

Fish electrofishing, gill netting, and fyke netting counts (DP1.20107.001)

Measurement

Fish taxonomy, abundance, and physical characteristics of fish in wadeable streams and lakes. Physical characteristics recorded include: length, width, life stage, deformities, eroded fins, lesions, tumors, and parasites. Vouchers and tissue samples are collected as needed.

Collection methodology

Each NEON aquatic stream site is divided into 10 designated reaches measuring between 80m and 120m. Of these 10 reaches, 3 are “fixed” meaning they are sampled twice every year. Fixed reaches are sampled using a three-pass electrofishing depletion strategy. The remaining 7 reaches are rotated through and are sampled using a single pass. Lake sites are similar but instead use a segmented approach to capture nearshore and offshore populations. These segments are located between two riparian transects and they all meet in the center of the lake. The fixed segments of lakes include habitat features that best represent the lake and include one fyke net and one gill net set. At both streams and lakes the same random reaches/segments are sampled in spring and fall and rotate to a new set each year. One full sampling bout will contain the 3 fixed reaches and 3 random reaches for a total of 6.

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

fsh_bulkCount: Fish sampling field data bulk count

fsh_perFish: Fish sampling field data per specimen captured

fsh_perPass: Fish sampling field data per pass

fsh_fieldData: Fish sampling field data per sub-sampling reach

fsh_invertBycatch: Fish sampling macroinvertebrate bycatch

fsh_morphospecies: Fish morphospecies resolution data

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

Metadata about conditions and equipment settings during sampling can be found in the fsh_perPass table. In the tables containing taxonomic identifications, the identificationQualifier field indicates uncertainty in the identification, and the identifiedBy field can be used to estimate observer effects.

Table joining

Table 1	Table 2	Join by field(s)
fsh_fieldData	fsh_perPass	reachID
fsh_perFish	fsh_perPass	eventID
fsh_bulkCount	fsh_perPass	eventID
fsh_morphospecies	fsh_perFish	morphospeciesID
fsh_morphospecies	fsh_bulkCount	morphospeciesID
fsh_fieldData	fsh_morphospecies	Join not recommended: data can be related via date of sampling
fsh_perPass	fsh_morphospecies	Join not recommended: data can be related via date of sampling
fsh_bulkCount	fsh_fieldData	Requires intermediate table: join via fsh_perpass table
fsh_bulkCount	fsh_perFish	Join not recommended: data can be related via date of sampling
fsh_fieldData	fsh_perFish	Join not recommended: data can be related via date of sampling

Documentation



[NEON Aquatic Sampling Strategy](#)

NEON.DOC.001152vB | 931.8 KiB | PDF



[AOS Protocol and Procedure: FSS – Fish Sampling in Wadeable Streams](#)

NEON.DOC.001295vG | 2.1 MiB | PDF



[AOS Protocol and Procedure: FSL – Fish Sampling in Lakes](#)

NEON.DOC.001296vH | 2.3 MiB | PDF



[NEON User Guide to Fish electrofishing, gill netting, and fyke netting counts \(NEON.DP1.20107\)](#)

NEON_fish_userGuide_vB | 443.9 KiB | PDF

For more information on data product documentation, see:
<https://data.neonscience.org/data-products/DP1.20107.001>

Citation

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