

Andrews LTER Preferred Keyword List as of 1 December 2017

All information products (i.e., databases, publications, analytical tools and photos) are keyworded using the LTER Controlled Vocabulary (<http://vocab.lternet.edu>) list shown below. The list is structured as the national LTER Controlled Vocabulary, but specific Andrews theme keywords have been added. This list is hierarchical and includes 10 top-level keywords (categories), second-level descriptive keywords, and more finely-detailed keywords. Keywords should be selected from all representative top-level categories. The first two levels are often too vague and the most representative (finest level) keyword should be selected.

Top-Level Keywords

DISCIPLINES	2
ECOSYSTEMS	2
EVENTS	3
MEASUREMENTS	4
METHODS	6
ORGANISMS	7
ORGANIZATIONAL UNITS	8
PROCESSES	9
SUBSTANCES	10
SUBSTRATES	11

DISCIPLINES

AGRICULTURE	PLANT ECOLOGY	ATTITUDES AND PERCEPTIONS
SILVICULTURE	FOREST DYNAMICS	ECOSYSTEM SERVICES
BIOGEOCHEMISTRY	VEGETATION DYNAMICS	EMPLOYMENT
OCEAN BIOGEOCHEMISTRY	POPULATION DYNAMICS	ENVIRONMENTAL ETHICS
BIOLOGY	STREAM ECOLOGY	PARTNERSHIPS
DENDROCHRONOLOGY	SUCCESSIONAL DYNAMICS	POLITICS
GENETICS	TROPHIC DYNAMICS	PUBLIC ASSESSMENTS
MORPHOLOGY	ECONOMICS	PUBLIC PARTICIPATION
PHENOLOGY	EDUCATION	PUBLIC VALUES
PLANT PHENOLOGY	TRAINING	HYDROLOGY
PHYSIOLOGY	ENTOMOLOGY	INFORMATION MANAGEMENT
PLANT PHYSIOLOGY	GENOMICS	CYBERINFRASTRUCTURE
TAXONOMY	GEOGRAPHY	ECOINFORMATICS
CHEMISTRY	BIOGEOGRAPHY	INFORMATION MANAGERS
SOIL CHEMISTRY	GEOLOGY	INFORMATION SYSTEMS
SOIL SOLUTION CHEMISTRY	GEOMORPHOLOGY	METADATA STANDARDS
WATER CHEMISTRY	MINEROLOGY	LIMNOLOGY
CONSERVATION	HISTORY	PALEOLIMNOLOGY
DEMOGRAPHY	FIRE HISTORY	METEOROLOGY
ECOLOGY	HISTORICAL VALUE	CLIMATOLOGY
COMMUNITY DYNAMICS	LAND USE HISTORY	CLIMATE CHANGE
ECOSYSTEM ECOLOGY	HUMAN DIMENSIONS	MORPHOMETRICS
FOREST ECOLOGY	AESTHETICS	OCEANOGRAPHY
PALEOECOLOGY	ARTS AND HUMANITIES	

ECOSYSTEMS

AQUATIC ECOSYSTEMS	BEACHES	HAMMOCKS
ESTUARIES	DESERTS	MONTANE
INTERTIDAL	PLAYA	THERMOKARST
LAKES	DUNES	TUNDRA
OCEANS	FOREST ECOSYSTEMS	VOLCANIC
MARINE	FORESTS	WATERSHEDS
PONDS	BOREAL FORESTS	WETLANDS
REEFS	CLEARCUTS	BARRIER ISLANDS
CORAL REEFS	EXPERIMENTAL FORESTS	BOGS
RIVERS	MATURE FORESTS	FENS
STREAMS	OLD GROWTH FORESTS	FLOODPLAIN
HUMAN NATURAL SYSTEMS	TROPICAL FORESTS	MANGROVES
RIPARIAN ECOSYSTEMS	YOUNG FORESTS	MARSHES
TERRESTRIAL ECOSYSTEMS	GRASSLANDS	SALT MARSHES
ALPINE	MEADOWS	PEATLAND

