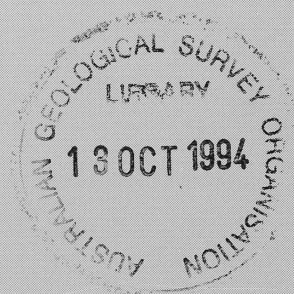


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GUIDE TO GENERA FILE OF FOSSIL SPORES AND POLLEN OF JANSONIUS & HILLS (1976)

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AUSTRALIAN
GEOLOGICAL SURVEY
ORGANISATION

Marine, Petroleum and Sedimentary Resources Division

AGSO Record 1994 / 46

**Guide to General File of Fossil Spores and Pollen
of Jansonius & Hills (1976)**

by

D. Burger



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DEPARTMENT OF PRIMARY INDUSTRIES AND ENERGY

Minister for Resources: Hon. David Beddall, MP

Secretary: Greg Taylor

AUSTRALIAN GEOLOGICAL SURVEY ORGANISATION

Executive Director: Harvey Jacka

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Contents

INTRODUCTION	page 5
CLASSIFICATION	page 5
PROCEDURES	page 6
ACKNOWLEDGEMENTS	page 9
REFERENCES	page 9
a. Anteturma SPORITES	page 10
b. Turma MONOLETES	page 10
c. Suprasubturma ACAVATOMONOLETES	page 10
d. Subturma Azonomonoles	10
d. Subturma Auriculatomonoles	10
d. Subturma Crassitudomonoles	11
d. Subturma Cingulatomonoles	11
c. Suprasubturma PERINOMONOLETES	page 11
d. Subturma Azonoperomonoles	11
b. Turma TRILETES	page 11
c. Suprasubturma ACAVATITRILETES	page 11
d. Subturma Azonati	11
d. Subturma Auriculati	16
d. Subturma Tricrassati	17
d. Subturma Cingulati	17
c. Suprasubturma PERINOTRILETES	page 19
d. Subturma Azonoperotriletes	19
d. Subturma Auriculoperotriletes	20
d. Subturma Zonoperotriletes	20
b. Turma TETRALETES	page 21
b. Turma HILATES	page 21
c. Suprasubturma ACAVATOHILATES	page 21
d. Subturma Azonohilates	21
d. Subturma Zonohilates	21
a. Anteturma POLLENITES	page 21
b. Division SACCITES	page 21
c. Subdivision MONOSACCITES	page 21
d. Infradivision Inaperturati	22
d. Infradivision Monoleti - Trileti	22
d. Infradivision Murornati - Costati	22
d. Infradivision Sulcati	22
c. Subdivision DISACCITES	page 23
d. Infradivision Inaperturati - Monoleti	23
d. Infradivision Trileti	23
d. Infradivision Murornati - Costati	23
d. Infradivision Sulcati	24
c. Subdivision POLYSACCITES	page 24

a. Anteturma POLLENITES (cont.)

b. Turma ALETES - INAPERTURATES	page 24
c. Suprasubturma ACAVATALETES	page 25
d. Subturma Azonaletes	25
d. Subturma Auriculaletes	26
d. Subturma Crassitudaletes	26
d. Subturma Zonaletes	26
c. Suprasubturma PERINALETES	page 27
d. Subturma Azonoperinaletes	27
d. Subturma Zonoperinaletes	27
b. Turma POLYPLICATES	page 27
b. Turma MONOSULCATES	page 27
b. Turma TRICHOTOMOSULCATES	page 28
b. Turma DISULCATES - DICOLPATES	page 28
b. Turma ZONO - ANNULICOLPATES	page 28
b. Turma SYNCOLPATES	page 29
b. Turma TRICOLPATES	page 29
d. Infradivision Longiaxiones	29
d. Infradivision Breviaxiones	30
b. Turma STEPHANOCOLPATES	page 30
b. Turma POLYCOLPATES	page 30
b. Turma MONO - DICOLPORATES	page 30
b. Turma SYNCOLPORATES	page 30
b. Turma TRICOLPORATES	page 31
d. Infradivision Longiaxiones	31
d. Infradivision Breviaxiones	32
b. Turma TRICOLPIPOLYPORATES	page 32
b. Turma STEPHANOCOLPORATES	page 32
b. Turma POLYCOLPORATES	page 33
b. Turma MONOPORATES	page 33
b. Turma DIPORATES	page 33
b. Turma TRIPORATES	page 33
d. Subturma Simpliceporati	34
d. Subturma Atriati	34
d. Subturma Vestibulati	35
b. Turma STEPHANOPORATES	page 35
b. Turma POLYPORATES	page 35

Table 1. Morphological taxa for the classification of spore and inaperturate pollen genera

Table 2. Key to Turma categories of aperturate angiosperm pollen genera (taxa which also incorporate gymnosperms are marked *)

Table 3. Code for geological ages given for individual genera or their type species

INTRODUCTION

The GENERA FILE OF FOSSIL SPORES AND POLLEN, compiled by Jansonius & Hills (1976), is a loose-leaf repository of published genera of fossil dispersed spores, pollen grains, and other organisms such as acritarchs, fungi, and other protists. The GFFSP was first issued to subscribers as a batch of about 3280 sequentially numbered cards (size 127x197mm), and is periodically updated by supplementary batches. Each card includes a description, bibliography, and where necessary a taxonomic discussion of one genus, subgenus, or section, and mostly also its type species. Descriptions and other details published in foreign languages are given in English translation.

Unfortunately, the GFFSP lacks organisation, and the present paper aims at providing a basic guide for this considerable volume of documentation in the form of a morphological key for genera of dispersed spores and pollen grains, which form the main part of the GFFSP. Those genera are assembled into a hierarchy of widely used categories of higher rank, such as they have been defined by Iversen & Troels-Smith (1950), Potonié (1956, 1958, 1960, 1966), and Dettmann (1963). The key leaves out other organisms, such as acritarchs and algae.

This key goes up to number 5002 of GFFSP Supplement 11 (1992). The author hopes that it may be a useful complement for spore-pollen workers who have organised their issue of the GFFSP in a similar way, and may help others who need to examine a specific group of spores or pollen, or wish to identify unknown material. Comments are welcomed to enable the author to complement, revise, and correct future issues of this key.

CLASSIFICATION

The spores and pollen grains incorporated in the GFFSP have been assembled into a classification system which is based on mutually exclusive suprageneric taxa. That approach has been discussed by Dettmann (1963), and is briefly summarised below.

Anteturma SPORITES

This Anteturma incorporates the following categories of spores:

- A. alete genera
- B. monolete genera
- C. trilete and tetralete genera
- D. hilate genera

Genera are assembled into a system of higher categories, each level in that system being defined by a specific morphological feature (Table 1). This scheme is modeled after Potonié (1956, 1958, 1960, 1966) and Dettmann (1963). For convenience, Category A is here included in the group of inaperturate pollen grains under Anteturma POLLENITES.

Category	diagnostic feature
a. Anteturma	SPORITES and POLLENITES (pars)
b. Turma	type, number, and position of apertures
c. Suprasubturma	stratification of sporoderm
d. Subturma	differentiation of sporoderm
e. Infraturma	predominant distal sculptural element

Table 1. Morphological taxa for the classification of spore and inaperturate pollen genera

Anteturma POLLENITES

This Anteturma incorporates the following categories of pollen grains:

- A. inaperturate genera
- B. saccate/vesiculate genera
- C. other monosulcate, zonosulcate, etc. genera
- D. monocolporate and monoporate genera
- E. di- and poly-aperturate genera

Category A - here enlarged with the group of alete spores - is subdivided according to the scheme of Table 1. The subdivision of Category B is outlined on page 21. Categories C-E are classified according to the scheme set out in Table 2.

The primary subdivisions at Turma rank shown in Table 2 are based on the system of aperture arrangement described by Iversen & Troels-Smith (1950). They represent mostly angiosperm pollen, which are morphologically too complex to be fitted into a uniform all-encompassing hierarchy of lower taxa. Jansonius (1978) designed a high-resolution key for fossil angiosperm pollen which provides an extremely valuable guide through the GFFSP, especially for angiosperm specialists. Unfortunately, it is too elaborate for the purpose of the present paper. The author tries to attain a workable taxonomic resolution by defining various Turmae on the narrowest practicable criteria and by instituting lower subdivisions where convenient.

In both SPORITES and POLLENITES, genera with too broad or imprecise diagnoses have been entered in more than one appropriate taxon.

PROCEDURES

The following points outline details of procedures and methods of recording adopted.

1. Omissions

The key ignores the following spore-pollen taxa, which are listed in the GFFSP but at this time are of no consequence for purposes of reference or future taxonomic study:

- ♦ Corrupted names, nomina nuda, and ambiguous taxa meant by their authors to be genera.

- ◆ Redundant, superfluous, and poorly defined genera, and most invalid and illegitimate genera.
- ◆ Genera which for various reasons are unusable - such as those described in vitrine reflectance studies.
- ◆ Infrageneric taxa not formally elevated to generic rank, and genera which have been downgraded by their authors and thus are invalid.

Apertures equidimensional («pores» *sensu lato*)

- b. centered at equator ----- di-, tri-, stephanoporates
- b. centered elsewhere ----- *mono-, di-, tri-,
polyporates

Apertures oblong («colpi» *sensu lato*)

- a. *Apertures discrete*
 - b. centered at distal pole
 - c. unbranched -----*monosulcates
 - c. branched -----trichotomosulcates
 - b. centered at equator
 - c. coinciding with equator -- dicolpates
 - c. normal to equator
 - d. 2 colpi ----- dicolpates
 - d. 3 or more colpi ---- tri-, stephanocolpates
 - b. random distribution ----- tri-, polycolpates
- a. *Apertures connected at poles*
 - b. centered at equator ----- syncolpates
 - b. centered elsewhere
 - d. 3 colpi ----- syncolpates
 - d. > 3 colpi ----- polycolpates
- a. *Apertures connected at equator* -- *zonocolpates
- a. *Apertures connected elsewhere*
 - c. latitudinal orientation --- *annulicolpates
 - c. other orientation ----- syncolpates

Apertures combined («pores» plus «colpi»)

- a. *Apertures all concentric*
 - b. centered at equator ----- mono-, di-, tri-,
stephanocolporates
 - b. centered (in part) at random -- mono-, di-, tri-,
polycolporates
- a. *Apertures not (all) concentric*
 - c. 3 colpi / 3 pores ----- tricolporates
 - c. 3 colpi / > 3 pores ---- tricolpipoyporates
 - c. n colpi / < n pores ---- polycolporates
 - c. n colpi / ? n pores ---- polycolporates

Table 2. Key to Turma categories of aperturate angiosperm pollen genera
(taxa which also incorporate gymnosperms are marked *)

2. Changes in rank

Changes in rank of taxa are recorded for the following situations:

- ◆ Genus A (number nn) which is downgraded to genus B subgenus A (number oo), but not by its author, may not be generally accepted as such. It is therefore recorded as **nn, oo^s A.**

Example: 481, 2706^s *Cingutritiles* Mc

(2706 = *Stereisporites* subgen. *Cingutritiles*, not listed as such)

The GFFSP gives only one example of this type of change which also involves a change of name. *Distalanulisporites* Klaus 1960 is validly transferred to *Stereisporites* subgen. *Distanulisporites* Krutzsch 1963. This transfer involves a corruption of a name and is probably not formally correct, but it is listed and recorded as follows:

823 *Distalanulisporites* --> 2710^s *Distanulisporites* Mt

- ◆ Genus A subgenus B (number nn) is listed only when it has been upgraded to genus B (number oo), in which case it is recorded as **nn^s, oo B.**

Example: 2713^s, 4413 *Distverrusporis* Cn

(2713 = *Stereisporites* subgen. *Distverrusporis*)

3. Synonymy

The GFFSP documents a multitude of proposals for synonymy. Many are difficult to judge on their merits, and only those are here recorded which have been made by authors of affected genera and/or by J. Jansonius and L.V. Hills. Users of the key should judge other cases based on personal observations or on the annotations in the GFFSP. Of the various types of synonymy documented three are recorded as follows:

- ◆ Genus A (number nn) which is accepted as, or suggested to be, a *junior synonym* is listed under its name; certain genera will have become superfluous, but others may possibly be revived at a later stage. Suggested senior synonym genus B (number oo) is listed as **nn?, oo B.**

Example: 636 *Crassipollenites* Mt-j

636?, 448 *Chasmatosporites* Mj

- ◆ Genus A (number nn) which is an *obligate junior synonym* of genus B (number oo) is not listed; genus B is listed as **(nn), oo B.**

Example: (580), 581 *Converrucosisporites* Pc

(580 = *Converrucitritiles*, not listed)

- ◆ Genus A (number nn) which is a *junior homonym* is listed as **nn²A.** If a genus B (number oo) has been proposed to replace genus A it is listed as **nn², oo B.**

Example: 4765² *Shanxisporites* Mj

4699, 4765² *Liushanxisporites* Mj

(Senior homonym: 4764 *Shanxisporites* Pc)

4. Symbols

Morphological symbols are used to facilitate retrieval and comparison. Genera accommodating types which are usually found in tetrads or polyads are marked with # and are classified according to the features of the component single grain. Megaspore and -pollen genera are marked with *.

5. Geological ages

Ages specified for genera or their type species are given in bidigital code except for the Cambrian, which is spelled out in full (Table 3). Larger age intervals are marked by a hyphen, and uncertain age intervals by a slash. Mc-Cp indicates that a genus/type species is given by its author as occurring both in the Cretaceous and Palaeogene (Early

Tertiary), and Mc/Cp that it is dated either Cretaceous or Palaeogene. C stands for Cainozoic undifferentiated.

An isolated «?» indicates that the GFFSP specifies no age for a genus and type species.

C - CAINOZOIC	:	n - Neogene
		p - Palaeogene
M - MESOZOIC	:	c - Cretaceous
		j - Jurassic
		t - Triassic
P - PALAEOZOIC	:	p - Permian
		c - Carboniferous
		d - Devonian
		s - Silurian
		o - Ordovician
		Cambrian

Table 3. Code for geological ages given for individual genera or their type species

ACKNOWLEDGEMENTS

The author is indebted to Drs Jan Jansonius in Calgary, Mary Dettmann in Brisbane, and Clinton Foster in AGSO, for pointing out omissions and offering practical items of advice.

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a. Anteturma SPORITES

b. Turma MONOLETES

c. Suprasubturma ACAVATOMONOLETES

d. Subturma AZONOMONOLETES

e. *Infraturma Laevigatomonoleti*

77 Altimonoletes Pp	211 Azonomonoletes ?	373 Campenia Mj
635 Crassimonoletes Mc	987 Extrapunctatosporis Cp	4673 Gneudnaspora Pd
1238 Hemisphaerium Pc	3558 #Hunanospora Pp	1333 Intertricolatus C
1337, 4901 Intrapunctatosporis Mc?-Cp	1339, 4902 Intrapunctatosporis Cn	1436, 1984? Laevigatosporites Pc
1462, 1533? Latosporites Pc	1482 Leschikisporis Mt	4699, 4765 ² Liushanxispora Mj
1526 Luenaites Pp	1533 Lunulasporites Pp	1698 ² Monoletes Mc-Cp
1701 Monolites Cp?	1978 Petalosporites Mc	1984 Phaseolites ?
2094 Polypodiaceasporites Cn	2106 Polypodisporites Mj	2226 Psilamonoletes Cp
1337?, 2288, 4901? Punctatosporites Pc	3907 Rinnesporites Cp	4765 ² Shanxispora Mj
3771 Striolatospora Pp		

e. *Infraturma Apiculatimonoleti*

36 Aculeatosporites Mt	80 Amasraipollenites Pc	4627 Clavatosporis Cn
646 Crassosporites Pc	763 ² , 4221, 4227 ² Crookshankites Mj	577 Constructipollenites Mc
715 Cyclophorites Mc	4085 Cyclophorusisporites Cp	763, 4227 ² Dettmannites Mj
4405 Devonomonoletes Pd	891 Echinatosporites Cp	893 Echinitosporites Mt
894 Echinoidites Cp	895 Echinisporis Cn	909, 4657 Elaterosporites Mc
987 Extrapunctatosporis Cp	1067 Fusilites Pc	1091 Gemmamonoletes Mc
1094 Gemmatosporis Cn	1103 Ghoshiasporites Pp	4673 Gneudnaspora Pd
1238 Hemisphaerium Pc	1321 *Ingentosporites Mc	1482 Leschikisporis Mt
4699, 4765 ² Liushanxispora Mj	3716 *Lobasporites Mc	1599 Marattisporites Mj-c
1608 Marsypiletes Mc	1645 Metamonoletes Mj	1682, 3716? *Molaspora Mc
1697 Monoletella Mc	4299 Navalesporites Pp/Mt	1813 Oklahomaspora Pp
4014 Padmasporites Cn	1879 Papillamonocolpites Cp	1978 Petalosporites Mc
4724 Phaselisporites Pp	4929 Pilamonoletes Cn	2095 ² Polypodiaceasporites Cp
1091?, 1094?, 2101, 3176?, 3194?	2103 ² Polypodiidites Mc	(2102), 2104, 2374 ⁵
Polypodiisporonites Cp	2107 ² Polypodites Mc	Polypodiidites Mc
4932 ² Polypodites Mc	1337?, 2288, 4901? Punctatosporites Pc	4744 Radiomonolites Cp
2372 Reticuloidosporites Cp	2428 #Ricciisporites Mt-j	2513 Scabramonoletes Cn
4160 Scolocyamus Cn	2576 Seniasporites Cp	4765 ² Shanxispora Mj
2659 Spinosporites ?	3410 Stenochlaenidites Cn	2824 Tabulasporites Cp
2901 Thymospora P?	2907 Tiwariasporis Pp	2659?, 3102, 4564
3103 ² Tuberculatosporites Mt	3176 Verrucatosporites Cn	Tuberculatosporites Pp
4050 Verrucofoveosporites Cn	3194 Verrumonoletes Cp	3798 Yunnanospora Pp

e. *Infraturma Murornatomonoleti*

80 Amasraipollenites Pc	4069 Biwasiaspora Cp	636?, 448 Chasmatosporites Mj
451 Cheileidonites Pc	468, 469, 2529?, (2530, 2531), 4391	534 Columinisporites Pc
675 Cuddaloria Cn	Cicatricosporites Cp?	723 Cymbospora Pc
4407 Dictyomonolites Pc	1040 Foveolatipollenites Pc	1043 Foveomonoletes Cp?
1222 Hazaria Mc	1293 Ibrahimipollenites Pc	4447 Ischyomonoletes Cn
1386 Kendosporites Pp	3351 Lattisporites Pp? Mt?	1654, (1655) Microfoveolatosporis Cp
1699, 2541? Monoletes Pc	1702 *Monophyllosporites Mc	1764 Neyvelia C
1766 Neyvelisporites Cn	4014 Padmasporites Cn	1978 Petalosporites Mc
4724 Phaselisporites Pp	2350 Renisporites Pc	4951 Reticulatamonoletes Pc
2372 Reticuloidosporites Cp	2377 Reticulosporis Cn	2383 Retimonoletes Mc
2399 #Retitetrades Mc	3907 Rinnesporites Cp	(2247), 2461 Rugulatosporites ?
2527 Schizaeaceasporites Cp	3400 Schweitzerisporites Pp	3410 Stenochlaenidites Cn
4782 Stremmatosporites Pp	3771 Striolatospora Pp	2731 Striamonoletes ?
2778 Striatosporites Pc	2788 Stripites Pc	2907 Tiwariasporis Pp
3137 Undulatosporites Mt		

d. Subturma AURICULATOMONOLETES

601 Corniculatisporites Mc	602 Cornispora Pd	3571 Macrotorispora Pp
1608 Marsypiletes Mc	646?, 2916, (2926), 3619 Torispora Pc	3129 Umbosporites Mc

d. Subturma CRASSITUDOMONOLETES

Monoletes

4463 Limbomonoletes Pd 3571 Macrotoxispora Pp

d. Subturma CINGULATOMONOLETES

e. *Infraturma Laevigati*

3561, 4691 Iunctella Pp-Mt 4463 Limbomonoletes Pd 4994 Ventralvittatina Pp

e. *Infraturma Apiculati*

4463 Limbomonoletes Pd 1686 Monoalites Pc 1927 Pectosporites Pc
2504 Saturnisporites Mt 2629 Speciososporites Pc 2907 Tiwariasporis Pp

e. *Infraturma Murornati*

3772 Taeniaetosporites Mt 2907 Tiwariasporis Pp 4994 Ventralvittatina Pp

c. Suprasubturma PERINOMONOLETES

d. Subturma AZONOPEROMONOLETES

e. *Infraturma Laevigati*

4603 Aspleniumsporites Cn 233 Ballosporites Mt 554 Concentrisporites Mt
1951 Perinomonoletes Cn 3274 *Zonalosporites Pc23

e. *Infraturma Apiculati*

150, 3528, 4157? Aratrisporites Mt 3941 Archaeomonoletes Pd 634 Crassiletipollenites Pc
3555 Gemmites Pp 1257 Hezarfenosporites Pp 3370 Nanoxanthiipollenites Pc
1970, (1971) Peromonolites Mc 2100 Polypodiocites Mc 4157 Sarjeantia ?
2504 Saturnisporites Mt

e. *Infraturma Murornati*

1699, 2541? Monoletes Pc 1949 Pericutosporites Pp 3739 Perocanoidospora Pd-c
1970, (1971) Peromonolites Mc

b. Turma TRILETES

c. Suprasubturma ACAVATITRILETES

d. Subturma AZONATI

e. *Infraturma Laevigati*

35, 4590 Acritosporites Mc	4366 Acutangulisporites Pc	3630 Adelisporites Pc
45 Adivisporites Mt	48 Ahrensisporites Pc	74 Alsophilidites Cp
75 ² Alsophilites Mc	3812 Alveolaspora Mt	4594 Ambagisporites Pd
3525 Ambiguaspora Precambrian	82 Amicosporites Ps	91 *Anatolisporites Pc
(130), 1628 *Megalaevigati Pc	183 Asterisporites Mc	4378 ² Asterisporites Mj? (Mc?)
4065 Attritasporites Po	190 Aulisporites Mt	197, (198) Auritulinasporites Mj
239, 2681?, 3644, 4380?, 4541?, 4841	248 ² Bellisporites Mj	3818 Bifurcatisporites Pc
*Banksisporites Mt	283 Biretisporites Mc	307 Brandenburgisporis Cp/n
338 Cacheutasporites Mt	341 Cadiospora Pc	348 *Calamocystes Pc
349 Calamospora Pc	357 Callispora M?	361, 4848 Callumispora Pp
373 Campenia Mj	392 Cardioangulina Mc	393 Cardicolliculina Mj
394 Cardiolina Mj	395 Cardiosectella Mc	3313 Chatterjeesporites Pp
3455 Cibotiumspora Mj-c	466 Cibotiumsporites Mc	546 Concavisporites Cp
551 Concavitriletes Mc	621 Costaspora Pc	647 *Crassotriletes Pc
656 Crispetactisporites Mt	669 *Cryptoletes Pc	3830 ² Cuneisporites Mt
691 Cyathoidites Mc	692, 4084 Cyathidites Mj/c	707 Cyclinasporites ?
722 Cymbellina Mj	740, 3832 Dandotiaspora Cp	4639 Datongsporites Mj
741 Dauniasporites Pd	746 Deltatriletes Pd	748 Deltoidospora Mj/c
786 Dictyophyllidites Mj	3550 Diptychosporites Pp	822 Dissectisporites Mj
823 Distalanulisporites -->	825, 826, 2709 ^s , 4237, 4873	2713 ^s , 4413 Distverrisporis Cn
--> 2710 ^s Distanulisporites Mt	Distancoraesporis Cn	842 Divaripunctites Mt

e. Infraturma Laevigati (cont.)

