Bandol-1

Micropalaeontology - new data
Scale: 1:2000
Weston *et al*. 2023 Atlantic Geoscience

Interval: 1000m - 4100m

Text Keys
*1 quantitative abundance (200 = 10mm, scale tick = 100 counts)
*2 Per 10.0g

Boundary Types
Possible
Probable
Unconformable

Sampling
Cutting

Core
Sidewall Core

Taxon Categories
■ AM - Minerals
🟩 CH - Charophytes
🟩 DI - Diatoms
🟥 FOBA - Foraminifera agglutinating
🟩 FOBC - Foraminifera calcareous
🟦 FOP - Foraminifera planktonic
■ MM - Miscellaneous microfossils

🟪 MO - Molluscs
🟨 OS - Ostracods
🟦 RA - Radiolaria
🟥 SP - Spores and pollen

Bandol-1

1390 CU: Sparse typical Neogene micropalaeontological assemblage, with B. aff. plena (Thanetian or older)

1420 CU: Major change in micropalaeontological recovery; top persistent abundant to common radiolaria (Cenosphaera spp.); FDO S. triloculinoides (Selandian to Danian, P4a-P1b)

1640 CU: Sharp change in micropalaeontological recoveries

1650 CU: FDO M. marginata (early Campanian or older)

1670 CU: FDO M. pseudolinneiana (Santonian or older); sole S. granulata polonica (Santonian)

1675 CU: Sole M. schneegansi (early Santonian, or older)

1755 CU: FDO S. granulata (?Coniacian); LDO S. exsculpta (no older than Coniacian)

1785 CU: LDO S. granulata (?Coniacian)

1815 CU: Sole M. sinuosa (early Campanian to late-middle Turonian)

1905 CU: FDO P. delrioensis (midde Cenomanian to intra-late Albian)

1935 CU: LDO P. delrioensis (middle Cenomanian to intra-late Albian)

2025 CU: E. hechti (Barremian or older, reworked)

2055 CU: E. caracolla, G. barremiana, L. heiermanni (Early Aptian/Barremian; reworked)

2535 CU: Sole in situ L. heiermanni (early Aptian to late Hauterivian)

2685 CU: Influx typical Jurassic foraminifera; sole O. strumosum (Oxfordian to Bathonian, ?Callovian)

2745 CU: Sole E. cf. nuda Coleman (?Callovian to Bajocian)

2775 CU: Sole P. feifeli (?Callovian to Bathonian)

Bandol-1

Nannofossils - new data
Scale: 1:2000
Weston *et al.* 2023 Atlantic Geoscience

Interval: 1000m - 4100m

Text Keys
*1 (Rw, Cv excluded)
*2 quantitative abundance (5000 = 40mm, scale tick = 1000 counts)

