## **List of Entries**

a abduction abiotic ablation ablation zone above-ground productivity abrasion abrupt climatic change abscissa absolute counting absolute sea level absolute temperature absorption absorption spectrum abstraction abyssal accelerator mass spectrometry (AMS) dating accessory mineral acclimatisation accommodation space accordant summits accretion accretionary complex acculturation accumulated temperature accumulation area ratio (AAR) accumulation rate accumulation zone accuracy acid acid deposition acid mine drainage acid precipitation acid rain acid soils acid sulfate soils

acidification

acidity African Humid Period acidity record of volcanic eruptions Afro-alpine zone after present (AP) Acrisols acrotelm aftershock activation function active continental margin age calibration active layer age-depth models active volcano aggradation actualism aggregate stability adaptation aggregation adaptation of people aggressive water adaptionist approach agrarian civilisation adaptive capacity agricultural abandonment adaptive cycle agricultural history agricultural impact on climate adaptive management adaptive radiation agricultural impact on adhesion geomorphology agricultural impact on soils adiabatic processes agricultural intensification adjacency adsorption agricultural origins advection agricultural revolution aeolation agricultural waste aeolian agriculture aeolian sediments agrochemicals/agrichemicals agroclimatology/agrometeorology aeolian zone aeolianite agrodiversity aerial photography agro-ecological zone aerobic agro-ecology aerobiology agro-ecosystem aerology/aeronomy agroforestry aerosols agronomy aesthetic degradation AIDS air capture (AC) aesthetics aestivation air mass afforestation air pollution afforestation: ecological impacts air quality afforestation: impacts on air subsidence hydrology and air temperature geomorphology airborne remote sensing

anatomically modern

humans (AMH)

airfall	ancient woodland	applied science
airflow types	Andosols	appropriate technology
airshed	angiosperms	aquaculture
alas	angle of repose	aqualithic
albedo	anhysteretic remanent	aquatic ape theory
Albeluvisols	magnetisation (ARM)	aquatic environment
algae/algal analysis	animal diseases	aqueduct
algal bloom	animal remains	aquiclude
algorithm	annotation	aquifer
alien species	annual	aquitard
Alisols	annual mean air temperature	arboreal
alkali	annual moraines	arboreal pollen (AP)
alkaline soils	annual variability	arborescent
alkalinity	annually laminated sediment	arboriculture
alkalisation	annually resolved record	arc
alkenones	annular mode	Archaea
allele	anomalies	Archaean
allelopathy	anoxia/anoxic	archaeobiology
allergen	antagonism	archaeoglaciology
Allerød Interstadial	Antarctic	archaeological chemistry
allochthonous	Antarctic convergence	archaeological geology
allocyclic change	Antarctic cooling and warming	archaeological prospection
allogenic change	Antarctic environmental	archaeological timescale
alluvial architecture	change	archaeology
alluvial deposits	Antarctic Front	archaeomagnetic dating
alluvial fan	Antarctic Oscillation (AAO)	archaeomagnetism
alluvial fill	antecedent drainage	archaeometry
alluvial soils	antecedent soil moisture	archaic humans
alluvial stratigraphy	anthracology	architectural element
alluviation	anthrobleme	analysis
alluvium	anthrome	archive
along-track direction	anthropedogenic processes	Arctic
alp	Anthropocene	Arctic environmental change
alpine zone	anthropocentrism	Arctic Front
alternative energy	anthropochore	Arctic haze
alternative stable states	anthropogene	Arctic Oscillation (AO)
alternative technology	anthropogenic	Arctic warming
altimetry	anthropogenic hazards	ard marks
altitudinal zonation	anthropogenic indicators	area generalisation
aluminium (Al)	anthropogenic soil horizons	area labels
amber	anthropogeomorphology	area patch generalisation
amendments	anthropology	arenaceous
amensalism	anthroposphere	arenite
americium-241 dating	Anthrosols	Arenosols
amino acid dating	antibiotic	areography
amorphous	anticyclone	argillaceous
amplitude	antitrades	argillite
anabranching	ants	argon-argon (Ar-40/Ar-39)
anaerobic	aphelion	dating
analogue method	aphotic zone	aridity
analogue model	apophyte	aridland
analysis of covariance (ANCOVA)	apparent age	aridland: past environmental
analysis of variance (ANOVA)	apparent mean residence	change
anatomically modern	time (AMRT)	aridland vegetation

time (AMRT)

apparent polar wander (APW)

aridland vegetation

arkose

LIST OF ENTRIES ix

autotrophic organism below-ground productivity armouring autovariation bench terrace arroyo arsenic (As) avalanche benthic artefact/artifact avulsion benthos axiom bias artesian artificial azimuth bidirectional reflectance artificial ground Azolla interval distribution function (BRDF) artificial shoreline azonal soil big bang asbestos binge-purge model b2k bio-accumulation ash content back-arc bio-archaeology ash fall ash flow background level biochar background rate biochemical oxygen aspect backscattering demand (BOD) assemblage bioclimatology assemblage zone bacteria association badlands biodegradability baiada biodegradation asteroids asthenosphere balance of nature biodiversity astrobiology balanced cross section biodiversity loss biodiversity offsets astrobleme Banded Iron Formation (BIF) astrochronology bank erosion bio-energy astrogeology bankfull discharge biofacies asymmetrical valley bar (coastal and river) biogasification Atlantic barchans biogenic carbonate Atlantic Multidecadal Oscillation barrier beach biogenic sediment (AMO) barrier island biogeocenosis/biogeocoenosis atmosphere barrier reefs biogeochemical cycles atmosphere-ocean interaction basalt biogeochemistry biogeography atmospheric composition base biogeomorphology atmospheric correction base level atmospheric dust base saturation bioherm atmospheric loading baseflow bio-indicators atmospheric sciences basement biokarst atmospheric tides basin analysis biological control biological half-life bathyal atoll bathymetry biological invasion atom atomic absorption bauxite biological magnification spectrophotometry (AAS) Bayesian statistics biological oceanography biological pollution Atterberg limits beach deposits attractor beach mining biological sciences beach nourishment biological species attribute attribution beach ridges biological weathering beach scraping biomagnetics auger biomantle autecology beachrock authigenic beamwidth biomarker autochthonous Beaufort scale biomass biomass burning autocompaction bed autocorrelation bedding biome autocyclic change bedform bionomenclature bedform stability diagram autogenic change biopiracy automatic weather bedload bioplastics station (AWS) bedrock bioprospecting autoregressive (AR) modelling bedrock channel bioregional management autoregressive moving average beetle analysis bioregionalism (ARMA) modelling before present (BP) bioremediation

biosecurity Brown Earth biosphere biosphere reserves brown field sites biostasy Brückner cycle Bruun rule biostratigraphy biotechnology bryophyte analysis biotic buffer zone bioturbation buffer zone in GIS birth rate buffering black shale building decay built environment black smoker blackbody radiation. bulk density blanket mire buried soil blockfields buried valley blocking bush encroachment

blowout blue holes

blue-water refugium

Blytt-Sernander timescale body fossil bog burst bog people

bolide

Bølling Interstadial

bolus bomb effect Bond cycle Bond events bones Boolean logic

bootstrapping Boreal

boom and bust cycles

boreal forest boreal forest history

borehole

bornhardt botanical gardens

bottleneck bottom water

boulder

boulder beach boulder clay boulder pavements

boundary conditions boundary layer bounding surface brackish water braiding

breakwater breccia brickearth

brine rejection bristlecone pine Bronze Age

brousse tigrée

bush meat business-as-usual scenario

C-3, C-4, CAM plants cadmium (Cd) cadmium:calcium ratio (Cd:Ca) caesium-137

Calcisols calcium (Ca) calcium cycle calcium-41 calcrete caldera

calendar/calendrical age/date calibrated-age dating calibration

calibration of radiocarbon dates calibration strategies

calving calving glaciers cambering

Cambisols cambium Cambrian

Cambrian explosion cancer

canonical correlation analysis canonical correspondence analysis (CCA) canyon

capitalism caprock captive breeding carbon assimilation carbon balance/budget

carbon capture and storage (CCS) carbon content of soils

carbon cycle

capillary action

carbon dioxide

carbon dioxide fertilisation carbon dioxide variations carbon emissions trading (CET)

