



CRHS QW 01

CRHS Pixel 02

CRHS WQ 02

CRHS Pixel 01 CRHS Soil

CRHS Atmos 01

CRHS WQ 04

CRHS WQ 07

Google earth

Imagery Date: 4/20/2016 lat 41.260652 lon -72.860785 elev 1 m eye alt 394 m

GLOBE Data Entry Site Names (for 21st Annual Meeting activities):

Cove River / GLOBE Data Entry Site Definitions / Login to use these for Site Data Entry

Cove River Atmosphere 01-on marsh top @ WQ 07

Latitude 41.259705, Longitude -72.961811, Elevation 2m

Cove River Atmos 02 - on trail amidst invasive knotweed

Latitude 41.261279, Longitude -72.961854, Elevation 3.5m

Cove River Salt Marsh WQ 07

Latitude 41.259494, Longitude -72.961477, Elevation 2m

Cove River Fresh/Salt confluence WQ 04

Latitude 41.259469, Longitude -72.962172, Elevation 2.5m

Cove River Forest 01

Latitude 41.260096, Longitude -72.962114, Elevation 4m

Cove River Forest 02

Latitude 41.260662, Longitude -72.961883, Elevation 4m

Cove River Soil Core - Pixel Center:SCS-01

Latitude 41.2601, Longitude -72.96214, Elevation 4m

Cove River Soils 02

Latitude 41.260677, Longitude -72.962134, Elevation 4m



21st Annual GLOBE Meeting

Field Sites: *locations, descriptions, activities/protocols, procedures, timeline, rotation.*

Cove River | Atmosphere 1

Location: *285 Platt Ave, West Haven, CT 06516*

Descriptions: Atmosphere Sites

Site is along the Trail at the location of the Invasive Asian Knotweed. The Site is protected from wind, and view of horizon is incomplete.

Activities/Protocols: Atmosphere

Clouds App, Charts, Kestrel/WeatherFlow; temp, humidity, winds, barometric pressure, dew point.

Procedures: *Use GLOBE Observer Clouds App and Data Entry App, Charts, etc. Cloud Cover, Cloud Types, Contrails, Weather meters for temp, humidity, pressure, dew point, winds.*

Timeline: *10:00am to 10:30am - may not take full 30 minutes.*

Rotation: *Atmosphere Team 1 will rotate to participate in Soil Protocols 1.*





21st Annual GLOBE Meeting

Field Sites: *locations, descriptions, activities/protocols, procedures, timeline, rotation.*

Cove River | Atmosphere 2

Location: 285 Platt Ave, West Haven, CT 06516

Descriptions: Atmosphere Sites

*Site is down near Hydrology Site for the Salt Marsh.
Observations are made out on the Marsh top.*

Activities/Protocols: Atmosphere

*Clouds App, Charts, Kestrel/WeatherFlow; temp, humidity,
winds, barometric pressure, dew point.*

Procedures: *Use GLOBE Observer Clouds App and Data
Entry App, Charts, etc. Cloud Cover, Cloud Types,
Contrails, Weather meters for temp, humidity, pressure,
dew point, winds.*

Timeline: 10:00am to 10:30am - may not take full 30 minutes.

Rotation: Atmosphere Team 2 will rotate to participate
in Soil Protocols 2.





Field Sites: *locations, descriptions, activities/protocols, procedures, timeline, rotation.*

Cove River | Hydrosphere 01

Location: 285 Platt Ave, West Haven, CT 06516

Descriptions: Hydrosphere Site - Salt Marsh

At the South end of the property on the east edge of the forest at the margin of the salt marsh.

Activities/Protocols: Hydrosphere

Water temperature, Dissolved Oxygen, pH, Conductivity, Salinity, Transparency.

Procedures: Hydrosphere

1. Power Up LabQuest and insert Temp/DO/pH Probes
2. Cast bucket ~3-5m from shore, draw in and set on ground.
3. Immediately insert Temp, DO, pH Probes
4. Wait 3 minutes and if readings are stable, record readings; if not, swirl probes and wait another minute - record readings.
5. Remove Probes and insert either Conductivity or Salinity.
6. Wait 3 minutes and record readings, swirl and wait if readings not stable; record readings | If readings are still drifting, make note "drifting".

