

Appendix 5. Nannofossil (NN) database, MIDK42CS.

Maximum stratigraphic ranges in mega-annums of nannofossils (NN) in outcrop and cored sections in the MIDK3, MIDK4, MIDK41, & MIDK42.CAT databases. The sections in which each taxon occurs are listed showing in which section the maximum age occurs indicated by *; + marks second longest occurrence. Where a species is listed twice, the maximum range is highlighted yellow. Green highlight indicates age that approximates reported age; red highlight marks discrepant age. The number at bottom of each entry is number of graphed sections, some of which have been graphed twice to re-adjust to revised Cenomanian/Turonian age. Taxonomic and nomenclatural changes are by M. Wagreich and L. Svabenicka; CORB section data is from M. Milente, L. Svabenicka, & M. Wagreich. Zonal scheme of Burnett (1998, Upper Cretaceous, in Bown, P.R., ed., *Calcareous nannofossils Biostratigraphy*: Chapman & Hall, British Micropalaeontological Society Publication Series, p. 132-199. Bown, P.R., et al., 1998, Lower Cretaceous, as above). Date: 11/13/2006. Age of the Cenomanian/Turonian boundary is 90.5 Ma in MIDK3 to MIDK41 and 93.0 Ma in MIDK42.

<i>Acuturris scotus</i>	Morphologic Code - NN	
PAL 211 ODP 690B Weddell Sea, Antarctica	-75.27*	-64.73*
MIDK41 CS	-75.27	-64.73

	1	
<i>Ahmuellerella octoradiata</i>	Morphologic Code - NN	
1-Kalaat Senan, Turonian	-89.88	-88.59
4-DSDP 547, Offshore Morocco, Albian-Cen	-93.84*	***
9-Amoco No. 1 Bounds core, Kansas, U. Al	-90.47	-88.10
12-Boulonnaise Section, France, Alb-Tur	-91.94+	-89.07
36-Anderson Husky Roros, Canada (Alb-Tur	-88.22	-88.01
45-Mobil Core 16, Dallas, TX	-91.20	-88.26
MIDK3 CS	-93.84	-88.01
72 Oued Melleque, Tunisia	-90.09	-89.41
UPK 1 Austin Gp., Austin, TX	-88.20	-82.78
UPK 3 Olazagutia, Spain	-86.09	-85.60
UPK 4 Zumaya, Spain	-67.98	-67.98
UPK 7 Bidart, Spain	-69.88	-69.30
121 ODP 762C Exmouth Plateau, Indian Oce	-83.46	-67.39
PAL 141 ODP 752 Indian Ocean	-66.49	-64.63*
PAL 211 ODP 690B Weddell Sea, Antarctica	-74.77	-64.73+
MIDK41 CS	-93.84	-64.63

	14	
<i>Amphizygus brooksii</i>	Morphologic Code - NN	
9-Amoco No. 1 Bounds core, Kansas, U. Al	-91.84	-88.10
12-Boulonnaise Section, France, Alb-Tur	-90.81	-89.07
20-Trinity River, Texas Sect, Alb-Cen	-106.60	-95.74
24-Mt. Risou, Rosans, SE France, Alb-Cen	-98.17	-96.54
41-ODP 641C, Offshore Portugal (Alb-Bar)	-124.72*	-109.43
MIDK3 CS	-124.72*	-88.10
UPK 3 Olazagutia, Spain	-86.09	-85.60
UPK 7 Bidart, Spain	-69.59	-65.51*
UPK 13 Tercis Quarry section, France (Od	***	-71.21
9B Bounds Core, Kansas - Niobrara Fm.	***	-87.70
20B Trinity River Compositated Section Rev	-109.92+	-98.66
UPK 10 Tiefenbach, Brandenburg, Austria	-85.49	-85.44+
32 Rehkogel RED, Austria	-85.80	-85.51
MIDK41 CS	-124.72	-65.51

	12	
	-124.72	-65.51

UC13 Lower Campanian

FO Arkhangelskiella cymbiformis

		Morphologic Code - NN	
11-DSDP 386 Bermuda Plateau, Atlantic, A		-88.24+	-88.18
36-Anderson Husky Roros, Canada (Alb-Tur		-88.22	-88.12
MIDK3 CS		-88.24	-88.12
84 DSDP Core Hole 549, SW Offshore Engla		-72.12	-66.66
UPK 4 Zumaya, Spain		-72.48	-65.95
UPK 7 Bidart, Spain		-69.88	-65.51
UPK 13 Tercis Quarry section, France (Od		-76.63	-71.47
UPK 14 Lepsa, E. Carpathians, Romania		-68.17	-65.25
121 ODP 762C Exmouth Plateau, Indian Oce		-70.61	-65.74
131 DSDP 515F Western Atlantic		-69.96	-69.26
PAL 141 ODP 752 Indian Ocean		-66.54	-64.47*
PAL 151 DSDP 550+550B NE Atlantic		-73.53	-65.50
PAL 161 DSDP 548A NE Atlantic		-71.67	-65.55
PAL 211 ODP 690B Weddell Sea, Antarctica		-75.27	-64.79+
11B DSDP 386 Upper & Lower Cretaceous		-71.58	-71.17
20B Trinity River Composited Section Rev		-98.66*	-98.66
UPK 18 Bottacione Gorge, Italy		-79.46	***
DSDP 382 Central Atlantic (corb382-1)		-70.61	-70.61
DSDP 385 Central Atlantic (corb385-1)		-68.74	-66.36
DSDP 398D, Eastern Atlantic (corb398d-1)		-77.19	-66.10
29 Oberhehenfeld, Austria		-83.25	-74.25
30 Hofergraben, Austria		-79.04	-79.04
MIDK41 CS		-98.66	-64.47

	21	-88.24	-64.47
Arkhangelskiella specillata		Morphologic Code - NN	
PAL 211 ODP 690B Weddell Sea, Antarctica		-75.27*	-64.79*
MIDK41 CS		-75.27	-64.79

	2	-75.27	-64.79
Assipetra infracretacea		Morphologic Code - NN	
3b-Santa Rosa Canyon Section, Mexico, Be		-124.60	-107.44*
13-Piobbico Core, Marche, Italy, Apt-Alb		-118.74	-113.94+
26-Cismon Section, Italy (VU Data), Apt-		-132.94+	-122.42
43-Gorgo a Cerbara Section, Italy		-134.00*	-122.44
MIDK3 CS		-134.00	-107.44
69 Coupe de la Gare de Cassis, SE France		-124.71	-121.86
MIDK41 CS		-134.00	-107.44

Upper part BC12/lower NC5/CC5=Lower Barremian

FO Assipetra terebrodentarius

		Morphologic Code - NN	
See also Rucinolithus terebrodentarius		-132.11	-107.35
3b-Santa Rosa Canyon Section, Mexico, Be		-124.04	-107.35
41-ODP 641C, Offshore Portugal (Alb-Bar)		-128.64+	-122.51
43-Gorgo a Cerbara Section, Italy		-124.53	-122.44
MIDK3 CS		-93.40	-107.35+
26B Cismon Core, Italy		-132.11*	***
69 Coupe de la Gare de Cassis, SE France		-124.74	-121.86
9B Bounds Core, Kansas - Niobrara Fm.		***	-87.86*
57 Tartonne, France, Aptian-Albian		-119.16	-113.56
58 Pre-Guitard, France, Aptian-Albian		-118.36	-107.90
MIDK41 CS		-124.74	-87.86

	8	-132.11	-87.86
Rucinolithus terebrodentarius			Morphologic Code - NN
Junior synonym of Assipetra terebrodentarius			
3b-Santa Rosa Canyon Section, Mexico, Be		-124.04	-107.35*
41-ODP 641C, Offshore Portugal (Alb-Bar)		-128.64*	-122.51
43-Gorgo a Cerbara Section, Italy		-124.53	-122.44+
MIDK3 CS		-128.64	-107.35
26B Cismon Core, Italy		-132.11*	***
MIDK41 CS		-132.11	-107.35

	4	-132.11	-107.35

BC25/NC9/upper CC8=in Middle Albian

FO Axopodorhabdus albianus

			Morphologic Code - NN
1-Kalaat Senan, Turonian		-93.19	-91.14
4-DSDP 547, Offshore Morocco, Albian-Cen		-99.25	-93.84
5-DSDP 545, Offshore Morocco, Aptian-Cen		-101.17	-94.32
9-Amoco No. 1 Bounds core, Kansas, U. Al		-95.20	-90.84
10-Kalaat Senan, Tunisia Section, Cenoma		-97.58	-90.70*
11-DSDP 386 Bermuda Plateau, Atlantic, A		-109.77*	-94.62
12-Boulonnaise Section, France, Alb-Tur		-90.81	-90.76+
13-Piobbico Core, Marche, Italy, Apt-Alb		-107.71+	-100.65
20-Trinity River, Texas Sect, Alb-Cen		-102.63	-95.74
24-Mt. Risou, Rosans, SE France, Alb-Cen		-98.17	-96.54
45-Mobil Core 16, Dallas, TX		-91.66	-90.89
MIDK3 CS		-109.77	-90.70
72 Oued Melleque, Tunisia		-96.60	-90.80
74 Antruilles, Trento Plateau, Italy		-96.36	-90.75
84 DSDP Core Hole 549, SW Offshore Engla		-92.48	-90.87
11B DSDP 386 Upper & Lower Cretaceous		-101.52	-93.57
20B Trinity River Composited Section Rev		-102.97	-95.75
58 Pre-Guitard, France, Aptian-Albian		-107.18	-107.18
Khalagork, Caucasus, Russia (corbrus-1)		-96.49	-96.49
33 Rehkogel CT, Austria		-91.67	-90.77
MIDK41 CS		-109.77	***

	19	-109.77	-90.70

Axopodorhabdus dietzmannii

			Morphologic Code - NN
1-Kalaat Senan, Turonian		-89.47	-89.45+
4-DSDP 547, Offshore Morocco, Albian-Cen		-99.25	-93.84
5-DSDP 545, Offshore Morocco, Aptian-Cen		-118.29	-94.32
10-Kalaat Senan, Tunisia Section, Cenoma		-97.58	-93.29
11-DSDP 386 Bermuda Plateau, Atlantic, A		-100.32	-97.72
20-Trinity River, Texas Sect, Alb-Cen		-101.81	-95.74
41-ODP 641C, Offshore Portugal (Alb-Bar)		-128.64*	-109.46
MIDK3 CS		-128.64	-89.45
69 Coupe de la Gare de Cassis, SE France		-123.29	-121.86
UPK 1 Austin Gp., Austin, TX		-83.36	-83.19*
11B DSDP 386 Upper & Lower Cretaceous		-100.17	-97.82
20B Trinity River Composited Section Rev		-105.95	-98.66
57 Tartonne, France, Aptian-Albian		-122.85+	-112.01
58 Pre-Guitard, France, Aptian-Albian		-122.34	-107.18
MIDK41 CS		-128.64	-83.19

	13	-128.64	-83.19

Biantholithus sparsus

			Morphologic Code - NN
UPK 14 Lepsa, E. Carpathians, Romania		-65.25	-64.61
121 ODP 762C Exmouth Plateau, Indian Oce		-65.49+	-52.57*
131 DSDP 515F Western Atlantic		-65.48	***

PAL 141 ODP 752 Indian Ocean	-64.77	-64.52+
PAL 151 DSDP 550+550B NE Atlantic	-64.78	-64.78
PAL 161 DSDP 548A NE Atlantic	-65.55*	-65.55
PAL 211 ODP 690B Weddell Sea, Antarctica	-64.81	-64.73
MIDK41 CS	-65.55	***
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	3	
Bidiscus rotatorius	-65.55	-52.57
Now placed in <i>Discorhabdus</i>		Morphologic Code - NN
3b-Santa Rosa Canyon Section, Mexico, Be	-122.49+	-107.35
9-Amoco No. 1 Bounds core, Kansas, U. Al	-94.97	-88.10
MIDK3 CS	-122.49	-88.10
69 Coupe de la Gare de Cassis, SE France	-124.74*	-121.86
PAL 211 ODP 690B Weddell Sea, Antarctica	-73.42	-68.63*
9B Bounds Core, Kansas - Niobrara Fm.	***	-87.70+
MIDK41 CS	-124.74	-68.63
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	5	
Biscutum castrorum	-124.74	-68.63
		Morphologic Code - NN
PAL 141 ODP 752 Indian Ocean	-65.51+	-64.17*
PAL 211 ODP 690B Weddell Sea, Antarctica	-68.23*	-64.73+
MIDK41 CS	-68.23	-64.17
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	2	
Biscutum constans	-68.23	-64.17
		Morphologic Code - NN
3b-Santa Rosa Canyon Section, Mexico, Be	-123.05	-107.26
7-Djebel Bireno, Tunisia, Cenomanian	-93.93	-93.87
11-DSDP 386 Bermuda Plateau, Atlantic, A	-110.22	-88.18
20-Trinity River, Texas Sect, Alb-Cen	-106.73	-95.74
30-Selbukhra Section, Crimea (Alb-Tur)	-101.85	-91.21
36-Anderson Husky Roros, Canada (Alb-Tur)	-88.22	-88.01
41-ODP 641C, Offshore Portugal (Alb-Bar)	-128.64*	-109.44
43-Gorgo a Cerbara Section, Italy	-124.53+	-122.08
MIDK3 CS	-128.64	-88.01
74 Antruiles, Trento Plateau, Italy	-96.49	-89.74
UPK 1 Austin Gp., Austin, TX	-83.36	-82.78
UPK 3 Olazagutia, Spain	-86.09	-85.66
UPK 14 Lepsa, E. Carpathians, Romania	-68.17	-64.61*
121 ODP 762C Exmouth Plateau, Indian Oce	-88.78	-65.74
PAL 141 ODP 752 Indian Ocean	-66.27	-64.80+
PAL 211 ODP 690B Weddell Sea, Antarctica	-75.27	-67.46
11B DSDP 386 Upper & Lower Cretaceous	-111.66	-71.17
20B Trinity River Compositied Section Rev	-106.34	-95.75
57 Tartonne, France, Aptian-Albian	-121.97	-108.42
58 Pre-Guitard, France, Aptian-Albian	-122.34	-107.18
UPK 10 Tiefenbach, Brandenburg, Austria	-86.02	-85.97
DSDP 382 Central Atlantic (corb382-1)	-76.15	-70.61
DSDP 385 Central Atlantic (corb385-1)	-68.44	-66.41
MIDK41 CS	-128.64	-64.61
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	22	
Biscutum coronum	-128.64	-64.61
		Morphologic Code - NN
121 ODP 762C Exmouth Plateau, Indian Oce	-75.23+	-67.64*
PAL 211 ODP 690B Weddell Sea, Antarctica	-75.27*	-71.80+
MIDK41 CS	-75.27	-67.64
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	2	
Biscutum dissimilis	-75.27	-67.64
		Morphologic Code - NN

PAL 211 ODP 690B Weddell Sea, Antarctica		-74.55*	-69.42*
MIDK41 CS		-74.55	-69.42

	1	-74.55	-69.42
Biscutum dubium		Morphologic Code - NN	
30-Selbukhra Section, Crimea (Alb-Tur)		-101.85*	-101.09*
MIDK41 CS		-101.85	-101.09

	1	-101.85	-101.09
Biscutum ellipticum		Morphologic Code - NN	
9-Amoco No. 1 Bounds core, Kansas, U. Al		-95.20	-88.10+
24-Mt. Risou, Rosans, SE France, Alb-Cen		-98.17+	-96.54
MIDK3 CS		-98.17	-88.10
69 Coupe de la Gare de Cassis, SE France		-124.80*	-121.86
UPK 7 Bidart, Spain		-69.88	-65.55*
9B Bounds Core, Kansas - Niobrara Fm.		***	-88.11
MIDK41 CS		-124.80	-65.55

	2	-124.80	-65.55
Biscutum gartneri		Morphologic Code - NN	
24-Mt. Risou, Rosans, SE France, Alb-Cen		-97.59*	-96.54*
MIDK3 CS		-97.59	-96.54
MIDK41 CS		-97.59	-96.54

	1	-97.59	-96.54
Biscutum magnum		Morphologic Code - NN	
13-Piobbico Core, Marche, Italy, Apt-Alb		-106.77*	-97.21
MIDK3 CS		-106.77	-97.21
26B Cismon Core, Italy		-98.98+	***
UPK 4 Zumaya, Spain		-71.70	-71.70+
PAL 211 ODP 690B Weddell Sea, Antarctica		-74.99	-69.01*
MIDK41 CS		-106.77	-69.01

	4	-106.77	-69.01
Biscutum notaculum		Morphologic Code - NN	
PAL 211 ODP 690B Weddell Sea, Antarctica		-74.99*	-68.57*
MIDK41 CS		-74.99	-68.57

	1	-74.99	-68.57
Braarudosphaera africana		Morphologic Code - NN	
13-Piobbico Core, Marche, Italy, Apt-Alb		-122.12*	-97.99
20-Trinity River, Texas Sect, Alb-Cen		-107.07	-97.05
24-Mt. Risou, Rosans, SE France, Alb-Cen		-98.17	-96.54+
41-ODP 641C, Offshore Portugal (Alb-Bar)		***	-109.44
MIDK3 CS		-122.12	-96.54
26B Cismon Core, Italy		-121.84	***
69 Coupe de la Gare de Cassis, SE France		-121.91+	-121.86
74 Antruiles, Trento Plateau, Italy		-95.13	-93.16*
20B Trinity River Composited Section Rev		-106.47	-96.95
58 Pre-Guitard, France, Aptian-Albian		-107.42	-107.42
MIDK41 CS		-122.12	***

	9	-122.12	-93.16
Braarudosphaera bigelowii		Morphologic Code - NN	
1-Kalaat Senan, Turonian		-90.50	-88.66
9-Amoco No. 1 Bounds core, Kansas, U. Al		-92.95	-88.27
24-Mt. Risou, Rosans, SE France, Alb-Cen		-96.67	-96.67
36-Anderson Husky Roros, Canada (Alb-Tur)		***	-88.01

MIDK3 CS		-96.67	-88.01
69 Coupe de la Gare de Cassis, SE France		-124.36*	-121.86
UPK 1 Austin Gp., Austin, TX		-88.20	-82.78
UPK 3 Olazagutia, Spain		-86.09	-85.70
UPK 4 Zumaya, Spain		-72.48	-68.85
UPK 7 Bidart, Spain		-68.24	-67.69+
UPK 14 Lepsa, E. Carpathians, Romania		-66.10	-64.61*
9B Bounds Core, Kansas - Niobrara Fm.		***	-87.70
57 Tartonne, France, Aptian-Albian		-122.85+	-112.72
97 Ballard Carey-Carolla No. 1, Texas		-89.58	-87.46
UPK 10 Tiefenbach, Brandenburg, Austria		-85.59	-83.97
MIDK41 CS		-124.36	-64.61

	14	-124.36	-64.61
Braarudosphaera bigelowii First bloom		Morphologic Code - NN	
Local acme zone in Pietrosita, Romania (Corbrom.1)			
MIDK41 CS		-65.51*	***

	1	-65.51	-65.51
Braarudosphaera bigelowii Second bloom		Morphologic Code - NN	
Local acme zone in Pietrosita, Romania (Corbrom.1)			
MIDK41 CS		-65.50	***

	1	-65.50	-65.50
Braarudosphaera discula		Morphologic Code - NN	
UPK 4 Zumaya, Spain		-65.76*	-65.66*
MIDK41 CS		-65.76*	-65.66*

	1	-65.76	-65.66
Braarudosphaera quinquecostata		Morphologic Code - NN	
20-Trinity River, Texas Sect, Alb-Cen		-100.65*	-97.98*
MIDK3 CS		-100.65	-97.98
20B Trinity River Compositated Section Rev		-98.30+	-98.13+
MIDK41 CS		-100.65	-97.98

	2	-100.65	-97.98
Braarudosphaera regularis		Morphologic Code - NN	
3b-Santa Rosa Canyon Section, Mexico, Be		-124.60*	-107.08+
MIDK3 CS		-124.60	-107.08
UPK 3 Olazagutia, Spain		-86.09+	-85.74*
MIDK41 CS		-124.60	-85.74

	2	-124.60	-85.74
Braarudosphaera stenorhetha		Morphologic Code - NN	
20B Trinity River Compositated Section Rev		-98.30*	-98.13*
MIDK41 CS		-98.30	-98.13

	1	-98.30	-98.13
Broinsonia bevieri		Morphologic Code - NN	
30-Selbukhra Section, Crimea (Alb-Tur)		-91.26*	-90.51*
MIDK41 CS		-91.26	***

	1	-91.26	-91.26
Broinsonia dentata		Morphologic Code - NN	
9-Amoco No. 1 Bounds core, Kansas, U. Al		-94.97*	-88.10*
MIDK3 CS		-94.97	-88.10
9B Bounds Core, Kansas - Niobrara Fm.		***	-87.70*
MIDK41 CS		-94.97	-87.70

	2	-94.97	-87.70
Broinsonia enormis		Morphologic Code - NN	
9-Amoco No. 1 Bounds core, Kansas, U. Al		-95.20	-90.26
11-DSDP 386 Bermuda Plateau, Atlantic, A		-97.72	-88.18
24-Mt. Risou, Rosans, SE France, Alb-Cen		-98.17*	-96.54
30-Selbukhra Section, Crimea (Alb-Tur)		-94.72	-91.44
MIDK3 CS		-98.17	-88.18
67 Gebel Abu Zurub, Sinai, Egypt		-90.56	-89.69
68 Gebel Guna, Sinai, Egypt		-90.59	-88.46
74 Antruiles, Trento Plateau, Italy		-90.93	-89.74
UPK 1 Austin Gp., Austin, TX		-83.36	-82.78
UPK 3 Olazagutia, Spain		-85.89	-85.80
121 ODP 762C Exmouth Plateau, Indian Oce		-88.49	-65.74*
PAL 211 ODP 690B Weddell Sea, Antarctica		-75.27	-74.99
11B DSDP 386 Upper & Lower Cretaceous		-97.81+	-71.17
DSDP 382 Central Atlantic (corb382-1)		-72.62	-70.61
DSDP 385 Central Atlantic (corb385-1)		-68.44	-68.13+
MIDK41 CS		-98.17	-65.74
	14	-98.17	-65.74
Broinsonia matalosa		Morphologic Code - NN	
See also Vagalapilla matalosa		-125.71	-71.38*
11-DSDP 386 Bermuda Plateau, Atlantic, A		-101.32	-94.85+
20-Trinity River, Texas Sect, Alb-Cen		-107.07	-95.74
41-ODP 641C, Offshore Portugal (Alb-Bar)		-125.71*	-109.44
24-Mt. Risou, Rosans, SE France, Alb-Cen		-98.05	-96.54
MIDK3 CS		-98.05	-96.54
69 Coupe de la Gare de Cassis, SE France		-124.25+	-121.91
58 Pre-Guitard, France, Aptian-Albian		-116.77	-107.18
MIDK41 CS		-116.77	-96.54
	6	-125.71	
-71.38			
Vagalapilla matalosa		Morphologic Code - NN	
Junior synonym of Broinsonia matalosa			
11-DSDP 386 Bermuda Plateau, Atlantic, A		-101.32	-94.85
20-Trinity River, Texas Sect, Alb-Cen		-107.07	-95.74
41-ODP 641C, Offshore Portugal (Alb-Bar)		-125.71*	-109.44
MIDK3 CS		-125.71	-94.85
UPK 1 Austin Gp., Austin, TX		-88.20	-87.25
121 ODP 762C Exmouth Plateau, Indian Oce		-83.69	-83.00*
Composited data of MIDK4 Sections 11-18-		-125.71	-83.00
11B DSDP 386 Upper & Lower Cretaceous		-101.08	-93.76
20B Trinity River Composited Section Rev		-110.55+	-98.66
DSDP 382 Central Atlantic (corb382-1)		-71.38	-71.38*
MIDK41 CS		-125.71	-71.38
	8	-125.71	-71.38
Broinsonia parca		Morphologic Code - NN	
9-Amoco No. 1 Bounds core, Kansas, U. Al		-94.75*	-88.10
MIDK3 CS		-94.75	-88.10
9B Bounds Core, Kansas - Niobrara Fm.		***	-88.11
11B DSDP 386 Upper & Lower Cretaceous		-71.19	-71.19+
UPK 18 Bottacione Gorge, Italy		-82.74+	-71.00*
MIDK41 CS		-94.75	-71.00
	4	-94.75	-71.00

UC17 Upper Upper Campanian–Lower Maastrichtian

LO Broinsonia parca constricta		Morphologic Code - NN	
UPK 13 Tercis Quarry section, France (Od		-76.63	-70.59+
121 ODP 762C Exmouth Plateau, Indian Oce		-83.46*	-69.56*
ODP 1050C Blake Nose, W. Atlantic		-78.59	-78.59
UPK 18 Bottacione Gorge, Italy		-82.12	-72.15
29 Oberhehenfeld, Austria		-83.16+	-74.25
34 Postalm-Retschegg, Austria		-76.42	-74.25
MIDK41 CS		-83.46	-69.56
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	6	-83.46	-69.56

UC14 Lower Campanian

FO Broinsonia parca parca		Morphologic Code - NN	
84 DSDP Core Hole 549, SW Offshore Engla		-72.12	-69.28
UPK 7 Bidart, Spain		-69.73	-69.45
UPK 11 Gosau Valley Composite, Austria		-83.44	-83.24
UPK 12 Tercis Quarry section, France (Ke		-75.35	-71.81
121 ODP 762C Exmouth Plateau, Indian Oce		-83.53*	-69.71
131 DSDP 515F Western Atlantic		-83.45+	-82.02
PAL 151 DSDP 550+550B NE Atlantic		-74.57	-68.24
PAL 161 DSDP 548A NE Atlantic		-71.67	-68.24+
DSDP 382 Central Atlantic (corb382-1)		-83.40	-70.61
DSDP 398D, Eastern Atlantic (corb398d-1)		-77.19	-66.82*
29 Oberhehenfeld, Austria		-83.16	-74.25
30 Hofergraben, Austria		-79.04	-79.04
34 Postalm-Retschegg, Austria		-76.42	-74.25
MIDK41 CS		-83.53	-66.82
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	13	-83.53	-66.82
Broinsonia signata		Morphologic Code - NN	
11-DSDP 386 Bermuda Plateau, Atlantic, A		-98.10	-94.62
12-Boulonnaise Section, France, Alb-Tur		-90.76	-89.07
24-Mt. Risou, Rosans, SE France, Alb-Cen		-98.17*	-96.54
MIDK3 CS		-98.17	-89.07
UPK 3 Olazagutia, Spain		-86.09	-85.76
UPK 7 Bidart, Spain		-68.52	-68.52*
121 ODP 762C Exmouth Plateau, Indian Oce		-88.78	-70.61+
11B DSDP 386 Upper & Lower Cretaceous		-98.16+	-93.57
MIDK41 CS		-98.17	-68.52
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	7	-98.17	-68.52
Broinsonia viriosa		Morphologic Code - NN	
57 Tartonne, France, Aptian-Albian		-121.97*	-108.42*
58 Pre-Guitard, France, Aptian-Albian		-112.80+	-111.61+
MIDK41 CS		-121.97	-108.42
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	2	-121.97	-108.42
Bukryolithus ambiguus		Morphologic Code - NN	
9-Amoco No. 1 Bounds core, Kansas, U. Al		-95.20	-88.10
24-Mt. Risou, Rosans, SE France, Alb-Cen		-98.17	-96.54
41-ODP 641C, Offshore Portugal (Alb-Bar)		-125.71*	-109.44
MIDK3 CS		-125.71	-88.10
69 Coupe de la Gare de Cassis, SE France		-124.69	-121.86
9B Bounds Core, Kansas - Niobrara Fm.		***	-87.78+
57 Tartonne, France, Aptian-Albian		-121.50	-108.42
58 Pre-Guitard, France, Aptian-Albian		-122.34+	-107.18
97 Ballard Carey-Carolla No. 1, Texas		-87.20	-87.46*

MIDK41 CS		-125.71	-87.46

	8	-125.71	-87.46
Calcicalathina alta		Morphologic Code - NN	
24-Mt. Risou, Rosans, SE France, Alb-Cen		-98.17*	-96.54+
MIDK3 CS		-98.17	-96.54
68 Gebel Guna, Sinai, Egypt		-90.59	-90.55*
MIDK41 CS		-98.17+	-90.55

