

INDEX TO VOLUME 177

This index covers both the *Initial Reports* and *Scientific Results* portions of Volume 177 of the *Proceedings of the Ocean Drilling Program*. References to page numbers in the *Initial Reports* are preceded by "A" followed by the chapter number with a colon (A1:) and to those in the *Scientific Results* (this volume) by "B" followed by the chapter number with a colon (B1:).

The index was prepared by Earth Systems, under subcontract to the Ocean Drilling Program. The index contains two hierarchies of entries: (1) a main entry, defined as a keyword or concept followed by a reference to the page on which that word or concept appears, and (2) a subentry, defined as an elaboration on the main entry followed by a page reference.

The index covers volume text, figures, and tables but not core-description forms ("barrel sheets"), core photographs, smear slide data, or thin section descriptions. Also excluded from the index are bibliographic references, names of individuals, and routine front matter.

The Subject Index follows a standard format. Geographical, geologic, and other terms are referenced only if they are subjects of discussion. A site chapter in the *Initial Reports* is considered the principal reference for that site and is indicated on the first line of the site's listing in the index. Such a reference to Site 1088, for example, is given as "Site 1088, A3:1-66."

The Taxonomic Index is an index relating to significant findings and/or substantive discussions, not of species names *per se*. This index covers three varieties of information: (1) individual genera and species that have been erected or emended formally, (2) biostratigraphic zones, and (3) fossils depicted in illustrations. A taxonomic entry consisting of both genus and species is listed alphabetically by genus and also by species. Biostratigraphic zones are listed alphabetically by genus; zones with letter prefixes are listed under "zones."

SUBJECT INDEX

A

absolute age, correlation, A5:44-45; A6:38

acetate

pore water, B3:1-12

vs. depth, B3:10-11

Actiniscus

distribution, A3:55-56; A5:83-88; A6:67-72; A7:60-71; A8:88-92; A9:63-64

occurrence, A4:71-79

advection, surface water, B(synthesis):11

age

biostratigraphy, A3:46-47; A4:80-82; A6:60-62; A7:48-55; A8:78-81; A9:58-59

vs. oxygen isotopes, A4:25

age models

oxygen isotope stratigraphy, B12:3-4, 16

sedimentation rates, B6:2-3; B12:4

age vs. depth

Atlantic Ocean S, A1:44

biostratigraphic datums, A3:29

Eocene-Pleistocene, A1:44

Pliocene-Pleistocene, A1:46

sedimentation rates, A3:11; A4:15

Site 1089, A4:44

Site 1090, A5:49

Site 1091, A6:41

Site 1092, A7:31

Site 1093, A8:46

Site 1094, A9:38

agglutinated/calcareous ratio, vs. carbonate content, A5:46

Agulhas Basin

tectonic maps, A1:40

tectonics, A1:5-6

Agulhas Current, circulation, B(synthesis):16

Agulhas Fracture Zone, tectonics, A1:5-6

Agulhas Plateau, tectonics, A1:5-6

Agulhas Ridge

paleoclimatology, B(synthesis):7

tectonics, A1:5-6, 20

albedo, gas exchange, B(synthesis):12

alkalinity

pore water, A3:12; A4:16; A6:14-15; A8:16; A9:13

vs. depth, A3:33; A4:48; A5:51; A6:43; A7:34; A8:50; A9:41

alkenones, desaturation, B(synthesis):11

aluminum

vs. depth, B1:6

See also iron/aluminum ratio; phosphorus/aluminum ratio

aluminum/titanium ratio, vs. depth, B1:7

ammonium

pore water, A3:12; A4:16; A6:14–15; A7:15; A8:17; A9:13
 vs. depth, A3:33; A4:48; A5:51; A6:43; A7:34; A8:50; A9:41
 vs. sulfate, A3:34

Antarctic Bottom Water

hydrography, A1:6–7
 Weddell Sea, A1:3

Antarctic Circumpolar Current

climate change, B(synthesis):10–11
 climate events, B(synthesis):39
 evolution, A1:8, 29
 hydrography, A1:6–7
 Neogene, B(synthesis):19–23
 paleoceanography, B(synthesis):6–7
 sediments, A1:1–3

Antarctic Cold Reversal-I, oxygen isotopes, B(synthesis):45

Antarctic Cold Reversal-II, oxygen isotopes, B(synthesis):45

Antarctic ice sheet, climate events, B(synthesis):39

Antarctic Zone, surface water, B(synthesis):11

Antarctica

biogeography, A1:3
 cryosphere, A1:7–8
See also circum-Antarctic opal belt

Atlantic Ocean S

Holocene carbon isotopes, B(synthesis):49
 tectonics, A1:41

Atlantic Ocean SW, tectonics, A1:6

atmosphere, carbon dioxide, B(synthesis):12

authigenesis, lithologic units, A5:7

B

bacteria

abundance, B3:1–12
 regression model, B3:12
 vs. depth, B3:10–11

barium, vs. age, B(synthesis):40

basalt, lithologic units, A8:7–8

bathymetry, profiles, A3:17; A9:21

biogenic bloom, Miocene/Pliocene boundary, B(synthesis):8

biogenic component, lithologic units, A1:20–22

biogenic export, Eocene–Oligocene transition, B(synthesis):5–6

biosiliceous composition, productivity, A6:12

biosphere, bacteria, B3:5–6

biostratigraphic datums

Neogene, A1:22–23
 sedimentation rates, A3:11; A7:13–14

biostratigraphy

age, A3:46–47; A4:80–82; A6:60–62; A7:48–55; A8:78–81; A9:58–59
 age assignments, A5:70–75
 Cenozoic, A1:11
 correlation, A3:30; A4:43; A6:38; A7:30; A8:45; A9:37
 diatom preservation and abundance vs. depth, A4:45
 diatoms, B10:1–14

Eocene–Oligocene, B8:1–9

Miocene diatoms, B10:1–14

Miocene–Pleistocene, B(synthesis): 3

Miocene–Pliocene, B7:1–14

Neogene, A1:13

Pliocene–Pleistocene diatoms, B11:1–10

Site 1088, A3:6–10

Site 1089, A4:9–14

Site 1090, A5:8–17

Site 1091, A6:7–11

Site 1092, A7:6–12

Site 1093, A8:10–14

Site 1094, A9:8–11

summary, A1:22–23

vs. depth, A5:44–45

bioturbation

lithologic units, A4:6–7; A6:5–6

photograph, A3:24; A4:30

biozoning, high-latitude siliceous and calcareous fossils, A1:10

Bolboforma, biostratigraphy, A7:8–9

bottom water, production and mixing, A1:9

Bouvet Island, tectonics, A1:5–6

Bransfield Strait, sedimentation, A8:9

brightness, sediments, A1:24–25

Brunhes Chron

carbonate dissolution, B(synthesis):17

cyclic sedimentation, B(synthesis):13

magnetic polarity, A9:11

paleoclimatology, B(synthesis):22

sediments, A1:12; A4:14; A8:15

stratigraphy, A9:12

See also Mid-Brunhes Event

Brunhes/Matuyama boundary

benthic foraminifers, B14:8

diatoms, A4:12–13; A8:12

magnetic polarity, A6:11–12; A8:14–15; A9:11

oxygen isotopes, B(synthesis):44

sediments, A1:13, 15–16; A4:14

burrows

lithologic units, A4:6–7; A9:7

occurrence, A9:52

photograph, A4:29, 31; A5:35–36; A9:32

burrows, pyritized, lithologic units, A3:4–5

C

cadmium, deep water, B(synthesis):14–15

cadmium/calcium ratio, deep water, B(synthesis):15

calcium

comparison of profiles, A5:52

pore water, A1:13; A3:12; A4:17; A5:20–21; A6:14; A7:15; A8:16; A9:13

vs. depth, A3:33; A4:48; A5:51; A6:43; A7:34; A8:50; A9:41; B1:44

vs. magnesium, A5:53

vs. strontium, A5:53

See also cadmium/calcium ratio; magnesium/calcium ratio; strontium/calcium ratio

calcium carbonate, sediments, A3:13

caliper logs, vs. depth, A8:63–64

- carbon dioxide
atmosphere, B(synthesis):12
deep water, B(synthesis):14–16
ice core correlation with marine sediments, B(synthesis):18–19
marine isotopic stages, A1:27–28
paleoclimatology, B(synthesis):22
productivity, A1:8
sea ice extent, B(synthesis):12–13
- carbon, inorganic, sediments, A3:13, 61–63; A4:17–18, 90–93; A5:22, 96–97; A6:15, 79–80; A7:79; A8:17, 99–100; A9:14, 70
- carbon, organic, power spectra, B(synthesis):51
- carbon, total, sediments, A4:90–93; A5:22, 96–97; A6:15, 79–80; A7:15, 79; A8:17, 99–100; A9:14, 70
- carbon, total organic
sediments, A1:12; A4:18, 90–93; A5:22, 54, 96–97; A6:14–15, 79–80; A7:15, 79; A8:17–18, 99–100; A9:14, 70
vs. depth, A4:49; A6:44; A7:35; A8:51; A9:42
vs. total nitrogen, A6:45; A8:52
- carbon, total organic/total nitrogen ratio
sediments, A4:18, 90–93; A5:22, 96–97; A6:15, 79–80; A7:15, 79; A8:17–18, 99–100; A9:14, 70
vs. depth, A4:49; A5:54; A6:44; A7:35; A8:51; A9:42
- carbon isotope maximum, at Oligocene/Miocene boundary
carbon isotopes vs. age, B(synthesis):36
oxygen isotopes, B(synthesis):7
- carbon isotopes
Cibicidoides, B9:20–21
deep water, B(synthesis):14–16
foraminifers, B9:23
Globigerina bulloides, B9:21
ice core correlation with marine sediments, B(synthesis):17–19
Neogloboquadrina pachyderma (sinistral), B9:25–26
paleoceanography, B(synthesis):21–22
paleoclimatology, B(synthesis):8
vertical distribution in world oceans, B(synthesis):33
vs. age, B(synthesis):36, 41–42
vs. age and depth, B(synthesis):48
vs. depth in Holocene, B(synthesis):49
vs. oxygen isotopes, B(synthesis):36
vs. Vostok carbon dioxide, B(synthesis):50
water masses, B(synthesis):9
- carbonate compensation depth
lithologic units, A1:20
sediments, A1:12
- carbonate content
lithologic units, A3:4–5, 61–63; B6:24; A6:79–80; A7:4–5, 79; A8:7–8; A9:7
“Pacific-type” carbonate stratigraphy, B(synthesis):52
pore water, A6:13
power spectra, B(synthesis):51
sediments, A1:12; A4:17–18; A5:22, 96–97; A7:15; A9:14, 70; B6:4; B13:1–10
vs. age, B(synthesis):53; B9:14
vs. agglutinated/calcareous ratio, A5:46
vs. blue reflectance, A5:59
vs. bulk density, B6:11
vs. depth, A3:22, 25, 35, 38; A4:49; A5:33–54; A6:44; A7:35; A8:51; A9:42
vs. dry density, B6:12–13
vs. number of species, A5:46
vs. number of specimens, A5:46
vs. red reflectance, A5:59
See also calcium carbonate
- carbonate content, bulk, vs. depth, A4:27; A5:34; A6:23; A7:25; A8:29; A9:27
- carbonate dissolution index, vs. age, B(synthesis):53
- carbonate stratigraphy, diffuse spectral reflectance, B6:1–24
- carbonates
bacteria, B3:5–6
dissolution, A8:16; B(synthesis):10, 16–17
lithologic units, A1:20–22
preservation, A4:9–11
sedimentation, B(synthesis):8
See also “Pacific-type” carbonate stratigraphy
- Ceara Rise, carbon isotope maximum at Oligocene/Miocene boundary, B(synthesis):36
- Cenozoic
biostratigraphy, A1:11
paleoclimatology, B(synthesis):39
sediments, A1:1–67
- chalk, lithologic units, A5:6–7
- chert
diagenesis, A1:10
formation, A5:22
lithologic units, A5:7
sediments, A1:14
- chert, green, lithologic units, A5:6
- chloride
comparison of profiles, A5:52
pore water, A3:12; A5:20; A6:13–14; A7:14–15; A8:16; A9:13
vs. depth, A1:48; A3:33; A4:48; A5:51; A6:43; A7:34; A8:50; A9:41
- chlorinity, pore water, A4:16
- chlorite. *See* illite/(kaolinite+chlorite) ratio; kaolinite/chlorite ratio
- Chondrites*, photograph, A5:36
- chron boundaries, magnetic polarity, A4:86
- Chron C2An.3n, magnetic polarity, A6:13
- Chron C2n, diatoms, A4:13
- Chron C2r, diatoms, A4:13
- Chron C3A, diatoms, A7:10
- Chron C4, diatoms, A7:10–11
- Chron C4A, diatoms, A7:11
- Chron C4n.2n, diatoms, A7:10
- Chron C5, diatoms, A7:11
- Chron C6Cn.2r, oxygen isotopes, B(synthesis):7
- Chron C11n–C11r interval, stratigraphy, B(synthesis):4
- Chron C13n, stratigraphy, B(synthesis):4
- Chron C13r, stratigraphy, B(synthesis):4
- chronostratigraphy
Site 1088, A3:5–11
Site 1089, A4:8–15
Site 1090, A5:8–19
Site 1091, A6:6–13
Site 1092, A7:5–14

Site 1093, A8:9–15
Site 1094, A9:7–12
Chronos. *See also* cryptochrons
Cibicidoides
carbon and oxygen isotopes, B9:20–21
Pleistocene, B14:21–23
circum-Antarctic opal belt
global marine distribution, A1:9, 20
lithologic units, A8:9
Circumpolar Deep Water
hydrography, A1:6–7
salinity vs. temperature, A1:42
thermohaline circulation, B(synthesis):14–16
upwelling, B(synthesis):11
clasts, mud, photograph, A4:37
clasts, rip-up
photograph, A4:37
vs. depth, A4:33
clasts, volcanic, lithologic units, A8:7–8
clay
lithologic units, A5:5–7
mineralogy, B13:1–10
sediments, A1:20–22; B13:1–10
vs. biogenic silica, B13:6
clay, terrigenous, sediments, A1:21
clay mineralogy
deep water, B(synthesis):15–16
lithologic units, A4:7
sediments, B13:1–10
See also chlorite; illite; kaolinite; mixed-layer clays;
smectite
clays/(quartz+feldspar) ratio
lithologic units, A3:5; A5:7
vs. depth, A3:22; A4:28; A5:34; A7:25
climate change
ice cores, A1:10
surface water structure, B(synthesis):10–12
clinoptilolite, lithologic units, A5:7
color bands, lithologic units, A4:6–7
composite depths
offsets, A4:8–9
stratigraphy, A3:5–6, 44; A4:60–61; A5:8, 64–65; A6:6–
7, 54–55; A7:5–6, 43; A8:9–10, 69–71; A9:7–8,
53
compressional wave velocity, sediments, A3:13–14;
A4:18–19; A5:23–24; A6:16; A7:17; A8:19; A9:16
concretions
geochemistry, A9:13
photograph, A9:28
contorted beds
lithologic units, A4:7
photograph, A4:36
control points, sedimentation rates, A3:45
cooling events, summer sea-surface temperature, B(syn-
thesis):45
cores
correlation, A6:25–29; A8:30–36; A9:23–26
disturbance, A4:58
physical properties, A1:24–25
undisturbed recovery, A4:59
correlation
absolute age, A5:44–45

biostratigraphy, A3:30; A4:43; A9:37
cores, A6:25–29; A8:30–36; A9:23–26
magnetostratigraphy, A6:38; A7:30; A8:45; A9:37
cross laminations, lithologic units, A6:5
cross stratification, photograph, A6:32
cryosphere, Antarctica, A1:7–8
cryptochrons, stratigraphy, B(synthesis):4