EVENTS

BIOLOGICAL EVENTS

BUD BURST

FLOWERING

PHOTOPERIOD

RECRUITMENT

SEEDLING ESTABLISHMENT

DISTURBANCES

BURNS

DROUGHTS

EARTHQUAKES

EL NINO SOUTHERN OSCILLATION

FIRES

WILDFIRES

FLOODS

HURRICANES

LIGHTNING

MASS MOVEMENT

DEBRIS FLOWS

EARTHFLAWS

LANDSLIDES

STORMS

WINDTHROW

FROST

TIDES

MEASUREMENTS

ATMOSPHERIC PROPERTIES

AIR QUALITY

ATMOSPHERIC PRESSURE

CLIMATE

MICROCLIMATE

DEW POINT

NATURAL VARIABILITY

PRECIPITATION

INTERCEPTION

RAIN

SNOW ACCUMULATION

THROUGHFALL

VAPOR PRESSURE

HUMIDITY

RELATIVE HUMIDITY

WEATHER

WIND

WIND DIRECTION

WIND SPEED

CHEMICAL PROPERTIES

ACID NEUTRALIZING CAPACITY

ACIDIC

ALKALINITY

CARBON TO NITROGEN RATIO

CONCENTRATION

NITROGEN CONTENT

FOLIAR NITROGEN

SOIL NITROGEN

TOTAL NITROGEN

TOTAL DISSOLVED NITROGEN

PERCENT CARBON

PERCENT ORGANIC CARBON

PERCENT NITROGEN

PH

SOIL PH

REDOX

SALINITY

TOTAL ORGANIC CARBON

DECAY RATES

DISTURBANCE PROPERTIES

DISTURBANCE PATTERNS

FIRE SEVERITY

HURRICANE DAMAGE

ECOSYSTEM PROPERTIES

ALLOMETRY

BIOMASS

ABOVEGROUND BIOMASS

BELOWGROUND BIOMASS

MICROBIAL BIOMASS

CANOPY COVER

ECOSYSTEM RESPIRATION

NET ECOSYSTEM EXCHANGE

NITROGEN LIMITATION

NORMALIZED VEGETATION INDEX

NUTRIENT CYCLES

NUTRIENT BUDGETS

PLANT COVER

PRODUCTIVITY

PRIMARY PRODUCTIVITY

NET PRIMARY PRODUCTIVITY

ANNUAL NET PRIMARY PRODUCTION

FLUX

CARBON FLUX

EMISSIONS

GAS FLUX

HEAT FLUX

NITROGEN FLUX

HYDROLOGICAL PROPERTIES

HYDRAULIC CONDUCTANCE

SNOW

SNOW DEPTH

SNOW WATER EQUIVALENCE

STREAM ORDER

WATER CONTENT

SOIL WATER CONTENT

WATER LEVEL

LAKE LEVEL

SEA LEVEL

STAGE HEIGHT

WAVE HEIGHT

PHYSICAL PROPERTIES

BULK DENSITY

DENSITY

STAND DENSITY

DEPTH

SECCHI DEPTH

THAW DEPTH

DIMENSIONS

THICKNESS

ELECTRICAL CONDUCTIVITY

CONDUCTIVITY

SPECIFIC CONDUCTIVITY

FLUORESCENCE
IRRADIANCE
POROSITY
RADIATION
LIGHT
NET RADIATION
PHOTOSYNTHETICALLY ACTIVE RADIATION
SOLAR RADIATION
REFLECTANCE
ALBEDO
TEMPERATURE
AIR TEMPERATURE
MAXIMUM TEMPERATURE
MINIMUM TEMPERATURE
SNOW TEMPERATURE
SOIL TEMPERATURE
WATER TEMPERATURE
WATER SOLUBILITY
PLANT PROPERTIES
BASAL AREA
DIAMETER AT BREAST HEIGHT
LEAF AREA
LEAF AREA INDEX
SPECIFIC LEAF AREA
PLANT BIOMASS
PLANT HEIGHT
SAPWOOD AREA
SHADE TOLERANCE
TREE AGE
POPULATION AND COMMUNITY PROPERTIES
ABUNDANCE
BACTERIAL ABUNDANCE
RELATIVE ABUNDANCE
SPECIES ABUNDANCE
COMMUNITY COMPOSITION
DIVERSITY
BIODIVERSITY
PLANT SPECIES COMPOSITION
SPECIES DIVERSITY
SPECIES RICHNESS
SPECIES COMPOSITION
RESPIRATION RATES
STANDING CROP

TROPHIC STRUCTURE
SOIL PROPERTIES
ANION EXCHANGE CAPACITY
CATION EXCHANGE CAPACITY
SOIL BULK DENSITY
SOIL MOISTURE
SOIL RESPIRATION
SOIL TEXTURE
SPATIAL PROPERTIES
BATHYMETRY
HYDROGRAPHY
HYPORHEIC
LAND COVER
LAND SURFACE PROPERTIES
ASPECT
ELEVATION
LAND USE
LOCATIONS
BOUNDARIES
COORDINATES
LATITUDE
LONGITUDE
RIPARIAN
CREEK BANKS
SPATIAL VARIABILITY
TOPOGRAPHY
MICROTOPOGRAPHY
URBAN
TEMPORAL PROPERTIES
HOLOCENE
LONG TERM
PLEISTOCENE
SEASONALITY
TEMPORAL VARIABILITY
WINTER
WATER BALANCE
WATER PROPERTIES
CTD
OCEAN COLOR
TURBIDITY
WATER QUALITY
SUSPENDED SOLIDS

