

TABLE 29. COMPARISON OF PALYNOMORPHS FROM CRETACEOUS (CAMPANIAN) AND PALEOCENE STRATA IN SAN JUAN BASIN, NEW MEXICO AND COLORADO		
Paleocene - Ojo Alamo Sandstone Plus	Cretaceous - Fruitland and Kirtland Formations	Cretaceous - Fruitland and Kirtland Formations (Cont.)
<i>Abietinaepollenites</i> sp. ( <i>Podocarpus northrupi</i> )		<i>Botryococcus</i>
<i>Abietinaepollenites</i> sp. ( <i>Podocarpus sellowiformis</i> )		<i>Camarozonosporites ambigens</i> <sup>RB</sup>
<i>Acer striata</i>		<i>Camarozonosporites</i> spp. <sup>RB</sup>
<i>Alisporites bilateralis</i>		<i>Cingulatisporites lancei</i>
<i>Araucariacites australis</i>		<i>Clavatiipollenites</i>
<i>Azolla</i> cf. <i>A. schopfi</i>		cf. <i>Concavisporites verrucosus</i>
<i>Biretisporites</i> sp.		<i>Confetisulcites knowltoni</i>
<i>Bombacacipites nacimientensis</i>		<i>Corollina</i>
<i>Brevipollenites colpella</i> <sup>NSP</sup>		<i>Cupuliferoidaepollenites minor</i>
<i>Cercidiphyllites</i> sp.		<i>Cupuliferoidaepollenites</i> spp.
<i>Classopollis</i> sp.		<i>Cyathidites</i> sp.
<i>Cupanieidites</i> aff. <i>C. major</i>		<i>Cycadipites</i> sp.
<i>Cupanieidites</i> sp.		<i>Dinoflagellates</i>
<i>Cynilla minima</i>		<i>Echinatisporis varispinosus</i>
<i>Deltoidospora</i> spp.		<i>Ephedra multicosata</i>
<i>Equisetosporites lajvantis</i>		<i>Ephedrites</i> sp.
<i>Ericaceipollenites</i> sp.		<i>Equisetosporites parallel striae</i>
<i>Gleicheniidites senonicus</i>		<i>Equisetosporites spiral</i>
<i>Laevigatosporites haardtii</i>		<i>Erdmannipollis cretaceus</i>
<i>Momipites tenuipollis</i> <sup>NSP</sup>		<i>Erdmannipollis</i> sp.
<i>Nyssapollenites explanatus</i>		<i>Eucommiidites minor</i>
<i>Nyssa puercoensis</i>		<i>Eucommiidites</i> sp.
<i>Osmundacidites wellmannii</i>		<i>Extratropopollenites</i> sp.
<i>Ovoidites ligneolus</i>		Fern spores not abundant
<i>Ovoidites</i> sp.		<i>Foraminisporis undulatus</i>
"Palaeoisoetes" sp.		<i>Foveotriletes scrobicularis</i>
<i>Pandaniidites</i>		<i>Foveosporites</i> sp. Cf. <i>F. canalis</i>
<i>Pandaniidites radicus</i>		<i>Gleicheniidites</i> sp.
<i>Podocarpus sellowiformis</i>		<i>Granbivesiculites</i> sp.
<i>Podocarpus</i> sp.		<i>Gunthera microreticulata</i> <sup>RB</sup>
<i>Polypodiisporites</i> sp.		<i>Hexapollenites compactus</i> <sup>RB</sup>
<i>Psilastephanocolpites</i> sp.		<i>Interporopollenites</i>
<i>Quadrupollenites</i> sp.		<i>Inaperturopollenites</i> cf. <i>I. hiatus</i>
<i>Quercus</i> sp.		<i>Inaperturotetradites scabratus</i>
<i>Rectosulcites latus</i>		<i>Klukisporites</i>
<i>Salix</i> sp.		<i>Kurtzipites</i> <sup>RB</sup>
<i>Syncolpites minimus</i>		<i>Kurtzipites trispissatus</i> <sup>RB</sup>
<i>Taxodiaceaeapollenites vacuipites</i>		<i>Kuylisporites</i> sp.
<i>Tricolpites foveolate</i>		Large fern tetrad
<i>Tricolpites scabrata</i>		<i>Lecaniella</i>
<i>Tricolpites vulgaris</i>		<i>Leptospidites major</i>
<i>Tricolpites rhomboides</i>		<i>Liliacidites</i>
<i>Tricolpites</i> sp.		<i>Liliacidites complexus</i> <sup>NSP</sup>
<i>Triporetetes simplex</i>		<i>Liliacidites hyalaciniatus</i>
<i>Triporetetes plektosus</i>		<i>Liliacidites reticulata</i>
cf. <i>Triporetetes rugatus</i>		<i>Liliacidites</i> sp. cf. <i>L. complexus</i>
Unclassified bisaccates		<i>Liquidambaripollenites</i> sp.
