

C.I.P.S._

MODELE MATHEMATIQUE

POLLUTION MER DU NORD

TECHNICAL REPORT

1973-1974/BIOL.02

/This paper not to be cited without prior reference to the author/

Production primaire en novembre 1973

Production primaire en 1974 (1ère partie)

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avec l'aide technique de J.Nijs et O.Cromboom

Les valeurs de production primaire présentées ici seront commentées avec la 2ème partie . Nous attirons cependant l'attention sur le fait qu'elles ont été obtenues de manière entièrement différente des années précédentes . En effet , la technique utilisée a été la scintillation liquide et le $\text{NaH}^{14}\text{CO}_3$ en provenance de l'I.R.E. a été conditionné et standardisé au laboratoire . Le calcul proprement dit comporte des éléments nouveaux tels la correction de quenching , la distinction entre production brute et production nette , le niveau d'éclairement dans l'incubateur et in situ . Les mesures in situ des années précédentes ont permis de dégager les paramètres nécessaires à l'application du modèle de Vollenweider , déjà abordé dans notre rapport de synthèse de 1973 , à savoir I'_k et les coefficients de photoinhibition . On a utilisé pour I'_k une fonction de la température qui paraît correspondre aux observations . Cependant , la variation saisonnière de I'_k ainsi que ses variations nycthémérales et en fonction de la nature du phytoplancton appellent un grand nombre de déterminations supplémentaires pour qu'un modèle valable en soit établi .

Les valeurs de production intégrée/jour se rapportent à un jour moyen (moyenne/décade considérée) plutôt qu'au jour de prélèvement .

NOVEMBRE 1973

LABORATORIUM VOOR EKOLOGIE EN SYSTEMATIEK , V.U.B.

PRIMARY PRODUCTION NORTH SEA (MG C/M3/H AND MG C/M2/DAY)

281173

SAMPLING STATION 55

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	2.40	1.27	1.13	.19	1.1
PERCENT.	100	54	46	8.0	
GROSS P.OPT	3	2	1		
GROSS P/DAY	44	23	20		
NET P/SOL.DAY	29	15	13		
NET P/24H-DAY	0	0	0		
EXTINCTION COEFF.: .9					
TRANSMISSION COEFF.: 37.7					
EUPHOTIC DEPTH (M) : 4.7					

JANVIER 1974

LABORATORIUM VOOR EKOLOGIE EN SYSTEMATIEK , V.U.B.

PRIMARY PRODUCTION NORTH SEA (MG C/M3/H AND MG C/M2/DAY)

140174 SAMPLING STATION 55

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	4.00	1.68	2.31	.42	.7
PERCENT.	100	43	57	10.5	
GROSS P.OPT	7	3	4		
GROSS P/DAY	44	18	25		
NET P/SOL.DAY	26	11	15		
NET P/24H-DAY	-8	-4	-5		
EXTINCTION COEFF.: 1.5					
TRANSMISSION COEFF.: 21.5					
EUPHOTIC DEPTH (M) : 3					

240174 SAMPLING STATION 1

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	3.91	1.72	2.19	.40	.7
PERCENT.	100	45	55	10.3	
GROSS P.OPT	7	3	3		
GROSS P/DAY	77	34	43		
NET P/SOL.DAY	54	23	30		
NET P/24H-DAY	7	3	3		
EXTINCTION COEFF.: 1.1					
TRANSMISSION COEFF.: 32.7					
EUPHOTIC DEPTH (M) : 4.1					

240174 SAMPLING STATION 9

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	1.52	.48	1.03	.33	.4
PERCENT.	100	33	67	22.0	
GROSS P.OPT	2	0	1		
GROSS P/DAY	77	24	52		
NET P/SOL.DAY	53	17	36		
NET P/24H-DAY	7	2	4		
EXTINCTION COEFF.: .4					
TRANSMISSION COEFF.: 64.6					
EUPHOTIC DEPTH (M) : 10.5					

250174

SAMPLING STATION 16

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	1.71	.00	2.11	.20	.0
PERCENT.	81	0	100	9.7	
GROSS P.OPT	3	0	3		
GROSS P/DAY	44	0	54		
NET P/SOL.DAY	31	0	38		
NET P/24H-DAY	4	0	4		
EXTINCTION COEFF.:	.8				
TRANSMISSION COEFF.:	42.6				
EUPHOTIC DEPTH (M) :	5.3				

250174

SAMPLING STATION 20

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	1.50	.32	1.17	.29	.2
PERCENT.	100	22	78	19.2	
GROSS P.OPT	2	0	2		
GROSS P/DAY	77	16	60		
NET P/SOL.DAY	53	11	41		
NET P/24H-DAY	6	1	5		
EXTINCTION COEFF.:	.4				
TRANSMISSION COEFF.:	64.8				
EUPHOTIC DEPTH (M) :	10.6				

FEVRIER 1974

LABORATORIUM VOOR EKOLOGIE EN SYSTEMATIEK , V.U.B.

PRIMARY PRODUCTION NORTH SEA (MG C/M3/H AND MG C/M2/DAY)

260274

SAMPLING STATION 1

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	18.62	4.26	14.36	.83	.2
PERCENT.	100	23	77	4.5	
GROSS P.OPT	33	7	26		

260274

SAMPLING STATION 9

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	2.44	.00	2.60	1.99	.0
PERCENT.	93	0	100	76.6	
GROSS P.OPT	4	0	4		

M A R S 1 9 7 4

LABORATORIUM VOOR EKOLOGIE EN SYSTEMATIEK , V.U.B.

PRIMARY PRODUCTION NORTH SEA (MG C/M3/H AND MG C/M2/DAY)

250374

SAMPLING STATION 55

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	3.35	1.81	1.53	.24	1.1
PERCENT.	100	55	45	7.1	
GROSS P.OPT	5	2	2		

250374

SAMPLING STATION 9

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	3.44	1.29	2.14	.68	.6
PERCENT.	100	38	62	19.9	
GROSS P.OPT	5	2	3		

260374

SAMPLING STATION 1

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	12.93	10.07	2.85	.78	3.5
PERCENT.	100	78	22	6.0	
GROSS P.OPT	20	15	4		

AVRIL - MAI 1974

LABORATORIUM VOOR EKOLOGIE EN SYSTEMATIEK, V.U.B.