D

deep water
circulation, B(synthesis):14–16
production and mixing, A1:9
See also Circumpolar Deep Water; North Atlantic Deep
Water
deglaciation
paleoclimatology, B(synthesis):22
Pleistocene, B(synthesis):11
See also glaciation
degradation, organic matter, A6:14–15; A8:17
demagnetization, alternating-field, sediments, A4:14;
A8:14
Denmark Straits Overflow Water, salinity vs. tempera-
ture, A1:42
density
carbonate content, B6:3
sediments, A3:14; A4:18; A5:23; A6:16; A7:16–17;
A8:18–19; A9:15–16
density, bulk
carbonate content, B6:3
composite depths, A4:8–9
gamma-ray attenuation vs. moisture and density
measurement, A3:37; A4:51; A5:57; A6:48;
A7:37; A8:54; A9:44
sediments, A1:14; B6:19
vs. carbonate content, B6:11
vs. depth, A1:51; A3:26, 36; A4:40–41, 50; A5:40, 43,
55–56; A6:36–37, 46–47; A7:26, 29, 36, 38–39;
A8:44, 53, 56; A9:35–36, 43; B6:11
vs. thermal conductivity, A3:41; A4:55; A5:61; A6:51;
A7:41; A8:58; A9:45
density, dry
sediments, B6:20–22
vs. carbonate content, B6:12–13
vs. depth, B6:12
vs. water content, B6:12
density, gamma-ray attenuation, vs. depth, A3:39
density, grain, vs. depth, A3:38
density logs, vs. depth, A8:63
deposition, sediments, A1:43
deuterium. *See* Vostok ice deuterium
diachronism, biostratigraphy, A5:10
diagenesis
chert, A1:10
lithologic units, A5:7; A9:6–7
See also authigenesis
diapirism, fracture zones, A1:5
diatom mats
lithologic units, A1:22; A6:5–6; A8:7–8
photograph, A1:50; A6:24; A8:38–40
sedimentation rates, A6:10
stratigraphy, A6:12

diatomite, lithologic units, A8:8

diatoms

biostratigraphy, A1:22–23; A3:9; A4:12–13; A5:13–15;
A6:9–10; A7:9–11; A8:11–13; A9:10–11; B10:1–14

circum-Antarctic opal belt, A1:9

distribution, A3:55–56; A5:83–88; A6:67–72; A7:60–71; A8:88–92; A9:63–64

lithologic units, A1:20–22; A3:4–5; A5:6–7; A8:7–8

Neogene, A1:15

occurrence, A4:71–79

opal, B(synthesis):21

paleoceanography, A6:10

paleoenvironment, A5:15

Pliocene–Pleistocene biostratigraphy, B11:1–10

preservation and abundance vs. depth, A4:45

vs. depth, A3:22; A6:39

See also early Matuyama Diatom Maximum; late Matuyama Diatom Maximum; Matuyama Diatom Maximum

diorite, dropstone, A6:31

disconformities

calcareous nannofossil biostratigraphy, B7:5

Miocene/Pliocene boundary, B7:5

dissolution

biostratigraphy, A4:9–10

carbonates, A8:16; B(synthesis):10, 16–17

magnetite, A6:11–12

opal, A6:15

planktonic foraminifers, A6:8

See also carbonate dissolution index

dolerite, lithologic units, A8:7–8

downhole logging, summary, A1:24–25

Drake Passage, paleoceanography, B(synthesis):7, 19–23

drift deposits

ice cores, A1:10

lithologic units, A4:8

dropstone

lithologic units, A4:7; A7:4–5; A9:7

photograph, A6:31

E

early Matuyama Diatom Maximum, oxygen isotopes, B(synthesis):43

ebridians

distribution, A3:55–56; A5:83–88; A6:67–72; A7:60–71; A8:88–92; A9:63–64

occurrence, A4:71–79

Pleistocene, A9:10

echiurids

lithologic units, A9:7

occurrence, A9:52

photograph, A9:32

environment. *See* pelagic environment

Eocene

biostratigraphy, A1:22–23

calcareous nannofossil biostratigraphy, B8:1–9

lithologic units, A5:6–7

nannofossil biostratigraphy, A5:10

See also Paleocene–Eocene sequence

Eocene, middle

sediments, A1:2, 20–21

stratigraphy, B(synthesis):4–5

tectonics, A1:41

See also middle Eocene assemblages

Eocene, middle–upper, paleoceanography, B(synthesis):5–7

Eocene, middle–upper boundary, chronostratigraphy, A5:18

Eocene, upper

impact deposits, B4:1–9

opal maximum, B(synthesis):20

See also Miocene–upper Eocene assemblages

Eocene/Oligocene boundary

benthic foraminifers, A5:13

biostratigraphy, A5:10

calcareous nannofossil biostratigraphy, B8:3

climate events, B(synthesis):39

glaciation, B(synthesis):6

phosphorus/aluminum ratio vs. age, B(synthesis):40
stratigraphy, B(synthesis):4

eolian transport, lithologic units, A8:9

erosional contacts, photograph, A3:24

ethane

sediments, A3:12, 58; A4:15–16, 87; A6:13; A7:14;

A8:15–16; A9:12

See also methane/ethane ratio

F

faults. *See* microfaults; transform faults

feldspar

lithologic units, A4:7; A8:7–8

See also clays/(quartz+feldspar) ratio; quartz/feldspar ratio

Fontbotia wuellerstorfi, Pleistocene, B14:21–23

foraminifers

Eocene/Oligocene boundary, B(synthesis):6

fragmentation, B14:1–23

fragmentation ratio vs. age, B14:8

lithologic units, A1:20–22; A3:4–5; A9:6–7

Neogene, A1:15

oxygen isotope stratigraphy, B12:1–20

sediments, A1:12

transfer functions, B(synthesis):21

vs. depth, A3:22

foraminifers, benthic

assemblages, A5:12–13

biostratigraphy, A3:8–9; A4:11; A5:11–12; A6:8–9;

A7:8–9; A8:11; A9:9–10

distribution, A3:53–54; A4:68–69; A5:79–82; A6:65–66; A7:58–59; A8:85–86; A9:62

oxygen isotopes, B9:1–26; B14:8

Pleistocene, B14:21–23

power spectra, B(synthesis):51

vs. depth, A1:53

foraminifers, planktonic

biostratigraphy, A3:7–8; A4:10–11; A5:10–11; A6:7–8;

A7:7–8; A8:11; A9:9

distribution of main species, A3:52; A4:66–67; A5:76–78; A6:63–64; A7:56–57; A8:82–84; A9:61

early-mid Pleistocene, B14:9–15
 fragmentation, B(synthesis):53
 oxygen isotope stratigraphy, B12:1–20
 oxygen isotopes, B9:1–26
 preservation, A6:8
 formation factor, vs. porosity, A4:52
 fracture zones, transform faults, A1:5–6
 fragmentation, planktonic foraminifers, B(synthesis):53
 frontal systems
 Antarctic Circumpolar Current, A1:8
 diatom mats, A1:22

G

gamma rays
 composite depths, A4:8–9
 vs. depth, A1:51; A3:36; A4:50; A5:55–56; A6:46–47;
 A7:36; A8:53; A9:43
 gamma-ray logs
 sediments, A8:20–22
 vs. depth, A8:63–64
 garnet grains, lithologic units, A8:8
 Gauss Chron
 diatoms, A5:14; A6:9, 13
 ice-rafted debris, B(synthesis):9
 magnetic polarity, A8:14
 magnetostratigraphy, A8:15
 See also Matuyama/Gauss boundary
 geochemistry
 sediments, B1:1–14
 Site 1088, A3:12–13
 Site 1089, A4:15–18; B1:1–14
 Site 1090, A5:19–23
 Site 1091, A6:13–15
 Site 1092, A7:14–15
 Site 1093, A8:15–18
 Site 1094, A9:12–14
 geomagnetic field, paleointensity, A1:11
 geomagnetic intensity
 vs. age, B(synthesis):38
 vs. depth, B(synthesis):37
 Gibbs Fracture Zone Water, salinity vs. temperature,
 A1:42
 Gilbert Chron
 deep water, B(synthesis):10
 diatoms, A5:15
 magnetostratigraphy, A8:15
 glacial/interglacial cycles
 benthic foraminifers, A5:13
 biostratigraphy, A4:11
 foraminifers, A9:10
 lithologic units, A4:8; A7:5; A8:9; A9:7
 marine isotope stages, B(synthesis):12
 sedimentation rates, A1:25–26
 sediments, A1:21
 well-logs, A8:20–22
 glaciation
 Eocene/Oligocene boundary, B(synthesis):6
 paleoclimatology, B(synthesis):23
 Termination II, B(synthesis):11

See also deglaciation; last glacial maximum; Miocene
 glacial event Mi-1; Oligocene glacial event Oi-1;
 Termination I; Termination II; Termination V
 glass shards, lithologic units, A8:7–8
Globigerina bulloides, carbon and oxygen isotopes, B9:21
 gneiss fragments, lithologic units, A8:8
 graded bedding
 lithologic units, A4:7
 photograph, A4:37
 vs. depth, A4:33
 grain size
 sediments, B13:3–4
 vs. biogenic silica, B13:6
 gravel, volcanoclastic, photograph, A8:37
 green layers, photograph, A4:32
 “greenhouse” mode, paleoclimatology, B(synthesis):5
 gypsum, lithologic units, A4:6

H

heat flow, sediments, A3:15; A4:20; A8:19–20; A9:16
 hemipelagic sediments, bacteria, B3:5–6
 hiatuses
 age vs. depth, A7:31
 biostratigraphy, A5:11
 diatoms, A5:13–14; A7:11; A8:13
 lithologic units, A5:6; A8:7–8
 lower Pliocene–lower Miocene, A5:18
 radiolarians, A7:12; A8:14
 sedimentation rates, A3:11; A7:13–14; B6:2–3
 sediments, A1:13–14, 16–17, 21, 29
 stratigraphy, B(synthesis):4
 See also lower Pliocene–lower Miocene hiatus
 Holocene
 carbon isotopes, B(synthesis):49
 lithologic units, A8:7–8; A9:6–7
 hydrocarbons, volatile
 sediments, A3:12; A4:15–16; A5:19; A6:13; A7:14;
 A8:15–16; A9:12
 See also ethane; methane; methane/ethane ratio
 hydrogen sulfide
 pore water, A6:14; A8:17
 sediments, A1:16
 hydrography, A1:6–7

I

ice age, summer sea-surface temperature, B(synthesis):45
 ice cores, correlation with marine sediments, B(synthe-
 sis):17–19
 ice sheets
 climate events, B(synthesis):39
 dynamics, B(synthesis):13–14
 paleoclimatology, B(synthesis):7
 sediments, A1:28–29
 ice volume, vs. age, B12:9
 ice-rafted debris
 Gauss Chron, B(synthesis):9
 ice sheets, B(synthesis):13–14, 20–21
 lithologic units, A3:4–5; A7:4–5; A8:8–9; A9:6–7
 mid-Pleistocene Transition, B(synthesis):14

photograph, A3:24; A8:37
Pleistocene, B14:1–23
point counts, Pliocene, B5:1–6
sediments, A1:21
upper Pliocene, B(synthesis):9
vs. age, B14:8
“icehouse” mode, paleoclimatology, B(synthesis):5
illite, biotitic, sediments, B13:1–10
illite, sediments, B13:1–10
illite/(kaolinite+chlorite) ratio
lithologic units, A4:7
vs. depth, A4:28
impact deposits, upper Eocene, B4:1–9
impact events, upper Eocene, B(synthesis):5
insolation, warming, B(synthesis):11–12
insolation forcing, ice core correlation with marine sediments, B(synthesis):18–19
interglacials
marine isotopic stages, A1:27
“Pacific-type” carbonate stratigraphy, B(synthesis):52
See also glacial/interglacial cycles
iridium
microtektites, B(synthesis):5
sediments, B4:8–9
vs. depth, B4:7
iridium anomaly, impact deposits, B4:3–4
iron
pore water, A4:16–17; A5:21–22; A8:17
sediments, A6:15
vs. depth, A4:48; A5:51; A6:43; A8:50; A9:41; B1:6
iron/aluminum ratio, vs. depth, B1:7
iron/titanium ratio, vs. depth, B1:7
Islas Orcadas Rise, tectonics, A1:6
isotherms, Pleistocene, B(synthesis):10–12

J

Jaramillo Subchron
chronostratigraphy, A5:18
magnetic polarity, A9:11
sediments, A1:13; A4:14

K

kaolinite. *See* illite/(kaolinite+chlorite) ratio
kaolinite/chlorite ratio, power spectra, B(synthesis):51

L

Labrador Sea Water, salinity vs. temperature, A1:42
laminations
lithologic units, A3:4–5
photograph, A:150; A4:32; A6:30; A8:39–40
See also cross laminations
laminations, planar, photograph, A6:32
lappilli tuff, lithologic units, A8:7–8
last glacial maximum, carbon isotopes, B(synthesis):49
late Matuyama Diatom Maximum, oxygen isotopes, B(synthesis):43
late Paleocene thermal maximum, climate events, B(synthesis):39

Liesegang bands
lithologic units, A4:6–7
photograph, A4:31
lithics, vs. age, Vostok ice, B(synthesis):47
lithium
pore water, A3:12; A4:17; A5:21; A6:14
vs. depth, A3:33; A4:48; A5:51; A6:43; A7:34; A8:50; A9:41
lithologic units
Site 1088, A3:4–5
Site 1089, A4:6–7
Site 1090, A5:5–7
Site 1091, A6:5–6
Site 1092, A7:4–5
Site 1093, A8:7–9
Site 1094, A9:6–7
Unit I, A3:4–5; A4:6–7; A5:5; A6:5–6; A7:4–5; A8:7–8; A9:6–7
Unit II, A5:6; A8:8
Unit III, A5:6–7
lithology, summary, A3:21, 25; A4:26; A5:31–32; A6:21–22; A7:24; A8:26–28; A9:22; B6:9
lithostratigraphy
Site 1088, A3:3–5
Site 1089, A4:5–8
Site 1090, A5:4–7
Site 1091, A6:4–6
Site 1092, A7:3–5
Site 1093, A8:6–9
Site 1094, A9:5–7
summary, A1:20–22, 49, 52
lower Miocene assemblages, benthic foraminifers, A7:9
lower Pliocene–lower Miocene hiatus, sedimentation rates, B6:10

M

magnesium
comparison of profiles, A5:52
pore water, A4:17; A5:20–21; A6:14; A7:15; A8:16; A9:13
vs. calcium, A5:53
vs. depth, A3:33; A4:48; A5:51; A6:43; A7:34; A8:50; A9:41
vs. strontium, A5:53
magnesium/calcium ratio
pore water, A1:13; A4:17; A5:20–21; A8:16
vs. depth, A5:53
magnetic anomalies, tectonics, A1:6
magnetic declination, sediments, A4:14
magnetic inclination
histograms, A3:31
magnetic polarity, A7:13
sediments, A1:17; A3:11; A5:17
vs. depth, A4:46; A5:47–48; A6:40; A7:32; A8:47–48; A9:39
magnetic intensity
sediments, A6:11; A8:14; A9:11
See also paleointensity
magnetic polarity
chron boundaries, A4:86