	2	-98.17	-90.55
Calcicalathina oblongata		Morphologic Code - NN	
26-Cismon Section, Italy (VU Data), Apt-		-134.04+	-122.42*
43-Gorgo a Cerbara Section, Italy		-134.13*	-130.20
MIDK3 CS		-134.13	-122.42
26B Cismon Core, Italy		***	-129.95
84 DSDP Core Hole 549, SW Offshore Engla		-124.51	-123.08+
MIDK41 CS		-134.13	-122.42

	4	-134.13	-122.42
UC0b/BC27c Upper Albian-Lower Cenomanian			
FO Calculites anfractus			
		Morphologic Code - NN	
24-Mt. Risou, Rosans, SE France, Alb-Cen		-97.17*	-96.58*
MIDK41 CS		-97.17	-96.58

	1	-97.17	-96.58
Calculites obscurus		Morphologic Code - NN	
9-Amoco No. 1 Bounds core, Kansas, U. Al		-90.36*	-90.16
MIDK3 CS		-90.36	-90.16
84 DSDP Core Hole 549, SW Offshore Engla		-69.28	-69.28
UPK 1 Austin Gp., Austin, TX		-83.36	-82.78
UPK 3 Olazagutia, Spain		-85.95	-85.60
UPK 4 Zumaya, Spain		-72.48	-66.15+
UPK 7 Bidart, Spain		-69.88	-65.55*
UPK 11 Gosau Valley Composite, Austria		-83.92	-83.24
UPK 11B Gosau Valley-2, Austria		-82.27	-82.27
UPK 13 Tercis Quarry section, France (Od		-76.63	-70.83
PAL 211 ODP 690B Weddell Sea, Antarctica		-74.99	-69.58
9B Bounds Core, Kansas - Niobrara Fm.		***	-87.70
97 Ballard Carey-Carolla No. 1, Texas		-89.58+	-87.46
UPK 10 Tiefenbach, Brandenburg, Austria		-83.93	-83.48
DSDP 398D, Eastern Atlantic (corb398d-1)		-69.55	-69.12
30 Hofergraben, Austria		-85.00	-79.04
31 Lattengebirge, Austria		-85.90	-82.53
34 Postalm-Retschegg, Austria		-85.00	-74.32
MIDK41 CS		-90.36	-65.55

	17	-90.36	-65.55
Calculites ovalis		Morphologic Code - NN	
UPK 3 Olazagutia, Spain		-86.09*	-85.60
UPK 4 Zumaya, Spain		-72.24	-66.15*
UPK 13 Tercis Quarry section, France (Od		-76.63	-76.61
UPK 10 Tiefenbach, Brandenburg, Austria		-85.49+	-85.44+
MIDK41 CS		-86.09	-66.15

	2	-86.09	-66.15
Calculites percenisi		Morphologic Code - NN	
UPK 3 Olazagutia, Spain		-86.00*	-85.60*
MIDK41 CS		-86.00	-85.60

	1	-86.00	-85.60
Calculites supracretaceus		Morphologic Code - NN	
24-Mt. Risou, Rosans, SE France, Alb-Cen		-98.17*	-96.54*
MIDK41 CS		-98.17	-96.54
	1	-98.17	-96.54
Centosphaera barbata		Morphologic Code - NN	
PAL 211 ODP 690B Weddell Sea, Antarctica		-70.97*	***
	1	-70.97	-70.97
Ceratolithoides aculeus		Morphologic Code - NN	
84 DSDP Core Hole 549, SW Offshore Engla		-77.36	-70.00
UPK 4 Zumaya, Spain		-72.48	-66.78
UPK 7 Bidart, Spain		-69.88	-65.51*
UPK 12 Tercis Quarry section, France (Ke		-74.51	-71.22
UPK 13 Tercis Quarry section, France (Od		-76.63	-70.83
UPK 14 Lepsa, E. Carpathians, Romania		-68.11	-65.69+
121 ODP 762C Exmouth Plateau, Indian Oce		-75.11	-66.82
131 DSDP 515F Western Atlantic		-75.84	-75.00
Composited data of MIDK4 Sections 11-18-		-76.63	-65.51
11B DSDP 386 Upper & Lower Cretaceous		-71.58	-71.12
UPK 18 Bottacione Gorge, Italy		-78.16+	***
DSDP 382 Central Atlantic (corb382-1)		-70.61	-70.61
DSDP 385 Central Atlantic (corb385-1)		-68.74	-66.42
DSDP 398D, Eastern Atlantic (corb398d-1)		-77.19	-66.33
Pietrosita, Romania (corbrom-1)		-75.36	***
29 Oberhehenfeld, Austria		-75.13	-74.25
34 Postalm-Retschegg, Austria		-75.84	-74.25
MIDK41 CS		-78.16	-65.51
	17	-78.16	-65.51
Ceratolithoides kamptneri		Morphologic Code - NN	
UPK 4 Zumaya, Spain		-67.21	-66.78+
UPK 7 Bidart, Spain		-67.56+	-65.51*
Composited data of MIDK4 Sections 11-18-		-67.56	-65.51
DSDP 398D, Eastern Atlantic (corb398d-1)		-77.19*	-66.82
MIDK41 CS		-77.19	-65.51
	4	-77.19	-65.51
Chiasmolithus bidens		Morphologic Code - NN	
121 ODP 762C Exmouth Plateau, Indian Oce		-60.98*	-53.57*
MIDK41 CS		-60.98	***
	1	-60.99	-53.57
Chiastozygus amphipons		Morphologic Code - NN	
30-Selbukhra Section, Crimea (Alb-Tur)		-98.28*	-91.15
MIDK3 CS		-98.28	-91.15
UPK 3 Olazagutia, Spain		-86.09+	-85.70
UPK 4 Zumaya, Spain		-71.70	-66.15
UPK 7 Bidart, Spain		-69.05	-65.51*
UPK 14 Lepsa, E. Carpathians, Romania		-68.17	-65.59+
MIDK41 CS		-98.28	-65.51
	5	-98.28	-65.51
Chiastozygus bifarius		Morphologic Code - NN	
24-Mt. Risou, Rosans, SE France, Alb-Cen		-98.17*	-96.58
MIDK3 CS		-98.17	-96.58

UPK 7 Bidart, Spain		-69.88	-65.51*
Composited data of MIDK4 Sections 11-18- Khalagork, Caucasus, Russia (corbrus-1)		-98.17	-65.51
MIDK41 CS		-94.84+	-94.84+
		-98.17	-65.51

	3	-98.17	-65.51
Chiastozygus fessus		Morphologic Code - NN	
9-Amoco No. 1 Bounds core, Kansas, U. Al		-91.33*	-88.10+
MIDK3 CS		-91.33	-88.10
Composited data of MIDK4 Sections 11-18- 9B Bounds Core, Kansas - Niobrara Fm.		-91.33	-88.10
MIDK41 CS		***	-87.70*
		-91.33	-87.70

	2	-91.33	-87.70
Chiastozygus garrisonii		Morphologic Code - NN	
121 ODP 762C Exmouth Plateau, Indian Oce		-87.99*	-65.74*
PAL 211 ODP 690B Weddell Sea, Antarctica		-74.99+	-67.28+
MIDK41 CS		-87.99	-65.74

	2	-87.99	-65.74
Chiastozygus litterarius		Morphologic Code - NN	
1-Kalaat Senan, Turonian		-89.81	-88.44
3b-Santa Rosa Canyon Section, Mexico, Be		-122.86	-122.86
4-DSDP 547, Offshore Morocco, Albian-Cen		-99.25	-93.84
5-DSDP 545, Offshore Morocco, Aptian-Cen		-118.40	-94.32
9-Amoco No. 1 Bounds core, Kansas, U. Al		-95.39	-88.10
11-DSDP 386 Bermuda Plateau, Atlantic, A		-110.22	-88.18
12-Boulonnaise Section, France, Alb-Tur		-90.81	-89.07
13-Piobbico Core, Marche, Italy, Apt-Alb		-123.59	-97.70
14-DSDP 369A, Offshore Morocco, Apt-Alb		-107.52	-90.14
20-Trinity River, Texas Sect, Alb-Cen		-107.07	-95.74
24-Mt. Risou, Rosans, SE France, Alb-Cen		-98.17	-96.54
27-Pie' del Dosso Section, Italy (Barrem		-128.26*	-122.71
30-Selbukhra Section, Crimea (Alb-Tur)		-101.85	-91.02
41-ODP 641C, Offshore Portugal (Alb-Bar)		-125.78+	-109.44
43-Gorgo a Cerbara Section, Italy		-124.53	***
MIDK3 CS		-128.26	-88.10
74 Antruiles, Trento Plateau, Italy		-96.18	-90.06
84 DSDP Core Hole 549, SW Offshore Engla		-111.27	-72.18
UPK 1 Austin Gp., Austin, TX		-83.28	-82.78
UPK 3 Olazagutia, Spain		-86.09	-85.60
UPK 4 Zumaya, Spain		-72.48	-66.47
UPK 7 Bidart, Spain		-69.88	-65.64+
121 ODP 762C Exmouth Plateau, Indian Oce		-88.78	-67.64
PAL 161 DSDP 548A NE Atlantic		-66.29	-65.55*
Composited data of MIDK4 Sections 11-18- 9B Bounds Core, Kansas - Niobrara Fm.		-128.26	-65.55
		***	-87.74
11B DSDP 386 Upper & Lower Cretaceous		-111.66	-71.17
20B Trinity River Composited Section Rev		-106.47	-95.75
57 Tartonne, France, Aptian-Albian		-122.85	-108.88
58 Pre-Guitard, France, Aptian-Albian		-122.34	-107.18
UPK 10 Tiefenbach, Brandenburg, Austria		-85.97	-83.48
DSDP 382 Central Atlantic (corb382-1)		-83.34	-70.61
DSDP 385 Central Atlantic (corb385-1)		-68.44	-66.36
DSDP 398D, Eastern Atlantic (corb398d-1)		***	-72.08
MIDK41 CS		-128.26	-65.55

	32	-128.26	-65.55

Chiastozygus platyrhethus		Morphologic Code - NN	
1-Kalaat Senan, Turonian		-89.48	-88.44*
9-Amoco No. 1 Bounds core, Kansas, U. Al		-93.85	-90.34
20-Trinity River, Texas Sect, Alb-Cen		-102.63	-95.74
24-Mt. Risou, Rosans, SE France, Alb-Cen		-98.17	-96.54
41-ODP 641C, Offshore Portugal (Alb-Bar)		-125.51*	-109.44
MIDK3 CS		-125.51	-88.44
67 Gebel Abu Zurub, Sinai, Egypt		-90.21	-90.19
68 Gebel Guna, Sinai, Egypt		-89.03	-88.46
69 Coupe de la Gare de Cassis, SE France		-121.88	-121.88
Composited data of MIDK4 Sections 11-18-		-125.51	-88.44
20B Trinity River Composited Section Rev		-106.64	-98.66+
57 Tartonne, France, Aptian-Albian		-122.85+	-108.42
58 Pre-Guitard, France, Aptian-Albian		-121.55	-107.18
MIDK41 CS		-125.51	-88.44
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	11	-125.51	-88.38
Chiastozygus plicatus		Morphologic Code - NN	
36-Anderson Husky Roros, Canada (Alb-Tur		-88.22*	-88.01*
MIDK3 CS		-88.22	-88.01
UPK 1 Austin Gp., Austin, TX		-88.20+	-87.25*
MIDK41 CS		-88.22	-87.25
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	2	-88.22	-87.25
Chiastozygus striatus		Morphologic Code - NN	
20-Trinity River, Texas Sect, Alb-Cen		-102.56+	-97.86+
MIDK3 CS		-102.56	-97.86
74 Antruiles, Trento Plateau, Italy		-96.49	-96.36*
Composited data of MIDK4 Sections 11-18-		-102.56	-96.36
20B Trinity River Composited Section Rev		-106.58*	-100.98
MIDK41 CS		-106.58	-96.36
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	3	-106.58	-96.36
Chiastozygus tenuis		Morphologic Code - NN	
1-Kalaat Senan, Turonian		-93.19	-88.73+
41-ODP 641C, Offshore Portugal (Alb-Bar)		-128.13*	-126.04
MIDK3 CS		-128.13	-88.73
69 Coupe de la Gare de Cassis, SE France		-124.74+	-121.86
UPK 7 Bidart, Spain		-69.88	-65.60*
MIDK41 CS		-128.13	-65.60
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	4	-128.13	-65.60
Coccolithus pelagicus		Morphologic Code - NN	
PAL 141 ODP 752 Indian Ocean		-64.54*	-64.13*
MIDK41 CS		-64.54	-64.13
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	1	-64.54	-64.13
Conusphaera mexicana		Morphologic Code - NN	
26-Cismon Section, Italy (VU Data), Apt-		-133.97*	-122.73*
27-Pie' del Dosso Section, Italy (Barrem		-127.11	-124.24
41-ODP 641C, Offshore Portugal (Alb-Bar)		-128.64+	-122.88
43-Gorgo a Cerbara Section, Italy		-124.11	-122.80+
MIDK3 CS		-133.97	-122.73
69 Coupe de la Gare de Cassis, SE France		-124.74	-123.64
84 DSDP Core Hole 549, SW Offshore Engla		-124.35	-123.01
MIDK41 CS		-133.97	-122.73
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	6	-133.97	-122.73

Conusphaera rothii		Morphologic Code - NN	
41-ODP 641C, Offshore Portugal (Alb-Bar)		-128.48*	-122.91*
MIDK3 CS		-128.48	-122.91
MIDK41 CS		-128.48	-122.91

	1	-128.48	-122.91
Corollithion acutum		Morphologic Code - NN	
41-ODP 641C, Offshore Portugal (Alb-Bar)		-124.72*	-123.50*
MIDK3 CS		-124.72	-123.50
MIDK41 CS		-124.72	-123.50

	1	-124.72	-123.50
Corollithion ellipticum		Morphologic Code - NN	
41-ODP 641C, Offshore Portugal (Alb-Bar)		-123.99*	-123.50*
MIDK3 CS		-123.99	-123.50
MIDK41 CS		-123.99	-123.50

	1	-123.99	-123.50
Corollithion exiguum		Morphologic Code - NN	
1-Kalaat Senan, Turonian		-89.88	-88.44
9-Amoco No. 1 Bounds core, Kansas, U. Al		-90.34	-90.01
12-Boulonnaise Section, France, Alb-Tur		-94.35*	-89.07
36-Anderson Husky Roros, Canada (Alb-Tur)		-88.22	***
45-Mobil Core 16, Dallas, TX		-91.20+	-90.13
MIDK3 CS		-94.35	-88.44
74 Antruiles, Trento Plateau, Italy		-91.74	-89.80
UPK 1 Austin Gp., Austin, TX		-88.20	-82.78
UPK 3 Olazagutia, Spain		-86.09	-85.70
UPK 4 Zumaya, Spain		-67.77	-67.77
UPK 7 Bidart, Spain		-69.05	-65.51*
UPK 14 Lepsa, E. Carpathians, Romania		-67.42	-65.69+
121 ODP 762C Exmouth Plateau, Indian Oce		-74.68	-67.35
Composited data of MIDK4 Sections 11-18-		-94.35	-65.51
9B Bounds Core, Kansas - Niobrara Fm.		***	-87.82
UPK 10 Tiefenbach, Brandenburg, Austria		-85.44	-85.39
DSDP 382 Central Atlantic (corb382-1)		-71.89	-71.89
MIDK41 CS		-94.35	-65.51

	15	-94.35	-65.51

UC1 Lower Cenomanian

FO Corollithion kennedyi

		Morphologic Code - NN	
9-Amoco No. 1 Bounds core, Kansas, U. Al		-95.20	-90.70
10-Kalaat Senan, Tunisia Section, Cenoma		-95.90	-90.78
15-Pueblo, Colorado outcrop, U. Alb-Con		-93.75	-90.52+
24-Mt. Risou, Rosans, SE France, Alb-Cen		-96.54+	***
MIDK3 CS		-96.54	-90.52
72 Oued Melleque, Tunisia		-95.46	-90.80
74 Antruiles, Trento Plateau, Italy		-96.55*	-90.17*
ODP 1050C Blake Nose, W. Atlantic		-95.05	-90.19
Composited data of MIDK4 Sections 11-18-		-96.55	-90.17
Khalagork, Caucasus, Russia (corbrus-1)		-95.89	-95.89
28 Oberschau, Austria		-95.31	-95.31
33 Rehkogel CT, Austria		-91.67	-90.77
MIDK41 CS		-96.55	***

	10	-96.55	-90.17

Corollithion madagaskarensis

		Morphologic Code - NN	
9-Amoco No. 1 Bounds core, Kansas, U. Al		-95.20+	-90.03

24-Mt. Risou, Rosans, SE France, Alb-Cen	-98.17*	-96.54
MIDK3 CS	-98.17	-90.03
121 ODP 762C Exmouth Plateau, Indian Oce	-71.45	-65.86+
Composited data of MIDK4 Sections 11-18-	-98.17	-65.85*
9B Bounds Core, Kansas - Niobrara Fm.	***	-87.70
MIDK41 CS	-98.17	-65.85
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Corollithion signum	-98.17	-65.85
	Morphologic Code - NN	
1-Kalaat Senan, Turonian	-93.19	-88.43
4-DSDP 547, Offshore Morocco, Albian-Cen	-99.25	-93.84
5-DSDP 545, Offshore Morocco, Aptian-Cen	-110.53+	-94.32
9-Amoco No. 1 Bounds core, Kansas, U. Al	-95.20	-88.10
11-DSDP 386 Bermuda Plateau, Atlantic, A	-101.32	-94.62
12-Boulonnaise Section, France, Alb-Tur	-102.13	-89.07
14-DSDP 369A, Offshore Morocco, Apt-Alb	-106.51	-89.89
20-Trinity River, Texas Sect, Alb-Cen	-102.56	-95.74
24-Mt. Risou, Rosans, SE France, Alb-Cen	-98.17	-96.54
36-Anderson Husky Roros, Canada (Alb-Tur	-88.22	-88.01
MIDK3 CS	-110.53	-88.01
66 Jebel Areif El Naqa, Sinai, Egypt	-90.17	-89.35
67 Gebel Abu Zurub, Sinai, Egypt	-90.59	-89.69
68 Gebel Guna, Sinai, Egypt	-90.59	-88.46
84 DSDP Core Hole 549, SW Offshore Engla	-92.47	-91.16
UPK 1 Austin Gp., Austin, TX	-88.20	-82.78
UPK 3 Olazagutia, Spain	-86.07	-85.70
UPK 11 Gosau Valley Composite, Austria	-84.91	-83.53
UPK 11B Gosau Valley-2, Austria	-88.50	-82.27
121 ODP 762C Exmouth Plateau, Indian Oce	-71.62	-70.44*
Composited data of MIDK4 Sections 11-18-	-110.53	-70.44
9B Bounds Core, Kansas - Niobrara Fm.	***	-87.70
11B DSDP 386 Upper & Lower Cretaceous	-101.08	-93.57
20B Trinity River Composited Section Rev	-102.97	-95.75
58 Pre-Guitard, France, Aptian-Albian	-115.18*	-110.55
97 Ballard Carey-Carolla No. 1, Texas	-89.58	-87.46
UPK 10 Tiefenbach, Brandenburg, Austria	-85.97	-85.49
DSDP 382 Central Atlantic (corb382-1)	-72.62	-70.61+
MIDK41 CS	-115.18	-70.44
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	26	
Crepidolithus crassus	-115.18	-70.44
	Morphologic Code - NN	
30-Selbukhra Section, Crimea (Alb-Tur)	-91.72*	-91.36*
MIDK3 CS	-91.72	-91.36
MIDK41 CS	-91.72	***
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	1	
Cretarhabdus conicus	-91.72	-91.72
	Morphologic Code - NN	
1-Kalaat Senan, Turonian	-90.50	-88.45
3b-Santa Rosa Canyon Section, Mexico, Be	-123.05	-109.88
4-DSDP 547, Offshore Morocco, Albian-Cen	-99.25	-93.84
5-DSDP 545, Offshore Morocco, Aptian-Cen	-118.40	-94.32
9-Amoco No. 1 Bounds core, Kansas, U. Al	-95.20	-88.10
13-Piobbico Core, Marche, Italy, Apt-Alb	-122.12	-98.67
14-DSDP 369A, Offshore Morocco, Apt-Alb	-106.51	-88.70
20-Trinity River, Texas Sect, Alb-Cen	-107.07	-95.74
24-Mt. Risou, Rosans, SE France, Alb-Cen	-98.17	-96.54
26-Cismon Section, Italy (VU Data), Apt-	-133.15*	-123.85
27-Pie' del Dosso Section, Italy (Barrem	-123.95	-122.71

30-Selbukhra Section, Crimea (Alb-Tur)	-91.82	-90.83
36-Anderson Husky Roros, Canada (Alb-Tur)	-88.22	-88.05
41-ODP 641C, Offshore Portugal (Alb-Bar)	-128.64	-109.44
43-Gorgo a Cerbara Section, Italy	-130.91+	-122.08
MIDK3 CS	-133.15	-88.05
69 Coupe de la Gare de Cassis, SE France	-124.80	-121.86
74 Antruiles, Trento Plateau, Italy	-96.49	-90.13
UPK 1 Austin Gp., Austin, TX	-88.20	-82.78
UPK 3 Olazagutia, Spain	-86.09	-85.66
UPK 4 Zumaya, Spain	-71.70	-68.91
UPK 7 Bidart, Spain	-69.88	-65.60
UPK 14 Lepsa, E. Carpathians, Romania	-68.17	-65.36
121 ODP 762C Exmouth Plateau, Indian Oce	-88.78	-65.85
PAL 141 ODP 752 Indian Ocean	-66.54	-64.60*
PAL 211 ODP 690B Weddell Sea, Antarctica	-75.27	-64.73+
Composited data of MIDK4 Sections 11-18-	-133.15	-64.60
9B Bounds Core, Kansas - Niobrara Fm.	***	-87.70
11B DSDP 386 Upper & Lower Cretaceous	-71.58	-71.17
20B Trinity River Composited Section Rev	-106.47	-95.75
57 Tartonne, France, Aptian-Albian	-121.97	-108.42
58 Pre-Guitard, France, Aptian-Albian	-122.34	-107.18
DSDP 382 Central Atlantic (corb382-1)	-76.40	-70.61
DSDP 385 Central Atlantic (corb385-1)	-68.74	-66.36
DSDP 398D, Eastern Atlantic (corb398d-1)	-77.10	-70.28
MIDK41 CS	-133.15	-64.60
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	33	-133.15 -64.60
Cretarhabdus loriei		Morphologic Code - NN
4-DSDP 547, Offshore Morocco, Albian-Cen	-99.25	-93.99
5-DSDP 545, Offshore Morocco, Aptian-Cen	-118.29	-94.63
7-Djebel Bireno, Tunisia, Cenomanian	-94.36	-93.99
9-Amoco No. 1 Bounds core, Kansas, U. Al	-95.20	-90.70+
11-DSDP 386 Bermuda Plateau, Atlantic, A	-99.03	-97.33
12-Boulonnaise Section, France, Alb-Tur	-90.81	-89.07*
41-ODP 641C, Offshore Portugal (Alb-Bar)	-125.51*	-109.44
45-Mobil Core 16, Dallas, TX	-91.66	-90.19
MIDK3 CS	-125.51	-89.07
69 Coupe de la Gare de Cassis, SE France	-122.97+	-121.86
Composited data of MIDK4 Sections 11-18-	-125.51	-89.07
11B DSDP 386 Upper & Lower Cretaceous	-99.00	-97.46
MIDK41 CS	-125.51	-89.07
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	10	-125.51 -89.07
Cretarhabdus striatus		Morphologic Code - NN
24-Mt. Risou, Rosans, SE France, Alb-Cen	-98.17+	-96.54
MIDK3 CS	-98.17	-96.54
UPK 1 Austin Gp., Austin, TX	-83.36	-83.36+
UPK 7 Bidart, Spain	-69.59	-65.51*
Composited data of MIDK4 Sections 11-18-	-98.17	-65.51
58 Pre-Guitard, France, Aptian-Albian	-119.95*	-107.18
33 Rehkogel CT, Austria	-91.67	-90.77
MIDK41 CS	-119.95	-65.51
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	5	-119.95 -65.51
Cribrocorona gallica		Morphologic Code - NN
UPK 3 Olazagutia, Spain	-86.09+	-85.70
UPK 4 Zumaya, Spain	-72.48	-66.15
UPK 7 Bidart, Spain	-69.88	-65.51*

UPK 13 Tercis Quarry section, France (Od	-73.61	-70.83
UPK 14 Lepsa, E. Carpathians, Romania	-68.01	-65.72+
121 ODP 762C Exmouth Plateau, Indian Oce	-89.02*	-65.74
Composited data of MIDK4 Sections 11-18-	-89.02	-65.51
UPK 18 Bottacione Gorge, Italy	***	-68.22
DSDP 398D, Eastern Atlantic (corb398d-1)	***	-66.10
MIDK41 CS	-89.02	-65.51
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	8	-89.02 -65.51
Cribrosphaerella daniae		Morphologic Code - NN
PAL 141 ODP 752 Indian Ocean	-66.54+	-64.47*
PAL 211 ODP 690B Weddell Sea, Antarctica	-70.97*	-64.73+
MIDK41 CS	-70.97	-64.47
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	2	-70.97 -64.47
Cribrosphaerella ehrenbergii		Morphologic Code - NN
Differs from Cribroperidinium ehrenbergii, a dinoflagellate		
3b-Santa Rosa Canyon Section, Mexico, Be	-110.20*	-110.20
4-DSDP 547, Offshore Morocco, Albian-Cen	-99.25	-93.84
7-Djebel Bireno, Tunisia, Cenomanian	-93.93	-93.87
9-Amoco No. 1 Bounds core, Kansas, U. Al	-94.75	-88.10
11-DSDP 386 Bermuda Plateau, Atlantic, A	-98.58	-88.18
13-Piobbico Core, Marche, Italy, Apt-Alb	-110.00+	-97.21
14-DSDP 369A, Offshore Morocco, Apt-Alb	-97.96	-88.08
20-Trinity River, Texas Sect, Alb-Cen	-100.65	-95.74
24-Mt. Risou, Rosans, SE France, Alb-Cen	-98.17	-96.54
30-Selbukhra Section, Crimea (Alb-Tur)	-91.76	-90.51
36-Anderson Husky Roros, Canada (Alb-Tur	-88.22	-88.05
MIDK3 CS	-110.20	-88.05
74 Antruiles, Trento Plateau, Italy	-96.49	-89.83
84 DSDP Core Hole 549, SW Offshore Engla	-85.64	-108.27
UPK 1 Austin Gp., Austin, TX	-88.20	-82.78
UPK 3 Olazagutia, Spain	-86.09	-85.60
UPK 4 Zumaya, Spain	-72.48	-65.95
UPK 7 Bidart, Spain	-69.88	-65.51
UPK 14 Lepsa, E. Carpathians, Romania	-68.11	-66.10
121 ODP 762C Exmouth Plateau, Indian Oce	-89.02	-65.74
PAL 141 ODP 752 Indian Ocean	-66.54	-64.47*
PAL 151 DSDP 550+550B NE Atlantic	-74.56	-65.91
PAL 161 DSDP 548A NE Atlantic	-71.67	-65.55
PAL 211 ODP 690B Weddell Sea, Antarctica	-74.99	-64.73+
Composited data of MIDK4 Sections 11-18-	-110.20	-64.47
9B Bounds Core, Kansas - Niobrara Fm.	***	-87.74
11B DSDP 386 Upper & Lower Cretaceous	-98.59	-71.17
20B Trinity River Composited Section Rev	-100.46	-95.75
UPK 10 Tiefenbach, Brandenburg, Austria	-85.97	-83.48
DSDP 382 Central Atlantic (corb382-1)	-83.34	-70.61
DSDP 385 Central Atlantic (corb385-1)	-68.74	-66.36
DSDP 398D, Eastern Atlantic (corb398d-1)	***	-66.10
28 Oberschau, Austria	-96.04	-95.31
MIDK41 CS	-110.20	-64.47
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	31	-110.20 -64.47
Cribrosphaerella linea		Morphologic Code - NN
121 ODP 762C Exmouth Plateau, Indian Oce	-83.46*	-66.01*
MIDK41 CS	-83.46	-66.01
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	1	-83.46 -66.01

