

Hierarchy USGS Enterprise Web Thesaurus, 7/7/2002

**FACETS: SCIENCE, PHYSICAL FORMATS, METHODS, OBJECT TYPES,
TIME PERIODS, TOPICS, USGS**

science

- life sciences
 - anatomy and physiology
 - endocrinology
 - histology
 - immunology
 - aquatic biology
 - biochemistry
 - botany
 - palynology
 - phycology
 - cell biology
 - developmental biology
 - ecology
 - ecotoxicology
 - genetics
 - marine biology
 - microbiology
 - bacteriology
 - virology
 - molecular biology
 - morphology (biological)
 - mycology
 - parasitology
 - pathology
 - systematics and taxonomy
 - zoology
 - invertebrate zoology
 - entomology
 - vertebrate zoology
 - herpetology
 - ichthyology
 - mammalogy
 - ornithology
 - wildlife biology
- Earth sciences
 - atmospheric sciences
 - climatology
 - meteorology
 - geochemistry
 - soil chemistry
 - water chemistry
 - marine chemistry
 - geography
 - cartography
 - geology
 - economic geology
 - geochronology

- geomorphology
- hydrogeology
- marine geology
- mineralogy
- petrology
- sedimentology
- stratigraphy
- structural geology
- volcanology
- geophysics
 - geodesy
 - marine geophysics
 - seismology
 - paleoseismology
- tectonophysics
- glaciology
- hydrology
- limnology
- ocean sciences
 - paleoceanography
- paleontology
 - invertebrate paleontology
 - micropaleontology
 - paleobotany
 - vertebrate paleontology
- soil sciences
- engineering sciences
 - engineering geology
 - hydraulic engineering
- information sciences
 - biological informatics
 - computer science
- planetary sciences
- social sciences

feature types (named geographic features): Yet to be selected.

physical formats

- digital format
 - CDROM
 - digital application
 - digital audio
 - digital image
 - digital text
 - digital video
 - DVD
 - magnetic disk
 - magnetic tape
 - videodisk
- non-digital format
 - audio tape
 - film
 - microfiche
 - microfilm

- paper (material)
- slides (photographic)
- video tape

methods

- computational methods
 - image analysis
 - mathematical modeling
 - mathematical simulation
 - relative abundance analysis
 - spatial analysis
 - geospatial analysis
 - statistical analysis
 - kriging
 - multivariate statistical analysis
 - regression analysis
 - time series analysis
 - topological analysis
 - visualization methods
- field methods
 - field experiments
 - field inventory and monitoring
 - acoustic methods
 - sonar methods
 - side-scan sonar methods
 - borehole logging
 - borehole temperature logging
 - electrical resistivity logging
 - gamma-ray logging
 - census
 - CTD measurement
 - ecosystem monitoring
 - long-term ecosystem monitoring
 - electromagnetic surveying
 - handheld field spectroscopy
 - seismic methods
 - seismic networking
 - seismic reflection method
 - seismic refraction method
 - streamflow monitoring
 - telemetry
 - tiltmeter measurement
 - video monitoring
 - vocalization methods
 - field sampling
 - animal tracing
 - capturing (animals)
 - drilling and coring
 - plant and animal tagging
 - plot sampling
 - sexing (plants & animals)
 - specimen collecting
 - transect sampling
 - trenching

- water sampling
 - geolocation measurement
 - altimetry measurement
 - bathymetry measurement
 - GPS measurement
 - land surveying
- laboratory methods
 - chemical analysis
 - atomic absorption analysis
 - chromatography
 - gas chromatography
 - liquid chromatography
 - DNA sequencing
 - electrophoresis
 - flow cytometry
 - mass spectroscopy
 - neutron activation analysis
 - particle-beam spectroscopy
 - polymerase chain reaction
 - x-ray diffraction
 - core analysis
 - culturing (specimens)
 - faunal and floral census
 - fission-track dating
 - grain-size analysis
 - sieve-size analysis
 - isotopic analysis
 - light stable-isotope analysis
 - beryllium isotope analysis
 - carbon isotope analysis
 - oxygen isotope analysis
 - tritium analysis
 - radiometric dating
 - carbon-14 analysis
 - rubidium-strontium analysis
 - uranium-lead analysis
 - uranium-thorium analysis
 - meristics
 - microscopy
 - electronic microscopy
 - scanning electron microscopy
 - optical microscopy
 - microtomy
 - paleomagnetic analysis
 - Curie temperature analysis
 - laboratory-induced magnetization analysis
 - magnetic hysteresis analysis
 - magnetic susceptibility analysis
 - natural remnant magnetism analysis
 - petrography
 - plant and animal testing
 - therapeutic methods
 - tree ring analysis
- management methods