PRIMARY PRODUCTION NORTH SEA (MG C/M3/H AND MG C/M2/DAY)

170474 SAMPLING STATION 55

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	3.88	1.53	2.34	.18	.6
PERCENT.	100	40	60	4.8	
GROSS P.OPT	4	1	2		
GROSS P/DAY	167	66	101		
NET P/SOL.DAY	126	49	76		
NET P/24H-DAY	97	38	58		
EXTINCTION COEFF.: .7					
TRANSMISSION COEFF.: 46.2					
EUPHOTIC DEPTH (M) : 5.9					

170474 SAMPLING STATION 9

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	6.66	3.94	2.72	.40	1.4
PERCENT.	100	60	40	6.0	
GROSS P.OPT	8	4	3		
GROSS P/DAY	328	193	134		
NET P/SOL.DAY	247	146	101		
NET P/24H-DAY	190	112	77		
EXTINCTION COEFF.: .6					
TRANSMISSION COEFF.: 50.9					
EUPHOTIC DEPTH (M) : 6.8					

180474 SAMPLING STATION 20

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	3.81	2.69	1.11	.27	2.4
PERCENT.	100	71	29	7.2	
GROSS P.OPT	4	3	1		
GROSS P/DAY	469	331	137		
NET P/SOL.DAY	354	250	104		
NET P/24H-DAY	272	192	79		
EXTINCTION COEFF.: .2					
TRANSMISSION COEFF.: 76.3					
EUPHOTIC DEPTH (M) : 17					

180474 SAMPLING STATION 19

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	11.20	9.49	1.71	.28	5.5
PERCENT.	100	85	15	2.5	
GROSS P.OPT	14	11	2		
GROSS P/DAY	827	700	126		
NET P/SOL.DAY	624	529	95		
NET P/24H-DAY	480	406	73		
EXTINCTION COEFF.: .4					
TRANSMISSION COEFF.: 63.7					
EUPHOTIC DEPTH (M) : 10.2					

180474 SAMPLING STATION 18

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	9.81	7.80	2.01	.50	3.8
PERCENT.	100	80	20	5.1	
GROSS P.OPT	12	9	2		
GROSS P/DAY	603	479	123		
NET P/SOL.DAY	456	362	93		
NET P/24H-DAY	350	278	71		
EXTINCTION COEFF.: .5					
TRANSMISSION COEFF.: 58.2					
EUPHOTIC DEPTH (M) : 8.5					

180474 SAMPLING STATION 17

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	8.54	6.45	2.09	.73	3.0
PERCENT.	100	76	24	8.5	
GROSS P.OPT	10	8	2		
GROSS P/DAY	525	397	128		
NET P/SOL.DAY	396	299	97		
NET P/24H-DAY	304	230	74		
EXTINCTION COEFF.: .5					
TRANSMISSION COEFF.: 58.2					
EUPHOTIC DEPTH (M) : 8.5					

180474 SAMPLING STATION 16

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	4.10	2.20	1.90	.66	1.1
PERCENT.	100	54	46	16.2	
GROSS P.OPT	5	2	2		
GROSS P/DAY	176	94	82		
NET P/SOL.DAY	133	71	61		
NET P/24H-DAY	102	54	47		
EXTINCTION COEFF.: .7					
TRANSMISSION COEFF.: 46.2					
EUPHOTIC DEPTH (M) : 5.9					

190474

SAMPLING STATION 4

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	23.37	15.82	7.55	.64	2.0
PERCENT.	100	68	32	2.7	
GROSS P.OPT	29	19	9		
GROSS P/DAY	1150	778	371		
NET P/SOL.DAY	868	588	280		
NET P/24H-DAY	667	451	215		
EXTINCTION COEFF.: .6					
TRANSMISSION COEFF.: 50.9					
EUPHOTIC DEPTH (M) : 6.8					

190474

SAMPLING STATION 3

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	27.72	15.80	11.91	.71	1.3
PERCENT.	100	58	42	2.5	
GROSS P.OPT	34	19	15		
GROSS P/DAY	1364	778	586		
NET P/SOL.DAY	1030	587	443		
NET P/24H-DAY	791	451	340		
EXTINCTION COEFF.: .6					
TRANSMISSION COEFF.: 50.9					
EUPHOTIC DEPTH (M) : 6.8					

190474

SAMPLING STATION 2

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	26.49	12.86	13.63	.57	.9
PERCENT.	100	49	51	2.1	
GROSS P.OPT	33	16	17		
GROSS P/DAY	652	316	335		
NET P/SOL.DAY	492	239	253		
NET P/24H-DAY	378	183	194		
EXTINCTION COEFF.: 1.3					
TRANSMISSION COEFF.: 25.9					
EUPHOTIC DEPTH (M) : 3.4					

190474

SAMPLING STATION 1

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	13.69	9.27	4.42	.57	2.0
PERCENT.	100	68	32	4.1	
GROSS P.OPT	17	11	5		
GROSS P/DAY	252	171	81		
NET P/SOL.DAY	190	129	61		
NET P/24H-DAY	146	99	47		
EXTINCTION COEFF.: 1.7					
TRANSMISSION COEFF.: 16.5					
EUPHOTIC DEPTH (M) : 2.5					

220474

SAMPLING STATION 6

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	27.74	21.91	5.82	.37	3.7
PERCENT.	100	79	21	1.3	
GROSS P.OPT	35	27	7		
GROSS P/DAY	681	538	143		
NET P/SOL.DAY	514	406	108		
NET P/24H-DAY	394	311	82		
EXTINCTION COEFF.:	1.3				
TRANSMISSION COEFF.:	25.9				
EUPHOTIC DEPTH (M) :	3.4				

220474

SAMPLING STATION 5

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	21.71	18.00	3.70	.57	4.8
PERCENT.	100	83	17	2.6	
GROSS P.OPT	27	22	4		
GROSS P/DAY	266	221	45		
NET P/SOL.DAY	201	166	34		
NET P/24H-DAY	154	128	26		
EXTINCTION COEFF.:	2.6				
TRANSMISSION COEFF.:	6.7				
EUPHOTIC DEPTH (M) :	1.7				

230474

SAMPLING STATION 11

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	30.07	22.45	7.62	.84	2.9
PERCENT.	100	75	25	2.8	
GROSS P.OPT	37	28	9		
GROSS P/DAY	369	275	93		
NET P/SOL.DAY	278	208	70		
NET P/24H-DAY	213	159	54		
EXTINCTION COEFF.:	2.6				
TRANSMISSION COEFF.:	6.7				
EUPHOTIC DEPTH (M) :	1.7				

