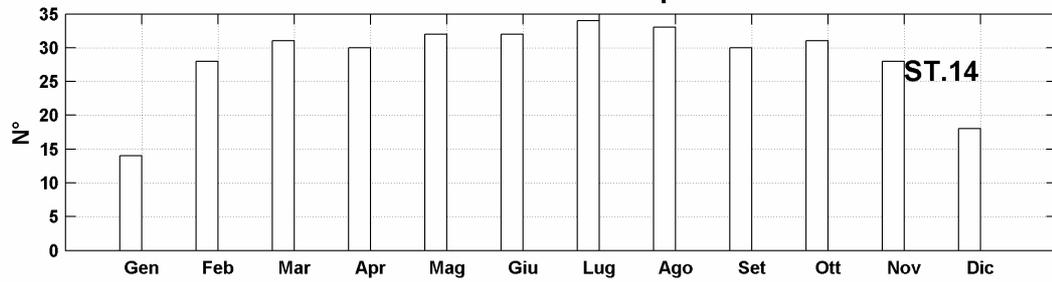
<b>st.9</b>	pH	temperatura	salinita	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	-0.35	1.00					
salinita	-0.37	0.65	1.00				
O2	0.52	-0.81	-0.36	1.00			
clorofilla	0.68	-0.68	-0.68	0.58	1.00		
nitrati	0.20	-0.89	-0.86	0.56	0.61	1.00	
fosfati	-0.15	-0.71	-0.76	0.35	0.38	0.91	1.00
<b>st.309</b>	pH	temperatura	salinita	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	-0.15	1.00					
salinita	-0.21	0.50	1.00				
O2	0.27	-0.73	-0.12	1.00			
clorofilla	0.58	-0.71	-0.61	0.43	1.00		
nitrati	0.02	-0.89	-0.77	0.47	0.69	1.00	
fosfati	-0.50	-0.55	-0.64	0.17	0.26	0.79	1.00
<b>st.609</b>	pH	temperatura	salinita	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	-0.15	1.00					
salinita	-0.37	0.36	1.00				
O2	0.33	-0.67	-0.11	1.00			
clorofilla	0.54	-0.72	-0.53	0.48	1.00		
nitrati	NaN	NaN	NaN	NaN	NaN	NaN	
fosfati	NaN	NaN	NaN	NaN	NaN	NaN	NaN
<b>st.1009</b>	pH	temperatura	salinita	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	-0.18	1.00					
salinita	-0.33	0.35	1.00				
O2	0.40	-0.70	-0.11	1.00			
clorofilla	0.52	-0.71	-0.48	0.55	1.00		
nitrati	0.29	-0.87	-0.73	0.47	0.76	1.00	
fosfati	-0.25	-0.55	-0.43	0.28	0.42	0.59	1.00

### CLIMATOLOGIE-TRANSETTO 14 - pH



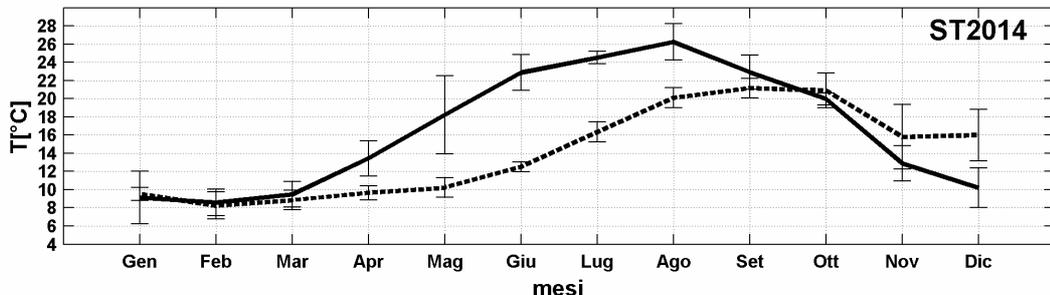
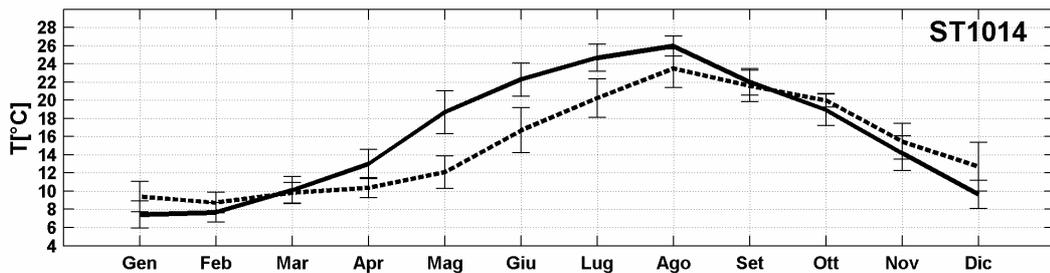
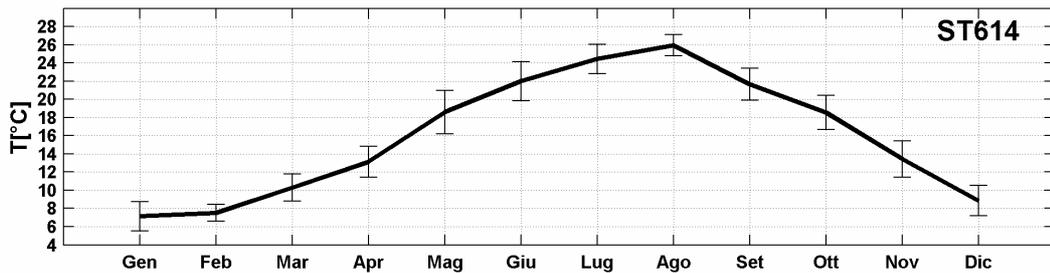
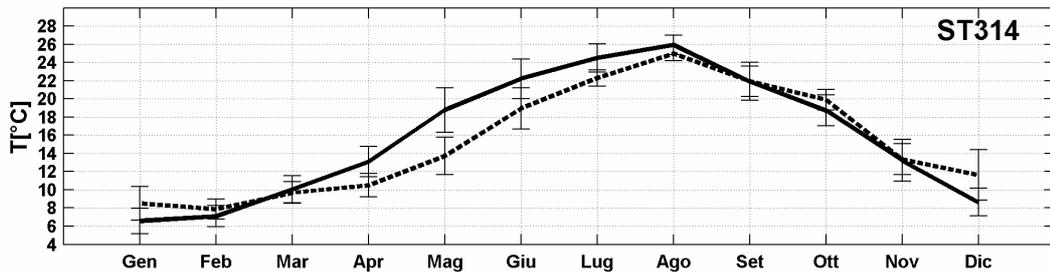
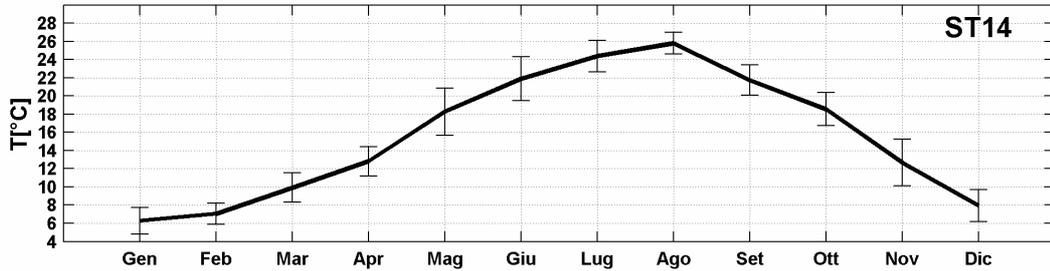
— deviazione standard  
 — climatologia 1995-2001(superficie)  
 - - - climatologia 1995-2001(fondo)

### TRANSETTO 14 - pH



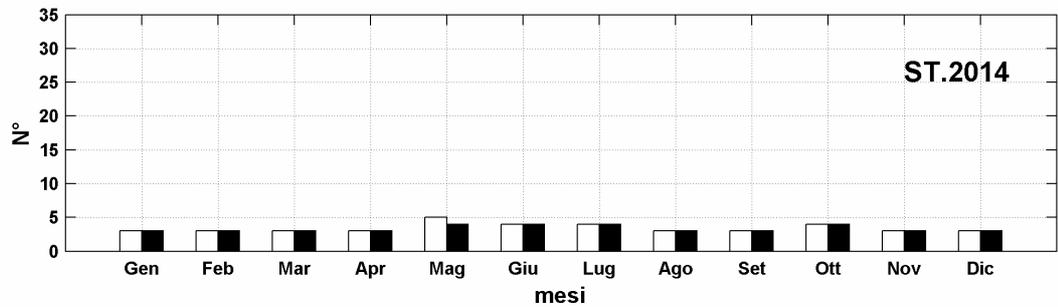
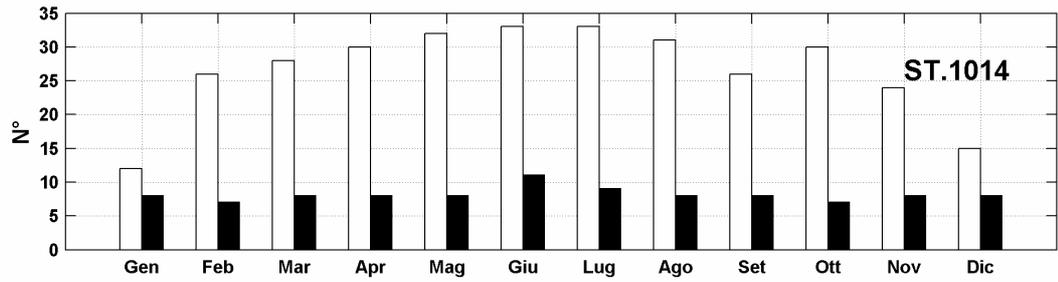
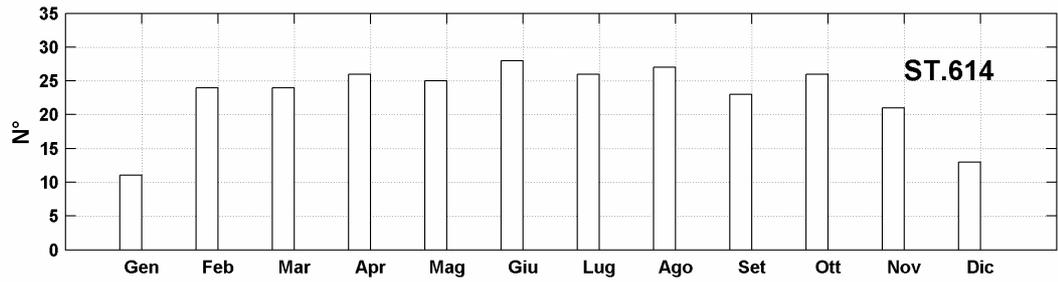
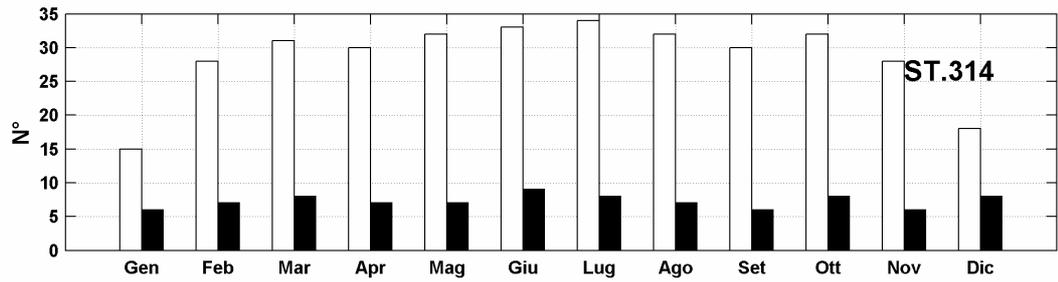
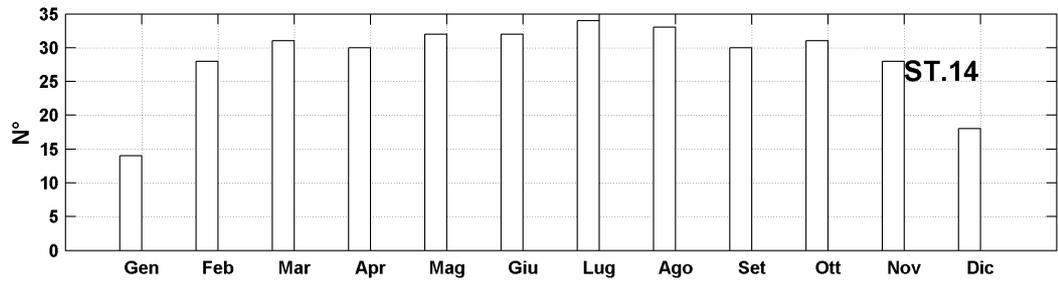
dati alla superficie  
 dati sul fondo

### CLIMATOLOGIE-TRANSETTO 14 - TEMPERATURA



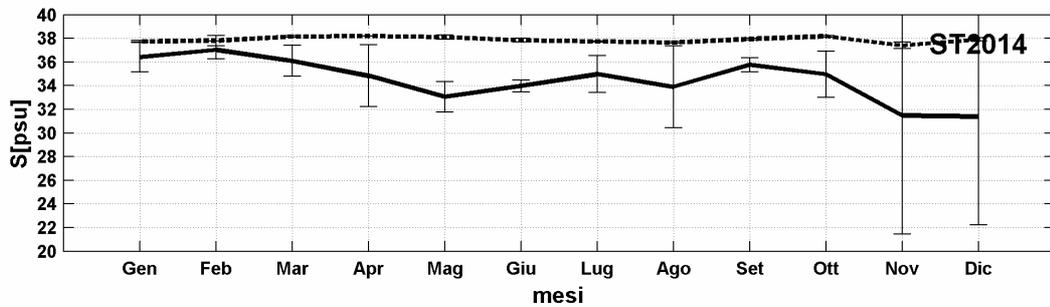
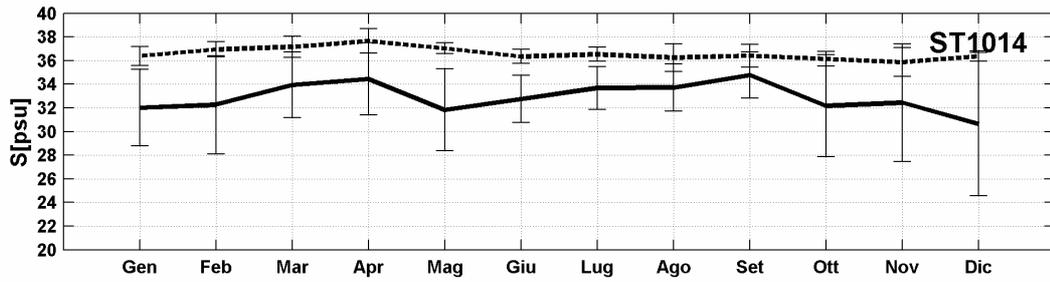
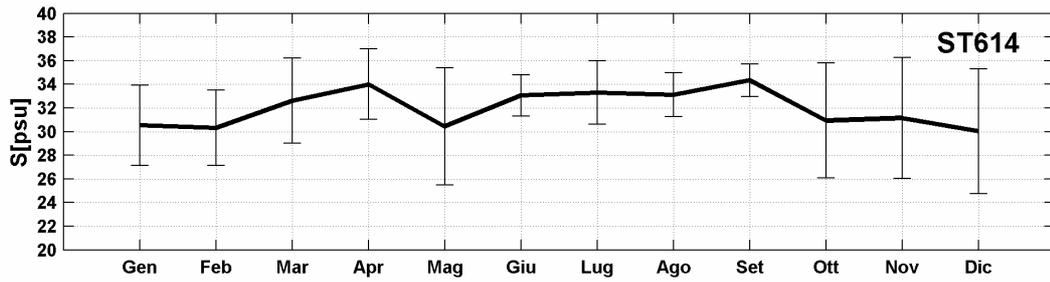
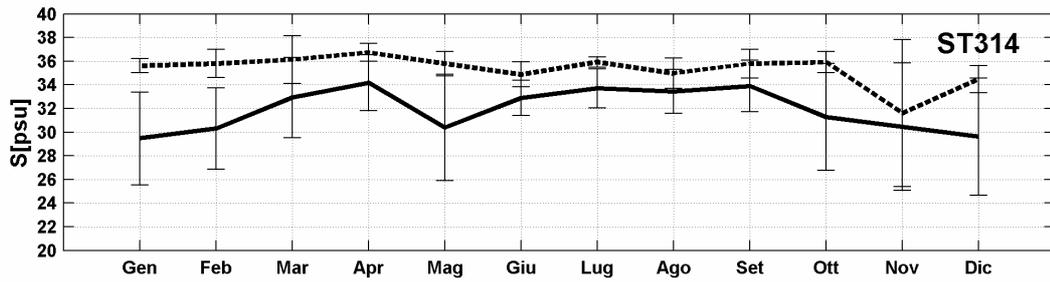
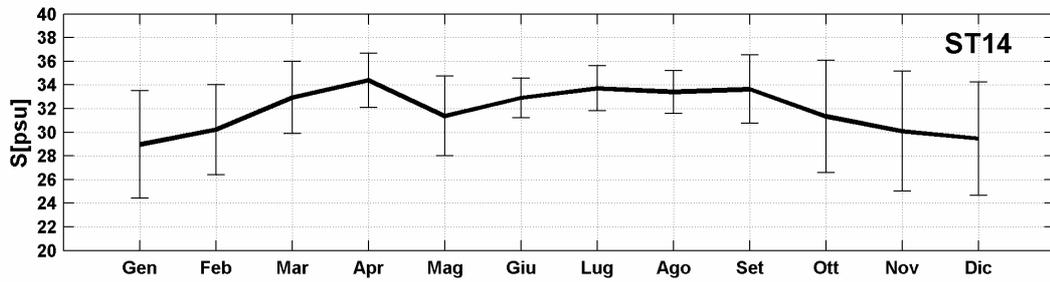
— deviazione standard  
 — climatologia 1995-2001(superficie)  
 - - - climatologia 1995-2001(fondo)

### TRANSETTO 14 - TEMPERATURA



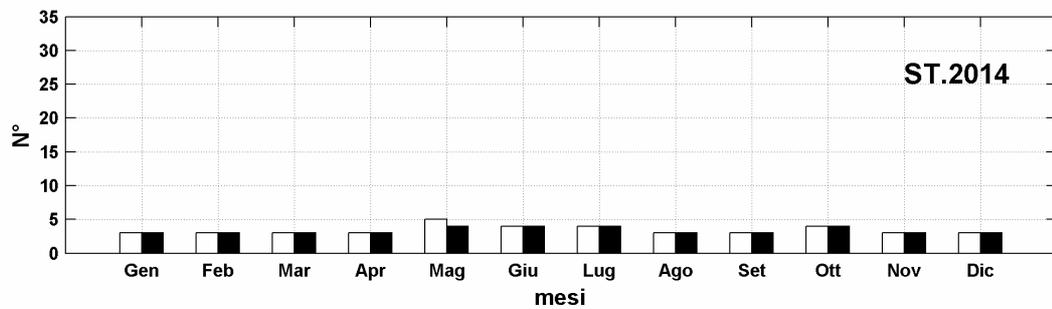
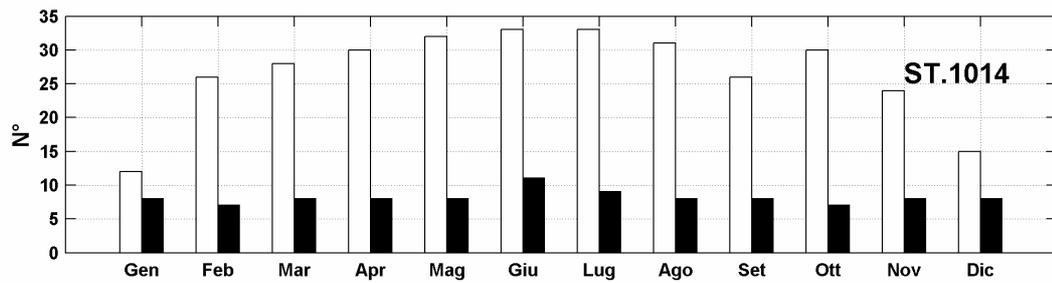
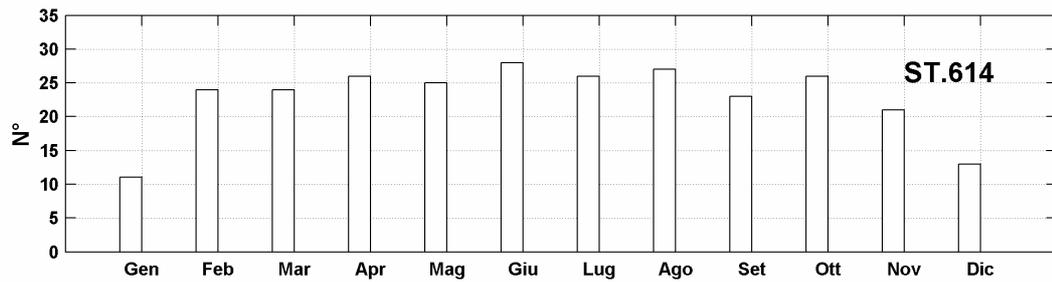
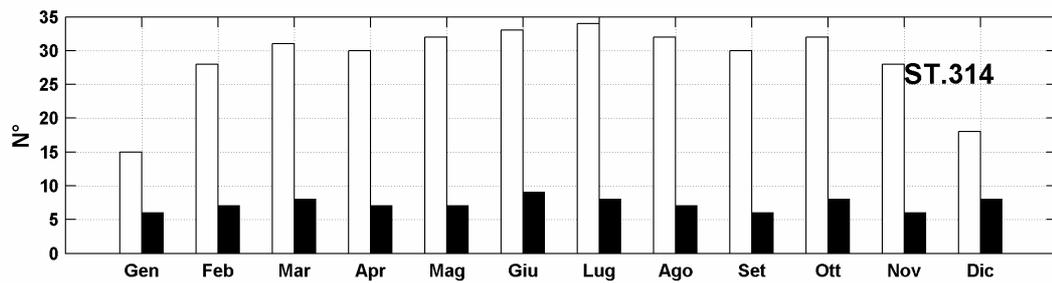
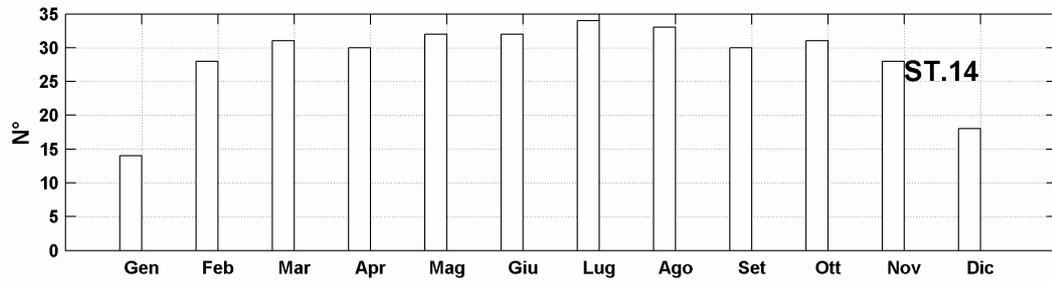
dati alla superficie  
 dati sul fondo

### CLIMATOLOGIE-TRANSETTO 14 - SALINITA



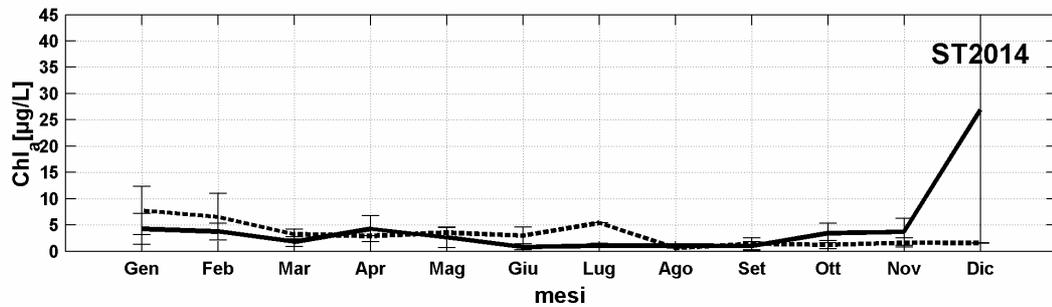
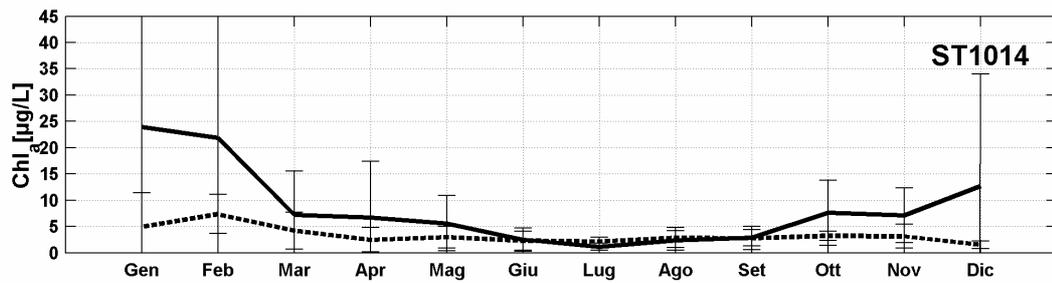
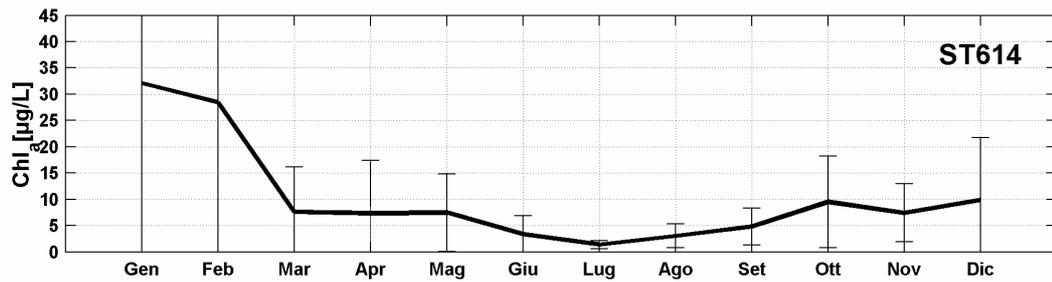
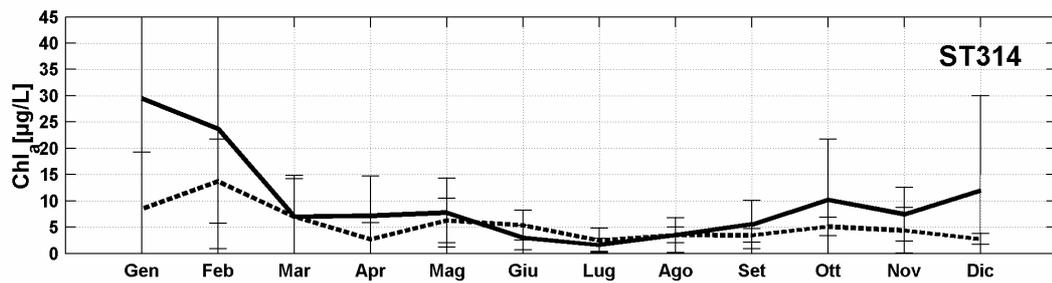
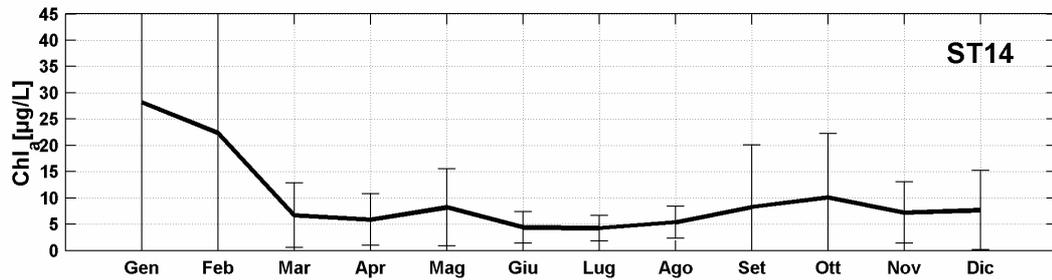
- deviazione standard
- climatologia 1995-2001(superficie)
- - - climatologia 1995-2001(fondo)

### TRANSETTO 14 - SALINITA



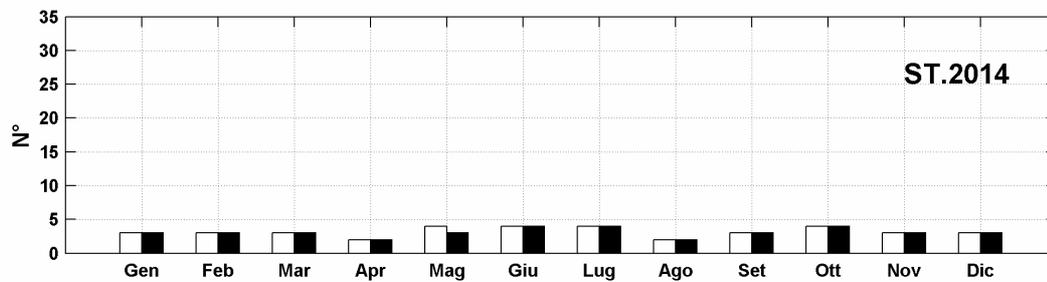
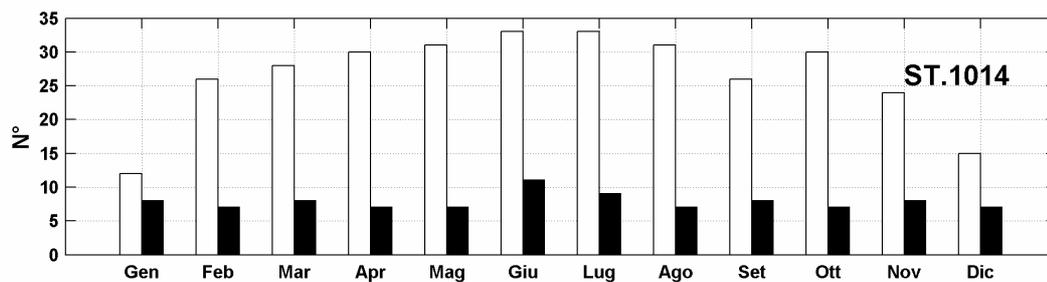
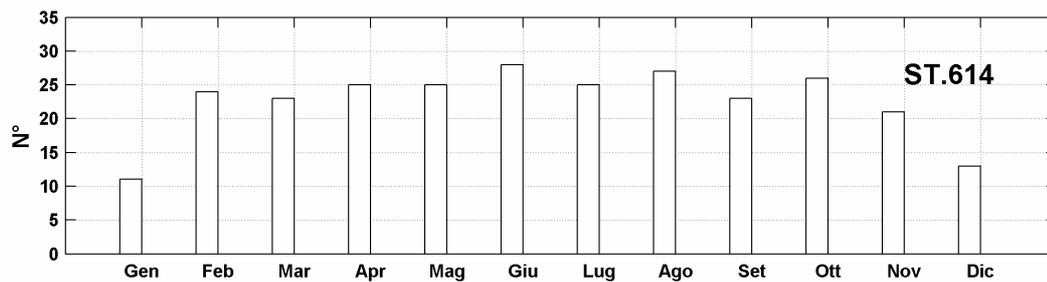
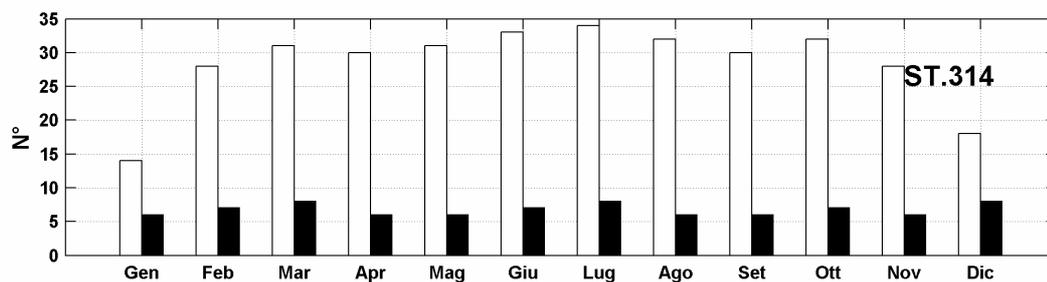
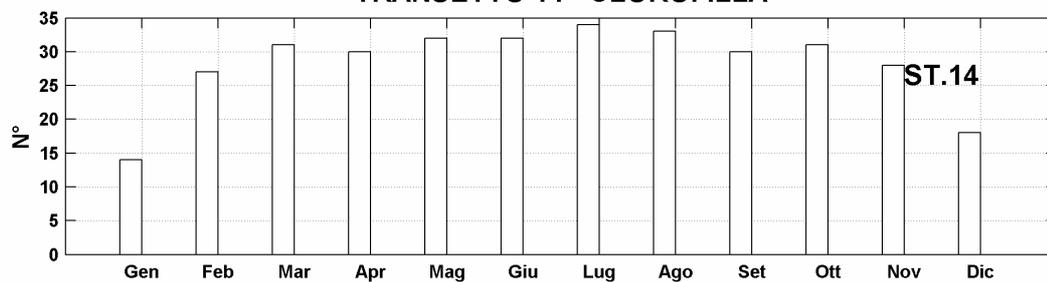
dati alla superficie  
 dati sul fondo

### CLIMATOLOGIE-TRANSETTO 14 - CLOROFILLA



— deviazione standard  
 — climatologia 1995-2001(superficie)  
 - - - climatologia 1995-2001(fondo)

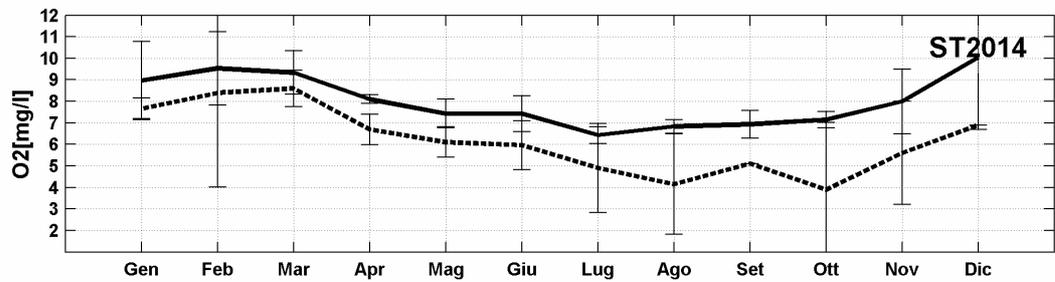
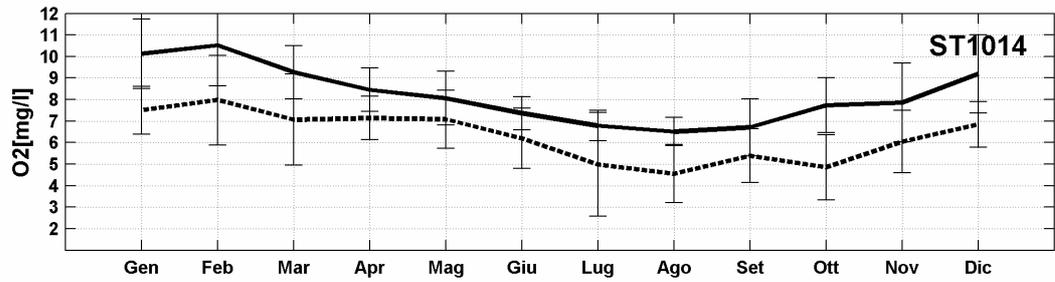
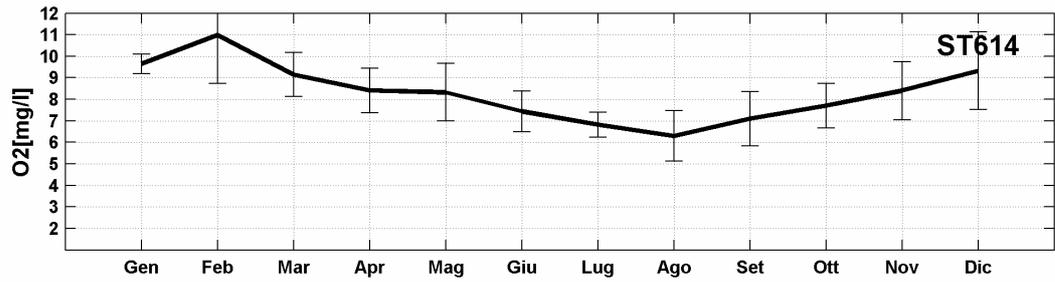
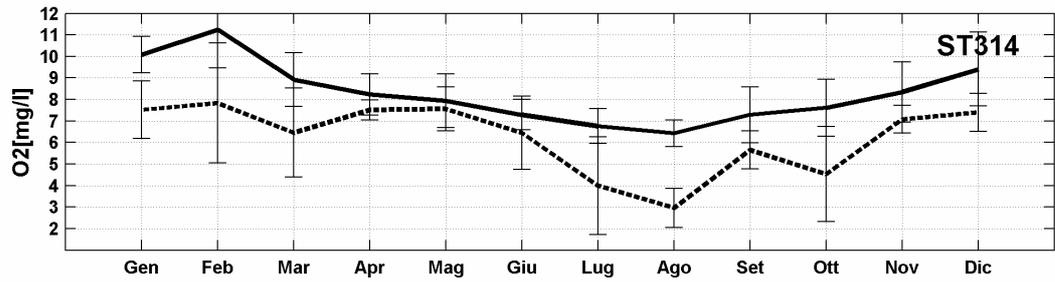
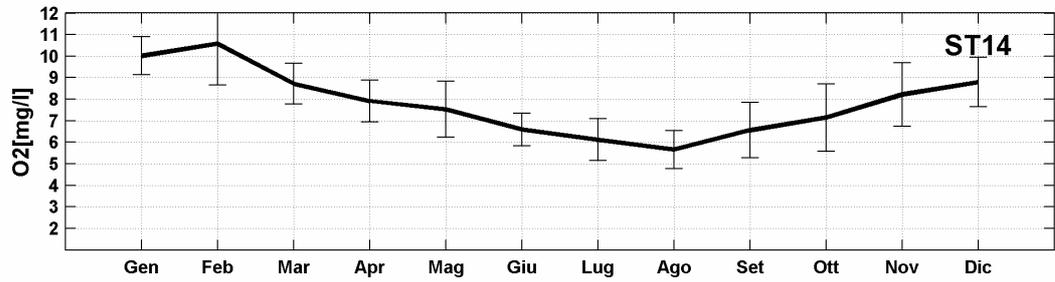
### TRANSETTO 14 - CLOROFILLA



dati alla superficie  
 dati sul fondo

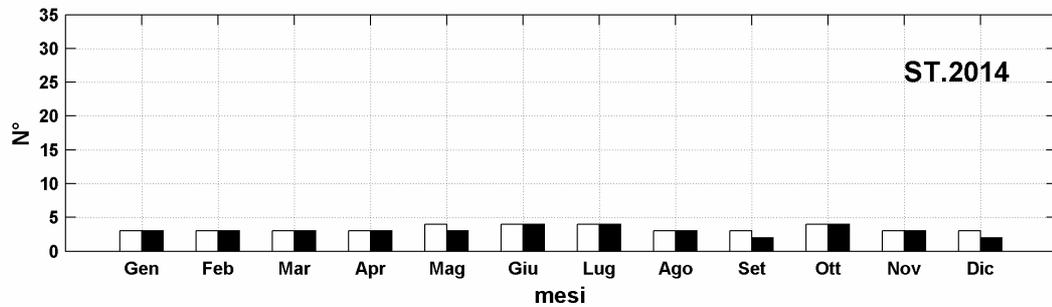
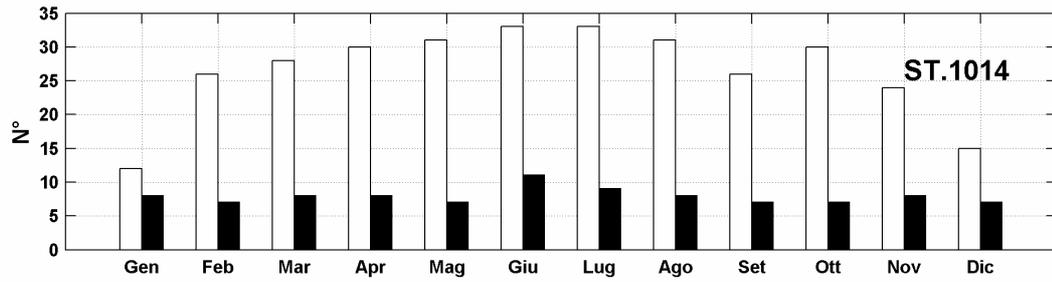
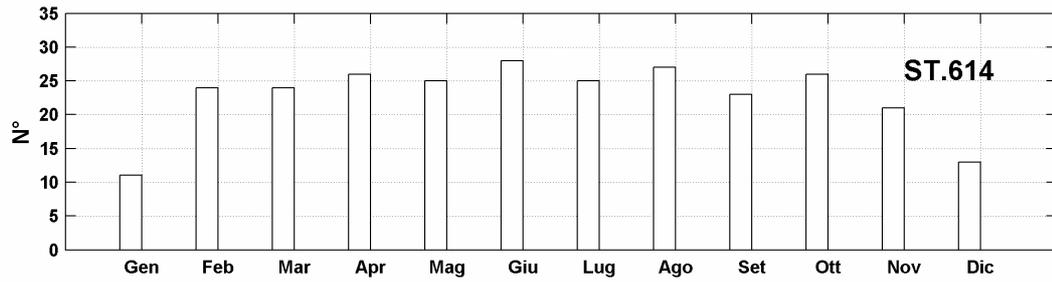
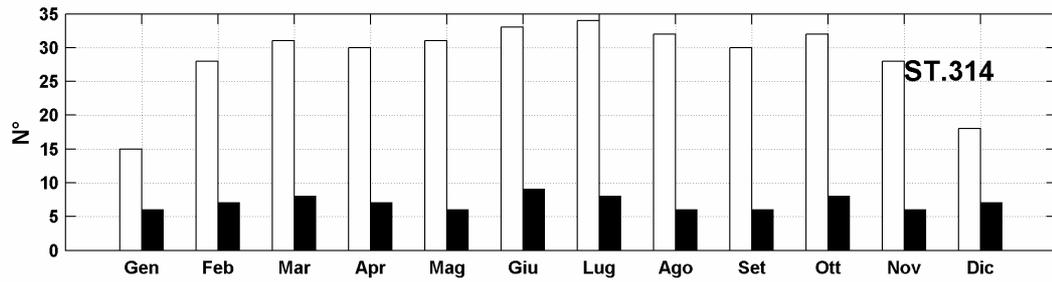
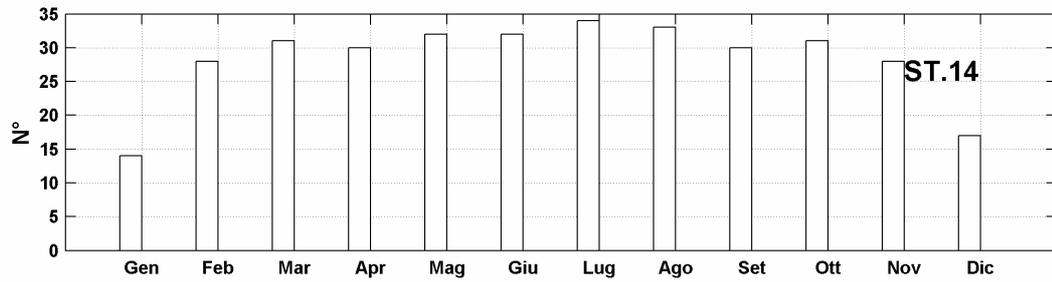
mesi

### CLIMATOLOGIE-TRANSETTO 14 - OSSIGENO



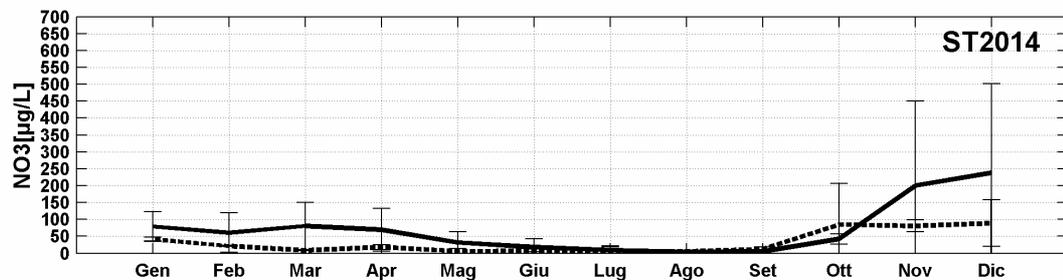
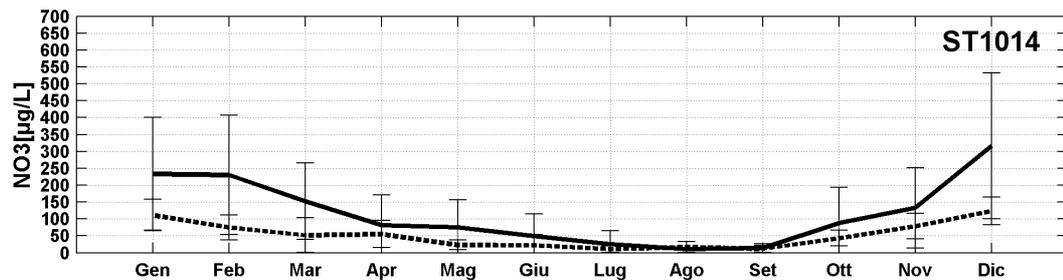
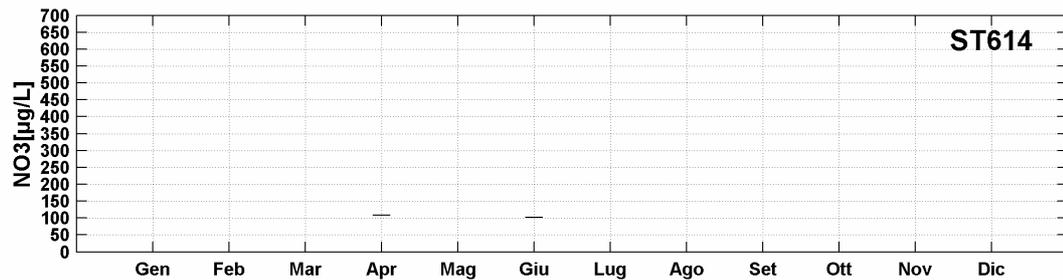
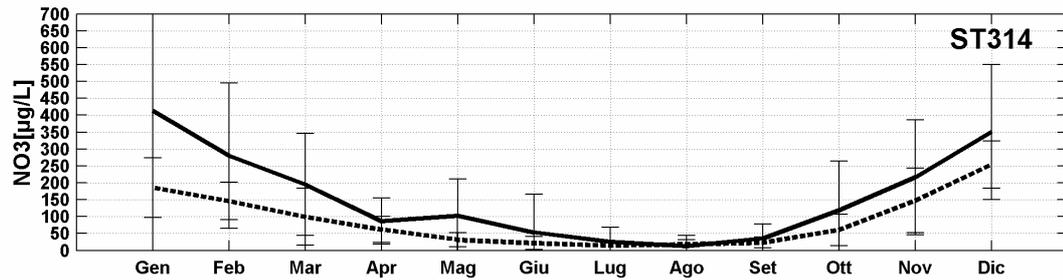
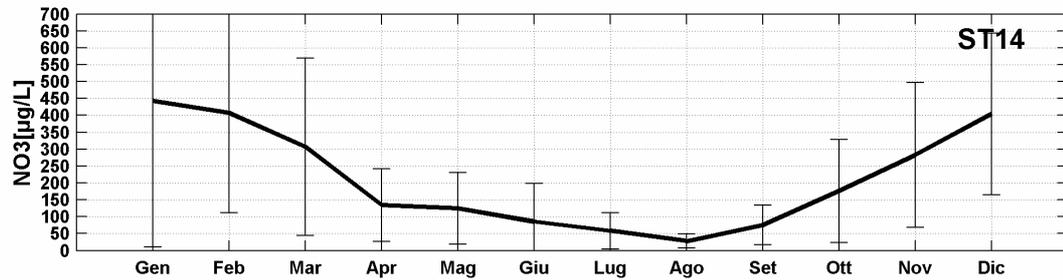
— deviazione standard  
 — climatologia 1995-2001(superficie)  
 - - - climatologia 1995-2001(fondo)

### TRANSETTO 14 - OSSIGENO



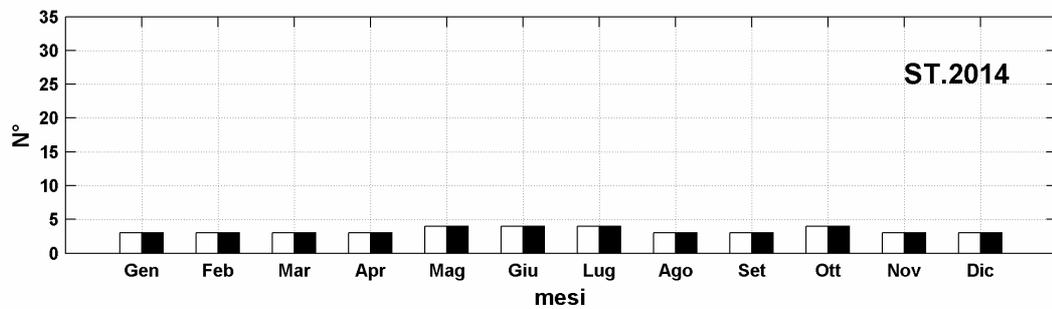
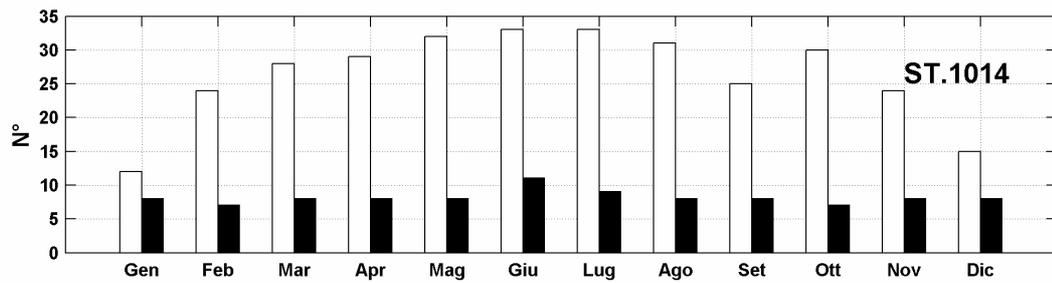
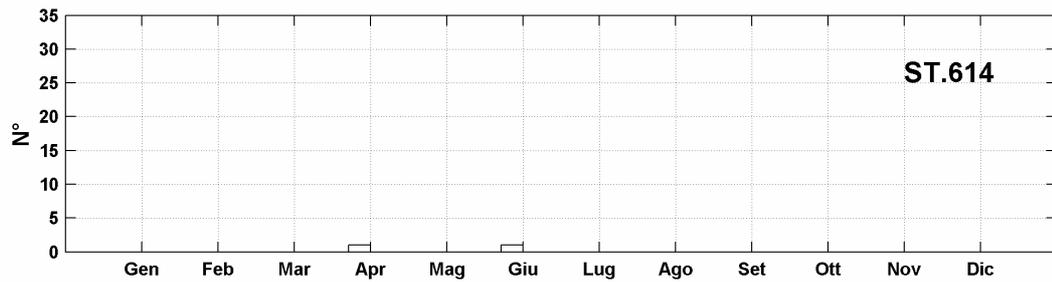
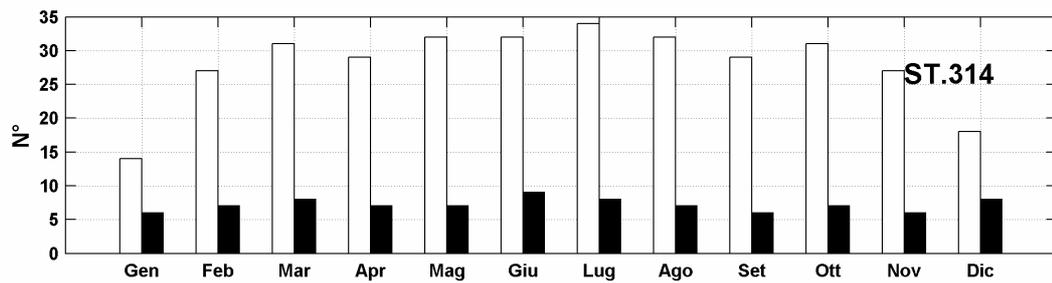
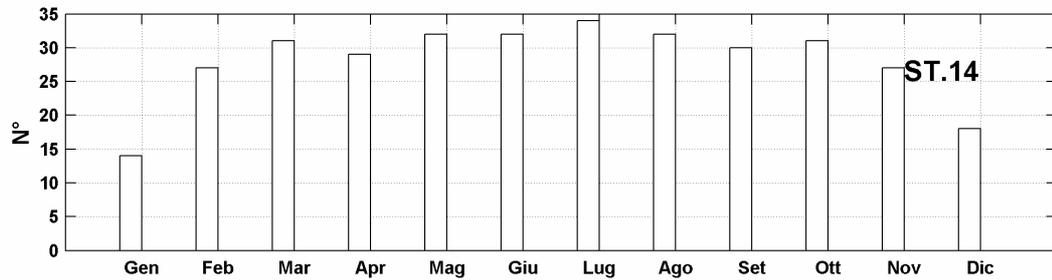
dati alla superficie  
 dati sul fondo

