Lithostratigraphic Units	Vervins Mb		Mormal Mb	Le Quesnoy Sand Mb			Locquignol Clay Mb								Avesnois Silt Mb							
Taxa \ Samples	AVE007 - 35	AVE007 - 33	AVE007 - 32	AVE007 - 30	AVE007 - 29	AVE007 - 28	AVE007 - 27	AVE007 - 26	AVE007 - 25	AVE007 - 23	AVE007 - 21	AVE007 - 19	AVE007 - 18	AVE007 - 17	AVE007 - 14	AVE007 - 12	AVE007 - 11	AVE007 - 10	AVE007 - 9	AVE007 - 7	AVE007 - 6	AVE007 - 5
Achomosphaera alcicornu															1							
Achomosphaera spp.	38	38													12	1						1
Adnatosphaeridium spp. (broken)															1							
Alterbidinium sp. (*circulum*?)	13																					
Apectodinium homomorphum		1													1							
Areoligera coronata															1							
Areoligera senonensis															3							
Batiacasphaera spp.															1							
Cordosphaeridium gracile															1							
Cordosphaeridium inodes															2							
Cordosphaeridium spp.															1							
Cribroperidinium tenuitabulatum															1							
Deflandrea oebisfeldensis															1							
Deflandrea spp.															2							
Diphyes colligerum															2							
? *Eatonicysta ursulae furensis* (broken)															1							
cf. *Elocladopyxis peniculata*																3						
Hystrichokolpoma spp. (broken)															1							
Hystrichosphaeridium tubiferum	0,5														1							
Hystrichosphaeropsis sp.															1							
Impagidinium spp.		1													2							
Kallosphaeridium sp.															2							
Lejeunecysta hyalina		1																				
Lingulodinium machaerophorum															2							
Membranosphaera sp. B sensu Heilmann-Clausen 1985	1																					
Microdinium spp.	1																					
Oligosphaeridium complex	1,5																					
Operculodinium spp.		2													2							
Palaeotetradinium minusculum	10	19																				
Polysphaeridium zoharyi															3							
Phthanoperidinium resistente															1							
chorate df A	21	41																				
Spiniferites spp.	22	41													17							
Tanyosphaeridium xanthiopyxides	4	2																				
Wetzeliella sp. (broken)															2							1
Wetzelielloids (broken)															2							
indet or broken chorate and proximochorate cysts (+probably reworked)	24	76																				
indet gonyaulacoids (broken)	16	18													33	4						3
broken peridinioids	10	9													1							
reworked *Chatangiella* sp.	0																					
reworked *Gimnodinium*?	1																					
reworked *Heliodinium* cf. *voigti*	7																					
reworked *Hystrichosphaeridium deanei*	8																					
reworked Hystrichosphaeridium sp.	1																					
reworked *Odontochitina operculatum*		1																				
reworked *Oligosphaeridium sp.*	3																					
reworked gonyaulacoids	21	8																				
Tasmanites spp.																					3	1
Pediastrum spp.		16													41						10	8
Palambages spp.															1							
Acritarchs	8	22													1							
Micrhystridium spp.		11																				

Lithostratigraphic Units	Clary Clay Mb?						Viesly Crag Mb				Valenciennes Tuffeau Mb			Avesnois Silt Mb	
Taxa \ Samples	AVE031 - 27	AVE031 - 26	AVE031 - 25	AVE031 - 24	AVE031 - 23	AVE031 - 22	AVE031 - 20	AVE031 - 18	AVE031 - 16	AVE031 - 15	AVE031 - 13	AVE031 - 11	AVE031 - 8	AVE031 - 4	AVE031 - 2
Achomosphaera alcicornu			0	1	2		0								
Achomosphaera bucina							1								
Achomosphaera spp.			3	8		11	30	7	2	2					
Adnatosphaeridium spp.						0									
Alisocysta sp.2		1	7	2	1	1	5	0	0	4					
Apectodinium paniculatum						0									
Apectodinium quinquelatum						0									
Apectodinium spp.						1									
Areoligera coronata	4	1	41	11	2	3	59	39	95	26					
Areoligera medusettiformis					0			2	1	1					
Areoligera senonesis -group	121	84	17	7	1		9	17	7	34					
Areoligera/Glaphyrocysta		25	10				22	102	70	114					
Caligodinium aceras								0							
Cerodinium diebelii				0	2	0	2								
Cerodinium medcalfii				0											
Cerodinium speciosum				0	1	0	0								
Cleistosphaeridium spp.			1												
Conneximura fimbriata			0	0	0										
Cordosphaeridium exilimurum							1		0						
Cordosphaeridium fibrospinosum			0				0								
Cordosphaeridium inodes	16	12	2	2,5	0	4	3	3	3	4					
Cordosphaeridium multispinosum			2	0		1	2	5	0						
Cordosphaeridium spp.					0		3	6	5	7					
Cribroperidinium giuseppei			4	4	10	1	3		1						
Cribroperidinium tenuitabulatum	20	30	35	2	3	5	1		1	6					
Dapsilidinium pseudocolligerum			0	0	0	3	2	3							
Deflandrea denticulata			0	0	4	0									
Deflandrea oebisfeldensis			0	0			1								
Deflandrea/Cerodinium (broken)		2	3	4		2	6	9	5						
Dinopterigium cladoides				0		0	0								
Diphyes colligerum		0		0		1	0	1	2						
Elitrocysta brevis					0										
Fibrocysta vectense		0		1					1						
Florentinia ferox				1	1	1									
Fromea laevigata			0	2	2	0	0								
Glaphyrocysta divaricata	5	3	0				1		0	0					
Glaphyrocysta ordinata				0				1	6	4					
Glaphyrocysta pastielsii				0											
Hafniasphaera septata				0	0	3	0								
Hystrichokolpoma cinctum						0									
Hystrichokolpoma rigaudiae							0								
Hystrichokolpoma salacium	2														
Hystrichokolpoma unispinum	0														
Hystrichosphaeridium tubiferum	9	18	20	6	8		4	3	6	1					
Hystrichostrogylon membraniphorum							0								
Impagidinium sp.1 sensu Heilmann-Clausen 85				1	0										
Impletosphaeridium spp.						1									
Lejeunecysta hyalina					0										
Lentinia wetzelii		0	3	6	4	19	1								
Lentinia spp.			2	1											
Lingulodinium spp.				1											
Melitasphaeridium pseudorecurvatum				0		1	0								
Oligosphaeridium complex	1		1	1	1	0	1	5	2	4					
Operculodinium eisenackii					9										
Operculodinium spp.		1		5		5	4								
Palaeocystodinium golzowense				1		0	0								
Palaeocystodinium lidiae				1	0	1	2								
Palaeotetradinium minusculum				0	2	2									
Phelodinium magnificum						0									
Phthanoperidinium spp.					0										
Polysphaeridium zoharyi	0														
Senegalinium? *dylwenense*		1		4	0	0									
Senegalinium spp.						1	2								
Spinidinium sp.	1	1													
Spiniferella cornuta		0			0		0		1						
Spiniferites spp. (+*Achomosphaera*)	35	56	57	129	157	164	91	15	20	6					
Tanyosphaeridium xanthiopyxides	1					0									
Tectatodinium pellitum								0							
Thalassiphora delicata			1	0	1	0									
Thalassiphora pelagica	1	0				1									
Trigonopyxidia ginella					1	0									
small gonyaulacoid (chagrinated)						2	2								
chorate/proximochorate df	3	6	3	2		3	6	5	4	4					
peridinoids	1	1													
gonyaulacoids	4			3											
Incertae sedis 1 Heilmann-Clausen			3	5		1	7			1					
reworked *Odontochitina* sp.	1														
Algae															
Palambages spp.										1					
Tittodiscus spp.					1										
Prasinophytes															
Pterospermella barbarae						0									
Acritarchs															
Micrhystridium spp.				11*	15	12	2								
Paralecaniella indentata								1		1					
Pseudomasia spp.				3*		1									
other acritarchs		7	7	37*	67	47									

Lithostratigraphic Units	SAOM Mb				Craquelins Mb
Taxa \ Samples	BP38	PA06	PA15	PA22	BP42
Achomosphaera sp.		2			
Apectodinium homomorphum			1		
Areoligera coronata			4	21	
Areoligera/Glaphyrocysta			1		
Dapsilidinium pseudocolligerum			1		
Diphyes colligerum			17	13	
Eocladopyxis peniculata			39	139	
Heteraulacacysta campanula			1		
Kenleyia -group	245	218	3		
Lingulodinium machaerophorum			10	6	
Operculodinium microtrianum			4	3,5	
Operculodinium spp.			8	6	
Polysphaeridium zoharyi				1	
Polysphaeridium sp. (broken)			2		
Spiniferites spp.	2	1	171	20	
chorate df		1	3	2	9
acritarch			1		
Pterospermella sp.					2

Lithostratigraphic Units	Wizernes Tuffeau Mb				Louvil Clay Mb					
Taxa \ Samples	**B1**	**B2**	**B7**	**B10**	**B11**	**B14**	**B15**	**B17**	**B19**	**B20**
Achomosphaera alcicornu						0	0	0	1	0
Alisocysta margarita									1	
Alisocysta sp.2							0			0
Alisocysta sp.								0	1	1
Apectodinium quinquelatum						1				
Apectodinium spp.						2				
Areoligera coronata	200					134	77	31	18	8
Areoligera medusettiformis						3				0
Areoligera senonensis	26					9	11	4	2	18
Areoligeraceae					6					
Cerodinium diebelii								0	1	0
Cerodinium speciosum									0	
Cerodinium sp.								1		
Conneximura fimbriata									0	2
Cordosphaeridium exilimurum							0			
Cordosphaeridium fibrospinosum										0
Cordosphaeridium inodes						2	2	3	1	2
Cordosphaeridium multispinosum						0			1	
Cordosphaeridium sp.	1							1		1
Cribroperidinium tenuitabulatum						1	1	2	15	26
Dapsilidinium simplex										1
Dapsilidinium sp.						1				
Deflandrea denticulata						1	13	4	8	5
Deflandrea oebisfeldensis						0	5	1	3	6
Deflandrea sp.				7		4				
Diphyes colligerum						1	1	1	4	1
? *Florentinia ferox*								2		2
Fromea fragilis							1		1	0
Fromea laevigata				136		1	1	1		
Hafniasphaera septata								3		3
Heteraulacacysta leptalea							1	3	3	7
Hystrichokolpoma granulatum-salacium							0			
Hystrichokolpoma sp.						1				1
Hystrichosphaeridium tubiferum						2	4	6	3	13
Hystrichostrogylon membraniphorum						1		1		2
Impagidinium japonicum									1	
Impagidinium pallidum										1
Impagidinium sp.						1				
Kallosphaeridium yorubaense								1		
Lejeunecysta hyalina						0	4	0	2	1
Lentinia wetzelii							2	5	4	10
Melitasphaeridium pseudorecurvatum								3		
Microdinium sp.								0		
Nematosphaeropsis sp.								0	0	
Oligosphaeridium complex						1	0	1		3
Operculodinium centrocarpum										3
Operculodinium eisenackii								4		
Operculodinium sp.						8	23		6	
Palaeocystodinium lidiae						1	1	0	1	1
Palaeotetradinium minusculum				8				0	3	1
Polysphaeridium subtile							0			
Polysphaeridium zoharyi						0				
Senegalinium dilwynense								4	15	
Senegalinium sp.						2	5	5		5
Spiniferites spp.+*Achomosphaera* spp.						52	85	118	123	128
Spiniferella cornuta								0	0	0
Thalassiphora delicata							1	1		0
Thalassiphora pelagica						1	0		0	
Trigonopyxidia ginella				8						
chorate/proximochorate df					12	7	1	4	4	3
Incertae sedis 1 (CHC 85)						2		5	1	4
gonyaulacoids indet						2				3
algae										
Palambages sp.							0	0		
Pediastrum sp.				1					1	
Pterospermella sp.	0						1			
Acritarchs										
Micrhystridium sp.								15		
Paralecaniella indentata								0	1	
other acritarchs									13	10

Lithostratigraphic Units	Avesnois Silt Mb?		Orchies Clay Mb			
Taxa \ Samples	BV 1 -18	BV 1 -16	BV 1 -14	BV 1 -11	BV 1 -10	BV 1 -7
Dinoflagellate cysts						
Achileodinium biformoides					0	
Achomosphaera alcicornu	1	1	1	0	0	
Adnatosphaeridium multispinosum				0		
Adnatosphaeridium robustum					0	0
Adnatosphaeridium vittatum		0		0	0	
Adnatosphaeridium spp.		1	0		1	
Apectodinium homomorphum		1	3	1	3	0
Apectodinium parvum					0	0
Apectodinium quinquelatum		2			2	1
Apectodinium spp.	12	6	18	9	23	18
Areoligera coronata				0	4	
Areoligera medusettiformis					0	
Areoligera senonensis		1			2	
Areoligera / *Glaphyrocysta*-group	2	7	2	0		1
Batiacasphaera spp.					2	
Biconidinium longissimum			0,5	1	0	0
Cannosphaeropsis utinensis						0
Cerodinium depressum	0			1		
Charlesdowniea crassiramosa		7	11			
Cleistosphaeridium polypetellum					0	0
Cleistosphaeridium spp.					2	1
Cordosphaeridium exilimurum		2		1	0	
Cordosphaeridium gracile		5	0	0	0	
Cordosphaeridium multispinosum		0			1	1
Cordosphaeridium inodes	5	2		0	1	0
Cordosphaeridium spp.	1					
Cribroperidinium giuseppei		1			3	
Cribroperidinium tenuitabulatum		0			0	1
Cribroperidinium cavagnettiae		1				
Dapsilidinium pseudocolligerum				2	0	2
Dapsilidinium spp.		1				
Deflandrea denticulata			2			
Deflandrea oebisfeldensis		23	7	0	0	
Deflandrea aff. *tenera* in De Coninck 68					3	
Deflandrea-Spinidinium ?		1			4	
Deflandrea spp.	1		1	2		
Dinopterigium cladoides		1	2	0	0	
Diphyes colligerum	1			14	1	4
Emmetrocysta sp. in Edwards 1983						0
Eocladopyxis peniculata		1			2	0
Fibrocysta vectensis	0	1	0	0	0	
Florentinia reinchartii				0		
Glaphyrocysta divaricata		0		0		
Glaphyrocysta exuberans		1				
Glaphyrocysta ordinata		1	0	0		
Glaphyrocysta reticulosa		2				
Heteraulacacysta leptalea		1		2	1	
Homotryblium tenuispinosum				0		0
Hystrichokolpoma cinctum		1				0
Hystrichokolpoma rigaudiae				1		0
Hystrichokolpoma salacium					0	
Hystrichokolpoma unispinum				0	1	
Hystrichokolpoma sp. (broken)						1
Hystrichosphaeridium truswelliae ?			1			
Hystrichosphaeridium tubiferum		5	4,5	3	1	1
Hystrichosphaeridium tubiferum subsp. *brevispinum*				0		
Impagidinium spp.		2		2	1	
Impletosphaeridium spp.						0
Kallosphaeridium orchiense				0		
Kallosphaeridium spp.		2				0
Kenleyia spp.		1				0
Lejeunecysta hyalina			2	0	1	
Lentinia wetzelii	5	3	7	6	0	0
Lingulodinium machaerophorum	1,5	3,5	1	0	1	2
Lingulodinium strangulatum		3	0			0,5
Melitasphaeridium pseudorecurvatum	7	1	1	2	3	1
Muratodinium fimbriatum				0		
Oligosphaeridium complex		1		0		
Operculodinium centrocarpum			0			
Operculodinium eisenacki		1				0
Operculodinium microtrianum				0	0	0
Operculodinium spp.		9		1	31	41
Palaeocystodinium golzowense				0		
Phthanoperidinium crenulatum		4			0	
Polysphaeridium subtile				1		0
Polysphaeridium zoharyi		2			0	
Rottnestia borussica		0		0	0	1
?Selenopemphix?						1
Spinidinium essoi	1					
Spiniferella cornuta					0	0
Spiniferites pseudofurcatus			0			
Spiniferites spp.	110	81	134	143	137	173
Thalassiphora delicata		2				
Thalassiphora patula		1		0		
Thalassiphora pelagica		1		0		0
Wetzeliella astra or *Apectodinium hyperacanthum* (not clear)						0
Wetzeliella ~ *astra*					1	
Wetzeliella lunaris	2	2	2	1	5	5
Wetzeliella lunaris-Dracodinium sp.				0		
Wetzeliella meckelfeldensis				2	0	
Wetzeliella-W. tabulatum (transition)				0		
Wetzeliella spp. (broaken)	3	7		1		
Wilsonidium tabulatum-Rhombodinium translucidum (transition)						0
indet chorate cysts (broken or dirty)	7		11	12	15	18
broken gonyaulacoids		5	5			3
Prasinophytes						
Pterospermella aureolata	4	0				
Pterospermella barbarae	1	3	8			
Acritarchs						
Comasphaeridium spp.				1	3	10
Micrhrystridium oceaniae	33		30			
Micrhrystridium spp.	30	21		24	25	17
Paucilibimorpha incurvata		0				
other acritarchs	107	77	110	50	21	5

Lithostratigraphic Units	Brimont Tuffeau Mb ?		
Taxa \ Samples	**Brimont 2**	**Brimont 4**	**Brimont 6**
Dinoflagellate cysts			
Achomosphaera alcicornu	2	1	
Achomosphaera spp.	63	50	
Alisocysta sp.2		1	
Apectodinium sp.			1
Areoligera coronata	20	51	59
Areoligera senonensis		2	50
Areoligera /Glaphyrocysta	5		
Cerodinium speciosum		0	
Cordosphaeridium exilimurum	1		
Cordosphaeridium fibrospinosum		0	
Cordosphaeridium inodes	7	5	2
Cordosphaeridium sp.	8,5	2	
Cribroperidinium giuseppei		1	
Cribroperidinium tenuitabulatum	6	2	4
Deflandrea oebisfeldensis	4	1	4
Deflandrea/Cerodinium (broken)	4		3
Diphyes colligerum	3	2	
Elytrocysta sp.	1		
Glaphyrocysta divaricata	1		
Glaphyrocysta ordinata		1	1
Glaphyrocysta sp.			1
Hystrichokolpoma rigaudiae		1	
Hystrichokoploma sp. (broken)	1		1
Hystrichosphaeridium palmatum	1		
Hystrichosphaeridium tubiferum	4,5	4	2
Impagidinium sp.	1	1	
Lentinia wetzelii	1		
Lentinia sp.	1		
Melitasphaeridium pseudorecurvatum		5	
Oligosphaeridium complex	1	2	3
Operculodinium eisenacki		4	
Operculodinium spp.	4	4	
Phthanoperidinium sp.		1	
Polysphaeridium zoharyi		0	
Senegalinium dilwynense	2		
Senegalinium sp.	1		
Spiniferites spp.	86	81	30
Thalassiphora delicata		1	
Thalassiphora patula	1		
Thalassiphora pelagica		0	
?Peridinioid	2	5	
chorate/proximochorate cysts	6		
gonyaulacoids indet	7		
Acritarchs			
Paucilibimorpha trinema		1	