Crucibiscutum salebrosum		Morphologic Code - NN	
121 ODP 762C Exmouth Plateau, Indian Oce		-74.85*	-65.74*
MIDK41 CS		-74.85	-65.74

	1	-74.85	-65.74
Crucicribrum anglicum		Morphologic Code - NN	
24-Mt. Risou, Rosans, SE France, Alb-Cen		-98.05+	-96.54*
MIDK3 CS		-98.05	-96.54
Composited data of MIDK4 Sections 11-18-		-98.05	-96.54
58 Pre-Guitard, France, Aptian-Albian		-107.18*	-107.18+
MIDK41 CS		-107.18	-96.54

	2	-107.18	-96.54
Cruciellipsis cuvillieri		Morphologic Code - NN	
26-Cismon Section, Italy (VU Data), Apt-		-134.04*	-131.68+
MIDK3 CS		-134.04	-131.68
26B Cismon Core, Italy		***	-131.57*
MIDK41 CS		-134.04	-131.57

	2	-134.04	-131.57
Cruciplacolithus edwardsii		Morphologic Code - NN	
121 ODP 762C Exmouth Plateau, Indian Oce		-65.27*	-62.91*
MIDK41 CS		-65.27	-62.91

	1	-65.27	-62.91
Cruciplacolithus primus		Morphologic Code - NN	
UPK 14 Lepsa, E. Carpathians, Romania		-64.75+	-64.61
121 ODP 762C Exmouth Plateau, Indian Oce		-65.27*	-61.62*
PAL 141 ODP 752 Indian Ocean		-64.60	-64.13+
MIDK41 CS		-65.27	-61.62

	3	-65.27	-61.62
Cruciplacolithus tenuis		Morphologic Code - NN	
121 ODP 762C Exmouth Plateau, Indian Oce		-64.85	-55.78*
131 DSDP 515F Western Atlantic		-64.95+	-64.90
PAL 141 ODP 752 Indian Ocean		-64.47	-64.13+
PAL 161 DSDP 548A NE Atlantic		-65.55*	-64.45
MIDK41 CS		-65.55	***

	4	-65.55	-55.78
Cyclagelosphaera margerelii		Morphologic Code - NN	
3b-Santa Rosa Canyon Section, Mexico, Be		-124.32	-107.26
9-Amoco No. 1 Bounds core, Kansas, U. Al		-95.20	-88.10
11-DSDP 386 Bermuda Plateau, Atlantic, A		-110.22	-88.18
13-Piobbico Core, Marche, Italy, Apt-Alb		-123.51	-98.67
20-Trinity River, Texas Sect, Alb-Cen		-102.56	-102.19
24-Mt. Risou, Rosans, SE France, Alb-Cen		-98.17	-96.54
26-Cismon Section, Italy (VU Data), Apt-		-133.97	-122.73
27-Pie' del Dosso Section, Italy (Barrem		-129.41+	-122.07
30-Selbukhra Section, Crimea (Alb-Tur)		-101.30	-90.51
41-ODP 641C, Offshore Portugal (Alb-Bar)		-128.64	-121.86
43-Gorgo a Cerbara Section, Italy		-123.60	-122.08
MIDK3 CS		-133.97*	-88.10
69 Coupe de la Gare de Cassis, SE France		-124.80	-121.86
74 Antruiles, Trento Plateau, Italy		-96.49	-89.74
UPK 3 Olazagutia, Spain		-86.09	-85.60
UPK 4 Zumaya, Spain		-71.70	-65.95+
UPK 7 Bidart, Spain		-69.88	-65.51*

121 ODP 762C Exmouth Plateau, Indian Oce	-84.04	-69.13
PAL 211 ODP 690B Weddell Sea, Antarctica	-74.99	-72.62
Composited data of MIDK4 Sections 11-18-9B Bounds Core, Kansas - Niobrara Fm.	-133.97	-65.51
	***	-88.11
11B DSDP 386 Upper & Lower Cretaceous	-111.66	-71.17
20B Trinity River Composited Section Rev	-102.97	-102.38
57 Tartonne, France, Aptian-Albian	-112.34	-109.35
58 Pre-Guitard, France, Aptian-Albian	-119.95	-107.90
DSDP 385 Central Atlantic (corb385-1)	-68.74	-66.36
MIDK41 CS	-133.97	-65.51

	24	-133.97 -65.51
<i>Cyclagelosphaera reinhardtii</i>		Morphologic Code - NN
UPK 3 Olazagutia, Spain	-86.09*	-85.70
UPK 4 Zumaya, Spain	-65.77	-65.66
UPK 14 Lepsa, E. Carpathians, Romania	-68.17	-64.61
PAL 141 ODP 752 Indian Ocean	-64.79	-64.40+
PAL 211 ODP 690B Weddell Sea, Antarctica	-73.20+	-63.29*
MIDK41 CS	-86.09	-63.29

	5	-86.09 -63.29
<i>Cylindralithus asymmetricus</i>		Morphologic Code - NN
9-Amoco No. 1 Bounds core, Kansas, U. Al	-88.35	-88.10+
45-Mobil Core 16, Dallas, TX	-88.55*	-88.26
MIDK3 CS	-88.55	-88.10
UPK 1 Austin Gp., Austin, TX	-88.20	-82.78*
Composited data of MIDK4 Sections 11-18-9B Bounds Core, Kansas - Niobrara Fm.	-88.55	-82.78
MIDK41 CS	-88.35+	-88.11
		-88.55 -82.78

	4	-88.55 -82.78
UC4 Upper Cenomanian		
FO <i>Cylindralithus biarcus</i>		Morphologic Code - NN
9-Amoco No. 1 Bounds core, Kansas, U. Al	-90.44*	-88.10
MIDK3 CS	-90.44	-88.10
UPK 7 Bidart, Spain	-69.88	-65.74*
Composited data of MIDK4 Sections 11-18-9B Bounds Core, Kansas - Niobrara Fm.	-90.44	-65.74
	***	-87.70+
MIDK41 CS	-93.44	-65.74

	3	-93.44 -65.74
<i>Cylindralithus coronatus</i>		Morphologic Code - NN
9-Amoco No. 1 Bounds core, Kansas, U. Al	-88.35*	-88.10
MIDK3 CS	-88.35	-88.10
UPK 1 Austin Gp., Austin, TX	-88.20	-82.78*
Composited data of MIDK4 Sections 11-18-9B Bounds Core, Kansas - Niobrara Fm.	-88.35	-82.78
MIDK41 CS	-88.35+	-87.70+
		-88.35 -82.78

	3	-88.35 -82.78
<i>Cylindralithus nudus</i>		Morphologic Code - NN
9-Amoco No. 1 Bounds core, Kansas, U. Al	-94.53	-88.14
24-Mt. Risou, Rosans, SE France, Alb-Cen	-98.01	-96.63
41-ODP 641C, Offshore Portugal (Alb-Bar)	-110.18	-109.44
MIDK3 CS	-110.18	-88.14
UPK 7 Bidart, Spain	-68.13	-68.13*
Composited data of MIDK4 Sections 11-18-9B Bounds Core, Kansas - Niobrara Fm.	-110.18	-68.13
	***	-87.82+

57 Tartonne, France, Aptian-Albian	-121.97*	-109.35
58 Pre-Guitard, France, Aptian-Albian	-121.55+	-107.18
MIDK41 CS	-121.97	-68.13

7	-121.97	-68.13
Cylindralithus serratus	Morphologic Code - NN	
UPK 4 Zumaya, Spain	-70.54*	-69.20+
UPK 7 Bidart, Spain	-69.59+	-66.89*
MIDK41 CS	-70.54	-66.89

2	-70.54	-66.89
Darwinilithus pentarhethum	Morphologic Code - NN	
9-Amoco No. 1 Bounds core, Kansas, U. Al	-94.75*	-91.33*
MIDK3 CS	-94.75	-91.33
MIDK41 CS	-94.75	***

1	-94.75	-91.33
Diadorhombus rectus	Morphologic Code - NN	
41-ODP 641C, Offshore Portugal (Alb-Bar)	-126.04*	-123.47*
MIDK3 CS	-126.04*	-123.47*
MIDK41 CS	-126.04*	-123.47*

1	-126.04	-123.47
Diazomatolithus lehmanii	Morphologic Code - NN	
3b-Santa Rosa Canyon Section, Mexico, Be	-123.09	-107.26
26-Cismon Section, Italy (VU Data), Apt-	-134.04*	-127.48
30-Selbukhra Section, Crimea (Alb-Tur)	-101.85	-98.01+
41-ODP 641C, Offshore Portugal (Alb-Bar)	-127.42	-125.71
43-Gorgo a Cerbara Section, Italy	-134.03+	-124.53
MIDK3 CS	-134.04	-98.01
69 Coupe de la Gare de Cassis, SE France	-124.80	-121.86
121 ODP 762C Exmouth Plateau, Indian Oce	-88.49	-66.13*
MIDK41 CS	-134.04	-66.13

7	-134.04	-66.13
Discorhabdus ignotus	Morphologic Code - NN	
7-Djebel Bireno, Tunisia, Cenomanian	-93.93	-93.87
24-Mt. Risou, Rosans, SE France, Alb-Cen	-98.17	-96.54
30-Selbukhra Section, Crimea (Alb-Tur)	-101.85	-90.83+
41-ODP 641C, Offshore Portugal (Alb-Bar)	-128.64*	-109.44
MIDK3 CS	-128.64	-90.83
74 Antruiles, Trento Plateau, Italy	-96.36	-91.74
UPK 3 Olazagutia, Spain	-86.09	-85.66
UPK 7 Bidart, Spain	-69.88	-65.51*
Composited data of MIDK4 Sections 11-18-	-128.64	-65.51
57 Tartonne, France, Aptian-Albian	-121.97	-108.42
58 Pre-Guitard, France, Aptian-Albian	-122.34+	-107.18
MIDK41 CS	-128.64	-65.51

9	-128.64	-65.51
Discorhabdus rotatorius	Morphologic Code - NN	
11-DSDP 386 Bermuda Plateau, Atlantic, A	-110.22	-88.19
43-Gorgo a Cerbara Section, Italy	-124.53*	-123.41
MIDK3 CS	-124.53	-88.19
UPK 1 Austin Gp., Austin, TX	-83.36	-83.36
121 ODP 762C Exmouth Plateau, Indian Oce	-74.85	-67.07+
Composited data of MIDK4 Sections 11-18-	-124.53	-67.07
11B DSDP 386 Upper & Lower Cretaceous	-111.66+	-71.19

DSDP 382 Central Atlantic (corb382-1)	-71.89	-70.61
DSDP 385 Central Atlantic (corb385-1)	-66.42	-66.42*
MIDK41 CS	-124.53	-66.42

	7	-124.53

UC16 Upper Upper Campanian

LO Eiffellithus eximius

UC8 Lower-Middle Turonian

FO Eiffellithus eximius

		Morphologic Code - NN
1-Kalaat Senan, Turonian	-89.45	-88.43
9-Amoco No. 1 Bounds core, Kansas, U. Al	-88.39	-88.10
12-Boulonnaise Section, France, Alb-Tur	-89.60	-89.07
13-Piobbico Core, Marche, Italy, Apt-Alb	-98.67*	-98.67
14-DSDP 369A, Offshore Morocco, Apt-Alb	-98.29+	-89.73
These two occurrences are much older than expected @ 91.02		
29-Eastbourne, UK, (Cen-Tur)	-89.47	***
36-Anderson Husky Roros, Canada (Alb-Tur)	-88.22	-88.01
45-Mobil Core 16, Dallas, TX	-90.19	-88.26
MIDK3 CS	-98.67	-88.01
67 Gebel Abu Zurub, Sinai, Egypt	-90.21	-89.69
68 Gebel Guna, Sinai, Egypt	-89.03	-88.46
74 Antruiles, Trento Plateau, Italy	-89.80	-89.74
84 DSDP Core Hole 549, SW Offshore Engla	-85.64	-71.35
ODP 1050C Blake Nose, W. Atlantic	-88.72	***
UPK 1 Austin Gp., Austin, TX	-88.20	-82.78
UPK 3 Olazagutia, Spain	-86.09	-85.60
UPK 4 Zumaya, Spain	-69.20	-69.20+
UPK 7 Bidart, Spain	-69.88	-67.69*
UPK 13 Tercis Quarry section, France (Od	-76.63	-72.50
121 ODP 762C Exmouth Plateau, Indian Oce	-89.02	-70.08
PAL 161 DSDP 548A NE Atlantic	-71.67	-71.33
Composited data of MIDK4 Sections 11-18-	-98.67	-67.69
9B Bounds Core, Kansas - Niobrara Fm.	-88.39	-87.70
97 Ballard Carey-Carolla No. 1, Texas	-89.58	-87.46
UPK 10 Tiefenbach, Brandenburg, Austria	-85.97	-83.97
UPK 18 Bottacione Gorge, Italy	***	-74.73
DSDP 382 Central Atlantic (corb382-1)	-76.15	-70.61
DSDP 398D, Eastern Atlantic (corb398d-1)	-77.19	-72.92
Khalagork, Caucasus, Russia (corbrus-1)	-90.72	-90.72
Pietrosita, Romania (corbrom-1)	-69.23	-69.23
27 Buchberg, Austria	-90.01	-89.59
34 Postalm-Retschegg, Austria	-85.00	-74.86

	30	-90.72

Several occurrences are much younger than expected @ 76.20

BC26/upper NC9/upper CC8, Upper Albian

FO Eiffellithus monechiae

		Morphologic Code - NN
20B Trinity River Composited Section Rev	-101.30*	-96.71*
MIDK41 CS	-101.30	-96.71

	1	-101.30
Eiffellithus parallelus		Morphologic Code - NN
UPK 4 Zumaya, Spain	-72.24*	-67.00+
UPK 7 Bidart, Spain	-69.88+	-65.51*
MIDK41 CS	-72.24	-65.51

	2	-72.24

UC0a/BC27a Upper Albian

FO Eiffellithus turrisseiffelii

	Morphologic Code - NN	
4-DSDP 547, Offshore Morocco, Albian-Cen	-99.25	-93.84
5-DSDP 545, Offshore Morocco, Aptian-Cen	-101.17	-94.32
9-Amoco No. 1 Bounds core, Kansas, U. Al	-95.39	-88.10
11-DSDP 386 Bermuda Plateau, Atlantic, A	-101.32	-88.18
12-Boulonnaise Section, France, Alb-Tur	-101.00	-89.07
13-Piobbico Core, Marche, Italy, Apt-Alb	-98.86	-97.21
14-DSDP 369A, Offshore Morocco, Apt-Alb	-98.29	-88.08
20-Trinity River, Texas Sect, Alb-Cen	-100.77	-95.74
24-Mt. Risou, Rosans, SE France, Alb-Cen	-98.17	-96.54
26-Cismon Section, Italy (VU Data), Apt-	-101.86*	***
30-Selbukhra Section, Crimea (Alb-Tur)	-101.85+	-90.83
36-Anderson Husky Roros, Canada (Alb-Tur	-88.22	-88.01
MIDK3 CS	-101.86	-88.01
67 Gebel Abu Zurub, Sinai, Egypt	-90.21	-89.69
68 Gebel Guna, Sinai, Egypt	-90.59	-88.46
74 Antruiles, Trento Plateau, Italy	-96.49	-89.74
84 DSDP Core Hole 549, SW Offshore Engla	-95.91	-66.66
UPK 1 Austin Gp., Austin, TX	-88.20	-82.78
UPK 3 Olazagutia, Spain	-86.09	-85.60
UPK 4 Zumaya, Spain	-72.48	-66.47
UPK 7 Bidart, Spain	-69.88	-65.51
UPK 14 Lepsa, E. Carpathians, Romania	-68.17	-65.25
121 ODP 762C Exmouth Plateau, Indian Oce	-89.02	-65.74
PAL 141 ODP 752 Indian Ocean	-66.54	-64.44*
PAL 151 DSDP 550+550B NE Atlantic	-74.77	-65.91
PAL 161 DSDP 548A NE Atlantic	-71.67	-65.55
PAL 211 ODP 690B Weddell Sea, Antarctica	-75.27	-64.73+
Composited data of MIDK4 Sections 11-18-	-101.86	-64.44
9B Bounds Core, Kansas - Niobrara Fm.	***	-87.70
11B DSDP 386 Upper & Lower Cretaceous	-101.08	-71.12
20B Trinity River Composited Section Rev	-100.71	-95.51
97 Ballard Carey-Carolla No. 1, Texas	-89.58	-87.46
UPK 10 Tiefenbach, Brandenburg, Austria	-85.97	-83.97
DSDP 385 Central Atlantic (corb385-1)	-68.44	-66.36
DSDP 398D, Eastern Atlantic (corb398d-1)	***	-66.10
Covasna Valley, Siclau, Romania (corbcov	-92.33	-91.00
Khalagork, Caucasus, Russia (corbrus-1)	-97.60	-97.60
28 Oberschau, Austria	-98.71	-95.31

	36	-101.86	-64.44
Ellipsopolymorphina velascoensis		Morphologic Code - NN	
MIDK41 CS		-83.71*	-68.31*
	1	-83.71	-68.31
Eprolithus apertior		Morphologic Code - NN	
24-Mt. Risou, Rosans, SE France, Alb-Cen		-98.17*	-96.54*
MIDK3 CS		-98.17	-96.54
MIDK41 CS		-98.17	-96.54
	1	-98.17	-96.54

BC21/NC7/in CC7, mid Aptian

FO Eprolithus floralis

See also Lithastrinus floralis

	Morphologic Code - NN	
3b-Santa Rosa Canyon Section, Mexico, Be	-122.85*	-106.95
4-DSDP 547, Offshore Morocco, Albian-Cen	-99.25	-93.84

5-DSDP 545, Offshore Morocco, Aptian-Cen	-118.40	-94.32
9-Amoco No. 1 Bounds core, Kansas, U. Al	-95.39	-88.10
24-Mt. Risou, Rosans, SE France, Alb-Cen	-98.17	-96.58
30-Selbukhra Section, Crimea (Alb-Tur)	-101.85	-90.51
41-ODP 641C, Offshore Portugal (Alb-Bar)	-122.85+	-109.44
43-Gorgo a Cerbara Section, Italy	-122.58	-122.08
MIDK3 CS	-122.85	-88.10
26B Cisonon Core, Italy	-122.56	***
66 Jebel Areif El Naqa, Sinai, Egypt	-90.17	-89.35
67 Gebel Abu Zurub, Sinai, Egypt	-90.59	-89.69
68 Gebel Guna, Sinai, Egypt	-90.59	-88.46
69 Coupe de la Gare de Cassis, SE France	-121.98	-121.86
74 Antruiles, Trento Plateau, Italy	-95.81	-89.74
84 DSDP Core Hole 549, SW Offshore Engla	-110.33	-85.56*
UPK 3 Olazagutia, Spain	-86.09	-85.60
UPK 11B Gosau Valley-2, Austria	-87.38	-87.38
121 ODP 762C Exmouth Plateau, Indian Oce	-89.02	-88.22
Composited data of MIDK4 Sections 11-18-	-122.85	-85.56
9B Bounds Core, Kansas - Niobrara Fm.	***	-87.98
57 Tartonne, France, Aptian-Albian	-121.97	-108.42
58 Pre-Guitard, France, Aptian-Albian	-122.34	-107.18
32 Rehkogel RED, Austria	***	-85.56+

22	-122.85	-85.56
Eprolithus moratus	Morphologic Code - NN	
1-Kalaat Senan, Turonian	-89.99	-88.54
9-Amoco No. 1 Bounds core, Kansas, U. Al	-88.39	-88.10*
15-Pueblo, Colorado outcrop, U. Alb-Con	-91.01*	-90.35
MIDK3 CS	-91.01	-88.10
72 Oued Melleque, Tunisia	-90.56+	-89.41
74 Antruiles, Trento Plateau, Italy	-89.93	-89.74
121 ODP 762C Exmouth Plateau, Indian Oce	-89.02	
-87.91*		
Composited data of MIDK4 Sections 11-18-	-91.01	-87.91
9B Bounds Core, Kansas - Niobrara Fm.	-88.39	-88.11

7	-91.01	-87.91
Eprolithus octopetalus	Morphologic Code - NN	
1-Kalaat Senan, Turonian	-90.49	-89.67
9-Amoco No. 1 Bounds core, Kansas, U. Al	-90.62	-90.34
MIDK3 CS	-90.62	-89.67
74 Antruiles, Trento Plateau, Italy	-90.00	-89.80
Composited data of MIDK4 Sections 11-18-	-90.62	-89.67
Covasna Valley, Siclau, Romania (corbcov	-92.33*	-91.00
27 Buchberg, Austria	-91.80+	-89.56*
33 Rehkogel CT, Austria	-90.55	-89.59+
MIDK41 CS	-92.33	-89.56

5	-92.33	-89.56
Eprolithus rarus	Morphologic Code - NN	
9-Amoco No. 1 Bounds core, Kansas, U. Al	-90.31*	-90.18*
MIDK3 CS	-90.31	-90.18
MIDK41 CS	-90.31	***

1	-90.31	-90.31
Ericsonia subpertusa	Morphologic Code - NN	
121 ODP 762C Exmouth Plateau, Indian Oce	-64.38+	-54.58*
PAL 161 DSDP 548A NE Atlantic	-65.55*	-59.69+

	2	-65.55	-64.58
Ethmorhabdus gallicus		Morphologic Code - NN	
30-Selbukhra Section, Crimea (Alb-Tur)		-101.85*	-101.34*
MIDK3 CS		-101.85*	-101.34*
MIDK41 CS		-101.85*	-101.34*
	1	-101.85	-101.34
Fasciculithus tympaniformis		Morphologic Code - NN	
121 ODP 762C Exmouth Plateau, Indian Oce		-60.39*	-53.94*
131 DSDP 515F Western Atlantic		-59.58	-59.14+
PAL 161 DSDP 548A NE Atlantic		-59.68+	-59.68
MIDK41 CS		-60.39+	***
	3	-60.41	-60.39
Fasciculithus ulii		Morphologic Code - NN	
MIDK41 CS		-60.97	-60.97*
121 ODP 762C Exmouth Plateau, Indian Oce		-60.99*	-60.99
	1	-60.99	-60.97
Flabellites biforaminiis		Morphologic Code - NN	
1-Kalaat Senan, Turonian		-90.40	-88.44*
4-DSDP 547, Offshore Morocco, Albian-Cen		-99.25	-93.84
5-DSDP 545, Offshore Morocco, Aptian-Cen		-118.41+	-94.32
10-Kalaat Senan, Tunisia Section, Cenoma		-97.58	-93.54+
11-DSDP 386 Bermuda Plateau, Atlantic, A		-110.22	-96.46
14-DSDP 369A, Offshore Morocco, Apt-Alb		-106.51	-98.29
20-Trinity River, Texas Sect, Alb-Cen		-106.60	-97.63
41-ODP 641C, Offshore Portugal (Alb-Bar)		-125.51*	-109.44
Composited data of MIDK4 Sections 11-18-		-125.51	-88.44
11B DSDP 386 Upper & Lower Cretaceous		-111.66	-96.67
20B Trinity River Composited Section Rev		-109.92	-100.72
MIDK41 CS		-125.51	-88.44
	10	-125.51	-88.44
Flabellites oblongus		Morphologic Code - NN	
3b-Santa Rosa Canyon Section, Mexico, Be		-122.96+	-107.35
9-Amoco No. 1 Bounds core, Kansas, U. Al		-94.53	-88.10+
13-Piobbico Core, Marche, Italy, Apt-Alb		-121.92	-97.70
24-Mt. Risou, Rosans, SE France, Alb-Cen		-98.17	-96.54
26-Cismon Section, Italy (VU Data), Apt-		-122.73	***
41-ODP 641C, Offshore Portugal (Alb-Bar)		-125.78*	-125.51
43-Gorgo a Cerbara Section, Italy		-125.41	-122.58
MIDK3 CS		-125.78	-88.10
26B Cismon Core, Italy		-124.93	***
69 Coupe de la Gare de Cassis, SE France		-124.80	-121.86
74 Antruiles, Trento Plateau, Italy		-96.49	-93.48
Composited data of MIDK4 Sections 11-18-		-125.78	-88.10
9B Bounds Core, Kansas - Niobrara Fm.		***	-88.02*
57 Tartonne, France, Aptian-Albian		-122.85	-108.42
58 Pre-Guitard, France, Aptian-Albian		-122.34	-107.18
	13	-125.78	-88.02
Gaarderella granulifera		Morphologic Code - NN	
121 ODP 762C Exmouth Plateau, Indian Oce		-83.46	-66.47
MIDK41 CS		-83.46	-66.47
	1	-83.46	-66.47

Gartnerago nanum		Morphologic Code - NN
9-Amoco No. 1 Bounds core, Kansas, U. Al	-95.39	-92.76*
15-Pueblo, Colorado outcrop, U. Alb-Con	-93.75	-92.76+
24-Mt. Risou, Rosans, SE France, Alb-Cen	-98.17+	-96.71
MIDK3 CS	-98.17	-92.76
Composited data of MIDK4 Sections 11-18-	-98.17	-92.76
20B Trinity River Composited Section Rev	-98.30*	-96.95
MIDK41 CS	-98.30	***

	4	-98.30	-92.76
Gartnerago obliquum		Morphologic Code - NN	
1-Kalaat Senan, Turonian	-90.50	-88.43	
4-DSDP 547, Offshore Morocco, Albian-Cen	-99.25+	-93.84	
5-DSDP 545, Offshore Morocco, Aptian-Cen	-99.60*	-94.69	
9-Amoco No. 1 Bounds core, Kansas, U. Al	-91.60	-88.10	
10-Kalaat Senan, Tunisia Section, Cenoma	-90.58	-90.00	
12-Boulonnaise Section, France, Alb-Tur	-91.94	-89.07	
15-Pueblo, Colorado outcrop, U. Alb-Con	-90.47	-90.35	
30-Selbukhra Section, Crimea (Alb-Tur)	-98.00	-90.51	
MIDK3 CS	-99.60	-88.10	
67 Gebel Abu Zurub, Sinai, Egypt	-90.20	-90.20	
68 Gebel Guna, Sinai, Egypt	-90.59	-88.46	
84 DSDP Core Hole 549, SW Offshore Engla	-90.54	-69.58	
UPK 1 Austin Gp., Austin, TX	-83.36	-82.78	
UPK 4 Zumaya, Spain	-72.48	-66.15	
UPK 7 Bidart, Spain	-65.80	-65.80	
121 ODP 762C Exmouth Plateau, Indian Oce	-89.02	-65.74+	
PAL 211 ODP 690B Weddell Sea, Antarctica	-75.27	-64.74*	
Composited data of MIDK4 Sections 11-18-	-99.60	-64.74	
9B Bounds Core, Kansas - Niobrara Fm.	***	-87.70	
11B DSDP 386 Upper & Lower Cretaceous	-71.39	-71.19	
20B Trinity River Composited Section Rev	-98.30	-96.95	
DSDP 382 Central Atlantic (corb382-1)	-76.15	-70.61	
DSDP 398D, Eastern Atlantic (corb398d-1)	-77.19	-67.43	

	21	-99.60	-64.74
Gartnerago praeobliquum		Morphologic Code - NN	
24-Mt. Risou, Rosans, SE France, Alb-Cen	-96.58*	***	
MIDK3 CS	-96.58	***	
MIDK41 CS	-96.58	***	
	1	-96.58	-96.58

UC2 Lower to basal Middle Cenomanian

FO Gartnerago segmentatum		Morphologic Code - NN	
UPK 1 Austin Gp., Austin, TX	-88.20+	-87.25	
UPK 3 Olazagutia, Spain	-86.09	-85.80+	
PAL 211 ODP 690B Weddell Sea, Antarctica	-75.27	-64.79*	
Composited data of MIDK4 Sections 11-18-	-88.20	-64.79	
Khalagork, Caucasus, Russia (corbrus-1)	-94.84*	-94.84	
MIDK41 CS	-94.84	-64.79	
	4	-94.84	-64.79

Gartnerago stenostauron		Morphologic Code - NN	
10-Kalaat Senan, Tunisia Section, Cenoma	-97.58*	-96.87*	
MIDK3 CS	-97.58	-96.87	
MIDK41 CS	-97.58	-96.87	
	1	-97.58	-96.87