carbon footprint carbon isotopes carbon monoxide carbon negative carbon offsets carbon sequestration carbon sink/source carbon taxation carbonate

carbonate compensation depth (CCD) carbonation Carboniferous carbon-neutral activity

carcinogen carnivore carr

carrying capacity

carse

Cartesian co-ordinates

cartography case hardening cash cropping cast

cataclasis catalyst catastrophe catastrophe theory catastrophic event

catastrophic rock slope failures

catastrophism catena

cathodoluminescence (CL)

analysis

cation exchange capacity (CEC)

cation-ratio dating

catotelm

causal relationship

cave cave art cave passage cave sediments

cay cement cementation cenote

Cenozoic (Cainozoic) census enumeration district Central England Temperature

Record (CET) centres of action

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centroid	airea dian abrathma	climatic geomorphology
century- to millennial-scale	circadian rhythms cirque	climatic geomorphology
variability	cirque altitude analysis	climatic impact assessment
ceramics	citizen science	climatic models
cereal crops	civil society	climatic modes
cereal pollen	civilisation	climatic modification
chamber sampler	cladistics	climatic normals
channel bar	Cladocera analysis	climatic oscillation
channel capacity	cladogenesis	climatic oscillation
channel change	class intervals	climatic reconstruction
channel gradient	classification	climatic scenarios
channel pattern	classification and regression trees	climatic system
channel shape	(CART)	climatic system
Channeled Scablands	clast	climatic variability
channelisation	clastic	climatic variation
chaos theory	clay	climatic vulnerability
charcoal	clay lunettes	climatogenetic geomorphology
charismatic species	clay minerals	climatology
charred-particle analysis	clay-humus complex	climax vegetation
chattermark	claystone	climbing ripple cross-
chelation	clay-with-flints	lamination
chemical analysis of soils and	clear cutting	climostratigraphy
sediments	climate	cline
chemical degradation	climate change	clitter
chemical denudation	climate change: potential future	closed system
chemical escape	ecological impacts	cloud computing
chemical oxygen	climate of the last millennium	cloud forest
demand (COD)	climate sensitivity	cloud seeding
chemical precipitation	climatic archive	clouds
chemical remediation	climatic change	clumped isotope
chemical time bomb	climatic change: past impact on	palaeothermometry
chemical weathering	animals	cluster analysis
chemocline	climatic change: past impact on	clustering
chemosphere	humans	coal
chemostratigraphy	climatic change: past impact on	coal balls
chemosynthesis	landforms and	coal-bed methane
chenier	geomorphological processes	coast
Chernozem	climatic change: past impact on	coastal barriers and bars
chert	soils	coastal change
chironomid analysis	climatic change: past impact on	coastal dunes
chlorine-36	temperate vegetation	coastal engineering structures
chlorofluorocarbons (CFCs)	climatic change: past impact on	coastal flood
chlorophyll	tropical vegetation	coastal (shore) protection
chlorosis	climatic change: potential future	coastal zone management
cholera	economic impacts	coastline
chott	climatic change: potential future	cobble
chronicles	geomorphological impacts	coccolithophores
chronofunction	climatic change: potential future	cockpit karst
chronology	impacts on soils	coefficient of variation
chronometric age	climatic classification	coevolution
chronometry	climatic discontinuity	cohesion
chronosequence	climatic engineering	cold-based glaciers
chronostratigraphy	climatic extreme	collapse of civilisations
chronozone	climatic fluctuation	collision zone
chrysophyte cyst analysis	climatic forcing	colloid

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consumer organism

colluvial fan consumption coral terraces containment colluvial history core colluvial processes contaminant core correlation colluviation contaminated land core scanning contamination of samples colluvio-aeolian corer colluvium content analysis core-satellite model contextual archaeology colonialism corestone colonisation continent CORINE land-cover map colorimetry continental crust Coriolis force continental drift coronal mass ejections (CMEs) colour measurement continental glaciation corrasion Columbian exchange combined sewer continental island correlated-age dating combustion continental margin correlation (stratigraphical) cometary impact continental rise correlation analysis continental shelf correspondence analysis (CA) comets commensalism continental slope corrosion continentality coseismic comminution common land contingent drought cosmic radiation community assembly contour cosmic-ray flux community concepts contour bund cosmogenic-nuclide dating community conservation contour current cosmology community ecology contour ploughing cosmosphere compaction contour ridging cost-benefit analysis comparative method contract agriculture counterurbanisation control sites coupled ocean-atmosphere competence competition controlled fire models complex response controlled tipping covariance complex system convection coverage coversand complexing convention crack propagation complexity conventional radiocarbon ages/ crag and tail composting dates conventional radiocarbon Crag deposits compound compound-specific carbon dating crater isotope analysis convergence, in evolution craton compression convergence and divergence, in creationism conceptual model creeping environmental succession concretion conversion problems (CEPs) condensation coombe rock Cretaceous condensation level critical level co-ordinate condensation nuclei co-ordinate system critical load confidence interval copper (Cu) critical rationalism confidence level Copper Age Cromerian Interglacial confirmation coppicing crop rotation confirmatory data analysis coprolite cropland confounding coquina cropmarks coral conglomerate cross-bedding coral and coral reefs: cross-calibration connectivity environmental reconstruction crossdating conservation conservation biology coral bleaching cross-lamination conservation laws coral reef cross-stratification conservative plate margin coral reef islands crowd disease consilience coral reefs: human impact and crude oil consolidation conservation crust constructive plate margin coral reefs: impact of tropical crustal subsidence

cyclones

crusting of soil

LIST OF ENTRIES xiii

diatomite

diatreme

diatoms/diatom analysis

cryopedology Davisian cycle of erosion dendroecology dendrogeomorphology cryoplanation De Geer moraines cryoplanation terraces de Vries effect denitrification Cryosols dead ice densitometry density cryosphere death assemblage cryostatic pressure death rate density dependence cryostratigraphy debris density flow cryotic ground debris avalanche density slicing denudation cryoturbation debris cone cryptokarst denudation chronology debris flow cryptotephra debris-mantled glaciers denudation rate cryptovolcano decadal-scale variability deposition crystalline decarbonisation depositional environment cuesta deciduous depression derived fossil cultivars decision-making cultivation decision-trees desalination declination (D) desalinisation cultural change cultural climatology décollement descriptive statistic cultural landscape decolonisation desert cultural resource decommissioning desert pavement management (CRM) decomposer desert vegetation culture decomposition deserted villages culturomics deduction desertification cumulisation deep convection desiccation desiccation cracking deep ecology curiosity desilication/desilification current deep water current ripple deep-sea drilling destructive plate margin curvature deflation detachment-limited erosion defoliant cuspate foreland detection deteriorated pollen cut-and-fill deforestation deforestation: climatic impacts determinism cuticle deforestation: ecological impacts deterministic model cyanobacteria deforestation: hydrological and cyclic regeneration detrital cyclicity geomorphological impacts detrital remnant magnetisation cyclogenesis deforestation: in the Holocene detritus cyclone deformation deuterium excess cyclostratigraphy degassing developing countries cyclothem deglaciation Devensian deglacierisation cymatogeny devolution degradation Devonian Dalton minimum degree days dew point Daly level dehesa diachronism dam de-industrialisation diachronous dambo Delaunay triangulation diagenesis Dansgaard-Oeschger diagnostic soil horizons dell (D-O) events delta diamagnetism delta deposits diamict, diamictite, Darwinism data acquisition dematerialisation diamicton data assimilation demic diffusion diapir demographic change diaspora data logger data quantity demographic transition diastem data summarisation demography diastrophism

