



SUBJECT INDEX

Journal of Coastal Research
Annual Index Vol. 4 (Nos. 1-4), 1988

A

Abrasion rates, 406
Acanthopleura granulata, 384
Acmaea, 384
 Aeolianites, 467
 Algal borings, 391
 Alkydiacylglycerols, neutral marine lipid, 565
Ammophila arenaria, 184
Amphistegina lessoni, 471
 Anemometer, hand-held, 305
Anser caerulescens atlantica, 340
 Apparent water level rise, 591
 Aquatic fatty acids, 565
 Aragonite needles, 290
 Artificial beach nourishment, 132
 Artificial reefs, effects on wave overtopping, 536
 Aswan High Dam, Egypt, 245
 Atmosphere/water boundary, 359
 Autofunctions, statistical procedures, 458
 Avian distribution
 abiotic factors, 193 *ff*
 models for, 195
 Avian groups, species composition and abundance, 195

B

Back-barrier
 lagoonal systems, 301
 marsh, 653
 Backshore
 beach zone, 556
 dune topography, Victoria, 185
 terrace, 186
 Bagang, 576
 Bank
 erosion, 303
 sediments, 558
 Bar
 bypassing, 303
 formation, migration, 116
 horns, 117
 Baroclinic modes, 622
 Barotropic velocities, 621
 Barrier
 beaches, Black Sea coast, 412
 island, 301, 560
 linear, 117
 spits, 650
 Base-line experiments, pebble

abrasion, 106
 Bathymetric data, 532
 Beach Erosion Board (BEB), 166, 335
 Beach
 change correlations, 235
 change, HT, 232
 deformation, effects of sea dikes, 533
 dune erosion, 436
 dumping, 222
 erosion, 229, 632
 foreshore, 441
 high tide location, 230
 nourishment
 economic analysis, 137
 on Black Sea shores, 407
 pocket, 69
 profile 29, 30, 32, 33, 34
 analysis, 457 *ff*
 change, prediction of, 441
 profiling, method, 304
 reflective, 438
 retreat, prognostic indicator, 236
 ridge plain, 81
 internal bedding, 87
 ridges, 181
 absolute age, 83
 dune facies, 556
 relative age, 82
 sea-level history, 81 *ff*
 sediment parameters, 88
 shapes of, 84
 rock, 467
 erosion rates, 389
 sands, composition of, 465 *ff*
 sediments, 556
 size parameters, 27
 wave rundown, 438
 Beach-edge dune strip, 86
 BEB, Beach Erosion Board, 166, 335
 Bed load
 models, 440
 transport, increases by hydraulic lift, 693
 Bedrock valleys, 656
 Berm, beach, 184
 Bioerosion
 rates, 385
 rocky carbonate coastlines, 381 *ff*
 Biological material, digestion of, 40
 Biosparite, 290
 Birds. *See also*-Avian groups
 Black Sea
 coastal protection structures, 408
 shores, retreat rates, 407
 Blake Reversal Event, 667
 Blowout, dune, 553
 Blue/green wavelengths, 357
 Bluff-toe marshes, 657
 Bores, on beaches, 439
 Boring organisms, 381
 Bottom
 boundary layer, 440
 profile, geometric shape, 631
 roughness, 438
 Brazilian Shield, 59
 Breaker
 travel, 538
 zone, waves, 221
 Breakpoint, waves, 116
 Breakwater, 181
 Breakwaters, design of, 679
 Bridge piers, effects of, 475
 Brunt-Vaisala frequency, 624
 Bruun rule of erosion, 230, 436, 627 *ff*
 Bruun's hypothesis, 631
 Buoy. *See also*- Data buoy
 Bulgarian shores, erosion rates, 407
 By-passing, 408
 Bypassing stability, 687

C

Cadmium, concentration in seawater, sediments, 54
Cakile maritima, 184
Caladris alpina, 199
 Calcite rhombs, 290
 Calcrete, caliche, 671
 Canopic branch, of the Nile River, 483
 Carbon-14 dates, reliability of, 668
 Carbonate sands, 467
 Carbonate sediments, progressive cementation of, 289 *ff*
Cardita, shells, 284
 Cay. *See also*-Coral cays
Celtis laevigata, 591
 CERC, Coastal Engineering Research Center, 166
Cerithium, bay mollusc, 284
 Chanel stabilization, models, 175
 Channel
 erosion, 382
 stability, 687
 Cheniers, sand excavation from, 575
 Chesapeake Bay, sediment