### CLIMATOLOGIE-TRANSETTO 14 - NITRATI



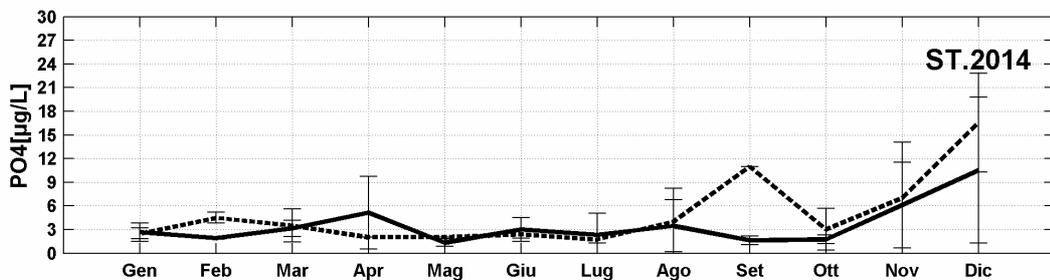
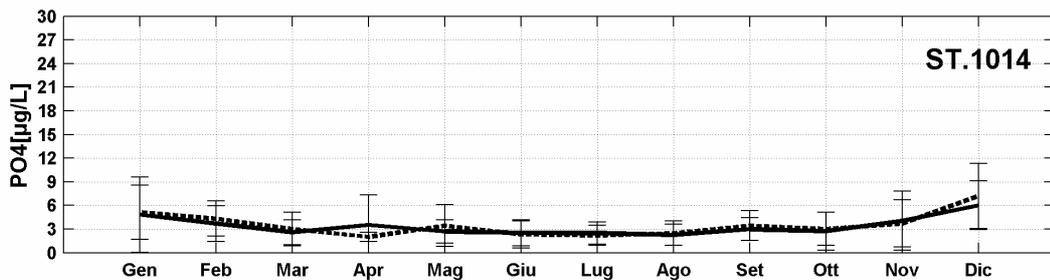
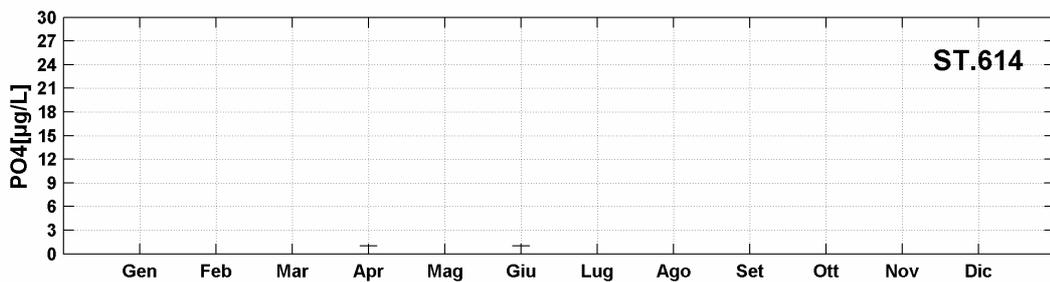
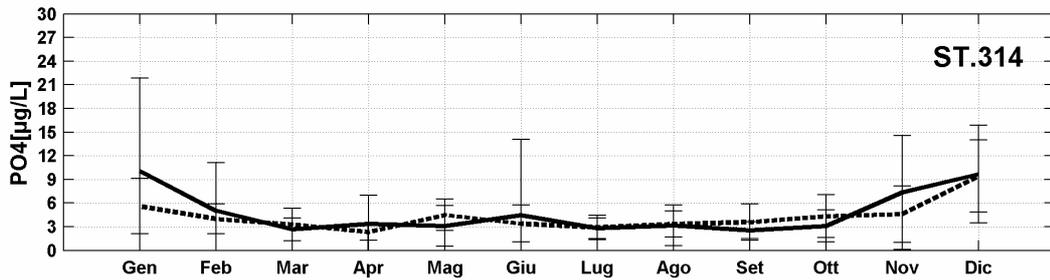
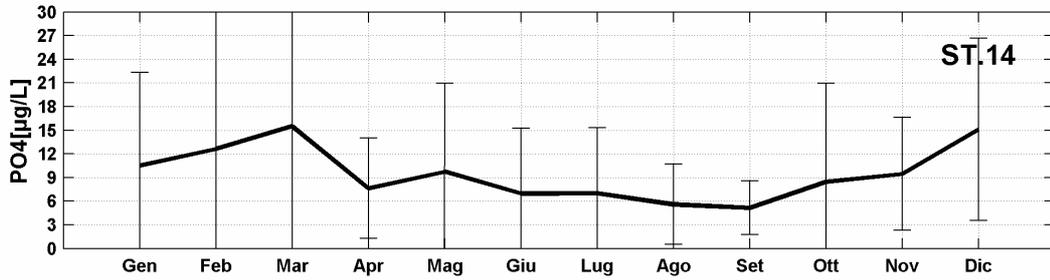
— deviazione standard  
 — climatologia 1995-2001(superficie)  
 - - - climatologia 1995-2001(fondo)

### TRANSETTO 14 - NITRATI



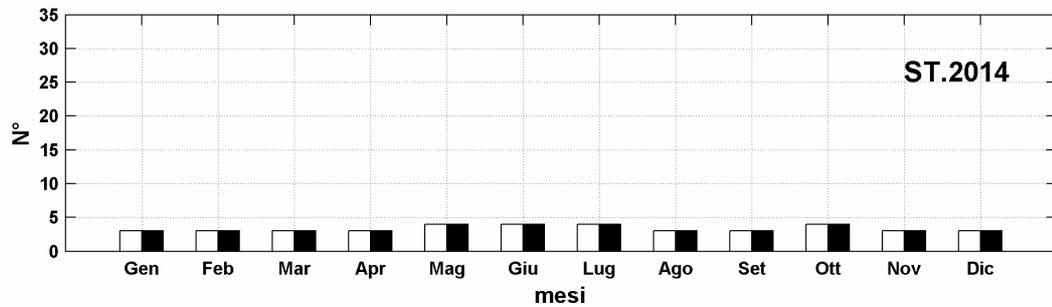
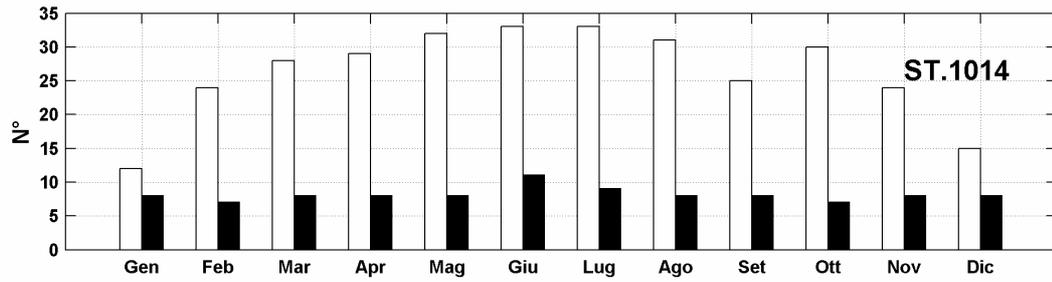
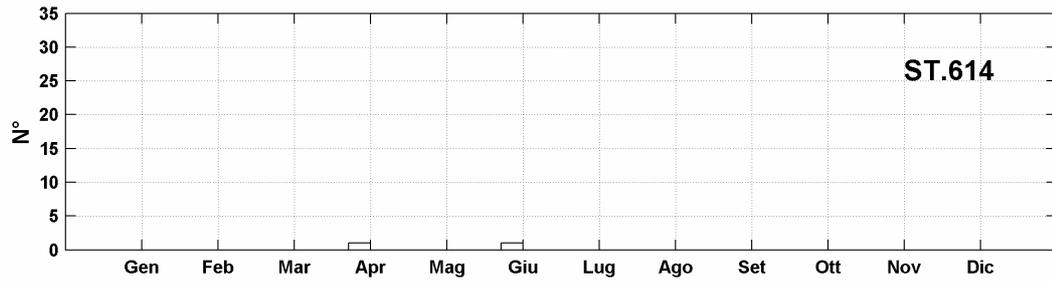
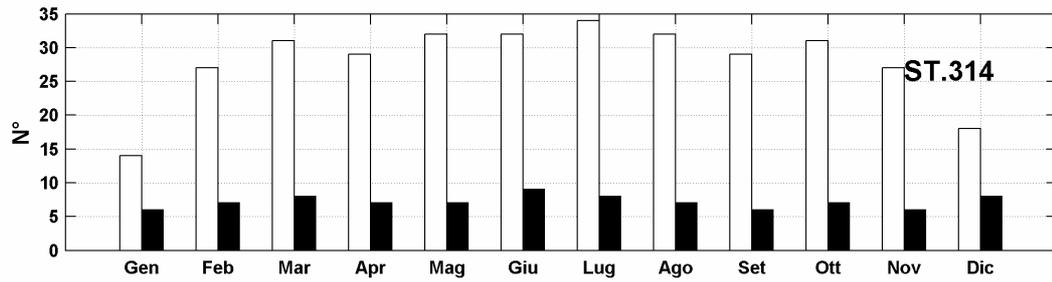
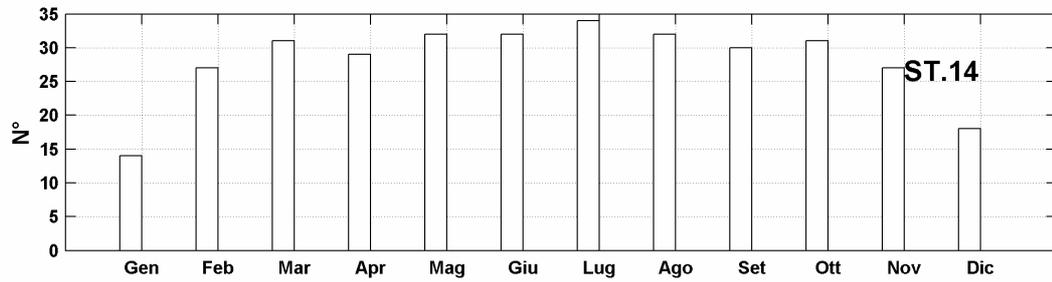
dati alla superficie  
 dati sul fondo

### CLIMATOLOGIE-TRANSETTO 14 - ORTOFOSFATI



- deviazione standard
- climatologia 1995-2001(superficie)
- - - climatologia 1995-2001(fondo)

### TRANSETTO 14 - ORTOFOSFATI



dati alla superficie  
 dati sul fondo

## DEVIAZIONI STANDARD

<b>st.14</b>	<b>pH</b>	<b>T[°C]</b>	<b>S[psu]</b>	<b>O2[ppm]</b>	<b>Chl_a[µg/L]</b>	<b>NO3[µg/L]</b>	<b>PO4[µg/L]</b>
gennaio	0.19	1.49	4.54	0.88	33.32	432.10	11.84
febbraio	0.21	1.16	3.82	1.92	23.21	295.60	18.41
marzo	0.20	1.60	3.05	0.95	6.11	262.63	21.25
aprile	0.15	1.61	2.29	0.97	4.94	107.54	6.38
maggio	0.16	2.59	3.37	1.30	7.30	105.23	11.24
giugno	0.09	2.40	1.67	0.76	2.97	112.69	8.26
luglio	0.14	1.72	1.89	0.98	2.45	53.33	8.30
agosto	0.12	1.18	1.82	0.88	3.01	20.94	5.10
settembre	0.15	1.65	2.90	1.29	11.75	58.59	3.38
ottobre	0.19	1.81	4.74	1.56	12.20	152.40	12.49
novembre	0.18	2.54	5.06	1.48	5.81	213.82	7.17
dicembre	0.13	1.77	4.80	1.14	7.52	239.14	11.55
<b>st.314</b>	<b>pH</b>	<b>T[°C]</b>	<b>S[psu]</b>	<b>O2[ppm]</b>	<b>Chl_a[µg/L]</b>	<b>NO3[µg/L]</b>	<b>PO4[µg/L]</b>
gennaio	0.18	1.40	3.92	0.84	41.36	419.81	11.80
febbraio	0.21	1.15	3.44	1.78	22.83	215.69	6.07
marzo	0.19	1.48	3.39	1.26	7.20	150.73	1.46
aprile	0.18	1.68	2.35	0.96	7.55	68.58	3.63
maggio	0.17	2.45	4.50	1.25	6.52	108.03	2.59
giugno	0.08	2.16	1.48	0.71	2.29	112.44	9.58
luglio	0.09	1.55	1.66	0.81	1.24	42.55	1.32
agosto	0.09	1.09	1.85	0.62	3.28	18.94	2.60
settembre	0.14	1.67	2.19	1.30	4.56	41.52	1.07
ottobre	0.17	1.68	4.51	1.33	11.49	146.17	2.00
novembre	0.20	2.32	5.38	1.40	5.09	170.45	7.22
dicembre	0.19	1.53	4.95	1.71	17.99	199.80	6.19
<b>st.614</b>	<b>pH</b>	<b>T[°C]</b>	<b>S[psu]</b>	<b>O2[ppm]</b>	<b>Chl_a[µg/L]</b>	<b>NO3[µg/L]</b>	<b>PO4[µg/L]</b>
gennaio	0.19	1.60	3.39	0.46	44.37	NaN	NaN
febbraio	0.21	0.93	3.20	2.26	29.37	NaN	NaN
marzo	0.19	1.48	3.59	1.02	8.52	NaN	NaN
aprile	0.20	1.70	2.99	1.04	10.05	NaN	NaN
maggio	0.18	2.38	4.95	1.34	7.37	NaN	NaN
giugno	0.08	2.15	1.74	0.94	3.49	NaN	NaN
luglio	0.11	1.60	2.68	0.57	0.80	NaN	NaN
agosto	0.10	1.14	1.85	1.17	2.30	NaN	NaN
settembre	0.11	1.76	1.37	1.25	3.49	NaN	NaN
ottobre	0.18	1.88	4.85	1.03	8.70	NaN	NaN
novembre	0.23	2.01	5.13	1.35	5.54	NaN	NaN
dicembre	0.17	1.68	5.26	1.80	11.83	NaN	NaN
<b>st.1014</b>	<b>pH</b>	<b>T[°C]</b>	<b>S[psu]</b>	<b>O2[ppm]</b>	<b>Chl_a[µg/L]</b>	<b>NO3[µg/L]</b>	<b>PO4[µg/L]</b>
gennaio	0.16	1.51	3.22	1.62	29.55	167.19	4.78
febbraio	0.21	1.08	4.14	1.90	24.44	176.05	2.27
marzo	0.18	1.48	2.77	1.24	8.27	112.81	1.58
aprile	0.19	1.62	3.01	1.00	10.80	87.37	19.86
maggio	0.17	2.36	3.45	1.24	5.28	81.41	1.49
giugno	0.08	1.82	2.00	0.77	2.21	65.62	1.67
luglio	0.08	1.50	1.81	0.70	0.67	39.10	1.42
agosto	0.08	1.11	2.01	0.65	1.89	21.45	1.33
settembre	0.09	1.48	1.93	1.32	1.57	13.11	1.42
ottobre	0.16	1.72	4.31	1.27	6.18	105.00	2.42
novembre	0.22	1.89	4.99	1.83	5.22	118.43	3.75
dicembre	0.18	1.56	6.07	1.81	21.31	215.87	3.09

## DEVIAZIONI STANDARD

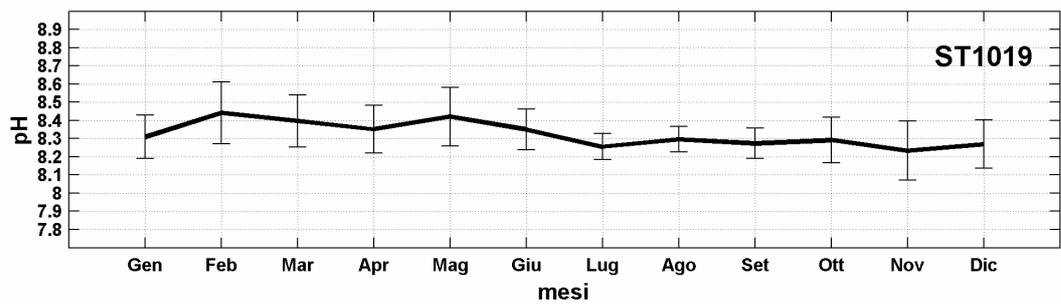
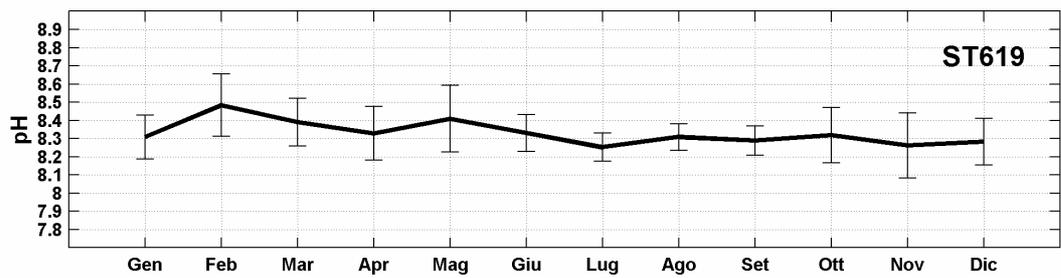
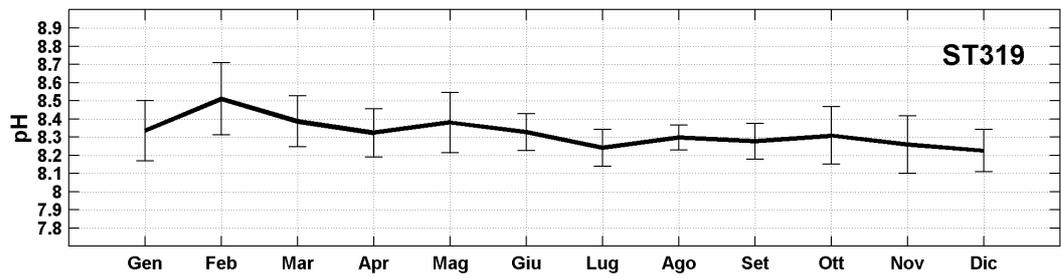
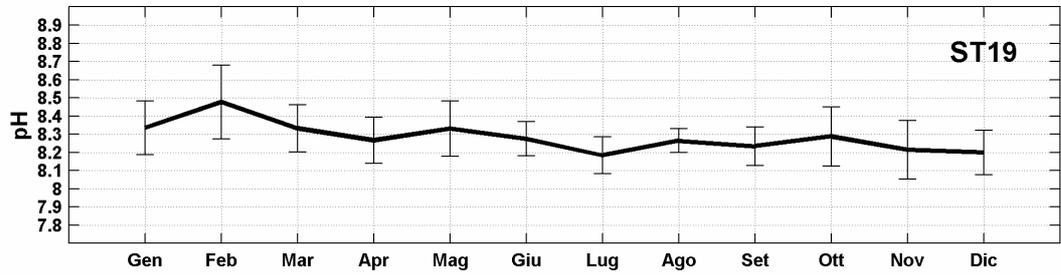
<b>st.2014</b>	<b>pH</b>	<b>T[°C]</b>	<b>S[psu]</b>	<b>O2[ppm]</b>	<b>Chl_a[µg/L]</b>	<b>NO3[µg/L]</b>	<b>PO4[µg/L]</b>
gennaio	0.31	2.87	1.25	1.79	2.97	43.72	1.16
febbraio	0.03	1.48	0.74	1.70	1.59	58.62	0.17
marzo	0.12	1.40	1.31	1.01	0.90	69.95	1.03
aprile	0.13	1.94	2.61	0.20	2.48	63.43	4.59
maggio	0.08	4.29	1.28	0.67	1.96	31.59	0.47
giugno	0.05	1.98	0.51	0.83	0.57	24.55	1.54
luglio	0.07	0.67	1.56	0.40	0.45	12.79	2.72
agosto	0.12	2.00	3.47	0.32	0.21	2.61	3.33
settembre	0.04	1.88	0.61	0.65	0.79	5.53	0.55
ottobre	0.11	0.65	1.96	0.38	1.84	14.90	0.55
novembre	0.17	1.92	10.04	1.50	2.59	251.04	5.43
dicembre	0.23	2.20	9.17	3.35	43.08	263.93	9.26
<b>st.314</b>	<b>pH</b>	<b>T[°C]</b>	<b>S[psu]</b>	<b>O2[ppm]</b>	<b>Chl_a[µg/L]</b>	<b>NO3[µg/L]</b>	<b>PO4[µg/L]</b>
gennaio	0.33	1.86	0.60	1.34	10.75	88.48	3.51
febbraio	0.17	1.09	1.18	2.78	8.00	54.95	1.90
marzo	0.20	1.17	2.02	2.07	7.87	84.14	2.06
aprile	0.11	1.27	0.75	0.47	3.19	38.82	1.03
maggio	0.12	2.07	1.03	1.02	4.24	20.68	1.98
giugno	0.13	2.26	1.06	1.70	2.81	19.27	2.32
luglio	0.22	0.90	0.44	2.27	2.31	14.29	1.54
agosto	0.11	0.79	1.29	0.91	1.50	25.64	1.63
settembre	0.12	2.11	1.21	0.88	1.28	15.35	2.30
ottobre	0.11	1.14	0.88	2.22	1.78	46.39	2.73
novembre	0.10	1.68	6.23	0.65	4.29	95.55	3.58
dicembre	0.13	2.76	1.15	0.88	1.00	69.62	4.58
<b>st.1014</b>	<b>pH</b>	<b>T[°C]</b>	<b>S[psu]</b>	<b>O2[ppm]</b>	<b>Chl_a[µg/L]</b>	<b>NO3[µg/L]</b>	<b>PO4[µg/L]</b>
gennaio	0.26	1.66	0.81	1.12	6.53	45.99	3.44
febbraio	0.12	1.14	0.64	2.07	3.73	36.57	2.25
marzo	0.19	1.12	0.90	2.12	3.53	51.40	2.16
aprile	0.10	1.11	1.03	1.02	2.33	40.23	0.58
maggio	0.10	1.80	0.48	1.35	2.08	14.40	2.64
giugno	0.11	2.47	0.59	1.40	1.80	31.06	1.72
luglio	0.16	2.14	0.61	2.40	0.76	10.08	1.30
agosto	0.11	2.11	1.18	1.35	1.95	15.85	1.57
settembre	0.11	1.73	0.95	1.24	2.23	10.44	1.90
ottobre	0.10	0.73	0.61	1.51	0.88	23.05	2.10
novembre	0.08	1.97	1.19	1.44	2.26	37.54	2.98
dicembre	0.09	2.68	0.44	1.06	0.68	40.99	4.12
<b>st.2014</b>	<b>pH</b>	<b>T[°C]</b>	<b>S[psu]</b>	<b>O2[ppm]</b>	<b>Chl_a[µg/L]</b>	<b>NO3[µg/L]</b>	<b>PO4[µg/L]</b>
gennaio	0.38	0.71	0.07	0.50	4.60	5.66	0.71
febbraio	0.01	1.49	0.42	4.38	4.46	2.12	0.71
marzo	0.07	1.06	0.07	0.85	0.92	0.71	2.12
aprile	0.01	0.78	0.00	0.71	0.00	7.07	0.00
maggio	0.05	1.10	0.19	0.71	0.92	6.93	0.00
giugno	0.04	0.56	0.15	1.14	1.62	3.93	0.53
luglio	0.03	1.10	0.06	2.08	0.00	10.39	0.46
agosto	0.09	1.13	0.07	2.33	0.00	1.41	4.24
settembre	0.05	1.06	0.07	0.00	1.13	6.36	0.00
ottobre	0.21	1.91	0.06	3.12	0.81	121.82	2.65
novembre	0.09	3.54	0.28	2.40	0.92	17.68	7.07
dicembre	0.00	2.83	0.14	0.00	0.07	69.16	6.29

## COEFFICIENTI DI CORRELAZIONE TRA CLIMATOLOGIE

<b>st.14</b>	pH	temperatura	salinità	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	-0.62	1.00					
salinità	-0.37	0.68	1.00				
O2	0.77	-0.84	-0.68	1.00			
clorofilla	0.70	-0.64	-0.67	0.80	1.00		
nitrati	0.57	-0.95	-0.83	0.84	0.71	1.00	
fosfati	0.51	-0.81	-0.57	0.62	0.30	0.82	1.00
<b>st.314</b>	pH	temperatura	salinità	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	-0.40	1.00					
salinità	-0.19	0.64	1.00				
O2	0.55	-0.73	-0.39	1.00			
clorofilla	0.45	-0.77	-0.71	0.51	1.00		
nitrati	0.20	-0.91	-0.82	0.52	0.84	1.00	
fosfati	-0.22	-0.65	-0.76	0.20	0.64	0.86	1.00
<b>st.614</b>	pH	temperatura	salinità	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	-0.41	1.00					
salinità	-0.26	0.59	1.00				
O2	0.43	-0.82	-0.34	1.00			
clorofilla	0.51	-0.75	-0.60	0.58	1.00		
nitrati	NaN	NaN	NaN	NaN	NaN	NaN	
fosfati	NaN	NaN	NaN	NaN	NaN	NaN	NaN
<b>st.1014</b>	pH	temperatura	salinità	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	-0.38	1.00					
salinità	-0.07	0.41	1.00				
O2	0.60	-0.81	-0.19	1.00			
clorofilla	0.38	-0.84	-0.52	0.61	1.00		
nitrati	0.19	-0.89	-0.70	0.63	0.82	1.00	
fosfati	-0.24	-0.71	-0.62	0.40	0.66	0.86	1.00
<b>st.2014</b>	pH	temperatura	salinità	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	0.04	1.00					
salinità	0.47	-0.10	1.00				
O2	0.35	-0.80	0.28	1.00	0.11		
clorofilla	-0.20	-0.43	-0.52	0.11	1.00		
nitrati	-0.55	-0.66	-0.60	0.26	0.77	1.00	
fosfati	-0.41	-0.38	-0.68	0.04	0.85	0.87	1.00

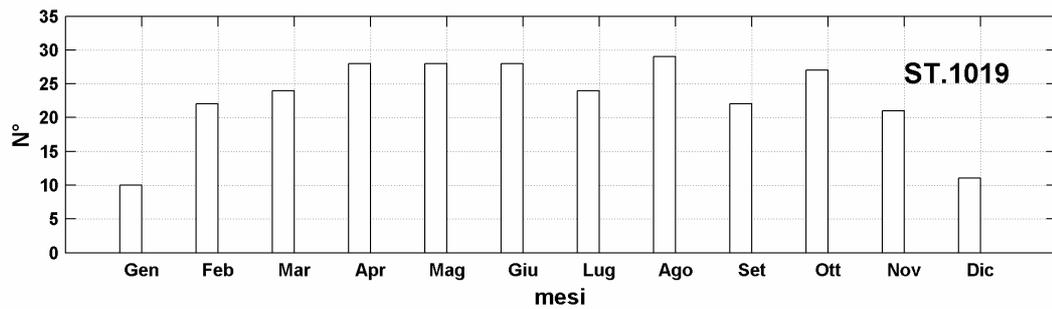
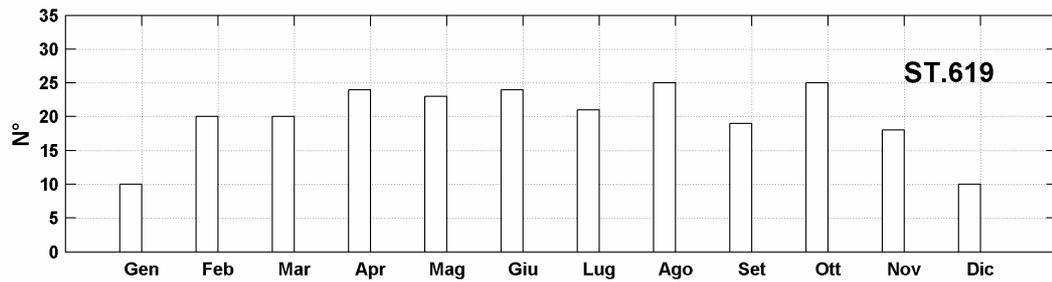
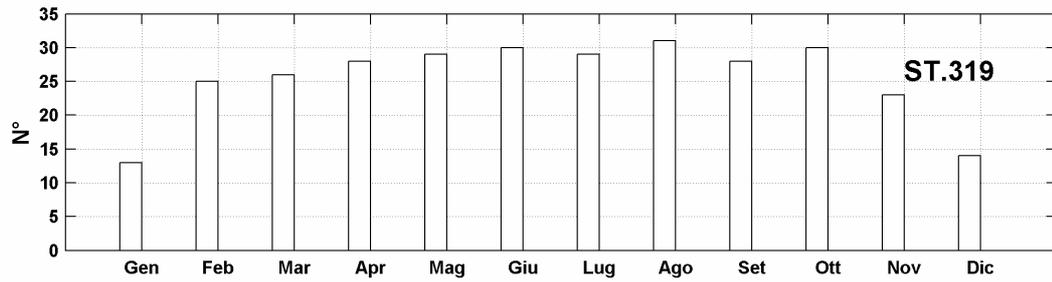
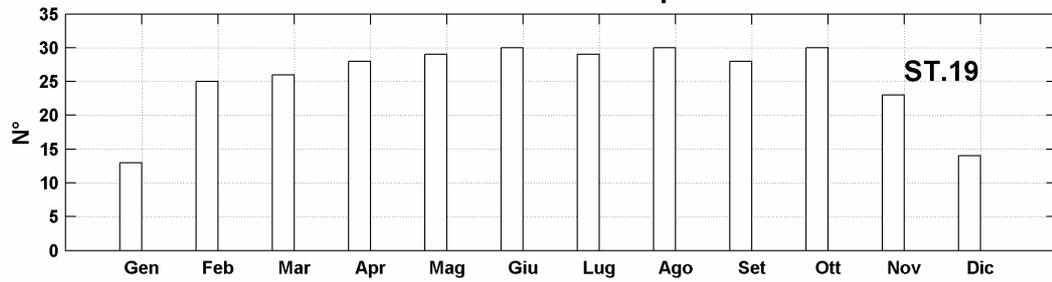


### CLIMATOLOGIE-TRANSETTO 19 - pH



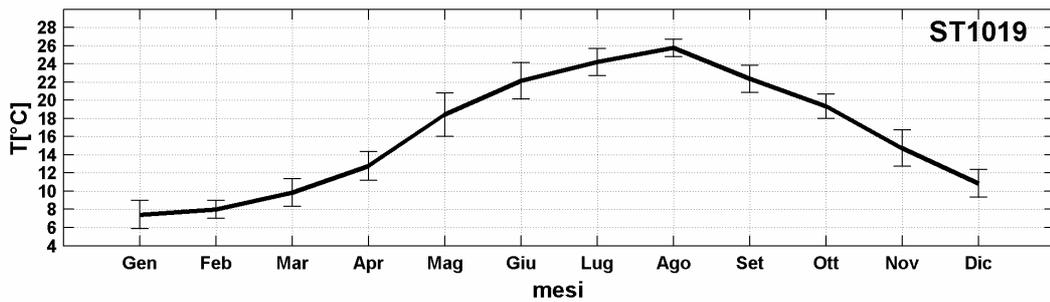
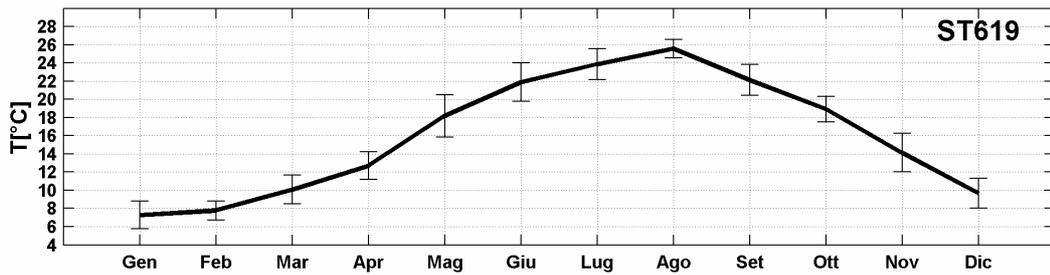
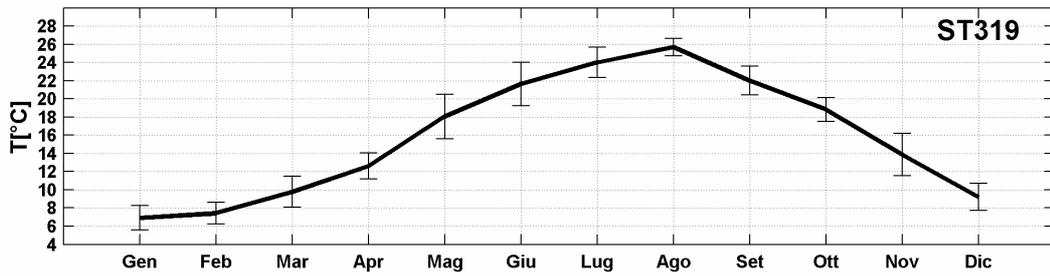
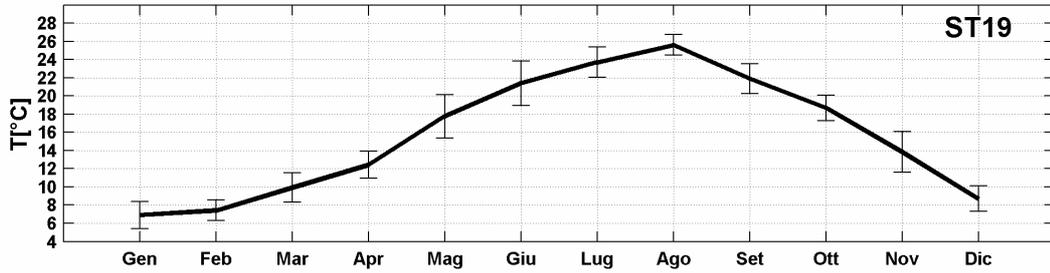
— deviazione standard  
 — climatologia 1995-2001(superficie)

### TRANSETTO 19 - pH



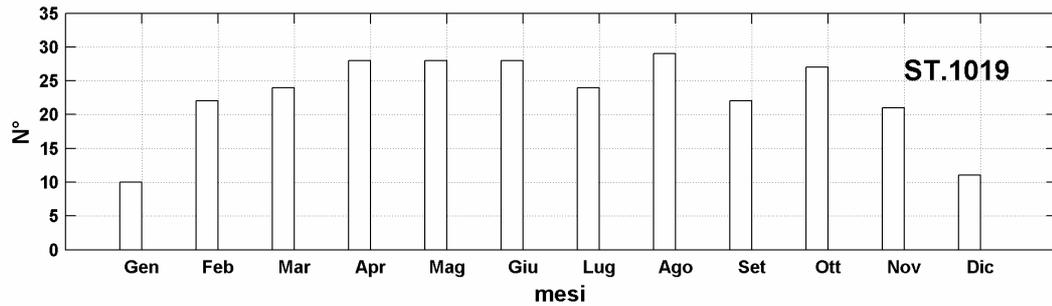
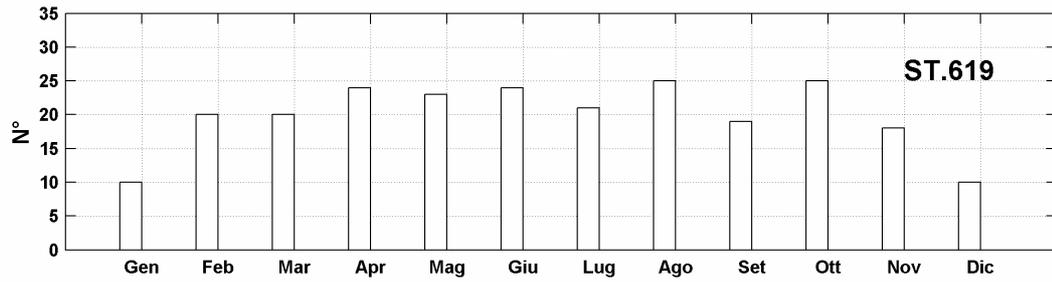
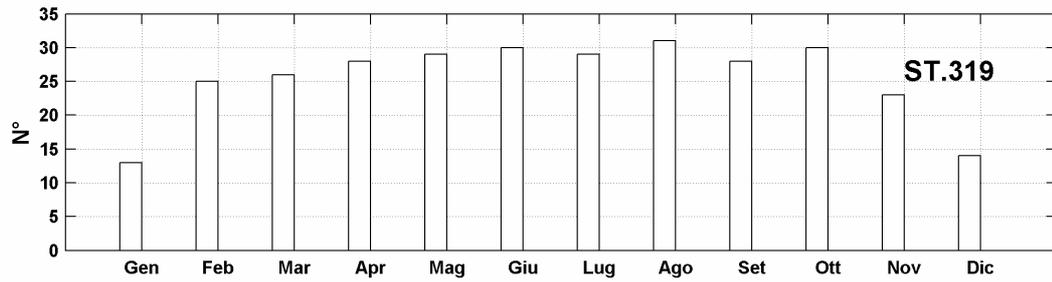
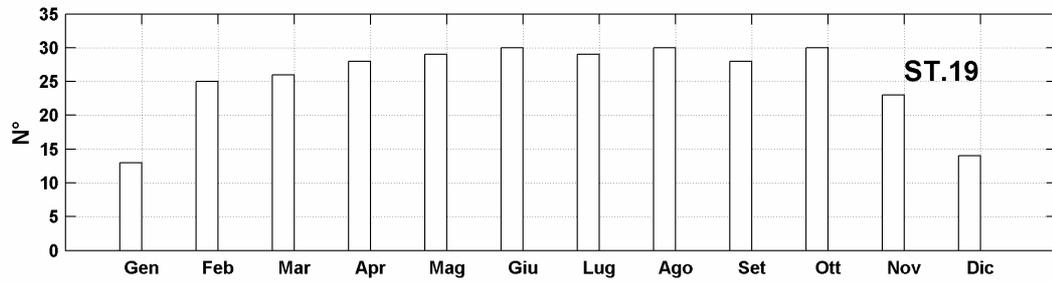
dati alla superficie  
 dati sul fondo

### CLIMATOLOGIE-TRANSETTO 19 - TEMPERATURA



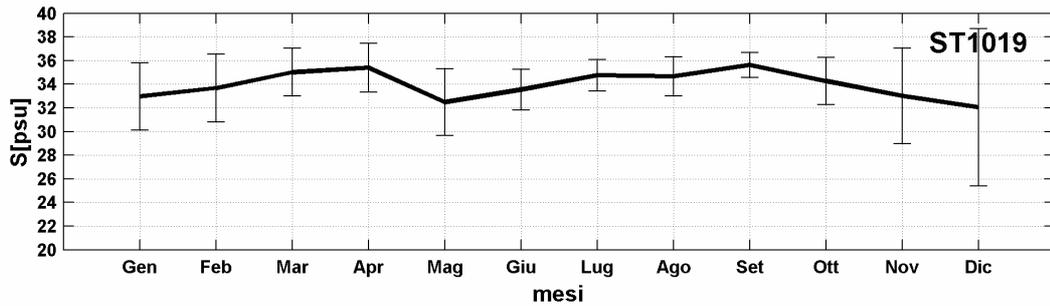
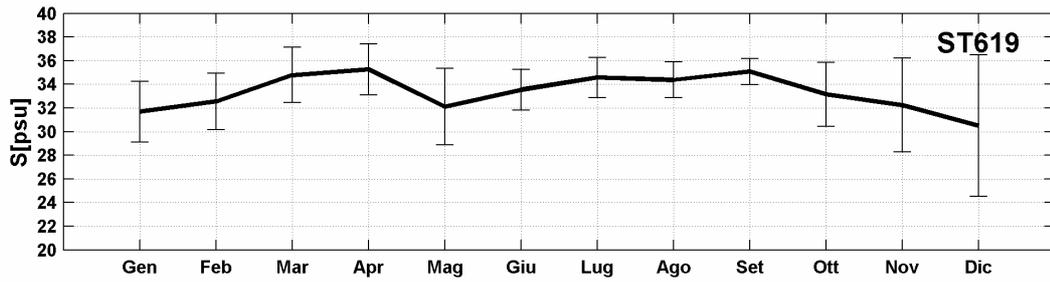
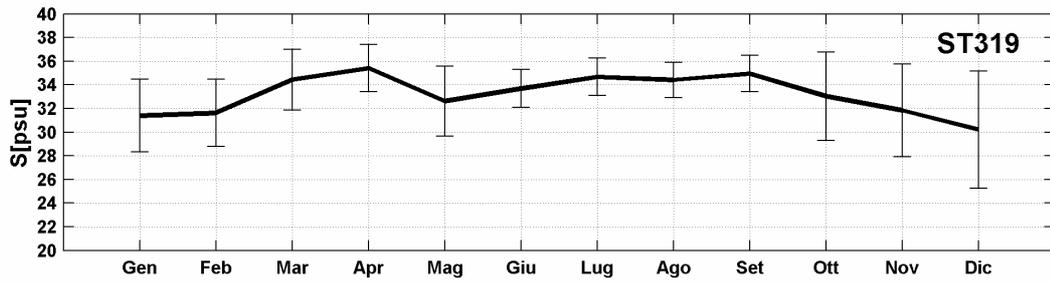
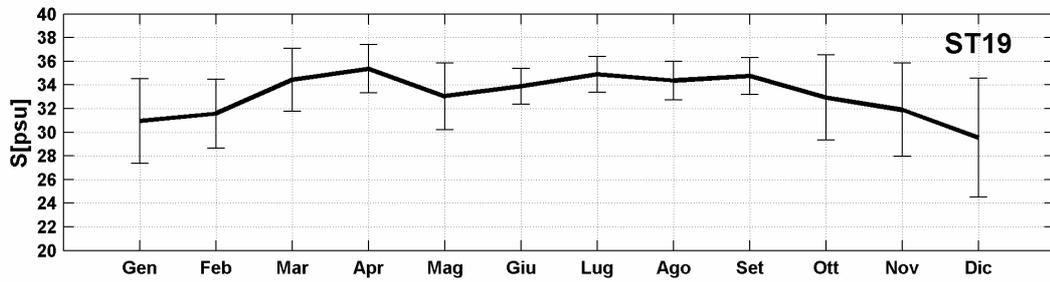
— deviazione standard  
 — climatologia 1995-2001(superficie)

### TRANSETTO 19 - TEMPERATURA



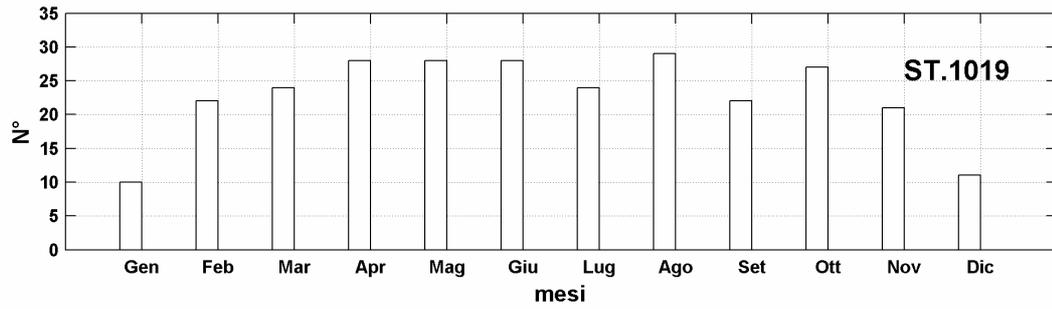
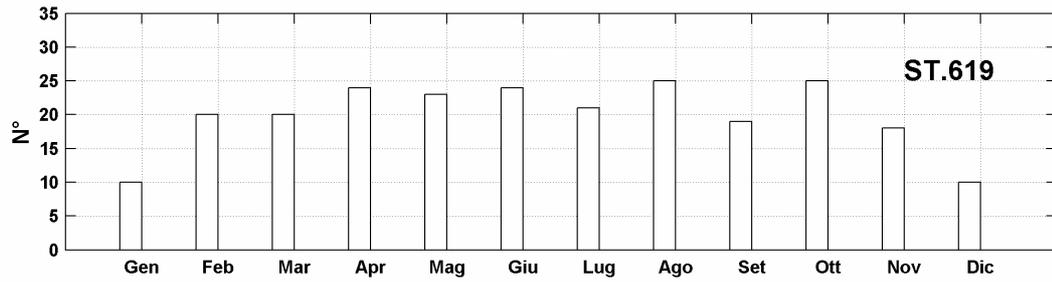
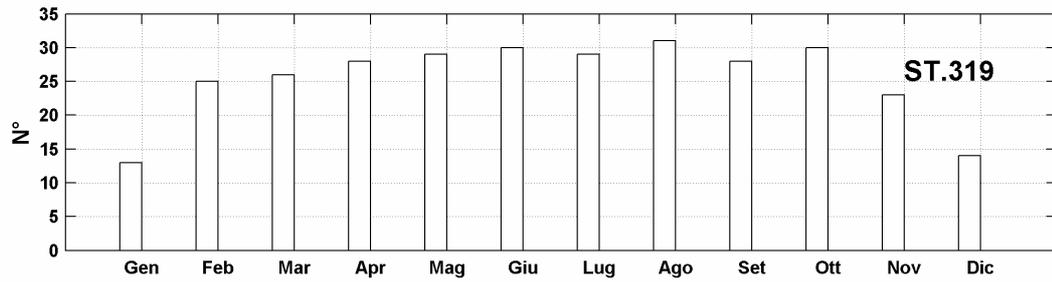
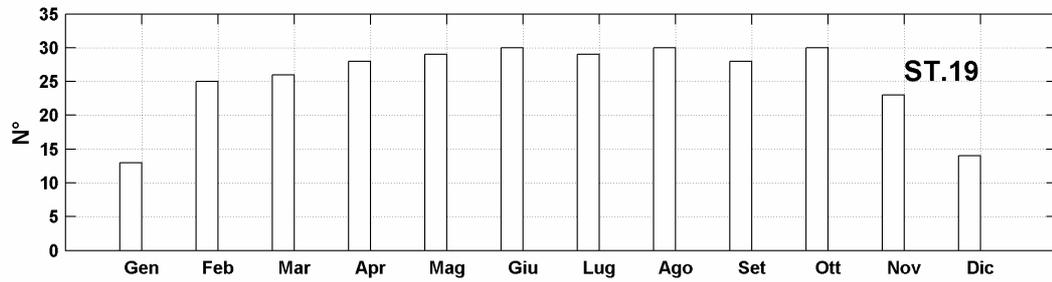
dati alla superficie  
 dati sul fondo

### CLIMATOLOGIE-TRANSETTO 19 - SALINITA



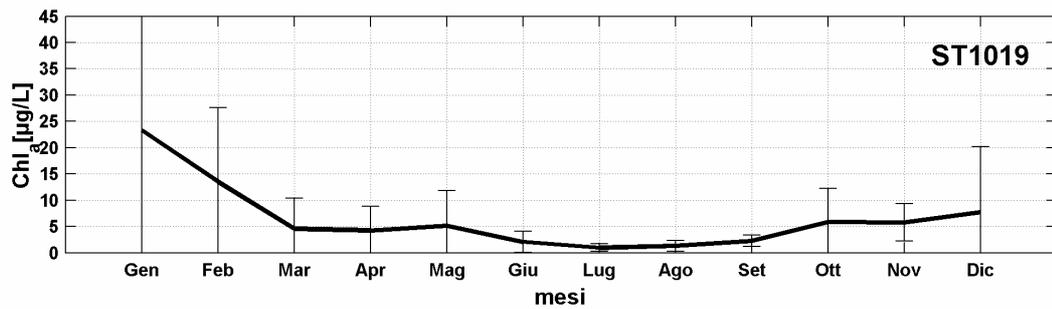
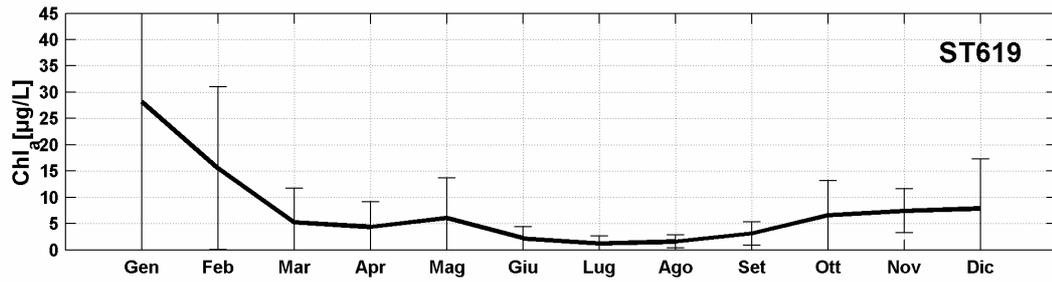
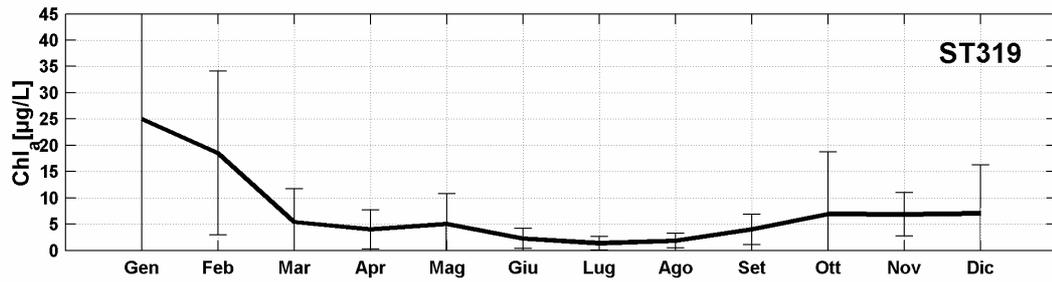
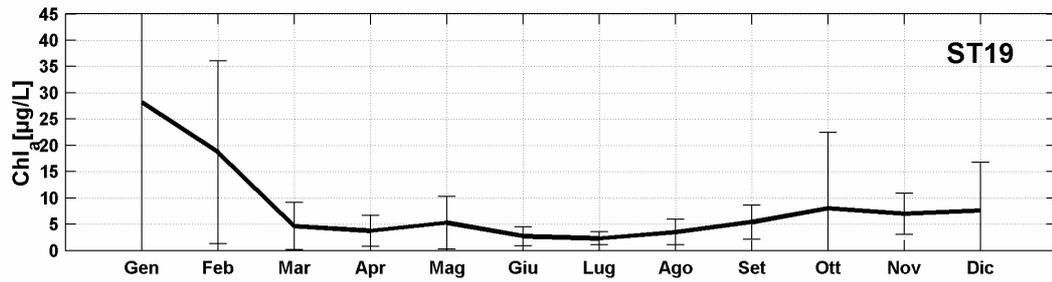
deviazione standard  
 climatologia 1995-2001(superficie)