Timeline: 10:00am to 11:00am & 11:00am to 12:00noon

Rotation: Hydrosphere 01 Team will rotate to Hydrosphere 02 @ 11:00am





Field Sites: locations, descriptions, activities/protocols, procedures, timeline, rotation.

Cove River | Hydrosphere 02

Location: 285 Platt Ave, West Haven, CT 06516

Descriptions: Hydrosphere Site - Fresh/Salt Confluence

At the confluence of the fresh water and salt marsh at the south end of the property.

Activities/Protocols: Hydrosphere

Water temperature, Dissolved Oxygen, pH, Conductivity, Salinity, Transparency.

Procedures: Hydrosphere

1. Power Up LabQuest and insert Temp/DO/pH Probes
2. Cast bucket ~3-5m from shore, draw in and set on ground.
3. Immediately insert Temp, DO, pH Probes
4. Wait 3 minutes and if readings are stable, record readings; if not, swirl probes and wait another minute - record readings.
5. Remove Probes and insert either Conductivity or Salinity.
6. Wait 3 minutes and record readings, swirl and wait if readings not stable; record readings | If readings are still drifting, make note "drifting".

Timeline: 10:00am to 11:00am & 11:00am to 12:00noon

Rotation: Hydrosphere 02 Team will rotate to Hydrosphere 01 @ 11:00am





Field Sites: locations, descriptions, activities/protocols, procedures, timeline, rotation.

SCove River | Hydrosphere

Vernier LabQuest Base Unit & Probes:

LabQuest Base Unit:

This is a small Digital computer with ports for inserting a variety of probes.

LabQuest Main Screen

LabQuest immediately recognizes each Probe and should instantly show current readings.

Procedures: Hydrosphere

1. Power Up LabQuest and insert Temp/DO/pH Probes
2. Cast bucket ~3-5m from shore, draw in and set on ground.
3. Immediately insert Temp, DO, pH Probes
4. Wait 3 minutes and if readings are stable, record readings; if not, swirl probes and wait another minute - record readings.
5. Remove Probes and insert either Conductivity or Salinity.
6. Wait 3 minutes and record readings, swirl and wait if readings not stable; record readings | If readings are still drifting, make note "drifting".

Trouble Shooting: If the screen looks other than shown at right, press the "Home" button to return to current Probe Readings.





Field Sites: *locations, descriptions, activities/protocols, procedures, timeline, rotation.*

Cove River | Biometry 01

Location: 285 Platt Ave, West Haven, CT 06516

Descriptions: Biometry “Pixel” 1

30m x 30m Forest Canopy site; MUC 0231; Closed Canopy Deciduous/cold deciduous hardwood forest; temperate submontane. Located just south of the cluster of downed trees.