230474

SAMPLING STATION 12

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	35.64	29.99	5.65	.60	5.3
PERCENT.	100	85	15	1.6	
GROSS P.OPT	45	37	7		
GROSS P/DAY	875	736	138		
NET P/SOL.DAY	660	555	104		
NET P/24H-DAY	507	426	80		
EXTINCTION COEFF.:	1.3				
TRANSMISSION COEFF.:	25.9				
EUPHOTIC DEPTH (M) :	3.4				

230474 SAMPLING STATION 13

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	28.59	21.66	6.93	.36	3.1
PERCENT.	100	76	24	1.2	
GROSS P.OPT	36	27	8		
GROSS P/DAY	878	665	212		
NET P/SOL.DAY	662	502	160		
NET P/24H-DAY	508	385	123		
EXTINCTION COEFF.: 1					
TRANSMISSION COEFF.: 33.9					
EUPHOTIC DEPTH (M) : 4.2					

230474 SAMPLING STATION 14

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	9.45	7.95	1.49	.69	5.3
PERCENT.	100	85	15	7.3	
GROSS P.OPT	11	10	1		
GROSS P/DAY	348	293	54		
NET P/SOL.DAY	262	221	41		
NET P/24H-DAY	201	169	31		
EXTINCTION COEFF.: .8					
TRANSMISSION COEFF.: 40.6					
EUPHOTIC DEPTH (M) : 5.1					

250474 SAMPLING STATION 7

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	38.67	32.44	6.22	.39	5.2
PERCENT.	100	84	16	1.0	
GROSS P.OPT	48	40	7		
GROSS P/DAY	950	797	152		
NET P/SOL.DAY	716	601	115		
NET P/24H-DAY	550	461	88		
EXTINCTION COEFF.: 1.3					
TRANSMISSION COEFF.: 25.9					
EUPHOTIC DEPTH (M) : 3.4					

250474 SAMPLING STATION 8

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	17.60	13.82	3.77	.34	3.6
PERCENT.	100	79	21	1.9	
GROSS P.OPT	22	17	4		
GROSS P/DAY	648	509	139		
NET P/SOL.DAY	489	384	105		
NET P/24H-DAY	375	295	80		
EXTINCTION COEFF.: .8					
TRANSMISSION COEFF.: 40.6					
EUPHOTIC DEPTH (M) : 5.1					

250474 SAMPLING STATION 10

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	3.27	2.62	.64	.42	4.0
PERCENT.	100	81	19	12.9	
GROSS P.OPT	4	3	0		
GROSS P/DAY	160	128	31		
NET P/SOL.DAY	121	97	24		
NET P/24H-DAY	93	74	18		
EXTINCTION COEFF.: .6					
TRANSMISSION COEFF.: 50.9					
EUPHOTIC DEPTH (M) : 6.8					

290474 SAMPLING STATION 1

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	21.97	12.54	9.42	.65	1.3
PERCENT.	100	58	42	2.9	
GROSS P.OPT	27	15	11		
GROSS P/DAY	319	182	136		
NET P/SOL.DAY	240	137	103		
NET P/24H-DAY	184	105	79		
EXTINCTION COEFF.: 2.2					
TRANSMISSION COEFF.: 10.1					
EUPHOTIC DEPTH (M) : 2					

290474 SAMPLING STATION 52

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	23.85	15.31	8.54	1.54	1.7
PERCENT.	100	65	35	6.4	
GROSS P.OPT	30	19	10		
GROSS P/DAY	542	348	194		
NET P/SOL.DAY	409	262	146		
NET P/24H-DAY	314	201	112		
EXTINCTION COEFF.: 1.4					
TRANSMISSION COEFF.: 23.2					
EUPHOTIC DEPTH (M) : 3.1					

290474 SAMPLING STATION 53

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	15.41	12.14	3.27	.58	3.7
PERCENT.	100	79	21	3.8	
GROSS P.OPT	19	15	4		
GROSS P/DAY	383	301	81		
NET P/SOL.DAY	289	227	61		
NET P/24H-DAY	222	174	47		
EXTINCTION COEFF.: 1.3					
TRANSMISSION COEFF.: 26.3					
EUPHOTIC DEPTH (M) : 3.4					

300474 SAMPLING STATION 54

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	52.00	37.36	14.63	.70	2.5
PERCENT.	100	72	28	1.3	
GROSS P.OPT	65	47	18		
GROSS P/DAY	1104	793	310		
NET P/SOL.DAY	833	598	234		
NET P/24H-DAY	639	459	180		
EXTINCTION COEFF.: 1.5					
TRANSMISSION COEFF.: 20.9					
EUPHOTIC DEPTH (M) : 2.9					

300474 SAMPLING STATION 55

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	32.51	11.74	20.76	.68	.5
PERCENT.	100	37	63	2.1	
GROSS P.OPT	41	14	26		
GROSS P/DAY	690	249	440		
NET P/SOL.DAY	520	188	332		
NET P/24H-DAY	399	144	255		
EXTINCTION COEFF.: 1.5					
TRANSMISSION COEFF.: 20.9					
EUPHOTIC DEPTH (M) : 2.9					

300474 SAMPLING STATION 57

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	10.86	8.10	2.76	.41	2.9
PERCENT.	100	75	25	3.8	
GROSS P.OPT	13	10	3		
GROSS P/DAY	1029	767	261		
NET P/SOL.DAY	776	579	197		
NET P/24H-DAY	596	444	151		
EXTINCTION COEFF.: .3					
TRANSMISSION COEFF.: 70.4					
EUPHOTIC DEPTH (M) : 13.1					

300474 SAMPLING STATION 9

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	4.06	3.20	.85	.51	3.7
PERCENT.	100	79	21	12.6	
GROSS P.OPT	5	4	1		
GROSS P/DAY	438	346	92		
NET P/SOL.DAY	331	261	69		
NET P/24H-DAY	254	200	53		
EXTINCTION COEFF.: .3					
TRANSMISSION COEFF.: 73.5					
EUPHOTIC DEPTH (M) : 14.9					

