

INDEX

- Actinomma tanacantha* Zone, defined, 87, 129, 441, 438, 443, 516
- Alkalinity of interstitial water
 Site 265, 53
 Site 266, 85
 Site 267, 126
 Site 268, 157
 Site 269, 183
 Site 270, 224, 810
 Site 272, 224, 812
- Alteration of Basalt, 837
- Angular unconformity, 7, 8, 212, 216, 232, 233
- Annelida*, taxonomic notes, 705
- Antarctic convergence, 49, 52, 441, 573, 648, 650, 653, 705, 707, 910, 915, 922
- Antarctic divergence, 910
- Antarctic glaciation, 653, 927
 Miocene, 7
- Antarctic Ice Sheet, 650
- Antarctic surface water, 910
- Antarctica, paleolatitude, 876
 separation of, Australia from, 828, 876
 Tertiary vegetational history, 601
- Antarctissa conradae* Zone, defined, 87, 129, 438, 440, 441, 443, 516
- Antarctissa denticulata* Zone, 129, 441, 443
- Antarctissa denticulata* Zone, defined, 440
- Australia, plate motion between Antarctica and, 828, 876
- Background and objectives
 Site 264, 19
 Site 265, 49
 Site 266, 81
 Site 267, 122
 Site 268, 153
 Site 269, 179
 Site 270, 212
 Site 271, 212
 Site 272, 212
 Site 273, 335
 Site 274, 369
- Balleny Basin, basalt, Site 274, 849
- Balleny Islands, 374, 921
- Basalt
 alteration of, 837
 chemistry, Site 267, 848
 comparison of, 850
 petrography
 Site 265, 839
 Site 274, 849
 Site 265, 52, 839, 920
 Site 266, 920
 chemistry of, 846
 petrography of, 844
 Site 267, 125
 petrography, 848
 Site 274, 849, 920
 chemistry, 850
 thermomagnetic analysis of, 869
 viscous remanent magnetization, 872
- Basement rocks, 861, 862, 864
- Beacon group, 157, 728
- Biostratigraphic methods, 14
- Biostratigraphic summary
 Site 268, 157
 Site 269, 184
 Site 271, 228
 Site 272, 230
 Site 273, 341
 Site 274, 374
- Biostratigraphy, foraminifera, 24
 Site 264, 24
 Site 265, 54
 Site 266, 85
 Site 267, 126
- Bioturbation, *see* burrows
- Black Island, 227
- Black Island erratics, 602
- Bottom currents, 728
- Boudinage, 728
- Breccia, provenance and origin of, 867
- Bryozoa, taxonomic notes, 705
- Bunbury basalt, 831
- Burrows, 123, 182, 218, 222, 728
Calocycletta costata Zone, 630
Coscinodiscus elliptipora/actinocyclus ingens Zone, 516
Coscinodiscus alentiginosus Zone, diatoms, 516
Corbisema triacantha Zone, 625, 630, 634
Ceratolithus tricorniculatus Zone, 629
 Calcium carbonate dissolution, 705, 707
Calocyclus disparidens Zone, 87, 441, 438
Calocyclus polyporos Zone, 517
Calocycletta costata Zone, 630
Calocycletta virginis Zone, 630
 Cape Adare, 9, 369, 374, 644
 Cape Crozier, 227
 Carbon and carbonate analysis, 12
 Carbonate compensation depth, Site 268, 728
 Carbonate dissolution, 573
 Carbonate/silica boundary
 climatic implications, 915, 922
 Leg 28 sites, 911
Catapsydrax unicavus Assemblage Zone, 158
Catinaster coalithus Zone, 517
 Central Transantarctic Mountains, 7
 Chemical composition, manganese nodules, 728
 Chert, 728
 Chondrites, 728
 Circumpolar currents, 55
 Circumpolar deep water, 910
 Clasts, Site 270 size analysis, 758
 Climatic change, Miocene, 7

- Climatic deterioration, Southeast Indian Ocean, 927
 Climatic implications, carbonate/silica boundary, 922
 Climatic implications of sediments, Site 270, 758
 Climatic transition, Site 266, 88
 Continental rise, geophysical measurements, 901
 Contour current deposits, turbidity current deposits, criteria for distinguishing, 728
 Contour currents, 185, 728
 Contourites, 728
 Cooling event, late Gilbert, 653
Corbisema triacantha Zone, 87, 517, 653
 Core contamination, 10
 Core disturbance, 10
 Coring procedures, drilling and, 9
 Correlation, diatom stratigraphy, 600
 Correlation of seismic profiles with lithology, Site 273, 341
 Site 274, 374
Coscinodiscus apiculatus Zone, 342
Coscinodiscus elliptipora/Actinocyclus ingens Zone, 87, 184, 518, 519
Coscinodiscus kolbei/Rhizosolenia barboi Zone, diatoms, 376, 518
Coscinodiscus lentigenosus Zone, 87, 169, 184, 228, 231, 342, 516, 519, 520
Cosmioidiscus insignis Partial-Range Zone, 518
