BIEN

https://projects.nceas.ucsb.edu/nceas/projects/bien/wiki/VegBIEN_schema

Legend

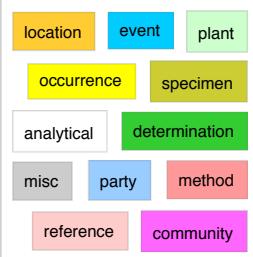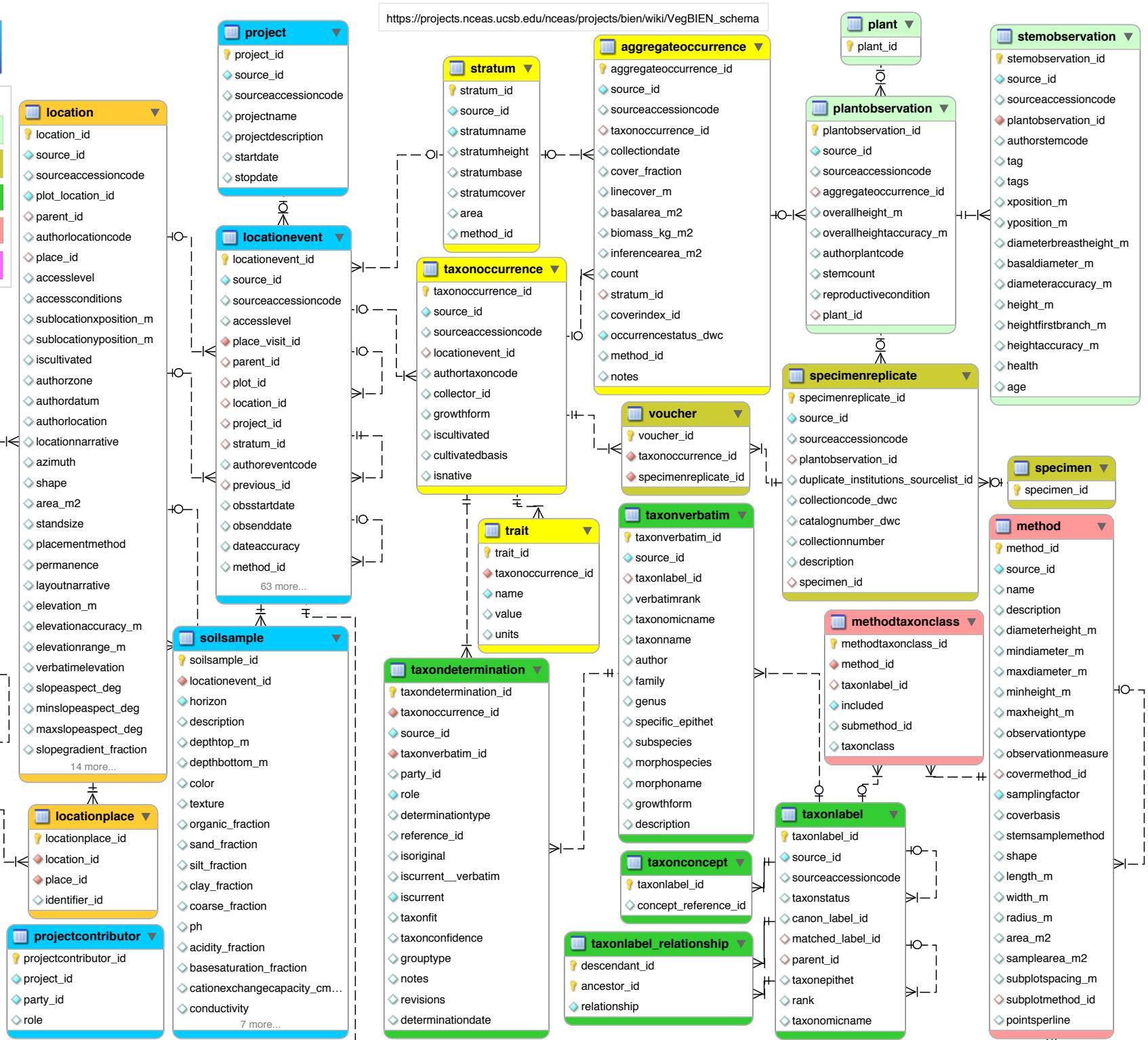| location | event | plant |
occurrence	specimen
analytical	determination
misc	party	method
reference	community

coordinates
- coordinates_id
- source_id
- latitude_deg
- longitude_deg
- verbatimlatitude
- verbatimlongitude
- verbatimcoordinates
- footprintgeometry_dwc
- coordsaccuracy_m

place
- place_id
- source_id
- canon_place_id
- matched_place_id
- coordinates_id
- placename_id
- continent
- country
- stateprovince
- county
- description
- geovalid
- distance_to_country_m
- distance_to_state_m
- distance_to_county_m

placename
- placename_id
- parent_id
- rank
- placename

location
- location_id
- source_id
- sourceaccessioncode
- plot_location_id
- parent_id
- place_id
- accesslevel
- accessconditions
- sublocationxposition_m
- sublocationyposition_m
- iscultivated
- authorzone
- authordatum
- authorlocation
- locationnarrative
- azimuth
- shape
- area_m2
- standsize
- placementmethod
- permanence
- layoutnarrative
- elevation_m
- elevationaccuracy_m
- elevationrange_m
- verbatimelevation
- slopeaspect_deg
- minslopeaspect_deg
- maxslopeaspect_deg
- slopegradient_fraction
- 14 more...