Gartnerago theta		Morphologic Code - NN
9-Amoco No. 1 Bounds core, Kansas, U. Al	-94.53	-93.18+
12-Boulonnaise Section, France, Alb-Tur	-95.94	-89.07*
24-Mt. Risou, Rosans, SE France, Alb-Cen	-96.84*	-96.54
MIDK3 CS	-96.84	-89.07
Composited data of MIDK4 Sections 11-18-	-96.84	-89.07
Khalagork, Caucasus, Russia (corbrus-1)	-96.49+	-93.94
MIDK41 CS	-96.84	-89.07
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	4	-96.84 -89.07
Gephyrorhabdus coronadventis		Morphologic Code - NN
Re-assigned to Grantarhabdus coronadventis		
1-Kalaat Senan, Turonian	-91.45	-88.50+
11-DSDP 386 Bermuda Plateau, Atlantic, A	-110.22+	-97.33
30-Selbukhra Section, Crimea (Alb-Tur)	-91.72	-90.51
MIDK3 CS	-110.22	-88.50
UPK 7 Bidart, Spain	-69.88	-65.60*
Composited data of MIDK4 Sections 11-18-	-110.22	-65.60
11B DSDP 386 Upper & Lower Cretaceous	-111.66*	-97.46
MIDK41 CS	-111.66	-65.60
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	5	-111.66 -65.60
Grantarhabdus coronadventis		Morphologic Code - NN
See also Gephyrorhabdus coronadventis	-111.66	-65.60*
9-Amoco No. 1 Bounds core, Kansas, U. Al	-95.20	-88.10
41-ODP 641C, Offshore Portugal (Alb-Bar)	-124.03+	-121.81
43-Gorgo a Cerbara Section, Italy	-124.53*	***
MIDK3 CS	-124.53	-88.10
69 Coupe de la Gare de Cassis, SE France	-121.92	-121.91
UPK 1 Austin Gp., Austin, TX	-83.36	-82.78
UPK 4 Zumaya, Spain	-72.48	-67.21+
121 ODP 762C Exmouth Plateau, Indian Oce	-89.02	-73.23
Composited data of MIDK4 Sections 11-18-	-124.53	-67.21
9B Bounds Core, Kansas - Niobrara Fm.	***	-87.70
57 Tartonne, France, Aptian-Albian	-121.97	-108.42
58 Pre-Guitard, France, Aptian-Albian	-120.75	-107.18
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	10	-124.53 -65.60
Grantarhabdus meddii		Morphologic Code - NN
41-ODP 641C, Offshore Portugal (Alb-Bar)	-126.35*	-109.46*
43-Gorgo a Cerbara Section, Italy	***	-122.44
MIDK3 CS	-126.35	-109.46
Composited data of MIDK4 Sections 11-18-	-126.35	-109.46
58 Pre-Guitard, France, Aptian-Albian	-119.95+	-109.59+
MIDK41 CS	-126.35	-109.46
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	3	-126.35 -109.46
Grantarhabdus unicornis		Morphologic Code - NN
20-Trinity River, Texas Sect, Alb-Cen	-102.30*	-95.74*
MIDK3 CS	-102.30	-95.74
MIDK41 CS	-102.30	-95.74
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	1	-102.30 -95.74
Haqius circumradiatus		Morphologic Code - NN
See also Markalius circumradiatus	-134.10*	-82.78*
57 Tartonne, France, Aptian-Albian	-122.85+	-108.42
58 Pre-Guitard, France, Aptian-Albian	-122.34	-107.18+
MIDK41 CS	-122.85	-107.18

	2	-134.10	-82.78
UC0b/BC27b Upper Albian			
LO Hayesites albiensis			
		Morphologic Code - NN	
3b-Santa Rosa Canyon Section, Mexico, Be		-107.35	-107.26
4-DSDP 547, Offshore Morocco, Albian-Cen		-98.48	-97.37*
5-DSDP 545, Offshore Morocco, Aptian-Cen		-111.94*	-97.42+
11-DSDP 386 Bermuda Plateau, Atlantic, A		-109.82	-99.03
12-Boulonnaise Section, France, Alb-Tur		-107.58	-98.14
13-Piobbico Core, Marche, Italy, Apt-Alb		-100.92	-100.92
14-DSDP 369A, Offshore Morocco, Apt-Alb		-106.51	-100.14
20-Trinity River, Texas Sect, Alb-Cen		-106.60	-102.51
24-Mt. Risou, Rosans, SE France, Alb-Cen		***	-98.13
41-ODP 641C, Offshore Portugal (Alb-Bar)		-110.96	-109.44
MIDK3 CS		-111.94	-97.37
84 DSDP Core Hole 549, SW Offshore Engla		-110.97	-109.10
Composited data of MIDK4 Sections 11-18-		-111.94	-97.37
11B DSDP 386 Upper & Lower Cretaceous		-109.69	-99.00
20B Trinity River Composited Section Rev		-106.34	-106.15
58 Pre-Guitard, France, Aptian-Albian		-122.34*	-107.18
	14	-122.34	-97.37
Hayesites radiatus			
		Morphologic Code - NN	
26-Cismon Section, Italy (VU Data), Apt-		-128.45+	-123.04*
43-Gorgo a Cerbara Section, Italy		-130.16*	-125.04+
MIDK3 CS		-130.16	-123.04
84 DSDP Core Hole 549, SW Offshore Engla		-124.98	-123.24
	3	-130.16	-123.04
UC6 Lower Turonian			
LO Helena chiesta			
		Morphologic Code - NN	
1-Kalaat Senan, Turonian		-93.19	-91.14
3b-Santa Rosa Canyon Section, Mexico, Be		-124.00	-107.35
4-DSDP 547, Offshore Morocco, Albian-Cen		-99.19	-93.84
5-DSDP 545, Offshore Morocco, Aptian-Cen		-118.40	-94.32
9-Amoco No. 1 Bounds core, Kansas, U. Al		-94.98	-90.70
10-Kalaat Senan, Tunisia Section, Cenoma		-97.58	-90.70+
11-DSDP 386 Bermuda Plateau, Atlantic, A		-110.22	-95.39
12-Boulonnaise Section, France, Alb-Tur		-107.58	-93.96
13-Piobbico Core, Marche, Italy, Apt-Alb		-121.96	-97.70
20-Trinity River, Texas Sect, Alb-Cen		-106.60	-95.74
24-Mt. Risou, Rosans, SE France, Alb-Cen		-98.05	-96.58
26-Cismon Section, Italy (VU Data), Apt-		-133.97*	-122.42
30-Selbukhra Section, Crimea (Alb-Tur)		-101.85	-91.26
41-ODP 641C, Offshore Portugal (Alb-Bar)		-128.64	-109.44
43-Gorgo a Cerbara Section, Italy		-133.79+	-122.08
45-Mobil Core 16, Dallas, TX		-91.66	-90.39*
MIDK3 CS		-133.97	-90.39
72 Oued Melleque, Tunisia		-96.60	-90.77
Composited data of MIDK4 Sections 11-18-		-133.97	-90.39
11B DSDP 386 Upper & Lower Cretaceous		-111.66	-94.20
20B Trinity River Composited Section Rev		-106.34	-95.75
57 Tartonne, France, Aptian-Albian		-122.85	-108.42
58 Pre-Guitard, France, Aptian-Albian		-122.34	-107.18
Covasna Valley, Siclau, Romania (corbcov		-92.33	-91.00
Khalagork, Caucasus, Russia (corbrus-1)		-91.00	-91.00

28 Oberschau, Austria	-95.31	-95.31
33 Rehkogel CT, Austria	-91.60	-90.90

25	-133.97	-90.39
Helicolithus anceps	Morphologic Code - NN	
9-Amoco No. 1 Bounds core, Kansas, U. Al	-91.83*	-88.10+
30-Selbukhra Section, Crimea (Alb-Tur)	-91.82+	-90.51
MIDK3 CS	-91.83	-88.10
UPK 7 Bidart, Spain	-69.73	-65.55*
Composited data of MIDK4 Sections 11-18-	-91.83	-65.55
9B Bounds Core, Kansas - Niobrara Fm.	***	-87.70

4	-91.83	-65.55
Helicolithus compactus	Morphologic Code - NN	
9-Amoco No. 1 Bounds core, Kansas, U. Al	-94.98	-88.10+
MIDK3 CS	-94.98	-88.10
Composited data of MIDK4 Sections 11-18-	-94.98	-88.10
9B Bounds Core, Kansas - Niobrara Fm.	***	-87.78*
57 Tartonne, France, Aptian-Albian	-122.85*	-112.34
58 Pre-Guitard, France, Aptian-Albian	-119.95+	-107.66
MIDK41 CS	-122.85	-87.78

4	-122.85	-87.78
Helicolithus trabeculatus	Morphologic Code - NN	
1-Kalaat Senan, Turonian	-91.45	-88.43
4-DSDP 547, Offshore Morocco, Albian-Cen	-98.97	-93.84
5-DSDP 545, Offshore Morocco, Aptian-Cen	-100.37	-94.32
11-DSDP 386 Bermuda Plateau, Atlantic, A	-110.22*	-88.19
12-Boulonnaise Section, France, Alb-Tur	-90.81	-89.07
20-Trinity River, Texas Sect, Alb-Cen	-107.07+	-95.74
24-Mt. Risou, Rosans, SE France, Alb-Cen	-98.17	-96.54
30-Selbukhra Section, Crimea (Alb-Tur)	-91.82	-90.86
36-Anderson Husky Roros, Canada (Alb-Tur)	-88.22	-88.05
MIDK3 CS	-110.22*	-88.05
74 Antruiles, Trento Plateau, Italy	-96.18	-91.49
UPK 1 Austin Gp., Austin, TX	-88.20	-82.78
UPK 3 Olazagutia, Spain	-86.09	-85.60
UPK 7 Bidart, Spain	-69.88	-65.51*
UPK 14 Lepsa, E. Carpathians, Romania	-68.17	-65.59+
121 ODP 762C Exmouth Plateau, Indian Oce	-89.02	-68.29
Composited data of MIDK4 Sections 11-18-	-110.22	-65.51
11B DSDP 386 Upper & Lower Cretaceous	-111.66	-71.19
20B Trinity River Composited Section Rev	-106.47	-95.75
57 Tartonne, France, Aptian-Albian	-122.85*	-108.42
58 Pre-Guitard, France, Aptian-Albian	-117.57+	-107.18
UPK 10 Tiefenbach, Brandenburg, Austria	-85.97	-85.44

20	-122.85	-65.51
Isocrystallithus compactus	Morphologic Code - NN	
9-Amoco No. 1 Bounds core, Kansas, U. Al	-94.75*	-90.66*
MIDK3 CS	-94.75	-90.66
MIDK41 CS	-94.75	***

1	-94.75	-94.75
Kamptnerius magnificus	Morphologic Code - NN	
9-Amoco No. 1 Bounds core, Kansas, U. Al	-88.39	-88.18
12-Boulonnaise Section, France, Alb-Tur	-89.60*	-89.07
45-Mobil Core 16, Dallas, TX	-88.26	-88.26

MIDK3 CS		-89.60	-88.18
84 DSDP Core Hole 549, SW Offshore Engla		-88.10	-67.49
UPK 1 Austin Gp., Austin, TX		-87.64	-82.78
UPK 3 Olazagutia, Spain		-86.09	-85.66
121 ODP 762C Exmouth Plateau, Indian Oce		-88.78	-65.74
PAL 141 ODP 752 Indian Ocean		-66.54	-64.27*
PAL 151 DSDP 550+550B NE Atlantic		-74.57	-65.50
PAL 161 DSDP 548A NE Atlantic		-71.67	-65.55
PAL 211 ODP 690B Weddell Sea, Antarctica		-74.99	-64.73+
Composited data of MIDK4 Sections 11-18-		-89.60	-64.27
9B Bounds Core, Kansas - Niobrara Fm.		-88.39	-87.70
97 Ballard Carey-Carolla No. 1, Texas		-89.58	-87.46
DSDP 398D, Eastern Atlantic (corb398d-1)		-73.28	-69.48
27 Buchberg, Austria		-89.59+	-89.56

	15	-89.60	-64.27
Laguncula dorotheae		Morphologic Code - NN	
57 Tartonne, France, Aptian-Albian		-122.85*	-109.35+
58 Pre-Guitard, France, Aptian-Albian		-112.32+	-107.18*
MIDK41 CS		-122.85	-107.18

	2	-122.85	-107.18
Liliasterites angularis		Morphologic Code - NN	
9-Amoco No. 1 Bounds core, Kansas, U. Al		-90.16*	-90.03*
MIDK41 CS		-90.16	***

	1	-90.16	-90.03
Lithastrinus floralis		Morphologic Code - NN	
Junior synonym of Eprolithus floralis			
1-Kalaat Senan, Turonian		-93.19	-88.44+
7-Djebel Bireno, Tunisia, Cenomanian		-94.36	-94.12
11-DSDP 386 Bermuda Plateau, Atlantic, A		-109.77	-94.62
12-Boulonnaise Section, France, Alb-Tur		-90.81	-89.07
13-Piobbico Core, Marche, Italy, Apt-Alb		-121.96	-97.21
14-DSDP 369A, Offshore Morocco, Apt-Alb		-107.52	-89.89
20-Trinity River, Texas Sect, Alb-Cen		-106.73	-95.74
26-Cismon Section, Italy (VU Data), Apt-		-122.79+	***
27-Pie' del Dosso Section, Italy (Barrem		-122.78	-122.78
36-Anderson Husky Roros, Canada (Alb-Tur		-88.22	-88.01*
43-Gorgo a Cerbara Section, Italy		-122.58	***
45-Mobil Core 16, Dallas, TX		-91.71	-88.26
MIDK3 CS		-122.79	-88.01
Composited data of MIDK4 Sections 11-18-		-122.79	-88.01
11B DSDP 386 Upper & Lower Cretaceous		-101.52	-93.57
20B Trinity River Composited Section Rev		-106.47	-95.51
97 Ballard Carey-Carolla No. 1, Texas		-123.98*	-122.06
MIDK41 CS		-123.98	-88.01

	15	-123.98	-88.01
UC11 Upper Coniacian-Santonian			
FO Lithastrinus grillii			
		Morphologic Code - NN	
84 DSDP Core Hole 549, SW Offshore Engla		-85.64	-85.64
UPK 1 Austin Gp., Austin, TX		-88.20*	-87.25
UPK 3 Olazagutia, Spain		-86.07	-85.60
UPK 4 Zumaya, Spain		-65.95	-65.95*
UPK 11 Gosau Valley Composite, Austria		-84.98	-83.24
UPK 11B Gosau Valley-2, Austria		-86.93	-82.27
UPK 13 Tercis Quarry section, France (Od		-74.57	-73.34

121 ODP 762C Exmouth Plateau, Indian Oce	-88.18+	-82.58
MIDK41 CS	-88.20	-65.95
84 DSDP Core Hole 549, SW Offshore Engla	-86.38	-86.38
121 ODP 762C Exmouth Plateau, Indian Oce	-88.16	-82.62
Composited data of MIDK4 Sections 11-18-	-88.20	-65.95
29 Oberhehenfeld, Austria	-83.37	-83.25
30 Hofergraben, Austria	-85.00	-79.04
31 Lattengebirge, Austria	-85.91	-82.53
32 Rehkogel RED, Austria	***	-85.51
34 Postalm-Retschegg, Austria	-85.00	-75.84+
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15	-88.20	-65.95

UC12 Lower Santonian–Basal Campanian

LO Lithastrinus septenarius

UC9 Middle Turonian–Coniacian

FO Lithastrinus septenarius

Morphologic Code - NN

May be same species as Eprolithus moratus

68 Gebel Guna, Sinai, Egypt	-88.52+	-88.46
UPK 11B Gosau Valley-2, Austria	-88.50	-86.93
68 Gebel Guna, Sinai, Egypt	-88.52	-88.38
Composited data of MIDK4 Sections 11-18-	-88.52	-86.93
Covasna Valley, Siclau, Romania (corbcov	-86.95	-86.21+
32 Rehkogel RED, Austria	***	-85.51*
33 Rehkogel CT, Austria	-90.23*	-89.59
MIDK41 CS	-90.23	-85.51
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6	-90.23	-85.51

Eprolithus septenarius

Morphologic Code - NN

Junior synonym of Lithastrinus septenarius

-90.23 -85.51

May be same species as E. moratus

1-Kalaat Senan, Turonian	-88.68	-88.55+
MIDK3 CS	-88.68	-88.55
Tur-Con Comp. Std. Section, N. Germany	-88.54	***
ODP 1050C Blake Nose, W. Atlantic	-88.74+	-88.72
UPK 3 Olazagutia, Spain	-86.07	-85.70*
121 ODP 762C Exmouth Plateau, Indian Oce	-88.76*	-88.57
MIDK41 CS	-88.76	-85.70
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5	-88.76	-85.70

UC5 Upper Cenomanian

LO Lithraphidites acutus

UC3 Middle–Upper Cenomanian

FO Lithraphidites acutus

Morphologic Code - NN

1-Kalaat Senan, Turonian	-93.19	-91.86
4-DSDP 547, Offshore Morocco, Albian-Cen	-94.89	-93.84
5-DSDP 545, Offshore Morocco, Aptian-Cen	-94.69	-94.32
9-Amoco No. 1 Bounds core, Kansas, U. Al	-93.85	-90.70
10-Kalaat Senan, Tunisia Section, Cenoma	-96.17*	-90.78
12-Boulonnaise Section, France, Alb-Tur	-95.94+	-90.36*
15-Pueblo, Colorado outcrop, U. Alb-Con	-93.75	-91.26
45-Mobil Core 16, Dallas, TX	-91.45	-90.41+
MIDK3 CS	-96.17	-90.36
72 Oued Melleque, Tunisia	-96.17	-90.84
74 Antruiles, Trento Plateau, Italy	-93.95	-93.16
Composited data of MIDK4 Sections 11-18-	-96.17	-90.36
33 Rehkogel CT, Austria	-91.67	-90.77

	11	-96.17	-90.36
Lithraphidites alatus		Morphologic Code - NN	
4-DSDP 547, Offshore Morocco, Albian-Cen		-97.24	-93.99
5-DSDP 545, Offshore Morocco, Aptian-Cen		-97.42	-95.56
9-Amoco No. 1 Bounds core, Kansas, U. Al		-93.63	-90.93*
10-Kalaat Senan, Tunisia Section, Cenoma		-97.58+	-96.48
11-DSDP 386 Bermuda Plateau, Atlantic, A		-97.33	-95.38
12-Boulonnaise Section, France, Alb-Tur		-96.75	-94.69
MIDK3 CS		-97.58	-90.93
Composited data of MIDK4 Sections 11-18-		-97.58	-90.93
11B DSDP 386 Upper & Lower Cretaceous		-97.46	-94.20+
20B Trinity River Composited Section Rev		-98.30*	-95.75
MIDK41 CS		-98.30	***
	8	-98.30	-90.93
Lithraphidites bollii		Morphologic Code - NN	
26-Cismon Section, Italy (VU Data), Apt-		-132.15+	-131.43+
MIDK3 CS		-132.15	-131.43
26B Cismon Core, Italy		-136.92*	-130.43*
MIDK41 CS		-136.92	-130.43
	2	-136.92	-130.43
Lithraphidites carniolensis		Morphologic Code - NN	
3b-Santa Rosa Canyon Section, Mexico, Be		-124.32	-107.35
4-DSDP 547, Offshore Morocco, Albian-Cen		-99.25	-93.84
5-DSDP 545, Offshore Morocco, Aptian-Cen		-117.77	-94.32
7-Djebel Bireno, Tunisia, Cenomanian		***	-92.16
9-Amoco No. 1 Bounds core, Kansas, U. Al		-94.08	-88.14
11-DSDP 386 Bermuda Plateau, Atlantic, A		-109.82	-88.18
12-Boulonnaise Section, France, Alb-Tur		-90.81	-89.07
14-DSDP 369A, Offshore Morocco, Apt-Alb		-107.52	-88.08
20-Trinity River, Texas Sect, Alb-Cen		-106.33	-97.05
24-Mt. Risou, Rosans, SE France, Alb-Cen		-98.17	-96.54
26-Cismon Section, Italy (VU Data), Apt-		-133.78+	-122.73
27-Pie' del Dosso Section, Italy (Barrem		-123.17	-122.26
30-Selbukhra Section, Crimea (Alb-Tur)		-101.85	-91.77
36-Anderson Husky Roros, Canada (Alb-Tur		-88.22	-88.01
41-ODP 641C, Offshore Portugal (Alb-Bar)		-128.64	-109.44
43-Gorgo a Cerbara Section, Italy		-134.13*	-122.08
MIDK3 CS		-134.13	-88.01
67 Gebel Abu Zurub, Sinai, Egypt		-90.21	-89.69
68 Gebel Guna, Sinai, Egypt		-90.59	-88.46
69 Coupe de la Gare de Cassis, SE France		-124.80	-121.86
74 Antruilles, Trento Plateau, Italy		-96.49	-89.74
84 DSDP Core Hole 549, SW Offshore Engla		-124.51	-70.00
UPK 1 Austin Gp., Austin, TX		-88.20	-87.25
UPK 3 Olazagutia, Spain		-86.09	-85.60
UPK 4 Zumaya, Spain		-72.48	-65.95
UPK 7 Bidart, Spain		-69.88	-65.74+
UPK 14 Lepsa, E. Carpathians, Romania		-68.17	-65.53*
121 ODP 762C Exmouth Plateau, Indian Oce		-89.02	-65.74
Composited data of MIDK4 Sections 11-18-		-134.13	-65.53
9B Bounds Core, Kansas - Niobrara Fm.		***	-87.70
11B DSDP 386 Upper & Lower Cretaceous		-109.69	-71.17
20B Trinity River Composited Section Rev		-106.15	-95.75
57 Tartonne, France, Aptian-Albian		-122.85	-108.42
58 Pre-Guitard, France, Aptian-Albian		-122.34	-107.18

97 Ballard Carey-Carolla No. 1, Texas	-87.46	-87.36
UPK 10 Tiefenbach, Brandenburg, Austria	-85.97	-83.48
DSDP 382 Central Atlantic (corb382-1)	-83.34	-70.61
DSDP 385 Central Atlantic (corb385-1)	-68.74	-66.36
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	36	-134.13 -65.53
Lithraphidites praequadratus		Morphologic Code - NN
UPK 4 Zumaya, Spain	-70.14	-65.95
UPK 7 Bidart, Spain	-69.73	-65.51*
UPK 13 Tercis Quarry section, France (Od	-73.61	-70.83
121 ODP 762C Exmouth Plateau, Indian Oce	-68.41	-65.74+
Composited data of MIDK4 Sections 11-18-	-73.61	-65.51
Pietrosita, Romania (corbrom-1)	-73.26	***
34 Postalm-Retschegg, Austria	-75.68*	-74.25
MIDK41 CS	-75.68	-65.51
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	7	-75.68 -65.51
Lithraphidites pseudoquadratus		Morphologic Code - NN
1-Kalaat Senan, Turonian	-92.16	-92.16
10-Kalaat Senan, Tunisia Section, Cenoma	-96.91+	-93.63+
24-Mt. Risou, Rosans, SE France, Alb-Cen	-98.17*	***
MIDK3 CS	-98.17	-92.16
74 Antruiles, Trento Plateau, Italy	-96.18	-94.33
33 Rehkogel CT, Austria	-91.54	-90.77*
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	4	-98.17 -90.77
UC20 Upper Maastrichtian to base Danian		
FO Lithraphidites quadratus		Morphologic Code - NN
84 DSDP Core Hole 549, SW Offshore Engla	-67.43	-66.66
UPK 4 Zumaya, Spain	-68.77*	-66.78
UPK 7 Bidart, Spain	-67.81	-65.51*
UPK 14 Lepsa, E. Carpathians, Romania	-68.01	-66.10
121 ODP 762C Exmouth Plateau, Indian Oce	-67.64	-65.74
131 DSDP 515F Western Atlantic	-68.68+	-68.56
PAL 141 ODP 752 Indian Ocean	-66.16	***
PAL 151 DSDP 550+550B NE Atlantic	-68.22	-66.30
PAL 161 DSDP 548A NE Atlantic	-68.24	-65.55
Composited data of MIDK4 Sections 11-18-	-68.77	-65.51
UPK 18 Bottaccione Gorge, Italy	***	-68.17
DSDP 385 Central Atlantic (corb385-1)	-68.13	-66.36
DSDP 398D, Eastern Atlantic (corb398d-1)	***	-66.10
Pietrosita, Romania (corbrom-1)	-68.77*	-65.53+
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	13	-68.77 -65.51
Lucianorhabdus arcuatus		Morphologic Code - NN
PAL 211 ODP 690B Weddell Sea, Antarctica	-71.19*	-70.53*
MIDK41 CS	-71.19	-70.53
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	1	-71.19 -70.53
Lucianorhabdus cayeuxii		Morphologic Code - NN
9-Amoco No. 1 Bounds core, Kansas, U. Al	-88.27+	-88.14
MIDK3 CS	-88.27	-88.14
84 DSDP Core Hole 549, SW Offshore Engla	-85.64	-69.28
UPK 1 Austin Gp., Austin, TX	-87.64	-82.78
UPK 3 Olazagutia, Spain	-86.04	-85.60
UPK 4 Zumaya, Spain	-72.04	-72.04
UPK 11 Gosau Valley Composite, Austria	-84.49	-83.24
UPK 11B Gosau Valley-2, Austria	-84.83	-82.27

121 ODP 762C Exmouth Plateau, Indian Oce		-84.08	-65.74+
PAL 151 DSDP 550+550B NE Atlantic		-74.56	-70.54
PAL 161 DSDP 548A NE Atlantic		-71.67	-65.70*
PAL 211 ODP 690B Weddell Sea, Antarctica		-75.27	-69.58
Composited data of MIDK4 Sections 11-18-		-88.27	-65.70
9B Bounds Core, Kansas - Niobrara Fm.		-88.27+	-87.70
11B DSDP 386 Upper & Lower Cretaceous		-71.58	-71.58
97 Ballard Carey-Carolla No. 1, Texas		-89.58*	-87.46
UPK 10 Tiefenbach, Brandenburg, Austria		-85.97	-83.48
DSDP 382 Central Atlantic (corb382-1)		-71.38	-71.38
29 Oberhehenfeld, Austria		-83.37	-74.25
30 Hofergraben, Austria		-85.00	-79.04
31 Lattengebirge, Austria		-85.91	-82.53
32 Rehkogel RED, Austria		***	-85.51
34 Postalm-Retschegg, Austria		-85.00	-74.25
MIDK41 CS		-89.58	-65.70

	21	-89.58	-65.70
Lucianorhabdus inflatus		Morphologic Code - NN	
UPK 3 Olazagutia, Spain		-85.94*	-85.60*
MIDK41 CS		-85.94	-85.60

	1	-85.94	-85.60
Lucianorhabdus maleformis		Morphologic Code - NN	
9-Amoco No. 1 Bounds core, Kansas, U. Al		-90.34	-88.23
12-Boulonnaise Section, France, Alb-Tur		-90.76*	-89.07
MIDK3 CS		-90.76	-88.23
67 Gebel Abu Zurub, Sinai, Egypt		-90.21	-89.69
68 Gebel Guna, Sinai, Egypt		-89.03	-88.46
72 Oued Melleque, Tunisia		-90.21	-89.41
UPK 3 Olazagutia, Spain		-86.09	-85.60
UPK 4 Zumaya, Spain		-72.48	-69.42*
UPK 13 Tercis Quarry section, France (Od		-76.63	-74.25
121 ODP 762C Exmouth Plateau, Indian Oce		-83.96	-83.23
Composited data of MIDK4 Sections 11-18-		-90.76	-69.42
9B Bounds Core, Kansas - Niobrara Fm.		***	-87.70
UPK 10 Tiefenbach, Brandenburg, Austria		-85.97	-83.48
Khalagork, Caucasus, Russia (corbrus-1)		-90.72+	-90.72
27 Buchberg, Austria		-89.59	-89.56
34 Postalm-Retschegg, Austria		-85.00	-75.58+