 Crashsite quartz, 223
 Cretaceous forams, 25
 Current deposited sediments
 Site 268, 728
 Site 269, 728
 Site 274, 728
Cyrtocapsella tetrapera Zone
 defined, 438
 rad Zone, 129, 441, 443
Denticula antarctica Partial-Range Zone, diatoms, 517
Denticula antarctica Zone, 87, 129, 342, 376, 517, 520, 521
Denticula antarctica/Coscinodiscus lewisianus Zone, 87, 184, 231, 376, 517, 520, 521
Denticula hustedtii Zone, 87, 129, 169, 184, 376, 520
Denticula hustedtii/Denticula lauta Zone, 87, 129, 184, 376, 517
Denticula lauta Zone, diatoms, 517
Denticula lauta/Denticula antarctica Zone, 184, 231, 517
Denticula nicobarica Partial-Range Zone, diatoms, 516
Denticula nicobarica Zone, diatom Zone, 87, 516, 520
 Diatoms
 Coscinodiscus apiculatus Zone, 342
 Coscinodiscus elliptipora/Actinocyclus ingens Zone, 87, 184, 518, 520, 521
 Coscinodiscus elliptipora/Actinocyclus ingens concurrent Range Zone, 519
 Coscinodiscus kolbei/Rhizosolenia barboi Zone, 376, 518, 521
 Coscinodiscus lentigenosus Zone, 87, 169, 184, 228, 231, 342, 520, 521
 Coscinodiscus sp. Zone, 517
 Coscinodiscus insignis Zone, 518
 insignis Partial-Range Zone, 518
 Denticula antarctica Zone, 129, 342, 376, 516, 521
 Partial-Range Zone, 517
 Denticula antarctica/coscinodiscus lewisianus Zone, 87, 184, 231, 517, 520, 521
 Denticula hustedtii/Denticula lauta Partial-Range Zone, 517
 Denticula hustedtii Zone, 87, 129, 169, 184, 376, 517, 520
 Denticula hustedtii Partial-Range Zone, 517
 Denticula lauta Zone, 517, 521
 Denticula lauta/Denticula antarctica Zone, 184, 231, 517, 520
 Denticula nicobarica Zone, 87, 516, 520
 Nitzschia interfrigidaria Zone, 87, 184, 518, 520
 Nitzschia jouseae Zone, 518
 Nitzschia praeinterfrigidaria Zone, 184, 376, 520, 521
 Pseudoeunotia doliolus Zone, 519
 Pyxilla prolongata Zone, 376, 516, 521
 Rhizosolenia barboi/Nitzschia kerguelensis Zone, 129, 376, 518, 520
 Rhizosolenia praebergonii, 518, 519
 Site 264, 26, 519
 Site 265, 519
 Site 266, 87, 520
 Site 267, 129, 520
 Site 268, 269, 520
 Site 296, 184, 520
 Site 270, 228, 520
 Site 271, 230, 520
 Site 272, 231, 521
 Site 273, 341, 342, 521
 Site 274, 376, 521
 systematics, 525
 stratigraphy, correlation of, 521
 Thalassiosira convexa Zone, 518
 Zone I, 519
 Zone II, 519
 Zone III, 519
 Zone IV, 519
 Zone V, 518
 Zone VIII, 518
 Zone IX, 518
 Zone XI, 518
 Zone XXIV, 517
Dictyocha aspera v. *pygmaea/Dictyocha fibula* v. *pumila* Zone, 87, 628, 647
Dictyocha deflandrei Zone, 376, 631, 647, 711, 714
Dictyocha frenguelli Zone, 437
Dictyocha mutabilis Zone, 87, 600, 629, 634, 653
Dictyocha pseudofibula Zone, 87, 129, 184, 230, 376, 629, 637, 643, 644, 647
Dictyocha/distephanus ratios, paleotemperature indicators, 647, 648, 653
 Dinoflagellates, systematics, 604
 Discoaster
 Discoaster bifax Zone, 712
 Discoaster druggi Zone, 630
 Discoaster exilis Zone, 629, 630
 Discoaster hamatus Zone, 517
 Discoaster lodoensis Zone, 26
 Discoaster lodoensis-Marthasterites tribrachiatus Zone, 26
 Discoaster quinqueramus Zone, 629

- Discoaster saipanensis* Zone, 712
Discoaster saipanensis-tani Zone, 26
Discoaster sublodoensis Zone, 712
Discoaster tamalis Zone, 711
Discoasteroides kuepperi Zone, 712
Distephanus boliviensis Zone, 87, 230, 376, 628, 635, 644, 647
Distephanus longispinus Zone, 87, 600, 629, 634, 653
Distephanus speculum Zone, 87, 129, 184, 376
Distephanus speculum Zone A, 628
Distephanus speculum Zone B, 628
Dorcadospyris alata Zone, 630
Drilling and coring procedures, 9
Emiliana subdisticha Subzone, nannos, 595, 596
Early Eocene, Southeast Indian Ocean during the, 927
Early Oligocene, Southeast Indian Ocean during the, 927
Early/middle Miocene, Southeast Indian Ocean during the, 927
Eastern Continental Rise, Topography, 893
Eastern Ross Sea shelf
 Geophysical measurements, 901
 Topography, 892
Elemental concentrations, Ross Sea diamicts, 789
Ellsworth Mountains, 223
Emiliana huxleyi Zone, 577
Eocene Forams, 573