locationplace
- locationplace_id
- location_id
- place_id
- identifier_id

projectcontributor
- projectcontributor_id
- project_id
- party_id
- role

project
- project_id
- source_id
- sourceaccessioncode
- projectname
- projectdescription
- startdate
- stopdate

locationevent
- locationevent_id
- source_id
- sourceaccessioncode
- accesslevel
- place_visit_id
- parent_id
- plot_id
- location_id
- project_id
- stratum_id
- authoreventcode
- previous_id
- obsstartdate
- obsenddate
- dateaccuracy
- method_id
- 63 more...

soilsample
- soilsample_id
- locationevent_id
- horizon
- description
- depthtop_m
- depthbottom_m
- color
- texture
- organic_fraction
- sand_fraction
- silt_fraction
- clay_fraction
- coarse_fraction
- ph
- acidity_fraction
- basesaturation_fraction
- cationexchangecapacity_cm...
- conductivity
- 7 more...

stratum
- stratum_id
- source_id
- stratumname
- stratumheight
- stratumbase
- stratumcover
- area
- method_id

taxonoccurrence
- taxonoccurrence_id
- source_id
- sourceaccessioncode
- locationevent_id
- authortaxoncode
- collector_id
- growthform
- iscultivated
- cultivatedbasis
- isnative

trait
- trait_id
- taxonoccurrence_id
- name
- value
- units

taxondetermination
- taxondetermination_id
- taxonoccurrence_id
- source_id
- taxonverbatim_id
- party_id
- role
- determinationtype
- reference_id
- isoriginal
- iscurrent__verbatim
- iscurrent
- taxonfit
- taxonconfidence
- grouptype
- notes
- revisions
- determinationdate

aggregateoccurrence
- aggregateoccurrence_id
- source_id
- sourceaccessioncode
- taxonoccurrence_id
- collectiondate
- cover_fraction
- linecover_m
- basalarea_m2
- biomass_kg_m2
- inferencearea_m2
- count
- stratum_id
- coverindex_id
- occurrencestatus_dwc
- method_id
- notes

voucher
- voucher_id
- taxonoccurrence_id
- specimenreplicate_id

taxonverbatim
- taxonverbatim_id
- source_id
- taxonlabel_id
- verbatimrank
- taxonomicname
- taxonname
- author
- family
- genus
- specific_epithet
- subspecies
- morphospecies
- morphoname
- growthform
- description

taxonconcept
- taxonlabel_id
- concept_reference_id

taxonlabel_relationship
- descendant_id
- ancestor_id
- relationship

plant
- plant_id

plantobservation
- plantobservation_id
- source_id
- sourceaccessioncode
- aggregateoccurrence_id
- overallheight_m
- overallheightaccuracy_m
- authorplantcode
- stemcount
- reproductivecondition
- plant_id

specimenreplicate
- specimenreplicate_id
- source_id
- sourceaccessioncode
- plantobservation_id
- duplicate_institutions_sourcelist_id
- collectioncode_dwc
- catalognumber_dwc
- collectionnumber
- description
- specimen_id

methodtaxonclass
- methodtaxonclass_id
- method_id
- taxonlabel_id
- included
- submethod_id
- taxonclass

taxonlabel
- taxonlabel_id
- source_id
- sourceaccessioncode
- taxonstatus
- canon_label_id
- matched_label_id
- parent_id
- taxonepithet
- rank
- taxonomicname

stemobservation
- stemobservation_id
- source_id
- sourceaccessioncode
- plantobservation_id
- authorstemcode
- tag
- tags
- xposition_m
- yposition_m
- diameterbreastheight_m
- basaldiameter_m
- diameteraccuracy_m
- height_m
- heightfirstbranch_m
- heightaccuracy_m
- health
- age

specimen
- specimen_id

method
- method_id
- source_id
- name
- description
- diameterheight_m
- mindiameter_m
- maxdiameter_m
- minheight_m
- maxheight_m
- observationtype
- observationmeasure
- covermethod_id
- samplingfactor
- coverbasis
- stemsamplemethod
- shape
- length_m
- width_m
- radius_m
- area_m2
- samplearea_m2
- subplotspacing_m
- subplotmethod_id
- pointsperline

^ Core

v Other

analytical_stem
- datasource
- country
- stateProvince
- county
- locality
- decimalLatitude
- decimalLongitude
- coordinateUncertaintyInMeters
- coordinateSource_bien
- georeferenceProtocol_bien
- geovalid_bien
- isNewWorld_bien
- projectID
- project_contributors
- locationID
- locationName
- subplot
- location__cultivated__bien
- locationevent__pkey
- eventDate
- elevationInMeters
- slopeAspect
- slopeGradient
- plotArea_ha
- samplingProtocol
- temperature_C
- precipitation_m
- stratum__name
- communities
- plot__collectors
- specimenHolderInstitutions
- collection
- accessionNumber
- occurrenceID
- recordedBy
- recordNumber
- dateCollected
- family_verbatim
- scientificName_verbatim
- identifiedBy
- dateIdentified
- identificationRemarks
- family_matched
- taxonName_matched
- scientificNameAuthorship_matched
- higherPlantGroup_bien
- taxonomic_status