**TRANSETTO 19 - SALINITA**



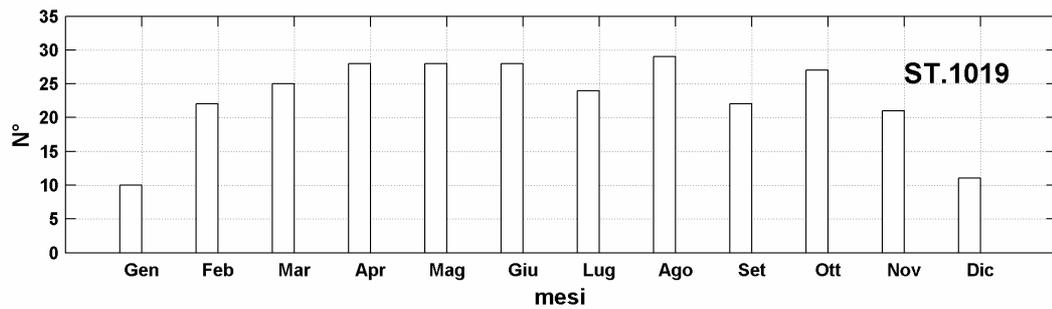
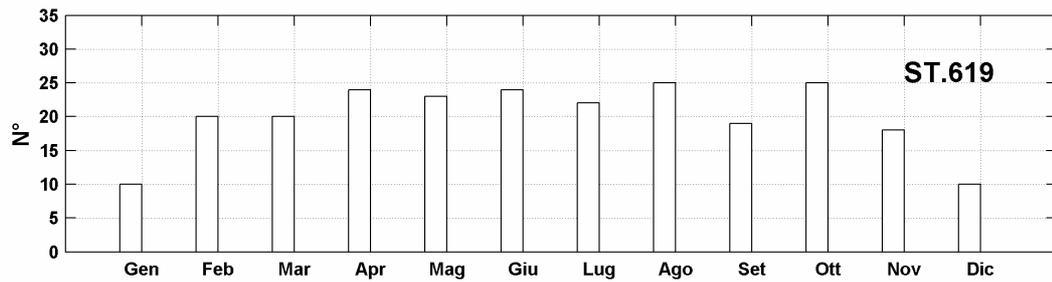
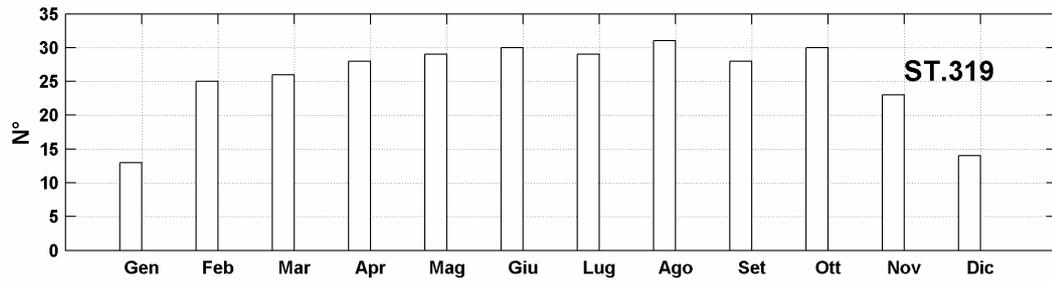
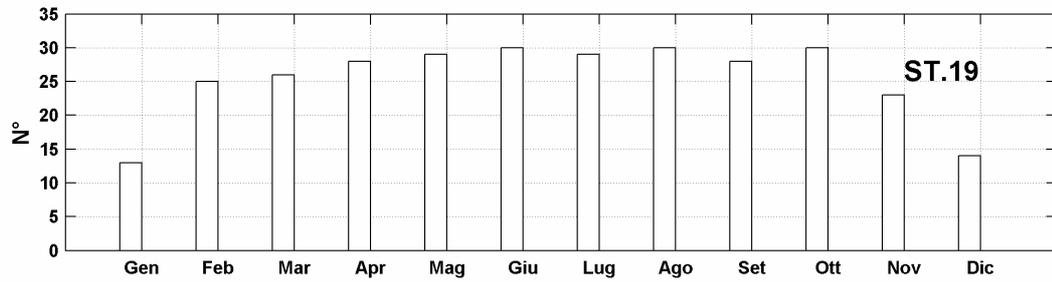
dati alla superficie  
 dati sul fondo

### CLIMATOLOGIE-TRANSETTO 19 - CLOROFILLA



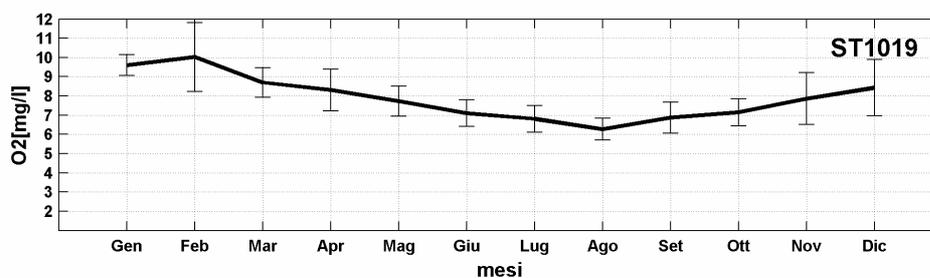
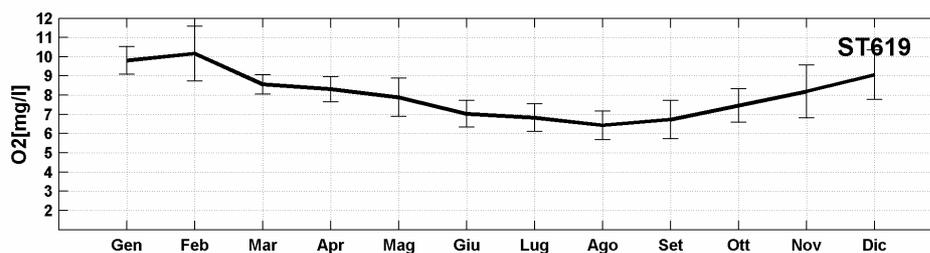
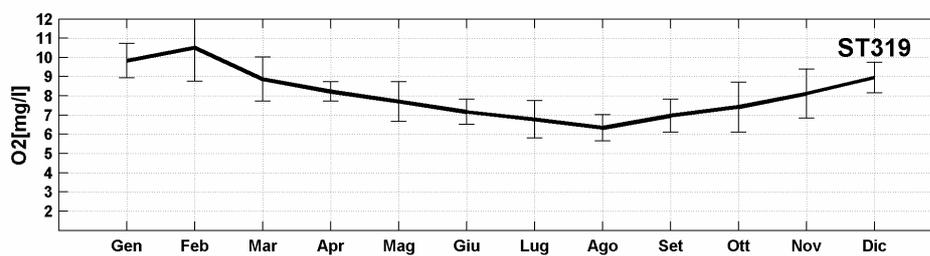
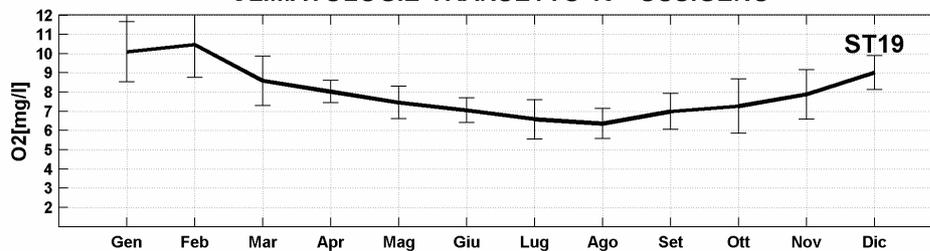
— deviazione standard  
 — climatologia 1995-2001(superficie)

### TRANSETTO 19 - CLOROFILLA



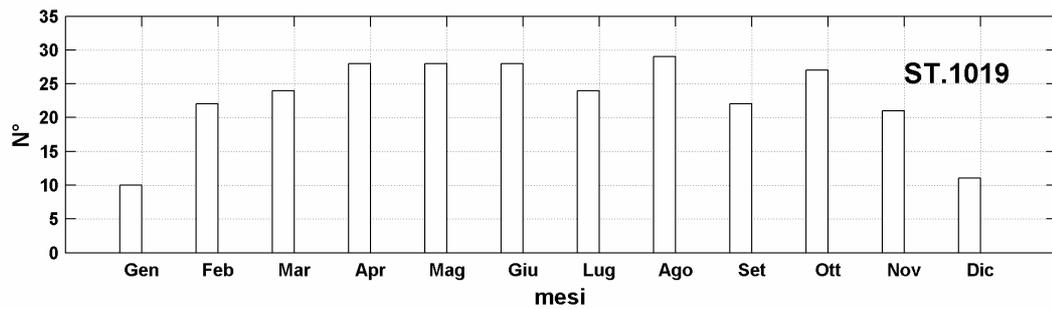
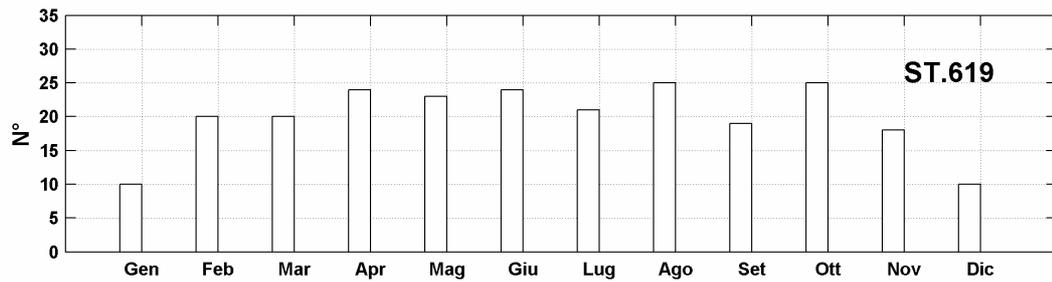
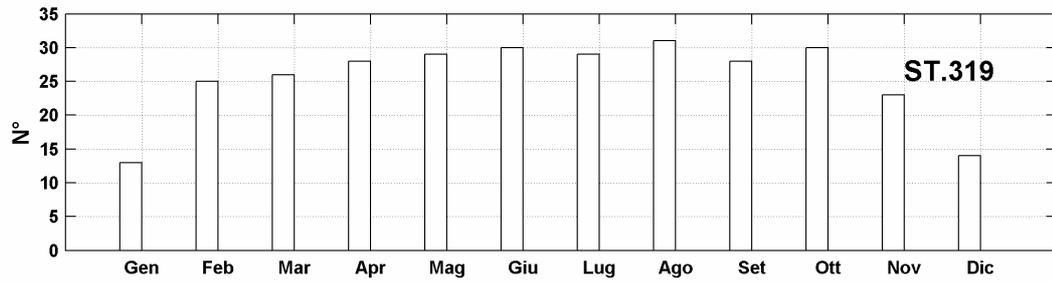
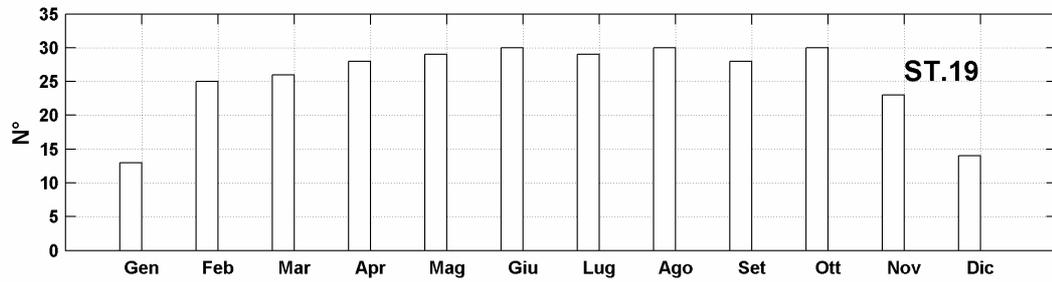
dati alla superficie  
 dati sul fondo

### CLIMATOLOGIE-TRANSETTO 19 - OSSIGENO



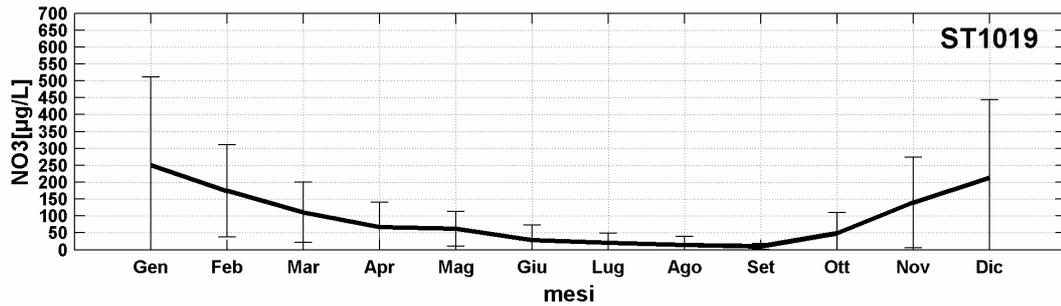
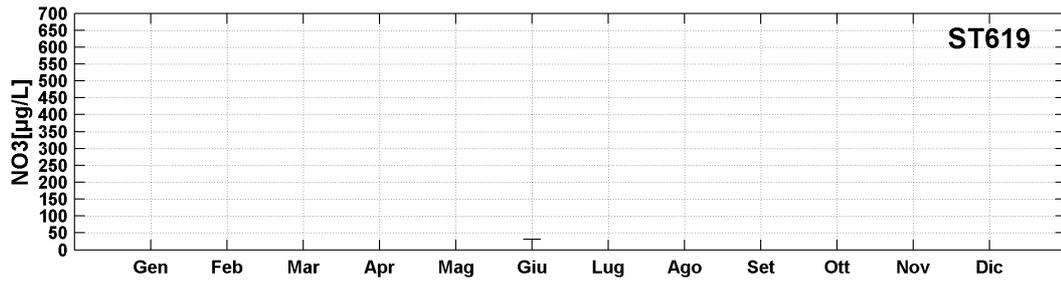
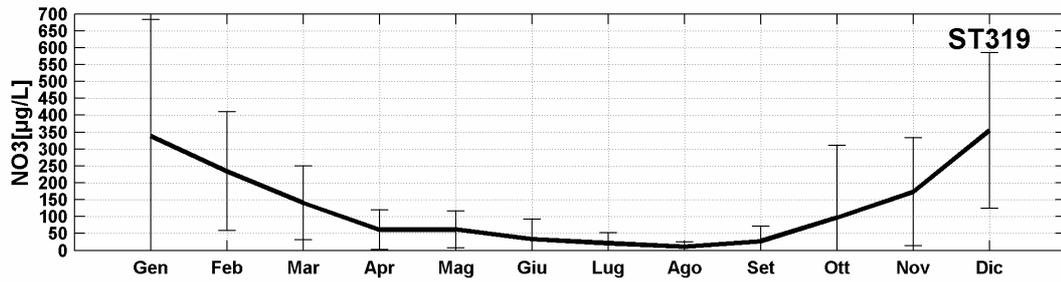
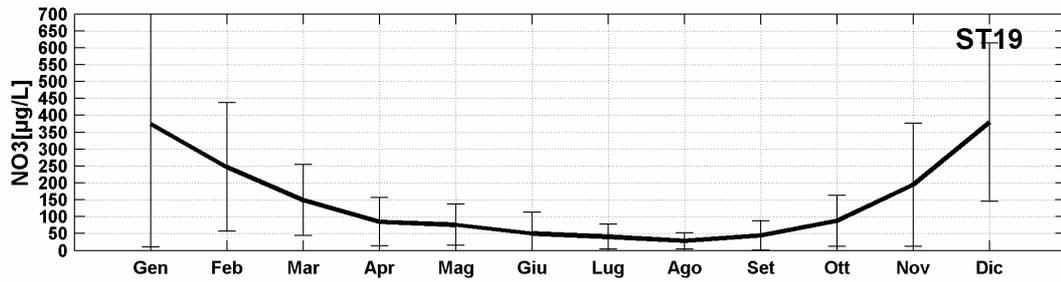
— deviazione standard  
 — climatologia 1995-2001(superficie)

### TRANSETTO 19 - OSSIGENO



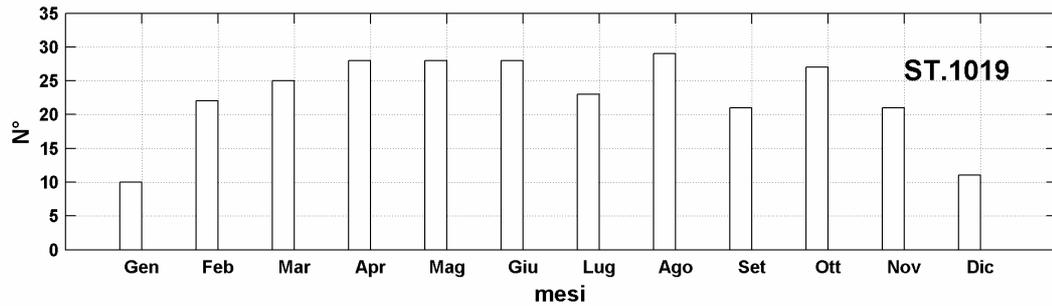
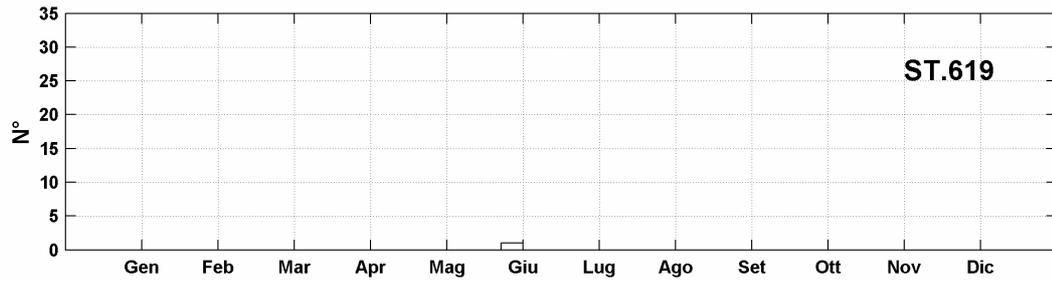
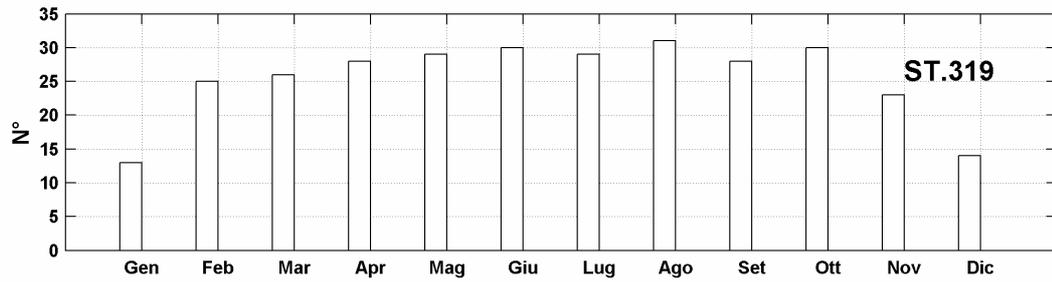
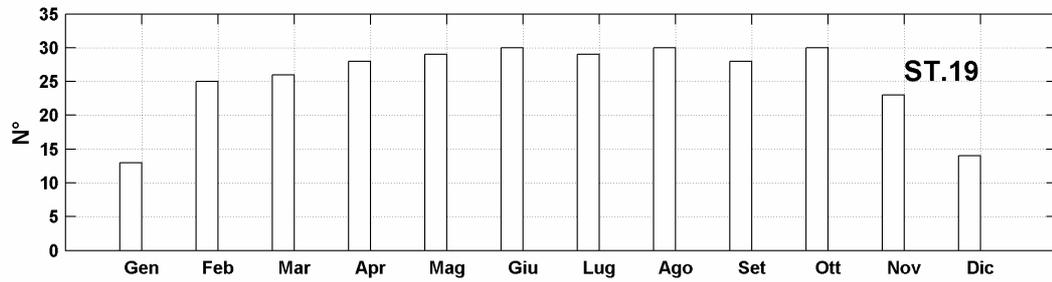
dati alla superficie  
 dati sul fondo

### CLIMATOLOGIE-TRANSETTO 19 - NITRATI



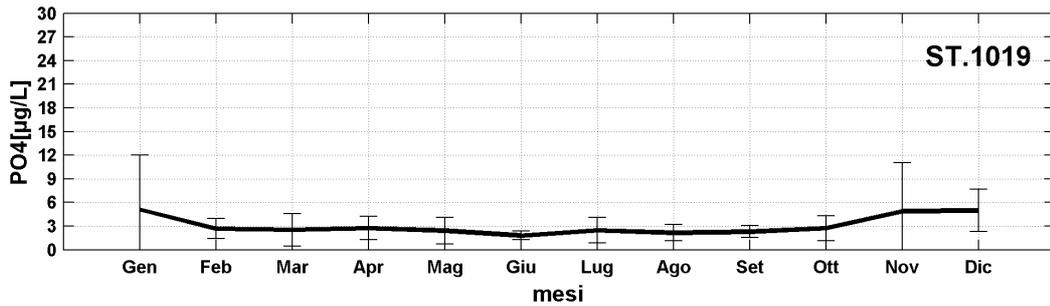
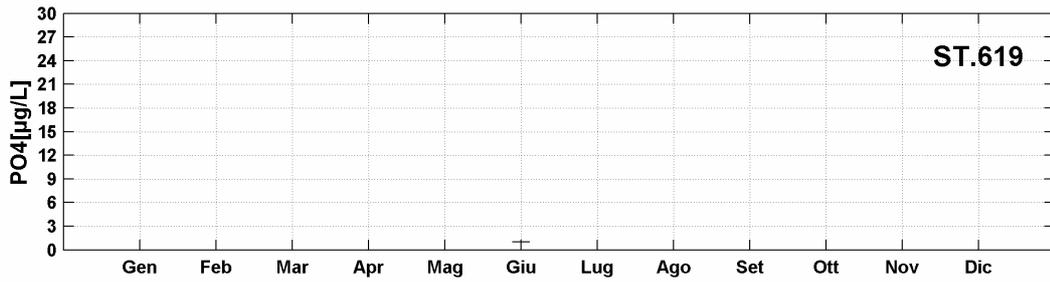
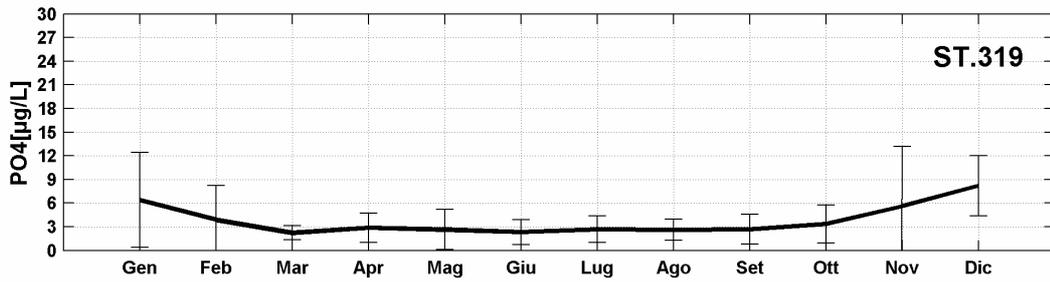
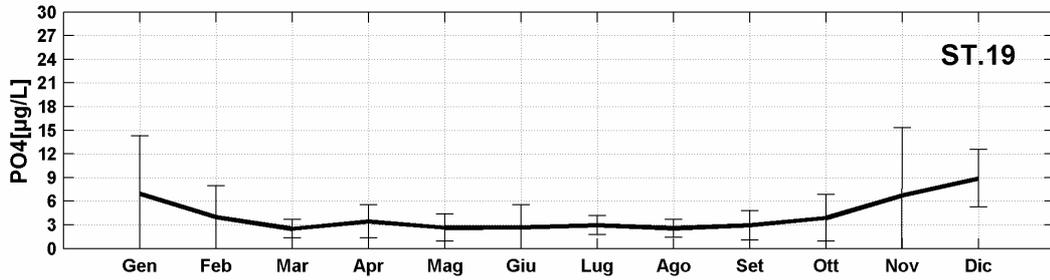
deviazione standard  
 climatologia 1995-2001(superficie)

### TRANSETTO 19 - NITRATI



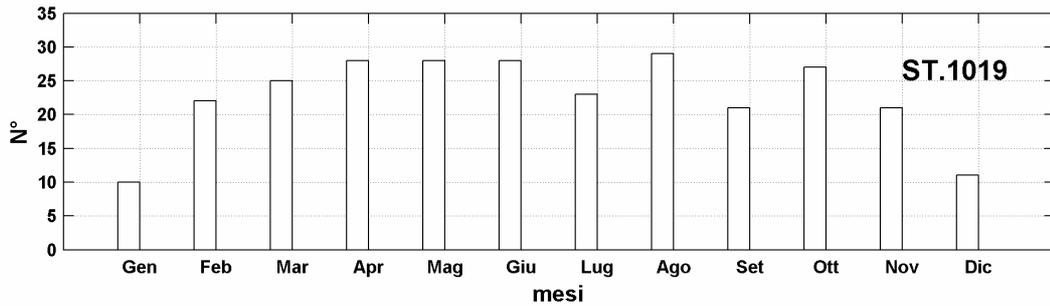
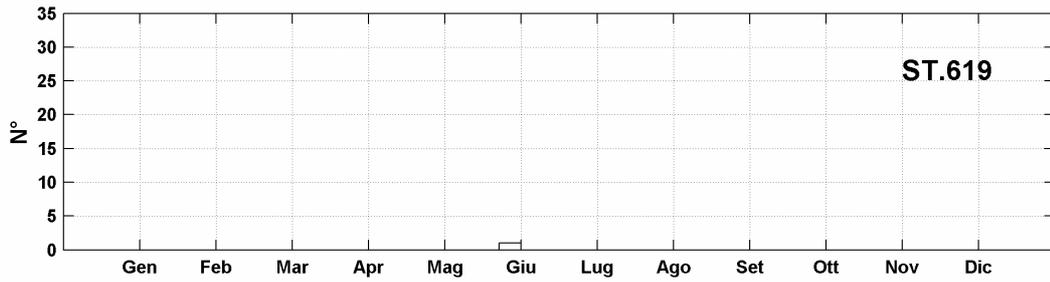
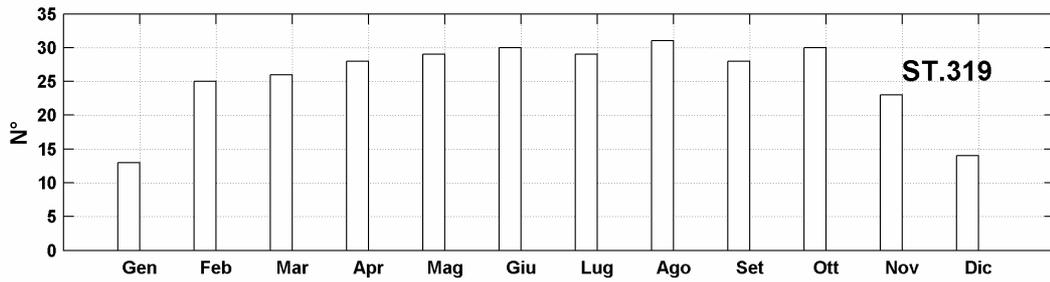
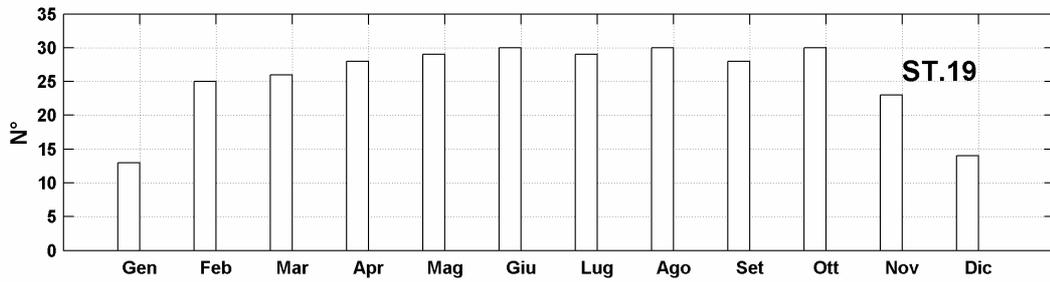
dati alla superficie  
 dati sul fondo

### CLIMATOLOGIE-TRANSETTO 19 - ORTOFOSFATI



— deviazione standard  
 — climatologia 1995-2001(superficie)

### TRANSETTO 19 - ORTOFOSFATI



dati alla superficie  
 dati sul fondo

## DEVIAZIONI STANDARD

<b>st.19</b>	<b>pH</b>	<b>T[°C]</b>	<b>S[psu]</b>	<b>O2[mg/l]</b>	<b>Chl_a[µg/L]</b>	<b>NO3[µg/L]</b>	<b>PO4[µg/L]</b>
gennaio	0.15	1.50	3.58	1.56	39.47	364.55	7.35
febbraio	0.20	1.13	2.91	1.72	17.38	190.45	3.96
marzo	0.13	1.61	2.66	1.29	4.52	105.19	1.18
aprile	0.13	1.47	2.05	0.59	2.97	71.61	2.10
maggio	0.15	2.39	2.81	0.85	4.97	61.31	1.72
giugno	0.09	2.45	1.52	0.64	1.80	63.45	2.89
luglio	0.10	1.67	1.51	1.03	1.25	37.20	1.21
agosto	0.06	1.14	1.63	0.78	2.43	23.92	1.14
settembre	0.11	1.63	1.56	0.92	3.23	43.38	1.84
ottobre	0.16	1.38	3.59	1.42	14.47	75.70	2.95
novembre	0.16	2.24	3.94	1.28	3.90	182.46	8.57
dicembre	0.12	1.40	5.02	0.88	9.14	234.41	3.65
<b>st.319</b>	<b>pH</b>	<b>T[°C]</b>	<b>S[psu]</b>	<b>O2[mg/l]</b>	<b>Chl_a[µg/L]</b>	<b>NO3[µg/L]</b>	<b>PO4[µg/L]</b>
gennaio	0.17	1.35	3.06	0.90	32.74	343.75	6.01
febbraio	0.20	1.19	2.85	1.75	15.57	175.71	4.34
marzo	0.14	1.68	2.57	1.15	6.30	109.35	0.91
aprile	0.13	1.42	2.01	0.51	3.71	59.18	1.88
maggio	0.17	2.44	2.96	1.04	5.77	54.65	2.54
giugno	0.10	2.39	1.62	0.66	1.96	59.22	1.59
luglio	0.10	1.65	1.59	0.98	1.29	30.02	1.69
agosto	0.07	0.96	1.49	0.68	1.40	13.29	1.34
settembre	0.10	1.56	1.55	0.86	2.87	43.54	1.88
ottobre	0.16	1.34	3.74	1.30	11.79	213.00	2.42
novembre	0.16	2.34	3.93	1.26	4.14	159.41	7.61
dicembre	0.12	1.49	4.95	0.79	9.25	230.69	3.85
<b>st.619</b>	<b>pH</b>	<b>T[°C]</b>	<b>S[psu]</b>	<b>O2[mg/l]</b>	<b>Chl_a[µg/L]</b>	<b>NO3[µg/L]</b>	<b>PO4[µg/L]</b>
gennaio	0.12	1.53	2.58	0.71	32.40	NaN	NaN
febbraio	0.17	1.05	2.40	1.43	15.53	NaN	NaN
marzo	0.13	1.56	2.35	0.51	6.49	NaN	NaN
aprile	0.15	1.52	2.16	0.66	4.75	NaN	NaN
maggio	0.18	2.33	3.23	1.01	7.61	NaN	NaN
giugno	0.10	2.11	1.72	0.70	2.22	NaN	NaN
luglio	0.08	1.69	1.68	0.72	1.40	NaN	NaN
agosto	0.07	1.01	1.51	0.74	1.24	NaN	NaN
settembre	0.08	1.70	1.12	0.99	2.24	NaN	NaN
ottobre	0.15	1.39	2.70	0.88	6.59	NaN	NaN
novembre	0.18	2.09	3.96	1.38	4.18	NaN	NaN
dicembre	0.13	1.64	5.98	1.30	9.43	NaN	NaN
<b>st.1019</b>	<b>pH</b>	<b>T[°C]</b>	<b>S[psu]</b>	<b>O2[mg/l]</b>	<b>Chl_a[µg/L]</b>	<b>NO3[µg/L]</b>	<b>PO4[µg/L]</b>
gennaio	0.12	1.55	2.85	0.53	26.63	261.17	6.92
febbraio	0.17	0.99	2.86	1.79	14.08	136.33	1.25
marzo	0.14	1.51	2.02	0.76	5.83	88.70	2.04
aprile	0.13	1.56	2.06	1.09	4.63	73.85	1.46
maggio	0.16	2.40	2.83	0.78	6.57	51.42	1.69
giugno	0.11	2.00	1.72	0.69	2.01	44.68	0.55
luglio	0.07	1.49	1.32	0.69	0.72	27.60	1.59
agosto	0.07	0.94	1.63	0.58	1.04	25.01	1.04
settembre	0.08	1.50	1.05	0.81	1.10	8.81	0.78
ottobre	0.12	1.33	1.99	0.71	6.32	62.16	1.58
novembre	0.16	2.01	4.04	1.35	3.56	134.03	6.12
dicembre	0.13	1.52	6.65	1.46	12.54	230.69	2.68

## COEFFICIENTI DI CORRELAZIONE TRA CLIMATOLOGIE

<b>st.19</b>	pH	temperatura	salinità	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	-0.35	1.00					
salinità	-0.37	0.65	1.00				
O2	0.52	-0.81	-0.36	1.00			
clorofilla	0.68	-0.68	-0.68	0.58	1.00		
nitrati	0.20	-0.89	-0.86	0.56	0.61	1.00	
fosfati	-0.15	-0.71	-0.76	0.35	0.38	0.91	1.00
<b>st.319</b>	pH	temperatura	salinità	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	-0.42	1.00					
salinità	-0.08	0.60	1.00				
O2	0.61	-0.82	-0.39	1.00			
clorofilla	0.47	-0.73	-0.62	0.69	1.00		
nitrati	0.10	-0.85	-0.85	0.60	0.76	1.00	
fosfati	-0.30	-0.60	-0.84	0.24	0.52	0.89	1.00
<b>st.319</b>	pH	temperatura	salinità	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	-0.40	1.00					
salinità	-0.07	0.49	1.00				
O2	0.58	-0.85	-0.22	1.00			
clorofilla	0.24	-0.72	-0.56	0.68	1.00		
nitrati	NaN	NaN	NaN	NaN	NaN	NaN	
fosfati	NaN	NaN	NaN	NaN	NaN	NaN	NaN
<b>st.1019</b>	pH	temperatura	salinità	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	-0.37	1.00					
salinità	-0.04	0.35	1.00				
O2	0.65	-0.83	-0.16	1.00			
clorofilla	0.19	-0.75	-0.45	0.61	1.00		
nitrati	0.08	-0.88	-0.63	0.63	0.85	1.00	
fosfati	-0.42	-0.60	-0.61	0.21	0.63	0.83	1.00

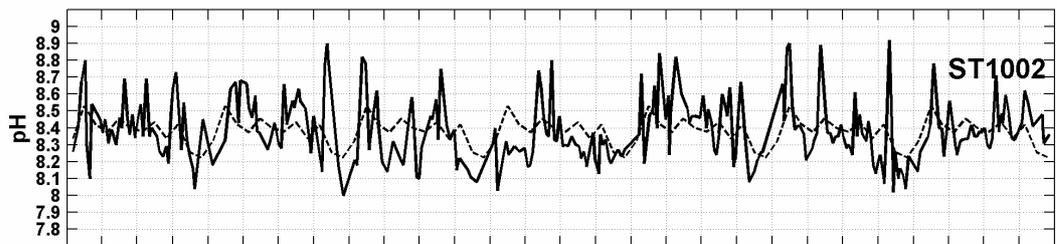
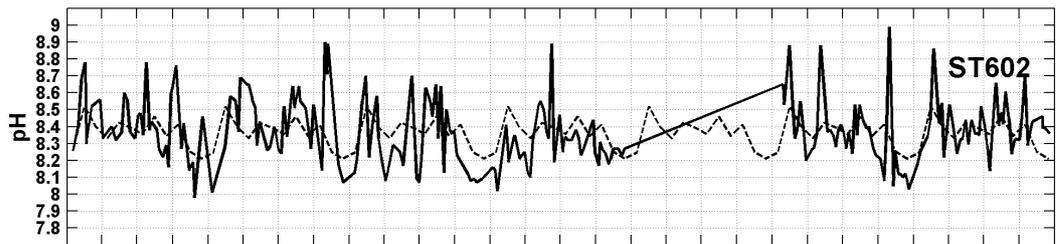
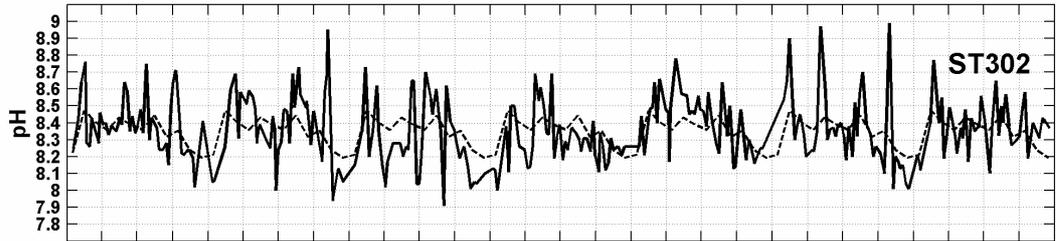
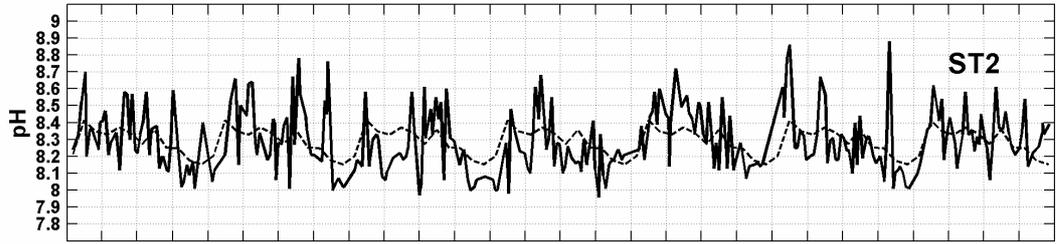
# **ALLEGATO B**

## *Serie Temporal*

## ***Serie Temporal***

Le serie temporali vengono presentate sempre con visualizzazione a transetto, parametro per parametro partendo dai transetti a nord e scendendo a sud. La linea continua rappresenta la serie temporale mentre la linea tratteggiata rappresenta la climatologia mostrata nell'ALLEGATO A, ripetuta per ciascun anno in modo da evidenziare la variabilità del parametro considerato rispetto all'andamento medio e stagionale espresso dalla climatologia.

SERIE TEMPORALI-TRANSETTO 2 - pH

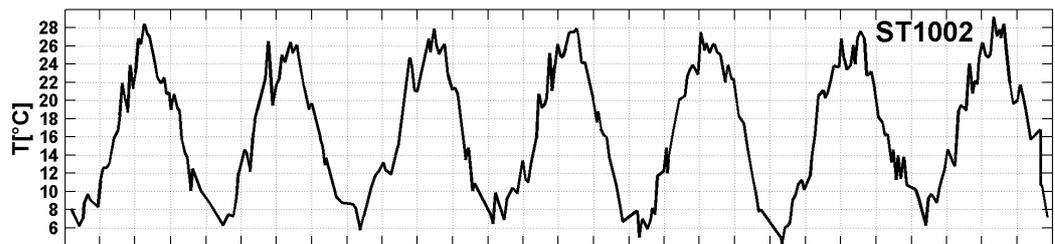
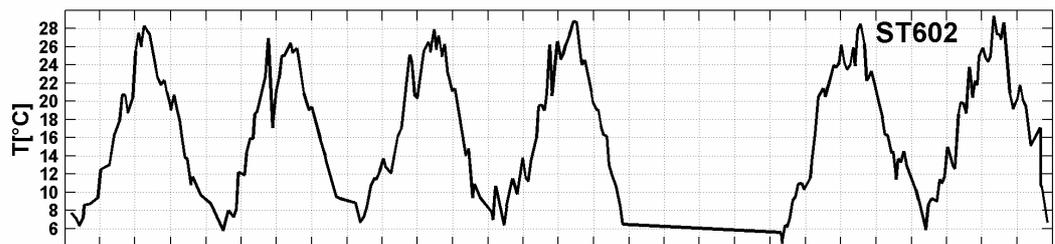
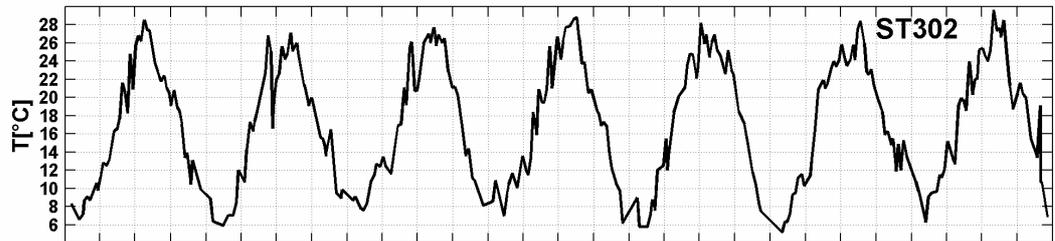
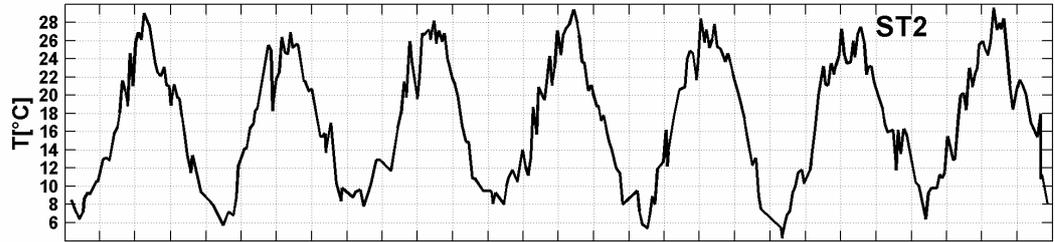


— dati alla superficie  
 - - - climatologia 1995-2001

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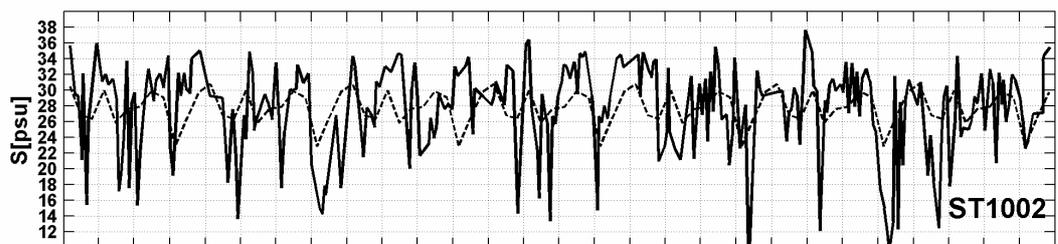
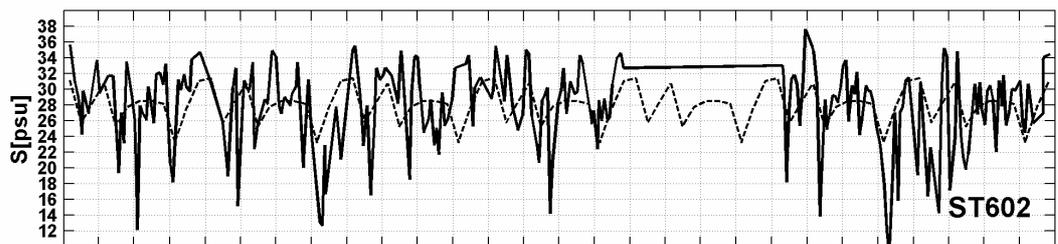
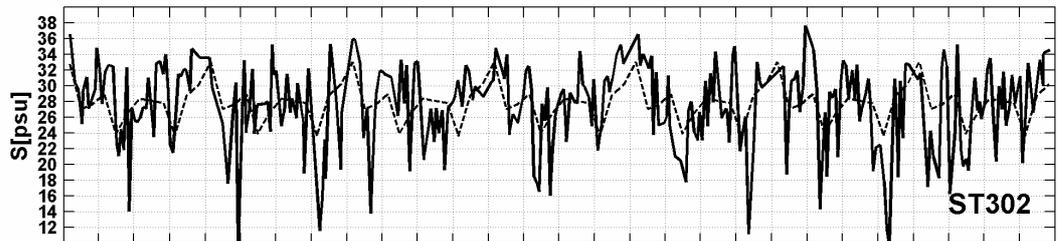
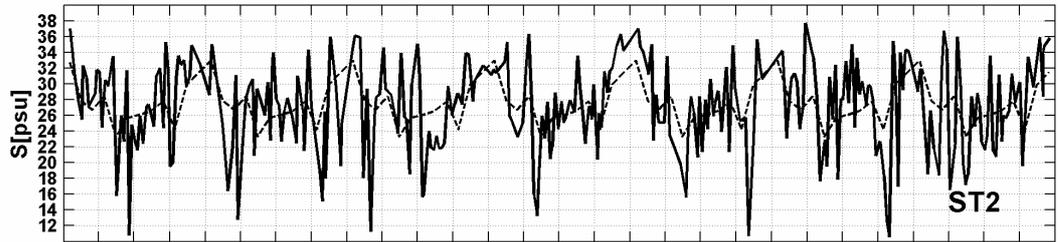
### SERIE TEMPORALI-TRANSETTO 2 - TEMPERATURA



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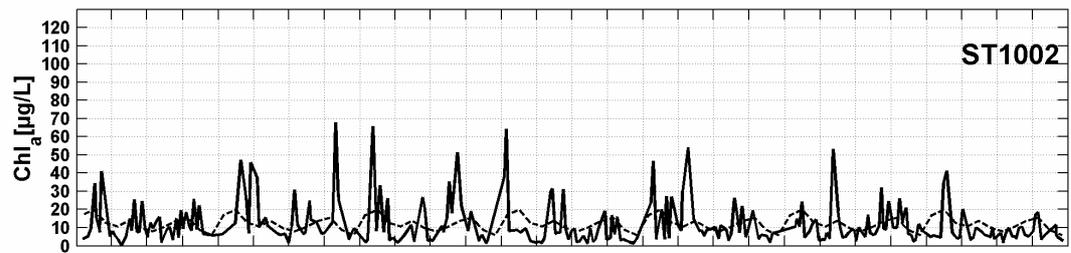
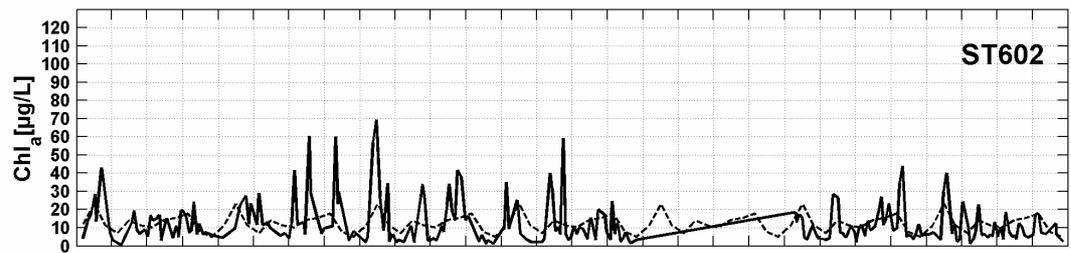
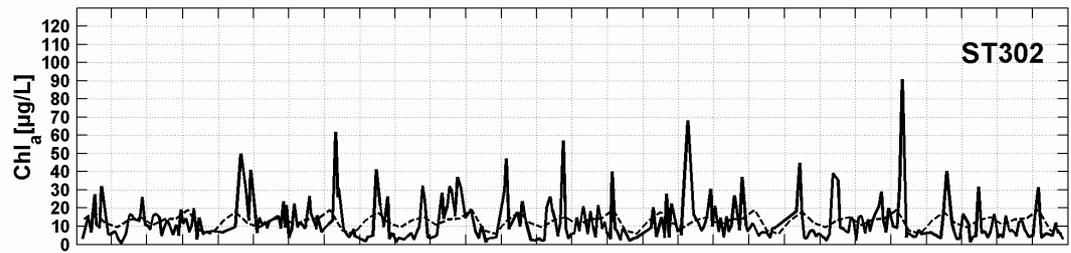
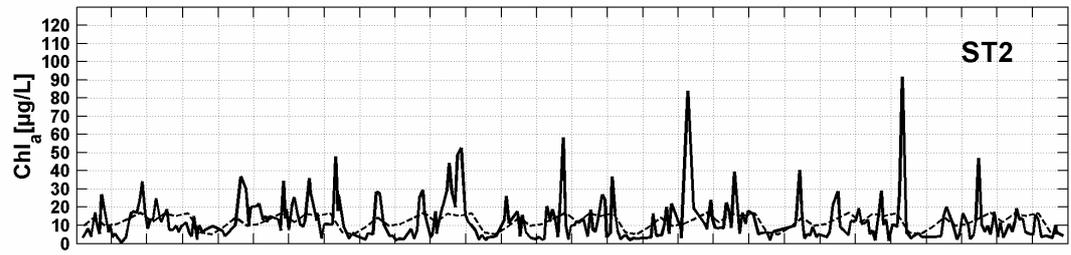
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— dati alla superficie  
 ---- climatologia 1995-2001

