

Dataset Originator: *Frank O. Nitsche, Timothy C. Kenna, Cecilia McHugh*

Publication Date: 2024-01-10

Dataset Title: *LIS phase 3A sediment grab location and field description data*

Online Linkage: *<http://www.marine-geo.org/portals/lis/>*

Abstract: Location and field description results of sediment grab samples recovered as part of the Long Island Sound mapping project Phase 3A. Sediment grab samples have been taken in June 2023 using Ponar grab sampler onboard the RV Weicker. A photo of each sample was taken and the samples were described visually in the field. Based on the findings a preliminary lithology was determined. A sub-sample of the top two centimeters was taken and stored in a jar for later analysis. Location is based on the ship DGPS system. The data are presented as Excel spreadsheet and ESRI shapefile.

Dataset purpose: Surface sediment information and lithology is an important characterization for benthic habitats and sediment processes. These field descriptions can guide the interpretation of backscatter data until a more detailed grain size analysis is done in the lab.

Time period of content: *2023-06-12 to 2023-06-15*

Dataset Status: complete

Update Frequency: *none planned*

Theme Keywords: *Long Island Sound, sediment grab, grain size*

Access Constraints: *none*

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Data are provided with the express understanding that they will not be sold to third parties or included in commercial databases.

Users are strongly encouraged to contact the original investigators responsible for data made available on this site. Where appropriate, researchers are also encouraged to consider collaboration and/or co-authorship with original investigators.

Point of Contact: *Frank Nitsche, Lamont-Doherty Earth Observatory of Columbia University, fnitsche@ldeo.columbia.edu*

Dataset Credit: Long Island Sound Mapping Project, Timothy C. Kenna, Frank O. Nitsche, Cecilia McHugh

Data Quality Considerations: These are final processed data

Attribute accuracy: The attribute accuracy has not been determined, but standard practices have been followed.

Completeness: The dataset is complete.

Positional accuracy: Locations are based on DGPS using the ship GPS antenna for most cores resulting +/- 5 m accuracy.

Attributes:

Grab_Name: Full text describing the Name of the grab sample. A combination of cruise_id and grab number.

Grab_Num: Grab number. Number of grab sample without cruise_id for short name display

Target: Number of original grab target from the sampling plan.

Cruise_ID: Name of the sampling cruise. In this case it is LIS2301.

Organization: Name of the Organization(s) that collected and described the sample.

Project: Name of the project for which the sample was collected.

Ship: Name of the vessel used for data collection.

Latitude: Geographic latitude of the sample location.

Longitude: Geographic longitude of the sample location.

depth_m: Water depth in meter from which the sample was collected.

sample_date: Date when the sample was taken (ISO format)

time: Local time (EDT) when the sample was taken.

Device: Device used for taken the sediment sample.

Jar_number: Number of jar in which the sub-sample was stored.

oxidized_surface: presence or absents of an oxidized top (yes/no)

stiffness: estimated stiffness of the sediment (very soft, soft, stiff, very stiff)

color: color of the sediment

mud: estimate of amount of mud (clay and silt) in the sample (absent, rare, common, abundant)

sand: estimate of amount of sand in the sample (absent, rare, common, abundant)

gravel: estimate of amount of gravel in the sample (absent, rare, common, abundant)

pebbles: estimate of amount of pebbles in the sample (absent, rare, common, abundant)

leaves: estimate of amount of leaves in the sample (absent, rare, common, abundant)

wood: estimate of amount of wood or wood pieces in the sample (absent, rare, common, abundant)

shells: estimate of amount of shells or shell fragments in the sample (absent, rare, common, abundant)

oysters: estimate of amount of oyster shells in the sample (absent, rare, common, abundant)

mussels: estimate of amount of mussels in the sample (absent, rare, common, abundant)

living_veg: estimate of amount of living vegetation in the sample (absent, rare, common, abundant)

anthropogenic: estimate of amount of mud anthropogenic materials (brick, coal, plastics etc.) in the sample (absent, rare, common, abundant)

H₂S_smell: presence or absents of H₂S smell (yes/no)

field_lithology: field estimate of a lithology description of the sediment (sand, muddy sand, sandy mud, etc.)

field_comment: any additional field observations

comment: additional comments made when digitizing field logs and preparing the data

Metadata reference: *Frank Nitsche, Lamont-Doherty Earth Observatory of Columbia University, fnitsche@ldeo.columbia.edu*