847 Divisisporites Cp	4414 Doeringisporites Mj(-c)	860 Dracosporites Mj
870 Duplicatotriletes Pc	871, 3680 Duplicisporites Mt	876 Duplosporites Mc
930 *Enigmophytospora Pd	4421 Equisetitriletes Mt	1003 Fasciatisporites Mc
4428 Franconispora Mt	1056 Frangospora Mc	4378 ² , 4432 Ganasterisporites Mj(Mc)?
1121 Gleicheniaceaeauritulina Mt	4673 Gneudnaspora Pd	3468 Gracilispora Pp
4440 Guangdongspora Cp	1194 Gulisporites Pp	1204 Gyrisporites Mj
1220 Haradisporites Mj	1221 Harrisispora Mj	1239 Hennellysporites Pp
3703 *Hexalaeuraesporites Pd	3857 Hirundospora Mt	1270 Houverathia Pd
1271 *Hughesisporites Mc	3558 #Hunanospora Pp	1278 Hydrosporis Cp
1279 Hymenophyllumsporites Mc	1304 Inaequicrassispores Mj/c	3472 Inaperturosporites Pp
1332 Intertriletes Cp	1336 Intrabaculisporis Cn	1338 Intrapunctisporis Cp
1342 Intratubulisporis Mj/c	1349 Irmosporites Pc	1354 *Istisporites Mc
1369 Jimboisporites Mc	1385 Kelbergiasporites Pd	4455 (*)Khariasporites Cn
1397, 3992 Knoxisporites Pc	1413 Kuylisporites Cn	1074, 4111 Lacinitriletes Pp
1432 ² Laevigatisporites	1433, 1434 *Laevigatisporites Pc	1443, 3565 *Lagenoisporites Pc
4908 Lalmatiasporites Pp	1454 Laroccatriletes Mj-c	1460 Latipulvinites Pc
3353 Leioplicates Pp	1472 Leiotriletes Pc	1481 Leptotriletes Mt-j
1482 Leschikisporis Mt	1484 Levisporites Mj	1519 Lotschisporis Mc-Cp
3357 Lutorimites Pp	1560 Lygodiumidites Mc	1561 Lygodiumsporites Cp
1572 *Maexisporites Mc	1597 Manumia Mj	1602 *Margaritatisporites Mj
1616, (1617) Mediobaculisporis Cp	1629 *Megaligulati Pc	1635 *Megatuberculati Pc
1657 Microlagenoisporites Pc	1694, (1695) Monoleiotriletes Cp	1722 Mueschiatriletes Pd
1754 *Nemejcisporites Pc	3372 Neocalamospora Pp	1776 Noeggerathiopsisidazonotriletes Pc
4301 *Noniasporites Pp	549 ⁵ , 1800 Obtusisporis Cp	1815 Oldhamisporites Cp
1825 Orbella Mc	3882 Ordosisporites Mt	1845 Pachytriletes Pp
1851 Palaeoequisetalites Mj	1884 Paraconcavisporites Mt	1903 Partina Mc
1923 (*)Pavonisporites Pd	4925 Peltosporites Pc	4491 Perforatorisporis Mj
4928 Peritrihiospora Pc	4725 Phlebopterisporites Mc	(1769), 1992 Phyllothecotriletes Pd-c
2045 Plicifera Mc	2123 Poroplanites Mc	4029 Pseudogrebespora Pp
2205 Pseudoreticulatispora Pp	2216 *Pseudovalvisporites Pc	2223 Psilacinites Pp
3392 Psilaplicates Pp	2235 ² Psilatrilites Mc	2236 Psilatrilites Mc
2249 Psomospora Pc	2286, 2287 Punctatisporites Pc	3596 *Putaohuaisporites Mc
2301 Pyramidella ?	2354 Retetriletes Pd	583?, (2409), 2410, 4333
4753 Rotundipollis Mc	4037 *Salviniaspora Cp-n	Retusotriletes Pd
2536 Schizoplanites Mc	2558 Scutulum Pc	3402 *Semiornatisporites Mt
2589, 3764, 4763 *Setosisporites Pc	2597 Simeonospora Mt	2613, 4537 Sinusporites Pc
2614 *Sinutriletes Pp?	2672 Spongiosisporis Cp	3408 *Sporangites P?
2677 Sporonites Cp	(2640, 2641), 2705, 4343	3617 *Sublagenicula Pc
2831 Tantillus Pc	Stereisporites Cn	2833 *Tasmanitriletes Mt
3512 Teichertodinium Mt	2880 Tetrapterites Pc	2909, 2910 ² ? Todisporites Mj
2910 ² Todisporites Mj	2914 Toripunctisporis ?	2919, (2925) Toroisporis Mc-Cp
4792 ² Trachytriletes Pp	2931 Transbaculisporites Mj-c	2950 Triangulopsis Mj
2952 Triaristella Mj	4176 *Tricristatispora Mt	3787 *Trikonis Mt
3008 *Trileites Mc	3009, 3010 *Triletes Pc?	3034 Trimontisporites Pc
4561 Tripapillasporis Pd	3044 Triplanosporites Cp	2722 ⁵ , 4563 Tripunctisporis Mc
4989 Trirrhiospora Pc	3082 Trivolites Pc	3135 Undulatisporites Cp
3159 Variouxisporites Pc	3160 Varireticulates Pp	3203 ² Verrutriletes Mc
4572 *Viburamegaspora Mt	4052 Videospora Pd	3220, 4184 Virgatasporites Pd
3238 Waltzispora Pc		

e. Infraturma Apiculati

For convenience, the large category of azonotrilete apiculate spores is split up into three groups based on type of sculptural elements:

- e 1. elements small (up to about 1.5 micron)
- e 2. elements medium to large, height not much exceeding width
- e 3. elements medium to large, height at least 2x width

Apiculati group e 1

(21), 25 Acanthotriletes Cambrian	4367 Agastospora Mt	76 ² Alsophyllites Mc
78 Altitriletes Pp	4594 Ambagisporites Pd	4368 Amtaspora Cp
88, 3635 Anapiculatisporites Pc	99-4062 Aneurospora Pd	3440 Angiopteridiaspora Mt
132, 3638, 4375 Apiculatasporites Pc	135 Apiculiretusispora Pd	4196 Arasporites Pp
173 Artisporites Pp	214 Bachiasporites Pd	219 Baculatisporites Cn
220 Baculatitriletes Mc	239, 2681?, 3644, 4380?, 4541?, 4841	248 ² Bellisporites Mj
4611 Besselia Po	*Banksisporites Mt	268 Bhujiasporites Mc
3818 Bifurcatisporites Pc	278 *Biharisporites Pp	3451 *Bothriotriletes Mt
329 Bullatisporites Pd	339, 4384, 4616 Cadargasporites Mj	388, 4207 Cappasporites Pc

Apiculati group e1 (cont.)

Azonotrilletes

396 Carnisporites Mt
4625 Clathroidites Mt
574 Conosmundasporites Mt
714 Cyclogranisporites Pc
4646 Distagemmatrilletes Cn
871, 3680 Duplicisporites Mt
3691 Gemmatotrilletes Cn
388?, 1162, 4207?, 4438
Granasporites Pc
(1173), 1178 Granulatisporites Pc
1221 Harrispora Mj
1278 Hydrosporis Cp
4105 Imparitriletes Pp
3560 Insignisporites Pp
4449 Jaroslavtsevisporites Pp
3712 Kaipingispora Pp
3474 Kornilovites Mc
1443, 3565 *Lagenosporites Pc
1482 Leschikisporis Mt
4701 Lopadiospora Pp
1535 Lunzisporites Mt
1647 Microbaculispora Pp
4483 Orientalisporites Mt
4494 Petambojisporites Pp
2002 Pileatisporites Pc
2145, (2146), 3748 Procoronaspora Pc
2286, 2287 Punctatisporites Pc
2301 Pyramidella ?
4753 Rotundipollis Mc
2518 Scabratrisporites Mt
2563 Selaginella Mj
4772 (*)#Spermasporites Pd
2719⁵, 4167 Stereigranisporis Cn
3618 (#)Surangeaspora Pp
2831 Tantillus Pc
4551 Timicrolepidites Mc
2914 Toripunctisporis ?
2930 Trachytriletes Cambrian
2950 Triangulopsis Mj
3034 Trimontisporites Pc
3128 Umbonatisporites Pc

485 Circlettisporites Pc
3822 Clathropterisospora Mt
621 Costaspora Pc
739 Danaeopsites Mt
2713⁵, 4413 Distverrusporis Cn
4654 Echigranisporites Cn
4673 Gneudnaspora Pd
1164 Granatrilletes Pd
1172 Granisporites Pc
4440 Guandongospora Cp
3857 Hirundospora Mt
1279 Hymenophyllumsporites Mc
3470 Imucogosporis Pp
3708 Interradispora Pp
4452 Jurtisporites Pp
4455 (*)Khariisporites Cn
1074, 4111 Lacinitrilletes Pp
1449 #Lapposporites Mt
1488 Libyaesporites Mt
(1510), 1514 Lophotrilletes Pc
3357 Lutorimites Pp
1754 *Nemejisporites Pc
(1832), 1833, 4485 Osmundacidites Mj
1982, 4023 Phaeocerosporites Cn
2021 Planisporites Pc
4734 Propinquispora Pp
2291 Punctatrilletes Mc
2339, 4510 Rattiganispora Pc
4037 *Salviniaspora Cp-n
3762 Scantigranulites Cn
2578 Senispora Pp
2670 Spiritisporites Mt
3411, 3509 Stoverisporites Mc
4545 Synasesporites Mt
3777 Tetanisporites Pc
2909, 2910² Todisporites Mj
2915 Toripustulatisporites Cp
4792 ²Trachytriletes Pp
3787 *Trikonis Mt
3073 Tririctus Pp
3238 Waltzispora Pc

386 Capillatisporites Pp
563 Conglobatisporites Pc
646 Crassosporites Pc
742 Decisporis Mt
4414 Doeringisporites Mj(-c)
950 Epitelisporis Mc
4892 Granamurospora Pd
1170 Graniconcavisporites Mj
4101 *Granulamembranispora Pc
3979 Gushanispora Mc
1270 Houverathia Pd
1302 Impardecispora Mc
1313, 4266 Indospora Pp
1357 Iugisporis Pc
4453 Jusinghipollis Mc
4456 Kikshorisporites Pp
1432 ¹Laevigatisporites
1474 Lemnaceaeppites Cp
1500 Lobatisporites Pp
1527 Lukugasporites Pp
1572 *Maexisporites Mc
1755 Neocalamitites Mt
4925 Peltosporites Pd
3740 Phidiaesporites Pp
2130 Poshisporites Pd
2181 Pseudenzonalasporites Mt
2298 Pustulatisporites Pc
2346 Regresporites Mc
4964 Santhalisporites Mj/c
2547 Sciadopityspollenites Cn
4769 Sinosporites Mt
2681, 4541 *Srivastavaesporites Pp
2801 *Subverrusporis Mt
4347 Takatisporites Pd
2889 Tholisporites ?
2910² Todisporites Mj
2929 Trachysporites Mj
2931 Transbaculisporites Mj-c
3009, 3010 *Triletes Pc?
3080 Triverrusporis Cn

Apiculati group e2

4586 Abdiverrucospora Mc
43 Acylomurus Mc
85 Anabaculites Pp
124 Anthocersporis Cn
133, 3443 Apiculatisporis Pc
182 Asterisporis Mt
4843 Benxiesporites Pc
276 Biformaesporites Mj
4205 Bocciaspora Mt
316 Brijrajisporites Pp
371, 4849 Camerosporites ?
4850 (*)#Caudatosporites Pc
4625 Clathroidites Mt
4395 *Columnisporites Pc
563 Conglobatisporites Pc
1071 Convertubisporites Mt
610, 611, (1553), 4398
Corrugatisporites Cp
716 Cyclopilisporites Pp
724 Cymbosporites Pd
751 Dennstaedtiites Mj
792, 4088 Didecitriletes Pp
3329 Disparispora Pp
844 Distverrucosisporites Cp
3333 Enigmataspora Pp
1008 Favisporis Cp/n
1098 Gemmatrilletes Mc

34 Acolporipites Cp
3524 Alutisporites Mt
88, 3635 Anapiculatisporites Pc
129 Anverrucosisporites Mj
134 *Apiculatisporites Pc
3531 *Auritologenicula Pc
3305 Bharadwajisporites Pc
3450, 3515⁵ Bikolisporites Mc
4206 *Bohemisporites Mc
4615 *Cabochonicus Mc
378 Canaliculatisporites Pc
4389 Chanovejisporites Pp
3822 Clathropterisospora Mt
544 Conbaculatisporites Mt
566 Coniatasporites Mj
584, (585) Convolutispora Pc
3545 *Crassilagenicula Pc
661 Cristatitriletes Pp
719, 3512? Cyclotrilletes Cp/Mt
728, 4863 Cyrtospora Pc
3549 *Devaisporites Mc
3460 Dilisporites Pc
828 Distaverrusporites Cp
2713⁵, 4413 Distverrusporis Cn
950 Epitelisporis Mc
1031 Foraminisporis Cp
4889 Ghoshiatrilletes Pp

35, 4590 Acrisporites Mc
4594 Ambagisporites Pd
97 Anemiidites Mc
132, 3638, 4375 Apiculatasporites Pc
169 Armatisporites Pc
229, 4840 *Bacutrilletes Mt/j
4068 Bicingulispora Cp
280 Bipartitisporis Pp
315, 4074 Brevitriletes Pp
339, 4384, 4616 Cadargasporites Mj
388, 4207 Cappasporites Pc
498 Cladophlebites ?
529 *Colisporites Pc
550, 4629 Concavissimisporites Mc
(580), 581 Converrucosisporites Pc
587 Convolutrilletes Mj
3666 Crissisporites Pd
708, 3831, 4225 Cyclobaculisporites Pc
720 Cycloverrutriletes Mt
742 Decisporis Mt
329?, 771, 3128?, 3327
Dibolisporites Pd
831 Distortisporites Pc
4654 Echigranisporites Cn
981 Eximispora Cp/n
3340 Fundispora Pp
1109 Gillespieisporites Pc

Apiculati group e2 (cont.)

- 1135 Globulisporis Mt
4674 Gregussisporites Mc
3699 Haberkornia Mt
1243 Heterotriletes Pd?
1322, (1323) Iniquiornatisporis M?
1366 Jayantisporites Pp
1389 Kewaneesporites Pc
1447 Lakiasporites Cp
3569 *Longhuashanispora Pd
(1566), 1567, 4464
Macroleptolepidites Cn
1611 Matthesisporites Mj
1626 *Megagranulisporites Pc
1727 Multinodisporites Mc-Cp
1759, (1760) Neoraistrickia M(c)
1801 Occultosporites Mc
1822, 3374? Ophioglossisporites Cn
4718 Parmulisporis Mj
1918 Paucibaculisporites Mj
1982, 4023 Phaocerosporites Cn
3389 *Prikasporites Mt
2333 *Radosporites Mt
2371 Reticuloidisporites Mc
2440 *Rostratispora Pc
4525 Salebrososporites Pp
2542 Schopfites Pc
2568 Semigleicheniidites Cn
4769 Sinosporites Mt
2660, 4777 Spinotriletes Pp
3411, 3509 Stoverisporites Mc
4347 Takatisporites Pd
4789 Tessellatosporis Mc
2953 Triassisporis Mt
3080 Triverrusporis Cn
3109 Tuberositriletes Mc
3145 Uvaesporites Mj-c
3163 Vastisporites Mj
3175 Verrucatisporites Cn
3182, 3928 Verruciretusispora Pd
708?, 3186, 3187, 3795, 3831?, 3929,
4225? Verrucosporites Pc
3202 *Verrutriletes Mc
4187 *Xuhiahesporites Mt
- 4892 Granamurospora Pd
1192 Grumosporites Pc
4261 Hekousporites Mc
1302 Impardecispora Mc
1368, 4450 *Jhariatriletes Pp
1381 Kampeisporites Pp
3474 Kornilovites Mc
4908 Lalmatisporites Pp
(1510), 1514 Lophotriletes Pc
4288 Malayaeaspora Cp
1596 Mannebachia Pd
1614, 4468 Mecsekisporites Cn
1633 *Megastriata Pc
1748 *Narkisporites Mt
4477 Neotuberculatisporites Mt
1810 Oguzisporites Pc
3485 *Otynisporites Mt
3488 Partimactosporites Pp
3491, 3516? Pereisporites Mc
4727 Planella Pp
2298 Pustulatisporites Pc
2334, (2335), 3902 Raistrickia Pc
4150 Retiverrucispora Mt
2447 Rotverrusporites Mc
4964 Santhalisporites Mj/c
2547 Sciadopityspollenites Cn
2575 Senftenbergiites Mt
2655, 4342 Spinosporites Pp
2681, 4541 *Srivastavaesporites Pp
3618 (#) Surangeaspora Pp
4547 Talbejisporites Pp
2896 Thuringiatriletes Mt
2965 Tricidarisporites Pc
1622?, 3099, 3100
*Tuberculatisporites Pc
3161 Varirugosporites Mj
3173, (3174) Verreticulisporis Cp
3794 Verrucatriletes Cn
3429 *Verrucisporites Pd
3188 ²Verrucosporites Pc
4051, 4996 #Verrutetraspora Cp
3203 *Verrutriletes Mc
3262 Zinjisporites Pp
- 4101 *Granulamembranispora Pc
1200 Guttatisporites Mt
1241 Herkosporites Cp
1313, 4266 Indospora Pp
4452 Jurtisporites Pp
1388 Keuperisporites Mt
1441, (1442), 3564 *Lagenicula Pc
(1478), 1479 Leptolepidites Mj
1535 Lunzisporites Mt
3572 Mammillarisporites Mc
1597 Manumia Mj
1622 *Megaapiculati Pc
1682, 3716? *Molaspora Mc
1749 *Nathorstisporites Mt-j
3724 Nixispora Pp
4008 *Oncodisporites Pd
1881 Papillotriletes Mt
1903 Partina Mc
4494 Petambojisporites Pp
2108 Polypodiumidites Mc
2300 *Pusulosporites Mt
2346 Regresporites Mc
4518 *Rewatriletes Pp
2459 Rugulasphaeridium Pd
2509 Saxosporis Cn
4337 Sellaspora Mt
4529 *Shahdolia Pp
2658 Spinososporites ?
2719⁵, 4167 Stereigranisporis Cn
4544 Surmaspora Cn
4548 Tarjusporites Pp
2915 Toripustulatisporites Cp
3024, (3025), 3514 Trilites C?n
4798 *Tuberculatoisporites Pc
3128 Umbonatisporites Pc
4567 Vashutkinisporites Pp
4568 *Verrubacutriletes Pp
3177 Verrucatriletes Mc
3184 Verrucopunctasporites Mt
4570 Verrudandotiaspora Cp(?)
4182 #Verrutetriletes Cp
3208 Vesicasporites Mt

Apiculati group e3

- 24 Acanthosporis Mt
4371, 4829 *Ancorisporites Pp
4196 Arasporites Pp
3531 *Auritolagenicula Pc
315, 4074 Brevitriletes Pp
4390 Charbejisporites Pp
494 Cirrabaculisporites Pp
521 Clavatriletes Mt
617 Corystisporites Pd
329?, 771, 3128?, 3327
Dibolisporites Pd
871, 3680 Duplicisporites Mt
3333 Enigmaspora Pp
1142 Goczanisporis Mc/Cp
1193 *Gulatriletes Pp
1241 Herkosporites Cp
782?, 1289 (*) Hystricosporites ?
1367 Jerseyiaspora Mt
4456 Kikshorisporites Pp
1477 ²Lepidozonotriletes Pc
3356 Luberisporites Pc
1622 *Megaapiculati Pc
3723 *Nihditriletes Mt
4483 Orientalisporites Mt
4494 Petambojisporites Pp
- 89 Anaplanisporites Mt
(96), 97 Anemiidites Mc
154 *Arcellites Mc
4203 *Barakarella Pp
4383 *Bulbosia Pp
440 Ceratosporites Mc
3822 Clathropterispora Mt
4628 Compactisporites Mt
661 Cristatriletes Pp
782 (*) Dicrospora Pc
3329 Disparispora Pp
889, (890) Echinatisporis Cp?
3851 *Flabellisporites Mt
1143 Godavarisporites Pp
1208 Hadrohercos Pc
1267 Horriditriletes Pp
1294 Ibrahimispores Pc
1368, 4450 *Jhariatriletes Pp
1399 Kollospora Mc
1487 Liburnisporis Mc
1527 Lukugasporites Pp
1748 *Narkisporites Mt
1772, 3578 *Nikitinsporites Pd
1895 *Parazolla Mc
4497 *Pilatriletes Pp
- 90 Anatoliensisporites Cn
133, 3443 Apiculatisporis Pc
168, 3311? *Ariadnaesporites Mc?
4206 *Bohemisporites Mc
391 *Capulisporites Mc
3542 *Cereusisporites Pd
515, 521? Clavatipores ?
544 Conbaculatisporites Mt
4865 Decorisporites Pd
792, 4088 Didecitriletes Pp
3330 Divaricrassus Pp
902 *Echitriletes Mc
1104, 3556, 3983? *Ghoshispora Mc
4255 *Grapnelispora Mc
3980 *Heliotriletes Pd
1288 Hystrichosporis Mc
1366 Jayantisporites Pp
1388 Keuperisporites Mt
1441, (1442), 3564 *Lagenicula Pc
3569 *Longhuashanispora Pd
3572 Mammillarisporites Mc
1759, (1760) Neoraistrickia M(c)
3724 Nixispora Pp
1918 Paucibaculisporites Mj
2004 Pilosisporites Mc