Lithostratigraphic Units	Phare d'Ailly Mb			Lower SAOM Mb											Upper SAOM Mb												Craquelins Mb				Lower Argiles et Sablons Mb			Upper Argiles et Sablons Mb				Argile brune à concrétions Mb		Argile glauconieuse du Phare Mb			
Taxa \ Samples	A 58	CQ 0,19	CQ 0,3	CH 26	CQ 0,85	A 6-1	CQ 1,5-doub	CQ 1,5	96 CR 1	A 15-1	96CR 4-5	99 13	PA31 32 A	92A 39	92A 41	92A 42	GME 1	92A 44	92A 1	92A 2	92A 3	92A 4	92A 7	92A 8	92A 9	92A 15	92A 16	92A 17	92A 19	93 CR4	CA 0,85	CA 1,65	CA 1,75	CA 2,80	CA 3,60	CA 4,85	CA 5,50	92A 20	92A 51	92A 60	92A 62	92A 68	92A 70	92A 75
Achomosphaera alcicornu																													3	1	2		2						2			
Achomosphaera spp.																																	17		36							
Adnatosphaeridium multispinosum																																							3	0	1	2
Adnatosphaeridium robustum																																					0	1				
Adnatosphaeridium vittatum																				0																	0		3	0	1	
Adnatosphaeridium spp.																									1						1								5	0	4	2
Apectodinium folliculum								1																																		
Apectodinium homomorphum		19			123	29		106	26	56			0	55	20	21	100	6	79	44	13	37	25	18	37	23	45	20	6	15						0	10	2		4	5	
Apectodinium homomorphum-summissum								6																																		
Apectodinium hyperacanthum														1	2	0		1	1	1	3		0				0	2	0									0	0				
Apectodinium hyperacanthum-paniculatum								0							30													1														
Apectodinium paniculatum					1			1						8		4		10	0	2	3		3		0		0										1	1	3		1	
Apectodinium parvum					0			1		2			0	34	13	7		13	4	9	16	4	26	1	5	1	0	1		2							1	1	0	2	1	
Apectodinium quinquelatum					13			2		8			0	15	10	18	5	1	20	7	3	7	7	1	5	4	7	7	14	6	1	3	4	3		2		2	2	3		0	
Apectodinium quinquelatum-paniculatum								5						18		9																										
Apectodinium summissum		1			7	3			3	2				12	12	6		5	6	6	11	21	52	22	11	1	5	2	2	1							1	0		0		
Apectodinium spp. (broken)		3			50	15	52	43	70	141	42	190	210	64	112	116	35	160	58	118		130	116	159	122	113	92	102	84	59		1	3	40		1		1	11	25	37	6	8	4
Areoligera coronata				1						0						0	5		3							0	1	0	1								0				1	2
Areoligera medusettiformis																	0																									
Areoligera senonensis																	1																						0			
Areoliegra undulata																	0																									
Areoligera/Glaphyrocysta												17					9													34					1	3							
Axiodinium augustum ?														0																												
Axiodinium lunare																																2	2	1		3		18	1	2	0		1	
Batiacasphaera spp.					1																																1					
broken *Biconidinium* ?																																					0		0			
Cerodinium depressum																											0															
Charlesdowiniea ~crassoramosa																																		5								
Charlesdowiniea sp. (broken)																																								0		
Cleistosphaeridium polypetellum																																							0	0	1	0	5	
Cordosphaeridium exilimurum																0	1	0		2					0	1	0	1	1	0							1	0	1	2	1	2	
Cordosphaeridium fibrospinosum										1							3								0	0		2		2											1	
Cordosphaeridium gracile																																9	1			4	1	5			3			1
Cordosphaeridium inodes													0						1	0							0		1		1	2					5	3	4		4	7	1
Cordosphaeridium multispinosum												2																											0				
Cordosphaeridium spp.																0	4		3	1					0	4	16					1						1	2	5		1	4
Cribroperidinium tenuitabulatum																	0										1	1	0	1		1		2			2	1	5	2	0	2	5
Cribroperidinium sp.																																3										2
Dapsilidinium pseudocolligerum				1												6																						0					
Deflandrea denticulata																											0					3		1			1					
Deflandrea oebisfeldensis																											1					6					0	1	0	1		0	1
Deflandrea phosphoritica																																				5	2	1						
Deflandrea spp.																												0	0	0		1		1			0	0			0		
Diphyes colligerum					3		1	1					3	0	5		1		4					4	6		0	2	5	13		3	2	1		1		0	9	1	5	9	4	7
Diphyes aff. *colligerum* (with large processes)																0	10	1	3	6	0			9	3	5	1	4	2	0									0				
Dracodinium astra-lobisca																																							2	0	1	1		
Eocladopyxis peniculata						1				2							7												1	3														
Epelidinium brinkhuisii																											0																
Fibrocysta essentiale																															1	2											
Fibrocysta vectense																																							1		3		
Fibrocysta spp.														0	0			0								2		0	1							2			1		2			
Fromea laevigata																														1													
Glaphyrocysta divaricata														0	5	0		2	1	2	2			0	2	4	3	0	16	0								1	0		0		
Glaphyrocysta exuberans																	0																				1					1?		
Glaphyrocysta laciniforme																	0												0														
Glaphyrocysta ordinata										1										0					0	7	2		2	2									1				
Glaphyrocysta pastielsii																	0															1								0			
Glaphyrocysta reticulosa																											0	0											0		0		
Glaphyrocysta spp.										1				1	0		15			1		1			2	1	8	9	1			19							10	3	7	1
Hafniasphaera septata																																								0			
Heteraulacacysta leptalea										1							1										0			1		4	1								1?		
Heteraulacacysta spp.														0	0			0	2							1		1	0														
Homotryblium abbreviatum																											0																
Homotryblium tenuispinosum																				0																	1			0	1	0	3	0
Hystrichokolpoma cinctum																																						0					
Hystrichokolpoma rigaudiae																																							0	0	0		
Hystrichokolpoma slacium															0												1									1		0		0		1
Hystrichokolpoma unispinum ?																																						0					
Hystrichokolpoma spp.																											1					1						1		1			
Hystrichosphaeridium salpingophorum																												2	2														
Hystrichosphaeridium tubiferum																														1		3											
Impagidinium aspinatum																																											1
Impagidinium patulum																													1														
Impagidinium spp.																	0													0								0		1			
Kallosphaeridium brevibarbatum								4						1															0							0			0	0			
Kenleyia -complex		1		201	3	45	9	28	52	4	170	3	1	0	0	0	8		1								0		2	1		1				1							
Lejeunecysta hyalina																											1	4	2	3		1		1	2	1	2	0		1	0		1
Lentinia wetzelii																											1					3	2	7		1		0	2			1	
Lentinia aff. *wetzelii*																																						0					
Lentinia sp.		1			7	4	19	25	1					9	13	6		1									3	2	6	6						3	5	6	0		0		1	1
Lingulodinium machaerophorum					1,5			0		4		0,5	3,5	5	19	9,5		5	7,5	17	17	1,5	1	0					5	8		1,5	1	1,5			2,5	1	13	4	0	0,5	3
Lingulodinium strangulatum														8	2,5	0	11								20	15	12	10	10														
Melitasphaeridium pseudorecurvatum															0													0				1				1	0	1	2	1	1	4
Microdinium sp.																														2													
Muratodinium fimbriatum																			1											8														
Nematosphaeridium labyrinthus																	0																							1	0		
Oligosphaeridium complex																																				0					1		
Operculodinium centrocarpum																																				2		11	13				
Operculodinium microtrianum																												1								8		9	8	3	8		
Operculodinium spp.																7		8						2	6		1	4	2			1		1		1	40	18	16	17	28	17
Palaeocystodinium golzowense																																0,5		1			1	0				
Polysphaeridium zoharyi															0												1	3		3													
Polysphaeridium spp.																	1												1	12		2												
Pterodinium cingulatum																																										1
Pyxidinopsis spp.																																							1			
Rottnestia borussica																																							2			
Selenopemphix nephroides																																								0			
Selenopemphix selenoides																													1											0			
Senegalinium spp.																																									2		
Spiniferella cornuta																																							0				
Spiniferella cornuta opistophora																																								0			
Spiniferites spp.		1		2	4	1	1	12		3		3	3	2	1	4	12	19	7	3	1			1	2	3	18	21	24	28		19	25	9			10	108	138	97	64	162	91	125
Stenodinium meckelfeldense																																				1			0					
Thalassiphora delicata																											2		0								1	0					1
Thalassiphora patula																	0																							0	7		2		
Thalassiphora pelagica																	0															2	1					0	2	1		2	1
Turbiosphaera galatea																											3		0									0					
Vallodinium heilmannii																											3	1	1	5													
Wetzeliella spp. (broken)																																1	1	1			2,5			4	1		1	3
Gonyaulacoid A					2	126	137	0	112	4	3		3	10	8		5			0	5	7	4		6	2																		
chorate and proximochorate dinocysts					1					2				5	6	8	37	1	3	3						3	9	9	12			4	6				13	6	9	6	6	12	9
gonyaulacoids indet								1				1																				4	1				1	2			1		1	5
peridinoids indet																2											1		1								2	1	2	2			
Pediastrum spp.		100	85																			100		0		3	0	3	4	4													
Pterospermella barbarae																																								0				
Pterospermella spp.																		0																				0					
Cyclopsiella sp.																																							0	1	0		
Cometodinium spp.																											1																
Horologinella incurvata																																		1									
Micrhystridium spp.																													2	2					2	3		1			2	1
Paralecaniella indentata																																										1
other acritarchs					1												6											6	13					4			18	6	10	4		3	8

Lithostratigraphic Units	Bracheux Sand Fm			
Taxa \ Samples	CLAI 0	CLAI 25	CLAI 30	CLAI 50
Achomosphaera alcicornu	0	0		0
Achomosphaera spp.	25	23	50	
Alisocysta sp. (broken)		1		
Apectodinium homomorphum		0		
Apectodinium parvum		0		
Areoligera coronta	1	3	7	3
Areoligera medusettiformis	0			
Areoligera senonensis	0	1	1	8
Areoligera/Glaphyrocysta		1		
Cerodinium speciosum	0			
Conneximura fimbriata	2	2	1	1
Cordosphaeridium gracile			2	
Cordosphaeridium inodes	8	1	23	9
Cordosphaeridium multispinosum	0	0		
Cordosphaeridium sp.		3		
Cribroperidinium tenuitabulatum	1			
Cribroperidinium sp.	1	0	7	1
Dapsilidinium pseudocolligerum		0		2
Deflandrea denticulata		1		
Deflandrea medcalfii	1	3		
Deflandrea oebisfeldensis	3	0	16	
Deflandrea spp. (broken)	15	9	9	15
Diphyes colligerum	1	0		0
Elytrocysta sp.	1			
Fibrocysta bipolaris		0	1	
Fibrocysta essentiale				1
Fibrocysta vectense				2
Fibrocysta sp.	1			
Glaphyrocysta ordinata	3	0		
Glaphyrocysta pastielsii	2			1
Glaphyrocysta spp.	6			5
Heteraulacacysta leptalea	0			
Hystrichokolpoma rigaudiae		1		
Hystrichosphaeridium tubiferum	5	1	11	5
Lentinia wetzelii	1			0
Lentinia sp.		2		
Melitasphaeridium pseudorecurvatum		0		0
Oligosphaeridium complex	0	0	1	
Operculodinium centrocarpum				18
Operculodinium spp.	5		4	
Palaeocystodinium golzowense	0	1		
Palaeotetradinium minusculum	44	81	1	1
Phthanoperidinium crenulatum	51	34	46	20
Polysphaeridium sp.			1	
Riculacysta aff. *perforata* sensu De Coninck 1981	2			
Rottnestia borussica	1	0		0
Senegalinium dilwynense	1	5	3	
Senegalinium sp.	11	15		10
Spiniferites spp.(*ramosus*)	26	27	34	127
Tanyosphaeridium xanthipyxides	1			
Thalassiphora delicata	0			
Trigonopyxidia ginella		3		
Incertae Sedis 1 Heilmann-Clausen 1985			1	
peridinioids indet	1	6		
chorate/proximochorate cysts indet	3	3		
Paralecaniella indentata	4	3	6	5
other Acritarchs	1			
Palambages sp.				1

Lithostratigraphic Units	SAOM Mb					
Taxa \ Samples	**C15**	**C16**	**C18**	**C31**	**C38**	**C43**
Achomosphaera spp.		56	17			
Apectodinium homomorphum				0	2	3
Apectodinium hyperacanthum					0	
Apectodinium paniculatum				1	0	
Apectodinium parvum				0	1	37
Apectodinium quinquelatum				14	6	1
Apectodinium summissum					3	4
Apectodinium spp.	1?		1	40	40	91
Areoligera coronata			2	5	0	
Areoligera medusettiformis				1		
Areoligera /*Glaphyrocysta*			14	3	15	
Batiacasphaera sp.			1			
Cordosphaeridium exilimurum				2	0	
Cordopshaeridium inodes			1			
Cordosphaeridium sp.					1	
Cribroperidinium tenuitabulatum				0		
Dapsilidinium pseudocolligerum			1	0		
Deflandrea oebisfeldensis				0		
Diphyes colligerum	1			0	0	1
Diphyes aff. *colligerum* (with large processes)					0	1
Eocladopyxis peniculata	20	23	5	31	2	3
Fibrocysta sp.				0	0	
Glaphyrocysta divaricata					0	
Glaphyrocysta ordinata				1		1
Glaphyrocysta sp.	9	1				6
Heteraulacacysta leptalea				2	0	
Hystrichosphaeridium tubiferum				0		
Impletosphaeridium sp.						
Kenleyia-complex	32	19	140			
Lejeunecysta hyalina				0		
Lentinia wetzelii				0		
Lentinia sp.				3		
Lingulodinium strangulatum/macherophorum	42	6	11	43		17
Nematosphaeropsis sp.				0		
Operculodinium spp.			1	13		2
Phthanoperidinium crenulatum				0		
? *Senegalinium*				0		
Spiniferites spp.	32		22	35	0	
Thalassiphora patula				0		
Gonyaulacoid A				9	155	37
chorate/proximochorate cysts indet	71	101	20	12		1
Micrhystridium spp.				1		
other acritarchs			30	17		
Pediastrum spp.						*200/8df

Lithostratigraphie	Le Tillet Sand Mb ?		Bracheux Sand Mb?			Rivecourt Sand Mb?	Vauxbuin Mb			Sinceny Mb?	Aizy Sand Mb?		Pierrefonds-Cuise Sand Mb?	Laon Clay Mb		
Taxa \ Samples	**CuLM 16**	**CuLM 15**	**CuLM 14**	**CuLM 13**	**CuLM 12**	**CuLM 11**	**CuLM 10**	**CuLM 9**	**CuLM 8**	**CuLM 7**	**CuLM 6**	**CuLM 5**	**CuLM 4**	**CuLM 3**	**CuLM 2**	**CuLM 1**
Achomosphaera alcicornu			3	1							1		1			
Adnatosphaeridium multispinosum												1	1			
Adnatosphaeridium robustum			0							0	1		41	20	1	
Adnatosphaeridium vittatum	1										2					
Alisocysta margarita			1													
Alisocysta sp.2	2		2													
Alisocysta sp.(broken)		2														
Apectodinium homomorphum							4	5	3		1					
Apectodinium paniculatum								0								
Apectodinium parvum							3	12	7	5	1					
Apectodinium quinquelatum								1		0		2		0		
Apectodinium summissum							1	0								
Axiodinium sparnacium							1	0		2						
Apectodinium spp.						3	61	138	97	122	28	6				
Areoligera coronata	3	19	21	8	4		3	2	3	1			12	99	29	
Areoligera senonensis			0											5		
Areoligera undulata															1	
Areoligera sp.															0,5	
Areoligera/Glaphyrocysta						2		4			5					
Batiacasphaera sp.											2					
Biconidinium longissimum	1							0		54						
Cerebrocysta bartonensis															1	
Cerodinium depressum			1													
Cerodinium diebelii											3					
Charlesdowniea coleothrypta														0		
Charlesdowniea tenuivirgula														2		
Charlesdowniea sp. (broken)											0					
Cladopyxidium saeptum			1													
Cleistosphaeridium diversispinosum																
Conneximura fimbriata			0													
Cordosphaeridium fibrospinosum/exilimurum								0								
Cordosphaeridium gracile											10		0	1	0	
Cordosphaeridium inodes	1,5	5	1	14			1	0	5	2	2					
Cordosphaeridium multispinosum		1	0													
Cordosphaeridium sp.			3		2			1		4	8	5		6	4,5	
Cribroperidinium tenuitabulatum			0							0	4		9	0	2	
Cribroperidinium (small, granulate)			0													
Cribroperidinium sp.			2	4										1		
Deflandrea denticulata	3		2	1												
Deflandrea oebisfeldensis	7	15	3	15	2	1										
Deflandrea sp.											2					
Diphyes colligerum	1	2	1	4		1		3		2	4	1		3	5	
Dracodinium varielongitudum														1		
Dracodinium sp.											1					
Elytrocysta brevis	1	5	3		2											
Eocladopyxis peniculata								8					3		1	
Fibrocysta essentiale										0	2					
Fibrocysta vectense										0						
Fibrocysta sp.												1				
Glaphyrocysta divaricata										0						
Glaphyrocysta exuberans											1					
Glaphyrocysta ordinata			0	1							3					
Glaphyrocysta pastielsii	1			2												
Glaphyrocysta vicina															12	
Glaphyrocysta sp.			2	8	1			0			6		6	0		
Hafniasphaera septata	3		1												1	
Heteraulacacysta campanula										0	1				1	
Heteraulacacysta leptalea										1						
Homotryblium abbreviatum													8		2	
Homotryblium tenuispinosum												1		13	15,5	
Hystrichokolpoma cinctum														0	0	
Hystrichokolpoma granulatum										0					4	
Hystrichokolpoma salacium										0						
Hystrichokolpoma sp.											1	1				
Hystrichostrogylon granulatum											1				1	
Hystrichosphaeridium tubiferum	3	1,5	2,5								1	1				
Hystrichosphaeropsis sp.															0	
Impagidinium aspinatum				1												
Impagidinium sp.															1	
Kallosphaeridium sp.															1	
Kenleyia -complex									1	3				2	2	
Lejeunecysta hyalina	1			1							4				1	
Lentinia wetzelii	5	4	2	6	1						0					
Lentinia sp.			3		1						3					
Lingulodinium machaerophorum			0,5				1	24		15	3		2,5	2	1	
Lingulodinium strangulatum									5		1				1	
Melitasphaeridium pseudorecurvatum			4	2					1		1				3	
Microdinium ornatum		1		1												
Nematosphaeropsis sp.	1													0		
Oligosphaeridium complex			0	2	0						1					
Operculodinium centrocarpum	1	4	3	3								14				
Operculodinium microtrianum												3,5				
Operculodinium spp.	1		7	14	3				1	1	8	26	2	1	9	
Palaeocystodinium golzowense				1							1					
Palaeotetradinium minusculum		2														
Phthanoperidinium crenulatum		1	7	1								4				
Phthanoperidinium resistente															2	
Phthanoperidinium sp.				1	1								1	2		
Polysphaeridium subtile														2	0,5	
Polysphaeridium zoharyi							1									
Pterodinium cf. *cornutum*										0						
Senegalinium dilwynense		2	1	1												
Senegalinium sp.	1															
Spiniferella cornuta		1														
Spiniferites spp.	61	129	129	84	22	13	1	4		13	99	74	20	39	115	
Tanyosphaeridium xanthiopyxides		3														
Thalassiphora delicata											2					
Thalassiphora pelagica				1						0		2	4	2	1	
Wetzeliella aff. *articulata* -group											2			2		
Wetzeliella lunaris											2					
Wetzelielloids											4					
Gonyaulacoid A								0	1							
chorate/proximochorate df	2		1	8	4		1	7		7	5	8		2	3	
gonyaulacoids indet	1												10		5	
peridinioids indet				1							1					
Pterospermella aureolata			1	1	2								5			
Pterospermella sp.											5	1				
Micrhystridium spp.	17	24	34	24	9			1			24	26				
Horologinella incurvata			1	1	1											
Paralecaniella indentata			1	1	3							3				
other acritarchs	58	24	20	1						4	7		8		20	