- transport, 1 *ff*
 Chezy coefficient, 687
Chione, shells, 284
 Chiton, 384
 Chlorophyll, absorption wavebands, 359
 Cliff
 foot, wave erosion, 405
 retreat, in shore zone, 407
 Climatic change, global water balance, 274
Cliona lampa, 385, 389
 Closure depth, 635
 Coarse-sand beach, 441
 Coastal Engineering Research Center (CERC), 166
 Coastal Research Amphibious Buggy (CRAB), 169
 Coastal
 abrasion, Jakarta Bay, 573
 accretion, Jakarta Bay, 573
 aquifers, 574
 bay, 279
 change, Nile delta area, 600
 environments, urban stress on, 573 *ff*
 erosion, reactions to, 129 *ff*
 limestone degradation, 389
 low pressure cells, 239
 marshes, sedimentation rates, 17 *ff*
 plain estuary, 1
 storms, mid-Atlantic, 417 *ff*
 Concentric bars, 117
 Control structures, on the Nile River, 249
 Coproliths, 373
 Coral cays, degradation of, 582
 Corps of Engineers, Coastal engineering research in, 165 *ff*
 Crenulate coastline, 467
Crepidula, bay mollusc, 286
 Cross-bank sediment transport, 553
 Cross-shore
 nodes, 117
 sediment transport, 440
 standing waves, 116
 Cuspate
 beachridge plains, 554
 foreland, 191, 551
 spits, 551
- D**
- Data buoy, 503
 Dead Sea
 newly exposed shores, 257 *ff*
 shore top sediments, crustal minerals, 267
 salt leaching, 257
 Deep-water wave height, 419
 Deltaic deposits, 599
 Dendritic drainage pattern, 546
 Descending jet, 490
 Detached breakwaters, 534
 Diagenetic processes, carbonate sediments, 294
- Directional spectral wave generator (DSWG), 169
 Dissipative beach, 438
 Dissolved organic matter, color in water, 359
 Distributaries, delta, 597
 Dolos concrete armor, shore stabilization, 179
Donax, shells, 284, 560
 Dorso-ventral length (D.V.L.), 39
Dosinia, bay mollusc, 286
 Drift
 erosion, 691
 shoreline, 303
 Downwelling, 239
 Dredged material, open-water disposal, 489
 Dredging volumes, 398
 Drift
 cell, 402
 obstructions, sediment accumulation, 397
 velocity, 117
 Dune
 blowout, 553
 crest, 632
 plain, 556
 ridges, 181
 Dye tracking, currents, 75
- E**
- Echinoderm debris, beach sands, 467
Echinometra lucunter, 384
 Echosounder record, 480
 Economic analysis, beach nourishment, 137
 Edge wave, 116, 117, 438
 Effective sea level, 147
 Egyptian delta, erosion of, 245 *ff*
 Eigen-value, 459
 El Niño events, 239
 Electromagnetic radiation, relation with water, 353
 Electronic bathythermograph, 505
 Empirical Orthogonal Functions (EOF), 458
 Endolithic
 algae, 381
 cyanophyta, 384
 Eolianite. *See also*-Aeolianites
 Eolian strips, 86
 Ephemeral
 streams, 544
 tidal inlet, 301
 Epilithic algae, 392
 Episodic floods, Chesapeake Bay, 1
 Equilibrium
 beach profile, 631
 mode, suspended particles, 347
 profile, 629
 shear stress, 219
 Erosive activity, due to chitons, 384
 Estuarine
 deposits, Argentina, 59
 fill, 546
- mud, deposition rates, 11
 marsh sediments, compaction of, 451
 water, turbidity, 2
 Extra-tropical depression, 229
 Extratropical storm frequency, 418
- F**
- Falling sea level, application of the Bruun Rule, 643
 Fatty acids. *See also*-Aquatic fatty acids
 Flesh weight, cadmium concentration, 49
 Flocculation mode, estuarine sediments, 346
 Flood
 currents, inlets, 306
 protection levees, 589
 Flood-ebb cycles, Chile, 98
 Fluvial marshes, 654
 Foraminifera debris, beach sands, 467
 Forced wave breaking, 536
 Foredunes, origin of, 181 *ff*
 Foreshore sediments, 469
 Forest water levels, coastal areas, 591
 Francolite, carbonate-fluorapatite species, 373
 Freshwater peat, 653
 Fringing estuarine marshes, evolution of, 449
- G**
- Gastropod grazing, 391
 Geomagnetic Pole Position (GPP), 667
 Ghyben-Herzberg
 lenses, ground water, 139
 Principle, 139
 Glacial
 discharge, Chile, 93
 meltwater, impact on currents, 99
 Glacier snout, 95
 Glaciomarine sediment, 656
Glycymeris, shells, 560
 Goethite, 373
 Gorge channel, 687
 Grain size
 distribution, berm/backshore, 469
 variation
 beach sediments, 27 *ff*
 rivers-estuaries, 8
 Grazing organisms, 381
 Great Ash Wednesday Storm of 1962, 417
 Great Lakes phenomenon, 638
 Gypsum
 dissolution, 267
 precipitation, 257
- H**
- Halite