28 more...

tnrs
- batch
- Name_number
- Name_submitted
- Overall_score
- Name_matched
- Name_matched_rank
- Name_score
- Name_matched_author
- Name_matched_url
- Author_matched
- Author_score
- Family_matched
- Family_score
- Name_matched_accepted_family
- Genus_matched
- Genus_score
- Specific_epithet_matched
- Specific_epithet_score
- Infraspecific_rank
- Infraspecific_epithet_matched
- Infraspecific_epithet_score
- Infraspecific_rank_2
- Infraspecific_epithet_2_matched
- Infraspecific_epithet_2_score
- Annotations
- Unmatched_terms

13 more...

locationeventcontributor
- locationeventcontributor_id
- locationevent_id
- party_id
- role
- contributiondate

provider_count
- dataprovider
- dataset
- records
- sourcetype
- observationtype

geoscrub_output
- *row_num
- decimalLatitude
- decimalLongitude
- country
- stateProvince
- county
- acceptedCountry
- acceptedStateProvince
- acceptedCounty
- latLongDomainValid_verbatim
- latLongInCountry_verbatim
- latLongInStateProvince_verbatim
- latLongInCounty_verbatim
- latLongDomainValid
- latLongInCountry
- latLongInStateProvince
- latLongInCounty
- geovalid

taxon_trait
- scientificName
- measurementType
- measurementValue
- measurementUnit

taxoncorrelation
- taxoncorrelation_id
- taxonstatus_id
- taxonlabel_id
- plantconvergence
- correlationstart
- correlationstop

taxonstatus
- taxonstatus_id
- taxonlabel_id
- party_id
- taxonlabelstatus
- source_id
- plantpartycomments
- startdate
- stopdate

taxonlineage
- taxonlineage_id
- childtaxonstatus_id
- parenttaxonstatus_id

covermethod
- covermethod_id
- source_id
- covertype
- coverestimationmethod

coverindex
- coverindex_id
- covermethod_id
- covercode
- upperlimit
- lowerlimit
- coverpercent
- indexdescription

commclass
- commclass_id
- locationevent_id
- inspection
- tableanalysis
- multivariateanalysis
- classpublication_id

8 more...

source
- source_id
- matched_source_id
- parent_id
- shortname
- citation
- sourcetype
- accesslevel
- accessconditions
- observationtype
- title
- titlesuperior
- volume
- issue
- pagerange
- totalpages
- publisher
- publicationplace
- isbn
- edition
- numberofvolumes
- chapternumber
- reportnumber
- communicationtype
- degree
- url
- doi
- additionalinfo
- pubdate

7 more...

definedvalue
- definedvalue_id
- userdefined_id
- tablerecord_id
- definedvalue

userdefined
- userdefined_id
- userdefinedname
- userdefinedmetadata
- userdefinedcategory
- userdefinedtype
- tablename

commdetermination
- commdetermination_id
- commclass_id
- commconcept_id
- commcode
- commname
- classfit
- classconfidence
- commauthority_id
- notes
- type
- nomenclaturaltype

commconcept
- commconcept_id
- commname_id
- reference_id
- commdescription
- commname

commname
- commname_id
- commname
- source_id
- dateentered

commusage
- commusage_id
- commname_id
- commname
- commconcept_id
- commnamestatus
- classsystem
- party_id
- commstatus_id
- usagestart
- usagestop

address
- address_id
- party_id
- organization_id
- orgposition
- email
- street
- street2
- city
- stateprovince
- postalcode
- country
- currentflag
- addressstartdate

party
- party_id
- source_id
- sourceaccesscode
- fullname
- salutation
- givenname
- middlename
- surname
- suffix
- department
- organizationname
- currentname_id
- contactinstructions
- email
- partytype
- partypublic

sourcecontributor
- sourcecontributor_id
- source_id
- sourceparty_id
- role
- order

commcorrelation
- commcorrelation_id
- commstatus_id
- commconcept_id
- commconvergence
- correlationstart
- correlationstop

commstatus
- commstatus_id
- commconcept_id
- source_id
- commconceptstatus
- commparent_id
- commlevel
- commpartycomments
- party_id
- startdate
- stopdate

telephone
- telephone_id
- party_id
- phonenumber
- phonetype

partymember
- partymember_id
- parentparty_id
- childparty_id
- role
- memberstart
- memberstop

sourcename
- sourcelist_id
- name
- matched_source_id

sourcelist
- sourcelist_id
- source_id
- name

commlineage
- commlineage_id
- parentcommstatus_id
- childcommstatus_id

revision
- revision_id
- tablename
- tableattribute
- tablerecord
- previousvaluetext
- previousvaluetype
- previousrevision_id
- revisiondate