

Andrews LTER Preferred Keyword List as of 24 September 2008

All information products (i.e., databases, publications, analytical tools and photos) are keyworded using the preferred keyword list shown below. The list is hierarchical and includes 34 top-level keywords (categories), second-level descriptive keywords, and third-level finely-detailed keywords. Keywords should be selected from all representative top-level categories. Top-level keywords are often too vague and second-level keywords are generally better suited to represent an information product. Fine-grained third-level keywords can be used when appropriate. New keywords can be added to the list, if needed. Please suggest any additions to the Andrews LTER Information Manager.

AQUATIC/RIPARIAN HABITAT

- Aquatic ecosystems
 - Stream communities
 - Stream gradient
 - Stream order
 - Stream substrates
- Riparian ecosystems

BIOLOGICAL DIVERSITY

- Biological control
- Diversity measurement
- Endangered species
- Exotic Species
- Genotypic diversity
- Species richness
- Structural diversity

BIOMASS

- Biomass (algae)
- Biomass (conifers)
- Biomass (debris/detritus)
- Biomass (fish)
- Biomass (fungi)
- Biomass (invertebrates)
- Biomass (lichens)
- Biomass (litterfall)
- Biomass (microbial epiphytes)
- Biomass (mosses)
- Biomass (roots)
- Biomass (soil)
- Biomass (streams)
- Biomass (trees)
- Biomass (understory)
- Biomass (vascular plants)
- Biomass (vertebrates)
- Biomass (woody debris)

CLIMATE/METEOROLOGY

- Air temperature
- Atmospheric deposition
- Biometeorology
- Canopy temperature
- Climate change
 - Greenhouse effect
- El Nino/Southern Oscillation (ENSO)
- Evaporation

Meteorological measurements

- Dew point temperature
- Relative humidity
- Snow moisture
- Vapor pressure
- Wind speed and direction

Microclimate

- Photoperiod
- Precipitation
 - Interception
 - Throughfall
- Solar radiation
- Albedo
- Photosynthetically active radiation (PAR)

CONSERVATION BIOLOGY

- Reserve design

DATA & INFORMATION MANAGEMENT

- Cyberinfrastructure
 - Computer networks
 - Information managers
 - Wireless networks
- Data archive
- Bibliography
- Climate data
- Environmental data
- Hydrology data
- Ecoinformatics
 - Data access
 - Data exchange
 - Information systems
 - Knowledge base
 - Training
- Metadata
 - Metadata standards
- Quality assurance

DISTURBANCE

- Canopy gaps
- Deforestation
- Earthquakes
- Erosion
- Fire
- Floods
- Grazing
- Hurricane
- Insect defoliation

DISTURBANCE (continued)

- Mass movement
- Pathogens
- Storms
- Timber harvesting
- Volcanic
- Wind
- Windthrow

ECOLOGY

- Autecology
- Biogeochemistry
- Biogeography
- Biological legacies
- Community dynamics
- Community structure
- Dendroecology
- Disturbance ecology
- Ecohydrology
- Ecophysiology
- Ecosystems
 - Community metabolism
 - Comparative analysis
 - Complexity
 - Ecosystem dynamics
 - Ecosystem function
 - Ecosystem monitoring
 - Environmental gradients
 - Environmental indexes and variables
 - Forest composition
 - Forest structure
 - Forest-stream interactions
 - Functional groups
 - Organic matter
 - Variability, natural or historic range of
 - Variability, spatial
 - Variability, temporal
- Entomology
- Genecology
- Morphology
 - Stream morphology
- Phenology
- Plant community ecology
 - Habitat types
 - Plant associations
 - Vegetation types
- Plant physiology
- Site classification
- Stream ecology
 - Detritus
 - Fish habitat
 - Leaf retention
 - River continuum concept
 - Stream functions
- Vegetation
 - Riparian vegetation

ECOSYSTEM PROCESSES

- Bioenergetics
- Carbon
 - Carbon cycling
 - Carbon dioxide flux
- Decomposition
 - Aquatic decomposition
 - Terrestrial decomposition
- Disturbance processes
- Energy budget
- Litterfall
- Nutrients
 - Calcium
 - Nitrogen
 - Nitrogen cycling
 - Nitrogen mineralization
 - Nutrient budgets
 - Nutrient stores
 - Phosphorus
- Oxygen
- Plant distribution patterns
- Plant-soil interactions
- Primary production
- Productivity
 - Leaf area
 - Long-term productivity
 - Site index
 - Soil productivity
 - Stem analysis
- Secondary production
- Soil processes
- Solution chemistry
- Solution transport
- Succession
 - Gap dynamics
 - Secondary succession
- Woody debris
 - Coarse woody debris - aquatic
 - Coarse woody debris - terrestrial
 - Fine woody debris
 - Log measurements