- decision support methods
- environmental assessment
- hazard preparedness
 - earthquake preparedness
- information management methods
- natural resource management
 - biological population management
 - fishery management
 - reintroduction (organisms)
 - wildlife population management
 - game management
 - controlled fires
 - controlled flooding
 - ecosystem management
 - natural resource assessment
 - remediation
 - bioremediation
 - water resource management
 - watershed management
- risk assessment
 - earthquake probabilities
 - landslide susceptibility
- photography
 - aerial photography
 - underwater photography
- remote sensing
 - aeromagnetic surveying
 - aeroradiometric surveying
 - hyperspectral imaging
 - IFSAR
 - infrared imaging
 - AVHRR
 - LIDAR
 - microwave imaging
 - SMMR
 - SSM/I
 - multispectral imaging
 - panchromatic imaging
 - radar imaging
 - SLAR
 - thermal imaging
 - visible light imaging
- videography

object types

- audiovisual materials
- bibliographies
- catalogs and indexes
- datasets
 - geospatial datasets
 - hydrographic datasets
 - time-series datasets
- directories
- documents

- checklists
- guidebooks
- manuals
- standards
- educational materials
- geologic time scales
- graphics
 - animations
 - cross sections
 - graphs
- images
- maps and atlases
- models
 - mathematical models
 - physical models
- news releases
- policies and regulations
- posters
- software
- speeches
- terminologies and classifications
 - biologic names and classifications
 - controlled vocabularies
 - geographic names and classifications
 - geologic names and classifications
 - glossaries
 - hydrologic unit codes
 - land use classifications
 - quadrangle names
- web portals

time periods

- geologic time period
- historic time period
- projected time period
- real-time period

topics

- agriculture and farming
 - aquaculture
- biological and physical processes
 - atmospheric and climatic processes
 - atmospheric circulation
 - atmospheric deposition(chemical & particulate)
 - acid deposition
 - climate change
 - desertification
 - droughts
 - ocean-atmosphere interaction
 - precipitation (atmospheric)
 - storms
 - blizzards
 - hurricanes
 - ice storms

- tornadoes
- ecological processes
 - algal blooms
 - bioaccumulation
 - biogeochemical cycling
 - carbon cycling
 - nutrient cycling
 - food web
 - biological productivity
 - contaminant transport
 - dispersal (organisms)
 - ecological competition
 - ecosystem functions
 - wetland functions
 - eutrophication
 - extinction and extirpation
 - habitat alteration
 - migration (organisms)
 - pollination
 - succession (biological)
- fires
- geologic and hydrologic processes
 - diagenesis
 - earthquakes
 - earthquake occurrences
 - erosion
 - floods
 - geochemical processes
 - glaciation
 - groundwater flow
 - heat flow (Earth)
 - hydrothermal processes
 - isostasy
 - land subsidence
 - landslides
 - liquefaction
 - metamorphism (geological)
 - river discharge
 - sediment transport
 - sedimentation
 - streamflow
 - tectonic processes
 - neotectonic processes
 - volcanic activity
 - water circulation
 - lake circulation
- ocean processes
 - ocean circulation
 - ocean waves
 - tsunamis
 - tides
- culture and demographics
 - administrative and political boundaries
 - business and economics

- cadastral and legal land descriptions
- Earth characteristics
 - atmospheric properties
 - air temperature
 - atmospheric composition
 - greenhouse gases
 - ozone layer
 - Earth structure
 - core (Earth)
 - inner core (Earth)
 - outer core (Earth)
 - crust (Earth)
 - lithosphere
 - continental lithosphere
 - oceanic lithosphere
 - mantle (Earth)
 - aesthenosphere
 - geologic history
 - biostratigraphy
 - Earth history
 - lithostratigraphy
 - geologic structure
 - folding (geologic)
 - foliation (geologic)
 - fracture (geologic)
 - lineation (geologic)
 - structure contours
 - gravitational field (Earth)
 - land surface characteristics
 - landforms
 - magnetic field (Earth)
 - ocean characteristics
 - ocean salinity
 - ocean temperature
 - sea surface temperature
 - sea floor characteristics
 - sea-level change
 - rocks and deposits
 - fossils
 - ichnofossils
 - igneous rocks
 - metamorphic rocks
 - sedimentary rocks
 - bedforms
 - unconsolidated sediments
 - clay deposits
 - gravel deposits
 - sand deposits
 - snow and ice cover
 - stratigraphic sections
 - bedrock geologic units
 - geologic contacts
 - unconformities
 - surficial geologic units