METHODS

ANALYTICAL TOOLS
BIBLIOGRAPHIES
ENVIRONMENTAL INDEXES
MAPS
MODELS
COLLABORATION TOOLS
BROCHURES
COMPUTER NETWORKS
COMPUTER SOFTWARE
BIOPAK
FIELD GUIDES
GAVIMETRIC SAMPLING
INFORMATION TECHNOLOGY
NEWSLETTERS
TECHNOLOGY TRANSFER
USER GUIDES
FIELD METHODS
CHRONOSEQUENCES
CORES
DATALOGGERS
DENDROMETERS
EDDY COVARIANCE
LITTERBAGS
LYSIMETERS
MARK AND RECAPTURE
MINIRHIZOTRONS

MOORINGS
NEUTRON PROBE
PERMANENT PLOTS
PITFALL TRAPS
PYRANOMETERS
REFERENCE STANDS
SENSOR ARRAYS
SNOWFENCES
SOIL SAMPLES
SURFACE ELEVATION TABLE
THERMOGRAPHS
TIME DOMAIN REFLECTOMETRY
TISSUE SAMPLES
TRACERS
TRANSECTS
WATER SAMPLES
WIRELESS NETWORKS
RADIO TELEMETRY
LABORATORY METHODS
CHANGE DETECTION
CHROMATOGRAPHY
COMPARATIVE ANALYSIS
IMPUTATION
LOGISTIC REGRESSION
ORDINATION
PROBABILITY ANALYSIS

QUALITY ASSURANCE
WAVELET ANALYSIS
LONG TERM STUDIES
SPATIAL METHODS
DIGITAL ELEVATION MODEL
GEOGRAPHIC INFORMATION SYSTEMS
SHAPEFILES
GLOBAL POSITIONING SYSTEMS
IMAGERY
AERIAL IMAGERY
LIDAR
PHOTO POINT IMAGERY
SATELLITE IMAGERY
AVHRR
AVIRIS
LANDSAT
MODIS
SPOT PANCHROMATIC
MAPPING
PLANT FUNCTIONAL TYPES
STATISTICAL METHODS
SURVEYS
CENSUS
INVENTORIES

ORGANISMS

ALGAE	TROUT	EPIPHYTES
DIATOMS	MAMMALS	FLOWERS
MACROALGAE	BEAVERS	FOLIAGE
ANIMALS	CATTLE	KELP
FAUNA	DEER	LEAVES
MACROFAUNA	ELK	LIVERWORTS
INVERTEBRATES	SMALL MAMMALS	MOSESSES
AQUATIC INVERTEBRATES	RABBITS	BRYOPHYTES
POLYCHAETES	SHREWS	PERIDERM
ARTHROPODS	SQUIRRELS	PERIPHYTON
ARACHNIDS	REPTILES	POLLEN
INSECTS	LIZARDS	ROOTS
ANTS	BENTHOS	FINE ROOTS
BETLES	EPIFAUNA	SEEDLINGS
BUTTERFLIES	INFAUNA	TREE SEEDLINGS
GRASSHOPPERS	FUNGI	SEEDS
MITES	ASCOMYCETES	SPROUTS
MOTHS	BASIDIOMYCETES	VASCULAR PLANTS
TERMITES	ENDOPHYTES	FERNS
MICROARTHROPODS	MUSHROOMS	GRASSES
SOIL MICROARTHROPODS	MYCORRHIZAE	SEAGRASS
CORALS	SPORES	HERBS
CRUSTACEANS	TRUFFLES	FORBS
CRABS	HUMANS	SHRUBS
CRAYFISHES	LICHENS	TREES
LARVAE	MICROBES	CONIFERS
MACROINVERTEBRATES	BACTERIA	HARDWOODS
MOLLUSKS	PROTOZOA	LOGS
GASTROPODS	ROTIFERS	TREE RINGS
SLUGS	VIRUSES	VEGETATION
SNAILS	NEKTON	CANOPY GAPS
NEMATODES	PLANKTON	CROPS
VERTEBRATES	PHYTOPLANKTON	LEAF LITTER
AMPHIBIANS	ZOOPLANKTON	SEED BANKS
SALAMANDERS	PLANTS	STEMS
BIRDS	ACTINORHIZAL PLANTS	TREELINE
FISHES	BARK	UNDERSTORY VEGETATION
SALMON	CONES	SESTON