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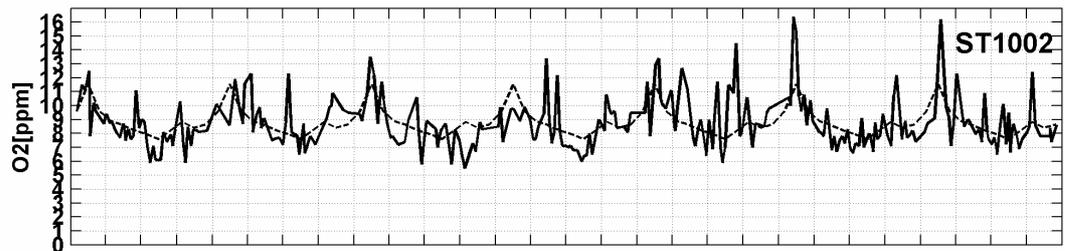
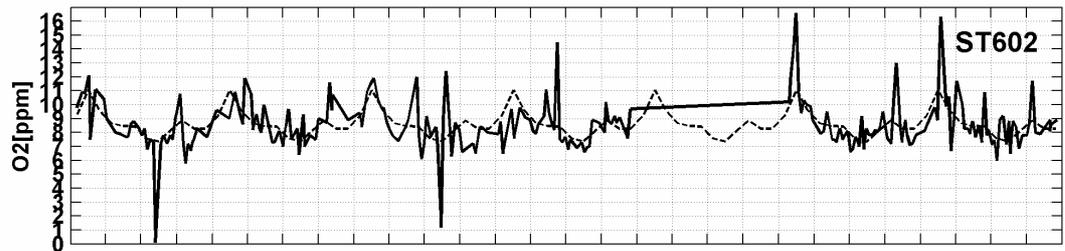
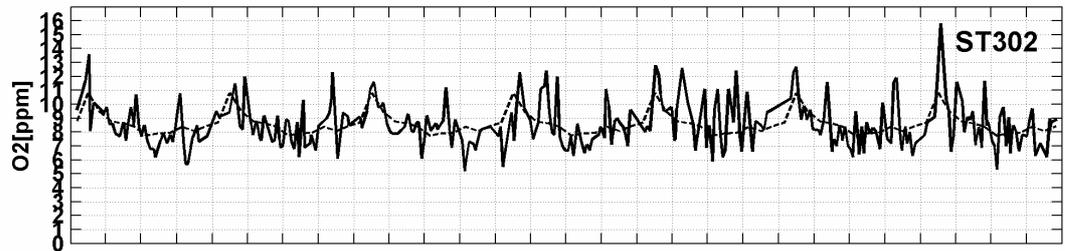
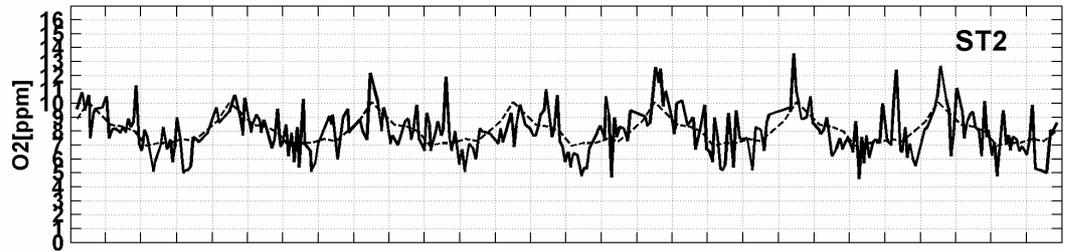
### SERIE TEMPORALI-TRANSETTO 2 - CLOROFILLA



— dati alla superficie  
 ---- climatologia 1995-2001

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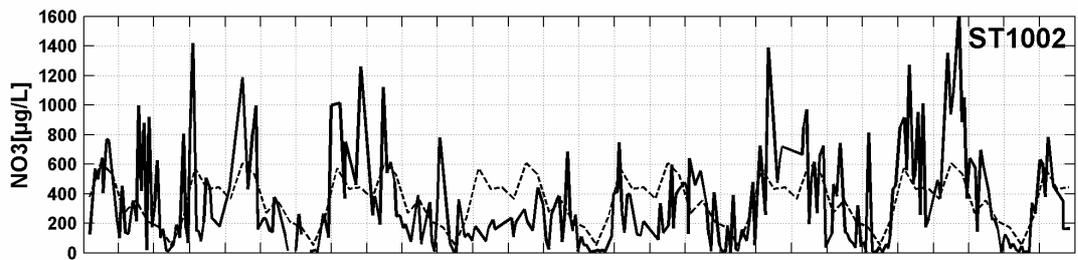
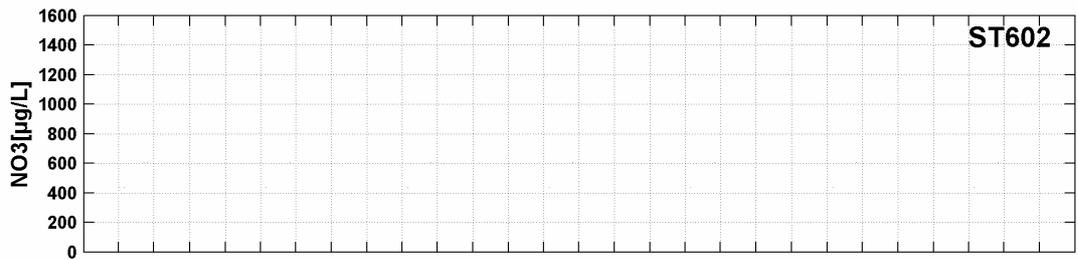
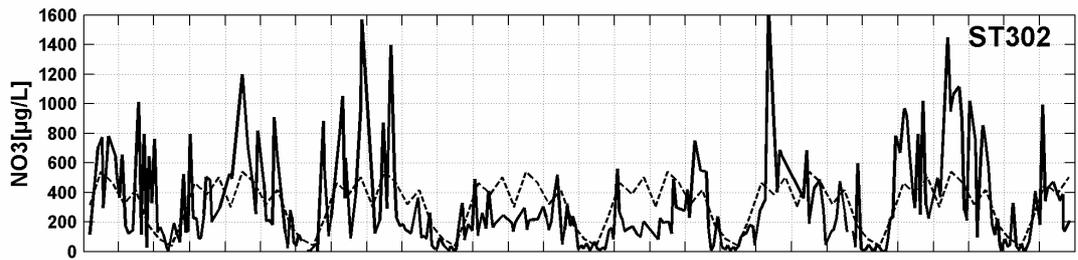
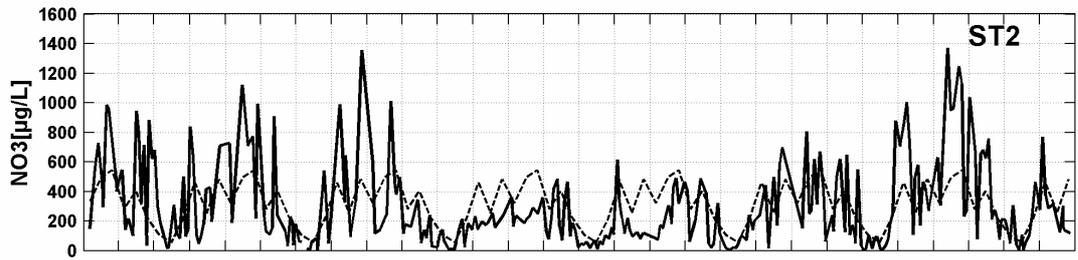
### SERIE TEMPORALI-TRANSETTO 2 - OSSIGENO



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— dati alla superficie  
 ---- climatologia 1995-2001

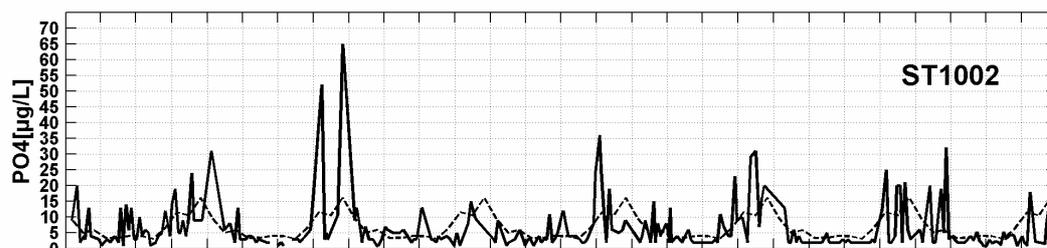
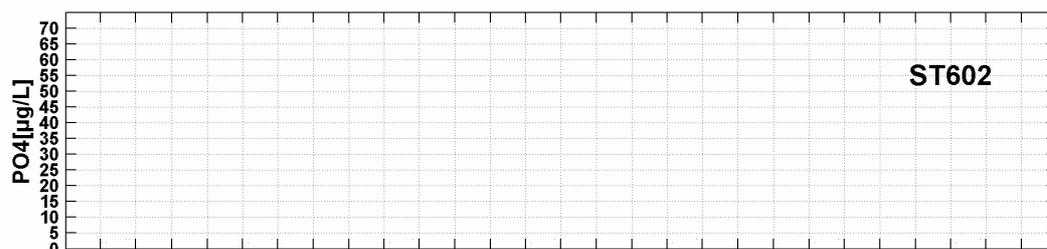
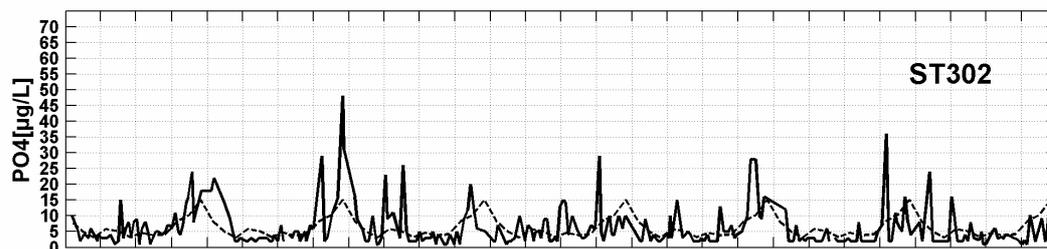
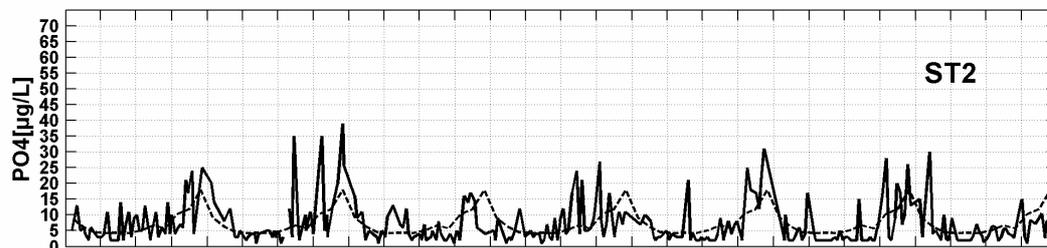
SERIE TEMPORALI-TRANSETTO 2 - NITRATI



— dati alla superficie  
 ---- climatologia 1995-2001

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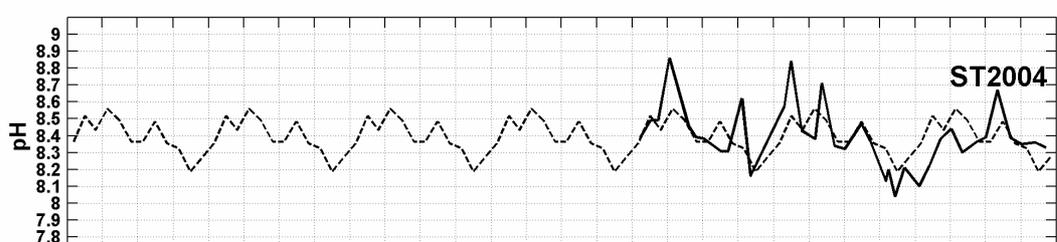
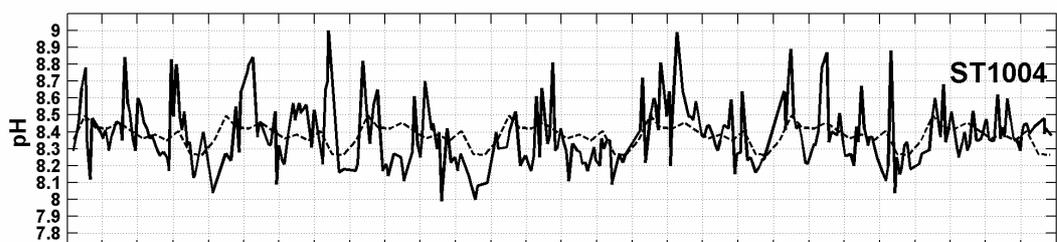
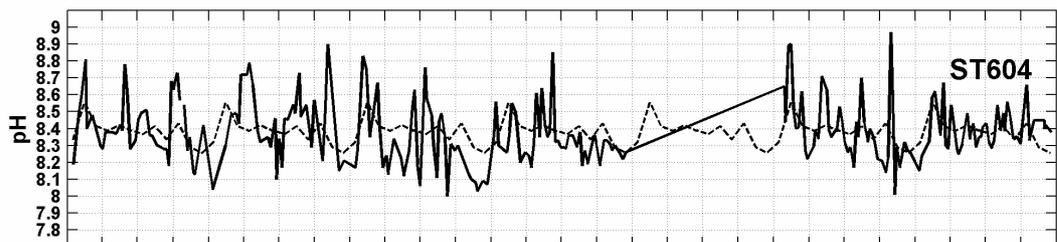
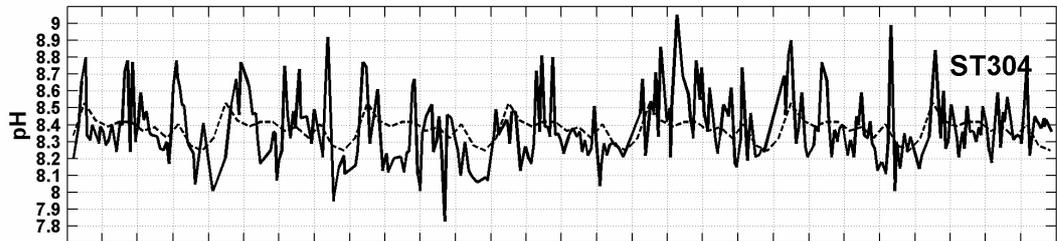
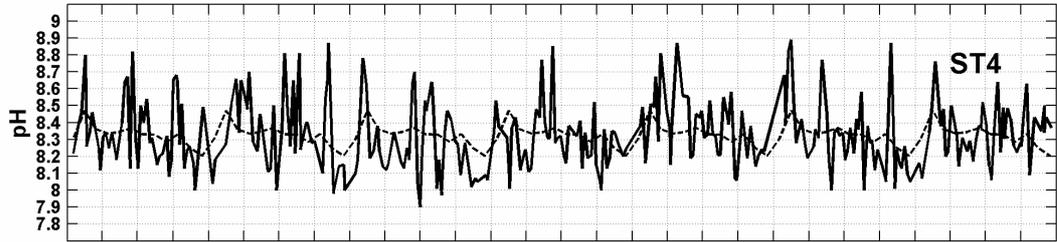
### SERIE TEMPORALI-TRANSETTO 2 - ORTOFOSFATI



— dati alla superficie  
 ---- climatologia 1995-2001

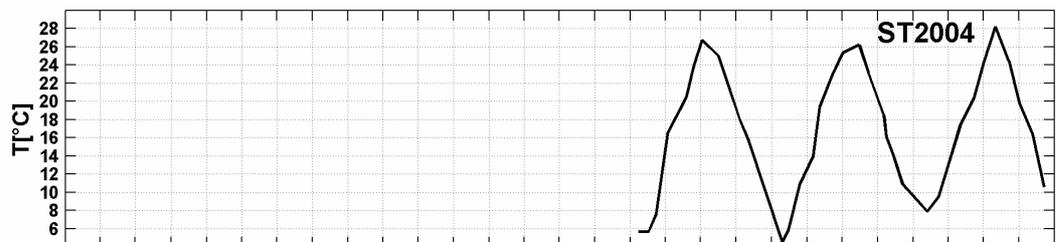
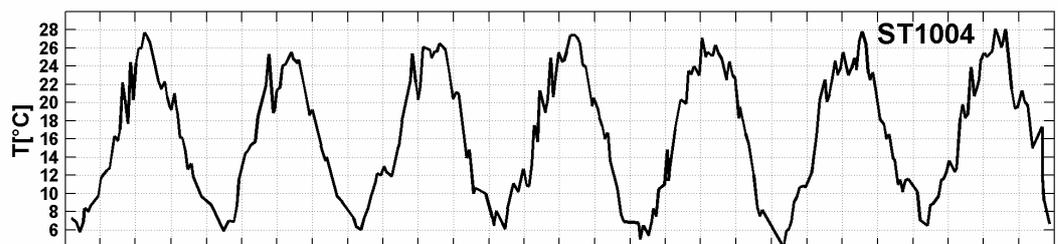
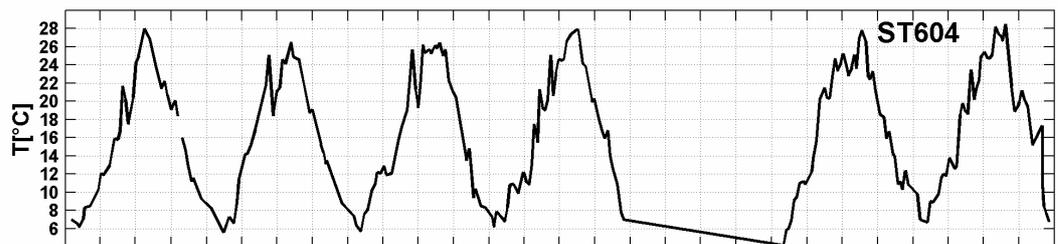
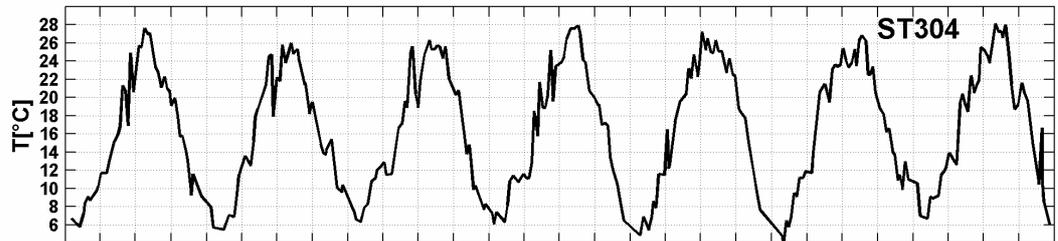
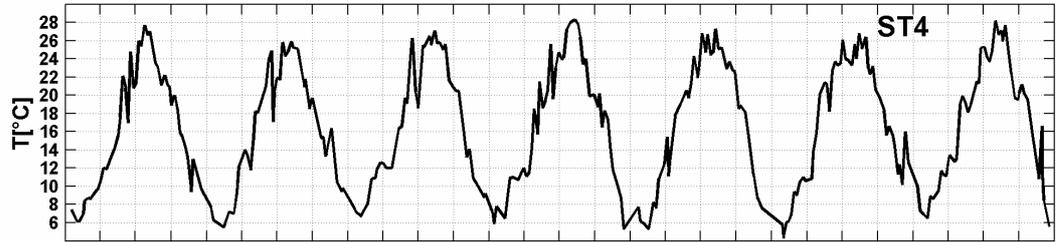
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SERIE TEMPORALI-TRANSETTO 4 - pH



Jan95 Apr95 Jul95 Oct95 Jan96 Apr96 Jul96 Oct96 Jan97 Apr97 Jul97 Oct97 Jan98 Apr98 Jul98 Oct98 Jan99 Apr99 Jul99 Oct99 Jan00 Apr00 Jul00 Oct00 Jan01 Apr01 Jul01 Oct01  
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 — dati alla superficie  
 - - - climatologia 1995-2001

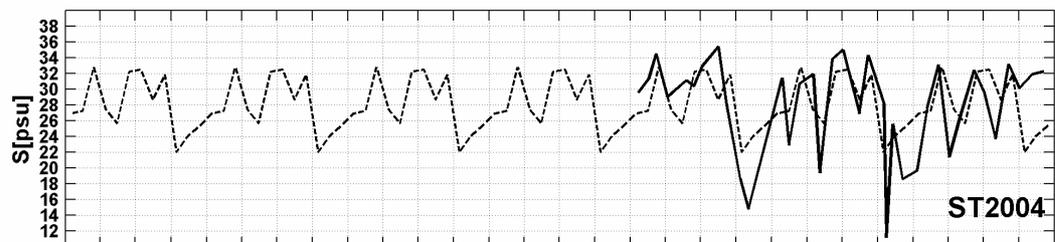
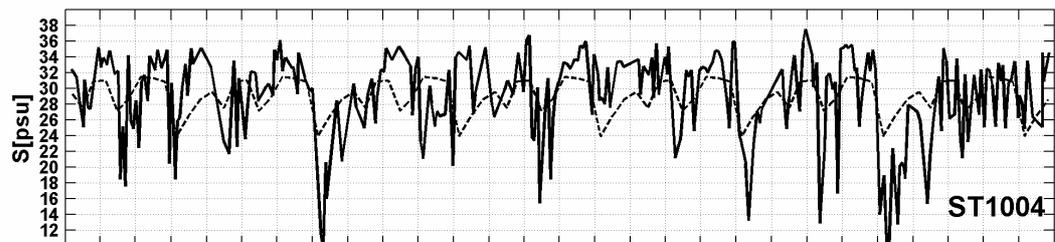
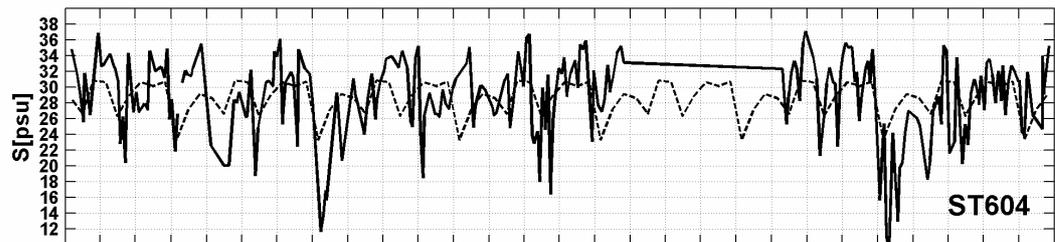
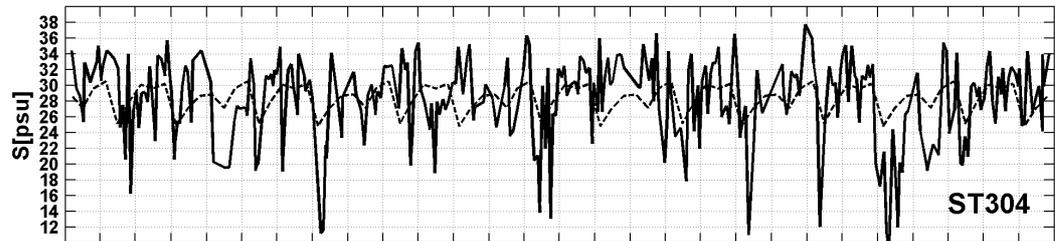
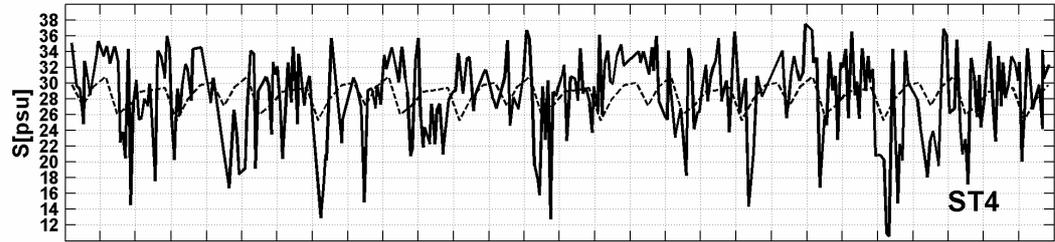
SERIE TEMPORALI-TRANSETTO 4 - TEMPERATURA



— dati alla superficie  
 climatologia 1995-2001

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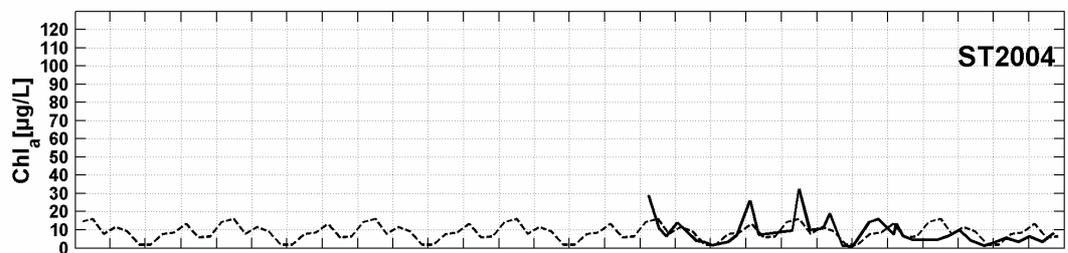
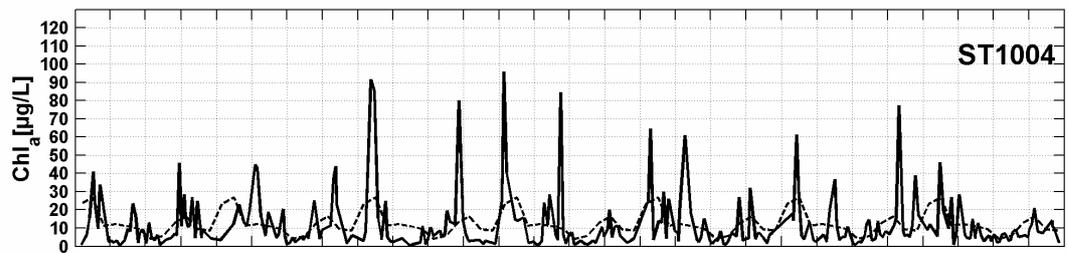
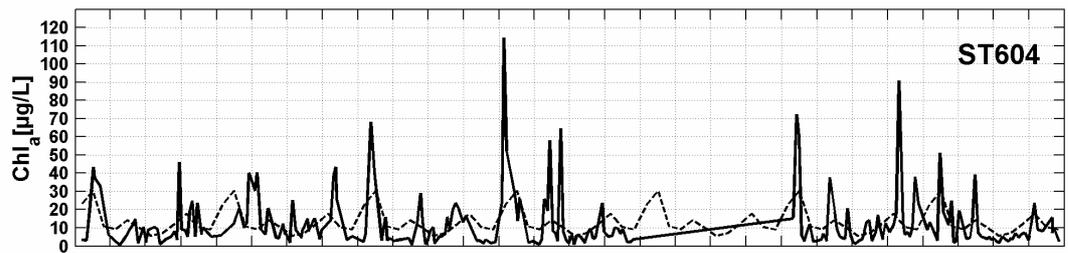
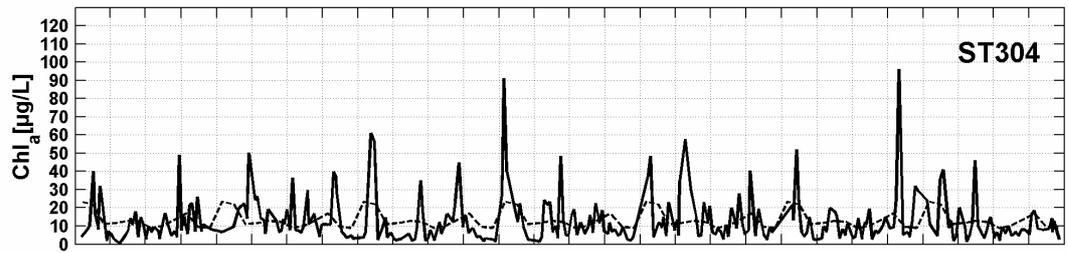
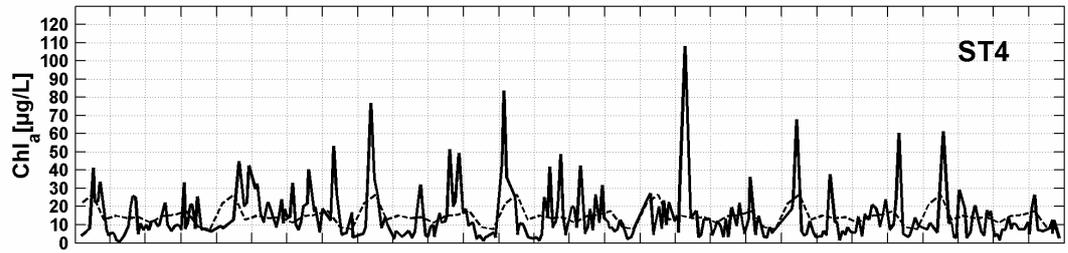
### SERIE TEMPORALI-TRANSETTO 4 - SALINITA



— dati alla superficie  
 - - - climatologia 1995-2001

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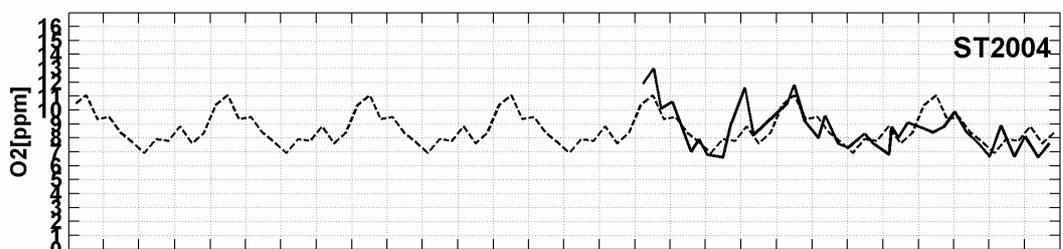
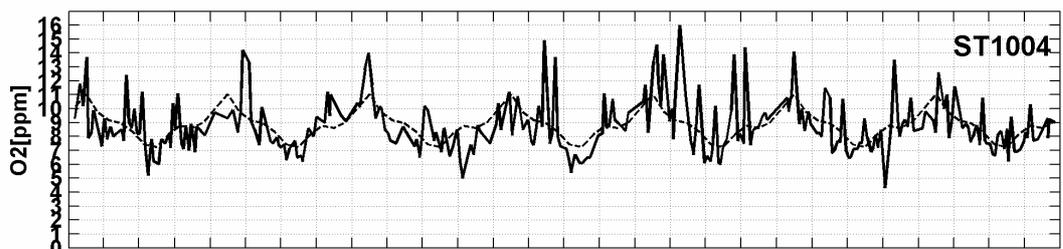
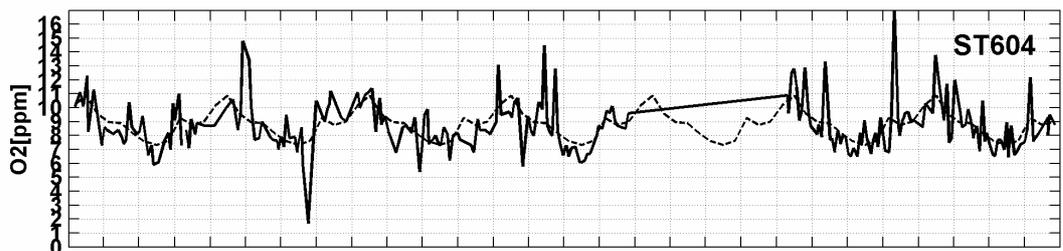
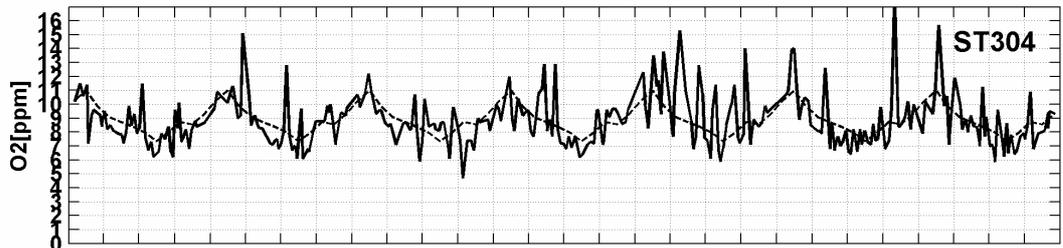
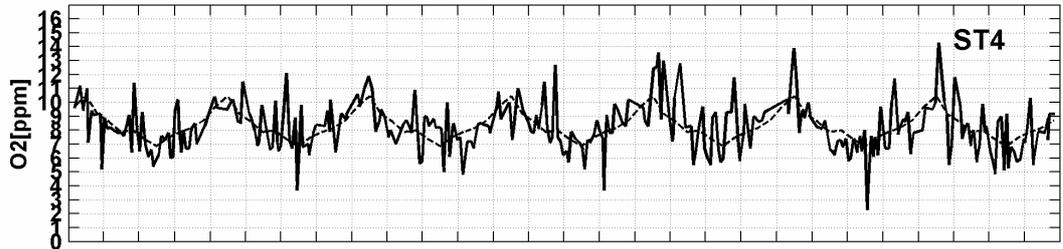
SERIE TEMPORALI-TRANSETTO 4 - CLOROFILLA



— dati alla superficie  
 - - - climatologia 1995-2001

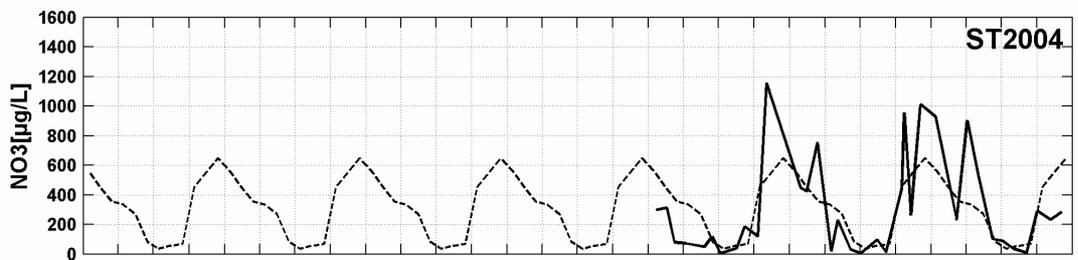
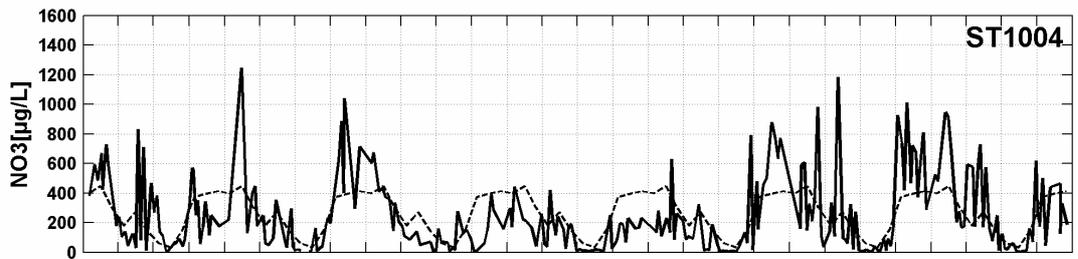
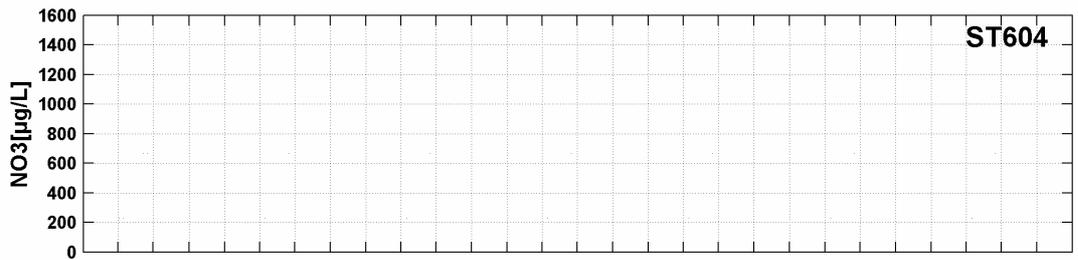
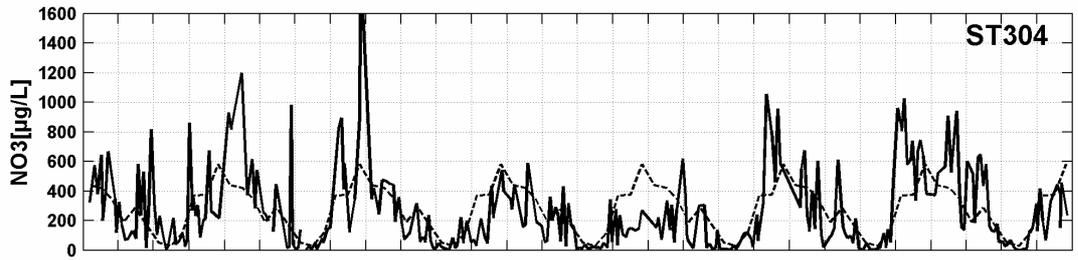
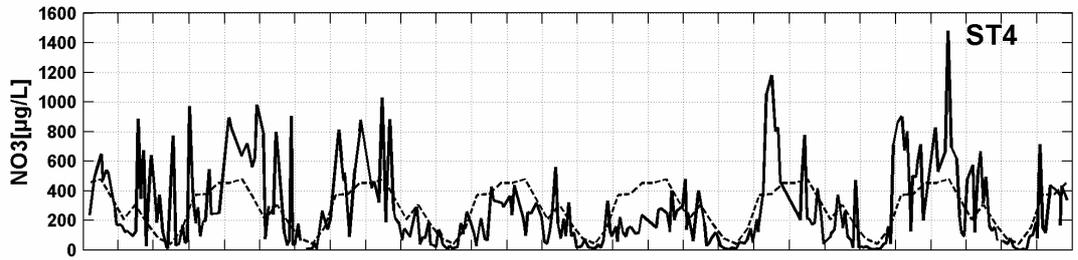
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### SERIE TEMPORALI-TRANSETTO 4 - OSSIGENO



— dati alla superficie  
 - - - climatologia 1995-2001

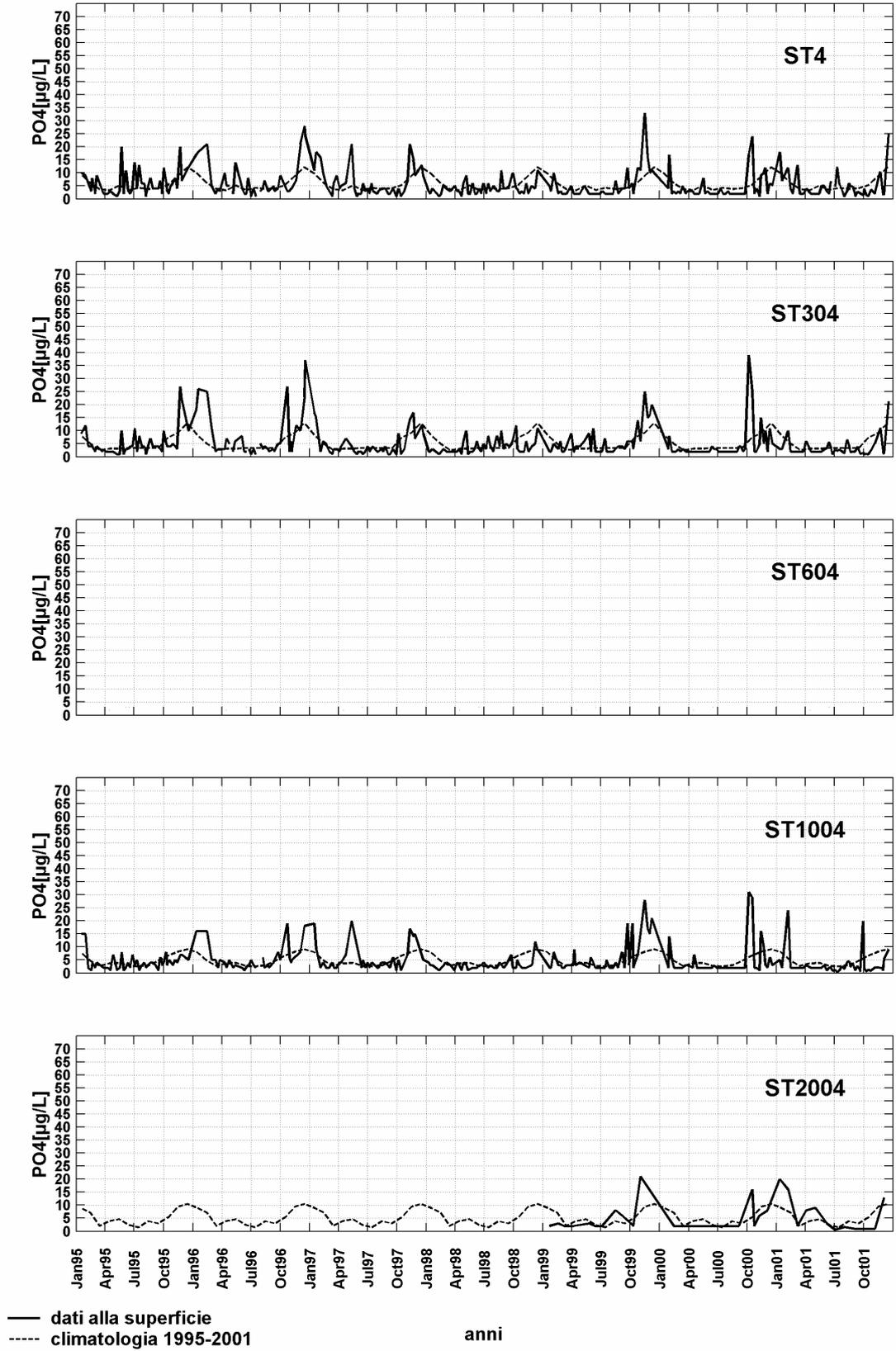
SERIE TEMPORALI-TRANSETTO 4 - NITRATI



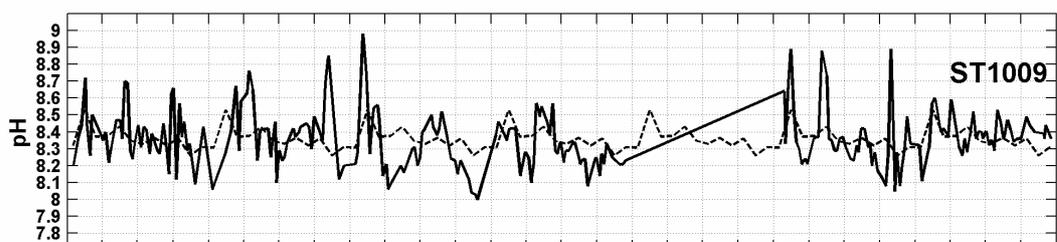
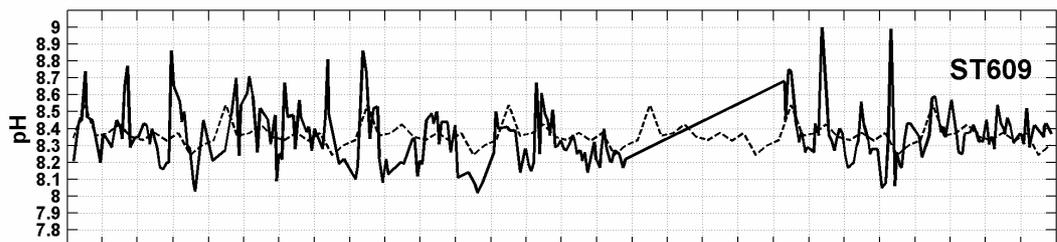
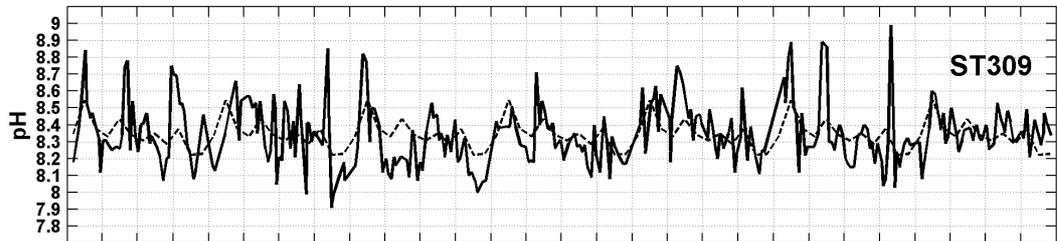
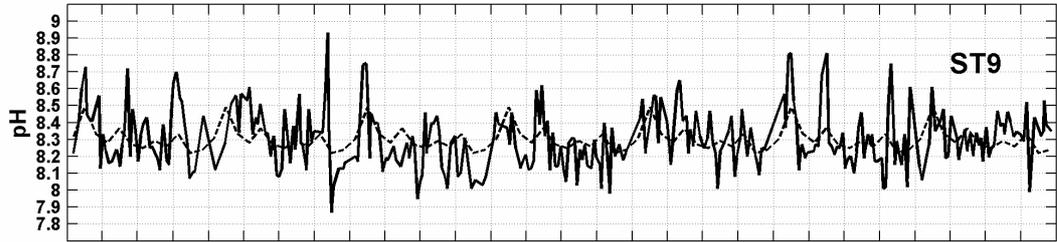
— dati alla superficie  
 - - - climatologia 1995-2001

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SERIE TEMPORALI-TRANSETTO 4 - ORTOFOSFATI



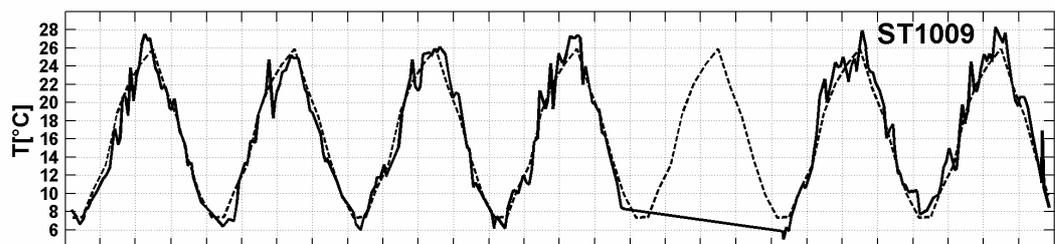
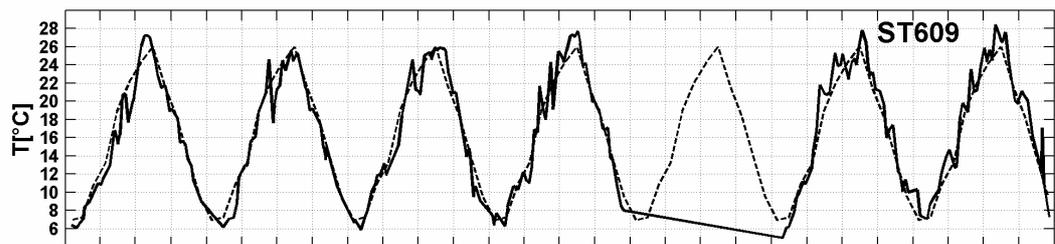
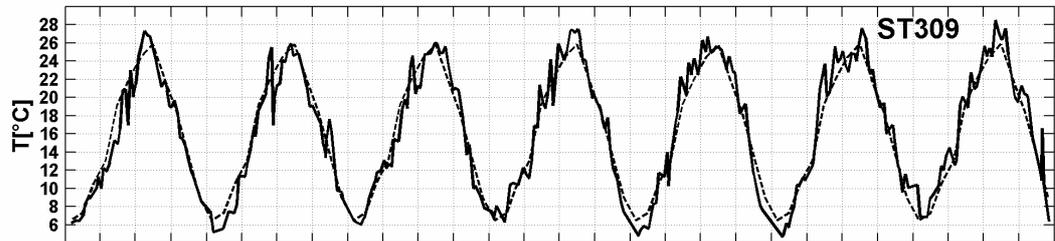
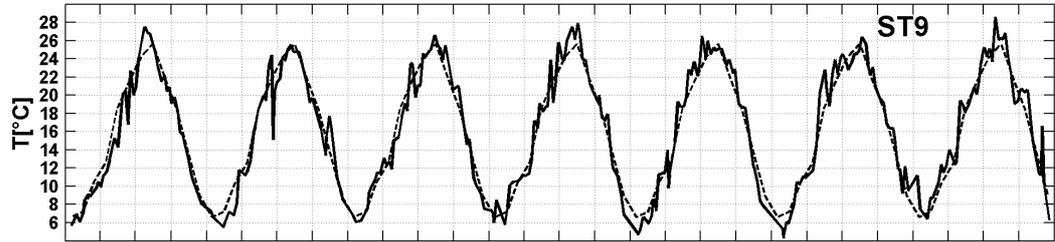
SERIE TEMPORALI-TRANSETTO 9 - pH



— dati alla superficie  
 - - - climatologia 1995-2001

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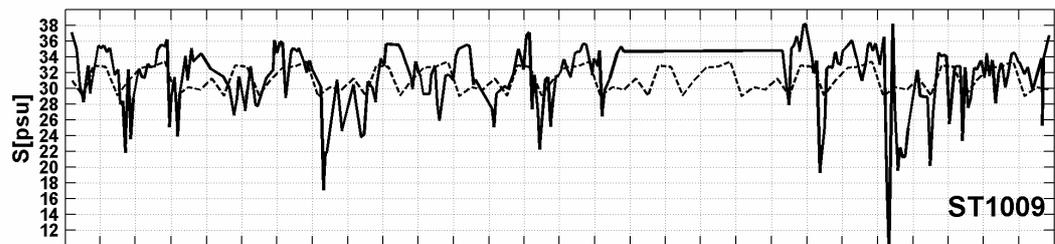
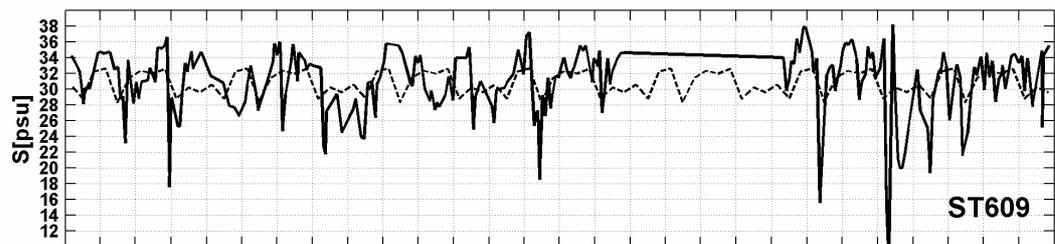
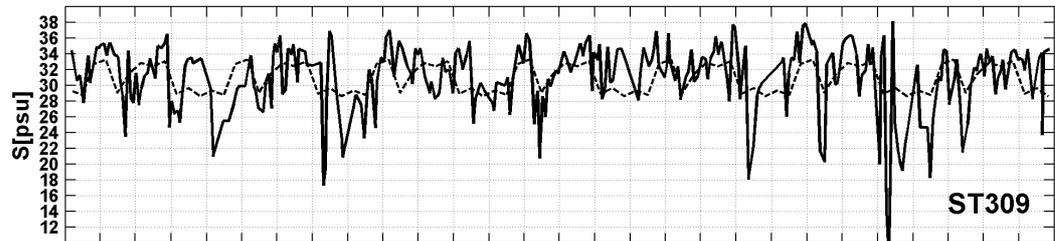
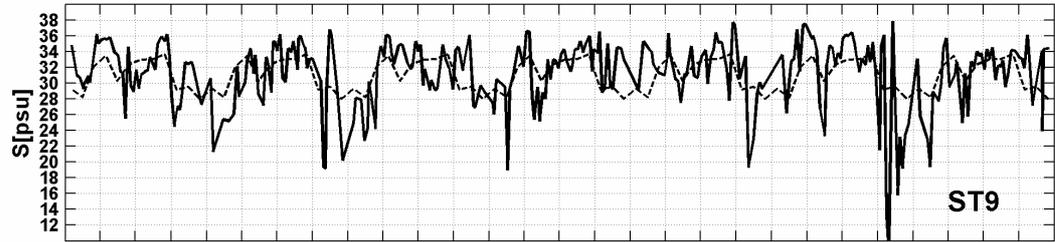
SERIE TEMPORALI-TRANSETTO 9 - TEMPERATURA