Unclassified triletes		<i>Loranthacites</i>
Unclassified triporates		<i>Lycopodiacidites kuepperi</i>
Algal cysts	Algal cysts	<i>Lycopodiacidites</i> spp.
<i>Aquilapollenites</i> spp.	<i>Aquilapollenites</i> sp. <sup>RB</sup>	<i>Lycopodiumsporites</i> spp.
<i>Arecipites reticulatus</i>	<i>Arecipites reticulatus</i>	<i>Microfoveolatosporis</i>
<i>Arecipites</i> sp.	<i>Arecipites</i>	<i>Microfoveolatosporis canaliculatus</i>
<i>Azolla cretacea</i>	<i>Azolla cretacea</i>	<i>Microreticulatisporites</i> sp.
<i>Chenopodiipollis</i> sp.	<i>Chenopodiipollis</i> sp.	cf. <i>Minorpollis</i>
<i>Cicatricosisporites</i> spp.	<i>Cicatricosisporites</i> sp.	<i>Monocolopopollenites?</i> sp.
<i>Corollina torosa</i> (incl. monads and tetrads)	<i>Corollina torosa</i>	<i>Monoporopollenites</i> sp.
<i>Cupanieidites</i> cf. <i>C. reticularis</i>	<i>Cupanieidites</i> aff. <i>C. reticularis</i>	<i>Monosulcites perspinosus</i>
<i>Cupuliferoidaepollenites minutus</i>	<i>Cupuliferoidaepollenites minutus</i>	<i>Monosulcites</i> sp.
<i>Cyathidites minor</i>	<i>Cyathidites minor</i>	<i>Navisulcites marginatus</i>
<i>Cycadipites fragilis</i>	<i>Cycadipites fragilis</i>	<i>Neoraistrickia</i> sp.
<i>Dyadonapites reticulatus</i>	<i>Dyadonapites reticulatus</i>	<i>Nyssapollenites albertensis</i>
<i>Echinatisporis</i> sp.	<i>Echinatisporis</i>	<i>Osmundacidites</i>
<i>Engelhardtia</i> type	<i>Engelhardtia</i> type	<i>Osmundacidites stanleyi</i>
cf. <i>Ephedra voluta</i>	<i>Ephedra</i> sp. cf. <i>E. voluta</i>	<i>Palaeoisoetes subengelmannii</i>
<i>Equisetosporites</i> spp.	<i>Equisetosporites</i> sp.	<i>Pediastrum</i>
<i>Foraminisporis</i> spp.	<i>Foraminisporis</i> sp.	<i>Periporopollenites</i> sp.
<i>Fraxinopollenites variabilis</i>	<i>Fraxinopollenites variabilis</i>	<i>Perotriletes cubensis</i>
<i>Ghoshispora</i> sp.	<i>Ghoshispora</i> spp.	<i>Phaseolidites stanleyi</i>
<i>Hystichosphaerids &amp; dinoflagellates</i>	<i>Hystichosphaeres</i>	<i>Pityosporites constrictus</i>
<i>Laevigatosporites</i> sp.	<i>Laevigatosporites</i> spp.	<i>Pityosporites typicus</i>
<i>Liliacidites leei</i>	<i>Liliacidites leei</i>	<i>Plicapollis?</i>
<i>Liliacidites</i> sp.	<i>Liliacidites</i> sp.	<i>Pollenites?</i> sp.
<i>Momipites inaequalis</i>	<i>Momipites inaequalis</i>	<i>Polypodiisporites amplius</i>
<i>Momipites sanjuanensis</i>	<i>Momipites sanjuanensis</i>	<i>Polypodiisporites</i> sp.
<i>Momipites</i> sp.	<i>Momipites</i> sp.	<i>Pristinuspollenites</i>
<i>Nyssapollenites</i> sp.	<i>Nyssapollenites</i> sp.	<i>Pseudoplicapollis?</i>
" <i>Paliurus</i> " <i>triplicatus</i>	<i>Paliurus triplicatus</i>	<i>Pseudoplicapollis newmanii</i>
<i>Pandaniidites typicus</i>	<i>Pandaniidites typicus</i>	<i>Pseudoschizaea</i>
<i>Periporopollenites</i> sp.	<i>Periporopollenites</i> sp.	<i>Pseudoplicapollis</i> sp.
<i>Pityosporites</i> sp.	<i>Pityosporites</i> spp.	<i>PterospERMopsis</i>
<i>Polypodiidites</i> spp.	<i>Polypodiidites</i> spp.	<i>Quadrupollis krempii</i>
" <i>Quercus</i> " <i>explanata</i>	<i>Quercus explanata</i>	cf. <i>Radialeles costatus</i>
<i>Schizosporis parvus</i>	<i>Schizosporis parvus</i>	<i>Reticuloidosporites pseudomunri</i>
<i>Stereisporites</i> spp.	<i>Stereisporites</i> spp.	<i>Retitriletes</i> sp. ("Lycopodiumsporites")
<i>Taxodiaceaeapollenites hiatus</i>	<i>Taxodiaceaeapollenites hiatus</i>	<i>Rhoipites</i> sp.