300474

SAMPLING STATION 58

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	9.17	7.50	1.66	.41	4.4
PERCENT.	100	82	18	4.5	
GROSS P.OPT	11	9	2		
GROSS P/DAY	675	552	122		
NET P/SOL.DAY	509	416	92		
NET P/24H-DAY	391	319	71		
EXTINCTION COEFF.: .4					
TRANSMISSION COEFF.: 63.7					
EUPHOTIC DEPTH (M) : 10.2					

10574

SAMPLING STATION 20

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	5.34	3.76	1.58	.25	2.3
PERCENT.	100	71	29	4.6	
GROSS P.OPT	6	4	1		
GROSS P/DAY	571	402	168		
NET P/SOL.DAY	423	298	125		
NET P/24H-DAY	335	236	99		
EXTINCTION COEFF.: .3					
TRANSMISSION COEFF.: 72.8					
EUPHOTIC DEPTH (M) : 14.5					

10574

SAMPLING STATION 65

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	3.43	2.61	.81	.23	3.2
PERCENT.	100	77	23	6.9	
GROSS P.OPT	4	3	1		
GROSS P/DAY	374	285	89		
NET P/SOL.DAY	277	211	66		
NET P/24H-DAY	219	167	52		
EXTINCTION COEFF.: .3					
TRANSMISSION COEFF.: 73.3					
EUPHOTIC DEPTH (M) : 14.8					

10574

SAMPLING STATION 64

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	8.62	3.76	4.85	.24	.7
PERCENT.	100	44	56	2.8	
GROSS P.OPT	10	4	6		
GROSS P/DAY	591	258	333		
NET P/SOL.DAY	438	191	247		
NET P/24H-DAY	347	151	195		
EXTINCTION COEFF.: .4					
TRANSMISSION COEFF.: 61.1					
EUPHOTIC DEPTH (M) : 9.3					

10574

SAMPLING STATION 16

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	4.93	1.96	2.97	.39	.6
PERCENT.	100	40	60	8.0	
GROSS P.OPT	6	2	3		
GROSS P/DAY	470	187	283		
NET P/SOL.DAY	349	139	210		
NET P/24H-DAY	276	110	166		
EXTINCTION COEFF.: .3					
TRANSMISSION COEFF.: 70.1					
EUPHOTIC DEPTH (M) : 13					

10574

SAMPLING STATION 63

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	2.55	.68	1.87	.71	.3
PERCENT.	100	27	73	27.8	
GROSS P.OPT	3	0	2		
GROSS P/DAY	222	59	163		
NET P/SOL.DAY	165	43	121		
NET P/24H-DAY	130	34	95		
EXTINCTION COEFF.: .3					
TRANSMISSION COEFF.: 67.8					
EUPHOTIC DEPTH (M) : 11.8					

20574

SAMPLING STATION 21

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	1.20	.34	.86	.50	.4
PERCENT.	100	29	71	41.7	
GROSS P.OPT	1	0	1		
GROSS P/DAY	93	26	66		
NET P/SOL.DAY	69	19	49		
NET P/24H-DAY	54	15	39		
EXTINCTION COEFF.: .4					
TRANSMISSION COEFF.: 64.6					
EUPHOTIC DEPTH (M) : 10.5					

20574

SAMPLING STATION 22

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	1.46	.42	1.04	.55	.4
PERCENT.	100	29	71	37.5	
GROSS P.OPT	1	0	1		
GROSS P/DAY	114	32	81		
NET P/SOL.DAY	81	23	57		
NET P/24H-DAY	61	17	43		
EXTINCTION COEFF.: .3					
TRANSMISSION COEFF.: 71.7					
EUPHOTIC DEPTH (M) : 13.8					

20574

SAMPLING STATION 23

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	1.69	.88	.80	.32	1.1
PERCENT.	100	53	47	19.3	
GROSS P.OPT	1	0	0		
GROSS P/DAY	202	106	96		
NET P/SOL.DAY	144	75	68		
NET P/24H-DAY	109	57	52		
EXTINCTION COEFF.: .2					
TRANSMISSION COEFF.: 80.5					
EUPHOTIC DEPTH (M) : 21.2					

20574

SAMPLING STATION 24

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	2.38	1.89	.48	.37	3.8
PERCENT.	100	80	20	15.5	
GROSS P.OPT	2	2	0		
GROSS P/DAY	132	105	27		
NET P/SOL.DAY	94	75	19		
NET P/24H-DAY	71	56	14		
EXTINCTION COEFF.: .4					
TRANSMISSION COEFF.: 62.8					
EUPHOTIC DEPTH (M) : 9.9					

20574

SAMPLING STATION 25

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	4.85	3.57	1.28	.52	2.7
PERCENT.	100	74	26	10.7	
GROSS P.OPT	5	3	1		
GROSS P/DAY	365	269	96		
NET P/SOL.DAY	260	191	68		
NET P/24H-DAY	197	145	52		
EXTINCTION COEFF.: .3					
TRANSMISSION COEFF.: 70.9					
EUPHOTIC DEPTH (M) : 13.4					

30574

SAMPLING STATION 15

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	2.21	1.39	.81	.56	1.7
PERCENT.	100	63	37	25.3	
GROSS P.OPT	2	1	0		
GROSS P/DAY	147	92	54		
NET P/SOL.DAY	105	66	38		
NET P/24H-DAY	79	50	29		
EXTINCTION COEFF.: .3					
TRANSMISSION COEFF.: 67.8					
EUPHOTIC DEPTH (M) : 11.8					

30574

SAMPLING STATION 14

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	3.38	1.91	1.46	.78	1.3
PERCENT.	100	57	43	23.1	
GROSS P.OPT	3	2	1		
GROSS P/DAY	264	149	114		
NET P/SOL.DAY	188	106	81		
NET P/24H-DAY	142	80	61		
EXTINCTION COEFF.: .3					
TRANSMISSION COEFF.: 71.8					
EUPHOTIC DEPTH (M) : 13.9					

60574

SAMPLING STATION 1

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	38.43	7.03	31.40	.86	.2
PERCENT.	100	19	81	2.2	
GROSS P.OPT	41	7	33		
GROSS P/DAY	183	33	150		
NET P/SOL.DAY	130	23	107		
NET P/24H-DAY	99	18	81		
EXTINCTION COEFF.: 5.3					
TRANSMISSION COEFF.: .4					
EUPHOTIC DEPTH (M) : .8					