Erosional surface, Site 273, 8
Ethane, Site 273, 816
Eucyrtidium calvertense Zone, 87, 129, 440, 441, 443
Eucyrtidium punctatum Zone
 Rad Zone, 87, 441, 516
 defined, 438
Fasciculithus tympaniformis Zone, 26
Faulting, 728
Fecal pellets, 585
Ferromanganese nodules, 371
 geochemistry of, 795
Ferrar group, 340
Geochemistry, ferromanganese, nodules, 795
 methods, shipboard, 16
Geophysical measurements
 continental rise, 901
 Eastern Ross Sea shelf, 901
 Iselin Bank, 901
 Western Ross Sea shelf, 897
Geophysical survey
 Site 265, 50
 Site 266, 82
 Site 267, 122
 Site 268, 153
 Site 269, 180
 Site 270, 213
 Site 271, 214
 Site 272, 214
 Site 273, 335
 Site 274, 370
Glacial abrasion, 156
Glacial debris, 211
Glacial sediments, Site 270, 758
Glaciation, Miocene, Antarctic, 7
 Ross Sea, initiation of, 728
Globigerina ampliapertura Zone, 184
Globorotalia aragonensis Zone, 25
Globorotalia formosa Zone, 25
Globorotalia inflata Zone, 24, 707
Globorotalia miozea sphericomiozea Zone, 24
Globorotalia pachyderma Assemblage Zone, 158
Globorotalia pseudomenardii Zone, 25
Globorotalia pusilla-angulata Zone, 25
Globorotalia truncatulinoides Zone, 25
Foraminifera
 Catapsydrax unicavus Assemblage Zone, 158
 Cretaceous, 25
 Eocene, 573
 Globorotalia aragonensis Zone, 25
 Globorotalia formosa Zone, 25
 Globorotalia inflata Zone, 24, 707
 Globorotalia miozea sphericomiozea Zone, 24
 Globorotalia pseudomenardii Zone, 25
 Globorotalia puncticulata Zone, 707
 Globorotalia pusilla-angulata Zone, 25
 Globorotalia truncatulinoides Zone, 25, 707
 Globorotalia woodi Zone, 707
 Miocene, 574
 Neogene, 705
 Oligocene, 574
 Oligocene-early Miocene, Site 270, 228
 Pleistocene, 577
 Pliocene, 576
 PlioceneQuaternary, Site 273, 342
 Site 264, 705
 Site 265, 707
 Site 266, 86, 707
 Site 267, 127, 577
 Site 268, 158, 577
 Site 269, 184, 579
 Site 270, 228, 579
 Site 271, 579
 Site 272, 230, 585
 Site 273, 341, 342, 585
 Site 274, 375, 585
 Turborotalia aculeata Zone, 128
Fossil soil, Site 270, 758
Gallipolli Porphyries, 772
Garnerago obliquum Zone, 709, 712
Graben, 728
Graben structure, 369, 728, 893
Graded beds, 728, 893
Grain-size analysis, 11
GRAPE
 Site 265, 53
 Site 266, 85
 Site 267, 126
 Site 268, 157
 Site 270, 223
 Site 271, 223
 Site 272, 224
 Site 273, 341
 Site 274, 374
Gravimetric measurements, Ross Sea, 895
Helicopontosphaera ampliapertura Zone, 592, 713
Helicopontosphaera reticulata Zone, 595

- Halmyrolysis, 823
 Haystack structures, 55
Heliolithus kleinpelli Zone, 26
Helotholus vema Zone, 87, 129, 169, 184, 231, 376, 441, 443, 450, 516
 Hydrocarbon gases, Sites 271, 272, 273, 815
 Hydrocarbons
 leg 28, 17
 Ross Sea, 8
 Site 271, 220, 212, 214
 Site 272, p 212, 214
 Site 273, 343
 Ice-rafted material, 82, 125, 130, 182, 216, 220, 232, 340, 374, 811, 927
 Site 266, 82, 89
 Site 267, 728
 Site 268, 154
 Site 268, 728
 Site 268, 156
 Site 274, 728, 789
 sedimentation rates, 728
 source, 728
 source of, 927
 Ice rafting, 916
 Igneous rocks, Site 264, 823
 Indian Abyssal Plain, 179
 Initiation of glaciation, Ross Sea, 728
 Interglacial, Southern Ocean, 233
 Interstitial water analyses
 Site 265, 807
 Site 267, 126
 Site 268, 809
 Site 269, 183
 Site 270, 224, 809
 Site 271, 224
 Site 272, 224, 812
 Site 274, 374, 812
 Iselin Bank, 892, 893, 905, 906
Isthmolithus recurvus Zone, 596
 Geophysical measurements, 901
 Knox Coast, 7, 153, 714
 Koettlitz marble, 7, 232, 233, 728
 Koettlitz Mountains, 220
 Leeuwin-Naturaliste Block, 828
 carbonate/silica boundary, 911
 Leg 28
 hydrocarbons, 17
 objectives, 920
 palynology, 600
 sediment distribution, 910
 summary of results, 5
 Leiospheres, palynology, 185
 Lithologic description
 Site 264, 20
 Site 265, 51
 Site 266, 82
 Site 267, 122
 Site 268, 154
 Site 269, 180
 Site 270, 214
 Site 272, 221
 Site 273, 338
 Site 274, 370
 Lithology, Site 273, correlation of seismic profiles with, 341
 Lithology of pebbles, Ross Sea, 769
 Load casts, 728