Activities/Protocols: Canopy Cover & ground Cover

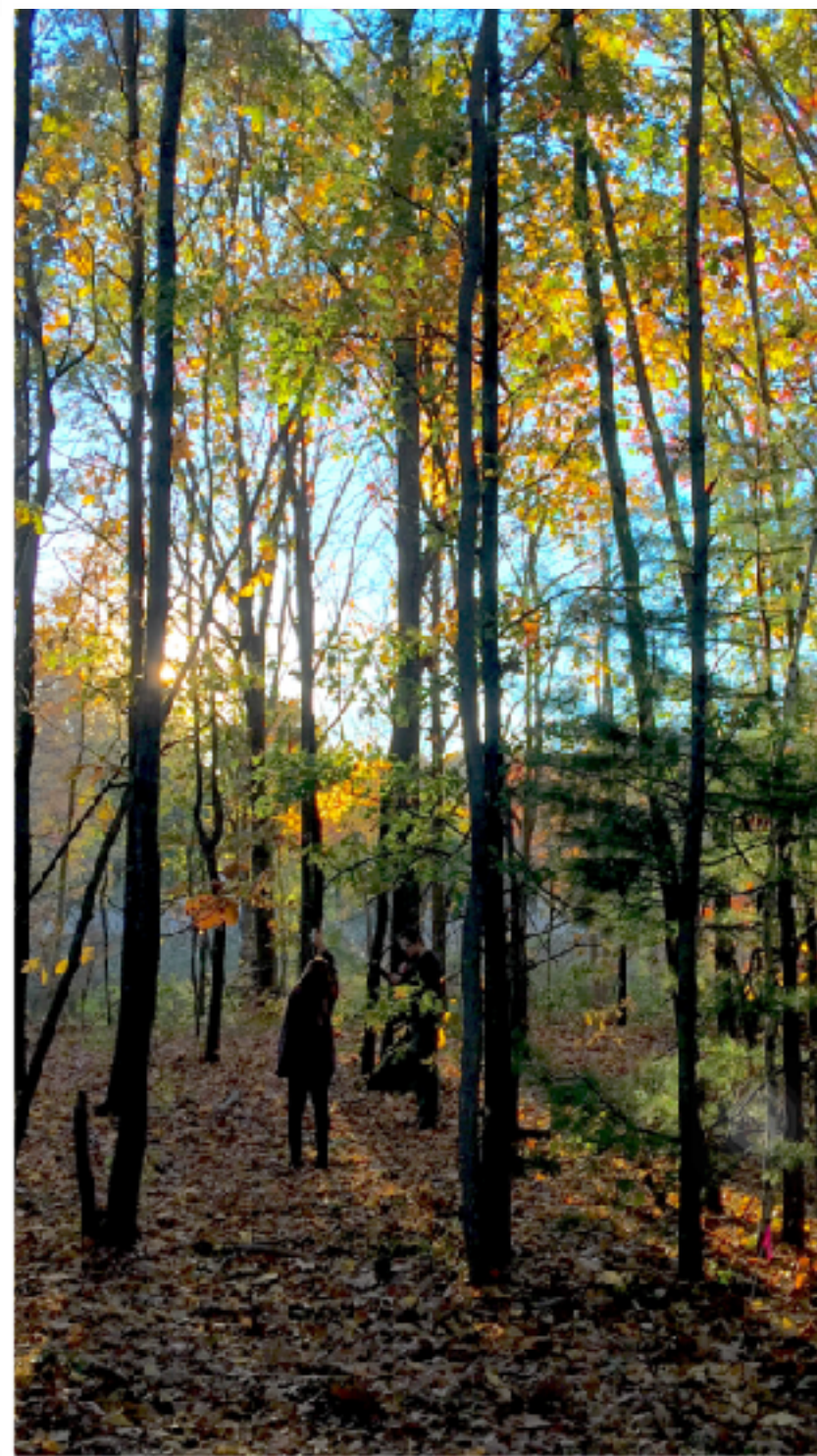
Follow Protocol guidelines, Use compass and 5m Tapes to set up 30m x 30m site; establish diagonals along which canopy and ground cover observations will be made using Densiometers. Use Clinometers to measure/ calculate the height of the dominant/co-dominant trees, use Tree ID guides to identify species.

Equipment:

50m tapes, compass, flags, densiometers, clinometers, tree guides.

Timeline: 10:00am to 12:00noon

Rotation: Biometry Team will stay on site.





Field Sites: *locations, descriptions, activities/protocols, procedures, timeline, rotation.*

Cove River | Biometry 02

Location: 285 Platt Ave, West Haven, CT 06516

Descriptions: *Biometry “Pixel” 2*

30m x 30m Forest Canopy site; MUC 0231; Closed Canopy Deciduous/cold deciduous hardwood forest; temperate submontane. Located just north of the cluster of downed trees.

Activities/Protocols: *Canopy Cover & ground Cover*

Follow Protocol guidelines, Use compass and 5m Tapes to set up 30m x 30m site; establish diagonals along which canopy and ground cover observations will be made using Densiometers. Use Clinometers to measure/ calculate the height of the dominant/co-dominant trees, use Tree ID guides to identify species.

Equipment:

50m tapes, compass, flags, densiometers, clinometers, tree guides.

Timeline: 10:00am to 12:00noon

Rotation: Biometry Team will stay on site.





21st Annual GLOBE Meeting

Field Sites: *locations, descriptions, activities/protocols, procedures, timeline, rotation.*

Cove River | Soil 01

Location: 285 Platt Ave, West Haven, CT 06516

Descriptions: Soil Site 01

Located at the center of Biometry "pixel" 1 in the closed canopy forest.

Activities/Protocols/Equipment: Soil

Soil Characterization sheets, Auger, Meter sticks, Soil Color Guide, Soil Texture Guide, Soil Tins, 50m Tape Measures.

Procedures:

Auger Soil Core.

Follow Soil Characterization and Protocol Guidelines.