ESTUARINE HABITAT

GENETICS

- DNA
 - Mitochondrial DNA
 - Nuclear DNA
- Hybridization

GEOLOGY/GEOMORPHOLOGY

- Alluvial deposits/forms
 - Debris dams
 - Step pools
 - Wood movement
- Bedrock geology
- Debris slides/flows
 - Debris flow physics
- Experimental structures
 - Debris flow flume
 - Flume studies
- Geomorphology
 - Channel geomorphology
 - Hillslope-stream interactions
- Glaciation
- Landslides/earthflows
 - Landslide causes/consequences
 - Movement monitoring
 - Slope stability
- Minerology
- Sedimentation
 - Sediment budgets
 - Sediment routing
 - Sediment yield
- Stratigraphy
- Topography
- Weathering

HISTORY

- Climate history
- Disturbance history
- Fire history
- Human history
- Paleoclimate
- Paleoecology

HUMAN DIMENSION

- Aesthetics
- Attitudes/perceptions
- Economics
- Ecosystem services
- Education
- Employment
- Environmental ethics
- Land ownership
- Politics
- Public interest
- Public participation
- Public values
- Social acceptability/learning
- Social assessments/surveys

HYDROLOGY/WATER

- Cumulative watershed effects
- Groundwater processes
 - Bypass flow
 - Subsurface flow
- Hydrologic processes
 - Current velocity
 - Flood processes
 - Hydrocycle
 - Rainfall-runoff
 - Road effects
 - Surface water
 - Water balance
- Hyporheic zone
- Snow hydrology
- Streamflow
 - Low flows
 - Peak flows
- Water quality
 - Water chemistry
 - Water temperature
- Watershed
 - Experimental watershed studies
 - Watershed analysis

INVERTEBRATES

- Aquatic invertebrates
 - Mollusks
- Arthropods
 - Arachnids
 - Beetles
 - Butterflies
 - Insects
 - Moths
- Soil invertebrates

LANDSCAPE ECOLOGY

- Complex terrain
- Digital Elevation Model (DEM)
- GIS
- Landscape analysis
- Landscape diversity
- Landscape dynamics
 - Road networks
 - Stream channel networks
- Landscape management
- Landscape pattern
 - Contagion index
- Ecoregion
- Ecotones
- Edges
- Fragmentation
- Patches
- Landscape scales
- Landscape structure
- FRAGSTATS

MARINE HABITAT

METHODS

- Acetylene reduction
- Allometric equations
- BIOPAK
- Chemical analysis
 - Tissue samples
- Chromatography
- Chronosequence
- Dendrochronology
- Eddy covariance
- Global positioning systems (GPS)
- Gravimetric sampling
- Hypsograph
- Hysteresis
- Isotopes
 - Carbon isotope
 - Oxygen isotope
- Litter bags
- Mapping
- Permanent plots
- Photography
 - Aerial photography
 - Hemispherical photography
- Radio telemetry
- Reference stands
- Reflectometry
- Resin bags
- Sampling methodology
- Sensor arrays
- Spatial analysis
- Statistics
 - Imputation
 - Logistic regression
 - Ordination
 - Probability analysis
 - Spatial statistics
 - Tasseled cap transformation
- Tracers
 - Stream tracer
- Wavelet analysis

MICROBIOTA

- Bacteria

MODELING

- Animal-habitat modeling
- Carbon modeling
- Climate modeling
- Decision support modeling
- Ecosystem modeling
- Hydrologic modeling
 - Hydrology - vegetation model
- Landscape modeling
- Population modeling
- Precipitation modeling
- Vegetation modeling

PHYSIOLOGICAL PROCESSES

- Condensation
- Evapotranspiration
- Germination

- Growth
- Hydraulic redistribution
- Moisture stress
- N-fixation
- Photosynthesis
- Respiration
 - Soil respiration
- Sapflow
- Shade
- Temperature stress
- Transpiration
 - Stomatal behavior
- Vision
- Water conductance

PLANTS

- Actinorhizal
- Algae
- Bark
- Bryophytes
- Cones
- Cotyledons
- Endophytes
- Epiphytes
- Ferns
- Flowers
- Foliage
- Forbs
- Fungi
 - Mushrooms/sporocarps
 - Truffles
- Lichens
- Liverworts
- Mosses
- Mycorrhizae
- Needles
- Periderm
- Periphyton
- Plant cover
- Pollen
- Roots
- Seedlings
- Seeds
 - Seed banks
 - Seed beds
 - Seed dispersal
 - Seed germination
 - Seed production
 - Seed trees
 - Seed zones
- Shrubs
- Sprouts
- Trees
 - Conifers
 - Hardwoods
 - Tree measurements
- Vascular plants
- Wood
 - Lignin
 - Sapwood
 - Tannin