Lophocyrtis regipileus Zone, 87, 441, 438
 Lysocline
 Site 266, 81
 Site 267, 127
 Site 272, 230
 Macrofossils, Ross Sea, 693, 705
 Magnetic anomalies, Site 265 region, 56
 Magnetic measurements, Ross Sea, 896
 Magnetic quiet zone, 179
 Magnetization, stability and direction of, 871
 Manganese
 micronodules, 785
 nodules, 374, 437, 728
 Marie Byrd Land, 8, 223, 232, 926
 Mawson Glacier, 771
Mesocena apiculata Subzone, 437, 631
Mesocena apiculata Zone, 647, 711
Mesocena circulus Zone, 87, 516, 629, 634, 647
Mesocena diodon Zone, 87, 129, 184, 516, 629, 637, 643
 Nannofossils
 Ceratolithus tricorniculatus Zone, 629
 Discoaster deflandrei Zone, 594
 Discoaster druggi Zone, 630
 Discoaster exilis Zone, 629, 630
 Discoaster hamatus lodoensis Zone, 516
 Discoaster lodoensis Zone, 26
 Discoaster lodoensis-marthasterites brachiatus Zone, 26
 Discoaster quinqueramus Zone, 629
 Discoaster saipanensis-D. tani Zone, 26
 Discoaster sublodoensis Zone, 712
 Discoaster tamalis Zone, 711
 Discoasteroides kuepperi Subzone, 712
 Emiliana subdisticha Zone, 595, 596
 Emiliana huxleyi Zone, 577
 Fasciculithus tympaniformis Zone, 26
 Heliolithus kleinpelli Zone, 26
 Gartnerago obliquum Zone, 709
 Helicopontosphaera ampliaperia Zone, 592, 713
 Helicopontosphaera reticulata Zone, 595
 Isthmolithus recurvus Zone, 596
 Miocene, 591, 593
 Miocene/Pliocene boundary, 591
 Nannotetrina quadrata Zone, 712
 Nephrolithus frequens Zone, 709
 Oligocene, 594
 Plio/Pleistocene, 590
 Pliocene, 25, 591
 Quaternary, 589
 Reticulofenestra inflata Subzone, 713
 Reticulofenestra umbilica Zone, 712
 Site 264, 25, 711
 Site 265, 589, 712
 Site 266, 86, 591, 713
 Site 267, 594, 595, 713
 Site 268, 169, 596, 714
 Site 269, 184, 600, 714
 Site 270, 228
 Site 272, 231
 Site 273, 342
 Site 274, 600
 Site 274, 376, 714
 Sphenolithus belemnus Zone, 593, 630
 Sphenolithus heteromorphus Zone, 592, 630
 Sphenolithus predistentus Zone, 595
 Triquetrorhabdulus carinatus Zone, 630
 Zone NN15, 591
 Naturaliste Plateau, 20, 49, 573, 705, 711, 922
Naviculopsis biapiculata Zone, 129, 630, 643, 711
Naviculopsis navicula Zone, 87, 630, 634, 653

Naviculopsis regularis Zone, 87, 630, 653, 654
Naviculopsis robusta Zone, 87, 630, 634, 653
 Nepheloid layer, 925
Nephrolithus frequens Zone, 709
Nitzschia interfrigidaria Zone, 87, 184, 518
Nitzschia jouseae Zone, diatoms, 516
Nitzschia praeinterfrigidaria Zone, 184, 376
 Oamaru section, 711
 Ohio Range, 771
 Oligocene,
 forams, 228, 574
 nannos, 594
 silicoflagellate stratigraphy, 709
 Operations
 Site 264, 20
 Site 265, 50
 Site 266, 82
 Site 267, 122
 Site 268, 153
 Site 269, 179
 Site 270, 213
 Site 271, 214
 Site 272, 214
 Site 273, 336
 Site 274, 370
Pseudoeutonium doliolus Zone, 516
 Paleoclimatology, 927
 Site 270, 226
 Paleoecology, macrofossils, Ross Sea, 705
 Paleoenvironmental indicators, silicoflagellates as, 647
 Paleolatitude, Antarctica, 876
 Paleomagnetic stratigraphy, Site 270, 879
 Paleopositions, Sites 265, 266, 267, 914
 Paleosols, 7
 Paleotemperature indicators, *Dictyocha/distephanus*
 ratios, 647
 Paleotemperatures, 127, 625
 Site 264, 711
 Site 265, 713
 Site 266, 707
 Site 267, 637
 Palynology
 leg 28, 600
 leiospheres, 185
 Site 264, 26
 Site 266, 87, 601
 Site 268, 169
 Site 269, 185
 Site 270, 228, 600
 Site 274, 600
 Park shale, 25
 Pebble distribution, Site 270, 758
 Pennell Bank, 8, 335, 644
 Petrography
 Site 267, basalt, 848
 Site 265, basalt, 839
 Site 266, basalt
 Site 274, basalt, 849
 turbidites, 728
 Petrography of breccia, Site 270, 866
 Physical properties, across, unconformity, 22
 methods, 16
 Site 264, 22
 Site 265, 53
 Site 266, 85
 Site 267, 126
 Site 268, 157
 Site 270, 223
 Site 271, 223
 Site 272, 224
 Site 273, 341
 TE269, 183
 Pillow structures, 728, 840
 Plant debris, 220, 373
 Plate motion between Antarctica and Australia, 876
 Pleistocene
 forams, 557
 sediments, 85
 Zones NN21-NN19, nanno zone, 25