- topography
 - bathymetry
- global change
 - global warming
- hazards
- health and disease
 - disease vectors
 - environmental health (human)
 - human environmental safety
- human impacts
 - land use change
 - mining hazards
 - overfishing
 - overgrazing
 - pollution
 - anthropogenic contamination
 - mercury contamination
 - pesticide and herbicide contamination
 - waste treatment and disposal
- information system design and development
 - geographic information systems (GIS)
 - metadata support and development
- instrument design and development
- land use and land cover
- map coordinate systems
- natural contaminants
 - toxic radionuclides (natural)
 - radon
 - toxic trace elements
- natural resource exploration
- natural resource extraction
 - mining and quarrying
 - well drilling
- natural resources
 - nonrenewable resources
 - mineral resources
 - metallic ores
 - gold ores
 - non-metallic deposits
 - building stone deposits
 - gem deposits
 - nonrenewable energy resources
 - coal resources
 - natural gas resources
 - coalbed methane resources
 - gas hydrate resources
 - oil resources
 - oil sand resources
 - oil shale resources
 - soil resources
 - renewable resources
 - fishery resources
 - commercial fishery resources
 - inland fishery resources

- marine fishery resources
 - whaling
 - recreational fishing
 - subsistence fishery resources
 - forest resources
 - renewable energy resources
 - geothermal resources
 - water resources)
 - groundwater
 - surface water (non-marine)
 - river systems
 - river reaches
 - organism groupings (non-taxonomic)
 - biota
 - consumers (organism)
 - carnivores
 - herbivores
 - omnivores
 - decomposers
 - endangered species
 - game species
 - keystone species
 - macroinvertebrates
 - migratory species
 - native species
 - endemic species
 - nekton
 - nonindigenous species
 - invasive species
 - plankton
 - pollinators
 - producers (organism)
 - shellfish
 - vegetation
 - wildlife
 - organism growth and development
 - metamorphism (biological)
 - organisms
 - algae
 - calcareous nannoplankton
 - diatoms
 - dinoflagellates
 - animals
 - invertebrates
 - arthropods
 - arachnids
 - crustacean
 - ostracodes
 - horseshoe crabs
 - insects
 - butterflies and moths
 - trilobites
 - bryozoans and brachiopods
 - coelenterates

- conodonts
 - echinoderms
 - mollusks
 - sponges
 - worms
 - flatworms
 - roundworms
 - segmented worms
 - vertebrates
 - amphibians
 - birds
 - fish
 - mammals
 - reptiles
 - dinosaurs
- archaea
- bacteria
- fungi
- lichens
- plants (organic)
 - non-vascular plants
 - liverworts and hornworts
 - mosses
 - vascular plants
 - ferns and fern allies
 - flowering plants
 - gymnosperms
- protists
- viruses
- planetary bodies
 - meteorites
- population and community ecology
 - animal behavior
 - biodiversity
 - ecosystem diversity
 - genetic diversity
 - species diversity
 - biogeography
 - community ecology
 - ecosystems
 - aquatic ecosystems
 - benthic ecosystems
 - estuarine ecosystems
 - freshwater ecosystems
 - marine ecosystems
 - reef ecosystems
 - terrestrial ecosystems
 - coastal ecosystems
 - desert ecosystems
 - forest ecosystems
 - grassland ecosystems
 - shrubland ecosystems
 - tundra ecosystems
 - wetland ecosystems

- habitats
 - population dynamics
- scientific careers
- water properties
 - nutrient content (water)
 - oxygen content (water)
 - salinity
 - suspended material (water)
 - water hardness
 - water pH
 - water temperature
- water quality
 - groundwater quality
 - marine water quality
 - surface water quality
- water supply and demand
 - water budget
 - water use
 - instream water use
 - power generation water use
 - wastewater use
 - offstream water use
 - agricultural water use
 - irrigation water use
 - commercial water use
 - domestic water use
 - drinking water
 - industrial water use
 - mining water use

USGS

- USGS budget
- USGS contracts and grant
 - USGS cooperative research & development agreements (CRADAs)
 - USGS technology transfer
- USGS facilities
 - USGS field centers
 - USGS laboratories
 - USGS mapping centers
 - USGS nuclear reactors
 - USGS observatories
 - USGS science centers
 - USGS visitor centers
- USGS news
- USGS organization
 - USGS divisions
 - USGS offices
 - USGS partnerships
 - USGS regional organization
 - USGS teams
- USGS personnel
 - USGS employment and volunteer opportunities
- USGS policies and regulations
- USGS programs
 - USGS interagency programs

- USGS international programs
- USGS science programs
- USGS standards development
- USGS user services
 - USGS customer support and user feedback
 - USGS product support
 - USGS technical support
 - USGS educational services
 - USGS college programs
 - USGS internships
 - USGS K-12 programs
 - USGS lifelong learning programs
 - USGS meetings
 - USGS colloquia
 - USGS symposia
 - USGS workshops
 - USGS exhibits and facility tours
 - USGS open houses
- USGS information services
 - USGS clearinghouses
 - USGS data downloading
 - USGS Earth Science Information Centers (ESICs)
 - USGS expertise services
 - USGS fax-on-demand services
 - USGS libraries and archives
 - USGS map servers
 - USGS media relations
 - USGS publication servers
 - USGS sales and distribution services
 - USGS maps-on-demand
 - USGS search services