denature

dendrochronology

dendroclimatology

database

dating techniques

daughter isotope

**xiv** LIST OF ENTRIES

downwelling

draa

dieback drainage basin earthquake prediction drainage density Earth-surface system dielectric constant drainage network Earth-system analysis (ESA) diet gap diffusion drape Earth-system science drawdown earthworms diffusionism digital elevation model/ dredging éboulis ordonnés matrix (DEM) drift ebullition digital number (DN) drifters eccentricity digital terrain model (DTM) driftwood ecesis dikaka dripline ecliptic dropstone ecocentrism dilatancy dilation/dilatation drought ecocline Diluvial Theory drought: impact on ecosystems ecocriticism diluvium droughts: historical records ecodesign drowned karst dimethyl sulphide (DMS) ecofact **Dimlington Stadial** drumlin ecofeminism dinoflagellate cyst dry deposition ecological collapse analysis dry farming ecological energetics dry ravel ecological engineering dip disaster dry valley ecological evaluation discharge dry weight ecological footprint discordant drainage drylands ecological goods discovery dune ecological group discriminant analysis duricrust ecological indicator Durisols ecological integrity disease disease burden ecological modernisation dust disjunct distribution dust: palaeorecords ecological response to dispersal **Dust Bowl** environmental change dissolution dust storm ecological restoration ecological services dissolved load dust veil ecological succession distributary dust veil dust veil index (DVI) ecological transition disturbance disturbed ecosystems ecological valuation diurnal changes dynamical systems ecological value divergence, in evolution dystrophic lakes ecology ecometabolomics divergent weathering diversity anomaly early instrumental ecophysiology diversity concepts meteorological records ecosphere early-Anthropocene diversity indices ecosystem collapse diversity-stability hypothesis hypothesis ecosystem concept early-warning systems ecosystem health DNA DNA: ancient Earth cycles ecosystem indicator Earth laws documentary evidence ecosystem management doline Earth observation (EO) ecosystem stoichiometry domestic waste earth pillar ecotone Earth revolutions domestication ecotope Earth science dominant species ecotourism dominant wind Earth spheres ecotoxicology donga Earth structure ecotype Earth system Doppler effect ecozone dormant volcano Earth tremor ecumene double planation surfaces earthquake edaphic downscaling earthquake engineering edaphic/edaphology/edaphon

earthquake intensity

earthquake magnitude

edge detection

edge effects

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T. I'		
Ediacaran	entities	environmental security
edifice collapse	entrainment	environmental stress
effective population size	entropy	environmental surprises
effective precipitation effluent	entropy and evolution environment	environmental thought environmental threat
**	environmental accident	environmentalism
eigenvalue	*	environment-human
ejecta Ekman motion	environmental archaeology	interactions
El Niño	environmental biology environmental burden	environmetrics
El Niño-Southern Oscillation	environmental challenges	
(ENSO)	environmental change:	enzymes Eocene
El Niño-Southern Oscillation:	contemporary importance	eoliths
impacts on ecosystems	environmental change: history of	eon
electrical conductivity	the field	epeirogeny
measurements (ECM)	environmental chemistry	ephemeral
electromagnetic distance	environmental crisis	epicentre
measurement (EDM)	environmental degradation	epidemic
electromagnetic spectrum	environmental disaster	epidemiology
electron microprobe	environmental disobedience	epifauna
analysis (EMPA)	environmental economics	epigenetic
electron paramagnetic resonance	environmental energetics	epiglacial landscape
electron spin resonance (ESR)	environmental engineering	epikarst
dating	environmental ethics	epiphyte
electron trap	environmental factors	episodic events
element	environmental footprint	epistemology
elfin woodland	environmental geography	epoch
elm bark beetle	environmental geology	epsilon cross-bedding
elm decline	environmental governance	equifinality
eluviation	environmental health	equilibrium concepts
eluvium	environmental history	equilibrium concepts in
emergence and emergent	environmental impact	ecological and evolutionary
properties	assessment (EIA)	contexts
emergent coast	environmental impact on people	equilibrium concepts in
emerging disease	environmental indicator	geomorphological and
emission control	environmental issue	landscape contexts
emissions	environmental justice	equilibrium concepts in soils
empiricism	environmental law	equilibrium line
enclosure	environmental liability	equilibrium-line altitude (ELA)
endangered species	environmental literacy	reconstruction
endemic	environmental management	equinox
endemic bird area (EBA)	environmental management	era
endogenetic	system (EMS)	erg
endokarst	environmental modelling	ergodic hypothesis
endorheic	environmental monitoring	erionite
endorheic lake	environmental movement	erodibility
energy (of environment)	environmental nuisance	erosion
energy balance/budget	environmental observation	erosion, in remote sensing
energy dispersive spectrometry	environmental philosophy	erosion pin
(EDS)	environmental physics	erosion plot
energy flow	environmental policy	erosion rate
energy recovery	environmental problem	erosion surface
energy resources	environmental protection	erosivity
energy security	environmental quality	erratic
englacial	environmental refugees	error
enhancement	environmental science	esker

LIST OF ENTRIES χvi

Euclidean distance measure

establishment, agencies of fabric firn fabric analysis firn line estuarine circulation

estuarine environments facet fisheries conservation and

fjord

etchplain facies management facies analysis fissile/fissility ethno-archaeology ethnobiology facies architecture fission track analysis ethnography facies association fission-track dating ethological (behavioural) facies model fissure eruption

adaptations facies sequence fjard facilitation

factor analysis flagship species euphotic zone eurytopic organism facultative Flandrian eustasy faeces analysis flaser bedding eutrophic failure flash flood eutrophication fallout floating bog/mire euxinia/euxinic fallow floating chronology

false colour composite floats evaporation evaporite false rings flocculation evapotranspiration falsification flood famine flood basalt

event deposit fault flood control measures

event stratigraphy fault propagation flood history

evergreen fault scarp flood magnitude-frequency

evolution fauna changes evorsion faunal provinces floodout floodplain excavation faunation

flood-risk management exfoliation feedback mechanisms

exhumed soil/landscape feldspar floodway fen flora exogenetic

floral provinces/realms/regions exokarst Fennoscandian ice sheet

exorheic Flores Man fermentation flotation exotic species expeditions ferralitisation flow slide experiment Ferralsols flow till experimental archaeology Ferrel cell fluid dynamics experimental design ferricrete fluidisation

exploration ferrolysis fluorescence spectroscopy

exploratory data analysis ferromagnetism fluorine dating

exponential growth fertigation flutes

exposure-age dating Fertile Crescent fluvial processes ex-situ conservation fertilisers fluviokarst extinct volcano fertility Fluvisols fetch fly ash extinction extinction crisis feudalism flysch

extirpation field capacity focus (earthquake)

field drainage extractive industry field research food chain/web extractive reserve extrapolation field systems food security

extreme climatic event fields Foraminifera filtering Foraminifera: analysis extreme climatic events:

impact on ecosystems fire frequency Foraminifera: extreme event fire history palaeoenvironmental