POLLUTION

- Air pollution
 - Acid precipitation
- Environmental pollutants
 - Oil spill
- Soil pollution
 - Trifluoroacetate
- Water pollution

POPULATION DYNAMICS

- Adaptation
- Animal populations
 - Bird populations
 - Fish populations
- Breeding
- Competition
- Demography
 - Age distribution
 - Age structure
 - Mortality
- Establishment
- Fungi populations
- Microbial populations
- Migration
- Plant populations
- Population structure
- Resistance and resilience
- Survival
- Vagility

PROGRAM ADMINISTRATION

- Administration
 - Cascade Center for Ecosystem Management (CCEM)
 - Coniferous Forest Biome
 - Environmental research
 - Intersite studies
 - Long-term studies
 - Synthesis studies
 - International
 - International Biological Program
 - International Long-Term Ecological Research-ILTER

ILTER

- Land use designation
 - Adaptive Management Areas (AMA's)
 - Biosphere Reserves
 - Experimental Forests
 - National Parks
 - Research Natural Areas (RNA's)
 - Wilderness Areas
- Long-Term Ecological Reflections
- Long-Term Ecological Research (LTER)
- National Science Foundation (NSF)
- Organization
 - Forest Science Data Bank (FSDB)
 - Partnership
- Research framework
 - Interdisciplinary
- Technology transfer
 - Brochures

- Computer software
- Educational software
- Field guides
- Guidelines for management
- Maps
- Nature talks
- Nature writing
- Newsletters
- Research publications
- User guides
- Workshops
- USDA Forest Service
 - Blue River Landscape Plan
 - Northwest Forest Plan

REMOTE SENSING

- Accuracy assessment
- Airborne imagery
- Calibration
- Change detection
- Classification
- Land cover
- Satellite data
 - AVHRR
 - AVIRIS
 - LIDAR
 - Landsat TM/ETM+
 - Landsat/Landsat MSS
 - MODIS
 - Radar
 - SPOT panchromatic
- Spatial properties
 - Spatial coherence
- Spectral properties
- Thermal properties
 - Surface temperature
 - Thermal energy

RESOURCE MANAGEMENT

- 'New Forestry'/New Perspectives
- Adaptive management
- Chemicals
 - Fertilizers
 - Fire retardants
 - Herbicides
 - Pesticides
- Ecosystem management
- Erosion control
- Fire management
 - Prescribed fire
- Fisheries management
- Flood control
- Forest management
 - Forest certification
- Forest planning
 - FEMAT
- Forest policy
- Forest practices
- Forest products
 - Christmas trees
 - Special forest products

Habitat management
Hazard assessment
Inventory
Land use
Landscape planning
Monitoring
 Monitoring programs
Nursery management
Pest management
Public assessments
Regional assessments
Restoration
 Dam removal
 Ecosystem restoration
 Landscape restoration
 Soil restoration
 Stream restoration
 Watershed restoration
Riparian management
River regulation
Road management
Stream management
Sustainability
Timber management
 Growth and yield
 Logging systems
 Salvage logging
Vegetation management
Watershed management
Wildlife management
 Wildlife trees
Young stands

SILVICULTURE

Green tree retention
Harvest methods
 Clearcutting
 Staggered setting
 Structural retention
Harvest pattern
Mensuration
Regeneration
Silvicultural systems
Slash/broadcast burning
Thinning

SOILS

Infiltration capacity
Soil biology
Soil chemistry
 Anion exchange capacity
 Cation exchange capacity
 Soil carbon
Soil classification
Soil compaction
Soil dynamics
Soil moisture
Soil organic matter
Soil physics
Soil retention

Soil stability
Soil structure
Soil temperature

TAXONOMY/SYSTEMATICS

Keys
Taxonomy
 Species identification
 Species lists
 Taxonomic checklists

TERRESTRIAL/UPLAND HABITAT

Agricultural systems
Forest ecosystems
 Canopy communities
 Clearcuts
 Forest floor
 Forest understory
 Managed forests
 Mature forests
 Natural forests
 Old-growth forests
 Plantations
 Tropical forests
 Young forests
Meadows
Roads
Shrub/grassland communities
Soil/Subsoil
 Tropical soils

TROPHIC RELATIONS

Detritus food quality
Detritus processing
Feeding strategies
Food chains/webs
 Parasitism
Herbivory
Mycophagy
Predation

VERTEBRATES

Birds
Fish
 Salmon
 Trout
Herpefauna
 Amphibians
 Reptiles
 Salamanders
Mammals
 Bats
 Beavers
 Cattle
 Deer
 Elk
 Squirrels
Wildlife