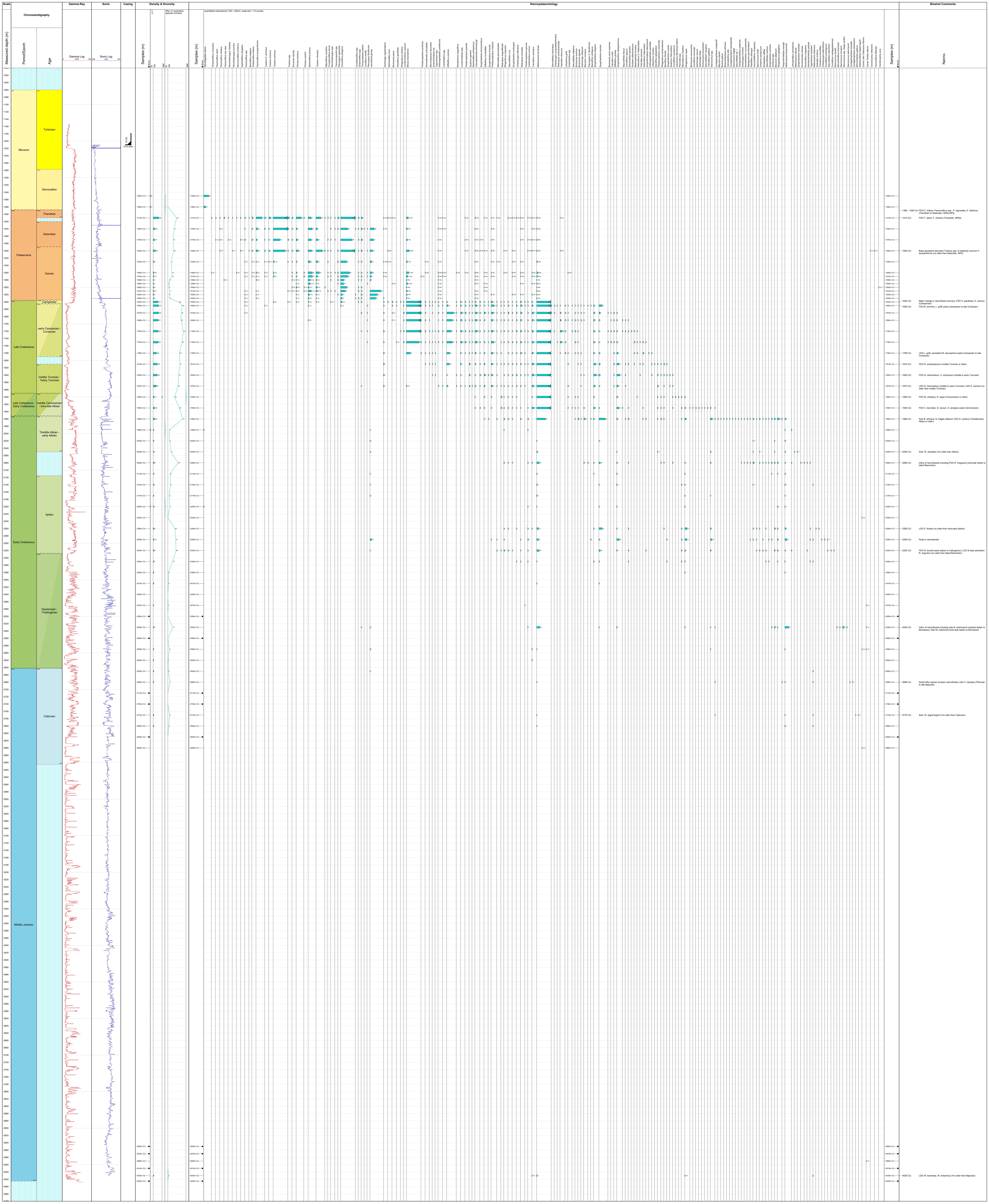
Boundary Types
- - - - - Possible
— — Probable
—〜— Unconformable

Sampling
—— Cutting

—● Core
—◀ Sidewall Core

Taxon Categories
■ MM - Miscellaneous microfossils
🟦 NA - Nannofossils
🟪 SI - Silicoflagellates

Bandol-1



Biostrat Comments

1380 - 1390 CU: FDO C. bidens, Fasciculithus spp., P. sigmoides, E. distichus (Thanetian to Selandian, NP9a-NP5)

1410 CU: FDO F. alanii, F. clinatus (Thanetian, NP9a)

1500 CU: Base persistent abundant Toweius spp. & relatively common F. tympaniformis (no older than Selandian, NP5)

1640 CU: Major change in nannofossil recovery; FDO H. gardetiae, E. eximius (Campanian)

1650 CU: FDO B. enormis, L. grillii (early Campanian to late Coniacian)

1780 CU: LDO L. grillii, persistent M. staurophora (early Campanian to late Coniacian)

1810 CU: FDO R. achlyostaurion (middle Turonian or older)

1840 CU: FDO Q. intermedium, C. achylosum (middle to early Turonian)

1870 CU: LDO Q. intermedium (middle to early Turonian); LDO E. eximius (no older than middle Turonian)

1900 CU: FDO M. chiastius, R. asper (Cenomanian or older)

1930 CU: FDO C. kennedyi, G. nanum, S. aenigma (early Cenomanian)

1960 CU: Sole B. africana, N. fragilis (Albian); FDO S. canthus (?middle/early Albian or older)

2050 CU: Sole ?Z. streetiae (?no older than Albian)

2080 CU: Influx of nannofossils including FDO R. irregularis (intra-late Albian to latest Barremian)

2260 CU: LDO E. floralis (no older than intra-early Aptian)

2290 CU: Peak in nannofossils

2320 CU: FDO N. bonetii (early Aptian to Valanginian); LDO & base persistent R. angustus (no older than latest Barremian)