	14	-90.76	-69.42
Lucianorhabdus quadrifidus		Morphologic Code - NN	
1-Kalaat Senan, Turonian		-89.82*	-88.45*
MIDK3 CS		-89.82	-88.45
UPK 3 Olazagutia, Spain		-86.09+	-85.60+
MIDK41 CS		-89.82	-85.60

	2	-89.82	-88.45
Manivitella gronosa		Morphologic Code - NN	
20-Trinity River, Texas Sect, Alb-Cen		-106.60+	-95.74*
MIDK3 CS		-106.60	-95.74
Composited data of MIDK4 Sections 11-18-		-106.60	-95.74
20B Trinity River Composited Section Rev		-109.92*	-98.66+
MIDK41 CS		-109.92	-95.74

	2	-109.92	-95.74
Manivitella pemmatoidea		Morphologic Code - NN	

3b-Santa Rosa Canyon Section, Mexico, Be	-123.09	-107.35
4-DSDP 547, Offshore Morocco, Albian-Cen	-99.25	-93.84
5-DSDP 545, Offshore Morocco, Aptian-Cen	-118.40	-94.32
9-Amoco No. 1 Bounds core, Kansas, U. Al	-95.39	-88.10
11-DSDP 386 Bermuda Plateau, Atlantic, A	-109.88	-88.21
12-Boulonnaise Section, France, Alb-Tur	-90.81	-89.07
13-Piobbico Core, Marche, Italy, Apt-Alb	-117.67	-97.21
14-DSDP 369A, Offshore Morocco, Apt-Alb	-107.52	-89.48
20-Trinity River, Texas Sect, Alb-Cen	-106.60	-95.74
24-Mt. Risou, Rosans, SE France, Alb-Cen	-98.17	-96.54
26-Cismon Section, Italy (VU Data), Apt-	-133.97*	-122.42
30-Selbukhra Section, Crimea (Alb-Tur)	-101.85	-91.15
41-ODP 641C, Offshore Portugal (Alb-Bar)	-128.64	-109.44
43-Gorgo a Cerbara Section, Italy	-133.79+	-122.08
MIDK3 CS	-133.97	-88.10
67 Gebel Abu Zurub, Sinai, Egypt	-90.20	-90.19
68 Gebel Guna, Sinai, Egypt	-90.59	-88.46
69 Coupe de la Gare de Cassis, SE France	-124.74	-121.86
74 Antruiles, Trento Plateau, Italy	-96.49	-89.92
84 DSDP Core Hole 549, SW Offshore Engla	-124.98	-69.28
UPK 1 Austin Gp., Austin, TX	-88.20	-82.78
UPK 3 Olazagutia, Spain	-86.09	-85.60
UPK 4 Zumaya, Spain	-72.48	-66.78
UPK 7 Bidart, Spain	-69.88	-65.60+
UPK 14 Lepsa, E. Carpathians, Romania	-68.17	-65.25*
121 ODP 762C Exmouth Plateau, Indian Oce	-88.87	-66.02
PAL 151 DSDP 550+550B NE Atlantic	-68.24	-65.91
PAL 161 DSDP 548A NE Atlantic	-71.67	-65.70
Composited data of MIDK4 Sections 11-18-	-133.97	-65.25
9B Bounds Core, Kansas - Niobrara Fm.	***	-87.70
11B DSDP 386 Upper & Lower Cretaceous	-110.01	-71.39
20B Trinity River Composited Section Rev	-106.15	-95.75
57 Tartonne, France, Aptian-Albian	-122.85	-108.42
58 Pre-Guitard, France, Aptian-Albian	-122.34	-107.18
UPK 10 Tiefenbach, Brandenburg, Austria	-86.02	-85.97
DSDP 382 Central Atlantic (corb382-1)	-83.40	-70.61
DSDP 385 Central Atlantic (corb385-1)	-68.13	-66.36
DSDP 398D, Eastern Atlantic (corb398d-1)	***	-71.74
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	36	-133.97 -65.25
Manivitella solida		Morphologic Code - NN
20-Trinity River, Texas Sect, Alb-Cen	-107.07+	-95.74+
30-Selbukhra Section, Crimea (Alb-Tur)	-101.85	-90.51*
MIDK3 CS	-107.07	-90.51
Composited data of MIDK4 Sections 11-18-	-107.07	-90.51
20B Trinity River Composited Section Rev	-110.55*	-98.66
MIDK41 CS	-110.55	***
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	3	-110.55 -90.51
Markalius astroporus		Morphologic Code - NN
UPK 4 Zumaya, Spain	-65.76*	-65.66*
MIDK41 CS	-65.76	-65.66
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	1	-65.76 -65.66
Markalius circumradiatus		Morphologic Code - NN
Re-assigned to Haqius circumradiatus		
3b-Santa Rosa Canyon Section, Mexico, Be	-122.87	-107.35
9-Amoco No. 1 Bounds core, Kansas, U. Al	-92.95	-88.10

11-DSDP 386 Bermuda Plateau, Atlantic, A	-109.88	-99.03
24-Mt. Risou, Rosans, SE France, Alb-Cen	-98.09	-96.54
26-Cismon Section, Italy (VU Data), Apt-	-133.90+	-122.73
30-Selbukhra Section, Crimea (Alb-Tur)	-101.85	-96.40
36-Anderson Husky Roros, Canada (Alb-Tur)	-88.05	-88.01
41-ODP 641C, Offshore Portugal (Alb-Bar)	-128.64	-110.06
43-Gorgo a Cerbara Section, Italy	-134.10*	-122.08
MIDK3 CS	-134.10	-88.01
69 Coupe de la Gare de Cassis, SE France	-124.71	-121.86
74 Antruilles, Trento Plateau, Italy	-96.43	-90.99
UPK 1 Austin Gp., Austin, TX	-88.20	-82.78*
UPK 3 Olazagutia, Spain	-86.09	-85.60
121 ODP 762C Exmouth Plateau, Indian Oce	-89.02	-82.81+
Composited data of MIDK4 Sections 11-18-	-134.10	-82.78
9B Bounds Core, Kansas - Niobrara Fm.	***	-87.82
11B DSDP 386 Upper & Lower Cretaceous	-110.01	-99.00
97 Ballard Carey-Carolla No. 1, Texas	-87.87	-87.77
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	17	-134.10 -82.78
Markalius inversus		Morphologic Code - NN
UPK 14 Lepsa, E. Carpathians, Romania	-68.17	-64.61+
121 ODP 762C Exmouth Plateau, Indian Oce	-75.11*	-65.74
131 DSDP 515F Western Atlantic	-65.48	-64.90
PAL 141 ODP 752 Indian Ocean	-66.21	-64.13*
PAL 211 ODP 690B Weddell Sea, Antarctica	-73.61+	***
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	5	-75.11 -64.13
Marthasterites furcatus		Morphologic Code - NN
1-Kalaat Senan, Turonian	-88.86	-88.43
9-Amoco No. 1 Bounds core, Kansas, U. Al	-88.39	-88.10
29-Eastbourne, UK, (Cen-Tur)	-88.94*	***
45-Mobil Core 16, Dallas, TX	-88.93+	-88.26
MIDK3 CS	-88.94	-88.10
68 Gebel Guna, Sinai, Egypt	-88.69	-88.46
84 DSDP Core Hole 549, SW Offshore Engla	-88.05	-88.05
Tur-Con Comp. Std. Section, N. Germany	-88.86	-88.86
UPK 1 Austin Gp., Austin, TX	-88.20	-82.78
UPK 3 Olazagutia, Spain	-85.89	-85.82
UPK 11 Gosau Valley Composite, Austria	-84.98	-83.41
UPK 11B Gosau Valley-2, Austria	-88.50	-82.27*
121 ODP 762C Exmouth Plateau, Indian Oce	-87.99	-83.31
131 DSDP 515F Western Atlantic	-88.81	***
Composited data of MIDK4 Sections 11-18-	-88.94	-82.27
9B Bounds Core, Kansas - Niobrara Fm.	-88.39	-87.70
97 Ballard Carey-Carolla No. 1, Texas	-88.37	-87.87
UPK 10 Tiefenbach, Brandenburg, Austria	-85.97	-83.48
UPK 21 Forwark Quarry, Poland	-88.94*	-88.30
30 Hofergraben, Austria	-85.00	-82.31
31 Lattengebirge, Austria	-85.91	-83.23
34 Postalm-Retschegg, Austria	-85.00	-82.73
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	20	-88.94 -82.27
Micrantholithus hoschulzii		Morphologic Code - NN
3b-Santa Rosa Canyon Section, Mexico, Be	-124.27	-122.01
27-Pie' del Dosso Section, Italy (Barrem	-129.41*	-122.59
41-ODP 641C, Offshore Portugal (Alb-Bar)	-128.64+	-122.75
43-Gorgo a Cerbara Section, Italy	-123.41	***
MIDK3 CS	-129.41	-122.01

69 Coupe de la Gare de Cassis, SE France	-124.80	-121.86
Composited data of MIDK4 Sections 11-18-	-129.41	-121.86
57 Tartonne, France, Aptian-Albian	-109.35	-108.88*
58 Pre-Guitard, France, Aptian-Albian	-122.34	-113.27+
97 Ballard Carey-Carolla No. 1, Texas	-123.98	-119.67
MIDK41 CS	-129.41	-108.88

	8	
Micrantholithus obtusus	-129.41	-108.88
	Morphologic Code - NN	
3b-Santa Rosa Canyon Section, Mexico, Be	-122.96	-122.49+
41-ODP 641C, Offshore Portugal (Alb-Bar)	-128.64*	-122.75
MIDK3 CS	-128.64	-122.49
69 Coupe de la Gare de Cassis, SE France	-123.91	-121.86*
84 DSDP Core Hole 549, SW Offshore Engla	-124.98+	-123.01
MIDK41 CS	-128.64	-121.86

	4	
Microrhabdulus belgicus	-128.64	-121.86
	Morphologic Code - NN	
1-Kalaat Senan, Turonian	-89.88	-89.88
4-DSDP 547, Offshore Morocco, Albian-Cen	-97.22+	-94.27
5-DSDP 545, Offshore Morocco, Aptian-Cen	-96.27	-94.63
12-Boulonnaise Section, France, Alb-Tur	-94.82	-89.07
24-Mt. Risou, Rosans, SE France, Alb-Cen	-97.38*	-96.84
45-Mobil Core 16, Dallas, TX	-91.24	-88.26
MIDK3 CS	-97.38	-88.26
UPK 3 Olazagutia, Spain	-86.09	-85.76
UPK 4 Zumaya, Spain	-69.09	-69.09+
121 ODP 762C Exmouth Plateau, Indian Oce	-74.47	-65.74*
Composited data of MIDK4 Sections 11-18-	-97.38	-65.74
UPK 10 Tiefenbach, Brandenburg, Austria	-83.97	-83.93

	10	
Microrhabdulus decoratus	-97.38	-65.74
	Morphologic Code - NN	
1-Kalaat Senan, Turonian	-89.73	-88.51
9-Amoco No. 1 Bounds core, Kansas, U. Al	-88.14	-88.10
12-Boulonnaise Section, France, Alb-Tur	-94.35	-89.07
30-Selbukhra Section, Crimea (Alb-Tur)	-91.30	-90.51
36-Anderson Husky Roros, Canada (Alb-Tur	***	-88.08
MIDK3 CS	-94.35	-88.08
67 Gebel Abu Zurub, Sinai, Egypt	-90.20	-90.19
68 Gebel Guna, Sinai, Egypt	-90.59	-88.46
74 Antruiles, Trento Plateau, Italy	-90.08	-89.74
84 DSDP Core Hole 549, SW Offshore Engla	-71.08	-66.66
UPK 1 Austin Gp., Austin, TX	-88.20	-82.78
UPK 3 Olazagutia, Spain	-86.09	-85.76
UPK 4 Zumaya, Spain	-72.48	-65.95
UPK 7 Bidart, Spain	-69.88	-65.51*
121 ODP 762C Exmouth Plateau, Indian Oce	-88.18	-65.74
PAL 151 DSDP 550+550B NE Atlantic	-74.57	-65.80
PAL 161 DSDP 548A NE Atlantic	-71.67	-65.55+
Composited data of MIDK4 Sections 11-18-	-94.35	-65.51
9B Bounds Core, Kansas - Niobrara Fm.	-88.15	-87.74
11B DSDP 386 Upper & Lower Cretaceous	-71.58	-71.17
20B Trinity River Composited Section Rev	-96.95*	-96.95
97 Ballard Carey-Carolla No. 1, Texas	-89.58	-87.46
UPK 10 Tiefenbach, Brandenburg, Austria	-85.97	-83.48
DSDP 382 Central Atlantic (corb382-1)	-76.40	-70.61
DSDP 385 Central Atlantic (corb385-1)	-68.21	-66.36

DSDP 398D, Eastern Atlantic (corb398d-1)	-77.19	-66.10
Khalagork, Caucasus, Russia (corbrus-1)	-94.45+	-94.45
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25	-96.95	-65.51
Microrhabdulus elongatus	Morphologic Code - NN	
Probably junior synonym of Rhagodiscus angustus		
121 ODP 762C Exmouth Plateau, Indian Oce	-73.98*	-66.86*
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1	-73.98	-66.86
Microrhabdulus helicoides	Morphologic Code - NN	
1-Kalaat Senan, Turonian	-90.50*	-88.43+
MIDK3 CS	-90.50	-88.43
UPK 7 Bidart, Spain	-68.91+	-65.80*
MIDK41 CS	-90.50	-65.80
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2	-90.50	-65.80
Microrhabdulus stradneri	Morphologic Code - NN	
UPK 4 Zumaya, Spain	-65.88*	-65.77*
MIDK41 CS	-65.88	-65.77
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1	-65.88	-65.77
Microrhabdulus undosus	Morphologic Code - NN	
9-Amoco No. 1 Bounds core, Kansas, U. Al	-90.18*	-90.18*
MIDK3 CS	-90.18	-90.18
MIDK41 CS	-90.18	***
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1	-90.18	-90.18
Micula concava	Morphologic Code - NN	
UPK 3 Olazagutia, Spain	-86.09*	-85.60
UPK 4 Zumaya, Spain	-69.52	-68.91
UPK 7 Bidart, Spain	-69.88	-65.51*
121 ODP 762C Exmouth Plateau, Indian Oce	-70.30+	-66.21+
MIDK41 CS	-86.09	-65.51
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4	-86.09	-65.51

UC10 Mid?-Upper Coniacian

FO Micula decussata=M. staurophora

9-Amoco No. 1 Bounds core, Kansas, U. Al	-88.23	-88.10
36-Anderson Husky Roros, Canada (Alb-Tur	-88.22	-88.01
MIDK3 CS	-88.23	-88.01
68 Gebel Guna, Sinai, Egypt	-88.52+	-88.46
84 DSDP Core Hole 549, SW Offshore Engla	-88.30	-66.38
UPK 1 Austin Gp., Austin, TX	-83.36	-82.78
UPK 3 Olazagutia, Spain	-86.09	-85.60
UPK 4 Zumaya, Spain	-65.88	-65.75
UPK 7 Bidart, Spain	-69.88	-65.51
UPK 11 Gosau Valley Composite, Austria	-84.98	-83.24
UPK 11B Gosau Valley-2, Austria	-87.09	-82.27
UPK 14 Lepsa, E. Carpathians, Romania	-68.17	-65.43
121 ODP 762C Exmouth Plateau, Indian Oce	-88.47	-65.74
PAL 141 ODP 752 Indian Ocean	-66.54	-64.17*
PAL 151 DSDP 550+550B NE Atlantic	-74.77	-65.50
PAL 161 DSDP 548A NE Atlantic	-71.31	-65.55
PAL 211 ODP 690B Weddell Sea, Antarctica	-75.27	-64.75+
Composited data of MIDK4 Sections 11-18-	-88.52*	-64.17
9B Bounds Core, Kansas - Niobrara Fm.	-88.23	-87.70
11B DSDP 386 Upper & Lower Cretaceous	-71.58	-71.12
97 Ballard Carey-Carolla No. 1, Texas	-88.25	-87.46

UPK 10 Tiefenbach, Brandenburg, Austria	-85.85	-85.48
DSDP 382 Central Atlantic (corb382-1)	-83.59	-70.61
DSDP 385 Central Atlantic (corb385-1)	-68.74	-66.36
DSDP 398D, Eastern Atlantic (corb398d-1)	***	-66.10
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25	-88.52	-64.17
Micula murus	Morphologic Code - NN	
84 DSDP Core Hole 549, SW Offshore Engla	-67.49	-66.66
UPK 4 Zumaya, Spain	-66.47	-66.15
UPK 7 Bidart, Spain	-67.56	-65.51
UPK 14 Lepsa, E. Carpathians, Romania	-68.17*	-65.43*
121 ODP 762C Exmouth Plateau, Indian Oce	-66.62	-65.74
131 DSDP 515F Western Atlantic	-66.44	-65.50
PAL 151 DSDP 550+550B NE Atlantic	-67.68	-65.50+
PAL 161 DSDP 548A NE Atlantic	-66.90	-65.55
Composited data of MIDK4 Sections 11-18-	-68.17	-65.43
UPK 18 Bottacione Gorge, Italy	-67.13	***
DSDP 385 Central Atlantic (corb385-1)	-68.13+	-66.36
DSDP 398D, Eastern Atlantic (corb398d-1)	-67.48	-66.10
Pietrosita, Romania (corbrom-1)	-68.00	-65.53
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12	-68.17	-65.43
Micula prinsii	Morphologic Code - NN	
UPK 7 Bidart, Spain	-65.74+	-65.60
UPK 14 Lepsa, E. Carpathians, Romania	-65.69	-65.43*
Composited data of MIDK4 Sections 11-18-	-65.74	-65.43
Pietrosita, Romania (corbrom-1)	-66.75*	-65.53+
MIDK41 CS	-66.75	-65.43
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3	-66.75	-65.43
UC15 Upper Lower-Upper Campanian		
FO Misceomarginatus pleniporus	Morphologic Code - NN	
PAL 211 ODP 690B Weddell Sea, Antarctica	-74.99*	-70.53*
MIDK41 CS	-74.99	-70.53
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1	-74.99	-70.53
Monomarginatus pectinatus	Morphologic Code - NN	
PAL 211 ODP 690B Weddell Sea, Antarctica	-74.99*	-68.57*
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1	-74.99	-68.57
Monomarginatus quaternarius	Morphologic Code - NN	
PAL 211 ODP 690B Weddell Sea, Antarctica	-73.86*	-68.57*
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1	-73.86	-68.57
Marker bed Nannoconid crisis		
	-123.99	-122.86
Nannoconus bermudezii	Morphologic Code - NN	
3b-Santa Rosa Canyon Section, Mexico, Be	-124.46	-124.46
26-Cismon Section, Italy (VU Data), Apt-	-133.73*	-122.73+
41-ODP 641C, Offshore Portugal (Alb-Bar)	-126.04+	***
MIDK3 CS	-133.73	-122.73
79 Kef Hahouner, Algeria	-106.97	-106.97*
MIDK41 CS	-133.73	-106.97
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4	-133.73	-106.97
Nannoconus broennimannii	Morphologic Code - NN	
26-Cismon Section, Italy (VU Data), Apt-	-123.85*	-123.63*

MIDK3 CS	-123.85	-123.63
MIDK41 CS	-123.85	-123.63

	1	
Nannoconus bucheri	Morphologic Code - NN	
3b-Santa Rosa Canyon Section, Mexico, Be	-122.86	-122.83
13-Piobbico Core, Marche, Italy, Apt-Alb	-121.96	-113.71+
18-Shell No. 1 Chapman Core, Texas, Apt-	-113.00	-112.64*
26-Cismon Section, Italy (VU Data), Apt-	-131.57+	-122.73
27-Pie' del Dosso Section, Italy (Barrem	-129.41	-122.07
41-ODP 641C, Offshore Portugal (Alb-Bar)	-125.60	-122.85
43-Gorgo a Cerbara Section, Italy	-131.95*	-123.64
MIDK3 CS	-131.95	-112.64
69 Coupe de la Gare de Cassis, SE France	-124.80	-121.86
84 DSDP Core Hole 549, SW Offshore Engla	-124.98	-123.35
89 Stanolind #1 Schmidt, Guadalupe Co.,	-123.01	-122.95
Composited data of MIDK4 Sections 11-18-	-131.95	-112.64
97 Ballard Carey-Carolla No. 1, Texas	-124.53	-124.05

	11	
Nannoconus colomii	Morphologic Code - NN	
26-Cismon Section, Italy (VU Data), Apt-	***	-124.60
27-Pie' del Dosso Section, Italy (Barrem	-129.41*	-123.21
30-Selbukhra Section, Crimea (Alb-Tur)	-91.82	-91.05*
43-Gorgo a Cerbara Section, Italy	-129.37+	-123.64
MIDK3 CS	-129.41	-91.05
84 DSDP Core Hole 549, SW Offshore Engla	-124.98	-123.07+

	5	
Nannoconus elongatus	Morphologic Code - NN	
5-DSDP 545, Offshore Morocco, Aptian-Cen	-117.77+	-115.31
12-Boulonnaise Section, France, Alb-Tur	-90.40	-89.07+
20-Trinity River, Texas Sect, Alb-Cen	-101.81	-97.16
24-Mt. Risou, Rosans, SE France, Alb-Cen	-98.01	-96.54
41-ODP 641C, Offshore Portugal (Alb-Bar)	-126.04*	-110.96
MIDK3 CS	-126.04	-89.07
74 Antruiles, Trento Plateau, Italy	-95.81	-93.31
79 Kef Hahouner, Algeria	-106.97	-106.97
UPK 3 Olazagutia, Spain	-86.09	-85.60
UPK 13 Tercis Quarry section, France (Od	-76.63	-73.66*
Composited data of MIDK4 Sections 11-18-	-126.04	-73.66
20B Trinity River Composited Section Rev	-105.95+	-100.21

	10	
Nannoconus fragilis	Morphologic Code - NN	
20B Trinity River Composited Section Rev	-98.30*	-98.13*
MIDK41 CS	-98.30	-98.13

	2	
Nannoconus globulus	Morphologic Code - NN	
3b-Santa Rosa Canyon Section, Mexico, Be	-122.16	-122.16+
26-Cismon Section, Italy (VU Data), Apt-	-133.73*	-122.73
41-ODP 641C, Offshore Portugal (Alb-Bar)	-128.64	-122.75
MIDK3 CS	-133.73	-122.16
69 Coupe de la Gare de Cassis, SE France	-124.80	-121.86*
Composited data of MIDK4 Sections 11-18-	-133.73	-121.86
93 Gulf McAlpin Well, Louisiana	-133.56+	-131.80

	5	-133.73	-121.86
Nannoconus kamptneri		Morphologic Code - NN	
3b-Santa Rosa Canyon Section, Mexico, Be		-124.46	-122.20
13-Piobbico Core, Marche, Italy, Apt-Alb		-118.74	-110.00*
26-Cismon Section, Italy (VU Data), Apt-		-132.20*	-122.42
41-ODP 641C, Offshore Portugal (Alb-Bar)		-128.37	-122.85
43-Gorgo a Cerbara Section, Italy		-129.37+	-123.64
MIDK3 CS		-132.20	-110.00
69 Coupe de la Gare de Cassis, SE France		-124.71	-121.86+

	6	-132.20	-110.00
Nannoconus minutus		Morphologic Code - NN	
24-Mt. Risou, Rosans, SE France, Alb-Cen		-98.05	-96.54*
MIDK3 CS		-98.05	-96.54
84 DSDP Core Hole 549, SW Offshore Engla		-112.31	-108.20
89 Stanolind #1 Schmidt, Guadalupe Co.,		-111.77	-111.77
Composited data of MIDK4 Sections 11-18-		-111.77	-96.54
58 Pre-Guitard, France, Aptian-Albian		-111.90+	-111.90
97 Ballard Carey-Carolla No. 1, Texas		-122.06*	-97.70+

	5	-122.06	-96.54
Nannoconus multicaudus		Morphologic Code - NN	
UPK 3 Olazagutia, Spain		-86.09*	-85.60+
UPK 13 Tercis Quarry section, France (Od		-76.63+	-73.66*
MIDK41 CS		-86.09	-73.66

	2	-86.09	-73.66
Nannoconus regularis		Morphologic Code - NN	
13-Piobbico Core, Marche, Italy, Apt-Alb		-113.47+	-100.01
24-Mt. Risou, Rosans, SE France, Alb-Cen		-98.13	-96.54+
MIDK3 CS		-113.47	-96.54
69 Coupe de la Gare de Cassis, SE France		-122.91*	-121.92
UPK 3 Olazagutia, Spain		-86.09	-85.60*
Composited data of MIDK4 Sections 11-18-		-122.91	-85.60
Khalagork, Caucasus, Russia (corbrus-1)		-98.82	-98.82
MIDK41 CS		-122.91	-85.60

	3	-122.91	-85.60
Nannoconus spp.		Morphologic Code - NN	
Pietrosita, Romania (corbrom-1)		***	-71.97*
MIDK41 CS		***	-71.97

	1	-71.97	-71.97
Nannoconus steinmannii		Morphologic Code - NN	
3b-Santa Rosa Canyon Section, Mexico, Be		-124.61	-124.00
26-Cismon Section, Italy (VU Data), Apt-		-134.04	-122.42+
27-Pie' del Dosso Section, Italy (Barrem		-129.41	-122.64
41-ODP 641C, Offshore Portugal (Alb-Bar)		-128.64	-122.85
43-Gorgo a Cerbara Section, Italy		-134.13+	-126.07
MIDK3 CS		-134.13	-122.42
16B Wadi Miaidin, Oman (Scott, 1990)		-139.73*	-139.73
69 Coupe de la Gare de Cassis, SE France		-124.80	-122.19*
Composited data of MIDK4 Sections 11-18-		-139.73	-122.19
93 Gulf McAlpin Well, Louisiana		-133.46	-131.80+

	8	-139.73	-122.19
Nannoconus truitti		Morphologic Code - NN	
1-Kalaat Senan, Turonian		-93.19	-88.47

3b-Santa Rosa Canyon Section, Mexico, Be	-122.83	-107.26
4-DSDP 547, Offshore Morocco, Albian-Cen	-98.74	-94.62
5-DSDP 545, Offshore Morocco, Aptian-Cen	-118.40	-95.30
13-Piobbico Core, Marche, Italy, Apt-Alb	-118.74	-101.33
19-Shell No. 1 Tomasek Core, Texas, Apt-	-112.71	-107.43
20-Trinity River, Texas Sect, Alb-Cen	-106.60	-95.74
24-Mt. Risou, Rosans, SE France, Alb-Cen	-98.01	-96.54
26-Cismon Section, Italy (VU Data), Apt-	-133.90*	-122.73
41-ODP 641C, Offshore Portugal (Alb-Bar)	-110.97	-110.95
43-Gorgo a Cerbara Section, Italy	-130.99+	-122.45
MIDK3 CS	-133.90	-88.47
26B Cismon Core, Italy	-124.48	***
69 Coupe de la Gare de Cassis, SE France	-124.69	-121.86
74 Antruiles, Trento Plateau, Italy	-95.81	-93.31
89 Stanolind #1 Schmidt, Guadalupe Co.,	-111.77	-111.77
UPK 3 Olazagutia, Spain	-86.09	-85.60
UPK 13 Tercis Quarry section, France (Od	-76.63	-73.66*
Composited data of MIDK4 Sections 11-18-	-133.90	-73.66
20B Trinity River Composited Section Rev	-109.92	-98.66
57 Tartonne, France, Aptian-Albian	-115.42	-109.35
58 Pre-Guitard, France, Aptian-Albian	-111.90	-107.18
97 Ballard Carey-Carolla No. 1, Texas	-124.13	-100.82
UPK 10 Tiefenbach, Brandenburg, Austria	-85.97	-85.64+
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22	-133.90	-73.66
Nannoconus wassalli	Morphologic Code - NN	
3b-Santa Rosa Canyon Section, Mexico, Be	-124.18	-122.71
27-Pie' del Dosso Section, Italy (Barrem	-129.41*	-122.71
43-Gorgo a Cerbara Section, Italy	-129.37+	-123.64
MIDK3 CS	-129.41	-122.71
69 Coupe de la Gare de Cassis, SE France	-124.18	-121.86
79 Kef Hahouner, Algeria	-106.97	-106.97*
89 Stanolind #1 Schmidt, Guadalupe Co.,	-123.01	-122.95
Composited data of MIDK4 Sections 11-18-	-129.41	-106.97
93 Gulf McAlpin Well, Louisiana	-124.21	-124.00
97 Ballard Carey-Carolla No. 1, Texas	-123.98	-122.06+
MIDK41 CS	-129.41	-106.97
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8	-129.41	-106.97
Neocrepidolithus cruciatus	Morphologic Code - NN	
PAL 141 ODP 752 Indian Ocean	-64.79*	-64.29*
MIDK41 CS	-64.79	-64.29
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1	-64.79	-64.29
Neocrepidolithus watkinsii	Morphologic Code - NN	
PAL 211 ODP 690B Weddell Sea, Antarctica	-75.27*	-71.58*
MIDK41 CS	-75.27	-71.58
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1	-75.27	-71.58
Nephrolithus corystus	Morphologic Code - NN	
121 ODP 762C Exmouth Plateau, Indian Oce	-70.48+	-66.02*
PAL 211 ODP 690B Weddell Sea, Antarctica	-73.61*	-68.57+
MIDK41 CS	-73.61	-66.02
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2	-73.61	-66.02
Nephrolithus frequens	Morphologic Code - NN	
84 DSDP Core Hole 549, SW Offshore Engla	-67.49	-67.49
UPK 7 Bidart, Spain	-65.60	-65.60