— dati alla superficie  
 - - - climatologia 1995-2001

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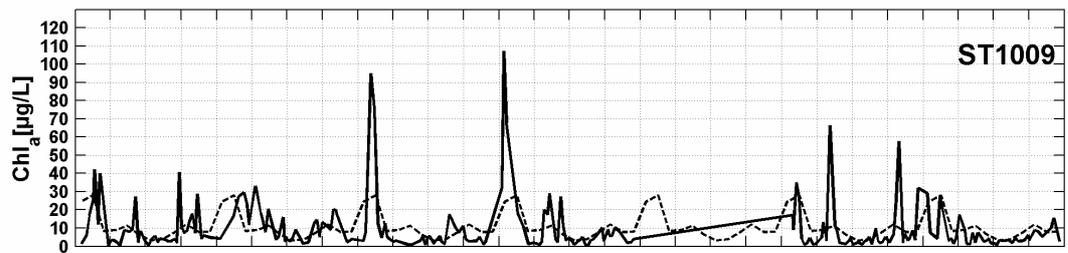
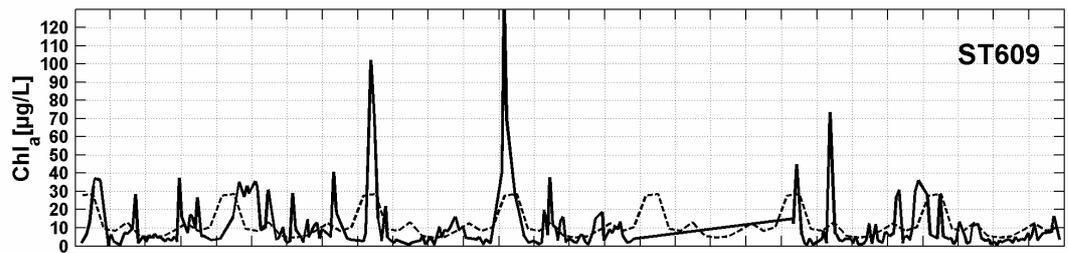
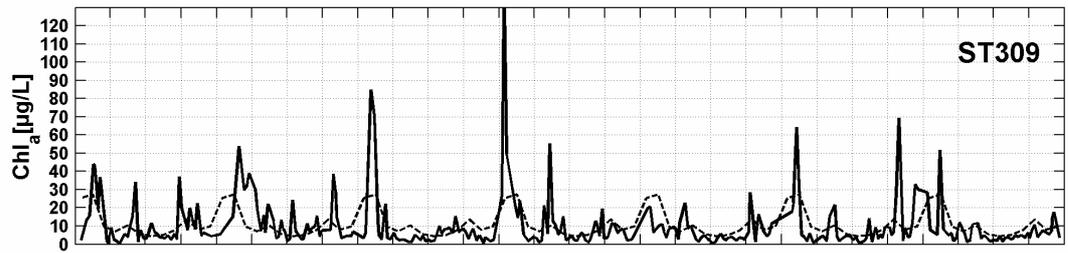
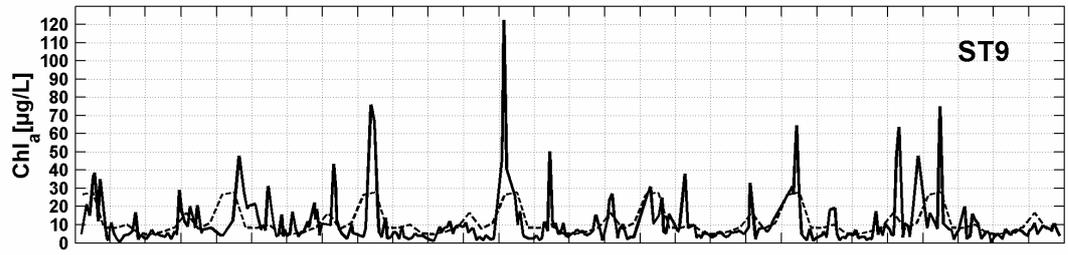
### SERIE TEMPORALI-TRANSETTO 9 - SALINITA



— dati alla superficie  
 - - - climatologia 1995-2001

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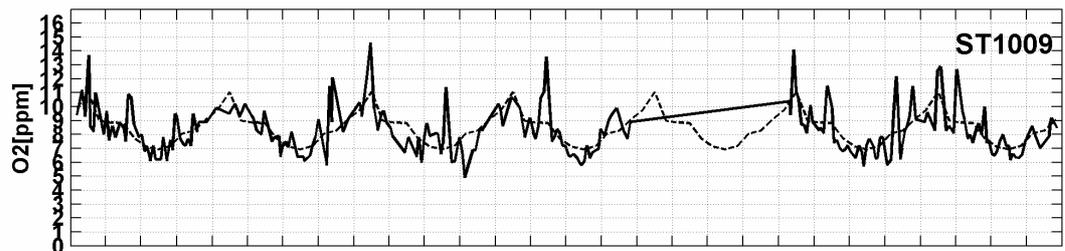
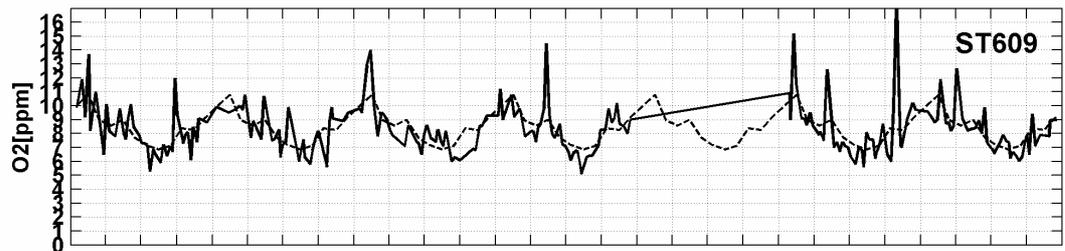
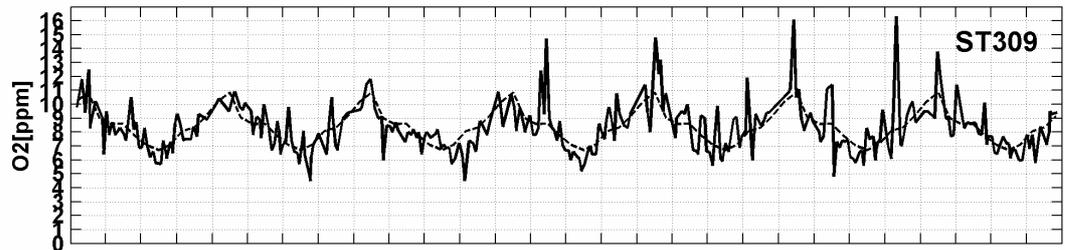
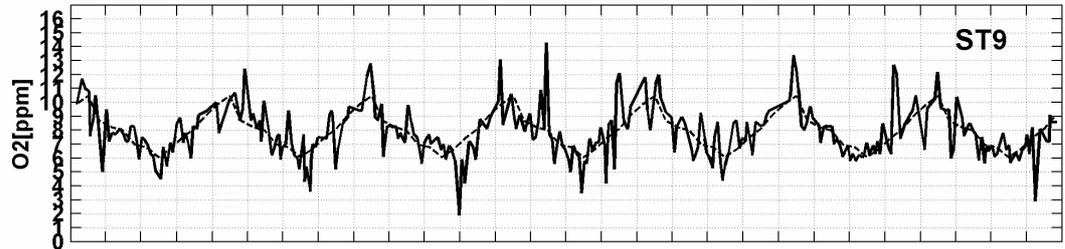
SERIE TEMPORALI-TRANSETTO 9 - CLOROFILLA



— dati alla superficie  
 - - - climatologia 1995-2001

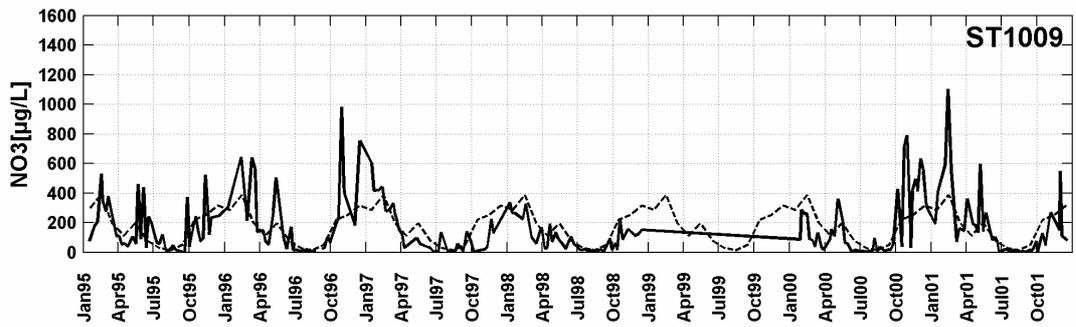
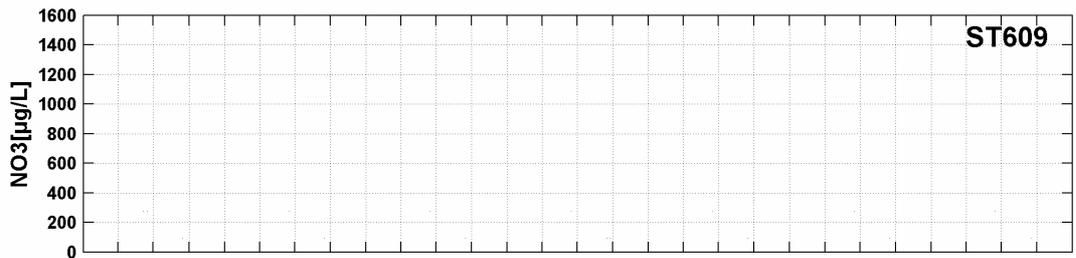
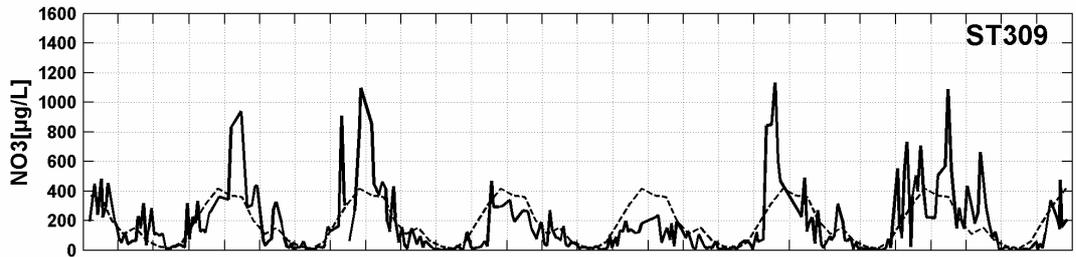
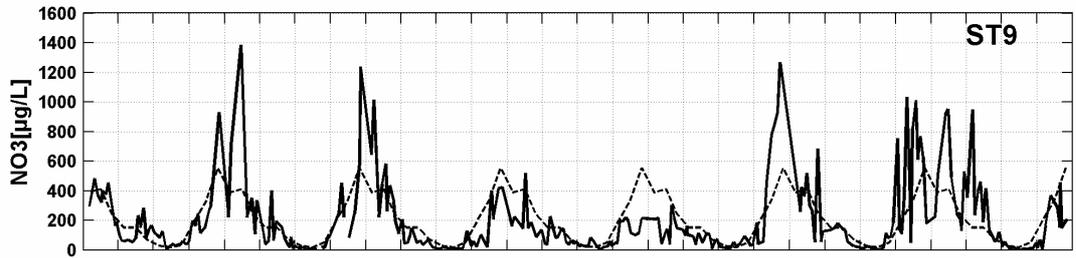
anni

### SERIE TEMPORALI-TRANSETTO 9 - OSSIGENO



— dati alla superficie  
- - - climatologia 1995-2001

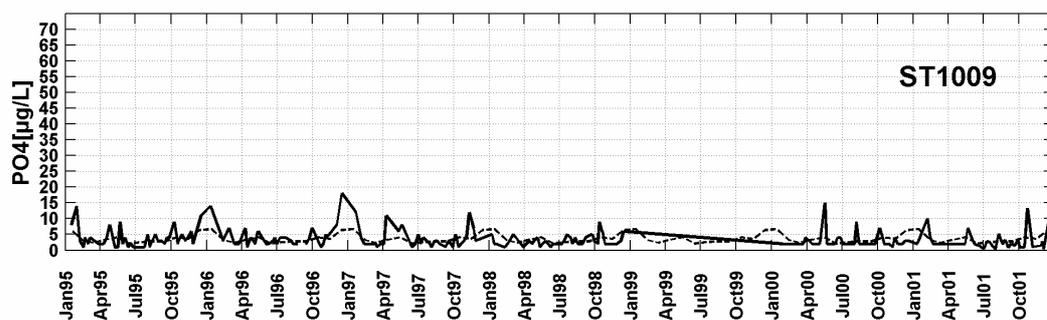
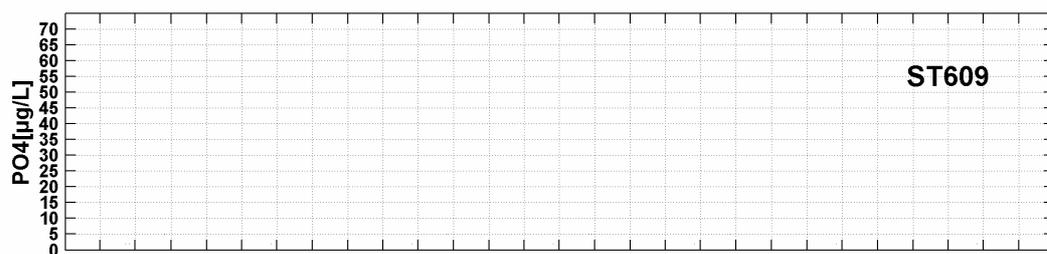
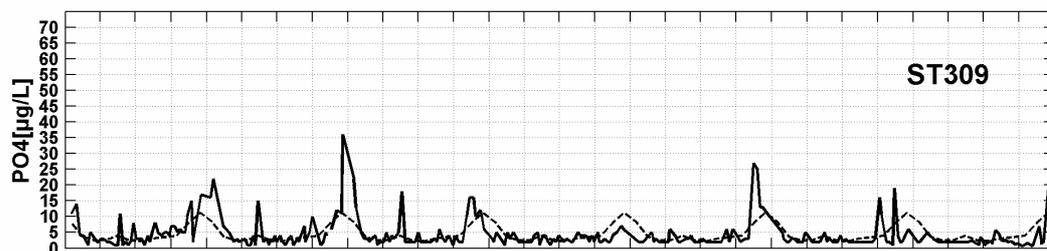
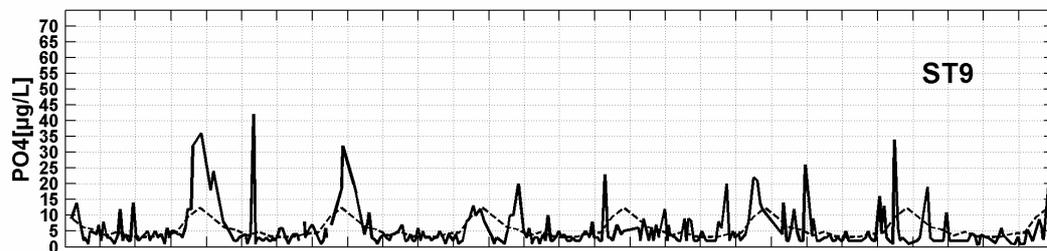
SERIE TEMPORALI-TRANSETTO 9 - NITRATI



— dati alla superficie  
 - - - climatologia 1995-2001

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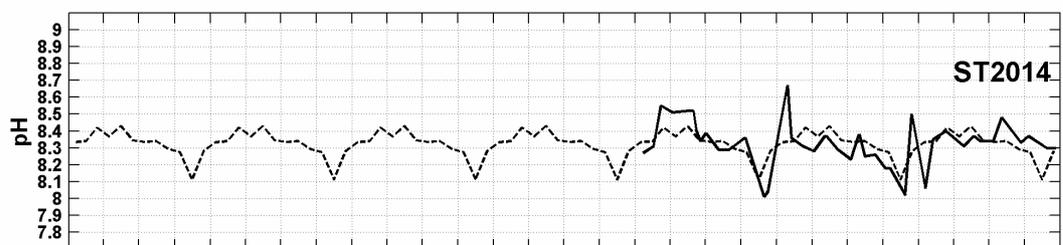
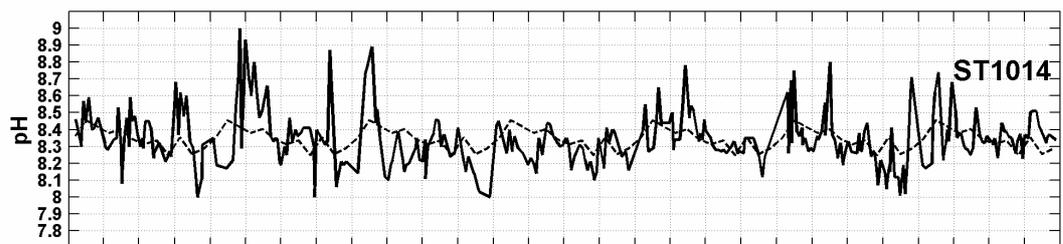
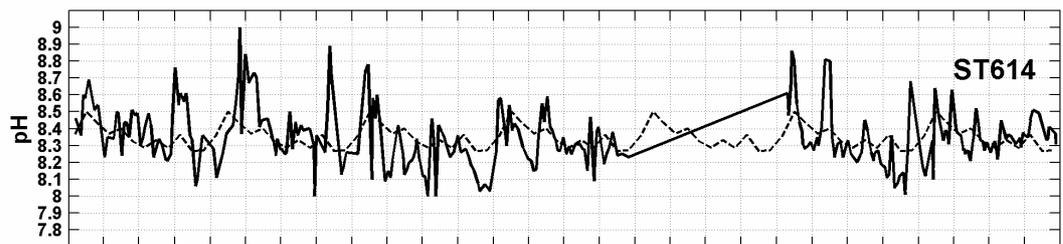
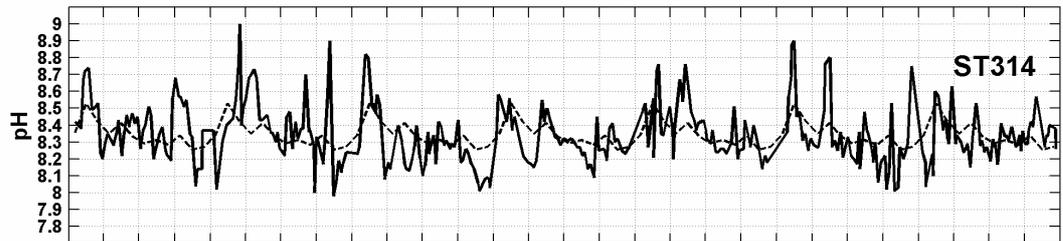
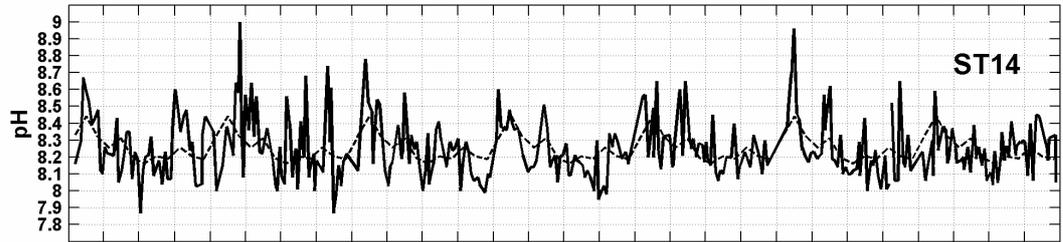
### SERIE TEMPORALI-TRANSETTO 9 - ORTOFOSFATI



— dati alla superficie  
 ---- climatologia 1995-2001

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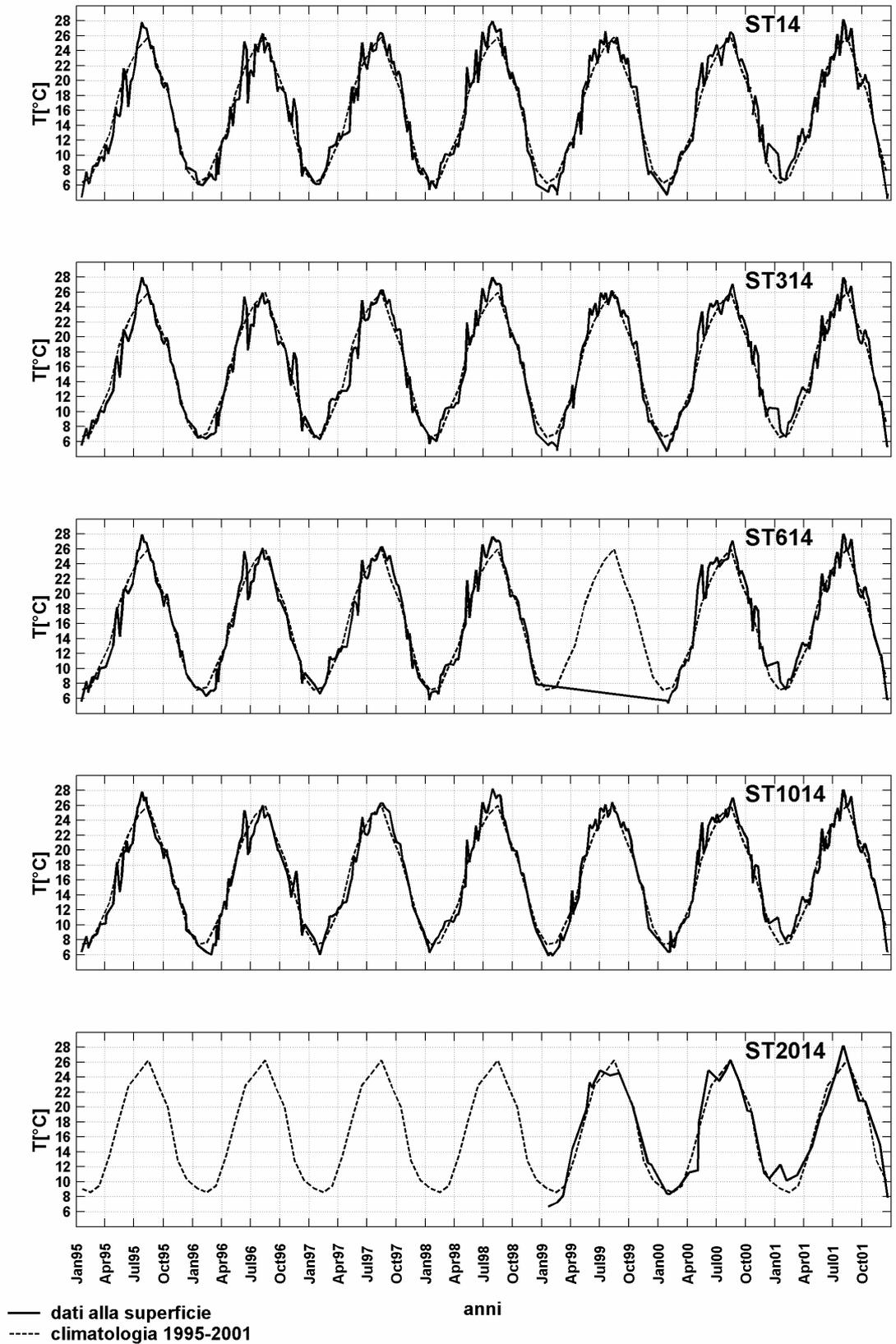
SERIE TEMPORALI-TRANSETTO 14 - pH



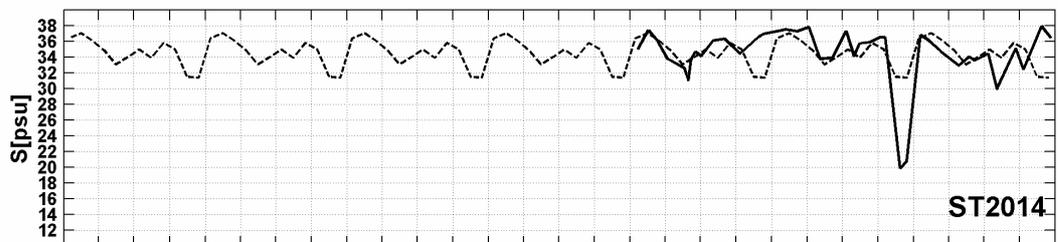
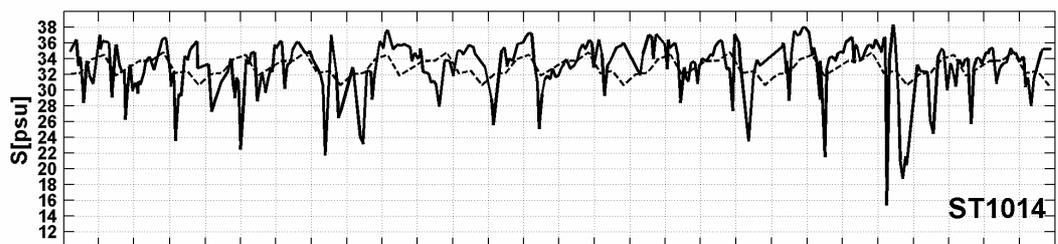
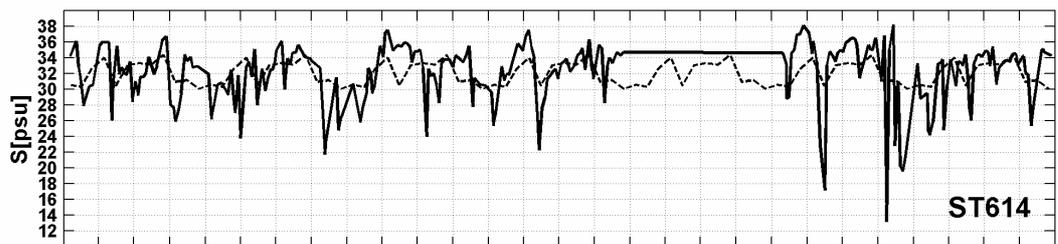
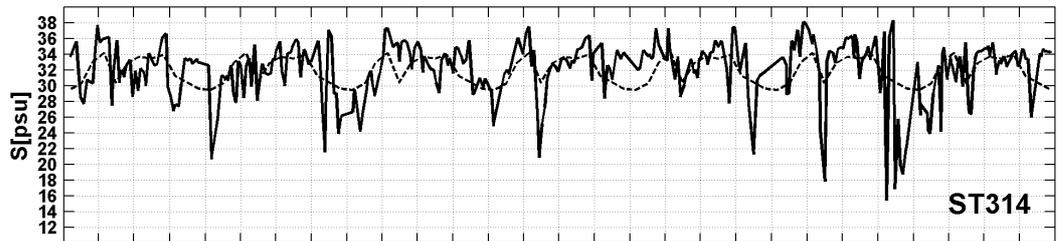
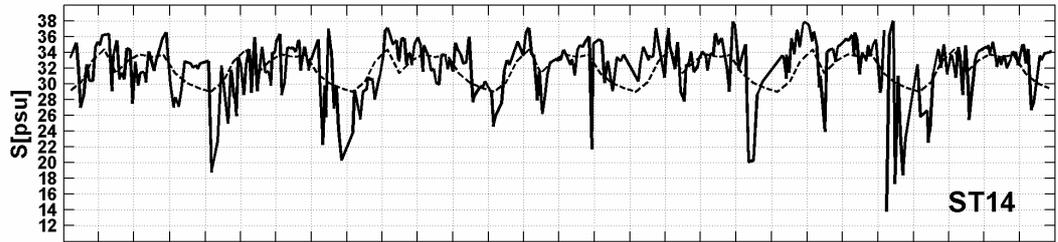
— dati alla superficie  
 - - - climatologia 1995-2001

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SERIE TEMPORALI-TRANSETTO 14 - TEMPERATURA



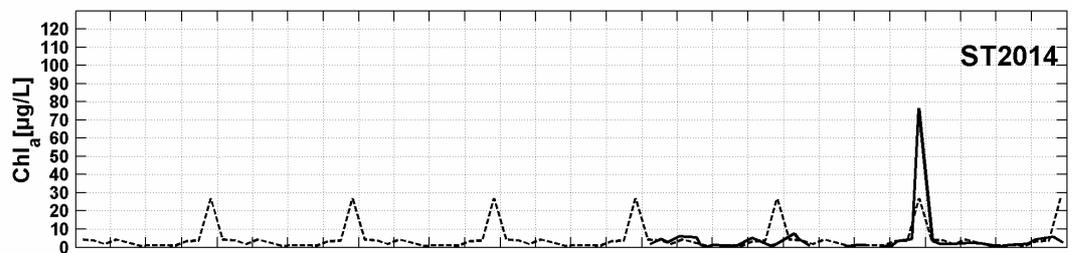
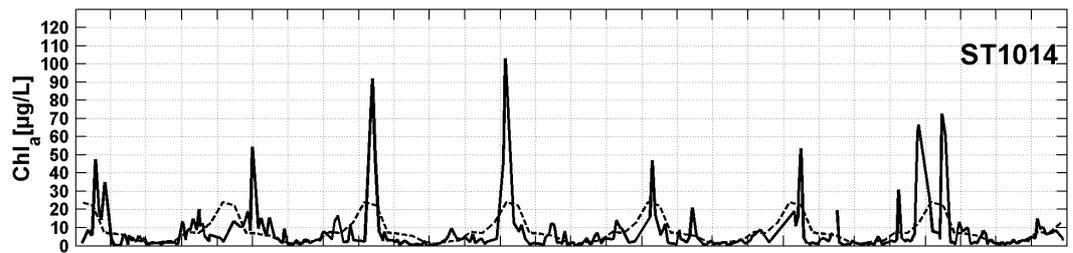
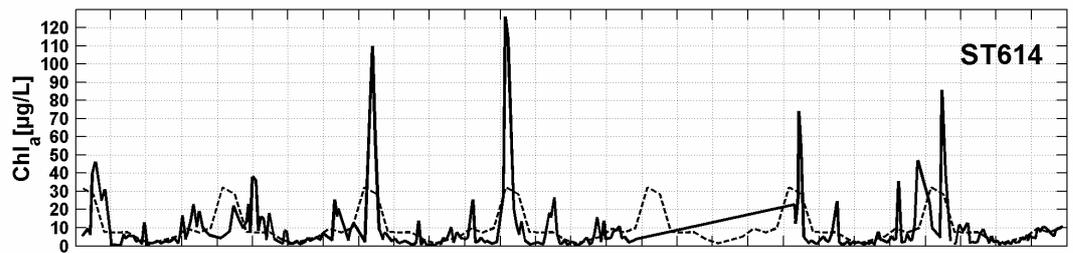
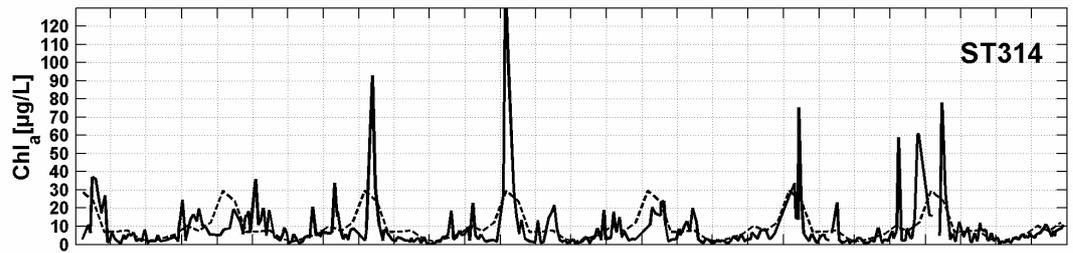
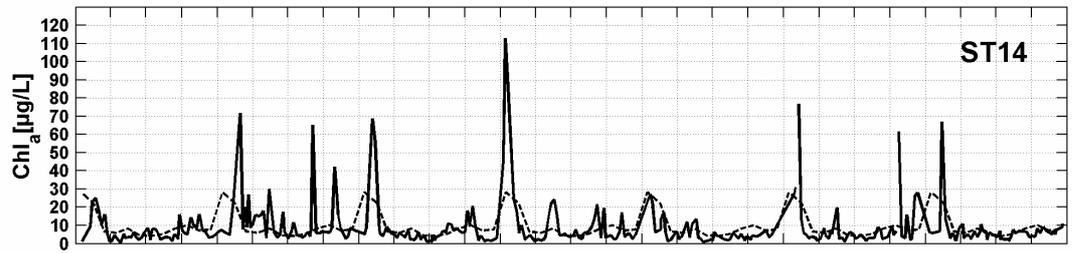
SERIE TEMPORALI-TRANSETTO 14 - SALINITA



— dati alla superficie  
 - - - climatologia 1995-2001

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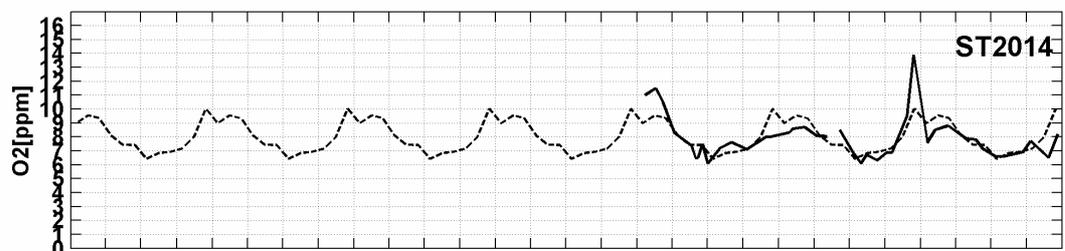
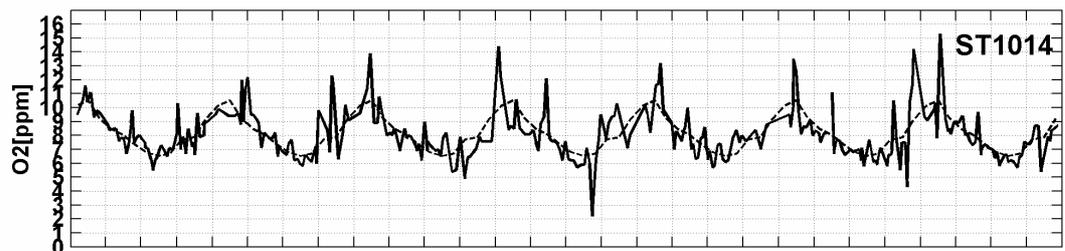
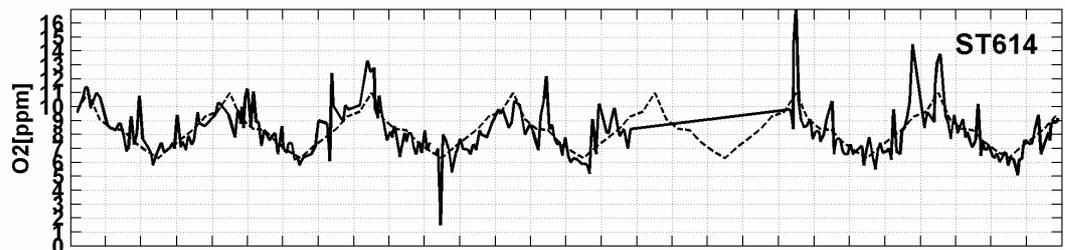
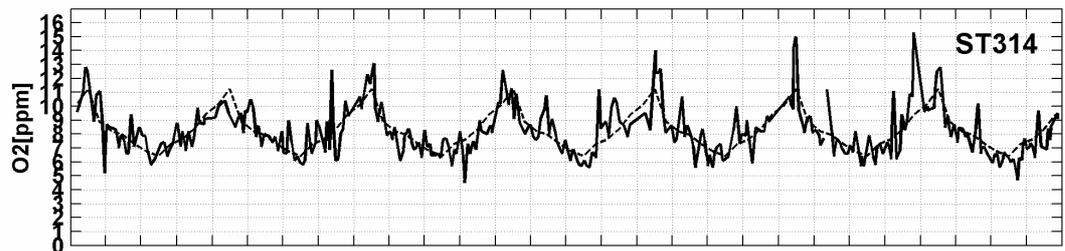
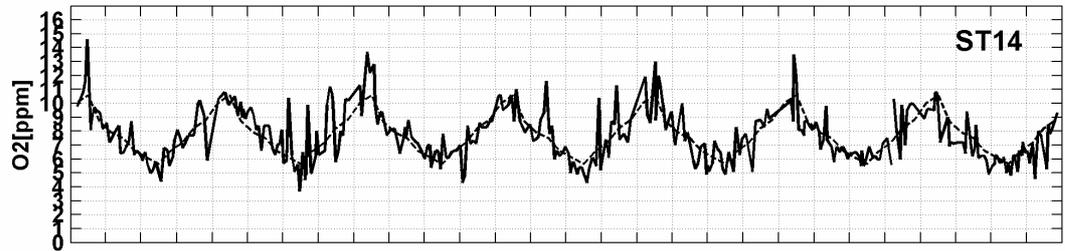
SERIE TEMPORALI-TRANSETTO 14 - CLOROFILLA



— dati alla superficie  
 - - - climatologia 1995-2001

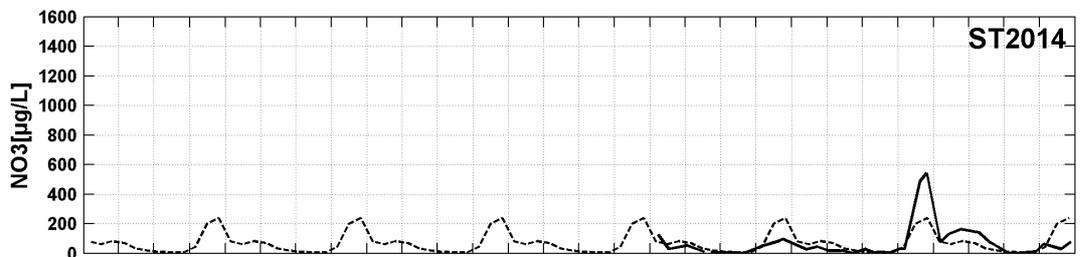
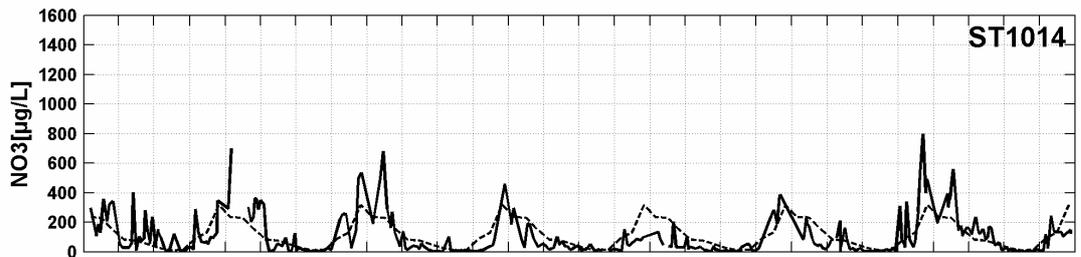
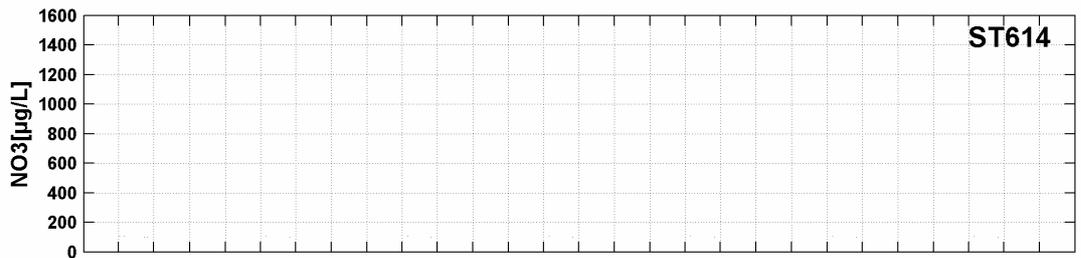
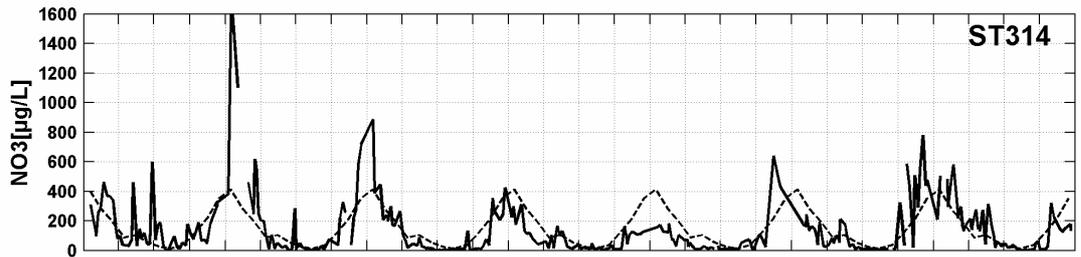
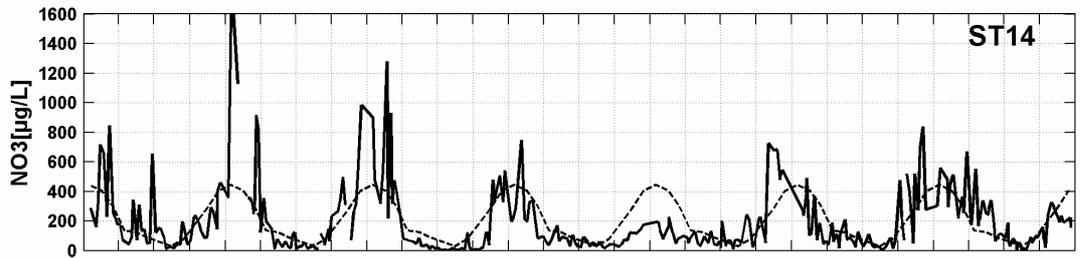
anni

### SERIE TEMPORALI-TRANSETTO 14 - OSSIGENO



— dati alla superficie  
 - - - climatologia 1995-2001

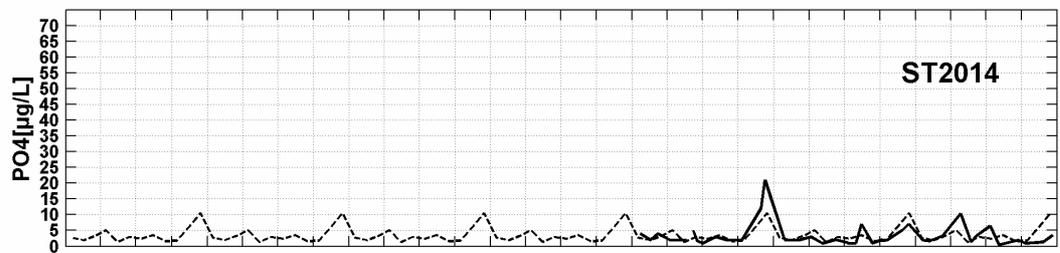
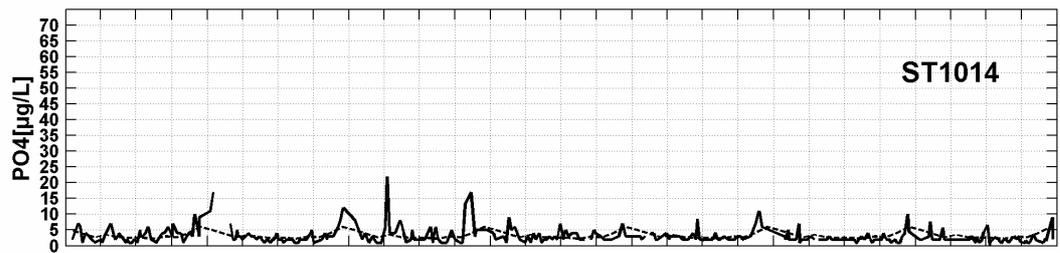
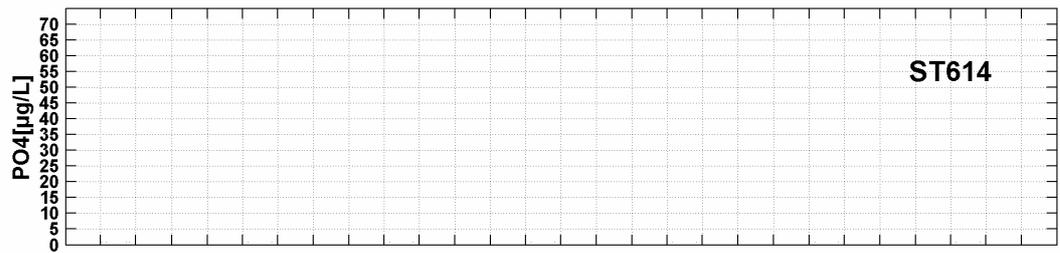
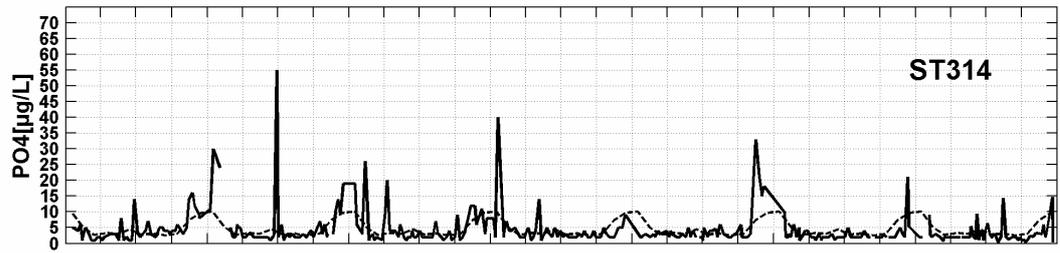
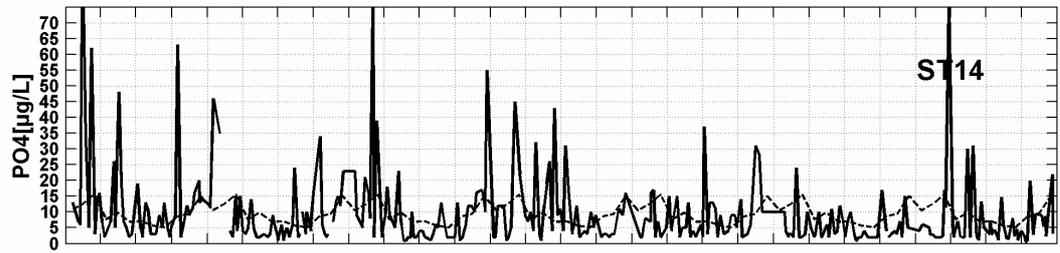
SERIE TEMPORALI-TRANSETTO 14 - NITRATI



— dati alla superficie  
 - - - climatologia 1995-2001

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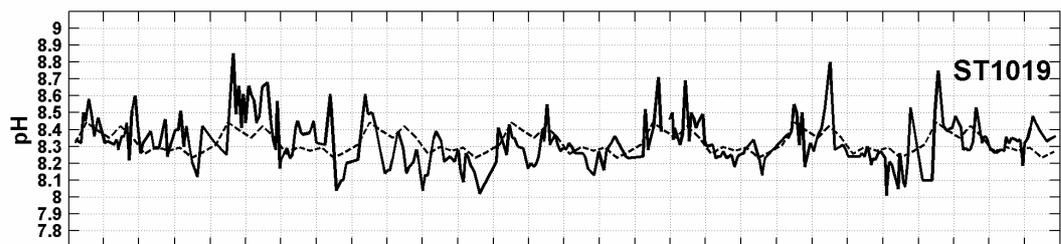
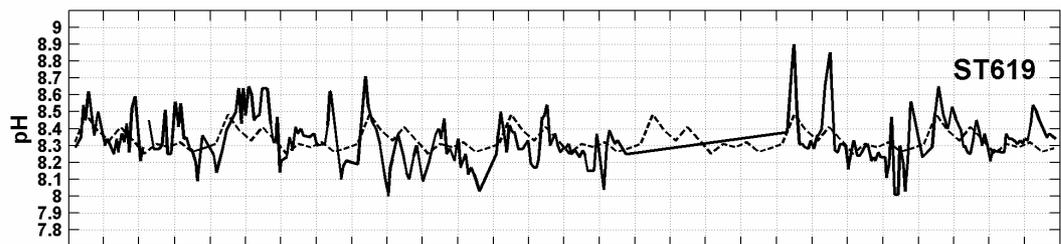
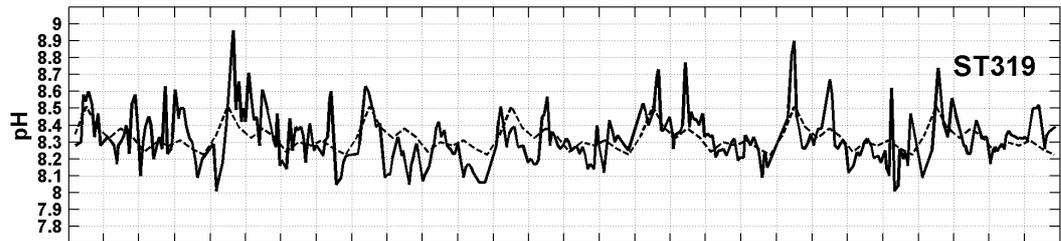
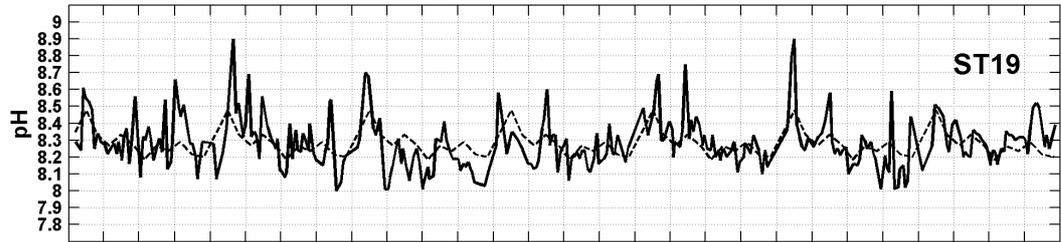
SERIE TEMPORALI-TRANSETTO 14 - ORTOFOSFATI



