



Hammonasset |

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





Meigs Pt. Nature Center

Bus Parking

Beach Pavilion

Hammonasset WQ marsh 1

Hammonasset WQ marsh 2

SCSU HSP Atmos 01

Hammonasset WQ beach 2

Hammonasset WQ beach 1

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Google earth

Tour Guide

1990

Imagery Date: 4/20/2016 lat 41.252737° lon -72.546666° elev 2 m eye alt 798 m

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

Hammonasset / GLOBE Data Entry Site Definitions / Login to use these for Site Data Entry

Hammonasset Park - Meigs Pt Atmos 01

Latitude 41.250312, Longitude -72.54145, Elevation 1m

Hammonasset Park - Meigs Pt Beach WQ 01

Latitude 41.250121, Longitude -72.541274, Elevation 0m

Hammonasset Park - Meigs Pt. Beach WQ 02

Latitude 41.250247, Longitude -72.539998, Elevation 0m

Hammonasset Park - Meigs Pt Marsh WQ 01

Latitude 41.250627, Longitude -72.541437, Elevation 1m

Hammonasset Park - Meigs Pt. Marsh WQ 02

Latitude 41.250558, Longitude -72.539921, Elevation 1m



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

Hammonasset | Atmosphere

Location: *Hammonasset State Park, Madison, CT*

Descriptions: Atmosphere Site

At 1st pocket beach east of Megs Pt. small slippershell covered beach with fronting rocky intertidal and backing salt marsh. At this site a Weather meter will be used.

Descriptions: Atmosphere Site

At 1st pocket beach east of Megs Pt. On beach 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: *10:30am to 11:00am & 12:00noon to 12:30pm
- may not take full 30 minutes*

Rotation Schedule: *Atmosphere and Hydrosphere teams moves to Hydrosphere Stations after 30 minutes. Hydrosphere 1 & 2 - Each team to sample both Ocean and Marsh waters, swapping between stations after 30 min. Both Atmos and Hydros 1&2 Move to Intertidal Transects after 1hr.; Intertidal Transects (Move to Atmosphere and then on to Hydrosphere Stations after 1hr.).*





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

Hammonasset | Hydrosphere 01

Location: Hammonasset State Park, Madison, CT

Descriptions: Hydrosphere Site 1

At 1st pocket beach east of Megs Pt. small slippershell covered beach with fronting rocky intertidal and backing salt marsh. At this site both Long Island Sound water as well as salt marsh water will be samples.

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: 11:00am to 12:00noon & 12:00pm to 1:30pm

Rotation Schedule: Atmosphere and Hydrosphere Teams will participate in Hydrosphere protocols after atmosphere protocols.

At 12:00pm, Teams will swap places with Intertidal Transect Teams-

Atmos/Hydro Team 01 go to Intertidal Transect Site 01 (p.4)

Intertidal Transect Team 01 go to Atmos/Hydro Site 01 (p.4)

Atmos/Hydro Team 02 go to Intertidal Transect site 02 (p.5)

Intertidal Transect Team 02 go to Atmos/Hydro Site 02 (p.5)





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

Hammonasset | Hydrosphere 02

Location: Hammonasset State Park, Madison, CT

Descriptions: Hydrosphere Site 2

At 2nd pocket beach east of Megs Pt. small slippershell covered beach with fronting rocky intertidal and backing salt marsh. At this site both Long Island Sound water as well as salt marsh water will be samples.

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: 11:00am to 12:00noon & 12:00pm to 1:30pm

Rotation Schedule: Atmosphere and Hydrosphere Teams will participate in Hydrosphere protocols after atmosphere protocols.

At 12:00pm, Teams will swap places with Intertidal Transect Teams-

Atmos/Hydro Team 01 go to Intertidal Transect Site 01 (p.4)

Intertidal Transect Team 01 go to Atmos/Hydro Site 01 (p.4)

Atmos/Hydro Team 02 go to Intertidal Transect site 02 (p.5)

Intertidal Transect Team 02 go to Atmos/Hydro Site 02 (p.5)





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Hammonasset | 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.





21st Annual GLOBE Meeting

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Hammonasset Intertidal Transects 1 & 2

Location: *Hammonasset State Park, Madison, CT*

Descriptions: Intertidal Transect 1 & 2

These transects run parallel from the High Tide Line through Mid to Low Tide Line and is located in the main Rocky Intertidal area at the 1st pocket beach east of Meigs Pt.

Activities/Protocols: Rocky Intertidal

Set up transect lines and establish 1m quadrats at High, Mid and Low Tide areas along the transect. Count and illustrate rocks within each quadrat, measure using your hand (if wider than open hand, flip rock and collect shore crabs. Place crabs in shallow pans for identification. Identify crab gender and whether adult or juvenile. Adult females may have eggs!