ORGANIZATIONAL UNITS

COMMUNITIES

COMMUNITY PATTERNS

COMMUNITY STRUCTURE

STAND STRUCTURE

PLANT COMMUNITIES

FOOD WEBS

CONSUMERS

HERBIVORES

PREDATORS

HABITATS

ORGANIZATIONS

ADAPTIVE MANAGEMENT AREAS (AMA)

CASCADE CENTER FOR ECOSYSTEM MANAGEMENT (CCEM)

CONIFEROUS FOREST BIOME (CFB)

H. J. ANDREWS EXPERIMENTAL FOREST (AND)

INTERNATIONAL BIOLOGICAL PROGRAM (IBP)

INTERNATIONAL LONG-TERM ECOLOGICAL RESEARCH (ILTER)

LONG-TERM ECOLOGICAL RESEARCH (LTER)

NATIONAL PARKS

NATIONAL SCIENCE FOUNDATION (NSF)

RESEARCH NATURAL AREAS (RNA)

WATERSHED COUNCILS

WILDERNESS AREAS

POPULATIONS

PROJECTS

BLUE RIVER LANDSCAPE PLAN

FOREST ECOSYSTEM MANAGEMENT ASSESSMENT TEAM (FEMAT)

RESEARCH EXPERIENCES FOR UNDERGRADUATES (REU)

SYNTHESIS STUDIES

SPECIES

ENDANGERED SPECIES

INVASIVE SPECIES

PLANT SPECIES

SPECIES LISTS

PROCESSES

ACCUMULATION	GROSS PRIMARY PRODUCTION	SEDIMENTATION
BIOGEOCHEMICAL PROCESSES	NET PRIMARY PRODUCTION	SOIL DISTURBANCE
DECOMPOSITION	ANNUAL NET PRIMARY PRODUCTION	SOIL DYNAMICS
LEAF DECOMPOSITION	SEED PRODUCTION	SOIL WARMING
LITTER DECOMPOSITION	RESISTANCE AND RESILIENCE	SUBSIDENCE
LOG DECOMPOSITION	SAPFLOW	BURNING
ROOT DECOMPOSITION	SPECIES INTERACTIONS	DISPERSION
MINERALIZATION	COMPETITION	GEOLOGICAL PROCESSES
NITROGEN MINERALIZATION	HERBIVORY	HYDROLOGIC PROCESSES
NUTRIENT CYCLING	PARASITISM	DISCHARGE
NITROGEN CYCLING	PREDATION	STREAM DISCHARGE
DENITRIFICATION	SYMBIOSIS	DRAINAGE
NITRIFICATION	SUCCESSION	INFILTRATION
NITROGEN FIXATION	TRANSLOCATION	IRRIGATION
BIOLOGICAL PROCESSES	COMMUNITY RESPIRATION	STREAMFLOW
CARBON CYCLING	DISTURBANCE	LOW FLOWS
CARBON ASSIMILATION	FOREST DISTURBANCE	PEAK FLOWS
DISEASE	HUMAN DISTURBANCE	MOISTURE STRESS
CANKERS	ECOSYSTEM PROCESSES	OCEAN ACIDIFICATION
EVOLUTION	FERTILIZATION	OCEAN CURRENTS
ADAPTATION	HARVESTING	SCATTERING
EXTINCTION	BROWSING	WARMING
MUTATION	DEFOLIATION	PHYSIOLOGICAL PROCESSES
NATURAL SELECTION	GRAZING	METABOLISM
SPECIATION	MOWING	PHOTOSYNTHESIS
LIFE HISTORY	THINNING	RESPIRATION
COLONIZATION	TIMBER HARVEST	RECOVERY
DISPERSAL	CLEARCUTTING	RESOURCE MANAGEMENT
SEED DISPERSAL	DEFORESTATION	ADAPTIVE MANAGEMENT
GERMINATION	LANDSCAPE CHANGE	FIRE MANAGEMENT
GROWTH	DESERTIFICATION	FOREST MANAGEMENT
PLANT GROWTH	ENVIRONMENTAL GRADIENTS	FOREST PRODUCTS
TREE GROWTH	LANDSCAPE DYNAMICS	PLANTATIONS
HABITAT SELECTION	REVEGETATION	RESTORATION
INCUBATION	PHYSICAL PROCESSES	SCIENTIFIC ACTIVITIES
MIGRATION	ATMOSPHERIC PROCESSES	CALIBRATION
MORTALITY	ACCRETION	CLASSIFICATION
TREE MORTALITY	ADVECTION	DAM REMOVAL
REGENERATION	ATMOSPHERIC DEPOSITION	DATA ARCHIVING
REPRODUCTION	CONDENSATION	ELECTRIC EXCLUSION
HYBRIDIZATION	DEPOSITION	MASS BALANCE
SURVIVAL	BULK DEPOSITION	MODELING
LITTERFALL	DRY DEPOSITION	DECISION SUPPORT MODELING
MICROBIAL ACTIVITY	NITROGEN DEPOSITION	SIMULATION
PRODUCTION	WET DEPOSITION	MONITORING
ABOVEGROUND PRODUCTION	EROSION	LONG TERM MONITORING
BACTERIAL PRODUCTION	EVAPOTRANSPIRATION	REMOTE SENSING
BELOWGROUND PRODUCTION	EVAPORATION	TRAPPING
FINE ROOT PRODUCTION	TRANSPIRATION	
PRIMARY PRODUCTION	GLACIATION	