extreme weather event fire impacts: ecological reconstructions

extremophile fire impacts: geomorphological forb

extrinsic and intrinsic forcing fire scar forcing factor LIST OF ENTRIES xvii

	G	
fore-arc	Ga	geo-engineering
forebulge	gabion	geofact
forecasting foreland basin	Gaia hypothesis	geoglyph
forensic science	gallery forest	geographical information
foreshock	game management	system (GIS) geographical sciences
	gamma correction	
foreshortening forest clearance	gamma ray attenuation porosity evaluator (GRAPE)	geography geohazard
forest decline		geoheritage
forest fallow	gap analysis garden	geoid
	gas hydrates	geoidal eustasy
forest management formation (stratigraphical)	Gauss-Gilbert geomagnetic	geo-indicator
fossil	boundary	geological conservation
fossil fuels	Gaussian filter	(geoconservation)
fossil fuels: in climatic	Gaussian model	geological controls on
change	Gauss-Matuyama geomagnetic	environmental change
fossil Lagerstätten	boundary	geological evidence of
fossil record	gelifluction	environmental change
fossil soil	gelifraction/gelivation	geological record
founder effect	gene	geological record of environmental
Fourier analysis	gene pool	change
fracking	genecology	geological structures
fractal analysis	general circulation models	geological time
fractal dimension	(GCMs)	geological timescale
fracture	general circulation of the	geology
fracture zone	atmosphere	geomagnetic polarity reversal
fragipan	general system(s) theory (GST)	geomagnetic polarity timescale
fragmentation	generalised additive models	(GPTS)
freeze coring	(GAM)	geomagnetism
freeze-thaw cycles	generalised linear models (GLM)	geomatics
freezing front	genetic algorithms	geomedicine
freezing index	genetic drift	geometric transformation
frequency	genetic engineering	geomorphology
friction cracks	genetic fitness	geomorphology and environmental
fringing reefs	genetic pollution	change
front	genetically modified (GM) foods	geomorphometry
frost boil	genetically modified organism	geophysical surveying
frost crack	(GMO)	geophysics
frost heave	genetics	geophyte
frost mounds	genome	georeferencing
frost sorting	genotype	geoscience
frost weathering	gentrification	geosol
fruits and seeds	geo-archaeology	geosphere
fuelwood	geobotany	geostrophic current
Fujita-Pearson scale	geochemical proxies	geostrophic wind
fulgurite	geochemistry	geosyncline
fulvic acids	geochronology	geothermal
fumarole	geocryology	geotourism
functional factorial approach	geodesy	Gerlach trough
functional type	geodiversity	Ghijben-Herzberg principle
fungal hyphae analysis	geodynamics	gibber
fungi	geo-ecology	gibbsite
future climate	geo-ecosphere	gigantism
futures studies	geo-ecosystem	Gilbert-type delta
fuzzy logic	geo-edaphics	gilgai

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global warming impacts

globalisation glacial grounding line grounding-zone wedge glacial deposition glow curve glacial episode Gondwana ground-penetrating radar (GPR) glacial erosion groundwater gorge groundwater depletion glacial lake graben glacial landforms grade (of particles) groundwater mining groundwater pollution glacial maximum grade concept glacial protection concept graded bedding groundwater recharge glacial sediments gradient analysis group Glacial Theory gradualism growing season growth form glacial-interglacial cycle grain glaciation grain size groyne glaciation threshold graminoid Grundhoecker glaciel granular disintegration gruss/grussification Gulf Stream glacier granule glacier foreland graphic log gull gully graphical user interface (GUI) glacier milk glacier modelling grass cuticle analysis gully control dam grasses and grasslands glacier surge guyot glacier thermal regime graticule gymnosperms glacier variations gravel gypcrete glacierisation gravel-bed river Gypsisols glaciers and environmental change gravity anomaly gypsum glacio-aeolian processes grazing gyre glaciochemistry grazing history gyttja glacio-eustasy grazing: impacts on ecosystems glaciofluvial (the) Great Acceleration habitat habitat degradation glaciofluvial landforms (the) Great Migration habitat island glaciofluvial sediments green belts glacio-isostasy green economy habitat loss glacio-isostatic rebound green lists hadal Hadean (Priscoan) glaciolacustrine deposits green manure glaciological volcanic index (GVI) green politics Hadley cell glaciology Green Revolution haematite glaciomarine deposits greenhouse condition Hale cycle glaciomarine hypothesis half-life greenhouse effect glacioseismotectonics greenhouse gases halocline glaciotectonics greenhouse-gas forcing halogenated hydrocarbons glacis greening of society (halocarbons) gleying Greenland Ice-Core halophyte Chronology haloturbation Glevsols hanging valley global capitalism greenstone belt global change Haralick texture measures greigite global cooling Grentzhorizont hard engineering global dimming grey-scale analysis hardpan Global Earth Observation System greywacke hard-water effect/error grèzes litées of Systems (GEOSS) harrowing global environmental change grid harvest records global mean surface air harvesting grid cell temperature hazard grit global navigation satellite system gross primary productivity (GPP) hazardous substances (GNSS) ground ice hazardous waste global positioning system (GPS) ground measurement head global warming ground temperature headcut erosion

ground-based remote sensing

headward erosion

LIST OF ENTRIES xix

heat balance/budget hominin hydraulic geometry hominisation hydric soils heat island heathland homogeneous series hydrocarbons heavy metals homoiothermic organism hydrochlorofluorocarbons horizon scanning (HCFCs) heavy mineral analysis heavy oil horst hydroclimatology hedgerow removal horticulture hydrocompaction Heinrich events Hortonian overland flow hydrogen isotopes hemlock decline hotspot, in biodiversity hydrogeology hotspot, in geology hydrograph hepatitis hotspot, in remote sensing hydro-isostasy herb Hoxnian Interglacial hydrological balance/budget herbivore heredity hydrological cycle heritage human dimensions of hydrology hydrolysis herpetology environmental change herringbone cross-bedding human ecology hydrometeor heterotrophic organism human environment hydromorphic soils heterozygosity human evolution hydrophobicity hydrophyte heuristic algorithm human evolution: climatic hydropower hexapod influences hiatus human geography hydrosphere hibernation human health hazards hydrostatic pressure hidden surface removal human impact on climate hydrothermal hierarchy theory human impact on coasts hydrothermal vent human impact on environment hydrovolcanic eruption hieroglyph hygrophyte High Arctic human impact on hydrology high nature value farmland human impact on landforms and hygroscopicity high-activity clays geomorphic processes hyperconcentrated flow human impact on soil hyperthermals high-precision dating human impact on terrestrial high-resolution reconstructions hypothesis highstand hypsometry vegetation Himalayan uplift human impact on vegetation hysteresis histogram history historical archaeology human migration ice historical climatology human migration: 'out of Africa' ice ages historical ecology humanism ice cores historical evidence humanities ice dome historical geography Humboldtian science ice foot history humic acids ice scars Histosols humic substances ice sheet humid tropics: ecosystem ice shelf holism holistic approach responses to environmental ice stream change Holocene ice wedge Holocene climatic mode humidity Iceberg Drift Theory humification Holocene domain iceberg plough marks Holocene environmental humin icebergs hummocky crossice-contact fan/ramp change Holocene thermal optimum stratification (HCS) ice-contact slope Holocene timescale hummocky moraine ice-core dating ice-cored moraine holocoenotic environment humus holokarst hunger ice-dammed lake holomictic lake hunting, fishing and gathering ice-directional indicators homeorhesis hybridisation ice-flood history homeostasis hydration icehouse condition hominid hydraulic conductivity Iceman

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ХX

inferential statistic

infiltration

ice-margin indicators infiltration capacity inverted relief ice-melt layer invisible drought influenza ice-rafted debris (IRD) infochemical involutions ice-sheet dynamics Information Age (IA) ion information technology (IT) ice-sheet growth iron (Fe) ichnofacies infrared-stimulated luminescence Iron Age icing (IRSL) dating iron cycle idealism inheritance, in evolutionary irradiance identification (ID) irrigation idiographic science inheritance, in landscape context island arc igneous rocks inhibition model island biogeography ignimbrite isochron technique inlier illite inorganic matter isochrone illuviation insect analysis isolated system image classification inselberg isolation image enhancement in-situ conservation isolation basin image interpretation insolation isomer image processing insolation weathering isomorphic substitution image texture instantaneous field of isopach imbrication view (IFOV) isopleth impactite instrument calibration isostasy impacts of environmental change instrumental data isostatic decantation imperialism instrumental record isothermal remanent impermeable interaction indicator magnetisation (IRM) impervious Interactive Graphics Retrieval isothermal remanent impoundment System (INGRES) magnetism (IRM) impulse response interception isotope inbreeding depression interdisciplinary research isotope dendrochronology incised meanders interferometry isotope ratio isotopes as indicators of inclination (I) intergenerational equity incremental dating methods interglacial environmental change interglacial cycle isotopic depletion indeterminacy Intergovernmental Panel on isotopic enrichment index fossil Indian Ocean Dipole (IOD) Climate Change (IPCC) isotopic fractionation indicator species interhemispheric see-saw isotopologues indigenous peoples intermediate disturbance individualistic concept hypothesis Jaramillo polarity event indoor environmental change intermediate technology iet streams induction intermediate water jetty inductively coupled plasma intermediate-complexity modelling join operation atomic emission spectrometry International Tree-Ring Database joint (ICP-AES) (ITRDB) jökulhlaup inductively coupled plasma mass internationalisation of research jump dispersal Junge layer spectrometry (ICP-MS) interpluvial interpolation induration Jurassic interrill erosion industrial archaeology juvenile water industrial ecology interstadial Industrial Revolution intertropical convergence ka industrial waste zone (ITCZ) Kalman filter intraplate earthquake industrialisation kame industry intrazonal soil kame terrace infant mortality rate introduction Kampfzone infauna intrusion kaolinite