- Chron C2An.3n, A6:13
 magnetic inclination, A7:13
 sediments, A1:13–14
- magnetic susceptibility
 composite depths, A4:8–9
 vs. depth, A1:51; A3:23, 28, 36; A4:38, 41, 50; A5:39, 42, 55–56; A6:34, 37, 46–47; A7:27, 29, 36, 38–39; A8:42, 44, 53, 56, 63; A9:34, 36, 43
- magnetic susceptibility logs
 sediments, A8:20–22
 vs. depth, A8:63, 65
- magnetite, dissolution, A6:11–12
- magnetostratigraphy
 chron boundaries, A4:86
 correlation, A4:43; A6:38; A7:30; A8:45; A9:37
 Neogene, B(synthesis): 3–4
 sedimentation rates, A7:13–14
 vs. depth, A5:44–45
- major elements, sediments, B1:8–14
- manganese
 pore water, A4:17; A5:22; A7:15; A8:17; A9:13–14
 sediments, A6:15
 vs. depth, A1:48; A4:48; A5:51; A6:43; A8:50; A9:41
- manganese nodules
 hiatuses, A1:14
 vs. depth, A5:37
- maps, tectonics, A1:40
- marine isotope Stage 1, Termination V, B(synthesis):12
- marine isotope Stage 3, paleoclimatology, B(synthesis):22–23
- marine isotope Stage 5
 ice core correlation with marine sediments, B(synthesis):19
 paleoclimatology, B9:5
 sea ice extent, B(synthesis):12–13
 sediments, A1:27
 Termination V, B(synthesis):12
- marine isotope Stage 5e, glaciation, B(synthesis):11
- marine isotope Stage 6, sea ice extent, B(synthesis):12–13
- marine isotope Stage 7
 diatoms, A4:12; A8:12; A9:10
 ice sheets, B(synthesis):14
 paleoclimatology, A6:12; B9:4–5
- marine isotope Stage 8, diatoms, A8:12
- marine isotope Stage 9
 diatoms, A4:12; A8:12; A9:10
 ice sheets, B(synthesis):14
 paleoclimatology, A6:12
- marine isotope Stage 10
 lithologic units, A3:5
 sea ice extent, B(synthesis):12–13
- marine isotope Stage 11
 carbonate dissolution, B(synthesis):17
 diatoms, A4:12; A8:12; A9:10
 ice core correlation with marine sediments, B(synthesis):19, 46
 interglacials, B(synthesis):12
 lithologic units, A3:5
 paleoclimatology, A6:12
- sediments, A1:27
 Termination V, B(synthesis):12
- marine isotope Stage 11.3, diatoms, A4:12
- marine isotope Stage 12
 sea ice extent, B(synthesis):12–13
 sediments, A1:27
- marine isotope Stage 13, carbonate dissolution, B(synthesis):17
- marine isotope Stage 15, diatoms, A4:12
- marine isotope Stage 16 diatoms, A4:12; A8:12
- marine isotope Stage 17, diatoms, A4:12
- marine isotope Stage 17/18 transition, age models, B12:5
- marine isotope Stage 18/19 transition, age models, B12:5
- marine isotope Stage 19, age models, B12:5
- marine isotope Stage 21, age models, B12:5
- marine isotope Stage 22, oxygen isotopes, B(synthesis):16
- marine isotope Stages 1–12, sediments, A1:13
- marine isotope Stages 1–13, sediments, A1:11
- marine isotope Stages 3–4, temperature oscillations, B(synthesis):11
- marine isotope Stages 6–5, glaciation, B(synthesis):11
- marine isotope stages
 benthic foraminifers, B14:8
 missing stages, B9:24
 sediments, A8:15
- marker beds
 lithologic units, A6:5
 location and description, A6:53
 photograph, A6:32–33
- Matuyama Chron
 chronostratigraphy, A5:18
 diatoms, A4:13; A5:15; A6:9, 12; B(synthesis):21
 magnetic polarity, A6:11; A8:14; A9:11
 radiolarians, A8:13
 sediments, A1:15–16
 stratigraphy, A9:12
See also Brunhes/Matuyama boundary; early Matuyama Diatom Maximum; late Matuyama Diatom Maximum
- Matuyama Diatom Maximum
 upper Pliocene, B(synthesis):8
See also early Matuyama Diatom Maximum; late Matuyama Diatom Maximum
- Matuyama/Gauss boundary
 diatoms, A8:13
 magnetic polarity, A6:11–12
 sediments, A1:16
- Maud Rise, paleoclimatology, B(synthesis):7
- metaquartzite, lithologic units, A8:8
- Meteor Rise
 paleoceanography, B(synthesis):8
 sediments, A1:21
 tectonics, A1:5–6
- methane
 sediments, A3:12, 58; A4:15–16, 87; A5:19, 93; A6:13, 76; A7:14, 76; A8:15–16, 96; A9:12, 66
 vs. depth, A3:32; A4:47; A5:50; A6:42; A7:33; A8:49; A9:40
- methane/ethane ratio, sediments, A4:16
- methanogenesis, sediments, A4:16

microfaults, photograph, A4:29, 35–36
 microkrystites, upper Eocene, B(synthesis):5
 microtektites, upper Eocene, B(synthesis):5
 Mid-Atlantic Ridge, tectonics, A1:6
 Mid-Brunhes Event
 benthic foraminifers, B14:8
 oxygen isotopes, B(synthesis):44
 Pliocene/Pleistocene boundary, B(synthesis):43
 Mid-Brunhes Transition. *See* Mid-Brunhes Event
 Mid-Pleistocene Revolution
 benthic foraminifers, B14:8
 ice-rafted debris, B(synthesis):14, 21
 oxygen isotopes, B(synthesis):43–44
 Mid-Pleistocene Transition. *See* Mid-Pleistocene Revolution
 middle Eocene assemblages, benthic foraminifers, A5:13
 middle Miocene–Pliocene sequence, paleoceanography, B(synthesis):7–10
 middle–upper Miocene assemblages, benthic foraminifers, A7:8–9
 Milankovitch cycles
 age models, B12:3–4
 marine isotopic stages, A1:27
 paleoclimatology, B(synthesis):23
 sediments, A1:12
 millennial timescales, tectonics, B(synthesis): 1–55
 Miocene
 biostratigraphy, A1:22–23
 calcareous nannofossil biostratigraphy, B7:1–14
 diatom biostratigraphy, B10:1–14
 lithologic units, A5:6
 nannofossil biostratigraphy, A5:9–10
 nannofossils, A3:7; A7:7
 paleomagnetism, A1:23–24
 sediments, A1:16
 See also Oligocene/Miocene boundary
 Miocene, lower
 diatoms, A7:11
 paleoceanography, B(synthesis):5–7
 sediments, A1:2
 stratigraphy, B(synthesis):4–5
 See also lower Miocene assemblages; lower Pliocene–lower Miocene hiatus
 Miocene, middle
 calcareous nannofossil biostratigraphy, B7:3–4
 diatoms, A7:11
 See also middle Miocene–Pliocene sequence
 Miocene, middle–upper boundary
 biostratigraphic datums, A3:11
 paleoceanography, B(synthesis):8
 Miocene, middle–upper sequence
 lithologic units, A3:4–5
 radiolarians, A7:12
 See also middle–upper Miocene assemblages
 Miocene, upper
 calcareous nannofossil biostratigraphy, B7:4–5
 diatoms, A8:13
 lithologic units, A7:5; A8:8
 radiolarians, A7:12
 Miocene glacial event Mi-1
 climate events, B(synthesis):39

oxygen isotopes, B(synthesis):7
 Miocene–upper Eocene assemblages, benthic foraminifers, A5:13
 Miocene/Pliocene boundary
 biogenic bloom, B(synthesis):8
 biostratigraphic datums, A3:11
 calcareous nannofossil biostratigraphy, B7:5
 diatoms, A7:10
 hiatuses, A5:14–15
 lithologic units, A5:6; A7:5; A8:8
 sedimentation rates, A7:13–14
 Miocene/Pliocene unconformity, biostratigraphy, A5:12
 mixed-layer clays, lithologic units, A5:7
 mud
 bacteria, B3:1–12
 lithologic units, A5:5–7; A7:5; A8:7–8; A9:6–7
 mud, diatom
 lithologic units, A4:6–7
 photograph, A4:30
 mudrock, lithologic units, A8:8
 muscovite, sediments, B13:1–10

N

nannofossils
 distribution of main species, A4:63–65; A5:67–69; A6:57–59; A7:45–47; A8:73–77; A9:55–57
 lithologic units, A1:20–22; A4:6–7; A9:6–7
 vs. depth, A3:22
 nannofossils, calcareous
 biostratigraphy, A1:22–23; A3:6–7; A4:9–10; A5:8–10; A6:7; A7:6–7; A8:10; A9:8–9
 distribution, A3:48–51
 Eocene–Oligocene biostratigraphy, B8:1–9
 Eocene–Oligocene distribution, B8:8
 Miocene–Pliocene biostratigraphy, B7:1–14
 Miocene–Pliocene distribution, B7:13
 Neogene
 Antarctic Circumpolar Current, B(synthesis):19–23
 biostratigraphic datums, A1:22–23
 biostratigraphy, A1:13
 paleoclimatology, A6:12; B(synthesis):5–23
 See also Paleogene/Neogene transition
 neoglaciation, ice sheets, B(synthesis):14
 Neogloboquadrina pachyderma (sinistral)
 carbon and oxygen isotopes, B9:25–26
 oxygen isotopes, B12:13–15, 17–19
 nitrogen, total
 sediments, A4:17–18, 90–93; A5:22, 54, 96–97; A6:15, 79–80; A7:15, 79; A8:17, 99–100; A9:14, 70
 vs. depth, A4:49; A6:44; A8:51; A9:42
 vs. total organic carbon, A6:45; A8:52
 See also carbon, total organic/total nitrogen ratio
 North Atlantic Deep Water
 carbon isotope vertical distribution in world oceans, B(synthesis):33
 climate events, B(synthesis):39
 hydrography, A1:6–7
 ice core correlation with marine sediments, B(synthesis):18–19
 postcruise research, A1:26–29

salinity, B(synthesis):9
 salinity vs. temperature, A1:42
 thermohaline circulation, B(synthesis):14–16

O

ocean circulation
 deep water, B(synthesis):14–16
 frontal systems, Antarctic Circumpolar Current, A1:8
 offsets, composite depths, A4:8–9
 Olduvai Subchron
 chronostratigraphy, A5:18; A8:15
 diatoms, A4:13; A5:14; A6:9; A7:10
 sediments, A4:14
 Oligocene
 calcareous nannofossil biostratigraphy, B8:1–9
 lithologic units, A5:6
 nannofossil biostratigraphy, A5:10
See also Eocene/Oligocene boundary
 Oligocene, lower, hiatuses, B(synthesis):4
 Oligocene, upper, warming, B(synthesis):39
 Oligocene glacial event Oi-1
 climate events, B(synthesis):39
 hiatuses, B(synthesis):4
 Oligocene/Miocene boundary
 biostratigraphy, A5:10
 calcareous nannofossil biostratigraphy, B7:4–5
 diatoms, A5:15
 oxygen isotopes, B(synthesis):7
 radiolarians, A5:16
 ooze, carbonate, lithologic units, A6:5–6
 ooze, diatom
 lithologic units, A5:6; A6:5–6; A7:4–5; A8:7–8; A9:6–7
 porcellanite, A1:25–26
 ooze, diatom nannofossil, lithologic units, A4:6–7; A5:5;
 A6:5–6
 ooze, foraminifer, lithologic units, A7:4–5
 ooze, foraminifer diatom, lithologic units, A6:5–6; A8:7–
 8
 ooze, foraminifer nannofossil
 lithologic units, A3:4–5
 photograph, A3:24
 sediments, A1:21
 ooze, mud diatom
 lithologic units, A6:5–6; A8:8
 photograph, A8:37, 40
 ooze, mud nannofossil, lithologic units, A4:6–7
 ooze, nannofossil, lithologic units, A1:21; A4:6–7; A5:5–
 7; A7:4–5
 ooze, sediments, A1:13; A1:16
 opal
 biogenic sinks, A1:9
 diatoms, B(synthesis):21
 dissolution, A6:15
 lithologic units, A3:4–5; A4:7; A5:7; A8:7–8
 pore water, A8:17
 productivity, A1:8
 sediments, B13:1–10
 upper Pleistocene, B2:1–5
 vs. depth, A3:22; A5:33
 X-ray diffraction data, A5:62–63

See also circum-Antarctic opal belt
 opal, biogenic
 opal export, B(synthesis):6
 sediments, A1:21
 upper Pleistocene, B2:1–5
 vs. depth, B2:4
 opal, bulk, vs. depth, A5:34; A6:23; A7:25; A8:29; A9:27
 opal-CT
 geochemistry, A9:13
 porcellanite, A1:22
 X-ray diffraction data, A9:29
 opal maximum
 climate events, B(synthesis):39
 upper Eocene, B(synthesis):8, 20
 orbital forcing
 Cenozoic, B(synthesis):5
 marine isotopic stages, A1:27
 surface water, A1:9
 organic matter
 degradation, A6:14–15; A8:17
 oxidation, A6:15
 remineralization, A9:14
 oxidation
 organic matter, A6:15
 sediments, A6:15
 oxygen isotope stratigraphy
 lower–middle Pleistocene, B12:1–20
 sediments, B9:1–26
 oxygen isotopes
 benthic foraminifers, B(synthesis):9; B14:8
Cibicidoides, B9:20–21
 Eocene/Oligocene boundary, B(synthesis):6
 foraminifers, B9:1–26
Globigerina bulloides, B9:21
 ice core correlation with marine sediments, B(synthe-
 sis):17–19; B9:13
 ice sheets, B(synthesis):14
 major climatic events, B(synthesis):39
Neogloboquadrina pachyderma (sinistral), B9:25–26;
 B12:13–15, 17–19
 Oligocene/Miocene boundary, B(synthesis):7
 “Pacific-type” carbonate stratigraphy, B(synthesis):52
 Paleogene, B(synthesis):20–22
 Pleistocene, B(synthesis):44
 Pliocene/Pleistocene boundary, B(synthesis):43
 temperature vs. age, B(synthesis):39
 vs. age, A4:25; B(synthesis):35, 38, 41, 43, 45, 52;
 B9:10, 12–14, 16, 19; B12:9–10, 12
 vs. carbon isotopes, B(synthesis):36
 vs. depth, A1:53; B(synthesis):34; B9:9, 11, 15, 17, 18;
 B12:8
 vs. Vostok ice deuterium, B(synthesis):54

P

“Pacific-type” carbonate stratigraphy, oxygen isotopes,
 B(synthesis):52
 paleoceanography
 diatoms, A6:10
 lower Miocene, B(synthesis):5–7
 middle Miocene–Pliocene, B(synthesis):7–10