 Plio/Pleistocene, nannos, 590
 Plio/Pleistocene boundary, rads, 440
 Pliocene
 forams, 576
 nannos, 591
 temperature changes, 648
 Pliocene-Miocene, unconformity, 169
 Pliocene-Quaternary, formas, 228, 342
 Pliocene/Eocene unconformity, 24
 Pliocene/Miocene boundary, Site 267, 129
Podocyrtes mitra-Thyrsocyrtis bromia Zone, 26
 Polar Front Zone, 910
 Pollen, systematics, 606
 Preglacial sediments, Site 270, 758
 Principal results
 Site 264, 19
 Site 265, 49
 Site 266, 81
 Site 267, 122
 Site 268, 153
 Site 269, 179
 Site 270, 211
 Site 271, 211
 Site 272, 212
 Site 273, 335
 Site 274, 369
Pseudoeunotia doliolus Zone, 516
Pyxilla prolongata Partial-Range Zone, 516
Pyxilla prolongata Zone diatoms, 376, 521
 Radiolaria
 Actinomma tanyacantha Zone, 87, 129, 441, 443
 Antarctissa conradae Zone, 87, 129, 438, 440, 441, 443,
 516
 Antarctissa denticulata Zone, 440, 441, 443
 Calocycletta costata Zone, 630
 Calocycletta virginis Zone, 630
 Calocyclus disparidens Zone, 87, 438, 441
 Calocyclus polyporos Zone, 516
 Calocycletta costata Zone, 630
 Cyrtocapsella tetrapera Zone, 87, 129, 438, 441, 443
 Dorcadospyris alata Zone, 630
 Eucyrtidium calvertense Zone, 87, 129, 440, 441, 443
 Eucyrtidium punctatum Zone, 87, 438, 441, 516
 Helotholus vema Zone, 87, 129, 169, 184, 231, 376, 440,
 441, 443, 450, 516
 Helotholus vema Zone, 450, 516
 Lophocyrtis regipileus Zone, 87, 438, 441
 Miocene/Pliocene boundary, 440, 443
 Naturaliste Plateau, 437
 Paleogene, 440
 Plio/Pleistocene boundary, 440
 Podocyrtes mitra Zone-*Thyrsocyrtis bromia* Zone, 26
 Saturnalia circularis Zone, 87, 129, 440, 441, 443
 Site 264, 441
 Site 266, 441
 Site 267, 441
 Site 268, 169, 443

- Site 269, 184, 443
 Site 270, 228, 450
 Site 271, 230, 450
 Site 272, 231, 450
 Site 273, 341, 372, 450
 Site 274, 376, 450
Spongomelissa brachythorax Zone, 516
Spongomelissa dilli Zone, p. 87, 441
Stylatractus universus Zone, 129, 440, 441, 443
 systematic paleontology, 450
Theocalyptra bicornis spongothorax Zone, 87, 129, 184, 376, 440, 441, 443, 450, 516
Theocalyptra bicornis spongothorax Zone, 450
 Regolith, 220, 232, 864
 Remanent magnetic properties, 870
Rhizosolenia barboi/nitzschia kerguelensis Partial-Range Zone, diatoms, 129, 376, 518
Rhizosolenia barboi/nitzschia kerguelensis Zone, 129, 516
Rhizosolenia inflata Subzone
Rhizosolenia praebergonii Zone, 518
Rhizosolenia praebergonii Zone, 516
Rhizosolenia umbilica Zone,
 Ross Basin, 226
 Ross embayment, 927
 Ross Ice shelf, 7
 Ross orogeny, 220
 Ross Sea, 7, 212, 227, 335, 644, 728, 893
 angular unconformity, 8
 diamicts, 789
 gravimetric measurements, 895
 hydrocarbons, 7, 8
 initiation of glaciation, 728
 lithology of pebbles, 769
 magnetic measurements, 896
 mollusca, 693
 paleoecology, macrofossils, 705
 paleogeography, 693
 Ross Sea diamicts, elemental concentrations, 789
 Royal Society range, 7, 220
Sphenolithus belemnus Zone, 593, 630
Sphenolithus heteromorphus Zone, 630
Sphenolithus heteromorphus Zone, 592, 630
Sphenolithus predistensus Zone, nannos, 595
Saturnalia circularis Zone, 87, 129, 440, 441, 443
 Sediment classification and nomenclature rules, 13
 Sediment description, 12
 Sediment distribution, leg 28 Sites, 910
 Sediment distribution, Southeast Indian Ocean, 910
 Sediment facies, Site 269, 728
 Sedimentary breccia, Site 270, 864
 Sedimentary sequence, Site 270, 728
 Sedimentation rates, 927
 ice-rafted material, 728
 ice-rafted sediment, 728
 Site 265, 7, 49, 52, 55 807, 870
 Site 266, 84, 85, 89
 Site 267, 130
 Site 269, 179, 185
 Site 270, 220, 881, 882
 Site 271, 8
 Site 273, 338, 339, 340
 Site 274, 9
 Site 274, 369, 437, 785
 Shackleton Ice Shelf, 728
 Silicoflagellates
 Corbisema triacantha Zone, 87, 516, 625, 630, 634, 653
 Dictyochoa aspera. pumila D. fibula pygmaea Zone, 87, 647
 Dictyochoa deflandrei Zone, 376, 631, 647, 711, 714
 Dictyochoa frenguelli Zone, 437, 647
 Dictyochoa mutabilis Zone, 87, 516, 629, 634, 653