UPK 14 Lepsa, E. Carpathians, Romania	-68.17	-65.53
121 ODP 762C Exmouth Plateau, Indian Oce	-69.17*	-65.74
131 DSDP 515F Western Atlantic	-67.85	-65.74
PAL 141 ODP 752 Indian Ocean	-66.54	-64.52*
PAL 151 DSDP 550+550B NE Atlantic	-66.73	-65.91
PAL 161 DSDP 548A NE Atlantic	-65.94	-65.80
PAL 211 ODP 690B Weddell Sea, Antarctica	-69.01+	-64.73+
MIDK41 CS	-69.17	-64.52

	9	
Octocyclus magnus		Morphologic Code - NN
9-Amoco No. 1 Bounds core, Kansas, U. Al	-92.76*	-92.76+
MIDK3 CS	-92.76	-92.76
PAL 211 ODP 690B Weddell Sea, Antarctica	-73.61+	-73.13*
MIDK41 CS	-92.76	-73.13

	2	
Octolithus multiplus		Morphologic Code - NN
UPK 3 Olazagutia, Spain	-86.09*	-85.60
UPK 7 Bidart, Spain	-69.73+	-65.51+
UPK 14 Lepsa, E. Carpathians, Romania	-68.17	-64.61*
MIDK41 CS	-86.09	-64.61

	3	
Parhabdololithus regularis		Morphologic Code - NN
121 ODP 762C Exmouth Plateau, Indian Oce	-83.46*	-65.74*
PAL 151 DSDP 550+550B NE Atlantic	-66.89	-65.91+
Composited data of MIDK4 Sections 11-18-	-83.46	-65.74
DSDP 382 Central Atlantic (corb382-1)	-72.62+	-70.61
DSDP 385 Central Atlantic (corb385-1)	-68.21	-66.36
DSDP 398D, Eastern Atlantic (corb398d-1)	***	-67.43
MIDK41 CS	-83.46	-65.74

	5	
Percivalia fenestrata		Morphologic Code - NN
3b-Santa Rosa Canyon Section, Mexico, Be	-122.29	-107.35
9-Amoco No. 1 Bounds core, Kansas, U. Al	-94.75	-90.34*
41-ODP 641C, Offshore Portugal (Alb-Bar)	-128.64*	-110.97
43-Gorgo a Cerbara Section, Italy	-124.11+	-123.60
MIDK3 CS	-128.64	-90.34
69 Coupe de la Gare de Cassis, SE France	-124.69	-121.86
Composited data of MIDK4 Sections 11-18-	-128.64	-90.34
57 Tartonne, France, Aptian-Albian	-121.97	-108.42
58 Pre-Guitard, France, Aptian-Albian	-122.34	-107.18+
MIDK41 CS	-128.64	***

	7	
Percivalia hauptonensis		Morphologic Code - NN
9-Amoco No. 1 Bounds core, Kansas, U. Al	-94.75+	-91.33*
24-Mt. Risou, Rosans, SE France, Alb-Cen	-97.21*	-97.21+
MIDK3 CS	-97.21	-91.33
MIDK41 CS	-97.21	***

	2	
Perissocyclus fenestratus		Morphologic Code - NN
Senior synonym of Reinhardtites fenestratus		
11-DSDP 386 Bermuda Plateau, Atlantic, A	-109.77	-99.83
13-Piobbico Core, Marche, Italy, Apt-Alb	-118.95	-98.86

15-Pueblo, Colorado outcrop, U. Alb-Con		-93.75	-90.63
24-Mt. Risou, Rosans, SE France, Alb-Cen		-98.09	-96.63
26-Cismon Section, Italy (VU Data), Apt-		-132.94*	-122.42
27-Pie' del Dosso Section, Italy (Barrem		-128.83	-122.07
43-Gorgo a Cerbara Section, Italy		-131.95+	-123.60
MIDK3 CS		-132.94	-90.63
74 Antruiles, Trento Plateau, Italy		-96.49	-89.92*
84 DSDP Core Hole 549, SW Offshore Engla		-124.98	-123.24
Composited data of MIDK4 Sections 11-18-		-132.94	-89.92
11B DSDP 386 Upper & Lower Cretaceous		-101.52	-99.73
UPK 10 Tiefenbach, Brandenburg, Austria		-85.97	-85.49*
MIDK41 CS		-132.94	-85.49

	11	-132.94	-85.49
<i>Petrarhabdus copulatus</i>		Morphologic Code - NN	
UPK 7 Bidart, Spain		-69.88	-69.88+
UPK 13 Tercis Quarry section, France (Od		-73.61+	-71.35
121 ODP 762C Exmouth Plateau, Indian Oce		-74.15*	-68.53*
MIDK41 CS		-74.15	-68.53

	3	-74.15	-68.53
<i>Pickelhaube furtiva</i>		Morphologic Code - NN	
41-ODP 641C, Offshore Portugal (Alb-Bar)		-126.04*	-111.06+
MIDK3 CS		-126.04	-111.06
69 Coupe de la Gare de Cassis, SE France		-124.56	-121.86
Composited data of MIDK4 Sections 11-18-		-126.04	-111.06
58 Pre-Guitard, France, Aptian-Albian		-119.16+	-109.11*
MIDK41 CS		-126.04	-109.11

	3	-126.04	-109.11
<i>Placozygus acanthus</i>		Morphologic Code - NN	
Senior synonym of <i>Zeugrhabdotus acanthus</i>			
30-Selbukhra Section, Crimea (Alb-Tur)		-101.22*	-90.51
MIDK3 CS		-101.22	-90.51
UPK 1 Austin Gp., Austin, TX		-88.20+	-87.25
UPK 4 Zumaya, Spain		-69.79	-65.95*
UPK 7 Bidart, Spain		-69.88	-67.17+
MIDK41 CS		-101.22	-65.95

	4	-101.22	-65.95
<i>Placozygus fibuliformis</i>		Morphologic Code - NN	
UPK 3 Olazagutia, Spain		-86.09*	-85.60+
UPK 7 Bidart, Spain		-69.88+	-65.51*
MIDK41 CS		-86.09	-65.51

	2	-86.09	-65.51
<i>Prediscosphaera arkhangel'skyi</i>		Morphologic Code - NN	
121 ODP 762C Exmouth Plateau, Indian Oce		-83.27*	-67.25*
MIDK41 CS		-83.27	-67.25

	1	-83.27	-67.25
NC8/CC8 Basal Albian			
FO <i>Prediscosphaera columnata</i>		Morphologic Code - NN	
3b-Santa Rosa Canyon Section, Mexico, Be		-110.25	-108.84
13-Piobbico Core, Marche, Italy, Apt-Alb		-111.04	-97.70
24-Mt. Risou, Rosans, SE France, Alb-Cen		-98.17	-96.54
41-ODP 641C, Offshore Portugal (Alb-Bar)		-110.96	-109.44
MIDK3 CS		-111.04	-96.54

74 Antruiles, Trento Plateau, Italy	-96.18	-89.75*
Composited data of MIDK4 Sections 11-18-	-111.04	-89.75
20B Trinity River Composited Section Rev	-106.47	-95.75+
57 Tartonne, France, Aptian-Albian	-122.85*	-108.42
58 Pre-Guitard, France, Aptian-Albian	-119.16+	-107.18
Khalagork, Caucasus, Russia (corbrus-1)	-99.62	-99.62
MIDK41 CS	-122.85	-89.75

	9	-122.85
Prediscosphaera cretacea		Morphologic Code - NN
1-Kalaat Senan, Turonian	-90.27	-88.43
4-DSDP 547, Offshore Morocco, Albian-Cen	-99.25	-93.84
5-DSDP 545, Offshore Morocco, Aptian-Cen	-112.98*	-94.32
7-Djebel Bireno, Tunisia, Cenomanian	-94.36	-93.99
9-Amoco No. 1 Bounds core, Kansas, U. Al	-95.39	-88.10
11-DSDP 386 Bermuda Plateau, Atlantic, A	-110.22	-88.18
12-Boulonnaise Section, France, Alb-Tur	-90.81	-89.07
13-Piobbico Core, Marche, Italy, Apt-Alb	-104.86	-99.45
14-DSDP 369A, Offshore Morocco, Apt-Alb	-107.52	-88.08
24-Mt. Risou, Rosans, SE France, Alb-Cen	-96.58	-96.54
26-Cismon Section, Italy (VU Data), Apt-	-101.99	***
30-Selbukhra Section, Crimea (Alb-Tur)	-101.85	-90.77
36-Anderson Husky Roros, Canada (Alb-Tur	-88.22	-88.01
MIDK3 CS	-112.98	-88.01
74 Antruiles, Trento Plateau, Italy	-96.43	-89.74
84 DSDP Core Hole 549, SW Offshore Engla	-111.27	-67.43
UPK 1 Austin Gp., Austin, TX	-88.20	-82.78
UPK 3 Olazagutia, Spain	-86.09	-85.60
UPK 4 Zumaya, Spain	-72.48	-65.95
UPK 7 Bidart, Spain	-69.88	-65.51
UPK 14 Lepsa, E. Carpathians, Romania	-68.17	-65.11
121 ODP 762C Exmouth Plateau, Indian Oce	-89.02	-65.74
PAL 141 ODP 752 Indian Ocean	-66.54	-64.52*
PAL 151 DSDP 550+550B NE Atlantic	-74.77	-65.50
PAL 161 DSDP 548A NE Atlantic	-71.67	-65.55
PAL 211 ODP 690B Weddell Sea, Antarctica	-75.27	-64.73+
Composited data of MIDK4 Sections 11-18-	-112.98	-64.52
9B Bounds Core, Kansas - Niobrara Fm.	***	-87.70
11B DSDP 386 Upper & Lower Cretaceous	-111.66+	-71.12
20B Trinity River Composited Section Rev	-95.75	-95.75
UPK 10 Tiefenbach, Brandenburg, Austria	-85.97	-83.48
DSDP 382 Central Atlantic (corb382-1)	-83.40	-70.61
DSDP 385 Central Atlantic (corb385-1)	-68.74	-66.36
DSDP 398D, Eastern Atlantic (corb398d-1)	***	-66.10
Khalagork, Caucasus, Russia (corbrus-1)	-94.45	-94.45
28 Oberschau, Austria	-98.71	-95.31
MIDK41 CS	-112.98	-64.52

	34	-112.98
Prediscosphaera grandis		Morphologic Code - NN
UPK 3 Olazagutia, Spain	-86.09*	-85.60
UPK 4 Zumaya, Spain	-69.20	-69.20
UPK 7 Bidart, Spain	-69.73	-65.55*
121 ODP 762C Exmouth Plateau, Indian Oce	-84.07+	-65.74+
MIDK41 CS	-86.09	-65.55

	4	-86.09
Prediscosphaera spinosa		Morphologic Code - NN

1-Kalaat Senan, Turonian		-93.19	-88.44
9-Amoco No. 1 Bounds core, Kansas, U. Al		-95.20	-88.14
11-DSDP 386 Bermuda Plateau, Atlantic, A		-99.03	-88.19
12-Boulonnaise Section, France, Alb-Tur		-90.81	-89.07
24-Mt. Risou, Rosans, SE France, Alb-Cen		-98.01	-96.54
36-Anderson Husky Roros, Canada (Alb-Tur		-88.22	-88.01
41-ODP 641C, Offshore Portugal (Alb-Bar)		-110.06	-109.44
MIDK3 CS		-110.06	-88.01
68 Gebel Guna, Sinai, Egypt		-90.59	-88.46
74 Antruiles, Trento Plateau, Italy		-96.27	-91.74
UPK 1 Austin Gp., Austin, TX		-88.20	-82.78
UPK 3 Olazagutia, Spain		-86.09	-85.60
UPK 4 Zumaya, Spain		-72.48	-65.95
UPK 7 Bidart, Spain		-69.73	-65.51
UPK 14 Lepsa, E. Carpathians, Romania		-68.17	-65.43
121 ODP 762C Exmouth Plateau, Indian Oce		-88.49	-65.74
PAL 141 ODP 752 Indian Ocean		-66.54	-64.50*
PAL 211 ODP 690B Weddell Sea, Antarctica		-75.27	-64.77+
Composited data of MIDK4 Sections 11-18-		-110.06	-64.50
9B Bounds Core, Kansas - Niobrara Fm.		***	-87.74
11B DSDP 386 Upper & Lower Cretaceous		-99.00	-71.19
20B Trinity River Composited Section Rev		-109.92	-99.20
57 Tartonne, France, Aptian-Albian		-121.97+	-109.82
58 Pre-Guitard, France, Aptian-Albian		-122.34*	-107.18
DSDP 382 Central Atlantic (corb382-1)		-71.89	-70.61
DSDP 385 Central Atlantic (corb385-1)		-66.41	-66.41
MIDK41 CS		-122.34	-64.50

	24	-122.34	-64.50
Prediscosphaera stoveri		Morphologic Code - NN	
UPK 4 Zumaya, Spain		-69.42	-67.00
UPK 7 Bidart, Spain		-69.88+	-65.55
UPK 14 Lepsa, E. Carpathians, Romania		-68.17	-65.43
PAL 141 ODP 752 Indian Ocean		-66.54	-64.47*
PAL 211 ODP 690B Weddell Sea, Antarctica		-75.27*	-64.73+
MIDK41 CS		-75.27	-64.47

	5	-75.27	-64.47
Psyktosphaera firthii		Morphologic Code - NN	
PAL 211 ODP 690B Weddell Sea, Antarctica		-73.42*	-69.58*
MIDK41 CS		-73.42	-69.58

	1	-73.42	-69.58
UC7 Lower Turonian			
FO Quadrum gartneri		Morphologic Code - NN	
1-Kalaat Senan, Turonian		-90.36	-88.47
9-Amoco No. 1 Bounds core, Kansas, U. Al		-90.57	-88.10
10-Kalaat Senan, Tunisia Section, Cenoma		-90.58	-90.00
12-Boulonnaise Section, France, Alb-Tur		-90.56	-89.07
MIDK3 CS		-90.58	-88.10
66 Jebel Areif El Naqa, Sinai, Egypt		-90.29	-89.35
67 Gebel Abu Zurub, Sinai, Egypt		-90.59+	-89.69
68 Gebel Guna, Sinai, Egypt		-89.03	-88.46
72 Oued Melleque, Tunisia		-90.59+	-89.41
74 Antruiles, Trento Plateau, Italy		-90.13	-89.75
ODP 1050C Blake Nose, W. Atlantic		-90.19	-90.19
UPK 3 Olazagutia, Spain		-86.09	-85.60
UPK 4 Zumaya, Spain		-72.04	-68.38*

UPK 7 Bidart, Spain	-69.88	-69.88+
UPK 11B Gosau Valley-2, Austria	-88.50	-82.27
UPK 13 Tercis Quarry section, France (Od	-76.63	-71.47
121 ODP 762C Exmouth Plateau, Indian Oce	-89.02	-71.21
Composited data of MIDK4 Sections 11-18-	-90.59	-68.38
9B Bounds Core, Kansas - Niobrara Fm.	***	-87.78
15B Pueblo, Colorado, Turonian GSSP	-92.95	***
Khalagork, Caucasus, Russia (corbrus-1)	-93.55*	-93.55
27 Buchberg, Austria	-91.63	-89.56
32 Rehkogel RED, Austria	***	-85.62
33 Rehkogel CT, Austria	-89.99	-89.59
MIDK41 CS	-93.55	-68.38
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	22	-93.55
Quadrum intermedium		Morphologic Code - NN
Khalagork, Caucasus, Russia (corbrus-1)	-94.39*	-94.39
27 Buchberg, Austria	-91.80+	-89.56*
33 Rehkogel CT, Austria	-90.55	-89.59+
MIDK41 CS	-94.39	-89.56
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	3	-94.39
Radiolithus planus		Morphologic Code - NN
9-Amoco No. 1 Bounds core, Kansas, U. Al	-94.97	-90.16
13-Piobbico Core, Marche, Italy, Apt-Alb	-117.67	-102.16
24-Mt. Risou, Rosans, SE France, Alb-Cen	-96.75	-96.54
41-ODP 641C, Offshore Portugal (Alb-Bar)	-122.51+	-110.06
MIDK3 CS	-122.51	-90.16
66 Jebel Areif El Naqa, Sinai, Egypt	-90.14	-89.35+
67 Gebel Abu Zurub, Sinai, Egypt	-90.59	-89.69
68 Gebel Guna, Sinai, Egypt	-90.59	-88.71*
69 Coupe de la Gare de Cassis, SE France	-121.91	-121.86
Composited data of MIDK4 Sections 11-18-	-122.51	-88.71
57 Tartonne, France, Aptian-Albian	-122.85*	-108.88
58 Pre-Guitard, France, Aptian-Albian	-122.34	-107.18
MIDK41 CS	-122.85	-88.71
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	10	-122.85
Reinhardtites anthophorus		Morphologic Code - NN
84 DSDP Core Hole 549, SW Offshore Engla	-72.12	-69.28+
UPK 1 Austin Gp., Austin, TX	-83.36	-82.78
UPK 3 Olazagutia, Spain	-86.09+	-85.76
UPK 7 Bidart, Spain	-69.88	-69.88
UPK 13 Tercis Quarry section, France (Od	-76.63	-72.50
121 ODP 762C Exmouth Plateau, Indian Oce	-89.02*	-69.83
PAL 151 DSDP 550+550B NE Atlantic	-74.57	-68.24*
PAL 161 DSDP 548A NE Atlantic	-71.67	-68.24*
Composited data of MIDK4 Sections 11-18-	-89.02	-68.24
UPK 10 Tiefenbach, Brandenburg, Austria	-83.97	-83.97
UPK 18 Bottacione Gorge, Italy	-83.49	-72.15
34 Postalm-Retschegg, Austria	-85.00	-74.73
MIDK41 CS	-89.02	-68.24
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	11	-89.02
UC19 Lower-Upper Maastrichtian		
LO Reinhardtites levis		Morphologic Code - NN
UPK 4 Zumaya, Spain	-71.39	-68.38*
UPK 7 Bidart, Spain	-69.88	-69.05+
UPK 13 Tercis Quarry section, France (Od	-72.84	-70.83

121 ODP 762C Exmouth Plateau, Indian Oce	-83.84*	-69.56
PAL 211 ODP 690B Weddell Sea, Antarctica	-74.99	-69.42
Composited data of MIDK4 Sections 11-18-	-83.84	-68.38
UPK 18 Bottacione Gorge, Italy	***	-69.33
34 Postalm-Retschegg, Austria	-75.41+	-74.25
MIDK41 CS	-83.84	-68.38
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3	-83.84	-68.38
Reinhardtites scitula	Morphologic Code - NN	
9-Amoco No. 1 Bounds core, Kansas, U. Al	-95.39+	-88.10+
MIDK3 CS	-95.39	-88.10
69 Coupe de la Gare de Cassis, SE France	-124.80*	-121.86
Composited data of MIDK4 Sections 11-18-	-124.80	-88.10
9B Bounds Core, Kansas - Niobrara Fm.	***	-87.74*
MIDK41 CS	-124.80	-87.74
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3	-124.80	-87.74
Reinhardtites sisypus	Morphologic Code - NN	
9-Amoco No. 1 Bounds core, Kansas, U. Al	-88.39*	-88.10*
MIDK3 CS	-88.39	-88.10
Composited data of MIDK4 Sections 11-18-	-88.39	-88.10
9B Bounds Core, Kansas - Niobrara Fm.	-88.39*	-87.70*
97 Ballard Carey-Carolla No. 1, Texas	-87.59+	-88.17
MIDK41 CS	-88.39	-87.70
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3	-88.39	-87.70
Repagulum parvidentatum	Morphologic Code - NN	
24-Mt. Risou, Rosans, SE France, Alb-Cen	-98.17	-96.54
30-Selbukhra Section, Crimea (Alb-Tur)	-98.00	-90.51+
MIDK3 CS	-98.17	-90.51
UPK 7 Bidart, Spain	-67.69	-67.56*
Composited data of MIDK4 Sections 11-18-	-98.17	-67.56
57 Tartonne, France, Aptian-Albian	-122.85*	-108.42
58 Pre-Guitard, France, Aptian-Albian	-122.34+	-107.18
MIDK41 CS	-122.85	-67.56
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5	-122.85	-67.56
Retacapsa angustiforata	Morphologic Code - NN	
Senior synonym of Cretarhabdus angustiforatus		
11-DSDP 386 Bermuda Plateau, Atlantic, A	-101.32	-98.10
13-Piobbico Core, Marche, Italy, Apt-Alb	-123.51	-97.70
26-Cismon Section, Italy (VU Data), Apt-	-133.97*	-122.73
27-Pie' del Dosso Section, Italy (Barrem	-129.41	-122.38
41-ODP 641C, Offshore Portugal (Alb-Bar)	-128.48	-122.81
43-Gorgo a Cerbara Section, Italy	-133.91+	-122.44
MIDK3 CS	-133.97	-97.70
69 Coupe de la Gare de Cassis, SE France	-124.80	-123.46
74 Antruiles, Trento Plateau, Italy	-96.49	-93.95+
84 DSDP Core Hole 549, SW Offshore Engla	-124.51	-110.27
Composited data of MIDK4 Sections 11-18-	-133.97	-93.95
11B DSDP 386 Upper & Lower Cretaceous	-101.08	-98.16*
MIDK41 CS	-133.97	-93.95
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10	-133.97	-93.16
Retacapsa crenulata	Morphologic Code - NN	
Senior synonym of Stradneria crenulata		
9-Amoco No. 1 Bounds core, Kansas, U. Al	-95.39	-88.10
12-Boulonnaise Section, France, Alb-Tur	-90.81	-89.07

14-DSDP 369A, Offshore Morocco, Apt-Alb		-106.51	-89.89
20-Trinity River, Texas Sect, Alb-Cen		-107.07*	-95.74
36-Anderson Husky Roros, Canada (Alb-Tur		-88.22	-88.05
MIDK3 CS		-107.07	-88.05
67 Gebel Abu Zurub, Sinai, Egypt		-90.21	-89.69
68 Gebel Guna, Sinai, Egypt		-90.59	-88.46
74 Antruiles, Trento Plateau, Italy		-96.49	-89.74
UPK 1 Austin Gp., Austin, TX		-88.20	-82.78
UPK 3 Olazagutia, Spain		-86.09	-85.60
UPK 4 Zumaya, Spain		-65.82	-65.76+
UPK 14 Lepsa, E. Carpathians, Romania		-68.17	-65.59*
Composited data of MIDK4 Sections 11-18-		-107.07	-65.59
9B Bounds Core, Kansas - Niobrara Fm.		***	-88.11
20B Trinity River Composited Section Rev		-106.47+	-95.75
UPK 10 Tiefenbach, Brandenburg, Austria		-85.97	-83.48
DSDP 398D, Eastern Atlantic (corb398d-1)		***	-66.33
MIDK41 CS		-107.07	-65.59

	16	-107.07	-65.59
Retacapsa octofenestratus		Morphologic Code - NN	
9-Amoco No. 1 Bounds core, Kansas, U. Al		-95.20*	-88.27+
Composited data of MIDK4 Sections 11-18-		-95.20	-88.27
9B Bounds Core, Kansas - Niobrara Fm.		***	-87.74*
MIDK41 CS		-95.20	-87.74

	2	-95.20	-87.74
Retacapsa schizobrachiata		Morphologic Code - NN	
9-Amoco No. 1 Bounds core, Kansas, U. Al		-93.63*	-88.18+
9B Bounds Core, Kansas - Niobrara Fm.		***	-87.78*
MIDK41 CS		-93.63	-87.78

	2	-93.63	-87.78
Retacapsa surirella	13	Morphologic Code - NN	
Senior synonym of Cretarhabdus surirellus			
3b-Santa Rosa Canyon Section, Mexico, Be		-124.00	-107.35
11-DSDP 386 Bermuda Plateau, Atlantic, A		-110.22	-88.18
26-Cismon Section, Italy (VU Data), Apt-		-133.97*	-122.73
43-Gorgo a Cerbara Section, Italy		-133.96+	-122.44
MIDK3 CS		-133.97	-88.18
69 Coupe de la Gare de Cassis, SE France		-124.36	-121.86
74 Antruiles, Trento Plateau, Italy		-96.49	-93.12
UPK 1 Austin Gp., Austin, TX		-83.36	-82.78
121 ODP 762C Exmouth Plateau, Indian Oce		-89.02	-65.74*
PAL 211 ODP 690B Weddell Sea, Antarctica		-74.99	-68.57
Composited data of MIDK4 Sections 11-18-		-133.97	-65.74
11B DSDP 386 Upper & Lower Cretaceous		-111.66	-71.17
DSDP 382 Central Atlantic (corb382-1)		-83.40	-70.61
DSDP 385 Central Atlantic (corb385-1)		-68.74	-66.36
DSDP 398D, Eastern Atlantic (corb398d-1)		-75.11	-66.33+
MIDK41 CS		-133.97	-65.74

	13	-133.97	-65.74
Rhagodiscus achlyostaurion	7	Morphologic Code - NN	
See also Parhabdololithus achylostaurion		-122.96	-66.58*
9-Amoco No. 1 Bounds core, Kansas, U. Al		-94.75	-90.13+
24-Mt. Risou, Rosans, SE France, Alb-Cen		-98.17	-96.54
MIDK3 CS		-98.17	-90.13
69 Coupe de la Gare de Cassis, SE France		-124.80*	-121.86

74 Antruiles, Trento Plateau, Italy	-96.49	-90.17
9-Amoco No. 1 Bounds core, Kansas, U. Al	-94.75	-90.13*
24-Mt. Risou, Rosans, SE France, Alb-Cen	-98.17	-96.54
Composited data of MIDK4 Sections 11-18-	-124.80	-90.13
57 Tartonne, France, Aptian-Albian	-122.85+	-108.42
58 Pre-Guitard, France, Aptian-Albian	-122.34	-107.18
MIDK41 CS	-124.80	***

	8	
Parhabdolithus achlyostaurion	-124.80	-66.58
	Morphologic Code - NN	
Junior synonym of Rhagodiscus achlyostaurion	-124.80	-93.09
3b-Santa Rosa Canyon Section, Mexico, Be	-122.96*	-107.26
13-Piobbico Core, Marche, Italy, Apt-Alb	-103.27	-97.21
20-Trinity River, Texas Sect, Alb-Cen	-107.07+	-95.74+
MIDK3 CS	-122.96	-95.74
26B Cismon Core, Italy	-98.58	***
121 ODP 762C Exmouth Plateau, Indian Oce	-66.58	-66.58*
Composited data of MIDK4 Sections 11-18-	-122.96	-66.58
20B Trinity River Composited Section Rev	-106.60	-95.75
Khalagork, Caucasus, Russia (corbrus-1)	-98.59	-98.59
MIDK41 CS	-122.96	-66.58