- precipitation, 256
saturation, 262
- Hand auger cores, 650
- Hard dune, 130
- Hard protection, coastal engineering, 130
- Hasselman theory, 276
- Heavy metal analysis, in organic materials, 40
- Heavy minerals
in beach sediments, 472
Nile delta, 484
- High-energy wave events, 230
- Hindcast data, wave, 210
- Holocene deposits, Argentina, 63
- Hopper-dredge disposal, dredged material, 492
- Hydraulic
conductivity, 140
functions, shore protection works, 535
pipeline dredge, 223
- Hydrologic cycle, relation to sea level, 274
- I**
- Icelandic Harbor Authority (IHA), 207
- Icelandic pressure cells, 208
- Idku coast, Nile delta, 485
- Incident wave transformation, 436
- Infragravity wave, 116
velocity field, 438
- Inlet
currents, 305
hydraulics, 305
morphodynamics, 308
- Inlet-throat
cross-sectional area, 304
surface currents, 305
- Inorganic
accretion, in salt marshes, 607
suspended sediment (ISS), 17, 607
- Inshore topography, 230
- Instantaneous mass flux (IMF), 19, 608
- Internal tide, 619
- InterTropical Convergence Zone (ITC), 573
- Interstitial solution, 264
- Intertidal
beach volume, 304
escarpment, 385
notches, 467
shoals, 307
zone, marine cementation, 290
- Intracoastal Waterway (Florida), 281
- Intrapeloidal sparite, 290
- Iron flocculation, estuarine sediments, 347
- ISS flux, 19, 607
- J**
- Japanese Coastal Law, 531
- Jetty alignment, studies of, 175
- Jetty-improved inlets, 689
- Jonsson's friction factor, 538
- Jordan River system, 257
- Juncus gerardii*, 653
- K**
- Kelvin wave, 239
- L**
- Laguna, current velocities, 100
- Land subsidence, extraction of groundwater, 576
- LANDSAT multispectral scanner, 2
- Landslide cliffs, 405
- Larus argentatus*, 200
- Leaky modes (waves), 116
- Leaky waves, 438
- Leaside erosion, coastal structures, 677
- Liman coasts, 412
- Linear
bars, 117
long wave theory, 538
shore parallel bar, 439
- Liquidambar styraciflua*, 591
- Lithotrypa dorsalis*, 385
- Littoral
drift shores, 691
dune sand, Egypt, 290
- Live heel depth (L.H.D.), 39
- Long wave generation, model for, 439
- Longshore
currents, 308
rhythmicity, 117
- Low marsh, 649
- Low-frequency motions, surf zone, 439
- Low-tide level terraces, widths, 387
- Lucina*, bay mollusc, 284
- M**
- Magnetostratigraphy, coastal deposits, 673
- Marginopora*, 471
- Marine
biota, heavy metals in 37 ff
carbonates, cementation, 289
depositional environments, phosphatic sediments, 369
deposits, Argentina, 59
education, 4(1)ii
flora, metals in, 53
lipid biosynthesis, 565
transgression, Victoria, 183
- Markward-Wilson optimization iterative algorithm, 276
- Marsh
cycles, 447
fringing, 449
peat, 653
- salt, 607, 649
sediments, 449
shoreline, geomorphic environments, 449
vertical accretion, 447
- Material budget calculations, 633
- Material budgets, 632
- Maximum turbidity zone (MTZ), 339
- Mean tidal range, 306
- Mechanical erosion, 382
- Micro-based ship-borne data logger, 503
- Microprocessor-based tide-measuring system, 504
- Microprocessors design, 499
- Microspar, 290
- Mid-Wisconsin deposits, Argentina, 63
- Mini-sparker, 371
- Molluscs
Shark Bay (Western Australia), 39
leaching cadmium from, 45
- Monte Carlo simulation, statistical procedure, 436
- Morphological wavelength, 117
- N**
- National Weather Service, 419
- Nearshore
bar dynamics, 115 ff
bars, 115
gradient, 125
profile, 222
sediment budget, 382
- Nerita*, 384
- Net shore-drift, 395 ff
- New England salt marshes, 649
- Nile River
discharge rates, 246
hydrology of, 246
sediment load, 246
- Nile delta coastal plain, 483, 597
- Nodal point, 636
- Northeasters, coastal storms, 417
- Nourishment, in Denmark, 683
- Nyssa aquatica*, 591
- O**
- Ocean
level, models simulating its fluctuations, 273 ff
tides, 306
- Oceanographic instrumentation, 499
- Ocypode* (ghost crab), 558
- Offshore bars, 289
- Organic suspended sediment (OSS), 17
- Orthophosphates, adsorption onto oxy-hydroxides, 339
- OSS flux, 19
- Overwash sediment, 418
- Oyster bar, 282
- Oysters, Shark Bay (Western Australia), 44