 Dictyochoa pseudofibula Zone, 87, 129, 184, 230, 376, 629, 637, 643, 646, 647
 Distephanus boliviensis Zone, 87, 230, 376, 628, 634, 635, 644, 647
 Distephanus longispinus Zone, 87, 516, 629, 634, 653
 Distephanus speculum Zone, 87, 628, 784, 376, 631, 635, 643, 644
 Distephanus speculum Zone, 8, 628, 646
 Mesocena apiculata Zone, 647, 711
 Mesocena circularis, 87, 516, 624, 634, 647
 Mesocena diodon Zone, 87, 129, 184, 516, 629, 637, 643
 method of preparation, 626
 Miocene, 653
 Naviculopsis biapiculata Zone, 129, 630, 643, 711
 Naviculopsis navicula Zone, 87, 634, 653
 Naviculopsis regularis Zone, 630, 87, 634, 653
 Naviculopsis robusta Zone, 87, 630, 634, 653
 Oligocene, 709
 Ross Sea Sites, 643
 Site 264, 26, 631, 711
 Site 265, nannos, 712
 Site 266, 87, 631, 713
 Site 267, 129, 634, 713
 Site 268, 714
 Site 269, 184, 643, 714
 Site 271, 230, 643
 Site 272, 231, 644
 Site 273, 342, 644
 Site 274, 376, 644, 714
 systematic paleontology, 653
 Site 264, 19
 background and objectives, 19
 biostratigraphy, 24
 diatoms, 26, 516
 forams, 705
 igneous rocks, 823
 lithologic description, 20
 nannofossils, 25, 711
 Naturaliste Plateau, 7, 821
 operations, 20
 paleotemperatures, 711
 palynology, 26
 physical properties, 22
 principal results, 19
 Radiolaria, 26, 441
 silicoflagellates, 26, 631
 Site summary, 7
 source of volcanic rocks, 831
 summary and conclusions, 26
 unconformity, 7, 25, 705
 volcanic conglomerate, 824
 volcanic material, 822
 Site 265, 49
 alkalinity, 53
 background and objectives, 49
 basalt, 52, 920
 petrography, 839
 biostratigraphy, 54
 chemistry of basalt, 842
 diatoms, 516
 forams, 707
 geophysical survey, 50

- interstitial water analyses, 807
- lithologic description, 51
- nannos, 589, 712
- operations, 50
- paleotemperatures, 713
- physical properties, 53
- principal results, 49
- salinity, 53
- sedimentation rates, 7, 49, 52, 807
- sediments, 910
- Site summary, 7
- sonic velocity, 53
- Southeast Indian Ridge, 55
- Southeast Indian Ridge, basalt, 839
- summary and conclusions, 55
- Site 266, 81
 - age of crust, 81
 - alkalinity of sediments, 85
 - background and objectives, 81
 - basalt, 844, 920
 - biostratigraphy, 85
 - chemistry of basalt, 846
 - climatic transition, 88
 - diatoms, 87, 516
 - foraminifera, 86
 - forams, 707
 - geophysical survey, 82
 - ice-rafted detritus, 82
 - ice-rafted material, 89
 - lithologic description, 82
 - lysocline, 81
 - Miocene/Pliocene boundary, 85
 - nannofossils, 86, 591, 713
 - operations, 82
 - paleotemperatures, 707
 - palynology, 87, 601
 - physical properties, 85
 - Pleistocene sediments, 85
 - principal results, 81
 - Radiolaria, 87, 441
 - salinity of sediments, 85
 - sedimentation rates, 84, 85, 89
 - sediments, 910
 - silicoflagellates, 87, 631
 - site summary, 7
 - sonic velocity, 85
 - sonobuoy record, 82
 - summary and conclusions, 88
- Site 267, 121
 - alkalinity interstitial water, 126
 - background, 122
 - basalt, 125, 848
 - biostratigraphy, 126
 - bulk density, GRAPE, 126
 - diatoms, 129, 516
 - forams, 127, 577
 - geophysical survey, 122
 - ice-rafted material, 728
 - lithologic description, 122
 - lysocline, 127
 - Miocene/Pliocene boundary, 129
 - nannos, 594, 595, 713
 - oldest sediments, 130
 - Oligocene/Miocene boundary, 129
 - operations, 122
 - paleopositions, Site 265, Site 266, 914
 - paleotemperatures, 637
 - pH, interstitial water, 126
 - physical properties, 126
 - Pliocene/Miocene boundary, 129
 - principal results, 122
 - Radiolaria, 129, 441
 - salinity, interstitial water, 126
 - sedimentation rate, 130
 - silicoflagellates, 129, 634
 - site summary, 7
 - sonic velocity, 126
 - South Indian Ocean, 846
 - summary and conclusions, 130
 - unconformity, 129, 130
- Site 268, 153
 - alkalinity of interstitial water, 157
 - background, 153
 - biostratigraphic summary, 157
 - carbonate compensation depth, 728
 - current deposited sediments, 728