Lithostratigraphic Units	Louvil Clay Mb?		Grandglise Sand Mb								Flines-les-Râches Mb (L1: Lignitic Sand)														Flines-les-Râches Mb (L2: Lignite Bed							?	Orchies Clay Mb	
Taxa \ Samples	FLC - 0,35	FLC + 0,35	FLC + 1,35	FLC + 3,50	FLC + 5,50	FLB + 2,50	FLB + 6,00	FLB + 9,55	FLB + 12,25	FLD + 0,75	FLD + 4,00	FLG + 0,40	FLG + 0,55	FLG + 1,00	FLG + 1,10	FLG + 1,25	FLG + 1,40	FLG + 1,50	FLH + 2,60	FLH + 2,75	FLH + 3,00	FLH + 3,30	FLA + 2,50	FLA + 2,60	FLA + 2,70	FLA + 2,75	FLA + 2,78	FLA + 2,82	FLA + 2,87	FLA + 2,92	FLA + 2,97	FLA + 2,99	FLA + 3,15	FLA + 4,45
Achomosphaera alcicornu				0	1		0																							1	1	
Achomosphaera ramulifera																																1
Achomosphaera spp.				29	4	29			1																							
Adnatosphaeridium multispinosum																														1		
Adnatosphaeridium spp.																														1	0	
Alisocysta margarita?				0																												
Alisocysta sp.2 sensu Heilmann-Clausen						2		0																						0		
Alisocysta sp. (broken)				0			2																									
? *Alterbidinium* cf. *circulum?* or *Senegalinium*?							4																									
? *Alterbidinium/ Senegalinium*?				1	5	2	7																									
Apectodinium homomorphum																													15	4	1	
Apectodinium parvum																													6	1		
Apectodinium quinquelatum																															2	
Apectodinium summissum																													2			
Apectodinium spp. (broken)																													201	58	6	5
Areoligera coronata				14	20	4	1																							1	1	
Areoligera senonesis				15	8	2																										
Areoligera spp.																														1		
Areoligera/Glaphyrocysta -group						20	21																									
Cerodinium depressum																															1	
Cerodinium diebelii								1																						0		
Cerodinium medcalfii?							1																									
Cerodinium speciosum glabrum?						1																										
Cerodinium striatum							1	7																								
Charlesdowniea tenuivirgula																																2
Cladopyxidium saeptum				0																												
Conneximura fimbriata							1																									
Cordosphaeridium exilimurum				0																											1	
Cordosphaeridium gracile																														3		2,5
Cordosphaeridium inodes				2	1	7	3	8																						1	2	
Cordosphaeridium multispinosum				7			0																									
Cordosphaeridium spp.					7	5	7																									
Cordosphaeridium/Fibrocysta																															1	
Cribroperidinium giuseppei				0																										3		
Cribroperidinium tenuitabulatum				1	0	2	3																									
Cribroperidinium spp.																															1	
Dapsilidinium pseudocolligerum								2																								
Deflandrea denticulata								1																						0		1
Deflandrea oebisfeldensis				1	2	1	6	3																						8	10	11
Deflandroid (broaken) (*Deflandrea/Cerodinium*)				5	7	7	20	6																								
Dinopterigium cladoides				3			1	2																								1
Diphyes colligerum				1			1																							2	2	3
Diphyes aff. *colligerum* (with large processes)																													2			
Elytrocysta brevis					3	3		1																								
Eocladopyxis peniculata						1																										
Fibrocysta vectense				0	0	3																								0		
Glaphyrocysta divaricata							2																									
Glaphyrocysta exuberans																																1
Glaphyrocysta ordinata				1	2	0	2	1																						1	1	
Glaphyrocysta pastielsii						3	5	1																								
Glaphyrocysta aff. *texta*					11	4																										
Glaphyrocysta spp.					12			3																						1	4	6
Hafniasphaera septata								1																								
Heteraulacacysta leptalea																														0		3
?*Heteraulacacysta* sp.						0																									1	
Hystrichokolpoma salacium																														0		
Hystrichokolpoma (broken)					1																								0			
Hystrichosphaeridium tubiferum				5	0	5	1	1																						1	3	11
Impagidinium spp.					1	1		0																								
Kallosphaeridium orchiense						0																										
Kallosphaeridium spp.																																1
Lejeunecysta hyalina					1	5	3	1																						3	4	5
Lentinia wetzelii				3	1	1		2																							0	6
?*Lentinia* sp.				3				14																								
Lingulodinium machaerophorum																														1	2	
Lingulodinium strangulatum						0																									2	1
Melitasphaeridium pseudorecurvatum				3	0	1	1	1				1																		2	2	
Membranosphaera sp.B in Heilmann-Clausen 1985					0	1	5	2																								
Microdinium ornatum				2	0			1																								
Microdinium sp.							2																									
Nematosphaeropsis reticulensis				1				1																								
Oligosphaeridium complex				1																										1	3	
Operculodinium centrocarpum				5		4	1																							0		
Operculodinium divergense							1																									
Operculodinium spp.					8	7	3	12																						3	5	
Palaeocystodinium golzowense					0																											
Palaeocystodinium lidiae				0	4	2	0	4																								
Palaeotetradinium minusculum					0		1																									
Phelodinium magnificum				1	2		1																									
Phthanoperidinium crenulatum				6			0																									
? *Phthanoperidinium echinatum*																														0		
Phthanoperidinium spp.								1																								
Polysphaeridium subtile				2																											1	
Polysphaeridium zoharyi				1																												
Polysphaeridium spp.					1																									5		
Rottnestia borussica							2																									
Senegalinium? dylwenense					9	3	2																									
Senegalinium spp.							1																									
Spiniferella cornuta																														1		
Spiniferites spp.				104	88	104		117				1																		82	120	41
Tectatodinium pellatum								1																						0		
Thalassiphora delicata																														0	0	
Thalassiphora pelagica						1																								0		
Trigonopyxidia ginella						1																								1		
Wetzeliella astra/lobisca																														0		
Wetzeliella lunaris																														0	8	
Wetzeliella spp. (broken)																														0		
Wetzelielloid																													1			
peridinoids indet								1																								1
small gonyaulacoid with apical archeopyle								1																								
Incertae sedis 1 Heilmann-Clausen 85				1*	2*																											
chorate dinocysts				4	3	5	6																									16
broaken gonyaulacoids					3	2	4	14																						25	15	6
Green algae																																
Pediastrum spp.																													24	46		
Prasinophytes																																
Pterospermella aureolata							1*	3*																								
Pterospermella sp.					1*																									1	1	
Acritarchs																																
Cyclopsiella spp.				1*	4*		13*	4*																							2	1
Fromea laevigata				0																												
Fromea spp.				2*	1	3*																										
Micrhystridium spp.				10*	31*	13*	30*	30*																						25	6	10
Paralecaniella indentata					4*	3*	49*	63*							2															0		6
Paucilibimorpha incurvata					1*		1*	1*																								
Pseudomasia trinema							2*	3*																								
other acritarchs				39*	7*	12*	8*	7*																						30	33	11

Lithostratigraphic Units	Holnon Mb					
Taxa \ Samples	**H 32**	**H 33**	**H34**	**H37**	**H 38**	**H 39**
Apectodinium homomorphum	15	3	7	17	11	
Apectodinium hyperacanthum				0		
Apectodinium parvum		1	2	2	7	
Apectodinium quinquelatum	6	2	2	0	19	
Apectodinium summissum	7	2		1	10	
Apectodinium spp.	152	185	165	345	129	
Areoligera coronata	7	0	0	2	1	
Areoligera/Glaphyrocysta			11	14		4
Cordosphaeridium exilimurum	1	0	0			
Cordosphaeridium fibrospinosum			1	2		
Cordosphaeridium inodes				0	1	
Cordosphaeridium sp.	1	1	1	1	1	
Cribroperidinium tenuitabulatum				0	1	
Diphyes colligerum	9	1	7	0		
Diphyes aff. colligerum (with large processes)		0	16	17		
Eocladopyxis peniculata				0	1	
Diphyes spinulum	1					
Glaphyrocysta divaricata				0		
Glaphyrocysta ordinata	1	0	0	0	9	
Glaphyrocysta pastielsii			0			
Glaphyrocysta texta			0			
Glaphyrocysta sp.		8		7	14	
Heteraulacacysta campanula			0			
Hystrichosphaeridium tubiferum				0		
Impagidinium dispertitum				0		
Lingulodinium strangulatum	7	2,5	5	7,5	4	
Muratodinium fimbriatum		0				
Nematosphaeropsis sp.				0		
Polysphaeridium sp.		0,5				
Spiniferites spp.	6	2	4		1	
Thalassiphora patula		2				
Thalassiphora pelagica	0					
Gonyaulacoid A			3	1		
chorate/proximochorate df					4	

Lithostratigraphic Units	Vauxbuin Mb												Sinceny Mb					Laon Sand Mb ?				
Taxa \ Samples	LAN2 0,13	LAN2 0,32	LAN2 0,45	LAN2 0,85	LAN2 0,97	LAN 0,30	LAN 0,50	LAN 0,70	LAN 0,74	LAN 0,85	LAN 0,92	LAN 0,96	LAN 1,00	LAN 1,10	LAN 1,20	LAN 1,84	LAN 2,14	LAO 5,2	LAO 7,75	LAO 9,6	LAO 10,1	LAO 12,1
Apectodinium augustum		0																				
Apectodinium folliculum	0																					
Apectodinium homomorphum	5	5		6	7	5	11						1	1	12							
Apectodinium hyperacanthum	0				3		1							2	0							
Apectodinium paniculatum				1										2	4							
Apectodinium parvum	18	6		10	24	29	22						17	37	17							
Apectodinium quinquelatum	0					1	2						7	3	11							
Apectodinium summissum						1	7						0	1								
Epelidinium brinkhuisii	0																					
Vallodinium heilmannii															0							
Stichodinium sympagicum															0							
Apectodinium spp.	156	100		170	203	170	160						121	142	116							
Areoligera/Glaphyrocysta spp.		7		4	3	1	8								5							
Biconidinium longissimum	8	3,5		8	0	0	0,5						29	33	48,5							
Cordosphaeridium exilimurum	3	3,5		0	2	2	14						5	0	1							
Cordosphaeridium inodes		1		1			4						3	4	0							
Cordosphaeridium spp.	1														1							
Cribroperidinium tenuitabulatum	0					0																
Cribroperidinium sp.							1															
Dinopterigium cladoides							0															
Diphyes colligerum							0															
Diphyes aff. *colligerum* (with large processes)					0	0																
broken *Diphyes* sp. or *Dapsilidinium* sp.							4							0	1							
Eocladopyxis peniculata															1							
Fibrocysta spp. (broken)	0	3		1	1	1								0	3							
Florentinia reinchartii	0												2		1							
Glaphyrocysta ordinata		1			0									0								
Glaphyrocysta cf. *reticulosa*	0	1					0															
Glaphyrocysta divaricata					0																	
Glaphyrocysta spp.	5			1									0	3	1							
Heteraulacacysta leptalea		2				1	0															
Hystrichokolpoma cinctum														0								
Hystrichokolpoma salacium															3							
Hystrichokolpoma spp.													1									
Lingulodinium machaerophorum						0	11						4,5	6	3							
Lingulodinium strangulatum	12	6,5		1	1	0	4							2,5	5							
Operculodinium spp.							0															
Polysphaeridium zoharyi	0	2		1																		
Spiniferites spp.	5	1			1		1						5		2							
Turbiosphaera galatea						0																
Peridinoids indet							0								1							
chorate and proximochorate dinocysts indet				1									8							6	8	
Gonyaulacoids indet (broken)	4	3			2	1	6								5							
Pediastrum spp.						1																
Acritarchs															9							