Oysters, zinc & copper concentrations in, 51

P

Paleochannels, 544
 Paleodrainages, 547
 Paleotopography, Pleistocene, 558
 Pamlico shoreline, 282
 Parallel dune ridges, 183
 Peat deposits, 653
 Pebble abrasion, role of seawater, 103
Peneroplis, 471
 Penholoway shoreline, 282
 Phosphate deposits, offshore, 369
 Phosphatic sediments, offshore, 376
Pinctada carchariarium, 37
 Placer deposits, Congo, 369
 Pocket beach, 69
 Pond-letting, 302
 Post-glacial sea level, the Americas, 81
 Profile
 adjustment, Lake Michigan, 635
 dumping, 222
 nourishment, 219 *ff*
 Progressive edge waves, 117

Q

Quaternary shorelines, Soviet bibliography, 703 *ff*
Quercus nigra, 591
Quercus nuttalli, 591
Quinquiloculina, 471

R

Recharge, ground water, 146
 Reef
 banks, 467
 platforms, 467
 Reflective beach, 438
 Release zone, dredged material disposal, 490
 Remotely sensed radiance of water, 356
 Revetment
 dune protection, 132
 foot erosion, 684
 Rhizomes, 186
 Rhythmic topography, 117
 Ridge-and-depression topography, 553
 Rip currents, 73
 Ripple marks, 220
 Riprap slope, 438
 "River of sand concept," 84
 Rockfall cliffs, 405
 Rocky shore deposits, 558
 Rosetta Nile mouth, 485
 Rumanian shores, erosion rates, 407
 Rundown, on beaches, 438

S

Salem Limestone, 383
 Salt
 intrusion, coastal areas, 580
 marshes, US east coast, 607
 Sand
 bar, 282
 beach composition, 465
 bypassing, table of plants or arrangements, 688
 dune. *See also*-Dune
 excavation from beaches, 575
 storm-thrown, 190
 waves, 556
 Sandy forelands, 181
 Sangamon Interglacial, 667
 Sangamon(?) deposits, Argentina, 63
 Sea
 birds. *See also*-Avian distribution
 dikes, Japan, 533
 level
 human response to rise, 130
 rise, rates, 451
 tilt, 147
 two-sea level problem, 140
 Sea-surface temperature, relation to high-tide beach change, 229
 Seagrass bank sedimentation, 560
 Sediment
 budgets, 11
 flux, coastal marshes, 17
 Sedimentary
 environment, Little Sarasota Bay (Florida), 279 *ff*
 prism, 398
 Semidiurnal oscillation, 619
Sepia (cuttlefish bone), 558
 Setup, across surf zone, 437
 Shelf waters, oscillatory flow, 617
 Shelly beaches, Victoria (Australia), 181
 Shoal growth, migration, 303
 Shore Protection Manual, 335
 Shore protection works in Japan, 531 *ff*
 Shore-drift interference, 411
 Shoreline
 dynamics, 310
 terraces, Dead Sea, 259
 Sidescan sonar record, 479
 Silver Bluff shoreline, 282
 Sounding lines, 477
 Soundings, 458
 Southern Oscillation, 239
Spartina alterniflora, 18, 449, 544, 610, 649, 653, 654
Spartina patens, 654
Spartina zones, salt marshes, 18
Spinifex, germination, 186
Spirula (rams horn shell), 558
 Spit growth, 397
 Splash touch-down point, waves, 538
 SPM, suspended particulate matter, 339
 Sponge chips, 385
 SSC, suspended sediment concentration, 351

