Cove River

Field Sites: locations, descriptions, activities/protocols, procedures, timeline, rotation.
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
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 in 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 rotates to participate in Soil Protocols 1.
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.

Cove 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.
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 50m Tapes
to set up 30m x 30m site; establish diagonals (42.42m)
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 50m Tapes
to set up 30m x 30m site; establish diagonals (42.42m)
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.
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

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 Atmosphere Protocol Team 1 @ 10:00am.
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

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 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 (1 ea.), Cloud Charts (5), Kestrel/WeatherFlow (1), GLOBE Observer and Data Entry Apps (✓).

*Protocol Field Guide, Protocol Instructions, Data Sheets

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

*Protocol Field Guide, Protocol Instructions, Data Sheets

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

*Protocol Field Guide, Protocol Instructions, Data Sheets

**Soil 1:** ClipBoards/Pencils (1 ea.), 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 (1 ea.), 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

Southern Connecticut State University
Cove River Theta S 360° Panoramas

Cove River | @ Entrance

https://theta360.com/s/bsZI68GwDsypQDcu2FXKKICyu

Southern Connecticut State University
Cove River Theta S 360° Panoramas

Cove River | @ Entrance - stream

https://theta360.com/s/jOcCBYz73bb2Xz8YjipoHpO
Cove River Theta S 360° Panoramas

Cove River | @ Invasive Knotweed

https://theta360.com/s/ieEXzf71luzPW8yXHP5rwH6
21st Annual GLOBE Meeting

Cove River Theta S 360° Panoramas

Cove River | @ Biometry “pixel” 1

https://theta360.com/s/eXi91gHiB2rdpfkA1gPHgP224

Southern Connecticut State University
Cove River Theta S 360º Panoramas

Cove River | @ Biometry “pixel” 2

https://theta360.com/s/srZtW71W09ya4i3rsAVv7sl0a
Cove River Theta S 360° Panoramas

Cove River | @ Hydro Site Fresh Marsh

https://theta360.com/s/hhQw5jZ057imrDCdzCGBPsFqi
21st Annual GLOBE Meeting

Cove River Theta S 360° Panoramas

Cove River | @ Hydro Site Fresh/Salt Marsh confluence

https://theta360.com/s/blF8tx1Yu7XwiGGL3kD0kcSHY
Cove River Theta S 360° Panoramas

Cove River | @ Hydro Site Salt Marsh

https://theta360.com/s/kxvoMLZKt1gsyECJH00T1gbA
Cove River Theta S 360º Panoramas

Cove River | @ μUAS Launch Site

https://theta360.com/s/g8jSxA6HC356LeW0hwY5eX9k
21st Annual GLOBE Meeting

Cove River Theta S 360° Panoramas

Cove River | @ Fox Den

https://theta360.com/s/esMTHvyuE4ipRuXJbiljGXilmC