Lithostratigraphic Units	Le Tillet Sand Mb								Rollot Sand Mb ?	Germaine 'Marne à rognons' Mb	Limay Clay Mb		Provins Clay Mb	Muiran-court Mb	Vaux-buin Mb	Muirancourt Mb			Vauxbuin Mb								Sinceny Mb							Laon Sand Mb			Aizy Sand Mb										Pierrefonds-Cuise Sand Mb ?								Pierrefonds-Cuise Sand Mb								Laon Clay Mb
Taxa \ Samples	LT 184.35	LT 93	LT 85	LT 84	LT 82	LT 81	LT 169.05	LT 79	LT 78	LT 77	LT 73	LT 71	LT 69	LT 154.93	LT 68	LT 153.87	LT 67	LT 66	LT 151.85	LT 65	LT 63	LT 62	LT 149.60	LT 61	LT 60	LT 59	LT 58	LT 57	LT 56	LT 54	LT 53	LT 52	LT 51	LT 50	LT 49	LT 48	LT 47	LT 46	LT 45	LT 43	LT 42	LT 40	LT 38	LT 33	LT 32	LT 31	LT 30	LT 27	LT 22	LT 18	LT 17	LT 14	LT 12	LT 10	LT 9	LT 8	LT 5	LT 3
Achilleodinium biformoides																								1																																							
Achomosphaera alcicornu	1					0,5	1																								1							0		3																				
Achomosphaera bucina	1					1	2																																																					
Achomosphaera ramulifera	0						1																																																				
Achomosphaera sagena																																								0																				
Achomosphaera spp.		58	1	39	60	12		12											1					1	1				1	2	14	65	8	21	59	22	19	70	32	96	2	63	21	1		30	24	21	5	40	34	29						4	8
Adnatosphaeridium multispinosum																															0				5		4		0																		1	6
Adnatosphaeridium robustum					1																										10	1	3	3		8,5	7	13,5	2		6	3				1,5	3,5	1,5	5		4,5					24	11
Adnatosphaeridium vittatum																															3		3			1	1	0		1						1								2	1
Adnatosphaeridium sp. (broken)			1	2																															1				2		1				1	3							5,5					9
Alisocysta sp.	1																																																									
Apectodinium homomorphum					1				1						51				2	4	23	4		11	2	2		0	0	4	8	1	3	2		1	3			0					1					0	1							
Apectodinium homomorphum-summissum		2																																																								
Apectodinium hyperacanthum																							1																																			
Apectodinium cf. *hyperacanthum*											1				0						4							0																															
Apectodinium paniculatum-quinquelatum																			2																																							
Apectodinium parvum	2	3						2	2		1				14				3	147	11	83	30	25	3	1	3	2	7	25	17		2	6					1																			
Apectodinium parvum-hyperacanthum																								0																																		
Apectodinium quinquelatum				0	1			2							1				2	1	1	2		1				0	0	5	6		1	33	5	5	14	3	20			1		1	1				16	3						5
Apectodinium summissum	1	3													2				1	1	6	1							1	6																													
Apectodinium spp.	6	2	1	4	4	8	8	4	5	1	3	1		1	173	18			150	91	174	95	137	122	18	29	18	25	18	69	93	25	9,5	14	5	4	11	8	15	6	3		2		2										1		
Apteodinium sp.	8																																																									
Areoligera coronata	2		3	1	5	12	2	6											14			1		1	2	1	2	4	0	1						1				0								1	4	23	27,5	13,5				4	
Areoligera medusettiformis						2																																																		0	1					
Areoligera senonensis	1	2		1	1	2	6															1										3	1																							1		
Areoligera spp.						9	7														2							7				1	1							1										3						1
Areoligera/Glaphyrocysta	6																		19			7			36	34	8,5		12			8		1		2	2																			
Axiodinium lunare																																																1									
Axiodinium ~lunare (broken)																																			0	1				2						2		4				0				
Ax. lunare-Dr. varielongitudum (transition)																																																									
Axiodinium sparnacium																				0		1		25	19	23	20	10	24	18	0																											
Axiodinium sp.A																								0			0																													
Axiodinium sp.B																								0			0																													
Axiodinium sp.C																											0																													
Baticasphaera sp.																																1	1																								
Biconidinium longissimum		1		0							0,5									0	0	1	0	2	36	17,5	37,5	135	29,5	50	33	0,5	2	0,5				0	0,5		0			0,5												1	
Cerodinium diebelii					2	1																										1																								
Cerodinium medcalfii	1																																																									
Cerodinium (broaken)		1																																																									
Charlesdowniea coleothrypta																																																									16
Cleistosphaeridium diversispinosum																																							3																1	
Cleistosphaeridium polypetellum																																		11,5	11		20	13	20,5	7	4	2,5				15					2,5	1,5					
Cleistosphaeridium sp.																																1																				2				
Cordosphaeridium cracenospinosum																																			2		1	1																		
Cordosphaeridium exilimurum			2	2	4	4																0		4	1			3		10	3																										
Cordosphaeridium fibrospinosum				4																		1	1		6	6			4									1								2	0,5									
Cordosphaeridium gracile	4		1		1																									0	3	1	1	2	3	0	0	2	0	3	2	1	1		0,5	1	0,5		2			5,5		
Cordosphaeridium inodes	3	10	4	7	10	24	7	8												0				3	4	8	2	2		7	7	2	0,5	2	2		1	6	1	5	1	2		2		2	3	1		4	3	2				5,5
Cordosphaeridium multispinosum	0	1	1	5	2	7	1	2																	1													1	0																	
Cordosphaeridium spp.			4		9	34																1	2					1								13	5,5	1,5	7		5						1	3		5				1	
Cordosphaeridium/Fibrocysta sp.							29																						1						16																				
Cribroperidinium giuseppei																															1																								
Cribroperidinium tenuitabulatum			1	0	0																											2	2	0	1	2				3	6					1		3	1	2					
Cribroperidinium sp.		4		1		1	0																		3							1																								3
Dapsilidinium pseudocolligerum								1											0												1																										
Dapsilidinium simplex																							1																																	
Dapsilidinium sp.								1																																																		
Deflandrea denticulata				1			0																								0																										
Deflandrea oebisfeldensis	10	11	3	5	0	3	4																											0																							
Deflandrea phosphoritica																																		1				0	0																
Deflandrea sp. (broaken)																															0						0																		
Dinopterigium cladoides																									2	5	0		1	0		3		1	2															0						
Diphyes colligerum	1	4		5	6	3	4								1					7	0			1	3	2	9	0	1	4	1	3	1	4	5	3	5	6	9	8		4	2		1	1	1			9	1,5					
Diphyes aff. *colligerum* (with large processes)		1		0																				1	0		0			0																											
Diphyes pseudoficusoides																																							0																	
Dracodinium astra-lobisca																																14			0		1	0		1	3								0						
Dracodinium? modestum																									0																															
Dracodinium varielongitudum																																																								1
Dracodinium/Rhombodinium (broken)																																																2								
Elytrocysta brevis	1																																																								
Emmetrocysta sp. B in Edwards 1983																																1		1				2								2									
Eocladopyxis peniculata																				10		6	20	0	2		0			0	1							0																		
Fibrocysta axiale																																						1									1						3			
Fibrocysta bipolaris						4	2																																																		
Fibrocysta essentiale					1																																																			
Fibrocysta vectense	3	4			3										0											3							1	3	1			1														7					
Fibrocysta sp.					1	8		1																											3					3				2		0,5		1							
Florentinia reinchartii																							3					1																												
Glaphyrocysta divaricata	1		1	14	3																		0			2			0				1																						
Glaphyrocysta exuberans							4																1									1																						
Glaphyrocysta aff. *lacinilforme*																																																							
Glaphyrocysta ordinata			12			1																			3	2				0		1	2	2,5				0																	
Glaphyrocysta aff. *ordinata*																																						3																	
Glaphyrocysta pastielsii	6	3	1	0	5	10	7	3																2			0			0																										
Glaphyrocysta vicina																																																							
Glaphyrocysta sp.		2	1	43	25	45	33	9							0				2	0		1		5	5						3		3	2				0					0,5											2
Hafniasphaera septata	2																																					0																	
Heteraulacacysta campanula							1															2																	1																
Heteraulacacysta leptalea																								0	4		5		1	0	0	0																								
Heteraulacacysta sp.					1																			0				0		1																							2		
Homotryblium tasmaniense																																																						0		2,5	35
Homotryblium sp.																																0																								
Hystrichokolpoma cinctum																																			1				1														1		
Hystrichokolpoma granulatum																															0																						0	1,5			
Hystrichokolpoma rigaudiae				5	6	5																					1		1																								1			
Hystrichokolpoma salacium																												0	0																								1			
Hystrichokolpoma spinosum																																																							
Hystrichokolpoma sp.					1	1																																																	
Hystrichosphaeridium tubiferum	10	5	1	3	3	6	7	2																								4	1	2																					
Impagidinium dispertitum				2	0			1																	3							1																								
Impagidinium sp.1 Heilmann-Clausen 1985																																1						0																	
Impagidinium sp.		1				2	3																													1																		
Impletosphaeridium severinii																																					1																		
Impletosphaeridium sp.																																						1			1													
Kallosphaeridium brevibarbatum																																				2	0		0																
Kallosphaeridium yorubanense	1																																						1																	
Kallosphaeridium sp.						1																													0		1		1																
Kenleyia -complex																								0	2	9	1						2					1		1																1	
Lanternosphaeridium lanosum																														0					0																				
Leberidocysta sp.																																																						1			
Lejeunecysta hyalina	0	1	1	0	1																																	2		1																
Lentinia wetzelii	2	4			4	5	3	1																						1		1		1			1		1														0				
Lentinia sp.			0	2	1	5		1																								1		1																			1	1			
Linguludinium machaerophorum			1																	1		3	2		18,5	53	4		69				0,5			0,5			0					2											
Linguludinium strangulatum															2						0			6				39,5		18,5	21,5	5		0,5				2	4			1					3					1	1
Melitasphaeridium asterium			1																																																					
Melitasphaeridium pseudorecurvatum	2	3		6	5		1																									1		3	2	3	2	3	1	0	1	3			1		1		2	1				
Membranosphaera sp.B Heilmann-Clausen 1985		2																														1																							
Microdinium ornatum						2																										0																							
Microdinium sp.																																1																							
Muratodinium fimbriatum																												0	1	0								0																		
Oligosphaeridium complex				0																																																				
Operculodinium centrocarpum	26	6		0	2		5	1											4	1	8		6	10	4	13	20	4	7	14	2	12	9	4																				1	3
Operculodinium divergense							1																																																	
Operculodinium microtrianum			1				2																		1	0,5	2	3		0	7,5	3	0	4	3			2		2														1			1	
Operculodinium spp.		12	2	1	9	4																		1								16	10	7	11	5	16	20	12	14		12				20	8	4			2						
Palaeocystodinium golzowense																																									1																
Palaeocystodinium lidiae	1																															1																							
Palaeotetradinium minusculum	1																																																							
Petalodinium lenisium																														0																										
?Phelodinium sp.	0																																																							
Phthanoperidinium crenulatum	40	28					1																		0			0				1	9	28	3	24	40	21	36	2	3	7																
Phthanoperidinium echinatum																																									1																
Phthanoperidinium aff. *echinatum*																																				5																1			
Phthanoperidinium resistente																																								1	1														
Phthanoperidinium sp.	1			3	1																													11	2			1	1	3	6	2								4	1			3
Polysphaeridium subtile																																																				3				
Polysphaeridium zoharyi	0																			1					0																														3		1	4
Polysphaeridium sp.				4	3	2	1																																																	
Pterodinium cingulatum																												1																										
Rottnestia borussica	2	0																																	1		0			1		1				1								
Selenopemphix selenoides																																																				1				
Senegalinium dilwynense	2																																																						
Senegalinium sp.			7	0		4	0	1																																												1		1		
Spiniferella cornuta																																		1		1		1														1		
Spiniferites pseudofurcatus																																				1																1			
Spiniferites ramosus-group	75																																																						
Spiniferites spp.		29	13	42	19	31	73	3											6					0	13	11	5	8	5	3		15	22	63	26	97	64	50	37	12	3	39	13	2	15	14	11	3	1	44	32	45				1	51
Stenodinium meckelfeldense																																																				0				
Stichodinium parisiense																									0		0		0		0																									
Stichodinium prostimus																															0																								
Stichodinium sympagicum																								0	0		0	0	0		0																									
Thalassiphora delicata																																			1						1													
Thalassiphora pelagica				0																					1					1				1	1		0														2				
Turbiosphaera galatea																													4	0																								
Vallodinium heilmannii																								0	1			0																											
Vallodinium picardicum																								0	0		0		0		0																									
Vallodinium sp.A																									0																															
Wetzeliella-Dracodinium simile (transition)																														0																								
Wetzeliella sp.																																				1	0		0		1		1				0				1	1			4
Wetzelielloids																								0	0					0																								8			1	
Gonyaulacoid A							1													4	11	4																																				
Gonyaulacoid B																						1																																			
Gonyaulacoid C																						2			31	32	123

Lithostratigraphic Units	Lihons Mb							Holnon Mb										
Taxa \ Samples	07L 0,97	07L 1,05	07L 1,09	07L 1,25	07L 1,38	07L 1,42	07L 1,57	07L 1,78	07L 1,95	07L 2,25	07L 2,45	07L 2,95	07L 3,05	07L 3,20	07L 3,31	07L 3,80	07L 4,10	07L 4,50
Achomosphaera ramulifera																0		
Adnatosphaeridium robustum																0		
Apectodinium homomorphum																3		
Apectodinium parvum																8		
Apectodinium quinquelatum																3		
Apectodinium spp.																102		
Areoligera coronata							31	4				46		11	1	2	5	0
Areoligera/Glaphyrocysta							152	48		6		32	149	112	15	17	121	204
Cordosphaeridium exilimurum																0	2	
Cordosphaeridium fibrospinosum												12					0	
Cordosphaeridium sp.													7	5	3	5	6	
Cribroperidinium tenuitabulatum													4	6		0	5	
Cribroperidinium sp.																0		
Diphyes colligerum							1					4	2	3			5	
Diphyes aff. *colligerum* (large processes)																11	2	
Eocladopyxis peniculata								1								10	13	6
Fromea fragilis													1					
Glaphyrocysta divaricata																	0	
Glaphyrocysta ordinata																0	1	0
Glaphyrocysta pastielsii							0					2				0	0	
Heteraulacacysta leptalea																0		
Hystrichosphaeridium tubiferum																1	1	
Impagidinium patulum																0		
Lingulodinium machaerophorum							2					1		2		33	10	
Nematosphaeropsis labyrinthus																0	1	
Polysphaeridium zoharyi													4		1			
Polysphaeridium sp.																2		
Spiniferites spp.							2							2		29	28	
Tectatodinium pellitum																0		
Gonyaulacoid A																1		
proximochorate& chorate df indet				1			6	1	1					1				
gonyaulacoids indet (broken)							3						5		1		3	9
reworked df												1						
acritarchs												27						
Pediastrum spp.	20		2	4	116+	2	4	1		18	56	4	2	5	3	1	1	

Lithostratigraphic Units	Thanet Sand Fm							Upnor Fm		Lower Woolwich Beds Fm						Stripped Loams		Upper Reading Beds Fm							Upper Woolwich Beds Fm	London Clay Fm	
Taxa \ Samples	52.95 m	51.10 m	48.96 m	47.02 m	45.05 m	43.13 m	42.03 m	41.0 m	40.58 m	33.70 m	33.20 m	32.89 m	32.27 m	32.04 m	31.60 m	31.30 m	30.80 m	30.12 m	29.80 m	29.10 m	28.98 m	27.76 m	26.80 m	26.08 m	24.87 m	23.23 m	22.54 m
Achomosphaera alcicornu		3	4		0	2		2	1																		
Achomosphaera ramulifera	4	1			2	1																				4	
Achomosphaera spp.	10	33	10				5																			62	30
Adnatosphaeridium sp.											0																
Alisocysta margarita			2		1	1																					
Alisocysta sp.2	2	2																									
Alisocysta sp. (broken)				1																							
Apectodinium homomorphum										8	19	3	7	4	33		10	8							7		
Apectodinium parvum										33	57	25	9	6	8		4	7							4		
Apectodinium quinquelatum											4	1		0	0		1	1							1	2	
Apectodinium summissum												1			1		1								6		
Apectodinium spp.										112	96	29	162	113	143	1	63	85							157	4	
Areoligera coronata	31		3	2	9	1	1	5	14		0							1								2	
Areoligera medusettiformis	21	2	2		12	1		2																			
Areoligera senonensis	1				1				0																		
Areoligera/Glaphyrocysta			11		6		1		27	2	1	2	1														2
Apteodinium sp.		1						2	3																		
Batiacasphaera sp.									2																		
Biconidinium longissimum																										1	
Cerodinium depressum					1																						
Cerodinium diebelii	3	7																								4	1
Cerodinium medcalfii ?	0																										
Cerodinium speciosum								1	2																		
~ *Cerodinium wardenense*									1																		11
Cerodinium/Deflandrea			10		17	23	13	16	8																		
Conneximura fimbriata			1		0	1	1		0																		
Cordosphaeridium exilimurum																											2
Cordosphaeridium fibrospinosum	0		0					1	3	1																	1
Cordosphaeridium gracile									4																		1
Cordosphaeridium inodes	3	6	4		2	1	1	8	16																	1	
Cordosphaeridium sp.																										1	1
Cordosphaeridium multispinosum								5	7	1																	
Cribroperidinium tenuitabulatum																										0	
Dapsilidinium pseudocolligerum		1							2																	6	
Deflandrea andromiensis					1		1																				
Deflandrea denticulata	1	11	7	1	7	5	5	1	0																	2	6
Deflandrea denticulata-Cerodinium depressum			9	3	24	2																					
Deflandrea oebisfeldensis	25	68	3	2			5	1	0																		
Deflandrea oebisfeldensis-medcalfii ?					4	16																					
Deflandrea robusta																											1
deflandroids																											15
Dinopterigium cladoides	2																										
Diphyes colligerum	0		2		1	1		1	2		1		0												2	9	3
Dracodinium astra																										2	
Elytrocysta ? sp.				7																							
Eocladopyxis peniculata	1							3		2	2	1			2		2								1		
Fromea fragilis			1	1		2		2																		2	
Fromea laevigata		1	10	8	65	12	13																				
Glaphyrocysta divaricata	0		3		1			1	2		0				2												1
Glaphyrocysta exuberans								2																			
Glaphyrocysta ordinata	11					2			0					1													
Glaphyrocysta pastielsii	2		0		1			12	9	1																	
Glaphyrocysta retiintexta											1																
Glaphyrocysta texta									1		0																
Glaphyrocysta sp.	12	3				3		25																	0	1	3
Hafniasphaera septata	3	1	7		2	1		6	2																		1
Heteraulacacysta leptalea	2									3	1															3	1
Hystrichokolpoma unispinum									1																		
Hystrichosphaeridium tubiferum	1	2	5		3	5	1	0	2			1														4	3
Hystrichostrogylon membraniphorum		1	1																							1	
Impletosphaeridium insolitum			2																								
Impletosphaeridium severinii									2																		
~*Impletosphaeridium* sp.	1				3																			1		3	
Kallosphaeridium brevibarbatum																										1	
Kallosphaeridium sp.																										4	
Lejeunecysta hyalina									2																	1	7
Lentinia wetzelii	1	2			3			1																		0	3
Lentinia sp.1 (with spines)									19	7	10	19	8	44	52												
Lentinia sp.								5			1														0		
Lingulodinium machaerophorum											2,5														1		5
Lingulodinium strangulatum									2,5	3,5	1	3			0												
Melitasphaeridium pseudorecurvatum		3		1																						7	3
Membranosphaera sp.B CHC	1		1	1		3		2																			
Microdinium ornatum	1		2	3																							
Muratodinium fimbriatum											0				1												
Nematosphaeropsis sp.																										1	
Oligosphaeridium complex	1	1	6	1	0	0		0									1	0									
Operculodinium centrocarpum				4		1		2	1																	1	5
Operculodinium microtrianum									1																		1
Operculodinium sp.		3	6		1			4									1									3	
Palaeocystodinium lidiae	1	3						1	1																		
Palaeotetradinium minusculum	2		9		5	3	1	1	3																		
Phelodinium magnificum									1																		
Phthanoperidinium crenulatum								5																		0	1
Polysphaeridium subtile	1		3			1		1		3	1				1			1								1
Polysphaeridium zoharyi										28	1		0		1												
Pterodinium cingulatum									1																		
Senegalinium dilwynense		3	16	3	10	1	8	13	10																		
Senegalinium sp.	4				3	3		13	38																	1	
Spiniferella cornuta						1																					
Spiniferites ramosus	27	41																									
Spiniferites spp.	26		75		45	58	27	11	15	10	2				4		3	1							3	73	30
Tanyosphaeridium xanthiopyxides	0		1																								
Thalassiphora delicata						1																				1	
Thalassiphora inflata			0																								
Thalassiphora patula										0					1												
Thalassiphora pelagica																	1										
Trigonopyxidia ginella					1	1		1																			
Gonyaulacoid A										8	75	25	43	107	0										71		
proximochorate df	4	2						7	1																		
peridinioids indet	2																										
gonyaulacoids indet				1											1											2	4
reworked df	1		1*		*1	3			*1			2														11	10
Horologinella incurvata								3																			
Micrhystridium spp.	21					7					1				0			8									
Paralecaniella indentata	2	6		27			2																				
acritarchs	42	109	*92 a/132df	82	*36/168df	20	19	15	*78/154df	1								1						1		*105/163df	65
unknown aquatic algae	61																										
Palambages sp.																										*1	
Pediastrum sp.										1	3	6	31	1													
Pterospermella sp.	0	1							*3																	*3	
green algae			**1					1										1									
foraminifera			**	8	*15	9	3	6	*3																		

Lithostratigraphic Units	Bracheux Sand Fm?
Taxa \ Samples	**6,1 m**
Achomosphaera alcicornu	1
Areoligera coronata	7
Areoligeraceae	4
Cordosphaeridium gracile	2
Cordosphaeridium inodes	18
Cribroperidinium tenuitabulatum	10
Cribroperidinium sp. (small)	1
Deflandrea denticulata	7
Deflandrea oebisfeldensis	*9*
Diphyes colligerum	*0*
Fibrocysta vectense	5
Fibrocysta sp.	1
Fromea fragilis	5
Hystrichokolpoma rigaudiae	2
Hystrichosphaeridium tubiferum	9
Melitasphaeridium pseudorecurvatum	9
Microdinium ornatum	1
Operculodinium centrocarpum	9
Operculodinium microtrianum	0
Palaeocystodinium lidiae	4,5
Palaeotetradinium minusculum	1
Phthanoperidinium crenulatum	3
Senegalinium sp.	7
Spiniferites spp.	93
Thalassiphora delicata	1
Micrhystridium spp.	7
Paralecaniella indentata	4
Pterospermella aureolata	0

Lithostratigraphic Units	Germaine 'Marne à Rognons' Mb	Marquéglise Marl Mb			
Taxa \ Samples	NOY1 - 6,98	NOY1 - 12,58	NOY1 - 12,78	NOY1 - 12,98	NOY1 - 13,67
Dinoflagellate cysts					
Areoligera coronata				20	4
Areoligera/Glaphyrocysta					140
Cordosphaeridium sp.					17
Diphyes colligerum					0
Eocladopyxis peniculata					3
Glaphyrocysta divaricata					1
Glaphyrocysta pastielsii					8
Glaphyrocysta sp. (broken)				10	4
Hystrichosphaeridium tubiferum					1
Operculodinium sp.					2
chorate/proximochorate df				1	39