invasive species

inversion

karoo

karren

LIST OF ENTRIES **xxi** 

karst	landform	least squares regression
Kastanozems	landnám	Leptosols
K-cycles	landscape	lessivage
kettle hole	landscape archaeology	levée
keystone species	landscape architecture	Libby half-life
kinetic temperature	landscape ecology	lichenometric dating
Kirchoff radiation law	landscape evaluation	LiDAR
k-means clustering	landscape evolution	life assemblage
knickpoint	landscape geochemistry	life expectancy
knock and lochan topography	landscape management	life form
knowledge	landscape mosaic	life zone
knowledge-based systems	landscape science	life-cycle assessment (LCA)
komatiite	landscape sensitivity	light rings
koniology	landscape units	lignin phenols
kriging	landslide	liman
Krummholz	landslide dam	limestone
K-selection	landslide frequency	liming
K-T boundary	landslide hazard	limiting factors
kurtosis	landsystem	limnic eruption
	landuse	limnogeology
La Niña	landuse capability classification	limnology
label	landuse change	line reduction
labile pool	landuse impacts on hydrology	lineage
laboratory science	landuse impacts on soils	linear interpolation
lacustrine sediments	landuse planning and management	linear-mixture modelling
lag deposit	lapilli	lineation
lag time	lapse rate	linguistic dating
lagoon	large igneous province (LIP)	lipids
lahar	laser	liquefaction
lake	laser-induced	liquid limit
lake stratification and zonation	fluorescence (LIF)	liquidisation
lake terrace	Last Glacial Maximum (LGM)	lithalsa
lake-chemistry reconstructions	Last Glaciation	lithic
lake-level variations	Last Interglacial	lithification
lakes as indicators of	Late Glacial environmental change	lithofacies
environmental change	late-Holocene climatic	lithology
Lamarckism	deterioration	lithosphere
laminar flow	latent heat	lithostratigraphy
laminated lake sediments	lateral accretion	litter
laminated marine sediments	laterite	Little Ice Age
lamination	Laurentian/Laurentide Ice Sheet	littoral zone
land	lava	living fossil
land bridge	lava dome	Lixisols
land cover	lava flow	loading
land degradation	lava plateau	local climate
land drainage	lava tube	local glaciation
land evaluation	law	local operator
land reclamation	leachate	Loch Lomond Stadial
land restoration	leaching	lodgement till
land subsidence	lead (Pb)	loess
(the) land system	lead and lag	LOESS regression
land transformation	lead isotopes	loess stratigraphy
land uplift	lead-210 dating	log
land-change science	leaf area index (LAI)	logging
landfill	leaf physiognomy	logical positivism

xxii LIST OF ENTRIES

mangrove

mangrove succession

mechanical soil conservation long waves mangrove swamps: human longitudinal dune impacts measures longshore drift mangrove swamps: impact of Mediaeval Warm Period look-up table tropical cyclones medical science mangrove swamps: impact of Mediterranean environmental loss on ignition (LOI) Low Arctic tsunamis change and human impact Mediterranean landscape evolution low-activity clays mantle lowstand mantle plume Mediterranean-type climate luminescence dating manufacturing industry Mediterranean-type vegetation lunar cycles megadrought map generalisation Lusitanean floral element megafan Luvisols map projection megafauna lynchet marching desert concept megafaunal extinction lysimeter marginal areas megaflood marginal basins megafossil lysocline mariculture megalake marine band megalith Ma maar marine cloud whitening (MCW) megaripple megathrust earthquake machair marine conservation macroclimate marine geology megaturbidite macro-ecology marine isotopic stage (MIS) meltout till macro-evolution marine palaeoclimatic meltwater meltwater channel macrofossil proxies macronutrients marine pollution member Madden-Julian oscillation (MJO) marine sediment cores mercury (Hg) marine sediment cores: results made ground meridional flow meridional overturning circulation magma marine sediments magnesium:calcium marine-based ice sheet (MOC) marker horizon mérokarst ratio (Mg:Ca) meromictic lake magnetic anomaly Markov process magnetic excursion marl mesa marsh mesoclimate magnetic field magnetic grain size mass balance mesocosm magnetic hysteresis mass extinctions mesocratic phase magnetic induction mass movement processes Mesolithic Mesozoic magnetic intensity mass spectrometer magnetic moment mass wasting Messinian magnetic remanence Massenerhebung effect metadata metaknowledge magnetic secular variation massive magnetic susceptibility master chronology metal pollution material culture metals in environmental history magnetisation magnetite materials detoxification metamorphic rocks metapedogenesis magnetometer materials substitution metaphysics magnetostratigraphy matrix maturity magnetozone Maunder minimum metapopulation model meadow magnitude-frequency concepts meteor mean annual air makatea island meteorite meteorite impact malacophyllous temperature (MAAT) malaria mean lethal dose (L50) meteoroids mean monthly temperature meteorological satellites Malthusian mammoth mean sea level meteorology managed realignment meander cut-off meteotsunami management meanders methane variations

measurement

mechanical denudation

methanogenesis

methodology

LIST OF ENTRIES **xxiii** 

microatoll	Mollusca analysis	nadir point
microclimate	monochromatic	nanism
microcosm	monoculture	nannofossils
microdendroclimatology	monogenetic	nanoscience
micro-erosion meter	monolith sampling	nanosensors
microfossil	monsoon	nanotechnology
microfossil analysis	montane forest	National Parks
microhabitats	Monte Carlo methods	native
microlith	monthly mean temperature	natural
micromorphological analysis of	montmorillonite	natural archives
sediments	moorland	natural areas concept
micromorphological analysis	mor	natural capital
of soils	moraines	natural capitalism
micromorphological analysis	morphoclimatic zones	natural change
of till	morphometry	natural disaster
micronutrients	morphostratigraphy	natural environment
micropalaeontology	mosaicing	natural environmental change
microresidual fraction	motu	natural environmental sciences
microscopy	mountain permafrost	natural experiment
microseism	mountain regions: environmental	natural gamma radiation
microvertebrate accumulations	change and human impact	natural gas
microwave radiometer	mud	natural hazards
microwave remote	mud cracks	natural networks
sensing (MRS)	mud drape	natural remanent
midden	mud volcano	magnetism (NRM)
Middle Ages	mudbelt/mudpatch	natural resources
mid-ocean ridge (MOR)	mudlump	natural resources management
migration	mudrock	natural selection
Migration Age	mudslide	natural vegetation
Milankovitch theory	mudstone	naturalisation
military impacts on environment	mulching	naturalised species
mineral	mull	nature
mineral cycling	multicollinearity	nature reserve
mineral magnetism	multiconvex landscape	NBS oxalic acid
mineral resources	multidimensional scaling	Neanderthal demise
mineralisation	multidisciplinary	neap tide
minerogenic sediment	multiple working	near-Earth object (NEO)
minimum critical size of	hypotheses	nearest neighbour
ecosystems	multiplicative model	near-infrared reflectance
minimum viable population	multiproxy approach	spectroscopy (NIRS)
mining and mining impacts	multisol	nebkha
Miocene	multitemporal analysis	needle ice
mires	multivariate analysis	negative feedback
misfit meander	multivariate analysis multivariate regression	nekton/nektonic/nektic
Mississippian	_	nemoral forest
mitigation	trees (MRT)	neocatastrophism
model	mummy	neocolonialism
moder	museums	neo-Darwinism
modern	muskeg	neoecology
modern analogue	mutagen	neo-evolutionism
modernism	mutation (MCP)	Neogene
Mohs' scale	mutual climatic range (MCR)	neoglaciation
molasse	method	Neolithic
molecular stratigraphy	mutualism	Neolithic Transition
molecule	mycorrhiza	Neoproterozoic