— dati alla superficie  
 - - - climatologia 1995-2001

anni

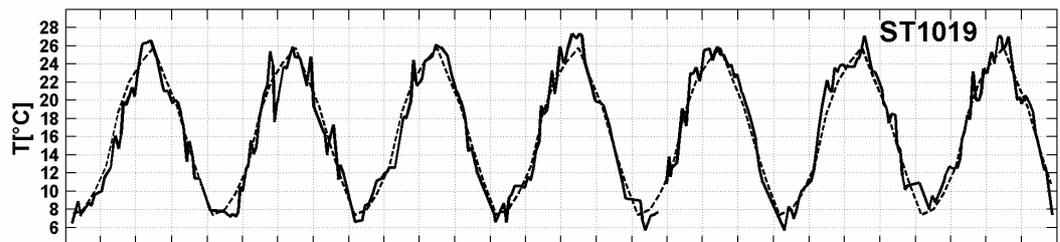
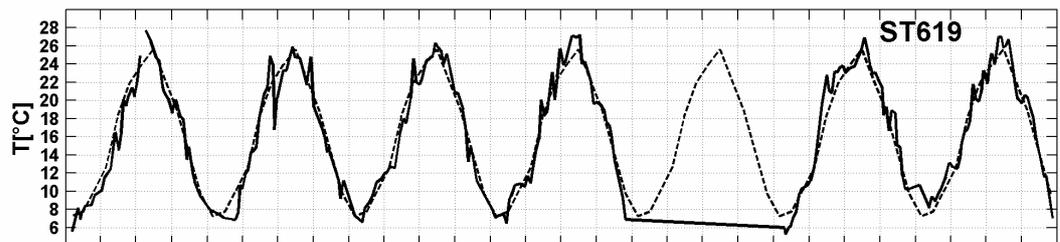
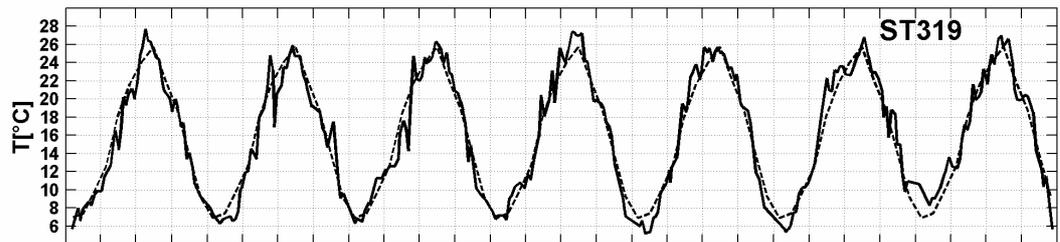
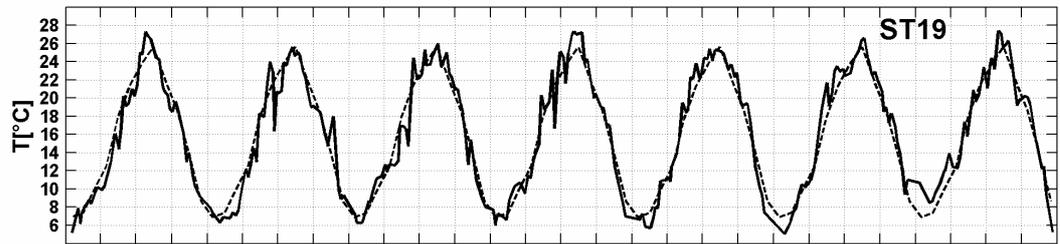
### SERIE TEMPORALI-TRANSETTO 19 - pH



— dati alla superficie  
 - - - climatologia 1995-2001

anni

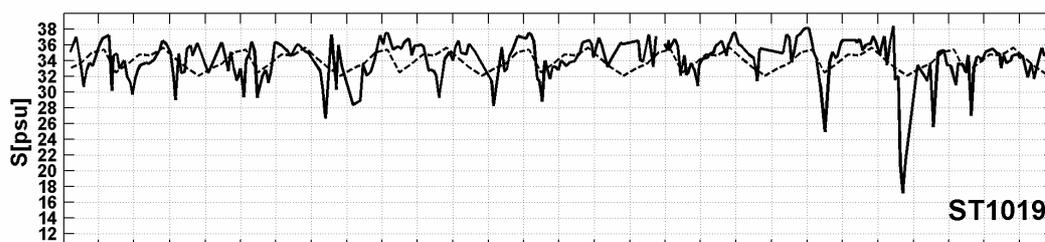
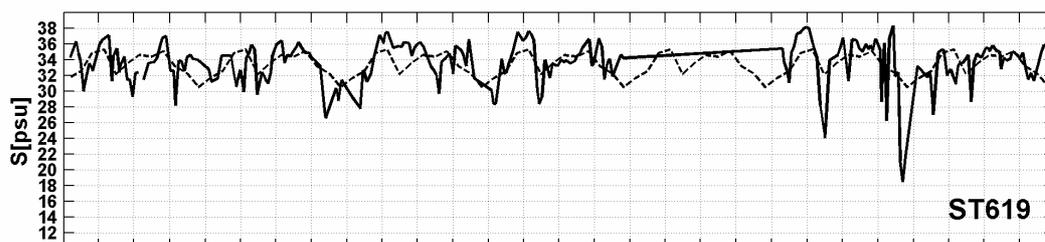
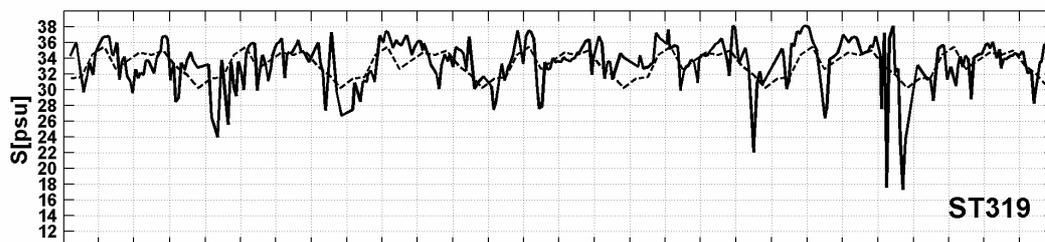
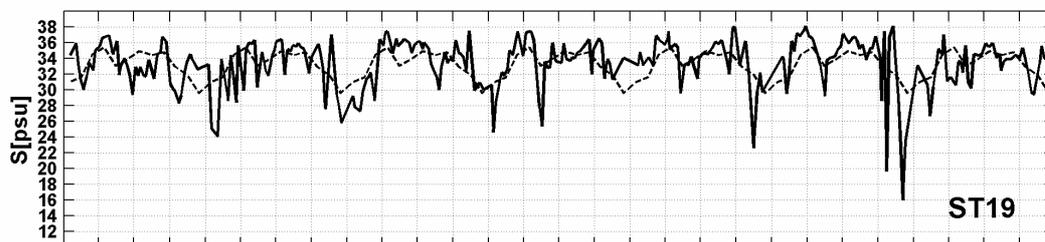
SERIE TEMPORALI-TRANSETTO 19 - TEMPERATURA



— dati alla superficie  
 - - - climatologia 1995-2001

anni

### SERIE TEMPORALI-TRANSETTO 19 - SALINITA

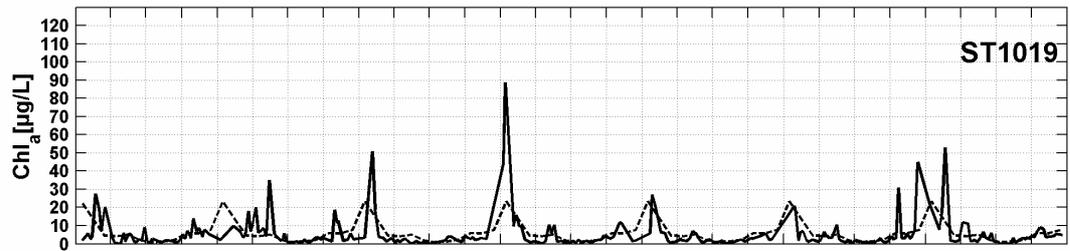
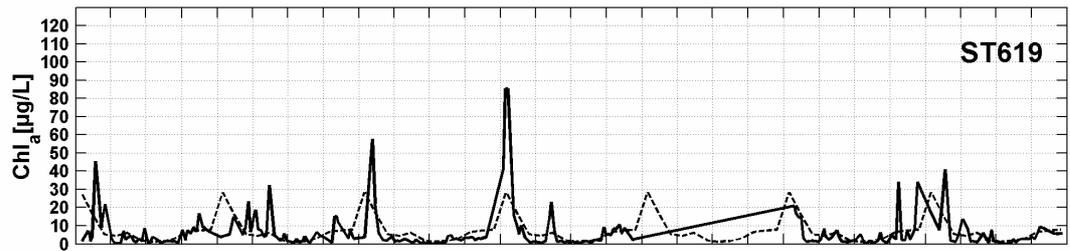
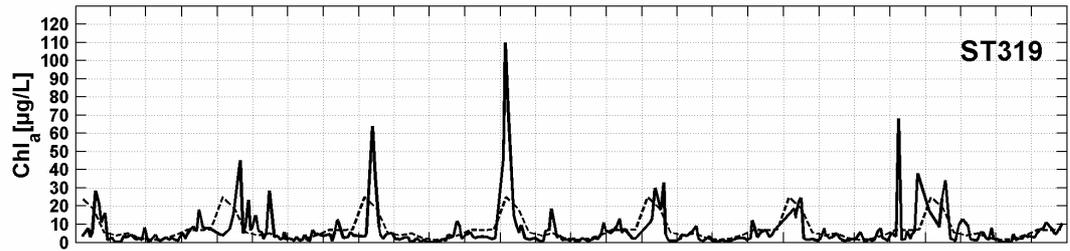
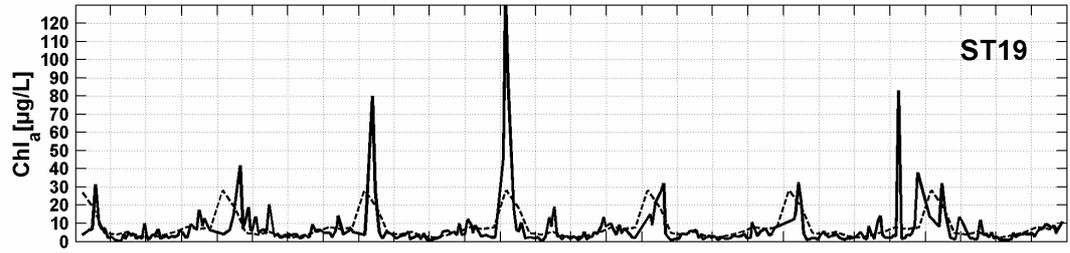


— dati alla superficie  
 --- climatologia 1995-2001

anni

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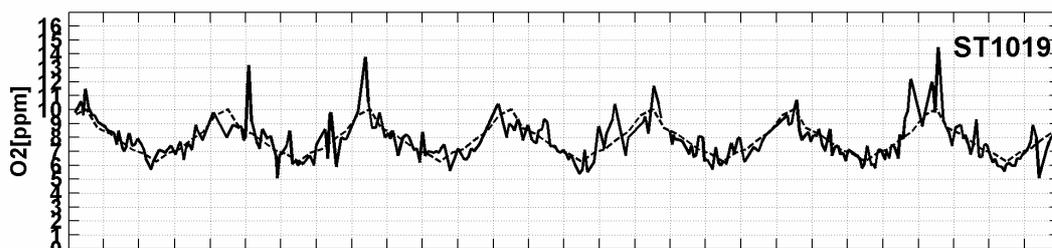
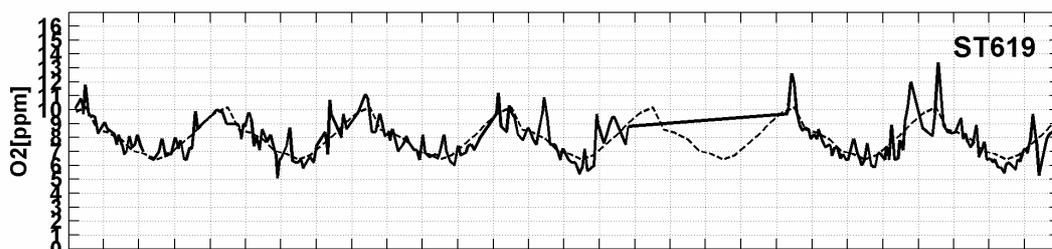
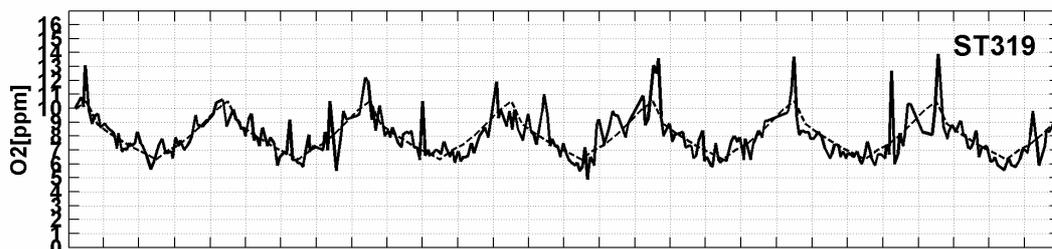
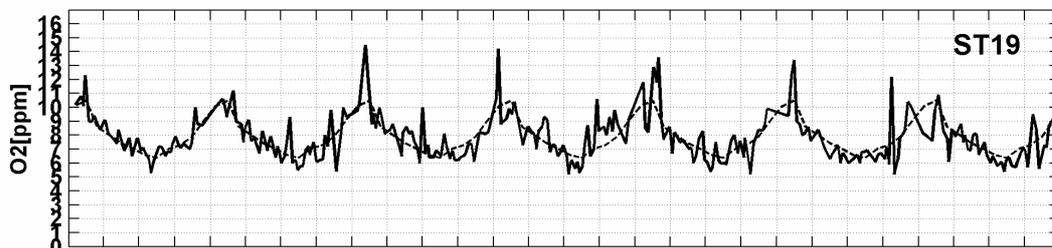
SERIE TEMPORALI-TRANSETTO 19 - CLOROFILLA



— dati alla superficie  
 - - - climatologia 1995-2001

anni

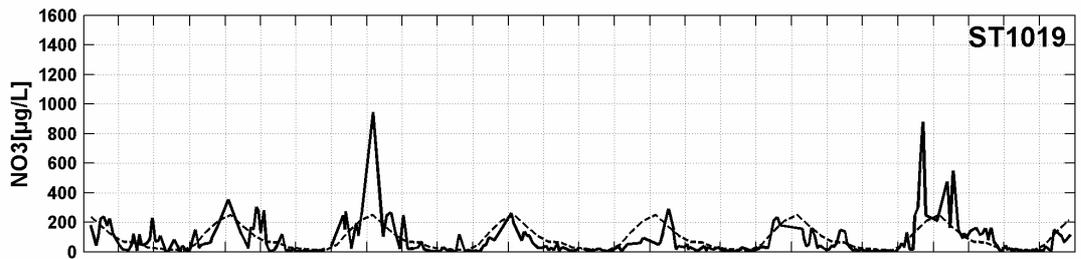
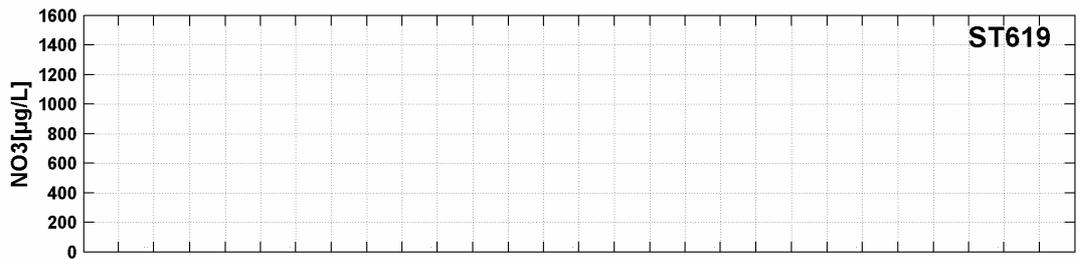
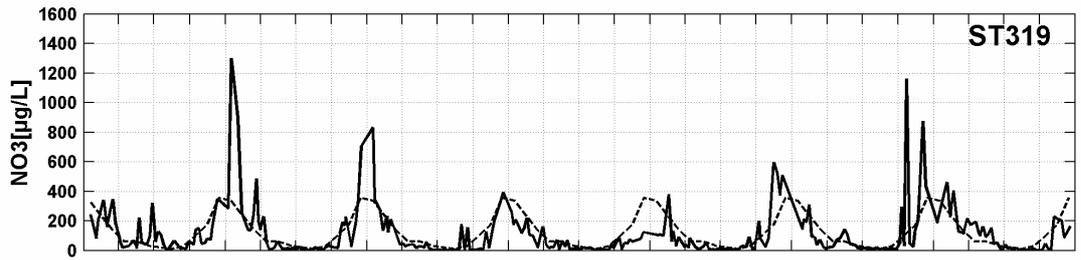
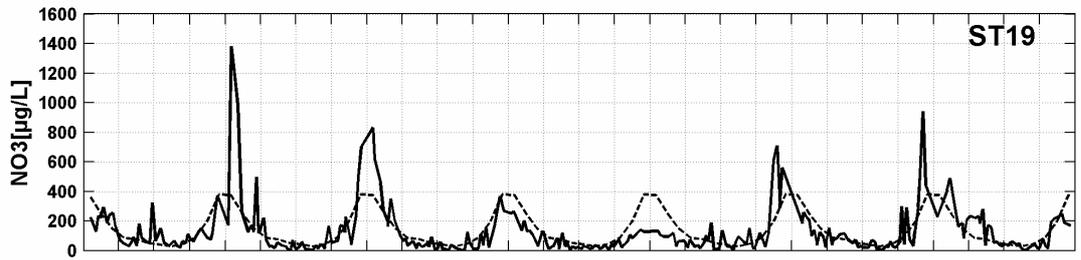
SERIE TEMPORALI-TRANSETTO 19 - OSSIGENO



Jan95 Apr95 Jul95 Oct95 Jan96 Apr96 Jul96 Oct96 Jan97 Apr97 Jul97 Oct97 Jan98 Apr98 Jul98 Oct98 Jan99 Apr99 Jul99 Oct99 Jan00 Apr00 Jul00 Oct00 Jan01 Apr01 Jul01 Oct01

— dati alla superficie  
 ---- climatologia 1995-2001

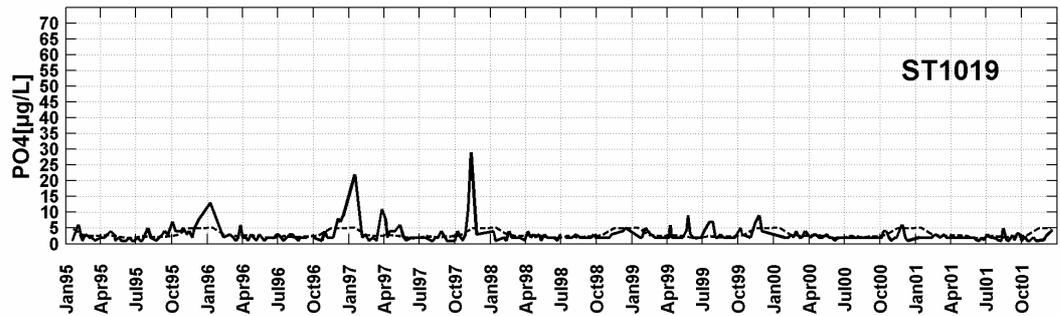
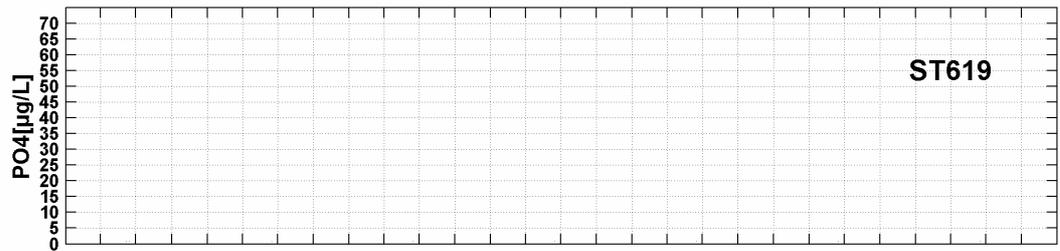
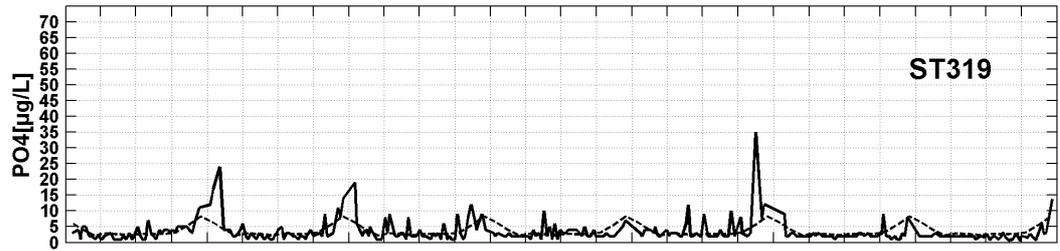
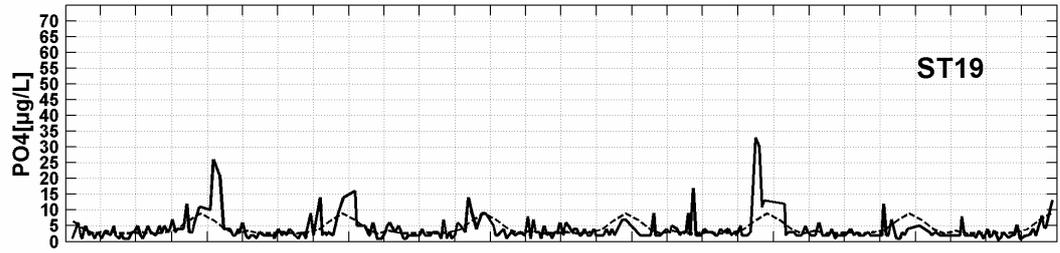
SERIE TEMPORALI-TRANSETTO 19 - NITRATI



— dati alla superficie  
 - - - climatologia 1995-2001

anni

SERIE TEMPORALI-TRANSETTO 19 - ORTOFOSFATI



— dati alla superficie  
 ---- climatologia 1995-2001

anni

## **ALLEGATO C**

### ***Anomalie e Correlazioni***

## *Anomalie e Correlazioni*

Per anomalia si intende la serie temporale della variabile  $y$  a cui viene sottratta la climatologia corrispondente:

$$ANOMALIA = y_i - \bar{y}$$

dove  $\bar{y}$  indica la climatologia.

In questo caso l'anomalia è stata standardizzata, cioè divisa per la corrispondente deviazione standard (indicata con  $s$ ):

$$Z = \frac{y_i - \bar{y}}{\sigma}$$

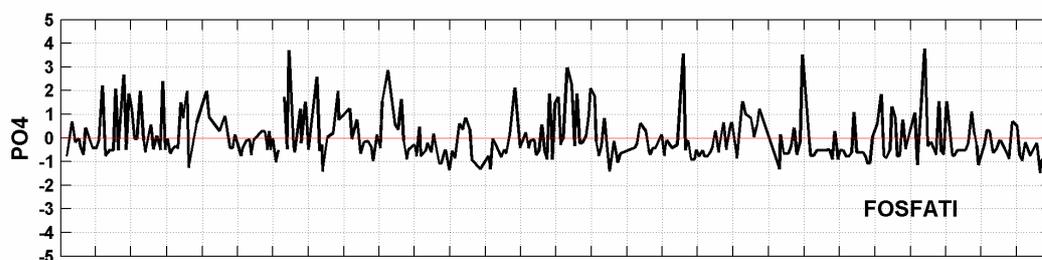
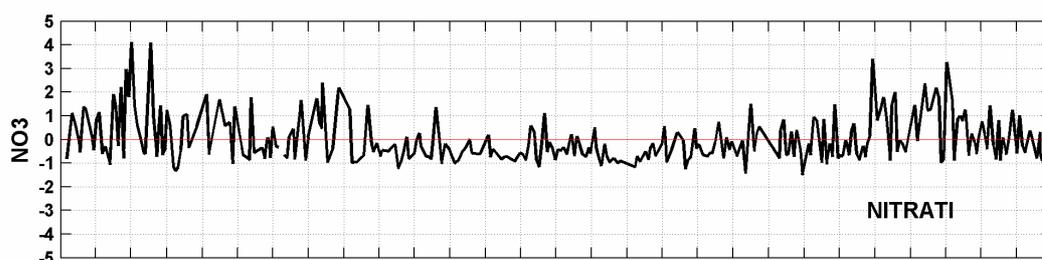
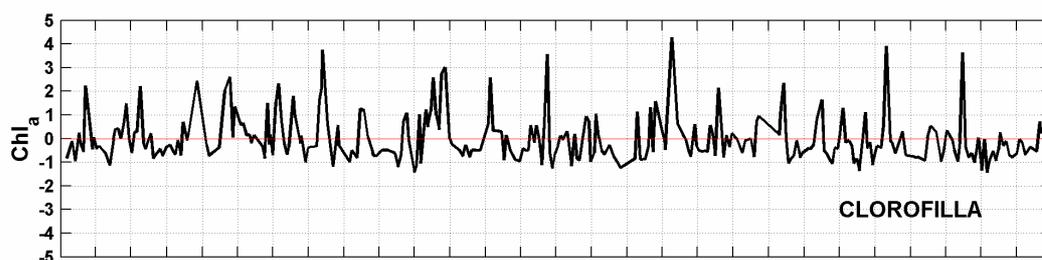
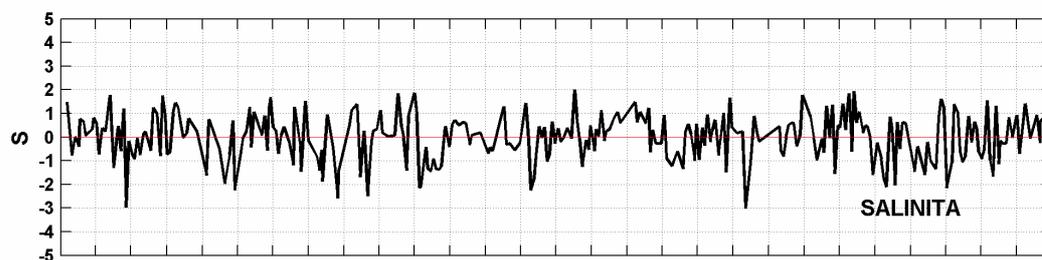
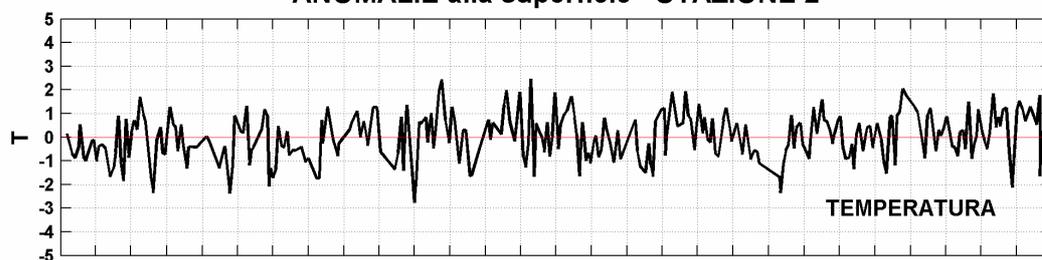
$Z$  viene utilizzata per poter confrontare la variabilità nel tempo tra parametri diversi, poiché esprime il numero di deviazioni standard di cui il singolo dato si discosta dalla climatologia calcolata. Si noti come in questo modo venga sottratta alla serie temporale la variabilità associata all'andamento stagionale.

La visualizzazione è diversa rispetto alle parti precedenti, ora si considera la singola stazione, di cui vengono presentate le anomalie standardizzate di temperatura, salinità, clorofilla, nitrati, ortofosfati nella stessa pagina.

Le stazioni si susseguono come nel transetto di appartenenza, a partire da quella più vicino a costa, ed al termine di ogni transetto sono state inserite le tabelle con i coefficienti di correlazione tra i vari parametri, calcolati considerando le anomalie standardizzate come normali serie temporali. Anche in questo caso sono state evidenziate le correlazioni significative al 95% facendo riferimento alla tabella 2.2.2 inserita nel capitolo 2 della tesi. I gradi di libertà  $\nu = (N - 2)$  sono stati posti in maniera conservativa pari a 200, essendo tutte le serie temporali costituite da un numero di dati ( $N$ ) compresi tra i 200 e i 300.

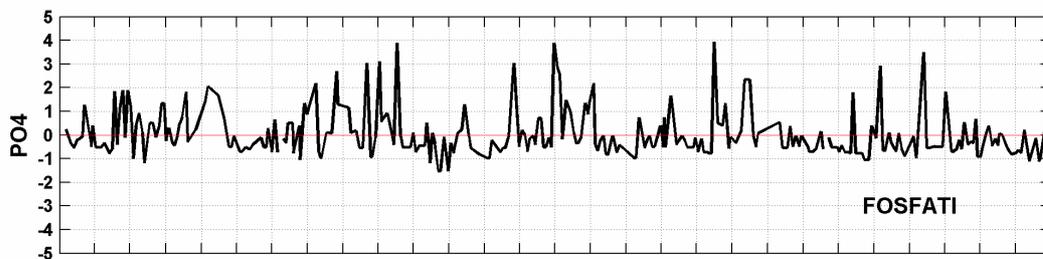
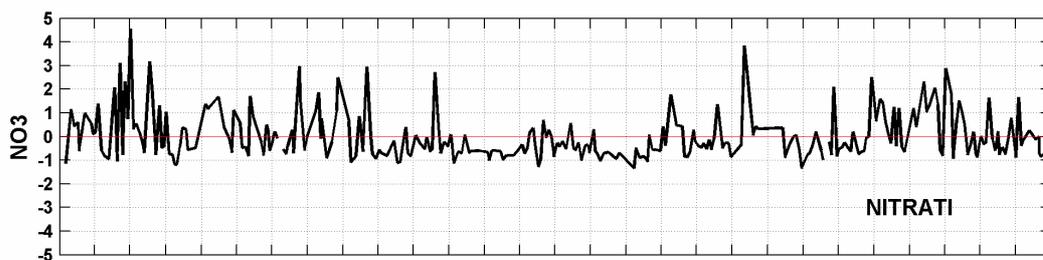
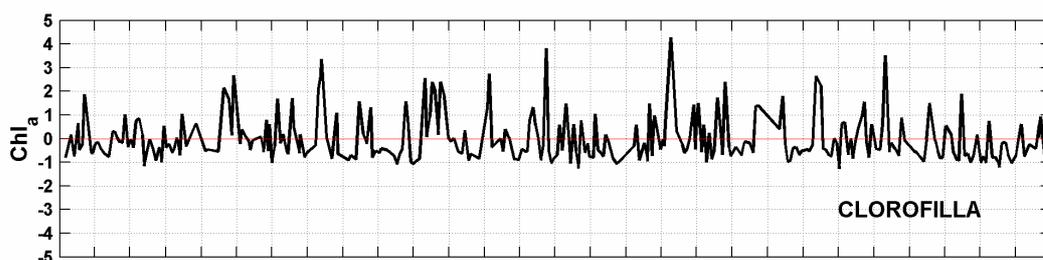
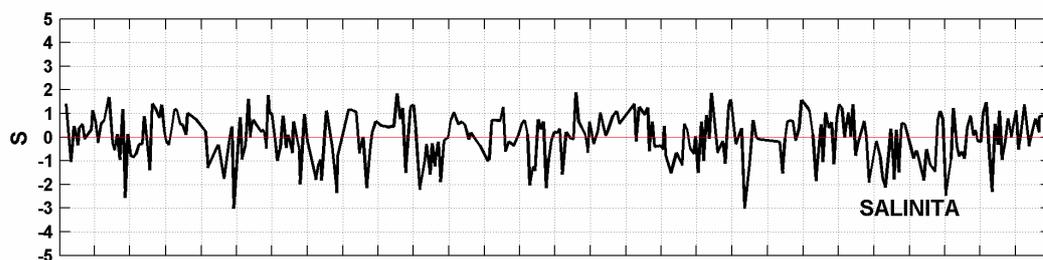
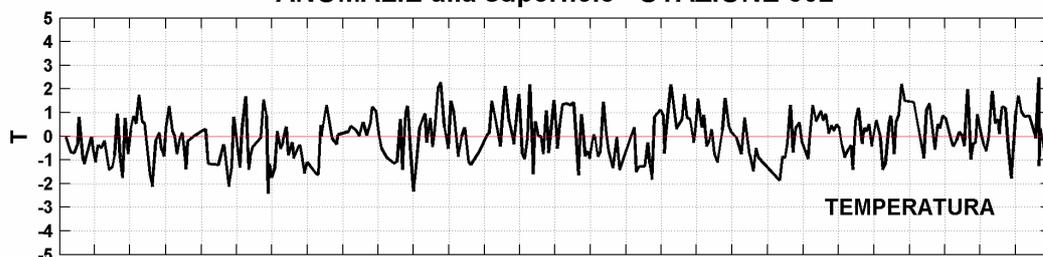
Nei transetti 4 (Porto Garibaldi) e 14 (Cesenatico) sono presenti anomalie e coefficienti di correlazione riferiti alle stazioni campionate anche sul fondo. Come si può notare il campionamento è meno frequente, di conseguenza il calcolo dei coefficienti di correlazione non dà alcun risultato o non può essere effettuato.

### ANOMALIE alla superficie - STAZIONE 2



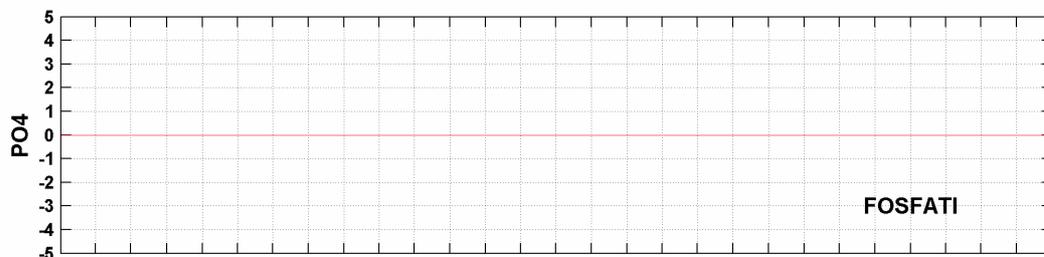
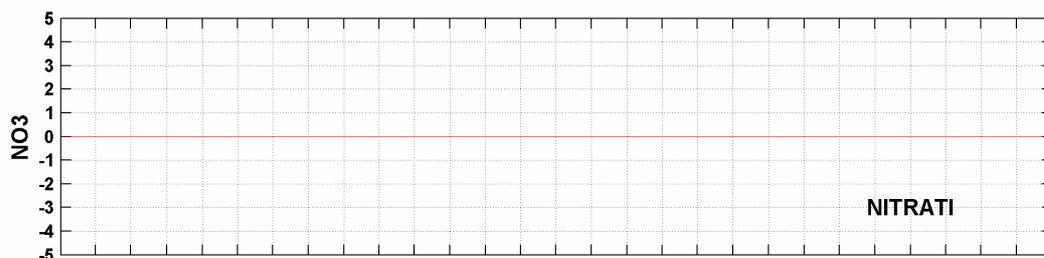
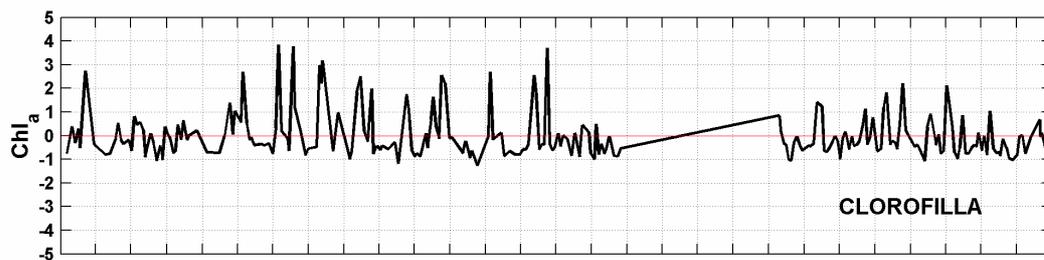
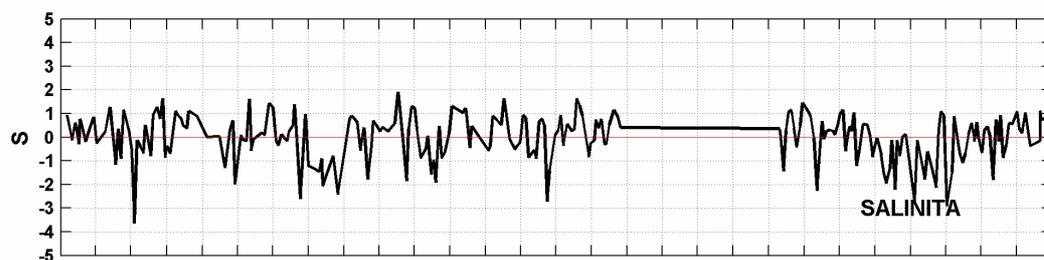
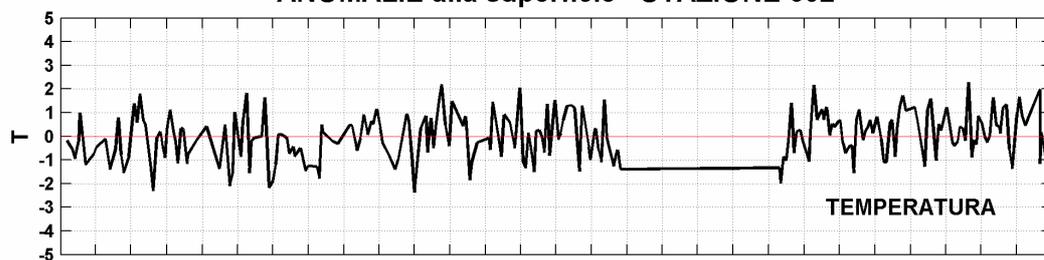
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### ANOMALIE alla superficie - STAZIONE 302



Jan95 Apr95 Jul95 Oct95 Jan96 Apr96 Jul96 Oct96 Jan97 Apr97 Jul97 Oct97 Jan98 Apr98 Jul98 Oct98 Jan99 Apr99 Jul99 Oct99 Jan00 Apr00 Jul00 Oct00 Jan01 Apr01 Jul01 Oct01  
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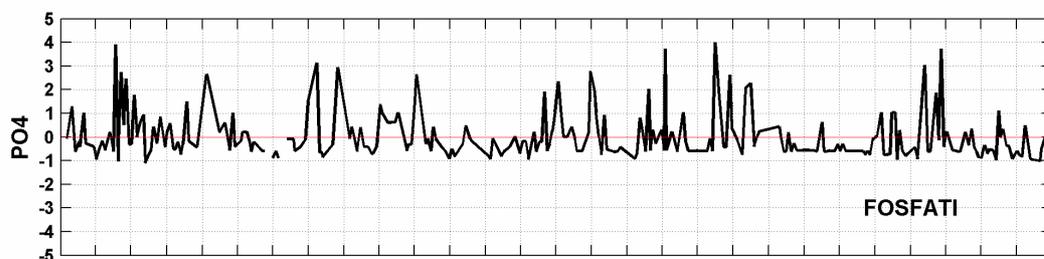
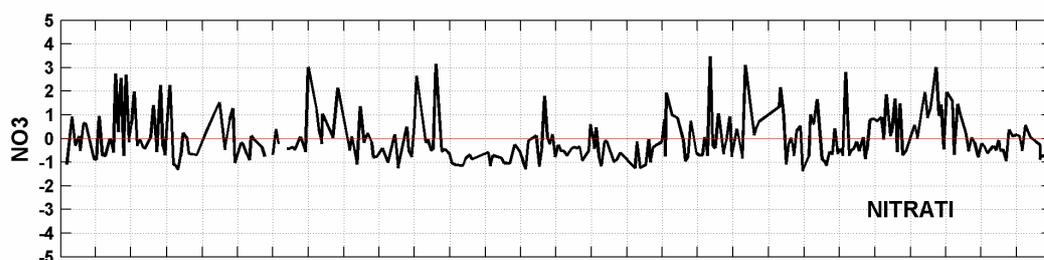
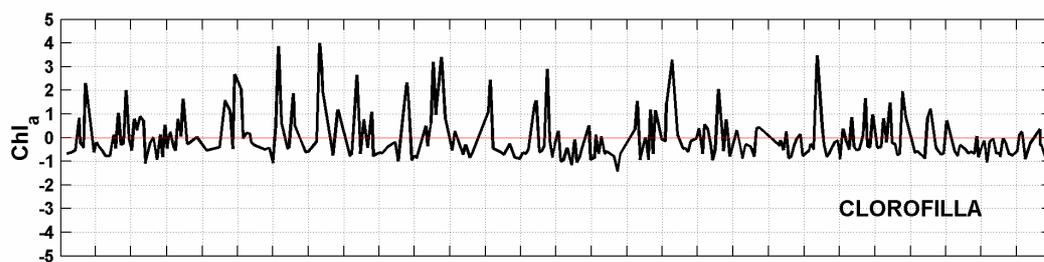
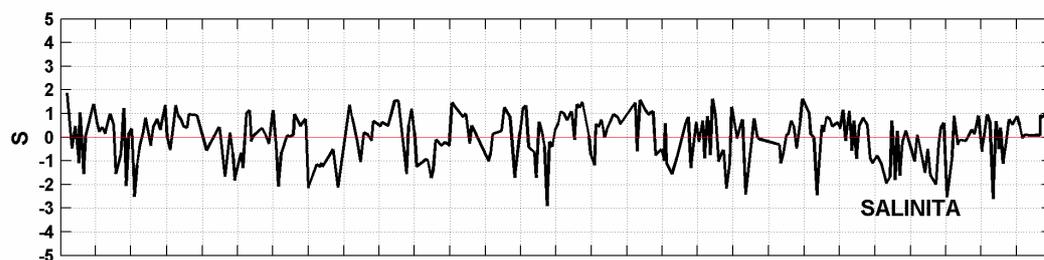
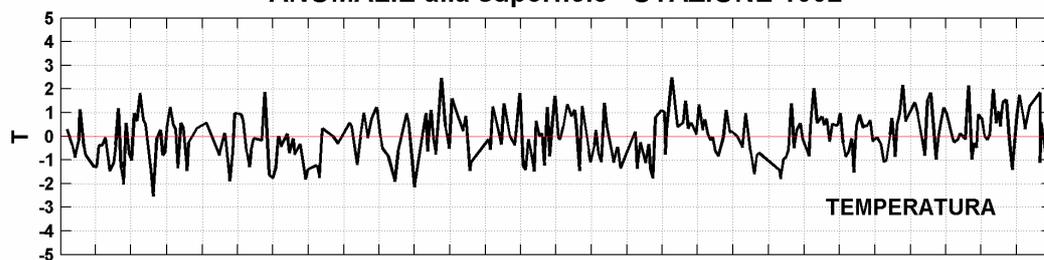
### ANOMALIE alla superficie - STAZIONE 602



Jan95 Apr95 Jul95 Oct95 Jan96 Apr96 Jul96 Oct96 Jan97 Apr97 Jul97 Oct97 Jan98 Apr98 Jul98 Oct98 Jan99 Apr99 Jul99 Oct99 Jan00 Apr00 Jul00 Oct00 Jan01 Apr01 Jul01 Oct01

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### ANOMALIE alla superficie - STAZIONE 1002

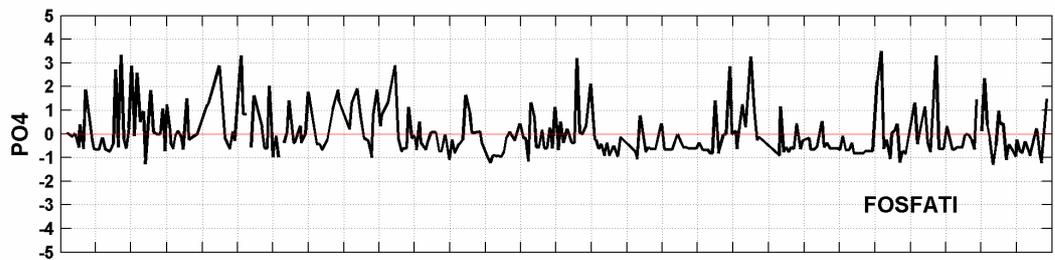
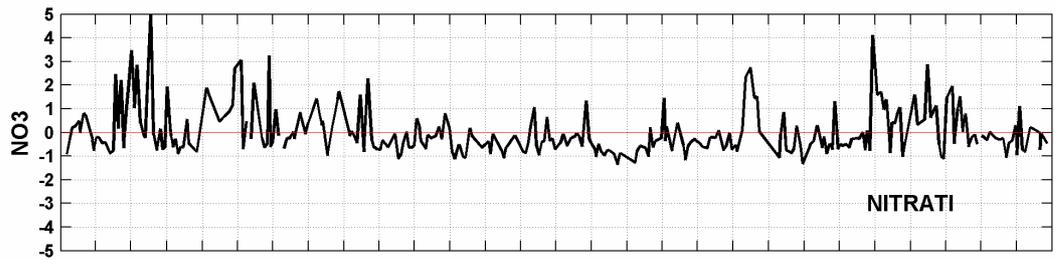
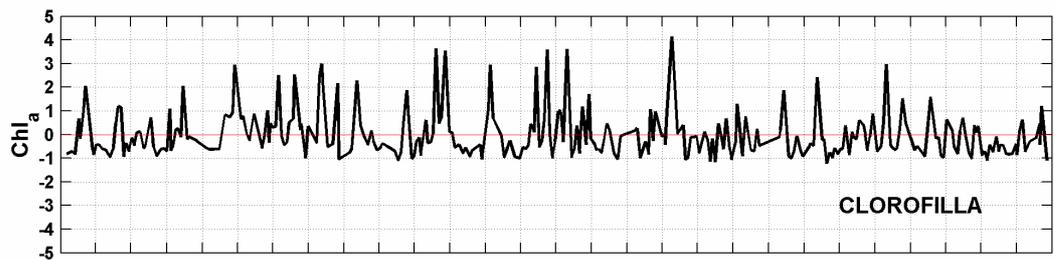
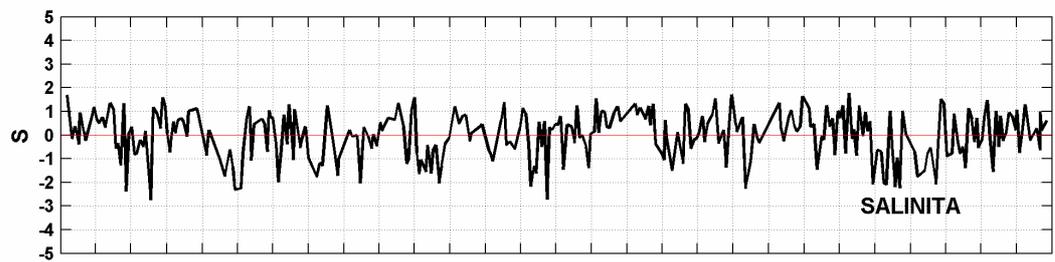
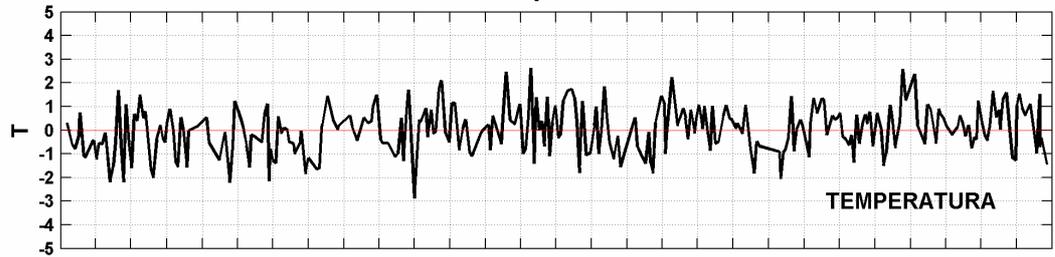


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## COEFFICIENTI DI CORRELAZIONI (superficie)

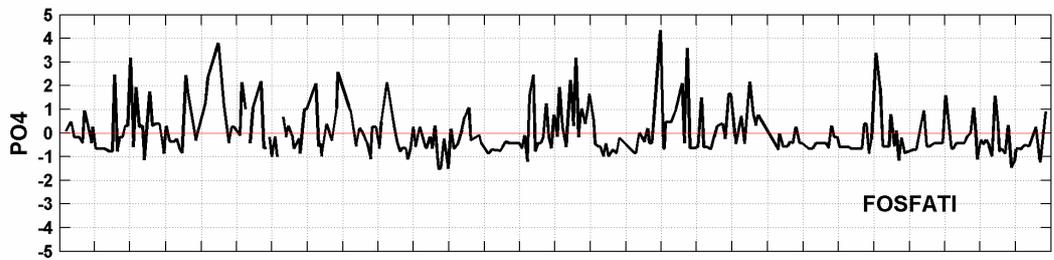
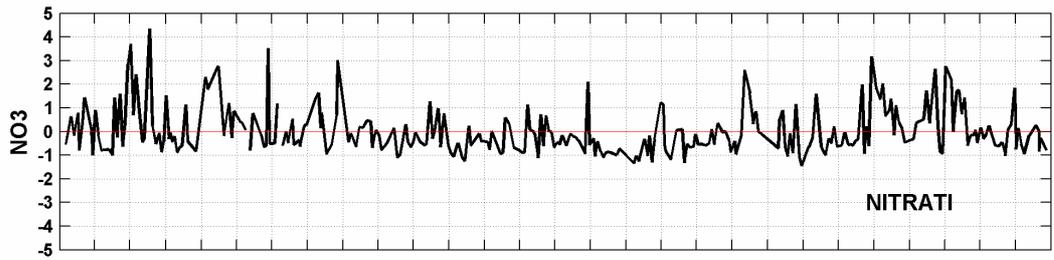
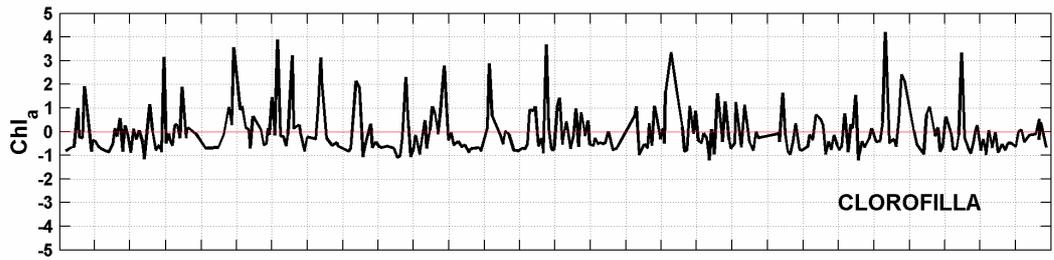
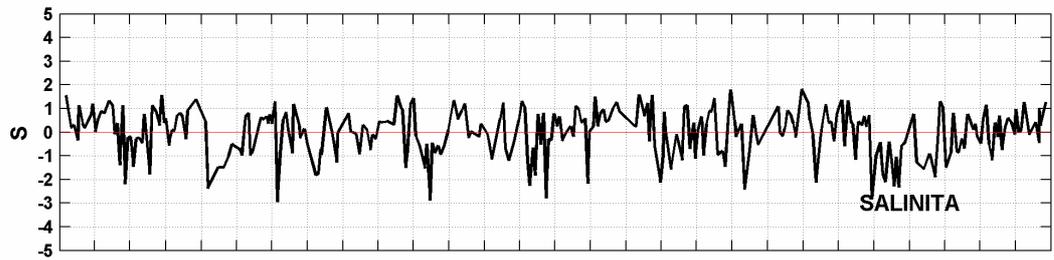
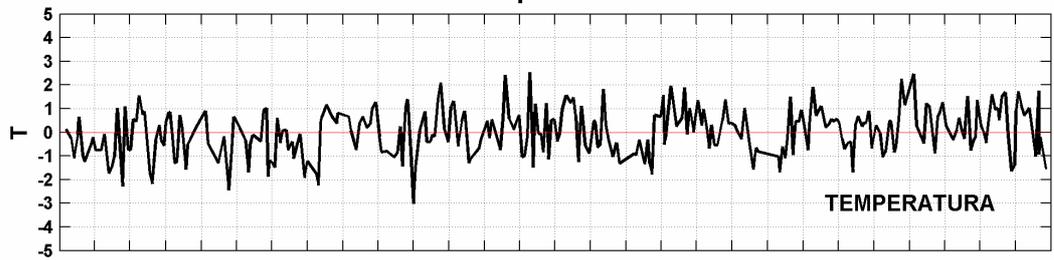
<b>st.2</b>	pH	temperatura	salinita	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	0.12	1.00					
salinita	-0.40	-0.14	1.00				
O2	0.03	-0.30	0.13	1.00			
clorofilla	0.57	0.06	-0.41	-0.03	1.00		
nitrati	0.13	-0.17	-0.56	-0.08	0.13	1.00	
fosfati	-0.26	-0.15	-0.05	-0.07	-0.17	0.20	1.00
<b>st.302</b>	pH	temperatura	salinita	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	0.16	1.00					
salinita	-0.46	-0.22	1.00				
O2	-0.11	-0.19	0.16	1.00			
clorofilla	0.55	0.17	-0.50	-0.11	1.00		
nitrati	0.12	-0.10	-0.56	-0.07	0.18	1.00	
fosfati	-0.22	-0.17	-0.07	0.13	-0.12	0.27	1.00
<b>st.602</b>	pH	temperatura	salinita	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	0.13	1.00					
salinita	-0.43	-0.20	1.00				
O2	-0.07	-0.22	0.10	1.00			
clorofilla	0.54	0.10	-0.39	-0.09	1.00		
nitrati	NaN	NaN	NaN	NaN	NaN	NaN	
fosfati	NaN	NaN	NaN	NaN	NaN	NaN	NaN
<b>st.1002</b>	pH	temperatura	salinita	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	0.13	1.00					
salinita	-0.40	-0.15	1.00				
O2	-0.10	-0.21	0.20	1.00			
clorofilla	0.56	0.14	-0.46	-0.10	1.00		
nitrati	0.11	-0.10	-0.59	-0.06	0.10	1.00	
fosfati	-0.21	-0.17	-0.21	0.11	-0.13	0.43	1.00

