

OBBN Database Dictionary

2018

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User

User-name: Provided to you from the OBBN technician, the user-name is how an individual is represented.

Agency: Is the organization which data is being contributed from.

Sampling Event

Site: A reference code for the monitoring location: site code.

Sampling Event Date: The date the sample was collected.

Gear Type: The equipment used to collect the sample.

D-Net: A net orifice shaped as a letter D, used for collection of benthic invertebrates.

Typically the equipment used for kick and sweeps.

Ponar Grab: A device used for grab sampling. Used in none wadeable reaches, when sediment is firm and deep.

Ekman Dredge: A device used for grab sampling. Used in none wadeable reaches, when sediment is fine/soft and deep.

Collection Method: Method followed for sample collection.

OBBN Kick and sweep: Standard method for wadeable streams. Applied by wading along transects, kicking the substrate to dislodge benthos, and collecting dislodged benthos by “sweeping” a hand-held net of 500 microns through the water.

CABIN kick and sweep: Applied by wading along transects, kicking the substrate to dislodge benthos, and collecting dislodged benthos by “sweeping” a hand-held net or 400 microns through the water.

Grab: Sampling technique for deep water sites: ponar grab or Ekman dredge.

Mesh Size: Refers to the size of micron used for collection of the sample. Only applies when a kick-and-sweep method of collection was followed as grab samples do not require mesh sizes.

River Permanence:

Perennial stream: Is a stream which exhibits continuous flow all year round.

Intermittent stream: Is a stream which flow ceases for weeks to months of a year.

Pumped drain: Watercourse in which water level is maintained by actively pumping across a dam.

Unknown/other: River permanence is unknown or not listed in the pick-list.

Bank-full Width (m): Stream width measured at the elevation of the high water marks on each bank: the width of the stream at the highest stage that can be confined within the stream banks.

% Canopy Cover: Is the amount of overhead coverage provided by the surrounding vegetation or other obstacles.

Time of Day: The time the site was reached and sampling activities began.

Riparian Vegetation: Vegetation growing adjacent to a stream, lake or wetland.

Water Temperature (°C): Is a measurement of how hot or cold the sampled environment was.

DO (mg/L): Is a measurement of the amount of oxygen in the water.

Conductivity (µS/cm): Is a measurement of the water's ability to conduct or transmit heat, electricity or sound.

Alkalinity (mg/L as CaCO₃): Is a measurement of the water's ability to resist changes in pH.

pH: Is a measurement of the water's state of acidity.

Turbidity (NTU): Is a measurement of the amount of suspended matter in the water.

Chemistry Method: Record of equipment used to measure site chemistry.

Multi-probe field instrument: A handheld device which is used to collect stream parameters of interest.

Lab: Monitoring of stream parameters through external sources: Typically off-site and conducted at a later time.

Collection Area

Sample Number: Quantitative reference in which benthos samples are collected: transects.

Pool: A stream segment characterized by slow flow and a constant surface elevation; in alluvial systems, typically occur along the outside bend of a meander, where the thalweg is adjacent to the stream bank at bank-full discharge.

Riffle: A stream segment having fast, sometimes turbulent flow and typically shallow depth; typically exhibits an obvious local surface elevation change; in alluvial systems, typically occurs at a cross-over.

Wetted Width (m): Bank to bank stream width; measured perpendicular to current flow at the water's surface.

Sampling Distance (m): Refers to the distance covered while collecting the sample throughout the transect.

Sampling Time: The time recorded to sample the stream. Specific to each sub-sample.

Max Depth (cm): The depth of the deepest standing water encountered during sampling; recorded for each sub-sample (Transect Kick) or replicate (lakes and wetlands).

Maximum Hydraulic Head (mm): A surrogate for current speed; measured as the height of water “piled up” (above water’s surface) against the wide side of a meter stick that is held vertically in the stream; always measured in the thalweg (Stanfield 2005).

Substrate: Bottom material at a lake, stream, or wetland sampling location; includes several particle size classes: clay (hard pan), silt (gritty, < 0.06 mm particle diameter), sand (grainy, 0.06 - 2 mm), gravel (2 - 65 mm), cobble (65 - 250 mm), boulder (> 250 mm), bed rock, and Organic.

Dominant Substrate: The most commonly seen/found substrate. Specific to each transect.

2nd Dominant Substrate: The second most commonly seen/found substrate. Specific to each transect.

Subsampling Method: A benthos sample collected from either a pool or riffle transect in a stream Sampling Reach; a portion of a sample to be picked (e.g., the contents of 1 Marchant Box cell).

Bucket: Pail with a large orifice, used to randomize sub-sample: reduce equipment costs and processing time.

Marchant Box: Divided into 100 cells to randomize sub-sample: preferred picking method.

Visual Aid: Refers to the equipment used to identify the invertebrates collected.

Collection Area Latitude: Collected at the centroid of each transect: Defines the north-south position of a point of earth’s surface.

Collection Area Longitude: Collected at the centroid of each transect: Defines the east-west position of a point of earth's surface.

Number of Samples Pooled: Only applies to grab samples. The amount of times the equipment had to be used to collect 100 benthic invertebrates.

Woody Debris: Fallen trees and remains of branches.

Detritus: Organic fragments of decomposing plant or animal matter.

Macrophytes – Emergent: Pierces the surface of the stream so the plant is partially out of the water.

Macrophytes - Rooted Floating: Leaves which float on the water's surface but are attached to the streams substrate through root systems.

Macrophytes – Submergent: Remains completely under the streams surface.

Macrophytes -Free Floating: Floats entirely on the surface of the water; root systems are not attached to substrate.

Algae – Floating: Floats on the surface of the water.

Algae – Filamentous: Long, threadlike algae.

Algae – Attached: Attached to the bottom sediment or other materials.

Percent Processed: After the sample has been processed, the percent processed refers to the amount of the sample that was identified to obtain 100 invertebrates.

Pebble Count

Median Axis: Intermediate width of any particle.

OSAP code: Defines particle size.

Unconsolidated Clay: Clay comprised of loose materials.

Consolidated Clay: Clay comprised of rock materials that have been metamorphosed together.

Silt: Particles of rock fragments; larger than clay but smaller than sand.

Sand: Granular substance between 0.05 mm and 2 mm; larger than silt but smaller than bedrock.

Bedrock: Unbroken solid rock; typically underlying looser materials.

Concrete: Common building material intended for hardening surfaces; human-made.

Measured Particles: Substrate material between 2 mm and 1000 mm.

Large Boulders: A large rock over 1000 mm that is not attached to bedrock.