xxiv LIST OF ENTRIES

nudation

neotectonics nuée ardente ooze number of looks nepheloid layer open system net primary productivity (NPP) optical emission spectroscopy numerical analysis net radiation numerical-age dating (OES) optical remote-sensing network analysis nunatak neural network nunatak hypothesis instruments neutron activation analysis (NAA) nurse plant optically stimulated luminescence new forestry nutrient (OSL) dating newly industrialising countries nutrient pool optimisation oral history (NICs) nutrient status orbital forcing niche oasis hypothesis orbital tuning Nile floods NIMBY (Not-In-My-Backyard) object oriented ordinate objective knowledge ordination Nitisols nitrate (NO<sub>2</sub>) Ordovician objectivity nitrogen cycle obligate organic content nitrogen dating obliquity nitrogen fixation obrution organic farming nitrogen isotopes organic sediment observation nitrogen oxides observational data organochlorides nitrogen/nitrate analysis obsidian hydration dating organophosphates nitrogen-profile dating occult deposition oribatid mites nitrous oxide variations occupation layer/level oriented thaw lake nival zone ocean originality ocean acidification nivation orogenesis niveo-aeolian deposits ocean basin orogenic belt (orogen) ocean circulation orogeny nodule ocean currents orographic noise noise pollution orography ocean fertilisation nomadism ocean freshening osmosis nomothetic science ocean palaeocirculation osteology ostracod analysis non-arboreal pollen (NAP) ocean palaeoproductivity non-communicable disease (NCD) ocean palaeotemperature otolith non-destructive sampling ocean warming outbreak non-governmental organisation oceanic anoxic event outgassing oceanic crust outlet glacier (NGO) non-linear behaviour/dynamics oceanic forcing (of climate) outlier non-metric multidimensional Oceanic Polar Front (OPF) outwash deposit scaling oceanic sediments outwelling non-parametric statistics oceanic trench overbank deposit non-renewable resource overbank flow oceanicity oceanography overcultivation noösphere off-road vehicles normal distribution overdeepening normal polarity oil fire overfishing normal science oil shale overflow channel oil spill overgrazing normalisation Norse Greenland Settlements Older Dryas Stadial overhunting North Atlantic Oscillation (NAO) old-growth forest overkill hypothesis Olduvai event overland flow notch overlay analysis nuclear accident Oligocene nuclear energy oligotrophication overpopulation nuclear war ombrotrophic mire overshoot nuclear winter ontogeny/ontogenesis overtopping/overwashing nuclide ontology overturning

Oort minimum

oxidation

LIST OF ENTRIES XXV

oxygen	palaeontology	patterned ground
oxygen cycle	palaeoprecipitation proxies	payload
oxygen isotopes	palaeosalinity	peat and peatlands
oxygen variations	palaeosciences	peat erosion
ozone	palaeoseismicity	peat humification
ozone depletion	palaeoslope	peat stratigraphy
D 'C D 110 'II.	palaeosol	pebble
Pacific Decadal Oscillation	palaeotemperature proxies	ped modelfor
(PDO)	palaeotempestology	pedalfer pedestal rock
Pacific-North American (PNA) teleconnection	palaeothermometry palaeovalley	pediment
	palaeovelocity	pediplain/pediplanation
pack ice	palaeowind	pedocal
paddy soils pahoehoe	Palaeozoic	pedogenesis
palaeobiology	palimpsest	pedology
palaeobotany	palinspastic map	pedonetrics
palaeocean modelling	palmspastic map palsa	pedon
palaeocean moderning palaeoceanography	palsa paludification	pedosphere
palaeoceanography: biological	palustrine	pedosphere pedotransfer function (PTF)
	palynomorph	pedoturbation (P1F)
proxies		pelagic organism
palaeoceanography: physical and chemical proxies	pan	pelagic organism pelagic sediment (pelagite)
Palaeocene	panarchy pandemic	peneplain
palaeochannel	Pangaea (Pangea)	penetrability
palaeoclimatic modelling	parabiosphere	Pennsylvanian
palaeoclimatology	parabolic dune	percolation
palaeocommunity	paradigm	perennial
palaeocurrent	paradigiii paraglacial	periglacial
palaeodata	paraglaciation	periglacial environments
palaeodiat	paragiaciation	periglacial landforms and
palaeodose	paralithic contact	processes
palaeodrought	parallax	periglacial landscape
palaeodunes	parallel lamination	evolution
palaeoecology	parallel slope retreat	periglacial sediments
palaeo-ENSO	paramagnetism	periglacial trimline
palaeo-entomology	parameteorology	periglaciation
palaeoenvironment	parameter	periglaciofluvial system
palaeoenvironmental	parameterisation	perihelion
indicator	parametric statistics	perimarine
palaeoenvironmental	parasite	period
reconstruction	parent material	periodicities
palaeo-ethnobotany	parietal art	peri-urban
palaeoflood	parna	permafrost
Palaeogene	parsimony	permafrost degradation
palaeogeography	partial correlation coefficient	permafrost table
palaeoglaciology	particle-induced gamma-ray	permanent drought
palaeohydrology	emission (PIGE or PIGME)	permeable
palaeokarst	particulates	Permian
palaeolatitude	passive continental margin	Permo-Triassic
palaeolimnology	passive microwave remote sensing	peroxyacetyl nitrate (PAN)
Palaeolithic	Pastoral Neolithic	persistence
Palaeolithic: human-environment	pastoralism	persistent organic
relations	pasture	compounds (POCs)
palaeomagnetic dating	patch dynamics	perturbation
palaeomagnetism	pathogens	pervection
r	F	F

xxvi LIST OF ENTRIES

piedmont

pigments: fossil

poliomyelitis pervious pillow lava pilot survey political ecology pest pine decline pest control polie pollen accumulation rate pest management pingo pollen analysis pesticides pinning point petroglyph pioneers pollen assemblage zone (PAZ) pollen concentration petrography piosphere petroleum pipeflow pollen rain petrology piston sampler pollen sum P-forms pollutant pixel polluter-pays principle (PPP) рН placer deposit plagioclimax Phaeozems pollution Phanerozoic plague pollution adaptation plane bed pollution history phenology polychlorinated phenomenology planet phenotype planetary boundaries biphenyls (PCBs) polygenetic phi (φ) planetary environmental change -phile, -philous planetary geology polygon analysis -phobe, -phobous planetary interest polymorphism phosphate  $(PO_4^{3-})$ plankton/planktonic/planktic Polynesian colonisation phosphate analysis Planosols polyploidy phosphorite plant diseases population phosphorus (P) plant geography population cycles population dynamics phosphorus cycle plant macrofossil analysis population ecology photochemical oxidant plant pigment analysis photochemical smog plantation population explosion photochemistry plastic limit population growth photo-electronic erosion plastics population pyramid population viability pin (PEEP) plate margin photogrammetry plate tectonics analysis (PVA) photon Pleistocene pore ice photoperiod Pleniglacial pore water pressure photosynthesis plinthic horizon porous photosynthetically active radiation Plinthosols positivism Pliocene possibilism (PAR) Pliocene-Pleistocene transition phreatic zone postcolonialism phreatophyte plough layer postenvironmentalism phyletic gradualism plough pan/plow pan posthole phylogeography ploughing block postindustrialisation physical analysis of soils and ploughing/plowing postmediaeval archaeology postmodernism sediments plume pluridiscipliniarity physical degradation postnormal science physical geography pluvial post-structuralism physical oceanography poaching potable water physical weathering podzolisation potassium (K) Podzols potassium-argon (K-Ar) dating physiography phytogeography point potential phytogeomorphology evapotranspiration (PET) pointer years polar amplification potential natural vegetation phyto-indication phytoliths polar desert potentiation phytometric dating polar front potentiometric surface phytoplankton polar shore erosion potholes phytosociology polarimetry Preboreal

polarisation

polarity chron

Preboreal Oscillation (PBO)