- middle Pleistocene, A8:15
- middle–upper Eocene, B(synthesis):5–7
- Pleistocene, B(synthesis):10–19
- postcruise research, A1:26–29
- Southern Ocean, A1:1–67; B(synthesis):1–55
- Paleocene, upper
 - tectonics, A1:41
 - See also* late Paleocene thermal maximum
- Paleocene–Eocene sequence, tectonics, A1:41
- paleoclimatology
 - early and mid-Pleistocene, B14:1–23
 - greenhouse mode, B(synthesis):5
 - ice core correlation with marine sediments, B(synthesis):18–19
 - ice cores, A1:10
 - icehouse mode, B(synthesis):5
 - Neogene, A6:12; B(synthesis):5–23
 - oxygen isotopes, B(synthesis):39
 - sediments, A1:2
 - See also* climate change; cooling events; late Paleocene thermal maximum; Miocene glacial event Mi-1; Oligocene glacial event Oi-1; temperature, sea-surface
- paleoenvironment
 - diatoms, A5:15; A6:10
 - lithologic units, A8:9
- Paleogene
 - cryosphere, A1:7–8
 - oxygen isotopes, B(synthesis):20–22
- Paleogene/Neogene transition, biostratigraphy, A5:12
- paleogeography, sediments, A1:2
- paleointensity, geomagnetic field, A1:11
- paleomagnetism
 - Site 1088, A3:10–11
 - Site 1089, A4:14
 - Site 1090, A5:17
 - Site 1091, A6:11–12
 - Site 1092, A7:13
 - Site 1093, A8:14
 - Site 1094, A9:11
 - summary, A1:23–24, 49
- paleoposition, frontal systems, A1:22
- paleoproductivity, biostratigraphy, A4:11
- pelagic environment, sedimentation rates, A8:15
- pH, vs. depth, A3:33; A4:48; A5:51; A6:43; A7:34; A8:50; A9:41
- phenocrysts, lithologic units, A8:7–8
- phosphate
 - pore water, A3:13; A4:16; A7:15; A8:17; A9:13
 - sediments, A6:15
 - vs. depth, A1:48; A3:33; A4:48; A5:51; A6:4; A7:34; A8:50; A9:41
- phosphorus, vs. depth, B1:4
- phosphorus/aluminum ratio
 - vs. age, B(synthesis):40
 - vs. depth, B1:5
- phosphorus/titanium ratio, vs. depth, B1:5
- physical properties
 - cores, A1:24–25
 - sediments, A1:17
 - Site 1088, A3:13–15, 64
 - Site 1089, A4:18–20, 94
 - Site 1090, A5:23–25, 98
 - Site 1091, A6:15–18, 81
 - Site 1092, A7:15–18, 80
 - Site 1093, A8:18–20, 101
 - Site 1094, A9:14–16, 71
- phytoliths, distribution, A5:83–88; A6:67–72; A7:60–71; A8:88–92; A9:63–64
- phytoliths, opaline
 - distribution, A3:55–56
 - occurrence, A4:71–79
- placoliths, dissolution, A4:9–10
- Planolites
 - lithologic units, A4:6–7
 - photograph, A4:29, 31; A5:35
- Pleistocene
 - benthic foraminifers, A8:11
 - biostratigraphy, A1:22–23; A4:9–14
 - deepwater circulation, B(synthesis):21
 - diatom biostratigraphy, B11:1–10
 - diatoms, A9:10
 - isotherms, B(synthesis):10–12
 - lithologic units, A3:4–5; A4:6–7; A5:5; A6:5–6; A7:4–5; A8:7–8; A9:6–7
 - nannofossil biostratigraphy, A3:6; A5:9
 - nannofossils, A6:7; A7:6–7; A8:10
 - oxygen isotopes, B(synthesis):44
 - paleoceanography, B(synthesis):10–19
 - radiolarians, A7:12; A8:13
 - sedimentation rates, B9:3
 - sediments, A1:15–16, 20–21
 - sponge spicules, A9:10
 - stratigraphy, A9:12
 - See also* deglaciation; ice age; last glacial maximum; Mid-Pleistocene Revolution; Pliocene–Pleistocene assemblages; Pliocene/Pleistocene boundary
- Pleistocene, lower, nannofossils, A9:9
- Pleistocene, lower–middle
 - oxygen isotope stratigraphy, B12:1–20
 - paleoclimatology, B14:1–23
- Pleistocene, middle, sedimentation rates, A8:15
- Pleistocene, upper
 - diatoms, A8:12
 - opal, B2:1–5
- Pliocene
 - biostratigraphy, A1:22–23; A4:9–14
 - calcareous nannofossil biostratigraphy, B7:1–14
 - diatom biostratigraphy, B11:1–10
 - hiatuses, A1:14, 21
 - ice-rafted debris, B5:1–6
 - lithologic units, A3:4–5; A5:5; A6:5–6; A7:5; A8:8
 - nannofossil biostratigraphy, A5:9–10
 - nannofossils, A3:6–7; A7:7
 - paleomagnetism, A1:23–24
 - radiolarians, A8:13
 - sediments, A1:15–16, 20–22
 - stratigraphy, A6:12
 - See also* lower Pliocene–lower Miocene hiatus; middle Miocene–Pliocene sequence; Miocene/Pliocene boundary; Miocene/Pliocene unconformity

- Pliocene, lower
 lithologic units, A5:5
See also lower Pliocene–lower Miocene hiatus
- Pliocene, lower/middle boundary, calcareous nannofossil biostratigraphy, B7:5
- Pliocene, lower/upper boundary, diatoms, A7:10
- Pliocene, upper
 deepwater circulation, B(synthesis):21
 ice-rafted debris, B(synthesis):9
 lithologic units, A4:6–7; A7:4–5
 nannofossils, A6:7; A8:10
 sedimentation rates, A8:15
- Pliocene–Pleistocene assemblages, benthic foraminifers, A5:12–13; A7:8
- Pliocene/Pleistocene boundary
 lithologic units, A3:5; A8:7–8
 nannofossils, A6:7; A7:6–7
 oxygen isotopes, B(synthesis):43
 sedimentation rates, A4:15
- Polar Front Zone
 diatoms, A8:12
 hydrography, A1:6–7
 oxygen isotopes, B(synthesis):43
 surface water, B(synthesis):11
- Polarstern core PS2489-2
 benthic foraminiferal oxygen isotopes, B14:8
 sediment composition, B13:9
- Polarstern core PS2821-1, sediment composition, B13:8
- porcellanite
 genesis, A1:25–26
 geochemistry, A9:13
 lithologic units, A1:21–22; A8:7–8; A9:6–7
 occurrence, A9:51
 photograph, A9:28, 31
 X-ray diffraction data, A9:29
- pore water
 acetate, B3:1–12
 geochemistry, A1:11, 13, 25–26, 59–60; A4:16–17, 88–89; A5:19–22, 94–95; A6:13–15, 77–78; A7:14–15, 77–78; A8:16–17, 97–98; A9:12–14, 67–69
 sediments, A1:14
- porosity
 sediments, A3:14; A4:19; A5:24; A6:16–17; A8:20–22
 vs. depth, A3:36; A4:52
 vs. formation factor, A4:52
- porosity logs, vs. depth, A8:63
- potassium
 pore water, A5:21; A6:14; A9:13
 vs. depth, A3:33; A4:48; A5:51; A6:43; A7:34; A8:50; A9:41
- potassium logs, vs. depth, A8:64
- power spectra, sediments, B(synthesis):51
- precession, age models, B12:3–4
- preservation
 carbonates, A4:9–11
 foraminifers, A9:9
 planktonic foraminifers, A3:8; A6:8
- productivity
 biosiliceous composition, A6:12
 carbon dioxide, A1:8
See also paleoproductivity
- propane, sediments, A3:12, 58; A4:87; A6:13; A7:14; A8:15–16; A9:12
- pumice, lithologic units, A8:7–8
- pyrite
 lithologic units, A4:6–7
 sediments, A6:15
- pyroxene, lithologic units, A8:7–8
- ## Q
- quartz
 lithologic units, A4:7
See also clays/(quartz+feldspar) ratio
- quartz/feldspar ratio
 lithologic units, A3:5; A5:7
 power spectra, B(synthesis):51
 sediments, B13:1–10
 vs. depth, A3:22; A4:28; A5:34; A7:25
- quartz grains, lithologic units, A8:8
- Quaternary
 sedimentation rates, B6:2–3
 sediments, A1:13, 20–22
 stratigraphy, A6:12
- ## R
- radiolarians
 biostratigraphy, A1:22–23; A3:10; A4:13–14; A5:16–17; A6:10–11; A7:11–12; A8:13–14; A9:11
 distribution, A3:57; A4:83–85; A6:74–75; A7:74–75; A8:93–95; A9:65
 lithologic units, A1:20–22
 main components of assemblage, A5:91–92
- recrystallization, lithologic units, A4:6–7
- redox
 pore water, A5:21; A6:14; A7:15; A8:17; A9:14
 sediments, A1:16–17
See also sulfate reduction
- reduction
 pore water, A3:12
 sediments, A6:15
See also redox; sulfate reduction
- reflectance
 carbonate content, B6:3–4
 carbonate dissolution, B(synthesis):16–17
 composite depths, A4:8–9
 marine isotopic stages, A1:27
 sediments, A1:12, 17; A3:14–15; A6:17; A9:15–16
 vs. depth, A1:45, 51; A3:23, 27, 39–40; A4:39, 41–42; A5:41, 56, 58–59; A6:35, 37, 47, 49–50; A7:28, 36, 38–39; A8:41, 44, 53, 55–56; A9:33, 36, 43
- reflectance, blue
 vs. age, B6:16–17
 vs. carbonate content, A5:59; B6:15–17
 vs. depth, A3:25; A4:53–54; A8:55–56; A9:43; B6:15
 vs. red reflectance, B6:14
- reflectance, blue and red
 sediments, A4:19–20
 vs. depth, A1:47
- reflectance, diffuse spectral
 carbonate stratigraphy, B6:1–24

sediments, A4:19–20; A5:24–25
 reflectance, red
 vs. blue reflectance, B6:14
 vs. carbonate content, A5:59
 vs. depth, A4:27, 53–54; A5:33; A8:55–56; A9:43;
 B9:9, 11, 17–18
 reflectance, spectral, sediments, B6:23
 remanent magnetization, natural
 Neogene, A1:15–16
 sediments, A3:11; A4:14; A6:11; A7:13; A8:14; A9:11
 remineralization, organic matter, A9:14
 resistivity
 sediments, A3:14; A4:19; A5:24; A6:16–17
 vs. depth, A3:36; A4:50; A5:55–56; A6:46–47; A7:36,
 38–39; A8:53, 56; A9:43
 resistivity logs, vs. depth, A8:63
 rhodochrosite, lithologic units, A4:6–7

S

salinity
 glacial/interglacial cycles, A1:25–26
 North Atlantic Deep Water, B(synthesis):9
 pore water, A4:16; A8:16
 vs. depth, A3:33; A4:48
 vs. temperature, A1:42
 Scotia Arc, sedimentation, A8:9
 scoured bases, photograph, A6:32
 sea ice
 evolution, A1:8
 extent, B(synthesis):12–13
 sea-level changes
 biostratigraphy, A4:12
 vs. depth, A1:53
 sedimentary structures, lithologic units, A6:5
 sedimentation
 biogenic silica, B(synthesis):6
 terrigenous proxies, B(synthesis):6
 sedimentation rates
 age models, B6:2–3; B12:3–4
 age vs. depth, A3:11; A4:15
 biostratigraphic datums, A7:13–14
 calcareous nannofossils, A3:11
 Cenozoic, A1:11–12
 chronostratigraphy, A5:18
 control points, A3:45; A4:70; A5:89–90; A6:73; A7:72–
 73; A8:87; A9:60
 data, B6:18
 diatoms, A6:10
 glacial/interglacial cycles, A1:25–26
 lithologic units, A8:9
 magnetic polarity, A4:15
 magnetostratigraphy, A7:13–14
 Neogene, A1:15–16; A6:13
 paleomagnetism, A1:23–24
 Pleistocene, B9:3
 sediments, A1:16–17, 23
 stratigraphy, A9:12
 vs. age and depth, B6:10
 sediments
 composition, B13:1–10
 deposition, A1:43
 geochemistry, B1:1–14
 paleoceanography, A1:1–67
 postcruise research, A1:26–29
 power spectra, B(synthesis):51
 Quaternary, A1:13
 sediments, marine, ice cores, B(synthesis):17–19
 seismic profiles
 interval velocities, A8:66; A9:49
 Site 1088, A3:18–20
 Site 1089, A4:23–24
 Site 1090, A5:29–30
 Site 1091, A6:19–20
 Site 1092, A7:21–23
 Site 1093, A8:24–25
 Site 1094, A9:18–20
 sequence analysis, vs. depth, A1:53
 sericite, sediments, B13:1–10
 serpentinite, diapirism, A1:5
 Shona Hotspot, tectonics, A1:6
 Shona Ridge, tectonics, A1:5–6
 siderite, lithologic units, A4:6–7
 silica
 pore water, A3:12; A4:16; A9:13
 sedimentation, B(synthesis):6
 vs. depth, A3:33; A4:48; A5:51; A6:43; A7:34; A8:50;
 A9:41
 silica, biogenic
 sedimentation, B(synthesis):8
 sediments, B13:1–10
 vs. grain size, B13:6
 silica budget, global marine distribution, A1:9
 siliciclastics
 lithologic units, A8:7–8
 sediments, A1:9, 20; B13:1–10
 siliciclastics, bulk, vs. depth, A4:27; A5:34; A6:23; A7:25;
 A8:29; A9:27
 silicoflagellates
 biostratigraphy, A4:13
 distribution, A3:55–56; A5:83–88; A6:67–72; A7:60–
 71; A8:88–92; A9:63–64
 lithologic units, A1:20–22
 occurrence, A4:71–79
 Pleistocene, A9:10
 silt
 mineralogy, B13:1–10
 sediments, A1:9, 20–22
 vs. biogenic silica, B13:6
 silt, sortable, vs. biogenic silica, B13:6
 silt, terrigenous, sediments, A1:21
 silt laminae, photograph, A4:30
 silt pods, photograph, A4:30
 Site 607
 carbon isotope signals, B(synthesis):41
 carbon isotopes, B(synthesis):16
 Site 689
 diatom stratigraphy, B10:1–14
 paleoclimatology, B(synthesis):7
 Site 690
 diatom stratigraphy, B10:1–14
 paleoclimatology, B(synthesis):7