70574

SAMPLING STATION 55

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	13.37	4.12	9.25	.56	.4
PERCENT.	100	31	69	4.1	
GROSS P.OPT	14	4	9		
GROSS P/DAY	517	159	358		
NET P/SOL.DAY	368	113	255		
NET P/24H-DAY	279	86	193		
EXTINCTION COEFF.: .6					
TRANSMISSION COEFF.: 51.2					
EUPHOTIC DEPTH (M) : 6.8					

70574

SAMPLING STATION 56

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	14.66	1.77	12.89	.60	.1
PERCENT.	100	13	87	4.1	
GROSS P.OPT	15	1	13		
GROSS P/DAY	1583	191	1391		
NET P/SOL.DAY	1128	136	991		
NET P/24H-DAY	854	103	751		
EXTINCTION COEFF.: .2					
TRANSMISSION COEFF.: 78.7					
EUPHOTIC DEPTH (M) : 19.2					

70574

SAMPLING STATION 9

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	4.93	1.64	3.28	.49	.5
PERCENT.	100	34	66	10.0	
GROSS P.OPT	5	1	3		
GROSS P/DAY	273	91	182		
NET P/SOL.DAY	195	65	129		
NET P/24H-DAY	147	49	98		
EXTINCTION COEFF.: .4					
TRANSMISSION COEFF.: 62.8					
EUPHOTIC DEPTH (M) : 9.9					

80574

SAMPLING STATION 72

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	2.37	1.63	.74	.44	2.1
PERCENT.	100	69	31	18.6	
GROSS P.OPT	2	1	0		
GROSS P/DAY	234	160	73		
NET P/SOL.DAY	166	114	52		
NET P/24H-DAY	126	86	39		
EXTINCTION COEFF.: .2					
TRANSMISSION COEFF.: 76.9					
EUPHOTIC DEPTH (M) : 17.5					

80574

SAMPLING STATION 71

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	1.69	1.20	.49	.21	2.4
PERCENT.	100	71	29	12.4	
GROSS P.OPT	1	1	0		
GROSS P/DAY	133	94	39		
NET P/SOL.DAY	95	67	27		
NET P/24H-DAY	72	51	21		
EXTINCTION COEFF.: .3					
TRANSMISSION COEFF.: 72					
EUPHOTIC DEPTH (M) : 14					

80574

SAMPLING STATION 70

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	.78	.20	.58	.25	.3
PERCENT.	100	27	73	32.6	
GROSS P.OPT	0	0	0		
GROSS P/DAY	86	22	63		
NET P/SOL.DAY	61	16	45		
NET P/24H-DAY	46	12	34		
EXTINCTION COEFF.: .2					
TRANSMISSION COEFF.: 78.9					
EUPHOTIC DEPTH (M) : 19.4					

80574

SAMPLING STATION 69

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	3.04	.59	2.45	.32	.2
PERCENT.	100	20	80	10.6	
GROSS P.OPT	3	0	2		
GROSS P/DAY	202	39	163		
NET P/SOL.DAY	144	28	116		
NET P/24H-DAY	109	21	88		
EXTINCTION COEFF.: .3					
TRANSMISSION COEFF.: 67.8					
EUPHOTIC DEPTH (M) : 11.8					

80574

SAMPLING STATION 68

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	2.85	.86	1.99	.33	.4
PERCENT.	100	31	69	11.8	
GROSS P.OPT	3	0	2		
GROSS P/DAY	115	34	80		
NET P/SOL.DAY	82	24	57		
NET P/24H-DAY	62	18	43		
EXTINCTION COEFF.: .6					
TRANSMISSION COEFF.: 52.9					
EUPHOTIC DEPTH (M) : 7.2					

90574

SAMPLING STATION 16

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	1.88	1.02	.86	.35	1.1
PERCENT.	100	55	45	18.5	
GROSS P.OPT	2	1	0		
GROSS P/DAY	117	63	53		
NET P/SOL.DAY	83	45	38		
NET P/24H-DAY	63	34	29		
EXTINCTION COEFF.: .4					
TRANSMISSION COEFF.: 66					
EUPHOTIC DEPTH (M) : 11					

90574

SAMPLING STATION 66

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	2.77	1.51	1.25	.47	1.2
PERCENT.	100	55	45	17.0	
GROSS P.OPT	2	1	1		
GROSS P/DAY	199	109	90		
NET P/SOL.DAY	142	77	64		
NET P/24H-DAY	107	58	48		
EXTINCTION COEFF.: .3					
TRANSMISSION COEFF.: 69.8					
EUPHOTIC DEPTH (M) : 12.8					

90574

SAMPLING STATION 67

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	2.99	2.01	.97	.43	2.0
PERCENT.	100	68	32	14.6	
GROSS P.OPT	3	2	1		
GROSS P/DAY	220	148	72		
NET P/SOL.DAY	157	106	51		
NET P/24H-DAY	119	80	38		
EXTINCTION COEFF.: .3					
TRANSMISSION COEFF.: 70.4					
EUPHOTIC DEPTH (M) : 13.1					

90574

SAMPLING STATION 20

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	2.68	1.55	1.12	.41	1.3
PERCENT.	100	59	41	15.6	
GROSS P.OPT	2	1	1		
GROSS P/DAY	253	146	106		
NET P/SOL.DAY	180	104	75		
NET P/24H-DAY	136	79	57		
EXTINCTION COEFF.: .2					
TRANSMISSION COEFF.: 76					
EUPHOTIC DEPTH (M) : 16.8					

90574

SAMPLING STATION 61

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	1.21	.33	.87	.52	.3
PERCENT.	100	28	72	42.9	
GROSS P.OPT	1	0	0		
GROSS P/DAY	24	6	17		
NET P/SOL.DAY	17	4	12		
NET P/24H-DAY	13	3	9		
EXTINCTION COEFF.: 1.2					
TRANSMISSION COEFF.: 28.1					
EUPHOTIC DEPTH (M) : 3.6					

100574

SAMPLING STATION 1

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	24.12	1.71	22.41	.72	.0
PERCENT.	100	8	92	2.9	
GROSS P.OPT	25	1	24		
GROSS P/DAY	639	45	593		
NET P/SOL.DAY	455	32	423		
NET P/24H-DAY	345	24	320		
EXTINCTION COEFF.: .9					
TRANSMISSION COEFF.: 37.7					
EUPHOTIC DEPTH (M) : 4.7					

M A I 1 9 7 4

LABORATORIUM VOOR EKOLOGIE EN SYSTEMATIEK , V.U.B.