4028 *Pomeranisporites Pd	2119 Porcellispora Mt	2297 Pustechinosporis Cp
2298 Pustulatisporites Pc	2300 *Pusulosporites Mt	2327 Radiatisporispora Pd
2333 *Radosporites Mt	2339, 4510 Rattiganispora Pc	2451 Rudolphisporis Cn
4964 Santhalisporites Mj/c	2509 Saxosporis Cn	2521 *Scabratriletes Mc
2542 Schopfites Pc	3913 Sentisporites Mt	2588, 4162 *Setispora Pc
2589, 3764, 4763 *Setosisporites Pc	2609 *Singhisporites Pp	4535 *Singraulispora Pp
2625, 4539 Spackmanites Pc	2635 Sphaerina Mt	2655, 4342 Spinosporites Pp
2656, (4369), 4369 Spinositriletes Pc	2658 Spinosporites ?	2793, 2794, 4346 *Styx Mc
4984 Telisporites Pd	4985 Teratodaspora Pc	2951, 3421 *Triapipellites Pp
3423 *Trichodasporites Pd	3128 Umbonatisporites Pc	4568 *Verrubacutritiletes Pp

e. Infraturma Murornati

For convenience, the large category of azonotrilete murornate spores is subdivided into four groups based on distal sculpture elements:

- e 1. *Reticulati* : sculpture reticulate-foveolate to fossulate
- e 2. *Rugulati* : elements short, discrete or branching, free-ending lists (rugulae, cristae, vermiculae)
- e 3. *Striatiti* : elements long, radial, spiraling, or sub-parallel muri (striae)
- e 4. *Annulati* : sculpture one to many annular (half-)closed rings (annuli)

Murornati group *Reticulati*

52 Akyolisporites Pc	3291 *Alienosporites Mt	4594 Ambagisporites Pd
4370 Anafoveosporites Pc	123 Ansaites Mc	174 Artuzisporites Pc
3956 Assamiasporites Cp	235 *Balmeisporites Mc	4608 Balmeospora Pp
279 Biornatispora Pd	286 Bohemiasporis Cp/n	3451 *Bothriotriletes Mt
305 Bracteolina Mt	319, 4382 Brochotriletes Pc	339, 4384, 4616 Cadargasporites Mj
353 Caliendrina Mt/j	449 Cheilanthoidispora Cp	453, 3314 Chelinospora Pd
584, (585) Convolutispora Pc	592, 4854 Corbulispora Pc	4217 Cordylosporites Pc
608 Coronatispora Mc	610, 611, (1553), 4398	645 Crassoretitriletes Cn
713 Cyclofoveolatispora Pp	Corrugatisporites Cp	4639 Datongsporites Mj
789 Dictyotosporites Mc	(783), 790, 3328, 3676 Dictyotriletes Pc	4650 Dubrajisporites Mt
904 Egemenisporites Pc	964 *Erlansonisporites Mc	971, 4093 Eupunctisporites Pp
4880 *Favispora Pd	3464 *Favosporites Mc	1017 Filtrotriletes Mc
1022 Fixisporites Mc	1033 Fossulatisporites Pd	1036, 4667 Foveasporis Cp
1041 Foveolatisporites Pc	1042 Foveolatitritiletes Mt	1045 Foveosporites Mc?
1050, (1052) Foveotriletes Mc	1051 ² Foveotriletes Mc	4668 Fueloepisporites Mc
3690 Garotriletes Cp	1104, 3556, 3983? *Ghoshispora Mc	3983 (*)Hidaspora Mc
1268 *Horstisporites Mc	1280 Hymenoreticulisporites Mj	(1352), 1353, 4690 Ischyosporites Mc
1395 Klukisporites Mj	4459 Lanatisporis Pd	(1544), 1545 Lycopodiumsporites Cp
1570 Maculatisporites Mj-c	1613 Meandripollis Cn	4170 ² , 4705 Mesotongchuanispora Mt
1651, 4119 Microfoveolatispora Pp	1652 Microfoveolatisporis Cn	1658 Microlepidites Mc
1661 Microreticulatisporites Pc	4473 Mitraesporites Mt	1782 Novisporites Pc
1810 Oguzisporites Pc	1822, 3374? Ophioglossisporites Cn	1823 Ophioglossites Mc
1829 Orbisporis Pc	1857 Palaeospongisporis Mt	3489 Paucipunctatosporites Pp
1944 Perforosporites Pd	1960, 3214?, (3215)?, 4493	2043 Plicatisporites Pp
3389 *Prikasporites Mt	Periplecotritiletes Pc	4934 Pseudoclavisporis Pp
2205, 4737 Pseudoreticulatispora Pp	2303 *Pyrobolospira Mc	3395 Quiriquinaspora Mc/Cp?
2324 Radialisporis Cp/n	2336 Ramanujamiaspora Mj	2369 Reticulisporites Mc
2370, 4512 Reticulitriletes Mt	3604 #Retitetrastora Cp	2404 Retitriletes Mc
4150 Retiverrucispora Mt	3605, 4751 *Ricinospira Mc	2435, 2716 ^s Rogalskaisporites Mj
2451 Rudolphisporis Cn	2456 *Rugotriletes Mc	4524 #Sagenotetradites Pc
3501 Saxetia Mc	3505, 3912 Scorteia Mc	3401 Scrobiculifoveotriletes Cn
2717 ^s , 4761 Sculptisporis Mj	2566 Selagosporis Cn	2578 Senispora Pp
2793, 2794, 4346 *Styx Mc	4042 Subarnasporites Cn	2844 Tegumentisporis Cp
4789 Tessellatosporis Mc	2872 (*)Tetraletisporites Mj	4551 Timicrolepidites Mc
3923 Tongchuanispora Mt	4170 ² Tongchuanispora Mt	2937 Trematotritiletes Cambrian
2945 Triancoraesporites Mt	4988 Trimurornatispora Pc	3145 Uvasporites Mj-c
3150, 3428 Vadaszisporites Mc	3171 Venusteaesporites Mj	4187 *Xuhiahesporites Mt
3264 Zlivisporis Mc		

Murornati group *Rugulati*

10 Abditritiletes Cp	32 Acinosporites Pd	35, 4590 Acritosporites Mc
123 Ansaites Mc	3450, 3515 ^s Bikolisporites Mc	279 Biornatispora Pd
353 Caliendrina Mt/j	375 Camptotriletes Pc	4388 Catenulasporites Mt
586 Convolutitriletes Pd	3545 *Crassilagenicula Pc	3830 ² Cuneisporites Mt

Murornati group *Rugulati* (cont.)

4645 <i>Distaconvolusporites</i> Cn	3973 <i>Disthamulatisporites</i> Cp	1022 <i>Fixisporites</i> Mc
4889 <i>Ghoshiatriletes</i> Pp	1243 <i>Heterotriletes</i> Pd?	1366 <i>Jayantisporites</i> Pp
4459 <i>Lanatisporis</i> Pd	1463 <i>Latrobosporites</i> ?	4701 <i>Lopadiospora</i> Pp
(1539), 1540 <i>Lycopodiacidites</i> Mj	1633 * <i>Megastrata</i> Pc	1661 <i>Microreticulatisporites</i> Pc
1910 <i>Pastoria</i> C	3491, 3516 ^s <i>Pereisporites</i> Mc	4723 <i>Phanerosporisporites</i> Mc
4729 <i>Plicatispora</i> Pc	3389 * <i>Prikasporites</i> Mt	2324 <i>Radialisporis</i> Cp/n
3600 <i>Radiorugosporites</i> Mc	4745 <i>Radisporis</i> Mt	2346 <i>Regresporites</i> Mc
2458 <i>Ruginaperturites</i> Mc	2460 <i>Rugulatisporites</i> Cp-n	2465 <i>Rugutriletes</i> Mc
3501 <i>Saxetia</i> Mc	2717 ^s , 4761 <i>Sculptisporis</i> Mj	4337 <i>Sellaspora</i> Mt
2578 <i>Senispora</i> Pp	4528 <i>Seritriletes</i> Mt	2597 <i>Simeonospora</i> Mt
2743 <i>Striatiporis</i> Mc	2832, 3511 <i>Tappanispora</i> Mc	2902, 3417 <i>Tigrisporites</i> Mt
3923 <i>Tongchuanspora</i> Mt	2945 <i>Triancoresporites</i> Mt	3034 <i>Trimontisporites</i> Pc
3039 <i>Tripartina</i> ?	3154 <i>Vallasporites</i> Mt	3163 <i>Vastisporites</i> Mj

Murornati group *Striatiti*

32 <i>Acinosporites</i> Pd	87 <i>Anagrammites</i> Mc	4378 ² <i>Asterisporites</i> Mj? (Mc?)
4843 <i>Benxiesporites</i> Pc	3450, 3515 ^s <i>Bikolisporites</i> Mc	375 <i>Camptotriletes</i> Pc
467, (1681) <i>Cicatricosisporites</i> Cp	621 <i>Costaspora</i> Pc	625 <i>Costatoperforosporites</i> Mc
642, 4634 <i>Crassitudisporites</i> Mj	718, 2330 ² <i>Cyclosporites</i> Mc	869 <i>Duplexisporites</i> Mc
917 <i>Emphanisporites</i> Pd	4378 ² , 4432 <i>Ganasterisporites</i> Mj(Mc)?	4440 <i>Guangdongspora</i> Cp
1255 <i>Hexasporis</i> Cp	1287 <i>Hypocritriletes</i> Mc	1313, 4266 <i>Indospora</i> Pp
4692 <i>Jadukatasporites</i> Mc	1397, 3992 <i>Knoxisporites</i> Pc	1574, 3875 <i>Magnastriatites</i> Cp-n
4288 <i>Malayaeaspora</i> Cp	1774 <i>Nodosisporites</i> Mc	2666 ² , 4490 <i>Pautschisporites</i> Mt
1923 (*) <i>Pavonisporites</i> Pd	2258 <i>Pteroretis</i> Mc?	2322 <i>Radforthia</i> Pd-c
2330 ² <i>Radiatisporites</i> Mc	3600 <i>Radiorugosporites</i> Mc	4745 <i>Radisporis</i> Mt
4522 <i>Ruminatisporites</i> Mc	3501 <i>Saxetia</i> Mc	2527 <i>Schizaeaceasporites</i> Cp
2666 ² <i>Spiralisporites</i> Mt	2684 <i>Staplinisporites</i> Mj	4543 (*) <i>Stellispora</i> Pc
2735 <i>Striasporis</i> Pp	2782, (2785), 3413 * <i>Striatriletes</i> Mc	2783, 4941 ² <i>Striatriletes</i> Cp
2872 (*) <i>Tetraletisporites</i> Mj	3006 <i>Trilaterina</i> Mj	3789 <i>Triplexisporites</i> Mt

Murornati group *Annulati*

650 <i>Craterisporites</i> Mt	4228 <i>Diademasporea</i> Pc	823 <i>Distalanulisporites</i> -->
1413 <i>Kuylisporites</i> Cn	3395 <i>Quiriquinaspora</i> Mc/Cp?	--> 2710 ^s <i>Distanulisporites</i> Mt
3411, 3509 <i>Stoverisporites</i> Mc		

d. Subturma AURICULATI

e. Infraturma Laevigati

3295, 4376, (4523) <i>Appendicisporis</i> Mc	196 <i>Auritulina</i> Mj	294, 295 <i>Boseisporites</i> Mc?
328, (330) <i>Bullasporis</i> Cp	523, 1130 <i>Clavifera</i> Mc	602 <i>Cornispora</i> Pd
619 <i>Cosmosporites</i> Mj	740, 3832 <i>Dandotiaspora</i> Cp	762 <i>Dettmannites</i> Mj
905, 4240 <i>Elaterites</i> Pc	958 <i>Ergonulisporites</i> Pc	983 * <i>Expansisporites</i> Pc
3345 <i>Hacquebardisporites</i> Pc	3557 <i>Hedlundisporites</i> Mc	1610 <i>Matonisporites</i> Mj-c
1632 * <i>Megastenozonales</i> Pc	1744 <i>Naeratisporites</i> Cn	2030, 3033?, (3040)?, 3041?, 3042?,
4504 <i>Pygmaeisporites</i> Pp	3403 <i>Skarbysporites</i> Mj	4560? <i>Platyptera</i> Pc
2691 <i>Stellisporites</i> Pc	(2640, 2641), 2705, 4343	2831 <i>Tantillus</i> Pc
2931 <i>Transbaculisporites</i> Mj-c	<i>Stereisporites</i> Cn	3027 <i>Trilobates</i> Pc
3035 <i>Trinidulus</i> Pc	(3040), 3041 <i>Tripartites</i> Pc	2722 ^s , 4563 <i>Tripunctisporis</i> Mc
(3068), 3069 <i>Triquitrites</i> Pc	4989 <i>Trirhiospora</i> Pc	3082 <i>Trivolites</i> Pc
3157 * <i>Valvisporites</i> Pc	3203 ² <i>Verrutritiletes</i> Mc	3253 <i>Yashimanisporites</i> Pc
3286 <i>Zosterisporites</i> Pc		

e. Infraturma Apiculati

4843 <i>Benxiesporites</i> Pc	328, (330) <i>Bullasporis</i> Cp	377 <i>Camursporis</i> Mc/Cp
1020 <i>Firmysporites</i> Pc	1211 <i>Hamatisporites</i> Pc	4451 <i>Jurshorisporites</i> Pp
(1566), 1567, 4464	1717 <i>Mooreisporites</i> Pc	2276 <i>Pulvinispora</i> Pd
<i>Macroleptolepidites</i> Cn	4764 <i>Shanxispora</i> Pc	2719 ^s , 4167 <i>Stereigranisporis</i> Cn
4545 <i>Synasesporites</i> Mt	2831 <i>Tantillus</i> Pc	4550 <i>Tauresporites</i> Mt
3024, (3025), 3514 <i>Trilites</i> C?n	(3028), 3030, 3788, 4796	(3040), 3041 <i>Tripartites</i> Pc
3157 * <i>Valvisporites</i> Pc	<i>Trilobosporites</i> Mc	3203 ² <i>Verrutritiletes</i> Mc
3253 <i>Yashimanisporites</i> Pc		

e. Infraturma Murornati

4843 <i>Benxiesporites</i> Pc	95 ² <i>Aneimites</i> Mj	137, 4597 <i>Appendicisporites</i> Mc
193 <i>Auriculiretisporites</i> Cn	294, 295 <i>Boseisporites</i> Mc?	(463), 464 <i>Cibotiidites</i> Mc
465 <i>Cibotiumidites</i> Mc	1020 <i>Firmysporites</i> Pc	3690 <i>Garotriletes</i> Cp

e. Infraturma Murornati (cont.)

Auriculotriletes

3345 Hacquebardisporites Pc
 4451 Jurshorisporites Pp
 1644 Mesozoicisporites Mj
 2931 Transbaculisporites Mj-c

1255 Hexasporis Cp
 1448 Lametatriletes M?
 1669 *Minerisporites Cp
 3024, (3025), 3514 Trilites C?n

(1352), 1353, 4690 Ischyosporites Mc
 1638, 3362 *Membranisporites Mc
 2039, (2040), 4728 Plicatella Mc
 4988 Trimurornatispora Pc

d. Subturma TRICRASSATI

e. Infraturma Laevigati

236 Balteosporites Pc
 523, 1130 Clavifera Mc
 1413 Kuylisporites Cn
 4960 #Rimosotetras Ps
 3072 Tliremisporites M?

328, (330) Bullasporis Cp
 800 Dilobozonotriletes Pc
 1757 Neogenisporis Cp/n
 370?, 2442, (2445), 3758 Rotaspora Pc
 3249 Wilsonisporites Mc

366 Camarozonosporites Mc
 (1122), 1123, 3072? Gleicheniidites Mj?
 (2347), 2348 Reinschospira Pc
 3035 Trinidulus Pc

e. Infraturma Apiculati

370 Camarozonotriletes Pd
 1124 ²Gleicheniidites Mc
 1124², 1830 Ornamentifera Mc
 (2347), 2348 Reinschospira Pc
 2821 Synorisporites Pd

632 Craspedispora Pd
 1183 Gravisporites Pc
 4486 Padimejisporites Pp
 370?, 2442, (2445), 3758 Rotaspora Pc

769 Diatomozonotriletes Pc
 1445 Lakhnavitriletes Mc
 2145, (2146), 3748 Procoronaspora Pc
 2725, 4168 Streelispora Ps

e. Infraturma Murornati

366 Camarozonosporites Mc
 769 Diatomozonotriletes Pc
 3339 Foveogleicheniidites Mc
 3487 Pardaminoespora Ps/d
 3911 Scopusporis Mc
 2587 Sestrosporites Mj
 2890 Tholosporites Pp
 3257 Zebrasporites Mt

369^s, 1343 Inundatisporis Cn
 3972 Distarugulatisporites Cn
 4713 Oswaldispora Pc
 3886 Pavospora Mt
 3505, 3912 Scortea Mc
 2738, 4783 Striatella Mt
 3921 Tigrinispora Mt

608 Coronatispora Mc
 866, 4651 Dulhuntyispora Pp
 1886 Paraklukisporites Mj
 2465 Rugutriletes Mc
 2561 Segmentizonosporites Cp
 2821 Synorisporites Pd
 3089 Trubasporites Mc

d. Subturma CINGULATI

e. Infraturma Laevigati

3292 Alternisporites Pc
 3940 Antissporites Pc
 130 *Aphanozonatisporites ?
 165 Arcuatissporites Pc
 237 Balteusispora Pp
 4073 Breconisporites Pd
 473, 474, 4392 Cincturasporites Pc
 481, 2706^s Cingutriletes Mc
 583 Convexosporites Cd
 4857 Costazonotriletes Pd
 706 Cyclinasporis Mc
 (754), 756, 3675 Densosporites Pc
 2713^s, 4413 Distverrusporis Cn
 4253 Gordonispora Pp
 1348 Iraqispora Pp
 1397, 3992 Knoxisporites Pc
 1438 Laevizonosporites Mj-c
 3568 Lepyrisporites Pp
 (1547), 1548, 1549 Lycospora Pc
 1632 *Megastenozoneales Pc
 4003 Nanxionsporites Cp
 3373 ²Nevisisporites Pc
 1903 Partina Mc
 2030, 3033?, (3040)?, 3041?, 3042?,
 4560? Platyptera Pc
 2301 Pyramidella ?
 370?, 2442, (2445), 3758 Rotaspora Pc
 2523 Scabrosisporites Pc
 4770 Sinulatisporites Pp
 3615 Stenozonomezotriletes Po?
 2836 Taurocusporites Mj-c
 2887 Thiergartisporis Mt
 2911 Tokayisporites Pc

81, 4595 Ambitisporites Ps
 126 Anulatisporites Pc
 163 Archaeozonotriletes ?
 176, 3444 Asbeckiasporites Mc
 246, (247) Bellisporites Pc
 384, 4075 Canthospora Pc
 476 Cingulatisporites ?
 3321 ²Collarisporites Pp
 2707^s, 4631 Coralloeserratisporis Cp
 4400 Crassizonotriletes Pc
 722 Cymbellina Mj
 2708^s, 4642 Dicyclosporites Mj
 841 Divaricina Mj
 1206 Gyrina Mj
 1360 Jachowiczisporites Pc
 1411 Kuhlensisporites Pc
 1471 Leiosporis Cn
 1492 Limbella Mt
 1568 *Macrosporites Pc
 1677 (*)Mirisporites Pc
 3371 Naumovaisporites Pc
 1776 Noeggerathiopsisidozonotriletes Pc
 1912, 1915 Patellisporites Pp
 2090 Polymorphisporites Pc-p
 2177 Provolutisporites Pc
 2309 Quadrella Mj
 2443, 3606 *Rotatisporites Pc
 3763 Scutulispota P?c-p
 2613, 4537 Sinuspores Pc
 (2693), 2697 Stenozonotriletes Pd
 2847 Tendosporites Pc
 3781 Tikisporites Mt
 2912, 3782 Toricingulatisporites Cn

120, 4194, 4596 Annulispora Mj
 127 Anulatzonites Mt
 4600 Archaicusporites Ps-d
 184 Asterocalamotriletes Pc
 272 Bianulisporites Mt
 395 Cardiosectella Mc
 477 Cingulatzonites Mt
 4630 Concentricosisporites Ps-d
 4633 Corollisporites Mt
 3968 Croxtonaesporites Cp
 752 Densexinosporites Cn
 800 Dilobozonotriletes Pc
 973, 4424 Euryzonotriletes Pc
 1291, 4264 Iberoespota Pd
 1385 Kelbergiasporites Pd
 1419 Labiadensites Pc
 1473 Leiozonotriletes Pc
 1522 Lucidisporites Pp
 3359 Megacincturisporites Pc
 1730 Murospora Pc
 1762 Nevesisporites Mj
 1887 #Paralundbladispota Mt
 1973, 3383 Perotrilites Mj
 2134 Potoniesporites Pc
 2192 Pseudogravisporites Mt
 3903 Retizonospota Pd
 2505 Saturnus Pd
 (2598), 2600, 2601, 4533, 4766, 4767
 Simozonotriletes Pc
 (2640, 2641), 2705, 4343
 Stereisporites Cn
 2908 *Tocantinosporites Pc
 3422 Triaxisporites Pc

e. Infraturma Laevigati (cont.)