- Site 704
carbon isotopes, B(synthesis):15
oxygen isotopes, B(synthesis):9, 41
paleoceanography, B(synthesis):8
- Site 849
carbon isotopes, B(synthesis):42
oxygen isotopes, B(synthesis):41
- Site 925, carbon isotope signals, B(synthesis):41
- Site 929
carbon isotope maximum at Oligocene/Miocene boundary, B(synthesis):36
oxygen isotopes, B(synthesis):6
- Site 982, carbon isotopes, B(synthesis):16
- Site 1088, A3:1–66
background and objectives, A3:1–2
bacteria, B3:1–12
biostratigraphy, A3:6–10
calcareous nannofossil stratigraphy, B7:1–14
carbon isotopes, B(synthesis):48
chronostratigraphy, A3:5–11
coring summary, A1:55
diatom stratigraphy, B10:1–14
geochemistry, A3:12–13
lithologic units, A3:4–5
lithostratigraphy, A3:3–5
operations, A3:2–3
oxygen isotope stratigraphy, B9:3
paleomagnetism, A3:10–11
physical properties, A3:13–15
principal results, A1:11–12
site description, A3:1–66
- Site 1089, A4:1–77
background and objectives, A4:1–3
biostratigraphy, A4:9–14
carbon isotopes, B(synthesis):48
chronostratigraphy, A4:8–15
coring summary, A1:56–57
geochemistry, A4:15–18; B1:1–14
ice core correlation with marine sediments, B(synthesis):17–19
lithostratigraphy, A4:5–8
Miocene diatom biostratigraphy, B11:5
operations, A4:3–5
oxygen isotope stratigraphy, B9:3–4
oxygen isotopes, B(synthesis):45
oxygen isotopes vs. Vostok ice deuterium, B(synthesis):54
paleomagnetism, A4:14
physical properties, A4:18–20
planktonic foraminifers, B(synthesis):53
principal results, A1:12–13
sediment composition, B13:1–10
site description, A4:1–97
summer sea-surface temperature, B(synthesis):45
- Site 1090, A5:1–101
background and objectives, A5:1–2
biostratigraphy, A5:8–17
calcareous nannofossil stratigraphy, B7:1–14; B8:1–9
calcium carbonate stratigraphy, B6:1–24
carbon isotopes, B(synthesis):42, 48
chronostratigraphy, A5:8–19
coring summary, A1:58–59
geochemistry, A5:19–23
impact deposits, B4:1–9
lithostratigraphy, A5:4–7
Miocene diatom biostratigraphy, B11:6
operations, A5:2–4
oxygen isotope stratigraphy, B9:4–5
oxygen isotopes, B(synthesis):44
paleoclimatology, B14:1–23
paleomagnetism, A5:17
physical properties, A5:23–25
Pliocene/Pleistocene boundary, B(synthesis):43
principal results, A1:13–14
sediment composition, B13:1–10
sediment power spectra, B(synthesis):51
site description, A5:1–101
stratigraphy, B(synthesis):4–5
summer sea-surface temperature, B(synthesis):44
- Site 1091, A6:1–84
background and objectives, A6:1–2
biostratigraphy, A6:7–11
chronostratigraphy, A6:6–13
coring summary, A1:60–61
geochemistry, A6:13–15
lithostratigraphy, A6:4–6
Miocene diatom biostratigraphy, B11:7
operations, A6:2–4
oxygen isotope stratigraphy, B12:4
paleomagnetism, A6:11–12
physical properties, A6:15–18
principal results, A1:15–16
site description, A6:1–84
- Site 1092, A7:1–82
background and objectives, A7:1–2
biostratigraphy, A7:6–12
carbon isotope signals, B(synthesis):41
chronostratigraphy, A7:5–14
composite depths, A7:5–6
coring summary, A1:62–63
diatom stratigraphy, B10:1–14
geochemistry, A7:14–15
lithostratigraphy, A7:3–5
Miocene diatom biostratigraphy, B11:8
operations, A7:2–3
oxygen isotopes, B(synthesis):41
paleomagnetism, A7:13
physical properties, A7:15–18
Pliocene ice-rafted debris, B5:1–6
Pliocene/Pleistocene boundary, B(synthesis):43
principal results, A1:16–17
site description, A7:1–82
- Site 1093, A8:1–104
background and objectives, A8:1–2
bacteria, B3:1–12
biostratigraphy, A8:10–14
chronostratigraphy, A8:9–15
composite depths, A8:9–10
coring summary, A1:64–66
geochemistry, A8:15–18
ice core correlation with marine sediments, B(synthesis):19

- lithostratigraphy, A8:6–9
 - Miocene diatom biostratigraphy, B11:9
 - opal, B2:1–5
 - operations, A8:2–6
 - oxygen isotope stratigraphy, B9:5; B12:4
 - paleomagnetism, A8:14
 - physical properties, A8:18–20
 - principal results, A1:17–18
 - site description, A8:1–104
 - summer sea-surface temperature, B(synthesis):46
 - wireline logging, A8:20–22
 - Site 1094, A9:1–73
 - background and objectives, A9:1–2
 - biostratigraphy, A9:8–11
 - chronostratigraphy, A9:7–12
 - composite depths, A9:7–8
 - coring summary, A1:67
 - geochemistry, A9:12–14
 - ice core correlation with marine sediments, B(synthesis):19
 - lithostratigraphy, A9:5–7
 - Miocene diatom biostratigraphy, B11:10
 - opal, B2:1–5
 - operations, A9:2–5
 - oxygen isotope stratigraphy, B9:5; B12:3–4
 - paleomagnetism, A9:11
 - physical properties, A9:14–16
 - principal results, A1:19–20
 - site description, A9:1–73
 - summer sea-surface temperature, B(synthesis):46
 - Skolithos*, photograph, A5:35
 - slumping, lithologic units, A4:8
 - smear slide data, sediments, A3:22
 - smectite
 - lithologic units, A5:7
 - sediments, B13:1–10
 - sodium
 - pore water, A3:12; A6:13; A8:16
 - vs. depth, A3:33; A5:51; A6:43; A7:34; A8:50; A9:41
 - vs. volcanic ash, Vostok ice, B(synthesis):47
 - soft sediment deformation
 - lithologic units, A4:7
 - photograph, A4:35–37
 - vs. depth, A4:33
 - Southern Component Water, thermohaline circulation, B(synthesis):14–16
 - Southern Ocean
 - biosiliceous sediments, A8:15
 - coring summary, A1:54
 - hydrography, A1:6–7
 - oxygen isotopes, B(synthesis):43
 - paleoceanography, A1:1–67; B(synthesis):1–55
 - tectonics, A1:5–6
 - spherules, impact deposits, B4:1–9
 - splice tie points
 - Site 1089, A4:62; B9:22
 - Site 1090, A5:66
 - Site 1091, A6:56
 - Site 1092, A7:44
 - Site 1093, A8:72
 - Site 1094, A9:54
 - spliced records, vs. depth, A4:41
 - sponge spicules
 - distribution, A3:55–56; A5:83–88; A6:67–72; A7:60–71; A8:88–92; A9:63–64
 - lithologic units, A1:20–22
 - occurrence, A4:71–79
 - Pleistocene, A9:10
 - stable isotope stratigraphy, Neogene, B(synthesis): 3
 - stratification. *See* cross stratification
 - stratigraphy
 - Miocene–Pleistocene, B(synthesis): 3–5
 - Site 1090, B(synthesis):4–5
 - See also* oxygen isotope stratigraphy; “Pacific-type” carbonate stratigraphy; stable isotope stratigraphy
 - strontium
 - comparison of profiles, A5:52
 - pore water, A3:12; A4:16–17; A5:20–21; A6:14; A7:15; A8:16–17; A9:13
 - vs. calcium, A5:53
 - vs. depth, A3:33; A4:48; A5:51; A6:43; A7:34; A8:50; A9:41
 - vs. magnesium, A5:53
 - strontium/calcium ratio, carbonate dissolution, B(synthesis):17
 - Subantarctic Front
 - hydrography, A1:6–7
 - oxygen isotopes, B(synthesis):44
 - Subantarctic Zone
 - hydrography, A1:6–7
 - transfer functions, B(synthesis):10–11
 - suboxic environment, pore water, A9:13
 - Subtropical Front
 - oxygen isotopes, B(synthesis):44
 - paleoceanography, B(synthesis):8
 - temperature, B14:8
 - sulfate
 - pore water, A4:16; A8:17
 - sediments, A3:12
 - vs. ammonium, A3:34
 - vs. depth, A1:48; A3:33; A4:47–48; A5:51; A6:43; A7:34; A8:50; A9:41
 - sulfate reduction, pore water, A4:17; A5:21; A7:15; A9:13
 - sulfur, total
 - sediments, A4:90–93; A5:22, 54, 96–97; A6:14–15, 79–80; A7:15, 79; A8:17, 99–100; A9:14, 70
 - vs. depth, A4:49; A6:44; A8:51; A9:42
 - surface water, orbital forcing, A1:9
 - surface water structure, climate change, B(synthesis):10–12
- T**
- Tasmanian Gateway
 - paleoceanography, B(synthesis):19–23
 - terrigenous proxies, B(synthesis):6
 - tectonics
 - maps, Agulhas Basin, A1:40
 - millennial timescales, B(synthesis): 1–55
 - Paleocene–Eocene, A1:41
 - Southern Ocean, A1:5–6, 40; B(synthesis):1–55

temperature
 sediments, A3:66; A4:97
 vs. age, B(synthesis):39, 47
 vs. depth, A4:56; A8:59–62; A9:46–48
 vs. salinity, A1:42
 vs. time, A3:42
 temperature, sea-surface, climate change, B(synthesis):10–12
 temperature, summer sea-surface
 inversion layer, B(synthesis):45
 oxygen isotopes, B(synthesis):43–46
 Pleistocene, B14:1–23
 vs. age, B(synthesis):45; B14:8
 temperature oscillations, isotope event MI 3–4, B(synthesis):11
 tephra
 photograph, A5:38
 vs. depth, A5:37
 Termination I, oxygen isotopes, B(synthesis):45
 Termination II
 glaciation, B(synthesis):11
 oxygen isotopes, B(synthesis):45
 Termination V
 marine isotope Stage 1, B(synthesis):12
 marine isotopic Stage 12, A1:27
 terrigenous component
 vs. depth, A5:33
 X-ray diffraction data, A5:62–63
 terrigenous proxies, sedimentation, B(synthesis):6
Thalassiothrix, lithologic units, A1:22; A3:4–5
 thermal conductivity
 sediments, A3:65; A4:20, 95–96; A5:25, 99–101;
 A6:17, 82–84; A7:17–18, 81–82; A8:19–20, 102–
 104; A9:16, 72–73
 vs. bulk density, A3:41; A4:55; A5:61; A6:51; A7:41;
 A8:58; A9:45
 vs. depth, A4:55; A5:61; A6:51; A7:41; A8:58; A9:45
 thermal differentiation, paleoclimatology, B(synthesis):7
 thermal insolation, frontal systems, A1:8
 thermohaline circulation, deep water, B(synthesis):14–
 16
 thorium logs, vs. depth, A8:64
 titanium
 vs. depth, B1:6
 See also aluminum/titanium ratio; iron/titanium ratio;
 phosphorus/titanium ratio
 trace elements, sediments, B1:8–14
 transfer functions, foraminifers, B(synthesis):21
 transform faults, fracture zones, A1:5–6
 tuff. See lappilli tuff
 turbidite, photograph, A6:32
 turbidity currents, lithologic units, A6:5

U
 unconformities
 biostratigraphy, A5:12
 See also disconformities; erosional contacts; hiatuses;
 Miocene/Pliocene unconformity
 upwelling, Circumpolar Deep Water, B(synthesis):11
 uranium logs, vs. depth, A8:64

Uvigerina peregrina, Pleistocene, B14:21–23

V

velocity
 vs. depth, A3:36; A4:50; A5:55; A6:46; A7:40; A8:57;
 A9:43
 See also compressional wave velocity
 volcanic ash
 ice sheets, B(synthesis):13–14
 lithologic units, A5:6
 photograph, A9:30
 vs. depth, A5:37
 vs. sodium, Vostok ice, B(synthesis):47
 See also welded ash
 volcanoclastics
 lithologic units, A8:7–8; A9:6–7
 photograph, A8:37
 See also lappilli tuff; tephra; volcanic ash; welded ash
 Vostok ice, ice core correlation with marine sediments,
 B(synthesis):17–19, 46
 Vostok ice deuterium, vs. oxygen isotopes, B(synthesis):54

W

water content
 carbonate content, B6:3
 lithologic units, A9:6–7
 sediments, A3:14; B6:20–22
 vs. dry density, B6:12
 Weddell Sea, Antarctic Bottom Water, A1:3
 welded ash, lithologic units, A8:7–8
 well-logging, A8:20–22
 West Antarctic ice sheet, climate events, B(synthesis):39
 wind transport. See eolian transport
 winnowing
 sedimentation rates, A7:13–14
 sediments, A1:16
 wireline logging, A8:20–22

X

X-ray diffraction data
 lithologic units, A3:5, 43; A4:7, 57; A5:7, 62–63;
 A6:52; A7:42; A8:67–68
 porcellanite, A9:29
 sediments, A9:50

Y

Younger Dryas I, oxygen isotopes, B(synthesis):45
 Younger Dryas II, oxygen isotopes, B(synthesis):45

Z

zeolites. See clinoptilolite
Zoophycos
 lithologic units, A3:5
 photograph, A5:35

TAXONOMIC INDEX

A

abies/neoabies complex, *Sphenolithus*, Site 1088, A3:7
abisectus, *Cyclicargolithus*, Site 1090, B7:4; B8:3
Acarinina primitiva, Site 1090, A5:11
Acarinina spp., Site 1090, A5:11
Acrosphaera australis, Site 1092, A7:12
Acrosphaera australis Zone, Site 1092, A7:12
Actiniscus spp.
 Site 1091, A6:9
 Site 1092, A7:9
Actinocyclus ingens
 Site 1088, A3:9
 Site 1089, A4:11
 Site 1090, A5:12, 14
 Site 1091, A6:9–10, 12
 Site 1093, A8:12
Actinocyclus ingens Subzone a
 Site 1090, A5:14
 Site 1091, A6:10
 Site 1092, A7:10
 Site 1093, A8:12–13
 Site 1094, A9:10–11
Actinocyclus ingens Subzone b
 Site 1089, A4:13
 Site 1091, A6:9–10
 Site 1092, A7:10
 Site 1094, A9:10–11
Actinocyclus ingens Subzone c
 Site 1089, A4:12–13
 Site 1090, A5:14
 Site 1092, A7:10
 Site 1094, A9:10
Actinocyclus ingens var. *nodus* Zone
 Site 1088, A3:9
 Site 1092, A7:11
Actinocyclus ingens var. *ovalis*
 Site 1088, A3:9
 Site 1092, A7:11
Actinocyclus ingens Zone
 Site 1091, A6:9
 Site 1092, A7:10
 Site 1093, A8:12–13
Actinocyclus ingens–*Denticulopsis maccollumii* Zone, Site 1092, A7:11
Actinocyclus spp., Site 1088, B10:5–8
Actinomma golownini
 Site 1089, A4:14
 Site 1092, A7:12
Actinomma golownini Zone, Site 1092, A7:12
Actinoptychus spp., Site 1088, B10:5–8
aegles, *Lamprocyclus*, Site 1092, A7:12
aequilateralis, *Globigerinella*, Site 1088, A3:8
Alabamina dissonata, Site 1090, A5:13
Alabaminella weddellensis
 Site 1089, A4:11
 Site 1090, A5:12–13
 Site 1091, A6:8–9
alata, *Dorcadospyrus*, Site 1088, A3:10

altus, *Chiasmolithus*, Site 1090, B8:9
Alveolus marinus, Site 1089, A4:13
Amaurolithus amplificus, Site 1088, A3:7
Amaurolithus delicatus, Site 1088, A3:14
Amaurolithus primus, Site 1088, B7:3
Amaurolithus spp., Site 1088, A3:6–7; B7:3
Amaurolithus tricorniculatus, Site 1088, B7:14
Amphymenium challengerae, Site 1092, A7:12
Amphymenium challengerae Zone, Site 1092, A7:12
amplificus, *Amaurolithus*, Site 1088, A3:7
angiporoides, *Subbotina*, Site 1090, A5:11
antarctica, *Saccospyris*, Site 1089, A4:14
Antarctissa denticulata, Site 1088, A3:10
Antarctissa spp., Site 1089, A4:13–14
aragonensis, *Aragonia*, Site 1090, A5:13
Aragonia aragonensis, Site 1090, A5:13
asanoi, *reticulofenestra*
 Site 1089, A4:10, 44
 Site 1090, A5:9
 Site 1091, A6:7
 Site 1092, A7:7
 Site 1093, A8:10
 Site 1094, A9:9
Asteromphalus kennettii, Site 1092, A7:11
Asteromphalus kennettii Zone, Site 1092, A7:11
Asteromphalus spp., Site 1088, B10:5–8
asymmetricus, *Discoaster*, Site 1088, B7:4, 14
Aulacoseira granulata, Site 1088, A3:9
aurica, *Fragilariopsis*, Site 1092, A7:10
australis, *Acrosphaera*, Site 1092, A7:12
Axoprunum irregularis Zone, Site 1090, A5:16
Azpeitia gombosii Zone, Site 1090, A5:15
Azpeitia nodulifer, Site 1090, A5:15
Azpeitia spp., Site 1088, B10:5–8
Azpeitia tabularis
 Site 1089, A4:12
 Site 1090, A5:15
 Site 1092, A7:11

