# MFE DATABASE SCHEMA | KEYS

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Structure: LAKES > SITES > *_SAMPLES (SAMPLES, FISH_SAMPLES, CREEL_SAMPLES) > Other tables

**LAKES_GIS**
*lakeID*
updateID

**LAKE_BATHYMETRY**
*lakeID*
metadataID
updateID

**LAKES**
*lakeID*
updateID

**PIEZOMETERS_INSTALL**
*siteID*
metadataID
updateID

**SITES**
*siteID*
lakeID
updateID

**FISH_SAMPLES**
*sampleID*
siteID
metadataID
updateID

**SAMPLES**
*sampleID*
siteID
updateID

**FISH_YOY**
*fishID*
siteID
*sampleID*
projectID
updateID

**FISH_INFO**
*fishID*
*sampleID*
projectID
species
updateID

**FISH_DIETS**
*fishID*
species
dietItem
metadataID
updateID

**FISH_OTOLITHS**
*fishID*
metadataID
updateID

**CREEL_INFO**
*creelID*
sampleID
projectID
updateID

**CREEL_FISH**
*fishID*
creelID
species
projectID
updateID

**CREEL_SAMPLES**
*sampleID*
siteID
metadataID
updateID

**CREEL_INTERVIEW**
*creelID*
projectID
updateID

**CREEL_INSTANTANEOUS_JUNCTION_TABLE**
*sampleID*
*trailerCountID*
*boatCountID*
updateID

**Other CREEL tables**
*CREEL_POINT_TRAILERCOUNT*
*CREEL_POINT_BOATCOUNT*

**ISOTOPE_RESULTS**
*isotopeID*
batchID
metadataID
updateID

**ISOTOPE_BATCHES**
*batchID*
updateID

**ISOTOPE_SAMPLES_ZOOPS**
*sampleID*
*isotopeID*
batchID
lakeID
taxa
projectID
updateID

**BENTHIC_INVERTS**
*invertID*
sampleID
projectID
lakeID
taxa
metadataID
updateID

**DOC**
*sampleID*
projectID
lakeID
metadataID
updateID

**COLOR**
*sampleID*
projectID
lakeID
metadataID
updateID

**CHLOROPHYLL**
*sampleID*
projectID
lakeID
metadataID
updateID

**ZOOPS_LENGTHS**
*sampleID*
projectID
lakeID
taxa
metadataID
updateID

**ISOTOPE_SAMPLES_POC**
*sampleID*
*isotopeID*
batchID
projectID
lakeID
updateID

**MOLECULAR_SAMPLE**
*molecularID*
sampleID
projectID
metadataID
updateID

**MOLECULAR_PROCESSED**
*molecularID*
projectID
metadataID
updateID

**LIPID_SAMPLES**
*lipidID*
sampleID
projectID
lakeID
taxa
updateID

**LIPID_EXTRACTIONS**
*extractionID*
lipidID
metadataID
updateID

**Other SAMPLES tables**
*BACTERIAL_PRODUCTION_BENTHIC*
*BACTERIAL_PRODUCTION_PELAGIC*
*GC*
*LIMNO_PROFILES*
*NUTRIENTS*
*POC*
*PRIMARY_PRODUCTION_BENTHIC*
*PIEZOMETERS_LAKE*
*PIEZOMETERS_UPLAND*
*RHODAMINE*
*RHODAMINE_RELEASE*
*SEDIMENT*
*STAFF_GAUGES*
*TPOC_DEPOSITION*
*ZOOPS_ABUND_BIOMASS*
*ZOOPS_SUBSAMPLE*
*ZOOPS_PRODUCTION*

**Other ISOTOPE tables**
*ISOTOPE_SAMPLES_BENTHIC_INVERTS*
*ISOTOPE_SAMPLES_DIC*
*ISOTOPE_SAMPLES_FISH*
*ISOTOPE_SAMPLES_METHANE*
*ISOTOPE_SAMPLES_PERIPHYTON*
*ISOTOPE_SAMPLES_WATER*

**Non-primary data tables**
CREW people, years, roles, locations
LITERATURE_DATA lake data from lit.
PUBLICATIONS_PRESENTATIONS
VERSION_HISTORY summaries of all changes for each db update (cf. UPDATE_METADATA, which tracks changes to indiv. tables)
UNITS same as "columnNames_allDatabaseTables": variable names, units, descriptions for all tables

NOTES:

- Variable ID's with matching colors indicate a linkage in the absence of an arrow.
- Borders/arrows with matching colors indicate groups of tables containing related information (e.g. blue = fish tables; yellow = creel tables). Variable ID colors are not intended to relate to border/arrow colors.
- Variables listed are *primary* or foreign keys. Non-key variables are omitted. Multiple italicized variables form a composite primary key.
- Arrows show types of dyadic relationships: a dot indicates "one"; an empty arrowhead indicates "many". In one-to-many relationships, the joining variable is the primary key in the "one" table and a primary or foreign key in the "many" table. In one-to-one relationships, the joining variable is the primary key in both tables.

**ZOOPS_COEFFICIENTS**
*taxa*
equations for zoop mass (ug) in terms of body length

**OTU**
*otu*
Taxonomic names/groups for organisms

**METADATA**
*metadataID*
Documentation of field and lab procedures, sampling, etc.

**PROJECTS**
*projectID*
Descriptions, years, personnel, etc. for projects/experiments

**UPDATE_METADATA**
*updateID*
Documentation for each table version/update: tracking changes

**DRY_MASS_EQUATIONS**
*OTU*
Literature-derived equations for calculating dry mass of inverts etc.