3032 Trilobozonosporites Mc
3790 Tulesporites Mt
3157 *Valvisporites Pc
4994 Ventralvittatina Pp
3261 *Zerndtsporites Pc
3286 Zosterosporites Pc

3035 Trinidulus Pc
3132 *Umiaspora Mc
3164 Vedatisporites Cp
3242 Westphalensisporites Pc
(609), 3268, 3269, 3625
*Zonalessporites Pc

2722^s, 4563 Tripunctisporis Mc
3136 Undulatriletes Pc
3170 Ventosella Mc
3249 Wilsonisporites Mc
3276 Zonocoronaspora Pc

e. Infraturma Apiculati

44, 3937 Addosporites Mc
92 Ancistrospora Pc
115 Anguisporites Pp?/Mt
162 Archaeotriletes Pd
179 Asperispora Pd
248 *Bellisporites Mj
289 Bolchovitinaesporites Mj
4613 Brialatisporites Pp
327 Bullaspora Pc
4620 Callitisporites Pp
473, 474, 4392 Cincturasporites Pc
495, (496) Cirratiradites Pc
530 Collarisporites Mc
3544, 4855 *Coronispora Pd
660, 3667 Cristatisporites Pc
742 Decisporis Mt
2708^s, 4642 Dicyclosporites Mj
829^s, 2711^s, 4647 Distcyclosporites Mj
4656 Echizonospora Mj
1020 Firmysporites Pc
4431 Gajdarovaspora Mt
1150 Gorgonispora Pc
1230 ²Heliosporites Mc
1314, 1366?, 3706 Indotiradites Pp
1356 #Ityosporis Mc
1411 Kuhlensisporites Pc
1476 Lepidozonotriletes Pc
1515, 3355, 3870 Lophozonotriletes Pd
1598 *Manumisporites Pp
1627 *Megahymenozonales Pc
1727 Multinodisporites Mc-Cp
1768 Nigrina Mc
3726 Oculatisporis Pd
1831 Ornatisporites Cn
1903 Partina Mc
2120 Porisporites Cn
4142 Propterisporites Mt
4145 Pteridaceoisporites Cp
3496, 4146?, 4147? Pterisporites Mc-C
2327 Radiatispinospora Pd
370?, 2442, (2445), 3758 Rotaspora Pc
358?, 2507, 3650? Savitrisporites Pc
2564 Selaginellidites Mc
2644 Spinaecoronatisporites Mc?
(2693), 2697 Stenozonotriletes Pd
2795 Styxisporites Mc
2811 Svatoplukisporites Cn
4985 Teratodaspora Pc
(1625), 3022, 3023 *Triletisporites Pc
3092 Trymatozona Mc
3155 Vallatisporites Pc
3178 Verrucingulatisporites Cp
4805 Vesiculatisporites Pp
3262 Zinjisporites Pp

(110), 111 Aequitriradites Mt
93, 3636 Ancyrospora Pd
125, 1230² Antulsporites Mc
165 Arcuatissporites Pc
232 (*)Baldurnisporites Mc
254 *Bentzisporites ?
306 Bracteolinasporites Mt/j
4614 Bulbisporites Mt
358, 3650 Callisporites Pc
376 Campozonotriletes ?
479 Cingulizonates Pc
525 Clavisporis Pc
3543 Coronaspora Ps-d
4857 Costazonotriletes Pd
3671 Cuneisporites Pc
755 Denoisporites Mc
797 *Dijkstraesporites Mc
2713^s, 4413 Distverrussporis Cn
4418 Elenisporis Pd
3851 *Flabellisporites Mt
1082 Galeatisporites Pc
1153 Gradisporites Mc
1232 Heliosporites Mj
44?, 1334, 3937? Interulobites Mc
1398 Kochisporites Pc
1415, (1416), 4271 Kyrtomisporis Mt
3715 Limatulasporites Pp?-Mt
3356 Luberisporites Pc
1615 Mediasulcisporites Pc
1662 Microrotatisporites Pc
1762 Nevesisporites Mj
1801 Occultosporites Mc
1810 Oguzisporites Pc
4017 Palmyrasporites Cn
1973, 3383 Perotrilites Mj
2136 Potonieitiradites Pp
2177 Provolutisporites Pc
2253 Pteridacidites Cn
2301 Pyramidella ?
(1623), 2329, 3599 *Radiatisporites Pc
2486 Samarisporites P?
2523 Scabrosisporites Pc
4770 Sinulatisporites Pp
2660, 4777 Spinotriletes Pp
3411, 3509 Stoverisporites Mc
2809 *Superbisporites Pc
2821 Synorisporites Pd
3780 Thysanites Pc
3077 Trisolissporites Mc
3113 Tumulispora Pc
3157 *Valvisporites Pc
3180, 4180 ²Verrucingulatisporites Mj
4053 Viduusisporites Pc
3276 Zonocoronaspora Pc

114 Aggerispora Pc
99, 4062 Aneurospora Pd
130 *Aphanozonatisporites ?
173 Artisporites Pp
3302 Barssisporites Pc
275 Bifacialisporites Cn
4612 Brevilaesuraspora Mc
3306 Bulbospinosa Pp
360 *Callistosporites Mc
402 *Carruthersiella Pp
481, 2706^s Cingutriletes Mc
526 Clivosispora Pd
3825 Coronasporites Mt
628, 629 Couperisporites Mc
710 Cyclocristella Mc
(754), 756, 3675 Densosporites Pc
818 Discisporites Mt
2715^s, 4652 Duplozonosporis Cp
976 Exallospora Pc
3340 Fundispora Pp
1104, 3556, 3983? *Ghoshispora Mc
4677 Habrozonosporites Mt
1240 *Henrisporites Mc
4448 Ityospora Mt
1404, 1405 Krauselispores Mt
1418 Labiacoronisporites Mj
1492 Limbella Mt
(1566), 1567, 4464
Macroleptolepidites Cn
1721 Muerrigerisporis Cp
3373 ²Neveisporites Pc
1803 *Ocksisporites Pd
4482 Onychiumsporites Cn
1887 #Paralundbladispore Mt
2108 Polypodiumidites Mc
3592 Prolycospora Pc
2192 Pseudogravisporites Mt
4146, 4147 Pterisporis Cp
3598 Racemospora Pc
2332 Radiizonates P?
2505 Saturnus Pd
2559 Secarisporites Pc
4536 Sinuosisporis Pd
2687 *Stelckisporites Mc
2725 Streelispora Ps
2810 *Surangeasporites Pp
2848 *Tenellisporites Mc
2908 *Tocantinsporites Pc
3087 Trochospora Pc
3139 Undulozonosporites Cp
3164 Vedatisporites Cp
4995 Verrucizonotriletes Pc
3519 Villosisporites Pc

e. Infraturma Murornati

44, 3937 Addosporites Mc
131 Apicrassizonosporites Cp
195 *Auriculozonospora Mc
3449 Belgisporis Cp
358, 3650 Callisporites Pc

120, 4194, 4596 Annulispora Mj
176, 3444 Asbeckiasporites Mc
3302 Barssisporites Pc
277 Biglobosisporites Mc
379 Canalizonospora Mt

3940 Antissporites Pc
3445, (3607, 3608) Asseretospora Mt-j
4609 Bascaudaspora Pc
306 Bracteolinasporites Mt/j
3308 Canisporites Pc

- | | | |
|---|---|-------------------------------------|
| 3655, 3821 Cauverisporis Mc | 3314 Chelinospora Pd | 465 Cibotiumidites Mc |
| 552 Concentricisporites Mt | 579 Contignisporites Mc | 4217 Cordylosporites Pc |
| 4633 Corollisporites Mt | 642, 4634 Crassitudisporites Mj | 758 Dentellisporites Mt |
| 2708 ^s , 4642 Dicyclosporites Mj | 797 *Dijkstraesporites Mc | 4643 Dillspora Pc |
| 824 Distaltriangulisporites Mc | 829 ^s , 2711 ^s , 4647 Distycyclosporites Mj | 855 Dorheimisporites Pc |
| 865 Dubiosporites Cp | 869 Duplexisporites Mc | 918 Emphanizonosporites ? |
| 1020 Firmysporites Pcv | 4668 Fueleoepisorites Mc | 3975 Gangasporites Cn |
| 1104, 3556, 3983? *Ghoshispora Mc | 4672 Glyptispora Pc | 1150 Gorgonispora Pc |
| 1153 Gradisporites Mc | 4675 Guyangspora Mc | 4681 *Herbosisporites Mc |
| 3984 Hunanispora Mj | 4900 Implicatisporites Pd | 4448 Ityospora Mt |
| 1397, 3992 Knoxisporites Pc | 1409, 4457 Krutzschisporites Cp | 1411 Kuhlensisporites Pc |
| 1415, (1416), 4271 Kyrtonisporites Mt | 1418 Labiacoronisporites Mj | 4458 Labrorugaspora Mt |
| 758?, 1493 Limbosporites Mj | 3869 Longdongspora Mt | 1520 Lotzeisporites Pc |
| 3999 Margotrilites Cp | 3359 Megacincturisporites Pc | 1638, 3362 *Membranisporites Mc |
| 1669 *Minerisporites Cp | 1729 Muricingulisporites Cp | 4121 Namlingspora Cn |
| 3371 Naumovaisporites Pc | 1756 Neochomotrilites Mj | 3373 ² Nevesisporites Pc |
| 1763 Nexuosisporites Pc | 4478 Nijssenosporites Cn | 1774 Nodosisporites Mc |
| 1810 Oguzisporites Pc | 4482 Onychiumsporites Cn | 1823 Ophioglossites Mc |
| 3484 ² Ornatissporites ? | 4713 Oswaldispora Pc | 4714 Pachetisporites Pc |
| 1924, 2891 ² *Paxillitrilites Mc | 1886 Paraklukisporites Mj | 1913 Patellasporites Mc |
| 4019 *Pavlovisporites Pp | 3886 Pavospora Mt | 2078, 4730 Polycingulatisporites Mj |
| 2098 Polypodiaceoisporites Cp | 2179 Proxicingulisporites Cp | 2184 Pseudoannulatisporites Pd |
| 4145 Pteridaceoisporites Cp | 3754 Pterisporites ? | 4330 Rajmahalispora Mt |
| 4950 Reboulisporites Cp | 2365 Reticulatisporites Pc | 2411 Rewanispora Mt |
| 4521 Rimosisporites Pd | 4033 Ringosporites Mt | 2496 Santonisporites Mc |
| 358?, 2507, 3650? Savitrisporites Pc | 2559 Secarisporites Pc | 2561 Segmentizonosporites Cp |
| 2570, 4970 Semiretisporites Mt | 4762 *Sepisporites Mc | 2624 Sooisporites Cn |
| 2644 Spinaecoronatisporites Mc? | 2678 Sporopollenites Mt | 2687 *Stelckisporites Mc |
| 3615 Stenozonomezotrilites Po? | 3411, 3509 Stoverisporites Mc | 2738, 4783 Striatella Mt |
| 2747 Striatizonites Mt | 2821 Synorisporites Pd | 4549 Tatijanispota Mt |
| 2836 Taurocusporites Mj-c | 2891 ² *Thomsonia Mc | 3921 Tigrinispora Mt |
| 2908 *Tocantinosporites Pc | 2947, 3420 *Triangulatisporites | 3089 Trubasporites Mc |
| 3790 Tulesporites Mt | P?d-c-Mt | 3146 Uzunmehmedisporites Pc |
| 3156 Vallizonosporites Mc | 3167 Velatisporites Mc | 3170 Ventosella Mc |
| 4994 Ventralvittatina Pp | 4574 Warjuchinaspora Mt | 3264 Zlivisporis Mc |
| 3271 Zonaletes Pc | 3626 *Zonolagenicula Pc | |

c. Suprasubturma PERINOTRILETES
(see also Subdivision MONOSACCITES)

This category includes genera of trilete spores which develop an exine whose layers are partly or wholly detached, either distally, proximally, or at both faces.

d. Subturma AZONOPEROTRILETES

e. Infraturma Laevigati

- | | | |
|-------------------------------|--------------------------------------|---------------------------------|
| 3438 Achradosporis Mc | 3940 Antissporites Pc | 4199 Ascetospora Pc |
| 3957 Auriculimembranispora Pd | 239, 2681?, 3644, 4380?, 4541?, 4841 | 288 *Bokarosporites Pp |
| 4380 *Bowenispora Mt | *Banksisporites Mt | 3311 Caudaspora Mc |
| 528 Colatisporites Pc | 604 Cornutisporites Mt | 676 Culleisporites Pp |
| 712 Cycloequisetites Mt/j | 4639 Datongsporites Mj | 767 Diaphanospora Pd |
| 3837 Diducites Pd | 796 *Dijkstraea Pp/c? | 817 Discernisporites Pc |
| 924, 3332 Endoculeospora Pc | 926, (1073), 3216?, 4242, 4243 | 1105 Gibbisporites Mj |
| 1216 Hannisporis Mc | Endosporites Pc | 4103 Hsuisporites Mc |
| 1277 Hydropteris Cp | 1281 Hymenospora Pc | 472 Inaperturosporites Pp |
| 4445 Insculptospora Pd | 4455 (*Khariasporites Cn | 1475 Leonispora Pd |
| 1522 Lucidisporites Pp | 1552 Lygodiidites Mc | 3372 Neocalamospora Pp |
| 4007 Novitasporites Mt | 1845 Pachytriletes Pp | 3377 Palliolatisporites Pc |
| 1956 Perinosporites Mt | 4928 Peritrihiospora Pc | 2149 Propriisporites Pc |
| 2296 Purgatisporites Mc | 2426 Ricaspora Pp | 2614 *Sinutrilites Pp? |
| 2884 Thaumatopterites Mt-j | 4174 *Triangupapillaeisporites Pc | 3005, 3425 *Trilaevipellites Pp |
| 3135 Undulatisporites Cp | 3166 Velamisporites Pc | 3214, (3215) Vestispora Pc |
| 3216 Vetisporites Pc | 3258, 5000 *Zeillerisporites Mt | |

e. Infraturma Apiculati

- | | | |
|---|-------------------------------------|---------------------------------|
| 3438 Achradosporis Mc | 38 Aculeisporites Pc | (55), 56, 3631 Alatisporites Pc |
| 90 Anatoliensporites Cn | 92 Ancistrospora Pc | 102 Angulisporites Pc |
| 189 *Aulicosporites Pd | 239, 2681?, 3644, 4380, 4541?, 4841 | 4203 *Barakarella Pp |
| 618 ² , 363 Calyptosporites Pd | *Banksisporites Mt | 377 Camursporis Mc/Cp |
| 382 Candidispora Pc | 3311 Caudaspora Mc | 486 Circularesporites ? |
| 492 *Circumsporites ? | 528 Colatisporites Pc | 578 Contagisporites Pd |
| 618 ² Cosmosporites Pd? | 637, (638), 3546 Crassispora Pc | 757 Dentatispora Pp |
| 767 Diaphanospora Pd | 868, 4238, 4415 *Duosporites Pp | 924, 3332 Endoculeospora Pc |
| 950 Epitelisporis Mc | 1079, 3465 Gabonisporis Mc | 1088, 4097, 4098 Geminispora Pd |
| 1104, 3556, 3983? *Ghoshispora Mc | 1105 Gibbisporites Mj | 1136, 1137 *Glomerisporites Mc |
| 3697 *Grambastisporites Mt | 1166, 1167 Grandispora Pc | 1216 Hannisporis Mc |
| 4103 Hsuisporites Mc | 1277 Hydropteris Cp | 4445 Insculptospora Pd |
| 3560 Insignisporites Pp | 4455 (*)Khariasporites Cn | 4273 Laiphospora Pc? |
| 1537, (1538) Lusatisporis Cn | 1552 Lygodiidites Mc | 1589 *Mammilaespora Pp |
| 1613 Meandriopollis Cn | 4704 Medusaspora Pd | 4469 Megastachysporites Cn |
| 4470 Membrabaculisporis Pd | 4004 Neogemina Pc | 3374 Ophioglossumsporites Cn |
| 1870 *Paludites Cp | 1874 *Pantiasporites Pp | 1875 *Pantiella Mt |
| 4313 Pechorosporites Mt | 2253 Pteridacidites Cn | 2277 Pulvinizonotrites Pc |
| 2296 Purgatisporites Mc | 4508 *Ramispinatispora Pp | 2392, 3498 Retispora Pc |
| 2413, 4032, 4334 Rhabdosporites Pd | 2455 Rugospora Pc | 2631, 3506 Spelaotrites Pc |
| 2660, 4777 Spinotrites Pp | 2661 Spinozonotrites Pc | 2829 *Tachirella Pp |
| 4788 Tenuangulasporis Mc | 2885 Thecaspora Mc | 2951, 3421 *Triapipellites Pp |
| 4569 *Verrucivermispora Pc | 3166 Velamisporites Pc | 3214, (3215) Vestispora Pc |
| 3216 Vetisporites Pc | | |

e. Infraturma Murornati

- | | | |
|-------------------------------|----------------------------|---|
| 3438 Achradosporis Mc | 43 #Acylomurus Mc | (55), 56, 3631 Alatisporites Pc |
| 3812 Alveolaspora Mt | 3940 Antisporites Pc | 189 *Aulicosporites Pd |
| 3957 Auriculimembranispora Pd | 3449 Belgisporis Cp | 381 Cancellatisporites Pc |
| 3454 Cavatoretisporites Mt | 605 Corollaria Mt | 654 Cribrosporites Pc |
| 668 Crybelosporites Mc | 3837 Diducites Pd | 772 Dibrochosporites Pd |
| 866, 4651 Dulhuntyispora Pp | 1079, 3465 Gabonisporis Mc | 1104, 3556, 3983? *Ghoshispora Mc |
| 1138 Glomospora Pc | 3697 *Grambastisporites Mt | 1192 Grumosporites Pc |
| 4695 Kekryphalospora Mj | 4459 Lanatisporis Pd | 1541 Lycopodiocites Mj |
| 1583 *Maiturisporites Pp | 4469 Megastachysporites Cn | 4170 ² , 4705 Mesotongchuanispora Mt |
| 1662 Microrotatisporites Pc | 1870 *Paludites Cp | 3888 Peroretisporites Pd |
| 2392, 3498 Retispora Pc | 2427 Ricciaesporites Cn | 3605, 4751 *Ricinospora Mc |
| 4752 Robandispora Pc | 4034 Rugapites Mt | 2455 Rugospora Pc |
| (1659, 1663), 2632 | 2678 Sporopollenites Mt | 2890 Tholosporites Pp |
| (*)Spencerisporites Pc | 2898 *Thylakosporites Mc | 4170 ² Tongchuanispora Mt |
| 3167 Velatisporites Mc | 3168 (*)Veliferaspora Pc | 4179 *Velumousspora Pc |
| 3214, (3215) Vestispora Pc | 4186 Xilinisporites Mc | |

d. Subturma AURICULOPEROTRILETES

- | | |
|-------------------------------|----------------------------|
| 3957 Auriculimembranispora Pd | 2884 Thaumatopterites Mt-j |
|-------------------------------|----------------------------|

d. Subturma ZONOPEROTRILETES

e. Infraturma Laevigati

- | | | |
|-------------------------|---------------------------------|-------------------------|
| 3292 Alternisporites Pc | 4630 Concentricosisporites Ps-d | 1532 Lundbladispora Mt |
| 1677 (*)Mirisporites Pc | 1685 Monilospora Pc | 3752 Pseudolycospora Pc |
| 2296 Purgatisporites Mc | 2540 Schlehanisporites Cp | 3165 Velamensporites Mc |

e. Infraturma Apiculati

- | | | |
|-----------------------------------|--|-------------------------------------|
| 4610 Bayanhuaspora Mc | 3825 Coronasporites Mt | 4089 Dissizonotrites Pd |
| 1104, 3556, 3983? *Ghoshispora Mc | 1145 Gondisporites Pp | 1231 ² *Heliosporites Pd |
| 1532 Lundbladispora Mt | 1870 *Paludites Cp | 4313 Pechorosporites Mt |
| 2296 Purgatisporites Mc | 3598 Racemospora Pc | 4790 Tethysispora Mt |
| 4053 Viduusisporites Pc | 1231 ² , 3252 *Wybostisporites Pd | |

e. Infraturma Murornati

- | | | |
|--------------------------------|-----------------------------------|-----------------------------|
| 690, 4638 Cyatheacidites Cn | 1104, 3556, 3983? *Ghoshispora Mc | 1870 *Paludites Cp |
| 2184 Pseudoannulatisporites Pd | 2449 Rouseisporites Mc | 2449?, 3061 Triporoletes Mc |

b. Turma TETRALETES

3529 Archaeozonotetraletes Pd

3559 Hymenozonotetraletes Pd

3570 Lophotetraletes Pd

b. Turma HILATES

c. Suprasubturma ACAVATOHILATES

d. Subturma AZONOHILATES

e. *Infraturma Laevigati*

4837, 4838 Artemopyra Ps

1384 Katrolaites Mj

2241 Psilomonoporites Mt

590 Coptospora Mc

4907 Laevolancis Pd

2249 Psomospora Pc

871, 3680 Duplicisporites Mt

2180 *Proximacirculatus Pp

e. *Infraturma Apiculati*

4586 Abdiverrucospora Mc

909, 4657 Elaterosporites Mc

1261, 4897 Hispanaedisus Ps-d?

2180 *Proximacirculatus Pp

4222 Crotonoidaepollenites Cn

4673 Gneudnaspora Pd

3474 Kornilovites Mc

2459 Rugulasphaeridium Pd

871, 3680 Duplicisporites Mt

3699 Haberkornia Mt

4921 Operculosculptites Cn

2547 Sciadopityspollenites Cn

e. *Infraturma Murornati*

871, 3680 Duplicisporites Mt

3474 Kornilovites Mc

3699 Haberkornia Mt

4775 #Spinivelipollis Mc

1261, 4897 Hispanaedisus Ps-d?

4997 #Walkeripollis Mc

d. Subturma ZONOHILATES

3643 Balmeiopsis Mc

1746 Naiaditaspora Mj

589 Cooksonites Mc

2310 #Quadripollis Mc

1032 Fossapollenites Mt

a. Anteturma POLLENITES

b. Division SACCITES

The classification outlined in Table 2 cannot be readily applied to saccate (vesiculate) pollen grains. This distinct group is here presented as an informal «Division» SACCITES, which is split up into «Subdivisions» of genera defined by the presence of one, two, or three or more air sacs. In a strict sense these Subdivisions are Subturma categories, as they are characterised by modes of exine differentiation. Within each Subdivision convenient «Infradivisions» based on aperture and exine ornament are set up, all in accordance with the generic diagnoses given.

