1. LOCALITIES

Stevns Klint, Denmark

At the end of the Cretaceous, Stevns Klint was situated at approximately 45ºN, on the margin of a structural high within the Danish Basin (Anderskouv et al., 2007).

Alabama and Mississippi, USA

The K–Pg section at Braggs, Alabama (Jones et al., 1987) was deposited at a paleolatitude of approximately 33ºN (Bryan and Jones, 1989), and was in much closer proximity to the Chicxulub impact site than Stevns Klint. In general, the region represents a shallow marine shelf (Bryan and Jones, 1989), with sediments derived from deltaic and marginal marine settings (Schulte and Speijer, 2009), resulting in mixed carbonate and siliclastic sequences (Mancini et al., 1995). The clastic content of the chalks from this region is therefore greater than in Denmark (Bottjer, 1986).

References

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LOCALITIES

Locality Name	Latitude	Longitude	Stratigraphy
Denmark			
Quarry exposure, Holtug Kridtbrud, Stevns Klint	N55.34041°	E12.44510°	Højerup Mb; Korsnæb Mb
Quarry exposure, Stevn's Kridtbrud, Stevns Klint	N55.32213°	E12.43874°	Højerup Mb; Korsnæb Mb
Cliffs east of Rødvig, Stevns Klint	N55.25445°	E12.39279°	Højerup Mb; Cerithium Limestone Mb; Korsnæb Mb
USA			
Rockin' G Ranch, Pontotoc Co., Mississippi	N34.25414°	W88.94554°	Troy Beds
Slope above dam of small reservoir, Poe Pond, Troy, Union Co., Mississippi	N34.12249°	W88.88258°	Troy Beds
Roadcut on Ruth Clyett Road, Cedar Bluff, Montpelier, Clay Co., Mississippi	N33.72451°	W88.91232°	Prairie Bluff Chalk (lower)
Driveway bank at 18655 Ruth Clyett Road, Cedar Bluff, Montpelier, Clay Co., Mississippi	N33.72475°	W88.92848°	Prairie Bluff Chalk (lower)
Shallow bank along south side of Reed Road near intersection with Mississippi 25, Starkville, Oktibbeha Co., Mississippi	N33.48371°	W88.85309°	Prairie Bluff Chalk
Roadcutting on west side of Alabama 263 at Milepost 14, south of Braggs, Lowndes Co., Alabama	N32.04082°	W86.79367°	Prairie Bluff Chalk
Roadcutting on Alabama 28 NW of Jefferson, Marengo Co., Alabama	N32.39435°	W87.92435°	Prairie Bluff Chalk
Lake Ridge Apartments, Jaycee Road, Livingston, Sumter Co., Alabama	N32.59827°	W88.19301°	Prairie Bluff Chalk
Road-cutting north of Emelle on east side of road, Sumter Co., Alabama	N32.74932°	W88.31406°	Prairie Bluff Chalk
Roadcutting on west side of Alabama 263 south of Braggs, Lowndes Co., Alabama	N32.00600°	W86.75104°	Pine Barren Mb
'Flat' and drainage ditch on west side of Mississippi 25, Starkville, Oktibbeha Co., Mississippi	N33.44594°	W88.85777°	Clayton Fm
Mussel Creek, Lowndes Co., Alabama	N31.97223°	W86.70430°	Pine Barren Mb

2. DATA TABLES

NUMBER OF COLONIES

Period	Age	Formation	Member	Cyclostomes (no. colonies)	Cheilostomes (no. colonies)	Total (no. colonies)	Cyclostomes (%)	Cheilostomes (%)
Denmark								
Paleogene	Danian	Stevns Klint	Korsnæb	114	259	373	30.56	69.44
Paleogene	Danian	Rødvig	Cerithium Limestone	22	40	62	35.48	64.52
Cretaceous	Maastrichtian	Tor	Højerup	446	599	1045	42.68	57.32
USA								
Paleogene	Danian	Clayton	Pine Barren	46	119	165	27.88	72.12
Cretaceous	Maastrichtian	Prairie Bluff Chalk		243	563	806	30.15	69.85
Cretaceous	Maastrichtian	Ripley	Troy Beds	30	21	51	58.82	41.18

CLADE AREAS

Period	Age	Formation	Member	Cyclostomes (mm^2)	Cheilostomes (mm^2)	Total (mm^2)	Cyclostomes (%)	Cheilostomes (%)
Denmark								
Paleogene	Danian	Stevns Klint	Korsnæb	854.37	5945.24	6799.61	12.56	87.44
Paleogene	Danian	Rødvig	Cerithium Limestone	150.67	800.49	951.16	15.84	84.16
Cretaceous	Maastrichtian	Tor	Højerup	2335.10	24319.96	26655.06	8.76	91.24
USA								
Paleogene	Danian	Clayton	Pine Barren	150.80	850.11	1000.91	15.07	84.93
Cretaceous	Maastrichtian	Prairie Bluff Chalk		756.58	8946.48	9703.06	7.80	92.20
Cretaceous	Maastrichtian	Ripley	Troy Beds	47.07	1451.97	1499.04	3.14	96.86

CYCLOSTOME GROWTH FORMS

Period	Age	Formation	Member	Runners (no. colonies)	Ribbons (no. colonies)	Sheets (no. colonies)	Total (no. colonies)	Runners (%)	Ribbons (%)	Sheets (%)
Denmark										
Paleogene	Danian	Stevns Klint	Korsnæb	28	12	47	114	24.56	10.53	64.91
Paleogene	Danian	Rødvig	Cerithium Limestone	13	2	7	22	59.09	9.09	31.82
Cretaceous	Maastrichtian	Tor	Højerup	273	81	92	446	61.21	18.16	20.63
USA										
Paleogene	Danian	Clayton	Pine Barren	5	3	38	46	10.87	6.52	82.61
Cretaceous	Maastrichtian	Prairie Bluff Chalk		144	13	86	243	59.26	5.35	35.39
Cretaceous	Maastrichtian	Ripley	Troy Beds	12	0	18	30	40.00	0	60.00