Lithostratigraphic Units	Châlons-sur-Vesles Sand Fm							Bracheux Sand Fm									Gannes Sand Mb ?		Marquéglise Marl Mb					
Taxa \ Samples	NOY2 - 31,12	NOY2 - 30,825	NOY2 - 29,725	NOY2 - 28,375	NOY2 - 27,255	NOY2 - 26,355	NOY2 - 25,19	NOY2 - 24,55	NOY2 - 22,965	NOY2 - 21,92	NOY2 - 20,845	NOY2 - 19,42	NOY2 - 18,675	NOY2 - 17,675	NOY2 - 16,655	NOY2 - 15,675	NOY2 - 15,52	NOY2 - 14,925	NOY2 - 13,95	NOY2 - 13,835	NOY2 - 13,52	NOY2 - 12,415	NOY2 - 12,215	NOY2 - 12,015	NOY2 - 11,715
Achomosphaera alcicornu	1	2	0	1	0	1	2	1	1		4	1	1		0	1		1							
Achomosphaera ramulifera		12		42		91		73		73															
Achomosphaera sp.							2			1					60			4							
Adnatosphaeridium robustum																							1		
Adnatosphaeridium vittatum													0		0										
Alisocysta margarita		2	0																						
Alisocysta sp.2		0	0	2		1																			
Alisocysta sp. (broken)	3		2		1		1																		
Apectodinium quinquelatum								1										1							
Apectodinium sp.																									1
Areoligera coronata	9	17	36	14	41	27	8	8	8	9	5	5	4		4			2	2		15				
Areoligera medusettiformis						0																			
Areoligera senonensis	4	5	8	1	9	4	15	0	7		1	0	0												
Areoligera/Glaphyrocysta (broken)	0			1					2		1	33	34		19	4	25	1	6		144	3	7		
Cannosphaeropsis reticulensis	1																								
Cerodinium diebelii	0	2		1		1																			
Cerodinium medcalfii			0												0										
Cerodinium speciosum		1	2		1																				
Cerodinium speciosum ~glabrum											2														
Cleistosphaeridium sp.								6		4															
Conneximura fimbriata	0	0	0	0	0	0																			
Cordosphaeridium exilimurum															0										
Cordosphaeridium fibrospinosum		1		1																					
Cordosphaeridium gracile										1			1		2								1		
Cordosphaeridium inodes	4	11	7	3	11	9	7	8	6	14	21		9	5	4	1		1							
Cordosphaeridium multispinosum		0	0	1	3	0		6		0								1							
Cordosphaeridium spp.							10		12		6	26	4		10	6	9		1		36				
Cribroperidinium giuseppei					0																				
Cribroperidinium tenuitabulatum		0			8		0	2	5	3	3	10	9	3	16		1		1						
Cribroperidinium sp.1 (small, shagrinate)						0	0				3		1		2				1						
Dapsilidinium pseudocolligerum								1																	
Deflandrea denticulata		3	0	6	2	1		2				1	6	1	5										
Deflandrea oebisfeldensis	0	5	0	8	4	6	11	7	29	18	1	5	57	5	19	10		9	7						
Deflandrea/Cerodinium (broken)	4	4	25	8				3	5		25	42					29								
Dinogimnium sp.	0																								
Diphyes colligerum	0	1	1	0	0	1	3	2	4	1	1	1	1	1	7										
Diphyes spinulum								0							3										
Elytrocysta sp.							1																		
Eocladopyxis peniculata																					1				
Fibrocysta bipolaris															1										
Fibrocysta essentiale															0										
Fibrocysta vectensis							2			1		4			4										
Fromea fragilis		0		3		0		0		3			0		1										
Fromea laevigata	1	1		1	0	1																			
Glaphyrocysta divaricata								0							3										
Glaphyrocysta ordinata																					3				
Glaphyrocysta pastielsii							0				0				2				3		1				
Glaphyrocysta sp.																						1	8		
Hafniasphaera septata	3	2		3	0	3		5					1		1										
Heteraulacacysta leptalea		0																							
Hystrichokolpoma rigaudiae		1													0										
Hystrichokolpoma sp.												1													
Hystrichosphaeridium tubiferum	6	2	12	6	10	3	8	4	8	6	3	1	1	2	3			1	1						
Hystrichostrogylon membraniphorum		15		5				0		2					1										
Impagidinium sp.	1			1			1																		
Kenleyia -complex														2											
Lejeunecysta hyalina	0	2	0		0	0	2		1		1	1													
Lentinia wetzelii	0	3		4		2	1	0	6		7	5													
Lentinia sp.	9		0		5		1		4				5												
Lingulodinium machaerophorum								0																	
Melitasphaeridium pseudorecurvatum	1	2	1	2	0	3	0	1	3	1	3	1	1		10										
Membranosphaera sp.B Heilmann-Clausen 1985	13	0		1																					
Microdinium ornatum	55																								
Nematosphaeropsis reticulensis		1		0																					
Nematosphaeropsis sp.	4		1	2			1																		
Oligosphaeridium complex	1	7		1							0		1		1										
Operculodinium centrocarpum		1				11		6				1	5		8										
Operculodinium microtrianum						0							1		1										
Operculodinium sp.			1	4	6		6		5	6	2		3												
Palaeocystodinium golzowense															1										
Palaeocystodinium lidiae	1	0	1	1	2	9	5	2	6	2	5	6	2	1											
Palaeotetradinium minusculum	0	2	1	2				0	1		1	2	1		0										
Phthanoperidinium crenulatum					1	2	21	36	21	24	19	2	3	1	10	1		1							
Polysphaeridium subtile														0											
Polysphaeridium sp.												2	1		1										
Pterodinium cingulatum				1		2																			
Rottnestia borussica						0		3		1					0	1		1							
Senegalinium dilwynense		1		3		1		2		6			12		9										
Senegalinium sp.	2	1		7	3		1	2	8		5	1		6											
Spiniferella cornuta	0	0			1																				
Spiniferites spp. (mostly *ramosus*)	104	150	124	90	99	44	94	40	84	33	88	40	56	22	28	2	2								
Tanyosphaeridium xanthiopyxides		0																							
Thalassiphora delicata	0	0	0	1	0	0		0		1			0		0										
Trigonopyxidia ginella		0		1																					
chorate/proximochorate df			5		5				6		9	11		3		2	1			1	6		3		
df (gonyaulacoid) indet											6						2								
peridinioid indet			1								2	2													
Incertae sedis 1 Heilmann-Clausen 1985		0		4	3		1																		
Acritarchs																									
Cometodinium sp.		28		6																					
Horologinella incurvata	1							0			1														
Micrhystridium sp.	2	4		2	3	45	2	1	1	3	1		5												
Paralecaniella indentata		1		13		2		6	4	6	4	5	1		10			1	1					
other acritarchs			5					5		3			5	7											
Prasinophytes																									
Pterospermella aureolata						1																			
Pterospermella barbarae		0			0							1													
Pterospermella sp.	1	0						1				1	1	4	4		1								
***Palambages* sp.**													**1**		**0**										
***Pediastrum* sp.**													**1**					**1**	**4**						

Lithostratigraphic Units	Phare d'Ailly Mb, L1 Lignite														Lower SAOM Mb							L2		Upper SAOM Mb								Craquelins Mb		Sables Fauves Mb								Argiles et Sablons Mb	
Taxa \ Samples	PHAIL 01 41.31	PHAIL 01 41.23	PHAIL 01 41.18	PHAIL 01 41.12-15	PHAIL 01 41.09	PHAIL 01 40.98	PHAIL 01 40.87	PHAIL 01 40.83	PHAIL 01 40.76	PHAIL 01 40.7	PHAIL 01 40.66	PHAIL 01 40.49	PHAIL 01 40.36	PHAIL 01 40.32	PHAIL 01 40.07	PHAIL 01 39.37	PHAIL 01 39.07	PHAIL 01 38.69	PHAIL 01 38.28	PHAIL 01 38.11	PHAIL 01 37.8	PHAIL 01 36.86	PHAIL 01 36.59-61	PHAIL 01 36.52	PHAIL 01 35.77	PHAIL 01 35.52n	PHAIL 01 35.52g	PHAIL 01 35.36	PHAIL 01 35.22	PHAIL 01 34.8	PHAIL 01 34.5	PHAIL 01 33.96	PHAIL 01 33.27	PHAIL 32.80	PHAIL 01 32.5	PHAIL 31.78	PHAIL 30.58	PHAIL 01 31.5	PHAIL 01 30.5	PHAIL 01 26.5	PHAIL 01 24.5	PHAIL 01 22	PHAIL 01 20
Apectodinium homomorphum																	0				0							14			2										0	
Apectodinium parvum																	0				0																					
Apectodinium quinquelatum																					0			1																	5	
Apectodinium summissum																															1											
Apectodinium spp.															9	31	164	200	190	55	190		1	61	40	183		179	190	70	27										26	
Areoligera coronata																																									3	
Areoligera/Glaphyrocysta																				1	1									5										7	
Batiacasphaera sp.																																								2	
Cordosphaeridium exilimurum																		1																							
Cordosphaeridium fibrospinosum																														1											
Cordosphaeridium gracile																																								0	
Cordosphaeridium inodes																																								0	
Cordosphaeridium sp.																				2									1												
Cribroperidinium tenuitabulatum																																								2	
Cribroperidinium sp.																																								2	
Deflandrea denticulata																																								3	
Deflandrea sp.																																									
Diphyes colligerum																					1									1	1									10	
Diphyes with large processes																			1		1			1						1											
Dracodinium astra																																								13	
Eocladopyxis peniculata																	2																							0	
Glaphyrocysta divaricata																																								4	
Glaphyrocysta ordinata																																								1	
Glaphyrocysta sp.																																								6	
Heteraulacacysta campanula																																								0	
Heteraulacacysta leptalea																																								3	
Hystrichokolpoma salacium																																									
Hystrichosphaeridium tubiferum																				1																					3	
Hystrichosphaeropsis sp.																																								1	
Impagidinium sp.																																								1	
Kallosphaeridium sp.																																								1	
Kenleyia- complex															3	117	0		0		0																					
Lejeunecysta hyalina																																								3	
Lentinia sp.																			1																					3	
Lingulodinium machaerophorum																	2		1,5	1	2,5			7	1			0,5	0,5	3									9,5	
Melitasphaeridium pseudorecurvatum																																								8	
Operculodinium centrocarpum																																								7	
Polysphaeridium zoharyi																																									
Polysphaeridium sp.																				1																					4	
Spiniferella cornuta																																								2	
Spiniferites spp.																	1		2		1												1		1						86	
Thalassiphora delicata																																								0	
wetzelielloids																																								1	
Gonyaulacoid A															4	32	57	3	14					32		18		15	17	2											
proximochorate df																					4																				5	
indet gonyaulacoids																									4					12										5	
reworked df																																								4	
Odontochitina sp. (reworked)																																								0	
Pediastrum sp.								1		3																50		80*/29 df													
acritarchs																																								14	

Lithostratigraphic Units	Vauxbuin Mb	
Taxa \ Sample	2.46 m	2.93-3.03 m
Apectodinium homomorphum		40
Apectodinium parvum	2	5
Apectodinium summissum		0
Apectodinium spp.	4	166
Areoligera coronata	1	
Areoligeraceae (broken)	112	
Cordosphaeridium spp.	7	
Diphyes colligerum	11	
Eocladopyxis peniculata	7	
Glaphyrocysta ordinata	1	
Lingulodinium machaerophorum	3	
Spiniferites spp.	5	
Thalassiphora pelagica	2	
Gonyaulacoid A	1	
chorate gonyaulacoids indet	47	
Pediastrum sp.		25

Lithostratigraphic Units	Châlons-sur-Vesles Sand Fm	Rivecourt Sand Mb
Taxa \ Samples	**RIVE 2 - 0**	**RIVE 2 - 15**
Achomosphaera alcicornu	0	
Adnatosphaeridium spp. (broken)	0	
Alisocysta sp.2	1	
Areoligera coronata	8	
Cerodinium or *Deflandrea* (broken)	1	
Cerodinium spp.	1	
Cordosphaeridium inodes	0	
Cordosphaeridium spp.	2,5	
Cribroperidinium tenuitabulatum	1	
Dapsilidinium pseudocolligerum	3	
Diphyes colligerum	4	
Elitrocysta brevis	2	
Fibrocysta vectensis	5	
Glaphyrocysta ordinata	0	1
Glaphyrocysta spp.	0	1
Hafniasphaera septata	2	
Hystrichokolpoma rigaudiae	1	
Hystrichokolpoma salacium	0	
Hystrichokolpoma spp.	2	
Hystrichosphaeridium tubiferum	2,5	
Impagidinium dispertitum	1	
Lejeunecysta hyalina	1	
Lentinia wetzelii	7	
Melitasphaeridium pseudorecurvatum	5	
Membranosphaera sp. B in Heilmann-Clausen 8	0	
Microdinium spp.	1	
Nematosphaeropsis spp.	0	
Operculodinium eisenacki	20	
Operculodinium microtrianum	0	
Operculodinium spp.	10	
Palaeocystodinium lidiae	0	
Palaeotetradinium minusculum	1	
Phthanoperidinium crenulatum	8	
Polysphaeridium subtile	4	
Senegalinium? dilwynense	4	
Spiniferella cornuta	0	
Spiniferites spp.	158	
Thalassiphora delicata	0	
Thalassiphora patula	4	
?Thalassiphora?	0	
broken chorate dinocyst (gonyaulacoids)	10	1
broken gonyaulacoids	1	
Pterospermella aureolata	2	
Pterospermella barbarae	3	
Micrhystridium spp.	32	
Paucilibimorpha incurvata	1	

Lithostratigraphic Units	Oldhaven Mb (Harwich Fm)	London Clay Fm							
Taxa \ Samples	160.0 m	150.0 m	140.0 m	130.0 m	120.0 m	95.0 m	86.0 m	76.0 m	66.0 m
Achomosphaera alcicornu	1								
Achomosphaera ramulifera			4	2					
Achomosphaera spp.	18	16		4		6			
Adnatosphaeridium robustum									40
Adnatosphaeridium vittatum							1		12
Adnatosphaeridium sp.		3				2			
Apectodinium homomorphum	1				1	10	17		5
Apectodinium quinquelatum	2				1	1	9	2	1
Apectodinium sp.	2	6	1						
Apteodinium sp.		1							
Areoligera coronata	7		7	2	2	15	2		
Areoligera senonensis			1						
Axiodinium lunare						3			
Axiodinium aff. *prearticulatum*									4
Biconidinium longissimum						0,5			2
Cerodinium diebelii			1				1		
Cleistosphaeridium polypetellum							1		
Cordosphaeridium exilimurum		2							
Cordosphaeridium fibrospinosum	5					1	1		1
Cordosphaeridium gracile	10		0	1		2	1		22
Cordosphaeridium inodes					1	1			
Cordosphaeridium sp.						1			2
Cribroperidinium tenuitabulatum					2				4
Dapslidinium pseudocolligerum						1	1		2
Deflandrea denticulata			1						
Deflandrea phosphoritica								2	3
Deflandrea sp.							1		
Diphyes colligerum	3	1	4		1	1			
Dracodinium astra			1	1					
Dracodinium simile						4	2		
Dracodinium solidum					3				
Dracodinium varielongitudum							6	1	0
Eocladopyxis peniculata		1							3
Glaphyrocysta exuberans			2		8	1	1		3
Glaphyrocysta ordinata							2		
Glaphyrocysta pastielsii	14						6		
Glaphyrocysta sp.					1		20		2
Hafniasphaera septata	1								
Heteraulacacysta leptalea					1		5		0
Homotryblium abbreviatum					0				37
Homotryblium tasmaniense									19
Homotryblium tenuispinosum					28		1		22
Hystrichokolpoma cinctum									1
Hystrichokolpoma salacium									2
Hystrichokolpoma sp.									1
Hystrichosphaeridium tubiferum		1	1	1	1		1		
Impagidinium sp.					2				
Kallosphaeridium brevibarbatum									1
Kallosphaeridium sp.				2	6	5	3	2	
Lejeunecysta hyalina						1			
Lentinia wetzelii							3	1	1
Lingulodinium machaerophorum	7	2					2		4
Melitasphaeridium pseudorecurvatum		1							
Membranosphaera sp.B	1								
Muratodinium fimbriatum	1		1						
Oligosphaeridium complex	1	1							
Operculodinium microtrianum						1			
Operculodinium sp.		1					6		
Phthanoperidinium sp.									0
Polysphaeridium sp.									2
Rottnestia-Hystrichosphaeropsis							1		
Senegalinium dilwynense			2						
Senegalinium sp.						1	2		
Spiniferites spp.	5	11	8	2	7	11	22	2	14
Stenodinium meckelfeldensis				1			1		
Thalassiphora patula						3			
Thalassiphora pelagica				0	2		1		5
Trigonopyxidia ginella			1						
Wetzelielloid		1					3		3
Gonyaulacoid A	1								
Gonyaulacoid B	4								
chorate df	3	6				7		1	22
reworked df	**67**	**47**	**18**	**20**	**47**	**53**	**74**	**14**	**49**
Micrhystridium sp.	51	47	12	4	12	36		12	16
Paralecaniella indentata						3			
other acritarchs	12					1	24		
Pediastrum sp.	1					1			
Pterospermella aureolata	5							1	
Pterospermella barbarae									1

