

Metadata

Dataset Titles:

Cary_Wappinger_Creek_Storm_Data_March_2013_Storm_Data.csv
Cary_Wappinger_Creek_Storm_Data_June_2013_Storm_Data.csv
Cary_Wappinger_Creek_Storm_Data_April_May_2014_Storm_Data.csv
Cary_Wappinger_Creek_Storm_Data_Sept_Oct_2015_Storm_Data.csv
Cary_Wappinger_Creek_Storm_Data_Oct_2016_Storm_Data.csv

Cary Institute of Ecosystem Studies Storm Data, East Branch Wappinger Creek

Abstract

This dataset is a contribution to the Cary Institute of Ecosystem Studies. The objective of the project was to sample the streamwater during flood events in order to understand dynamics of N, P, Na, Cl, suspended sediments, pH, dissolved oxygen (DO), dissolved organic carbon (DOC) & turbidity during different types of floods. Floods were selected to represent different times of the year and different conditions such as after a significant snow melt, after a prolonged drought, etc.

Sampling was done March 11-15, 2013, June 6-12, 2013, April 29-May 5, 2014, September 28-October 5, 2015 and October 20-26, 2016.

Investigators

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Keywords

Cary Institute, Cary Institute of Ecosystem Studies, data, climate, stream, streamwater, chemistry, conductivity, conductance, pH, sodium, chloride, ammonium, phosphate, dissolved organic carbon, suspended sediments, dissolved oxygen, turbidity

Timeframe

The data in this file start 11 March 2013 and end 26 October 2016. Data collection was higher frequency during storms and less frequent before and after stormflow.

Geographic location

Data were collected at the gauging station in the Fern Glen (Site 2), GPS coordinates N41.78707, W73.73317)

Methods

Data were collected via a) the existing Campbell Scientific datalogger at 15 minute intervals including stage height & discharge, specific conductivity and temperature; b) a YSI 6000 Sonde at 15 minute intervals including temperature, specific conductivity, depth, pH, turbidity, and dissolved oxygen; c) For some storms, ISCO samples were taken at 2 hour intervals during the flood events. The ISCO sample analyses included but were not always as described in the following: benchtop chloride (mg/L), DOC (ppm), benchtop pH, benchtop conductivity, benchtop turbidity (NTU) and benchtop nitrate using a SUNA sampler. A subset of the ISCO samples were analyzed by the Rachel Carson analytical lab for Na, Cl, PO₄, NH₄ & NO₃.

Data Table March 2013

Column name	Description	Unit or code explanation or date format	Empty value Code
Date	Date		Blank
hourmin_DST	Hour, minute	Daylight Savings Time	Blank
hourmin_EST	Hour, minute	Eastern Standard Time	Blank
date_time_EST	Datetime	Eastern Standard Time	Blank
sonde_Temp_C	Temperature from Sonde	Degrees Celsius	Blank
sonde_SpCond_mspercm	Specific Conductivity from Sonde	milliSiemens per Centimeter	Blank
sonde_Depth_m	Depth from Sonde	Meter	Blank
sonde_pH	pH from Sonde	pH units	Blank
sonde_Turb_NTU	Turbidity from Sonde	NTU	Blank
sonde_ODOsat_pct	Dissolved oxygen as % of saturation from Sonde	Percent	Blank
sonde_ODO_mgperL	Dissolved Oxygen from Sonde	Milligrams per Liter	Blank
sonde_Depth_cm	Depth from Sonde	Centimeters	Blank
cs_strm_tmp	Campbell Temperature	Degrees Celsius	Blank
cs_strm_cond	Campbell Conductivity	milliSiemens per Centimeter	Blank
cs_strm_ht	Campbell Stream Height	Centimeters	Blank
cs_q	Stream Flow	Meters ³ per second	Blank
bp_mmHg	Barometric Pressure	Millimeters of mercury	Blank
rain_mm	Rainfall in the previous 15 minutes	Millimeters	Blank
Isco	ISCO Sampler		Blank
isco_btl_num	ISCO Bottle Number		Blank
sm_btl_num	Small Bottle Number		Blank
DOC_ppm	Dissolved Organic Carbon	Parts Per Million	Blank
Na_mgperL	Sodium Concentration	Milligrams per Liter	Blank
Cl_mgperL	Chloride Concentration	Milligrams per Liter	Blank
NO3_N_mgperL	Nitrate_Nitrogen Concentration	Milligrams per Liter	Blank
NH4_N_mgperL	Ammonim_Nitrogen Concentration	Milligrams per Liter	Blank
PO4_P_mgperL	Phosphate_Phosphorous Conc.	Milligrams per Liter	Blank
benchtop_Cl_mgperL	Benchtop Chloride Concentration	Milligrams per Liter	Blank
benchtop_DW_perL	Benchtop Dry Weight	Milligrams per Liter	Blank