In the event that descriptions of a genus and its type species do not specify an aperture the genus involved is classified as inaperturate. Genera and/or associated type species which are described as developing a «furrow», «colpus», «slit», «tenuitas», «germinal area», or «leptoma» are classified as sulcate, whether or not they develop additional proximal monolete or trilete laesurae.

c. Subdivision MONOSACCITES

d. Infradivision INAPERTURATI

- | | | |
|------------------------------------|--|----------------------------------|
| 27 Accinctisporites Mt | 4063 Anizonosaccites Cp | 4195 Anulusaccuspollenites ? |
| (138), 139 Applanopsis Mj | 354, 355, 1980?, 4618 | 4624 Circumplectipollis Pc |
| 1070 Cladaitina Pp | Callialasporites Mj | 595 Cordaitina Pp |
| 665, 4859 Crucisaccites Pp | 3674 Daughertyspora Mt | 753 Densipollenites Pp |
| 816 Dreticuloidospora Pp | 913 Ellipsovelatiporites Mt | (936), 937 Enzonasporites Mt |
| 1025, 1026, 4095 Florinites Pc | 1032 Fossapollenites Mt | 1055 Fragilipollenites Pc |
| 1210 Halosporites Pp | 1316 Inevolutisaccites Mc | 3990 Jiaohepollis Mc |
| 1390 Kibambaites Pp | 1455 Latella Mt | 1466 Lebachiacites Pp |
| 1467 Lebachites Mt | 1485, 1486 Libumella Pc | 1678 Misrapollenites Pp |
| 1775 Noeggerathiopsidozonalites Pp | 1908 Passausaccites Pp | (1964), 1965 Perisaccus Pd |
| 1980 Pflugipollenites Mj | 1991 ² Phyllocladipollenites Cn | 2162 ² Protocedrus Mc |
| 4736 Pseudocircella Pp | 2240 Psilohymena Pc-Mtj? | 2562 Sehorisporites Pp? Mt? |
| 2621 Solisiporites Pc | 2688 Stellapollenites Pp | 2807 Sulcosaccispora Mt |
| 2851 Tenuisaccites Mt | 3107 Tuberisaccites Pp | 3158 Variavesculites Mc |
| 3222 Virkisporea Pp | 3796 Wapellites Pc | 3271 Zonaletes Pc |

d. Infradivision MONOLETI - TRILETI (see also Suprasubturma PERINOTRILETES)

- | | | |
|---------------------------------------|---|---|
| 4592 Aganosaccites Pp | (138), 139 Applanopsis Mj | 157, 158, 3942 Archaeoperisaccus Pd |
| 3957 Auriculimembranispora Pd | 200 Auroraspora Pc | 240 Barakarites Pp |
| 241 Bascanisporites Pp | 4811 Bicestipollis Mj | 618 ² , 363 Calyptosporites Pd |
| 383 Cannanoripollis Cn | 4624 Circumplectipollis Pc | 3662 Colpisaccites Pp |
| 3825 Coronasporites Mt | 618 ² Cosmosporites Pd | 622 Costatascyclus Pc |
| 663 Cristianisporites Mt | 665, 4859 Crucisaccites Pp | 676 Culleisporites Pp |
| 731 Cystoptychus Pc | 3678 #Douberingispora Mt | 3551 Dyupetalum Pp |
| 910 Elilasaccites Pp | 912 Ellipsosaccus Mt | 926, (1073), 3216?, 4242, 4243 |
| 1010, 3337 Felixipollenites Pc | 1148 Gondwanopollis Pp | Endosporites Pc |
| (1198), 1199 Guthoerlisporites Pc | (1227), 1228 Heliosaccus Mt | (1282), 1284, 1285, (3221) |
| 962?, 1061?, 1371, 3562, 4107, 4268 | 1383 Katangaites Pp | Hymenozonotriletes Pp |
| Jugasporites Pp? | 1420 Labiipollenites Pp | (73), 1456 Latensina Pc/p |
| 1521 Lubersaccites ? | 3719 #Mostlerina Mt | 1718 Mosulipollenites Pp |
| 1776 Noeggerathiopsidozonotriletes Pc | 1787, 1788 Nuskosporites Pp | 1812 Okayisporites Pc |
| 1843 Pachysaccus Pp | 1865 Paleospora Pc | 1889, 4924 Parasaccites Pp |
| 1891 Paratriopollenites P | 3737 Peppersites Pc | 1946 Perianthospora Pc |
| (1964), 1965 Perisaccus Pd | 1980 Pflugipollenites Mj | 2033 Playfordiaspora Mt-j |
| 2041 Plicatipollenites Pp | 1264?, (2133), 2135 Potonieisporites Pc | 2189 Pseudocordaites Pp |
| 3750 ² Pseudoillinites Pc | 2218 Pseudowilsonia Pd | 2240 Psilohymena Pc-Mtj? |
| 2284 Punctasaccites Pp | 4506 Qipanapollis Pp | 3750 ² , 4148 Quasillinites Pc |
| 2349 Remysporites Pc | 2433 Rimosporea ? | 4752 Robandispora Pc |
| 2453 Rugasaccites Pp | 2545 Schulzospora Pc | 2608 Singhiapollis Mj? |
| 2654 Spinosipollenites Pc | (2802), 2803 Succinctisporites Mt | 2807 Sulcosaccispora Mt |
| 2808, 3414 Sullisaccites Pc | 4787, 4983 Teichertospora Pd | 2893 Thomsonisporites Mt |
| 2906 Tinnulisporites Pc | 3083 Trizonasporites Pp | 3162 Varlamoffites Pp |
| 3169 Velosporites Pc | (3248), 3250 Wilsonites Pc | 3271 Zonaletes Pc |

d. Infradivision MURORNATI - COSTATI

- | | | |
|---------------------------|------------------------------------|-----------------------------|
| 265 Bharadwajipollis Pp | 300 *Boutakoffites Pp | 343 Caelopollis Cp |
| 620 Costapollenites Pp | 667, 4401, 4636 Crustaesporites Pp | 834 Distriomonosaccites Pp |
| 3978 Goubinispora Mt | 4694 Kamthisaccites Pp | 1401 Korbapollenites Pp |
| 1564 Mabuitasaccites Pp | 2766 Striatolebachites Pp(-Mt) | 2769 Striatomonosaccites Pp |
| 2786 Striomonosaccites Pp | | |

d. Infradivision SULCATI

- | | | |
|--------------------------|-------------------------------------|------------------------------|
| 16 Abietipites Cn | 4592 Aganosaccites Pp | 344, 3649 Caheniasaccites Cp |
| 816 Dreticuloidospora Pp | 843 Divarisaccus Pp | 1264 Hoffmeisterites Pp |
| 3713 Kuglerina Mt | 1521 Lubersaccites ? | 1917 Patinasporites Mt |
| 2463 Rugumonorites Mc | 2490, 2491 Samoilovitchisaccites Pp | 2537, 4527 Schizopollis Pp |
| 2805 Sulcatiporites Mt | 3791 Umbilisaccites Pp | (3206), 3207 Vesicaspora Pc |
| 4807 Vitimipollis Mc | 3235 Walchites Mj | 4808 Xilinipollis Mc |

c. Subdivision DISACCITES

d. Infradivision INAPERTURATI - MONOLETI

- | | | |
|-------------------------------------|-----------------------------------|--|
| 3533 Bactrosporites Pp | 461 Chordasporites Mt | 540 Complexisporites Pp? |
| 556 Conclusisporites Pp? | 599 Corisaccites Pc | 717 Cyclosaccus Mt |
| 954 Erdtmania Mt? | 980 Exiguosporites Mt | 1006 Favisporites Pp |
| 1018 Fimbriaesporites Pp | 4885 Gameroites Mc | 1086 Gardenasporites Pp |
| 1108 Gigantosporites Pp | 1202, (2163, 3594) Gynkgaletes Pp | 3702 Hesperoepucepollenites Cn |
| 1262 Hoegiasaccites Pp | 1292 Ibisporites Pp | 1315 Indusiisporites Mt |
| 1316 Inevolutisaccites Mc | 1324 Institisporites Mt | 1364 Jansoniuspollenites Mt |
| 962?, 1061?, 1371, 3562, 4107, 4268 | 1387 Keteleeriaepollenites Cn | 1422 Labiisporites Pp |
| Jugasporites Pp? | 1455 Latella Mt | 1461 Latosaccus Mt |
| 4276 Latusipollenites Pp | 4277 Leiosaccus Mt | 1494, 1495, 4281 Limitisporites Pp |
| 1503 Lobosporites Mt-j | 3717 Longicorpuspollenites Cn | 1518 Lorisporites ? |
| 1534 ² Lunzisporites Mt | 1767 Nidipollenites Mt | 1839, 1840, 3375, 3730 Ovalipollis Mj? |
| 1849 Palaeoabietipites Mt | 1866 Pallidosporites Pp | 1877 Panucellina Mj |
| 1896 Parcisorites Mt | 1898, 3735 Parillinites Mt | 1900 Parmasporites Pp |
| 3741 Phillipsites Pc | 1988 Phrixipollenites Mc | 1996 Piceapollis Cn |
| 1997 Piceidites Mc | 2006, (2057) Pinipollenites Cn | 2007 Pinites Mc |
| (2031), 2032 Platsaccus Pp | 2042 Plicatisaccus Mt | 2063 Pododipterella Mt |
| 2144 Pristinuspollenites Mj | 2156 Protoabietipites Mt | 2160 Protocedrus Mj |
| 2162 ² Protocedrus Mc | 2166 Protodiploxypinus Mc | 3894 Prototaeniaesporites Mt |
| 2193 Pseudolarixidites Mt | 2259 Pteruchipollenites Mj | 2278 Punctabivesiculites Mc |
| 4326 Quadrangulosaccites Cn | 2326 Radiatisaccus Mt | 2357 Retibivesiculites Mc |
| 2431 Rimaesporites Mt | 2433 Rimospora ? | 2477 Saepasporites Mt |
| 2480, 4336 Sahnites Pp | 2487 Samaropollenites Mt | 2503 Satsangisaccites Mt |
| 2524 Scheuringipollenites Pp | 2555 Scutasporites Pp | 2755 Striatoconiferacites Mt |
| 2759 Striatodiploxypinites Pp | 4786 Szeisaccites Pp | 2825 Taedaepollenites Mj |
| 3112 Tumoripollenites Pp | 3131 Umbrososaccus Mt | 3133 Unatextisporites Mt |
| 3153 Valiasaccites Pp | 3197 Verrusaccus Mt | 3213, 4357 Vestigisporites Pp |
| 3230 Voltziapites Mt | 3237 Walikalesaccites Pp | 3796 Wapellites Pc |

d. Infradivision TRILETI

- | | | |
|---------------------------------|------------------------------------|-------------------------------------|
| 267 Bhardwajispora Mt | 323 Bugensipollenites Pc | 540 Complexisporites Pp? |
| 962 Eridospollenites Pp | 1108 Gigantosporites Pp | 962?, 1061?, 1371, 3562, 4107, 4268 |
| 540?, 1300, 1402?, 3750?, 4148? | 1494, 1495, 4281 Limitisporites Pp | Jugasporites Pp? |
| Illinites Pc | 1890 Parasporites Pc | 2065 Polarisaccites Pc? |
| 2167 Protodisaccites Pc | 2182 Pseudillinites Mt | 2480, 4336 Sahnites Pp |
| 2941 Triadipollenites Mt | 2182?, 2942, 3784 Triadispora Mt | |

d. Infradivision MURORNATI - COSTATI

- | | | |
|-------------------------------------|---|--------------------------------------|
| 4827 Amplexisaccites Mt | 3532 Auroserisporites Pp | 343 Caelopollis Cp |
| 3657 Chordasporites Mt | 493 Circumstriatites Pp | 4851 Citrullisaccites Mt |
| 4396 Conovalipollis Mt | 620 Costapollenites Pp | 623 Costatipollenites Mt |
| 651 Crescentipollenites Pp | 833, 1212?, 4412, 4678? Distriatites Pp | 1005, 4879 Faunipollenites Pp |
| 1064 Funisporites Pp? | 1140 Gnetalesaccus Pp | 1147 Gondwanipollenites Pp |
| 1212, 1673?, 2777?, 4678 | 1258 Hindipollenites Pp | 1317, 3707 Infernopollenites Mt |
| Hamiapollenites Pp | 1318 Infirmissporites Mt | 1401 Korbapollenites Pp |
| 1444 Lahirites Pp | 1525, 1900? Lueckisporites Pp | (1529), 1530, 1531, 2826? |
| 1582 Mahudapollenites Pp | 1643 Mesostriatites Mt | Lunatisporites Mt |
| 1673 Minutisaccata Pp | 3367 Monoletesaccites Pp | 1720 Mucrosaccus Pp |
| 1751 Naviculaformipites Mc | 1839, 1840, 3375, 3730 Ovalipollis Mj? | 3883 Parataeniaesporites Mt |
| 3380 Paucistriatopinites Pp | 2065 Polarisaccites Pc? | 2089 Polylophothylax Pp |
| 2168, (2763) Protohaploxypinus Pp | 2173 Protosacculina Mt | 4735 Protowelwitschiapollis Pp |
| 3895 Pseudochordasporites Mt | 4746 Renopollis Mc | (2417), 2418 Rhizomaspora Pp |
| 4531 Sichuanpollenites Mt | 4768 Sinosaccites Pp | 3915 Staplinites Cn? |
| 3409 Staurosaccites Mt | 2734 Striapollenites Pp | 2741 Striatipites Mt |
| 2742, 4345 Striatissaccus Pp | 2745, 2746, 3916 Striatites Pp | 2748 Striatoabietes Pp |
| 2758, (2760) Striatodiplopinites Pp | 2759 Striatodiploxypinites Pp | 2762, (2764) Striatohaplopinites Pp |
| 2767 Striatoluberae Pp | 1077 Striatoparvisaccites Pp | 2771 Striatopiceites Pp |
| 2773 Striatopinites Pp | 2774 Striatopodocarpites Pp | 2777 Striatosaccites Pp |
| 2791 Strotersporites Pp | 2826 Taeniaepollenites Mt | 2826?, 2827, 2828 Taeniaesporites Mt |
| 2897 Thuringiasaccus Pp | 2918 Tomopollenites Pp | 3095 Tubantiapollenites Mt |
| 3205 Verticipollenites Pp | 3932 Weiyanpollenites Mt | 3240 Welwitschiapollenites Mt |
| 3241 Welwitschites Mc | | |

d. Infradivision SULCATI

11 Abieticedripites Mc	13 Abiespollenites Cn	15 Abietinaepollenites Cn
16 Abietipites Cn	17 Abietites Mt	64 Aliferina Mj
68, 69 Alisporites Mt	4192 Angustisaccus Mt	103 Angustisulcites Mt
3637 Anticapipollis Pp	4602 Ashmoripollis Mt	3530 Aurangapollenites Pp
215 Bacubivesiculites Mc	223 Baculopollenites Mc	344, 3649 Caheniasaccites Cp
420 Caytodipterella Mt	423 Caytoniidites Mt	424 Caytonipollenites Mj?
427 Cedricites Mc	428, (430) Cedripites Cp	429 Cedripitites Mt
506 Clavabivesiculites Mc	533 Colpectopollis Mj	3662 Colpisaccites Pp
541 Complicatisaccus Mt	659 Cristatisaccus Mt	674 Cucullispora Mt
677, 3670 Cuneatisporites Mt	734 ² Dacrydiumites Cp	735 Dacrydiumites Cp
736, 1550? Dacrydiumpollenites Mc	737 Dacryrotundina Mt	766 Diaphanisporites Mt
807 Diplosacculina Mt	816 Direticuloidospora Pp	915 Elongatosaccites Mt
992 Extremella Mc	1001 Falcisporites Pp	1064 Funisporites Pp?
1158 Granabivesiculites Mc	1176 Granosaccus Mt	1217 Haploaliferina Mt
540?, 1300, 1402?, 3750 ² ?, 4148?	1319 Inflatosaccus Pp	1382 Karpatisporites Pp
Illinites Pc	1394 Klausipollenites Pp	1402 Kosankeisporites Pc
(1529), 1530, 1531, 2826?	1550 Lygistepollenites Cp	1674 Minutosaccus Mt
Lunatisporites Mt	1720 Mucrosaccus Pp	1799 Oblatinella Mt-j
1862 Paleopicea Mj	1877 Panucellina Mj	1893 Paravesicaspora Pp
1896 Parcisorites Mt	(1906), 1907 Parvisaccites Mc	1926 Pectinella Mt-j
3741 Phillipsites Pc	(734), 1989, (1990) Phyllocladidites Mc	1993, 4315 Piceapollenites Cn
1999, (2056) Piceites Mj	2012 Pinuspollenites Cn	2012?, (2016), 2017, 3585
(2031), 2032 Platysaccus Pp	2049 Pocockipites Mj	Pityosporites Mj?
2052 Podocarpacites Mj	(2054), 2055 Podocarpidites Cp?	2070 Polonisaccus Mt
2143 Primuspollenites Pp	2144 Pristinuspollenites Mj	2161 ² Protocedrus Mc
(2164), 2165 Protoconiferus Mj	2166 Protodiploxypinus Mc	2169 Protopicea Mj
2170 Protopinus Mj	2171 Protopodocarpus Mj	3894 Prototaeniaesporites Mt
2193 Pseudolarixidites Mt	2197 Pseudopicea Mc	2200 ² Pseudopinus Mj
2204 Pseudopodocarpus Mj	4143 Pseudoquadrisaccus Mt	2217 Pseudowalchia Mc
2049?, 2304, 4507 Quadraeculina Mt-j	2337 Raniganjiasaccites Pp	2431 Rimaesporites Mt
2457 Rugubivesiculites Mc	2479 Sahnisporites Pc	3399 Schansisporites Pp
2525 Schismatosporites Mt/j	2538 Schizosaccus Mt	2553 Scopulisporites Mt
4163 Shaanxipollis Mt	2052 ⁵ , 2682 Stachycarpites Mt	3791 Umbilisaccites Pp
4800 Urumqisaccites Pp	4807 Vitimipollis Mc	424?, (3224), 3225 Vitreisporites Mt
3229 Voltziaceasporites Mt	3240 Welwitschiapollenites Mt	4998 Wulanipollenites Mj

c. Subdivision POLYSACCITES

33 Acropylites Mt	3957 Auriculimembranispora Pd	354, 355, 1980?, 4618
443 Cerebropollenites Mj	3825 Coronasporites Mt	Callialasporites Mj
667, 4401, 4636 Crustaesporites Pp	733 Dacrycarpites Cp	734 ² Dacrydiumites Cp
866, 4651 Dulhuntyispora Pp	1061 Fuldaesporites Pp	4431 Gajdarovaspora Mt
1161 Granamultivesiculites Mc	1165 Granatrivesiculites Mc	1201 Guttulapollenites Pp/Mt
1254 Hexasaccites Mt	1344 Inversisporites Pp	4276 Latusipollenites Pp
1582 Mahudapollenites Pp	1648 Microcachrydites Cp	2053 Podocarpeapollenites Mj
2064 Podosporites Mj	2065 Polarisaccites Pc?	4733 Polysaccus Pp
2157 Protoacmopylites Pp	4143 Pseudoquadrisaccus Mt	2283 Punctamultivesiculites Mc
2463 Rugumonoporites Mc	2537, 4527 Schizopollis Pp	2881 Tetrasaccus Pp
2890 Tholosporites Pp	4173 Triangulisaccus Mt	2964, 3075?, 4557
3075 Trisaccites Cp?	3085 Trizonites Mt	Trichotomosulcites Mc
3088 Trochosporites Pp	3093, (3094) Tsugaepollenites ?	3927 Ungulapollis Mt
3265 Zonalapollenites Cn		

b. Turma ALETES - INAPERTURATES

This Turma includes spores and pollen grains which either lack an aperture, or which develop an ill-defined exine modification rather than a distinct aperture; be it a *tenuitas* - such as in *Araucariacites* and *Sequoiapollenites* - or an incipient *hilate* structure. Subdivision of this Turma follows that of Table 1.