### ANOMALIE alla superficie - STAZIONE 4



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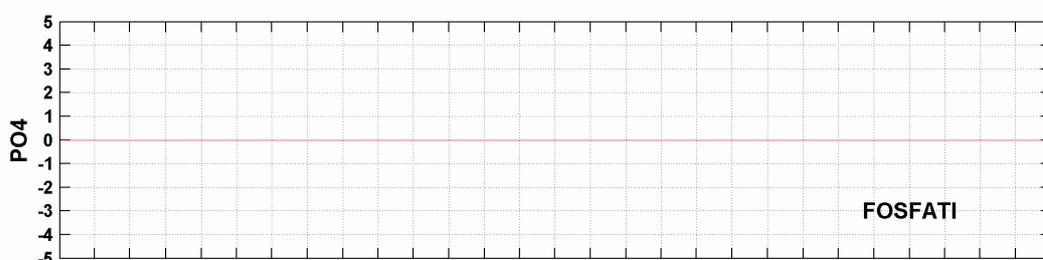
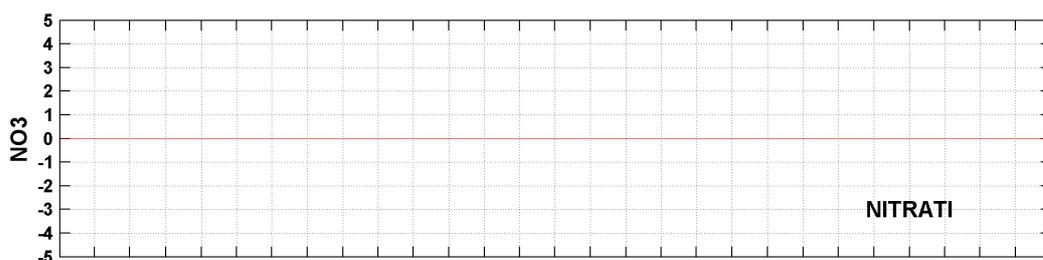
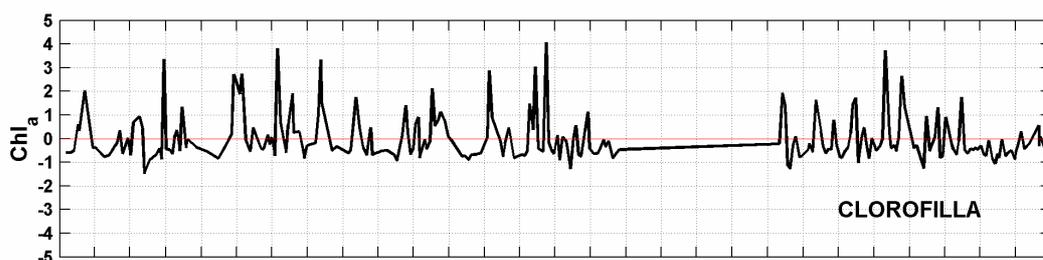
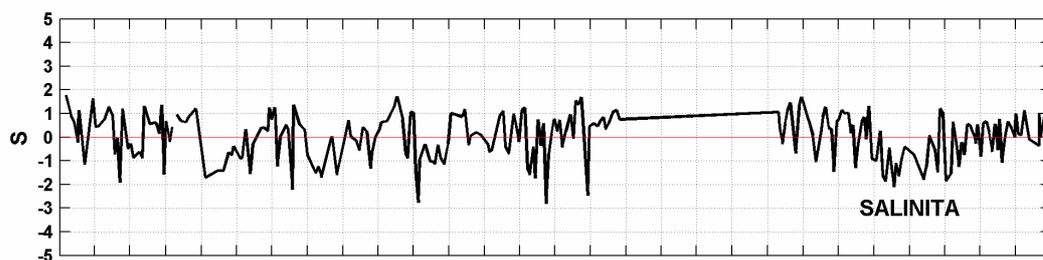
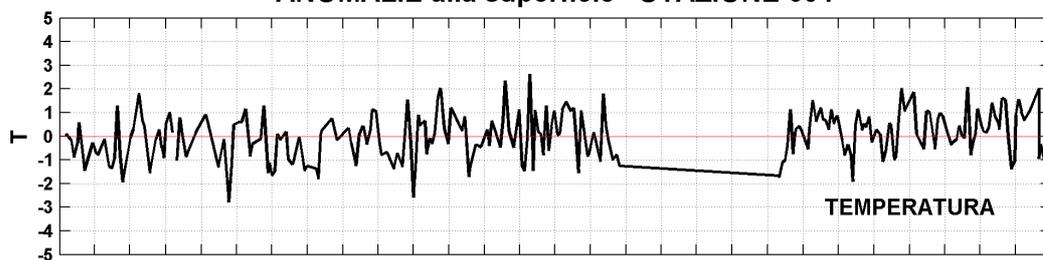
ANOMALIE alla superficie - STAZIONE 304



Jan95 Apr95 Jul95 Oct95 Jan96 Apr96 Jul96 Oct96 Jan97 Apr97 Jul97 Oct97 Jan98 Apr98 Jul98 Oct98 Jan99 Apr99 Jul99 Oct99 Jan00 Apr00 Jul00 Oct00

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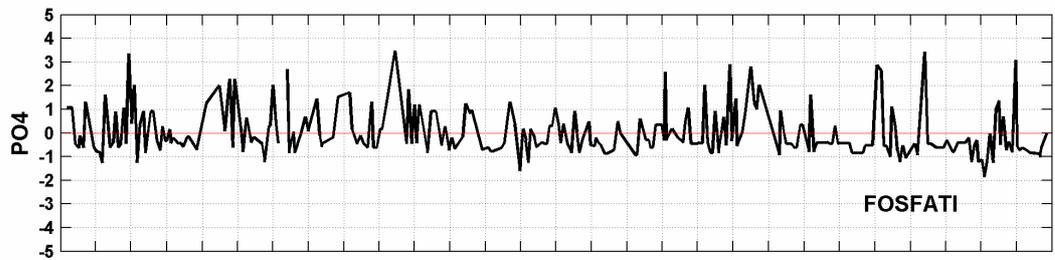
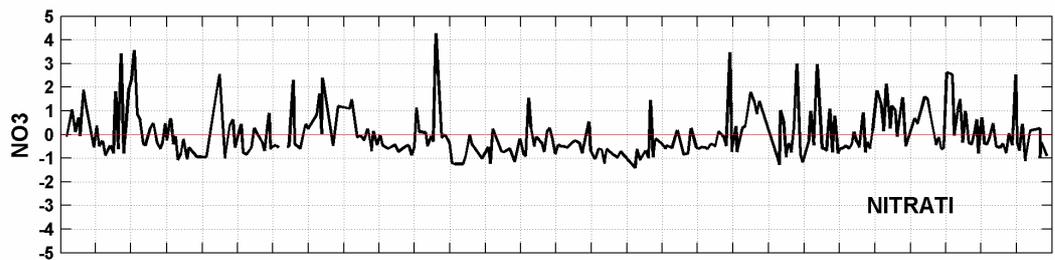
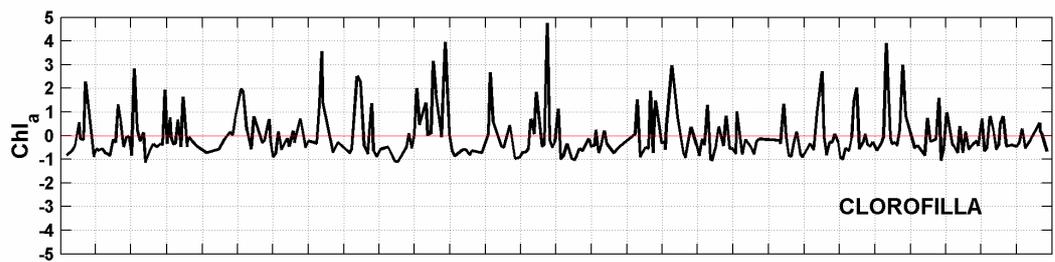
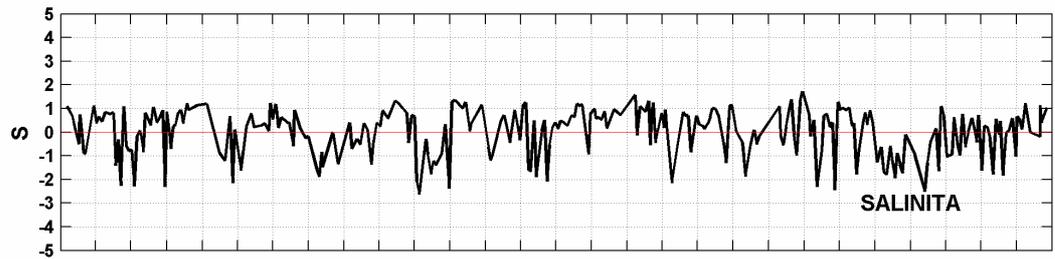
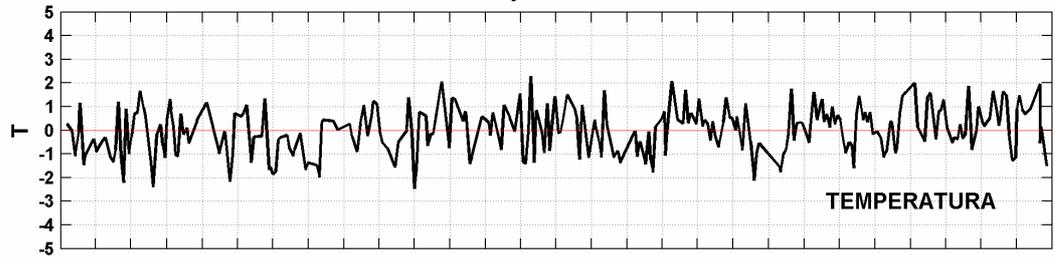
### ANOMALIE alla superficie - STAZIONE 604



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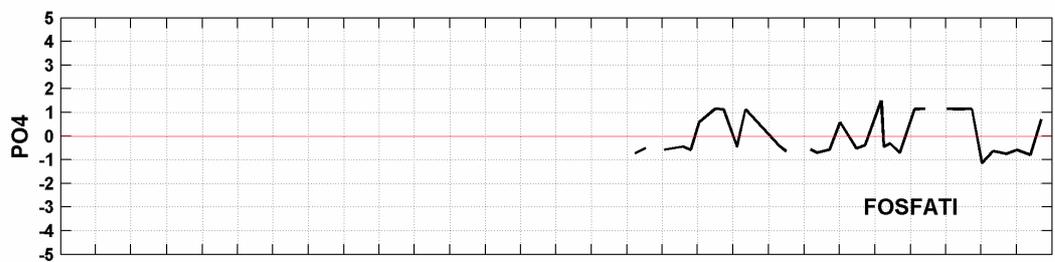
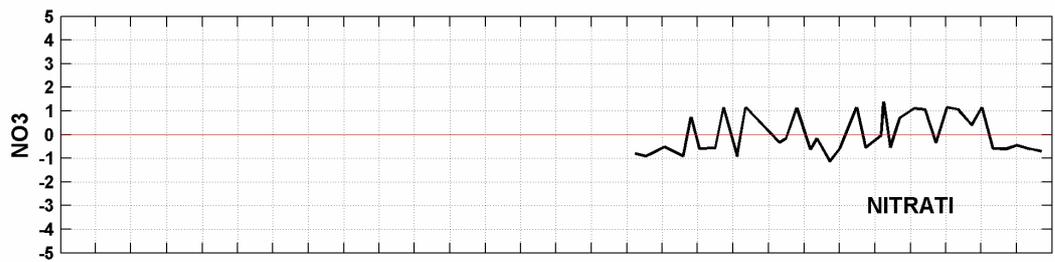
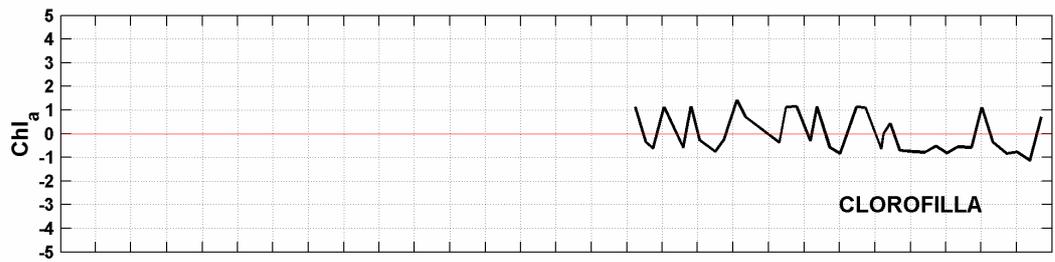
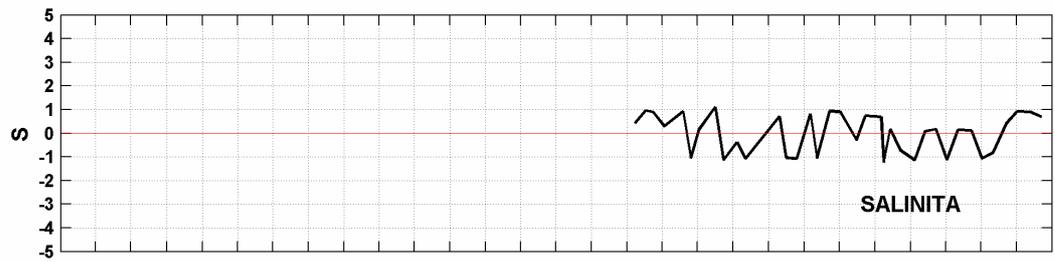
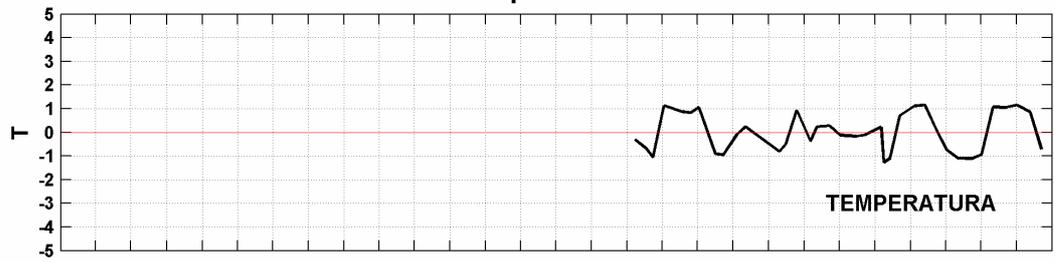
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### ANOMALIE alla superficie - STAZIONE 1004



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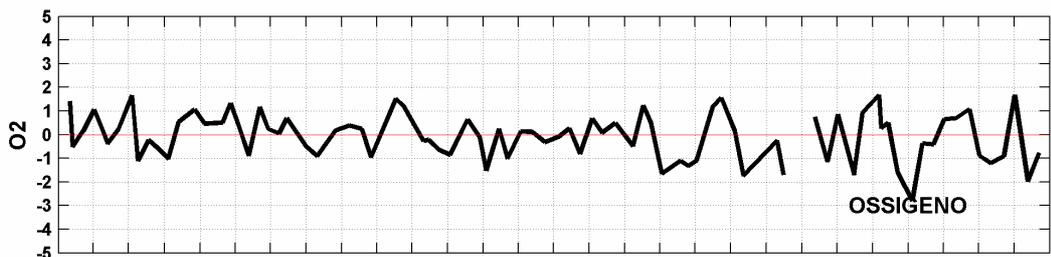
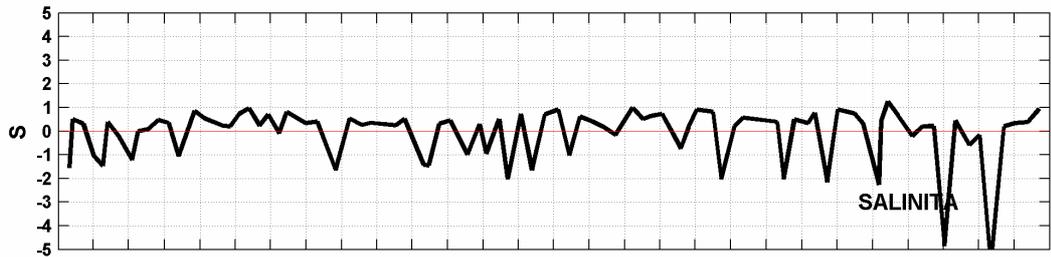
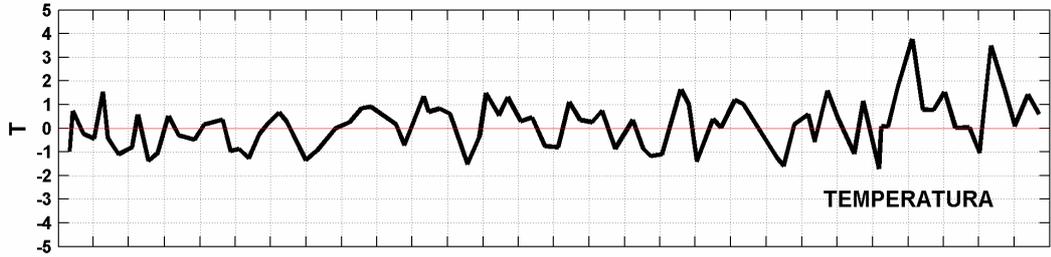
**ANOMALIE alla superficie - STAZIONE 2004**



Jan95 Apr95 Jul95 Oct95 Jan96 Apr96 Jul96 Oct96 Jan97 Apr97 Jul97 Oct97 Jan98 Apr98 Jul98 Oct98 Jan99 Apr99 Jul99 Oct99 Jan00 Apr00 Jul00 Oct00 Jan01 Apr01 Jul01 Oct01

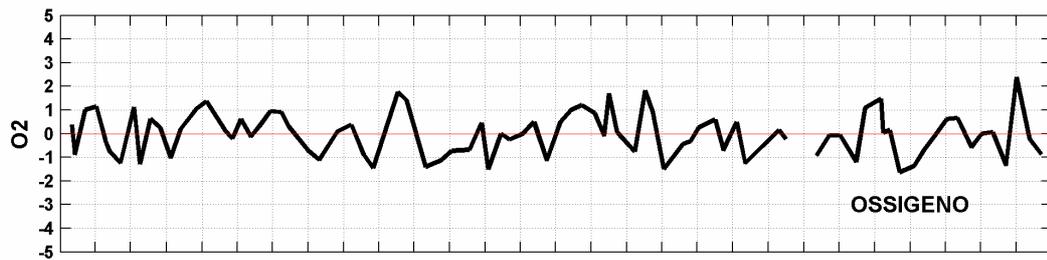
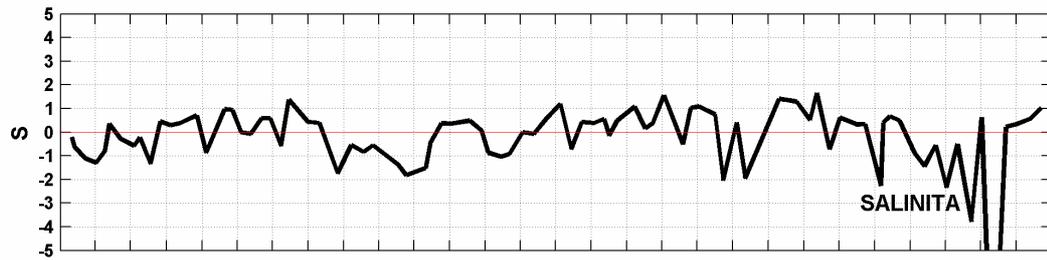
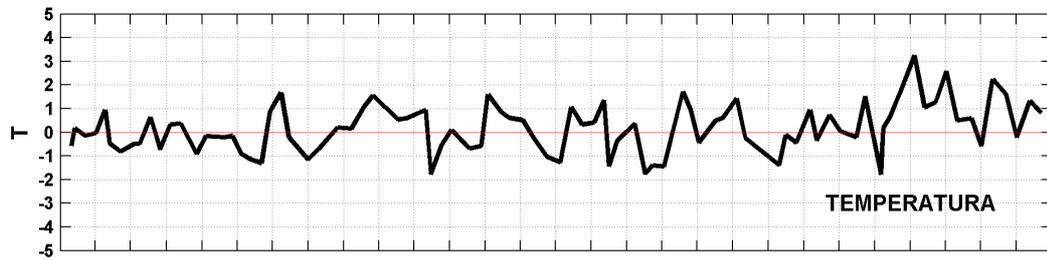
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ANOMALIE sul fondo-STAZIONE 304



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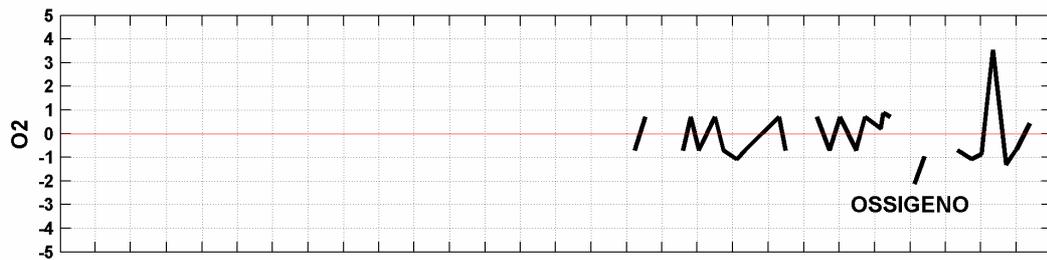
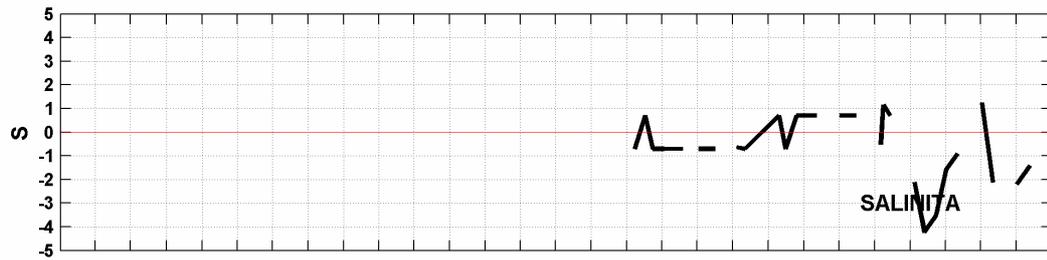
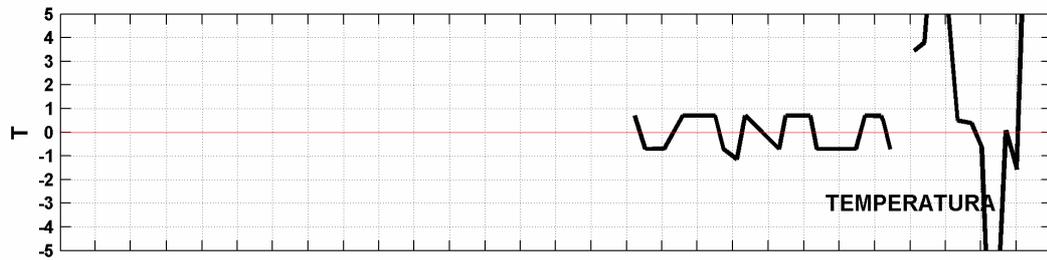
ANOMALIE sul fondo-STAZIONE 1004



Jan95 Apr95 Jul95 Oct95 Jan96 Apr96 Jul96 Oct96 Jan97 Apr97 Jul97 Oct97 Jan98 Apr98 Jul98 Oct98 Jan99 Apr99 Jul99 Oct99 Jan00 Apr00 Jul00 Oct00 Jan01 Apr01 Jul01 Oct01

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ANOMALIE sul fondo-STAZIONE 2004



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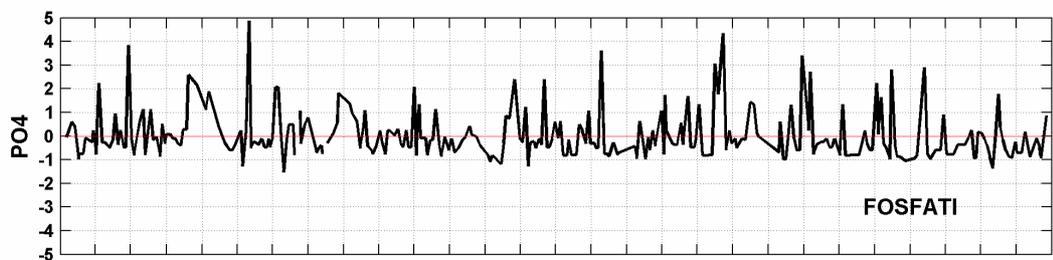
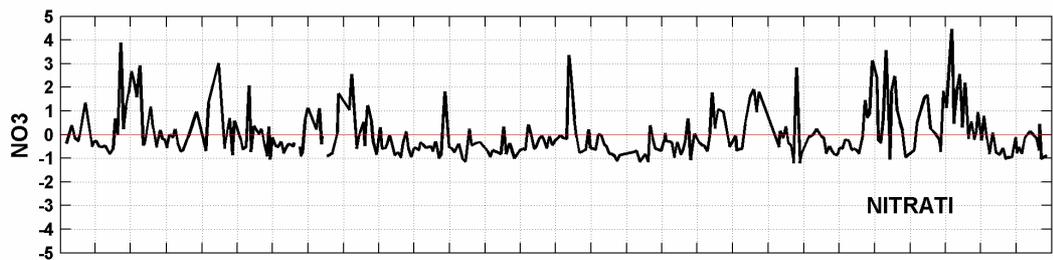
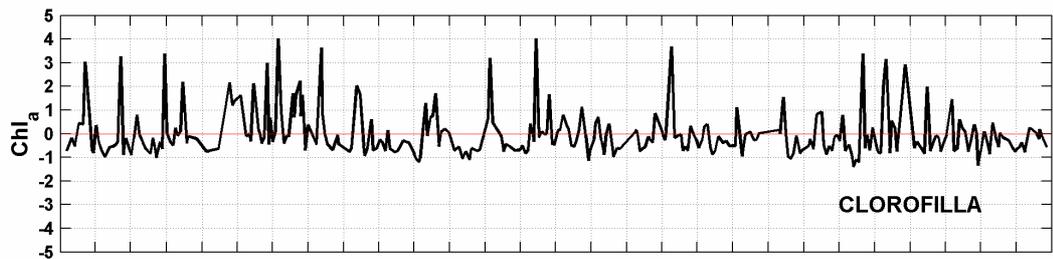
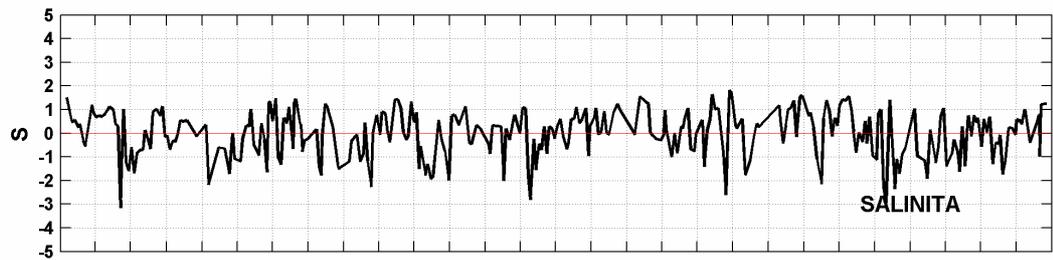
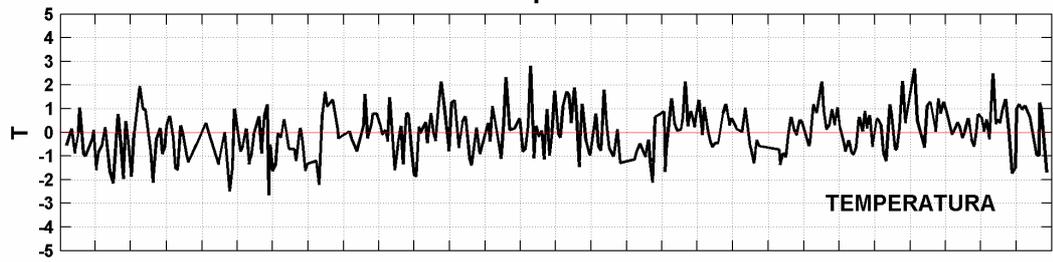
## COEFFICIENTI DI CORRELAZIONI (superficie)

<b>st.4</b>	pH	temperatura	salinita	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	0.18	1.00					
salinita	-0.49	-0.21	1.00				
O2	0.26	-0.04	-0.16	1.00			
clorofilla	0.52	0.11	-0.45	0.03	1.00		
nitrati	0.12	-0.14	-0.57	0.13	0.20	1.00	
fosfati	-0.17	-0.15	-0.13	0.03	-0.06	0.42	1.00
<b>st.304</b>	pH	temperatura	salinita	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	0.19	1.00					
salinita	-0.44	-0.16	1.00				
O2	-0.26	-0.27	0.16	1.00			
clorofilla	0.59	0.11	-0.47	-0.20	1.00		
nitrati	0.06	-0.12	-0.59	0.04	0.18	1.00	
fosfati	-0.17	-0.10	-0.13	0.23	-0.06	0.34	1.00
<b>st.604</b>	pH	temperatura	salinita	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	0.16	1.00					
salinita	-0.42	-0.12	1.00				
O2	-0.20	-0.21	0.15	1.00			
clorofilla	0.60	0.07	-0.54	-0.24	1.00		
nitrati	NaN	NaN	NaN	NaN	NaN	NaN	
fosfati	NaN	NaN	NaN	NaN	NaN	NaN	NaN
<b>st.1004</b>	pH	temperatura	salinita	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	0.17	1.00					
salinita	-0.39	-0.11	1.00				
O2	-0.20	-0.23	0.24	1.00			
clorofilla	0.56	0.11	-0.54	-0.15	1.00		
nitrati	0.07	-0.12	-0.60	-0.08	0.24	1.00	
fosfati	-0.15	-0.20	-0.08	0.13	-0.09	0.27	1.00
<b>st.2004</b>	pH	temperatura	salinita	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	0.17	1.00					
salinita	-0.07	-0.03	1.00				
O2	0.07	-0.37	0.15	1.00			
clorofilla	0.48	-0.08	-0.40	-0.08	1.00		
nitrati	-0.31	-0.10	-0.74	-0.24	0.09	1.00	
fosfati	-0.58	-0.17	-0.03	-0.12	-0.38	0.38	1.00

## COEFFICIENTI DI CORRELAZIONE (fondo)

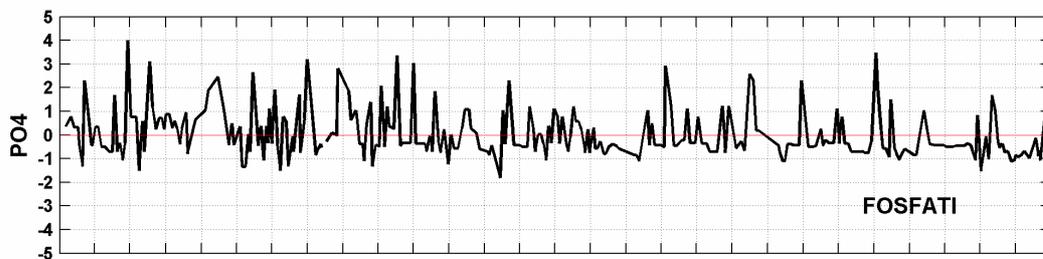
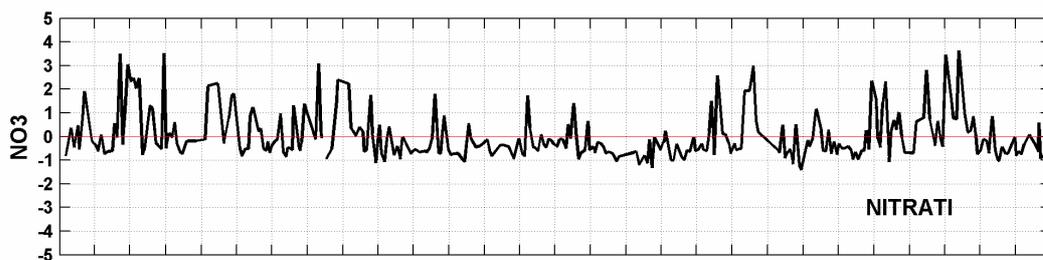
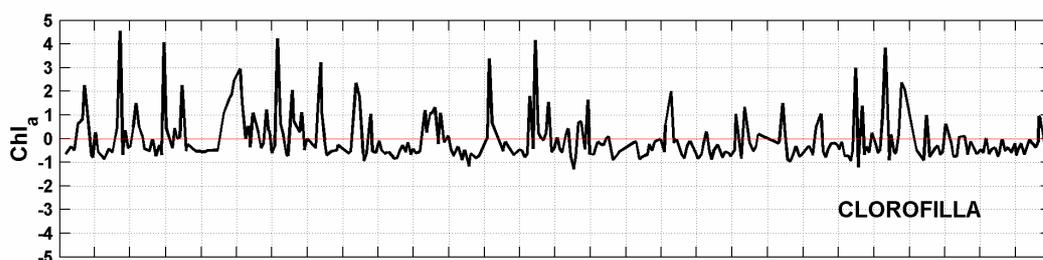
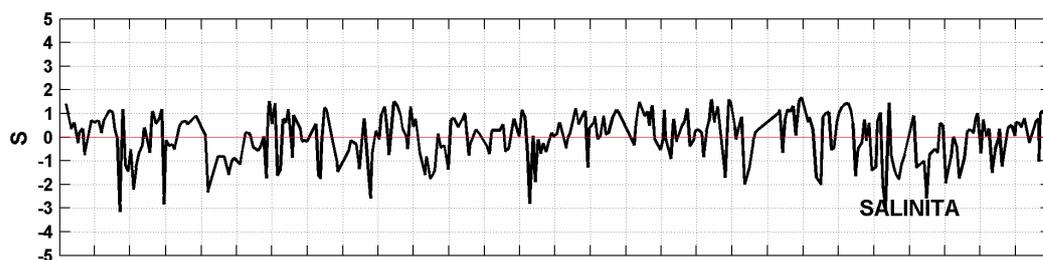
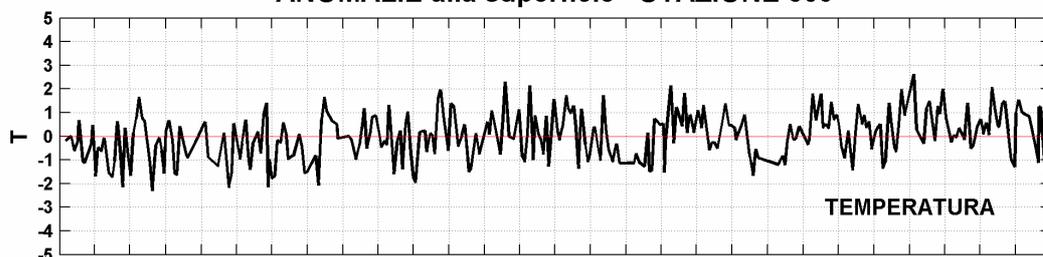
<b>st.304</b>	temperatura	salinita	O2
temperatura	1.00		
salinita	-0.30	1.00	
O2	-0.36	-0.03	1.00
<b>st.1004</b>	temperatura	salinita	O2
temperatura	1.00		
salinita	-0.35	1.00	
O2	-0.16	-0.05	1.00
<b>st.2004</b>	temperatura	salinita	O2
temperatura	NaN		
salinita	NaN	NaN	
O2	NaN	NaN	NaN

### ANOMALIE alla superficie - STAZIONE 9



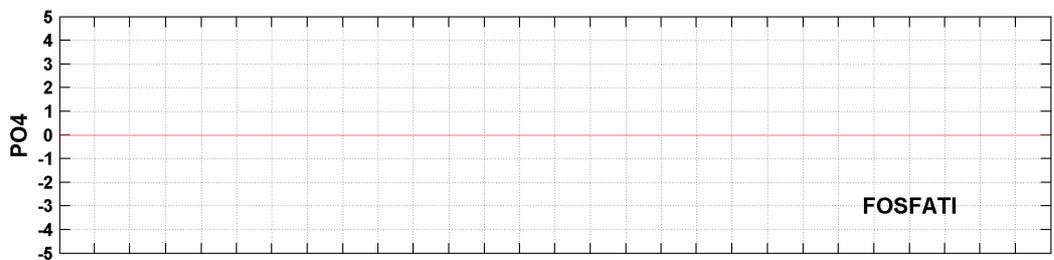
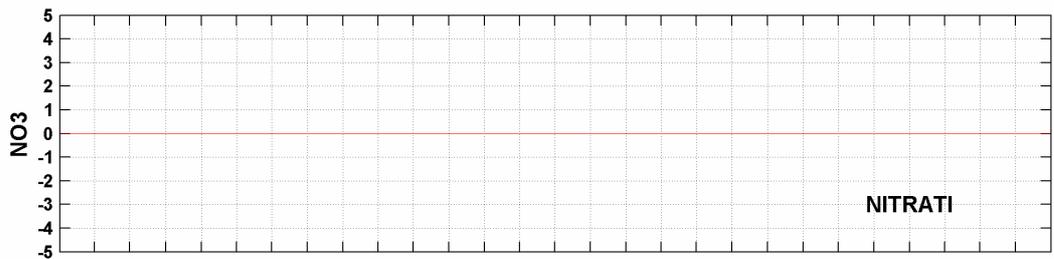
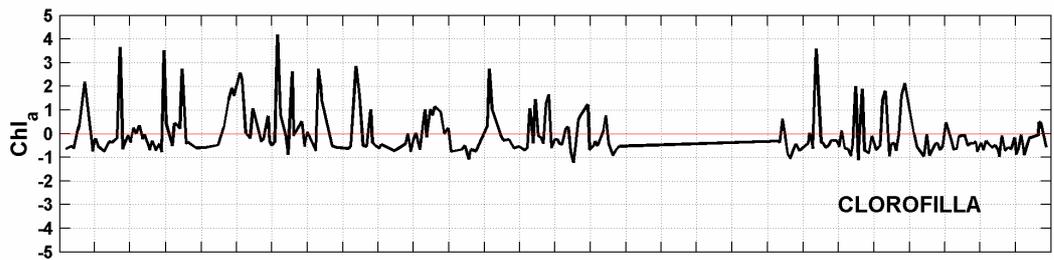
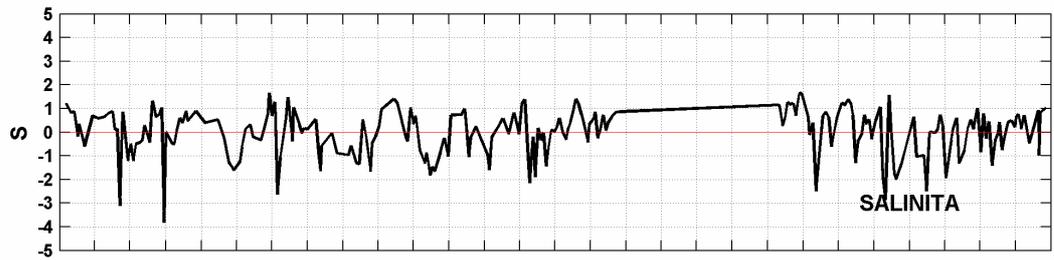
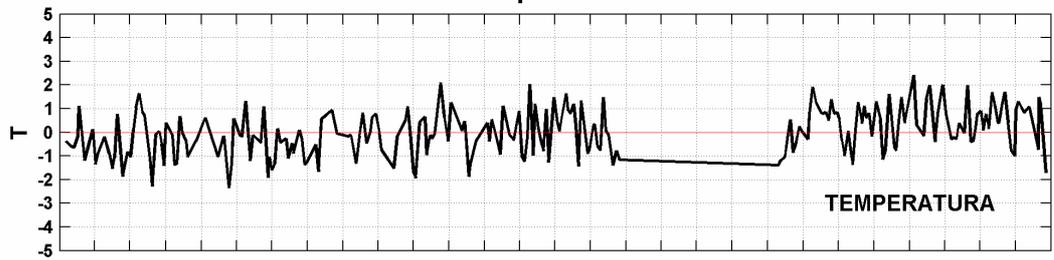
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### ANOMALIE alla superficie - STAZIONE 309



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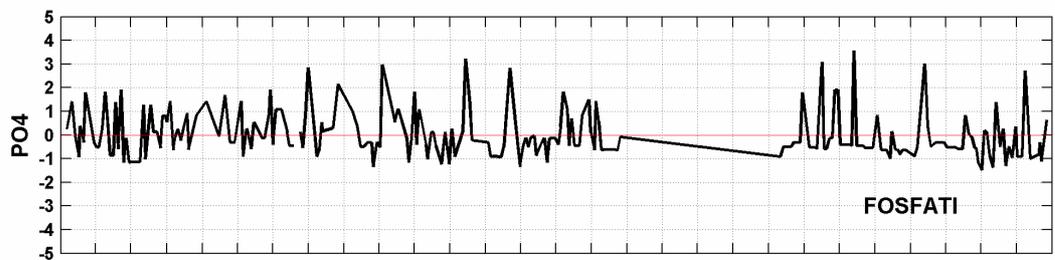
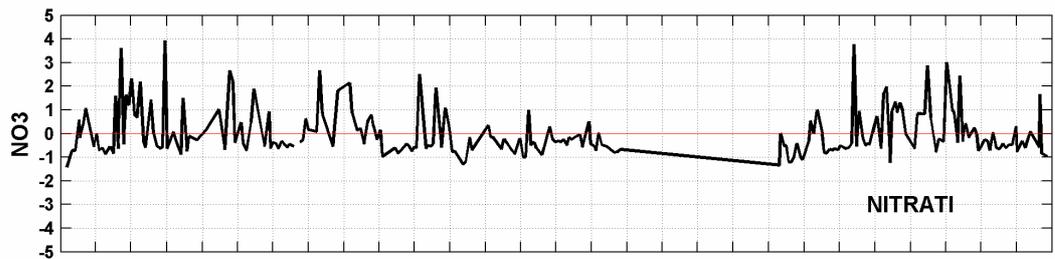
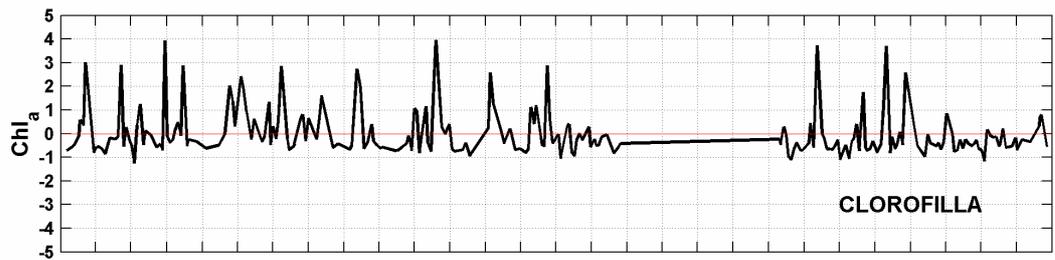
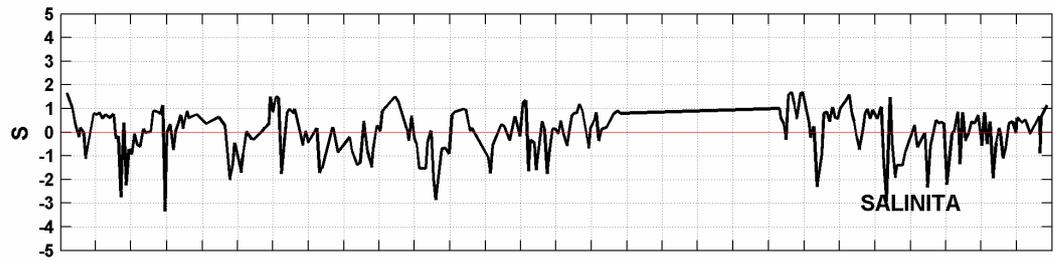
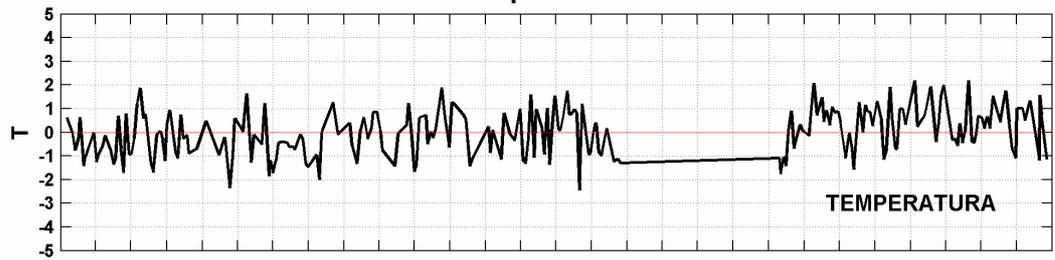
ANOMALIE alla superficie - STAZIONE 609



Jan95 Apr95 Jul95 Oct95 Jan96 Apr96 Jul96 Oct96 Jan97 Apr97 Jul97 Oct97 Jan98 Apr98 Jul98 Oct98 Jan99 Apr99 Jul99 Oct99 Jan00 Apr00 Jul00 Oct00 Jan01 Apr01 Jul01 Oct01

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ANOMALIE alla superficie - STAZIONE 1009



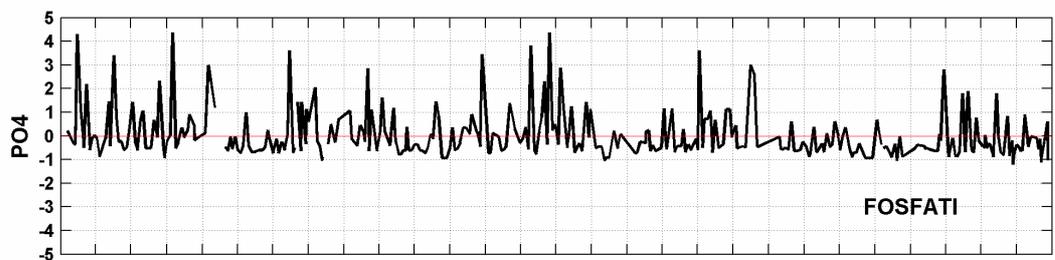
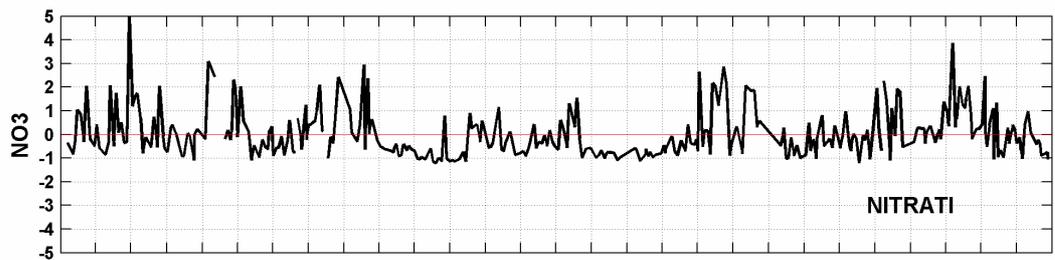
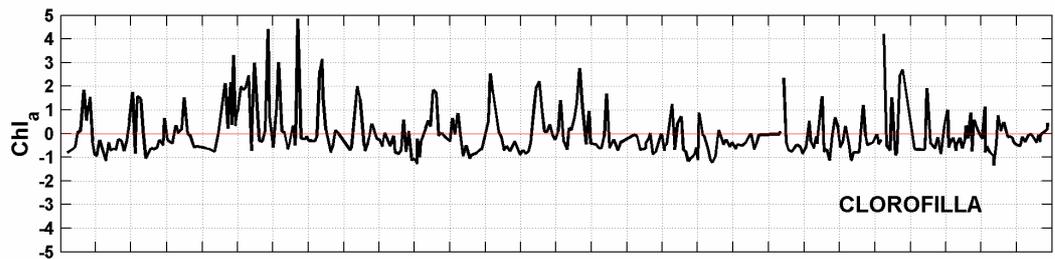
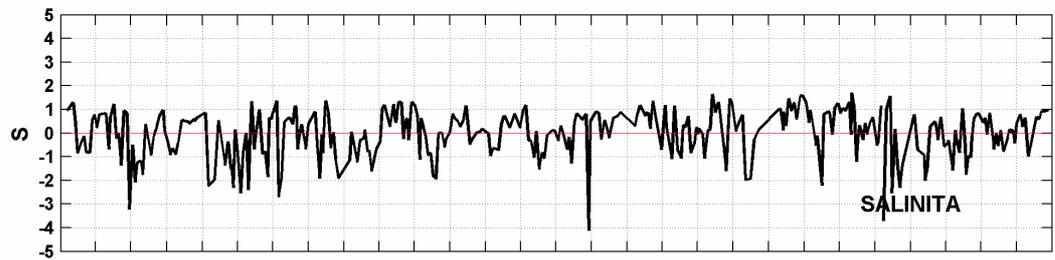
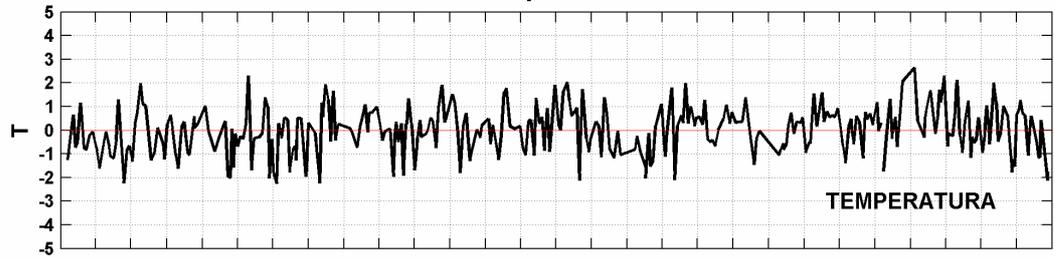
Jan95 Apr95 Jul95 Oct95 Jan96 Apr96 Jul96 Oct96 Jan97 Apr97 Jul97 Oct97 Jan98 Apr98 Jul98 Oct98 Jan99 Apr99 Jul99 Oct99 Jan00 Apr00 Jul00 Oct00 Jan01 Apr01 Jul01 Oct01