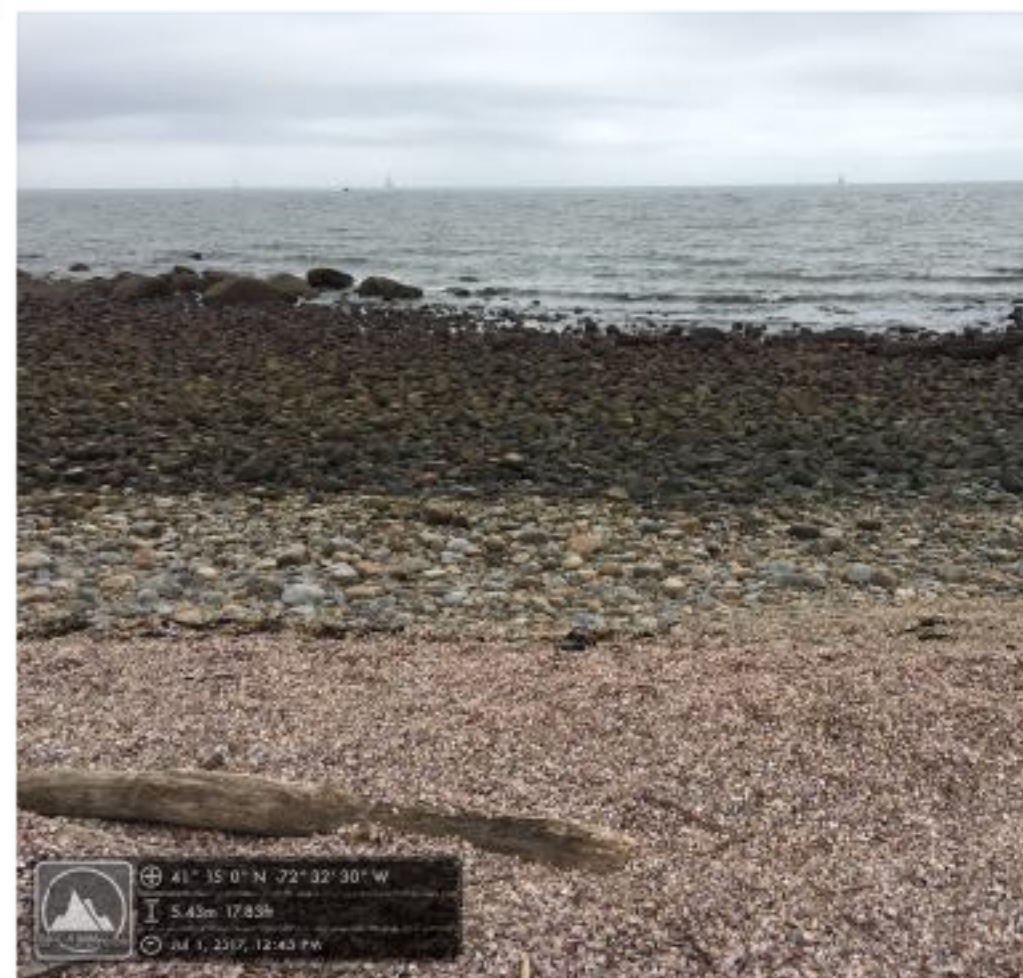
Equipment:

50m tapes, meter sticks to form 3 1m squares at High, Mid, Low Tide, shallow pans, hand lenses, small rulers.

Timeline: *10:30am to 12:00noon & 12:00noon to 1:30pm*

Rotation Schedule: *At 12:00pm, Intertidal Transect Teams will swap places with Atmos/Hydro Teams-*

*Atmos/Hydro Team 01 go to Intertidal Transect Site 01,
Atmos/Hydro Team 02 go to Intertidal Transect site 02,
Intertidal Transect Team 01 go to Atmos/Hydro Site 01,
Intertidal Transect Team 02 go to Atmos/Hydro Site 02.*





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Hammonasset

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), Stop Watch (1), Vernier
LabQuest (1), Probe/Temp (1), Probe/DO (1), Probe/pH (1), Probe/
Conductivity (1), Salinity (1), Transparency Tube (1), Squirr 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), Stop Watch (1), Vernier
LabQuest (1), Probe/Temp (1), Probe/DO (1), Probe/pH (1), Probe/
Conductivity (1), Salinity (1), Squirr Bottle (1), Towel (1), GLOBE Observer
and Data Entry Apps (✓).

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Intertidal Transect 1: ClipBoards/Pencils (1ea.), 50m Tapes (1), Meter Sticks
(12 for 3 quadrats @ High, Mid, Low Tide), Plastic pans (1 ea. For High/Mid/
Low Tide Stations), Mag Lens (3), Small Rulers (6), Towels (1).

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

Intertidal Transect 2: ClipBoards/Pencils (1ea.), 50m Tapes (1), Meter Sticks
(12 for 3 quadrats @ High, Mid, Low Tide), Plastic pans (1 ea. for High/Mid/
Low Tide Stations), Mag Lens (3), Small Rulers (6), Towels (1).

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Lunch at the Meigs PT. Nature Center @ 1:15pm
Tour of Nature Center until 2:15pm departure.





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Hammonasset | Meigs Pt. Nature Center



Southern Connecticut State University