 - diatoms, 169, 516
 - forams, 158, 577
 - geophysical survey, 153
 - GRAPE, 157
 - ice-rafted material, 154, 156, 728
 - interstitial water analyses, 809
 - lithologic description, 154
 - nannos, 169, 596, 714
 - operations, 153
 - palynology, 169
 - pH of interstitial water, 157
 - physical properties, 157
 - principal results, 153
 - Radiolaria, 169, 443
 - salinity of interstitial water, 157
 - sediments, 911
 - site summary, 7
 - sonic velocity measurements, 157
 - South Indian Ocean, 772
 - summary and conclusions, 169
 - turbidites, 169
 - unconformity, Pliocene-Miocene, 169
- Site 269, 179
 - alkalinity interstitial water, 183
 - background, 179
 - biostratigraphic summary, 184
 - current deposited sediments, 728
 - diatoms, 184, 516
 - forams, 184, 579
 - geophysical survey, 180
 - Globigerina ampliapertura* Zone, 184
 - lithologic summary, 180
 - nannofossils, 184, 600, 714
 - objectives, 179
 - operations, 179
 - palynology, 185
 - pH interstitial water, 183
 - principal results, 179
 - Radiolaria, 184, 443
 - salinity, interstitial water, 183
 - sediment facies, 728
 - sedimentation rates, 179, 185
 - silicoflagellates, 184, 643
 - site summary, 8
 - sonic-velocity measurements, 183
 - sonobuoy data, 185
 - summary and conclusions, 185
- Site 270, 211
 - alkalinity of interstitial water, 224, 810
 - basement rocks, 861, 862, 864

- biostratigraphic summary, 226
- climatic implications of sediments, 758
- diatoms, 228, 516
- foraminifera, 228, 579
- fossil soil, 758
- geophysical survey, 213
- glacial sediments, 758
- grain-size analysis, 758
- GRAPE, 223
- interstitial water chemistry, 224, 809
- lithologic description, 214
- macrofossils, 705
- nannofossils, 228, 600
- operations, 213
- paleoclimatology, 226
- paleomagnetic stratigraphy, 879
- palynology, 228
- palynomorphs, 600, 602
- pebble distribution, 758
- petrography of breccia, 866
- pH of interstitial water, 224
- preglacial sediments, 758
- principal results, 211
- Radiolaria, 228, 450
- salinity of interstitial water, 224, 810
- sedimentary breccia, 864
- sedimentary sequence, 728
- sedimentation rate, 220, 881, 882
- seismic records, 223
- site summary, 8
- size analysis, clasts, 758
- sonic-velocity measurements, 223
- sonobuoy records, 223
- subsidence, 226, 233
- unconformity, 864, 879
- Site 271, 211
 - biostratigraphic summary, 228
 - diatoms, 230, 516
 - forams, 579
 - geophysical survey, 214
 - GRAPE, 223
 - hydrocarbons, 212, 214, 220
 - interstitial water chemistry, 224
 - operations, 214
 - physical properties, 223
 - principal results, 211
 - Radiolaria, 230, 450
 - sedimentation rate, 8
 - silicoflagellates, 230, 643
 - site summary, 8
 - sonic velocity, 223
 - sonobuoy records, 223
- Site 272, 212
 - alkalinity of interstitial water, 224, 812
 - biostratigraphic summary, 230
 - diatoms, 231, 516
 - foraminifera, 230, 585
 - geophysical survey, 214
 - GRAPE, 224
 - hydrocarbons, 212, 214
 - interstitial water analyses, 812
 - interstitial water chemistry, 224
 - lithologic description, 221
 - lysocline, 230
 - nannofossils, 231
 - operations, 214
 - physical properties, 224
 - principal results, 212
 - Radiolaria, 231, 450
 - silicoflagellates, 231, 644
 - site summary, 8
 - sonic velocity, 224
 - summary and conclusions, 231
- Site 273, 335
 - background, 335
 - biostratigraphic summary, 341
 - correlation of seismic profiles with, lithology, 341
 - diatoms, 341, 342, 516
 - erosional surface, 8
 - ethane, 816
 - forams, 341, 342, 585, 816
 - geophysical survey, 335
 - GRAPE, 341
 - hydrocarbons, 343, 815
 - lithologic description, 338
 - Miocene-Pliocene, 342
 - nannos, 342
 - operations, 336
 - physical properties, 341
 - principal results, 335
 - Radiolaria, 341, 342, 450
 - sedimentation rates, 338, 339, 340
 - silicoflagellates, 342, 644
 - site summary, 8
 - sonic velocity, 341
 - sonobuoy, 336
 - summary and conclusions, 343
- Site 274, 369