Lithostratigraphic Units	Reading Beds Fm	Orwell Mb (Harwich Fm)								Wrabness Mb (Harwich Fm)				
Taxa \ Samples	23.85 m	23.35 m	22.98 m	22.15 m	21.72 m	20.80 m	19.57 m	19.25 m	18.09 m	16.58 m	15.30 m	14.18 m	13.00 m	10.52 m
Achomosphaera alcicornu		2	0			1		1				1	0	0
Achomosphaera ~crassipellis		2												
Achomosphaera sagena								1		4	5			
Achomosphaera spp.			78		82	40	28	34	31	41	31	33	25	
Adnatosphaeridium robustum					1			1	0	0				
Adnatosphaeridium vittatum										0				
Alisocysta sp.2							1	1	1	3	5	0	2	2
Alisocysta margarita						1			0					
Apectodinium homomorphum		2	1		1							0		
Apectodinium hyperacanthum			1											
Apectodinium paniculatum			0											
Apectodinium quinquelatum		1	14		1	10	2	4		0	3		1	0
Apectodinium spp.					5	3	1							
Areoligera coronata		6	1		0	1		1	7	2	6	0		1
Areoligera medusettiformis			1						1		1			
Areoligera senonensis			0									0		
Areoligera/Glaphyrocysta				6		7	6	9		5		6	4	9
Batiacasphaera sp.	2													
Biconidinium longissimum (crumpled)														1
Cerodinium depressum			1			2	8	2	7	3	1	10	13	4
Cerodinium cf. *depressum* (big, with spines)										1				
Cerodinium diebelii													2	7
Cerodinium medcalfii													0	
Cerodinium /*Deflandrea*		1	1				1					4	1	2
Cladopyxidium saeptum														1
Conneximura fimbriata													0	
Cordosphaeridium exilimurum			0				1	1	0	0	0	1		
Cordosphaeridium fibrospinosum			1				2	0			2		0	2
Cordosphaeridium gracile		7	0		0		0	0	0	3	1		0	1
Cordosphaeridium inodes		13	3		2		2		1	5		2	2	0
Cordosphaeridium multispinosum		5			5	2	1	1	2		3		1	0
Cordosphaeridium sp.	1												1	1
Cribroperidinium tenuitabulatum					1	2				2		2		
Cyclopsiella sp.		2												
Deflandrea delineata										1				
Deflandrea denticulata							1			1	1		3	6
Deflandrea oebisfeldensis			0					0	1	12	5	5		3
deflandroids				5		1			8	1	1		3	1
Diphyes colligerum		6	9		4	7		0	3	4	1	1	6	11
Elitrocysta sp.						1			2					
Eocladopyxisis peniculata					2								1	
Fibrocysta vectense			1		0		1				1	1		
Florentinia ferox								1		0		1		1
Fromea fragilis			3		1	1	1	1	1	5	7	3	1	2
Gerdiocysta sp.		1												
Glaphyrocysta divaricata		3	0			3	1	1		0	1			2
Glaphyrocysta exuberans		1												
Glaphyrocysta ordinata		6	0		5		9	9	7	0	3	4	4	2
Glaphyrocysta pastielsii		1					1	1	0	0	3		2	1
Glaphyrocysta sp.		9	7		5						4			
Hafniasphaera septata		1				1	2	0			5	6	10	7,5
Heteraulacacysta campanula		1	1			2	3							
Heteraulacacysta leptalea							2	2	1	1		0	0	8
Homotryblium tasmaniense					3									
Homotryblium tenuispinosum		1												
Hystrichokolpoma cinctum		1												
Hystrichokolpoma aff. *granulatum*											5	1		
Hystrichokolpoma rigaudiae					2	1	1	2				2	5	
Hystrichokolpoma salacium					1									
Hystrichokolpoma unispinum										1				
Hystrichokolpoma sp.									1					
Hystrichostrogylon membraniphorum		1				3	4	2	0		3	0	0	2
Hystrichosphaeridium ? palmatum												1		
Hystrichosphaeridium tubiferum		1	5		6	3	14	5	6	13	16	19	6	11
Impagidinium sp.1 CHC						1								
Impagidinium sp.							2							3
Impletosphaeridium severinii													1	1
Impletosphaeridium sp.		1					3	6	1	3		5		
Kallosphaeridium brevibarbatum													0	
Kallosphaeridium sp.					1	1						1	2	1
Lejeunecysta hyalina			0			1	1		3	2	2	0		
Lentinia wetzelii			2				1	2	0	1	7	3	4	2
Lentinina sp.1			0											
Lentinia sp.			2	3	1	1	4		3	3				
Lingulodinium machaerophorum		1,5	1		2,5	0,5	1	1		5	3	0,5	2	
Lingulodinium strangulatum														1
Melitasphaeridium asterirum							1	1						
Melitasphaeridium pseudorecurvatum		2	1		1	1		1		0		0	1	2
Membranosphaera sp.B CHC			1					0						
Microdinium ornatum		2			1		2		3	1	0	0	3	7
Muratodinium fimbriatum					3									
Nematosphaeropsis sp.					0		1		1	1		2	3	
Oligosphaeridium complex		2	1	62	4	3	3	10	6		2	1	0	3
Operculodinium centrocarpum		1	6		1					3		2		
Operculodinium uncispinosum													4	5
Operculodinium sp.		1	3		10	8	16	7	7	23	17	14	1	4
Palaeocystodinium golzowense							1			0	1		0	1
Palaeocystodinium lidiae								1						
Palaeotetradinium minusculum			14	131	1	7	25	11	20	6	9	10	2	15
Palaeoperidinium pyrophorum														1
Polysphaeridium subtile		1										1		
Polysphaeridium zoharyi					1		1					1		0
Pterodinium cingulatum											1			
Rottnestia borussica		1	1		1	1	4		1	4		1	1	1
Senegalininium dylwenense					0		2		1	1		1	1	1
Senegalininium sp.		1	0	1				2	18		5	2	1	1
Spiniferites spp.		47	44		57	32	60	87	69	60	48	85	74	99
Tectatodinium pellitum								1						
Thalassiphora delicata		1					2	0	1	1	1	1	0	1
Thalassiphora patula							0							
Thalassiphora pelagica		3	0		1						0			
Trigonopyxidia ginella						1	7	3	20	3	1		7	6
Gonyaulacoid B	2													
proximochorate df		3	1		4			2		3		3		3
reworked df		29	*35	56	88	84	50	*35	10	10	10	*3	*17	*33
Baltisphaeridium sp.		1												
Paralecaniella indentata		3					2			0				
Pseudomasia trinema						1		*1				0	0	**3
acritarchs		35	*67/140 df	6	42	65	59	*72/179df	*78/166df	*51/166df	*53/191df	*50/168df	*83/130df	*84/129df
Palambages sp.				1										
Pterospermella aureolata			1	2				*1						
Pterospermella barbarae			0	2						0				0
Pterospermella sp.		1		2										*1
foraminiferal linings		5												

Lithostratigraphic Units	Criel Sand Mb				'Siège-Madame' Mb									SAOM Mb												Sotteville-sur-Mer Mb				Craquelins Clay Mb				'Sables Fauves' Mb																	'Argiles et Sablons' Mb									
Taxa \ Samples	SMA 1 - 38	SMA 1 - 37	SMA 1 - 36	SMA 1 - 34	SMA 1 - 31	SMA 2 - 82	SMA 2 - 79	SMA 2 - 78	SMA 2 - 76	SMA 2 - 75	SMA 2 - 74	SMA 2 - 73	SMA 2 - 72	SMA 2 - 71	SMA 2 - 70	SMA 2 - 67	SMA 2 - 65	SMA 2 - 63	SMA 2 - 60	SMA 2 - 58	SMA 2 - 55	SMA 1 - 19	SMA 1 - 18	SMA 2 - 53	SMA 2 - 52	SMA 2 - 51	SMA 2 - 50	SMA 2 - 49	SMA 2 - 48	SMA 2 - 46	SMA 2 - 44	SMA 2 - 43	SMA 2 - 42	SMA 2 - 41	SMA 2 - 40	SMA 2 - 39	SMA 2 - 38	SMA 2 - 36	SMA 2 - 28	SMA 2 - 24	SMA 2 - 23	SMA 2 - 22	SMA 2 - 21	SMA 2 - 19	SMA 2 - 18	SMA 2 - 16	SMA 2 - 14	SMA 2 - 12	SMA 2 - 11	SMA 2 - 10	SMA 2 - 9	SMA 2 - 8	SMA 2-7
Achomosphaera alcicornu																						3				0				1	0			1	0	3														1	2	0	3	
Achomosphaera ramulifera																																				13																					
Achomosphaera spp.							17		5			4	20						17		5	3	17	7		45					105	4	54		81		36	93			99	27			12	1		8	60	5	23	29	
Adnatosphaeridium robustum														0				0						1																															
Adnatosphaeridium multispinosum																											1				1																							
Adnatosphaeridium vittatum																																																							
Alisocysta sp.2																												1	2																					4		3	2		
Apectodinium homomorphum	1				4		8		19		0		11	3	36	4		4	17	1	6		1	2					7		29				0		2	0			1							5		0		6		
Apectodinium hyperacantum																													1					0		0	0		0														
Apectodinium paniculatum																0	1						0							1	0			0	1																			
Apectodinium parvum	0	1	2		3		4	2	1	0		4	0	0		5	7	8		7		3	3	1	4	1		9	11	5	1	2	2	2	3			1															
Apectodinium quinquelatum	2		2		2		4	3	3	0			9	1	2	32	0	2	27	5	15	1	5	7	2	3			0	2	1		2	1	4		2	2		2	3			2			5	1	1	5	1
Apectodinium summissum	2				1		2			2			9		6			1	3		1													0																			
Apectodinium spp.	58	4	6		65		61	33	29	4	8		147	20	102	118	43	55	65	42	51	24	36	55	39	46		61	76	31	22	11	27	16	39		32	15		5	17			9			8	2	3		6
Araneosphaera araneosa																						0									0			0																		
Areoligera coronata	1				0		3			3		6	1	6	1		5	3	1	0	3	3	6	3	3	1		1		1		2	2		0												1			1	2
Areoligera medusettiformis												1																																									
Areoligera senonensis	1																												0																								
Areoligera sp.			4		5,5				1			4																																									
Areoligera/Glaphyrocysta	9							2		7,5	3		5	8	0	15		1	12	97	15	44,5	32,5		10			5		11				7			1																	
Axiodinium lunare																																																						
Axiodinium lunarie ?																																		13							0							3					2
Axiodinium prearticulatum																																																			0		
Axiodinium sparnacium																					0			0	7	1		1	0	0					2																		
Batiacasphaera sp.																					1		0																																
Biconidinium longissimum																										0		1		2	0,5							1		1								0		2		
Cannosphaeropsis reticulensis																																																		0			
Cerodinium depressum																													0												4							1		
Cerodinium diebelii																											0	2		3	3	3		0	1		2				3							0			
Cerodinium sp.																											1																										1
Cordosphaeridium exilimurum					1								0	1		0		1	2	0	2	0,5		6	2	0	0	0	0		0				2	0		2										1	1			
Cordosphaeridium fibrospinosum					0		1				0			0		2,5	0	2	0	0		2	3																														
Cordosphaeridium gracile																			0												0	2	1	0	0	3				2	14			11			1	4	16	51	1
Cordosphaeridium inodes	2																		1		3		0	2	2	1		1	9	2	0	1	2	6	1		7	5	1,5	5	1			0			2	1	0			
Cordosphaeridium multispinosum													0												1																										1			
Cordosphaeridium sp.								1	2					1	0	1			1				0,5			1,5	3				3	5	9,5			8							3		10				2	5
Cribroperidinium edwardsii																																									0											
Cribroperidinium tenuitabulatum/giuseppei																			0			6		1					0,5		1		0		0		0	2	2	1			1		2	3	1	4	0	
Cribroperidinium sp.																							0							1				1				1	1												
Dapsilidinium pseudocolligerum	1												1								20										0			11	7			4											1			
Dapsilidinium simplex													0																																							
Deflandrea denticulata							2												1												1	5			5		3	0	2				12				9	1		3
Deflandrea aff. *denticulata*																																									24			7	1								
Deflandrea oebisfeldensis			1																		0		0	0		0	1	1	1	6	1	10	7	0	1		12	0	7	2	9			15			1	15	5		2	2
Deflandrea phosphoritica																																																	0	3	2	0	26	
Deflandrea sp.																			0											3		9		2					1							72	3	8	1	8	30
Deflandroids (broken)																	1								3			3							4	2											2				15
Dinopterigium cladoides			1		0		1			0			0		0							9	1			2			1					0				0									7				
Diphyes colligerum	5				11		14	1		5	1	18	0	1	1				4	2	4	9	15	18	9	6	9	9	1	13	6		4	4	17			2		7	1						3	1	1			
Diphyes aff. *colligerum* (with large processes)	1															0	4	2	2	2																																
?? *Dr. astra* or *Apectodinium*																																				1															
Dracodinium astra-lobisca																																					34	3		3	45		4								
Eocladopyxis peniculata	9		2		12		3	1	2	1		9	8	14		17	25	20	9	49	9			1							4	8	3		2	2	2		1	1								0			
Epelidinium normandiense																								0																												
Fibrocysta essentiale																																																		1		
Fibrocysta radiatum					0																																															
Fibrocysta vectense									1																																									0		
Fibrocysta sp. (broken)							1															1,5							1		0																					
Florentinia ferox																											1																						1				
Gerdiocysta sp.																								0																												
Glaphyrocysta divaricata	3				2			1		2			0							1		8	7	0	0	3						2		2	1		2	0	2	0			1	2		0					
Glaphyrocysta exuberans																						5															3							2		1	1	2			
Glaphyrocysta ordinata					0													2	3	0		1	2	0	8	3			0	2			1		2		1	0		0	2		0	2	2	4	1		
Glaphyrocysta aff. *ordinata*																								0											0	1															
Glaphyrocysta pastielsii																0		0		1			1	0		0			1		0	1	1	0	0					4		2		0	4				
Glaphyrocysta reticulosa																											1				0	3			0															
Glaphyrocysta spineta																																				0		0													
Glaphyrocysta aff. *spineta*																		0													1	6																			
Glaphyrocysta sp.	8,5						6														1			19		17			4		4	24	28		13		15		1	1	7		39		6		4	3		1
Hafniasphaera septata																											1																								
Heteraulacacysta campanula														0		4																																				
Heteraulacacysta everriculata																																																		1		
Heteraulacacysta aff. everriculata																																				0														
Heteraulacacysta leptalea													0	0	0	2		2	2	3	0			3	3	2		1									1				1						0	3	0		
Heteraulacacysta sp.	2																					18	2																													
Hystrichokolpoma cinctum																																																		1		
Hystrichokolpoma granulatum																																																	0	0		
Hystrichokolpoma salacium	1																					1																														
Hystrichokolpoma sp.																																				0		1													
Hystrichosphaeridium tubiferum							0,5		1				0								3	0	1	4	2	4			6	6	7		5	11	7		0	0		4	1		1	4	3	0	3	0
Ifecysta sp.																																																0				
Impagidinium dispertitum																0							0	2				2		1	2																				
Impagidinium sp.																																4	1	1	1			0									1		1		
Impletosphaeridium insolitum																																																4				
Impletosphaeridium severinii																															1	3																		
Impletosphaeridium sp.																																2			1												5				
Kallosphaeridium brevibarbatum																															1										0									
Kallosphaeridium sp.																								1					0				3													1			0	
Kenleyia lophophora																0										0																										
Kenleyia-complex (transition to *Muratodinium*)	12	1	6	2	35	2	13,5	11,5	111	164,5	196	121												1											1																	
Leberidocysta sp.																						1																														
Lejeunecysta hyalina																			1		1		0	1	0	0					1			1	0		1		0	1			1		1	2	2			
Lentinia wetzelii	1						1		1			0	1	0					1	0			2	4		1			1			0	8	9	1		2		3	0	26		17	19	5	1	13	5	40
Lentinia sp.1					2								1	1	34			1		0	3		5	2	3	3	1		0	1		9		2	1		1					4				2				
Lingulodinium machaerophorum	13,5	0,5	6		7		10	0,5		1,5					19						18					12,5					4	13,5	4		4		2	0	3	5			13,5		2,5	1,5	2,5	3,5		
Lingulodinium strangulatum									2		1,5	2	9	18	0	8	24,5	55	35	13,5	20	26	22		27			4	2	3										7						3			2		
Melitashpaeridium pseudorecurvatum																							0		1	3		3	2	4	6		1	0	2			10		1							1		1		
Microdinium sp.																										1		1		1	0																				
Muratodinium fimbriatum										0						1			0		12			0	1										0																	
Nematosphaeropsis labyrinthus							0																	1		3			1		1			1	1						0										
Nematosphaeropsis reticulensis																							1							1																					
Oligosphaeridium complex																										1		1		1	0	2	1		3		3		1		2		3				2		2
Operculodinium centrocarpum																			2		5			2		1				2																		0		0		
Operculodinium microtrianum																																																			1		
Operculodinium spp.													3	0					2			1						1	0		1	1			1														2	1	6	
Palaeocystodinium golzowense																								0							0																			0		1
Petalodinium lenisium																								0																											
Phthanoperidinium crenulatum	0																						0			2	1	9	0		1	25	2	0	4	1	13	0	11	1			1		1					
Phthanoperidinium sp.																																								1	1									2		
Polysphaeridium subtile																																									0										
Polysphaeridium zoharyi													0								1		11	6		1			0					1				0													
?Polysphaeridium sp.										2	0			1								10	10																													
Rhombodinium cf. *translucidum*																																																			0		
Rottnestia borussica																											1			1											2										
Senegalinium? *dilwynense*					1														0					1	2																										
Senegalinium sp.																								4	1	1				1		14			3	5			3			2		1						
Sophismatia crassoramosa																																																46				
Sophismatia tenuivirgula																																																	3		
Soph. crassoramosa-tenuivirgula																																															5	0	107	1		
Spiniferites ramosus-group	18		4	1	9	1	6		10	11	5	79	17	53	6	24	0	15		32	30	19	24	63	80	29		70	69	102	39	3	27	117	21		9	78	3	71	35			11			8	30	3	63	7	11
Stenodinium meckelfeldense																																																	0	1	3	1
St. meckelfeldense-Ax. lunare																																																1				
Stichodinium elegantulum																								0																											
Stichodinium galliciense												1									1		1	1	0																											
Stichodinium prostimus																								0																											
Tectatodinium pellitum												0																																							
Thalassiphora delicata																							1							3				0	0		0		0								3				
Thalassiphora patula																		0					7																									0				
Thalassiphora pelagica																																						1										0				
Trigonopyxidia ginella																									2				0	2	1	4	4		2	1	8	0	9			1					0	1			
Turbiosphaera galatea																														1																1			0			
Vallodinium heilmannii												2											0	1	0						0																					
Vallodinium sp. A																								0																											
"*Wetzeliella*" spp.																																										14								45	3		27	31	61
Wilsonidium modicum																								0																											
Wetzelielloids (broken)																																										5	1								36			
Gonyaulacoid A	48		14	1	51		43	7	14	18	17	6	15	110	17	32	106	9	1	15		13			1																											
Gonyaulacoid C																						9									0	12	1		1		4		30				1	5							
chorate/proximochorate df	8		2		11		5		11	2	2	7			2	10		3	5	9	13	4	4	6	6	8		9	3	8	4	19	6	8	7	2	7	5		5			1	5		5			9		5
gonyaulacoids indet							1		5					1								1							1	1					3	1										1		2	10	1	1	11	15
peridinioid indet							1																												1	1						6		2				6		5	1	1		
Gonyaulacysta sp. (reworked)																															1	1	0		0						1							5	0	2	1		
Chatangiella sp. (reworked)																																					0											0				
Muderongia sp. (reworked)																																				0														
other reworked df																										1					1	2	5									6										
Charlesdowniea (broaken) pollution	0																																																				
Pterospermella aureolata												0															1					4		3					55	0	6	9		29					2		3		
Pterospermella barbarae																											1				1	5		0	1			5		4	9										
Pterospermella sp.											1			0								0	3	3	6	3				4*	3	57	15			28	12					48		25	78	3	21	1			8	7
Pediastrum sp.	87		43	2	59		19			1	2	0	1	0	80*		92*	50*		5	4	0	0	0	3	11	5		5		1*		7				1		1	1				3	1							
Azolla sp.																0																																				
Leiosphaeridia sp.																																																		29		
Palambages sp.																															0	5																			
Tyttodsicus sp.																																			1																1
Comasphaeridium cometes																			5		1																														
Horologinella incurvata																														1*																					
Micrhystridium spp.	3		2				3			1			2					3*	2		5	2	11	16	5	42	13	29	16	17*	22	21	14	1	24		14	35	11	9			3		1		20	0	2	6		
Paralecaniella indentata																									4			3		1*	1		1		1		1				6							1			
Paucilibimorpha incurvata																															0																			
other acritarchs									4				1		1*		4					1	2	20	17	56		24		26*	13	9	12	9	15	17	5	28		19	18	3	2		10			9	61	8	25	4	12