PRIMARY PRODUCTION NORTH SEA (MG C/M3/H AND MG C/M2/DAY)

270574 SAMPLING STATION 1

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	21.57	7.33	14.24	.97	.5
PERCENT.	100	34	66	4.5	
GROSS P.0PT	23.1	7.8	15.3		
GROSS P/DAY	793	269	523		
NET P/SOL.DAY	588	199	388		
NET P/24H-DAY	485	165	320		
EXTINCTION COEFF.: .8					
TRANSMISSION COEFF.: 43.5					
EUPHOTIC DEPTH (M) : 5.5					

270574 SAMPLING STATION 2

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	11.40	7.45	3.94	.53	1.8
PERCENT.	100	66	34	4.6	
GROSS P.0PT	12.2	8.0	4.2		
GROSS P/DAY	737	482	255		
NET P/SOL.DAY	546	357	189		
NET P/24H-DAY	451	295	156		
EXTINCTION COEFF.: .4					
TRANSMISSION COEFF.: 62.2					
EUPHOTIC DEPTH (M) : 9.7					

270574 SAMPLING STATION 4

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	2.96	1.72	1.23	.35	1.3
PERCENT.	100	59	41	11.8	
GROSS P.0PT	3.1	1.8	1.3		
GROSS P/DAY	184	107	76		
NET P/SOL.DAY	136	79	56		
NET P/24H-DAY	112	65	46		
EXTINCTION COEFF.: .4					
TRANSMISSION COEFF.: 61.1					
EUPHOTIC DEPTH (M) : 9.3					

280574

SAMPLING STATION 20

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	1.70	.28	1.41	.36	.2
PERCENT.	100	17	83	21.4	
GROSS P.OPT	1.8	.3	1.5		
GROSS P/DAY	375	63	311		
NET P/SOL.DAY	278	47	230		
NET P/24H-DAY	229	38	190		
EXTINCTION COEFF.: .1					
TRANSMISSION COEFF.: 87					
EUPHOTIC DEPTH (M) : 33.1					

280574

SAMPLING STATION 25

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	1.79	1.49	.29	.21	5.0
PERCENT.	100	84	16	12.0	
GROSS P.OPT	1.9	1.6	.3		
GROSS P/DAY	218	182	35		
NET P/SOL.DAY	162	135	26		
NET P/24H-DAY	133	111	21		
EXTINCTION COEFF.: .2					
TRANSMISSION COEFF.: 77.7					
EUPHOTIC DEPTH (M) : 18.3					

280574

SAMPLING STATION 22

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	4.41	1.92	2.48	.33	.7
PERCENT.	100	44	56	7.6	
GROSS P.OPT	4.7	2.0	2.6		
GROSS P/DAY	722	315	406		
NET P/SOL.DAY	535	233	301		
NET P/24H-DAY	442	193	249		
EXTINCTION COEFF.: .1					
TRANSMISSION COEFF.: 82.9					
EUPHOTIC DEPTH (M) : 24.6					

290574

SAMPLING STATION 5

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	20.41	12.71	7.69	.35	1.6
PERCENT.	100	63	37	1.7	
GROSS P.OPT	21.9	13.6	8.2		
GROSS P/DAY	276	171	104		
NET P/SOL.DAY	204	127	77		
NET P/24H-DAY	168	105	63		
EXTINCTION COEFF.: 2.2					
TRANSMISSION COEFF.: 10.3					
EUPHOTIC DEPTH (M) : 2					

290574

SAMPLING STATION 55

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	5.09	1.45	3.64	.55	.3
PERCENT.	100	29	71	10.9	
GROSS P.(OPT	5.4	1.5	3.9		
GROSS P/DAY	420	119	301		
NET P/SOL.DAY	312	88	223		
NET P/24H-DAY	257	73	184		
EXTINCTION COEFF.: .3					
TRANSMISSION COEFF.: 69					
EUPHOTIC DEPTH (M) : 12.4					

290574

SAMPLING STATION 9

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	4.15	.29	3.86	.35	.0
PERCENT.	100	8	92	8.6	
GROSS P.(OPT	4.4	.3	4.1		
GROSS P/DAY	727	51	676		
NET P/SOL.DAY	539	37	501		
NET P/24H-DAY	445	31	414		
EXTINCTION COEFF.: .1					
TRANSMISSION COEFF.: 83.9					
EUPHOTIC DEPTH (M) : 26.3					

290574

SAMPLING STATION 15

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	1.86	.75	1.10	.33	.6
PERCENT.	100	41	59	18.0	
GROSS P.(OPT	2.0	.8	1.1		
GROSS P/DAY	194	79	115		
NET P/SOL.DAY	144	58	85		
NET P/24H-DAY	119	48	70		
EXTINCTION COEFF.: .2					
TRANSMISSION COEFF.: 74.5					
EUPHOTIC DEPTH (M) : 15.6					

300574

SAMPLING STATION 21

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	14.12	2.46	11.66	.77	.2
PERCENT.	100	18	82	5.5	
GROSS P.(OPT	15.1	2.6	12.5		
GROSS P/DAY	888	154	733		
NET P/SOL.DAY	658	114	543		
NET P/24H-DAY	543	94	448		
EXTINCTION COEFF.: .4					
TRANSMISSION COEFF.: 61.4					
EUPHOTIC DEPTH (M) : 9.4					

300574

SAMPLING STATION 17

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	1.92	.11	1.80	.45	.0
PERCENT.	100	6	94	23.5	
GROSS P.OPT	2.0	.1	1.9		
GROSS P/DAY	364	21	342		
NET P/SOL.DAY	270	16	253		
NET P/24H-DAY	222	13	209		
EXTINCTION COEFF.:	.1				
TRANSMISSION COEFF.:	85				
EUPHOTIC DEPTH (M) :	28.5				

300574

SAMPLING STATION 11

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	35.14	26.75	8.39	.53	3.1
PERCENT.	100	77	23	1.5	
GROSS P.OPT	37.7	28.7	9.0		
GROSS P/DAY	981	746	234		
NET P/SOL.DAY	727	553	173		
NET P/24H-DAY	600	457	143		
EXTINCTION COEFF.:	1				
TRANSMISSION COEFF.:	33.4				
EUPHOTIC DEPTH (M) :	4.1				

300574

SAMPLING STATION 12

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	5.77	1.05	4.72	.45	.2
PERCENT.	100	19	81	7.8	
GROSS P.OPT	6.2	1.1	5.0		
GROSS P/DAY	359	65	293		
NET P/SOL.DAY	266	48	217		
NET P/24H-DAY	219	40	179		
EXTINCTION COEFF.:	.4				
TRANSMISSION COEFF.:	61.1				
EUPHOTIC DEPTH (M) :	9.3				

J U I L L E T 1 9 7 4

LABORATORIUM VOOR EKOLOGIE EN SYSTEMATIEK , V.U.B.