Precambrian

LIST OF ENTRIES **xxvii** 

precautionary principle	ngauda nrayy annraash	rain shadow
precession	pseudo-proxy approach puddling	raindrop impact
precipitation	pugging	rainfall simulator
precipitation variations	pull-apart basin	raised mire/bog
precision	pumice	raised shorelines
predation	punctuated equilibria	rampa
predation predator-prey relationships	pyroclastic fall	random
prediction	pyroclastic flow	
prehistoric	pyroclastic material	range range adjustment
prescribed fire	pyroclastic surge	range management
		rangeland
presentism	pyrolysis pyrotechnology	Ranker
pressure group	pyrotechnology	rapid environmental change
pressure melting point	gamat	
pressure release	qanat	rapid-onset hazards
pretreatment	qoz	rare species
prevailing wind	quad tree	rarefaction analysis
primary forest	quality-of-life (QOL) indices	raster
primary mineral	quarrying	rates of environmental change
primary pollutant	quartz	rationalism
primary productivity	quartz grain surface textures	reaction time
primary succession	quartzite	reactivation surface
primary woodland	Quasi-Biennial	re-aeration
principal components	Oscillation (QBO)	realism .
analysis (PCA)	quasi-periodic phenomena	reconnaissance survey
principal components transform	Quaternary	recreation
principal co-ordinates analysis	Quaternary environmental change	recurrence surface
prion	Quaternary science	recycling
probability	Quaternary timescale	red beds
probability distribution	query language	Red Data books
prod mark	quick clay	redeposition
production	quickflow	reduction
productivity	quicksand	reductionism
proglacial lake	quota	redundancy analysis
progradation		reef
progressive desiccation	R software	reference area
projection	radar	reference standard
projective approach	radar remote-sensing instruments	reflectance
pronival rampart	radiance	reforestation
protected area approach	radiant temperature	refuge theory in temperate regions
protected areas	radiation	refuge theory in the tropics
Proterozoic	radiation balance	refugium
Protista	radiative transfer theory	regelation
protohistory	radioactive fallout	regeneration
protohominid	radioactive waste	regeneration complex
proton-induced X-ray	radioactivity	regional climatic change
emission (PIXE)	radiocarbon dating	regional climatic models (RCMs)
provenance	radiolaria	regionalism
provenience	radioluminescence dating	Regionally Important Geological
proximate cause	radiometer	and Geomorphological
proximity principle	radiometric dating	Sites (RIGS)
proxy climatic indicator	radionuclide	regolith
proxy data/proxy evidence/proxy	radiosonde	Regosols
indicators/proxy records	radon emanation	regression, marine
pseudokarst	rain flushing	regression analysis
pseudomorph	rain forest	rehabilitation

xxviii LIST OF ENTRIES

Saalian rejuvenation rhizosphere relational database rhythmite sabkha relative age ria Sackung relative density rickets safe operating space ridge and furrow Saffir-Simpson scale relative sea level relative-age dating rift valley Saharan dust relaxation Sahel relaxation time rip current salcrete relict riparian saline lakes relief ripple saline water religious beliefs riprap salinisation

remediation risk salinity remote sensing risk assessment salt Renaissance risk management salt caves river basin management salt dome Rendzina renewable energy river capture salt weathering river discharge variations saltation renewable resources repeat photography river diversion saltmarsh saltwater intrusion replication river lake

reproducibility river regime sample rescue archaeology river restoration sampling

research river terrace sand research design roche moutonnée sand bypassing

reserves rock creep sand dune encroachment reservoir effect rock cycle sand dune reactivation

reservoirs: environmental effects rock flour sand dunes residence time rock glacier sand ramp residual rock mass strength sand sea rock platform sand sheet residual deposit/landform residual strength rock stream sand volcano residue sand-bed river rock varnish RockEval sandrock resilience resilience framework rockfall sandstone rockshelter sandur resistance

resolution, in palaeoenvironmental rock-varnish microlamination sandwave reconstruction (VML) dating sapping

resolution, in remote sensing rodent midden saprolite resonance ionisation Rodinia sapropel spectroscopy (RIS) rogation index saprophyte resource Rogen moraines sarsen

respiration Roman Period satellite climatology response function roundness satellite orbits

response timer-selectionsatellite remote sensingrestorationrubification (rubefaction)saturation deficit

resurgence rudaceous saturation isothermal remanent retrodiction ruderal magnetisation (SIRM) retrogressive succession rudite saturation overland flow

return period ruminant savanna
reverse weathering runoff savannisation
revetment runoff coefficient scale

runoff processes

rheotrophic mire runout distance palaeoecological context rhexistasy rural decline palaeoecological context scale concepts in environmental

scale concepts: the

 $\begin{array}{ccc} \text{rhizocretion} & \text{rural development} & \text{change} \\ \text{rhizopod analysis} & R\text{-value, in pollen calibration} & \text{scalping} \\ \end{array}$ 

rheology

LIST OF ENTRIES **xxix** 

saanning alaatran	sediment	series
scanning electron microscopy (SEM)	sediment budget	service industries
scarification	sediment outget sediment coupling	set-aside scheme
scattering	sediment delivery ratio	sewage history
Schmidt hammer	sediment derivery ratio	shale
Schmidt-hammer exposure-age	sediment dirits	shale gas
dating (SHD)	sediment flux	shape
	sediment focusing	shape box
scholarship science	sediment gravity flow	shard
sciences	sediment influx	shear strength
scientific archaeology	sediment load	sheet erosion
scientific method	sediment routing	shell midden
Scientific Revolution	sediment sources	shell pavement
sclerochronology	sediment storage	shifting cultivation
sclerophyllous	sediment transport	shingle beach
scoria	sediment transport	ship log book records
scour marks	sediment types	shore displacement
scrub	sediment yield	shore zone
scurvy	sedimentary basin	shoreline
sea	sedimentary deposit	shrinkage methods
sea ice	sedimentary rocks	shrub
sea wall	sedimentary structures	shrubland
sea-floor spreading	sedimentation	SI units
sea-ice variations	sedimentological evidence of	sidereal date
sea-level change	environmental change	side-scan sonar
sea-level change: past effects on	sedimentology	sieve deposition
coasts	seed bank/depository	signal strength
sea-level change: past effects on	seep	signal-to-noise ratio (SNR)
ecosystems	segregated ice/segregation ice	significance level
sea-level indicators	seiche	silcrete
sea-level rise	seismic	silica
sea-level rise: potential future	seismic belt	silicate minerals
ecological impacts	seismic gap	silicon (Si)
sea-level rise: potential future	seismic reflection surveying	silicon cycle
geomorphological impacts	seismic refraction surveying	silt
sea-level rise: potential future	seismic stratigraphy	siltation
impacts on people	seismic surveying	siltstone
seamount	seismic waves	Silurian
seasonal drought	seismicity	silviculture
seasonality	seismology	simulation model
seasonality indicator	seismometer	single large or several small
seasonally frozen ground	selection pressure	reserves (SLOSS debate)
sea-surface temperature (SST)	selective breeding	singularity
seawater composition	selective cutting	sink
secondary ion mass spectrometry	self-organisation	site formation processes
(SIMS)	self-regulation	site-catchment analysis
secondary laterite	semi-arid	Sites of Special Scientific Interest
secondary mineral	semi-natural vegetation	(SSSIs)
secondary pollutant	sensitive clays	skewness
secondary productivity	sensitivity	slant range
secondary succession	sensitivity experiments	slope decline
secondary woodland	sequence stratigraphy	slope evolution models
secular variation	seral community	slope replacement
sedentary organism	sere	slope stability
sedentism	seriation	slope zonation models