 - alkalinity of, interstitial water, 374
 - background, 369
 - basalt, 849, 920
 - biostratigraphic summary, 374
 - correlation of seismic profiles with lithology, 374
 - current deposited sediments, 728
 - diatoms, 376, 516
 - distribution of biogenic components, 785
 - foraminifera, 375, 585
 - geophysical survey, 370
 - GRAPE, 374
 - ice-rafted material, 728, 789
 - interstitial water analysis, 374, 812
 - lithology, 370
 - nannofossils, 376, 600, 714
 - objectives, 370
 - operations, 370
 - palynomorphs, 600
 - principal results, 369
 - Radiolaria, 376, 450
 - salinity of interstitial water, 374
 - sedimentation rates, 9, 369, 437, 785, 807
 - silicoflagellates, 376, 644
 - site summary, 8
 - sonic-velocity measurements, 374
 - sonobuoy, 370
 - summary and conclusions, 437
 - turbidites, petrology of, 728
 - unconformity, 437, 728, 789
- Slumped sediments, 218, 340
- Sonic velocity
 - Site 265, 53
 - Site 266, 85
 - Site 267, 126
 - Site 268, 157
 - Site 269, 183
 - Site 270, 223
 - Site 271, 223

- Site 272, 224
- Site 273, 336, 341
- Site 274, 370, 374
- Sonobuoy
 - Site 266, 82
 - Site 269, 185
 - Site 270, 223
 - Site 271, 223
 - Site 273, 336
 - Site 274, 370
- Southeast Indian Ocean, climatic deterioration, 927
- South Central Ross Sea, source of pebbles, 771
- South Indian Abyssal Plain, 643
- South Indian Ocean
 - Site 267, 846
 - Site 268, 772
- Southeast Indian Ocean, sediment distribution, 910
 - during the
 - early Eocene, 927
 - early Oligocene, 927
 - early/middle Miocene, 927
 - late Miocene/early Pliocene, 927
 - late Pliocene/Pleistocene, 927
- Southeast Indian Ridge, 631, 713, 911, 914
 - basalt, Site 265, 839
 - Site 265, 55
 - Site 266, basalt, 844
- Southern Ocean
 - diatoms, 515
 - interglacial, 233
- Spongomelissa brachythorax* Zone, 516
- Spongomelissa dilli* Zone, 87, 441,
- Stylatractus universus* Zone, 129, 440, 441, 443
- Submarine alteration of volcanic rocks, 823, 824
- Submarine erosion, 927
- Subsidence, 7
 - Site 270, 226, 233
- Summary and conclusions
 - Site 264, 26
 - Site 265, 55
 - Site 266, 88
 - Site 267, 130
 - Site 268, 169
 - Site 269, 185
 - Sites 270, 271, 272, 231
 - Site 273, 343
 - Site 274, 437
- Summary of results, Leg 28, 5
- Systematics
 - diatoms, 516
 - dinoflagellates, 604
 - pollen, 606
 - Radiolaria, 450
 - silicoflagellates, 653
- Taxonomic notes
 - annelida, 705
 - bryozoa, 705
 - molluscs, 693
- Taylor Valley, 227
- Temperature changes, Pliocene, 648
- Tertiary vegetational history, Antarctica, 601
- Thalassiosira convexa* Zone, 516
- Theocalyptra bicornis spongothorax* Zone, 87, 129, 184, 376, 440, 441, 443, 450, 516
- Thermomagnetic analysis, basalts, 869
- Topography
 - eastern Continental Rise, 893
 - eastern Ross Sea Shelf, 892
 - western Continental Rise, 892
 - western Ross Sea Shelf, 890
- Transantarctic Mountains, 8, 157, 211, 220, 221, 223, 232, 233, 340, 343, 602, 728, 887, 892, 927
- Turbidites, 7, 183, 728
- Turbidity current deposits, criteria for distinguishing, 728
- Turbidity currents, 185, 728
- Turbidity currents, 728
- Turborotalia aculeata* Zone, 128
- Unconformity, 339, 927
 - angular, 7
 - physical properties, across, 22
 - Pliocene-Miocene, Site 268, 169
 - Site 264, 7, 25, 705
 - Site 267, 129, 130
 - Site 270, 864, 879
 - Site 274, 437, 728, 789
- Underway geophysical data, method of collecting, 9
- Victoria Land, 728
- Viscous remanent magnetization, basalt, 872
- Volcanic conglomerate, Site 264, 824
- Volcanic material, Site 264, 822
- Volcanic mudflow, 824
- Volcanic rocks
 - Site 264, source of, 831
 - submarine alteration of, 823, 824
- Western Continental Rise, topography, 892
- Western Ross Sea, source of pebbles, 771
- Western Ross Sea Shelf
 - geophysical measurements, 897
 - topography, 890
- Wilkes Abyssal Plain, 728
- Wilkes Land, 7, 369, 634, 714, 728
- Wright Valley, 650
- X-ray mineralogy, 12
- Zone: *see* specific zone name
- Zoophycos, 728