<i>Taxodiaceaeapollenites</i> sp.	<i>Taxodiaceaeapollenites</i>	<i>Rugbivesiculites</i>
<i>Tetracolpites</i> 2 sp.	<i>Tetracolpites</i>	<i>Sphaerium</i> sp.
<i>Tricolpites anguloluminosus</i>	<i>Tricolpites anguloluminosus</i>	<i>Sporites?</i> sp.
<i>Tricolpites</i> spp.	<i>Tricolpites</i> spp. <sup>NSP</sup>	<i>Subtriporopollenites</i> sp.
<i>Triporetetes novomexicanum</i>	<i>Triporetetes novomexicanum</i>	cf. <i>Taurosusporites</i>
<i>Triporetetes</i> sp.	<i>Triporetetes</i> spp.	<i>Tiliaepollenites</i> sp. ( <i>Tilia wodehousei</i> )
<i>Triporetetes tectus</i>	<i>Triporetetes tectus</i>	cf. <i>Tilia wodehousei</i> <sup>RB</sup>
<i>Ulmipollenites</i>	<i>Ulmipollenites</i>	<i>Toroisporis</i> sp.
<i>Ulmipollenites krempii</i>	<i>Ulmipollenites krempii</i>	<i>Trichopollenites</i> <sup>RB</sup>
<i>Ulmipollenites</i> 3 and 4 pored.	<i>Ulmipollenites</i> 3, 4 pored	<i>Tricolpites hians</i>
<i>Ulmoidipites tricosatus</i>	<i>Ulmoidipites tricosatus</i>	<i>Tricolpites interangulus Newman</i>
<i>Vitis?</i> <i>affluens</i>	cf. <i>Vitis affluens</i>	<i>Tricolpites microreticulatus</i> <sup>NSP</sup>
<i>Zlivisporis novomexicanum</i>	<i>Zlivisporis novomexicanum</i>	<i>Tricolpites reticulatus</i> <sup>RB</sup>
<i>Zlivisporis</i> sp.	<i>Zlivisporis</i>	<i>Tricolpites</i> sp. A
	<i>Abietinaepollenites</i>	<i>Tricolpites</i> sp. B
	<i>Acanthotriletes</i>	<i>Tricolpites</i> sp. C
	<i>Accusipollis</i> <sup>NSP</sup>	<i>Tricolpites</i> sp. D
	<i>Aequitriadites</i>	<i>Tricolpites traversei</i>
	<i>Aequitriadites spinulosus</i>	<i>Triletes?</i> sp.
	<i>Ainipollenites</i> 4 pored	<i>Tripinosporites</i> sp.
	<i>Alnus</i> 3 pored	<i>Triporetetes rugatus</i> <sup>RB</sup>
	<i>Alsophilidites</i> sp.	<i>Trudopollis meekeri</i>
	<i>Appendicisporites</i> spp.	<i>Trudopollis</i> sp.
	<i>Aquilapollenites attenuatus</i> <sup>NSP</sup>	<i>Tschudyipollis many, large</i> <sup>NSP</sup>
	<i>Aquilapollenites delicatus</i> <sup>NSP</sup>	<i>Tschudyipollis retusus</i> <sup>NSP</sup>
	<i>Aquilapollenites quadrilobus</i> <sup>NSP</sup>	<i>Tschudyipollis</i> sp. <sup>NSP</sup>
	<i>Aquilapollenites senonicus</i> <sup>NSP</sup>	<i>Tschudyipollis thalmanii</i> <sup>NSP</sup>
	<i>Aquilapollenites trialatus, var. uniformis</i>	<i>Tsuqaeapollenites</i> sp.
	<i>Aquilapollenites turbidus</i> <sup>NSP</sup>	<i>Ulmipollenites</i> <sup>RB</sup>
	<i>Araucariacites</i> sp.	<i>Ulmoidipites</i> spp. 3 and 4 pored smooth to verrucate forms
	<i>Arecipites columellus</i>	unidentified acritarchs
	<i>Arecipites microreticulatus</i>	unidentified dinoflagellate cysts
	<i>Azolla circinata</i>	unidentified pollen tetrad
	<i>Azolla</i> microspores	unidentified trilete spores
	<i>Balmeisporites</i>	<i>Zonalapollenites</i>
	<i>Bisaccate conifer pollen</i>	

Note: Blue = palynomorphs that occur only in the Paleocene throughout Western Interior, magenta = palynomorphs extinct at end of Cretaceous: in Raton Basin (superscript <sup>RB</sup>) per Fleming (1990); in Northern Great Plains (superscript <sup>NSP</sup>) per Nichols and Johnson (2002); Paleocene Ojo Alamo Sandstone Plus includes Ojo Alamo Sandstone plus uppermost Paleocene part of underlying strata at some localities.