B

barleeanum, *Melonis*
 Site 1092, A7:8
 Site 1094, A9:10
barronii, *Fragilariopsis*
 Site 1089, A4:13
 Site 1090, A5:14–15
 Site 1092, A7:10
 Site 1094, A9:10
belemnus, *Sphenolithus*, Site 1090, A5:10; B7:4
bifax, *Discoaster*, Site 1090, B8:2
bisecta, *Reticulofenestra*, Site 1090, A5:10; B7:4; B8:2
Blackites spp., Site 1090, B8:3
Bolboforma compressispinosa, Site 1092, A7:9
Bolboforma compressispinosa Zone, Site 1092, A7:9
Bolboforma spp., Site 1092, A7:8
Bolivina spp., Site 1088, A3:9
Botryostrobus aquilonalis Zone, Site 1090, A5:16

bradyi, *Eggerella*

- Site 1091, A6:9
- Site 1093, A8:11
- Site 1094, A9:10

brevis, *Subbotina*, Site 1090, A5:11

brouweri, *Discoaster*

- Site 1088, A3:7; B7:4
- Site 1089, A4:10
- Site 1090, A5:9; B7:5, 14
- Site 1091, A6:7
- Site 1092, A7:7

Bulimina cf. *simplex*, Site 1092, A7:9

Bulimina semicostata, Site 1090, A5:13

bulloides, *Globigerina*

- Site 1088, A3:8
- Site 1089, A4:10; B(synthesis):18, 45; B9:3–4, 13, 21
- Site 1090, A5:11; B9:4, 15
- Site 1091, A6:8
- Site 1092, A7:8
- Site 1093, A8:11
- Site 1094, A9:9

bulloides, *Pullenia*

- Site 1091, A6:9
- Site 1092, A7:8
- Site 1093, A8:11
- Site 1094, A9:10

C

Calcidiscus macintyre

- Site 1088, A3:6–7; B7:3, 14
- Site 1089, A4:10
- Site 1092, A7:7
- Site 1093, A8:10

Calcidiscus praemacintyre

- Site 1088, A3:7; B7:3
- Site 1092, A7:7

calida, *Globigerinella*, Site 1089, A4:10

calvertense, *Eucyrtidium*

- Site 1092, A7:12
- Site 1093, A8:13
- Site 1094, A9:11

caribbeanica, *Gephyrocapsa*, Site 1088, A3:6

carinatus, *Triquetrorhabdulus*, Site 1090, B7:4

Catapsydrax dissimilis

- Site 1090, A5:11
- Site 1092, A7:8

Catapsydrax stainforthi, Site 1090, A5:11

Catinaster coalitus, Site 1088, B7:3

Cavitatus spp., Site 1088, B10:5–8

Ceratolithus rugosus, Site 1088, B7:3

challengerae, *Amphymenium*, Site 1092, A7:12

Chiasmolithus altus, Site 1090, B8:9

Chiasmolithus grandis, Site 1090, B8:3

Chiasmolithus oamaruensis, Site 1090, A5:10; B8:3, 9

Chiasmolithus solitus, Site 1090, B8:9

Chiloguembelina cubensis, Site 1090, A5:11

Cibicidoides aff. *wuellerstorfi*, Site 1091, A6:9

Cibicidoides kullenbergi, Site 1090, B9:4

Cibicidoides mundulus

- Site 1088, A3:9

Site 1092, A7:9

Cibicidoides praemundulus, Site 1090, A5:13

Cibicidoides spp.

Site 607, B(synthesis):35

Site 849, B(synthesis):42

Site 1088, B(synthesis):35; B9:3, 9, 16, 20

Site 1089, B(synthesis):52; B9:3, 11

Site 1090, B(synthesis):35, 43; B9:4–5, 15; B14:3, 8, 21–23

Site 1091, A6:8

Site 1092, B(synthesis):35, 42

Southern Ocean, B(synthesis):49

Cibicidoides wuellerstorfi

Site 1088, A3:9

Site 1090, B9:4

Site 1093, A8:11

Site 1094, A9:10

circularis, *Saturnalis*, Site 1089, A4:14

circus, *Reticulofenestra*, Site 1090, B8:3

circus, *Reticulofenestra* cf. *Reticulofenestra*, Site 1090, B8:9

Clausicococcus fenestratus, Site 1090, B8:3, 9

Clausicococcus obruptus, Site 1090, B8:3

Clausicococcus spp., Site 1090, B8:3

Clausicococcus subdistichus, Site 1090, B8:3

clementia, *Fragilariopsis*, Site 1092, A7:10

coalitus, *Catinaster*, Site 1088, B7:3

Coccolithus miopelagicus

Site 1088, A3:7; B7:3, 14

Site 1092, A7:7

Coccolithus pelagicus, Site 1090, B8:3

compressispinosa, *Bolboforma*, Site 1092, A7:9

conica, *Lychnocanoma*, Site 1090, A5:16

conomiozea, *Globorotalia*, Site 1088, A3:8

continua, *Neogloboquadrina*, Site 1092, A7:8

convallis, *Minylitha*, Site 1090, B7:4

Coronocyclus nitescens

Site 1088, A3:7

Site 1092, A7:7

Coscinodiscus marginatus, Site 1088, A3:9

Coscinodiscus sp., Site 1090, A5:6

Coscinodiscus spp., Site 1088, B10:5–8

crassaformis, *Globorotalia*

Site 1088, A3:8

Site 1089, A4:10

crassula, *Globorotalia*, Site 1088, A3:8

cristata, *Nannotetrina*, Site 1090, A5:10; B8:9

cubensis, *Chiloguembelina*, Site 1090, A5:11

cuneiformis, *Hemisdiscus*, Site 1090, A5:15

Cycladophora antiqua Zone, Site 1090, A5:16

Cycladophora davisiana

Site 1089, A4:14

Site 1090, A5:16

Site 1091, A6:11

Cycladophora golli regipileus, Site 1092, A7:12

Cycladophora golli regipileus Zone, Site 1092, A7:12

Cycladophora pliocenica, Site 1089, A4:14

Cycladophora spongothorax, Site 1092, A7:12

Cycladophora spongothorax Zone, Site 1092, A7:12

Cyclicargolithus abisectus, Site 1090, B7:4; B8:3

Cyclicargolithus floridanus

Site 1088, A3:7; B7:3

Site 1090, A5:9–10; B7:5; B8:3, 9
 Site 1092, A7:7
cylindrica, *Nitzschia*, Site 1088, A3:9
Cyrtocapsella japonica
 Site 1088, A3:10
 Site 1092, A7:12
Cyrtocapsella longithorax
 Site 1090, A5:16
 Site 1092, A7:12
Cyrtocapsella longithorax Zone, Site 1090, A5:16
Cyrtocapsella tetrapera
 Site 1088, A3:10
 Site 1090, A5:16
 Site 1092, A7:12

D

davisiana, *Cycladophora*
 Site 1089, A4:14
 Site 1090, A5:16
 Site 1091, A6:11
deflandrei, *Discoaster*, Site 1090, A5:9; B7:5
dehiscens, *Globoquadrina*
 Site 1088, A3:8
 Site 1090, A5:11
delicatus, *Amaurolithus*, Site 1088, A3:14
denticulata, *Antarctissa*, Site 1088, A3:10
Denticulopsis dimorpha
 Site 1088, A3:9
 Site 1092, A7:11
Denticulopsis dimorpha Zone
 Site 1088, A3:9
 Site 1092, A7:11
Denticulopsis hustedtii Zone, Site 1092, A7:11
Denticulopsis hustedtii–*Nitzschia grossepunctata* Zone, Site 1092, A7:11
Denticulopsis maccollumii Zone, Site 1092, A7:11
Denticulopsis meridionalis, Site 1092, A7:11
Denticulopsis praedimorpha Zone, Site 1092, A7:11
Denticulopsis praedimorpha–*Nitzschia denticuloides* Zone, Site 1092, A7:11
Denticulopsis spp., Site 1088, B10:5–8
Desmospyris spongiosa, Site 1094, A9:11
Diartus hughesi, Site 1088, A3:10
Diartus petterssoni Zone, Site 1088, A3:10
Dictyocha spp., Site 1089, A4:13
Dictyococcites spp., Site 1090, B7:5
Dictyocoryne truncatum, Site 1089, A4:13
Dictyomitrella sp., Site 1089, A4:14
Didymocyrtis antepenultima Zone, Site 1088, A3:10
Didymocyrtis laticonus, Site 1088, A3:10
Didymocyrtis mammifera, Site 1088, A3:10
Didymocyrtis spp., Site 1092, A7:12
dimorpha, *Denticulopsis*
 Site 1088, A3:9
 Site 1092, A7:11
Discoaster asymmetricus, Site 1088, B7:4, 14
Discoaster bifax, Site 1090, B8:2
Discoaster brouweri
 Site 1088, A3:7; B7:4
 Site 1089, A4:10

Site 1090, A5:9; B7:5, 14
 Site 1091, A6:7
 Site 1092, A7:7
Discoaster deflandrei, Site 1090, A5:9; B7:5
Discoaster hamatus, Site 1088, A3:7; B7:3
Discoaster kugleri, Site 1088, A3:7
Discoaster pentaradiatus
 Site 1088, A3:7; B7:4
 Site 1090, A5:9
 Site 1091, A6:7
 Site 1092, A7:7
Discoaster quinqueramus, Site 1088, A3:7; B7:3, 14
Discoaster saipanensis, Site 1090, A5:10; B8:3, 9
Discoaster spp., Site 1088, A3:6–7
Discoaster surculus, Site 1088, A3:7; B7:4
Discoaster tamalis
 Site 1088, A3:7
 Site 1090, B7:14
 Site 1092, A7:7
Discoaster tani ornatus, Site 1090, B8:9
dissimilis, *Catapsydrax*
 Site 1090, A5:11
 Site 1092, A7:8
dissimilis, *Sphenolithus*, Site 1090, A5:10
dissonata, *Alabamina*, Site 1090, A5:13
Distephanus spp., Site 1089, A4:13
doliolus, *Fragilariopsis*, Site 1089, A4:13
Dorcadospyris alata, Site 1088, A3:10

E

eccentrica, *Thalassiosira*, Site 1090, A5:15
Eggerella bradyi
 Site 1091, A6:9
 Site 1093, A8:11
 Site 1094, A9:10
elliptipora, *Thalassiosira*
 Site 1089, A4:12–13
 Site 1090, A5:14
 Site 1092, A7:10
 Site 1094, A9:10
Emiliania huxleyi
 Site 1088, A3:6
 Site 1089, A4:9
 Site 1090, A5:9
 Site 1091, A6:7, 9
 Site 1092, A7:6–7
 Site 1093, A8:10
 Site 1094, A9:9
Epistominella exigua
 Site 1088, A3:9
 Site 1089, A4:11
 Site 1090, A5:12–13
 Site 1092, A7:9
 Site 1094, A9:10
Erisconia formosa, Site 1090, B8:3
Ethmodiscus spp., Site 1088, B10:5–8
Eucyrtidium calvertense
 Site 1092, A7:12
 Site 1093, A8:13
 Site 1094, A9:11

Eucyrtidium matsuyamai Zone, Site 1088, A3:10

Eucyrtidium spinosum Zone, Site 1090, A5:16

exigua, *Epistominella*

Site 1088, A3:9

Site 1089, A4:11

Site 1090, A5:12–13

Site 1092, A7:9

Site 1094, A9:10

F

falconensis, *Globigerina*, Site 1088, A3:8

fenestratus, *Clausicoccus*, Site 1090, B8:3, 9

floridanus, *Cyclicargolithus*

Site 1088, A3:7; B7:3

Site 1090, A5:9–10; B7:5; B8:3, 9

Site 1092, A7:7

Fontbotia wuellerstorfi, Site 1090, B14:3, 8, 21–23

formosa, *Erisconia*, Site 1090, B8:3

fossilis, *Fragilariopsis*, Site 1090, A5:15

fraga, *Thalassiosira*

Site 1090, A5:15

Site 1092, A7:11

Fragilaria spp., Site 1088, B10:5–8

Fragilariopsis aurica, Site 1092, A7:10

Fragilariopsis barronii

Site 1089, A4:13

Site 1090, A5:14–15

Site 1092, A7:10

Site 1094, A9:10

Fragilariopsis barronii Zone, Site 1092, A7:10

Fragilariopsis clementia, Site 1092, A7:10

Fragilariopsis doliolus, Site 1089, A4:13

Fragilariopsis fossilis, Site 1090, A5:15

Fragilariopsis interfrigidaria

Site 1090, A5:15

Site 1092, A7:10

Fragilariopsis interfrigidaria Zone

Site 1090, A5:15

Site 1091, A6:10, 13

Site 1092, A7:10

Site 1093, A8:13

Fragilariopsis kerguelensis

Site 1089, A4:13

Site 1091, A6:10

Site 1093, A8:19

Site 1094, A9:10

Fragilariopsis matuyamae

Site 1089, A4:13

Site 1090, A5:14

Fragilariopsis praeinterfrigidaria

Site 1090, A5:15

Site 1092, A7:10

Fragilariopsis reinholdii

Site 1089, A4:13

Site 1090, A5:15

Site 1092, A7:10–11

Fragilariopsis reinholdii Zone

Site 1088, A3:9

Site 1092, A7:10

Site 1093, A8:13

Fragilariopsis spp., Site 1088, B10:5–8

Fragilariopsis weaveri

Site 1090, A5:14–15

Site 1091, A6:10

fulgens, *Nannotetrina*, Site 1090, B8:9

G

gelida, *Rocella*, Site 1090, A5:15

Gephyrocapsa caribbeanica, Site 1088, A3:6

Gephyrocapsa caribbeanica acme, Site 1088, A3:6

Gephyrocapsa spp.

