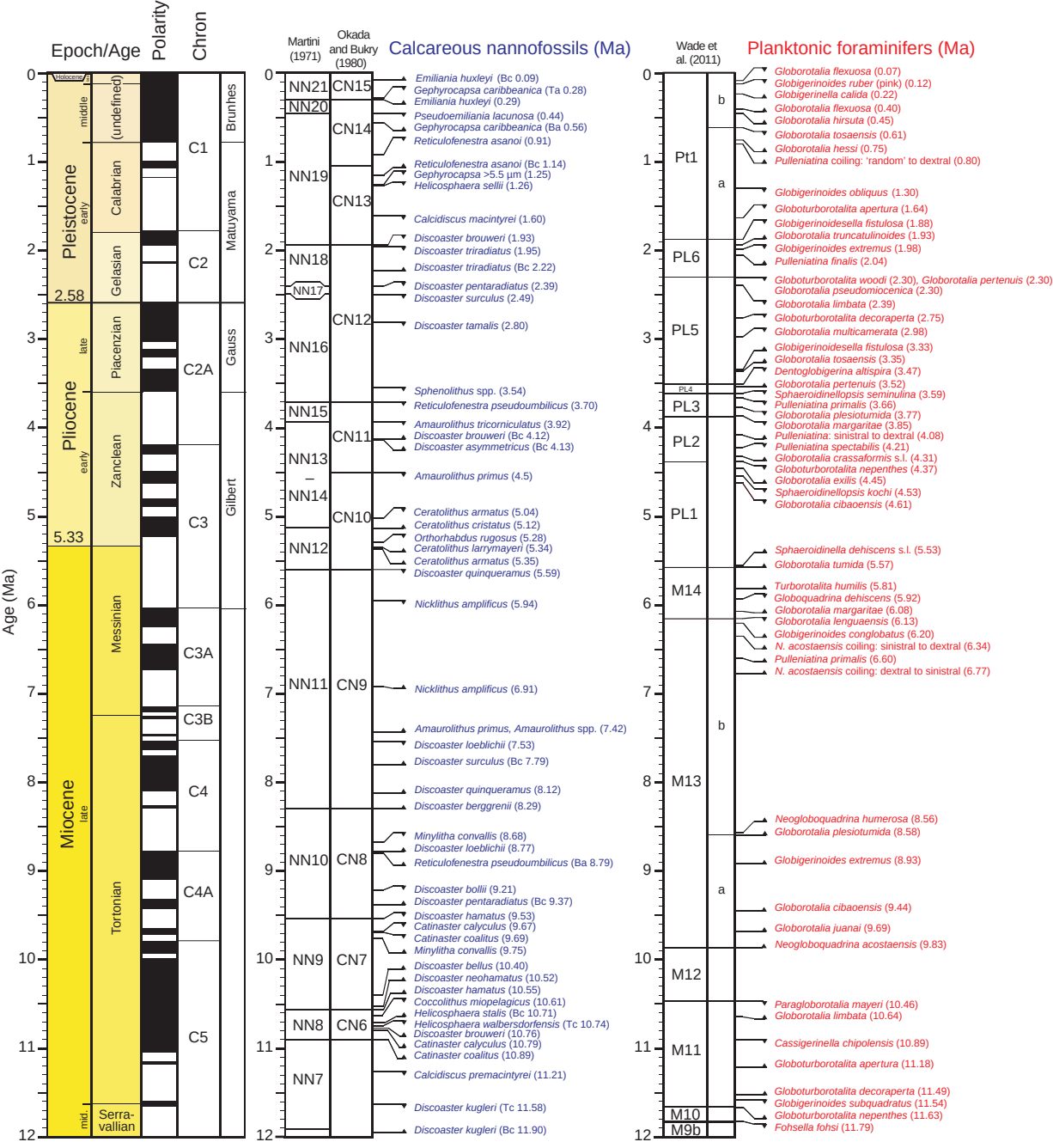
Epoch/Age
Polarity
Chron
Martini (1971)
Okada and Bukry (1980)
Calcareous nannofossils (Ma)
Wade et al. (2011)
Planktonic foraminifers (Ma)
Age (Ma)
Pleistocene
Pliocene
Miocene
Holocene
middle
early
late
mid.