Lithostratigraphic Units	Marquéglise Marl Mb	Germaine 'Marne à rognons' Mb				Limay Clay Mb		Aisne Clay Mb			Muirancourt Mb		Vauxbuin Mb																							Sinceny Conglomerate Mb							Aizy Sand Mb ?				
Taxa \ Samples	SINC 1 - 123	SINC 1 - 116	SINC 1 - 113	SINC 1 - 107	SINC 1 - 100	SINC 1 - 91	SINC 1 - 87	SINC 1 - 83	SINC 1 - 78	SINC 1 - 75	SINC 1 - 72	SINC 1 - 68	SINC 1 - 66	SINC 1 - 65	SINC 1 - 64	SINC 1 - 62	SINC 1 - 60	SINC 1 - 59	SINC 1 - 57	SINC 1 - 56	SINC 1 - 55	SINC 1 - 54	SINC 1-52	SINC 1 - 50	SINC 1 - 47	SINC 1 - 45	SINC 1 - 43	SINC 1-41	SINC 1 - 39	SINC 1 - 37	SINC 1 - 35	SINC 1-33	SINC 1 - 31	SINC 1-29	SINC 1 - 27	SINC 1 - 25	SINC 1 - 24	SINC 1 - 22	SINC 1 - 20	SINC 1 - 18	SINC 1 - 15	SINC 1 - 12	SINC 1 - 11	SINC 1 - 10	SINC 1 - 9	SINC 1 - 7
Achomosphaera alcicornu																																									3		0	**2**	
Achomosphaera bucina																																											0		
Achomosphaera ramulifera																																									5	7			
Achomosphaera sagena																																										1			
Achomosphaera sp.																1				2					1																		3	24	50	
Adnatosphaeridium robustum																			0			0																							
Alisocysta sp.2																																												**0**	
Apectodinium folliculum														0																															
Apectodinium homomorphum												5	42	14	22	10	50		9	31	5	12		69	7				19	23	53				6	2	2	1		1		4	30	
Apectodinium hyperacanthum														1			0		0											0	0				0	0		2		0	1				
Apectodinium paniculatum														2																					0			4	1		1				
Apectodinium paniculatum-hyperacanthum																																						0			3				
Apectodinium paniculatum																			0											1					4		1			3					
Apectodinium parvum			3				1					1	4	10	10	5	5		21	11	30	10		4	3				9	19	3				3		6	2	17	28	10	5		8	2	
Apectodinium quinquelatum														3	5	2	7		1	1	0	11			1				15	5	1				5	1	2	5					1	2	1
Apectodinium summissum												3		7	1	3	5		5	2		1		1					2	2															
Apectodinium spp. (broken)		2	11			1	2,5	5				4	168	205	171	25	112		162	173	211	207		139	194				127	160	98				56	44	44	87	72	156	108	9	7	44	7	
Areoligera coronata																	1		0			0							0							13	3	0		11				3	1	
Areoligera senonensis																																												0		
Areoligera/Glaphyrocysta spp.														0			14		1			4			1	7			3	3	6				4			13	1	2	0			30	16	2
Axiodinium augustum?																														0															
Axiodinium lunare																																										2	2	8	14	
Ax. lunare or St. *meckelfeldense* (broken)																																										2	1	11	1	3
Axiodinium sparnacium																																						0	0			0				
Axiodinium sp.C																																			0			0								
Biconidinium longissimum		1	5																												0,5				13,5	35,5	31	5	88,5	6	11	1	1,5	3	1,5	
Cordosphaeridium exilimururm																			0		0								3	0					3,5	0					0					
Cordosphaeridium fibrospinosum			1											0			0		2	4	0	0			0				2,5	1						4				1		1	1	2	0	
Cordosphaeridium gracile																																										3	3	8	15	
Cordosphaeridium inodes																1														0					0						0	3	4	11	9	
Cordosphaeridium multispinosum																			0										0																
Cordosphaeridium spp.			1														2												2	1					2		2					2	2	3		1
Cribroperidinium tenuitabulatum																															1			1									0	3	
? *Damassadinium impages*																																		0											
Dapsilidinium pseudocolligerum																													1							1									
Deflandrea denticulata																																											1	1	
Deflandrea oebisfeldensis																																											1	10	10	
Deflandrea phosphoritica																																											1		0	
Dinopterigium cladoides																	0		0			1													1			0							
Diphyes colligerum																1	1		1	7	11	1			2				3	1					7	6	0			3	1			0	2	
Diphyes aff. *colligerum* (with large processes)														2	0	2	3		8		6	0			1				1	0					1				3							
Diphyes spinulum																			0											2								3							
Dracodinium simile																																													0	
Eocladopyxis peniculata																	3		1			0,5							0	1					22	3									
Fibrocysta essentiale																																				1									0	
Fibrocysta spp.			1																															0			1							
Florentinia reinchartii																													0		2				2		1			5					
Gerdiocysta cassiculus?																																								4					
Glaphyrocysta divaricata																			0			0								0								0		0	5	9	1	4	
Glaphyrocysta exuberans																																										1	4	3	
Glaphyrocysta ordinata																	0		2	3		0		0					0	4	2				9		2	3		1	0				0	
Glaphyrocysta pastielsii																					0	0																						0	
Heteraulacacysta campanula																																										1		0	
Heteraulacacysta leptalea																	2		0	1	0								0	0					1	1	1	0		1	0				0	
Hystrichokolpoma rigaudiae																						0		2						1								0							
Hystrichokolpoma unispinum																																										1				
Hystrichokolpoma spp.																																			0		2		1					0	2	
Hystrichosphaeridium tubiferum																													1							1		1				1	1	1	8	
Impagidinium dispertitum																																											1		3	
Kallosphaeridium sp.																																												1		
Kenleyia sp.																			0																	5						1				
Lejeunecysta hyalina																																				1	0									
Lentinia wetzelii																														0																
Lentinia sp.														0																					1	1	2	0							0	
Lingulodinium spp. (*machaerophorum* +*strangulatum*)		1	7			1		1						0		1	2		9	3	1,5	2,5			1	0,5			2	7,5					63	65	128	62,5	19,5	34	55	0	2	11,5	3	
Melitasphaeridium pseudorecurvatum																																												1		
Microdinium sp.																																													0	
Muratodinium fimbriatum																																				11		1						1		
Oligosphaeridium complex																																												0		
Operculodinium centrocarpum																																												1		
Operculodinium spp.																																			5		6						1	4	3	
Phthanoperidinium crenulatum																																												2	1	
Polysphaeridium subtile																	0																													
Polysphaeridium zoharyi																			1																							3			1	
Polysphaeridium sp.																				1	2								1															1	
Rottnestia borussica																																													5	
Sophismatia tenuivirgula																																										1	1	0	2	
Spiniferites ramosus-group			1				1						1	2		1	2		3	3	5	6		4	4				14	14	37				7	6	1	5	2	2	5	9	9	26	30	
Stenodinium meckelfeldense																																											1			
Stichodinium parisiense																																				11										
Stichodinium sympagicum																																							0		16					
Thalassiphora delicata																																										1		1		
Thalassiphora patula																			0																											
Thalassiphora pelagica																																											1	1	2	
Vallodinium heilmannii																																						0								
Vallodinium picardicum																																							0							
Wilsonidium modicum																																				2										
Gonyaulacoid A														4					0	0	3	0																0		1							
broken peridinioids			3																																			1								
proximochorate/chorate dinocysts												2																										15	4			2				4	2
broken gonyaulacoids			5																	1											6				9	2									1	
Azolla sp.																					0																									
Pediastrum spp.			4						1			4	116*	42	16	1	3		6	1	1			30	85*	11	3		9	3	71		50		2	3				2	0	1		3	0	
Pterospermella aureolata																																												0	
Pterospermella barbarae																																												1	0	
Cometodinium spp.			1																																		3					3					
Micrhystridium spp.																				1		0													1	1		0	1						
Paralecaniella indentata																				0																1						6	5		0	
other acritarchs																			1										5		4				4				2							

Lithostratigraphic Units	Phare d'Ailly Mb											Sotteville-sur-Mer Mb								Craquelins Mb			
Taxa \ Samples	STV 0,8	STV 1,07	STV 1,25	STV 1,42	STV 1,65	STV 1,9	STV 2,15	STV 2,55	STV 2,70	STV 2,80	STV 3,40	06STV 0,45	SOTT 2-13 argile	SOTT 2-13 silt	06STV 2,75	06STV 2,95	STV0,02	SOTT 2 - 11	SOTT 2 - 10	SOTTE 2 - 9	SOTT 2 - 8	SOTT 2 - 7	SOTT 2 - 4
Achomosphaera sp.																					6		
Adnatosphaeridium multispinosum														1									
Apectodinium homomorphum										25			0	0	37	70	72	78	111	28	21	13	
Apectodinium homomorphum-quinquelatum																	10						
Apectodinium hyperacanthum										1													
Apectodinium paniculatum										6					1		0						
Apectodinium paniculatum-hyperacanthum															1		0						
Apectodinium parvum													0	0	2	3		4	0	4	5		
Apectodinium quinquelatum										10			0	0	2	5		0	1	2	3		
Apectodinium summissum										12			0		3	6	14	2	4	1			
Apectodinium spp.										150			225	220	152	108	70	70	59	55	103	14	
Apteodinium sp.													0										
Areoligera coronata										0			2	2				1		1	13	1	
Areoligera/Glaphyrocysta-group														7	1	4	5	3	6	12		32	
Caligodinium amiculum																					1		
Cleistosphaeridium heterocanthum																				1			
Cleistosphaeridium spp.																						1	
Cordosphaeridium exilimurum										0				0				0	1	2			
Cordosphaeridium fibrospinosum													0	1					0		1		
Cordosphaeridium inodes													0			0		0		0			
Cordosphaeridium multispinosum																			0				
Cordosphaeridium spp.																	0	1		1	1	1	
Cordosphaeridium exilimurum																			0	5			
Cribroperidinium tenuitabulatum														0							1		
Cribroperidinium sp.																				0	1		
Dapsilidinium pseudocolligerum										0										7	5		
Deflandrea denticulata																				0	1		
Deflandrea oebisfeldensis																		0		0	0	2	
Deflandrea spp.																				1			
Dinopterigium cladoides																				1			
Diphyes colligerum										0			5	5	0	3	0	0	0	3	1		
Diphyes aff. *colligerum* (with large processes)													3	0				6	5				
Diphyes spiniulum																					0		
Eocladopyxis peniculata													3	11				3	2	6	7	2	
Fibrocysta vectense																		0					
Fibrocysta spp.																	0			0			
Florentinia reinchartii																				0			
Glaphyrocysta divaricata														0					0		3		
Glaphyrocysta ordinata														2				1	1		2		
Glaphyrocysta pastielsii														0									
Glaphyrocysta aff. *reticulosa*																		0					
Glaphyrocysta spp.																					14		
Heteraulacacysta leptalea													0						0	0	2	1	
? *Heteraulacacysta* sp.																		0					
Hystrichokolpoma rigaudiae																			1				
Hystrichokolpoma salcium													0										
Hystrichokolpoma sp. (broaken)																	1						
Hystrichosphaeridium cylindratum										0													
Hystrichosphaeridium tubiferum																				1	1		
Kallosphaeridium spp.																	0						
Kenleyia spp.										0											2		
Lejeunecysta hyalina																				8	0		
Lentinia wetzelii																				0			
Lentinia sp.																			0	1			
Lingulodinium-group (*machaerophorum*+*strangulatum*)										0,5			6	8,5	3,5	4	19,5	25	8	19,5	17	1	
Muratodinium fimbriatum														0							3		
Nematosphaeropsis reticulensis																				0			
Oligosphaeridium complex																					2		
Operculodinium spp.										1								1		1			
Phthanoperidinium sp.																					1		
Polysphaeridium subtile														1							3		
Polysphaeridium zoharyi																	0			1	9	7	
Senegalinium sp.																					0		
Spiniferites ramosus										1			3	1				4	8	44	11	2	
Stichodinium elegantulum																					0		
Thalassiphora delicata																					0		
Thalassiphora patula																			0				
Thalassiphora pelagica													0		0				1				
Vallodinium heilmannii																				1	6		
Gonyaulacoid A													2					0	7	1			
broaken chorate/proximochorate cysts										1					2	1	7	3	3	11		2	
broaken gonyaulacoids																5		2				5	
indet gonyaulacoid																			2	1		1	
indet peridinoid										1										2			
Palambages sp.																					0		
***Pediastrum* spp.**																	**0**	**3**	**4**	**4**	**3**	**29**	
Pterospermella spp.																				0	1		
Pterospermella aureolata														0									
Pterospermella barbarae																					1		
Paralecaniella indentata														2									
Micrhystridium oceaniae																				0			
Micrhystridium spp.																		1					
Cometodinium spp.																		1					
other acritarchs																			1	8			

Lithostratigraphic Units	Thanet Sand Fm								
Taxa \ Samples	56.0 m	54.0 m	52.0 m	50.0 m	48.0 m	46.0 m	44.0 m	42.0 m	40.0 m
Achomosphaera alcicornu	0	1			0		2	1	2
Achomosphaera ramulifera			1					1	
Achomosphaera spp.				7	19				
Adnatosphaeridium robustum			1						
Alisocysta margarita	8		3	2		1	3	1	5
Alisocysta sp.2	0	6			0		1	2	
Alisocysta sp. (longue processes)			0						
Areoligera coronata	10	2	35	2	0	6	21	2	3
Areoligera medusettiformis	23	0	7				8	14	18
Areoligera senonensis							1		6
Areoligera/*Glaphyrocysta*	23	2	17	3	2	3	23	1	
Batiacaspahera sp.								2	
Cannosphaeropsis sp. (broken)	1								
Cerodinium depressum	2	4	0					3	6
Cerodinium diebelii			1			1	1		
Cerodinium medcalfii ? (broken)	1							2	11
Cerodinium speciosum	2	1	0		2	0	2		
Cerodinium speciosum glabrum					0				
Cerodinium warrenii				4	8	1	4		
Cerodinium sp.	1			4					
Cerodinium/Deflandrea		1		1	17	8	9	4	
Cladopyxidium saeptum				1					
Conneximura fimbriata			3				2		
Cordosphaeridium exilimurum			0						
Cordosphaeridium fibrospinosum	0				0	2	0		
Cordosphaeridium inodes	2	4	20	1	1	1	5	1	1
Cordosphaeridium multispinosum		0			1				
Cribroperidinium tenuitabulatum									6
Dapsilidinium simplex	1								
Deflandrea denticulata	4	6	16	25	1	9	3	38	17
Deflandrea oebisfeldensis	1	0	4	0	6	1	0	5	
deflandroids						3		6	1
Diphyes colligerum	0	0	2					2	1
Diphyes with large processes		1							
Elytrocysta brevis						1	1		
Fromea fragilis							0		2
Fromea laevigata			2	72	10	63	33	10	10
Glaphyrocysta divaricata	7	1	1				4		
Glaphyrocysta ordinata		1	2		0		4	0	0
Glaphyrocysta pastielsii	3			0			0	0	1
Hafniasphaera septata	13	3	11	2	3	7	2	2	3
Hystrichokolpoma sp.									1
Hystrichostrogylon membraniphorum					3	2		2	
Hystrichosphaeridium tubiferum	4	4	14	1	8	2	2		1
Hystrichosphaeridium ? *palmatum*			0						
Impletosphaeridium insolitum			1						
Impletosphaeridium severinii								0	
Impletosphaeridium sp.		1	11	13	3				
Kallosphaeridium sp.		1							1
Lejeunecysta hyalina	1	1			0				2
Lentinia wetzelii	1	9	4		2	3			
Melitasphaeridium pseudorecurvatum		4				1		0	1
Membranosphaera sp.B	1	2	2	23	9	24	20	1	1
Microdinium ornatum		0		1	1	1	2	6	1
Microdinium reticulatum						1			
Nematosphaeropsis reticulensis	0	1	2		4	2	1		
Oligosphaeridium complex	7	5	3	1	5		2	1	
Operculodinium centrocarpum		11				13		2	
Operculodinium sp.					1			1	4
Palaeocystodinium golzowense	0							1	
Palaeocystodinium lidiae	1	0			1			2,5	2
Palaeotetradinium minusculum	0	2	4	6	0	5	4	1	2
Polysphaeridium subtile						2			
Senegalinium dilwynense		3			5			4	29
Senegalinium sp.	7	1	6	17		5	7	14	14
Spinidinium sp.	1								
Spiniferella cornuta					0				
Spiniferites pseudofurcatus				2	0				
Spiniferites spp. (*ram, mem, supparus*)	88	160	47	21	125	63	33	79	60
Tanyosphaeridium xanthiopyxides (rew?)			0		0				
Thalassiphora delicata	0				0		1		
Trigonopyxidia ginella		2	1	3	1		5		1
Gonyaulacoid B	1								
Incertae Sedis CHC 85					1		0		
proximochorate df	1	1	5	4			1		2
reworked df	*12	*2	*4			*1		*7	
Micrhystridium spp.	27								
acritarchs	49	*125/98df	*101/135df	*118/150df	*69/176df	*99/105df	*101/136df	*154/83df	*70/150df
Pterospermella aureolata							0		

Lithostratigraphic Units	Bourguillemont Crag & Sand Mbs					Muirancourt Mb?			Vauxbuin Mb												Sinceny Mb?	Aizy Sand Mb			Cuise Sand Mb		
Taxa \ Samples	THER 1 - 134	THER 1 - 127	THER 1 - 123	THER 1 - 112	THER 1 - 106	THER 1 - 90	THER 1 - 83	THER 1 - 81	THER 1 - 73	THER 1 - 68	THER 1 - 64	THER 1 - 62	THER 1 - 60	THER 1 - 57	THER 1 - 52	THER 1 - 49	THER 1 - 42	THER 1 - 38	THER 1 - 36	THER 1 - 33	THER 1 - 27	THER 1 - 26	THER 1 - 20	THER 1 - 18	THER 1 - 16	THER 1 - 11
Achomosphaera alcicornu																					1		0			
Achomosphaera spp.															1						4	53	89,5	2		2
Adnatosphaeridium spp. (broaken)																						6		1		
Apectodinium homomorphum	3	1	16	4	48		4		58	44	4	32	37	30	35		9		9	1	2					
Apectodinium homomorphum-quinquelatum											1															
Apectodinium hyperacanthum			1								1					1	1		3	0		2				
Apectodinium paniculatum			1														0			0						
Apectodinium parvum	1		10	3	2		1	1	13	0	15	16	8	6	15	13	15	5	6	4	1	0				
Apectodinium quinquelatum			1		4		1		1	2	1	7	10	3	1	2	5			3		2	2			
Apectodinium quinquelatum-hyperacanthum																						0				
Apectodinium summissum	2		7	5	5	1	1		15	1			0		1				2	1						
Apectodinium spp.	4	2	72	30	64	2	15	3	111	162	77	149	121	112	154	190	202	44	64	81	9	28	11			
Areoligera coronata					1								0	1	0		0				1					
Areoligera/Glaphyrocysta spp.												4								0	85			3	1	
Axiodinium lunare																					21					
Axiodinium cf. *lunare* (transition to *Charlesdowniea*)																						40	9,5			
Biconidinium longissimum																				5						
Cordosphaeridium ? *cracenospinosum*																					5					
Cordosphaeridium exilimurum										1		0	0				0			0		1	4			
Cordosphaeridium gracile																					26	4		6		
Cordosphaeridium inodes											1									3		1				
Cordosphaeridium spp.												0	3	1	4		0				5				1	
Cribroperidinium tenuitabulatum													0							0	4	5	3			
Dapsilidinium pseudocolligerum																	2					2				
Deflandrea oebisfeldensis																					2					
Deflandrea cf. *phosphoritica* (broaken)																							1			
Deflandrea spp.																				0	7					
Dinopterigium cladoides																							1			
Diphyes colligerum			2						4		6	4	3	8		2	1			4		2	4			
Diphyes aff. *colligerum* (with large processes)			1							3	2	4	4	17	2											
Eocladopyxis peniculata										1				1						10			0			
Fibrocysta spp.															2					0	1		0			
Florentinia reinchartii																				2						
Glaphyrocysta divaricata													0	0	1						1					
Glaphyrocysta exuberans																					5					
Glaphyrocysta ordinata										0					1						3		3			
Glaphyrocysta pastielsii																						2				
Glaphyrocysta reticulosa?													0													
Glaphyrocysta spp.			1									1	3	2	1							28	16			
Heteraulacacysta leptalea										0		2	0	0						2						
Homotryblium tenuispinosum																							1			
Hystrichokolpoma salacium	1												0									0				
Hystrichosphaeridium tubiferum																					0					
Impagidinium spp.																					1		1			
Lejeunecysta hyalina																				0						
Lentinia wetzelii																						3				
Lentinia sp.																					2					
Lingulodinium machaerophorum			1								2		3			1,5						5				
Lingulodinium spp.					0				0	0,5		5,5	8,5	10,5	1,5		0,5			56	7		7			
Kallosphaeridium spp.			1																							
Oligosphaeridium complex																						1	0			
Operculodinium centrocarpum														1												
Operculodinium spp.													1		1					2		3	11	1		
Phthanoperidinium crenulatum																				1	1	3	0			
Polysphaeridium subtile										0																
Polysphaeridium zoharyi																	0			1						
Senegalinium ? *dilwynense*																				0						
Sophismatiaa tenuivirgula																					1		0			
Spiniferites spp.	1		2							1	5		19	34	4	1				13		3	7	3		1
Stichodinium elegantulum															0					1						
Thalassiphora delicata																						0				
Vallodinium heilmannii															1					0						
wetzelielloids																					25,5			1		
Gen. Spec. Indet 1 in Heilmann-Clausen & Costa 89 Gonyaulacoid A									20				0	0									1			
broken peridinioids (*D. denticulata* or *Lentinia*)																					1	5	5			
chorate and proximochorate dinocysts			3		2					3		1	2	4	4					8	11	1	7	16		2
broken gonyaulacoids																					10	20	6		1	
Pediastrum spp.			10	1	3		2		8		7	1		5	2			acme	acme							
Pterospermella aureolata																					16					
Pterospermella barbarae																					6	2				
Pterospermella spp.																							1			
Paralecaniella indentata																								1		
Comasphaeridium cometes			2	1																1		1	4			
Micrhystridium oceaniae													1							3			2			
other acritarchs										5	2									1			2			