Site 1088, A3:6–7; B7:4–5

Site 1089, A4:10

Site 1090, A5:9

Site 1091, A6:7

Site 1092, A7:6–7

Site 1093, A8:10

Site 1094, A9:9, 12

See also very small *Gephyrocapsa* complex

Globigerina bulloides

Site 1088, A3:8

Site 1089, A4:10; B(synthesis):18, 45; B9:3–4, 13, 21

Site 1090, A5:11; B9:4, 15

Site 1091, A6:8

Site 1092, A7:8

Site 1093, A8:11

Site 1094, A9:9

Globigerina falconensis, Site 1088, A3:8

Globigerina quinqueloba

Site 1090, A5:11

Site 1091, A6:8

Site 1092, A7:8

Site 1093, A8:11

Site 1094, A9:9

Globigerina woodi

Site 1089, A4:10

Site 1090, A5:11

Globigerinella aequilateralis, Site 1088, A3:8

Globigerinella calida, Site 1089, A4:10

Globigerinita glutinata

Site 1088, A3:8

Site 1089, A4:10

Site 1090, A5:11

Site 1091, A6:8

Site 1094, A9:9

Globigerinita uvula

Site 1088, A3:8

Site 1089, A4:10

Site 1090, A5:11

Site 1091, A6:8

Site 1093, A8:11

Globigerinoides obliquus, Site 1088, A3:8

Globigerinoides sacculifer, Site 1088, A3:8

Globocassidulina subglobosa

Site 1092, A7:8–9

Site 1093, A8:11

Site 1094, A9:10

Globoquadrina dehiscens

Site 1088, A3:8

Site 1090, A5:11

Globorotalia conomiozea, Site 1088, A3:8
Globorotalia crassaformis
 Site 1088, A3:8
 Site 1089, A4:10
Globorotalia crassula, Site 1088, A3:8
Globorotalia inflata
 Site 1088, A3:8
 Site 1089, A4:10
 Site 1090, A5:11
 Site 1091, A6:8
 Site 1093, A8:11; B(synthesis):10
 Site 1094, A9:9
Globorotalia inflata Zone, Site 1089, A4:10
Globorotalia mayeri, Site 1088, A3:8
Globorotalia miotumida, Site 1088, A3:8
Globorotalia miozea, Site 1090, A5:11
Globorotalia panda, Site 1088, A3:8
Globorotalia puncticulata
 Site 1090, A5:11
 Site 1091, A6:8
 Site 1092, A7:8
 Site 1093, A8:11
Globorotalia punctuloides
 Site 1088, A3:8
 Site 1089, A4:10
 Site 1090, A5:11
 Site 1091, A6:8
 Site 1092, A7:8
 Site 1093, A8:11
 Site 1094, A9:9
Globorotalia quinqueloba
 Site 1088, A3:8
 Site 1089, A4:10
Globorotalia scitula
 Site 1089, A4:10
 Site 1092, A7:8
Globorotalia sphericomiozea, Site 1090, B(synthesis):4
Globorotalia truncatulinoidea
 Site 1088, A3:8
 Site 1089, A4:10
 Site 1091, A6:8
Globorotalia truncatulinoidea Zone, Site 1089, A4:10
glutinata, *Globigerinita*
 Site 1088, A3:8
 Site 1089, A4:10
 Site 1090, A5:11
 Site 1091, A6:8
 Site 1094, A9:9
golli regipileus, *Cycladophora*, Site 1092, A7:12
golownini, *Actinomma*
 Site 1089, A4:14
 Site 1092, A7:12
grandis, *Chiasmolithus*, Site 1090, B8:3
granulata, *Aulacoseira*, Site 1088, A3:9
granulata, *Helicosphaera*, Site 1088, B7:14
Gyroidinoides soldanii
 Site 1088, A3:9
 Site 1092, A7:9

H

hamatus, *Discoaster*, Site 1088, A3:7; B7:3
haysi, *Prunopyle*, Site 1093, A8:14
Helicosphaera granulata, Site 1088, B7:14
Helotholus vema
 Site 1091, A6:11
 Site 1092, A7:12
 Site 1093, A8:14
 Site 1094, A9:11
Hemidiscus cuneiformis, Site 1090, A5:15
Hemidiscus karstenii
 Site 1089, A4:12, 42; B11:2
 Site 1091, A6:12
 Site 1093, A8:12
 Site 1094, A9:10
Hemidiscus spp.
 Site 1088, B10:5–8
 Site 1091, A1:28; A6:10
Hemidiscus triangularis
 Site 1092, A7:10
 Site 1093, A8:13
heteromorphus, *Sphenolithus*, Site 1090, B7:4–5
heteroporos, *Lamprocyrtis*, Site 1088, A3:10
hillae, *Reticulofenestra*, Site 1090, B8:9
hispidicostata, *Uvigerina*
 Site 1088, A3:9
 Site 1090, A5:12
 Site 1092, A7:9
hughesi, *Diartus*, Site 1088, A3:10
humerosa, *Neogloboquadrina*
 Site 1088, A3:8
 Site 1089, A4:10
huxleyi, *Emiliana*
 Site 1088, A3:6
 Site 1089, A4:9
 Site 1090, A5:9
 Site 1091, A6:7, 9
 Site 1092, A7:6–7
 Site 1093, A8:10
 Site 1094, A9:9

I

inflata, *Globorotalia*
 Site 1088, A3:8
 Site 1089, A4:10
 Site 1090, A5:11
 Site 1091, A6:8
 Site 1093, A8:11; B(synthesis):10
 Site 1094, A9:9
ingens, *Actinocyclus*
 Site 1088, A3:9
 Site 1089, A4:11
 Site 1090, A5:12, 14
 Site 1091, A6:9–10, 12
 Site 1093, A8:12
ingens var. *ovalis*, *Actinocyclus*
 Site 1088, A3:9
 Site 1092, A7:11
insigna, *Thalassiosira*, Site 1091, A6:10

interfrigidaria, Fragilariopsis

Site 1090, A5:15

Site 1092, A7:10

inura, Thalassiosira

Site 1090, A5:15

Site 1092, A7:10

Isthmolithus recurvus, Site 1090, A5:10; B8:3**J***japonica, Cyrtocapsella*

Site 1088, A3:10

Site 1092, A7:12

K*karstenii, Hemidiscus*

Site 1089, A4:12, 42; B11:2

Site 1091, A6:12

Site 1093, A8:12

Site 1094, A9:10

kennettii, Asteromphalus, Site 1092, A7:11*kerquelenensis, Fragilariopsis*

Site 1089, A4:13

Site 1091, A6:10

Site 1093, A8:19

Site 1094, A9:10

kolbei, Thalassiosira

Site 1089, A4:13

Site 1090, A5:14

kugleri, Discoaster, Site 1088, A3:7*kullenbergi, Cibicidoides*, Site 1090, B9:4**L***lacunosa, Pseudoemiliana*

Site 1088, A3:6

Site 1089, A4:9

Site 1090, A5:9; B7:5

Site 1091, A6:7, 9

Site 1092, A7:6–7

Site 1093, A8:10, 12

Site 1094, A9:9

Lamprocyclus aegles, Site 1092, A7:12*Lamprocyrtis heteroporos*, Site 1088, A3:10*Laticarinina pauperata*, Site 1092, A7:9*laticonus, Didymocyrtis*, Site 1088, A3:10*lepidula, Stilostomella*

Site 1088, A3:8

Site 1089, A4:11

Site 1090, A5:12

Site 1092, A7:9

linaperta, Subbotina, Site 1090, A5:11*Lisitzinia ornata* Zone, Site 1090, A5:15*loeblichii, Stainforthia*, Site 1090, A5:12*longissima, Thalassiothrix*, Site 1091, A6:10*longithorax, Cyrtocapsella*

Site 1090, A5:16

Site 1092, A7:12

Lychnocanoma conica, Site 1090, A5:16*Lychnocanoma conica* Zone, Site 1090, A5:16**M***macintyreii, Calcidiscus*

Site 1088, A3:6–7; B7:3, 14

Site 1089, A4:10

Site 1092, A7:7

Site 1093, A8:10

maleinterpretaria, Nitzschia, Site 1092, A7:11*mammifera, Didymocyrtis*, Site 1088, A3:10*marginatus, Coscinodiscus*, Site 1088, A3:9*marinus, Alveolus*, Site 1089, A4:13*Martinotiella* sp., Site 1092, A7:9*Martinotiella* spp., Site 1094, A9:9*matuyamae, Fragilariopsis*

Site 1089, A4:13

Site 1090, A5:14

mayeri, Globorotalia, Site 1088, A3:8*mayeri, Neogloboquadrina*, Site 1092, A7:8*Melonis barleeanum*

Site 1092, A7:8

Site 1094, A9:10

Melonis pompiliodes

Site 1090, A5:12

Site 1091, A6:8–9

Site 1092, A7:8

Site 1093, A8:11

Site 1094, A9:10

meridionalis, Denticulopsis, Site 1092, A7:11*micra, Pseudohastigerina*, Site 1090, A5:11*minuta, Reticulofenestra*, Site 1090, B7:5*minutula, Reticulofenestra*, Site 1090, B7:5*Minylitha convallis*, Site 1090, B7:4*miopelagicus, Coccolithus*

Site 1088, A3:7; B7:3, 14

Site 1092, A7:7

miotumida, Globorotalia, Site 1088, A3:8*miozea, Globorotalia*, Site 1090, A5:11*mirabilis, Neobrunia*

Site 1092, A7:10

Site 1093, A8:13

Morozovella spinulosa, Site 1090, A5:11*multicosta, Rectuvigerina*, Site 1092, A7:9*mundulus, Cibicidoides*

Site 1088, A3:9

Site 1092, A7:9

murrhiana, Pyrgo, Site 1090, A5:12**N***Nannotetrina cristata*, Site 1090, A5:10; B8:9*Nannotetrina fulgens*, Site 1090, B8:9*Nannotetrina* spp., Site 1090, B8:2*Navicula* spp., Site 1088, B10:5–8*Neobrunia mirabilis*

Site 1092, A7:10

Site 1093, A8:13

Neobrunia spp., Site 1088, B10:5–8*Neogloboquadrina continuosa*, Site 1092, A7:8*Neogloboquadrina humerosa*

Site 1088, A3:8

Site 1089, A4:10

Neogloboquadrina mayeri, Site 1092, A7:8

Neogloboquadrina pachyderma

Site 1091, B12:4, 11, 17–19

Site 1093, B(synthesis):34; B9:17, 25

Site 1094, B(synthesis):34, 47; B9:18–19, 26; B12:3, 8, 13–15

Neogloboquadrina pachyderma (dextral)

Site 1089, A4:10

Site 1091, A6:8

Neogloboquadrina pachyderma (sinistral)

Site 1088, A3:8

Site 1089, A4:10; B(synthesis):18

Site 1090, A5:11

Site 1091, A6:8

Site 1092, A7:7

Site 1093, A8:11, 15; B(synthesis):10; B9:5

Site 1094, A9:9, 12; B9:5

nitescens, *Coronocyclus*

Site 1088, A3:7

Site 1092, A7:7

Nitzschia cylindrica, Site 1088, A3:9

Nitzschia denticuloides Zone, Site 1092, A7:11

Nitzschia maleinterpretaria, Site 1092, A7:11

Nitzschia spp., Site 1088, B10:5–8

nitzschoides, *Thalassionema*, Site 1090, A5:15

nodulifer, *Azpeitia*, Site 1090, A5:15

Nuttalides truempyi, Site 1090, A5:13

Nuttalides umbonifera, Site 1092, A7:9

O

oamaruensis, *Chiasmolithus*, Site 1090, A5:10; B8:3, 9

oamaruensis, *Reticulofenestra*, Site 1090, A5:10; B8:3, 9

obliquus, *Globigerinoides*, Site 1088, A3:8

obruptus, *Clausicoccus*, Site 1090, B8:3

oestrupii, *Thalassiosira*, Site 1090, A5:15

Ophthalmidium spp., Site 1090, A5:13

Orbulina universa, Site 1089, A4:10

Oridorsalis umbonatus

Site 1089, A4:11

Site 1090, A5:12–13

Site 1091, A6:8

Site 1094, A9:10

P

pachyderma, *Neogloboquadrina*

Site 1091, B12:4, 11, 17–19

Site 1093, B(synthesis):34; B9:17, 25

Site 1094, B(synthesis):34, 47; B9:18–19, 26; B12:3, 8, 13–15

pachyderma, *Neogloboquadrina* (dextral)

Site 1089, A4:10

Site 1091, A6:8

pachyderma, *Neogloboquadrina* (sinistral)

Site 1088, A3:8

Site 1089, A4:10; B(synthesis):18

Site 1090, A5:11

Site 1091, A6:8

Site 1092, A7:7

Site 1093, A8:11, 15; B(synthesis):10; B9:5

Site 1094, A9:9, 12; B9:5

panda, *Globorotalia*, Site 1088, A3:8

Paralia spp., Site 1088, B10:5–8

Paralia sulcata, Site 1089, A4:12

pauperata, *Laticarinina*, Site 1092, A7:9

pelagicus, *Coccolithus*, Site 1090, B8:3

pentaradiatus, *Discoaster*

Site 1088, A3:7; B7:4

Site 1090, A5:9

Site 1091, A6:7

Site 1092, A7:7

peregrina, *Stichocorys*

Site 1088, A3:10

Site 1092, A7:12

peregrina, *Uvigerina*, Site 1090, B14:3, 8, 21–23

pliocenica, *Cycladophora*, Site 1089, A4:14

pompilioides, *Melonis*

Site 1090, A5:12

Site 1091, A6:8–9

Site 1092, A7:8

Site 1093, A8:11

Site 1094, A9:10

praeinterfrigidaria, *Fragilariopsis*

Site 1090, A5:15

Site 1092, A7:10

praemacintyreii, *Calcidiscus*

Site 1088, A3:7; B7:3

Site 1092, A7:7

praemundulus, *Cibicidoides*, Site 1090, A5:13

primitiva, *Acarinina*, Site 1090, A5:11

primus, *Amaurolithus*, Site 1088, B7:3

Proboscia barboi Zone

Site 1089, A4:13

Site 1090, A5:14

Site 1091, A6:9

Site 1092, A7:10

Proboscia spp., Site 1088, B10:5–8

Prunopyle haysi, Site 1093, A8:14

Pseudoemiliania lacunosa

Site 1088, A3:6

Site 1089, A4:9

Site 1090, A5:9; B7:5

Site 1091, A6:7, 9

Site 1092, A7:6–7

Site 1093, A8:10, 12

Site 1094, A9:9

Pseudohastigerina micra, Site 1090, A5:11

pseudoumbilicus, *Reticulofenestra*

Site 1088, A3:7; B7:3–4

Site 1090, A5:9; B7:5

Site 1091, A6:7

Site 1092, A7:7

Pterocanium trilobum

Site 1091, A6:10–11

Site 1093, A8:13

Site 1094, A9:11

Pullenia bulloides

Site 1091, A6:9

Site 1092, A7:8

Site 1093, A8:11

Site 1094, A9:10

Pullenia quinqueloba

- Site 1089, A4:11
- Site 1090, A5:12
- Site 1091, A6:9
- Site 1093, A8:11
- Site 1094, A9:10

Pullenia spp., Site 1090, A5:13*Pullenia subcarinata*

- Site 1091, A6:9
- Site 1092, A7:9
- Site 1093, A8:11
- Site 1094, A9:10

puncticulata, *Globorotalia*

- Site 1090, A5:11
- Site 1091, A6:8
- Site 1092, A7:8
- Site 1093, A8:11

puncticuloides, *Globorotalia*

- Site 1088, A3:8
- Site 1089, A4:10
- Site 1090, A5:11
- Site 1091, A6:8
- Site 1092, A7:8
- Site 1093, A8:11
- Site 1094, A9:9

