Aquatic plant bryophyte macroalgae clip harvest (DP1.20066.001)

Measurement

Taxonomy, plant presence/absence, and ash-free dry mass (g m-2) from aquatic plants, bryophytes, and macroalgae.

Collection methodology

Clip harvest data are collected from 10 locations at all aquatic sites during bout 2 of the biological and sediment chemistry bouts (mid-summer). In lakes and rivers, additional presence/absence data are collected from 10 points during bouts 1 and 3. Points in lakes and rivers use randomized point sampling, and plant samples are collected using a submerged rake along three-1.5 m tows. Clip harvest data are collected near permanent transects using a 0.25 m2 (or 0.01 m2) quadrat. In wadeable streams, five of these collections are in the dominant habitat type and five are from the sub-dominant habitat type spaced >10m apart.

For information about disturbances, land management activities, and other incidents that may impact data at NEON sites, see the Site management and event reporting (DP1.10111.001) data product.

Data package contents

apl_clipHarvest: Aquatic plant bryophyte lichen macroalgae clip harvest data
apc_morphospecies: Plant morphospecies resolution data
apl_taxonomyProcessed: Aquatic plant bryophyte lichen macroalgae clip harvest identifications by expert taxonomists - desynonimized
apl_taxonomyRaw: Aquatic plant bryophyte lichen macroalgae clip harvest identifications by expert taxonomists - raw
apl_biomass: Domain lab aquatic clip harvest biomass
apl_identificationHistory: Aquatic plant bryophyte lichen macroalgae identification history for records where identifications have changed
variables: Description and units for each column of data in data tables
readme: Data product description, issue log, and other metadata about the data product
validation: Description of data validation applied at the points of collection and ingest

Data quality

Ten percent of samples are cross checked by two expert taxonomists to ensure accuracy in taxonomic identification. These samples are denoted by the qcTaxonomyStatus field in the apl_taxonomyRaw and apl_taxonomyProcessed tables. The identificationQualifier field notes uncertainty in the identification, and the taxonRank field notes the specificity of the identification.

Please note that quality checks are comprehensive but not exhaustive; therefore, unknown data quality issues may exist. Users are advised to evaluate quality of the data as relevant to the scientific research question being addressed, perform data review and post-processing prior to analysis, and use the data quality information and issue logs included in download packages to aid interpretation.

Table joining

Table 1	Table 2	Join by field(s)	Notes
apl_clipHarvest	apl_pointTransect	eventID	
apl_clipHarvest	apc_morphospecies	Not fully automatable: Records can be connected by siteID and morphospeciesID, and overlap of collectDate with morphospeciesCreated and morphospeciesResolved dates	
apl_clipHarvest	apl_algaeExternalLabDataPerSample	sampleID	
apl_clipHarvest	apl_biomass	fieldID	
apl_biomass	apl_taxonomyRaw	sampleID	Note that there may be multiple records per sampleID in apl_taxonomyRaw, and not every record in apl_biomass has a corresponding record in apl_taxonomyRaw

Table 1	Table 2	Join by field(s)	Notes
apl_biomass	apl_taxonomyProcessed	sampleID	Note that there may be multiple records per sampleID in apl_taxonomyProcessed, and not every record in apl_biomass has a corresponding record in apl_taxonomyProcessed
apl_clipHarvest	apl_taxonomyRaw	Requires intermediate table: Join via apl_biomass table	
apl_clipHarvest	apl_taxonomyProcessed	Requires intermediate table: Join via apl_biomass table	
apl_taxonomyRaw	apl_taxonomyProcessed	Join not recommended. These tables contain identifications of the same samples with possibly differing higher-order taxonomy; see User Guide.	
apc_morphospecies	Any other table	Join not recommended. Data resolution does not match other tables.	

Documentation

Standard Operating Procedures and Protocols for Aquatic Plant Taxonomic Identification, David Krofanek Botany, Rev 1

`Kofranek_plantTaxonomy_V1 | 1 MiB | PDF`

NEON Aquatic Sampling Strategy
NEON.DOC.001152vB | 931.8 KiB | PDF

AOS Protocol and Procedure: APL – Aquatic Plant, Bryophyte, Lichen and Macroalgae Sampling
NEON.DOC.003039vG | 2.2 MiB | PDF

NEON User Guide to Aquatic Plant Bryophyte Chemical Properties (NEON.DP1.20063)
NEON_aquPlantChem_userGuide_vC | 626.8 KiB | PDF

NEON User Guide to Aquatic Plant Bryophyte Macroalgae Clip Harvest (NEON.DP1.20066)
NEON_aquaticClip_userGuide_vD | 728.6 KiB | PDF

Standard Operating Procedures and Protocols for Aquatic Plant Taxonomic Identification, University of West Alabama Herbarium, 02 February 2018
UWA_plantTaxonomy_20180202 | 892.7 KiB | PDF

For more information on data product documentation, see:
https://data.neonscience.org/data-products/DP1.20066.001

Citation

To cite data from Aquatic plant bryophyte macroalgae clip harvest (DP1.20066.001), see citation here:
https://data.neonscience.org/data-products/DP1.20066.001
For general guidance in citing NEON data and documentation, see the citation guidelines page:
https://www.neonscience.org/data-samples/guidelines-policies/citing

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NEON welcomes discussion with data users! Reach out with any questions or concerns about NEON data:
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