	7	
Rhagodiscus angustus	-122.96	-66.58
	Morphologic Code - NN	
See also Parhabdolithus angustus	-127.87*	-65.74
3b-Santa Rosa Canyon Section, Mexico, Be	-122.16+	-110.25
5-DSDP 545, Offshore Morocco, Aptian-Cen	-112.98	-94.32
9-Amoco No. 1 Bounds core, Kansas, U. Al	-94.97	-88.14
24-Mt. Risou, Rosans, SE France, Alb-Cen	-98.17	-96.54
30-Selbukhra Section, Crimea (Alb-Tur)	-101.85	-91.05
41-ODP 641C, Offshore Portugal (Alb-Bar)	-110.96	-109.44
MIDK3 CS	-122.16	-88.14
67 Gebel Abu Zurub, Sinai, Egypt	-90.59	-90.52
68 Gebel Guna, Sinai, Egypt	-90.59	-88.46
69 Coupe de la Gare de Cassis, SE France	-123.29+	-121.86
74 Antruiles, Trento Plateau, Italy	-96.49	-90.04
UPK 3 Olazagutia, Spain	-85.94	-85.76+
UPK 7 Bidart, Spain	-69.88	-65.51*
Composited data of MIDK4 Sections 11-18-	-123.29	-65.51
9B Bounds Core, Kansas - Niobrara Fm.	***	-87.70
57 Tartonne, France, Aptian-Albian	-122.85	-108.42
58 Pre-Guitard, France, Aptian-Albian	-122.34	-107.18
MIDK41 CS	-123.29	-65.51

	15	
Parhabdolithus angustus	-127.87	-65.51
	Morphologic Code - NN	
Junior synonym of Rhagodiscus angustus		
11-DSDP 386 Bermuda Plateau, Atlantic, A	-110.22	-95.38
13-Piobbico Core, Marche, Italy, Apt-Alb	-121.96	-97.21
14-DSDP 369A, Offshore Morocco, Apt-Alb	-107.52	-96.78
20-Trinity River, Texas Sect, Alb-Cen	-107.07	-95.74
27-Pie' del Dosso Section, Italy (Barrem	-122.78	-122.78
36-Anderson Husky Roros, Canada (Alb-Tur	-88.22	-88.05
41-ODP 641C, Offshore Portugal (Alb-Bar)	-124.73*	-121.81
43-Gorgo a Cerbara Section, Italy	-124.72+	-122.08
MIDK3 CS	-124.73	-88.05
84 DSDP Core Hole 549, SW Offshore Engla	-124.35	-108.60
UPK 1 Austin Gp., Austin, TX	-88.20	-87.25

121 ODP 762C Exmouth Plateau, Indian Oce	-82.42	-65.74*
Composited data of MIDK4 Sections 11-18-	-124.73	-65.74
11B DSDP 386 Upper & Lower Cretaceous	-111.66	-94.20
20B Trinity River Composited Section Rev	-106.60	-95.75
DSDP 382 Central Atlantic (corb382-1)	-70.61	-70.61+
MIDK41 CS	-124.73	-65.74

	14	
Rhagodiscus asper	-127.87	-65.74
See also Parhabdolithus asper	Morphologic Code - NN	
3b-Santa Rosa Canyon Section, Mexico, Be	-133.97*	-66.13*
9-Amoco No. 1 Bounds core, Kansas, U. Al	-122.86	-107.26
15-Pueblo, Colorado outcrop, U. Alb-Con	-95.20	-90.66
24-Mt. Risou, Rosans, SE France, Alb-Cen	-93.75	-90.40+
30-Selbukhra Section, Crimea (Alb-Tur)	-98.17	-96.54
41-ODP 641C, Offshore Portugal (Alb-Bar)	-97.95	-91.05
45-Mobil Core 16, Dallas, TX	-128.64+	-109.44
MIDK3 CS	-91.58	-90.51
69 Coupe de la Gare de Cassis, SE France	-128.64	-90.40
74 Antruiles, Trento Plateau, Italy	-124.80	-121.86
Composited data of MIDK4 Sections 11-18-	-96.49	-90.93
57 Tartonne, France, Aptian-Albian	-128.64	-90.40
58 Pre-Guitard, France, Aptian-Albian	-122.85	-108.42
MIDK41 CS	-122.34	-107.18
	-128.64	***

	11	
Parhabdolithus asper	-133.97	-66.13
Junior synonym of Rhagodiscus asper	Morphologic Code - NN	
11-DSDP 386 Bermuda Plateau, Atlantic, A	-110.22	-88.24
20-Trinity River, Texas Sect, Alb-Cen	-107.07	-95.74
26-Cismon Section, Italy (VU Data), Apt-	-133.97*	-122.42
43-Gorgo a Cerbara Section, Italy	-132.91+	-122.08
MIDK3 CS	-133.97	-88.24
121 ODP 762C Exmouth Plateau, Indian Oce	-66.13	-66.13*
Composited data of MIDK4 Sections 11-18-	-133.97	-66.13
11B DSDP 386 Upper & Lower Cretaceous	-111.66	-71.58+
20B Trinity River Composited Section Rev	-106.60	-95.75
DSDP 382 Central Atlantic (corb382-1)	-71.89	-71.89
Khalagork, Caucasus, Russia (corbrus-1)	-93.86	-93.86

	9	
Rhagodiscus infinitus	-133.97	-66.13
	Morphologic Code - NN	
11-DSDP 386 Bermuda Plateau, Atlantic, A	-99.03	-99.03+
43-Gorgo a Cerbara Section, Italy	-124.53*	***
MIDK3 CS	-124.53	-99.03
69 Coupe de la Gare de Cassis, SE France	-124.25+	-121.86
Composited data of MIDK4 Sections 11-18-	-124.53	-99.03
11B DSDP 386 Upper & Lower Cretaceous	-99.00	-99.00
MIDK41 CS	-124.53	-99.00

	4	
Rhagodiscus reniformis	-124.53	-99.00
	Morphologic Code - NN	
UPK 4 Zumaya, Spain	-70.79	-67.77
UPK 7 Bidart, Spain	-69.88	-65.51*
121 ODP 762C Exmouth Plateau, Indian Oce	-71.88+	-66.86+
Composited data of MIDK4 Sections 11-18-	-71.88	-65.51
UPK 10 Tiefenbach, Brandenburg, Austria	-85.90*	-85.85
MIDK41 CS	-85.90	-65.51

	4	-85.90	-65.51
Rhagodiscus splendens		Morphologic Code - NN	
See also Parhabdolithus splendens		-133.15*	-66.36
1-Kalaat Senan, Turonian		-89.85	-88.43
3b-Santa Rosa Canyon Section, Mexico, Be		-122.87	-107.35
9-Amoco No. 1 Bounds core, Kansas, U. Al		-94.75	-88.14
24-Mt. Risou, Rosans, SE France, Alb-Cen		-98.09	-96.54
30-Selbukhra Section, Crimea (Alb-Tur)		-94.72	-90.51
MIDK3 CS		-122.87	-88.14
69 Coupe de la Gare de Cassis, SE France		-123.29+	-121.91
74 Antruiles, Trento Plateau, Italy		-96.49	-90.81
UPK 3 Olazagutia, Spain		-85.89	-85.80
UPK 7 Bidart, Spain		-69.73	-65.55*
UPK 14 Lepsa, E. Carpathians, Romania		-68.17	-65.59+
Composited data of MIDK4 Sections 11-18-		-123.29	-65.55
9B Bounds Core, Kansas - Niobrara Fm.		***	-87.70
57 Tartonne, France, Aptian-Albian		-122.85+	-108.42
58 Pre-Guitard, France, Aptian-Albian		-122.34	-107.18
MIDK41 CS		-123.29	-65.55
	13	-133.15	-65.55
Parhabdolithus splendens		Morphologic Code - NN	
Junior synonym of Rhagodiscus splendens		-123.29	-65.55
11-DSDP 386 Bermuda Plateau, Atlantic, A		-97.72	-88.18
26-Cismon Section, Italy (VU Data), Apt-		-133.15*	-122.42
43-Gorgo a Cerbara Section, Italy		-133.12+	-122.08
MIDK3 CS		-133.15	-88.18
69 Coupe de la Gare de Cassis, SE France		-124.25	-121.86
84 DSDP Core Hole 549, SW Offshore Engla		-124.98	-108.26
UPK 1 Austin Gp., Austin, TX		-83.28	-82.78
121 ODP 762C Exmouth Plateau, Indian Oce		-84.11	-67.07*
Composited data of MIDK4 Sections 11-18-		-133.15	-67.07
11B DSDP 386 Upper & Lower Cretaceous		-97.82	-71.17
DSDP 382 Central Atlantic (corb382-1)		-71.38	-70.61
DSDP 385 Central Atlantic (corb385-1)		-68.74	-66.36*
	10	-133.15	-66.36
Rhombolithion rhombicum		Morphologic Code - NN	
20-Trinity River, Texas Sect, Alb-Cen		-99.86*	-99.86*
MIDK3 CS		-99.86	-99.86
PAL 211 ODP 690B Weddell Sea, Antarctica		-73.86+	-71.58*
MIDK41 CS		-99.86	-71.58
	2	-99.86	-71.58
Corollithion rhombicum		Morphologic Code - NN	
Junior synonym of R. rhombicum			
20B Trinity River Composited Section Rev		-104.32*	-104.32*
MIDK41 CS		-104.32	-104.32
	1	-104.32	-104.32
Rotelapillus crenulatus		Morphologic Code - NN	
9-Amoco No. 1 Bounds core, Kansas, U. Al		-95.20	-88.10
24-Mt. Risou, Rosans, SE France, Alb-Cen		-98.17+	-96.54
MIDK3 CS		-98.17	-88.10
69 Coupe de la Gare de Cassis, SE France		-124.73*	-121.86
UPK 7 Bidart, Spain		-68.24	-65.60*
Composited data of MIDK4 Sections 11-18-		-124.73	-65.60

9B Bounds Core, Kansas - Niobrara Fm.	***	-87.74
97 Ballard Carey-Carolla No. 1, Texas	-89.58	-87.46+
MIDK41 CS	-124.73	-65.60

	6	-124.73 -65.60
Rotelapillus laffittei		Morphologic Code - NN
1-Kalaat Senan, Turonian	-89.95	-89.95
3b-Santa Rosa Canyon Section, Mexico, Be	-123.05	-107.35
7-Djebel Bireno, Tunisia, Cenomanian	-92.16	-90.79
11-DSDP 386 Bermuda Plateau, Atlantic, A	-110.22	-88.19
13-Piobbico Core, Marche, Italy, Apt-Alb	-116.56	-102.66
14-DSDP 369A, Offshore Morocco, Apt-Alb	-106.51	-96.78
20-Trinity River, Texas Sect, Alb-Cen	-107.07	-95.74
24-Mt. Risou, Rosans, SE France, Alb-Cen	-98.05	-96.54
26-Cismon Section, Italy (VU Data), Apt-	-134.04*	-122.73
30-Selbukhra Section, Crimea (Alb-Tur)	-101.85	-91.41
36-Anderson Husky Roros, Canada (Alb-Tur)	-88.22	-88.01
41-ODP 641C, Offshore Portugal (Alb-Bar)	-128.64+	-109.46
43-Gorgo a Cerbara Section, Italy	-125.04	-122.58
MIDK3 CS	-134.04	-88.01
84 DSDP Core Hole 549, SW Offshore Engla	-124.98	-85.64
UPK 3 Olazagutia, Spain	-86.09	-85.66
Composited data of MIDK4 Sections 11-18-	-134.04	-85.64
11B DSDP 386 Upper & Lower Cretaceous	-111.66	-71.19+
20B Trinity River Composited Section Rev	-110.55	-98.66
57 Tartonne, France, Aptian-Albian	-122.85	-108.42
DSDP 385 Central Atlantic (corb385-1)	-68.13	-66.41*
MIDK41 CS	-134.04	-66.41

	19	-134.04 -66.41
Rucinolithus irregularis		Morphologic Code - NN
3b-Santa Rosa Canyon Section, Mexico, Be	-124.46	-107.08
5-DSDP 545, Offshore Morocco, Aptian-Cen	-118.40	-97.42
13-Piobbico Core, Marche, Italy, Apt-Alb	-123.51	-97.21+
20-Trinity River, Texas Sect, Alb-Cen	-100.65	-95.74*
26-Cismon Section, Italy (VU Data), Apt-	-124.14	-122.42
27-Pie' del Dosso Section, Italy (Barrem	-124.81*	-121.97
41-ODP 641C, Offshore Portugal (Alb-Bar)	-124.63	-121.81
43-Gorgo a Cerbara Section, Italy	-124.73+	-122.08
MIDK3 CS	-124.81	-95.74
26B Cismon Core, Italy	-124.78	***
69 Coupe de la Gare de Cassis, SE France	-124.55	-121.86
ODP 1050C Blake Nose, W. Atlantic	-99.48	-99.48
Composited data of MIDK4 Sections 11-18-	-124.81	-95.74
20B Trinity River Composited Section Rev	-104.98	-98.66
MIDK41 CS	-124.81	-95.74

	12	-124.81 -95.74
Rucinolithus magnus		Morphologic Code - NN
UPK 13 Tercis Quarry section, France (Od	-76.57*	-74.81*
Composited data of MIDK4 Sections 11-18-	-76.57	-74.81
UPK 18 Bottacione Gorge, Italy	-75.59+	-74.81*
MIDK41 CS	-76.57	-74.81`

	2	-76.57 -74.81
Rucinolithus wisei		Morphologic Code - NN
20-Trinity River, Texas Sect, Alb-Cen	-107.07*	-101.12*
MIDK3 CS	-107.07	-101.12

Composited data of MIDK4 Sections 11-18-20B Trinity River Composited Section Rev MIDK41 CS		-107.07	-101.12
		-106.47+	-102.72+
		-107.07	-101.12

	2	-107.07	-101.12
Scampanella cornuta		Morphologic Code - NN	
9-Amoco No. 1 Bounds core, Kansas, U. Al MIDK3 CS		-95.20*	-88.39+
		-95.20	-88.39
Composited data of MIDK4 Sections 11-18-9B Bounds Core, Kansas - Niobrara Fm. MIDK41 CS		-95.20	-88.39
		***	-87.86*
		-95.20	-87.86

	2	-95.20	-87.86
Scapholithus fossilis		Morphologic Code - NN	
DSDP 382 Central Atlantic (corb382-1) MIDK41 CS		-71.38*	-71.38*
		-71.38	-71.38

	1	-71.38	-71.38
Semihololithus bicornis		Morphologic Code - NN	
UPK 4 Zumaya, Spain		-70.94*	-66.15+
UPK 7 Bidart, Spain		-69.73+	-65.51*
MIDK41 CS		-70.94	-65.51

	2	-70.94	-65.51
Semihololithus priscus		Morphologic Code - NN	
UPK 4 Zumaya, Spain		-70.79*	-66.15+
UPK 7 Bidart, Spain		-69.59+	-65.55*
MIDK41 CS		-70.79	-65.55

	2	-70.79	-65.55
Seribiscutum primitivum		Morphologic Code - NN	
58 Pre-Guitard, France, Aptian-Albian MIDK41 CS		-110.55*	-107.18*
		-110.55	-107.18

	1	-110.55	-107.18
Sollasites horticus		Morphologic Code - NN	
9-Amoco No. 1 Bounds core, Kansas, U. Al		-92.05	-88.10*
11-DSDP 386 Bermuda Plateau, Atlantic, A		-98.10	-98.10
20-Trinity River, Texas Sect, Alb-Cen MIDK3 CS		-102.56+	-95.74
		-102.56	-88.10
Composited data of MIDK4 Sections 11-18-9B Bounds Core, Kansas - Niobrara Fm.		-102.56	-88.10
		***	-88.02*
11B DSDP 386 Upper & Lower Cretaceous		-98.16	-98.16
20B Trinity River Composited Section Rev MIDK41 CS		-106.58*	-98.66
		-106.58	-88.02

	6	-106.58	-88.02
Staurolithites aachena		Morphologic Code - NN	
121 ODP 762C Exmouth Plateau, Indian Oce MIDK41 CS		-84.00*	-66.62*
		-84.00	-66.62

	1	-84.00	-66.62
Vagalapilla aachena		Morphologic Code - NN	
Junior synonym of S. aachena			
DSDP 382 Central Atlantic (corb382-1) MIDK41 CS		-71.38*	-71.38*
		-71.38	-71.38

	1	-71.38	-71.38

Staurolithites crux		Morphologic Code - NN
UPK 3 Olazagutia, Spain		-86.09* -85.70+
UPK 7 Bidart, Spain		-69.73+ -66.89*
MIDK41 CS		-86.09 -66.89

	2	-86.09 -66.89
Staurolithites glaber		Morphologic Code - NN
24-Mt. Risou, Rosans, SE France, Alb-Cen		-98.13* -96.88*
MIDK3 CS		-98.13 -96.88
MIDK41 CS		-98.13 -96.88

	2	-98.13 -96.88
Staurolithites laffittei		Morphologic Code - NN
58 Pre-Guitard, France, Aptian-Albian		-122.34* -107.18+
DSDP 382 Central Atlantic (corb382-1)		-76.15+ -70.61*
MIDK41 CS		-122.34 -70.61

	2	-122.34 -70.61
Staurolithites stradneri		Morphologic Code - NN
Vagalapilla stradneri		Morphologic Code - NN
Junior synonym of Staurolithites stradneri		
3b-Santa Rosa Canyon Section, Mexico, Be		-122.68 -122.68
4-DSDP 547, Offshore Morocco, Albian-Cen		-99.25 -93.84
5-DSDP 545, Offshore Morocco, Aptian-Cen		-118.40 -94.32
11-DSDP 386 Bermuda Plateau, Atlantic, A		-110.22 -88.19
12-Boulonnaise Section, France, Alb-Tur		-90.81 -89.07
13-Piobbico Core, Marche, Italy, Apt-Alb		-122.12 -98.67
14-DSDP 369A, Offshore Morocco, Apt-Alb		-107.52 -88.70
26-Cismon Section, Italy (VU Data), Apt-		-133.97* -122.42
43-Gorgo a Cerbara Section, Italy		-132.32+ -122.58
MIDK3 CS		-133.97 -88.19
UPK 1 Austin Gp., Austin, TX		-83.36 -83.36
121 ODP 762C Exmouth Plateau, Indian Oce		-74.85 -66.82*
Composited data of MIDK4 Sections 11-18-		-133.97 -66.82
11B DSDP 386 Upper & Lower Cretaceous		-111.66 -71.19
DSDP 382 Central Atlantic (corb382-1)		-76.96 -70.61
DSDP 385 Central Atlantic (corb385-1)		-68.21 -66.41*
MIDK41 CS		-133.97 -66.41

	14	-133.97 -66.41
Stoverius achylosus		Morphologic Code - NN
24-Mt. Risou, Rosans, SE France, Alb-Cen		-97.51 -96.54+
MIDK3 CS		-97.51 -96.54
69 Coupe de la Gare de Cassis, SE France		-123.32+ -122.02
Composited data of MIDK4 Sections 11-18-		-123.32 -96.54
57 Tartonne, France, Aptian-Albian		-122.85 -108.88
58 Pre-Guitard, France, Aptian-Albian		-121.55 -107.18
MIDK41 CS		-123.32 -96.54

	4	-124.72 -89.76
Corollithion achylosum		Morphologic Code - NN
Junior synonym of Stoverius achylosus		
3b-Santa Rosa Canyon Section, Mexico, Be		-122.27+ -110.00
4-DSDP 547, Offshore Morocco, Albian-Cen		-99.25 -93.84
5-DSDP 545, Offshore Morocco, Aptian-Cen		-117.47 -94.32
9-Amoco No. 1 Bounds core, Kansas, U. Al		-92.05 -90.24
11-DSDP 386 Bermuda Plateau, Atlantic, A		-110.22 -94.62
12-Boulonnaise Section, France, Alb-Tur		-107.16 -97.42

13-Piobbico Core, Marche, Italy, Apt-Alb	-112.72	-99.02
14-DSDP 369A, Offshore Morocco, Apt-Alb	-107.52	-89.89+
20-Trinity River, Texas Sect, Alb-Cen	-107.07	-95.74
41-ODP 641C, Offshore Portugal (Alb-Bar)	-124.72*	-109.44
45-Mobil Core 16, Dallas, TX	-91.45	-89.76*
MIDK3 CS	-124.72	-89.76
26B Cisonon Core, Italy	-121.96	***
84 DSDP Core Hole 549, SW Offshore Engla	-110.77	-108.95
Composited data of MIDK4 Sections 11-18-	-124.72	-89.76
11B DSDP 386 Upper & Lower Cretaceous	-111.66	-93.57
20B Trinity River Composited Section Rev	-110.55	-98.66
MIDK41 CS	-124.72	-89.76

	15	-124.72 -89.76
Sullivania danica		Morphologic Code - NN
121 ODP 762C Exmouth Plateau, Indian Oce	-64.95*	-60.43*
MIDK41 CS	-64.95	-60.43

	1	-64.95 -60.43
Tegumentum stradneri		Morphologic Code - NN
9-Amoco No. 1 Bounds core, Kansas, U. Al	-95.20	-88.10
11-DSDP 386 Bermuda Plateau, Atlantic, A	-109.77	-94.62
13-Piobbico Core, Marche, Italy, Apt-Alb	-123.14	-97.70
24-Mt. Risou, Rosans, SE France, Alb-Cen	-98.11	-96.54
41-ODP 641C, Offshore Portugal (Alb-Bar)	-126.84*	-109.44
43-Gorgo a Cerbara Section, Italy	-125.54+	-122.86
MIDK3 CS	-126.84	-88.10
UPK 3 Olazagutia, Spain	-86.09	-85.66*
121 ODP 762C Exmouth Plateau, Indian Oce	-89.02	-87.62
Composited data of MIDK4 Sections 11-18-	-126.84	-85.66
9B Bounds Core, Kansas - Niobrara Fm.	***	-87.78+
11B DSDP 386 Upper & Lower Cretaceous	-101.52	-93.57
57 Tartonne, France, Aptian-Albian	-122.85	-108.42
58 Pre-Guitard, France, Aptian-Albian	-122.34	-107.18
MIDK41 CS	-126.84	-85.66

	12	-126.84 -85.66
Tranolithus stradneri		Morphologic Code - NN
Junior synonym of Tegumentum stradneri		
DSDP 382 Central Atlantic (corb382-1)	-71.38*	-70.61*
MIDK41 CS	-71.38	-70.61

	1	-71.38 -70.61
Teichorhabdus ethmos		Morphologic Code - NN
PAL 211 ODP 690B Weddell Sea, Antarctica	-74.36*	-70.53*
MIDK41 CS	-74.36	-70.53

	1	-74.36 -70.53
Tetrapodorhabdus coptensis		Morphologic Code - NN
9-Amoco No. 1 Bounds core, Kansas, U. Al	-94.75	-90.55*
24-Mt. Risou, Rosans, SE France, Alb-Cen	-98.11	-96.54+
41-ODP 641C, Offshore Portugal (Alb-Bar)	-128.45*	-111.06
MIDK3 CS	-128.45	-90.55
69 Coupe de la Gare de Cassis, SE France	-123.50	-121.86
Composited data of MIDK4 Sections 11-18-	-128.45	-90.55
57 Tartonne, France, Aptian-Albian	-122.85+	-108.42
58 Pre-Guitard, France, Aptian-Albian	-122.34	-107.42
MIDK41 CS	-128.45	***

	6	-128.45	-90.45
Tetrapodorhabdus decorus [=A. decorus]		Morphologic Code - NN	
1-Kalaat Senan, Turonian		-89.73	-88.43
4-DSDP 547, Offshore Morocco, Albian-Cen		-99.25	-93.84
5-DSDP 545, Offshore Morocco, Aptian-Cen		-118.40+	-94.32
9-Amoco No. 1 Bounds core, Kansas, U. Al		-94.53	-88.14
11-DSDP 386 Bermuda Plateau, Atlantic, A		-110.22	-88.21
20-Trinity River, Texas Sect, Alb-Cen		-101.81	-95.74
41-ODP 641C, Offshore Portugal (Alb-Bar)		-127.42*	-109.46
121 ODP 762C Exmouth Plateau, Indian Oce		-88.78	-65.74*
MIDK3 CS		-127.42	-88.14
68 Gebel Guna, Sinai, Egypt		-90.59	-88.46
Composited data of MIDK4 Sections 11-18-		-127.42	-65.74
9B Bounds Core, Kansas - Niobrara Fm.		***	-87.70
11B DSDP 386 Upper & Lower Cretaceous		-111.66	-71.37
20B Trinity River Composited Section Rev		-105.95	-100.72
DSDP 382 Central Atlantic (corb382-1)		-71.38	-70.61+
MIDK41 CS		-127.42	-65.74
	13	-127.42	-65.74
Thiersteinia ecclesiastica		Morphologic Code - NN	
UPK 3 Olazagutia, Spain		-86.09*	-85.60*
MIDK41 CS		-86.09	-85.60
	1	-86.09	-85.60
Thoracosphaera sp.		Morphologic Code - NN	
UPK 14 Lepsa, E. Carpathians, Romania		-67.79*	-64.61*
121 ODP 762C Exmouth Plateau, Indian Oce		-65.49	-65.49+
Composited data of MIDK4 Sections 11-18-		-67.79	-64.61
Pietrosita, Romania (corbrom-1)		-65.52+	-65.50
MIDK41 CS		-67.79	-64.61
	3	-67.79	-64.61
Thoracosphaera First bloom		Morphologic Code - NN	
Local acme marker			
Pietrosita, Romania (corbrom-1)		-65.52*	***
MIDK41 CS		-65.52	***
	1	-65.52	-65.52
Thoracosphaera Second bloom		Morphologic Code - NN	
Local acme marker			
Pietrosita, Romania (corbrom-1)		-65.50*	***
MIDK41 CS		-65.50	***
	1	-65.50	-65.50
Thoracosphaera deflandrei		Morphologic Code - NN	
UPK 4 Zumaya, Spain		-65.77*	-65.66*
MIDK41 CS		-65.77	-65.66
	1	-65.77	-65.66
Thoracosphaera saxea		Morphologic Code - NN	
UPK 4 Zumaya, Spain		-71.16*	-67.46*
UPK 7 Bidart, Spain		-68.91+	-68.91+
MIDK41 CS		-71.16	-67.46
	2	-71.16	-67.46
Tranolithus exiguus		Morphologic Code - NN	

9-Amoco No. 1 Bounds core, Kansas, U. Al	-95.39	-88.14
20-Trinity River, Texas Sect, Alb-Cen	-101.58*	-95.74
MIDK3 CS	-101.58	-88.14
MIDK3 CS	-101.58	-88.14
UPK 1 Austin Gp., Austin, TX	-83.36	-82.78*
Composited data of MIDK4 Sections 11-18-	-101.58	-82.78
9B Bounds Core, Kansas - Niobrara Fm.	***	-87.70+
20B Trinity River Composited Section Rev	-101.30+	-95.75
MIDK41 CS	-101.58	-82.78
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	2	
Tranolithus gabalus	-101.58	-82.78
	Morphologic Code - NN	
4-DSDP 547, Offshore Morocco, Albian-Cen	-99.25	-93.84
5-DSDP 545, Offshore Morocco, Aptian-Cen	-118.29	-94.32
9-Amoco No. 1 Bounds core, Kansas, U. Al	-92.76	-88.10
11-DSDP 386 Bermuda Plateau, Atlantic, A	-110.22	-94.62
14-DSDP 369A, Offshore Morocco, Apt-Alb	-107.52	-98.29
20-Trinity River, Texas Sect, Alb-Cen	-106.60	-95.74
24-Mt. Risou, Rosans, SE France, Alb-Cen	-98.11	-96.54
41-ODP 641C, Offshore Portugal (Alb-Bar)	-123.99*	-123.50
45-Mobil Core 16, Dallas, TX	-91.58	-91.16
MIDK3 CS	-123.99	-88.10
69 Coupe de la Gare de Cassis, SE France	-123.29	-121.91
74 Antruiles, Trento Plateau, Italy	-94.02	-90.93
Composited data of MIDK4 Sections 11-18-	-123.99	-88.10+
9B Bounds Core, Kansas - Niobrara Fm.	***	-87.70*
11B DSDP 386 Upper & Lower Cretaceous	-111.66	-93.57
20B Trinity River Composited Section Rev	-109.92	-98.66
57 Tartonne, France, Aptian-Albian	-122.85+	-108.42
58 Pre-Guitard, France, Aptian-Albian	-122.34	-107.18
97 Ballard Carey-Carolla No. 1, Texas	-89.58	-88.47
MIDK41 CS	-123.99	-87.70
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	17	
Tranolithus minimus	-123.99	-87.70
	Morphologic Code - NN	
1-Kalaat Senan, Turonian	-90.49	-88.43
9-Amoco No. 1 Bounds core, Kansas, U. Al	-90.84+	-88.10
24-Mt. Risou, Rosans, SE France, Alb-Cen	-98.01*	-97.09
MIDK3 CS	-98.01	-88.10
UPK 7 Bidart, Spain	-69.88	-65.51*
Composited data of MIDK4 Sections 11-18-	-98.01	-65.51
9B Bounds Core, Kansas - Niobrara Fm.	***	-87.70
UPK 18 Bottacione Gorge, Italy	-75.78	-67.69+
MIDK41 CS	-98.01	-65.51
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	6	
	-98.01	-65.51