SUBSTANCES

BIOLOGICAL SUBSTANCES

AMINO ACIDS

LEUCINE

CELLULOSE

CHARCOAL

CHLOROPHYLL

CHLOROPHYLL A

DETRITUS

INORGANIC NUTRIENTS

LITTER

NUTRIENTS

DISSOLVED NUTRIENTS

LEAF NUTRIENTS

SOIL NUTRIENTS

PHAEOPIGMENTS

PHAEOPHYTIN

PHEROMONES

WOOD

LIGNIN

TANNIN

WOODY DEBRIS

COARSE WOODY DEBRIS

FINE WOODY DEBRIS

ELEMENTS AND COMPOUNDS

ALUMINUM

ANTIMONY

BORON

CADMIUM

CALCIUM

CARBON

BICARBONATE

CARBOHYDRATES

CARBON DIOXIDE

CARBON MONOXIDE

DISSOLVED INORGANIC CARBON

DISSOLVED ORGANIC CARBON

METHANE

ORGANIC CARBON

PARTICULATE ORGANIC CARBON

SOIL CARBON

CESIUM

CHLORINE

CHLORIDE

CHROMIUM

COPPER

FLUORINE

FLUORIDE

HYDROGEN

IRON

LEAD

MAGNESIUM

MANGANESE

MERCURY

NICKEL

NITROGEN

DISSOLVED OXYGEN

INORGANIC NITROGEN

DISSOLVED INORGANIC NITROGEN

MICROBIAL NITROGEN

NITROGEN COMPOUNDS

AMMONIA

AMMONIUM

NITRATE

NITRIC ACID

NITRITE

NITROUS OXIDE

NITROGEN-15

ORGANIC NITROGEN

DISSOLVED ORGANIC NITROGEN

OZONE

OXYGEN

PHENOLIC COMPOUNDS

PHOSPHORUS

PHOSPHATE

SOIL PHOSPHORUS

SOLUBLE REACTIVE PHOSPHORUS

TOTAL PHOSPHORUS

POTASSIUM

SILICON

SILICA

SODIUM

STRONTIUM

SULFUR

SULFATE

SULFIDE

SULFUR HEXAFLUORIDE

ZINC

FERTILIZER

GASES

HERBICIDES

INORGANIC MATTER

IONS

ANIONS

CATIONS

HYDROGEN IONS

ISOTOPES

DEUTERIUM

STABLE ISOTOPES

ORGANIC MATTER

SOIL ORGANIC MATTER

PARTICULATES

PESTICIDES

POLLUTION

ACID RAIN

AIR POLLUTION

SEDIMENTS

WATER

BRACKISH WATER

POREWATER

RUNOFF

SEAWATER

SOIL WATER

SUBSTRATES

AIR
AIRSHED
ATMOSPHERE
BASINS
BUILDINGS
CANOPIES
FOREST FLOOR
FRESHWATER
GROUNDWATER

WATER TABLE
HILLSLOPES
HYPORHEIC ZONE
ICE
PERMAFROST
RHIZOSPHERE
ROADS
SAND
SOIL

ALLUVIAL DEPOSITS
HUMIC SOILS
MESIC SOILS
MUD
ORGANIC LAYER
SOIL HORIZONS
WATER COLUMN