Data Table June 2013

Column name	Description	Unit or code explanation or date format	Empty value Code
Date	Date		Blank
hourmin_DST	Hour, minute	Daylight Savings Time	Blank
hour_min_EST	Hour, minute	Eastern Standard Time	Blank
date_time_EST	Datetime	Eastern Standard Time	Blank
sonde_Temp_C	Temperature from Sonde	Degrees Celsius	Blank
sonde_SpCond_mspercm	Specific Conductivity from Sonde	milliSiemens per Centimeter	Blank
sonde_Depth_m	Depth from Sonde	Meter	Blank
sonde_pH	pH from Sonde	pH units	Blank
sonde_Turb_NTU	Turbidity from Sonde	NTU	Blank
sonde_ODOsat_pct	Dissolved oxygen as % of saturation from Sonde	Percent	Blank
sonde_ODO_mgperL	Dissolved Oxygen from Sonde	Milligrams per Liter	Blank
sonde_Depth_cm	Depth from Sonde	Centimeters	Blank
cs_strm_tmp	Campbell Temperature	Degrees Celsius	Blank
cs_strm_cond	Campbell Conductivity	milliSiemens per Centimeter	Blank
cs_strm_ht	Campbell Stream Height	Centimeters	Blank
cs_q	Stream Flow	Meters^3 per second	Blank
bp_mmHg	Barometric Pressure	Millimeters of mercury	Blank
rain_mm	Rainfall in the previous 15 minutes	Millimeters	Blank
Isco	ISCO Sampler		Blank
isco_btl_num	ISCO Bottle Number		Blank
lg_btl_num	Large Bottle Number		Blank
benchtop_pH	Benchtop pH	pH units	Blank
sm_btl_num	Small Bottle Number		Blank
DOC_ppm	Dissolved Organic Carbon	Parts Per Million	Blank
Na_mgperL	Sodium Concentration	Milligrams per Liter	Blank
Cl_mgperL	Chloride Concentration	Milligrams per Liter	Blank
NO3_N_mgperL	Nitrate_Nitrogen Concentration	Milligrams per Liter	
NH4_N_mgperL	Ammonim_Nitrogen Concentration	Milligrams per Liter	
PO4_P_mgperL	Phosphate_Phosphorous Conc.	Milligrams per Liter	
benchtop_Cl_mgperL	Benchtop Chloride Concentration	Milligrams per Liter	Blank
benchtop_Cond_mS	Benchtop Conductivity	milliSiemens per Centimeter	Blank

Data Table April-May 2014

Column name	Description	Unit or code explanation or date format	Empty value Code
Date	Date		Blank
hour_min_EST	Hour_minute	Eastern Standard Time	Blank
sonde_Temp_C	Temperature from Sonde	Degrees Celsius	Blank
sonde_SpCond_mspercm	Specific Conductivity from Sonde	milliSiemens per Centimeter	Blank
sonde_Depth_m	Depth from Sonde	Meter	Blank
sonde_pH	pH from Sonde	pH units	Blank
sonde_Turb_NTU	Turbidity from Sonde	NTU	Blank
sonde_ODOsat_pct	Dissolved oxygen as % of saturation from Sonde	Percent	Blank
sonde_ODO_mgperL	Dissolved Oxygen from Sonde	Milligrams per Liter	Blank
DOY	Day of Year		Blank
Temp_C	Campbell Temperature	Degrees Celsius	Blank
Cond_uS	Campbell Conductivity	milliSiemens per Centimeter	Blank
Gauge_cm	Campbell Stream Height	Centimeters	Blank
Batt_V	Campbell Datalogger Battery	Volts	Blank

Data Table September-October 2015

Column name	Description	Unit or code explanation or date format	Empty value Code
date	Date		Blank
jd	Julian Date = Day of Year		Blank
Time_EST	Hour_minute	Eastern Standard Time	Blank
strm_tmp	Campbell Temperature	Degrees Celsius	Blank
strm_cond	Campbell Conductivity	milliSiemens per Centimeter	Blank
strm_ht	Campbell Stream Height	Centimeters	Blank
q	Stream Flow	Meters^3 per second	Blank
Time_EDT	Hour, minute	Eastern Daylight Time	Blank
Sonde_Temp	Temperature from Sonde	Degrees Celsius	Blank
Sonde_SpCond	Specific Conductivity from Sonde	milliSiemens per Centimeter	Blank
Sonde_Depth	Depth from Sonde	Meter	Blank
Sonde_pH	pH from Sonde	pH units	Blank
Sonde_Turbid	Turbidity from Sonde	NTU	Blank
Sonde_ODOsat	Dissolved oxygen as % of saturation from Sonde	Percent	Blank
Sonde_ODO	Dissolved Oxygen from Sonde	Milligrams per Liter	Blank
Sonde_Battery	Battery Voltage from Sonde	Volts	Blank
Suna_NO3_uM	Benchtop Nitrate Concentration	microMolar	Blank
Suna_NO3_mgperL	Benchtop Nitrate Concentration	Milligrams per Liter	Blank
Suna_NO3N_mgperL	Benchtop Nitrate_N Concentration	Milligrams per Liter	Blank

Data Table October 2016

Column name	Description	Unit or code explanation or date format	Empty value Code
date	Date		Blank
jd	Julian Date = Day of Year		Blank
Time_EST	Hour_minute	Eastern Standard Time	Blank
CSI_Temp	Campbell Temperature	Degrees Celsius	Blank
CSI_cond	Campbell Conductivity	milliSiemens per Centimeter	Blank
CSI_ht	Campbell Stream Height	Centimeters	Blank
Isco_Sample	ISCO Sample Number		Blank
q	Stream Flow	Meters^3 per second	Blank
Sonde_Turbid	Turbidity from Sonde	NTU	Blank
Sonde_Temp	Temperature from Sonde	Degrees Celsius	Blank
Sonde_Conc	Conductivity from Sonde	milliSiemens per Centimeter	Blank
Sonde_SpCond	Specific Conductivity from Sonde	milliSiemens per Centimeter	Blank
Sonde_pH	pH from Sonde	pH units	Blank
Sonde_ODOsat	Dissolved oxygen as % of saturation from Sonde	Percent	Blank
Sonde_ODO	Dissolved Oxygen from Sonde	Milligrams per Liter	Blank
Sonde_Depth	Depth from Sonde	Meters	Blank

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