XXX LIST OF ENTRIES

slopewash	soil regeneration	speleothems
sludge	soil resilience	Sphagnum
slump	soil series	sphericity
slush flow	soil stratigraphy	spheroid
small-island states (SIS)	soil structure	spheroidal carbonaceous
smallpox	Soil Taxonomy	particles (SCP)
smectite	soil texture	spheroidal weathering
smog	soil vulnerability	spit
snow and snow cover	soil water content	splash pedestal
snow avalanche	soil water retention	spline function
snow line	soil-forming factors	Spörer minimum
snow-avalanche deposits	soil-forming processes	spores
snow-avalanche impact landforms	soilmarks	spread, vectors of
snowball Earth	solar constant	spring
snowbed/snowbank/snowpatch	solar cycle	spring tide
snowmelt	solar energy	stability concepts: ecological
snowpack	solar flare	contexts
social construction	solar forcing	stable isotope
social impact assessment (SIA)	solar radiation	stable isotope analysis
social sciences	solar radiation management	stadial
societal benefit areas (SBAs)	(SRM)	stage
socio-ecological/environmental	solar wind	Stagnosols
models	sole marks	stand
socio-environmental	solifluction	standard method
dynamics	solifluction terrace	standard substance
sodium chloride	solodisation	standardisation
soft engineering	Solonchak	standing crop
soft-sediment deformation	Solonetz	stasis
soil	solstice	statistical analysis
soil age	solubility	statistical uncertainty
soil biota	solum	statistical-learning methods
soil classification	solute	stemflow
soil conservation	sorption	stenotopic organism
soil creep	sorting	steppe
soil dating	Southern Oscillation (SO)	stepped-combustion radiocarbon
soil degradation	space agencies	dating
soil development	space-based sunshade	stereoscopic vision
soil drainage	spaghetti data	sterilisation
soil emissions	spatial analysis	stewardship concept
soil erosion	spatial coherence	stillstand
soil erosion history	spatial filtering	stochasticity
soil exhaustion	spatial variation	stomach content
soil geography	speciation	stomata
soil horizon	species concept	stomatal analysis
soil loss	species richness	stomatal conductance
soil loss tolerance	species translocation	Stone Age
soil microprofiling device	species-area relationship	stone line
soil mining	specific heat	storm beach
soil moisture	speckle	storm hydrograph
soil moisture deficit (SMD)	spectral analysis	storm surge
soil pollution	Spectral Mapping Project	storminess
soil profile	timescale (SPECMAP)	storms
soil quality	spectrophotometer	strandflat
soil radioactivity	specular reflection	strandline
soil reclamation	speleology	strange attractor

LIST OF ENTRIES XXXI

thermal contraction cracking

strategic environmental super bounding surface tar sands super eruption taxon cycle assessment (SEA) strath terrace supercontinent taxonomy stratification supercooling technocentrism superficial deposits technological change stratigraphical column stratigraphical record supergroup technological paradox superimposed drainage stratigraphy Technosols stratosphere superimposed ice tectonic uplift-climatic change stratospheric aerosol injection supersaturation interaction support vector machine (SVM) tectonics (SAI) streamflow supraglacial teeth striation surface displacement tektite strike surface pollen teleconnection surface roughness teleology strip cropping strip lynchet surface sediment sampler stripping phase surface tension temperate climates surface water temperate forests stromatolite strontium (Sr) isotope ratio surface-age dating temperate glacier strontium isotopes surveying temperate grasslands strontium/calcium suspended load temperature palaeothermometry suspended-load river temporal change detection structural adjustment sustainability ten- to twelve-year structuralism sustainability science oscillation (TTO) structuration theory sustainability transition tensiometer sustainable agriculture structuring tephra sturzström sustainable consumption tephra analysis subarctic sustainable development tephrochronology Subatlantic sustainable fisheries tephrochronometry sustainable forestry tephrology Subboreal tephrostratigraphy subclimax sustainable production subcutaneous flow sustainable vield teratology termination subduction suture subfossil swamp termites subglacial swath terra fusca subglacial basin symbiosis terra preta subglacial lake synchronisation terra rossa sublimation synchronous terracette submarine canyon synergism terracing submarine fan synfuel terrain submarine landslide syngenetic terrane synoptic catalogues terrestrial environment submergent coast sub-Milankovitch synoptic climatology terrestrial radiation synthesis indicator subsidence terrestrialisation subsistence agriculture synthetic biology terricolous subsurface temperature system terrigenous subtropical environments system (stratigraphical) terrorism systems analysis Tertiary succession Suess effect testate amoebae suffosion tabula rasa Tethys taele gravels sulfation tetrapod sulfidic soils tafoni texture (in sediments and rocks) sulfur cycle tailings theory thermal analysis sulfur dioxide talik sulfur isotopes talus thermal capacity

taphonomy

sunspot cycles

xxxii LIST OF ENTRIES

towed vehicles

tower karst

toxicant

thermal erosion tropical cyclones: impact on toxin thermal expansion of the oceans trace element people thermal pollution tropical cyclones: mitigation and trace fossil thermal remote sensing adaptation trace gas tropical cyclones: prediction thermal-ionisation mass tracer spectrometry (TIMS) tracers: in the oceans tropical forest fires thermochronometry tracheidogram tropical grassland thermocline trackway tropical karst thermohaline circulation trade tropical peatlands Trade Winds tropical rain forest thermokarst tradeable emissions permits tropical seasonal forest thermoluminescence (TL) dating tradition tropical/tropical climate thermophilous trafficability tropopause/troposphere thermoremanent tragedy of the commons truncated soil magnetisation (TRM) training area truth thin-section analysis training set tsetse fly trampling tsunami thixotropy threatened species transfer function tuberculosis (TB) Three-Age System transform fault tufa threshold transgenic organism tuff throughflow transgression, marine tumulus thrust fault transhumance tundra tundra vegetation: human thúfur transhumanity tidal bore transient response impact tidal bundles tunnel valley translatent strata tidal energy transport impacts turbidite tidal rhythmite transport policy turbidity turbidity current tidalite transport-limited erosion turbulent flow tide gauge records trap tides tree line/limit turnover rate tree migration/spreading two-way indicator species analysis tidewater glacier tree of life (TWINSPAN) tiering tree ring typological sequencing till tree-line variations tillage tillite tree-ring index ultimate causes tilth trend ultrafiltration time transgressive triangular irregular umbrella species time-series analysis network (TIN) Umbrisols tin (Sn) triangulation system uncertainty tipline Triassic uncertainty principle tributary unconformity tipping point tolerance trimline unconventional petroleum tritium-helium dating underfit stream tolerance model tombolo trophic cascade uniclinal shifting tomography trophic level uniformitarianism tool marks trophic-dynamic approach universality tropical and subtropical unloading topoclimate forests unnatural topography toponymy Tropical Atlantic upfreezing of clasts Variability (TAV) uplands tor tornado tropical cyclone uplift tourism tropical cyclones: impact on upscaling

ecosystems

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upwelling

upwelling radiolarian index (URI)

uranium-series dating

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wave refraction

X-radiography

volcanic explosivity index (VEI)

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(XRD) Younger Dryas Stadial zooarchaeology X-ray fluorescence zoogeography

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yardangs zonal index zoom yellow fever zonal soil zoonoses yield zonation zooplankton