Pyrgo murrhiana, Site 1090, A5:12*Pyxilla* sp., Site 1090, A5:6**Q***quinqueloba*, *Globigerina*

- Site 1090, A5:11
- Site 1091, A6:8
- Site 1092, A7:8
- Site 1093, A8:11
- Site 1094, A9:9

quinqueloba, *Globorotalia*

- Site 1088, A3:8
- Site 1089, A4:10

quinqueloba, *Pullenia*

- Site 1089, A4:11
- Site 1090, A5:12
- Site 1091, A6:9
- Site 1093, A8:11
- Site 1094, A9:10

quinqueramus, *Discoaster*, Site 1088, A3:7; B7:3, 14**R***Rectuvigerina multicoستا*, Site 1092, A7:9*Rectuvigerina senni*, Site 1092, A7:9*recurvus*, *Isthmolithus*, Site 1090, A5:10; B8:3*reinholdii*, *Fragilariopsis*

- Site 1089, A4:13
- Site 1090, A5:15
- Site 1092, A7:10–11

reticulata, *Reticulofenestra*, Site 1090, A5:10; B8:9*Reticulofenestra asanoi*

- Site 1089, A4:10, 44
- Site 1090, A5:9
- Site 1091, A6:7

Site 1092, A7:7

Site 1093, A8:10

Site 1094, A9:9

Reticulofenestra bisecta, Site 1090, A5:10; B7:4; B8:2*Reticulofenestra* cf. *Reticulofenestra circus*, Site 1090, B8:9*Reticulofenestra circus*, Site 1090, B8:3*Reticulofenestra daviesi* group, Site 1090, B8:3*Reticulofenestra hillae*, Site 1090, B8:9*Reticulofenestra minuta*, Site 1090, B7:5*Reticulofenestra minutula*, Site 1090, B7:5*Reticulofenestra oamaruensis*, Site 1090, A5:10; B8:3, 9*Reticulofenestra pseudumbilicus*

Site 1088, A3:7; B7:3–4

Site 1090, A5:9; B7:5

Site 1091, A6:7

Site 1092, A7:7

Reticulofenestra reticulata, Site 1090, A5:10; B8:9*Reticulofenestra rotaria*, Site 1088, B7:3, 14*Reticulofenestra* sp., Site 1088, B7:14*Reticulofenestra* spp., Site 1088, B7:3, 5, 14*Reticulofenestra tenuis*, Site 1090, B8:9*Reticulofenestra umbilica*, Site 1090, A5:10; B8:2–3*Rhizosolenia* spp., Site 1088, B10:5–8*Rocella gelida*, Site 1090, A5:15*Rocella gelida* Zone, Site 1090, A5:15*Rocella vigilans*, Site 1090, A5:15*rotaria*, *Reticulofenestra*, Site 1088, B7:3, 14*Rouxia* spp.

Site 1088, B10:5–8

Site 1089, B11:2

rugosus, *Ceratolithus*, Site 1088, B7:3*rugosus*, *Triquetrorhabdulus*, Site 1088, A3:7**S***Saccospyris antarctica*, Site 1089, A4:14*sacculifer*, *Globigerinoides*, Site 1088, A3:8*saipanensis*, *Discoaster*, Site 1090, A5:10; B8:3, 9*Saturnalis circularis*, Site 1089, A4:14*scitula*, *Globorotalia*

Site 1089, A4:10

Site 1092, A7:8

semicostata, *Bulimina*, Site 1090, A5:13*senni*, *Rectuvigerina*, Site 1092, A7:9*sigmoidalis*, *Transversopontis*, Site 1090, B8:9*simplex*, *Bulimina* cf., Site 1092, A7:9*soldanii*, *Gyroidinoides*

Site 1088, A3:9

Site 1092, A7:9

solitus, *Chiasmolithus*, Site 1090, B8:9*Sphaeropyle langii* Zone, Site 1088, A3:10*Sphenolithus abies/neoabies* complex, Site 1088, A3:7*Sphenolithus belemmos*, Site 1090, A5:10; B7:4*Sphenolithus dissimilis*, Site 1090, A5:10*Sphenolithus heteromorphus*, Site 1090, B7:4–5*Sphenolithus* spp., Site 1088, A3:7*sphericomiozea*, *Globorotalia*, Site 1090, B(synthesis):4*spinulosa*, *Morozovella*, Site 1090, A5:11*Spongaster tetras*, Site 1089, A4:13*spongiosa*, *Desmospyris*, Site 1094, A9:11*spongothorax*, *Cycladophora*, Site 1092, A7:12

spumellaroides, *Thalassiosira*, Site 1090, A5:15
stainforthi, *Catapsydrax*, Site 1090, A5:11
Stainforthia loeblichii, Site 1090, A5:12
Stichocorys peregrina
 Site 1088, A3:10
 Site 1092, A7:12
Stilostomella lepidula
 Site 1088, A3:8
 Site 1089, A4:11
 Site 1090, A5:12
 Site 1092, A7:9
Stilostomella spp., Site 1090, A5:13
Stilostomella subspinosa, Site 1090, A5:13
Stylatractus universus
 Site 1089, A4:14
 Site 1091, A6:11
 Site 1092, A7:12
 Site 1093, A8:13
 Site 1094, A9:11
Subbotina angiporoides, Site 1090, A5:11
Subbotina brevis, Site 1090, A5:11
Subbotina linaperta, Site 1090, A5:11
subcarinata, *Pullenia*
 Site 1091, A6:9
 Site 1092, A7:9
 Site 1093, A8:11
 Site 1094, A9:10
subdistichus, *Clausicoccus*, Site 1090, B8:3
subglobosa, *Globocassidulina*
 Site 1092, A7:8–9
 Site 1093, A8:11
 Site 1094, A9:10
subspinosa, *Stilostomella*, Site 1090, A5:13
sulcata, *Paralia*, Site 1089, A4:12
surculus, *Discoaster*, Site 1088, A3:7; B7:4

T

tabularis, *Azpeitia*
 Site 1089, A4:12
 Site 1090, A5:15
 Site 1092, A7:11
tamalis, *Discoaster*
 Site 1088, A3:7
 Site 1090, B7:14
 Site 1092, A7:7
tani ornatus, *Discoaster*, Site 1090, B8:9
tenuis, *Reticulofenestra*, Site 1090, B8:9
tetrapera, *Cyrtocapsella*
 Site 1088, A3:10
 Site 1090, A5:16
 Site 1092, A7:12
tetras, *Spongaster*, Site 1089, A4:13
Thalassionema nitzschioides, Site 1090, A5:15
Thalassiosira eccentrica, Site 1090, A5:15
Thalassiosira elliptipora
 Site 1089, A4:12–13
 Site 1090, A5:14
 Site 1092, A7:10
 Site 1094, A9:10

Thalassiosira fraga
 Site 1090, A5:15
 Site 1092, A7:11
Thalassiosira fraga Zone
 Site 1090, A5:15
 Site 1092, A7:11
Thalassiosira insigna, Site 1091, A6:10
Thalassiosira insigna Zone
 Site 1090, A5:14
 Site 1091, A6:10, 13
 Site 1092, A7:10
 Site 1093, A8:13
Thalassiosira insigna/Thalassiosira vulnifica Zone, Site 1088, A3:9
Thalassiosira inura
 Site 1090, A5:15
 Site 1092, A7:10
Thalassiosira inura Zone, Site 1092, A7:10
Thalassiosira kolbei
 Site 1089, A4:13
 Site 1090, A5:14
Thalassiosira kolbei/Fragilariopsis matuyamae Zone
 Site 1089, A4:13
 Site 1090, A5:14
 Site 1091, A6:9, 12
 Site 1092, A7:10
 Site 1093, A8:13
Thalassiosira lentiginosa Subzone a, Site 1093, A8:12
Thalassiosira lentiginosa Subzone b
 Site 1089, A4:12
 Site 1091, A6:9
 Site 1093, A8:12
Thalassiosira lentiginosa Subzone c
 Site 1089, A4:12
 Site 1093, A8:12
Thalassiosira lentiginosa Zone
 Site 1090, A5:14; B11:2
 Site 1092, A7:9–10
 Site 1093, A8:12
 Site 1094, A9:10
Thalassiosira lentiginosa/Fragilariopsis kerguelensis Subzone a
 Site 1093, B2:2, 4
 Site 1094, B2:2, 4
Thalassiosira oestrupii, Site 1090, A5:15
Thalassiosira oestrupii Zone, Site 1092, A7:10
Thalassiosira spp., Site 1088, B10:5–8
Thalassiosira spumellaroides, Site 1090, A5:15
Thalassiosira spumellaroides Zone, Site 1090, A5:15
Thalassiosira vulnifica
 Site 1091, A6:10
 Site 1092, A7:10
Thalassiosira vulnifica Zone
 Site 1090, A5:14
 Site 1091, A6:9
 Site 1092, A7:10
 Site 1093, A8:13
Thalassiothrix antarctica-longissima group
 Site 1088, A3:9
 Site 1091, A6:12

Thalassiothrix longissima, Site 1091, A6:10

Thalassiothrix spp.

Site 1088, B10:5–8

Site 1090, B(synthesis):21

Site 1091, A1:15, 22; A6:8

Site 1093, A8:8, 11

Site 1094, A9:7, 9

Transversopontis sigmoidalis, Site 1090, B8:9

triangularis, *Hemidiscus*

Site 1092, A7:10

Site 1093, A8:13

tricorniculatus, *Amaurolithus*, Site 1088, B7:14

trihedra, *Triloculina*, Site 1090, A5:12

trilobum, *Pterocanium*

Site 1091, A6:10–11

Site 1093, A8:13

Site 1094, A9:11

Triloculina trihedra, Site 1090, A5:12

Triquetrorhabdulus carinatus, Site 1090, B7:4

Triquetrorhabdulus rugosus, Site 1088, A3:7

truempyi, *Nuttalides*, Site 1090, A5:13

truncatulinooides, *Globorotalia*

Site 1088, A3:8

Site 1089, A4:10

Site 1091, A6:8

truncatum, *Dictyocoryne*, Site 1089, A4:13

Truncorotaloides spp., Site 1090, A5:11

U

umbilica, *Reticulofenestra*, Site 1090, A5:10; B8:2–3

umbonatus, *Oridorsalis*

Site 1089, A4:11

Site 1090, A5:12–13

Site 1091, A6:8

Site 1094, A9:10

umbonifera, *Nuttalides*, Site 1092, A7:9

universa, *Orbulina*, Site 1089, A4:10

universus, *Stylatractus*

Site 1089, A4:14

Site 1091, A6:11

Site 1092, A7:12

Site 1093, A8:13

Site 1094, A9:11

Uvigerina hispidicostata

Site 1088, A3:9

Site 1090, A5:12

Site 1092, A7:9

Uvigerina peregrina, Site 1090, B14:3, 8, 21–23

uvula, *Globigerinita*

Site 1088, A3:8

Site 1089, A4:10

Site 1090, A5:11

Site 1091, A6:8

Site 1093, A8:11

V

vema, *Helotholus*

Site 1091, A6:11

Site 1092, A7:12

Site 1093, A8:14

Site 1094, A9:11

very small *Gephyrocapsa* complex

Site 1088, A3:6

Site 1089, A4:10

vigilans, *Rocella*, Site 1090, A5:15

vulnifica, *Thalassiosira*

Site 1091, A6:10

Site 1092, A7:10

W

weaveri, *Fragilariopsis*

Site 1090, A5:14–15

Site 1091, A6:10

weddellensis, *Alabaminella*

Site 1089, A4:11

Site 1090, A5:12–13

Site 1091, A6:8–9

woodi, *Globigerina*

Site 1089, A4:10

Site 1090, A5:11

wuellerstorfi, *Cibicidoides*

Site 1088, A3:9

Site 1090, B9:4

Site 1093, A8:11

Site 1094, A9:10

wuellerstorfi, *Cibicidoides* aff., Site 1091, A6:9

wuellerstorfi, *Fontbotia*, Site 1090, B14:3, 8, 21–23

Z

zones

Chi, A6:10–11; A7:12; A8:13; A9:11

Chi/Phi boundary, Site 1093, A8:13–14

CN1b, Site 1090, B7:4

CN5, Site 1088, A3:11

CN5–CN15, Site 1088, A3:11

CP14a, Site 1090, B8:2

CP14b, Site 1090, B8:2

CP15a, Site 1090, B8:2

CP15b, Site 1090, B8:3

CP15b/CP16a boundary, Site 1090, B8:3

CP16a, Site 1090, B8:3

CP16b, Site 1090, B8:3

CP16c, Site 1090, B8:3

CP17, Site 1090, B8:3

NN1, A5:10; A7:7; B7:4–5

NN1–NN3, Site 1090, B7:4–5

NN2, A5:10; A7:7; B7:4

NN3, Site 1090, B7:4

NN4, Site 1090, B7:5

NN5, Site 1092, A7:7

NN6, A3:7, 11; B7:3, 5

NN6–NN21, Site 1088, A3:11

NN7, A7:7; B7:3

NN7/NN8 boundary, Site 1088, B7:3

NN8, A3:7; A7:7

NN9, Site 1088, A3:7; B7:3

NN10, Site 1088, A3:7; B7:3

NN10/NN11 boundary, Site 1088, B7:3

NN10b–NN11a, Site 1090, B7:4
 NN11, Site 1088, A3:7
 NN11a/NN11b boundary, Site 1088, B7:3
 NN11b, Site 1088, B7:3
 NN12, Site 1088, A3:7; B7:3
 NN12–NN15, Site 1088, B7:3
 NN12–NN17, Site 1090, B7:5
 NN13, Site 1088, B7:4
 NN14, A5:9; A7:7
 NN14–NN15, Site 1088, B7:4
 NN14–NN15/NN16 boundary, Site 1088, B7:4
 NN14/NN15, Site 1091, A6:7
 NN15, A5:9; A6:7; A7:7
 NN16, A5:9; A7:7; B7:4
 NN17, A3:7; A4:10; A7:7; B7:5
 NN18, A3:7; A4:10; A5:9; A7:7; B7:4–5
 NN19, A3:7; A4:10; B7:4–5
 NN20, A3:6; A4:9; A5:9; A6:7; A7:7; A8:10; A9:9

NN21, A6:7; A8:10; A9:9
 NN21a, A4:9; A5:9; A7:7
 NN21b, A5:9; A7:7; A8:10
 NP15, Site 1090, A5:10
 NP15/NP16 boundary, Site 1090, A5:10
 NP17, Site 1090, A5:10
 NP18, Site 1090, A5:10
 NP19, Site 1090, A5:10
 NP20, Site 1090, A5:10
 NP21, Site 1090, A5:10
 NP22, Site 1090, A5:10
 NP23, Site 1090, A5:10
 NP25, Site 1090, A5:10
 Omega, A4:14; A5:16; A6:10; A8:13; A9:11
 Phi, Site 1091, A6:11–12
 Psi, A4:14; A6:10–11; A7:12; A8:13; A9:11
 Tau, Site 1092, A7:12
 Upsilon, A6:11, 13; A7:12; A8:13–14