c. Suprasubturma ACAVATALETES

Aletes

d. Subturma AZONALETES

e. Infraturma Laevigati

- | | | |
|-----------------------------------|-----------------------------------|-----------------------------|
| 19, 4588 #Acaciapollenites Cn | 58 ² Aletes Pc | 98, 3402? *Aneuletes Mj |
| 113 Aggerella M? | 234, 4202 Balmeella Pp | 501 Classites Cp |
| 636 Crassipollenites Mt-j | 680, 3547, 3548 Cupressacites Mc | 821 Disectispora Pc?/p |
| 872 Duplipollenites Mj | 3681, 4876 Dyadospora Ps | 911 Ellipsaletes Pd |
| 995 Fabasporites Pc | 1028 Foldexina Cp | 1156 Graminipites Mc |
| (1184), 1185, 1871? Grebespora Mt | 1308, 3985, 4688 | 3472 Inaperturosporites Pp |
| 3473 Inderites Pp | Inaperturopollenites Cp-n | 1350 Irrimales Mj |
| 1396 Knoxipites Cp | 1429, (1450) Laevigatasporites Cn | 1452 Larixidites Mc |
| 1469 Leioaletes Pc | 1503 Lobosporites Mt-j | 1580 Magnosporites Mc/Cp |
| 1630 Megamonoporites Mt | 3725 #Nodospora Ps | 1860 Paleoconiferus Mj |
| 1871 Paludospora Pp | 1914 Patellina Mj | 2001, 4316 Pilasporites Pp |
| 2073 #Polyadipollenites Cp | 2083 #Polyedraletes Pd | 2180 *Proximacirculantes Pp |
| 4029 Pseudogrebespora Pp | 2213 Pseudotsugoidites Cn | 2222 Psilainaperturites Mc |
| 4940 #Psilatetradites Mc | 2250 Psophosphaera Mc | 2280 Punctainaperturites Mc |
| 2285 Punctatasporites Pc | 2302, 3393 #Pyramidosporites Pp | 4753 Rotundipollis Mc |
| 2471 *Saccarisporites P?Mj/c? | 2643 Spheripollenites Mj | 4542 #Stegambiquadrella Ps |
| 2839 Taxodiaceapollenites Cp | 3778, 4986 #Tetraedraletes Ps | 2871 #Tetraletes Ps-d |
| 2873 Tetrangopollen Cp | 2950 Triangulopsis Mj | 4046 Trilobapollis Cp |
| 4797 #Tritonialetes Po | 3622 Urmites Pp | 3159 Variouxisporites Pc |
| 4808 Xilinipollis Mc | | |

e. Infraturma Apiculati

- | | | |
|-----------------------------------|-------------------------------------|-----------------------------------|
| 58 ² Aletes Pc | 3290 Aleteverrucosispora Pp | 34 Acolporipites Cp |
| 113 Aggerella M? | 151, (1181), 4598 Araucariacites Cp | 152 Araucariapollenites Mj |
| 216 Bacuinaperturites Mc | 4606 Baculatasporites Pc-p | 234, 4202 Balmeella Pp |
| 3303 Berckmaniates Pp | 3310 *Capillisporites Mt | 507 Clavainaperturites Cp |
| 512 Clavatasporites Pp | 543 Conaletes Mt | 565 Congoites Cn |
| 573 Conipollenites Mt | 612 Corrusporis Cp | 636 Crassipollenites Mt-j |
| 4222 Crotonoidaepollenites Cn | 666 Crusafontites Mc | 801 Dilwynites Cp |
| 863 #Droseridites Cp | 861 Dyadonapites Mc | 911 Ellipsaletes Pd |
| 920 Encalyptaesporites Cn | 995 Fabasporites Pc | 1029 Foliopollenites Mj |
| 1089 Gemmainaperturites Mc | 1106 Gibeosporites Mt | 1134 Globulaesphaeridium Pp |
| 1144 Gondisphaeridium Pp | 1151 Gossipiipollenites Cn | 1177 Granulatasporites Mt |
| (1184), 1185, 1871? Grebespora Mt | 1190 Grimsdalea Cp/n | 4257 Guinetia C?n |
| 3347 Haplocystia Pp | 1261, 4897 Hispanaedisca Ps-d? | 1263 Hoegisporis Mc |
| 3471 Inapertipollis Cp | 3473 Inderites Pp | 1362 Jacutiana Mc-Cp |
| 1377 Jurea Mj | 4269 *Kerhartisporites Mc | 1588 Mammialetes Pp |
| 1708 Monopunctites Cn | 1750 Naumovasporea Mt | 3725 #Nodospora Ps |
| 1791 Nymphaeacidites Cn | 1914 Patellina Mj | 1933 Peltandripites Cp |
| 4134 Pilasphaeridium Pp | 2001, 4316 Pilasporites Pp | 2180 *Proximacirculantes Pp |
| 2285 Punctatasporites Pc | 2312 #Quadrissporites Pp/Mt | 2391 Retirotundia Cp |
| 2412 Reyrea Mc | 2428 #Ricciisporites Mt-j | 4753 Rotundipollis Mc |
| 2450 Rubinella Mj | 2466 Rusizia Cn | 2471 *Saccarisporites P?Mj/c? |
| 3610 Sahialetes Pp | 2578 Senisporea Pp | 2582 Sequoiapollenites Cn |
| 4339 Shanghupollis Cp | 2618 Smilacipites Cp | 2623 Sooiipollenites Cp |
| 2625, 4539 Spackmanites Pc | 2643 Spheripollenites Mj | 2645, 4972 Spinaepollis Cp |
| 2646 Spinainaperturites Mc | 2657 Spinosopites Cp | 2663 Spinuliferoidaepollenites Cn |
| 3915 Staplinites Cn? | 3510 Stratipollis Cn | 2837 Taxacites Mj |
| 2840 Taxodiocites Cp-n | 2846 *Telocystes Pc?-Pp | 2854, 3774 Terscissus Mc-Cp |
| 2865 #Tetradopites Cp | 2871 #Tetraletes Ps-d | 2943 Trialapollis Mc |
| 2950 Triangulopsis Mj | 4797 #Tritonialetes Po | 4802 #Vallatiales Po |
| 3192 Verruinaperturites Mc | 3280 Zonostriatites Pp? | |

e. Infraturma Murornati

- | | | |
|--|-------------------------------------|---|
| 113 Aggerella M? | 136 Aporina Mc | 175 Asaccites Mj |
| 2356 ² , 3297, 4604 Assamialetes Cp | 3298 Assamiapollenites Cp | 444 ² , 3447 Atopospora Mc-?Cp |
| 191 Aumancisporites Pp | 218 Baculareticulosporis Mc | 282 Bireticulasporis Cn |
| 320 Brodispora Mt | 331 Bullulina Mt/j | 4077, 4208 *Carbaneuletes Pc |
| 413 Catalpapolis Cn | 444 ² Ceuthospora Mc-?Cp | 460 Chomotriletes Pd |
| 489 Circulisporites Mt | 4852 Confossuspora Ps? | 606, 607, 3323 Corollina Mj |
| 794 #*Didymosporites Pc | 803 Dioonipites Cp | 3679 #Droserapites Cn |
| 861 Dyadonapites Mc | 908 Elateropollenites Mc | 916 Elongatosporites Pc |
| 952, 4661 Equisetosporites Mt | 4663 Fagraeapollis Cp/n | 1011 Fenestripollenites Cp |
| 1038 Foveoinaperturites Mc | 4100 Gondiasporeites Pp | 1187 Greinervillites Pp |
| 4675 Guyangspora Mc | 1202, (2163, 3594) Gynkgaletes Pp | 1310 #Inaperturotetradites Mc |

e. Infraturma Murornati (cont.)

3473 Inderites Pp	3518, 3987 Jania Mc	1372 Jugella Mc
4269 *Kerhartisporites Mc	1396 Knoxipites Cp	4460 Laricispollenites Cn
4700 Lobatia Mc	1569 Maculatasporites Pp	1581 #Magnotetradites Cp
1613 Meandripollis Cn	1630 Megamonoporites Mt	3482 Mica Mc
1660 Microreticulatipites Cp	1782 Novisporites Pc	1860 Paleoconiferus Mj
3580 Perforela Ps	2001, 4316 Pilasporites Pp	2083 #Polyedraletes Pd
2131 Potamogetonaceapites Cp	2132 Potamogetonacidites Cn	2202 Pseudoplicatella Mc
2207 Pseudoschizaea C	2323 Radialetes Pc	2355 Retialetes Pc
2356 ² Retialetes Cp	(209), 2362, (2364, 2366)	2363 ² Reticulatasporites Mt
2381 Retiaperturites Cp?	Reticulatasporites Pc	2389 Retipilonapites Cn
2390 Retipollenites Cp	4956 #Retipolyadites Mc	4750 (*) Retisphaera Mc
3759 Rugaletes Pp	3760, 4961 Rugosphaera Ps	2458 Ruguinaperturites Mc
2459 Rugulasphaeridium Pd	4962 Rugosporomorphites Mc	3398 Sahiapollis Cn
2527 Schizaeaceasporites Cp	2528 Schizaeacites Mt	2529 Schizaeites Mc
2567 *Selenasporites Mc	2578 Senispora Pp	4971 Shiheziesporites Pp
2610 Singraulipollenites Pp?	4775 #Spinivelipollis Mc	2667 Spiralisporites Mc
2668 Spirapollis Cp	3915 Staplinites Cn?	1237 ^s , 4977 (#) Striaticorpus Mc
4979 ² Striatosporites Mc	4169 Strophomorpha Ps	4546 Szokolyasporites Cn
2854, 3774 Terscissus Mc-Cp	4046 Trilobapollis Cp	4797 #Tritonialetes Po
3134 Undulatasporites Mt	3622 Urmites Pp	4802 #Vallatiales Po
3154 Vallasporites Mt	3220 Virgatasporites Pd	3280 Zonostriatites Pp?

d. Subturma AURICULALETES

e. Infraturma Laevigati

1929 Pekmezçileripollenites Pc	2206 Pseudorondites C	4520 Rhombosporites Mc
2620, 4040, 4164 Sofrepites Mc		

e. Infraturma Apiculati

4260 Heerisporites Cn	4520 Rhombosporites Mc
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e. Infraturma Murornati

4260 Heerisporites Cn	1928 Pediculisporis Mc	2574 Senegalosporites Mc
2585 Sergipea Mc		

d. Subturma CRASSITUDALETES

4960 #Rimosotetras Ps

d. Subturma ZONALETES

e. Infraturma Laevigati

271 Biannulatisphaerites Pc	3318 Cingulatiipollenites Mj?-c	775 Dicheiopollis Mc
4091 Elosporites Pp	1080, 1081 Galeacornea Mc	3561, 4691 Iunctella Pp
1384 Katrolaites Mj	1491 Limbatella Mc	1639 Membranolimbus Mj
1684 #Monilapollis Mj-c	1871 Paludospora Pp	1883 Paracirculina Mt
2505 Saturnus Pd	3078 Trisphaera Mj	3778, 4986 #Tetraedraletes Ps
3272 ² Zonaletes Pc		

e. Infraturma Apiculati

3643 Balmeiopsis Mc	475 Cingualetes Pp	3318 Cingulatiipollenites Mj?-c
949 Ephemerisporites Cn	1080, 1081 Galeacornea Mc	1365 Januasporites Mc
1377 Jurea Mj	2310 #Quadripollis Mc	2505 Saturnus Pd
2564 Selaginellidites Mc	2603 Simplicisporites Mt	2744 Striatosporites Mt
3280 Zonostriatites Pp?		

e. Infraturma Murornati

136 Aporina Mc	281 Birbalipites Mc/Cp	482 Circella Mt
4091 Elosporites Pp	1032 Fossapollenites Mt	4675 Guyangspora Mc
1149 Gordoniella Mt?/Mj?	3561, 4691 Iunctella Pp	1365 Januasporites Mc
2449 Rouseisporites Mc	3611 Saturna Cp	2560 Seductisporites Mc
2449?, 3061 Triporoletes Mc	3086 Trochicola Mc	3265 Zonalapollenites Cn
3266 Zonalasporites Pc	3271 Zonaletes Pc	3275 Zonareticulatisporis Pp
3280 Zonostriatites Pp?		

c. Suprasubturma PERINOALETES

Aletes

d. Subturma AZONOPERINALETES

e. *Infraturma Laevigati*

3662 Colpisaccites Pp	913 Ellipsovelatisporites Mt	3472 Inaperturosporites Pp
1639 Membranolimbus Mj	1957 ² Perinosporites Cn	1969 Peroaletes Mt
2148 Properinopollenites Mc	2180 *Proximacirculantes Pp	3407 Spongocystia Pp
3138 Undulipollis Mj?	4808 Xilinipollis Mc	

e. *Infraturma Apiculati*

3662 Colpisaccites Pp	1259 Hindisporis Pp	3481 Menglapollis M-C
1957 ² Perinosporites Cn	2148 Properinopollenites Mc	2180 *Proximacirculantes Pp
4968 Segestrespora Ps		

e. *Infraturma Murornati*

4077, 4208 *Carbaneuletes Pc	446 Chamaecyparidipollenites Cn	605 Corollaria Mt
3969 Densostriapollis Mt	785, 2363 ² Dictyoderma Mt	3481 Menglapollis M-C
2097 Polypodiceasporites Cp	3760, 4961 Rugosphaera Ps	4968 Segestrespora Ps
4979 ² Striatosporites Mc		

d. Subturma ZONOPERINALETES

4811 Bicestopollis Mj	2449 Rouseisporites Mc	2744 Striatosporites Mt
2449?, 3061 Triporoletes Mc	3084 Trizonatisporites Mt	

b. Turma POLYPLICATES

191 Aumancisporites Pp	4632 Cornetipollis Mt	3969 Densostriapollis Mt
907 Elateroplicites Mc	943 Ephedracites Mc	944 Ephedripites Mc
952, 4661 Equisetosporites Mt	4881 Ferganosporites ?	1146 Gondwanaeaplicates Pp
1713 Monsteroideaeapites Cp	3602 Regalipollenites Mc	2528 Schizaeacites Mt
2574 Senegalosporites Mc	2607 Singhia Mc	2667 Spiralisporites Mc
2685, 3614, 4780 Steevesipollenites Mc	2699 Stephanocolpopollenites Cn	2729 Striainaperturites Mc
4169 Strophomorpha Ps	4994 Ventralvittatina Pp	2767?, 3226 Vittatina Pp
3239 Welwitschiapites M?	3241 Welwitschites Mc	3280 Zonostriatites Pp?

b. Turma MONOSULCATES

84 #Amosopollis Mc	166 Arecipites Cp	4377 Arengapollenites Cp
4602 Ashmoripollis Mt	191 Aumancisporites Pp	192 Auriculidites Mc
210, 4605 Azonia Mc	217 Baculamonocolpites Mc-Cp	226 Bacumorphomonocolpites Mc
249 Bennettitaceaeacuminella Mt	250 Bennettitaceaeinvolutella Mt	253 Bennettinaepollenites Mj
251 Bennettitaeapollenites Mj	266, 3304 Bharadwajapollenites Mt	4069 Biwasiaspora Cp
302 Brachysaccus Mt	4381 Brenneripollis Mc	3538 Brevimonosulcites Mj
351 Calamuspollenites Cp	3539, 4623 Cavamonocolpites Mc	451 Cheileidonites Pc
508, 4626 Clavamonocolpites Cp	3659 Clavapalmaedites Cn	513, 4394 Clavatipollenites Mc
4214 CollospERMumpollis Cp	554 Concentrisporites Mt	559 Confertisulcites Mc
577 Constructipollenites Mc	601 Corniculatisporites Mc	3664 Costatisulcites Mt
627, 4220 Couperipollis Cn	4399 Crassipollis Mc	3325 Crotonipollis Mc?
3668 Crotonisulcites Cn	686 Curvimonocolpites Cp	693 Cycadaceaelagenella Mt
(441), 694 Cycadaceaeplatychila Mt	703, (704), 3459 Cycadopites Cp	744 Decussatisporites Mt
745 Decussosporites Mc	832 Distriamonocolpites Pp	861 Dryptopollenites Cp
886, 4239 Echimonocolpites Mc	887 ² Echimonocolpites Cp	888 Echimorphomonocolpites Cp
921 Encephalarites Cp	922 Encephalartidites Mj?	923 Encephalartilagenella Mt/j
(695, 702), 934, (1111, 1112)	967, 968 Eucommiidites Mj	4881 Ferganosporites ?
Entylissa Pp	4426 Fedocarina Mc	1013 Feugueuripollenites Cp
1040 Foveolatipollenites Pc	4427 Foveomonocolpites Mc	1044 Foveomorphomonocolpites Mc/Cp
1065 Fusacolpites Pp	1090 Gemmamonocolpites Mc	1100 Gentianaceaeformis Cp
1113 Ginkgoidites Mj	1116 Ginkgopites Cp	1117 Ginkgoretectina Mj
1159 Granamegamonocolpites Mt	1160 Granamonocolpites Mc	4441 Harskutipollis Mc
1238 Hemisphaerium Pc	4683 #Huabeisporites Mt	1345 Involutella Mt-j
4689 Iridacidites Cn	3561, 4691 Iuncella Pp	1392 Kingiacolpites Pp
1421 Labiipollis Mt	1439 Lagenella Mt-j	4696 Lethomasites Mc

b. Turma MONOSULCATES (cont.)

4113 Liliaceapollenites Cp	1489, 4280, 4462 Liliacidites Mc	1490 Liliipollis Cn
1499 Liriodendroipollis Cn	1506 Longapertites Mc	4466 Magnamonocolpites Cn
1577 Magnoliaepollenites Cn	1578 Magnolipollis Cn	1584 Maljavkinaepollenites Mt
1607, 3280?, 4292, 4293 Marsupipollenites Pp	3574 Marsypiletes Mc	4467 Matanomadhiasulcites Cp
1667 Milfordia Cp	1612 Mauritiidites Mc	1660 Microreticulatipites Cp
4709 Monocrinopollis Mt	1686 Monoalites Pc	1691, (1868), 4297 Monocolpopollenites Cp
1708 Monopunctites Cn	1693, 4298 Monogemmmites Cp-n (1711), 1712 Monosulcites Cp?	1752 Navisulcites Mc
1785 Nupharipollenites Cn	4711 Neocouperipollis Cp	1786 Nupharipollis Cn
1844 Pachytella Mc	1847 Pakhapites Pp	1867 Palmaepites Cp
1879 Papillamonocolpites Cp	1894 Paravittatina Pp	4317 Pinjoriapollis Cn
4726 #Placopollis Mt	2139 Praecolpatites Mt	2141 Preticolpipollenites Mj
2172 Protoquercus Mc	2194 Pseudomonocolpites Mt	2220 Pseudozamites Mt
2224 ² Psilamonocolpites Cp	2225 ² Psilamonocolpites Mc	4937 Psilamonocolpites Mc
2246, 4325 Psilospora Mj-c	2279 Punctacopites Pp	2281 Punctamonoaperturites Mt
2282 Punctamonocolpites Mc	2283 Punctamultivesiculites Mc	2293 Punctilongisulcites Cn
2299 Pustulipollis Mc	4328 Quantonenpollenites Mc	3755, 4329 Quilonipollenites Cn (2359), 2382, 4513 Retimonocolpites Mc
2321 Racemonocolpites Mc-Cp	2340 Rectosulcites Cp	2470 Sabalpollenites ?
4514 Retimonosulcites Cp	2396 Retisulcites Mt	4532 Similipollis Mc
2399 #Retitetrades Mc	2429 Riedelia C	2730 Striamonocolpites Cn
3504 Scatula Mc	2541 Schopfipollenites Pc	4785 Sulculicystis Mt
4973 Spinomonosulcites Cn	2689, 3325?, 4975 Stellatopollis Mc	2866 #Tetradopollenites ?
2736 Striasulcites Pp	2806 Sulcatopites Mt	4795 Tricrinopollis Mt
2839 Taxodiaceapollenites Cp	2840 Taxodiacites Cp-n	3193 Verrumonocolpites Mc
3418 Trabeculosporites Pp? Mt?	4554 Transitoripollis Mc	3243 Weylandipollis Mc
4799 Tubermonocolpites Mt	4990 Tucanopollis Mc	4575 Zhonghuapollis Mc
2767?, 3226 Vittatina Pp	3240 Welwitschiapollenites Mt	
1894?, 3244 Weylandites Pp/Mt	3431 Zaireacolpites Pp	
4811 Zonacrinopollis Mt		

b. Turma TRICHOTOMOSULCATES

185, 3446 Asteropollis Mc	1272 Huitrinipollenites Mc	1489, 4280, 4462 Liliacidites Mc
4284 Luminidites Cn	4484 Oroszlanyipollis Mc	4726 #Placopollis Mt
2127 Porotrichotomosulcus Mc	2439 Rossipollis Mc	3144 Utriculites Mc

b. Turma DISULCATES - DICOLPATES

4836 Arcicolpites ?	210, 4605 Azonia Mc	4617 Calamipollenites Cp
778, 4230 Dicolpopollis Cn	4641 Dicrinopollis Mt	4235 Diptycha Mc
839 Disulcites Cp	906, 4241 Elaterocolpites Mc	1100 Gentianaceaeformis Cp
1506, 4282 Longapertites Mc	1897 Parihiatus Mc	2211 Pseudotricolpites Mc
2307 #Quadratipollis Cn	3513 Teixeiraipollenites Mc	4795 Tricrinopollis Mt

b. Turma ZONO - ANNULICOLPATES

4059 Afropollis Mc	3290 Aleteverrucosispora Pp	67 Alismataceapites Mc/Cp
210, 4605 Azonia Mc	309 Brazilea Pc?/p	487, (1133), 3319, (3467) Circulina Mt
491 Circumpollis Mj	501 Classites Cp	504, 505, 1846?, 3320 Classopollis Mj
606, 607, 3323 Corollina Mj	670 Cryptomeriapollenites Cn	774 Dichastopollenites Mc
4641 Dicrinopollis Mt	838 Disulcipollis Cn	967, 968 Eucommiidites Mj
3466 Gemmazonocolpites Mc	4435 Geopollis Mt	1182 Granuloperculatipollis Mt
(1184), 1185, 1871? Grebespora Mt	1379 Kagulubeites Pp	1684 #Monilapollis Mj-c
1791 Nymphaeacidites Cn	1792, 4480 ² Nymphaeapollenites Cn	3879 Nymphaeapollenites Cn
1793 Nymphaeopollis Cp	1841 Ovoidites Cp	1883 Paracirculina Mt
3734, 4312 Paravuripollis Cn	1904 Partitisporites Mt	4731 Polycolpopollis Mt
2087 Polygonaceapites Cn	2138 Praecirculina Mt	2141 Preticolpipollenites Mj
2172 Protoquercus Mc	1793?, 2178, 3390, 4322 Proxapertites Cp	2211 Pseudotricolpites Mc
2246, 4325 Psilospora Mj-c	2355 Retialetes Pc	2293 Punctilongisulcites Cn
3755 Quilonipollenites Cn	2649, 4776 Spinizonocolpites Cp	2414, 3499 Rhaetipollis Mt
4966 Schrankipollis Mc		2671, 3613 Spirosyncolpites Cp

b. Turma ZONO - ANNULICOLPATES (cont.)