Timeline: 10:30am to noon

Rotation: *Soil Team will stay on site, but will start with in Atmosphere Protocol Team 1 @ 10:00am.*





21st Annual GLOBE Meeting

Field Sites: *locations, descriptions, activities/protocols, procedures, timeline, rotation.*

Cove River | Soil 02

Location: 285 Platt Ave, West Haven, CT 06516

Descriptions: Soil Site 02

Located at the center of Biometry "pixel" 2 in the closed canopy forest.

Activities/Protocols/Equipment: Soil

Soil Characterization sheets, Auger, Meter sticks, Soil Color Guide, Soil Texture Guide, Soil Tins, 50m Tape Measures.

Procedures:

Auger Soil Core.

Follow Soil Characterization and Protocol Guidelines.

Timeline: 10:30am to noon

Rotation: *Soil Team will stay on site, but will start with in Atmosphere Protocol Team 2 @ 10:00am.*





21st Annual GLOBE Meeting

Field Sites: locations, descriptions, activities/protocols, procedures, timeline, rotation.

Cove River

Field Activities | Protocols, Equipment, Timeline and Rotation

Atmosphere: ClipBoards/Pencils (1ea.), Cloud Charts (5), Kestrel/WeatherFlow (1), GLOBE Observer and Data Entry Apps (√).

***Protocol Field Guide, Protocol Instructions, Data Sheets**

Hydrosphere 1: ClipBoards/Pencils (1ea.), Buckets (1), Vernier LabQuest (1), Probe/Temp (1), Probe/DO (1), Probe/pH (1), Probe/Conductivity (1), Salinity (1), Transparency Tube (1), Squirt Bottle (1), Towel (1), Calibration Thermometer (1), GLOBE Observer and Data Entry Apps (√).

***Protocol Field Guide, Protocol Instructions, Data Sheets**

Hydrosphere 2: ClipBoards/Pencils (1ea.), Buckets (1), Vernier LabQuest (1), Probe/Temp (1), Probe/DO (1), Probe/pH (1), Probe/Conductivity (1), Salinity (1), Squirt Bottle (1), Towel (1), GLOBE Observer and Data Entry Apps (√).

***Protocol Field Guide, Protocol Instructions, Data Sheets**

Biosphere 1: ClipBoards/Pencils (1ea.), 50m Tapes (6), Compass (1), MUC Guides (4), Tree ID (3), Clinometers (15), Sunto Clinometer (1), Densimeters (15), GLOBE Observer and Data Entry Apps (√).

***Protocol Field Guide, Protocol Instructions, Data Sheets**

Biosphere 2: ClipBoards/Pencils (1ea.), 50m Tapes (6), Compass (1), MUC Guides (4), Tree ID (3), Clinometers (15), Densimeters (15), GLOBE Observer and Data Entry Apps (√).