Stand-by conditions, coastal protection, 132
 Standing wave
 model for, 439
 periods, 124
 Static equilibrium, beach condition, 132
 Steady-state lift theory, 693
 Stokes law, 220
 Storm wave events, 123
 Storm-thrown sand, 190
 Strand litter, wave-deposited zone, 191
 Sub-bottom profiler, 371
 Submerged
 breakwaters, 534
 terraces, 449
 Subtidal
 inshore, beach zone, 556
 notches, 381
 SUPERDUCK, experiment, 168
 Supratidal platform, 384
 Surf
 action, on rocks, 106
 beat, 123
 zone
 parameters, 307
 turbulence, 440
 Surface profiler, 382
 Suspended particulate matter (SPM), 339
 Suspended sediment
 Chesapeake Bay, 5
 concentration (SSC), 351
 in coastal waters, 353
 solids concentration, water column, 491
 transport, 124
 Swale
 beach ridge, 82
 interdunal, 191
 Swash
 beach zone, 556
 oscillations, beach, 439
 ridge, 81
 zone, 438

T

Tagelus, bay mollusc, 284
 Talbot shoreline, 282
Taxodium distichum, 591
Tellina, bay mollusc, 285
 Terrigenous phosphate, in gravel, 284
Thais haemastoma, 669
Thalassiosira weissflogii, 568
 Three-dimensional effects, Bruun Rule, 643
 Tidal
 currents, 93, 282
 elevations, 306
 inlet-drainage basin systems, evolution of, 543 *ff*
 stability, 687
 stabilization, 301

- pools, 382
 prism, 306, 543, 690
 range, 306
 rivers, Virginia, 447
 water flux, 610
 wetlands, nutrients in, 339
- Tide gage, 305
 Tidewater glaciers, 95
 Tombolo, 558, 650
 Tosca (calcrete), 670
 Tracer experiments, currents, 641
 Transgressive deposits, Argentina, 667
 Transitional marsh, 653
 Transmissometer, 491
 Triacylglycerols, neutral marine lipid, 565
 Tropical estuary, 475
 Tumbling experiments, pebble abrasion, 107
 Two-sea level problem, 140
- U**
 Underfit streams, 655
 Undertow, 437
 Upwelling radiance, 2
- V**
 Velocity-time curves, currents, 98
 Vibracore samples, 371
- Victorian coast, 181
 Volume attenuation function, 354
 Volume scattering function, 354
- W**
 Walker circulation, 239
 Wash-over ridge, 81
 Water
 elevation, 306
 samples, heavy metals in, 53
 Water/atmospheric boundary, 359
 Waterway Experiment Station (WES), 166, 337
 Wave
 climate
 Florida, 83
 Jamaica, 71
 conditions, Jamaica, 72
 envelope, 439
 field, 76
 flumes, 171
 heights
 calculated versus measured, 537
 extreme, 211
 hindcast model grid, Pacific Ocean, 178
 hindcasting, 210
 measurement, in Iceland, 207 ff
 overtopping rates, 537
 overwash, 308
- recording, 213
 runup, on beaches, 438
 standing, 439
 transformation, 435
 uprush, on beaches, 438
 Wave-activated bank sedimentation, 560
 Wave-dominated bank sedimentation, 560
 Wave-erosion rates, 405
 Wave-washed slump blocks, 657
 Waverider-buoy, 118
 Wax esters, neutral marine lipid, 565
 Weibul distribution, 211
 Weiner process, 276
 Weir
 models, 537
 jetties, model studies, 175
 WES, Waterways Experiment Station, 166
 Wicomico shoreline, 282
 Wind-blown sand, 190
 World ocean level, changes in, 273
- Z**
 Zero-crossings, drift velocity, 117
 Zero-order Bessel-function, 117
Zidona angulata, 669
 Zonal protection works, 534