2530 CU: Influx of nannofossils including sole N. steinmannii (earliest Aptian to Berriasian); Sole M. holschulzii (intra-late Aptian to Berriasian)

2680 CU: Small influx typical Jurassic nannofossils; sole C. tubulata (Tithonian to late Bajocian)

2770 CU: Sole ?S. bigotii bigotii (?no older than Callovian)

4030 CU: LDO W. barnesae, W. britannica (?no older than Bajocian)

Bandol-1

Palynology - Davies & Huang (2001)   Interval: 1000m - 4100m
Scale: 1:2000
Weston *et al.* 2023 Atlantic Geoscience

Text Keys

*1 quantitative abundance (200 = 20mm, scale tick = 10 counts)
*2 quantitative abundance (100 = 20mm, scale tick = 10 counts)

Boundary Types

- - - - - Possible
— — Probable
~~ Unconformable

Sampling

— Cutting

—● Core
—◀ Sidewall Core

Taxon Categories

🟩	AC - Acritarchs
🟩	ALBO - Botryococcus and pediastrum
🟩	ALIN - Incertae sedis
🟩	ALPR - Prasinophycea
🟦	DC - Dinoflagellate cysts
🟩	FT - Foram test linings
🟧	FU - Fungi
⬛	MP - Miscellaneous palynomorphs
🟥	SP - Spores and pollen

Biostrat Comments

Paly.

1060 CU:	FDO P. laticinctum laticinctum (Tortonian or older)
1080 CU:	FDO P. laticinctum granulatum (Miocene or older); Palaeocystodinium spp. (Tortonian or older)
1100 CU:	FDO persistent C. ancyrea (Miocene or older)
1280 CU:	Change in palynoflora: FDO S. pseudofurcatus (Serravallian or older)
1340 CU:	Sole A. andalousiensis (?no older than late Serravallian)
1420 CU:	FDO P. pyrophorum (Selandian or older)
1470 CU:	FDO Trithyrodinium spp. (Selandian or older)
1500 CU:	FDO T. evittii (Danian or older)
1580 CU:	FDO T. xanthiopyxides (intra-Danian or older)
1660 CU:	FDO O. porifera (intra-Santonian to Coniacian)
1700 CU: 1720 CU	Peak abundance O. porifera (Coniacian)
1790 CU:	LDO persistent O. porifera (?no older than Coniacian)
1875 CU:	LDO persistent Isabelidinium spp. (no older than middle Turonian)
1930 CU:	Influx Epelidosphaeridia spp. (early Cenomanian)
1965 CU:	Major downhole increase in miospores and decrease in dinocysts
2035 CU:	FDO K. simplicispinum (earliest Albian or older)
2115 CU:	Peak in dinocysts; FDO C. tabulata (Aptian or older); FDO A. cf. polymorpha (?Aptian)
2146.0 SC:	FDO M. simplex (Hauterivian or older; reworked)
2220 CU:	Sole A. polymorpha (Aptian)
2260 CU:	LDO A. cf. polymorpha (Aptian); FDO P. pelliferum (earliest Albian or older, typical of Aptian or older)
2310 CU:	Peak in dinocysts
2365 CU:	Change in palynofloral composition with FDO D. cerviculum (Aptian or older)
2379.0 SC:	FDO in situ & top persistent M. simplex (Hauterivian to latest Berriasian)
2490 CU: 2520 CU	Peak Subtilisphaera spp. (?Intra-Hauterivian MFS)
2650 CU:	LDO persistent M. perforata, in situ Subtilisphaera spp. (no older than Valanginian); FDO D. sellwoodii, C. continuum, K. pachyderma (earliest Oxfordian or older, ?Callovian or older)
2675 CU:	Peak in dinocyst abundance and diversity (?MFS)
2780 CU:	FDO D. filapicatum (Callovian to middle Aalenian)
2796.0 SC:	LDO persistent C. ornatum in SC (no older than Callovian)
2800 CU: 2825 CU	Peak in dinocyst abundance and diversity
2905 CU:	Base persistent and influx C. ornatum (no older than Callovian)
2925 CU: 3961.0 SC	Palynofloras comprise almost exclusively miospores
4022.0 SC:	LDO C. ornatum, D. sellwoodii, E. pocockii (no older than Late Bajocian, ?no older than Callovian)
4045.0 SC:	LDO persistent common Callialasporites spp. (no older than Middle Jurassic)