PRIMARY PRODUCTION NORTH SEA (MG C/M3/H AND MG C/M2/DAY)

160774 SAMPLING STATION 1

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	6.77	4.90	1.87	.30	2.6
PERCENT.	100	73	27	4.4	
GROSS P.OPT	7.6	5.5	2.1		
GROSS P/DAY	350	253	96		
NET P/SOL.DAY	229	166	63		
NET P/24H-DAY	169	122	46		
EXTINCTION COEFF.: .4					
TRANSMISSION COEFF.: 62.8					
EUPHOTIC DEPTH (M) : 9.9					

170774 SAMPLING STATION 55

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	3.86	2.92	.93	.20	3.1
PERCENT.	100	76	24	5.2	
GROSS P.OPT	4.3	3.2	1.0		
GROSS P/DAY	164	124	39		
NET P/SOL.DAY	107	81	26		
NET P/24H-DAY	79	60	19		
EXTINCTION COEFF.: .5					
TRANSMISSION COEFF.: 56.8					
EUPHOTIC DEPTH (M) : 8.1					

180774 SAMPLING STATION 20

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	2.51	.42	2.09	.43	.2
PERCENT.	100	17	83	17.2	
GROSS P.OPT	2.8	.4	2.3		
GROSS P/DAY	124	20	103		
NET P/SOL.DAY	81	13	67		
NET P/24H-DAY	59	10	49		
EXTINCTION COEFF.: .4					
TRANSMISSION COEFF.: 61.4					
EUPHOTIC DEPTH (M) : 9.4					

180774

SAMPLING STATION 16

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	3.71	2.70	1.01	.28	2.6
PERCENT.	100	73	27	7.7	
GROSS P.OPT	4.1	3.0	1.1		
GROSS P/DAY	152	110	41		
NET P/SOL.DAY	99	72	27		
NET P/24H-DAY	73	53	20		
EXTINCTION COEFF.:	.5				
TRANSMISSION COEFF.:	55.6				
EUPHOTIC DEPTH (M) :	7.8				

190774

SAMPLING STATION 9

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	1.14	.48	.65	.29	.7
PERCENT.	100	43	57	25.7	
GROSS P.OPT	1.2	.5	.7		
GROSS P/DAY	81	34	46		
NET P/SOL.DAY	53	22	30		
NET P/24H-DAY	39	16	22		
EXTINCTION COEFF.:	.3				
TRANSMISSION COEFF.:	71.3				
EUPHOTIC DEPTH (M) :	13.6				

SEPTEMBRE 1974

LABORATORIUM VOOR EKOLOGIE EN SYSTEMATIEK , V.U.B.

PRIMARY PRODUCTION NORTH SEA (MG C/M3/H AND MG C/M2/DAY)

170974 SAMPLING STATION 1

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	20.39	15.63	4.75	.29	3.2
PERCENT.	100	77	23	1.4	
GROSS P.OPT	21.9	16.8	5.1		
GROSS P/DAY	203	156	47		
NET P/SOL.DAY	136	104	31		
NET P/24H-DAY	69	53	16		
EXTINCTION COEFF.: 1.7					
TRANSMISSION COEFF.: 16.5					
EUPHOTIC DEPTH (M) : 2.5					

170974 SAMPLING STATION 2

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	12.18	9.71	2.47	.25	3.9
PERCENT.	100	80	20	2.1	
GROSS P.OPT	13.1	10.4	2.6		
GROSS P/DAY	243	194	49		
NET P/SOL.DAY	163	130	33		
NET P/24H-DAY	82	65	16		
EXTINCTION COEFF.: .8					
TRANSMISSION COEFF.: 40.6					
EUPHOTIC DEPTH (M) : 5.1					

180974 SAMPLING STATION 20

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	4.21	2.14	2.06	.19	1.0
PERCENT.	100	51	49	4.7	
GROSS P.OPT	4.5	2.3	2.2		
GROSS P/DAY	196	100	96		
NET P/SOL.DAY	131	66	64		
NET P/24H-DAY	66	33	32		
EXTINCTION COEFF.: .3					
TRANSMISSION COEFF.: 67.9					
EUPHOTIC DEPTH (M) : 11.9					

180974

SAMPLING STATION 19

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	3.27	.00	3.33	.15	.0
PERCENT.	97	0	100	4.7	
GROSS P.OPT	3.5	.0	3.5		
GROSS P/DAY	152	0	155		
NET P/SOL.DAY	102	0	104		
NET P/24H-DAY	51	0	52		
EXTINCTION COEFF.: .3					
TRANSMISSION COEFF.: 67.9					
EUPHOTIC DEPTH (M) : 11.9					

180974

SAMPLING STATION 18

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	3.31	.84	2.47	.19	.3
PERCENT.	100	26	74	5.7	
GROSS P.OPT	3.5	.9	2.6		
GROSS P/DAY	198	50	148		
NET P/SOL.DAY	133	33	99		
NET P/24H-DAY	67	17	50		
EXTINCTION COEFF.: .2					
TRANSMISSION COEFF.: 74					
EUPHOTIC DEPTH (M) : 15.3					

180974

SAMPLING STATION 17

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	2.81	.05	2.76	.18	.0
PERCENT.	100	2	98	6.4	
GROSS P.OPT	3.0	.0	2.9		
GROSS P/DAY	112	2	110		
NET P/SOL.DAY	75	1	73		
NET P/24H-DAY	38	0	37		
EXTINCTION COEFF.: .4					
TRANSMISSION COEFF.: 63.7					
EUPHOTIC DEPTH (M) : 10.2					