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## COEFFICIENTI DI CORRELAZIONI (superficie)

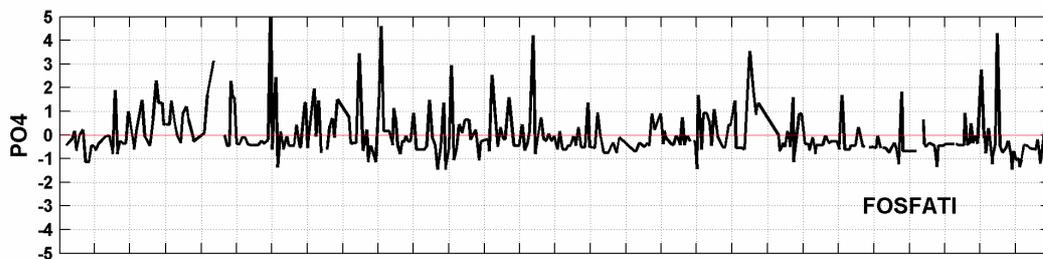
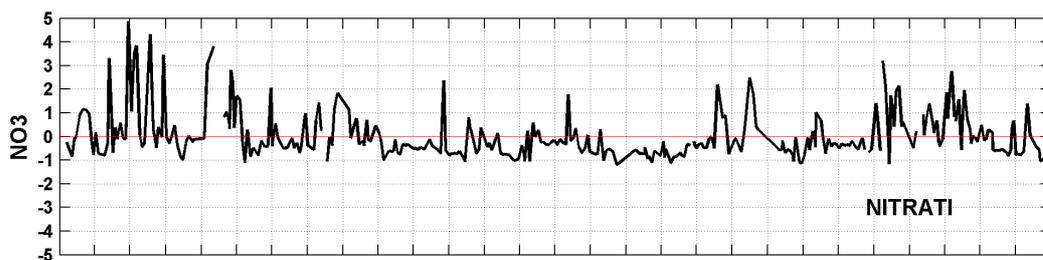
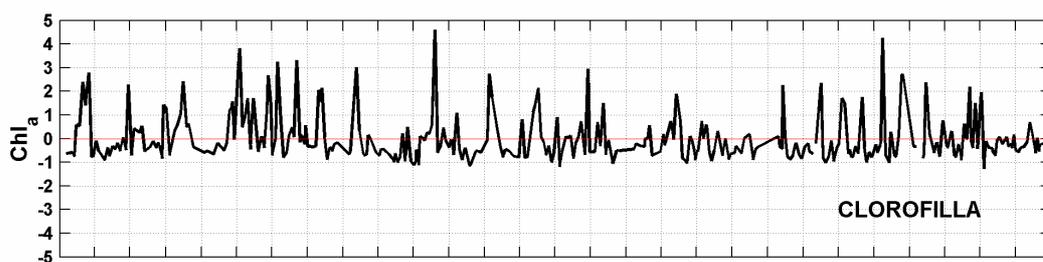
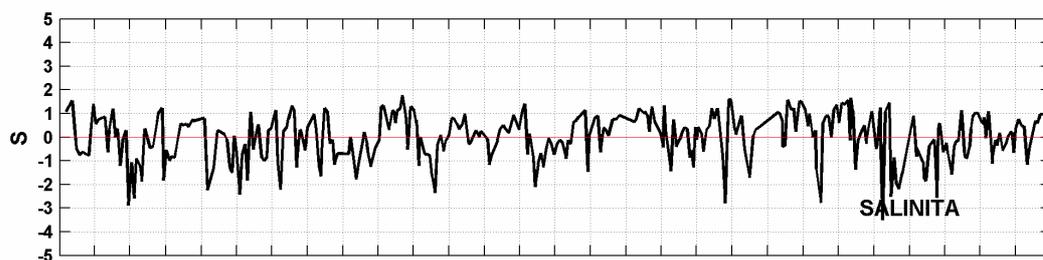
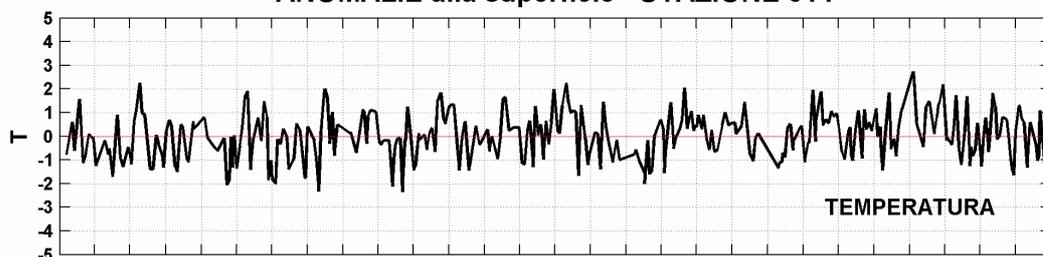
<b>st.9</b>	pH	temperatura	salinita	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	0.05	1.00					
salinita	-0.52	-0.14	1.00				
O2	0.12	-0.12	0.00	1.00			
clorofilla	0.50	-0.02	-0.42	0.00	1.00		
nitrati	0.06	-0.08	-0.43	0.05	0.10	1.00	
fosfati	-0.13	-0.14	0.03	0.02	-0.11	0.18	1.00
<b>st.309</b>	pH	temperatura	salinita	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	0.09	1.00					
salinita	-0.54	-0.12	1.00				
O2	-0.28	-0.27	0.31	1.00			
clorofilla	0.59	-0.03	-0.59	-0.24	1.00		
nitrati	0.16	-0.15	-0.60	-0.09	0.29	1.00	
fosfati	-0.15	-0.15	-0.07	0.17	-0.03	0.26	1.00
<b>st.609</b>	pH	temperatura	salinita	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	0.10	1.00					
salinita	-0.61	-0.11	1.00				
O2	-0.29	-0.14	0.27	1.00			
clorofilla	0.65	-0.07	-0.64	-0.15	1.00		
nitrati	NaN	NaN	NaN	NaN	NaN	NaN	
fosfati	NaN	NaN	NaN	NaN	NaN	NaN	NaN
<b>st.1009</b>	pH	temperatura	salinita	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	0.06	1.00					
salinita	-0.59	-0.06	1.00				
O2	-0.27	-0.08	0.31	1.00			
clorofilla	0.57	-0.11	-0.66	-0.12	1.00		
nitrati	0.28	-0.12	-0.68	-0.16	0.40	1.00	
fosfati	-0.15	-0.11	0.07	0.11	0.00	0.09	1.00

### ANOMALIE alla superficie - STAZIONE 14



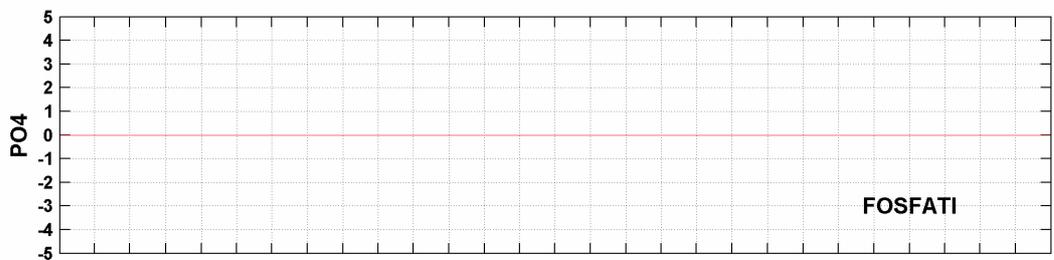
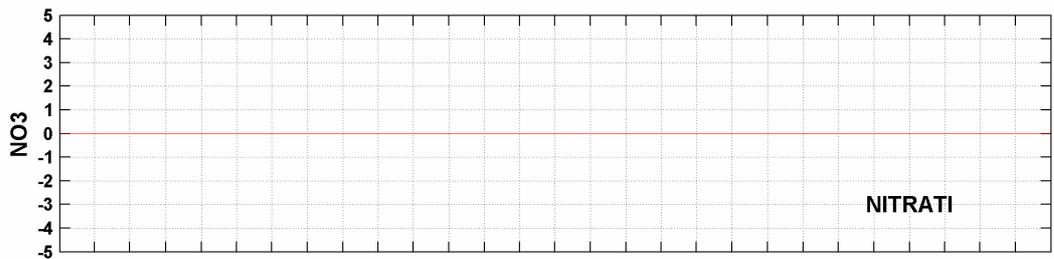
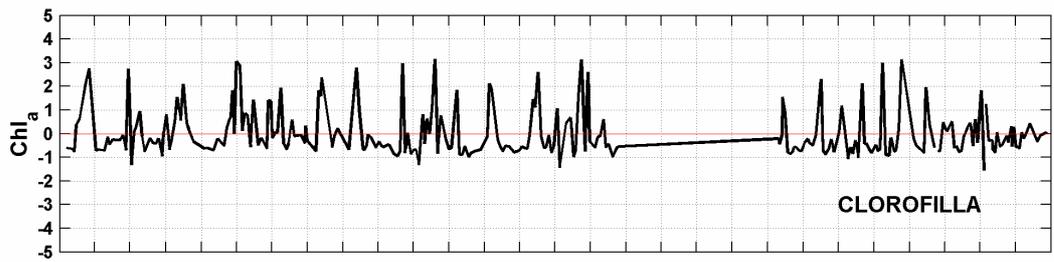
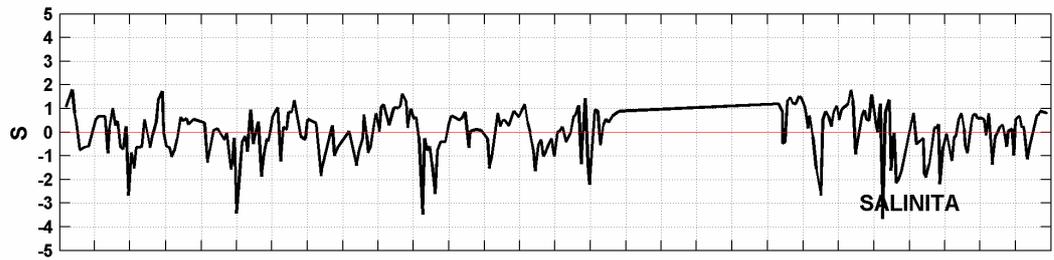
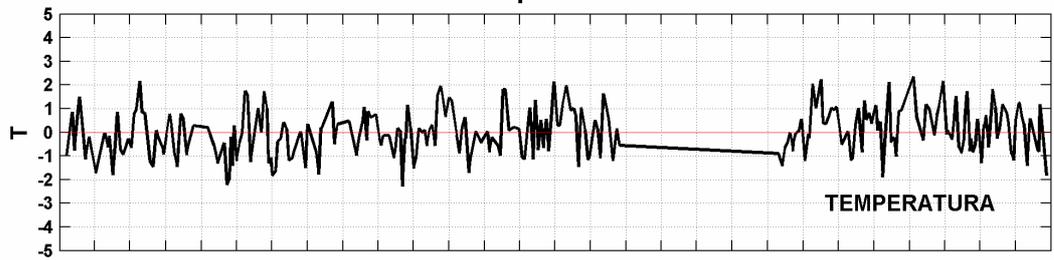
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### ANOMALIE alla superficie - STAZIONE 314



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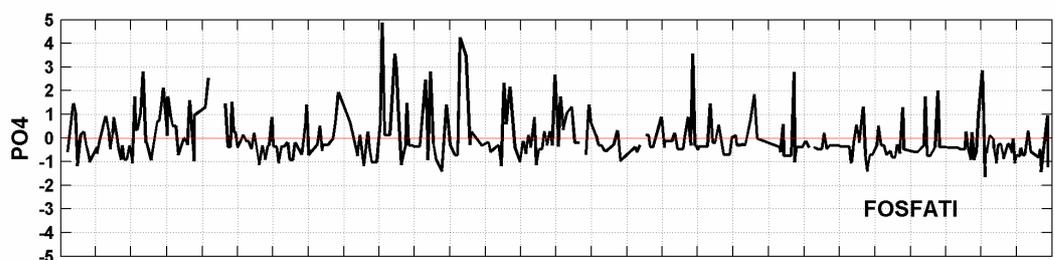
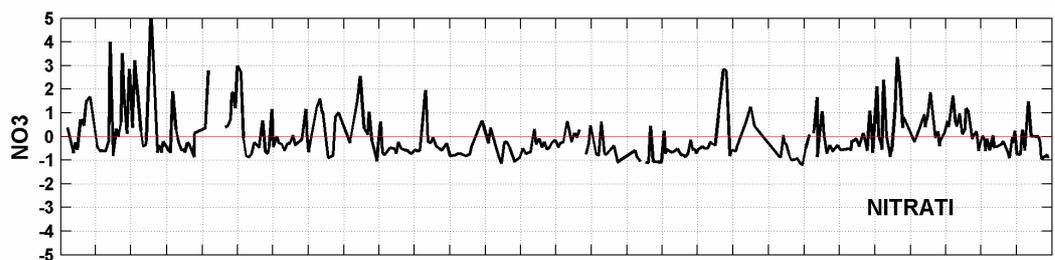
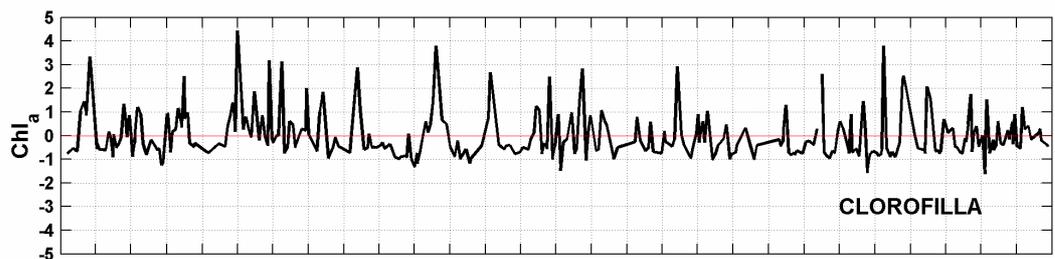
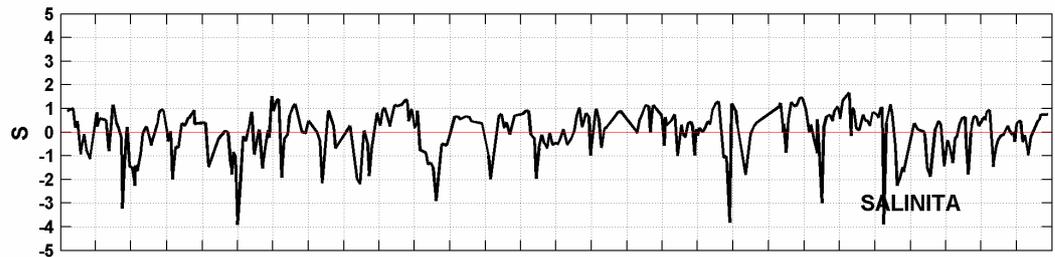
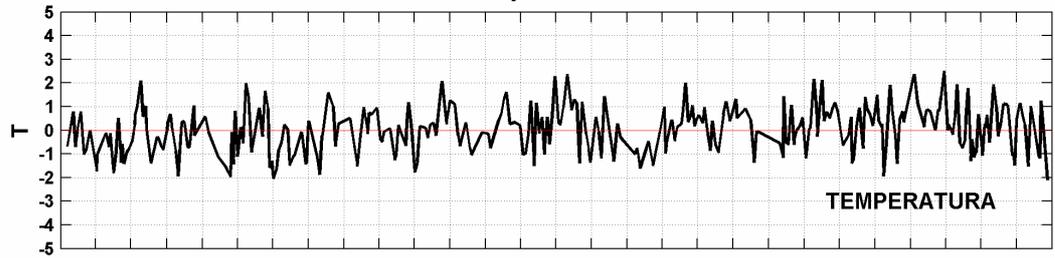
### ANOMALIE alla superficie - STAZIONE 614



Jan95 Apr95 Jul95 Oct95 Jan96 Apr96 Jul96 Oct96 Jan97 Apr97 Jul97 Oct97 Jan98 Apr98 Jul98 Oct98 Jan99 Apr99 Jul99 Oct99 Jan00 Apr00 Jul00 Oct00 Jan01 Apr01 Jul01 Oct01

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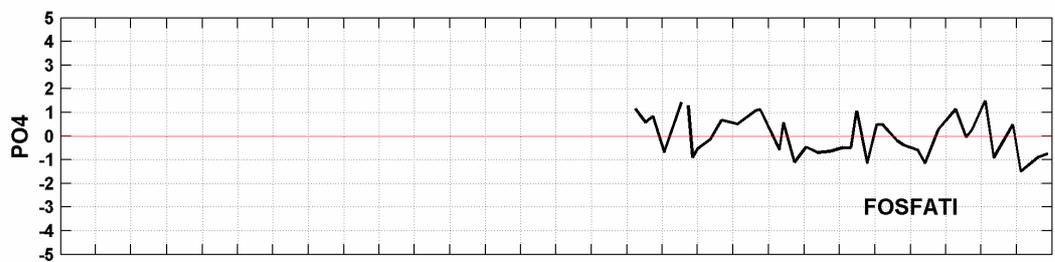
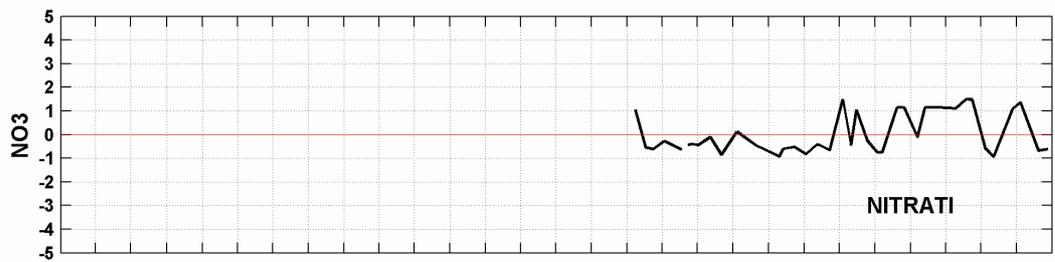
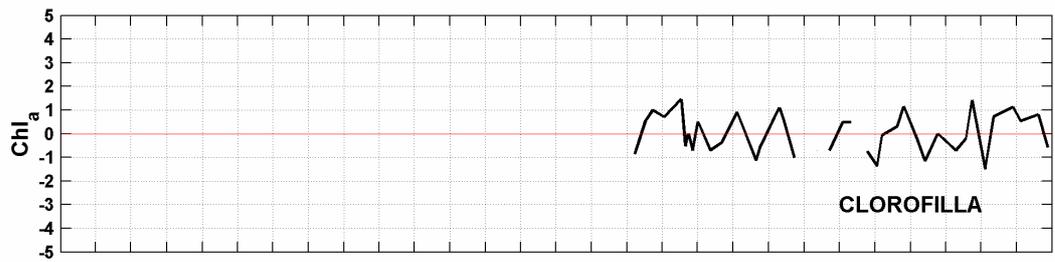
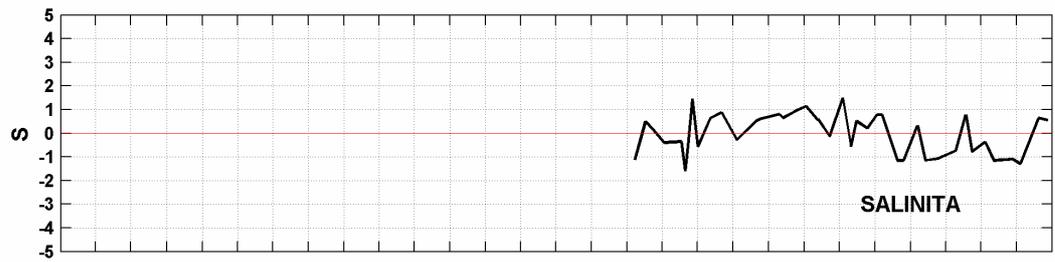
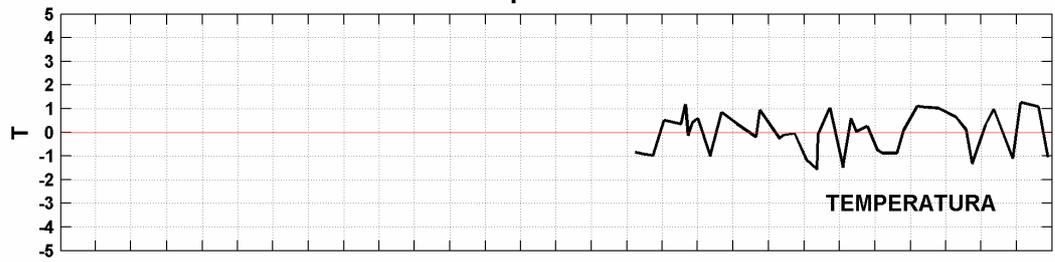
### ANOMALIE alla superficie - STAZIONE 1014



Jan95 Apr95 Jul95 Oct95 Jan96 Apr96 Jul96 Oct96 Jan97 Apr97 Jul97 Oct97 Jan98 Apr98 Jul98 Oct98 Jan99 Apr99 Jul99 Oct99 Jan00 Apr00 Jul00 Oct00 Jan01 Apr01 Jul01 Oct01

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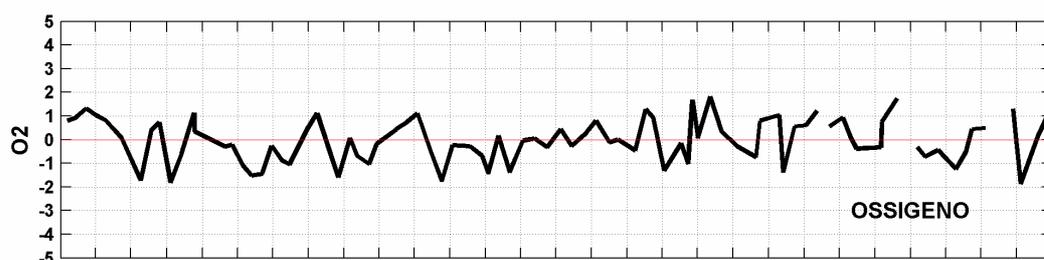
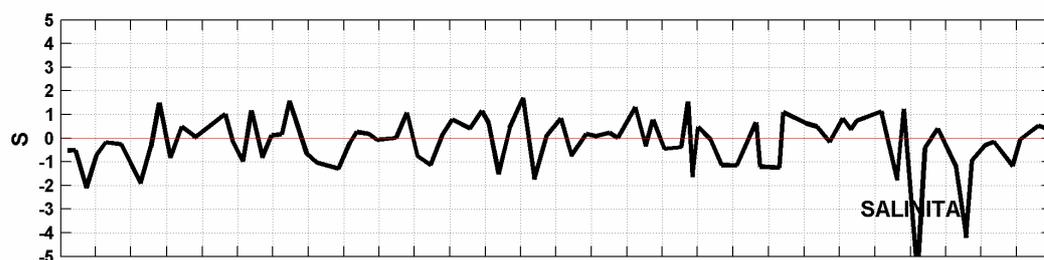
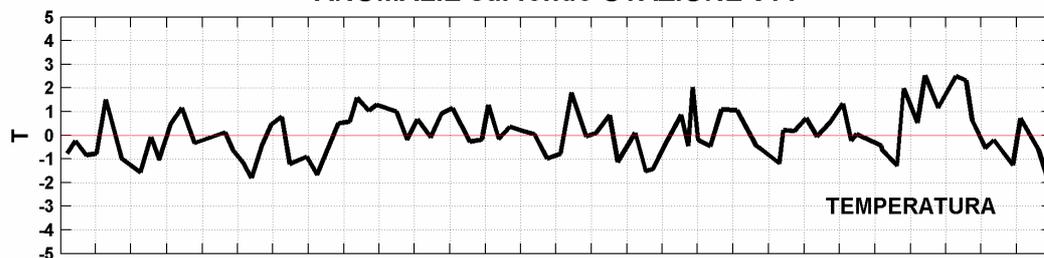
ANOMALIE alla superficie - STAZIONE 2014



Jan95 Apr95 Jul95 Oct95 Jan96 Apr96 Jul96 Oct96 Jan97 Apr97 Jul97 Oct97 Jan98 Apr98 Jul98 Oct98 Jan99 Apr99 Jul99 Oct99 Jan00 Apr00 Jul00 Oct00 Jan01 Apr01 Jul01 Oct01

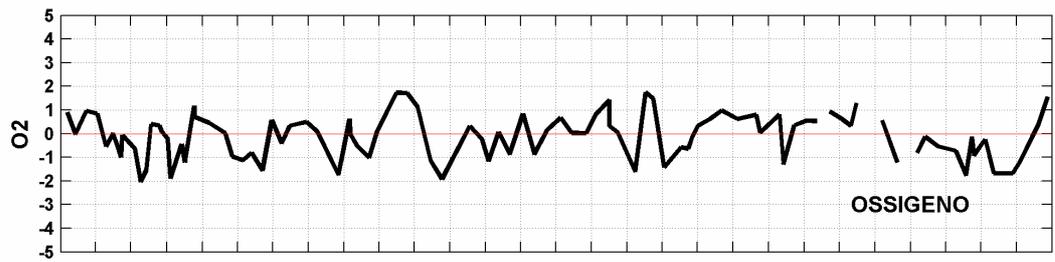
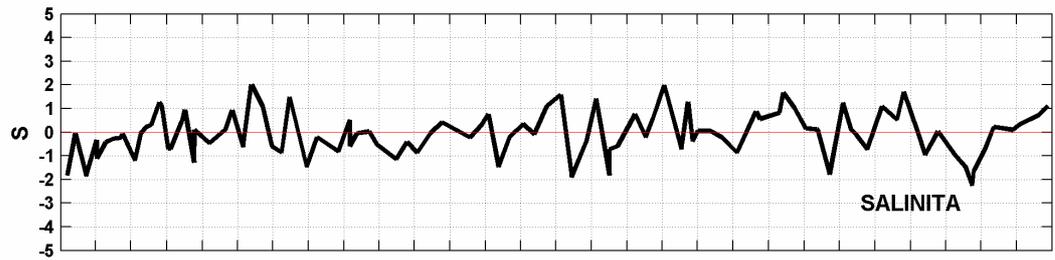
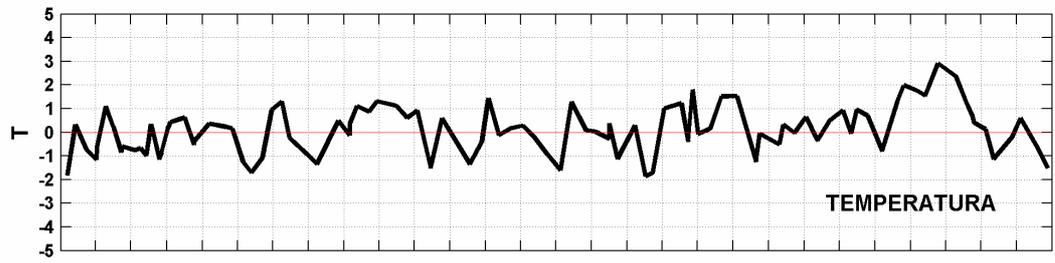
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### ANOMALIE sul fondo-STAZIONE 314



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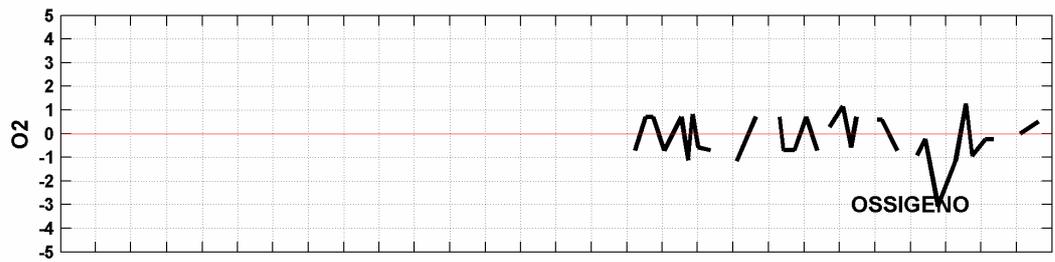
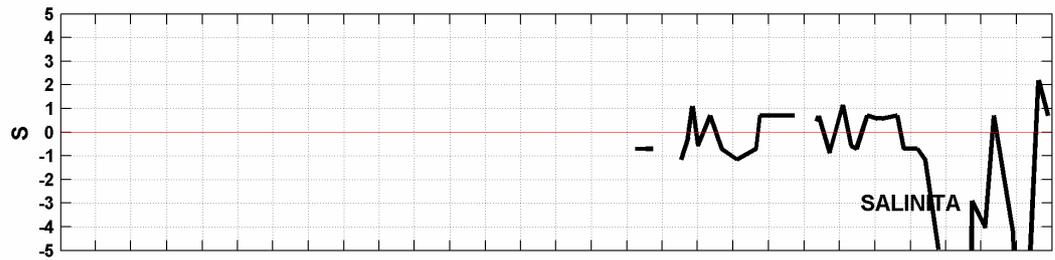
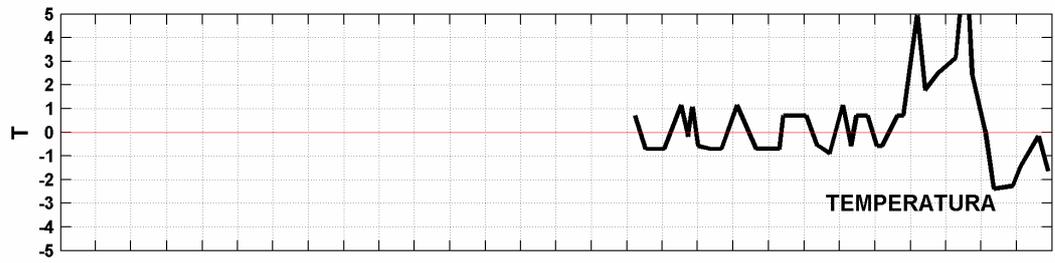
### ANOMALIE sul fondo-STAZIONE 1014



Jan95 Apr95 Jul95 Oct95 Jan96 Apr96 Jul96 Oct96 Jan97 Apr97 Jul97 Oct97 Jan98 Apr98 Jul98 Oct98 Jan99 Apr99 Jul99 Oct99 Jan00 Apr00 Jul00 Oct00 Jan01 Apr01 Jul01 Oct01

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### ANOMALIE sul fondo-STAZIONE 2014



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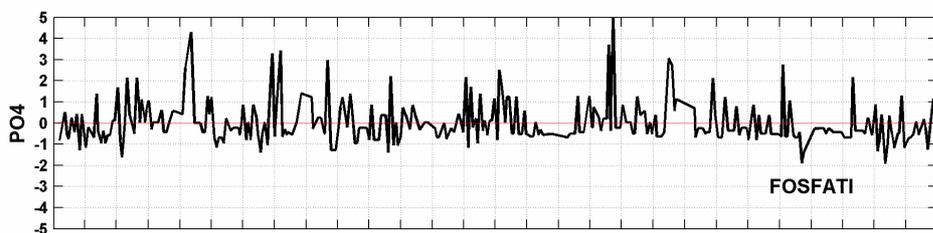
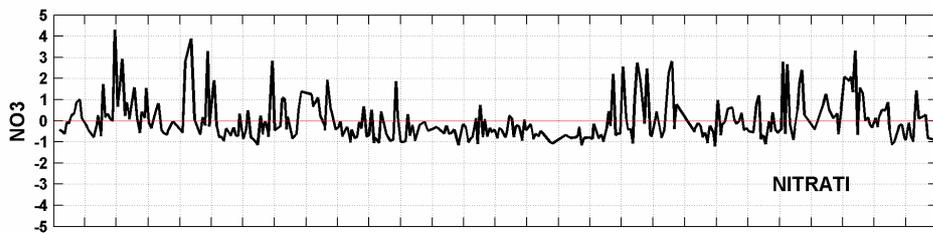
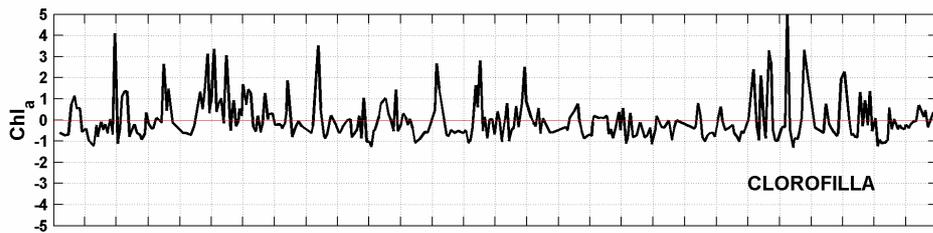
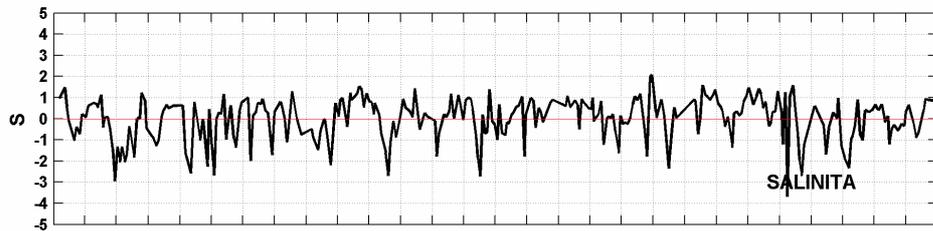
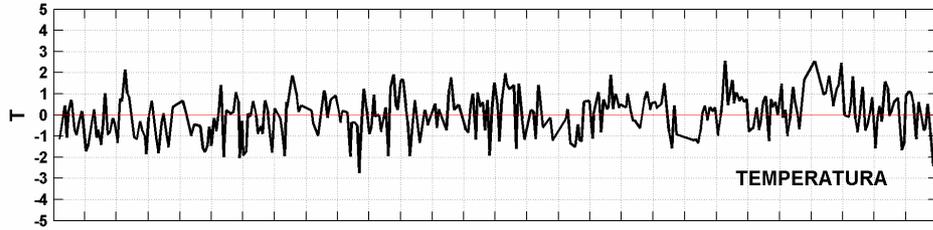
## COEFFICIENTI DI CORRELAZIONI (superficie)

<b>st.14</b>	pH	temperatura	salinita	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	0.04	1.00					
salinita	-0.42	-0.10	1.00				
O2	0.36	-0.18	-0.10	1.00			
clorofilla	0.34	-0.03	-0.47	0.13	1.00		
nitrati	-0.01	-0.05	-0.44	-0.08	0.15	1.00	
fosfati	-0.19	-0.05	-0.09	-0.05	-0.02	0.31	1.00
<b>st.314</b>	pH	temperatura	salinita	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	0.11	1.00					
salinita	-0.53	-0.14	1.00				
O2	-0.24	-0.29	0.24	1.00			
clorofilla	0.48	-0.11	-0.48	-0.12	1.00		
nitrati	0.12	-0.14	-0.55	-0.04	0.25	1.00	
fosfati	-0.05	-0.17	-0.03	0.10	0.08	0.21	1.00
<b>st.614</b>	pH	temperatura	salinita	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	0.07	1.00					
salinita	-0.49	-0.08	1.00				
O2	-0.35	-0.23	0.38	1.00			
clorofilla	0.47	-0.15	-0.51	-0.20	1.00		
nitrati	NaN	NaN	NaN	NaN	NaN	NaN	
fosfati	NaN	NaN	NaN	NaN	NaN	NaN	NaN
<b>st.1014</b>	pH	temperatura	salinita	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	0.09	1.00					
salinita	-0.56	-0.10	1.00				
O2	-0.37	-0.13	0.35	1.00			
clorofilla	0.48	-0.10	-0.58	-0.24	1.00		
nitrati	0.24	-0.12	-0.61	-0.16	0.34	1.00	
fosfati	-0.10	-0.03	0.04	0.04	-0.09	0.04	1.00
<b>st.2014</b>	pH	temperatura	salinita	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	0.29	1.00					
salinita	-0.52	-0.33	1.00				
O2	-0.42	-0.31	0.75	1.00			
clorofilla	0.56	-0.09	-0.22	-0.05	1.00		
nitrati	-0.08	-0.07	-0.46	-0.35	0.13	1.00	
fosfati	0.00	-0.18	-0.06	-0.11	-0.03	0.00	1.00

## COEFFICIENTI DI CORRELAZIONE (fondo)

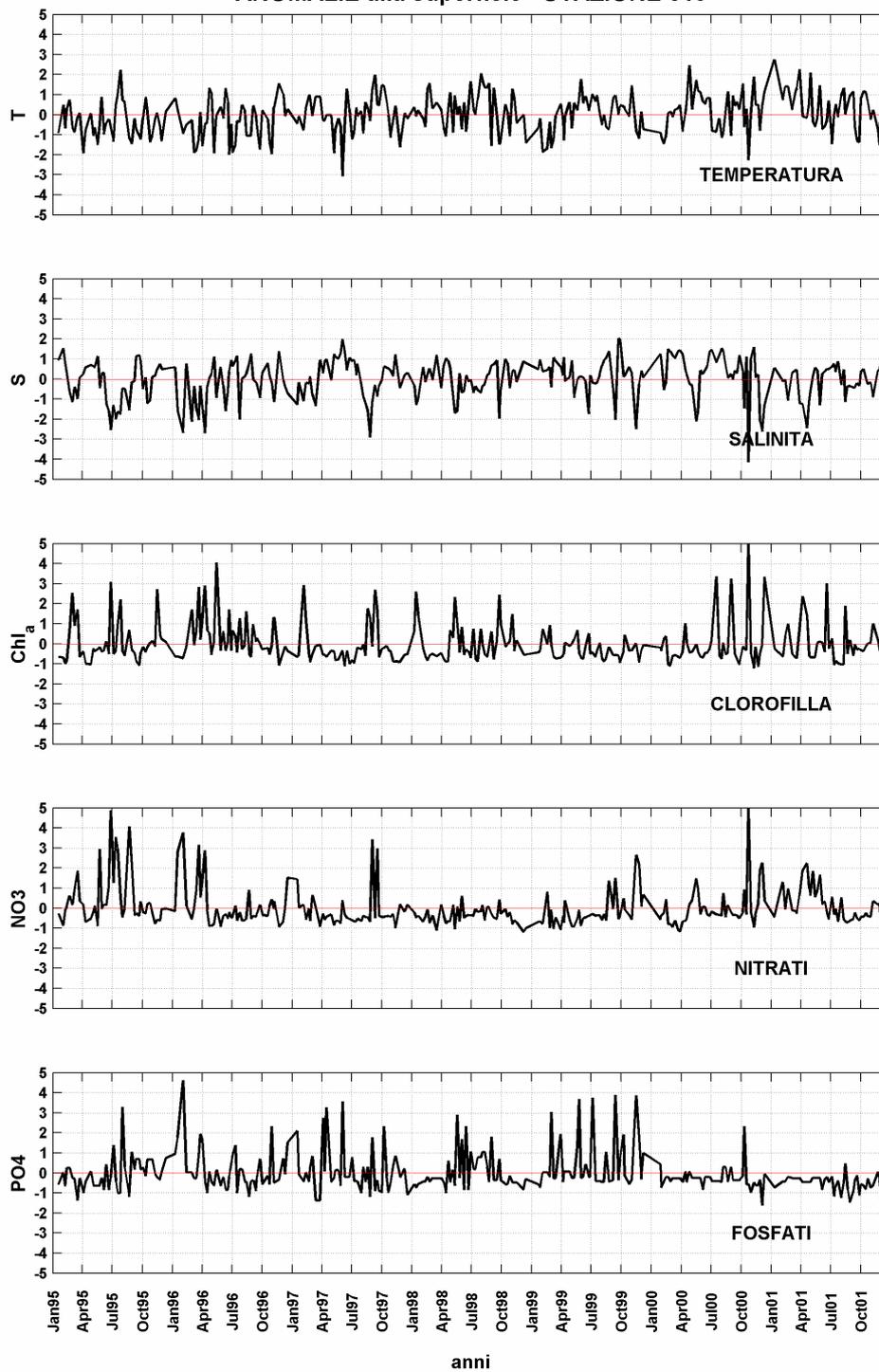
<b>st.314</b>	temperatura	salinita	O2
temperatura	1.00		
salinita	-0.11	1.00	
O2	-0.25	-0.08	1.00
<b>st.1014</b>	temperatura	salinita	O2
temperatura	1.00		
salinita	-0.18	1.00	
O2	-0.18	-0.14	1.00
<b>st.2014</b>	temperatura	salinita	O2
temperatura	NaN		
salinita	NaN	NaN	
O2	NaN	NaN	NaN

ANOMALIE alla superficie - STAZIONE 19

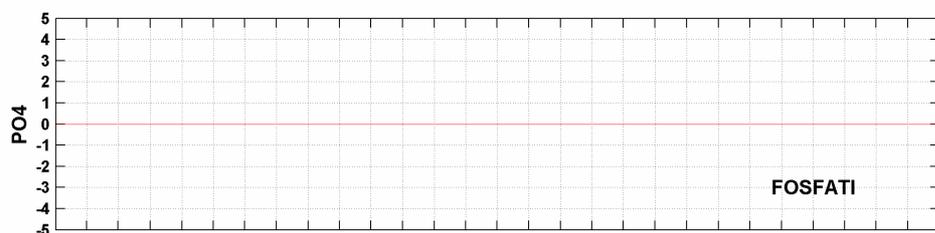
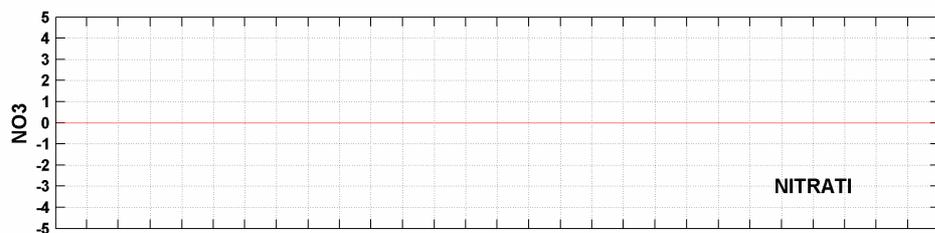
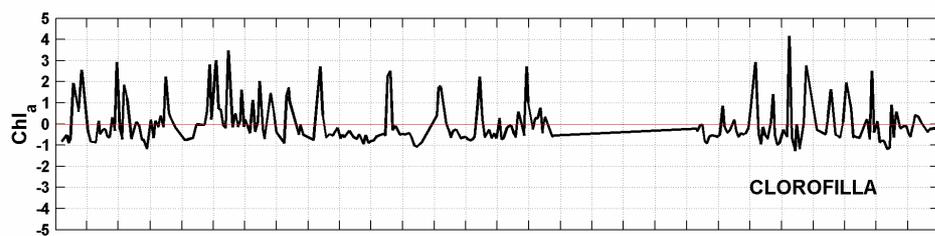
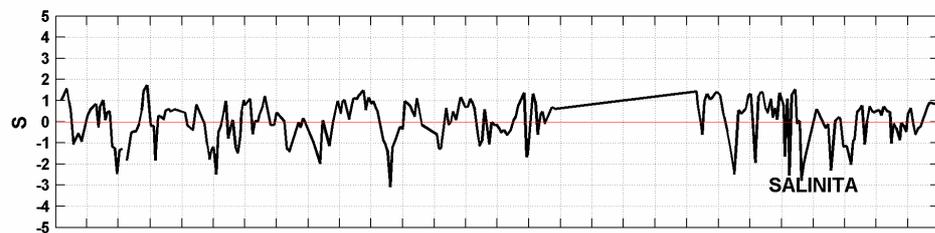
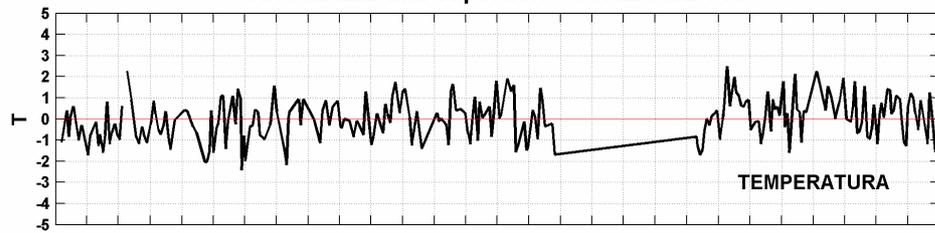


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### ANOMALIE alla superficie - STAZIONE 319



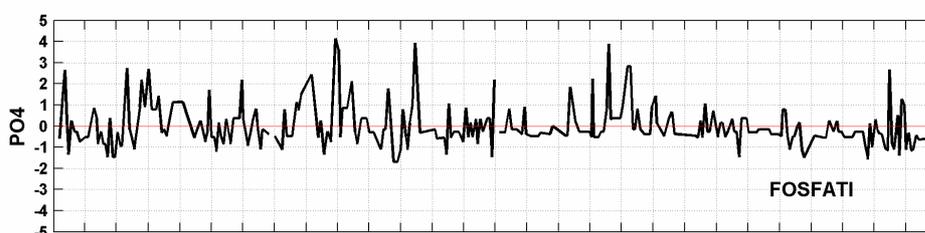
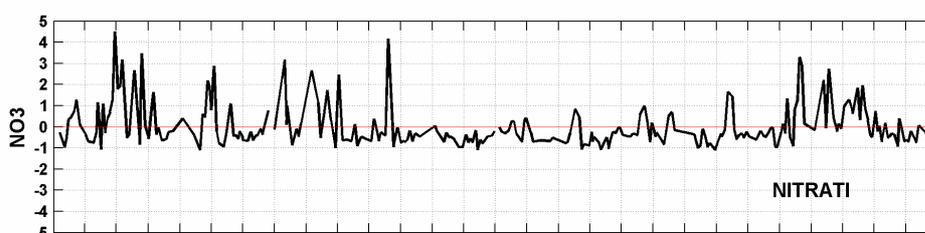
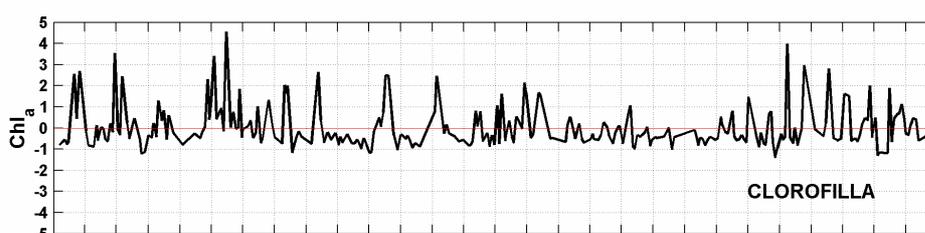
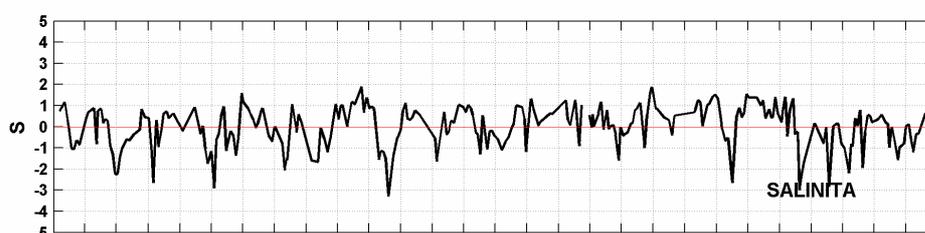
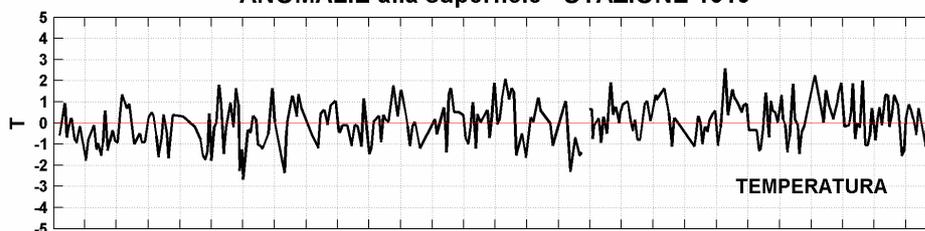
ANOMALIE alla superficie - STAZIONE 619



Jan95 Apr95 Jul95 Oct95 Jan96 Apr96 Jul96 Oct96 Jan97 Apr97 Jul97 Oct97 Jan98 Apr98 Jul98 Oct98 Jan99 Apr99 Jul99 Oct99 Jan00 Apr00 Jul00 Oct00 Jan01 Apr01 Jul01 Oct01

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### ANOMALIE alla superficie - STAZIONE 1019



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## COEFFICIENTI DI CORRELAZIONI

<b>st.19</b>	pH	temperatura	salinita	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	0.00	1.00					
salinita	-0.52	-0.06	1.00				
O2	0.01	-0.20	0.00	1.00			
clorofilla	0.41	-0.14	-0.46	0.14	1.00		
nitrati	0.06	-0.11	-0.54	-0.02	0.20	1.00	
fosfati	-0.08	-0.12	-0.09	0.03	-0.04	0.30	1.00
<b>st.319</b>	pH	temperatura	salinita	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	0.01	1.00					
salinita	-0.51	-0.07	1.00				
O2	-0.33	-0.22	0.27	1.00			
clorofilla	0.41	-0.12	-0.50	-0.16	1.00		
nitrati	0.11	-0.14	-0.62	0.01	0.29	1.00	
fosfati	-0.07	-0.15	-0.12	0.13	-0.06	0.19	1.00
<b>st.619</b>	pH	temperatura	salinita	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	0.00	1.00					
salinita	-0.55	-0.08	1.00				
O2	-0.34	-0.21	0.32	1.00			
clorofilla	0.50	-0.15	-0.58	-0.22	1.00		
nitrati	NaN	NaN	NaN	NaN	NaN	NaN	
fosfati	NaN	NaN	NaN	NaN	NaN	NaN	NaN
<b>st.1019</b>	pH	temperatura	salinita	O2	clorofilla	nitrati	fosfati
pH	1.00						
temperatura	0.01	1.00					
salinita	-0.52	-0.07	1.00				
O2	-0.28	-0.14	0.46	1.00			
clorofilla	0.41	-0.16	-0.55	-0.27	1.00		
nitrati	0.13	-0.16	-0.59	-0.18	0.34	1.00	
fosfati	-0.10	0.00	0.07	0.09	-0.04	-0.03	1.00