Bandol-1

Scale: 1:2000　Interval: 1000m - 4100m
Weston et al. 2023 Atlantic Geoscience

Text Keys
- *1 (Rw, ?, Cv excluded)
- *2 quantitative abundance (2000 = 40mm, scale tick = 100 counts)
- *3 (Rw, Cv excluded)
- *4 quantitative abundance (5000 = 40mm, scale tick = 1000 counts)
- *5 species richness
- *6 quantitative abundance (500 = 40mm, scale tick = 100 counts)

Base Lithology
- chalk
- claystone
- conglomerate
- limestone
- marl
- sandstone
- shale
- siltstone

Boundary Types
- Possible
- Probable
- Confident
- Unconformable

Sampling
- Cutting
- Core
- Sidewall Core

Taxon Categories
- AC - Acritarchs
- AL - Algae
- ALBO - Botryococcus and pediastrum
- ALPR - Prasinophycea
- DC - Dinoflagellate cysts
- DI - Diatoms
- FOBA - Foraminifera agglutinating
- FOBC - Foraminifera calcareous
- FOP - Foraminifera planktonic
- FT - Foram test linings
- FU - Fungi
- MM - Miscellaneous microfossils
- MO - Molluscs
- MP - Miscellaneous palynomorphs
- NA - Nannofossils
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- RA - Radiolaria
- SI - Silicoflagellates
- SP - Spores and pollen