UC18 Upper Lower Maastrichtian

LO <i>Tranolithus orionatus</i> [=T. phacelosus]		Morphologic Code - NN
3b-Santa Rosa Canyon Section, Mexico, Be	-109.12+	-107.08
4-DSDP 547, Offshore Morocco, Albian-Cen	-99.25	-93.84
5-DSDP 545, Offshore Morocco, Aptian-Cen	-111.07*	-94.32
9-Amoco No. 1 Bounds core, Kansas, U. Al	-94.30	-88.14
11-DSDP 386 Bermuda Plateau, Atlantic, A	-101.32	-88.24
12-Boulonnaise Section, France, Alb-Tur	-90.81	-89.07
14-DSDP 369A, Offshore Morocco, Apt-Alb	-101.48	-88.70
20-Trinity River, Texas Sect, Alb-Cen	-107.07	-95.74
24-Mt. Risou, Rosans, SE France, Alb-Cen	-98.11	-96.54
MIDK3 CS	-111.07	-88.14

67 Gebel Abu Zurub, Sinai, Egypt		-90.21	-90.19
68 Gebel Guna, Sinai, Egypt		-90.59	-88.46
74 Antruilles, Trento Plateau, Italy		-93.96	-91.18
UPK 1 Austin Gp., Austin, TX		-83.36	-82.78
UPK 3 Olazagutia, Spain		-86.09	-85.60
UPK 4 Zumaya, Spain		-72.24	-70.36
UPK 7 Bidart, Spain		-69.88	-69.30+
UPK 13 Tercis Quarry section, France (Od		-76.63	-71.29
121 ODP 762C Exmouth Plateau, Indian Oce		-89.02	-69.17*
PAL 211 ODP 690B Weddell Sea, Antarctica		-75.27	-73.42
Composited data of MIDK4 Sections 11-18-		-111.07	-69.17
9B Bounds Core, Kansas - Niobrara Fm.	***		-88.15
11B DSDP 386 Upper & Lower Cretaceous		-101.08	-71.58
20B Trinity River Composited Section Rev		-106.47	-95.75
58 Pre-Guitard, France, Aptian-Albian		-109.11	-107.18
97 Ballard Carey-Carolla No. 1, Texas		-89.68	-89.58
UPK 10 Tiefenbach, Brandenburg, Austria		-85.44	-83.48
UPK 18 Bottaccione Gorge, Italy	***		-72.15
DSDP 382 Central Atlantic (corb382-1)		-76.15	-70.61
34 Postalm-Retschegg, Austria		-85.00	-74.25
MIDK41 CS		-111.07	-69.17

	28	-111.07	-69.17
Tubodiscus jurapelagicus		Morphologic Code - NN	
9-Amoco No. 1 Bounds core, Kansas, U. Al		-93.40	-92.50*
41-ODP 641C, Offshore Portugal (Alb-Bar)		-128.37*	-128.13
MIDK3 CS		-128.37	-92.50
69 Coupe de la Gare de Cassis, SE France		-124.73+	-121.86+

	3	-128.37	-92.50
Uniplanarius gothicus		Morphologic Code - NN	
See also Quadrum gothicum	6	-76.98	-65.85
MIDK41 CS		-76.98*	-65.85*
84 DSDP Core Hole 549, SW Offshore Engla		-70.39	-69.35
121 ODP 762C Exmouth Plateau, Indian Oce		-74.52	-65.86

	2	-76.98	-65.85
Quadrum gothicum		Morphologic Code - NN	
Junior synonym of Uniplanarius gothicus			
84 DSDP Core Hole 549, SW Offshore Engla		-71.08	-69.28+
UPK 13 Tercis Quarry section, France (Od		-76.95*	-72.16
121 ODP 762C Exmouth Plateau, Indian Oce		-74.80	-65.85*
131 DSDP 515F Western Atlantic		-75.28+	-74.44
Composited data of MIDK4 Sections 11-18-		-76.95	-65.85
UPK 18 Bottaccione Gorge, Italy		-76.98*	-71.14
DSDP 398D, Eastern Atlantic (corb398d-1)		-76.82	-71.75
MIDK41 CS		-76.98	-65.85

	6	-76.98	-65.85
Uniplanarius sissinghii		Morphologic Code - NN	
Pietrosita, Romania (corbrom-1)		-72.36	***
29 Oberhehenfeld, Austria		-75.13+	-74.25
34 Postalm-Retschegg, Austria		-76.74*	-74.25*
MIDK41 CS		-76.74	-74.25

	2	-76.74	-74.25
Uniplanarius trifidus		Morphologic Code - NN	
See Also Quadrum trifidum	11	-76.19	-68.21

MIDK41 CS		-75.01*	-68.21*
84 DSDP Core Hole 549, SW Offshore Engla		-70.11	-69.76
121 ODP 762C Exmouth Plateau, Indian Oce		-73.32	-70.50

	4	-76.19	-68.21
Quadrum trifidum		Morphologic Code - NN	
Junior synonym of Uniplanarius trifidus			
84 DSDP Core Hole 549, SW Offshore Engla		-76.19*	-70.00
UPK 7 Bidart, Spain		-69.88	-69.88+
UPK 12 Tercis Quarry section, France (Ke		-73.64	-71.22
UPK 13 Tercis Quarry section, France (Od		-75.01	-71.79
121 ODP 762C Exmouth Plateau, Indian Oce		-74.03	-70.44
131 DSDP 515F Western Atlantic		-74.44	-70.33
Composited data of MIDK4 Sections 11-18-		-7619	-69.88
UPK 18 Bottacione Gorge, Italy		-74.65	-72.15
DSDP 385 Central Atlantic (corb385-1)		-68.21	-68.21*
DSDP 398D, Eastern Atlantic (corb398d-1)		-74.96+	-71.74
Pietrosita, Romania (corbrom-1)		-71.61	-69.97
34 Postalm-Retschegg, Austria		-74.86	-74.25
MIDK41 CS		-75.01	-68.21

	11	-76.19	-68.21
Vagalapilla decoratus		Morphologic Code - NN	
84 DSDP Core Hole 549, SW Offshore Engla		-83.49*	-83.49*
MIDK41 CS		-83.49	-83.49

	1	-84.13	-83.49
Vagalapilla dibrachiata		Morphologic Code - NN	
9-Amoco No. 1 Bounds core, Kansas, U. Al		-95.20*	-88.10*
MIDK3 CS		-95.20	-88.10
Composited data of MIDK4 Sections 11-18-		-95.20	-88.10
9B Bounds Core, Kansas - Niobrara Fm.		***	-87.86*
MIDK41 CS		-95.20	-87.86

	2	-95.20	-87.86
Watznaueria barnesae		Morphologic Code - NN	
3b-Santa Rosa Canyon Section, Mexico, Be		-124.58	-106.95
9-Amoco No. 1 Bounds core, Kansas, U. Al		-95.39	-88.10
11-DSDP 386 Bermuda Plateau, Atlantic, A		-110.22	-88.18
20-Trinity River, Texas Sect, Alb-Cen		-107.07	-95.74
24-Mt. Risou, Rosans, SE France, Alb-Cen		-98.11	-96.54
26-Cismon Section, Italy (VU Data), Apt-		-134.04+	-122.42
30-Selbukhra Section, Crimea (Alb-Tur)		-101.85	-90.51
36-Anderson Husky Roros, Canada (Alb-Tur		-88.22	-88.01
41-ODP 641C, Offshore Portugal (Alb-Bar)		-128.64	-109.44
43-Gorgo a Cerbara Section, Italy		-134.13*	-122.58
MIDK3 CS		-134.13	-88.01
66 Jebel Areif El Naqa, Sinai, Egypt		-90.29	-89.35
67 Gebel Abu Zurub, Sinai, Egypt		-90.21	-89.69
68 Gebel Guna, Sinai, Egypt		-90.59	-88.46
69 Coupe de la Gare de Cassis, SE France		-124.80	-121.86
74 Antruiles, Trento Plateau, Italy		-96.49	-89.74
84 DSDP Core Hole 549, SW Offshore Engla		-124.98	-67.49
UPK 1 Austin Gp., Austin, TX		-88.20	-82.78
UPK 3 Olazagutia, Spain		-86.09	-85.60
UPK 4 Zumaya, Spain		-72.48	-65.95
UPK 7 Bidart, Spain		-69.88	-65.51
UPK 14 Lepsa, E. Carpathians, Romania		-68.17	-65.25+

121 ODP 762C Exmouth Plateau, Indian Oce	-89.02	-65.74
PAL 151 DSDP 550+550B NE Atlantic	-74.77	-65.80
PAL 161 DSDP 548A NE Atlantic	-71.67	-65.55
PAL 211 ODP 690B Weddell Sea, Antarctica	-74.99	-64.79*
Composited data of MIDK4 Sections 11-18-	-134.13	-64.79
9B Bounds Core, Kansas - Niobrara Fm.	***	-87.70
11B DSDP 386 Upper & Lower Cretaceous	-111.66	-71.12
20B Trinity River Composited Section Rev	-106.34	-95.75
57 Tartonne, France, Aptian-Albian	-122.85	-108.42
58 Pre-Guitard, France, Aptian-Albian	-122.34	-107.18
97 Ballard Carey-Carolla No. 1, Texas	-122.06	-87.46
UPK 10 Tiefenbach, Brandenburg, Austria	-85.97	-83.48
DSDP 382 Central Atlantic (corb382-1)	-83.59	-70.61
DSDP 385 Central Atlantic (corb385-1)	-68.74	-66.36
DSDP 398D, Eastern Atlantic (corb398d-1)	***	-66.10
MIDK41 CS	-134.13	-64.79

	35	-134.13
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Watznaueria biporta		Morphologic Code - NN
9-Amoco No. 1 Bounds core, Kansas, U. Al	-94.08	-88.10
13-Piobbico Core, Marche, Italy, Apt-Alb	-118.31	-108.78
14-DSDP 369A, Offshore Morocco, Apt-Alb	-107.52	-88.58
24-Mt. Risou, Rosans, SE France, Alb-Cen	-98.11	-96.54
30-Selbukhra Section, Crimea (Alb-Tur)	-91.76	-90.51
41-ODP 641C, Offshore Portugal (Alb-Bar)	-128.64*	-109.44
MIDK3 CS	-128.64	-88.10
67 Gebel Abu Zurub, Sinai, Egypt	-90.21	-90.19
68 Gebel Guna, Sinai, Egypt	-90.59	-88.46
69 Coupe de la Gare de Cassis, SE France	-124.56	-121.86
74 Antruiles, Trento Plateau, Italy	-93.80	-90.02
84 DSDP Core Hole 549, SW Offshore Engla	-123.72	-89.74
UPK 1 Austin Gp., Austin, TX	-83.36	-82.78
UPK 4 Zumaya, Spain	-72.48	-68.91+
UPK 7 Bidart, Spain	-69.73	-65.74*
Composited data of MIDK4 Sections 11-18-	-128.64	-65.74
9B Bounds Core, Kansas - Niobrara Fm.	***	-87.70
57 Tartonne, France, Aptian-Albian	-122.85	-109.82
58 Pre-Guitard, France, Aptian-Albian	-116.77	-107.18
97 Ballard Carey-Carolla No. 1, Texas	-123.98+	-122.06
MIDK41 CS	-128.64	-65.74

	18	-128.64
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Watznaueria britannica		Morphologic Code - NN
Senior synonym of W. communis	-132.83*	-66.13*
3b-Santa Rosa Canyon Section, Mexico, Be	-122.86	-122.86
9-Amoco No. 1 Bounds core, Kansas, U. Al	-94.75	-94.53
10-Kalaat Senan, Tunisia Section, Cenoma	-97.58	-96.85
11-DSDP 386 Bermuda Plateau, Atlantic, A	-110.22	-96.46
13-Piobbico Core, Marche, Italy, Apt-Alb	-123.14	-98.67
24-Mt. Risou, Rosans, SE France, Alb-Cen	-98.11	-96.54
27-Pie' del Dosso Section, Italy (Barrem	-129.41+	-122.16
30-Selbukhra Section, Crimea (Alb-Tur)	-97.54	-91.44+
41-ODP 641C, Offshore Portugal (Alb-Bar)	-128.64	-109.44
MIDK3 CS	-129.41	-91.44
69 Coupe de la Gare de Cassis, SE France	-124.80	-121.86
74 Antruiles, Trento Plateau, Italy	-96.43	-96.27
84 DSDP Core Hole 549, SW Offshore Engla	-124.35	-123.24
Composited data of MIDK4 Sections 11-18-	-129.41	-91.44

11B DSDP 386 Upper & Lower Cretaceous	-111.66	-96.67
57 Tartonne, France, Aptian-Albian	-122.85	-108.42
58 Pre-Guitard, France, Aptian-Albian	-122.34	-107.66
MIDK41 CS	-129.41	***

	15	-132.83 -66.13
Watznaueria communis		Morphologic Code - NN
Junior synonym of <i>W. britannica</i>		
3b-Santa Rosa Canyon Section, Mexico, Be	-122.85	-110.20
11-DSDP 386 Bermuda Plateau, Atlantic, A	-109.77	-96.46
13-Piobbico Core, Marche, Italy, Apt-Alb	-123.51	-98.67
26-Cismon Section, Italy (VU Data), Apt-	-124.48	-123.04
27-Pie' del Dosso Section, Italy (Barrem	-129.41+	-121.97
43-Gorgo a Cerbara Section, Italy	-132.83*	-123.41
MIDK3 CS	-132.83	-96.46
74 Antruiles, Trento Plateau, Italy	-96.49	-89.80+
84 DSDP Core Hole 549, SW Offshore Engla	-124.35	-90.87
121 ODP 762C Exmouth Plateau, Indian Oce	-66.13	-66.13*
Composited data of MIDK4 Sections 11-18-	-132.83	-66.13
11B DSDP 386 Upper & Lower Cretaceous	-101.52	-96.67
MIDK41 CS	-132.83	-66.13

	10	-132.83 -66.13
Watznaueria fossacincta		Morphologic Code - NN
9-Amoco No. 1 Bounds core, Kansas, U. Al	-95.39	-88.27
24-Mt. Risou, Rosans, SE France, Alb-Cen	-98.11	-96.54
MIDK3 CS	-98.11	-88.27
69 Coupe de la Gare de Cassis, SE France	-124.80*	-121.86
UPK 7 Bidart, Spain	-69.73	-65.51*
Composited data of MIDK4 Sections 11-18-	-124.80	-65.51
9B Bounds Core, Kansas - Niobrara Fm.	***	-88.27+
57 Tartonne, France, Aptian-Albian	-122.85+	-108.42
58 Pre-Guitard, France, Aptian-Albian	-122.34	-107.18
MIDK41 CS	-124.80	-65.51

	7	-124.80 -65.51
Watznaueria manivitiae		Morphologic Code - NN
24-Mt. Risou, Rosans, SE France, Alb-Cen	-98.11	-96.54+
MIDK3 CS	-98.11	-96.54
UPK 7 Bidart, Spain	-69.88	-65.51*
Composited data of MIDK4 Sections 11-18-	-98.11	-65.51
57 Tartonne, France, Aptian-Albian	-117.29+	-108.42
58 Pre-Guitard, France, Aptian-Albian	-122.34*	-107.42
MIDK41 CS	-122.34	-65.51

	4	-122.34 -65.51
Watznaueria ovata		Morphologic Code - NN
See also <i>Ellipsagelosphaera ovata</i>		
MIDK41 CS	-121.96*	-88.10*
74 Antruiles, Trento Plateau, Italy	-96.41	-95.14
20B Trinity River Composited Section Rev	-110.55*	-98.66*
MIDK41 CS	-110.55	-98.66

	2	-121.96 -88.10
Ellipsagelosphaera ovata		Morphologic Code - NN
Junior synonym of <i>Watznaueria ovata</i>		-110.55 -98.66
9-Amoco No. 1 Bounds core, Kansas, U. Al	-95.20	-88.10*
13-Piobbico Core, Marche, Italy, Apt-Alb	-121.96*	-99.02

20-Trinity River, Texas Sect, Alb-Cen	-107.07+	-95.74
24-Mt. Risou, Rosans, SE France, Alb-Cen	-97.97	-96.88
MIDK3 CS	-121.96	-88.10
74 Antruiles, Trento Plateau, Italy	-96.43	-93.95
Composited data of MIDK4 Sections 11-18-	-121.96	-88.10
9B Bounds Core, Kansas - Niobrara Fm.	***	-88.11+
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	6	
Zeugrhabdotus bicrescenticus		Morphologic Code - NN
See also Zygodiscus compactus	-124.80*	-69.42*
9-Amoco No. 1 Bounds core, Kansas, U. Al	-95.39	-88.10
24-Mt. Risou, Rosans, SE France, Alb-Cen	-98.11+	-96.54
MIDK3 CS	-98.11	-88.10
Composited data of MIDK4 Sections 11-18-	-98.11	-88.10
9B Bounds Core, Kansas - Niobrara Fm.	***	-87.70+
MIDK41 CS	-98.11	-87.70
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	3	
Zygodiscus bicrescenticus		Morphologic Code - NN
Junior synonym of Zeugrhabdotus bicrescenticus		
97 Ballard Carey-Carolla No. 1, Texas	-89.58*	-88.47*
MIDK41 CS	-89.58	-88.47
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	2	
Zygodiscus compactus		Morphologic Code - NN
Junior synonym of Zeugrhabdotus compactus		
1-Kalaat Senan, Turonian	-98.11+	-87.70
MIDK3 CS	-90.27	-89.26
69 Coupe de la Gare de Cassis, SE France	-90.27	-89.26
UPK 1 Austin Gp., Austin, TX	-124.80*	-121.86
PAL 211 ODP 690B Weddell Sea, Antarctica	-88.20	-83.36+
MIDK41 CS	-74.99	-69.42*
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	2	
Zeugrhabdotus biperforatus		Morphologic Code - NN
9-Amoco No. 1 Bounds core, Kansas, U. Al	-124.80	-69.42
MIDK3 CS	-88.35*	-88.10+
Composited data of MIDK4 Sections 11-18-	-88.35	-88.10
9B Bounds Core, Kansas - Niobrara Fm.	-88.35	-88.10
MIDK41 CS	-88.35*	-87.70*
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	2	
Zeugrhabdotus diplogrammus		Morphologic Code - NN
Senior synonym of Zeugrhabdotus diplogrammus		
3b-Santa Rosa Canyon Section, Mexico, Be	-124.00	-107.08
9-Amoco No. 1 Bounds core, Kansas, U. Al	-95.39	-88.10
11-DSDP 386 Bermuda Plateau, Atlantic, A	-110.22	-88.18
20-Trinity River, Texas Sect, Alb-Cen	-107.07	-95.74
26-Cismon Section, Italy (VU Data), Apt-	-124.48+	***
41-ODP 641C, Offshore Portugal (Alb-Bar)	-128.64*	-109.44
MIDK3 CS	-128.64	-88.10
67 Gebel Abu Zurub, Sinai, Egypt	-90.21	-90.19
68 Gebel Guna, Sinai, Egypt	-90.59	-88.46
69 Coupe de la Gare de Cassis, SE France	-124.74	-121.86
74 Antruiles, Trento Plateau, Italy	-96.49	-89.80
84 DSDP Core Hole 549, SW Offshore Engla	-110.97	-83.49
UPK 1 Austin Gp., Austin, TX	-88.20	-82.78

121 ODP 762C Exmouth Plateau, Indian Oce	-88.87	-66.86*
PAL 211 ODP 690B Weddell Sea, Antarctica	-73.86	-71.80
Composited data of MIDK4 Sections 11-18-	-128.64	-66.86
9B Bounds Core, Kansas - Niobrara Fm.	***	-88.11
11B DSDP 386 Upper & Lower Cretaceous	-111.66	-71.17
20B Trinity River Composited Section Rev	-110.55	-98.66
97 Ballard Carey-Carolla No. 1, Texas	-89.58	-87.46
UPK 10 Tiefenbach, Brandenburg, Austria	-85.97	-83.48
DSDP 382 Central Atlantic (corb382-1)	-83.34	-70.61
DSDP 385 Central Atlantic (corb385-1)	-68.44	-68.44+
DSDP 398D, Eastern Atlantic (corb398d-1)	***	-70.75
MIDK41 CS	-128.64	-66.86
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22	-128.64	-66.86
Zeugrhabdotus elegans	Morphologic Code - NN	
9-Amoco No. 1 Bounds core, Kansas, U. Al	-95.20+	-88.14+
MIDK3 CS	-95.20	-88.14
MIDK41 CS	-95.20	-88.14
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3	-127.22	-67.07
Zygodiscus elegans	9	Morphologic Code - NN
Junior synonym of Zeugrhabdotus elegans		
3b-Santa Rosa Canyon Section, Mexico, Be	-122.96+	-108.84
11-DSDP 386 Bermuda Plateau, Atlantic, A	-110.22	-94.62
26-Cismon Section, Italy (VU Data), Apt-	-127.22*	-122.73
MIDK3 CS	-127.22	-94.62
UPK 1 Austin Gp., Austin, TX	-88.20	-87.25
121 ODP 762C Exmouth Plateau, Indian Oce	-88.78	-67.07*
Composited data of MIDK4 Sections 11-18-	-127.22	-67.07
11B DSDP 386 Upper & Lower Cretaceous	-111.66	-93.57
DSDP 382 Central Atlantic (corb382-1)	-83.34	-70.61+
MIDK41 CS	-127.22	-67.07
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7	-127.22	-67.07
Zeugrhabdotus embergeri	Morphologic Code - NN	
See also Parhabdolithus embergeri	-134.13*	-65.55+
3b-Santa Rosa Canyon Section, Mexico, Be	-124.33	-106.95
9-Amoco No. 1 Bounds core, Kansas, U. Al	-95.39	-88.10
24-Mt. Risou, Rosans, SE France, Alb-Cen	-98.11	-96.54
30-Selbukhra Section, Crimea (Alb-Tur)	-101.85	-90.51
41-ODP 641C, Offshore Portugal (Alb-Bar)	-128.64+	-109.44
MIDK3 CS	-128.64	-88.10
68 Gebel Guna, Sinai, Egypt	-88.71	-88.46
69 Coupe de la Gare de Cassis, SE France	-124.71	-121.86
74 Antruiles, Trento Plateau, Italy	-96.49	-89.75
UPK 3 Olazagutia, Spain	-86.09	-85.70
UPK 7 Bidart, Spain	-68.52	-65.80
UPK 14 Lepsa, E. Carpathians, Romania	-68.17	-65.43*
Composited data of MIDK4 Sections 11-18-	-128.64	-65.43
9B Bounds Core, Kansas - Niobrara Fm.	***	-87.70
57 Tartonne, France, Aptian-Albian	-122.85	-108.42
58 Pre-Guitard, France, Aptian-Albian	-122.34	-107.18
97 Ballard Carey-Carolla No. 1, Texas	-123.98	-122.06
MIDK41 CS	-128.64	-65.43
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15	-128.64	-65.43

Parhabdolithus embergeri		Morphologic Code - NN	
Junior synonym of Zeugrhabdotus embergeri		-128.64	-65.43*
11-DSDP 386 Bermuda Plateau, Atlantic, A		-110.22	-88.24
20-Trinity River, Texas Sect, Alb-Cen		-107.07	-95.74
26-Cismon Section, Italy (VU Data), Apt-		-134.04+	-122.42
27-Pie' del Dosso Section, Italy (Barrem		-129.41	-122.07
43-Gorgo a Cerbara Section, Italy		-134.13*	-122.08
MIDK3 CS		-134.13	-88.24
UPK 1 Austin Gp., Austin, TX		-88.20	-82.78
121 ODP 762C Exmouth Plateau, Indian Oce		-89.02	-65.85+
PAL 161 DSDP 548A NE Atlantic		-65.94	-65.55*
Composited data of MIDK4 Sections 11-18-		-134.13	-65.55
11B DSDP 386 Upper & Lower Cretaceous		-111.66	-71.58
20B Trinity River Composited Section Rev		-110.55	-98.66
DSDP 382 Central Atlantic (corb382-1)		-72.62	-71.38
DSDP 398D, Eastern Atlantic (corb398d-1)		***	-66.10
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	12	-134.13	-65.43
Zeugrhabdotus erectus		Morphologic Code - NN	
3b-Santa Rosa Canyon Section, Mexico, Be		-107.35+	-107.26
7-Djebel Bireno, Tunisia, Cenomanian		-94.36	-94.12
14-DSDP 369A, Offshore Morocco, Apt-Alb		-107.52*	-103.32
24-Mt. Risou, Rosans, SE France, Alb-Cen		-98.11	-96.54
MIDK3 CS		-107.52	-94.12
67 Gebel Abu Zurub, Sinai, Egypt		-90.21	-89.69
68 Gebel Guna, Sinai, Egypt		-90.59	-88.46
74 Antruilles, Trento Plateau, Italy		-96.49	-89.74
UPK 3 Olazagutia, Spain		-86.00	-85.82+
UPK 7 Bidart, Spain		-69.88	-65.51*
MIDK41 CS		-107.52	-65.51
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	9	-107.52	-65.51
Zeugrhabdotus pseudoangustus		Morphologic Code - NN	
41-ODP 641C, Offshore Portugal (Alb-Bar)		-126.84*	***
MIDK3 CS		-126.84	***
MIDK41 CS		-126.84	***
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	1	-126.84	-126.84
Zeugrhabdotus sigmoides		Morphologic Code - NN	
PAL 141 ODP 752 Indian Ocean		-66.43+	-64.13*
PAL 211 ODP 690B Weddell Sea, Antarctica		-75.27*	***
MIDK41 CS		-75.27	-64.13
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	2	-75.27	-64.13
Zeugrhabdotus spiralis		Morphologic Code - NN	
Senior synonym of Zeugrhabdotus spiralis			
4-DSDP 547, Offshore Morocco, Albian-Cen		-93.84	***
11-DSDP 386 Bermuda Plateau, Atlantic, A		-100.32	-88.18
12-Boulonnaise Section, France, Alb-Tur		-90.81	-89.07
20-Trinity River, Texas Sect, Alb-Cen		-102.63+	-95.74
MIDK3 CS		-102.63	-88.18
UPK 14 Lepsa, E. Carpathians, Romania		-68.11	-64.61+
121 ODP 762C Exmouth Plateau, Indian Oce		-82.81	-65.74
PAL 141 ODP 752 Indian Ocean		-66.54	-64.60*
PAL 211 ODP 690B Weddell Sea, Antarctica		-75.27	-64.79
Composited data of MIDK4 Sections 11-18-		-102.63	-64.60
11B DSDP 386 Upper & Lower Cretaceous		-100.17	-71.17
20B Trinity River Composited Section Rev		-106.64*	-98.66

UPK 10 Tiefenbach, Brandenburg, Austria		-85.49	-85.44
UPK 18 Bottacione Gorge, Italy		-83.41	***
DSDP 382 Central Atlantic (corb382-1)		-72.62	-71.38
DSDP 385 Central Atlantic (corb385-1)		-68.44	-66.36
MIDK41 CS		-106.64	-64.60

	14	-106.64	-64.60
Zeugrhabdotus trivectis			Morphologic Code - NN
9-Amoco No. 1 Bounds core, Kansas, U. Al		-95.20*	-93.40*
MIDK3 CS		-95.20	-93.40
MIDK41 CS		-95.20	***

	1	-95.20	-93.40
Zygrhablithus bijugatus			Morphologic Code - NN
121 ODP 762C Exmouth Plateau, Indian Oce		-55.85*	-55.85*

	1	-55.85	-55.85