2815, (2816) Syncolpites Mc
3003 Trifossapollenites Mc
3799 Zollerella Mt

3513 Teixeiraipollenites Mc
4046 Trilobapollis Cp
4811 Zonacrinopollis Mt

4795 Tricrinopollis Mt
4575 Zhonghuapollis Mc
3281 Zonosulcites Mc

b. Turma SYNCOLPATES

194 Auriculopollenites Cp
687 Cushmanipites Cp
1325 Insulapollenites Cp
4283 Loranhipites Cn
3738 Periretisyncolpites Mc
4035 Rugupolarpollenites Cp
2854, 3774 Terscissus Mc-Cp

4213 Clavasyncolpites Cn
1196 Gunnaripollis Mc
4693 Janmulleripollis Cp
3872, 4285 Lythraites Mc
4321 Primitivipollis Mc
2686 Stelckia Mc
3076 Trisectoris Mc

557 Concolpites Cp
1272 Huitrinipollenites Mc
1507 Longitrichotomocolpites Cp
4710 Montiapollis Mc
2441 Rostriapollenites Cp
2739 Striatellipollis Mc-Cp

b. Turma TRICOLPATES

For convenience, this Turma is subdivided into an Infradivision *Longiaxiones*, including prolate to (sub-)spherical forms, and an Infradivision *Breviaxiones*, including oblate to lenticular forms.

d. Infradivision LONGIAXIONES

29 Aceripollenites Cn
112 Aesculiidites Cp
194 Auriculopollenites Cp
314 Brevitricolpites Cp
442 Cercidiphyllites Mc/Cp
516 Clavatricolpites Mc
4635 Cruciferaepites Cn
738 Dactylopollis Mc
4649 Donghaipollis Cp
906, 4241 Elaterocolpites Mc
1014 Fibulapollis Mc/Cp
1059 Fraxinopollenites Cp
4436 Geraniapollis Cn
1234 Hemicorpus Mc
1326, 3986 Integricorpus Mc-Cp
1465 #Laxipollis Cp
1590, 1591 Mancicorpus Mc-Cp
1733 Myocolpopollenites Cp
1789, 3878 Nuxpollenites Cp
1859 Palaeocaesalpiniceapites Cp
1938, 4021 Pentapollenites Cp
1963 Periretipollis Cp
4024 Pilosipollis Cp
3589 Poluspissusites Cp
2141 Pretricolpipollenites Mj
2211 Pseudotricolpites Mc
2314 Quercipollenites Cn
2400 Retitrescolpites Cn
2448 Rousea Mc
4963 Sagaripollis Cp-n
3502, 3612, 4965 Scabiosapollis Cp
2645, 4972 Spinaepollis Cp
2680 Sporotrapoidites Cn?
2865 #Tetradopites Cp
(1197), 2970, 4793 Tricolpites C?p
4046 Trilobapollis Cp
3110 Tubulifloridites C
4360 Warkallipollenites Cn

49 Ailanthipites Cn
141, 142, 2835? Aquilapollenites Mc
4201 Bacubrevitricolpites Cn
4619 Callicarpapollis Cn
456, 3315 Chlonovaia Mc
662 Cristatitricolpites Cp
3669 Cruciferoipollenites Cp-n
1072, 4233, 4234
Dipterocarpacearumpollenites Cn
931 Enopadios Cn
4247 #Foveotetradites Mc
1095 Gemmatricolpites Mc
4676 Gyropollis Cn
1276 Hydrocerapollis Cn
3989 Jiangsupollis Mc
3997 Liaoningpollis Cp
4910 Meliaceoidites Cp
1096², 3483 Nigeripollis Mc
1797 Oacolpopollenites Cp
3736 Parumbelliferoipollis Cp
1942 Peregrinipollis Cn
3581 Periretitricolpites Cp
3386 Planchoniidites Cn
4731 Polycolpopollis Mt
2172 Protoquercus Mc
2221 Psilabrevitricolpites Cp
2318 Quercopollenites Cn
2421, 2422? Rhoipites Cp
3909 Rubuspollenites Cn
2484, 4526 Salixipollenites Cp
2573, 4338 #Senectotetradites Mc
4774 Spinotricolpites Cp?-n
2775 Striatopollis Cp
2932 Transdanubiaepollenites Cp
(600), 2986 Tricolpopollenites Cp
3060 Triporocolpotus C
3200 Verrutricolpites Mc
3254 Yeguapollis Cp

57 Albertipollenites Mc
172, 4198 #Artiopollis Mc
3959 Bratzevaea Mc
390 Caprifoliipites Cp
490 Circumflexipollis Mc
664, 4223 Crototricolpites Cp
684 Cupuliferoidaepollenites Cp/n
4648 Distyliumpollis Cn
900 Echitricolpites Cp
4662 Eucommiaceoipollenites Cp
1048 Foveotricolpites Mc
1096² Gemmatricolpites Mc
1223, 4896 Hederoidites Cn
3705 Icacinopollenites C?p-n
3563 Labitricolpites Cp
4461 Ligulifloraedites Cp
3368 #Mulleripollis Mc
4302 Novemprojectus Cp
1816 Oleoidearumpollenites Cn
1905 Parviprojectus Mc-Cp
1945 Perforotricolpites Cp
1986 Phimopollenites Mc
2026 Platoniapollenites Cp
2087 Polygonaceaepites Cn
3751 Pseudolaesopollis Cn
2307 #Quadratipollis Cn
2338 Ranunculacidites Cn
2422 Rhoidites ?
3500 Rutihsperipites Mc
4757 Satishia Mc
2586 Sernapollenites Cp
4540 #Spinulotetradites Cp
2787 Striopollenites Mc/Cp
2946 Triangopollen C?n
3003 Trifossapollenites Mc
144^s, 3064 Triprojectus Mc-Cp
4806 #Virgo Mc
3799 Zollerella Mt

d. Infradivision BREVIAXIONES

245 Beupreaidites Cp/n	291 Bombacipites Cp	598 Coriariopites Mc
640 Crassitricolpites Mc	664, 4223 Crototricolpites Cp	1072, 4233, 4234
819 Discoidites Mc	3826 Crassietoapertites Cp	Dipterocarpacearumpollenites Cn
4403 Dendriopoteriumpollis Cp-n	1189, 4256 Grewipollenites Mc	4446 Intrareticulites Cp
3711 Intratricolpopollis Mc	3866 Ladakhipollenites Cp	4698 Lingfengpollis Cp
1516 ² Loranthacites Mc-Cp	4283 Loranhipites Cn	4009 Operculumpollis Cp
1826, 4010 Orbiculapollis Mc	4719 Peninsulapollis Mc	1939 Pentapollis Mc
3744 Plumbaginacipites C?p-n	2274 Pulcheripollenites Mc	2289 Punctatricolpites Mc
2358 Retibrevitricolpites Cp	4035 Rugupolarpollenites Cp	4156 Sandiegopollis Cp
2552 Scollardia Mc	2645, 4972 Spinaepollis Cp	4172 Trevisanaepollenites Mc

b. Turma STEPHANOCOLPATES

54 Alaticolpites Mc	201 Australopollis Cp	202, 3000 ^s Auxiliopollis Cp
227 Bacustephanocolpites Cp	257, 258, 259 Betpakdalina Mc	3307 Buravicolpites Cp
457 Chloranthacearumpollenites Cn	510 Clavastephanocolpites Cp	3965 Clavatetracolpites Mc
4632 Cornetipollis Mt	672, 4224 Ctenolophonidites Mc	892 Echinipollis Mc
906, 4241 Elaterocolpites Mc	955 Erdtmanipites Cp	4882 Foveopentacolpites Cp
1046 Foveostephanocolpites Cp	1068 Fustipollenites Mc	1092 Gemmastephanocolpites Cp
1102 Ghoshicolpites C?	3855 Granustephanocolpites Cp	3348 Hexacolpites Cn
1249 Hexapollenites Cp	1252 Hexaradiatus C	1303 Impatiensidites Cn
4905 Laevigatopolypolpites Cp	3566 Leptopocopites Mc	1504 Longaevipollis Mc/Cp
1620 Medlicottipites Cp	1779 Nothofagidites Cp	1806 Octacolpites Cp
1863 Paleorubiaceapites Cp	2026 Platanipollenites Cp	2077 Polybrevicolpites Cn
2079, (2081, 3387), 4137, 4319	3388 ² Polycolpopollenites Cn	2210 Pseudostephanocolpites Cp
Polycolpites Mc	2228 Psilastephanocolpites Cp	2379 Retiheterocolpites Cp
2380 Retihexacolpites Cp	2384 Retinonacolpites Cp	2385 Retioctacolpites Cp
2387 Retipentacolpites Cp	4957 Retiseptacolpites Cp	2393, 4149, 4332
2398 Retitetracolpites Cp	2516 Scabrastephanocolpites Cp	Retistephanocolpites Cp
2581 Septacolpites Cn	2856 Tetracolpites Mc	2875, 2879? Tetrapidites Cn
3196 Verrunonacolpites Cp	3198 Verrustephanocolpites Cp	3259 Zerkovaepollenites Cn

b. Turma POLYCOLPATES

141, 142, 2835? Aquilapollenites Mc	210, 4605 Azonia Mc	364 Calystegiapollis Cn
1196 Gunnaripollis Mc	4250 Glencopollis Cn	3981 Hemicorpus Mc
1272 Huitrinipollenites Mc	1516 ² Loranthacites Mc-Cp	1562 Lymingtonia Cp
1725 Multilobopollenites Cn	4006 Noctuiipollis Mc	1802 Ocellipollis Mc-Cp
1934 Pemphixipollenites Mc	1936 Penetetrapites Mc	4721 Pentecrinopollis Mt
3388 ² Polycolpopollenites Cn	2139 Praecolpatites Mt	4030 Pseudointegricorpus Mc
2246, 4325 Psilospora Mj-c	2307 #Quadratipollis Cn	2452 Rugaepollis C?n
2552 Scollardia Mc	2820 Syndemicolpites Mc	4352 Tumidulipollis Mc

b. Turma MONO - DICOLPORATES

167, 2441? Areolipollis Cn	780 Dicolporopollenites Cn	3835 Dicolporopollis Cp
1692 Monocolporopollenites Cp	1723 Multiareolites Cn	2307 #Quadratipollis Cn
2345 Regina Mc-Cp	3127, 4565 Umbelliferoipollenites Cp	

b. Turma SYNCOLPORATES

28 Accuratipollis ?	94 Andreisporis Mc	284, 4070 Boehlensipollis Cp
575 Constantinisporis Mc	679 Cupanieidites Cp	873 Duplogermipollis Cp
(874), 875 Duplopollis Cp	984, 4244 Expressipollis Mc	1152 Gothanipollis Cp
4439 Grielumpollis Cn	3872, 4285 Lythraites Mc	1604, 4290 Marginipollis Cn
1646, 4295, 4963? Meyeripollis Cp-n	1739 Myrtacidites Cp-n	4481 Nymphoideipites Cn
1967 Perisyncolporites Cp	1983, 3384 Phaseoliidites Mc	2125 Porosipollis Mc-Cp
2127 Porotrichotomosulcus Mc	3892 Pokrovskaja Cp	2231 Psilasyncolporites Cp
2397 Retisyncolporites Cp	2416 Rhamnaepites Mc/Cp	2441 Rostriapollenites Cp

b. Turma SYNCOLPORATES (cont.)

Syncolporates

2497 Sapindaceapites Mc/Cp
2813 Syncolporites Mc
3792 Umbopollis Mc
4055 Xinjiangpollis Mc

2737 Striasyncolpites Cn
2819 Syncolporopollenites Cn
3218 Victorisporis Mc
4056 Yenjisapollis Mc

2739 Striatellipollis Mc-Cp
3925 Trisyncolpites Cp
3931 Vitispollenites Cn

b. Turma TRICOLPORATES

For convenience, this large Turma is subdivided into an Infradivision *Longiaxiones*, including prolate to (sub-)spherical forms, and an Infradivision *Breviaxiones*, including oblate to lenticular forms.

d. Infradivision LONGIAXIONES

4587 Abutilonacidites Cn
112 Aesculiidites Cp
170 Artemisiaepollenites Cn
202, 3000^s Auxiliopollis Cp
3641 Bacutricolporites Cn
4379 Biplanipollis Cn
314 Brevitricolpites Cp
471 Cichoriaearumpollenites Cn
389 Caprifoliacidites Cn
4080 Cerceauapollenites Cn
520 Clavatricolporoidites Cp
558, 4215 Coneopollis Cp/n
3827 Crassimarginipollenites Mc
3669 Cruciferoipollenites Cp-n
727 Cyrillaceapollenites Cn
4226 Densiverrupollenites Cp
4231 Dicrassipollis Cn
3838 Drasipollenites Cn
4875 Durgaipollenites Cp
960?, 961 #Ericipites Cn
3684 Eucommiapollis Cn
1007 Favitricolporites Cn
1049 Foveotricolporites Mc
1097 Gemmatricolporites Cp
3698 Granotricolporites Cp
1265 Holkopollenites Cp
3859 Hydrocotylipollenites Cn
3710 Intragranulitricolporites Cp
1424, 4272 Lacrimapollis C(p)-n
4461 Ligulifloraedites Cp
3871 Lythraceapollenites Cn
3479 Magnopollis Cn
1636, 3718, 4294, 4498? Meliapollis Cp
4479 Nitrariadites Cp
1794, 3478? Nyssapollenites Cp
4013 Pachydermipollenites Mc
1864 Paleosantalaceapites Cp
4133 Perforonuxpollenites Cp
1983, 3384 Phaseoliidites Mc
3386 Planchoniidites Cn
2036 Pleurospermaepollenites Cp
2071 Polotricolporites Cp
2307 #Quadratipollis Cn
4505 Qinghaipollis Cp
3603 Retibrevitricolporites Cp-n
2421, 2422? Rhoipites Cp
1076 Rugutricolporites Cp
4154 Rutaceopollis Cp
2508 #Saxonipollis Cp
2604 Simpsonipollis Mc
4540 #Spinulotetradites Cp
3508 Sterculiopollis Cn
2781 Striatricolporites Cp
3922 Todaliapollenites Cn

3809 Aceripollis Cn
3810 Ageratumpollenites Cn
171 Artemisiidites Cn
4839 Bacuspinulopollenites Cn
3448 Bacutricolporopollenites Mc
293 Bombapollis Cp
326 Bulbopollis Mc
359, (2191) Callistopollenites Mc/Cp
417 Cauveripollis Cp/n
497 Cistacearumpollenites Cn
535 Compactipollis Mc/Cp
624², 4216, 4219²
Coramandalipollis Cp/n
4861 Cuddaloripollis ?
3673, 4864 Dakshinipollenites Cp?-n
3834 Dichrocephalopollenites Cn
1072, 4233, 4234
Dipterocarpacearumpollenites Cn
3844 Elaeocarpopollenites Cn
963 Erinaceus C
3463, 4878 Euphorbiacites Cn
3686 #Fillaeopsidites Cp-n
3688 Fususpollenites Cp
3977 Ghoshiadites Cn
1233 Heliotropioidearumpollenites Cn
1266 Horniella Cp
1296 Ilexpollenites Cn
3862 Jianghanpollis Mc
1446, 4274 Lakiapollis Cp
1501 Lobeliaepollenites Cn
1571, 4286 Maculopores Cp
1618 Mediocolpopollis Cp
3876 Morinoipollenites Mc
1780 Nothopollenites Mc
1795 Nyssoidites Cn
1850 Palaeocoprosmadites Cn
1899 #Paripollis Cp
3887 Pericampyluspollenites Cn
4496 Pilatricolporites Cp
2024, (2485) Platanoidites Cn
4499 Plicatiaperturites Cp(?)
3589 Poluspissusites Cp
2316, 3597 Quercoidites Cn
2338 Ranunculacidites Cn
2403 Retitricolporoidites Cp
2422 Rhoidites ?
3609 ²Rutaceopollenites Cn
2492 Santalaceapites Cp
2596 Siltaria Cp
2645 Spinaepollis Cp
4778 Spinulotricolporites Cp
2726, 4344 Striacolporites Cp
2789 Strobilantheidites Cn
4556 Triangulotricolporites Cp

109 Aenigmapollis Cp
148 Araliaceopollenites Cp
180 Asperitricolporites Cp
3301 Baculatricolporites Mc
4607 Baksipollis Cn
313, 1983?, 3384? Brevicolporites Cp
4846 Caesalpiniaeapollenites Cp
362 Calophyllumpollenites Cp
4079 Centaureapollenites Cn
519 lavatricolporites Cp
542, 3824 Compositoipollenites Cp
624, 4219 ²Costatipollenites Cp/n
641 Crassitricolporites Mc
685 Cupuliferoipollenites Cp
3833 Daphniphyllumpollenites Cn
781, 3970 #Dicotetradites Cp
840 Disyllabipollis Mc/Cp
3461 Dryadipollis Mc
960 #Ericaceopollenites Cn
4662 Eucommiaceopollenites Cp
999 Faguspollenites Cn
1027, 4246 Florschuetzia Cp/n
4433 Gemmapollis Cp
1168 Grandizonaropollis Cn
4680 Hemitrapapollenites Cp-n
4443 Hydrocotaeapites Cp
3709 Intrabaculitricolporites Cp
1391, 4270 #Kielmeyrapollenites Cp
3997 Liaoningpollis Cp
3478 Lucknowia C?n
4465 Maestrichtia Mc-Cp
4000 Meliaceoidites Cp
4122 Nanlingpollis Cp
1789, 3878 Nuxpollenites Cp
1797 Oacolpopollenites Cp
1858 Palaeoaraliaceapites Cp
1931, 4314 Pellicieropollis Cp
4492 Perinotricolporites Mc
2014 Pistillipollenites Cp?
2026 Platoniapollenites Cp
3892 Pokrovskaja Cp
2252 Pteracanthopollenites Cn
2318 Quercopollenites Cn
4517 Retitribrevicolporites Cp
2415 Rhamnacidites Cp
3905 Rhuspollenites Cn
4153 Rutaceopollenites Cp
2500 Sapotaceoidaeapollenites Cn
4538 Songliaopollis Mc
2662 Spinulaepollis Cp-n
3507 Sterculiapollis Cn
2754 Striatocolporites Cn
2855 Tetracentracearumpollenites Cn
(600), 2986 Tricolpopollenites Cp

d. Infradivision LONGIAXIONES (cont.)

2990, 3786 Tricolporites C	4558 Tricolporocolumellites Cp(?)	2998, 4794 Tricolporoidites Mc
4559, 4987 Tricolporopollites Cp(?)	148?, 2999 Tricolporopollenites Cn	3001 Tricolporopollis Cp
3060 Triporocolpotus C	3125 Umbelliferaepites Cp	4353 Umbelliferaepollenites Cp/(Cn)
4993 Vellaripollis Cn	3183 Verrucolporites C?	3201-3624 Verrutricolporites Cp-n
3247 Wilsonipites Mc	4809 Yalongipollis Cn	3254 Yeguapollis Cp
3277 Zonocostites Cp	3520, 3627, 5001 Zonorapollis Cp	

d. Infradivision BREVIAXIONES

28 Accuratipollis ?	53, 3938 Alangiopollis Cp	4374 Angulocolporites Cp
105 Anisotricolporites Cp	4066 Aveipollenites Mc	4842 Bankurapollis Cn
4071 Bolchovitinaepollenites Mc	290 Bombacidites Cp/n	291 Bombacacipites Cp
313, 1983?, 3384? Brevicolporites Cp	4846 Caesalpinieapollenites Cp	535 Compactipollis Mc/Cp
3967 Consoliduspollenites Mc	624 ² , 4216, 4219 ²	598 Coriaripites Mc
624, 4219 ² Costatipollenites Cp/n	Coramandalipollis Cp/n	630 Cranwellia Cp/n
4861 Cuddaloripollis ?	679 Cupaneidites Cp	4086 Daqingopollis Mc
4404 Dermatobrevicolporites Cp	1072, 4233, 4234	3838 Drasipollenites Cn
4875 Durgaipollenites Cp	Dipterocarpacearumpollenites Cn	4417 Elaeagnacites Cp
3843 Elaeagnuspollenites Cn	3845 Elsikipollenites Mc	4423 Euonymoipites Cn
1007 Favitricolporites Cn	4666 Forcipites Mc	1060 Friedrichipollis Cp
1083 Gallartapollenites Cp	4433 Gemmapollis Cp	3977 Ghoshiadites Cn
1260, 4263 Hippocrateaceadites Cn	1412, 3993, 3994 Kurtzipites Mc	1424, 4272 Lacrimapollis C(p)-n
3714 Laesopollis Cn	4112 Laingipollenites Mc	3995 Lanagiopollis Cp
3477 Limaipollenites Mc	1509, 4115 Lonicerapollis Cn	1605, 4291 Margocolporites Cn
4118 Medusipollenites Mc	1636, 3718, 4294, 4498? Meliapollis Cp	4472 Minutitricolporites Cp
1741 Myrtacidites Mc	1780 Nothopollenites Mc	1816 Oleoidearumpollenites Cn
1850 Palaeocoprosmadites Cn	4018 Papillotricolporites Mc	4489 Paranyssapollenites Mc-Cp
1899 #Paripollis Cp	1925 Pecakipollis Mc	1931, 4314 Pellicieropollis Cp
1939 Pentapollis Mc	1983, 3384 Phaseoliidites Mc	2026 Platoniapollenites Cp
4502 Pseudonyssapollenites Cp	4144, 4503 Pseudoromeinipollenites Cp	2248 Psittacopollis Mc
4509 Ratariacolporites Cp(?)	2344 Reevesiapollis Cn	3603 Retibrevitricolporites Cp-n
3904 Rhamnaceapollenites Cn	3908 Romeinipollenites Mc	4755 Rubipollis Cp-n
4155 Samoilovichaepollenites Mc	4038 Sapindaceidites Mc(-Cp)	2508 #Saxonipollis Cp
4967 Scrobiculaticolporites Cn	2577 Senipites Mc	2593 Siberiapollis Mc
2645 Spinaepollis Cp	2781 Striatricolporites Cp	2812 Symplocacites Mc
2830 Talisiipites Cp	4556 Triangulotricolporites Cp	2989 ² Tricolporites Cn? Mc?
4558 Tricolporocolumellites Cp(?)	4559, 4987 Tricolporopollites Cp(?)	4049 Utriculariapollis Cp
3793, 4803 Vancampopollenites Mc	4181 Verrucopollis Mc	3223 Vitipites Cp
3247 Wilsonipites Mc		

b. Turma TRICOLPIPOLYPORATES

1251 Hexaporotricolpites Mc	4279 Libopollis Mc	3877 Myoporumpollenites Mc
2533 Schizocolpus Cp	4045 Tricolporopores Cn	3520, 3627, 5001 Zonorapollis Cp