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1060 CU: FDO P. laticinctum laticinctum (Tortonian or older)
1080 CU: FDO P. laticinctum granulatum (Miocene or older); Palaeocystodinium spp. (Tortonian or older)
1100 CU: FDO persistent C. ancyrea (Miocene or older)
1277.0 LOG: Interpreted position of the Tor1 SB of Hardenbol *et al.* (1998) - ?Tortonian/Serravallian boundary
1280 CU: Change in palynoflora: FDO S. pseudofurcatus (Serravallian or older)
1340 CU: Sole A. andalousiensis (?no older than late Serravallian)
1390 CU: Sparse typical Neogene micropalaeontological assemblage, with B. aff. plena (Thanetian or older)
1380 - 1390 CU: FDO C. bidens, Fasciculithus spp., P. sigmoides, E. distichus (Thanetian to Selandian, NP9a-NP5)
1410 CU: FDO F. alanii, F. clinatus (Thanetian, NP9a)
1420 CU: FDO P. pyrophorum (Selandian or older)
1420 CU: Major change in micropalaeontological recovery; top persistent abundant to common radiolaria (Cenosphaera spp.); FDO S. triloculinoides (Selandian to Danian, P4a-P1b)
1470 CU: FDO Trithyrodinium spp. (Selandian or older)
1489.0 LOG: Interpreted position of the Sel1 SB of Hardenbol *et al* (1998) - Selandian/Danian boundary
1500 CU: FDO T. evittii (Danian or older)
1500 CU: Base persistent abundant Toweius spp. & relatively common F. tympaniformis (no older than Selandian, NP5)
1580 CU: FDO T. xanthiopyxides (intra-Danian or older)
1640 CU: Major change in nannofossil recovery; FDO H. gardetiae, E. eximius (Campanian)
1640 CU: Sharp change in micropalaeontological recoveries
1650 CU: FDO B. enormis, L. grillii (early Campanian to late Coniacian)
1650 CU: FDO M. marginata (early Campanian or older)
1660 CU: FDO O. porifera (intra-Santonian to Coniacian)
1670 CU: FDO M. pseudolinneiana (Santonian or older); sole S. granulata polonica (Santonian)
1675 CU: Sole M. schneegansi (early Santonian, or older)
1700 CU: → 1720 CU Peak abundance O. porifera (Coniacian)
1755 CU: FDO S. granulata (?Coniacian); LDO S. exsculpta (no older than Coniacian)
1780 CU: LDO L. grillii, persistent M. staurophora (early Campanian to late Coniacian)
1785 CU: LDO S. granulata (?Coniacian)
1790 CU: LDO persistent O. porifera (?no older than Coniacian)
1810 CU: FDO R. achlyostaurion (middle Turonian or older)
1815 CU: Sole M. sinuosa (early Campanian to late-middle Turonian)
1840 CU: FDO Q. intermedium, C. achylosum (middle to early Turonian)
1870 CU: LDO Q. intermedium (middle to early Turonian); LDO E. eximius (no older than middle Turonian)
1875 CU: LDO persistent Isabelidinium spp. (no older than middle Turonian)
1900 CU: FDO M. chiastius, R. asper (Cenomanian or older)
1905 CU: FDO P. delrioensis (midde Cenomanian to intra-late Albian)
1930 CU: Influx Epelidosphaeridia spp. (early Cenomanian)
1930 CU: FDO C. kennedyi, G. nanum, S. aenigma (early Cenomanian)
1935 CU: LDO P. delrioensis (middle Cenomanian to intra-late Albian)
1960 CU: Sole B. africana, N. fragilis (Albian); FDO S. canthus (?middle/early Albian or older)
1965 CU: Major downhole increase in miospores and decrease in dinocysts
2025 CU: E. hechti (Barremian or older, reworked)
2035 CU: FDO K. simplicispinum (earliest Albian or older)
2050 CU: Sole ?Z. streetiae (?no older than Albian)
2055 CU: E. caracolla, G. barremiana, L. heiermanni (Early Aptian/Barremian; reworked)
2080 CU: Influx of nannofossils including FDO R. irregularis (intra-late Albian to latest Barremian)
2115 CU: Peak in dinocysts; FDO C. tabulata (Aptian or older); FDO A. cf. polymorpha (?Aptian)
2146.0 SC: FDO M. simplex (Hauterivian or older; reworked)
2220 CU: Sole A. polymorpha (Aptian)
2260 CU: LDO A. cf. polymorpha (Aptian); FDO P. pelliferum (earliest Albian or older, typical of Aptian or older)
2260 CU: LDO E. floralis (no older than intra-early Aptian)
2290 CU: Peak in nannofossils
2310 CU: Peak in dinocysts
2320 CU: FDO N. bonetii (early Aptian to Valanginian); LDO & base persistent R. angustus (no older than latest Barremian)
2365 CU: Change in palynofloral composition with FDO D. cerviculum (Aptian or older)
2379.0 SC: FDO in situ & top persistent M. simplex (Hauterivian to latest Berriasian)
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2530 CU: Influx of nannofossils including sole N. steinmannii (earliest Aptian to Berriasian); Sole M. holschulzii (intra-late Aptian to Berriasian)
2535 CU: Sole in situ L. heiermanni (early Aptian to late Hauterivian)
2650 CU: LDO persistent M. perforata, in situ Subtilisphaera spp. (no older than Valanginian); FDO D. sellwoodii, C. continuum, K. pachyderma (earliest Oxfordian or older, ?Callovian or older)
2675 CU: Peak in dinocyst abundance and diversity (?MFS)
2680 CU: Small influx typical Jurassic nannofossils; sole C. tubulata (Tithonian to late Bajocian)
2685 CU: Influx typical Jurassic foraminifera; sole O. strumosum (Oxfordian to Bathonian, ?Callovian)
2745 CU: Sole E. cf. nuda Coleman (?Callovian to Bajocian)
2770 CU: Sole ?S. bigotii bigotii (?no older than Callovian)
2775 CU: Sole P. feifeli (?Callovian to Bathonian)
2780 CU: FDO D. filapicatum (Callovian to middle Aalenian)
2796.0 SC: LDO persistent C. ornatum in SC (no older than Callovian)
2800 CU: → 2825 CU Peak in dinocyst abundance and diversity
2905 CU: Base persistent and influx C. ornatum (no older than Callovian)
2925 CU: → 3961.0 SC Palynofloras comprise almost exclusively miospores
4022.0 SC: LDO C. ornatum, D. sellwoodii, E. pocockii (no older than Late Bajocian, ?no older than Callovian)
4030 CU: LDO W. barnesae, W. britannica (?no older than Bajocian)
4045.0 SC: LDO persistent common Callialasporites spp. (no older than Middle Jurassic)