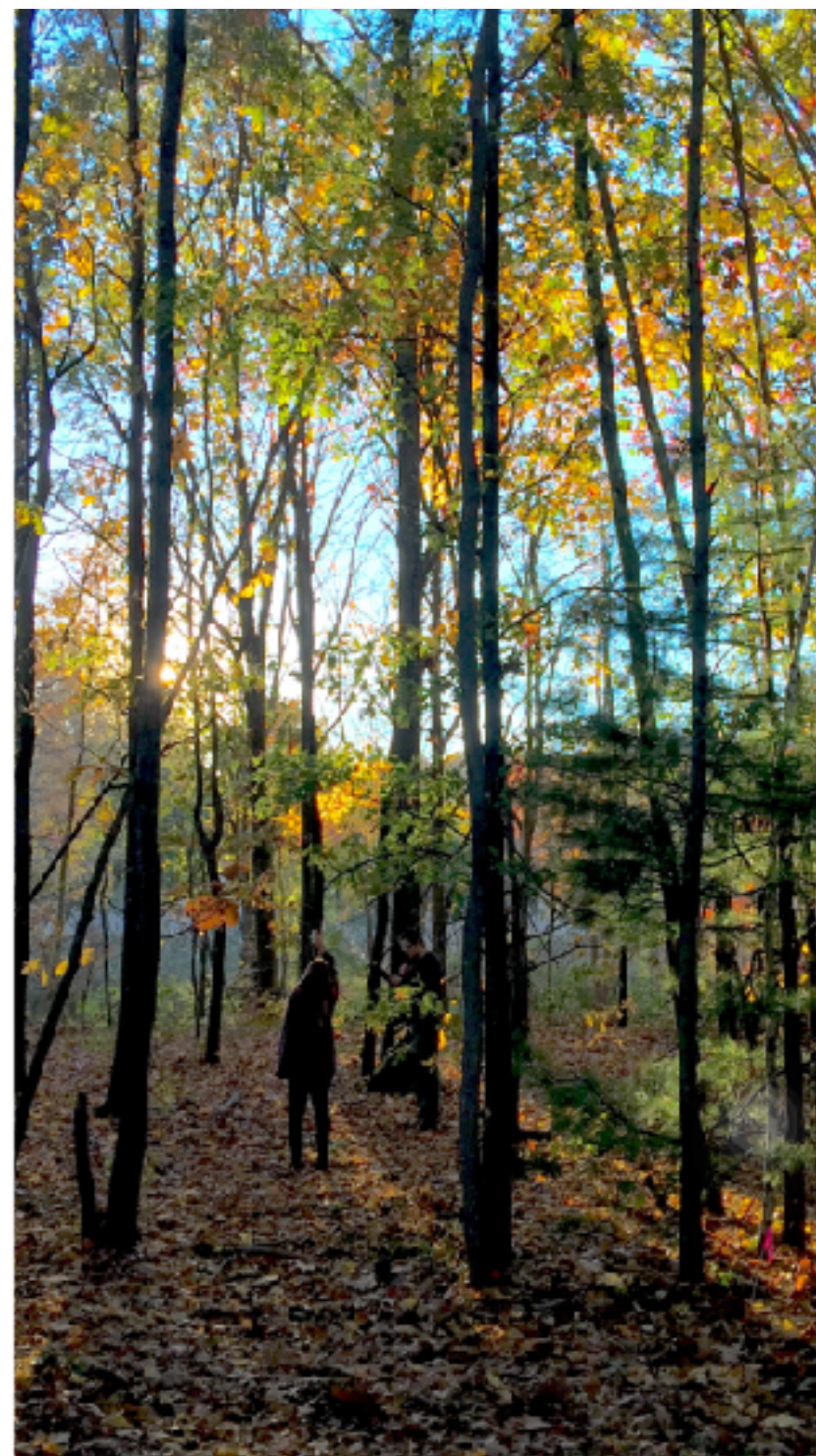
***Protocol Field Guide, Protocol Instructions, Data Sheets**

Soil 1: ClipBoards/Pencils (1ea.), Auger (1), Trowel (1), Meter Stick (1), Color Guide (2), Spoon (1), Soil Thermometer (2), Soil IR Gun (1), Squirt Bottles (1), Paper Plates & Napkins (plenty), GLOBE Observer and Data Entry Apps (√).

***Protocol Field Guide, Protocol Instructions, Data Sheets**

Soil 2: ClipBoards/Pencils (1ea.), Auger (1), Trowel (1), Meter Stick (1), Color Guide (2), Spoon (1), Soil Thermometer (2), Soil IR Gun (1), Squirt Bottles (1), Paper Plates & Napkins (plenty), GLOBE Observer and Data Entry Apps (√).

***Protocol Field Guide, Protocol Instructions, Data Sheets**





21st Annual GLOBE Meeting

Cove River Theta S 360° Panoramas

Cove River | @ Entrance





21st Annual GLOBE Meeting

Cove River Theta S 360° Panoramas

Cove River | @ Entrance - stream





21st Annual GLOBE Meeting

Cove River Theta S 360° Panoramas

Cove River | @ Invasive Knotweed



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21st Annual GLOBE Meeting

Cove River Theta S 360° Panoramas

Cove River | @ Biometry “pixel” 1



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21st Annual GLOBE Meeting

Cove River Theta S 360° Panoramas

Cove River | @ Biometry “pixel” 2



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21st Annual GLOBE Meeting

Cove River Theta S 360° Panoramas

Cove River | @ Hydro Site Fresh Marsh



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21st Annual GLOBE Meeting

Cove River Theta S 360° Panoramas

Cove River | @ Hydro Site Fresh/Salt Marsh confluence



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21st Annual GLOBE Meeting

Cove River Theta S 360° Panoramas

Cove River | @ Hydro Site Salt Marsh



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21st Annual GLOBE Meeting

Cove River Theta S 360° Panoramas

Cove River | @ μ UAS Launch Site





21st Annual GLOBE Meeting

Cove River Theta S 360° Panoramas

Cove River | @ Fox Den



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