180974

SAMPLING STATION 16

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	2.69	.18	2.50	.18	.0
PERCENT.	100	7	93	6.9	
GROSS P.OPT	2.8	.2	2.6		
GROSS P/DAY	53	3	50		
NET P/SOL.DAY	36	2	33		
NET P/24H-DAY	18	1	16		
EXTINCTION COEFF.: .8					
TRANSMISSION COEFF.: 40.6					
EUPHOTIC DEPTH (M) : 5.1					

190974

SAMPLING STATION 5

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	7.13	2.93	4.20	.39	.6
PERCENT.	100	42	58	5.4	
GROSS P.OPT	7.6	3.1	4.5		
GROSS P/DAY	47	19	28		
NET P/SOL.DAY	31	13	18		
NET P/24H-DAY	16	6	9		
EXTINCTION COEFF.: 2.6					
TRANSMISSION COEFF.: 6.7					
EUPHOTIC DEPTH (M) : 1.7					

190974

SAMPLING STATION 55

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	4.52	1.46	3.05	.19	.4
PERCENT.	100	33	67	4.3	
GROSS P.OPT	4.8	1.5	3.2		
GROSS P/DAY	60	19	40		
NET P/SOL.DAY	40	13	27		
NET P/24H-DAY	20	6	13		
EXTINCTION COEFF.: 1.3					
TRANSMISSION COEFF.: 25.9					
EUPHOTIC DEPTH (M) : 3.4					

190974

SAMPLING STATION 8

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	3.78	1.75	2.02	.17	.8
PERCENT.	100	47	53	4.6	
GROSS P.OPT	4.0	1.8	2.1		
GROSS P/DAY	75	35	40		
NET P/SOL.DAY	50	23	27		
NET P/24H-DAY	25	11	13		
EXTINCTION COEFF.: .8					
TRANSMISSION COEFF.: 40.6					
EUPHOTIC DEPTH (M) : 5.1					

190974

SAMPLING STATION 9

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	2.40	.87	1.53	.18	.5
PERCENT.	100	37	63	7.8	
GROSS P.OPT	2.5	.9	1.6		
GROSS P/DAY	80	29	51		
NET P/SOL.DAY	53	19	34		
NET P/24H-DAY	27	9	17		
EXTINCTION COEFF.: .5					
TRANSMISSION COEFF.: 58.2					
EUPHOTIC DEPTH (M) : 8.5					

OCTOBRE 1974

LABORATORIUM VOOR EKOLOGIE EN SYSTEMATIEK , V.U.B.

PRIMARY PRODUCTION NORTH SEA (MG C/M3/H AND MG C/M2/DAY)

11074 SAMPLING STATION 25.

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	.64	.17	.46	.07	.3
PERCENT.	100	28	72	12.1	
GROSS P.OPT	.6	.1	.5		
GROSS P/DAY	8	2	6		
NET P/SOL.DAY	5	1	4		
NET P/24H-DAY	2	0	2		
EXTINCTION COEFF.: 1.3					
TRANSMISSION COEFF.: 25.9					
EUPHOTIC DEPTH (M) : 3.4					

11074 SAMPLING STATION 24

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	1.95	.64	1.31	.20	.4
PERCENT.	100	33	67	10.6	
GROSS P.OPT	2.1	.6	1.4		
GROSS P/DAY	65	21	43		
NET P/SOL.DAY	43	14	29		
NET P/24H-DAY	21	7	14		
EXTINCTION COEFF.: .5					
TRANSMISSION COEFF.: 58.2					
EUPHOTIC DEPTH (M) : 8.5					

11074 SAMPLING STATION 23

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	2.55	.78	1.77	.60	.4
PERCENT.	100	31	69	23.6	
GROSS P.OPT	2.7	.8	1.9		
GROSS P/DAY	67	20	47		
NET P/SOL.DAY	45	13	31		
NET P/24H-DAY	22	6	15		
EXTINCTION COEFF.: .6					
TRANSMISSION COEFF.: 50.9					
EUPHOTIC DEPTH (M) : 6.8					

11074

SAMPLING STATION 22

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	2.13	.30	1.83	.35	.1
PERCENT.	100	15	85	16.3	
GROSS P.OPT	2.3	.3	1.9		
GROSS P/DAY	85	12	73		
NET P/SOL.DAY	56	8	48		
NET P/24H-DAY	28	4	24		
EXTINCTION COEFF.:	.4				
TRANSMISSION COEFF.:	63.7				
EUPHOTIC DEPTH (M) :	10.2				

11074

SAMPLING STATION 21

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	2.14	.80	1.34	.20	.6
PERCENT.	100	38	62	9.3	
GROSS P.OPT	2.3	.8	1.4		
GROSS P/DAY	28	10	17		
NET P/SOL.DAY	19	7	11		
NET P/24H-DAY	9	3	6		
EXTINCTION COEFF.:	1.3				
TRANSMISSION COEFF.:	25.9				
EUPHOTIC DEPTH (M) :	3.4				

21074

SAMPLING STATION 16

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	1.97	.01	1.95	.22	.0
PERCENT.	100	1	99	11.3	
GROSS P.OPT	2.1	.0	2.1		
GROSS P/DAY	26	0	26		
NET P/SOL.DAY	17	0	17		
NET P/24H-DAY	8	0	8		
EXTINCTION COEFF.:	1.3				
TRANSMISSION COEFF.:	25.9				
EUPHOTIC DEPTH (M) :	3.4				

31074

SAMPLING STATION 7

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	4.03	.45	3.58	.67	.1
PERCENT.	100	12	88	16.6	
GROSS P.OPT	4.3	.4	3.8		
GROSS P/DAY	134	15	118		
NET P/SOL.DAY	89	10	79		
NET P/24H-DAY	45	5	40		
EXTINCTION COEFF.:	.5				
TRANSMISSION COEFF.:	58.2				
EUPHOTIC DEPTH (M) :	8.5				

31074

SAMPLING STATION 7

	TOTAL	NETPL	NANNO	DARK	RATIO
VITRO	3.53	.69	2.83	.52	.2
PERCENT.	100	20	80	14.7	
GROSS P.OPT	3.8	.7	3.0		
GROSS P/DAY	23	4	18		
NET P/SOL.DAY	15	3	12		
NET P/24H-DAY	7	1	6		
EXTINCTION COEFF.: 2.6					
TRANSMISSION COEFF.: 6.7					
EUPHOTIC DEPTH (M) : 1.7					