(undefined)
Calabrian
Gelasian
Piacenzian
Zanclean
Messinian
Tortonian
Serra-vallian
2.58
5.33
C1
C2
C2A
C3
C3A
C3B
C4
C4A
C5
Brunhes
Matuyama
Gauss
Gilbert
NN21
NN20
NN19
NN18
NN17
NN16
NN15
NN13 – NN14
NN12
NN11
NN10
NN9
NN8
NN7
CN15
CN14
CN13
CN12
CN11
CN10
CN9
CN8
CN7
CN6
Emiliania huxleyi (Bc 0.09)
Gephyrocapsa caribbeanica (Ta 0.28)
Emiliania huxleyi (0.29)
Pseudoemiliania lacunosa (0.44)
Gephyrocapsa caribbeanica (Ba 0.56)
Reticulofenestra asanoi (0.91)
Reticulofenestra asanoi (Bc 1.14)
Gephyrocapsa >5.5 µm (1.25)
Helicosphaera sellii (1.26)
Calcidiscus macintyrei (1.60)
Discoaster brouweri (1.93)
Discoaster triradiatus (1.95)
Discoaster triradiatus (Bc 2.22)
Discoaster pentaradiatus (2.39)
Discoaster surculus (2.49)
Discoaster tamalis (2.80)
Sphenolithus spp. (3.54)
Reticulofenestra pseudoumbilicus (3.70)
Amaurolithus tricorniculatus (3.92)
Discoaster brouweri (Bc 4.12)
Discoaster asymmetricus (Bc 4.13)
Amaurolithus primus (4.5)
Ceratolithus armatus (5.04)
Ceratolithus cristatus (5.12)
Orthorhabdus rugosus (5.28)
Ceratolithus larrymayeri (5.34)
Ceratolithus armatus (5.35)
Discoaster quinqueramus (5.59)
Nicklithus amplificus (5.94)
Nicklithus amplificus (6.91)
Amaurolithus primus, Amaurolithus spp. (7.42)
Discoaster loeblichii (7.53)
Discoaster surculus (Bc 7.79)
Discoaster quinqueramus (8.12)
Discoaster berggrenii (8.29)
Minylitha convallis (8.68)
Discoaster loeblichii (8.77)
Reticulofenestra pseudoumbilicus (Ba 8.79)
Discoaster bollii (9.21)
Discoaster pentaradiatus (Bc 9.37)
Discoaster hamatus (9.53)
Catinaster calyculus (9.67)
Catinaster coalitus (9.69)
Minylitha convallis (9.75)
Discoaster bellus (10.40)
Discoaster neohamatus (10.52)
Discoaster hamatus (10.55)
Coccolithus miopelagicus (10.61)
Helicosphaera stalis (Bc 10.71)
Helicosphaera walbersdorfensis (Tc 10.74)
Discoaster brouweri (10.76)
Catinaster calyculus (10.79)
Catinaster coalitus (10.89)
Calcidiscus premacintyrei (11.21)
Discoaster kugleri (Tc 11.58)
Discoaster kugleri (Bc 11.90)
Pt1
PL6
PL5
PL4
PL3
PL2
PL1
M14
M13
M12
M11
M10
M9b
a
b
Globorotalia flexuosa (0.07)
Globigerinoides ruber (pink) (0.12)
Globigerinella calida (0.22)
Globorotalia flexuosa (0.40)
Globorotalia hirsuta (0.45)
Globorotalia tosaensis (0.61)
Globorotalia hessi (0.75)
Pulleniatina coiling: 'random' to dextral (0.80)
Globigerinoides obliquus (1.30)
Globoturborotalita apertura (1.64)
Globigerinoidesella fistulosa (1.88)
Globorotalia truncatulinoides (1.93)
Globigerinoides extremus (1.98)
Pulleniatina finalis (2.04)
Globoturborotalita woodi (2.30), Globorotalia pertenuis (2.30)
Globorotalia pseudomiocenica (2.30)
Globorotalia limbata (2.39)
Globoturborotalita decoraperta (2.75)
Globorotalia multicamerata (2.98)
Globigerinoidesella fistulosa (3.33)
Globorotalia tosaensis (3.35)
Dentoglobigerina altispira (3.47)
Globorotalia pertenuis (3.52)
Sphaeroidinellopsis seminulina (3.59)
Pulleniatina primalis (3.66)
Globorotalia plesiotumida (3.77)
Globorotalia margaritae (3.85)
Pulleniatina: sinistral to dextral (4.08)
Pulleniatina spectabilis (4.21)
Globorotalia crassaformis s.l. (4.31)
Globoturborotalita nepenthes (4.37)
Globorotalia exilis (4.45)
Sphaeroidinellopsis kochi (4.53)
Globorotalia cibaoensis (4.61)
Sphaeroidinella dehiscens s.l. (5.53)
Globorotalia tumida (5.57)
Turborotalita humilis (5.81)
Globoquadrina dehiscens (5.92)
Globorotalia margaritae (6.08)
Globorotalia lenguaensis (6.13)
Globigerinoides conglobatus (6.20)
N. acostaensis coiling: sinistral to dextral (6.34)
Pulleniatina primalis (6.60)
N. acostaensis coiling: dextral to sinistral (6.77)
Neogloboquadrina humerosa (8.56)
Globorotalia plesiotumida (8.58)
Globigerinoides extremus (8.93)
Globorotalia cibaoensis (9.44)
Globorotalia juanai (9.69)
Neogloboquadrina acostaensis (9.83)
Paragloborotalia mayeri (10.46)
Globorotalia limbata (10.64)
Cassigerinella chipolensis (10.89)
Globoturborotalita apertura (11.18)
Globoturborotalita decoraperta (11.49)
Globigerinoides subquadratus (11.54)
Globoturborotalita nepenthes (11.63)
Fohsella fohsi (11.79)