b. Turma STEPHANOCOLPORATES

3536 Belskipollis Cn	3820 Bredeliapollis Cn	326 Bulbopollis Mc
511 Clavastephanocolporites Cp	4231 Dicrassipollis Cn	939 Eocaenipollis Cp
1047 Foveostephanocolporites Cp	4096 Foveotetracolporites Mc	3554 Gemmastephanocolporites Cp
1247 Hexacolporopollenites Cp	1251 Hexaporotricolpites Mc	1358, 4267, 3863? Iugopollis Cp
1363 Jandufouria Cp	4108 Julianaceapollenites Cp	3863 Kindopollis Cp
3867 Lentibulariaceapollenites Cn	1636, 3718, 4294, 4498? Meliapollis Cp	1745 Nagyipollis Cp
1765 Neyvelipollenites Cn	4306 Padappakkarapollis Cn	4720 Pentadesmapites Cn
2026 Platoniapollenites Cp	4498 Platoniapollis Cp	2076, 4318 Polybrevicolporites Cp
4138 Polycolporites Cp	2082 Polycolporopollenites Cp	2085 Polygalacearumpollenites Cn
2086, 4320 Polygalacidites Cp	4500 Polymargocolporites Cp	2195, 4323 Pseudonothofagidites Cp
2212 Pseudotrudopollis Mc	2229 Psilastephanocolporites Cp	2306 Quadrapollenites Cp
4743 Quintiniapollis Cn	2344 Reevesiapollis Cn	2393, 4149, 4332
2394 Retistephanocolporites Cp	4516 Retitetrabrevicolporites Cp	Retistephanocolpites Cp
2467 Rutacearumpollenites Cn	2500 Sapotaceoidaeapollenites Cn	2814 Symplocospollenites Cn
4982 Telisporites Cn	2859, 4348 Tetracolporites Cp	2500?, 2860 Tetracolporopollenites
4049 Utriculariapollis Cp	3143 Utriculariaeapollenites Cn	Cp-n
3623 Verrustephanocolporites Cp-n	3520, 3627, 5001 Zonorapollis Cp	

b. Turma POLYCOLPORATES

4587 Abutilonacidites Cn	1817 Oligopollis Cp	4132 Pentabrevicolporites Mc
1967 Perisyncolporites Cp	2307 #Quadratipollis Cn	2345 Regina Mc-Cp
2510 Scabiosaepollenites ?	2606 Sindorapollis Mc	3792 Umbopollis Mc

b. Turma MONOPORATES

9 Aachenipollis Mc	19, 4588 #Acaciapollenites	34 Acolporipites Cp
3523 #Adenanthites Cp-?n	108 Admolia Mc	47 Aglaoreidia Cp
3526 #Amblygonocarpidites Cp	4200 #Asclepiadoipollis Cp	224 Bacumonorites Mc
3964 Centrolepidacites Cp	487, (1133), 3319, (3467) Circulina Mt	491 Circumpollis Mj
502 Classoidites Mc	504, 505, 1846?, 3320 Classopollis Mj	606, 607, 3323 Corollina Mj
678 Cunninghamiaepollenites Cn	4862 Cunninghamicites Mc	680, 3547, 3548 Cupressacites Mc
725 Cyperaceapollis Cn	4229 Diadocupressacites Mj	859 Dracaenopollis C?
885 Echigraminidites Cn	4877 Echimonoporopollis ?	3462, 3846 Emmapollis Mc-Cp
(936), 937 Enzonasporites Mt	978 Exesipollenites Mj	979 Exesisporites Cn
4435 Geopollis Mt	1101 #Gephyrapollenites Cp	1155, 4254 Graminidites C
1157 Graminoides Mt	1182 Granuloperculatipollis Mt	1186 Gregussipollenites Cp
3856, 4259 (#)Harrisipollenites Cn	1361, 4903 (#)Jacobipollenites Cn	4275 Lateropora Cp
3874 Maestrichtipollenites Mc	4287 Magnomonoporites Mc	1630 Megamonoporites Mt
1631 Megaporoites Cp	1667 Milfordia Cp	1692 Monocolporopollenites Cp
1706 Monoporopollenites Cp/n	1716, 2352, 4747 Monulcipollenites Cp	1846 Pagiophyllumpollenites Mj-c
1872 Pandaniidites Cp	1904 Partitisporites Mt	1954 Perinopollenites Mj-c
3746 #Poropolyadopollenites Cn	2128 Portalites Pc	2181 Pseudenzonalasporites Mt
2219, 3897 #Pseudowinterapollis Cp	2241 Psilomonoporites Mt	2351 Restionapollen Cp
2386 Retiovoipollis Cp	2391 Retirotundia Cp	3604 #Retitetrastora Cp
2463 Rugumonorites Mc	4339 Shanghupollis Cp	2627 Sparganiaceaeapollenites Cn
2638 Sphaeroporites Pc	2643 Spheripollenites Mj	2647 Spinamonoporites Cn
2648 ² Spinamonoporites Mc	2837 Taxacites Mj	3776 Tessellaesphaera Pp
2863 #Tetradomonoporites Cp	3195 Verrumonorites Mc	4997 #Walkeripollis Mc
3263 Zircipollenites Cp		

b. Turma DIPORATES

20 Acanthacidites Cn	4593 Alyxiaepollenites Cp	4200 #Asclepiadoipollis Cp
238 Banksiaeidites Cn	3829 Cudraniapollenites Cn	721 Cyclusphaera Mc
770 Diatriopollis Cn	811 Diporites Mc	4409 Diporoconia Cp
856, 3007?, 3677, 4349?, 4874	4653 Echidiporites Cn	3842 Echinodiporites Mc
Dorreenipites Cp	1037 Foveodiporites Cp	4669 Fusidiporosporonites Cp
1175, 4891 Granodiporites Cp	1355 Iteapollis Cn	1400 Kopekipollenites Cp
1410 Kryshstofoviana Mc-Cp	1464 Laudaypollis Mc	1595 #Manikinipollis Cn
1726, 4920 Multimarginites Cn	1784 Nummulipollis Cn	1861 Paleoficus Cp
1928 Pediculisporites Mc	2175 Protrudodiporites Mc	2238, 4324, 4740 Psilodiporites Cp
2295 Punctodiporites Cp	2378, 4331 Retidiporites Cp	2511 Scabradiporites Cp
3914 Sparsipollis Cp-n	2727 Striadiporites Cn	3616 Stridiporosporites Cp
3517 Verrudiporites Mc	4358 Vialovipollis Cp	

b. Turma TRIPORATES

This large taxon is subdivided into the following three Subturmae based on pore morphology, in part to be able to conveniently locate the Late Cretaceous / Early Tertiary group of pollen which has been referred to in literature as *Complexiopollis*, *Normapollis*, *Trudopollis*, etc.:

- d. Simpliceporati : forms with simple or not closer defined poroids
- d. Atriati : forms with atriate poroids
- d. Vestibulati : forms with (prae)vestibulate poroids

The exoaperture may be meridionally elongated so as to resemble a colpus. Transitional genera are therefore listed both in TRIPORATES and TRICOLPORATES.

d. Subturma SIMPLICEPORATI

- 4587 Abutilonacidites Cn
 4365, 4825 Acanthotricolpites Cp
 4061 Alnusalispollenites Cn
 4599 Archaeotriporopollis Mc
 444², 3447 Atopospora Mc-?Cp
 4607 Baksipollis Cn
 4204 Bluffopollis Cn
 337 #Bysmapollis Cp
 3309, 4621 Canthiumidites Cn
 397 Carpinipites Cp
 417 Cauveripollis Cp/n
 448² Ceuthospora Mc-(Cp)
 542, 3824 Compositoipollenites Cp
 631 Cranwellipollis Mt/Cp
 655 Cricotriporites Cp
 4416, 4655 Echimorphotriporites Mc/Cp
 4417 Elaeagnacites Cp
 1027, 4246 Florschuetzia Cp/n
 1083 Gallaportapollenites Cp
 4887 Gemmatriporites Mc
 3344 Guettardidites Cn
 4680 Hemitrapapollenites Cp-n
 1393 Kizylkumina Cp
 1414 Kyandopollenites Cp
 1565 Maceopolipollenites Cp
 1600 Marcellipites Mc
 1683, 3576 Momipites Cp
 1726, 4920 Multimarginites Cn
 1738 Myriophyllumpollenites Cn
 1753 Nemejipollis Mc
 4304 #Ornatetetrades Cn
 4923 Padmapollenites Cn
 1976 Perucipollis Mc
 2118 Pompeckjoidapollenites ?
 2027, 3586 Platycaryapollenites Cn
 1328^s, 2147, 3861^s
 Projectopores Mc-Cp
 2361 Reticulataepollis Cp
 2438 Rosannia Mc
 2508 #Saxonipollis Cp
 2462 Rugulitriporites Cp
 2622 Sonneratiopollis Cp
 4781 Stellidiopollis Mc
 2798 Subtrioporopollenites Cp
 2849 Tenerina Mc
 2892 Thomsonipollis Cp
 4555 Triangularites Cp
 4558 Tricolporocolumellites Cp(?)
 3036 Trioculata C
 3048 Triporatus Cn?
 3051 Triporisporites Mc
 3063 #Triporotetrades Mc
 4566 Varispinitriporites Cp(?)
 4358 Vialovipollis Cp
 3255 Zaklinskiana Cp
 4589 Acalyphaepollenites Cp
 51 Ajatipollis Mc
 3293 Angarina Cp
 164 Arcotriporites Cp
 230 Bahiapores Mc
 260 Betulaceoipollenites Cn
 4072 Boltenhagenipollenites Mc
 3452 Byttneripollis Cn
 385 Caperetriporites Cp
 399 Carpinites Cp
 4078 Cavagnettoaepollenites Cp
 458 Choanopollenites ?
 560 Confossia Mc
 4858 Crassiorites Cp
 4403 Dendriopoteriumpollis Cp-n
 903 Echitriporites Mc
 928 Engelhardtoidites Cn
 1053 Foveotriporites Cp
 3689 #Gardeniapites Cn
 4437 Gizaepollenites Cp
 3346 Hakeidites Cn
 4106 Jarzenipollenites Cp
 3991 Kleinoichingipollenites Cp
 1459 Latipollis Mc
 1576 Magnatriporites Cp
 1642 Menatipollenites Cp
 1715 Montanapollis Mc
 1735 Myricaceoipollenites Cp
 1740 Myrtaceoipollenites Cp
 4303 Oculosa Cp
 4305 Ornatiporites Cn
 1882, 3341? 3553?
 Paraalnipollenites Cp
 2137 Praebasopollis Mc
 2140, 3591 Praedapollis Cp-n
 2152 Proteacidites Cp-n
 3601 Randiapollis Cp
 2408 Retitriporites Cn
 2493 Santalacites Mc
 2522 Scabratriporites Mc
 2593 Siberiapollis Mc
 3914 Sparsipollis Cp-n
 2784 Striatiporites Mc
 2799 Subtrioporopollis Cn
 3776 Tessellaesphaera Pp
 2933 Translucentipollis Mc
 2957 Tricerapollis Mc
 3002 Tricomites Mc
 1209?, 3038 Triorites Cp?-n
 3049, 3924 Triporina Pc
 3052 Triporisporonites Cp
 3120 Ulmaceaeapites Cp
 4804 Venezuelites Cp
 4183 Vilafloppollenites Mc
 3287, 5002 Zvolenypollis Cn
 20 Acanthacidites Cn
 4060 Alabroidaepollenites Cp
 122 Annutriporites Mc
 4200 #Asclepiadoipollis Cp
 3534 Bacutriporites Cp
 262, (263), 3048? Betulaepollenites Cp
 3648 Borealipollis Mc
 4385 Cambonaepollenites Cp
 4076 Caratinipollenites Cp
 4622 Casuarinaepollenites Cp
 3540 Celtispollenites Cp-n
 470, 471? Cichoreacidites Cn
 614, 4856 Corylipollenites Cp
 639 Crassitriapertites Mc
 856, 3007?, 3677, 4349?, 4874
 Dorreenipites Cp
 929 Engelhardtioipollenites Cn
 3341, 3553 Fushunpollis Cp
 4433 Gemmapollis Cp
 1188, 4555?, 4894 Grevilloideaepites Cp
 1209 Haloragacidites Cp
 1378 Jussitriporites Cp
 4109 Kuprianipollis Mc
 1509, 4115 Lonicerapollis Cn
 1595 #Manikinipollis Cn
 1656 Microfoveotriporites Mc
 1719 Mtchedlishvilia Mc
 1736 Myricipites Cp
 1742 Myrtacites Mc-Cp
 1819 Onagraces Cp
 1836 Ostryoipollenites Cn
 3490 Pentaporites Cp
 2013 Piolencipollis Mc
 2014 Pistillipollenites Cp?
 4140 Prenudopollis Mc
 2313 Quedlinburgipollis Mc
 4509 Ratariacolorites Cp(?)
 3908 Romeinipollenites Mc
 2494 Santalumidites Cp
 2572 Semitectotriporites Cp
 2602 #Simplicipollis Cp
 4773 Spinatriporites Mc
 2789 Strobilanthisidites Cn
 2813 Symplocoipollenites Cn
 2886 Thesites Cp
 2949 Triangulipollis Mc
 2966 Tricollareporites Cp-n
 3007, 4349 Trilatiporites Cn
 4562 Tripilaorites Cp
 3050 Triporipites Cp
 1735?, 3062 Triporopollenites Cn
 3122 Ulmoideipites Cp
 3204 Verrutriporites Cp
 4054 Weichelapollis Cn

d. Subturma ATRIATI

- 187 Atlantopollis Mc
 404 Caryapollenites Cn
 545 Concavipollis Mc
 582 Convexipollis Mc
 3840 Druggipollenites Mc
 1085 Gambierina Cp
 1274, 4104 Hungaropollis Mc
 1423 Labrapollis Cp
 1671 Minorpollis Mc
 1814 Olaxipollis Cn
 1981 Pflugipollis Mc
 2150 Propylipollis Cp
 2196 Pseudopapillopollis Mt
 321 Brosipollis Cn
 412 Casuarinidites Cn?
 555 Conclavipollis Mc
 613, (1818) Corsinipollenites Cp
 985 Extrapollis Mc
 3696, 4680? Goerboepollenites Cn
 1408 Krutzschipollis Mc
 1536 Lusatipollis Mc
 1714 Monstruosipollis Mc
 4124 Ollivieraepollenites Cp
 2044, 3588 Plicatopollis Cp-n
 3749 Pseudatlantopollis Mc
 2215 Pseudovacupollis Mc
 4076 Caratinipollenites Cp
 536, 537, 538, 3114?
 Complexiopollis Mc
 795 Diervillapollenites Cn
 990, 991 Extratriporopollenites Cp
 3346 Hakeidites Cn
 4110 Labraferoidaepollenites Cp
 1579 Magnoporopollis Mc
 1783 Nudopollis Cp
 1892 Paravacuopollis Mc
 2129 Portniaginaepollenites Cp
 2188 Pseudoconvexipollis Mc
 4151 Rocheipollenites Mc

4152 Russellipollenites Cp	2495 Santonipollis Mc	2543 Schulzipollis Mc
2569 Semioculopollis Mc	2577 Senipites Mc	2615 Siphonodontipollenites Cn
2617 Slowakipollis Cn	2800 Subtrudopollis Cp	2804 Suemegipollis Mc
2822 Szoerenyipollis Mc	2892 Thomsonipollis Cp	4178 Tschudyipollenites Mc
2954, 4175 Triatripollenites Cp	1735?, 3062 Triporopollenites Cn	3090, 3091 Trudopollis Cp
3149 Vacuopollis Mc		

d. Subturma VESTIBULATI

4066 Aveiopollenites Mc	231 Bakonyipollis Mc	243 Basopollis Cp
285 Bohemiapollis Mc	387 Capipollis Mc	3967 Consoliduspollenites Mc
614, 4856 Corylipollenites Cp	919 Emscheripollis Mc	3682 Endoinfundibulapollis Mc
925 Endopollis Mc	990, 991 Extratriporopollenites Cp	993 Extremipollis Mc
3849 Felderipollenites Mc	1057 Frankonipollis Mc	1085 Gambierina Cp
3696, 4680? Goerboepollenites Cn	1224 Heidelbergipollis Mc	3858 Hofkeripollenites Mc
1274, 4104 Hungaropollis Mc	1330 Interpollis Cp	1331 Interporopollenites Mc
1340 Intratriporopollenites Cn	1378 Jussitriporites Cp	3864 Kriegeripollenites Mc
1505 Longanulipollis Mc	1619 Mediopollis Mc	4117 Mediterraneipollenites Mc
1634 Megatripollis Mc	1743 Myrtipites Cp	1761 Neotriangulipollis Mc
1807 Oculopollis Mc	3729 Osculapollis Mc	1880, 4717 Papilopollis Mc
2037 Plicapollis Mc	2122 Porocolpopollenites Cp	4139 Portaepollenites Mc
2137 Praebasopollis Mc	3747 Praecursipollis Mc	4141 Prezaipollenites Mc
2142 Primipollis Mc	2190 Pseudoculopollis ?	2196 Pseudopapilopollis Mt
2201, 3753 Pseudoplicapollis Cp	3896 Pseudosculapollis Mt	4519 Rhoiptepollis Cn
4151 Rocheipollenites Mc	3908 Romeinipollenites Mc	4152 Russellipollenites Cp
4166 Stanleyipollenites Mc	2800 Subtrudopollis Cp	1340?, 2903 Tiliaepollenites Cn
260?, 3081 Trivestibulopollenites Cn	3114 Turonipollis Mc	3140 Urkutipollenites Cp
4181 Verruculopollis Mc		

b. Turma STEPHANOPORATES

4587 Abutilonacidites Cn	4365, 4825 Acanthotricolpites Cp	71, (72, 2117), 3633 Alnipollenites Cn
3645 Barmeriapollis Cp	3309, 4621 Canthiumidites Cn	500 Clanculatus Mc
3331 Echiperiporites Cp	892 Echinipollis Mc	899 Echistephanoporites Cp
4886 Gangapollenites Cp	1093 Gemmastephanoporites Cp	1225 Helciporites Cp
4682 Hexagonopollis Cn	4898 Hooghypollenites Cn	1738, 4475 Myriophyllumpollenites Cn
1779 Nothofagidites Cp	1842 Pachydermites Cn	1940 Pentaporina Mc
2075, (2257) Polyatripollenites ?	4732 Polyorificites Cp	3590 #Polyporotetradites Cp-n
2195, 4323 Pseudonothofagidites Cp	2256 Pterocariites Cp	2308 Quadratus C
2395 Retistephanoporites Cp	2430 Riestedtipollis Cp	2703 Stephanoporopollenites Cp
3776 Tessellaesphaera Pp	2875, 2879? Tetrapidites Cn	3416, 3917, 3918, 3919 Tetraporina Mc
2879 Tetraporopollenites Cp	3920 Theligonumpollenites Cn	(2113), 3121, (3123, 3124)
3122 Ulmoideipites Cp	4804 Venezuelites Cp	Ulmipollenites Cn
4571 Verrupolyporites Cp	3199 Verrustephanoporites Cp	4358 Vialovipollis Cp

b. Turma POLYPORATES

4587 Abutilonacidites Cn	62 Alexandriapollis Cp	86, 4191 Anacolosidites Cp
3441 Antrosphaera Mj? Cn?	3300 Azonia Mc	3535 Balanopollis Cn
287 Bohemiperiporites Mc	334 Buxaceapollenites Cn	335 Buxapollis Cp
336 Buxites Cp	364 Calystegiapollis Cn	407 Caryophyllidites Mc/Cp
415 Catnipollis Cp	436 Celtipollenites ?	3540 Celtispollenites Cp-n
455 Chenopodipollis Cn	472 Cinctiporipollis Cn	509, 4212 Clavaperiporites Cn
652 Cretaceaiporites Mc	658 Cristaepollis Mc	671 Cryptopolyporites Cp
759 Deplexipollis Mc	856, 3007?, 3677, 4349?, 4874	862 #Droserapollis Cn
3841 Drymariapollenites Cn	Dorreenipites Cp	898, 3331 Echiperiporites Cp
956 Erdtmanipollis Cp	970 Eupteleapollis Cp	1021 #Fischeripollis Cn
1084, 3852 Gallopollis Cp	4886 Gangapollenites Cp	4434 Gemmapolyporites Cp
1171 Graniperipollis Mc	1191 Grootipollis Mc	4116 ² , 4258 Guzmanipollenites Cp
4442 Hibisceaeapollenites Cn	1290 Iberipollis Mc	3860, 4265 Incrotonipollis Cp
1373 Juglandipites Cp	1374 Juglanspollenites ?	1407 Krutzschiperipollis Mc
1410 Kryshstofoviana Mc-Cp	1437 Laeviporopollis Cp	1573 Magnaperiporites Cp
4116 ² Magnaperiporites Cp	4702 Malpighiaceoidites Cp/n	1586, 4289 Malvacearumpollis Cn
3358 Malvacidites Cn	1587 Malvacipollis Cp	4703 Maravenites Cn
1595 #Manikinipollis Cn	1675 Minutulipollis Cp	1676 Mioceanipollis Cp-n

b. Turma POLYPORATES (cont.)

1687 Monocirculipollis Cp	1728 Multiporopollenites Cn	1738, 4475 Myriophyllumpollenites Cn
1753 Nemejciipollis Mc	1824 Orapollis Cn	1878 Papaveraceapites Cp
4488 Palaeomalvaceapollis Cp	3579 #Parkiidites Cp	1902 Parsonsides Cp-n
1936 Penetetrapites Mc	3490 Pentaporoites Cp	(1496), 1962, 3441?, (4909), 4927
1974 Persicarioipollis Cn	4495 Pilapanporites Cp(?)	Periporopollenites Cn
2023 Plantaginacearumpollis Cn	2066 Polemonipollis Cn	2084 Polyforipites Cp
2088 Polygonacidites Cn	2111 Polyporina Cn	2112 Polyporites Mc
2209 Pseudospinaepollis Cp	2214 #Pseudotyphoipollis Cn	4739 ² Psilaperiporites Cp
4938 Psilaperiporites Mc	2294 Punctioratipollis Cn	2305 #Quadrplanus Cp
3601 Randiapollis Cp	2341 Reductipollis Cp	4515 Retimultiporopollenites Cn
2388 ² Retiperiporites Mc	4955 Retiperiporites Mc	3906 Ribespollenites Cn
4754 Roxburghpollis Cn	2515 Scabraperiporites Cp	2611 Singularity Mc-Cp
3914 Sparsipollis Cp-n	2676 Sporoglandoidites Mj	2733 Striaperipollis Mc
4784 Striatoechiperiporites Cp	2835 Taurocephalus Cp	3776 Tessellaesphaera Pp
2878 Tetraporites Mc	2899 Thymelaepollis C?	2900 Thymelipollis Cn
2958 Tricesticillus Mc	3036 Trioculata C	3138 Undulipollis Mj?
3148 Vaclavipollis Cn	4355 Vermifoveopollenites Mc-Cp	3232 Wadiapites C?
759?, 3251 Wodehouseia Mc	3270 ² Zonalessporites Mc	