Lithostratigraphic Units	Châlons-sur-Vesles Sand Fm?		Rilly Sand Mb?		Germaine 'Marne à Rognons' Mb					Dormans Marl Mb					Vauxbuin Mb								eq Sinceny Mb ???			Cuise Sand Mb?	
Taxa \ Samples	TRY 1-123	TRY 1-113	TRY 1-111	TRY 1-101	TRY 1-95	TRY 1-91	TRY 1-87	TRY 1-83	TRY 1-79	TRY 1-75	TRY 1-73	TRY 1-69	TRY 1-65	TRY 1-59	TRY 1-55	TRY 1-52	TRY 1-46	TRY 1-43	TRY 1-38	TRY 1-36	TRY 1-34	TRY 1-32	TRY 1-30	TRY 1-28	TRY 1-26	TRY 1-25	TRY 1-11
Achilleodinium biformoides																									0		
Achomosphaera alcicornu	0																										
Achomosphaera ramulifera																									0		
Achomosphaera spp.	23															1			1								
Adnatosphaeridium multispinosum																									0		
Adnatosphaeridium vittatum																									0		
Apectodinium homomorphum		1	18		1		6	21	12		2				12	3		3	4	0	2		9	9		8	
Apectodinium hyperacanthum																						0					
Apectodinium paniculatum																					0						
Apectodinium parvum (longues)	0,5	3	16		1	2		5	18						6	4			16		1	9	32	18		34	
Apectodinium quinquelatum			3					1	5							0		1	3	1		1	1	0		6	
Apectodinium summissum	0	1	2		5	5	4		5		1				2	1		1								9	
Apectodinium aff. *Wetzeliella*			1																								
Apectodinium spp.	1	12	141		2,5	18	18	186	92		2		2		78	87	0	120	65	27	12	45	112	175		170	
Areoligera coronata	47																										
Areoligera senonensis	1								1																0		
Areoligera/Glaphyrocysta	18															4		2		21							
Biconidinium longissimum			2,5					0,5	2,5						3	4		4									
Charlesdowniea crassiramosa (pollution)																		1									
Charlesdowniea tenuivirgula (pollution)																		0									
Cleistosphaeridium sp.							1,5														1						
Cordosphaeridium exilimurum								11	6						5			2						2,5		1	
Cordosphaeridium fibrospinosum																						0	5				
Cordosphaeridium gracile																									0	0	
Cordosphaeridium inodes	1								2						1	16		8							0		
Cordosphaeridium sp.	11		1			1									3	1											
Cribroperidinium tenuitabulatum	0																										
Deflandrea oebisfeldensis	0																										
Deflandrea sp. (broaken)									1																0	0	
Dinopterigium cladoides																									0	1	
Diphyes colligerum	1		3						2							4				9	8	7				4	
Diphyes/Dapsilidinium (broaken)																				16	2						
Dracodinium simile (pollution?)																										0	
Dracodinium-Wetzeliella (pollution?)																										0	
Eocladopyxis peniculata	2																								0		
Epelidinium brinkhuisii																										0	
Glaphyrocysta divaricata																				0					0		
Glaphyrocysta exuberans	0		2						48									46								0	
Glaphyrocysta ordinata	1		5																								
Glaphyrocysta pastiesii	1				4																	1			0		
Glaphyrocysta reticulosa																									0		
Glaphyrocysta sp.	10	0	1			2	1	0		1	1		4		5	3			5		5	7				1	7
Heteraulacacysta leptalea																2				16	4	3		0			
Hystrichokolpoma granulatum			1																1							2	
Hystrichokolpoma rigaudiae																		0					0	0	0		
Hystrichokolpoma salacium	1																	0				1		0		4	
Hystrichokolpoma sp.															2				9	2	2						
Hystrichosphaeridium tubiferum	3																									0	
Impletosphaeridium sp.																				1							
Kallosphaeridium densebarbatum																										1	
Kallosphaeridium sp.															3												
Leberidocysta sp.																				16	3	1					
Lejeunecysta hyalina	1																			1						0	
Lentinia wetzelii	1																					1		2			
Lingulodinium machaerophorum			2,5					0	3							0		6,5		5,5	1	0		0	1,5		
Lingulodinium strangulatum															1				3							3	
Lingulodinium spp. (broaken)																										1,5	
Microdinium sp.	1																										
Muratodinium fimbriatum																						1			0		
Oligosphaeridium complex	0																										
Operculodinium centrocarpum	1																										
Operculodinium spp.																		3							0		
Palaeotetradinium minusculum	1																										
Phthanoperidinium crenulatum																		1									
Senegalinium dilwynense																					1		1				
Senegalinium sp.			1																	0				0			
Spinidinium sp.	2																										
Spiniferites ramosus	29																										
Spiniferites spp.	31		5						6						2	6		8		6	2	1	1	1	0	3	
Tanyosphaeridium xanthiopyxides	0																										
Thalassiphora delicata	0																										
Turbiosphaera galatea																		2							0	0	
Gonyaulacoid B																73				78	182	150	50	2			
wetzelielloids broken			2																								
chorate/proximochorate df	4		3						1										6	8	4						
gonyaulacoids indet	2																	3									4
peridinioids	39								1																		
Florentinia sp. (reworked)	0																										
Heliodinium voigti (reworked)	0																										
Hystrichodinium sp. (reworked)	2																										
Hystrichosphaeridium ~bowerbanki (reworked)	2																										
Hystrichosphaeropsis sp (reworked)	0																										
Oligosphaeridium sp. (reworked)	1																										
Tehamadinium daveyi (reworked)	0																										
Pediastrum sp.	0																							0			
Michrystridium spp.	1																		1		11	3		1		0	
Paralecaniella indentata	3																							0			
other acritarchs																4		2		20						1	

Lithostratigraphic Units	Phare d'Ailly Mb													Lower SAOM MB		
Taxa \ Samples	VAST B 27	VAST B 37	VAST B 44	VAST B 51	VAST B 70	VAST B 90	VAST B 98	VAST B 103	VAST B 112	VAST B 120	VAST B 136	VAST B 138	VAST B 143	VAST B 149	VAST B 155	VAST B 175	VAST B 196
Apectodinium homomorphum											5	18			81		32
Apectodinium parvum															0		1
Apectodinium quinquelatum															1		
Apectodinium summissum																	0
Apectodinium spp.												11			14		36
Areoligera/Glaphyrocysta spp.															2		
Cordosphaeridium exilimurum															0		
Lentinia sp.				1											3		47
Eocladopyxis peniculata															1		
Diphyes colligerum															6		1
Kenleyia- complex															5		28
Heteraulacacysta leptalea															4		
Lingulodinium spp.															2		1
Operculodinium spp.															1		
Spiniferites spp.															39		2
Gonyaulacoid A												2			44		90
broken golyaulacoids															2		7
Pediastrum spp.			105	92						100	115	100			7		
Micrhystridium oceaniae															1		

Lithostratigraphic Units	Rilly Sand Mb		Muirancourt Mb		Vauxbuin MB		Venteuil MB								Epernay Mb ?		Epernay Mb				
Taxa \ Samples	VEN 32	VEN 31	VEN 29	VEN 28	VEN 27a	VEN 27b	VEN 26	VEN 25	VEN 24	VEN 23	VEN 21	VEN 19	VEN 18	VEN 17	VEN 15	VEN 12	VEN 10	VEN 7	VEN 6	VEN 4	VEN 1
Achomosphaera ramulifera																			0		
Adnatosphaeridium robustum							0											0			
Apectodinium homomorphum	1		16		3	18	2	1	50	11	6	7	42	11				8	2	26	1
Apectodinium hyperacanthum						2															
Apectodinium paniculatum											1										
Apectodinium parvum	2		3		95	9	6	6	2	13	2	4	11			7	3	31	126	12	15
Apectodinium quinquelatum	2		4			0	12			12		0	2				1	1		1	
Apectodinium summissum	2		1							10			10	3			1				
Apectodinium spp.	43		60		110	87	85	94	57	97	196		150	191		49	60	143	79	140	71
Apteodinium sp.							0					207									
Areoligera coronata					0	11	2											0	1		
Areoligera sp.							5														
Areoligera/Glaphyrocysta (broken)							43		11												
Axiodinium sparnacium					0	5															
Biconidinium longissimum	1		0,5		21,5	13	2,5	1	1	3,5	1,5	4,5	1,5	1				1			
Charlesdowniea tenuivirgula																		1			
Cordosphaeridium exilimurum							5						0								
Cordosphaeridium fibrospinosum					0	6	4	26	6	4		3,5	2					5	0		
Cordosphaeridium gracile							0											1	0		
Cordosphaeridium inodes	2		1		2	0	10		5	0				2							
Cordosphaeridium sp.	1					2		3		2				1							
Cribroperidinium tenuitabulatum						0	1											1			
Deflandrea oebisfeldensis						0	0														
Dapsilidinium sp.																				1	
Diphyes colligerum	1					1	0					0									
Diphyes spinulum			3			1	6	4	1	58		1									
Diphyes with large processes											1										
Eocladopyxis peniculata			41		1		8		23											1	
Fibrocysta bipolaris							1														
Fibrocysta vectense						0															
Glaphyrocysta divaricata						0	1												0		
Glaphyrocysta exuberans							0						0								
Glaphyrocysta aff. *exuberanse* sensu Eaton 79																		0			
Glaphyrocysta pastielsii						2	8		1			1							0	0	
Glaphyrocysta sp.	1		2			8	12									1		1		12	
Heteraulacacysta campanula						1	3				2						2				
Heteraulacacysta leptalea						4	2	2			0	1							0		
Hystrichokolpoma cinctum						0												2			
Hystrichokolpoma rigaudiae							0		1												
Hystrichokolpoma salacium							8														
Hystrichokolpoma unispinum						7													1		
Hystrichokolpoma sp.																				1	
Impagidinium dispertitum							0														
Impagidinium sp.						0	0														
Kenleyia lophophora							2														
Stichodinium parisiense					0																
Stichodinium sympagicum						0		0													
Lejeunecysta hyalina						0	0														
Lentinia sp.						1	0														
Lingulodinium machaerophorum			3		1	22,5	28,5	0,5	2	1,5							1	1	0		1
Microdinium sp.							1														
Operculodinium centrocarpum																			0		
Phthanoperidinium tritonium																					1
Polysphaeridium sp.							0														1
Senegalinium dilwynense						1															
Senegalinium sp.							1		1			0						2			
Spiniferites ramosus						19													1		
Spiniferites spp.			3		1		23	2		1	0			1		1		6		12	
Turbiosphaera galatea						0															
Vallodinium picardicum					14	1				1											
Wetzeliella astra/lobisca ?							0														
Wetzeliella lunaris																		2	0		
Wetzeliella lunaris ?							0														
Wetzeliella sp.																			1		
Gonyaulacoid A																				1	9
Gonyaulacoid B					8	17		67				0									4
chorate df indet	29						5											1		1	
gonyulacoids indet								1	1	1											
Micrhystridium sp.																		2		1	
Paralecaniella indentata						2															
***Pediastrum* sp.**			**1**					**1**		**1**	***88**		**2**								

Lithostratigraphic Units	Avesnois Silt Mb	Le Quesnoy Sand Mb	Valenciennes Tuffeau Mb					Vertain Crag Mb			
Taxa \ Samples	VERT 3-4	VERT 3-10	VERT 3-13	VERT 3-15	VERT 3-17	VERT 3-19	VERT 3-21	VERT 3-25	VERT 3-27	VERT 3-31	VERT 3-33
Achomosphaera alcicornu										0	
Achomosphaera sp.			2				1		2	97	65
Alisocysta sp.			1							0	
Apectodinium sp.								1			
Areoligera coronata			5		8	11	10		2	6	13
Areoligera medusettiformis							3			1	
Areoligera senonensis			8				5		10	4	
Areoligera /Glaphyrocysta					2	1	2			35	41
Batiacasphaera sp.					1						
Cordosphaeridium exilimurum										0	
Cordosphaeridium inodes			1						1	21	27
Cordosphaeridium multispinosum										9	
Cordosphaeridium sp.			1				1			12	27,5
Cribroperidinium sp.1							1			2	
? *Deflandrea oebisfeldensis*						1				8	
Deflandrea sp.											1
Diphyes colligerum											3
Eocladopyxis peniculata										1	
Fibrocysta vectense						2					24
Glaphyrocysta exuberans										0	
Glaphyrocysta ordinata						1			1	3	1
Glaphyrocysta pastielsii									1	0	
Hystrichosphaeridium tubiferum			1				1			5	10
Kallosphaeridium sp.							1				
Oligosphaeridium complex			2			3				4	8
Phthanoperidinium crenulatum								1			
Spiniferites spp.										5	
gonyaulacoids indet			11			15				9	1
reworked dinocysts			6	4	60	23	22	4	4		30
Pediastrum sp.			13			6	22	1			
Paralecaniella indentata										0	1
other acritarchs											1

Lithostratigraphic Units	Wizernes Tuffeau Mb				Louvil Clay Mb			
Taxa \ Samples	**WZ 1**	**WZ 13**	**WZ 17**	**WZ 22**	**WZ 25**	**WZ 27**	**WZ 29**	**WZ 30**
Achomosphaera alcicornu		4		1	0	3	2	0
Achomosphaera sp.						2		
Alisocysta sp.2		1	0	3	3	2	0	3
Areoligera coronata		18	149	133	51	3	3	38
Areoligera medusettiformis					1			
Areoligera senonensis				3	0	1		1
Areoligera sp.		1						
Batiacasphaera sp.					0	1	1	
Caligodinium aceras		1			0			1
Cannosphaeropsis utinensis								1
Cerodinium depressum							1	0
Cerodinium diebelii		1						
Cerodinium speciosum		0			0			
Cerodinium speciousum glabrum								1
Cleistosphaeridium sp.								2
Conneximura fimbriata		0				1		1
Cordosphaeridium exilimurum							0	
Cordosphaeridium fibrospinosum		1					1	
Cordosphaeridium inodes		0	1	2	1	5	3	3
Cordosphaeridium multispinosum		1		0	0	5	1	1
Cordosphaeridium sp.		3	6		3			2
Cribroperidinium tenuitabulatum	1	7		1	3	16	1	18
Cribroperidinium sp.		1						2
Dapsilidinium simplex								1
Deflandrea denticulata		2		3	0	2	2	1
Deflandrea oebisfeldensis		11	7	2	0	2	4	4
Deflandrea/Cerodinium		3	50	7	3	1	1	8
Diphyes colligerum		1			3	4	2	2
Elytrocysta brevis		1					0	4
Florentinia ferox						0	0	
Fromea fragilis					0	3	3	1
Fromea laevigata			8	1			3	
Glaphyrocysta divaricata						1	0	
Glaphyrocysta pastielsii		1		0			0	
Glaphyrocysta sp.						1		1
Hafniasphaera septata		0				3		2
Heteraulacacysta leptalea		0					0	
Hystrichokolpoma salacium							1	
Hystrichokolpoma sp.		1						
Hystrichosphaeridium tubiferum		5		3	3	2	2	5
Hystrichostrogylon membraniphorum		1			4	0	0	
Impagidinium sp.1 CHC 85						0		
Impagidinium sp.							1	1
Lejeunecysta hyalina		0			2	0	1	
Lentinia wetzelii		0		0		3	4	1
Lingulodinium machaerophorum								2
Melitasphaeridium pseudorecurvatum					5	5	1	1
Melitasphaeridium ? sp.1 CHC 85		0						
Microdinium ornatum							1	0
Microdinium cf. *ornatum* sensu CHC 85		1						
Nematosphaeropsis sp.					0			
Oligosphaeridium complex		3		0	0		1	1
Operculodinium divergense		1						
Operculodinium eisenackii		8			5	3		
Operculodinium microtrianum							0	
Operculodinium sp.			1		3		3	1
Palaeocystodinium lidiae		0			1	2		1
Palaeotetradinium minusculum		1				3	1	1
Phelodinium magnificum						0		0
Polysphaeridium sp.					1	1	1	1
Senegalinium dylwenense						1		
Senegalinium sp.		2			4	2	5	
Spiniferella cornuta		0				0		0
Spiniferites spp.	9	111	1	51	100	158	180	99
Thalassiphora delicata		0			0	1	0	4
Thalassiphora pelagica						1	2	1
Trigonopyxidia ginella		0						
Incertae Sedis 1 CHC 85		38	1		1	6	4	16
chorate df		4	1	1	10	1	3	6
reworked df	**30**	**3**		**1**				
Horologinella incurvata		0						3
Micrhystridium sp.		7				10	9	8
Paralecaniella indentata		2		1	1	2		
other acritarchs		14				10	47	18
Palambages sp.					1	0	2	0